Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

For Office Use Only
Executive Office of Environmental Affairs
EOEA No.: 14098
MEPA Analyst: Nick Zavolas
Phone: 617-626-1030

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: I-93/I-95 Interchange Transportation Improvements Project		
Street: Intersection of I-93 and I-95		
Municipalities: Reading/Woburn/Stoneham/Wakefield	Watershed: Mystic River	
Universal Transverse Mercator Coordinates:	Latitude: 42° 30' 08" N Longitude: 71° 07' 09" W	
Estimated commencement date: 2011	Estimated completion date: 2020	
Approximate cost: $187 to $276 million incl transit	Status of project design: 5% complete	
Proponent: Executive Office of Transportation/MassHighway		
Street: 10 Park Plaza, Room 4150		
Municipality: Boston	State: MA	Zip Code: 02116
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Bob Frey		
Firm/Agency: EOT/MassHighway	Street: 10 Park Plaza, Room 4150	
Municipality: Boston	State: MA	Zip Code: 02116
Phone: 617-973-7449	Fax: 617-973-8035	E-mail: bob.frey@eot.state.ma.us

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)? ☒Yes ☐No

Has this project been filed with MEPA before? ☐Yes (EOEA No._____) ☒No

Has any project on this site been filed with MEPA before? ☐Yes (EOEA No._____) ☒No

Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:

a Single EIR? (see 301 CMR 11.06(8))	☐Yes	☐No
a Special Review Procedure? (see 301CMR 11.09)	☒Yes	☐No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐Yes	☐No
a Phase I Waiver? (see 301 CMR 11.11)	☐Yes	☐No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres):
Project funding will be from MassHighway for highway improvements, MBTA for transit elements, and EOT for Transportation Demand Management elements. Federal funding is also expected.

Are you requesting coordinated review with any other federal, state, regional, or local agency?
☒Yes(Specify: MassHighway, MBTA, FHWA, FTA, USACE) ☐No

List Local or Federal Permits and Approvals: Notice of Intent (Reading, Woburn, and Wakefield Conservation Commissions) and DEP Variance; DEP Section 401 Water Quality Certification; USACE Section 404 Permit; NEPA EIS and Record of Decision from FHWA. Evaluation of air quality conformity of Transportation Improvement Program with the State Implementation Plan.

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- ☒ Land
- ☐ Water
- ☐ Energy
- ☐ ACEC
- ☐ Rare Species
- ☐ Wastewater
- ☐ Air
- ☐ Regulations
- ☒ Wetlands, Waterways, & Tidelands
- ☒ Transportation
- ☐ Solid & Hazardous Waste
- ☐ Historical & Archaeological Resources

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	132 A		
New acres of land altered		11.5 A	
Acres of impervious area	88.7 A	11.5 A	100.2 A
Square feet of new bordering vegetated wetlands alteration		2,937 SF to 11,438 SF, plus shadow *	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	0	0	0
Number of housing units	n/a	n/a	n/a
Maximum height (in feet)	n/a	n/a	n/a
TRANSPORTATION			
Vehicle trips per day	377,500	0 (some regional trips may be re-allocated)	377,500
Parking spaces	0	0	0
WATER/WASTEWATER			
Gallons/day (GPD) of water use	0	0	0
GPD water withdrawal	0	0	0
GPD wastewater generation/ treatment	0	0	0
Length of water/sewer mains (in miles)	0	0	0

State Permits & Approvals

- ☒ Order of Conditions
- ☒ Superseding Order of Conditions
- ☐ Chapter 91 License
- ☒ 401 Water Quality Certification
- ☐ MHD or MDC Access Permit
- ☐ Water Management Act Permit
- ☐ New Source Approval
- ☐ DEP or MWRA Sewer Connection/ Extension Permit
- ☐ Other Permits (*including Legislative Approvals*) – Specify: USACE Sec 404

* Depending on Alternative

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

☐Yes (Specify_____) ☒No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

☐Yes (Specify_____) ☒No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

☐Yes (Specify_____) ☒No

No Priority or Estimated Habitats are known to exist in the area disturbed by the project; A copy of the ENF is being sent to the Natural Heritage and Endangered Species Program (NHESP) for their concurrence.

HISTORICAL / ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

☐Yes (Specify_____) ☒No

There are no historic resources in or near the interchange or interstates/other roadways to be disturbed and archeological resources are unlikely due to the previous construction of the highways and interchange.

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

☐Yes (Specify_____) ☐No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

☐Yes (Specify_____) ☒No

PROJECT DESCRIPTION: The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

The I-93/I-95 Interchange Transportation Study, completed in June 2007, was an extensive multi-year effort by the Executive Office of Transportation, working closely with an Interchange Task Force (ITF) of residents, businesses, legislators, and local officials, as well as with other agencies including FHWA, MassHighway, and the MBTA. The primary goals of this planning study were to examine and recommend ways to improve traffic flow and safety at the interchange while minimizing impacts in surrounding communities. It represents an open, participatory process which has collectively proposed context-sensitive, multi-modal solutions to a critical regional transportation problem. The study's Final Report is incorporated in this ENF as an Expanded Project Narrative. An abbreviated project description and summary is as follows:

Project Site: The I-93/I-95 interchange carries over 375,000 vehicles per day, the highest daily traffic volume in Massachusetts. The interchange is closely linked to the adjacent I-95 (Route 128) interchanges with Route 28 in Reading/Stoneham (Exit 38) and with Washington Street/ Mishawum Road in Woburn (Exit 36). There are residential neighborhoods abutting the highway layout in the northwest, northeast, and southeast quadrants. There is a major employment area in Woburn to the west of the interchange. A wetland area abuts the interchange in the southwest quadrant and there are some wetland areas within the cloverleaf. There are no wildlife habitats or cultural resources in the immediate project area.

The Anderson Regional Transportation Center and MBTA Mishawum Station are located nearby on the Lowell Commuter Rail Line. Together, the highway and transit facilities serve a large portion of employment and shopping trips to Boston and along Route 128 as well as through-trips on the interstate highways. There is significant congestion in the interchange resulting from substandard geometry (particularly short weaving

distances), and from a lane drop (four to three lanes on northbound Route 128). The interchange also has a substantially higher crash rate (adjusted for traffic volume) than any similar cloverleaf interchange in Massachusetts. Analyses of crash locations show that crash clusters correspond to weaving sections and other substandard merge and diverge areas.

Alternatives: The study's final report (attached) recommends development and implementation of highway, transit, and transportation demand management (TDM) improvements as an integrated package. The package of recommendations includes interim improvements to Route 128 and early implementation of noise barriers (after the approval of federal environmental documents and the design effort, and where barriers are determined to be reasonable and feasible in accordance with federal and state policies).

The preferred major highway alternative, called H3, would remove the northwest and southeast loop ramps (thus eliminating all weaves from the central interchange) and provide a connector road to I-93 from northbound Route 128, with a split on-ramp from Washington Street that eliminates the inadequate northbound weave to I-93 (land use constraints prevent the removal of the Route 128 southbound weave from I-93 to the Mishawum Road off-ramp). Extension of the 4th northbound lane on Route 128 to Exit 40 (Route 129 in Wakefield) moves the lane drop to a lower volume location where an acceptable level of service would be maintained and thus would relieve the current backup. These modifications to the interchange solve most of the traffic flow problems and improve safety within the interchange. Analysis with a CORSIM microsimulation model of the area indicates that traffic operations would be substantially improved and delays would be reduced. With reduced delays, the interchange would process more vehicles, which would have travel time benefits for many drivers, and would shorten the period of maximum congestion in the area. With fewer drivers seeking alternate routes to avoid the original congestion, traffic on local streets used as "cut-throughs" (cited as a significant problem by the local communities) would be reduced as well. Although Route 128 and I-93 would continue to operate near capacity downstream from the interchange, system-wide travel and mobility are improved throughout the region.

The major highway alternative has two versions recommended for further engineering and environmental analysis in the EIR – designated as H3-OS and H3-US. The semi-direct ramps (that replace the eliminated loop ramps in the northwest and southeast quadrants) both pass over I-93 and Route 128 in H3-OS. In H3-US, one of the ramps passes under the expressways. These two versions were the outcome of a process of development and evaluation of highway improvements with the ITF, beginning with screening of 16 preliminary components for potential effectiveness, avoidance of takings, and maintenance of direct local access. Four alternatives designated H1 through H4 were evaluated in detail for these criteria as well as wetland impact and a qualitative assessment of visual and noise impacts.

Alternative H3 was judged the most promising in terms of performance and minimized impacts. Additional engineering and quantitative analysis of noise are necessary to fully evaluate the H3-OS and H3-US versions, so both versions of this alternative are proposed for further analysis in the EIR.

In addition, interim improvements are recommended, including extension of the 4th lane on northbound Route 128 to Exit 40, commencement of the 4th lane on southbound Route 128 at the Exit 38 on-ramp (from Route 28), and construction of a temporary on-ramp from Cedar Street in Woburn to I-93 southbound. These interim improvements would provide immediate relief at relatively low cost and help to mitigate construction period impacts. It is anticipated that noise barriers will be warranted at many locations where existing noise levels approach or exceed the noise abatement criteria (NAC). It is recommended that noise mitigation for the full interchange modification be considered for implementation in the interim phase, provided that – consistent with MassHighway's *Type 1 Noise Abatement Program* – it is determined by FHWA and MassHighway that noise barriers at each location would be practicable, reasonable, and acceptable to the public, and where compatible with later construction staging. This noise impact assessment process is followed regardless of whether construction of a proposed noise barrier is performed with a combination of federal-aid funds and state funds or with state funds only.

An integral part of the recommended package of improvements is a set of transit and TDM improvements which were developed to serve commuting both to Boston and to major employment centers in Woburn, Burlington, and Lexington. Analysis with the CTPS regional travel demand model indicates that these improvements could remove approximately 10,000 daily trips from the interchange area at a reasonable cost, which include additional commuter rail service, shuttles from Anderson Regional Transportation Center, improved signage and information to encourage transit use and carpooling, and improved pedestrian/bicycle access to Anderson (see attached report sections 3.5 and 4.2 for a full list of these measures). Because of their importance in increasing mobility and mode choice, these non-highway elements are viewed as a central part of the proposed project.

Mitigation Measures: Additional refinements to reduce impact have been considered, for example flipping the position of the two ramps that enter northbound I-93 to reduce impacts on the South Street neighborhood. These and other possible refinements require further development and evaluation in the EIR. As noted above, noise mitigation would be an important part of the project and it may be possible to construct noise barriers in the interim phase to address impacts of the full interchange reconstruction. Consistent with the Type 1 Noise Abatement Program, detailed noise analyses would be conducted in the EIR to confirm existing and compute future sound levels at sensitive receptor locations to fully determine if adverse noise levels currently exceed, or will exceed, the NAC for the receptors and to determine if impacted receivers qualify for a noise barrier.

Further efforts will be needed to minimize and mitigate impacts to wetlands in and adjacent to the interchange. The proposed temporary Cedar Street ramp would help to mitigate construction period impacts, as would early implementation of transit and TDM measures.

Review Process: With the recommendation that both highway and non-highway elements are advanced in a single package, it is suggested that EOT be the lead agency in MEPA review with close involvement by MassHighway and the MBTA. For this reason, and because interim improvements are recommended which should be evaluated in the context of the full build solutions, a special review procedure is requested. It is also recommended that the Citizen's Advisory Committee for the MEPA process should involve the members of the ITF as well as other members the Secretary deems appropriate.

Note: See attached final report for the ***I-93/I-95 Interchange Transportation Study*** for additional project background and more detailed project descriptions.