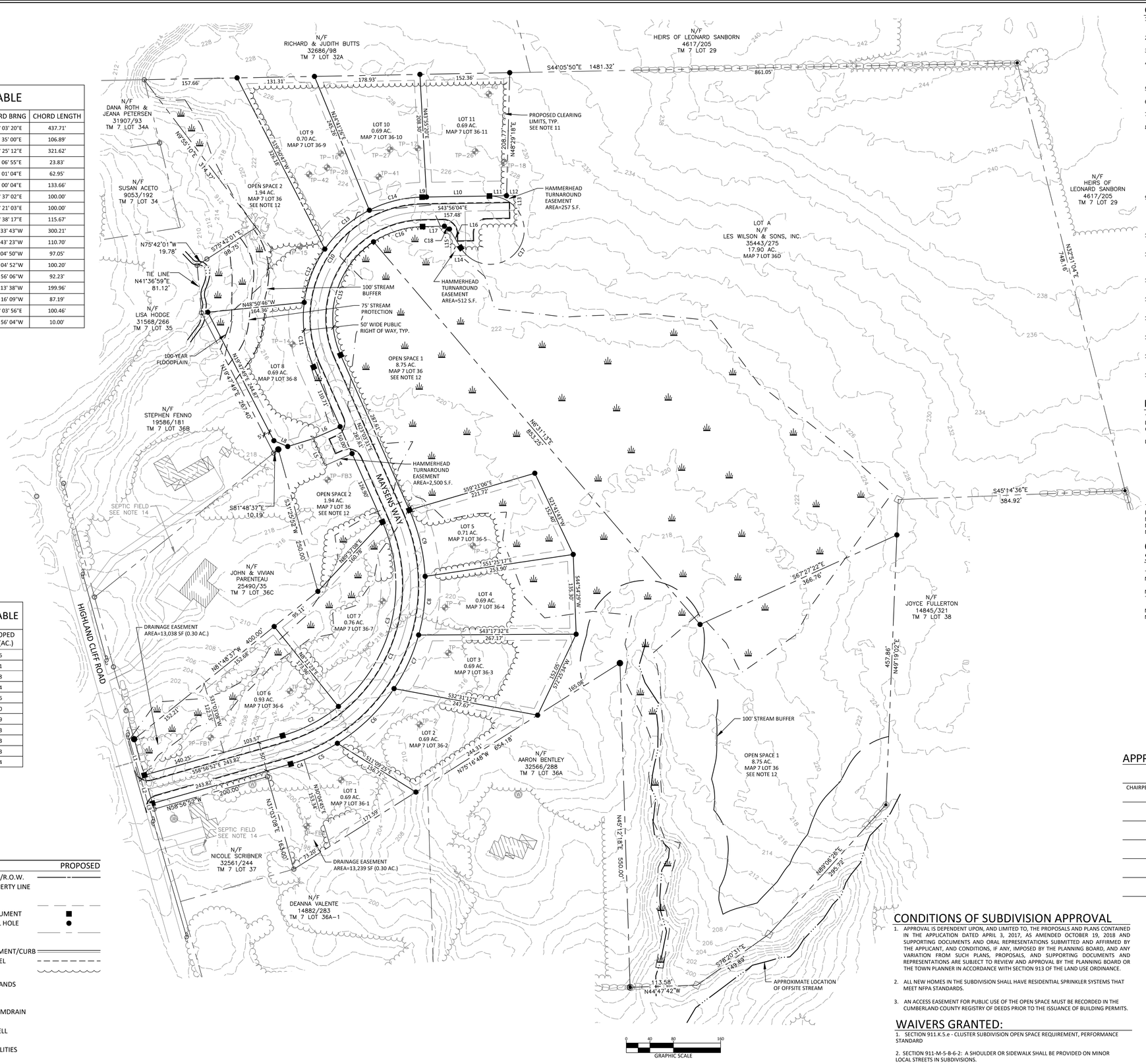


CURVE TABLE

CURVE #	LENGTH	RADIUS	CHORD BRNG	CHORD LENGTH
C1	495.99'	290.00'	N72° 03' 20"E	437.71'
C2	107.63'	265.00'	S70° 35' 00"E	106.89'
C3	345.60'	265.00'	N60° 25' 12"E	321.62'
C4	23.83'	315.00'	S61° 06' 55"E	23.83'
C5	63.06'	315.00'	S69° 01' 04"E	62.95'
C6	134.68'	315.00'	S87° 00' 04"E	133.66'
C7	100.42'	315.00'	N71° 37' 02"E	100.00'
C8	100.42'	315.00'	N53° 21' 03"E	100.00'
C9	116.33'	315.00'	N33° 38' 17"E	115.67'
C10	355.02'	180.00'	S79° 33' 43"W	300.21'
C11	112.09'	205.00'	S38° 43' 23"W	110.70'
C12	97.98'	205.00'	S68° 04' 50"W	97.05'
C13	101.22'	205.00'	N84° 04' 52"W	100.20'
C14	93.03'	205.00'	N56° 56' 06"W	92.23'
C15	217.33'	155.00'	S63° 13' 38"W	199.96'
C16	88.38'	155.00'	N60° 16' 09"W	87.19'
C17	242.95'	58.00'	N76° 03' 56"E	100.46'
C18	10.47'	10.00'	N13° 56' 04"W	10.00'

LINE TABLE

LINE#	LENGTH	DIRECTION
L1	63.39'	S31° 03' 08"W
L2	50.00'	S31° 03' 08"W
L3	10.00'	S31° 03' 08"W
L4	50.00'	N66° 56' 29"W
L5	50.00'	N23° 03' 31"E
L6	50.00'	S66° 56' 29"E
L7	45.17'	N60° 08' 26"W
L8	25.52'	N20° 23' 49"W
L9	7.46'	S43° 56' 04"E
L10	106.79'	S43° 56' 04"E
L11	28.96'	S43° 56' 04"E
L12	14.27'	S43° 56' 04"E
L13	19.33'	S46° 03' 56"W
L14	26.77'	N43° 56' 04"W
L15	41.65'	N46° 03' 56"E
L16	36.95'	N16° 03' 56"E
L17	36.88'	N43° 56' 04"W

LOT AREA SUMMARY TABLE

LOT #	IMPERVIOUS AREA (AC.)	DEVELOPED AREA (AC.)
1	0.05	0.56
2	0.06	0.51
3	0.08	0.38
4	0.08	0.34
5	0.05	0.26
6	0.06	0.90
7	0.05	0.69
8	0.05	0.43
9	0.05	0.63
10	0.05	0.63
11	0.05	0.64

LEGEND

EXISTING	PROPOSED
PROPERTY LINE/R.O.W.	
ABUTTER PROPERTY LINE	
TIE LINE	
SETBACK	
GRANITE MONUMENT	■
IRON PIN/DRILL HOLE	●
CENTERLINE	
BUILDING	
EDGE OF PAVEMENT/CURB	
EDGE OF GRAVEL	
TREELINE	
EDGE OF WETLANDS	
STREAM	
200 CONTOUR LINE 201	
CULVERT/STORMDRAIN	
POTABLE WELL	
RELOCATED WELL	
UTILITY POLE	
OHU OVERHEAD UTILITIES	
TEST PIT	

GENERAL NOTES:

1. THE OWNER OF RECORD OF THE PROPERTY IS MTR DEVELOPMENT, LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 35054 PAGE 326.
2. TOTAL AREA OF THE PARCEL IS APPROXIMATELY 20.5 ACRES.
3. PARCEL TAX MAP REFERENCE: TOWN OF WINDHAM ASSESSORS MAP 7, LOT 36.
4. PLAN REFERENCES:
   A) "BOUNDARY SURVEY, HIGHLAND CLIFF ROAD" DATED JULY 18, 2018 BY SURVEY, INC.
5. HORIZONTAL DATUM: GRID NORTH AS SHOWN ON PLAN REFERENCE 4A.
6. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
7. THE PROPERTY IS LOCATED IN THE FARM ZONING DISTRICT.
8. SPACE AND BULK REQUIREMENTS: FARM ZONE (CLUSTER SUBDIVISION)

MIN LOT SIZE:	30,000 SF
MAX LOT SIZE:	50,000 SF (1 LOT @ 60,000 SF)
NET RESIDENTIAL DENSITY:	1 LOT PER 60,000 SF NET AREA
MIN FRONTAGE:	100 FT
MIN FRONT YARD:	25 FT
MIN SIDE/REAR YARD:	10 FT
MAX BUILDING HEIGHT:	35 FT
MAX BUILDING COVERAGE:	25%

9. WETLANDS DELINEATION PERFORMED BY BY MAINELY SOILS, LLC IN OCTOBER 2018. THESE PLANS INCLUDE APPROXIMATELY 14,365 S.F. OF TOTAL WETLAND IMPACT ASSOCIATED WITH THE PROPOSED DEVELOPMENT. WETLAND ALTERATION WAS APPROVED BY THE US ARMY CORPS OF ENGINEERS PERMIT # NAE-2019-00534 AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION NRPA PERMIT ORDER # L-28126-TC-B-N.
10. ALL BUILDINGS WILL REQUIRE THE INSTALLATION OF A ROOF DROP EDGE FILTER FOR STORMWATER TREATMENT.
11. THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE MAINTAINED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF PLANNING BOARD APPROVAL, AND IN ACCORDANCE WITH SECTION 911.E.1.A OF THE LAND USE ORDINANCE.
12. COMMON OPEN SPACE IS TO BE RESERVED FOR RECREATION, CONSERVATION AND/OR STORMWATER FACILITIES ASSOCIATED WITH FUTURE PHASES OF SUBDIVISION.
13. ALL DWELLINGS WITHIN THE SUBDIVISION SHALL INCLUDE SPRINKLER SYSTEMS MEETING NFPA STANDARDS.
14. LOCATIONS OF EXISTING SUBSURFACE WASTEWATER DISPOSAL FIELDS ON ABUTTING LOTS ARE BASED ON TOWN RECORDS.
15. THE PROJECT IS SUBJECT TO MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STORMWATER PERMIT ORDER # L-28126-NJ-A-N.
16. THE MAXIMUM AMOUNT OF IMPERVIOUS AREA AND DEVELOPED AREA FOR EACH LOT SHALL BE THE AMOUNT LISTED IN THE LOT AREA SUMMARY TABLE ON THIS PLAN.
17. CONTRACTOR AND ALL PROPERTY OWNERS ARE REQUIRED TO COMPLY WITH THE INSPECTION, MAINTENANCE AND HOUSEKEEPING PLAN PREPARED FOR THIS PROJECT AS PART OF THIS PLAN.

NET RESIDENTIAL DENSITY CALCULATIONS:

TOTAL LAND AREA:	1,674,187 S.F.
DEDUCT AREA OF LOT A:	779,831 S.F.
GROSS LAND AREA:	894,356 S.F.
DEDUCTIONS:	
1. RIGHT-OF-WAY	83,411 S.F.
2. STEEP SLOPES (OVER 25%)	12,783 S.F.
3. 100-YEAR FLOOD PLAIN	0 S.F. (LOCATED WITHIN #5)
4. RESOURCE PROTECTION DISTRICT	0 S.F.
5. VERY POORLY DRAINED SOILS	206,921 S.F. (EXCLUDING AREAS IN #1)
6. SURFACE WATERBODIES	0 S.F. (LOCATED WITHIN #5)
7. SIGNIFICANT WILDLIFE HABITAT	0 S.F.
8. ENDANGERED BOTANICAL RESOURCES	0 S.F.
TOTAL NET AREA:	591,241 S.F.
REQUIRED NET AREA PER DWELLING:	60,000 S.F.
MAXIMUM ALLOWABLE LOTS/DWELLINGS:	9.85
MAXIMUM ALLOWABLE LOTS WITH 20% BONUS:	11.82
NUMBER OF LOTS PROPOSED:	11

OPEN SPACE CALCULATIONS FOR CLUSTER SUBDIVISION IN FARM ZONE:

	ACRES
TOTAL PARCEL AREA:	20.53
NET RESIDENTIAL AREA:	13.57
MINIMUM REQUIRED OPEN SPACE (50% GROSS):	10.27
TOTAL OPEN SPACE AREA PROVIDED:	10.69
MINIMUM REQUIRED NET AREA IN OPEN SPACE:	6.79
NET AREA PROVIDED IN OPEN SPACE:	6.80

APPROVED - WINDHAM PLANNING BOARD:

CHAIRPERSON DATE

CONDITIONS OF SUBDIVISION APPROVAL

1. APPROVAL IS DEPENDENT UPON, AND LIMITED TO, THE PROPOSALS AND PLANS CONTAINED IN THE APPLICATION DATED APRIL 3, 2017, AS AMENDED OCTOBER 19, 2018 AND SUPPORTING DOCUMENTS AND ORAL REPRESENTATIONS SUBMITTED AND AFFIRMED BY THE APPLICANT, AND CONDITIONS, IF ANY, IMPOSED BY THE PLANNING BOARD, AND ANY VARIATION FROM SUCH PLANS, PROPOSALS, AND SUPPORTING DOCUMENTS AND REPRESENTATIONS ARE SUBJECT TO REVIEW AND APPROVAL BY THE PLANNING BOARD OR THE TOWN PLANNER IN ACCORDANCE WITH SECTION 913 OF THE LAND USE ORDINANCE.
2. ALL NEW HOMES IN THE SUBDIVISION SHALL HAVE RESIDENTIAL SPRINKLER SYSTEMS THAT MEET NFPA STANDARDS.
3. AN ACCESS EASEMENT FOR PUBLIC USE OF THE OPEN SPACE MUST BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PRIOR TO THE ISSUANCE OF BUILDING PERMITS.

WAIVERS GRANTED:

1. SECTION 911.K.5.e - CLUSTER SUBDIVISION OPEN SPACE REQUIREMENT, PERFORMANCE STANDARD
2. SECTION 911-M-5-B-6-2: A SHOULDER OR SIDEWALK SHALL BE PROVIDED ON MINOR LOCAL STREETS IN SUBDIVISIONS.
3. SECTION 911-M-5-B-5-2: PUBLIC DEAD-END STREET PERFORMANCE STANDARD.

STATE OF MAINE — DUSTIN M. ROMA — No. 12191 — REGISTERED PROFESSIONAL ENGINEER — 5-24-19

DM ROMA
CONSULTING ENGINEERS
PO BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
A	1-7-19	DMR	ISSUED FOR PERMITTING
B	1-23-19	DMR	ISSUED FOR PERMITTING
C	5-6-19	DMR	ISSUED TO TOWN FOR FINAL APPROVAL
D	5-24-19	DMR	REVISED PER TOWN REVIEW

SUBDIVISION PLAN

HIGHLAND WOODS SUBDIVISION
HIGHLAND CLIFF ROAD
WINDHAM, MAINE

FOR RECORD OWNER:
MTR DEVELOPMENT, LLC.
PO BOX 1028
WESTBROOK, ME 04098

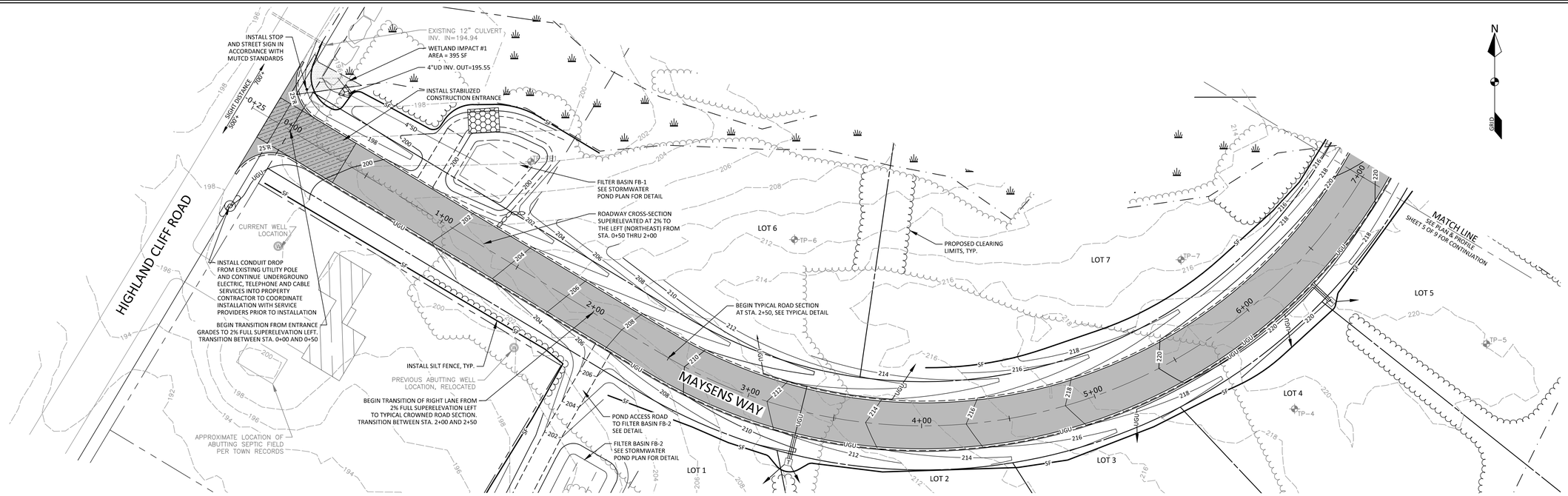
17001
JOB NUMBER:

1" = 80'
SCALE:

5-24-2019
DATE:

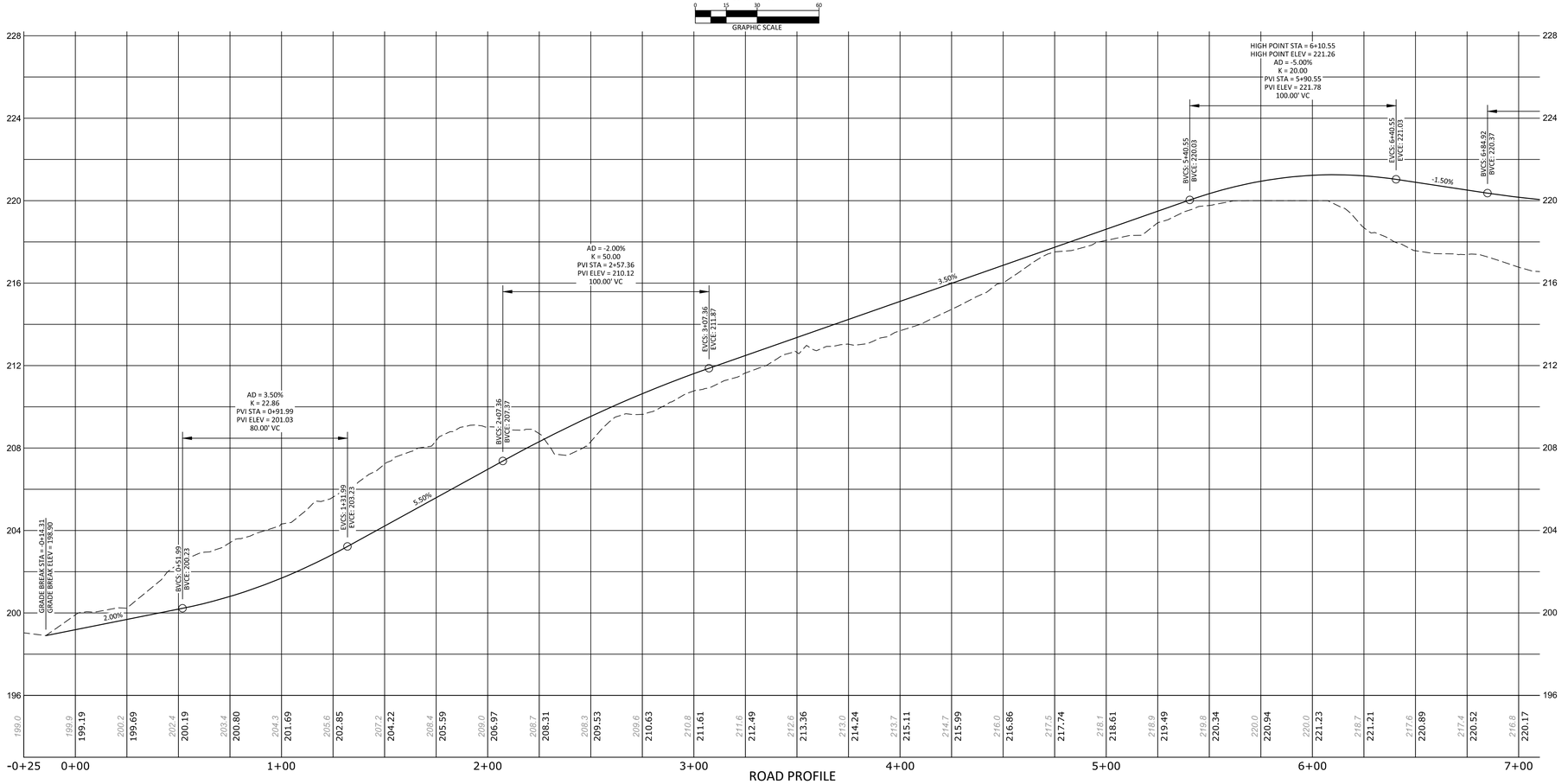
SHEET 3 OF 9

SB-1



ROAD PLAN
SCALE: 1"=30'

GRAPHIC SCALE



ROAD PROFILE
SCALE: HORIZ.: 1"=30'
VERT.: 1"=3'

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER PROPERTY LINE	
	SETBACK	
	EASEMENT LINE	
	CENTERLINE	
	BUILDING	
	EDGE OF PAVEMENT/CURB	
	EDGE OF GRAVEL	
	EDGE OF WETLANDS	
-200- -201-	CONTOUR LINE	200 201
	TREELINE	
	CATCHBASIN	
	CULVERT/STORMDRAIN	
	UNDERDRAIN	UD
W	WELL	
	UTILITY POLE	
OHU	OVERHEAD UTILITIES	
UGU	UNDERGROUND UTILITIES	UGU
	TRANSFORMER PAD	T
	RIPRAP	
	SILT FENCE	SF

GENERAL NOTES:

1. THERE WILL BE APPROXIMATELY 14,365 S.F. OF TOTAL WETLAND IMPACT ASSOCIATED WITH THE PROPOSED DEVELOPMENT.

STATE OF MAINE — DUSTIN M. ROMA — No. 12191 — REGISTERED PROFESSIONAL ENGINEER — 5-24-19

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
A	1-7-19	DMR	ISSUED FOR PERMITTING
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D	5-24-19	DMR	REVISED PER TOWN REVIEW

ROADWAY PLAN & PROFILE

HIGHLAND WOODS SUBDIVISION
HIGHLAND CLIFF ROAD
WINDHAM, MAINE

FOR:
MTR DEVELOPMENT, LLC.
PO BOX 1028
WESTBROOK, ME 04098

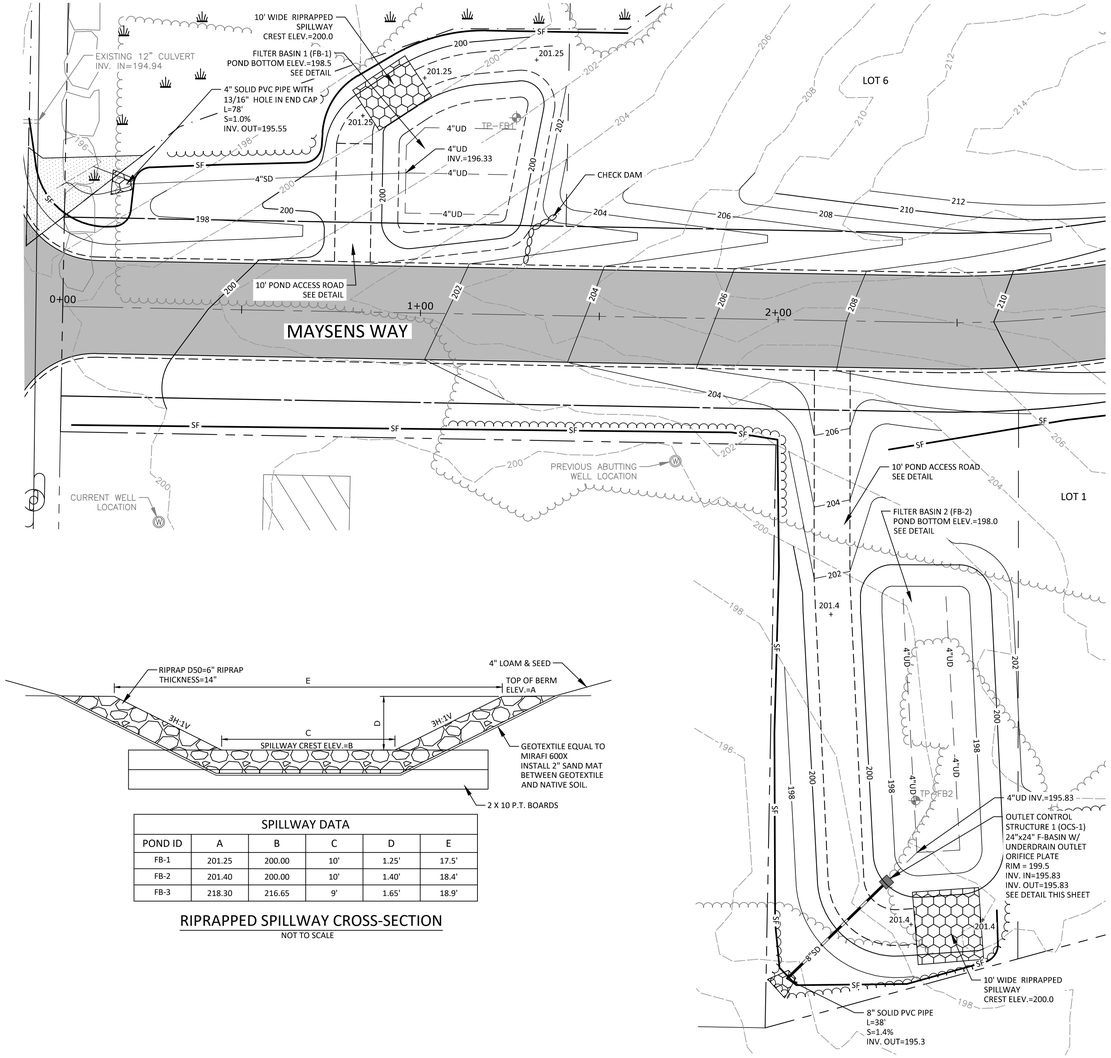
17001
JOB NUMBER:

AS NOTED
SCALE:

5-24-2019
DATE:

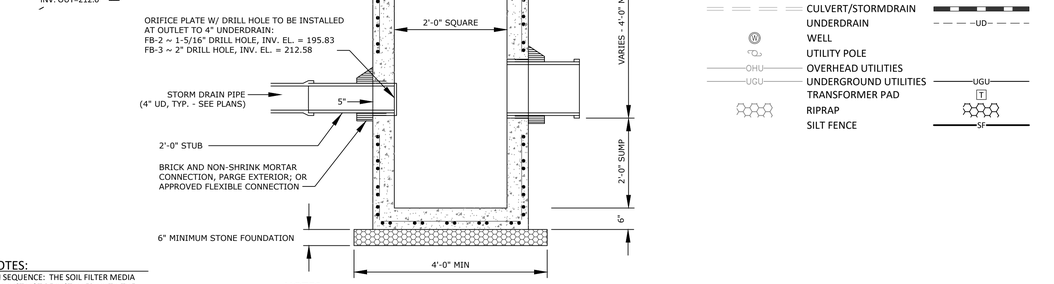
SHEET 4 OF 9

PP-1



SPILLWAY DATA					
POND ID	A	B	C	D	E
FB-1	201.25	200.00	10'	1.25'	17.5'
FB-2	201.40	200.00	10'	1.40'	18.4'
FB-3	218.30	216.65	9'	1.65'	18.9'

RIPRAPPED SPILLWAY CROSS-SECTION
NOT TO SCALE



FILTER BASIN 3 (FB-3)
SCALE: 1"=20'

0 10 20 40
GRAPHIC SCALE

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER PROPERTY LINE	
	SETBACK	
	EASEMENT LINE	
	CENTERLINE	
	BUILDING	
	EDGE OF PAVEMENT/CURB	
	EDGE OF GRAVEL	
	EDGE OF WETLANDS	
200	CONTOUR LINE	200
	TREELINE	
	CATCHBASIN	
	CULVERT/STORMDRAIN	
	UNDERDRAIN	UD
W	WELL	
	UTILITY POLE	
OHU	OVERHEAD UTILITIES	
UGU	UNDERGROUND UTILITIES	UGU
	TRANSFORMER PAD	T
	RIPRAP	
	SILT FENCE	SF

TABLE 7.1 UNDERDRAIN 703.22 TYPE "B"	
SIEVE SIZE	% PASSING BY WEIGHT
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5

TABLE 7.3 LOAMY COARSE SAND	
SIEVE SIZE	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15
200 CLAY	<2.0

TABLE 7.4 SANDY LOAM	
SIEVE SIZE	% PASSING BY WEIGHT
#4	75-95
#10	60-90
#40	35-85
#200	20-70
200 CLAY	<2.0

TYPICAL UNDERDRAINED FILTER BASIN SECTION
NOT TO SCALE

FILTER BASIN DATA				
POND ID	A	B	C	D
FB-1	201.25	200.00	198.50	196.33
FB-2	201.40	200.00	198.00	195.83
FB-3	218.30	216.65	214.75	212.58

GENERAL NOTES:

1. CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.

2. COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST TWO LIFTS TO PREVENT POCKETS OF LOOSE MEDIA.

FILTRATION BMPs CONSTRUCTION OVERSIGHT NOTES:

1. INSPECTION BY THE DESIGN ENGINEER OR SUITABLE THIRD PARTY WILL OCCUR AT A MINIMUM:
   A) AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
   B) AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
   C) AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED.
   D) AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS.
   E)ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING MDEP SPECIFICATIONS.

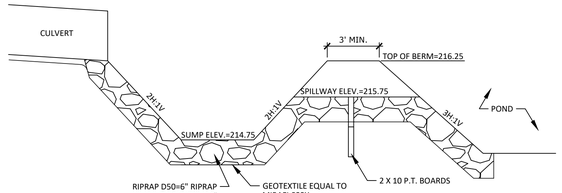
2. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
   A) SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
   B) PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED BY HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
   C) PERFORM A PERMIABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698

NOTES:

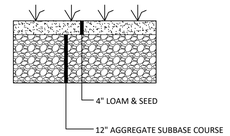
1. CAST IRON GRATE SHALL BE EQUAL TO NEENAH FOUNDRY, PRODUCT NO. R-4345, BEEHIVE LIGHT DUTY GRATE, OR APPROVED EQUIVALENT.

2. SUBMIT SHOP DRAWINGS AND CASTING SPECIFICATIONS TO ENGINEER FOR APPROVAL.

PRECAST CONCRETE CATCH BASIN 24"x24" TYPE F
NOT TO SCALE



SEDIMENT FOREBAY FOR FILTER BASIN 3 (FB-3)
NOT TO SCALE



TYPICAL POND ACCESS ROAD SECTION
NOT TO SCALE

STATE OF MAINE — DUSTIN M. ROMA — No. 12151 — REGISTERED PROFESSIONAL ENGINEER — 5-24-19

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
A	1-7-19	DMR	ISSUED FOR PERMITTING
B	2-1-19	DMR	ISSUED FOR PERMITTING
C	4-24-19	DMR	REVISED PER MDEP REVIEW
D	5-6-19	DMR	ISSUED TO TOWN FOR FINAL APPROVAL
E	5-24-19	DMR	REVISED PER TOWN REVIEW COMMENTS

STORMWATER POND PLAN

HIGHLAND WOODS SUBDIVISION
HIGHLAND CLIFF ROAD
WINDHAM, MAINE

FOR:
MTR DEVELOPMENT, LLC.
P.O. BOX 1028
WESTBROOK, MAINE 04098

17001
JOB NUMBER:

AS NOTED
SCALE:

5-24-2019
DATE:

SHEET 7 OF 9

SP-1