

Commonwealth of Massachusetts

Executive Office of  
Environmental Affairs ■ MEPA  
Office

**ENF**

**Environmental**

**Notification Form**

<i>For Office Use Only</i>	
<i>Executive Office of Environmental Affairs</i>	
EOEA No.:	12858
MEPA Analyst:	Jay Wickersham
Phone: 617-626-	1022

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: <b>Route 18 Intersection Improvements: Four Locations</b>		
Street: <b>Route 18 (Main Street)</b>		
Municipality: <b>Weymouth</b>	Watershed: <b>Weymouth and Weir</b>	
Universal Transverse Mercator Coordinates: <b>Begin: 4672800 N 338450 E</b> <b>End: 4670300 N 338450 E</b>	Latitude: (Begin) <b>42.1923</b> (End) <b>42.1700</b> Longitude: (Begin) <b>70.9561</b> (End) <b>70.9557</b>	
Estimated commencement date: <b>2003</b>	Estimated completion date: <b>2006</b>	
Approximate cost: <b>\$4.0 million</b>	Status of project design: <b>25 %complete</b>	
Proponent: <b>Massachusetts Highway Department</b>		
Street: <b>10 Park Plaza</b>		
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02116</b>
Name of Contact: <b>Diane Madden</b> Whom Copies of this ENF May Be Obtained:		
Firm/Agency: <b>Massachusetts Highway Dept.</b>	Street: <b>10 Park Plaza, Room 4260</b>	
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02116</b>
Phone: <b>(617) 973-7477</b>	Fax: <b>(617) 973-8879</b>	E-mail: <b>lori.didonato@MHD.state.ma.</b>

- 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 301 CMR 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 will be funded with Federal Funds for 80% of the construction cost and State funds for the remaining 20%

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

List Local or Federal Permits and Approvals: None expected

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	State Permits & Approvals
<b>LAND</b>				<input type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input 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 type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	18.7 Acres			
New acres of land altered		6.4 Acres		
Acres of impervious area	10.4 Acres	4.2 Acres	14.6 Acres	
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		
<b>STRUCTURES</b>				
Gross square footage			N/A	
Number of housing units			N/A	
Maximum height (in feet)			N/A	
<b>TRANSPORTATION</b>				
Vehicle trips per day*	35,000	13,100	48,100	
Parking spaces			N/A	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use			N/A	
GPD water withdrawal			N/A	
GPD wastewater generation/treatment			N/A	
Length of water/sewer mains (in miles)			N/A	

\* Increase in traffic volume due to background growth and re-development of former South Weymouth Naval Air Station, not as a result of the safety improvements at the intersections.

**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

**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 structures listed on the State Register of Historic Places. There are several structures listed in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth.

**In compliance with Federal Section 106, MHD's Cultural Resources Section (CRS) will coordinate its review with the Massachusetts State Historic Preservation Office (SHPO) for potential project impacts to National/State Register listed or National Register eligible historic properties. If the project assumes 100 percent state funding, CRS will coordinate its review with the Massachusetts Historic Commission (MHC) under state Chapter 254 for potential project impacts to State Register listed properties. Three total property acquisitions are required; none of the properties are individually listed on the State Historic Register.**

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 Project includes safety improvements at four congested signalized intersections along Route 18 in Weymouth by upgrading traffic control signals and adding exclusive turn lanes. The following intersections are included: Route 18 at West/Middle Street, Route 18 at Park Avenue, Route 18 at Columbian Street and Route 18 at Pond/Pleasant Street. Route 18 is classified as a primary arterial and serves as a major north/south commuter route from Weymouth and towns south of Weymouth to Boston. Regional access is provided via an interchange with Route 3 located north of the Middle/West Street intersection. The area is fairly well developed. Existing land uses at the intersections consist primarily of businesses including the South Shore Hospital and related medical facilities along Route 18 proper with residential areas along the approaches.

The existing roadway cross-section for Route 18 consists of two general purpose lanes on all approaches of the intersections. There are no exclusive turn lanes except for a right turn lane on Route 18 southbound at Pond/Pleasant Street. West/Middle, Park Avenue and Columbian Street have no exclusive turn lanes while Pond/Pleasant Street have exclusive left turn lanes. The existing intersections experience crash rates that are greater than twice the Massachusetts Highway Department (MHD) District 4 average. The crash rates are summarized in Table 1 in the attachments. Table 2 of the attachments summarizes the traffic operations and general design issues.

The four intersections, along with the intersection of Route 18/139 in Abington were studied in MHD's South Weymouth Access Study (August 2000) and were identified as locations needing improvements, independent of the redevelopment of the base. As noted in the Study, the normal regional traffic growth, without the redevelopment of the former Naval Air Station, will cause these particular intersections to experience unsatisfactory levels of congestion and further exacerbate safety issues. The Study identified and recommended critical improvements for each of the intersections. The intersection with Route 139 in Abington has been advertised for construction as the first in the group of five to be completed.

The Project will result in the overall improvement in safety and traffic operations at each of the intersections. The Project will improve access to the existing MBTA Commuter Rail Station located in South Weymouth for commuters north of the station. The Project will be designed to incorporate pedestrian phasing into each signal. Each signal design will also include bicycle detection and 1.25 m shoulders will be provided to accommodate bicycles. A detailed traffic analysis was performed for the Functional Design Report (FDR). In the FDR, two alternatives were considered for each of the intersections, along with a "No-Build" alternative. The "No-Build" alternative would result in unacceptable levels of service and continued safety deficiencies. Alternative 1 would provide the optimal traffic operations, but resulted in greater impacts to abutting properties. Alternative 2 would provide improved traffic operations while minimizing impacts to properties. The alternatives described below represent the preferred alternative for each of the intersections (Alternative 1 for West/Middle Street and Alternative 2 for the remaining three). The differences between the two alternatives are also noted. See the attached plans and cross-sections for additional information regarding the proposed improvements.

#### West/Middle Street

At the West/Middle Street intersection, an exclusive left turn lane and an exclusive right turn lane would be added to both Route 18 southbound and northbound to reduce the occurrences of angle and rear-end type collisions. The proposed section for West/Middle Street would include two through lanes and an

exclusive left and right turn lane.

In addition to the intersection improvements, a transition lane would be added beginning at the Route 3 Southbound off-ramp and a travel lane would be added between the off-ramp and the intersection, eliminating the existing bottleneck on Route 18 southbound between Route 3 and West/Middle Street. The improvements would require taking a gas station, a building with space for 3 businesses as well as strip takings. Also, four trees greater than 14" in diameter would be eliminated.

#### Park Avenue

Under the preferred Alternative 2, an exclusive left turn lane would be added both in the northbound and southbound directions. Park Avenue (westbound) would have a general purpose lane, an exclusive right turn lane and an exclusive left turn lane. Park Avenue West (eastbound) would have an exclusive left turn lane and two general purpose lanes. Partial property acquisitions would be required, however, no businesses or residences would require relocation.

Alternative 1 would provide an additional through lane on Route 18 NB. It was determined that the impacts to abutting properties outweighed the incremental improvements to traffic operations, and this alternative is not recommended.

#### Columbian Street

Under Alternative 2, the proposed Route 18 cross-section would include an exclusive left turn lane and two general purpose lanes in each direction. The proposed cross-section of Columbian Street would consist of an exclusive right turn lane and a general purpose lane in each direction. Partial property acquisitions would be required, however, no businesses or residences would require relocation. Two trees greater than 14" in diameter would be removed.

Alternative 1 would provide an exclusive left turn lane on Columbian Street along both approaches. It was determined that the impacts to abutting properties outweighed the improvements to traffic operations, and this alternative is not recommended.

#### Pond/Pleasant Street

The proposed roadway section for Route 18 northbound and southbound would consist of two general-purpose lanes and an exclusive right turn lane. Left turns are currently prohibited from Route 18 in both directions and will continue to be prohibited under the proposed conditions. The proposed roadway section for Pond/Pleasant Street would consist of two exclusive left turn lanes, a general purpose lane and the channelized right turns in each direction. Partial property acquisitions would be required, however, no businesses or residences would require relocation.

Under Alternative 1, the Route 18 northbound exclusive right turn lane would be a general purpose lane, requiring an additional lane on the departure leg of the intersection. This would result in taking three buildings, all of which were built in the 1800's. Alternative 2 was selected to avoid impacts to these properties.