



**CONNECTICUT DEPARTMENT OF  
ENERGY & ENVIRONMENTAL PROTECTION  
OFFICE OF ENVIRONMENTAL REVIEW  
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**To:** Mark W. Alexander - Transportation Assistant Planning Director  
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**Subject:** Meriden Transit-Oriented Development

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The Department of Energy & Environmental Protection (DEEP) has received the Notice of Scoping for proposed construction of a parking garage to be shared with a mixed-use transit-oriented development project consisting of 63 residential units over first floor retail uses near the Meriden train station. As you know, the Department supports efforts to increase the demand for public transportation services for through transit-oriented development. The increased use of public transit will reduce vehicle miles traveled and congestion in the I-91 corridor, thus decreasing vehicular emissions that contribute to ozone formation, particulate matter levels and climate change. The following comments are submitted for your consideration.

The Department strongly supports the use of low impact development (LID) practices such as water quality swales and rain gardens for infiltration of stormwater on site. Key strategies for effective LID include: managing stormwater close to where precipitation falls; infiltrating, filtering, and storing as much stormwater as feasible; managing stormwater at multiple locations throughout the landscape; conserving and restoring natural vegetation and soils; preserving open space and minimizing land disturbance; designing the site to minimize impervious surfaces; and providing for maintenance and education. Water quality and quantity benefits are maximized when multiple techniques are grouped together. Consequently, we typically recommend the utilization of one, or a combination of, the following measures:

- the use of pervious pavement or grid pavers (which are very compatible for parking lot and fire lane applications), or impervious pavement without curbs or with notched curbs to direct runoff to properly designed and installed infiltration areas,
- the use of vegetated swales, tree box filters, and/or infiltration islands to infiltrate and treat stormwater runoff (from building roofs and parking lots),
- the minimization of access road widths and parking lot areas to the maximum extent possible to reduce the area of impervious surface,
- if soil conditions permit, the use of dry wells to manage runoff from the building roofs,
- the use of vegetated roofs (green roofs) to reduce the runoff from buildings,
- proper treatment of special activity areas (e.g. loading docks, covered maintenance and service areas),
- the installation of rainwater harvesting systems to capture stormwater from building roofs for the purpose of reuse for irrigation, and

- providing for pollution prevention measures to reduce the introduction of pollutants to the environment.

The effectiveness of various LID techniques that rely on infiltration depends on the soil types present at the site. According to the Natural Resources Conservation Service's Soil Web Survey (available on-line at: [Web Soil Survey](#)), the soils throughout the project area consist of urban land. These soils are unrated in their suitability for various stormwater management practices. However, infiltration practices may be suitable at this site. Test pits should be dug in areas planned for infiltration practices to verify soil suitability and/or limitations. Planning should insure that areas to be used for infiltration are not compacted during the construction process by vehicles or machinery. The siting of areas for infiltration must also consider any existing soil or groundwater contamination.

The Department has compiled a listing of web resources with information about watershed management, green infrastructure and LID best management practices. It may be found on-line at: [LID Resources](#).

For additional information, consult the *Connecticut Stormwater Quality Manual*. The manual is available on-line at: [Stormwater Manual](#). A *Low Impact Development Appendix* to the manual has been prepared to provide specific guidance on low impact development techniques. It is also available on-line at: [LID Appendix](#).

The following standard recommendation concerning stormwater management for parking garages should be observed.

Stormwater management for parking garages typically should involve two separate collection systems designed to treat the runoff from different types of parking areas. Any exposed parking levels will produce a high volume of runoff with relatively low concentrations of pollutants. Runoff from such areas should be directed to the storm sewer system and the collection system should include controls to remove sediment and oil or grease. A hydrodynamic separator, incorporating swirl technology, circular screening technology or engineered cylindrical sedimentation technology, is recommended to remove medium to coarse grained sediments and oil or grease. The treatment system should be sized such that it can treat stormwater runoff adequately. The Department recommends that the treatment system be designed to treat the first inch of stormwater runoff. Upon installation, a maintenance plan to remove sediment and oil or grease should also be implemented.

Interior levels of the garage will produce a low volume of runoff with relatively high concentrations of pollutants. In addition, the need for cleaning of the garage must be considered and floor washwater cannot be directed to a stormwater sewer system. Runoff from interior areas should be directed to the sanitary sewer system, again with appropriate treatment. An oil separator tank with a capacity of at least 1000 gallons is required. A licensed waste oil hauler must clean the tank at least once a year. A list of certified haulers can be obtained from the Bureau of Materials Management & Compliance Assurance at 860-424-3366. The discharge of floor washwater is covered under a *General Permit for Miscellaneous Discharges of*

*Sewer Compatible Wastewater* as building maintenance wastewater. Registration is required for discharges greater than 5000 gallons per day. For further information concerning stormwater management, contact the Permitting & Enforcement Division at 860-424-3018. A fact sheet describing the permit and the registration form may be downloaded at: [Miscellaneous Discharge GP](#).

The Natural Diversity Data Base (NDDB) contains no records of any extant populations of Federally listed endangered or threatened species or species listed by the State, pursuant to section 26-306 of the CGS, as endangered, threatened or special concern in the project area. This information is not the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substitutes for on-site surveys required for environmental assessments.

The NDDB includes all information regarding critical biological resources available at the time of the request. This information is a compilation of data collected over the years by the DEEP's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

Because the site is in an historically urbanized area, it is suggested that an environmental or engineering consultant be retained to conduct a site investigation and sampling/testing as appropriate in order to confirm that a property proposed for redevelopment has not been the site of improper disposal of waste or does not contain some other environmental liabilities. The investigation should include an inquiry into the historic uses and fuel storage on the property to assess the likelihood of encountering solid or hazardous waste or soil contamination. In order to ascertain the environmental status of properties, it is typically recommended that a Phase I environmental site assessment (ESA) be performed at the site. If the Phase I ESA indicates site contamination is likely, a Phase II ESA should be performed to confirm or deny the presence of contamination. In order to achieve proper remediation, the extent of contamination should be clearly defined through a Phase III ESA, a cleanup plan developed, and measures implemented that will clean up the site in accordance with applicable criteria in the Connecticut Remediation Standard Regulations adopted pursuant to section 22a-133k of the CGS. For further information, contact the Remediation Division at 860-424-3705. These regulations are available on-line at: [Remediation Regulations](#).

In keeping with the Department's interest in furthering the use of alternate fuels for transportation purposes, we recommend that Level 1 electric vehicle charging stations (for lengths of stays of 8 hours or greater) at 3% of the parking spaces be included in the project design. Increasing the availability of public charging stations will facilitate the introduction of the electric vehicle technology into the state and serve to alleviate the present energy dependence on petroleum.

For large construction projects, the Department typically encourages the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board

(CARB) standards. If that newer equipment cannot be used, equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits.

The Department also encourages the use of newer on-road vehicles that meet either the latest EPA or California Air Resources Board (CARB) standards for construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites. On-road vehicles older than the 2007-model year typically should be retrofitted with diesel oxidation catalysts or diesel particulate filters for projects. Again, the use of newer vehicles that meet EPA standards would eliminate the need for retrofits.

Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted signs indicating the three-minute idling limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor include language similar to the anti-idling regulations in the contract specifications for construction in order to allow them to enforce idling restrictions at the project site without the involvement of the Department.

The following standard comments regarding building demolition projects should be observed, as applicable, during future planning and implementation of the project. Fact sheets providing additional information concerning environmental, health and safety requirements applicable to building renovation and demolition projects have been developed by the Waste Engineering & Enforcement Division. To obtain copies, call the division at 860-424-3023. This information is also available on-line at: [Health & Safety Requirements](#).

Prior to the demolition of any commercial, industrial or public buildings or buildings containing five or more residential units, they must be inspected for asbestos-containing materials and any such materials must be removed. Written notice must be submitted to the Department of Public Health 10 working days prior to demolition in accordance with Section 19a-332a-3 of the Regulations of Connecticut State Agencies, for buildings involving more than 10 linear feet or more than 25 square feet of asbestos-containing material. For further information, contact DPH at (860) 509-7367. Additional information concerning regulation of asbestos may be found at: [Asbestos Program](#)

The disposal of material containing asbestos requires the approval of the Waste Engineering and Enforcement Division pursuant to section 22a-209-8(i) of the Regulations of Connecticut State Agencies. Proper disposal technique requires that the material be bagged and labeled and placed in an approved secure landfill. For further information, contact the division at 860-424-3366. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

The disposal of demolition waste should be handled in accordance with applicable solid waste statutes and regulations. Demolition debris may be contaminated with asbestos, lead-based paint or chemical residues and require special disposal. Clean fill is defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA) and includes only natural soil, rock, brick, ceramics, concrete and asphalt paving fragments. Clean fill can be used on site or at appropriate off-site locations. Clean fill does not include uncured asphalt, demolition waste containing other than brick or rubble, contaminated demolition wastes (e.g. contaminated with oil or lead paint), tree stumps, or any kind of contaminated soils. Landclearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste, also defined in section 22a-209-1 of the RCSA. Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility pursuant to section 22a-208c of the Connecticut General Statutes and section 22a-209-2 of the RCSA. Additional information concerning disposal of demolition debris is available on-line at: [Demolition Debris](#).

Construction and demolition debris should be segregated on-site and reused or recycled to the greatest extent possible. Waste management plans for construction, renovation or demolition projects are encouraged to help meet the State's reuse and recycling goals. The *State Solid Waste Management Plan* outlines a goal of 58% recovery rate for municipal solid waste by the year 2024. Part of this effort includes increasing the amount of construction and demolition materials recovered for reuse and recycling in Connecticut. It is recommended that contracts be awarded only to those companies who present a sufficiently detailed construction/demolition waste management plan for reuse/recycling. Additional information concerning construction and demolition material management and waste management plans can be found on-line at: [C&D Material Management](#) and [C&D Waste Management Plans](#).

Development plans in urban areas that entail soil excavation should include a protocol for sampling and analysis of potentially contaminated soil. Soil with contaminant levels that exceed the applicable criteria of the Remediation Standard Regulations, that is not hazardous waste, is considered to be special waste. The disposal of special wastes, as defined in section 22a-209-1 of the RCSA, requires written authorization from the Waste Engineering and Enforcement Division prior to delivery to any solid waste disposal facility in Connecticut. If clean fill is to be segregated from waste material, there must be strict adherence to the definition of clean fill, as provided in Section 22a-209-1 of the RCSA. In addition, the regulations prohibit the disposal of more than 10 cubic yards of stumps, brush or woodchips on the site, either buried or on the surface. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

The Waste Engineering & Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)*. It establishes a uniform set of environmentally protective management measures for stockpiling soils when they are generated during construction or utility installation

projects where contaminated soils are typically managed (held temporarily during characterization procedures to determine a final disposition). Temporary storage of less than 1000 cubic yards of contaminated soils (which are not hazardous waste) at the excavation site does not require registration, provided that activities are conducted in accordance with the applicable conditions of the general permit. Registration is required for on-site storage of more than 1000 cubic yards for more than 45 days or transfer of more than 10 cubic yards off-site. A fact sheet describing the general permit, a copy of the general permit and registration forms are available on-line at: [Soil Management GP](#).

Thank you for the opportunity to review this proposal. If you have any questions concerning these comments, please contact me.

cc: Robert Hannon, DEEP/OPPD  
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