

August 18, 2023

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

**Re: 0 Upper Union Street
MassDEP File No. Not Yet Issued
Notice of Intent Peer Review**

Dear Ms. Goodlander:

BETA Group, Inc. (BETA) has reviewed documents and plans for the project entitled: **0 Upper Union Street** located 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 **Notice of Intent Application For: Upper Union Solar Project, 0 Upper Union Street**; prepared by Atlantic Design Engineers, Inc.; dated July 6, 2023. Inclusive of:
 - Wetland Border Report;
 - Buffer Zone Mitigation Plan; and
 - Evaluation for Vernal Pool Characteristics.
- Plans (9 Sheets) entitled **Site Development Plans for Upper Union Solar Project, Franklin Massachusetts**; dated June 19, 2023, prepared by Atlantic Design Engineers, Inc.; stamped and signed by Richard J. Tabaczynski, MA P.E. No. 33746.
- Stormwater analysis entitled **Storm Water Drainage Analysis for Upper Union Solar Project**; prepared by Atlantic Design Engineers, Inc; dated June 19, 2023; stamped and signed by Richard J. Tabaczynski, MA P.E. No. 33746.

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

- Site visit on August 9, 2023
- **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 approximately 6.2-acre Site is located at 0 Upper Union Street in Franklin, Massachusetts, further identified by the Franklin Assessor's Office as Assessor's Parcel 319-009-000. The Site is bounded to the

east by undeveloped woodlands, to the south by a residential neighborhood, to the north by electrical transmission lines, woodlands, and an apartment complex, and to the west by Upper Union Street. Existing improvements at the Site include various footpaths and an access road that serves the transmission easement.

According to the Applicant, 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”) present at the Site include Bordering Vegetated Wetland (BVW) and Isolated Vegetated Wetland (IVW).

The Site is not located within a Zone I, Zone II, or Interim Wellhead Protection Areas, and there are no Surface Water Protection Areas (Zone A, B, or C) or Outstanding Resource Waters (ORWs). 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 no NHESP-mapped Potential Vernal Pools or Certified Vernal Pools located within 100 feet of the Site. According to the FEMA Flood Insurance Rate Map (FIRM) community panel number 25021C0317E, dated July 17, 2012, the Site is not located within the 100-year floodplain.

Natural Resource Conservation Service (NRCS) soil maps of the Site indicate the presence of Woodbridge fine sandy loam with a Hydrological Soil Group (HSG) rating of C/D and Charlton-Hollis-Rock rock outcrop complex with an HSG rating of B.

The Applicant seeks approval of a solar development within the Buffer Zones to BVW and IVW. Proposed work includes the following activities (collectively referred to as the “Project”):

- Installation of erosion controls;
- Clearing and of vegetation and subsequent grubbing;
- Site grading;
- Construction of a 20-foot-wide gravel access road;
- Construction of stormwater best management practices (BMP’s) including swales and a stormwater basin;
- Installation of perimeter fencing;
- Installation of photovoltaic solar panels;
- Installation of associated above- and below-ground utilities;
- Installation of a 20 by 30-foot concrete equipment pad; and
- Establishment of a 616 square foot Buffer Zone mitigation area.

The Project will result in temporary and permanent impacts to Buffer Zone and IVW (Comment W6). Work proposed within Buffer Zones includes vegetation clearing and grubbing, installation of the gravel access road, installation of utilities and a concrete equipment pad, installation of erosion controls, and the Buffer Zone mitigation area. Work proposed within IVW includes the installation of solar panels.

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	✓	
Existing Structures and Improvements	✓	
Resource Areas and Buffer Zones labeled	✓	
Location of Erosion Controls	✓	
Details of Proposed Structures	✓	
Construction Sequence and Schedule		✓ (See comment A2)
Registered PLS Stamp (Existing Condition Plans Only)		✓ (See comment A3)
Assessors' Reference	✓	
Abutting Property Assessors' Reference	✓	
Survey Benchmark	✓	
Accurate Plan Scale	✓	

PLAN AND GENERAL COMMENTS

- A1. As of August 18, 2023, MassDEP has not issued a file number.
- A2. Provide a Construction Schedule and Sequence in the plan notes as required under Section 7.18.1.14. of the Bylaw.
- A3. The Existing Conditions Plans must be stamped by a Professional Land Surveyor registered in the state of Massachusetts.
- A4. The NOI narrative references a total of 31,676 sf of alteration proposed within the Buffer Zones to local and state jurisdictional Resource Areas; however, the Resource Area Impact Summary Form references a total of 33,923 sf of Buffer Zone alteration. The Applicant should clarify the correct square footage of proposed impact to Buffer Zone.
- A5. Provide a note stating who performed the wetland delineation and when it occurred.

WETLAND RESOURCE AREAS AND REGULATORY REVIEW

BETA conducted an onsite review and completed a 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 Narrative states that proposed work will only occur within Buffer Zone; however, it appears that impacts to IVW will be required to construct the Project as designed (Comment W6). The Project is subject to the MassDEP Stormwater Standards and a review of compliance with these Standards is being completed by BETA as part of the Planning Board review process.

The NOI application includes narrative information describing the Project and the proposed impacts within the Buffer Zone. However, impacts to the IVW that BETA observed in the field will require quantification by the Applicant, as well as demonstration of the Avoid/Minimize/Mitigate sequencing. Mitigation measures presently include use of erosion controls, installation of Stormwater Best Management Practices (BMP's), and Buffer Zone restoration. It is recommended that the Applicant review the Resource Area boundary comments presented in this letter to determine if any modifications to the Bylaw Variance request or the proposed Buffer Zone mitigation plan are required. In addition, any revised materials should include all materials required under the Bylaw including a construction sequencing plan and a functions and characteristics statement.

Additional information is required to describe the effects of the work on the interests of the Act and the Bylaw, including demonstration of compliance with the Massachusetts Stormwater Management Standards, demonstration of compliance with the Bylaw, and reassessment of Resource Area boundaries.

RESOURCE AREA AND BOUNDARY COMMENTS

BETA conducted a Site visit on August 9, 2023 to assess existing conditions and to review Resource Area delineations, focusing on the definitions and methodologies referenced under the Act and the Bylaw. Review of Resource Area delineations was limited to locations where the delineated boundary was within, or may be within, 100 feet of the Limit of Work (LOW) and located within the subject Site.

- W1. BETA concurs with the identification of the B-Series as an IVW Subject to Protection under the Bylaw.
- W2. To verify the conclusions made in the Vernal Pool Evaluation, BETA reviewed the B-Series IVW for Vernal Pool indicators. During the Site visit, little to no standing water was observed within the B-Series IVW. Although the time BETA's assessment is not seasonally appropriate for an evaluation of the presence of Vernal Pool species, BETA does concur that there was insufficient evidence to support ponding at a depth sufficient to support Vernal Pool species common to this region. No other areas at the Site were observed to meet the criteria for a Vernal Pool.
- W3. Hydric soil meeting the criteria for Hydric Soil Indicator F6 Redox Dark Surface and hydrophytic vegetation including spotted joe-pye weed, smooth arrowwood (*Viburnum dentatum*) and sensitive fern were observed approximately 5-10 feet upgradient of flag B-26.
- W4. Hydric soil meeting the criteria for Hydric Soil Indicator F6 Redox Dark Surface¹ and hydrophytic vegetation including royal fern (*Osmunda regalis*), sensitive fern (*Onoclea sensibilis*), spotted joe-pye weed (*Eutrochium maculatum*), and purple loosestrife (*Lythrum salicaria*) were observed approximately 5-10 feet upgradient of flags A36-A38.
- W5. Hydric soil meeting the criteria for Hydric Soil Indicator F6 Redox Dark Surface and hydrophytic vegetation including royal fern, sensitive fern, and cinnamon fern (*Osmundastrum cinnamomeum*) were observed 5-10 feet upgradient of flags A46 to A49.
- W6. Hydric soil indicators consisting of a depleted matrix under a thick, dark A horizon within 12" of the surface and hydrophytic vegetation including highbush blueberry (*Vaccinium corymbosum*), royal fern, cinnamon fern, and silky dogwood (*Cornus amomum*) were observed north of an

¹ As described in *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 7.0, 2010* published by the United States Department of Agriculture (USDA) and the Natural Resources Conservation Service (NRCS) in cooperation with the National Technical Committee for Hydric Soils

existing stone wall and east of the existing stockpile. Based on BETA's observations, the Applicant should re-evaluate this area and flag the boundaries of additional Areas Subject to Protection under the Act and/or Bylaw.

- W7. Channelized flow along a hydraulic gradient was observed interior of the A Series wetland. This channel is not depicted on the Project plans but is described within the Wetland Border Report and depicted on Figure 1 of the Report. Based on BETA's observations, the channelized flow meets the definition of a stream with protected Bank and Land Under Water (LUW). This stream is not mapped on the most recent USGS maps; however, the Applicant should provide proof of the stream's status as intermittent using the StreamStats method identified in 310 CMR 10.58 (2)(a)1.c.i.

CONSTRUCTION COMMENTS

- W8. Material storage and laydown areas should be depicted on the Project plans and located outside of jurisdictional areas.
- W9. A swale with haybale check dams is proposed along the Site access roadway. The Applicant should clarify if this is intended to be a construction-period stormwater control, and BETA recommends that the haybales be replaced with straw to avoid the spread of non-native plant species.
- W10. The NOI narrative indicates that compost filter tubes and/or silt fence will be used as an erosion control measure. Silt fence is not a permitted erosion control measure in the Town of Franklin (Pg. 13 of *Town of Franklin Best Development Practices Guidebook*). BETA defers to the Commission regarding the use of silt fence.
- W11. The project as currently depicted will disturb more than (1) one acre of land which will require preparation of a Stormwater Pollution Prevention Plan (SWPPP) and filing of a Notice of Intent with the EPA.

MITIGATION COMMENTS

The Applicant proposed an approximately 617 sf mitigation area to offset approximately 308 sf of impact within the locally protected 25-foot No Disturb Buffer Zone associated with installation of a portion of the gravel access road and associated grading.

- W12. The proposed mitigation is located within an existing unvegetated cart path. The path is well-defined, and the lack of vegetation may indicate soil compaction that could make establishment of the proposed plantings difficult. The Applicant should include a protocol within the Buffer Zone Mitigation Plan for use if the existing soil is compacted. Spreading a layer of loam of an undetermined thickness may not be a suitable planting medium if the underlying soil is compacted and/or unsuitable for planting. This protocol should also include a range of depths of loam that will be used dependent on soil conditions.
- W13. Organic material (i.e. leaf litter) removed during preparation of the mitigation area for planting should be saved if feasible and spread within the mitigation area to increase organic content of the soil.
- W14. BETA defers to the Commission to determine if the proposed mitigation is sufficient to offset the proposed impact to the Buffer Zone Resource Area pursuant to Section 7.11 of the Bylaw.

WPA PERFORMANCE STANDARDS COMMENTS

The Project does not propose any work within Resource Areas Subject to Protection under the Act; however, the Project does propose work within Buffer Zone and local Buffer Zone Resource Areas.

BYLAW REGULATORY COMMENTS

- W15. The following materials must be submitted per the submission requirements of the Bylaw Regulations:
- a. A Construction Sequence and Schedule (Section 7.15); and
 - b. A complete Functions and Characteristics Statement (Section 7.10.1).
- W16. The Applicant has requested a Variance per Section 5 of the Bylaw Regulations for work within the 0-25 No Disturb Buffer Zone. BETA defers to the Commission for approval of the requested Variance.
- W17. Portions of the proposed gravel access road and Site fencing are proposed within the 25-50 Buffer Zone. BETA defers to the Commission regarding classification of the access road as a structure per Section 4.3.1 of the Bylaw Regulations and the requirement of an associated Variance request.

STORMWATER MANAGEMENT

Stormwater management features proposed include the construction of a stormwater detention basin along the northerly edge of the access driveway at the western edge of the easement, a second detention basin at the far easterly edge of the parcel, and an infiltration trench and deep sump catch basin at the entrance. The two detention basins will capture stormwater runoff from the arrays and the gravel roadway. A catch basin is proposed at the Site entrance which will discharge to a subsurface infiltration trench beneath the driveway. Outfalls from this basin are proposed to convey captured stormwater runoff to the east. The remainder of the Site will generally follow pre-development flow patterns with no stormwater BMPs proposed.

A review of the Project's compliance with the Massachusetts Stormwater Management Standards and the applicable local Regulations was issued to the Planning Board on August 4, 2023. Currently, the Project does not fully comply with the Massachusetts Stormwater Standards, and revisions to the design are required to comply with the Standards.

Ms. Breeka Lí Goodlander, Agent
August 18, 2023
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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.

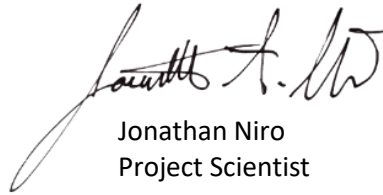
If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,

BETA Group, Inc.



Elyse Tripp
Staff Scientist



Jonathan Niro
Project Scientist

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