Project Application
Land Use Department

P.O. Box 660; 333 Calef Hwy, Barrington, NH 03825 ♦ Phone: 603-664-5798 ♦ Fax: 603-664-0188

Case Number:_____ **Project Name:** Major Subdivision for Paul Thibodeau **Date** 2/15/23

Staff Signature required PRIOR to submittal

PRELIMINARY APPLICATION: Preliminary Conceptual Review ____ Design Review____ Development of Regional Impact ____

FORMAL APPLICATION:
Subdivision Type: Major X Minor____ Conventional____ Conservation X
Site Plan Review: Major____ Minor____
Conditional Use Permit ____ Sign Permit ____ Boundary Line Adjustment ____ Special Permit ____
Change of Use ____ Extension for Site Plan or Subdivision Completion ____
Amendment to Subdivision/Site Plan Approval ____ Other ____

Project Name: Thibodeau Subdivision **Area (**Acres or S.F**)** 65.55
Project Address: Young Rd
Current Zoning District(s): Neighborhood Residential **Map(s)** 240 **Lot(s)** 8
Request: To subdivide the property into 23 Lots using the Conservation Subdivision Ordinance.

The property owner shall designate an agent for the project. This person (the applicant) shall attend pre-application conferences and public hearings, will receive the agenda, recommendations, and case reports, and will communicate all case information to other parties as required.
All contacts for this project will be made through the *Applicant* listed below.

Owner: Norma Bearden
Company_____
Phone: _____ Fax: _____ E-mail:_____
Address: 802 North Union St, Natchez, MS 39120

Applicant (Contact): Paul Thibodeau
Company_____
Phone: 603-767-3552 Fax: _____ E-mail: paulthibodeau1@gmail.com
Address: 76 Young Rd, Barrington, NH 03825

Developer: _____
Company _____
Phone: _____ Fax: _____ E-mail: _____
Address: _____

Architect: _____
Company _____
Phone: _____ Fax: _____ E-mail: _____
Address: _____

Engineer: Kenneth A. Berry, PE, LLS
Company Berry Surveying & Engineering
Phone: 603-332-2863 Fax: _____ E-mail: Crberry@Metrocast.net
Address: 335 Second Crown Point Rd, Barrington, NH 03825

_____ _____
Owner Signature Applicant Signature
2/15/23
_____ _____
Staff Signature Date

TOWN OF BARRINGTON - LAND USE DEPARTMENT

PROJECT NARRATIVE

PROJECT NAME Proposed Subdivision For Paul Thibodeau CASE FILE NUMBER

PROJECT LOCATION Young Road

DATE OF APPLICATION 2-15-23

Property Details:

Single-Family x Residential Multi-Family Residential Commercial Industrial

Current Zoning: Neighborhood Residential Lot Area Size 65.55

Setbacks: Front 40' Conventional 100' Conservation Side 30' Conventional 20' Conservation Rear 30' Conventional 20' Conservation

Parking Spaces Required: 0 Parking Spaces Provided: 0

Please describe your project and its purpose and intent. You may attach a typed description.

The applicant is proposing to subdivide the subject parcel using the Conservation Subdivision Ordinance. A yield plan was developed which provides for 23 lots in a conventional subdivision layout. The applicant is proposing the same 23 lots in a subdivision that utilizes the existing roadway infrastructure and does not propose any new roadways. The proposed open space for the project is central to the most valuble recources on the property and is adjacent to the protected lands owned by the Town and eased by SELT.

There is an existing cistern on the project site.

The applicant proposes to keep an existing trail through the property to the conserved land open and free of proposed driveways and lots. Shared driveways will be proposed in areas which lend to the best sight distances so as to reduce the number of curb cuts needed for the project. The application has received a variance to allow the driveways to be within the front buffer, to allow the front buffer to be reduced on certian lots, and to allow the front buffer to be incorporated into the lots. The application has also recieved a special exception to permit driveways to be within easements that are off the lots frontage.

Wetlands have been delineated and survey located on the project site. Prime Wetland #4 is located in the middle of the parcel and as such the 100' buffer is shown in areas where it is not otherwise affected by the 50' wetlands buffer. Areas less than 3,000 SF to not require buffers. The project design does not require any 9.6 requests.

The applicant has incororated the connections to the open space area previously discussed at the Preliminary Hearing. In addition the final plans now provided for driveway locations and sight line profiles in each direction. There is one less driveway provided in this design from the previous design due to the conerns the board and abutting land owners had.

Applicant: _____ Case# _____

Subdivision, Site Review, and Lot Line Adjustment Application Checklist
Barrington Planning Board
Adopted January 20, 2009

This checklist is intended to assist applicants in preparing a complete application for subdivision as required by the Barrington Subdivision Regulations and must be submitted along with all subdivision applications. An applicant seeking subdivision approval shall be responsible for all requirements specified in the Barrington Subdivision Regulations even if said requirements are omitted from this checklist.

An applicant seeking subdivision approval shall be responsible for providing all the information listed in the column below entitled "Subdivision" and should place an "x" in each box to indicate that this information has been provided. If an item is considered unnecessary for certain applications the "NA" box should be marked instead indicating "Not Applicable". Only certain checklist items are required for lot line adjustments, as noted by the applicable check boxes below.

Check The Appropriate Box or Boxes Below: ☐ **Lot Line Relocation** **See Section I & II** ☐ **Site Plan** **See Sections I & II** ☐ **Subdivision Plan** **See Sections I, II, III, IV & V**				
	Provided	**NA**		
Section I. **General Requirements**				
1. Completed Application Form	☐	☐		
2. Complete abutters list	☐	☐		
3. Payment of all required fees	☐	☐		
4. Five (5) full size sets of plans and six (2) sets of plans 11" by 17" submitted with all required information in accordance with the subdivision regulations and this checklist	☐	☐		
5. Copies of any proposed easement deeds, protective covenants or other legal documents	☐	☐		
6. Any waiver request(s) submitted with justification in writing	☐	☐		
7. Technical reports and supporting documents (see Sections IX & X of this checklist)	☐	☐		
8. Completed Application Checklist	☐	☐		
Section II. **General Plan Information**				
1. Size and presentation of sheet(s) per registry requirements and the subdivision regulations	☐	☐		
2. Title block information:	☐	☐		
a. Drawing title	☐	☐		
b. Name of subdivision	☐	☐		
c. Location of subdivision	☐	☐		
d. Tax map & lot numbers of subject parcel(s)	☐	☐		

e. Name & address of owner(s)	☐	☐		
f. Date of plan	☐	☐		
g. Scale of plan	☐	☐		
h. Sheet number	☐	☐		
i. Name, address, & telephone number of design firm	☐	☐		
j. Name and address of applicant	☐	☐		
3. Revision block with provision for amendment dates	☐	☐		
4. Planning Board approval block provided on each sheet to be recorded	☐	☐		
5. Certification block (for engineer or surveyor)	☐	☐		
6. Match lines (if any)	☐	☐		
7. Zoning designation of subject parcel(s) including overlay districts	☐	☐		
8. Minimum lot area, frontages & setback dimensions required for district(s)	☐	☐		
9. List Federal Emergency Management Agency (FEMA) sheet(s) used to identify100-year flood elevation, locate the elevation	☐	☐		
10. Note the following: "If, during construction, it becomes apparent that deficiencies exist in the approved design drawings, the Contractor shall be required to correct the deficiencies to meet the requirements of the regulations at no expense to the Town."	☐	☐		
11. Note the following: "Required erosion control measures shall be installed prior to any disturbance of the site's surface area and shall be maintained through the completion of all construction activities. If, during construction, it becomes apparent that additional erosion control measures are required to stop any erosion on the construction site due to actual site conditions, the Owner shall be required to install the necessary erosion protection at no expense to the Town."	☐	☐		
12. Note identifying which plans are to be recorded and which are on file at the town.	☐	☐		
13. Note the following: "All materials and methods of construction shall conform to Town of Barrington Subdivision Regulations and the latest edition of the New Hampshire Department of Transportation's Standard Specifications for Road & Bridge Construction."	☐	☐		
14. North arrow	☐	☐		
15. Location & elevation(s) of 100-year flood zone per FEMA Flood Insurance Study	☐	☐		
16. Plan and deed references	☐	☐		
17. The following notes shall be provided:	☐	☐		
a. Purpose of plan	☐	☐		
b. Existing and proposed use	☐	☐		
c. Water supply source (name of provider (company) if offsite)	☐	☐		
d. Zoning variances/special exceptions with conditions	☐	☐		
e. List of required permits and permit approval numbers	☐	☐		
f. Vicinity sketch showing 1,000 feet surrounding the site	☐	☐		
g. Plan index indicating all sheets	☐	☐		
18. Boundary of entire property to be subdivided	☐	☐		
19. Boundary monuments	☐	☐		
a. Monuments found	☐	☐		
b. Map number and lot number, name addresses, and zoning of all abutting land owners	☐	☐		
c. Monuments to be set	☐	☐		
20. Existing streets:	☐	☐		
a. Name labeled	☐	☐		
b. Status noted or labeled	☐	☐		
c. Right-of-way dimensioned	☐	☐		
d. Pavement width dimensioned	☐	☐		
21. Municipal boundaries (if any)	☐	☐		

22. Existing easements (identified by type)	☐	☐		
A) Drainage easement(s)	☐	☐		
B) Slope easements(s)	☐	☐		
C) Utility easement(s)	☐	☐		
D) Temporary easement(s) (Such as temporary turnaround	☐	☐		
E) No-cut zone(s) along streams & wetlands (as may be requested by the F) Conservation Commission)	☐	☐		
G) Vehicular & pedestrian access easement(s)	☐	☐		
H) Visibility easement(s)	☐	☐		
I) Fire pond/cistern(s)	☐	☐		
J) Roadway widening easement(s)	☐	☐		
K) Walking trail easement(s)	☐	☐		
a) Other easement(s) Note type(s)	☐	☐		
23. Designation of each proposed lot (by map & lot numbers as provided by the assessor)	☐	☐		
24. Area of each lot (in acres & square feet):	☐	☐		
a. Existing lot(s)	☐	☐		
b. Contiguous upland(s)	☐	☐		
25. Wetland delineation (including Prime Wetlands):	☐	☐		
a. Limits of wetlands	☐	☐		
b. Wetland delineation criteria	☐	☐		
c. Wetland Scientist certification	☐	☐		
26. Owner(s) signature(s)	☐	☐		
27. All required setbacks	☐	☐		
28. Physical features	☐	☐		
a. Buildings	☐	☐		
b. Wells	☐	☐		
c. Septic systems	☐	☐		
d. Stone walls	☐	☐		
e. Paved drives	☐	☐		
f. Gravel drives	☐	☐		
29. Location & name (if any) of any streams or water bodies	☐	☐		
30. Location of existing overhead utility lines, poles, towers, etc.	☐	☐		
31. Two-foot contour interval topography shown over all subject parcels	☐	☐		
32. Map and lot numbers, name, addresses, and zoning of all abutting land owners	☐	☐		
Section III **Proposed Site Conditions Plan** **(Use Sections I General Requirements & Section II General Plan Information)**				
1. Surveyor's stamp and signature by Licensed Land Surveyor	☐	☐		
2. Proposed lot configuration defined by metes and bounds	☐	☐		
3. Proposed easements defined by metes & bounds. Check each type of proposed easement applicable to this application:	☐	☐		
a. Drainage easement(s)	☐	☐		
b. Slope easement(s)	☐	☐		
c. Utility easement(s)	☐	☐		
d. Temporary easement(s) (such as temporary turnaround)	☐	☐		
e. Roadway widening easement(s)	☐	☐		
f. Walking trail easement(s)	☐	☐		
g. Other easement(s) Note type(s)	☐	☐		
4. Area of each lot (in acres & square feet):	☐	☐		
a. Total upland(s)	☐	☐		

b. Contiguous uplands(s)	☐	☐		
5. Proposed streets:	☐	☐		
a. Name(s) labeled	☐	☐		
b. Width of right-of-way dimensioned	☐	☐		
c. Pavement width dimensioned	☐	☐		
6. Source and datum of topographic information (USGS required)	☐	☐		
7. Show at least one benchmark per sheet (min.) and per 5 acres (min.) of total site area	☐	☐		
8. Soil Conservation Service (SCS) soil survey information	☐	☐		
9. Location, type, size & inverts of the following (as applicable):	☐	☐		
a. Existing water systems	☐	☐		
b. Existing drainage systems	☐	☐		
c. Existing utilities	☐	☐		
10. 4K affluent areas with 2 test pit locations shown with suitable leaching areas	☐	☐		
11. Location of all water wells with protective radii as required by the NH Department Of Environmental Services (meeting Town and NHDES setback requirements)	☐	☐		
12. Existing tree lines	☐	☐		
13. Existing ledge outcroppings & other significant natural features	☐	☐		
14. Drainage, Erosion and Sediment Control Plan(s) containing all of the requirements specified in Section 16.3.2 (Final Plan Requirements) of the Subdivision Regulations	☐	☐		
Section IV **Construction Detail Drawings**				
Note: Construction details to conform with NHDOT Standards & Specifications for Roads & Bridges, Town of Barrington Highway Department requirements, and Subdivision Regulations	☐	☐		
1. Typical cross-section of roadway	☐	☐		
2. Typical driveway apron detail	☐	☐		
3. Curbing detail	☐	☐		
4. Guardrail detail	☐	☐		
5. Sidewalk detail	☐	☐		
6. Traffic signs and pavement markings	☐	☐		
7. Drainage structure(s):	☐	☐		
8. Outlet protection riprap apron	☐	☐		
9. Level spreader	☐	☐		
10. Treatment swale	☐	☐		
11. Typical section at detention basin	☐	☐		
12. Typical pipe trench	☐	☐		
13. Fire protection details	☐	☐		
14. Erosion control details:	☐	☐		
15. Construction Notes	☐	☐		
a. Construction sequence	☐	☐		
b. Erosion control notes	☐	☐		
c. Landscaping notes	☐	☐		
d. Water system construction notes	☐	☐		
e. Sewage system construction notes	☐	☐		
f. Existing & finish centerline grades	☐	☐		
g. Proposed pavement - Typical cross-section	☐	☐		
h. Right-of-way and easement limits	☐	☐		
i. Embankment slopes	☐	☐		
j. Utilities	☐	☐		

Section V **Supporting Documentation If Required**				
1. Calculation of permitted housing density (for Conservation Subdivisions only as required in Article 6 of the Barrington Zoning Ordinance)	☐	☐		
2. Stormwater management report	☐	☐		
3. Traffic impact analysis	☐	☐		
4. Environmental impact assessment	☐	☐		
5. Hydrogeologic study	☐	☐		
6. Fiscal impact study provided	☐	☐		
7. Calculation of permitted housing density (for Conservation Subdivisions only as required in Article 6 of the Barrington Zoning Ordinance)	☐	☐		
8. Site Inventory and Conceptual Development Plan (from preliminary Conservation Subdivision review only)	☐	☐		

APPLICATION AGREEMENT

I hereby apply for Subdivision Plan Review and acknowledge I will comply with all of the ordinances of the Town Of Barrington, 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 subdivision Plan or Application specifications are incomplete, the Application will be considered rejected.

In consideration for approval and the privileges accruing thereto, the subdivider thereby agrees:

E. To carry out the improvements agreed upon and as shown and intended by said plat, including any work made necessary by unforeseen conditions which become apparent during construction of the subdivision.

E. To post all streets "Private" until accepted by the Town and to provide and install street signs as approved by the Selectmen of the Town for all street intersections.

E. To give the Town on demand, proper deeds for land or rights-of-way reserved on the plat for streets, drainage, or other purposes as agreed upon.

E. To save the Town harmless from any obligation it may incur or repairs it may make, because of my failure to carry out any of the foregoing provisions.

E. Mr/Mrs Any Member of Berry Surveying & Eng. to whom all communications to the subdivider may be addressed with any proceedings arising out of the agreement herein.

Signature of Owner: _____

Signature of Developer: _____

Technical Review Signatures: _____

Town Engineer/Planner Approval Signature: _____ The owners, by the filing of this application as indicated above, hereby give permission for any member of the Barrington Planning Board, the Town Engineer, The Conservation Commission 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, test and inspections as may be appropriate.

(Refusal to sign this permission form does not invalidate an application, but the Planning Board may not be able to make an informed decision regarding unseen lands with potential areas of concerns).

Signature of Owner: _____

Note: The developer/individual in charge must have control over all project work and be available to the Road Agent and Code Enforcement Officer during the construction phase of the project. The Road Agent and Code Enforcement Officer must be notified within two (2) working days of any change by the individual in charge of the project.

ADMINISTRATIVE AND REVIEW FEES

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
www.BerrySurveying.Com

March 23, 2023

Barrington Planning Board
Attention: Vanessa Price Town Planner
4 Signature Drive
PO Box 660
Barrington, NH 03825

Re: Planning Board Subdivision Application
Project Narrative
Owner: Norma Bearden
Applicant: Paul Thibodeau
Young Road
Tax Map 240, Lot 8
Proposed Conservation Subdivision

Chairperson, Members of the Barrington Planning Board,

On behalf of the land owner Norma Bearden, and the applicant Paul Thibodeau, Berry Surveying & Engineering (BS&E) filed a subdivision application on February 15, 2023 for a 23-lot conservation subdivision along the Young Road pursuant to the Barrington Zoning Ordinance Article 6 and the Barrington Subdivision Regulations Article 10. The intent of this letter is to provide supplemental background information regarding the development of the subdivision plan and compliance with relevant Subdivision Regulations.

Background and Narrative:

The applicant is looking to develop Tax Map 240, Lot 8, which is a 65.55-acre parcel of land off Young Road. The applicant hired BS&E to conduct a boundary survey of the entire parcel. Pursuant to the subdivision regulations, John P. Hayes III, certified wetlands scientist (CWS) and certified soils scientist (CSS) was engaged to map the jurisdictional wetlands on site as well as the very poorly drained soils on site. Pursuant to the subdivision regulations, BS&E was engaged to survey map the existing topography and site features to review the sites environmental resources and determine the reasonable development potential of the site. This exercise found that the site is the head water to Richardson Pond and contains Prime Wetland #4, as defined under the Barrington Ordinance. The edge of the very poorly drained soils mapped by Mr. Hayes is the jurisdictional boundary of the prime wetland per the Town of Barrington Zoning Ordinance.

From Young Road the site generally drains down to the wetlands, central to the parcel, and then raises back up to four larger areas of productive uplands. Two areas from off site, drain onto the property through cross culverts under Young Road, neither of which are streams. There is an offsite wetland on abutting land which drains through the southern section of the parcel

which also not considered a stream. Slopes on site range, with the most developable areas being closer to Young Road and the southern end of the parcel.

The site contains 2,871 linear feet of frontage on Young Road, and contains an existing fire cistern which was installed as part of the frontage subdivision across the street. On the north and east the subject parcel abuts land that is owned by the Town of Barrington and is currently eased by South East Land Trust (SELT). On the south the parcel abuts the Brian Lenzi parcel which was recently subdivided.

The Federal Emergency Management Agency has mapped the flood zones in Barrington as recently as 2015, with an effective date of May 17, 2005. As noted on the submitted project plans the property is located on Panel 285 of 405 with a map number of 33017C0285D, and is shown in Zone X. Zone X is not a dedicated flood hazard zone.

The applicant is proposing a 23 Lot Conservation Subdivision as permitted in Article 6 of the Barrington Zoning Ordinance and further discussed in Article 10 of the Barrington Subdivision Regulations. The applicant has conducted an assessment of the site, and has keyed out areas that are most appropriate to conserve for various reasons. Article 6 requires the applicant to develop a Yield Plan to determine the underlying density of the parcel. Using the project yield and the assessment of areas most appropriate for conservation the applicant is then directed to develop the project plan using Article 6 and Article 10 as a guide. Below please find a detailing of the yield plan and a description of chosen Conservation Subdivision design.

Underlying Zoning and Yield Plan:

The project site is in the Neighborhood Residential Zone (NR), and the Wetlands Protection District Overlay. Article 4, Dimensional Requirements, Table 2, Table of Dimensional Standards requires the minimum lot size in a conventional subdivision to be 80,000 Square Feet with 200 feet of frontage. Each lot shall contain a 40' front setback, a 30' side and rear setback, and requires the maximum height of a structure to be 35'. The maximum coverage allowed on each individual lot is 40%. The zoning regulations describe lot coverage as the area covered by impervious surfaces. The project plans provide for a Yield Plan, Sheets 9 through 12 which shows each lot meets or exceeds these requirements.

As the remainder of Article 4 is reviewed, the following standards are also required to be applied to the provided yield plan:

4.2.1 Standards for the GR and NR District, paragraph 1, requires each lot contain 60,000 Sq.Ft., of total land that is free of Hyrdic A soils (very poorly drained soils), open water, bogs, marshes, rivers, streams and exposed ledge. We submit that this is shown on sheets 9 through 12 and each lot is free of the described non-buildable areas. This section further states that each lot contains at least 35,000 Sq.Ft., of contiguous upland areas, the purpose of which is to provided a suitable building area for construction and not create lots that are segmented to the point they are not constructable. Each lot meets this standard, with each buildable upland area shown being larger than 35,000 Sq.Ft., in size.

4.1.2 Lot Frontage, requires the frontage to be compliant with Table 2, in this case requiring 200' of frontage. In addition, 4.1.2 requires that the dedicated frontage be used for the access to the property. The yield plan demonstrates that each standard lot provides for 200' of contiguous frontage on either an existing Class V road or on a road that would otherwise be built to the required subdivision standard. Each lot on the yield plan provides for driveway access across this calculated frontage, therefore satisfying 4.1.2.

4.1.3 Back Lots, allows for a residential subdivision to contain up to two back lots, where 50' of frontage is provided, and if two lots are proposed each portion of the neck will be shared as equally as possible. The neck is not permitted to be used in the minimum lot size and this provision is not permitted on a cul-de-sac. The driveway is to be placed in the neck and centered to the extent possible. The provided yield plan has two back lots, Lot 20-4 & 20-5 which meet these requirements. Each of the lots provides the minimum 35,000 Sq.Ft., of area outside of the neck of the lot, with Lot 20-4 being the smallest at approximately 42,000 Sq.Ft. The Barrington Subdivision Regulations Article 11, General Design Standards, 11.2.4 (1 through 6) permit the same.

In addition to the Barrington Zoning Ordinance, the yield plan is to comply with the Barrington Subdivision Ordinance. When discussing lots in a subdivision, Article 11, General Design Standards is applied. A general-purpose statement is provided along with guidance in 11.2 Lot Shape and Site Layout with further description in 11.2.1. The detailed requirements of the lot layout and design is provided in 11.2.2. The lots on the provided yield plan comply with paragraph one through three in that the clarity of ownership is met whereas the lots are rectilinear and each lot is greater than 75' in width, with the back lots being the exception as provided for in 11.2.4. There are no excessively deep lots compared to frontage widths and those that are over the 3:1 general ratio are drawn to be rectilinear with the abutting lot. Each lot is generally at right angles to the street, or matches abutting boundary lines and each corner lot provides for a sufficient setback on each street while maintaining the building area. Each lot is provided with a schematic home and ample room for a well, required radius on the lot and a suitable sewage disposal area per the standards of New Hampshire Department of Environmental Services (NHDES).

11.3 Building placement further describes considered criteria for the building envelopes. Notably, the lots in the yield plan do not include wetlands and do not include slopes that are in excess of 35% (There are no floodplains on the parcel.) Though there are slopes of 35% and greater on the parcel, the lots are of sufficient size and shape as are the building envelopes to permit construction without their use. It is important to note that neither the Zoning Ordinance nor the Subdivision Regulations restrict the use and manipulation of any slope, only that they may not be used in the building areas.

As noted above the site is in the Wetlands Protection District Overlay, as defined in Article 9 which regulates wetlands and defines buffers to the same. John P. Hayes, a certified wetlands scientist (CWS) as well as a certified soils scientist (CSS), delineated the project site pursuant to section 9.2.2 of the Barrington Zoning Ordinance as well as the standard practices of NHDES. Prime Wetlands are defined in section 9.3 as being the boundary where the soils become 100% Hydric A, or very poorly drained soils. This boundary was delineated and shown on the project plans. Section 9.5 then requires that a 100' buffer be held to this boundary. The

provided yield plan shows this buffer and complies with its limitations. Section 9.5 defines a 50' wetlands buffer to wetlands that are over 3,000 Sq.Ft. in size. The yield plan provides for these buffers and complies with the limitations found in the Zoning Ordinance.

The provided yield plan does not require a special permit as provided for under 9.6. There are no shown buffer encroachments where construction or impervious surfaces encroach within either the 100' prime wetland buffer or the 50' jurisdictional wetland buffer. The yield plan does propose a wetland crossing on Proposed Road #1. This crossing would be approximately 1,375 Sq.Ft in impact and is exempt from local jurisdiction under 9.5.1(3). NHDES could consider the impact as a Minimum Impact or a Minor Standard Impact based on varying circumstances. In either case, the test for receiving a permit is largely the same. The applicant must demonstrate the need for crossing and prove that they have minimized and avoided to the extent possible. Additionally, the applicant would need to prove the construction practices and standards employed are fitting with Best Management Practices (BMP). In this case, the applicant is proposing by yield plan to gain access to large areas of productive uplands, which can not otherwise be accessed without the proposed wetlands crossing. These areas have value and productive use which meets the requirement for demonstration of need. The proposed crossing is specifically designed at one of the narrowest points in the wetland and proposes a crossing that is perpendicular in nature. The crossing is specifically positioned over 350' from the prime wetland and is well outside of its required buffer. These characteristics speak to minimization and avoidance of the crossing, where the crossing is designed in the most advantageous manner for the wetland and not the lots or overall subdivision design. The crossing would require a natural bottom culvert design or natural bottom box design. Headwalls and guard rails would be required to assure the minimal impact is proposed. These are all things commonly done in crossings as standard BMP's and are consistent with designs proposed in past approvals from NHDES for similar projects.

We submit to the board that the provided yield plan meets the Barrington Zoning Ordinance and Barrington Subdivision Regulations. The proposed roadways are complaint in width and length and each of the proposed lots, as noted above, comply with the specific requirements of the two regulating documents.

Conservation Subdivision:

As described above the parcel has some key attributes that are recognized by the applicant that play an important role in why the project is best suited for a Conservation Subdivision and not a conventional subdivision. It is evident that there is high conservation value in the abutting landscape. The two largest abutting parcels have been conserved by the Town of Barrington and are eased and monitored by the South East Land Trust. Those landscapes, as well as the subject parcel, either have direct access to Richardson Pond or play an important role in the function and value of the included watershed, provide wildlife corridors given the proximity to wetlands and unfragmented lands, and provide recreational opportunity for the residents of Barrington. These ideals are not lost on the applicant. This project has always been conceived as a Conservation Subdivision for all of these reasons and others noted below.

The Conservation Subdivision is a permitted use in the NR Zone. This use does not require a conditional use or special exception and is purely at the discretion of the applicant whether or

not to utilize the ordinance. In the NR Zone, the minimum tract size is 30 acres, which this parcel more than doubles.

Article 6 lays out the general-purpose statement with the underling ideals:

6.1(1) *"To maintain and protect Barrington's rural character by preserving important landscape elements, including those areas containing such unique and environmentally sensitive natural features as unfragmented woodlands, stream corridors, wetlands, floodplains, shorelands, steep slopes, ridgetops, and critical species habitat by setting them aside from development."*

Important landscape and environmentally sensitive features are maintained and protected under the proposed Conservation Subdivision design. As noted above there are large areas of Prime Wetlands on the parcel, which the applicant has included in the open space. Most land planning ideals aim to discourage these sensitive areas from being included in lot areas where possible. The project site is specifically designed around this important resource. Emphasis was placed on developing the front of the site opposed to the southern portion of the site so as to keep the largest portion of unfragmented lands, and specifically to maintain continuity of protected land with directly adjacent to the abutting conserved parcels so as to maintain unfragmented wildlife corridors. The parcel contains Habitat of Highest Ranking important per the NH Fish and Game maps around the Prime Wetlands as well as adjacent to the abutting conserved parcels. The map shows the area adjacent to Young Road as supporting habitat. The proposed development is designed in the lower ranked area intentionally in support of 6.1(1). The most important areas of the site are conserved with this purpose in mind. Understanding that some may want the entire site conserved while recognizing the Applicant and Owner's constitutional right to develop the land, a large effort was placed on developing areas that are already fragmented due to Young Road and have the lower ranking supporting habitat.

6.1(2) *"To preserve scenic views and to minimize views of new development from existing streets."*

The ordinance has requirements throughout that speak to the buffering requirements from the perimeter. Given the shape, frontage, and location of the wetlands on the parcel there was a balance applied to the design as to where the development is most appropriate. With the buffers intact from the street, reduced by the Zoning Board of Adjustment where appropriate, the project design maintains separation from Young Road, while clustering the development as far from the wetlands and the other conserved lands, thereby balancing the goals to limit views from Young Road while maximizing the protection of scenic views of Richardson Pond.

6.1(3)" *To provide for comprehensive site planning of larger tracts of land in order to facilitate better site design concepts that are compatible with the existing natural features and terrain in order to minimize disturbance of landscape elements."*

Article 6 and 10 provide some guidance on site planning for larger tracts of land, but fail to consider existing infrastructure in the tools for planning. Other designs were considered for this project however all of them involve larger expanses of pavement and roadway infrastructure,

resulting in the creation of greater impervious surface and other impacts contrary to the intent of Article 6. Whether this is done in a single family format or a clustering format, any design that does not utilize Young Road provides for a denser effective impervious footprint and provides infrastructure for Town of Barrington to maintain in the future. The proposed design uses the existing Young Road, limiting the creation of new impervious roadways to be maintained, and designs around the wetland and buffer areas to ensure the least amount of private ownership intrudes into those sensitive areas. The overlooks at the rear of the site adjacent to conserved lands remain open and free from development and provide over 130' to the closest point in the development. The existing trail through the site remains open and is integrated into the design's open space. It is specifically design to be un-incombered by lot lines of future private owners.

6.1.(4) "*To increase flexibility and efficiency in the siting of services and infrastructure by reducing street length, utility requirements, drainage requirements, and the amount of paved surfaces, where possible."*

As noted above the project is designed around the existing Young Road infrastructure. This keeps the largest amount of unfragmented lands connected in the design and reduces the need for roads, utilities, and drainage facilities. The design reduces pavement over other design potentials and disconnects the impervious surfaces through its design. Clustering of the development on the southern portion of the land would only require the infrastructure the ordinance aims to avoid and create connected impervious surfaces that would require drainage systems to control and maintain.

6.1(5) *"To permit active and passive recreational use of open space by residents of the proposed development and/or by the general public."*

As provided for in the design, each of the lots in the subdivision has direct access to the open space. That access is provided for in an upland ring around the entire parcel, so that there is no need to even passively impede on wetlands to enjoy the remote portions of the parcel. As noted above the existing trail that connects Young Road to the abutting conserved lands is currently proposed to remain open to the public and is designed to be free of residential uses.

6.1(6) *"To promote the preservation of large blocks or corridors of protected open space by "linking" together smaller individual open space areas on adjoining parcels."*

The primary focus of the design is to place the development around as much of the existing infrastructure that currently exists and currently serves to break up corridors, and leave the remaining land that is linked to the larger remaining areas of conserved land. In contrast to a conventional subdivision plan, the proposed conservation subdivision plan preserves the primary on-site natural resource, Richardson Pond and the surrounding area, and maximizes continuity of those areas to abutting conservation land.

6.1(7) *"To reduce erosion and sedimentation by the retention of existing vegetation and the minimization of development on steep slopes."*

The proposed design creates disconnected impervious surfaces which in turn reduce direct and focused discharge points from stormwater systems. The design also creates an integration of

woodlands into each lot through the required wetlands buffers, front and side buffers and remaining woodland between lots. A clustered design on the southern portion of the property would have a larger deforesting effect on the parcel and group the impervious surfaces together in an unnatural format. Weight was placed on the other objectives of the Conservation Subdivision noted herein over the avoidance of the slopes at the front of the project site. The slopes are steeper along Young Road than on the southern upland area, but remain developable under the ordinance as they would in a conventional subdivision.

6.1(8) *"To permit various means of owning open space and for protecting it from development in perpetuity."*

This objective is clearly met whereas the residents of the subdivision will own the open space with direct access to all owners being maintained. The open space will remain non-buildable and commonly owned for perpetuity.

6.1(9) *"To implement the objectives of the Barrington Master Plan."*

The master plan aims to create a balance between growth and development and Barrington's natural resources using the Conservation Subdivision Ordinance. The detailed rules within the ordinance, keeping the ordinance's objectives in mind, while realizing that this is private property, that comes with a bundle of rights, which includes potential development, are all considerations for the proposed design.

As for the remaining detailed requirements of the Conservation Subdivision we submit that the items found in section 6.2 are complied with. The open space areas has been modified to meet the requirement in the NR zone, and each lot complies with the minimum standard prescribed in the ordinance.

Please let us know if there is further information needed for this application.

Berry Surveying & Engineering

Christopher R. Berry
Principal, President

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March 23, 2023

Barrington Planning Board
Attention: Vanessa Price Town Planner
4 Signature Drive
PO Box 660
Barrington, NH 03825

Re: Planning Board Subdivision Application
Site Inventory
Owner: Norma Bearden
Applicant: Paul Thibodeau
Young Road
Tax Map 240, Lot 8
Proposed Conservation Subdivision

Chairperson, Members of the Barrington Planning Board,

On behalf of the land owner Norma Bearden, and the applicant Paul Thibodeau, Berry Surveying & Engineering (BS&E) has prepared a basic Site Inventory as described in Barrington Zoning Ordinance 6.2.2 (4) and further discussed in 6.3.2. Please also find the Existing Conditions Plans 5 through 8 for graphical reference to descriptions below.

Site Inventory:

The project site is bordered on the west by Young Road. Further to the west is a built-out frontage subdivision. The project site is bordered on the north and west by conservation land owned by the Town of Barrington. These lands surround and provide access to Richardson Pond. The land to the south is privately owned and recently subdivided for residential purposes.

The center of the project site contains Prime Wetland #4 which flows to Richardson Pond. There are poorly drained wetlands that surround the Prime Wetland. The Prime Wetland requires a 100' buffer and the poorly drained wetlands require a 50' buffer.

The slopes between Young Road are moderate and range between 8-15% based on the NRCS Soils Maps. Approaching the wetland buffers there are slopes over the stated soils and area approximately 25% as mapped by the survey, and there is an inclusion of Hollis Soils in those areas. Minor inclusions of 35% slopes are found in this area and are noted on the Existing Conditions Plan. There is no prohibition on building on 35% slopes, only that the subdivision regulations remove them from "building areas" The soils between Young Road and the wetlands are shown as Gloucester on the NRCS Soils Maps and is generally confirmed with the on-site test pitting. The soils on the southern portion of the property are generally the same however the slope category is flatter. The area contains a wetland that flows onto the site and then off the site from the same abutting parcel. The rear of the site adjacent to the conserved land is

also listed as a Gloucester soil with a slope range of 3-15%. There is a section of Leicester-Ridgebury soil that bi-sects the southern area from the eastern area bordering the conserved land. This is field confirmed with the wetland's delineation in the same area. There is seasonal flow from the abutting land which drains down to Prime Wetland #4 and then to Richardson Pond.

The NH Fish and Game wildlife maps show the area around Prime Wetland #4, the front buffers to the wetlands, the rear of the parcel and a small portion of the rear south eastern portion of the property in the Highest Ranked Habitat. The remainder of the parcel is shown as supporting habitat. The areas noted has Highest Ranked have largely been avoided with the project design. The clustering of housing as proposed is largely located in the supporting habitat areas. The habitat type is listed as Pine growth which was accurate. The current owner has logged the site which has changed the wood type currently found on site. The stumpage and remaining overstory is largely softwood Pine.

Wetlands onsite are listed on the National Wetland Inventory Maps. The periphery of the Prime Wetlands is listed as PEM1E which is an emerging wetland with low ready growth being typical. The poorly drained areas are listed as a typical PFO1E, wooded wetlands and PSS1E, which is also a wooded wetland with primary plant life being scrub shrub. The remaining wetlands onsite not listed on the inventory are typical PFO1E wooded, poorly drained wetlands. The project protects all wetlands on-site and respects the local buffers put in place to further protect them.

Please let us know if further inventory is needed for this project site.

Berry Surveying & Engineering

Christopher R. Berry
Principal, President

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TOWN OF BARRINGTON - LAND USE DEPARTMENT

PROJECT NARRATIVE

PROJECT NAME Young Road Subdivision CASE FILE NUMBER

Paul Thibodeau

PROJECT LOCATION Young Road

DATE OF APPLICATION 2-15-23

Property Details:

Single-Family x Residential Multi-Family Residential Commercial Industrial

Current Zoning: NR Conservation Lot Area Size 65.55 Ac.

Subdivision

Setbacks: Front Side 20' Rear 20'

Varies

Parking Spaces Required: Parking Spaces Provided:

Please describe your project and its purpose and intent. You may attach a typed description.

- Definition of Sight Distance to be consistent with common practice, NHDOT Standards and AASHTO Standards.
- Intersection Design Figure 4A.
- Definitions – Sight Distance

See Waiver Request by BS&E.

BERRY SURVEYING & ENGINEERING
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February 15, 2022

Town of Barrington Planning Board
333 Calef Highway
Barrington, NH 03825
RE: Thibodeau Subdivision
Waiver Request
Young Road
Tax Map 240, Lot 8

Dear Chairman and Members of the Barrington Planning Board,

In accordance with the subdivision standards Article 8, 8.1 General Waiver Provision, the following waiver is hereby requested:

1. Identification of Waiver Request:

- Definition of Sight Distance to be consistent with common practice, NHDOT Standards and AASHTO Standards.
- Intersection Design Figure 4A.
- Definitions – Sight Distance

2. Explanation:

The requirements found in the definitions and in Figure 4A are misapplied for driveway applications and deviates from standard use and practice of the American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets, 7th Edition (2018) (aka Green Book). The regulations also differ from the requirements of New Hampshire Department of Transportation (NHDOT) Driveway Policy.

The driveway section 12.3 points to Figure 4A which is found in the Road Design section of the regulations when describing regulations for a residential driveway. Figure 4A is of a vehicle sitting at a functional intersection with a stop bar and stop sign, implying its purpose is for a new road or similar, not a residential driveway. Figure 4A being found in the Road Design section has the same implication. The definition supplied in the subdivision regulations for stopping sight distance states that it is a calculated requirement from the driver's eye of 3.5' looking at an object 0.5' which is misapplied from the AASHTO manual for the purposes of calculating sight distance. In the 2018 revision, section 3.2.6 "Criteria for Measuring Sight Distance", stopping sight

distance is calculated with a driver assumed to be at 3.5' looking at an object 2.0' tall along the alignment of the roadway. *The revision here is that prior, now outdated, manuals calculated this as 3.5' looking at 0.5' tall.*

The misapplication comes in the form of a clarifying paragraph entitled "Intersection Sight Distance" which states that, when calculating intersection sight distance heights, Passing Sight Distance which uses the same object height function of 3.5' looking at 3.5' should be utilized. The pages from the AASHTO Green Book are included at the end of this document on pages 3 and 4. In all applications to the NHDOT, as found in the NHDOT driveway policy, the requirement is an object traveling at 3.75' tall looking at an object of the same height, 3.75'. The page from the NHDOT policy detailing this is included at the end of this document on page 5. This project is requesting to use the NHDOT standard.

3. Waiver Justification:

a. Granting the waiver will properly carry out the purpose and intent of the regulations.

The purpose and intent of requiring sight distances to a certain standard is to ensure the safety of drivers and future occupants of the residential homes on the Town roadway system. We submit that the proposed design carries out this purpose and intent through the proper use of the NHDOT driveway policy along with the proper use of the AASHTO Green Book.

b. Strict conformity to the regulations would pose an unnecessary hardship to the applicant.

Strict conformity would place a burden on the applicant by way of additional excavation on a roadway that would not ordinarily be required. Additionally, this would result in driveways not meeting Barrington sight distance requirements when the sight distance provided is consistent with NHDOT measuring techniques. It is unnecessary in that the standard required by the regulations is misapplied and far exceeds the standard regulations imposed by higher government agencies on more highly traveled roads.

Respectfully Submitted,
BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Project Engineer
Principal, President

3.2.6 Criteria for Measuring Sight Distance

Sight distance is the distance along a roadway throughout which an object of specified height is continuously visible to the driver. This distance is dependent on the height of the driver's eye above the road surface, the specified object height above the road surface, and the height and lateral position of sight obstructions within the driver's line of sight.

3.2.6.1 Height of Driver's Eye

For all sight distance calculations for passenger vehicles, the height of the driver's eye is considered to be 3.50 ft [1.08 m] above the road surface. This value is based on a study (*19*) that found average vehicle heights have decreased to 4.25 ft [1.30 m] with a comparable decrease in average eye heights to 3.50 ft [1.08 m]. Because of various factors that appear to place practical limits on further decreases in passenger car heights and the relatively small increases in the lengths of vertical curves that would result from further changes that do occur, 3.50 ft [1.08 m] is considered to be the appropriate height of driver's eye for measuring both stopping and passing sight distances. For large trucks, the driver eye height ranges from 3.50 to 7.90 ft [1.80 to 2.40 m]. The recommended value of truck driver eye height for design is 7.60 ft [2.33 m] above the road surface.

3.2.6.2 Height of Object

For stopping sight distance and decision sight distance calculations, the height of object is considered to be 2.00 ft [0.60 m] above the road surface. For passing sight distance calculations, the height of object is considered to be 3.50 ft [1.08 m] above the road surface.

Stopping sight distance object—The selection of a 2.00-ft [0.60-m] object height was based on research indicating that objects with heights less than 2.00 ft [0.60 m] are seldom involved in crashes (*19*). Therefore, it is considered that an object 2.00 ft [0.60 m] in height is representative of the smallest object that involves risk to drivers. An object height of 2.00 ft [0.60 m] is representative of the height of automobile headlights and taillights. Using object heights of less than 2.00 ft [0.60 m] for stopping sight distance calculations would result in longer crest vertical curves without a documented decrease in the frequency or severity of crashes (*19*). Object height of less than 2.00 ft [0.60 m] could substantially increase construction costs because additional excavation would be needed to provide the longer crest vertical curves. It is also doubtful that the driver's ability to perceive situations involving risk of collisions would be increased because recommended stopping sight distances for high-speed design are beyond most drivers' capabilities to detect objects less than 2.00 ft [0.60 m] in height (*19*).

Passing sight distance object—An object height of 3.50 ft [1.08 m] is adopted for passing sight distance. This object height is based on a vehicle height of 4.35 ft [1.33 m], which represents the 15th percentile of vehicle heights in the current passenger car population, less an allowance of 0.85 ft [0.25 m], which represents a near-maximum value for the portion of the vehicle height that needs to be visible for another driver to recognize a vehicle as such (*35*). Passing sight dis-

AASHTO Green Book page

tances calculated on this basis are also considered adequate for night conditions because headlight beams of an opposing vehicle generally can be seen from a greater distance than a vehicle can be recognized in the daytime. The choice of an object height equal to the driver eye height makes passing sight distance design reciprocal (i.e., when the driver of the passing vehicle can see the opposing vehicle, the driver of the opposing vehicle can also see the passing vehicle).

Intersection sight distance object—As in the case of passing sight distance, the object to be seen by the driver in an intersection sight distance situation is another vehicle. Therefore, design for intersection sight distance is based on the same object height used in design for passing sight distance, 3.50 ft [1.08 m].

Decision sight distance object—The 2.00-ft [0.60-m] object-height criterion adopted for stopping sight distance is also used for decision sight distance. The rationale for applying this object height for decision sight distance is the same as for stopping sight distance.

3.2.6.3 Sight Obstructions

On a tangent roadway, the obstruction that limits the driver's sight distance is the road surface at some point on a crest vertical curve. On horizontal curves, the obstruction that limits the driver's sight distance may be the road surface at some point on a crest vertical curve or it may be some physical feature outside of the traveled way, such as a longitudinal barrier, a bridge-approach fill slope, a tree, foliage, or the backslope of a cut section. Accordingly, all highway construction plans should be checked in both the vertical and horizontal plane for sight distance obstructions.

3.2.6.4 Measuring Sight Distance

The design of horizontal alignment and vertical profile using sight distance and other criteria is addressed in Sections 3.3 through 3.5, including the detailed design of horizontal and vertical curves. Sight distance should be considered in the preliminary stages of design when both the horizontal and vertical alignment are still subject to adjustment. Stopping sight distance can easily be determined where plans and profiles are drawn using computer-aided design and drafting (CADD) systems. The line-of-sight that must be clear of obstructions is a straight line for the driver's eye position to an object on the road ahead, with the height of the driver's eye and the object as given above. The vertical component of sight distance is generally measured along the centerline of the roadway. The horizontal component of sight distance is normally measured along the centerline of the inside lane on a horizontal curve. By determining the available sight distances graphically on the plans and recording them at frequent intervals, the designer can review the overall layout and produce a more balanced design by minor adjustments in the plan or profile.

Because the view of the highway ahead may change rapidly in a short travel distance, it is desirable to measure and record sight distance for both directions of travel at each station. Both horizontal and vertical sight distances should be measured and the shorter lengths recorded.

AASHTO Green Book page

(d) In cases where a permit is requested for a limited access highway as defined in RSA 230:44 and 45, the number of permanent points of access as specified in the acquisition documents on file at the bureau of right-of-way shall not be exceeded.

(e) In cases where an applicant is seeking a permit for a simple residential driveway, the applicant may shorten the permit process in accordance with section 5.

(f) Where entrances to state highways have been constructed after July 1, 1971 without benefit of a permit, or not constructed according to the permit issued, the entrances shall be considered non-conforming. Upon notification by the district engineer, the owner shall apply for a permit and make the necessary alterations as required by this policy.

(g) Compliance with this policy shall not relieve the applicant from the responsibility to comply with other federal, state or local ordinances, rules or regulations.

(h) In cases where a permit has been denied, the applicant may initiate the appeals process by submitting in writing a request for a hearing.

(i) Appendix I contains a list of highway districts and locations from which permit applications may be requested. Appendix II contains figures of typical driveway design standards for illustrative purposes, and standard conditions applicable to all permits. Appendix III contains a copy of the driveway statute, RSA 236:13 and Appendix IV contains a sample of a request for a wetland permit from the Department of Environmental Services.

3. Definitions.

(a) "Algebraic difference" means the absolute value of the arithmetic difference between 2 grades in a driveway. For example, a driveway with one grade of +2% and a second grade of -3% would have an algebraic difference of 5%. The algebraic difference provides a numerical guideline for establishing maximum safe grade differentials.

(b) "All-season safe sight distance" means a line that encounters no visual obstruction between 2 points, each at a height of 1.14 meters or 3 feet 9 inches above the pavement, allowing for a snow windrow and/or seasonal changes. The line represents the line of sight between the operator of a vehicle using the driveway (point 1) and the operator of a vehicle approaching from either direction (point 2).

(c) "Alteration" means any work on a driveway including, but not limited to:

(1) Paving and repaving;
(2) Regrading;
(3) Widening;
(4) Changing its use;
(5) Changes in existing drainage affecting the highway; and

dotloop signature verification: dtlp.us/mBAB-tUIa-betL

October 31, 2022

Berry Surveying and Engineering

335 Second Crown Point Road

Barrington NH 03825

(603) 332-2863

Re: Map 230 Lot 8

This letter is to authorize Berry Surveying and Engineering as our agent to represent us, Paul & Linda Thibodeau of 76 Young Road, Barrington NH 03825, for presentation to local planning, zoning boards and other authorities in the town of Barrington NH. To sign as our agent, as needed, all required applications to facilitate the process for final approval of a subdivision for the property known as Map 230 Lot 8 Barrington NH 03825.

Paul Thibodeau

dotloop verified
10/31/22 1:37 PM EDT
AF3E-MEUE-LYYL-GLCM

Paul Thibodeau

Linda Thibodeau

dotloop verified
10/31/22 1:39 PM EDT
ASMB-4SEG-CPZ2-SSXA

Linda Thibodeau