

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

CONTRACT 04-0120R4

# DISPUTE REVIEW BOARD

Position Paper

For

**NOPC# 4**

**Dynamic Monitoring of Driven Piles**

Contractor: C.C. Myers, Inc.

Owner: State of California

**William Baker**

Dispute Review Board Chairman

**Matthew B. McGowan**

Dispute Review Board Member

**Frederick Graebe**

Dispute Review Board Member

Prepared by:

**Mahantesh Anigol, P.E.**

Resident Engineer

**Gary Lai, P.E.**

Structure Representative

**Sheri A. Morrison, P.E.**

Assistant Structure Representative

*original*

*62.02.04*

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## I. Background

Contract 04-0120R4 also known as the South Detour Contract involves the construction of a Temporary Bypass Structure (TBS) to detour traffic on a portion of the existing Eastern span of the Bay Bridge to allow for the construction of the new Bay Bridge. The TBS begins at the east end of the Yerba Buena Tunnel and ends 0.6 km east of tunnel tying into the existing bridge at Pier E1. The contract consists of designing and providing detailed design plans, supplemental technical special provisions (STSP) and quantities of various items of work in addition to constructing the design out in the field. The STSPs are prepared by editing the Department's Standard Special Provisions and Bridge Reference Specifications to construct the TBS in accordance with the Contractor's design.

## II. Description of the Dispute

The Contractor generated Supplemental Technical Special Provisions, which required the State to perform a series of tests and analysis at the driven pile bents, which included dynamic monitoring, wave analysis, and load testing. The State did not approve this specific language in the STSPs.

The Department believes that the responsibility for performing these tasks resides with the Contractor as the tests and the wave analysis are used to verify the assumptions used in generating the design. In addition, the specification would have placed design tasks back upon the State. The Department believes that the Contractor has placed an unreasonable burden upon the State.

## III. History

### Timeline Of Pertinent Events:

Submittal	Date	Language
215-SUB.000005-01 Preliminary STSPs	May 20, 2004	STSP indicates that Contractor's Forces and Contractor's Designer performs functions listed for Dynamic Monitoring of Piles.
05.03.01-000034 Review Comments	Jun 24, 2004	STSP returned with comments and not approved. Note that the specification for "Load Testing of Pipe Piles" should be included in the STSPs. General comment that the "Contractor's designer" should be replaced by the "Contractor's Engineer" as the previous is not defined by the Contract.
215-SUB.00018-01 Final Viaduct Foundation	Jul 07, 2004	STSP indicates that the Contractor's Forces and Contractor's Engineer performs functions listed for Dynamic Monitoring and Wave Equation analysis
215-SUB.00030-00 Final Viaduct Substructure STSPs	Aug 10, 2004	STSP revised to indicate that State Forces and the Engineer performs functions listed for Dynamic Monitoring and Wave Equation analysis.
215-STL.00035 Contractor Letter	Sept 15, 2004	Contractor proceeds with performing PDA monitoring using their own forces and requests a Contract Change Order for compensation.
05.03.01-000139 Review Comments	Oct 01, 2004	STSP returned with comments and not approved. Noted that changes to the STSPs now have the Engineer responsible for testing. No comment in the Final Information Package as to why changes were made.
05.03.01-000161 State Letter	Oct 19, 2004	State denies request for CCO stating that PDA is the Contractor's responsibility.
215-STT.00110 Contractor Transmittal	Oct 21, 2004	NOPC 4A submitted
215-STT.00110 Contractor Transmittal	Nov 4, 2004	NOPC 4B submitted.

Submittal	Date	Language
05.03.01-000220 State Letter	Nov 22, 2004	State response to NOPC 4. State reminds contractor that PDA was requested by the Contractor and is quality control for the design and not a contract requirement
215-STT.00145 Contractor Transmittal	Dec 4, 2004	Contractor requests issue be forwarded to DRB,
05.03.01-000386 Review Comments	Apr, 21, 2005	STSP returned with comments and not approved. Noted that PDA testing specification should reflect that work to be performed by the Contractor's Engineer and not the Engineer.
215-LET.000208	Nov23, 2005	C.C. Myers indicates that further STSPs for the Viaduct will replace "Engineer" with "Design/Contractor's Engineer."
215-LET.000219	Dec 27, 2005	C.C. Myers indicates that further STSPs for the West Tie-In will replace "Engineer" with "Design/Contractor's Engineer."

#### IV. Contractor's Position

The NOPC cited the following:

The Contractor states that the Special Provisions requires that they utilize the State's Standard Special Provisions (SSP) in developing the Supplemental Technical Special Provisions. They further state that there is no direction anywhere in the project specifications that the SSP for "Pile Load Test" be edited to have anyone other than the State perform this monitoring work. They assert that there is no Engineering Basis to alter the role of the Engineer on this contract.

#### V. Department's Position

The Department believes that the NOPC is without merit for the following reasons:

##### (1) PDA Provides Economic Construction As Well As Verification of Design

Driven pile foundations can be designed conservatively resulting in longer pile lengths or less conservatively resulting in shorter piles, but requiring additional testing prior to production. The process of PDA also referred to as dynamic pile monitoring and the subsequent wave equation analysis determines the pile/soil behavior out in the field, which provides validation for the initial design assumptions. This is accepted by the industry as noted by Exhibit [2]. By incorporating this testing and data analysis, shorter pile lengths can be utilized which ultimately results in an economic savings for the execution of the design.

The Contractor is both the one responsible for the design and its construction. PDA results will both verify the Contractor's design and directly assist them in constructing the piles in the most economical way. The dynamic monitoring and data analysis assists them in both their roles – as the designer and the constructor.

The cost of the items of work for the design and construction of the TBS segments was predetermined by the Contractor and accepted by the State by the award of the contract. The State should not be expected to incur additional costs for work that should have been included in the bid item. The dynamic monitoring and data analysis directly benefits the Contractor and serves to verify the Designer's assumption. It would be unreasonable for the Contractor to select foundation types requiring extensive amounts of testing and then place the responsibility back upon the owner to perform the substantiating tests or to request additional compensation for their performance.

##### (2) Contractor Controls Foundation Type and Quality Control

This contract requires the Contractor to design and construct a bridge along an alignment specified by the State. The State did not pre-designate the locations of the foundation structures or their specific foundation types as this was left to the Contractor's Engineer. The Contractor's Engineer controlled the amount of verification testing required by the type of foundation selected and the

assumptions used in their design. On conventional design-bid-build contracts, this type of quality control testing is normally performed by the State as the design is by or under the control of the State. On this contract, the design is under the control of the Contractor. Geomatrix, the Contractor's geotechnical consultant responsible for producing the project foundation report, recommended this testing, Exhibit [4], which was then incorporated into the Supplemental Technical Special Provisions by the Contractor's Engineer, Exhibit [5]. The Special Provisions for this contract do not require this testing. Based upon this, it is reasonable to assume that the Contractor would perform the verification testing as these tests are directly related to the quality control of the design.

### (3) State's SSPs Were Developed For Normal Design-Bid-Build Work

The State's SSPs, Exhibit [6], were developed for normal design-bid-build work and as a result, certain tests and analysis are performed by State forces as they serve as quality control over the design. This contract places the responsibility for the design upon the Contractor in addition to its construction. The Contractor's Engineer is required to certify that the work is constructed in accordance with their design. It is therefore reasonable to assume that the responsibility for performing the dynamic monitoring and subsequent data analysis be that of the Contractor as this is consistent with the very nature of this contract.

### (4) Sufficient Engineering Basis for Editing the SSPs Exists

There is sufficient Engineering basis upon which the Contractor can make the edits to the State's SSPs. The STSPs as submitted with the Final Viaduct Substructure, Exhibit E, not only requires the performance of the dynamic monitoring and wave equation analysis but also a review and potential revision of the pile tip elevations based upon the analysis. The State is not the Designer of Record on this contract, and therefore is in no position to make such changes. In addition, the performance of the monitoring and data analysis serves as quality control for the design. As previously stated, this task is normally performed by the State on contracts that it performs or has direct control over the design. The Contractor is responsible for both the design and construction of this contract, which can serve as the basis for the changes to the SSPs. The STSP submitted with the Viaduct Foundation, Exhibit [5], stated that the Contractor's forces would perform the dynamic monitoring and data analysis work. Subsequent STSPs had been revised to indicate that State forces would perform this work, Exhibit [7]. These revisions were not approved by the State, Exhibit [8]. C.C. Myers indicated in their letters 208 & 209, Exhibit [15], future STSPs will replace "Engineer" with "Design/Contractor's Engineer," and requested additional costs for making these changes.

## **VI. Summary**

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

## VII. Exhibits

No	Page	Document
1	E – 1	Submittal 05-01 – Excerpt of Preliminary STSP for Temporary Bypass Structure
2	E – 5	Site Blauvelt / TRC – Webpage on PDA
3	E – 6	State Letter 34 – Excerpt of comments on the preliminary STSP
4	E – 11	Submittal 05-00 – Excerpt from the Preliminary Viaduct Foundation Report – recommendations for pile load test
5	E – 13	Submittal 18-01 – Excerpt from the Final Viaduct Foundation STSP
6	E – 16	Standard Special Provisions – 49-230 – unedited instructions to the Specification writer shown
7	E – 19	Submittal 30-00 – Excerpt from the Final Viaduct Substructure STSP
8	E – 23	State Letter 139 – Excerpt of comments on the STSP submitted with Submittal 30
9	E – 25	C.C. Myers Letter 35 – Requesting compensation for performing dynamic monitoring
10	E – 26	State Letter 161 – State response to CCM Letter 35
11	E – 27	NOPC 4 Parts A & B
12	E – 32	State Letter 220 – Response to NOPC 4
13	E – 33	State Letters 386 & 634 – Excerpt of comments on the West Tie-In STSP
14	E – 37	State Letter 370 – Letter noting that the resubmitted design was recalculated using the past PDA results
15	E – 39	C.C. Myers Letters 208 & 219

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▷ 215-SUB.00005-1

PRELIMINARY  
SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
FOR

PROJECT EA. NUMBER: 04-0120R4

DISTRICT-COUNTY-ROUTE-KP: 04-SF-80-12.6/13.2

DESCRIPTION: Temporary Bypass Structure/South-South Detour

KEY STRUCTURE NAME:

San Francisco-Oakland Bay Bridge Temporary Bypass Structure  
Bridge Number 34-0006 (TEMP)

**West Tie-In Segment**

**Viaduct Segment**

**East Tie-In Segment**

STRUCTURES SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS BY:

Edward L. Tyk, P.E.  
Imbsen & Associates, Inc.  
9912 Business Park Drive, Suite 130  
Sacramento, CA 95827-1724  
[etyk@imbsen.com](mailto:etyk@imbsen.com)  
916/366-0632

The attached Supplemental Technical Special Provisions are forwarded for your use in preparing or coordinating the contract documents for the above project.

May 20, 2004

EXHIBIT /  
PAGE E- /

SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
CONTRACT NO. 04-0120R4

▶ { XE "49-230\_B04-30-03" }  
Page 1 of 3

Use when load test piles or dynamic monitoring and wave equation analysis is in the project.  
Use with REF SPEC 49HAMR.

x-ref'd in micropiles; 040106 ##elt  
040505 ## elt  
040507 per CJA--## elt

**Load Test Micropiles**

040129 ## elt  
040513 ## elt  
GCI 040519 ## elt

Load test piles shall consist of performance and proof testing of micropiles. The Contractor shall notify the Engineer, in writing, not less than 510 days in advance of drilling ~~or driving~~ the piles to be performance or proof load tested.

**2\*. Control locations to be determined by Transportation Laboratory. Edit when test piles are to cover all piles for a single bridge project.**

**Get load testing plan from CJA ##elt**

Before the remaining piles at the control locations listed in the following table are drilled, cast, cut to length or driven, load testing of each load test pile shown on the plans for the corresponding control location shall be completed:

040507 per CJA--## elt  
GCI 040519 ## elt  
%%%What happened to Loc D???

Bridge Segment	Load Test Pile Location	Control Locations
West Tie-In	Between Bents 43 & 46 Rock Anchor	A, C, & D
West Tie-In	Between Bents 46 & 48 Soil Anchor	A, C, & D
West Tie-In	Between Bents 41 & 44 Rock Anchor	A, C, & D
West Tie-In	Between Bents 46 & 48 Soil Anchor	A, C, & D

3

The bottom of footing excavation shall be dewatered and made level before pile load testing. The excavation shall be kept dewatered during load testing.

**4\*. When plans call for 345 Mpa steel, change Grade to 50 [345].**

Unless otherwise specified or shown on the plans, steel plates welded to the load test and anchor piling shall conform to the requirements in ASTM Designation: A 709/A 709M, Grade 36 [250], and shall be welded to the piling in conformance with the requirements in AWS D1.1.

5

Pipe, couplings and fittings shall be commercially available materials of the types and ratings shown on the plans.

SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
CONTRACT NO. 04-0120R4

Paras 6 thru 13, use when dynamic monitoring and wave equation analysis will be required for the project as requested by the Office of Geotechnical Design in the Foundation Recommendations or Review.

6

▷ **Dynamic Monitoring**

040513 ## elt

Driven test piles and anchor piles will be monitored during the final 8 m of driving for dynamic response to the driving equipment. Monitoring will be done by ~~the Contractor's State forces~~ using ~~Contractor-State-furnished~~ dynamic pile analyzer monitoring instruments.

7

040129 ## elt

040513 ## elt

~~The Contractor's design Engineer will determine which piles will receive dynamic monitoring from each control location. Piles to be dynamically monitored shall be made available to State forces 2 working days prior to driving. The piles shall be safely supported a minimum of 150 mm off the ground in a horizontal position on at least 2 support blocks. The pile shall be positioned so that State forces have safe access to the entire pile length and circumference for the installation of anchorages and control marks for monitoring. The Contractor shall rotate the piles on the blocks as directed by the Engineer.~~

040129 ## elt

8

Piles to be dynamically monitored shall be prepared and driven in the following sequence:

040513 ## elt

- ▷ A. Prior to driving, the Contractor shall rotate and align the pile in the driving leads as directed by the Contractor's design Engineer.
- B. The Contractor shall temporarily suspend driving operations for approximately 15 minutes when the pile tip is 8 m above the elevation to which the tip is required to be finally driven.

040513 ## elt

- C. During the 15 minute suspension, the Contractor shall bolt the 0.5-kg instrument package securely to plugs or expansion anchors previously installed in the pile by the ~~Contractor's designer~~ State. The Contractor shall connect electrical cables to the instrument package as directed by the Contractor's design Engineer.

040513 ## elt

- D. Driving operations shall resume as directed by the Contractor's design Engineer. Driving operations shall be suspended approximately 0.5-m above the required tip elevation, as directed by the Contractor's design Engineer.

040513 ## elt

- E. The Contractor shall remove the cables and instrument package from the pile and deliver them to the Contractor's design Engineer.

040513 ## elt

- F. The following work day, the Contractor shall install the instrument package on the pile and attach the cables and resume driving the pile to the required tip elevation, as directed by the Contractor's design Engineer.

040513 ## elt

- G. The Contractor shall remove the cables and instruments from the monitored pile and deliver them to the Contractor's design Engineer.

9

040129 ## elt

~~The Contractor shall be responsible for damage to the State's cables and instruments caused by the Contractor's operations, and shall replace damaged cables or instruments in kind.~~

SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
CONTRACT NO. 04-0120R4

10

Wave Equation

040513 ## elt

The second paragraph of Section 49-1.03, "Determination of Length," and paragraphs 3 and 4 of Section 49-1.08, "Pile Driving Acceptance Criteria," of the Standard Specifications shall not apply to the pile types at the control locations listed herein. The Contractor design Engineer will conduct a penetration and bearing analysis in conjunction with pile load testing and dynamic monitoring of the piles at these locations and develop bearing acceptance criteria curves for these piles. Penetration and bearing analyses will be based on a wave equation analysis.

**11\*. Number of days should include 7 for the pile load test + the pile set period + 15 days to provide the bearing acceptance curves. Verify set period and total with the Office of Geotechnical Support, (OGS). The same number should be inserted in both blanks.**

040129 ## elt

~~The Engineer shall be allowed \_\_\_\_\_ working days to perform the load test, complete dynamic monitoring, revise specified tip elevations, and to provide the bearing acceptance criteria curves for a given control location. Day one of \_\_\_\_\_ shall be the first day after the load test and anchor piles have been installed at that same control location.~~

12

040129 ## elt

~~Should the Engineer fail to provide the bearing acceptance criteria curves for production piles within the time specified and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in providing the bearing acceptance criteria curves, the delay will be considered a right of way delay in conformance with the provisions in Section 8 1.09, "Right of Way Delays," of the Standard Specifications.~~

13

040129 ## elt

~~Production piles, other than load test and anchor piles, shall not be installed until the bearing acceptance criteria curves for piles within the corresponding control location have been provided by the Engineer.~~

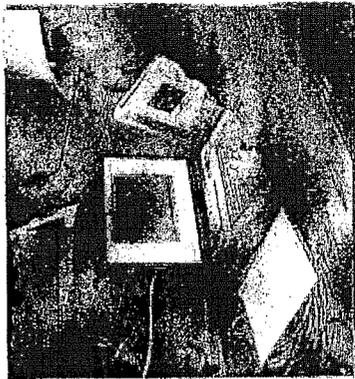
**14. Use when Paras 6 thru 13 are NOT required. For complex test programs increase working days. Verify with OGS, Foundation Testing Branch.**

040513 ## elt

The Engineer will require not more than 7 working days to perform pile load tests at each test location.



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### Pile Dynamic Analysis (PDA)

**Pile Dynamic Analysis (PDA)** testing is a smart and proven alternative to static pile testing in that it allows for "Real Time" data review of the measured stresses on a pile, thus allowing for "on-the-fly" hammer stroke adjustments and cushion material replacement.

Our extensive experience in high technology environments, coupled with our vibration testing background, provides our customers with a unique set of skills that is fully capable of implementing the latest advancements in PDA testing. Our PDA Technicians continue to enrich themselves through attendance at specialty seminars that focus on the latest pile driving topics, and fully support a collaborative environment amongst their peers that keeps them informed of the latest data trends and geotechnical advancements in PDA testing. With over eighteen (18) years of test methodology and test plan development experience, we can quickly interpret and implement a comprehensive and realistic PDA test sequence that fully meets your project's requirements. SITE-Blauvelt Engineers is a certified user of the Pile Dynamic Analyzer (PAK model).

In the field, approximate capacities can be obtained using the Case Method for pile capacity calculation. In addition, we offer an enhanced analysis, called CAPWAP, which enables us to correlate the measured data with the known pile / soil model elements. The end result of CAPWAP, via a rigorous and repeated signal matching solution, produces a pile driving summary that contains pile capacity, percent end bearing / skin friction, measured pile compression and tension stresses. Using this type of empirical and analytical data assistance, we can validate a project's design requirements with superior accuracy and speed.

SITE-Blauvelt's PDA testing capabilities can be integrated with our other multi-dimensional resources to provide your organization with immediate Geotechnical Consultation and Subsurface Exploration should a problematic situation arise or just to provide additional support for meeting your project's requirements.

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For more information please contact our webmaster. Last Modified - 07/12/2005 05:18:25  
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## DEPARTMENT OF TRANSPORTATION

333 BURMA ROAD  
OAKLAND, CA 94607-1015  
PHONE (510) 622-5660  
FAX (510) 286-0550



*Flex your power!  
Be energy efficient!*

June 24, 2004  
Contract No. 04-0120R4  
04-SF-80-12.6/13.2  
Temporary Bypass Structure  
SL# 34

Mr. Robert W. Coupe  
C. C. MYERS, INC.  
3286 Fitzgerald Road  
Rancho Cordova, CA 95742

RE: 215-SUB.00005-1  
Subject: Preliminary Design Submittal - Viaduct

Dear Mr. Coupe:

The Department has reviewed the above referenced project's Preliminary Design Submittal for the foundation of the Viaduct. Attached are the comments on the Draft Supplemental Technical Special Provisions. Please incorporate them along with the comments in our correspondence, SL# 29, dated June 21, 2004, into the final design submittal.

If you have any questions, please contact me at (510) 622-5660.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Loncharich".

Kenneth Loncharich  
Resident Engineer

Attachments

cc: File 5.03, 58.05

PMIV →  
# 16

*"Caltrans improves mobility across California"*

EXHIBIT 3  
PAGE E-6

04-0120R4

Temporary Bypass Structure

Review Comments on Viaduct Draft Supplemental Technical Special Provisions dated May 20, 2004

Comment No.	Comment By	Page No.	STSP Paragraph	SPECIFICATION COMMENT	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Verify
1D	SD	52	29	Is "pregROUTING" of formation rock to seal joints and openings prior to primary grouting? If yes, clarify			
2D	SD			Where is the specification for the Pile Testing Program called for in Section 6.1.1.4 of the foundation report?			
3D	SD	7	6	This paragraph should remain and should read as follows: Attention is directed to "Welding" of the contract's special provisions.			
4D	SD	8		It is not clear if the steel shells are to have any geotechnical capacity. Paragraph 8 is to be used when NO geotechnical capacity, but the added notes indicate that the steel shells are with capacity and not permanent casing. Please explain.			
5D	SD	8		The added paragraph "Steel shells..", "No drilling shall be performed below the elevations listed in the following table prior to the installation of the steel shell:" this is not clear.			
6D	SD	8		The added text that start with " if the steel ....", A- How are we going to measure the pressure of 0.5 MP? This leads one to think that a pressure gage is going to be required. B- The following is not clear "If the voids are not fully grouted the Specified Tip Elevations with Vibrated Shell shall be used". C- The "Contractor's designer" should be changed to "Contractor's Engineer", since the contractor's designer is not defined/ or part in the contract's special provisions.			



04-0120R4

## Temporary Bypass Structure

Review Comments on Viaduct Draft Supplemental Technical Special Provisions  
dated May 20, 2004

Comment No.	Comment By	Page No.	STSP Paragraph	SPECIFICATION COMMENT	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Verify
7D	SD	9	9	This paragraph should be included. Page 12 of the "Foundation Report" indicates that difficult pile installing is expected. Please correct.			
8D	SD	9	15	This paragraph should read as follows: When a calculated ultimate geotechnical capacity is shown on the plans for piling, that value shall be utilized in lieu of nominal resistance in Section 49, Piling," of the Standard Specifications contract's special provisions and these STSP			
9D	SD	10	2	Please provide location in the foundation report where the data shown in the table can be obtained.			
10D	SD	12		it is not clear why this SSP was added then removed.			
11D	SD	13		Specification for "Load testing of Pipe piles" should be included in the STSP as provided in the "Foundation Report."			
12D	SD	17	10	This paragraph should not be deleted, it addresses bents 50 and 51.			
13D	SD	18	6	The new edited text in the table should read as follows: "Contractor's Engineer."			
14D	SD	19	19	Who is the "Contractor's representative"? In addition, Manufacturer representative should be available for other types of slurries when used by the contractor.			
15D	SD	20	14	The new edited text in the table should read as follows: "Contractor's Engineer."			
16D	SD	21	15	The new edited text in the table should read as follows: "Contractor's Engineer."			
17D	SD	22	16	The new edited text in the table should read as follows: "Contractor's Engineer."			
18D	SD	23	18	The new edited text in the table should read as follows: "Contractor's Engineer."			

04-0120R4

Temporary Bypass Structure

Review Comments on Viaduct Draft Supplemental Technical Special Provisions dated May 20, 2004

Comment No.	Comment By	Page No.	STSP Paragraph	SPECIFICATION COMMENT	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Verify
19D	SD	23	13	The Engineer will still have to approve the placing plan before the contractor can place the slurry.			
20D	SD	24	16	The new edited text should read as follows: "Contractor's Engineer."			
21D	SD	25	19	This is not clear. "or within 1 -hour of the project." is it for distance? or from the concrete placement			
22D	SD	26	25	Not enough information to justify the construction of the 3.6 M CIDH or the 2.1 M CIDH pile, as provide in the in the comments area.			
23D	SD	27	33	Editing of this paragraph is not justifiable. STSP shall not eliminate the engineer duties as provided by the contract special provisions. This should be a joint effort by the Contractor's Engineer and the Engineer to work together in addressing this paragraph.			
24D	SD	27	35	The new edited text should read as follows: "Contractor's Engineer."			
25D	SD	27	36	No justifications are given for editing of this paragraph.			
26D	SD	28	37 & 38	The new edited text should read as follows: "Contractor's Engineer."			
27D	SD	29	42	The STSP shall not alter the number of day the engineer will have for review time. ( see special provisions section "5-1.14 Contractor Design", Usage and editing of the SSPs shall conform to the Department's Plans, Specifications and Estimates Guide			
28D	SD	29	44	The new edited text should read as follows: "Contractor's Engineer."			
29D	SD	33	6 & 7	The STSP shall not alter the number of day the engineer will have for review time. ( see special provisions section "5-1.14 Contractor Design", Usage and editing of the SSPs shall conform to the Department's Plans, Specifications and Estimates Guide"			

04-0120R4

Temporary Bypass Structure

Review Comments on Viaduct Draft Supplemental Technical Special Provisions dated May 20, 2004

Comment No.	Comment By	Page No.	STSP Paragraph	SPECIFICATION COMMENT	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Verify
30D	SD	34	10C	The new edited text should read as follows: "Contractor's Engineer."			
31D	SD	35	11	The new edited text should read as follows: "Contractor's Engineer."			
32D	SD	48	1	Why not just add "STSP", and no other editing is needed?			
33D	SD	48	3	Please add all order of information here since the Special Provisions do not allow changes to sections 1 through 9.			
34D	SD	48	5	Please see "Foundation Report".			
35D	SD	48	6	The new edited text should read as follows: "Contractor's Engineer."			
36D	SD	49	11	The justification for editing this paragraph requires an Engineering basis. Please remove all editing on this paragraph.			
37D	SD	51	23	Please remove all editing. This paragraph addresses the drilling of the hole for the tiedown in the earth material.			
38D	SD	52-55		Comments will be provided once "pending final resolution of design #elt" are addressed by the Contractor's Engineer.			
39D	SD	All		All foundation recommendations provided in the "Foundation Report" that were prepared by "GEOMATRIX" shall be implemented in the Supplemental Technical Special Provisions.			

▷ 215-SUB0005-D

RECEIVED

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**FOUNDATION REPORT  
PRELIMINARY SUBMITTAL  
VIADUCT SEGMENT  
TEMPORARY BYPASS STRUCTURE  
BRIDGE NO. 34-0006 (TEMP)  
SAN FRANCISCO-OAKLAND BAY BRIDGE  
SEISMIC SAFETY PROJECT**

Yerba Buena Island, California

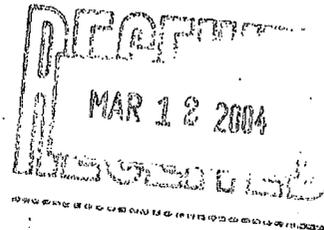
*Prepared for:*

**Imbsen & Associates, Inc.**  
9912 Business Park Drive, Suite 130  
Sacramento, California 95827

February 2004

Project No. 9198.001

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#### **6.1.1.3.c Driveability**

As indicated in driven pile data table 6.1.1, pile tips will terminate in rock. Pile tip protection may be necessary to ensure integrity of the pile tip during hard driving anticipated near or at the elevation of the rock.

The pile contractor should select a hammer that is capable of driving the piles to the specified tip elevations as indicated in pile data table 6.1.1. Once a hammer is selected by the contractor, a wave equation (WEAP) analysis can be performed to develop the appropriate penetration resistance criteria (and refusal criteria) for the 2670 kN (compressive nominal resistance) driven pipe piles.

#### **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 analyses 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.

#### **6.1.1.5 Settlement of Driven Pile Foundations**

Because of the somewhat incompressible nature of the dense sands and very stiff clays surrounding the piles and underlying the pile tips, the new pile foundations are expected to experience a modest amount of settlement under the service loading. The amount of settlement will depend on the individual loading conditions, the local soil conditions, and other factors. For the anticipated design load ranges and for a minimum pile spacing of three diameters, we estimate long term settlement of new piles to be less than 13 mm.

#### **6.1.2 Cast-In-Drilled-Hole (CIDH) Piles**

3.66 m diameter CIDH piles (compressive nominal resistance = 51,000 to 61,500 kN) are planned for foundation support at proposed bents 50L, 50R, 51L, and 51R. The 3.66 m CIDH

FINAL  
SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
FOR  
VIADUCT FOUNDATIONS

PROJECT EA. NUMBER: 04-0120R4

DISTRICT-COUNTY-ROUTE-KP: 04-SF-80-12.6/13.2

DESCRIPTION: Temporary Bypass Structure/South-South Detour

KEY STRUCTURE NAME:

San Francisco-Oakland Bay Bridge Temporary Bypass Structure  
Bridge Number 34-0006 (TEMP)

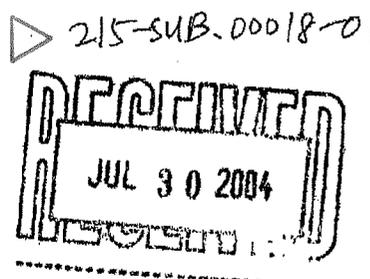
**Viaduct Segment**

STRUCTURES SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS BY:

Edward L. Tyk, P.E.  
Imbsen & Associates, Inc.  
9912 Business Park Drive, Suite 130  
Sacramento, CA 95827-1724  
etyk@imbsen.com  
916/366-0632

The attached Supplemental Technical Special Provisions are forwarded for your use in preparing or coordinating the contract documents for the above project.

July 26, 2004



**SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS**  
**CONTRACT NO. 04-0120R4**

**10-1. RECONSTRUCT SANITARY SEWER**

Existing sanitary sewer, at the location shown on the plans, shall be removed and reconstructed to conform to the details shown on the City and County of San Francisco, Department of Public Works, Standard Plans and in accordance with the provisions of the City and County of San Francisco, Department of Public Works, Standard Specifications and these special provisions.

Full compensation for removing and disposing of the existing sanitary sewer and then reconstructing sanitary sewer in its new location shall be considered as included in the contract prices paid for the various items of work involved and no separate payment will be made therefor.

**10-1. PILING**

**GENERAL**

Piling shall conform to the provisions in Section 49, "Piling," of the Standard Specifications and these STSP.

Unless otherwise specified, welding of any work performed in conformance with the provisions in Section 49, "Piling," of the Standard Specifications, shall be in conformance with the requirements in AWS D1.1.

Attention is directed to "Welding" of the special provisions.

When a calculated ultimate geotechnical capacity is shown on the plans for piling, that value shall be utilized in lieu of nominal resistance in Section 49, "Piling," of the Standard Specifications and these STSP.

**Jetting**

Jetting to obtain the specified penetration in conformance with the provisions in Section 49-1.05, "Driving Equipment," of the Standard Specifications shall not be used for driven type piles.

**Drilling**

Drilling to obtain the specified penetration in conformance with the provisions in Section 49-1.05, "Driving Equipment," of the Standard Specifications shall only be used for driven type piles at the locations and to the bottom of hole elevations listed in the following table. Materials resulting from drilling holes shall be disposed of in conformance with the provisions in Section 19-2.06, "Surplus Material," of the Standard Specifications.

Bridge Number	Abutment Number	Bent Number	Elevation of Bottom of Hole, m
34-0006	--	48 Int	+44.2
34-0006	--	49L	+0.5
34-0006	--	49R	-1.5
34-0006	--	52L	-1.0
34-0006	--	52R	-2.5

**Predrilled Holes**

Piles as shown on the plans for Viaduct Bent 52L, adjacent to the YB4 Pier footing shall be treated as piles driven in predrilled holes through embankments in conformance with the provisions in Section 49-1.06, "Predrilled Holes," and Section 49-6.02, "Payment," of the Standard Specifications.

**Load Test Pipe Piles**

Load test piles shall consist of testing pipe piles. The Contractor shall notify the Engineer, in writing, not less than 10 days in advance of driving the piles to be performance or proof load tested. Two pipe piles per footing shall be load tested by dynamic monitoring.

The bottom of footing excavation shall be dewatered and made level before pile load testing. The excavation shall be kept dewatered during load testing.

Unless otherwise specified or shown on the plans, steel plates welded to the load test and anchor piling shall conform to the requirements in ASTM Designation: A 709/A 709M, Grade 36 [250], and shall be welded to the piling in conformance with the requirements in AWS D1.1.

Pipe, couplings and fittings shall be commercially available materials of the types and ratings shown on the plans.

**SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS**  
CONTRACT NO. 04-0120R4

▷ **Dynamic Monitoring**

Driven test piles will be monitored during the final 8 m of driving for dynamic response to the driving equipment. Monitoring will be done by the Contractor's forces using Contractor-furnished dynamic pile analyzer monitoring instruments.

The Engineer will determine which piles will receive dynamic monitoring at each footing. Piles to be dynamically monitored shall be prepared and driven in the following sequence:

- A. Prior to driving, the Contractor shall rotate and align the pile in the driving leads as directed by the Engineer.
- B. The Contractor shall temporarily suspend driving operations for approximately .15 minutes when the pile tip is 8 m above the elevation to which the tip is required to be finally driven.
- C. During the 15 minute suspension, the Contractor shall bolt the 0.5-kg instrument package securely to plugs or expansion anchors previously installed in the pile by the Contractor's Engineer or designee. The Contractor shall connect electrical cables to the instrument package as directed by the Contractor's Engineer or designee.
- D. Driving operations shall resume as directed by the Contractor's Engineer or designee. Driving operations shall be suspended approximately 0.5-m above the required tip elevation, as directed by the Contractor's Engineer or designee.
- E. The Contractor shall remove the cables and instrument package from the pile and deliver them to the Contractor's Engineer or designee.
- F. No less than 72 hours after Step D above, the Contractor shall install the instrument package on the pile and attach the cables and resume driving the pile to the required tip elevation, as directed by the Contractor's Engineer or designee.
- G. The Contractor shall remove the cables and instruments from the monitored pile and deliver them to the Contractor's Engineer or designee.

**Wave Equation**

▷ The second paragraph of Section 49-1.03, "Determination of Length," and paragraphs 3 and 4 of Section 49-1.08, "Pile Driving Acceptance Criteria," of the Standard Specifications shall not apply to the piles at Viaduct Bents 49 and 52. The Contractor's Engineer or designee will conduct a penetration and bearing analysis in conjunction with pile load testing and dynamic monitoring of the piles at these locations and develop bearing acceptance criteria curves for these piles. Penetration and bearing analyses will be based on a wave equation analysis.

**STEEL PIPE PILING**

**General**

Steel pipe piling shall consist of unfilled steel pipe piling as shown on the plans. Steel pipe piling shall conform to the provisions in Section 49-5, "Steel Piles," of the Standard Specifications and these STSP.

Except for field welding, as defined herein, the provisions of "Welding Quality Control" of the special provisions shall not apply to steel pipe piling at Viaduct Bents 49 and 52.

Wherever reference is made to the American Petroleum Institute (API) specification 5L in the Standard Specifications, on the project plans, or in these STSP, the year of adoption shall be 2000. All requirements of that code shall apply unless specified otherwise in the Standard Specifications, on the plans, or in these STSP.

Only longitudinal and spiral seam welds in steel pipe piles may be made by the electric resistance welding method. Those welds shall be welded in conformance with the requirements in API 5L and any amendments to API 5L in the Standard Specifications or these STSP.

Steel Pipe piling shall either conform to the requirements in API 5L or AWS D1.1, and the provisions specified in Section 49-5, "Steel Piles," of the Standard Specifications and these STSP.

Handling devices may be attached to steel pipe piling. Welds attaching these devices shall be aligned parallel to the axis of the pile and shall conform to the requirements for field welding specified herein. Permanent bolted connections shall be corrosion resistant. Prior to making attachments, the Contractor shall submit a plan to the Engineer, after review and approval by the Contractor's Engineer or designee, that includes the locations, handling and fitting device details, and connection details. Attachments shall not be made to the steel pipe piling until the plan is approved in writing by the Engineer. The Contractor shall allow the Engineer 7 days for the review of the plan. In the event the Engineer fails to complete the review within the time allowed, and if, in the opinion of the

# UNEDITED SSPs

{ XE "49-230\_B04-30-03" }

Page 1 of 3

Use when load test piles or dynamic monitoring and wave equation analysis is in the project. Use with REF SPEC 49HAMR.

## Load Test Piles

The Contractor shall notify the Engineer, in writing, not less than 10 days in advance of drilling or driving the piles to be load tested.

**2\*. Control locations to be determined by Transportation Laboratory. Edit when test piles are to cover all piles for a single bridge project.**

Before the remaining piles at the control locations listed in the following table are drilled, cast, cut to length or driven, load testing of each load test pile shown on the plans for the corresponding control location shall be completed:

Bridge	Load Test Pile Location	Control Locations

3

The bottom of footing excavation shall be dewatered and made level before pile load testing. The excavation shall be kept dewatered during load testing.

**4\*. When plans call for 345 Mpa steel, change Grade to 50 [345].**

Unless otherwise specified or shown on the plans, steel plates welded to the load test and anchor piling shall conform to the requirements in ASTM Designation: A 709/A 709M, Grade 36 [250], and shall be welded to the piling in conformance with the requirements in AWS D1.1.

5

Pipe, couplings and fittings shall be commercially available materials of the types and ratings shown on the plans.

**Paras 6 thru 13, use when dynamic monitoring and wave equation analysis will be required for the project as requested by the Office of Geotechnical Design in the Foundation Recommendations or Review.**

6

## Dynamic Monitoring

Driven test piles and anchor piles will be monitored during the final 8 m of driving for dynamic response to the driving equipment. Monitoring will be done by State forces using State-furnished dynamic pile analyzer monitoring instruments.

7

The Engineer will determine which piles will receive dynamic monitoring from each control location. Piles to be dynamically monitored shall be made available to State forces 2 working days prior to driving. The piles shall be safely supported a minimum of 150 mm off the ground

in a horizontal position on at least 2 support blocks. The pile shall be positioned so that State forces have safe access to the entire pile length and circumference for the installation of anchorages and control marks for monitoring. The Contractor shall rotate the piles on the blocks as directed by the Engineer.

8

Piles to be dynamically monitored shall be prepared and driven in the following sequence:

- A. Prior to driving, the Contractor shall rotate and align the pile in the driving leads as directed by the Engineer
- B. The Contractor shall temporarily suspend driving operations for approximately 15 minutes when the pile tip is 8 m above the elevation to which the tip is required to be finally driven.
- C. During the 15 minute suspension, the Contractor shall bolt the 0.5-kg instrument package securely to plugs or expansion anchors previously installed in the pile by the State. The Contractor shall connect electrical cables to the instrument package as directed by the Engineer.
- D. Driving operations shall resume as directed by the Engineer. Driving operations shall be suspended approximately 0.5-m above the required tip elevation, as directed by the Engineer.
- E. The Contractor shall remove the cables and instrument package from the pile and deliver them to the Engineer.
- F. The following work day, the Contractor shall install the instrument package on the pile and attach the cables and resume driving the pile to the required tip elevation, as directed by the Engineer.
- G. The Contractor shall remove the cables and instruments from the monitored pile and deliver them to the Engineer.

9

The Contractor shall be responsible for damage to the State's cables and instruments caused by the Contractor's operations, and shall replace damaged cables or instruments in kind.

10

**Wave Equation**

The second paragraph of Section 49-1.03, "Determination of Length," and paragraphs 3 and 4 of Section 49-1.08, "Pile Driving Acceptance Criteria," of the Standard Specifications shall not apply to the pile types at the control locations listed herein. The Engineer will conduct a penetration and bearing analysis in conjunction with pile load testing and dynamic monitoring of the piles at these locations and develop bearing acceptance criteria curves for these piles. Penetration and bearing analyses will be based on a wave equation analysis.

**11\*. Number of days should include 7 for the pile load test + the pile set period + 15 days to provide the bearing acceptance curves. Verify set period and total with the Office of Geotechnical Support, (OGS). The same number should be inserted in both blanks.**

The Engineer shall be allowed \_\_\_\_\_ working days to perform the load test, complete dynamic monitoring, revise specified tip elevations, and to provide the bearing acceptance

criteria curves for a given control location. Day one of \_\_\_\_ shall be the first day after the load test and anchor piles have been installed at that same control location.

**12**

Should the Engineer fail to provide the bearing acceptance criteria curves for production piles within the time specified and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in providing the bearing acceptance criteria curves, the delay will be considered a right of way delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

**13**

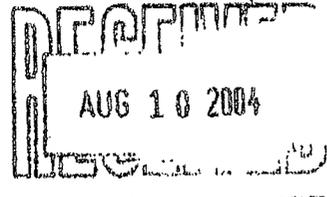
Production piles, other than load test and anchor piles, shall not be installed until the bearing acceptance criteria curves for piles within the corresponding control location have been provided by the Engineer.

**14. Use when Paras 6 thru 13 are NOT required. For complex test programs increase working days. Verify with OGS, Foundation Testing Branch.**

The Engineer will require not more than 7 working days to perform pile load tests at each test location.

215-SUB. 00030-00

IAI 1295



FINAL

SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
FOR  
VIADUCT SUBSTRUCTURE

PROJECT EA. NUMBER: 04-0120R4

DISTRICT-COUNTY-ROUTE-KP: 04-SF-80-12.6/13.2

DESCRIPTION: Temporary Bypass Structure/South-South Detour

KEY STRUCTURE NAME:

San Francisco-Oakland Bay Bridge Temporary Bypass Structure  
Bridge Number 34-0006 (TEMP)

**Viaduct Segment**

STRUCTURES SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS BY:

Edward L. Tyk, P.E.  
Imbsen & Associates, Inc.  
9912 Business Park Drive, Suite 130  
Sacramento, CA 95827-1724  
etyk@imbsen.com  
916/366-0632

The attached Supplemental Technical Special Provisions are forwarded for your use in preparing or coordinating the contract documents for the above project.

August 6, 2004

SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS  
CONTRACT NO. 04-0120R4

**GENERAL DEFINITIONS OF EXISTING  
HIGHWAY FACILITIES WORK**

TYPE OF WORK	DEFINITION
REMOVE	Remove and dispose of.
ABANDON	Render unserviceable, in place, by doing some kind of work.
SALVAGE	Remove, clean, haul, unload, and stack neatly at recycle center.
RESET	Remove and install or place at same station location. May be moved laterally only. No alteration required.
RELOCATE	Remove and install or place in a new location. No alteration required.
RECONSTRUCT	Remove and disassemble and construct again at an existing or new location. New parts or alteration may or may not be required.
ADJUST	Raise or lower a facility to match a new grade line. Generally associated with raising frame and grate or frame and cover of facilities on resurfacing projects. May require some removal. Includes raising or lowering of frame and cover or frame and grate of concrete or brick manholes or circular precast concrete pipe structures by adding or subtracting raising devices only. Any changes to taper of manhole or steps is "remodel."
MODIFY	A change which does not affect the basic framework or structure with an addition and/or subtraction to an appurtenant part. May require some removal. Includes raising or lowering frame and cover or frame and grate of drainage inlets by removing concrete or adding concrete.
REMODEL	Rebuild facility in same location. May require some removal.
RELAY	Remove and lay in an existing or new location. Generally used for pipes or culverts and appurtenances.

**10-1. RECONSTRUCT SANITARY SEWER**

Existing sanitary sewers, at the locations shown on the plans, shall be removed and reconstructed to conform to the details shown on the City and County of San Francisco, Department of Public Works, Standard Plans and in accordance with the provisions of the City and County of San Francisco, Department of Public Works, Standard Specifications and these special provisions.

Full compensation for removing and disposing of the existing sanitary sewer and reconstructing sanitary sewer in its new location shall be considered as included in the contract prices paid for the various items of work involved and no separate payment will be made therefor.

**10-1. PILING**

**GENERAL**

Piling shall conform to the provisions in Section 49, "Piling," of the Standard Specifications and these STSP.

Unless otherwise specified, welding of any work performed in conformance with the provisions in Section 49, "Piling," of the Standard Specifications, shall be in conformance with the requirements in AWS D1.1.

Attention is directed to "Welding" of the special provisions.

**Jetting**

Jetting to obtain the specified penetration in conformance with the provisions in Section 49-1.05, "Driving Equipment," of the Standard Specifications shall not be used for driven type piles.

**Drilling**

Drilling to obtain the specified penetration in conformance with the provisions in Section 49-1.05, "Driving Equipment," of the Standard Specifications shall only be used for driven type piles at the locations and to the bottom of hole elevations listed in the following table. Materials resulting from drilling holes shall be disposed of in conformance with the provisions in Section 19-2.06, "Surplus Material," of the Standard Specifications.

**SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS**  
**CONTRACT NO. 04-0120R4**

Bridge Number	Abutment Number	Bent Number	Elevation of Bottom of Hole, m
34-0006	--	48 Int	+44.2
34-0006	--	49L	+0.5
34-0006	--	49R	-1.5
34-0006	--	52L	-1.0
34-0006	--	52R	-2.5

**Predrilled Holes**

Piles as shown on the plans for Viaduct Bent 52L, adjacent to the YB4 Pier footing shall be treated as piles driven in predrilled holes through embankments in conformance with the provisions in Section 49-1.06, "Predrilled Holes," and Section 49-6.02, "Payment," of the Standard Specifications.

**Load Test Pipe Piles**

Load test piles shall consist of testing pipe piles. The Contractor shall notify the Engineer, in writing, not less than 10 days in advance of driving the piles to be performance or proof load tested. Two pipe piles per footing shall be load tested by dynamic monitoring.

The bottom of footing excavation shall be dewatered and made level before pile load testing. The excavation shall be kept dewatered during load testing.

Unless otherwise specified or shown on the plans, steel plates welded to the load test and anchor piling shall conform to the requirements in ASTM Designation: A 709/A 709M, Grade 36 [250], and shall be welded to the piling in conformance with the requirements in AWS D1.1.

Pipe, couplings and fittings shall be commercially available materials of the types and ratings shown on the plans.

**Dynamic Monitoring**

Driven test piles will be monitored during the final 8 m of driving for dynamic response to the driving equipment. Monitoring will be done by the State forces using State-furnished dynamic pile analyzer monitoring instruments.

The Engineer will determine which piles will receive dynamic monitoring at each footing. Piles to be dynamically monitored shall be made available to State forces 2 working days prior to driving. The piles shall be safely supported a minimum of 150 mm off the ground in a horizontal position on at least 2 support blocks. The pile shall be positioned so that State forces have safe access to the entire pile length and circumference for the installation of anchorages and control marks for monitoring. The Contractor shall rotate the piles on the blocks as directed by the Engineer.

Piles to be dynamically monitored shall be prepared and driven in the following sequence:

- A. Prior to driving, the Contractor shall rotate and align the pile in the driving leads as directed by the Engineer.
- B. The Contractor shall temporarily suspend driving operations for approximately 15 minutes when the pile tip is 8 m above the elevation to which the tip is required to be finally driven.
- C. During the 15 minute suspension, the Contractor shall bolt the 0.5-kg instrument package securely to plugs or expansion anchors previously installed in the pile by the State. The Contractor shall connect electrical cables to the instrument package as directed by the Engineer.
- D. Driving operations shall resume as directed by the Engineer. Driving operations shall be suspended approximately 0.5-m above the required tip elevation, as directed by the Engineer.
- E. The Contractor shall remove the cables and instrument package from the pile and deliver them to the Engineer.
- F. No less than 72 hours after Step D above, the Contractor shall install the instrument package on the pile and attach the cables and resume driving the pile to the required tip elevation, as directed by the Engineer.
- G. The Contractor shall remove the cables and instruments from the monitored pile and deliver them to the Engineer.

The Contractor shall be responsible for damage to the State's cables and instruments caused by the Contractor's operations, and shall replace damaged cables or instruments in kind.

**SUPPLEMENTAL TECHNICAL SPECIAL PROVISIONS**  
**CONTRACT NO. 04-0120R4**

**Wave Equation**

The second paragraph of Section 49-1.03, "Determination of Length," and paragraphs 3 and 4 of Section 49-1.08, "Pile Driving Acceptance Criteria," of the Standard Specifications shall not apply to the piles at Viaduct Bents 49 and 52. The Engineer will conduct a penetration and bearing analysis in conjunction with pile load testing and dynamic monitoring of the piles at these locations and develop bearing acceptance criteria curves for these piles. Penetration and bearing analyses will be based on a wave equation analysis.

The Engineer shall be allowed 25 working days to perform the load test, complete dynamic monitoring, revise specified tip elevations, and to provide the bearing acceptance criteria curves for a given control location. Day one of 25 shall be the first day after the load test and anchor piles have been installed at that same control location.

Should the Engineer fail to provide the bearing acceptance criteria curves for production piles within the time specified and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in providing the bearing acceptance criteria curves, the delay will be considered a right of way delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

Production piles, other than load test and anchor piles, shall not be installed until the bearing acceptance criteria curves for piles within the corresponding control location have been provided by the Engineer.

The Engineer will require not more than 7 working days to perform pile load tests at each test location.

**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



CC Myers  
51 Macalla Road  
San Francisco, CA 94130

Attn: Mr. Bob Coupe

October 01, 2004

Contract No. 04-0120R4  
04-SF-80-12.6, 13.2  
Temporary Bypass Structure

Letter No. 05.03.01-000139

Subject: Final Design Submittal for Viaduct Substructure

Dear Mr. Coupe,

The Department has reviewed the above referenced project's Final Design Submittal for the Viaduct Substructure. The enclosed attachments outline the comments required to be incorporated into the final design submittal.

If you have any questions, please contact Lourdes David at (510) 622-5660, or Andrew Yan at (510) 286-0540.

Sincerely,

<<< ORIGINAL SIGNED >>>

Andrew Yan for  
Lourdes David  
Resident Engineer

cc: E. Rufino  
G. Lai  
T. Lai  
D. Quintana  
L. David  
A. Yan  
N. Gohil

file: 05.03.01, 58.18, 58.31





CC MYERS INC.

September 15, 2004

Document No.: 215-STL.00035

State of California  
Department of Transportation  
333 Burma Road  
Oakland, CA 94607

Temporary Bypass Structure  
Contract No. 04-0120R4  
CCM Job # 215

Attn: Mr. Kenneth Loncharich  
Resident Engineer

Re: Pipe Pile Dynamic Monitoring

Dear Mr. Loncharich,

In accordance with your verbal direction, we have proceeded with performing the dynamic monitoring of the driven pipe piles at bent 49 left. The Supplemental Technical Special Provisions section regarding this matter requires that this work be performed by State forces. Section 5-1.14 of the Special Provisions requires that we utilize the State's Standard Special Provisions (SSP) in developing the Supplemental Technical Special Provisions. Further, there is no direction elsewhere in the project specifications that this SSP be edited to have anyone other than the State perform this monitoring work. Therefore, we request that you issue a Contract Change Order to compensate us for the monitoring work. We will provide the required support and access discussed in the SSP as part of our scope of work. We only seek reimbursement for the actual monitoring work required to be performed by the State forces. Also, as this is specialty work, we expect that payment will be made in accordance with Section 9-1.03B of the Standard Specifications.

Very Truly Yours,  
C. C. MYERS, INC.

  
Robert W. Coupe  
Project Manager

cc: MB  
CMW  
MO

File: 215-101

RECEIVED  
000213 SEP 16 2004

EXHIBIT 9  
PAGE E- 25

**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



CC Myers  
51 Macalla Road  
San Francisco, CA 94130

Attn: Mr. Bob Coupe

October 18, 2004

Contract No. 04-0120R4  
04-SF-80-12.6, 13.2  
Temporary Bypass Structure

Letter No. 05.03.01-000161

Subject: Pipe Pile Dynamic Monitoring

Dear Mr. Coupe,

This Office is in receipt of CC Myers' letter 215-STL.00035 requesting payment for performing pipe pile dynamic monitoring work. At this time, no additional compensation will be forthcoming.

The pipe pile dynamic monitoring work is being required by CC 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.

Modifications to the Standard Special Provisions used to develop the Supplemental Technical Special Provisions (STSP's) are allowed under Special Provisions Section 5-1.14 "Contractor Design".

Sincerely,

<<< ORIGINAL SIGNED >>>

Gary Lai  
Structures Representative  
for  
Resident Engineer  
Lourdes David

cc: E. Rufino  
D. Quintana  
A. Bata

file: 05.03.01



**C.C. MYERS, INC.**

An Equal Opportunity / Affirmative Action Employer

51 MACALLA ROAD  
SAN FRANCISCO, CA 94130  
415-399-0175  
FAX 415-399-0587

**LETTER OF TRANSMITTAL**

<b>Document No:</b> 215-STT.00092
<b>Dated</b> Oct 21 2004 <b>Job No.:</b> 215
<b>Attention:</b> Mr. Lourdes David
<b>Re:</b> 04-0120R4
Temporary Bypass Structure

**To:** State of California  
333 Burma Road  
Oakland CA 94607

**We are sending you:**

Attached

Via Fax

Drawing

Plans

Prog. Pmt

Samples

Certificates of compliance

Calculations

Payroll

Specs

Copy of Letter

Change Order

Schedule

Invoice

Copies	Item	Date	Description
1	01	Oct 21 2004	Notice of Potential Claim #4

**These are transmitted as checked below:**

For Approval

For Review/comment

Return For Correction

For Your Use

As Requested

For Information

Remarks:

Copy To: Main Office  
File: 215-101, 215-9904

RECEIVED  
000375 OCT 21 5

Signed:

*Robert W. Coupe*  
Robert W. Coupe  
Project Manager



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**NOTICE OF POTENTIAL CLAIM**  
 CEM-6201A (NEW 9/2002)

FOR STATE USE ONLY		
Received by:	(For Resident Engineer)	Date:

To <b>Lourdes David</b> (resident engineer)	CONTRACT NUMBER <b>04-0120R4</b>	DATE <b>October 21, 2004</b>	IDENTIFICATION NUMBER <b>4</b>
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This is an Initial Notice of Potential Claim for additional compensation submitted as required under the provisions of Section 9-1.04 "Notice of Potential Claim" of the Standard Specifications. The act of the Engineer, or his/her failure to act, or the event, thing, occurrence, or other cause giving rise to the potential claim occurred on:

DATE: October 19, 2004

The particular nature and circumstances of this potential claim are described as follows:

In accordance with the State's verbal direction, we proceeded with performing the dynamic monitoring of the driven pipe piles at bent 49. The Supplemental Technical Special Provisions section regarding this matter requires that this work be performed by State forces. Section 5-1.14 of the Special Provisions requires that we utilize the State's Standard Special Provisions (SSP) in developing the Supplemental Technical Special Provisions. Although said section allows the SSP's to be edited, there is no direction anywhere in the project specifications that this SSP be edited to have anyone other than the State perform this monitoring work. Therefore, we have requested that the State issue a Contract Change Order to compensate us for the monitoring work. This request was made via our letter 215-STL.00035.

On October 19, 2004, we received the State's letter 05.03.01-000161, which denied our request for a Contract Change Order to compensate us for the monitoring work.

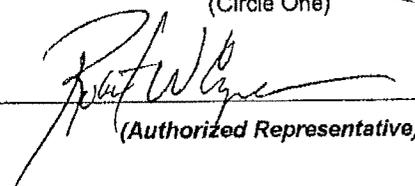
We seek reimbursement for the cost of the dynamic monitoring for the driven piles at all locations on the project, not just bent 49.

*The undersigned originator (Contractor or Subcontractor as appropriate) certifies that the above statements and attached documents are made in full cognizance of the California False Claims Act, Government Code Sections 12650-12655. The undersigned further understands and agrees that this potential claim to be further considered, unless resolved, must fully conform to the requirements in Section 9-1.04 of the Standard Specifications and must be restated as a claim in the Contractors written statement of claims in conformance with Section 9-1.07B of the Standard Specifications.*

C. C. Myers, Inc.

SUBCONTRACTOR or CONTRACTOR

(Circle One)

  
 (Authorized Representative)

For subcontractor notice of potential claim

*This notice of potential claim in knowledge and forwarded by*

PRIME CONTRACTOR

(Authorized Representative)

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814



**C.C. MYERS, INC.**

An Equal Opportunity / Affirmative Action Employer

51 MACALLA ROAD  
SAN FRANCISCO, CA 94130  
415-399-0175  
FAX 415-399-0587

**LETTER OF TRANSMITTAL**

<b>Document No:</b> 215-STT.00110 ✓
<b>Dated</b> Nov 04 2004 <b>Job No.:</b> 215
<b>Attention:</b> Mr. Lourdes David
<b>Re:</b> 04-0120R4
Temporary Bypass Structure

**To:** State of California  
333 Burma Road  
Oakland CA 94607

**We are sending you:**

Attached  Via Fax

- |                                       |   |   |
|---------------------------------------|---|---|
| <input type="checkbox"/> Drawing      | <input type="checkbox"/> Plans                      | <input type="checkbox"/> Prog. Pmt      |
| <input type="checkbox"/> Samples      | <input type="checkbox"/> Certificates of compliance | <input type="checkbox"/> Calculations   |
| <input type="checkbox"/> Payroll      | <input type="checkbox"/> Specs                      | <input type="checkbox"/> Copy of Letter |
| <input type="checkbox"/> Change Order | <input type="checkbox"/> Schedule                   | <input type="checkbox"/> Invoice        |

Copies	Item	Date	Description
1	01	Nov 04 2004	Notice of Potential Claim #4

**These are transmitted as checked below:**

- |                                       |  |  |
|---------------------------------------|--|--|
| <input type="checkbox"/> For Approval | <input checked="" type="checkbox"/> For Review/comment | <input type="checkbox"/> Return For Correction |
| <input type="checkbox"/> For Your Use | <input type="checkbox"/> As Requested                  | <input type="checkbox"/> For Information       |

**Remarks:**

Copy To: Robert Coupe, Mark Beadleston, Main Office  
File: 215-<sup>9004</sup>~~1004~~, 215-101

RECEIVED  
000442 NOV-95

Signed:   
Christine M Williams  
Project Engineer



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**SUPPLEMENTAL NOTICE OF POTENTIAL CLAIM**  
 CEM-6201B (NEW 9/2002)

FOR STATE USE ONLY		
Received by:	(For Resident Engineer)	Date:

To <b>Lourdes David</b> (resident engineer)	CONTRACT NUMBER <b>04-0120R4</b>	DATE <b>November 4, 2004</b>	IDENTIFICATION NUMBER <b>4</b>
---	-------------------------------------	---------------------------------	-----------------------------------

This is a Supplemental Notice of Potential Claim for additional compensation submitted as required under the provisions of Section 9-1.04 "Notice of Potential Claim" of the Standard Specifications. The act of the Engineer, or his/her failure to act, or the event, thing, occurrence, or other cause giving rise to the potential claim occurred on:

DATE: October 19, 2004

The particular nature and circumstances of this potential claim are described in detail as follows:

In accordance with the State's verbal direction, we proceeded with performing the dynamic monitoring of the driven pipe piles at bent 49. The Supplemental Technical Special Provisions section regarding this matter requires that this work be performed by State forces. Section 5-1.14 of the Special Provisions requires that we utilize the State's Standard Special Provisions (SSP) in developing the Supplemental Technical Special Provisions. Although said section allows the SSP's to be edited, there is no direction anywhere in the project specifications that this SSP be edited to have anyone other than the State perform this monitoring work. Therefore, we have requested that the State issue a Contract Change Order to compensate us for the monitoring work. This request was made via our letter 215-STL.00035.

On October 19, 2004, we received the State's letter 05.03.01-000161, which denied our request for a Contract Change Order to compensate us for the monitoring work.

We seek reimbursement for the cost of the dynamic monitoring for the driven piles at all locations on the project, not just bent 49.

The basis of this potential claim including all relevant contract provisions are listed as follows:

In preparing the Supplemental Technical Special Provisions in accordance with Section 5-1.14 of the Special Provisions, we are allowed to edit the Standard Special Provisions to suit this project provided that we provide an Engineering Basis for such edits. As the Contractor performing the design work, we have no Engineering Basis for editing the Standard Special Provision requirements that the Engineer perform certain tasks. There is no language that we have found in the contract that dictates that or provides an Engineering Basis for changing the scope of the Engineer's duties for this particular project. Specifically, in this case, there is no direction provided in the contract to edit the Standard Special Provision for piling, with regard to who performs the dynamic monitoring. Without such direction, we are not allowed by Section 5-1.14 to make this change and therefore believe that the responsibility to perform this task lies with the Engineer, as written in the Standard Special Provision.

The estimated dollar cost of the potential claim including a description of how the estimate was derived and an itemized breakdown of the individual costs are attached hereto.

To date, the dynamic monitoring of the driven piles has only been performed at bent 49 of the Viaduct. The cost of this is estimated to be about \$5,000. This only includes the cost of the dynamic analysis and the logging of the piles as they are driven. The support work provided during the pile driving operation to accomplish the dynamic monitoring is the responsibility of the Contractor in accordance with the Standard Special Provision, thus these costs are not included nor are they in contention.

The work remaining to be completed is at bents 47B, 48 and 52. We estimate that an additional \$15,000 will be incurred to perform the pile dynamic monitoring at these locations, for a total potential claim amount of approximately \$20,000.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**SUPPLEMENTAL NOTICE OF POTENTIAL CLAIM**  
 CEM-6201B (NEW 8/2002)

To <b>Lourdes David</b> (resident engineer)	CONTRACT NUMBER <b>04-0120R4</b>	DATE <b>November 4, 2004</b>	IDENTIFICATION NUMBER <b>4</b> <b>Page 2</b>
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A time impact analysis of the disputed disruption has been performed and is attached hereto. The affect on the scheduled project completion date is as follows:

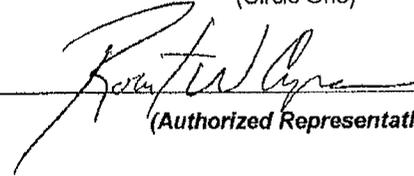
To date, there has been no effect on the completion date of the project as a result of this potential claim. We will monitor the future work remaining and submit the appropriate time impact analyses should schedule disruptions occur.

*The undersigned originator (Contractor or Subcontractor as appropriate) certifies that the above statements and attached documents are made in full cognizance of the California False Claims Act, Government Code Sections 12650-12655. The undersigned further understands and agrees that this potential claim to be further considered, unless resolved, must fully conform to the requirements in Section 9-1.04 of the Standard Specifications and must be restated as a claim in the Contractors written statement of claims in conformance with Section 9-1.07B of the Standard Specifications.*

C. C. Myers, Inc.

SUBCONTRACTOR or CONTRACTOR

(Circle One)

  
 (Authorized Representative)

For subcontractor notice of potential claim

*This notice of potential claim is acknowledged, certified and forwarded by*

PRIME CONTRACTOR

(Authorized Representative)

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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



CC Myers, Inc.  
51 Macalla Road  
San Francisco, CA 94130

Attn: Mr. Bob Coupe

Ref: 215-STT.00110

November 22, 2004

Contract No. 04-0120R4  
04-SF-80-12.6, 13.2  
Temporary Bypass Structure

Letter No. 05.03.01-000220

Subject: Response to NOPC 4

Dear Mr. Coupe:

The Department has completed its review of CCM's submitted Notice of Potential Claim No. 4 concerning Pile Dynamic Analysis.

As stated by Section 5-1.14 of the Special Provisions, the Contractor is responsible for designing the TBS in accordance with the design criteria shown on the plans and as specified in the Special Provisions. The design of the TBS also encompasses the design of its foundations. In substantiating the design analysis for the pile foundations, CCM/IAI's geotechnical engineer, Geomatrix, had written and compiled the Foundation Report. In the report, it was recommended that PDA be performed at each footing location in order to verify each respective pile driving conditions and pile capacities. Should there be any modifications to the design of the piles, such as changing the tip elevations, Geomatrix would have to make that determination.

In the STSP under "Wave Equation" of the "Piling" Section, it mentions that the Engineer is to revise tip elevations and to provide bearing acceptance criteria curves for a given control location. This statement contradicts Section 5-1.14 of the Special Provisions, as the State has no involvement in the design of the TBS. As the PDA recommendation has come from the part of Geomatrix, the State therefore assumes no liability to absorb any risk associated with the Contractor fulfilling the contract design requirement.

The Department finds no merit to NOPC 4 for the reasons stated above.

Please contact me at (510) 286-0511 for any additional questions.

Sincerely,

A handwritten signature in black ink, appearing to read "G. J. Lai".

FOR Gary J. Lai  
Structures Representative  
for  
Lourdes David  
Resident Engineer

cc: DA, DQ, AB  
file: 5.3.1, 62.4

**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



CC Myers  
51 Macalla Road  
San Francisco, CA 94130

Attn: Mr. Bob Coupe

Ref: 215-SUB.00064-00, 215-SUB.00064-01

April 21, 2005

Contract No. 04-0120R4  
04-SF-80-12.6, 13.2  
South - South Detour

Letter No. 05.03.01-000386

Subject: Comments on Final West Tie-In Package

Dear Mr. Coupe,

The Department has reviewed your submittal 215-SUB.00064-00 with submittal 215-SUB.00064-01 for the Final West Tie-In design package. The enclosed attachments outline comments that are required to be addressed and/or incorporated onto the final design submittal.

Additionally, it has come to our attention during the course of our review that C.C. Myers, Inc. intends to leave BLDG 206 at the present location. This design package did not address BLDG 206 on any of the plan sheets. The resubmittal of the West Tie-In package shall at a minimum visually depict BLDG 206 in conjunction with the various structures, which span or are positioned in its vicinity. In addition, please address the fill and any plans for its stabilization that are currently shown around BLDG 206 and along the Temporary Construction Easement (TCE). A plan to protect BLDG 206 shall be submitted either with the design package or under separate cover in accordance with Standard Specifications Section 7-1.11 "Preservation of Property."

Sincerely,

A handwritten signature in black ink, appearing to read "Gary J. Lai".

Gary J. Lai  
Structures Representative  
for  
Resident Engineer  
Lourdes David

attachments

cc: AY, CM, DQ, ER, DA, TL  
file: 05.03.01

## SSD - FDS - WTI

No.	Comment Date	Comment By	Page No.	Sec. No.	SSP No. or Title	SSP para	SPECIFICATION COMMENT - (STSP)	Response Date	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Verify
<b>Final Supplemental Technical Provisions by Imbsen Assoc., Proj. No. 04-0120R4, dated January 7, 2005</b>											
STSP - 1	1/7/2005	DTA	3		Load Test Micropile	All	Rewrite specification to have the Contractor's Engineer select the test piles. The testing is required to verify design assumptions that are made by the Contractor's Engineer - not the Engineer.				
STSP - 2	4/12/2005	MA	3		Drilling		Bent 48 interior pile Bottom Elevation should be 36.4 -4, not 44.2				
STSP - 3	4/12/2005	MA	3		Load Test Piles		For testing pipe piles - is it only for Bent 48 interior? How about Bent 48 exterior piles? Do not need testing ?				
STSP - 4	1/7/2005	DTA	4		Load Test Pipe Piles	All	Rewrite specification to have the Contractor's Engineer select the test piles. The testing is required to verify design assumptions that are made by the Contractor's Engineer - not the Engineer.				
STSP - 5	1/7/2005	DTA	4		Pipe Pile Dynamic Monitoring	All	Rewrite specification to have the Contractor's Engineer conduct the testing. The testing is required to verify design assumptions that are made by the Contractor's Engineer - not the Engineer.				
STSP - 6	4/12/2005	MA	4		Pipe Pile Dynamic Monitoring - Section F		Contractor Not less than 72-hours later, the Contractor shall install the instrument package on the pile and attach the cables and resume driving the pile to the required tip elevation, as directed by the Engineer. Why not this can be done next day?				
STSP - 7		MA	20		Non Destructive Test for Steel Piling		Steel pipe piling at West Tie-In Bents 46 and 47A ( 1980mm) shall receive nondestructive testing (NDT) in conformance with these STSP. Bent 47B has 610 mm Pipe piles too. Why is no requirement for NDT tests at Bent 47B?				
STSP - 8		MA	22		Micropiling		STSP included "Micropiling consisting of small diameter steel reinforcement" Is it Bar Anchor is same as reinforcement? The Bar Anchor shall conform to the provisions in Section 55. "Steel St				
STSP - 9	1/7/2005	DTA	22		Micropiling	All	Rewrite specification to leave the portion of the specification concerning the supplement to the working drawings unedited. The supplement shall include three test of micropiles that did not use casing or non-shrink grout - as proposed in this contract. Rewrite specification to have the Contractor's Engineer conduct the testing. The testing is required to verify design assumptions that are made by the Contractor's Engineer - not the Engineer.				
STSP - 10		MA	25		Micro Piling - Performance and Proof Testing		The Performance Load Testing of micropiling included both Tension and Compression tests. But Proof Load Testing only calls for Tension load testing. Why Compression Testing not included here??				
STSP - 11		MA	26		Tie down Anchors		The sequence of tie down installation and footing construction is not included in this section				
STSP - 12	1/7/2005	DTA	26		Tie down Anchors	All	Restore the unedited galvanization requirements of the specifications. Galvanization is required for all tie downs regardless of the soil.				
STSP - 13							STSP included "Grout in micropiles shall be installed under at least one-half MPa of pressure." SSP calls for 1 MPa pressure for Grouting ??				
STSP - 14			32		Concrete Structures - Mass Concrete		Structure concrete elements shown on the plans that have a minimum dimension exceeding 2 m, except for cast-in-place concrete piling, shall be constructed as mass concrete and shall conform to the details shown on the plans, and these STSP.				

**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



CC Myers - YBI  
51 Macalla Road  
San Francisco, CA 94130

Attn: Mr. Bob Coupe

Ref: 215-SUB.00064-02

December 08, 2005

Contract No. 04-0120R4  
04-SF-80-12.6, 13.2  
South - South Detour

Letter No. 05.03.01-000634

Subject: Final Design Submittal for the West Tie-In

Dear Mr. Coupe,

The Department has completed the review of the above referenced project's Final Design submittal for the West Tie-In. The enclosed attachments outline the comments required to be addressed in the final design submittal.

This is also a reminder that the attached comments and recommendations are not to be misconstrued as direction of any kind.

If you have any questions, please contact me at (510) 286-0511.

Sincerely,

Gary Lai  
Structures Representative  
For  
Resident Engineer  
Lourdes David

Attachments

cc: A. Bata, D. Adams, D. Quintana

file: 05.03.01

Priority: A = Important B = General Comment C = Minor Comment

No.	Comment Date	Page No.	Section Number	SSP No. or Title	SSP para	SPECIFICATION COMMENT	Response Date	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Rating
<b>Final Supplemental Technical Special Provisions for the West Tie-In, dated October 19, 2005</b>										
1	12/4/2005					Monitoring of the existing structure needs to be implemented during construction				B
2	12/4/2005		Piling	Load Test Pipe Pile		The table in this section needs to be updated to reflect the testing that occurred at Bent 48.				B
3	12/4/2005			Micro piles		References to the Engineer shall be revised to Contractor's Engineer.				A
4	12/4/2005			Load Test Pipe Pile		References to State Forces shall be revised to Contractor's Forces. References to the Engineer shall be revised to Contractor's Engineer.				A
5	12/4/2005			CIDH Piles	4	Provisions of Welding of the Special Provisions shall apply. Reference Geotechnical Report, dated January 2005, page 17 which notes that the permanent steel shell will be used to develop both axial and later capacity.				A
6	12/4/2005			Micro piles	7	Contractor shall submit working drawings to the Contractor's Engineer for approval prior to submittal to the Office of the Resident Engineer.				A
7	12/4/2005				11	Reference to the Engineer shall be changed to the Contractor's Engineer.				A
8	12/4/2005				13	Reference to the Engineer shall be changed to the Contractor's Engineer.				A
9	12/4/2005				20	The Contractor's Engineer or other designee shall conduct the micropile testing; proof and performance.				A
10	12/4/2005				24	Micropile testing to be performed by the Contractor.				A
11	12/4/2005	7 thru 11	Synthetic Slurry			The slurry tables should be formatted to look cleaner.				C
12	12/4/2005		Concrete Structures	Measurement and Payment		No steel deck forms.				C
13	12/4/2005		Joint Seal Assemblies (Max. Movement Rating Exceeding 100mm)			It is the responsibility of the Design Engineer to review the working drawings for specialized bridge components specified in their design. Only the Design Engineer can review and approve working drawings for compatibility of the bearing assemblies with their design.				A
14	12/4/2005		Joint Seal Assemblies (Movement Rating Exceeding 100 mm)			It is the responsibility of the Design Engineer to review the working drawings for specialized bridge components specified in their design. Only the Design Engineer can review and approve working drawings for compatibility of the bearing assemblies with their design.				A
15	12/4/2005		Steel Structures			The "Steel Structures" section needs to be included for the steel portions of the West Tie In (i.e. SSL C)				A

**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program**

333 Burma Rd.  
Oakland, CA 94607  
(510) 622-5660, (510) 286-0550 fax



CC Myers  
51 Macalla Road  
San Francisco, CA 94130

Attn: Mr. Bob Coupe

Ref: 215-SUB.00018-02

April 07, 2005

Contract No. 04-0120R4  
04-SF-80-12.6, 13.2  
South – South Detour

Letter No. 05.03.01-000370

Subject: Preliminary Comments and Concerns for the Final Viaduct Foundation Design Submittal

Dear Mr. Coupe,

This Office has received and is currently reviewing the Viaduct Foundations Final Design Submittal and has generated a preliminary list of comments and concerns for your review.

These comments have been assembled per CC Myers request and do not represent a formal response to the design submittal. The formal response for this submittal will be returned to you prior to the date set forth in letter 05.03.01-000368.

Since it is not possible at this time for our design review team to verify that the contract requirements have been met, these comments assume that the load demands on the viaduct foundation element were generated from a TBS designed in accordance with the following contract requirement:

Article 5-1.14 "Contractor Design" subsection "Quality Control" requires that "Any submission by the Contractor of designs for Department review shall constitute an affirmation by the Contractor that the work detailed in the Contractor prepared design documents are complete, buildable by the Contractor, and comply with the design criteria shown on the plans..."

Comments for Bent 49 R & L Footings:

- 1) Design and Check calculations are in agreement with the load demands generated from the overstrength of the column. The controlling load case has not changed from the previous submittal.
- 2) Design and Check calculations both used the PDA results to redesign the pile and tie-down layouts. Both Design and Check calculations seem to agree with the layouts shown on the plans.
- 3) The attachments on sheet 5-6 of the Design calculations were not included in the submittal; therefore, the Geomatrix assumptions on pile capacities could not be evaluated at this time.
- 4) Article 5-1.14 "Contractor Design" subsection "Geotechnical Investigation" requires that "The Geotechnical Engineer shall certify in writing that the TBS foundations are constructed in conformance with the foundation report." Therefore, the letter on sheets 5-2 thru 5-6 and information on sheet 5-20 should appear in the final foundation report. Also, the final foundation report should address the structural adequacy of those piles that were driven beyond the refusal criteria.

In addition to these comments, we are requesting a copy of the complete PDA report with the raw data, results, and conclusions to aid us in our review.

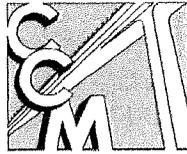
If you have any questions, please contact me at (510) 286-0511.

Sincerely,

<<< ORIGINAL SIGNED >>>

Gary Lai  
Structures Representative  
For  
Lourdes David  
Resident Engineer

cc: D. Quintana,  
file: 05.03.01



C.C. MYERS INC.

51 Macalla Road  
(415) 399-0175

San Francisco, CA 94130  
Fax (415) 399-0587

December 27, 2005

Document No.: 215-STL.00219

State of California  
Department of Transportation  
333 Burma Road  
Oakland, CA 94607

Temporary Bypass Structure  
Contract No. 04-0120R4  
CCM Job # 215

Attn: Mr. Lourdes David  
Resident Engineer

Re: West Tie-In Supplemental Technical Special Provisions

Dear Mr. David,

In the State's comments to the West Tie-In Final Superstructure Design Submittal, attached to State letter 05.03.01-000634, it was commented that for the Supplemental Technical Special Provisions, we are to replace the word "Engineer" with the words "Design/Contractor's Engineer". In our forthcoming response to these comments, we will proceed to make these edits. However, the implementation of these specification edits will cause us to incur additional costs. These costs are a result of us now having to review working drawings and implement testing and inspection procedures as well as the engineering cost to make the edits. We believe that these tasks are the responsibility of the State as Section 5-1.02 of the Special Provisions states that the working drawings are to be provided to the Engineer for review. Also, Section 5-1.14 of the Special Provisions and the Caltrans PS&E Guide both state that making such an edit would constitute the usage of a non-standard SSP. This therefore would require an engineering basis supporting the need for such an edit. We have no such engineering basis nor is there any basis in the specifications for this project to arbitrarily exchange the term "Engineer" as written in the SSP's with "Design/Contractor's Engineer".

For the reasons mentioned above, please issue a Contract Change Order to provide compensation for all of the costs that we will incur as a result of making the edits to the Supplemental Technical Special Provisions as requested by the Caltrans design review comments.

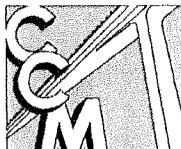
Very Truly Yours,  
C. C. Myers, Inc.

A handwritten signature in black ink, appearing to read 'Robert W. Coupe', written over a horizontal line.

Robert W. Coupe  
Project Manager

cc: AC, DHobbs, CMW, MO, JCG

File: 215-101



C.C. MYERS INC.

51 Macalla Road  
(415) 399-0175

San Francisco, CA 94130  
Fax (415) 399-0587

November 23, 2005

Document No.: 215-STL.00208

State of California  
Department of Transportation  
333 Burma Road  
Oakland, CA 94607

Temporary Bypass Structure  
Contract No. 04-0120R4  
CCM Job # 215

Attn: Mr. Lourdes David  
Resident Engineer

Re: Viaduct Final Superstructure Supplemental Technical Special Provisions

Dear Mr. David,

In the State's comments to the Viaduct Final Superstructure Redesign Submittal, it was commented that for the Supplemental Technical Special Provisions, we are to replace the word "Engineer" with the words "Design/Contractor's Engineer". As discussed in our response to these comments via our letter 215-STL.00207, we will proceed to make these edits. However, the implementation of these specification edits will cause us to incur additional costs. These costs are a result of us now having to review working drawings and implement testing and inspection procedures. We believe that these tasks are the responsibility of the State as Section 5-1.02 of the Special Provisions states that the working drawings are to be provided to the Engineer for review and Section 5-1.14 of the Special Provisions and the Caltrans PS&E Guide both state that making such an edit would constitute the usage of a non-standard SSP. This therefore would require an engineering basis supporting the need for such an edit. We have no such engineering basis nor is there any basis in the specifications for this project to arbitrarily exchange the term "Engineer" as written in the SSP's with "Design/Contractor's Engineer".

For the reasons mentioned above, please issue a Contract Change Order to provide compensation for all of the costs that we will incur as a result of making the edits to the Supplemental Technical Special Provisions as requested by the Caltrans design review comments.

Very Truly Yours,  
C. C. Myers, Inc.



Robert Coupe  
Project Manager

cc: AC, DHobbs, CMW, MO, JCG

File: 215-101