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CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: King Street Common
PROJECT MUNICIPALITY	: Littleton
PROJECT WATERSHED	: Merrimack & Concord
EEA NUMBER	: 16921
PROJECT PROPONENT	: Lupoli Development
DATE NOTICED IN MONITOR	: June 11, 2025

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Draft Environmental Impact Report (DEIR) and hereby determine that it **adequately and properly complies** with MEPA and its implementing regulations. The Proponent may prepare and submit for review a Final Environmental Impact Report (FEIR).

Project Description

As described in the DEIR, the project consists of the construction of 19 buildings having 1,089 residential units, 115,500 square feet (sf) of retail, 19,000 sf of office, 545,520 sf of light industrial use (which includes the two large former IBM buildings), and a 111,000 sf hotel (150-rooms). According to the filing, ten percent of the units will be affordable. A total of 3,010 parking spaces are proposed, of which 1,446 will be in structured parking (garages, decks, parking under podiums) and the remainder at grade.

The development will be divided into an east and a west site. The east site will consist of the following:

- BUILDING A: commercial

- BUILDING B: commercial
- BUILDING C: residential (173 units)
- BUILDING D: residential (173 units)
- Building E: residential (149 units) and retail
- BUILDING F: residential (151 units)
- BUILDING G: hotel (150 rooms) and a food service/bar
- BUILDING H: retail
- BUILDING I: residential (9 units) and retail
- BUILDING J: residential (11 units) and retail
- BUILDING K: residential (42 units) and retail
- BUILDING L: residential (11 units) and retail
- BUILDING M: office
- BUILDING N: residential (9 units) and retail
- BUILDING O: residential (12 units) and retail
- BUILDING Q: retail
- BUILDING R: residential (65 units)

The west site will consist of the following:

- BUILDING S: residential (285 units)

Project Site

The approximately 47.4-acre site is located within the Town of Littleton (Town). The project site consists of two sections (east (550 King Street) and west site (410 Great Road)). The east site is bounded by Interstate 495 to the north, Shea Street to the East, King Street (Route 110) to the south, and Great Road (Route 119) to the west. This portion of the site is a former IBM office campus that is now vacant. Under existing conditions, the east site is comprised of buildings, paved parking areas, landscaped areas, and related ancillary facilities. The undeveloped areas within the east site include an area of deciduous trees around the northern border that buffers it from I-495.

The smaller west site is bounded by a commercial lumber yard to the north, Great Road to the east, commercial development along King Street to the south, and a residential area off of White Street and Hillside Road to the west. The west site is currently developed with a commercial complex of attached buildings, housing a variety of small businesses, and a surface parking lot.

Bordering Vegetated Wetlands (BVW) are located in the southwest corner of the east site. There is an Isolated Vegetated Wetland (IVW) on the east site that extends onto 584 King Street. According to the Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (15th Edition), the site is not located within Priority or Estimated Habitat of Rare Species. The site is also not located within an Area of Critical Environmental Concern (ACEC). The project site is located within the Littleton Common (LIT.44), an area included in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth. The site includes the Conant Houghton and Company building, 410 Great

Road (LIT.44) and the Captain Thomas Nye House (the Simon Tuttle House), 534 King Street (LIT.25), which are historic resources included within the Littleton Common area. The Simon Tuttle House will be preserved and maintained. The Conant Houghton and Company building will be razed to facilitate the construction of the project.

The project site is not located within a Designated Geographic Area (one mile) of any Environmental Justice (EJ) Populations.[1] The site is located within five miles of ten EJ populations designated as Minority in Acton, Ayer, Boxborough, Chelmsford and Westford.

Environmental Impacts and Mitigation

Potential environmental impacts include alteration of 44.2 acres of land (includes 43.5 acres of already altered/developed land and 0.7 acres of new alternation), creation of approximately 2.3 acres of new impervious area (26.5 acres total on site when including existing structures and uses); generation of 13,338[2] New average daily trips (adt) (20,328[3] adt total); construction of 1,060 new parking spaces (3,010 total on site); generation of approximately 212,000 gallons per day (gpd) of water use and wastewater (total of 286,000 gpd on site); construction of 0.23 miles of new water mains; construction of 0.49 miles of sewer mains; and greenhouse gas (GHG) emissions associated with on-site energy use and transportation.

Measures to avoid, minimize and mitigate these impacts include implementation of a Transportation Demand Management (TDM) plan to reduce single-occupancy vehicles trips and installation of a stormwater management system consistent with the Stormwater Management Standards (SMS). The project will incorporate mitigation measures to reduce the projects GHG emissions and improve the resiliency of the project to address future climate conditions.

Jurisdiction and Permitting

The project is subject to the preparation of a Mandatory EIR pursuant to 301 CMR 11.03(6)(a)(6) because it requires Agency Action and will generate 3,000 or more new adt on roadways providing access to a single location, and 301 CMR 11.03(6)(a)(7) construction of 1,000 or more New parking spaces at a single location. The project also exceeds the ENF thresholds under 301 CMR 11.03(6)(b)(13) generation of 2,000 or more new adt on roadways providing access to a single location; 301 CMR 11.03(6)(b)(14) generation of 1,000 or more new adt on roadways providing access to a single location and construction of 150 or more new parking spaces at a single location; 301 CMR 11.03(6)(b)(15) construction of 300 or more new parking spaces at a single location; and 301 CMR 11.03(1)(b)(1) for the direct alteration of 25 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices.

[1] The EEA EJ Mapper is available at: https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts.

[2] A reduction from 15,990 adt proposed in the ENF. The filing states that trip distribution across the study area network for both the residential and commercial related trips has been updated since the TSL based on the most up-to-date data published by the US Census Bureau through its interactive "On the Map" database.

[3] A reduction from 21,020 adt proposed in the ENF.

The project requires a Vehicular Access Permit from the Massachusetts Department of Transportation (MassDOT). The project also requires a WP68 Permit for sewer main extensions from the Massachusetts Department of Environmental Protection (MassDEP). The project may require a Groundwater Discharge Permit from MassDEP. The project is subject to review under the May 2010 MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol ("the GHG Policy").

The project will require Order of Conditions (OOCs) from the Littleton Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions (SOC) from MassDEP). The project also requires a National Pollutant Discharge Elimination System (NPDES) Stormwater General Permit from the Environmental Protection Agency (EPA).

The project is not seeking Financial Assistance from an Agency. Therefore, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of any required or potentially required Agency Actions and that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the DEIR

The DEIR included an updated project description, existing and proposed conditions plans, revised estimates of project-related impacts, a Stormwater Report, a Transportation Impact Assessment (TIA), an air quality analysis, a greenhouse gas (GHG) emissions analysis, and an identification of measures to avoid, minimize and mitigate environmental impacts. The DEIR provided a response to comments on the ENF and draft Section 61 Findings. Comments from the Town of Littleton (through the Littleton Planning Department & Planning Board) express strong support for the project and commend the Proponent for developing much needed housing on the previously underutilized project site. Comments from the Littleton Planning Board note that the 150-room hotel would be a "welcome addition" to the Town, but that the five-story building cannot be within 255 feet of the King Street right-of-way line per the 550 King Street Common Zoning 173-233 H, Dimensional Requirements. Comments state that the location of the hotel currently violates local zoning. The FEIR should address this comment, and update project designs as appropriate. Comments from the public request additional information regarding traffic impacts, pedestrian and bicycle connections, light pollution and landscaping plan. The FEIR should address these comments.

As described further below, I note comments from MassDEP that continue to identify concerns regarding the lack of plan for disposal of the wastewater volume anticipated from the project site. The Proponent is directed to consult with MassDEP regarding outstanding wastewater concerns before filing the FEIR. The FEIR should provide a definitive estimate of wastewater demand for the site, and describe a plan to meet regulatory requirements for this infrastructure sufficient to accommodate the project.

Alternatives Analysis

The ENF previously included an alternatives analysis which considered a No-Build Alternative, a Logistics Facility Alternative, and the Preferred Alternative. As required by the

Scope, the Proponent also examined additional alternatives to avoid or minimize environmental impacts, including the consideration of a reduced build alternative that minimizes environmental impacts while also meeting housing production goals.

The DEIR examined a Reduced-Build Alternative that retains the targeted 1,089 residential units, 150-key hotel, and 545,228 sf of office and light industrial space; however, it reduces retail space to 28,000 sf (compared to 115,500 sf as proposed in the Preferred Alternative). This alternative would significantly reduce vehicle trips (7,172 compared to 13,338 for the Preferred Alternative) and slightly reduce water and wastewater generation (260,000 gpd compared to 286,000 gpd for the Preferred Alternative. However, the filing states that due to lost revenue from decreased retail space, the reduced build alternative would eliminate the proposed structured parking[4] and pedestrian-friendly amenities and green space. As a result, the Reduced Build Alternative creates additional surface-level parking and increases net impervious surface on site (30.3 acres of impervious area, compared to 26.5 acres for the Preferred Alternative, after deducting pervious areas/green space added by the project). As noted in comments from the Littleton Planning Department, the Town strongly supports the proposed mixed-used development and notes the public housing and commercial benefits the project will bring to the Town. Because of the increased impacts to impervious area, reduced public space and tax revenue for the Town and strong Town support for the Preferred Alternative, the Reduced Build Alternative was dismissed.

Land Alteration and Stormwater

As noted above, the project will alter approximately 44.2 acres of land, the majority of which has been previously disturbed, and create approximately 2.3 acres of new impervious area (26.5 total on site). In accordance with the Scope, the DEIR clarified the location, type, and extent of land alteration, which is shown in the table below.

Project Component	Previously Disturbed Area (SF)	Proposed Disturbed Area (SF)	Change (SF)
Buildings	265,560	734,366	+ 468,806
Roadways	91,903	216,808	+ 124,905
Parking Lots	662,065	117,413	- 544,652
Sidewalks	31,179	190,066	+ 158,887
Wastewater & Water Infrastructure	36,544	0	- 36,544
Stormwater	55,103	69,068	+ 13,965
Landscaping	840,708	771,012	- 69,696

In addition, the DEIR clarified that the project will alter 98,858 sf of vegetation primarily comprised of scrub shrub and some mature trees located primarily within currently landscaped areas. In total, the project will remove 302 mature trees. The DEIR states that tree clearing was minimized to the maximum extent practicable by retaining mature trees located along property

[4] The Reduced Build Alternative proposes additional surface-level parking.

lines and in proximity to wetlands. The filing states that in order to mitigate tree removal, 100 trees of equal sizes of those being removed will be replanted in landscaped areas throughout the site.

In order to mitigate increases in peak discharge rates as a result of the new impervious surfaces, a comprehensive stormwater management system has been designed that includes a combination of Best Management Practices (BMPs) and Low Impact Design (LID) strategies consisting of rain garden, subsurface infiltration basins, a subsurface detention basin, detention ponds, a wet pond, and proprietary water quality units. According to the DEIR, the stormwater management system has been designed to comply with the Stormwater Management Standards (SMS), including standard requirements for groundwater recharge, removal of at least 80 percent of the TSS from runoff and maintenance and reduction of pre-construction peak runoff rates under post-construction conditions for the present-day 2-, 10-, 25- and 100-year storms. The most current NOAA Atlas 14 precipitation data was used to evaluate peak runoff. As noted below, the stormwater management system will have sufficient capacity to handle projected increased precipitation under future climate conditions.

Traffic and Transportation

In accordance with the Scope, the DEIR includes a Transportation Impact Assessment (TIA) of the study area around the project site that evaluates the project's impacts on intersection operations, safety, and bicycle, pedestrian, and transit modes.

Study Area

The intersections within the study area that have been analyzed and evaluated include:

- Route 119 at Russell Street/Constitution Avenue;
- Route 119 at I-495 Southbound (SB) Ramps;
- Route 119 at White Street;
- Route 119 at I-495 Northbound (NB) Ramps;
- Route 119 at Site Driveway West;
- Route 2A/119 at Route 2A/110;
- Route 2A/119 at 410 Great Road Driveway;
- Route 2A/110 at Goldsmith Street/Stevens Street/476 King Street Driveway;
- Route 110 at Meetinghouse Road;
- Route 110 at Tuttle House Driveway;
- Route 110 at Site Driveway South;
- Route 110 at Site Driveway Middle;
- Route 110 at Site Driveway North;
- Route 110 at Building Q Site Driveway; and
- Route 119 at 410 Great Road Driveway.

Trip Generation / Distribution

To estimate vehicle trip generation, the Proponent used the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, for Land Use Codes (LUC) 221 – Multifamily Housing (Mid-Rise), LUC 310 – Hotel, LUC 710 – General Office Building, LUC 760 – Research and Development Center, LUC 821 – Shopping Plaza (40-150k), and LUC 932 – High-Turnover (Sit-Down) Restaurant. The proposed development is anticipated to generate a total of 20,328 unadjusted daily trips using this approach. After accounting for internal capture, walk/bike, transit and pass-by trips, the project is projected to generate 13,338[5] net new vehicle trips on an average weekday, with 340 trips during the weekday morning peak hour and 401 trips during the evening peak hour. Additionally, approximately 8,304 net new vehicle trips are expected on an average Saturday, with 647 trips during the Saturday midday peak hour.

According to the DEIR, trip distribution for the residential, office, R&D, retail, restaurant, and hotel uses was analyzed using gravity models based on U.S. Census data. The residential and employment traffic patterns relied on commuting data from the Town of Littleton's workforce and residential cities, while retail and restaurant traffic considered population and proximity within a 7.5-mile radius. The hotel traffic patterns were based on regional travel behavior, especially proximity to I-495.

Traffic Operations

The TIA provided peak period capacity analyses and level-of-service (LOS) designations for through traffic and turning movements at study area intersections under 2024 Existing, 2034 No Build, 2034 Build and 2034 Build with Mitigation conditions. LOS is represented using letter grades "A" through "F," with LOS A representing very low delays and free flow conditions and LOS F representing unacceptable conditions for most drivers and conditions in which vehicle demand generally exceeds roadway capacity. The intersections in the area surrounding the project site are generally anticipated to adequately accommodate traffic increases associated with the project. Specifically, the traffic study shows that the study signalized intersections generally operate at LOS D or better under Existing, No Build and Build conditions. The exception is the intersection of Great Road (Route 119)/King Street (Route 110) (degrades from LOS D 2034 No Build condition to LOS E for the 2034 Build condition during the weekday evening peak period). Comments from MassDOT state that the study area generally demonstrate sufficient operational performance to accommodate the projected traffic generated by the project.

Site Access

In accordance with MassDOT's recommendations, the Proponent removed the driveway on the east side of Building Q, which previously served the Yangtze River Restaurant, thereby reducing the number of King Street driveways from five to four. Additionally, left-turn exits

[5] As noted above, this represents a decrease from the vehicle trips presented in the ENF. The filing explains that trip distribution across the study area network for both the residential and commercial related trips has been updated since the TSL based on the most up-to-date data published by the US Census Bureau through its interactive "On the Map" database.

from Site Driveway West (the former IBM West Driveway) and the 410 Great Road Driveway will be prohibited, with these movements redirected to other site access points linked to existing signalized intersections. According to the filing, these restrictions will be enforced through signage, pavement markings, and channelization.

The filing states that the Proponent is considering the consolidation of the Tuttle House Driveway with nearby curb cuts at 510 King Street to reduce duplicate access points per MassDOT's recommendation. However, the filing notes, the existing Tuttle House driveway must remain open for the current tenants. Comments from MassDOT on the DEIR state that if access to the Tuttle House is not consolidated, MassDOT recommends that the Proponent explore alternative options for consolidating access. These alternative optoins should be included in the FEIR with the goal of minimizing the number of access points as much as possible. The Proponent should continue consultation with MassDOT to further refine the project's access management plan.

Off-Site Mitigation

As noted above, the intersection of Great Road/King Street degrades from LOS D 2034 No Build condition to LOS E for the 2034 Build condition during the weekday evening peak period. The Proponent has committed to the following improvements along and around King Street and Great Road:

- Complete a 'partial' reconstruction of the traffic signal infrastructure at the intersection including new overhead mast arm assemblies to mount signal housings as needed, a new Advanced Transportation Control (ATC) cabinet and controller system with Field Monitoring Unit (FMU) to support transit signal priority (TSP) and future coordinator connections, new demand based vehicle and bicycle detection as needed, accommodations for emergency-vehicle pre-emption, Accessible Pedestrian Signal (APS) push buttons, and pedestrian countdown indications.
- Optimize traffic signal timings at the intersection.
- Reconstruct, as necessary, all sidewalk and pedestrian curb ramps at the intersection to support the new traffic signal infrastructure and provide ADA / AAB / PROWAG compliance. Where possible, as a result of the difficult grading along Great Road eastbound, provide two (2) accessible ramps per intersection corner and realign the crosswalks to be as perpendicular as possible to the four (4) approaches. Complete a full pavement resurfacing for a minimum of 50 feet along each intersection approach to match new accessibility accommodations. The distance of resurfacing may extend to a point where the overall queueing on the approach is unaffected. This will be determined at the 25% Design stage of the Permit to Access State Highway process. Reapply high-visibility pavement markings along each approach while maintaining the existing cross-sectional nature of each approach. Implement traffic sign and pavement marking upgrades in the vicinity of the intersection to eliminate clutter and comply with the current version of the MUTCD.
- Complete a full pavement resurfacing for a minimum of 50 feet along each intersection approach to match new accessibility accommodations. The distance of resurfacing may extend to a point where the overall queueing on the approach is unaffected. This will be determined at the 25% Design stage of the Permit to Access State Highway process.

Reapply high-visibility pavement markings along each approach while maintaining the existing cross-sectional nature of each approach.

- Implement traffic sign and pavement marking upgrades in the vicinity of the intersection to eliminate clutter and comply with the current version of the MUTCD.
- Retain the existing bicycle lanes along each side of Route 110 through the intersection.
- In conjunction with the reconstruction, the Proponent will generate an as-built traffic signal regulation and plan for the intersection.
- The Proponent will remove the previously proposed on-street parking on the west side of Route 110 and will further evaluate the feasibility of a pedestrian crossing on Great Road, to add a median island for safety, and install Rectangular Rapid Flashing Beacons (RRFBs).
- Install up to three pedestrian crossings with appropriate signage and accessibility features on the east side of Route 110.
- Additionally, the Proponent is open to improving the Route 110 Complete Streets design to enhance walkability and bike access. The proposed upgrades include a shared-use path, dedicated bike lanes, and adjusted lane widths.

Comments from MassDOT state that all conceptual improvements should be refined and coordinated with MassDOT before submitting the FEIR. MassDOT comments state that the design of the pedestrian facilities may be finalized during the permitting process. However, comments note that it is essential that sufficient Right-of-Way (ROW) be reserved for the construction of these facilities. In addition, comments state that the proposed crossing on Route 110 follow the FHWA Step Guide. Additionally, comments recommend sidewalks be constructed along the east side of the site on Route 119 to connect with the traffic signal at the intersection of Route 119 and the northbound ramps of I-495, which should include a pedestrian crossing.

Transportation Demand Management

The DEIR states that the Proponent is committed to implementing a TDM program intended to reduce single-occupancy vehicle trips to the project site. These measures include:

- Preferential Parking - Provide preferential parking for rideshare, carpool, and hybrid vehicles at locations throughout the site's parking areas in close proximity to major entranceways. The designated spaces will be monitored to ensure that the license plates of those employees parking in the spots each day match the registrations of participants. Employees will only be allowed to use these spaces on the days that they are carpooling. Locations for preferential parking will be identified in future filings.
- Electric Vehicle Stations – Electric vehicle (EV) charging stations will be provided at locations throughout the site's parking areas in close proximity to major entranceways. Locations for the EV charging stations will be identified in future filings.
- Reduced Parking Supply – The Proponent is committed to reducing the parking supply by providing minimal number of parking spaces to a level of the demand need only.
- Sidewalk Connectivity – The site will provide connectivity of sidewalk infrastructure along King Street and Great Road and internal to the site to each building within the construction limits for both the 410 Great Road and 550 King Street locations.

- Bicycle Accommodations – The site will include bicycle accommodation through the main drive aisle of the site with connectivity to bicycle infrastructure along King Street. Internal bicycle accommodation may include bicycle lanes and/or shared use paths.
- Bicycle Racks – The Proponent will provide secure, weather protected, long-term bicycle parking for employees and residents at designated locations within the site. The site plan will also provide bicycle racks for short-term users at several locations on-site
- Public Bicycle Vendor – The Proponent is exploring opportunities to implement a public bicycle vendor, such as Blue Bikes, on-site. If deemed feasible, a vendor station will be strategically located within the site.
- Employee Shower Facilities - Coordinate with commercial tenants to provide showers for employees who commute by walking or biking.
- LRTA Bus Service – The Proponent seeks to continue LRTA bus service to the site along LRTA Bus Route 15. The Proponent will relocate the existing bus stop location to a new location within the site and provide a second bus stop location; each along the main drive aisle in the southbound direction. Each bus stop location will contain a pavement turn-out, bus shelter, trash receptacle, bike rack, and sufficient hardscape area to accommodate full accessibility and bus ramp access.
- Public Transportation Shuttle Service – The Proponent is committed to provide access to the Littleton / I-495 Commuter Rail Station located 2.5 miles south of the project site along Foster Street. The shuttle will be funded by the Proponent and be scheduled to coincide with train boarding / alighting schedules for the MBTA Fitchburg Line. The shuttle stop will be combined with one (1) of the two (2) LRTA bus stops on-site.
- Employee Transportation Coordinator (ETC) – An ETC will be provided on-site to oversee, implement, monitor, and evaluate TDM measures employed or funded by the Proponent. The ETC will be responsible for managing rideshare and carpool programs and distributing information to residents and employees to encourage alternative means of transportation. The ETC will post and distribute announcements and hold promotional events to encourage ridesharing, bicycling, and walking.
- Transportation Management Association (TMA) – The Applicant will seek membership in the Middlesex 3 Transportation Management Association (TMA), which is utilized in neighboring Westford and communities to the northeast of Littleton. The TMA will assist the Proponent and the ETC in support of employees' commuting choices by providing flexible and sustainable transportation solutions.
- Marketing of Transportation Options and Benefits - A welcome packet for all tenants and employees will be distributed at move-in or employment, which includes information for all transportation-related benefits, promotions, and local transportation options; including the location of LRTA / MBTA stops, transit schedules, EV and carpool parking locations, and any other emerging new mobility locations.
- Vanpool and Carpool – The Proponent and the ETC will encourage vanpool and carpooling participation through marketing, events, and vanpool formation meetings. The ETC will implement a ride-matching program to assist employees and residents in finding appropriate carpool matches. The ETC will contact employees and residents to determine if they receive their match-lists, review the lists with them, and see if they have contacted anyone on the list or would like assistance in contacting people.
- Guaranteed Ride Home Program – The ETC will be responsible for providing all employees who carpool, bicycle, or walk to work with an emergency ride home. This

program eliminates the fear of being stranded on days when the employees are ridesharing or must walk or bicycle in inclement weather conditions.

- On-Site Laundry Services - The Proponent will provide laundry services on-site to allow for the reduction of trips to/from the site of nearby laundromats.
- Flex Hours – The Proponent will encourage tenants within the mixed-use development to provide flexible hours to employees.
- Direct Deposit for Employees - The Proponent will encourage tenants within the mixed-use development to provide direct deposit to reduce employee trips to/from the site.
- Site Amenities – As a mixed-use development, the site includes several on-site amenities, such as restaurants, retail, open space, and resident-specific amenities within the residential component of the site. This location will assist in reducing vehicular demand and increase multi-use trips, including parking capacity sized to meet minimum local requirements without excessive parking.
- Promotional Events and Activities – The ETC will be responsible for organizing promotional events and activities to encourage rideshare and alternative transportation means. In addition, the ETC will distribute brochures to all new employees and residents during and post posters and bulletins on various subjects from carpooling to the Guaranteed Ride Home program throughout the site.

Transportation Monitoring Program

The Proponent has committed to conduct an annual Traffic Monitoring Program (TMP) for a period of five years, beginning six months after occupying the full-built project. The TMP will include:

- Collect manual Turning Movement Counts (TMCs) during the weekday morning (7:00 AM to 9:00 AM), weekday evening (4:00 to 6:00 PM), and Saturday midday (11:00 AM to 2:00 PM) peak periods at the following intersections:
    - Route 119/Interstate 495 SB Ramps;
    - Route 119/Interstate 495 NB Ramps;
    - Route 119/Site Driveway West;
    - Route 119/410 Great Road Driveway;
    - Route 119/Route 110;
    - Route 110/410 Great Road Driveway;
    - Route 110/Tuttle House Driveway;
    - Route 110/Site Driveway South;
    - Route 110/Site Driveway Middle;
    - Route 110/Site Driveway North; and
    - Route 110/Building Q Driveway.
- Adequacy of the constructed parking supply.
- Safety evaluations based on available crash data.
- Effectiveness of TDM measures.
- Collect ATR data for a continuous 7-day week-long period along Great Road, King Street, and each site driveway location.
- Collect parking demand counts during the peak parking demand periods for the specific land use areas, including:

  - Residential and Hotel - 5:00 AM to 9:00 AM
  - Retail, Restaurants, R&D, Office, and Industrial - 10:00 AM to 5:00 PM
- Collect motor vehicle crash reports from the Town of Littleton Police Department and MassDOT for the most recent one-year period to ascertain changes in crash frequency, crash trends, and severity at the monitored locations.
- Complete an employee and resident travel survey to gage employee and resident travel patterns and mode share.
- Compare the TMCs collected above with those projected within the TIA for the project to determine whether the total vehicles entering each intersection exceeds the volumes projected.
- Perform a capacity and queuing analysis using Synchro/Sidra analysis software to evaluate the traffic operations at each intersection listed above and compare them to the operations projected in the TIAPS prepared for the project.
- Assess whether additional mitigation is necessary at study intersections and identify measures to improve operations and/or reduce vehicular traffic volumes. The need for evaluation of further mitigation will be conditioned upon:
  - The measured site generated traffic volumes for the project exceeded the projected site generated traffic volumes established in this TIA, or subsequent revisions presented to the Town of Littleton, by more than 10 percent (i.e., 110 percent of the projected site generated traffic volumes.
  - One or more of the movements at the monitored intersections is identified to be operating at or over capacity (defined as a V/C ratio equal to or exceeds 1.00) in consultation with MassDOT or the Town of Littleton.
  - There is a pronounced increase in the frequency of occurrence of motor vehicle crashes at a monitored location, and the calculated motor vehicle crash rate exceeds the MassDOT average crash rate for similar locations.
- Corrective actions to reduce the unmitigated impact of the project should be proposed and implemented based on the thresholds listed above. The corrective actions should be documented in the TMP, approved and coordinated with the Town and/or MassDOT if desired by the agencies, and be undertaken by the Proponent subject to receipt of all necessary rights, permits, and approvals.
- Assess whether the constructed parking supply is adequate for the parking demand as observed.
- Prepare a memorandum summarizing the results of the TMCs, ATRs, parking demand counts, and traffic impact analysis for submission to MassDOT District 3 and the Town of Littleton.

Water and Wastewater

As discussed in the ENF Certificate, MassDEP comments on the ENF noted that Water Management Act (WMA) regulations at 310 CMR 36.22(6) require permittees to develop and implement a mitigation plan to offset the impacts of their increased withdrawal above a baseline volume to the extent feasible. Comments stated that the Littleton Water Department (LWD)'s baseline in the Merrimack River Basin is 1.06 mgd, which it has exceeded in recent years (1.16 mgd in 2023 and 1.12 mgd in 2022). Comments noted that LWD's baseline will likely be further exceeded with the additional demands required by the project.

As required by the Scope, the DEIR included a discussion of conservation measures the project will incorporate to mitigate increased water demand, as a way to assist the Town meet its mitigation obligations under WMA regulations. The DEIR states that the project is committed to minimizing irrigation, utilizing native and drought resistant landscaping, and implementing water demand management programs. The filing states that water fixtures and systems will be low flow, high efficiency fixtures and systems to minimize water usage. Comments from MassDEP indicate that the DEIR addressed all the comments made on the ENF and do not raise additional concerns regarding mitigation of water demand.

As stated in MassDEP comments, the existing site, which includes both 550 King Street and 410 Great Road, currently generates approximately 74,000 gpd of sanitary sewer which is directed to existing on-site disposal facilities. The Project is expected to generate approximately 286,000 gpd and be directed to the Town of Littleton's wastewater treatment system, which is currently under construction.

According to the DEIR, the Town of Littleton has allocated 150,000 gpd of capacity at its wastewater treatment plant (WWTP) for the project. The project's anticipated 286,000 gpd of wastewater exceeds this amount approved by the Town and the MassDEP permitted limit for the groundwater discharge at the WWTP (as reviewed in EEA #16537). The DEIR states that the Proponent is actively working with the Town to increase the capacity of the WWTP to accommodate the project.

The Scope required the Proponent explain how the existing flow, proposed flow reserved to the Town, and the project flow will be accommodated, whether at the WWTP or elsewhere. The DEIR acknowledges that the project as designed lacks sufficient capacity onsite or at the Littleton WWTP but that the 150,000 gpd currently allocated for the project will allow for the development of the project's initial phases (with future phases dependent on approval of additional capacity). The DEIR notes that the Town and Proponent are actively exploring ways to increase available capacity. However, as stated in comments from MassDEP, the DEIR does not identify the location for disposal of the volume of wastewater that exceeds current permitted limits. This must be provided in the FEIR. Comments from MassDEP state that until the Proponent identifies the location for disposal of the unaccounted for volume of wastewater, MassDEP cannot determine if the project will require additional permitting, including a new or amended Groundwater Discharge Permit.

The Scope directed the Proponent to provide calculation of the wastewater generation for the existing uses at both 550 King Street and 410 Great Road. The DEIR provided these calculations; however, comments from MassDEP state that the groundwater discharge permit for 550 King Street authorizes the discharge of only 40,000 gpd of treated wastewater. The DEIR notes that the existing wastewater flow for the 550 King Street parcel is 63,577 gpd, which exceeds the permit limit. Comments state that MassDEP received correspondence in 2022 from the operator of the treatment plant on the property that the 550 King Street facility was closed, so it is unclear what activities are generating the reported flow volume. The FEIR must report on what activities are generating the reported flow. In addition, the DEIR states that the 410 Great Road property has an existing wastewater flow of 10,412 gpd. Comments from MassDEP state

that because this flow is greater than 10,000 gpd, that discharge requires a groundwater discharge permit. MassDEP records do not show a WP83 or WP79 permit application being filed for the property. In the FEIR, the Proponent should describe the wastewater treatment system at the 410 Great Road parcel as well as address the unresolved discrepancies in the estimate for existing wastewater flows at the project site.

As required by the Scope, the DEIR indicated that a transfer of ownership is not anticipated between the current permittee for that groundwater discharge at the 550 King Street[6] and the Proponent. Comments from MassDEP note that the Proponent does not currently have a permit for the existing wastewater flows at this location. Comments state that it appears that a property transfer may have occurred without written advance written notice to MassDEP, in accordance with the regulations as described in MassDEP's comment letter. Comments recommend that the Proponent review the regulatory requirements for transfer of the permit and provide details on how MassDEP requirements related to transfer of ownership will be met. The FEIR should address this comment.

As required by the Scope, the DEIR confirmed that the Town of Littleton will file a WP68 permit application to MassDEP for the installation of a 12-inch sewer main, which will convey sanitary sewer flows from the project to the Town's wastewater treatment facility. In accordance with the Scope, the DEIR also states that wastewater collection systems will be designed separately from stormwater systems and will not allow for the introduction of rainwater, noncontract cooling water, and groundwater from foundation drains, sump pumps, surface drainage or any other source of inflow. The DEIR states that the project is committed to a 4:1 I/I removal, which will be accomplished by constructing a new sewer system that will be tested in accordance with Section 35.19 - Sewer Pipe Testing and Section 35.23 – Sewer Manhole Leakage Testing of the Town of Littleton Sewer Use Rules and Regulations.

Climate Change

Adaptation and Resiliency

In accordance with the Scope, the FEIR evaluated whether the project will be resilient to the 2070 25-year, 50-year and 100-year storm conditions. The filing states that the projected 24-hour precipitation depth associated with the 2070 25-, 50- and 100-year storm events are 8.1", 9.2" and 10.4" respectively. As noted above, the project proposes a comprehensive stormwater management system that has been designed to attenuate peak runoff associated with present-day 2-, 10-, 25- and 100-year storms. The DEIR indicates that the stormwater design will also achieve peak attenuation up to the 2070 100-year storm event (10.4 inches). In addition, the filing states that the stormwater management system is designed to allow for future upgrades to adapt to climate change. According to the DEIR, many of the BMPs selected for the site are subsurface which can be increased in size, repaired, or replaced if necessary.

As required by the Scope, the Proponent consulted the Resilient MA Climate Change Projections Dashboard to identify any "hot spots" in proximity to the project site. According to the DEIR, one existing "hot spot" is located near the center the site. According to the DEIR, the

[6] 550 King Street LLC

project proposes to plant approximately 100 trees of similar size as mitigation for trees being removed. In addition, to mitigate against extreme heat, the DEIR states that the project will retain approximately 18 acres of open space to lessen the heat island effect. The FEIR should consider additional mitigation measures, particularly with respect to tree mitigation, and consider increasing tree plantings to at least a 1:1 ratio. To the extent site constraints prevent extensive measures such as additional tree planting, the Proponent could consider acquisitions to protect forested lands, tree replanting in areas identified as lacking tree canopy or experiencing extreme heat risks, and monetary contributions to support community wood banks or other efforts to mitigate heat and water quality burdens in surrounding neighborhoods.

GHG Emissions

This project is subject to review under the May 5, 2010, Revised MEPA Greenhouse Gas Emissions Policy and Protocol (MEPA GHG Policy), which requires Proponents to quantify carbon dioxide (CO_2) emissions and identify measures to avoid, minimize or mitigate such emissions.

Stationary Source

According to the DEIR, Project buildings were separated into categories by typology for the purposes of the GHG analysis.

Group	Building Types	Building Label	Proposed Code Compliance
Group 1	Existing – to be reused	**A*** &B	Relative Performance
Group 2	Residential greater than 50 Units	C, D, E, **F***, R, S	HERS Certified Performance
Group 3	Residential less than 50 Units	I, J, **K***, L, N, O	HERS Certified Performance
Group 4	Hotel	G	Relative Performance
Group 5	Retail & Office	H, M, Q	Relative Performance

The DEIR states that the project is committed to the following GHG mitigation:

- All-electric domestic hot water for residential spaces;
- All-electric Air Source Heat Pump (ASHP) space heating and domestic hot water heating for retail and office spaces;
- Reduced air leakage per C406.9 for retail and office spaces;
- 40% PV solar ready roofs;
- High performance building envelopes;
- Light or reflective roofs;
- Reduced lighting power densities;
- High-efficiency HVAC equipment;
- High performance exterior lighting;
- Low-flow fixtures;

Comments from the Massachusetts Department of Energy Resources (DOER) commend the decarbonization measures the project is committing to; however, DOER comments state that the analysis for Group 2 and Group 3 falsely indicate higher heating loads for HERS 36 vs

HERS 44. Comments state that these errors result in inaccurate final results for overall energy consumption across the various scenarios. Comments note that given that space heating will be ASHPs regardless of the chosen HERS score, the use of inaccurate MBtu figures in the comparison tables gives the flawed impression that electric resistance will be the most cost-effective form of space heating for the residential buildings. Comments state that HERS 40 with ASHP for both space and hot water heating in Group 2, and HERS 40 with ASHP for space heating and electric resistance for hot water in Group 3, will be the most cost effective, energy efficient, and grid-friendly method for construction and long-term operation. The FEIR should include further analyses as described in DOER's comments to provide an accurate comparison of the energy use for these residential scenarios.

Comments state that the project is still proposing gas space and hot water heating for the new hotel (Group 4). DOER comments strongly encourage reconsidering any introduction of new gas lines to the project. The FEIR should commit to this recommendation or provide the detailed analysis outlined in DOER comments including cost data for the gas system to service the project.

Mobile Sources/Air Quality

In accordance with the Scope, the DEIR included a mesoscale analysis of emissions of volatile organic compounds (VOCs) nitrogen oxides (NOx), particulate matters (PM2.5 and PM10), Diesel PM (DPM) and Carbon Dioxide (CO2) for the Existing, 2032 No Build, 2032 Build and 2032 Build with Mitigation scenarios. The DEIR indicates that the mesoscale analysis utilized the U.S. EPA MOVES4 Mobile Source Emission Factor Model and complied with the MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources. As compared to Existing Conditions, emissions under the 2032 No Build Condition will decrease or remain the same for NOx, PM2.5, PM10, DPM and CO2. However, emissions from VOCs will increase from 4.2 tons per year (tpy) under Existing conditions to 6.2 tpy (an increase of 1.9 tpy) under the No Build condition. The general decrease in pollutants is largely due to improvements in engine technology that will result in cleaner fuels being used in truck operations overall in the regional economy; however, the project will increase emissions from future No Build to future Build conditions. As compared to 2032 No Build, emissions will increase under the 2032 Build Condition as follows: from 6.2 tpy to 6.6 tpy for VOCs (an increase of 0.4 tpy); from 0.8 tpy to 0.9 tpy for NOx (an increase of 0.1 tpy); from 0.09 tpy to 0.1 tpy for PM2.5 (an increase of 0.01); from 0.65 tpy to 0.7 tpy for PM10 (an increase of 0.05 tpy); from 0.027 tpy to 0.03 tpy for DPM (an increase of 0.003 tpy); and from 3,400 tpy to 3,710 tpy for CO2 (an increase of 310 tpy). However, even with these increases, emissions of all pollutants in the Build condition will remain below Existing conditions with the exception of VOCs.

As noted, the Proponent is committed to the implementation of a TDM plan to minimize traffic impacts, including associated air emissions. The implementation of the TDM measures is estimated to decrease the 2032 Build with Mitigation emissions as compared to 2032 Build conditions. Total emissions under future Build with Mitigation conditions decrease or remain the same from Existing conditions for all emissions other VOCs. As noted in the Scope below, the FEIR should continue to explore measures to reduce traffic related emission below existing conditions.

Construction Period

The project involves the demolition of existing structures on the property. As required by the Scope, the DEIR confirmed that before beginning any demolition or renovation, the Proponent will have the structures inspected by a licensed asbestos inspector to identify the presence, location and quantity of any asbestos-containing material (ACM) and prepare a written asbestos survey report. The DEIR states that no ACM or asbestos-containing waste material will be disposed of at a facility operating as a recycling facility in accordance with 310 CMR 16.05.

SCOPE

General

The FEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent has sought to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible.

Project Description and Permitting

The FEIR should describe the project and identify any changes since the filing of the DEIR. It should identify and describe state, federal and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The FEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards.

The information and analyses identified in this Scope should be addressed within the main body of the FEIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the FEIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the FEIR to materials provided in an appendix should include specific page numbers to facilitate review.

As discussed above, comments from the Littleton Planning Board note that the location of the proposed 150-room hotel is prohibited by local zoning as it is within 255 feet of the King Street right-of-way. The FEIR should address this comment. To the extent project designs or land uses are modified in response to comments, an updated project description and associated impacts should be provided in the FEIR.

Land Alteration, Impervious Area, and Stormwater

The FEIR should describe the care and maintenance for replanted trees that will be conducted by the Proponent to ensure establishment. To the extent that it is available, the FEIR should include a comprehensive planting plan for the project. The FEIR should consider

additional mitigation measures, particularly with respect to tree mitigation, and consider increasing tree plantings to at least a 1:1 ratio. To the extent site constraints prevent extensive measures such as additional tree planting, the FEIR should consider tree replanting in areas identified as lacking tree canopy or experiencing extreme heat risks, and monetary contributions to support community efforts to mitigate heat and water quality burdens in surrounding neighborhoods.

The FEIR should continue to evaluate measures to reduce the amount of land alteration and conversion of impervious areas to pervious materials, including reductions in building program, roadway widths and parking areas; use of pervious pavement for roadways and/or sidewalks; land banking of parking, phased construction of parking or shared parking[7] until warranted by demand; and supplemental landscaping or tree planting to mitigate impacts associated with clearing.

The FEIR should identify any changes to the proposed stormwater management system design, including the identification of specific LID measures to be incorporated. To the extent any changes are proposed, an updated Stormwater Report should be provided with the FEIR.

Transportation

As stated in comments from MassDOT, if access to the Tuttle House is not consolidated, MassDOT recommends that the Proponent explore alternative options for consolidating access. These alternatives should be included in the FEIR with the goal of minimizing the number of access points as much as possible. The Proponent should continue consultation with MassDOT to further refine the Project's access management plan.

As noted in MassDOT comments, the FEIR should commit to following the FHWA Step Guide for the proposed crossing on Route 119. The FEIR should commit to constructing sidewalks along the east side of the site on Route 119 to connect with the traffic signal at the intersection of Route 119 and the northbound ramps of I-495, which should include a pedestrian crossing.

As noted in comments from Metropolitan Area Planning Council (MAPC), the FEIR should explore the feasibility of creating a connection to/from the site with local pedestrian and bicycle accommodations including the "Littleton Loop." The FEIR should discuss the feasibility of this request. Comments from MAPC recommend that the Proponent partner with the Town as well as other major employers in the vicinity to support the reformation of the Crosstown Connect TMA.[8] The FEIR should discuss the potential reformation of the Crosstown Connect TMA and whether the Proponent could support this effort.

As noted in comments from MAPC, the FEIR should explore the feasibility of creating a connection to/from the site with local pedestrian and bicycle accommodations including the "Littleton Loop." The FEIR should discuss the feasibility of this request. Comments from MAPC recommend that the Proponent partner with the Town as well as other major employers in the

[7] Described in detail in Metropolitan Area Planning Council's (MAPC) comments.
[8] https://www.crosstownconnect.org/

vicinity to support the reformation of the Crosstown Connect TMA.[9] The FEIR should discuss the potential reformation of the Crosstown Connect TMA and whether the Proponent could support this effort. The FEIR should report on any updates to TDM measures.

Wastewater

Per MassDEP comments, the FEIR must explain how the existing flow, proposed flow reserved to the Town, and the project flow of wastewater will be accommodated, whether at the WWTP or elsewhere. As noted in comments from MassDEP, the groundwater discharge permit for 550 King Street authorizes the discharge of only 40,000 gpd of treated wastewater; however, the DEIR states that the existing wastewater flow for the 550 King Street parcel is 63,577 gpd. In addition, MassDEP received correspondence in 2022 from the operator of the treatment plant on the property that the 550 King Street facility was closed. The FEIR must explain what activities are generating the reported flow volume. The FEIR should describe the wastewater treatment system at the 410 Great Road parcel as well as address the unresolved discrepancies in the estimate for existing wastewater flows at the project site as described above. The FEIR should provide a definitive estimate of wastewater demand for the site, and describe a plan to meet regulatory requirements for this infrastructure sufficient to accommodate the project. The FEIR should report on progress on the Town's efforts to increase capacity at the WWTP to accommodate the project. As indicated in MassDEP comments, sufficient information regarding the proposed location for disposal of the unaccounted for volume of wastewater from the project must be provided so as to accurately identify any additional permitting requirements.

As noted above, the Proponent does not currently have a permit for the existing wastewater flows at the 550 King Street location. Comments from MassDEP state that it appears that a property transfer of the underlying site may have occurred without written advance written notice to MassDEP. The Proponent should review the regulatory requirements for transfer of the permit and provide an update on the status of the permit transfer in the FEIR and provide details on how MassDEP requirements related to transfer of ownership will be met.

Climate Change

Adaptation and Resiliency

The FEIR should consider additional mitigation measures to make the site more resilient to extreme heat. In particular, the FEIR should discuss increasing tree plantings to at least a 1:1 mitigation ratio. To the extent site constraints prevent extensive measures such as additional tree planting, the FEIR should consider tree replanting in areas identified as lacking tree canopy or experiencing extreme heat risks, and monetary contributions to support community efforts to mitigate heat and water quality burdens in surrounding neighborhoods.

[9] https://www.crosstownconnect.org/

Greenhouse Gas Emissions (GHG)

Stationary Sources

The FEIR should provide the information and analyses requested in the detailed comment letter submitted by DOER, which is incorporated by reference herein.

The FEIR should commit to the following recommendations or provide the analysis as detailed in DOER's comments.

Building	Use	Recommendation
C	173 residential units	HERS 40 with ASHP for both space and water heating.
D	173 residential units	
E	149 residential units + retail	Residential: same as C, D Retail: electric air source heating and hot water; reduced air leakage C406.9
F	151 residential units	Same as C, D
G	Hotel (150 rooms)	Electric air source heating and hot water; reduced air leakage C406.9; electric cooking and drying
I	9 residential units + retail	HERS 40 with ASHP for space heating; electric resistance water heating Retail: electric air source heating and hot water; reduced air leakage C406.9
J	11 residential units + retail	
K	42 residential units + retail	
L	11 residential units + retail	
N	8 residential units + retail	Same as Buildings I, J, K, L
O	12 residential units + retail	
R	65 residential units	Same as Buildings C, D
S	285 residential units	

If commitments to the recommendations above are not made, then the FEIR should provide the evaluations as requested in DOER's comments.

Specifically, the FEIR should develop a "gap analysis" table that summarizes the key design changes to compare each requested HERS scenario. Design inputs should come from the results of HERs models, prepared by a qualified consultant. The gap analysis should also include reductions in HVAC equipment size enabled by increasingly improved building thermal performance, as well as reduction in peak electric usage due to improved thermal performance. The FEIR should provide a cost-estimate analysis tied to each row of the gap analysis, showing specific additional costs/reductions, as further detailed in DOER's letter.

As indicated in DOER comments, the FEIR should continue to consider alternatives to introducing new gas lines to this property. To assess these alternatives, the FEIR should provide

cost data for the gas system to service the project as requested by DOER (including cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s)). The FEIR should also provide the plan and costs (from all sources: ratepayers, residents, etc) from the gas utility for eventual decommissioning/abandonment of the gas service by 2050, and also the plan and costs (from all sources: ratepayers, residents, etc) from the electric utility for eventual necessary upgrades to electric service by 2050 to support a transition from gas to electric. The FEIR should provide clear rationale for dismissing non-gas alternatives, and indicate why such alternatives are not feasible for the project in light of the cost analysis described above.

Mobile sources/Air Quality

As indicated above, emissions of VOCs under the Build 2034 condition are expected to increase as compared to Existing 2025 conditions, despite the assumption of improvements to engine technology resulting in lower emissions. The FEIR should continue to explore measures to reduce traffic related emission below existing conditions through enhanced TDM, improvements to surrounding intersection/roadway infrastructure, or other mitigation measures. To the extent feasible, emissions reductions achieved through TDM and other traffic mitigation measures should be quantified. The FEIR should consider an increased commitment to EV charging infrastructure or solar PV. To further offset future air impacts, the Proponent may consider on- or off-site tree plantings, maximization of indoor air filtration, and/or other supported strategies to improve air quality.

Mitigation and Draft Section 61 Findings

The FEIR should include a separate chapter updating all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

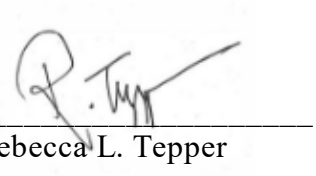
Responses to Comments

The FEIR should contain a copy of this Certificate and a copy of each comment letter received. The FEIR should contain a direct response to the Scope items in this Certificate. To ensure that the issues raised by commenters are addressed, the FEIR should also include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the Scope of the FEIR beyond what has been expressly identified in this certificate.

Circulation

The Proponent should circulate the FEIR to each Person or Agency who previously commented on the ENF or DEIR, each Agency from which the project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. A copy of the FEIR should be made available for review at the Littleton Public Library.

August 22, 2025
Date



Rebecca L. Tepper

Comments received:

07/20/2025 George Sanders
07/24/2025 Michael Gruar
08/03/2025 Amy Tarlow-Lewis
08/14/2025 Town of Littleton Planning Department & Planning Board
08/14/2025 Metropolitan Area Planning Council (MAPC)
08/15/2025 DarkSky Massachusetts
08/15/2025 Donald MacIver
08/15/2025 Erin Healy
08/15/2025 Jo-Ann Dery
08/15/2025 Sondra and Stephen Swartz
08/15/2025 Massachusetts Department of Transportation (MassDOT)
08/18/2025 Massachusetts Department of Environmental Protection (MassDEP)
08/21/2025 Massachusetts Department of Energy Resources (DOER)

RLT/NSP/nsp

George A. Sanders, Sr.
672 Great Road
Littleton, Massachusetts 01460-1236
Email: ivygas1@yahoo.com
Telephone Number: 978-502-0969

July 20, 2025

The Most Honorable Rebecca Tepper, Secretary
Executive office of Energy and Environmental Affairs
100 Cambridge Street, 10th Floor, Suite 900
Boston, Massachusetts 02114

Re: DEIR on Project EEA #16921, 410, 550, and 584 King Street, Littleton, MA 01460 (Mr. Nicholas Perry)

Dear Madam Secretary:

It is my hope that your family, staff, and their families, and you are in the best of health and staying safe, as this leaves the undersigned doing well currently.

I am writing to you concerning [**public input**] on the aforementioned project here in the Town of Littleton, Massachusetts. My main concerns with this project are that it is a good fit for the community; I am concerned that the total discharge for wastewater, of 187,000 gallons, did not include a 150-room hotel or the parcels at 410 and 584 King Street. It is imperative that all sewage generated at the three parcels be processed through a sewer wastewater treatment plant.

At the present time, Littleton is in the process of opening a new sewer wastewater treatment plant that has a maximum output of 242,000 gallons of wastewater that includes 150,000 gallons of wastewater from 550 King Street [**only**]. Under the 'Clean Water Act,' Littleton is working extremely hard to be a good green environmental community, when it comes to the amount of [**nitrogen**] getting into the ground water that is from septic systems here in Littleton. Littleton is a community that gets its drinking

water from ground wells and that is why the development of these parcels is so [**crucia**l] that all building facilities are hooked up to a sewer treatment plant.

In addition, it is necessary that all buildings comply with Littleton's Planning Board approved "Form Base Code" of 240 feet from the edge of King Street. It is not in the [**clear**] where the five floors 150-room hotel is located on the parcel – it must be built beyond the 'Form Base Code' of 240 feet from the edge of King Street.

I am also hoping that the state will be a good partner in supporting infrastructure sewer and water funding for the 600 MBTA housing units at 550 King Street; those 600 MBTA Housing units are also [**not included**] in the discharge of 242,000 gallons of wastewater from the new sewer treatment plant at 242 King Street.

I cannot stress how vital it is for the state, the developer, and the town to get the sewer treatment plant expanded, by finding funding, land and developing a new cleaned wastewater discharge site for the sewage that is forthcoming.

The parcels must ensure that there is not any environmental denying of natural sunlight to housing across King Street (Due east).

My overall thoughts about these parcels on this project are that the developer intends to comply with the local and state codes and develop these parcels into first class facilities here in Littleton. I have spoken with the developer several times and I trust that he wants to comply with all requirements that are placed upon this project by local and state authorities; therefore, I really do not have any other concerns currently.

Very sincerely yours,

S/s George A. Sanders, Sr.
GEORGE A. SANDERS, SR.

cc: The Most Honorable Jim Arciero
The Most Honorable Nick Lawler

Hello,

I've gone through most of the DEIR for King St Common, at least as far as traffic is concerned. One thing I want to get clarity on and/or highlight is bicycle connections to/from the west, along Great Road. Due to I-495 limiting the number of crossings, Great Road is currently the only connection between the center of town (i.e. the Common) and the northwestern portion of Littleton, including the Point shopping area, two local farm stands, and... my home. I end up biking on it semi-regularly, and while it doesn't have formal bike infrastructure, the shoulders are almost adequate for biking on. Given that context, i have a few questions:

1. When rebuilding the driveway connection to Great Road, will you ensure that the northern sidewalk (or at least, the stub that I see in the plans) is built north enough to allow for bike lanes, or at least bicycle-sized shoulders?
2. Is there any potential to widen the space for bicycles between the rebuilt driveway and King Street? (I suspect the answer is "not without significant impacts to neighboring properties", but I have to ask.
3. How closely are you working with MassDOT on bike/ped connections to the west? I know the bridge deck over 495 is planned to be replaced soon, and in addition to bicycle space, it really needs a sidewalk on the *north* side to better connect to Market Basket/the Point.

I'm looking forward to both your responses and further development of the project, it'll be great to make a dent in the housing crisis and put the land to much better use than a massive empty parking lot.

Thanks,

Michael

Executive Office of Energy and Environmental Affairs

Project Name: King Street Common / EEA# 16921

Public Comment

August 3, 2025

To Whom This May Concern,

I am writing to request that a new stop light is added to the intersection of Rusell Street and King Street Littleton, MA. See attached map. As a traffic public safety concern and for the health and wellness of children biking to school and people walking, an additional stop light must be added to increase the safety, accessibility, and walkability of our small town.

As the town has grown there has been increased traffic and accidents over the years at the of Rusell Street and King Street intersection. There is too much traffic at school start and end times and at rush hour. Cars driving off and on to Rt 495 drive too fast and people use Russell Street as a cut-through to get to Rt 495 and to avoid the stop lights in the center of town. Cars also use Russell street from The Point (Market Basket) and the future King Street Project to cut to the West Acton side of town. It has become too dangerous over the years as the population has grown to safely pull in and out of Russell / King Street never mind the number of kids on bikes. As the King Street Project has been built out over the years and housing units have come online the number of cars will increase and so will the traffic pressures. Russell Street was built only to handle local traffic for local residents, and the upper elementary school and middles school. Please note a traffic light had been added many years ago when the new high school was built off King Street.

The Town of Littleton and the King Street Project should follow the state policies and guidance for implementing and leverage complete streets policies by designing and maintaining streets that accommodate all users, regardless of age, ability, or mode of transportation; walking, biking, transit, or driving.

I am hoping the Town of Littleton, State, and the Lupoli Company will consider a new traffic light to address traffic and pedestrian concerns as a direct result of the increased traffic pressure from the King Street project. Other traffic calming measures could also be utilized such as a full speed humps to slow down vehicles. Four-way stop signs can be another option to ensure cars stop without causing long delays at traffic lights.

Enhanced pedestrian infrastructure with improving crosswalks should also be considered: Reshape, repaint to improve safety and visibility for pedestrians with curb extensions, raised crosswalks/intersections to slow vehicle speeds and improve accessibility for wheelchairs and strollers. And this must include good lighting, which is crucial for safe crossings, especially at night.

Install Pedestrian Signals by implementing traditional walk/don't walk signals at the intersections or consider High Intensity Activated Crosswalks (HAWK) or Rectangular Rapid Flashing Beacons (RRFB) at mid-block crossings to improve safety and ease of crossing with signal timing and lowering speed limits.

I am sure the Town of Littleton is fully versed on the how to secure funding through the Complete Streets Funding Program mechanism and other State or Federal Programs. These improvements can be funded through a combination of State, Federal funding with a contribution from the Lupoli Company, shifting the burden away from the Local taxpayer. There is a cost-benefit to investing in improved safety measures that will save lives, prevent injury, fewer accidents, reduced emergency response costs, and potentially lower insurance rates for the community.

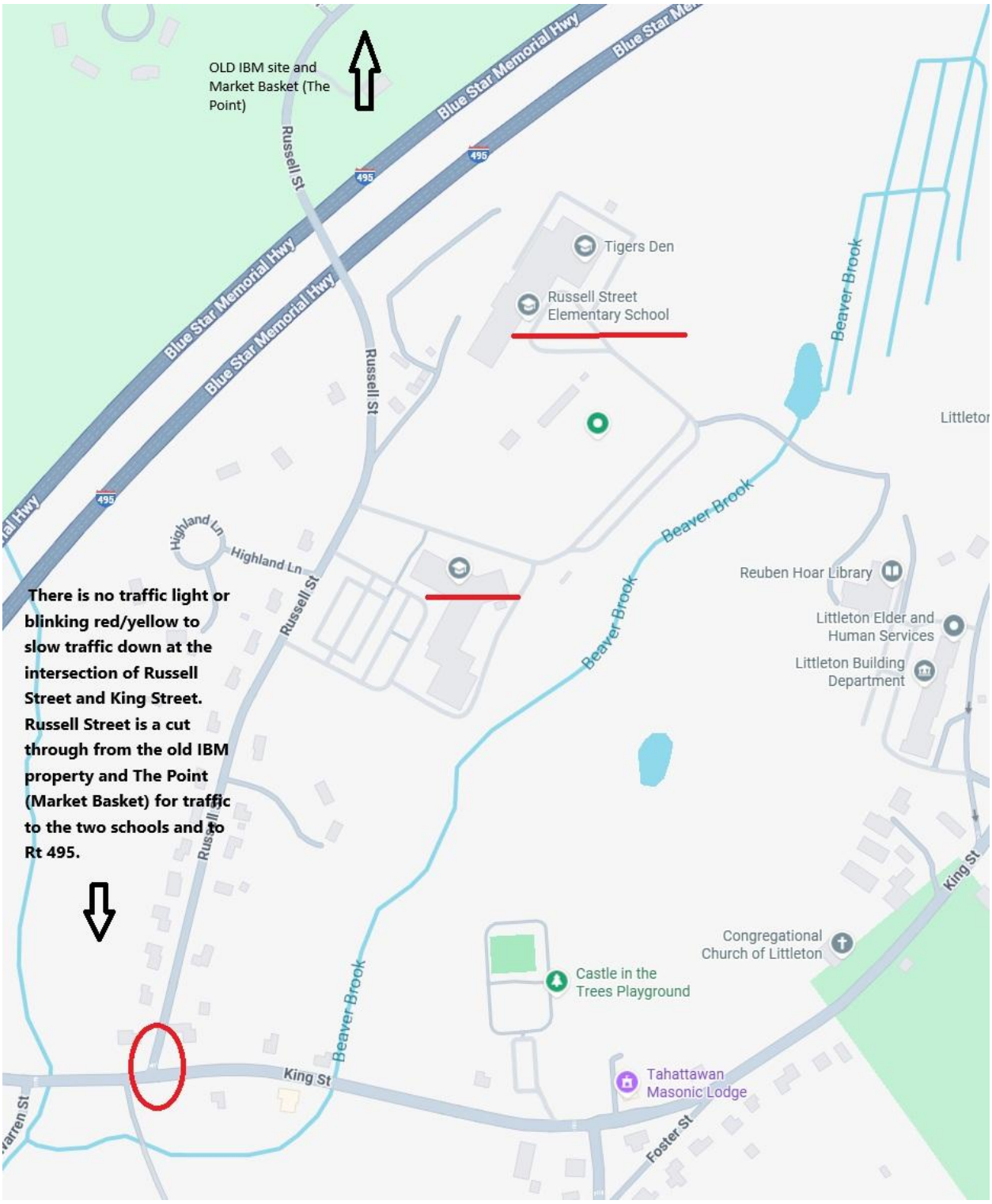
I support projects that connect destinations and residential areas with commercial districts, schools, and parks. But those projects must keep public safety, health, and wellness at its core.

Respectfully,

Amy Tarlow-Lewis

Amy Tarlow-Lewis
3 Omega Way
Littleton, MA 01460

Cell 617-678-0739
Astarlow@gmail.com


OLD IBM site and Market Basket (The Point)
Blue Star Memorial Hwy
Blue Star Memorial Hwy
Blue Star Memorial Hwy
Blue Star Memorial Hwy
495
495
495
Russell St
Russell St
Russell St
Russell St
Tigers Den
Russell Street Elementary School
Beaver Brook
Beaver Brook
Beaver Brook
Beaver Brook
Littleton
Highland Ln
Highland Ln
There is no traffic light or blinking red/yellow to slow traffic down at the intersection of Russell Street and King Street. Russell Street is a cut through from the old IBM property and The Point (Market Basket) for traffic to the two schools and to Rt 495.
Reuben Hoar Library
Littleton Elder and Human Services
Littleton Building Department
King St
Congregational Church of Littleton
Castle in the Trees Playground
Beaver Brook
King St
Tahattawan Masonic Lodge
Foster St
Warren St

Littleton Planning Department & Planning Board
37 Shattuck Street
Littleton, MA 01460
August 13, 2025

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

PLANNING DEPARTMENT
P.O. Box 1305
Littleton, Massachusetts 01460

Littleton Planning Department

Dear Secretary, Tepper and EOEEA Team –

The Town of Littleton Planning Board and Department is reviewing the DEIR for consistency with prior local approvals and municipal planning goals outlined in our foundational municipal planning documents. Overall, this is a well-written document that considers those issues that were scoped by the State as required for this DEIR. The proposed development plan moves forward the goals of the town outlined in our 2017 Master Plan, our 2019 Littleton Common Revitalization Road Map, and our 2025 Senior Housing Affordability Needs Report. Concentrating new mixed-use development at/near existing commercial nodes on previously developed property also matches well with MAPC's Metro Common 2050 regional plan.

One point that seems to be undersold is that the King Street Common development is occurring primarily on un-used paved parking areas in an underutilized office park – in stark contrast to the "usual" development on previously undeveloped land. This proposal does not sacrifice public or private open space, or forest, or farmland, or riparian headwaters to develop. The (required) comparison to "no build" seems artificial and not reflective of the widespread conventional housing development that could occur on undeveloped land without this proposal. If the developer was able to make that comparison in the DEIR, it would be even clearer that the proposed development provides significant public benefit by providing housing and mixed-use development on land that is well-suited for redevelopment.

This development will rely heavily on Transportation Demand Management success. Creating and assuring success of alternatives to single-occupancy motorized vehicle trips will be key to mitigating potential traffic impacts as each phase is completed. Having one or more local Transportation Management Agencies able to quickly respond to and work with this new development will be crucial to mitigate potential traffic impacts. Today over 6,000 employees travel to Littleton for work daily from all directions, and this number will increase significantly as this new development moves forward. Providing transportation options from the west Leominster/Fitchburg, east Boston/Cambridge, north Lowell/Lawrence and south Hudson/Marlboro and beyond will be key to successfully integrating this development into the fabric of Littleton without overburdening local roadways and highways.

The development site at King Street Common is served directly by State Highways 2A/119, 110, and I-495. Close coordination with MassDOT to assure appropriate design and construction of

pedestrian, bicycle, and vehicle traffic mitigation and safety measures will also be important to help serve future residents and commercial travel needs of the site.

In summary, the proposed development provides clear public benefit in the form of much- needed housing and mixed-use development in phases over the next several years.
Successful implementation of Transportation Demand Management and design and construction of traffic mitigation and safety measures will help ensure the success of this development is sustained long-term.

Thank you for the opportunity to provide comment on the DEIR. Littleton is looking forward to seeing this development move forward in a thoughtful and collaborative manner.

PLANNING BOARD

P.O. Box 1305
Littleton, Massachusetts 01460

Littleton Planning Board

Dear Secretary, Tepper and EOEEA Team –

Littleton is a place of many green open spaces. In various public meetings, the development team has shown renderings of visible, usable green spaces. DEIR report states on page 1-4 that the project will be "providing new public greenspace for local events with the addition of approximately 18 acres of open space." While original depictions in 2022 showed green space with green grass and trees, current depictions such as on the cover page of the DEIR report and the illustrative "fly-through" video from the June 23, 2025, joint Select Board and Planning Board meeting. The development team showed a very concrete, hardscape paver environment, lacking "usable green space." Page 5-2, section 5.1.3 describes Hotspots being addressed but in looking at the photo below it does not look like the development's plan is using materials to reduce Hotspots in this "community area." The developer should be required to use more natural materials for patrons and residents gathering spaces. More grass is needed, and if grass isn't possible, what other materials are environmentally appropriate instead of just concrete and pavers? Usable green space is needed for residents to gather, not just "decorative" green in pots & planters. This also includes shaded public gathering spaces, e.g. picnic tables with umbrellas. Ask the developer to identify where the 18 acres of open space is located on the site as it is clearly no longer present on the King Street side.

A 150-room hotel would be a welcome addition in the development and if the developer wants a five-story building, then it cannot be within 255 feet of the King Street right-of-way line per the 550 King Street Common Zoning 173-233 H, Dimensional Requirements. DEIR information in figures 1-3 and 2-1, and Appendix A states that the 150 Hotel rooms will be 5 stories. The Planning Board has not approved five stories in the location identified in these three figures and board members firmly oppose any such variance within the 255 ft right of way. Prohibit the hotel at 5 stories as it violates the zoning at that location in the development.

Volume of vehicles, pedestrians and bicycles will increase with development, but at what time, effort, and cost to residents. DEIR information provided by the developer indicates that current traffic volume "have adequate capacity to accommodate the additional demand created by the project (7-66)." Developer's assumptions are not clearly provided for laymen to understand and are at odds with residents' assumptions and common sense; how will capacity be managed? The intersection of 2A/119 and 110 presents a traffic hazard with the left turn onto Great Road from King Street towards Acton as traffic tends to back up past the proposed left turn lane. Likewise, the left and right hand turns out

of the main driveway of King Street Common onto Great Road are often delayed due to the queued traffic. The primary driveways to parking areas present a significant safety hazard for pedestrians in the retail areas. Perform detailed analysis and mitigation recommendations to ensure pedestrian safety. Perform detailed analysis of these intersections for flow and alternate mitigations including removal of this driveway. Provide guidance to the Town and the Developer for addressing traffic and transportation impacts by King Street Common with examples such as Lynnfield Marketplace and how they addressed new volume, connections with MassDot, and funding options available.

Littleton is a car-centric community, and the King Street Common developer needs to account for how non-KSC visitors will arrive at the new development. DEIR offers a few snippets of what it could offer non-KSC visitors, but not enough detail to reassure Littleton Residents of how they will get to King Street Common. Require the developer to; identify if public parking will be available, location and cost; whether any public transportation around Littleton will be offered other than the MBTA shuttle; what "Strong Pedestrian Crossings" mean on the plan dated April 12, 2024 (e.g. rapid flashing beacons); and how bicyclists will be able to safely get to the site from different points around Littleton including designated bike lanes on King Street and Great Road to access King Street Common. Also, provide guidance (connections with MassDot, and funding options available) to the Town and the Developer for addressing bike lane access to and from KSC.

Sincerely,

Town of Littleton Planning Department & Planning Board

MAPC
METROPOLITAN AREA PLANNING COUNCIL

Smart Growth and Regional Collaboration

August 12, 2025

Secretary Rebecca Tepper
Executive Office of Energy & Environmental Affairs
Attention: Nicholas Perry, MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: King Street Common Draft Environmental Impact Report, EEA No. 16921

Dear Secretary Tepper:

The Metropolitan Area Planning Council (MAPC) regularly reviews proposals deemed to have regional impacts. The Council reviews these projects for consistency with *MetroCommon 2050*, MAPC's regional land use and policy plan, as well as with Complete Streets policies and design approaches.

MAPC has a long-term commitment to alleviate regional traffic and environmental impacts, consistent with the recommendations of *MetroCommon 2050,* including *reducing vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers*[1], and *improving accessibility and regional connectivity*[2]. Furthermore, the Commonwealth has a statutory obligation to reduce greenhouse gas (GHG) emissions by at least 50% from 1990 levels by 2030, 75% by 2040, and 85% by 2050 to achieve net zero emissions by 2050, a commitment that MAPC wholeheartedly supports.

Lupoli Companies (the Proponent) proposes a mixed-use housing, commercial, and retail development totaling approximately 1.8 million square feet (sf) in Littleton. The 47.4 acre project site is generally bordered by Interstate 495 to the south, King Street to the north, and Great Road to the east. The proposed redevelopment Project comprises 19 buildings with programming elements that include: 1,089 residential units, 115,500 sf of retail space, 19,000 sf of office space, 545,520 sf of light industrial use, and a 111,000 sf hotel (150-rooms). The Proponent proposes 3,010 parking spaces, of which 1,446 will be structured parking and the remainder at grade. The Project is forecast to generate 19,692 vehicle trips on an average weekday. Overall, MAPC is supportive of this project which seeks to create a new, compact village center in an already developed area, reflecting Action 2.3 of MAPC's MetroCommon 2050.[3] What was formerly land used primarily for asphalt surface parking and mobility by automobile will be transformed into a walkable mixed-use community with an emphasis on public gathering space and much needed housing. We applaud the Proponent for investing in critical wastewater and sewer infrastructure and for committing to a strong transportation demand management (TDM) program that seeks to minimize trips to and from the site by single occupancy vehicle (SOV). To address concerns relevant to the abundance of on-site parking and long-term maintenance of the stormwater management system, MAPC recommends the following actions pursuant to the Proponent's submittal of the EIR:

[1] https://metrocommon.mapc.org/announcements/recommendations/2

[2] https://metrocommon.mapc.org/announcements/recommendations/1

[3] MAPC's MetroCommon 2050 Action 2.3: Ensure affordability and optimize land use around transit and smart growth locations. https://metrocommon.mapc.org/announcements/recommendations/2

Bicycle and Pedestrian Access

We are pleased to see many of the recommendations from our 2023 Littleton Bicycle and Pedestrian Plan featured in this DEIR including the addition of sidewalk infrastructure along King Street and Great Road and bicycle accommodations both throughout the site and with connectivity to King Street. New sidewalks, crossings, and street trees along King Street combined with maintenance of existing bike lanes will recharacterize the roadway as a pedestrian and bicycle-friendly environment with low traffic speeds. Noting that improving safe bicycle access and shared use paths was the top priority for the 700 local respondents of MAPC's public survey in 2023, **we strongly recommend that the Proponent commit to creating a safe connection to/from the site with the "Littleton Loop",** consistent with the Bicycle and Pedestrian Plan. This would provide non-motorized, active transportation access to Littleton Common, MBTA Commuter Rail, Town Hall and the library, high school, and middle school complex. We respectively request that this mitigation item be included in the Proponent's Section 61 Findings.

MassDOT is seeking a full replacement of the Great Road bridge deck and submitted a 25% design package on December 13, 2024. MAPC supports these efforts to replace this important bridge, but recommends that the replacement include robust pedestrian and bicycle accommodations, which would improve the dangerous crossing over I-495 for cyclists and pedestrians. MAPC understands that the Town of Littleton also supports the inclusion of pedestrian accommodations for this proposed project. **MAPC recommends a full replacement of the Great Road bridge deck with the inclusion of critical bike and pedestrian accommodations, and encourages the Proponent to support this effort.**

Parking

The Proponent proposes to significantly increase parking at the site, building 141 spaces in excess of what local zoning requires, and 1,060 more spaces than currently exist on the site (total of 3,010 spaces). While structured garages will decrease the overall parking footprint on site by 544,652 sf, this abundant supply of (free) parking will incentivize vehicle trips, exacerbate congestion and emissions, and undermine the Proponent's own TDM measures. Recognizing the Proponent's commitment to reducing the parking supply by providing the minimal number of parking spaces to a level of the demand only, MAPC recommends the following strategies to reduce this demand as well as the volume of parking at the site (in addition to preferential parking for carpools and rideshare as articulated in the DEIR):

- **Increase Shared Parking:** Due to the significant diversifying of land use at this site from current conditions, utilization patterns at parking facilities will vary widely throughout the day and night. As a result, it is likely that large portions of the proposed parking spaces could be consolidated and shared between buildings. The proposed development includes 115,500 sf of retail space - over 20,000+ sf is dedicated to restaurant space – along with 19,000 sf of office space and 545,520 sf of light industrial/research & development areas. This mix creates a strong opportunity for shared parking, particularly between the restaurant and office/R&D uses, allowing for a reduction in the overall parking supply. While the Proponent discussed shared parking in the DEIR, no quantitative proposal for shared parking was included. This should be addressed in the next MEPA filing.

- **Phase construction of parking:** To ensure that the supply of parking throughout the site does not exceed its demand and does not incentivize SOV trips, MAPC recommends that the structured parking, particularly in the residential buildings, be built in phases. Rather than waiting until occupancy of the entire project has been achieved to assess whether the constructed parking supply is adequate, **MAPC recommends monitoring occupancy as soon the first phase is occupied and altering the number of parking spaces to be constructed in the following phase accordingly.** This

phased approach to parking construction allows the Proponent to both avoid overbuilding and to adjust demand expectations based on forthcoming TDM measures such as increased bus access, active transportation improvements, and a new shuttle to the MBTA Commuter Rail.

TDM and TMAs

With 13,388 new vehicle trips expected to be generated by this project during the average weekday, a strong TDM program is imperative to minimizing vehicular trips to/from the site and could potentially shrink that volume considerably. MAPC commends the Proponent's commitment to TDM as a valuable component of this project. This is exemplified by their investment in a new, high quality bus stop on site, funding of a new fixed-route shuttle service to the MBTA Fitchburg Line station, membership in the Middlesex 3 TMA, and a multitude of other TDM measures carried out by an on-site Employee Transportation Coordinator (ETC). MAPC recommends the following additions/alterations to the TDM element of this project:

- **Support the Re-Launch of the Crosstown Connect TMA:** While membership in a TMA is a valuable piece of any successful TDM program, and the Middlesex 3 TMA is a highly renowned organization, its service area (Bedford, Billerica, Burlington, Carlisle, Chelmsford, Lowell, Tewksbury, Tyngsborough, Westford, and Woburn) aligns with some of the top communities from which workers commute. These communities are Littleton itself, Lowell, Westford, Leominster, and Chelmsford[4]**. MAPC recommends the Proponent partnering with the Town as well as other major employers in the vicinity including Amazon, FIBA Technologies, and Market Basket to support the reformation of the Crosstown Connect TMA**. Launched in the mid-2000s, the currently dormant public-private partnership between the Massachusetts communities of Acton, Boxborough, Concord, Littleton, Maynard, Sudbury, and Westford, along with local businesses, poses an enormous opportunity to reinvigorate a valuable piece of the transportation system within which the project is located. Reviving this partnership could also extend and amplify the impact of the Proponent's proposed new shuttle service throughout the region.

- **Ensure pedestrian access to the new bus stop is safe and convenient:** In addition to high quality design and facilities at the new bus stop extending LRTA service to the site, the Proponent must also ensure that pathways, sidewalks and other access routes to the stop are safe, maintained, and coupled with robust wayfinding.

Wastewater Treatment

The Town of Littleton is to be commended for making a major effort to develop wastewater treatment capacity to serve development in and near the town center area. The Proponent is contributing $29M towards the Town-wide sewer project, which accounts for 2/3 of that Project's funds. The project at full buildout will generate 286,000 gallons per day (gpd) of wastewater flow, which is beyond the capacity of the wastewater system currently under construction. The first phase of the project will utilize the available 150,000 gpd of capacity over the first five years. After that, additional wastewater capacity would need to be made available to accommodate the full buildout, which the Proponent is coordinating with the Town. This DEIR filing is based on the project's full buildout, so the first phase will be well within the limits of the impacts and mitigation designated for the full project.

MAPC has been supportive of the Town's efforts to develop its wastewater system, and this King Street Common proposal would bring forth the kind of mixed-use development that the system was designed to

[4] https://www.littletonma.org/DocumentCenter/View/9664/Littleton-2025-Community-Report

accommodate. The only caution is that, as with all wastewater systems, over the long term it will be necessary to carefully maintain the system to minimize Inflow and Infiltration (I/I) which could reduce the available capacity for future phases of this project and other projects in Littleton. Some communities have established Sewer Banks to ensure that resources are available for ongoing maintenance to minimize I/I. This would be a measure implemented by the Town, not the Proponent, but it would be worth considering in order to ensure the long-term ability of the wastewater system to efficiently support current and future development in Littleton.

Stormwater/Climate Resilience

The proposed stormwater management system would be a great improvement over existing conditions, which consist of large parking areas with minimal treatment of stormwater. The King Street Common will feature underground facilities beneath paved areas to manage discharge stormwater to the ground. The facilities will be sized to accommodate stormwater flows for the current 100-year (1% chance) storm, and using the ResilientMass Action Team's (RMAT) Climate Resilience Design Standards Tool , stormwater generated by the projected year 2070 50-year (2% chance) storm will be managed. The system will comply with the Massachusetts Stormwater Handbook standards for a redevelopment project.

The DEIR makes an important observation about the proposed stormwater management system that MAPC would like to underscore:

> "Many of the Best Management Practices (BMPs) selected for the site are subsurface which can be increased in size, repaired, or replaced if necessary. Strict conformance to the Operation & Maintenance Plan will ensure long-term effectiveness of the stormwater management system and its ability to accommodate future year storm scenarios."

In fact, inadequate long-term maintenance of stormwater infrastructure is a nearly ubiquitous problem statewide, often leading to inadequate drainage and flooding, as well as water quality impacts to receiving waters. Even the best designed and constructed systems may fail if not properly maintained, and maintenance is often under-emphasized (or under-budgeted) after project development. To address this, MAPC suggests that the Operation and Maintenance Plan should be included as part of the Section 61 Findings, to help ensure that it will be enforced after the initial project review and approval is completed.

Thank you for the opportunity to comment on this project.

Sincerely,

Lizzi Weyant
Acting Executive Director

cc: James A. Duggan, Town Administrator
David Mohler, MassDOT

While not opposed to the project, I am writing on behalf of DarkSky Massachusetts, as an area resident who resides in Pepperell, MA, as well as someone who works near the development, to express significant environmental concern regarding the proposed development at

500 King Street, Littleton, MA

A specific concern is the potential for increased light pollution and its detrimental effect on our nighttime environment.

Of environmental concerns, light pollution is the fastest growing threat to our natural environment, growing at a national rate of 10% per year. Fortunately, the solution to the issue is easy and will save the developer/owner of said property by reducing energy waste while improving visibility for future/existing residents of the area.

One of the most impacted areas of my employment is planetary defense, the observation and tracking of faint, fast-moving objects, particularly near-Earth Asteroids (NEAs) and potentially hazardous asteroids (PHAs). These objects are extremely difficult to detect. Their visibility is a direct function of the darkness of the sky; any increase in background light from a source on the ground—often referred to as "skyglow"—directly reduces our ability to see them. It is like trying to spot a dim candle flame next to a bright streetlight.

Light pollution not only makes the initial discovery of these objects more challenging but also hinders crucial follow-up observations. After a new asteroid is discovered by a major survey, follow-up data from facilities like ours is vital for precisely calculating its orbit and determining if it poses a potential impact threat to Earth. Without the ability to perform these measurements accurately and efficiently, our contribution to planetary defense efforts is compromised.

As we have experienced from similar large developments in Littleton, Groton and Westford, the proposed development, without strict light pollution mitigation measures, poses a direct threat to the natural nighttime environment. If poorly designed or excessive lighting was installed it would result in a host of negative impacts, ranging from human health (increase in breast cancer rates), increase in pedestrian traffic accidents, disruption to animal/bird migration, decrease pollinator activity and much more, as listed in the State of the Science report outlining supporting research. It could also effectively "blind" the telescopes my students use.

We respectfully request that the developer give serious consideration to the following recommendations to protect the observatory and its mission:

- **Mandate fully shielded, "dark-sky compliant" lighting** for all exterior lights, including parking lots, walkways, and building exteriors.
- **Limit the amount of total upward-directed light** from the property to an absolute minimum.
- **Require the use of warm-toned lighting** (below 2700K), as these wavelengths are less disruptive to human circadian rhythms, as well as astronomical observation.
- **Encourage the use of motion sensors and timers** to ensure lights are only on when necessary.

These best practices are supported by a broad range of professionals, ranging from the American Medical Association, the International Astronomical Union, as well as the Illuminating Engineering

Society (the same agency that writes the lighting specification recommendations for the world). We respectfully ask that a dialogue is initiated between the proponents of the development and DarkSky MA, as well as area astronomers, in order to mitigate light pollution to a reasonable level.

Subject: Public Comments on DEIR "King Street Common" EEA # 16921, at 550 King St, Littleton, MA

To: Ms. Rebecca L. Tepper, EEA Secretary
c/o Mr. Nicholas Perry, MEPA Analyst
Nicholas.Perry@mass.gov
617-921-2961
MEPA Unit
100 Cambridge St., Suite 900
Boston, MA 02114

Date: August 15, 2025

From: Donald MacIver, Littleton Sustainability Committee Member
maciver01460@gmail.com
978-941-7588
43 Foster St., Littleton, MA 01460

Dear Mr. Nicholas Perry, MEPA Analyst:

The following comments are made with regard to the submitted DEIR for Littleton's "King Street Common" EEA 16921:

The proposed development is of a massive scale and impact for Littleton, a mid-size community (population estimated at just reaching 10,000) and located in a critical, congested, and central section of the town. A well-designed project thoroughly thought out is essential and worthwhile for both residents and developer.

I am requesting that a Supplementary DEIR (SDEIR) be required to address the following points including the admitted omission of more detailed plans (e.g., a promised future TBD plant and vegetation plan for the entire 47 acre, 19 building, 3,010 vehicle parking area project.).

The request that the EEA Secretary require a Supplementary DEIR (SDEIR) to address the following issues:

o **Need for Actively Partnering with Littleton Resident Stakeholders for Further Design Planning**
> There is a need for the project proponent to actively partner with resident community stakeholders and organizations in more detailed design planning to advance sustainability and to reduce overall negative impacts and, in particular, mitigate and adapt as need be for climate change. The town of Littleton with its committees and associated citizen organizations (as cited in the below cc list) are actively addressing climate change and currently are working on a town-wide Climate Action Plan (CAP). Additionally, there is a concerted effort to implement native vegetation landscapes (including replacing some nonnative plantings and reducing invasives as best possible). Many of those participants, are professional/ subject experts in their fields, and contribute their expertise as members on associated town committees. They know the town best and have been addressing many of the issues listed below.

o **Need for Project-wide Planting and vegetation Plan** (Project proponent has acknowledged that it is currently absent and forthcoming). It should include:
> Use of native plants for resiliency, for limited maintenance, promotion of healthy pollination and sustainability, support related wildlife (e.g., birds and other pollinators), and additionally promoting aesthetics.

> More native trees and shrubs and partnering with the town Conservation Commission and Tree Committee that are currently completing an emerging Tree Bylaw
> Effort needs to be made to limit lawn area in favor of more diverse native groundcovers and vegetation. Lawn area should be primarily limited to active pedestrian use, such as for providing planned amenities for residents and visitors (e.g., gathering areas, picnic areas, lawn games, etc.)
> An operation and maintenance plan for ensuring the well-being of the installed vegetation, shrubbery, and tree entities, and replacement, if need be.

o **Mitigation of Building Impacts**
> Consider CLT (Cross-Laminated Timber) construction as is used successfully for versatility, better efficiency (as well as for lower overall GHG emissions in the manufacture of building materials), and lower costs, as is performed throughout many countries in Europe and more recently increasingly domestically including private enterprise projects and on some collegiate campuses such as at UMass in Amherst and the College of the Atlantic, Bar Harbor, ME. Littleton-based New England Forestry Foundation has promoted and educated on the advantages and successful stories of implementing CLT construction and should be consulted.
> Implement Green Rooves and/or Roof-top Solar Panels (or at the very least, Cool Rooves). Good successful examples of green rooves exist in Cambridge and extensively in Montreal
> Capture and use of roof top rainwater to reduce irrigation needs. Certainly, some of the roof top surfaces of 19 buildings, many new, and their aggregate rain water volume can be repurposed in some meaningful manner as opposed to being dealt with as a storm water discharge problem.
> As was performed at residences in the civilian reuse/repurposing of the former Army Fort Devens Military Base, King Street Common residences should be pre-wired with internet cabling as an amenity for residents to virtually connect with others and participate in virtual conferencing to facilitate working at home and reducing daily vehicle trips.

o **Limiting and Softening Surface Parking Areas**
> Implement a plan to break up large expansive lots (for aesthetics and reduction of heat islands)
> There is a need for more native vegetation and shade islands with clumps of trees and other vegetation versus just narrow lined corridors of trees
> Consider solar carport and walkway canopies (considering both long-spans and shorter extents) (Successful examples are those implemented at UMass in Amherst; municipal school systems such as in Hopkinton, Sudbury, and Wayland; private enterprises such as Raytheon in Woburn, REI in Framingham, and Brockton's Signature Health Care Offices; and other institutions, such as the adjacent Acton's non-profit children's Discovery Museum)
> Project proponent should consult the LID recommendations prepared by Weston and Sampson whose efforts were commissioned as part of Littleton's Municipal Vulnerability Preparedness (MVP) program basis documentation. There is a need to limit impervious surface areas and where not possible to utilize LID techniques that are both attractive and functional such as "rain gardens" to detain, filter, and accommodate slow discharge.

o **Transportation Issues**
> Planned shuttle transport from 550 King St to the local commuter rail station and perhaps adjacent areas should be via electric vehicle
> As commented by the Town Planner, there is a need to incorporate the Acton-based CrossTown Connect Transportation Management System provided by the current TMA , in addition to any other transportation network systems that may serve northern town intercity links (e.g., Westford, Chelmsford, and Lawrence/ Merrimack Valley Area). Historically and currently, Littleton is more

connected to the adjacent community of Acton than those of the more northernly towns and is currently served by the CrossTown Connect Transportation Management Area. Connection to both certainly would be advantageous
> All transportation daily vehicle trip modelling aside, simple visual observation indicates that during the summertime, there often is significant traffic backup along King St./MA-Route 110 heading eastward toward the Westford town line and extending to the popular Kimball Farm Ice Cream and Recreation Area. The congestion at that destination (e.g., from vehicles heading eastward and trying to cut across the opposing westbound traffic to park at the designated parking lot on the north side often backs up traffic and is additionally exacerbated by pedestrians needing to cross the road system to access the facility on the south side of the road system). This backup can extend along King Street westward past the Great Road – King St. intersection a the center of the Town Common. While this traffic congestion issue is pre-existing and not of the making of proposed project developer, it will impact the proposed project's traffic flow. Technical companies previously occupying the 550 King Street site, being office buildings, generated traffic mostly at the beginning and end of traditional work hours and mostly used the "IBM Driveway/ Auman Street") intersection for quick access to MA Route 119 near the I-495 interchange, eliminating traffic burden on most local streets. The redevelopment of the 550 King Street site is for mixed-use (with residences and retail use) so it will generate mid-day vehicle trips as well. In addition to the consideration of the project's number of curb cuts onto King Street/ MA Route-110, MA DOT should address the pre-existing Westford congestion issue as well, for everyone's benefit.

I and my peers, both municipal committee members, and other interested residents, eagerly look forward to working with the Project Proponent, Lupoli Companies, and their consultants to further design the proposed project for mutual benefit and success. The Lupoli Companies have a history of creative development and possess adequate capacity to partner with the resident town stakeholders in a meaningful manner for creating an outstanding project that serves as a model for other communities and creates a stellar asset within their own portfolio of project accomplishments.

Thank you for the opportunity to comment and influence this significant and critical project.

Cc:
Town Administrator (TA)
Sustainability Committee (LSC)
Planning Board (LPB)
Conservation Commission (LCC)
Tree Committee (LTC)
Board of Health (LBH)
Littleton Conservation Trust (LCT), P.O. Box 594, Littleton, MA 01460
Metrowest Conservation Alliance (MCA) c/o Sudbury Valley Trustees (SVT), 18 Wolbach Rd., Sudbury, MA 01776
New England Forestry Foundation (NEFF), 32 Foster St., Littleton, MA 01460
Lupoli Companies, 280 Merrimack St., Lawrence, MA 01843

Thank you for the opportunity to provide comments on the Draft EIR for the King Street Common project proposed in Littleton, MA. I understand that this project has been under consideration by Littleton Boards, and has some permits, but this state process is important and needs to be thorough. The Draft EIR has a wealth of information and I appreciate the work put into it by the proponent and the Littleton Planning Board. I do have some comments and questions that I think should be addressed.

1. Sec 2.2.3 – Three alternatives are considered – No Build, Reduced-Build and Developers Preferred. This is a major project in a very small town with limited infrastructure and geographic size. For current and future residents, there will be impacts from traffic and additional loads on our educational, public works and road infrastructure that will significantly affect us. There needs to be more information in the EIR on why only the Reduced-Build Alternative is considered as an option other than No-Build. There is no reduction in residential units between the two alternatives – I understand that there is a state requirement that Littleton add a certain number of units. Please include consideration of an alternative that includes only that number of units, without a hotel.

a. Also, since it is in the developer's interest to maximize profits from the project, stating that lost revenue from the lack of retail space results in losing amenities and increasing impervious surfaces is not sufficient and a more thorough analysis, with a review by a consultant selected by the Town of Littleton is required for a non-biased appraisal; this should be paid for by the developer. Also include a complete rationale for the Reduced-Build Alternative referencing actual quantitative analyses in place of broad statements

b. Why is the improvement in traffic and wastewater generation less important than the additional surface-level parking? I don't necessarily think it is. Please consider reducing hotel and living unit numbers to decrease paved parking areas.

2. Table 2-1 Alternatives Analysis Comparison, Reduced Build Alternative Column – Demonstrate and confirm that the Reduced Build Alt is optimized to pose the least impactful design to traffic; stress on local infrastructure and schools; and storm water runoff.

a. A quantitative analysis of the real gap in hotel, retail and housing space in Littleton and the surrounding area rather than just a statement. This should include empty similar housing units in this cost range, retail space, hotels, etc. There appears to be a surplus of retail space in the area, including in the new Point development.

b. Water use for the Proposed Project – Given the 212,000 gallons per day increase in water use, this needs a full, quantitative analysis of impacts to water resources and the sustainability of Littleton's Town water resources, with an emphasis on agricultural needs (considering the effects of climate change). We are routinely under drought conditions – it does not make sense that this is a sustainable proposal.

Regarding the King Street Common draft DEIR:

1) There is no section of the Draft that references the landscaping planned for the site. All landscaping plants should:

- Preserve sightlines for drivers.
- Include native plants only, preferably procured from local growers such as **The Native Plant Trust in Framingham**.
- Consult with the Littleton Conservation Trust and the Littleton Garden Club regarding native pants to be used.
- Strive to include as many species as possible from the **list of Dr. Robert Gegear**, a biodiversity expert from UMass. Dr. Gegear's list supports native pollinators at risk of extirpation.

2) There is no section of the Draft that addresses exterior lighting planed for the site. Nighttime illumination has very deleterious effects on nocturnal insects, amphibians, migrating birds, and human safety. All exterior lighting planned for the King Street Common Site should strive to minimize light trespass, and minimize the damage to native plants and animals.

- All exterior lighting should comply with the **Five Principles for Responsible Outdoor Lighting** set forth by **DarkSky International**.
- All exterior lighting should be useful. It should serve a clear purpose. Consider how light reflected up into the night sky will impact migrating birds.
- All exterior lighting should be targeted, falling only where it is needed. Careful shielding should direct the light only downward, never upward nor outward.
- All exterior lighting should be at the lowest level of light required. This saves energy and money, as well as residents' sleep.
- All exterior lighting should be controlled, so that it comes on only when needed. Motion-activated systems are much better than timers or light-sensitive systems, because they come on only when needed.
- All exterior lighting should be warm colored, preferably 240 Kelvin and lower. Avoid using blue-violet light, which is terrible for people as well as animals.
- Use only fixtures and light bulbs recommended by DarkSky International on their extensive **list of approved lighting devices**.

Thank you for the opportunity to provide environmental impact feedback for 550 King Street - King Street Common - Littleton, MA.

We do not believe a sufficient traffic study has been executed for this project. It is unfortunate that the traffic study will only focus on the 550 King Street project area and not what is going on in the rest of the town. There is a project underway by Northern Bank on Great Road about 1/10th of a mile eastbound from this site. The additional traffic generated by this site does not appear to be considered. There has not been mention about the additional traffic along Route 110 and adjoining roads that gets diverted when Route 495 gets backed up due to an accident or heavy traffic As long-time residents of Littleton, residing between the 550 King Street and Northern Bank projects, we have experienced, firsthand, long wait times to exit and enter our street and these two sites are not yet operational.

Where is the documentation that these projects will comply with Littleton's Form Based Code (just to mention a couple: building height and setback)? Town government is so giddy about the projects at 550 King Street and Northern Bank - 265, 277, 287, 289 Great Road and 25 Robinson Road they may allow exceptions to the Town's Master Plan and Form Based Code. It as already occurred for the Northern Bank Project.

Additional significant challenges:

* Strain on Police, Fire & Highway Departments

* Overcrowded schools

* Increased water demand (water restrictions are already in effect)

* What products are used in the light industrial area? What is the process for how the precursors and waste is treated and handled?

* Current pedestrian crosswalks need improvement and new crosswalks should have the latest safety features (including Town Common area)

Sincerely,

Sondra and Stephen Swartz

Concerned Residents

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Monica Tibbits-Nutt, Secretary & CEO

massDOT
Massachusetts Department of Transportation

August 15, 2025

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114-2150

RE: Littleton – King Street Common – DEIR
(EEA #16921)

ATTN: MEPA Unit
Nicholas Perry

Dear Secretary Tepper:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the Draft Environmental Impact Report for the proposed King Street Common development in Littleton as prepared by the Office of Transportation Planning. If you have any questions regarding these comments, please contact J. Lionel Lucien, P.E., Manager of the Public/Private Development Unit, at (857) 368-8862.

Sincerely,

David J. Mohler
Executive Director
Office of Transportation Planning

DJM/jll

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
www.mass.gov/massdot

cc: Jonathan Gulliver, Administrator, Highway Division
Carrie Lavallee, P.E., Chief Engineer, Highway Division
Barry Lorion, P.E., District 3 Highway Director
James Danila, P.E., State Traffic Engineer
Metropolitan Area Planning Council (MAPC)
Littleton Planning Board

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Monica Tibbits-Nutt, Secretary & CEO

massDOT
Massachusetts Department of Transportation

MEMORANDUM

TO: David Mohler, Executive Director
Office of Transportation Planning

FROM: J. Lionel Lucien, P.E, Manager
Public/Private Development Unit

DATE: August 15, 2025

RE: Littleton – King Street Common – DEIR
(EEA #16921)

The Public/Private Development Unit (PPDU) has reviewed the Draft Environmental Impact Report (DEIR) for the proposed King Street Common development in Littleton (the "Project") submitted by Epsilon Associates, Inc., on behalf of Lupoli Development (the "Proponent"). The project site covers approximately 47.4 acres and is divided into two sections. The first section is located on the east side of Great Road (Route 119) and is bordered by Interstate 495 (I-495) to the north, Shea Street to the east, King Street (Route 110) to the south, and Route 119 to the west. This portion of the site was formerly an IBM office campus, which is now mostly vacant. The second, smaller section of the project site is situated on the west side of Route 119. It is bordered by a commercial lumber yard to the north, Route 119 to the east, commercial development along King Street to the south, and a residential area near White Street and Hillside Road to the west.

The Project entails the construction of 19 buildings, which will include 1,089 residential units; 115,500 square feet (sf) of retail space; 19,000 sf of office space, a 111,000-sf hotel with 150 rooms, and 545,520 sf of space designated for light industrial use. Additionally, the Project will provide 3,010 parking spaces, of which 1,446 are in structured parking (garages, decks, or parking spaces under podiums), and the remaining spaces are at ground level. Access to the Project will be provided via Auman Street, which runs along the northern side of Route 119.

The Project previously submitted an Environmental Notification Form (ENF) on February 7, 2025, for which the Secretary of Energy and Environmental Affairs issued a Certificate on March 10, 2025, requiring the Proponent to prepare a DEIR.

The DEIR includes a TIA prepared in accordance with the EEA/MassDOT *Transportation Impact Assessment (TIA) Guidelines*. The TIA consists of an analysis of the study area focusing on the Project's effects on intersection operations, safety, and modes such as bicycles, pedestrians, and transit. It generally responds to MassDOT's scope regarding the ENF. Additionally, the TIA features a comprehensive mitigation plan, and a Transportation

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Demand Management (TDM) program designed to increase mode share in the Project study area. The following summarizes MassDOT's comments on the Project.

Trip Generation

To estimate vehicle trip generation, the Proponent used the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, for Land Use Codes (LUC) 221 – Multifamily Housing (Mid-Rise), LUC 310 – Hotel, LUC 710 – General Office Building, LUC 760 – Research and Development Center, LUC 821 – Shopping Plaza (40-150k), and LUC 932 – High-Turnover (Sit-Down) Restaurant. The mixed-use project is expected to produce 20,328 unadjusted daily trips using this approach. After accounting for internal capture, walk/bike, transit, pass-by trips, and credit for potential full reoccupancy of the existing IBM Corporation buildings, the Project is projected to generate 9,098 net new vehicle trips on an average weekday, with 340 trips during the weekday morning peak hour and 401 trips during the evening peak hour. Additionally, approximately 8,304 net new vehicle trips are expected on an average Saturday, with 647 trips during the Saturday midday peak hour.

Study Area

Based on the anticipated Project's trip generation, the Proponent includes the following intersections in the study area for traffic analysis:

- Route 119 at Russell Street/Constitution Avenue;
- Route 119 at I-495 Southbound (SB) Ramps;
- Route 119 at White Street;
- Route 119 at I-495 Northbound (NB) Ramps;
- Route 119 at Site Driveway West;
- Route 2A/119 at Route 2A/110;
- Route 2A/119 at 410 Great Road Driveway;
- Route 2A/110 at Goldsmith Street/Stevens Street/476 King Street Driveway;
- Route 110 at Meetinghouse Road;
- Route 110 at Tuttle House Driveway;
- Route 110 at Site Driveway South;
- Route 110 at Site Driveway Middle;
- Route 110 at Site Driveway North;
- Route 110 at Building Q Site Driveway; and
- Route 119 at 410 Great Road Driveway.

The study area is consistent with MassDOT's scope, which is identified in the ENF.

Trip Distribution

The trip distribution for the residential, office, R&D, retail, restaurant, and hotel uses was analyzed using gravity models based on U.S. Census data and other factors. The residential and employment traffic patterns relied on commuting data from the Town of Littleton's workforce and residential cities, while retail and restaurant traffic considered population and proximity within a 7.5-mile radius. The hotel traffic patterns were based on regional travel behavior, especially proximity to I-495, with some trips reflecting unfamiliarity with local roads.

Safety

Based on the MassDOT Top Crash Location database, crash data for the study area showed no intersections classified as high crash sites within the Metropolitan Area Planning Council (MAPC) boundaries. The Proponent contacted MassDOT regarding the Highway Safety Improvement Program (HSIP) eligibility of Great Road intersections with the I-495 ramps, as ramp terminals and similar configurations are excluded from MassDOT's crash cluster map due to geocoding issues. HSIP eligibility depends on Equivalent Property Damage Only (EPDO) scores, with a threshold of 109 for 2019–2021 within MAPC. Crash reports from MassDOT received on May 8, 2025, indicated that the two surface intersections at I-495 met this threshold, though a Road Safety Audit (RSA) was not required. Additionally, the DEIR calculated crash rates for these intersections and compared them to MassDOT's statewide and District 3 averages; the analysis used peak-hour traffic volumes and crash data to evaluate crash frequency and significance.

Traffic Operations

The TIA evaluated multiple intersections under 2024 Existing, 2034 No-Build, and 2034 Build conditions, revealing that most intersections are projected to operate at acceptable levels of service (LOS D or better) with volume-to-capacity (V/C) ratios below 1.00, indicating adequate capacity to handle future traffic demand. However, some movements at intersections like Great Road/Russell Street, Great Road/I-495 SB and NB ramps, and Great Road/White Street are expected to operate at higher LOS E. In contrast, specific turning movements at the Great Road/Site Driveway West and Great Road/King Street are predicted to degrade to LOS F, exceeding capacity with notable delays and queue increases. Despite these localized concerns, no primary project-specific mitigation is planned except for traffic signal timing adjustments and coordination tuning. The only intersection requiring mitigation is at Great Road/King Street due to overcapacity movements. Overall, the intersections generally demonstrate sufficient operational performance to accommodate the projected traffic generated by the Project.

During the preparation of the DEIR, the Proponent met with MassDOT to discuss the study's assumptions and analysis, proposed off-site mitigation, and safety and operational concerns associated with the site access plan. MassDOT provided conceptual feedback,

recommending fewer driveways and restricted movements to maintain arterial flow. However, the DEIR did not include these recommendations. The Proponent subsequently met with MassDOT for further discussions on these issues and submitted a supplemental memo with a revised Site access management plan and a sensitivity analysis to evaluate traffic operations with the revised site access plan. The resulting 2034 Build [Revised] Condition analysis included in the supplemental memo incorporates redistributed site traffic during peak hours, with revised volumes shown alongside the original DEIR data for comparison. The sensitivity analysis indicates minimal impact on operations at most intersections, with only a slight increase in delay at the Great Road/King Street signalized intersections, still maintaining LOS E or better. These changes are expected to be manageable with signal timing adjustments, but overall, the revised access plan, as further described below, results in negligible operational impacts compared to the original DEIR.

Site Access

In accordance with MassDOT's recommendations, the Proponent proposes several modifications to the site access plan from the DEIR. Significant updates include removing the driveway on the east side of Building Q, which previously served the Yangtze River Restaurant, thereby reducing the number of King Street driveways from five to four. Traffic that used this eliminated access point will be rerouted to the nearby northern driveway between Buildings O and Q. Additionally, left-turn exits from Site Driveway West (the former IBM West Driveway) and the 410 Great Road Driveway will be prohibited, with these movements redirected to other site access points linked to existing signalized intersections. These restrictions will be enforced through signage, pavement markings, and channelization.

Additional proposed measures include considering the consolidation of the Tuttle House Driveway with nearby curb cuts at 510 King Street to reduce duplicate access points. However, the existing Tuttle House driveway must remain open for the current tenants. One on-street parking space on each side of the Middle Site Driveway (between Buildings L & M) will also be removed to improve traffic flow, and internal wayfinding signage will be added to assist with site navigation. These efforts aim to make site access more efficient, reduce turning conflicts, and improve safety by consolidating driveways and redirecting traffic to more effective access points. If the Tuttle House driveway consolidation is successful, the number of driveways on King Street could be further reduced.

If access to the Tuttle House is not consolidated, MassDOT recommends that the Proponent explore alternative options for consolidating access. These alternatives should be included in the Final EIR with the goal of minimizing the number of access points as much as possible. The Proponent should continue consultation with MassDOT to further refine the Project's access management plan.

Off-Site Mitigation

As part of MassDOT's request for a supplemental sensitivity analysis, the Proponent has considered several traffic-related components to improve access, safety, and pedestrian accommodation along and around Route 110. In response to this assessment, the Proponent will remove the previously proposed on-street parking on the west side of Route 110 and will further evaluate the feasibility of a pedestrian crossing on Great Road, to add a median island for safety, and install Rectangular Rapid Flashing Beacons (RRFBs).

Due to significant physical and legal constraints—including utility poles, historic stone walls, and topography—the Proponent indicates that they cannot build a sidewalk along the east side of King Street. Instead, they will install up to three pedestrian crossings with appropriate signage and accessibility features. Additionally, the Proponent is open to improving the Route 110 Complete Streets design to enhance walkability and bike access. The proposed upgrades include a shared-use path, dedicated bike lanes, and adjusted lane widths, while recognizing limitations where private property is not within their control. These conceptual improvements will be refined and coordinated with MassDOT before submitting the FEIR.

MassDOT emphasizes that the design of the pedestrian facilities may be finalized during the permitting process. Still, it is essential that sufficient Right-of-Way (ROW) be reserved for the construction of these facilities. We also have ongoing concerns about the proposed crossing on Great Road, and we recommend that the Proponent consider necessary improvements by following the FHWA Step Guide. Additionally, sidewalks should be constructed along the east side of the Site on Great Road to connect with the traffic signal at the intersection of Great Road and the northbound ramps of I-495, which should include a pedestrian crossing.

Transportation Demand Management

The Proponent is committed to implementing a TDM program to reduce single-occupancy vehicle trips to the Project site. These measures include:

- *Employee Transportation Coordinator (ETC)* – An ETC will be provided on-site to oversee, implement, monitor, and evaluate TDM measures employed or funded by the Proponent. The ETC will be responsible for managing rideshare and carpool programs and distributing information to residents and employees to encourage alternative means of transportation. The ETC will post and distribute announcements and hold promotional events to encourage ridesharing, bicycling, and walking.
- *Transportation Management Association (TMA)* – The Applicant will seek membership in the Middlesex 3 Transportation Management Association (TMA), which is utilized in neighboring Westford and communities to the northeast of

Littleton. The TMA will assist the Proponent and the ETC in support of employees' commuting choices by providing flexible and sustainable transportation solutions.

- Marketing of Transportation Options and Benefits - A welcome packet for all tenants and employees will be distributed at move-in or employment, which includes information for all transportation-related benefits, promotions, and local transportation options; including the location of LRTA / MBTA stops, transit schedules, EV and carpool parking locations, and any other emerging new mobility locations.
- *Vanpool and Carpool* – The Proponent and the ETC will encourage vanpool and carpooling participation through marketing, events, and vanpool formation meetings. The ETC will implement a ride-matching program to assist employees and residents in finding appropriate carpool matches. The ETC will contact employees and residents to determine if they receive their match-lists, review the lists with them, and see if they have contacted anyone on the list or would like assistance in contacting people.
- *Guaranteed Ride Home Program* – The ETC will be responsible for providing all employees who carpool, bicycle, or walk to work with an emergency ride home. This program eliminates the fear of being stranded on days when the employees are ridesharing or must walk or bicycle in inclement weather conditions.
- *On-Site Laundry Services* - The Proponent will provide laundry services on-site to allow for the reduction of trips to/from the site of nearby laundromats.
- *Flex Hours* – The Proponent will encourage tenants within the mixed-use development to provide flexible hours to employees.
- *Direct Deposit for Employees* - The Proponent will encourage tenants within the mixed-use development to provide direct deposit to reduce employee trips to/from the site.
- *Site Amenities* – As a mixed-use development, the site includes several on-site amenities, such as restaurants, retail, open space, and resident-specific amenities within the residential component of the site. This location will assist in reducing vehicular demand and increase multi-use trips, including parking capacity sized to meet minimum local requirements without excessive parking.
- *Promotional Events and Activities* – The ETC will be responsible for organizing promotional events and activities to encourage rideshare and alternative transportation means. In addition, the ETC will distribute brochures to all new employees and residents during and post posters and bulletins on various subjects from carpooling to the Guaranteed Ride Home program throughout the site.

The Proponent should report to MassDOT on any modifications to the Transportation Demand Management (TDM) program.

<u>Transportation Monitoring Program</u>

The Proponent has committed to conducting an annual Traffic Monitoring Program (TMP) for a period of five years, beginning six months after occupying the full-built project. The TMP will include:

- Collect manual Turning Movement Counts (TMCs) during the weekday morning (7:00 AM to 9:00 AM), weekday evening (4:00 to 6:00 PM), and Saturday midday (11:00 AM to 2:00 PM) peak periods at the following intersections:
    - Route 119/Interstate 495 SB Ramps;
    - Route 119/Interstate 495 NB Ramps;
    - Route 119/Site Driveway West;
    - Route 119/410 Great Road Driveway;
    - Route 119/Route 110;
    - Route 110/410 Great Road Driveway;
    - Route 110/Tuttle House Driveway;
    - Route 110/Site Driveway South;
    - Route 110/Site Driveway Middle;
    - Route 110/Site Driveway North; and
    - Route 110/Building Q Driveway.
- Adequacy of the constructed parking supply.
- Safety evaluations based on available crash data.
- Effectiveness of TDM measures.
- Collect ATR data for a continuous 7-day week-long period along Great Road, King Street, and each Site Driveway location.
- Collect parking demand counts during the peak parking demand periods for the specific land use areas, including:
    - Residential and Hotel - 5:00 AM to 9:00 AM
    - Retail, Restaurants, R&D, Office, and Industrial - 10:00 AM to 5:00 PM
- Collect motor vehicle crash reports from the Town of Littleton Police Department and MassDOT for the most recent one-year period to ascertain changes in crash frequency, crash trends, and severity at the monitored locations.
- Complete an employee and resident travel survey to gage employee and resident travel patterns and mode share.
- Compare the TMCs collected above with those projected within the TIA for the Project to determine whether the total vehicles entering each intersection exceeds the volumes projected.
- Perform a capacity and queuing analysis using Synchro/Sidra analysis software to evaluate the traffic operations at each intersection listed above and compare them to the operations projected in the TIAPS prepared for the Project.
- Assess whether additional mitigation is necessary at study intersections and identify measures to improve operations and/or reduce vehicular traffic volumes. The need for evaluation of further mitigation will be conditioned upon:
    - The measured site generated traffic volumes for the Project exceeded the projected site generated traffic volumes established in this TIA, or subsequent revisions presented to the Town of Littleton, by more than 10 percent (i.e., 110 percent of the projected site generated traffic volumes.

    - One or more of the movements at the monitored intersections is identified to be operating at or over capacity (defined as a V/C ratio equal to or exceeds 1.00) in consultation with MassDOT or the Town of Littleton.
    - There is a pronounced increase in the frequency of occurrence of motor vehicle crashes at a monitored location, and the calculated motor vehicle crash rate exceeds the MassDOT average crash rate for similar locations.
- Corrective actions to reduce the unmitigated impact of the Project should be proposed and implemented based on the thresholds listed above. The corrective actions should be documented in the TMP, approved and coordinated with the Town and/or MassDOT if desired by the agencies, and be undertaken by the Proponent subject to receipt of all necessary rights, permits, and approvals.
- Assess whether the constructed parking supply is adequate for the parking demand as observed.
- Prepare a memorandum summarizing the results of the TMCs, ATRs, parking demand counts, and traffic impact analysis for submission to MassDOT District 3 and the Town of Littleton.

The monitoring program will occur annually, beginning six (6) months after the issuance of the first occupancy permit, and will continue for five (5) years following the project's full occupancy.

Based on the Proponent's responsiveness to MassDOT commentary on the EENF, MassDOT recommends the preparation of a FEIR. The Proponent should continue close coordination with MassDOT during the preparation of the FEIR to refine the site access plan for the Project and address any outstanding comments. If you have any questions regarding these comments, please contact *William.M.Simon@dot.state.ma.us.*

MassDEP
Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

August 18, 2025

Secretary Rebecca Tepper
Executive Office of Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, MA 02114

Attention: MEPA Unit – Nicholas Perry

Re: Draft Environmental Impact Report (DEIR)
King Street Common
Littleton
EEA #16921

Dear Secretary Tepper,

The Massachusetts Department of Environmental Protection's ("MassDEP") Central Regional Office has reviewed the DEIR for King Street Common Project (the "Project") located at 550 King Street (State Route 110) and 410 Great Road (State Route 119). Lupoli Companies LLC (the "Proponent") plans to construct 1,089 residential units, 115,500 square feet (sf) of retail space, 19,000 sf of office space, 545,520 sf of light industrial use, and a 150-room hotel on 47.4 acres. The Project site consists of a 43.19-acre parcel on the east side of Great Road (550 King Street), formerly an IBM office campus, and a 4.16-acre parcel on the west side of Great Road (410 Great Road), which includes various commercial uses. According to the consultant for the Proponent, all the buildings at 410 Great Road will be demolished. The buildings at 550 King Street will be redeveloped. A total of 3,010 parking spaces are proposed, of which 1,446 will be in structured parking (garages, decks, parking under podiums) and the remainder at grade.

The Project is under MEPA review because it meets or exceeds the following review thresholds:

- 301 CMR 11.03 (6)(a)(6) - Generation of 3,000 or more New adt on roadways providing access to a single location;
- 301 CMR 11.03 (6)(a)(6) - Generation of 3,000 or more New adt on roadways providing access to a single location;
- 301 CMR 11.03 (6)(a)(7) - Construction of 1,000 or more New parking spaces at a single location;

- 301 CMR 11.03 (6)(b)(13) - Generation of 2,000 or more New adt on roadways providing access to a single location;
- 301 CMR 11.03 (6)(b)(14) - Generation of 1,000 or more New adt on roadways providing access to a single location and construction of 150 or more New parking spaces at a single location;
- 301 CMR 11.03 (6)(b)(15) - Construction of 300 or more New parking spaces at a single location.

The Project also appears to exceed the review threshold for a new discharge of more than 100,000 gallons per day (gpd) to a sewer system under 301 CMR 11.03(5)(b)(4).

The Project requires the following State Agency Permits:

- Massachusetts Department of Transportation – State Highway Access Permit.
- MassDEP - Industrial Wastewater Holding Tank Compliance Certification (WP 56) [if needed];
- MassDEP – Treatment Works Plan Approval (WP68);
- MassDEP – Groundwater Discharge Permit (WP79 or WP83) [if needed].

The DEIR states that the Project has not changed since the ENF. MassDEP offers the following comments:

Wetlands

According to the DEIR, work will be within the Buffer Zone only. No site plans were included in the DEIR, but several of the figures show the Project footprint and location of wetlands, which indicate that a Notice of Intent (NOI) must be filed. MassDEP may provide comments to the Proponent and the Littleton Conservation Commission in the File Number Notification Letter issued following MassDEP's technical review of the NOI.

Water Management Act Program (WMAP)

The Proponent has addressed all the comments WMAP staff made on the ENF. WMAP staff have no further comments.

Wastewater

The Proponent has stated that the existing site, which includes both 550 King Street and 410 Great Road, currently generates approximately 74,000 gpd of sanitary sewer which is directed to existing on-site disposal facilities. The Project is expected to generate approximately 286,000 gpd and be directed to the Town of Littleton's wastewater treatment system, which is currently under construction. The 550 King Street development is currently permitted to discharge 150,000 GPD of wastewater to the Town of Littleton Wastewater Treatment System, which will allow for the development of the initial phases of the Project. The Proponent's team is actively working with the Town to increase this capacity.

According to the ENF, the Town of Littleton has allocated 150,000 gpd to its wastewater treatment plant (WWTP) for the Project. The Project's anticipated 286,000 gpd of wastewater exceeds the amount approved by the Town, the amount allocated for redevelopment in the MEPA filings for the Littleton wastewater project (EEA #16537), and the MassDEP permitted limit for the groundwater discharge at the WWTP. MassDEP requested that the Proponent explain how the existing flow, proposed flow reserved to the Town, and the Project flow will be accommodated, whether at the WWTP or elsewhere. The DEIR does not adequately address MassDEP's comments regarding wastewater disposal for the Project. The DEIR acknowledges that the Project as designed lacks sufficient capacity onsite or at the Littleton WWTP but states that "the full Project's

impacts are provided." Until the Proponent identifies the location for disposal of the unaccounted for volume of wastewater, impacts from the Project cannot be evaluated, including whether additional MassDEP permits will be required.

MassDEP commented that the ENF did not explain the calculation of 74,000 gpd for wastewater generation from the existing uses at the Project site. MassDEP's groundwater discharge permit for 550 King Street authorizes the discharge of only 40,000 gpd of treated wastewater. In Appendix F of the DEIR, the Proponent states that the existing wastewater flow for the 550 King Street parcel is 63,577 gpd, which exceeds the permit limit. MassDEP received correspondence in 2022 from the operator of the treatment plant on the property that the 550 King Street facility was closed, so it is unclear what activities are generating the reported flow volume.

DEIR Appendix F also states that the 410 Great Road property has an existing wastewater flow of 10,412 gpd. Because this flow is greater than 10,000 gpd, that discharge requires a groundwater discharge permit. MassDEP records do not show a WP83 or WP79 permit application being filed for the property. In the FEIR, the Proponent should describe the wastewater treatment system at the 410 Great Road parcel as well as address the unresolved discrepancies in the estimate for existing wastewater flows at the Project Site.

In its comments, MassDEP stated that the installation of a 12-inch sewer main will require the Town to file a WP68 permit application to MassDEP for review. MassDEP requested that the DEIR include technical information and an update on the Project's coordination with the Town and the status of the WP68 permit application, as well as a commitment to Inflow and Infiltration (I/I) removal. The Response to Comments states that the Proponent will continue to provide support to the Town in obtaining the WP68 permit. The Proponent will consult with the Town to develop a plan to ensure that a 4:1 I/I offset of the Project's wastewater flow is achieved.

According to the Proponent, wastewater collection systems will be designed separately from stormwater systems and will not allow for the introduction of rainwater, noncontract cooling water, and groundwater from foundation drains, sump pumps, surface drainage or any other source of inflow. Overflows from wastewater collection systems will also not be permitted. As part of the Project, a commitment to I/I removal will be made and accomplished by constructing a new sewer system that will be tested in accordance with Section 35.19 - Sewer Pipe Testing and Section 35.23 – Sewer Manhole Leakage Testing of the Town of Littleton Sewer Use Rules and Regulations. Any necessary mitigation efforts will be identified and documented.

In its comments on the ENF, MassDEP stated that the DEIR should report on whether a transfer of ownership is contemplated to the Proponent, and if so, provide details on how MassDEP requirements related to transfer of ownership will be met. In the Response to Comments, the DEIR stated that there is no transfer of ownership anticipated at this time. MassDEP notes again that the Proponent does not currently have a permit for the existing wastewater flows at the Project site; the current permittee is 550 King Street LLC. It appears that a property transfer may have occurred without written advance written notice to MassDEP, in accordance with the regulations as described in MassDEP's comment letter. MassDEP recommends that the Proponent review the regulatory requirements for transfer of the permit.

MassDEP commented that if any of the proposed buildings require an industrial wastewater holding tank, per 314 CMR 18.00, the Proponent must submit a WP56 application for an industrial wastewater holding tank permit to MassDEP. According to the DEIR, none of the proposed buildings are expected to require an industrial wastewater holding tank.

Asbestos

The Project involves the demolition of existing structures on the property. In its comments on the ENF, MassDEP stated that before beginning any demolition or renovation, the Proponent is required to have the structures inspected by a licensed asbestos inspector to identify the presence, location and quantity of any asbestos-containing material (ACM) and prepare a written asbestos survey report. In its Response to Comments, the Proponent agreed to this requirement. The Proponent or a consultant will apply for and obtain Application BWP AQ36-Application for Non-Traditional Asbestos Abatement Work Practice Approval from MassDEP if any ACM must be abated through non-traditional methods. The disposal of ACM will be at a facility specifically approved by MassDEP, in accordance with 310 CMR 19.061. The DEIR states that no ACM or asbestos-containing waste material will be disposed of at a facility operating as a recycling facility in accordance with 310 CMR 16.05.

Solid Waste

In its comments on the ENF, MassDEP noted that the demolition activities may generate asphalt, brick and concrete (ABC) debris. The DEIR notes that the Proponent will notify MassDEP and the Board of Health at least 30 days before beginning the crushing operation if ABC debris will be crushed at the site of generation and used for fill in accordance with 310 CMR 16.03(2)(b)5

MassDEP appreciates the opportunity to comment on the Project. If you have any questions regarding these comments, please do not hesitate to contact JoAnne Kasper-Dunne, Central Regional Office MEPA Coordinator, at joanne.kasper-dunne@mass.gov.

Very truly yours,

Mary Jude Pigsley
Regional Director

cc: Commissioner's Office, MassDEP

COMMONWEALTH OF MASSACHUSETTS
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Elizabeth Mahony
Commissioner

19 August 2025

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: King Street Common, Littleton, MA, EEA #16921

cc: Jo Ann Bodemer, Director of Energy Efficiency, Department of Energy Resources
Elizabeth Mahony, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Draft Environmental Impact Report (DEIR) for the proposed project. The project consists of the following:

Building	Size	Stories	Use
A	272,000	3	Reused commercial
B	272,000	3	Reused commercial
C	173,000	5 over podium	173 residential units
D	173,000	5 over podium	173 residential units
E	173,000	5 over 8,000-sf retail	149 residential units + retail
F	173,000	5	151 residential units
G	111,000	5	Hotel (150 rooms)
H	12,000	1	Retail
I	33,100	2.5 over 13,000-sf retail	9 residential units + retail
J	30,000	2.5 over 10,500-sf retail	11 residential units + retail
K	93,000	3 over 20,000-sf retail	42 residential units + retail
L	31,000	2.5 over 11,000-sf retail	11 residential units + retail
M	19,000	3	Office
N	21,000	2 over 9,500-sf retail	8 residential units + retail
O	36,000	? over 13,000-sf retail	12 residential units + retail
Q	13,000	1	Retail
R	70,000	5 over podium	65 residential units
S	290,000	6	285 residential units

Total number of residential units is 1,089.

Executive Summary

Littleton is a Stretch code community, following the IECC 2021 with the 225 CMR Chapter 23 amendments.

The Group 5 office and retail buildings (H, M & Q), Retail and Office buildings have committed to the mitigation strategies suggested in the EIR, and no further analysis is required.

The Group 2 & Group 3 buildings have committed to all-electric Air Source Heat Pumps (ASHP), which is commended. However, the analyses of Group 2/Building F (representative of the 50+ residential mixed-use buildings) and Group 3/Building K (representative of the <50 residential mixed-use buildings) falsely indicate higher heating loads for HERS 36 vs HERS 44. These errors are found in the HERS reports and the "Performance and Cost Analysis Results" tables, and skew Tables 4-3 & 4-4, resulting in inaccurate final results for overall energy consumption across the various scenarios. Given that the space heating will be ASHPs regardless of the chosen HERS score, the use of inaccurate MBtu figures in the comparison tables gives the flawed impression that electric resistance will be the most cost-effective form of space heating for the residential buildings. The DOER believes that HERS 40 with ASHP for both space *and* hot water heating in Group 2, and HERS 40 with ASHP for space heating and electric resistance for hot water in Group 3, will be the most cost effective, energy efficient, and grid-friendly method for construction and long-term operation.

The DOER requests that further analyses be corrected/created in order to provide an accurate comparison of the energy use for these residential scenarios.

The DOER is disappointed to learn that gas space and hot water heating is the proposed solution for the new hotel, building G. Given the Commonwealth's aim to move to an all-renewable electric grid by 2050 and the continued effort to discontinue fossil fuel use, new construction with gas is short sighted and unnecessary --- electric space heating is the emerging industry standard, and gas space heating is quickly falling by the wayside. The DOER strongly encourages reconsidering any introduction of new gas lines to this property, and requests cost data for the gas system to service the project (including: cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s)). Please also provide the plan and costs (from all sources: ratepayers, residents, etc) from the gas utility for eventual decommissioning/abandonment of the gas service by 2050, and also the plan and costs (from all sources: ratepayers, residents, etc) from the electric utility for eventual necessary upgrades to electric service by 2050 to support a transition from gas to electric.

Recommendations

If the project commits to the remaining detailed recommendations below, the DOER review will be complete and no analyses are required.

Building	Use	Recommendation

C	173 residential units	HERS 40 with ASHP for both space and water heating.
D	173 residential units	
E	149 residential units + retail	Residential: same as C, D Retail: electric air source heating and hot water; reduced air leakage C406.9
F	151 residential units	Same as C, D
G	Hotel (150 rooms)	Electric air source heating and hot water; reduced air leakage C406.9; electric cooking and drying
I	9 residential units + retail	HERS 40 with ASHP for space heating; electric resistance water heating Retail: electric air source heating and hot water; reduced air leakage C406.9
J	11 residential units + retail	
K	42 residential units + retail	
L	11 residential units + retail	
N	8 residential units + retail	Same as Buildings I, J, K, L
O	12 residential units + retail	
R	65 residential units	Same as Buildings C, D
S	285 residential units	

Additional Evaluations

If the recommendations above are not followed, please provide the following evaluations:

Residential portion of Buildings C, D, E, F, R, S, (residential buildings with 50 or more units):

- HERS 40, electric air source heat pump for both space *and* water heating
- HERS 44, electric air source heat pump for both space *and* water heating
- HERS 40, electric ASHP for space heating, electric resistance for water heating
- HERS 44, electric ASHP for space heating, electric resistance for water heating

Residential portion of Buildings I, J, K, L, N, O (residential buildings with less than 50 units):

- HERS 40, electric ASHP for space heating, electric resistance for water heating
- HERS 44, electric ASHP for space heating, electric resistance for water heating

Once the analyses are revised and complete, please share the results with Littleton Electric in order for them to review the load requirements and share their feedback on the demand. Please also determine and share the delta between the cost to operate the ASHP versus the electric resistance for the domestic hot water.

Using scenario/subscenario inputs and results, prepare the following table (one table each for residential > 50 and residential 50 or less)

Item	Scenario 1	Scenario 2	etc
Roof R value			
Wall U value			
% wall			
Window U value			
% window			

Area-weighted vertical above grade U value			
Air infiltration (cfm at 75 PA)			
Ventilation energy recovery (% effectiveness)			
Solar heat gain coefficient (SHGC)			
Heating TEDI (kBtu/sf-yr)			
Cooling TEDI (kBtu/sf-yr)			
Peak annual space heating demand (MBtu/hr)			
Peak annual space cooling demand (MBtu/hr)			
Peak annual electric load (MW)			
Peak annual gas load (MBH)			
Natural gas consumption (MBtu/yr)			
Electric power consumption (MBtu/yr)			
Fossil fuel emissions (tons/yr)			
Electric emissions @ 2025 (tons/yr)			
Total emissions @ 2025 (tons/yr)			
Electric emissions @ 2050 (tons/yr)			
Total emissions @ 2050 (tons/yr)			
Space heating emissions @ 2025 (tons/yr)			
Space heating emissions @ 2050 (tons/yr)			
Water heating emissions @ 2025 (tons/yr)			
Water heating emissions @ 2050 (tons/yr)			

For emissions rate of electricity in 2025 and 2050, use approximate grid emission rates of 750 and 50 lbs/MWhr, respecitively.

For each building use type, develop a "gap analysis" table that summarizes the key design changes to compare each requested HERS scenario. Design inputs should come from results of HERs models, prepared by a qualified consultant.

Gap analysis should also include reductions in HVAC equipment size enabled by increasingly improved building thermal performance, as well as reduction in peak electric usage due to improved thermal performance.

Provide a cost-estimate analysis tied to each row of the gap analysis, showing specific additional costs/reductions.

Develop a cash flow model for each scenario, as follows:

- Estimate net cost increase associated with each improved scenario;
    - Amortize this cost into annual cost increase using 30-year mortgage term, after netting against rebates and other tax incentives

- Estimate cost to operate per year;

- Net operating cost increase (or decrease) (operating + amortized).

Include the following in the next submission:

- Communications to Littleton Electric sharing the above scenario findings (kW demand, etc)

- Written communications from the electric utilities that present the following:

    - Utility estimate/analysis of the size of the electric utility needs, for each scenario

    - All costs to expand the electric system to service the project (including: cost to project, cost to ratepayers, costs covered by grants, costs financed, costs/financing from any other source(s))

Sincerely,
Massachusetts Department of Energy Resources

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