

SP 2025-00006 SPECIAL USE PERMIT APPLICATION FOR FILL IN THE FLOODPLAIN
FOR
WOOLEN MILLS LIGHT INDUSTRIAL PARK
TAX MAP 77, PARCELS 40B2
SCOTTSVILLE DISTRICT, ALBEMARLE COUNTY, VIRGINIA

SITE DATA

SITE PLAN NUMBER: SDP201600076, SDP201800065

ZMA NUMBER: ZMA201800017

WPO PLAN NUMBER: WPO201600072

LEGAL REFERENCE: TM 77, PARCEL 40B2

RECORDED PLATS & DEEDS: DB 5210-304, DB 4796-325, DB 4673-132, DB 4790-637, DB 4935-90, DB 4797-416, DB 676-326, DB 4893-401, DB 4797-428, DB 4796-325, DB 4452-283, DB 4111-180, DB 3088-272, DB 2797-29, DB 2797-623, DB 1751-156, DB 900-440, DB 274-70 DB 5198-30, DB 5198-45, DB 5177-1, DB 5515-392, DB 5515-408, DB 5515-414.

OWNER/APPLICANT: ELEMENTAL ECOTECH, INC.
809 BOLLING AVE, UNIT C
CHARLOTTESVILLE, VA 22902

MAGISTERIAL DISTRICT: SCOTTSVILLE

ZONING DISTRICT: LI - LIGHT INDUSTRY, FLOOD HAZARD, STEEP SLOPES (MANAGED AND PRESERVED)

PROPOSED USE: FILL IN FLOODPLAIN

PARCEL AREA: 7.081 ACRES

EXCLUDED AREA: AREA X, 0.446 ACRES, AS SHOWN ON SHEET SP3 IS NOT SUBJECT TO SP 2025-00006 OR ANY CONDITION OF APPROVAL ASSOCIATED WITH SP 2025-00006.

PARCEL ADDRESS: NOT ASSIGNED

SOURCE OF BOUNDARY: PLAT RECORDED IN DB 4893, PG 401

SOURCE OF TOPOGRAPHY: TOPOGRAPHIC SURVEY PERFORMED BY DRAPER ADEN, DATED FEBRUARY 20, 2015
TOPOGRAPHY WAS VISUALLY VERIFIED BY TIMOTHY MILLER ON JUNE 30, 2024. THERE IS A TEMPORARY STOCKPILE ON A PORTION OF THE PROPERTY.

FLOODPLAIN: PORTION OF PARCEL IS IN ZONE X AS SHOWN ON FEMA MAP NO. 51003C0289D, EFFECTIVE DATE FEBRUARY 4, 2005, AND MAP REVISION DATED FEBRUARY 6, 2017. 100-YEAR FLOOD ELEVATION IS 324.00.

PUBLIC WATER SUPPLY: THIS PARCEL IS NOT LOCATED WITHIN A PUBLIC WATER SUPPLY RESERVOIR WATERSHED.

BUILDING SETBACK: FRONT MINIMUM: 10' FROM THE RIGHT-OF-WAY OR THE EXTERIOR EDGE OF THE SIDEWALK IF THE SIDEWALK IS OUTSIDE OF THE RIGHT-OF-WAY.
FRONT MAXIMUM: NONE
SIDE AND REAR MINIMUM: PRIMARY STRUCTURE SHALL BE CONSTRUCTED AND SEPARATED IN ACCORDANCE WITH THE CURRENT EDITION OF THE BUILDING CODE.
SIDE AND REAR MAXIMUM: NONE
IF THE ABUTTING LOT IS ZONED RESIDENTIAL, RURAL AREAS, OR THE MONTICELLO HISTORIC DISTRICT: (i) NO PORTION OF ANY STRUCTURE, EXCLUDING SIGNS, SHALL BE LOCATED CLOSER THAN 50 FEET FROM THE DISTRICT BOUNDARY; AND (ii) NO PORTION OF ANY OFF-STREET PARKING SPACE SHALL BE LOCATED CLOSER THAN 30 FEET FROM THE DISTRICT BOUNDARY.

BUILDING STEPBACK: FRONT: FOR EACH STORY THAT THAT BEGINS ABOVE 40' IN HEIGHT OR FOR EACH STORY ABOVE THE THIRD STORY, WHICHEVER IS LESS, THE MINIMUM STEPBACK SHALL BE 15'.
SIDE AND REAR: NONE

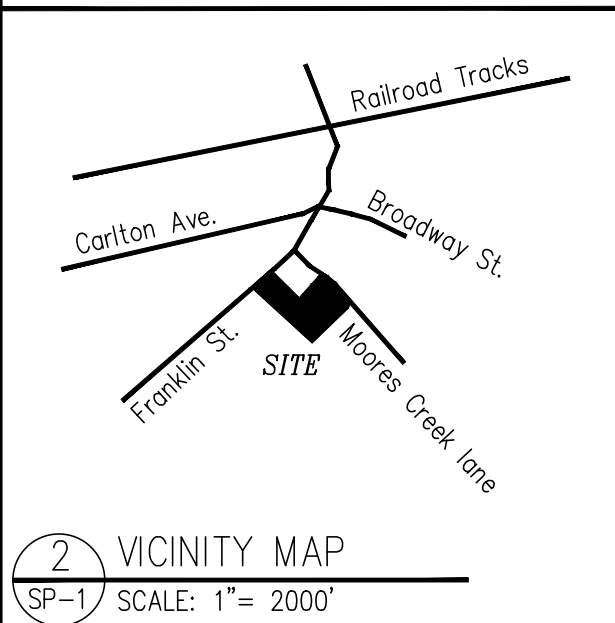
BUILDING HEIGHTS: MAXIMUM STRUCTURE HEIGHT: 65'
THE MINIMUM STEPBACK REQUIREMENTS FOR ANY STORY THAT BEGIN ABOVE FORTY (40) FEET IN HEIGHT OR FOR EACH STORY ABOVE THE THIRD STORY, WHICHEVER IS LESS, IN HEIGHT SHALL BE AS PROVIDED IN SECTION 4.20.

PARKING SETBACK: FRONT MINIMUM (OFF-STREET PARKING AND LOADING SPACES): 10' FROM ANY PUBLIC STREET RIGHT-OF-WAY.

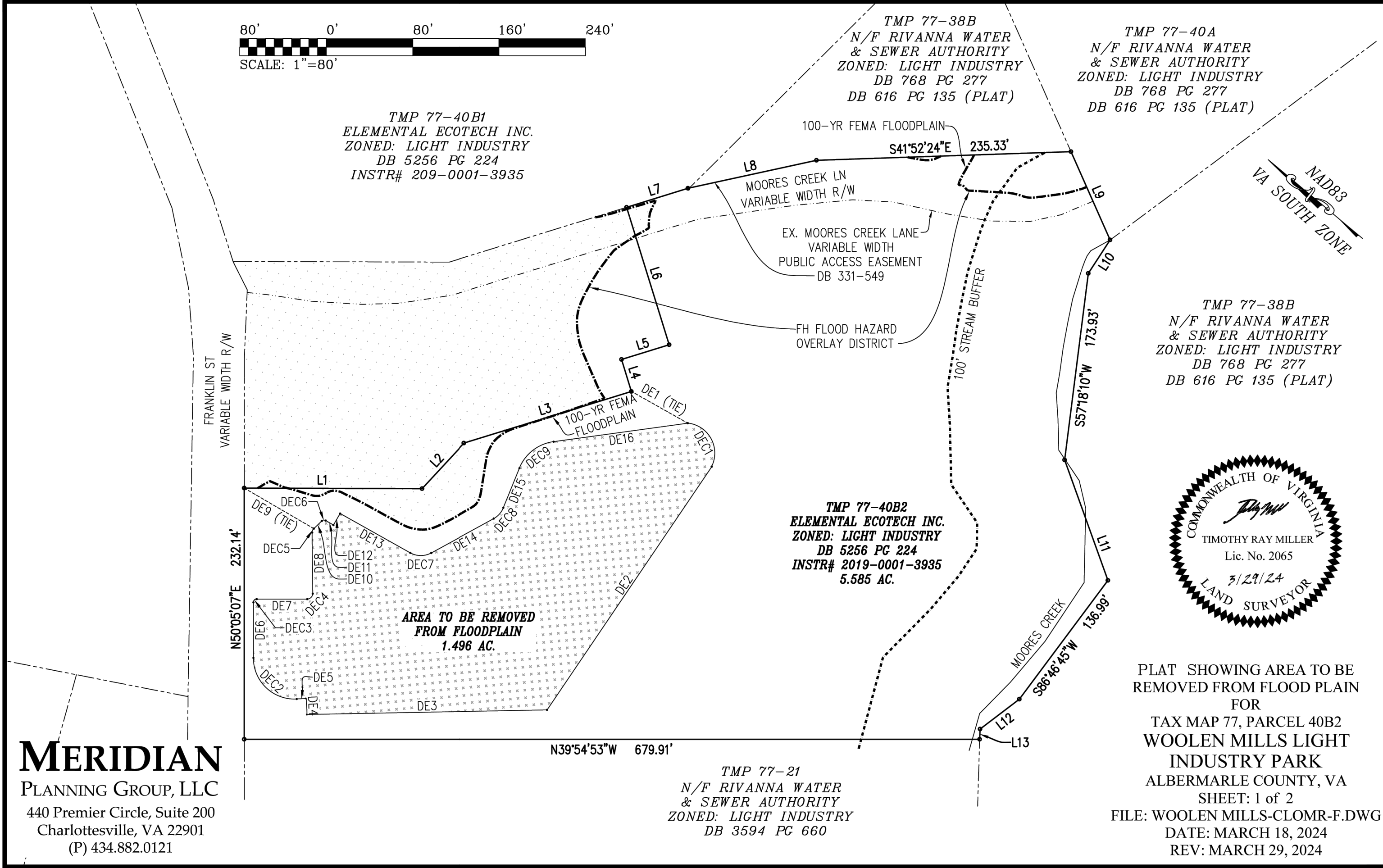
SHEET INDEX

SP-1 COVERSHEET
SP-2 EXISTING CONDITIONS PLAN
SP-3 CONCEPT PLAN
SP-4 DETAILS
SP-5 STORM WATER QUALITY CALCULATIONS

LEGEND	
DB	DEED BOOK
PG	PAGE
FH	FIRE HYDRANT
WV	WATER VALVE
WM	WATER METER
FTE	FINISHED FLOOR ELEVATION
UFE	UPPER FINISHED FLOOR ELEVATION
BSL	BUILDING SETBACK LINE
PSL	PARKING SETBACK LINE
PP	POWER POLE
SCC	STORMWATER CONVEYANCE CHANNEL
WP	WALL PACK
NPS	FIRE LANE NO PARKING SIGN
--- ULD ---	ULTIMATE LIMITS OF DISTURBANCE
--- TP ---	TREE PROTECTION FENCING
--- FHOD ---	FLOOD HAZARD OVERLAY DISTRICT
	PRESERVED SLOPES PER GIS
	MANAGED SLOPES PER GIS
	AREA TO BE REMOVED FROM FLOODPLAIN
	PROPOSED SWM FOREST AND OPEN SPACE EASEMENT
	AREA TO BE DEDICATED TO ALBEMARLE COUNTY



2 VICINITY MAP
SP-1 SCALE: 1"= 2000'

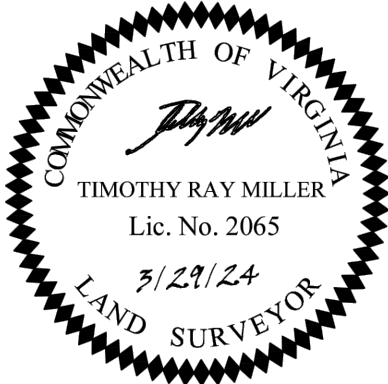


MERIDIAN
PLANNING GROUP, LLC
440 Premier Circle, Suite 200
Charlottesville, VA 22901
(P) 434.882.0121

BOUNDARY LINE TABLE		
Line	Direction	Length
L1	S 39°44'54" E	164.28'
L2	S 87°03'25" E	57.44'
L3	S 57°03'54" E	162.00'
L4	N 32°56'06" E	31.00'
L5	S 57°03'54" E	46.00'
L6	N 32°56'08" E	132.99'
L7	S 57°04'18" E	59.27'
L8	S 52°12'04" E	121.52'
L9	S 26°11'08" W	89.22'
L10	S 83°11'08" W	36.90'
L11	S 30°17'50" W	118.27'
L12	N 77°07'11" W	45.67'
L13	S 52°11'03" W	9.42'

PORTION TO BE REMOVED FROM THE FLOODPLAIN LINE TABLE		
Line	Direction	Length
DE1 (TIE)	S 10°29'43" E	59.74'
DE2	N 84°10'21" E	271.45'
DE3	S 41°00'46" E	222.18'
DE4	S 47°04'36" W	14.82'
DE5	S 42°55'24" E	8.82'
DE6	S 50°05'08" W	51.37'
DE7	N 39°54'52" W	46.77'
DE8	S 49°30'57" W	56.48'
DE9 (TIE)	S 09°42'13" E	74.31'
DE10	N 83°35'59" W	10.15'
DE11	N 09°53'08" W	8.34'
DE12	S 80°06'52" W	12.33'
DE13	N 10°38'35" W	74.35'
DE14	N 68°34'23" W	66.19'
DE15	S 72°16'55" W	39.50'
DE16	N 47°47'12" W	125.13'

PORTION TO BE REMOVED FROM THE FLOODPLAIN CURVE TABLE						
Curve	Length	Radius	Delta	Tangent	Chord	Chord Bearing
DEC1	53.89'	27.93'	110°34'04"	40.30'	45.91'	N 21°15'57" E
DEC2	61.69'	38.00'	93°00'32"	40.05'	55.13'	S 03°34'52" W
DEC3	4.71'	3.00'	90°00'00"	3.00'	4.24'	N 84°54'52" W
DEC4	7.90'	5.00'	90°34'11"	5.05'	7.11'	N 85°11'58" W
DEC5	4.09'	5.00'	46°53'04"	2.17'	3.98'	S 72°57'29" W
DEC6	3.86'	3.00'	73°42'51"	2.25'	3.60'	N 46°44'33" W
DEC7	20.22'	20.00'	57°55'48"	11.07'	19.37'	N 39°36'29" W
DEC8	13.66'	20.00'	39°08'42"	7.11'	13.40'	N 88°08'44" W
DEC9	41.84'	40.00'	59°55'53"	23.06'	39.96'	N 77°45'08" W



PLAT SHOWING AREA TO BE
REMOVED FROM FLOOD PLAIN
FOR
TAX MAP 77, PARCEL 40B2
WOOLEN MILLS LIGHT
INDUSTRY PARK
ALBERMARLE COUNTY, VA
SHEET: 2 of 2
FILE: WOOLEN MILLS-CLOMR-F.DWG
DATE: MARCH 18, 2024
REV: MARCH 29, 2024

MERIDIAN
PLANNING GROUP, LLC
440 Premier Circle, Suite 200
Charlottesville, VA 22901
(P) 434.882.0121

1 PLAT FOR FDP 202400001 FEMA CLOMR-F
SP-1 SCALE: 1"= 80'



JOB NO.	DATE	AS SHOWN	DRAWN BY	DESIGNED BY	CHECKED BY
	08/18/25		TRM		

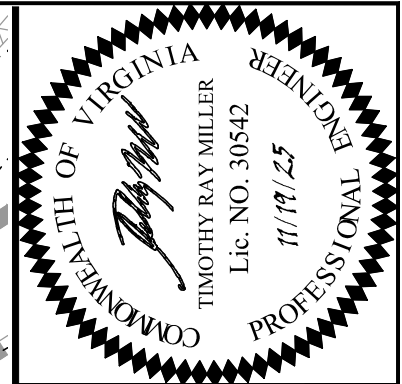
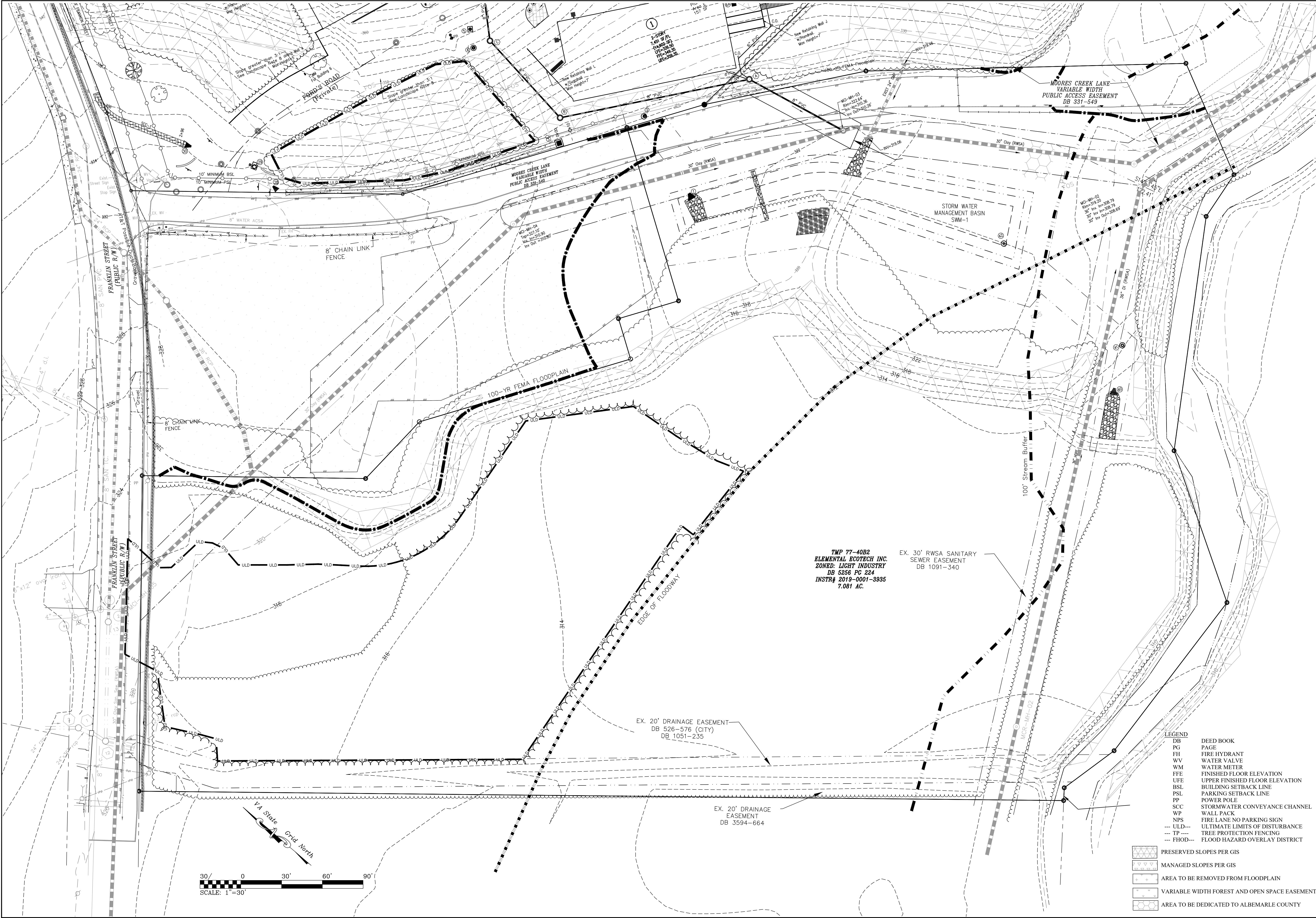
MERIDIAN
CIVIL - SURVEY, PLLC
195 Riverbend Drive, Suite 4
Charlottesville, Va 22911
www.meridianwbe.com

DATE	DESCRIPTION	NO.
11/19/25	ADDED EXCLUDED AREA X	1

DATE	DESCRIPTION	NO.
11/19/25	ADDED EXCLUDED AREA X	1

PROJECT TITLE: SPECIAL USE PERMIT
APPLICATION PLAN FOR
WOOLEN MILLS INDUSTRIAL PARK
SHEET TITLE: COVERSHEET

SHEET NO.
SP-1
SHEET 1 of 4



JOB NO.	08/18/25
DATE:	AS SHOWN
SCALE:	TERM
DRAWN BY:	DESIGNED BY:
CHECKED BY:	

MERIDIAN
CIVIL - SURVEY, PLLC
195 Riverbend Drive, Suite 4
Charlottesville, Va 22911
www.meridianwbe.com

NO.	DESCRIPTION	DATE
1	ADDED EXCLUDED AREA X	11/19/23

PROJECT TITLE:	
SPECIAL USE PERMIT APPLICATION PLAN FOR WOOLEN MILLS INDUSTRIAL PARK	
SHEET TITLE:	
EXISTING CONDITIONS	

PROJECT TITLE:
SPECIAL USE PERMIT
APPLICATION PLAN FOR
WOOLEN MILLS INDUSTRIAL PARK

SHEET NO.
SP-2

SHEET 2 of 4

- PRESERVED SLOPES PER GIS

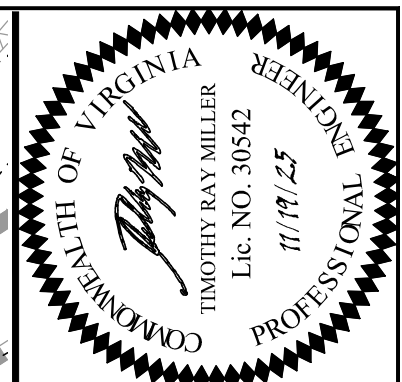
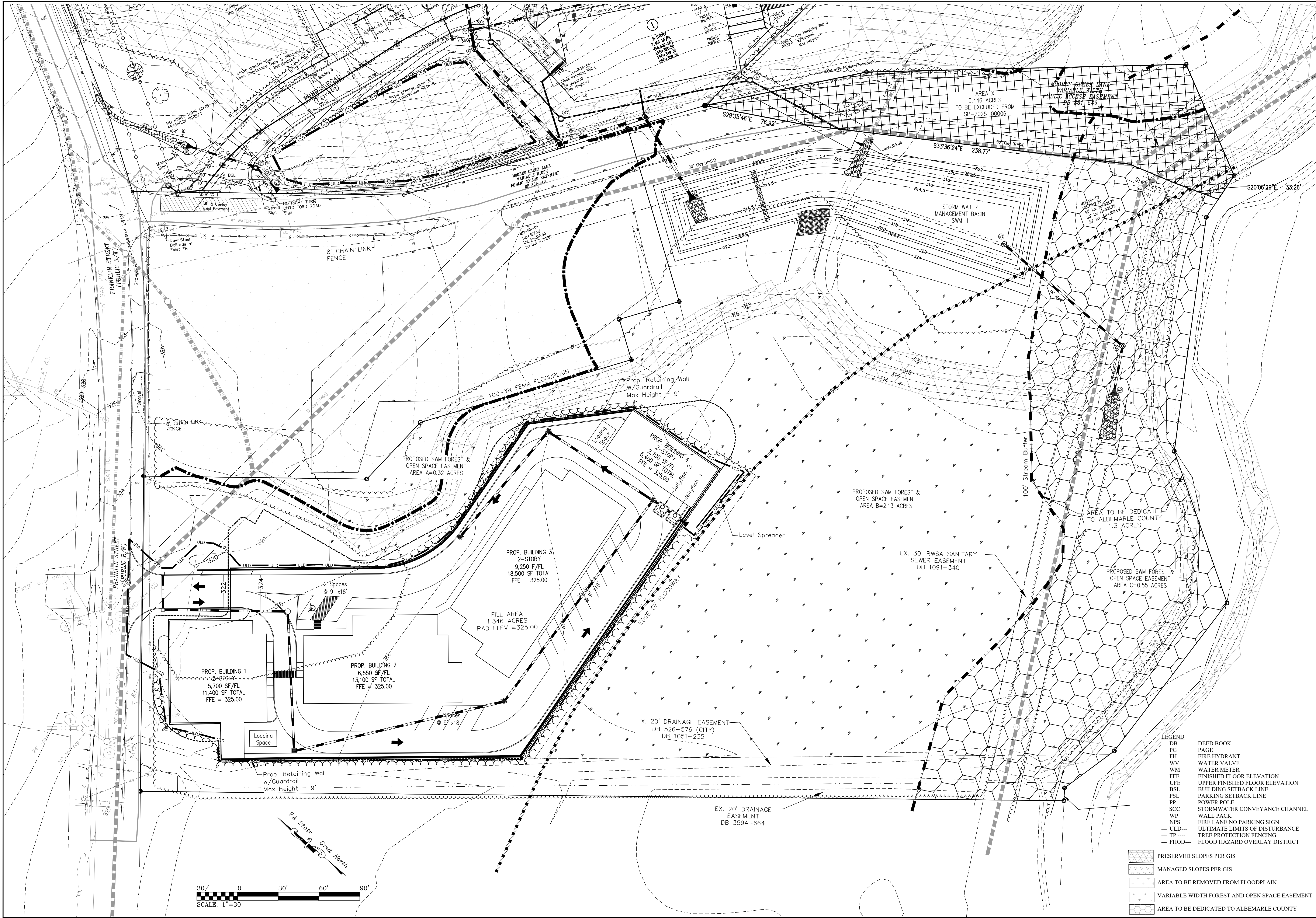
MANAGED SLOPES PER GIS

AREA TO BE REMOVED FROM FLOODPLAIN

VARIABLE WIDTH FOREST AND OPEN SPACE EASEMENT

AREA TO BE DEDICATED TO ALBEMARLE COUNTY
- LEGEND

DB DEED BOOK
PG PAGE
FH FIRE HYDRANT
WV WATER VALVE
WM WATER METER
FPE FINISHED FLOOR ELEVATION
UFE UPPER FINISHED FLOOR ELEVATION
BSL BUILDING SETBACK LINE
PSL PARKING SETBACK LINE
PP POWER POLE
SCC STORMWATER CONVEYANCE CHANNEL
WP WALL PACK
NPS FIRE LANE NO PARKING SIGN
ULD ULTIMATE LIMITS OF DISTURBANCE
TP TREE PROTECTION FENCING
FHOD FLOOD HAZARD OVERLAY DISTRICT



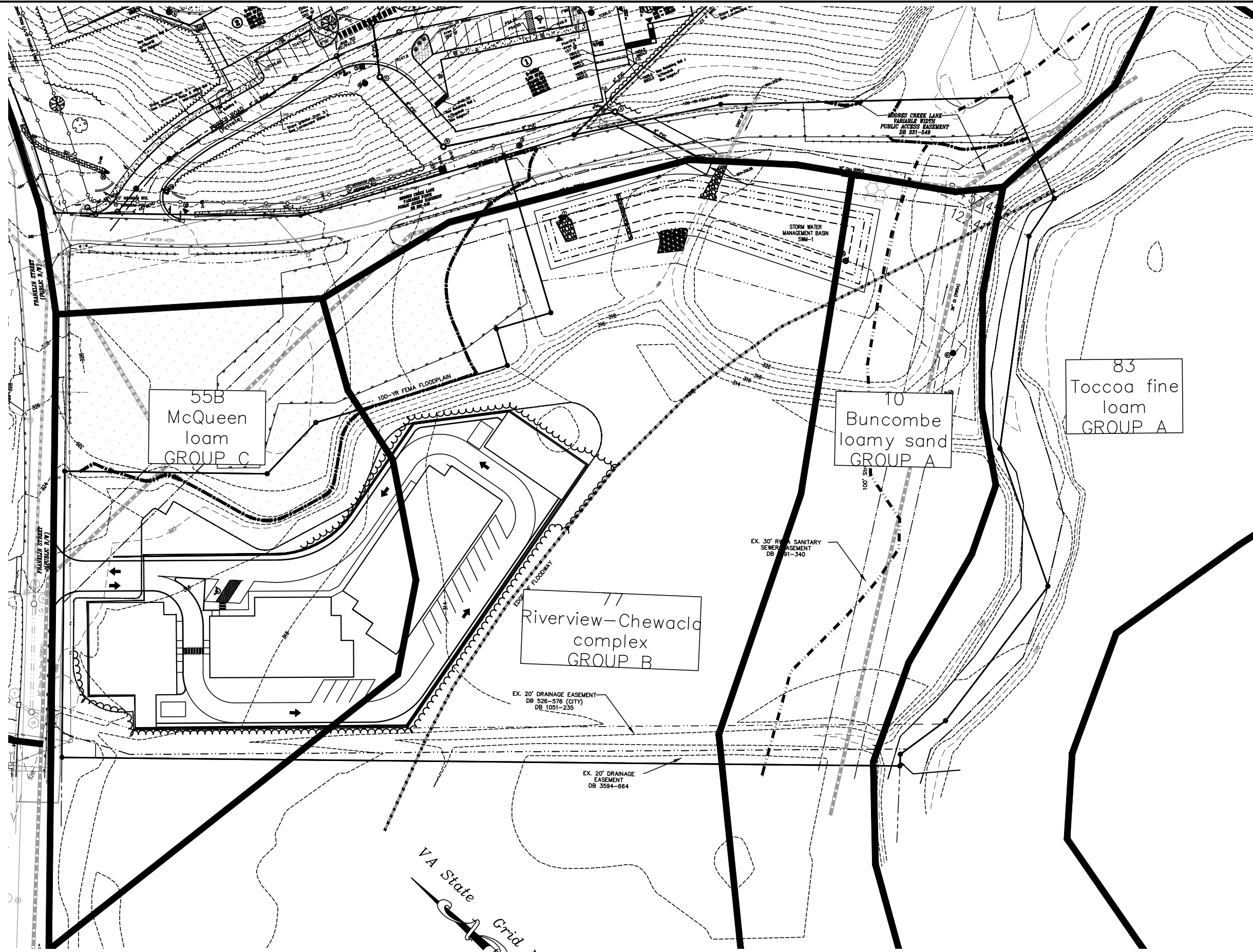
JOB NO.	08/18/25
DATE	AS SHOWN
SCALE	BY: TEM
DRAWN BY	DESIGNED BY:
CHECKED BY:	

MERIDIAN
CIVIL - SURVEY, PLLC
195 Riverbend Drive, Suite 4
Charlottesville, Va 22911
www.meridianwbe.com

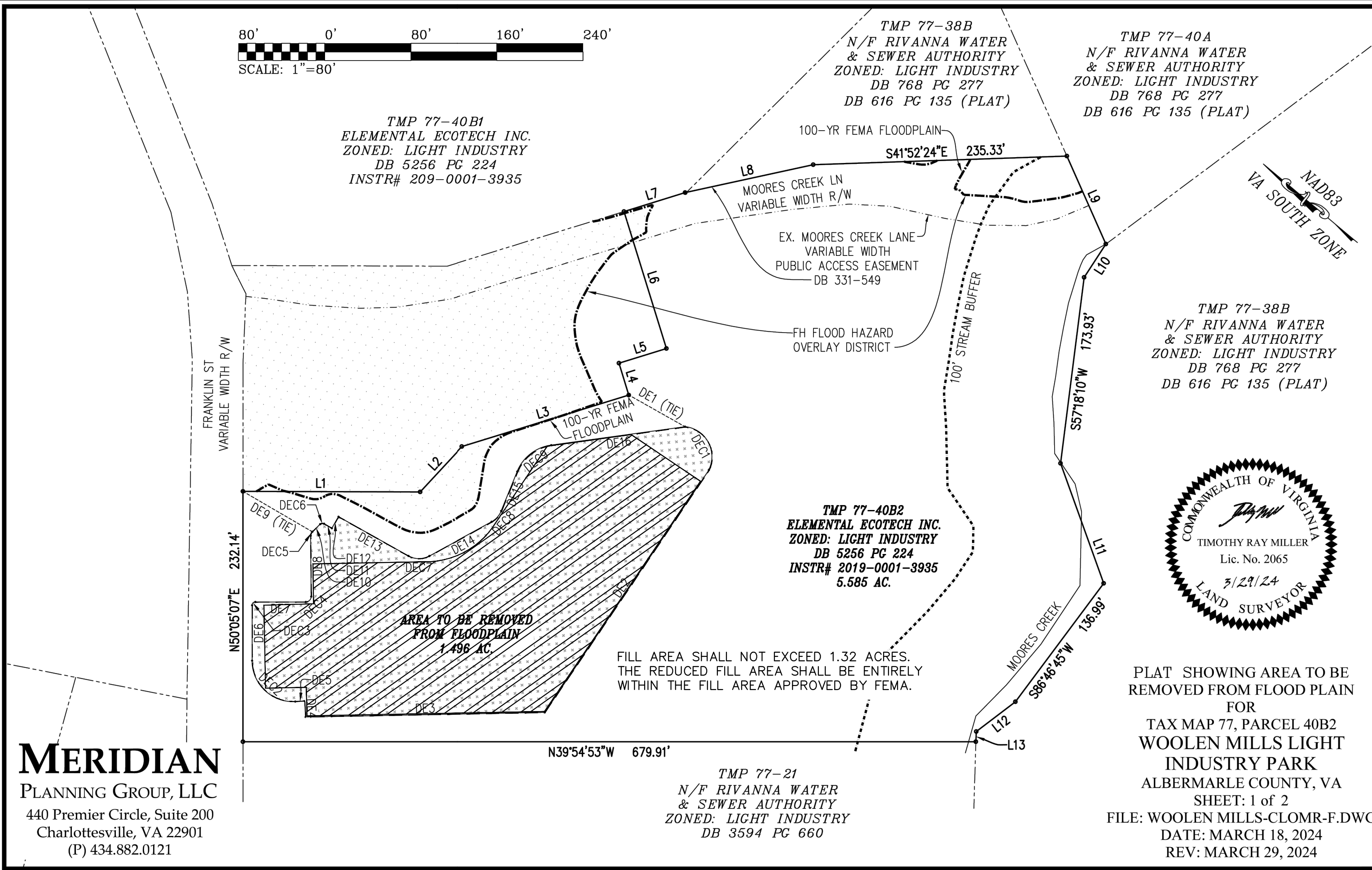
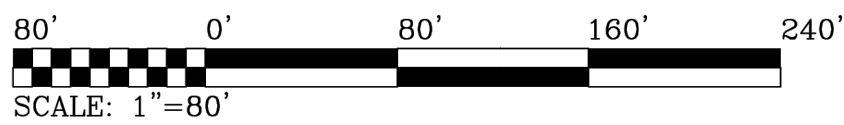
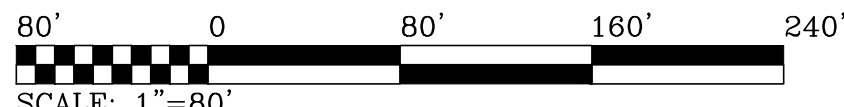
PROJECT TITLE:	DATE
SPECIAL USE PERMIT	11/19/25
APPLICATION PLAN FOR	
WOOLEN MILLS INDUSTRIAL PARK	

NO.	DESCRIPTION	DATE
1	ADDED EXCLUDED AREA X	

SHEET TITLE:	
CONCEPT PLAN	
SHEET NO.	
SP-3	
SHEET 3 of 4	



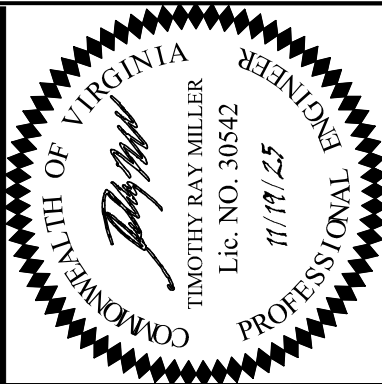
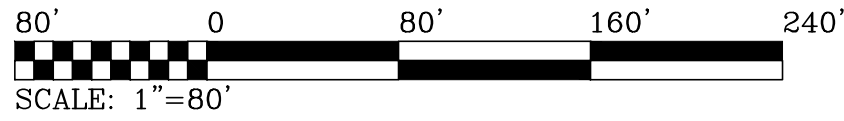
3 SOILS MAP
SP-4 SCALE: 1" = 80'



MERIDIAN
PLANNING GROUP, LLC
440 Premier Circle, Suite 200
Charlottesville, VA 22901
(P) 434.882.0121

PLAT' SHOWING AREA TO BE REMOVED FROM FLOOD PLAIN FOR TAX MAP 77, PARCEL 40B2 WOOLEN MILLS LIGHT INDUSTRY PARK ALBERMARLE COUNTY, VA SHEET: 1 of 2 FILE: WOOLEN MILLS-CLOMR-F.DWG DATE: MARCH 18, 2024 REV: MARCH 29, 2024

4 PROPOSED FILL AREA
SP-4 SCALE: 1" = 80'



JOB NO.	08/18/25
DATE:	AS SHOWN
SCALE:	TERM
DRAWN BY:	DESIGNED BY:
CHECKED BY:	

MERIDIAN
CIVIL - SURVEY, PLLC
195 Riverbend Drive, Suite 4
Charlottesville, Va 22911
www.meridianwb.com

DATE	11/19/25
DESCRIPTION	ADDED EXCLUDED AREA X
NO.	1

PROJECT TITLE: SPECIAL USE PERMIT APPLICATION PLAN FOR WOOLEN MILLS INDUSTRIAL PARK
SHEET TITLE: DETAILS

SHEET NO. SP-4
SHEET 4 of 4

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)		0.46	0.81		1.27	0.95

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr)	2.75
Post Development Treatment Volume in D.A. A (ft ³)	4,380

Stormwater Best Management Practices (RR = Runoff Reduction)

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)
11. Filtering Practices (no RR)												
11.a.Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00
11.b. Filtering Practice #2 (Spec #12)	0		1.27	0	0	4,380	4,380	65	0.00	2.75	1.79	0.96

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	1.27	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	1.27	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft³) 4,993

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft ³)	0	0	0	0	0	0
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	2.75	0.00	0.00	0.00	0.00	2.75
TP LOAD REDUCTION ACHIEVED (lb/yr)	1.79	0.00	0.00	0.00	0.00	1.79
TP LOAD REMAINING (lb/yr)	0.97	0.00	0.00	0.00	0.00	0.97

NITROGEN LOAD REDUCTION ACHIEVED (lb/yr) 8.85

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	3.14
TP LOAD REDUCTION REQUIRED (lb/yr)	1.26
TP LOAD REDUCTION ACHIEVED (lb/yr)	1.79
TP LOAD REMAINING (lb/yr)	1.35
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00 **

** TARGET TP REDUCTION EXCEEDED BY 0.53 LB/YEAR **

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	22.44
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	8.85
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	13.59

TOTAL REMOVAL = 1.26 + 0.53 = 1.79 LBS/YR

JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SIZE, TYPE AND QUANTITY. THE STANDARD PEAK DIVERSION VAULT WITH PRECAST TOP SLAB IS SHOWN. THE 8' x 8' (2438) JELLYFISH PEAK TREATMENT CAPACITY IS 2.94 CFS (83.25 L/s). MAXIMUM BYPASS CAPACITY IS DETERMINED BY CONTECH ENGINEERED SOLUTIONS. IF THE SITE CONDITIONS EXCEED THE TOTAL BYPASS CAPACITY OF THE SYSTEM, AN UPSTREAM DIVERSION STRUCTURE IS REQUIRED.

CARTRIDGE SIZE	64	40	27	15
FLOW RATE HIGH FLO / DRAINDOWN (cfs [L/s])	0.1780 (0.69 [5.10/2.55])	0.1330 (0.65 [3.68/1.84])	0.0890 (0.45 [2.55/1.28])	0.0490 (0.22 [1.42/0.71])
MAXIMUM CARTRIDGE QUANTITY, HI-FLO / DRAINDOWN	15/3			
MAXIMUM TREATMENT	2.94 (83.25)	2.21 (62.58)	1.47 (41.83)	0.81 (22.94)
OUTLET INVERT TO STRUCTURE INVERT (A) (ft. [mm])	6.50 (1981)	5.33 (1625)	4.25 (1295)	3.25 (991)
FINISHED GRADE TO OUTLET INVERT (SHALLOW) (B)	DETERMINED BY CONTECH			
FINISHED GRADE TO OUTLET INVERT (STANDARD) (B) (ft. [mm])	5.67 (1727)		4.58 (1396)	

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	
WATER QUALITY FLOW RATE (cfs [L/s])	
PEAK FLOW RATE (cfs [L/s])	
RETURN PERIOD OF PEAK FLOW (yrs)	
NUMBER OF CARTRIDGES REQUIRED (HF / DD)	
CARTRIDGE SIZE (64, 40, 27, 15)	
RIM ELEVATION	
PIPE DATA	
INLET PIPE 1	
INLET PIPE 2	
OUTLET PIPE	
SEE GENERAL NOTES 7-8 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS	
NOTES/SPECIAL REQUIREMENTS:	

24" TRENCH COVER

SHALLOW TOP SLAB CONFIGURATION (LENGTH VARIES) NOT TO SCALE

FRAME AND COVER

STANDARD TOP SLAB CONFIGURATION (DIAMETER VARIES) NOT TO SCALE

GENERAL NOTES:

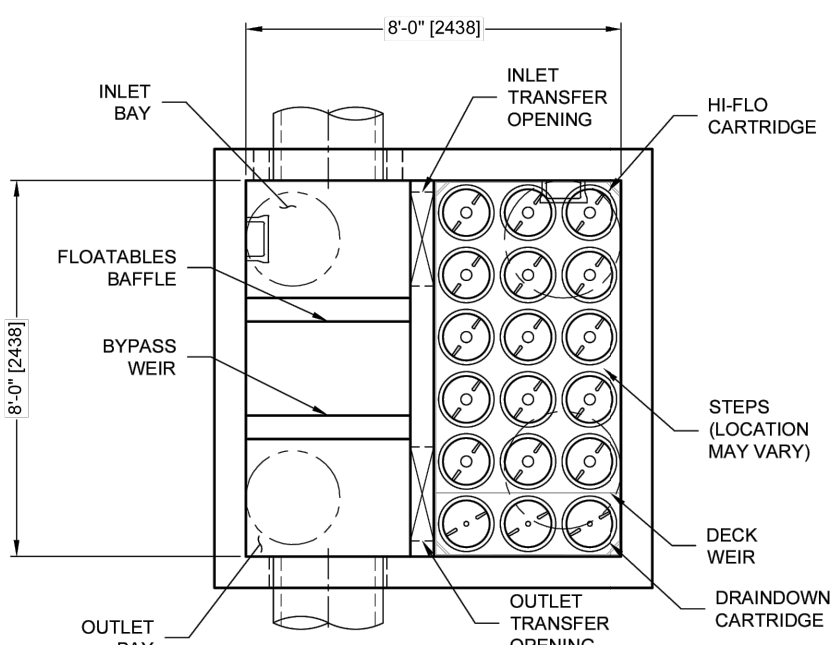
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.contechES.com
- ALTERNATE UNITS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
- JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO H8-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ASSUMING EARTH COVER OF 0' - 10' (3048) AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
- STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-897, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
- OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
- THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
- NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES:

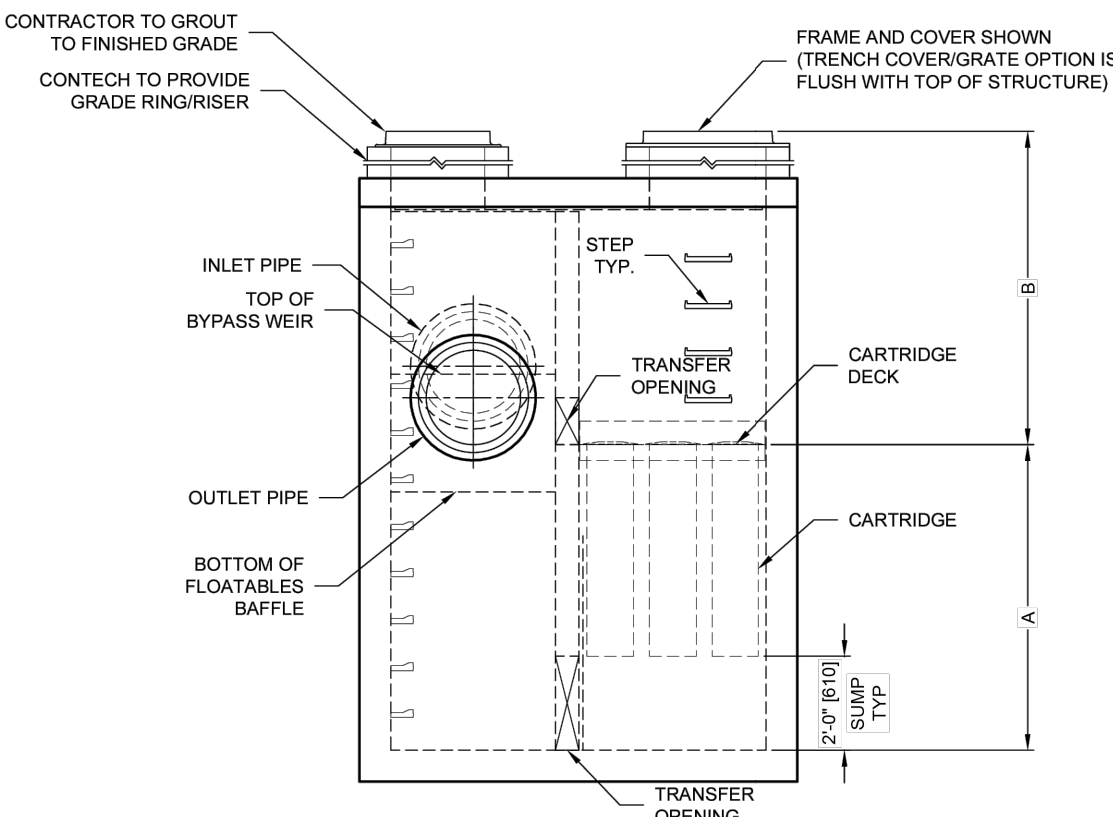
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
- CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
- WHEN ACTIVATED PRIOR TO SITE STABILIZATION, CONTRACTOR TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
- CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ACCORDING TO THE PROVISIONS IN THE ACTIVATION CHECKLIST AND THE QUOTED SCOPE OF WORK. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (800) 338-1122.



JELLYFISH JFPD0808
PEAK DIVERSION CONFIGURATION
STANDARD DETAIL



PLAN VIEW
TOP SLAB NOT SHOWN



ELEVATION VIEW



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENT NOS. 5,297,706; 5,223,416; US 113,060; OTHER INTERNATIONAL PATENTS PENDING

STORM WATER QUALITY SUMMARY

- THE VRRM NUTRIENT REMOVAL REQUIRED IS 1.26 LBS/YR.
- SPECIAL USE PERMIT CONDITIONS SPECIFIES THAT TWICE THE VRRM NUTRIENT REMOVAL SHALL BE PROVIDED ON-SITE. 1.26 LBS/YR * 2 = 2.52 LBS/YR.
- TOTAL NUTRIENT REMOVAL FROM EACH JELLYFISH IS 1.26 + 0.5 = 1.78 LBS/YR.
- TOTAL ON-SITE NUTRIENT REMOVAL = 1.79 + 1.79 = 3.58 LBS/YR > 2.52 LBS/YR. (THIS EQUATES TO 2.8 TIMES THE VRRM REQUIRED NUTRIENT REMOVAL.)

Project Name: Woolen Mills Light Industrial
Date: 8/15/2025

CLEAR ALL
(C4+Sh+R)

data input cells
constant values
calculation cells
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

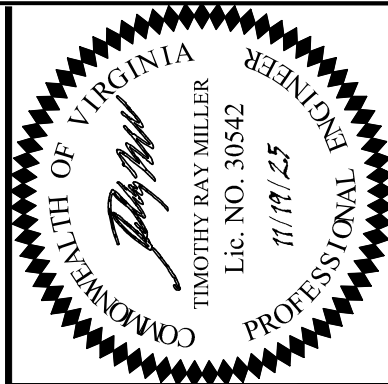
Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) – undisturbed, protected forest/open space or reforested land	1.21	1.60	0.19		3.00 *
Managed Turf (acres) – disturbed, graded for yards or other turf to be mowed/managed		0.05	0.23		0.28
Impervious Cover (acres)	0.49	0.81			1.30
					4.58

Constants	
Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	3.86
Target TP Load (lb/acre/yr)	0.41
P (unitless correction factor)	0.90

Runoff Coefficients (Rv)	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	1.26
------------------------------------	------



JOB NO.	08/18/25
DATE	AS SHOWN
SCALE	TEM
DRAWN BY	
DESIGNED BY	
CHECKED BY	

MERIDIAN
CIVIL - SURVEY, PLLC
195 Riverbend Drive, Suite 4
Charlottesville, Va 22911
www.meridianwbe.com

NO.	DESCRIPTION	DATE
1	ADDED EXCLUDED AREA X	11/19/25

PROJECT TITLE:
SPECIAL USE PERMIT
APPLICATION PLAN FOR
WOOLEN MILLS INDUSTRIAL PARK
SHEET TITLE:
STORM WATER QUALITY DETAILS