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May 16, 2008

CERTIFICATE OF THE SECRETARY OF ENERGY & ENVIRONMENTAL AFFAIRS
ON THE
EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME:	Lowe's of Quincy
PROJECT MUNICIPALITY:	Quincy
PROJECT WATERSHED:	Boston Harbor
EEA NUMBER:	14222
PROJECT PROPONENT:	Lowe's Home Centers, Inc.
DATE NOTICED IN MONITOR:	April 9, 2008

Pursuant to the Massachusetts Environmental Policy Act (G.L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Expanded Environmental Notification Form (EENF), the project involves the redevelopment of a 16.3-acre parcel of commercial and industrial property bounded by the Thomas S. Burgin Parkway to the east, Columbia Street to the north and west, and Plain and Mitchell Streets to the south to include a 151,000 sf Lowe's home improvement retail store with attached garden center. The project site is located across from the MBTA Quincy Adams Red Line station in Quincy.

The existing project site contains approximately 8 separate commercial and industrial buildings (approximately 159,000 sf total), approximately 377 surface parking, a 1,050 linear foot section of Penn Street, 5 vacant residential houses, and the Grasso Memorial Park. The redevelopment project will involve the demolition of the approximately eight existing buildings and structures (151,000 sf total) and the construction of a new 124,216 sf Lowe's Home Improvement Store with a 29,926 sf garden center, 435 surface parking spaces, and new stormwater management infrastructure. As described elsewhere in this Certificate, the project site also contains a 2.3-acre future development parcel located in the southeasterly corner of the site to be developed by others.

Jurisdiction

The project is undergoing environmental review and requires the preparation of an Environmental Impact Report pursuant to Section 11.03(6)(a)(6) of the MEPA regulations because it requires state permits and because the project will generate more than 3,000 new average daily trips on roadways providing access to a single location. The project requires a National Pollutant Discharge Elimination System (NPDES) General Construction Permit from the U.S. Environmental Protection Agency (EPA); an Indirect Highway Access Permit from the Massachusetts Highway Department (MassHighway); and an Order of Conditions (OOC) from the Quincy Conservation Commission. The OOC was issued by the Quincy Conservation Commission and has been appealed to the Department of Environmental Protection (MassDEP) for a Superseding Order of Conditions. Furthermore, the project may involve the conversion of land held for natural resource purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth. The project is subject to the EEA Greenhouse Gas (GHG) Emissions Policy and Protocol.

Because the Proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction is limited to those aspects of the project that may cause significant Damage to the Environment and that are within the subject matter of required or potentially required state permits. In this case, jurisdiction extends to transportation, wetlands and stormwater, Article 97 lands.

Request for a Single EIR

In accordance with Section 11.05(7) of the MEPA regulations, the Proponent has submitted an Expanded ENF (EENF) with a request that I allow the Proponent to fulfill its EIR obligations under MEPA with a Single EIR, rather than the usual process of a Draft and Final EIR. The EENF was subject to a 37-day review period pursuant to 301 CMR 11.05(7). The Proponent's request for a Single EIR was discussed at the MEPA site visit held for the project on April 28, 2008. Based on a review of the EENF, I hereby find that the document meets the regulatory requirements and I am permitting the Proponent to file a Single EIR in fulfillment of Section 11.03 of the MEPA regulations. The Proponent should prepare the Single EIR in response to the Scope outlined below.

SCOPE

General

The Single EIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. The Single EIR should include a copy of this Certificate and the comments submitted on the EENF. The Single EIR should include a thorough description of the project, including a detailed description of construction methods and phasing and any changes to the project since the filing of the EENF. The Single EIR should include a brief description of each state permit or agency action required or potentially required, and should demonstrate that the project will meet applicable performance standards. The Proponent should also provide an update on the local permitting process for the project.

Future Development/Segmentation

As described in the EENF document, the project site includes a 2.3-acre future development parcel located in the southeastern corner of the project site. Access to the future development parcel will be shared with the main accessway proposed for the Lowe's redevelopment project on Burgin Parkway. Under the anti-segmentation provisions of the MEPA Regulations (Section 11.01 (2)(c), I must consider the environmental impacts associated with the 2.3-acre future development parcel as a "common plan or undertaking" related to the proposed redevelopment project. I am therefore requiring the SEIR to discuss both the potential cumulative infrastructure impacts and site planning issues arising out of the proposed Lowe's of Quincy redevelopment project and the potential cumulative infrastructure impacts and site planning issues arising out of the full build-out (allowable as-of-right under current local zoning) of the remaining 2.3-acre future development parcel located adjacent to the project site.

Alternatives

In addition to the project development program presented in the EENF, the Proponent evaluated alternative site plan configurations including the No-Build alternative and the development alternative that would be allowed as-of-right at the site. The preferred alternative was selected based on local zoning, minimization of environmental impacts, market demand and general consensus with local neighborhood residents. According to the Proponent, the preferred alternative works best to meet the needs of the project while keeping resource area impacts minimal, providing significant improvements to on-site stormwater, and providing mitigation for project-related traffic. The preferred alternative may be carried forward to the Single EIR, subject to further modification as outlined in this Certificate below.

Conversion of Article 97 Lands

As described in the EENF, the project involves the conversion of approximately .6 acres (26,012 sf) of Article 97 land (Paul V. Grasso Memorial Park). The proposed has entered into an agreement with the City of Quincy to transfer approximately .6 acres (26,012 sf) of existing public parkland located within the project site along Columbia Street to the Proponent. The Grasso Memorial Park currently contains a basketball court and children's outdoor recreational playground.

The Proponent's Article 97 Mitigation Plan includes a commitment to replace and relocate the conversion of the City's Grasso Memorial Park with 1.05 acres of parkland located within the project site immediately south of the existing Grasso Park and will extend south along the project site's Columbia Street border from the main project site drive/ Columbia Street/ Taber Street intersection, and east along the project site's Plain Street border towards Town Brook. This new parkland will be transferred to the City of Quincy and will include active and passive recreational amenities and permanently protected open space. The City of Quincy needs to ensure that all the land areas included in the Proponent's Article 97 mitigation plan are permanently protected as public open space/parklands. I ask that the City of Quincy undertake the permanent protection afforded through an act of the Quincy City Council to place the Proponent's proposed new parklands under the control and stewardship of the City's Parks Department pursuant to Chapter 45, section 15 of the Massachusetts General Laws. Lastly, I note that the use of any/all proceeds received by the City of Quincy for the sale and/or conversion the Grasso Memorial Park Article 97 lands are governed by M.G.L. Chapter 44, Section 63, and may only be used for the acquisition of land for park purposes or for capitol improvements to park lands in the City of Quincy. The SEIR should include an update on the Article 97 conversion and mitigation process for this project.

Wetlands

As described in the EENF, the project, as currently designed, will result in approximately 9,300 sf of alterations to Bordering Land Subject to Flooding (BLSF) and 3,600 sf of Riverfront Area (RA) associated with Town Brook. Town Brook is a perennial stream that flows in a south-north direction through the middle of the project site. Town Brook is culverted under the northern portion of the project site through a 72-inch concrete pipe and extends off-site under Columbia Street. Approximately 750 lf of Town Brook is day-lighted throughout the southern portion of the project site and is bordered by bordering vegetated wetlands (BVW), Riverfront Area, BLSF, and existing buildings and impervious parking area. According to the comments received from MassDEP, Town Brook supports migration and spawning habitat for coldwater fisheries including Rainbow Smelt (*Osmerus mordax*) and American eel (*Anguilla rostrata*). The Riverfront Area and floodplain area, located along the eastern edge of Town Brook, have been previously altered and degraded. The Proponent has proposed to restore approximately 22,400 sf of previously altered Riverfront area and construct approximately 9,800 cubic feet (cf) of compensatory flood storage area located within the project site.

The Single EIR should include a reasonably scaled plan that identifies the wetland resource areas (including any banks, intermittent streams, perennial streams, land under the water, bordering land subject to flooding, and isolated land subject to flooding) and buffer zones present in the proposed project area on a reasonably scaled plan. The Single EIR should identify the significance of the resources present, including value to public and private water supply, flood control, storm damage prevention, prevention of pollution, riverfront area, and fisheries and wildlife habitat. The Proponent should analyze both direct and indirect (i.e. changes in drainage patterns) impacts on wetlands resulting from the project, and demonstrate that the Proponent has minimized impacts to resource areas including, but not limited to on-site and adjacent off-site wetlands, flood plain, and River Front area to the maximum feasible extent.

Stormwater

As described in the EENF and additional information provided by the Proponent to the MEPA Office, the project's stormwater management plan has been designed to meet MassDEP's Stormwater Management Policy standards and practices and the City of Quincy's Stormwater Program. The proposed stormwater management system includes deep-sump catch basins, water quality units and subsurface detention basins with Stormtech chambers to reduce total suspended solids (TSS) and provide for the on-site infiltration of nearly all of the project's on-site surface stormwater and roof runoff. According to the Proponent, a small of on-site surface stormwater will be collected in deep-sump catch basins with water quality units and conveyed directly to the culverted portion of Town Brook. Even though the project is a redevelopment project, the Proponent's stormwater management plan will achieve a Total Suspended Solids (TSS) removal rate of approximately 91 percent. The Single EIR should continue to investigate feasible methods of reducing the project's impervious surfaces to increase the points of infiltration within the project site.

A long term Operation and Maintenance Plan (O&M Plan) will be implemented to ensure that BMPs are maintained to function as designed. The Proponent has proposed to implement a comprehensive source control program at the site which will include regular pavement sweeping, catch basin cleaning and enclosure. The O&M should incorporate MassDEP's Snow Disposal Guidelines (http://mass.gov/dep/water/laws/policies.htm) and require that no snow will be placed in or adjacent to wetland resource areas, and commit to using a minimal amount of deicing and abrasive agents. The Proponent has also committed to implementing a Stormwater Pollution Prevention Plan (SWPPP) that will exceed the minimum requirements established for SWPPPs in accordance with EPA's NPDES General Permit. The SWPPP will include a Sedimentation and Erosion Control Plan that outlines measures that will be implemented to minimize and mitigate construction period impacts. The Proponent should ensure that hay bales are not used for erosion control as they may contain seeds from invasive species.

In their comments, MassDEP has indicated that Town Brook is an impaired water body due to high level of pathogens. The project site is also considered by MassDEP as an Area of Higher Potential Pollutant Load and is subject to Standard 5 of MassDEP's Stormwater Management Policy which includes requirements for pretreatment of stormwater and source reduction.

According to MassDEP, the Proponent's stormwater management plan must include measures to ensure that all the stormwater from the project site is adequately treated prior to discharge to Town Brook. Specifically, MassDEP has asked that the Proponent incorporate the use of Best Management Practices (BMPs) that are recommended in the revised Stormwater Management Handbook for TMDLs and consistent with BMPs identified for cold-water fisheries. According to MassDEP, water quality treatment units, such as those currently proposed for this project should be used only as pretreatment devices in association with water quality systems including sand filters, water quality swales and bioretention basins and infiltration systems. The Proponent should consult with MassDEP and EEA's Smart Growth Coordinator to identify opportunities for incorporating BMPs and innovative (LID) design measures into the project design to improve the management of stormwater runoff from the project site. The Single EIR should include an update of any revisions or modifications to the Proponent's Stormwater Management plan for this project.

Flood Plain

Most of the 16.3-acre project site is located within the 100-year floodplain. The Single EIR should include a detailed discussion of flood elevations within and adjacent to the project site and any changes in floodplain that may have resulted from the Town Brook Flood Improvement Project. According to MassDEP, the project design must use the floodplain profile for the project site based on information contained in the most recent (2006) Federal Emergency management Act's (FEMA's) Flood Insurance Rate Map (FIRM). The Proponent should respond to MassDEP's comments and include in the Single EIR a quantification of the project site's existing and post-completion flood storage capacity for project site.

I encourage the Proponent to continue to evaluate opportunities for incorporating sustainable design alternatives including Low Impact Development (LID) techniques in the project's site design and stormwater management plans. LID techniques incorporate stormwater best management practices (BMPs) and can reduce impacts to land and water resources by conserving natural systems and hydrologic functions. The primary tools of LID are landscaping features and naturally vegetated areas, which encourage detention, infiltration and filtration of stormwater on-site. Other tools include water conservation and use of pervious surfaces. Clustering of buildings is an example of how LID can preserve open space and minimize land disturbance. LID can also protect natural resources by incorporating wetlands, stream buffers and mature forests as project design features. For more information on LID, visit http://www.mass.gov/envir/lid/. Other LID resources include the national LID manual (Low Impact Development Design Strategies: An Integrated Design Approach), which can be found on the EPA website at: http://www.epa.gov/owow/nps/lid/. The SEIR should include a discussion and evaluation of integrated stormwater management techniques for redevelopment sites with significant surface area parking. The Proponent should consult with MassDEP during the preparation of this section of the SEIR.

Traffic

The Proponent has prepared a Traffic Impact and Access Study (TIAS) in accordance with Executive Office of Energy & Environmental Affairs (EEA)/Executive Office of Transportation and Construction (EOTC) guidelines. Using the Institute of Transportation Engineers (ITE) Trip Generation manual's land use code 862 (Home Improvement Superstore), the Proponent estimates a total of 4,600 vehicle trips per day (vtd) associated with the proposed project.

The main access to the site will be provided via a new 4–lane site drive located at the existing Burgin Parkway/Penn Street signalized intersection. Two gated emergency accessways will be located on Columbia Street at the Columbia Street/Taber Street intersection, and further north north near the existing Columbia Street/Penn Street intersection. The Proponent has also agreed to maintain a limited vehicular access at the proposed terminus for Penn Street in the northern end of the project site to provide direct access to the existing Caniff Headstone and Lappens commercial buildings. The Single EIR should provide an updated site circulation plan that clearly demonstrates how cars, trucks, bicycles, and pedestrians will circulate safely throughout the project site.

As described in the EENF, MassHighway's Route 3 fly-over ramp construction project, located adjacent to the project site's Burgin Parkway boundary, will start at the Burgin Parkway/Route 3/Centre Street intersection and span southward to connect to the Route 3 and I-93 ramps. This fly-over ramp construction project is currently under construction and will result in a significant amount of additional non-project generated vehicle traffic being re-routed away from the Bergin Parkway and Centre Street intersection. The Proponent has continued to consult with the City of Quincy and MassHighway to incorporate the future traffic conditions resulting from the fly-over ramp construction project and the recently proposed BJ's Wholesale Club project (EEA # 14233) in the final design for the proposed Lowe's of Quincy redevelopment project.

The Proponent has outlined and committed to a transportation mitigation program in the EENF to address potential project-related traffic impacts and to help address existing operational and safety deficiencies. The following mitigation measures are proposed:

Reconstruction of the Penn Street/Burgin Parkway intersection

- construction of a new left-turn lane and right-turn lane for the Penn Street eastbound approach;
- a second left-turn lane for the northbound approach, a short right-turn lane for the southbound approach; and,
- re-timing of the existing signalized intersection traffic signal.

Center Street/Liberty Street intersection & Area Neighborhood Streets

- Implement traffic calming measures including; speed humps, raised crosswalks and intersections, chicanes, or road narrowings, to reduce cut-through traffic; and,
- Implement a traffic monitoring study for the Center Street/Liberty Street intersection and area neighborhood streets to identify the need, if any, for additional future mitigation.

Quincy Street/Liberty Street intersection
- installation of an all-way STOP sign control

Liberty Street/Penn Street intersection
- reconstruction and realignment of Penn Street to create a standard T-type intersection.

In their comments, MassHighway has indicated that the Burgin Parkway/Centre Street intersection currently experiences unsafe levels of operation which may be further exacerbated during project construction. The Single EIR should identify interim mitigation for this intersection to be implemented during project construction in the event that MassHighway's flyover ramp project is not completed by the time the Lowe's of Quincy project becomes occupied. MassHighway has also requested that the Single EIR include an analysis of existing and required safe stopping distances that may be required for the Burgin Parkway/site drive intersection, and the stopping distance to be achieved upon completion of the Proponent's proposed mitigation for this intersection. All proposed mitigation located within the state highway layout must conform to MassHighway Standards. The Single EIR should include a commitment to implement the above referenced mitigation measures and should describe the timing and cost of their implementation based on project phasing. The Single EIR should include conceptual 80-scale plans depicting the proposed mitigation to verify the feasibility of constructing such improvement including lane widths and offsets, layout lines and jurisdictions, and adjacent land uses in the proposed improvement area.

Transportation Demand Management (TDM)

While I recognize the challenges inherent in developing a successful Transportation Demand Management (TDM) program for a commercial retail site, I remind the Proponent of its obligation to develop the maximum mitigation feasible for traffic impacts. I note that the Proponent for another home improvement store recently proposed in the project area (Home Depot Store, EEA #12497, June 2001) proposed and programmed traffic mitigation measures including TDM that were designed to support that project's anticipated traffic impacts.

I ask that the Proponent evaluate all feasible TDM measures for store employees and patrons to reduce peak employee traffic demand and to encourage alternative transportation modes for retail customers including, but not limited to:

-reduced rate transit passes for employees;
-install bicycle storage racks near the front doors of the retail building to facilitate bicycle access to the site; and,
-the appointment of an on-site TDM Coordinator.

The TDM plan should describe any monitoring necessary to ensure the success of the program. The Single EIR should demonstrate the Proponent's commitment to implement, monitor, and continuously fund the proposed TDM plan. All project tenants and businesses should be required to participate in the proposed TDM plan. The Single EIR should continue to evaluate additional feasible TDM measures to further reduce vehicle trips to and from the site.

The Proponent should consult with the City of Quincy, MBTA and MassHighway before filing the Single EIR to discuss coordination of this project with existing transit and/or shuttle services to promote transit use by employees and patrons. The Proponent's TDM plan should be incorporated as part of the Proponent's transportation mitigation program. The Proponent should provide a report on this consultation in the Single EIR.

Transit

The Single EIR should demonstrate the support of the MBTA for any existing and proposed transit amenities in the project area. The Proponent should consult with Massachusetts Bay Transit Authority (MBTA), the City of Quincy, and MassHighway to identify opportunities for providing existing MBTA bus service and/or Shuttle service to the project site. As described elsewhere in this Certificate, the Proponent should evaluate TDM measures for store employees and patrons to encourage alternative transportation modes including increased ridership of the MBTA Quincy Adams Commuter Rail Station.

Pedestrian and Bicycle Facilities

The Single EIR should describe the internal vehicular and pedestrian circulation plans for the project site. The Single EIR should show on a reasonable scaled map of the project site, where the Proponent proposes new sidewalks, pedestrian crossings and vehicle/pedestrian safety signage in a map of the area. The Proponent should discuss the feasibility of providing sidewalks along the project site's frontage on Columbia Street, Burgin Parkway, Penn Street and Mitchell Street, and along the proposed three site driveways. I strongly encourage the Proponent to consult with WalkBoston, and to continue to work closely with the City of Quincy and MassHighway, to evaluate the feasibility of constructing any additional traffic, transit, pedestrian, and bicycle improvements within the project area in response to the regional and local traffic concerns that may arise out of the proposed mixed-use office/retail development project.

Parking

The EENF proposes an increase in parking from the existing 377 spaces to 435 spaces. The Single EIR should indicate how the parking supply was developed and demonstrate that the parking supply is the minimum necessary to accommodate project demand without encouraging additional single occupant vehicle trips. Implementation of transportation demand measures and provision of good bicycle and pedestrian access can further reduce the amount of parking needed.

The Single EIR should include a commitment to implement the above referenced traffic mitigation measures and should describe the timing and cost of their implementation based on project phasing. The Single EIR should include conceptual plans for the proposed mitigation that are of sufficient detail to verify the feasibility of constructing such improvements, including lane widths and offsets, layout lines and jurisdictions and adjacent land uses.

Greenhouse Gas Policy

The proposed project is subject to EEA's Greenhouse Gas (GHG) Policy that requires Proponents to quantify project-related GHG emissions and propose and quantify the impact of mitigation measures to reduce GHG emissions. The Proponent submitted the results of the GHG analysis with the EENF. In the analysis, the Proponent calculated GHG emissions from both mobile and stationary sources. The GHG emissions analysis evaluated the change in carbon dioxide (CO_2) emissions from project-related traffic and proposed building sources. Direct and indirect CO_2 emissions from the proposed building sources were calculated using the Tech Environmental Energy Model. The final project design is estimated to generate 977 tons per year of CO_2 emissions from stationary sources and 5,441.1 tons per year of CO_2 emissions from mobile sources. This reflects a reduction from the base case CO_2 emissions for direct and indirect sources of about 13.4 percent and 21.3 percent, respectively. The total CO_2 reduction from the base case is estimated at 17.4 percent.

As mitigation for GHG emissions from mobile sources, the Proponent has committed to modify existing roadway and intersection configurations and signal phasing and timing to increase roadway capacity and reduce delays at project-area intersections. The Proponent should also commit to design and implement a TDM program as described above to reduce project-generated vehicle trips. The Single EIR should include an analysis to quantify the GHG reduction impact of proposed TDM measures and their following guidance in the EEA Policy. In another section of the EENF, the Proponent provided a discussion of sustainable design measures that it hopes to incorporate into project design once an architect is selected for the project. The following mitigation measures are listed to help reduce GHG emissions from stationary sources: use highly-reflective (high-albedo) roofing materials, install high-efficiency HVAC systems, eliminate or reduce use of refrigerants in HVAC systems, and use low emitting materials. The EENF outlines a list of LEED (Leadership in Energy and Environmental Design) measures that Lowe's prototype buildings and construction program qualify for without modifications. The EENF also provides a list of sustainable design elements that are incorporated into most newly constructed Lowe's stores.

I note that in February 2008, Lowe's submitted an EENF for a similarly sized store and garden center in North Adams (EEA #14180) which noted the corporate-wide initiative to evaluate its buildings against LEED criteria.[1]

[1] I applaud Lowe's for this initiative. In a study from the New Buildings Institute (NBI), it was reported that building performance averages are 25-30 percent more efficient for LEED certified buildings than non-LEED buildings, and gold-platinum LEED rated buildings are 45 percent better than the national average, which approaches the interim goals of Architecture 2030, (a non-profit organization dedicated to reducing GHG emissions by changing the way developments are planned, designed, and constructed). The NBI study also shows a good correlation between modeled and actual building performance, providing assurances to developers and regulators that these measures will be effective. Additional information on energy efficiency/renewable rating systems is available at a number of websites including: http://www.buildinggreen.com/, http://energystar.gov/, www.architecture2030.org/. For new construction, core and shell, and commercial interiors relating to LEED certified buildings, information is available on the following website: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222. In addition, for a Massachusetts perspective, consultation with green building experts can be obtained through the Green Building Roundtable: http://www.greenroundtable.org, located in Boston.

That project included elements such as use of photocells in the garden center and site lighting, elimination or reduction of use of refrigerants in HVAC systems, use of low-flow systems in lavatories, and commissioning of the building energy systems as part of the post-construction commissioning program. The Single EIR should explain why those components are not feasible for the Quincy project.

The Division of Energy Resources (DOER) in the Executive Office of Energy and Environmental Affairs reviewed the GHG mitigation measures in the EENF for consistency with comparable projects and found several measures listed below to be worthy of further consideration and adoption into the project, where feasible. DOER also recommends that Lowe's contact the New Construction division of its electricity provider in Quincy, NStar, to take advantage of potential rebates available for the installation of highly energy efficient equipment. According to DOER's comments, it is unclear whether the Tech Environmental Energy Model is optimized for the MA Building Code, which is the baseline alternative for energy usage in calculating GHG emissions, as explained in the MEPA Greenhouse Gas Emissions Policy and Protocol. Consistent with the GHG Policy and based on the following discussion, the Single EIR should model at least one mitigation alternative that would result in greater GHG reductions than the preferred alternative. Alternatives with greater energy efficiencies allow an understanding of potential opportunities for energy savings achievable by varying building design and layout strategies. Energy efficient techniques not selected should be explained, and this information assists in the determination that the alternative selected has avoided, minimized, and mitigated CO_2 emissions.

High-Efficiency HVAC Systems

The Single EIR needs to provide more information regarding the HVAC system, including the gas heating system. It is not possible to evaluate whether the system being proposed is highly efficient based on an Energy Efficiency Ratio (EER) of 9.5. More efficient technologies may be feasible without a first-cost penalty, compared to typical rooftop units. Typically, an EER of 9.5 for cooling would be a minimal base rating, and no information was provided regarding the heating system.

Energy Efficient Interior Lighting

The EENF proposes T8 lighting as energy efficient lighting but T-8 lighting is the baseline in accordance with the MA Building Code. DOER recommends the installation of enhanced or "Super T8" lighting, T5 or metal halide lighting, and for all exit signs, LED lighting.

Duct Insulation

The EENF notes that where appropriate, insulation will be wrapped around the air supply ducts to reduce energy losses. Duct insulation is the baseline required by code. The Single EIR should note, and construction should reflect that all ducts would be sealed with mastic, tested, and then insulated, since duct leakage can be a major factor in energy losses.

Maximize Interior Day-lighting
Table 6 of the EENF indicates that interior day-lighting is inappropriate to the project. DOER recommends that this be revisited in the EIR, given that other big-box retailers, such as WalMart, have incorporated interior day-lighting successfully into their retail space.

Third Party Building Commissioning
The EENF indicates that third party building commissioning is technically infeasible to the project. However, building commissioning is required by MA Building Code and should be performed by a third party.

Building Energy Management Systems
The Single EIR should re-evaluate the feasibility of implementing energy performance monitoring of the building, possibly through a building management system. A system or strategy for monitoring energy performance would be expected to pay for itself by eliminating potential inefficient building energy operations, such as operating heating and cooling systems simultaneously in January.

Incorporate on-site renewable energy sources into projects
DOER recommends that at a minimum, the roof be constructed to support the added weight of a solar photovoltaic (PV) system for potential installation during project construction or at a future date. I commend Lowe's for incorporating a white roof into the project. It should be noted that a rooftop PV system operates even more efficiently, due to added reflectivity, when installed on a white roof. The Single EIR should provide a life-cycle cost analysis considering the support of subsidies through the Commonwealth Solar and RPS programs, to evaluate the feasibility of installing a PV system during project construction under two scenarios: 1) construction, ownership and operation of a PV system by Lowe's; or 2) construction, ownership, and operation of a PV system by a third party that will then enter into a long-term power purchase agreement with Lowe's for the electricity produced by the system. If neither of these scenarios is economically feasible at this time, the Single EIR should evaluate the opportunity for installing PV at a future date and discuss the Proponent's willingness to host a third party owned PV array under a favorable power purchase agreement.

The Single EIR should provide additional analysis of mitigation that would achieve significant reductions in GHG emissions with building designs, selection of building materials, and water and sewer infrastructure upgrades and efficiencies that reduce and/or offset the fossil fuel energy demand of the project. Revised GHG emissions modeling for this project should include for reconsideration the mitigation measures identified herein, in order to quantify the additional emissions reductions that are potentially achievable. The Single EIR should provide technical and cost analyses to document the rationale for not making a commitment to specific mitigation recommendations.

Although it is unnecessary to provide a complete technological and financial analysis of all GHG reduction mitigation measures, it will benefit the proponent to use functional and quantitative analyses and mock ups to assess feasible greenhouse gas reduction measures for the project type, starting with measures that offer the greatest energy reductions, and then considering opportunities to improve ongoing operations. These assessments should either lead to commitments to adopt mitigation measures or the Single EIR should do a credible job in explaining why a particular efficiency or green power generation component is impracticable. Similarly, the Single EIR should evaluate the feasibility of purchasing power generated by renewable energy sources for any portion of the electricity use on the site.[2] The Proponent should consult with the MEPA Office regarding the modeling parameters to be reported in this section of the Single EIR.

M.G.L. c. 21E/Hazardous Wastes

As described in the EENF, the project site contains areas where releases of petroleum hydrocarbons (TPH), polcyclic aromatic hydrocarbons (PAH), extractable petroleum hydrocarbons (EPH), and metals to soil were reported (RTN 3-22158, 3-23583-111, and 3-3035-106) in 1987, 2002 and 2004. Remedial actions involving the excavation of contaminated spoils were completed for the TPH release in 1995. Remedial actions to address the PAH and EPH contamination are currently underway as part of an Immediate Response Action (IRA) pursuant to the Massachusetts Contingency Plan, 310 CMR 40.0000. The Single EIR should present an update summary of the remediation efforts undertaken at the site to date and a description of how the project Proponent proposes to continue to comply with the remediation requirements under the MCP. I strongly recommend that the Proponent consult with MassDEP's Bureau of Waste Site Cleanup (BWSC) in the final design of this project to explore what impacts, if any, the proposed project might have on these hazardous waste sites, and to evaluate the Proponent's need for retaining a Licensed Site Professional (LSP) to assist in the project's construction. The Proponent should ensure that the project contractors and sub-contractors maintain an emergency response plan for performing appropriate response actions in the event contamination is encountered during project construction.

Construction Period Impacts

The proposed project includes demolition of existing commercial and industrial buildings. The Single EIR should evaluate construction period impacts, including erosion and sedimentation, air quality and solid waste disposal and commit to measures to minimize construction impacts. MassDEP has noted that demolition and construction activities must comply with both Solid Waste and Air Quality control regulations. The Proponent should carefully review MassDEP's comments and demonstrate the project's consistency with the applicable Solid Waste and Air Quality control regulations.

[2] In the spirit of the corporate commitment to evaluate its buildings against LEED criteria, I note that LEED certification for New Construction/Retail requires a 35 percent to 50 percent contribution of green power.

I ask that the Proponent participate in MassDEP's Clean Air Construction Initiative (CACI) and the MassDEP Diesel Retrofit Program to mitigate the construction-period impacts of diesel emissions to the maximum extent feasible. The CACI program helps Proponents identify appropriate mitigation for minimizing air pollution from construction vehicles such as retrofit of construction equipment with particulate filters and oxidation catalysts and/or use of on-road low sulfur diesel (LSD) fuel. The Proponent should consult with MassDEP during the preparation of the Single EIR to develop appropriate construction-period diesel emission mitigation, which could include the installation of after-engine emission controls such as diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs). For more information on these technologies, see: http://www.epa.gov/otaq/retrofit/verif-list.htm. The project includes demolition and reconstruction, which will generate a significant amount of construction and demolition (C&D) waste. MassDEP encourages the project proponent to incorporate C&D recycling activities as a sustainable measure for the project. The project proponent is advised that demolition activities must comply with both Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. Chapter 40, Section 5.

Mitigation

The Single EIR should include a separate chapter on mitigation measures. This chapter should include a Draft Section 61 Finding (in the form of an updated letter of commitment for the MassHighway access permit) for all state permits that includes a clear commitment to mitigation, an estimate of the individual costs of the proposed mitigation, and the identification of the parties responsible for implementing the mitigation. A schedule for the implementation of mitigation, based on the construction phases of the project, should also be included.

The Single EIR should include conceptual plans for the proposed roadway improvements of sufficient detail to verify the feasibility of constructing such improvements. The conceptual plans should clearly show proposed lane widths and offsets, layout lines and jurisdictions, and the land uses (including access drives) adjacent to proposed improvements. Any proposed mitigation located within the state highway layout must conform to MassHighway standards including provisions for lane, median and shoulder widths and bicycle lanes and sidewalks.

Response to Comments

The Single EIR should respond to the comments received to the extent that the comments are within the subject matter of this scope. Each comment letter should be reprinted in the Single EIR. I defer to the Proponent as it develops the format for this section, but the Response to Comments section should provide clear answers to questions raised.

Circulation

The Single EIR must be circulated in compliance with Section 11.16 of the MEPA regulations and copies should be sent to commenters as listed below, to any state agencies from which the Proponent will be seeking state permits and approvals, and to and to City of Quincy officials. A copy of the Single EIR should be made available for review at the Quincy Public Library.

Based on the review of the Expanded ENF and the comments received, I am satisfied that the Expanded ENF meets the standard for adequacy contained in Section 11.06 of the MEPA regulations.

May 16, 2008
Date

Ian A. Bowles, Secretary

Comments received:

5/6/2008	William G. Aylward
5/8/2008	William G. Aylward
5/8/2008	Louise A. Keefe and Joan M Keefe
5/9/2008	City of Quincy, Planning and Community Development
5/92008	Executive Office of Transportation and Public Works
5/9/2008	Department of Environmental Protection (MassDEP) - CERO
5/12/08	Tetra Tech Rizzo
5/13/2008	City of Quincy, Planning and Community Development

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