

May 5, 2016

GCG Associates, Inc.
Civil Engineering and Land Surveying
84 Main Street
Wilmington, MA 01887

RE: Colbea Enterprises, LLC
125 Union Street
Ashland, MA
AEI Project #: 1741.214

In response to your Engineering Review of the Site Plans and Special Permit and Variance, for 125 Union Street, Ashland, MA, we offer the following responses;

General Comments:

Plan

Plan Sheet D-1 – Site Demolition Plan

1. The limit of Homer Avenue asphalt sidewalk to be removed should be specified on the plan.

A note has been added to the site plan specifying the limit of asphalt removal.

2. The ‘existing concrete *curb* to be replaced’ label along Union Street should be verified.

The note has been corrected on the plan

Plan Sheet C-1 – Site Improvement Plan

1. The proposed Homer Avenue concrete sidewalk limit should be specified on the plan.
A note has been added to the site plan specifying the limit of the proposed concrete sidewalk.
2. Existing crosswalks and travel lanes/pavement marking for Union Street and Homer Avenue should be shown on the plan.

All existing crosswalks, travel lanes and pavement marking located on the corner of Union St and Homer Ave. have been added to the site plan.

3. Proposed handicap ramp locations should be specified on the plan, handicap ramp(s) should line up with the existing crosswalks on Union Street and Homer Avenue. Ramp(s) connects to the crosswalk(s) should be equipped with detectable warning panel.

A handicap ramp per ADA requirements at the location of the existing crosswalks has been added to the site plan.

4. 282-3.1.2 – the proposed Drive-Thru use in Industrial Zoning District requires a Special Permit from the Zoning Board of Appeals (ZBA). The applicant has filed a Special Permit Application for the proposed use and Section 282-4.1.1 Building Setback.

ZBA hearing is scheduled for 5/24/16.

5. 282-4.1.1 – The proposed building and canopy setback do not meet the minimum front and sides yards requirements. The applicant has requested a ZBA Special Permit for the building setback. General Notes 15 and 16 and General Utility Note 11 reference proprietary rights of the Engineer of Record. The Engineer of Record should be identified on the plan.

Ayoub attended ZBA hearing for special permits on 4/26/16, Board waiting for additional information and hearing is to continue on 5/24/16.

6. 282 – 5.1.2 – Parking requirements calculations should include break down calculations for the leasable floor area. The proposed building consists of 2,940 square feet ground floor area is 4,410 square feet. The parking calculations were based on 2,080 square feet (47%) leasable floor area, based on retail business parking requirements of 1 space per 180square feet of leasable area the required spaces should be 11.55. Calculations should be verified, clarification for the 47% leasable floor area should be provided.

The parking calculations have been updated.

7. 282-5.1.3 – the proposed southwesterly parking spaces is located within the 10 setback of Union Street Right-of-Way.

The parking spaces have been modified to provide the 10' setback and reduced to one space.

8. 282-5.1.4.2 – This section requires not more than one entrance and one from such lots per

two hundred feet of street frontage on Union Street, and a single entrance exit on Homer Avenue.

Due to the use and facility configuration, the existing non-conforming entrances and exits are needed to provide adequate onsite traffic flow.

9. 282-5.1.4.5 – Plan should show sufficient stacking space for the drive-thru facility.

Stacking spaces are provided on the Drive-Thru Queue Plan.

10. 282-5.1.6.3.b – For parking areas of eight cars or more, there shall not be more than one entrance and one exit from such lots per two hundred feet street frontage thereof. The site existing has two entrances and exits along Union Street's 167.5 frontage. The plan proposed to maintain the existing curb cuts.

Due to the use and facility configuration, the existing non-conforming entrances and exits are needed to provide adequate onsite traffic flow.

11. 282-5.1.4.6 – The plan calls for a new Dunkin' Donuts Drive-Thru menu board, and is a fast food drive-thru facility, the plan should show the required minimum four spaces between the pick-up window and order point, at least four spaces provided in advance of the menu board, one space at the order point, and one soave at the menu board. The menu board(s) should match with the proposed Signage Plan SG-2.

The site plan and proposed Signage plan has been updated.

12. 282-5.2 – Loading area is required. Loading area should be provided for re-filling the underground fuel storage tanks. Parking spaces on top of the storage tanks are not recommended.

Loading area has been added to the plan. The three parking spaces have been reduced to one and loading will not cause conflict due to off peak delivery times.

13. 282-5.3.7 – The proposed signage exceed the maximum of signs allowed. This is an existing non-conforming situation. The applicant has requested a ZBA variance relief, the applicant has proposed 10 signs with total area of 251.9 square feet (currently there are seven signs on site with total sign area of 129.7 square feet).

ZBA Hearing is scheduled for 05/24/16

14. 282-5.4.1.2 – Landscape screening is required along front lot line (six feet minimum required), existing non-conforming condition.

Due to site restrains and facility configuration, a 3' wide landscape island has been added to improve existing non-conforming conditions.

15. 282-5.4.2.3 – Verify the existing uses of the abutting property (East side abutter), if the property is currently in residential uses, than a six feet wide landscape buffer is required. There is currently no landscape buffer at the southerly portion of the property line between Lot 14-423, this is an existing non-conforming situation.”

Due to site restrictions and facility configuration, a fence is being provided as screening for the residential abutting property to improve to existing non-conforming site.

16. 282-5.4.2.3 – Buffer area along Union Street street line is required. This is an existing non-conforming situation. However, the existing fuel pump traffic is parallel to the Union Street sidewalk and the proposed pump station is perpendicular (head on) to the sidewalk pedestrian should be provided. Landscape feature should be incorporated to minimize headlight glare onto Union Street.

The site plan has been updated where a 3' landscaped island is provided.

17. 282-5.4.4 – Parking areas containing eight or more spaces shall contain or bordered by at least one tree per eight spaces. Such trees shall be in any case not further than five feet from the parking cell.

Due to site restrictions and facility configuration, we are unable to provide the trees at the location required. The trees have been added to the north of the site.

18. 282-6.2.1 – Driveway(s) sight distance in each travel direction should be provided, the driveways are existing and may not meet the 400 feet of visibility requirements. The westerly Union Street driveway is located within ten feet of a side lot line. The easterly Union Street driveway is located within fifty feet of the intersection of side lines of intersecting streets. The two curb openings occupied more than forty percent of the lot frontage on Union Street. The driveways and curb cuts are existing non-conforming situations.

Sight distances have been added to the site plan.

19. 282-6.2.2 – Plan should show the required off street queues space (two spaces per filling station) for each pump. The proposed pumps are located within forty feet of a street line. The existing pumps do not meet the forty feet setback.

ZBA hearing is scheduled for 05/24/16 for all special permit and variances.

20. 282-8.1.4 – The proposed basement is below the 180 floodplain elevation. The proposed first floor finish elevation is at elevation 180.15', 0.15 feet above the 100-year flood elevation. Basement should be flood proved and electrical and furnace system should be set above the flood elevation for safety.

Asphalt damp proofing will be provided on all basement walls.

21. 282-8.1.4 – The eight parking spaces at the fuel dispensing island should be shown on the plan, parking aisle dimensions should be included on the plan. Aisle width for the three southeasterly parking spaces is approximately twenty feet. Plan should show and prove adequate maneuver spaces for parked vehicle.

The eight spaces and parking aisle dimensions at the fuel islands have been added to the site plan. The three parking spaces have been modified and reduced to one space.

Plan Sheet C-2 – Site Grading Plan

1. The proposed infiltration basin should be equipped with an emergency overflow with erosion protection (rip-rap lined). Maintenance access path should be provided around the basin

A broad crested weir is provided as an emergency outlet.

2. There appears to be filling in the easterly portion of the proposed building with existing grade below 180. The fill volume should be included in the Cut and Fill calculations.

The cut and fill calculations have been updated.

3. The southerly pavement area (south of canopy) is graded with surface runoff sheet flow to Union Street; this area should be graded to drain an oil/grit separator for treatment. This area is next to the fuel tanks refill/loading area, any chemical spill within this area would drain directly to the street catch basin.

A new catch basin and oil/grit separator are being provided to capture the southern pavement area. The drainage plan and stormwater management report has been updated.

4. Catch Basin #1 connects directly to Catch Basin #2, MassDEP requires catch basins be designed as off line system in order to qualify for 25% TSS removal, a drainage manhole should be added to meet the requirements.

Catch basins #1 and #2 have been designed as offline systems and separated to drain onto two different chamber systems.

5. The SC-740 Chamber System does not meet the two feet separation to the estimated seasonal high ground water.

The system has been modified to meet the required two feet minimum separation to the seasonal high ground water.

6. The two Chamber infiltration systems are Shallow UIC Class V Injection Wells (310

CMR 27.00), MassDEP registration is required. A 10' minimum setback to the property line is required for the Chambers and Oil Separator unit. (Reference – Standard Design Guidelines for Shallow UIC Class V Injection Wells).

The drainage plan has been updated

7. Clean out/inspection port for each chamber system and isolator row should be specified on the plan.

The inspection ports have been added to the drainage plan.

Plan Sheet C-3 – Site Utility Plan

1. Sewer service and grease trap inverts should be shown on the plan grease trap outlet pipe diameter should be called out on the plan.

Inverts and pipe information have been added to the utility plan.

2. Drain pipe diameter, length and slope should be labelled on the plan. Inverts for the roof drain flared end section and the forebay inlet pipe from oil/grit separator should be specified on the plan.

Inverts and pipe information have been added to the plan.

Plan Sheet L-1 – Site Landscape Plan

1. 282-5.4.5 – The proposed landscape plan does not meet the screening and planting requirements. There is no landscape buffer along Union Street. Interior landscaping area is required in parking areas containing eight or more spaces. This is an existing non-conforming condition.

Due to the configuration of the facility and site restrains we cannot provide any additional interior landscaping beyond the existing non-conforming conditions. A 3' landscape buffer strip has been added along Union street.

Plan Sheet ER-1 – Site Erosion and Sediment Control Plan

1. The minimum length for temporary gravel construction entrance exit should be fifty feet.

The gravel construction entrance has been updated on the soil erosion and sediment control plan.

2. Silt sack should be specified to protect the on-site catch basins during construction. The double catch basin inlet for the northerly oil/grit separator should be shown on the plan with temporary silt sack protection.

The double catch basin inlet has been added to the plan. A note for filter protection on all inlets has been added to the plan.

3. The existing catch basin located at the northwest corner of Homer Avenue and Union Street intersection should be protected with silt sack during construction, silt sack details and specification should be specified on the plan.

A note to protect all inlets with storm drain filters has been added to the soil erosion and sediment control plan.

4. Post Construction Phase – Note #8, snow storage location is not specified in the plan. A separate long term Operation and Maintenance Plan should be required.

Snow storage areas are shown on the site improvement plan and an O & M plan has been prepared.

Plan Sheet 1 – Lighting Plan

1. 282-8.6.10.3 – The photometric lighting plan shows illumination spilled over onto Lot14-423 (west side abutter), some illumination over the Homer Avenue and Union Street sidewalks is acceptable.

The design has been revised to provide rear shields to all lights. One site light was removed and the wattage on the canopy and wall packs was reduced to minimize spillage.

2. 282-8.6.10.7 – The proposed light fixture should be mounted no higher than fifteen feet. (Site Light detail, Plan sheet SD-1, specified 18' mounted height).

The Site Light detail has been updated on detail sheet SD-1.

Plan Sheet SG-1 & SG-2 – Existing Signage Plan and Proposed Signage Plan, respectively

1. 282-8.5.3.7 – The existing and proposed number of signs exceeded the maximum number of signs regulated in this section. This is an existing non-conforming situation. The applicant has requested a Zoning Board of Appeals variance relief, the applicant has proposed 10 signs with total area of 251.9 square feet (currently there are seven signs on site with total sign area of 129.7 square feet).

As noted.

2. Handicap curb ramp detail with detectable warning panel in front of the existing crosswalk for Homer Avenue and Union Street sidewalk should be included on the plan.

Handicap ramp and detectable warning panel details E 107.2.1 and E107.6.5 have been added to detail sheet SD-1.

3. Roadway sidewalk detail with existing granite curbing for the Homer Avenue and Union Street sidewalk should be included on the plan.

Sidewalk detail has been added to the detail sheet.

Plan Sheet SD-3 – Site Detail Sheet

1. Oil/Grit Separator outlet pipe diameter should be specified on this detail drawing or called out on the utility plan.

Oil/ grit Separator detail has been updated.

2. Oil/Grit Separator access ports should be equipped with manhole frame and cover and raised to the finish grade.

Oil/ grit Separator detail has been updated.

3. There is no sewer manhole proposed on this site, drainage manhole detail should be added.

Sewer manhole detail has been removed and replace by a drain manhole detail.

Stormwater Report

Massachusetts Stormwater management Standards Analysis:

1. Standard 4 – Proposed catch basins #1 and #2 are connected in line. MassDEP requires Deep Sump Catch Basin to be designed as off-line system for 25% TSS removal credit.

Catch basins #1 and #2 have been updated to be offline.

2. Standard 7 – The proposed work is considered redevelopment project, a Checklist for Redevelopment Projects should be submitted. (Volume 2 – Chapter 3)

As noted.

3. Standard 9 – A long term Operation and Maintenance (O&M) plan is required, the plan should cover the maintenance of the catch basins, oil/grit separators, underground

chamber infiltration system, sediment forebay, infiltration basin, spill prevention, street sweeping, and snow storage location. O&M sample log, cost estimate. O&M responsible party, and signature should be included in the plan.

A long term Operation and maintenance plan has been added to the stormwater package.

4. Standard 10 – Illicit discharge should be addressed on the report by the applicant.

The drainage design has been updated and currently presents no illicit discharges.

5. Proposed Watershed Plan – the watershed area adjacent to the Union Street labelled drains to CB#1, it appears this area drains to Union Street.

The note has been updated

6. Cut and Fill Map – there is fill area located at the easterly side of the proposed building should be included in the cut and fill calculations.

The map and cut/ fill calculations have been updated.

HydroCAD Report

1. The proposed SC-740 Chamber System does not meet the two feet separation to seasonal high water table requirements.

The system has been modified to meet the required two feet minimum separation to the seasonal high ground water.

2. Coverage over the SC-740 Chamber system should be verify, a minimum of 18 inches plus the proposed pavement thickness is required.

The chamber system has been changed to a smaller system from a SC-740 system to a SC-310 chamber system and the min cover verified.

3. Both underground Chamber infiltration systems are considered Shallow UIC Class V Injection Well (310 CMR 27.00), please verify the system and oil/water separator setback requirements. (Minimum 10 feet separation to the property line is required, please verify other setback requirements.)

All drainage structures have been updated to meet the 10 foot minimum separation to the property line.

4. Isolator row sizing calculations for the two chamber systems should be included in the report.

The stormwater report has been updated with the Isolator row sizing calculations.

5. Sediment forebay sizing calculations should be submitted for review.

The stormwater management report has been updated to provide the sediment forebay sizing calculations.

6. Mounding calculations for the chamber systems are required.

The stormwater management report has been updated to provide mounding analysis for the chamber systems.

7. Oil/Grit Separator sizing calculations should be submitted for review. MassDep requires the first chamber to provide the pool storage volume for the water quality volume (WQV).

The stormwater report has been updated with Oil / Grit Separator sizing calculations.

8. Catch basin should be designed as off-line system to qualify for 25% TSS removal, catch basin to drainage manhole connection is recommended.

Drainage design has been updated.

9. Infiltration Basin and Chamber System should be designed to draw down within 72 hours, calculations support should be submitted.

Infiltration Basin and chamber systems have been designed to draw down within 72 hours, calculations are provided in the stormwater management report.

10. Infiltration basin should be equipped with an emergency spillway with erosion protection per Stormwater Management Handbook.

A Broad Crested Weir emergency outlet has been provided to the infiltration basin and added to the site plan.

11. Vehicle access path should be provided for the infiltration basin.

Due to the site configuration, we are unable to provide a vehicle access path for the infiltration basin without affecting the sites stormwater drainage system.

CHAPTER 282 - ZONING

Note: Zoning is reviewed with respect to sections 8.1 – Floodplain Overlay District (FPOD) and 9.4 – Site Plan Review

The site is located within a FPOD with the 100-year base flood elevation at 108.0 per FIRM Map number 25017C0514F, dated July 7, 2014

282-8.1.1 The proposed cut and fill calculations did not account for the easterly building fill area.

The Cut and Fill calculations have been updated.

282-8.1.1 Hazard protections – the proposed basement is entirely below the flood elevation 180.0, and the proposed first floor elevation 180.15 is less than two inches above the 100-year flood elevation. The basement floor plan (Plan sheet A1.0) called out electrical panel on the basement wall. The proposed plan should show prevention for flood water entering the basement and safe guard the electrical system.

Asphalt damp proofing will be provided on all basement walls.

282-8.1.3 The proposed works is within the 100-year floodplain and requires filing with the Ashland Conservation Commission and MassDEP.

As noted.

282.9.4.4 The location of the parking spaces at the gas station should be shown on the plan, the travel flow compatibility for the proposed parking spaces and loading area should be demonstrated.

The eight spaces and parking aisle dimensions at the fuel islands have been added to the site plan. The three parking spaces have been modified and reduced to one space.

282-9.4.1.1 A construction timetable should be included in the application.

As noted.

Sincerely,

Alan J.Micale, P.E.
Vice President

Attachments