

C.C. MYERS INC.

San Francisco, CA 94130

51 Macalla Road
(415) 399-0175

Fax (415) 399-0587

June 02, 2005

Document No.: 215-LET.00185

Dispute Review Board
511 Kortum Canyon Road
Calistoga, CA 94515

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

Attn: Mr. William Baker

Re: Notice of potential claim #8

Dear Mr. Baker,

We have submitted a Notice of Potential Claim to the State on behalf of ourselves and our subcontractor regarding the State's denial of our request for additional compensation for the changes imposed by them upon the design of the Viaduct regarding the allowable bearing type. Attached please find a compilation of all of the correspondence generated to date regarding this matter.

We hereby refer this mater to the Disputes Review Board in accordance with Section 5-1.12 of the project's Special Provisions.

This letter is to inform you that CC Myers, Inc. has agreed with the State to postpone the presentation of this NOPC to the DRB. We will inform you when we will be ready to hold this meeting.

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

Andy Chan
Project Engineer

Enclosed:

05.03.01-000419	5/20/05	215-STL.00095	2/28/05
215-STT.00239	5/13/05	05.03.01-000308	2/11/05
215-STT.00229	4/29/05	215-RFI-000.00017-00	1/14/05
05.03.01-000389	4/22/05	State Letter #41	7/2/04

cc: Frederick Graebe
Matthew B. McGowan
RW.C
Lourdes David ✓
MO

File: 215-101, 215-9900, 215-9908

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

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



RECEIVED

MAY 24 2005

May 20, 2005

CC Myers
51 Macalla Road
San Francisco, CA 94130

CC MYERS, INC.
JOB 215 TEMP. BYPASS STRUCTURE

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

Attn: Mr. Bob Coupe

Ref: 215-STT.00229, 215-STL.00095

10-1914
215-103
215-9908

Letter No. 05.03.01-000419

Subject: Viaduct Segment - Bearing Change

RC
JG
IAI (fax)

Dear Mr. Coupe,

This Office has received Notice of Potential Claim No. 8, Part B, requesting additional compensation for the change in bearing types used on the Viaduct segment of the Temporary Bypass Structure (TBS).

The selection of the bearing system is ultimately at the discretion of the Designer of Record and should be in conformance with the pertinent Design Criteria and Specifications. In accordance with Memos to Designers 7-1, Imbsen and Associates, Inc. (IAI), as the designer, was required to consult with the State's Bearing Specialist regarding their bearing type selection. This meeting, as is the case with all contract meetings, was required to have been coordinated through the designated representatives of the Office of the Resident Engineer, who is administering this contract. Instead, this conversation was held directly between IAI and the State Bearing Specialist without the presence of authorized representatives from this Office that possessed project specific knowledge and authority regarding the TBS and the contract specific requirements.

While it is correct that this Office generated a comment regarding the State's position on the use of pot bearings during the review of the preliminary design package, the issue was open to discussion as has always been the case. It is important to point out that this Office's concerns were relative only to the type of fixed bearing being proposed and not to the use of all fixed bearings. At the time of the change in bearing types, it was the understanding of this Office that the substitution was due to design issues and not directly related to the review comment. In the Final Design Information Package included with submittal 215-SUB.00044-00, dated September 20, 2004 under subsection titled "Criteria Deviations," an explanation is provided that the pot bearings would yield undesirable effects upon the structure and therefore was replaced by the lead core rubber bearings. It further stated that, "This change was made to provide capacity protection to superstructure and the elastically responding columns for a value above the wind loading and below the D_{LS} event."

At no time did C.C. Myers or IAI receive formal direction that the proposed fixed pot bearings be replaced by an isolation bearing system. At no time did this Office direct C.C. Myers or IAI to abandon the design of lead core isolation bearings and return to the fixed pot bearings. These decisions were made without direction from this Office and were at the discretion of C.C. Myers and IAI.

C.C. Myers' attention is directed to Special Provisions Section 5-1.14, "Contractor Design" subsection "Design Review Process," which states, "... Revisions to the Contractor's submitted design, as a result of preliminary and final design reviews will not be considered changes in conformance with Section 4-1.03, "Changes", of the Standard Specifications, and no additional compensation will be allowed therefore.

04-0120R4
May 20, 2005
05.03.01-000419
Page 2 of 2

The changes made in the selection of the different bearing types were made at the discretion of the Designer of Record and not by any direction of this Office. The supporting reasons for the initial change from the fixed Pot Bearing were based upon design issues and not the State's comment 53A for the preliminary plan set submittal. For these reasons, this Office finds no merit to Notice of Potential Claim No. 8 and requests that this matter be referred to the Disputes Review Board initiated by this contract should C.C. Myers still desire to pursue this issue.

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

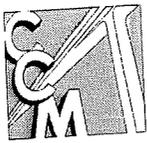
Sincerely,



Gary Lai
Structure Representative
for
Resident Engineer
Lourdes David

cc: D. Quintana, R. Hartley
C. Moreno, A. Yan
Y. Bezuwork, S. Morrison

file: 05.03.01, 58.32, 62.02.08



C.C. MYERS, INC.

An Equal Opportunity / Affirmative Action Employer

3286 FITZGERALD ROAD
RANCHO CORDOVA, CA 95742
916-635-9370
FAX 916-635-1527

LETTER OF TRANSMITTAL

Document No:	215-STT.00239		
Dated	May 13 2005	Job No.:	215
Attention:	Mr. Lourdes David		
Re:	04-0120R4		
	Temporary Bypass Structure		

To: State of California
Department of Transportation
333 Burma Road
Oakland CA 94607

Subject: Notice of Potential Claim #8

We are sending you:

- Drawing
- Samples
- Payroll
- Change Order
- Attached
- Via Fax
- Plans
- Certificates of compliance
- Specs
- Schedule
- Prog. Pmt
- Calculations
- Copy of Letter
- Invoice

Copies	Item	Date	Description
1	01	May 13 2005	Notice of Potential Claim #8 Part B (4 pages)

These are transmitted as checked below:

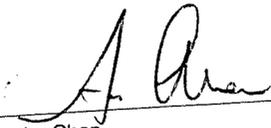
- For Approval
- For Your Use
- For Review/comment
- As Requested
- Return For Correction
- For Information

Remarks:

Please see attached Notice of Potential Claim #8 Form CEM 6201B.

Copy To: Andy Chan, Robert Coupe, Main Office, Juan Gray

File: 215-101, 215-9908

Signed: 
 Andy Chan
 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 Lourdes David (resident engineer)	CONTRACT NUMBER 04-0120R4	DATE May 12, 2005	IDENTIFICATION NUMBER 8 Page 1 of 2
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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: **April 26, 2005**

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

The original design proposed by Imbsen & Associates, Inc. for the Viaduct utilized pot bearings at bents 49 through 52. This is as shown on the Proposal Plans and the Preliminary Plans. Through State letter 05.03.01-000041, we were provided with written direction that the pot bearings were not allowed to be used in the design. Based on this, and many discussions that took place between Imbsen & Associates, Inc. and the State design team, the Viaduct design was changed to incorporate another bearing type. Considerable design effort was spent revising the design, resulting in added design costs and time spent. At a later date, we suspected that the direction provided previously was possibly outside the scope of the contract. As such, we submitted our Request For Information 215-RFI.000.00017 to clarify if pot bearings were allowed to be used in the design. The State confirmed through their response to our request and through their letter 05.03.01-000308 that pot bearings were indeed allowed to be used in the design. Due to the extreme cost difference in using the alternate bearings, the design was changed back to utilize pot bearings.

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

It was included in the design review comments attached to State letter 05.03.01-000041 that pot bearings were not allowed to be used in the design of the Temporary Bypass Structure. We relied on this written direction provided by the Engineer and in accordance with Section 5-1.01 of the Standard Specifications and the subsection titled *Design Review Process* within Section 5-1.14 of the Special Provisions, we followed said written direction and proceeded to revise the design to incorporate another bearing type. It was later determined and confirmed in writing by the State that this statement was made in error.

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.

Imbsen & Associates, Inc. has incurred additional costs and suffered delays associated with performing two additional designs, one changing away from the pot bearings, and one changing back to the pot bearings. As they discuss in their Notice of Potential Claim, the impact has had a ripple affect with the follow on activities. In particular, the delays incurred due to having to perform the additional designs has ultimately contributed to the delay in the completion of the entire design of the Temporary Bypass Structure. Although many construction operations have been affected by this, the most substantial impact has occurred with the structural steel fabrication operations at Shanghai Grand Tower Steel Structure Co., Ltd, in Shanghai, China. Both Shanghai Grand Tower and our independent welding inspection firm, Smith Emery Company have incurred substantial additional costs as a result of the delay.

The actual dollar amounts of the costs incurred as a result of this matter will be provided once they are fully quantified. There are also time related direct and indirect costs incurred that cannot be determined until the time impact analysis is complete.

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:

Due to the complexity of the matter, it's inter-relationship with other delays and impacts to the design and the overall status of the approval of the design, a complete time impact analysis cannot yet be performed. This will be done once all of the necessary information is available.

Received by:	(For Resident Engineer)	Date:
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To Lourdes David (resident engineer)	CONTRACT NUMBER 04-0120R4	DATE May 12, 2005	IDENTIFICATION NUMBER 8 Page 2 of 2
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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.

CC MYERS INC

SUBCONTRACTOR or CONTRACTOR

(Circle One)

[Signature]

(Authorized Representative)

For subcontractor notice of potential claim

This notice of potential claim is acknowledged, certified 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

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 Lourdes David (resident engineer)	CONTRACT NUMBER 04-0120R4	DATE May 12, 2005	IDENTIFICATION NUMBER 8
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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: April 26, 2005

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

IAI originally designed Bents 49 through 52 of the Viaduct with the pot bearings. (1st design). This design was submitted to Caltrans for their review and approval. Caltrans evaluated the Viaduct Preliminary Design plans and provided review comments on May 20, 2004. The specific comment by one of the Caltrans Design Engineers regarding the use of Pot Bearings, Comment No. 53A, was that "CT does not allow this type of bearing because of their questionable long term performance in service and their poor performance in seismic conditions". This comment was also substantiated by the Caltrans Bearing Specialist. As such Imbsen and Associates (IAI) incorporated Caltrans comments and designed Lead Core Isolation Bearings for Bents 49 through 52 of the Viaduct. (2nd design)

Subsequently, Imbsen and Associates (IAI) was instructed to abandon the design of the Lead Core Isolation Bearings and proceeded to redesign the bearings at Bents 49 through 52 of the Viaduct with the pot bearings which was originally submitted with the bid package. In the interest of expediting the review process of the Viaduct final design, Imbsen and Associates (IAI) redesigned the bearings at Bents 49 through 52 of the Viaduct a third time.

(attach additional sheets as needed)

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

The basis for our claim is that the design effort has been affected by redesigning of the bearings at Bents 49 through 52 of the Viaduct a third time. Per Section 4-1.03, Changes, of the standard specifications, Caltrans provided direction in writing and through various meetings regarding not allowing Pot Bearings as a part of IAI's design. IAI complied with Caltrans comments and the Engineer's orders in writing, and proceeded with the work prior to actual receipt of an approved contract change order.

Subsequently, Caltrans has denied that they have provided a formal direction.

(attach additional sheets as needed)

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.

This redesign has a significant impact on Imbsen and Associates (IAI) design cost and schedule. The nature of the costs incurred includes time, design direct and indirect costs and overhead costs. The additional cost and impacts will be forwarded once they are fully quantified. The individual specifics are:

- Additional engineering and detailing costs associated with changing and redoing the design of the bearings.
- Additional direct and indirect costs associated with changing and redoing the design of the bearings.
- Additional project impacts associated with changing and redoing the design of the bearings.

The direct costs for the engineering and support staff will include the following classifications:

- Project Manager
- Project Engineer(s)
- Design Engineer(s)
- CADD Operator(s)

(attach additional sheets as needed)

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:

Complete verification of the impact through the project schedule is not possible at this time. The additional time impact is expected to ripple through the follow-on work and have an impact on the completion of the design and potentially the Project Completion. An accurate cost impact analysis will be submitted when the extent of the delays can be quantified.

(attach additional sheets as needed)

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.

Imbsen & Associates, Inc.

SUBCONTRACTOR OR CONTRACTOR

(Circle one)



(Authorized Representative)

For subcontractor notice of potential claim

This notice of potential claim in acknowledged, certified and forwarded by

C.C. Myers, Inc.

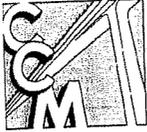
PRIME CONTRACTOR



(Authorized Representative)

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C.C. MYERS, INC.

An Equal Opportunity / Affirmative Action Employer

3286 FITZGERALD ROAD
RANCHO CORDOVA, CA 95742
916-635-9370
FAX 916-635-1527

LETTER OF TRANSMITTAL

Document No: 215-STT.00229
Dated Apr 29 2005 Job No.: 215
Attention: Mr. Lourdes David
Re: 04-0120R4
Temporary Bypass Structure

To: State of California
Department of Transportation
333 Burma Road
Oakland CA 94607

Subject: Notice of Potential Claim No. 8

We are sending you:

- Drawing
- Samples
- Payroll
- Change Order
- Attached
- Via Fax
- Plans
- Certificates of compliance
- Specs
- Schedule
- Prog. Pmt
- Calculations
- Copy of Letter
- Invoice

Copies	Item	Date	Description
1	01	Apr 29 2005	Notice of Potential Claim No. 8, CEM-6201A

These are transmitted as checked below:

- For Approval
- For Your Use
- For Review/comment
- As Requested
- Return For Correction
- For Information

Remarks:

Please see attached Notice of Potential Claim No. 8, CEM-6201A.

Copy To: Robert Coupe, Main Office, Juan Gray

File: 215-101, 215-9908

Signed: 
 Andy Chan
 Project Engineer



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 Lourdes David (resident engineer)	CONTRACT NUMBER 04-0120R4	DATE 4/28/05	IDENTIFICATION NUMBER 8
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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: 4/26/05**

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

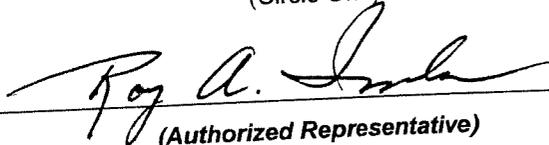
Through various meetings and discussions during the design of the Viaduct segment of the Temporary Bypass Structure (TBS), Imbsen and Associates (IAI) was told by Caltrans Bearing Specialist, that the pot bearings originally submitted with the bid package were not desirable and that Caltrans would not allow this type of bearing because of their questionable long term performance in service and their poor performance in seismic conditions. As such Imbsen and Associates (IAI) proceeded with the direction of the Engineer and designed Lead Core Isolation Bearings for Bents 49 through 52 of the Viaduct.

Subsequently, Imbsen and Associates (IAI) was instructed to abandon the design of the Lead Core Isolation Bearings and proceed to redesign the bearings at Bents 49 through 52 of the Viaduct with the pot bearings which was originally submitted with the bid package. In the interest of expediting the review process of the Viaduct final design, Imbsen and Associates (IAI) redesigned the bearings at Bents 49 through 52 of the Viaduct a third time. This redesign has a significant impact on Imbsen and Associates (IAI) design cost and schedule. The nature of the costs incurred includes design time and costs.

(attach additional sheets as needed)

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.

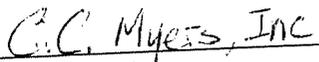
Imbsen & Associates, Inc.

SUBCONTRACTOR or **CONTRACTOR**
 (Circle One)


 (Authorized Representative)

For subcontractor notice of potential claim

This notice of potential claim is acknowledged 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

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 Lourdes David (resident engineer)	CONTRACT NUMBER 04-0120R4	DATE April 29, 2005	IDENTIFICATION NUMBER 8
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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: April 26, 2005

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

The original design proposed by Imbsen & Associates, Inc. for the Viaduct utilized pot bearings at bents 49 through 52. This is as shown on the Proposal Plans and the Preliminary Plans. Through State letter 05.03.01-000041, we were provided with written direction that the pot bearings were not allowed to be used in the design. Based on this, and many discussions that took place between Imbsen & Associates, Inc. and the State design team, the Viaduct design was changed to incorporate another bearing type. Considerable design effort was spent revising the design, resulting in added design costs and time spent. At a later date, we suspected that the direction provided previously was possibly outside the scope of the contract. As such, we submitted our Request For Information 215-RFI.000.00017 to clarify if pot bearings were allowed to be used in the design. The State confirmed through their response to our request and through their letter 05.03.01-000308 that pot bearings were indeed allowed to be used in the design. Due to the extreme cost difference in using the alternate bearings, the design was changed back to utilize pot bearings.

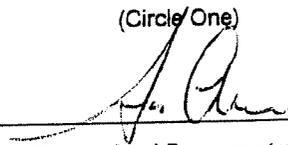
We had requested that a Contract Change Order be issued to compensate us for the added design costs and delays incurred as a result of changing the design numerous times. This request was denied via State letter 05.03.01-000389 dated April 22, 2005, which we received on April 26, 2005. We therefore submit this Notice of Potential Claim.

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 and forwarded by

PRIME CONTRACTOR

(Authorized Representative)

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

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

RECEIVED

APR 26 2005



CC Myers
51 Macalla Road
San Francisco, CA 94130

CC MYERS, INC.

April 22, 2005

JOB 215 TEMP. BYPASS STRUCTURE

IC-01815

215-103

RC

JG

✓ IAI (fax)

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

Attn: Mr. Bob Coupe

Letter No. 05.03.01-000389

Ref: 215-STL.00095

Subject: Viaduct Segment - Bearing Change

Dear Mr. Coupe,

The selection of the bearing system used on the Viaduct segment of the Temporary Bypass Structure (TBS) is ultimately at the discretion of the Designer of Record and should be in conformance with the pertinent Design Criteria and Specifications. At no time did this Office prohibit the use of all fixed bearing systems.

The comment specific to the bearings for the preliminary Viaduct superstructure design plan submittal was to present the State's position regarding the bearings and to open a dialogue for discussion. In accordance with Caltrans Memos to Designers 7-1, Imbsen and Associates Inc. (IAI), as the designer, was required to consult with the State's Bearing Specialists regarding their bearing type selection. This meeting should have been coordinated through the Office of the Resident Engineer by way of the designated design review team. Rather, IAI consulted directly with the Specialists without the presence of the design review team that possessed project specific knowledge regarding the TBS and the design criteria.

At no time did C.C. Myers, Inc. or IAI receive formal direction that the fixed pot bearings be substituted by an isolation bearing system. Fixed spherical bearings, which act similarly to fixed pot bearings, could have been substituted. The decision to switch to a different bearing type was made independent of any direction from this Office. IAI presented the use of lead core rubber bearings as a means of achieving the balanced stiffness requirements of Design Criteria Section 4.2.1. IAI led the design review team to believe that the substitution was made for reasons other than the fact that the use of fixed pot bearings are discouraged by the State.

The State reiterated its position regarding the use of fixed pot bearings in response to 215-RFI-000.00017-00 and a subsequent consultation was made with the State's Bearing specialist along with the Design Review Team. At this meeting, the State presented its position regarding the use of fixed pot bearings and stated that the selection of the bearing type is at the discretion of the Designer of Record.

The decision to switch from a fixed bearing system to an isolation bearing system was made solely at the discretion of the Designer of Record and not by the direction of the Engineer. For this reason, any costs associated with the changes remains solely the responsibility of the Contractor and their Designer of Record.

April 22, 2005
04-0120R4
05.03.01-000389
Page 2 of 2

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

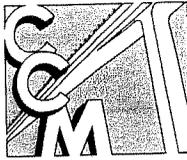
Sincerely,

A handwritten signature in black ink, appearing to read "Gary Lai". The signature is stylized with a large initial "G" and "L".

Gary Lai
Structure Representative
For
Resident Engineer
Lourdes David

cc: D. Quintana
D. Adams
A. Bata

file: 05.03.01



C.C. MYERS INC.

51 Macalla Road
(415) 399-0175

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

February 28, 2005

Document No.: 215-STL.00095

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

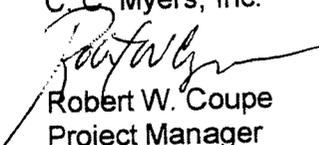
Re: Viaduct Segment - Bearing Change

Dear Mr. David,

Based on your letter 05.03.01-000308 and your response to our Request For Information 215-RFI.000.00017, we are changing the bearing type for the Viaduct back to the pot bearings that were shown on our proposal and preliminary designs. Please note that our designer, Imbsen & Associates, Inc., changed the design from pot bearings to lead core rubber bearings based on verbal instructions from your bearing specialist through various meetings and discussions and also because of your written prohibition of the use of pot bearings via comment number 53A in your letter 05.03.01-000041. This prohibition of the pot bearings' use constituted a change as evidenced by your later documents referenced above. Please also see the attached copy of a letter from Imbsen & Associates, Inc. dated February 25, 2005, regarding the same matter.

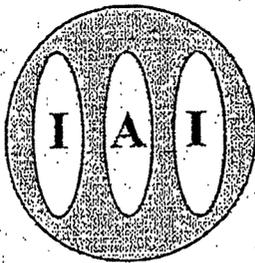
Imbsen & Associates, Inc. proceeded to change the bearing design to lead core rubber bearings based on your earlier directions, and later you reversed your position on the matter. In the mean time, engineering effort was allocated to the change and much time was lost attempting to develop an alternative design. Now additional effort must be expended to restore the design to it's original condition. For the reasons discussed herein, please issue a Contract Change Order to reimburse us for the costs and delays that have been incurred, as a result of the two changes to the design. Note, that as stated above, we are proceeding to change back to the pot bearing design, as it has the least construction cost. Should you wish that we investigate any other alternatives, please advise us at once and include provisions in the change order to cover the further analysis that will be required.

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


Robert W. Coupe
Project Manager

cc: JMV, CMW, MO, JCG

File: 215-101



IMBSEN & ASSOCIATES, INC.
Engineering Consultants
 A **TRC** Company

RECEIVED

FEB 25 2005

February 25, 2005

C.C. MYERS, INC.
 JOB 215 TEMP BYPASS STRUCTURE
 #1295-320

Mr. Bob Coupe
 C.C. Myers, Inc.
 3286 Fitzgerald Road
 Rancho Cordova, CA 95742

IAI Letter #: 53

IC-1534
 215-201
 BC
 MO
 JV

Subject: Viaduct Segment- Bearing Change

Dear Mr. Coupe:

We are in receipt of your letter 215-LET 00122 and offer the following:

As you are aware, through various meetings and discussions during the preliminary design stage, we were told by Mr. Tim Dulles of Caltrans, that the pot bearings originally submitted with the bid package were not desirable and that Caltrans would not allow this type of bearing because of their questionable long term performance in service and their poor performance in seismic conditions. As such Imbsen and Associates proceeded with the direction of the Engineer and redesigned the bearings through the use of Lead Core Isolation Bearings.

Since then, you have instructed us to abandon our current design of the Lead Core Isolation bearings and proceed to replace the bearings at Bents 49 through 52 of the Viaduct with the pot bearings originally submitted with the bid package.

Please note that in the interest of expediting the review process of the Viaduct final design, we will once again stop our current design of the bearings and proceed with your direction.

Sacramento Office
 9912 Business Park Drive
 Suite 120
 Sacramento, CA 95827
 (916) 368-0632 Phone
 (916) 366-1501 Fax

San Diego Office
 9471 Hedgehaven Court
 Suite E
 San Diego, CA 92123
 (858) 505-8881 Phone
 (858) 505-9515 Fax

Irvine Office
 21 Technology Drive
 Irvine, CA 92618
 (949) 727-9386 Phone
 (949) 727-7391 Fax

Fresno Office
 7885 N. Palm Bluffs Ave.
 Suite 104
 Fresno, CA 93711
 (559) 449-6190 Phone
 (559) 449-4591 Fax

Oakland Office
 167 Filbert Street
 Oakland, Ca 94607
 (510) 267-1835 Phone

Mr. Bob Coupe

February 25, 2005

Please be advised that changing and redoing the design of the bearings constitutes a change and as such we are requesting that you notify Caltrans to issue a contract change order for this extra work. Once we have completed our design, we will quantify and submit to your office the following:

1. Additional engineering and detailing costs associated with changing and redoing the design of the bearings.
2. Additional direct and indirect costs associated with changing and redoing the design of the bearings.
3. Additional project impacts associated with changing and redoing the design of the bearings.
4. IAI reserves the right to submit more accurate cost data when it becomes available.

We would like to meet with you and Caltrans at your earliest convenience to discuss the details of this design change.

If you have any questions give me a call at (916) 366-0632.

Sincerely,



Roy A. Imbsen, P.E., D.Engr.
Project Manager

cc: IAI File, EA

Sacramento Office
9912 Business Park Drive
Suite 180
Sacramento, CA 95827
(916) 366-0682 Phone
(916) 366-1601 Fax

San Diego Office
9471 Ridge haven Court
Suite E
San Diego, CA 92123
(858) 505-8881 Phone
(858) 505-9515 Fax

Irvine Office
21 Technology Drive
Irvine, CA 92618
(949) 727-9336 Phone
(949) 727-7391 Fax

Eresno Office
7395 N. Palm Bluffs Ave.
Suite 104
Fresno, CA 93711
(559) 449-6190 Phone
(559) 449-4691 Fax

Oakland Office
167 Filbert Street
Oakland, Ca 94607
(510) 267-1885 Phone

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

333 Burma Rd.
Oakland, CA 94607
(510) 622-5660, (510) 286-0511



RECEIVED

FEB 14 2005

February 11, 2005

CC Myers
51 Macalla Road
San Francisco, CA 94130

CC MYERS, INC.
JOB 215 TEMP. BYPASS STRUCTURE
IC - 1481

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

Attn: Mr. Bob Coupe

Ref: 215-RFI-000.00017

215-103

Letter No. 05.03.01-000308

RC
JG
JV

Subject: Viaduct Segment - Bearing Change

Dear Mr. Coupe,

C.C. Myers, Imbsen and Associates Inc. (IAI), and Caltrans met on February 10, 2005 to discuss the use of fixed pot bearings in the Viaduct segment of the Temporary Bypass Structure (TBS). During this meeting, the State Bearing Specialist presented an explanation of why the use of fixed pot bearings are discouraged and suggested the use of fixed spherical bearings as an alternative. The two bearing types were compared highlighting the weaknesses of the fixed pot bearing to the fixed spherical bearing. The Specialist then provided comments on the areas of concern for fixed pot bearing designs.

It is emphasized that while pot bearings are not prohibited by this Contract their use are discouraged. The purpose of the meeting was to present the State's position regarding this issue and not to direct the work of C.C. Myers / IAI. The final bearing type selection shall be at the discretion of C.C. Myers / IAI and approved by the Contractor's Engineer.

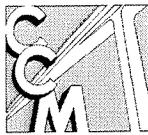
If you have any questions, please contact me at (510) 286-0511.

Sincerely,

Gary Lai
Structure Representative
for
Resident Engineer
Lourdes David

cc: D. Quintana
D. Adams
A. Bata

file: 05.03.01



C.C. MYERS INC.

51 MACALLA ROAD

SAN FRANCISCO, CA 94130

415-399-0175 FAX 415-399-0587

REQUEST FOR INFORMATION

Jan 14 2005

State of California

333 Burma Road

Oakland, CA 94607

Attn: Mr. Lourdes David

Subject: Use of Pot Bearings

Job # 215 Temporary Bypass Structure

Contract # 04-0120R4

Contact Person: Mr. Robert Coupe

Drawing No. Ref: Design Criteria

Specification Ref:

Other:

Resubmittal/Supplement Ref:

RFI #: 215-RFI-000.00017-00

Date Information is Required By: Jan 21 2005

Request:

Our design consultant's preliminary design submittal for the viaduct structure specified the use of guided pot bearings at bents 49 through 52. We have since learned subsequent to the preliminary design submittal that there were discussions between our design consultant and the State that led our design consultant to conclude that pot bearings could not be used. We have reviewed the contract documents and all of the referenced supporting documents and can not find any provisions that prohibit the use of pot bearings.

Are we correct in determining that the use of pot bearings is not prohibited on this project?

Signed:

Robert W. Coupe

Reply:

Reply By: _____

Date: _____

CC: John Vincent, PE, Main Office, Juan Gray





C.C. MYERS INC.

51 MACALLA ROAD

SAN FRANCISCO, CA 94130

415-399-0175 FAX 415-399-0587

REQUEST FOR INFORMATION

File: 215-105



DEPARTMENT OF TRANSPORTATION – District 4
Division of Toll Bridge Program
SFOBB Skyway Project
333 Burma Road, Oakland CA 94607
Telephone (510) 622-5660 Facsimile (510) 286-0550

LETTER OF TRANSMITTAL FOR RFI

Date: 18-Jan-2005

To: CC Myers
51 Macala Road
San Francisco, CA 94130

Contract No: 04-0120R4
04-SF-80-12.6-13.2

Attn: Bob Coupe
Project Manager

Job Name: Temporary Bypass Structure
Document No.: 001116
Critical Path:

Subject: Use of Pot Bearings
References: 215-RFI-000.00017-00

Request:
See text of original RFI

Requested By: Coupe, Bob

Due Date: 21-Jan-2005

Response:

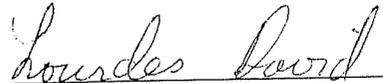
The design criteria does not prohibit the use of pot bearings on this project. However, in order to comply with Memo-To-Designers 7-1 "Bridge Bearings" the designer should consult with the Bearing Technical Specialist prior to using a bearing system for unique applications. The Bearing Technical Specialist's opinion is summarized in comment #53A to the Preliminary Design Submittal - Viaduct Superstructure.

Please contact this Office if Pot Bearings are to be pursued so that a meeting can be arranged to discuss the previous comments regarding their usage.

Answered By: Lai, Gary

Answered On: 1/21/2005

Signed:


Lourdes David

File: 56.49



001116-0

DEPARTMENT OF TRANSPORTATION

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



*Flex your power!
Be energy efficient!*

July 2, 2004
Contract No. 04-0120R4
04-SF-80-12.6/13.2
Temporary Bypass Structure
SL# 41

REC'D 7/6/04
IC-00325
215-103
IMBSEN

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 Superstructure

Dear Mr. Coupe:

The Department has reviewed the above referenced project's Preliminary Design Submittal for the superstructure of the Viaduct. The enclosed attachments outline the comments required to be incorporated 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 "KL", written over a white background.

Kenneth Loncharich
Resident Engineer

Attachments

cc: File 5.03, 58.05

04-0120R4

**Temporary Bypass Structure
Superstructure**

**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
1B	SD	58	13	please complete once the needed information become available			
2B	SD	68		Is this SSP for the "Permanent CORRUGATED steel deck forms"? If so, please correct accordingly.			
3B	SD	68	3	Please provide the "Engineering bases" for changing coating designation of G 165 to G 90. (G165 provide 1.65 oz/ft2 while G90 provide 0.9 oz/ft2 of coating cover)			
4B	SD	68	4	The new edited text should read as follows: "Contractor's Engineer." In addition, detailed working drawing for the forms shall be submitted to the Engineer for approval. Please reedit.			
5B	SD	68	6	It looks like conflicting information are introduced by editing this paragraph. Please clarify.			
6B	SD	69	12	Since the 25-mm in the minimum clearance to bar reinforcing then the plans should adhere to the specs requirements and no editing will be required. Specs supersede the plans.			
7B	SD	69	14	remove the added text "welds," contractor to verify with the to the engineer if welding is an approved method for securely fastened to the form to their supports. In addition, this is in conflict with paragraph 10 where welding to the flange is not allowed.			
8B	SD	70-74		SSP "51METH", please provide the engineering bases for not using this SSP.			
9B	SD	79		Please follow the instructions provided at the top paragraph 1			
10B	SD	79	3,4,5	should not be edited as submitted. No engineering bases were provided to justify such editing.			

04-0120R4

Temporary Bypass Structure
Superstructure

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
11B	SD	81	11M	please complete once the needed information become available.			
12B	SD	82		Please follow the instructions provided at the top paragraph 1			
13B	SD	82	4	please revise the editing to reflect that where the Engineer is required to perform a certain task, the Contractor Engineer should be included in those provisions. The Contractor's Engineer is the "Engineer of Record" for the design of the SSD and should provide the buy off before the Engineer gives the final OK			
14B	SD	83	11,12,13	should not be edited as submitted. No engineering bases were provided to justify such editing			
15B	SD	84	18	Does this paragraph apply, since the superstructure is not orthotropic box?			
16B	SD	84	21	please complete once the needed information become available			
17B	SD	86-90		Specifications for the "Structure Bearing Assemblies" are not CT SSP. Please provided the engineering bases for the providing such specs once CT accepts the system for use on this bridge.			
18B	SD	93	10	52-1.08B(2) But Welded Splice: The new edited text should read as follows: "Contractor's Engineer and the Engineer." The (State) Engineer will still have to provide QC to various items of work as provided in the Standard Specifications and the Special Provisions.			

04-0120R4

Temporary Bypass Structure
Superstructure

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
19B	SD	94	1	52-1.08C Service Splice and Ultimate Butt Splice Testing Requirements: The new edited text should read as follows: "Contractor's Engineer and the Engineer." The (State) Engineer will still have to provide QC to various items of work as provided in the Standard Specifications and the Special Provisions STSP shall not alter the number of days allocated for the Engineer to review any submittal as provided in the special provisions. Please reedit			
20B	SD	95	1	STSP shall not alter the number of days allocated for the Engineer to review any submittal as provided in the special provisions. Please reedit			
21B	SD	95	5	STSP shall not alter the number of days allocated for the Engineer to review any submittal as provided in the special provisions. Please reedit			
22B	SD	97	3	Should "Contractor's Engineer." be included in this paragraph? General comment; in Section 52 "Reinforcement", Provision where the Engineer is required to perform a certain task, the Contractor Engineer should be included in those provisions. The Contractor's Engineer is the "Engineer of Record" for the design of the SSD and should provide the buy off before the Engineer gives the final OK			
24B	SD	99	last	STSP shall not alter the number of days allocated for the Engineer to review any submittal as provided in the special provisions. Please reedit			
25B	SD	100	2	STSP shall not alter the number of days allocated for the Engineer to review any submittal as provided in the special provisions. Please reedit			
26B	SD	102		If SSP 52-600 is not applicable to this bridge then please remove it			
27B	SD	103-116		SSP 55-500 "STEEL STRUCTURE" have a very large amount of alternation from its original form Please provide copies of the different references as indicated in various paragraphs. Engineering bases are required to justify such editing			
28B	SD	117		SSP 59-500 "CLEAN AND PAINT STRUCTURAL STEEL" should be added and edited accordingly as provided by the design criteria shown on the contract plans. Also to address the instruction requirements provided in specifications for the joint seal assemblies			

04-0120R4

Temporary Bypass Structure
Superstructure

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
29B	SD	117		SSP 75-500 "MISCELLANEOUS METAL (BRIDGE): Paragraph 1: should not be edited as submitted. No engineering bases were provided to justify such editing.			
30B	SD	118	4,9	Please follow the editing instructions			
31B	SD	119	14	Please follow the editing instructions			
32B	SD	120	3	Please follow the editing instructions			
33B	SD	120	7	Please delete since paragraphs 5-8 are deleted. See instructions at paragraph 5			
34B	SD	various		No specifications were provided for the following items of work as shown or described on the plans: 1. Overhead sign structure 2. Utilities carried by the structure 3. Seismic cable restrainer 4. Modular Joint assembly 5. Hanger Rod (threaded rod) 6. Permanent CORRUGATED steel deck forms 7. Class B coating to be used at contact surfaces at bolted connections. 8. Caulk 9. Expansion joint pivot box and support box, (if such system is approved by CT for use on this bridge)			
35B	MAT	105		The following STSPs: "...shapes and bars shall conform to ASTM Designation: A 572/572M, Grade 50 [345] or A 709/A 709M, Grade 50 [345], for this project." This is acceptable provided that the requirements of the Standard Specifications, "Structural Steel Materials" table, Note "a" are met in regards to ASTM Designation: A 572/572M, Grade 50 [345]. Note "a" states: "Grades that may be substituted for the equivalent ASTM Designation: A 709 steel, at the Contractor's option, subject to the modifications and additions specified and to the requirements of A 709."			

Review Comments on Viaduct Draft Supplemental Technical 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
35B	MAT	106		<p>The table addresses the minimum size of all fillet welds (Standard Specifications, Section 55-3.17) without providing any justification. The Contractor limited the minimum size of fillet welds for material greater than 19 mm to equal 8 mm. The Standard Specifications do not limit the minimum size to 8 mm. The Standard Specifications increase the minimum fillet weld size as the material thickness increases according to the table in Section 55-3.17. Please provide justification for limiting the minimum size of fillet welds on material thickness greater than 19 mm.</p>			
36B	MAT	All		<p>The contract drawing for the East Tie-in, sheet 11 of 56, show that ASTM A 709/A 709M, Grade HPS 70 [485] will be used at Bent 53, box girders C and H, and column K. Caltrans' Standard Special Provisions requirements regarding the welding of ASTM A 709/A 709M, Grade HPS 70 [485] have not been included in the Contractor's STSPs.</p> <p>The Contractor should be required to add the following specification addressing the additional requirements of welding ASTM A 709/A 709M, Grade HPS 70 [485] steel:</p> <p>WELDING OF HPS485W STEELS</p> <p>Welds between and to HPS485W steels shall conform to the requirements in this section. All welding procedures shall be qualified by testing in accordance with the requirements in AWS D1.5 as modified herein and shall be used within the qualified limits of heat input. Previously qualified welding procedures witnessed by the State may be submitted for review based on these specification requirements. Regardless of qualification range, the heat input, preheat temperature and maximum interpass temperature shall conform to the requirements of this section.</p>			

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
				<p>Consumables for welding HPS485W shall be low hydrogen with H2 or H4 designators as shown below. The Contractor shall test the actual level of hydrogen for each consumable using the proposed welding procedure and maximum exposure conditions anticipated during production as specified below. The level of hydrogen shall not exceed the limits specified below.</p> <p>The following additional requirements shall apply when welding to HPS485W steel:</p> <p>A. Only submerged arc and shielded metal arc welding are pre-approved for welding HPS485W steel. Consumable handling requirements shall be in accordance with the requirements of AWS D1.5-96, Section 12.6.</p> <p>B. Filler Metal Requirements:</p> <p>1. Filler metals for welds between Grade HPS 485W and all other grades shall match the lower strength of the materials joined, unless noted otherwise on the plans.</p> <p>2. Filler metals for matching fillet welds, and all groove welds connecting Grade HPS485W plates shall conform to the following requirements:</p> <p>(a) Submerged Arc Welding (SAW) Consumables: SAW consumables shall meet AWS Electrode/Flux Classification F9A4 EXXX-X with supplementary moisture resistance designators H4 or -H2, in conformance with AWS A5.23, with 1% Nickel minimum in the weld deposit.</p> <p>(b) Shielded Metal Arc Welding (SMAW) Consumables; E9018-RH* with 1% nickel minimum in the weld deposit. (* The Designator 'R', for moisture resistant coating, is required for all SMAW electrodes used for welding HPS485W steels. HZ shall be either H2 or H4)</p> <p>(c) Other Processes:</p>			

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
				<p>No other processes will be permitted unless approved by the Engineer. Proposals shall include consumables and welding parameters. The use of other processes will be subject to approval by the Engineer based on proposed consumables and welding parameters and conformance to the testing requirements in the AISI/AASHTO Guide for Welding HPS Steel. Filler metals for other processes shall provide the properties specified below.</p> <p>Consumables shall have a low hydrogen designation of H2 or H4 and shall be moisture resistant. The Contractor shall perform the full ranges of tests required by AWS D1.5, Section 12.6 and diffusible hydrogen testing in accordance with AWS A4.3, "Standard Methods for Determination of the Diffusible Hydrogen Content of Martensitic, Bainitic and Ferritic Steel Weld Metal Produced by Arc Welding" to demonstrate that successful welds can be achieved with a maximum level of 4mL/100g of hydrogen.</p> <p>The diffusible hydrogen test is a required part of the procedure qualification testing for the project for consumable combinations that have not been successfully demonstrated in the AISI/AASHTO Project for Welding HPS 70W Steel for Bridges.</p> <p>3. Except for single pass fillet welds, or welds that will be fully consumed in a finished weld with satisfactory weathering characteristics, welding consumables and electrodes shall produce weld deposits that meet the requirements of AWS D1.5, Table 4.3.</p>			

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
				<p>4. Qualification Testing: Weld procedure qualification test requirements for HPS485W groove welds shall be evaluated using Welding Procedure Specification (WPS) Test Plates from the greatest thickness to be welded in production and, for formed members, the as-formed base metal representing the highest forming strain, i.e., lowest ratio of diameter to thickness of a tubular, to be used in fabrication. Testing shall conform to AWS D1.5 qualification requirements, except fillet weld procedures shall be qualified in each position used, macroetch specimens shall be taken and additional sets of Charpy V-Notch specimens shall be taken within one millimeter of both the inside and outside tubular surfaces and centered on the coarse-grain heat affected zone (HAZ). The test results shall meet the following properties: Transverse tensile ultimate strength: greater or equal to 620 MPa All-Weld-Metal: yield strength: greater or equal to 485 MPa All-Weld-Metal: ultimate tensile strength: greater or equal to 620 MPa All-Weld-Metal: percent elongation: greater or equal to 19% in 50 mm Charpy V-Notch: as specified under Materials above.</p> <p>5. In addition to the requirements for WPS qualification in accordance with AWS D1.5, diffusible hydrogen (Hd) tests shall be performed on weld metal that does not have H2 or H4 certification from the manufacturer. The deposited weld metal shall have a diffusible hydrogen level equivalent to 4 mL/100 g or less. Hd test specimens shall be prepared at the fabrication plant. Specimens shall be tested in accordance with AWS A4.3. Test results in excess of the specified limit are unacceptable, and a retest is required, with a revised welding or consumable control procedure. AWS D1.5, Section 5.7.6, "Exemption from Further Testing," is applicable, but WPS or Hd results are not transferable from fabricator to fabricator. Fabricators with multiple plants under a common umbrella of welding equipment, welding training, and supervision will be required to perform the Hd testing only once per combination of consumables for each location.</p>			

Temporary Bypass Structure
Superstructure

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
				<p>Plants audited as a single facility by the American Institute of Steel Construction (AISC) as a part of their Quality Certification Program, or other Engineer approved equal Quality Assurance program, shall be considered one location. Multiple plants not falling under the AISC, or other 'single facility' audit definition, are considered separate facilities and additional WPS and Hd tests are required.</p> <p>C. Preheat and Interpass Temperature:</p> <ol style="list-style-type: none"> The minimum preheat and interpass temperatures shall be in accordance with AWS D1.5, Table 4.4. <p>If satisfactory results are not achieved with the above minimum preheat and interpass temperatures during development of the Welding Procedure Specification (WPS), and an increased preheat temperature is used to provide a satisfactory Procedure Qualification Record (PQR), the higher preheat temperature shall be used during fabrication as the required minimum.</p> <p>The minimum preheat or interpass temperature required for a joint composed of different base metals and/or different thickness shall be based on the highest of the minimum preheats required by AWS D1.5, Section Table 4.4.</p> <ol style="list-style-type: none"> The maximum interpass temperature for welding HPS485W steel is 230 °C. <p>D. Heat Input (HI):</p> <ol style="list-style-type: none"> 1.5 kilojoules per mm (kJ/mm), minimum 3.5 kJ/mm, maximum <p>As determined using AWS D1.5, Section 5.12.</p> <p>E. Backing:</p> <p>AWS D1.5, Section 5.4.5 is modified to allow steel backing material for WPS test plates to be of grade 34550W (Sulfur = 0.025 max.) or HPS48570W material.</p>			

04-0120R4

Temporary Bypass Structure Superstructure

Review Comments on Viaduct Preliminary Design Plans dated May 20, 2004

Comment No.	Comment By	Plan Sheet No.	Detail, View or elev	COMMENT	Status	*Response by Oversight Engineer to Reviewer's comment, if required.	Verify
1A	SD	No. 2 and STSP P.106	Welding	Minimum Size of Fillet Weld "19 mm" shall be revised to read as "20 mm". Refer to AASHTO/AWS D1.5M/D1.5:2002.			
2A	SD	17 & 31	Camber	Ref. to the revised MTD 12-3 "Camber of Steel-Concrete Composite Girders"			
3A	SD	24		"Top Lateral Detail" shall be revised to read as "Bottom Lateral Detail".			
4A	SD	28-29		"Detail 4" shown on Sheet No. 29 seems not match "Plan" shown on Sheet No. 28.			
5A	SD	23		The newly revised Standard Drawings XS1-410-1 "Steel Girder Shop Splice Details" XS1-410-2 "Transverse Stiffener and Stud Connector Details" are recommended for use.			
6A	SD	31	Section C-C	Why are shear studs welded in the field?			
7A	SD	16-52		STEEL MEMBER DESIGNATIONS Steel members shall be identified as "FCMs", "Main Members", "Secondary Members" or "Primary Components of Main Members" in accordance with the new MTD 12-2 "Guidelines for Identification on Steel Members for Steel Bridges" Questions: <ul style="list-style-type: none"> • Why are all stringers identified as FCMs? • Why are lateral bracing and their connections identified as FCMs? • Are the bottom chords of truss near Bent 51 (the first and second panels) subject to tension? 			
8A	SD	24, 28, 33 35		LIMIT LENGTH OF COMPRESSION MEMBERS <ul style="list-style-type: none"> • Sheet No. 33 - 35 Truss Layout Slenderness ratio of top chords with the I-section built-up by 2 flange PL 15x380 and a web PL 20x580 in the end panels needs to be re-evaluated. It appears that effective slenderness ratio (KL/r) of the top chord exceed 120 Caltrans BDS 10.7.1 - For compression members, the slenderness ratio, KL/r, shall not exceed 120 for main members. • Sheets No. 24 and 28 Lateral Bracing How is the effective length of the lateral bracing determined? Does the lateral bracing meet the limiting length of the compression member specified by Caltrans BDS? 			

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9A	SD	33-35		<p style="text-align: center;">COMPACTNESS OF TRUSS BUILT-UP MEMBERS</p> <p>Sheet No. 33 - 35 Truss Layout Has compactness of the section be taken into account in the determination of the compression capacity of those built-up members?</p> <p>For example,</p> <p>(1). Portal Strut, 2 cover plates PL 20x895.</p> $\frac{b}{t} = \frac{895}{20} = 44.8 > \lambda_c = 1.4 \sqrt{\frac{E}{F_y}} = 1.4 \sqrt{\frac{29,000}{50}} = 33.72$ <p>(2). Diagonals in U27-U29 - Span 51, Sheet No. 35 2 cover plates PL 15x595</p> $\frac{b}{t} = \frac{595}{15} = 39.7 > \lambda_c = 1.4 \sqrt{\frac{E}{F_y}} = 1.4 \sqrt{\frac{29,000}{50}} = 33.72$ <p>It is seen that above cover plates are slender elements (AISC-LRFD, 1999 Table B5.1). Are the compressive strength and section properties of those members proportioned in accordance with AISC-LRFD (1999) Appendix B with considering a reduction factor Q?</p>			

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10A	SD	all sheets		<p style="text-align: center;">GUSSET PLATE CONNECTION</p> <p>All gusset plates are recommended to be re-evaluated to satisfy the requirement that the tensile strength of a gusset plate shall be governed by yielding in the gross section and fracture in net section and block shear rupture are prevented specified by Caltrans "Guide Specifications for Seismic Design of Steel Bridges - First Edition, 2001 (GSSDSB)" Article 7.6.4.3.</p> <p>Number and layout of HS A490 Bolts need to be re-evaluated. It seems that too many bolts are used for some of the gusset plate connections. The following are a few examples:</p> <p>(1) Sheet No. 42. Exterior Detail</p> <p>For six 28 mm HS bolts in one row,</p> <ul style="list-style-type: none"> Nominal tensile strength based on shear yielding in the gross section $A_g = (600)(25) = 15000 \text{ mm}^2$ $T_{n-Tens} = A_g F_y = [15000](345) = 5175000 \text{ N} = 5.18 \text{ MN}$ <ul style="list-style-type: none"> Nominal tensile strength based on fracture in the net section $A_n = (25)(600 - (6 \times 30)) = 10500 \text{ mm}^2$ $T_{n-Fract} = A_n F_u = [10500](450) = 4725000 \text{ N} = 4.73 \text{ MN}$ <p>It is obvious that the tensile strength of this gusset plate is governed by fracture in the net section and does not meet the requirement of Article 7.6.4.3 of the GSSDSB</p> <p>(2) Sheet No. 46, Section M-M</p> <p>Nominal shear strength provided by 90 - 28 mm A490 HS Bolts</p> $V_{bolt} = (90)(265.22) = 21217.6 \text{ kN} = 21.2 \text{ MN}$ <ul style="list-style-type: none"> Friction force provided by 90 - 28 mm A490 Bolts Nominal tension strength provided by yielding in the gusset plate (1600 mm x 25 mm) $T_{Fract} = A_g F_y = [1600 \times 25](345) = 13800000 \text{ kN} = 13.8 \text{ MN}$ <p>Why are so many bolts used? Why is the friction force larger than yielding strength of the gusset plate?</p>			

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11A	SD	all sheets		<p>(3) Sheet No. 52, Exterior South Truss</p> <ul style="list-style-type: none"> Nominal shear strength provided by 116 – 28 mm A490 HS Bolts $V_{bolt} = (116)(265.22) = 30755 \text{ kN} = 30.8 \text{ MN}$ Friction force provided by 116 – 28 mm A 490 Bolts $F_{bolt} = \mu n (T_b) = (0.5)(116)(356) \text{ kN} = 20648 \text{ kN} = 20.6 \text{ MN}$ Nominal compression yielding strength of diagonal (Web PL 25 mm x 570 mm, Cover PL 20 mm x 585 mm) $P_{diagonal} = A_g F_y = [52500](345) = 18112500 \text{ kN} = 18.11 \text{ MN}$ Nominal compression yielding strength of gusset plate (PL 25 mm x 900 mm, Use Whitmore effective section, C7.6.4.1, Caltrans GSSDSB) $P_{Gusset} = A_g F_y \approx [2 \times 25 \times 900](345) = 15525000 \text{ kN} = 15.53 \text{ MN}$ <p>How are the connection and diagonal designed? Why are so many bolts used? Why is the capacity of the gusset plate the smallest?</p>			
12A	SD	19-22		<p>FLOOR BEAM END CONNECTIONS</p> <p>The end connections of the floor beams need to be re-evaluated. It is recommended that shear strength be governed by yielding in the gross section, and fracture in net section and block shear rupture be prevented.</p> <p>For example, Floor Beam - Type 2</p> <ul style="list-style-type: none"> Nominal shear strength of 20 – 28 mm (1.1/8 in.) HS Bolt Assume threads excluded from shear plane and for a double shear $V_{n-bolt} = (2)(20)(265.22) = 10609 \text{ kN} = 10.61 \text{ MN}$ Nominal shear strength of the floor beam web (16 mm x 2200 mm) $A_g = (16)(2200) = 35200 \text{ mm}^2$ $V_{n-web-Yield} = 0.58 A_g F_y = 0.58 [35200](345)$ $= 7043520 \text{ kN} = 7.04 \text{ MN}$ <p>Nominal shear strength based on fracture in the net section $A_n = (16)(2200 - (20 \times 30)) = 25600 \text{ mm}^2$ $V_{n-web-Fracture} = 0.58 A_n F_u = 0.58 [25600](450)$ $= 6681600 \text{ kN} = 6.68 \text{ MN}$</p> <p>It is obvious that the shear strength is governed by the fracture in the net section of the web. It will be much worse for Type 2 web section of 16 mm x 1500 mm. Are 20 – 28 mm HS bolts really needed?</p>			

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13A	SD	all sheets		<p>WELDING SYMBOLS FOR C-JP AND P-JP WELDS</p> <p>It is seen that detailed CJP and PJP weld types are shown on plans. For example, Sheet 20, "Section B-B", Sheet 22, "Section K-K", "Elevation" and "Section M-M", Sheet 51, "Section T-T".</p> <p>When a CJP groove weld or a PJP groove weld is used, Designer is encouraged not to detail specific groove details and not to call out the symbol for a specific weld type, i.e. a double-Y-groove or square-groove. Instead point the weld arrow to the joint location and call out CJP or PJP. The specific details are left to the Contractor/Fabricator. The Contractor/Fabricator is in the best position to choose the appropriate groove weld details for the welded joints in order to avoid undesirable effects such as excessive distortion based on the Contractor/Fabricator's experience and operational capacities.</p> <p>Refer new MTD 12-5 "Complete Joint Penetration and Partial Joint Penetration Groove Welds"</p>			
14A	SD	all sheets		<p>BOLT DESIGNATION AND THREADS</p> <ul style="list-style-type: none"> ASTM A490 High Strength Bolts, for examples, "28 m ϕ HS Bolts" and "25 mm ϕ HS Bolt" are not correct Metric Bolt Designation. All bolts designation shown on the plans shall be in accordance with Table listed on the STSP Page 104. <p>For example: "28 m ϕ HS Bolt" shall be revised to read as "M27" "25 m ϕ HS Bolt" shall be revised to read as "M24". STSP Page 104, Table , Row 8. "M24 x 3" shall be revised to read as "M27 x 3"</p> <ul style="list-style-type: none"> The threads condition - included or excluded shall be clearly shown on plans or the STSP. 			
15A	SD	all sheets		<p>ANGLE DESIGNATIONS</p> <p>Please see AISC-LRFD Manual of Steel Construction, 3rd Edition, 2001, Page 17-7, for Metric Designation for Angles For example: The following are not Standard Metric Designation for Angles Sheet No. 27. "L100x100x13" Sheet No. 44. "L102x102x13" Sheet No. 62. "L150x150x13"</p>			

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16A	SD	all sheets		<p>PLATE DESIGNATIONS</p> <p>The plate thickness PL 13, 14, 15 (Sheet No. 36) and 16 (Sheet No. 17) are shown Will Metric plates or US English substitution plates be used in the fabrication?</p> <p>If US English plates will be used to substitute Metric plates, A table showing substitution US English plates shall be provided in the STSP.</p> <p>Plate thickness – two mm increments up to 25 mm, then each 5 mm from there up. ... 20 22 24 25 30 35 40 ...</p>			
17A	SD	36-52		Are there enough access to install bolts for connections?			
18A	SD	39	Section D-D	Section D-D seems not reflect real cut details.			
19A	SD	46	Exterior South Truss	29 mm □ HS Bolts ?			
20A	SD	52	Interior and Exterior North Truss	Make sure that the appropriate lines are used to draw details			
21A	SD	2	General Notes	Provide corrosion resistance for A490 HS bolts			
22A	SD	16	Floor Beam	Identify tension zones			
23A	SD	16	Floor Beam	Suggest 5mm increments for plate thickness over 25mm			
24A	SD	18	Section B-B	Coordinate rebar clearance requirements with SSP for deck forms			
25A	SD	18	Notes	Revise units to appropriate metric units			
26A	SD	18	Part Typ Sec	Provide details for stiffener PL			
27A	SD	20	Section B-B	Revise welding symbols to conform to new MTD 12-3			
28A	SD	21	Note 3	Coordinate standard sheet reference			
29A	SD	21	Note 3	mentioned "Caltrans Standard" sheet to the design plans.			
30A	SD	22	Elevation	Dimension location of bolts and provide access for bolt installation			
31A	SD	23		Suggest incorporating new XS sheet prepared by Steel Committee			
32A	SD	24	Plan	Lateral bracing should not be classified as FCM			

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33A	SD	24	Detail	Revise title to Bottom Lateral Detail			
34A	SD	24	Section A-A	Plates for laterals appear too slender			
35A	SD	25	Details	Dimension plates and bolt locations (Typical all sheets)			
36A	SD	25	Notes	Gusset plates should not be classified as FCM			
37A	SD	28	Plan	Provide details for temporary erection bracing			
38A	SD	28	Plan	Lateral bracing should not be classified as FCM			
39A	SD	31	Typ Stringer	Left alternative detail is not shown on Floor Beam sheets			
40A	SD	31	Typ Stringer	Dimension location of PL 15x150x460			
41A	SD	31	Section A-A	How is point bearing eliminated and rotation accommodated			
42A	SD	31	Notes	Specify bolt diameter			
43A	SD	31	Camber Table	Why only a sample? Camber values should be determined by designer			
44A	SD	32	Hanger Detail	Specify all components			
45A	SD	34	Elevation	Members U14-U15 and U11-L11 appear too slender			
46A	SD	36	All	Dimension plates and bolt locations (Typical all sheets)			
47A	SD	36	All	Provide access for bolt installation			
48A	SD	36	Section B-B	Suggest 2mm increments for plate thickness under 25mm			
49A	SD	40	Ext S Truss	Verify max bolt spacing meets sealing requirements			
50A	SD	41	Section H-H	Verify installation clearances for 25mm bolt at L100x100			
51A	SD	46	U17-U27	Verify installation clearances for 29mm bolt at L100x100			
52A	SD	62	Bent 50	Revise C15 to metric designation			
53A	SD		Pot Bearings	CT does not allow this type of bearing because of their questionable long term performance in service and their poor performance in seismic conditions.			
54A	MAT	20	Section B-B @ 9 & 10	Skewed "T" joint weld detail, references a weld detail Fig. 3.10 from AWS D1.1-00. The welding should be performed in accordance with AWS D1.5-96			

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SL #41 Attachment

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55A	MAT	45, 47	Detail 1, various	Not a recognized welding symbol. Please clarify what this detail represents.			
56A	MAT	62	Type C Bracket Detail	Weld details for stiffeners appear to conflict in Plan view and elevation			
57A	MAT	37	Section E-E view	Weld details joining Stiffener plate 13 to 38 plate are detailed as Double bevel groove welds. This joint requires access from both sides of plate. Please clarify if access to both sides of plate can be obtained			
58A	MAT	various		Fillet weld details in drawings do not always indicate fillet weld sizes. Some weld details note only "Typical" in the symbol tail. Please clarify if minimum fillet weld sizes, as required in Standard Specifications and AWS D1.5-95 are suitable for all joints designated as Typical			
59A	SC	2	General Notes	Bolt holes for 25 mm dia bolts do not specify a size, various plan sheets use 25mm dia. Bolts. What is normally oversized?			
60A	SC	4		Details for cantilever bearing do not refer to any sheets.			
61A	SC	4		How to accommodate the seismic longitudinal movement 1100 mm?			
62A	SC	19		Show top and bottom laterals connection 27 mm dia. Holes, what sizes of bolts should be used?			
63A	SC	21		25 mm dia. Bolt shown, what is the bolt hole dia.?			
64A	SC	31		No Bolt size shown.			
65A	SC	58-61		Provide manufacturer's data on the fixed and uni directional bearings on the viaduct shown			