



January 21, 2026

Anne Capra
Director, Planning and Conservation
Town of South Hadley
116 Main Street, Room U6
South Hadley, MA 01075

Re: 506 Granby Road
Engineering Peer Review Services
Scope and Fee

Dear Ms. Capra:

BETA Group, Inc. (BETA) is pleased to provide engineering peer review services for Sai Shyam, LLC's design submittals seeking approval of proposed work including construction of seven two-family homes (14 units total), grading, stormwater management, utility connections, and roadway improvements (the Project) at 506 Granby Road in South Hadley, Massachusetts (the Site). BETA had conducted a peer review of documentation originally submitted as part of the proposed development that was summarized in a letter dated October 17, 2025. Subsequently, a second submittal was made on January 14, 2025, by the development team to address the peer review comments. This letter is provided to outline BETA's findings, comments, and recommendations on the documents provided as part of the January 14, 2025, submittal.

COMPILED REVIEW LETTER KEY

BETA reviewed this project previously and provided review comments in a letter to the Department of Planning and Conservation dated October 17, 2025 (*original comments in italics*). Levesque Associates, Inc. (LAI) provided responses (responses in standard text) and BETA provided comments on the status of each (*status in bold italics*).

1.0 BASIS OF REVIEW

BETA received the following items as part of the resubmission:

- A Response to Review Comments letter by R Levesque Associates, Inc. dated January 14, 2026
- A Revision List – Revision A by R Levesque Associates, Inc., dated January 14, 2026
- A letter from the Water Department Superintendent Jeffery A. Cyr, dated November 20, 2025
- A Culvert Inspection Report by R Levesque Associates, Inc., dated January 14, 2026
- Invasive Plant Species Eradication Plan by R Levesque Associates, Inc., dated January 2026
- Request for Waiver Form & attached letter by Levesque Associates, Inc. dated January 14, 2026
- Plans (17 Sheets) entitled *Site Plans – Proposed Condominium Community*; prepared by R Levesque Associates, Inc.; dated August 18, 2025, and revised through January 14, 2026; stamped and signed by Marc E. Shute, MA PLS No. 33610, Robert M. Levesque MA RLA No. 1398, and Filipe J. Cravo MA P.E. No. 48376.

- Stormwater Management Report entitled *Stormwater Drainage Report, Proposed Condominium Community*; prepared by R. Levesque Associated, Inc.; dated August 18, 2025, and revised through January 14, 2026; signed and stamped by Filipe J. Cravo MA P.E. No. 48376.

Review by BETA included the above items along with the following, as applicable:

- Site Visit
- *Zoning Chapter 255 From the South Hadley Code*, current through January 2017
- *Zoning Map of the Town of South Hadley, Massachusetts*, current through August 2017
- *Article 27 pertaining to §255-51: Multifamily Residential Development in Business A-1 Zoning District*
- *Stormwater Management Chapter 200 From the South Hadley Code*, current through May 2022
- *Wetlands Regulations Chapter 305 Part 2, adopted April 2011*

2.0 SITE AND PROJECT DESCRIPTION

The project site includes one lot identified as Assessors Map 32 Parcel 52 (Map ID 32/52), with a total area of 4.15± acres located at 560 Granby Road in the Town of South Hadley (the "Site"). The Site is located within the Business A-1 (BA-1) zoning district. The lot north of the property (across Granby Road) is a restaurant called Hanger of South Hadley. The adjacent lot to the west is Conti Drive and Ron's Precision Automotive and The Finishing Touch Salon & Spa. There is a condominium complex to the east called Hadley Village Condominiums. The lot south of the property is also an automotive repair business called Page's Automotive & Fleet Service. All of these parcels surrounding the project site are also located in the Business A-1 zoning district.

The site is part of a previously developed commercial parcel. A 10,623 square foot retail store (Liquor Town) constructed in 1969 exists on the northern portion of the parcel. Previously utilized as a restaurant/banquet facility, the building was converted into its present use in 2017.

Topographically, the property slopes north to south from Granby Road to the stream and south to north from the south property line to the stream. The grade rises approximately 7 feet in the southern half of the property from the stream to the southern property line.

The proposed development entails constructing 14 townhouses in six two-family dwelling structures. A single entrance into a 22-space central parking lot will be constructed off the easterly side of the private roadway known as "Conti Drive" which traverses the subject parcel. Dwelling units will be situated around three sides of the parking lot with a sidewalk along the perimeter of the parking lot connecting to each of the dwellings. No garages are planned for the site. In addition to the dwellings and parking lot, the project will include sidewalks, outdoor lighting, stormwater management elements, and landscaping including some buffers. To accommodate the project's drainage and utilities, a portion of Conti Drive within the parcel will be reconstructed and an existing utility pole will be removed and relocated.

An intermittent stream with associated wetlands lying approximately 300 feet south of State Route 202 traverses the site from east to west roughly dividing the site in half. An area of wetlands also lies along the southeasterly portion of the property. Much of the development area at the rear of the Site is covered by trees and other vegetation.

The Site is not located in a FEMA mapped 100-year floodplain or an NHESP-mapped estimated habitat of rare or endangered species. The project is not located in a Zone II of a public water supply well and is not considered an area of critical environmental concern (ACEC). NRCS soil maps indicate that underlying soils

within the development area are Sudbury fine sandy loam with a hydrologic soil group rating (HSGR) of B (moderate infiltration potential) or Walpole sandy loam with a HSGR of B/D.

3.0 WAIVERS

The Applicant requested the following waivers from the following portions of the Subdivision Regulations as part of their initial submission to the Town:

- W1. §360-31 Streets and ways
- W2. §360-32 Easements
- W3. §360-36 Street and roadway construction
- W4. §360-37 Roadway Surfacing
- W5. §360-38 Curbs and berms
- W6. §360-41 Grass strips and side slopes
- W7. §360-43 Monuments and markers
- W8. §360-45 Street trees and planting
- W9. §360-29B as follows:

(3) Proposed lines of streets, rights-of-way, lots, easements and any public or common areas within and adjacent to such tract.

(15) A street layout plan on a separate sheet, 36 inches by 24 inches in size, for each street in the development, showing exterior lines, roadway lines, curblines, walks, parking areas, intersection angles, points of tangency, and radii curves. Also included on the street layout plan shall be location, size, type of construction, elevation, and invert of all pipes and conduits of the:

(a) Water supply system, including wells, pumps, valves, stubs, gates, hydrants, and similar equipment;

(b) Storm drainage system, including manholes, catch basins, and appurtenant structures;

(c) Sanitary sewerage system, including manholes, pumps, septic tanks, and appurtenant equipment;

(d) Electrical supply equipment, including transformers, primary and secondary cables, lighting fixtures, and other electrical equipment;

(e) Other underground utility systems in the right-of-way, such as gas, telephone, and cable TV facilities.

(16) A profile plan on the same sheet located directly below and coordinated with the street layout plan indicating existing profiles on the exterior lines (using lightweight lines) and proposed profile on the center line (using heavyweight lines) of each proposed street, at a maximum stationing of fifty-foot intervals and at a horizontal scale of one inch equals 40 feet and a vertical scale of one inch equals four feet. All elevations shall refer to Town datum.

(17) A typical cross-section for the full. Width of the proposed street shall be shown in accordance with the "Typical Cross-Section" illustrated in the appendix, showing foundation material, wearing surface, crown and width of traveled way, curbing, grass strips, sidewalks, utility locations, etc.

The Applicant has included the following additional request for a waiver:

- W10. §305-28.C.(2)(a) Performance Standards for Buffer Zones to allow for work to occur within the 50-foot no disturbance buffer zone.

4.0 GENERAL REVIEW COMMENTS

- G1. *Many of the documents indicate the parcel is located at 560 Granby Road. The Assessors' Card for the property indicates the address at 506 Granby Road. Reconcile the documents to have a consistent address.*

RLA: Submitted documents will be reviewed and revised accordingly.

BETA2: Documents were revised; item is resolved.

- G2. *The Existing Conditions Plan indicates the parcel is 4.02± acres while the Assessors Card indicates the parcel is 4.15± acres. Reconcile this discrepancy.*

RLA: The existing conditions information was obtained from a topographic and boundary survey conducted by R Levesque Associates, Inc., supplemented with record information such as deeds, plans, and other relevant documents. Minor discrepancies in parcel size may occur, as GIS data and assessor's records are often based on generalized or outdated information and may not reflect precise field survey measurements.

BETA2: Explanation provided; item is resolved.

- G3. *Indicate how garbage/refuse will be collected for the development. If a garbage truck is intended to service the site, provide a truck movement exhibit/plan showing how the truck will maneuver within the parking lot without conflicting with parking spaces.*

RLA: The narrative states that these services will be provided by the municipal system as is done with all but a few of the multifamily developments in Town. They will use the recycling and trash carts. Each occupant will place the carts in the parking lot and the trash/recycling trucks will pick them up/empty them and then likely back out. This is similar to what is done on a larger scale for a longer distance at Hillcrest Park.

BETA2: Explanation provided; item is resolved.

- G4. *Provide fall protection at the headwall/retaining wall.*

RLA: The proposed retaining walls are shown with a protective 4' fence.

BETA2: Plan were revised to include fall protection; item is resolved.

- G5. *Provide a detail for the headwall/retaining wall.*

RLA: Retaining wall details have been added to Sheet D-5.

BETA2: A retaining wall detail was added to the plans; item is resolved.

- G6. *Confirm whether there will be an affordable aspect to the project. How many condos will be affordable?*

RLA: There are no "affordable housing" units provided or required to be provided.

BETA2: Answer provided; item is resolved.

- G7. *The Compliance Review Narrative provided with the Site Plan Application refers to the Multifamily Residential Development in Business A-1 zoning district as §255-52; the correct section is §255-51.*

RLA: The Town's eCode is not current and nomenclature is reflective of recent bylaw amendments.

BETA2: Explanation provided; item is resolved.

5.0 TOWN OF SOUTH HADLEY ZONING REQUIREMENTS

The project is subject to the Town of South Hadley zoning regulations outlined under Chapter 255. Review comments related to the zoning bylaw are provided in the following sections.

The project proposes a Mixed Use lot consisting of commercial (front) and residential uses (proposed condos in the rear) and is located within the Business A-1 (BA-1) district. Each of the seven (7) proposed duplexes will have two (2) housing units.

Under the Business A-1 district, residential developments are permitted by Site Plan Review either as part of a multistory, mixed-use building anywhere on site or as residential-only buildings if located at least 200 feet from Granby Road. The project will meet the latter requirement of having separate buildings on site with the residential building being greater than 200 feet from Granby Road. The 200-foot line from Granby Road is shown on the Plans.

DIMENSIONAL REGULATIONS SCHEDULE (§255-21 ATTACHMENT 9)

The project will comply with dimensional requirements for lot area, frontage, lot width, lot depth, front yard, building height, building coverage, and maximum impervious coverage.

MULTIFAMILY AND MULTIPLE DWELLINGS (§255-47)

All multifamily developments and developments with more than one building for dwelling purposes on a single parcel of land are subject to the provisions of §255-47.

- Z1. *Front entrances to multi-family buildings shall open onto sidewalks and streets or common public spaces and not onto parking lots. The proposed development's front entrances open to sidewalks that abut parking areas. BETA defers to the Planning Board as to whether the layout of the parking lot and building entrances is acceptable.*

RLA: Noted, to be discussed with the Planning Board.

BETA2: No further comment.

- Z2. *The parcel is located on a site of at least two acres and is required to include usable open space in the same proportion and character as required of developments under §255-31 of the Zoning Bylaw (§255-47.D.). BETA defers to the Planning Board regarding the open space required for the property.*

RLA: Noted, to be discussed with the Planning Board.

BETA2: No further comment

MULTIFAMILY RESIDENTIAL DEVELOPMENT IN BUSINESS A-1 ZONING DISTRICT (§255-51)

The project is located within the Business A-1 (BA-1) zoning district and is thus subject to §255-51. The goal of the design district is to encourage a walkable, pedestrian-and bicycle-friendly corridor that supports a mix of diverse housing options and supporting business.

EARTH REMOVAL, EXTRACTION, AND FILL REGULATIONS (§255-84)

The project has been submitted for Site Plan Review and is required to conform to the requirements of this section. In any zoning district, removal or addition of sod, loam, clay, gravel, quarried stone, or kindred

materials shall not be undertaken if such removal or addition results in a change in the contours of the land, except by an earth removal, excavation, and/or fill permit from the Building Commissioner. Given that the project will require a Building Permit to complete, the Project is exempt from this requirement.

SIGNS REGULATIONS (§255-85)

See Signage and Lighting section below.

PARKING REQUIREMENTS (§255-86)

See Traffic Assessment and Impact section below.

SITE PLAN REVIEW CRITERIA (§255-148)

Z3. *With respect to Criterion #7 – The Applicant references Conti Drive as the means in which the development connects to the public way (Granby Road). Conti Drive provides no separation of vehicular traffic and pedestrian traffic and is frequently utilized by the auto repair shop south of the Project.*

RLA: A pedestrian bridge and stone dust pathway has been added to the revised site plan set.

BETA2: Plans were revised; item is resolved.

Z4. *With respect to Criterion #7 – The sidewalk within the parking lot area of the development does not connect to Conti Drive. BETA recommends connecting the parking lot area to Conti Drive, especially if Conti Drive is going to be used as a connection to the public way. Note, this sidewalk would need to meet ADA requirements.*

RLA: An accessible sidewalk ramp has been added to the revised site plan set.

BETA2: Plans were revised; item is resolved.

6.0 TRAFFIC ASSESSMENT AND IMPACT

The Applicant has provided a traffic impact report/study. The project is anticipated to generate a slight increase in daily trips compared to existing conditions due to the proposed condominium complex. BETA did not include reviewing the traffic memo as it was not included in our scope, however, general vehicle and pedestrian site circulation is included and reviewed against general engineering practices.

GENERAL TRAFFIC COMMENTS

T1. *BETA defers to the Planning Board regarding the traffic impacts from the proposed development.*

RLA: Noted, to be discussed with the Planning Board.

BETA2: No further comment.

T2. *Confirm that the detail for typical pavement cross sections is for both the parking area as well as the Conti Drive private driveway. BETA notes that the auto service establishment that also utilizes Conti Drive may do so with heavy duty trucks.*

RLA: The pavement cross section detail applies to both the parking area and Conti Drive. The specifications are typical and sufficient for the assumed traffic.

BETA2: Explanation provided; item is resolved.

SITE ACCESS AND CIRCULATION

Access to the Site is proposed via a new curb cut and driveway entrance connecting to Conti Drive, which is a private driveway connecting to Granby Road (Route 202). A portion of the existing roadway in this area will be removed, regraded, and replaced with asphalt pavement as part of the project.

The proposed driveway is 25 feet wide and will connect Conti Drive to a small parking area consisting of 22 parking spaces, including one (1) van accessible parking space. Sidewalks are proposed adjacent to the parking spaces, between the proposed condos and the parking area.

T3. *Confirm that the proposed configuration has been reviewed and approved by the Town Fire Department and that emergency vehicles can circulate as needed.*

RLA: The South Hadley Fire Department has reviewed the project and provided no comments or concerns.

BETA2: *Item is resolved.*

PARKING AND LOADING

Required parking is defined by §255-86.B. of the Town Zoning Bylaw. The proposed development is a residential use. Required parking is calculated as follows:

| Use Designation | Criteria | # of Units / Building Area | Required Parking |
|-----------------|------------------------------|----------------------------|------------------|
| Residential | 1.5 spaces per dwelling unit | 14 units | 21 Spaces |
| Total | | | 21 Spaces |

ADA/MAAB requires a parking lot with between 1 and 25 parking spaces to provide one (1) accessible space, which is to be van accessible in accordance with 521 CMR 23.2.1. The project proposes 22 outdoor parking spaces including one (1) accessible van space, meeting the requirements for both the parking requirements and state law for accessible parking requirements.

The proposed driveway is 25 feet wide and standard parking spaces are 9 feet wide by 18 feet deep.

7.0 SIGNAGE AND LIGHTING

The proposed project includes one (1) sign for the van accessible parking space. The callout on the plans indicate the sign will comply with 521 CMR.

A Lighting/Photometric Plan is provided in the plan set submission. Lighting for the site includes two (2) pole-mounted lights for the parking lot and 14 wall mounted wall packs at each building unit. The Plan indicated that no light would spill over any property line or will illuminate anywhere other than the intended parking area. The Illuminating Engineers Society of North America (IESNA) recommends the following illuminance for parking lots:

| Level | Horizontal Illuminance (Min) | Vertical Illuminance (Min.) | Uniformity Ratio (Max/Min) |
|-------------------------------|------------------------------|-----------------------------|----------------------------|
| Basic Maintained Illuminance | 0.2 | 0.1 | 20/1 |
| Enhanced Security Illuminance | 0.5 | 0.25 | 15/1 |

The site lighting plan generally conforms to the requirements listed above.

8.0 UTILITIES

Proposed utilities depicted on the plans include domestic water, sanitary sewer, and electric service.

Domestic water is proposed via new 8" C909 PVC water pipe and 8" HDPE water pipe beneath the existing culvert. Plans only indicate one water service entering each condominium. It is unclear if fire service is provided via this pipe or if a second pipe will provide fire suppression. These services will connect to the existing 8" water service stub located in the Liquor Town parking space, which currently services the site and the existing fire hydrant on the front portion of the site. Additionally, two (2) new hydrants are proposed for the development – one on the east side of Conti Drive north of the site and one on the west side of Conti Drive west southwest of the development access drive.

Sanitary sewer service is proposed via a new sewer force main of unknown size. The force main is to be designed by others, as indicated on the plan set. This service will connect to the existing sewer manhole located north of the proposed development within the access easement, west of Conti Drive.

Electric service is proposed via new overhead wires and three (3) new utility poles. From the final utility pole, underground electrical conduits will be laid to the proposed transformer pad adjacent to the access driveway for the condos.

U1. *BETA defers to the preference of the Board on providing overhead or underground electric services.*

RLA: Noted, to be discussed with the Planning Board. SHEL D has provided review comments separately.

BETA2: No further comment.

U2. *Confirm the Fire Department has reviewed the design and agrees with the locations of the proposed hydrants and whether a hydrant is required within the parking lot area.*

RLA: The South Hadley Fire Department has reviewed the project and provided no comments or concerns.

BETA2: No further comment.

U3. *Clarify the size and material of the proposed water services, including fire hydrant connections and any transitions in material.*

RLA: Water service sizes and materials are specified on Sheet C-7.

BETA2: Clarification provided; item is resolved.

U4. *Confirm that 10 feet of separation is provided between the water service and the force main sewer service.*

RLA: 10-foot separation is maintained between the water and force main sewer services.

BETA2: Item is resolved.

U5. *Clarify if fire protection is provided for all buildings. If there is a separate service line for fire protection, show this service on the plans.*

RLA: Fire protection service is not required, therefore it is not proposed.

BETA2: Item is resolved.

- U6. *Perform a hydrant flow test to confirm the water service line has adequate pressure for both the domestic and fire protection services.*

RLA: *Please see the attached correspondence from the Water Department.*

BETA2: *Correspondence with the Water Department provided; item is resolved.*

9.0 LANDSCAPE TREATMENT & GRADING

A landscaping plan has been provided depicting three (3) London Planetree, 22 American Arborvitae, and eight (8) Boxwoods. Landscaping is generally proposed in the parking lot area, at the southern side of the proposed buildings for screening, and to provide screening for the proposed transformer pad.

Information on proposed seed mix for landscaping areas has not been provided.

- LA1. *BETA recommends providing a native seed mix, especially within the wetland buffer areas.*

RLA: *The landscaping plan has been revised accordingly.*

BETA2: *Plans were revised; item is resolved.*

- LA2. *Review grading at the entrance to the parking area at Conti Drive. Based on the proposed spot grades and contour lines this area is virtually flat, and ponding/icing may result.*

RLA: *Grading at the entrance area has been revised and has a minimum of a 1% slope. See sheet C-9 for the Conti Drive profile.*

BETA2: *Additional grading at entrance provided; item is resolved.*

- LA3. *The Landscape Plan indicates that some non-native species of plant will be planted for the proposed development. BETA recommends that native species be planted, especially within the wetland buffer area.*

RLA: *The landscaping plan has been revised accordingly.*

BETA2: *Landscape plan was revised; item is resolved.*

- LA4. *Conti Drive is proposed to be regraded. Plans should indicate that curbing within this section of Conti Drive will be removed and replaced.*

RLA: *Sheet C-4 has been revised to include removal of curbing within this section.*

BETA2: *Plans were revised; item is resolved.*

10.0 STORMWATER MANAGEMENT

The proposed stormwater management design consists of one subsurface infiltration system located beneath the parking lot area between the proposed condominiums. Stormwater runoff from impervious surfaces including the parking lot and roofs will be conveyed via a closed drainage system consisting of catch basins, manholes, hydro-dynamic water quality structures, and roof leaders. Water discharging to the back of the proposed condos consists primarily of pervious surfaces or non-vehicular surfaces like patio areas and will be discharged to either Conti Drive or the local wetlands via drainage channels and sheet flow. The subsurface infiltration basin provides an overflow to a retaining wall at the northeast side of the developed area which ultimately discharges to the intermittent stream and associated wetlands.

GENERAL

SW1. *Provide a Design Point for Conti Drive/flows discharging west to the existing stormwater infrastructure.*

LA: Design Point 3 has been added for Conti Drive drainage infrastructure.

BETA2: *Additional Design Point 3 was added to the drainage analysis; item is resolved.*

SW2. *Provide the Soil Evaluator License number of the soil evaluator who conducted the test pits and confirmed groundwater elevation.*

RLA: Test pits were conducted by Ryan Nelson of R Levesque Associates, Inc. whose Soil Evaluator License number is #14394.

BETA2: *Information is provided; item is resolved.*

SW3. *Revise time of concentration (Tc) calculations such that sheet flow does not exceed 50 feet.*

RLA: The Tc calculation has been revised and is included within the revised Stormwater Report.

BETA2: *Time of concentration calculations revised; item is resolved.*

SW4. *Given the slope of the proposed access driveway, BETA recommends a double grate catch basin be utilized to capture as much flow as possible.*

RLA: A double grate catch basin has been added within the access driveway, see sheet C-7.

BETA2: *Double catch basin is provided; item is resolved.*

STORMWATER MANAGEMENT REGULATIONS (CHAPTER 200)

The project proposes disturbing more than one acre of land within the Town of South Hadley and therefore must comply with Chapter 200 of the Town's Bylaws as well as the Stormwater Design Manual. In addition to the requirements described in the Stormwater Design Manual, all stormwater best management practices must also be designed to meet the performance standards described in Section 2.3.6.A.II.3 and 4 of the Massachusetts Municipal Storm Sewer Systems (MS4) permit for all new development and redevelopment projects (§200-6.D.).

SW5. *Provide calculations to confirm that the infiltration practice retains the one-inch volume of rainfall that falls on impervious surfaces on-site (§200-19.B.).*

RLA: The one-inch water quality volume for the subsurface infiltration basin has been added to the Stormwater Report. See Appendix E.

BETA2: *Calculations were provided; item is resolved.*

SW6. *The proposed project will cause an increase in total volume discharging to the intermittent stream during the 2-, 10-, and 100-year events. During a site inspection, BETA noted that the water passing beneath the stream crossing is very high and is very close to capacity. Our concern is that the increased volume to the intermittent stream will cause flooding as the will not be conveyed due to lack of capacity. The Applicant shall perform a capacity and load analysis to confirm the capacity of the existing culvert passing under Conti Drive.*

RLA: During the inspection of the existing culver pipes (two 16" D.I.) said culverts were cteated of debris and are now conveying flow in an unrestricted manner.

BETA2: *Culvert Inspection Report was reviewed by BETA. The two (2) existing 16" ductile iron pipes were professionally cleaned and inspected. Pipes were found to be in good condition, showing no signs of cracking or infiltration. Additionally, the report recommends resetting the gabion baskets as necessary and replacement of the existing wooden guardrails. BETA recommends these items be included as a condition of approval.*

The Applicant, however, did not provide the requested capacity analysis. This analysis should be provided. Modeling the two (2) existing 16" ductile iron culverts in Hydro CAD model and utilizing StreamStats for the existing flow of the stream will suffice to ensure the capacity of the pipes is not overwhelmed.

- SW7. *Given that the project is considered a "new development" under the MS4 permit, revise the design and calculations to provide 90% TSS removal and 60% total phosphorus. Note: providing infiltration of the one-inch water quality volume over the entirety of the developed site may achieve the appropriate phosphorus removal.*

RLA: *The proposed stormwater system is not discharging to a municipal separate storm sewer system (MS4), so 90% TSS removal and 60% total phosphorus removal is not applicable. An MS4 permit is applicable for discharges to the storm drainage system owned or operated by the Town of South Hadley. The proposed stormwater system discharges on-site, downgradient toward an existing intermittent stream.*

BETA2: *A discussion with the Town of South Hadley confirms the intent of the Bylaw is the protect the municipal storm drainage system and to protect waters of Massachusetts.*

The provided recharge calculations indicate that the one-inch water quality volume will be infiltrated and that 90% TSS removal will be achieved. Item is resolved.

MASSDEP REPORTABLE RELEASES

The MassDEP Waste Site / Reportable Release database identifies the Mobil gas station across the street at 483 Granby Street as the location of a reportable release under Release Tracking Number (RTN) 1-0017504. The Mobil station is approximately 750± southwest of the project site. Available documentation indicates that Naphthalene, Benzene, and Aliphatic hydrocarbons C5 through C8 were present in the soil. No source of the contamination is indicated. The RTN has been closed since October 26, 2011.

MASSDEP STORMWATER STANDARDS

The project proposes to disturb greater than one acre of land within the Town of South Hadley and is in proximity to wetland resources. Therefore, the project is subject to Chapter 200 and the Massachusetts Stormwater Standards. The following sections are provided for the Board's consideration. BETA notes that the Applicant has documented compliance with the MA Stormwater Standards in the Stormwater Management Report.

LOW IMPACT DEVELOPMENT (LID) TECHNIQUES

Proposed LID measures include a subsurface infiltration basin.

NO UNTREATED STORMWATER (STANDARD NUMBER 1): *No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth. The project does not propose any new discharges to wetlands - complies with standard.*

POST-DEVELOPMENT PEAK DISCHARGE RATES (STANDARD NUMBER 2): *Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.* The project proposes to mitigate increases to runoff rates with the use of a subsurface infiltration system. Calculations indicate a decrease in peak discharge rate and an increase peak runoff volume to Design Point 1.

SW8. *Separate DP-1 into two analysis points: one for Conti Drive drainage infrastructure and one for flow discharging to the intermittent stream.*

RLA: Design Point 3 has been added for Conti Drive drainage infrastructure.

BETA2: DP-1 was separated into two analysis points; item is resolved.

RECHARGE TO GROUNDWATER (STANDARD NUMBER 3): *Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to maximum extent practicable.*

NRCS soil maps indicate that underlying soils within the development area are Sudbury fine sandy loam with a hydrologic soil group rating (HSGR) of B (moderate infiltration potential) or Walpole sandy loam with a HSGR of B/D. The Applicant has conducted nine soil tests at the Site indicating the subsurface soils are predominantly loamy sand over very fine sand. Groundwater was detected between 26 and 46 inches below existing grade. The infiltration system provides greater than three feet of separation between the bottom of the system and the groundwater table, which meets the local regulation.

Groundwater recharge is proposed via a new subsurface infiltration system. The proposed system is located within Sudbury fine sandy loam, which is an HSG B soil, and provides a recharge volume sufficient for HSG B soils. Calculations have been provided indicating all BMPs will draw down within 72 hours.

SW9. *Provide required mounding analysis where infiltration BMPs have less than 4 feet of separation to estimated seasonal high groundwater.*

RLA: Please see the attached mounding analysis.

BETA2: Mounding analysis provided; item is resolved.

TOTAL SUSPENDED SOLIDS (STANDARD NUMBER 4): *For new development, stormwater management systems must be designed to remove 80% of the annual load of Total Suspended Solids (TSS).*

The project has been designed to provide at least 80% TSS removal for treated impervious areas. Water quality volume calculations are provided verifying that the Barracuda water quality structure provides sufficient pretreatment.

A Long Term Pollution Prevention Plan is included in the O&M Plan.

SW10. *Some treatment seems to be missing from the TSS removal calculations. The deep sump catch basin and isolator rows are not mentioned as TSS removal devices.*

RLA: The TSS removal calculations have been revised. See Appendix E of the Stormwater Report.

BETA2: TSS removal calculations were revised; item is resolved.

SW11. *The TSS removal calculations are separated into pre-treatment and total treatment. Provide TSS removal calculations for each of the individual treatment trains.*

RLA: The TSS removal calculations have been revised. See Appendix E of the Stormwater Report.

BETA2: TSS removal calculations were revised; item is resolved.

SW12. *Remove pretreatment devices from TSS worksheet for total TSS; the 80% TSS provided by the subsurface system is inclusive of required pretreatment.*

RLA: The TSS removal calculations have been revised. See Appendix E of the Stormwater Report.

BETA2: TSS removal calculations were revised; item is resolved.

HIGHER POTENTIAL POLLUTANT LOADS (STANDARD NUMBER 5): *Stormwater discharges from Land Uses with Higher Potential Pollutant Loads (LUHPPLs) require the use of specific stormwater management BMPs.*

The project includes a residential use which is not typically considered a LUHPPL – standard not applicable.

CRITICAL AREAS (STANDARD NUMBER 6): *Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas.*

Project is not located within or near a critical area – standard not applicable.

REDEVELOPMENT (STANDARD NUMBER 7): *Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable.*

The project does not qualify as a redevelopment – standard not applicable.

EROSION AND SEDIMENT CONTROLS (STANDARD NUMBER 8): *Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.* The project proposes to disturb greater than one acre of land and therefore will be required to file a Notice of Intent with EPA and develop a Stormwater Pollution Prevention Plan (SWPPP). An erosion control plan has been provided showing inlet protection, linear sedimentation control (compost filter sock), and construction entrance/tracking pad.

SW13. *Provide location(s) of construction material stockpile areas. Stockpiling of materials shall not be placed within the wetland buffer zones.*

RLA: A stockpile area has been added to Sheet C-4.

BETA2: Stockpile areas were added to the plans; item is resolved.

OPERATIONS/MAINTENANCE PLAN (STANDARD NUMBER 9): *A Long-Term Operation and Maintenance Plan shall be developed and implemented to ensure that stormwater management systems function as designed.* A Stormwater Operation and Maintenance Manual was provided with the Stormwater Management Report.

SW14. *Indicate snow storage areas in the plan set.*

RLA: Snow storage areas have been added to Sheet C-5.

BETA2: Snow storage areas were added to the plans; item is resolved.

SW15. *Provide signature of owner on the O&M Plan.*

RLA: A signature is included within the revised Stormwater Report.

BETA2: Signature is provided; item is resolved.

ILLICIT DISCHARGES (STANDARD NUMBER 10): *All illicit discharges to the stormwater management system are prohibited.* A signed Illicit Discharge Compliance Statement was provided with the submission.

SW16. *Provide signature of owner on the illicit discharge statement.*

RLA: A signature is included within the revised Stormwater Report.

BETA2: Signature is provided; item is resolved.

11.0 CONSERVATION COMMISSION RULES AND REGULATIONS: WETLANDS REGULATIONS (CHAPTER 305 – PART 2)

The Project proposes alteration of 100 square feet or more of an area subject to the jurisdiction of the bylaw and is therefore required to meet the requirements of Chapter 305 of the local bylaws as well as 310 CMR 10.00 regarding the Wetlands Protection Act Regulations.

CC1. *Revise the force main on the north side of the development so that it does not encroach upon the 50-foot no-disturbance conservation zone (§305-28.C.(2)(a)). Grading is also located within the 50-foot buffer zone. BETA defers to the Commission as to whether grading is acceptable within the 50-foot buffer zone.*

RLA: The applicant will be seeking a waiver of the 50' Conservation Zone as part of the Notice of Intent public hearing process.

BETA2: Applicant will seek a waiver; BETA defers to the Town on whether to grant this waiver.

CC2. *BETA defers to the Commission regarding the need for demarcation of the 50-foot no-disturb buffer zone (§305-28.C.(3)).*

RLA: Noted, to be discussed with the Conservation Commission.

BETA2: No further comment.

CC3. *Some of the proposed structures, specifically the proposed headwall/retaining wall, directly abut the 50-foot no-disturb wetland buffer. BETA is concerned that construction of the retaining wall will disturb this area. BETA recommends a Condition of Approval stating that after construction the 50-foot no-disturb buffer zone will be replanted with native seed mix in all disturbed areas.*

RLA: Noted, the applicant is amendable to this suggested condition of approval.

BETA2: No further comment; BETA defers to the Town and recommends a Condition of Approval.

12.0 ADDITIONAL COMMENTS

AC1. *BETA2: Provide a construction detail for the accessible ramp.*

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.



Steven Lee, PE, SE
Senior Project Engineer