

NARRATIVE

1.0 INTRODUCTION

On behalf of the Town of Franklin Department of Public Works (DPW), BETA Group, Inc. (BETA) is submitting a Notice of Intent (NOI) for the construction of a shared use path and associated roadway improvements along Grove Street in the Town of Franklin, Massachusetts (the Project). This Project is the second phase of a two-phase project that aims to improve the use of Grove Street by motorists, pedestrians, and bicyclists (the Overall Project).

The DPW previously secured \$2.2M in funding through a MassWorks grant to improve the Town of Franklin's public infrastructure. This grant, in addition to supplemental local funding, was used to support Phase I of the Overall Project, which received an Order of Conditions from the Franklin Conservation Commission under MassDEP File No. 159-1247 on February 22, 2022. The Overall Project consists of the construction of an approximately 6,000-linear foot shared use path along Grove Street; pavement and roadway geometry improvements; signage improvements; intersection improvements; and upgrades to the existing stormwater management infrastructure. Phase II of the Overall Project, as presented under this NOI, will consist of several activities including the construction of stormwater management improvements; grading; continued construction of the shared use path; and repaving along Grove Street between Tobacco Road and Kenwood Circle.

The following specific activities are proposed as part of the Project (i.e., Phase II) along Grove Street:

- Construction of a shared use path ranging in width from 8 to 10 feet;
- Mill and overlay of pavement;
- Grading and placement of rock fill;
- Creation of a landscaped buffer;
- Improvements to pedestrian signage;
- Installation of stormwater best management practices (BMPs);
- Construction of modular block retaining walls;
- Installation of granite curbing;
- Construction of a wetland replication area;
- Restoration of temporary wetland impacts; and
- Reconstruction of private bituminous driveways.

Work associated with the Project will take place within Areas Subject to Protection and Jurisdiction under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40) and its Regulations at 310 CMR 10.00 (the Act), as well as the Town of Franklin Wetlands Protection Bylaw (Chapter 181), the Town of Franklin Conservation Commission Bylaw (Chapter 271) and its implementing Regulations (collectively "the Bylaw") including Bordering Vegetated Wetland (BVW), Bordering Land Subject to Flooding (BLSF), Riverfront Area (RA), the local 100-foot Buffer Zone Resource Area, and the local/state 100-foot Buffer Zone.

To mitigate for an increase in impervious area within the 100-foot Buffer Zone, all new impervious areas will be graded to drain to the municipal roadway drainage system for treatment and/or discharge to either the infiltration basin constructed as part of Phase I, existing outfalls, or new outfalls. Erosion controls will be maintained throughout the duration of the Project to protect the adjacent Resource Areas. All permanent BVW impacts will be mitigated at a minimum 2:1 ratio, and all temporary BVW impacts will be restored in place.

2.0 SITE DESCRIPTION

The Site of proposed Phase II activities is located along the Grove Street right-of-way from its intersection with Tobacco Road to its intersection with Kenwood Circle (Figure 1 – Site Locus). Land uses in the vicinity of the Site generally consist of residential, commercial, and undeveloped parcels. Existing improvements at the Site include a two-lane bituminous roadway, guardrails, municipal drainage infrastructure including catch basins and manholes, and vegetated roadway shoulders.

2.1 WETLAND RESOURCE AREAS

A Site inspection was conducted by BETA Wetland Scientists on May 13, 2021, to identify and delineate the boundary of existing Resource Areas within and in the immediate vicinity of the Site¹. Resource Area boundaries were identified and delineated in accordance with the methods developed by the Massachusetts Department of Environmental Protection's *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act*, dated 1995, as well as definitions set forth in the Act and the Bylaw.

State and local jurisdictional Resource Areas identified at the Site consist of Bank, BVW, Land Under Water (LUW), Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RA), while local jurisdictional Resources Areas consist of Isolated Vegetated Wetland (IVW)² and the 100-foot Buffer Zone Resource Area. The Resource Area Boundary Delineation Report in Appendix B describes BETA's findings.

2.2 NHESP-MAPPED HABITAT AND OTHER SENSITIVE AREAS

There are no Natural Heritage and Endangered Species Program (NHESP)-mapped Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife at the Site. In addition, there are no Areas of Critical Environmental Concern (ACECs), Surface Water Protection Areas (Zones A, B, C), or Outstanding Resource Waters (ORWs). Zone I and Zone II Wellhead Protection Areas³ encompass portions of the Site (Figure 2 – Environmental Resources). No Interim Wellhead Protection Areas (IWPAs) exist within or near the Site.

In accordance with Section 7.7 of the Franklin Regulations, BETA has identified three (3) Potential Vernal Pools (PVPs) located in proximity of the Project but outside of the limits of work (Figure 2 – Environmental Resources). These PVPs are depicted on MassGIS as PVP #8240 (within the WF1 Series IVW), PVP #8239 (within the WF2 Series BVW), and PVP #8235 (within the WF6 BVW). BETA did not conduct a vernal pool species survey at the time of the delineation; however, typical vernal pool characteristics such as deep ponding, attachment sites, and defined depressions were observed. No Certified Vernal Pools (CVPs) exist at the Site.

The Site is located within the range of the Northern Long-Eared Bat (*Myotis septentrionalis*), a species listed as endangered per the federal Endangered Species Act (ESA). It is anticipated that any ESA coordination will be completed with the application to the U.S. Army Corps of Engineers (USACE) for coverage under the Section 404 Massachusetts General Permit.

¹ The report in Appendix B also includes Resource Areas that are relevant to Phase II of the Overall Project, but not Phase I.

² IVWs are protected under the Bylaw as Freshwater Wetlands.

³ The onsite Zone II is associated with two (2) public drinking water supply wells located approximately 850 north of the Site, identified as PWS #2101-000-03G and PWS #2101000-13G.

2.3 BUFFER ZONES

Several portions of Grove Street are constrained by the local 100-foot Buffer Zone to IVW and the state/local 100-foot Buffer Zone to BVW and Bank. Buffer Zone generally consists of the bituminous roadways, vegetated roadway shoulders, and forested areas.

3.0 WORK DESCRIPTION

3.1 WORK WITHIN JURISDICTIONAL RESOURCE AREAS

The Project will occur within Resource Areas including the 100-foot Buffer Zone Resource Area⁴, BVW, BLSF, and RA.

3.1.1 100-FOOT BUFFER ZONE RESOURCE AREA – BYLAW REGULATIONS SECTION 4

Numerous segments of the Project are located within the local 100-foot Buffer Zone Resource Area and include the following proposed activities:

- Installation of erosion control measures;
- Mill and overlay of pavement;
- Installation of granite curbing;
- Construction of portions of the shared use path;
- Installation of modified rockfill along the adjacent slope of the shared use path;
- Creation of a vegetated filter strip;
- Installation of guard rails and retaining walls;
- Reconstruction of a private bituminous driveway; and
- Installation of stormwater BMP’s including stormwater outfalls and catch basins.

Work within the 100-foot Buffer Zone Resource Area will result in the following impacts, the majority of which will occur within existing paved areas:

IMPACT TYPE	IMPACTS WITHIN 0 – 25 FEET (SF)	IMPACTS WITHIN 25 – 50 FEET (SF)	IMPACTS WITHIN 50 – 100 FEET (SF)
Mill and overlay of existing pavement, installation of drainage structures within the roadway, and reconstruction of an existing driveway aprons	1,580	11,315	21,515
Construction of an 8 to 10-foot-wide shared use path, retaining walls, and rock filled slope	8,630*	7,410*	7,010*
Widening of Grove Street	40*	1,105*	2,380*
Total Impacts: 60,985 SF			
Total New Impervious Area: 26,575 SF			

⁴ Section 4.1.1.: The Town of Franklin considers 100 feet from a defined/delineated resource area as the buffer zone and consequently an additional protected resource.

* Denotes new impervious area

Exact sequencing of work activities will be determined by the contractor; however, it is anticipated that the Project would be approached as follows:

- Install erosion control measures as discussed in Section 4.1.
- Conduct vegetative clearing required to establish limits of work.
- Perform rough grading for roadway shoulders and the alignment of the shared use path.
- Install drainage infrastructure.
- Place riprap along the roadway shoulders where required and begin stabilization (i.e., seeding) where riprap is not proposed.
- Conduct paving of the shared use path and repaving of the roadway.
- Construct the wetland replication area and complete restoration of temporary wetland impact areas.
- Complete signage and pavement marking improvements.

Any areas of exposed soils following construction will be stabilized with an approved, native seed mixture⁵.

3.1.2 BORDERING VEGETATED WETLANDS – 310 CMR 10.55 (4)(B)

Permanent and temporary impacts to BVW are required to construct the Project. Temporary impacts to BVW are associated with the installation of erosion controls and vegetative clearing necessary to install the erosion controls and establish work areas; however, no grubbing is proposed. Temporarily impacted BVW will be restored with a native wetland seed mix.

Permanent impacts to BVW are associated with the construction of a stormwater outfall near Station 47+00 where approximately 3 sf will be impacted by the installation of riprap, and near Station 48+00 where installation of a retaining wall and guardrail will result in fill of 29 sf of BVW.

Replication for the 32 sf of permanently altered BVW is proposed at a 2:1 ratio pursuant to the local Regulations as discussed in Section 5.1.3 of this narrative. Table 2 below provides a summary of BVW impacts.

Table 2. Temporary and Permanent Bordering Vegetated Wetland Impacts

Station Location	Temporary Impacts (sf)	Permanent Impacts (sf)
St. 23+00 to 24+00	62	0
St. 45+ 90 to 47+00	417	0
St. 47+00 to 48+00	813	32
St. 61+75	71	0
Total	1,363	32

⁵ The New England Wetland Plants Erosion Control/Restoration Mix for Dry Sites is an example of a potential seed mix. Species include Red Fescue (*Festuca rubra*), Canada Wild Rye (*Elymus canadensis*), Annual Ryegrass (*Lolium multiflorum*), Perennial Ryegrass (*Lolium perenne*), Little Bluestem (*Schizachyrium scoparium*), Indian Grass (*Sorghastrum nutans*), Switch Grass (*Panicum virgatum*), and Upland Bentgrass (*Agrostis perennans*).

3.1.3 BORDERING LAND SUBJECT TO FLOODING – 310 CMR 10.57

Temporary and permanent impacts to BLSF total 773 sf. Approximately 168 sf of temporary impact is proposed near Station 20+75. Temporary impacts at this location include installation of erosion controls, grading, and vegetative clearing. Permanent impacts at this location include the installation of riprap associated with the construction of a stormwater outfall. In addition, approximately 605 sf of impact is proposed near Station 23+50. Temporary impacts at this location include installation of erosion controls, grading, and vegetative clearing. Permanent impacts include construction of a riprap slope along the roadway. All temporarily impacted floodplain will be restored with an approved, native seed mixture. Any grade changes will be mitigated through the establishment of compensatory flood storage.

3.1.4 RIVERFRONT AREA – 310 CMR 10.58

A total of 74,612 sf of RA is present at the Site, 40,361 sf of which consists of areas previously degraded by the existing paved roadway and hard-packed gravel shoulders.

Temporary and permanent impacts are proposed within RA from Station 18+50 to Station 27+25 and from Station 45+ 00 to Station 49+00. Work proposed within previously degraded areas includes pavement mill and overlay and portions of the proposed shared use path. Near Station 22+50, an approximately 344 sf section of existing pavement is proposed to be loamed and seeded.

The remaining 34,251 sf of impacts consists of non-degraded RA, of which 14,494 sf will be permanently impacted through the construction of the shared use path, installation of rock fill along the side slope downgradient of the shared use path, installation of retaining walls, installation of guard rails, and construction of stormwater BMP's. Temporarily impacted RA is associated with the installation of erosion controls, vegetation clearing, and grading. All temporarily impacted areas will be restored within loam and seed upon completion of construction.

3.2 WORK IN BUFFER ZONES

Proposed work within Buffer Zone mirrors that which is described above in Section 3.1.1.

4.0 MITIGATION MEASURES

4.1 EROSION AND SEDIMENTATION CONTROLS

Erosion and sediment control best management practices (BMPs) will be employed in order to protect the adjacent Resource Areas.

Compost filter tubes of at least a 12-inch diameter will be placed along the limits of work within Buffer Zone and to ensure protection of the downgradient Resource Areas. Any stockpiles of soils or materials placed within Jurisdictional Areas will be underlain by plastic sheeting and surrounded by erosion controls. Following the completion of the project, erosion controls will be removed, and any exposed soils will be seeded with the approved, native seed mixture. Any catch basins along the limits of work will be fitted with silt sacs to ensure that loose sediment does not enter the municipal drainage system.

In order to construct the retaining wall along the WF8 Series BVW, water control is anticipated to be required due to consistent ponding present within this BVW. As depicted on the Dewatering Plan included in Appendix D, a work area will be isolated with sheeting surrounding by a floating silt curtain in order to prevent migration of sediment. The work area will be pumped dry, and water will be discharged to a sediment filtering bag situated within an upland area. It is anticipated that the Conservation Agent will review the dewatering setup in the field.

4.2 STORMWATER MANAGEMENT

According to the Massachusetts Stormwater Management Standards (310 CMR 10.05(6)(k-q) – the Standards), the portion of the proposed work involving mill and overlay of Grove Street is considered a Redevelopment Project. Redevelopment projects are required to meet the Standards 1 and 7 through 10 fully and Standards 2 through 6 only to the maximum extent practicable but must at least improve existing conditions. 310 CMR 10.05(6)(m)6. also states that footpaths (i.e., the proposed shared use path) are only subject to the Massachusetts Stormwater Management Standards to the extent practicable.

A Stormwater Report detailed the Project's approach to stormwater management is included in Appendix C.

4.3 WETLAND REPLICATION AND RESTORATION

Wetland replication totaling 66 sf will be provided to mitigate the proposed 32 sf of permanent impact to BVW. A wetland replication plan is provided with the Project Plans in Appendix D.

Generally, sequencing of the replication area construction will consist of the following:

- i. Erosion controls consisting of compost filter tubes will be installed along the existing wetland boundary where replication is proposed.
- ii. Machinery will be staged within the existing roadway to conduct the required grading. It is anticipated that final grade for the replication area will be approximately one (1) foot lower than existing conditions; however, target grades will be established in the field by a Wetland Scientist.
- iii. Once the target grade is established, the replication area will be over excavated by one (1) foot and backfilled with hydric soils from the impacted wetland. Should stockpiling hydric soils not be feasible, a mix of half clean loam and half compost will be created onsite under the supervision of the Wetland Scientist and placed within the replication area.
- iv. The replication area shall be seeded and planted as described on the plan in Appendix D. Application of clean straw mulch may be required for interim stabilization.
- v. The wetland replication area will be monitored to ensure compliance with the BVW General Performance Standards over the course of two (2) growing seasons.

In addition to wetland replication providing mitigation for permanent BVW impacts, all temporary BVW impacts will be restored in place. This will consist of scarifying and loosening underlying soils and applying a native wetland seed mix. Clean straw mulch will be applied for interim stabilization and erosion controls will remain in place until stabilization is achieved.

4.4 UNDISTURBED BUFFER ZONE RESTORATION

Impacts to undisturbed portions of Buffer Zone will be required to construct the Project. As mitigation, all disturbed areas will be seeded with a native seed mixture and returned to existing grade. Although woody plantings were considered, it was determined to be inconsistent with the Project purpose due to potential sight line issues.

In addition to the use of a native seed mix, the proposed stormwater management improvements are anticipated to provide a benefit to the Buffer Zone. Areas where roadway runoff previously flowed off of the roadway shoulders with no treatment will now be directed to catch basins and proprietary treatment units. This will improve water quality of runoff within the Buffer Zone and reduce the likelihood of continued erosion and scour that is currently present along Grove Street under existing conditions.

4.5 AVOID / MINIMIZE / MITIGATE

The Avoid / Minimize / Mitigate sequencing was followed to ensure that wetland impacts would be avoided and minimized to the extent practicable. Avoiding wetland impacts entirely was determined infeasible early in the design stages due to the limited right-of-way present and the need to isolate the shared use path from the roadway travel lanes for safety.

During the early design stages, it was determined that the Project would result in over 500 sf of impacts to BVW resulting from the construction of the shared use path. Although not preferable from a roadway design perspective, the shared use path was reconfigured to incorporate narrower sections where adjacent to Resource Areas to limit impacts. In addition, a retaining wall was proposed to minimize grading, further reducing BVW impacts. The currently proposed BVW impacts (32 sf) represent a fraction of the impacts proposed under the original design.

Mitigation for unavoidable impacts is being provided through wetland replication as discussed above in Section 4.3. All temporary wetland impacts will also be restored in place.

5.0 REGULATORY COMPLIANCE

The Project is anticipated to support the interests of the Act and comply with the Bylaw requirements for work within the 100-foot Buffer Zone Resource Area.

5.1 MASSACHUSETTS WETLANDS PROTECTION ACT AND REGULATIONS

5.1.1 LIMITED PROJECT PROVISIONS – 310 CMR 10.53(6)

Construction of the shared use path within RA is eligible to be treated as a limited project pursuant to 10.53(6)⁶. The Project was designed so that construction of the shared use path would not result in direct impacts to Resource Areas other than RA, with the exception of the unavoidable 32 sf in BVW impacts. The shared use path within RA is variable in width from 8 to 10 feet. The width of the path was reduced to 8 feet where crossing over culverts to prevent impacts to other Resource Areas, and portions of the path that are 10 feet in width are partially within previously altered areas that are currently paved or otherwise degraded.

5.1.2 BORDERING VEGETATED WETLANDS GENERAL PERFORMANCE STANDARDS – 310 CMR 10.55 (4)(B)

The Project proposes 32 sf of BVW impact to the WF8 Series BVW. In accordance with 310 CMR 10.55(4)(B), loss of up to 5,000 sf of BVW is allowable when the lost area is replaced in accordance with the General Performance Standards 1 through 7 as presented below. A Functions and Values Assessment has been completed for the WF8 Series per Section 7.14.2 of the Bylaw Regulations (Appendix A).

1. Replication of the lost area is proposed at a 2:1 ratio in accordance with Section 7.14 of the Town Regulations. The Project will provide 66 sf of replication for 32 sf of lost area within the WF8 Series BVW.

⁶ 310 CMR 10.53(6) Notwithstanding the provisions of 310 CMR 10.58, the Issuing Authority may issue an Order of Conditions permitting as a limited project the construction, rehabilitation, and maintenance of footpaths, bikepaths, and other pedestrian or nonmotorized vehicle access to or along riverfront areas but outside other resource areas, provided that adverse impacts from the work are minimized and that the design specifications are commensurate with the projected use and are compatible with the character of the riverfront area. Generally, the width of the access shall not exceed ten feet of pavement, except within an area that is already altered (e.g., railroad beds within rights of way). Access shall not be located in vernal pools or fenced in a manner which would impede the movement of wildlife.

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2. The replication area is proposed in the same vicinity of the lost area and grading will be conducted to match the elevation of the lost area. A Wetland Scientist will oversee grading to ensure that target elevations are achieved.
3. The horizontal configuration of the replication area in relation to the Bank will be similar to that of the lost area, i.e., it will be located along the same wetland (WF8 Series BVW) and along the same end of the adjacent culvert.
4. The replication area is located on the same side of the adjacent culvert as the lost area; therefore, no hydraulic restrictions will be present.
5. The replication area is proposed within the same reach of the stream that provides hydrology to the WF8 Series BVW.
6. Once completed, the replication area will be monitored over the course of two growing seasons to ensure at least 75% of the replication area is vegetated with native species.
7. The replication area is consistent with all other General Performance Standards for each resource area in Part III of 310 CMR 10.00.

Therefore, the Project complies with all BVW Performance Standards.

5.1.3 BORDERING LAND SUBJECT TO FLOODING – 310 CMR 10.57(4)(A)

The 773 sf of impacts proposed within BLSF will not result in a loss of flood storage volume and will therefore meet the performance standards at 310 CMR 10.57(4)(a)(1 through 3). Through the grading of compensatory storage at elevation-by-elevation increments, work conducted within BLSF will not restrict flow, increase flood stage, or increase peak runoff flows or volume. A Floodplain Impact Volume table is provided on sheet 21 of the attached Project plans (Appendix D). Due to proposed impacts to areas of BLSF presumed valuable to wildlife habitat totaling less than 5,000 sf, a Wildlife Habitat Evaluation is not required.

Therefore, the Project complies with all BLSF Performance Standards.

5.1.4 RIVERFRONT AREA – PERFORMANCE STANDARDS – 310 CMR 10.58 (4)

The Project is subject to the Limited Project provisions of 310 CMR 10.53(6); therefore, strict compliance with RA Performance Standards is not required. However, an Alternatives Analysis prepared in compliance with 310 CMR 10.58(4)(c)(2) has been provided in Section 6 of this narrative documenting that there is no practicable alternative to the proposed Project that would have less adverse effects on wetland interests provided by the RA. As a Limited Project, efforts including the restoration of temporary impacts with a native seed mix have been made to limit impacts to non-degraded RA. Areas where the Project will encroach into non-degraded 100-foot Inner Riparian Zones currently do not provide the full 100 feet of undisturbed vegetation under existing conditions. Vegetative cover within RA will be maintained to the maximum extent practicable.

The Project also includes previously developed areas within RA which meet the definition of degraded areas. Per 310 CMR 10.58(5):

“A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds”.

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Previously developed areas at the Site include impervious surfaces associated with the existing paved Grove Street right-of-way and the absence of topsoil associated with gravel shoulders. The following is a summary of the Project as it relates to the criteria of 310 CMR 10.58(5):

- (a) Proposed work will improve the management of runoff over existing conditions with the installation of new stormwater BMPs. In areas where new impervious surface is proposed, pavement will be graded to drain to the municipal roadway drainage system for treatment and/or discharge to a stabilized area.
- (b) The Project was designed to meet the Massachusetts Stormwater Management Standards to the maximum extent practicable as a Redevelopment and pedestrian path project (Appendix C).
- (c) Within the 200-foot Riverfront Area, portions of the proposed work inside previously developed area will be closer to Mine Brook and its tributaries than existing conditions. These encroachments are associated with the shared use path and therefore subject to the Limited Project provisions of 310 CMR 10.53(6).
- (d) Portions of the work are proposed outside of existing degraded RA. These encroachments are associated with the shared use path and therefore subject to the Limited Project provisions of 310 CMR 10.53(6).
- (e) The Project will result in the creation of new degraded areas. These encroachments are associated with the shared use path and therefore subject to the Limited Project provisions of 310 CMR 10.53(6).
- (f) Restoration of onsite degraded Riverfront Area is not proposed.
- (g) Mitigation for work within previously degraded RA is proposed through the installation of stormwater BMPs and restoration of temporarily impacted areas with a native seed mix.

5.2 TOWN OF FRANKLIN WETLANDS PROTECTION BYLAW AND REGULATIONS

The Bylaw Regulations set forth specific Performance Standards for work within the Buffer Zone Resource Area.

5.2.1 0 TO 25-FOOT BUFFER ZONE RESOURCE AREA

Section 4.2 of the Bylaw Regulations states that no work or disturbance including grading activities shall occur within the 0- to 25-foot Buffer Zone Resource Area. Onsite Buffer Zone Resource Area consists of a mix of both degraded and non-degraded areas. Where work required to construct the Project is proposed within the 0- to 25-foot Buffer Zone Resource Area due to existing right-of-way constraints, a Variance is requested pursuant to Section 5 of the Bylaw Regulations. A Variance request is included in Section 7.0 of this NOI. Erosion controls are proposed to protect downgradient BVW and Bank in these areas and all temporary impacts will be restored in place with a native seed mix.

5.2.2 25 TO 50-FOOT BUFFER ZONE RESOURCE AREA

Section 4.3 of the Bylaw Regulations states that alteration within the 25- to 50-foot Buffer Zone Resource Area is limited to grading, tree clearing, installation of stormwater management system components, and other low impact uses. Work within this Resource Area is generally within existing developed area and includes grading, vegetative clearing, and installation of stormwater BMPs. However, the Project requires construction of portions of the shared use path within this Resource Area due to existing right-of-way constraints; therefore, a Variance is requested pursuant to Section 5 of the Bylaw Regulations for the

construction of a shared use path within the 25-to 50-foot Buffer Zone Resource Area. A Variance request is included in Section 7.0 of this NOI.

5.2.3 50 TO 100-FOOT BUFFER ZONE RESOURCE AREA

Section 4.4 of the Bylaw Regulations states that work on slopes in excess of 10% within the 50 to 100-foot Buffer Zone Resource Area may be subject to additional mitigation requirements as deemed necessary by the Commission. It is BETA's opinion that additional mitigation for the riprap slopes is not warranted, as runoff from developed away will be graded away from the slopes and directed to the municipal drainage system. In addition, any temporarily impacted areas surrounding these slopes will be stabilized with a native seed mix.

5.2.4 FUNCTIONS AND CHARACTERISTICS STATEMENT

In accordance with Section 7.13 of the Bylaw Regulations, the following summary of the Project's potential effects on Resource Area functions and characteristics is provided for the Commission's review:

Public Water Supplies

Two (2) public water supply wells are located within the vicinity of the Site. Accordingly, the Project is located within a Zone II Wellhead Protection Area and will treat the required water quality volume accordingly. The proposed stormwater BMPs will treat and direct runoff back into the groundwater aquifer associated with these public wells. Therefore, this function is upheld.

Private Water Supplies

There are no known private wells in the area – this function is not applicable.

Groundwater

Groundwater recharge will be accomplished through the discharge of stormwater to vegetated areas following treatment. In addition, the southern portions of the Project will discharge to the infiltration basin approved under the Phase I NOI. Therefore, this function is upheld.

Flood Control

The Project will not result in the reduction of flood storage volume within wetlands or the 100-year floodplain. Therefore, this function is upheld.

Erosion and Sedimentation

As discussed in Section 4.1 of this NOI, erosion control measures consisting of compost filter tubes and catch basin inlet protection will be implemented during construction. Following construction, all areas of exposed soil will be stabilized with the approved seed mixture. These measures are anticipated to be adequate in preventing construction-period erosion and sedimentation and support the Buffer Zone Resource Area's ability to provide this function in the future. Therefore, this function is upheld.

Storm Damage Prevention

Any runoff generated from new impervious areas will be directed to stormwater management BMPs, and temporarily impacted areas will be vegetated with herbaceous vegetation. Therefore, the Resource Area's ability to function as a means of storm damage prevention is upheld.

Water Quality

The erosion and sedimentation controls described in Section 4.1 will prevent negative impacts to water quality during construction. Following completion of the Project, the new stormwater BMPs will provide treatment of currently untreated stormwater runoff. Therefore, good water quality will be upheld by the Project.

Fisheries

There are no Resource Areas known to be functioning as fisheries at the Site – this function is not applicable.

Wildlife Habitat

Work will occur primarily within existing pavement and roadway shoulders consisting of disturbed herbaceous vegetation. Any clearing of vegetation will be mitigated through the application of loam and a native seed mix. Therefore, it is anticipated that wildlife habitat will be maintained.

Rare Species Habitat

There are no known rare species present at the Site – this function is not applicable.

Agriculture

There are no known agricultural operations at the Site – this function is not applicable.

Recreation

The Project will serve to provide both improved mediums of transportation and provide a safer corridor for recreational activities such as walking and bicycling. By implementing the mitigation measures discussed in this NOI, this opportunity for public recreation will be accomplished while limiting impacts to Resource Areas. Therefore, this function is upheld.

6.0 ALTERNATIVES ANALYSIS

As required by the General Performance Standards for RA at 310 CMR 10.58(4)(c)(1-3), there must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131 § 40⁷. An alternative is practicable and substantially equivalent economically if it is available and capable of being done after taking into consideration costs, existing technology, proposed use, and logistics in light of overall project purposes. Available and capable of being done means the alternative is obtainable and feasible.⁸

This alternatives analysis is also being completed pursuant to Section 7.13.1 of the local Regulations that requires an alternatives analysis narrative in compliance with the requirements as presented in 310 CMR 10.58 (4) for certain project types. This Project requires an alternatives analysis pursuant to the local Regulations as work is within RA and wetland impacts are proposed.

⁷ The eight interests of M.G.L. c. 131 § 40 include the protection of private and public water supply; protection of ground water; flood control; prevention of storm damage; prevention of pollution; protection of land containing shellfish; protection of wildlife habitat; and the protection of fisheries.

⁸ 310 CMR 10.58(4)(c)(1) Definition of Practicable

6.1 SCOPE AND EVALUATION OF ALTERNATIVES

6.1.1 PROJECT PURPOSE

The purpose of the Project is for the DPW to improve the Town of Franklin's public infrastructure by constructing a shared use path along Grove Street and improve existing roadway and stormwater management infrastructure. The Project will result in a safe and effective alternative means of transportation connecting a residential part of Franklin to the town's center and a state forest while upgrading important infrastructure along Grove Street.

6.1.2 SCOPE OF ALTERNATIVES

According to 310 CMR 10.58(4)(c)(2), the scope of alternatives to consider shall be commensurate with the type and scope of the project. The issuing authority shall presume that alternatives beyond the scope are not practicable and therefore need not be considered. For this Project, the area under consideration for practicable alternatives extends to the original parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality for activities conducted by municipal government.

For adjacent lots if practicable, "reasonably be obtained" means to purchase at market prices. For other land, "reasonably be obtained" means adequate in size to accommodate the project purpose and listed for sale at the time of filing the Notice of Intent.

6.1.3 EVALUATION OF ALTERNATIVES

The Applicant is required to submit information to describe sites and the work both for a proposed location and alternative site locations and configurations sufficient for a No Significant Adverse Impact determination by the issuing authority. The level of detail of information shall be commensurate with the scope of the project and the practicability of alternatives. If siting of a project entirely outside the riverfront area is not practicable, the alternatives shall be evaluated to locate the project as far as possible from the river.⁹

Based on the Evaluation of Alternatives presented herein, it has been determined that no practicable and substantially equivalent economic alternative to the current design of the Project exists that meets the Project Purpose with less adverse effects on the interests identified in M.G.L. c. 131 § 40.

6.2 PROJECT ALTERNATIVES

During the design phase of the Project, alternatives were considered in development of the shared use path. Given the overlap of Riverfront Area impacts and BVW impacts, Project alternatives for both Resource Areas were reviewed together.

The alternatives for this Project were analyzed based on the following evaluation criteria: Impacts to inland Resource Areas; Impacts to rare species and unique wildlife habitat; Ability to meet the Project goals; Construction, maintenance, and cost; and resiliency.

6.2.1 NO-BUILD ALTERNATIVE

A No-Build scenario would result in no impacts to wetlands and would not require vegetative clearing. Although the No-Build alternative would be cost-effective, it would require pedestrians, cyclists, and other users to use roadway shoulders and inadequately marked intersections for travel which results in safety concerns. Pedestrian improvements are especially important along Grove Street as the Franklin Town

⁹ 310 CMR 10.58(4)(c)(3) Evaluation of Alternatives

Forest borders multiple portions of Grove Street, and the Southern New England Trunkline Trail (SNNE Trunkline Trail) crosses Grove Street between Stations 22+00 and 23+00. The No-Build scenario also would necessitate the continued use of aging roadway infrastructure and stormwater controls, increasing risks of their eventual failure. Accordingly, this scenario does not achieve the Project's goal of improving safety and infrastructure.

6.2.2 SHARED USE PATH DESIGN ALTERNATIVES

Alternatives to the proposed design of the shared use path and materials used to construct the path were considered. Considerations included

1. Option 1 – A reduced path width generally less than 8 to 10 feet; and
2. Option 2 – An unpaved shared use path instead of the currently proposed hot mixed asphalt (HMA) path.

Reduction of the shared use path width as considered with Option 1 would reduce overall Project cost as less materials and permitting would be necessary. Additionally, a reduced path width would reduce Resource Area impacts BVW and RA; however, it would also reduce the usability of the path for alternative means of transportation, which conflicts with the Project purpose. Reduction of the width of the path would not provide enough passing room for pedestrians and cyclists traveling concurrently. Incorporating adequate space for both pedestrians and cyclists is especially important given that the SSNE Trunkline Trail bisects Grove Street within the Project area and is anticipated to result in significant shared use path use by pedestrians.

Use of pervious materials for the shared use path as considered with Option 2 would reduce the amount of impervious surface within Riverfront Area, but it would not reduce impacts to the BVW. Although impervious surface would be reduced, an unpaved pathway would be more difficult to maintain, would not be as accessible, and would eventually become compacted like a paved surface. Use of a pervious asphalt or similar material would be costly to install and difficult to maintain long-term.

6.2.3 FINDINGS

Based on the Alternatives Analysis presented herein, it has been determined that no practicable and substantially equivalent economic alternative to the current design of the Project exists that meets the Project Purpose with less adverse effects on the interests identified in M.G.L. c. 131 § 40.

7.0 VARIANCE REQUEST

Pursuant to Section 5 of the Bylaw Regulations, the DPW respectfully requests a Variance from the Buffer Zone Resource Area Performance Standards. Strict enforcement of the 0- to 25-foot and 25- to 50-foot Buffer Zones Resource Area Performance Standards would result in a hardship by rendering the Project as non-constructible. Due to the existing right-of-way constraints associated with Grove Street, the locations of the shared use path and other roadway improvements are limited to either side of the roadway. Wetland resource areas are present along several portions of the roadway, directly abutting existing infrastructure. Through the design phase of the Project, Resource Area impacts have been avoided where possible. Where impacts are required, they have been minimized through the use of erosion controls, retaining walls, and reduced shared use path width. Mitigation for unavoidable impacts includes stormwater management system improvements, wetland replication and restoration, and restoration of temporarily impacted Buffer Zone Resource Area.

8.0 SUMMARY

The Project will result in substantial improvements to a transportation corridor within the Town of Franklin and offer a safer means of non-motorized travel. Erosion control measures and stormwater management BMPs are anticipated to mitigate for an increase in impervious areas, and wetland replication and restoration will be provided where impacts are required.

The Project Team feels the Commission has sufficient information to describe the Site, the work, and the effect of the work on the interests identified in the Act and the Bylaw. This NOI respectfully requests the issuance of an Order of Conditions approving the Project.