CIVIL DESIGN GROUP, LLC

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October 16, 2023

via email

Leicester Planning Board Town of Leicester 3 Washburn Square Leicester, MA 01524

Re: Proposed Restaurant and Retail Development 1621 Main Street, Leicester, MA Quinn Peer Review- Response to comments

Dear Planning Board Members:

On behalf of the applicant, HY Ventures Leicester, LLC, Civil Design Group, LLC (CDG) is in receipt of the peer review comment letter, dated 10/10/2023. Our responses to the comments are provided in **bold** below the original comments and are in part based on our teleconference call on 10/13/2023. Supporting plans, calculations and additional information are enclosed herein:

1. The submitted information should include the anticipated schedule for development. (REF: Site Plan Review Regulations, II, E, 4).

CDG Response: Site improvements: 6 weeks after final approval from all state and local authorities - (house demo to be completed in November if favorable outlook from planning board meeting)

- Construction start: 2 weeks after site work commences
- Building shell: Completed within 4 months of construction start
- Building interior fit-out: Completed within 3 months of building shell completion.
- Project completion: Completed within 2 months of interior fit-out completion.
- 2. Leicester Planning Board may wish to request the Engineer address pedestrian access. (REF: §5.5.02.2, A, 8).

CDG Response: The pedestrian access has been extended to Main Street.

3. Accessible parking spaces are called out to be 8 feet wide; minimum parking space width is 10 feet, (REF: §5.5.02.2,B, 1, and *Leicester Parking Regulations* IV, A).

CDG Response: Our office is aware that the parking space requirements are 10'x20'. Our office interpreted this regulation to be intended for non-accessible parking spaces, as accessible parking spaces are regulated under 521 CMR – Architectural Access Board Code, as referenced in Section 5.5.02.B.4. As such, the accessible space is 8' wide with an 8' striped area, thereby having an effective width of 16' per the requirements. 4. The abutting property at 1625 Main Street appears to be in residential use. §5.5.02.2, B requires a 50 foot landscape buffer on sites where a non-residential use abuts a residential use. Per §5.5.02.2, E, access drives may be allowed in the buffer areas, except that Leicester Planning Board may require an opaque fence and/or other plantings. In the area where the site abuts this property, no landscape buffer is found, however, an access drive is proposed. Leicester Planning Board may wish to request the Engineer address compliance with these bylaws.

CDG Response: The Applicant met with the previous town planner during initial designs, discussed the restrictive nature of this provision on the subject property, and was advised to design it as presently presented. The Applicant has added a 6-foot high, white vinyl fence approximately one-foot off of the property line for appropriate screening.

5. Parking spaces are proposed within 50 feet of the of the property line with 1625 Main Street. Parking is not allowed within buffer areas. (REF: 5.5.02.2, H).

CDG Response: The Applicant met with the previous town planner during initial designs, discussed the restrictive nature of this provision on the subject property, and was advised to design it as presently presented.

6. The entrance drive from 1603/1605 Main Street is 24 feet in width. Drives which serve access/egress must be a minimum of 25 feet in width. (REF: §5.5.02.2, C, 2; also Leicester Parking Regulations IV, C).

CDG Response: The entrance driveway has been modified to reflect a 25' width.

7. Plans should document areas of site which are to be cut or filled. It is believed that the entire site will be filled. (REF: Leicester Stormwater Regulations 4.0, A).

CDG Response: The entire site will be a fill site ranging from at grade along Main Street up to 10' along the rear of the property.

8. Engineer should document that landscaping area complies with 5% area requirement identified in §5.5.02.2, I.

CDG Response: As discussed, the above referenced interior parking lot landscape regulation is required for parking lots exceeding 30 spaces, therefore the regulation is not applicable. However, there are areas internal to the exterior portions of pavement that are landscaped including the right side yard of the building and end caps that book end parking rows.

9. Site lighting plan indicates that minimal light spill (less than 1 fc) will occur on the neighboring parcels to the north and west. In the area of the driveway to the proposed

commercial development at 1603/1605 Main Street, peak lighting intensity of 2.2 fc is found. At the entrance ramp from Main Street, the peak lighting intensity is 1.4 fc. Site lighting is not regulated in Leicester; it is the opinion of this office that the lighting in these areas is appropriate.

CDG Response: Acknowledged. It's our understanding that the light fixture's intensity is also adjustable in the field.

10. The Narrative on the site plan indicates that during times of peak demand, the restaurant may be staffed with 6 – 8 employees. The parking calculation is based on a maximum of 6 employees. Leicester Planning Board may wish to request an opinion from the Leicester Zoning Enforcement Officer as to parking adequacy.

CDG Response: The Applicant believes that there is sufficient parking for the proposed uses on site and requests a waiver in accordance with the Planning Board's Parking Regulations Section V. (A) as the Starbucks is a primarily drive-through use (and not a traditional sit-down restaurant).

11. The Fire Apparatus Circulation plan indicates that maneuvering apparatus may conflict with parked vehicles and with a light post. Leicester Planning Board may wish to request the input of Leicester Fire Department.

CDG Response: The light pole location and fire truck circulation has been modified.

- 12. Stormwater collected from this site will be discharged to a stormwater basin which will be shared in common with the development at 1603/1605 Main Street. This shared use should be governed by an agreement or easement which will:
 - a. Define how maintenance or repair responsibilities and costs will be shared by parties which use the basin.
 - b. Provide deeded rights which ensure the ongoing use of common stormwater facilities by both parties.

CDG Response: Acknowledged. An easement agreement will be executed upon approval of the project that will outline maintenance responsibilities, access and stormwater uses. We respectfully request that this easement be a condition to request a Building Permit.

13. Plans for the stormwater basin should depict and identify the (separate) stormwater basin improvements proposed for 1603/1605 Main Street.

CDG Response: As discussed, the above ground infiltration basin that was part of the Site Development Plan for 1603 & 1605 Main Street, Leicester, MA and approved as part of the November, 30, 2021 Special Permit/Site Plan Review & Stormwater Permit Decision is proposed to be modified. The proposed development located at 1621 Main

Street abuts the 1603/1605 project to west and plans to convey stormwater to the previously approved infiltration basin via catch basins, drain manholes and associated piping. The basin's volumetric capacity is proposed to be expanded to account for the increase in stormwater runoff, however, the peak flow rate out of the basin as well as the high water level has been either maintained or slightly decreased as compared to the approved stormwater characteristics. The outlet control structure, infiltration rate and the overflow spillway also remained unchanged from the approved development, therefore, the expanded basin footprint and capacity is intended to function in similar fashion to the approved design.

14. The drive-through has a queue line which accommodates thirteen vehicles. While this queue line is considered to be optimal for the site, it remains possible that at times of peak demand, customer vehicles may extend beyond this queue line.

MDM Response: Detail assessment of the drive-thru operations indicates that the critical 13 vehicle queue during the Saturday midday peak hour will be fully accommodated within the drive-thru area with limited impact on traffic flow within the Site. As outlined in full detail in the traffic impact assessment (TIA) dated October 16, 2023; in order to quantify existing maximum queuing for peak drive-thru window operations, an industry-standard queuing model was applied using and average throughput for the window of 72 vehicles per hour (50 seconds per transaction) based on empirical data collected at other Starbucks facilities with drive-thru windows. The analysis incorporates the vehicular trip increases for the Starbucks as described under "Trip Generation – ITE Basis" and for planning purposes assumes 55% of site trip activity is drive-thru related, consistent with typical Starbucks statistics for similar facilities with drive-thru lanes. A detailed trip generation summary for the site including a breakdown of vehicular trips by drive-thru and customers using counter service are presented in Table R1 and is described below.

TABLE R1 TRIP-GENERATION SUMMARY – STARBUCKS OR SIMILAR (DRIVE-THRU vs. COUNTER TRIPS)

	SITE TRIPS		
Period/Direction	Total Trips ¹	Drive-Thru Trips ²	Counter Trips ³
Weekday Morning Peak Hour:			
Entering	105	57	48
Exiting	<u>101</u>	<u>57</u>	<u>44</u>
Total	206	114	92
Weekday Evening Peak Hour:			
Entering	47	26	21
Exiting	<u>47</u>	<u>26</u>	<u>21</u>
Total	94	52	42
Saturday Midday Peak Hour:			
Entering	105	58	47
Exiting	<u>106</u>	<u>58</u>	<u>48</u>
Total	211	116	<u>95</u>

¹Based on ITE LUC 937 (Coffee/Donut Shop with Drive-Through Window) trip rates applied to 2,400 sf.

²Estimated at 55% of entering trips based on observations.

³Estimated at 45% of entering trips based on observations.

As summarized in Table R1, the proposed development is estimated to generate approximately 57 drive-through trips during the weekday morning peak hour, 26 drive-through trips during the weekday evening peak hour and 58 drive-through trips during the Saturday midday peak hour.

Queue projections for the facility are estimated using peak drive through trip generation for the site. An industry-standard queuing model was applied using an empirical processing capacity of 72 vehicles per hour during the weekday morning and Saturday midday peak hours and a processing capacity of 41 vehicles per hour during weekday evening peak hour as observed at other Starbucks locations. The analysis Corresponding queue results for the peak hour periods are summarized in Table R2.

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TABLE R2	
PROJECTED DRIVE-THROUGH QUEUE CHARACTERISTICS	
STARBUCKS OR SIMILAR	

	Drive- Through Volume	Average Queue	Maximum Queue
Period	(veh)	(veh)	(veh)
Weekday Morning Peak Hour ¹	57	2	12
Weekday Evening Peak Hour ²	26	<1	6
Saturday Midday Peak Hour ¹	58	3	13

¹Based on a service rate of 72 vehicles per hour based on empirical data for Starbucks. ²Based on a service rate of 41 vehicles per hour based on empirical data for Starbucks during the evening peak period.

As presented in Table R2, projected queue results indicate a maximum (95th percentile) queue of 12 vehicles during the critical weekday morning peak hour and 13 vehicles during the critical Saturday midday peak hour. This peak queuing remains within the vehicle capacity of the proposed drive-through storage lane and will have limited impact on traffic flow within the Site. Specifically, the proposed drive-thru configuration may accommodate up to 14 vehicles with no impact to site access, circulation, or parking, up to 16 vehicles prior to any potential impact with the Route 9 entrance driveway and up to 23 vehicles prior to any potential impact with the adjacent mixed-use fuel facility project. MDM recommends that Starbucks implement a drive-through management plan to actively manage its drive-through customer demands as follows:

Drive-Thru Management Plan. The operator should confirm that the window will be properly staffed and managed during peak demand periods to meet applicable processing times and commit to monitoring actual drive-through demand and queuing to ensure impacts to site circulation and Route 9 are avoided. To the extent needed the facility should enhance staffing/management of the drive-through window to minimize processing times and associated vehicle queuing, and designation of parking for drive-through patrons whose orders may be lengthy and require additional processing time. Likewise, designated parking for employees should be provided in areas where longer-term parking (i.e., lower turnover spaces) are preferred within the Site to facilitate higher turnover patron accommodation.

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We trust the responses provided above and the enclosed plans and documentation sufficiently address the comments issued by the peer reviewer. Please feel free to contact our office if you have any questions or required further clarification.

Sincerely, CIVIL DESIGN GROUP, LLC

Philip R. Henry, P.E. Principal

cc. Mr. Hussein Yatim, Applicant Mr. Thomas Reidy, Esq. Mr. Robert Michaud, P.E. Mr. Dennis Darveau Enclosures