



April 30, 2021

Ms. Kathy Joubert, Town Planner
Town of Northborough
Northborough Town Offices
63 Main Street
Northborough, MA 01532

**RE: Peer Review Letter – Facility Expansion Project
425 Whitney Street, Northborough, Massachusetts**

Dear Ms. Joubert,

This letter is to advise that we have reviewed the revised application materials submitted regarding the proposed facility expansion project located at 425 Whitney Street in Northborough, Massachusetts for consistency with local and state regulations including:

- Northborough Zoning Bylaw, effective through December 21, 2020.
- Northborough Wetlands Bylaw and Regulations effective through September 21, 2019.
- Massachusetts Stormwater Management Standards.

The materials consulted for this review include the following:

- Plan entitled "Facility Expansion Project, 425 Whitney Street, Northborough, Massachusetts," prepared by VHB, dated October 17, 2019.
- Memorandum from Northborough Planning Board to Steris A.S.T. dated March 11, 2020.
- Memorandum from Attorney Stephen F. Madaus to Northborough Planning Board dated May 27, 2020.
- Memorandum from Northborough Planning Board to Steris A.S.T. dated November 15, 2019.
- Application for Site Plan Approval and Special Permit per Groundwater Protection Overlay District filed by Isomedix Operation, Inc., dated September 13, 2019.
- Zoning Interpretation Request Form dated September 18, 2019.
- Letter from the Town of Northborough Town Engineer dated March 10, 2020.
- Letter from VHB dated October 15, 2019 responding to Northborough Town Engineer's comments.
- Letter from VHB dated January 22, 2020 regarding the Groundwater Protection Overlay District Special Permit with attachments.
- Report entitled "Stormwater Report, Facility Expansion Report," prepared by VHB, revised through October 2019.
- Letter from Northborough Fire Department to Northborough Planning Board dated September 24, 2019.
- Memorandum from KP Law to Northborough Planning Board dated September 14, 2020.

- Memorandum from Stephen F. Madaus to Northborough Planning Board dated January, 28, 2020.

BACKGROUND

The project includes the expansion of the property located at 425 Whitney Street in Northborough, Massachusetts. The project includes the construction of a 24,700 square foot building addition to an existing industrial building and associated site improvements including parking lot modifications, stormwater management improvements, landscaping, etc. We understand the proposed use of the building will include the receipt and sterilization of medical products prior to their distribution. The project is located in the Town of Northborough's Industrial Zone as well as Groundwater Protection Overlay District. We understand the project is seeking Site Plan Approval and a Special Permit from the Planning Board.

Environmental Partners has developed the following comments regarding zoning, stormwater management design, and civil/site development. Specifically, this letter comments on civil/site related questions provided by the Planning Board to the applicant in their memoranda dated November 15, 2019, and January 28, 2020 as well as the STERIS's responses to their comments. This letter also comments on STERIS's responses to the peer review letter provided by Environmental Partners dated February 25, 2021. Comments regarding traffic and activities associated with the proposed use have been prepared under separate cover.

In order to reduce the length of this letter, we have not included every response provided by STERIS to Planning Board's questions. We have indicated whether we believe the applicant's response is acceptable and – where appropriate – made additional comments.

Planning Board Memorandum dated November 15, 2019 and STERIS responses

Conformity with Section 7.2 Submission Requirements per the Planning Board's Rules and Regulations

1. Application narrative in accordance with Section 7.2 B.(I-11)

B. Application narrative. To assist the Planning Board with its review, the Applicant shall provide a concise narrative about the proposed project. At minimum, the narrative shall include the following information:

(1) The proposed use(s).

EP Comment 4/30/21: EP has reviewed STERIS's response. In our opinion, the response provided adequately describes the proposed use.

(2) The projected increase in traffic trips generated by the project.

EP Comment 4/30/21: See EP response regarding traffic impacts under separate cover.

(3) The projected public water and sewer demand, if any.

EP Comment 4/30/21: The applicant has responded that the proposed facility uses between 400-500 gallons per day based on Title V of the State Environmental Code. Calculations to support this estimate have not been provided. Therefore, we cannot verify this number. Industrial uses, with

few employees, typically result in low water usage and sewer generation, so the flows provided appear reasonable.

(4) A list of all other required local, state and federal permits, and the status of each.

EP Comment 4/30/21: We understand that a dimensional variance was issued by the Zoning Board of Appeals for construction of the proposed addition within 20 feet of the side property line and this decision has been appealed. We understand an Order of Conditions has been issued by the Conservation Commission. We understand the applicant is seeing a Special Permit for work within the Groundwater Protection District. The applicant has provided a letter listing all chemicals anticipated to be stored on the property. This letter describes that all chemical will be stored in a flammable cabinet with containment. EP is not familiar with all of the chemicals listed in this letter. They appear to generally be small amounts of cleansers and lubricants that would be considered typical for an industrial use. We recommend that any approvals of this project –if issued – include a condition requiring the proper storage and disposal of these products consistent with manufacturer’s instructions. We suggest that these materials not be dumped into floor drains, sanitary or storm sewers, or on the ground and that any disposal of these materials that is inconsistent with manufacturer’s instructions be considered a violation of any Special Permits that are issued.

(5) The size of the proposed building(s) or addition.

EP Comment 4/30/21: STERIS response is consistent with the size of the addition shown on the site plans.

(6) The estimated number of employees for the project.

EP Comment 4/30/21: EP is not familiar with STERIS’ operation. However, in our opinion, 25 full time employees is not unreasonable for an industrial facility of this size.

(7) The number of parking spaces required to serve the use(s) in the project.

EP Comment 4/30/21: The project is proposing 38 parking spaces to comply with the Zoning Bylaws. The site plans state that actual parking demand, based on the number of employees, is expected to be 20 parking spaces.

(8) The proposed methods of screening the premises and off-street parking from abutting property and the street.

EP Comment 4/30/21: The project has provided 5 crabapple trees and three red oaks along the east side proposed parking lot and 5 red oaks along Whitney Street. The limit of the parking lot has been moved approximately 30 feet further away from the eastern property line. EP does not have landscape architects on staff and cannot comment on the appropriateness of the proposed plantings.

(9) Calculation of existing and proposed lot coverage.

EP Comment 4/30/21: The lot coverage is proposed to increase from 21% to 33%. This represents a 36% increase over existing impervious surface. The Zoning Bylaw allows for up to a 40% increase in

impervious surface over existing conditions by Special Permit in Area 3 of the Groundwater Protection District.

(10) For a project plan filed under an approved Industrial/Office Campus master plan special permit, the Applicant shall also provide written statements that the project for which a building permit is sought complies with (a) the master plan special permit, (b) the uses permitted within an IOCD and (c) all requirements of §7-10-030 of the Zoning Bylaw.

EP Comment 4/30/21: We do not believe this project is part of an Approved Industrial/Office Campus master Plan.

(11) Any other information the Applicant believes will assist the Planning Board in reviewing and understanding the site plan application and making the required

EP Comment 4/30/21: The applicant has described the proposed use as “Light manufacturing: processing.” We generally agree with this description.

2. Site design contents in accordance with Section 7.2 C.(I)-20)

EP Comment 4/30/21: EP reviewed the contents of the Site Plans prepared by VHB dated October 17, 2019 and believes the contents are consistent with Section 7.2 C(I)-20) of the Zoning Bylaw as described in our previous review letter.

3. Development impact analysis in accordance with Section 7.2 D.(I)(a-d)

EP Comment 4/30/21:

- (a) With regard to traffic impacts, please see EP’s comments regarding traffic under separate cover.
- (b) With regard to impacts to water, we have previously made comments regarding stormwater management. With regard to radioactive emissions, please see comments prepared by CN Associates under separate cover. With regard to noise impacts, EP does not perform sound studies or noise analysis. With regard to light impacts, the project has provided photometric analysis which does not indicate any measurable off-site light impacts. The supplemental plans include cut sheets of the site lights.
- (c) With regard to fiscal impacts, EP does not provide fiscal impact analysis services.
- (d) With regard to architectural character, EP is not an architectural firm.

Light Manufacturing Use

1. Provide data and facts that support that the operations meet the use criteria in accordance with Section 7-05-020 I. (1).

EP Comment 4/30/21: We understand the Town’s Building Inspector agrees the proposed use is consistent with light manufacturing.

2. Provide data and facts that support the proposed use complies with all environmental performance standards in accordance with Section 7-05 -040 of the Northborough Zoning Bylaws for uses in an industrial district — including noise, light, emissions,

- a. For all indoor and outdoor activity — buildings (both the addition and the original warehouse), chillers, and concrete plant.

EP Comment 4/30/21: As described above, EP does not provide sound studies or noise analysis.

3. Provide the levels of radioactive emissions

EP Comment 4/30/21: Please see comments prepared by CN Associates under separate cover regarding radioactive emissions.

4. Provide the levels of electromagnetic radiation

EP Comment 4/30/21: Please see comments prepared by CN Associates under separate cover regarding radioactive emissions.

5. Details of the process and how it fits the use:

EP Comment 4/30/21: Please see comments prepared by CN Associates under separate cover regarding details regarding the proposed use. With regards to hazardous materials described above, please see our previous comments regarding the storage and disposal of chemicals.

Groundwater

1. Data and facts that support any requests made by Fred Litchfield, Town Engineer, on behalf of the Groundwater Advisory Committee for both the building and the concrete plant.

- a. Drainage, run-off, impact on surrounding land, any possible flooding.

EP Comment 4/30/21: EP has reviewed the stormwater management report and finds that it generally complies with the Massachusetts Stormwater Management Standards. We did have some additional comments as described in our letter dated February 25, 2020 regarding the design and we are addressing those items late in this letter.

b. Layout, description, and impact of the concrete plant on the surrounding land:

- i. Containment of stock piles.
- ii. Water usage and source.
- iii. Waste water containment and disposal.
- iv. How will dust be controlled and contained to avoid spreading to residential areas?

EP Comment 4/30/21: EP does not have any specific information regarding the proposed concrete plant that will be in operation during the construction of the facility. Mobile concrete plants are commonly used for sizable construction projects. We understand the applicant is proposing to use an on-site concrete plant due to the amount of concrete needed to construct the building as well as

limit the amount of trucks travelling to and from the site. We cannot comment on the concrete plants size, location, duration on site, etc. without additional information from the applicant.

Landscaping

1. Describe buffers for the facility during and after the use of the concrete plant
 - a. Possible sound wall barrier
 - b. Visual barrier

EP Comment 4/30/21: As described above, we have no specific information regarding the concrete plant. We would expect that the concrete plant would be on site for a portion of the construction process and not the entire construction duration. Typically, landscaping for construction projects is installed at the end of the project and would therefore not be installed during construction. The applicant has indicated that they may install a sound barrier around the chiller equipment. The Board may consider requiring the installation of a sound barrier around the chiller equipment as a condition of any approvals – if issued.

Traffic/Trucks

1. Impact of trucks traveling to site during construction and during day-to-day operations.
 - a. What will be the hours of operation of the temporary concrete plant including days of the week?
 - b. What will be the hours of operation after construction and during day-to-day operations? How many truck trips per day?
2. What is the noise associated with the trucks?
3. Will there be temporary lighting in place during construction? No. Describe type and levels of lighting, if applicable
4. List of materials if stored in trucks overnight in the parking lot.

EP Comment 4/30/21: We would expect that construction trucks would be travelling to and from the site during normal construction hours. With regard to operation hours, the Board may want to include a condition as part of any approval – if issued – for the project, describing the hours that truck traffic may arrive and depart the facility both during construction and during operation. The applicant has described 15-20 truck trips per day, which equates to approximately 1-2 trucks per hour. The Traffic Memorandum submitted with the project does not specifically discuss truck traffic. However, for a facility this size, the Institute for Traffic Engineers trip generation manual estimates the site would generate 14 truck trips per day. We would expect that any noise associated with trucks would be typical travel noise as well as loading and unloading. We would not expect there to be construction lighting. We cannot comment on the nature of the materials stored overnight in trucks on site.

Peer Review of Application

Questions asked under this section will be addressed – when appropriate – by CN Associates under separate cover.

Planning Board Memorandum dated March 11, 2020 and STERIS responses

Questions regarding traffic/trucks will be addressed under separate cover prepared by the Environmental Partners Transportation Department.

Questions regarding the commercial medical x-ray sterilization facilities/equipment are addressed under separate cover by CN Associates.

EP Peer Review Letter dated February 25, 2021

Below are comments prepared by Environmental Partners in our letter dated February 25, 2021 and responses received from the applicant's engineer, VHB, in a letter dated March 22, 2021. We have included VHB's responses and provided additional comments where appropriate:

Northborough Zoning Bylaw

The project is the Industrial District and Groundwater Protection Overlay District Area 3. We understand the Planning Board is the Special Permit Granting authority for this project. Environmental Partners has the following comments regarding compliance with the Northborough Zoning Bylaw:

1. Section 7-07-010 D(3)(c)[4] allows industrial development on lots within the Groundwater Protection Overlay District Area 3 provided the post development net runoff volume does not exceed existing conditions by more than 15%. The submitted calculations demonstrate that the proposed project meets this requirement. However, we do have recommendations regarding the time span used for the hydrologic calculations as described below. This section also states that the proposed project will not cause a violation of Class B water quality standards and will not cause a violation of Class I groundwater quality standards. Class B standards as described in 314 CMR 4, address dissolved oxygen, temperature, pH, bacteria, solids, color and turbidity. Oil and grease, and taste and odor. The project generally meets the Massachusetts Stormwater Management Standards. However, many of the pollutant described in this section are not specifically addressed in the Stormwater Management Standards. In our opinion, the proposed project, under normal operations, will likely not cause a degradation of the Class B standards.

VHB Comment 3/22/21: The peak rates of runoff occur at the 12-hr mark therefore the peak rates would not be affected by a longer time span. We have updated the model to show a longer time span. VHB does not expect the Project to cause a degradation of the Class B standards.

EP Comment 4/30/21: Item closed. We have reviewed the revised calculations and agree that the stormwater analysis addresses the performance standards with regards to peak flows and volumes.

2. Section 7-09-010 D (5)(f) regarding land clearing and grading requires weekly inspections of all erosion and sedimentation control measures. This exceeds the requirements of the United States Environmental Protection Agency National Pollutant Discharge Elimination System Construction General Permit. We recommend that weekly inspections be included

as part of the “Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls” document submitted by the applicant and that copies of all weekly reports be submitted to Town.

VHB Comment 3/22/21: The Maintenance/Evaluation Checklist provided within the “Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls” document recommends inspection of all BMPs “weekly and after storm events of ½ inch or greater”. The document has been updated to reflect this inspection frequency and require that records of the inspections will be maintained on site by the contractor and copies of all weekly reports submitted to the Town. See revised Stormwater Report attached hereto.

EP Comment 4/30/21: Item closed. The language above has been added to include the additional inspection frequency and requiring the reports to be submitted to the Town of Northborough.

3. Section 7-09-010 D (6)(b) requires four inches of loam and seed. We recommend a note be added to the landscape plan and Grading, Drainage, and Erosion Control Plan requiring a minimum of 4” of loam and seed be placed to stabilize the site.

VHB Comment 3/22/21: VHB’s General Notes, note 4 (sheet C-1) reads as follows “Areas disturbed during construction and not restored with impervious surfaces (buildings, pavements, walks, etc.) shall receive six (6) inches loam and seed.”

EP Comment 4/30/21: Item closed. The revised plans show 6 inches of loam and seed.

4. Section 7-09-010 E includes requirements for monitoring and inspections. We recommend that the project notes be updated for consistency with the requirements of this section.

VHB Comment 3/22/21: The requirements of Section 7-09-010 E will be included in the project’s Stormwater Pollution Prevention Plan (SWPPP) to be provided to the US EPA as part of the Construction General Permit (CGP) process at least 14 days prior to the start of construction.

EP Comment 4/30/21: We recommend a copy of the Stormwater Pollution Prevention Plan be submitted to the Town earlier than two weeks – possibly one month - prior to construction for the Town’s review and comment.

5. Section 7-09-020 C (1) requires projects to comply with Chapter 4-12 regarding illicit discharges. The proposed design does not appear to include any illegal discharges to the municipal storm drain system. The project plans includes a sewer ejector pump with a note that the design of the force main will be prepared following completion of survey. The plans do not include a detail for the pump station of the force main design. As described in the Stormwater Management section of this letter, the Illicit Discharge Statement has not been submitted consistent with the Massachusetts Stormwater Management Standards.

VHB Comment 3/22/21: The sewer force main and ejector pump are shown for illustrative purposes only at this time. Once prepared, the design will be fully reviewed and coordinated

with Northborough DPW for approval prior to construction. The illicit discharge statement has been added to the Stormwater Report, Appendix G.

EP Comment 4/30/21: Item closed. EP defers to the Northborough DPW regarding the development of the pump station design. It is typical for a project seeking entitlements to have the final design of off-site improvements be completed after the approvals process. We recommend the design of the facility be coordinated with Public Works. We assume that it will have emergency power, such as an emergency generator, so the pump station functions in the case there is a power outage.

6. Section 7-09-020 C (2) requires details regarding site lighting. We recommend that details of the site lights be included on the site plans in conformance with the requirements of this section, including light pole heights.

VHB Comment 3/22/21: Details regarding site lighting have been added to the site plans. All fixtures have house side shields that are reducing light spill and shielding the LEDs from abutters positioned behind the poles that run along the perimeter of the parking area. Pole heights are shown on the photometric plan and are called out as "MH: 20" or mounting height. Additional text has been added to the Luminaire Location Summary to provide clarification on pole heights. Fixtures are Dark Sky compliant.

EP Comment 4/30/21: Item closed. Cut sheets of the site lights have been added to the plans and included with the revised documents. Based on the photometric plan, the mounting height appears to be 20 feet, which is consistent with industrial facilities.

7. Section 7-09-020 C (5) (a) [2] requires a 50 foot area of open space for industrial projects abutting residential districts. We understand that the Zoning Board of Appeals issued a variance from this requirement on August 27, 2019.

VHB Comment 3/22/21: As noted, the Zoning Board of Appeals granted a dimensional variance allowing a structure to be located within 20' of the westerly property boundary, making it impossible to provide a 50 foot buffer in that area. However, the project will maintain existing vegetation to the maximum extent practicable. It's also worth noting that a railroad parcel and an aqueduct parcel are situated between the project site and residential uses.

EP Comment 4/30/21: Item closed.

8. Section 7-09-020 C (5) (d) requires exposed storage areas, truck loading areas, etc., to be screened by abutting properties. The proposed 'loading area' to the rear of the proposed parking lot does not include any additional landscaping. Based on review of aerial photography, there appears to be limited vegetation between 425 Whitney Street and the adjacent property.

VHB Comment 3/22/21: The loading area to the rear of the property abuts a vegetated wetland system to the east and north. Additional screening seems unnecessary in this location.

EP Comment 4/30/21: Item closed.

9. Section 7-09-030 B (2) provides parking ratios for different land uses. The applicant has provided required parking estimates using the industrial (office) and warehouse parking ratios. Based on these ratios, the applicant has estimated that 38 parking spaces are required by regulation. However, the parking requirements table shown on the Layout and Materials Plan indicates the proposed use only requires 20 parking spaces. We recommend the Board consider allowing the applicant to reduce the number of parking spaces to reduce impervious surfaces and stormwater management impacts.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: The applicant has provided parking spaces consistent with the Zoning Bylaw requirements. The applicant has indicated that 20 parking spaces will be needed to serve employees.

10. Section 7-09-030 B (3) allows the Planning Board to authorize a 30% reduction in off-street parking spaces, subject to conditions described in the Bylaw.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

11. Section 7-09-030 C (1) (a) requires the maximum driveway width to be 24 feet. The proposed driveway is 30 feet wide.

VHB Comment 3/22/21: The width of the driveway matches the existing condition and is also preferred to better accommodate larger trucks.

EP Comment 4/30/21: The proposed width of the driveway is the same as existing conditions. We have no additional information regarding whether the proposed driveway width is needed to accommodate the proposed uses truck traffic.

12. Section 7-09-030 C (4) (a) [1] requires parking areas with greater than five parking spaces to have a buffer of approximately 10 feet in width. EP was not asked to perform a comprehensive review of the landscape design. However, the proposed landscape plan includes the staggered planting of trees on the outside edge of the parking lot.

VHB Comment 3/22/21: The landscape architect has reviewed the planting plan for compliance with the Bylaw requirements. With the low branching and widespread characteristics of the proposed plantings and the existing landscape, VHB believes to have provided the required buffer. If additional plantings are necessary, please provide recommendations.

EP Comment 4/30/21: Item closed.

13. Section 7-09-030 F (1) requires bicycle parking facilities be incorporated into the site design unless waived by the issuing authority. It does not appear that bicycle facilities are included on the plans. This section requires one bicycle parking stall for every 10 vehicular parking

spaces. We recommend bicycle facilities be added to the plans consistent with the requirements of the Bylaw.

VHB Comment 3/22/21: A bicycle rack has been added to the plan in accordance with the requirements of the Bylaw. See revised Site Plans attached hereto.

EP Comment 4/30/21: Item closed. A bicycle rack accommodating 4 bicycles has been added to the rear of the property near the "Warehouse Expansion."

Stormwater Management and Erosion Control

EP has reviewed the projects stormwater management design for consistency with applicable local regulations, the Massachusetts Stormwater Management Standards, and standard engineering practice.

Massachusetts Stormwater Management Standards

1. Standard 1 – The project complies with this requirement. There are two direct discharges to wetlands. Prior to the discharge of stormwater to wetland resources, stormwater is treated and discharged over a rip-rap pad to reduce erosion impacts. Environmental Partners has comments regarding the riprap pad below.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

2. Standard 2 – The project, as currently designed, complies with this requirement. The current design does not increase offsite peak flows to the wetlands.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

3. Standard 3 – The project – as designed - provides groundwater recharge in excess of the amount required by the Standard.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

4. Standard 4 – The project design provides adequate Total Suspended Solids removal, consistent with the Standards.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

5. Standard 5 – The project is not considered a Land Use with Higher Potential Pollutant Loads, as described by the Standards.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

6. Standard 6 – The project is located within the Groundwater Protection District and therefore the project is required to treat the 1-inch water quality volume. The project provides adequate treatment to meet the performance standards.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

7. Standard 7 – The project is a mix of new development and redevelopment and meets the performance standards for a mix of new development and redevelopment.

VHB Comment 3/22/21: No response necessary.

EP Comment 4/30/21: Item closed.

8. Standard 8 – An erosion and sedimentation control plan has been provided and generally complies with the Standards. We do have the following comments regarding erosion and sedimentation.
 - a. A Stormwater Pollution Prevention Plan required by the United States Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) Construction General Permit was not provided. This document, which is sometimes submitted as part of a Notice of Intent application, is required to be prepared two weeks prior to construction. We recommend this document be submitted to the Town of Northborough a minimum of two weeks prior to the start of construction for review and comment.

VHB Comment 3/22/21: A SWPPP will be prepared and submitted to the Town of Northborough a minimum of two weeks prior to the start of construction for review and comment.

EP Comment 4/30/21: Item closed.

- b. We recommend that copies of all SWPPP inspection reports be submitted to the Town of Northborough.

VHB Comment 3/22/21: Notes will be added to the SWPPP requiring all SWPPP inspection reports be submitted to the Town of Northborough.

EP Comment 4/30/21: Item closed. We recommend that any approvals – if issued – include a condition that requires the applicant to submit the SWPPP reports to the Town.

- c. We recommend the Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls document include information regarding protecting the bottom of all infiltration facilities during construction to prevent compaction. The bottom of all infiltration facilities should be protected from heavy machinery. In the event that heavy machinery is allowed on the bottom of the infiltration basins, the basins ability to infiltrate water could be impacted.

VHB Comment 3/22/21: The Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls document has been revised to include notes on protecting the bottom of all infiltration facilities, including protection from heavy machinery. The notes read as follows:

For the long-term function of the infiltration basins, care shall be taken in the areas of the infiltration basins during construction in accordance with the following:

- The infiltration basins shall not be used as a construction sedimentation basin without the prior approval of the engineer.
- Stormwater runoff from exposed surfaces shall be directed away from the infiltration basins.
- Construction equipment, vehicular traffic, parking of vehicles, and stockpiling of construction materials shall be outside of the infiltration basin areas.
- Excavation for construction of the infiltration system shall ensure that the soil at the bottom of the excavation is not compacted or smeared.
- The perimeter of the infiltration basins shall be staked and flagged to prevent the use of the area for activities that might damage the infiltration ability of the system.
- If infiltrations areas are used as temporary sedimentation basins during construction, then the soils shall be excavated a minimum of 2' from the temporary basin bottom to remove clogged soils.

EP Comment 4/30/21: The notes described above have been added to the Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls document. We recommend similar notes be included on the next revision set of plans to direct the contractor to protect the infiltration basin.

- d. We also recommend the Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls document include a section regarding the maintenance of the construction exit.

VHB Comment 3/22/21: The Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls document will include a section regarding the maintenance of the construction exit.

EP Comment 4/30/21: Additional language has been added to this document to include maintenance of the construction exit. We recommend the checklist be amended to include the construction exist as well.

9. Standard 9 – The long Term Operations and Maintenance Plan generally meets the Standards.

VHB Comment 3/22/21: No response necessary

EP Comment 4/30/21: Item closed.

10. Standard 10 – A signed illicit discharge statement needs to be signed and submitted.

VHB Comment 3/22/21: A signed illicit discharges statement is attached hereto and will be included in the revised Stormwater Management Report, Appendix G.

EP Comment 4/30/21: Item closed.

Town of Northborough Wetlands Protection Bylaw

1. Section 4.2.3 states that no foundation, building, road, or sidewalk shall be places within 35 feet of any resource area. This section also states that there will be no construction activity within 25 feet of resource areas. The proposed warehouse expansion is approximately 33 feet from the wetlands at its closest point.

VHB Comment 3/22/21: The application was filed prior to the enactment of the buffer distances listed in the Wetlands Bylaw amended through September 21, 2019. The dimensional requirements as per the Wetlands Bylaw amended through January 1, 2000 were as follows “No foundation, building, road, sidewalk, or other permanent structure shall be placed within thirty (30) feet of any resource area. Furthermore, no grading, filling, excavation, removal of vegetation or other construction activity shall be allowed within fifteen (15) feet of said resource areas.” As such, the project was designed in accordance with the requirements in affect at the time.

EP Comment 4/30/21: Item closed. We defer to the Conservation Commission regarding the applicability of this section. Presumably, the Commission is comfortable with the project since an Order of Conditions has been issued for the project.

Additional Stormwater Management Comments

EP has developed the following additional stormwater management comments:

1. We recommend the applicant add a note to the Grading, Drainage, and Erosion Control Plan to limit heavy machinery in the bottom of the infiltration basin.

VHB Comment 3/22/21: A note has been added to the grading, drainage, and erosion control plan to the effect of “Construction equipment, vehicular traffic, parking of vehicles,

and stockpiling of construction materials shall be outside of the infiltration basin areas.” See VHB’s revised Site Plans attached hereto.

EP Comment 4/30/21: Item closed.

2. We recommend stone for pipe ends, consistent with MassDOT standard specification, be installed at the rip-rap discharge pad.

VHB Comment 3/22/21: Materials for stone for pipe ends at all rip rap pads will be specified in the Project Specifications as follows: “Stone for pipe ends and energy dissipaters shall be sound, durable rock, angular in shape. Rounded stones, boulders, sandstone, or similar stone or relatively thin slabs will not be acceptable. The majority of the larger stones shall weigh not less than 50 pounds nor be less than 1.4 ft. long, 0.5 ft. wide, and 0.5 ft. in height. Each larger stone shall weigh not more than 125 pounds nor be more than 2.0 ft. long, 0.8 ft. wide, and 0.8 ft. in height and at least 50 percent of the larger stone volume shall consist of stones weighing not less than 75 pounds nor be less than 1.6 ft. long, 0.6 ft. wide, and 0.6 ft. height. The remainder of the stones shall be so graded that when placed with the larger stones the entire mass will be compact.”

EP Comment 4/30/21: Item closed.

3. Drain manhole 1 may need to be oversized given the configuration of piping into the manhole.

VHB Comment 3/22/21: Drain Manhole 1 (DMH-1) has been upsized to a 5’ diameter manhole. This change has been reflected on VHB’s revised site plans.

EP Comment 4/30/21: Item closed.

4. The Project shows a small increase in total volume of runoff for the 10 and 100-year storms. This increase is below the 15% threshold required for industrial properties located in the Groundwater Protection Overlay District. However, the time span used in the hydrologic calculations is 5 to 20 hours. Using a longer time span, such as 0 to 48 hours, may show different changes in total volumes.

VHB Comment 3/22/21: The peak rates of runoff occur at the 12-hr mark therefore the peak rates would not be affected by a longer time span, however the model has been updated to incorporate the longer time span suggested. See VHB’s revised Stormwater Report attached hereto.

EP Comment 4/30/21: Item closed.

5. The hydrologic drainage calculations show the french drain filling during the 10-year, 25 year, and 100-year storms. The 100 year storm shows the peak elevation in the french drain approximately 5 feet higher than the top of the storage. The french drain is showing a higher outflow than inflow for the 25 and 100-year storms. We recommend the applicant verify and revise the modeling.

VHB Comment 3/22/21: VHB has upsized the perforated pipe in the French Drain from 12” to 18”. The size of the stone bed has increased as a result of this change. These modifications have been reflected in the French Drain detail shown on C-6. By upsizing the perforated pipe and expanding the stone bed, the French Drain has sufficient storage for runoff in all storms and the inflow is now greater than the outflow.

EP Comment 4/30/21: Item closed.

6. We recommend the construction entrance be added to Construction Period Pollution Prevention and Erosion and Sedimentation Controls document. We also recommend that language be included to protect of the infiltration basin from heavy machinery.

VHB Comment 3/22/21: Acknowledged, see Stormwater Management and Erosion Control Response 8.

EP Comment 4/30/21: Item closed.

7. We recommend the Stabilized Construction Exits detail be revised to include 2-3” stone and the depth be increased to 6 inches.

VHB Comment 3/22/21: The construction exit has been revised to utilize the recommended larger 2” to 3” stone coarse aggregate and the depth of the stone will be increased to 6 inches.

EP Comment 4/30/21: Item closed.

8. The plans show the ramp leading to the warehouse expansion building will create a low spot. The plans should be revised to remove the low spot or add a drainage structure to drain any water that may pond in this location.

VHB Comment 3/22/21: Grading in this area will be refined on the construction drawings to be prepared after the project permit phase has been completed.

EP Comment 4/30/21: Item remains open. This minor change in the design should be included in the plans or a condition be included as part of any approval – if issued – requiring the addition of this catch basin and additional piping.

9. Maintenance access to the infiltration basin will be limited. Vehicles will not be able to access the basin and all work will need to be performed by hand.

VHB Comment 3/22/21: Acknowledged.

EP Comment 4/30/21: We recommend that any approval issued include a condition that all operation and maintenance reports be submitted to the Town of Northborough.

10. We recommend a gate be provided to allow maintenance access to the flared end structure located on the north side of the site.

VHB Comment 3/22/21: A gate has been added to allow maintenance access to the flared end structure located on the north side of the site. This change is reflected on VHB's revised site plans.

EP Comment 4/30/21: Item closed.

Additional Civil/Site comments

1. We recommend granite curb be installed at the site entrance along Whitney Street.

VHB Comment 3/22/21: The plans have been updated to reflect this change, see revised Site Plans attached hereto.

EP Comment 4/30/21: Item closed.

2. We recommend that cut sheets of the site lights be provided. We also recommend that the applicant verify that the proposed site lights are dark skies compliant.

VHB Comment 3/22/21: Cut sheets are attached hereto. The proposed fixtures are Dark Sky compliant.

EP Comment 4/30/21: Item closed.

3. We recommend the applicant verify plans for trash disposal. There does not appear to be any outside dumpsters or provisions for trash.

VHB Comment 3/22/21: The facility doesn't generate a volume of trash significant enough to warrant an external dumpster.

EP Comment 4/30/21: Item closed. A trash compactor pad has been added to the plans.

4. We recommend the applicant confirm the installation of sewer force main is allowed by Public Works. We are unclear regarding the status of the design. We recommend the applicant provide details of the sewer ejector pump and wet well. The pump and force main design shown on the plans are schematic in nature.

VHB Comment 3/22/21: See response to Comment 5 in the Northborough Zoning Bylaw section of this letter. VHB is working through the design and coordination of this utility. All necessary documentation will be provided to the Town for approval prior to construction.

EP Comment 4/30/21: Item remains open. We recommend the Planning Board continue to coordinate with the applicant and Public Works regarding the status of the sewer pump station.

Our review is based on the information that has been provided. As noted above, additional reviews have been prepared – and our ongoing - to address other components of the project.

We appreciate the opportunity to be able to assist you with this important project. Please feel free to contact me at (617) 429-3288 or sdt@envpartners.com with any questions or comments.

Very Truly Yours,

A handwritten signature in blue ink, appearing to read "S. D. Turner", with a long horizontal flourish extending to the right.

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