Progress Report

July 31, 2007

PROPOSAL TO THE FEDERAL HIGHWAY ADMINISTRATION TASK ORDER DTFH61-06-T-70006

FOR THE DEVELOPMENT OF GUIDE SPECIFICATIONS FOR BRIDGES VULNERABLE TO COASTAL STORMS AND HANDBOOK OF RETROFIT OPTIONS FOR BRIDGES VULNERABLE TO COASTAL STORMS

LIMITED USE DOCUMENT

This document shall be used and disclosed for evaluation purposes only, and a copy of this Government notice shall be applied to any reproduction or abstract thereof. Any authorized restrictive notices that the submitter places on this document shall also be strictly complied with.

by

Modjeski and Masters, Inc.

with

Moffatt and Nichol, Inc.
Ocean Engineering Associates, Inc.
D'Appolonia, Inc.
Dr. Dennis R. Mertz

INTRODUCTION

We received Notice to Proceed on this Work Order on August 14, 2006.

This report covers work done in July, 2007.

TASK 1 – MEETINGS

The team had several phone conferences to discuss the progress in the force studies, development of the specifications and the retrofit manual.

TASK 2 – REVIEW, SUMMARIZE, AND AUGMENT LITERATURE

Work on Task 2 is essentially complete. The deliverables for this Task have been submitted and have been accepted by the Task force. Some refinements may be incorporated when transferring the information developed in this task to the final report of the project.

TASK 3 – REVIEW AND SUPPLEMENT ONGOING FORCE STUDIES

Work on Task 3 is essentially complete. The FHWA and the Panel gave the team permission to invoice for Task 3.

TASK 4 – COMPILE AND CATALOG RETROFIT OPTIONS

Work on Task 4 is essentially complete. The deliverables for this Task have been submitted and have been accepted by the Task force. Some refinement may be incorporated when transferring the information developed in this task to the final report of the project.

TASK 5 – PERFORM ANALYTICAL STUDY OF RETROFIT OPTIONS

A proposal was submitted to the FHWA to reduce this task and divert resources to Tasks 3 and 6. This proposal has been accepted.

Work on this task started. We are looking at some spans of the I-10 Escambia Bay Bridge. Forces will be determined using the equations in the proposed specifications. The most promising retrofit techniques will be applied to determine their adequacy to resist the applied loads.

TASK 6 – DEVELOP A GUIDE SPECIFICATION AND A RETROFIT HANDBOOK FOR ADOPTION BY AASHTO

TASK 6A - GUIDE SPECIFICATION

Work on the refining the design specifications continued. A significant portion of the effort is dedicated to the calibration of the specifications. Different approaches are being tested in an attempt to produce a uniform reliability factor.

TASK 6B - RETROFIT HANDBOOK

Minimal work conducted in July. Work to resume in August.

TASK 7 – DEVELOP FINAL REPORT AND RECOMMENDATIONS FOR FURTHER STUDIES

No progress

TASK 8 – PREPARE EXECUTIVE SUMMARY AND PRESENTATION MATERIALS

No progress

FUTURE WORK – NEXT MONTH

- 1. Continue formalizing the specifications to implement the method of calculating wave forces on superstructure and the associated specifications provisions
- 2. Work on finalizing the retrofit manual
- 3. continue the work on Task 5

SCHEDULE

See schedule below.

SCHEDULE

TASK	Date shown in Work Plan	PROPOSED COMPLETION DATES
Notice to Proceed	September 1, 2006	
Kickoff Meeting	December 4,5,6, 2006	
Task 2	December 15, 2006	Done
Task 3	December 15, 2006	May 31, 2007
Task 4	January 26, 2007	Done
Task 5	On hold pending resolution or	f proposal to the FHWA
Task 6 50% Draft Specification and Manual 90% Draft Specification and Manual 100% Draft Specification and Manual	February 15, 2007 May 31, 2007 August 15, 2007	Done August 15, 2007 October 15, 2007
Interim Report Tasks 2 to 6	July 15, 2007	September 15, 2007
Task 7 Draft Final	June 30, 2007 September 15, 2007	August 31, 2007 November 15, 2007
Task 8 – Executive Summary		
Draft 4 to 6 page summary	June 30, 2007	August 31, 2007
Final 4 to 6 page summary	August 31, 2007	October 31, 2007
Task 8 – 13 hour slides		
Draft	November 30, 2007	January 31, 2008
Final	January 31, 2008	March 31, 2008