

November 25, 2024

Ms. Breeka Lí Goodlander, Agent
Town of Franklin Conservation Commission
355 East Central Street
Franklin, MA 02038

**Re: Prospect Street Culvert Repairs
MassDEP File No. Not Yet Issued
After the Fact Notice of Intent Peer Review**

Dear Ms. Goodlander:

BETA Group, Inc. (BETA) has reviewed documents and plans for the Notice of Intent (NOI) seeking approval for the after-the-fact emergency repair work conducted on the **Prospect Street Culvert** (the Project) on Prospect Street in Franklin, Massachusetts (the Site). This letter is provided to present BETA's findings, comments, and recommendations.

BASIS OF REVIEW

The following documents were received by BETA and will form the basis of the review:

- Notice of Intent entitled **Prospect Street Culvert Repair**; prepared by The Town of Franklin Department of Public Works; dated October 2024.
Attachments include:
 - Local and State Filing Forms
 - Resource Area Impact Summary Form
 - Ecological Restoration Limited Project Checklist
 - Emergency Authorization Letter from Franklin Conservation Commission
 - Proof of Notice Published to Environmental Monitor
 - Figures (NHESP, FEMA and Site Topographic Map)
 - Alternatives Analysis
 - Abutters Form
 - Representative Photographs
- Plans (1 sheet) entitled **Prospect Street Culvert Emergency Repair**; dated October 11, 2024; prepared by The Town of Franklin DPW – Engineering Division.; unstamped.

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

- Site visit on November 8, 2024
- **Massachusetts Wetlands Protection Act 310 CMR 10.00** effective October 24, 2014
- **Wetlands Protection Chapter 181 From the Code of the Town of Franklin**, dated August 20, 1997
- **Conservation Commission Bylaws Chapter 271 From the Code of the Town of Franklin**, dated July 11, 2019
- **Town of Franklin Conservation Commission Regulations**, dated October 3, 2019
- **Town of Franklin Best Development Practices Guidebook**, dated September 2016

SITE AND PROJECT DESCRIPTION

The Site consists of a portion of Prospect Street over an unnamed perennial stream in Franklin, Massachusetts. The Site is bounded to the north and south by Prospect Street, undeveloped forested areas, and residential homes; and to the east and west by the unnamed perennial stream, wetland complexes and undeveloped forested areas. Existing improvements at the Site include a two (2)-lane bituminous concrete roadway and the new culvert conveying the unnamed perennial stream under Prospect Street. The previous culvert was a 3-sided 3.5-ft X 5-ft stone box culvert within a stone headwall at the inlet and granite headwall at the outlet . The stone box culvert required immediate replacement due to multiple rain events causing significant blockage. While attempting to remove the debris blocking the culvert, the stone headwall of the culvert began to collapse and the embankment began to erode, prompting the issuance of an Emergency Certification from the Conservation Commission. The Project has been filed as an Ecological Restoration Limited Project under 310 CMR 10.53(3)k¹ and an Emergency Authorization Letter from the Franklin Conservation Commission has been submitted with the filing. Work on the culvert was conducted between January 2 – January 10, 2024 in the following sequence:

- Close Prospect Street to traffic;
- Install cofferdams;
- Dewater the Site using pumps;
- Excavate the pavement and embankments;
- Remove the existing culvert;
- Install a 48-inch Class V reinforced concrete pipe (RCP);
- Stabilize the slopes with 6-inch riprap and granite pieces;
- Remove cofferdams; and
- Pave Prospect Street with a binder and top course.

Prospect Street was reopened for traffic on Thursday, January 11, 2024.

Resource Areas Subject to Protection under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40) and its implementing regulations at 310 CMR 10.00 (collectively “the Act”), as well as the Town of Franklin Wetlands Protection Bylaw (Chapter 181) and its associated regulations (collectively “the Bylaw”) are present at the Site and include:

- Inland Bank (to perennial stream);
- Bordering Vegetated Wetland (BVW);
- Land Under Water (LUW);
- Bordering Land Subject to Flooding (BLSF); and,
- Riverfront Area (RA).

According to the Applicant, Resource Area impacts at the Site consisted of:

- 117.5 linear feet of Bank;
- 3,125 square feet of Buffer Zone to BVW; and
- 3,125 square feet of Riverfront Area (RA).

¹ The routine maintenance and repair of road drainage structures including culverts and catch basins, drainage easements, ditches, watercourses and artificial water conveyances to insure flow capacities which existed on the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983).

The Site is not located within a Zone I or Interim Wellhead Protections Area; however, the Site is within a Zone II Wellhead Protection Area. There are no Surface Water Protection Areas (Zone A, B, or C), or Outstanding Resource Waters (ORWs) present. There are no Areas of Critical Environmental Concern (ACEC) present, and the most recent Natural Heritage and Endangered Species Program (NHESP) mapping does not depict any Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife at the Site. There are no NHESP-mapped Potential Vernal Pools (PVPs) or Certified Vernal Pools (CVPs) located on or within 100 feet of the Site.

According to the FEMA Flood Insurance Rate Map (FIRM) community panels number 25021C0304E dated July 17, 2012, the Site is located within a Zone A, which is a 1% Flood Hazard with no Base Flood Elevation (BFE).

Natural Resource Conservation Service (NRCS) soil maps of the Site indicate the presence of Swansea Muck with a Hydrologic Soil Group (HSG) rating of B/D and Sudbury fine sandy loam, with a HSG rating of B.

ADMINISTRATIVE AND PLAN COMMENTS

The plan set (as identified above) is missing information and requires additional information for clarity.

Table 1. NOI Plan

NOI Plan Requirements	Yes	No
Scale of 40'=1" or larger	✓	
North Arrow (with reference)	✓	
Topographic contours (2' intervals)	✓	
Existing Conditions Topography (with source and date of survey)	✓	
Proposed Topography	✓	
Existing and Proposed Vegetation		✓ (See comment A2a)
Existing Structures and Improvements	✓	
Resource Areas and Buffer Zones labeled		✓ (See comment A2b)
Location of Erosion Controls		✓ (See comment A2c)
Details of Proposed Structures	✓	
Construction Sequence and Schedule	✓	
Registered PLS Stamp (Existing Condition Plans Only)		✓ (See comment A2d)
Assessors' Reference		✓ (See comment A2e)
Abutting Property Assessors' Reference	✓	
Survey Benchmark		✓ (See comment A2f)
Accurate Plan Scale	✓	

PLAN AND GENERAL COMMENTS

- A1. MassDEP has not issued a file number as of this writing.
- A2. The following elements are missing from the provided plans:
 - a. Existing and proposed vegetation (i.e., tree lines and any applied seed mix) should be provided on the plans per Bylaw Regulation Sections 7.18.1.5. and 7.18.1.6
 - b. Buffer Zones should be shown on the plans per Bylaw Regulation Section 7.18.1.8.

- c. The location of erosion controls and water controls used during construction should be shown on the plans per Bylaw Regulation Section 7.18.1.9.
 - d. A Professional Land Surveyor (PLS) stamp is normally required for NOI filings; however, the Commission could consider waiving this requirement given that the work was conducted to abate an emergency and GIS / GPS data is being used to approximate the scope of work.
 - e. The assessor's references for the abutting properties should be shown on the plans.
 - f. A survey benchmark is normally required on plans for NOI filings; however, the Commission could consider waiving this requirement given that the work was conducted to abate an emergency and GIS / GPS data is being used to approximate the scope of work.
- A3. The locations of Resource Area impacts should be labeled on the Plans.
- A4. The WPA Form 3 requires the following sections to be filled out:
- a. The Massachusetts Endangered Species Section;
 - b. The Other Applicable Standards and Requirements Section; and
 - c. The Additional Information Section.
- A5. The WPA Form 3 should also be revised to remove references to an Ecological Restoration Project, as the Project does not meet the associated criteria provided in the definition at 310 CMR 10.04.

WETLAND RESOURCE AREAS AND REGULATORY REVIEW

BETA conducted an onsite and regulatory review of the submitted documents and plans, focusing on compliance with Resource Area definitions and Performance Standards set forth in the Act and the Bylaw. The Project is not subject to the Massachusetts Stormwater Management Standards due to it being an emergency roadway repair project.

The NOI application includes narrative information describing the sequencing of the work conducted to abate an emergency; however, proposed impacts within Resource Areas and Buffer Zone have not been fully described or depicted on the provided plans. The extents of riprap used to stabilize slopes should be accurately depicted on the plans to estimate Resource Area impacts resulting from the work, and the Applicant may be required to conduct mitigation depending on this analysis and any discussions with the Commission.

Additional information is required to describe the Site, the work, and the effect of the work on the interests identified in the Act and the Bylaw.

RESOURCE AREA AND BOUNDARY COMMENTS

BETA conducted a Site visit on November 8, 2024, to assess conditions and review Resource Area focusing on the definitions and methodologies referenced under the Act and the Bylaw. Resource Areas were not flagged in the field due to the project being an emergency repair of a public roadway. Buffer Zones and Resource Areas that were disturbed have naturally revegetated with some native species; however, some invasive species including glossy buckthorn (*Frangula alnus*), multiflora rose (*Rosa multiflora*), and bittersweet (*Celastrus orbiculatus*) were observed within the areas that were disturbed as a result of this project. These invasives appeared to have migrated from surrounding areas.

CONSTRUCTION COMMENTS

- W1. Two (2) areas of riprap were observed to the northeast and northwest of the Project approximately 15-feet north of the limits of work depicted on the plan. The Applicant should clarify if this riprap was placed as a part of this Project and reflect it on the plans. The limits of all riprap used to stabilize the roadway slopes should be depicted.
- W2. An area of asphalt that appears to be discarded from repaving the road was observed northeast of the limits of work within Buffer Zone and requires removal.

MITIGATION COMMENTS

- W3. The Applicant should provide additional information regarding mitigation conducted to date if applicable. The permanent impacts to Bank, BVW, and LUW resulting from the installation of a longer pipe and stabilization of the roadway slopes should be quantified to confirm if additional mitigation is required.
- W4. The Applicant could consider placing loam/compost, a native seed mix, and an erosion control blanket over the placed rip rap to vegetate the slopes without needing to remove stone. If this is pursued, it is recommended that the Applicant consult Section 4.5.3 of the MassDOT Stormwater Design Guide for further details. It is also recommended that coir logs be installed at the toe of slopes to prevent potential migration of fine materials.

WPA PERFORMANCE STANDARDS COMMENTS

According to the Applicant, the Project resulted in the following impacts:

- 3,125 square feet of BVW impacts;
- 117.5 linear feet of temporary Bank impacts; and
- 3,125 square feet of RA impacts.

The Project was conducted as an emergency repair of a public roadway and was granted Emergency Authorization by the Conservation Agent. The Project was also filled as an Ecological Restoration Limited Project under 310 CMR 10.53(3)k. However, as previously noted, the Project does not qualify as an Ecological Restoration Project per the definitions provided in the Act regulations.

- W5. The Applicant provided an alternatives analysis to comply with Performance Standards for RA as required by the regulations. BETA defers to the Commission on the acceptance of the alternatives analysis.
- W6. The Applicant stated on the WPA Form 3 that impacts to BVW totaled 3,125 square feet but later indicated that the 3,125 square feet of impacts were associated with Buffer Zone. The Applicant should clarify the quantity of impacts that occurred in BVW versus Buffer Zone. If BVW impacts were required, additional mitigation to meet the Performance Standards at 310 CMR 10.55(4)(b) may be required.

BYLAW REGULATORY COMMENTS

- W7. The Applicant should request a formal waiver for work that occurred within the 25' No Disturb Zone and the 50' No Structure Zone.
- W8. The Applicant should provide calculations for impacts within the 0 to 25-foot, 25 to 50-foot, and 50 to 100-foot Buffer Zones.

Ms. Breeka Lí Goodlander, Agent

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STORMWATER MANAGEMENT

The Project is not subject to the Stormwater Management Standards due to it being an emergency repair to roads or their drainage systems per 310 CMR 10.05(6)(l)4².

REVIEW SUMMARY

Based on our review of the NOI submittal and Project plans, the Applicant is required to provide the Conservation Commission with additional information to describe the Site, the work, and the effect of the work on the interests identified in the Act and the Bylaw.

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

Very truly yours,
BETA Group, Inc.



Anna Haznar
Staff Scientist



Jonathan Niro
Senior Project Scientist

cc: Amy Love, Town Planner
Bryan Taberner, AICP, Director of Planning & Community Development
Matt Crowley, P.E., BETA

² The Stormwater Management Standards shall not apply to:

1. A single-family house;
2. Housing development and redevelopment projects comprised of detached singlefamily dwellings on four or fewer lots, provided that there are no stormwater discharges that may potentially affect a critical area;
3. Multi-family housing development and redevelopment projects, with four or fewer units, including condominiums, cooperatives, apartment buildings and townhouses, provided that there are no stormwater discharges that may potentially affect a critical area; and

4. Emergency repairs to roads or their drainage systems.