April 13, 2006

DRB Coordinator
Division of Construction
MS 44
P.O. Box 942874
Sacramento, CA 94274

Re: Contract No. 04-0120-R4
SFOBB – Temporary Bypass Structure

Pursuant to Section II D of the Disputes Review Board agreement for the above referenced project, I am transmitting a copy of the DRB Recommendation dated April 11, 2006.

Sincerely,

William B. Baker
DRB Chair

RECEIVED
MAR 14 06
00392

Cc Mahantesh Anigol, Caltrans
Robert Coupe, CCM
Matthew B. McGowan, DRB
Frederick Graebe, DRB

DISPUTE REVIEW BOARD
SFOBB
TEMPORARY BYPASS STRUCTURE

March 11, 2006

Mr. Robert Coupe
Project Manager
C.C. Myers, Inc.
3286 Fitzgerald Rd.
Rancho Cordova, CA 95742

Mr. Mahantesh Anigol
Resident Engineer
Caltrans
333 Burma Road
Oakland, CA 94607

Re: Temporary Bypass Structure
Contract No. 040120R4

Gentlemen:

On February 27, 2006 at the request of C.C. Meyers, Inc. (CCM) the Dispute Review Board (DRB) held a hearing to consider the merits of the following dispute:

NOPC No. 4, "Pile Dynamic Analysis"

A list of attendees is included as Attachment A.

PROJECT OVERVIEW

This design-build contract provides for a temporary detour structure on the eastern side of Yerba Buena Island that will allow for reconstruction of the new East span of the San Francisco-Oakland Bay Bridge.

NOPC No. 4 "Pile Dynamic Analysis"

INTRODUCTION

CCM has requested additional compensation, stated by CCM to be approximately $50,000, to cover the costs associated with the performance of pile dynamic analysis.

CONTRACTOR'S POSITION

The following is quoted from the position paper dated February 8, 2006 and transmitted February 9, 2006 by CCM to the DRB. The entire paper, including exhibits, is incorporated herein by reference.

"...As a part of the scope of this project, we are to provide the design for the Temporary Bypass Structure. The project plans that were developed by Caltrans for bidding purposes included specific information about the alignment of the TBS along with general and project specific design criteria to be used to complete the design work. The Special Provisions that were developed by Caltrans for bidding purposes included requirements for creating Supplemental Technical Special Provisions (STSP's) to accompany the Special Provisions developed by Caltrans for the project. The Caltrans Special Provisions did not cover the technical aspects of the TBS. These are to be described in the STSP's. C. C. Myers, Inc. engaged the services of Imbsen & Associates, Inc. (Imbsen), as a subcontractor, to perform the design work for the TBS, including design plans and the Supplemental Technical Special Provisions..."

"...As pile driving was to commence on the project, it was noted that the Supplemental Technical Special Provisions prepared by Imbsen required that some dynamic monitoring be performed during piledriving to confirm the actual capacities being achieved of the driven piles. This monitoring is commonly referred to as Pile Dynamic Analysis (PDA). The PDA work can be broken down into two separate tasks. The first is the actual recording of the data during the piledriving operations. This is done with electronic equipment actually attached to the pile as it is driven. The second task is the engineering evaluation of the data. This takes place after the piles are driven and the data is collected..."

"...In September of 2004, while mobilizing to drive piles at bent 49, discussion ensued between C. C. Myers Inc. and Caltrans regarding the need for Pile Dynamic Analysis to be performed during the pile driving operations. The analysis was required by the STSP to confirm the actual capacities of the driven piles that are installed for the TBS. These values are then compared to the design values used to develop the design to ascertain conformance with the design. The dispute arose over who was responsible to perform the PDA work. The specification regarding piling in the STSP's was imported from the State's library of SSP's. It was submitted with the design documents unedited. It stated that the "Monitoring will be done by State forces using State-furnished dynamic pile analyzer monitoring instruments." This represents the first task to be performed under the PDA work, the collection of the data. The STSP also states the "The Engineer will conduct a penetration analysis and bearing analysis in conjunction with pile load testing and dynamic monitoring of the piles at these locations and develop bearing acceptance criteria for these piles..."

"...Based upon what was written into the STSP, we requested a Contract Change Order to provide compensation for performing the two tasks included in the PDA work. We did this via our letter 215-STL.00035. This document is attached as Exhibit 6. Our request was denied by Caltrans via their letter 05.03.01-000161. This document is attached as Exhibit 7. The reason stated by Caltrans in their letter is as follows:

> "The pile dynamic monitoring work is being required by C. C. Myers' design and not by the Special Provisions. PDA monitoring serves as a tool to verify design assumptions and therefore serves as a quality control over the design. As the Contractor generated the design of the foundations, the responsibility for performing the design specified testing shall also be borne by the Contractor..."

"...Based upon the discussion contained herein, we respectfully request that the Dispute Review Board find that the responsibility for performing the Pile Dynamic Analysis work lies with the State and as they have required C. C. Myers, Inc. perform the work, that we be paid for all of the costs incurred as a result..."

CALTRANS' POSITION

The following is quoted from the June 6, 2005 position paper transmitted February 9, 2006 by Caltrans to the DRB. The entire position paper including exhibits is incorporated herein by reference.

"...This contract requires that the Contractor both design and construct the work. The requirement for performing the dynamic monitoring and subsequent data analysis originates from recommendations made by the Contractor's Geotechnical Engineer and accepted by the Design Engineer. These tasks serve to verify and provide quality control over the design and ultimately results in an economic benefit to the design and its construction. It is not a Quality Assurance function and was not required by this Contract.

The Contractor's STSPs also require that modification be made to the design based upon the data analysis. This is a task which can only be executed by the Engineer of Record.

C. C. Myers generated STSPs which incorrectly places these tasks upon the State and these specific STSPs edits were never approved.

It is reasonable to assume based upon the nature of this contract that the performance of dynamic monitoring, the subsequent wave equation analysis and design verification/changes are the responsibility of the Contractor and the sufficient Engineering basis is available to generate the correct edits to the SSPs.

It is these reasons that the State requests the Disputes Review Board find no merit to Notice of Potential Claim No. 04..."

DRB FINDINGS AND CONCLUSIONS

At the DRB hearing on February 27, 2006, presentations were made by CCM and Caltrans declaring the respective positions of the parties concerning NOPC No. 4, "Pile Dynamic Analysis".

From the presentations and information provided by CCM and Caltrans, taken together with the Contract Documents, the DRB is of the unanimous opinion on the following:

1. The Foundation Report dated February 2004 prepared by Geomatrix for Imbsen and Associates, Inc. ("Contractor's Engineer") states in part:

   "...**6.1.1.4 Pile Testing Program**

   We recommend that at least two of the steel pipe piles per pile cap be evaluated using the Pile Driving Analyser (PDA) and subsequent CAPWAP analyses. The PDA measures dynamic force and acceleration at the top of a pile, which can be processed in the field to determine pile integrity, pile stresses, and pile hammer performance during driving. CAPWAP analyses, performed after driving, compute pile capacity (ultimate, axial, compressive) from the measured PDA field data. CAPWAP analysis performed on good quality field data typically yield capacity predictions that correspond well with static load test data. To evaluate the time dependent pile capacity increase (set-up) or decrease (relaxation), we recommend performing restrikes on all PDA test piles after a minimum waiting period of 3 days. The restrikes should also be evaluated using PDA measurements and subsequent CAPWAP analyses.

   We recommend that a representative of Geomatrix be on-site to observe all pile testing..."

2. CCM in its Position Paper states:

   "...the Supplemental Technical Special Provisions prepared by Imbsen required that some dynamic monitoring be performed during piledriving to confirm the actual capacities being achieved of the driven piles..."

   "...The analysis was required by the STSP to confirm the actual capacities of the driven piles that are for the TBS. These values are then compared to the design values used to develop the design to ascertain conformance with the design..."

3. Caltrans in its October 16, 2004 letter to C. C. Myers states:

"...The pipe pile dynamic monitoring work is being required by C. C. Myer's design and not by the Special Provisions. PDA monitoring serves as a tool to verify design assumptions and therefore serves as quality control over the design. As the Contractor generated the design of the foundations, the responsibility for performing the design specified test shall also be borne by the Contractor..."

The DRB finds that CCM's engineer ("Contractor's Engineer") required pile dynamic analysis as a verification of the adequacy of the design and design assumptions prepared by the "Contractor's Engineer". It was at the "Contractor's Engineer's" option to choose pile dynamic analysis or other methods as a check on the adequacy of his design.

The requirement for pile dynamic analysis was not at Caltrans' direction.

DRB RECOMMENDATION

The DRB recommends that CCM's claim for additional compensation associated with the performance of pile dynamic analysis be denied on merit.

Respectfully submitted:

Date: 3.11.06

Frederick Graebe
DRB Member

Date: 3.11.06

Matthew B. McGowan
DRB Member

Date: 3.11.06

William B. Baker
DRB Chair

ATTACHMENT A

DISPUTES REVIEW BOARD (DRB)
SIGN-UP SHEET

Project: **04-0120R4**
04-SF-80-12.6/13.2
Temporary Bypass Structure

Date: **Monday, February 27, 2006**
Time: **10:00 AM**

Location of Meeting: **Caltrans field office**
345 Burma Road, Oakland, CA 94607

NAME	ORGANIZATION / TITLE	PHONE NUMBER
Gary Lai	Caltrans/Struc Rep	510 286-0511
MAHANTESH ANIGOL	Caltrans/ R.E.	(510) 622-5183
ANDREW YAN	CT	510 286-0540
Mehran ArdaKanian	CT	415 288 8887
DUDLEY WONG	CT	(510) 385-7628
FRED GRAEBE	DRB	916-443-7219
WILLIAM BAKER	DRB CHAIR	707 942 5886
Matthew B. McGowan	DRB	415-453-8013
ROB KOBAL	CT	510-776-8219
PETER SIEGENTHALER	CT	(510) 622-5112
JOE PECK	CCM	916-869-2830
BOB COUPE	CC MYERS INC	415-399-0175
ROB HARTLEY	CT	510 • 286 • 0535