

Appendix C
8-Step Process

<p>Step 1: Determine whether the Proposed Action is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.</p>	<p>Project Analysis: Preliminary DFIRMs indicate that the proposed project site is located within the 100-year floodplain. According to National Wetlands Inventory Maps and a site visit conducted by FEMA and URS biologists on August 25, 2008, there are no wetlands on or immediately adjacent to the proposed project site.</p>
<p>Step 2: Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.</p>	<p>Project Analysis: A notice will be published by the Applicant in a newspaper of general circulation when the EA is made available for public review.</p>
<p>Step 3: Identify and evaluate practicable alternatives to locating the Proposed Action in a floodplain or wetland.</p>	<p>Project Analysis: The Proposed Action includes no wetland impact. The Proposed Action is located within the 100-year floodplain.</p> <p>Other than the No Action Alternative, there are three other alternatives for alleviating recurrent flooding in the Peabody Square area.</p> <p>The following alternatives were evaluated in the EA:</p> <p><i>Alternative 1:</i> No Action</p> <p><i>Alternative 2:</i> Construction of two new culverts (Proposed Action)</p> <ul style="list-style-type: none"> • Two new identical 4-foot by 10-foot wide stormwater culverts in the Goldthwaite Brook tributary will be constructed. • The new culverts would begin at Oak Street and extend north along Foster Street to Lot 085-177. From Lot 085-177, the culverts would cross under Church Street, extend northwest along Church Street, and then extend northeast through a City-owned parking lot. The culverts would then cross under Lowell Street to the Peabody Square monument. From the monument, the culverts would extend east under Central Street through Lots 085-058, 085-059, and 085-060. The culverts would then cross under Wallis Street and end at an outlet to the North River. • The proposed project will include the construction of a transition structure on top of the existing culverts to the downstream proposed new twin 4-foot high by 10-foot wide culverts as well as cleaning the original Foster Street culvert,

including the open channel portion of the culvert.

- The new culverts will allow stormwater flow from the Goldthwaite Brook tributary to bypass its current connection with the existing main culvert, which also conveys stormwater flow from the Proctor Brook tributary to the North River. The new culverts will convey stormwater flow from the Goldthwaite tributary directly to the North River, allowing for more efficient drainage.
- The existing main culvert will remain intact and will convey stormwater flow solely from the Proctor Brook tributary. Perennial flow will be diverted from approximately 400 feet of open channel in Goldthwaite Brook into the new Goldthwaite Brook culvert resulting in reduced flows in that portion of the channel. Stormwater from local drainage will still flow into and through this portion of Goldthwaite Brook.

Alternative 3 (Dismissed):

- In 1979, construction of a tidal gate and pump station at Beverly Harbor on the North River (downstream of Peabody Square) was evaluated as a possible alternative. Upon recent analysis and evaluation, Peabody determined that this alternative would provide only minimal flood mitigation for Peabody Square and was therefore dismissed.

Alternative 4 (Dismissed):

- Storage of excess runoff that occurs during severe weather events in areas located upstream of Peabody Square (Cedar Pond, Upper and Lower Flume Pond, Sydney Pond, a wetland upstream of Downing Road, the detention pond at Northshore Mall, and Crowninshield Pond) was identified as a possible alternative. However, evaluation of this alternative revealed that no additional upstream storage is available under existing conditions. Modifications to

	<p>increase water-holding capacity in these locations could potentially aggravate existing flooding upstream. Therefore, this alternative was dismissed.</p>
<p>Step 4: Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands, and the potential direct and indirect support of floodplain and wetland development that could result from the Proposed Action.</p>	<p>Project Analysis: The project would result in permanent impacts to the floodplain. Impervious coverage would increase.</p>
<p>Step 5: Minimize the potential adverse impacts from work within floodplains and wetlands (identified under Step 4), restore and preserve the natural and beneficial values served by wetlands.</p>	<p>Project Analysis: There are no impacts to wetlands, so no replacement or mitigation would be required.</p> <p>The project is located within the 100-year floodplain</p> <p>Projects adjoining the two new culverts would be reviewed as necessary to ensure that cumulative impacts to the floodplain are addressed.</p> <p>Any disturbed vegetation would be replaced.</p> <p>The Applicant must follow all applicable local, State, and Federal laws, regulations and requirements and obtain and comply with all required permits and approvals, prior to initiating work on this project. No staging of equipment or project activities shall begin until all permits are obtained. The Applicant must apply BMPs for soil erosion prevention and containment during staging of equipment and project activities. Should project activities be delayed for 1 year or more after the date of this EA, coordination and project review by the appropriate regulating agencies must be reinitiated.</p>
<p>Step 6: Re-evaluate the Proposed Action to determine: 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; 3) its potential to disrupt floodplain and wetland values.</p>	<p>Project Analysis: The Proposed Action remains practicable based on the building standards and consolidation efficiencies.</p>

<p>Step 7: If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.</p>	<p>Project Analysis: A public notice will be submitted informing of FEMA’s decision to proceed with the project. This notice will include rationale for floodplain impacts; a description of all significant facts considered in making the determination; a list of the alternatives considered; a statement indicating whether the action conforms to State and local floodplain protection standards; a statement indicating how the action affects the floodplain; and a statement of how mitigation will be achieved.</p>
<p>Step 8: Review the implementation and post-implementation phases of the Proposed Action to ensure that the requirements of the EOs are fully implemented. Oversight responsibility shall be integrated into existing processes.</p>	<p>Project Analysis: This step is integrated into the NEPA process and FEMA project management and oversight functions.</p>