



NONRESIDENTIAL SITE PLAN APPLICATION

City of Rochester, New Hampshire

[office use only. Check # _____ Amount \$ _____ Date paid _____]

Date: 12/11/2018 Is a conditional use needed? Yes: _____ No: _____ Unclear: _____
(If so, we encourage you to submit an application as soon as possible.)

Property information

Tax map #: 242; Lot #(s): 6; Zoning district: IND

Property address/location: 85 Innovation Dr, Rochester, NH 03867

Name of project (if applicable): SAFRAN Infill Parking

Size of site: 49.3 acres; overlay zoning district(s)? Wetland overlay district

Property owner

Name (include name of individual): Housing Authority of Rochester / Business Finance Authority of NH

Mailing address: 2 Pillsbury Street, Suite 101, Concord, NH 03301

Telephone #: _____ Email: _____

Applicant/developer (if different from property owner)

Name (include name of individual): David Arnst - Safran Facility Manager

Mailing address: 85 Innovation Drive, Rochester, NH

Telephone #: 603-330-7215 Email: david.arnst@safrangroup.com

Engineer/designer

Name (include name of individual): Fuss & O'Neill, Inc. - Rick Lundborn, PE

Mailing address: 5 Fletcher Street, Suite 1, Kennebunk, ME 04043

Telephone #: 207-363-0669 x2314 Fax #: _____

Email address: rlundborn@fando.com Professional license #: 10943

Proposed activity (check all that apply)

New building(s): _____ Site development (other structures, parking, utilities, etc.): X

Addition(s) onto existing building(s): _____ Demolition: _____ Change of use: _____

(Continued *Nonresidential Site Plan* application Tax Map: 242 Lot: 6 Zone IND)

Describe proposed activity/use: Add an additional 109 parking spaces along
existing drive aisles

Describe existing conditions/use (vacant land?): Safran Aerospace Composites
manufacturing facility

Utility information

City water? yes X no ; How far is City water from the site? On site

City sewer? yes X no ; How far is City sewer from the site? On site

If City water, what are the estimated total daily needs? N/A gallons per day

If City water, is it proposed for anything other than domestic purposes? yes no

If City sewer, do you plan to discharge anything other than domestic waste? yes no

Where will stormwater be discharged? Existing treatment BMPs

Building information

Type of building(s): Existing no change

Building height: N/A Finished floor elevation: N/A

Other information

parking spaces: existing: 369 total proposed: 470; Are there pertinent covenants? Yes

Number of cubic yards of earth being removed from the site 0

Number of existing employees: 400+/-; number of proposed employees total: 400+/-

Check any that are proposed: variance ; special exception ; conditional use

Wetlands: Is any fill proposed? X; area to be filled: 587 sf; buffer impact? X

Proposed <i>post-development</i> disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – give for each building	343,312	16
Parking and vehicle circulation	237,299	11
Planted/landscaped areas (excluding drainage)	193,055	9
Natural/undisturbed areas (excluding wetlands)	959,654	45
Wetlands	262,321	12
Other – drainage structures, outside storage, etc.	151,905	7

(Continued Nonresidential Site Plan application Tax Map: 242 Lot: 6 Zone IND)

Comments

Please feel free to add any comments, additional information, or requests for waivers here:

Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

I (we) hereby submit this Site Plan application to the City of Rochester Planning Board pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: * Stacey L Price
Date: 12-10-18

* Signature of applicant/developer: _____

Signature of agent: Richard L
Date: 12-10-18

Authorization to enter subject property

I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustment, Conservation Commission, Planning Department, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections during the application phase, review phase, post-approval phase, construction phase, and occupancy phase. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property.

Signature of property owner: * Stacey L Price



December 11, 2018

Jim Campbell
Planning & Development Director
City Hall Annex
33 Wakefield Street
Rochester, NH 03867-1917

RE: Safran Aerospace Composites – Infill Parking
Alteration of Terrain Permit Application
Fuss & O'Neill Reference No. 20180581.A10

Dear Mr. Campbell:

On behalf of the Safran Aerospace Composites, Inc., Fuss & O'Neill is submitting an Alteration of Terrain permit application for the construction of 109 infill parking spaces at Safran Aerospace Composites manufacturing facility located at Tax Map 242 Lot 6, 85 Innovation Drive, Rochester, New Hampshire.

If you have any questions or concerns, please do not hesitate to contact me at (207) 363-0669x2318 or by email (PGere@fando.com).

Sincerely,

Patrick Gere, PE
Project Engineer

Reviewed by:

Rick Lundborn, PE
Branch Manager

/BH

Enclosures: AOT Permit Application

c: NHDES

5 Fletcher Street
Suite 1
Kennebunk, ME
04043
t 207.363.0669
800.286.2469
f 860.533.5143

www.fando.com

California
Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

F:\P2018\0581\A10\Deliverables\AOT Permit\PB Cover Letter.docx



Conditional Use Permit Application
City of Rochester, New Hampshire

Date: 12/11/2018

Property information

Tax map #: 242; Lot #(s): 6; Zoning district: IND

Property address/location: 85 Innovation Drive, Rochester, NH

Name of project (if applicable): SAFRAN Infill Parking

Property owner

Name (include name of individual): Housing Authority of Rochester/
Business Finance Authority of NH

Mailing address: 2 Pillsbury Street, Suite 101, Concord, NH 03301

Telephone #: _____ Fax: _____

Applicant/developer (if different from property owner)

Name (include name of individual): David Arnst - SAFRAN Facility Manager

Mailing address: 85 Innovation Drive, Rochester NH

Telephone #: 603-330-7215 Fax #: _____

Engineer/designer

Name (include name of individual): Fuss & O'Neill, Inc. - Rick Lundborn, PE

Mailing address: 5 Fletcher Street, Ste 1, Kennebunk, ME 04043

Telephone #: 207-363-0669 x2314 Fax #: _____

Email address: rlundborn@fando.com Professional license #: 10943

Proposed Project

Please describe the proposed project: Add an additional 109 parking spaces

along existing drive aisles

Please describe the existing conditions: Safran Aerospace Composites
manufacturing facility

Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

I/we hereby submit this Conditional Use application to the City of Rochester Planning Board pursuant to the City of Rochester Zoning Ordinance and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: * Stacy Price
Date: 12-10-2018

* Signature of applicant/developer: _____
Date: _____

Signature of agent: _____
Date: _____

SAFRAN INFILL PARKING

85 INNOVATION DRIVE · ROCHESTER · NEW HAMPSHIRE

SITE PLANS

DECEMBER 11, 2018

PREPARED FOR
**SAFRAN AEROSPACE
COMPOSITES, INC.**
85 INNOVATION DRIVE
ROCHESTER, NH 03867



PREPARED BY
FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, MAINE 04043
207.363.0669
www.fando.com

SHEET INDEX

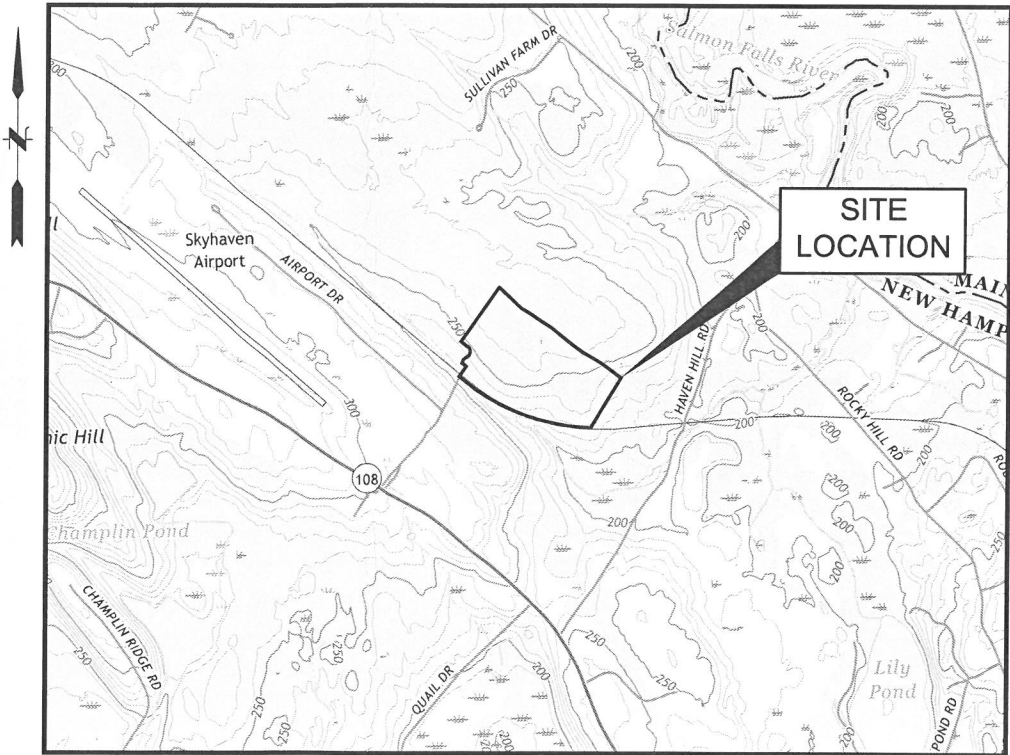
SHEET No.	SHEET TITLE
SHEET 1 of 11	GI-001 COVER SHEET
SHEET 2 of 11	GI-002 GENERAL NOTES & LEGEND
SHEET 3 of 11	GI-100 INDEX PLAN
SHEET 4 of 11	CS-100 EXISTING CONDITIONS PLAN
SHEET 5-6 of 11	CS-101 - CS-102 SITE PLAN
SHEET 7-8 of 11	CG-101 - CG-102 GRADING, DRAINAGE, & EROSION CONTROL PLAN
SHEET 9-11 of 11	CD-501 - CD-503 DETAILS

OWNER

TAX MAP 242 LOT 6
HOUSING AUTHORITY
OF ROCHESTER
BUSINESS FINANCE
AUTHORITY OF NH
2 PILLSBURY STREET
SUITE 101
CONCORD, NH 03301
603.415.0190

PROJECT TEAM

WETLAND SCIENTIST
BARRY KEITH, CWS
B.H. KEITH ASSOCIATES
11 ELM STREET
PO BOX 326
FREEDOM, NH 03836
603.539.8343



LOCATION MAP
SCALE: 1" = 1200'



CONTACT DIG SAFE 72 HOURS
PRIOR TO CONSTRUCTION
THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON
THIS PLAN IS APPROXIMATE. FUSS & O'NEILL INC.
MAKES NO CLAIM TO THE ACCURACY OR
COMPLETENESS OF UTILITIES SHOWN. 72 HOURS PRIOR
TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL
CONTACT DIG-SAFE AT 1-888-DIG-SAFE.



FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY _____ DATE _____

PROJ. No.: 20180581.A10
DATE: 12/11/2018

GI-001

SHEET 1 OF 11

	EXISTING GRANITE OR CONCRETE BOUNDARY
	EXISTING IRON PIN, PIPE OR STAKE
	WETLAND
	EXISTING SIGN
	EXISTING GAS VALVE
	EXISTING WATER GATE VALVE
	EXISTING WATER SHUTOFF
	EXISTING FIRE HYDRANT
	EXISTING SEWER MANHOLE
	EXISTING DRAIN MANHOLE
	EXISTING CATCH BASIN
	EXISTING TELEPHONE MANHOLE
	PROPOSED SEWER GATE VALVE
	EXISTING ELECTRIC MANHOLE
SINGLE	EXISTING LIGHT POLES
DOUBLE	
	EXISTING LAMP POST
	EXISTING UTILITY POLE
	BEARING DISTANCE
	EXISTING EASEMENT LINE
	SETBACK LINE
	EDGE OF WETLAND
	EXISTING TREE LINE
	EXISTING GRANITE CURB
	EXISTING GRANITE SLOPED CURB
	EXISTING BITUMINOUS CURB
	EXISTING CONCRETE CURB
	EXISTING SINGLE SOLID WHITE LINE
	EXISTING SINGLE BROKEN WHITE LINE
	EXISTING SINGLE SOLID YELLOW LINE
	EXISTING SINGLE BROKEN YELLOW LINE
	EXISTING DOUBLE SOLID YELLOW LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING DRAIN LINE
	EXISTING UNDERGROUND TELEPHONE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING UNDERGROUND UTILITIES
	EXISTING OVERHEAD WIRES
	EXISTING ACCESSIBLE PARKING SPACE
	EXISTING PAINTED ISLAND
	EXISTING PARKING SPACE COUNT
	EXISTING CONTOURS
	EXISTING SPOT GRADE
	FIRM MAP FLOODPLAIN BOUNDARY
	SOIL TYPE BOUNDARY
	SOIL TYPE
	TEST PIT LOCATION
	PERCOLATION TEST LOCATION
	MONITORING WELL LOCATION
	BORING LOCATION

	PROPOSED MONUMENT
	PROPOSED SIGN
	PROPOSED GAS VALVE
	PROPOSED WATER GATE VALVE
	PROPOSED WATER SHUTOFF
	PROPOSED FIRE HYDRANT
	PROPOSED THRUST BLOCK
	PROPOSED SEWER MANHOLE
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED CATCH BASIN (D-FRAME, SEE DETAIL)
	PROPOSED CATCH BASIN (ROUND-FRAME)
	PROPOSED FLARED END SECTION (FES)
	PROPOSED HEADWALL
	PROPOSED TELEPHONE MANHOLE
	PROPOSED LIGHT POLES
	PROPOSED LAMP POST
	PROPOSED UTILITY POLE
	PROPOSED PROPERTY LINE
	PROPOSED EASEMENT LINE
	PROPOSED TREE LINE
	PROPOSED GRANITE CURB
	PROPOSED GRANITE SLOPED CURB
	PROPOSED BITUMINOUS CURB
	PROPOSED CONCRETE CURB
	PROPOSED SINGLE SOLID WHITE LINE
	PROPOSED SINGLE BROKEN WHITE LINE
	PROPOSED SINGLE SOLID YELLOW LINE
	PROPOSED SINGLE BROKEN YELLOW LINE
	PROPOSED DOUBLE SOLID YELLOW LINE
	PROPOSED GAS LINE
	PROPOSED WATER LINE
	PROPOSED SEWER LINE
	PROPOSED SEWER FORCE MAIN
	PROPOSED DRAIN LINE
	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED UNDERGROUND UTILITIES
	PROPOSED OVERHEAD WIRES
	PROPOSED ACCESSIBLE PARKING SPACE
	PROPOSED PAINTED ISLAND
	PROPOSED PARKING SPACE COUNT SIZE=9-FT X 18-FT
	PROPOSED CONTOURS
	PROPOSED SPOT GRADE
	PROPOSED HAY BALES
	PROPOSED STONE CHECK DAM
	PROPOSED INLET PROTECTION
	PROPOSED INLET PROTECTION
	PROPOSED SILT FENCE
	PROPOSED ORANGE CONSTRUCTION FENCE

1. THE PURPOSE OF THIS PLAN IS TO DEPICT PROPOSED INFILL PARKING FOR THE SAFRAN AEROSPACE COMPOSITES MANUFACTURING FACILITY LOCATED AT 85 INNOVATION DRIVE, ROCHESTER, NEW HAMPSHIRE 03867.
2. TOTAL PARCEL AREA: MAP 242, LOT 6 49.3 ACRES.
3. PARCEL IS ZONED GENERAL INDUSTRIAL.
4. ALL EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATION PRIOR TO ANY WORK BEING PERFORMED.
5. THESE PLANS SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATE OF SURVEY. THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THESE PLANS, BUT IN EXISTENCE, IS NOT INTENDED OR IMPLIED.
6. PLEASE REFER TO RECORD DRAWINGS FOR UTILITIES INFORMATION.
7. DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
 - GENERAL INDUSTRIAL ZONE:
 - MINIMUM LOT SIZE = 20,000 SF. (WITH WATER AND SEWER)
 - MINIMUM LOT FRONTAGE = 100 FEET
 - MINIMUM YARD SETBACK:
 - FRONT YARD = 25 FEET
 - SIDE = 20 FEET
 - REAR = 25 FEET
 - MAXIMUM LOT COVERAGE = 75%
 - MAXIMUM BLDG HEIGHT = 55 FEET
8. PARCEL IS NOT LOCATED WITHIN ZONE A (100 YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP, COMMUNITY PANEL #J33017502160 AND #J3301C0218E.
9. A VARIANCE WAS GRANTED BY THE ROCHESTER ZBA ON APRIL 11, 2012 TO ALLOW THE ACCESS ROAD IN THE AGRICULTURAL ZONE.
10. A VARIANCE WAS GRANTED BY THE ROCHESTER ZBA ON APRIL 11, 2012 TO ALLOW AN 8-FOOT HIGH FENCE WHERE ONLY 6-FEET HIGH IS ALLOWED.
11. ORIENTATION: HORIZONTAL AND VERTICAL DATUMS - CITY OF ROCHESTER GIS.
12. SOILS INFORMATION PROVIDED BY A SITE SPECIFIC SOIL SURVEY COMPLETED BY DAVID J. ALLAIN, CSS.
13. FOR MORE INFORMATION ABOUT THIS SITE PLAN, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 31 WAKEFIELD ST., ROCHESTER, NH 03867. (603) 335-1338.
14. WETLANDS WERE DELINEATED BY B.H. KEITH, CWS IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATIONS MANUAL, TECHNICAL REPORT Y-87-1.
15. PARKING REQUIREMENTS (ZONING REGS. SECTION 42.9(c)(v)).
 - MANUFACTURING:
 - 1 SPACE PER 600 SF. OF GROSS FLOOR AREA (GFA); OR, 1 SPACE PER 1.5 EMPLOYEES IN THE MAXIMUM SHIFT; WHICHEVER IS GREATER.

AN ADDITIONAL 109 INFILL PARKING SPACES ARE PROPOSED TO ALLEVIATE PARKING CONGESTION DURING SHIFT CHANGE. TOTAL PARKING SPACES PROVIDED SHALL BE 369 EXISTING SPACES + 109 PROPOSED SPACES = 478 PARKING SPACES.

THE SPACES ARE PART OF THE TOTAL ABOVE.
ACCESSIBLE PARKING SPACES = 401 TO 500 = 9 SPACES
TOTAL PROVIDED ACCESSIBLE SPACES = 16 SPACES

17. LOAM STOCKPILES SHALL BE SEEDDED IN ACCORDANCE WITH THE SEEDING NOTES ON SHEET CD-502, IF STORED MORE THAN 30 DAYS. SILT FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT SIDE OF THE LOAM STOCKPILE AS SHOWN IN THE PLAN VIEW AROUND AT LEAST ONE HALF THE CIRCUMFERENCE OF THE PILE.

19. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES IF ANY OFFSITE IMPACTS ARE FOUND DURING CONSTRUCTION.
20. ALL UTILITIES MUST BE UNDERGROUND, INCLUDING UTILITIES EXTENDED ONTO THE SITE FROM EXISTING POLES NEAR THE SITE.

22. THIS DEVELOPMENT MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW - INCLUDING ALL PERTINENT PROVISIONS OF THE CITY OF ROCHESTER SITE PLAN REGULATIONS - UNLESS OTHERWISE WAIVED.

24. A KNOX BOX SHALL BE PROVIDED AS SPECIFIED BY THE ROCHESTER FIRE DEPARTMENT.

26. ALL ELEMENTS SHOWN ON THE APPROVED SITE PLANS MUST BE PROPERLY COMPLETED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, UNLESS APPROPRIATE SURETY IS PLACED WITH THE PLANNING DEPARTMENT.

28. THE APPLICANTS SHALL OBTAIN A STORMWATER MANAGEMENT PERMIT FROM THE PUBLIC WORKS DEPARTMENT (UNLESS DETERMINED TO BE UNNECESSARY BY THE CITY ENGINEER) AND FOLLOW THE REQUIREMENT OF CITY ORDINANCE CHAPTER 50. THE PERMITEE SHALL PREPARE A WRITTEN PLAN FOR MANAGING STORMWATER THAT ENTERS THE CONSTRUCTION SITE AND SHALL PRESENT IT TO THE INSPECTION ENGINEER AT THE POST CONSTRUCTION MEETING. THE PERMITEE SHALL FOLLOW BEST MANAGEMENT PRACTICES TO PREVENT EROSION IN AREAS WHERE THE SOIL HAS BEEN DISTURBED.

30. AN ORANGE CONSTRUCTION FENCE MUST BE PLACED ALONGSIDE THE WETLAND BUFFER PRIOR TO THE START OF CONSTRUCTION (THIS IS NOT REQUIRED IF THE SILT FENCE IS ORANGE).

NHDES ALTERATION OF TERRAIN:	A01-0415 (AMENDMENT PENDING)
NHDES WETLANDS PERMIT:	2011-02858
NHDES WETLANDS PERMIT:	(PENDING FOR FILL OF MAN MADE DITCH)
NHDES DAM PERMIT:	NOT REQUIRED
NHDES SUBDIVISION PERMIT:	NOT REQUIRED
NHDES SUBSURFACE SYSTEMS PERMIT:	NOT REQUIRED
NHDES SEWER CONNECTION PERMIT:	NOT REQUIRED
NHDOT DRIVEWAY/ENTRANCE PERMIT:	NOT REQUIRED

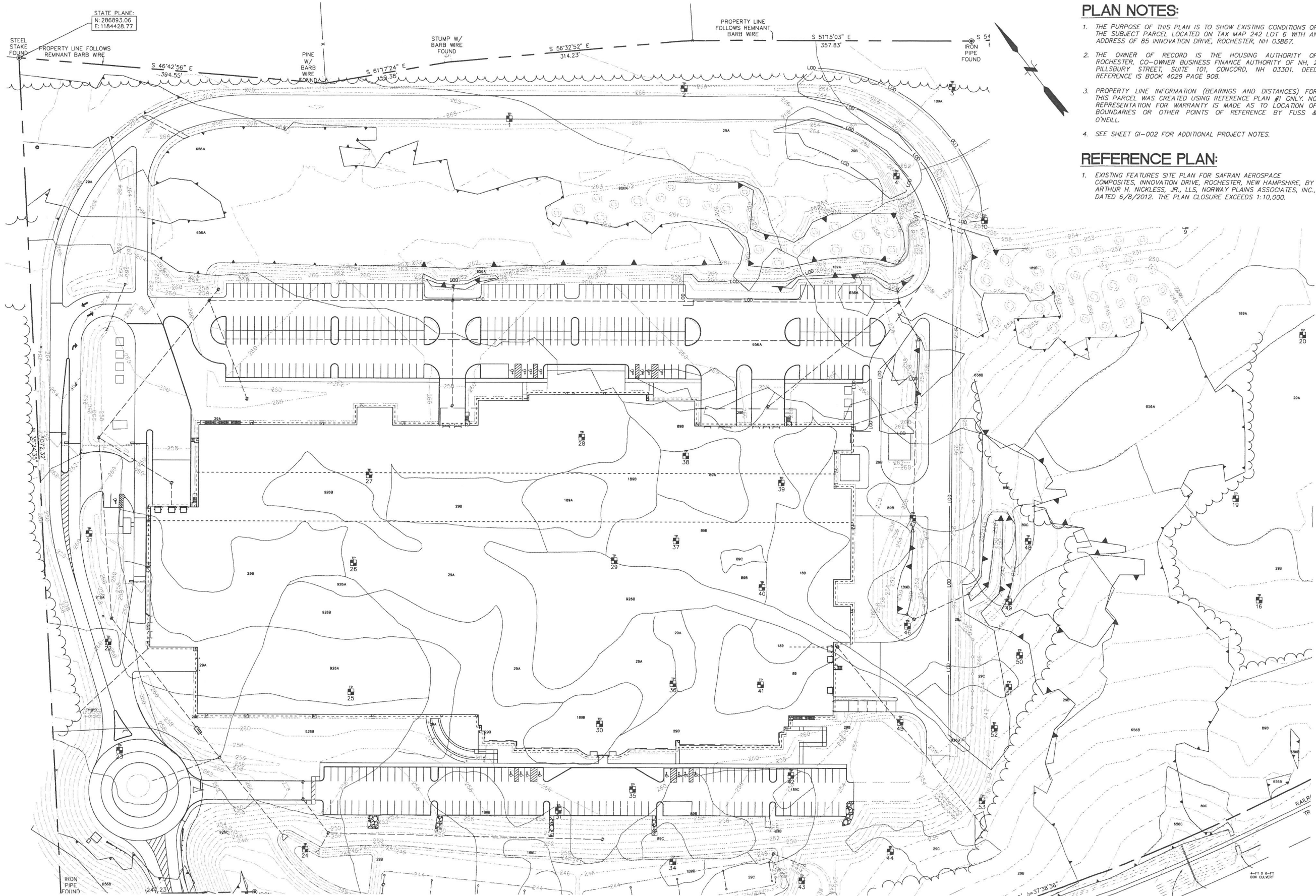
NPDES PERMITS ARE ONLY REQUIRED FOR PROJECTS MEETING THE DISTURBED AREA CRITERIA BELOW AND HAVING A POINT SOURCE STORMWATER DISCHARGE FROM THE SITE TO AN ADJACENT WETLAND OR WATER BODY (I.E. CULVERT, SWALE, ETC. OUTLETING TO A WETLAND, CREEK, STREAM OR RIVER).

PENDING

NPDES PERMITS CONSIST OF A NOTICE OF INTENT (NOI) FILED WITH THE ENVIRONMENTAL PROTECTION AGENCY AT LEAST 48 HOURS 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.

CERTIFIED BY _____ DATE _____



PLAN NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS OF THE SUBJECT PARCEL LOCATED ON TAX MAP 242 LOT 6 WITH AN ADDRESS OF 85 INNOVATION DRIVE, ROCHESTER, NH 03867.
2. THE OWNER OF RECORD IS THE HOUSING AUTHORITY OF ROCHESTER, CO-OWNER BUSINESS FINANCE AUTHORITY OF NH, 2 PILLSBURY STREET, SUITE 101, CONCORD, NH 03301. DEED REFERENCE IS BOOK 4029 PAGE 908.
3. PROPERTY LINE INFORMATION (BEARINGS AND DISTANCES) FOR THIS PARCEL WAS CREATED USING REFERENCE PLAN #1 ONLY. NO REPRESENTATION FOR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE BY FUSS & O'NEILL.
4. SEE SHEET GI-002 FOR ADDITIONAL PROJECT NOTES.

REFERENCE PLAN:

1. EXISTING FEATURES SITE PLAN FOR SAFRAN AEROSPACE COMPOSITES, INNOVATION DRIVE, ROCHESTER, NEW HAMPSHIRE, BY ARTHUR H. NICKLESS, JR., LLS, NORWAY PLAINS ASSOCIATES, INC., DATED 6/8/2012. THE PLAN CLOSURE EXCEEDS 1:10,000.

DESIGNER	REVIEWER
DATE	No.



SCALE:	HORIZ.: 1"=50'
VERT.:	
DATUM:	NAD83
HORIZ.:	NAVDB8
VERT.:	
	50 25 0 50
	GRAPHIC SCALE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, ME 04043
207.363.0669
www.fundo.com

SAFRAN AEROSPACE COMPOSITES
EXISTING CONDITIONS PLAN
85 INNOVATION DRIVE
ROCHESTER
NEW HAMPSHIRE

PROJ. No.: 20180581.A10
DATE: 12/11/2018

CS-100

TAX MAP 242 LOT 9
ANDRE & EDWINNA VANDERZANDEN
1187 SALMON FALLS ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 1003 PAGE 625

PROPERTY LINE
FOLLOWS REMNANT
BARB WIRE

STUMP W/
BARB WIRE
FOUND

S 51°15'03" E
357.83'

S 54°47'12" E
65.04'
IRON
PIPE
FOUND

DRILL
HOLE
FOUND

WETLAND IMPACT=151SF -

WETLAND IMPACT = 406 SF

SEE SHEET CS-102

File Path: F:\P2018\0581\A10\DWG\20180581.A10_STP01.dwg Layout: CS-101 Plotted: Mon, December 10, 2018 - 12:04 PM User: ddugal

MS VIEW:	LAYER STATE:	Plotter: NONE	CTB File: FQ.STB
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LAYER STATE:

SCALE:

HORIZ.: 1"=30'

VERT.:

DATUM:

HORIZ.: NAD83

VERT.: NAVD88

30 15 0 30

GRAPHIC SCALE

FUSS & O'NEILL
UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNERBUNK, ME 04043
207.363.0669
www.fando.com

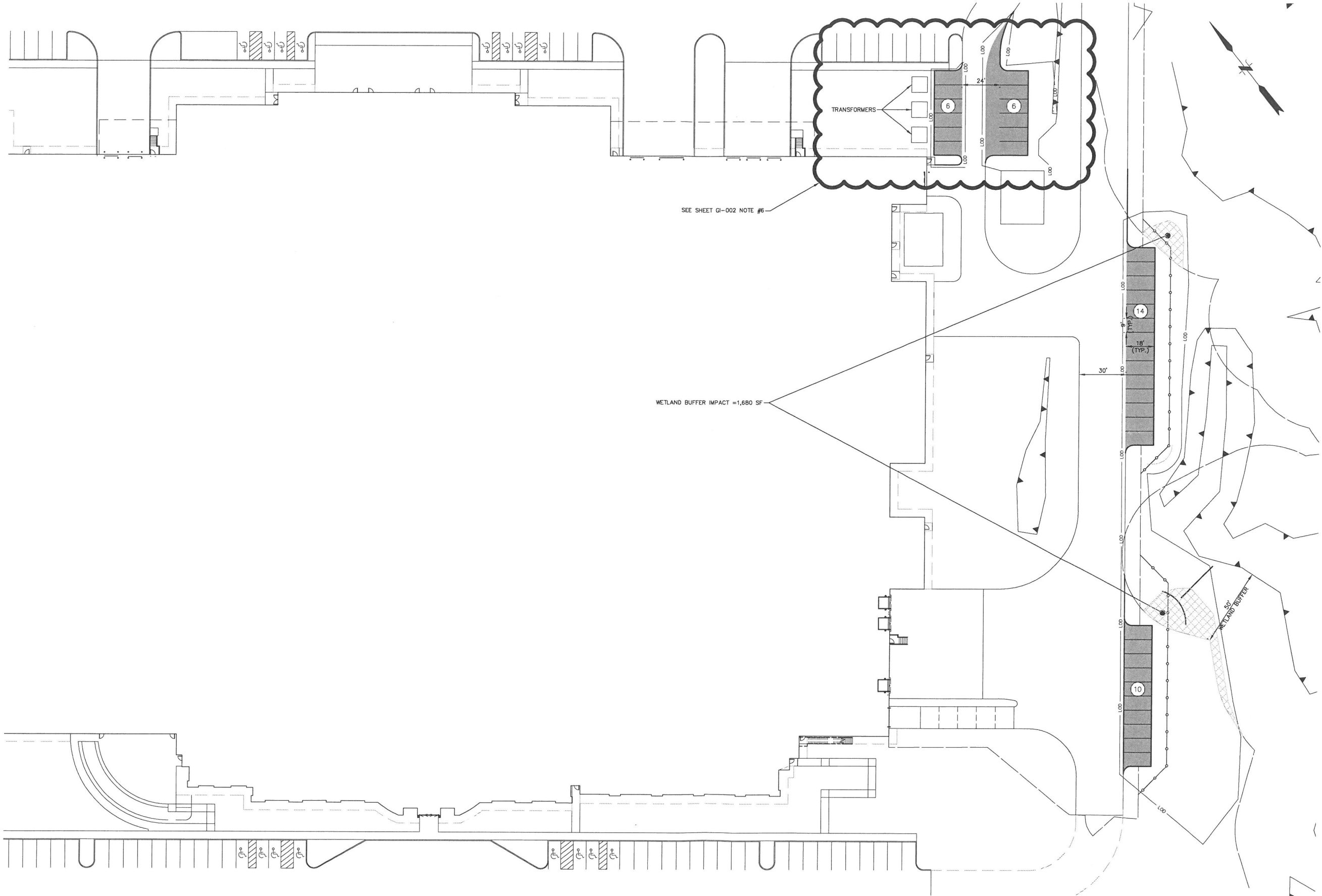
SAFRAN AEROSPACE COMPOSITES
SITE PLAN
85 INNOVATION DRIVE
ROCHESTER NEW HAMPSHIRE

PROJ. No.: 20180581.A10
DATE: 12/11/2018

CS-101

SHEET 5 OF 11

SEE SHEET CS-101



SAFRAN AEROSPACE COMPOSITES		FUSS & O'NEILL		PROFESSIONAL ENGINEER		DESIGNER REVIEWER	
SITE PLAN		UPPER SQUARE BUSINESS CENTER 5 FLETCHER STREET, SUITE 1 KENNEBUNK, ME 04043 207.563.0669 www.fando.com		RICHARD R. LUNDGREN No. 10943			
ROCHESTER		NEW HAMPSHIRE		DATE		DESCRIPTION	
PROJ. No.: 20180581A10		DATE: 12/11/2018		No.			
CS-102		SHEET 6 OF 11					

SCALE: HORZ.: 1"=30'
VERT.:
DATUM: HORZ.: NAD83
VERT.: NAVD83
GRAPHIC SCALE

WETLAND BUFFER IMPACT = 1,680 SF

50' WETLAND BUFFER

TRANSFORMERS

SEE SHEET GI-002 NOTE #6

TAX MAP 242 LOT 9
ANDRE & EDWINNA VANDERZANDEN
1187 SALMON FALLS ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 1003 PAGE 625



LAYER STATE:

S 57°

8

S 56°32'52" E
314.23'

IRON
PIPE

DRILL
HOLE
FOUND

STONE CHECK DAM (TYP.)—

CB#1
RIM = 257.5'
12" PROP INV OUT = 254.55'

EXISTING CB
12" PROP INV IN = 254.05'
15" EXISTING INV OUT = 253.8'

WETLAND IMPACT = 406 SF

CB#2
RIM = 257.5'
12" PROP INV OUT = 254.35'

INLET SEDIMENT FILTER (TYP.)

12" PROP INV OUT = 254.25'

DMH#1
RIM = 259.3'
12" PROP INV IN = 253.73'



SCALE: HORZ.: 1"=30'

 VERT.:

DATUM: HORZ.: NAD83

 VERT.: NAVD88

30 15 0 30

GRAPHIC SCALE

FUSS & O'NEILL

UPPER SQUARE BUSINESS CENTER
5 FLETCHER STREET, SUITE 1
KENNEBUNK, ME 04043
207.363.0669
www.fando.com



SAFRAN AEROSPACE COMPOSITES
GRADING, DRAINAGE,
& EROSION CONTROL PLAN
85 INNOVATION DRIVE

PROJ. No.: 20180581.A10
DATE: 12/11/2018

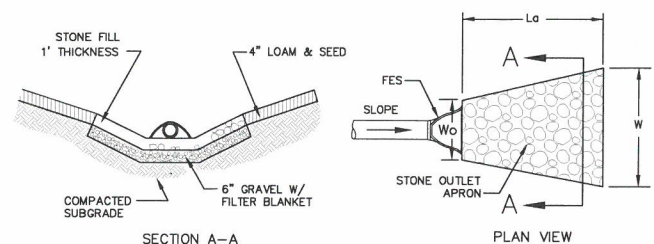
CG-101

SHEET 7 OF 11

File Path: F:\P20180581\A10_DWG\DWG\CD-502.dwg Plotted: Mon, December 10, 2018 - 12:01 PM User: ddugai
MS VIEW: LAYER STATE: PLOTTER: NONE CTB File: FOSTB

RIP-RAP GRADATION	
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	15 TO 20
85	13 TO 18
50	10 TO 15
15	3 TO 5

APRON DIMENSION TABLE						
PIPE OUTLET	W ₀	W	L ₀	T	d50	
12" HOPE OUTLET	3.0'	11'	8'	12"	3"	
6" HOPE OUTLET	2.0'	11'	8'	12"	3"	



STONE: D50 = 6"
WELL GRADED WITH SUFFICIENT SAND AND GRAVEL TO FILL THE VOIDS
THE HEIGHT OF THE STRUCTURAL LINING ALONG THE CHANNEL SIDES SHALL BEGIN AT THE ELEVATION EQUAL TO THE TOP OF THE CONDUIT AND TAPER DOWN TO THE CHANNEL BOTTOM THROUGH THE LENGTH OF THE APRON.

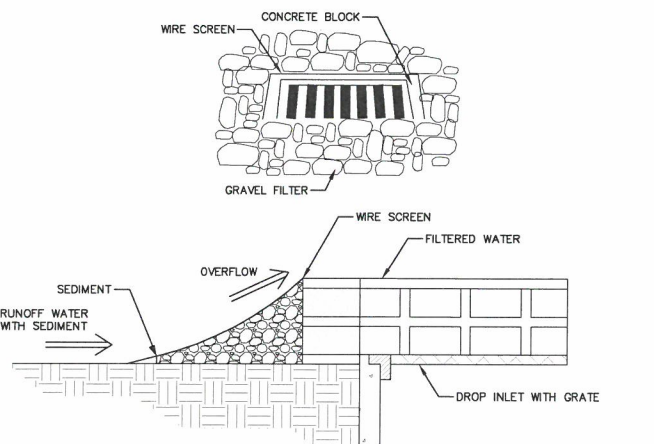
- NOTES:
- ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
 - THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
 - APRON LENGTHS, WIDTHS AND THICKNESSES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

RIP RAP APRON OUTLET PROTECTION

NOT TO SCALE



BLOCK AND GRAVEL INLET SEDIMENT FILTER

NOT TO SCALE

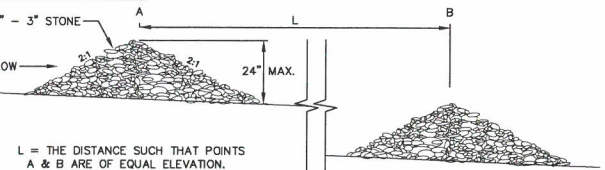
- CONSTRUCTION SPECIFICATIONS:
- PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH AND NO GREATER THAN 24 INCHES HIGH.
 - WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
 - STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN ABOVE. STONE GRADATION SHALL BE WELL GRADED WITH THE MAXIMUM STONE SIZE OF 6 INCHES AND MINIMUM STONE SIZE OF 1 INCH.
 - IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

- MAINTENANCE NOTES:
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SEDIMENTATION CONTROL AT CATCH BASINS

NOT TO SCALE

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



SPACING BETWEEN STONE CHECK DAMS

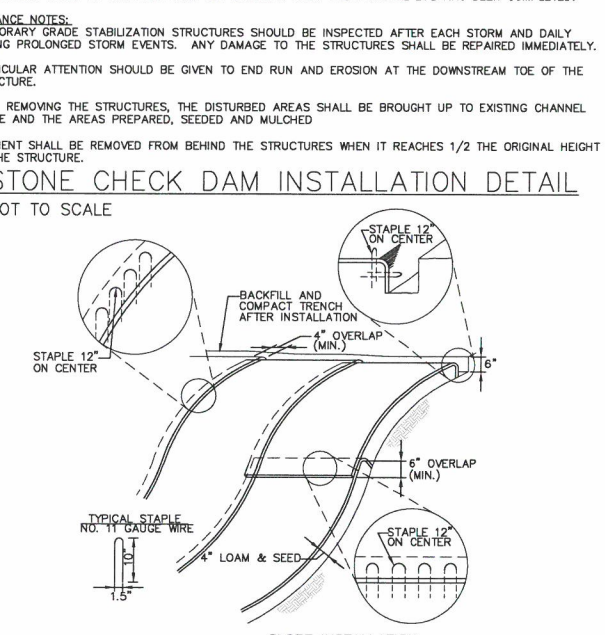
L = THE DISTANCE SUCH THAT POINTS A & B ARE OF EQUAL ELEVATION.

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

- MAINTENANCE NOTES:
- 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.
 - PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
 - WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED.
 - SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM INSTALLATION DETAIL

NOT TO SCALE



- MAINTENANCE REQUIREMENTS:
- ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 - ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.

- CONSTRUCTION SPECIFICATIONS:
- MANUFACTURE'S INSTALLATION INSTRUCTIONS:
 - PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
 - ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
 - CONSECUTIVE RECP'S SPUNCE DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.
NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

- SITE PREPARATION:
 - PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.
 - GRADE AND SHAPE AREA IF INSTALLATION.
 - REMOVE ALL ROCKS, CLODS, TRASH, VEGETATION OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 - PREPARE SEEDED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 - INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
- SEEDING:
 - SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEED.
 - WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

EROSION CONTROL - BLANKET SLOPE PROTECTION

NOT TO SCALE

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 SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 - RUNOFF SHOULD BE DIVERTED FROM THE SEEDED AREA.
 - ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

- SEEDING 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 SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHOULD BE ROLLED TO FIRM THE SEEDED 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 CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
 - INSPECT SEEDED 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 SHOULD BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. 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)*

*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000-SF)*

*LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT

FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

SEEDING:

- INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTPACKER 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 CULTPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDED SHOULD 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 SHOULD BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEED IN LATE SUMMER AT LEAST 35% OF THE SEED SHOULD 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 NHSSM, VOL. 3, AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD 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 SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

HYDROSEEDING:

- WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDED 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 SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
- SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
- BASED ON INSPECTION, AREAS SHOULD BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
- AT A MINIMUM 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.
- IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEED, 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
		RED TOP	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
		RED TOP	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
		RED TOP	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, E.L. AND H.T. MARSHALL, (AUGUST 1992)

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 SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 - RUNOFF SHOULD BE DIVERTED FROM THE SEEDED AREA.
 - ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

- SEEDING PREPARATION:
- STONES AND TRASH SHOULD 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 SHOULD BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. 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)*

*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000-SF)*

*LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT

FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

SEEDING:

- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTPACKER 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 SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
- AREAS SEEDED BETWEEN MAY 15 AND AUGUST 15 SHOULD 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 SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

MAINTENANCE REQUIREMENTS:

- TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD 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 SHOULD 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 SHOULD BE IMPLEMENTED.
- IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

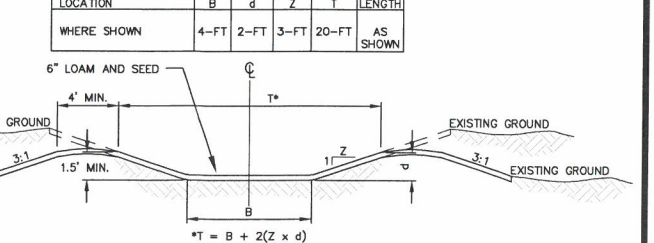
SEEDING RECOMMENDATIONS

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 RYEGRASS	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 RYEGRASS	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)

SWALE DIMENSION TABLE



- MAINTENANCE NOTES:
- THE SWALE(S) SHALL BE MOWED WITH THE REST OF THE SITES LAWN AREAS TO PROMOTE HEALTHY GROWTH AND PREVENT THE ENCROACHMENT OF WEEDS AND WOODY VEGETATION. DO NOT MOW GRASS IN SWALE(S) TOO SHORT. THIS WILL REDUCE THE SWALES FILTERING ABILITY.
 - THE SWALE(S) SHOULD BE FERTILIZED ON AN AS NECESSARY BASIS, TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION COULD RESULT IN THE SWALE(S) BECOMING A SOURCE OF POLLUTION TO THE SURROUNDING WETLAND AREAS.
 - THE SWALE(S) SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

VEGETATED SWALE DETAIL

NOT TO SCALE

SAFRAN AEROSPACE COMPOSITES

DETAILS

85 INNOVATION DRIVE

ROCHESTER

NEW HAMPSHIRE

PROJ. No.: 20180581.A10

DATE: 12/11/2018

CD-502

ENGINEER

SEAL

REGISTERED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE

RICHARD R. LUNDQUIST

No. 10943

SCALE:

HORIZ.: NONE

VERT.: NONE

DATUM:

HORIZ.: NONE

VERT.: NONE

GRAPHIC SCALE

0

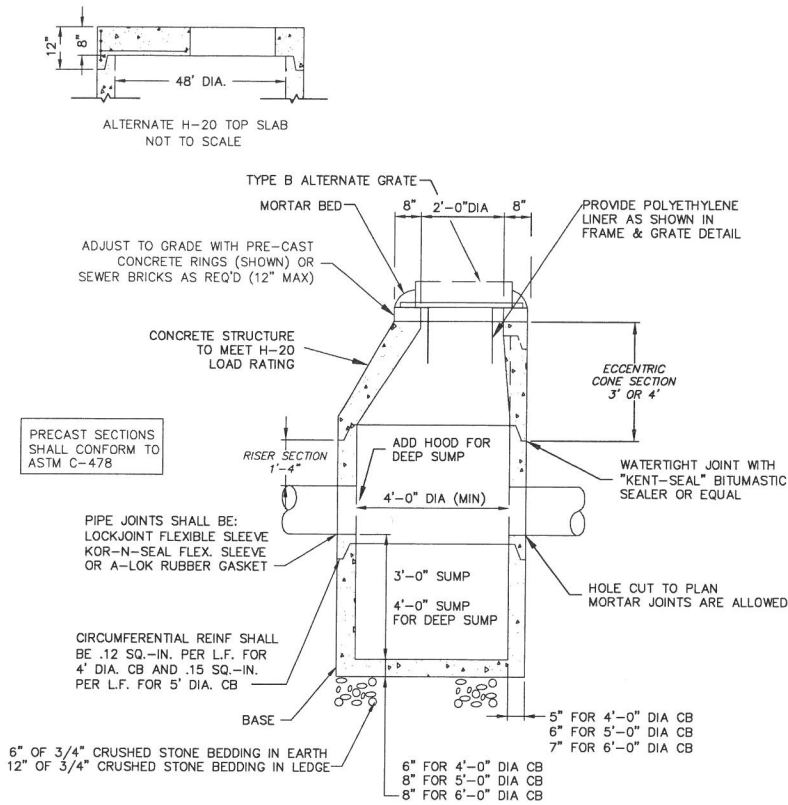
FUSS & O'NEILL

UPPER SQUARE BUSINESS CENTER

5 FLETCHER STREET, SUITE 1

KENNEBUNK, ME 04043

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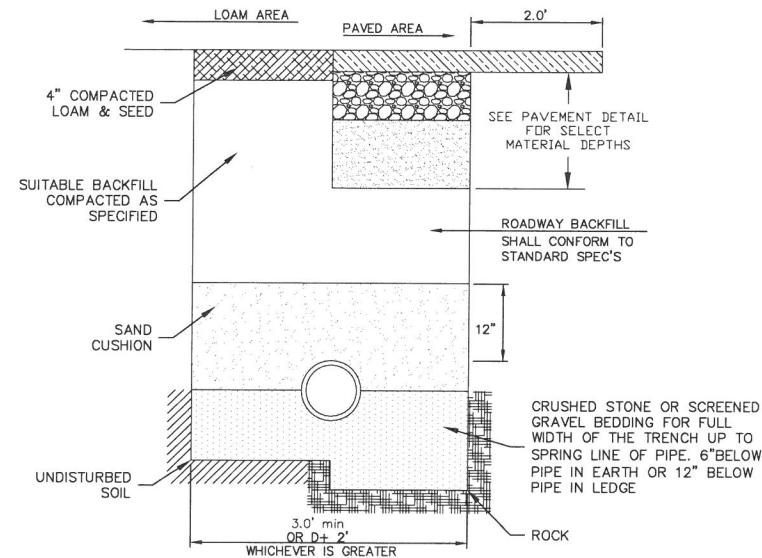


NOTES:

- ALL SECTIONS SHALL BE CONCRETE, CLASS AA (4,000 PSI) CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
- THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
- RISERS OF 1'-4" MAY BE USED TO REACH THE DESIRED ELEVATION.
- STEPS ARE NOT ALLOWED.

PRECAST REINFORCED CATCH BASIN

SCALE: NOT TO SCALE

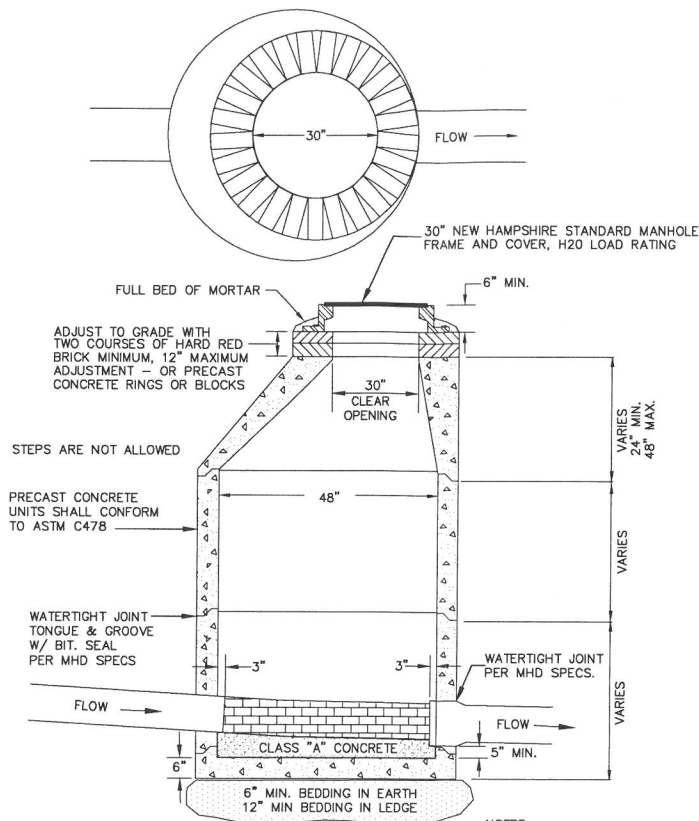


NOTES:

- PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS. DEPTH FOR BITUMINOUS PAVEMENT SHALL BE AS SPECIFIED IN PAVEMENT DETAIL.
- NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
- IN LIEU OF THE 12" GRAVEL COURSE AND 9" CRUSHED GRAVEL, 18" OF CRUSHED GRAVEL OR RECLAIMED STABILIZED BASE MAY BE USED AS A BASE FOR THE PAVEMENT REPAIR.
- MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.
- A MINIMUM 2' CUTBACK IS REQUIRED AT THE TOP OF THE TRENCH WALL OVER UNDISTURBED MATERIAL.

TYPICAL SEWER AND DRAINAGE TRENCH DETAIL

SCALE: NOT TO SCALE



NOTES:

- ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
- THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.

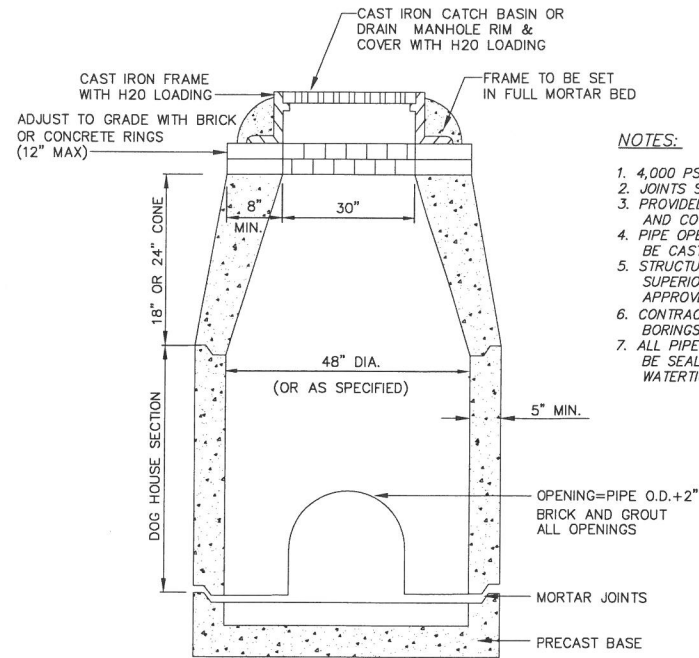
TYPE OF PIPE	SIZE	MAX. DIST. TO FIRST JOINT
R.C.P. & C.I.	ALL	48"
C.I.P.	ALL	48"
P.V.C.	>15"	48"
V.C.P.	0-12"	18"
V.C.P.	>12"	36"

CONSTRUCTION NOTES:

- INSTALL FIRST SECTION BELOW EXISTING PIPE.
- CONSTRUCT BRICK SHELF AND ADD REMAINING SECTIONS
- FORM WATER TIGHT JOINT USING "KENT-SEAL" BITUMASTIC SEAL.
- CUT PIPE IN TWO LOCATIONS, 3" FROM MANHOLE INSIDE WALL

DRAIN MANHOLE DETAIL

SCALE: NOT TO SCALE

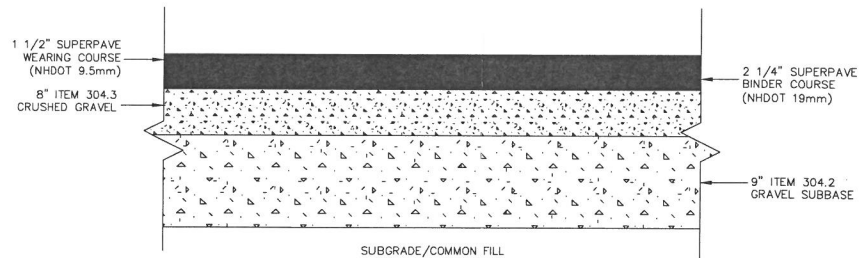


NOTES:

- 4,000 PSI AFTER 28 DAYS.
- JOINTS SEALED WITH BUTYL RUBBER SEALANT.
- PROVIDED WITH CAST IRON MANHOLE FRAME AND COVER OR SPECIAL ACCESS COVER.
- PIPE OPENINGS OR FLEXIBLE PIPE SLEEVES MAY BE CAST IN.
- STRUCTURES ARE TO BE SUPPLIED BY SUPERIOR CONCRETE, INC., OR AN EQUIVALENT APPROVED BY THE ENGINEER.
- CONTRACTOR TO PROVIDE INLET/OUTLET BORINGS WHERE NECESSARY.
- ALL PIPE CONNECTIONS TO STRUCTURES MUST BE SEALED AND GROUTED SO AS TO BE WATERTIGHT.

DOG HOUSE DRAIN STRUCTURE DETAIL

SCALE: NOT TO SCALE



DRIVEWAY AND PARKING AREA CROSS-SECTION

SCALE: NOT TO SCALE

SUBBASE COURSE GRAVEL GRADING REQUIREMENTS:

SIEVE DESIGNATION:	PERCENTAGE BY WEIGHT SQUARE MESH SIEVE:
6 INCH	100%
NO. 4	25-70%
NO. 200	0-12%

GRAVEL SHALL CONTAIN NO PARTICLES OF ROCK EXCEEDING SIX INCHES IN ANY DIMENSION.

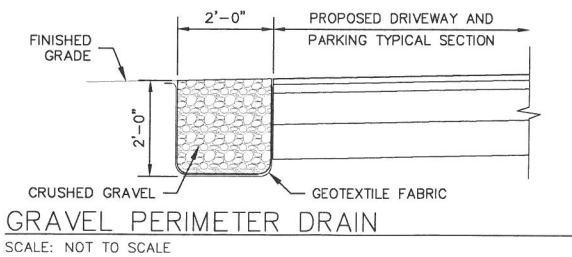
BASE COURSE (CRUSHED GRAVEL) GRADING REQUIREMENTS:

SIEVE DESIGNATION:	PERCENTAGE BY WEIGHT SQUARE MESH SIEVE:
3 INCH	100%
2 INCH	95-100%
1 INCH	55-85%
NO. 4	27-52%
NO. 200	0-12%

CRUSHED GRAVEL SHALL CONTAIN NO PARTICLES OF ROCK EXCEEDING THREE INCHES IN ANY DIMENSION.

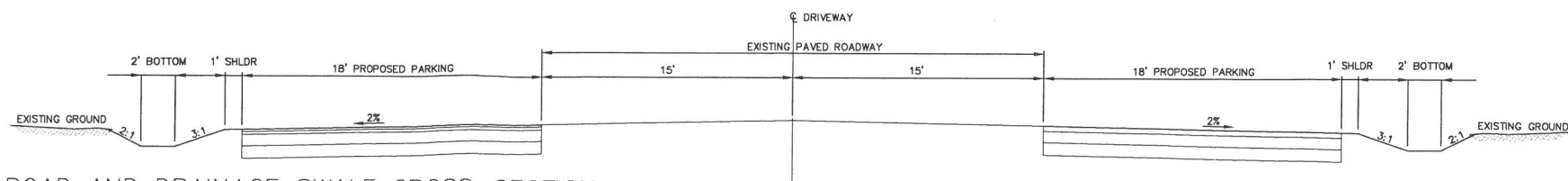
PARKING LOT MATERIALS NOTES:

- BANK RUN GRAVEL SHALL BE INSTALLED IN MAXIMUM 6 INCH LIFTS AND BE COMPACTED TO 95% MAXIMUM PROCTOR DENSITY TO A DEPTH OF 12 INCHES.
- CRUSHED GRAVEL SHALL BE INSTALLED IN MAXIMUM 6 INCH LIFTS AND BE COMPACTED TO 95% MAXIMUM PROCTOR DENSITY TO FULL DEPTH.



GRAVEL PERIMETER DRAIN

SCALE: NOT TO SCALE



ROAD AND DRAINAGE SWALE CROSS-SECTION

SCALE: NOT TO SCALE

SAFRAN AEROSPACE COMPOSITES

DETAILS

85 INNOVATION DRIVE

ROCHESTER

NEW HAMPSHIRE

PROJ. No.: 20180581A10

DATE: 12/11/2018

CD-503

SHEET 11 OF 11

FUSS & O'NEILL

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REGISTERED PROFESSIONAL ENGINEER

STATE OF NEW HAMPSHIRE

RICHARD R. LUNDGREN

No. 10945

DESIGNER REVIEWER

DESCRIPTION

DATE

No.