



# CAIT

Center for Advanced Infrastructure & Transportation  
Rutgers, The State University of New Jersey

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## **PROJECT OVERVIEW REPORT**

1. **Center Identifying Number**  
160 RU9217
2. **Project Title**  
Implementation of Construction Quality Assurance (CQA) Measures for Harbor Sediments and Processed Dredged Material (PDM) Placement
3. **Principal Investigator**  
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4. **NJDOT Principal**  
Scott Douglas  
New Jersey Department of Transportation  
1035 Parkway Ave.  
Trenton, NJ 08625
5. **Project Objective**  
Based on the requirements of NJDOT we have identified three major objectives. These three objectives are:  
**Objective 1:** Oversee closure activities specifically related to placement of Processed Dredged Material to ensure field operations are compliant with an approved Closure Plan.  
**Objective 2:** Provide NJDOT with monthly reports summarizing construction activities related to landfill closure, laboratory and field testing results, and corrective measures taken if needed.  
**Objective 3:** Serve as liaison between New Jersey Department of Transportation Office of Maritime Resources and the landfill projects in accordance with the Closure Plan.
6. **Project Abstract**  
A Closure Plan Application was submitted to the New Jersey Department of Environmental Protection (NJDEP) in April of 2004, and subsequently approved by the Department. The Application included the current contractual material specifications from EnCap Golf Holding's Remediation Contractor, MACTEC Development Corp., related to PDM CQC/CQA Plan. MACTEC is currently under contract with EnCap Golf Holdings, LLC to place PDM cap as per approved engineering specifications.

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The NJDOT/OMR and NJDEP are interested in retaining an independent CQA inspector to oversee the placement of approximately 2.5 million cubic yards of PDM imported from various ACOE and NJMR dredging projects. The inspector is to ensure that the PDM is placed in such a way as to provide adequate support for the proposed development and satisfy the requirements of a low permeability cap. Additionally, the inspector is able to confirm that the engineering specifications are appropriate for the proposed development based on his actual field observations, and on the review of PDM laboratory test results, which are conducted by others. The CQA inspector reports to the NJDOT/OMR project manager.

## 7. Task Descriptions

Phase 1: Maintain Construction Quality Assurance for placement of processed dredged material.

Task 1- Field Oversight

Task 2– Reporting of Construction Quality Assurance Report on a Monthly Basis.

Task 3 – Serve as Liaison for NJDOT/OMR.

## 8. Milestones/Dates

Phase 1: Construction Quality Assurance 12/31/2004

Task 1: Field Oversight 11/3/2005

Task 2: Reporting 11/3/2005

Task 3: Serve as Liaison 11/3/2005

## 9. Yearly and Total Budget

### Year One & Total Budget

NJDOT Sponsorship (11/01/2004-11/3/2005) \$31,988

## 10. Student Involvement

none

## 11. Relationship to Other Research Projects

Development of a Dredge Planning and Decision Support Tool

## 12. Technology Transfer Activities

Throughout this project, monthly CQA reports will be prepared and submitted to the NJDOT/OMR project manager. The report will include a summary of the construction activities related to landfill closure, review and evaluation of laboratory and field-testing results, and the corrective measures taken if necessary. A photo log will be created and updated regularly to provide NJDOT/OMR and other interested parties with information regarding construction activities.



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### 13. Potential Benefits of the Project

- Preparation of the subgrade prior to material placement conforms to the approved Closure Plan.
- Pre-construction testing of the PDM performed properly as per approved CQA/QC procedure.
- Assurance the PDM meets engineering specifications following the final placement.
- PDM placement procedures and equipment utilized by MACTEC are appropriate relative to the nature of PDM,
- Sampling and testing conforms to the approved procedures,
- Results of the field and laboratory tests are reviewed and evaluated.
- Necessary corrective measures are taken to satisfy the Closure Plan requirements.
- Monthly progress reports.

### 14. TRB Keywords

Dredging, Maritime Construction, Landfills, Harbors, Sediments

### 15. TRB Code Words

Fcfxeud, Fcep=, Pfwm, Pmhb, Rbebs