

January 17, 2017

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Topsfield Planning Board
Topsfield Town Hall
8 West Common Street
Topsfield, MA 01983
Martha A. Morrison; Chairwoman

RE: A&M Project #2165-01A
Rolling Green Elderly Housing
Development
470 Boston Street
Topsfield, MA 01983
**A&M Response to Peer
Review Letter**

Dear Ms. Morrison:

On behalf of the applicant, Sarkis Development Company, Allen & Major Associates, Inc. (A&M), respectfully submits this peer review response letter regarding the comments generated by Beals and Thomas on behalf of the Topsfield Planning Board for the proposed Elderly Housing Development known as Rolling Green, located at 470 Boston Street, Topsfield, Massachusetts.

The following comments below were noted by Matthew Cote of Beals and Thomas in a letter dated November 22, 2016. Each comment is followed by A&M's response in bold.

WAIVER COMMENTS:

1. 5.1.2 Streets, Cross Sections: The Applicant is requesting a waiver to reduce the pavement width from 26-ft to 22-ft. We concur that the reduced pavement width is a benefit from a stormwater management and vegetated wetland impact perspective. It is our opinion that the proposed 22-ft pavement width will provide for safe travel for this application with limited traffic.

A&M Response: The Applicant concurs.

2. 5.1.3 Alignment, Grade, Dead End and Intersections: The Applicant is requesting a waiver from the dimensional and geometric requirements of the Bylaw. We concur with the Applicant that the driveway alignment as proposed will provide for safe travel to a limited number of dwelling units.

A&M Response: The Applicant concurs.

3. 5.1.4 Dead End Streets: The Applicant is requesting a waiver to have a dead end street in excess of 650-ft. The Project will not become an accepted Town subdivision roadway. We concur with the Applicant that the driveway alignment as proposed will provide for safe access as supported by Chief Giovannacci's memorandum dated June 7, 2016.

A&M Response: The Applicant concurs.

4. 5.3 Curbing: The Applicant is requesting a waiver from providing granite curbs at intersections. The Project will not become an accepted Town subdivision roadway. We concur with the Applicant that whereas the driveway will be operated and maintained as a private access drive, the use of Cape Cod berm throughout the Project appears appropriate.

A&M Response: The Applicant concurs.

5. 5.4.2 Sidewalks: The Applicant is requesting a waiver from providing a continuous sidewalk on one side of the driveway in accordance with the regulations and to utilize the meandering sidewalk as proposed. The Project will not become an accepted Town subdivision roadway. Whereas there is no sidewalk access on Route 1, we concur that the waiver from a formal sidewalk network appears to be reasonable. However, we recommend that the Applicant evaluate the addition of sidewalk along proposed units 1 thru 6 to provide access to the mailbox area for those who utilize the inner sidewalk loop.

A&M Response: The applicant has added a bituminous sidewalk with crosswalks in front of units 28-30 to the proposed mailbox location. All residents will be able to access the mailbox without having to walk along the length of the roadway. Additionally, a parking spot has been provided for easy drive-up access to the mailbox area. Alternatively, the walking path through the woods may be utilized to reach the mailbox area on foot as well.

6. 5.5.2 Grass Strips: The Applicant is requesting a waiver from providing a grass strip and will have the walkways directly abut the driveway. We concur with the Applicant that in this application the elimination of the grass strip would be appropriate in the context of the development.

A&M Response: The Applicant concurs.

7. 5.5.3 Grass Strip Tree Planting: The Applicant is requesting a waiver from providing grass strip tree plantings. In conjunction with Waiver Comment #6 above, we concur with the elimination of the grass strip, and therefore, the associated plantings. The Applicant appears to be providing adequate plantings within the dwelling yards to mirror the intent of the Bylaw.

A&M Response: The Applicant concurs.

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.

A&M 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

9. 5.12.1.b Utility Locations: The Applicant is requesting a waiver from the utility layouts required by the Bylaw. The reduced pavement width and elimination of the grass strip will require a consolidation of the utility installations within the roadway as proposed. It is our opinion that the proposed layout of the utilities is appropriate.

A&M Response: The Applicant concurs.

10. 5.12.3.e Drainage: The Applicant is requesting a waiver for the use of HDPE pipe in lieu of the required RCP. We concur with the Applicant that the use of HDPE has become increasing more common and is appropriate for use within a private development controlled and maintained by a home owner's association.

A&M Response: The Applicant concurs.

11. 5.12.3.m Drainage Manholes: The Applicant is requesting a waiver to have drainage manholes spaced on the order of 350-ft as opposed to the 300-ft maximum required. It is our opinion that the drainage structure spacing proposed is appropriate for use within a private development controlled and maintained by a home owner's association.

A&M Response: The Applicant concurs.

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.

A&M 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.

13. 5.13.2 Drainage Easements: The Applicant is requesting a waiver from providing drainage easements. The stormwater management system will be privately controlled and maintained by the home owner's association; therefore, drainage easements will not be required.

A&M Response: The Applicant concurs.

14. 5.14 Monuments: The Applicant is requesting a waiver from providing right-of-way and property line monuments. The Project will not be further subdivided and a defined right-of way is not being provided; therefore, monuments will not be required.

A&M Response: The Applicant concurs.

15. 5.20 Tree Planting: The Applicant is requesting a waiver from providing two (2) trees per lot. The Project will not be further subdivided; therefore, a two (2) tree per lot requirement is not applicable. The arrangement and number of tree plantings being proposed appears to mirror the intent of the Bylaw.

A&M Response: The Applicant concurs.

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.

A&M Response: An As-Built plan will be provided once substantial construction has been completed.

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.

A&M 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.

2. Section 3.16.C.l.q of the Bylaws requires a buffer zone of no less than 25-feet for all side and rear boundaries of the Site within the Elderly Housing District. We acknowledge the inclusion of this buffer zone within the plans; however, the provided project narrative references that a 27-foot buffer zone will be provided. We request that the Applicant clarify the noted discrepancy relative to the depth of the buffer zone being provided.

A&M Response: The minimum required setback of 25' has been maintained. To clarify the verbiage from the application package, the narrative should read "The development design includes a minimum buffer zone of twenty five (25) feet, as required by the Town Bylaw"

3. Section 3.16.C.l.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.

A&M 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.

4. The Applicant proposes to reuse in part the existing water service connection previously installed for the Site; however, documentation relative to its age or relative condition have not been provided. We recommend that the Topsfield Department of Public Works confirm the appropriateness of the reuse of this water service connection.

A&M Response: The Applicant has reached out to the Topsfield DPW Water Division for more information pertaining to the age and condition of the waterline on-site. The existing waterline is an 8" cement-lined ductile iron pipe, installed in the late 1980's. The Town of Topsfield Water Division has recommended the re-use of the existing water line on-site, and suggested that it will be an appropriate service for the proposed development. It should be noted that any portion of the

waterline on-site and outside of the Route 1 right-of-way shall be owned and maintained by the current owner of the development.

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.

A&M Response: The Applicant concurs.

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.

A&M Response: A detail of the proposed signage along Route 1 is being designed and will be provided in a subsequent submission.

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 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.

A&M Response: The Architectural plans have been updated accordingly to show the correct floor layouts. See enclosed plans.

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 infiltration basin outlet and revise the documentation as applicable.

A&M 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.

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.

A&M 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.

3. The locations and parameters used to model Ponds D-2 and D-3 is unclear. We request that the Applicant document and verify the parameters used in the modeling of these Ponds.

A&M Response: The ponds were modeled using the “Custom Stage Data” feature within the HydroCAD modeling program. This feature allows for the user to input surface areas and corresponding elevations for each pond to create a 3-dimensional model of the pond. Surface areas for the ponds were calculated directly from AutoCAD Civil 3D software program.

4. Inconsistencies exist within MA DEP recharge and water quality volume calculations provided. The pervious areas utilized for watersheds P-2 and P-9 are inconsistent between the HydroCAD modeling provided and the calculation table. Watershed R-17 is not included within the calculations nor does it appear on the Proposed Watershed Plan. It is also unclear how the recharge and water quality volumes being provided were calculated. We request that the Applicant clarify the noted discrepancies and revise the documentation as applicable.

A&M Response: Watersheds P-2 and P-9 have been revised to be consistent between the site plans, HydroCAD modeling and the MassDEP Calculation spreadsheet. Watershed R-17 has been added to both the calculations and Proposed Watershed Plan. Equations taken from the Massachusetts Stormwater Handbook were previously provided on the submitted calculations indicating how the recharge and water quality volumes were calculated. They have been enlarged for clarity on the revised calculations.

5. Inconsistencies exist between the plan set and the Pipe Listing (Node) table provided within the HydroCAD modeling. These inconsistencies include:

- a. The slope and diameter on Node D-1
- b. The out-invert and slope of Node UIS-7
- c. The out-invert of Node UIS-9

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

A&M Response: The documents have been revised accordingly.

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.

A&M Response: The documents have been revised accordingly.

7. Inconsistencies exist between the Pipe Sizing Table from the Drainage Report and the drainage plans provided. These inconsistencies include:
- a. The length of the pipe between WQU-1 and UIS-1
 - b. The slope, lower invert and upper rim elevations for the pipe length between CB-5 and DMH-4
 - c. A duplicate entry exists for the pipe length between CB-6 and DMH-4
 - d. The diameter and lower invert elevation for the pipe length between Roofs 4, 5 & 6 and DMH-9
 - e. The length, upper invert and rim elevations for the pipe length between DCB-9 and CB-2. We request that the Applicant clarify the noted inconsistencies and revise the documentation provided as applicable.

A&M Response: The documents have been revised accordingly.

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.

A&M 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.

9. Relative to the narrative provided for Standard #3 of the Handbook, the Drainage Report provided defines SCS-420B soil as being hydrologic soil group (HSG) C. The Existing Watershed Plan provided defines the same soil type as HSG A. We request that the Applicant clarify the noted inconsistency and revise the documents as applicable.

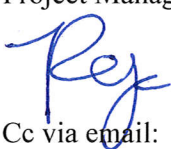
A&M Response: The documents have been revised to show soil SCS-420B as HSG A, per the Natural Resources Conservation Services (NRCS) Web Soil Survey website.

If you have any questions or comments, please do not hesitate to contact me at (781)-935-6889. We look forward to further discussing the project at the Topsfield Planning Board public hearing on February 7th. Please provide A&M with the time and place of that public hearing.

Very truly yours,

ALLEN & MAJOR ASSOCIATES, INC.

Ryan Bianchetto, LEED AP
Project Manager



Cc via email:

Sarkis Development Company
Eaglebrook Engineering

- Enclosures:
- 1) **Revised Site Plans for Rolling Green Elderly Housing Development**, prepared by Allen & Major Associates, revised through January 17, 2017
 - 2) **Drainage Report**, revised through January 17, 2016