PRELIMINARY PLAN FOR
SPRING MILLS COMMUNITY PARK
FALLING WATERS DISTRICT 02
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
BERKELEY COUNTY, WEST VIRGINIA

GENERAL NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN STRICT COMPLIANCE WITH THE 2017 WEST VIRGINIA DEPARTMENT OF HIGHWAYS "STANDARD SPECIFICATIONS, ROADS & BRIDGES", INCLUDING THE 2020 SUPPLEMENTAL SPECIFICATIONS.
2. JOB SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL CONSTRUCTION NOTE STATIONING IS APPROXIMATE AND CAN BE ADJUSTED UP TO FIVE (5) FEET TO MEET FIELD CONDITIONS. CONTACT FOX AND ASSOCIATES INC. PRIOR TO MAKING PLAN MODIFICATIONS GREATER THAN FIVE (5) FEET.
4. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
5. ALL FILLS SHALL BE COMPACTED TO PREVENT EROSION AND GRADING SHALL BE DONE IN SUCH A MANNER AS TO PREVENT DAMAGE TO AND NOT DIRECT WATER ON ADJACENT PROPERTIES.
6. GRADING SHALL NOT BE DONE IN SUCH A WAY TO DIRECT WATER ONTO THE PROPERTY OF OTHER LANDOWNERS.
7. NO LANE CLOSURES ARE PERMITTED BETWEEN THE HOURS OF 3:00PM TO 6:00PM.
8. ALL EXCAVATED AREAS SHALL BE BACKFILLED AS REQUIRED TO MAINTAIN A SAFE SLOPE AT THE END OF EACH WORK DAY OR EXCAVATION SHALL BE SHIELDED WITH A TEMPORARY BARRIER WALL.
9. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE PAVEMENT AT THE PROPOSED SAW CUT LINE IS OF ADEQUATE THICKNESS TO SUPPORT THE ANTICIPATED TRAFFIC LOADS. CORE SAMPLES ARE NOT AVAILABLE ALONG THE LIMIT OF SAW CUT. THE CONTRACTOR SHALL EVALUATE THE HORIZONTAL LOCATION OF THE SAW CUT LINE TO ENSURE THE EXISTING PAVEMENT THICKNESS AT THE INTERFACE WITH THE LANE WIDENING IS ADEQUATE TO SUPPORT THE TRAFFIC LOADS IMPOSED. THE LIMITS OF THE SAW CUT LINE SHALL BE ALTERED AS REQUIRED TO ENSURE AN ADEQUATE PAVEMENT THICKNESS EXISTS AT THE POINT OF THE LANE WIDENING CONNECTION TO EXISTING PAVEMENTS.
10. CONTACT KEN CLOHAN (DISTRICT 5 TRAFFIC ENGINEER; VIA EMAIL AT KENNETH.L.CLOHAN@WV.GOV) PRIOR TO ALL SIGNS OR PAVEMENT MARKINGS BEING PLACED ON WVDOH ROADWAYS.
11. CONTACT LARRY ALT (DISTRICT 5 PERMIT REVIEWER; VIA EMAIL AT LARRY.A.ALT@WV.GOV) 48 HOURS BEFORE COMMENCING ANY WORK WITHIN THE WVDOH RIGHT OF WAY.
12. ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN STRICT COMPLIANCE WITH THE BERKELEY COUNTY PUBLIC SERVICE WATER DISTRICT STANDARDS AND SPECIFICATIONS.
13. ALL FRONT, SIDE AND REAR SETBACKS SHALL BE RESERVED FOR DRAINAGE EASEMENT.
14. CONTRACTOR SHALL TEST PIT EXISTING UTILITIES TO VERIFY HORIZONTAL LOCATIONS AND INVERTS AT CONNECTIONS.
15. NO FILL SHALL BE MADE WITH A FACE STEEPER THAN 3:1. NO FILL SHALL BE MADE WHICH CREATES ANY EXPOSED SURFACE IN SLOPE GREATER THAN 1-1/2:1
16. ALL CULVERTS SHALL HAVE A MINIMUM COVER OF 1 FOOT.
17. AN APPROVED SET OF THIS PRELIMINARY PLAN AND COPIES OF ALL PERMITS SHALL BE KEPT ON-SITE DURING CONSTRUCTION.

SITE SPECIFIC NOTES:

1. THIS PROPERTY IS CURRENTLY AN UNDEVELOPED 10.04 AC. PARCEL LOCATED ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE IN THE FALLING WATERS TAX DISTRICT. THE PURPOSE OF THIS DEVELOPMENT IS TO CONSTRUCT A COMMUNITY PARK WITH PARKING, AN OPEN AIR PAVILION, A BATHROOM, AND GRAVEL WALKING PATH. THE SITE IS SURROUNDED BY RESIDENTIAL DEVELOPMENT AND IS MADE UP OF HAGERSTOWN SILT LOAM (HbB) AND HAGERSTOWN-OPEQUON-ROCK OUTCROP COMPLEX (HgC) SOILS.
2. BEARINGS AND DISTANCES ARE IN AGREEMENT WITH WV COORDINATE SYSTEM 1983-NORTH ZONE.
3. LOTS TO BE SERVED BY PUBLIC WATER (BERKELEY COUNTY PUBLIC SERVICE WATER DISTRICT SYSTEM) AND PUBLIC SEWER SYSTEM (SPRING MILLS PUMP STATION ON TJ JACKSON DRIVE - PARCEL ID 02140001000 6 TO BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT SYSTEM).
4. TOPOGRAPHY SHOWN HEREON IS FROM COUNTY LIDAR.
5. THE PROPERTY SHOWN HEREON IS NOT WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN ON FEMA PANEL 54003C 0070E, DATED 7/7/2009.
6. THERE ARE NO SCENIC OR HISTORIC AREAS, WETLANDS, SINKHOLES, OR ROCK OUTCROPS ON THIS PROPERTY EXCEPT AS SHOWN HEREON. OUTSTANDING TOPOGRAPHIC FEATURES (STRUCTURES, FENCES, STREAMS, PAVING, UTILITIES, ETC.) HAVE BEEN SHOWN.
7. STORMWATER MANAGEMENT QUANTITY AND MS4 QUALITY CONTROL IS PROVIDED BY A PROPOSED LEVEL 2 EXTENDED FILTRATION BIORETENTION FACILITY.
8. SKETCH PLAN (LAMA CASE 2104-124) APPROVAL WAS GRANTED BY THE BERKELEY COUNTY PLANNING COMMISSION ON JUNE 17, 2021.
9. NON RESIDENTIAL BUILDING SETBACKS: (MBSL) FRONT = 50', SIDE = 15' AND REAR = 25'.
10. PARKING REQUIREMENTS:
    RECREATION AREA
    2 SPACES PER ACRE
    10 ACRES = 20 SPACES REQUIRED
    22 SPACES PROVIDED

    ADA PARKING: UP TO 25 TOTAL SPACES REQUIRE 1 HANDICAP SPACE.
    TOTAL HC REQ.= 1
    TOTAL HC PROV.= 2

    VAN ACCESSIBLE SPACES: 1 VAN ACCESSIBLE SPACE REQUIRED FOR EVERY 6 H.C. SPACES.
    TOTAL VAN ACCESS. REQ.= 1
    TOTAL VAN ACCESS. PROV.= 2
11. FORMER T.M. 14, P. 1.15 AND T.M. 14, P. 1.23 MERGED BY MINOR PLAT (LAMA CASE #2202-061), APPROVED BY BERKELEY COUNTY STAFF ON MAY 13, 2022 AND RECORDED AT P.C. 22, SL. 33.
12. SWM EASEMENT SHOWN HEREON IS PER A MINOR PLAT (LAMA CASE #2202-061), APPROVED BY BERKELEY COUNTY STAFF ON MAY 13, 2022 AND RECORDED AT P.C. 22, SL. 33.
13. NO SITE LIGHTING OR GATED ENTRANCE IS PROPOSED BY THIS PLAN.

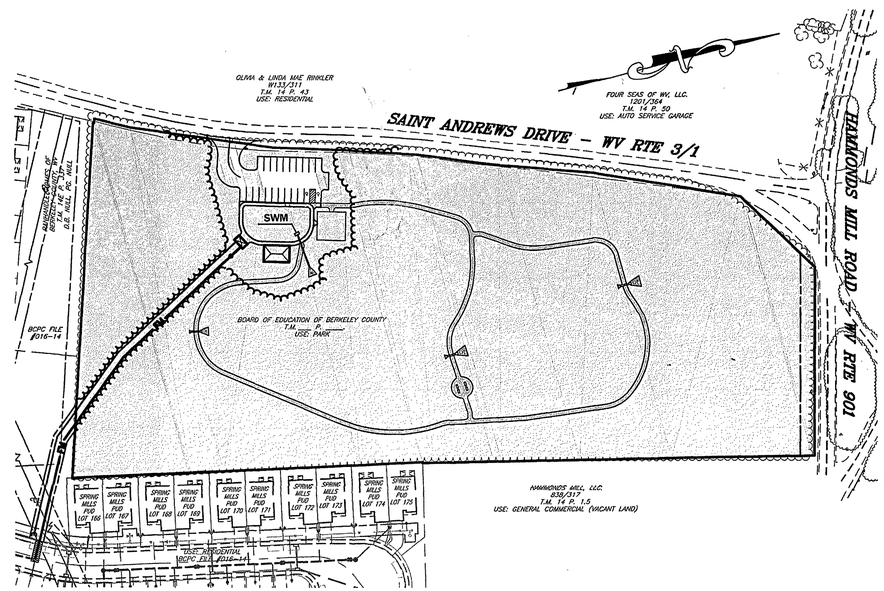
BERKELEY COUNTY - SITE WORK - MILESTONE INSPECTIONS

THE DEVELOPER SHALL REQUEST COUNTY ENGINEER INSPECTIONS MINIMUM OF 48 HOURS IN ADVANCE (CALL 304-264-1966). INSPECTIONS SHALL BE REQUESTED BUT NOT LIMITED TO THE TABLE OF MILESTONES SHOWN BELOW

		DATE INSPECTED	INITIALED
1.	INSTALLATION OF SEDIMENT & EROSION CONTROL DEVICES		
2.	ROADWAY AND/OR PARKING LOT SUBGRADE PROOF ROLL PRIOR TO PLACING STONE BASE		
3.	ROADWAY AND/OR PARKING LOT STONE BASE DEPTH CHECK PRIOR TO PLACING STONE BAS		
4.	WATER SYSTEM AND SANITARY SEWER SYSTEM INSPECTION AND APPROVAL BY THE PUBLIC SERVICE DISTRICT/UTILITY PRIOR TO BACKFILLING TRENCHES		
5.	FINAL INSPECTION INCLUDING BUT NOT LIMITED TO: SEEDING & MULCHING, ROADWAY & PARKING LOT PAVING, SIDEWALKS, STORM DRAINAGE AND STORM WATER MANAGEMENT SYSTEMS, TRAFFIC CONTROL SIGNS & PAVEMENT MARKINGS, LANDSCAPING, ETC.		

THE COUNTY ENGINEER MAY ACCEPT "THIRD-PARTY" INSPECTION AND CERTIFICATION REPORTS IN PLACE OF INSPECTIONS PERFORMED BY THE BERKELEY COUNTY ENGINEERING DEPARTMENT, UPON PRIOR APPROVAL. THIRD-PARTY INSPECTIONS SHALL BE SUBMITTED IN THE FORMAT SPECIFIED BY THE COUNTY ENGINEER.

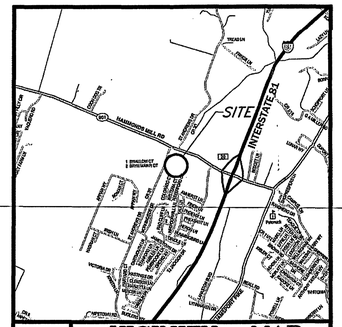
NO AMOUNT OF BOND OR SURETY SHALL BE RELEASED WITHOUT DOCUMENTATION THAT BONDED IMPROVEMENTS HAVE BEEN INSPECTED AND APPROVED.



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.



VICINITY MAP
SCALE: 1" = 2000'
TAX MAP: 14 PARCEL: 1.15 & 1.23

DISTURBED AREA QUANTITIES

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 1.83 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 725 C.Y. OF EXCAVATION AND 2,300 C.Y. OF FILL.

* THESE QUANTITIES ARE APPROXIMATE AND SHALL NOT BE USED BY THE CONTRACTOR FOR BIDDING PURPOSES.

APPROVED FOR CONSTRUCTION

BERKELEY COUNTY ENGINEER — 3.9.22

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THESE SEALED PLANS REASONABLY MEET OR EXCEED MINIMUM ACCEPTABLE ENGINEERING STANDARDS AND THOSE STATE AND COUNTY CODE PROVISIONS APPLICABLE ON SAID DATE.

MICHAEL H. SHIFLER, P.E. — 8-4-22 DATE

OWNER/DEVELOPER CERTIFICATION

I, BERKELEY COUNTY SCHOOLS, OWNER OF THE PROPERTY SHOWN HEREON AND DESCRIBED IN THE SURVEYOR'S CERTIFICATE, HEREBY ADOPT THIS PLAN OF SUBDIVISION; ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES; AND DEDICATE THE STREETS, ALLEYS, WALKS, TRAILS, PARKS, AND OPEN SPACE FOR PUBLIC USE.

THERE ARE NO SUITS, ACTIONS AT LAW, LEASES, LIENS, MORTGAGES, TRUSTS, EASEMENTS, OR RIGHTS-OF-WAY AFFECTING THE PROPERTY OTHER THAN THOSE SHOWN HEREON AND ALL PARTIES IN THE INTEREST THERETO HAVE HEREUNDER AFFIXED THEIR SIGNATURES INDICATING THEIR ASSENT TO THIS PLAN OF SUBDIVISION.

JOSEPH BURTON — 8-4-22 DATE

CONSTRUCTION CERTIFICATION

I, MARTINSBURG-BERKELEY COUNTY PARKS AND RECREATION, DO HEREBY CERTIFY THAT:

1. ALL CLEARING, GRADING, CONSTRUCTION, & DEVELOPMENT SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE APPROVED PLAN.
2. STORMWATER MANAGEMENT FACILITIES SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE PLANS & SPECIFICATIONS FOR THESE FACILITIES.
3. THE INSTALLATION AND MAINTENANCE OF THE SEDIMENT CONTROL MEASURES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLAN AND SEQUENCE OF CONSTRUCTION; THAT A COPY OF THE APPROVED PLAN SHALL BE AVAILABLE, ON SITE AT ALL TIMES, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION SHALL BE MADE AWARE OF THESE REQUIREMENTS.
4. THE BERKELEY COUNTY ENGINEERING DEPARTMENT RESERVES THE RIGHT TO ADD TO OR MODIFY THE PROVISIONS SHOWN ON THE PLANS SHOULD ACTUAL FIELD CONDITIONS WARRANT SUCH CHANGES.

ROBERT WILLIAMS — 8/8/2022 DATE

Recommendation for Advancement to Final Plan Stage 08-01-22 Date
Berkeley County Planning Commission,

AS-BUILT CERTIFICATION

I, MICHAEL H. SHIFLER, DO HEREBY CERTIFY THAT:

1. ALL DRAINAGE AND STORMWATER MANAGEMENT FACILITIES SHOWN HEREON HAVE BEEN CONSTRUCTED ACCORDING TO THE APPROVED PLANS AND SPECIFICATIONS.
2. ALL STREETS, UTILITIES AND OTHER PERTINENT FEATURES SHOWN HEREON HAVE BEEN CONSTRUCTED ACCORDING TO THE APPROVED PLANS & SPECIFICATIONS.
3. THE INFORMATION SHOWN HEREON IS INDICATIVE OF AN ACTUAL FIELD SURVEY MADE UNDER MY SUPERVISION.

MICHAEL H. SHIFLER, P.E. DATE

INDEX OF SHEETS

COVER SHEET 1
EXISTING CONDITIONS PLAN 2
OVERALL SITE / SEC PLAN 3
GRADING PLAN 4
SITE / SEC NOTES & DETAILS 5
WATER & SANITARY SEWER PROFILES & DETAILS 6
SANITARY SEWER & STORM DRAIN DETAILS 7
STORMWATER MANAGEMENT PLAN 8
SWM NOTES & DETAILS 9

PRELIMINARY PLAN APPROVED

DATE: 8-1-2022
LAMA CASE: #2111-403

LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

PROJECT PERMIT SUMMARY

PERMITTING AGENCY	PERMIT NUMBER	DATE ISSUED	EXPIRATION DATE
WV DEP (NPDES/SWPPP)			
WVDOH			
BCPSWD			
BCPSSD			
WVDEHS (WATER PERMIT)			
WVDEHS (SEWER PERMIT)			

DATE	REVISION

PROFESSIONAL CERTIFICATION

MICHAEL HUBERT SHIFLER REGISTERED 12342 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

8-4-22

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 WEST VIRGINIA.

LICENSE No.: 12342 EXP. DATE: 12/31/22

OWNER

BERKELEY COUNTY BOARD OF EDUCATION
1453 WINCHESTER AVENUE
MARTINSBURG, WV 25404
PHONE: 304.267.3500

DEVELOPER

BERKELEY COUNTY PARKS & RECREATION
273 WOODBURY AVE
MARTINSBURG, WV 25404
PHONE: 304.264.4042

LAMA CASE #2111-403

DATE: OCTOBER, 2021 DESIGNED BY: CER D-6816 SHEET 1 OF 9

FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733-8503
or (301)416-7250
FAX: (301)733-1853
82 WORMANS MILL COURT
SUITE 'G'
FREDERICK, MD. 21701
PHONE: (301)695-0880
FAX: (301)293-6009
www.foxassociatesinc.com Email: foxassoc@foxassociatesinc.com

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H:\OTHER\SP-MILLS\20-70145 Spring Mills Community Park\Engineering\Drawings\02 Improvement Plan\01-CS.dwg, 8/4/2022 10:44:43 AM
H:\OTHER\SP-MILLS\20-70145 Spring Mills Community Park\Engineering\Drawings\02 Improvement Plan\01-CS.dwg Aug 04, 2022 - 10:44am User: mbuller

SURVEYOR'S CERTIFICATE

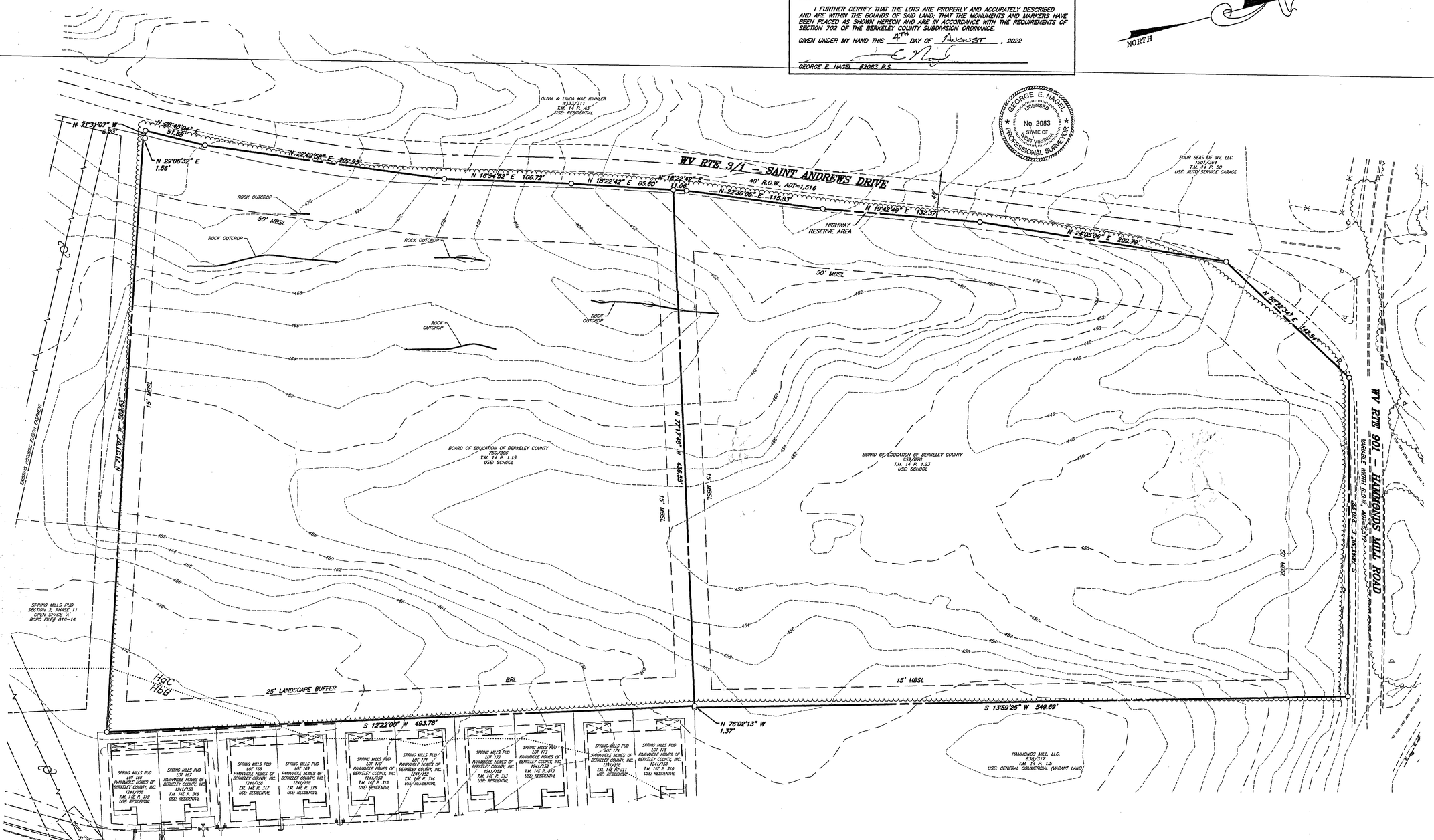
I GEORGE E. NAGEL, A DULY REGISTERED PROFESSIONAL SURVEYOR IN THE STATE OF WEST VIRGINIA, DO HEREBY CERTIFY THAT I HAVE CAREFULLY SURVEYED THE PROPERTY DELINEATED BY THIS PLAT AND THAT IT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT IT IS ALL OF THE SAME LAND IN THE NAME OF BERKELEY COUNTY BOARD OF EDUCATION.

I FURTHER CERTIFY THAT THE LOTS ARE PROPERLY AND ACCURATELY DESCRIBED AND ARE WITHIN THE BOUNDS OF SAID LAND; THAT THE MONUMENTS AND MARKERS HAVE BEEN PLACED AS SHOWN HEREON AND ARE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 702 OF THE BERKELEY COUNTY SUBDIVISION ORDINANCE.

GIVEN UNDER MY HAND THIS 4TH DAY OF AUGUST, 2022

GEORGE E. NAGEL #2083 P.S.

GEORGE E. NAGEL LICENSED No. 2083 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR



SOILS

SYMBOL	SOIL DESCRIPTION	SOIL PROPERTIES & QUALITIES
HbB	HAGERSTOWN SILT LOAM 3 TO 8 PERCENT SLOPES	DRAINAGE CLASS: WELL DRAINED DEPTH TO SEASONAL HIGH WATER TABLE: > 6 FEET FLOODING: NONE DEPTH TO BEDROCK: MORE THAN 60 INCHES EROSION HAZARD: MODERATE

COMMUNITY DEVELOPMENT

SUITABILITY: LIMITED
MANAGEMENT CONCERNS: SINKHOLES AND SOLUTION CHANNELS IN THE BEDROCK INCREASE THE HAZARD OF GROUND–WATER POLLUTION BY SEEPAGE FROM SEPTIC TANK ABSORPTION FIELDS. IN SOME AREAS RESTRICTED PERMEABILITY IS A LIMITATION. LOW STRENGTH IS A LIMITATION AFFECTING THE CONSTRUCTION OF ROADS. BECAUSE THIS SOIL IS SOFT WHEN WET, PAVEMENT CRACKS AND BUCKLES UNDER HEAVY LOADS. THE MODERATE SHRINK–SWELL POTENTIAL IS A LIMITATION AFFECTING THE CONSTRUCTION OF BUILDINGS. IN SOME AREAS THE HARD, NONRIPPABLE LIMESTONE BEDROCK MAY LIMIT EXCAVATIONS, INCLUDING THOSE FOR ROADS, SEPTIC TANK ABSORPTION FIELDS, AND FOUNDATIONS. IN MOST AREAS THE BEDROCK HAS TO BE BLASTED BEFORE IT CAN BE EXCAVATED. EROSION IS A MODERATE HAZARD ON CONSTRUCTION SITES.

SYMBOL	SOIL DESCRIPTION	SOIL PROPERTIES & QUALITIES
HgC	HAGERSTOWN–OPEQUON–ROCK OUTCROP COMPLEX, 3 TO 15 PERCENT SLOPES	DRAINAGE CLASS: WELL DRAINED DEPTH TO SEASONAL HIGH WATER TABLE: > 6 FEET FLOODING: NONE DEPTH TO BEDROCK: MORE THAN 60 INCHES EROSION HAZARD: MODERATE OR SEVERE

COMMUNITY DEVELOPMENT

SUITABILITY: POORLY SUITED
MANAGEMENT CONCERNS: THE NONRIPPABLE BEDROCK AND THE ROCK OUTCROP MAY INTERFERE WITH EXCAVATIONS, INCLUDING THOSE FOR ROADS, FOUNDATIONS, AND ABSORPTION FIELDS. THE DEPTH TO BEDROCK CAN VARY FROM LESS THAN 20 INCHES TO MORE THAN 6 FEET OVER A SHORT DISTANCE. IN MOST AREAS THE BEDROCK HAS TO BE BLASTED BEFORE IT CAN BE EXCAVATED. THE SHRINK–SWELL POTENTIAL IS A LIMITATION AFFECTING THE CONSTRUCTION OF FOOTINGS, FOUNDATIONS, AND ROADS. LOW STRENGTH IS AN ADDITIONAL LIMITATION AFFECTING THE CONSTRUCTION OF ROADS. THE RESTRICTED PERMEABILITY IN THE SUBSOIL OF THE HAGERSTOWN SOIL MAY PREVENT THE PROPER FUNCTIONING OF ABSORPTION FIELDS IN SOME AREAS. THE DEPTH TO BEDROCK AND THE RESTRICTED PERMEABILITY IN THE OPEQUON SOIL ARE SEVERE LIMITATIONS ON SITES FOR SEPTIC TANK ABSORPTION FIELDS. SINKHOLES AND SOLUTION CHANNELS IN THE BEDROCK INCREASE THE HAZARD OF GROUND–WATER POLLUTION BY SEEPAGE FROM SEPTIC TANK ABSORPTION FIELDS. EROSION IS A MODERATE OR SEVERE HAZARD ON CONSTRUCTION SITES.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

PRELIMINARY PLAN APPROVED
DATE: 8-1-2022
LAMA CASE: #2111-403
LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

LAMA CASE #2111-403

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DATE	REVISION	DRAWN BY

EXISTING CONDITIONS PLAN
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDRES DRIVE
FALLING WATERS DISTRICT – 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: 1"=40'

MICHAEL HUBERT SHELTER REGISTERED 12342 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: EXP. DATE:

PROJECT NO. 20-70145
DRAWING NO. D-6816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 2 OF 9

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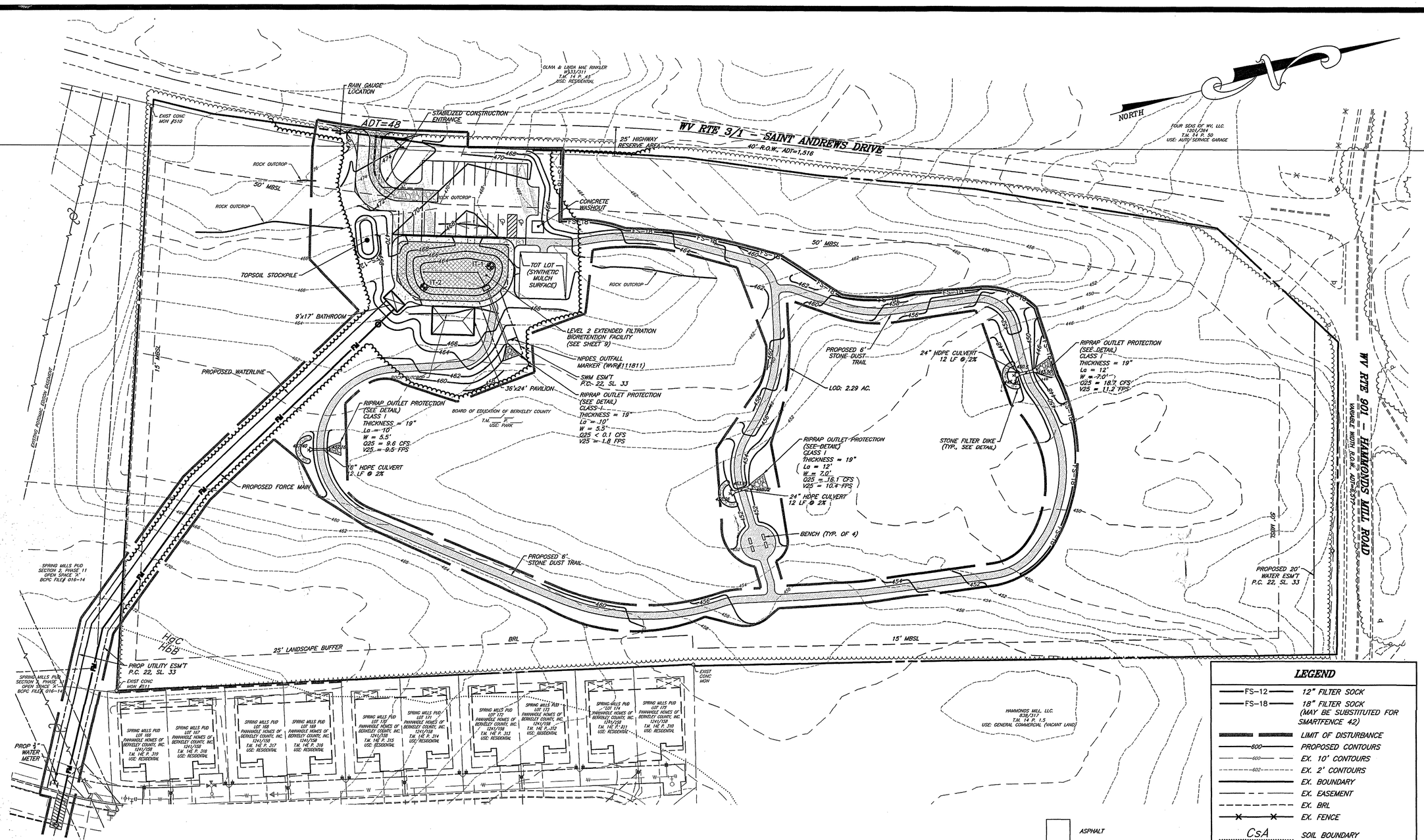

LEGEND

FS-12	12" FILTER SOCK
FS-18	18" FILTER SOCK (MAY BE SUBSTITUTED FOR SMARTFENCE 42)
	LIMIT OF DISTURBANCE
600	PROPOSED CONTOURS
600	EX. 10' CONTOURS
602	EX. 2' CONTOURS
	EX. BOUNDARY
	EX. EASEMENT
	EX. BRL
	EX. FENCE
CsA	SOIL BOUNDARY
	TEMPORARY EROSION CONTROL MATTING (CURLEX I OR APPROVED EQUIVALENT)
IT-2	INFILTRATION TEST LOCATION

ASPHALT

CONCRETE

TRAIL SURFACE AGGREGATE
1 PART AASHTO #8 STONE
1 PART MINUS-#200 FINES
4 PARTS UNWASHED STONE DUST

TRAIL NOTE: ALL TRAIL SURFACES TO COMPRISE TRAIL SURFACE AGGREGATE LISTED ABOVE AND ARE NOT TO EXCEED 5% SLOPE OR 2% CROSS SLOPE TO PROVIDE A HANDICAP ROUTE.

SITE DATA

TAX DISTRICT	FALLING WATERS
TAX MAP / PARCEL	14 / P. 1.15 & 1.23
DEED BOOK / PAGE	DB. 750 / PG. 306, DB. 659 / PG. 678
EXISTING USE	UNDEVELOPED
FUNCTIONAL USE	RECREATION
STORMWATER MANAGEMENT AREA	3,740 SQ. FT. OR 0.09 AC.
IMPERVIOUS SURFACE	12,193 SQ. FT. OR 0.28 AC. (2.8%)
LOT AREA	10.04 AC.
TOTAL BUILDING AREA	1,017 S.F.
PROPOSED SETBACKS NON RESIDENTIAL	FRONT: 50' SIDE: 15' REAR: 25'
TRASH DISPOSAL	PRIVATE COLLECTION
WATER – PUBLIC	BCPSWD
SEWER – PUBLIC	BCPSSD
SWM FACILITY	MS4 WATER QUALITY AND QUANTITY CONTROL HANDLED BY ON-SITE FACILITY.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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DRAWN BY
REVISION
DATE

OVERALL SITE PLAN / GRADING PLAN / SEC PLAN
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SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE
FALLING WATERS DISTRICT – 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: 1"=40'

MICHAEL HUBERT SHELLEY
REGISTERED
12342
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: ___ EXP. DATE: ___

PROJECT NO. 20-70145
DRAWING NO. D-6816
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DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 3 OF 9

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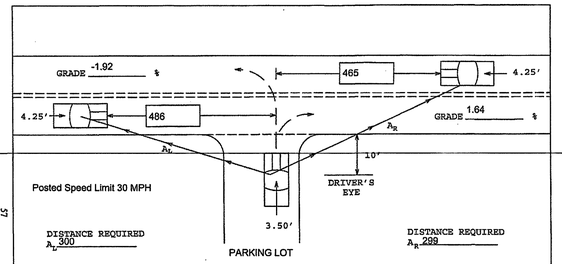
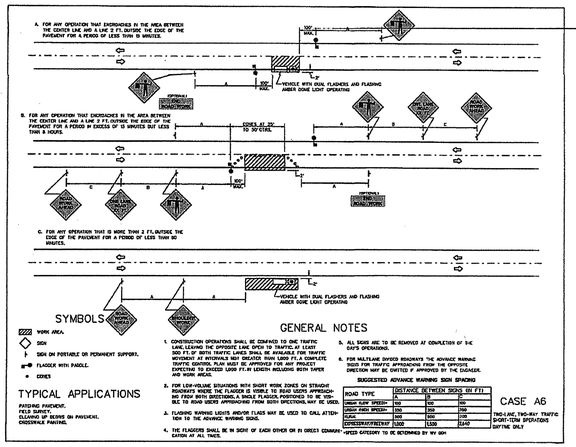
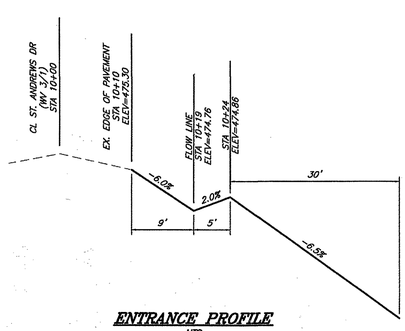


THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER AT AN ACCESS LOCATION CAN CONTINUOUSLY SEE ANOTHER VEHICLE APPROACHING ON THE ROADWAY.

FIGURE 4A

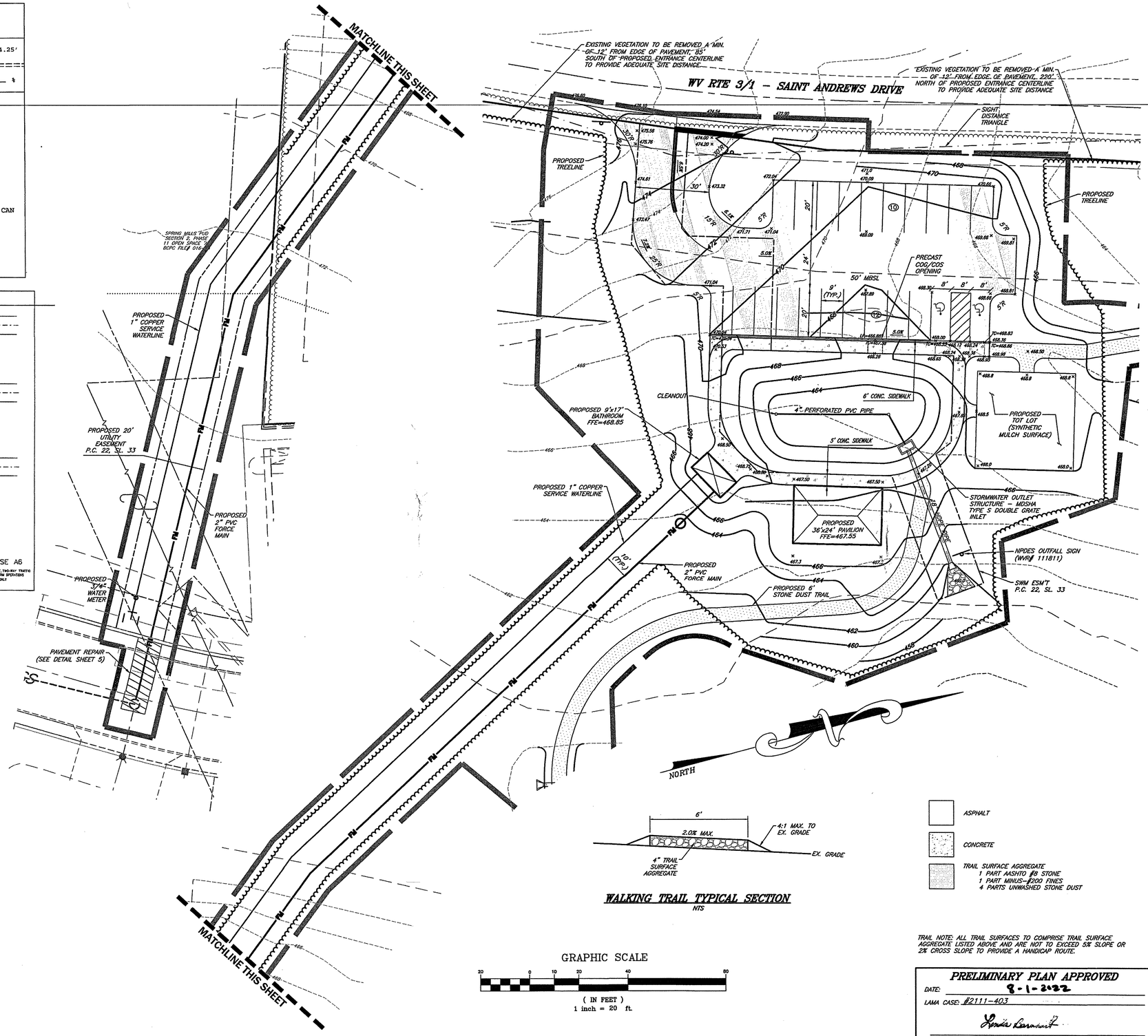
SITE DISTANCE PARKING LOT ENTRANCE





ENTRANCE PROFILE

NTS



WALKING TRAIL TYPICAL SECTION

NTS

ASPHALT

CONCRETE

TRAIL SURFACE AGGREGATE
1 PART AASHTO #8 STONE
1 PART MINUS-#200 FINES
4 PARTS UNWASHED STONE DUST

TRAIL NOTE: ALL TRAIL SURFACES TO COMPRISE TRAIL SURFACE AGGREGATE LISTED ABOVE AND ARE NOT TO EXCEED 5% SLOPE OR 2% CROSS SLOPE TO PROVIDE A HANDICAP ROUTE.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

PRELIMINARY PLAN APPROVED

DATE: 8-1-2022

LAMA CASE: #2111-403

LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

LAMA CASE #2111-403

FOX & ASSOCIATES INC.
Est. 1966

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FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733-8503
or (301)416-7250
FAX: (301)733-1853
82 WORMANS MILL COURT
SUITE 'G'
FREDERICK, MD. 21701
PHONE: (301)695-0880
FAX: (301)293-6009
www.foxassociatesinc.com
Email: foxassoc@foxassociatesinc.com

DRAWN BY	DCM
REVISION	REVISED TREELINE AND CORRESPONDING TUBES TO ACCOMMODATE SITE DISTANCE.
DATE	5/4/22

GRADING PLAN
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK

SITUATE ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE
FALLING WATERS DISTRICT - 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: 1"=20'

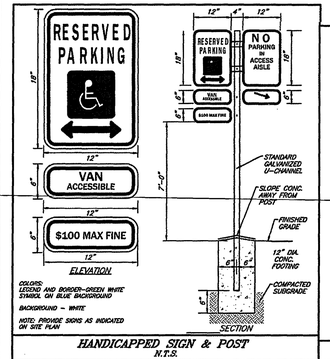
MICHAEL HUBERT SHIELDS
REGISTERED
12342
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: _____ EXP. DATE: _____

PROJECT NO. 20-70145
DRAWING NO. D-6816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 4 OF 9

H:\OTHER\SP-MILLS\20-70145 Spring Mills Community Park\Engineering\Drawings\02 Improvement Plan\04-GP.dwg, 8/4/2022 10:57:55 AM



HANDICAPPED SIGN & POST
N.T.S.

ACCESS AISLE SIGN
N.T.S.

DIMENSIONS (INCHES)	
A	1 ½"
B	2 ½" D
C	1"
D	2" C
E	1 ½" D
F	12"
G	18"
H	6"
J	⅜"
K	½"
L	1 ½"

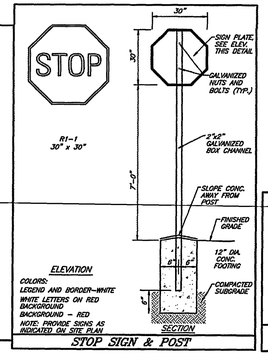
NOTE:
APPROPRIATE ARROW PLATE MAY BE USED WHEN IT IS NECESSARY TO OFFSET INSTALLATION LOCATION DUE TO ACCESS RAMP.

COLORS

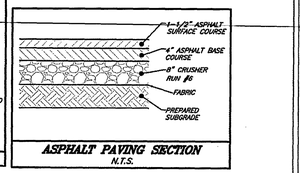
LEGEND	RED
BACKGROUND	WHITE

REFERENCES

MUTCD SECTION	2B-35
MUTCD SUPPLEMENT	2B-31

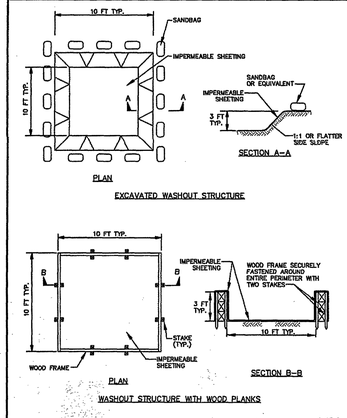


STOP SIGN & POST



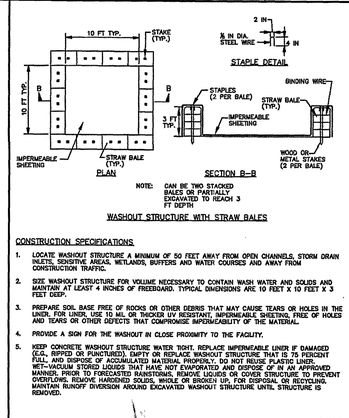
ASPHALT PAVING SECTION
N.T.S.

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE — STANDARD SYMBOL CWS



1 OF 2

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE — STANDARD SYMBOL CWS



WASHOUT STRUCTURE WITH STRAW BALES

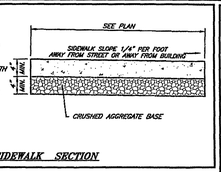
CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL. AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

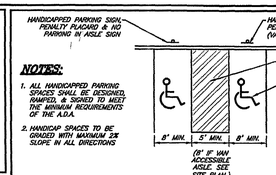
2 OF 2

NOTES:

1. TRANSVERSE EXPANSION JOINT TO BE PLACED AT INTERVALS NOT TO EXCEED 40 FT.
2. CONCRETE FOR SIDEWALK CONSTRUCTION SHALL BE MD S.H.A. STANDARD MIX No. 3 WITH A 28 DAY COMPRESSIVE STRENGTH OF 3500 P.S.I.
3. SIDEWALK BETWEEN EXPANSION JOINTS SHALL BE DIVIDED INTO 4' BLOCKS BY TRANSVERSE CUTS.
4. ½" BITUMINOUS EXPANSION JOINT FILLER REQUIRED ONLY WHEN SIDEWALK IS AGAINST BUILDINGS OR OTHER FIXED OBJECTS.



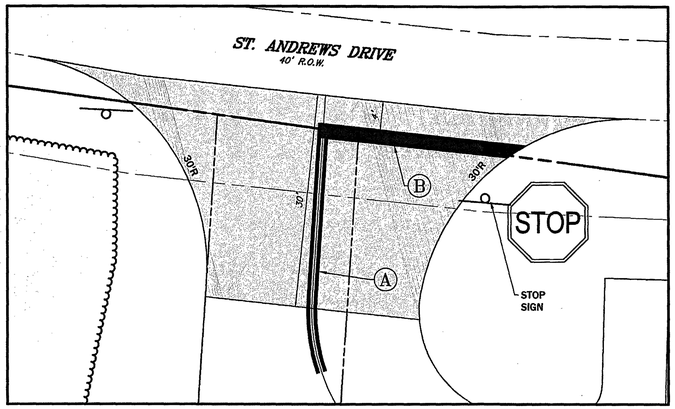
TYPICAL SIDEWALK SECTION



NOTES:

1. ALL HANDICAPPED PARKING SPACES SHALL BE DESIGNED, MARKED, & SIGNED TO MEET THE MINIMUM REQUIREMENTS OF THE A.D.A.
2. HANDICAP SPACES TO BE GRADED WITH MAXIMUM 2% SLOPE IN ALL DIRECTIONS

HANDICAP PARKING DETAIL
N.T.S.



PAVEMENT MARKING LEGEND

(A) 6" WIDE DOUBLE YELLOW LANE LINE (50 L.F. FROM STOP BAR)

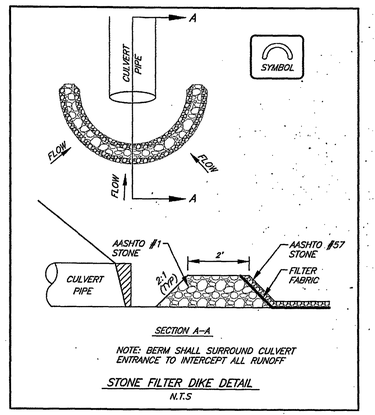
(B) 24" WIDE WHITE STOP BAR - TYPE V (THERMO)

DENOTES LIMIT OF WVDOH PAVING

SIGNAGE AND PAVEMENT MARKINGS NOTE

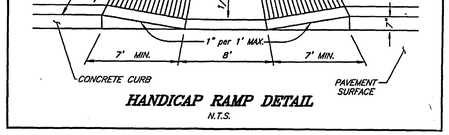
ALL TRAFFIC CONTROL SIGNAGE, REGULATORY SIGNAGE, AND RELATED MOUNTING HARDWARE ASSEMBLIES SHALL BE IN STRICT ACCORDANCE WITH THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS STANDARD DETAILS BOOK-SIGNING, SIGNALS, LIGHTING, AND MARKING, LATEST EDITION

TRAFFIC CONTROL SIGNAGE, REGULATORY SIGNAGE AND PAVEMENT MARKINGS PLACEMENT LOCATIONS SHALL BE IN STRICT ACCORDANCE WITH THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS STANDARD DETAILS BOOK-SIGNING, SIGNALS, LIGHTING, AND MARKING, LATEST EDITION

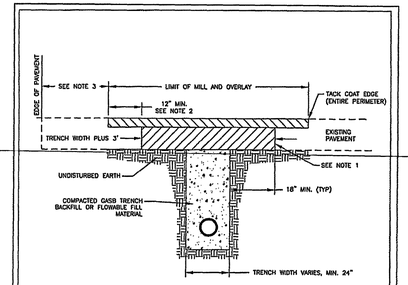


NOTE: BERM SHALL SURROUND CULVERT ENTRANCE TO INTERCEPT ALL RUNOFF

STONE FILTER DIKE DETAIL
N.T.S

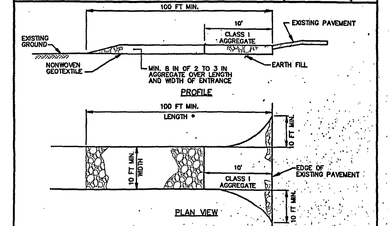


HANDICAP RAMP DETAIL
N.T.S.



1. Existing pavement shall be milled or saw cut full depth where the limits of mill and overlay meet existing pavement.
2. For longitudinal and transverse cuts, the limits of the perimeter mill and overlay shall extend a minimum of 12" beyond the full depth patch boundary.
3. When the distance the edge of existing pavement to the edge of new asphalt base is 3 feet or less, the existing pavement shall be removed and replaced to the edge of existing pavement.
4. For longitudinal trenches, when the width of the limit of mill and overlay exceeds 50% of the total roadway width, the limit of mill and overlay shall be uniformed to the full width of the road, edge of pavement to edge of pavement.
5. All milling shall be a minimum of 2" in depth.
6. Hot mix asphalt (HMA) surface shall be placed to a depth equal to the depth of existing surface or 2" minimum, whichever is greater. HMA base shall be a depth equal to the depth of existing base or 4", whichever is greater. All HMA shall be compacted to an in-place density of 92 to 97 percent of the maximum specific gravity.
7. Trench backfill beneath the pavement layer shall be compacted graded aggregate subbase (GASB) to 95 percent of the maximum dry density per AASHTO T-99. Prior and during compaction, moisture of fill material shall be maintained within 2% of optimum. The fill shall be placed and compacted in horizontal layers not to exceed 8" in loose thickness (lines). GASB shall conform to the requirements of the latest edition of MD SHA Standards and Specifications for Construction and Materials. Flowable fill material may also be used when the depth of fill is < 3 feet and advanced approval is obtained by the Division of Public Works.
8. All compaction work shall be performed using equipment such as sheepsfoot rollers or pneumatic and/or vibratory plate type compaction equipment. Backfill material shall be placed evenly structures and shall be free of boulders, frozen lumps or foreign/organic matter that could cause land spots or decompose resulting voids.
9. Where cuts are under existing asphalt pavement occur, the existing pavement shall be saw-cut 18" beyond the limit of the cuts-in. The requirements of note 3 shall be enforced as the trench boundary expands.
10. The Division of Public Works may require an independent testing lab to confirm compaction performance.

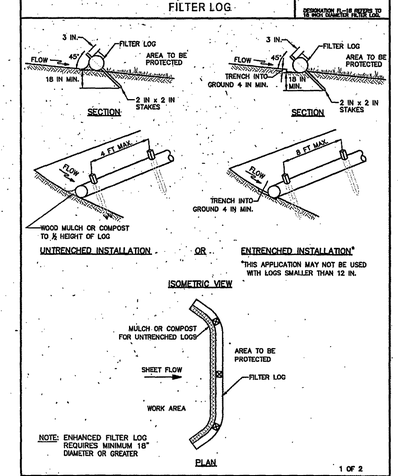
Approved	Washington County, MD Division of Public Works	UTILITY PATCH IN FLEXIBLE ASPHALT PAVEMENT	Detail UP-1.01
Approved	Approved: Director of Public Works		



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 100 FEET. USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION-H-1 MATERIALS.
3. PLACE CLASS I STONE FOR FIRST 10 FEET. REMAINING LENGTH SHALL BE CLEAN CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) AT-LEAST-8 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
4. 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.

DETAIL E-6 ENHANCED FILTER LOG — STANDARD SYMBOL FL-18



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT FROM BERKELEY CO. ENGINEERING DEPARTMENT PRIOR TO ANY SITE WORK.
2. CONTACT WEST VIRGINIA 811 AT 800-245-4848 AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING WORK TO LOCATE ALL UTILITIES.
3. NOTIFY THE BERKELEY COUNTY ENGINEERING DEPARTMENT FIVE (5) DAYS IN ADVANCE OF THE START OF CONSTRUCTION AT 304.264.1966 AND THE BERKELEY COUNTY PUBLIC SERVICE STORM WATER DISTRICT (BCPSSWD) AT 304.263.8566 TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE ATTENDANCE OF THE PROJECT'S CIVIL DESIGN CONSULTANT IS MANDATORY AT THE PRECONSTRUCTION MEETING.
4. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 4 DAYS OF REACHING FINAL GRADE OR AS OTHER WISE NOTED.
5. FILL SHALL BE COMPACTED TO PREVENT EROSION.
6. CONSTRUCTION OPERATIONS SHALL BE SUCH THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED. COMPLY WITH STATE AND FEDERAL LAWS CONCERNING POLLUTION ABATEMENT.
7. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
8. INSTALL PERIMETER FILTER LOG TO THE LIMITS INDICATED TO AVOID SEDIMENT DEPOSITION IN OFF-SITE AREAS. CALL THE ENGINEERING DEPT. FOR PERIMETER SEDIMENT CONTROL INSPECTION BEFORE PROCEEDING.
9. STRIP TOPSOIL WITHIN THE PROPOSED LIMITS OF DISTURBANCE. STOCKPILE TOPSOIL AT THE APPROXIMATE LOCATION AND EXTENT SHOWN ON THE PLANS. INSTALL FILTER LOGS AROUND THE LOWER SIDE AND STABILIZE PER THE TEMPORARY SEEDING SPECIFICATIONS.
10. ALL UNSUITABLE MATERIAL (LOGS, BRUSH, VEGETABLE MATTER, ETC.) WHICH WILL INTERFERE WITH THE GRADING AND OR STABILITY OF FILL AREAS SHALL BE REMOVED AND DISPOSED OF PROPERLY.
11. INSTALL WATER AND SEWER UTILITIES.
12. INSTALL CULVERTS AND END SECTIONS AT WALKING PATH LOCATIONS, IMMEDIATELY PLACING STONE FILTER DIKES AT THE UPSTREAM END.
13. GRADE IN AND INSTALL WALKING PATHS USING THE MATERIAL SPECIFICATIONS INDICATED.
14. ROUGH GRADE PARKING, SIDEWALK AND BUILDING AREAS.
15. AS SOON AS GRADING ALLOWS, PAVED AND GRAVEL AREAS WILL BE GRADED AND STABILIZED WITH BASE STONE AND THE REMAINDER OF THE SITE SHALL BE CLEARED WHEN NECESSARY.
16. CONSTRUCT BUILDINGS.
17. FINE GRADE THE SITE, SPREAD TOPSOIL AND STABILIZE PER THE PERMANENT SEEDING SPECIFICATIONS. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SEEDED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
18. UPON REACHING SATISFACTORY STABILIZATION CONSTRUCT BIORETENTION FACILITY. INSTALL ACCORDING TO THE WV SWM AND DESIGN GUIDANCE MANUAL AND INSTRUCTIONS ON SHEET B & S.
19. CALL ENGINEERING DEPARTMENT FOR THE PROOF ROLL INSPECTION FOR ENTRANCE PAVING, WHEN ALL OF THE ABOVE IS COMPLETED, OTHERWISE A $100.00 RE-INSPECTION FEE WILL BE REQUIRED.
20. INSTALL CRUSHER RUN BASE IN TWO (2) LAYERS.
21. PLACE PAVING TO DEPTHS AND LIMITS INDICATED.
22. ONCE STABILIZED, REMOVE EROSION CONTROL FACILITIES AND STABILIZE ANY OF THESE AREAS.
23. SUBMIT AS-BUILTS.
24. CALL FOR FINAL INSPECTION.

NOTE: INSPECTIONS BY BERK. CO. ENG. DEPT. WILL BE DONE ONLY ON WORK PERFORMED IN THE ABOVE SEQUENCE

SEED BED / SEEDING & MULCHING NOTES

1. LIMIT PREPARATION TO AREAS WHICH WILL BE IMMEDIATELY SEEDED.
2. LOOSEN TOPSOIL OF LAWN AREAS TO MINIMUM DEPTH OF 4". REMOVE STONES OVER 1" IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND EXTRANEOUS MATTER.
3. GRADE LAWN AREAS TO A SMOOTH, FREE DRAINING EVEN SURFACE WITH A LOOSE, MODERATELY COARSE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS AS REQUIRED TO DRAIN.
4. APPLY LIMESTONE AT RATE SHOWN IN PERMANENT SEED MIXTURE. DISTRIBUTE EVENLY BY MACHINE AND INCORPORATE THOROUGHLY INTO TOPSOIL.
5. APPLY FERTILIZER AT RATE SHOWN IN PERMANENT SEED MIXTURE.
6. APPLY FERTILIZERS BY MECHANICAL ROTARY OR DROP TYPE DISTRIBUTOR, THOROUGHLY AND EVENLY INCORPORATED WITH SOIL TO A DEPTH OF 3" BY DISCING OR OTHER APPROVED METHOD. FERTILIZE AREAS INACCESSIBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE INTO SOIL.
7. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED AFTER FINE GRADING AND PRIOR TO SEEDING.
8. SEED IMMEDIATELY AFTER PREPARATION OF BED.
9. PERFORM SEEDING OPERATIONS WHEN THE SOIL IS DRY AND WHEN WINDS DO NOT EXCEED 5 MILES PER HOUR VELOCITY.
10. APPLY SEED WITH A ROTARY OR DROP TYPE DISTRIBUTOR. INSTALL SEED EVENLY BY SOWING EQUAL QUANTITIES IN 2 DIRECTIONS, AT RIGHT ANGLES TO EACH OTHER.
11. SOW GRASS SEED AT RATE SHOWN IN PERMANENT SEED MIXTURE.
12. AFTER SEEDING, RAKE OR DRAG SURFACE OF SOIL LIGHTLY TO INCORPORATE SEED INTO TOP 1/8" OF SOIL. ROLL WITH LIGHT LAWN ROLLER.
13. PLACE STRAW MULCH ON SEEDED AREAS WITHIN 24 HOURS AFTER SEEDING.
14. PLACE STRAW MULCH UNIFORMLY IN A CONTINUOUS BLANKET AT THE RATE OF 1-1/2 TONS PER ACRE.
15. ANCHOR STRAW MULCH WITH GROUND NEWSPAPER MULCH WITH TACKIFIER APPLIED UNIFORMLY WITH A HYDROSEEDER.
16. PROTECT BUILDINGS, PAVING, PLANTINGS, AND ALL NONSEEDED AREAS FROM NEWSPAPER MULCH OVER-SPRAY.
17. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE FOURTH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW.
18. AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.

SEDIMENT & EROSION CONTROL NOTES

1. THE PROJECT IS LOCATED IN POTOMAC DIRECT DRAIN AREA WATER SHED (TM0X.).
2. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH "EROSION AND SEDIMENT CONTROL HANDBOOK FOR DRAIN AREAS".
3. A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON DETAIL SHALL BE CONSTRUCTED AT LOCATION SHOWN ON THE PLAN.
4. AREAS OF DEVELOPMENT SHALL BE PLANNED IN PHASES AND STAGES TO MINIMIZE EXPOSURE TO DISTURBED GROUND. GRADING SHALL BE COMPLETED AS SOON AS POSSIBLE AFTER IT HAS BEGUN.
5. PERIODIC INSPECTION AND REQUIRED MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES SHALL BE REQUIRED TO INSURE EFFECTIVE SEDIMENT CONTROL.
6. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ESTABLISHED.
7. ALL AREAS NOT COVERED BY PAVEMENT OR WITHIN BIORETENTION FACILITY SHALL BE SEEDED USING PERMANENT SEED MIXTURE SHOWN ON THIS PLAN.
8. UPON COMPLETION OF STOCKPILING TOPSOIL, SEED AND MULCH USING TEMPORARY SEED MIXTURE SPECIFICATIONS IF TO REMAIN IN PLACE GREATER THAN SIXTY (60) DAYS.
9. THE BERKELEY CO. ENGINEERING DEPT. RESERVES THE RIGHT TO REQUIRE ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES DURING THE CONSTRUCTION OF THIS PROJECT.
10. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN FOUR (4) CALENDAR DAYS ON ALL DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
11. FILLS SHALL BE COMPACTED TO PREVENT EROSION.
12. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED UNTIL THE DISTURBED AREA IS STABILIZED.
13. AT A MINIMUM INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS WILL BE CONDUCTED EVERY 4 DAYS AND WITHIN 24 HOURS OF A RAIN EVENT OF 0.25 INCHES OR GREATER OF RAINFALL IN 24 HOURS UNLESS SUCH INSPECTIONS ARE NOT PRACTICAL WITHIN 24 HOURS, IN WHICH CASE THAT FACT SHALL BE NOTED IN THE INSPECTION REPORT.
14. REPAIRS OR MAINTENANCE TO BMPS SHALL BE PERFORMED AS SOON AS PRACTICABLE AFTER THE INSPECTION FOLLOWING THE .25 INCH RAIN EVENT IN A 24 HOUR PERIOD AND REPAIRS SHALL BE RE-INSPECTED NO LATER THAN THE NEXT INSPECTION DATE. IF REPAIRS CANNOT BE COMPLETED WITHIN THAT DAY PERIOD THAT FACT SHALL BE EXPLAINED ON THE INSPECTION REPORT AND SUCH EXPLANATION SHALL INCLUDE AN ANTICIPATED COMPLETION DATE.
15. TEMPORARY SEEDING AND MULCHING SHALL BE INSTALLED WITHIN 4 DAYS WHEN AREAS WILL NOT BE RE- DISTURBED FOR MORE THAN 14 DAYS.
16. PERMANENT SEEDING AND MULCHING SHALL BE INSTALLED WITHIN 4 DAYS OF REACHING FINAL GRADE.
17. SEEDING AND/OR MULCHING MUST BE PERFORMED WITHIN 4 DAYS, OR AS SOON AS PRACTICAL, OF CEASING CONSTRUCTION ACTIVITIES. IF THIS IS NOT DONE WITHIN 4 DAYS, THE INSPECTION REPORTS SHALL NOTE THE REASON WHY SEEDING AND/OR MULCHING WERE NOT PERFORMED WITHIN THE SEVEN DAY PERIOD.
18. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE FOURTH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS ALLOW.
19. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED UPON THAT PORTION OF THE SITE BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED.
20. AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RESEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.

SEEDING NOTES

TEMPORARY SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.1					FERTILIZER RATE (10-20-20)	LIME RATE
No.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
2	BARLEY (HORDEUM VULGARE)	96	3/1 - 5/15 8/1 - 9/30	1.0"	436 LBS./AC. (10 LBS/1000 S.F.)	2 TONS/AC. (90 LBS/1000 S.F.)
TEMPORARY SEEDING SHALL COMPLY WITH SECTION B-4-4 OF THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL						

PERMANENT SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.3					FERTILIZER RATE (10-20-20)			LIME RATE
No.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20	
6	TALL FESCUE WHITE CLOVER PERENNIAL RYE GRASS	40 8 25	3/15 - 6/1 8/1 - 10/15	½ - ½"	45 LB/AC (1.0 LB/1000 S.F.)	90 LB/AC (2 LB/1000 S.F.)	90 LB/AC (2 LB/1000 S.F.)	2 TONS/AC (90 LB/1000 S.F.)
PERMANENT SEEDING SHALL COMPLY WITH SECTION B-4-5 OF THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL								

PRELIMINARY PLAN APPROVED
DATE: 8-1-2022
LAMA CASE: #2111-403
LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

LAMA CASE #2111-403

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SUITE "G"
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DRAWN BY
REVISION
DATE

SITE / SEC NOTES & DETAILS
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE
FALLING WATERS DISTRICT - 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: NTS

MICHAEL HUBERT SHELLER REGISTERED 12342 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
8-4-22
LICENSE No.: EXP. DATE:

PROJECT NO. 20-70145
DRAWING NO. D-6816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 5 OF 9

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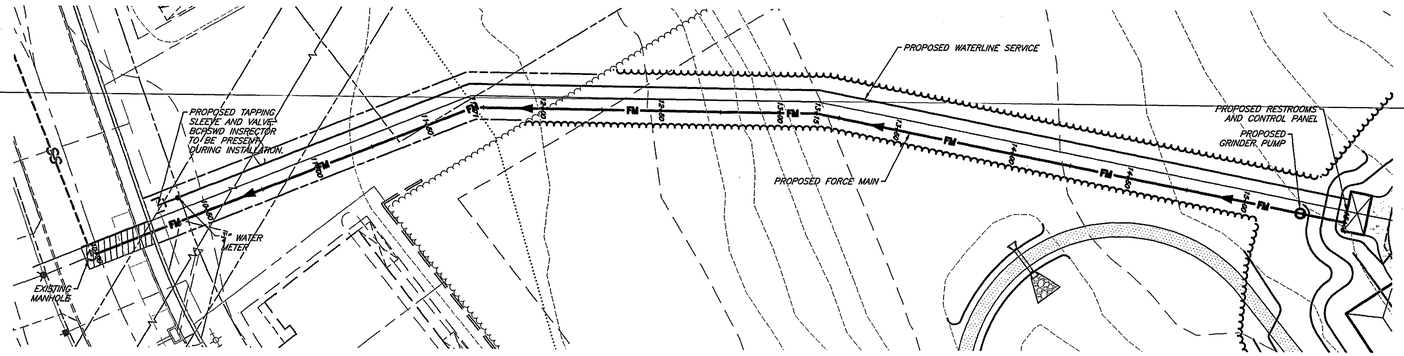
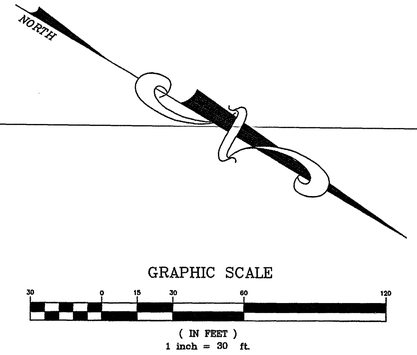
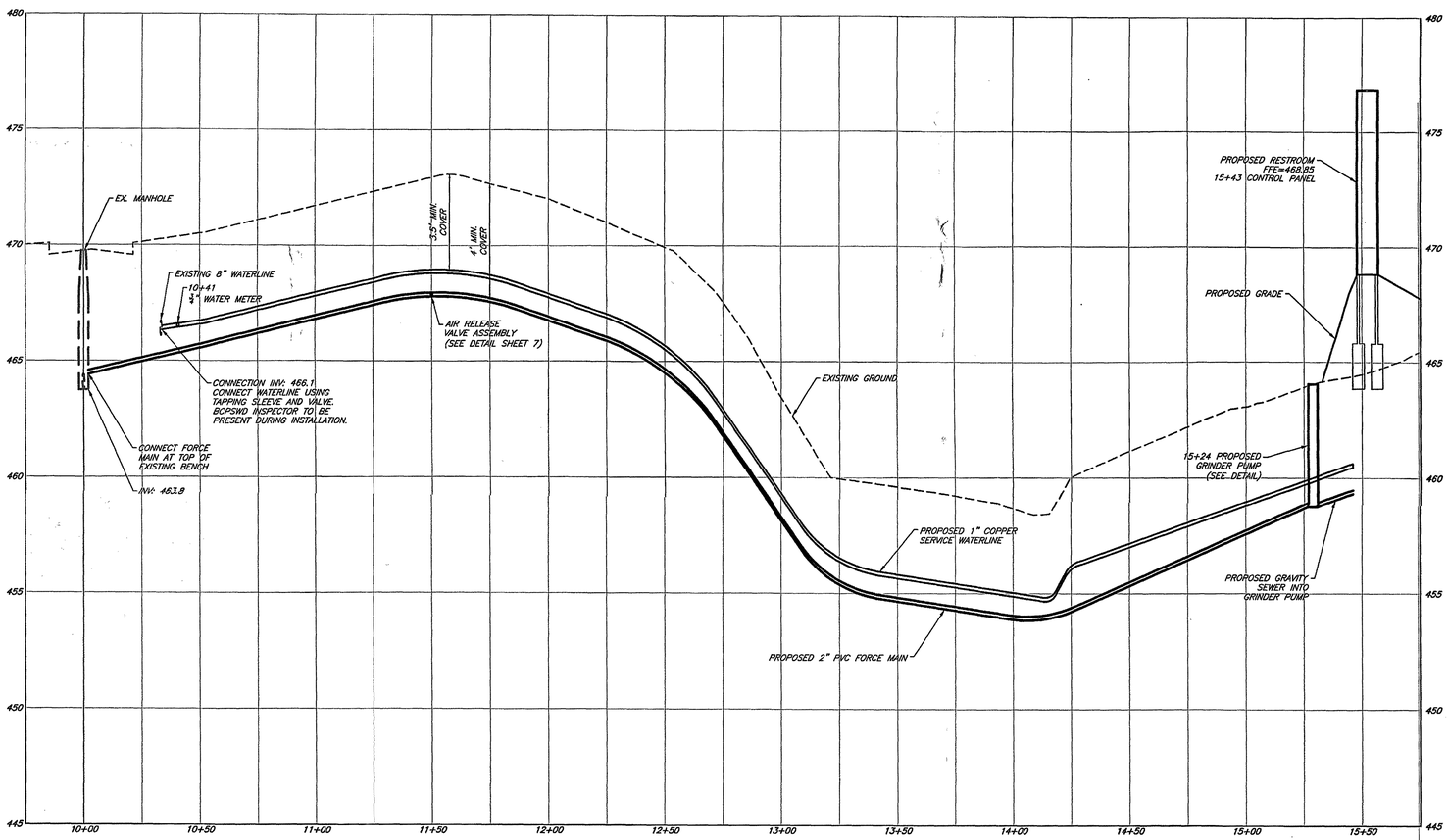




WATERLINE AND SEWER FORCE MAIN PLAN



PROFILE – SANITARY SEWER FORCE MAIN AND 2" WATERLINE SERVICE

HORIZ.: 1" = 30'
VERT.: 1" = 3'

PRELIMINARY PLAN APPROVED
DATE: 8-1-2022
LAMA CASE: #2111-403
Linda Barnhart
LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

LAMA CASE #2111-403

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FREDERICK, MD. 21701
PHONE: (301)695-0880
FAX: (301)293-6009
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DATE	REVISION	DRAWN BY

WATER & SANITARY SEWER PLAN & PROFILE
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDRES DRIVE
FALLING WATERS DISTRICT – 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: AS SHOWN

MICHAEL HUBERT SNYDER
REGISTERED
12342
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: _____ EXP. DATE: _____

PROJECT NO. 20-70145
DRAWING NO. D-8816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 6 OF 9

P:\1 OTHER\SP-MILLS\20-70145 Spring Mills Community Park\Engineering\Drawings\02 Improvement Plan\06-07-W-SS-SD.dwg, 8/4/2022 11:00:26 AM
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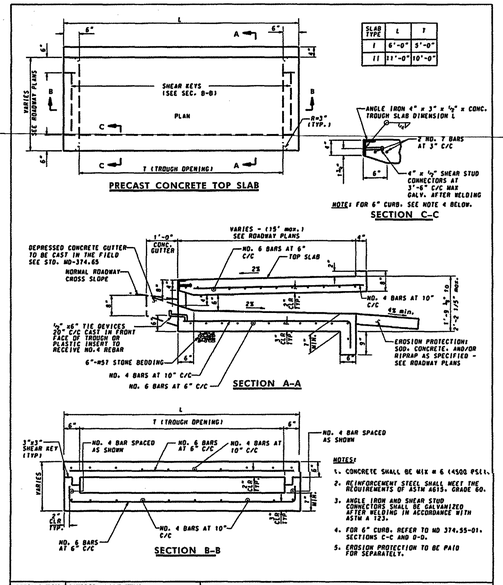
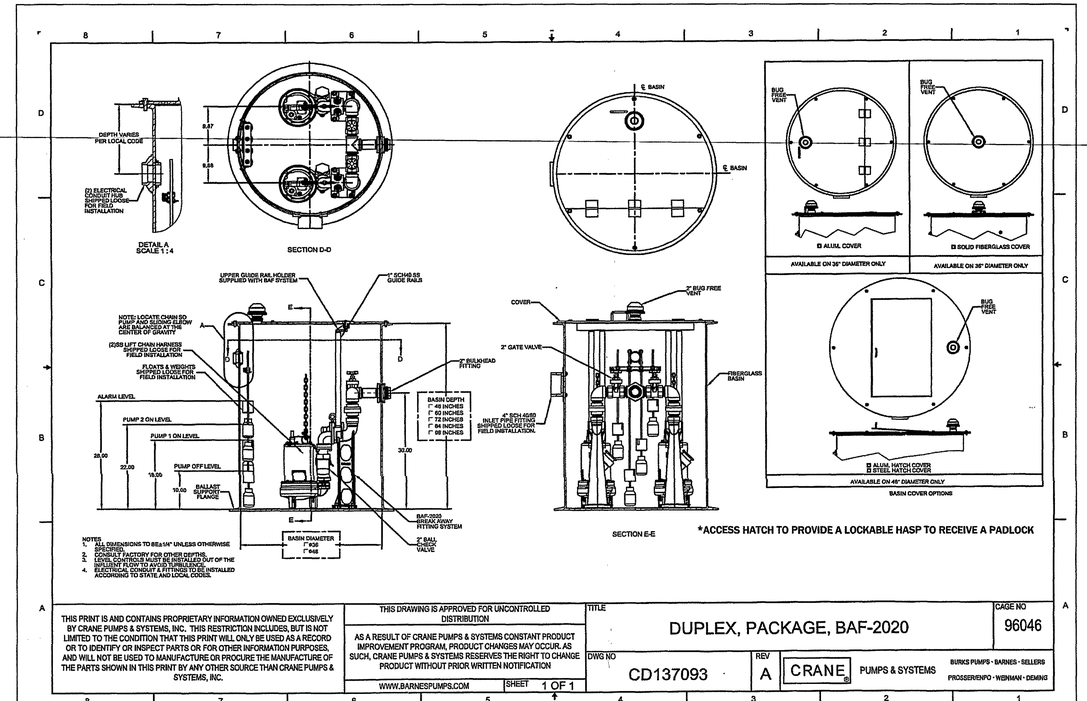


SPECIFICATION 305	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA State Highway Administration	APPROVAL + SHA REVISIONS	APPROVAL + FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 12-19-01	APPROVAL 7-15-03
	REVISED 1-9-08	REVISED 11-28-07
	REVISED	REVISED
	REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PRECAST OR CAST-IN-PLACE COG /COS OPENING FOR 8" CURB 5' OR 10' ONLY

STANDARD NO. MD 374.68



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SHEET 1 OF 1

TITLE: DUPLEX, PACKAGE, BAF-2020

CAGE NO 96046

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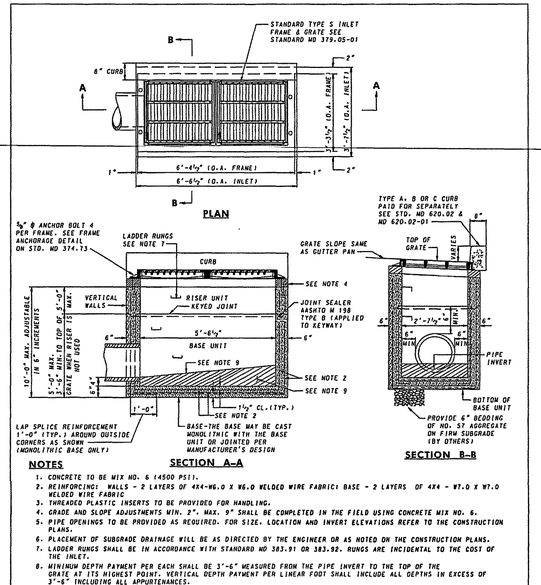
SEWER PUMP



NOTES

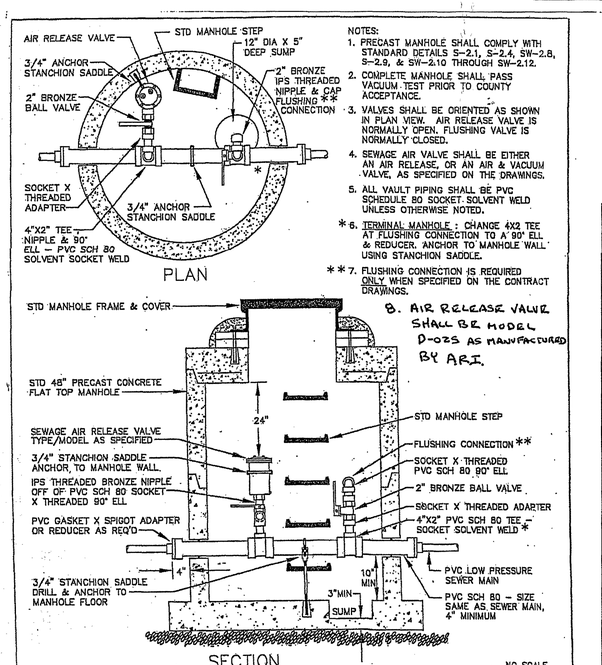
1. CONCRETE TO BE MIX NO. 6 (4500 PSI).
2. REINFORCING: WALLS - 2 LAYERS OF 4X4-W6.0 X W6.0 WELDED WIRE FABRIC; BASE - 2 LAYERS OF 4X4 - W7.0 X W7.0 WELDED WIRE FABRIC
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS WITH, 2". MAX. 8" SHALL BE COMPLETED IN THE FIELD USING CONCRETE MIX NO. 6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION AND INVERT ELEVATIONS REFER TO THE CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD MD 383.91 OR 383.92. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
8. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 3'-6" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE GRATE AT ITS HIGHEST POINT. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 3'-6" INCLUDING ALL APPURTENANCES.
9. CONCRETE OR BRICK INVERT TO BE PROVIDED IN THE FIELD AND SHALL SLOPE 2 IN./FT TOWARD OUTLET OR AS DIRECTED.
10. BASE WALLS UNIT MAY TAPER PER MANUFACTURER'S DESIGN.
11. FROM CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

SPECIFICATION 305	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA State Highway Administration	APPROVAL + SHA REVISIONS	APPROVAL + FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 2-22-91	APPROVAL 1-2-91
	REVISED 8-3-10	REVISED 7-26-10
	REVISED 10-7-14	REVISED 1-29-14
	REVISED –	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PRECAST STANDARD TYPE S INLET DOUBLE GRATE TANDEM

STANDARD NO. MD 374.70



NOTES:
1. PRECAST MANHOLE SHALL COMPLY WITH STANDARD DETAILS S-2.1, S-2.4, SW-2.8, S-2.9, & SW-2.10 THROUGH SW-2.12.
2. COMPLETE MANHOLE SHALL PASS VACUUM TEST PRIOR TO COUNTY ACCEPTANCE.
3. VALVES SHALL BE ORIENTED AS SHOWN IN PLAN VIEW. AIR RELEASE VALVE IS NORMALLY OPEN. FLUSHING VALVE IS NORMALLY CLOSED.
4. SEWAGE AIR VALVE SHALL BE EITHER AN AIR RELEASE, OR AN AIR & VACUUM VALVE, AS SPECIFIED ON THE DRAWINGS.
5. ALL VAULT PIPING SHALL BE PVC SCHEDULE 80 SOCKET SOLVENT WELD UNLESS OTHERWISE NOTED.

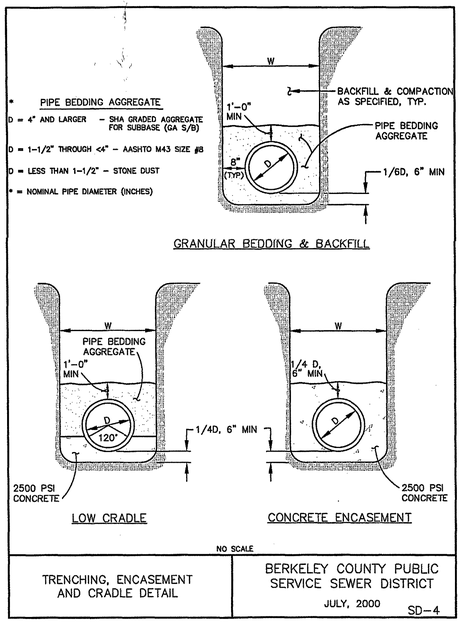
* 6. TERMINAL MANHOLE : CHANGE 4X2 TEE AT FLUSHING CONNECTION TO A 90° ELL & REDUCER. ANCHOR TO MANHOLE WALL USING STANCHION SADDLE.

** 7. FLUSHING CONNECTION IS REQUIRED ONLY WHEN SPECIFIED ON THE CONTRACT DRAWINGS.

8. AIR RELEASE VALVE SHALL BE MODEL D-025 AS MANUFACTURED BY ARI.

SEWAGE AIR RELEASE AND FLUSHING CONNECTION MANHOLE WORKING PRESSURE ≤ 100 PSI	REVISION DATES	BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT JULY 2000 SD-12

NOTES:
1. ALL HARDWARE SUPPORTS, FLANGE BOLTS AND MOUNTING BRACKETS IN WET WELL AND VALVE VAULT SHALL BE STAINLESS STEEL.
2. UNIONS SHALL BE PROVIDED ON ALL VALVES.
3. CONTROL PANEL SHALL BE MOUNTED ON THE REAR OF THE RESTROOM BUILDING TO PROVIDE A CLEAR LINE OF SIGHT BETWEEN THE CONTROL PANEL AND THE PUMP.



TRENCHING, ENCASEMENT AND CRADLE DETAIL	BERKELEY COUNTY PUBLIC SERVICE SEWER DISTRICT JULY, 2000 SD-4

PRELIMINARY PLAN APPROVED
DATE: 8-1-2022
LAMA CASE: #2111-403
LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

LAMA CASE #2111-403

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DRAWN BY

REVISION

DATE

SANITARY SEWER & STORM DRAIN DETAILS
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE
FALLING WATERS DISTRICT - 02
BERKELEY COUNTY, WEST VIRGINIA

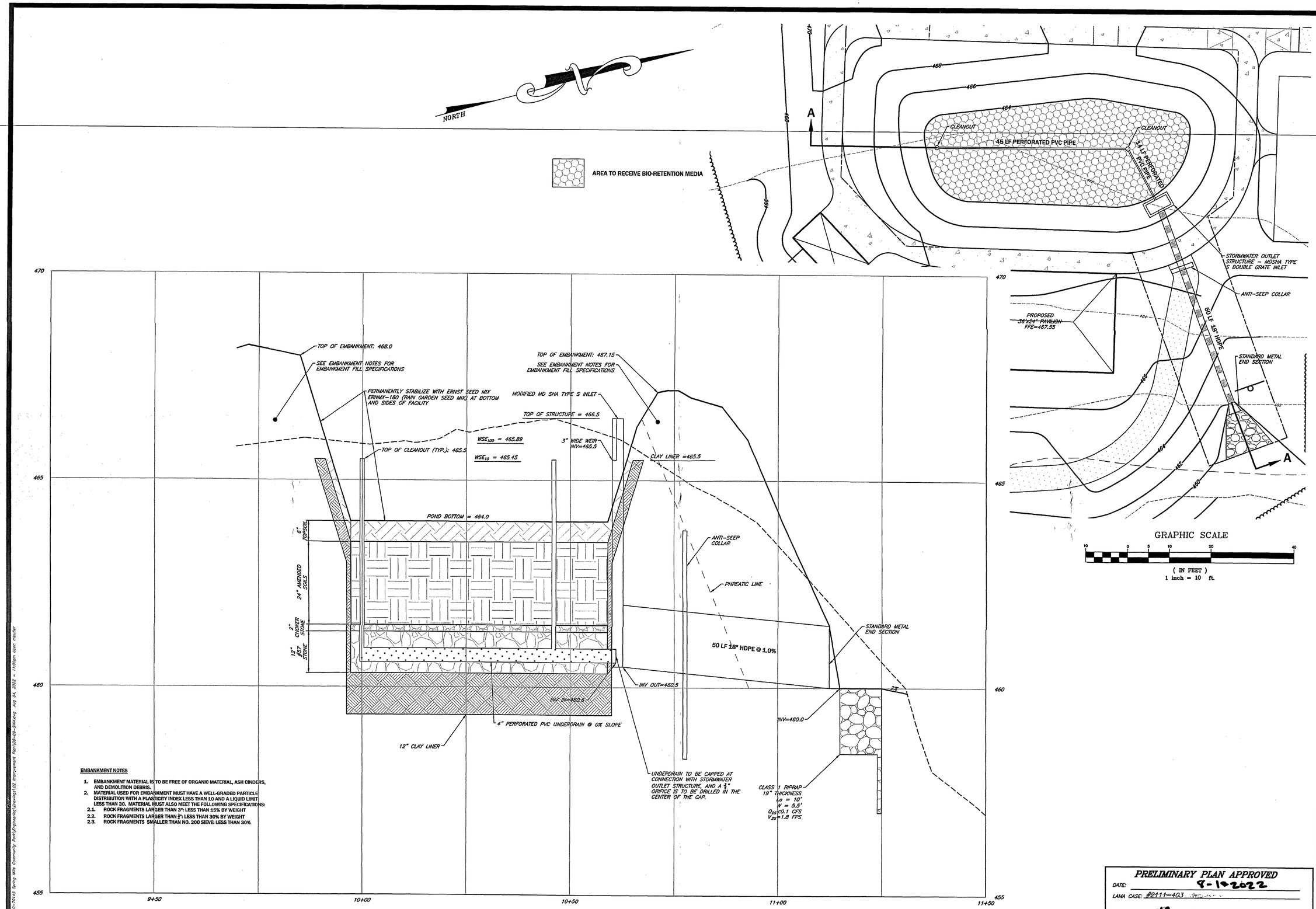
SCALE: AS SHOWN

MICHAEL HUBERT SHIFLER REGISTERED 12342 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: EXP. DATE:
PROJECT NO. 20-70145
DRAWING NO. D-6816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 7 OF 9

\\OTHERS\P-MILLS\20-70145 Spring Mills Community Park\Engineering\Drawings\02 Improvement Plan\06-07-W-SS-SD.dwg 8/4/2022 11:00:44 AM



EMBANKMENT NOTES

1. EMBANKMENT MATERIAL IS TO BE FREE OF ORGANIC MATERIAL, ASH CINDERS, AND DEMOLITION DEBRIS.
2. MATERIAL USED FOR EMBANKMENT MUST HAVE A WELL-GRADED PARTICLE DISTRIBUTION WITH A PLASTICITY INDEX LESS THAN 10 AND A LIQUID LIMIT LESS THAN 30. MATERIAL MUST ALSO MEET THE FOLLOWING SPECIFICATIONS:
   - 2.1. ROCK FRAGMENTS LARGER THAN 3": LESS THAN 15% BY WEIGHT
   - 2.2. ROCK FRAGMENTS LARGER THAN ¾": LESS THAN 30% BY WEIGHT
   - 2.3. ROCK FRAGMENTS SMALLER THAN NO. 200 SIEVE: LESS THAN 30%

PROFILE – SECTION A–A

HORIZ.: 1" = 10'
VERT.: 1" = 1'

PRELIMINARY PLAN APPROVED
DATE: 9-1-2022
LAMA CASE: #2111-403

LINDA BARNHART, PRESIDENT
BERKELEY COUNTY PLANNING COMMISSION

LAMA CASE #2111-403

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DRAWN BY	REVISION	DATE

STORMWATER MANAGEMENT PLAN
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE
FALLING WATERS DISTRICT – 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: 1"=10'

MICHAEL HUBERT SHIFLEY
REGISTERED
12342
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: _____ EXP. DATE: _____

PROJECT NO. 20-70145
DRAWING NO. D-6816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 8 OF 9

GEOTECHNICAL CONSTRUCTION RECOMMENDATIONS

SITE PREPARATION

INITIAL SITE CLEARING AND GRUBBING SHOULD INCLUDE REMOVAL OF THE TOPSOIL AND ANY OTHER DELETERIOUS MATERIALS WITHIN THE FOOTPRINT OF THE SWM FACILITY. AFTER REMOVAL OF THE TOPSOIL AND ANY OTHER DELETERIOUS MATERIALS, SUBGRADE SOILS WHICH WILL SUPPORT CONTROLLED FILL SHOULD BE PROOF-ROLLED WITH APPROVED CONSTRUCTION EQUIPMENT TO LOCATE ISOLATED SOFT SPOTS OR AREAS OF EXCESSIVE "PUMPING" WHICH ARE TOO WET TO ACCOMMODATE COMPACTED FILL. THESE AREAS SHOULD BE SCARIFIED, AIR-DRIED TO SUFFICIENT MOISTURE CONTENT AND RE-COMPACTED PRIOR TO FILL PLACEMENT, MECHANICALLY STABILIZED OR REMOVED TO THE LEVEL OF STABLE SOILS. THE EXPOSED SUBGRADE SHOULD BE EXAMINED AND TESTED BY GEOTECHNICAL PERSONNEL PRIOR TO PLACEMENT OF COMPACTED FILL.

EXCAVATION AREAS

REFUSAL OR SLOPING ROCK WAS ENCOUNTERED IN THE TEST PITS AT DEPTHS RANGING FROM 1 TO 6 FEET BELOW EXISTING GRADE. IN ADDITION, ROCK OUTCROPS WERE OBSERVED THROUGHOUT THE SITE. HARD BEDROCK OR LARGE BOULDERS WILL REQUIRE HOE-RAMMING FOR EFFECTIVE REMOVAL. BLASTING IS NOT RECOMMENDED.

DURING EXCAVATION, DRY CONDITIONS SHOULD BE MAINTAINED WITHIN THE CUT AREAS AT ALL TIMES IN ORDER TO MINIMIZE THE NEED FOR ADDITIONAL UNDERCUTTING OR AERATION OF SOILS. THE CONTRACTOR SHOULD BE PREPARED TO IMPLEMENT TEMPORARY DE-WATERING MEASURES IN THESE AREAS DURING CONSTRUCTION. ALL CUT AREAS SHOULD BE SEALED AT THE END OF EACH DAY, TO THE EXTENT WHICH CONSTRUCTION PRACTICALITY WILL PERMIT, TO HELP PREVENT INFILTRATION OF PRECIPITATION AND SUBSEQUENT UNSUITABLE SOIL CONDITIONS.

ALL TRENCHES SHOULD BE SLOPED AND/OR SUPPORTED IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS. TRENCHES BELOW STRUCTURE AND PAVEMENT AREAS SHOULD BE BACKFILLED IN ACCORDANCE WITH THE CONTROLLED FILL SECTION.

PERMEABLE MEDIA

ONLY VERY LIGHT GRADING EQUIPMENT SUCH AS A SMALL TRACKED DOZER SHOULD BE UTILIZED FOR PLACEMENT OF PERMEABLE MEDIA INCLUDING PLANTING SOILS, SAND, AND/OR GRAVEL WITHIN THE PROPOSED FACILITIES. HEAVY CONSTRUCTION EQUIPMENT SHOULD BE PROHIBITED ONCE PERMEABLE MEDIA HAS BEEN PLACED.

ALL PROPOSED TOPSOIL/PERMEABLE MATERIALS SHOULD BE ANALYZED FOR GRADATION, ORGANIC CONTENT, PH AND APPROPRIATE NUTRIENT LEVELS AS REQUIRED BASED ON THE PLANTING REQUIREMENTS. A MINIMUM OF 1 TEST SHOULD BE PERFORMED FOR EACH PROPOSED IMPORT SOURCE OR EACH ON-SITE MIXTURE. IT SHOULD BE NOTED THAT THE LABORATORY TESTING TIME IS TYPICALLY 2 WEEKS. ACCORDINGLY, THE MATERIAL SHOULD BE TESTED EARLY DURING GRADING ACTIVITIES, AND THE PROJECT SCHEDULE SHOULD ACCOUNT FOR THE TIME TO COMPLETE THE TESTING.

CONTROLLED FILL

SATISFACTORY SOILS

ON-SITE RESIDUAL SOILS CAN GENERALLY BE USED FOR FILL PROVIDED THAT COMPACTION CRITERIA ARE STRICTLY MAINTAINED. THE LOW TO HIGH PLASTICITY SILTY CLAYS ARE RELATIVELY SENSITIVE TO MOISTURE FLUCTUATIONS AND TYPICALLY CAN BE EFFECTIVELY PLACED AND COMPACTED ONLY DURING DRIER SEASONS. USE OF THESE SOILS DURING WET OR RAINY SEASONS IS OFTEN FUTILE DUE TO THE TIME AND EFFORT REQUIRED TO DRY THE MATERIAL TO ACHIEVE ADEQUATE COMPACTION. THEREFORE, EARTHWORK CONSTRUCTION DURING THE APPROXIMATE PERIOD OF LATE FALL TO EARLY SPRING IS GENERALLY VERY DIFFICULT WITH THE LIMESTONE DERIVED SOILS IN THE REGION. LOCAL WEATHERED ROCK FILL SUCH AS SHALE OR WELL-GRADED CRUSHED AGGREGATE CAN BE CONSIDERED AS ALTERNATE FILL MATERIAL DURING ADVERSE WEATHER CONDITIONS.

FILL MATERIALS SHOULD NOT CONTAIN ANY DEBRIS, WASTE, OR FROZEN MATERIALS, AND THEY SHOULD CONTAIN LESS THAN TWO (2) PERCENT VEGETATION-ORGANIC MATERIALS BY WEIGHT. ALSO, MATERIALS CLASSIFIED AS OL, OH, OR PT ARE NOT SUITABLE FOR USE AS CONTROLLED FILL. MAXIMUM ROCK PARTICLE SIZES SHOULD NOT EXCEED 3 INCHES. ALL PROPOSED FILL MATERIALS SHOULD BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT AS CONTROLLED FILL, AND REPRESENTATIVE SAMPLES SHOULD BE SUBMITTED BY THE CONTRACTOR ONE WEEK PRIOR TO PLACEMENT OF THAT MATERIAL TO ALLOW TIME FOR COMPLETION OF THE NECESSARY LABORATORY TESTS.

PLACEMENT AND COMPACTION

BEFORE COMPACTION, EACH LAYER SHOULD BE MOISTENED OR AERATED AS NECESSARY TO OBTAIN THE REQUIRED COMPACTION. EACH LAYER SHOULD BE COMPACTED TO THE REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY. FILL SHOULD NOT BE PLACED ON SURFACES THAT ARE MUDDY OR FROZEN, OR HAVE NOT BEEN APPROVED BY TESTING AND/OR PROOF-ROLLING. FREE WATER SHOULD BE PREVENTED FROM APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS.

SOIL MATERIAL WHICH IS REMOVED BECAUSE IT IS TOO WET TO PERMIT PROPER COMPACTION CAN BE SPREAD AND ALLOWED TO DRY. DRYING CAN BE FACILITATED BY DISCING OR HARROWING UNTIL THE MOISTURE CONTENT IS REDUCED TO AN ACCEPTABLE LEVEL. WHEN THE SOIL IS TOO DRY, WATER SHOULD BE APPLIED UNIFORMLY TO THE SUBGRADE SURFACE OR TO THE LAYER TO BE COMPACTED.

ALL FILL MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT SHOULD BE PLACED IN MAXIMUM 9-INCH LOOSE LIFTS. ALL FILL MATERIAL COMPACTED BY HAND-OPERATED TAMPERS OR LIGHT COMPACTION EQUIPMENT SHOULD BE PLACED IN MAXIMUM 4-INCH LOOSE LIFTS.

CONTROLLED FILL MATERIAL (NOT PERMEABLE MEDIA), SHOULD BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD (ASTM D 698). THE MOISTURE CONTENT OF THE SOILS SHOULD BE AT OR WITHIN TWO (2) PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT.

GENERAL POND NOTES

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

2. ALL JOINTS ASSOCIATED WITH PIPES AND OUTLET STRUCTURES SHALL BE WATERTIGHT.

3. FILL MATERIAL FOR EARTHEN DAM SHALL CONFORM TO THE TYPES LISTED IN THE POND SPECIFICATIONS CONTAINED IN THIS PLAN. SOIL MATERIAL SHALL BE CLASSIFIED BY A SOILS TESTING FIRM AND APPROVED FOR USE BY THE SITE ENGINEER PRIOR TO START OF CONSTRUCTION OF DAM.

4. POND DAM SHALL BE COMPACTED TO A MIN. 95% DRY DENSITY± 2.0% OF OPTIMUM MOISTURE CONTENT. ALL COMPACTION IS TO BE PER AASHTO T-99 METHOD UNLESS OTHERWISE SPECIFIED.

5. UNLESS OTHERWISE SPECIFIED ON PLAN, ALL AREAS AROUND POND WITH SLOPES OF 3 TO 1 OR STEEPER SHALL BE LINED WITH TEMPORARY SOIL STABILIZATION MATTING AND SEEDED.

6. TOPSOIL SHALL BE STRIPPED FROM UNDER THE DAM AREA. DAM SHALL BE CONSTRUCTED ON CLEAN VIRGIN CLAY OR BEDROCK. BEDROCK AND/OR CLAY AREA SHALL BE CLEANED OF ANY TOPSOIL OR DELETERIOUS MATERIAL.

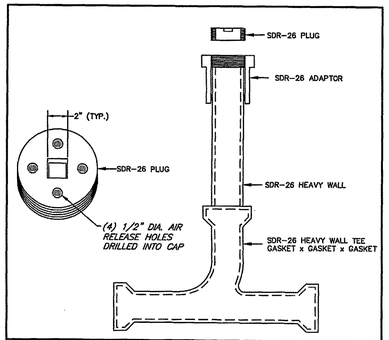
7. CONSTRUCTION INSPECTION AND ASBUILT CERTIFICATION OF STORMWATER MANAGEMENT STRUCTURE'S BY A REGISTERED PROFESSIONAL ENGINEER WILL BE REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE INSPECTING ENGINEER PRIOR TO THE START OF CONSTRUCTION IN ORDER TO DETERMINE WHEN INSPECTIONS WILL BE REQUIRED. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER WHEN ALL STRUCTURES HAVE BEEN COMPLETED AND STABILIZED IN ORDER THAT THE ASBUILT SURVEY MAYBE PERFORMED. STABILIZATION IS DEFINED AS HAVING A STAND OF GRASS OR OTHER SUITABLE VEGETATIVE COVER AS SPECIFIED ON THESE PLANS.

8. FINAL APPROVAL OF A STORMWATER MANAGEMENT STRUCTURE MUST BE GRANTED BY THE APPROPRIATE GOVERNMENT AGENCY/AGENCIES. APPROVAL BY THE INSPECTING ENGINEER DOES NOT GUARANTEE THAT ADDITIONAL WORK WILL NOT HAVE TO BE PERFORMED ON A STORMWATER MANAGEMENT STRUCTURE IN ORDER FOR IT TO COMPLY WITH THE STANDARDS OF THE GOVERNMENT AGENCY OF AGENCIES THAT ARE RESPONSIBLE FOR APPROVING THE STRUCTURE. FOX AND ASSOCIATES, INC., ITS PERSONNEL AND ITS SUBCONTRACTORS WILL NOT BE LIABLE FOR ANY ADDITIONAL WORK ASSOCIATED WITH A STORMWATER MANAGEMENT STRUCTURE IN ORDER TO HAVE IT CONFORM TO NECESSARY STANDARDS.

CONSTRUCTION MONITORING

IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER BE RETAINED TO MONITOR THE CONSTRUCTION ACTIVITIES TO VERIFY THAT THE FIELD CONDITIONS ARE CONSISTENT WITH THE FINDINGS OF THE INITIAL GEOTECHNICAL EXPLORATION. IF SIGNIFICANT VARIATIONS ARE ENCOUNTERED, OR IF THE DESIGN IS ALTERED, THE GEOTECHNICAL ENGINEER SHOULD BE NOTIFIED.

THE GEOTECHNICAL ENGINEER SHOULD PROVIDE PERSONNEL AS REQUIRED TO OBSERVE ALL EXCAVATIONS AND DOCUMENT PROOF-ROLLING PRIOR TO FILL PLACEMENT. IN ADDITION, ALL FILL MATERIAL SHOULD BE MONITORED, TESTED AND APPROVED DURING FILL CONSTRUCTION. FIELD DENSITY TESTS SHOULD BE PERFORMED IN ACCORDANCE WITH ASTM D 6938 (NUCLEAR METHOD). A MINIMUM OF THREE FIELD DENSITY TESTS SHOULD BE PERFORMED FOR EACH LIFT OF FILL PLACED OR A MINIMUM OF ONE TEST FOR EVERY 2,500 SQUARE FEET OF FILL PLACED TO CONFIRM THE REQUIRED SOIL COMPACTION.

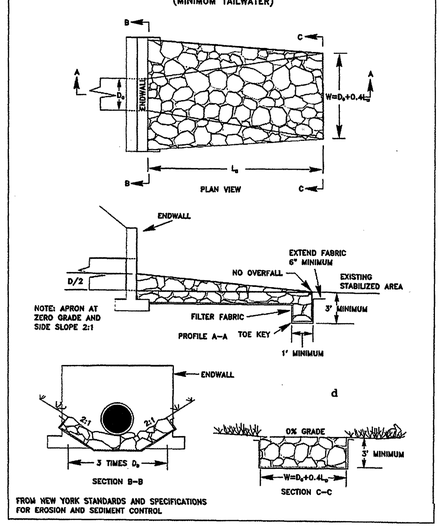


BIO- RETENTION CLEANOUT DETAIL

FIGURE 3.17.3

OUTLET PROTECTION

DISCHARGE TO UNCONFINED SECTION
(MINIMUM TAILWATER)



FROM NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

TABLE BR-9 MAINTENANCE TASKS FOR BIORETENTION PRACTICES

MAINTENANCE TASKS	FREQUENCY
– FOR THE FIRST 6 MONTHS FOLLOWING CONSTRUCTION, THE PRACTICE AND CDA SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED ½ IN. OF RAINFALL. CONDUCT ANY NEEDED REPAIRS OR STABILIZATION – INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CDS OR AROUND THE BIORETENTION AREA, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER – ONE-TIME, SPOT FERTILIZATION MAY BE NEEDED FOR INITIAL PLANTINGS – WATERING IS NEEDED ONCE A WEEK DURING THE FIRST 2 MONTHS, AND THEN AS NEEDED DURING FIRST GROWING SEASON (APRIL–OCTOBER), DEPENDING ON RAINFALL – REMOVE AND REPLACE DEAD PLANTS. UP TO 10% OF THE PLANT STOCK MAY DIE OFF IN THE FIRST YEAR. SO CONSTRUCTION CONTRACTS SHOULD INCLUDE A CARE AND REPLACEMENT WARRANTY TO ENSURE THAT VEGETATION IS PROPERTY ESTABLISHED AND SURVIVES DURING THE FIRST GROWING SEASON FOLLOWING CONSTRUCTION	UPON ESTABLISHMENT
– CHECK CURB CUTS AND INLETS FOR ACCUMULATED GRIT, LEAVES, AND DEBRIS THAT MAY BLOCK INFLOW	AT LEAST 4 TIMES A YEAR
– TRASH REMOVAL	TWICE DURING GROWING SEASON
– ADD REINFORCEMENT PLANTING TO MAINTAIN DESIRED THE VEGETATION DENSITY – REMOVE INVASIVE PLANTS USING RECOMMENDED CONTROL METHODS – REMOVE ANY DEAD OR DISEASED PLANTS – STABILIZE THE CDA TO PREVENT EROSION	AS NEEDED
– CONDUCT A MAINTENANCE INSPECTION	ANNUALLY
– REMOVE SEDIMENT AT INFLOW POINTS	ONCE EVERY 2 TO 3 YEARS

OUTFALL MARKER
OUTFALL #001
PERMIT #_____

For Info on NPDES Stormwater Permit
To comment on Sediment Control Plan:
Call: 800-654-5227
or
DEP_comments@wv.gov
DEP 601 57th Street SE, Charleston WV 25304
Application date: AUG 2022

DEVELOPER:
BERKELEY COUNTY PARKS & RECREATION
(304) 264-4842
SPRING MILLS COMMUNITY PARK
WVR # 111811

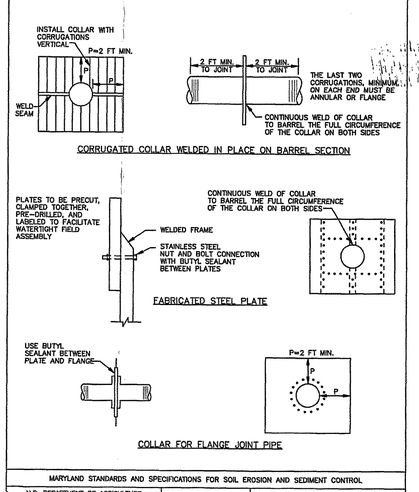
NPDES PUBLIC NOTICE/OUTFALL MARKER SIGN DETAIL

PUBLIC NOTICE SIGN REQUIREMENTS

THE GENERAL PERMIT STATES THAT "WITHIN 24 HOURS OF FILING AN NOI (ONE TO LESS THAN THREE ACRES) OR A SITE REGISTRATION APPLICATION (THREE ACRES OR MORE) WITH DWWM, ALL PROJECTS SHALL DISPLAY A SIGN FOR THE DURATION OF THE CONSTRUCTION PROJECT NEAR THE ENTRANCE OF THE PROJECT OR, FOR LINEAR PROJECTS, AT A LOCATION NEAR AN ACTIVE PART OF THE PROJECT THAT IS ACCESSIBLE BY THE PUBLIC.

THE SIGN SHALL BE A MINIMUM OF TWO FEET BY TWO FEET AND AT LEAST THREE FEET ABOVE GROUND LEVEL, CLEARLY VISIBLE AND LEGIBLE FROM A PUBLIC ROADWAY OR RIGHT-OF-WAY.

DETAIL G-2-1 TYPICAL ANTI-SEEP COLLARS — STANDARD SYMBOL



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

G.42

MATERIAL SPECIFICATIONS FOR BIORETENTION

MATERIAL	SPECIFICATIONS	NOTES
FILTER MEDIA	SAND 70–88% TOP-SOIL 8–26% ORGANIC MATTER 3–5% –SUPPLIED BY QUALIFIED VENDOR –REFER TO TABLE BR-5 FOR SPECIFIC MEDIA MATERIAL COMPOSITION	MINIMUM DEPTH OF 24"; 36" IS RECOMMENDED; (18" IF AN INFILTRATION SUMP IS USED) THE VOLUME OF FILTER MEDIA USED SHOULD BE BASED ON 110% OF THE PLAN VOLUME, TO ACCOUNT FOR SETTLING OR COMPACTION
FILTER MEDIA TESTING	BETWEEN 7 TO 21 MG./KG. OF P IN THE SOIL MEDIA. CEC's GREATER THAN 10	QUALIFIED VENDORS SHOULD TEST MEDIA IN BATCHES
TOP SOIL FOR GRASS COVER	LOAMY SANDY OR SANDY LOAM TEXTURE, WITH LESS THAN 5% CLAY CONTENT, PH CORRECTED TO BETWEEN 6 AND 7, AND AN ORGANIC MATTER CONTENT OF AT LEAST 2%	6 INCHES
CHOKING LAYER	LAYER OF CHOKER STONE (TYPICALLY #8 OR #89 WASHED GRAVEL), WHICH IS LAID OVER THE UNDERDRAIN STONE AT A DEPTH OF 1 IN. OF CHOKER STONE FOR EVERY 1' OF OVERLYING SOIL MEDIA (2" TOTAL)	
UNDERDRAIN STONE	1" DIAMETER STONE SHOULD BE DOUBLE-WASHED AND CLEAN AND FREE OF ALL FINES (ASTM D448 #57 STONE).	12" DEPTH
IMPERMEABLE LINER	USE 30-MIL (MIN.) PVC GEOMEMBRANE LINER COVERED BY 8 TO 12 OZ/SY NON-WOVEN GEOTEXTILE, COVERED BY MIN. 6" PROTECTIVE LAYER OF TOPSOIL/PERMEABLE MEDIA	
UNDERDRAINS, CLEANOUTS, AND OBSERVATION WELLS	USE 4" RIGID SCH 40 PVC PIPE (OR EQUIVALENT CORRUGATED HDPE FOR SMALL BIORETENTION PRACTICES), WITH ⅜" PERFORATIONS AT 6" ON CENTER	LAY THE PERFORATED PIPE UNDER THE LENGTH OF THE BIORETENTION CELL AND CONNECT TO THE OUTLET STRUCTURE. INSTALL T'S AND Y'S AS NEEDED, DEPENDING ON THE UNDERDRAIN CONFIGURATION. EXTEND CLEANOUT PIPES TO THE SURFACE WITH VENTED CAPS AT THE T'S AND Y'S
CLAY LINER	THE SWM POND LINER SHOULD CONSIST OF A MINIMUM OF 12 INCHES OF CLAY COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AND WITHIN A RANGE OF 2% DRY TO 4% WET OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 698 (STANDARD PROCTOR). ANY ROCK ENCOUNTERED WITHIN THE SWM POND SHOULD BE UNDERCUT AT LEAST 12 INCHES AND COVERED WITH CONTROLLED AND COMPACTED CLAY SOILS. USE OF AN HDPE, GCL AND/OR PVC TYPE SYNTHETIC LINER CAN ALSO BE CONSIDERED AS A SUBSTITUTE FOR THE CLAY LINER. A MINIMUM 6 INCH PROTECTIVE LAYER OF TOPSOIL OR PERMEABLE MEDIA SHOULD BE PLACE OVER ANY CLAY OR SYNTHETIC LINER.	12" MIN.

SWM INSTALLATION SEQUENCE

1. CONSTRUCTION OF THE STORMWATER MANAGEMENT AREA WILL BE REQUIRED UPON COMPLETION OF THE IMPROVEMENT PROPOSED AS PART OF THIS PLAN.

2. CONSTRUCTION OF THE BIORETENTION AND EXTENDED DETENTION AREAS MAY ONLY BEGIN AFTER THE ENTIRE CONTRIBUTORY DRAINAGE AREAS (CDA) HAVE BEEN STABILIZED WITH VEGETATION. IT MAY BE NECESSARY TO BLOCK CERTAIN CURB OR OTHER INLETS WHILE THE STORMWATER AREAS ARE BEING CONSTRUCTED. THE PROPOSED SITE SHOULD BE CHECKED FOR EXISTING UTILITIES PRIOR TO ANY EXCAVATION.

3. THE DESIGNER AND THE INSTALLER SHOULD HAVE A PRECONSTRUCTION MEETING, CHECKING THE BOUNDARIES OF THE CDA AND THE ACTUAL INFLOW ELEVATIONS TO ENSURE THEY CONFORM TO ORIGINAL DESIGN. SINCE OTHER CONTRACTORS MAY BE RESPONSIBLE FOR CONSTRUCTING PORTIONS OF THE SITE, IT IS QUITE COMMON TO FIND SUBTLE DIFFERENCES IN SITE GRADING, DRAINAGE AND PAVING ELEVATIONS THAT CAN PRODUCE HYDRAULICALLY IMPORTANT DIFFERENCES FOR THE PROPOSED BIORETENTION AREAS. THE DESIGNER SHOULD CLEARLY COMMUNICATE, IN WRITING, ANY PROJECT CHANGES DETERMINED DURING THE PRECONSTRUCTION MEETING TO THE INSTALLER AND THE PLAN REVIEW / INSPECTION AUTHORITY.

4. TEMPORARY APPROVED EROSION AND SEDIMENT CONTROLS ARE NEEDED DURING CONSTRUCTION OF THE STORMWATER MANAGEMENT AREAS TO DIVERT STORMWATER AWAY FROM THE BIORETENTION AREAS UNTIL IT IS COMPLETED. SPECIAL PROTECTION MEASURES SUCH AS EROSION CONTROL FABRICS MAY BE NEEDED TO PROTECT VULNERABLE SIDE SLOPES FROM EROSION DURING THE CONSTRUCTION PROCESS. IN CASES WHERE THE BIORETENTION IS CO-LOCATED WITH EROSION AND SEDIMENT CONTROL PRACTICES (e.g., SEDIMENT TRAPS), THE CONDITIONS NOTED IN SECTION BR-7.1 MUST BE FOLLOWED.

5. EXCAVATE THE BIORETENTION CELL TO THE BOTTOM ELEVATION USING THE PROVIDED GEOTECHNICAL GUIDANCE ON THIS SHEET, PARTICULARLY FOR ROCK EXCAVATION. EXCAVATORS OR BACKHOES SHOULD WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHOULD HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT HAVE TO SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. CONTRACTORS SHOULD USE A CELL CONSTRUCTION APPROACH IN LARGER BIORETENTION BASINS, WHEREBY THE BASIN IS SPLIT INTO 500 TO 1,000 sq ft TEMPORARY CELLS WITH A 10-15 FOOT EARTH BRIDGE IN BETWEEN, SO THAT CELLS CAN BE EXCAVATED FROM THE SIDE.

6. AT THE SUBGRADE ELEVATION OF THE FACILITY, PLACE MIN. 12" CLAY LINER USING THE PROVIDED SPECIFICATIONS. INSTALL MODIFIED OUTLET STRUCTURE, ENSURING THAT 3" WIDE WEIR HAS BEEN INSTALLED OR PRECAST IN THE STRUCTURE WITH THE APPROPRIATE INVERT ELEVATION. INSTALL NO. 57 STONE AND EMBEDDED PERFORATED UNDERDRAIN PIPE AS WELL AS CLEANOUTS WHERE INDICATED.

7. BACKFILL No. 57 STONE TO THE APPROPRIATE ELEVATION. ADD 2 INCHES OF CHOKER STONE (No. 8 OR No. 89 STONE) PRIOR TO BACKFILLING WITH BIORETENTION MEDIA AND TOPSOIL. INSTALL SOIL MEDIA AND TOPSOIL IN THE BIORETENTION CELL.

8. INSTALL TEMPORARY EROSION CONTROL MATTING ALONG FACILITY SIDE SLOPES AND PERMANENTLY SEED INTERIOR SIDES AND BOTTOM OF THE FACILITY WITH ERNST CONSERVATION SEED MIX ERNMX-180.

9. IF CURB CUTS OR INLETS ARE BLOCKED DURING BIORETENTION INSTALLATION, UNBLOCK THESE AFTER THE DRAINAGE AREA AND SIDE SLOPES HAVE GOOD VEGETATIVE COVER. IT IS RECOMMENDED THAT UNBLOCKING CURB CUTS AND INLETS TAKE PLACE AFTER TWO TO THREE STORM EVENTS IF THE DRAINAGE AREA INCLUDES NEWLY INSTALLED ASPHALT, SINCE NEW ASPHALT TENDS TO PRODUCE A LOT OF FINES AND GRIT DURING THE FIRST SEVERAL STORMS.

10. CONDUCT THE FINAL CONSTRUCTION INSPECTION, THEN LOG THE GPS COORDINATES FOR THE STORMWATER FACILITY AND SUBMIT THEM FOR ENTRY INTO THE LOCAL TRACKING DATABASE.

PRELIMINARY PLAN APPROVED
DATE: 8-1-2022
LAMA CASE #2111-[redacted]
Linda Barnhart
LINDA BARNHART, PRESIDENT
BERKELEY COUNTY ~~PLANNING COMMISSION~~

LAMA CASE #2111-403

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FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733-8503
or (301)416-7250
FAX: (301)733-1653
82 WORMANS MILL COURT
SUITE "G"
FREDERICK, MD. 21701
PHONE: (301)695-0880
FAX: (301)293-6009
Email: foxassoc@foxassociatesinc.com
www.foxassociatesinc.com

DRAWN BY
REVISION
DATE

SWM NOTES & DETAILS
TM. 14, P 1.15 & 1.23
DB 750, PG 306 & DB 659, PG 678
SPRING MILLS COMMUNITY PARK
SITUATE ALONG THE EAST SIDE OF SAINT ANDREWS DRIVE
FALLING WATERS DISTRICT - 02
BERKELEY COUNTY, WEST VIRGINIA

SCALE: NTS

MICHAEL HUBERT SHILLER
REGISTERED
12342
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
8-4-22

LICENSE No.: _____ EXP. DATE: _____

PROJECT NO. 20-70145
DRAWING NO. D-6816
DATE: OCTOBER, 2021
DRAWN BY: S.M.F.
CHECKED BY: M.H.S.

SHEET 9 OF 9

H:\OTHER\SP-MILLS\20-70145 Spring Mills Community Park\Engineering\Drawings\02 Improvement Plan\08-09-SWM.dwg, Aug 04, 2022 - 10:12am User: mstiller