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.: 12854
MEPA Analyst: ANDREA DAMES
Phone: 617-626- 1028

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: **Traffic and Safety Improvements on Route 20 at West Main St. and at Davis St.**		
Street: **Route 20 at West Main St. and Davis St.**		
Municipality: **Northborough**	Watershed: **Concord River (Hop Brook)**	
Universal Transverse Mercator Coordinates: **187,070 N; 894,810 E**	Latitude: **N 42° 18'** Longitude: **W 71° 39'**	
Estimated commencement date: **Sept. 2002**	Estimated completion date: **October 2003**	
Approximate cost: **$1,200,000**	Status of project design: **95%** complete	
Proponent: **Massachusetts Highway Department**		
Street: **10 Park Plaza, Room 4260**		
Municipality: **Boston**	State: **MA**	Zip Code: **02116**
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Kevin Walsh		
Firm/Agency: **Massachusetts Highway Dept.**	Street: **10 Park Plaza, Room 4260**	
Municipality: **Boston**	State: **MA**	Zip Code: **02116**
Phone: **(617)** 973-7529	Fax: **(617) 973-8879**	E-mail: **Lori.DiDonato@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): The project will be funded by the MassHighway Department (100%) utilizing Control & Mitigation of Air Quality (CMAQ) 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:

Order of Conditions (Pending) from Northborough Conservation Commission.

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	7.5		
New acres of land altered		0.8	
Acres of impervious area	5.5	0.4	5.9
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			
Number of housing units			
Maximum height (in feet)			
TRANSPORTATION			
Vehicle trips per day	20,700 (1) 14,000 (2)	5,100 (1)* 3,500 (2)*	25,800 (1)* 17,500 (2)*
Parking spaces			
WATER/WASTEWATER			
Gallons/day (GPD) of water use			
GPD water withdrawal			
GPD wastewater generation/ treatment			
Length of water/sewer mains (in miles)			

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:

(1) Route 20 at West Main Street; (2) Route 20 at Davis Street; * Normal projected traffic background growth over the next 20 years.

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

The project is not within a habitat area shown on the NHESP Atlas. No adverse impacts to any endangered species or habitat are anticipated (see Attachment 3 – NHESP Letter dated 2/15/02).

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

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

☐Yes (Specify_____) ☐No

MassHighway's Cultural Resources Section will coordinate its review with the Mass. State Historic Preservation Office in compliance with state Chapter 254 and federal Section 106 (as appropriate).

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 Massachusetts Highway Department (MHD) is planning to make traffic and safety improvements on Route 20, a Rural Minor Arterial, including its intersections with West Main Street and Davis Street in Northborough, MA. The improvements are necessary to upgrade pedestrian, handicap accessibility, traffic and overall safety conditions at these intersections. The project will involve cold planing and resurfacing, full depth box cut widening, reconfiguration of the existing intersections and the installation of signals and sidewalks. An Environmental Notification Form is required for this project due to the widening of the roadway by four feet or more for an average distance of one-half mile or more.

Existing Conditions

Location 1 – Route 20 at West Main Street: Route 20 meets West Main St. to form a three-way, unsignalized intersection with flashing warning beacons. The intersection of West Main St. occurs on a curved segment of Route 20 resulting in poor sight distance for all approaches and is abutted by commercial properties. Thirty-two (32) accidents were reported during the three-year period analyzed at this intersection, an average of approximately ten (10) per year. Fifty percent (16/32) of the accidents were angle type and 28% (9/32) resulted in injuries. The existing paved travel width on Route 20 is approximately 42 feet north of West Main St. and approximately 40 feet south of West Main St. The width provides for two travel lanes (one per direction). The posted speed limit on Route 20 is 30 mph in the southbound direction and 35 mph northbound. Immediately south of this intersection, Route 20 is posted for 50 mph. West Main St. (westerly leg) is classified as a Rural Major Collector roadway and has a width of approximately 44 feet, which provides one travel lane for each direction. The posted speed limit on West Main St. is 45 mph. Numerous traffic islands channelize motorists through the intersection. Bituminous sidewalk exists on the northwest corner of the intersection, along West Main St./Route 20.

Location 2 – Route 20 at Davis Street: Route 20 intersects with Davis St. (a Rural Minor Collector) to form a four-way unsignalized intersection south of Location 1. The existing paved travel width on Route 20 is approximately 44 feet, which provides for two travel lanes, one per direction. Davis St. has a width of approximately 20 to 22 feet, which provides one narrow travel lane for each direction. There are no shoulders on Davis St. The posted speed limit on Route 20 is 50 mph. No sidewalk facilities exist at this location. Land use at the intersection is solely residential. The intersection of Davis St. occurs on a relatively straight segment of Route 20, however, the southbound approach is on a 5 percent downgrade. Intersection sight distance is adequate for all approaches, but the high speeds on Route 20 make exiting from Davis St. more difficult. Thirty (30) accidents were reported at this intersection over the three-year period analyzed, an average of ten (10) accidents per year, a relatively high number. Forty three percent (13/30) of the accidents were angle type and 43% (13/30) resulted in injuries including one fatality. The condition of the roadway pavement is good, and there currently is no curbing within the intersection limits. A closed drainage system is in place and wetland areas appear on the east and west sides of the southerly leg of Route 20.

Traffic Projections

As can be seen from Figure 1, existing operations experienced at the intersections are at LOS "F" and the anticipated growth in traffic volume over the next twenty (20) years can be expected to further degrade the operations experienced at the project locations if no improvements are made. Minor street movements at Locations 1 and 2 will continue to experience unacceptable and worsening LOS unless improvements are made. The improvements proposed by this project will provide an adequate LOS under present and twenty year projected conditions. It is further anticipated that accidents currently experienced at these intersections should decrease as a result of the proposed improvements as well.

Proposed Improvements

The proposed improvements consist of geometric and traffic signalization improvements at both intersections. These improvements will include:

- Geometric improvements (see attached plans and typical cross sections) involve minor widening of Route 20, realignment of West Main St., development of new left turn lanes, provide sidewalks and pedestrian ramps. Drainage improvements consisting of catch basins with deep sumps and other improvements to existing conditions are also included.
- New fully actuated traffic signal controls at each intersection with wire loop detection on all approaches, including high speed dilemma zone detection on Route 20. Mast arms and overhead signal faces are proposed for all approaches providing greater visibility.
- Pavement markings and signing upgrades will also be provided.

Protection of Wetland Resources

There will not be any direct impacts to wetlands and no work will occur within 200 feet of any perennial streams. Some roadway slope work resulting from the proposed widening for safety upgrades and turning lanes will include minimal impacts within buffer zones, however, no work will occur within any wetland resource area. All feasible measures to eliminate direct impacts to wetlands and to minimize indirect impacts have been taken including the construction of retaining walls. Retaining walls are proposed at an existing intermittent stream crossing to eliminate temporary and permanent impacts from the proposed widening upon existing bordering vegetated wetlands (BVW).

Additional Mitigation Measures

All appropriate best management practices (BMPs) for sedimentation and erosion control will used during construction. New or rebuilt drainage structures shall include 4 foot deep sumps to improve the removal of roadway sediments. BMPs will include installing silt fencing and hay bales between the limits of work and all buffer zones and wetland areas and maintaining all BMPs throughout construction. Areas of exposed soil and slopes will be revegetated and/or fortified with stone revetment (where appropriate) as soon as possible to minimize the potential for erosion. All work will be in conformance with the Northborough Conservation Commission's Order of Conditions for this project, the Massachusetts Wetlands Protection Act and all other applicable requirements.

Alternatives

The alternatives considered for this project includes: 1) no-build; 2) resurface the existing roadway; and 3) rehabilitate and upgrade the existing intersection to a lesser degree than that currently proposed. The no-build and the resurface the existing roadway alternatives do not resolve the traffic congestion or traffic accident problems that occur at this intersection and does not address the existing traffic and pedestrian safety concerns. The rehabilitate and upgrade the existing intersection to a lesser degree alternative will repair the roadway surface and address some the existing traffic and pedestrian safety concerns, however, some of the more significant traffic and safety conditions would not be alleviated and many of the problems would persist and/or continue to worsen as a result of normal growth factors. The selected alternative minimizes impacts to abutting properties, does not require any direct impacts to wetlands and includes the necessary pedestrian and traffic safety improvements for the next approximately 20+ years.