

## BERRY SURVEYING & ENGINEERING

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September 6, 2018

Barrington Planning Board  
Attention: Marcia Gasses Town Planner  
PO Box 660  
333 Calef Highway  
Barrington, NH 03825

RE: Site Plan Review: Response to Dubois & King Inc.  
John and Linda Svenson & 1962 Real Estate LLC  
Tax Map 235, Lot 1 & Tax Map 239, Lot 2

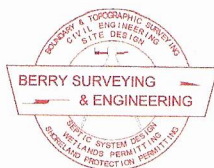
Ms. Gasses, Mr. Chairman, Members of the Barrington Planning Board,

On behalf of John and Linda Svenson & 1962 Real Estate, Berry Surveying & Engineering (BS&E) is submitting for your review the revised site plan and responses to Dubois & King Inc. for the land at Christmas Lane, off NH Route 9, Tax map 235, Lot 1 and Tax Map 239, Lot 2. We submit a response letter for the comments made by Dubois & King Inc. dated, September 5, 2018. Our Responses are in **bold**.

1. We understand that the applicant is requesting a waiver from Subdivision Regulations 12.5.2(1), specifically from the 5-foot setback of the sidewalk from the face of the curb. We recommend that the applicant evaluate the potential future residential development along with the proposed credit union, which may benefit from increased pedestrian safety measures.  
**The purpose of this application was for the reconstruction of Christmas Lane. Future residential development or the construction of the Credit Union is not a part of this initial design and will be evaluated at a later date.**
2. We recommend that the applicant evaluate a sidewalk connection between the proposed credit union and Christmas Lane to further provide interconnectivity in the area and additional pedestrian safety measures.  
**A sidewalk connection between Christmas Lane and the Credit Union will be evaluated at a later date, when the Credit Union will be built. The construction of the Credit Union is not a part of this initial application.**
3. The General Notes on Page 3 of 19 do not indicate the waivers requested in accordance with Site Plan Review Regulations 3.2.10(14).

**Note 49 on sheet 3 has been added to indicate the waivers requested for the reconstruction of Christmas Lane.**

4. The General Notes on Page 3 of 19 do not indicate the Existing and Proposed Use in accordance with Site Plan Review Regulations 3.2.10(6).  
**Note 50 has been added to sheet 3 to indicate the existing and proposed use. The proposed use is to service the Christmas Dove, existing residences and proposed development.**
5. The notes required by Site Plan Review Regulations 3.2.10(16).  
**Note sections are sheet 3 have been added to include all the standard notes from the Town of Barrington Site Plan Review Regulations 3.2.10(16).**
6. The General Notes on Page 3 of 19 does not state the maximum lot coverage (80% impervious area for Town Center) in accordance with Site Plan Review Regulations 3.2.10(8).  
**The zoning legend (note 6) on sheet 3 has been updated to include the maximum lot coverage.**
7. Phase III shows a 10-ft wide lane outside of the drive-thru banking area on the west side of the proposed "Holy Rosary Credit Union". Although the plans are currently conceptual in nature, we recommend that the applicant increase this lane width to at least 15' for emergency vehicle access around the west side of the building, and update the associated subcatchment values in the drainage analysis accordingly.  
**The site plan for the credit union is not being evaluated at this time. When the credit union portion of the project is being submitted for review, the necessary changes will be made.**
8. Under the "Parking Requirements" Table, it is indicated that 52 spaces are provided. The plans show 47 spaces in the main lot and four accessible spaces for a total of 51.  
**Parking Requirements table has been updated to show that there are 51 parking spaces on site.**
9. The Existing Conditions Plan does not show the bearings and distances on all property lines in accordance with Site Plan Review Regulations 3.3(1).  
**The Existing Conditions Plan has been updated to show all bearings and distances on all property lines in accordance with Site Plan Review Regulations 3.3(1).**
10. The Existing Conditions Plan does not show the lot areas in acres and square feet in accordance with Site Plan Review Regulations 3.3(9).  
**The lot area for the subject parcels are included in the notes. In addition, all abutting lot areas have been added to the Existing Conditions Plan.**



11. The Existing Conditions Plan does not show a locus map at a scale of 1inch=2,500 feet in accordance with Site Plan Review Regulations 3.3(10).  
**A locus map has been added to the Existing Conditions Plan. See sheet 2.**
  
12. The Existing Conditions Plan does is not signed and stamped by a Wetland Scientist in accordance with Site Plan Review Regulations 3.3(13).  
**The plans will be stamped by a Wetland Scientist upon final submission of plans.**
  
13. The Existing Conditions Plan does not have an owner's signature in accordance with Site Plan Review Regulations 3.3(14).  
**The owner's signatures will be provided on the plans upon final submission of the plan set.**
  
14. We recommend that the applicant provide additional spot-grade detail at the edge of pavement and along radii for the proposed main site drive entrance to better meet the requirements of Site Plan Review Regulations 3.5.1(2)  
**Additional spot grades have been added to the entrance and along the adjacent radii. See sheet 7 for additional spot grades.**
  
15. The spot-grade elevations that are provided are light-grey. We recommend that the applicant show proposed features and call-outs in black ink to differentiate between proposed and existing conditions.  
**Proposed spot grades are italicized and have an "F" before each one to denote that it is a proposed spot grade elevation. The master legend on the Neighborhood plan depicts the differences between the future and existing contours.**
  
16. The new driveway connection/tie-in proposed at approximate Sta. 0+79 near Rain Garden #102 does not appear to align with the existing gravel road on the eastern side of the site development as depicted on the drawings.  
**The driveway connection has been extended to better show how it ties into the existing driveway. See sheet 3 and 7.**
  
17. We understand that Phase III is a conceptual layout and is not under review by the Barrington Planning Board. We recommend that this final plan show the proposed snow storage areas.  
**The final site plan for Phase III will include proposed snow storage areas upon submission to the Town of Barrington. All other site plans include proposed snow storage areas.**
  
18. The plan set does not include Illumination Plans in accordance with Site Plan Review



Regulations 3.8. Additionally, we recommend that the applicant provide parking lot lighting in accordance with the recommended site lighting levels in Section 4.12.2 of the Site Plan Review Regulations.

**A lighting plan will not be included with the plan set. Discussions were had with the Town of Barrington Planner and they determined it was not necessary for this project, whereas the parking lot for the Christmas Dove is unlit currently and project proposes to relocate the lamps, nearest the building.**

19. The Full Comparative Analysis in the Drainage report references "Final Reach #100", however this reach does not appear to be part of the model. Please revise the report to correct this discrepancy.

**The Drainage Report has been revised to show the correct final reach, "Final Reach #800", not "Final Reach #100". The model was shown correct.**

20. The drainage report states that the entire project will be done in one phase, however the drawings show multiple phases. Please clarify if there is more than one phase proposed.

**The drainage report has been updated, to remove reference to phasing.**

21. Please revise the Filtration Practice Stormwater BMP worksheet for Rain Garden #101 Designer's notes to state that pre-treatment is proposed, to reflect the proposed conditions.

**The Filtration Practice Stormwater BMP worksheet for Rain Garden #101 has been revised to state that pretreatment is proposed.**

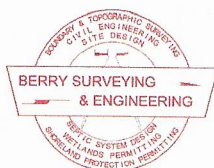
22. For stormwater ponds, one foot of freeboard is recommended in a 50-year event. We recommend that both of the stormwater ponds 101P and 102P are redesigned to provide a minimum of one foot of freeboard in the 50-year event.

**The one foot of freeboard is not a required standard per the Alteration of Terrain regulations. The rain gardens were designed such that, they would treat the necessary flow, while maintaining a modest size. Given the close proximity to property lines and existing structures, the rain gardens had to be kept to a certain size. The alteration of Terrain regulations require the 50 year event to pass without topping.**

23. The Plans show proposed drainage pipe diameters less than 15-inches, which does not meet the requirements of Article 4.7.7, Section 1 of the Site Plan Regulations.

**Pipe diameters have been updated to 15" in the model and on the plans.**

24. We were unable to determine if the design velocities of the proposed drainage system conforms to the requirements of Article 4.7.7, Section 2 of the Site Plan Regulations. We recommend that the Applicant include a table on the plans identifying the minimum and maximum velocities of each drainage pipe.



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**Pipe velocities are included in the HydroCAD model and can be found there for reference. All pipes meet the 2 FPS required at the 50 year design event.**

25. We recommend that either a note be included with the underdrain detail stating that the underdrain shall be installed in all cut areas or the applicant determine the location of the underdrain within the cut sections based on documented groundwater elevations in accordance with Barrington Subdivision Regulations Section 12.8.8(7).

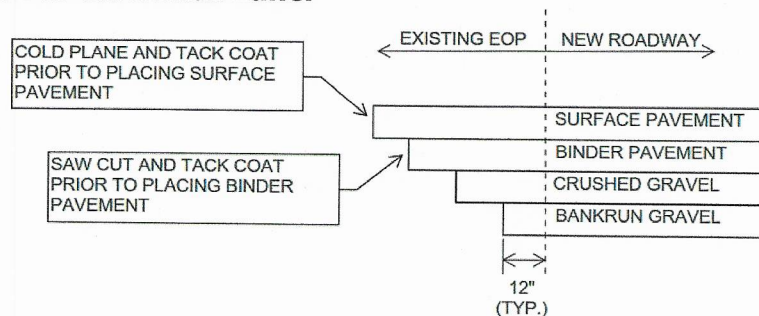
**The only locations with major cut slopes are adjacent to the proposed Rain Gardens. As part of the Rain Garden design, 6" underdrains are proposed to ensure that the storm water drains properly. All other cut areas are with for inlet sumps or for the Infiltration ponds. The test pits were done to determine the seasonal high water table. Gravel sections remain above the seasonal high water table.**

26. The Inspection and maintenance Schedule in the Drainage Report references the City of Somersworth Engineering Department. Please revise to reference the Town of Barrington.

**The Inspection and Maintenance Schedule in the Drainage Report has been revised to read the "Town of Barrington".**

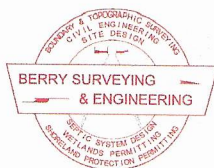
27. We recommend a "step" transition between the existing roadway material and the proposed roadway material. The step transition should consist of 12-inch long step into the existing roadway for every material course commencing at the existing edge-of-pavement.

**Detail C7 "Typical Edge Line Construction" has been updated to show the 12" step transition from the existing edge of pavement to the proposed reconstruction of Christmas Lane.**



28. The proposed roadway profile does not meet the minimum tangent length between reverse curves of 200 feet in accordance with Article 12.2.1 – Table 1 of the Subdivision Regulations between Station 0+30 to 1+25.

**The proposed roadway does meet the minimum tangent length requirements in accordance with Article 12.2.1. The proposed roadway centerline meets minimum radius and tangent length requirements for a local access road.**



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29. The proposed Rate of Vertical Curvature (a.k.a. "K") of station 0+15 to 0+45 do not meet the minimum design values for the associated design speed SAG curves as recommended in the American Association of State Highway and Transportation Officials (AASHTO) "Green Book".

**The proposed roadway design, was designed such that it would meet NHDOT standards for driveway design off NHDOT controlled roads. In addition, the vertical curve value chosen would allow the road to transfer into a 1.75% slope, in order to conform to Article 12.7 – Table 2 of the subdivision regulations. A waiver has been requested.**

30. The proposed Christmas Lane exceeds the 2% maximum grade within 100-feet of an intersection in accordance with Article 12.7 – Table 2 of the Subdivision Regulations. **The proposed entrance for Christmas Lane is designed in accordance with NHDOT requirements since NH Route 9 is DOT controlled. The proposed 4% slope is required by NHDOT for all driveway entrances coming off a DOT controlled road.**

31. The proposed Christmas Lane does not meet the minimum curb radius of 25' on the eastern side of the intersection, in accordance with Article 12.7 – Table 2 of the Subdivision Regulations.

**The curb radius on the eastern side of the intersection has been revised to 25'. See Site Plan for revised radius.**

32. The proposed roadway cross section does not include a note stating that compaction shall be performed until 95% of maximum dry density is achieved in accordance with AASHTO T99 as required in Article 12.8 of the Subdivision Regulations.

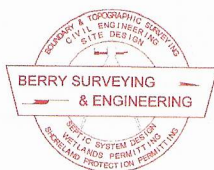
**A note has been added to detail C18 on sheet 19 regarding the required compaction in accordance with AASHTO T99 and Article 12.8 of the Subdivision Regulations.**

33. The proposed bituminous sidewalk detail C16 on Sheet 18 of 19 does not consist of the required depth of NHDOT 304.3 crushed gravel material in accordance with Article 12.8 – Table 3 of the Subdivision Regulations.

**The sidewalk detail has been revised to that the required 8" of NHDOT 304.3 crushed gravel material is required underneath the bituminous concrete base course.**

34. The proposed cross section details do not identify that the shoulder leveling material shall be NHDOT Item 304.33 in accordance with Article 12.8.3 of the Subdivision Regulations.

**A note has been added to detail C18 on sheet 19 regarding the required material to be used for the shoulder in accordance with Article 12.8.3 of the Subdivision Regulations.**

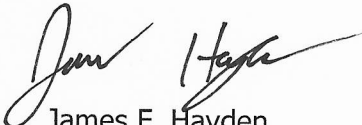


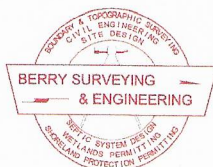
35. Proposed side slopes at approximate stations 1+75 – 2+75 extend beyond the proposed right-of-way limits as depicted on Sheet 7+19. We would recommend the plan set include an easement plan identifying location and description of easement in accordance with 15.8.5 of the Subdivision Regulations.

**A proposed easement has been added to the side slopes at stations 1+75 – 2+75. See sheet 7 for easement location.**

Respectfully Submitted,  
BERRY SURVEYING & ENGINEERING

Christopher R. Berry – Project Manager  
Principal, President

  
James F. Hayden  
Project Engineer



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