

ROSE MEADOWS SITE PLAN

SP# 07-23

STAFF REPORT

November 29, 2023

SITE: 255 Derry Road, Map 114 Lot 001

ZONING: General One (G-1)

PURPOSE OF PLAN: To show proposed 172-unit multi-family residential apartment development with accompanying site improvements.

PLANS UNDER REVIEW:

Site Plan / Rose Meadows, Map 114 Lot 11, 255 Derry Road, Hudson, New Hampshire; prepared by Hayner/Swanson, Inc., 3 Congress Street, Nashua, New Hampshire 03062; prepared for: 255 Derry Road, LLC, 1 Continental Drive, Londonderry, New Hampshire 03053; consisting of 43 sheets including a separate cover sheet and general notes 1-20 on Sheet 1; dated May 31, 2023; last revised September 14, 2023.

ATTACHMENTS:

- A. Peer Reviews, prepared by Fuss & O'Neill, received August 1, 2023 and October 2, 2023.
- B. Department Comments.
- C. Applicant Response to Peer Review, prepared by Hayner/Swanson, Inc., received September 18, 2023.
- D. Applicant Response to Engineering Comments, prepared by Hayner/Swanson, Inc., received October 16, 2023
- E. Hudson Water Volume Analysis, prepared by Hayner/Swanson, Inc., received October 16, 2023. (Digital Only)
- F. Stormwater Management Report, prepared by Hayner/Swanson, Inc., received September 18, 2023. (Digital Only)
- G. Traffic Impact and Access Study, prepared by Greenman-Pedersen, Inc., received September 18, 2023. (Digital Only)

APPLICATION TRACKING:

- July 5, 2023 – Application received.
- September 18, 2023 – Revised plans received.
- October 2, 2023 – Peer review received.
- October 16, 2023 – Applicant response and revised documents received.
- November 29, 2023 – Public hearing scheduled.

COMMENTS & RECOMMENDATIONS:

BACKGROUND

The site is a 90.56-acre lot that is bisected by the Hudson/Litchfield townline. About 10 acres of the parcel are in Hudson while the majority (~80 acres) of the parcel is in Litchfield. The site may currently only be accessed via Litchfield, with no road connections located within Hudson. The overall purpose of the development is to building 172 townhouse style residential units, all of which located in Litchfield outside of Hudson's jurisdiction.

Within Hudson's jurisdiction are accessory uses to the primary use of residential:

- three 3,000 SF self-storage buildings,
- a 12,000 SF outdoor storage area,
- an outdoor recreation area,
- and parking spaces.

The scope of the application before the Hudson Planning Board is limited to portions of the project within Hudson town borders. However, the Town of Litchfield declared their portion of the project a Development of Regional Impact on July 18, 2023 and the Town of Hudson was notified. The Town Planner and Town Engineer offered the following comments to the Litchfield Planning Board:

1. The applicant is currently working with Town of Hudson and Hudson Water Utility consultant to complete a peer review regarding domestic and fire protection. This review could result in recommendations that might require water utility improvements in Hudson and Litchfield. (review completed)
2. Applicant should propose offsite improvements at the proposed entrance based on the traffic challenges and accidents at Cutler Road and Route 102 and Page Street and Route 102.
3. Understanding that NH 102 is the jurisdiction and authority of NH DOT, we recommend examining the realignment of the site drive and Cutler Road to be in alignment with one another at their intersection with 102.

PEER REVIEW

Fuss & O'Neill completed a peer review on August 1, 2023, and second review on October 2, 2023 (**Attachment A**). The only outstanding comment is a recommendation that the applicant provide updated HydroCAD information to review if NH DES requires revisions during their review of the Alteration of Terrain permit.

DEPARTMENT COMMENTS

See **Attachment B** shows initial and intermediary comments from town departments. These comments have been addressed by the Applicant.

A significant effort was made reviewing the availability of water for domestic and fire protection needs. There is adequate water for domestic use. With respect to fire protection, following the beginning of this review it was determined that the Litchfield Fire Department is the responding authority and it is not the jurisdiction of the Hudson Fire Department. As of now any additional requirements related to fire suppression will be determined by the Litchfield Fire Department.

APPLICANT RESPONSES

Hayner/Swanson, Inc. provided a responses on behalf of the applicant on September 18, 2023 (**Attachment C & D**).

The Water Volume Analysis (**Attachment E**), the Stormwater Management Report (**Attachment F**) and the Traffic Study (**Attachment G**) are included digitally only.

RECOMMENDATIONS

The Town of Litchfield has already declared the residential development a development of regional impact (DRI) and was noticed accordingly. As a matter of practice, the Hudson Planning Board should determine whether or not the proposed storage areas located in Hudson constitute a DRI.

Since the principal use is located in Litchfield, and the residents will be Litchfield residents, there is no school impact fee assessed. However given the site’s unique location, evaluating the appropriateness of a traffic impact fee is challenging. Staff suggests that the Planning Board discuss this matter with the Planning Board.

Staff recommends accepting the application and holding a public hearing, followed by deliberation and consideration of waiver requests and approval. The Applicant has addressed all comments issued by Peer Review and Town Staff.

DRAFT MOTIONS

REGIONAL IMPACT in accordance with RSA 36:56:

I move to determine that site plan application SP# 07-23, Site Plan / Rose Meadows, Map 114 Lot 11, 255 Derry Road (**IS or IS NOT**) a development of regional impact.

Motion by: _____ Second: _____ Carried/Failed: _____

ACCEPT the site plan application:

I move to accept the site plan application SP# 07-23 for the Site Plan / Rose Meadows, Map 114 Lot 11, 255 Derry Road.

Motion by: _____ Second: _____ Carried/Failed: _____

CONTINUE the site plan application:

I move to continue the site plan application SP# 07-23 for the Site Plan / Rose Meadows, Map 114 Lot 11, 255 Derry Road to date certain, _____.

Motion by: _____ Second: _____ Carried/Failed: _____

APPROVE the site plan application:

I move to approve the site plan for the Site Plan / Rose Meadows, Map 114 Lot 11, 255 Derry Road, Hudson, New Hampshire; prepared by Hayner/Swanson, Inc., 3 Congress Street, Nashua, New Hampshire 03062; prepared for: 255 Derry Road, LLC, 1 Continental Drive, Londonderry, New Hampshire 03053; consisting of 43 sheets including a separate cover sheet and general notes 1-20 on Sheet 1; dated May 31, 2023; last revised September 14, 2023; and:

That the Planning Board finds that this application complies with the Zoning Ordinances, and with the Land Use Regulations with consideration of the waivers granted; and for the reasons set forth in the written submissions, together with the testimony and factual representations made by the

Subject to, and revised per, the following stipulations:

1. All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the Plan.
2. Prior to the issuance of a final certificate of occupancy, an L.L.S. Certified “as-built” site plan shall be provided to the Town of Hudson Land Use Division confirming that the development conforms to the Plan approved by the Planning Board.
3. Prior to the Planning Board endorsement of the Plan, it shall be subject to final administrative review by Town Planner and Town Engineer.
4. Prior to application for a building permit, the Applicant shall schedule a pre-construction meeting with the Town Engineer.
5. Construction activities involving the subject lot shall be limited to the hours between 7:00 A.M. and 7:00 P.M. No exterior construction activities shall be allowed on Sundays.
6. Hours of refuse removal shall be exclusive to the hours between 7:00 A.M. and 7:00 P.M., Monday through Friday only.

Motion by: _____ Second: _____ Carried/Failed: _____



*Town of Hudson
12 School Street
Hudson, NH 03501*

SITE PLAN APPLICATION

Revised May 19, 2023

The following information must be filed with the Planning Department *at the time of filing a site plan application*:

1. One (1) original completed application with original signatures, and one (1) copy.
2. Three (3) full plan sets (sheet size: 22" x 34").
3. One (1) original copy of the project narrative, and one (1) copy.
4. A list of direct abutters and a list of indirect abutters, and two (2) sets of mailing labels for abutter notifications.
5. All of the above application materials, including plans, shall also be submitted in electronic form as a PDF.
6. All plans shall be folded and all pertinent data shall be attached to the plans with an elastic band or other enclosure.

The following information is required to be filed with the Planning Department *no later than 10:00 A.M., Tuesday ONE WEEK prior to the scheduled Planning meeting. The purpose of these materials is hardcopy distribution to Planning Board members, not review. Any plan revisions that require staff review must be submitted no later than 10:00A.M., Tuesday TWO WEEKS prior to the scheduled Planning meeting. Depending on the complexity of changes, more time may be required for review. Please contact the Town Planner if you have any questions on this matter.*

1. Submission of fifteen (15) 11" X 17" plan sets, revised if applicable.
2. Submission of two (2) full plan sets (sheet size: 22" x 34"), if revised.
3. All of the above application materials, including plans, shall also be submitted in electronic form as a PDF.

Note: Prior to filing an application, it is recommended to schedule an appointment with the Town Planner.

SITE PLAN APPLICATION

Date of Application: July 5, 2023 Tax Map #: 114 Lot #: 1
Site Address: 255 DERRY ROAD, Litchfield, NH
Name of Project: ROSE MEADOWS
Zoning District: G-1: GENERAL ONE General SP#: _____
(For Town Use Only)
Z.B.A. Action: N/A

PROPERTY OWNER:

Name: 255 DERRY ROAD LLC
Address: One Continental Drive
Address: LONDONDERRY, NH 03053
Telephone # 603-370-0103

DEVELOPER:

same as owner

Email: Rcharbonneau@continentalpaving.com

PROJECT ENGINEER:

Name: Hayner/Swanson, Inc.
Address: 3 Congress St.
Address: NASHUA, NH 03002
Telephone # 603-883-2057
Email: jpetropulos@hayner-swanson.com

SURVEYOR:

Hayner/Swanson, Inc.
3 Congress St.
NASHUA, NH 03002
603-883-2057
dpolloch@hayner-swanson.com

PURPOSE OF PLAN:

TO SHOW IMPROVEMENTS UPON SUBJECT SITE THAT WILL SUPPORT A 172 UNIT RESIDENTIAL DEVELOPMENT IN Litchfield, NH

(For Town Use Only)

Routing Date: _____ Deadline Date: _____ Meeting Date: _____

_____ I have no comments _____ I have comments (attach to form)

(Initials) Title: _____ Date: _____

Department: _____

Zoning: ___ Engineering: ___ Assessor: ___ Police: ___ Fire: ___ DPW: ___ Consultant: ___

SITE DATA SHEET

PLAN NAME: ROSE MEADOWS

PLAN TYPE: SITE PLAN

LEGAL DESCRIPTION: MAP 114 LOT 1

DATE: July 5, 2023

Location by Street: 255 DERRY ROAD, Litchfield, NH
Zoning: G-1: GENERAL ONE
Proposed Land Use: SELF-STORAGE, OUTDOOR STORAGE, PLAYFIELD
Existing Use: UNDEVELOPED
Surrounding Land Use(s): RESIDENTIAL & COMMERCIAL
Number of Lots Occupied: NONE
Existing Area Covered by Building: NONE
Existing Buildings to be removed: NONE
Proposed Area Covered by Building: 9,000 SF
Open Space Proposed: 87%
Open Space Required: 40%
Total Area: S.F.: 444,008 Acres: 10.193
Area in Wetland: 2.5 AC Area Steep Slopes: -
Required Lot Size: 1 Acre
Existing Frontage: NONE
Required Frontage: 200 FT
Building Setbacks: Required* Proposed
 Front: 50 FT N/A
 Side: 20 FT 118 FT
 Rear: 20 FT 108 FT

SITE DATA SHEET

(Continued)

Flood Zone Reference: MAP #: 33011C0516D

Width of Driveways: 22 FEET

Number of Curb Cuts: N/A

Proposed Parking Spaces: None

Required Parking Spaces: None

Basis of Required Parking (Use): -

Dates/Case #/Description/Stipulations
of ZBA, Conservation Commission,
NH Wetlands Board Actions:
(Attach stipulations on separate sheet) None

Waiver Requests


<i>Town Code Reference:</i>	<i>Regulation Description:</i>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(For Town Use Only)	
Data Sheets Checked By: _____	Date: _____

SITE PLAN APPLICATION AUTHORIZATION

I hereby apply for *Site Plan* Review and acknowledge I will comply with all of the Ordinances of the Town of Hudson, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the items listed under the *Site Plan* specifications or application form are incomplete, the application will be considered rejected.

Pursuant to RSA 674:1-IV, the owner(s) by the filing of this application as indicated above, hereby given permission for any member of the Hudson Planning Board, the Town Planner, the Town Engineer, and such agents or employees of the Town or other persons as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, tests and inspections as may be appropriate. The owner(s) release(s) any claim to or right he/she (they) may now or hereafter possess against any of the above individuals as a result of any examinations, surveys, tests and/or inspections conducted on his/her (their) property in connection with this applications.

Signature of Owner:  Date: 6-30-23

Print Name of Owner: Rick Charbonneau

- ❖ If other than an individual, indicate name of organization and its principal owner, partners, or corporate officers.

Signature of Developer:  Date: 6-30-23

Print Name of Developer: Rick Charbonneau

- ❖ The developer/individual in charge must have control over all project work and be available to the Code Enforcement Officer/Building Inspector during the construction phase of the project. The individual in charge of the project must notify the Code Enforcement Officer/Building Inspector within two (2) working days of any change.

PROJECT NARRATIVE

The project area under consideration for this application is located at 255 Derry Road in Litchfield, NH and Hudson, NH. The parcel is known to the Hudson Assessors Department as Map 114, Lot 1. The parcel is located in Hudson's G; general zoning district. The site is located in the northwest part of Hudson and the southeast part of Litchfield. It is abutted by Derry Road to the west, commercial lots to the north, Hudson parcels to the east and a mix of residential sites/undeveloped land to the south.

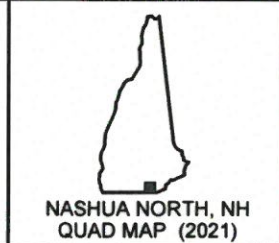
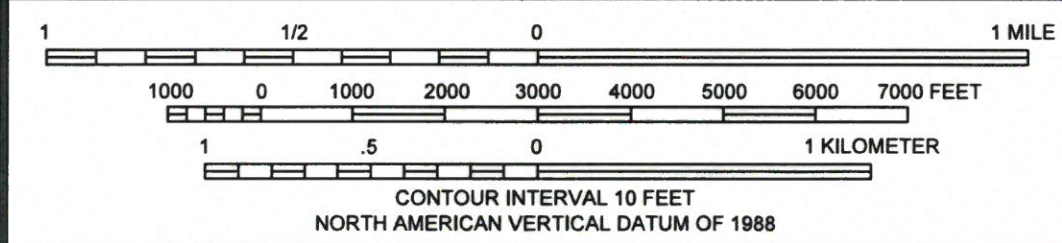
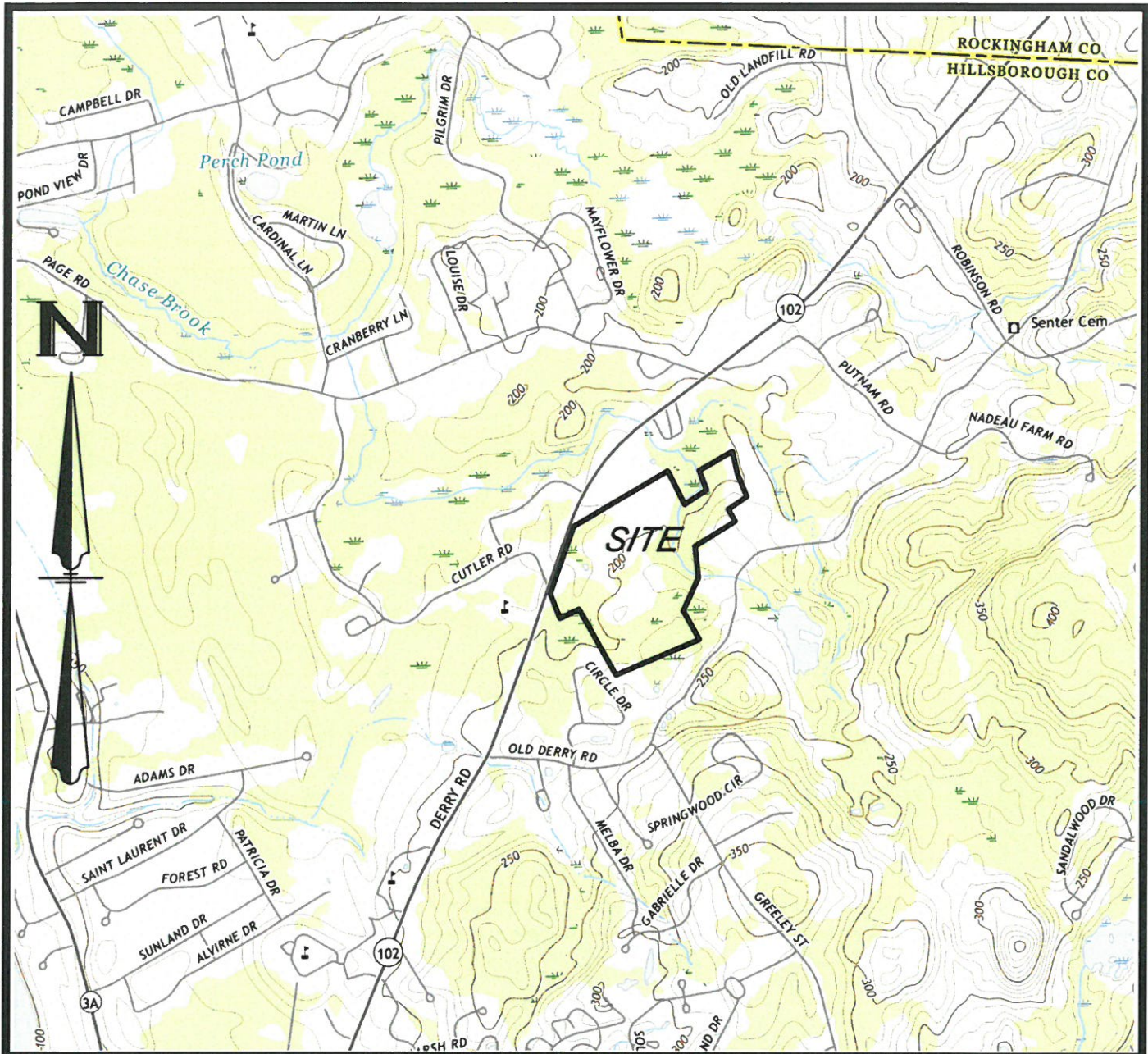
The subject site measures 90 acres in size, of which 10 acres are located in Hudson, NH. This property was recently used as a testing facility for BAE Systems and contains a number of testing related structures/site features. Due to the sensitive nature of their business, we are not able to provide photographs of the structures at this time. An aerial showing the property features is included instead. BAE Systems started working out of the property around 1978. Prior to 2000, the property was used as a residential property.

The site is partially wooded and the topography of the land is slight, with an overall slope from southeast to northwest. Wetlands have been mapped in accordance with local, state and federal criteria. In general, there are several water courses and associated wetlands that run through the property. The wetlands are associated with a tributary that eventually flows in a northwesterly direction and connects into Chase Brook. A portion of the northernmost wetland lies within the 100-year flood hazard area ('Zone A') as shown on the 2009 Flood Insurance Rate Maps for this part of Litchfield. Test pits have been performed throughout the property and the logs are included in the Site Plan set. Overall the site contains of sandy soils.

Utilities (water, gas, telecommunications and power) are all located in Derry Road and will be extended into the site to service the proposed development.

It is being proposed to develop the land in Litchfield and Hudson into a 172-unit multi-family development in accordance with the Town of Litchfield Site Plan regulations. The objectives of this type of residential development are to provide a more diverse housing product and a reasonable opportunity for workforce living. As can be seen on the plans the project will contain thirty buildings, each containing between 4 and 6 units in a townhouse style. It is anticipated that the project will be phased over a 4-year period, which means that approximately 40+ units will be built each year. The project shall gain frontage and

access from a driveway onto Derry Road. Private roads will loop through the site to provide access and parking for each residential structure. Structured parking garages are provided for most of the residential units. Open space or common land will surround each building. In addition, the land in Hudson will be used for outdoor storage, indoor storage units and a recreational playfield for the sole use by the tenants of this development. A sizeable area of this lot will be set aside as common land and left in its natural state. The proposed residential units will be serviced by the extension of public water (Pennichuck Water Works) within the new streets and individual subsurface sewage disposal systems for each building. Underground utility lines will be constructed within the project area to service each building.



VICINITY PLAN
PROPOSED RESIDENTIAL DEVELOPMENT
 255 DERRY ROAD
 LITCHFIELD/HUDSON, NH

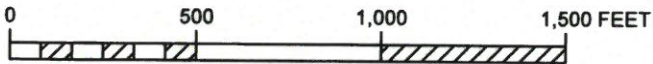
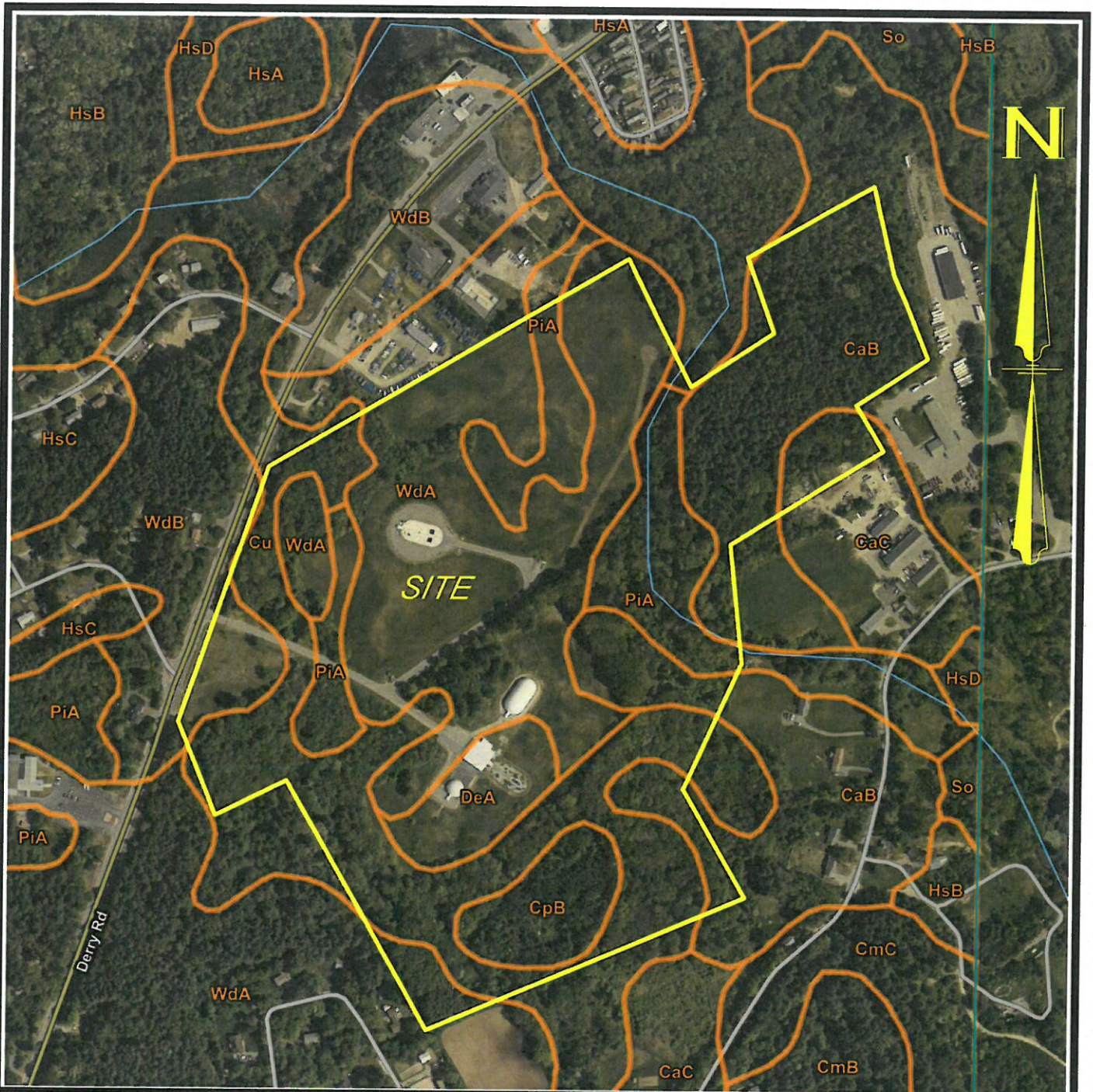
PREPARED FOR:
255 DERRY ROAD, LLC
 1 CONTINENTAL DRIVE LONDONDERRY, NH 03053
 FEBRUARY 2023

FIG. 1

HSI Hayner/Swanson, Inc.
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
 www.haynerswanson.com

Drawing: 5432SITE-USGS
 Location: J:\5000\5432\DWG\5432 SITE

5432
 File Number



SOIL SURVEY STAFF, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPT. OF AGRICULTURE. WEB SOIL SURVEY. AVAILABLE ONLINE AT <http://websoilsurvey.nrcs.usda.gov/> ACCESSED DECEMBER 22 2022.

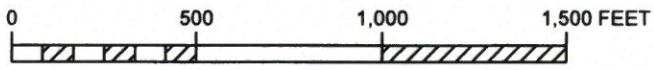
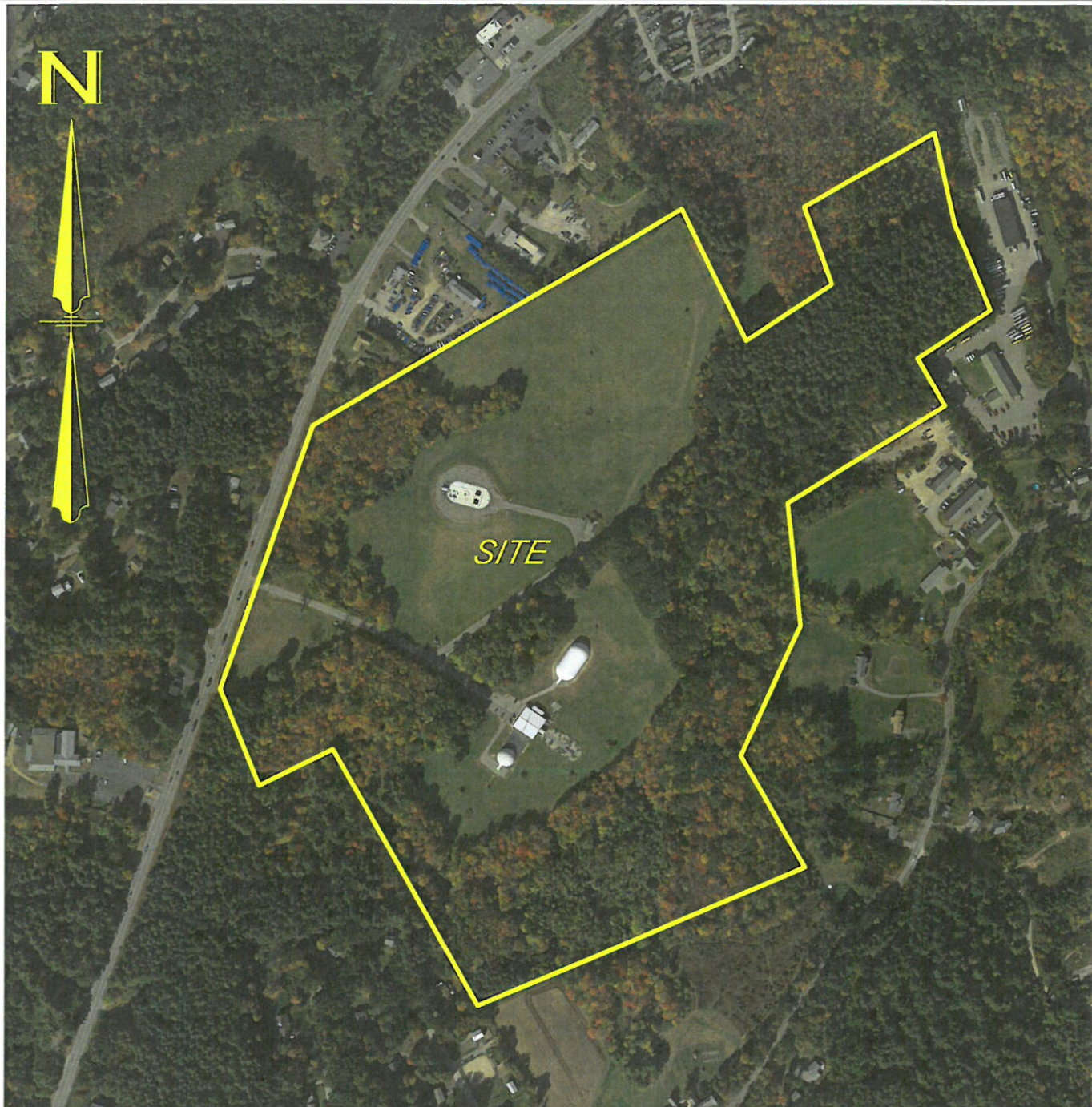
NRCS SOILS MAP
PROPOSED RESIDENTIAL DEVELOPMENT
255 DERRY ROAD
LITCHFIELD/HUDSON, NH

FIG. 2
PREPARED FOR:
255 DERRY ROAD, LLC
 1 CONTINENTAL DRIVE LONDONDERRY, NH 03053
FEBRUARY 2023

 **Hayner/Swanson, Inc.**
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
www.hayner-swanson.com

Drawing: 5432SITE-USGS
 Location: J:\5000\5432\DWG\5432 SITE

5432
 File Number



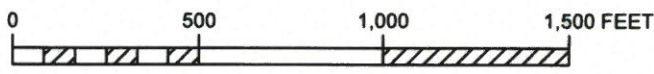
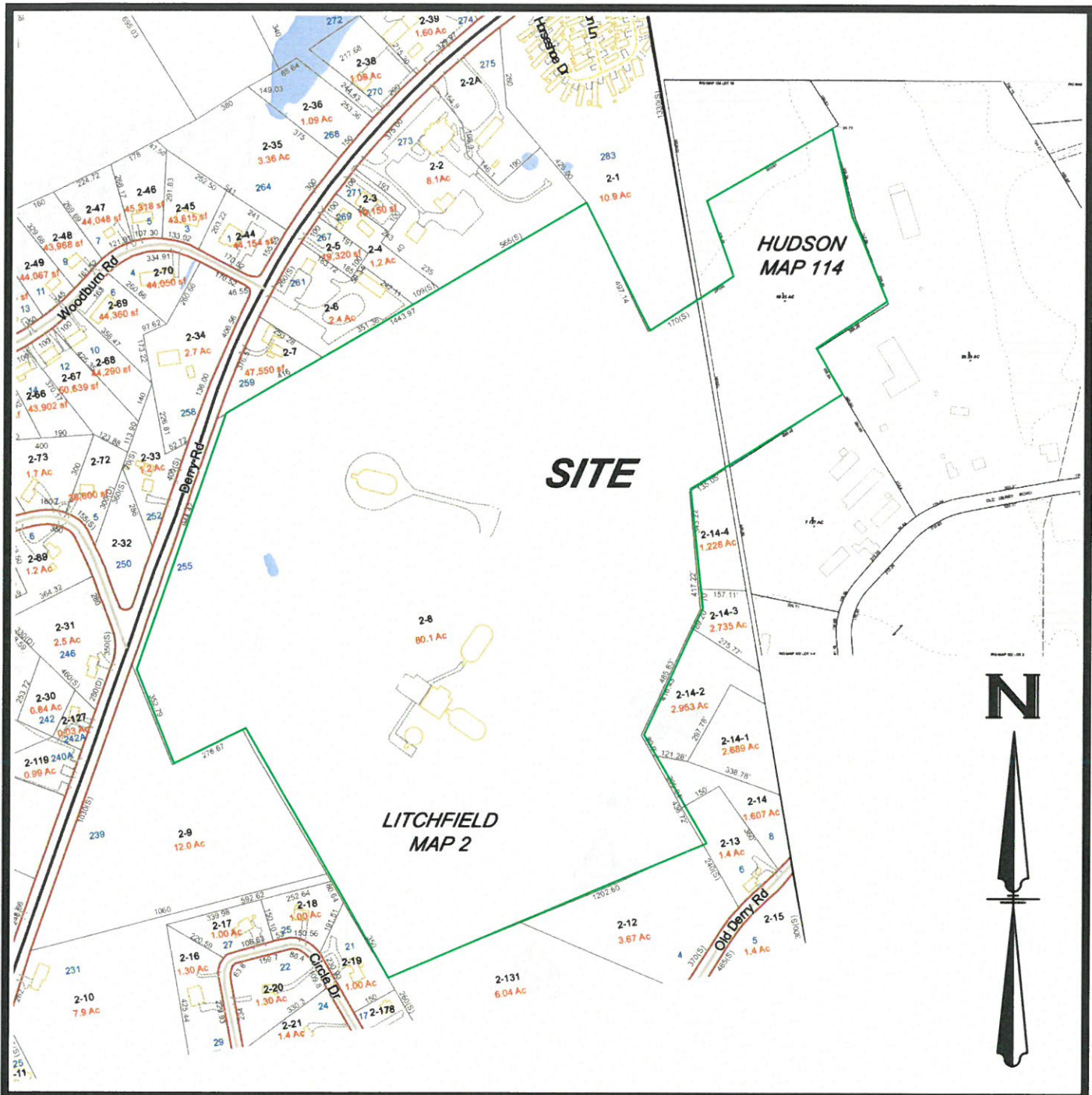
AERIAL DISPLAY PLAN
PROPOSED RESIDENTIAL DEVELOPMENT
255 DERRY ROAD
LITCHFIELD/HUDSON, NH

FIG. 3
PREPARED FOR:
255 DERRY ROAD, LLC
 1 CONTINENTAL DRIVE LONDONDERRY, NH 03053
FEBRUARY 2023

HSI Hayner/Swanson, Inc.
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
 www.hayner-swanson.com

Drawing: 5432SITE-USGS
 Location: J:\5000\5432\DWG\5432 SITE

5432
 File Number



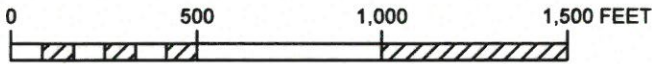
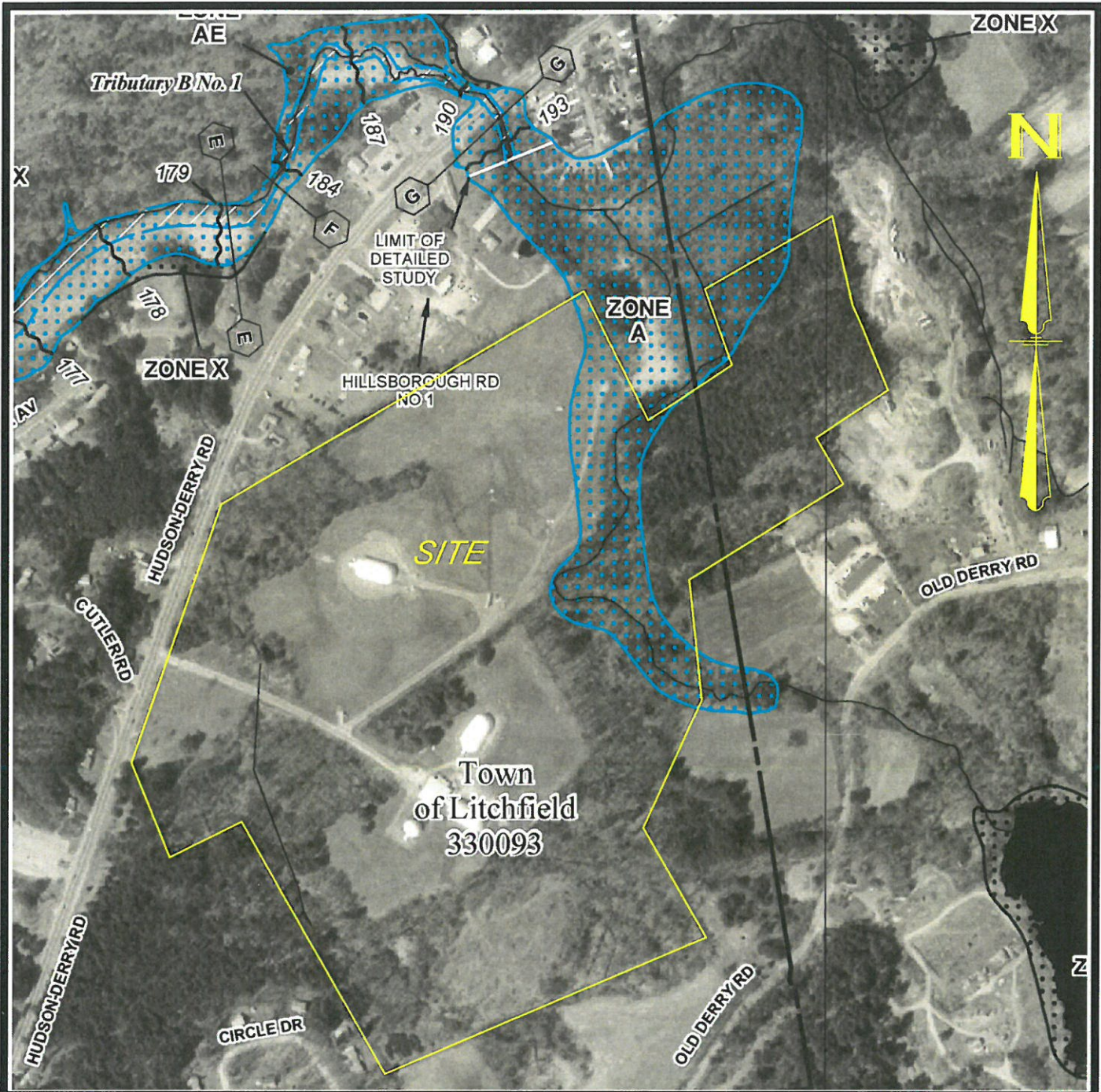
TAX MAP
PROPOSED RESIDENTIAL DEVELOPMENT
255 DERRY ROAD
LITCHFIELD/HUDSON, NH

FIG. 4
PREPARED FOR:
255 DERRY ROAD, LLC
 1 CONTINENTAL DRIVE LONDONDERRY, NH 03053
FEBRUARY 2023

HSI Hayner/Swanson, Inc.
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
 www.haynerswanson.com

Drawing: 5432SITE-USGS
 Location: J:\5000\5432\DWG\5432 SITE

5432
 File Number



FIRM: HILLSBOROUGH COUNTY, NEW HAMPSHIRE
 TOWN OF HUDSON COMMUNITY No. 330092
 TOWN OF LITCHFIELD COMMUNITY No. 330093
 MAP No. 33011C0516D
 EFFECTIVE DATE: SEPTEMBER 25, 2009

FLOOD INSURANCE RATE MAP
PROPOSED RESIDENTIAL DEVELOPMENT
255 DERRY ROAD
LITCHFIELD/HUDSON, NH

PREPARED FOR: **255 DERRY ROAD, LLC** FIG. 5
 1 CONTINENTAL DRIVE LONDONDERRY, NH 03053
FEBRUARY 2023

 **HSI** Hayner/Swanson, Inc.
 3 Congress Street Nashua, NH 03062 (603) 883-2057
 131 Middlesex Turnpike Burlington, MA 01803 (781) 203-1501
 www.hayner-swanson.com

Drawing: 5432SITE-USGS
 Location: J:\5000\5432\DWG\5432 SITE

5432
 File Number



TOWN OF HUDSON

Land Use Division



12 School Street • Hudson, New Hampshire 03051 • Tel: 603-886-6008 • Fax: 603-594-1142

Zoning Determination #23-069

May 16, 2023

Hayner/Swanson Inc.
3 Congress St
Nashua NH, 03062

^{Te}
287 Derry Rd Map 114 - Lot 001-000
District: G-1: General Zoning District

Dear Mr. Petropulos

Your request: to show that a proposed use (self-storage units, outdoor storage area, and outdoor recreation area) intended for use by the residents per the submitted plan dated May 2023:

Zoning Review/Determination:

These uses are accessory to the principal use as residential in Litchfield. Furthermore, the proposed self-storage units are allowed per 334-21 Table of Principal Uses as category (E8) "Self-storage" Please be advised the following applies to outdoor storage areas, see, §334-13, outdoor storage, of the following is prohibited: (1) More than one registered vehicle. (2) Any quantity of waste, refuse, junk, or ashes. The outdoor recreation area is an allowed per 334-21 in use category (D-21) outdoor commercial recreation.

This application will need Planning Board approval for site plan review per 334-16.1.

Sincerely,

Chris Sullivan
Zoning Administrator/Code Enforcement Officer
(603) 816-1275
csullivan@hudsonnh.gov

cc: Public Folder
B. Groth, Town Planner
File

NOTE: this determination may be appealed to the Hudson Zoning Board of Adjustment within 30 days of the receipt of this letter.

#23-069



TOWN OF HUDSON AND USE DEPARTMENT
12 School Street
Hudson, NH 03051
(603) 886-6008
www.hudsonnh.gov
MAY 09 ENT'D
2023
78
Zoning Department



Town of Hudson

REQUEST FOR ZONING and/or PLANNING INFORMATION / DETERMINATION

Date of request MAY 8, 2023

Property Location NORTH HUDSON (LANDLOCKED PARCEL)

Map 114 Lot 1 Sublot _____ 287 R Derry Rd.

Zoning District if known G-1 GENERAL

Type of Request

- Zoning District Determination
- Use Determination
- Set-Back Requirements
- Process for Subdivision/ Site Plan if required
- Other

Description of request / determination: (Please attach all relevant documentation)

OUR REQUEST IS FOR A DETERMINATION THAT THE PROPOSED USES (GARAGES, OUTDOOR STORAGE, SELF-STORAGE UNITS) INTENDED SOLELY FOR USE BY THE RESIDENTS OF THIS PROJECT ARE ALLOWED IN THE G-1: GENERAL ZONING DISTRICT.

Applicant Contact Information:

Name: 255 DERRY ROAD, LLC

Address: 1 CONTINENTAL DRIVE, LONDONDERRY, NH 03053

Phone Number: 603-370-0103

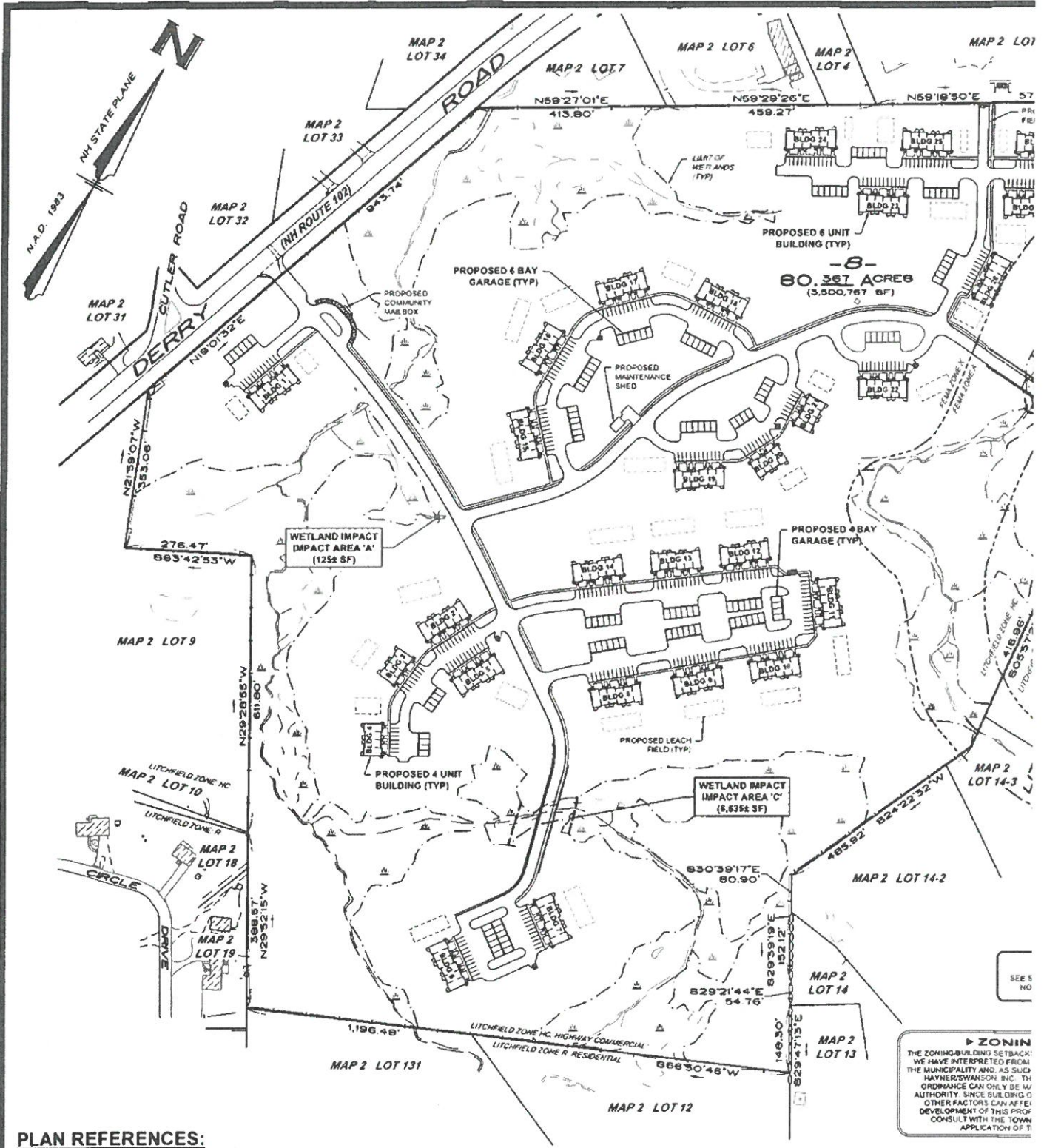
Email: rcharbonneau@continentalparking.com

For Office use

ATTACHMENTS: TAX CARD GIS

NOTES: _____

ZONING DETERMINATION LETTER SENT DATE: _____



PLAN REFERENCES:

SEE SHEET 5 OF 44

FOR 255 DERRY ROAD, LLC _____ DATE _____

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

CHAIRMAN: _____ SIGNATURE DATE: _____

SECRETARY: _____ SIGNATURE DATE: _____

SITE PLANS ARE VALID FOR TWO (2) YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

Buttrick, Bruce

From: Jim Petropulos <jpetropulos@hayner-swanson.com>
Sent: Monday, May 8, 2023 3:25 PM
To: Groth, Brian; Buttrick, Bruce
Subject: 10-acre Lot in Hudson
Attachments: Request for Zoning Determination.pdf; 5432 Master Site Plan.pdf

EXTERNAL: Do not open attachments or click links unless you recognize and trust the sender.

Brian/Bruce:

Good afternoon. As mentioned to Brian moments ago, we are working on a project in Litchfield in which part of the land is in Hudson (Map 114, Lot 1). Attached you will find a Master Plan of the project as well as a Request for Zoning Determination. No real rush here. I'll check back in a week or so to discuss what we need to do in Hudson.

Thanks and best regards, JIM

James N. Petropulos, P.E., LEED AP
President / Principal Engineer
Hayner/Swanson, Inc.
Civil Engineers & Land Surveyors
3 Congress Street
Nashua, NH 03062
Phone: 603.883.2057 x129
Cell: 603.897.9009
jpetropulos@hayner-swanson.com
www.hayner-swanson.com

287 R Derry Rd (Map 114 Lot 001-000)

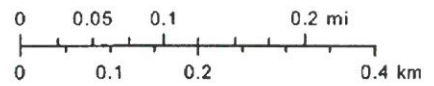


May 9, 2023

Legend

 Parcels

1:8,228



Jim Petropulos

From: Doug Nicoll <dnicoll@litchfieldfd.com> on behalf of Doug Nicoll
Sent: Wednesday, June 28, 2023 4:46 PM
To: Jim Petropulos
Cc: Joan McKibben; Fire Department Info
Subject: Re: Rose Meadows Development

Good Afternoon Jim,

Litchfield Fire Rescue agrees it will respond to all incidents that occur within the Rose Meadows Development including the area that resides within the Hudson town boundary. Litchfield Fire Rescue and Hudson Fire Department work jointly together when responding to medical emergencies, as Hudson is our contracted ambulance service. All other incidents will be handled by Litchfield fire personnel or through our mutual aid system where applicable.

Respectfully,

Doug Nicoll

On Wed, Jun 28, 2023 at 11:30 AM Jim Petropulos <jpetropulos@hayner-swanson.com> wrote:

Sir:

Pursuant to the above referenced project, please note that because the property exists in two towns, we will need to obtain a site plan approval from the Town of Hudson. In a recent meeting with their Planning staff they communicated to me that the Litchfield Fire Department would be in a better position to respond to an incident if it were to occur in the Hudson portion of the project (see the attached Master Site Plan). Primarily this would be two garage buildings, the self-storage units and the outdoor storage area. Their reasoning was that there is no direct access to Hudson roads to get to this back area.

If in agreement, we respectfully request, on behalf of our client, 255 Derry Road, LLC, that you respond to this email in writing or prepare a letter addressed to myself indicating that the Litchfield Fire Department will respond to all events in the development including the portion in Hudson.

In advance we thank you for your assistance. As always, please feel free to contact me if you have any questions regarding this matter.

Respectfully, JIM



October 2, 2023

Mr. Brian Groth
Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Town of Hudson Planning Board Review
Rose Meadows Site Plan, 255 Derry Road
Tax Map 114 Lot 1; Acct. #1350-551
Reference No. 20030249.2310

Dear Mr. Groth:

Fuss & O'Neill (F&O) has reviewed the second submission of materials received on September 18, 2023, related to the above-referenced project. A list of items reviewed is enclosed. The scope of our review is based on the Site Plan Review Codes, Stormwater Codes, Driveway Review Codes, Sewer Use Ordinance 77, Zoning Regulations, and criteria outlined in the CLD Consulting Engineers Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007, September 3, 2008, and October 2015.

The project consists of a 172-unit multifamily residential apartment development located in Litchfield with three proposed self-storage buildings, an outdoor storage area and residential garages located in Hudson (map 114/lot 1). Our review consists of only those aspects of the project that are located in Hudson. Proposed improvements to the Hudson site will also include the construction of a driveway, drainage improvements, lighting, and other associated site improvements. The proposed buildings in Hudson will not be serviced by any water and sewer.

The following items have outstanding issues:

6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- e. *Former Fuss & O'Neill Comment: HR 290-5.A.11. The applicant should provide additional information in the write up on the HydroCAD and the Post Development Drainage Area Map connection. We note the HydroCAD does not illustrate the individual drainage areas (111, 112, etc.) but rather an overall watershed that includes the smaller drainage areas.*

Current Fuss & O'Neill Comment: The applicant has noted that this approach has been accepted by the NHDES on past projects and that the NHDES has not commented on this approach for this project. We recommend that the applicant provide updated HydroCAD information to the Town for review should the NHDES comment on this approach during their AoT review and revisions become necessary.

50 Commercial Street
Manchester, NH
03101
t 603.668.8223
800.286.2469
www.fando.com

California
Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Mr. Brian Groth
October 2, 2023
Page 2 of 8

The following items require Town evaluation or input:

6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- c. *Former Fuss & O'Neill Comment: HR 290-5.A.5. We note that although there is an overall decrease in flow of 0.33 cfs at POA C, there is a 0.02 cfs increase in flow in the 2-year storm at POA NE leaving the site/property line. The applicant should review this increase in flow at POA NE with the Town to verify if an increase is allowed, as well as provide the required waiver. The applicant should also review this increase at POA NE with NHDES, to ensure that the project meets Env-Wq 1507.06 - "Peak Runoff Control Requirements".*

Current Fuss & O'Neill Comment: The applicant has provided an explanation for the slight increase in flow and overall site impacts for the 2 year storm at the noted POA. The applicant has noted that they will discuss the referenced increase with the Town Engineer and that they are currently working through the AoT process. No further Fuss & O'Neill comment.

- d. *Former Fuss & O'Neill Comment: HR 290-5.A.5. We note there are volume increases in the 2-year and 10-year storm analysis at POA NE, and in all storms analyzed at both POA NW and POA C. The applicant should review these increases with the Town to verify if the increases are allowed, as well as provide the required waiver. The applicant should also review this increase with NHDES to ensure that the project meets Env-Wq 1507.05 - "Channel Protection Requirements".*

Current Fuss & O'Neill Comment: The applicant has noted that they will discuss the referenced increases with the Town Engineer prior to the Planning Board meeting. No further Fuss & O'Neill comment.

The following items are resolved or have no further Fuss & O'Neill input:

1. Site Plan Review Codes (HR 275)

- a. *Former Fuss & O'Neill Comment: Hudson Regulations (HR) 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the proposed buildings. The buildings on the Hudson lot do not have any water services for fire protection.*
- b. *Former Fuss & O'Neill Comment: HR 275-6.T. The applicant has not proposed any off-site improvements on the Hudson site. We note that the site does not have direct access to any Town of Hudson roadways.*
- c. *Former Fuss & O'Neill Comment: HR 275-8.C.(2). and Zoning Ordinance (ZO) 334-15.A. The applicant has included two 6-bay parking garages on the Hudson side of the town line. These parking garages are associated with proposed buildings 29 and 30 on the Litchfield side of the project. There are no other designated parking spaces proposed for the facilities in Hudson.*
- d. *Former Fuss & O'Neill Comment: HR 275-8.C.(5). The applicant has provided adequate aisle width around the self-storage buildings.*
- e. *Former Fuss & O'Neill Comment: HR 275-9.F. The applicant provided copies of an easement and deed as part of the package received for review. We note that the easement provided does not affect the Hudson site.*

Mr. Brian Groth
October 2, 2023
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2. Administrative Review Codes (HR 276)

a. *Former Fuss & O'Neill Comment: HR 276-7. The applicant did not list any waivers on the plan set nor include any waiver requests in the package received for review.*

b. *Former Fuss & O'Neill Comment: HR 276-11.1.B.(4). The applicant should add the Hudson approval block to the detail sheets and profile sheets that pertain to Hudson.*

Current Fuss & O'Neill Comment: The applicant has added the approval box to the requested sheets. No further Fuss & O'Neill comment.

c. *Former Fuss & O'Neill Comment: HR 276-11.1.B.(24). The applicant has not provided open space calculations on the plan set for the Hudson lot. We note that the open space for the Hudson lot appears to exceed the minimum required by the Regulation.*

Current Fuss & O'Neill Comment: The applicant has added the requested info to the plan set. No further Fuss & O'Neill comment.

3. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)

a. *Former Fuss & O'Neill Comment: HR 193.10. The applicant has not proposed any connections to Hudson Town roadways. All proposed driveways are in Litchfield.*

4. Traffic

a. *Former Fuss & O'Neill Comment: HR 275-9.B. Fuss & O'Neill, Inc. has reviewed the Traffic Impact and Access Study prepared for 255 Derry Road, LLC by GPI dated May 2023, for the proposed residential development. The project proposes to construct a 172-unit housing development, with access to the site provided via a driveway connecting to the existing Derry Road (NH Route 102) in Litchfield. We note that the site does not connect to any roadways within the Town of Hudson.*

The analysis completed by GPI includes an estimate of the increase in expected traffic generated by the proposed housing development at intersections within the Town of Litchfield. The applicant has shown increases in wait time at these intersections although queue lengths will be one vehicle or less.

The procedures that the GPI report uses are reasonable, with the appropriate ITE trip generation information used for the scenario provided (ITE Land Use 215 – Single-Family Attached Housing). Additionally, the factors used for projecting the traffic data from existing to no-build and future-year conditions were all appropriate with sufficient calculations provided.

Overall, we believe the project should not have any significant impacts on the Hudson roadway network adjacent to the development, and the additional traffic associated with the 172-unit housing project will not require modifications within the Town of Hudson. GPI's conclusion that the proposed development can be safely and efficiently accommodated along the existing roadway network in Litchfield appears reasonable, however we did not review specific impacts to the road network or intersections within Litchfield. GPI has noted within the study that a NHDOT Driveway Permit is required and the provision for adding a southbound left-turn lane on Derry Road at the site driveway will be evaluated further during the

Mr. Brian Groth
October 2, 2023
Page 4 of 8

NHDOT permitting process. This potential turn lane will improve Derry Road operations at the site driveway.

Current Fuss & O'Neill Comment: The applicant has noted that a NHDOT driveway permit for this site has been submitted.

5. Utility Design/Conflicts

- a. *Former Fuss & O'Neill Comment: The applicant has not proposed any water or sewer connections on the Hudson lot.*

6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- a. *Former Fuss & O'Neill Comment: HR 275. It is noted this development occurs over two separate municipalities, proposing a private road, accessed from Litchfield. The overall drainage analysis performed evaluates the complete watershed, rather than individual segmented lots within individual municipalities. This drainage/stormwater review takes into account the overall analysis of the project, with a general attention to the Hudson lot and the Northeast Point of Analysis (POA NE), as well as Combined (POA C). Stormwater treatment review consisted of the overall site with attention paid to Stormwater Management Area G – Infiltration Basin.*

- b. *Former Fuss & O'Neill Comment: HR 290-5.A.1. & 290-5.A.3. The applicant should provide language in the Drainage Report stating if and how low impact development (LID) strategies for stormwater runoff were evaluated for this project.*

Current Fuss & O'Neill Comment: The applicant has added language to the Stormwater Management Report addressing LID considerations. No further Fuss & O'Neill comment.

- f. *Former Fuss & O'Neill Comment: HR 290-5.A.11. The applicant should provide sizing information for the drainage culvert between FES 111 and FES 110, as well as all drainage items illustrated within the plan set.*

Current Fuss & O'Neill Comment: The applicant has added sizing information to the Individual Drain Line Design worksheet. No further Fuss & O'Neill Comment.

- g. *Former Fuss & O'Neill Comment: HR 290-5.A.11. The applicant should provide the outlet protection calculations for FES 110, as well as an outlet protection detail for the FES. We note that only headwall outlet protection details are included in the plan set.*

Current Fuss & O'Neill Comment: The applicant has added riprap to FES 110 and provided outlet protection calculations with the current submission. No further Fuss & O'Neill comment.

- h. *Former Fuss & O'Neill Comment: HR 290-5.A.11. With the large volume of recent rainfall the area has been experiencing lately, the applicant should provide an overflow weir for SMA G (as well as other Stormwater Management Areas). This is in case of excess stormwater and the need to direct stormwater appropriately to minimize erosion.*

Current Fuss & O'Neill Comment: The applicant has added an overflow weir for SMA G. No further Fuss & O'Neill comment.

Mr. Brian Groth
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- i. Former Fuss & O'Neill Comment: HR 290-5.B.1.b. The applicant should provide support material or calculations showing the required 80% TSS and 50% TP pollutant removals.
Current Fuss & O'Neill Comment: The applicant has provided support information demonstrating the required pollutant removal rates can be achieved. No further Fuss & O'Neill comment.
- j. *Former Fuss & O'Neill Comment: HR 290-5.B.2.a. The applicant should provide calculations showing the required treatment of at least 30% of the existing impervious cover and 50% of proposed additional impervious cover.*
Current Fuss & O'Neill Comment: The applicant has noted that the total site area within Hudson is 10.2 acres and SMA G provides treatment for approximately 83 percent of the total site area and 100% of the developed area included impervious surfaces in Hudson. No further Fuss & O'Neill comment.
- k. *Former Fuss & O'Neill Comment: HR 290-5.B.2.a. The applicant should provide calculations showing the required treatment of at least 50% of the entire site area.*
Current Fuss & O'Neill Comment: The applicant has noted that the total site area within Hudson is 10.2 acres and SMA G provides treatment for approximately 83 percent of the total site area. No further Fuss & O'Neill comment.
- l. *Former Fuss & O'Neill Comment: HR 290-6. The applicant should consider the installation of orange construction fence at the wetland buffer impact area to ensure that wetland buffer impacts are minimized to the areas illustrated upon the site plan.*
Current Fuss & O'Neill Comment: The applicant has noted that orange construction fence will be considered at the wetland buffer impact area, and that the Contractor is confident that their work will not disturb any buffer areas. No further Fuss & O'Neill comment.
- m. *Former Fuss & O'Neill Comment: HR 290-6. We note NHDES requires a double row of perimeter controls (silt socks/fence) within 50' of wetlands onsite.*
Current Fuss & O'Neill Comment: The applicant has noted that double row of perimeter controls is shown on the plans for work with 50 feet of wetlands. No further Fuss & O'Neill comment.
- n. *Former Fuss & O'Neill Comment: HR 290-6.A.8. We note the requirement of the applicant to coordinate a pre-construction meeting with the Town Engineer.*
Current Fuss & O'Neill Comment: The applicant has added a note to the plans that addresses this comment. No further Fuss & O'Neill comment.
- o. *Former Fuss & O'Neill Comment: HR 290-6.A.9. The applicant should add the required disturbed area note to the plan set. We note General Note #8 on Detail Sheet 42 currently calls for 45 days, rather than the Town required 30 days.*
Current Fuss & O'Neill Comment: The applicant has revised note #8 and noted that the disturbed area note is on the plan set. No further Fuss & O'Neill comment.
- p. *Former Fuss & O'Neill Comment: HR 290-7.A.6. The applicant should provide information as to how the stormwater system is designed to account for frozen ground conditions.*
Current Fuss & O'Neill Comment: The applicant has added a leaching catch basin to the middle of SMA G, which will help provide infiltration capabilities during frozen ground conditions and that the design infiltration rate used in analysis is half of the field rate of the amended soils layer. No further Fuss & O'Neill comment.

Mr. Brian Groth
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- q. *Former Fuss & O'Neill Comment: HR 290-7.A.6. The write up, BMP worksheets, and Infiltration Feasibility Report all reference the use of 3.0 or 5.0 iph infiltration rate. The applicant should provide additional information and/or conversion calculations to support the use of the infiltration rate. Does this rate utilize a factor of safety, does it follow typical current engineering practice as outlined within Env-Wq 1504.14(c), etc.*

Current Fuss & O'Neill Comment: The applicant has noted that infiltration testing has been performed on all of the infiltration basins since the initial submission and the design rate used was half of the tested field rate. The applicant noted that basin SMA G had a field rate in excess of the allowable limits and the applicant is proposing a 24-inch amended soil layer below the basin to slow the field rate to 10 inches per hour, 5 inches per hour design rate. No further Fuss & O'Neill comment.

- r. *Former Fuss & O'Neill Comment: HR 290-8.A.4. & 5. We note the requirement of the applicant to coordinate the need for a Bond or Escrow with the Town Engineer.*
- s. *Former Fuss & O'Neill Comment: HR 290-8.B.5. Due to the sheer size of the proposed project, the applicant should review with the Town if a formal agreement with legal description and signatures, or implementation of a Homeowners Association is required.*

Current Fuss & O'Neill Comment: The applicant has noted that this comment is understood, and that at this time a Homeowners Association is not being considered. The applicant should keep the Town informed of the intended ownership structure for the development and who will be responsible for maintenance of stormwater features. No further Fuss & O'Neill comment.

- t. *Former Fuss & O'Neill Comment: HR 290-8.A.10.A. The applicant should keep the Town informed of all communication with NHDES in relation to the required Alteration of Terrain and Wetlands Permits being requested to ensure NHDES comments do not alter drainage design/calculations. We note that additional items will be required for the NHDES AoT Permit, which could potentially affect the stormwater calculations and/or construction of the site. Please provide additional detail on the following items:*
- i. *We request the applicant review typical NHDES screening layers as well as the NHDES PFAS sampling maps.*
 - ii. *We note the phasing of the site will be required to meet or request a waiver from the 5-acre disturbed area limit from NHDES Env-1505.03.*
 - iii. *We note the phasing of the site will be required to meet or request a waiver from the 1-acre winter disturbed area limit from NHDES Env-1505.06(b)(1).*

Current Fuss & O'Neill Comment: The applicant has noted that coordination with AoT is ongoing, and they will keep the Town informed of any additional coordination with NHDES. The applicant included a PFAS Screening Memo with the current submission, which was completed since the initial submission.

- u. *Former Fuss & O'Neill Comment: ETGTD 910.8. The applicant should illustrate the required underdrain within all areas of cut upon both the plans as well as roadway profile, and where the underdrains tie into the drainage system or daylight.*

Current Fuss & O'Neill Comment: The applicant has added a note on plan sheet 34 that addresses this comment. No further Fuss & O'Neill comment.

Mr. Brian Groth
October 2, 2023
Page 7 of 8

- v. *Former Fuss & O'Neill Comment: The applicant will be required to comply with all provisions of the Town of Hudson's MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements. The applicant has noted that the project meets the 2019 MS4 requirements.*
- w. *Former Fuss & O'Neill Comment: Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state, or local laws, rules, or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric, and geotechnical conditions and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O'Neill be liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein, no other investigation or analysis has been requested by the Client or performed by Fuss & O'Neill in preparing this review.*

7. Zoning (ZO 334)

- a. *Former Fuss & O'Neill Comment: ZO 334-17 & 334-21. The applicant has noted that the subject parcel is located within the General – One (G-1) zoning district. The proposed self-storage use in Hudson is permitted by the Ordinance within this district. We do note that the multifamily use is not permitted, however there are no proposed multifamily units within the Hudson lot.*
- b. *Former Fuss & O'Neill Comment: ZO 334-33. The applicant has not shown any proposed impacts to the wetlands or wetlands setbacks on the plan set.*
- c. *Former Fuss & O'Neill Comment: ZO 334-60. The applicant has not proposed any signage on the Hudson lot.*
- d. *Former Fuss & O'Neill Comment: ZO 334-83 and HR 218-4.E. The applicant has noted that the site is partially located within a designated flood hazard area. The applicant has not proposed any construction within this area.*

8. Erosion Control/Wetland Impacts

- a. *Former Fuss & O'Neill Comment: The Town of Hudson should reserve the right to require any additional erosion control measures as needed. The applicant has noted this on the plans.*

9. Landscaping (HR 275-8.C.(7) & 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))

- a. *Former Fuss & O'Neill Comment: HR 275-8.C.(8). The applicant has not provided any landscaping or screening around the storage areas. We note that some of the existing tree line will be maintained around the Hudson abutting areas.*
- b. *Former Fuss & O'Neill Comment: HR 276-11.1.B.(14). The applicant has shown lighting fixture locations on the plans with details and photometric information.*
- c. *Former Fuss & O'Neill Comment: HR 276-11.1.B.(14). The applicant should note if the proposed lighting will be on during all nighttime hours, or provide the hours of operation on the plan set.*

Current Fuss & O'Neill Comment: The applicant has noted on the plan that lighting will be on during all nighttime hours. No further Fuss & O'Neill comment.

Mr. Brian Groth
October 2, 2023
Page 8 of 8

10. State and Local Permits (HR 275-9.G.)

- a. *Former Fuss & O'Neill Comment: HR 275-9.G. The applicant did not provide copies of any applicable Town, State or Federal approvals or permits in the review package.*

Current Fuss & O'Neill Comment: The applicant has noted that permits are pending.

- b. *Former Fuss & O'Neill Comment: The applicant has shown some areas with significant cuts to be performed. If blasting is required, the applicant is reminded of the requirements in Hudson Regulation 202.*

Current Fuss & O'Neill Comment: The applicant acknowledged the requirement. No further Fuss & O'Neill comment.

- c. *Former Fuss & O'Neill Comment: Additional local and state permitting may be required.*

11. Other

- a. *Former Fuss & O'Neill Comment: Hudson Engineering Technical Guidelines & Typical Details (ETGTD) Section 565.1.1. The applicant is reminded of Town of Hudson requirements for the importing of off-site fill materials for use in constructing this project.*

Current Fuss & O'Neill Comment: The applicant acknowledged the requirement. No further Fuss & O'Neill comment.

Please feel free to call if you have any questions.

Very truly yours,



Steven W. Reichert, P.E.

SWR:

Enclosure

cc: Town of Hudson Engineering Division – File
Hayner/Swanson, Inc. – jpetropulos@hayner-swanson.com

SITE PLAN APPLICATION

Date of Application: July 5, 2023 Tax Map #: 114 Lot #: 1
 Site Address: 255 DERRY ROAD, Litchfield, NH
 Name of Project: ROSE MEADOWS
 Zoning District: G-1: GENERAL ONE General SP#: 07-23
 (For Town Use Only)
 Z.B.A. Action: N/A

PROPERTY OWNER:

DEVELOPER:

Name: 255 DERRY ROAD LLC
 Address: One Continental Drive
 Address: LONDONDERRY, NH 03053
 Telephone # 603-370-0103
 Email: Rcharbonneau@continentalpaving.com

SAME AS OWNER

PROJECT ENGINEER:

SURVEYOR:

Name: WAYNER/SWANSON, INC.
 Address: 3 CONGRESS ST.
 Address: NASHUA, NH 03002
 Telephone # 603-883-2057
 Email: jpetropulos@wayner-swanson.com

WAYNER/SWANSON, INC.
3 CONGRESS ST.
NASHUA, NH 03002
603-883-2057
dpollock@wayner-swanson.com

PURPOSE OF PLAN:

TO SHOW IMPROVEMENTS UPON SUBJECT SITE THAT WILL SUPPORT A 172 UNIT RESIDENTIAL DEVELOPMENT IN Litchfield, NH

(For Town Use Only)

Routing Date: 7/18/23 Deadline Date: 7/25/23 Meeting Date: TBD

I have no comments I have comments (attach to form)

CJS Title: ZONING ADMINISTRATOR Date: 7/25/23
(Initials)

Department: LAND USE

Zoning: Engineering: Assessor: Police: Fire: DPW: Consultant:

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GAME AS OWNER

Email: Rcharbonneau@continentalpaving.com

PROJECT ENGINEER:

SURVEYOR:

Name: WAYNER/SWANSON, INC.
 Address: 3 Congress St.
 Address: NASHUA, NH 03002
 Telephone # 603-883-2057
 Email: jpetropoulos@wayner-swanson.com

WAYNER/SWANSON, INC.
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(For Town Use Only)

Routing Date: 7/18/23 Deadline Date: 7/25/23 Meeting Date: TBD

X

I have no comments _____ I have comments (attach to form)

SCM

Title: Captain Steven McElhinney

Date: 07/26/23

(Initials)

Department:

Zoning: ___ Engineering: ___ Assessor: ___ Police: X Fire: ___ DPW: ___ Consultant: ___

SITE PLAN APPLICATION

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 Z.B.A. Action: N/A

PROPERTY OWNER:

DEVELOPER:

Name: 255 DERRY ROAD LLC
 Address: One Continental Drive
 Address: LONDONDERRY, NH 03053
 Telephone # 603-370-0103
 Email: Rcharbonneau@continentalpaving.com

SAME AS OWNER

PROJECT ENGINEER:

SURVEYOR:

Name: WAYNER/SWANSON, INC.
 Address: 3 CONGRESS ST.
 Address: NASHUA, NH 03002
 Telephone # 603-883-2057
 Email: jpetropulos@wayner-swanson.com

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SUPPORT A 172 UNIT RESIDENTIAL DEVELOPMENT IN
Litchfield, NH

(For Town Use Only)

Routing Date: 7/18/23 Deadline Date: 7/25/23 Meeting Date: TBD

I have no comments I have comments (attach to form)

DRH Title: Fire Marshal Date: 7/25/23
 (Initials)

Department:

Zoning: Engineering: Assessor: Police: Fire: DPW: Consultant:

Meeting Date: 11/29/23

SP #07-23 Rose Meadows Site Plan - Attachment B



TOWN OF HUDSON

FIRE DEPARTMENT

INSPECTIONAL SERVICES DIVISION



12 SCHOOL STREET, HUDSON, NEW HAMPSHIRE 03051

Emergency 911
Business 603-886-6005
Fax 603-594-1142

Scott Tice
Chief of Department

TO: Brian Groth
Town Planner

FR: David Hebert
Fire Marshal

DT: July 25, 2023

RE: 255 Derry Road-Self-Storage Buildings

Developer to provide and install a Knox lock on the gate to the fenced in area to the self-storage buildings for Fire Department access

David Hebert
Fire Marshall

SITE PLAN APPLICATION

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 Email: RCHARBONNEAU@CONTINENTALPAVING.COM

DEVELOPER:

SAME AS OWNER

PROJECT ENGINEER:

Name: WAYNEZ/SWANSON, INC.
 Address: 3 CONGRESS ST.
 Address: NASHUA, NH 03002
 Telephone # 603-883-2057
 Email: jpetrooulos@waynez-swanson.com

SURVEYOR:

WAYNEZ/SWANSON, INC.
3 CONGRESS ST.
NASHUA, NH 03002
603-883-2057
cdollock@waynez-swanson.com

PURPOSE OF PLAN:

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(For Town Use Only)

Routing Date: 7/18/23 Deadline Date: 7/25/23 Meeting Date: TBD

I have no comments I have comments (attach to form)

AW Title: Public Works Director Date: 7/25/23
 (Initials)

Department:

Zoning: Engineering: Assessor: Police: Fire: DPW: Consultant:

SITE PLAN APPLICATION

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DEVELOPER:

SAME AS OWNER

Email: Rcharbonneau@continentalpaving.com

PROJECT ENGINEER:

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(For Town Use Only)

Routing Date: 7/18/23 Deadline Date: 7/25/23 Meeting Date: TBD

[Signature] I have no comments I have comments (attach to form)
 (Initials) Title: Chief Assessor Date: 7-25-23

Department: _____

Zoning: ___ Engineering: ___ Assessor: ___ Police: ___ Fire: ___ DPW: ___ Consultant: ___

From: Dhima, Elvis
Sent: Wednesday, July 26, 2023 4:35 PM
To: Jeffrey McClure (mcclurej@wseinc.com); Provost, Jeffrey; Ryan Charbonneau; rcharbonneau@continentalpaving.com; Jay Minkarah; Groth, Brian; Tice, Scott; Hebert, David; Boisvert, John; Dubowik, Brooke; jpetropulos@hayner-swanson.com
Subject: Rose Meadows (Litchfield Project)
Attachments: Overall Plan.jpg

Everyone

The only comment Hudson Engineering Dep. has about this project is related to water (domestic and fire protection)

There are some restriction here related to domestic and fire protection due to the suction line and Hickory Booster station (knows as Rt 102 Booster in Hudson)

Jim, please provide W&S (Hudson water consultant) with the cad files for this project

Jeff, please provide a proposal to Rick or Jim about the fee to get the review and recommendations done

Jay, I would request that a stipulation be included to the PB approval on Litchfield side that the water utility be addressed prior to the first CO gets issued

Brian, I have no comments about this project on the Hudson side

Thank you all and let me know if you need anything from me

E

Elvis Dhima, P.E.
Town Engineer

12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286



From: Dhima, Elvis
Sent: Monday, November 13, 2023 6:12 PM
To: rcharbonneau@continentalpaving.com; Jay Minkarah; Boisvert, John; jpetropulos@hayner-swanson.com; Doug Nicoll; Don Ware; Countie, Chris
Cc: Jeffrey McClure (mcclurej@wseinc.com); Provost, Jeffrey; Ryan Charbonneau; Groth, Brian; Tice, Scott; Hebert, David
Subject: Updated Rose Meadow Developer Review

Everyone

W&S has completed the review for 1,000 gpm and the file its about 22 MB

Jeff, please send out a link for everyone to download this

From Hudson stand point

1. Domestic flows are not an issue
2. Required fireflows by Litchfield FD at 1,000 gpm , **cannot** be achieved throughout the proposed site, if Merrimack River Booster Station is offline while maintaining 20 psi residual pressure within the development
3. Fire flow requirements and necessary adjustments will have to be worked out between the applicant and Litchfield FD
4. Hudson ENG & FIRE Dep will be informed of the final outcome of this matter
5. Hudson has no further comments

Thank you

E

Elvis Dhima, P.E.
Town Engineer

12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286



From: Dhima, Elvis
Sent: Thursday, October 19, 2023 4:09 PM
To: 'rcharbonneau@continentalpaving.com' <rcharbonneau@continentalpaving.com>; 'Jay Minkarah' <JayM@nashuarpc.org>; 'Boisvert, John' <john.boisvert@PENNICHUCK.com>; 'jpetropulos@hayner-swanson.com' <jpetropulos@hayner-swanson.com>; 'Doug Nicoll' <dnicoll@litchfieldfd.com>; 'Don Ware' <donald.ware@PENNICHUCK.com>; 'Countie, Chris' <chris.countie@pennichuck.com>
Cc: 'Jeffrey McClure (mcclurej@wseinc.com)' <mcclurej@wseinc.com>; 'Provost, Jeffrey' <provostj@wseinc.com>; 'Ryan Charbonneau' <rycharbonneau@continentalpaving.com>; 'Groth, Brian' <bgroth@hudsonnh.gov>; 'Tice, Scott'

Meeting Date: 11/29/23

SP #07-23 Rose Meadows Site Plan - Attachment B

<STice@hudsonnh.gov>; Hebert, David <dhebert@hudsonnh.gov>

Subject: FW: Rose Meadow Developer Review

Everyone

Please see below for the executive summary and attached is the final report

From Hudson stand point

1. Domestic flows are not an issue
2. Required fireflows by Litchfield FD at 1,500 gpm , cannot be achieved ,
3. Two options to achieve 1500 gpm would be through option 3 listed below or fire cisterns at the site to make up the difference
4. Fire flow requirements will have to be worked out between the applicant and Litchfield FD
5. Hudson has no further comments or requirements

Thank you W&S , Rick & Pen for working together to get this done

E

Elvis Dhima, P.E.
Town Engineer

12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286



From: Provost, Jeffrey <provostj@wseinc.com>
Sent: Wednesday, October 18, 2023 5:07 PM
To: Dhima, Elvis <edhima@hudsonnh.gov>
Cc: McClure, Jeffrey <mcclurej@wseinc.com>
Subject: RE: Rose Meadow Developer Review

EXTERNAL: Do not open attachments or click links unless you recognize and trust the sender.

Elvis,

Please find our memo of the Rose Meadows developer review attached to this email.

Jeff

From: Provost, Jeffrey
Sent: Friday, October 6, 2023 3:17 PM
To: Dhima, Elvis <edhima@hudsonnh.gov>
Cc: McClure, Jeffrey <mcclurej@wseinc.com>
Subject: Rose Meadow Developer Review

Elvis,

The results of our hydraulic analysis of the Rose Meadow development are as follows:

The Litchfield water system can meet the projected domestic demands of the proposed development under all normal conditions of flow (including Max Day demands and Peak Hour demands) with the proposed connection to the Litchfield water system as shown on plans dated 25 January 2023 by Hayner/Swanson, Inc. All normal conditions of flow to the Route 102 pump station can also be maintained with the proposed Rose Meadow development present.

Our assessment of fire flow and the ability of the Litchfield water system to furnish 1,500 gpm to the proposed development, per request of the Litchfield Fire Department, while maintaining greater than 20 psi residual pressure to all points in the Litchfield water system and to the suction side of the Route 102 pump station is summarized as follows:

Per our contract, we reviewed fireflow availability under various water supply conditions including:

- Dame/Ducharme, Weinstein wells, MRBS and Taylor Falls online,
- Weinstein Well only, MRBS and Taylor Falls online,
- Dame/Ducharme, Weinstein wells only online,
- MRBS and Taylor Falls online,
- MRBS only online,
- Taylor Falls only online,
- No existing sources online.

1. The model results indicate that 1,500 gpm of fireflow can be delivered to the entrance to the site on Derry Road (Route 102) under the first two supply options only as listed above. However, 1,500 gpm of fireflow **CANNOT** be furnished to all points within the development. The proposed distribution system within the development is 8-inch ductile iron pipe. Upon modeling 12-inch ductile iron pipe throughout the proposed development, the model indicated that 1,500 gpm of fireflow still could not be delivered to all points within the development.
2. We supplemented the proposed 12-inch water main in Derry Road (as originally proposed) in the model with additional 12-inch water main in Cutler Road in Litchfield (from the end of the existing water system near the intersection of Cutler Road and Fernwood Drive to the proposed entrance to the Rose Meadow development on Derry Road). The model results indicated that 1,500 gpm of fireflow can be delivered to the entrance to the Rose Meadow development on Derry Road under the first three supply conditions only as listed above. However, 1,500 gpm of fireflow **CANNOT** be furnished to all points within the development even upon modeling 12-inch diameter main throughout the proposed development.
3. The last option that was reviewed, per our contract, was a connection of the Rose Meadow development to the Hudson distribution system; in particular the Marsh Road high service system. The Marsh Road service system extends up Old Derry Road in Hudson to approximately 44 Old Derry Road. We modeled a connection to the proposed development by extending 12-inch water main in Old Derry Road to the commercial properties located at 66 – 72 Old Derry Road and connected to the Rose Meadow development by simulating water main installed in the access drives of those commercial properties.
 - a. The model indicated that the Marsh Road high service system can meet the projected domestic demands of the proposed development under all normal conditions of flow (including Max Day demands and Peak Hour demands).
 - b. The model indicated that the Marsh Road high service system can furnish 1,500 gpm of fire flow to the Rose Meadow development **and to all points within the development** (with the proposed 8-inch diameter water main within the development) under the first four water supply scenarios listed above while maintaining greater than 20 psi residual pressure to all points in the Hudson water system. It should be noted that the existing Marsh Road pump station contains a 1,000 gpm pump for fire suppression and would require multiple pumps running in the station to meet the 1,500 gpm fire flow plus all domestic demand in the Marsh Road service system.

Meeting Date: 11/29/23

SP #07-23 Rose Meadows Site Plan - Attachment B

We are in the process of completing our letter report but wanted to deliver our findings to you via email prior to the completion of the report.

Jeff

The contents of this e-mail and any attachments are the property of the Weston & Sampson companies. The e-mail contents are only to be used by the intended recipient of the e-mail. If you are not the intended recipient, then use, disclosure, copying, distribution or reliance on the e-mail is prohibited. All professional advice from us should be obtained in writing (not e-mail).

From: Dhima, Elvis
Sent: Monday, October 16, 2023 4:07 PM
To: Ethan Beals
Cc: Groth, Brian
Subject: RE: Rose Meadows Outstanding Comments

Thank you Ethan

No further comments

E

Elvis Dhima, P.E.
Town Engineer

12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286





Hayner/Swanson, Inc.

Civil Engineers/Land Surveyors

September 18, 2023

Job # 5432

Mr. Brian Groth, Town Planner
Town of Hudson
12 School Street
Hudson, NH 03051

**RE: RESPONSE LETTER TO PLAN REVIEW COMMENTS
ROSE MEADOWS - PROPOSED RESIDENTIAL DEVELOPMENT
255 DERRY ROAD
LITCHFIELD/HUDSON, NH**

Dear Mr. Groth:

Pursuant to the above referenced project and in response to comments outlined in an August 1, 2023 review letter by Fuss & O'Neil, an email by the Town of Hudson Fire Department dated July 25, 2023 and an August 1, 2023 email by Elvis Dhima, all written to the Town of Hudson Planning Board, please find below our responses to each of these comments in **bold**.

Fuss & O'Neil Review Letter:

1. Site Plan Review Codes (HR 275)

- a. Hudson Regulations (HR) 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the proposed buildings. The buildings on the Hudson lot do not have any water services for fire protection. **Understood.**
- b. HR 275-6.T. The applicant has not proposed any off-site improvements on the Hudson site. We note that the site does not have direct access to any Town of Hudson roadways. **No response required.**
- c. HR 275-8.C.(2). and Zoning Ordinance (ZO) 334-15.A. The applicant has included two 6-bay parking garages on the Hudson side of the town line. These parking garages are associated with proposed buildings 29 and 30 on the Litchfield side of the project. There are no other designated parking spaces proposed for the facilities in Hudson. **No response required.**
- d. HR 275-8.C.(5). The applicant has provided adequate aisle width around the self-storage buildings. **No response required.**
- e. HR 275-9.F. The applicant provided copies of an easement and deed as part of the package received for review. We note that the easement provided does not affect the Hudson site. **No response required.**

2. Administrative Review Codes (HR 276)

- a. HR 276-7. The applicant did not list any waivers on the plan set nor include any waiver requests in the package received for review. **No response required.**

- b. HR 276-11.1.B.(4). The applicant should add the Hudson approval block to the detail sheets and profile sheets that pertain to Hudson. ***Please refer to the revised plans that now include the Hudson approval block on the requested sheets.***
- c. HR 276-11.1.B.(24). The applicant has not provided open space calculations on the plan set for the Hudson lot. We note that the open space for the Hudson lot appears to exceed the minimum required by the Regulation. ***Please refer to note 11 on sheet 1 of 43.***

3. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)

- a. HR 193.10. The applicant has not proposed any connections to Hudson Town roadways. All proposed driveways are in Litchfield. ***No response required.***

4. Traffic

- a. HR 275-9.B. Fuss & O'Neill, Inc. has reviewed the Traffic Impact and Access Study prepared for 255 Derry Road, LLC by GPI dated May 2023, for the proposed residential development. The project proposes to construct a 172-unit housing development, with access to the site provided via a driveway connecting to the existing Derry Road (NH Route 102) in Litchfield. We note that the site does not connect to any roadways within the Town of Hudson.

The analysis completed by GPI includes an estimate of the increase in expected traffic generated by the proposed housing development at intersections within the Town of Litchfield. The applicant has shown increases in wait time at these intersections although queue lengths will be one vehicle or less.

The procedures that the GPI report uses are reasonable, with the appropriate ITE trip generation information used for the scenario provided (ITE Land Use 215 – Single-Family Attached Housing). Additionally, the factors used for projecting the traffic data from existing to no-build and future-year conditions were all appropriate with sufficient calculations provided.

Overall, we believe the project should not have any significant impacts on the Hudson roadway network adjacent to the development, and the additional traffic associated with the 172-unit housing project will not require modifications within the Town of Hudson. GPI's conclusion that the proposed development can be safely and efficiently accommodated along the existing roadway network in Litchfield appears reasonable, however we did not review specific impacts to the road network or intersections within Litchfield. GPI has noted within the study that a NHDOT Driveway Permit is required and the provision for adding a southbound left-turn lane on Derry Road at the site driveway will be evaluated further during the NHDOT permitting process. This potential turn lane will improve Derry Road operations at the site driveway. ***No response required. A NHDOT Driveway Permit for this development has been submitted.***

5. Utility Design/Conflicts

- a. The applicant has not proposed any water or sewer connections on the Hudson lot. ***No response required.***

6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- a. HR 275. It is noted this development occurs over two separate municipalities, proposing a private road, accessed from Litchfield. The overall drainage analysis performed evaluates the complete watershed, rather than individual segmented lots within individual municipalities. This drainage/stormwater review takes into account the overall analysis of the project, with a general attention to the Hudson lot and the Northeast Point of Analysis (POA NE), as well as Combined (POA C). Stormwater treatment review consisted of the overall site with attention paid to Stormwater Management Area G – Infiltration Basin. **No response required.**
- b. HR 290-5.A.1. & 290-5.A.3. The applicant should provide language in the Drainage Report stating if and how low impact development (LID) strategies for stormwater runoff were evaluated for this project. **Language has been added to the Stormwater Management Report addressing the LID considerations made for the site.**
- c. HR 290-5.A.5. We note that although there is an overall decrease in flow of 0.33 cfs at POA C, there is a 0.02 cfs increase in flow in the 2-year storm at POA NE leaving the site/property line. The applicant should review this increase in flow at POA NE with the Town to verify if an increase is allowed, as well as provide the required waiver. The applicant should also review this increase at POA NE with NHDES, to ensure that the project meets Env-Wq 1507.06 - "Peak Runoff Control Requirements". **Please see the revised Stormwater Management Report. We note that there is a 0.11 cfs increase to POA NE. In our professional opinion, this increase, while measurable, is insignificant when looking at the overall size of the drainage area and the downstream area. More importantly, despite the proposed project being located in two towns, we have taken a wholistic approach to stormwater management and analyzed the site as a whole. As noted in the report, both POA NE and POA NW combine as a tributary to Chase Brook downstream of the site. When examined on a whole site basis to this combined POA, there is a reduction in peak flows leaving the site in the 2, 10, 25 and 50-year storm event. Furthermore, we note that the proposed Stormwater Management Area 'G' (SMA G) located on the Hudson portion of the property is sized to fully store and infiltrate the entire developed area in Hudson for up to and including the 50-year storm event. We are currently working through the AoT permitting process and will discuss the referenced increase with the Town Engineer prior to the Planning Board Meeting.**
- d. HR 290-5.A.5. We note there are volume increases in the 2-year and 10-year storm analysis at POA NE, and in all storms analyzed at both POA NW and POA C. The applicant should review these increases with the Town to verify if the increases are allowed, as well as provide the required waiver. The applicant should also review this increase with NHDES to ensure that the project meets Env-Wq 1507.05 - "Channel Protection Requirements". **We note that the proposed Stormwater Management Area 'G' (SMA G) located on the Hudson portion of the property is sized to fully store and infiltrate the entire developed area in Hudson for up to and including the 50-year storm event. We are currently working through the AoT permitting process and will discuss the referenced increases with the Town Engineer prior to the Planning Board Meeting.**

- e. HR 290-5.A.11. The applicant should provide additional information in the write up on the HydroCAD and the Post Development Drainage Area Map connection. We note the HydroCAD does not illustrate the individual drainage areas (111, 112, etc.) but rather an overall watershed that includes the smaller drainage areas. ***Sizing information for all pipes has been included in the Individual Drain Line Design Worksheet. The HydroCAD model was performed using the total drainage areas to each practice. This is an approach that has been successful and accepted by DES on past projects and DES has not made a comment on this approach for this project.***
- f. HR 290-5.A.11. The applicant should provide sizing information for the drainage culvert between FES 111 and FES 110, as well as all drainage items illustrated within the plan set. ***Sizing information for FES 111-110 has been added to the Individual Drain Line Design worksheet.***
- g. HR 290-5.A.11. The applicant should provide the outlet protection calculations for FES 110, as well as an outlet protection detail for the FES. We note that only headwall outlet protection details are included in the plan set. ***Riprap has been added to the referenced headwall and outlet protection calculations are provided in this submission.***
- h. HR 290-5.A.11. With the large volume of recent rainfall the area has been experiencing lately, the applicant should provide an overflow weir for SMA G (as well as other Stormwater Management Areas). This is in case of excess stormwater and the need to direct stormwater appropriately to minimize erosion. ***We note that SMA G is designed in accordance with NHDES standards. In response to this comment, we have added an overflow weir to the basin.***
- i. HR 290-5.B.1.b. The applicant should provide support material or calculations showing the required 80% TSS and 50% TP pollutant removals. ***Relevant support information is included herewith that demonstrates that a surface infiltration basin is capable of providing 90% TSS removal and between 98-100 % TP removal.***
- j. HR 290-5.B.2.a. The applicant should provide calculations showing the required treatment of at least 30% of the existing impervious cover and 50% of proposed additional impervious cover. ***The requested calculations are included herewith. The total site area in Hudson is approximately 10.2 acres. SMA G provides treatment for 8.5 of the 10.2 acres of total site area (83 percent) and 100 percent of the developed area (including impervious surfaces) in Hudson.***
- k. HR 290-5.B.2.a. The applicant should provide calculations showing the required treatment of at least 50% of the entire site area. ***The requested calculations are included herewith. The total site area in Hudson is approximately 10.2 acres. SMA G provides treatment for 8.5 of the 10.2 acres of total site area (83 percent) and 100 percent of the developed area in Hudson.***
- l. HR 290-6. The applicant should consider the installation of orange construction fence at the wetland buffer impact area to ensure that wetland buffer impacts are minimized to the areas illustrated upon the site plan. ***The Owner/Developer of this project is also the owner of Continental Paving, Inc., the Contractor for this project. CPI will consider using orange construction fencing along the wetland buffer line in the Hudson part of the project, however, they have complete confidence that their work will not disturb any buffer areas.***

- m. HR 290-6. We note NHDES requires a double row of perimeter controls (silt soxx/fence) within 50' of wetlands onsite. ***A double row of perimeter controls is shown on the plans for work within 50-feet of wetlands.***
- n. HR 290-6.A.8. We note the requirement of the applicant to coordinate a pre-construction meeting with the Town Engineer. ***Please refer to the Construction Note #8 added to sheet 2 of 43 that addresses this comment.***
- o. HR 290-6.A.9. The applicant should add the required disturbed area note to the plan set. ***Please refer to note #10 on sheet 42 of 43.*** We note General Note #8 on Detail Sheet 42 currently calls for 45 days, rather than the Town required 30 days. ***Revised as requested.***
- p. HR 290-7.A.6. The applicant should provide information as to how the stormwater system is designed to account for frozen ground conditions. ***A Leaching Catch basin has been added to the middle of SMA G. The leaching catch basin will help provide additional infiltration capabilities for the basin including during frozen ground condition. Additionally, it is noted that the design infiltration rate used in the analysis will be 1/2 of the field rate of the amended soils layer.***
- q. HR 290-7.A.6. The write up, BMP worksheets, and Infiltration Feasibility Report all reference the use of 3.0 or 5.0 iph infiltration rate. The applicant should provide additional information and/or conversion calculations to support the use of the infiltration rate. Does this rate utilize a factor of safety, does it follow typical current engineering practice as outlined within Env-Wq 1504.14(c), etc. ***In the time since the initial submission, infiltration testing was performed on all of the infiltration basins. In accordance with DES AoT regulations, the design rate used in the analysis was 1/2 the tested field rate. It should be noted that SMA G, the proposed infiltration basin in Hudson, had a field rate in excess of the allowable limits. Therefore, we are proposing a 24-inch amended soil layer below the basin which will slow the field rate down to 10 inches per hour, 5 inches per hour design rate.***
- r. HR 290-8.A.4. & 5. We note the requirement of the applicant to coordinate the need for a Bond or Escrow with the Town Engineer. ***Understood.***
- s. HR 290-8.B.5. Due to the sheer size of the proposed project, the applicant should review with the Town if a formal agreement with legal description and signatures, or implementation of a Homeowners Association is required. ***Understood. As of now, a Homeowners Association is not being considered for this development.***
- t. HR 290-8.A.10.A. The applicant should keep the Town informed of all communication with NHDES in relation to the required Alteration of Terrain and Wetlands Permits being requested to ensure NHDES comments do not alter drainage design/calculations. We note that additional items will be required for the NHDES AoT Permit, which could potentially affect the stormwater calculations and/or construction of the site. Please provide additional detail on the following items: ***Understood, coordination with AoT is ongoing, we will keep the Town informed on additional coordination with DES.***
 - i. We request the applicant review typical NHDES screening layers as well as the NHDES PFAS sampling maps. ***NHDES One Stop screening and PFAS Sampling Map was included in the initial submission. Since the initial submission,***

MSK Engineers has submitted a PFAS Screening Memo which is included herewith.

- ii. We note the phasing of the site will be required to meet or request a waiver from the 5-acre disturbed area limit from NHDES Env-1505.03. ***Understood.***
- iii. We note the phasing of the site will be required to meet or request a waiver from the 1-acre winter disturbed area limit from NHDES Env-1505.06(b)(1). ***Understood.***
- u. ETGTD 910.8. The applicant should illustrate the required underdrain within all areas of cut upon both the plans as well as roadway profile, and where the underdrains tie into the drainage system or daylight. ***Please refer to the note added to sheet 34 of 43 that addresses this comment.***
- v. The applicant will be required to comply with all provisions of the Town of Hudson's MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements. The applicant has noted that the project meets the 2019 MS4 requirements. ***Understood.***
- w. Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state, or local laws, rules, or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric, and geotechnical conditions and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O'Neill be liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein, no other investigation or analysis has been requested by the Client or performed by Fuss & O'Neill in preparing this review. ***Understood.***

7. Zoning (ZO 334)

- a. ZO 334-17 & 334-21. The applicant has noted that the subject parcel is located within the General – One (G-1) zoning district. The proposed self-storage use in Hudson is permitted by the Ordinance within this district. We do note that the multifamily use is not permitted, however there are no proposed multifamily units within the Hudson lot. ***No response required.***
- b. ZO 334-33. The applicant has not shown any proposed impacts to the wetlands or wetlands setbacks on the plan set. ***No response required.***
- c. ZO 334-60. The applicant has not proposed any signage on the Hudson lot. ***No response required.***
- d. ZO 334-83 and HR 218-4.E. The applicant has noted that the site is partially located within a designated flood hazard area. The applicant has not proposed any construction within this area. ***No response required.***

8. Erosion Control/Wetland Impacts

- a. The Town of Hudson should reserve the right to require any additional erosion control measures as needed. The applicant has noted this on the plans. ***No response required.***

9. Landscaping (HR 275-8.C.(7) & 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))

- a. HR 275-8.C.(8). The applicant has not provided any landscaping or screening around the storage areas. We note that some of the existing tree line will be maintained around the Hudson abutting areas. **No response required.**
- b. HR 276-11.1.B.(14). The applicant has shown lighting fixture locations on the plans with details and photometric information. **No response required.**
- c. HR 276-11.1.B.(14). The applicant should note if the proposed lighting will be on during all night time hours, or provide the hours of operation on the plan set. **Please see Construction Note 9 on Sheet 2 which notes that roadway lighting will be on during all nighttime hours.**

10.State and Local Landscaping Permits (HR 275-9.G.)

- a. HR 275-9.G. The applicant did not provide copies of any applicable Town, State or Federal approvals or permits in the review package. **Permits are pending.**
- b. The applicant has shown some areas with significant cuts to be performed. If blasting is required, the applicant is reminded of the requirements in Hudson Regulation 202. **Understood.**
- c. Additional local and state permitting may be required. **No response required.**

11.Other

- a. Hudson Engineering Technical Guidelines & Typical Details (ETGTD) Section 565.1.1. The applicant is reminded of Town of Hudson requirements for the importing of off-site fill materials for use in constructing this project. **Understood.**

Town of Hudson Fire Department Email:

1. Developer to provide and install a Knox lock on the gate to the fences in area to the self-storage buildings for a fire department access. **Please refer to note added to sheet 23 of 43 that addresses this comment.**

Elvis Dhima Email:

1. The applicant is currently working with Town of Hudson and Hudson Water Utility consultant to complete a peer review regarding domestic and fire protection. This review could result in recommendations that might require water utility improvements in Hudson and Litchfield. **Understood.**
2. Applicant should propose offsite improvements at the proposed entrance based on the traffic challenges and accidents at Cutler Road and Route 102 and Page Street and Route 102. **GPI, the project's traffic consultant is evaluating this situation as part of their response to the NRPC comments on the submitted traffic study.**

As always, please feel free to contact me if you have any questions regarding this letter or the project.

Respectfully,

A handwritten signature in black ink, appearing to read 'JP', with a large, sweeping flourish extending to the left.

James N. Petropulos, P.E.
Principal Engineer/President
Hayner/Swanson, Inc.



Civil Engineers/Land Surveyors

October 16, 2023
Job # 5432

Mr. Elvis Dhima, P.E., Town Engineer
Town of Hudson
12 School Street
Hudson, NH 03051

**RE: RESPONSE LETTER TO OUTSTANDING COMMENTS
ROSE MEADOWS - PROPOSED RESIDENTIAL DEVELOPMENT
255 DERRY ROAD
LITCHFIELD/HUDSON, NH**

Dear Mr. Dhima:

Pursuant to the above referenced project and in response to comments outlined in an October 2, 2023 review letter by Fuss & O'Neil, and a discussion with yourself on the below items, please find below our responses to each of these comments below in **bold**.

Fuss & O'Neil Review Letter:

1. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- e. *Former Fuss & O'Neill Comment: HR 290-5.A.11. The applicant should provide additional information in the write up on the HydroCAD and the Post Development Drainage Area Map connection. We note the HydroCAD does not illustrate the individual drainage areas (111, 112, etc.) but rather an overall watershed that includes the smaller drainage areas.*

Current Fuss & O'Neil Comment: The applicant has noted that this approach has been accepted by the NHDES on past projects and that the NHDES has not commented on this approach for this project. We recommend that the applicant provide updated HydroCAD information to the Town for review should the NHDES comment on this approach during their AoT review and revisions become necessary.

HSI Response: Attached herewith is the Post-Development HydroCAD Analysis which includes an expanded analysis showing all of the pipes, structures and drainage areas on the Hudson portion of the development. Additionally, we note that NHDES AoT has signed off on the stormwater related items of the project and are just waiting for NHFG to finalize their recommendations before issuing a permit.

2. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- c. *Former Fuss & O'Neill Comment: HR 290-5.A.5. We note that although there is an overall decrease in flow of 0.33 cfs at POA C, there is a 0.02 cfs increase in flow in the 2-year storm at POA NE leaving the site/property line. The applicant should review this increase in flow at POA NE with the Town to verify if an increase is allowed, as well as*

provide the required waiver. The applicant should also review this increase at POA NE with NHDES, to ensure that the project meets Env-Wq 1507.06 - "Peak Runoff Control Requirements".

Current Fuss & O'Neill Comment: The applicant has provided an explanation for the slight increase in flow and overall site impacts for the 2-year storm at the noted POA. The applicant has noted that they will discuss the referenced increase with the Town Engineer and that they are currently working through the AoT process. No further Fuss & O'Neill comment.

HSI Response: *As discussed on the phone, our approach to stormwater management for this project was to take a wholistic approach and analyze the site as a whole regardless of the jurisdiction (Litchfield/Hudson). That being said, there are two intermediate points of analysis (POA NW and POA NE). POA NE receives runoff from the Hudson portion of the site plus a large portion of land in Litchfield. As noted in the Stormwater Management Report, both POA NE and POA NW flow in a northwestern direction into a wetland/tributary associated with Chase Brook. Therefore, we also analyzed the total amount of runoff leaving the site and ultimately flowing into this wetland/tributary as POA C. While there is a slight increase (0.11cfs) to POA NE in the 2-year storm, there is an overall net decrease in peak flows leaving the site in the 2, 10, 25 and 50-year storm events to POA C.*

- d. Former Fuss & O'Neill Comment: HR 290-5.A.5. We note there are volume increases in the 2-year and 10-year storm analysis at POA NE, and in all storms analyzed at both POA NW and POA C. The applicant should review these increases with the Town to verify if the increases are allowed, as well as provide the required waiver. The applicant should also review this increase with NHDES to ensure that the project meets Env-Wq 1507.05 - "Channel Protection Requirements".

Current Fuss & O'Neill Comment: The applicant has noted that they will discuss the referenced increases with the Town Engineer prior to the Planning Board meeting. No further Fuss & O'Neill comment.

HSI Response: *In response to this comment, we have included further stormwater analysis and attached it herewith. This additional information analyzes the peak volumes leaving the Hudson portion of the development. Based on the information provided there is a reduction in peak volumes leaving the Hudson portion of the site in the 2, 10, 25 and 50-year storm events.*

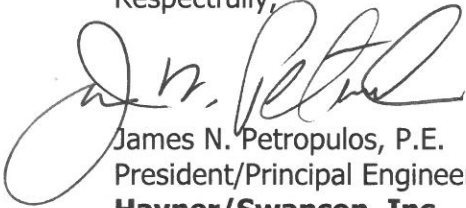
Based on our responses to the three comments above and the support information included herewith, it is our professional opinion that the proposed Rose Meadow Development meets the requirements set forth in the Town of Hudson Stormwater Management Regulations (Chapter 290).

Elvis Dhima Water Email:

In response to your request for plan modifications regarding the proposed water extension, Sheets 23 & 24 are included herewith and have been revised as requested.

As always, please feel free to contact me if you have any questions regarding this letter or the project.

Respectfully,

A handwritten signature in black ink, appearing to read "J. N. Petropulos". The signature is fluid and cursive, with a large initial "J" and "P".

James N. Petropulos, P.E.
President/Principal Engineer
Hayner/Swanson, Inc.

From: Dhima, Elvis
Sent: Monday, October 16, 2023 4:07 PM
To: Ethan Beals
Cc: Groth, Brian
Subject: RE: Rose Meadows Outstanding Comments

Thank you Ethan

No further comments

E

Elvis Dhima, P.E.
Town Engineer

12 School Street
Hudson, NH 03051
Phone: (603) 886-6008
Mobile: (603) 318-8286



From: Ethan Beals <ebeals@hayner-swanson.com>
Sent: Monday, October 16, 2023 3:57 PM
To: Dhima, Elvis <edhima@hudsonnh.gov>
Cc: Groth, Brian <bgroth@hudsonnh.gov>
Subject: Rose Meadows Outstanding Comments

EXTERNAL: Do not open attachments or click links unless you recognize and trust the sender.

Hi Elvis,

As a follow up to our discussion last week and in preparation of an appearance before the Planning Board, please find attached a response letter and support information. We have provided the requested expanded analysis, responded to the Peak Flow comment and offered supplemental volume analysis on just the Hudson portion of the property to demonstrate we are in compliance with the regulations.

Additionally attached are the two water main extension sheets that we have revised as you requested last week.

On behalf of our client, we respectfully request your review of attached materials. It is our professional opinion that, with the responses and support provided, the Rose Meadows project has been developed in accordance with the Town of Hudson Stormwater Regulations. We await your response so that we can proceed accordingly.

Best
Ethan

Ethan Beals

Project Manager

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3 Congress Street

Nashua, NH 03062

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