



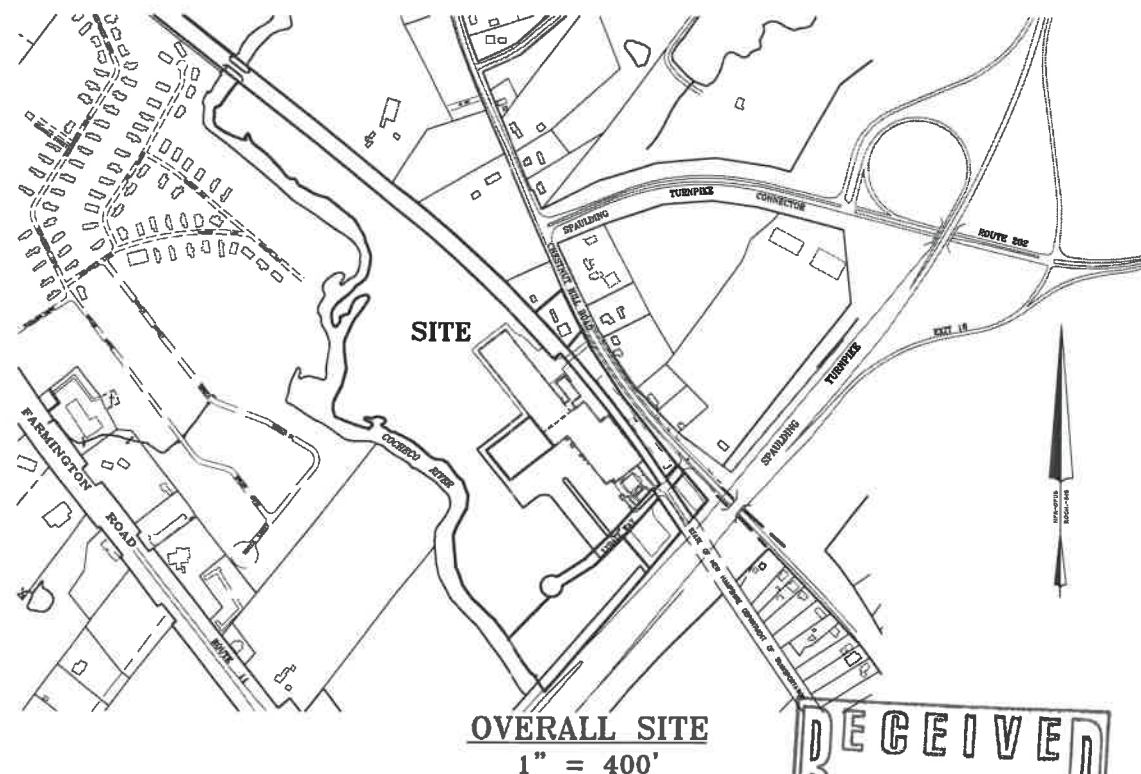
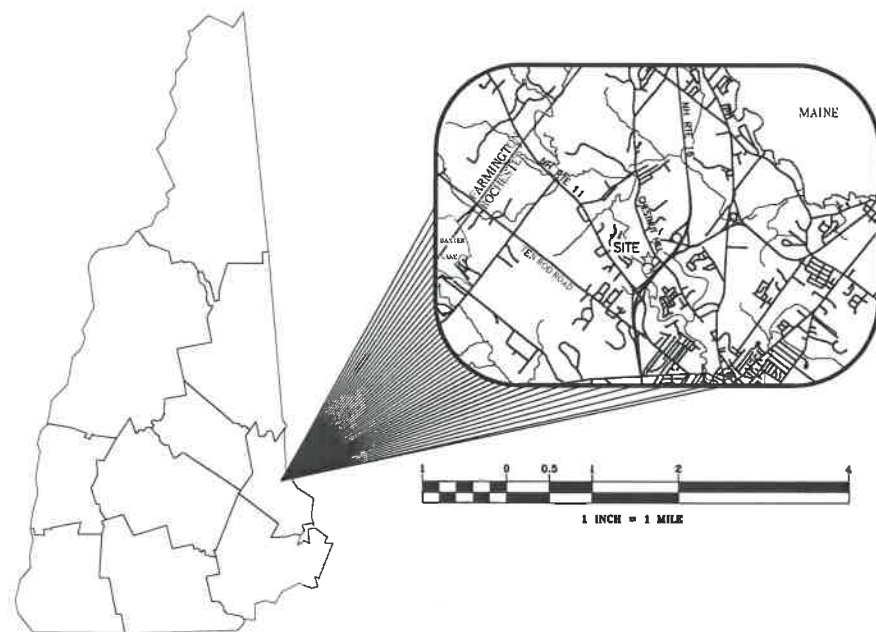
LYDALL BUILDING EXPANSION

134 CHESTNUT HILL ROAD, ROCHESTER, NH 03867

PREPARED FOR

LYDALL PERFORMANCE MATERIALS, INC.

MAY 2020
(REVISED JUNE 20, 2020)



CIVIL ENGINEERS
NORWAY PLAINS ASSOCIATES, INC.
2 CONTINENTAL BOULEVARD
ROCHESTER, NEW HAMPSHIRE 03867
(603) 335-3948

OWNER OF RECORD
TAX MAP 216, LOT 32
OWNER OF RECORD:
LYDALL EASTERN, INC.
134 CHESTNUT HILL ROAD
ROCHESTER, NH 03867
SCRD BOOK 1769, PAGE 359

TAX MAP 221, LOT 186 & 187
OWNER OF RECORD:
LYDALL EASTERN, INC.
TECHNICAL PAPERS DIVISION
134 CHESTNUT HILL ROAD
ROCHESTER, NH 03867
SCRD BOOK 2141, PAGE 753

APPLICANT
LYDALL EASTERN INC.
134 CHESTNUT HILL ROAD
ROCHESTER, NH 03867
(603) 332-4600

STATE AND FEDERAL PERMITS:
STATE OF NEW HAMPSHIRE PERMIT NUMBERS:
NHDES ALTERATION OF TERRAIN: AOT-1733A
NHDES WETLANDS PERMIT: NOT REQUIRED
NHDES DAM PERMIT: NOT REQUIRED
NHDES SHORELAND PERMIT: 2019-03443
NHDES SUBSURFACE SYSTEMS PERMIT: NOT REQUIRED
NHDES WASTEWATER PERMIT: NOT REQUIRED
NHDOT DRIVEWAY/ENTRANCE PERMIT: NOT REQUIRED

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES):
NPDES PERMITS ARE ONLY REQUIRED FOR PROJECTS MEETING THE DISTURBED AREA CRITERIA BELOW AND HAVING A POINT SOURCE STORMWATER DISCHARGE FROM THE SITE TO AN ADJACENT WETLAND OR WATER BODY (I.E. CULVERT, SWALE, ETC. OUTLETING TO A WETLAND, CREEK, STREAM OR RIVER).

NPDES PERMIT: **REQUIRED**
NPDES PERMITS CONSIST OF A NOTICE OF INTENT (NOI) FILED WITH THE ENVIRONMENTAL PROTECTION AGENCY AT LEAST 14 DAYS PRIOR TO CONSTRUCTION COMMENCING AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) BEING PREPARED, KEPT ON SITE AND FOLLOWED BY THE CONTRACTOR.

FOR STATUS OF THIS PERMIT, CONTACT THE PROJECT GENERAL CONTRACTOR.

FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: *[Signature]* DATE: 7/7/20

SHEET INDEX		
	COVER	
SHEET E-1	EXISTING FEATURES	1" = 60'
SHEET C-1	OVERALL SITE PLAN	1" = 100'
SHEET C-2	SITE LAYOUT PLAN	1" = 60'
SHEET C-3	GRADING AND DRAINAGE PLAN	1" = 60'
SHEET C-4	EROSION AND SEDIMENTATION CONTROL PLAN	1" = 60'
SHEET C-5	UTILITY PLAN	1" = 60'
SHEET C-6	CONSTRUCTION DETAILS	AS SHOWN
SHEET C-7	DRAINAGE DETAILS	AS SHOWN
SHEET C-8	GRAVEL WETLANDS BASIN CROSS SECTIONS	AS SHOWN
SHEET C-9	GRAVEL WETLANDS BASIN PLAN AND DETAILS	AS SHOWN
SHEET C-10	TEMPORARY EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
SHEET C-11	PERMANENT EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
SHEET C-12	UTILITY DETAILS	AS SHOWN
SHEET L-1	LIGHTING PLAN AND DETAILS	1" = 40'

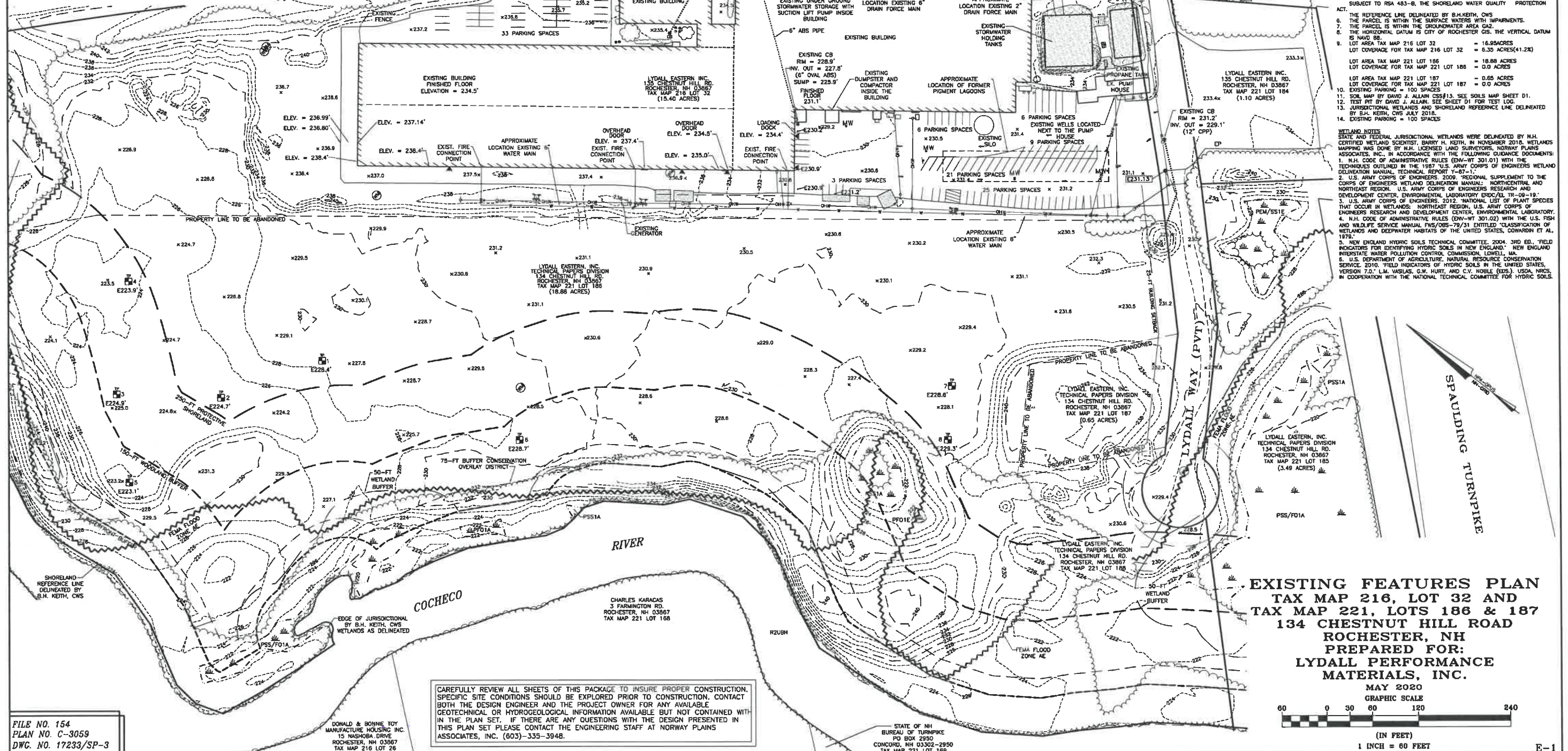
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

FILE NO. 154
PLAN NO. C-3059
DWG. NO. 17233/SP-3

LEGEND

- PROPERTY LINE
 JURISDICTIONAL WETLANDS
 EXISTING TREE LINE
 EXISTING OVERHEAD WIRES
 EXISTING CONTOUR LINE
 EXISTING BUILDING
 FLOOD ZONE BOUNDARY
 EXISTING TEST PIT LOCATION & NUMBER
 EXISTING HYDRANT
 EXISTING WATER GATE OR SHUT-OFF VALVE
 EXISTING UTILITY POLE
 EXISTING SEWER MAIN HOLE
 EXISTING CATCH BASIN
 EXISTING MONITORING WELL
 EXISTING LIGHTS
 EXISTING WETLANDS

WETLANDS CLASSIFICATIONS FOUND ON SITE ARE AS FOLLOWS:
 PEM/SS1E - PALUSTRINE PERSISTENT EMERGENT/BROAD-LEAVED DECIDUOUS SCRUB-SHRUB, SEASONALLY FLOODED/SATURATED
 PSS1A - PALUSTRINE BROAD-LEAVED DECIDUOUS SCRUB-SHRUB, TEMPORARILY FLOODED
 PSS/FO1A - PALUSTRINE BROAD-LEAVED DECIDUOUS SCRUB-SHRUB/BROAD-LEAVED DECIDUOUS, TEMPORARILY FLOODED
 PF01E - PALUSTRINE BROAD-LEAVED DECIDUOUS FORESTED, SEASONALLY FLOODED/SATURATED
 RZUBH - RIVERINE LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, PERMANENTLY FLOODED
 U - UPLANDS



MARK A. TRENBAY
 REV. LIVING TRUST
 PO BOX 866
 MILTON, NH 03867-0866
 TAX MAP 216 LOT 78

CHARLES & SEAN MOSES
 133 CHESTNUT HILL RD.
 ROCHESTER, NH 03607
 TAX MAP 216 LOT 79

DAVID C. JACOBS
 129 CHESTNUT HILL RD.
 ROCHESTER, NH 03607
 TAX MAP 216 LOT 80



REVISIONS:

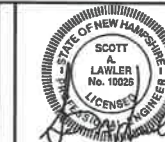
- 05/20/20 - ADD EXISTING UTILITIES WHERE KNOWN.
 05/31/20 - ADD LOCATION OF FORMER PIGMENT LAGOONS
 06/20/20 - ADD MONITORING WELLS

- NOTES
1. THESE PARCELS ARE LOCATED IN THE INDUSTRIAL ZONE (IND), AQUICFER PROTECTION OVERLY DISTRICT (APOD) AND THE CONSERVATION OVERLY DISTRICT (COD).
 2. DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
 MINIMUM LOT AREA = 20,000 SF
 MINIMUM LOT FRONTAGE = 100'
 MINIMUM YARD SETBACKS:
 FRONT = 25'
 SIDE = 20'
 REAR = 25'
 MAXIMUM LOT COVERAGE = 75%
 MAXIMUM BUILDING HEIGHT = 55'
 BUFFER FROM EDGE OF COCHECHO RIVER = 75'
 BUFFER FROM JURISDICTIONAL WETLAND = 50'
 3. PARCEL HAS A SMALL PORTION LOCATED WITHIN ZONE AE (100% FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP, COMMUNITY #3301200230 DATED MAY 17, 2005. NO STRUCTURE FALLS WITHIN FLOOD ZONE.
 4. NO WORK IS PROPOSED IN THE AQUICFER PROTECTION OVERLY DISTRICT.
 5. THE PARCEL IS WITHIN THE CORRIDOR OF A DESIGNATED RIVER, IS SUBJECT TO RSA 483-B, THE SHORELAND WATER QUALITY PROTECTION ACT.
 6. THE REFERENCE LINE DELINEATED BY B.H. KEITH, CWS
 7. THE PARCEL IS WITHIN THE SURFACE WATERS WITH IMPAIRMENTS.
 8. THE PARCEL IS WITHIN THE GROUNDWATER AREA C42.
 9. THE HORIZONTAL DATUM IS CITY OF ROCHESTER GIS, THE VERTICAL DATUM IS NAVD 88.
 10. LOT AREA TAX MAP 216 LOT 32 = 16.95 ACRES
 LOT COVERAGE FOR TAX MAP 216 LOT 32 = 6.30 ACRES (41.2%)
 11. LOT AREA TAX MAP 221 LOT 186 = 18.88 ACRES
 LOT COVERAGE FOR TAX MAP 221 LOT 186 = 0.0 ACRES
 12. LOT AREA TAX MAP 221 LOT 187 = 0.65 ACRES
 LOT COVERAGE FOR TAX MAP 221 LOT 187 = 0.0 ACRES
 13. EXISTING PARKING = 100 SPACES
 14. SOIL MAP BY DAVID J. ALLAN, CWS #113. SEE SOILS MAP SHEET D1.
 15. TEST PIT BY DAVID J. ALLAN, SEE SHEET D1 FOR TEST LOG.
 16. JURISDICTIONAL WETLANDS AND SHORELAND REFERENCE LINE DELINEATED BY B.H. KEITH, CWS JULY 2018.
 17. EXISTING PARKING = 100 SPACES

- WETLAND NOTES
1. STATE AND FEDERAL JURISDICTIONAL WETLANDS WERE DELINEATED BY N.H. CERTIFIED WETLAND SCIENTIST, BARRY H. KEITH, IN NOVEMBER 2018. WETLANDS MAPPING WAS DONE BY N.H. LICENSED LAND SURVEYORS, NORWAY PLAINS ASSOCIATES, INC., IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
 2. N.H. CODE OF ADMINISTRATIVE RULES (ENR-WT 301.01) WITH THE TECHNIQUES OUTLINED IN THE 1987 "U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT 1-87-1."
 3. U.S. ARMY CORPS OF ENGINEERS, 2009, "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHEAST AND NORTHWEST REGION, U.S. ARMY CORPS OF ENGINEERS RESEARCH AND DEVELOPMENT CENTER, ENVIRONMENTAL LABORATORY ERO/EL TR-09-19."
 4. U.S. ARMY CORPS OF ENGINEERS, 2012, "NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, NORTHEAST REGION, U.S. ARMY CORPS OF ENGINEERS RESEARCH AND DEVELOPMENT CENTER, ENVIRONMENTAL LABORATORY."
 5. N.H. CODE OF ADMINISTRATIVE RULES (ENR-WT 301.02) WITH THE U.S. FISH AND WILDLIFE SERVICE MANUAL FWS/OBS-79/51 ENTITLED "CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES, COWARD ET AL. 1979."
 6. NEW ENGLAND HYDROIC SOILS TECHNICAL COMMITTEE, 2004, 3RD ED., "FIELD INDICATORS FOR IDENTIFYING HYDROIC SOILS IN NEW ENGLAND," NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.
 7. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, 2010, "FIELD INDICATORS OF HYDROIC SOILS IN THE UNITED STATES, VERSION 7.0," L.M. VASILAS, C.W. HURTT, AND C.V. NOBLE (EDS.), USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDROIC SOILS.

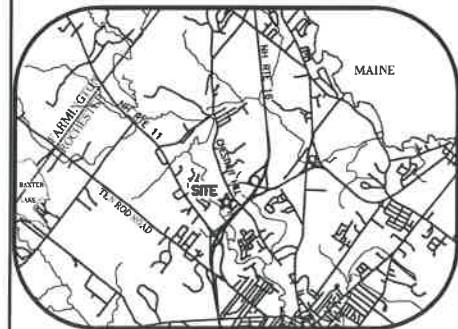
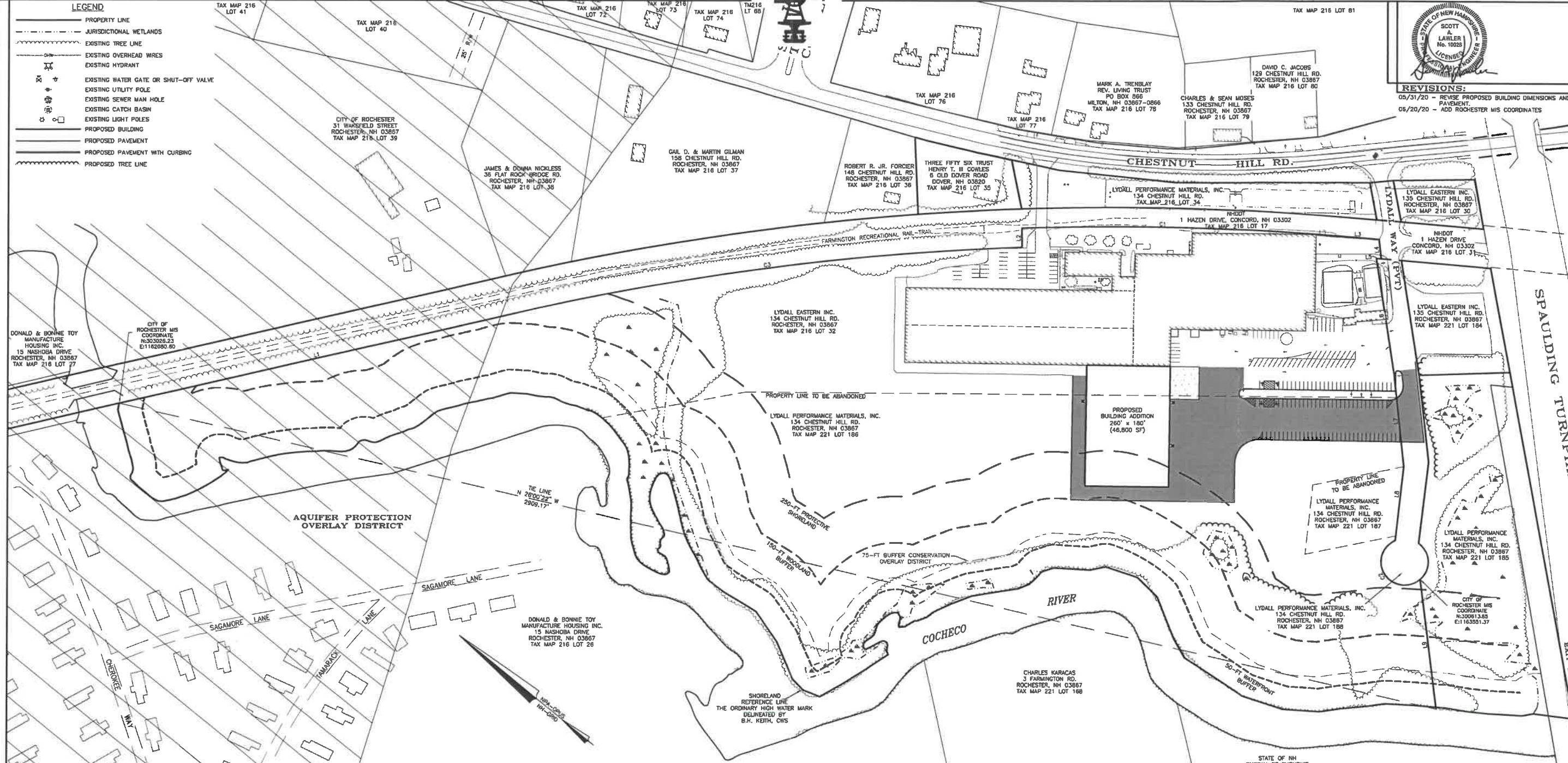
LAND SURVEYORS

CIVIL ENGINEERS



REVISIONS:
05/31/20 - REVISE PROPOSED BUILDING DIMENSIONS AND PAYMENT.
05/20/20 - ADD ROCHESTER MTS COORDINATES

- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING HYDRANT
 - EXISTING WATER GATE OR SHUT-OFF VALVE
 - EXISTING UTILITY POLE
 - EXISTING SEWER MAN HOLE
 - EXISTING CATCH BASIN
 - EXISTING LIGHT POLES
 - PROPOSED BUILDING
 - PROPOSED PAVEMENT
 - PROPOSED PAVEMENT WITH CURBING
 - PROPOSED TREE LINE



LINE	BEARING	DISTANCE
1	S 51°54'13" E	874.03
2	N 49°59'32" E	41.26
3	S 34°20'15" E	93.83
4	S 44°34'24" W	42.03
5	N 34°20'13" W	110.39
6	S 42°16'37" W	251.82
7	S 44°46'37" W	200.00
8	S 57°31'37" W	116.00
9	S 43°59'08" W	2181.08

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	677.92'	5827.17'	6°39'58"	S 37°40'11" E	677.54'
C2	172.74'	50.00'	197°56'55"	S 18°33'10" W	98.78'
C3	1100.11'	5785.92'	10°53'38"	S 46°27'24" E	1098.45'

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OWNER OF RECORD

TAX MAP 216, LOT 32
OWNER OF RECORD:
LYDALL EASTERN, INC.
134 CHESTNUT HILL ROAD
ROCHESTER, NH 03867
SCRD BOOK 1769, PAGE 359

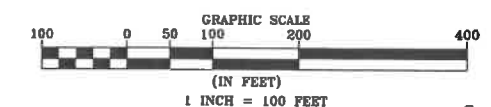
TAX MAP 221, LOT 186 & 187
OWNER OF RECORD:
LYDALL EASTERN, INC.
TECHNICAL PAPERS DIVISION
134 CHESTNUT HILL ROAD
ROCHESTER, NH 03867
SCRD BOOK 2141, PAGE 753

SITE REVIEW APPROVAL
WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE REVIEW PLAN, THE SITE REVIEW APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/DEVELOPER TO ALL WRITTEN AND VERBAL REPRESENTATIONS MADE REGARDING SUCH MATTERS AS USE, NUMBER OF EMPLOYEES, DRAINAGE, CONSTRUCTION, ETC. AS WELL AS ALL OTHER TERMS, CONDITIONS, PROVISIONS, REQUIREMENTS AND SPECIFICATIONS OF THE SITE PLAN REVIEW REGULATIONS OF THE CITY OF ROCHESTER, N.H., AS AMENDED, IN EFFECT ON THE DATE OF APPROVAL. ANY VARIATION FROM THE PROPOSAL AS APPROVED MAY ALSO REQUIRE THE SUBMISSION AND APPROVAL OF A NEW SITE REVIEW APPLICATION.

FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: *[Signature]* **DATE:** 7/7/20
Seth Creighton, Chief Planner

OVERALL SITE PLAN
TAX MAP 216, LOT 32
TAX MAP 221, LOT 186
TAX MAP 221, LOT 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE
MATERIALS, INC.
MAY 2020



FILE NO. 154
PLAN NO. C-3059
DWC NO. 17233/SP-3

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

LAND SURVEYORS

CIVIL ENGINEERS

- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING HYDRANT
 - EXISTING WATER GATE OR SHUT-OFF VALVE
 - EXISTING UTILITY POLE
 - EXISTING SEWER MAIN HOLE
 - EXISTING CATCH BASIN
 - EXISTING LIGHT POLES
 - PROPOSED BUILDING
 - PROPOSED PAVEMENT
 - PROPOSED PAVEMENT WITH CURBING
 - PROPOSED TREE LINE
 - PROPOSED VINYL PLANK FENCE
 - PROPOSED PAVEMENT
 - PROPOSED CONCRETE



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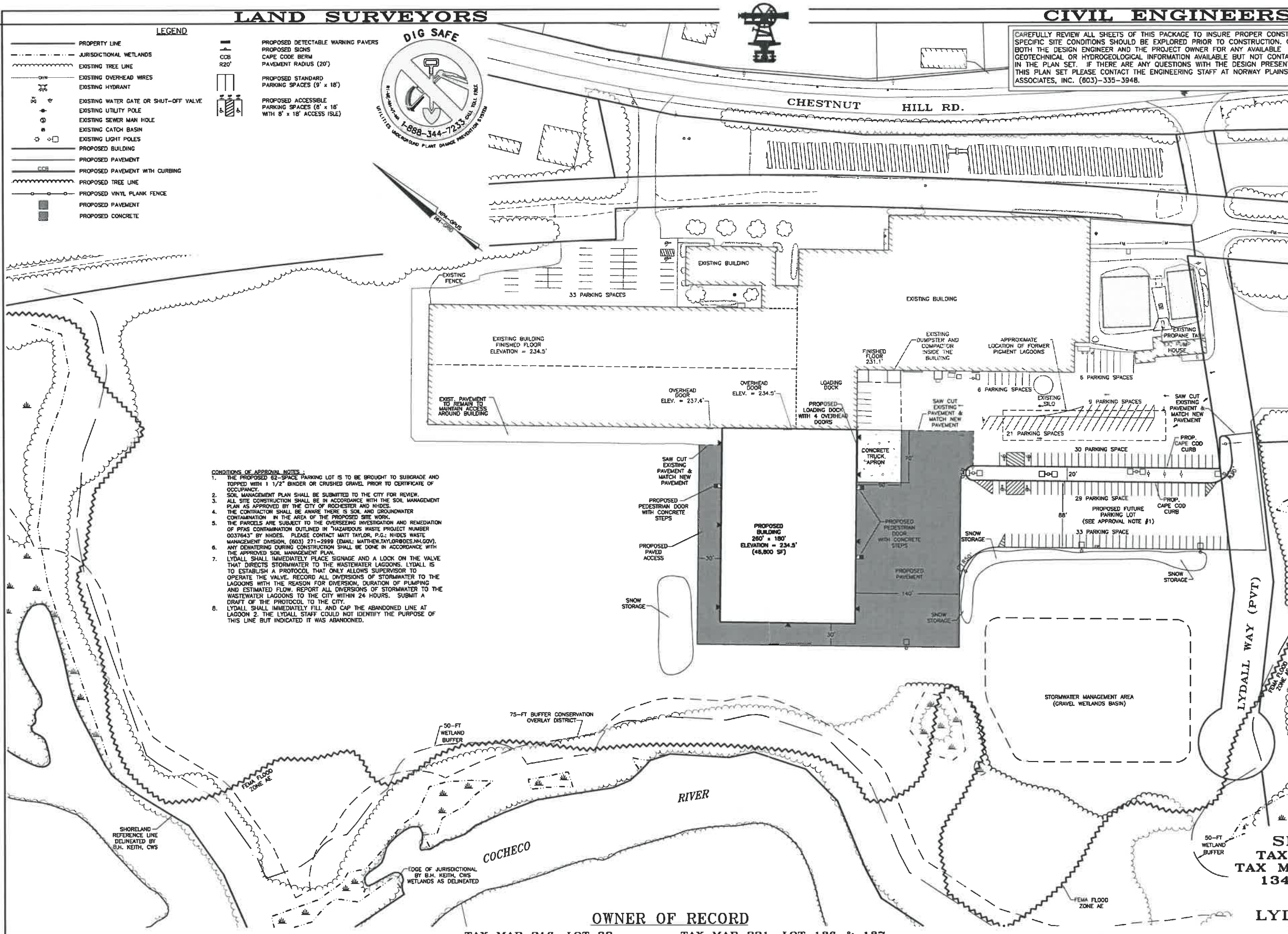
REVISIONS:

- 05/20/20 - ADD ACCESS NOTES.
- 05/31/20 - REVISE PROPOSED BUILDING DIMENSION, PAVEMENT AND STORMWATER MANAGEMENT AREA.
- 06/20/20 - ADD CONDITION OF APPROVAL NOTES.

GENERAL SITE PLAN NOTES:

- THESE PARCELS ARE LOCATED IN THE INDUSTRIAL ZONE (IND), AQUIFER PROTECTION DISTRICT, AND THE CONSERVATION OVERLAY DISTRICT (COO).
- DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
MINIMUM LOT AREA = 20,000 SF
MINIMUM LOT FRONTAGE = 100'
MINIMUM YARD SETBACKS:
FRONT = 25'
SIDE = 20'
REAR = 25'
MAXIMUM LOT COVERAGE = 75%
MAXIMUM BUILDING HEIGHT = 55'
BUFFER FROM EDGE OF COCHECO RIVER = 75'
BUFFER FROM JURISDICTIONAL WETLAND = 50'
- PARCEL HAS A SMALL PORTION LOCATED WITHIN ZONE AE (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP. COMMUNITY #3301702030 DATED MAY 17, 2005. NO STRUCTURE FALLS WITHIN FLOOD ZONE.
- THE PARCEL IS WITHIN THE CORRIDOR OF A DESIGNATED RIVER. IS SUBJECT TO RSA 483-B, THE SHORELAND WATER QUALITY PROTECTION ACT. THE SHORELAND FRONTAGE IS 4,800 FEET. THE SHORELAND REFERENCE LINE WAS DELINEATED BY B.H. KEITH, CWS, JULY 2018. THE PARCEL IS WITHIN THE SURFACE WATERS WITH IMPAIRMENTS.
- THE PARCEL IS WITHIN THE GROUNDWATER AREA CA2.
- THE HORIZONTAL DATUM IS CITY OF ROCHESTER GIS. THE VERTICAL DATUM IS NAVD 88.
- THE TOTAL LOT AREAS:
MAP 216, LOT 32 = 18.95 ACRES
MAP 221, LOT 186 = 18.87 ACRES
MAP 221, LOT 187 = 0.89 ACRES
TOTAL LOT COVERAGE = 12.0 ACRES OR 33%
PROPOSED BUILDING = 150,000 SF
PROPOSED PAVEMENT = 118,118 SF
- JURISDICTIONAL WETLANDS WERE DELINEATED BY BARRY H. KEITH, C.W.S. JULY 2018.
- SOIL TYPES ARE PER SITE SPECIFIC SOIL SURVEY REPORT BY DAVID J. ALLAN, NH CERTIFIED SOIL SCIENTIST #13 IN MAY 2019.
- PARKING REQUIREMENTS (SITE PLAN REGULATIONS, SECTION 10 (A)):
INDUSTRIAL USE 1 SPACE PER 1,000 GROSS SF PLUS 3 SPACES PER 1,000 SF FOR OFFICES.
OFFICE (EXISTING) 347,370/1,000 = 22 SPACES
INDUSTRIAL (EXISTING) 158,800/1,000 = 158 SPACES
INDUSTRIAL (PROPOSED) 46,800/1,000 = 47 SPACES
TOTAL REQUIRED SPACES = 227 SPACES
TOTAL PROVIDED SPACES = 157 SPACES
- A WAIVER REQUEST FOR SITE PLAN REGULATION, SECTION 10 (A) FOR MORE INFORMATION ABOUT THIS SITE PLAN, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 31 WAREFIELD ST., ROCHESTER, NH 03607. (603) 333-1338.
- THIS DEVELOPMENT MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW - UNLESS OTHERWISE WAIVED.
- THE APPLICANT SHALL OBTAIN A STORMWATER MANAGEMENT PERMIT FROM THE PUBLIC WORKS DEPARTMENT (UNLESS DETERMINED TO BE UNNECESSARY BY THE CITY ENGINEER) AND FOLLOW THE REQUIREMENTS OF THE CITY ORDINANCE CHAPTER 218. THE PERMITTEE SHALL PREPARE A WRITTEN PLAN FOR MANAGING STORMWATER THAT DURING THE CONSTRUCTION SITE AND SHALL PRESENT IT TO THE INSPECTION ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE PERMITTEE SHALL FOLLOW BEST MANAGEMENT PRACTICES TO PREVENT EROSION IN AREAS WHERE SOIL HAS BEEN DISTURBED.
- ACCESS INTO THE SITE FOR FIRE APPARATUS MUST BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THIS IS THE SOLE RESPONSIBILITY OF THE APPLICANT/DEVELOPER TO MAINTAIN THIS ACCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 330-7182 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS. FURTHERMORE, ACCESS AROUND THE EXISTING BUILDING AND PROPOSED ADDITION SHALL BE MAINTAINED DURING ALL PHASES AFTER CONSTRUCTION IS COMPLETED.
- SNOW SHALL NOT BE PILED IN SUCH A MANNER AS TO BLOCK THE VISIBILITY OF THE VEHICLES ON CHESTNUT HILL ROAD.
- ALL OUTSIDE CONSTRUCTION ACTIVITY RELATED TO THE DEVELOPMENT OF THIS SITE IS RESTRICTED TO THE HOURS OF 7:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY AND 8:00 A.M. TO 6:00 P.M. SATURDAY.
- THE CODE ENFORCEMENT OFFICE OF THE CITY OF ROCHESTER SIGN THE CODE ENFORCEMENT OFFICE. SIGNAGE SUBMITTED AS PART OF THIS SITE PLAN PACKAGE IS STILL SUBJECT TO HIS REVIEW TO ENSURE COMPLIANCE WITH THAT ORDINANCE AND OTHER APPLICABLE CODES. INDEPENDENT FROM THIS REVIEW, IN ADDITION, IF ANY SIGNIFICANT CHANGE OR EXPANSION IS PROPOSED TO THE DESIGN OF THE APPROVED FREESTANDING SIGN OR TO THE OVERALL ADVERTISING SIGNAGE FOR THE SITE (NOT INCLUDING ACCESSORY SIGNAGE, SUCH AS HANDICAP PARKING SIGNS), THE PROPOSED SIGN DESIGNS MUST BE PRESENTED TO THE PLANNING BOARD FOR REVIEW PRIOR TO ISSUANCE OF THOSE SIGN PERMITS. A SIGN PERMIT MUST BE OBTAINED PRIOR TO INSTALLATION OF ANY SIGNS ON SITE.
- ALL ELEMENTS SHOWN ON THE APPROVED SITE PLAN MUST BE PROPERLY COMPLETED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, UNLESS APPROPRIATE SURETY IS PLACED WITH THE PLANNING DEPARTMENT.
- NOTE THAT THIS APPROVAL IS FOR THE SITE PLAN ONLY. LIFE SAFETY CODE AND BUILDING CODE REVIEW WILL BE REQUIRED AS PART OF THE BUILDING PERMIT PROCESS WHEN THE CONSTRUCTION PLANS ARE SUBMITTED. VARIOUS REQUIREMENTS REGARDING THE BUILDING DESIGN POSSIBLY INCLUDING A SPRINKLER SYSTEM - MAY BE SPECIFIED AT THAT TIME.
- THE SEWER IMPACT CONTRIBUTION MUST BE PAID IN FULL TO THE CODE ENFORCEMENT DEPARTMENT, PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE SEWER IMPACT IS A ONE TIME PAYMENT OF \$2.00 PER GALLON FOR AVERAGE DAILY FLOW.
- THIS PROJECT DISTURBS OVER ONE ACRE OF GROUND COVER AND MEETS OTHER SPECIFIC REQUIREMENTS RELATED TO PERMIT CRITERIA FOR EPA NPDES COMPLIANCE. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTIONS AND MAINTENANCE OF SEDIMENT CONTROL MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION OF A NOTICE OF TERMINATION (NOT) TO EPA. THE CONTRACTOR IS ALSO RESPONSIBLE TO COMPLY WITH ANY OR ALL OTHER ASPECTS OF THE CURRENT FEDERAL, STATE AND LOCAL STORM WATER OR NPDES REGULATIONS OR REQUIREMENTS.
- THE INDICES MUST BE NOTIFIED IN WRITING PRIOR TO THE START OF CONSTRUCTION AND UPON COMPLETION OF CONSTRUCTION. THE FORM CAN BE SUBMITTED ELECTRONICALLY AT www.dem.nh.gov/organization/divisions/water/esd/categories/forms.htm
- THIS PROJECT IS SUBJECT TO IMPACT FEES AS DETERMINED AT THE ISSUANCE OF THE BUILDING PERMIT TO BE PAID PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
- THIS PROJECT HAS BEEN APPROVED IN PHASES AND THAT THE DEVELOPER SHALL COMPLY WITH THE IMPROVEMENTS IN ACCORDANCE WITH THE APPROVED PLANS. THE DEVELOPER SHALL START CONSTRUCTION OF THE FUTURE PARKING LOT WITHIN THE 5-YEARS OF THE DATE OF THIS APPROVAL.

- CONDITIONS OF APPROVAL NOTES:**
- THE PROPOSED 62-SPACE PARKING LOT IS TO BE BROUGHT TO SUBGRADE AND TOPPED WITH 1 1/2" BINDER OR CRUSHED GRAVEL PRIOR TO CERTIFICATE OF OCCUPANCY.
 - SOIL MANAGEMENT PLAN SHALL BE SUBMITTED TO THE CITY FOR REVIEW.
 - ALL SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SOIL MANAGEMENT PLAN AS APPROVED BY THE CITY OF ROCHESTER AND INDICES.
 - THE CONTRACTOR SHALL BE AWARE THERE IS SOIL AND GROUNDWATER CONTAMINATION IN THE AREA OF THE PROPOSED SITE WORK.
 - THE PARCELS ARE SUBJECT TO THE OVERSIZING INVESTIGATION AND REMEDIATION OF PPAS CONTAMINATION OUTLINED IN "HAZARDOUS WASTE PROJECT NUMBER 0037643" BY INDICES. PLEASE CONTACT MATT TAYLOR, P.G.: INDICES WASTE MANAGEMENT DIVISION, (603) 271-2989 (EMAIL: MATTHEW.TAYLOR@DES.NH.GOV). ANY DEWATERING DURING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE APPROVED SOIL MANAGEMENT PLAN.
 - LYDALL SHALL IMMEDIATELY PLACE SIGNAGE AND A LOCK ON THE VALVE THAT DIRECTS STORMWATER TO THE WASTEWATER LAGOONS. LYDALL IS TO ESTABLISH A PROTOCOL THAT ONLY ALLOWS SUPERVISOR TO OPERATE THE VALVE. RECORD ALL DIVERSIONS OF STORMWATER TO THE LAGOONS WITH THE REASON FOR DIVERSION, DURATION OF PUMPING AND ESTIMATED FLOW. REPORT ALL DIVERSIONS OF STORMWATER TO THE WASTEWATER LAGOONS TO THE CITY WITHIN 24 HOURS. SUBMIT A DRAFT OF THE PROTOCOL TO THE CITY.
 - LYDALL SHALL IMMEDIATELY FILL AND CAP THE ABANDONED LINE AT LAGOON 2. THE LYDALL STAFF COULD NOT IDENTIFY THE PURPOSE OF THIS LINE BUT INDICATED IT WAS ABANDONED.



SITE LAYOUT PLAN
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 187 & 186
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE
MATERIALS, INC.
MAY 2020
GRAPHIC SCALE
1 INCH = 60 FEET

FILE NO. 154
 PLAN NO. C-3059
 DWG. NO. 17233/SP-3

OWNER OF RECORD
 TAX MAP 216, LOT 32
 OWNER OF RECORD:
 LYDALL EASTERN, INC.
 134 CHESTNUT HILL ROAD
 ROCHESTER, NH 03867
 SCRD BOOK 1769, PAGE 359

OWNER OF RECORD:
 TAX MAP 221, LOT 186 & 187
 OWNER OF RECORD:
 LYDALL EASTERN, INC.
 TECHNICAL PAPERS DIVISION
 134 CHESTNUT HILL ROAD
 ROCHESTER, NH 03867
 SCRD BOOK 2141, PAGE 753

FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____



REVISIONS:

- 05/20/20 - EXISTING DRAINAGE SYSTEM. ADD PROPOSED DRAINAGE OVERFLOW PIPE. REVISE PROPOSED DRAINAGE STRUCTURE TABLE.
- 05/31/20 - REVISE PROPOSED BUILDING DIMENSIONS, PAVEMENT SITE GRADING, DRAINAGE TABLES, AND RAIN HARVEST SYSTEM AND FORCE MAIN LOCATION. ELIMINATE INFILTRATION BASIN AND REPLACE WITH GRAVEL WETLANDS BASIN.
- 06/01/20 - REMOVE PROPOSED RAIN HARVEST SYSTEM. ADD REMEDIATION CONDUIT UNDER PROPOSED ADDITION.
- 06/04/20 - ADD NEW DROP INLET BY LOADING DOCKS AND PAIR OF DRAIN PIPES. REVISE GRAVEL WETLAND BASIN GRADING AND OUTLET PIPES.

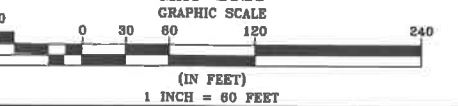
PROPOSED DRAINAGE STRUCTURES

- PROP. CB#1 48" Ø
RIM = 230.5'
INV. IN = 227.2' (FROM EXISTING CPP)
INV. OUT = 227.1' (15" CPP) (ELIMINATOR)
SUMP = 223.1'
- PROP. DI#2 (76" x 76" BASIN)
RIM = 229.5'
INV. OUT = 227.5' (12" Ø)
SUMP = 226.3'
- PROP. DIW#1 48" Ø
RIM = 234.1'
INV. IN = 230.50' (ROOF DRAINS)
INV. OUT = 230.40' (12" CPP)
- PROP. 12" Ø SEDIMENT FOREBAY DRAIN PIPE
GRATE = 228.0'
INV. OUT = 226.5' (12" CPP)
- PROP. 8" Ø GRAVEL BASIN CELL INLET CLEANOUT
GRATE = 227.5'
INV. OUT = 223.0' (8" CPP)
- PROP. 8" Ø GRAVEL BASIN CELL OUTLET CLEANOUT
CAP = 227.5'
INV. IN / OUT = 223.0' (8" CPP)
- PROP. 8" Ø GRAVEL BASIN CELL OUTLET CLEANOUT
CAP = 227.5'
INV. IN = 223.0' (8" CPP)
INV. OUT = 226.2' (4" PVC)
- PROP. 24" Ø OUTLET STRUCTURE
GRATE = 228.5'
ORIFICE = 226.7' (2" VERTICAL)
INV. OUT = 223.5' (12" CPP)
- PROP. 12" Ø CAP
WITH LOCATOR RISER
- PROP. DIW#2 80" Ø
RIM = 230.45'
INV. IN = 225.50' (REMEDIATION CONDUIT)

PROPOSED DRAINAGE PIPES

- | | |
|---|---|
| PROP. PIPE A
15" CPP
L = 150'
FES = 226.75' | PROP. PIPE G
8" PVC SOLID
L = 40'
LAID LEVEL |
| PROP. PIPES B
TWIN 12" DI PIPES
L = 310'
HEADWALL = 226.5' | PROP. PIPE H
8" PVC PERFORATED
L = 70'
LAID LEVEL |
| PROP. PIPE C
8" CPP
L = 5'
ROOF DRAIN PIPE | PROP. PIPE I
4" PVC SOLID
L = 110'
INV. OUT = 225.2' |
| PROP. PIPE D
12" CPP
L = 50' | PROP. PIPE J
12" CPP
L = 100'
FES = 222.5' |
| PROP. PIPE E
12" CPP
L = 26'
FES = 226.0' | PROP. PIPE K
12" CPP
L = 30'
FES = 226.7' |
| PROP. PIPE F
8" PVC PERFORATED
L = 50'
LAID LEVEL | PROP. PIPE L
12" HDPE
L = 225'
LAID LEVEL |

GRADING & DRAINAGE PLAN
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
 PREPARED FOR:
LYDALL PERFORMANCE
MATERIALS, INC.
 MAY 2020
 GRAPHIC SCALE



- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING DRAIN LINE
 - EXISTING CONTOUR LINE
 - EXISTING TEST PIT
 - EXISTING SPOT GRADE
 - PROPOSED SPOT GRADE
 - PROPOSED TREE LINE
 - PROPOSED DRAIN LINE
 - PROPOSED CONTOUR LINE EVEN
 - PROPOSED CONTOUR LINE ODD
 - PROPOSED CATCH BASIN
 - PROPOSED DRAIN MANHOLE
 - PROPOSED FLARED END SECTION (FES)
 - CORRUGATED POLYETHYLENE PIPE
 - CATCH BASIN
 - PROPOSED OUTLET PROTECTION



FILE NO. 154
 PLAN NO. C-3059
 DWC. NO. 17233/SP-3

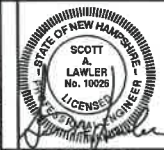
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

NOTE:
 1. HOUSES Aot SHALL BE NOTIFIED SEVEN DAYS PRIOR TO CONSTRUCTION.



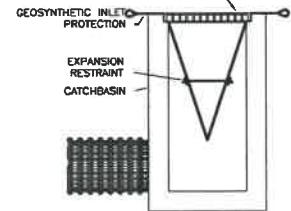
REVISIONS:

- 05/20/20 - ADD EXISTING DRAINAGE SYSTEM PIPES.
05/31/20 - REVISE PROPOSED BUILDING DIMENSIONS. PAVEMENT SITE GRADING AND DRAINAGE SYSTEM. ADD ADDITIONAL EROSION CONTROLS AT OUTLET PIPE FES FROM GRAVEL WETLAND BASIN.
06/01/20 - REMOVE PROPOSED RAIN HARVEST SYSTEM. ADD REMEDIATION CONDUIT UNDER PROPOSED ADDITION.



NOTES:
1. SEE SHEET C-9 AND C-10 FOR EROSION & SEDIMENT CONTROL DETAILS.

- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING DRAIN LINE
 - EXISTING CONTOUR LINE
 - 230
 - EXISTING CATCH BASIN
 - PROPOSED TREE LINE
 - PROPOSED DRAIN LINE
 - PROPOSED CONTOUR LINE EVEN
 - 225
 - PROPOSED CONTOUR LINE ODD
 - 5/7
 - PROPOSED SILTATION FENCE
 - 5/7
 - PROPOSED SILT SOCK
 - 5/7
 - PROPOSED ORANGE CONSTRUCTION FENCE
 - PROPOSED CATCH BASIN
 - PROPOSED DRAIN MANHOLE
 - PROPOSED FLARED END SECTION (FES)
 - PROPOSED TEMPORARY CATCH BASIN SILTSACK
 - PROPOSED TEMPORARY STABILIZED CONSTRUCTION EXIT
 - PROPOSED TEMPORARY STONE CHECK DAMS



SILTSACK® SPECIFICATIONS

REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

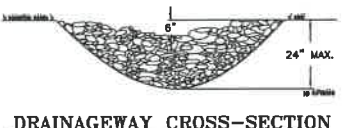
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4633	120 LBS
MULLER BURST	ASTM D-3706	900 PSI
TRAPEZOID TEAR	ASTM D-4633	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPROXIMATE OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	0.55 SEC - 1
PERMITTIVITY	ASTM D-4491	0.55 SEC - 1

- NOTES:**
1. GEOSYNTHETIC SEDIMENT FILTER TRAP SHALL BE "REGULAR FLOW SILTSACK®" OR APPROVED EQUAL. SPECIFICATIONS FOR SILTSACK® ARE DETAILED.
 2. FILTER TRAPS SHALL BE INSPECTED AFTER EVERY RAIN EVENT OF 0.25" OR GREATER AND SEDIMENTS SHALL BE REMOVED FROM TRAP WHEN SEDIMENT HAS REACHED TWO THIRDS OF THE DEPTH OF THE TRAP, OR IF FLOODING OF WATER AT SURFACE BEGINS TO OCCUR. DO NOT PUNCTURE FILTER TRAP TO MITIGATE FLOODING.
 3. INSTALL SILT SACKS IN CATCH BASIN UPON INSTALLATION OF STRUCTURE.

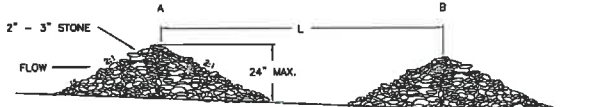
CATCH BASIN GEOSYNTHETIC SEDIMENT TRAP

NOT TO SCALE

SPACING BETWEEN CHECK DAMS	LENGTH (FT)
0.020	75
0.030	50
0.040	37
0.050	30
0.060	25
0.080	19
0.100	15
0.120	13
0.150	10



DRAINAGEWAY CROSS-SECTION



L = THE DISTANCE SUCH THAT POINTS A & B ARE OF EQUAL ELEVATION.

SPACING BETWEEN STONE CHECK DAMS

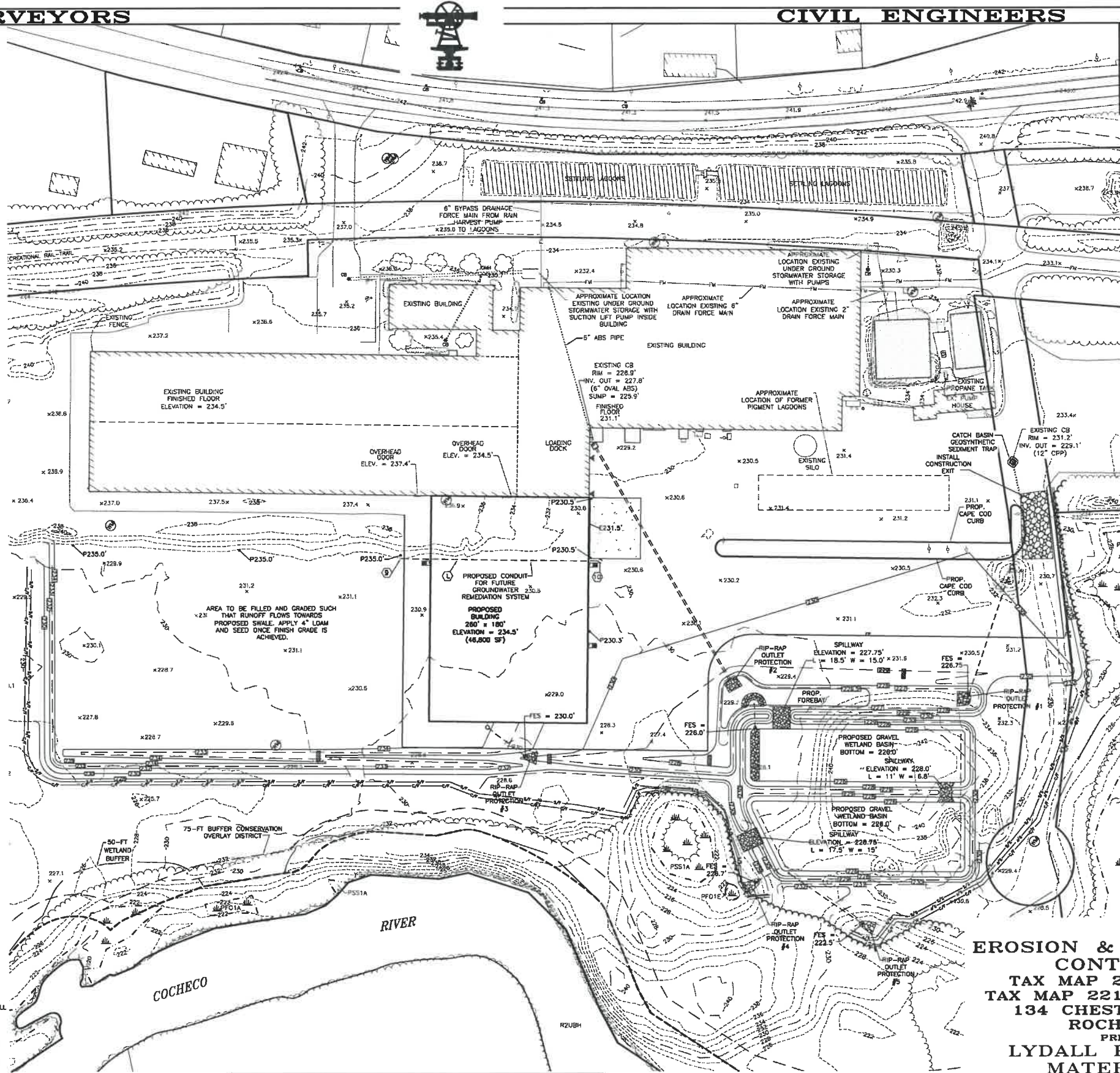
- CONSTRUCTION SPECIFICATIONS:**
1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
 2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED.
 3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

- MAINTENANCE NOTES:**
1. TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY.
 2. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
 3. WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDING AND MULCHED.
 4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM INSTALLATION DETAIL

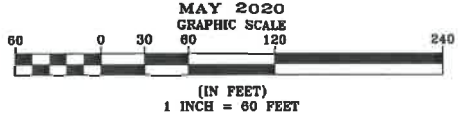
FILE NO. 154
PLAN NO. C-3059
DWG. NO. 17233/SP-3

31 Mooney Street, Alton, N.H. 603-875-3948



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

EROSION & SEDIMENTATION CONTROL PLAN
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE MATERIALS, INC.



LAND SURVEYORS

CIVIL ENGINEERS

LEGEND

—	PROPERTY LINE	—	PROPOSED DRAIN LINE
---	JURISDICTIONAL WETLANDS	—PW—	PROPOSED WATER SERVICE
---	EXISTING OVERHEAD WIRES	—PS—	PROPOSED SEWER LINE
—W—	EXISTING WATER MAIN	—PFM—	PROPOSED SEWER FORCE MAIN PIPE HOPS SDR 11
—S—	EXISTING GRAVITY SEWER MAIN	—PC—	PROPOSED PROPANE GAS LINE
—FM—	EXISTING SEWER FORCE MAIN	—UGU—	PROPOSED UNDERGROUND UTILITY WIRES
—UGE—	EXISTING UNDERGROUND ELECTRIC WIRES	—LGE—	PROPOSED UNDERGROUND ELECTRIC WIRES
—UGU—	EXISTING UNDERGROUND UTILITY WIRES	—	PROPOSED HYDRANT
—	EXISTING GAS PIPE	—	PROPOSED WATER VALVE
—	EXISTING DRAIN LINE	—	PROPOSED WATER SHUT-OFF VALVE
—	EXISTING HYDRANT	—	PROPOSED SEWER SHUT-OFF VALVE
—	EXISTING WATER GATE OR SHUT-OFF VALVE	—	PROPOSED UTILITY POLE
—	EXISTING UTILITY POLE	—	PROPOSED SEWER MANHOLE
—	EXISTING SEWER MANHOLE	—	PROPOSED DRAIN MANHOLE
—	EXISTING CATCH BASIN	—	PROPOSED CATCH BASIN
—	EXISTING LIGHTS	—	PROPOSED LIGHT POLES
		—	PROPOSED BUILDING LIGHT FIXTURES

NOTES:

- CONSTRUCTION WILL CONFORM TO THE FOLLOWING UTILITIES STANDARDS AND SPECIFICATION:
 - SANITARY SEWER DISPOSAL - NHDES
 - ELECTRIC DISTRIBUTION - EVERSOURCE
 - TELEPHONE - FAIRPOINT
 - CABLE - CONSOLIDATED COMMUNICATIONS
 - WATER - CITY OF ROCHESTER, STANDARDS

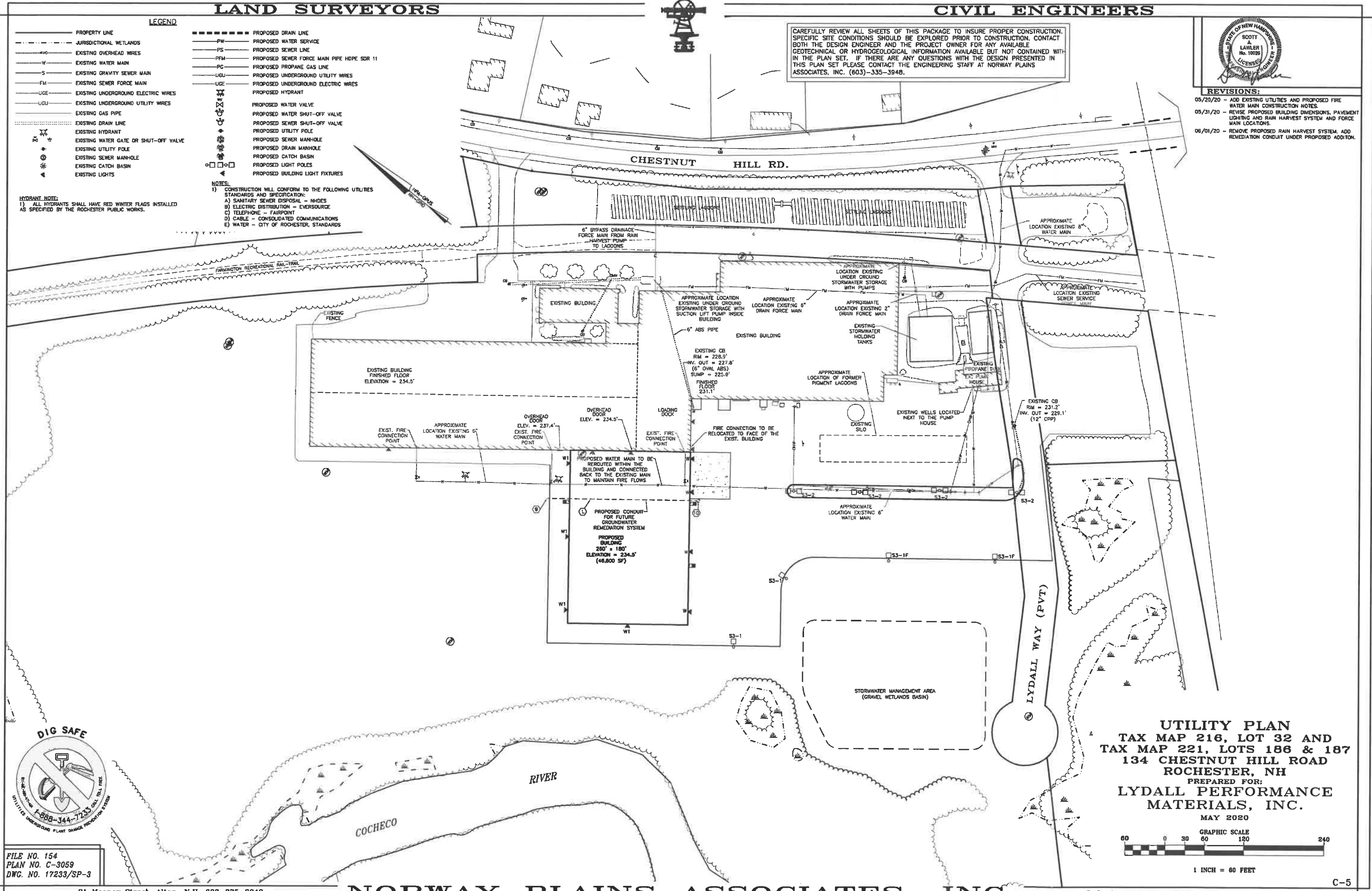
HYDRANT NOTE:
1) ALL HYDRANTS SHALL HAVE RED WINTER FLAGS INSTALLED AS SPECIFIED BY THE ROCHESTER PUBLIC WORKS.

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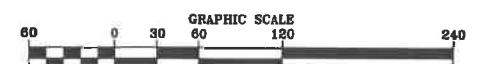


REVISIONS:

- 05/20/20 - ADD EXISTING UTILITIES AND PROPOSED FIRE WATER MAIN CONSTRUCTION NOTES.
- 05/31/20 - REVISE PROPOSED BUILDING DIMENSIONS, PAVEMENT LIGHTING AND RAIN HARVEST SYSTEM AND FORCE MAIN LOCATIONS.
- 06/01/20 - REMOVE PROPOSED RAIN HARVEST SYSTEM, ADD REMEDIATION CONDUIT UNDER PROPOSED ADDITION.



UTILITY PLAN
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE MATERIALS, INC.
MAY 2020



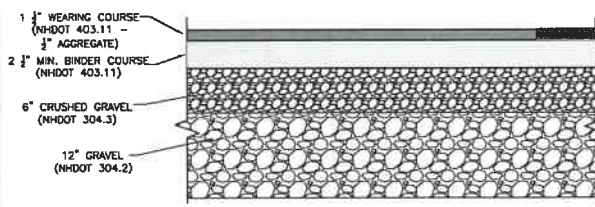
1 INCH = 60 FEET

FILE NO. 154
PLAN NO. C-3059
DWC. NO. 17233/SP-3

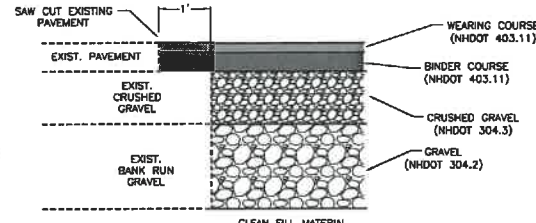
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

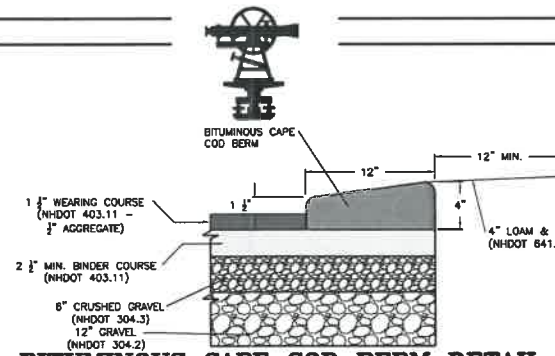
2 Continental Blvd., Rochester, N.H. 603-335-3948



PARKING LOT CROSS-SECTIONS
NOT TO SCALE

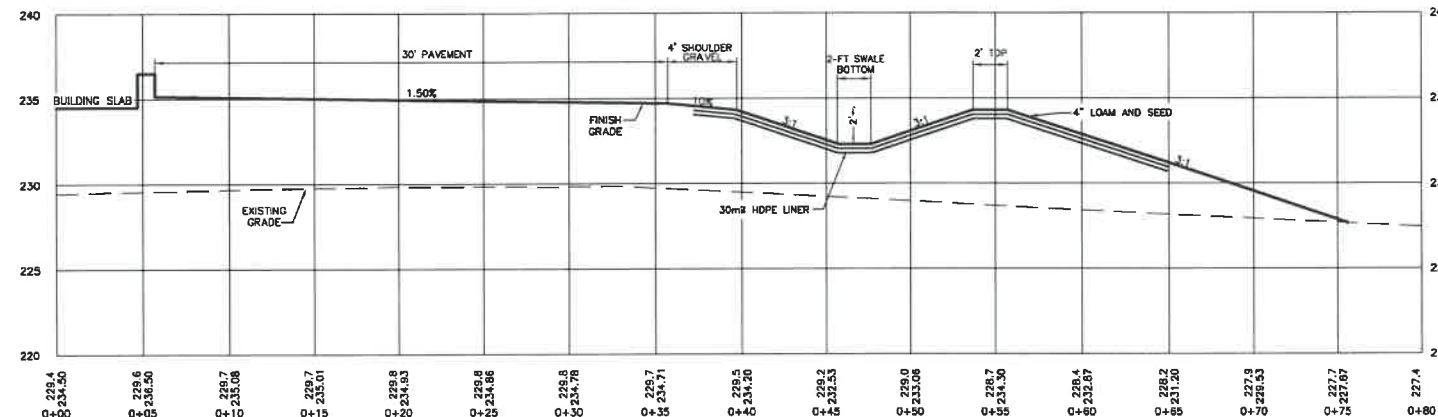


TYPICAL PAVEMENT MATCHING DETAIL
NOT TO SCALE

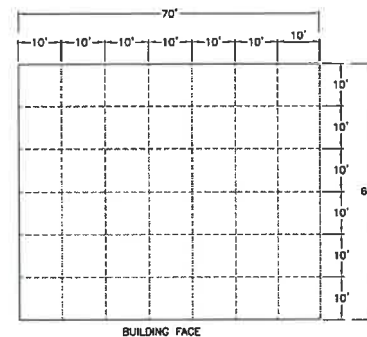


BITUMINOUS CAPE COD BERM DETAIL
NOT TO SCALE

- PAVEMENT NOTES:**
1. PLACE COMMON FILL IN 12 INCH LIFTS. COMPACT COMMON FILL TO 95% MAXIMUM PROCTOR DENSITY.
 2. PLACE GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
 3. PLACE CRUSHED GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
 4. PAVEMENT MUST BE INSTALLED IN TWO COURSES, A BINDER COURSE AND A WEARING COURSE.

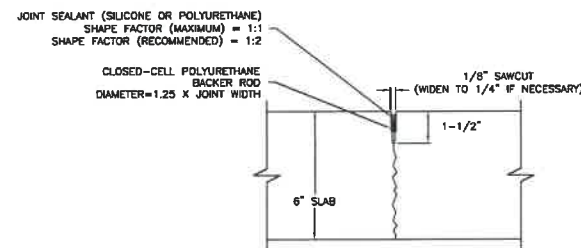


SECTION A-A
1" = 5' (HORZ.) & 1" = 5' (VERT.)
SEE SHEET C-3 FOR LOCATION

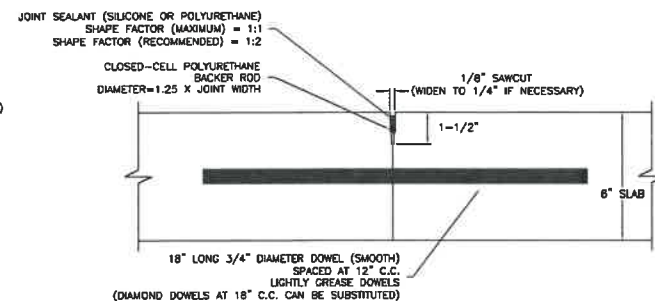


CONCRETE PAD SHIPPING AND RECEIVING
NOT TO SCALE

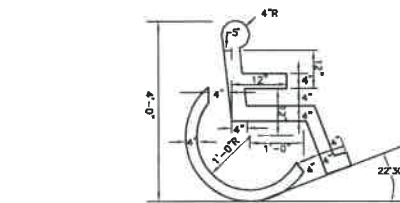
- JOINT NOTES:**
1. JOINT SEALANT: JOINT SEALANT USED TO SEAL THE CONTRACTION JOINTS SHALL BE INTENDED FOR USE AS A CONCRETE PAVEMENT SEALER AS DESCRIBED BY THE MANUFACTURER'S SPECIFICATIONS. SEALANT SHALL BE INSTALLED WITH POLYURETHANE BACKER RODS. EITHER SILICONE OR POLYURETHANE JOINT SEALER IS ACCEPTABLE. APPROVED SEALANTS ARE AS FOLLOWS:
SILICONE:
SIKASIL 728 NS
SIKASIL 728 SL
SONOLASTIC SL 1
SONOLASTIC SL 2
POLYURETHANE:
SIKAFLEX 15 LN SL GRADE
SIKAFLEX 10 SL
SIKAFLEX 2 C NS TG
SONOLASTIC NP 2
 2. THE USE OF PREFORMED SEALS IS ALLOWED WITH APPROVAL OF MATERIAL BY THE DESIGN ENGINEER.
 3. BACKER RODS: BACKER RODS SHALL BE CLOSED-CELL POLYURETHANE WITH A MINIMUM DIAMETER OF 1.25 X THE CONTRACTION JOINT WIDTH.
 4. CONTRACTION JOINTS: CONTRACTION JOINTS SHALL BE SAWCUT INTO THE SLAB TO A DEPTH OF 1-1/2" MINIMUM (6" SLAB) OR 1" MINIMUM (4" SLAB), WITH A WIDTH OF 1/8". SAWCUTS TO BE WIDENED TO 1/4" IF NECESSARY TO ACCOMMODATE SEALANT AND BACKER ROD.
 5. CONSTRUCTION JOINT: CONSTRUCTION JOINT TO BE CONSTRUCTED AS SHOWN ON THE TRUCK STOPPING PAD AT GUARD HOUSE DETAIL AND CONSTRUCTION JOINT DETAIL ABOVE.
 6. DOWELS: DOWELS SHALL BE SMOOTH, CORROSION RESISTANT STEEL (EITHER EPOXY COATED OR STAINLESS STEEL). DOWELS SHALL BE LIGHTLY GREASED OVER THEIR ENTIRE LENGTH.



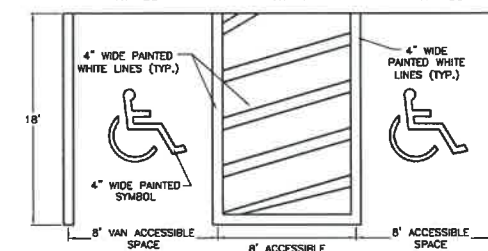
SAW CUT CONTRACTION JOINT DETAIL
NOT TO SCALE



CONSTRUCTION JOINT DETAIL
NOT TO SCALE



ACCESSIBLE SYMBOL



STALL STRIPING DETAIL
NOT TO SCALE

- NOTE:**
1. HANDICAP GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN SPACE. SYMBOL TO BE PAINTED ON ASPHALT AS PER DETAIL.

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



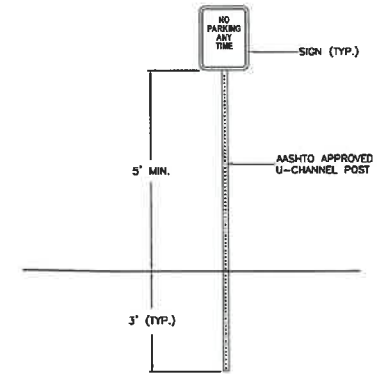
REVISIONS:

06/12/20 - REVISE CROSS SECTION TO ADD HOPE LINE TO THE CONVEYANCE SWALE & ELIMINATE THE REQUIREMENT FOR A IMPEROVUS LAYER WITHIN THE BERM.

ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R7-8a	18"	12"	INTERSECTING PARKING	4
R7-8b	6"	12"	VAN ACCESSIBLE	
R7-1	18"	12"	NO PARKING ANY TIME	1

- NOTES:**
1. ALL SIGNS SHALL BE PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

SIGN SCHEDULE
NOT TO SCALE



- NOTES:**
1. SIGN POST SHALL BE AASHTO APPROVED U-CHANNEL OR OTHER PER AASHTO "SPECIFICATIONS FOR STRUCTURAL SUPPORT OF HIGHWAY SIGNS, LUMINAIRES AND SIGNALS", LATEST EDITION.
 2. SIGNS SHALL BE MOUNTED 5 FT FROM GROUND TO BOTTOM EDGE WHERE PARKING AND PARKING LOT MOVEMENTS TAKE PLACE.
 3. SIGNS SHALL BE PLACED SO THAT NEAREST EDGE IS 2 FT. FROM EDGE OF PAVEMENT UNLESS CURBED.

TYPICAL TRAFFIC SIGN
NOT TO SCALE

CONSTRUCTION DETAILS
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE MATERIALS, INC.
MAY 2020

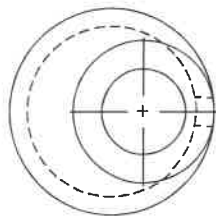
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NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

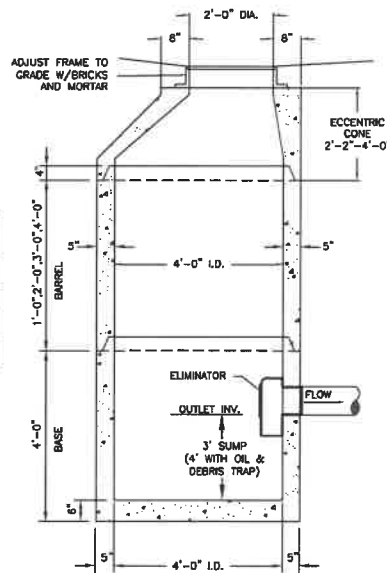
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



PLAN VIEW

DRAIN LINE DIAMETER	SUM OF DRAIN LINE DIAMETER	CATCH BASIN DIAMETER
15" TO 18"	LESS THAN 54"	4'
21" TO 27"	LESS THAN 72"	5'
30" TO 33"	LESS THAN 90"	6'
36" & LARGER	GREATER THAN 90"	REFER TO THE STANDARD

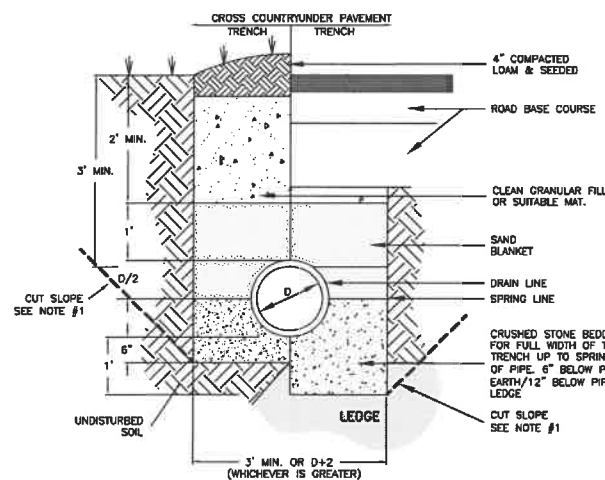
- NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
 2. REINFORCING: SHALL BE PROVIDED FOR H-20 LOADING.
 3. SHIRLAP JOINTS SEALED WITH 1 STRIP OF BUTYL RUBBER SEALANT.
 4. PIPE OPENINGS CAST IN AS REQUIRED.
 5. RISER HEIGHT VARIES 1', 2', 3' OR 4' TO REACH DESIRED DEPTH.
 6. PIPE CONNECTIONS SHALL BE MORTARED.
 7. PRECAST SECTIONS SHALL CONFORM TO ASTM C-478.
 8. SEE SLAB TOP DETAIL FOR STRUCTURES REQUIRING SLAB TOPS, I.E. DOUBLE GRATE AND FRAME STRUCTURES.



SECTION VIEW

PRE-CAST REINFORCED CATCH BASIN

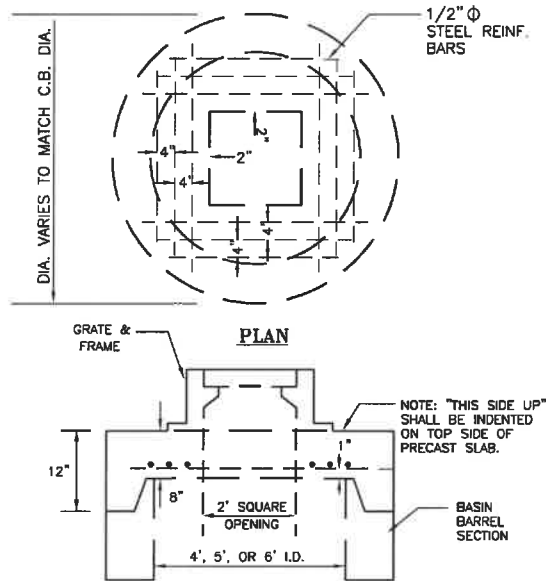
NOT TO SCALE



DRAINAGE PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE

- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.
 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

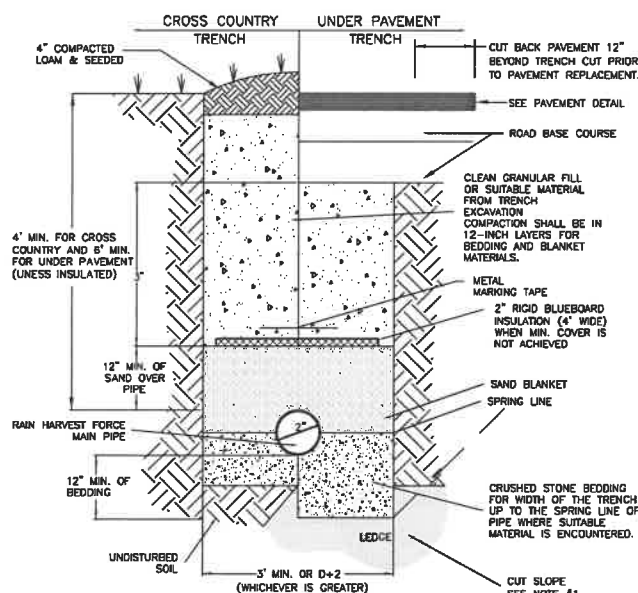


ELEVATION

- NOTE:
1. SLAB TO BE PLACED IN LIEU OF TAPERED SECTION WHERE PIPE WOULD OTHERWISE ENTER INTO TAPERED SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 2. SLAB TOP MAY BE CASTED WITH MINIMUM OR NO INTERLOCKING CHANNEL. HOWEVER, THE CONTRACTOR MUST ENSURE THE SLAB TOP IS FIRMLY ATTACHED TO THE STRUCTURE.

REINFORCED CONCRETE SLAB COVER

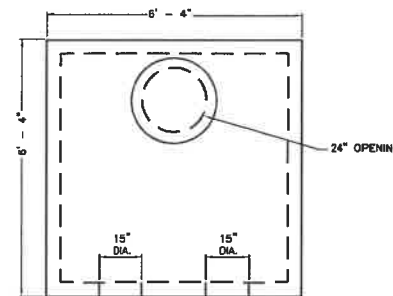
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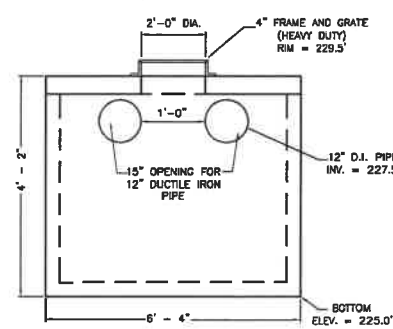
- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.
 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. HOPE PRESSURE MAIN PIPE SECTIONS SHALL BE JOINED BY THERMAL HEAT FUSION. CONNECTIONS OR TRANSITIONS TO NON-HOPE COMPONENTS SHALL BE MADE WITH FITTINGS APPROVED FOR HOPE CONNECTIONS. THE WELDING TECHNICIAN SHALL BE EXPERIENCED IN HOPE HEAT FUSION WELDING WITH MINIMUM OF 500 HOURS OF WELDING EXPERIENCE.
 4. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.
 5. THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSES A 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE.

FORCE MAIN RAIN HARVEST PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

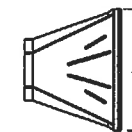
- NOTE:
1. CONCRETE: 5,000 PSI MIN AFTER 28 DAYS.
 2. TYPE II CEMENT.
 3. JOINT SEALED WITH BUTYLE RESIN.
 4. END BOOTS SHALL BE USED AT THE PIPE CONNECTIONS.
 5. 600 GALLON PUMP BOX, H-20 LOADING, BY A.J. FOSS CO. OR APPROVED EQUAL.

DROP INLET BASIN DETAIL

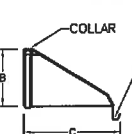
NOT TO SCALE



- REVISIONS:
- 05/20/20 - REVISE DMH DETAILS, ADD RAIN HARVEST DETAILS
 - 05/31/20 - REMOVE 30" DIAMETER MANHOLE DETAIL
 - 06/05/20 - ADD DROP INLET BASIN DETAIL



TOP VIEW



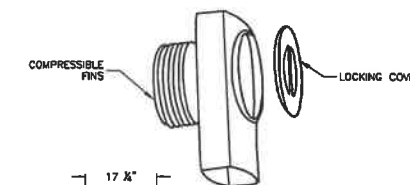
SIDE VIEW

PIPE DIAMETERS	A	B	C	D
10" / 12"	42	14.5	33	6
15"	41	19	34	6
18"	49	22	43	6
24"	59.5	28	48	6
30"	88	36	63.5	6
36"	88	43	66.5	6

FRONT VIEW

FLAIRED END SECTION DETAIL

NOT TO SCALE



SIDE VIEW

FRONT VIEW

ELIMINATOR CATCH BASIN OIL AND DEBRIS TRAP DETAIL

NOT TO SCALE

- NOTES:
1. HOOD SHALL BE "THE ELIMINATOR" OIL & FLOATING DEBRIS TRAP AS MANUFACTURED BY GROUND WATER RESCUE, INC., QUINCY, MA, TEL. 817-773-1128 ON THE WEB @ WWW.KLEANSTREAM.COM
 2. THE DIMENSIONS ARE FOR A 12" SYSTEM, BUT ALSO AVAILABLE IN 6", 10", 15" AND 18" DIAMETERS.

DRAINAGE DETAILS
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE MATERIALS, INC.
MAY 2020

FILE NO. 154
PLAN NO. C-3059
DWG. NO. 17233/SP-3

LAND SURVEYORS

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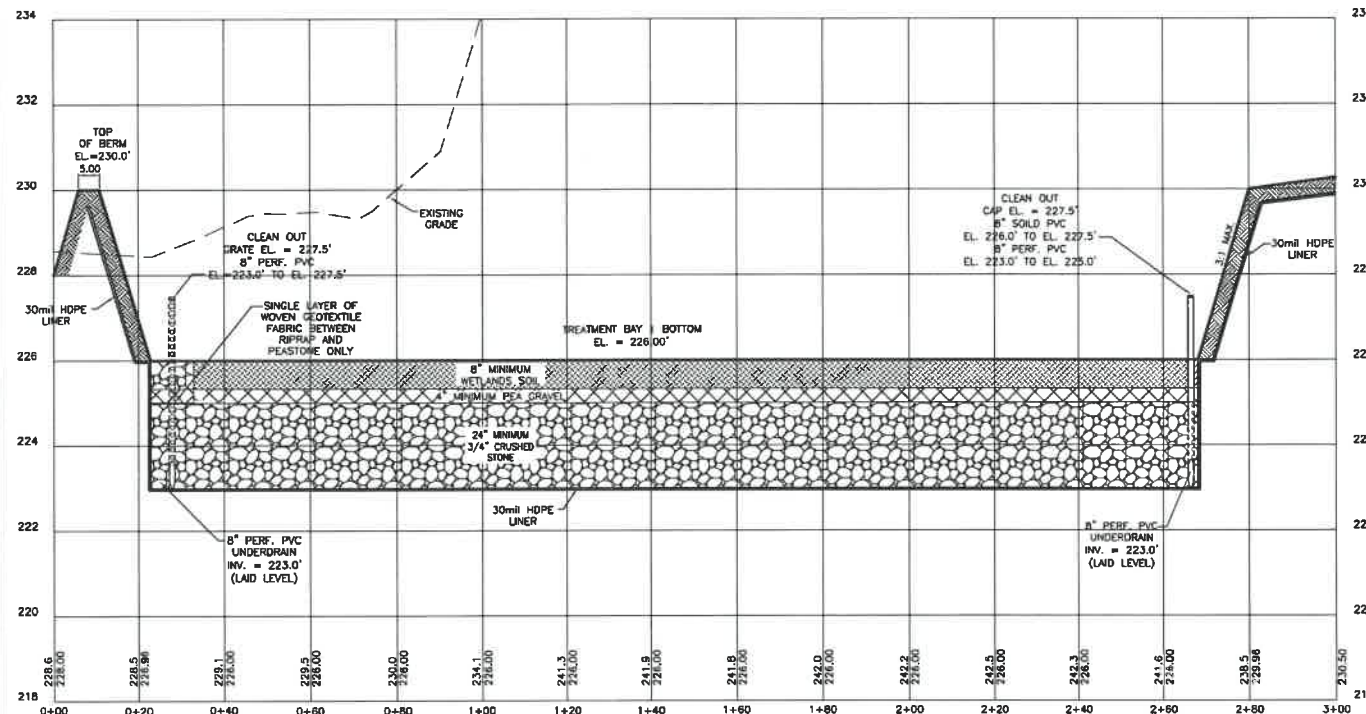


CIVIL ENGINEERS

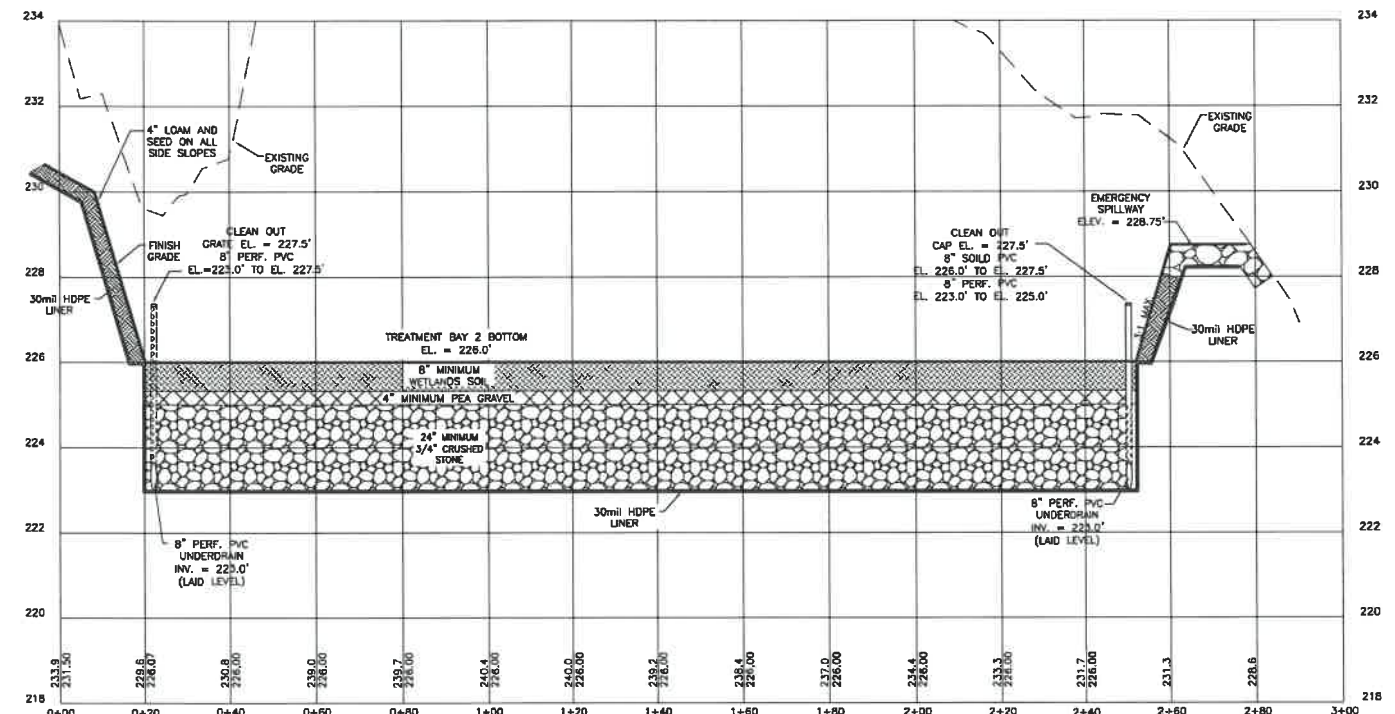
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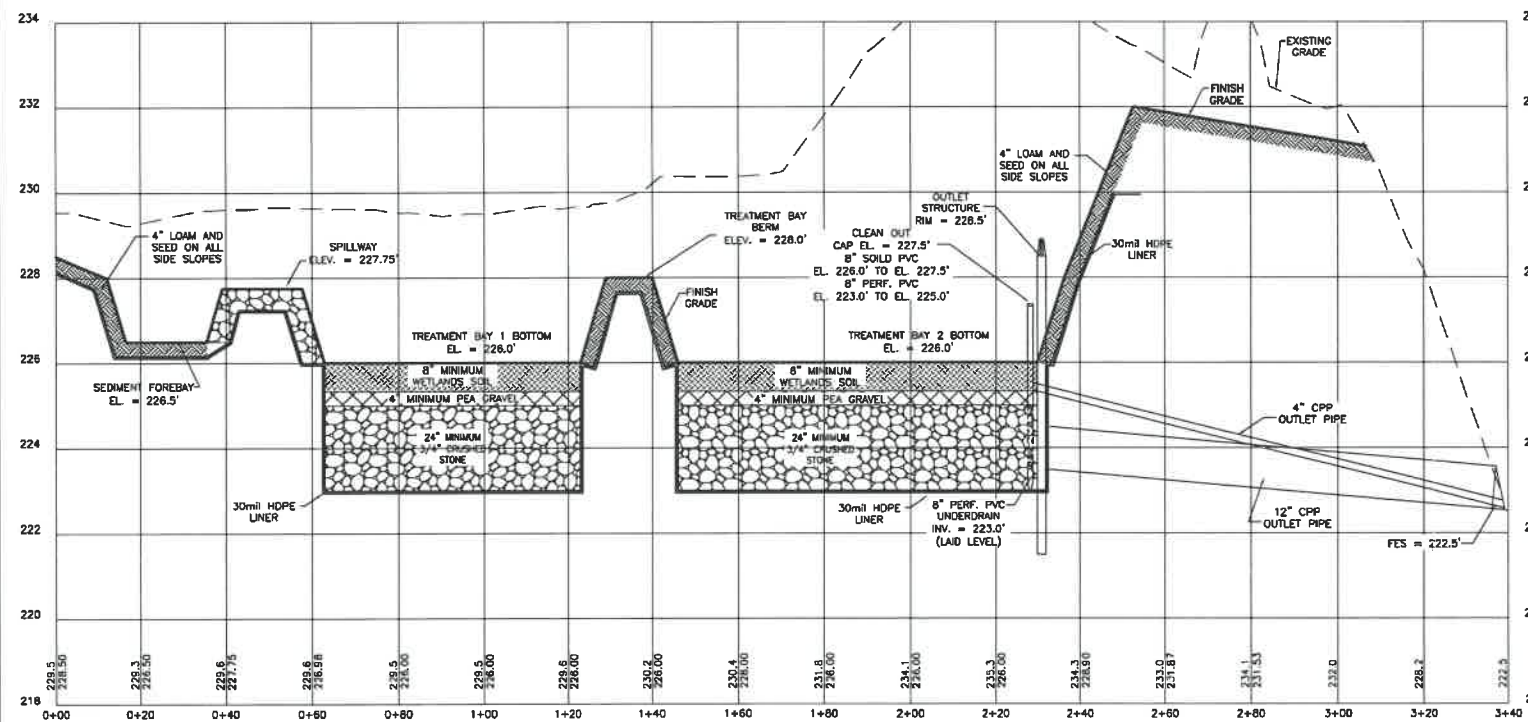
REVISIONS:
09/07/20 - ADD CROSS SECTION E-E



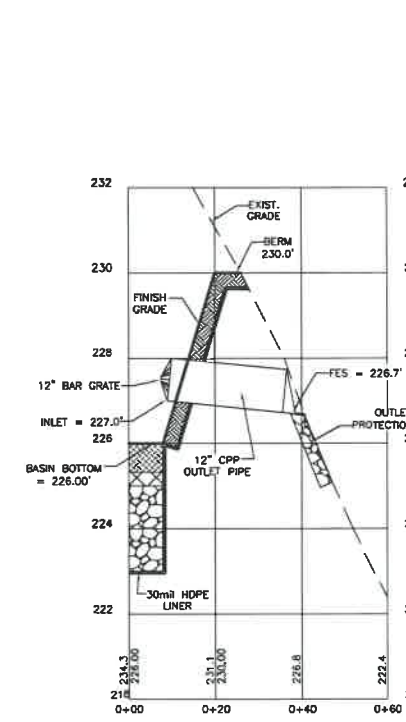
GRAVEL WETLANDS BASIN TREATMENT BAY 1 CROSS SECTION B - B
1" = 20' (HORZ.) & 1" = 2' (VERT.)



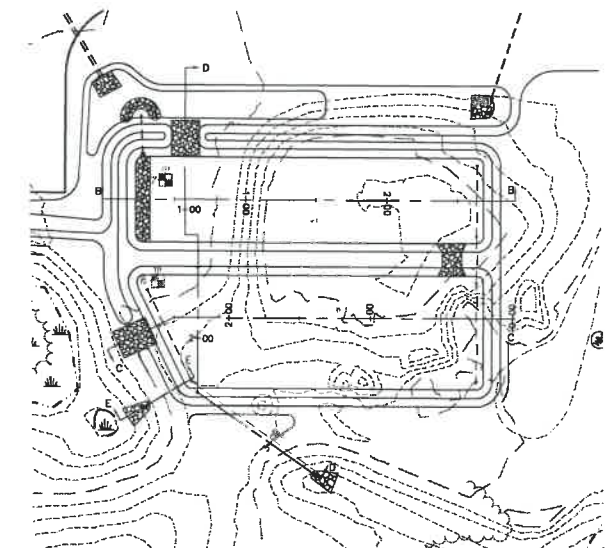
GRAVEL WETLANDS BASIN TREATMENT BAY 2 CROSS SECTION C - C
1" = 20' (HORZ.) & 1" = 2' (VERT.)



GRAVEL WETLANDS BASIN TREATMENT CROSS SECTION D - D
1" = 20' (HORZ.) & 1" = 2' (VERT.)



**GRAVEL WETLANDS BASIN
SECONDARY OUTLET SECTION E - E**
1" = 20' (HORZ.) & 1" = 2' (VERT.)



GRAVEL WETLANDS BASIN CROSS SECTION PLAN
1" = 60'
GRAVEL WETLAND CROSS SECTIONS
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE
MATERIALS, INC.
MAY 2020

FILE NO. 154
PLAN NO. C-3059
DWG. NO. 17233/SP-3

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

C-8

LAND SURVEYORS



PROPOSED GRAVEL WETLAND BASIN DRAINAGE STRUCTURES

- 4- PROP. 12" Ø SEDIMENT FOREBAY DRAIN PIPE
GRATE = 228.0'
INV. OUT = 226.5' (12" CPP)
- 5- PROP. 8" Ø GRAVEL BASIN CELL INLET CLEANOUT
GRATE = 227.5'
INV. IN / OUT = 223.0' (8" CPP)
- 6- PROP. 8" Ø GRAVEL BASIN CELL OUTLET CLEANOUT
CAP = 227.5'
INV. IN / OUT = 223.0' (8" CPP)
- 7- PROP. 8" Ø GRAVEL BASIN CELL OUTLET CLEANOUT
CAP = 227.5'
INV. IN = 223.0' (8" CPP)
INV. OUT = 223.2' (4" PVC)
- 8- PROP. 24" Ø OUTLET STRUCTURE
GRATE = 228.5'
ORIFICE = 226.63' (2" VERTICAL)
INV. OUT = 223.5' (12" CPP)

- E- PROP. PIPE E
12" CPP
L = 28'
FES = 226.0'
- F- PROP. PIPE F
8" PVC PERFORATED
L = 50'
LAID LEVEL
- G- PROP. PIPE G
8" PVC SOLID
L = 40'
LAID LEVEL
- H- PROP. PIPE H
8" PVC PERFORATED
L = 70'
LAID LEVEL
- I- PROP. PIPE I
1" MIN.
L = 100'
FES = 222.5'
- J- PROP. PIPE J
12" CPP
L = 30'
FES=226.7'
- K- PROP. PIPE K
12" CPP
L = 30'
FES=226.7'

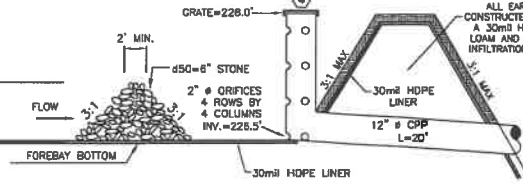
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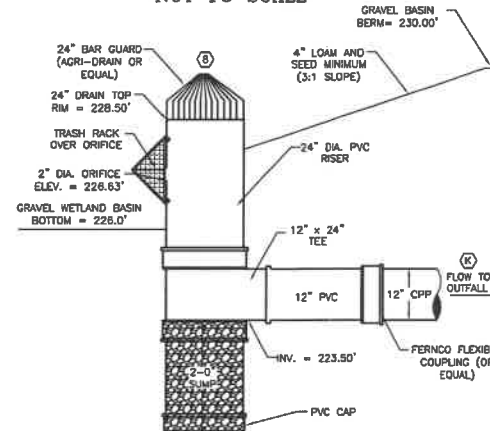


REVISIONS:

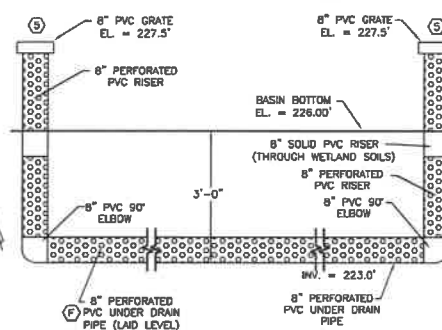
06/07/20 - REVISE PER DFW COMMENTS. ADD SECONDARY OUTLET PIPE DETAIL.



FOREBAY OUTLET STRUCTURE NOT TO SCALE

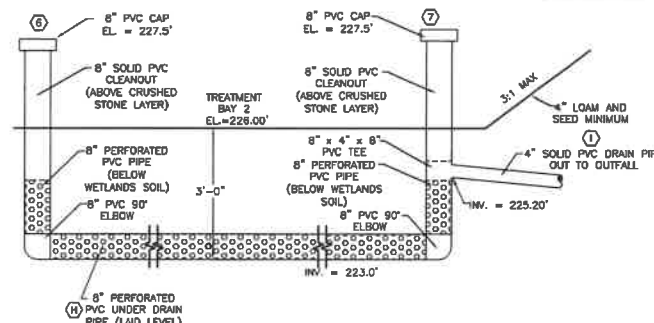


GRAVEL WETLANDS OUTLET STRUCTURE DETAIL NOT TO SCALE



GRAVEL WETLANDS INLET STRUCTURE DETAIL SCALE: NOT TO SCALE

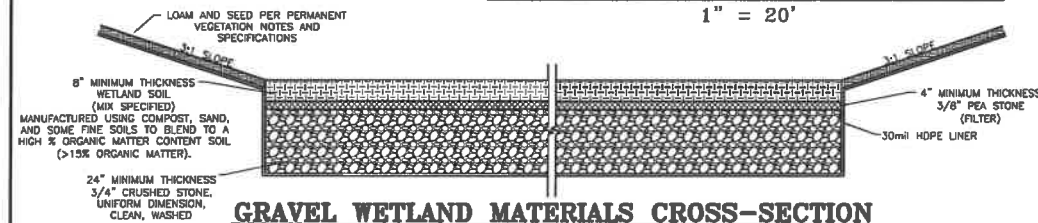
- NOTES:
- 8" PERFORATED PIPE SHALL BE SUPPLIED WITH 4 ROWS OF 1" TO 2" DIAMETER HOLES EVERY 3 INCHES.
 - PERFORATED PIPES SHALL BE PERFORATED IN ACCORDANCE TO ASTM F-758.



GRAVEL WETLANDS TREATED WATER OUTLET STRUCTURE DETAIL SCALE: NOT TO SCALE

GRAVEL WETLANDS BASIN PLAN VIEW

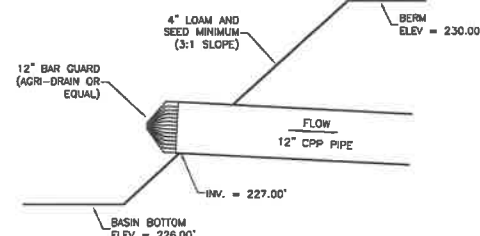
1" = 20'



GRAVEL WETLAND MATERIALS CROSS-SECTION

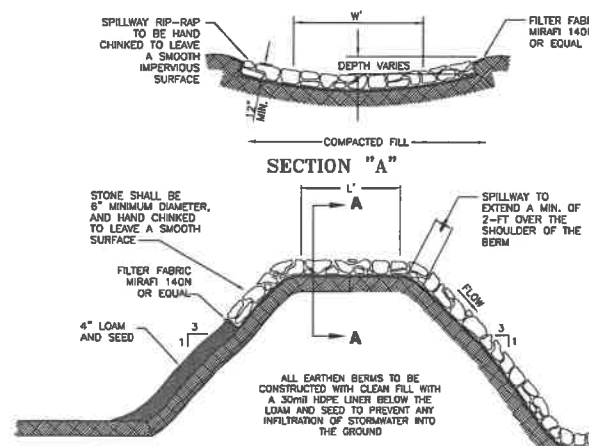
NOT TO SCALE

LOW PERMEABILITY MATERIAL GRADATION:	
SIZE	PERCENT
#4	95-100
#40	50-90
#100	40-60
#200	25-45



SECONDARY OUTLET PIPE DETAIL

NOT TO SCALE



SPILLWAY DETAIL

NOT TO SCALE

GRAVEL WETLAND PLAN
& DETAILS
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
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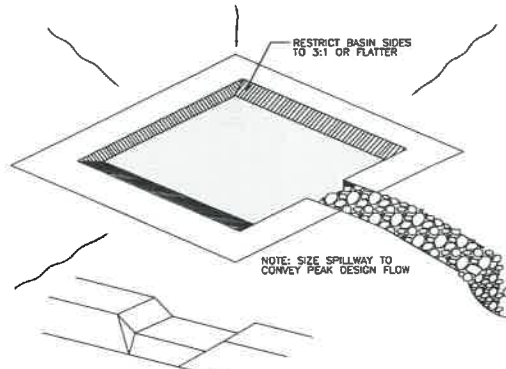
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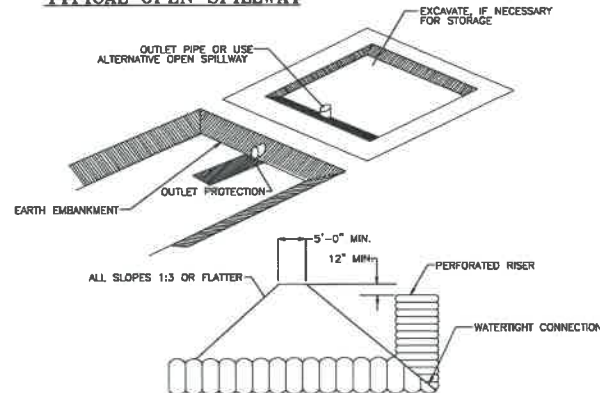
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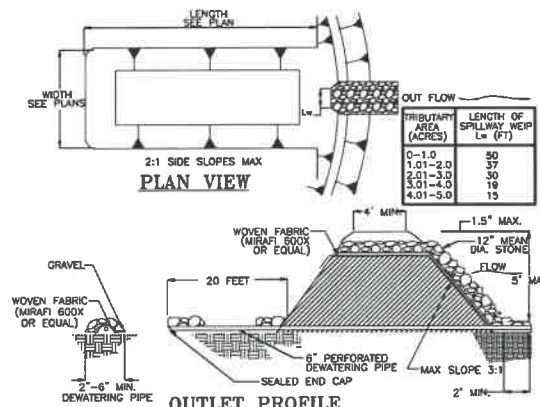
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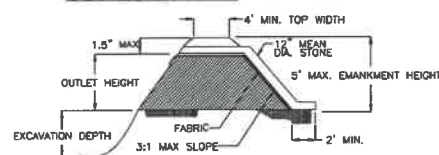
TYPICAL OPEN SPILLWAY



EMBANKMENT SECTION THRU RISER

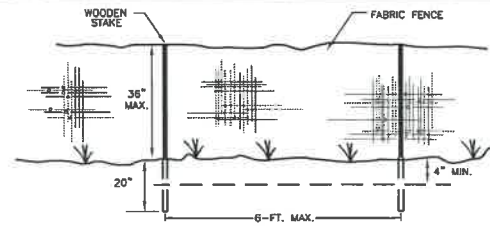


OUTLET PROFILE

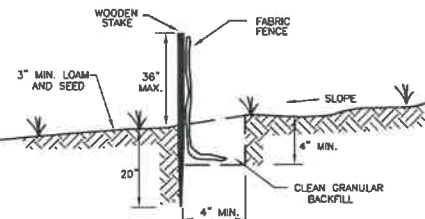


ALTERNATE OUTLET PROFILE

SEDIMENT TRAP



PROFILE



CROSS-SECTION

- MAINTENANCE REQUIREMENTS:**
- FENCES SHALL BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALLS.
 - SEDIMENT DEPOSITION SHALL BE REMOVED, AT A MINIMUM, WHEN DEPOSITION ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FENCE, AND MOVED TO AN APPROPRIATE LOCATION SO THE SEDIMENT IS NOT TRANSPORTED BACK TOWARD THE SILT FENCE.
 - SILT FENCES SHALL BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
 - SHALL THE FABRIC ON A SILT FENCE BECOME INSPECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 - ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE PREPARED AND SEEDED.
 - IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.
 - SILT FENCES HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT FENCE SHALL BE REPAIRED PERIODICALLY AS REQUIRED TO MAINTAIN EFFECTIVENESS.

- CONSTRUCTION SPECIFICATIONS:**
- FENCES SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE FENCE. SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.
 - THE MAXIMUM CONTRIBUTING DRAINAGE AREA ABOVE THE FENCE SHALL BE LESS THAN 1 ACRE PER 100 LINEAR FEET OF FENCE.
 - THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHALL BE 100 FEET.
 - THE MAXIMUM SLOPE ABOVE THE FENCE SHALL BE 2:1.
 - FENCES SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, AND
 - THE ENDS OF THE FENCE SHALL BE FLARED UPSLOPE;
 - THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 4 INCHES IN DEPTH AND INCHES IN WIDTH IN A TRENCH EXCAVATED INTO THE GROUND, OR IF SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE, OR THE PRESENCE OF HEAVY ROOTS, THE BASE OF THE FABRIC SHALL BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE;
 - THE SOIL SHALL BE COMPACTED OVER THE EMBEDDED FABRIC;
 - SUPPORT POSTS SHALL BE SIZED AND ANCHORED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WITH MAXIMUM POST SPACING OF 6 FEET;
 - ADJOINING SECTIONS OF THE FENCE SHALL BE OVERLAPPED BY A MINIMUM OF 6 INCHES (24 INCHES IS PREFERRED), FOLDED AND STAPLED TO A SUPPORT POST. IF METAL POSTS ARE USED, FABRIC SHALL BE WIRE-TIED DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES.
 - SILT FENCING SHALL NOT BE STAPLED OR WAILED TO TREES.
 - THE FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.
 - THE FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES FAHRENHEIT TO 120 DEGREES FAHRENHEIT.
 - POSTS FOR SILT FENCES SHALL BE EITHER 4-INCH DIAMETER WOOD OR 1.33 POUNDS PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM. POSTS SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE FABRIC.
 - THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES AS HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
 - THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND SECURELY SEALED.
 - A MANUFACTURED SILT FENCE SYSTEM WITH INTEGRAL POSTS MAY BE USED.
 - POST SPACING SHALL NOT EXCEED 6 FEET.
 - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UP GRADIENT FROM THE BARRIER.
 - THE STANDARD STRENGTH OF FILTER FABRIC SHALL BE STAPLED OR WAIRED TO THE POST, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 - SILT FENCE MAY BE INSTALLED BY "SLUING" USING MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PROCEDURE. THE SLUING METHOD USES AN IMPLEMENT TOWED BEHIND A TRACTOR TO "PLOW" OR SLICE THE SILT FENCE MATERIAL INTO THE SOIL. THE SLUING METHOD MINIMALLY DISRUPTS THE SOIL UPWARD AND SLIGHTLY DISPLACES THE SOIL, MAINTAINING THE SOIL'S PROFILE AND CREATING AN OPTIMAL CONDITION FOR SUBSEQUENT MECHANICAL COMPACTION.
 - SILT FENCES SHALL BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEGMENT WILL IMPOUND.
 - THE ENDS OF THE FENCE SHALL BE TURNED UPHILL.
 - SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6 FEET FROM THE TOE TO ALLOW SPACE FOR SHALLOW PONDING AND TO ALLOW FOR MAINTENANCE ACCESS WITHOUT DISTURBING THE SLOPE.
 - SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILTATION CONTROL FENCE DETAIL

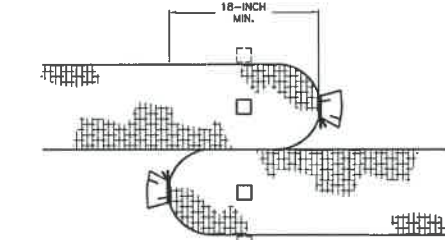
NOT TO SCALE

TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

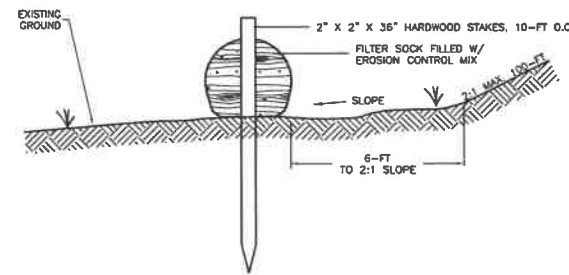
SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS.)	PER 1,000-SF	REMARKS
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYE GRASS	40 LBS.	1.0 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYE GRASS	30 LBS.	0.7 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.

SOURCES:

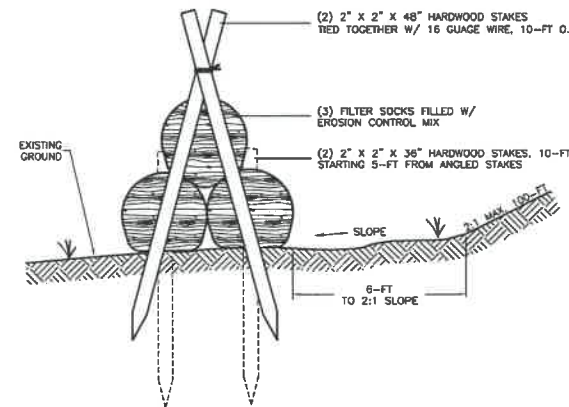
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLE 4-1
- MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)



FILTER SOCK CONNECTION PLAN VIEW



FILTER SOCK CROSS-SECTION



HEAVY DUTY PYRAMID FILTER SOCK CROSS-SECTION

- CONTINUOUS CONTAINED BERM (FILTER SOCK ALTERNATIVE):**
- AN ALTERNATIVE PRODUCT, THE CONTINUOUS CONTAINED BERM (OR "FILTER SOCK") CAN BE AN EFFECTIVE SEDIMENT BARRIER AS IT ADDS CONTAINMENT AND STABILITY TO A BERM OF EROSION CONTROL MIX.
 - IN THE EVENT THAT USE OF CONTINUOUS CONTAINED BERM IS DESIRED, THE PRODUCT SELECTED SHOULD BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER.
 - INSTALLATION OF CONTINUOUS CONTAINED BERMS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER.

- MAINTENANCE REQUIREMENTS:**
- FILTER SOCK MAINTENANCE SHALL FOLLOW THE SAME SCHEDULE AS EROSION CONTROL MIX BERMS.

- CONSTRUCTION SPECIFICATIONS:**
- COMPOSITION OF THE EROSION CONTROL MIX SHALL EITHER BE THE SAME AS EROSION CONTROL MIX BERM MATERIAL OR AS SPECIFIED BY THE FILTER SOCK MANUFACTURER.
 - THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
 - IT MAY BE NECESSARY TO CUT TALL GRASSES AND WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES IN THE BARRIER THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
 - FILTER SOCK DIAMETER (HEIGHT) SHALL BE PER THE MANUFACTURER RECOMMENDATION FOR THE AREA OF INSTALLATION.

CONTINUOUS CONTAINED BERM "FILTER SOCK" DETAIL

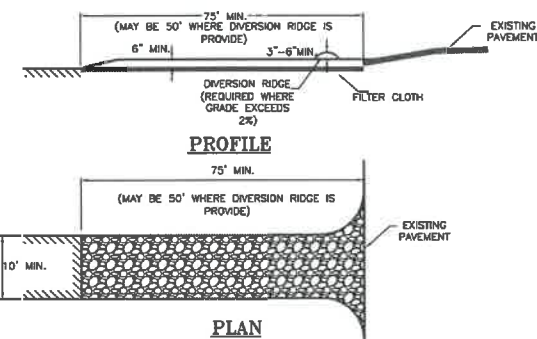
NOT TO SCALE

TEMPORARY VEGETATION:

- SPECIFICATIONS:**
- SITE PREPARATION:**
- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
 - GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 - RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
 - ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.
- SEEDING PREPARATION:**
- STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
 - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 - IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE RESTRICTED TO LIME, WOOD ASH OR LOW PHOSPHATE AND SLOW RELEASE NITROGEN VARIETIES, UNLESS A SOIL TEST WARRANTS OTHERWISE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:
- LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)
 *EQUVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE
- FERTILIZER APPLICATION RATE = 870 LB./ACRE (20 LB./1,000-SF)
 *LOW PHOSPHATE FERTILIZER (6-0-4) OR EQUIVALENT

- SEEDING:**
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
 - TEMPORARY SEED SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
 - AREAS SEED BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3.
 - VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVER WINTER PROTECTION.

- MAINTENANCE REQUIREMENTS:**
- TEMPORARY SEEDING SHALL BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHALL BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
 - BASED ON INSPECTION, AREAS SHALL BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED.
 - IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.



TEMPORARY CONSTRUCTION EXIT

NOT TO SCALE

- MAINTENANCE REQUIREMENTS:**
- WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHALL THEN BE RECONSTRUCTED.
 - THE CONTRACTOR SHALL SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
 - WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

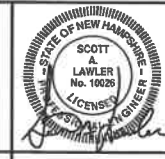
- CONSTRUCTION SPECIFICATIONS:**
- THE MINIMUM STONE USED SHALL BE 3-INCH CRUSHED STONE.
 - THE MINIMUM LENGTH OF THE PAD SHALL BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
 - THE PAD SHALL BE THE FULL WIDTH OF CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
 - THE PAD SHALL SLOPE AWAY FROM THE EXISTING ROADWAY.
 - THE PAD SHALL BE AT LEAST 6 INCHES THICK.
 - THE GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
 - THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
 - NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHALL BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.

TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS

TAX MAP 216, LOT 32 AND
 TAX MAP 221, LOTS 186 & 187
 134 CHESTNUT HILL ROAD
 ROCHESTER, NH

PREPARED FOR:
 LYDALL PERFORMANCE
 MATERIALS, INC.
 MAY 2020

FILE NO. 154
 PLAN NO. C-3059
 DWC. NO. 17233/SP-3



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

RIP-RAP GRADATION

$$d_{50} = 9"$$

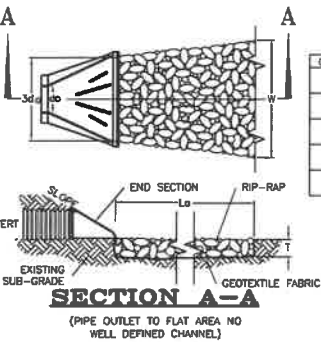
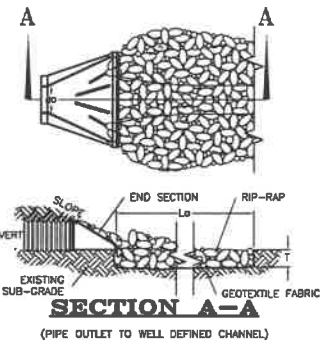
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	13.5 TO 18
85	11.7 TO 16.2
50	9 TO 13.5
15	2.7 TO 4.5

$$d_{50} = 3"$$

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	5 TO 6
85	4 TO 5
50	3 TO 3.5
15	1 TO 2

APRON DIMENSION TABLE

OUTLET PROFIT. #	PIPE OUTLET	W ₀	W	L ₀	T	d ₅₀
#1 - PIPE A	15" CPP	3.8'	16'	13'	9"	3"
#2 - PIPE B	12" CPP	3'	11'	20'	9"	3"
#3 - PIPE D	12" CPP	3'	8'	13'	9"	3"
#4 - PIPE K	12" CPP	3'	12'	9'	9"	3"
#5 - PIPE J	12" CPP	3.8'	13'	9'	9"	3"



- NOTES:
- ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
 - THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
 - APRON LENGTHS, WIDTHS AND THICKNESSES HAVE BEEN ROUNDED UP TO WHOLE NUMBERS FOR EASE OF CONSTRUCTION.

CONSTRUCTION SPECIFICATIONS:

- PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
- MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
- THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
- RIP-RAP SIZE CHOSEN FOR THE MOST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

MAINTENANCE NOTES:

- OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
- THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING.
- THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

PIPE OUTLET PROTECTION DETAIL

DUST CONTROL PRACTICES:

- APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE.
- WATER APPLICATION:
 - MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
 - AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL WATERBODIES.
- STONE APPLICATION:
 - COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.
 - IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.
- REFER TO "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" FOR OTHER ALLOWABLE DUST CONTROL PRACTICES (I.E. COMMERCIAL TACKIFIERS OR CHEMICAL TREATMENTS SUCH AS CALCIUM CHLORIDE, ETC.)

STOCKPILE PRACTICES:

- LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS OR OTHER APPROVED PRACTICES.
- STOCKPILES SHALL BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN NHSM VOL. 3, TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILE.
- IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.
- PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.

PROTECTION OF INACTIVE STOCKPILES:

- INACTIVE SOIL STOCKPILES SHALL BE COVERED WITH ANCHORED TARPS OR PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICE) AND TEMPORARY PERIMETER SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES.
- INACTIVE STOCKPILES OF CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND SIMILAR MATERIALS SHALL BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY SHALL ALSO BE COVERED.

PROTECTION OF ACTIVE STOCKPILES:

- ALL STOCKPILES SHALL BE SURROUNDED WITH TEMPORARY LINEAR SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) PRIOR TO THE ONSET OF PRECIPITATION. PERIMETER BARRIERS SHALL BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIAL FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIERS SHALL BE INSPECTED AT THE END OF EACH WORKING DAY.
- WHEN A STORM IS PREDICTED, STOCKPILES SHALL BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

PERMANENT VEGETATION:

SPECIFICATIONS:

SITE PREPARATION:

- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
- ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:

- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHALL BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHALL BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLOUDS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
- WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
- IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE APPLIED AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING. NITROGEN VARIETIES, UNLESS A SOIL TEST WARRANTS OTHERWISE, IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)*

*EQUVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

FERTILIZER APPLICATION RATE = 870 LB./ACRE (20 LB./1,000-SF)*

*LOW PHOSPHATE FERTILIZER (8-0-4) OR EQUIVALENT

SEEDING:

- INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
- WHERE FEASIBLE EXCEPT WHERE EITHER CULPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHALL BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING NOT BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING SNOW. WHEN CROWN VETCH IS SEEDING IN LATE SUMMER AT LEAST 35% OF THE SEED SHALL BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSM, VOL. 3, AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSM, VOL. 3.
- VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVER WINTER PROTECTION.

HYDROSEEDING:

- WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
- SLOPES MUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY).
- LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
- SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

MAINTENANCE REQUIREMENTS:

- PERMANENT SEEDING AREAS SHALL BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHALL CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
- SEEDING AREAS SHALL BE MOVED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
- BASED ON INSPECTION, AREAS SHALL BE RESEEDING TO ACHIEVE FULL STABILIZATION OF EXPOSED SOIL.
- AT A MINIMUM 85% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
- IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEEDING, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION SEEDING RECOMMENDATIONS

USE	MIXTURE	SPECIES	LBS./ACRE	LBS./1,000-SF
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL	42	0.95
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL	42	0.95
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY RECREATION SITES	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		REDTOP	2	0.05
		TOTAL	42	0.95
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL ESSENTIAL FOR GOOD TURF)	F	CREeping RED FESCUE	50	1.15
		KENTUCKY BLUEGRASS	50	1.15
		TOTAL	100	2.30

SOURCES:

- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLES 4-2 AND 4-3
- MINNICK, C.L. AND H.T. MARSHALL, (AUGUST 1992)

GENERAL CONSTRUCTION PHASING:

- STABILIZATION:
 - A SITE IS DEEMED STABILIZED WHEN IT IS IN A CONDITION IN WHICH THE SOIL ON SITE WILL NOT EXPERIENCE ACCELERATED OR UNNATURAL EROSION UNDER THE CONDITIONS OF A 10-YEAR STORM EVENT, SUCH AS BUT NOT LIMITED TO:
 - IN AREAS THAT WILL NOT BE PAVED:
 - A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3-INCHES OF NON-DISSOLVE MATERIAL, SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
 - IN AREAS TO BE PAVED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED.
 - TEMPORARY STABILIZATION:
 - ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 48 DAYS FROM THE TIME OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT OR AN INDEPENDENT MONITOR.
 - PERMANENT STABILIZATION:
 - ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING.
 - MAXIMUM AREA OF DISTURBANCE:
 - THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE NO MORE THAN 5 ACRES SHALL BE DISTURBED (NOT STABILIZED) AT ANY TIME.
 - ONLY DISTURBS, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.
 - FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.
 - EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.
 - ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN DEPICTED ON SHEET C-4.
 - ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON SHEET C-4.
 - TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION.
 - STOCKPILES, BORROW AREAS AND SPOILS SHALL BE STABILIZED AS DESCRIBED UNDER "SOIL STOCKPILE PRACTICES".
 - SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLURPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGE.
 - AREAS TO BE FILLED SHALL BE CLEARED, GROSSBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBJECTIONABLE MATERIALS.
 - AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3-INCHES PRIOR TO PLACEMENT OF TOPSOIL. TOPSOIL SHALL BE PLACED WITHOUT SIGNIFICANT COMPACTION TO PROVIDE A LOOSE BEDDING FOR PLACEMENT OF SEED.
 - ALL FILLS SHALL BE COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS TO REDUCE EROSION, SLURPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SITE UTILITIES, CONDUITS AND OTHER FACILITIES, SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
 - IN GENERAL, FILLS SHALL BE COMPACTED IN LAYERS RANGING FROM 6 TO 24 INCHES IN THICKNESS. THE CONTRACTOR SHALL REVIEW THE PROJECT GEOTECHNICAL REPORT AND/OR THE "PROJECT SPECIFIC PHASING NOTES" FOR SPECIFIC GUIDANCE.
 - ANY AND ALL FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS (LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING INSTALLED), LOGS, STUMPS, BUILDING DEBRIS, FROZEN MATERIAL, AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
 - FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE (I.E. CLAY, SILT) MATERIALS ARE SUSCEPTIBLE TO ACCELERATED SETTLEMENT AND POTENTIAL ACCELERATED EROSION. WORK IN AREAS OF THESE MATERIALS SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER.
 - THE OUTER FACE OF THE FILL SLOPE SHALL BE ALLOWED TO STAY LOOSE, NOT ROLLED OR COMPACTED, OR BLADE SMOOTHED. A BULLDOZER MAY RUN UP AND DOWN THE FILL SLOPE SO THE DOZER TREADS (CLEAT TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE ROUGHENING" IN THE NHSM, VOL. 3.
 - ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.
 - USE SLOPE BREAKS, SUCH AS DIVERSIONS, BENCHES, OR CONTOUR FURROWS AS APPROPRIATE TO REDUCE THE LENGTH OF CUT-FILL SLOPES TO LIMIT SHEET AND RILL EROSION AND PREVENT GULLY EROSION. ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF CONSTRUCTION.
 - SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE EVALUATED BY A PROFESSIONAL ENGINEER (PREFERABLY THE DESIGN ENGINEER) TO DETERMINE IF THE PROPOSED DESIGN SHALL BE REVISED TO PROPERLY MANAGE THE CONDITION.
 - STABILIZE ALL GRADED AREAS (AS ABOVE) WITH VEGETATION, CRUSHED STONE, COMPOST BLANKET, OR OTHER GROUND COVER AS SOON AS GRADING IS COMPLETE OR IF WORK IS INTERRUPTED FOR 21 WORKING DAYS OR MORE. USE MULCH OR OTHER APPROVED METHODS TO STABILIZE AREAS TEMPORARILY WHERE FINAL GRADING MUST BE DELAYED.
 - ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
 - THE PROJECT SHALL BE CONSTRUCTED TO MEET ALL REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARC 3800 RELATIVE TO INVASIVE SPECIES.

ABOVE NOTES EXCERPTED, ADAPTED AND REFERENCED FROM "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" (NHSM, VOL. 3)

PROJECT SPECIFIC CONSTRUCTION PHASING:

- REFER TO THE "GENERAL CONSTRUCTION PHASING" NOTES PRIOR TO COMMENCING CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING PHASING. THE "GENERAL CONSTRUCTION PHASING" NOTES APPLY TO THE OVERALL CONSTRUCTION AND SHALL BE ADHERED TO.
- INSTALL ALL TEMPORARY SEDIMENT CONTROL BARRIERS (I.E. SILT FENCE, EROSION CONTROL MIX BERM, STONE CHECK DAMS, ETC.) AROUND THE OUTER PERIMETER OF THE CONSTRUCTION SITE AS DEPICTED ON SHEET C-4 PRIOR TO EARTH MOVING OPERATIONS.
- INSTALL ORANGE CONSTRUCTION FENCING AT THE LIMITS OF IMPACT AREA AS DEPICTED ON SHEET C-4. INSTALL ORANGE CONSTRUCTION AROUND THE PERIMETER OF THE INFILTRATION BASINS AND THE FENCE SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OF THE BASINS HAS STARTED.
- CLEAR, GRUB AND STRIP THE SITE. STUMPS, BRUSH AND OTHER ORGANIC WASTE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- INSTALL A TEMPORARY CONSTRUCTION EXIT AT THE LOCATION OF THE PROPOSED PARKING AREA. MAINTAIN AS DIRECTED BY THE TEMPORARY CONSTRUCTION EXIT DETAIL.
- STOCKPILE STRIPPED TOPSOIL AND CUT MATERIAL TO BE REUSED ON SITE IN AN APPROPRIATE LOCATION IN ACCORDANCE WITH THE "SOIL STOCKPILE PRACTICES". MAINTAIN THE STOCKPILES AS DIRECTED IN THE "SOIL STOCKPILE PRACTICES".
- PERFORM THE NECESSARY CUTS AND FILLS TO CONSTRUCT THE INFILTRATION BASIN AS DEPICTED ON SHEET C-3 AND IN ACCORDANCE WITH THE INFILTRATION BASIN DETAILS SHOWN ON SHEET C-3.
- CONSTRUCT THE INFILTRATION BASIN, SEDIMENT FOREBAY AND OUTLET WITHIN THE INFILTRATION BASIN. MAINTAIN THE SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS.
- ALL DITCHES/SWALES/AND BASINS SHALL BE STABILIZED PRIOR TO LOAM SEED AND MULCH THE SOE SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS AND TEMPORARY SEDIMENT CONTROL BARRIER DEPICTED ON SHEET C-11.
- ALL CUT AND FILL SLOPES AND LAWN AREAS NOT TO BE PAVED SHALL BE LOAMED AND SEEDED FOR PERMANENT VEGETATION AND STABILIZATION AS DESCRIBED UNDER THE "PERMANENT VEGETATION PRACTICES" WITHIN 3 DAYS OF ACHIEVING FINAL GRADE.
- INSTALL ALL GRAVEL BASE AND CRUSHED GRAVEL MATERIALS FOR THE PARKING AREA AS SPECIFIED IN THE CORRESPONDING DETAILS.
- THE PARKING AREAS SHALL BE STABILIZED (CONSTRUCTED TO GRAVEL BASE COURSE) WITHIN 3 DAYS OF ACHIEVING FINISHED SUBGRADE ELEVATIONS.
- INSTALL PAVEMENT SURFACES AS SOON AS POSSIBLE AFTER THE INSTALLATION OF THE GRAVEL BASE AND CRUSHED GRAVEL, IN ORDER TO LIMIT THE SOIL EROSION AND POLLUTION OF THE GRAVEL MATERIALS WITH ORGANIC MATERIALS. IN NO CASE SHALL AREAS TO BE PAVED BE LEFT UNPROTECTED THROUGHOUT THE WINTER MONTHS.
- ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE. IN NO CASE SHALL ANY DISTURBED AREA BE LEFT UN-STABILIZED FOR LONGER THAN 21 DAYS. IF NECESSARY TEMPORARY STABILIZATION MEASURES AS DISCUSSED IN THE "GENERAL CONSTRUCTION PHASING NOTES" AND NHSM, VOL. 3 SHOULD BE EMPLOYED.
- MAINTENANCE AND INSPECTION:
 - DURING CONSTRUCTION ALL TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES SHOULD BE INSPECTED WEEKLY, AFTER EVERY 1/2 INCH OF RAINFALL, AND ANNUALLY.
 - EXCESS SEDIMENT SHOULD BE REMOVED FROM TEMPORARY SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES WHEN IT REACHES PRESCRIBED THRESHOLDS DISCUSSED IN THE DETAILS FOR EACH PRACTICE.
 - ALL DAMAGED TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL AND STORMWATER MANAGEMENT PRACTICES SHOULD BE REPAIRED OR REPLACED IMMEDIATELY UPON NOTICE.
 - SEDIMENT SHALL BE DISPOSED OF PROPERLY EITHER ON SITE OR OFF SITE.
- PROJECT COMPLETION AND STABILIZATION:
 - UPON PROJECT COMPLETION, ONCE THE SITE IS DEEMED STABILIZED (VEGETATION IS GERMINATED), THE TEMPORARY SEDIMENT CONTROL BARRIERS AND EROSION CONTROL PRACTICES SHALL BE REMOVED. ANY DISTURBANCE CREATED DURING REMOVAL SHALL BE REPAIRED IN AN APPROPRIATE MANNER.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL ON SITE CATCH BASINS AND THE SEDIMENT FOREBAYS TO THE INFILTRATION BASIN.

WINTER STABILIZATION & CONSTRUCTION PRACTICES:

MAINTENANCE REQUIREMENTS:

- MAINTENANCE MEASURES SHALL BE PERFORMED THROUGHOUT CONSTRUCTION, INCLUDING OVER THE WINTER PERIOD. AFTER EACH RAINFALL, SNOWFALL OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL CONDUCT INSPECTION OF ALL INSTALLED EROSION CONTROL PRACTICES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUATION.
- FOR ANY AREA STABILIZED BY TEMPORARY OR PERMANENT SEEDING PRIOR TO THE ONSET OF THE WINTER SEASON, THE CONTRACTOR SHALL CONDUCT AN INSPECTION IN THE SPRING TO ASCERTAIN THE CONDITION OF THE VEGETATION AND REPAIR ANY DAMAGED AREAS OR BARE SPOTS AND RESEED AS REQUIRED TO ACHIEVE AN ESTABLISHED VEGETATIVE COVER (AT LEAST 85% OF AREA VEGETATED WITH HEALTHY, VIGOROUS GROWTH.)

SPECIFICATIONS:

- THE FOLLOWING STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 15:
- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1-ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DISCUSSED IN NHSM, VOL. 3 AND ELSEWHERE IN THIS PLAN SET. PRIOR TO ANY THAW OR SPRING MELT EVENT.
 - STABILIZATION AS FOLLOWS SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 3 DAYS.
 - ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX (REFER TO NHSM, VOL. 3 FOR RECOMMENDATION).
 - ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15 SHALL BE SEEDING AND COVERED WITH A PROPERLY INSTALLED EROSION CONTROL BLANKET OR WITH A MINIMUM OF 4 INCHES OF EROSION CONTROL MIX, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. NOTE THAT COMPOST BLANKETS SHALL NOT EXCEED 2 INCHES IN THICKNESS OR THEY MAY OVERHEAT.
 - ALL STONE COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
 - INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
 - ALL MULCH APPLIED DURING WINTER SHALL BE ANCHORED (I.E. BY NETTING, TRACING, WOOD CELLULOSE FIBER).
 - WITHIN 24 HOURS OF STOCKPIILING SOIL MATERIALS SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A 4 INCH LAYER OF EROSION CONTROL MIX. MULCH SHALL BE REESTABLISHED PRIOR TO ANY RAIN OR SNOWFALL. NO SOIL STOCKPILE SHALL BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100-FT OF ANY WETLAND OR OTHER WATER RESOURCE AREA.
 - FROZEN MATERIAL (I.E. FROST LAYER REMOVED DURING WINTER CONSTRUCTION) SHALL BE STOCKPILED SEPARATELY AND IN A LOCATION AWAY FROM ANY AREA NEEDING PROTECTION. FROZEN MATERIAL STOCKPILES CAN MELT IN SPRING AND BECOME UNMOVABLE AND DIFFICULT TO TRANSPORT DUE TO HIGH SOIL MOISTURE CONTENT.
 - INSTALLATION OF EROSION CONTROL BLANKETS SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH OR ON FROZEN GROUND.
 - ALL GRASS-LINED DITCHES AND CHANNELS SHALL BE CONSTRUCTED BY SEPTEMBER 1. ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT 85% VEGETATIVE GROWTH BY OR ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS AS DETERMINED BY A PROFESSIONAL ENGINEER. IF STONE LINING IS NECESSARY, THE CONTRACTOR MAY NEED TO RE-GRADE THE DITCH AS REQUIRED TO PROVIDE ADEQUATE CROSS-SECTION AFTER ALLOWING FOR PLACEMENT OF THE STONE.
 - ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
 - AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF SAND AND GRAVEL WITH A GRADATION THAT IS LESS THAN 1/2 INCH OF SAND PORTION OF THE MATERIAL PASSING THE NUMBER 4 SIEVE, BY WEIGHT, PASSES THE NUMBER 200 SIEVE.
 - SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS SHALL CONSIDER EROSION CONTROL MIX BERMES, OR CONTINUOUSLY CONTAINED BERMES. SILT FENCES AND HAY BALES SHALL NOT BE INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBODMENT OF THESE BARRIERS.

PERMANENT EROSION & SEDIMENTATION CONTROL DETAILS

TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH

PREPARED FOR:
LYDALL PERFORMANCE
MATERIALS, INC.

MAY 2020

C-11

2 Continental Blvd., Rochester, N.H. 603-335-3948

NORWAY PLAINS ASSOCIATES, INC.

31 Mooney Street, Alton, N.H. 603-875-3948

FILE NO. 154
PLAN NO. C-3059
DWG. NO. 17233/SP-3

LAND SURVEYORS

CIVIL ENGINEERS

- LEGEND**
- PROPERTY LINE
 - JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING HYDRANT
 - EXISTING WATER GATE OR SHUT-OFF VALVE
 - EXISTING UTILITY POLE
 - EXISTING SEWER MAIN HOLE
 - EXISTING CATCH BASIN
 - EXISTING LIGHT POLES
 - PROPOSED BUILDING
 - PROPOSED PAVEMENT
 - PROPOSED PAVEMENT WITH CURBING
 - PROPOSED TREE LINE
 - PROPOSED VINYL PLANK FENCE
 - PROPOSED PAVEMENT
 - PROPOSED CONCRETE
 - PROPOSED BUILDING

- PROPOSED DETECTABLE WARNING PAVERS
- PROPOSED SIGNS
- CAPE CODE BERM
- PAVEMENT RADIUS (20')
- PROPOSED STANDARD PARKING SPACES (9' x 18')
- PROPOSED ACCESSIBLE PARKING SPACES (9' x 18' WITH 8' x 18' ACCESS ISLE)
- PROPOSED PHASE 1 AREA (TO BE COMPLETED)
- PROPOSED AREA TO BE CONSTRUCTED TO SUBGRADE DURING PHASE 1



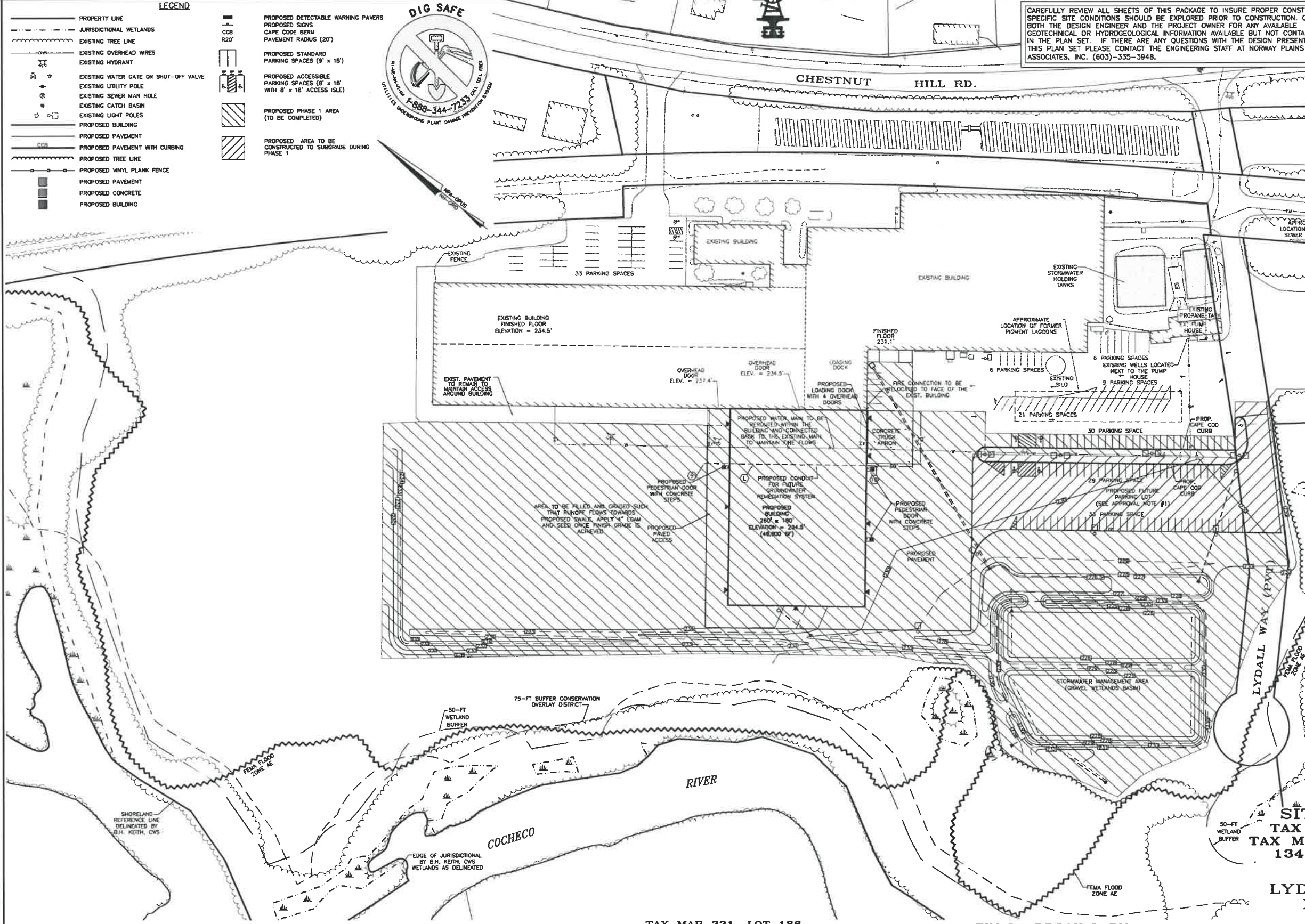
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

REVISIONS:

- 05/20/20 - REVISE NOTES AND ADD PHASE 1 PAVEMENT AND ACCESS NOTES.
- 05/31/20 - REMOVE FUTURE PHASE BUILDING ADDITION AND PAVEMENT, REVISE PHASE 1, PHASING NOTES AND STORMWATER MANAGEMENT AREA.
- 06/04/20 - REVISE STORMWATER MANAGEMENT AREA AND PROPOSED GRADING.

PROPOSED CONSTRUCTION PHASING NOTES

- INSTALL PERIMETER EROSION CONTROL DEVICES AS DEPICTED ON THE EROSION AND SEDIMENTATION CONTROL PLAN (SHEET C-4).
- REMOVAL ALL OVERHEAD AND ON THE GROUND UTILITIES THAT ARE LOCATED IN THE AREA OF THE PROPOSED PHASE 1 BUILDING AND ASSOCIATED PARKING.
- STRIP OFF ANY LOAM AND TOP SOIL, STOCK PILE IT OUTSIDE THE LIMITS OF THE PHASE 1 BUILDING. ANY LOAM PILES THAT REMAIN INACTIVE FOR MORE THAN 30-DAYS SHALL BE TEMPORARY SEEDED AND STABILIZED. PLACE EROSION CONTROL SILT FENCE OR SILT SOCK AROUND THE BASE.
- EXCAVATE THE ENTIRE AREA OF THE PROPOSED INFILTRATION BASIN AND SEDIMENTATION FORE BAYS. ONCE THE BASIN IS AT SUB GRADE, THE CONTRACTOR SHALL AVOID HEAVY VEHICULAR TRAFFIC WHILE APPLYING THE LOAM. BASIN SHALL BE SEEDED AS SOON AS POSSIBLE TO ALLOW OF IT TO BECOME STABILIZED BEFORE DIRECTING STORMWATER INTO IT.
- EXCESS FILL FROM THE BASIN EXCAVATION SHALL BE USED AS GENERAL FILL FOR THE PHASE 1 BUILDING AND FOR THE REMAINING FUTURE PHASES OF THE BUILDING CONSTRUCTION. STABILIZE FUTURE BUILDING AREA TO PREVENT EROSION.
- CONSTRUCT THE DRAINAGE SWALE WITH BERM ALONG THE WESTERLY EDGE OF THE ENTIRE PROPOSED BUILDING ADDITION TO DIRECT STORMWATER TOWARDS THE INFILTRATION BASIN.
- INSTALL ALL UNDERGROUND DRAINAGE PIPES FOR COLLECTION OF THE ROOF RUNOFF FROM THE BUILDING, FOR THE FUTURE REMEDIATION CONDUIT, AND FOR FUTURE PARKING LOT.
- EXCAVATE AND CONSTRUCT FOUNDATION FOR PHASE 1 BUILDING.
- RELOCATE EXISTING FIRE SUPPLY WATER MAIN THROUGH THE PROPOSED BUILDING AND CONNECT TO EXISTING MAIN. RELOCATE ANY FIRE CONNECTION POINTS AS NECESSARY.
- EXCAVATE AND INSTALL HOPE PIPE UNDER THE PROPOSED BUILDING TO BE USED AS A FUTURE REMEDIATION CONDUIT. INSTALL DMH ACCESS NEAR LOADING DOCK.
- SAW CUT OLD PAVEMENT AND EXCAVATE FOR NEW PARKING PAGES WITHIN THE OLD PARKING LOT.
- INSTALL CONDUITS AND LIGHT POLE BASES.
- CONSTRUCT CURBED ISLAND.
- CONSTRUCT NEW PAVEMENT CONCRETE TRUCK APRON AND CONCRETE STAIRS.
- INSTALL PROCESS GRAVELS AND BITUMINOUS PAVEMENT FOR PHASE 1 AREA AS DEPICTED ON THIS PLAN. THIS INCLUDES AROUND THE END OF PHASE 1 BUILDING TO MAINTAIN FULL ACCESS AROUND THE EXISTING BUILDING AND THE PROPOSED ADDITION.
- LOAM AND SEED ANY DISTURBED AREA.
- INSTALL EROSION CONTROL DEVICES ASSOCIATED WITH FUTURE PHASE CONSTRUCTION TO PREVENT SEDIMENTATION TO THE EXISTING DRAINAGE SYSTEMS OR INTO THE NON-DEVELOPED AREAS.
- INSTALL CONDUITS AND LIGHT POLE BASES.
- INSTALL PROCESS GRAVELS AND BITUMINOUS PAVEMENT TO FUTURE PARKING LOT AND AROUND THE PERIMETER DRIVE.

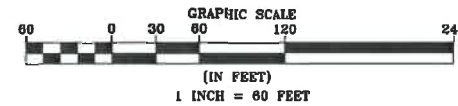


SITE PHASING PLAN
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
LYDALL PERFORMANCE
MATERIALS, INC.
MAY 2020
GRAPHIC SCALE
(IN FEET)
1 INCH = 60 FEET

FILE NO. 154
 PLAN NO. C-3059
 DWC NO. 17233/SP-3

TAX MAP 221, LOT 186
 OWNER OF RECORD:
 LYDALL PERFORMANCE MATERIALS, INC.
 134 CHESTNUT HILL ROAD
 ROCHESTER, NH 03867
 SCRD BOOK 2141, PAGE 753

FINAL APPROVAL BY
 ROCHESTER PLANNING BOARD
 CERTIFIED BY: _____ DATE: _____



LAND SURVEYORS

CIVIL ENGINEERS

LEGEND

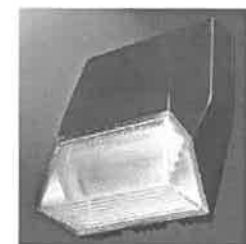
- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING OVERHEAD WIRES
- EXISTING LIGHT POLES
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED LIGHT POLES
- PROPOSED BUILDING LIGHT FIXTURES

Luminaire Schedule					
Symbol	Label	Qty	PHASE	Arrangement	Description
□	S3-1	2	FIRST	SINGLE	PRV-C60-D-UVV-T3-BZ/ S854A20SFN1 (MTD ON 2.5' FED BY OTHERS) 22.5' AFG
□	S3-2	4	FIRST	BACK-BACK	PRV-C60-D-UVV-T3-BZ/ S854A20SFN2 (MTD ON 2.5' FED BY OTHERS) 22.5' AFG
□	S3-1F	2	FUTURE	SINGLE	PRV-C60-D-UVV-T3-BZ/ S854A20SFN1 (MTD ON 2.5' FED BY OTHERS) 22.5' AFG
◀	W	4	FIRST	SINGLE	AXCL12A WALL MTD 20' AFG
◀	W1	4	FIRST	SINGLE	AXCS5A WALL MTD 20' AFG

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

REVISIONS:

05/20/20 - ADD WALL MOUNTED LIGHTING FIXTURE DETAIL
06/05/20 - REVISE TO ELIMINATE FUTURE PHASE BUILDING MOUNTED LIGHTING FIXTURES.



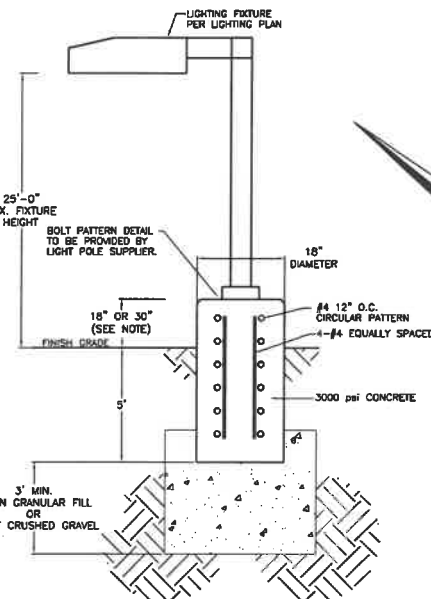
LUMARK
AXCL AXCENT



LUMARK
AXCS AXCENT

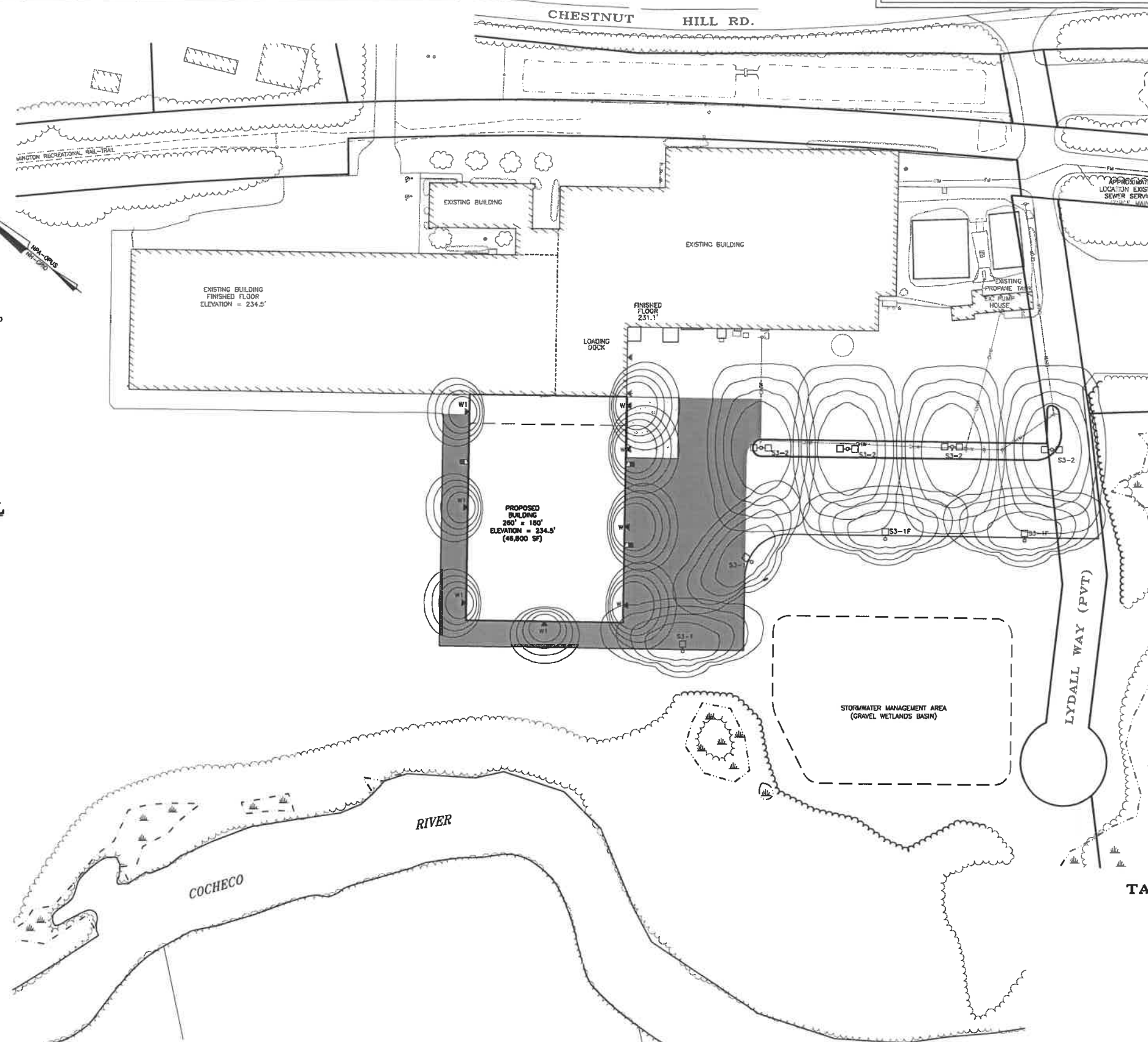


LUMARK
PRV PREVAIL LED



POLE MOUNTED LIGHT DETAIL NOT TO SCALE

- NOTE:
1. LIGHT POLE BASE SHALL BE 18" ABOVE FINISH GRADE FOR NON VEHICLE IMPACT AREAS AND 30" FOR VEHICLE IMPACT AREAS.
 2. THE LIGHT POLE BASES CAN BE PRECAST, WITH COORDINATION WITH THE LIGHTING FIXTURE MANUFACTURE FOR BOLT PATTERN.



LIGHTING PLAN
TAX MAP 216, LOT 32 AND
TAX MAP 221, LOTS 186 & 187
134 CHESTNUT HILL ROAD
ROCHESTER, NH
PREPARED FOR:
**LYDALL PERFORMANCE
MATERIALS, INC.**



FILE NO. 154
PLAN NO. C-3059
DWG. NO. 17233/SP-3

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

Client:
Budel Construction
Meadorboro Rd.
Rochester, NH

Addition to Lydall Performance Materials
134 Chestnut Hill Road
Rochester, NH

-Preliminary-
Not for Construction
06-10-2020

Date:	-
Scale:	As Noted
Design By:	RB
Approved By:	-

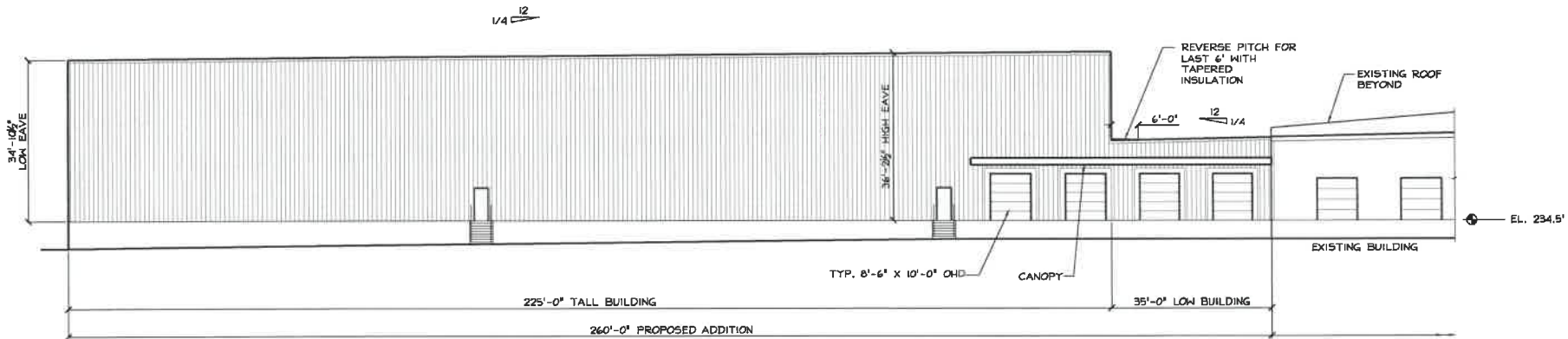
Revisions

Elevations

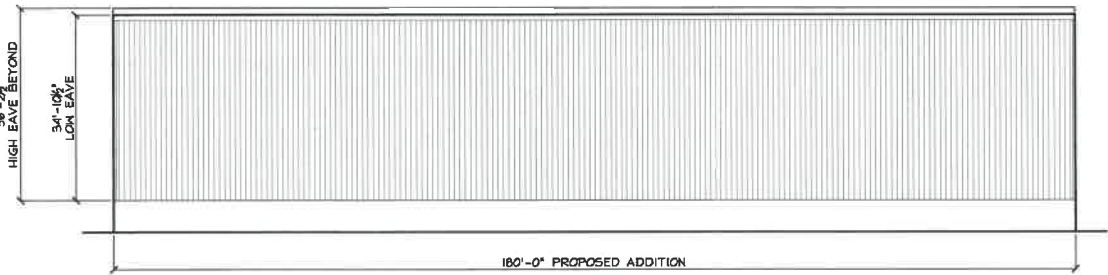
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Project No: 20-0414

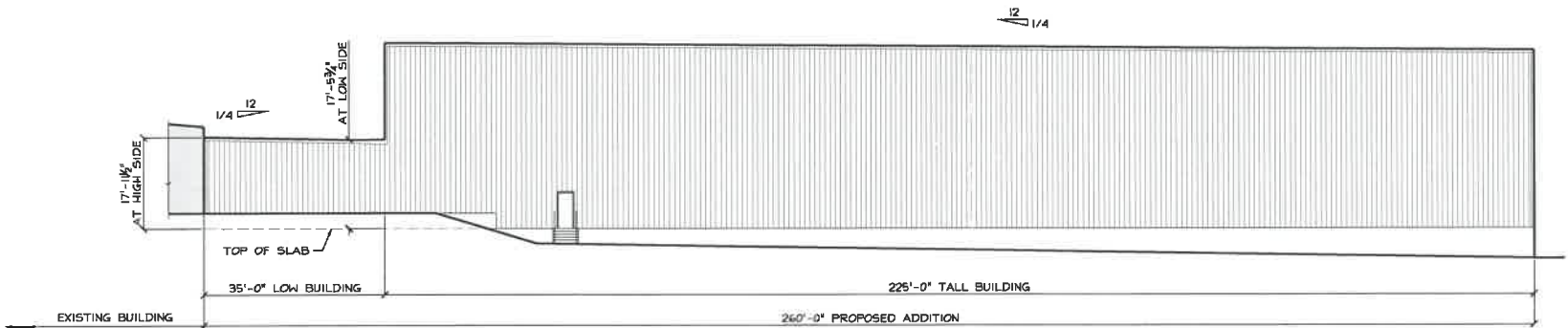
NOTE: EAVE HEIGHTS
INCLUDE 6" OF RIGID
INSULATION AND 1-1/2" *B*
DECK ATOP METAL BUILDING
STRUCTURE



1 SOUTH ELEVATION
A2.0



2 WEST ELEVATION
A2.0
SCALE: 1/16" = 1'-0"



3 NORTH ELEVATION
A2.0
SCALE: 1/16" = 1'-0"