

November 30, 2018

Via email: AllstonI90Intermodal@dot.state.ma.us

Stephanie Pollack  
Secretary of Transportation  
State Transportation Building  
10 Park Plaza  
Boston, MA 02116

Subject: Comments on I-90 Allston Intermodal Project,  
Technical Report by Independent Review Team (October 2018)

Dear Secretary Pollack:

Thank you for the opportunity to provide comments on the current design alternatives for the Allston/I-90 interchange proposed by the Independent Review Team (IRT). The portion of the project at hand involves replacing the transportation infrastructure located on the narrow strip of land between the Charles River and Boston University known as the Throat. The IRT report presents three new design options and evaluates these in addition to the three design options presented in the Draft Environmental Impact Report (DEIR) on a range of criteria. As part of a larger stakeholder engagement process, the public has been asked to weigh in prior to the selection of the preferred alternative.

Our core concerns may be summarized as follows.

- Every alternative presented impacts land protected by Section 4(f) of the Department of Transportation Act, 23 U.S.C. § 138, 42 U.S.C. § 303, because every alternative will have impacts to the Paul Dudley White Path. Those impacts are in every case substantial in both scale and duration, especially with regard to the recreational services the protected land provides to the public.
- Notwithstanding its practice under the law of the Commonwealth, the Massachusetts of Department of Transportation (MassDOT) cannot lawfully select the preferred alternative without identifying the mitigation measures associated with each alternative at a level of detail sufficient to select the “least harmful alternative” within the meaning of Section 4(f).
- Given the incursion of each project alternative onto land where there are past and current releases of oil and hazardous substances, MassDOT will have an independent obligation under federal law to respond to these releases and abate any condition which may present an imminent and substantial endangerment to health or the environment.

- MassDOT should develop its remedial and mitigation obligations for each project alternative in accordance with Governor Baker’s stated policies on resilience and climate risk reduction.

## Background

The Throat portion of the project presents an opportunity to create connectivity for the Allston, Brookline, and Boston University communities, restore and protect the riverbank, improve the quality of the river, and build resiliency in the face of climate change all while meeting Boston’s transportation needs. Our comments highlight the need for additional consideration prior to choosing the preferred alternative, as the IRT report does not comport with Section 4(f) of the Department of Transportation Act, under which MassDOT must develop specific mitigation measures for each proposed option prior to selecting the preferred alternative.

In addition, our comments outline a number of considerations that should inform the final design choice. The Throat project should create more open space for flood storage and climate resiliency, improve water quality in the Charles River by better managing stormwater runoff, protect and restore the river bank, abate and remediate ongoing releases of oil and hazardous substances, and improve public access to the riverfront. Although the current designs lack sufficient detail to show which will best achieve these objectives, the IRT Hybrid option has the most potential to meet the project goals as well as community needs.

### I. Section 4(f) “Least Overall Harm” Determination

This project utilizes land protected by Section 4(f) of the U.S. Department of Transportation Act of 1966.<sup>1</sup> Section 4(f) aims to avoid and minimize the use of certain land, including historic properties, public parks, and recreation areas. In order to proceed, the preferred alternative that MassDOT selects must receive a favorable Section 4(f) finding from the Federal Highway Administration (FHWA).<sup>2</sup>

Land protected by Section 4(f) may not be utilized unless:

1. There is no feasible and prudent alternative that completely avoids the use of § 4(f) property; and
2. The project includes all possible planning to minimize harm to § 4(f) property.<sup>3</sup>

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<sup>1</sup> Department of Transportation Act of 1966, Pub. L. No. 89-670, 80 Stat. 931 (1966). [NEED U.S.C. SITE]

<sup>2</sup> IRT Technical Report at 55.

<sup>3</sup> 49 U.S.C. § 303(c); 23 U.S.C. § 138(a).

In the case of the Throat, all proposed alternatives require use of Section 4(f) protected property. Therefore, there are no feasible and prudent alternatives to utilizing the protected property.<sup>4</sup> Rather than completing avoiding the use of the protected property, then, the project must include all possible planning to minimize harm to the property. To meet that standard, federal regulations require the planning process to include a full comparison of all feasible and prudent alternatives to determine which option results in the “least overall harm” to the protected property.<sup>5</sup> Federal regulations outline a 7-part balancing test to apply when comparing alternatives. FHWA may only approve an alternative that causes the least overall harm compared to the other options. The seven factors FHWA considers are:

- 1) The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
- (2) The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
- (3) The relative significance of each Section 4(f) property;
- (4) The views of the officials with jurisdiction over each Section 4(f) property;
- (5) The degree to which each alternative meets the purpose and need for the project;
- (6) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
- (7) Substantial differences in costs among the alternatives.<sup>6</sup>

Three of the seven factors outlined above highlight the importance of mitigation planning when assessing least overall harm. Thus, a proper comparison of alternatives for Section 4(f) review requires that MassDOT develop a mitigation plan for each alternative. Otherwise, FHWA cannot fully evaluate which alternative poses the least overall harm.<sup>7</sup>

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<sup>4</sup> IRT Technical Report at 149, 256.

<sup>5</sup> 23 C.F.R. § 774.3(c)(1). Note that the IRT report references 23 C.F.R. § 771.135. IRT Technical Report at 55. However, 23 C.F.R. § 771.135 was removed in 2008 by 73 Fed. Reg. 13,395; the balancing test cited here was implemented in 2008 by 73 Fed. Reg. 31610.

<sup>6</sup> 23 C.F.R. § 774.3(c)(1).

<sup>7</sup> Federal case law further supports this point. Courts “must consider whether the decision was based on a consideration of the relevant factors . . . .” *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971). In *Conservation All. of St. Lucie Cty., Inc. v. U.S. Dep’t of Transportation*, 145 F.Supp.3d 1198 (S.D.Fla 2015), the district court found that FHWA’s approval of a bridge and highway project was not arbitrary and capricious. There, FHWA “explicitly made findings balancing the seven factors . . . as to each alternative” in its least harm analysis, which was in keeping with Section 4(f)’s requirement of “a balancing process that totals the harm caused by each alternate route to Section 4(f) areas and selects the option that does the least harm.” *Id.* at 1204. FHWA’s analysis including an evaluation of the mitigation plan for each option -- the preferred alternative had “relatively modest impacts, particularly in light of the mitigation plan, which will result in a net benefit to Section 4(f) resources,” whereas the plaintiff’s favored option would have “the most severe and immitigable social impacts to communities on both sides of the [River.]” *Id.* at 1205.

Subsequently, the circuit court upheld the district court’s ruling, finding in part that the FHWA “considered the ability to mitigate adverse impacts to each § 4(f) resource.” *Conservation All. Of St. Lucie Cty., Inc. v. U.S. Dep’t of*

Federal guidance requires that mitigation plans for each option are detailed enough to make a genuine comparison. The guidance explains that the comparison “may not be skewed by over-mitigating one alternative while under-mitigating another.”<sup>8</sup> In addition, the mitigation plans must be taken seriously—after FHWA approval of the preferred alternative, “the mitigation measures relied upon as part of this comparison should be incorporated into the selected alternative.”<sup>9</sup> The IRT report does not provide adequate mitigation plan details to meet these requirements. For instance, the report references some opportunities for mitigation while failing to include specific mitigation measures. The report states that the IRT Hybrid and At-Grade designs “preserv[e] the possibility” for North-South connecting bridges across the Throat to the riverfront, yet stops short of including those bridges as a mitigation measure.<sup>10</sup> In addition, the design proposals do not include any specific measures with respect to riverbank restoration.

Furthermore, Section 4(f) analysis applies to impacts during construction because each of the alternatives requires a prolonged and substantial interference with the protected property.<sup>11</sup> A full mitigation plan must therefore also be designed to minimize impacts during the construction period. Section 4(f) requires that MassDOT develop and commit to these and other mitigation measures *prior* to selecting the preferred alternative so that the design with the least overall harm can be identified.

## II. Key considerations informing the final design choice

The I-90/Allston Intermodal Project is a billion-dollar undertaking in a location that is critical to Boston’s climate resiliency planning, the quality of the Charles River, the vitality of surrounding communities, and Boston’s transportation infrastructure. The project presents an opportunity to utilize this space and make it work for the environment as well as local residents and Boston commuters and travelers. To achieve those goals, there are a number of considerations that an adequate preferred alternative design must fully incorporate.

### *Flood mitigation and resiliency*

The Throat, with its proximity to the Charles River, is a critical piece of land for resiliency planning. The area is vulnerable to flooding and the risk of inundation from extreme storms. This risk will only increase over time as a result of climate change. Given the significant

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*Transportation*, 847 F.3d 1309, 1325 (11th Cir. 2017). The court noted that “harm-minimization efforts were analyzed with respect to each build alternative.” *Id.* at 1327.

<sup>8</sup> OFFICE OF PLANNING, ENV’T, AND REALTY PROJECT DEV. AND ENVTL. REVIEW, U.S. DEP’T OF TRANSP. FED. HIGHWAY ADMIN., SECTION 4(F) POLICY PAPER 15 (2012).

<sup>9</sup> *Id.*

<sup>10</sup> IRT Technical Report at 248, 253.

<sup>11</sup> 23 C.F.R. § 774.13(d).

public investment this project entails, MassDOT should consider the impacts that will occur over the next fifty years and ensure that the preferred alternative is designed in light of those impacts.

In the Resiliency Criteria Matrix, the IRT evaluated each design option with respect to the impacts of potential flooding on the project, but not the impacts of the project on flooding. For instance, the report examines “impervious surface created”<sup>12</sup> when a better measure of resiliency would be the creation of flood storage capacity. In addition, the report fails to consider the impacts of flooding beyond the project area and into the surrounding neighborhoods. An adequate final design should not only consider how to protect the project from the risk of flooding, but also how to utilize the site to increase flood storage and capacity at the subwatershed and watershed scale. The project presents a rare opportunity to leverage significant public infrastructure investment to advance climate resilience for the project site as well as the abutting neighborhoods.

To that end, buffer space between the river and the road components of the project is crucial to increasing flood storage and resiliency. The existing usable pedestrian and green space areas are currently insufficient for these purposes and would be compromised further by reducing the buffer space. Given the future risks of flooding for this area in light of climate change, it would be short-sighted to either reduce this critical buffer area or to miss an opportunity to expand it and its protections. The preferred alternative should maximize and prioritize this buffer space. In addition, surfaces in the buffer zone, such as pedestrian pathways, should prioritize permeable materials such as porous asphalt to maximize flood storage capacity and reduce stormwater runoff during extreme precipitation events.

### *Stormwater*

In selecting the preferred alternative, MassDOT should pay careful consideration to the IRT options’ relative capabilities to manage stormwater runoff. A successful stormwater management system should improve water quality in the river by reducing erosion, sedimentation, and pollution while increasing flood storage capacity. In addition, proper timing of the implementation of stormwater management strategies is essential: BMPs must be included in the early phases of the project.

Critically, the stormwater management plan for the Throat should not be considered in isolation from the rest of the project. Rather, the entire project should be treated as a single “stormwater management district” to enable planning for a larger subwatershed green infrastructure (GI) plan.<sup>13</sup> GI systems should include “blue greenways” (bioretention/wet-

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<sup>12</sup> IRT Technical Report Table 1.8 at 24.

<sup>13</sup> See Charles River Watershed Association DEIR comments at 7; App. B (Feb. 9, 2018).

weather corridors) and constructed wetlands, as proposed by the Charles River Watershed Association (CRWA).<sup>14</sup> Those strategies would capture stormwater runoff from 2” – 5” rain storms.

In addition, the preferred alternative’s design should include a stormwater management system that complies with the 64% phosphorus load reduction established in the Lower Charles River Nutrient Total Maximum Daily Load (TMDL). While the IRT report states that the various options would achieve 59% or greater phosphorus reductions, it appears that the IRT did not address CRWA’s concerns regarding the accuracy of those calculations in the DEIR. Under the DEIR stormwater management plan, the entire stretch of Soldiers Field Road (SFR) would receive no treatment to reduce phosphorus loading. The calculations used in the DEIR did not include documentation of soil tests and ground water levels, which could impact pollutant removal efficiencies of BMPs.<sup>15</sup> CRWA stressed in its comments that “[g]iven the phosphorus-laden runoff generated from car exhaust on roadways ... the proponent has failed to show how” the project would comply with the TMDL.<sup>16</sup>

To make an informed decision when selecting the preferred alternative, MassDOT must conduct an assessment of stormwater management options that addresses CRWA’s concerns regarding phosphorus reduction calculations and provides more detail with respect to BMPs. The IRT report fails to adequately detail the potential for BMPs for each design option. For instance, regarding stormwater BMP siting and sizing, the IRT report simply states that there is “constrained,” “moderate,” or “sufficient” space for BMPs for the various options without elaboration.<sup>17</sup> A stormwater engineering review to assess the pollution impact and the potential for stormwater management for each design option would greatly benefit the decision-making process.

### *Bank Restoration and Protection*

Erosion and pollution threaten the stability of the bank along the Throat and the health of the Charles River. The bank of the Charles River along the Throat demands restoration and protection. Most urgently, there are ongoing releases of oil and hazardous substances from the bank to the river from historic industrial and transportation uses of property subject to 4(f) protection that cannot be ignored. Regardless of whether a public or private entity may have liability for those releases, these conditions cannot be ignored in selecting a preferred alternative and concomitant mitigation measures, and may require additional sampling or other sampling data. A fully developed remedial plan presents the opportunity to create new ecosystem services to serve as mitigation while responding to the presence of pollutants and

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<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.* at 5.

<sup>17</sup> IRT Technical Report at 177-78.

contaminants. For instance, constructed wetlands might incorporate capping or phytoremediation of hazardous substances while stabilizing the river bank, protecting water quality, and providing habitat. Wetlands vegetation presents additional ecosystem and practical utility by slowing water flow and reducing erosion, as well as by providing crucial flood storage capacity.

CLF is aware that both the preferred alternative and the design of any bank restoration or other mitigation must operate within the traditional sequencing applied to the permitting of fill proposed in wetlands or open water, under which fill is generally impermissible if it can be avoided.<sup>18</sup> But while the transportation project alone might theoretically be designed to avoid fill altogether, it appears unlikely if not impossible that the bank restoration and remedial work could be so designed. As in all circumstances where a public or private entity has a legal obligation to remediate the presence of oil or hazardous substances in the course of a development project, avoidance is not an option if it means leaving releases of hazardous substances unaddressed.

### *Public Access*

Currently, the Throat's components for pedestrian and bicycle use are woefully inadequate. The narrow shared-use pathway that runs alongside Soldiers Field Road is dangerous and unpleasant for walkers, runners, and cyclists. In addition, the path is difficult to access. With no footbridges over the highway, the Allston, Brookline, and Boston University communities are cut off from enjoying this public waterfront space. Enhanced public access must also be accompanied by serious attention to park design, air quality, and noise levels. Each of these aspects of public use demands consideration so that community members may actually access and enjoy the public space.

An adequate preferred alternative must fulfill all of the stated project goals, including enhanced bicycle and pedestrian connectivity.<sup>19</sup> The preferred alternative's design should include the construction of N-S connection bridges. The IRT report refers to a N-S connection bridge as a "possibility" under the Hybrid and At-Grade options.<sup>20</sup> The mere possibility of construction connecting bridge is insufficient to fulfill the project's stated goal of increased bicycle and pedestrian connectivity. Rather, it should be designed and constructed in coordination with the rest of the Throat infrastructure. Similarly, the preferred alternative must include concrete design details that ensure users of the Paul Dudley White Path will enjoy good air quality, low noise levels, and an attractive park design.

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<sup>18</sup> See IRT Technical Report at 163.

<sup>19</sup> *About the Allston I-90 Intermodal Interchange Improvement Project*, MASS.GOV, <https://www.mass.gov/service-details/about-the-allston-i-90-intermodal-interchange-improvement-project> (last visited Nov. 27, 2018).

<sup>20</sup> IRT Technical Report at 248, 253.

We are very supportive of increasing the amount of usable space by pedestrians and cyclists on the Paul Dudley White Path. In particular, green space is a crucial component of any design, as it increases flood storage space and helps address stormwater drainage issues. The need for pedestrian space, however, should not come at the cost of introducing fill into the river beyond that needed for remediation and restoration of those areas of the bank where there have been releases of oil and hazardous substances. Once the remedial needs have been addressed, the preferred alternative should maximize the area available for pedestrian use and green space without additional fill.

### III. Conclusion

In light of Section 4(f), MassDOT must perform a mitigation analysis and identify enforceable mitigation measures before it may lawfully select a preferred alternative. The IRT Hybrid design would appear to create the least overall harm or at least present the greatest potential for meeting the 4(f) standard. The Hybrid option allows for both public access via N-S connections and creates additional open space along the river that can benefit ecological systems, serve as flood storage, and offer an improved pathway for pedestrians and cyclists. However, this option can only be properly evaluated in the context of the full range of mitigation measures associated with each alternative.

We also join a broad set of stakeholders in rejecting the HV design as a viable option. The HV option cannot and will not garner widespread support because, as designed, it fails to meet a broad set of community needs. In addition, it is evident that further development of the Viaduct option would not yield improvements that are responsive to stakeholders' needs. The IRT was only able to propose tweaks to the DEIR design; a better version of the HV option simply does not exist.

Any version of the viaduct design will limit the vitality of the urban environment by precluding connectivity and sustaining the "Wall"<sup>21</sup> effect of the viaduct. The HV option would perpetuate the separation of the Allston and Brookline neighborhoods from the river for another 50 to 100 years as the HV option does not allow for any N-S access points to the river for pedestrians and cyclists.<sup>22</sup> In contrast, both the At-Grade and Hybrid options likely allow for two connections. Furthermore, both the At-Grade and Hybrid options allow for a continuous and widened Paul Dudley White Path connection at the eastern end of the Throat. The HV option cannot provide this benefit, because it does not involve reconstruction of the Little Grand Junction Bridge.

The issues with the HV option are not unique to this project. As many structures near the end of their useful lives, cities across the United States are debating the value of rebuilding

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<sup>21</sup> *Id.* at Table 1.7.

<sup>22</sup> *Id.*



elevated urban highways. Removing these overhead highway structures enhances urban areas. In the Boston area, only a few highway viaducts remain—others have been removed or are slated to be removed. This project advances a modern vision for Boston’s urban spaces, one that focuses on sustainable development and livability for residents. This opportunity should not be squandered by allowing the HV option, with its aesthetic and physical intrusion on Boston’s parkland and open space, to move forward.

The At-Grade option presents a different set of drawbacks, notably the lack of open space next to the Charles River. The current At-Grade design reduces the amount of flood storage along this stretch of the river at a moment when the City of Boston needs to increase resiliency in the face of climate change. The At-Grade option also poses additional environmental challenges that have not been addressed in the current design. This option provides less space for BMPs to address stormwater runoff and relies on river fill or a boardwalk to create space for the Paul Dudley White Path—both posing risks to the delicate ecology of the river and its bank. In order to address these issues, the At-Grade design would benefit from further development and consideration.

Considering the above, MassDOT must now focus its efforts on developing detailed mitigation plans for each alternative so that the designs may be evaluated based on their ability to meet the stated project goals, create the least overall harm to Section 4(f) property, and meet community needs.

CLF appreciates the opportunity to comment on the IRT Report. We look forward to a continued dialogue with MassDOT and community stakeholders as the project progresses. Please contact Amy Laura Cahn at [alcahn@clf.org](mailto:alcahn@clf.org) with any questions or further discussion.

Sincerely,



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