

# Town of Windham

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## MEMO

DATE: April 3, 2019

TO: Windham Planning Board  
FROM: Amanda Lessard, Planning Director *ALZ*  
Cc: Kirk Ball, P.E., Acheron Engineering  
Dave Fowler, Next Phase Energy Services  
Development Review Team

RE: 17-23– Durant Homestead – Final Subdivision Plan  
Planning Board Meeting: April 8, 2019

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### Overview –

The applicant is proposing a 25-lot cluster subdivision on a 65.55 acre property located at 60 Chute Road. A new 2,300 foot dead-end road intersecting with Chute Road is proposed to serve the development.

This project appeared as a Final Plan at the Board meeting on March 11, 2019. At that meeting the Board denied the applicant's request for a waiver from the well setbacks from the travelled way for Lots 1, 2, 3, and 5. Since that meeting staff consulted with the State Plumbing Inspector to verify that the reduction in the well and septic setbacks can be reduced with additional well casing without the need for a variance. The applicant has revised the plans to comply with the Town ordinance requirements and added notes to the plan requiring greater well casing on those lots. All other peer review comments have also been addressed.

New comments from the staff memo dated March 7, 2019 appear as underlined text below.

Tax Map: 6, Lot: 25 Zone: Farm (F).

### SUBDIVISION REVIEW

#### Staff Comments:

##### 1. Waivers:

- a) §911.K.4.g – Cluster subdivision, open space performance standard.  
*Granted September 10, 2018*
- b) §911.M.5.b.5.i.a – Dead end street performance standard.  
*Granted September 10, 2018*

- c) §910.C.1.c.2 – Landscape Plan submission requirement.  
*Granted September 10, 2018*
  - d) §911.M.5.a.2 – Street Design Construction Drawings performance standard.  
*Granted March 11, 2019*
2. Complete Application: *Staff has found the final plan application complete*
- MOTION:** The final application for project 17-23 – Durant Homestead Subdivision is found complete in regard to the submission requirements based on the application checklist, but the Planning Board retains the right to request more information where review criteria are not fully addressed.
3. Public Hearing: A public hearing was held at the Planning Board meeting on September 10, 2018.
4. Site Walk: A site walk was held on Saturday December 2, 2017.

Findings of Fact and conclusions for the

**Windham Planning Board,**

**MOTION:** The Final Subdivision application for 17-23 Durant Homes on Tax Map: 6, Lot: 25 is to be (**approved with conditions/denied**) with the following findings of fact and conclusions.

**FINDINGS OF FACT**

**A. POLLUTION**

- A portion of subdivision is within the mapped 100 year floodplain. The mapped floodplain associated with Black Brook is shown on the plan. It is located in the proposed open space, therefore no development will occur within the mapped floodplain.
- This subdivision is not located over a significant sand and gravel aquifer.
- A hydrogeologic assessment is not required as the subdivision does not have an average density of more than one dwelling unit per 100,000 square feet. The Board may also require a hydrogeologic assessment in cases where site considerations or development design indicate greater potential of adverse impacts on groundwater quality.
- A nitrate impact analysis prepared by MAI Environmental dated May 2018 was included in Section C.3 of the August 2018 preliminary plan submission. The nitrate levels in the groundwater at the property lines are at or below 10 mg/L. Nitrate plumes are shown on the Groundwater Assessment Overall Site Plan. The analysis also indicates that the water usage by the 26 lots is approximately 33% of the available recharge, so there is adequate available water recharge to support the subdivision wells.

- In an email dated August 29, 2018, Town Engineer Jon Earle P.E., requested clarification as the nitrate plume from Lot 24 appears to extend just slightly past the property line onto the ROW of Chute Road.
- The October 15, 2018 submission clarified that the plume for lot 24 terminates at the ROW for Chute Road and is reflected in a revised Nitrate Impact Analysis dated October 9, 2018 and shown on a revised Nitrate Plume Map.

B. WATER

- The preliminary plan proposes that dwelling units will be served by individual wells.
- Section 911.B.1.a states that a subdivision shall connect to the public water system if the closest water main is within a distance equal to 100 feet multiplied by the number of lots in the subdivision, or 2,600 feet for 26 lots shown on the sketch plan. The closest water main is located at River Road. The preliminary plan shows that the property is ~0.4 miles (2,565 feet) to River Road, so public water would be required. The applicant has requested a waiver from the standard.
- Section 911.M.5.b.5.b of the subdivision ordinance requires that all dwellings on dead end streets over 1,000 linear feet in length not served by public water have an NFPA 13D monitored sprinkler system.
- A written statement from the Portland Water District indicating that there is adequate water supply to service the subdivision must be submitted with the Preliminary Plan.
- If a waiver is requested from connection to public water, in accordance with the cluster subdivision standards in Section 911.K3.b the applicant must demonstrate on the plan that it is possible to locate a subsurface wastewater disposal field and a well on each lot. When determined that it is necessary for specific lots, by the Planning Board, as a Condition of Approval, the location of these elements shall be elements of the subdivision plan, and any future changes to the location of these elements will require an amended subdivision review. Septic system locations are shown on the Groundwater Assessment Overall Site Plan and should also be shown on the subdivision plan.
- An existing fire hydrant is located on Chute Road just east of the intersection with River Road. At the Development Team meeting on November 2, 2017, Deputy Fire Chief John Wescott stated that if the project is served by public water three (3) additional fire hydrants would be required – one on Chute Road, and two on the proposed street.
- At the Development Team meeting on November 2, 2017, Fire Chief Brent Libby recommended that if the development was not served by public water, that all homes in this subdivision include sprinkler systems that meet NFPA standards.
- The note requiring sprinkler systems should be added to the plan.
- The preliminary plan submission dated October 15, 2018 reduced the total number of lots in the subdivision to 25. All lots will be served by individual wells.
- Note 13 on the preliminary plan states that where bedrock is encountered at a depth of 10 feet or less at any well, install water supply wells with casing set and grouted a minimum of 20 feet below the solid bedrock surface.
- Note 17 on the preliminary subdivision plan states that all residential homes shall be equipped with a sprinkler system in accordance with the latest edition of NRPA-13D.

- The ordinance requires that wells shall not be constructed within 100 feet of the travelled way of any street if located downhill from the street, or within 50 feet of the traveled way of any street if located uphill of the street. The applicant is requesting a waiver from this standard for the wells located on Lots 1, 2, 3, and 5. The waiver request form was included in the March 4, 2019 submission.
- The subdivision plan submitted on March 25, 2019 shows well locations that comply with ordinance setbacks from the traveled way. Note 17 states that Lots 1, 2, 3, and 5 require LPI approval for a reduction in setback between the leachfield and the drilled well, to include greater depth of well casing or liner seal below ground level per the Subsurface Wastewater Disposal Rules.

#### C. SOIL EROSION

- An erosion and sedimentation plan, prepared by Acheron Engineering Services, dated August 2018, has been submitted as Section B.24 of the preliminary plan submission. Proposed erosion and sedimentation controls are shown on the subdivision grading site plan on Sheet 7, proposed lot grading plans on Sheets 8 and 9 and subdivision access road erosion control details are shown on Sheet 16 of the preliminary plan set.
- The applicant must submit a stormwater management plan that meets the water quality and quantity standards as well as the flooding standard of Section 3 DEP Chapter 500 Stormwater Management.
- This project requires a Maine Department of Environmental Protection (DEP) Site Law Permit. A copy of that permit must be submitted with the Final Plan.
- Wetlands were delineated by Burman Land & Tree Company, LLC Associates on July 5, 2018. Freshwater wetlands are shown on the plan. A protected natural resources delineation and verification report was included in Section B.22 of the preliminary plan submission. This project does not require a Maine Department of Environmental Protection (DEP) Natural Resources Protection Act (NRPA) Tier-1 permit for wetland alterations. The total amount of wetland impacts (14,569 square feet) is noted on the subdivision plan.
- A stormwater management plan prepared by Acheron Engineering Services dated August 2018 has been submitted as Section B.25 Preliminary Plan submission. The project proposes to treat the 17.84 acres of developed area and 3.88 acres of new impervious area with two (2) wet ponds and forested and meadow buffers.
- The stormwater treatment table is shown on Sheet 6 of the preliminary subdivision plan set. A note should be added to the recording plan that describes the assumed impervious and developed area for each lot.
- Section C.6 of preliminary plan submission includes a blasting plan as blasting will be required at storm water pond #1.
- In an email dated August 29, 2018, Town Engineer Jon Earle P.E., stated that the plan meets MDEP flooding standard and requirements to treat 90% impervious and 75% of the developed areas with lot by lot allowances shown on the treatment plan. He asked that the proposed tree line on the plan be reviewed and revise to reflect actual areas to be cleared based on the assumptions made for each lot's impervious and developed areas. He also asked that Tc flow paths for each subcatchment be shown on both the pre and post development plans.

- A note should be added to the plan requiring permanent marking of the stormwater buffers.
- The preliminary plan submission dated October 15, 2018 includes a revised stormwater management plan. The reduction of one lot results in a minor reduction in the amount of impervious and developed area for the project to 17.54 acres of developed area and 3.81 acres of impervious area.
- The preliminary subdivision plan includes a lot developed area summary that specifies the maximum amount of impervious and developed area on each lot.
- In an email dated October 31, 2018, Town Engineer Jon Earle P.E., stated that he had no further comment on the project.
- A Site Location of Development Act Permit Order #L23215-L3-D-N/L-23215-TC-E-N was issued by the Maine Department of Environmental Protection on January 25, 2019. Permit NAE-2018-02825 was issued from the U.S. Corps of Engineers.

D. TRAFFIC

- Twenty-three (23) subdivision lots will have access from the new 2,300 foot subdivision street. Section 911.K.3.f requires cluster subdivision roads to be built to the Minor Local Street standard.
- The site is accessed off of Chute Road, a paved public street. Sight distance for the new subdivision street should be shown on the Preliminary Plan for both directions along Chute Road. Site distances should also be shown on the plan for the three (3) lots with driveways on Chute Road.
- At the Development Team meeting on November 2, 2017, Public Works Director Doug Fortier and Fire Chief Brent Libby stated that the second proposed hammerhead shown on the plan was not necessary due to its proximity to the cul-de-sac.
- Section 911.M.3.d requires streetlights at intersections with existing public streets. A new streetlight is shown on Sheet C-2 of the preliminary plan set.
- In order to provide for safe pedestrian or bicycle travel, minor local streets shall provide either a shoulder or a sidewalk. Sidewalks are not required as the subdivision is more than 1,000 linear feet from an existing convenience store or public building. An additional one (1) foot of paved shoulder, on each side of the street, shall be added to the required minimum shoulder width.
- A road plan and profile, prepared by Acheron Engineering Services, dated July 30, 2018, shown on Sheets 10, 11, and 12 was submitted as part of the Preliminary Plan.
- In an email dated August 29, 2018, Town Engineer Jon Earle P.E., asked for clarification of the road profile shading representing gravel and bedrock material below subgrade, stated that the road cross section meets the public road standard with additional paved shoulders, and requested a location and detail for a stop sign, and commented that the waiver for a second hammerhead was reasonable given the proximity to the cul-de-sac.
- The preliminary plan submission dated October 15, 2018 included a detail for a stop sign. Sight distances are shown on the preliminary subdivision plan.
- A traffic impact analysis must be submitted with the Preliminary Plan submission as the subdivision is projected to generate more than 140 vehicle trips per day.
- A traffic impact study prepared by Maine Traffic Resources dated May 9, 2018 was included in Section C.5 of the August 2018 preliminary plan submission. The proposed 26

lots are expected to generate 248 weekday trips, 20 in the A.M. peak hour, and 26 in the P.M. peak hour. The level of new traffic is not expected to have any significant impact off-site on traffic operations beyond the site drive. The level of service at the unsignalized Chute Road, River Road, and Depot Street is expected to remain at a good LOS "C" during both the AM and PM peak hours.

- Sight distance from the subdivision access drive is 500 feet looking to the left and 355 feet looking to the right. The sight distance looking to the right can be increase to over 400 feet with clearing along the property frontage in front of Lot 1. The required sight distance for the posted 40 mile per hour speed limit is 400 feet. Sight distances for Lots 24, 25, and 26 each exceed 400 feet. The area to clear vegetation on Lot 1 is shown on Sheet 8 of the preliminary plan set.
- In an email dated August 29, 2018, Town Engineer Jon Earle P.E., stated that the sight distances should be shown on the plan and requested that the clearing for sight distance on Lot 1 be shown on the plan and provisions made in the association documents to maintain the clearing.
- The preliminary plan submission dated October 15, 2018 includes identification of the clearing on Lot 1 to improve the sight distance at the intersection on Sheet C-7 and a maintenance requirement in item 16 of the Restated Declaration of Restrictive Covenants.
- There is a large property which abuts the proposed subdivision (Map 6 Lot 29). Section 911.M.3.a (page 9-51) and Section 911.M.5.b.5.iii (page 9-60) allows the Board to require the dedication of a right-of-way to provide continuation of the road where future development is possible. A right-of-way to this abutting property was provided in the vacated 2007 approved subdivision of this parcel.
- The Preliminary Plan shows a proposed right-of-way between Lots 7 and 8 to the abutting property.
- A Final Subdivision Plan Set was submitted on January 28, 2019.
- In an email dated February 14, 2019, Will Haskell P.E., of Gorrill-Palmer noted that the road plan scale exceeds the maximum scale allowed, the grade from Sta. 0+00 to 0+60 exceeds the maximum allowable slope at intersections, and the sag curve at Sta. 5+50 does not meet the required minimum K value for a 25 mph design speed, and roadside ditching does not meet the depth requirements.
- The applicant responded to peer review comments on March 4, 2019 that the road design had been revised to show a grade of 2% from station 0+00 to 0+60, proposes a posted speed of 15 mph, revised the typical section to detail to show the ditch depth, and submitted a waiver request for the plan scale.
- In an email dated March 6, 2019, Owen Haskell P.E., of Gorrill-Palmer noted that if the road is proposed to be presented to the Town for acceptance then state law prohibits speed limits of 15 mph on municipal roads, and recommended that the grading plans be updated to match the typical road section to avoid confusion during construction, and asked how the design engineer plans to avoid subsurface water pockets where drilling /blasting is required.
- The applicant responded to peer review comments on March 7, 2019 stating that the sag curve design will be revised to have a 20 mph speed limit, grading plans will be updated to match the typical section, and a noted added to the plans directing the contractor to shatter all rock to a depth of 4-feet below grade.

E. SEWERAGE

- The development will be served by individual private subsurface wastewater disposal systems.
- A preliminary wastewater disposal investigation dated August 9, 2017, prepared by Stephen H. Howell, S.E., of Soil Solutions was provided in the October 23, 2017, sketch plan submission and indicates that suitable soils and site conditions were found for the proposed disposal of wastewater. Proposed septic system and test pit locations are shown on sketch plan dated May 10, 2017.
- A Class B high intensity soil survey dated June 2006 prepared by Darryl N. Brown of Main-Land Development Consultants, Inc was provided in the October 23, 2017, sketch plan submission.
- Soil test pit analysis prepared by Aleita M. Burman, LSE of Burman Land & Tree Company, LLC dated July 13, 2018 show that each lot has adequate soils to support a private septic system. Septic system locations should be shown on the subdivision plan.
- The October 15, 2018 submission included a revised Soil Site Evaluation Report dated September 27, 2018 and a revised well and septic system location plan. Septic system locations are also shown on the preliminary subdivision plan. Notes 14, 15, and 16 on the preliminary subdivision include specific requirements for septic systems on Lots 12, 13, 14, 15, 16, 19, 20, 21, and 3.

F. SOLID WASTE

- Residents of the single family dwellings will participate in the Town's pay-per-bag garbage program.
- Development of these lots should not produce an undue burden on the Town's ability to collect and dispose of solid waste.

G. AESTHETICS

- The site is a combination of open field and wooded, with rolling topography. The lot is currently being used for firewood processing.
- There are no currently documented rare botanical features or significant wildlife habitat documented on the site.
- A landscape plan is required for the preliminary plan submission. Street trees are required at least every fifty (50) feet (§ 911.E.1.b). Street trees are shown on the preliminary plan.
- Limits of tree clearing should be shown on the plan. A note should be added to the plan stating that clearing of trees is not allowed in areas where tree cover is depicted on the plan for a period of at least five (5) years from the date of Planning Board approval.
- The preliminary subdivision plan includes a lot developed area summary that specifies the maximum amount of impervious and developed area on each lot. As this standard of development is more stringent than a 5 year tree clearing limit, staff find this acceptable. The proposed treeline shown on the preliminary subdivision plan does not appear to allow for any development on several of the lots.

#### H. CONFORMITY WITH LOCAL PLANS AND ORDINANCES

- Comprehensive Plan:
  - The plan does meet the goals of the 2017 Comprehensive Plan.
- Land Use Ordinance:
  - All lots fall within the minimum and maximum lot sizes of 30,000-50,000 square feet (one lot 60,000 sf max) for cluster lots in the F zoning district.
  - Net residential density calculations are shown on plan.
  - No more than 30% of the lots have direct vehicular access onto an existing public road.
  - At least 50% of the land suitable for development is included in the common open space. This calculation must be shown on the plan. The preliminary subdivision plan notes that 56% of developable land is in the open space.
  - On September 10, 2018 the Planning Board approved a waiver from the requirement to have the open space in a single contiguous block of land. The proposed open space is accessible from the proposed subdivision street and Chute Road.
- Subdivision Ordinance
  - A landscaping plan must be submitted with the Preliminary Plan. On September 10, 2018 the Planning Board granted a waiver from this submission requirement.
  - Standard notes and the standard condition of approval must be shown on the plans.
  - The Tax Map and Lot numbers provided by the Tax Assessor are shown on the Final Plan.
  - Subdivision plan data compatible with the Town GIS was submitted as part of the Final Plan submission.
  - Draft Durant Homestead homeowner association documents were included in Section A.6 of the Preliminary Plan submission and specify the rights and responsibilities of each lot owner with respect to the maintenance, repair, and plowing of the subdivision streets, open space and stormwater infrastructure.
- Others:
  - Chapter 221 Street Naming and Addressing: The street name approved by the Assessing Department, Pennywhistle Drive, is shown on the preliminary subdivision plan.

#### I. FINANCIAL AND TECHNICAL CAPACITY

- A cost estimate for the project and a letter dated April 13, 2018 from John Beaulieu Branch Service Manager of RBC Wealth Management were included in Section A.16 of the preliminary plan submission as evidence of financial capacity.
- The applicant has provided information on the licensed professionals working on this project in Section A.17 of the preliminary plan submission as evidence of technical capacity.

#### J. RIVER, STREAM OR BROOK IMPACTS



- The project will not adversely impact any river, stream, or brook.
- Black Brook runs across the property adjacent to the subdivision to the east but is not shown on the plan. The 100-foot Stream Protection Zone on either side of this brook is shown on the plan.

## CONCLUSIONS

1. The proposed subdivision **will not** result in undue water or air pollution.
2. The proposed subdivision **has** sufficient water available for the reasonably foreseeable needs of the site plan.
3. The proposed subdivision **will not** cause an unreasonable burden on an existing water supply.
4. The proposed subdivision **will not** cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.
5. The proposed subdivision **will not** cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads existing or proposed.
6. The proposed subdivision **will** provide for adequate sewage waste disposal.
7. The proposed subdivision **will not** cause an unreasonable burden on the municipality's ability to dispose of solid waste.
8. The proposed subdivision **will not** have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or the municipality, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline.
9. The proposed subdivision **conforms** with a duly adopted site plan regulation or ordinance, comprehensive plan, development plan, or land use plan.
10. The developer **has** adequate financial and technical capacity to meet the standards of this section.
11. The proposed subdivision **is** situated entirely or partially within the watershed of any pond or lake or within 250 feet of any wetland, great pond or river as defined in Title 38, Chapter 3, subchapter I, article 2-B M.R.S.A.
12. The proposed subdivision **will not** alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water.
13. The proposed subdivision **is** situated entirely or partially within a floodplain.
14. All freshwater wetlands within the proposed subdivision **have** been identified on the plan.
15. Any river, stream, or brook within or abutting the subdivision **has** been identified on any maps submitted as part of the application.
16. The proposed subdivision **will** provide for adequate storm water management.
17. ~~If any lots in the proposed subdivision have shore frontage on a river, stream, brook, or great pond as these features are defined in Title 38, section 480-B, none of the lots created within the subdivision have a lot depth to shore frontage ratio greater than 5 to 1.~~  
N/A

18. The long-term cumulative effects of the proposed subdivision **will not** unreasonably increase a great pond's phosphorus concentration during the construction phase and life of the proposed subdivision.
- ~~19. For any proposed subdivision that crosses municipal boundaries, the proposed subdivision **will/will not** cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in an adjoining municipality in which part of the subdivision is located. (N/A)~~
20. Timber on the parcel being subdivided **has not** been harvested in violation of rules adopted pursuant to Title 12, section 8869, subsection 14.

#### CONDITIONS OF APPROVAL

1. Approval is dependant upon, and limited to, the proposals and plans contained in the application dated October 23, 2017, as amended March 25, 2019 and supporting documents and oral representations submitted and affirmed by the applicant, and conditions, if any, imposed by the Planning Board, and any variation from such plans, proposals and supporting documents and representations are subject to review and approval by the Planning Board or the Town Planner in accordance with Section 913 of the Subdivision Ordinance.