

February 18, 2005

Mr. Gregory M. Dorosh, P.E.  
Principal Engineer  
Environmental Compliance Section  
Bureau of Engineering and Highway Operations  
Connecticut Dept. of Transportation  
P.O. Box 317546  
Newington, CT 06131-7546

Attention: Mr. Christopher Bonsignore/Mr. Roger Levesque

**RE: ON-CALL ENVIRONMENTAL SERVICES  
TASK 310 – PRELIMINARY DESIGN SUMMARY  
ASSIGNMENT NO. 202-2951  
STATE PROJECT NO. 170-1867  
RECONSTRUCTION OF BRIDGE NO. 431  
ROUTE 4 OVER THE FARMINGTON RIVER  
FARMINGTON, CONNECTICUT**

Dear Mr. Dorosh:

The following is the Preliminary Design Summary for the referenced project.

Project Environmental Summary

The proposed project involves the reconstruction of Bridge No. 431, which carries Route 4 over the Farmington River in Farmington, Connecticut. The proposed project activities include the removal of the existing concrete deck, steel girders, and concrete substructure. A new concrete deck, concrete substructure, sidewalks, and parapets with metal bridge rail will be constructed. Based upon a review of the construction plans, it is anticipated that the project will involve rights-of-way taking, cut and fill activities, and utility realignments. A Task 110 – Corridor Land Use Evaluation and a Task 210 - Subsurface Site Investigation (SSI) have been conducted within the project limits to verify the absence or presence and location of subsurface contamination, and to assess potential impacts to be encountered during construction. The results of the environmental investigations indicated that soil and sediment within the project corridor has been impacted by past and present land usage. Volatile Organic Compounds (VOCs), Total Petroleum Hydrocarbons (TPH), Polycyclic Aromatic Hydrocarbons (PAHs), Pesticides and RCRA Metals were the Contaminants of Concern (COCs) detected in the soil and sediment samples collected from within the project limits during the Task 210 SSI.

According to the Connecticut Department of Environmental Protection (CTDEP) Adopted Water Quality Classifications for the Upper Connecticut River and South Central Coastal Basins, the groundwater classification for the portion project corridor located on the Southern side of Route 4, to the west of the Farmington River is "GB". The groundwater classification for the remainder of the project corridor is "GA". Groundwater was not encountered in any of the soil borings advanced during the Task 210 SSI. The Farmington River is located within the project corridor and crosses beneath Route 4. The Farmington River is classified as a Class "B" surface water body, according to the CTDEP 1999 Adopted Water Quality Classifications for the Upper Connecticut River and South Central Coastal Basins. A surface water sample collected from the Farmington River during the Task 210 SSI contained detectable concentrations of petroleum hydrocarbons and the metal Barium. A Surface Water Protection Criteria (SWPC) has not been established for petroleum hydrocarbons and the concentration of Barium detected was below applicable standards.

#### Remediation Methodology

Based on the proposed construction and the results of the environmental investigations conducted within the project corridor, seven (7) Areas of Environmental Concern (AOECs) and five (5) Low Level Areas of Environmental Concern (LLAOECs) have been established within the project limits (see attached sketches). The proposed remediation methodology for the AOECs is controlled handling, management and disposal and/or re-use of material excavated. Excavated material from the AOECs shall be transported to and stockpiled at a Waste Stockpile Area (WSA) for characterization prior to disposal and/or re-use. Material generated from LLAOECs does not require special handling procedures and may be re-used within the project limits. Material from the LLAOECs, which cannot be re-used within the project limits, shall be transported to the WSA for characterization and off site disposal. Controlled materials shall be sampled and characterized for disposal and/or re-use in accordance with the contract specifications and RSRs. Construction dewatering fluids may also require controlled handling and management. Groundwater was not encountered during the Task 210 SSI, but if groundwater is encountered during construction activities, the groundwater shall be visually inspected in the field for evidence of contamination prior to discharge. If visible contamination is observed, the groundwater shall be pumped into approved containers and sampled prior to discharge and or off/site disposal. Surface waters are not considered a controlled material and pumping

and diverting of surface waters shall be handled in accordance with the approved permits for the project. Based on the proposed construction activities, it is anticipated that an area of approximately 8,000 square feet (s.f.) will be required for construction of a WSA. The ideal location should be within the project limits with easy access to construction activities.

#### Environmental Specification Sections and Drawings

The following are anticipated environmental specification sections and drawings:

##### ***Drawings:***

ENV-001 through ENV-002 – Environmental Plans (Based on Final Design Plan Sheets)  
ENV-003 – Environmental Details

##### ***Specifications:***

Notice to Contractor – Environmental Investigations  
Item No. 0101000A - Environmental Health and Safety  
Item No. 0101130A – Environmental Work - Solidification  
Item No. 0101117A - Controlled Material Handling  
Item No. 0101128A - Securing, Construction and Dismantling of a Waste Stockpile and Treatment Area  
Item No. 0202315A - Disposal of Controlled Material  
Item No. 0202318A - Management of Reusable Controlled Material  
Item No. 0202763A – Disposal of Sediments  
Item No. 0204210A – Handling Contaminated Groundwater

#### Health and Safety Requirements

Based on the results of the environmental investigations, proposed construction activities pose a low to moderate risk of harm to site construction workers, inspectors and downwind receptors from exposure to petroleum hydrocarbons, VOCs, PAHs, pesticides and metals through inhalation of vapors or dust, dermal contact or ingestion. A site specific health and safety plan (HASP) shall be implemented to address the relative risks of exposure to documented hazards present within the AOECs. The HASP shall establish health and safety protocols to address the environmental concerns directly related to site conditions and in accordance with applicable Federal and State regulations and the contract specifications.

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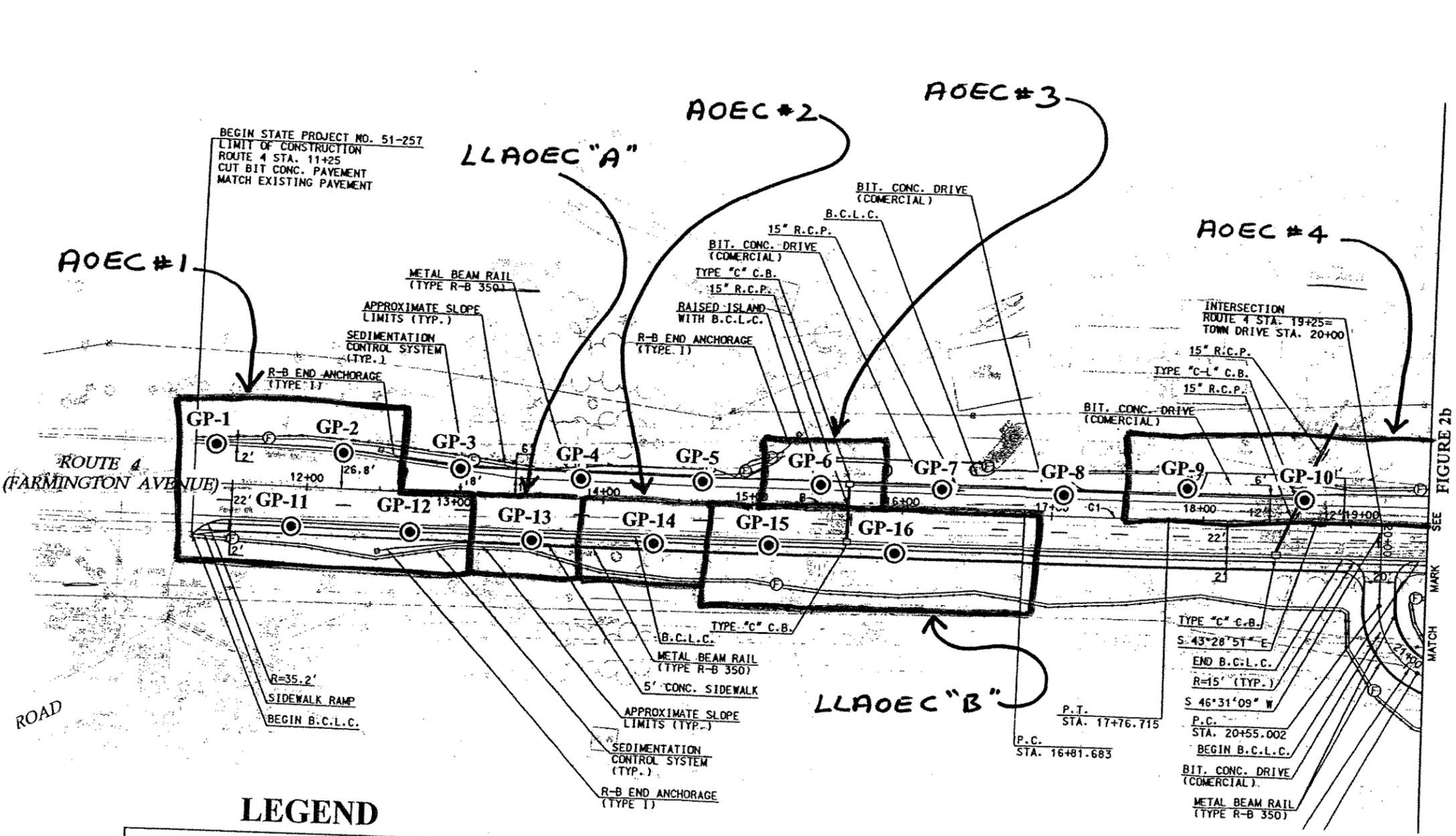
If you have any questions regarding the above, please contact the undersigned at your convenience.

Very truly yours,

MAGUIRE GROUP INC.

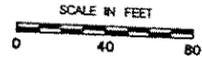
David R. Stock, P.E.  
Program Manager

DRS/ekg



**LEGEND**

- ⊙ GP = Geoprobe Boring
- X SED = Sediment Grab Sample
- SW = Surface Water Grab Sample



**FIGURE 2a - Task 210 Project Area & Sampling Locations  
Reconstruction of Bridge No. 431, Route 4 Over the Farmington River  
Farmington, Connecticut**

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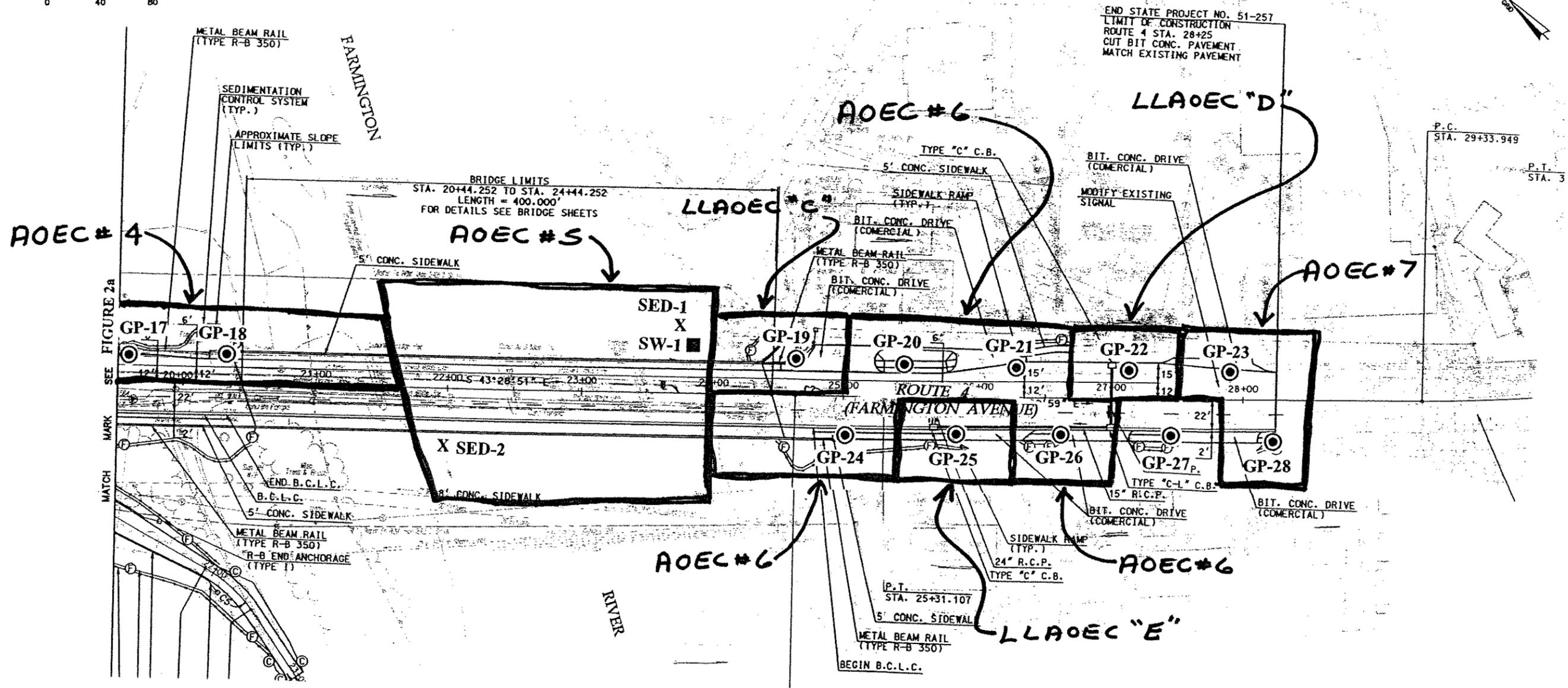


FIGURE 2b - Task 210 Project Area & Sampling Locations  
Reconstruction of Bridge No. 431, Route 4 Over the Farmington River  
Farmington, Connecticut