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June 22, 2018

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: Reconstruction of Highland Avenue, Needham Street, and Charles River Bridge, N-04-002, from Webster Street to Route 9
PROJECT MUNICIPALITY	: Needham and Newton
PROJECT WATERSHED	: Charles River
EEA NUMBER	: 15859
PROJECT PROPONENT	: Massachusetts Department of Transportation – Highway Division
DATE NOTICED IN MONITOR	: May 23, 2018

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project is proposed by the Massachusetts Department of Transportation (MassDOT) and includes reconstruction of two sections of Highland Avenue in Needham, rehabilitation of the Highland Avenue/Needham Street Bridge over the Charles River at the Needham/Newton municipal border, and reconstruction of Needham Street and a portion of Winchester Street in Newton. According to the ENF, the purpose of the project is to improve pedestrian and bicycle safety and accessibility, increase the roadway capacity, and address operational deficiencies at specific intersections

through providing a consistent roadway cross-section with accessible sidewalks and designated bicycle lanes and improved intersection geometry.

Work along Highland Avenue and Needham Street generally includes roadway widening to accommodate 11-foot (ft) wide travel lanes with additional turn lanes at select intersections, 2-ft wide shoulders, 5-ft wide sidewalks and a separated 5-ft wide bike lane in each direction. The project will upgrade three existing traffic signals along Highland Avenue (at Webster Street, Hunting Road, and Second Avenue) and two along Needham Street (at Columbia Avenue and Winchester Street/Dedham Street). The project will install stop signs at side streets that intersect Needham Street (Industrial Place, Tower Road, Jaconnet Street, and Rockland Street) and a new traffic signal at Charlemont Street. Work along Winchester Street generally consists of 11-ft wide travel lanes, 2-ft wide shoulders, and a 9.5-ft wide shared bicycle lane/sidewalk in each direction. The project will also install new traffic signals on Winchester Street at the Route 9 eastbound and westbound ramps. Rehabilitation of the Highland Avenue/Needham Street bridge includes repointing the stone masonry and reconfiguration of the roadway cross section to provide an 11-ft wide westbound travel lane, two eastbound travel lanes (10-ft wide left turn, 11-ft through lane) with 2-ft wide shoulders and 8.5-ft wide cantilevered sidewalks in each direction for shared bicycle and pedestrian use.

The project also includes intersection improvements and a new traffic signal at Highland Avenue and First Avenue in Needham and traffic signal improvements and reconstruction of the intersection of Needham Street with Oak and Christina Streets in Newton. These projects received MassWorks funding in 2014 and are being implemented as separate contracts by the Town of Needham and City of Newton (respectively). Work in Needham is substantially complete and the intersection improvements in Newton will be complete by Fall 2018. To be conservative, the ENF included a description of this work and identified the impacts associated with these improvements.

Project Corridor

The project includes two segments of Highland Avenue (3,326 total linear feet (lf)), approximately 4,577 lf of Needham Street, and approximately 1,900 lf of Winchester Street. They are all state-controlled roadways under the jurisdiction of MassDOT and are classified as urban arterial roadways. The cross-section, including roadway width (28-ft to 59-ft), sidewalk availability, and shoulder width varies throughout the corridor. Sidewalks are in poor condition and lack Americans with Disabilities Act (ADA)-compliant accessibility ramps. Few pedestrian crossings are provided along the corridor and there are no accommodations for bicycle travel. According to the ENF, traffic operations are poor during peak hours due to high traffic volumes and poor roadway geometry which inhibits traffic flow. The portion of Highland Avenue that extends over Interstate-95 (I-95) is under construction as part of the I-95 Add-a-Lane project and is excluded from this project. The Center 128 Project (EEA# 15233) is located along Highland Avenue at its intersection with First Avenue and Second Avenue. This project completed MEPA review in February 26, 2016 when the Secretary issued a Certificate indicating that the project adequately and properly complied with MEPA and its implementing regulations. The Needham

Street Redevelopment project (EEA# 15757), located along Needham Street at its intersection with Oak Street and Charlemont Streets, is undergoing a separate MEPA review.[1]

According to the ENF, the Highland Avenue/Needham Street Bridge over the Charles River (Bridge No. N-04-002) is structurally sound, but is functionally obsolete as it provides one travel lane in each direction. The Charles River Reservation is located on the west bank of the Charles River and adjacent to the south side of the Highland Avenue/Needham Street Bridge. The Charles River Reservation is owned by the Commonwealth of Massachusetts in the care, custody, and control of the Department of Conservation and Recreation (DCR).

Jurisdiction and Permitting

This project is undergoing review and requires the filing of an ENF pursuant to Sections 11.03(1)(b)(3) and 11.03(6)(b)(1)(b) of the MEPA regulations because it requires State Agency Actions and will result in the conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth (Article 97) to any purpose not in accordance with Article 97 and will result in the widening of an existing roadway by four or more feet for one-half or more miles, respectively.

The project is proposed and funded by a State Agency. It requires a Land Transfer and a Construction and Access Permit from DCR.

The project requires Orders of Conditions (OOC) from the Needham and Newton Conservation Commissions (or in the case of an appeal, a Superseding Order of Conditions from Massachusetts Department of Environmental Protection (MassDEP)). The Newton Conservation Commission issued an OOC for the reconstruction of the Needham Street intersection with Oak and Christina Streets on February 29, 2016 which was not appealed (MassDEP File No. 239-741).

The project is subject to review by the Massachusetts Historical Commission (MHC) acting as the State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR 800). It also requires review pursuant to the National Environmental Policy Act (Categorical Exclusion Exemption) and Section 4(f) of the U.S. Department of Transportation Act of 1966 (Recreational and Historic De Minimis Determinations). It may require a National Pollutant Discharge Elimination System (NPDES) General Permit for Construction from the U.S. Environmental Protection Agency (EPA).

Because the project is being undertaken by a State Agency, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

[1]This project consists of a 1.4 million-sf mixed-use, transit-oriented-development on a 28.7-acre site located along Needham Street and Oak Streets. On October 6, 2017, the Secretary issued a Certificate on the ENF which required the preparation of a DEIR.

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include creation of 32,670 square feet (sf) of impervious area (19.52 acres total) and alteration of the following wetland resource areas: Land Under Water (LUW) (400 sf temporary), Bordering Land Subject to Flooding (BLSF) (39,864 sf permanent), and Riverfront Area (8,247 sf temporary/17,008 sf permanent)[2]. The project will result in a conversion of 6,797 sf of land to a purpose not in accordance with Article 97.

To mitigate this conversion and consistent with the Article 97 Policy, MassDOT will provide a 37,500-sf parcel to DCR as compensatory open space. Other measures to avoid, minimize, and mitigate impacts include: designing the project to provide a net increase in flood storage, stormwater management improvements, use of erosion and sedimentation controls, and implementation of a traffic management plan.

Review of the ENF

The ENF provided a description of existing and proposed conditions, a discussion of project alternatives, preliminary project plans, and identified measures to avoid, minimize and mitigate project impacts. Consultants for MassDOT provided supplemental information to facilitate MEPA review, including the Functional Design Report (FDR), Drainage Report, Design Exception Report (DER), and information regarding impacts to DCR land and compliance with the Article 97 Land Disposition Policy.[3]

Alternatives Analysis

According to the ENF, the No Build alternative was eliminated as it would not meet the project goals of improving traffic operation and vehicular, bicycle, and pedestrian movement and safety along the corridor. As described below, MassDOT evaluated several design alternatives for each component of the project in coordination with the Town of Needham and the City of Newton. The ENF provided a summary of the design alternatives which were further described in the DER and FDR.

The following alternatives were evaluated for the Highland Avenue/Needham Street Bridge over the Charles River: Alternative 1: three 11-ft wide travel lanes with 3.5-ft wide shared shoulder/bicycle lanes and construction of two independent pedestrian bridges; Alternative 2: three 11-ft wide travel lanes with 2-ft wide shoulders and new 8.5-ft wide shared-use sidewalks cantilevered from each side of the bridge *(Preferred Alternative)*, and Alternative 3: Full replacement of the bridge with four 11-ft wide travel lanes with 4-ft wide shoulders, and 6-ft sidewalks on each side. The ENF indicated that Alternative 2 was selected as the Preferred Alternative for the bridge as it will retain the existing characteristics of the historic structure, provide the roadway cross section within the existing bridge width, and will meet the project

[2] Including 5,100 sf of impacts to the Riverfront Area as identified in the OOC for the reconstruction of the intersection of Needham Street with Oak and Christina Streets in Newton (a copy of which was provided with the ENF). To be conservative, this Certificate assumes this Riverfront Alteration is permanent.

[3] Emails from Marie Sullivan (Stantec) sent 6/7/18 and 6/11/18 to Page Czepiga (MEPA Office), email from Michael Paiewonsky (Stantec) sent 6/8/18 to Page Czepiga.

goals of increasing roadway capacity and improving pedestrian and bicycle safety and accessibility.

The alternatives evaluated for Highland Avenue consisted of varying shoulder widths and tapers as follows: Alternative 1: 4-ft wide shoulders in each direction (in compliance with *MassHighway Project Development and Design Guide* requirements); Alternative 2: Reduced shoulder widths and 5-ft on-road bike lanes; and Alternative 3: Separated bike lanes *(Preferred Alternative)*. The ENF indicated that Alternative 3 was selected as the Preferred Alternative for Highland Avenue because it reduces required right-of-way (ROW) land takings (including adjacent DCR land) and will separate bicyclists from vehicular traffic which is consistent with desired mode shift and safety objectives.

The ENF evaluated the following alternatives for Needham Street: Alternative 1: Provide two 11-ft wide travel lanes, a 14-ft wide center two-way left turn lane, and 4-ft wide shoulders (in compliance with *MassHighway Project Development and Design Guide* requirements), Alternative 2: Provide two 11-ft wide travel lanes, a 14-ft wide center two-way left turn lane, and 5-ft wide on-road bike lanes; Alternative 3: Provide two 11-ft wide travel lanes, a 14-ft wide center two-way left turn lane, and 5-ft wide separated bike lanes *(Preferred Alternative)*; Alternative 4: Provide two through lanes with a center two-way left turn lane; and Alternative 5: Create a roundabout at the intersection of Needham Street with Winchester Street and Dedham Street. According to the ENF, Alternative 3 was selected as the Preferred Alternative for Needham Street as it reduces required ROW land takings and provides improved traffic operations and bike accommodations.

The following alternatives were evaluated for Winchester Street: Alternative 1: Provide four 11-ft wide travel lanes with 2-ft wide shoulders; Alternative 2: Provide two 11-ft wide travel lanes, a 14-ft wide center two-way left turn lane, and 5-ft wide on-road bike lanes; and Alternative 3: Provide two 11-ft wide travel lanes, 12-ft wide center two-way left turn lane, 2-ft wide shoulders, and 9.5-ft wide shared-use sidewalks *(Preferred Alternative).* The ENF indicated that Alternative 3 was selected as the Preferred Alternative because it will separate pedestrians and bicyclists from vehicular traffic while minimizing potential ROW impacts.

The Preferred Alternative for the project corridor, as described above, will require design exceptions to reduce shoulder widths along roadways and along the bridge and to reduce the width of the bicycle lane along portions of Winchester Street. These design exceptions will generally reduce the width of the cross section and will reduce impacts to abutters and required land takings.

Transportation

The FDR described traffic volumes and conditions, anticipated traffic volumes, crash rate data, and level-of-service (LOS) operations along the corridor under 2024 No-Build (without the project), and 2024 Build Conditions. It also included results of a Traffic Signal Warrant Analysis which indicated that the intersections of Highland Avenue and First Street and Winchester Street with both Route 9 ramps satisfy the applicable criteria for a traffic signal. The FDR provided a comprehensive safety analysis and crash rates for intersections within the project corridor and

compared the average crash rates to the appropriate district and statewide average. According to the FDR, the following intersections exceed the MassDOT District #6 average crash rate: Needham Street at Charlemont Street and Highland Avenue at Wexford Street. The project will provide geometric improvements and install a new traffic signal at Needham Street and Charlemont Street and will provide a designated left turn lane heading eastbound on Highland Avenue to improve safety at these locations. According to the FDR, the intersection of Needham Street with Oak and Christina Streets is designated as a Highway Safety Improvement Program (HSIP) crash cluster for 2007-2011. The FDR indicated that a Road Safety Audit (RSA) was performed at this location to identify potential safety improvements. The improvements underway by the City of Newton at this location implement the recommendations identified in the RSA to improve safety.

According to the ENF, the project has been identified in the Boston Metropolitan Planning Association's (MPO) 2018-2022 Transportation Improvement Plan (TIP). The ENF indicates the project is consistent with both the *Massachusetts Bicycle Transportation Plan* (2008) and *Massachusetts Pedestrian Transportation Plan* (2016) because it will provide a network of continuous sidewalks, separated bike lanes, and wider shared-use sidewalks which will improve cyclist and pedestrian safety and accessibility. The project is designed to comply with MassDOT's GreenDOT Policy and Healthy Transportation Policy as the new and upgraded sidewalks, pedestrian crossings, and cyclist accommodations will promote multi-modal transportation options such as walking and bicycling. As described in the DER, the project will require a total of six design exceptions to address cross slope, superelevation transition, compound curves, shoulder widths along roadways, shoulder widths along the bridge, and the width of the bicycle lane along portions of Winchester Street.

Land Alteration/Wetlands/Stormwater

The project will impact LUW, BLSF, and Riverfront Area. The Needham and Newton Conservation Commissions will review the project for its consistency with the Wetlands Protection Act, the Wetlands Regulations (310 CMR 10.00), and associated performance standards, including the Stormwater Management Standards (SMS). According to the ENF, the majority of impacts to Riverfront Area will occur within previously developed areas. Impacts to LUW are temporary and associated with the placement of footings for temporary platforms to facilitate work on the bridge piers and abutments. The project will impact 39,864 sf of BLSF which equates to 2,442.2 cubic yards (cy) of flood storage. The project will mitigate impacts by providing 2,607.7 cy of compensatory storage. According to the ENF, reconstruction of the Highland Avenue/Needham Street bridge will also require a Chapter 91 (c.91) Minor Modification from MassDEP in accordance with the Waterways Regulations (310 CMR 9.00).

The project will create 32,670 sf of New impervious area. According to the ENF, the project is a combination of redevelopment and new development areas for purposes of complying with the SMS. According to the Drainage Report, the highly developed nature of the project corridor and existing site features affected the selection and location of stormwater BMPs. Supplemental information provided by MassDOT's consultants included a "Stormwater Alternatives Analysis" memorandum that evaluated alternative types (infiltration swales/basins, off-line infiltration structures, and subsurface infiltration structure) and locations (21 Highland

Avenue – Retail Plaza; 40 Highland Avenue – Chestnut Motors, and DCR Charles River Reservation) for stormwater Best Management Practices (BMPs). The analysis identified DCR's Charles River Reservation as the preferred location for an infiltration structure based on the following evaluative criteria: topography/soils, available ROW, adjacent land uses, presence of subsurface utilities, maintenance requirements, depth to groundwater, and wetland resource impacts. I refer MassDOT to comments from the City of Newton which identify other BMPs that may be suitable for the project and that can be used to provide additional water quality benefits. I encourage MassDOT to incorporate these additional BMPs and green infrastructure measures into the project design.

The existing stormwater management system generally consists of a closed drainage system with catch basins, manholes, and piping that discharges via flared end sections (in Needham) or headwalls (in Newton). The City of Newton will construct a water quality swale with stone check dams and riprap stone apron as part of reconstruction of the intersection of Needham Street with Oak and Christina Streets. According to the ENF, this feature was intentionally oversized to treat additional stormwater runoff from the Needham Street corridor. The project will also upgrade existing catch basins and install new deep-sump hooded catch basins and infiltration trenches throughout the corridor and will install an infiltration basin on DCR land to improve stormwater quality. I refer MassDOT to comments from the Charles River Watershed Association (CRWA) which indicate that these BMPs have potential to meet regulatory requirements, though additional information is required to support an evaluation of the system's compliance with Total Maximum Daily Load (TMDL) requirements.

Article 97 Land

As described in the ENF, the project requires a Land Transfer from DCR of a portion of the Charles River Reservation. The Charles River Reservation is under care, custody, and control of DCR and protected under Article 97 of the Articles of Amendment to the Constitution of the Commonwealth of Massachusetts (Article 97). A transfer of Article 97 land requires legislative approval and compliance with the Executive Office of Energy and Environmental Affairs (EEA) Article 97 Land Disposition Policy (the Policy). A primary goal of the Policy is to achieve no net loss of Article 97 lands under the ownership and control of the Commonwealth by requiring protection of land of equal or greater fair market value or value in use of the interest to be conveyed. Allowances are made within the Policy for exceptional dispositions.

As clarified in supplemental information provided by MassDOT's consultants, the project requires a Land Transfer of 6,797 total sf in the form of permanent drainage and utility easements (6,580 sf and 203 sf, respectively) and a taking of 14 sf of the Charles River Reservation to construct a portion of a sidewalk. During MEPA review of the project and in response to feedback from DCR, MassDOT reduced the size of the permanent drainage easement by 2,157 sf to minimize impacts. MassDOT has proposed to provide DCR with 37,500 sf of land that abuts DCR's Cutler Park as mitigation to compensate for the Land Transfer. Comments from DCR are generally supportive of the Land Transfer and indicate that the proposed mitigation land will adequately compensate for the granting of the easement. I refer MassDOT to comments from DCR and the Needham Conservation Commission which request the infiltration basin be designed to avoid the removal of mature trees and provide guidance on mitigation for

tree clearing. Measures should be taken during construction of the basin to avoid the spread of invasive plant species. I refer MassDOT to DCR's comment letter which requests development and implementation of a post-construction invasive species monitoring plan. I expect that additional information on required tree clearing (including associated mitigation) and invasive species management will be provided in the Notice of Intent application. MassDOT should continue to consult with DCR as legislation is drafted to authorize the granting of the easement.

Historic Resources

The Highland Avenue/Needham Street Bridge (NEE.912/NWT.935) is individually listed on the National Register of Historic Places. The project corridor also includes the Saco-Pettee Textile Machine Shop Building #5 (NWT.3718), which is listed in the National Register of Historic Places as part of the Saco-Pettee Machine Shops (NWT.X). As indicated earlier, the project requires review pursuant to Section 106 of the NHPA of 1966 (36 CFR 800), and M.G.L. Chapter 9, Section 26-27C (301 CMR 11). The FHWA, in consultation with MHC acting as the SHPO will review the project to determine whether it would result in an adverse effect. The ENF indicates that the project is not anticipated to adversely impact historic or archaeological properties. The Massachusetts Board of Underwater Archaeological Resources (BUAR) notes that bridge rehabilitation work is unlikely to impact submerged cultural resources. If any submerged cultural resources are encountered during the course of the project, MassDOT should take steps to limit adverse impacts to resources and notify BUAR immediately.

Construction Period

The project must comply with Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. c.40, s.54. All construction activities should be undertaken in compliance with the conditions of all State and local permits. Consistent with the GreenDOT policy directive, MassDOT requires that contractors install emission control devices in all off-road vehicles. MassDOT's Revised Diesel Retrofit Specification also requires that emissions control standards must be met or technology must be used for non-road, diesel-powered construction equipment in excess of 50 horsepower. Contractors will be instructed to limit engine idling and use ultra-low sulfur diesel fuel. Stormwater BMPs must be implemented during the construction period to reduce potential erosion. If oil and/or hazardous materials are identified during construction, notification must be provided to the Massachusetts Department of Environmental pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000).

Conclusion

Based on a review of the ENF and comments received, and in consultation with State Agencies, I have determined that the ENF has sufficiently defined the nature and general elements of the project for the purposes of MEPA review and demonstrated that the project's environmental impacts will be avoided, minimized and/or mitigated to the extent practicable. No further MEPA review is required. The project may proceed to permitting.

June 22, 2018
Date

Matthew A. Beaton

Comments received:

05/24/2018 MA Board of Underwater Archaeological Resources (BUAR)
06/12/2018 Charles River Watershed Association (CRWA)
06/12/2018 Department of Conservation and Recreation (DCR)
06/12/2018 Needham Conservation Commission
06/12/2018 Newton Conservation Office
06/13/2018 Massachusetts Historical Commission (MHC)

MAB/PRC/prc

The COMMONWEALTH OF MASSACHUSETTS
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May 24, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attention: Page Czepiga, MEPA Unit
100 Cambridge St., Suite 900
Boston, MA 02114

RE: Needham-Newton-Reconstruction of Highland Avenue, Needham Street and Charles River Bridge, N-04-002, from Webster Street (Needham) to Route 9 (Newton) - (EEA #15859)

Dear Secretary Beaton,

The staff of the Massachusetts Board of Underwater Archaeological Resources has reviewed the above referenced project's ENF (#15859) and supporting materials submitted by MassDOT. We offer the following comments.

The Board has conducted a preliminary review of its files and secondary literature sources to identify known and potential submerged cultural resources in the proposed project area. No record of any underwater archaeological resources was found. While the bridge is an historical structure dating to 1875, the area may have been previously disturbed by bridge and adjacent sewer line construction. The Board expects that this project is unlikely to impact submerged cultural resources.

However, should heretofore-unknown submerged cultural resources be encountered during the course of the project, the Board expects that the project's sponsor will take steps to limit adverse affects and notify the Board, as well as other appropriate agencies, immediately in accordance with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

The Board appreciates the opportunity to provide these comments as part of the review process. Should you have any questions regarding this letter, please do not hesitate to contact me at the address above, by email at victor.mastone@state.ma.us, or by telephone at (617) 626-1141.

Sincerely,

Victor T. Mastone
Director

/vtm

CRWA
Saving the Charles River since 1965

June 12, 2018

Secretary Matthew A. Beaton

Executive Office of Environmental Affairs

Attn: MEPA Office

100 Cambridge St, Suite 900

Boston, MA 02114

RE: Reconstruction of Highland Avenue, Needham Street & Charles River Bridge, N-04-002 From Webster Street (Needham) to Route 9 (Newton). EEA #15859

Dear Secretary Beaton,

The Charles River Watershed Association (CRWA) has reviewed the above referenced Environmental Notification Form (ENF) and offers the comments below for your consideration. CRWA also attended the site visit organized by MEPA on 6/5/2018 and voiced some of our concerns regarding the project impacts.

CRWA is pleased to see that the MassDOT has committed to "incorporate stormwater Best Management Practices (BMP's) to meet the Massachusetts Department of Environmental Protection's (DEP's) Stormwater Management Standards and the Total Maximum Daily Load (TMDL) for phosphorous reduction in the Charles River[1]. However, there is no information provided in the ENF on how the TMDL targets would be achieved. While the project includes an infiltration basin (within the Charles River Reservation) as well as a water quality swale[2], it is unclear how much phosphorous treatment the above BMP's will be providing for the project overall.

CRWA has also reviewed the drainage report (75% design submission) that was provided as part of the supplemental information by the project proponents on 6/7/2018. While the report includes documentation on the TSS removal in Appendix D, there are no calculations provided for phosphorous reduction. CRWA is therefore unable to determine if in fact the project would comply with the TMDL requirements.

CRWA is also concerned about the conversion of Article 97 land and its transfer from Mass DCR to MassDOT. There are no details presented in the ENF regarding the above and thus it's difficult to

[1] ENF Pg. 14
[2] ENF Pg. 16

understand the implications of such a transfer. CRWA has reviewed the memorandum (dated June 30, 2015) from FST to DCR as well as the DCR Planning Review of the "Report on Land Requirements" for MassDOT Project #606635. However, the information provided in the above documents is not sufficient for demonstrating how the transfer will comply with the Article 97 policy.

CRWA would therefore request that the proponent provide additional information regarding the project compliance with the TMDL as well as the Article 97 policy. Please feel free to contact me at (781) 788-0007 ext-232 or via email, pmande@crwa.org if you have any questions or additional information to share.

Sincerely,

Pallavi Kalia Mande
Director of Blue Cities, CRWA

dcr
Massachusetts

June 12, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attn: Page Czepiga, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EOEEA #15859 Needham-Newton-Reconstruction of Highland Avenue, Needham Street & Charles River Bridge, N-04-002,From Webster Street (Needham) to Route 9 (Newton)

Dear Secretary Beaton:

The Department of Conservation and Recreation ("DCR" or "Department") is pleased to submit the following comments in response to the Environmental Notification Form ("ENF") submitted by Massachusetts Department of Transportation (the "Proponent") for the Needham-Newton-Reconstruction of Highland Avenue, Needham Street & Charles River Bridge, N-04-002, From Webster Street (Needham) to Route 9 (Newton) Project (the "Project").

As described in the ENF, the Project will reconstruct roadway improvements along two separate sections of Highland Avenue (located in Needham) and Needham Street (located in Newton). The Project will also rehabilitate an existing historic bridge along the corridor that spans the Charles River.

A portion of the Project includes constructing a new infiltration basin, to be located on DCR property near the Charles River on the Needham side. Near the infiltration basin is an existing recreational trail known as the Barnes Pathway that links Highland Avenue to Fourth Avenue in Needham. The Proponent's contractor will need to use this trail for construction access, and will remove and reinstall two granite bollards and decorative stonework. The Proponent will need to obtain a permanent easement from DCR over a 6,797 sf portion of the Charles River Reservation, and accordingly will be subject to Article 97 of the Amendments to the Massachusetts Constitution. A DCR Construction and Access Permit will also be required.

Article 97 Land Disposition

Transfers of interests in state conservation property must meet the requirements set forth in the Executive Office of Energy and Environmental Affairs ("EEA") Article 97 Land Disposition Policy, which has the stated goal of ensuring no net loss of Article 97 lands under the ownership and control of the Commonwealth. The policy states as a general premise that EEA and its agencies shall not sell, transfer or otherwise dispose of any right or interest in Article 97 lands. Transfer of ownership or interests therein may only occur under exceptional circumstances, as defined in the policy, including the determination that no feasible alternative is available, and a minimum amount of land is being disposed for the proposed use.

The Proponent has taken steps to minimize the amount of easement area needed for the maintenance of the infiltration basin. The original easement plan shown in the ENF shows an area around 8,954 square feet that includes an area west of the DCR's Barnes Path. While DCR agrees that the landscaping proposed by the Proponent to the west of the Barnes Path will be beneficial, DCR noted at the MEPA consultation session that area is not directly related to the performance of the infiltration basin, and should not be included in the permanent easement area. Accordingly, DCR and the Proponent have discussed permitting the landscaping work west of the Barnes Path via a temporary mechanism, such as a Construction and Access permit. The new permanent easement area, when subtracting the area west of the Barnes Path and has been reduced by 2,157 square feet to 6,797 square feet.

DCR requests that the Proponent and legislative delegation allow the Department to review and provide substantive input in the drafting of policy-compliant legislation to authorize the granting of the easement.

Mitigation

In the ENF, a parcel containing 37,500 sf abutting DCR's Cutler Park (the "Cutler Park Parcel") is proposed as mitigation to compensate for the new easement. The parcel lies between an existing dirt recreation trail and a large retaining wall for the I-95 northbound lane. While at first appearing on maps as heavily impacted by proximity to the highway, DCR has observed that the Cutler Park Parcel is well shielded from head-lights, noise, traffic, air flow, air-quality and movement flight-responses, due to the existence of the large retaining wall (70 feet tall) for the highway along the entire length of the parcel. The parcel contains mature diverse native tree species with thick understory, leaf litter and microtopography (soils were not inspected). The topography is mostly flat to gently sloping towards the pond and to the south. The site has good connectivity and proximity to Cutler Lake. The swale at the north end contained open water. This area provides a substantial buffer to the lake, providing habitat and protection of water quality. While the Cutler Park Parcel contains invasive plant species at the north end of the parcel, DCR believes the habitat and ecological values offered by the Cutler Park Parcel will adequately compensate for the granting of the easement. DCR requests that the Proponent conduct annual invasive species control treatments prior to conveyance.

To improve coordination of subsequent requests for DCR Article 97 land for transportation projects, DCR requests that the Proponent provide an exchange of CAD property line data. During the review of the ENF, DCR requested that both parties share its data to facilitate future planning.

Construction Impacts

DCR notes that under its Landscape Plan in the ENF, the Proponent commits to retaining 16 trees within the easement area while removing 12 trees. DCR requests that the Proponent consider making refinements to the infiltration basin design to potentially avoid the removal of these trees. This would potentially be beneficial to the Proponent to avoid the need to provide mitigation for tree replacement under DCR's Construction and Access permit. DCR is available for consultation on this request.

DCR notes the need for the Proponent to avoid the spread of invasive plant species during construction of the infiltration basin. Without proper controls, the Project could introduce or exacerbate the presence of invasive species on the property. DCR requests that the Proponent commit to surveying and conducting invasive species control on the property prior to construction, and monitor the site for invasive species for two growing seasons post-construction.

As part of its Construction and Access permit, DCR will require that the Proponent restore the existing trail, including the removal and reinstallation of the two granite bollards and the decorative stone pavers. DCR may also request some refinements to the Landscaping Plan presented in the ENF. Only native plantings should be incorporated, and evergreen shrubs should be incorporated to screen the abutting garage.

Since a portion of the Project is located on DCR property, the Proponent should coordinate with DCR before the filing of the Notice of Intent to the Needham Conservation Commission.

Thank you for the opportunity to comment on the ENF. Questions related to the Article 97 Disposition process can be directed to Jim Comeau at (617) 626-1403 or james.comeau@state.ma.us. Ecology questions can be directed to Corinna Beckwith, Environmental Stewardship Assistant at (617) 626-1398 or corinna.beckwith@state.ma.us.

Sincerely,

Leo P. Roy
Commissioner

cc: Andy Backman, Corinna Beckwith, Jim Comeau, Jennifer Howard, Priscilla Geigis, Jennifer Howard, Nancy Putnam (DCR)

TOWN OF NEEDHAM
CONSERVATION DEPARTMENT
Public Services Administration Building
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June 12, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: MEPA Office

RE: EEA No. 15859 - Highland Ave., Needham St. & Charles River Bridge reconstruction
Needham and Newton, MA
MEPA Environmental Notification Form

Dear Secretary Beaton:

The Needham Conservation Commission (NCC) is in receipt of the above-referenced ENF and is pleased to provide comments for those portions of work proposed to occur within the Town of Needham.

On June 5, 2018, staff of the Needham Conservation department took part in a MEPA site visit to better understand the proposed project. Our main point of concern was the protection of the Charles River and if any mature shade trees were proposed for removal. The ENF states that given the densely developed nature of the project corridor, Department of Conservation and Recreation (DCR) property will be needed to construct a stormwater treatment best management practice (BMP).

The proposed BMP is to be located on the southeast side of the Highland Ave/Needham Street bridge on DCR property in a forested area. While our department is pleased to see that stormwater will now be treated properly before entering the Charles River, we are concerned with the number of proposed tree removals to construct this system, as noted on the Landscape Plan, Sheet No. 148.

The Landscape plan does show that a number of new plantings (393) will be installed for mitigation purposes but of these new plantings only four (4) are shade tree species. Although the Landscape plan does offer a diversity of species and it's obvious that much thought has been put

into the plan, the Needham Conservation department encourages the Applicant to, if possible, find additional, suitable locations for shade trees. We understand that the project location is developed to the maximum extent but if even only a small number of locations for additional shade trees can be found it would be a benefit to the environment of the project location.

We do look forward to discussing this project further with the Needham Conservation Commission when a future Notice of Intent is submitted.

Should you have any questions on the information contained in this letter, please feel free to contact me at (781) 455-7550 [x248] or at chayward@needhamma.gov.

Regards,

Christopher Hayward, MCA
Director of Conservation

cc: Needham Conservation Commission
Needham Park and Recreation Commission
Needham Select Board
Needham Planning Board
Needham Board of Health

Setti D. Warren
Mayor

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Barney S. Heath
Director

June 12, 2018

Matthew Beaton
Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office, Page Czepiga
100 Cambridge Street, Suite 900
Boston MA 02114

Subject: Needham-Newton Reconstruction of Highland Ave, Needham St. & Charles River Bridge N-04-002

Dear Secretary Beaton,

The Conservation Office has met with MEPA staff and with the development team and offer the following comments on the Highland Ave-Needham Street project in Newton.

Timing of the ENF and Comment Period

The ENF process is occurring after years of project design and is associated with 100% design plans. This seems in appropriate as the opportunity for meaningful public input is, therefore, extremely limited. Newton City staff have had the benefit of having had discussions with the project proponent over the past many months but even Newton City staff have not had the benefit of the leverage of the MEPA review framework and mandate until this point, so late in the process.

City Ownership of the Corridor

Please note that the City of Newton will be taking over ownership and management of this corridor upon completion of the project, and so should have strong input into the design and maintenance characteristics of the project.

Wetlands/Environmental Protection

It is appreciated that the proposal includes some water quality initiatives (such as the proposed infiltration trenches) and it is understood that given the complexity of the site, many of the preferred

low-impact best management practices and green infrastructure alternatives are impractical, but many can be employed in small applications throughout the project site. In this vein:

1. Porous pavement should be employed in all stretches of the bike lane where feasible, as was done on Western Ave. in Cambridge.
2. All catch basins should be pre-cast concrete, four-foot-deep-sump catch basins equipped with hoods. [Note: Drain pipe outlet elevations must be reviewed before installing any hood.]
3. Catch basin hoods should be cast iron or a propriety style like the "Snout" and should be enough below grade so as not to prevent routine cleaning of the sumps with a Vactor or clam shell truck.
4. Use of tree / infiltration pits should be maximized.

Thank you for the opportunity to comment. We look forward to continuing to work closely with the proponent on this very important project.

For the City,

Jennifer Steel
Chief Environmental Planner

CC: Deirdre Buckley, Director MEPA Office
Newton Executive Office
Newton Planning Office
Newton DPW/Engineering
Newton DPW/Utilities
Newton DPW/Transportation

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The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth

Massachusetts Historical Commission

June 13, 2018

Secretary Matthew Beaton
Executive Office of Energy and Environmental Affairs (EEA)
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: Page Czepiga, MEPA Office

RE: Reconstruction of Highland Avenue, Needham Street, Charles River Bridge N-4-2, Highland Avenue and Needham Street, Needham and Newton, MA; MHC# RC.64474, **EEA#15859**

Dear Secretary Beaton:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Environmental Notification Form (ENF) that was submitted, received at this office on May 18, 2018, for the project referenced above. Staff of the MHC have the following comments.

The proposed project consists of roadway improvements along Highland Avenue, Needham Street, and Winchester Street in Needham and Newton. The project also includes the rehabilitation of the Highland Avenue/Needham Street Bridge (N-4-2) over the Charles River.

The information provided indicates that the project will require a permit from the Department of Conservation and Recreation (DCR). The proposed project will also be utilizing funding from the Federal Highway Administration (FHWA) and the Massachusetts Department of Transportation (MassDOT), and as such the MHC will review the overall project under Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800) and the terms of the Programmatic Agreement with the FHWA and MassDOT. Under MHC's state regulations, a Section 106 review automatically substitutes for a state-level MHC review (see 950 CMR 71.04(2)).

The MHC looks forward to the FHWA's determination of the project area of potential effect, identification and evaluation efforts, and findings of effect for the project

The MHC notes that the Highland Avenue/Needham Street Bridge (NEE.912/NWT.935) is individually listed in the National Register of Historic Places. The MHC also notes that the proposed project area includes the Saco-Pettee Textile Machine Shop Building #5 (NWT.3718), which is listed in the National Register of Historic Places as part of the Saco-Pettee Machine Shops (NWT.X).

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800), M.G.L. Chapter 9, sections 26-27C, (950 CMR 71.00), and MEPA (301 CMR 11). Please do not hesitate to contact Linda Santoro or Elizabeth Sherva of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc: Jeffrey Shrimpton, MassDOT
Needham Historical Commission
Newton Historical Commission

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