

ENF Environmental Notification Form

<i>For Office Use Only</i> <i>Executive Office of Environmental Affairs</i>	
EOEA No.:	13850
MEPA Analyst:	Holly Johnson
Phone: 617-626-	X 1023

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: Route 28 at Finlay Road and Pond Road Intersection Improvement Project		
Street: Route 28/Finlay Road/Pond Road		
Municipality: Orleans	Watershed: Cape Cod	
Universal Transverse Mercator Coordinates: UTM 19 418056E 4625504N (WGS84/NAD83)	Latitude: 41°46'38.36" N	Longitude: 69°59'09.95" W
Estimated commencement date: Fall 2006	Estimated completion date: Spring 2007	
Approximate cost: \$590,000	Status of project design: 75% Complete	
Proponent: MassHighway		
Street: 10 Park Plaza		
Municipality: Boston	State: MA	Zip Code: 02116
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Lori A Macdonald		
Firm/Agency: MassHighway	Street: 10 Park Plaza, Room 4260	
Municipality: Boston	State: MA	Zip Code: 02116
Phone: (617) 973-7764	Fax: (617) 973-8879	E-mail: lori.macdonald@mhd.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): **Total construction funds for this project is \$590,000 with \$472,000 coming from Federal Congestion Mitigation and Air Quality Improvement Program funds and \$118,000 coming from state bond funds.**

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

List Local or Federal Permits and Approvals:
Town of Orleans Order of Conditions

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

- | | | |
|--|--|--|
| <input type="checkbox"/> Land | <input checked="" type="checkbox"/> Rare Species | <input type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input checked="" type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input 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 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	10,352 m ² (111,428 ft ²)			
New acres of land altered		948m ² (10,204 ft ²)		
Acres of impervious area	4,367 m ² (47,006 ft ²)	1,409 m ² (15,166 ft ²)	5,776 m ² (62,172 ft 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	N/A	N/A	N/A	
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	9,525	0	9,525	
Parking spaces	N/A	N/A	N/A	
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	

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

None of the land within the project area is subject to a restriction that requires a release.

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

A portion of the project site is within Priority and Estimated Habitat of Rare Species. However, the project is not anticipated to alter priority or estimated habitat or result in a taking of an endangered or threatened species or species of special concern. The work site is within an existing roadway and right of way and it is not anticipated that a take of an endangered, threatened or species of special concern will occur. A letter was submitted to the Massachusetts Natural Heritage and Endangered Species Program requesting information on rare and endangered species within the project area. We are currently awaiting a response.

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

A review of the State and National Registers of Historic Places revealed no listed properties within or adjacent to the project limits. A review of the Inventory of Historic and Archaeological Assets of the Commonwealth revealed two inventoried buildings adjacent to the project area: the Alexander Mayo House at 128 South Orleans Road (Route 28) and the Benjamin Ward House at 138 South Orleans Road (Route 28). In addition the project is within the Main Street East inventoried area. The Benjamin Ward House and its associated garage were moved from the site in 2000/2001 to another location in the Town of Orleans by the Town of Orleans; no buildings remain on the property. The Alexander Mayo House is sheathed in synthetic siding and the chimney in the main block has been removed. Due to modifications, the Alexander Mayo House does not meet the criteria for individual listing in the National Register. While the Alexander Mayo House is located within the Main Street East inventoried area, it is surrounded by buildings constructed in the mid-to-late 20th Century. The core of the inventoried area is located well north and east of the project area, and while those sections may constitute a National Register-eligible historic district, the modern intrusions in the project area overwhelm the scattered 19th Century residential buildings and prevent a NR eligible district from being formed. A review of the Massachusetts Historical Commission (MHC) archaeological base maps revealed one recorded prehistoric site in the vicinity of the project area. A site at the Orleans Elementary School is located approximately ½ mile northwest of the project area and is described as a possible large base camp from an unknown period. However, little or no archaeological potential can be ascribed to project impact areas based on the absence of recorded sites within or near the project area; the effects of past highway and drainage construction and roadside development; and unsuitable environmental criteria (i.e. wetland and embankments). Based on the absence of National Register-eligible buildings within or adjacent to the project area, this project requires no further review under Section V.B. of the Section 106 Programmatic Agreement signed between MassHighway and the MHC. A letter was submitted to the Orleans Historical Commission and the Wampanoag Tribe of Gay Head. No responses have been received to date. A copy of the ENF will be submitted to the MHC.

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

Yes (Specify _____) No

The Benjamin Ward House at 138 South Orleans Road (Route 28) is listed on the Inventory of Historic and Archaeological Assets of the Commonwealth. The buildings were moved prior to 2002 by the Town of Orleans. No buildings remain on the property.

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

Yes (Specify: **Pleasant Bay**) 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.*)

Consistent with the Massachusetts Fix it First policy, MassHighway in cooperation with the Town of Orleans is proposing intersection improvements at Route 28 at Finlay and Pond Roads in order to improve safety and operations at the existing intersection. The proposed widening and re-alignment will improve the vehicular and pedestrian safety at the intersection by creating a traditional four way intersection with usable paved shoulders. An Environmental Notification Form has been filed for this project since a portion of the project falls within the boundaries of the Pleasant Bay Area of Critical Environmental Concern and Massachusetts Natural Heritage mapped rare and endangered rare species habitat.

The project site is ±630 meters (2,067 feet) in length consisting of Route 28, Finlay Road and Pond Road within the boundary of Orleans. The intersection is located in a residential area approximately one-mile south of Route 6A. Route 28 is an undivided two-lane highway classified as a rural minor arterial. The Cape Cod Regional Transit Authority provides a year round service from Hyannis to Orleans on Route 28 called the H2O Breeze. This service is a flag down service with six scheduled trips a day. The Finlay Road and Route 28 intersection is one of the two exits for the only industrial district in the Town of Orleans. Travel lanes on Route 28 are 4.99 meters (16.4 feet) wide with 0.3-meter (1-foot) shoulders. Finlay Road and Pond Road are local streets which are approximately 7 meters (23 feet) wide. Crystal Lake which is a part of the Pleasant Bay Area of Critical Environmental Concern is located approximately 97.5 meters (320 feet) southeast of the intersection of Route 28 and Pond Road. The stream connecting Crystal Lake with Pleasant Bay is an inactive historic fish run. A paved town landing to Crystal Lake is located off of Route 28 northbound prior to reaching the intersection.

Components of the project involve widening Route 28 at the intersection to include an 3.5-meter (11 foot) left turn lane onto Finlay Road and provide a 3.75-meter (12.3-foot) through lane with 0.75-meter (2.5-foot) outside shoulders in each direction. Finlay Road will be widened to 9 meters (29.5 feet) to accommodate a 3.75-meter (12.3-foot) travel lane and 0.75-meter (2.5-foot) shoulder in each direction and relocated to eliminate the approximately 10-meter (33-foot) offset between Finlay Road and Pond Street in order to create better sight distance for cars exiting Finlay Road and Pond Road. Pond Street will be widened to 7.5 meters (24.4 feet) to accommodate a 3.5-meter (11 foot) travel lane and 0.37-meter (1.2 foot) shoulder in each direction. The work will consist of a combination of full depth pavement reconstruction within the limits of the roadway widening, cold planing and overlay of the existing roadway surface and placement of a bituminous concrete berm. Incidental work will include roadway drainage improvements, guardrail relocation, the installation of new curbing, the adjustment of utilities, the application of pavement markings and new signage and the creation of painted islands. A wall and a rip rapped slope are proposed along Route 28 to avoid right of way impacts to adjacent properties.

According to the Massachusetts DEP's Stormwater Management Policy, correcting a substandard intersection is defined as a redevelopment project. As such,

improvements to the existing stormwater system have been made to the maximum extent practicable. However, given the fact that a portion of the project is located within the boundary of the Pleasant Bay Area of Critical Environmental Concern, additional measures have been taken to pretreat stormwater. Improvements to the existing stormwater collection system will be performed in order to capture and treat the 10-year storm event which is the first 4.8 inches of rainfall prior to discharge into Crystal Lake. These improvements include the installation of deep sump hooded catch basins and leaching catch basins. Existing drainage outfalls will be maintained. No new untreated direct discharges will occur as a result of the proposed drainage improvements. In addition to the proposed drainage improvements, a flood control/overflow structure will be constructed at the edge of the wetland area off Finlay Road in order to convey flows from high-intensity storm events to Crystal Lake. The new outlet at Crystal Lake will run parallel to the town landing and will be fitted with an energy dissipater and a riprap pad in order to prevent erosion and sedimentation. No drainage will be introduced to this flood control system. Erosion controls including hay bale and silt fencing and catch basin silt sacks will be installed prior to the start of construction in order to avoid and minimize any transport of sediment off site and into wetland resource areas. Exposed soils will be loamed and seeded upon completion of the project. Although no direct impacts to wetland resource areas are anticipated as a result of this project, a Notice of Intent in accordance with the Massachusetts Wetlands Protection Act and its associated regulations will be filed with the Orleans Conservation Commission due to the proposed work within 100 feet of wetland resource areas.

Alternatives Analysis: Several alternatives were explored for the proposed intersection improvements and included a conventional two way stop intersection and realignment of the intersection, a one way stop intersection with realignment and change of traffic flow on Pond Road to eastbound only, a conventional roundabout and an offset roundabout. The proposed project is the conventional two stop, realigned intersection.