

Ms. Julie Mercier, Assistant Department Head  
Community Planning & Development Commission  
Town of Reading  
16 Lowell Street, Town Hall  
Reading, Massachusetts 01867

June 1, 2022

Ref. T1184

Re: 459 Main Street Redevelopment – Reading, Massachusetts  
Supplemental Traffic Impact Assessment

Dear Ms. Mercier:

TEC, Inc. (TEC) had previously provided a Traffic Impact Assessment (TIA), dated March 3, 2022, on behalf of GCFodera Contracting (the “Applicant for the proposed redevelopment of the #459 Main Street (Tax Map 17, Lot 62) property in Reading, Massachusetts (the “Project”). The TIA assessed the proposed mixed-use redevelopment to include a four-story mixed-use building with twelve (12) residential units on the upper three floors and up to ±2,000 of ground-floor retail space. Following several meetings with the Reading Community Planning & Development Commission (CPDC), the access plan for the site was settled to include an entrance only driveway along the easterly side of Main Street and an exit only driveway along the northerly side of Washington Street. TEC is in receipt from your office of the following comments from the Reading CPDC for consideration:

### **CPDC Comments**

***Turning Movements*** - My understanding is that the CPDC is not concerned solely with trip generation and the potentially negligible delay that cars from 12 units will add to LOS F roadways, or with the crash history of the intersection as currently configured, but instead they are looking to understand how the specific circulation pattern proposed for your project will work safely given the existing conditions at peak times along the Main Street and Washington Street segments and at the intersection. Turning movements of concern include: vehicles exiting the project onto Washington Street eastbound (left-hand turn out of site where westbound traffic blocks views of eastbound cars); vehicles entering the project from Main Street southbound (left-hand turn into the site) such that they are stopped in the travel lane which may result in other vehicles moving around them, in addition to the double-threat of crossing two lanes of oncoming traffic to enter the site; vehicles entering the project from Main Street southbound (left-hand turn into site) and Main Street northbound (right-hand turn into site) during times of internal queuing and when delivery trucks are utilizing the loading zone.

**TEC Response:** As this comment indicates, the concern here pertains primarily to an existing traffic condition based on existing municipal roadway infrastructure – not to the projected traffic impact of the project itself. Therefore, completely resolving this concern would require municipal (and possibly MassDOT) action to address this existing infrastructure issue. Since TEC’s review is limited to the effect of this particular project, the assessment of municipal and/or state infrastructure improvements is beyond the scope of TEC’s review.

TEC notes that the Washington Street/Main Street intersection was included in the Town's September 30, 2020 [Walkers Brook Drive Corridor Improvements](#) report prepared by Green International Affiliates, Inc. This report recommended corridor improvements, such as a road diet or shared use path to reduce total vehicle trips, improve pedestrian safety, and encourage non-auto dependent modes of transportation. It should be noted also that MassDOT is in the process of implementing similar corridor improvements in state-controlled sections of Route 28 as part of its ongoing [Route 28 Road Diet](#) pilot program. To date, however, the Town of Reading has not implemented these same changes to the Town-controlled sections of Main Street.

Green International's report also recommended the following improvements specifically to this intersection:

- Protected left-turn lanes to reduce number of rear-end and angle crashes
- Modernized Traffic Signal System
- Signal head upgrades including backplates w/ retroreflective borders

Turning from issues of municipal infrastructure to the project itself, as reported in the TIA, the site is expected to result in a minimal amount of site generated traffic volumes on an hour-by-hour basis. For instance, vehicles entering and exiting the garage during peak traffic conditions would generally account for no more than three (3) vehicles per hour entering from Main Street and three (3) vehicles exiting to Washington Street. Three trips per hour translates to approximately one vehicle every twenty minutes.

In addition to the fact that the Project will generate very little traffic, the projected trip generation to and from the project site (shown in Table 5 of the TIA) indicates that traffic to and from the site via Main Street travelling to/from the north will represent only 20% of the project traffic. Therefore, left turn movements from Main Street southbound into the site will be a rare occurrence. Similarly, traffic to and from the site via Washington Street travelling to/from the east will represent even less project traffic – just 15%. Therefore, left turn movements from the project onto Washington Street eastbound will also be a rare occurrence. Table 5 demonstrates that the primary source of traffic to/from the site would be from Main Street to the south (Interstate 95 / Route 128). Because of this, the vast majority of vehicles entering and exiting the site are projected to be making right turns, where there is no issue of conflicts with oncoming traffic.

Although these turning movements will be exceptionally rare, TEC understands the concern for a potential vehicle entering the site via a Main Street southbound left-turn. However, this condition is no different than the dozens of similar movements along Main Street northbound and southbound south of the site where Route 28 is a four-lane cross-section. The #459 Main Street site benefits as compared with other sites along Main Street as this movement is 1) directly north of the Washington Street signalized intersection and therefore will be allotted defined gaps in northbound traffic to turn left during red signal intervals and 2) occurs immediately after the diverge of travel lanes southbound where the inside lane is not formalized but the width of the roadway provides space for vehicles to by-pass without

crossing over shoulder lines. It should be noted also that if the Town of Reading were to implement the Road Diet recommendations of Green International to this section of Main Street (as has been implemented by MassDOT in other sections of Route 28) would entirely eliminate this problem by providing a dedicated left turn lane to allow vehicles to enter the site without obstructing southbound traffic.

For the minimal site traffic exiting onto Washington and turning left to the east, the ability for a vehicle to turn left is entirely up to the vehicles along Washington Street westbound approach who have the right-of-way. The on-site drive aisle allows for vehicles to stack in the garage without obstruction to any public infrastructure. As noted above, the number of vehicles exiting the driveway is estimated at three (3) per hour during peak traffic periods, Figure 4 of the TIA shows that this left-turn movement would be an infrequent occurrence. Should a vehicle block the queue along Washington Street approaching Main Street, the condition at this frequency is no different than other residential homes along Washington Street. In fact, the proximity of the Main Street intersection may actually make this maneuver easier for vehicles exiting the project site, since drivers approaching or stopped at a red light may be more likely to leave room for drivers to exit the site. For this reason, TEC's opinion is that the presence of the Do Not Block the Driveway pavement markings are not required for this location; but have been offered by the Applicant to assist in easing concerns.

The Applicant expects no substantiate queuing along the Main Street entrance driveway based on the minimal number of vehicles entering the site during any hour of the day. The driveway opening along Main Street has been designed in a manner to allow for a delivery vehicle within the loading zone to not block general traffic entering the site. The main drive aisle passing the loading area is greater than 15-feet and allows for free movement of vehicles to by-pass any stopped loading vehicle in the designated area. The building garage opening and position of the loading area has been designed in such a manner to allow for vehicles entering the driveway from both directions of Main Street to clearly see a potential loading vehicle stopped in the loading area prior to completing its turning movement into the site.

***Design Elements*** - Design elements of concern include the feasibility of delivery trucks using the internal loading area instead of parking on street, exiting via Washington Street instead of backing out onto Main Street, and how both of these will be managed practically speaking. Another design element flagged as problematic by at least one CPDC member is the curb cut on Main Street and how it breaks up the commercial continuity and pedestrian experience. The CPDC is not interested in seeing off-site pavement markings (the 'X') used to prevent traffic queuing on Washington Street in front of the exit. Moreover, 'No Left Turn' signs are not always enforceable and sometimes result in simply pushing a u-turn movement onto another site.

**TEC Response:** The designated area within the garage has been designed to accommodate the typical delivery vehicle / van which would be expected to access the site. Modifications to the plans during the Town process has allowed the clearance height within the garage to accommodate an 11'-6" vehicle (13'-6" podium height) through the drive aisle from Main Street to Washington Street. This clearance will allow for most delivery vehicles and vans to access the garage without issue. Signage and pavement markings within the garage will

define the space separate from the main drive aisle. These vehicles will not be allowed to back-up onto Main Street and will exit the site via the Washington Street exit.

With respect to larger delivery vehicles, the following condition was included in the CPDC's approval of the Rise 475 project next door, and a similar condition tailored for this specific project would be appropriate here:

Front door and on-street deliveries are NOT allowed for non-residential establishments on Main Street. The project includes one 12'x35' van loading and unloading area within the parking garage that is accessed via the same drive aisle as the rest of the parking garage. The garage will be able to accommodate deliveries from vehicles that meet the 10' clearance. The Applicant shall request permission from the Board of Selectmen, and if approved, will provide up to three 8'x20' parallel parking spaces along Main Street for use as short-term parking or retail loading/unloading. No changes to the widths or roadway configurations of Main Street or Green Street are proposed.

As noted previously, the presence of the Do Not Block the Driveway pavement markings are not required for this location; but have been offered by the Applicant to assist in easing concerns. Similar to the 'No Left Turn' signs. These can be removed from the project at the direction of CPDC.

With respect to the Main Street curb cut, this is necessitated by the project. Issues of commercial continuity and pedestrian experience have been addressed in the project architecture and design.

The designated area within the garage has been designed to accommodate the typical delivery vehicle / van which would be expected to access the site. Modifications to the plans during the Town process has allowed the clearance height within the garage to accommodate an 11'-6" vehicle (13'-6" podium height) through the drive aisle from Main Street to Washington Street. Signage and pavement markings within the garage will define the space separate from the main drive aisle. These vehicles will not be allowed to back-up onto Main Street and will exit the site via the Washington Street exit.

The presence of the Do Not Block the Driveway pavement markings are not required for this location; but have been offered by the Applicant to assist in easing concerns. Similar to the 'No Left Turn' signs. These can be removed from the project at the direction of CPDC.

**Peer Review** - *At each meeting so far you have offered for the Traffic Technical Memo prepared by TEC to be peer reviewed. This is an interesting idea, and not one that the CPDC has taken you up on at this time. However, if you really want a peer review, then I believe the first step would be for TEC to respond to CPDC's concerns and to address the turning movements and design elements noted above. Then, a peer review of that information would be appropriately aligned, or perhaps no longer needed if the concerns are adequately addressed by TEC.*

It is the intent of this memorandum to address the CPDC's remaining concerns, as requested by this comment. The Applicant has proposed on multiple occasions that the project's access arrangement be peer reviewed as a condition of approval for the purpose

of determining whether there are any ways to improve site access. The Applicant is still agreeable to this as a condition of approval.

TEC further recommends that the Town of Reading consider implementing the recommendations of Green International with respect to corridor improvements on Main Street and Washington Street. As noted above, however, this is an issue of municipal infrastructure, which is beyond the scope of this project.

Please do not hesitate to contact me directly if you have any questions concerning our supplemental assessment at 978-794-1792. Thank you for your consideration.

Sincerely,  
TEC, Inc.  
"The **E**ngineering **C**orporation"



Samuel W. Gregorio, PE, PTOE, RSP<sub>1</sub>  
Project Manager / Senior Design Engineer

