GCG ASSOCIATES
CIVIL ENGINEERING & LAND SURVEYING

84 Main Street
Wilmington, MA 01887
Phone: (978) 657-9714

June 5, 2023

Mr. Peter Matchak, Town Planner/Director
Town of Ashland
101 Main Street
Ashland, MA 01721

RE: Site Plan Review & Special Permit, Mixed Use Development
9-49 Homer Avenue (Assessor's Map 14, Lots 352, 353, and 354)

Dear Mr. Matchak:

GCG Associates, Inc. has reviewed the following information for the proposed Mixed Use Development Site Plan at 9-49 Homer Avenue in Ashland, MA.

Documents:

1. Application for Planning Board Approval/Permit, 9-49 Homer Avenue, signed by Wissam Khoory, Manager, stamped 11/07/2022.
2. Revised Application for Planning Board Approval/Permit, 9-49 Homer Avenue, not dated.
3. Drainage Calculations and Stormwater Management Plan for the Multi-Family Building located at 9-49 Homer Avenue (Tax Map 14, Lots 352-354), Ashland, Massachusetts, prepared by Engineering Alliance, Inc. (EAI), dated April 22, 2021.
4. Memorandum to Ashland Planning Board, prepared by the Law Office of Terrence P. Morris, Esq., dated May 5, 2023.
5. Fire Department emails dated 04-07-2023 and 05-02-2023.

Plan References:

1. "Proposed Mixed Use Development, 9-49 Homer Avenue, (Tax Map 14, Lots 352-354) Ashland, Massachusetts 01721" plan set, 1. prepared by Engineering Alliance, Inc. (EAI), dated June 17, 2022, consists of 7 sheets (Civil Set) as following:
   C-0 Coversheet
   C-1 Existing Conditions Plan
   C-2 Erosion Control and Demolition Plan
   C-3 Site Layout Plan
   C-4 Grading, Drainage & Utilities Plan
   D-1 Construction Details I
   D-2 Construction Details II

2. 47 Homer Brochure Revised Final – Architectural Floor Plans and Elevation Plans, prepared by Bourque Design (BD) Architect, dated October 28, 2022. (9 sheets)

3. 9-49 Homer Planning Board Meeting Presentation and Rendering April 13, 2023 – Floor Plans and Renderings, prepared by BD, dated April 13, 2023. (24 sheets)

4. 9-49 Homer Planning Board Meeting Brochure April 27, 2023 – Seating Area renderings (the east side of 9-11 Homer Avenue, building to retain), prepared by BD, dated April 13, 2023. (2 sheets)

5. 47 Homer Planning Board Meeting Brochure - Revised First Floor Plan, prepared by BD, dated 05-04-2023 (2 sheets)

6. Vehicle Turning Figure (Swift Path Plan), prepared by EAI, not dated.

This Site Plan application requires a Stormwater Management Permit (SMP) per Chapter 247-6 A, B, and C with Ashland Conservation Commission, and compliance with Chapter 343 Stormwater Management. The property is in the Ashland Downtown District Sub-Area 'C,' (ADD-C). This development is in the Floodplain Zone 'X' (outside of 0.02% chance) per FIRM map number 25017C0514F, map revised July 7, 2014. There is no wetland resource identified within 200 feet of the site. The proposed site area and limit of work is below (39,658+/-s.f.) the 1-acre threshold and does not require a NPDES Construction General Permit

Based upon our review of the above information, we offer the following comments with respect to compliance with Town of Ashland Zoning Bylaw, Stormwater Management requirements and Massachusetts Stormwater Handbook (MSH). The numerical section of the regulations is referenced at the beginning of each comment unless it is a general comment.

GENERAL COMMENTS:

This is a re-development project. The site consists of 39,658+/- s.f. (0.910 acres), Assessors Map 14, Lots 352, 353, and 354 combined), per existing conditions plan. This development consists of three lots. Lot 352 (9-25 Homer Avenue) consists of 17,507+/-s.f. with two commercial buildings (9-11 Homer Avenue) and (19-25 Homer Avenue) and paved parking area, site was built in 1968. Lot 353 (35 & 37 Homer Avenue) consists of 12,104+/-s.f. with a two-family residential dwelling building and a detached 3 bays garage, site was built in 1840. Lot 354 (47 & 49 Homer Avenue) consists of 10,047+/-s.f. with a two-family residential dwelling and a detached commercial garage (5 Alden Street), site was built in 1900.

All three lots are in the Ashland Downtown District Sub-Area 'C' (ADD-C) Zoning District and will be combined into a single lot. The proposed Mixed Residential and Commercial/Business use is permitted by right per Section 8.5.5 with note #1 of the Notes on Ashland Downtown District Table of Uses of the zoning Bylaw.

SITE PLAN SET (Civil Plan)

C-0 Cover Sheet

1. No comments.

C-1 – Existing Conditions Plan

1. The Lot Number shown on the easterly lot should be #354.
2. Existing utility pole(s) and overhead wire/cable utilities should be shown on the plan.
3. Existing drainage, gas, sewer, and water pipe sizes should be specified on the plan.
4. Existing Hydrant (one at the Main Street and Homer Avenue intersection and another one at the Homer Avenue and Alden Street intersection) should be shown on the plan.
5. Plan shows an existing catch basin in front of the existing garage on Lot 353. The catch basin invert is 1.59' lower than the drainage manhole invert on Homer Avenue. It is unlikely that the Homer Avenue drainage system drains to this catch basin. The applicant should investigate the onsite drainage system and show the findings on the plan.

6. There are existing catch basins and drainage manholes at the Alden Street intersection and on Alden Street south of the project site which should be shown on the plan. Additional contour or grading on Alden Street is necessary to determine erosion control requirements during construction within Alden Street right-of-way.
7. The upstream sewer manhole and invert should be shown on plan.
8. Show existing water, sewer, and gas services for each building.

C-2 – Erosion Control and Demolition Plan

1. Show existing utility poles. The proposed construction entrance appears to have a pole in the middle of the entrance.
2. Add silt-sack to existing catch basins on Homer Street and Alden Street (show all catch basins near the site as required on C-1 comment #5. Proposed utilities trench and sidewalk replacement are in the public street right-of-way. Catch basins should be protected.
3. Existing water, sewer, and gas services for each building should be shown on the plan. Show existing utilities services to remain and protected for 9-11 Homer Avenue to retain, and utilities services to be removed, abandoned, or capped.

C-3 – Site Layout Plan (Comments based on this plan sheet and updated May 4, 2023, First Floor Plan)

1. Site Layout Plan should be updated with the May 4, 2023, First Floor Plan as listed in Plan References #5 above. The emergency access path surface material should be identified on the plan. Surface finish and maintenance should meet the Fire Department requirements.
2. Plan should identify snow storage area on site, to define the excessive snow, which would require removal off site for disposal by the property owner as specified on the O&M plan.
3. Land Usage Table – Chapter 282 Section 8.5.6 Dimensional Standards –minimum front yard setback in ADD-C should be 8 feet. The existing commercial building (9-11) proposed to retain has no front yard setback, this is an existing non-conforming condition, which may require a variance. Minimum rear yard setback – 12 feet required. The existing conforming 0 feet common wall side yard for building 9-11 will become a non-conforming 0 feet rear yard as the three lots merged to a single lot with double frontage on Homer Avenue and Alden Street, all side lot lines become rear lot lines. Which also requires variance approval.
4. Land Usage Table – Chapter 282 Section 8.5.6 Dimensional Standards. Proposed new commercial space #1's northeasterly corner and commercial space #2's northwesterly corner, are within the 8 feet front yard setback (6.5+/- feet as shown) and should be addressed. None of the calculations accounted for the 9-11 Homer Avenue to retain floor areas. Maximum FAR and parking requirements should be revised.
5. 282-5.4.2.3 – Buffer between Residential and Nonresidential uses. A minimum of 6 feet wide landscape area is required. 5.5 feet proposed along 220 to 228 Main Street and 3 feet proposed at the 236 Main Street northeasterly lot corner.
6. 282-5.6.- Corner Clearance – The existing parking layout on Homer Avenue should be shown on the plan, the existing curb opening has insufficient safety sight distance from the Homer Avenue east bound traffic. A 25 MPH speed limit sign is mounted on the utility pole in front of building 9-11. (Appears to lower the speed limit in front of the blind driveway/curb opening). The proposed new curb opening is 30+/- feet closer to the intersection section and exacerbates the situations. Provide driveway intersection sight distance analysis.
7. The existing commercial building (9-11 Homer Avenue) should have parking spaces provided on-site. Parking spaces calculations should be based on the proposed new (8,550 s.f. commercial floor areas per May 5, 2023 Memorandum) and the existing remaining commercial floor (3,980+/- s.f., based on building footprint, actual leasable floor space to be verified by the applicant) areas combined, and the 29 proposed new dwelling units, totaled approximately 127.6 spaces required, and reduced by 56.25% (282-8.5.13), a minimum of 72 parking spaces should be required. Insufficient parking will require Section 5.1.2 waiver.
8. Surface parking layout – GCG concurs with the Fire Department comments dated May 2, 2023. The parking space #17 shown on the May 4, 2023, First Floor Plan is within the Fire Truck (39.5

feet box truck template used on the Vehicle Turning Figure Plan) exit path. GCG recommends using the (BUS-40, 8.5' wide by 40.5' length) vehicle path to analysis the turning path for emergency vehicles access. The BUS-40 dimensions are most comparable to the Fire Engine. The Vehicle Turning Path analysis should include the turning path through Homer Avenue and Alden Street with all existing and proposed utility poles shown. Vehicle turning path should show the front wheels, rear wheels, and overhang tracks. Furthermore, the Fire Department had requested the parking spots #1 & #2 be designated as emergency vehicle parking only. Homer Avenue turning path should be analyzed to assure the emergency parking spaces (spots 1 & 2) cleared for the vehicle turning path. The Alden Street exit should also be analyzed to allow emergency vehicles to turn within the Alden Street roadway. Parking spot #10 does not meet the 9'W x 20'L standard parking stall dimensions. (Total surface parking provided 19 spaces including spot #10).

9. Section 5.1.7.1 – Provide hours of operation for the commercial uses to assess parking demand and adequate shared parking spaces. 8.5.13. - Applicant should demonstrate feasibility of shared parking spaces for the two uses and provide a shared parking agreement/plan.
10. 282-5.2 Loading area required. Section 5.2.6 – Loading Bay(s), not be less than twelve feet in width, sixty-five feet in length, and fourteen feet in height for commercial uses should be provided.
11. Section 5.3.12 – No sign proposed, signs should comply with 5.3.12.
12. Proposed sidewalks replacement within the Homer Avenue and Alden Street should be laid out with the existing and proposed relocated utility poles shown. Minimum ADA/AAB sidewalk passage width - Sidewalks should have a minimum width of 4-feet (excluding curb) with a minimum of (5' x 5') passing spaces every 200 feet or provide a minimum 5-feet wide sidewalk (excluding curb) without passing spaces. The minimum passage clearance at the utility pole should not be less than 36". Show wheelchair ramps at all driveway crossings and assessable paths.
13. The proposed residential trash and recycling room is approximately 240 s.f. in the lower level. The commercial trash room is approximately 80 s.f. on the ground floor. The existing dumpster serving 9-11 Homer Avenue's commercial uses had been eliminated, new trash arrangement for the commercial building (9-11) to remain should be provided. Applicant should provide trash/recycle volume sizing for the proposed uses (residential and commercial) and clarify how the roll-off containers (per May 5, 2023, Memorandum) being transported from the lower level for pickup.
14. The Lower-Level Parking Layout full size plan should be provided as part of the Civil plan set, the parking plan should be reviewed and certified by the Civil Engineer. Based on the Architectural Lower-Level Parking Plan dated April 13, 2023, 41 parking spaces were proposed in the lower level. However, none of the lower-level spaces meet the standard 9' x 20' dimension. The proposed standard spaces are 8.5+/- feet wide by 16.5+/- feet length with 22+/- feet aisle. The proposed compact spaces are 7.5+/- feet wide by 15+/- feet length with 21+/- feet aisle. As presented, vehicles maneuverability at the bottom of the ramp is questionable. A standard vehicle would not be able to make the turns (in and out) per vehicle tracking template. GCG recommends showing building columns on this plan and demonstrating vehicle maneuvering with vehicle turning path. The parking layout is substantially undersized per industrial standards. The no parking area between the two proposed handicap accessible spaces should be eight feet in width suitable for van access. (As shown the total parking space does not meet the minimum parking spaces requirements.) The commercial portion of the development requires 39 parking spaces (reduced with the 56.25% allowance in the ADD). Therefore, the lower-level parking should be shared with the commercial and residential users with no restrictions.
15. GCG recommends adding EV charging spaces.

<u>C-4 – Grading, Drainage & Utility Plan.</u>

1. Plan should be updated with the emergency vehicle access path as shown on the May 4, 2023, First Floor Plan)

2. Show 9-11 Homer Avenue commercial building's (to be retained) sewer, water, and gas services. Show proposed utilities upgrade or existing services to be protected.
3. The proposed closing of existing curb cut in front of lots 353 and 354 would create a depression on Homer Avenue and potential icy hazardous conditions during the winter months, the existing spot grades shown a 5+/- inches dip at the existing northeast curb opening gutter and should be addressed.
4. Spot grades should be provided at all accessible parking spaces and access paths to assure the maximum cross slope not to exceed 2% in any direction.
5. Specify spot grades at all proposed crosswalks and wheelchair ramps.
6. Show downstream sewer manhole invert to establish the sewer connection invert grade. The proposed lower-level garage slab grade at 174.60 is lower than the proposed sewer connection invert. A 2" force main is shown on the plan and referenced to a lower-level parking and plumbing plan, (not included in the package). Since the garage entrance is covered by the building roof. There should not be any surface runoff drains down to the underground garage with proper grading. The runoff water should be limited to vehicles dripping and winter snow carried into the garage. The Applicant should consult with the building department to conform with the necessary of a pump station. The proposed 2" sewer force main should comply with Chapter 326. A lower-level parking layout should demonstrate the accessibility of the pump station maintenance vehicles.
7. A hydrant (show existing and proposed new) should be located or installed near the proposed mechanical room (normally within 100 feet, applicant should verify the minimum distance with the Ashland Fire Department).
8. Show natural gas services connection, where applicable.
9. Show existing utility poles, show proposed underground electric, telephone, cable, and any other underground utilities connections.
10. Show sewer service pipe size and slope between proposed SMH to sewer main connection.
11. Drainage overflow connection to the Homer Avenue drainpipe, (works within the public street right-of-way should comply with Chapter 344 – Subdivision of Land standards), should be equipped with a new drainage manhole. 344-23. B. (4) – Drainpipe within the street right-of-way should be RCP (reinforced concrete pipe), Minimum cover for drains.
shall be twenty-four (24) inches. Piping with less than thirty-six (36) inches of cover shall be laid with reinforced concrete Class V pipe.
12. The proposed infiltration chambers system is a Shallow UIC Class V Injection Well and required to register to MassDEP prior to start of construction and comply with the MassDEP's standards design guidelines.
13. Infiltration Chambers system should be setback 10-feet minimum from foundation wall.
14. Revise General Utility Notes, multiple notes referenced to the City of Melrose, all sewer system should comply with Ashland Chapter 326 and all water system should comply with Ashland Chapter 334.
15. Plan called for removing the existing drain line on Homer Avenue. GCG recommends abandoning the drain in place with bricks and mortar cap if existing pipe is in good condition, or filled the pipe with floatable fill and capped if pipe is in poor condition, to avoid pavement patching and disturbing the road gravel base.

<u>D-1 – Construction Details</u>

1. Section 326-14 - Typical Trench Section should specify 24" selected borrow above the sewer pipe. Sewer pipe material should conform with Chapter 326-15

<u>D-2 – Construction Details</u>

1. Dewatering detail should be provided and comply with MassDEP - Activities and Use Limitation (AUL) requirements.
2. Add Hydrant detail and should comply with Section 334-56 – Hydrant and valve should "Open Left".

3. Add Precast Concrete Drain Manhole structure (for the overflow drainpipe connection within the street right-of-way), bottom should have a cement concrete or brick table/invert like the one shown on MassDOT Construction Standard details drawing number E202.4.0. Concrete structure should with standard H-20 rated top cone or flat slab.

Architectural Plan Set

1. Show North arrow on all plan views.

Lower-Level Parking Plan

1. Lower-Level Parking full size plan should be provided. Vehicles maneuverability is questionable. Parking stall dimensions do not meet industrial standards. (See Civil Plan C-3 comments above.

First Floor Plan.

1. See Civil Plan C-3 comments above.
2. GCG recommends adding EV charging spaces.

Landscape Plan

1. A formal landscape plan (like the Ground Floor Planting Plan and Green Roof Landscape Plan presented in the Planning Board meeting) should be provided, plan should be updated to match the latest site layout and demonstrate compliance with Sections 5.4, 5.4.1.2; 5.4.2.3;5.4.3.1; and 5.4.4.3.

9.4.4.8 - Site Lighting Layout, Photometric & Schedules

1. Photometric data (plan) and lighting plan and schedules should be provided.
2. Provide hours of operation for the outdoor lighting.

9.4.6.9 & 9.4.8 - Site Traffic – Vehicle Trip Analysis

1. The proposed new driveway curb opening with the existing 9-11 commercial building to remain created a hazardous with limited safety sight distance intersection. GCG recommends a Traffic Impact Analysis (TIA) be performed to analysis the proposed driveway location, intersection safety sight distance, shared parking demand, and traffic trap generations for the uses.
2. TIAS should include vehicle accessibility analysis for the internal lower level (under buildings) parking layout.

Stormwater Report

1. Chapter 247-6, this project requires a Stormwater Management Permit under 247-6 A, B, and C. Hence, should comply with Chapter 343.
2. The applicant should investigate the function of existing drainage catch basin structure on site, (in front of the 3 bays garage building on Lot 353).
3. Building 9-11 (to retain) has a flat roof system, existing roof runoff discharge location(s) should be included in the study.
4. On-site soil test pits should be performed to determine soil drainage classes and estimated seasonal high ground water (ESHGW) and restricted layer elevations. The proposed infiltration system should meet the minimum separations between the bottom of the system to the ESHGW and restricted layer.
5. The pre-development and post-development HydroCAD studies appeared to be based on the NOAA Atlas 14 precipitation data as preferred by the Ashland Conservation Commission.
6. The pre-development watershed EWS-1 should include the large gravel area between Lot 353 and 354, where appeared to be collecting surface runoff and possible providing limited exfiltration, per July 2022 Google Street View and the existing edge of pavement line shown on the existing conditions plan. There appeared to be some additional lawn areas (good condition with greater than 75% grass coverage) around building #35 and building 47-49 which should be accounted for the pre-development runoff peak rate and volume for all four study storm events.

The gravel surface also affects the groundwater recharge volume and re-development status of this site. Any additional impervious areas should be treated as new developments. The existing gravel surface may have a high CN value similar to pavement surface. However, compliance with the TSS removal and nutrient removal treatments and recharge volume are required.

7. The post-development PWS-1B should be updated with the emergency vehicle access path and any associated new impervious areas. Which affects the overall impervious areas, ground water recharge volume and 65% Rule and treatment requirements under 343-8.1.6.
8. Update total impervious area and provide treatments to meet 343-8. Provide total TSS and phosphorus (TP) calculations. The proposed CDS unit qualified for 50% TSS removal credit, but the TP removal would most likely require retaining 1-inch times the total site post-development impervious area volume to meet Section 343-8 requirements.
9. Existing Homer Avenue drainpipe size should be identified and check for available capacity to handle the overflow connection.
10. Inlet grate and drainpipe capacity and velocity calculations should be provided.
11. Water Quality Unit sizing calculations should be provided.
12. Operation and Maintenance plan, GCG recommends catch basin grates and sump be inspected at least 4 times per year and cleaned four times per year or whenever the sediment deposit is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin.
13. Additional Operation and Maintenance for the roof drain inlet should be specified, roof drain gutter and leader should be inspected and cleaned at a minimum twice per year.
14. Operation and Maintenance plan should include a signature block, annual operation budget and sample O&M log.
15. An illicit discharge statement for the site should be provided.

Summary

The proposed driveway intersection at Homer Avenue has insufficient safety sight distance and should be addressed. The lower-level parking layout vehicles maneuverability is questionable. The lack of parking spaces should be further analysis by a traffic impact study.

If you have any questions regarding this matter, please contact our office.

Respectfully submitted,
GCG ASSOCIATES, INC.

Michael J. Carter

Michael J. Carter, P.E.
Project Manager