



Stantec

Stantec Consulting Services Inc.

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May 6, 2021
File: 179410991

Attention: Mr. Richard Gosselin, Chairman

MILLBURY PLANNING BOARD
Municipal Office Building
127 Elm Street
Millbury, Massachusetts 01527

Dear Mr. Gosselin,

**Reference: Proposed Site Development Plan
19 Canal Street**

Pursuant to the Board's request, Stantec Consulting Services Inc. (Stantec) has reviewed the *Site Development Plan for 19 Canal Street*, a proposed multi-family building located in Millbury. The following materials were received via email on April 16, 2021.

- Site Development Plan for 19 Canal Street, Millbury, Massachusetts, 01527 (9 Sheets), dated April 9, 2021; Development Impact Report, 19 Canal Street (7 Sheets), dated April 9, 2021; Stormwater Management Report, dated April 9, 2021; Fiscal Impact Report, dated April 9, 2021; Town of Millbury Application and Checklist for Site Plan Review, Special Permit and Stormwater Plan Review each as prepared by as prepared by J.M. Grenier Associates, Inc. (JMGA)
- Elevation & Sections for Elite Home Bldrs LLC Canal Street Apt (1 Sheet), dated April 12, 2021 as prepared by HPA Design, Inc.
- Traffic Impact Study, Canal Street Residential Development (476 Sheets), dated April 2021, as prepared by WSP USA.

The Site Plan submittal was reviewed for conformance with the Board's Design Standards, the Town's Zoning Bylaws, and generally accepted engineering practice. We offer the following comments and recommendations regarding the *Site Development Plan for 19 Canal Street* submittal for the Board's consideration.

SITE VISIT

As part of Stantec's review, Mr. David Glenn (Stantec) conducted a site visit of the project area on April 30, 2021 to observe general site conditions and other relevant features We also note Mr. Joseph Graham (Stantec) conducted a site visit on November 23, 2020 to witness tests pits performed by JMGA at the project site (See attached report).



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SITE PLAN

The proposed site development consists of a residential three-story building (approximately 120,550 square feet) with 59 one-two bedroom units, four parking garage structures, associated parking, infrastructure, landscaping, and dog park. **The existing 2.76-acre parcel is located within the Business I (B-1) zone, with 199.84 ft of frontage, including a 33-foot wide right of way identified as Railroad Court off Canal Street as shown on sheet 2 of 9. The Millbury B-1 Zoning District requires a minimum 150 feet of frontage. We note the application for site plan/special permit/stormwater permit each identify a frontage of 119.84 and recommend this item be addressed by JMGA.**

The Millbury B-1 Zoning District requires a minimum lot area as per Section 32.8 Special Density Provision for dwelling units more than two. We note the parcel of land contains 120,550 square feet and question if the provided lot area complies with Section 32.8 Special Density Provision.

The project site is located off Canal Street between Howe Ave and Elm Street. Ingress and egress to the project site is shown via two (2) proposed 16-foot-wide paved drives off Canal Street. The site will be serviced by municipal water and sewer

Topographic features of the parcel are typified by flat slopes ranging on average from 1% to 3% with selected areas abutting the Town of Millbury Athletic Field exceeding 25%. The on-site slopes generally fall off in a south to north direction towards the rear property line. An existing oil/sand driveway labeled Railroad Court is located along the westerly portion of the site.

Section 12.4 - Site Plan Review, Subsection 12.44 – Contents and Scope of Application of the Town's Zoning Bylaws requires specific information be shown on the Site Development Plan. Stantec has performed a technical review of these requirements with the understanding the Town Planner will perform an independent review of the Site Plan for conformance with the site plan review zoning bylaw. In general, the site plan conforms to the Town's Zoning Bylaws, with the following exceptions. The following list refers to the Millbury Planning Board Submission of Site Plan Review Checklist:

- 2) The Site Plan is shown at a 1" = 30' scale. It is our understanding the applicant has requested a waiver.
- c) We recommend the applicant provide additional documentation regarding the monitor wells located on-site.
- f) Construction of the two 16-foot-wide paved drives off Canal Street will require reconstruction of the existing sidewalk and curbing. We recommend these improvements be further identified on the site plan.
- h) On-site snow storage locations have been identified on the Site Plan. We recommend additional provisions for snow removal be addressed by the applicant.



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- m) Stantec recommends existing topography along the easterly property line and abutting Town of Millbury Athletic Field be shown on the site plan. at two-foot (2') intervals. We note a 4-foot retaining wall is proposed along the easterly property line.
 - o) The applicant has indicated the site will be serviced by municipal water and sewer. We note a segment of the existing on-site sewer line will be removed and question if the applicant has received approval from the Town DPW and Aquarion Water Company regarding these service connections.
 - p) Lighting and Photometric Plan was not provided with the Site Development Plan submission. We recommend this item be addressed by the applicant.
 - t) Parking calculations have been provided per section 33.2 As indicated in the applicant's submittal a waiver is requested for a reduction of parking spaces from 132 to 110 parking spaces, including 6 handicap accessible spaces. We recommend this request be further discussed by the applicant with the Board.
4. An isometric line drawing was not provided with the Site Development Plan submission. It is our understanding the applicant has requested a waiver.
7. Development Impact Statements are to be prepared by the applicant to identify all significant positive or adverse impacts and propose an acceptable program to prevent or mitigate adverse impacts. We offer the following comments:
- a. Traffic Impact Assessment: Stantec reviewed the Traffic Impact Statement submitted for the proposed development under separate letter report dated May 4, 2021
 - b. Environmental Impact Assessment: Stantec requests the applicant provide additional documentation regarding the monitor wells located on-site. We have reviewed the online Massachusetts Department of Environmental Protection (MassDEP) eDEP files for 19 Canal Street and surrounding properties in Millbury MA and reviewed some of the material provided to Stantec regarding site history.

The site has a history as a freight depot associated with an extensive railroad yard dating back to the 1890's. This historical use represents the potential for soil and groundwater impacts related to railway use and associated contaminants of concern including petroleum hydrocarbons, pesticides, herbicides and coal and wood ash which contains petroleum hydrocarbons and metals.

Future redevelopment of the site should anticipate the need for soil management and analytical testing of soils to evaluate soil quality and the need for offsite disposal. Additionally, soil analytical testing should be considered if future use of the



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property could include residential use, gardening and other activities that could result in exposure to soils based upon intensity and frequency of use. Groundwater quality should also be assessed if construction dewatering may be necessary or if there is a potential for use of groundwater for drinking or irrigation purposes.

The 19 Canal Street address is not listed by the MassDEP as being a waste site or having had a reportable release of oil and/or hazardous material (OHM). There are four closed waste sites along Howe Ave west and north of the site. There are five closed waste sites south and southeast of the site. Although all waste sites are closed indicating a condition of no significant risk has been achieved, the potential exists that residual impacts from these disposal sites could have potentially impacted soil and groundwater at the site. This suggests that soil and groundwater management as referenced above may need to be incorporated into site redevelopment.

- c. Fiscal Impact: A Fiscal Impact Statement was provided by the Applicant but was not reviewed as part of this letter report.
- d. Historic Impact: A Historic Impact Statement was provided by the Applicant but was not reviewed as part of this letter report.

Section 12.4 - *Site Plan Review*, Subsection 12.45 – *Design Standards* of the Town's *Zoning Bylaws* requires applicant to adhere to general principles regarding site design. **In general, the Project Site Plan appears to conform to the Town's Design Standards, with the following exceptions:**

1. Landscaping: As shown on sheet 4 of 9, proposed grading includes fills between 2 and 5 feet within the site. As such, retaining walls are proposed along the easterly and westerly property line in varied height between 2 and 6 feet. We recommend the applicant provide final designed stamp drawings of the proposed retaining walls and evaluate the need for fencing at these locations. We note proposed retaining walls are approximately 2 feet off the property line and question the need for temporary construction easements from the abutting properties.
2. Circulation: Proposed parking area internal circulation and traffic signage be identified on the site plan. We note proposed parking area location is not in compliance with the recommended location of on the side or rear of the building.

Stantec recommends the proposed parking area consider one-way traffic circulation with diagonal parking and appropriate signage.

3. The provided Architectural plans do indicate the proposed signage along Canal Street.



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4. Proposed curbing is required around the perimeter of all driveways and parking areas, as well as in front of sidewalks abutting buildings. Curbing has been shown around the perimeter of all driveways and parking areas. The applicant is requesting a waiver to use of vertical granite curbing and sloped granite curbing in lieu of required concrete curbing.
5. Site plans involving more than thirty parking spaces shall provide walkways and pedestrian paths that safely connect the four parking garage structures and parking areas to the principal uses they will server. We recommend this item addressed by JMGA.
6. As previously noted in subsection 12.44, Lighting and Photometric Plan was not provided with the Site Plan.

STORMWATER MANAGEMENT

The Stormwater Management Report is included under a separate cover of the same name with the Site Plan submission. The report includes a narrative with attachments that address the Town's General Bylaws for Stormwater Management, which includes Municipal Code Chapter 13.15 Post-Construction Stormwater Management of New Developments and Redevelopments which identifies information required for the Board to evaluate the environmental impact, effectiveness, and acceptability of the proposed measures, as well as meet the Massachusetts Stormwater Management Standards as set by the Department of Environmental Protection (DEP).

Stantec offers the following comments for the Board's consideration.

The following list refers to the Millbury Planning Board Submission of Stormwater Plan Review Checklist. Our review has only included "design" related items as part of the checklist.

- g) The location of existing and proposed utilities has been identified on the Site Plans.
- i) The existing site hydrology is shown on the Site Plans.
- l) Seasonal high groundwater elevation has been provided on Sheet 2 of 9, entitled Existing Conditions.
- m) Existing and proposed ground cover and runoff coefficients have been provided in the Stormwater Report.
- n) A drainage area map showing pre and post conditions have been provided in the Stormwater Report.
- o) See general stormwater comments at the end of this letter report.



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- p) The location of proposed improvements has been identified on the plans.
- q) **A sequence of construction has been provided in the Stormwater Report. We recommend the construction sequence be added to the Site Plan.**
- r) A maintenance schedule during construction has been provided.
- 3) For comments on the Operation and Maintenance Plans, see Subsection 8 – Operation and Maintenance Plans below.

MassDEP Stormwater Standards

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 is designed with no untreated discharges and the applicant provided rip-rap sizing calculations to confirm no erosion or scour at outfall FES1. We note however outfall FES1 discharges to the abutting Town of Millbury Athletic Field and question the need for an easement or provide evidence that such discharge is satisfactory to the Town of Millbury.

2. Standard 2 – Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development discharge rates. As identified in the summary, the project will not result in an increase in peak flows under post- development conditions for the 2, 10, and 100-yr storm events.

Our review of the drainage calculations is as follows:

- a. **The Pre-Development and Post-Development Drainage Area Maps should be revised to include the location and labels of the Drainage Reach 1R and 2R.**
- b. **The Drainage Area Map layouts do not accurately depict the Stormwater model. We recommend Drainage Reach 2R be separated into 2 different reaches, one at the northeast and one at the northwest of the property line. A portion of P5 drains toward the northwest, onto the Auto Body/Hardware Store. Another portion of P5 drains toward the Town's athletic field. We recommend the Applicant to further investigate the channel along the wall so that flow is mitigated towards FES1 and does not go over the wall.**
- c. **The proposed Stormwater model should be revised to include subcatchment (P6). We note that areas on Canal Street drains into CB1 and CB2. We recommend this area be further analyzed between pre- and post-conditions, to confirm that post-condition flows are less than pre-condition flows.**



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3. Loss of annual recharge to groundwater should be eliminated or minimized using infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type.

Standard 3 is met. The applicant provided calculations to confirm the annual recharge from the post-development approximated pre-development conditions.

4. Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:
 - a) Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained.
 - b) Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and
 - c) Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook

Standard 4 is met. The applicant provided a worksheet to confirm the required TSS removal rate 80%.

5. For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Water Act, M.G.L. c. 21, §§26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

The project is not associated with a land use with higher potential pollutant load; therefore, this standard is not applicable.

6. Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical



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area if there is a strong likelihood of a significant impact occurring to said area, considering site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "stormwater discharge" as defined in 314 CMR 3.04(2)(a) 1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

The project is not associated with stormwater discharges near a critical area; therefore, this standard is not applicable.

7. A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions

This project is a new development; therefore, this standard is not applicable.

8. A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

An erosion and sedimentation control plan are included as part of the site plan submittal. The Erosion Control Plan (Sheet 7 of 9) identifies the erosion control barrier/limit of disturbance along segments of the site. We recommend the erosion control/limit of disturbance line be extended around the entire site perimeter.

The project is covered by NPDES Construction General Permit, but no Stormwater Pollution Prevention Plan was submitted. We note that the Applicant will need to provide a SWPPP.

The Stormwater Checklist identifies certain items required on the Construction Period Pollution Prevention and Erosion and Sediment Control Plan. We recommend the Applicant provide the Operation and Maintenance Log Form.

9. A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.

An operation and maintenance plan are included as part of the stormwater report submittal. We recommend the Applicant provide information regarding the following: storage materials



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and waste products inside or under cover, vehicle washing, and management of de-icing chemicals.

10. All illicit discharges to the stormwater management system are prohibited.

An illicit discharge statement was not included as part of this submission. We recommend this be provided by the applicant.

Subsection 8 – *Operation and Maintenance Plans* of the Town's *General Bylaws* identifies information required for the plan to comply with the Permit, this bylaw, and meet the Massachusetts Surface Water Quality Standards. **In general, the Proposed Site Plan appears to conform to the Town's *Operation and Maintenance Plans* requirements, with the following exceptions.**

- a) **The name(s) of the owners for all components of the system have not been identified in the Operation and Maintenance Plan.**
- b) Maintenance agreements that specify:
 1. **The person(s) responsible for the financial maintenance and emergency repair shall be specified.**
 2. **A signature is required by the owner.**

GENERAL COMMENTS

Stormwater

1. Stormwater Management Calculations (Page 91 of 114): Please clarify if the 4th calculation of the Drawdown within 72 hours is for Infiltration Chamber 4.
2. Stantec recommend cross sections of the proposed subsurface infiltration chambers Nos.1 thru 4 identifying items such as existing and proposed grades, refusal and/or seasonal high groundwater be provided on the plans
3. Infiltration Chamber 2 bottom stone is at elevation 369.70'. The test hole data for TH1 notes that the estimated seasonal high groundwater elevation is at 374.5'. We recommend the Applicant address this issue.
4. Provide calculations regarding the average annual load of Total Phosphorus and estimated pollution removal



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5. Detail Plan 1/2 (Sheet 8 of 9 of the Site Plan) includes a detail for the Stormceptor STC 900. We recommend the Applicant include a detail for the Stormceptor 450i.

If there are any questions regarding our comments and recommendations, please do not hesitate to call at 781-221-1134.

Regards,

STANTEC CONSULTING SERVICES INC.

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cc. Ms. Laurie Connors, Town Planner