



BEALS + THOMAS

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March 22, 2017

Ms. Martha A. Morrison, Chair, Topsfield Planning Board
c/o Ms. Donna Rich, Topsfield Planning Board Coordinator
Town of Topsfield
Town Hall, 8 West Common Street
Topsfield, Massachusetts 01983

Via: Email to morrismh@bc.edu, drich@topsfield-ma.gov
and First Class Mail

Reference: Second Supplemental Independent Peer Review
Rolling Green Elderly Housing Development
470 Boston Street
Topsfield, Massachusetts
B+T Project No. 2814.00

Dear Ms. Morrison and Members of the Board:

Beals and Thomas, Inc. (B+T) is pleased to assist the Town of Topsfield Planning Board (the Board) with a second supplemental review of the proposed Rolling Green Elderly Housing Development (the Project) at 470 Boston Street in Topsfield, Massachusetts (the Site).

B+T is assisting the Board with additional supplemental review services relative to the requirements of an Elderly Housing Special Permit, which requires Site Plan Approval and a Stormwater Management Permit which are being requested by the Applicant. We understand that the Project proposes an age-restricted community of 30 residences in 15 duplex style buildings with associated site improvements including a stormwater management system.

B+T issued a letter to the Board dated November 22, 2016 that presented the results of our initial review of the documentation submitted by the Applicant. Please refer to our November 22, 2016 letter for a project overview and the results of our site visit conducted on November 14, 2016. As a consequence of our initial comments, the Applicant provided supplemental documentation. B+T issued a letter to the Board dated January 27, 2017 that presented the results of our review of the supplemental documentation submitted by the Applicant. B+T attended the Board's public hearing on February 7, 2017 to be present for the Applicant's presentation and available for discussion relative to our letter of January 27, 2017. As a consequence of our supplemental comments and discussions held at the February 7, 2017 public hearing, the Applicant has provided the additional supplemental documentation as listed herein.

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We received the following documentation, which served as the basis for our second supplemental independent peer review:

- *Elderly Housing Development – 470 Boston Street, Topsfield, Massachusetts, Drainage Report*, dated October 13, 2016, revised thru February 27, 2017, prepared by Allen & Major Associates, Inc. (473 pages)
- *Site Development Plans for Over 55 Residential Development, 470 Boston Street, Topsfield, MA*, dated October 13, 2016, revised thru February 27, 2017, prepared by Allen & Major Associates, Inc. (51 sheets)
- *A&M Project #2165-01A Rolling Green Elderly Housing Development, 470 Boston Street, Topsfield, MA 01983, A&M Horsley Witten Review Letter*, dated February 27, 2017, prepared by Allen & Major Associates, Inc. (131 pages)
- *A&M Project #2165-01A Rolling Green Elderly Housing Development, 470 Boston Street, Topsfield, MA 01983, A&M Response to Peer Review Letter*, dated February 27, 2017, prepared by Allen & Major Associates, Inc. (129 pages)
- *Test Pit #17 Profile*, dated March 7, 2017, prepared by Allen & Major Associates, Inc. (1 sheet)

We have reviewed the documentation submitted by the Applicant with respect to the requirements of the Town of Topsfield Bylaws including Section 3.16 (Elderly Housing District), Article IX (Site Plan Review), and the Stormwater Management and Erosion Control Bylaw; the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook (the Handbook); the Environmental Protection Agency's (EPA) 2012 Construction General Permit (CGP); and, particularly the comments presented in our previous review letter dated January 27, 2017.

Review Format:

In an effort to establish clarity for the Administrative Record, we have included the comments from our initial letter report dated November 22, 2016 followed by a summary of the Applicant's responses in *italicized* font, our supplemental comments dated January 27, 2017, followed by our current comments in **bold** font to document the status of our original comment. The comments that were adequately addressed at the time of the January 27, 2017 letter have been eliminated from this letter to minimize redundancy. We have responded only to the unresolved comments presented in our letter dated January 27, 2017. However, we have retained the numbering of the original comments for consistency.

Waiver Comments:

The following is a summary of the waivers being requested by the Applicant relative to Article 5 – Design and Construction Standards of the Bylaws.

1. **This comment was previously addressed.**
2. **This comment was previously addressed.**
3. **This comment was previously addressed.**
4. **This comment was previously addressed.**
5. **This comment was previously addressed.**
6. **This comment was previously addressed.**
7. **This comment was previously addressed.**
8. **5.10 Street Lighting:** The Applicant is requesting a waiver from providing a formal street lighting system. The site lighting provided via individual dwelling lamp posts appears to be appropriate for the interior context of the development proposed. Although we recognize that Route 1 does not have street lighting in this area, we request the Applicant to consider providing street lighting or reflective markings at the Route 1 curb cut, in consultation with the Topsfield DPW and MassDOT.

Applicant's Previous Response: The applicant's intention has been to add lighting at the Boston Street main entrance. The lighting options will be reviewed and designed by a lighting consultant. The landscape & lighting plan will be updated in the future with this change.

Previous B+T Response: We acknowledge the response provided by the Applicant and recommend, if deemed appropriate by the Board, that the incorporation of adequate lighting at the Boston Street main entrance be made a condition of the decision if the Project is approved.

Applicant's Current Response: See the revised landscape architecture plans, specifically the Lighting Cut Sheets, Sheet L-3 and L-4.

Current B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

9. **This comment was previously addressed.**

10. **This comment was previously addressed.**

11. **This comment was previously addressed.**

12. 5.13.1 Utility Easements: The Applicant is requesting a waiver from providing 30-ft wide utility easements. The Applicant should provide further information regarding the demarcation point of the public water system vs the private condominium service main. This should be reviewed with DPW to determine whether the Town will require an easement for water main operation and maintenance on the Project Site.

Applicant's Previous Response: The Applicant has reached out to the Topsfield DPW Water Division and determined that the demarcation point for the public water system versus the private service shall be the Route 1 right-of-way. The portion of the waterline on-site and outside of the Route 1 right-of-way will be owned and maintained by the current property owner.

A small waterline easement will be required along the southwestern property line, to potentially complete a waterline loop with the main beneath North Street. A conceptual easement has been added to the Water and Gas Utilities Plan, Sheet C5A. The proposed easement is subject to review by the Topsfield DPW Water Division.

Previous B+T Response: We acknowledge the response provided by the Applicant and defer to the Board and the Topsfield DPW Water Division relative to the appropriateness of the waiver requested and response provided.

Applicant's Current Response: The Applicant reached out to the Topsfield DPW Water Division and was granted verbal approval for the proposed 20' wide waterline easement along the southwestern side property line, for a possible future waterline extension to North Street, located to the west of the site. It is understood no additional utility easements will be required for the Town of Topsfield.

Current B+T Response: This comment has been adequately addressed by the Applicant. We recommend that the granting of the referenced easement be made a condition of decision if the Board approves the Project.

13. **This comment was previously addressed.**

14. **This comment was previously addressed.**

15. **This comment was previously addressed.**

16. 5.21 As-built Plans: The Applicant is requesting a waiver from providing an as-built plan. Though not a formal subdivision that will be accepted by the Town, it is our opinion that it would be appropriate for the Applicant to provide an as-built plan to document conformance with the approved design, permits and associated conditions, and to facilitate future property and utility maintenance.

Applicant's Previous Response: An As-Built plan will be provided once substantial construction has been completed.

Previous B+T Response: We acknowledge the response provided by the Applicant and recommend that the requirement for the Applicant to provide an as-built plan in a timely fashion upon substantial completion of the project be made a condition of the decision if the Project is approved.

Applicant's Current Response: None provided.

Current B+T Response: We reiterate the intent of our previous comment.

General Comments:

1. Section 5.1.4 of the Bylaws references the need for secondary access to dead end streets. The Project proposes a secondary emergency access drive that will require a curb cut from Boston Street (Route 1) that will be subject to review and approval under the jurisdiction of MassDOT. We acknowledge the memorandum from Topsfield Fire Chief Giovannacci relative to being comfortable without a secondary means of access to the project if the dwellings include sprinkler systems. We recommend that conformance with Chief Giovannacci's requirement for sprinklers in compliance with NFPA 13 be made a condition of the decision if the Project is approved.

Applicant's Previous Response: The Applicant requests that either a secondary means of access such as currently shown or residential sprinklers be a condition of approval and not both.

Previous B+T Response: We acknowledge the response provided by the Applicant. Accordingly, we defer to Chief Giovannacci regarding the need for residential sprinkler systems.

Applicant's Current Response: The Applicant has met with the Town of Topsfield Fire Department and understands the advisability of having sprinklers in the dwellings to address any delays in response time, and agrees to do so. The Applicant will install residential sprinklers in the units. At the previous Planning Board public hearing, the Board requested widening the access driveway from the proposed mailbox structure to the triangular

landscaped island north of Units 5 & 6. The Applicant has agreed to this change, as shown in the attached plan set, which includes a widened path for emergency access vehicles. The Applicant respectfully requests that the gravel emergency access drive request be waived due to the widening of the driveway and the addition of the fire sprinkler system in each unit.

Current B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

2. **This comment was previously addressed.**
3. Section 3.16.C.1.s of the Bylaws requires that an eligibility plan for the Elderly Housing Development be supplied to the Board. It does not appear such a plan has been provided to date. We recommend that conformance with the referenced section of the Bylaws be made a condition of the decision if the Project is approved.

Applicant's Previous Response: The Applicant will provide a draft of such eligibility plan for review and discussion in short order. The final version can be made a part of the decision.

Previous B+T Response: We acknowledge the response provided by the Applicant and defer to the Board on the appropriateness of deferring the requirements of Section 3.16.1.s to a potential condition of the decision if the Project is approved.

Applicant's Current Response: See previously submitted eligibility plan prepared by Attorney Brad Latham.

Current B+T Response: B+T has not been provided the eligibility plan. Accordingly, we defer to the Board on the adequacy of the eligibility plan provided.

4. **This comment was previously addressed.**
5. The Project proposes multiple soil absorption systems (SASs) to serve the wastewater disposal needs of the proposed development. We acknowledge the SASs design details provided; however, review of the wastewater disposal systems is outside of our review scope for the Planning Board. We recommend that review and approval of the wastewater disposal systems be confirmed by the Topsfield Board of Health.

Applicant's Previous Response: The Applicant concurs.

Previous B+T Response: We reiterate the intent of our previous comment and recommend that full compliance with the requirements of the Board of the Health relative to the SASs proposed be made a condition of the decision if the Project is approved.

Applicant's Current Response: The Applicant concurs with the current B+T response.

Current B+T Response: We reiterate the intent of our previous comment.

6. The Applicant proposes that a single post with a fixed banner style sign that will be externally lit be installed on Boston Street; however, specifics of the sign have not been provided. We recommend that conformance with the Bylaws relative to any proposed signage be made a condition of the decision if the Project is approved.

Applicant's Previous Response: A detail of the proposed signage along Route 1 is being designed and will be provided in a subsequent submission.

Previous B+T Response: We reiterate the intent of our original comment.

Applicant's Current Response: See the Landscape Architect's plans, particularly the Lighting Cut Sheets, L-3 and L-4.

Current B+T Response: B+T considers this comment to have been adequately addressed by the Applicant; however, we defer to the Board on the appropriateness and aesthetics of the signage proposed.

7. We acknowledge the inclusion of architectural floor plans within the plan set; however, inconsistencies appear between the plans. The second floor plans for both the A and B unit types appear to be the same as the first floor plans for each respective unit. We request that the Applicant clarify the design intent for the noted unit styles and revise the plans as applicable.

Applicant's Previous Response: The Architectural plans have been updated accordingly to show the correct floor layouts. See enclosed plans.

Previous B+T Response: Revised architectural plans have not been provided to B+T with the submission by the Applicant. Accordingly, we reiterate the intent of our original comments.

Applicant's Current Response: Revised Architectural plans have been included with this submission. The plans have not been revised since the January 17, 2017 submission. A PDF version of these plans were previously emailed to the Topsfield PB and B&T since receipt of the B&T peer review letter, dated January 27, 2017.

Current B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

Stormwater Management Comments:

1. The outlet from the proposed infiltration basin (Pond D-1) is defined as a 15-in HDPE pipe on Drainage Plan C-4B; however, is modeled as an 8-in by 4-in box culvert within the HydroCAD modeling. We request that the Applicant clarify the design intent of the infiltration basin outlet and revise the documentation as applicable.

Applicant's Previous Response: The site plans including the Drainage Plan, Sheet 3-C3, and the HydroCAD model have been updated accordingly. The design intent is to allow for an 8"x4" inlet box within outlet control structure 1 (OCS#1). The outlet of OCS# shall be a 15" circular HDPE pipe, which will outlet to the wetlands to the northwest of the site. A detail of OCS#1 with elevations has been provided in the details section of the plans, Sheet D-5, Detail 6, for clarification.

Previous B+T Response: Sheet D-5 has not been provided by the Applicant as indicated. However, based on the revisions made to the HydroCAD modeling and Sheet C-4B, we consider this comment to have been adequately addressed by the Applicant. We request that the Applicant provide a revised Sheet D-5 to the Board for the Administrative Record.

Applicant's Current Response: Detail sheet D-5 has been included in this revised submission.

Current B+T Response: We acknowledge the revisions to Sheet D-5; however, inconsistencies between the site plans and detail remain. The site plans and modeling reference an 18-in outlet pipe from OCS#1. The detail depicts a 15-in outlet pipe. We request that the Applicant revise the detail accordingly.

2. Standard 3 of the Handbook requires a mounding analysis for infiltrative best management practices (BMPs) when separation to groundwater is less than four (4) vertical feet. The Applicant acknowledges only a two (2) foot vertical separation exists, but states that these BMPs are not attenuated systems and the mounding analysis is not required. However, for both systems, the inflow rate is greater than the outflow rate, indicating that some level of attenuation is occurring within each system. We request that the Applicant clarify the design intent of these BMPs relative to the required mounding analysis and provide the noted calculations as applicable.

Applicant's Previous Response: The Applicant has contracted with New England Environmental to conduct such mounding analyses for the applicable systems and will provide such report upon completion.

Previous B+T Response: We acknowledge the response provided by the Applicant and reiterate the intent of our original comment pending the submission of the outstanding mounding analysis. We recommend that full compliance with Handbook and Standard 3 be

made a condition of the decision if the Project is approved prior to the submission of the required analysis.

Applicant's Current Response: See attached additional information provided by New England Environmental (a division of SWCA, Incorporated), to address this request.

Current B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

3. **This comment was previously addressed.**
4. **This comment was previously addressed.**
5. **This comment was previously addressed.**
6. Inconsistencies exist between the Existing Watershed Plan and the HydroCAD modeling provided in the Drainage Report. These inconsistencies include:
 - a. Ground cover type and CN used for Subcatchment E4
 - b. HSGs and CN used for Subcatchment E3
 - c. CN used for Subcatchment E2

We request that the Applicant clarify the noted inconsistencies and revise the documentation provided as applicable.

Applicant's Previous Response: The documents have been revised accordingly.

Previous B+T Response: We acknowledge the response provided by the Applicant; however, a de minimis typographical error continues to exist for Subcatchment E2 on the Existing Watershed plan. This typographical error does not affect the modeling results or the intended system performance.

Applicant's Current Response: The de minimis typographical error has been corrected. Refer to the Post-Development Watershed plan and the HydroCAD Model output, both located in the Drainage Report, prepared by Allen & Major Associates and revised through February 27, 2017.

Current B+T Response: The referenced de minimis error in the Existing Watershed Plan remains. On the plan a CN of 55 is noted for Subcatchment E2. The model utilizes a CN of 53 for the analysis. As previously stated, this typographical error does not affect the modeling results or the intended system performance.

7. This comment was previously addressed.

8. A drawdown calculation has not been provided for the infiltration basin. We request that the Applicant document that the noted BMP drains within the required 72 hours.

Applicant's Previous Response: A drawdown calculation for the surface infiltration basin has been included in the revised submittal materials, indicating the basin will drawdown within the required 72-hour timeframe.

Previous B+T Response: We acknowledge the drawdown calculation provided; however, the parameters used in the calculation do not appear to correlate with the HydroCAD modeling provided. Even though it appears that the infiltration basin will drawdown well within the 72-hour requirement, we request that the Applicant clarify the calculation for the Administrative Record.

Applicant's Current Response: The 72-hour drawdown calculation for the surface infiltration basin has been corrected to correlate with the provided HydroCAD model. See the Drainage Report, including the DEP Drawdown Calculations prepared by Allen & Major Associates and revised through February 27, 2017.

Current B+T Response: This comment has been adequately addressed by the Applicant. No further action is required.

9. This comment was previously addressed.

This concludes our review of the supplemental documentation provided by the Applicant relative to our supplemental review letter dated January 27, 2017. Pursuant to discussions and requests made by the Board at, and subsequent to, the February 7, 2017 public hearing, B+T has been asked to review multiple facets of the Project not previously covered by our peer review scope of services. As summary of our findings is listed herein.

1. We have performed a review of the concerns introduced in the Horsley Witten Group peer review letter dated January 26, 2017 including:
- a. A review of the mounding analysis in accordance with the DEP Stormwater Handbook

Current B+T Response: Pursuant to B+T Stormwater Management Comment #2 listed herein, we consider this comment to have been adequately addressed by the Applicant.

- b. A review of the methodology change regarding the downstream study points associated with the stormwater modeling

Current B+T Response: B+T acknowledges the revisions to the HydroCAD modeling convention of the study points. We consider this comment to have been adequately addressed by the Applicant.

- c. A review of the discrepancy between the historic and recent test pit data utilized by the Applicant

Current B+T Response: Based on the documentation provided, B+T is unable to determine the methodology used to determine the seasonal high ground water elevation data recorded in 1999. B+T was not present for any of the recent subsurface explorations and determination of the current seasonal high ground water elevation; however, based on the documentation and methodology documented by the Applicant from three (3) engineering consultants, B+T sees no reason to dispute their findings. B+T concurs with the convention that the seasonal high groundwater elevation would approximate the water surface elevation of the surrounding wetland resources.

- d. A review of the septic system location and associated reserve area relative to the required 25-ft vegetative buffer

Current B+T Response: We acknowledge the revisions to the location of the proposed Soil Absorption System (SAS) and reserve area. The apparent adequacy of the vegetative screening has improved; however, we note that if the reserve area were to be utilized as shown, the vegetative buffer would be reduced to 20-ft, less than the 25-ft minimum vegetative buffer requirement. Pursuant to B+T General Comment #5 listed herein, we defer ultimate review and approval of the SAS to the Town of Topsfield Board of Health.

- e. The adequacy of the proposed landscape screening

Current B+T Response: In conjunction with B+T response to item 1.d above, we acknowledge the revision to the location of the proposed SAS and the additional landscape screening depicted on the plans. The landscape screening appears to be appropriate for this application; however, we defer to the Board on the adequacy of the landscape screening proposed.

2. We will review the methodology of the phased construction program including the adequacy of the construction period stormwater management sedimentation and erosion control plan.

Current B+T Response: We reviewed the Demolition & Erosion Control Plan (sheet C-1) and the Operation and Maintenance (O&M) Plan contained within the Drainage Report. The protocols contained within the O&M appear appropriate for this application. We note that the O&M Plan requires that Status Reports documenting compliance with the O&M Plan be prepared and submitted to the Topsfield Conservation Agent weekly during construction activities.

3. We have reviewed the land ownership issues presented in email correspondence from Nicky and David Larson and forwarded to B+T by Martha Morrison on February 27, 2017 including:
 - a. Ownership of the land - the deed submitted has Mr. Confalone and Mr. Conn as trustees. We could not find any documentation that Mr. Conn is the sole trustee as represented in the letter stating he had an agreement with Mr. Sarkis.

Current B+T Response: The Applicant has provided a notarized letter from Mr. Conn stating he has the authority as the sole trustee to sell the referenced property. If this issue is of relevant concern to the Board, we recommend that the Applicant's attorney clarify and document the ownership of the property to the satisfaction of the Board.

- b. Size of the site - there are conflicting numbers in the filing on the total size of the site (Topsfield and Ipswich). The deed states 15 1/2 acres, but many of the site plans have a box stating 16.32 acres
- c. In addition, there is a conflict between the details on the site plans and the Ipswich assessors list. Specifically, parcel 47-002. The plans have this as part of the site, but the assessors list has this parcel owned by Jean Powers. Ms. Powers has previously stated to us that she has been the owner of record on the tax rolls for more than 30 years.

Current B+T Response: Just prior to the issuance of this letter on the afternoon of Tuesday March 21, 2017, the Applicant provided additional supplemental documentation relative to Items b & c via email. Based on a brief review of the documentation provided we understand that the Applicant has revised the property line eliminating all land within the Town of Ipswich. This would appear to address the concerns raised in Items b & c. We note that considering the reduction in lot size the Applicant contends and documents that the Project remains fully compliant with Bylaws and Regulations of the Town of Topsfield relative to the Project within the Elderly Housing District.

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As referenced above, B+T received additional supplemental documentation just prior to the issuance of our independent peer review. We note for the benefit of the Board that this material was not reviewed in detail though it does not appear that the revised submission would impact any of the responses provided herein except those related to the specific land ownership issues and land within the Town of Ipswich. In the interest of time considering the pending continued public hearing scheduled for March 28, 2017, B+T issues this letter and the comments presented herein without a complete review of the additional revised documentation. We request that the Board advise whether B+T should complete an additional comprehensive review of the revised submittal. If so, we will re-assess the budget to determine whether additional fees would be required.

We will be available at the Public Hearing scheduled for March 28, 2017 to present the results of our review and will be available for discussion regarding the comments listed herein.

We appreciate the opportunity to assist the Town of Topsfield with the review of this Project. Please do not hesitate to contact our office with any questions.

Very truly yours,

BEALS AND THOMAS, INC.



Matthew Cote, PE
Senior Civil Engineer

MC/RPK/ars/281400LT003