

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.:	12948
MEPA Analyst:	Arthur Pugsley
Phone:	617-626-1029

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: Merrimac Landing		
Street: Middlesex Road (Route 3A)		
Municipality: Tyngsborough	Watershed: Merrimack River	
Universal Transverse Mercator Coordinates:	Latitude: 42°39'45" N Longitude: 71°24'30"	
Estimated commencement date: July 2003	Estimated completion date: April 2008	
Approximate cost: \$13,000,000	Status of project design: 100% complete	
Proponent: Merrimac Landing Realty Trust		
Street: 1 Bridgeview Circle		
Municipality: Tyngsborough	State: MA	Zip Code: 01879
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Peter G. Parent, P.E.		
Firm/Agency: Diversified Civil Engineering	Street: P.O. Box 890	
Municipality: Westford	State: MA	Zip Code: 01886
Phone: (978) - 692 - 0939	Fax: (978) - 692 - 5339	E-mail: DiversifiedCE@Earthlink.net

- 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): None

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 from Conservation Commission

pursuant to the Wetland Protection Act, Mass Highway Department "Permit to Access State Highway", Sewer Extension Permit, Zoning Board of Appeals Comprehensive Zoning Decision

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

- | | | |
|--|---------------------------------------|--|
| <input checked="" type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input 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 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 checked="" type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input checked="" type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify: Chapter 40B – Comprehensive Permit</i>
Total site acreage	12.46			
New acres of land altered		2.41		
Acres of impervious area	None	5.28	5.28	
Square feet of new bordering vegetated wetlands alteration		None		
Square feet of new other wetland alteration		None		
Acres of new non-water dependent use of tidelands or waterways		None		
STRUCTURES				
Gross square footage	None	186,156	186,156	
Number of housing units	None	144	144	
Maximum height (in feet)	None	36	36	
TRANSPORTATION				
Vehicle trips per day	None	998	998	
Parking spaces	None	301	301	
WATER/WASTEWATER				
Gallons/day (GPD) of water use	None	31,680	31,680	
GPD water withdrawal	None	None	None	
GPD wastewater generation/ treatment	None	31,680	31,680	
Length of water/sewer mains (in miles)	None	0.15	0.15	

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: Bald Eagle) 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

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.)

(a) Description of Project Site: The project site is located in Tyngsborough Massachusetts on the eastern side of Middlesex Road, Route 3A, and approximately 3/4 of a mile north of the Town of Chelmsford. The site contains approximately 12.46 acres, of which 0.07 of an acre is defined as wetlands. A majority of the site, 8.89 acres is an active cornfield while the remaining 3.56 acres is lightly wooded with typical New England species such as White Pines, Red Maples and Red Oaks. The terrain of the site consists of a plateau in the Northwest corner, which slopes south to the wetlands and east into the field. The southwestern corner slopes northeast into the field, around the wetlands. The field extends beyond the property to the North, while "Hussey Plastics", an industrial plant is located to the immediate south. Running parallel to Route 3A, along the rear of the property is a Boston and Maine Railroad Right-of-Way, which remains active to this day. The terrain slopes upwards approximately six feet to the railroad tracks from the field. From the tracks the land slopes down to the east toward the Merrimack River which flows North to South.

There are several resource areas on site including two small areas of Bordering Vegetated Wetlands as defined in 310 CMR 10.55(2), which are also defined as Bordering Land Subject to Flooding as defined in 310 CMR 10.57(2)(c). These two areas, approximately 3,363 square feet, are connected by an intermittent stream as defined in CMR 310 10.56(2). These resource areas are located along the western boundary of the site, east of Middlesex Road. Parallel to the eastern boundary of the site is the Merrimack River. Associated with the Merrimack River are the 100 and 200-foot Riparian Zones. The 200-foot riparian zone extends onto the site only in a small area of the northeast corner of the site. The project does not propose any work, other than grading for flood storage within this zone.

The USDA Soil Conservation Survey maps for this area denote the property to be made up of Suncook, Winooski, Occum and Canton Series soils. The two dominant soils are the Suncook and the Winooski Series. The Suncook Series consists mainly of level, deep excessively drained soils consisting of loose sandy loam, loamy fine sand or loamy sand surface soil over a loose stratified loamy fine sand substratum. The Winooski Series has very similar characteristics as the Suncook Series. The Winooski Series have silt loam, very fine sandy loam and very fine loamy sand stratum and substratum. The permeability of these soils range from moderate to rapid.

(b) & (c) - On and Off-Site alternatives and Impacts

--Industrial Plant

The project site is zoned I-1 (Light Industrial). It was felt that an environmentally sensitive parcel with this location, size and terrain, that it would not be best suited to facilitate a manufacturing plant. However, if this alternative had been chosen, then the infrastructure would be different than it is currently proposed. This site could feasibly house a manufacturing building with a footprint of approximately 175,000 s.f. or 4 Acres. A building of this size would be able to function properly and store all of the necessary items needed for the manufacturing process. This footprint is far larger than the proposed footprints of all of the buildings combined, however, the plant would require less parking and less roadway infrastructure. Even though there would exist less pavement, the overall amount of impervious area would be increased, due to the massive building size. The onsite impacts to the environment would be far greater than with an apartment complex. The manufacturing plant would require the use, storage and disposal of various chemicals. Since the site borders the Merrimack River, and contains sandy, very permeable soils, the risk of contamination to the River and groundwater is high. To help mitigate the impact of these chemicals, special buildings can be erected which are air and water tight to aid in the prevention of chemical spills. These buildings would be located away from any resource area, and away from the flow of traffic. The off-site impacts would be mainly to traffic. Instead of passenger cars, which can accelerate at great speeds, merging into a high speed Route 3A, large eighteen wheeled trucks will be impeding the traffic flow as they attempt to merge onto the road. To prevent traffic back-ups the roadway leaving the site would be angled so that the trucks would not have to slow down as much so they can maintain some speed and merge with less impact to traffic.

--Residential "Cluster" Development

Another option for the development of this site was a residential development under a Comprehensive Zoning Permit. The development would have consisted of Townhouse style condominiums in clusters of three. These clusters would be placed around a roadway system consisting of cul-de-sacs off of a main roadway. The main roadway would be horseshoe shaped and the cul-de-sacs would protrude out at right angles to the roadway. The clusters of townhouses would be placed around the cul-de-sacs and roadway. The driveways leading to the townhouses would be about 20 feet long and one car wide. The amount of impervious area created by the roadway, driveways and roof area for this design would be excessive, nearly twice as much as on the final design. Since the clusters would be arranged around the roadway there would be a lot of open space between the townhouses. However, the remaining open space, where there would be no development, would not be large enough to handle the on site flood and storm water storage. This design would have yielded approximately 87, 2 bedroom units. This would have produced less traffic then the current design, but would have been more intrusive to the land and the environment. Flood storage and stormwater management would be adversely impacted by this design since there would not be enough room to adequately store the volumes necessary to control these issues. The resource areas located on-site would not be well protected from encroachment, as townhouses would be placed in close proximity. The off-site impacts, with regards to traffic, would be less since the amount of traffic generated by this design would be less. The off-site drainage problem created by this design would adversely impact the parcels of land upstream from this development since the flood and storm waters would back up and flood the upstream land. To mitigate potential adverse impacts to the resource areas, permanent barriers would need to be installed around the resource areas to prevent future encroachment. To mitigate the on-site flood storage, the townhouses would need to built with "Flow-Through" foundations, which would allow the floodwaters to enter the lower levels of the townhouses and be stored on-site. By doing this, the lower level of the townhouse cannot be used for storage of personal or mechanical equipment, since it might flood.

Based on these two design alternatives, and the impacts that they posed on the surrounding environment, an environmentally friendly alternative had to be created, the design for Merrimack landing was chosen. A six building apartment complex, with minimal parking and almost 4 acres of open space.