

May 16, 2023

F25848

Town of Wayland
Planning Department
Robert Hummel, Town Planner
41 Cochituate Road
Wayland, MA 01778

RE: Council on Aging Community Center (COA/CC)

Dear Mr. Hummel and Members of the Wayland Planning Board:

DGT Associates is pleased to provide the Wayland Planning Board with this letter report summarizing our second review of the proposed Council on Aging Community Center located at 368 Boston Post Road & 4, 8, 14 Andrew Avenue.

The Applicant has submitted an updated drawing set with supporting documents in response to: comments received during the Planning Board hearing on March 21, 2023 and DGT's initial peer review letter issued on March 15, 2023.

The following documents and plans were received by DGT on April 4, 2023 for this review:

- Permit Site Development Plans prepared by Meridian Associates, latest revision 3/17/23 (17 Sheets).
- "Stormwater Management Report" prepared by Meridian Associates, latest revision 3/17/23.
- "Stormwater Analysis and Calculations" prepared by Meridian Associates, latest revision 3/17/23.
- "Long-Term Operation and Maintenance Plan & Long-Term Pollution Prevention Plan" prepared by Meridian Associates, latest revision 3/17/23.
- "Construction Period Pollution Prevention Plan & Erosion Sedimentation Control Plan" prepared by Meridian Associates, latest revision 3/17/23.
- Response Letter for the Council on Aging Community Center, prepared by Meridian Associates, dated March 17, 2023.

Following discussion with David Kelley of Meridian Associates on May 15, 2023 to clarify very minor items, we received on May 16, 2023 the following documents :

- Permit Site Development Plans prepared by Meridian Associates, latest revision in title block 5/15/23 (17 Sheets).
- "Stormwater Management Report" prepared by Meridian Associates, latest revision 5/15/23.
- "Stormwater Analysis and Calculations" prepared by Meridian Associates, latest revision 5/15/23.
- "Long-Term Operation and Maintenance Plan & Long-Term Pollution Prevention Plan" prepared by Meridian Associates, latest revision 5/15/23.

- “Construction Period Pollution Prevention Plan & Erosion Sedimentation Control Plan” prepared by Meridian Associates, latest revision 5/15/23.

Compiled Review Letter Key

DGT provided comments to the Planning Board in a letter dated 3/15/23 (standard text)

Meridian Associates provided responses to those comments in a letter dated 3/17/23 (MAI Response, blue)

This letter provides an update to comments by DGT (bold text).

Zoning Bylaw - Article 23 Mixed-Use Overlay District

The proposed municipal use is allowed as of right in the Mixed-Use Overlay District as noted in Table A.

198-2304.4.4.1., "The purpose of the Phase I site plan review is to ensure that any proposed building or site improvement is in compliance" with the MUP master special permit. ... "The Phase I site plan review at a minimum shall include the following components: building design and elevations; signs; landscaping; lighting; parking; and compliance with the MUP master special permit."

198-2304.4.4.2., "The Planning Board shall review the application and plans to determine whether the proposed building(s) and associated improvements are consistent with the performance standards set forth in Sec. 198-2309 and the specific conditions of the MUP master special permit."

198-2309.1. Landscaping

198-2309.1.2 The applicant shall prepare a landscape plan showing that the mixed-use project will meet these standards and the standards set for in Sec. ~~189~~198-606.

The applicant has provided Sheet L 1.0 Base Landscape Plan that includes a Plant Schedule (missing quantities) and a Planting Legend. The Plan itself depicts what appears to be two areas for evergreen planting. There is a Landscape Planting Note, which states, “This plan depicts a graphical representation of the general landscaping design intent. A detailed landscaping plan, including plant species, grass/flower seed mixes and other necessary information will be prepared and included with the site plan set for approval.

MUOD 1: DGT recommends that the Applicant submit a completed Landscape Plan for review in conformance with the above-mentioned sections.

MAI Response: MAI has prepared, in conjunction with Katherine Schreiber, a Registered Landscape Architect, a complete Landscape Plan, sheet L 1.0 of the Site Plan set, that includes plant, shrub and tree species, grass/flower seed mixes and other necessary information needed for the Landscape Plan.

The Applicant has provided a Landscape Plan in accordance with Sec. 198-2309.1 and Sec. 198-606. DGT has no further comments.

198-2309.2. Massing

198-2309.2.1 Massing within the MUOD should promote buildings designed in a traditional New England style and create a mixed-use project with an authentic, New England regional character to its buildings. ...

DGT is going to defer to the Planning Board's evaluation of the submitted plans for conformance with the New England style.

198-2309.3. Screening and buffer requirements

198-2309.3.1 Screening and buffering should create visual barriers between features of the mixed-use project from public streets and abutting properties. ...

MUOD 2: DGT recommends that the Applicant submit a completed Landscape Plan for review in conformance with section 198-2309.3.

The Applicant has provided a Landscape Plan in accordance with Sec. 198-2309.3. DGT has no further comments.

198-2309.4. Signs

198-2309.4.1 Signage must (a) be in keeping with a traditional New England town center; and (b) be integrated into the overall architectural design of the mixed-use project. ...

DGT did not receive details of the proposed signage, therefore cannot comment.

As noted on Sheet C 2.0, the proposed Council on Aging Community Center sign will be submitted for final review and approval prior to installation. According to the Applicant, the signage will conform to the Town Center signage standards.

198-2309.5. Stormwater management

198-2309.5.1 The storm water management system within the MUOD should provide an adequate system for managing water and should comply with all applicable federal, state, and local laws, rules, regulations and bylaws, including the Stormwater Management Policy of the Massachusetts Department of Environmental Protection or any successor agency.

Based on the MUP Master Special Permit and its supporting documentation, stormwater collected from the Municipal Building was to be routed to Bio-retention Basin #2 (aka Basin #2) (see attached Exhibit B). The Applicant's drainage plan does not propose a connection to Basin #2. Rather, it proposes a stormwater management system consisting of deep sump catch basins, a filter media unit, and a large infiltration system to provide water quality treatment and recharge to the groundwater table. Overflow from the system is directed to the Sudbury River.

DGT reviewed the submitted documents for conformance with the Wayland Stormwater and Land Disturbance Bylaw and Regulations. A detailed review is itemized below in this letter.

MUOD 3: Because the Applicant is not proposing a connection to Basin 2, this appears to require an amendment to the Master Special Permit.

MAI Response: The proposed stormwater management system is designed to treat, detain, infiltrate and discharge its stormwater, onsite, without the use of Basin #2. Since this site does not convey stormwater runoff to Basin #2, this project should have no negative impacts on Basin #2 or the associated stormwater drainage system or on Town Center. As such, we are asking for an amendment to the Master Special Permit. The granting of this amendment should not negatively impact the Town Center or its associated stormwater management system.

After review of the Master Special Permit, it appears that an amendment is not required. DGT defers to the expertise of the Planning Board on this issue.

198-2309.6. Streets

198-2309.6.1 Streets within the MUOD should provide adequate access for emergency vehicles; accommodate the normal traffic expected in the mixed-use project; provide for safe pedestrian access; and maintain pedestrian flow in, between, and throughout the residential and nonresidential portions of the MUOD.

According to the MUP Master Special Permit, there were to be two vehicular access and egress locations to the municipal parcel, one from Boston Post Road and the other from Street “C” (now called Lillian Way). These are shown on Exhibits A & B to the Master Special Permit. The driveway to and from the municipal lot was originally referred to as Street “E.” In addition to the MUP Master Special Permit, those two entrances were included in the approved Final Environmental Impact Report (FEIR) prepared by Epsilon, dated February 15, 2008, for the Wayland Town Center Project EOEA No. 13844.

The project proposes one access, off Lillian Way, and disconnects the access to Boston Post Road except for a gravel emergency fire lane. From a practical point of view, it appears that more traffic will be entering and exiting the site from Lillian Way than what was originally anticipated in the MUP Master Special Permit. A more in-depth analysis of the various, voluminous, traffic analysis reports is required to determine if there is available data pertaining to traffic movement to and from the site via Lillian Way and Boston Post Road.

With regards to the existing, signalized intersection at Andrews Avenue and Boston Post Road, more recent data (2021, 2022) is found in the Fuss & O’Neill memorandum and the TEC letter. Fuss & O’Neill states that the intersection during the afternoon peak hour and the Saturday peak hour operates at a Level of Service B. The TEC letter states “The existing queues approaching the Route 20 traffic signal did not exceed 3 vehicles in the left-turn lane and 2 vehicles in the right turn lane during the evening peak hour. It also goes on to state “It is important to note that the peak hour influences of the community center, and particularly to activities associate with senior events and activities, are unlikely to overlap with the traditional commuter and shopper peak hours.” A traffic consultant could provide a more thorough analysis of the traffic impact on Lillian Way and the intersection based the current proposed configuration. Additionally, a traffic consultant is better suited to ascertain the impact of traffic flow to and from the site if the access

to Boston Post Road was made available, given its proximity (approximately 400 feet) to the signalized intersection.

MUOD 4: The driveway configuration for access to the site differs from the originally approved configuration. Additional discussion, justification, and possible analysis of traffic patterns is required.

MAI Response: The proposed driveway access on Lillian Way, has been shifted east on Lillian way by approximately twenty (20) feet from the location that was shown and approved on the 2008 Master Plan. The driveway location was shifted east to allow for additional plantings and screening to be installed between the driveway and the abutting property as well as it allows the existing landscaped berm and plantings to remain. Although the driveway has shifted slightly to the east, it is in the same general location as was shown on the previously approved plan and has the same basic width and configuration. With that said, the slight change in location is minor and does not propose a significant change in the traffic pattern, on Lillian Way, from what was approved in 2008.

The Applicant has shown an access driveway off Lillian Way that generally follows the configuration and intent of the plan associated with the MUP Master Special Permit. DGT has no further comment. A traffic consultant may provide additional information pertaining to access and vehicular traffic if requested by the Board.

198-2309.7. Parking and loading standards.

198-2309.7.1 The parking and loading design within the MUOD must provide adequate parking for the mixed-use project, including for any educational, religious, and municipal uses and for any child-care facilities; allow for shared parking as appropriate; create parking fields separated by landscape areas; create off-street parking areas that minimize curb cuts within the mixed-use project; and create safe and comfortable passageways for pedestrians.

According to the MUP Master Special Permit, there were 102 parking spaces associated with the Municipal building as shown on Exhibits A & B. Calculations supporting that number of spaces cannot be found at this time. The current plan is proposing 100 parking spaces. The bylaw requires a minimum of 60 spaces based on a building with 12,000 square feet of gross floor area. There has been lots of discussion during the public hearings regarding the parking space count.

MUOD 5: A final parking study should be submitted to the Planning Board if it has not already been submitted.

MAI Response: Please refer to the ‘Summary of MUOD Parking Standards’ document attached at the end of this letter.

The “Summary of MUOD Parking Standards” lists several design parameters and reasoning for the Applicant’s request for the number of parking spaces. It is up to the Board to decide if the quantity of parking spaces meets the demands of the projected use of the facility. DGT has no further comment.

198-2309.8. Lighting

198-2309.8.1., The lighting design within a mixed-use project should accommodate public safety and welfare, and protect the night sky from unnecessary ambient light. Any lighting plan submitted for a mixed-use project shall, at a minimum, include the following ...:

Briefly, the Applicant is proposing a light fixture that differs from the MUP Master Special Permit. The Applicant has provided a Photometrics Plan that shows light levels (foot-candles) on the site and extending to the perimeter of the site. There are a few areas where the light level at the perimeter is slightly greater than 0-foot candles. The proposed light pole height is less than the allowed height specified in the MUP Master Special Permit.

MUOD 6: DGT recommends that the Applicant examine the possibility of using products that are consistent with the MUP Master Special Permit and/or consistent with light fixtures installed throughout the Wayland Town Center.

MAI Response: The proposed site lighting will be that of solar powered site lights with built in battery storage. These are being implemented as a part of the intent to make this development as eco-friendly, green and to require low energy consumption from 'the grid'. The physical style of the lights are similar to other lights located within Town Center

Wall mounted sconce building lighting is proposed and will provide downward facing lighting along the walls of the building and illuminate the adjacent walkways. The overall proposed site lighting implements approximately twelve (12) pole mounted, LED, downward facing parking lot lights. The lights have a mounting height of fourteen (14) feet above finished grade. The parking lot lights implement zero cutoff fixtures which prevent light from spilling behind the lights, onto adjacent roadways and abutting properties. The proposed wall mounted fixtures are also downward facing, LED lights and are mounted on the building with a height of ten (10) feet above finished grade. The wall lights will illuminate the building and the adjacent walkways. The solar canopies will have downward facing lights installed under the canopies and they will illuminate the paved areas below the canopies.

The Applicant noted that “The physical style of the lights are similar to other lights located within the Town Center. DGT has no further comments. It is up to the Board to determine whether the selected lighting components are substantially similar to other lighting components with the Town Center.

198-2309.9. Open Space

198-2309.9.1 The design of a mixed-use project shall promote and ensure public common space within the MUOD. Any MUP master special permit shall provide at least two acres of contiguous upland open space to serve as a public common, and additional suitable open space throughout the mixed-use project to serve public purposes; provided, however, the Planning Board may approve smaller open space area where such open space promotes the purposes set forth in this standard. The applicant shall prepare an open space plan indicating the bounds of such open space, and a plan for the ownership, operation, and maintenance of the open space.

The Applicant acknowledges that the Formal Public Green, east of the proposed parking area is to remain intact and be open to the public. The Formal Public Green must contain 0.32 acres.

198-2309.10. Aquifer Protection

198-2309.10.1., The mixed-use project must comply with Article 16 of the Town's Zoning Bylaw (the "Aquifer Protection District" bylaw); provided, however, that sec. 198-1604.1 shall not apply and that for purposes of sec. 198-302.2 and 198-1604.2, no land within the MUOD shall be construed to be a "residential lot."

The Applicant has provided a stormwater management system for groundwater recharge for runoff from impervious surfaces that does not degrade groundwater quality. The infiltration system is preceded with deep sump catch basins and a filter media device that provides pretreatment by removing oils, grease, and sediment. The stormwater management system is designed to treat 1-inch of runoff times the post-development impervious surfaces and provides greater than 80% TSS removal.

198-2309.10.2., The Article 16 groundwater recharge requirements shall be inapplicable to the extent necessary (and only for the duration time specified by the LSP) to comply with an activity-and-use limitation or other restriction imposed on the site by or under the supervision of the licensed site professional of record (LSP) acting pursuant to the provisions of MGL c. 21E or 310 CMR 40.000 et seq., as evidenced by documentation from the LSP of record submitted to the Planning Board.

MUOD 7: DGT is requesting more information pertaining to the monitoring wells shown on the plans such as why they were installed, what were they intended to measure, if there is available record data, and if they are to remain accessible.

MAI Response: The monitoring wells are intended to remain accessible and to be used by others to continually monitor groundwater pollutants from the previous use of the site. Previous data from the monitoring wells is available upon request from the project LSP. Note number 12 was added to the Grading and Utility Notes on the General Notes & Legend Plan, Sheet LG 1.0 of the Site Plan set, that states: 'All monitoring wells are to be brought flush to final grades and protected with a cover that can be used to access the monitoring well. The type of cover will depend on the ground cover adjacent to the monitoring well.'

The monitor wells will remain in place so that they can be used for future monitoring purposes. DGT has no further comments.

198-2309.11. Affordable Units (Not Applicable to this project)

198-2309-12. Efficiency of design

198-2309-12.1., Every effort shall be made to design building and use materials and construction techniques to optimize daylight in building interiors, natural ventilation, and energy efficiency; to minimize exposure to and consumption toxics and nonrenewable resources; and to incorporate "green" design techniques.

Based on the Applicant's Project Summary, it appears that the Applicant is making effort to renovate the existing building with energy efficient products and systems. The Applicant is proposing solar panel canopies to be installed over the parking lot.

198-2309-13. Utilities

198-2309-13.1 To the extent practicable, electric, telephone, cable TV, and other utilities to the site shall be place underground.

Review of the plans shows that the proposed utilities are underground.

Chapter 193 - Stormwater and Land Disturbance Bylaw and Regulations

For all Chapter 193 applications, the Bylaw and its regulations specify design criteria. The bylaw also refers to the requirements of the Massachusetts Stormwater Management Regulations and the current edition of the MassDEP Stormwater Management Handbook. This review of the submitted materials is organized relative to determining compliance with the application requirements and performance standards of the Bylaw Regulations and the Massachusetts Stormwater Management Regulations.

5.C.1 General information on all sheets: Plans are at 1" = 30' scale. 1" = 20' is required.

SW1: DGT recommends that the applicant request a waiver.

MAI Response: MAI has added a 'List of Requested Plan Waivers' to the Cover Sheet, Sheet CV 0.0 of the Site Plan set which states:

Wayland Wetlands and Water Resources Bylaw, Chapter 194 Application: Plan scale: 1 inch = 10 feet or 1 inch = 20 feet; a waiver is being requested such that the plans are drafted at a scale of 1 inch = 30 feet rather than the required 1 inch = 20 feet. This is being requested so that the entire project site can fit onto a single sheet for ease of readability and review.

DGT agrees with the Waiver Request and has no further comments.

5.C.2 Existing Conditions Plan:

A "Record Conditions & Demolition Plan" is included in the plan set. As noted on Sheet 2, "The topography, site detail & surface improvements depicted hereon were obtained from an instrument survey conducted on the ground by Town of Wayland surveyor."

There are no bearings and distance shown on the plan, and it is not stamped by a PLS. Open areas should be identified (lawns, fields, etc.). Trees and tree diameters for trees over 5 inches DBH within the limits of work where clearing will take place should be identified.

SW2: DGT recommends that the applicant address these items.

MAI Response: The Record Conditions and Demolition Plan, Sheet C 1.0 of the Site Plan set, has been revised to depict bearings and distances of the property lines, open areas (lawns, open fields, wooded areas etc.) and the tree diameters for trees over 4 inches in DBH within the 200'

Riverfront Buffer and trees over 6 inches in DBH outside of the 200 Riverfront Buffer which are to be removed. The plan has been stamped by a PLS as well as a PE.

The Applicant has provided the requested information. DGT has no further comment.

5.C.3. Proposed Conditions Plan:

SW3: DGT recommends that the Applicant update the following items on the Site Plan Please note that some of these may sound picky; DGT's intent is to be helpful as a "second set of eyes" while reviewing the plans).

1. On LG 1.0, remove General Note 6 unless it's applicable.

MAI Response: General Note 6 remains on the plan set. The purpose of this note is to reiterate to the contractor that no removal beyond the limit of work shall occur.

DGT has no further comment.

2. On LG 1.0, remove reference to two buildings.

MAI Response: The references to the 'two buildings' have been removed from the Demolition Notes.

DGT has no further comment.

3. On C 2.0, adjust leader pointing to proposed concrete transformer pad.

MAI Response: The leader pointing toward the transformer concrete pad has been adjusted to point to at the concrete transformer pad.

DGT has no further comment.

4. On C 3.0, remove references to "River Walk" in the Grading Notes.

MAI Response: References to the Riverwalk have been removed from the Site Plan set.

DGT has no further comment.

5. On C 8.0, include the size of the stone riprap.

MAI Response: The size of the rip rap, to be used on the rip rap slope, has been added to the detail on the Site Plan set. The rip rap stones are called out to each be a minimum of 18"x18"x12" in size.

DGT has no further comment.

6. On C 4.0, correct the label indicating the number of light pole bases.

MAI Response: The callout has been revised to reference the proper number of proposed light poles.

DGT has no further comment.

7. A Limit of Work should be shown on the plans; it would be helpful to know the total area of disturbance.

MAI Response: A Limit of Work line has been added to various sheets in the Site Plan set as a bold red line. It has also been added to the legend on the General Notes & Legend Plan, sheet LG 1.0 of the Site Plan set.

DGT has no further comment.

DGT requests clarification for the following:

- A. The Applicant should clarify if the intention is to provide a 6' tall chain link temporary construction fence (LG 1.0).

MAI Response: The 6' tall chain link temporary construction fence is to be installed by the contractor along the limit of work to protect the site from citizens and other persons from entering the construction site.

DGT has no further comment.

- B. The Applicant should confirm that there will be four (4) EV charging stations.

MAI Response: The Utility Plan, Sheet C 4.0, of the Site Plan set depicts two (2) physical EV charging stations. Each charging station provides two (2) separate vehicle connections that allow, in total, up to four (4) vehicles to utilize the charging stations at one time.

DGT has no further comment.

- C. The Applicant should clarify how the roof runoff is collected to the west corner of the building.

MAI Response: The roof runoff from the western portion of the building will be collected via a gutter and down spout system which will connect to the proposed outfall pipe that is located behind the building.

The Applicant has clarified that roof runoff is not directed to the Recharger. This is reflected in the Site Plan as well as the HydroCAD model. DGT has no further comment.

- D. The Applicant should clarify the purpose of the 2-1/2" water line that is routed to the Formal Town Green.

MAI Response: The previously proposed 2 ½" water line conduit that was proposed to extend to the Town Green, has been replaced with a 3/4" water line. This water line will be run to the Town Green and will be used to provide a future water source for the future (open air outdoor classroom) that is depicted in the Town Green.

DGT has no further comment.

- E. The Applicant should clarify if the monitor wells are to remain in place and to be accessible for future measurements. What is the purpose of the monitor wells? Is there any record data available?

MAI Response: The monitoring wells are intended to remain accessible, and are to be used by others, to continually monitor groundwater pollutants from the previous use of the site. Previous data from the monitoring wells is available upon request from the project LSP. Note number 12 was added to the Grading and Utility Notes on the General Notes & Legend Plan, Sheet LG 1.0 of the Site Plan set, that states: 'All monitoring wells are to be brought flush to final grades and protected with a cover that can be used to access the monitoring well. The type of cover will depend on the ground cover adjacent to the monitoring well.'

DGT has no further comment.

- F. The Applicant should clarify that the "DUAL Incline" solar canopies are proposed for the project. According to the detail, they have a stormwater runoff collection gutter system. The other units shown on the detail do not have a gutter.

MAI Response: It should be noted that the solar canopy portion of this project is still being developed. The final design of the canopies has yet to be determined but it will be similar to one of the designs shown on the Detail Sheet, sheet C 7.0 of the Site Plan set. Regardless of the canopy style chosen, there will be a minimum of fourteen (14) feet clearance below the canopy and associated appurtenances and the canopies will have an integrated gutter and downspout system that will connect to the proposed subsurface stormwater management system. Refer to the Detail Sheet, sheet C 7.0 of the Site Plan set for additional notes and information pertaining to the solar canopies.

The Applicant states that the final design of the solar panel canopies will include an integrated gutter and downspout system. DGT has no further comment.

5.C.4 Erosion and Sediment Control Plan and Details:

SW4: DGT recommends the following:

- A. The Applicant should add locations for storage of materials/equipment, and soil stockpiling areas so that soil compaction does not contribute to flooding, and reduction in soil permeability at the proposed location of the infiltration system.

MAI Response: Storage areas for materials, equipment and soil stockpiling have been depicted on the Erosion and Sediment Control Plan, Sheet C 5.0 of the Site Plan set, along with the following notes:

1. Areas of materials, equipment and soil stockpiling are approximate and may be adjusted as needed by the contractor during the construction process.
2. Under no circumstances is the storage of materials, equipment, or soils to be located on or in the vicinity of the proposed subsurface infiltration system.
3. Construction access to the site is to be solely from Route 20. No construction access to the site is to be provided from Andrew Avenue or Lillian Way.

Additionally, the following notes have been added to the General Notes & Legend Plan, sheet LG 1.0 of the Site Plan set:

1. Construction access to the site is to be solely from Route 20. No construction access to the site is to be provided from Andrew Avenue or Lillian Way.
2. Refer to the Erosion and Sediment Control Plan, sheet C 5.0 of the Site Plan set, for storage areas of materials, equipment, and soil stockpiling. These locations are approximate and may be adjusted as needed by the contractor during the construction process.
3. Under no circumstances is the storage of materials, equipment or soils to be located on or in the vicinity of the proposed subsurface infiltration system.

The Applicant has revised the Site Plan with the requested information. DGT has no further comment.

- B. The Applicant should confirm that the proposed erosion control sock meets the specifications of the Wayland Conservation Commission.

MAI Response: The proposed erosion control sock conforms to the specification of the Wayland Conservation Commission.

DGT has no further comment.

- C. The Applicant should clarify if the only construction entrance for vehicles is from Boston Post Road.

MAI Response: The following note has been added to the Erosion and Sediment Control Plan, Sheet C 5.0 of the Site Plan set and to the Legend and General Notes Plan, sheet

LG 1.0 of the plan set:

Construction access to the site is to be solely from Route 20. No construction access to the site is to be provided from Andrew Avenue or Lillian Way.

The Applicant has added the requested information to the Site Plan. DGT has no further comment.

Note: As the Applicant is aware, this project is required to file for coverage under the NPDES Construction General Permit prior to construction. Per the Stormwater and Land Disturbance Bylaw, the Erosion and Sediment Control Plan must also comply with the standards required for the preparation of a Stormwater Pollution Prevention Plan (SWPPP). A copy of the completed SWPPP must be submitted to the agent for review and approval prior to any alteration of the site.

5.D.3. Design Standards (Stormwater basis of design):

Standard 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 proposes level spreader outfall which will discharge overflow from the subsurface infiltration system, and roof runoff. The riprap lined level spreader is proposed to mitigate erosion potential.

SW5: DGT recommends that the Applicant provide calculations to demonstrate that the discharge velocities from the riprap level spreader will be at non-erosive velocities.

MAI Response: Discharge velocities have been provided and have been included in the Stormwater Management Report. The discharge velocities are reduced by the level spreader prior to discharge, such that they should not create erosion downstream of the level spreader.

The Applicant has confirmed that the velocities will not cause erosion to downgradient conditions. It does not appear that the proposed stormwater management will cause erosion in the wetlands or waters of the Commonwealth. The project design complies with Standard 1.

Standard 2: Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.

The intent of the design is to not increase the peak rates of runoff to off-site areas. The hydrologic analysis shows this as being met. The precipitation rates appear to be greater than the rates obtained from the “Cornell” atlas for a more conservative analysis.

The existing conditions model is based on one subcatchment (SC #1) and one design point (DP #1) at the northwest portion of the property. Based on topography, a portion of SC #1 drains to the basin at the south side of the site, which will eventually drain to the Sudbury River (DP#1). Additionally, the southwest corner of SC #1 drains to Boston Post Road. Again, this runoff also appears that it will eventually make its way to the Sudbury River. The hydrologic model is simplified to include these areas in the overall design point analysis. The proposed drainage design reduces flow to these area and accounts for that in the model.

The project design complies with Standard 2.

Standard 3 requires that the annual recharge from post-development shall approximate annual recharge from pre-development conditions.

NRCS soil maps indicate that the soil in the project area is predominately “Urban land.” Therefore, on-site soil testing is certainly required to assess the soil conditions and groundwater table. Soil evaluation was conducted by a licensed soil evaluator and the data is shown on the plans. At the location of the infiltration system, two test pits indicate that the substratum soil is sand and the estimated seasonal high groundwater table. The engineer is basing the infiltration rate on his evaluation of the soil texture.

The total proposed impervious area is 62,813 square feet. It appears that the project has been designed to provide the required recharge volume per the Wayland Stormwater Regulations and the Massachusetts Stormwater Handbook. The design also exceeds the minimum requirement to capture, treat, and infiltrate 65% of the proposed impervious surfaces.

SW6: DGT recommends that the Applicant provide table from the hydrologic model that shows the storage volume held within the subsurface infiltration system. Based on the invert out of the infiltration system, the capture storage volume occurs up to elevation 120.9. This will confirm the recharge volumes.

[MAI Response: A table depicting the storage volumes of the proposed subsurface infiltration system has been provided and has been included in the Stormwater Management Report.](#)

The Applicant has provided the requested information. DGT has no further comment.

The drawdown calculations should use the captured storage volume storage; however, the drawdown times will be significantly less than the maximum 72 hours allowed due to the underlying sand soil.

Based on the hydrologic model, the subsurface infiltration system is attenuating the peak discharge from a 10-year storm and larger storm events. Because the groundwater table is less than four feet below the bottom of this infiltration system, a mounding analysis is required.

SW7: DGT recommends that the Applicant provide a mounding analysis.

[MAI Response: A groundwater mounding analysis has been provided and has been included in the Stormwater Management Report.](#)

The groundwater mounding analysis demonstrates that the mounded water table directly below the recharge facility does not intercept the bottom of the recharger. DGT has no further comment.

The project design complies with Standard 3.

Standard 4 requires that the stormwater system be designed to remove 80% Total Suspended Solids (TSS) and to treat 1.0-inch of volume from the impervious area for water quality.

The project includes treatment of pavement areas with deep sump catch basins with hoods, a filter media device, and a subsurface infiltration system. The resulting TSS removal rates meet the standard.

Because the soils rapidly draining (>2.1 in/hr), the project is required to treat 1.0-inch water quality volume, and to pretreat to at least 44% TSS removal prior to an infiltration BMP. The project is designed to meet those requirements.

SW8: DGT recommends that the Applicant provide documentation verifying performance of the pretreatment (filter media device) unit and provide sizing calculations.

MAI Response: Documentation describing the performance of the pretreatment facility has been provided and has been included in the Stormwater Management Report. The sizing of the facility will be determined by the manufacturer of the specific product that the contract chooses to install. Should the contractor propose a different system, than what is shown and proposed, it will be approved by the Engineer of Record and it will meet the minimum specifications shown in the documentation provided in the design documents.

The Applicant has provided two (2) products that can meet the required pollutant removals and has provide sizing information. DGT has no further comment.

According to 5.D.3.d, stormwater management systems shall be designed to retain the volume of runoff equivalent to, or greater than, one inch multiplied by the total post-construction impervious surface area on the site and /or remove 90% of the average annual load of total suspended solids (TSS) and 60% of the average annual load of phosphorous (TP) generated from the total post-construction impervious surface area on the site. Because there is an increase in impervious area under proposed development conditions, DGT believes the project is considered “new construction.”

SW9: DGT recommends that the applicant demonstrate that the stormwater management BMPs provide 60% phosphorous removal.

MAI Response: Documentation describing the performance of the pretreatment facility has been provided and has been included in the Stormwater Management Report. The sizing of the facility will be determined by the manufacturer of the specific product that the contract chooses to install. Should the contractor propose a different system, than what is shown and proposed, it will be approved by the Engineer of Record and it will meet the minimum specifications shown in the documentation provided in the design documents.

The Applicant has provided two (2) products that can meet the required pollutant removals and has provide sizing information. DGT has no further comment.

Standard 5 requires projects with Land Uses with Higher Potential Pollutant Loads (LUHPPL) to use specific stormwater management BMPs.

The project is not considered a LUHPPL. This Standard is not applicable.

Standard 6 is related to projects with stormwater discharging into a critical area, Zone II or an Interim Wellhead Protection Area of a public water supply.

The project meets this requirement as it treats the 1.0-inch water quality volume and pretreats to at least 44% TSS removal prior to an infiltration BMP.

Standard 7 is related to projects considered Redevelopment.

This standard is not applicable.

Because there is an increase in impervious area under proposed development conditions, DGT believes the project is considered new development.

According to the Applicant, much of the site was previously covered by pavement when Raytheon occupied the site. In comparison to the proposed development, there is a reduction in impervious cover, and therefore the project could be considered a redevelopment project. The Applicant makes note of this in the Stormwater Report. As a redevelopment project, it is required to meet Standards 2, 3, and the pretreatment and structural stormwater best management requirements of Standards 4, 5, and 6 to the maximum extent practicable with a goal of meeting the full extent of the applicable Standards. The Applicant is meeting the full extent of the Standards.

Standard 8 requires a plan to control construction related impacts including erosion, sedimentation or other pollutant sources.

The project will disturb greater than one acre of land. Therefore, the project will be required to file a Notice of Intent with the EPA and to prepare a Stormwater Pollution Prevention Plan (SWPPP). The Erosion and Sedimentation Control Plan shows a perimeter erosion control barrier, and a temporary stone construction entrance, as well as several erosion control notes.

SW10: A SWPPP will need to be finalized prior to construction for review and approval under the Stormwater and Land Disturbance Bylaw.

MAI Response: A SWPPP will be prepared and finalized prior to the start of construction.

The Applicant acknowledged the requirement for a SWPPP as part of the NOI filing with the EPA. DGT has no further comment.

Standard 9 requires a Long-Term Pollution Prevention Plan

A Stormwater Operation and Maintenance Plan for the stormwater BMPs and the general management of the site is provided in the Stormwater Report.

SW11: DGT recommends that this document be prepared as a stand-alone document and include the name(s) and signature(s) of the owners of the components of the stormwater management system.

MAI Response: The Long Term Operation and Maintenance Plan has been removed from the Stormwater Management Report and is now provided as a stand alone document and includes the name and signatures of the owners of the components of the stormwater management system.

The Applicant has provided a separate stand-alone document as requested. The O&M includes detailed descriptions on routine maintenance, inspection sheets, and includes a signature from the owner. DGT has no further comment.

Standard 10 requires an Illicit Discharge Compliance Statement to be provided.

A stand-alone statement, signed by the engineer-of-record was included in the project narrative.

SW12: DGT recommends that this statement be signed by the owner (Town of Wayland) and be provided to the Planning Board.

MAI Response: The Illicit Discharge Statement has been signed by a representative of the Town of Wayland as well as by the Design Engineer of Record.

The Applicant has provided an Illicit Discharge Statement signed by the owner and Engineer-of-Record. DGT has no further comment.

5.D.4. Better Site Design – Low Impact Development

SW13: DGT recommends that the Applicant provide narrative addressing LID requirements.

MAI Response: A narrative regarding LID measures has been provided and has been included in the Stormwater Management Report.

The Applicant has provided a narrative that identifies LID practices (pervious pavers, geogrid grass access, subsurface infiltration system) incorporated into the site design. DGT has no further comment.

5.E. Tree Replacement and Replanting Requirements

There are no trees shown on the Record Plan. There will be several trees removed for the project.

The applicant has provided Sheet L 1.0 Base Landscape Plan that includes a Plant Schedule (missing quantities) and a Planting Legend. The Plan itself depicts what appears to be two areas for evergreen planting. There is a Landscape Planting Note, which states, “This plan depicts a graphical representation of the general landscaping design intent. A detailed landscaping plan, including plant species, grass/flower seed mixes and other necessary information will be prepared and included with the site plan set for approval.

SW14: DGT recommends that the Applicant add the trees (5” and larger DBH) to the plan, and recommends that a detailed landscaping plan be prepared by a Landscape Architect. In addition to proposed landscaping, the plan should include the tree species, size and

condition that are to be removed, as well as the proposed replacement trees and shrubs in accordance with the guidelines.

MAI Response: The Record Conditions and Demolition Plan, sheet C 1.0 of the Site Plan set, and the Landscape Plan, sheet L 1.0 of the Site Plan set, have been revised to depict the trees and their diameters for trees over 4 inches in DBH within the 200' Riverfront Buffer and trees over 6 inches in DBH outside of the 200 Riverfront Buffer that are to be removed. The trees to be removed are noted by size and type, deciduous or coniferous, and a count of those trees have been provided.

The Applicant has provided the required information, including a list with quantities of trees to be planted. DGT has no further comment.

5.F. & 5.G Stormwater Operation and Maintenance Plan (O&M) Contents & Long-Term Pollution Prevention Plan.

SW15: DGT recommends that the applicant provide two (2) separate stand-alone documents for the Stormwater Operation and Maintenance (O&M) Plan and Long-Term Pollution Prevention Plan. The O&M should include all the applicable information listed in Appendix C: Stormwater BMP Operation and Maintenance Plan Content and Massachusetts Stormwater Handbook Standard 9 Requirements. The Long-Term Pollution Prevention Plan should include all applicable information listed in the Massachusetts Stormwater Handbook Standard 4 Requirements. DGT recommends the applicant expand upon / revise the following items in the “Construction Period Pollution Prevention and Erosion Sediment Control Plan and Long-Term Operation and Maintenance Plan” while separating it into two (2) documents.

A. Signatures of the owner(s) need to be included.

MAI Response: A representative from the Town of Wayland has signed the Operations and Maintenance Plan.

The Applicant has provided the stand-alone Long-Term Operation and Maintenance Plan as requested, with a signature from the owner. DGT has no further comment.

B. An explanation of how the selected BMPs normally operate is omitted from the Plan. An explanation of the normal function will help the inspector determine if the BMP(s) are functioning properly. (i.e. subsurface infiltration facility should drain within 72 hours of storm event, deep sump hooded catch basins should convey stormwater while trapping debris and oil/grease, etc.)

MAI Response: A description of the BMP's and how they normally operate has been added to the Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan.

The Applicant has provided the information requested. DGT has no further comment.

- C. Routine maintenance of BMP(s) is included in the Plan, however non-routine maintenance has been omitted. (i.e., fixing cracked inlet / outlet pipes, resetting settled rims / grates, replacement of crushed infiltration units, etc.)

MAI Response: Non-routine maintenance procedures for the BMP's (i.e., fixing cracked inlet / outlet pipes, resetting settled rims / grates, replacement of crushed infiltration units, etc.) have been added to the Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan.

The Applicant has provided the information requested. DGT has no further comment.

- D. Tools used for routine inspections (besides a vacuum truck) have been omitted from the Plan. (i.e., shovels, picks, flashlights, etc.)

MAI Response: The tools to be used for the maintenance and repair of the BMP's (i.e., shovels, picks, flashlights, etc.) have been added to the Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan.

The Applicant has provided the information requested. DGT has no further comment.

- E. Per the Massachusetts Stormwater Handbook, catch basins should be inspected four (4) times per year.

MAI Response: The inspection frequency of the catch basins has been revised accordingly.

The Applicant updated the inspection frequency. DGT has no further comment.

- F. No anticipated budget was included with the Plan.

MAI Response: An anticipated budget was added to the Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan

The Applicant has provided the information requested. DGT has no further comment.

- G. Each BMP group should have its own dedicated inspection report detailing what is to be inspected during the routine inspections.

MAI Response: The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan have been revised such that each BMP group has its own

dedicated inspection report detailing what is to be inspected during the routine inspections.

The Applicant has provided the information requested. DGT has no further comment.

- H. Wording stating that future owners of the property are to be notified of the stormwater system and the requirement for proper operation and maintenance should be added to the Plan.

MAI Response: The following statement has been added to The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan: “The future owners of the property are to be notified of the stormwater management system and the requirements for proper operation and maintenance of said system. The new owners should be added to the Operations and Maintenance Plan upon transfer of property ownership.”

The Applicant updated the O&M Plan as requested. DGT has no further comment.

- I. Provisions for the Commission or its designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection has been omitted from the Plan.

MAI Response: The following statement has been added to The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan: “Provisions for the Conservation Commission or its designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection of the stormwater management system, shall be provided by the property owner.”

The Applicant updated the O&M Plan as requested. DGT has no further comment.

- J. No stockpiling should be allowed within the limit of the proposed subsurface infiltration system. This should be added to the stockpiling section of this report.

MAI Response: The following note has been added to the Erosion and Sediment Control Plan, Sheet C 5.0 of the Site Plan set, along with the following note:

Under no circumstances is the storage of materials, equipment, or soils to be located on or in the vicinity of the proposed subsurface infiltration system.

Additionally, the following note has been added to the General Notes & Legend Plan, sheet LG 1.0 of the Site Plan set:

Under no circumstances is the storage of materials, equipment or soils to be located on or in the vicinity of the proposed subsurface infiltration system.

The Applicant has revised the Site Plan with the requested information. DGT has no further comment.

K. Removal of the erosion and sediment controls should be added to the construction sequence.

MAI Response: The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan have been revised to include the removal of the erosion and sediment control devices in the construction sequence.

The Applicant updated the O&M Plan as requested. DGT has no further comment.

L. The applicant should explore alternatives to salt due to the site's location within a Zone II

MAI Response: The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan have been revised to state that salt is not to be used as a de-icing treatment.

The Applicant updated the O&M Plan as requested. DGT has no further comment.

M. Replace "Placement of Hay" to "Placement of weed free straw mulching.

MAI Response: The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan have been revised to state 'placement of weed free straw mulching' in lieu of 'placement of hay'.

The Applicant updated the O&M Plan as requested. DGT has no further comment.

N. The applicant should clarify what is meant with "In some areas, mixing the water with the sediment will create slurry that can be discharge into a trunk sanitary sewer." It is recommended that an alternative to this disposal solution is explored.

MAI Response: The Stormwater Operation and Maintenance Plan and the Long-Term Pollution Prevention Plan have been revised to omit this statement.

DGT has no further comment.

Additional comments:

SW16: The Stormwater Report should be stamped and signed by the Engineer-of-Record.

MAI Response: The Stormwater Management Plan has been signed by a Registered Professional Engineer.

DGT has no further comment.

SW17: The Applicant states that the storm drain lines are sized and designed for the 100-year storm event. In reviewing the HydroCAD model, the flow leaving Pond 1P (PDCB1) shows 2.7 cfs during a 25-year storm event, but reduces to 1.3 cfs during a 100-year storm event. The Applicant should confirm that the capacities of the drainage pipes carry the computed flow rates.

MAI Response: The storm drain lines are capable of handling the capacity and volume created by the 100 year, however the pipes are sized for the 25 year storm event.

The Applicant has confirmed the flow carrying capacities of the pipes and DGT is satisfied with the pipe sizes selected by the Applicant. DGT has no further comment.

SW18: In accordance with the regulations, an inventory of trees to be removed should be included with the narrative.

MAI Response: An inventory of the trees to be removed has been added to the narrative of the Stormwater Management Report.

A detailed description of the size, types, and quantities of these trees are listed on the Records Conditions & Demolition Plan (Sheet C 1.0) and the Landscape Plan (Sheet L 1.0). The proposed quantity of replacement trees and shrubs exceeds the requirements. DGT has no further comments.

If you have any questions, please feel free to contact our office at 508-879-0030.

Sincerely yours,
DGT Associates



Bert E. Corey, P.E.
Engineering Group Manager