

WALNUT HILL INVESTMENTS, LLC SPRING VALLEY SUBDIVISION CUMBERLAND, MAINE

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SUBDIVISION PLAN	C-101
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LOCATION MAP



Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
 4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
 Phone 207.829.5016 • Fax 207.829.5692 • www.smeonline.com

ZONING NOTES:

- 1. PROPERTY OWNER/APPLICANT: WALNUT HILL INVESTMENTS, LLC NORTH WALTON, MAINE
- 2. LOT INFORMATION - BOOK/PAGE/IMP/ADR: 35864/7/170/1A
- 3. ZONING DISTRICT: R2000 SUBSET CUMBERLAND HOUSING OVERLAY DISTRICT
- 4. PROPOSED USES MAJOR SUBDIVISION-SINGLE FAMILY DWELLINGS IN ACCORDANCE WITH THE APPROVED ZONE AS SHOWN BELOW.

DEVELOPMENT STANDARDS

MINIMUM LOT SIZE	2 ACRES	20,000 SF	2 ACRES (400)
AVERAGE LOT SIZE	N/A	N/A	11,878 SF
MINIMUM FRONT SETBACK	50 FEET	25 FEET	25 FEET
MINIMUM SIDE SETBACK	30 FEET	10 FEET	10 FEET
MINIMUM REAR SETBACK	75 FEET	25 FEET	25 FEET
MINIMUM FRONT YARD OPEN SPACE	25 FEET	10 FEET	10 FEET
MINIMUM REAR YARD OPEN SPACE	75 FEET	25 FEET	25 FEET

NET RESIDENTIAL DENSITY CALCULATION

REDUCTIONS:	25.0 ACRES
A. AREAS FOR ROAD AND PARKING	1.5 ACRES
B. UNAVAILABLE AREAS (DEAMIFICATION STRIP)	0 ACRES
C. AREAS WHERE THE PROPOSED LOT ENVELOPE ENVELOPS AN EXISTING LOT ENVELOPE BECAUSE OF TOPOGRAPHY, DRAINAGE OR SUBSOIL ARE NOT LIMITED TO CONFORMANCE WITH R40 ARE NOT LIMITED TO CONFORMANCE WITH R40	3.2 ACRES
D. WETLAND AREAS	0.4 ACRES
E. LAND SHOWN TO BE AN 80-YEAR FLOOD HAZARD AREA (BASED ON FEMA FLOOD INSURANCE RATE MAP (FIRM))	0 ACRES
F. LAND IN HISTORICAL RESOURCES OR ELEGANT BUT NOT INCLUDING LAND IN OPEN SPACE ELEMENTS UNDER CHAPTER 310, ZONING 315-3	0 ACRES
G. RESOURCE PROTECTION DISTRICTS	0 ACRES
TOTAL:	25.0 ACRES
ACRES PER UNIT:	25.0 ACRES
TOTAL ALLOWABLE LOTS TO LOT:	1

GENERAL NOTES:

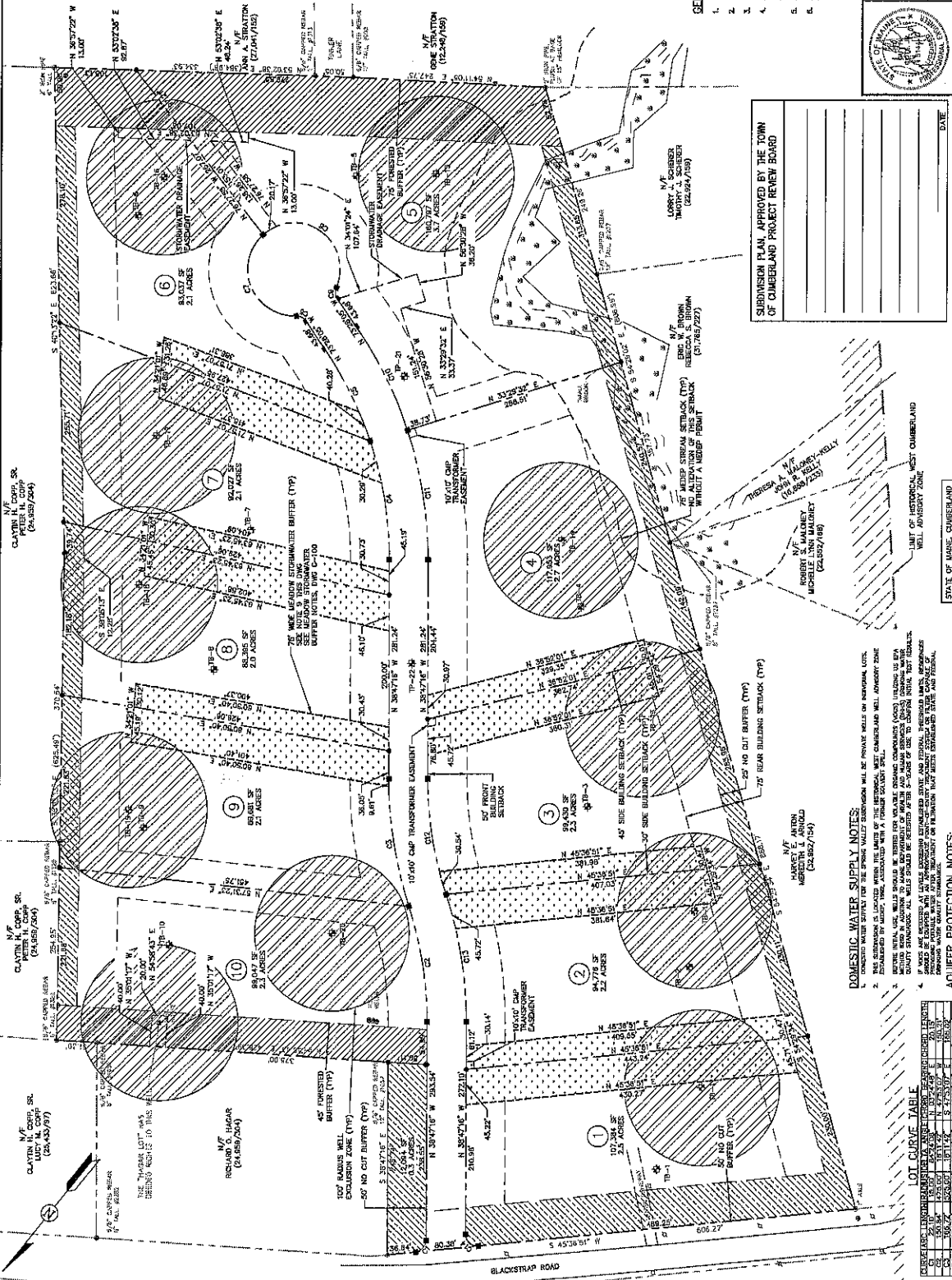
- 1. ALL PROPOSED LOT CORNER SURVEY MARKERS TO BE CAPPED IRON PINS.
- 2. PROPERTY BOUNDARY FROM WAYNE L. WOOD & CO., DATED OCTOBER, 2016.
- 3. METERS INDICATED BY SWEET ASSOCIATES, DATED OCTOBER, 2016.
- 4. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH ALL APPLICABLE STATE AND FEDERAL REGULATIONS AND PERMITTING REQUIREMENTS FOR THE SITE.
- 5. ACCESS TO LOT 1 WILL BE FROM FULLER ROAD ONLY.
- 6. RESIDENCES WILL BE CONSTRUCTED WITH HOME FIRE SPRINKLER SYSTEMS TO COMPLY WITH TOWN OF CUMBERLAND ORDINANCE, CHAPTER 31E.

DOMESTIC WATER SUPPLY NOTES:

- 1. RES SPRINKLER IS LOCATED WITHIN THE AREA OF THE NETWORK, WEST CUMBERLAND WELL ADVISORY ZONE ENCLOSED BY MAP, 1992, ASSOCIATED WITH A FORMER SEWER TREATMENT PLANT.
- 2. BOTTLE WATER WELLS SHOULD BE SITED FOR VIBRATION, EXCESSIVE COMPRESSIVE (ART) VIBRATION OR EXCESSIVE SHOCK VIBRATION. ALL WELLS SHOULD BE SITED WITH A 5' MARGIN OF USE TO AVOID VIBRATION. ALL WELLS SHOULD BE SITED WITH A 5' MARGIN OF USE TO AVOID VIBRATION. ALL WELLS SHOULD BE SITED WITH A 5' MARGIN OF USE TO AVOID VIBRATION.

AQUIFER PROTECTION NOTES:

- 1. ALL PROPOSED WELLS AND EXISTING WELLS MUST BE AT LEAST 100 FEET FROM ANY WELLS WITHIN THE NETWORK, WEST CUMBERLAND WELL ADVISORY ZONE ENCLOSED BY MAP, 1992, ASSOCIATED WITH A FORMER SEWER TREATMENT PLANT.
- 2. MINIMUM SETBACK BETWEEN EXISTING AND PROPOSED WELLS MUST BE AT LEAST 100 FEET.
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LOT CURVE TABLE

LOT	AREA (SQ. FT.)	PERCENTAGE OF TOTAL AREA
1	10,734.5	41.31%
2	9,478.5	36.35%
3	10,734.5	41.31%
4	10,734.5	41.31%
5	10,734.5	41.31%
6	10,734.5	41.31%
7	10,734.5	41.31%
8	10,734.5	41.31%
9	10,734.5	41.31%
10	10,734.5	41.31%

STATE OF MAINE, CUMBERLAND DISTRICT

REV.	DATE	STATUS
1	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW
2	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW
3	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW
4	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW	1/20/17
2	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW	1/20/17
3	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW	1/20/17
4	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW	1/20/17

DATE

DATE: _____

DATE

DATE: _____

DATE

DATE: _____

DATE

DATE: _____

DATE

DATE: _____

WALNUT HILL INVESTMENTS, LLC
SPRING VALLEY SUBDIVISION
CUMBERLAND, MAINE

CONVENTIONAL SUBDIVISION PLAN

SME
SME & BIRCH ENGINEERS, INC.
1000 BIRCH STREET, SUITE 100
CUMBERLAND, MAINE 04092
PHONE: (207) 532-3100
FAX: (207) 532-3101

DESIGN BY: BPO
DRAWN BY: SMA
DATE: 11/20/16
CHECKED BY:
DATE:
JOB NO. 19242.00 DWG FILE BASE C-101

SUBDIVISION PLAN APPROVED BY THE TOWN OF CUMBERLAND PROJECT REVIEW BOARD

DATE: _____

REV.	DATE	STATUS
1	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW
2	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW
3	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW
4	1/20/17	ISSUED FOR TOWN FOR SKETCH PLAN REVIEW

CONSTRUCTION OVERSIGHT

CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGRETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT CHAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PLANTING OR OTHER STRUCTURE. SOIL VEGRETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETE.

COMPACTION OF SOIL: FILTER MEDIA AND UNDERDRAIN ENDINGS MATERIAL MUST BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST 2' LIFTS OF 4" INCHES TO PREVENT PROGRESS OF LARGE AGGREGATE.

CONSTRUCTION OVERSIGHT INSPECTION BY A PROFESSIONAL ENGINEER WILL OCCUR AT A MINIMUM:

- AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER CHANNELS AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
- AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
- AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SIZED. RO-RETENTION CELLS MUST BE STABILIZED PER THE PROVIDED PLANTING SPECIFIC AND DENSITY OF THE CANOPY COVERAGE OF 30% AND 50%.
- AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS, AND
- AFTER THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASKIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER.

TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFORMANCE. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION FOR EACH COMPONENT OF THE FILTER MEDIA:

- MATERIAL SAMPLES MUST BE COMPOSITE OF THREE SEPARATE LOCATIONS (CHAINS) FROM THE STORAGE OR THE PAZE SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
- PERFORM A SEIVE ANALYSIS CONFORMING TO ASTM D 2922 (STANDARD TEST METHOD FOR SEIVE ANALYSIS OF FINE AND COARSE AGGREGATES (95%) ON EACH TYPE OF THE SAMPLE MATERIAL.
- THE SANDY LOAM TOPSOIL SHALL BE TESTED AT A SOIL TESTING LAB AND:

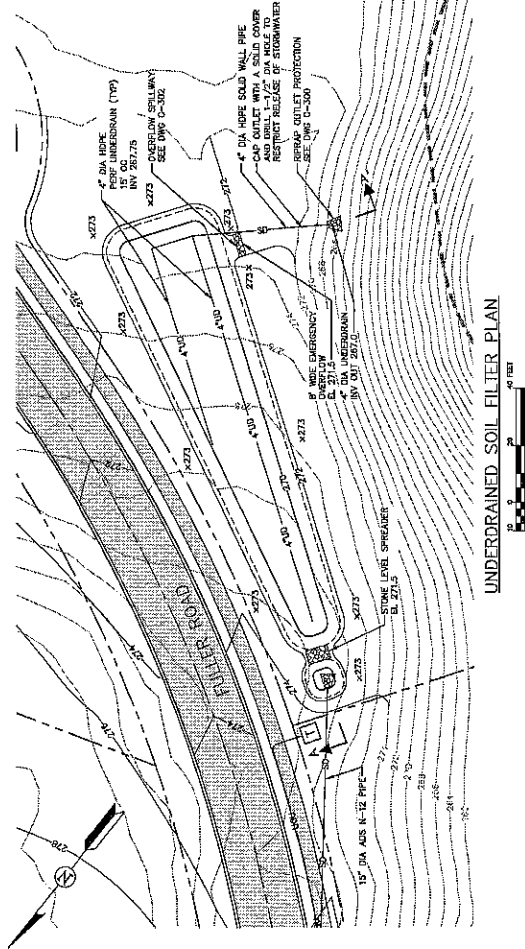
- MATCH THE USDA SANDY LOAM TOPSOIL CLASSIFICATION
- HAVE 5-5% HUMIC ORGANIC MATTER
- HAVE NO 204-702 PASSING THE #200 SEIVE
- BE FREE OF STONES, STUMPS, ROOTS OR OTHER OBjects GREATER THAN 2".
- IF THE TOPSOIL DOES NOT CONTAIN SUFFICIENT NUTRIENT CONTENT TO SUPPORT GRASS GROWTH, SUPPLEMENT WITH SUPERPHOSPHORIC ORGANIC MATTER AND RETEST ORGANIC MATTER AND CLAY CONTENT.

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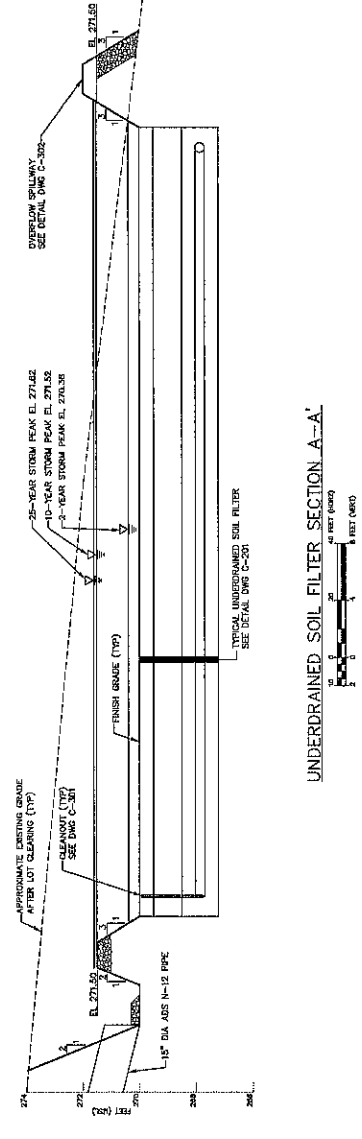
SEIVE SIZE	% PASSING BY WEIGHT	UNDERDRAIN TYPE B
#10	65-100	50-100
#20	75-100	50-100
#30	75-100	50-100
#50	80-100	50-100
#100	85-100	50-100
#200	85-100	50-100

SEIVE SIZE	% PASSING BY WEIGHT	UNDERDRAIN TYPE B
#10	65-100	50-100
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#50	80-100	50-100
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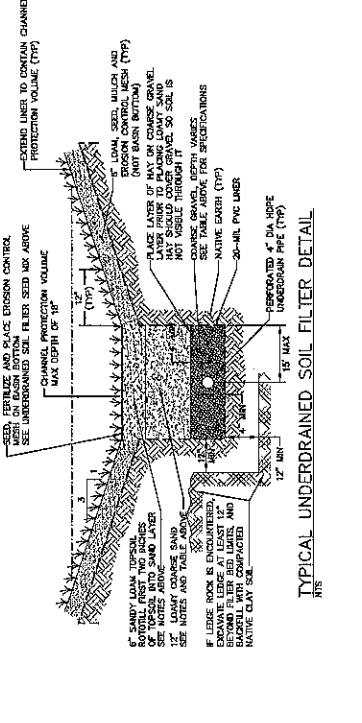
UNDERDRAINED SOIL FILTER	
Name	URS/ARZ
Channel	30
End Frame	20
End Frame	5
Total	49



UNDERDRAINED SOIL FILTER PLAN



UNDERDRAINED SOIL FILTER SECTION A-A'



TYPICAL UNDERDRAINED SOIL FILTER DETAIL



WALNUT HILL INVESTMENTS, LLC
SPRING VALLEY SUBDIVISION
CUMBERLAND, MAINE

UNDERDRAINED SOIL FILTER SECTION AND DETAILS

SME
Seamus E. Moore, Inc.
Environmental • Civil • Geotechnical • Water • Construction
48 Mount Road, P.O. Box 425, Cumberland Center, Maine 04111
Phone: 207.465.5611 • Fax: 207.465.9111 • www.smeinc.com

DESIGN BY: EPD
DRAWN BY: SAM
DATE: 11/29/18
CHECKED BY:
LINS: PLANNING
CR: SME-STD
JOB NO. 18242.00 DWG FILE BASE
C-201

REV.	BY	DATE	STATUS

DATE	REVISION	REVISION COMMENT
JUL 1/2017		REVISED PER MESEP COMMENTS
JUL 1/2017		REVISED PER MESEP COMMENTS
JUL 1/2017		REVISED PER MESEP COMMENTS
JUL 1/2017		ISSUED TO MESEP FOR REVIEW



STORMWATER MANAGEMENT PLAN
POST DEVELOPMENT CONDITIONS

WALNUT HILL INVESTMENTS, LLC
 SPRING VALLEY SUBDIVISION
 CUMBERLAND, MAINE

SME
 Stormwater Management Engineers, Inc.
 1000 Main St., Suite 200
 Portland, ME 04101
 Phone: 603.733.1111
 Fax: 603.733.1112
 Email: info@smeinc.com

DESIGN BY: SME
 DATE: 11/2018
 CHECKED BY: JRM
 DATE: 08/2018
 CIB: SWS-STD
 JOB NO. 16242DD DWG FILE BASE D-101

REV.	BY	DATE	STATUS
1	JRM	1/2017	ISSUED TO MEET FOR REVIEW
2	JRM	2/2017	REVISED PER PEER REVIEW COMMENTS
3	JRM	3/2017	REVISED PER PEER REVIEW COMMENTS
4	JRM	4/2017	REVISED PER PEER REVIEW COMMENTS
5	JRM	5/2017	REVISED PER PEER REVIEW COMMENTS

STORMWATER MANAGEMENT LEGEND

1 SUBCATCHMENT DESIGNATION

--- SUBCATCHMENT BOUNDARY

--- TIME OF CONCENTRATION SEGMENT DESIGNATION
 --- TIME OF CONCENTRATION PATH

--- HYDROLOGIC SOIL GROUP BOUNDARY

--- HYDROLOGIC SOIL GROUP DESIGNATION

--- TIME OF CONCENTRATION TYPE, LENGTH AND SLOPE

--- SHEET FLOW

--- SHALLOW CONCENTRATED FLOW

--- CHANNEL FLOW

--- CHANNEL REACH

--- REACH DESIGNATION (HYDROROAD)

--- FORM/STRUCTURE DESIGNATION (HYDROROAD)

--- TIME OF CONCENTRATION WITH SUBCATCHMENT DESIGNATION

TABLE 1
STORMWATER TREATMENT SUMMARY

Developed Area Impervious Area	79,700
Impervious Area	79,700
Permeable Area	18,200
Total Area	97,900

Upper Field and Backstop

Summary Measurements - Meadow Buffer

DEVELOPED AREA =	18,200 sf
IMPERVIOUS AREA =	18,200 sf
PERCENT IMPERVIOUS =	22.6%
LENGTH OF FLOW PATH =	100 ft
SOIL TYPE =	A
SLOPE =	0.4%
BUFFER FLOW PATH LENGTH =	75 ft

Table 5.2

Summary Measurements - Meadow Buffer

DEVELOPED AREA =	18,200 sf
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WALNUT HILL INVESTMENTS, LLC
SPRING VALLEY SUBDIVISION
CUMBERLAND, MAINE

STORMWATER MANAGEMENT PLAN
STORMWATER QUALITY BMP TREATMENT SIZING

DESIGN DATE	09/11/2018
DESIGN BY	SIME
CHECKED BY	SIME
DATE	11/27/18
LINE	SME-P
FILE	SME-STD

JOB NO. 16242.00 DWG FILE BASE

REV.	BY	DATE	STATUS
1	JR	11/27/18	ISSUED FOR PERMITS
2	JR	12/07/18	ISSUED FOR PERMITS
3	JR	01/22/19	ISSUED FOR PERMITS
4	JR	02/07/19	ISSUED FOR PERMITS
5	JR	02/07/19	ISSUED FOR PERMITS

REVISIONS PER MEADOW COMMENTS

JR	11/27/18	ISSUED FOR PERMITS
JR	12/07/18	ISSUED FOR PERMITS
JR	01/22/19	ISSUED FOR PERMITS
JR	02/07/19	ISSUED FOR PERMITS

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JR	11/27/18	ISSUED FOR PERMITS
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