



Describe proposed activity/use: to remove the existing church and build a new office a meeting space building.

Describe existing conditions/use (vacant land?): there is a building that includes a church and rectory building.

The rectory has been converted to a residential facility and the church is not in use.

### Utility information

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

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

If City water, what are the estimated total daily needs? 355 gallons per day  
(5 gpd/100 sf for general office space x 7,100 sf)

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

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

Where will stormwater be discharged? Infiltration into the ground

### Building information

Type of building(s): wood frame

Building height: 29'-9" Finished floor elevation: 225.50'

### Other information

# parking spaces: existing: 5 total proposed: 12; Are there pertinent covenants? No

Number of cubic yards of earth being removed from the site n/a

Number of existing employees:    ; number of proposed employees total:    

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

Wetlands: Is any fill proposed? No; area to be filled:    ; buffer impact?    

Proposed <u>post-development</u> disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – Residential facility	2,477	12.2
Building footprint(s) – Proposed office building	3,716	18.3
Parking and vehicle circulation	5,742	28.3
Planted/landscaped areas (excluding drainage)	8,355	41.2
Natural/undisturbed areas (excluding wetlands)	0	0.0
Wetlands	0	0.0
Other – drainage structures, outside storage, etc.	0	0.0

## Comments

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

A waiver is requested to allow for the use off site parking at a public parking lot within 600 feet and on-street parking on Charles Street

A variance was granted to allow for office use in the Residential-2 zoning district.

## 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: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of applicant/developer: \_\_\_\_\_

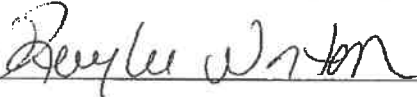
Date: \_\_\_\_\_

Signature of agent:  \_\_\_\_\_

Date: 10/25/21

## 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.*

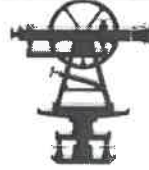
Signature of property owner:  \_\_\_\_\_

Date: 10/22/2021

# NORWAY PLAINS ASSOCIATES, INC.

LAND SURVEYORS • SEPTIC SYSTEM DESIGNERS • CIVIL ENGINEERS

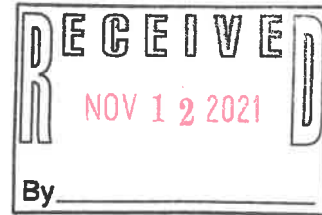
P.O. Box 249  
Continental Blvd. (03867)  
Rochester, NH 03866-0249  
Phone (603) 335-3948  
www.norwayplains.com



P. O. Box 268  
31 Mooney St.  
Alton, NH 03809  
Phone & Fax (603) 875-3948

October 25, 2021

Shanna Saunders, Director  
Planning Department  
City of Rochester  
33 Wakefield Street  
Rochester, NH 03867



**Re: Residential Site Plan Application; Hope on Haven Hill; 38 Charles Street, Map 125, Lot 214.**

Dear Ms. Saunders:

On behalf of Hope on Haven Hill, we hereby submit plans and Nonresidential site plan application for a proposed office building located at 38 Charles Street. The parcel, Tax Map 125, Lot 214 comprising of 0.47 acres (20,278 sf) is currently developed with an 8-bed recovery house and the old St. Mary's Church. The parcel is located within the Residential 2 (R-2) zoning district. Access to the property is currently via a single driveway located off Charles Street.

The parcel received a variance from the Rochester Zoning Board of Adjustments and Site Plan approval from the Rochester Planning Board in 2018/2019 to allow for a recovery house within the church rectory (Cases Z-2018-07 & 125-214-R2-19, respectively). At that point, there was limited site improvements needed, with the existing rectory undergoing renovations.

During these public hearing, it was conveyed to the City, that Hope on Haven Hill was evaluating if the existing church would be repurposed for future needs. Since that time, it was determined that the existing church was in too much disrepair and has environmental problems that preclude it from be worthy of rehabilitation. As such, it has been determined that it will be removed.

Home on Haven Hill is proposing to construct a two story office building with associated parking. The roughly 3,6500 square foot print building will contain several office, meeting, interview rooms, with a small laundry room and storage space within the basement. This building will become the main office for Hope on Haven Hills as well as outpatient programming. The proposed office building will operate Monday through Fridays, from 8am to 5pm and will have 4 full time staff with an addition 3 to 4 staff members rotating into the office to meet with clients. These staff would be the same staff that will be associated with the recovery house.

Access to the 12 parking spaces will be via a reconstructed driveway off Charles Street. The proposed office building would require, based on general office space, 22 parking spaces. However, there is provisions within the Rochester Site Review Regulations that allows for a reduction in the overall number of parking spaces when there is public transportation (COAST Bus), public parking lots, and on-street parking within 660 feet (1/8 mile) of the site. This parcel is within the required distance for all three criteria. As such, a waiver is respectfully requested to allow for 12 spaces where 22 would be required.

In accordance with Chapter 218 of the Rochester General Ordinance, stormwater from the some of the existing and all of the new impervious surfaces will be collected via closed drainage system consisting of catch basin and drainage pipes. The runoff collected from the site will be directed towards a proposed in-ground infiltration system. This system, Stormtech chambers, have been designed to accommodate a 50-year storm event without exceeding the storage capacity. The infiltration basins will allow for the stormwater generated by the development to infiltrate back into the groundwater. In all, the post development stormwater management system will attenuate the peak runoff rates and total volume such that they are equal or less than the corresponding Pre-development runoff conditions for all storm events.

The proposed office will be serviced by City water and sewer. A new water service and fire service will be connected to the City water main Charles Street. Domestic sanitary waste will also be directed toward municipal sewer within Charles Street. New underground utility conduits for electrical, communications, and cable will be installed to the new building.

Snow storage will be located at the ends of the two parking areas as well as in the grass area in the back. Two LED Lighting fixtures will be mounted on poles meeting the requirements of the City of Rochester lighting standards. Trash will be collected within the basement and will taken off site as necessary.

A landscaping plan has been prepared to add a couple of trees and foundation plantings along the front and entry way to the building. The back lawn area will continue to be utilized with playground equipment. Excess concrete walkways and driveway will be removed to provide more green areas. Currently, the southern and easterly property lines have wooden stockade fences which will screen the abutting residential parcels. Hope on Haven Hill recently purchased the property to the north, 36 Charles Street and will continue to keep it as a duplex rental units.

We look forward to discussing this project with staff and the Planning Board. Thank you for your consideration  
Sincerely,

**NORWAY PLAINS ASSOCIATES, INC.**



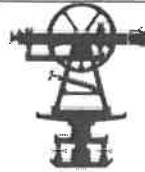
By:  
Scott A. Lawler, PE, Project Engineer

cc: Hope on Haven Hill

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October 25, 2021

Shanna Saunders, Director  
Planning Department  
City of Rochester  
33 Wakefield Street  
Rochester, NH 03867

**Re: Waiver Request: Section 10(A); Number of Parking Spaces, Residential Site Plan Application; Hope on Haven Hill; 38 Charles Street, Map 125, Lots 214.**

Dear Ms. Saunders:

On behalf of Hope on Haven Hill, Norway Plains Associates respectfully requests waivers to the following Site Plan Regulation:

**Waiver Request Section 10 (A):**

*Section 10(A) of the Rochester Site Plan Review Regulations requires that the minimum number of designated off street parking shall be provided on each site based upon the type of use, as shown in the Table of Parking Requirements. For Residential use, the requirement is 0.75 spaces per bed for a recovery house. For Office use, the requirement is 3 spaces per 1,000 square feet of gross floor area.*

Under the Site Review Regulations, the existing and proposed residential and office use, the total number of parking spaces based on the number of units and total gross floor area of office use is 28 spaces:

$$\frac{8 \text{ Beds} \times 0.75 \text{ spaces}}{\text{Bed}} \quad \text{Plus} \quad \frac{7,300 \text{ sf Office Building} \times 3 \text{ spaces}}{1,000 \text{ sf Gross Floor Area}} = 28$$

During the February 4, 2019 meeting, the City of Rochester Planning approved the recovery house within the old St. Mary's Church rectory (case 125-214-R2-19). As discussed at this meeting, parking for the house would only be for the limited staff and that the residence of the house would not have vehicles and there would not be allowed to have visitors. Thus, it was agreed that 3 to 4 spaces would be more than adequate for the limited staff.

The proposed office building would require, based on general office space, 22 parking spaces. However, there is provisions within the Rochester Site Review Regulations that allows for a reduction in the overall number of parking spaces when there is public transportation (COAST Bus), public parking lots, and on-street parking within 660 feet (1/8 mile) of the site. This parcel is within the required distance for all three criteria.

The proposed office building will operate Monday through Fridays, from 8am to 5pm and will have 4 full time staff with an addition 3 to 4 staff members rotating into the office to meet with clients. These staff would be the same staff that will be associated with the recovery house.

The proposed site plan depicts a total of twelve (12) parking spaces, of which two (2) are ADA accessible. Furthermore, two (2) spaces will be designated as "Visitor" spaces near the main doors to the facility.

Given the limited full and rotating staff members, the proximity to public parking and transportation, Hope on Haven Hill is confident that there will be adequate parking for their facilities. Therefore, we respectfully request a waiver to allow for less than amount of required parking set forth within the Rochester Site Review Regulations.

We look forward to discussing this project with staff and the Planning Board. Thank you for your consideration Sincerely,

**NORWAY PLAINS ASSOCIATES, INC.**

A handwritten signature in black ink, appearing to read "Scott A. Lawler". The signature is fluid and cursive, with the first name "Scott" and last name "Lawler" clearly distinguishable.

By:  
Scott A. Lawler, PE, Project Engineer

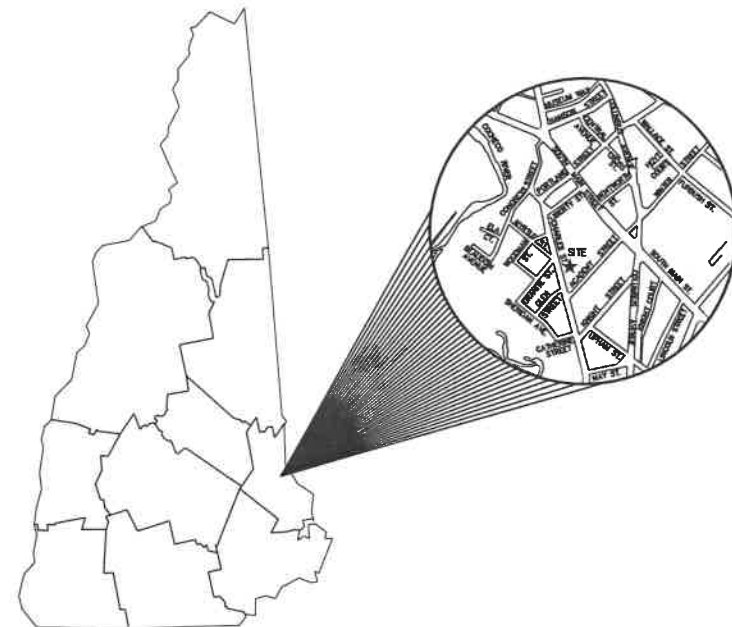
cc: Hope on Haven Hill



# PROPOSED OFFICE BUILDING

## 38 CHARLES STREET

PREPARED FOR  
HOPE ON HAVEN HILL  
OCTOBER 2021



**OVERALL SITE**  
1" = 40'



### CIVIL ENGINEERS

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

### ARCHITECTS

MARKET SQUARE ARCHITECTS, PLLC  
104 CONGRESS STREET, SUITE 203  
PORTSMOUTH, NEW HAMPSHIRE 03801  
(603) 501-0202

### LANDSCAPING ARCHITECTS

WOODBURN & COMPANY LANDSCAPE ARCHITECTURE, LLC  
103 KENT PLACE  
NEWMARKET, NEW HAMPSHIRE 03857  
(603) 659-5949

### OWNER OF RECORD

TAX MAP 125, LOT 214  
HOPE ON HAVEN HILL, INC.  
PO BOX 1272  
ROCHESTER, NH 03866  
SCRD BOOK 4593, PAGE 443

### APPLICANT

HOPE ON HAVEN HILL, INC.  
PO BOX 1272  
ROCHESTER, NH 03866  
(603) 695-8585

### STATE AND FEDERAL PERMITS:

STATE OF NEW HAMPSHIRE PERMIT NUMBERS:  
NHDES ALTERATION OF TERRAIN: NOT REQUIRED  
NHDES WETLANDS PERMIT: NOT REQUIRED  
NHDES DAM PERMIT: NOT REQUIRED  
NHDES SUBDIVISION PERMIT: NOT REQUIRED  
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: NOT 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: \_\_\_\_\_ DATE: \_\_\_\_\_

### SHEET INDEX

SHEET	COVER	SCALE
E-1	EXISTING FEATURES	1" = 20'
E-2	DEMOLITION PLAN	1" = 10'
C-1	OVERALL SITE PLAN	1" = 20'
C-2	SITE LAYOUT PLAN	1" = 20'
C-3	GRADING, DRAINAGE, EROSION AND SEDIMENTATION CONTROL PLAN	1" = 10'
C-4	UTILITY PLAN	1" = 20'
C-5	CONSTRUCTION DETAILS	AS SHOWN
C-6	STORMTECH DETAILS	AS SHOWN
C-7	UTILITY DETAILS	AS SHOWN
C-8	TEMPORARY AND PERMANENT EROSION & SEDIMENTATION CONTROL DETAILS	AS SHOWN
L-1	SITE LANDSCAPING PLAN	1" = 10'
L-2	LIGHTING PLAN AND DETAILS	1" = 10'
A1.01	OVERALL FLOOR PLAN	1/8" = 1'-0"
A2.00A	BUILDING ELEVATIONS	3/16" = 1'-0"

FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2



LEGEND

- PROPERTY LINE
- EXISTING TREE LINE
- 258 --- EXISTING CONTOUR LINE
- EXISTING DRAIN LINE
- EXISTING OVERHEAD WIRES
- W --- EXISTING WATER LINE
- S --- EXISTING SEWER LINE
- EXISTING UTILITY POLE
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLES
- SGC EXISTING SLOPED GRANITE CURB



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.

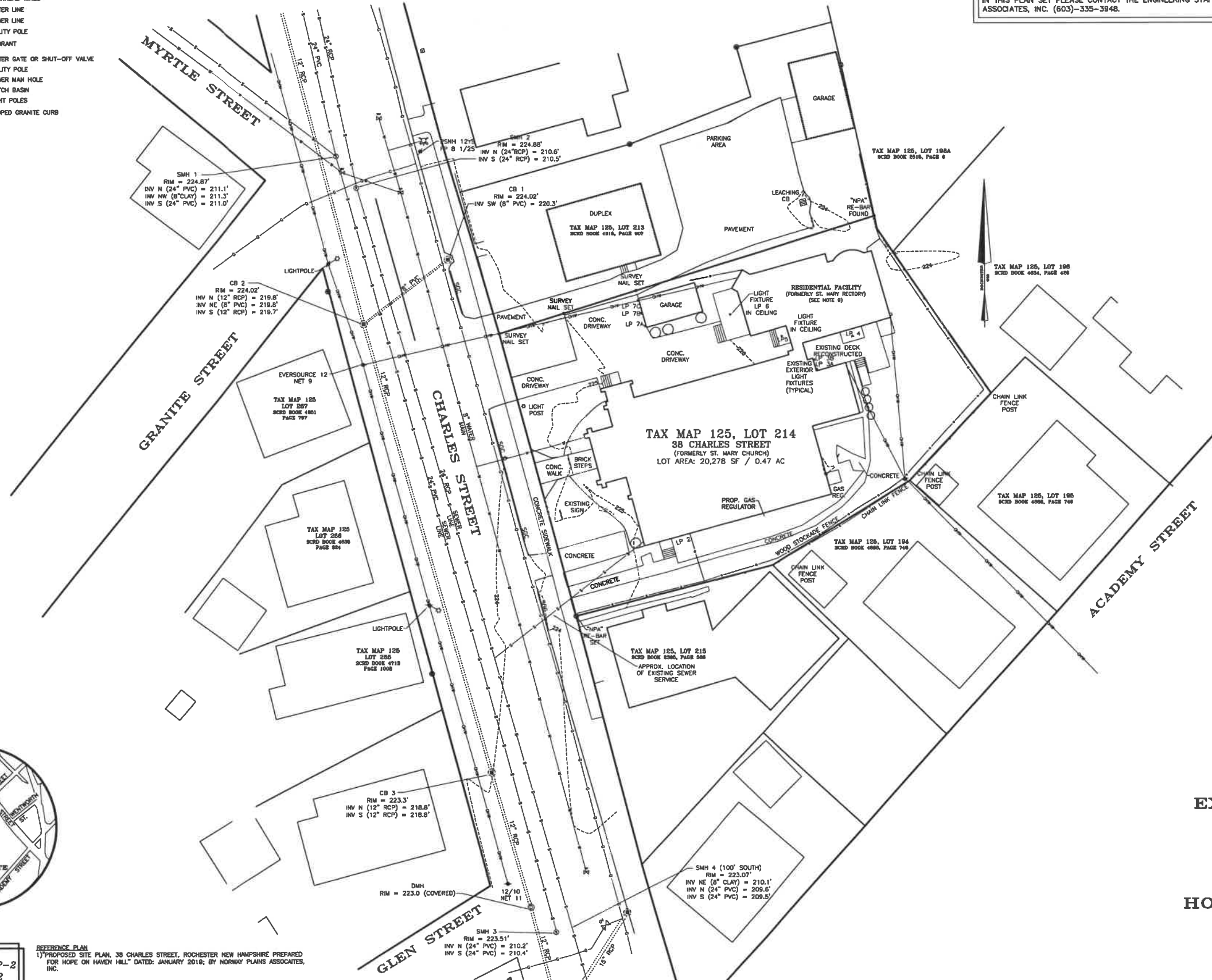


REVISIONS:

11/10/21 - ADD EXISTING SEWER AND WATER SERVICES.

GENERAL SITE PLAN NOTES

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING FEATURES ON TAX MAP 125, LOT 214.
2. THIS PARCEL IS LOCATED IN THE RESIDENTIAL 2 (R2) ZONE.
3. TOTAL PARCEL AREA: MAP 125, LOT 214: 20,278 SQUARE FEET / 0.47 ACRE. EXISTING LOT COVERAGE = 65%.
4. DIMENSIONAL REGULATIONS PER ZONING ORDINANCE: MULTIFAMILY (R2) ZONE: MINIMUM LOT SIZE = 30,000 SF MINIMUM LOT FRONTAGE = 100 FEET MINIMUM YARD SETBACKS: FRONT = 15' SIDE = 10' REAR = 25'
5. SOIL SERIES TYPES ARE PER NATURAL RESOURCES CONSERVATION SERVICE. WGA - WINDSOR LOAMY SAND, 0 TO 3 PERCENT SLOPES.
6. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATIONS PRIOR TO ANY WORK BEING PERFORMED.
7. THESE PLANS SHOW ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATES OF THE SURVEY (12-14-18). THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THESE PLANS BUT IN EXISTENCE ARE NOT INTENDED OR IMPLIED.
8. PARCEL IS NOT LOCATED WITHIN ZONE A (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAP NUMBER 33017C02110 DATED MAY 17, 2005.
9. ON AUGUST 09, 2018 A VARIANCE (CASE 2018-07) WAS GRANTED BY THE ZBA TO PERMIT A RESIDENTIAL FACILITY IN THE R2 ZONE.
10. ON AUGUST 11, 2021 A VARIANCE (CASE 2-21-17) WAS GRANTED BY THE ZBA TO PERMIT AN OFFICE AND MEETING ROOM IN THE RESIDENTIAL-2 ZONE.



LOCUS N.T.S.

FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2  
F.B. NO. WTM-TCY

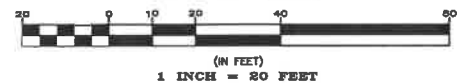
REFERENCE PLAN  
1) PROPOSED SITE PLAN, 38 CHARLES STREET, ROCHESTER NEW HAMPSHIRE PREPARED FOR HOPE ON HAVEN HILL, INC. DATED: JANUARY 2018; BY NORWAY PLAINS ASSOCIATES, INC.

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

NORWAY PLAINS ASSOCIATES, INC.

ADJACENTS	OWNER OF RECORD	MAILING ADDRESS
TAX MAP 125, LOT 125/194	ANN GRACE PROPERTIES LLC	197 RICHMOND ST., DOWR, NH 03820
125/195	SAME AS 125/194	
125/196	RAFAEL ANTONIO CRUZ MARTINEZ	17 ACADEMY ST., ROCHESTER, NH 03867
125/198	KRZYSZTOF & RENATA KOZLINSKI	9 ACADEMY ST., ROCHESTER, NH 03867
125/198A	KRZYSZTOF & RENATA KOZLINSKI	
	C/O CITY OF ROCHESTER	31 WAKEFIELD ST., ROCHESTER, NH 03867
125/213	HOPE ON HAVEN HILL, INC.	PO BOX 1272, ROCHESTER, NH 03868
125/215	TIMOTHY & ACHIA FRENCH	44 CHARLES ST. #A, ROCHESTER, NH 03867
125/235	ADAM MCKENNEY	50 COTTAGE ST. STE A, PORTSMOUTH, NH 03801
125/266	AVARDEN INVESTMENTS LLC	453 ROUTE 101, BEDFORD, NH 03110
125/287	JAQUELINE FERRO	35 CHARLES ST., ROCHESTER, NH 03867

OWNER OF RECORD:  
TAX MAP 125, LOT 214  
HOPE ON HAVEN HILL, INC.  
PO BOX 1272  
ROCHESTER, NH 03868  
SCRD BOOK 4593, PAGE 443  
**EXISTING FEATURES PLAN**  
**TAX MAP 125, LOT 214**  
**38 CHARLES STREET**  
**STRAFFORD COUNTY**  
**ROCHESTER**  
**NEW HAMPSHIRE**  
PREPARED FOR:  
**HOPE ON HAVEN HILL, INC.**  
OCTOBER 2021  
GRAPHIC SCALE



# LAND SURVEYORS

# CIVIL ENGINEERS

## LEGEND

- PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING DRAIN LINE
- EXISTING OVERHEAD WIRES
- EXISTING CHAINLINK FENCE
- EXISTING WATER MAIN
- EXISTING MONUMENT
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- EXISTING HYDRANT
- EXISTING WATER GATE OR SHUT-OFF VALVE
- EXISTING LIGHTS

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 WITH IN 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.

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CHARLES STREET

TAX MAP 125, LOT 214  
38 CHARLES STREET  
(FORMERLY ST. MARY CHURCH)  
LOT AREA: 20,278 SF / 0.47 AC



LOCUS  
N.T.S.

FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264 SP-2

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

NORWAY PLAINS ASSOCIATES, INC.

OWNER OF RECORD:  
TAX MAP 125, LOT 214  
HOPE ON HAVEN HILL, INC.  
PO BOX 1272  
ROCHESTER, NH 03866  
SCRD BOOK 4593, PAGE 443  
**DEMOLITION PLAN**  
**TAX MAP 125, LOT 214**  
**38 CHARLES STREET**  
**STRAFFORD COUNTY**  
**ROCHESTER**  
**NEW HAMPSHIRE**  
PREPARED FOR:  
**HOPE ON HAVEN HILL, INC.**  
OCTOBER 2021  
GRAPHIC SCALE



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



# LAND SURVEYORS

# CIVIL ENGINEERS

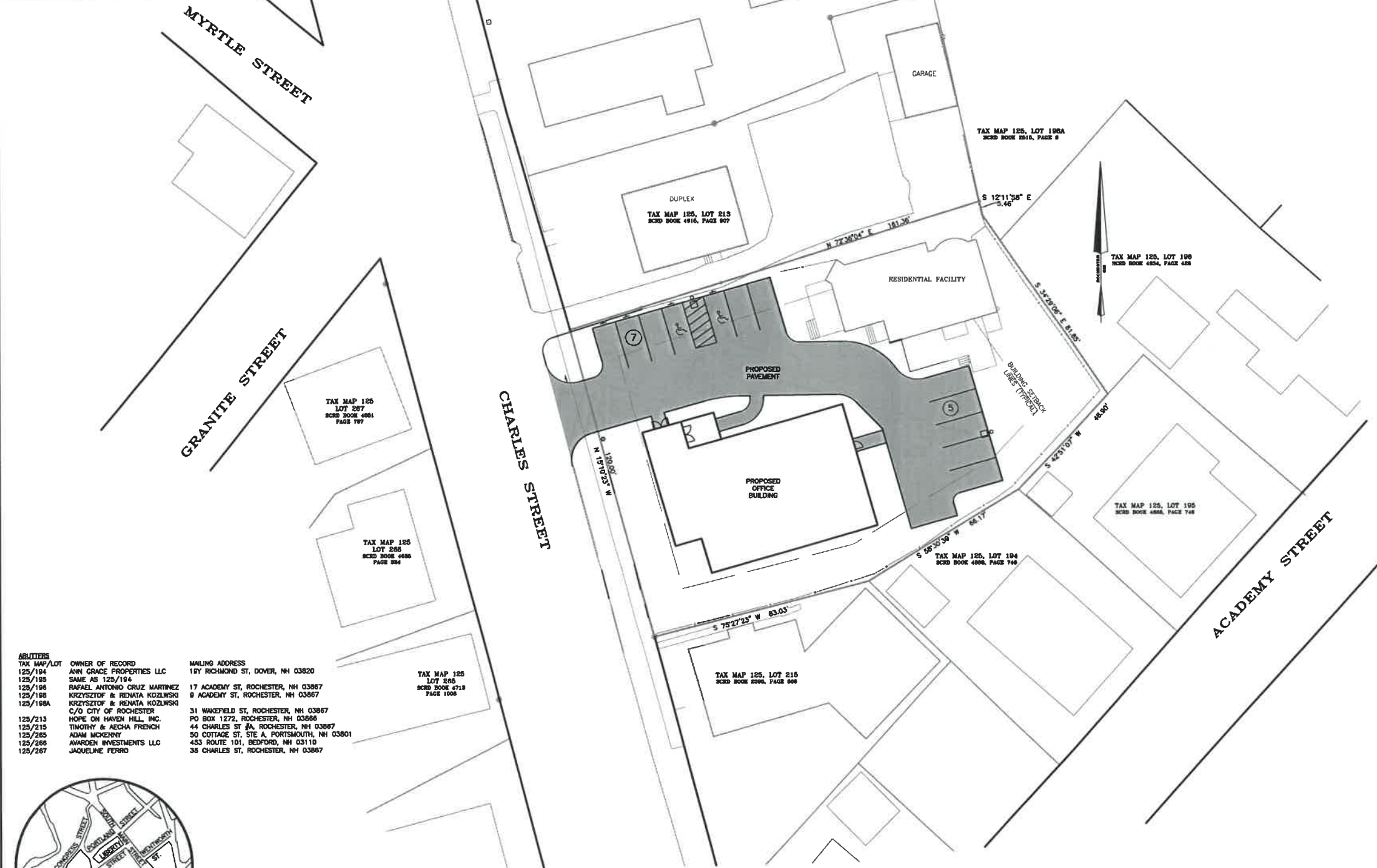


REVISIONS:  
11/10/21 - ADD NOTES 26 & 27.

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## LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINES
- BUILDING
- CHAINLINK FENCE
- STOCKADE FENCE
- PROPOSED BUILDING
- PROPOSED PAVEMENT



ADJUTERS	OWNER OF RECORD	MAILING ADDRESS
TAX MAP/LOT	ANN GRACE PROPERTIES LLC	101 RICHMOND ST, DOVER, NH 03820
125/194	SAKE AS 125/194	
125/195	RAFAEL ANTONIO CRUZ MARTINEZ	17 ACADEMY ST, ROCHESTER, NH 03867
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LOCUS  
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FILE NO. 161  
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REFERENCE PLAN  
1) PROPOSED SITE PLAN, 38 CHARLES STREET, ROCHESTER NEW HAMPSHIRE PREPARED FOR HOPE ON HAVEN HILL, DATED: JANUARY 2019; BY NORWAY PLAINS ASSOCIATES, INC.

## 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: \_\_\_\_\_ DATE: \_\_\_\_\_

OWNER OF RECORD:  
TAX MAP 125, LOT 214  
HOPE ON HAVEN HILL, INC.  
PO BOX 1272  
ROCHESTER, NH 03866  
SCRD BOOK 4593, PAGE 443  
**OVERALL SITE PLAN**  
**TAX MAP 125, LOT 214**  
**38 CHARLES STREET**  
**STRAFFORD COUNTY**  
**ROCHESTER**  
**NEW HAMPSHIRE**  
PREPARED FOR:  
**HOPE ON HAVEN HILL, INC.**  
OCTOBER 2021  
GRAPHIC SCALE



C-1

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
- BUILDING SETBACK LINES
- BUILDING
- CHAINLINK FENCE
- STOCKADE FENCE
- 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 SIGNS
- CDS CAPE CODE BERM
- SGC SLOPED GRANITE CURB
- R20' PAVEMENT RADIUS (20')
- PROPOSED STANDARD PARKING SPACES (9' x 18')
- PROPOSED ACCESSIBLE PARKING SPACES (9' x 18' WITH 8' x 16' ACCESS ISLE)
- PROPOSED PAVEMENT
- PROPOSED CONCRETE
- PROPOSED DETECTABLE WARNING PAVERS
- PROPOSED LIGHT POLES



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:  
11/10/21 - ADD BIKE RACK AND WOOD FENCE ON NORTH SIDE OF PARKING LOT. REMOVE WALKWAY ON WEST SIDE OF BUILDING.

TAX MAP 125  
LOT 267  
SCRD BOOK 4851  
PAGE 797

TAX MAP 125  
LOT 266  
SCRD BOOK 4635  
PAGE 324

TAX MAP 125  
LOT 265  
SCRD BOOK 4713  
PAGE 1008

FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2

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

CHARLES STREET

TAX MAP 125, LOT 213  
SCRD BOOK 4915, PAGE 907

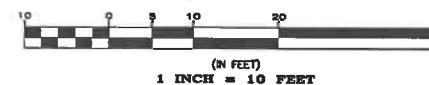
TAX MAP 125, LOT 215  
SCRD BOOK 2395, PAGE 566

TAX MAP 125, LOT 194  
SCRD BOOK 4888, PAGE 748

TAX MAP 125, LOT 196  
SCRD BOOK 4634, PAGE 426

TAX MAP 125, LOT 195  
SCRD BOOK 4888, PAGE 748

**SITE LAYOUT PLAN**  
**TAX MAP 125, LOT 214**  
**38 CHARLES STREET**  
**STRAFFORD COUNTY**  
**ROCHESTER**  
**NEW HAMPSHIRE**  
PREPARED FOR:  
**HOPE ON HAVEN HILL, INC.**  
OCTOBER 2021  
GRAPHIC SCALE



**NORWAY PLAINS ASSOCIATES, INC.**

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

C-2



LEGEND

- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING DRAIN LINE
- EXISTING CONTOUR LINE
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- PROPOSED DRAIN LINE
- PROPOSED SILT SOCK
- PROPOSED CONTOUR LINE
- PROPOSED CATCH BASIN



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REVISIONS:  
11/10/21 - ADD GRADING AND EROSION CONTROL NOTES.

GRADING AND EROSION CONTROL NOTES

- 1.) THERE SHALL NOT BE ANY STOCK PILES ON SITE. ALL EXCESS EARTH MATERIALS SHALL BE REMOVED FROM THE SITE.
- 2.) PRIOR TO THE PRE-CONSTRUCTION MEETING, TEST PITS SHALL BE DUG IN THE AREA OF THE PROPOSED STORMTECH INFILTRATION SYSTEM AND TEST PIT RESULTS PROVIDED TO THE DESIGN ENGINEER AND THE DEPARTMENT OF PUBLIC WORKS.
- 3.) ALL CONSTRUCTION STORMWATER RUNOFF SHALL BE CONTAINED ON SITE.
- 4.) REFER TO ALL THE EROSION AND SEDIMENTATION CONTROL NOTES AND CONSTRUCTION SEQUENCING NOTES LISTED ON SHEET C-8.

DRAINAGE SYSTEM INFORMATION:

PIPE A  
4" PERFORATED CPP  
EMBEDDED IN STONE  
LAD LEVEL = 223.75'

PIPE B  
4" CPP  
INV IN = 223.75'  
INV OUT = 222.9'

PIPE C  
24" CPP  
INV IN = 221.2'  
INV OUT = 221.11'  
L = 5'

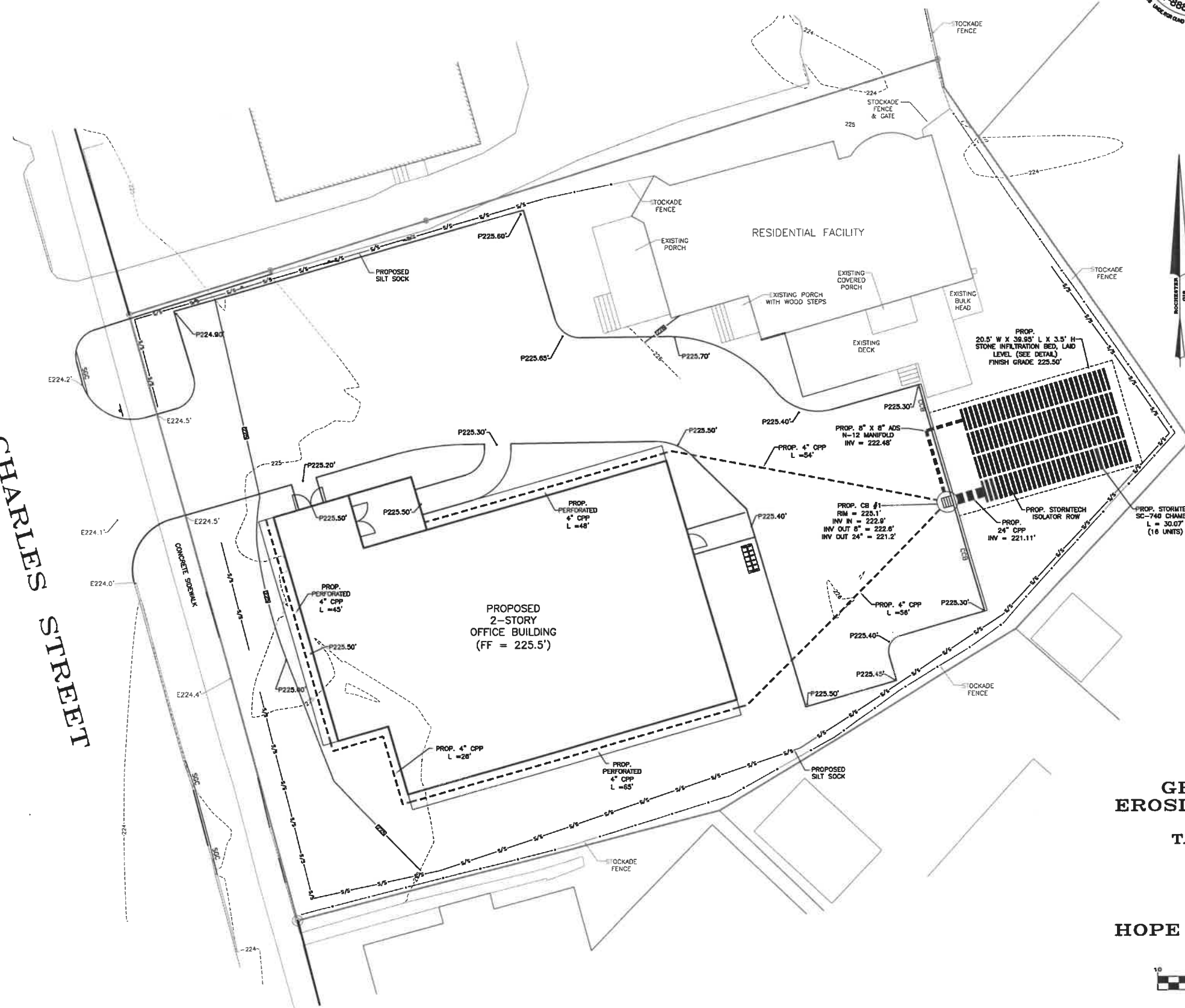
MANFOLD  
8" X 8" ADS N-12 TOP  
INV INV = 222.8'  
INV OUT = 222.48'

PROP. C81  
RM = 225.1'  
INV IN (PIPE B) = 223.3'  
INV OUT (PIPE C) = 221.2'  
INV OUT (MANFOLD) = 222.6'

STORMTECH STONE  
L = 39.95'  
W = 20.5'  
H = 3.5'

STORMTECH SYSTEM  
SC-740 CHAMBERS  
16 UNITS  
L = 30.07'  
W = 18.5'  
H = 2.5'  
(SEE DETAILS SHEET C-6)

CHARLES STREET



GRADING, DRAINAGE,  
EROSION & SEDIMENTATION  
CONTROL PLAN  
TAX MAP 125, LOT 214  
38 CHARLES STREET  
STRAFFORD COUNTY  
ROCHESTER  
NEW HAMPSHIRE  
PREPARED FOR:  
HOPE ON HAVEN HILL, INC.  
OCTOBER 2021  
GRAPHIC SCALE



FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2  
F.B. NO. WTM-TCY

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

## LEGEND

- PROPERTY LINE  
EXISTING OVERHEAD WIRES  
EXISTING WATER MAIN  
EXISTING GRANTY SEWER MAIN  
EXISTING UNDERGROUND UTILITY WIRES  
EXISTING GAS PIPE  
EXISTING DRAIN LINE  
EXISTING HYDRANT  
EXISTING WATER GATE OR SHUT-OFF VALVE  
EXISTING UTILITY POLE  
EXISTING SEWER MANHOLE  
EXISTING CATCH BASIN  
EXISTING LIGHT POLES  
PROPOSED DRAIN LINE  
PROPOSED WATER SERVICE  
PROPOSED SEWER LINE  
PROPOSED OVERHEAD WIRES  
PROPOSED UNDERGROUND WIRES  
PROPOSED PROPANE GAS LINE  
PROPOSED WATER VALVE  
PROPOSED WATER SHUT-OFF VALVE  
PROPOSED CATCH BASIN  
PROPOSED LIGHT POLES

## WATER AND SEWER INFORMATION

- 1-PROP 4" FIRE WATER SERVICE TAP & SLEEVE
- 2-PROP 4" WATER GATE VALVE
- 3-PROP 4" D.I. CLASS 52 WATER MAIN
- 4-PROP. 4" FIRE CONNECTION
- 5-PROP. 2" DOMESTIC WATER SERVICE TAP
- 6-PROP. WATER SHUT OFF VALVE
- 7-PROP 2" HDPE DOMESTIC WATER LINE
- 8-EXISTING SEWER SERVICE CONTRACTOR SHALL VERIFY SIZE, LOCATION AND CONDITION OF THE PIPE TO DETERMINE IF IT CAN BE USED FOR THE PROPOSED OFFICE BUILDING. IF NOT, THEN A NEW SEWER SERVICE SHALL BE INSTALLED PER NOTES 9 THROUGH 12.
- 9-PROP 24" x 6" PVC SADDLE CONNECTION PROP INLET INV = 212.5'
- 10-PROP 6" SDR35 PVC SEWER LINE L = 65', S=1.0%
- 11-PROP 6"x6" PVC WYE CLEANOUT INV = 213.20'
- 12-PROP 6" PVC SEWER INV = 213.25'

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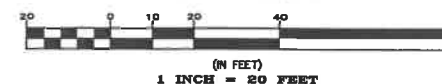


REVISIONS:  
11/10/21 - ADD EXISTING SEWER SERVICE AND NOTE. ADD UTILITY NOTES 17 THRU 22.

## UTILITY NOTES

- 1) CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888 344-7233) 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 2) ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION OF THE PROPOSED SERVICES.
- 3) THIS PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATE OF THE SURVEY. THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. FROM THIS PLAN, BUT IN EXISTENCE IS NOT INTENDED OR IMPLIED.
- 4) WATERLINE CONSTRUCTION:
  - A) ALL PROPOSED WATER LINE MATERIAL USED SHALL MEET ROCHESTER WATER DEPARTMENT AND ROCHESTER ENGINEERING DEPARTMENT SPECIFICATIONS. WATER LINES SHALL BE A.W.W.A. C 151, CLASS 52, DOUBLE CEMENT LINED, DUCTILE IRON PIPE.
  - B) PROPOSED WATER GATE VALVES SHALL BE MANUFACTURED BY KENNEDY OF AMERICAN FLOW CONTROL, RESILIENT SEAT TYPE.
  - C) ALL WATER LINES SHALL BE BURIED A MINIMUM OF 5.5'.
  - D) ALL WATER FITTINGS SHALL BE CLASS 350. E.) PROPOSED WATER GATE VALVE SHALL OPEN CLOCKWISE (RIGHT).
- 5) WORK TO CONNECT INTO THE WATER OR SEWER MAINS REQUIRES A PERMIT FROM THE ROCHESTER PUBLIC WORKS DEPARTMENT. CONTRACTORS ARE TO BE PRE-QUALIFIED.
- 6) CONTRACTOR SHALL LOCATE EXISTING SERVICES AND COORDINATE WITH THE CITY OF ROCHESTER FOR DISCONTINUATION OF THE SERVICES.
- 7) PROVIDE THRUST BLOCKS AT ALL BENDS ON WATERLINE.
- 8) ALL UTILITIES ARE TO BE UNDERGROUND AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS SET BY THE APPROPRIATE UTILITY COMPANY.
- 9) CONTRACTOR SHALL COORDINATE CONNECTION TO CITY WATER WITH PUBLIC WORKS.
- 10) CONTRACTOR SHALL COORDINATE TESTING OF THE WATER MAIN, SEWER MAIN, SEWER FORCEMAIN AND SEWER MANHOLES WITH PUBLIC WORKS.
  - A. MANHOLES MUST BE VACUUM LEAKAGE TESTED IN ACCORDANCE WITH (ASTM C1244).
  - B. SANITARY SEWER MUST BE TESTED IN ACCORDANCE WITH LOW-PRESSURE AIR TESTING (ASTM F1417) AND DEFLECTION TESTING USING A "GO/NO GO" MANDREL.
  - C. FORCEMAINS MUST BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C600 AT 150% OF THE DESIGN OPERATING TOTAL DYNAMIC HEAD AND AT LEAST 100 PSI.
- 11) SEWER MAIN AND WATER MAIN CROSSING:
  - A. VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL NOT BE LESS THAN 18 INCHES, WITH WATER ABOVE SEWER.
  - B. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.
- 12) WATER AND SEWER MAINS INSTALLED ADJACENT ONE ANOTHER SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET.
- 13) INSULATE SEWER LINE WITH 2" RIGID INSULATION WHERE LESS THAN 6' FEET OF COVER UNDER PAVEMENT AND LESS THAN 4' OF COVER UNDER GRASS.
- 14) INSTALLATION OF GAS, ELECTRIC, AND TELEPHONE SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES.
- 15) INSULATE WATER LINE WITH 2" RIGID INSULATION WHERE LESS THAN 5.5' FEET OF COVER.
- 16) THE SEWER TAP SHALL BE MADE WITH AN EPOXY-CEMENTED SADDLE TAPPED INTO AND SMOOTHLY DRILLED OR SAWN OPENING IN THE 24" REINFORCED CONCRETE SEWER. ANY SEWER TAP SHALL BE WITNESSED, INSPECTED AND APPROVED BY THE CITY OF ROCHESTER'S CONSTRUCTION INSPECTOR OR SUPERVISOR IN THE UTILITIES SECTION.
- 17) THE CONTRACTOR SHALL DETERMINE IF THE EXISTING WATER SERVICES ARE LEAD OR GALVANIZED PIPES. IF SO, THEN THEY WILL BE REMOVED AND REPLACED WITH APPROVED COPPER OR HDPE WATER PIPES.
- 18) IF THE RECOVERY HOUSE BUILDING WATER AND SEWER SERVICES ARE TIED INTO THE CHURCH SERVICES, THEY SHALL BE DISCONNECTED AND NEW SERVICES SHALL BE INSTALLED. DESIGN OF THE NEW SERVICES WILL BE COORDINATED WITH THE DEPARTMENT OF PUBLIC WORKS.
- 19) PRIOR TO CERTIFICATION OF OCCUPANCY, A TESTABLE BACKFLOW DEVICE(S) ARE TO BE INSTALLED AND REGISTERED WITH THE UTILITY BILLING AND BACKFLOW PREVENTION DEVICES TEST RESULTS HAVE BEEN PROVIDED TO UTILITY BILLING. THE OWNERS SHALL WORK WITH THE DEPARTMENT OF PUBLIC WORKS WELL AHEAD OF THE CERTIFICATE OF OCCUPANCY TO ENSURE APPROVED BACKFLOW DEVICE WITH CORRECT HAZARD CLASS ARE INSTALLED.
- 20) A POST INDICATOR VALVE SHALL BE INSTALLED IN ACCORDANCE WITH THE FIRE DEPARTMENT REQUIREMENTS, IF DETERMINED NECESSARY.
- 21) DOMESTIC AND FIRE WATER SERVICE SIZING CALCULATIONS SHALL BE PROVIDED TO THE DEPARTMENT OF PUBLIC WORKS.
- 22) A DETECTOR CHECK ASSEMBLY IS REQUIRED ON THE FIRE SERVICE.

UTILITY PLAN  
TAX MAP 125, LOT 214  
38 CHARLES STREET  
STRAFFORD COUNTY  
ROCHESTER  
NEW HAMPSHIRE  
PREPARED FOR:  
HOPE ON HAVEN HILL, INC.  
OCTOBER 2021  
GRAPHIC SCALE



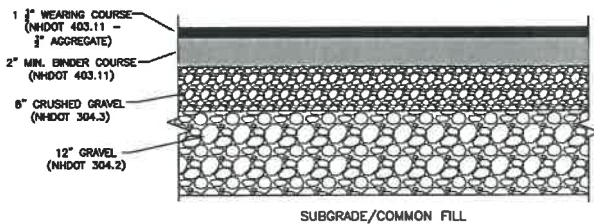
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31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

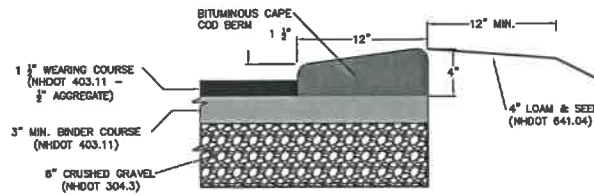
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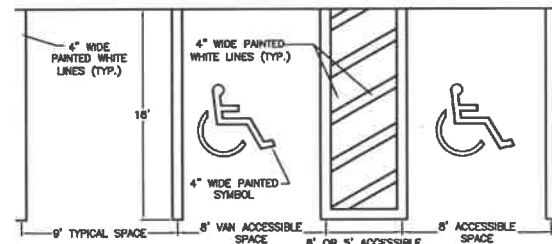
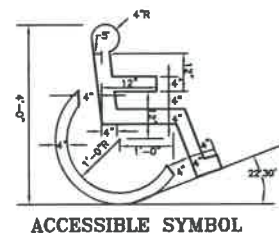


**PARKING LOT CROSS-SECTIONS**  
NOT TO SCALE

- 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.

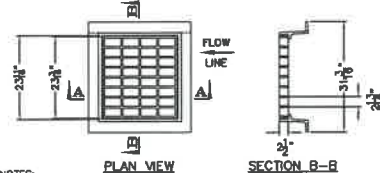
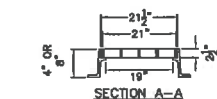


**BITUMINOUS CAPE COD BERM DETAIL**  
NOT TO SCALE



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

**STALL STRIPING DETAIL**  
NOT TO SCALE

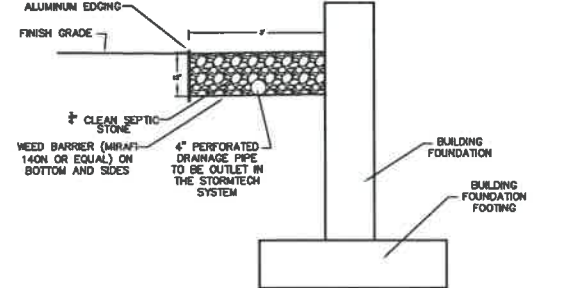


- NOTES:
1. FRAME AND GRATE SHALL BE CAST IRON.
  2. FRAME AVAILABLE IN 4" OR 8" HEIGHTS.
  3. USE 3 FLANGE FRAME IF INSTALLED ADJACENT TO GRANITE CURB.
  4. ALL DIMENSIONS ARE NOMINAL.

**CATCH BASIN TYPE 'B' GRATE DETAIL**  
NOT TO SCALE

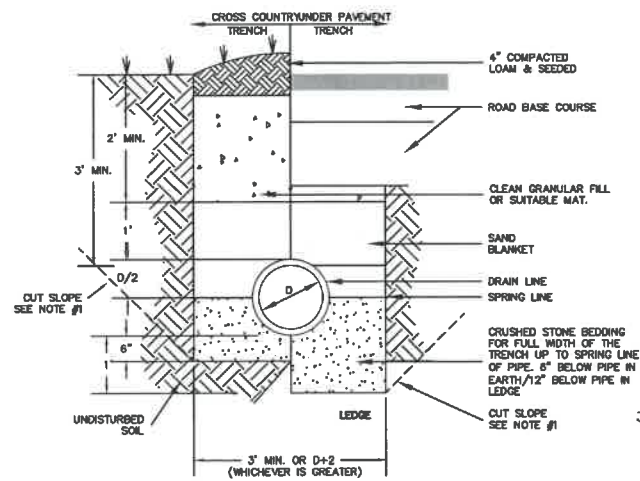
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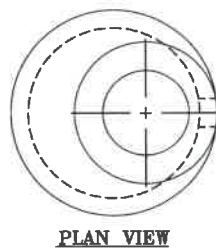
**DRAINAGE PIPE TRENCH INSTALLATION DETAIL**  
NOT TO SCALE

- NOTES:
1. THE DRAIN PIPE SHALL BE 3 FT. WIDE, 12 INCHES THICK, 3/4" INCH DIAMETER CLEAN SEPTIC STONE.
  2. THE UNDERDRAIN SHALL BE 4 INCH DIAMETER PERFORATED CORRUGATED PLASTIC PIPE (ADS OR EQUAL). THE PERFORATED SIDE FACING UPWARD.
  3. USE CLEAN 3/4" DRAIN STONE FOR THE MATERIAL SURROUNDING THE UNDERDRAIN.
  4. OUTLET TO STORMTECH SYSTEM.



- 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.

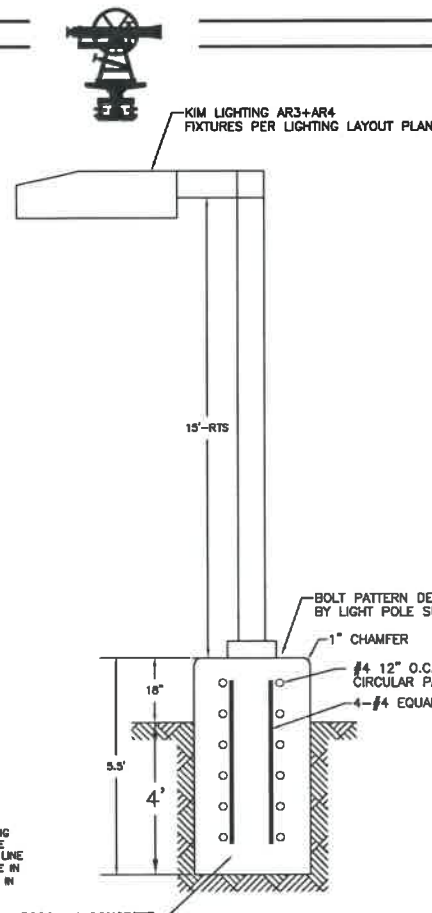
**DRAINAGE PIPE TRENCH INSTALLATION DETAIL**  
NOT TO SCALE



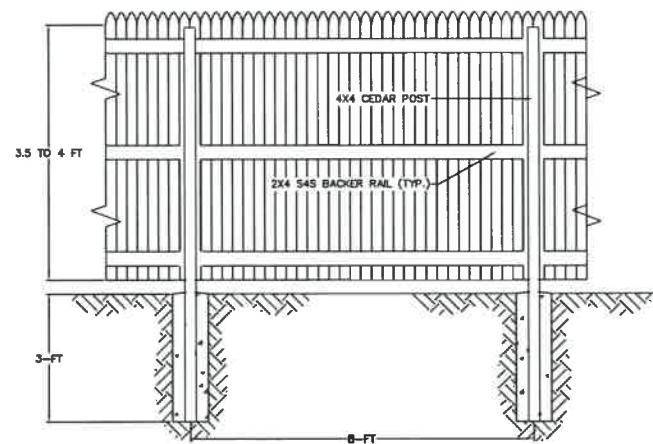
DRAIN LINE DIAMETER	SUM OF DRAIN LINE DIAMETER	CATCH BASIN DIAMETER
15" TO 18"	LESS THAN 54"	4'
21" TO 27"	LESS THAN 72"	5'
30" TO 33"	LESS THAN 90"	6'
36" & LARGER	GREATER THAN 90"	REFER TO THE STANDARD

- NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
  2. REINFORCING SHALL BE PROVIDED FOR H-20 LOADING.
  3. SHUTTER 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.

**PRE-CAST REINFORCED CATCH BASIN**  
NOT TO SCALE



**LIGHT POLE DETAIL**  
NOT TO SCALE



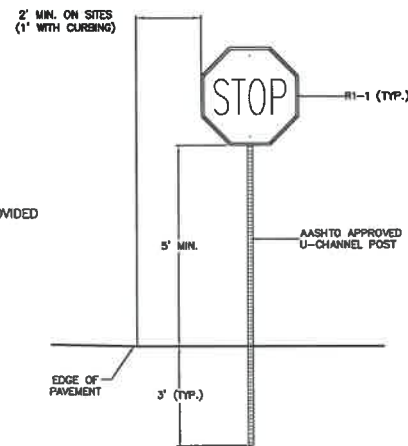
- FENCE SPECIFICATIONS:
1. FENCE POSTS SHALL BE 4"x4" CEDAR.
  2. STOCKADE PANELS SHALL BE 3.5' TO 4-FT X 8-FT #1 NORTHERN WHITE CEDAR.
  3. PICKETS SHALL BE 1" X 3" NORTHERN WHITE CEDAR.
  4. BACKER RAILS SHALL BE 2X4X8-FT S4S SQUARE END.
  5. GOOD SIDE OF FENCE FACING OUT.

**TYPICAL WOODEN STOCKADE DETAIL**  
SCALE: 1/2"=1'

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REVISIONS:  
11/10/21 - ADD FENCE DETAIL.



**TYPICAL TRAFFIC SIGN**  
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.

**DETECTABLE WARNING PAVER DETAIL**  
NOT TO SCALE

- DETECTABLE WARNING PAVER NOTES:
1. THE MAXIMUM CROSS OF CONCRETE WALKWAY SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
  2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
  3. DETECTABLE WARNING PAVERS (ITEM 608.54) SHALL BE USED ON CONCRETE RAMPS AS SHOWN. EACH TACTICAL WARNING STOP PANEL SHALL A TRUNCATED DOMED SURFACE AT LEAST 2'-0" IN WIDTH, MEASURED FROM THE BACK OF THE CURB TIP DOWN, AND 5'-0" IN LENGTH MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
  4. ALL DETECTABLE WARNING PAVERS SHALL BE CAST IN PLACE ARBOR-TILE TACTILE SYSTEM, YELLOW IN COLOR, OR APPROVED EQUAL.

ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R1-1	30"	30"	STOP	1
R7-8a	18"	12"	WHEELCHAIR	2
R7-8b	6"	12"	VAN ACCESSIBLE	1
	18"	12"	VISITOR PARKING ONLY	2

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

**SIGN SCHEDULE**  
NOT TO SCALE

CONSTRUCTION DETAILS  
TAX MAP 125, LOT 214  
38 CHARLES STREET  
STRAFFORD COUNTY  
ROCHESTER  
NEW HAMPSHIRE  
PREPARED FOR:  
HOPE ON HAVEN HILL, INC.  
OCTOBER 2021

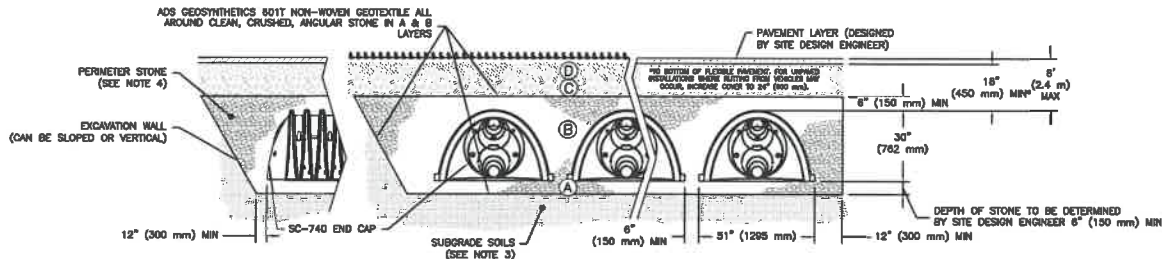


# LAND SURVEYORS

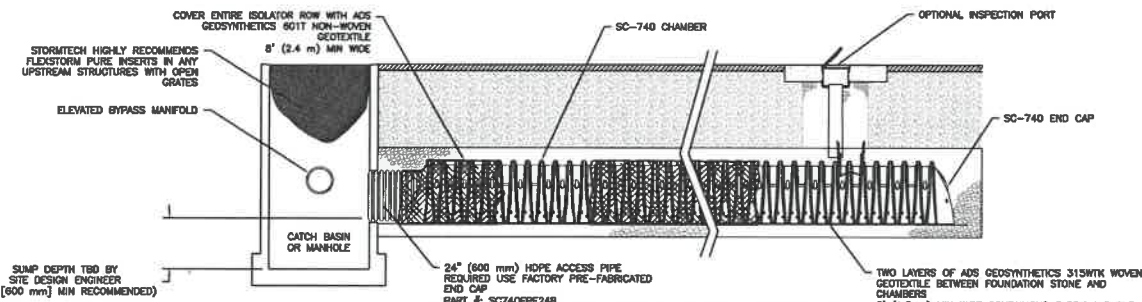
## ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEM

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRICTER MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('A' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M143 A-1, A-2, A-3, A-4 OR AASHTO M43 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REDUCED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 98% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSSED AGGREGATE MATERIALS. ROLLER GROSS WEIGHT NOT TO EXCEED 12,000 lbs (5448 kg). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (9072 kg).
B	EMBODIMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER.	AASHTO M43 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>1,2</sup>

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) MAX LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



- NOTES:
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-18a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
  - SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
  - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
  - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
  - REQUIREMENTS FOR HANDLING AND INSTALLATION:
    - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
    - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
    - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.2 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



### SC-740 ISOLATOR ROW DETAIL

NOT TO SCALE

- INSPECTION & MAINTENANCE:
- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- REMOVE/OPEN LID ON INFLUENT INLET DRAIN
  - REMOVE AND CLEAN FLEXFORM FILTER IF INSTALLED
  - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - IF SEDIMENT IS AT OR ABOVE 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
  - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
  - VACUUM STRUCTURE PUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

- NOTES:
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
  - CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2

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

NORWAY PLAINS



# CIVIL ENGINEERS

## STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740 OR APPROVED EQUAL.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNSTRUCTURED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET THE MATERIAL REQUIREMENTS IN ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". (NOTE: THE SC-740 CHAMBER CLASSIFICATION HAS NOT YET BEEN ADDED TO THE ASTM F2418 STANDARD)
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
  - A STRUCTURAL EVALUATION THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
  - A STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

## IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

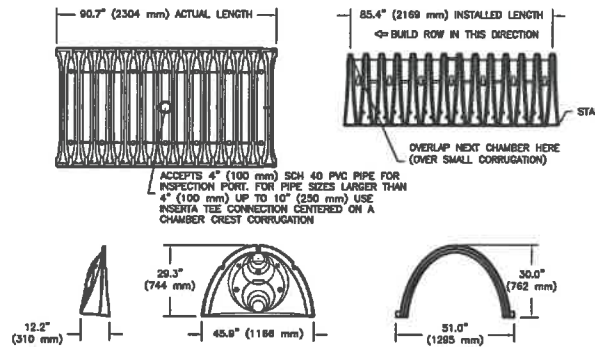
- STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
- FOUNDATION STONE AND EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE; AASHTO M43 #3, 357, 4, 467, 5, 56, OR 57.
- THE FOUNDATION STONE SHALL BE LEVELLED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- THE DEPTH OF FOUNDATION STONE SHALL BE DETERMINED BASED ON THE SUBGRADE BEARING CAPACITY PROVIDED BY THE SITE DESIGN ENGINEER.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES CONCERNING CHAMBER FOUNDATION DESIGN AND SUBGRADE BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- CHAMBERS SHALL BE INSTALLED "TOE TO TOE". NO ADDITIONAL SPACING BETWEEN ROWS IS REQUIRED.
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
- STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONES/ROCKS LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- ADS RECOMMENDS THE USE OF FLEXFORM CATCH IT! INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

## NOTES FOR CONSTRUCTION EQUIPMENT

- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER TIED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-740 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2894 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



NOMINAL CHAMBER SPECIFICATIONS	SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4" (1293 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	48.8 CUBIC FEET (1.30 m³)	
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m³)	
WEIGHT	73.0 lbs (33.6 kg)	

\*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE08B / SC740EPE08BPC	8" (200 mm)	12.2" (310 mm)	16.9" (419 mm)	0.3" (13 mm)
SC740EPE10B / SC740EPE10BPC	10" (250 mm)	13.4" (340 mm)	14.6" (368 mm)	0.9" (18 mm)
SC740EPE12B / SC740EPE12BPC	12" (300 mm)	14.7" (373 mm)	12.6" (318 mm)	0.7" (18 mm)
SC740EPE14B / SC740EPE14BPC	14" (350 mm)	16.4" (417 mm)	9.0" (229 mm)	1.2" (30 mm)
SC740EPE16B / SC740EPE16BPC	16" (400 mm)	18.4" (467 mm)	5.0" (127 mm)	1.9" (48 mm)
SC740EPE18B / SC740EPE18BPC	18" (450 mm)	16.7" (424 mm)	---	1.8" (45 mm)
SC740EPE24B	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2894.

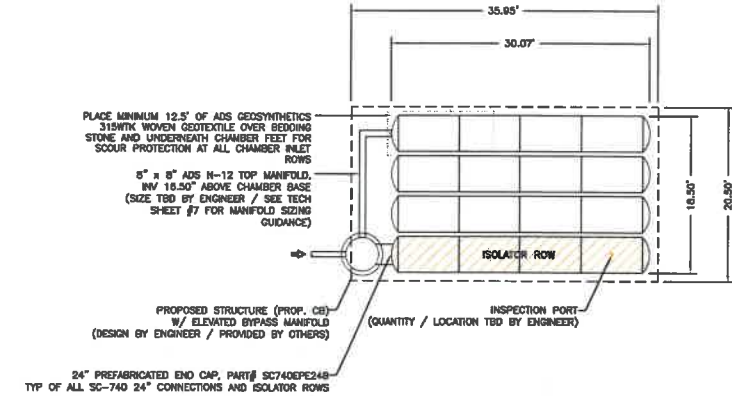
NOTE: ALL DIMENSIONS ARE NOMINAL

## SC-740 TECHNICAL SPECIFICATIONS

NOT TO SCALE

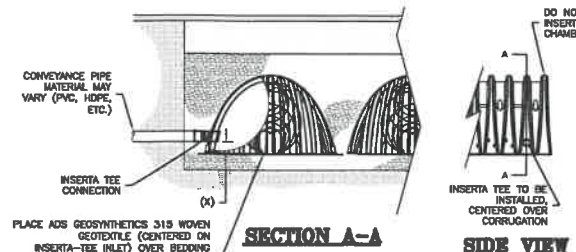


ADVANCED DRAINAGE SYSTEMS, INC.



## SC-740 PLAN VIEW

NOT TO SCALE



## SECTION A-A

## SIDE VIEW

CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
SC-760	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-800 OR DUCTILE IRON.

## INSERTA TEE DETAIL

NOT TO SCALE

DRAINAGE DETAILS  
TAX MAP 125, LOT 214  
38 CHARLES STREET  
STRAFFORD COUNTY  
ROCHESTER  
NEW HAMPSHIRE

PREPARED FOR:  
HOPE ON HAVEN HILL, INC.

OCTOBER 2021

C-8

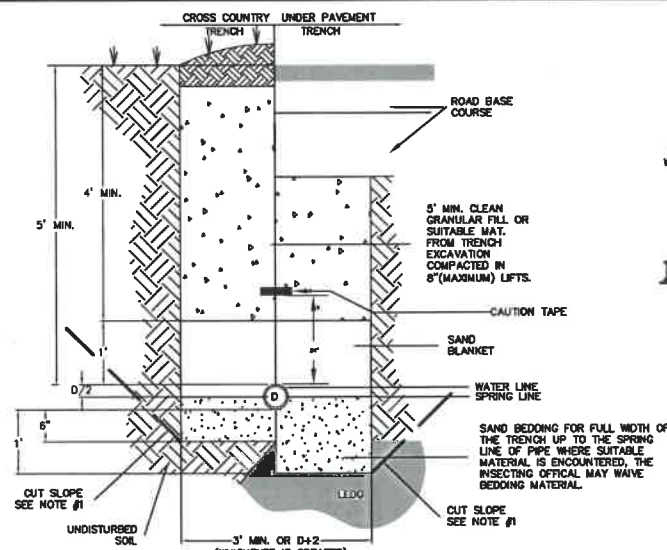
2 Continental Blvd., Rochester, N.H. 603-335-3948



# LAND SURVEYORS

# CIVIL ENGINEERS

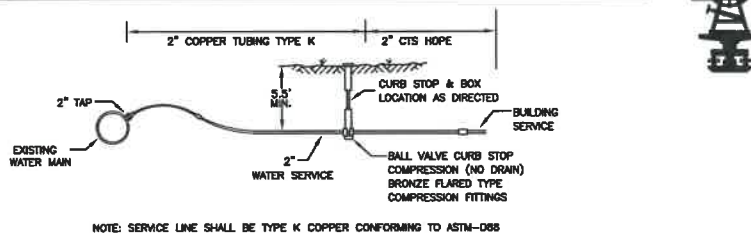
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN 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.



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

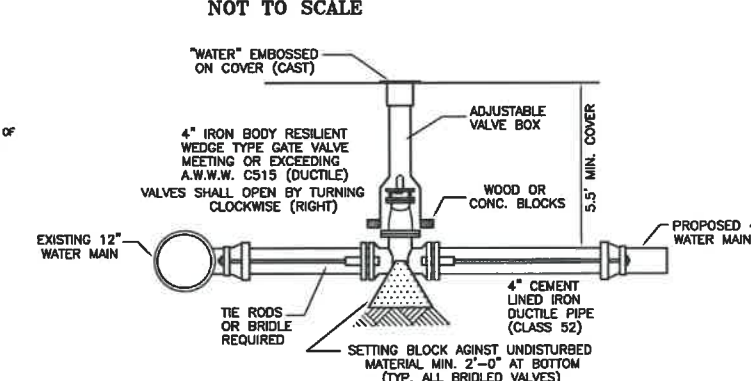
## WATER PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



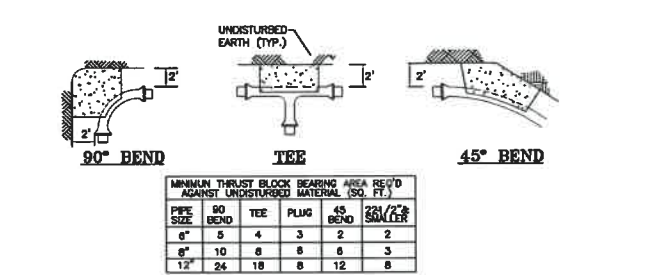
## DOMESTIC WATER SERVICE CONNECTION

NOT TO SCALE



## FIRE WATER SERVICE CONNECTION

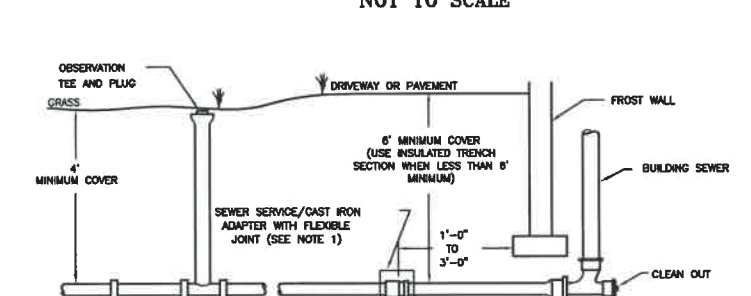
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NOTE: SIZE OF THRUST BLOCKS MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING CONSTRUCTION.

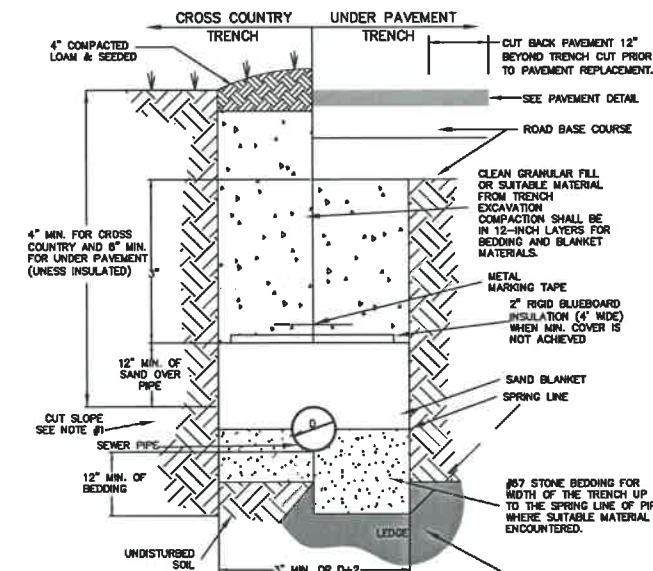
## WATER MAIN THRUST BLOCK DETAILS

NOT TO SCALE



## TYPICAL BUILDING SEWER SERVICE DETAIL

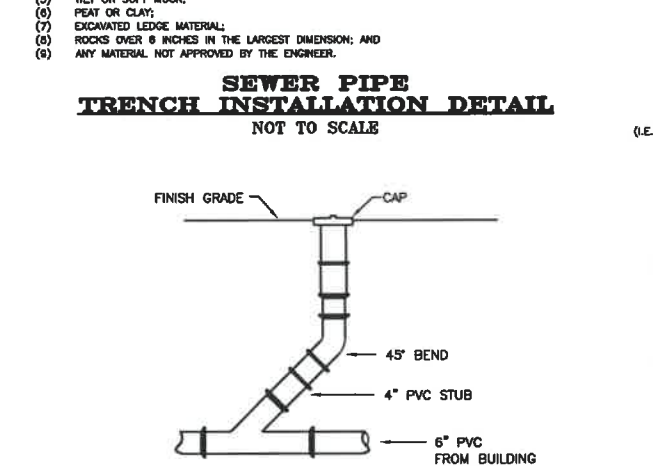
NOT TO SCALE



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.  
4. WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISHED GRADE.  
5. THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSES A #10-SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE.  
6. TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING:  
(1) DEBRIS;  
(2) PIECES OF PAVEMENT;  
(3) ORGANIC MATTER;  
(4) TOP SOIL;  
(5) WET OR SOFT MUCK;  
(6) PEAT OR CLAY;  
(7) EXCAVATED LEDGE MATERIAL;  
(8) ROCKS OVER 8 INCHES IN THE LARGEST DIMENSION; AND  
(9) ANY MATERIAL NOT APPROVED BY THE ENGINEER.

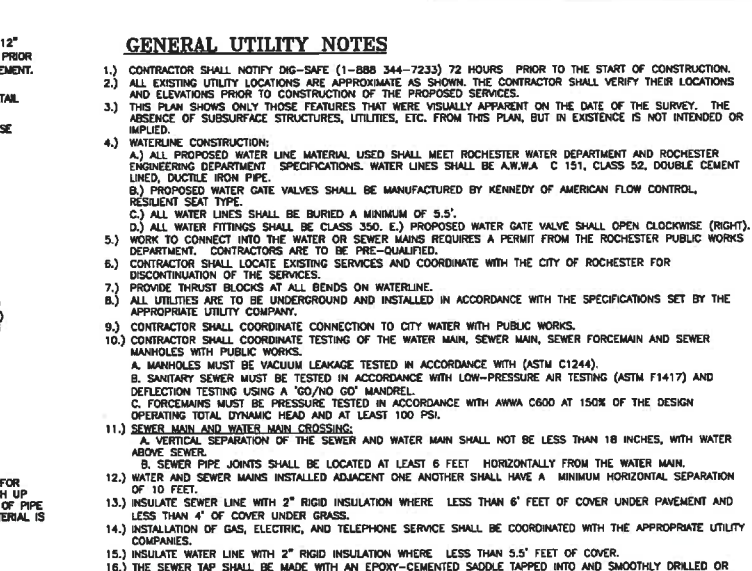
## SEWER PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



## SEWER CLEAN OUT

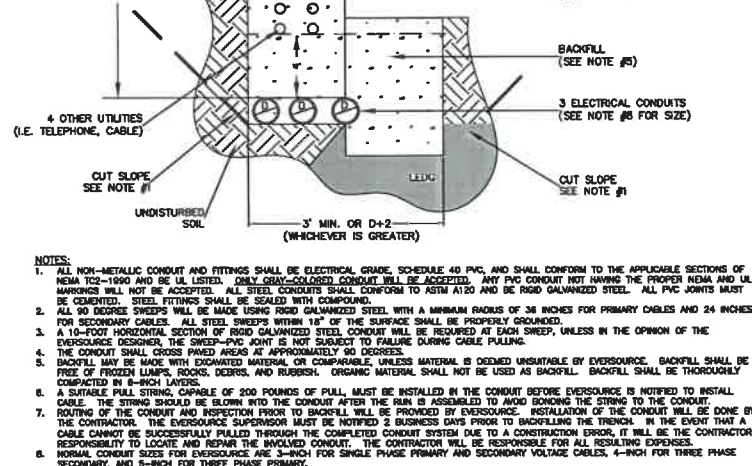
NOT TO SCALE



NOTES:  
1. ALL NON-METALLIC CONDUIT AND FITTINGS SHALL BE ELECTRICAL GRADE, SCHEDULE 40 PVC, AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NFPA 70-1990 AND BE UL LISTED. ONLY GRAY-COLORED CONDUIT WILL BE ACCEPTED. ANY PVC CONDUIT NOT HAVING THE PROPER NEMA AND UL MARKINGS WILL NOT BE ACCEPTED. ALL STEEL CONDUITS SHALL CONFORM TO ASTM A130 AND BE ROSS GALVANIZED STEEL. ALL PVC JOINTS MUST BE GHEMATED. STEEL FITTINGS SHALL BE SEALED WITH COMPOUND.  
2. ALL 90 DEGREE SWEEPS WILL BE MADE USING ROSS GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES. ALL STEEL SWEEPS WITHIN 18" OF THE SURFACE SHALL BE PROPERLY GROUNDING.  
3. A 10-FOOT HORIZONTAL SECTION OF ROSS GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE ENGINEER, OTHERWISE, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING CABLE PULLING.  
4. THE CONDUIT SHALL CROSS FRAMED AREAS AT APPROXIMATELY 90 DEGREES.  
5. BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY ENGINEER. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBER. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE THOROUGHLY COMPACTED IN 8-INCH LAYERS.  
6. A SUITABLE PULL STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE BACKFILLING IS INITIATED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.  
7. ROUTING OF THE CONDUIT AND INSPECTION PRIOR TO BACKFILL WILL BE PROVIDED BY ENGINEER. INSTALLATION OF THE CONDUIT WILL BE DONE BY THE CONTRACTOR. THE ENGINEER'S SUPERVISOR MUST BE NOTIFIED 2 BUSINESS DAYS PRIOR TO BACKFILLING THE TRENCH. IN THE EVENT THAT A CABLE CANNOT BE SUCCESSFULLY PULLED THROUGH THE COMPLETED CONDUIT SYSTEM DUE TO A CONSTRUCTION ERROR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND REPAIR THE INVOLVED CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL RESULTING EXPENSES.  
8. NORMAL CONDUIT SIZES FOR ENGINEERING ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY.  
9. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE THE NATIONAL ELECTRICAL CODE.  
10. CONDUIT 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.

## ELECTRICAL & UNDERGROUND UTILITY TRENCH INSTALLATION DETAIL

NOT TO SCALE



## UTILITY DETAILS

TAX MAP 125, LOT 214

38 CHARLES STREET

STRAFFORD COUNTY

ROCHESTER

NEW HAMPSHIRE

PREPARED FOR:

HOPE ON HAVEN HILL, INC.

OCTOBER 2021

C-7

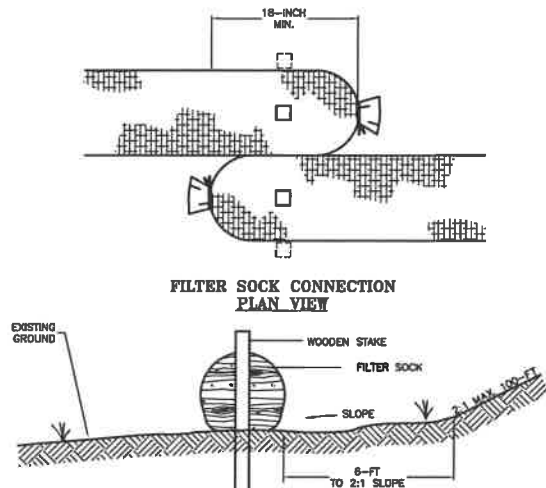
FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2  
F.B. NO. WTM-TCY  
31 Mooney Street, Alton, N.H. 603-875-3948

# NORWAY PLAINS ASSOCIATES, INC.

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

**DUST CONTROL PRACTICES:**

1. APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE.
2. WATER APPLICATION:
  - a) MOISTEN EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
  - b) AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL WATERBODIES.
3. STONE APPLICATION:
  - a) COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.
  - b) IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.
4. 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.)

FILTER SOCK CONNECTION  
PLAN VIEWFILTER SOCK  
CROSS-SECTION

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

**MAINTENANCE REQUIREMENTS:**

1. FILTER SOCK MAINTENANCE SHALL FOLLOW THE SAME SCHEDULE AS EROSION CONTROL MIX BERMS.

**CONSTRUCTION SPECIFICATIONS:**

1. 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.
2. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL, CONTINUOUS, CONTOUR.
3. 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.
4. FILTER SOCK DIAMETER (HEIGHT) SHALL BE PER THE MANUFACTURER RECOMMENDATION FOR THE AREA OF INSTALLATION.

**CONTINUOUS CONTAINED BERM  
"FILTER SOCK" DETAIL**

NOT TO SCALE

**PERMANENT VEGETATION  
SEEDING RECOMMENDATIONS**

USE	MIXTURE	SPECIES	LBS./ACRE	LBS./1,000-SF
STEEP CUTS AND FILLS, EROSION AND DISPOSAL AREAS	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		TOTAL	42	0.93
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		TOTAL	42	0.93
LIGHTLY USED PARKING LOTS, UNUSED LANDS, AND LOW INTENSITY RECREATION SITES	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		TOTAL	42	0.93
PLAY AREAS AND ATHLETIC FIELDS (TOP-SOIL ESSENTIAL FOR GOOD TURF)	F	CREeping RED FESCUE	50	1.13
		KENTUCKY BLUEGRASS	50	1.13
		TOTAL	100	2.30

**SOURCES:**

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

**PERMANENT VEGETATION:****SPECIFICATIONS:****SITE PREPARATION:**

1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
  2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
  3. RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
  4. 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:**
1. WORK LINE 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 SEDIMENT IS PREPARED. ALL BUT CLAY AND SILT SOILS SHALL BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
  2. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER OBSTACLES, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CULDS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
  3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
  4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
  5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
  6. 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)\*

\*EQUIVALENT 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:**

1. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, OUTPACKER 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.
3. WHERE FEASIBLE EXCEPT WHERE EITHER OUTPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHALL BE FIRMLY FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
4. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHALL BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDING IN LATE SUMMER AT LEAST 55% 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 NYSM, VOL. 3.
5. 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 NYSM, VOL. 3.
6. VEGETATED GROUND 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:**

1. 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.
2. 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.
3. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

**MAINTENANCE REQUIREMENTS:**

1. 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.
2. SEEDING AREAS SHALL BE MOVED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOVING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
3. BASED ON INSPECTION, AREAS SHALL BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOIL.
4. AT A MINIMUM 65% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE COVERED WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

**TEMPORARY VEGETATION:****SPECIFICATIONS:****SITE PREPARATION:**

1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
3. RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
4. 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:**

1. STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
4. 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)\*

\*EQUIVALENT 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:**

1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, OUTPACKER 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.
2. TEMPORARY SEED SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
3. 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 NYSM, VOL. 3.
4. VEGETATED GROUND 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.

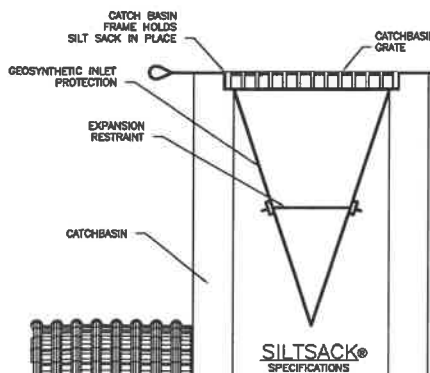
**MAINTENANCE REQUIREMENTS:**

1. 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 ACHIEVE FULL STABILIZATION, SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
2. BASED ON INSPECTION, AREAS SHALL BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOIL. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED.
3. 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.

**GENERAL  
CONSTRUCTION PHASING:**

1. **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:
  - a) A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
  - b) A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED, OR;
  - c) EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
2. **TEMPORARY STABILIZATION:** ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 45 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.
3. **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.
4. **MAXIMUM AREA OF DISTURBANCE:** THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, NO MORE THAN 5 ACRES SHALL BE DISTURBED (NOT STABILIZED) AT ANY TIME. ONLY DISTURB, CLEAR OR GRADE AREAS NECESSARY FOR CONSTRUCTION.
5. **FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED:**
  - a) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.
6. 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-3.
7. 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-3.
8. **REACHES:** REACHES SHALL BE MAINTAINED WITH PROTECTIVE STOCKPILING IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION.
9. **THICK STOCKPILING:** STOCKPILING SHALL NOT BE ANY STOCKPILES ON SITE. ALL EXCESS EARTH MATERIAL SHALL BE REMOVED FROM THE SITE.
10. SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJACENT PROPERTIES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SLURPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGE.
11. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBJECTIONABLE MATERIALS.
12. AREAS SHALL BE SCRIPPED 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.
13. 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.
14. IN GENERAL, FILLS SHALL BE COMPACTED IN LAYERS RANGING FROM 6 TO 24 INCHES IN THICKNESS. THE CONTRACTOR SHALL REVIEW THE PROJECT "GEO TECHNICAL REPORT AND/OR THE "PROJECT SPECIFIC PHASING NOTES" FOR SPECIFIC GUIDANCE.
15. 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 LIFTS.
16. FROZEN MATERIAL OR SOFT, MOIST 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.
17. 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 TRACKS (DOZER TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE ROUGHENING" IN THE NYSM, VOL. 3.
18. ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.
19. 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.
20. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE EVALUATED BY A PROFESSIONAL ENGINEER (PREPARE THE DESIGN ENGINEER) TO DETERMINE IF THE PROPOSED DESIGN SHALL BE REVISED TO PROPERLY MANAGE THE CONDITION.
21. 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.
22. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
23. THE PROJECT SHALL BE CONSTRUCTED TO MEET ALL REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARG 3800 RELATIVE TO INVASIVE SPECIES.

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

**CATCH BASIN GEOSYNTHETIC SEDIMENT TRAP**

NOT TO SCALE

**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
HOLEIN BURST	ASTM D-4634	800 PSI
TRAPEZOID TEAR	ASTM D-4635	120 LBS
UV RESISTANCE	ASTM D-4335	80 %
APPROXIMATE OPENING SIZE	ASTM D-751	40 US SIEVE
PERMITTIVITY	ASTM D-4481	0.35 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 PONDING OF WATER AT TRAP BEGINS TO OCCUR. DO NOT PUNCTURE FILTER TRAP TO MITIGATE PONDING.
3. INSTALL SILT SACKS IN CATCH BASIN UPON INSTALLATION OF STRUCTURE.

**REVISIONS:**

11/10/21 - REVISE GENERAL AND PROJECT SPECIFIC CONSTRUCTION PHASING NOTES.

**WINTER STABILIZATION &  
CONSTRUCTION PRACTICES:****MAINTENANCE REQUIREMENTS:**

1. MAINTENANCE MEASURES SHALL BE PERFORMED THROUGHOUT CONSTRUCTION, INCLUDING OVER THE WINTER PERIOD. AFTER EACH EARTHQUAKE, 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 EFFECTIVENESS.
2. 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.

1. THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1-ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DISCUSSED IN NYSM, VOL. 3 AND ELSEWHERE IN THIS PLAN SET, PRIOR TO ANY THAW OR SPRING MELT EVENT.
2. STABILIZATION AS FOLLOWS SHALL BE COMPLETED WITHIN A DAY OF ESTABLISHING THE SNOW THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
  - A. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS 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 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH PROPER ANCHORING. FROZEN MATERIAL SHALL BE REMOVED FROM THE AREA (REFER TO NYSM, VOL. 3 FOR SPECIFICATION).
  - B. 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.
3. ALL STONE COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
5. ALL MULCH APPLIED DURING WINTER SHALL BE ANCHORED (I.E. BY NETTING, TRACKING, WOOD CELLULOSE FIBER).
6. WITHIN 24 HOURS OF STOCKPILING 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.
7. 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 UNWORKABLE AND DIFFICULT TO TRANSPORT DUE TO HIGH SOIL MOISTURE CONTENT.
8. INSTALLATION OF EROSION CONTROL BLANKETS SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH OR ON FROZEN GROUND.
9. 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 CROSSLAND AFTER ALLOWING FOR PLACEMENT OF THE STONE.
10. ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
11. 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 12% OF THE SAID PORTION, OR MATERIAL PASSING THE NUMBER 4 SIEVE, BY WEIGHT, PASSES THE NUMBER 200 SIEVE.
12. SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS SHALL CONSIST OF EROSION CONTROL MIX BERMS, OR CONTINUOUS CONTAINED BERMS. SILT FENCES AND HAY BALES SHALL NOT BE INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBEDEDMENT OF THESE BARRIERS.

**TEMPORARY AND  
PERMANENT EROSION &  
SEDIMENTATION CONTROL**  
TAX MAP 125, LOT 214  
38 CHARLES STREET  
STRAFFORD COUNTY  
ROCHESTER  
NEW HAMPSHIRE

PREPARED FOR:  
**HOPE ON HAVEN HILL, INC.**  
OCTOBER 2021

C-8

FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWC NO. 18264/SP-2  
F.B. NO. WTM-TCY

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
- EXISTING OVERHEAD WIRES
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED LIGHT POLES
- PROPOSED LIGHT FOOTCANDLE
- PROPOSED LIGHT ISOLLLUMINATION LINES

Luminaire Schedule			
Symbol	Label	Qty	Description
⬢	S	1	SINGLE ICS-F01-LED-E1-S14-HSS-XX / VA1005XX / SRX4A15SX31X (15' AFG)
⬢	P	1	SINGLE EXISTING 8' POST LIGHT



INVUE ICS/ICM  
BY COOPER LIGHTING SOLUTIONS  
POLE MOUNTED FIXTURE

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TAX MAP 125, LOT 213  
SCRD BOOK 4915, PAGE 907

RESIDENTIAL FACILITY

TAX MAP 125, LOT 196  
SCRD BOOK 4634, PAGE 426

TAX MAP 125  
LOT 267  
SCRD BOOK 4851  
PAGE 797

TAX MAP 125  
LOT 266  
SCRD BOOK 4835  
PAGE 324

PROPOSED  
2-STORY  
OFFICE BUILDING  
(FF = 225.5')

TAX MAP 125, LOT 195  
SCRD BOOK 4888, PAGE 746

TAX MAP 125, LOT 194  
SCRD BOOK 4888, PAGE 746

TAX MAP 125  
LOT 265  
SCRD BOOK 4713  
PAGE 1008

TAX MAP 125, LOT 215  
SCRD BOOK 2395, PAGE 586

FILE NO. 161  
PLAN NO. C-2954 SP-2  
DWG NO. 18264\SP-2



**SITE LIGHTING PLAN**  
**TAX MAP 125, LOT 214**  
**38 CHARLES STREET**  
**STRAFFORD COUNTY**  
**ROCHESTER**  
**NEW HAMPSHIRE**  
PREPARED FOR:  
**HOPE ON HAVEN HILL, INC.**  
OCTOBER 2021  
GRAPHIC SCALE



L-1



Do not heavily prune the tree at planting. Prune only cross-over limbs, co-dominant leaders, and broken or dead branches. Some interior twigs and lateral branches may be pruned; however, Do NOT remove the terminal buds of branches that extend to the edge of the crown.

Trees less than 3" in caliper shall be staked with three stakes per tree, spaced evenly around the trunk with 12 gauge wire. Plastic hose sections shall be used at attachment to trees. Each wire shall be flagged with a visual marker. 5' long min. wooden stakes shall be used to anchor the wires. Stakes shall be driven at least 12" outside the edge of the planting pit into stable soil. Remove all staking NO LATER than the end of the first growing season after planting.

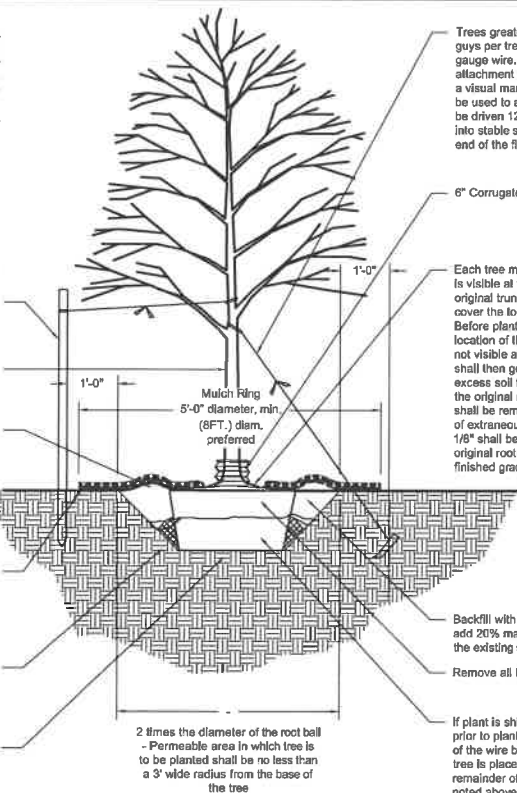
Mark the north side of the tree in the nursery. Rotate the tree to face north at the site whenever possible.

4 in. high earth saucer beyond edge of root ball

2 in. max. Mulch. Do NOT place mulch in contact with tree trunk. Maintain the mulch weed-free for a minimum of three years after planting.

Tamp soil around root ball base firmly with foot pressure so that root ball does not shift.

Place root ball on unexcavated or tamped soil.



Trees greater than 3" in caliper shall be guyed with three guys per tree, spaced evenly around the trunk with 12 gauge wire. Plastic hose sections shall be used at attachment to trees. Each guy wire shall be flagged with a visual marker. 24" stakes or metal drive anchors shall be used to anchor the guy wires. Stakes/anchors shall be driven 12" min. outside the edge of the planting pit into stable soil. Remove all guying NO LATER than the end of the first growing season after planting.

6" Corrugated PVC tree sock

Each tree must be planted such that the original trunk flare is visible at the top of the root ball. Trees where the original trunk flare is not visible may be rejected. Do NOT cover the top of the root ball with soil. Before planting Contractor shall inspect the rootball for the location of the original root flare. If the original root flare is not visible at the top of the root ball then the Contractor shall then gently remove from the top of the root ball any excess soil from nursery operations that may be covering the original root flare. All secondary and girdling roots shall be removed prior to planting. Trees with 4" or more of extraneous soil and/or adventitious roots greater than 1/8" shall be rejected. The tree shall be planted with the original root flare at or slightly (2-3") above surrounding finished grade.

Backfill with existing soil. In sandy and heavy clay soils add 20% max. by volume composted organic material to the existing soil.

Remove all burlap, rope, wire, and burlap

If plant is shipped with a wire basket around the root ball, prior to planting, the contractor shall cut away the bottom of the wire basket, leaving the sides in place. Once the tree is placed and faced, the contractor shall remove the remainder of the wire basket and backfill the planting pit as noted above.

## Tree Planting Detail

### Landscape Notes

- Design is based on drawings by Norway Plains Associates, Inc. and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- Erosion Control shall be in place prior to construction.
- Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and water bodies, wetlands and/or drainage ways prior to any construction.
- The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
- Trees to remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or materials within the tree protection area.
- This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call 800-444-7233.
- The Contractor shall procure any required permits prior to construction.
- Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If the contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 250 Southern Building, Washington, D.C. 20004.
- A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- All plants shall be legibly flagged with proper botanical name.
- The Contractor shall guarantee all plants for not less than one year from time of acceptance.
- Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with the following:
  - Outside hose attachments spaced a maximum of 150 feet apart, and
  - An underground irrigation system, or
  - A temporary irrigation system designed for a two-year period of plant establishment.
- If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
- All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- Trees, ground cover, and plant beds shall be attached to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and 1/2" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
- Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.
- Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- Landscape Architect is not responsible for the means and methods of the contractor.

**woodburn & company**  
LANDSCAPE ARCHITECTURE  
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949



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### Plant List

#### TREES

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ua	<i>Ulmus americana</i>	Princeton American Elm	2	3-3.5" Cal	B&B
Cc	<i>Crataegus crus-galli</i>	Thornless Cockspur Hawthorn	1	3-3.5" Cal	B&B

#### SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ig	<i>Ilex glabra</i>	Strongbox	23	5 gal	
Rh	<i>Rhus aromatica</i>	Grow Low Sumac	15	3 gal	
Ros	<i>Rosa multiflora</i>	Apicot Drift Rose	36	3 gal	
Syr	<i>Syringa</i>	Bloomingend	7	5 gal	
Tax	<i>Taxus media</i>	Greenwave	8	5 gal	

#### PERENNIALS, GROUNDCOVERS, VINES AND ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Cal	<i>Calamagrostis scutellaria</i>	Feather Reed Grass	18	1 gal	
Rud	<i>Rudbeckia hirta</i>	Black-Eyed Susan	10	1 gal	

**LANDSCAPING PLAN**  
**TAX MAP 125, LOT 214**  
**38 CHARLES STREET**  
**STRAFFORD COUNTY**  
**ROCHESTER**  
**NEW HAMPSHIRE**

**PREPARED FOR:**  
**HOPE ON HAVEN HILL, INC.**

**NOVEMBER 2021**  
**GRAPHIC SCALE**



FILE NO. 104  
PLAN NO. C-2780  
DWG. NO. 15225/SP-1  
F.B. NO.

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

**NORWAY PLAINS ASSOCIATES, INC.**

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

L-2



HOPE ON HAVEN HILL

38 CHARLES STREET  
ROCHESTER, NH 03867

NOT FOR  
CONSTRUCTION

Date:

Revisions:  
# Description

Scale:  
1/8" = 1'-0"

Drawn By:  
Author

Checked By:  
Checker

Project No. [PROJECT NUMBER]  
SCHEMATIC DESIGN

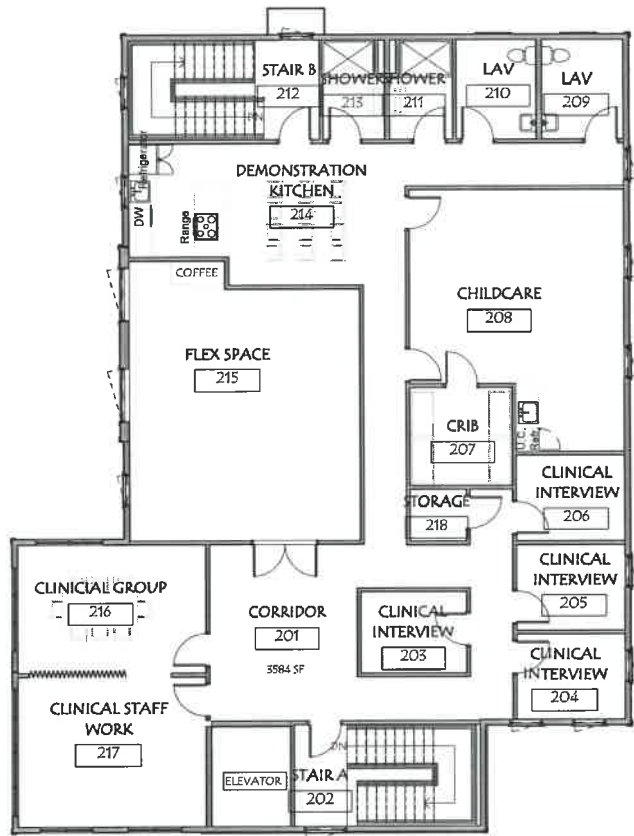
Date:

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2/25/2021 12:59:01 PM

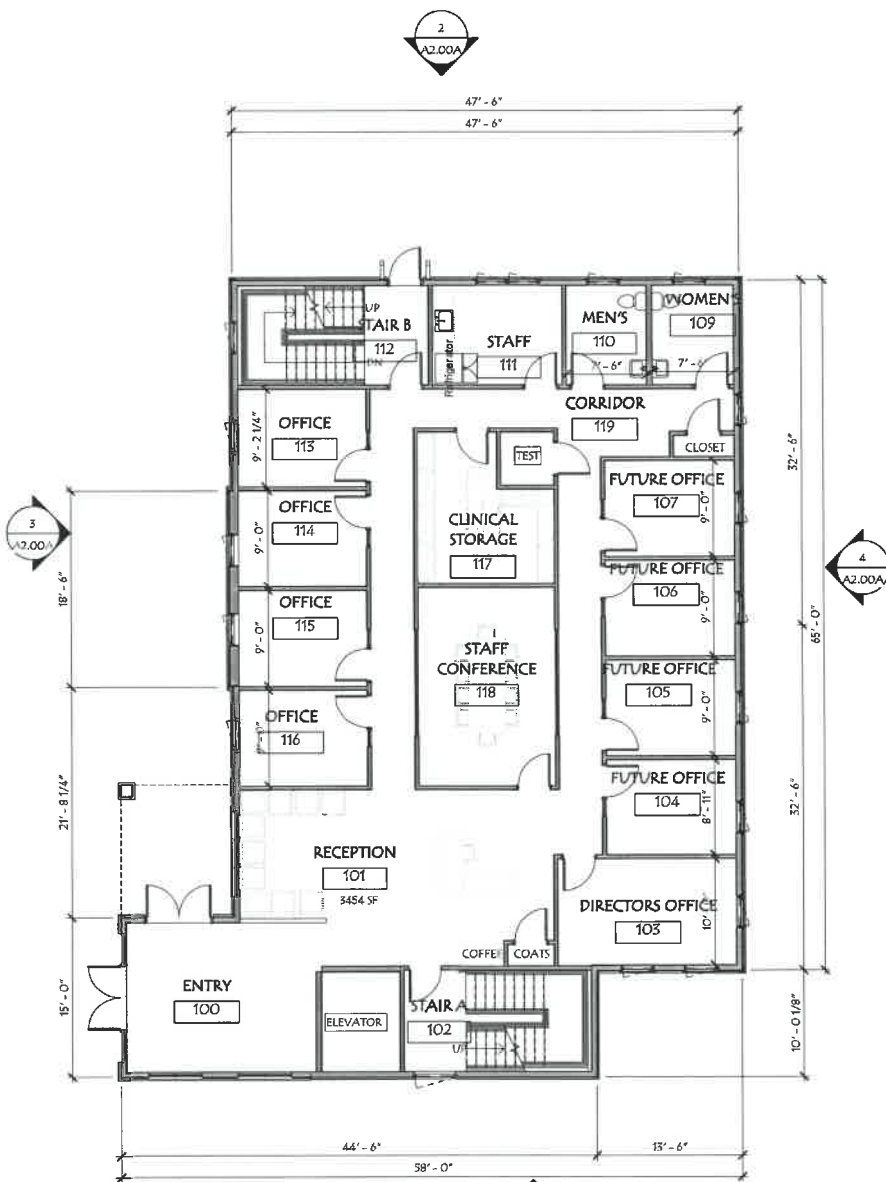
3 SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"



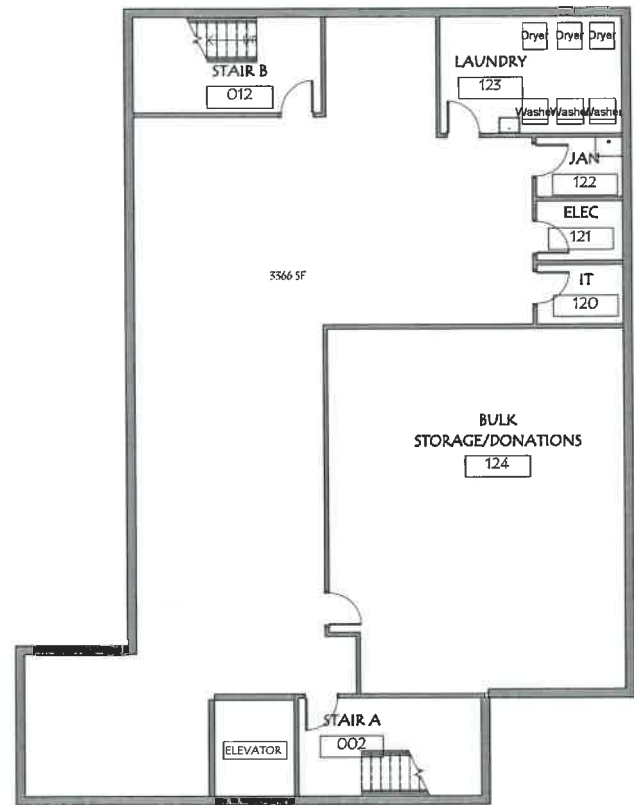
2 FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"



1 BASEMENT FLOOR PLAN

SCALE: 1/8" = 1'-0"



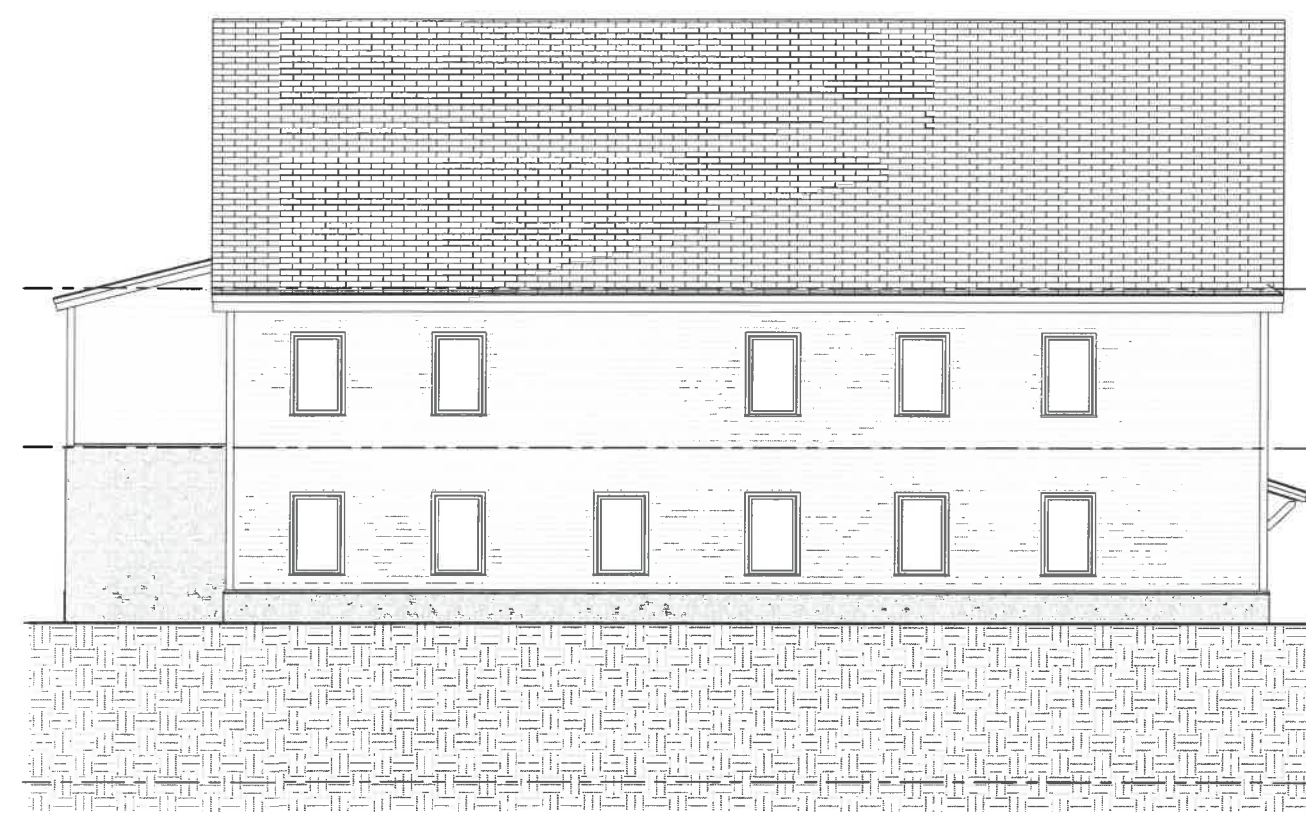
HOPE ON HAVEN HILL

38 CHARLES STREET  
ROCHESTER, NH 03867

NOT FOR  
CONSTRUCTION

Date	Revisions: # Description	Scale: 3/16" = 1'-0"	Drawn By: Author	Checked By: Checker	Project No. (PROJECT NUMBER) SCHEMATIC DESIGN	Issue Date

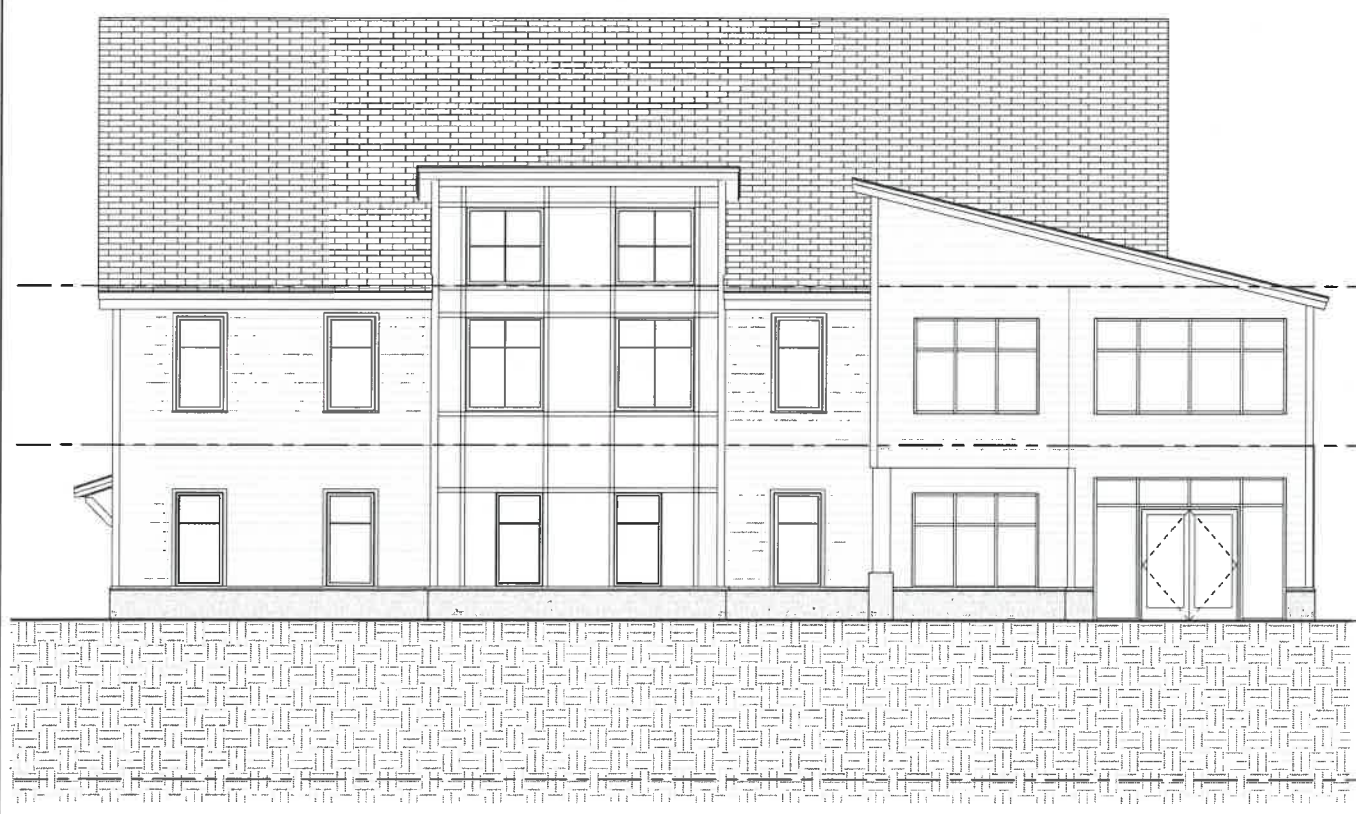
Title: EXTERIOR ELEVATIONS	A2.00A
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4 SOUTH ELEVATION  
SCALE: 3/16" = 1'-0"



2 EAST ELEVATION  
SCALE: 3/16" = 1'-0"



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



1 WEST ELEVATION  
SCALE: 3/16" = 1'-0"





PROJECT NO. 2021011

## HOPE ON HAVEN HILL

38 CHARLES ST.  
ROCHESTER, NH 03867

8 MARCH 2021

MARKET  
SQUARE

ARCHITECTS

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8 MARCH 2021