

February 3, 2023

Mr. Robert Moriarty, Chair
Town of Topsfield Zoning Board of Appeals
c/o Ms. Lynne Bermudez
Town of Topsfield
Town Hall
8 West Common Street
Topsfield, MA 01983

Via: Email to lbermudez@topsfield-ma.gov

Reference: Independent Peer Review for *Emerson Homes*
Chapter 40B Comprehensive Permit Application
10 High Street
Topsfield, Massachusetts
B+T Project No. 3425.00

Dear Mr. Moriarty and Members of the Zoning Board of Appeals:

Beals and Thomas, Inc. (B+T) is pleased to assist the Town of Topsfield Zoning Board of Appeals (the Board) with the independent Peer Review of the Chapter 40B Comprehensive Permit Application Filing for “Emerson Homes” at 10 High Street in Topsfield, Massachusetts (the Site). We understand that Emerson Homes, LP (the Applicant), proposes to develop a Chapter 40B housing project consisting of 44 apartment units (43 designated as affordable and one market-rate), with associated site improvements (the Project).

We received the following documentation, which served as the basis of our review:

- *Application for Zoning Relief*, dated September 20, 2022, prepared by Regnante Sterio LLP (16 pages)
- *M.G.L. c. 40B Comprehensive Permit Application*, dated September 22, 2022, prepared by Regnante Sterio LLP (25 pages)
- Site Development Plans, dated September 16, 2022, prepared by DeVellis Zrein Inc. (9 sheets)
- *The Caleb Group, 10 High St. Topsfield, MA 01983*, dated September 6, 2022, prepared by DMG Design, LLC. (10 sheets)
- *Emerson Homes Conceptual Planting Plan*, dated August 2022, prepared by DeVellis Zrein Inc. (1 sheet)
- *Emerson Homes, 10 High Street, Topsfield, MA Tabulation of Site Use(s)/Building(s)**, dated September 22, 2022, prepared by Regnante Sterio LLP (1 page)



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Town of Topsfield
February 3, 2023
Page 2

- *Existing Conditions Plan of Land in Topsfield, MA*, dated April 11, 2022, prepared by Hancock Associates (1 sheet)
- *Drainage Report and Stormwater Management Plan*, dated September 16, 2022, prepared by DeVellis Zrein Inc. (107 pages)
- *National Flood Hazard Layer FIRMette*, dated August 29, 2022, prepared by FEMA (1 page)
- *Transportation Impact Assessment*, dated September 15, 2022, prepared by Vanasse & Associates, Inc. (134 pages)
- *Emerson Homes, 10 High Street, Topsfield MA – List of Requested Waivers*, dated September 22, 2022, prepared by Regnante Sterio LLP (9 pages)

We have reviewed the documentation submitted by the Applicant with respect to the requirements of the Town of Topsfield General By-Laws and Zoning By-Laws; the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Regulations and Handbook (the Handbook); and, generally accepted engineering practice.

Project Summary

The Site, identified as 10 High Street, is located in the Central Residence (CR) Zoning District, as well as Topsfield's Historic District. The Site is approximately ± 12.4 -acres ($\pm 543,662,144$ SF), with frontage on High Street. The Site contains multiple recreational fields, a tennis court, and undeveloped wooded areas. There are also multiple on-site wetlands including vernal pools, bordering vegetated wetlands (BVW), and perennial streams. The Site is bordered to the east and north by residential properties, to the west by The Congregational Church of Topsfield, and to the south by High Street (Route 97). The Site topography is relatively flat with stormwater runoff generally flowing to the east towards the on-site wetlands. The highest elevation on the Site (± 68.9) is approximately ± 2 -ft above the elevation of High Street (± 66.3).

The Applicant proposes to construct 44 units in a single 2-story building with associated site improvements. The building will have a $\pm 19,960$ SF footprint. The Project proposes 48 surface parking spaces, of which two are ADA accessible and two designated for electric vehicle charging stations. The Project is proposed to be served by municipal water, which will need to be extended from High Street (Route 97) approximately ± 600 linear feet (LF). Wastewater management is proposed via an on-site septic system and leaching field. The Project proposes a stormwater management system comprised of one large detention basin adjacent to the proposed building and a rain garden adjacent to the site entrance at High Street.



Aerial photograph of the Site and vicinity

Site Visit

B+T conducted a reconnaissance visit on January 12, 2023, to familiarize ourselves with the Site and adjacent area, and to evaluate the existing conditions relative to the proposed development. Photographs are included herein to illustrate conditions at the Site and to provide context for our comments.



*High Street in the vicinity of site entrance
viewed to the southeast (right of entrance).*



*High Street in the vicinity of site entrance
viewed to the northwest (left of entrance).*



Typical depiction of on-site perennial streams.



Typical depiction of on-site vernal pool.



Typical depiction of on-site recreational fields.



Typical depiction of on-site wooded areas.

By-Law Waiver Requests

1. B+T performed a review of the Applicant's List of Requested Waivers prepared by Regnante Sterio LLP in the context of the Site Development Plans and the findings of our January 12, 2023 site visit. Our evaluation and associated commentary are provided in the following table:

<u>By-Law or Regulations Section</u>	<u>Requirement</u>	<u>Explanation</u>
Topsfield Zoning Bylaw Section 3.01 Applicability of Use Regulations	<i>Except as provided in the Zoning Act or in this By-Law, no building, structure, or land shall be used except for the purposes permitted in the district and as described in the section. Any use not listed shall be construed as prohibited.</i>	A waiver is sought for this section to authorize the principal use of the Property for multifamily residential use (44 units) with associated parking, signage, building/site management, and other development as shown on Project plans.
B+T Comment: A multifamily development in the Central Residential (CR) zoning district is not permissible pursuant to the referenced By-Law; therefore, a waiver from this section would be required for the Project to proceed. B+T does not take exception to the waiver being requested in the context of the Project as proposed.		
Topsfield Zoning Bylaw Sections 3.01 & 3.04 Applicability of Use Regulations & Table of Use Regulations	<i>Establishing permitted by right, special permit, forbidden, and "not applicable" uses.</i> <i>Multi-family dwelling = Not Permitted Use in the CR zoning district</i>	A waiver is sought for this section to authorize the principal use of the Property for multifamily residential use (44 units) with associated parking, signage, building/site management, and other development as shown on Project plans.
B+T Comment: A multifamily development in the CR zoning district is not permissible pursuant to referenced By-Law; therefore, a waiver from this section would be required for the Project to proceed. B+T does not take exception to the waiver being requested in the context of the Project as proposed.		

Topsfield Zoning Bylaw Section 3.13 Parking of Automobiles	Regulations applicable to off-street parking requirements.	A waiver is sought for this section in its entirety. Instead, the project, including the approval of all parking design, number of spaces, dimensions, locations, setbacks, screening/landscaping, topography, lighting, and layout as shown on the attached site plans, will be permitted pursuant to the Chapter 40B Comprehensive Permit for this Project.																																												
B+T Comment: Parking of more than 20 automobiles on a single lot at any time requires a Special Permit from the Zoning Board of Appeals (ZBA). As noted herein, the Project as proposed includes 48 parking spaces in compliance with the number of parking spaces required per the underlying zoning for its residents and not as an auxiliary use. It is unclear why this waiver is being sought by the Applicant. We request that the Applicant clarify the need for the waiver to be granted.																																														
Topsfield Zoning Bylaw Sections 4.01 & 4.02 Applicability of Dimensional and Density Regulations & Table of Dimensional and Density Regulations	<p>These sections impose the following requirements in the C-R zoning district for any permitted use:</p> <table><tr><td><u>Dimension</u></td><td><u>Requirement</u></td></tr><tr><td>Lot Area</td><td>20,000 sq. ft.</td></tr><tr><td>Frontage</td><td>100'</td></tr><tr><td>Lot Depth</td><td>120'</td></tr><tr><td>Front Yard Setback</td><td>20'</td></tr><tr><td>Side Yard Setbacks</td><td>10'</td></tr><tr><td>Rear Yard Setback</td><td>30'</td></tr><tr><td>Height</td><td>35'</td></tr><tr><td>Stories</td><td>2.5</td></tr><tr><td>Max. Bldg. Area</td><td>40%</td></tr><tr><td>Min. Open Area</td><td>40%</td></tr></table>	<u>Dimension</u>	<u>Requirement</u>	Lot Area	20,000 sq. ft.	Frontage	100'	Lot Depth	120'	Front Yard Setback	20'	Side Yard Setbacks	10'	Rear Yard Setback	30'	Height	35'	Stories	2.5	Max. Bldg. Area	40%	Min. Open Area	40%	<p>Dimensional metrics of the Project are as specified below.</p> <table><tr><td><u>Dimension</u></td><td><u>Provided[‡]</u></td></tr><tr><td>Lot Area</td><td>543,663 sq. ft.</td></tr><tr><td>Frontage</td><td>106.4'</td></tr><tr><td>Lot Depth</td><td>802+/-</td></tr><tr><td>Front Yard Setback</td><td>430.9'</td></tr><tr><td>Side Yard Setbacks</td><td>48.6' (or greater)</td></tr><tr><td>Rear Yard Setback</td><td>127.6'</td></tr><tr><td>Height</td><td>32.0'</td></tr><tr><td>Stories</td><td>2</td></tr><tr><td>Bldg. Area:</td><td>3.8%</td></tr><tr><td>Open Area</td><td>88.6%</td></tr></table> <p>‡ NB: Setbacks and coverage/area calculations refer to the proposed building, but this waiver encompasses all construction deemed to constitute a “building” or “structure”.</p>	<u>Dimension</u>	<u>Provided[‡]</u>	Lot Area	543,663 sq. ft.	Frontage	106.4'	Lot Depth	802+/-	Front Yard Setback	430.9'	Side Yard Setbacks	48.6' (or greater)	Rear Yard Setback	127.6'	Height	32.0'	Stories	2	Bldg. Area:	3.8%	Open Area	88.6%
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B+T Comment: The Project appears to adhere to the requirements of the underlying zoning. Therefore, it is unclear why this waiver is being sought by the Applicant. We request that the Applicant clarify the need for the waiver to be granted. We further note for the Administrative Record that the frontage depicted within the plans is 100-ft and not the 106.4-ft reported herein by the Applicant. The 100-ft dimension does however comply with the underlying zoning.																																														

Topsfield Zoning Bylaw Section 4.12 Parking	<i>Regulations applicable to off-street parking requirements.</i>	A waiver is sought for this section in its entirety. Instead, the approval of all parking design, number of spaces, dimensions, locations, setbacks, screening/landscaping, topography, lighting, and layout as shown on the attached site plans, will be permitted pursuant to the Chapter 40B Comprehensive Permit for this Project.
B+T Comment: The number of parking spaces provided (48 total) adheres to the underlying zoning requirements of 1 per unit with less than two bedrooms (40 total units) and 2 per unit with two or more bedrooms (4 units). Therefore, it is unclear why this waiver is being sought by the Applicant. We request that the Applicant clarify the need for the waiver to be granted.		
Topsfield Zoning Bylaw Section 5.01 Enforcement Officer and Duties	<i>Enforcement of the Bylaw and issuance of building permits and occupancy certificates, etc.</i>	A waiver is sought for this section solely with respect to enforcement of the provisions of the Zoning Bylaw for which waivers have been requested. Building permits, occupancy certificates, etc. shall be issued pursuant to the Chapter 40B Comprehensive Permit for the Project and the State Building Code.
B+T Comment: This waiver request is generally administrative. B+T does not take exception to the waiver being requested in the context of the Project as proposed.		
Topsfield Zoning Bylaw Section 5.02(A)(6) Permit Granting Authority and Special Permit Granting Authority	<i>Procedures relating to applications to the ZBA</i>	A waiver is sought for this section to the extent it imposes procedural requirements that exceed the requirements of M.G.L. c. 40B and 760 CMR 56.00, including notice requirements.
B+T Comment: This waiver request is generally administrative. B+T does not take exception to the waiver being requested in the context of the Project as proposed.		

<p>Topsfield Zoning Bylaw Section 7.01 Site Preparation</p>	<p><i>No building permit shall be issued for any structure that requires the excavation of sod, soil, sand, gravel, stone, or any other like materials in an amount in excess of one hundred twenty (120) percent of the foundation of said structure. Where a variance from the above has been granted by the Permit Granting Authority, the excavation and removal of said material shall be subject to the provisions of the Topsfield Soil Removal By-Law.</i></p>	<p>A waiver is sought for this section in its entirety. Instead, all site preparation subject to this section, including all excavation as shown on the Project plans, shall be approved as part of the Comprehensive Permit for the Project.</p>
<p>B+T Comment: The Project as proposed will result in a net fill of material and proposed excavation appears to be minimal. B+T does not take exception to the waiver being requested in the context of the Project as proposed.</p>		
<p>Topsfield Zoning Bylaw Article IX (all sections), including guidelines set forth at Appendix ZA:1 (all sections)</p>	<p><i>Regulations applicable to the approval of site plans for construction of any building and establishment of new uses (except as exempted per Section 9.04)</i></p>	<p>A waiver is sought for these sections and the associated guidelines in their entirety, including any/all procedural and filing requirements, technical specifications, performance standards, and standards of review applicable to the site plan review process. Instead, Project site plans will be reviewed and approved as part of the Comprehensive Permit under M.G.L. c. 40B and 760 CMR 56.00 and any/all applicable state, federal, and unwaived local laws and regulations.</p>
<p>B+T Comment: The Applicant is seeking a blanket waiver from the Topsfield Wetlands By-Law (Article IX), its implementing regulations, and administrative filing components thereunder. While we recognize the need for waivers from filing components (review under the By-Law is consolidated to the ZBA as part of the comprehensive permit), we caution against blanket waivers from general bylaws. We request that the Applicant either list or tabulate which sections of the By-Law are required for this project. We note that the Applicant has the burden of demonstrating which waiver requests are necessary to construct the Project. Relative to this waiver we note the following:</p> <ul style="list-style-type: none"> • Section 9.06(7) requires information regarding the lighting design (heights, details, etc.) and photometric coverage to review the adequacy of the lighting design. The location of light poles are noted, but no other design information has been provided. We request that the Applicant further clarify the intent of the lighting design to the satisfaction of the Board when considering the waiver requested. • Section 9.06(9) requires the location of electrical, telephone and communication (ETC) service to be detailed on the plans. This information has not been included. We request that the Applicant further clarify the intent of the ETC design to the satisfaction of the Board when considering the waiver requested. 		

<p>Topsfield Zoning Bylaw Article XIII Sign Regulations (all sections), including Permit Granting Authority's Rules & Regulations for Sign Regulations</p>	<p><i>Regulations pertaining to the design, location, and size of signs; requiring a special permit and/or sign permit from the Topsfield Select Board (f/k/a Board of Selectmen) and/or Inspector of Buildings.</i></p>	<p>A waiver is sought for these sections in their entirety. Instead, Project signage will be approved under this Bylaw as part of the Comprehensive Permit for this Project. Said signage will be limited to building-mounted signage to identify building locations, site directional and advisory signage, traffic signage, and an externally illuminated monument sign at the site entrance (25 square feet maximum sign board area; 8' maximum sign height).</p>
<p>B+T Comment: Though a rendering is not provided, the Project sign as proposed appears to meet the intent of the underlying zoning. Therefore, it is unclear why this waiver is being sought by the Applicant. We request that the Applicant clarify the need for the waiver to be granted.</p>		
<p>Town of Topsfield Bylaws Chapter 63 Purchasing and Contracts, Section 63-6 Site Qualifications</p>	<p><i>Local eligibility rules pertaining to the approval of tax abatement agreements for affordable housing developments.</i></p>	<p>A waiver is sought for this section to the extent it varies from or exceeds the affordability requirements of M.G.L. c. 40B and 760 CMR 56.00. Instead, it is requested that the Comprehensive Permit for the Project include a finding that the Project is eligible for the negotiation and formation of any tax abatement agreement pursuant to these sections (if any) if the Project complies with the affordability requirements of M.G.L. c. 40B and 760 CMR 56.00, subject to action of the Topsfield Select Board and/or Topsfield Town Meeting.</p>
<p>B+T Comment: This waiver request is generally administrative. B+T does not take exception to the waiver being requested in the context of the Project as proposed.</p>		

Town of Topsfield Bylaws Chapter 153 Historic District (All sections) and Topsfield Historical Commission Rules, Regulations, & Procedures and Design Guidelines	<i>Local rules and regulations applicable to buildings located in the Topsfield Historic District.</i>	A waiver is sought from this Bylaw in its entirety, including without limitation any/all procedural and filing requirements, technical and design specifications, performance standards, and standards of review applicable to the Topsfield Historic District. Instead, all building construction and design, fencing, landscaping, and other site work and improvements associated with the Project shall be approved under this Bylaw as part of the Comprehensive Permit for this Project as shown on Project plans.
B+T Comment: We note our previous commentary relative to concerns regarding blanket waivers from entire sections of the By-Law. We request that the Applicant specify which aspects of the referenced By-Law are not being met in terms of technical specification and performance standards. We recommend that the Board solicit feedback from the Historical Commission on the Applicant's submission prior to considering the waiver requested.		
Town of Topsfield Bylaws Chapter 203 Soil Removal (All Sections)	<i>Local regulations pertaining to soil removal; requiring a soil removal permit from the Soil Removal Board</i>	A waiver is sought for these sections in their entirety, including any/all procedural and filing requirements, technical specifications, performance standards, and standards of review applicable to the soil removal permit review process. Instead, any/all soil removal subject to this Chapter will be reviewed and approved under this Bylaw as part of the Comprehensive Permit under M.G.L. c. 40B and 760 CMR 56.00 and any/all applicable state, federal, and unwaived local laws and regulations.
B+T Comment: The Project as proposed will result in a net fill of material and proposed excavation appears to be minimal. B+T does not take exception to the waiver being requested in the context of the Project as proposed.		

Town of Topsfield Bylaws Chapter 220 Stormwater Management (All Sections), including Stormwater and Erosion Control Regulations of the Planning Board	<i>Local regulations pertaining to stormwater management and erosion control; requiring a stormwater management permit from the Planning Board</i>	A waiver is sought for these sections in their entirety, including any/all procedural and filing requirements, technical specifications, performance standards, and standards of review applicable to activities subject to these sections. Instead, any/all activities subject to this Chapter will be reviewed and approved under this Bylaw as part of the Comprehensive Permit under M.G.L. c. 40B and 760 CMR 56.00 and any/all applicable state, federal, and unwaived local laws and regulations – including, without limitation, the State Stormwater Management Standards, as will be applied by the Topsfield Conservation Commission pursuant to its review of the Project under the Wetlands Protection Act, 310 CMR 10.
B+T Comment: We note our previous commentary relative to concerns regarding blanket waivers from entire sections of the By-Law. We recommend that the Applicant specify which components of the Topsfield Stormwater Management By-Law and Stormwater and Erosion Control Regulations of the Planning Board require a waiver for the Project rather than a blanket waiver to this entire section of the By-Law or regulations thereunder.		
Town of Topsfield Chapter 250 Wetlands (All Sections), including Rules and Regulations of the Topsfield Conservation Commission	<i>Local regulations pertaining to wetlands; requiring a local wetlands permit from the Topsfield Conservation Commission</i>	A waiver is sought for these sections in their entirety, including any/all procedural and filing requirements, technical specifications, performance standards, designation of resource areas, and standards of review applicable to activities subject to these sections. Instead, any/all activities subject to this Chapter will be reviewed and approved under this Bylaw as part of the Comprehensive Permit under M.G.L. c. 40B and 760 CMR 56.00 and any/all applicable state, federal, and unwaived local laws and regulations – including, without limitation, the Wetlands Protection Act, 310 CMR 10, as will be applied by the Topsfield Conservation Commission pursuant to its review of the Project under said Act.
B+T Comment: We note our previous commentary relative to concerns regarding blanket waivers from entire sections of the By-Law. The Applicant is seeking a blanket waiver from the Topsfield Wetlands By-Law (Chapter 250)..		

<p>We request that the Applicant either list or tabulate which sections of the Wetlands By-Law are required for this project. We note that the Applicant has the burden of demonstrating which waiver requests are necessary to construct the Project.</p> <p>We request that the Applicant specify why waivers are necessary, what alternatives have been considered, and what the implications of granting the requested waiver would be.</p>		
<p>Town of Topsfield Bylaws Chapter 325 Historic District Rules and Regulations (All sections)</p>	<p><i>Local rules and regulations applicable to buildings located in the Topsfield Historic District.</i></p>	<p>A waiver is sought from these Rules and Regulations in their entirety, including without limitation any/all procedural and filing requirements, technical and design specifications, performance standards, and standards of review applicable to the Topsfield Historic District. Instead, all building construction and design, fencing, landscaping, and other site work and improvements associated with the Project shall be approved under these Rules and Regulations as part of the Comprehensive Permit for this Project as shown on Project plans.</p>
<p>B+T Comment: We note our previous commentary relative to concerns regarding blanket waivers from entire sections of the By-Law. We request that the Applicant specify which aspects of the referenced By-Law are not being met in terms of technical specification and performance standards. We recommend that the Board solicit feedback from the Historical Commission on the Applicant's submission prior to considering the waiver requested.</p>		
<p>Town of Topsfield Chapter 359 Sign Regulations (all sections)</p>	<p><i>Regulations pertaining to the design, location, and size of signs; requiring a special permit and/or sign permit from the Topsfield Select Board (f/k/a Board of Selectmen) and/or Inspector of Buildings.</i></p>	<p>A waiver is sought for these Rules and Regulations in their entirety. Instead, Project signage will be approved under these Rules and Regulations as part of the Comprehensive Permit for this Project. Said signage will be limited to building-mounted signage to identify building locations, site directional and advisory signage, traffic signage, and an externally illuminated monument sign at the site entrance (25 square feet maximum sign board area; 8' maximum sign height).</p>
<p>B+T Comment: Though a rendering is not provided, the Project sign as proposed appears to meet the intent of the underlying zoning. Therefore, it is unclear why this waiver is being sought by the Applicant. We request that the Applicant clarify the need for the waiver to be granted.</p>		

Town of Topsfield Chapter 364 Stormwater and Erosion Control Regulations (All Sections)	<i>Local regulations pertaining to stormwater management and erosion control; requiring a stormwater management permit from the Planning Board</i>	A waiver is sought for these Rules and Regulations in their entirety, including any/all procedural and filing requirements, technical specifications, performance standards, and standards of review applicable to activities subject to these Rules and Regulations. Instead, any/all activities subject to these Rules and Regulations will be reviewed and approved under these Rules and Regulations as part of the Comprehensive Permit under M.G.L. c. 40B and 760 CMR 56.00 and any/all applicable state, federal, and unwaived local laws and regulations – including, without limitation, the State Stormwater Management Standards, as will be applied by the Topsfield Conservation Commission pursuant to its review of the Project under the Wetlands Protection Act, 310 CMR 10.
<p>B+T Comment: We note our previous commentary relative to concerns regarding blanket waivers from entire sections of the By-Law. We recommend that the Applicant specify which components of the Topsfield Stormwater and Erosion Control Regulations require a waiver for the Project rather than requesting a blanket waiver to this entire section of the By-Law. Relative to this waiver we note the following:</p> <ul style="list-style-type: none"> • Section 364-6 M stipulates the needed requirements of an Operation and Maintenance (O&M) Plan. The O&M provided does not appear to be compliant or specific to this Project. We request that the Applicant provide a compliant O&M plan. • Section 364-7 B (6)[3] stipulates the removal rates for structural best management practices (BMPs). The Applicant has not provided calculations for phosphorus or nitrogen removals. We request that the Applicant provide these calculations in accordance with referenced By-Law. • Section 364-7B(8)(k) requires that design storms be based on Northeast Regional Climate Center "<i>Atlas of Precipitation Extremes for the Northeastern United State and Southeastern Canada</i>". The storm data used does not appear to comply with this requirement, particularly regarding the 100-year storm event. We request that the Applicant utilize the referenced data or NOAA Atlas 14 design rainfall data. 		

Town of Topsfield Chapter 368 Subdivision Regulations (All Sections)	<i>Local regulations pertaining to subdivisions of land</i>	A waiver is sought for these Regulations to the extent they may be deemed applicable to the Project, whether directly or by reference, notwithstanding the fact that the Project does not propose a subdivision of land. This waiver shall encompass any/all technical, design, construction, and performance standards; filing fees; procedural and filing requirements; and bonding, surety, guarantee requirements.
B+T Comment: Understanding the Project is not a subdivision; we note the following for the benefit of the Board. Relative to this waiver request we note the following: <ul style="list-style-type: none"> • The single driveway only provides one means of emergency access and is greater than the 650-ft maximum length requirement for a dead-end street. We recommend that the Board solicit feedback from Topsfield Fire Department personnel relative to the adequacy of the emergency access provided. • The details for concrete sidewalk do not appear complete. We request the Applicant clarify the design intent for concrete sidewalks and in accordance with Section 368-25E (1) of the By-Law. 		
Town of Topsfield Chapter 384 Wetland Regulations (All Sections), including all TCC policy statements	<i>Local regulations pertaining to wetlands; requiring a local wetlands permit from the Topsfield Conservation Commission</i>	A waiver is sought for these Regulations in their entirety, including any/all procedural and filing requirements, technical specifications, performance standards, designation of resource areas, and standards of review applicable to activities subject to these Regulations. Instead, any/all activities subject to these Regulations will be reviewed and approved under these Regulations as part of the Comprehensive Permit under M.G.L. c. 40B and 760 CMR 56.00 and any/all applicable state, federal, and unwaived local laws and regulations – including, without limitation, the Wetlands Protection Act, 310 CMR 10, as will be applied by the Topsfield Conservation Commission pursuant to its review of the Project under said Act.
B+T Comment: We note our previous commentary relative to concerns regarding blanket waivers from entire sections of the By-Law. The Applicant is seeking a blanket waiver from the Topsfield Wetlands Protection Regulations. We caution against blanket waivers from general bylaws and request that the Applicant either list or tabulate which sections of the Wetland Regulations are required for this Project.		

Town of Topsfield Chapter 392 Zoning Board of Appeals Procedures (All Sections)	<i>Local procedures of the Topsfield Zoning Board of Appeals</i>	A waiver is sought for these Regulations to the extent their requirements differ from and/or impose requirements that exceed the requirements of M.G.L. c. 40B and 760 CMR 56.00.
B+T Comment: This waiver request is generally administrative. B+T does not take exception to the waiver being requested in the context of the Project as proposed.		

Civil Engineering Comments

2. The volume of post-development runoff to the on-site vernal pool is unclear. Stormwater runoff is being collected and discharged to the south and downstream of the vernal pool location, potentially impacting its future hydrology (hydroperiod water elevations) relative to its continuing to provide habitat. We request that the Applicant clarify the design intent and document that hydrologic impacts to the vernal pool will not occur.
3. The modeled elevations of the stormwater basin do not correlate to those depicted on the plans. We request that the Applicant revise the documentation accordingly.
4. The low flow invert on the proposed stormwater basin appears to be at elevation 85.50-feet and the bottom basin elevation is 85-feet. This would create approximately ± 0.5 -feet of ponded water which would need to be infiltrated. Additionally, the Applicant appears to claim exfiltration in the stormwater calculations. We request that the Applicant clarify if the basin is designed as a detention basin with no infiltration or will function as an infiltration basin.
5. We acknowledge the test pit information provided by the Applicant. Only one test pit was conducted within the footprint of the stormwater basin to determine the in-situ soil conditions and the estimated seasonal high groundwater elevation. Portions of the work associated with the basin appear to lie within areas mapped as hydric soil and locally jurisdictional wetland on the existing conditions plan. We request that this information be included on the design sheets. Additionally, we recommend the Applicant conduct two more test pits in accordance with Table 1B.1, Volume 2, Chapter 2 of the Handbook. Furthermore, the assumed estimated seasonal high groundwater elevation of 62-ft is not consistent with TP-9. We request that the Applicant clarify the matter and revise the modeling as necessary.

6. The post development modeling of Subcatchment PR-2 is unclear. The Tc used is 0 minutes which is inconsistent with the requirements of the Handbook. We request that the modeling be revised accordingly.
7. The Applicant does not appear to provide sizing calculations for the proposed sediment forebays. We request that the referenced calculations be provided by the Applicant.
8. We request that the Applicant provide calculations documenting that the proposed rain garden will dewater within 72-hours in accordance with the Handbook.
9. The Applicant does not appear to include off-site areas in their stormwater analysis. We request that the Applicant include a comprehensive analysis of the watershed area in their drainage analysis.
10. We request that the Applicant clarify the use and design intent for the Infiltrator Quick4 Plus Standard Detail on Sheet C-6 as it does not appear to be incorporated into the design.
11. The Applicant does not appear to provide a clear path for maintenance equipment to be able to access all sides of the proposed basin or rain garden. We request that the Applicant clarify how the proposed BMPs will be maintained.
12. The Applicant does not appear to provide 1-foot of freeboard for the proposed rain garden. We request that the Applicant clarify the design intent and revise the design accordingly.
13. The rain garden overflow is proposed to be connected to the municipal drainage system. We defer to the Topsfield DPW personnel to confirm the capacity of the system to accommodate this additional potential runoff flow.
14. The rim and invert schedule on Sheet C-2 appears to indicate that there are three pipe connections to DMH1; however, the drawing appears to indicate two connections, one from LD1 and one to FES1. We request that the Applicant clarify the design intent and revise the plans and calculations as necessary.

15. We request that the Applicant provide a secondary TSS Removal Calculation Worksheet for the treatment train discharged to the proposed rain garden documenting compliance with Standard 4 of the Stormwater Handbook.
16. The Applicant does not appear to have provided a Stormwater Pollution Prevention Plan (SWPPP) or draft SWPPP in accordance with Standard 8 of the Stormwater Handbook; however, they note that one will be prepared prior to the commencement of construction. B+T recommends that the Board consider requiring the submission of a SWPPP for the Board's review prior to construction as a potential condition of approval.
17. The Applicant does not appear to have provided a signed Illicit Discharge Statement in accordance with Standard 10 of the Stormwater Handbook. We request that the referenced documentation be provided by the Applicant.

Traffic Comments

18. Please see the "*Traffic Peer Review*" attached hereto provided by Chappell Engineering Associates dated January 30, 2023.
19. Relative to the request from Chappell Engineering Associates for defined sight line triangles, with only 100-ft of frontage, we request that the Applicant document if easements will be required from abutting properties to keep the sight triangles maintained and clear of vegetation.

Public Safety Emergency Access Comments

20. The Applicant does not appear to include a contiguous safety barrier or other form of deterrent between the paved parking areas and driveway and the stormwater BMPs. The proposed stormwater basin will have a maximum ponding depth of approximately ± 1.6 -ft which may be a public safety concern. We request that the Applicant extend the guardrail in the vicinity of the stormwater management BMPs to create a contiguous barrier.

21. The Applicant does not appear to provide a vehicular turning analysis indicating that emergency response vehicles can safely enter and maneuver within the proposed paved areas. We request that the Applicant provide an AutoTURN or other similar form of turning analysis to document that an emergency response vehicle can safely access and maneuver on site.
22. Understanding it is not a subdivision road, the minimum radius for a dead-end roadway cul-de-sac is 55-ft. As proposed, the turnaround radius is approximately 40-ft. We defer the adequacy of the emergency access provided to Topsfield Fire Department personnel.

Landscape Plan Comments

23. The Applicant has provided a Planting Plan (Sheet C-3) that includes a variety of deciduous and evergreen trees and shrubs, as well as herbaceous plant materials. While the plant materials specified consists of species that are commonly utilized and available in Massachusetts, some are not native to the new England area. We would encourage the Applicant to revise the plant schedule to include only plant species native to Massachusetts.
24. The Applicant does not appear to have provided a limit of clearing. We request that the Applicant clarify the extents of the Project and its effects on the existing vegetation relative to maintaining existing vegetative buffers to abutting properties. This will assist in determining whether supplemental plantings (evergreen) should be proposed to provide additional screening of the Project from abutting properties.
25. We note that the Planting Plan has been stamped by a Professional Engineer. We recommend that the Planting Plan be reviewed and stamped by a Registered Landscape Architect.
26. The Applicant has located the dumpster to the northeast of the proposed building. The dumpster appears to be enclosed with a wooden fence and various landscaping around the back and sides of the enclosure. We recommend that the Applicant confirm that the size of the dumpster to be provided is adequate to accommodate the number of residential units proposed.

27. Note 1 of the Planting Notes on Sheet C-3 states that the Existing Conditions information is reproduced from the survey prepared by Feldman Land Surveyors, whereas the Existing Conditions Plan included in the site plan set was prepared by Hancock Associates. We request that the Applicant clarify this matter.

Water Use Comments

28. The Applicant proposes to connect to municipal water from High Street; however, do not appear to have included information regarding the design water demand (both domestic and fire) or the sizing of the proposed water line. We defer to the Topsfield Public Works personnel relative to the available capacity to serve the Project.
29. The Applicant proposes one centrally located fire hydrant across the driveway from the building. This appears to be consistent with other similar projects and developments based on experience; however, we defer to Topsfield Fire Department personnel relative to the adequacy of the hydrant location.

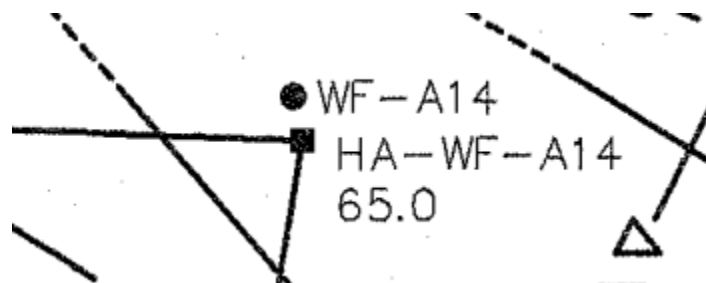
Septic Comments

30. The Applicant proposes to use an on-site pressure distribution septic system sited directly north of the proposed building. Test pits in the area indicate that estimated seasonal high groundwater (ESHG) is conservatively less than 3-feet from existing grade (approximate ESGH elevation ± 64.3 -feet). The bottom of the proposed leaching pit appears to be approximately elevation 70.5-feet which would provide approximately ± 6.2 -foot offset to groundwater. While the general design appears to be sufficient, we note that the Applicant does not appear to have provided calculations for the design of the septic system and the various components. We request that the Applicant document the design flows and how the proposed septic system will accommodate the proposed use. We defer to the Board of Health review process.

Wetland / Natural Resources Comments

31. The WF-E Series wetland and its Buffer Zone are not depicted in the Plan except for the Existing Conditions sheet. Although we understand that it is the Applicant's intent to request a waiver from the local jurisdictional status of this resource area, we request that it be depicted on the Plan for review purposes. Given that it is referenced as a 'By-Law Hydric Soil Wetland' on the plan, we also request that the Applicant address how filling areas of hydric soil may affect the connected state jurisdictional wetlands, particularly the adjacent vernal pool.

32. We request that the Applicant include the 100- and 200-foot Riverfront Area (RFA) boundaries pursuant to the By-Law. Although we understand that it is the Applicant's intent to seek a waiver from the locally-designated perennial status of this stream, it is difficult to understand how much of the limits of work fall within this local RFA in order to appropriately assess the waiver request.
33. There appears to be some discrepancy between wetland flag locations from the various base plans referenced in the Existing Conditions plan. Some of the flags are labeled 'WETFLAG LOCATED BY HANCOCK' and others are labeled 'WETFLAG FROM BEALS PLAN' in the plan legend. The referenced 'BEALS PLAN' (Revision Date April 4, 2021) appears to contain both wetland flags located by GPS Instrumentation (by Beals Associates, Inc.) and field survey conducted by Morin-Cameron Group, Inc. Discrepancies were noted among wetland flags even where the Beals and Hancock plans both indicate the use of survey instruments. For example, WF-A14 was reported on the Beals plan to be located by field survey by the Morin-Cameron Group, Inc., and that of Hancock Associates. We request that the Applicant address the discrepancies as they relate to conflicting instrument surveys of resource area boundaries.



Extract from Existing Conditions Plan

34. A finding of the Order of Resource Area Delineation (ORAD; MassDEP File No. 307-0776) for this Site establishes that *the A-Series and C-Series wetlands contain Vernal Pools which likely meet the MA NHESP criteria, appropriate evidence is to be gathered and submitted to NHESP for Certification*. Based on available mapping, it does not appear that the work to undertake the certification of these vernal pools has been completed. We request that the Applicant comment on the status of the vernal pool certification, and whether the Project will be subject to Standard 6 (Discharges to Critical Areas) of the MA Stormwater Handbook.

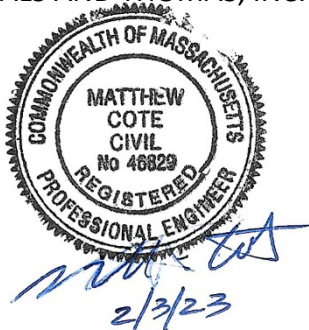
35. We request that the Applicant depict snow storage locations on the plan.
36. Off-grading for the proposed Basin is situated near a wetland, particularly with reference to Flags WF-A16A and WF-A15. We request that the Applicant investigate reshaping the basin or its off-grading to increase the distance from the wetland. Currently, the perimeter sediment controls will be situated approximately five feet from WF-A16A.
37. We request that the Applicant depict soil stockpile locations on the plan and provide notes for stockpile stabilization and perimeter controls.
38. The Erosion and Sediment Control details on Sheet C-4 include depictions of Silt Fence and Silt Soxx sediment control barriers. However, Sheet SP-1 provides notes for Haybales to be installed during construction (Notes 5 and 6). We request that the Applicant clarify the proposed erosion and sediment control plan for the Site, and we recommend that straw be considered instead of the use of hay given the risk for importing invasive species to the locus.
39. Based on B+T's January 12, 2023 site visit, it appears that many of the wetland flags have fallen or were no longer legible to correlate with the plan. Once the survey discrepancy is resolved with respect to flag locations, we recommend that flags be re-established prior to the start of work.
40. We request that the Applicant consider what mitigation opportunities are available for the Project, including restoration or enhancement of resource areas within the Site or in adjoining resource areas within commonly owned property .

Mr. Robert Moriarty, Chair
Town of Topsfield Zoning Board of Appeals
c/o Ms. Lynne Bermudez
Town of Topsfield
February 3, 2023
Page 22

We thank the Board for the opportunity to assist with its review of the Project. We look forward to discussing our findings at the February 28, 2023 public hearing.

Very truly yours,

BEALS AND THOMAS, INC.



Matthew Cote, PE, SITES AP, ENV SP
Senior Civil Engineer



Stacy H. Minihane, PWS
Senior Associate

Nicholas P. Santangelo, EIT
Engineer-In-Training

Andrew Gorman, CESSWI
Senior Environmental Planning Specialist

David J. LaPointe, RLA, LEED AP, CPSI
Principal

Enclosure:

Traffic Peer Review, Emerson Homes Apartments, 10 High Street, Topsfield, MA, dated January 30, 2023, prepared by Chappell Engineering Associates, LLC (6 pages)

NPS/amg/mc/djl/shm/ggp/aak/342500LT001

Ref.: 22125

January 30, 2023

Mr. Matthew Cote, P.E.
Beals & Thomas, Inc.
144 Turnpike Road
Southborough, MA 01772

Reg.: Traffic Peer Review
Emerson Homes Apartments
10 High Street, Topsfield, MA

Dear Matt:

Chappell Engineering Associates, LLC (CEA) has initiated an independent peer review of the traffic impact and access study and site plan prepared for a proposed 40B apartment development to be constructed at 10 High Street in Topsfield, Massachusetts. As proposed, the project consists of constructing 44 age-restricted apartment units with access onto High Street.

The submitted traffic impact study and site plan were reviewed with respect to traffic impacts, site access, and site circulation and compared with state guidelines and standard traffic engineering practice. Based on a review of the submitted materials, we have some comments and recommendations that require further action from the applicant. Once these items are addressed, we will be able to finalize the traffic review of the project. The following lists the documents reviewed as part of the independent peer review:

- *Transportation Impact Assessment; Proposed Age-Qualified Multifamily Residential Development, 10 High Street, Topsfield, MA; prepared by Vanasse & Associates, Inc.; September 15, 2022.*
- *Site Development Plans, Emerson Homes, 10 High Street, Topsfield, MA; prepared by Hancock Associates; April 11, 2022.*

Below are our comments on both the traffic study and site plan. Comments in bold indicate where additional information is requested from the applicant.

TRAFFIC STUDY REVIEW

1. The project consists of constructing 44 age-restricted apartment units at 10 High Street (Route 97) in Topsfield, Massachusetts. The project site is a total of 12.5 acres. Access to the site will be provided via a single full access driveway on High Street located opposite South Common Street. The study specifies that a total of 44 parking spaces will be provided on site, however the site plan shows 48 parking spaces. **The correct number of parking spaces should be clarified.**
2. The traffic study focused on the following intersections:
 - Main Street at High Street / High Street Extension
 - High Street at East Common Street
 - High Street at South Common Street

The traffic study area is appropriate for the proposed project and its expected traffic impacts.

3. The study provided a description of the area roadway network. Traffic volume and vehicle speed data were conducted in May 2022. Turning movement counts were conducted at the study intersections during the weekday AM peak period (7:00 to 9:00 AM) and the weekday PM peak period (4:00 to 6:00 PM). The data indicated that the weekday AM peak hour generally occurs between 7:45 AM and 8:45 AM and the weekday PM peak hour generally occurs between 4:00 PM and 5:00 PM. CEA concurs with the selected time periods used for analysis.
4. Based on available MassDOT permanent count station data on Interstate 95 (I-95) in Boxford (No. 5085), traffic during the month of May is approximately 3.2 percent higher than annual average-month conditions. Therefore, the existing volumes were not downwardly adjusted to provide a conservative analysis. CEA concurs with these findings.
5. Given the current traffic conditions associated with the coronavirus pandemic, the study adjusted the May 2022 traffic volumes to represent normal, pre-COVID traffic conditions. Traffic data from MassDOT were reviewed to determine what adjustments to the traffic volume data would be required. MassDOT permanent count station data on Yankee Division Highway in Beverly were reviewed. Based on the data, it was found that traffic in May 2022 was approximately 5.5 percent less than in May 2019. Therefore, since the volumes were already noted to be seasonally above average by approximately 3.2 percent the volumes were further adjusted upward by 2.3 percent to represent pre-COVID conditions.

It should be noted that per the new MassDOT *Traffic and Safety Engineering 25% Design Submission Guidelines*, traffic volume data collected after March 1, 2022, are no longer subject to any adjustments to represent pre-pandemic traffic volume conditions, except in areas where land use is predominantly office. Since the traffic volume data were collected in May 2022 and land use near the site is a mix of commercial and residential, the traffic volume data obtained were not subject to any adjustments. Therefore, since the counts were upwardly adjusted, the volumes likely represent an above average condition.

6. Accident data were reviewed and summarized within the traffic study. The five-year period between 2015 and 2019 was reviewed. Based on the data, the intersections of High Street at East Common Street and High Street at Common Street were found to not have any significant safety issues as both had only experienced one crash over the five-year period. The intersection of Main Street at High Street / High Street Extension was found to have experienced 17 crashes over the five-year period resulting in a crash rate higher than both the statewide and districtwide averages. **The applicant has committed to facilitating a Road Safety Audit (RSA) prior to the issuance of a Certificate of Occupancy. It is recommended that the Town of Topsfield include this as a condition of any approval of the project.**
7. A 7-year design horizon was used for the No-Build and Build condition analyses consistent with MassDOT's *Transportation Impact Assessment Guidelines*. Traffic volume data was compiled from MassDOT permanent count stations in Topsfield and Boxford. Based on the data, traffic volumes have fluctuated over the past several years, with the average growth rate found to be approximately 1.44 percent per year. Therefore, an annual growth rate of 1.5 percent per year was used to project the future No-Build volumes. CEA concurs with this growth rate.
8. The traffic study noted the following developments near the site:
 - Proposed Residential Development, 57 Perkins Road – construction of a 44-unit residential development located southeast of the project site.
 - Proposed Residential Development, Perkins Row – construction of a residential development off Perkins Row, southeast of the project site.
 - Proposed Commercial Development, School Street – potential future project that would entail the redevelopment of the former Highway Department garage to accommodate a commercial use. No definitive plans or applications have been submitted to the Town.
 - Proposed Mixed-Use Development, Route 1 and 97 – potential future project to construct a mixed-use development near the intersection of Route 1 and Route 97. No definitive plans or applications have been submitted to the Town.

Due to the low traffic generation of the two residential developments, the study assumed them included in the 1.5 percent annual growth rate. Since the potential commercial and mixed-use developments have not filed any formal applications to the town, traffic from these developments were not included in the projections. CEA concurs with these assumptions.

9. The Town of Topsfield and MassDOT were also contacted to determine if there are any planned roadway improvements in the study area that should be included in the study. Based on these discussions, there are no roadway improvement projects planned in the area.
10. The anticipated trip generation of the development was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual* for Senior Adult Housing – Multifamily (Land Use Code 252). As such, 144 new weekday trips can be expected with 9 trips (3 in and 6 out) occurring during the weekday AM peak hour and 11 trips (6 in and 5 out) occurring during the weekday PM peak hour. CEA concurs with these trip estimates.
11. The traffic study describes that the trip distribution methodology for the residential development was based on Journey-to-Work data obtained from the U.S. Census for persons residing in the Town of Topsfield. Based on these data, 11 percent of the residential traffic will be to/from the northwest on High Street Extension, 16 percent will be to/from the north on Main Street, 2 percent will be to/from the northeast on East Common Street, 60 percent will be to/from the southeast on High Street and 11 percent will be to/from the south on Main Street. CEA concurs with this methodology and distribution assumptions.
12. Capacity analyses were performed at the study area intersections under Existing, No-Build and Build conditions. The intersection of Main Street and High Street / High Street Extension currently experiences severe capacity constraints with most movements operating at level E or F. The development is expected to result in negligible increases in delay and queue lengths. **As noted in Comment 6, the applicant has committed to facilitating a Road Safety Audit (RSA) for this intersection as mitigation for the project. The RSA will be useful to the Town in identifying both low-cost and high-cost improvements to safety and capacity. It is recommended that the RSA consider all-way stop control at the intersection as the volumes appear to meet the criteria for such control. Based on our preliminary analyses, significant improvements in operations could be achieved with such control.**
13. The signalized intersection analyses were performed using the Highway Capacity Manual (HCM) 2010 methodology as opposed to the newest HCM 6th methodology. Since the difference in the results of the two methodologies is not significant, no further action is required.
14. A sight distance analysis was performed at the proposed driveway location. The minimum requirements were based on a 35-mph approach speed on High Street, which represents a conservative analysis since the observed 85th percentile speeds were found to be much lower.

The analysis shows that with removal and/or trimming of trees and vegetation, the minimum and desirable sight distances are exceeded looking east of the site driveway while looking west of the site driveway the minimum requirements are exceeded. **It is recommended that a sight line plan be developed to specifically identify the areas of vegetation removal necessary to ensure that adequate sight distance will exist. It is further recommended that the sight triangle areas be kept clear of any obstructions such as landscaping, signs, or fences and be regularly maintained to assure adequate sight distance.**

15. The following recommendations are made in the traffic study. These should be included as conditions of any approval of the project:

- A sidewalk is proposed along the north side of the site driveway which extends to High Street. Since there is only sidewalk along the west side of High Street and the site driveway intersects from the east, the traffic study recommends that a marked crosswalk with ADA compliant wheelchair ramps and a pedestrian actuated rectangular rapid flashing beacon (RRFB) and pedestrian crossing warning signs be installed for the crossing of High Street. CEA concurs with this recommendation.
- The study recommends that ADA compliant wheelchair ramps be provided at pedestrian crossings within the project area. CEA concurs with this recommendation.
- The study recommends that signs and landscaping proposed as a part of the project within the intersection sight triangle areas be designed and maintained so as not to restrict lines of sight. CEA concurs with this recommendation.
- The study recommends that snow accumulations (windrows) within the sight triangle areas be promptly removed where snow accumulations would impede sight lines. CEA concurs with this recommendation.
- Secure bicycle parking should be provided near the residential building. CEA concurs with this recommendation.

SITE PLAN REVIEW

16. The site plan proposes to construct a new site driveway on High Street opposite South Common Street. The driveway is proposed to be 22 feet in width with a stop line at its intersection with High Street. Where perpendicular parking is proposed, the drive aisle is proposed to be 23 feet wide. The proposed geometry and traffic control are appropriate for the use. **It is recommended that a STOP sign (R1-1) be added to the plan and located adjacent to the stop line.**

17. A sidewalk is proposed along the north side of the site driveway. There is no existing sidewalk along the east side of High Street. As noted in Comment 15, it is recommended that a marked crosswalk with ADA compliant wheelchair ramps and a pedestrian actuated rectangular rapid flashing beacon and pedestrian crossing warning signs be installed for the crossing of High Street. The site plans do not reflect this. **It is recommended that the site plans be updated to show these improvements.**
18. The fire department's largest vehicle should be able to traverse the site. **It is recommended that AutoTurn (or a similar program) be used to show a swept-path analysis of the largest fire truck to be used around the site. It is also recommended that the proponent coordinate with the Topsfield Fire Department regarding accessibility to all sides of the building.**
19. The site plan shows 48 parking spaces; however, the traffic study specifies 44 parking spaces as noted in Comment 1. **The correct number of parking spaces should be clarified.**
20. The Institute of Transportation Engineers *Parking Generation Manual*, 5th Edition was reviewed to determine if adequate parking is proposed. Based on Land Use Code 252 (Senior Adult Housing – Attached), 44 units would require, on average, 27 parking spaces and an 85th percentile peak parking demand of 30 spaces. Accordingly, the proposed supply of parking should be sufficient to accommodate the expected demand.

Once the above comments have been addressed, we will be able to finalize our independent traffic peer review of the proposed residential development. Please feel free to contact me if you have any questions regarding this review.

Sincerely,

Chappell Engineering Associates, LLC



Kirsten Braun, P.E.
Project Manager