March 27th, 2025

Alison Manugian
Community Development Director
Town of Dracut
62 Arlington Street
Dracut, MA 01826
(978) 453-4557

RE: Transportation Peer Review Comments
Bridge Street Landing
5 Arlington Street and 1327 Bridge Street
Dracut, MA 01826
Project Number: 22203701

Dear Ms. Manugian,

On behalf of the Owner and Applicant, Twin Coast Properties, LLC, Solli Engineering is pleased to respond to the comments received via the Transportation Peer Review, conducted by Robert J. Michaud, P.E. with MDM Transportation Consultants, Inc., issued on March 7th, 2025. A response to each comment / question is provided in bold where applicable.

TRAFFIC IMPACT STUDY COMMENTS:

3. *Accidents/Crash Data*: The TIS presents relevant crash data for the study intersections for the period 2018-2021, indicating a total of 20 reported crashes during the period. Calculations of crash rates per MassDOT Crash Rate Worksheets indicates rates that fall below MassDOT district average.

   (a) Inclusion of crash data for at least the latest available 3-year period is standard practice for TIS filings in Massachusetts and per Dracut TIA Guidelines; Applicant should clarify why crash data was not updated to reflect the period through 2024 which is available in the current MassDOT crash database portal. We note that the prior filings for the Site redevelopment included crash data through 2023. Updated crash data and analysis (crash worksheets) should be provided and submitted for the record.

   Solli Response 03/27/25: Crash data for the 3-year period of 2022 through 2024 has been analyzed and crash worksheets for this period have been added to the Traffic Study. The previous submission included the 3-year period of 2019 through 2021 based on a note on the MassDOT Crash Data Portal website explaining that data after 2021 is incomplete. In the 3/20/2025 submission, Solli has retained the 2019 through 2021 data and has added crash data for the 2022 through 2024 period based on comments from MDM.

7. *Trip Distribution:* Trip patterns for Site traffic presented in the TIS are estimated based on existing patterns and area population which in tabular form are estimated to account for 45 percent of trips oriented to/from the Bridge Street corridor and 55 percent to/from Arlington Street. Resulting "new" trip increases therefore represent a relatively modest change over existing traffic. MDM generally concurs with the distribution of "new" trips on this basis.

(a) TIS projections for "Pass-By" trip distribution are estimated in the TIS to follow the same trip patterns as "new" trips, resulting in a high percentage orientation (more than half) of trips "diverted" from Bridge Street. MDM does not concur with this distribution; a significantly higher proportion of "pass-by" trips are likely to be drawn directly from Arlington Street rather than being diverted from the proportionally lower "through traffic" on Bridge Street. Adjustment of pass-by trips to reflect this would result in a higher proportion of site trips exiting the Site as a right-turn (likely between 60 and 65 percent). In turn, this would likely benefit the analysis as right-turn movements from the Site have higher capacity. Applicant should re-evaluate capacity and queue analyses at the driveway to reflect adjusted pass-by trip distribution.

Solli Response 03/27/25: The Pass-by trip distribution has been adjusted to show 65% of pass-by trips exiting as a right-turn. The capacity and queue analyses have been modified to reflect this change. All applicable report text, tables, and appendices have been revised.

8. *Operations Analysis*: Operational analyses are presented in the TIS follow generally accepted traffic engineering practices and protocols and use the latest available capacity analysis software. Analysis results, presented in tabular form in more detail in the TIS technical attachments and capacity analysis table, indicate generally acceptable operating levels of Level-of-service (LOS) D or better for the signalized intersection approaches with only modest changes resulting from additional Site trips. Operational analysis of Site driveway indicates queue impacts from the nearby signal extend to and beyond the existing driveway on Arlington Street; hence longer delays and queues will occur for vehicles exiting the Site that may influence drive-through operations for the Starbucks facility.

(a) Per Comment 7, MDM anticipates that the TIS has conservatively estimated a higher proportion of trips turning left (westbound), under which vehicle queues may extend to the Starbucks drive-through window location. Applicant should update analysis to reflect a higher proportion of right-turns which may reduce driveway queue extents. In cases where queues do extend to the Starbucks, MDM anticipates the queue "blockage" may create inefficiencies in window transaction processing times (and hence drive-through lane queuing); however, ample queue area is provided on-site to accommodate this scenario without undue impact to on-site circulation.

Solli Response 03/27/25: Acknowledged, see Comment #7 response.

9. *Parking*: Applicant in prior Site Plan application has documented peak parking demand characteristics of the existing Site operations indicating that the maximum number of parking spaces utilized on-site is sixteen (16) total spaces on weekdays between the times of 12:00 PM and 12:30 PM (lunchtime). No information is available for parking demands at the Site for a Saturday, which MDM advises Applicant should provide (refer to MDM letter correspondence of February 2, 2024 to Planning Board). Additional peaking demand under the proposed development program will be related to the Starbucks facility; however, no parking analysis was provided in the TIS to support the 42-space supply. Assuming a weekday demand of 16 spaces per Applicant observations, approximately 26 spaces would be available to support the Starbucks facility.

(a) Parking demands for the Site should be provided by Applicant for a Saturday lunchtime operating period to ensure that the 16-space demand observed on weekdays represents the maximum existing parking demand. Parking demand for the Starbucks facility is approximately estimated by MDM to be up to 26 spaces (85t11 percentile demand) per ITE Parking Generation, 6tl, Edition parking rates for Land Use Code 937 (Coffee Shope with

Drive-Through Window). This suggests that the 42-space supply may accommodate peak demands, subject to confirmation by Applicant that the Wendy's demand is 16 or fewer spaces. Applicant may provide empirical parking data for a similar Starbucks facility to augment/support !TE-based demand estimates to further support the requested parking waivers.

Solli Response 03/27/25: Solli has provided parking demand data for the Site during the Saturday lunchtime operating period. This data indicates a maximum of 6 spaces utilized during the Saturday midday peak period, confirming that the 16-space weekday demand represents the maximum existing parking demand for the Wendy's.

Additionally, while the ITE Parking Generation Manual, 6th Edition, estimates an 85th percentile parking demand of 26 spaces for the Coffee Shop (Land Use Code 937 – Coffee Shop with Drive-Through Window), the total 42-space supply remains sufficient to accommodate peak demand, based on the Saturday data provided.

SITE PLAN TRANSPORTATION-RELATED COMMENTS:

11. *Access / Site Circulation* (Refer to Comment Letter issued by MDM)
    (a) AutoTurn vehicle modeling should be provided for the Site Plan that confirms that refuse vehicles, emergency apparatus (Dracut E-One Ladder Truck) and product delivery vehicles (articulated tractor trailers) are accommodated within the Site. Applicant should confirm that maneuvering areas at the driveways and within the Site are adequate for these types based on the updated layout or should commit to restrict certain vehicles types (for instance, WB-50 vehicles types) from the Site if constraints dictate

    Solli Response 03/27/25: Truck turning figures can be found in the Project Narrative submitted in conjunction with this response Letter.

    (b) Gore striping at the driveway appears to be necessary to accommodate larger vehicles swept paths; however, the driveway curblines should be adjusted to ensure that vehicle sweeps do not impact adjacent parking spaces (see attached redline plan). AutoTurn vehicles modeling should be confirmed that ample maneuvering area is provided without impact to onsite parking.

    Solli Response 03/27/25: The driveway curbline has been adjusted as recommended. Refer to the revised Site Layout Plan (Sheet 2.11).

    (c) Consideration should be given to installing electric vehicle (EV) charging stations and associated infrastructure within the Project Site at convenient and easily accessible locations to encourage EV use.

    Solli Response 03/27/25: Consideration has been given to the installation of EV charging stations. The installation of these stations would create a financial burden on the Applicant that would impact the development. At this time the application is respectfully requesting to keep the current layout with no EV charging stations being proposed.

    (d) Parking calculations: The Site Plan parking summary relies on application of ITE parking rates to determine parking supply requirements; MDM notes that these are based on earlier versions of the ITE Parking Generation Handbook 5th Edition which as been updated to the 6th Edition. Updated 85Th percentile parking rates would result in supply estimates of more than 42 spaces if applied to both proposed land uses (Wendy's and Starbucks). Refer to

Comment 9 for a recommended approach to validating Site parking requirements based on (a) measured parking demand for Wendy's including a peak Saturday lunchtime period; and (b) use of applicable ITE demands rates for the Starbucks facility, LUC 937 6th edition 85th percentile rates.

Solli Response 03/27/25: As indicated in comment #9, Based on LUC 937 6th edition 85th percentile rates the Coffee Shop will require approximately 26 spaces; based on the Wendy's 16 space maximum demand, the total of 42-spaces shall be sufficient. According to the ITE Parking Demand tables (see attached), the coffee shop experiences peak parking demand between 8–10 AM, while Wendy's peaks from 12–1 PM (corresponds to Solli Saturday parking data). This data supports that the two uses have different peak demand periods, reducing the likelihood of overlapping parking needs.

(e) Site Plan indicates a proposed coffee shop building area of 2,425 sf versus Application materials and parking summary basis of 2,410 sf; this minor discrepancy should be corrected.

Solli Response 03/27/25: The plans and narratives have been updated to be consistent throughout.

Please review the responses and enclosed material at your earliest convenience and let us know if you have any questions or further comments

Respectfully,

Solli Engineering, LLC	Solli Engineering, LLC	Solli Engineering, LLC
Sam T. Malafronte, P.E.	Jared Hite	Kevin Solli, P.E., PTOE
Asst. Project Manager	Sr. Project Manager	Principal / Owner

Enclosures:

- Revised Traffic Impact Study & Appendices

CC:

- Chris Baker, President / Twin Coast Properties, LLC