

Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office



**Environmental
Notification Form**

<i>For Office Use Only</i> <i>Executive Office of Environmental Affairs</i>	
EOEA No.:	13779
MEPA Analyst:	Desiree Buckley
Phone: 617-626-	1044

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: Storrow Drive Tunnel Reconstruction Project		
Street: Storrow Drive near Arlington and Berkeley Streets		
Municipality: Boston	Watershed: Charles	
Universal Transverse Mercator Coordinates: Zone 19 329249, 4691394	Latitude: 71°4'24.01" W	Longitude: 42°21'21.89" N
Estimated commencement date: 2008*	Estimated completion date: 2012*	
Approximate cost: \$46-135 million (varies by option)	Status of project design: 10 %complete	
Proponent: Department of Conservation and Recreation		
Street: 251 Causeway Street		
Municipality: Boston	State: MA	Zip Code: 02114
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Katie Lesser		
Firm/Agency: Epsilon Associates, Inc.	Street: 3 Clock Tower Place, Suite 250	
Municipality: Maynard	State: MA	Zip Code: 01754
Phone: 978-461-6207	Fax: 978-897-0099	E-mail: klesser@epsilonassociates.com

*The estimated commencement date and duration of construction depends on the design option chosen and the timing of other area construction projects (see Section 1.3 in the attached Supplemental Narrative for further information).

- 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): The project involves DCR-owned land and will be funded by state transportation bonds. The project will be designed and permitted by DCR, with MassHighway conducting the construction bidding and supervising construction activities.

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify _____) No

List Local or Federal Permits and Approvals: NPDES General Permit, Order of Conditions from Boston Conservation Commission. See also Table 1 in the attached Supplemental Narrative.

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

- | | | |
|---------------------------------|---------------------------------------|---|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input checked="" type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input checked="" type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> State Historic Register Review DEP Air Quality Certification <i>Note: Some of these permits may not apply to all options being considered. Please see Table 1 in the attached Supplemental Narrative for more information.</i>
Total site acreage <i>(*varies between options)</i>	4.9 to 7.3*			
New acres of land altered <i>(*varies between options)</i>		0.5 to 2.5*		
Acres of impervious area <i>(*varies between options)</i>	4.9	0 to 2.3*	4.9 to 7.2*	
Square feet of new bordering vegetated wetlands alteration		0		
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	1,600*	1,600*	
Number of housing units	N/A	N/A	N/A	
Maximum height (in feet)*	0	70*	70*	
TRANSPORTATION				
Vehicle trips per day	103,000	0	103,000	
Parking spaces	0	0	0	
WATER/WASTEWATER				
Gallons/day (GPD) of water use	N/A	N/A	N/A	
GPD water withdrawal	N/A	N/A	N/A	
GPD wastewater generation/ treatment	N/A	N/A	N/A	
Length of water/sewer mains (in miles)	N/A	N/A	N/A	

*Approximate footprint and height of vent buildings, being considered in variations within the C and D options.

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 Article 97 legislative approval is not required, as neither a disposition or change of use would be caused by adjustments to the tunnel alignment. Alignment changes of existing DCR parkways within DCR parks do not require Article 97 approval.

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

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: Charles River Basin Historic District) No

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

Yes (Specify: The Storrow Drive tunnel, surface road and surrounding parklands are contributing resources to the Charles River Basin Historic District. The project involves temporary impacts and reconstruction of the tunnel and surface roads and the rehabilitation of adjacent parkland.) 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.)

[NOTE: Due to the complexity of the project and the number of design options and variations under consideration, a more detailed "Supplemental Narrative" is attached to this ENF, with an abbreviated project description provided below.]

A) **Project Site:** The limits of the project site are roughly defined by the alignment of Storrow Drive itself between Clarendon Street, where the eastbound lanes of Storrow Drive descend below grade, and extending just beyond Otter Street (Arlington Street exit), where the eastbound traffic re-emerges to surface level. Different design options under consideration involve construction footprints of varying width, and in some instances involve limited encroachment for construction activities (if only temporarily) into adjacent parkland known as the Charles River Esplanade ("the Esplanade").

The Storrow Drive tunnel was constructed as part of the overall Storrow Drive construction project in 1951. The tunnel carries eastbound traffic along the Esplanade below grade, while westbound traffic travels on the surface (on the roof of the eastbound tunnel). There are off- and on-ramps for traffic to enter and exit at Otter Street (Arlington Street exit) and at Berkeley Street. According to recent traffic counts, Storrow Drive carries approximately 103,000 vehicles a day. The parkway is owned by the Department of Conservation and Recreation (DCR).

B) **Project Description/ Alternatives:** Repairs to the 55-year old tunnel are needed due to: (1) the deterioration of the concrete and steel in the walls and roof of the tunnel, (2) leaks in the roof, walls and base slabs, and (3) original design deficiencies that limit emergency traffic on the roof of the tunnels. The need for reconstruction/replacement of the tunnels is being approached by the DCR as an opportunity to improve universal pedestrian and bicycle access to the Esplanade and the overall quality of the parkland in the vicinity of the project, while retaining critical transportation functions provided by Storrow Drive, including regional transportation connections and vehicular access to residential neighborhoods and commercial districts within the Back Bay/Beacon Hill.

DCR is carefully analyzing the impacts associated with the project. In an effort to strike a balance between short-term impacts and long-term benefits, DCR developed a set of criteria by which to compare potential options for the reconstruction of the tunnel. These criteria (see Table 2 in the attached Supplemental Narrative) reflect DCR's consideration of both short-term and long-term benefits and detriments associated with the project and its various permutations.

At the present time, DCR is considering options in four broad categories, as follows:

Option A series	Rebuild the existing tunnels and re-establish intersections in their current configuration
Option B series	Replace the tunnel section with a surface roadway network, and signalize intersections
Option C series	Reconstruct the existing tunnel and add a second tunnel to carry westbound traffic below grade
Option D series	Build two new tunnels to carry through-traffic below grade, and establish signalized surface roads to accommodate local access / turning movements

While a number of variations under each of these options have been considered, this ENF focuses on one variation within each category, and it encourages public comment on these as well as other potential solutions to maintaining regional roadway connections and providing vehicular access to Back Bay/Beacon Hill, while enhancing universal accessibility, pedestrian and bicycle access to the Esplanade. It is anticipated that a number of alternatives will be analyzed in further detail in the Draft Environmental Impact Report (DEIR) for the project, and that one or more alternatives will be presented in the Final Environmental Impact Report (FEIR).

C) Mitigation Measures: A number of mitigation measures will be implemented to offset impacts associated with the project. Such mitigation measures include construction-period mitigation and long-term mitigation. A brief discussion of DCR's approach to mitigation for key aspects of the project follows, and will be discussed in greater detail in the DEIR.

Construction Period Mitigation

- ◆ *Traffic Management:* Traffic management measures during construction will include a significant outreach program to alert the general public (including motorists, bicyclists, and pedestrians) of potential detours and delays in the vicinity of the project, encouraging the use of mass transit alternatives, and establishing workable detours for traffic that is not diverted (e.g., emergency vehicle access to medical services associated with the Massachusetts General Hospital.) An origin and destination survey will be conducted in the spring of 2006 to assist in traffic management planning efforts.
- ◆ *Universal Accessibility, Pedestrian, and Bicycle Access:* Construction management planning will include measures to provide pedestrian/bicycle access between Back Bay/Beacon Hill and the Esplanade for those with physical disabilities and for recreation and commuting.
- ◆ *Air Quality and Noise:* It is expected that extensive measures will be undertaken to minimize impacts associated with construction equipment emissions, dust, and noise. While it is conceivable to limit construction to daytime hours, this would substantially prolong the overall construction period, and it is expected that the ultimately preferred alternative will involve some nighttime construction activities.
- ◆ *Landscape/Visual:* Strictly enforced construction limits and tree protection measures will be used to minimize impacts to landscape features in the vicinity of the project during construction. The work site will be largely screened from view at street level through the use of opaque barriers, which will also serve a safety function.
- ◆ *Groundwater Levels:* DCR has already instituted a groundwater monitoring program, and it will develop a system to ensure that groundwater levels are maintained within the right-of-way throughout construction.

Long-term Mitigation

- ◆ *Traffic Management:* Significantly, none of the alternatives that are under consideration propose increasing the type or level of capacity of Storrow Drive. The tunnels will not be designed to accommodate trucks, nor will the number or width of travel lanes be significantly different than they are today. The final design will maintain the parkway character of Storrow Drive, with a lower design speed than typical of a parkway.
- ◆ *Universal Accessibility, Pedestrian and Bicycle Access:* As indicated in the project description, a major objective of the project is to enhance universal accessibility, pedestrian and bicycle access. At present, neither of the pedestrian overpasses within the project footprint (the Arthur Fiedler footbridge and the Clarendon Street overpass, which lies slightly to the west of the project area) is designed for universal accessibility, and neither is wide enough to accommodate two-way access for pedestrians and bicyclists or physically impaired persons. Whichever option is selected as the preferred alternative, the design will incorporate improved non-vehicular access between Back Bay/Beacon Hill and the Esplanade.
- ◆ *Air Quality and Noise:* Appropriate mitigation for air quality and noise impacts associated with the projects are highly dependent upon which option is ultimately selected as the preferred alternative. The DEIR and FEIR for the project will address long-term air quality and noise mitigation measures in more detail.
- ◆ *Landscape/Visual:* As noted above, one of the underlying objectives of the project is to leave the Esplanade in better condition than it exists today. Areas disturbed by construction will be appropriately landscaped, and roadway appurtenances (guardrails, lighting, etc.) will be consistent with the historic parkway character of Storrow Drive.
- ◆ *Groundwater Levels:* The final design will incorporate a groundwater recharge system that will inject groundwater into a series of infiltration chambers to maintain groundwater levels above current levels.

See further discussion in the attached supplemental narrative.



Basemap: 1987 USGS Quadrangles, MassGIS

Figure 1
USGS Locus
Storrow Drive Tunnel Reconstruction Project
Boston, Massachusetts

Scale 1:24,000
 1 inch = 2,000 feet

1,000 0 1,000 2,000 Feet



dcr

Massachusetts



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APR 18 2006

MEPA

April 18, 2006

Stephen R. Pritchard, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Pritchard:

We are pleased to submit the attached Environmental Notification Form (ENF) for the reconstruction of the Storrow Drive Tunnel. Completed in 1951, the tunnel carries eastbound traffic below ground, while westbound traffic travels on the surface (on the roof of the eastbound tunnel), adjacent to the Charles River Esplanade. Storrow Drive now carries over 100,000 vehicles per day.

The 55-year old tunnels are in critical need of repair. The need for reconstruction/replacement of the tunnels is being approached by the Department of Conservation & Recreation (DCR) as an opportunity to improve universal accessibility and pedestrian and bicycle access to the Esplanade, and to enhance the overall quality of the parkland in the vicinity of the project, while retaining critical transportation functions provided by Storrow Drive, including regional transportation connections and vehicular access to residential neighborhoods and commercial districts within the Back Bay/Beacon Hill.

DCR has initiated a wide-reaching dialogue with the neighborhoods, businesses, civic associations and agencies impacted by the construction to discuss design and construction options. To date, four information meetings scheduled during evening hours for the general public have been held, three in the City of Boston and one in the City of Cambridge.

The range of solutions currently under consideration includes: (1) rebuilding the tunnel in its current configuration; (2) demolishing the tunnel and constructing an at-grade parkway (this option includes several variations); (3) renovating the existing tunnel to carry east bound traffic with a new tunnel to carry west bound traffic; and (4) two new tunnels to carry traffic in both directions with turning movements occurring at the surface. However, as described in this ENF, DCR has not ruled out any options at this time, and encourages public involvement in selecting the ultimately preferred alternative.

DCR views the MEPA process as an ideal forum to structure the public input process, and to this end is requesting an extended comment period for the ENF, allowing the public to comment for a period of 48 days rather than the usual 20-day public comment period associated with ENF review. Based on today's filing date, this will bring the close of the comment period to June 13, 2006.

Thank you for your consideration of this critical public infrastructure and parks project.

Sincerely,

Stephen H. Burrington
Commissioner

COMMONWEALTH OF MASSACHUSETTS · EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

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