



# COSUMNES BRIDGE REPLACEMENT PROJECT

STATEMENT OF  
QUALIFICATIONS  
▪ JUNE 12, 2018 ▪



SR 519/I-90 to SR 99 Intermodal Access Interchange Improvements | Seattle, WA



I-15 Beck Street Bridge Replacement | Salt Lake City, UT



Port Mann Highway 1 Improvements | Vancouver, BC



San Francisco - Oakland Bay Bridge Foundation Removals | Oakland, CA



Trunk Highway 53 Relocation | Virginia, MN

SUBMITTED BY:



**Kiewit**



June 12, 2018

Doug Lange, Project Manager  
State of California Department of Transportation, District 3 Office  
Division of Project/Program Management  
703 B Street  
Marysville, CA 95901

**RE: Cosumnes Bridge Replacement Project/Construction Manager/General Contractor Services, Statement of Qualifications**

Dear Mr. Lange,

Kiewit Infrastructure West Co. (Kiewit) would like to thank you for the opportunity to submit a Statement of Qualifications for the above referenced project. We are confident that, partnered with Caltrans, we have the right team and right approach to provide the best value and achieve the project goals.

**Right Team** | Caltrans has some of the most experienced designers in the country. Kiewit consistently ranks as one of the top transportation contractors in the nation by ENR. Caltrans and Kiewit have successfully worked together as an integrated team on two CM/GC projects. We will build on this experience by bringing a team who understands Caltrans' processes and will focus on integration with Caltrans to elevate our respective strengths to design and build a project that exceeds the established goals.

We know District 3 has put considerable time and energy into advancing the project to date. Because Caltrans is an important client to us, we have also invested significant time to assemble the right team to address critical project components. Our team of key personnel brings over 170 years of experience, including experience working on SFOBB Foundation Removals, giving us first-hand knowledge of your organization to help efficiently progress preconstruction. Our team also brings relationships with key stakeholders like Union Pacific Railroad (UPRR).

**Right Approach** | Our team understands that the right approach starts with collaboration and integration between Caltrans and Kiewit to create a team that is dedicated to the success of the project. We are committed to working side-by-side with Caltrans to develop the best project solutions to minimize impacts to the public, streamline the permit process, positively engage Union Pacific Railroad, coordinate with third party stakeholders, and meet the environmental requirements and commitments on this project. Simply put, we believe our approach, teamed with Caltrans as our partner, will result in the greatest cost and schedule certainty for the project.

**Best Value** | Our team has spent significant time reviewing the project details and, as a result, has identified 10 initial opportunities for innovations that will provide for cost savings, schedule savings, and risk mitigation (Section 6, pg. 18/19). **With effective coordination and collaboration with Caltrans and other project stakeholders, we are confident that we can achieve project completion eight months ahead of schedule, resulting in increased mobility and safety for the traveling public, as well as cutting the project cost by 10 percent.**

Our team is excited about the opportunity to work with Caltrans and other stakeholders to successfully deliver this significant project in Sacramento County. We look forward to your response to our proposal.

Sincerely,

Jeffrey P. Petersen,

Senior Vice President, Kiewit Infrastructure West Co.

Kiewit Infrastructure West Co.  
4650 Business Center Dr.  
Fairfield, CA 94534  
(707) 439-7300

**TRANSMITTAL LETTER AND PROPOSER SOQ  
CERTIFICATION**

Form A - Transmittal Letter  
Form G - Proposer SOQ Certification

**SECTION 1 - LEGAL STRUCTURE**

Form E - Proposer's Organization Information  
Form F - Proposer's DBE Declaration Affidavit

**SECTION 2 - FINANCIAL CAPACITY**

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Insurance Verification

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**SECTION 4 - FIRM EXPERIENCE AND  
PAST PERFORMANCE**

Narrative Summaries  
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KEY PERSONNEL**

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Licensing Evidence  
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**APPENDIX B - LEGAL DOCUMENTS**

Power of Attorney  
Organization Documents

# TRANSMITTAL LETTER & PROPOSER SOQ CERTIFICATION



**Form A**  
**TRANSMITTAL LETTER**

SOQ Date: June 12, 2018

California Department of Transportation  
District 3 Office  
703 B Street  
Marysville, CA 95901  
Attn: Doug Lange, Project Manager

The undersigned (Proposer) submits this proposal and Statement of Qualification submittal (this SOQ) in response to that certain Request for Qualifications dated as of May 1, 2018 (as amended, the RFQ), issued by California Department of Transportation (Department) to provide preconstruction services and construct the related facilities within the State Highway in the City of Elk Grove in Sacramento County as described in the RFQ.

Enclosed, and by this reference incorporated herein and made a part of this SOQ, are the following:

Transmittal Letter (this Form A)  
Form G, Proposer's SOQ Certification  
Section 1: Legal Structure  
Section 2: Financial Capacity  
Section 3: Safety Program  
Section 4: Proposer Experience and Past Performance  
Section 5: Proposer's Key Personnel  
Section 6: Project Understanding and Approach  
Appendices A & B (Resumes and Legal Documents)

Proposer acknowledges receipt, understanding, and full consideration of all materials posted on the Cal eProcure website as set forth in Section 1.3, and the following addenda and sets of questions and answers to the RFQ:

Addendum No. 1 (dated 5.11.2018)  
Addendum No. 2 (dated 5.22.2018)  
Questions & Answers No. 1 (dated 5.11.2018)  
Questions & Answers No. 1 (dated 5.22.2018)

Proposer represents and warrants that it has read the RFQ and agrees to abide by the contents and terms of the RFQ and the SOQ. If the Proposer consists of more than one entity, all members of the Proposer entity agree to accept joint and several liability for performance under the Preconstruction Services Contract. Proposer understands that the Department is not bound to award a Preconstruction Services Contract and may reject each SOQ the Department may receive. Proposer further understands that all costs and expenses incurred by it in preparing this SOQ and participating in the Project procurement process will be borne solely by the Proposer.

**Form A**  
**TRANSMITTAL LETTER**

Proposer agrees that the Department will not be responsible for any errors, omissions, inaccuracies, or incomplete statements in this SOQ. This SOQ shall be governed by and construed in all respects according to the laws of the State of California:

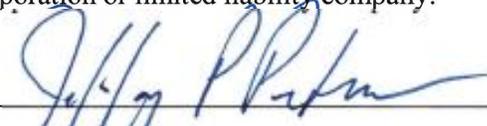
Proposer's business address:

<u>4650 Business Center Drive</u>	_____	_____	_____
(No.)	(Street)		(Floor or Suite)
<u>Fairfield</u>	<u>CA</u>	<u>94534</u>	<u>USA</u>
(City)	(State or Province)	(ZIP or Postal Code)	(Country)

State or Country of Incorporation/Formation/Organization: Delaware

1. Sample signature block for corporation or limited liability company:

**Kiewit Infrastructure West Co.**

By:   
Print Name: Jeffrey P. Petersen  
Title: Senior Vice President

**CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT**

State of California

County of \_\_\_\_\_

On \_\_\_\_\_ before me, (here insert name and title of the officer), personally appeared \_\_\_\_\_ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within the instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

*see Attached*

Notary Public Signature

Notary Public Seal

ADA Notice: For individuals with sensory disabilities, this document may be 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.

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }  
County of Solano }

On 5/29/2018 before me, Verenise Di Salvi, Notary Public  
*Date Here Insert Name and Title of the Officer*

personally appeared Jeffrey P. Petersen  
*Name(s) of Signer(s)*

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



Place Notary Seal and/or Stamp Above

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Verenise Di Salvi  
*Signature of Notary Public*

**OPTIONAL**

*Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: Form A: Transmittal Letter

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_ Signer's Name: \_\_\_\_\_

Corporate Officer – Title(s): \_\_\_\_\_  Corporate Officer – Title(s): \_\_\_\_\_

Partner –  Limited  General  Partner –  Limited  General

Individual  Attorney in Fact  Individual  Attorney in Fact

Trustee  Guardian of Conservator  Trustee  Guardian of Conservator

Other: \_\_\_\_\_  Other: \_\_\_\_\_

Signer is Representing: \_\_\_\_\_ Signer is Representing: \_\_\_\_\_

**Form G**  
**PROPOSER SOQ CERTIFICATION**

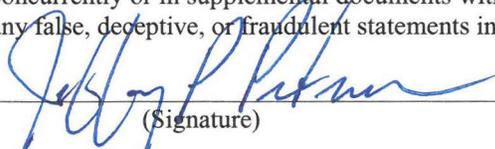
A COPY OF THIS CERTIFICATION MUST BE COMPLETED AND SIGNED BY PROPOSER AND, IF A PROPOSER IS A PARTNERSHIP, LIMITED PARTNERSHIP, JOINT VENTURE OR OTHER ASSOCIATION, THEN A SEPARATE CERTIFICATION MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF EACH MEMBER AND SUBMITTED WITH THE STATEMENT OF QUALIFICATIONS.

**DECLARATION**

STATE OF California )  
 )SS:  
COUNTY OF Solano )

I, Jeffrey P. Petersen, being first duly sworn, state that I am the Senior Vice President of the Proposer.

I certify that I have read and understood the information contained in the Request for Qualifications issued by the California Department of Transportation for Kiewit Infrastructure West Co. Project and the attached Statement of Qualifications (SOQ), and that to the best of my knowledge and belief all information contained herein and submitted concurrently or in supplemental documents with this SOQ is complete, current, and true. I further acknowledge that any false, deceptive, or fraudulent statements in the SOQ will result in denial of pre-qualification status.

  
\_\_\_\_\_  
(Signature)  
Jeffrey P. Petersen  
\_\_\_\_\_  
(Name Printed)

**ACKNOWLEDGMENT**

State of California  
County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared, \_\_\_\_\_ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.  
WITNESS my hand and official seal.

*See Attached*

Notary Public Signature

Notary Public Seal

**NOTICE TO APPLICANTS:**

A material false statement, omission, or fraudulent inducement made in connection with this Statement of Qualifications is sufficient cause for denial of the application. In addition, such false submission may subject the person or entity making the false statement to criminal charges. (Title 18 USC 1001, false statements; California Penal Code section 132, offering altered or antedated or forged documents or records; and section 134, preparing false documentary evidence).

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }  
County of Solano }

On 5/29/2018 before me, Verenise Di Salvi, Notary Public  
*Date Here Insert Name and Title of the Officer*

personally appeared Jeffrey P. Petersen  
*Name(s) of Signer(s)*

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Verenise Di Salvi*  
*Signature of Notary Public*

*Place Notary Seal and/or Stamp Above*

**OPTIONAL**

*Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: Form G: Proposer SOQ Certification

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

Corporate Officer – Title(s): \_\_\_\_\_

Partner –  Limited  General

Individual  Attorney in Fact

Trustee  Guardian of Conservator

Other: \_\_\_\_\_

Signer is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

Corporate Officer – Title(s): \_\_\_\_\_

Partner –  Limited  General

Individual  Attorney in Fact

Trustee  Guardian of Conservator

Other: \_\_\_\_\_

Signer is Representing: \_\_\_\_\_

# SECTION 1

## LEGAL STRUCTURE



## SECTION 1 LEGAL STRUCTURE

### A. LEGAL STRUCTURE OF THE PROPOSER AND ITS ORGANIZATION

The Proposer is a sole Major Participant, Kiewit Infrastructure West Co. has already been formed. Kiewit Infrastructure West Co. is a Delaware corporation founded in 1982.

The Proposer was formally known as Kiewit Pacific Co. In 2010, the corporation legally changed its name to Kiewit Infrastructure West Co. The management, operations, manner of conducting business, general financial circumstances, business address and obligations of the Company remained the same. Articles of incorporation and a certificate of name change are included in Appendix B.

### B. TRANSMITTAL LETTER

As the sole Proposer entity, Kiewit Infrastructure West Co. agrees to be fully liable for the performance under the Preconstruction Services Contract, as reflected in the execution of Form A.

### C. MAJOR PARTICIPANTS

Kiewit Infrastructure West Co. is the sole Major Participant. Kiewit Infrastructure West Co. is a wholly-owned indirect subsidiary of Kiewit Corporation. Kiewit has experience managing highway work in California. The information disclosed in our Statement of Qualifications does not materially affect our ability to carry out the Project responsibilities.

Kiewit Infrastructure West Co. is more fully described in Section 4 of this submittal.

### D. CONFLICTS OF INTEREST

Kiewit Infrastructure West Co., the sole major participant, only belongs to this Proposer organization.

### E. FORM E - PROPOSER'S ORGANIZATION

Kiewit Infrastructure West Co. has completed Form E, included in this section.

### F. PROPOSER'S DBE AFFIDAVIT

Kiewit Infrastructure West Co. has completed Form F, included in this section.

*Kiewit Infrastructure West Co. is an employee-owned entity with the experience, resources, and capability to work with the State of California Department of Transportation to successfully deliver the Cosumnes Bridge Replacement Project*

**Form E**  
**PROPOSER'S ORGANIZATION INFORMATION**

Name of Proposer: Kiewit Infrastructure West Co.

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Instructions for Form completion: Responses to each subject area shall be addressed within the table below. If additional space be needed, Proposers are advised to increase space following question as appropriate. Form E shall have no SOQ page limitation.

Proposer (Individual Firm / Joint Venture / Partnership / LLC)	
Name of Entity:	<u>Kiewit Infrastructure West Co.</u>
Address:	<u>4650 Business Center Drive</u> <u>Fairfield, CA 94534</u>
Contact Name:	<u>Jeffrey P. Petersen</u> Title: <u>Senior Vice President</u>
Telephone No.:	<u>(707) 439-7300</u> Fax No.: <u>(707) 439-7301</u> E-mail: <a href="mailto:jeff.petersen@kiewit.com">jeff.petersen@kiewit.com</a>
Local / Regional Contact	
Name:	<u>Luis Paiz, Sponsor</u>
Address:	<u>4650 Business Center Drive</u> <u>Fairfield, CA 94534</u>
Telephone No.:	<u>(707) 439-7300</u> Fax No.: <u>(707) 439-7301</u> E-mail: <a href="mailto:luis.paiz@kiewit.com">luis.paiz@kiewit.com</a>

**Form F**  
**PROPOSER'S DISADVANTAGED BUSINESS ENTERPRISE  
DECLARATION AFFIDAVIT**

Name of Proposer: Kiewit Infrastructure West Co.

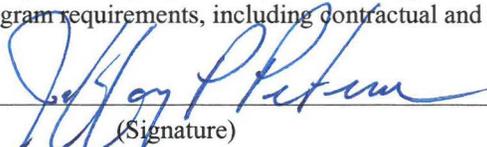
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It is understood and agreed by the Proposer that it has carefully examined all documents that form this Request for Qualifications (RFQ) and acknowledges that California Department of Transportation (Department) will establish a Disadvantaged Business Enterprise goal based on the total project value for this CMGC Project. This affidavit further serves to confirm that Kiewit Infrastructure West Co. will aggressively exercise Good Faith Efforts to the satisfaction of Department to meet the proposed Disadvantaged Business Enterprise goal and requirements defined in the Construction Contract documents, when issued.

STATE OF California )  
 )  
COUNTY OF Solano )

Each of the undersigned, being first duly sworn, deposes and says that Jeffrey P. Petersen )  
 ) (Contact Name)  
is the Senior Vice President of Kiewit Infrastructure West Co. and \_\_\_\_\_ is the \_\_\_\_\_ )  
 ) (Title) (Company) (Contact Name) (Title)  
of \_\_\_\_\_, which entity(ies) are the \_\_\_\_\_ )  
 ) (Company) (Joint Venture/Partnership, Other)  
of \_\_\_\_\_, the entity making the foregoing Statement of Qualification.  
 ) (Joint Venture Company)

The Proposer hereby affirms that it will either meet the Disadvantaged Business Enterprise goals described in this solicitation or exercise and provide demonstrable evidence to the satisfaction of the California Department of Transportation (Department) that it has aggressively exercised Good Faith Efforts to do so in accordance with defined program requirements, including contractual and regulatory provisions.

 _____ (Signature)	<u>None</u> _____ (Signature)
<u>Jeffrey P. Petersen</u> _____ (Name Printed)	<u>None</u> _____ (Name Printed)
<u>Senior Vice President</u> _____ (Title)	<u>None</u> _____ (Title)

State of California  
County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

*See Attached*

Notary Public Signature

Notary Public Seal

*[Duplicate or modify this form as necessary so that it accurately describes the entity making the proposal and so that it is signed on behalf of all partners/members of the proposing firm.]*

**CALIFORNIA JURAT WITH AFFIANT STATEMENT**

**GOVERNMENT CODE § 8202**

- See Attached Document (Notary to cross out lines 1–6 below)
- See Statement Below (Lines 1–6 to be completed only by document signer[s], not Notary)

1  
2  
3  
4  
5  
6

\_\_\_\_\_  
*Signature of Document Signer No. 1*

\_\_\_\_\_  
*Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of Solano

Subscribed and sworn to (or affirmed) before me  
on this 29th day of May, 2018,  
by Jeffrey P. Petersen  
(1) \_\_\_\_\_



*Place Notary Seal and/or Stamp Above*

(and (2) \_\_\_\_\_),  
*Name(s) of Signer(s)*

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature *Verenise Di Salvi*  
*Signature of Notary Public*

**OPTIONAL**

*Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: Form F: Proposer's DBE Declaration Affidavit

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

# **SECTION 2**

## FINANCIAL CAPACITY



## SECTION 2 FINANCIAL CAPACITY

### A. PERFORMANCE BOND AND PAYMENT BOND

Kiewit Infrastructure West Co. (Kiewit) has the financial capacity to enter into a contract with the California Department of Transportation and the financial resources to successfully complete the Cosumnes Bridge Replacement Project.

Attached is written documentation from our surety, Travelers Casualty and Surety Company of America (Travelers), verifying the ability to provide Kiewit with a Payment Bond and Performance Bond to the Department for this project.

Travelers is licensed to do business in California, and has received a “Best Credit Rating” of at least “A minus” and “Class VIII” or better by A.M. Best Company. This letter demonstrates our ability to comply with the project’s bonding requirements.

*“Kiewit Infrastructure West Co. is one of the outstanding and reputable construction organizations in North America. Its skill, integrity, and financial responsibility are unquestioned.”*  
-Lisa Buller, Travelers

### B. INSURANCE CERTIFICATIONS

We have included a certificate of insurance which verifies our current policies and/or ability to obtain the required areas of insurance. This certificate provides evidence of our ability to provide insurance as required by the Preconstruction Services Contract.

These documents demonstrate our financial capability to carry out the project responsibilities.



Travelers  
Bond, Home Office  
(860) 277-9355  
(860) 277-3931 (fax)

One Tower Square  
Hartford, CT 06183

June 8, 2018

California Department of Transportation  
District 3 Office  
703 B Street  
Marysville, CA 95901

RE: Kiewit Infrastructure West Co.  
Cosumnes Bridge Replacement

Dear Sir or Madam:

We have had the pleasure of extending surety credit to the Kiewit companies over a number of years in connection with contracts aggregating billions of dollars. As a Kiewit operating subsidiary, it is our opinion that Kiewit Infrastructure West Co. is one of the outstanding and reputable construction organizations in North America. Its skill, integrity, and financial responsibility are unquestioned.

As part of an overall work program commitment, we have authorized Kiewit Infrastructure West Co. to bid individual contracts up to \$350 Million in size. The total program capacity for all Kiewit companies is \$9 Billion. It is our intention to furnish Kiewit Infrastructure West Co. with 100% Performance and Labor and Material Payment Bonds, if awarded the above-referenced project.

This commitment is subject to our standard underwriting at the time of the bond request, including a review of acceptable bond forms, contract financing and our standard underwriting considerations.

If you have any other questions, please feel free to contact me at (402) 271-2956.

Travelers Casualty and Surety Company of America,  
A.M. Best Rating A++, XV

A handwritten signature in blue ink that reads "Traci Sutton". The signature is written in a cursive, flowing style.

Traci Sutton  
Attorney-in-Fact

(Seal)

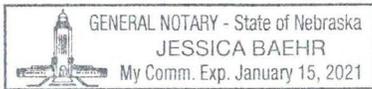
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

**CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ Nebraska )  
County of Douglas )  
On 6/8/18 before me, Jessica Baehr, Notary Public,  
Date Here Insert Name and Title of the Officer  
personally appeared Traci Sutton, Attorney-in-Fact  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jessica Baehr  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_  
Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_  
 Corporate Officer — Title(s): \_\_\_\_\_  
 Partner —  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: \_\_\_\_\_

Signer's Name: Traci Sutton  
 Corporate Officer — Title(s): \_\_\_\_\_  
 Partner —  Limited  General  
 Individual  Attorney in Fact  
 Trustee  Guardian or Conservator  
 Other: \_\_\_\_\_  
Signer Is Representing: Travelers Casualty and Surety Company of America



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 231153

Certificate No. 007405327

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Philip G. Dehn, Tammy Pike, Paul A. Foss, Marie Huggins, Traci Sutton, Joseph Lippert, and Jessica Baehr

of the City of Omaha, State of Nebraska, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 6th day of October, 2017.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 6th day of October, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2021.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 8th day of June, 2018

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

*Kevin E. Hughes*  
Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at [www.travelersbond.com](http://www.travelersbond.com). Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

# MIDWEST AGENCIES, INC.

INSURANCE - BONDS

3555 Farnam Street  
Omaha, NE 68131

Telephone  
402-271-2840

Fax  
402-271-2997

June 8, 2018

California Department of Transportation  
District 3 Office  
703 B Street  
Marysville, CA 95901

Re: Cosumnes Bridge Replacement  
Kiewit Infrastructure West Co., Insurability Letter

To Whom It May Concern:

Please accept this letter as our verification that Kiewit Infrastructure West Co. will furnish the kinds and amounts of insurance specified in the Section 3.3b, should they be awarded the above referenced project.

The above captioned is subject to review of the insurance requirements and commercial availability at the time of the request.

Sincerely,



Philip G. Dehn  
President

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

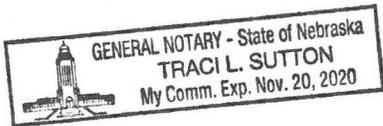
CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ Nebraska }  
County of Douglas }

On June 8, 2018 before me, Traci L. Sutton, Notary Public  
Date Here Insert Name and Title of the Officer  
personally appeared Philip G. Dehn, President of Midwest Agencies, Inc.  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal and/or Stamp Above

Signature Traci L. Sutton  
Signature of Notary Public

**OPTIONAL**

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

Corporate Officer – Title(s): \_\_\_\_\_

Partner –  Limited  General

Individual  Attorney in Fact

Trustee  Guardian of Conservator

Other: \_\_\_\_\_

Signer is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

Corporate Officer – Title(s): \_\_\_\_\_

Partner –  Limited  General

Individual  Attorney in Fact

Trustee  Guardian of Conservator

Other: \_\_\_\_\_

Signer is Representing: \_\_\_\_\_

# **SECTION 3** SAFETY PROGRAM



## SECTION 3 SAFETY PROGRAM

*"Kiewit's commitment to safety was outstanding. To have such a challenging project on a highly compressed schedule and finish with no lost time injuries is priceless. It is much bigger than the Highway 53 project. Thank you for engaging with MnDOT, at the agency level, to help us set a path forward to improve our MnDOT safety culture. We understand it will be a long journey but, with the help of Kiewit, we have a path forward."*

*– Patrick Huston,  
PE, MnDOT, TH 53  
Project Director*

Safety has been a core value and part of our culture for decades. Kiewit's approach to safety can be summed up by the phrase "Nobody Gets Hurt" which is seen, heard, and practiced on every jobsite, every day. We work collaboratively with craft, subcontractors and clients to provide a safe environment for the public and everyone on the project site. This culture is at the core of our safety program, which includes training, craft engagement, and experienced staff and craft. By establishing expectations and accountability for safety performance, our program provides the framework to meet the project's safety goal to have no accidents involving the public, and to have no lost time injuries for the Department and contractor employees during construction of the Cosumnes Project.

We are committed to providing and achieving an incident-free work environment through open communication, progressive training, and an unwavering attention to the health and well-being of the public and project personnel.

Our safety program is applied to every project we work on and will be an integral part of the Cosumnes Project. This section provides our:

- ◆ Safety record for the most recent three-year period
- ◆ Information on California Occupational Safety and Health Administration (CAL-OSHA) and Federal Occupational Safety and Health Administration (FOSHA) citations and penalties
- ◆ Workers compensation history
- ◆ Summary of our safety program

### SAFETY RECORD

Kiewit's safety statistics demonstrate that employees embrace the safety culture. Included below is Kiewit's workers' compensation experience modification rates (EMR), average total recordable injury/illness rates, and average lost work rates for the last three years.

YEAR	EMR	RECORDABLE RATE	LOST WORK RATE
2017	0.41	0.16	0.05
2016	0.45	0.37	0.00
2015	0.55	0.54	0.05

### Alternative Dispute Resolution System

Kiewit is not a party to an alternative dispute system as provided for in Labor Code §3201.5.

### Cal-OSHA and FOSHA Citations and Penalties

Kiewit Infrastructure West Co. has no Cal-OSHA or FOSHA citations or assessed penalties for any serious, willful or repeat violations of its safety or health regulations in the past five years.

### WORKERS' COMPENSATION HISTORY

Kiewit's workers' compensation experience history can be found under EMR on page 3-1.

## SAFETY PROGRAM

Kiewit's proposed Safety Program will provide an understanding of safe work principles, open communication among all personnel levels, and convey clear expectations. The program addresses:

- ♦ Design for safety
- ♦ Craft engagement
- ♦ Training
- ♦ Hazard communication
- ♦ Communication strategy with Caltrans and the traveling public
- ♦ Subcontractors and consultants
- ♦ Project-specific safety considerations (included in Section 6G)

This comprehensive program starts with employee engagement, which leads to an empowered workforce with the understanding that everyone has stop-work authority as it relates to safety. Kiewit's program provides a hands-on approach by enabling the craft workers to be responsible for their safety.

### Design for Safety

Kiewit has a Design for Safety program that engages design engineers and safety professionals during design to remove or control hazards at their source before the workers arrive at the jobsite. Examples of designing for safety include a safe final product to keep the traveling public safe, incorporating engineered tie-off points to increase fall protection safety, and installing turnouts for temporary access by incident responders and workers.

We have developed a corporate guidebook that identifies training, database capture, and engineering controls. The process includes these steps:

- ♦ Brainstorm and identify basic design features that could reduce exposure to hazards.
- ♦ Prepare an action plan for each item identified.
- ♦ Perform constructability reviews on the Design for Safety features.
- ♦ Observe activities for critique and submit to the electronic lessons learned database.

- ♦ Close out the action plan and post to the Design for Safety intranet site in our search-able database of best practices.

### RECENT SAFETY ACCOMPLISHMENTS:

*Worked 597,555 hours in 2017 at Lake Oroville Spillways  
Emergency Repair with no recordable injuries*

*Received Construction Work Zone Safety Award  
from the FHWA for our excellent safety record  
on TH 53 Reconstruction*

### Craft Engagement

Craft employees are our first defense to effectively control risk, identify hazards, promote the culture to other craft, and help identify ways to improve the processes we face daily. The goal behind craft engagement is to produce a stronger and more effective safety culture. This is effective because it empowers craft to speak up and make safety recommendations. To obtain and encourage craft engagement, Kiewit uses a Craft Voice in Safety Program (CVIS Program), which is comprised of craft workers from the different trades on our projects. The CVIS team's mission is to promote and provide a safe workplace by making recommendations to the project team that empowers the voice of our craftsmen. The goal is to motivate all employees, both staff and craft, to recognize the risks specific to our project that could prevent our team from meeting its objective goal of "Nobody Gets Hurt."

### Training

Training all employees is a core value at Kiewit. Training begins the first day on the project with new-hire orientation: the foreman and superintendent will both meet with every new employee to discuss safety expectations and review the work process. In addition to this safety orientation, training includes:

- ♦ Daily, weekly, and monthly safety meetings
- ♦ Certifying designated operators
- ♦ First aid and CPR classes
- ♦ Small tool safety talks
- ♦ Work-zone training
- ♦ Fall protection demonstrations

Craft will receive additional training for job-specific

hazards as the project moves forward and the need arises on topics such as working in confined spaces and traffic management.

## Hazard Communication

As operations start, crews will meet to discuss work processes, tools, hazards, and safety measures associated with the operation. The job hazard analysis (JHA) is the primary hazard communication tool, used daily to inform workers about safe working methods on every operation. Craft will develop the JHAs with input from the superintendent and engineer. The crew will review and acknowledge they understand by signing the JHA before any operation starts. Each JHA will be a living document; as proficiency, techniques, and tools change, crews will review and update the JHA. If a change is needed, crews will stand down and make the change. The project will require complete JHAs for all operations, without exception. Kiewit will keep an up-to-date Safety Data Sheet (SDS) database readily available to the craft and posted in a common area.

Because the work environment will constantly change, the safety program allows for monitoring, evaluating, and updating plans and JHAs. The CVIS Program and other tools will establish open communication among the project management, Caltrans, and all workers on site.

## Subcontractors and Consultants

Kiewit intends to employ specialty subcontractors and consultants for various preconstruction and construction phases. Subcontractors and consultants working on site are contractually obligated to match or exceed Kiewit's Safety Program. Pre-activity meetings, where hazard identification and mitigation planning occurs, are required before starting on site. Subcontractors will participate in the CVIS Program and contribute to the hazard communication program. Once established on the project, the subcontractor integrates as a full team member, held to the same expectations and level of accountability as Kiewit personnel. Subcontract monitors assist in integrating the subcontractor and Kiewit, and they provide daily input on safe work principles, policies, and hazard mitigation.

## The Public

Kiewit holds the traveling public's safety as a top priority. Using a multi-tiered approach provides several opportunities to improve safety performance. Ideally, an innovative design eliminates the safety hazard and reduces overall exposure. In some instances, as with significant traffic management risks, Kiewit will work with Caltrans to address the hazards through the use of additional signage, physical barriers, proactive public outreach about changing conditions, and other measures to keep the public safe.

## Emergency Service Plan

We will develop a comprehensive Emergency Service Plan in coordination with emergency responders and law enforcement. This plan will ensure that access and mobility are maintained. The Emergency Service Plan will be incorporated into the traffic management plans, and will build on previously successful plans to provide synchronized incident response during construction of the project. The Emergency Service Plan will achieve the following:

- ◆ Enhance the safety of stranded motorists
- ◆ Provide clear access for emergency vehicles
- ◆ Communicate traffic delays to the public

We will work closely with law enforcement, emergency responders and Caltrans to determine incident detection and verification parameters. All Kiewit supervisory personnel will be trained in reporting and responding to incidents, and will carry the emergency response phone tree of contact numbers at all times.

## Commitment to Safety

Kiewit is committed to the highest standards of safety performance. We strive for a safe working environment for all people on a project site and we take the public and personnel's safety seriously. Kiewit recognizes that it takes the effort of staff, craft, subcontractors, consultants, and our clients to ensure "Nobody Gets Hurt."

# SECTION 4

## PROPOSER EXPERIENCE AND PAST PERFORMANCE

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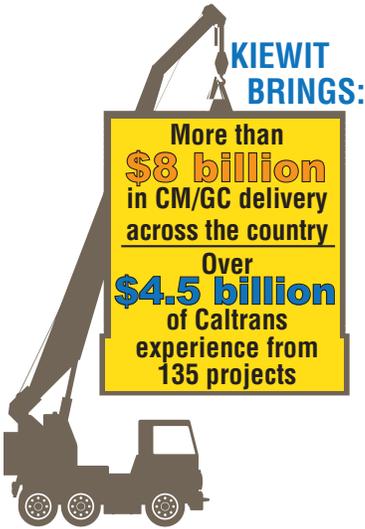
# COSUMNES BRIDGE REPLACEMENT

## SECTION 4 FIRM EXPERIENCE AND PAST PERFORMANCE

### A) CAPABILITY AND CAPACITY

Kiewit Infrastructure West Co. (Kiewit) has the experience, expertise, competence and capability, as well as the resources and capacity, to work with Caltrans and other important stakeholders, including UPRR and Cosumnes River Preserve, to achieve the project goals, assist in accelerating the permit process, and reduce project risks along the way. **Figure 1** provides an overview of our experience completing relevant projects with similar features to the Cosumnes Bridge Replacement Project (Cosumnes Project), such as complex permitting, Class I railroad interface, detailed MOT, and staged bridge construction. The Form B pages contain further detail.

In addition, we bring first-hand CM/GC experience working with Caltrans on the SR 58 Kramer Junction and SFOBB Foundation Removals Phase 1-3 projects. All successfully completed the preconstruction phase and SFOBB Phase 1-2 successfully completed construction; SFOBB Phase 3 and SR 58 Kramer Junction are under construction.



All projects featured in this section were delivered:

- ✓ on time (or early)
- ✓ on/under budget

Figure 1: Kiewit’s experience delivering similar projects. Bolded projects are featured in Form Bs.

\*Project not complete

PROJECT	DELIVERY METHOD	YEAR COMP.	Staged bridge construction	Significant MOT/Traffic handling	Construction over freeway/railroad	Completion over environmentally sensitive areas	Work in environmentally sensitive areas	Complex public utility relocation	Preconstruction collaboration	Complex public utility relocation	including VE, claims, or disputes	Zero delays, within budget
<b>Port Mann Highway 1 (Vancouver, BC, TI Corp.)</b>	Design-Build	2015	■	■	■	■	■	■	■	■	■	■
<b>I-15 Beck St. Bridge Replacement (Salt Lake City, UT, UDOT)</b>	Design-Build	2010	■	■	■	■	■	■	■	■	■	■
<b>SR 519 Intermodal Access (Seattle, WA, WSDOT)</b>	Design-Build	2010	■	■	■	■	■	■	■	■	■	■
<b>TH 53 Reconstruction (Virginia, MN, MnDOT)</b>	CMGC	2017	■	■	■	■	■	■	■	■	■	■
<b>San Francisco Oakland Bay Bridge Foundation Removals, Phase 2 (Oakland, CA, Caltrans)</b>	CMGC	2017			■	■	■	■	■	■	■	■
Honolulu High Capacity Transit Corridor (Honolulu, HI, HART)	Design-Build	2018	■	■	■	■	■	■	■	■	■	■
Tilikum Crossing, Willamette River Transit Bridge (Portland, OR, TriMet)	Design-Build	2015	■	■	■	■	■	■	■	■	■	■
SR 58 Kramer Junction* (San Bernardino, CA, Caltrans)	CMGC	2019	■		■	■	■	■	■	■	■	■

# COSUMNES BRIDGE REPLACEMENT

Our prior experience working with you on these projects, minimizes risk and provides several benefits to Caltrans. The benefits include: 1) a PM who brings local CM/GC experience with Caltrans and who will help to efficiently align our teams on day one, 2) opportunity to efficiently apply Caltrans' processes to realize the benefits of CM/GC, and 3) the ability to be best positioned to ensure efficient railroad coordination and a streamlined permit process to achieve the goal of project completion well before November 2024. In fact, we've identified several strategies to achieve substantial completion early (see Section 6B-C).

*"Kiewit was a team player, and ultimately delivered the project 5 weeks ahead of schedule. Not only was the project finished early, it was constructed with zero lost time injuries, in a quality manner and honored all environmental commitments" – Patrick Huston, PE, MnDOT Project Director, Highway 53 CM/GC*

## Capability

Our proven capability delivering similarly complex projects on time and under budget is evident in the following Form B pages. **Every project was delivered ahead of schedule or on time, and all projects were at or under budget.** Our team, led by experienced CM/GC **Project Manager Zach Reilly** is committed to not only completing this project before the target date, but working effectively with Caltrans to expedite the acquisition of environmental permits and clearances, identify innovations to reduce project cost by at least ten percent, accelerate construction schedule, optimize staging, minimize impacts to traffic, positively engage UPRR, facilitate stakeholder and public outreach, and make this project a success for all parties involved.

Since 1964, we have had a permanent office in Northern California, and we have completed more than 135 contracts totaling \$4.5 billion worth of work for Caltrans. Our recent work on projects near Sacramento includes Oroville Dam Reconstruction, Folsom Phase I, II and IV, and Folsom Bridge. This significant knowledge of local conditions, strong relationships with the local contracting community and permitting agencies, and a highly capable craft following allows us to bring experienced and proven team members to this project.

To augment our local experience, we've added Environmental Sciences Associates (ESA), a respected environmental permit consultant with extensive local resources, to our team. ESA's experience accelerating the permit process on past projects, as well as their established relationship with the Cosumnes River Preserve from work on past projects, including the Grizzly Slough Restoration Project, will greatly benefit the project team. In addition, Kiewit has worked with ESA on several projects in Northern California, including on the Oroville Dam Reconstruction and SFOBB Phase 2-3 with our PM Zach Reilly. Our integrated team will work together to ensure permit applications are streamlined and include construction feedback.

Our experience also includes extensive coordination with Class I railroads, including the ongoing Union Pacific Railroad (UPRR) Clinton-Mississippi Bridge Project. In addition, **Railroad Coordinator Anthony Digirolamo** brings more than 25 years of experience coordinating with Class I railroads on construction projects. This in-depth knowledge will foster collaboration with UPRR to ensure efficient coordination to maintain the project schedule, and ultimately provide the best value to Caltrans.

## Capacity

Our streamlined structure as a sole major participant proposer will facilitate our ability to partner with Caltrans. It will also provide you with **a single point of contact and accountability that will be responsive to your needs.** Being a sole proposer firm with the necessary experience and resources minimizes the risk inherent in multiple firms coordinating management and delivery of work.

**Figure 2** provides you with an overview of our capacity illustrating that we have dedicated resources, personnel and equipment to ensure the success of this project. Our team offers the knowledge and experience of a local contractor, backed by extensive resources.

Figure 2: Capacity overview

Kiewit Infrastructure West Co. (Proposer)	
65+ years of experience in Northern CA	
830 staff	1,165 craft
2,966 owned equipment units on the West Coast	



## FORM B: PROJECT DESCRIPTION

**Name of Proposer:** Kiewit Infrastructure West Co.

**Name of Firm:** Kiewit Infrastructure West Co.

**Project Role:** Joint Venture Lead, Prime Contractor

**Firm's Office/Division/District which performed the work:** Kiewit Infrastructure West Co.

**Other (Describe):** N/A

**Years of Experience (provide length of activity as it relates to the following elements):**

Roads/Streets: 5

Bridges/Structures: 5

Utility Relocations: 5

**Project Name, Location, and Nature of Work for Which Company Was Responsible:**

### PORT MANN HIGHWAY 1 IMPROVEMENTS – VANCOUVER, BC

Kiewit was the prime contractor and managing partner of the design-build joint venture.

**Provide Project Description and Describe Site Conditions:**

Construction of projects of similar size, scope and complexity.

**This highly staged and complex project widened a 23-mile section of Highway 1, including improvements and/or replacements of 28 separate overpass/underpass structures.**

Similar scope to the Cosumnes Project

included building multiple bridges over live rail or highway traffic, extensive MOT and coordination with third parties. While this project was constructed in Canada, regulatory issues addressed during design regarding environmental permits and compliance were similar to those in the U.S. This project added one lane in each direction west of the Fraser River and two lanes in each direction east of the river, a new 10-lane toll bridge connecting the two sides, significant upgrades to 17 interchanges and improvements to 28 separate overpass/underpass structures. As a result of the start-up efforts described below, cost savings and schedule reductions were discovered before construction began.

**Proposed CM James Scheer and MOT manager Tim Clark worked together on this project, contributing to Port Mann Bridge completion one year ahead of schedule.** Despite challenging winter weather and poor soil conditions, the project was completed on time and on budget.



**Experience that will benefit Cosumnes Bridge Replacement:**

- Same key personnel - **CM James Scheer; MOT Manager Tim Clark**
- Preconstruction services/collaboration
- Complicated staging/MOT
- Completed on time, on budget
- Two bridges over BNSF, a Class 1 railway
- Coordination with railroad
- Alternative delivery
- Pavement widening/overlay
- Utility relocation/coordination
- Stakeholder coordination
- Community outreach
- No claims
- Wetland mitigation
- Drainage improvements
- Construction in environmentally sensitive areas

Accelerated construction of major elements common to this project.

This mega-project was divided into four manageable and distinct geographical segments over 23 miles. Each segment had its own design and construction team. These segments coordinated daily with their client counterparts at the project level as well as collaborated with other segments at the project hub office. Weekly, collaborative partnering between the segments, hub office, designer, the client, and other affected stakeholders ensured risk

was managed and helped identify and resolve issues at the project level. For example, the team was allowed one weekend closure to reconstruct a major interchange. **After collaborating and planning with the client, the team successfully performed the work and opened the interchange 12 hours ahead of schedule.** *A similar effort will be applied during construction operations for the Cosumnes Project.* Coordination with municipalities to execute the right MOT plan played a large role in accelerating certain aspects of construction work. In addition, the use of a universal false-deck system accelerated the schedule of demolition and construction of bridges along the project. The team was able to reuse the false-deck system for the demolition of other structures within the project limits.

## Implementation of complicated staging and traffic control handling.

With a traffic management plan and a community relationship program, the team created a constructable plan to meet the community's need for continuous traffic flow through the corridor which carries approximately 250,000 vehicles per day. MOT manager Tim Clark and team developed work plans early in the process to address special events such as the 2010 Vancouver Olympics. Kiewit's goals for traffic management were to keep traffic flowing and enhance road safety. Daily coordination meetings with the traffic task force allowed proper levels of closures, delineations, and attenuations along the 23-mile stretch of Highway 1. **By implementing fast-tracking strategies, the team delivered eight lanes in December 2013, almost one year ahead of schedule.**

Kiewit designed all detours on the arterial roads to ensure the flow was maintained. This was accomplished through traffic analyses to ensure upstream and downstream signal timings were optimized to prevent any unnecessary queues. MOT manager Tim Clark and CM James Scheer worked closely with municipalities to ensure the traveling public was being adequately informed of all traffic movement changes. *Likewise, CM James Scheer will support Caltrans and participate in public information meetings on Cosumnes.*

## Coordination of complex public utility relocation as well as construction of municipal utilities.

**During design, the team coordinated with 19 private and public utility owners, three railways, and seven municipalities.** During construction, Kiewit coordinated the work for several rehabilitated structures that crossed over railways or conflicted with third party utilities. Utilities ranged from 72-in. sewer lines, water lines, relocation of a 230-kv power line, and complex jet fuel pipelines, requiring close coordination with utility companies to be successful. Meetings with utility providers began in early preconstruction phases with BC Hydro, Telus, and Kinder Morgan. The sewer line went through three different city zones where the team interfaced with each zone's utility coordinator. Kiewit successfully managed complex utility relocations through weekly interface meetings with utility providers. *On the Cosumnes Project, Kiewit will also employ early coordination with SMUD, Kinder Morgan and other utilities to protect and relocate utilities as necessary to ensure there are no impacts to the project schedule.*

## Experience of team members working together as an integrated team.

Kiewit co-located with key project management and design team individuals in a central office in close proximity to the client. The majority of the design work was performed in Kiewit's office in downtown Vancouver. This co-location allowed direct input to the design from the construction team's design coordinators and the client's personnel. Through this increased communication and constructability input, a more efficient and high quality design was produced while also meeting the fast-tracked project schedule.

## Construction/reconstruction using innovative designs, methods, and materials.

There were nine fish and wildlife crossings that went underneath Highway 1. The phasing for these features required innovation because they had to be built underneath six lanes of traffic. Traffic was phased four lanes at a time to allow continuous traffic movement while constructing the box culverts in phases. During preconstruction, we conceptualized a traffic pattern to construct three bridges concurrently, instead of one bridge at a time, as originally planned. This innovation allowed a continuous flow of traffic, met all emergency service and municipality requirements, reduced traffic switches, and saved schedule and budget. The project team also focused on opportunities to use precast concrete elements and prefabricate as much as possible to reduce critical path schedule durations.

## Staged bridge construction over existing freeway and railroad

Goods with a value of approximately 14% of Canada's gross national product travel under the Port Mann Bridge on a huge network of Canadian National Railway Company (CN) rail lines so mitigating impacts to their operations was critical to managing this project. CN, a Class 1 railway drove all work windows and required permits to work around rail, similar to UPRR. **By coordinating with CN rail, proposed CM James Scheer protected their operations during main span construction of the Port Mann Bridge over the rail switchyard.** He began communicating with CN early and continued to foster the relationship throughout the project. Three months before bridge construction began, the project team started regular meetings to coordinate the planned work with the CN operations group. Follow-up meetings were then held regularly to discuss both long-and short-term schedules. At the beginning of the project, CN established maximum durations of allowable closures that were limited to 15 minutes, with closure requests submitted days in advance. However, as CN developed trust in our ability to follow through as planned, longer closures were permitted whenever feasible. The strong relationship CM James Scheer forged with CN resulted in cost and schedule benefits.

The daily ridership along the alignment was approximately 250,000, including heavy truck traffic, with traffic commonly backed up on Highway 1. During design, proposed **MOT manager Tim Clark** worked to minimize traffic shifts, lane closures, and impacts to local business, while maintaining safety. The contract requirements did not allow lane closures on Highway 1 during daytime operating hours. These constraints challenged the team to find creative methods of work execution during nighttime hours along Highway 1. The demolition of bridges over Highway 1 demonstrates the use of effective and innovative staging to limit impacts to the public. The team originally planned to stage this demolition by closing lanes beneath the bridge. However, with traffic in such close proximity to the work zone, the team was challenged in developing an MOT plan. The solution was to eliminate the staging and construct false-deck bridges, providing field crews a safe access point above the structure to be removed. This eliminated the need for fall protection, and removed MOT from the equation.

## Coordinating work and traffic control with adjacent contracts performing similar highway work

Coordination with adjacent road operators was built into the construction plan. The project team interfaced with mainroad (the highway's maintenance operator) and other contractors in the limits of the project. MOT for each of the four segments was included in the overall project planning to ensure that every MOT installation worked in concert with the MOT in adjacent project segments. In addition, these plans were communicated daily to mainroad and each of the affected municipalities. **The key to success was establishing and maintaining open lines of communication to limit impact to the traveling public and maintain emergency access to all locations.**

## Compliance with environmental regulations and restrictive permit requirements.

Kiewit and the client worked together to obtain approximately 300 permits on time. **Early and active involvement of the environmental team with the regulators resulted in timely and accurate permit application and acquisition.** Key actions included integrating the environmental permitting process with project management, design processes and construction planning/scheduling; and organizing and chairing regular inter-agency environmental review committee meetings to keep regulators and stakeholders up-to-date with respect to project works, schedules, and constraints/solutions implemented.

Due to the conversion of degraded habitat to roadway ROW, Kiewit committed to the new construction of habitat compensation areas. These compensation areas expand the available aquatic and seasonal wetland habitat within the project corridor. Environmental representatives from the client, Department of Fisheries and Oceans (DFO), and Environment Canada received monthly progress reports from Kiewit and also participated in Kiewit-led field inspections. Interaction with these representatives extended to other project environmental permit requirements such as early entry authorizations for in-water work and monitoring of raptors and songbirds. Early entry authorizations are contingent upon satisfactory past performance.

Based on our satisfactory previous work, DFO granted early entry authorizations for the 2014 season, which kept the project on schedule. *Likewise, Kiewit will work with environmental representatives on the Cosumnes Project to ensure necessary permits are in place well-in-advance of construction execution.*

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Constructing controversial or highly sensitive public projects, including experience in coordination with local and regional agencies on similar sized projects.

**Prior to beginning or changing construction operations, the Kiewit team worked with impacted stakeholders, giving them an opportunity to voice their concerns about upcoming operations and help plan their schedules around the impact.** This interface with stakeholders gave Kiewit the ability to identify the best method for executing the operation. Construction was also scheduled around events occurring at nearby GM Place, which serves as the home for the NHL's Vancouver Canucks and also serves as a venue for corporate conventions and concerts. This ensured public mobility before and after events. The 2010 Winter Olympics also took place in Vancouver during the height of construction and no lane closures or stoppages were allowed along the entire job for 28 days. Work that did not affect traffic was planned for this period and the project schedule was unaffected.

CRIPs implemented and experience with techniques to avoid delays and minimize claims.

Throughout the project, the team worked to stay on schedule, regardless of unexpected conditions that were encountered. We collaborated with the client at all stages of construction. This relationship was crucial to expedient issue resolution. For instance, the submittal of traffic closures was only allowed within select "windows," followed by the client responding in a similar, expedited manner to avoid impacts to traffic. In one instance, the client preferred delaying the traffic closure, uncertain of the impacts. To resolve the delay, Kiewit met with the client to discuss this time-sensitive issue and managed to reach a mutually agreeable solution. *We will work with Caltrans in a similar collaborative manner to develop solutions that are in the best interests of the project.*

Before beginning foundation work, the team confirmed design parameters and calibrated the piling design analyzer by performing the largest static piling load test in the world that reached an ultimate pile capacity of 53 MN. Results of the load test led the design-build team to increase the piling load capacity enough to decrease the number of pilings by nearly 30%. **This resulted in a cost and schedule savings of nearly 40 days and nearly C\$50 million to the client.**

**List Any Awards, Citations, and/or Commendations Received for the Project:**

- Award of Excellence in Transportation, Canadian Consulting Engineering Awards, 2014
- Deputy Minister's Contractor of the Year Award for Bridges and Structures, 2013
- Bill Curtis Award for Traffic Management, 2012

*"This is an extremely large and complex project that demands intense coordination on the contractor's part, a role that Kiewit has handled exceptionally well, not only on the ground but working closely with TI Corp to ensure the owners' needs are met as well." – Garry Dawson, Vice President of Technical Services, TI Corp*

**Name of Client (Owner/Agency, Contractor, etc.):** Transportation Investment Corporation

**Address:** Suite 210–1500 Woolridge Street; Coquitlam BC V3K 0B8

**Contact Name:** Norm Richard

**Telephone:** (604) 250-1727

**Fax No.:** N/A

**Email:** norm.richard@ch2m.com

**Owner's Project/Contract No.:** N/A      **Contract Value (US\$):** \$2.39 billion CAD      **Final:** \$2.69 billion CAD

**Description of any difference in values:** Client-directed scope increases

**Percent of Total Work Performed by Kiewit:** 65%      **Percent subcontracted:** 35%

**Commencement Date:** March, 2009      **Planned Completion:** August, 2015      **Actual:** August, 2015

**Description of any difference in completion dates:** N/A

**Warranty Period:** Warranty varies from 21 months to 5 years, depending on project section

**Amount of Claims:** None      **Any Litigation?:** No

**Dispute Review Board history:** None

## FORM B: PROJECT DESCRIPTION

**Name of Proposer:** Kiewit Infrastructure West Co.

**Name of Firm:** Kiewit Infrastructure West Co.

**Project Role:** Joint Venture Lead, Prime Contractor

**Firm's Office/Division/District which performed the work:** Kiewit Western Co.; By legal merger, as of December 2016, part of Kiewit Infrastructure West Co.

**Other (Describe):** N/A

**Years of Experience (provide length of activity as it relates to the following elements):**

Roads/Streets: 2

Bridges/Structures: 2

Utility Relocations: 2

**Project Name, Location, and Nature of Work for Which Company Was Responsible:**

### I-15 BECK STREET BRIDGE REPLACEMENT – SALT LAKE CITY, UTAH

Kiewit was the prime contractor and managing partner of the design-build joint venture.

**Provide Project Description and Describe Site Conditions:**

Construction of projects of similar size, scope and complexity.

The project reconstructed I-15 from 500 North in Salt Lake City to the I-215 overpass of I-15 in Davis County. Similar to the scope of the Cosumnes Project, this project required close coordination with Union Pacific Railroad (UPRR) and the Utah Transit



Authority (UTA) to reconstruct the Beck Street overpass over six active railroad lines. The project also included the design, reconstruction, and widening of the mainline highway to include an express lane and three general purpose lanes in each direction. Several innovations were incorporated into the project, such as eight miles of moveable concrete median barrier, use of accelerated bridge construction to build a two-span bridge off site and then moved into place using Self-Propelled Modular Transports (SPMTs), and the longest precast post-tensioned girders set by UDOT. **The project was awarded UDOT's Project of the Year for 2010.**

**Experience that will benefit Cosumnes Bridge Replacement:**

- Project planning, scheduling and phasing to complete the project two months ahead of schedule
- Preconstruction services/collaboration
- Outside agency and utility coordination
- Alternative delivery
- Bridge construction over a Class 1 railroad (UPRR) within constrained ROW
- Multi-phased construction
- Extensive MOT
- Utility relocations
- Stakeholder coordination
- Public outreach
- Wetland mitigation
- No claims

Accelerated construction of major elements common to this project.

The design-build team utilized accelerated bridge construction using SPMTs to accelerate the schedule of demolition and construction of bridges along the project. In addition, the use of deep soil mixing (DSM) was used to satisfy liquefaction criteria in lieu of stone columns. The soil mixing created columns of stabilized soil to mitigate lateral spread. This process was much quicker, therefore accelerating the schedule. **The implementation of these innovations aided in completing the project two months ahead of schedule.**

## Implementation of complicated staging and traffic control handling.

To reduce impacts to commuters, the job team used five miles of movable concrete barrier along I-15 to facilitate MOT so that the peak direction of travel always had three lanes available (the same as the preconstruction lane count). This provided a huge benefit to the commuters that traveled the corridor each day allowing the flow of traffic to go unchanged in the direction of the peak flow.

## Coordination of complex public utility relocation as well as construction of municipal utilities.

Third party coordination was very extensive on Beck Street and a major concern for the construction of the Beck Street and I-15 bridge, was the Linde Gas North America's high pressure hydrogen gas line. **The project team met frequently during task force meetings with Linde to develop a plan to protect-in-place the hydrogen gas line, which was less than two feet from the new 9-foot drilled shafts being constructed.** The team monitored the gas line throughout construction to ensure it stayed in service and was not damaged. In advance of the drilled shaft placement, we uncovered the line using vacuum excavation to verify it's exact physical location, protected it in place, and then were able to place a drilled shaft within close proximity of the existing line. In addition, they coordinated with RMP, whom had 345kv overhead powerlines that had to be de-energized and protected in place prior to bridge construction. *Similar coordination will be applied at the Cosumnes Project for the Kinder Morgan pipeline.*

## Experience of team members working together as an integrated team.

Kiewit's design-build team partnered with UDOT to overcome several challenging design and construction issues to bring about a final design and project that was most cost-effective for all stakeholders. We co-located with the designer and provided office space to UDOT so we could collaborate during all phases of the project. **Our greatest success was working together as one team by putting competing interests aside, committing to a common successful project, and engaging in frequent and open communication, as we will do on the Cosumnes Project.** To achieve this goal, our team became unified during the design phase of the project. This was accomplished by holding several multi-discipline task force meetings which allowed the entire project team to brainstorm different design alternatives. This mindset was carried through to construction. During construction, the team had weekly construction meetings with UDOT, as well as, a weekly tour with the team's project manager and the UDOT regional engineer.

## Construction/reconstruction using innovative designs, methods, and materials.

**During the pursuit phase, we used an iterative process that entailed designing multiple concepts, and then estimated the cost of construction for each of the designs, allowing the team to focus on the most cost effective solutions.** An excellent example of this process was early in the design phase when the project team was deciding whether to use concrete or steel girders. In order to determine what would be the best solution, a rough design was prepared for both steel and concrete girders. Kiewit then prepared estimates based on these designs and determined that concrete girders would be the most effective for this job. The pursuit team then moved forward focusing on a concrete girder design for the bridges. This process was utilized throughout the design development ensuring the best and most cost effective design was being produced. *Similarly, Kiewit will evaluate alternatives to provide Caltrans the most cost effective and viable solution for the Cosumnes Project.* In addition, the project featured precast deck panels to avoid using false work over the railroad allowing the project schedule to progress faster. The bridge utilized the longest Type IV precast concrete girders ever set in Utah. These girders measured 197 ft. long and had a depth of 8 ft. Going with the longer girders allowed for the bridge to be a four-span instead of a five-span bridge. **This reduced the impact to the railroad and was a great cost savings for UDOT and the tax payers.**

## Staged bridge construction over existing freeway and railroad

During preconstruction, many challenges associated with the Beck Street Bridges were identified, including critical utilities (gas and hydrogen lines) and the UPRR crossing. The bridges replaced an existing I-15 bridge with two bridges. Through iterative layout and staging of construction, a plan was developed to lengthen the bridge spans, thus reducing impacts to UPRR and avoiding critical utility relocations. The bridge shafts were wedged between

the UTA and UPRR tracks and utilities requiring close coordination with all stakeholders. Due to limited space between existing tracks and to reduce the number of drilled shafts larger drilled shafts were employed. The large diameter drilled shafts combined with tip base grouting provided large axial capacities needed to support both northbound and southbound Beck Street bridges over I-15. This also allowed for shorter shafts, reducing project costs. **The bridges were constructed in stages, building the new northbound bridge while traffic remained on the existing bridge, and then shifting traffic to the new bridge while the existing bridge was demolished and rebuilt.** In order to demolish the bridge within the limited work windows provided by UPRR, Kiewit built temporary covers over the rail that could be quickly removed and used large buckets during demolition to ensure no debris fell on the tracks. During bridge construction, crews met with UPRR daily to understand the train schedule for the upcoming day. The bridge deck was constructed utilizing a partial depth precast deck panel that facilitated construction in short work windows provided by UPRR, as well as minimized the overall bridge construction duration and worker exposure to potential safety hazards around the railroad. On the US-89 structure, ABC building techniques were utilized. The two segments of the bridge were constructed and staged off location out of the way of live traffic and then moved into place by using SPMTs to move the structure into place. The benefits of using this ABC application were: reduced impact to the traveling public (two overnight closures over two weekends, one to demo the old structure and one to place the new structure), no falsework installation over live traffic making it safer with minimal lane closures, and schedule acceleration by allowing the substructure and the superstructure to be built at the same time.

Compliance with environmental regulations and restrictive permit requirements.

The design took into account wetland impacts in nearby areas. If construction impacted a wetland, Kiewit created a wetland elsewhere. This was an agreement that UDOT had in place in the RFP and we met the requirements of the permit as part of the design work. During construction, we implemented delineation to protect the wetland areas and monitored construction activities closely.

Constructing controversial or highly sensitive public projects, including experience in coordination with local and regional agencies on similar sized projects.

This project had several public and private third parties involved with critical path items of work. The major stakeholders were Chevron, UPRR, UTA, Kern River Gas, Tesoro, Rocky Mountain Power, Quest Communications and Salt Lake City. *Coordination with these separate stakeholders was critical to the project's success, as it is on the Cosumnes Project.* To make certain the third party coordination went smoothly we did the following:

- A separate design task force meeting was set up to focus on the coordination for each stakeholder. A task force lead was appointed to each third party to coordinate the approval of design and ultimately construction of facilities affecting their interests.
- **Stakeholder outreach and communication was then made a focus at the weekly owner's meeting with a separate portion of the meeting solely devoted to addressing the concerns of third party stakeholders.**
- During the construction phase, Chevron, Rocky Mountain Power, Tesoro, Kern River Gas, UPRR, and UTA attended several different construction pre-activity meetings to coordinate the work of major operations and to make sure there was good communication between all parties.

*We will implement a similar process on the Cosumnes Project.*

CRIPs implemented and experience with techniques to avoid delays and minimize claims.

UDOT had limited funding for the project but decided that it would benefit the community and stakeholders to add a change order to construct the 1100 North Bridge and ramps. **The Kiewit team met with the client very early on in the design process and brainstormed ways of cutting scope or offering up value engineering solutions to achieve this additional work without exceeding the original budget.** *A similar approach will be applied on Cosumnes to save at least 10 percent of the cost.* A separate executive task force group was assembled to oversee the conceptual design and pricing of these cost savings solutions. Ultimately the team was able to cut scope by \$627,276. This savings was achieved by reducing the amount of money to be spent on aesthetics and landscaping design. **Kiewit also provided three value engineering proposals saving \$1.2M.** The three value engineering

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solutions were changing ramp closure durations to facilitate construction, changing the CIP shoulder barrier to precast and changing the HMA mix design that would be underneath the PCCP paving. As a result, the team was able to build the 1100 North Bridge Ramp and keep the project on schedule and within budget

**List Any Awards, Citations, and/or Commendations Received for the Project:**

- Excellence in Concrete, ACI Intermountain Chapter, 2011
- National Award of Excellence in Concrete Pavement (Silver), ACPA, 2011
- #10 of top 10 National Projects, Roads and Bridges Magazine, 2010
- Best Concrete Paving Award, ACPA, 2010
- Best Highway Project of the Year, \$10 Million+, AGC of Utah, 2010
- Best of Transportation Projects (Bronze), Mountain States Construction Magazine, 2010
- Excellence in Paving, ACPA of Utah, 2010
- Top Projects of the Year, Mountain State Construction Magazine, 2010
- Urban Project of the Year, UDOT, 2010

**Name of Client (Owner/Agency, Contractor, etc.):** Utah Department of Transportation

**Address:** 4501 South 2700 West Salt Lake City, UT 84129

**Contact Name:** Michelle Page  
**Fax No.:** N/A

**Telephone:** (801) 633-0303  
**Email:** michellepage@utah.gov

**Owner's Project/Contract No.:** S-I15-7(213)320 **Contract Value (US\$):** \$114 Million **Final:** \$ 124 Million

**Description of any difference in values:** Additional owner requested scope

**Percent of Total Work Self-Performed by JV:** 55%

**Percent subcontracted:** 45%

**Commencement Date:** 11/2008

**Planned Completion date:** 10/2010

**Actual:** 08/2010

**Description of any difference in completion dates:** The project was completed 60 days ahead of schedule, and five months ahead of UDOT's original schedule of January 2011

**Warranty Period:** Two years on HMA. Five years on PCCP.

**Amount of Claims:** None **Any Litigation?:** No

**Dispute Review Board history:** None

## FORM B: PROJECT DESCRIPTION

**Name of Proposer:** Kiewit Infrastructure West Co.

**Name of Firm:** Kiewit Infrastructure West Co.

**Project Role:** Prime Contractor

**Firm's Office/Division/District which performed the work:** Kiewit Infrastructure West Co.

**Other (Describe):** N/A

**Years of Experience (provide length of activity as it relates to the following elements):**

Roads/Streets: 2

Bridges/Structures: 2

Utility Relocations: 2

**Project Name, Location, and Nature of Work for Which Company Was Responsible:**

### SR 519/I-90 TO SR 99 INTERMODAL ACCESS INTERCHANGE IMPROVEMENTS – SEATTLE, WA

Kiewit was the prime contractor.

**Provide Project Description and Describe Site Conditions:**

Construction of projects of similar size, scope and complexity.

SR-519 is located in one of Seattle's busiest areas providing access to the Port of Seattle, the Colman ferry dock, and Safeco and CenturyLink sport stadiums. The project improved access through the area by connecting I-5 to I-90 in Seattle's South Downtown district, all within constrained ROW. Similar project elements to Cosumnes included design, a bridge over BNSF rail and lightrail, ground improvements, extensive MOT, and third party coordination.



Similar to the Cosumnes Project, coordination to execute the right MOT plan was the key to success on this project. MOT measures implemented to protect the public included building a pedestrian tunnel through the bridge superstructure falsework, installing paved walkways, placing directional signage, adding lighting, coordinating traffic control with WSDOT, and stationing uniformed police officers for traffic control during stadium events. **The project was completed on time and on budget thanks to several innovations to accelerate construction.**

**Experience that will benefit Cosumnes Bridge Replacement:**

- Preconstruction services/collaboration
- Extensive traffic control and sequencing of work under constrained ROW
- Bridge construction over railroad
- Completed on time, on budget
- Alternative delivery
- Utility relocation/coordination
- Extensive stakeholder coordination with BNSF (a Class 1 railway), Safeco & CenturyLink Fields, Sound Transit, and Seattle Department of Transportation
- Community outreach
- No claims
- Zero environmental violations in sensitive area near Puget Sound

Accelerated construction of major elements common to this project.

During preconstruction, the design-build team co-located with WSDOT and the City of Seattle to promote collaboration. Weekly meetings addressed challenges and determined the best solutions for WSDOT to identify solutions to minimize impacts during construction and accelerate schedule. A priority was early completion, so the team developed alternative construction solutions, such as replacing traditional fill, which has a long settlement period, with expanded polystyrene (EPS) geofoam. **Both preconstruction teamwork and development of alternative**

**project solutions led to successful project completion one year earlier than the RFP required.** This early completion was the best way to minimize impacts to adjacent sports stadiums, congested city streets, BNSF rail lines, bus routes, the Port of Seattle, and a nearby ferry terminal.

By working with WSDOT to reduce SR 519 construction impacts, Kiewit also completed several significant milestones early, including:

- Opening the Royal Brougham Way Bridge to traffic and pedestrians 15 months ahead of the RFP required date
- Opening the I-90 ramp bridge to traffic 14 months ahead of the RFP-required date
- Opening the Atlantic Street ramp to traffic nearly three weeks early
- Completing intersection work adjacent to Safeco Field at 1st Avenue and Atlantic Street early, in advance of the Seattle Mariners' opening day

#### Implementation of complicated staging and traffic control handling.

The project was adjacent to Safeco and CenturyLink stadiums. We experienced high volumes of vehicle and transit traffic; as many as 75,000 pedestrians passed through the project within a 4-hour game time window. **To efficiently keep people, traffic, and goods moving through the area, WSDOT and Kiewit hosted a weekly task force discussion with stakeholders about the MOT plan and scheduling to keep them informed and address their needs.** Work was scheduled around games, and we developed an MOT plan with valuable input from our public information subcontractor. Event MOT included detours, keeping city roadways open, providing access to affected parking garages, and placing additional way-finding signs. Strategies to minimize impacts to pedestrians included a pedestrian tunnel, paved walkways, signs, additional lighting, and uniformed police officers to guide pedestrians during events. In addition, to eliminate daytime closures altogether, we set seven 127-ft.-long precast girders for the overpass in four-hour windows over two nights. *On the Cosumnes project, Kiewit will look for ways to expedite bridge construction and minimize impacts to the traveling public.*

*"The effort to plan, design, and construct this complex project, in close coordination with the City of Seattle, is unique in the history of WSDOT. The WSDOT management team and our many stakeholders consider the SR 519 project an outstanding achievement for the state, the city, and all involved. The successful completion of this project demonstrates [the] ability to deliver heavy civil construction projects in urban areas that minimize impacts on the traveling public ... and are both on time and on schedule." — David Sowers, PE, SR-519 Engineering Manager, WSDOT*

#### Coordination of complex public utility relocation as well as construction of municipal utilities.

To ensure aging utilities on Royal Brougham Way were protected during construction, Kiewit worked with GeoEngineers to conduct significant vibration monitoring and plan the use of low-vibration techniques. The team placed accelerometers in critical utility locations, and near CenturyLink Stadium and Safeco Field, both at street level and near Safeco's valuable, vibration-sensitive JumboTron screen. Threshold limits were determined with input from stakeholders and alarms were set to trigger when monitors approached critical limits.

In addition, we coordinated with the city and a private utility company to relocate powerlines located near the project. As a result of our strict and thorough monitoring efforts, all limits were adhered to and no damage occurred.

#### Experience of team members working together as an integrated team.

During preconstruction, the design-build team co-located with WSDOT and major stakeholders, including the City of Seattle. **The team held weekly task force meetings to address design and construction challenges, determining the best solutions for WSDOT, stakeholders, quality, cost, and the schedule.** During these meetings, it was made clear that early completion of the project would provide the best value to all involved. **As a result, the team worked together to identify solutions, like the use of cast-in-place concrete instead of steel girders, to complete the project one year ahead of schedule.**

#### Construction/reconstruction using innovative designs, methods, and materials.

The team constructed an elevated ramp that connected westbound I-90 to the South Atlantic Street overpass and re-channeled a railroad overpass. To minimize impacts to adjacent businesses and the railroad, the team used

cast-in-place box girder bridges instead of steel girders as suggested in the conceptual drawings. The use of EPS geofoam as fill was an innovation that helped the project be completed a year earlier than anticipated because it eliminated the settlement period required by traditional fill.

Another significant innovation was the design and construction of a bioswale in order to treat the storm water runoff from the newly constructed Atlantic Street Ramp and Royal Brougham Bridge. Bioswales are low-gradient, open channels with a dense cover of vegetation protected by robust geofabric—to treat storm water runoff, improving water quality, flood containment capabilities, and site aesthetics. This innovation will continue to serve the area in an environmentally friendly way long after construction is complete.

## Staged bridge construction over existing freeway and railroad

A major element of the SR-519 project was the construction of a four-lane bridge over active BNSF and Amtrak rail lines, which serve up to 50 trains per day. **Bridge-type selection and construction approaches were driven by constructability reviews during design that focused on maintaining safe railroad operations and protected the surrounding environment. To protect the safety and operations of these tracks and BNSF's right-of-way at all times, Kiewit implemented a comprehensive rail safety training program for all personnel and conducted work in accordance with BNSF safety protocols and its operational guidelines and specifications.** A BNSF flagger was always present and communicated train approaches well in advance, so Kiewit could halt construction work to allow all trains through on their normal schedules. Kiewit coordinated work with BNSF weeks in advance to use two six- to eight-hour nighttime work windows when no trains were scheduled. Falsedeck installed under the Royal Brougham bridge deck protected tracks from falling objects.

Our team collaborated with WSDOT and BNSF at the project level to rectify an issue regarding inadequate clearance over a freight railway. The solution included pre-cambered precast girders and vertical profile adjustments to provide the additional required clearance over the railway. During construction, the project team met with the railroad on a daily basis to coordinate construction activities with the train schedule. *Our team will implement similar early coordination with the railroad for the Cosumnes Project.*

## Coordinating work and traffic control with adjacent contracts performing similar highway work

The project was located in one of Seattle's busiest areas so constant communication with local contracts and agencies was very important. We held daily phone calls with the Port of Seattle so we would not interfere with lane closures during high volume delivery windows. **We shared schedules, had lines of communication, and held regular meetings with adjacent contractors when warranted.**

## Compliance with environmental regulations and restrictive permit requirements.

**The project team achieved its goal of zero environmental compliance violations.** The team held weekly environmental task force (ETF) meetings, attended by WSDOT, Kiewit's QC staff, Kiewit's environmental compliance manager consultant, and support staff from AMEC Earth and Environmental. **The ETF discussed the schedule and related construction activities to identify possible environmental compliance problems in advance, plan for appropriate protective measures, and assess the effectiveness of Kiewit's environmental compliance plan implementation.** This collaboration supported our effort to meet and exceed contract and permit requirements. *Likewise, on the Cosumnes Project, Kiewit will continually monitor to ensure we are complying with environmental regulations.*

One of the ways Kiewit reduced environmental impact, was by finishing the project one year ahead of schedule. **By building both bridges at the same time, we reduced the impact to environmental resources and limited the overall amount of permitting needed.** The team further enhanced the local environment by hauling 17,000 tons of contaminated soil to a certified landfill. Additionally, EPS foam embankment material reduced heavy earth moving and compaction equipment on-site. In compliance with WSDOT's BMPs, Kiewit crews constructed stormwater detention ponds for temporary erosion control. These ponds were later modified for permanent water quantity and quality treatment for the widened roadway. A thorough water quality monitoring effort ensured that turbidity thresholds did not exceed allowable levels at discharge points.

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Constructing controversial or highly sensitive public projects, including experience in coordination with local and regional agencies on similar sized projects.

**Kiewit and WSDOT worked side-by-side on the design-build SR 519 from the beginning, when stakeholder outreach began with weekly forums to address concerns.** Construction in such a highly visible and densely populated urban area required extensive schedule coordination with BNSF, Sound Transit, the Seattle Department of Transportation, Seattle City Light, environmental permitting agencies, the Port of Seattle, and local businesses, including Safeco and Qwest Fields. Kiewit supported WSDOT's efforts to communicate to pedestrians and the traveling public regarding upcoming closures and construction schedule. **WSDOT, Kiewit, and local stakeholders collaborated through task force meetings which focused on safe pedestrian movement through community outreach and planning.** This panel met weekly to go over construction schedules, closures and upcoming events/games.

Games and other events brought as many as 75,000 pedestrians through the work zone on a regular basis. The panel promoted a bridge falsework system that included a pedestrian tunnel. Also, the panel kept the public's schedule at the top of the project team's agenda. Their efforts minimized impacts to the public. Sound Transit was also a key stakeholder Kiewit coordinated with prior to construction to agree on the right method to protect the overhead lines during construction. Kiewit built a shield around the lines within the construction zone to ensure they were not disturbed during construction. Kiewit communicated with Sound Transit personnel daily to coordinate construction with train schedules. **This close coordination resulted in zero train delays.**

CRIPs implemented and experience with techniques to avoid delays and minimize claims.

This project was completed 12 months ahead of schedule. The project was able to stay ahead of schedule due to a collaborative approach between Kiewit and the client. **By building both bridges at the same time, our team was able to avoid extended delays, reduce the impact of the project to environmental resources and limit the overall amount of permits needed, as we will do on the Cosumnes Project.**

**List Any Awards, Citations, and/or Commendations Received for the Project:**

- Local Outstanding Civil Engineering Award-Structures Engineering, ASCE, 2010
- Local Outstanding Civil Engineering Award, Transportation and Development Engineering, ASCE, 2010
- Design Award, Best Bridges with a Main Span of 75–150 ft., PCI, 2010
- Construction Excellence, Highway and Transportation, AGC of Washington, 2011
- Public Works Project of the Year, Washington Aggregates & Concrete Association, 2011
- Silver Award, Engineering Excellence, ACEC, 2011

**Name of Client (Owner/Agency, Contractor, etc.):** Washington State Department of Transportation

**Address:** 310 Maple Park Avenue SE, Olympia, WA 98504

**Contact Name:** David Sowers

**Telephone:** (206) 805-5430

**Fax No.:** N/A

**Email:** sowersd@wsdot.wa.gov

**Owner's Project/Contract No.:** N/A      **Contract Value (US\$):** \$66.9 Million      **Final:** \$67.5 Million

**Description of any difference in values:** Contract growth resulted from additional work due to differing site conditions and aesthetic enhancements added by the client

**Percent of Total Work Performed by Kiewit:** 65%      **Percent subcontracted:** 35%

**Commencement Date:** October 2008      **Planned Completion:** November 2010      **Actual:** November 2010

**Description of any difference in completion dates:** N/A

**Warranty Period:** One year.

**Amount of Claims:** None

**Any Litigation?:** No

**Dispute Review Board history:** None



## FORM B: PROJECT DESCRIPTION

**Name of Proposer:** Kiewit Infrastructure West Co.

**Name of Firm:** Kiewit Infrastructure West Co.

**Project Role:** Construction Manager / General Contractor (CM/GC)

**Firm's Office/Division/District which performed the work:** Kiewit Infrastructure Co. Kiewit divisions regularly share internal resources to provide the right people for a project.

**Other (Describe):** N/A

**Years of Experience (provide length of activity as it relates to the following elements):**

Roads/Streets: 3

Bridges/Structures: 3

Utility Relocations: 3

**Project Name, Location, and Nature of Work for Which Company Was Responsible:**

### TRUNK HIGHWAY 53 RELOCATION (TH 53) – VIRGINIA, MN

Kiewit was initially awarded the CM contract for preconstruction, and then entered into a construction contract upon successful completion of the preconstruction phase..

**Provide Project Description and Describe Site Conditions:**

Construction of projects of similar size, scope and complexity.

The TH 53 project was a high-risk CM/GC project that was a high priority for the Minnesota Department of Transportation (MnDOT) and affected stakeholders. The project consisted of relocation of 3.5 miles of a four-lane highway that provides



access to the cities of Eveleth and Virginia. This project contained environmentally sensitive wetland areas with restrictive requirements. Despite being located in a highly sensitive area, the project team met all their environmental commitments. *Similar environmental efforts will be implemented on the Cosumnes Project.*

Project scope included a two-span precast bridge at Highway 135; a 1,136 LF long bridge over the Rochleau Pit; one new interchange and reconstruction of an existing interchange; removal and embankment of two existing bridges; relocation of utilities and a local roadway; asphalt and concrete paving; drainage improvements; strict environmental compliance; signing; and lighting. TH 53 was built on leased land from a mine and the lease was set to expire in November 2017, which is why the highway had to be relocated on-time under the aggressive schedule.

**Experience that will benefit Cosumnes Bridge Replacement:**

- Highly successful CM/GC
- 5 weeks ahead of schedule & under budget
- Preconstruction services/collaboration
- Pavement widening/overlay
- New median barrier
- Utility relocation/coordination
- Drainage improvements
- Stakeholder coordination
- Community outreach
- No claims or use of DRB
- Zero recordable incidents
- Wetland mitigation

Accelerated construction of major elements common to this project.

It was imperative to get the project started on schedule to ensure the new highway would be built prior to the highway's lease expiration. **During preconstruction, Kiewit worked closely with MnDOT, USACE and the Department of Ecology to obtain the right permits so work could start on schedule, just as we will do on the Cosumnes**

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**Project.** The project was also designed in an extremely compressed time-frame. Permitting, right-of-way acquisition, mineral valuation, design, and early steel procurement occurred concurrently to meet the highly-compressed schedule requirements.

Implementation of complicated staging and traffic control handling.

The original contract specified staggered closures of the existing Highway 135 ramps ranging from 40 to 96 days. These staggered closures created a substantial amount of schedule risk and minimized opportunities for recovery. **The team developed a traffic control plan detouring Highway 135 traffic through the new alignment with a signalized intersection, which maintained all major traffic flows, minimized impacts to the traveling public, and eliminated a 15-mile detour.** *At Cosumnes, our project team will create an MOT plan that will minimize impacts to the public and also be focused on public safety.*

Coordination of complex public utility relocation as well as construction of municipal utilities.

Scope included 11,200 LF of drainage, 9,300 LF of waterline, and 16,000 LF of sewer line. Kiewit collaborated with MnDOT to redesign portions of the utilities and sanitary sewer to maintain schedule commitments.

Experience of team members working together as an integrated team.

**The partnering process drove the success of the project and the one team atmosphere that was essential to this success.** Both teams agreed to co-location throughout both design and construction, and this proved to be a major benefit in driving openness, honesty, and collaboration. With the teams working together under one roof, they were able to collaborate throughout constructability reviews, over-the-shoulder reviews, and risk workshops and estimates, resulting in major innovations, such as the permanent causeway solution. A facilitated executive-level partnering session held at the start of the project established common goals and practices among all team members. These sessions then took place every month throughout the job. Each session functioned to ensure everyone was comfortable with the status of the project and clarified future actions. Issues were discussed and everyone worked to resolve changes quickly.

*"I believe the success we have witnessed is due to several key factors. The first is team work... Our teams worked through MnDOT's second CMGC project very well - and through some very difficult issues. I believe we learned a great deal from each other and would agree to apply lessons learned on future projects. ... In the end, we met or exceeded the goals set in our project charter. We did it together. Kiewit has been an excellent partner. On behalf of MnDOT, thank you." – Patrick Huston, Project Director*

Construction/reconstruction using innovative designs, methods, and materials.

As originally conceived, access over the reservoir would have required the mobilization of a large marine equipment fleet. The team overcame schedule, permitting, and logistical challenges to allow for a rock causeway to be placed in the pit for access that effectively turned the job from a marine-based project to a land-based project. **The causeway alternative resulted in \$2 million in savings and two months in schedule savings.**

During the preconstruction phase of the project, the team identified a solution to assemble the eighty girders required on the ground as packs of four, which shortened assembly durations and allowed safe access for both bolt-up and inspection. In order to accelerate timelines and avoid delays, the team created 4D models. These models allowed the team to analyze each stage of the lift, including rigging, boom angles, center of gravities, tag lines, and any boom conflicts. Further, the team used these models to survey and mark the location of each girder during bolt-up to maximize the rock causeway and avoid conflicts. **Through the use of these early planning 4D models and ground erection, the team was able to complete steel erection months ahead of schedule in the middle of Minnesota's extreme winter conditions.**

With the need to efficiently monitor the more than one million cubic yards of excavation and embankment material, the team used several state-of-the-art surveying tools, such as drone, sonar, and LIDAR. The team regularly used drones to fly over the entire job site to provide the survey group with information that allowed them to create a model of the job and allowed the team to track accurate quantities. Sonar was chosen to evaluate the construction of the temporary causeway, ensuring it met all engineering requirements, including proper slopes.

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Lastly, LIDAR allowed the team to safely manage and record the construction of vertical rock faces. The data collected from LIDAR also required the team to work with software developers to model the vertical rock faces, which was previously unobtainable.

*To setup the Cosumnes project for similar success, Kiewit has already taken the initiative to fly and survey the Cosumnes project with a drone so constructability and alternative scope ideas could be modeled in the pre-bid process. This will allow the team to hit the ground running when it moves to preconstruction with Caltrans.*

## Coordinating work and traffic control with adjacent contracts performing similar highway work

During construction we worked with the adjacent contractor to phase our work to minimize public impacts. This was done through weekly meetings discussing schedule and upcoming work. We coordinated our traffic phasing and movements to allow both contracts to be completed on time. This included sharing traffic crossovers to allow work to be done on the other side of the road.

## Compliance with environmental regulations and restrictive permit requirements.

Due to the aggressive schedule, the permitting and design processes were performed concurrently. This was a high risk for MnDOT, because if they could not obtain permits for the project as designed, it would be impossible to meet the vacate deadline. **Kiewit worked hand-in-hand as part of the environmental task force and MnDOT to obtain all the permits including for temporary construction impacts. Ultimately, all permits were obtained on time, without impacting the schedule.**

This project was constructed through more than 76 wetlands totaling 69,000 square feet. To ensure construction did not impact these wetlands, we delineated the wetlands prior to construction activities. **During preconstruction we worked closely with USACE to obtain the section 404 permit and negotiate wetland impacts.** We also coordinated with Minnesota Department of Ecology and Minnesota Board of Water and Soil Resources and developed a wetland management plan before starting construction. *On the Cosumnes Project, Kiewit will also assist Caltrans in obtaining the 404 permit, reducing impacts to wetlands, and finding the most cost-effective way for wetland mitigation. To gain buy-in and trust, Kiewit and MnDOT held upfront meetings onsite with permitting agencies to review permits.* In addition, the project team developed site plans for perimeter control and obtained approvals of work plans by MnDOT prior to commencement of work. Kiewit held weekly SWPPP/environmental tours with MnDOT and/or their representative and an environmental three-week schedule was developed and submitted to MnDOT to show environmental progress and provide focus on environmental concerns.

## Constructing controversial or highly sensitive public projects, including experience in coordination with local and regional agencies on similar sized projects.

Due to the accelerated schedule, the team met early and often with local and regional agencies to mitigate the potential for delays. In addition to MnDOT, agency coordination included the cities of Eveleth and Virginia, the mine company, FHWA, USACE, the Minnesota Pollution Control Agency, the Department of Natural Resources (DNR), and the Minnesota Board of Water and Soil Resources. One of the biggest partnering successes occurred during the preconstruction phase of the project. The Kiewit team identified the need for the construction of the causeway, which provided crews with a stable platform from which to work. There were several concerns about getting agency approvals, including USACE and DNR. **The team successfully worked together to obtain multiple agency approvals, allowing for the construction of the causeway and ultimate project success.**

## CRIPs implemented and experience with techniques to avoid delays and minimize claims.

Some of the larger value engineering ideas that were discovered during preconstruction and implemented include:

- Stay-in-place deck form: saved two weeks on critical path and \$1.2 million
- Optimized foundations (30" instead of 24", fewer piles and concrete): 3 weeks schedule savings and \$900,000
- Use of a causeway to build bridge (reduced risk and increased constructability): \$2 mil.
- Grade change at east approach (minimized excavation, no effect on bridge): \$2 mil.

Kiewit's goal was to communicate all issues to MnDOT promptly and resolve problems from the ground-level up.

# COSUMNES BRIDGE REPLACEMENT

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The team immediately communicated issues to MnDOT as they arose through an executive or issue resolution ladder outlining the escalation process and counterparts for MnDOT and Kiewit, and offered multiple solutions to solve the problem. **Because of this effective issue management system, there was never a need to use any form of formal dispute resolution process and zero issues were escalated to senior levels.** *On the Cosumnes Project, Kiewit will implement similar coordination with Caltrans, based on transparency; encourage the team to resolve issues at the lowest level; and focus on solutions to problems.*

**List Any Awards, Citations, and/or Commendations Received for the Project:**

- AGC Build America Award, Marvin M. Black Partnering Excellence category, AGC, 2018
- AGC Build America Award, Construction Management Civil category, AGC, 2018
- Environmental Stewardship Award, MnDOT, 2017
- Jeff Jensen Memorial Construction Safety Excellence Award, AGC of Minnesota, 2017
- Construction Work Zone Safety Award, FHWA, 2017
- Merit Asphalt Paving Award for Bituminous Surface, MnDOT, 2017
- AGC Bridge Construction Award, MnDOT/AGC, 2017
- Environmental Excellence Award, Minnesota Erosion Control Agency (MECA), 2018

Of the 334,000 Kiewit man-hours worked, there were zero lost-time incidents, no recordables, and an IR of 0.00. There were no citations on this project.

**Name of Client (Owner/Agency, Contractor, etc.):** Minnesota Department of Transportation

**Address:** 395 John Ireland Blvd.; St. Paul, MN 55155

**Contact Name:** Pat Huston, Project Director  
**Fax No.:** (218) 725-2800

**Telephone:** (218) 725-2707  
**Email:** Patrick.Huston@state.mn.us

**Owner's Project/Contract No.:** 07009    **Contract Value (US\$):** \$158 Million    **Final:** \$168 Million

**Description of any difference in values:** Unidentified contaminated soils, sub-excavation for unsuitable soils, additional scope including the removal and embankment of two existing bridges

**Percent of Total Work Performed by Kiewit:** 64%                      **Percent subcontracted:** 36%

**Commencement Date:** November 2015    **Planned Completion:** December 2017    **Actual:** October 2017

**Description of any difference in completion dates:** Completed 5 weeks ahead of schedule

**Warranty Period:** One year.

**Amount of Claims:** None

**Any Litigation?:** No

**Dispute Review Board history:** None

## FORM B: PROJECT DESCRIPTION

**Name of Proposer:** Kiewit Infrastructure West Co.

**Name of Firm:** Kiewit Infrastructure West Co.

**Project Role:** Joint Venture Lead, Prime Contractor

**Firm's Office/Division/District which performed the work:** Kiewit Infrastructure West Co.

**Other (Describe):** N/A

**Years of Experience (provide length of activity as it relates to the following elements):**

Roads/Streets: 0

Bridges/Structures: 2

Utility Relocations: 0

**Project Name, Location, and Nature of Work for Which Company Was Responsible:**

### SAN FRANCISCO – OAKLAND BAY BRIDGE FOUNDATION REMOVALS – PHASE 2 – OAKLAND, CA

Kiewit was the prime contractor and managing partner of the CM/GC joint venture.

**Provide Project Description and Describe Site Conditions:**

Construction of projects of similar size, scope and complexity.

This project, located in the San Francisco Bay between Yerba Buena Island and the city of Oakland, was part of the final phase of the Bay Bridge Replacement Program. This CM/GC project for Caltrans



demolished 15 concrete bridge piers of the old San Francisco–Oakland Bay Bridge (SFOBB) adjacent to an active navigation channel. The work included removing the timber fender system, mechanical demolition of above-water concrete structures, controlled implosion of the below-water concrete structures, and material retrieval and disposal. **All work was constructed in an extremely environmentally sensitive area, requiring extensive permitting.** Proposed PM Zach Reilly worked with ESA to reduce costs and environmental impacts on this complex project.

*Likewise, on the Cosumnes Project, he will work with ESA to simplify the permit process, help with interagency communication, and ensure all environmental permits are obtained in a timely manner.*

Demolition was performed adjacent to the new bridge and above the underwater rail tunnel, the Bay Area Rapid Transit Transbay Tube (BART), which serves thousands of riders daily necessitating extensive public outreach and regular coordination with multiple agencies and stakeholders. Due to highly effective means and methods and strict adherence to all permit conditions meant to protect the wildlife and adjacent structures, the team was able to accelerate the work, and Phase 2 **reached substantial completion a full year ahead of Caltrans' original date.**

Accelerated construction of major elements common to this project.

**Working closely with Caltrans and the permitting agencies the Kiewit team implemented an innovative strategy which allowed the project to finish a full year ahead of the scheduled contract completion date.**

**Experience that will benefit Cosumnes Bridge Replacement:**

- Same key personnel - **PM Zach Reilly; Environmental/Permit Manager Erich Fischer**
- Preconstruction services/collaboration
- Completed on time, on budget
- Caltrans CM/GC experience
- Stakeholder coordination
- Community outreach
- No claims
- Construction in environmentally sensitive bay
- ESA environmental permit assistance

After removing two of the 15 piers from the bay the Kiewit/Caltrans team employed revised construction methods (utilizing wire sawing techniques in place of hoe ramming) and added key staff and specialized marine equipment to allow the in water work to be progressed year round. Additionally, by leveraging the team's history of environmental stewardship and their excellent working relationship with the local regulatory agencies such as National Marine Fisheries (NMFS), California Department of Fish & Wildlife (CDFW), and The US Army Corps of Engineers (USACE) the team was able to obtain accelerated permit amendments that allowed the implosion of multiple piers in a single blast event. These changes coupled with well-execute field operation resulted not only in the early completion of the project but also significantly reduced the impacts to the traveling public by eliminating bridge and BART shut downs.

**Completing the project a year ahead of the contract duration also yielded a significant financial savings to the department of nearly \$10 million.**

#### Implementation of complicated staging and traffic control handling.

Working with Caltrans' and the local regulatory agencies the Kiewit team was able to implement a plan that allowed the project to be rescheduled and re-sequenced. This resulted in 15 individual blasts being condensed into just 8 blast events eliminating seven scheduled BART and Bay Bridge closures over the course of the project. Closing the primary transportation links between the cities of San Francisco and Oakland (The Bay Bridge and BART) required a great plan and flawless execution to minimize the impacts to the traveling public. **Early in the project Kiewit engaged and participated in planning session with the local stakeholders to develop a plan that minimized the impacts of these closure on the public.** Steps taken included reducing the number of blast events, scheduling blasts on weekends and off peak commute hours, pre blast meetings with California Highway Patrol to plan and implement rolling stops on the bay bridge, early deployment of variable message signs, extensive coordination with Caltrans Public Information team, the development and use of minute by minute schedules, and the use of communication flow charts with protocol from implementing and removing the closures. The execution of the traffic control plan was one of the many success on this project and a point of pride for the Kiewit construction team.

#### Experience of team members working together as an integrated team.

Over the course of three phases, Kiewit provided preconstruction and construction services. **The project team, including proposed PM Zach Reilly and proposed Environmental/Permit Manager Erich Fischer, assisted Caltrans with design development, constructability reviews, an extensive permitting effort, and comprehensive coordination with a range of stakeholders.** Together, the team evaluated demolition techniques, including controlled blasting and mechanical demolition, finding a balance between cost, schedule, and environmental impact.

Once the preferred construction options were identified, the team settled on the construction price through a "blind estimate" pricing effort. The ICE produced a comparative price for the work, and at each stage Kiewit presented our means, methods, and schedule, so everyone understood the plan to complete the work. The ICE asked questions to better understand the development and rationale behind the cost makeup. Thanks to this collaborative effort, final negotiations on the total contract price went smoothly and allowed construction to proceed on schedule.

*"Nothing is perfect, but these folks have come as close as one can in the real world."*

*- Brian Maroney, Chief Bridge Engineer, Caltrans*

#### Construction/reconstruction using innovative designs, methods, and materials.

Imploding piers in the environmentally sensitive San Francisco Bay had never before been attempted and required a great deal of innovation to ensure that the resident 70 species of fish and four species of marine mammals were protected. With the old Bay Bridge's superstructure gone, the foundations were islands accessible only by boat. The team loaded all tools, equipment, supplies, and explosives onto barges and towed them out to the foundations, where Kiewit's large floating cranes serviced the work. Kiewit used an extensive blast attenuation system

which surrounded the piers with an underwater wall of air bubbles to protect the marine life and uphold the team's commitment to the permitting agencies. To protect the adjacent underground utilities, including a 10" PG&E high pressure gas line and a 10' diameter East Bay MUD outfall, the Kiewit team used intelligent explosives, which incorporate millisecond delays between detonation of each charge ensuring that peak energy released during the blast was well below the allowable threshold.

#### Coordinating work and traffic control with adjacent contracts performing similar highway work

Another contractor, CEC Silverado, who was also doing work for Caltrans, was performing a bridge demolition nearby which had to be completed before our work could begin. Kiewit crews and the adjacent contractor participated in weekly coordination meetings to ensure that work went smoothly and did not interfere. The project was completed with no contractor coordination issues or delays.

#### Compliance with environmental regulations and restrictive permit requirements.

The project had the potential to impact aquatic species and many Migratory Bird Treaty Act (MBTA) birds. The old East Span was home to one of the largest cormorant colonies on the West Coast, requiring careful habitat handling. **Proposed Environmental/Permit Manager Erich Fischer led the ESA team conducting studies to evaluate the effects of underwater blasting on fish, validate the implosion techniques and gain acceptance from regulatory agencies in support of project permits.** Active monitoring led by ESA took place during every blast event. The team also deployed a network of hydrophones and pressure sensors around the foundations to measure sound and pressure levels and test the effectiveness of the bubble curtain, which were used during every blast event.

**Kiewit, ESA, and Caltrans worked together to acquire permits from eight separate agencies including the Coast Guard, the National Marine Fisheries Service, the National Fish and Wildlife Service, California Department of Fish and Game, San Francisco Bay, Conservation and Development Commission, California Coastal Commission, and the Bureau of Alcohol, Tobacco, Firearms, and Explosives.** The team's successful implementation and demonstration of the innovative means and method gained the support of the environmental agencies and paved the way for early project completion.

#### Constructing controversial or highly sensitive public projects, including experience in coordination with local and regional agencies on similar sized projects.

The project's proximity to the new SFOBB East Span, the BART tunnel, Pacific Gas & Electric utility lines, and an East Bay Municipal Utility District outfall complicated the demolition. Kiewit worked with Caltrans, the California Highway Patrol (CHP), BART, the U.S. Coast Guard, and other agencies to protect this infrastructure during the demolition. Through very close coordination, traffic on the bridge and in the tunnel was halted briefly for each blast event. These structures were monitored during the blasts and results have shown our developed means and methods effectively protected all structures and utilities without any issues.

#### CRIPs implemented and experience with techniques to avoid delays and minimize claims.

**The ability of Caltrans and Kiewit to work together during the preconstruction contract and the following demolition contract allowed key individuals to develop strong working relationships, which allowed issues to be resolved quickly without being escalated to upper management or to a dispute resolution group.**

Through considerable cooperation between the main stakeholders, the project team was able to develop an "Alternative Analysis" outlining the significant advantages of using the proposed blasting methods in lieu of conventional cofferdam and hoe ramming operations. The advantages included reduced impacts to fish and marine mammals, a significant reduction in time to remove the pier (estimated at 47 months), and cost savings of approximately \$15 million. The project team continued to work together closely to present this information to the environmental agencies and were able to obtain all required permits prior to the scheduled blasting event. *We will employ similar project strategies to obtain all permits and collaborate with Caltrans at Cosumnes.* As a result of the whole team's commitment to collaboration, the entire team and all project stakeholders were honored with the 2016 World Demolition Award in Collaboration.

# COSUMNES BRIDGE REPLACEMENT

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<b>List Any Awards, Citations, and/or Commendations Received for the Project:</b>	
<ul style="list-style-type: none"> <li>• Constructor Award, Associated General Contractors of California, 2016</li> <li>• World Demolition Award, Demolition &amp; Recycling International magazine, National Demolition Association, and European Demolition Association, 2016</li> <li>• Environmental Excellence Award, Federal Highway Administration, 2017</li> <li>• Partnering Success in Motion, Caltrans, 2017</li> <li>• Build America Merit Award for Partnering Excellence, Associated General Contractors of America, 2017</li> </ul>	
<b>Name of Client (Owner/Agency, Contractor, etc.):</b> California Department of Transportation	
<b>Address:</b> 111 Grand Ave Oakland, CA 94612-3717	
<b>Contact Name:</b> Christopher Traina	<b>Telephone:</b> (916) 412-8139
<b>Fax No.:</b> N/A	<b>Email:</b> chris.traina@dot.ca.gov
<b>Owner's Project/Contract No.:</b> 04-013574 <b>Contract Value (US\$):</b> \$101 million    Final: \$108 million	
<b>Description of any difference in values:</b> The increase is due to client added scope, primarily for additional environmental monitoring	
<b>Percent of Total Work Performed by Kiewit:</b> 80% <b>Percent subcontracted:</b> 20%	
<b>Commencement Date:</b> April 2016 <b>Planned Completion:</b> December 2018 <b>Actual:</b> December 2017	
<b>Description of any difference in completion dates:</b> Schedule was accelerated by one year	
<b>Warranty Period:</b>	
<b>Amount of Claims:</b> None <b>Any Litigation?:</b> No	
<b>Dispute Review Board history:</b> None	

# SECTION 5

## PROPOSER'S KEY PERSONNEL



# COSUMNES BRIDGE REPLACEMENT

## SECTION 5 PROPOSER'S KEY PERSONNEL

Key Personnel bring experience from working on more than **\$3 billion** of Caltrans work in the last 20 years



We have assembled a highly capable team of proven CM/GC and alternative delivery professionals who will work collaboratively with Caltrans to achieve the project goals and facilitate expedited permitting, efficient rail coordination, and optimal staging and MOT that minimizes public impacts on the Cosumnes Bridge Replacement Project (Cosumnes Project). Key personnel with relevant industry experience were selected to give Caltrans and this important project the best opportunity for success. In addition, our key personnel have experience working with Caltrans, including on the current SFOBB Foundation Removals CM/GC, giving us first-hand knowledge of your organization and requirements to help efficiently progress preconstruction.

### A) FORM D: PROPOSED KEY PERSONNEL

Form D is included at the end of this section.



STATE OF CALIFORNIA  
dca DEPARTMENT OF CONSUMER AFFAIRS  
CONTRACTORS STATE LICENSE BOARD  
ACTIVE LICENSE

License Number: **433176**  
Eratv. CORP

Business Name: KIEWIT INFRASTRUCTURE WEST CO

Classification(s): A B C10

Expiration Date: 01/31/2019  
www.cslb.ca.gov

### B) RESUMES

Resumes for each of the proposed Key Personnel are provided in Appendix A.

### C) REQUIRED LICENSES

Kiewit Infrastructure West Co. has a current California Contractor's License.

**Classifications:** A - General Engineering; B - General Building; C10 - Electrical

### PREFERRED KEY PERSONNEL

We analyzed the project scope and selected the right team based on those who have demonstrated the critical attributes needed to achieve your stated goals.

Attributes include:

- ◆ Proven safety leaders who always put the safety of the public, Caltrans and each other first
- ◆ Relevant and transferable project experience, including CM/GC and alternative project delivery, highway, rail coordination, Caltrans, traffic control handling, accelerated delivery, permit acquisition and environmental compliance
- ◆ Proactive communicators who understand CM/GC and preconstruction services to maximize involvement, early engagement, and solution development
- ◆ Experts in permitting and railroad coordination
- ◆ Innovative builders to deliver the maximum scope under the available budget
- ◆ Detail-oriented managers who are critical of quality and conformance

Once selected, we will work with Caltrans to round out our team with additional personnel who will contribute to the success of critical project elements.

This section includes: Key Personnel overviews highlighting why each person is highly qualified for the role, their job description and responsibilities, and reporting and authority; and **Figure 1** on page 5-9 provides Key Personnel time commitments.

An **organizational chart** in Section 6 further clarifies the levels of authority and reporting structure during project delivery.

*"They [project team led by PM Zach Reilly] deliver on promises made, and have worked hard with us to keep cost changes under control to keep the project within budget. They are good team mates and the quality of staff is consistently outstanding! Great people to work with!" – Chris Traina, Caltrans, SFOBB Foundation Removals, Phase 2*

## Project Manager Zach Reilly



**Responsibilities on Cosumnes:** Zach will assist Caltrans with stakeholder outreach, serve as the main point of communication to the project team, ensure adequate personnel and resources are assigned to the project, and be responsible for contractual matters. During preconstruction, Zach will direct any partnering and co-location efforts on behalf of Kiewit; provide overall management of the estimating/OPCC process and development of the integrated project schedule; oversee constructability reviews, risk workshops, railroad coordination and innovation development; and facilitate decision-making at the project level. Zach will transition to construction to maintain continuity and be responsible for management of all project aspects, including safety, quality, environmental compliance, budget, schedule, and resources to ensure your project goals are met at every step.

**Why Zach was selected:** Zach brings more than 21 years of construction experience, including successfully managing complex and alternative delivery infrastructure projects. He recently served as Project Manager on the Caltrans CM/GC SFOBB Phase 2 and Phase 3 Projects, which is a key reason why he was chosen to lead this team to achieve Caltrans' project goals on the

Cosumnes Project. In addition, Zach brings significant experience managing construction on highway projects, including complex work on the Honolulu High-Capacity Transit Corridor (HTC) and bridge replacement work on the Hood Canal Bridge Retrofit and East Half Replacement Project. This experience included working collaboratively with the client and stakeholders to minimize planned impacts and eliminate unplanned impacts to the traveling public.

Zach will establish a collaborative environment as he has previously done on four alternative delivery projects while bringing forth his negotiating experience and best practices to facilitate preconstruction services. His leadership will integrate team members at all levels, resulting in a One Team philosophy where everyone is working in the best interest of the project. On the highly successful SFOBB Phase 2, Zach worked with Caltrans and multiple environmental agencies to obtain approval of an innovative phasing plan that saved Caltrans approximately \$10 million and facilitated project completion a year ahead of schedule. In addition, he was integral in optimizing design and schedule on SFOBB Phase 3 and working with Caltrans to reach a negotiated GMP after just four months of preconstruction. His CM/GC experience is an asset to our team and will greatly benefit the successful delivery of this project. Zach will be committed to the Cosumnes

Project throughout all phases to maintain continuity and bring this same successful approach to managing the work.

*"Zach Reilly is an exceptional project manager who is responsive and meets all challenges thrown his way, and he manages his teams in an outstanding manner. The [Kiewit] Team has exceeded all of our expectations on this project and I would recommend them to any owner who is looking for a contractor who will work in an open and honest fashion to resolve issues quickly and complete their project in a safe and efficient manner." – Chris Traina, Contract Manager, Caltrans, SFOBB Phase 2*

**Reporting and Authority:** Zach will report to the Caltrans Project Manager as well as to Kiewit's executive offsite management team. He will work with Project Construction Manager James Scheer to ensure the project has the right people, equipment and resources to be successful. Zach will have stop work authority should he encounter any safety, quality or environmental compliance issues.

## Project Construction Manager James Scheer



**Responsibilities on Cosumnes:** With safety as a top priority, James will participate in constructability reviews to ensure a high-quality project is constructed in accordance with the design and project requirements, and to Caltrans Construction Standards. When construction is in progress, James will be onsite 100% of the time. He will manage operations as efficiently as possible, while never sacrificing safety or quality. He will work with Railroad Coordinator Anthony DiGirolamo on railroad issues to facilitate construction. James has a strong track record of early/on-time turnovers as described below.

**Why James was selected:** James brings more than 23 years of experience safely managing field operations, site logistics, schedules, equipment availability, stakeholders, subcontractors, and project personnel on complex highway transportation projects. He has five years of alternative delivery experience working on Port Mann Highway 1, giving him first-hand knowledge providing constructability input and innovative solutions; prioritizing design to accelerate critical construction elements; developing similarly complex phasing to mitigate impacts; analyzing and mitigating risk; and integrating railroad, third-party and other stakeholder requirements. His work managing construction on the Big I, PMH1, and Troutdale Bridges included extensive

PROJECT GOALS	Safety	Mobility	Quality	Public Interaction	Enviro. Compliance	Project Delivery	Innovation	Local Requirements	Railroad Requirements
<b>Project Manager</b> Zach Reilly	PM on SFOBB Phase 2 where he managed 100,000 manhours with zero safety recordables	Implemented and coordinated phased construction of the highway in coordination with MOT Manager Tim Clark to minimize impacts to the public on the Honolulu Transit Corridor (HTC)	More than 21 years of quality control management experience on transportation and infrastructure projects, including knowledge of Caltrans' expectations	Worked with public outreach teams on SFOBB Phase 2 to proactively inform public; eliminated 7 bridge and BART closures through work sequence innovation to minimize public impacts	Implemented multi-agency coordination and successful environmental program on the award-winning Willamette River Transit Bridge (WRTB) Project	PM on SFOBB Phase 2 & 3 where they have exceeded all schedule milestones; Managed WRTB to on-time completion	Developed and implemented work sequence on SFOBB Phase 2 that delivered the project one year early and saved Caltrans close to \$10 million	7 years of alternative delivery management on infrastructure projects that required incorporation of numerous local/city requirements	CM on HTC project where Kiewit constructed 11 miles of light rail aerial guideway
<b>Construction Manager</b> James Scheer	Successful safety management through 20+ years managing construction on congested highways	Ensured mobility on all highway construction projects where he hit all key milestones on PMH1 and the Big I to eliminate unplanned impacts	Employs high quality, transparent approach, resulting in quality workmanship and zero DRB or litigation on all projects managed	Engaged in community outreach program on the PMH1 project to provide local businesses and residences with current information to ensure impacts were minimized	Managed strict environmental requirements on PMH1 to avoid impacts to the Fraser River and at the batch plant for Benicia-Martinez to manage run-off	Managed accelerated construction schedule to complete work on the Port Mann bridge one year ahead of schedule so the client could begin collecting toll revenue on-time	Identified and implemented innovative construction means and methods to eliminate unplanned impacts to the rail during Port Mann bridge construction	Engaged in proactive coordination with multiple agencies, including the City of Vancouver, National Park Service and the Confluence Path Group, to ensure the historic site was protected during construction of the Confluence Path Bridge	More than 10 years of experience successfully coordinating with the rail to ensure safety, optimal construction operations and minimal impacts to the rail

# COSUMNES BRIDGE REPLACEMENT

CM/GC • JUNE 12, 2018

coordination with the railroad to build structures over and within railroad ROW. He will leverage this experience, as well as established working relationships with MOT Manager Tim Clark, Lead Estimator Tony Malin and other key personnel, to optimize design and plan for efficient construction operations.

On PMH1, James worked in coordination with the client, the Class I railroad and countless environmental agencies to accelerate construction

and deliver the bridge one year ahead of schedule. In addition, he was integral to the successful design completion on the Big I project, where he performed constructability reviews for the design of bridges and overpasses to support the accelerated 24-month schedule. This up-front input ensured work could be performed as planned, was key to the success of operations within confined work zones and allowed the project to be delivered 5 weeks ahead of schedule. James will be committed to the Cosumnes Project throughout all phases to maintain continuity and bring this same successful approach to managing the work.

**Reporting and Authority:** James will report to Project Manager Zach Reilly. He will have stop work authority should he encounter any safety, quality or environmental compliance issues.

*"From the iconic design of the new bridge, to the hours of traffic management to ensure that the highway remains open for use during construction, to keeping people informed about what's happening, work has proceeded safely, with minimal disruption." - Blair Lekstrom, B.C. Minister of Transportation and Infrastructure*



## Lead Estimator, Tony Malin

**Responsibilities on Cosumnes:** Tony's focus on open-book, transparent estimating practices will provide confidence and cost certainty to Caltrans. His participation in meetings where price, risk, schedule and other factors relevant to estimating are discussed will ensure this information is reflected in accurate estimating. Tony will manage the estimating staff, prepare construction bid price proposals with backup documentation, and coordinate formal milestone review meetings at the 30%, 60% and 90% stages. He will produce any pricing and estimating reports required by Caltrans. During construction, Tony will continue to support pricing alternatives to ensure rapid decision making and efficient estimating to achieve critical schedule milestones.

**Why Tony was selected:** Tony is one of Kiewit's most experienced estimators, responsible for pricing and estimating services on several large and complex pursuits. As a 39-year Kiewit veteran, Tony has worked on several hundred estimates assessing price and risk associated with each project, including alternative delivery highway projects. The majority of Tony's estimating experience is on projects in Northern California, giving him in-depth knowledge of regional requirements and subcontractor availability. Drawing on his depth of highway field experience and leadership of more than \$10 billion in estimates, Tony will develop an open cost model and lead development of 30%, 60%, 90% and final estimates.

**Reporting and Authority:** Tony will report to Project Manager Zach Reilly. He will work collaboratively with Caltrans and other team partners, sharing information used to develop pricing for the project to provide transparency and deliver best value.

## Key Influence Areas:



### Safety

*39-year construction veteran with 20+ years of field experience resulting in a comprehensive safety analysis for each alternative priced*



### Quality

*Transparent and quality estimating practices have resulted in confidence among project teams*



### Innovation

*Routinely proposes innovative options on pursuits, assessing risks and affects on project goals*



### Local Requirements

*More than 19 years of experience estimating work in Northern Calif. resulting in understanding of local/state permit requirements*

## Environmental/Permit, Manager Erich Fischer



**Responsibilities on Cosumnes:** Erich will ensure that the project is carried out in accordance with the environmental commitments and mitigation measures as specified within the Initial Study/Categorical Exclusion as well as any additional agency permits. During preconstruction, he will develop and help implement a streamlined permit acquisition strategy that facilitates accelerating the project schedule. He will provide input regarding conceptual schemes particularly for the work in the flood plain and near the Cosumnes River to ensure anticipated construction time-lines are not affected and that compliance is maintained. Erich's priority during construction will be to ensure compliance.

*Erich developed and helped implement the environmental program on SFOBB Phase 2, which received an Environmental Excellence Award from Federal Highway Administration*

**Why Erich was selected:** Erich has more than 25 years of permitting, mitigation and compliance monitoring on complex infrastructure projects in Northern California, including experience working on Caltrans bridge replacement projects and projects in the vicinity of the Cosumnes River Preserve. On SFOBB Phase 1-2, Erich and his team worked with several resource agencies to accelerate permitting during preconstruction, including the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and NOAA Fisheries. He also facilitated efficient regulatory approval of optimized construction means and methods that allowed Phase 2 to complete a full year ahead of schedule, including the design of innovative studies to demonstrate that blasting had minimal impacts on fisheries resources. He has specific local experience in the region, having developed innovations to streamline the permit process on major projects such as the Stockton Delta Water Supply and Sacramento Regional Wastewater Treatment Plant Expansion (EchoWater) projects, both of which are in close proximity to the Cosumnes Project. Using these tested permit approaches, he will work closely with the team to streamline the permit process to achieve the goal of completing the project before November 2024.

**Reporting and Authority:** Erich will report to Project Manager Zach Reilly during preconstruction services and construction. He will work collaboratively with Caltrans, regulatory agencies and other stakeholders coordinating timely permits and approvals. He will have authority to stop work should he encounter any safety, quality or environmental compliance issues.

## Key Influence Areas:



### Quality

*More than 28 years producing accurate, complete and timely reporting of environmental compliance*



### Environmental Compliance

*More than 25 years of experience in biological permitting, mitigation and environmental compliance monitoring management, including on projects near Cosumnes River*



### Project Delivery

*Developed design solutions to lessen permitting requirements and accelerate schedules on complex projects, including for the California High Speed Train design-build project in Fresno*



### Local Requirements

*More than 19 years of Extensive experience working with state and federal regulatory agencies, including Calif. DFW, USACE, U.S. Fish and Wildlife Service, National Marine Fisheries Service and Central Valley Regional WQCB in Northern California*

## Principal Paleontologist, Alyssa Bell, PHD



### Responsibilities on Cosumnes:

Alyssa will be responsible for preparing Paleontological Identification Reports, and, if warranted, a Paleontological Evaluation Report, a Draft and Final Paleontological Mitigation Plan, and Paleontological Mitigation Reports in accordance with Caltrans standards. She is well-versed in mitigation requirements and will assist the team in developing a thorough mitigation and monitoring plan, including training for construction personnel.

**Why Alyssa was selected:** With a PHD in Paleontology, Alyssa has provided her expertise on more than 30 infrastructure projects over the past 10 years in California. Her experience includes providing Paleontological Assessment Reports, Paleontological Identification Reports, Draft and Final Paleontological Mitigation Plans, and Paleontological Mitigation Reports in accordance with Caltrans standards on construction projects. Her demonstrated field experience includes the development and supervision of paleontological monitoring plans, including the recovery and curation of fossil resources and all paleontological reporting for numerous projects, including El Camino Real Bridge Replacement. Alyssa is also currently a postdoctoral fellow at the Natural History Museum of Los Angeles County, where she has worked as a research and field paleontologist for the last twelve years.

**Reporting and Authority:** Alyssa will report to Environmental/ Permit Manager Erich Fischer during preconstruction services and construction.

## Paleontological Monitor, Blake Bufford



### Responsibilities on Cosumnes:

Blake will be responsible for paleontological monitoring and mitigation. He will provide training for construction personnel regarding what to look for when out in the field.

**Why Blake was selected:** Blake has more than 10 years of experience providing paleontological monitoring and mitigation on similar construction projects. His demonstrated experience collecting and salvaging fossils includes work on the Phase 2 Regional Transmission Main Segment A1 Project, as well as serving as an archaeological monitor for the California High Speed Rail Merced to Bakersfield Segment. Blake has also completed Caltrans work in the Fresno and Monterey county area and is familiar with providing construction monitoring on Caltrans projects

**Reporting and Authority:** Blake will report to Principal Paleontologist Alyssa Bell during construction. Should paleontological discoveries be uncovered in the course of construction, Alyssa will supervise Blake during the collection of fossil specimens following scientific best practices in accordance with the Paleontological Mitigation Plan.

### Key Influence Areas:



#### Environmental Compliance

*Extensive paleontological work throughout California, with experience in Federal and State regulatory settings and permitting procedures*



#### Project Delivery

*Successful recovery of scientifically significant fossil collections from numerous project sites with no delay to project completion*



#### Local Requirements

*Familiarity working with multiple levels of oversight, including the Bureau of Land Management, National Park Service, and County and City requirements*

## Railroad Coordinator Anthony DiGirolamo, PE



**Responsibilities on Cosumnes:** Anthony will be Kiewit's single point of contact for the railroad. This will simplify communications back and forth with UPRR and/or their consultant. During preconstruction and construction, he will hold regular meetings with the railroad to discuss the proposed design and the upcoming reviews or submittals. Anthony will review all correspondence and submittals to the railroad to ensure their completeness and adherence to the railroad's standards and safety requirements. All designs and submittals will conform to the requirements found in the BNSF Railway – Union Pacific Railroad Guidelines for Railroad Grade Separation Project Manual. In addition, his knowledge and experience will help develop construction means and methods to build the work in UPRR's short work windows.

**Why Anthony was selected:** Understanding the intricacies of the UPRR organization and process to obtain construction permits and approvals will be integral to the success of the Cosumnes Project, which is why we have included Railroad Coordinator Anthony DiGirolamo as a key position. He brings more than 25 years of experience working with and for Class I railroads, including serving as the project manager for CSX Rail Public Projects Group where he oversaw every project Georgia Department of Transportation or local municipalities constructed that interfaced with CSX. His extensive institutional knowledge regarding rail criteria, approvals, permits and preferences will ensure design and construction means and methods comply with rail requirements and that permits and approvals are obtained in a timely fashion. A certified safety instructor for CSX Roadway Worker Protection, Anthony understands the railroad's safety culture and public project approach. His expertise and experience will ensure construction work plans consider all aspects working near the rail in a confined ROW.

**Reporting and Authority:** Anthony will report to Project Manager Zach Reilly during preconstruction and Project Construction Manager James Scheer during construction.

### Key Influence Areas:



#### Quality

*Ensured all submittals conformed and met all quality requirements of the railroad*



#### Environmental Compliance

*Provided rail expertise, coordination and design to support the NEPA process on the West Lake Corridor project*



#### Project Delivery

*Rail coordination efforts have proven instrumental in aligning teams and accelerating approvals/permits*



#### Railroad Requirements

*More than 25 years of experience working on construction projects with the railroad*

## Maintenance of Traffic (MOT) Manager

Tim Clark



**Responsibilities on Cosumnes:** Tim will manage all aspects of traffic control to ensure the safety of the traveling public and our workers, and to maintain mobility throughout the corridor. During preconstruction, he will engage in constructability reviews and task forces to optimize traffic control plans. Since he will ultimately be responsible for implementing the plans, it is vital his expertise is incorporated into the design process. Tim's priority will be to minimize planned impacts, eliminate unplanned impacts, maintain access to all modes of transportation, and ensure we maintain proper signs and delineation during construction. In addition, Tim will work with the public outreach team to communicate traffic changes, as he did on Port Mann Highway 1, to provide safe, accurate route information as work progresses.

**Why Tim was selected:** Given the project goal of maintaining mobility along SR 99, Tim Clark's role will be critical to ensuring impacts to traffic on SR 99 are minimized to the greatest extent possible and that the goal is achieved. Tim has extensive experience managing traffic control and civil operations on highway projects, including in his recent role on Honolulu High-Capacity Transit Corridor (HTC) which included significant work in the median, similar to the Cosumnes Project. Tim has experience coordinating with multiple local/state agencies (including emergency services) and managing lane closures, detours, temporary concrete barrier, temporary signage, and traffic management teams from working on the HTC and the Port Mann Highway 1 Project. This similar experience will allow him to effectively manage these aspects and ensure changes to routes are clearly marked and that two lanes of traffic are maintained at all times. Tim will leverage this experience, as well as established working relationships with Project Manager Zach Reilly (HTC) and Project Construction Manager James Scheer (PMH1), to optimize design and plan for effective staging and MOT.

**Reporting and Authority:** Tim will report to Project Manager Zach Reilly during preconstruction services and then to Project Construction Manager James Scheer during construction. He will have authority to stop work should he encounter any safety, quality or environmental compliance issues.

### Key Influence Areas:



#### Safety

*Successfully incorporated safety into MOT and traffic control plans on PMH1 to ensure safety of the traveling public and construction personnel*



#### Mobility

*Managed all aspects of traffic control on the HTC Project to minimize planned impacts and eliminate unplanned events*



#### Quality

*Monitors and documents implementation of traffic control plans to ensure effectiveness and maintain quality*



#### Public Interaction

*Regularly coordinated with public outreach team to distribute accurate, timely information about traffic changes on the HTC Project*



#### Project Delivery

*Executed major traffic switches without incident on PMH1 and HTC Project*



#### Local Requirements

*Experience coordinating traffic/closure requirements with multiple agencies and municipalities on PMH1*



#### Railroad Requirements

*Worked closely with the rail to ensure traffic switches did not impact rail operations on PMH1*

## Key Personnel Commitments

Kiewit has been building successful projects and relationships in California for more than 70 years, and the majority of our Key Personnel also live and raise families here. We see this Project as an excellent opportunity to continue that legacy. In order for the Project to achieve the level of success required, continuity between preconstruction and construction is of utmost importance. The interaction and relationships among all of the parties to find solutions and develop the best Project must be honored from start to finish. Kiewit’s Key Personnel involved during preconstruction will remain assigned to ensure commitments are upheld throughout the life of the Project. **Figure 1** shows our proposed Key Personnel time commitments. **We understand that each of these Key Personnel may not need to spend 100% of their time on the Project during all phases, but we will guarantee their availability to partner with Caltrans and achieve the established goals throughout the duration of the Project. We are committed to finding the optimal level of commitment for each key person to get the most effective outcome.**

Figure 1: Our proposed Key Personnel time commitments

Key Personnel	Percent Time Commitments		Other Commitments
	Design/ Preconstruction	Construction	
Project Manager Zach Reilly	100%	100%	All key personnel are committed to this Project and will be available 100%. This Project will be their top priority. We will work with Caltrans to determine the right level of commitment. Involvement in other projects will only be allowed if time permits.
Project Construction Manager James Scheer	100%	100%	
Lead Estimator Tony Malin	100%	100%	
Environmental/Permit Manager Erich Fischer	100%	100%	
Principal Paleontologist Alyssa Bell	100%	100%	
Paleontological Monitor Blake Bufford	100%	100%	
MOT Manager Tim Clark	100%	100%	
Railroad Coordinator Anthony DiGirolamo	100%	100%	

**Form D**  
**PROPOSED KEY PERSONNEL INFORMATION**

Name of Proposer Kiewit Infrastructure West Co.

Instructions for Form completion: Responses shall be addressed within the table below. Should additional space be needed to adequately respond, Proposer is advised to increase the number of lines within the table as appropriate. Form D has no SOQ page limitation.

<b>Position</b>	<b>Name</b>	<b>Years of Experience</b>	<b>Education and Registrations</b>	<b>Parent Firm Name</b>
Project Manager	Zach Reilly	21	B.S., Civil Engineering, Oregon State University	Kiewit Infrastructure West Co.
Project Construction Manager	James Scheer	23	B.S., Construction Engineering Management, Oregon State University	Kiewit Infrastructure West Co.
Lead Estimator	Tony Malin	40	B.S., Civil Engineering, University of California	Kiewit Infrastructure West Co.
Environmental/ Permit Manager	Erich Fischer	28	B.A., Biological Sciences, California State University	Environmental Science Associates
Principal Paleontologist	Alyssa Bell, PhD	12	Ph.D., Vertebrate Paleontology, University of Southern California; M.S., Environmental Microbiology, University of Tennessee; B.A., Ecology and Systematics, Cambridge University	Environmental Science Associates
Paleontological Monitor	Blake Bufford	10	B.A., History, California State University	Environmental Science Associates
MOT Manager	Tim Clark	18	B.S., Construction Engineering Technology, Montana State University	Kiewit Infrastructure West Co.
Railroad Coordinator	Anthony DiGirolamo, PE	25	B.S., Georgia Institute of Technology PE: Georgia #027405; Colorado #45542; Virginia #0402049646; North Carolina #042766; South Carolina #32605	Kiewit Infrastructure West Co.

# **SECTION 6**

## PROJECT UNDERSTANDING AND APPROACH

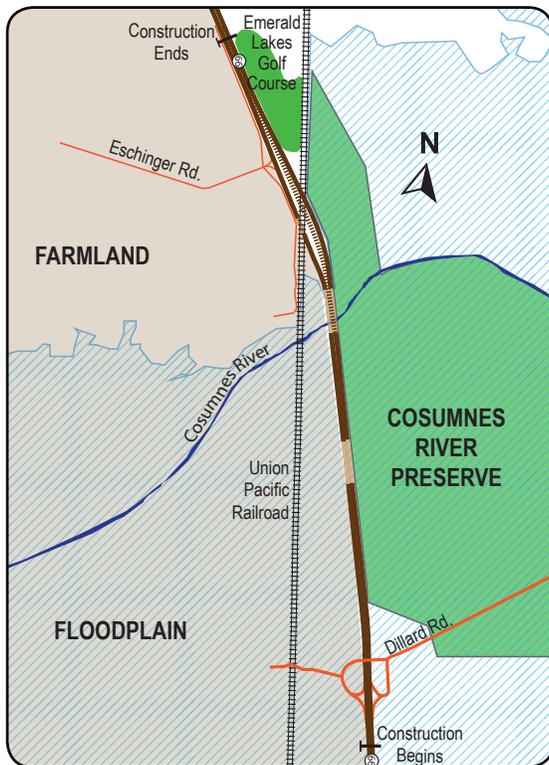


# SECTION 6 PROJECT UNDERSTANDING AND APPROACH

**Figure 1:** The Cosumnes Bridge Replacement Project is an integral through-way in the Central Valley. We understand the local and regional significance make this a high-profile project that will require focused coordination efforts to maintain mobility, minimize impacts and ensure environmental compliance.

The SR 99 corridor is a vital freight and mobility link through the central valley for California’s thriving commerce. To improve safety and mobility in this integral corridor, Caltrans District 3 has made the Cosumnes River Bridge Replacement Project (Cosumnes Project) a priority. It has been selected as the first CM/GC project for District 3 because of the complex permitting, MOT, and railroad coordination that will be required. Caltrans has already started the CEQA/NEPA process and begun to develop a design and phasing plan, making it the right time to bring the CM/GC on board to provide input, help manage risk and develop innovations to provide the best value.

The following section describes Kiewit’s management approach to achieving the project goals of safety, mobility, quality, public interaction, environmental compliance, project delivery, innovation and satisfaction of local and Union Pacific Railroad (UPRR) requirements. To achieve these goals, we plan to build on the strong foundation Caltrans has established for the project. In addition, our experience working with Caltrans on CM/GC projects, including SFOBB Foundation Removals and SR 58 Kramer Junction, will facilitate efficient and best value project delivery to Caltrans. Our approach is based upon our experience, a thorough reconnaissance of the project alignment, a study of preliminary documents and discussions with project stakeholders. **We have identified opportunities to simplify the permit process, reduce construction schedule by up to 8 months and reduce project cost by more than 10%.**



## A) UNDERSTANDING OF PROJECT SCOPE

### Local and Regional Significance

State Route (SR) 99 is a major north-south transportation artery that connects people and moves goods from its northern end at SR 36 near Red Bluff to its southern end at I-5 near Wheeler Ridge. SR 99 stretches almost the entire length of the densely populated Central Valley. The freeway section by the Cosumnes River connects agricultural production with processing and packing businesses.

The purpose of the Cosumnes Project is to improve mobility along the corridor and ensure safety for travelers by replacing scour critical structures. The replacement of the McConnell Underpass will greatly improve the mobility of freight traffic by eliminating the current horizontal and vertical clearance issues. The inclusion of future lanes on the project also shows Caltrans’ forward thinking to address the expected increase in traffic volume and ensure this corridor keeps providing the essential flow of traffic for commerce development.

The project runs adjacent to the Cosumnes River Preserve, an area consisting of over 50,000 acres of wildlife habitat and agricultural lands owned by seven land-owning partners (**Figure 1**). The Partners include The Nature Conservancy, Bureau of Land Management, California Department

Department of Water Resources, Ducks Unlimited, and the California State Lands Commission. Coordination with the Cosumnes River Preserve and implementation of construction strategies that protect the habitat and avoid environmental issues will be critical to project success.

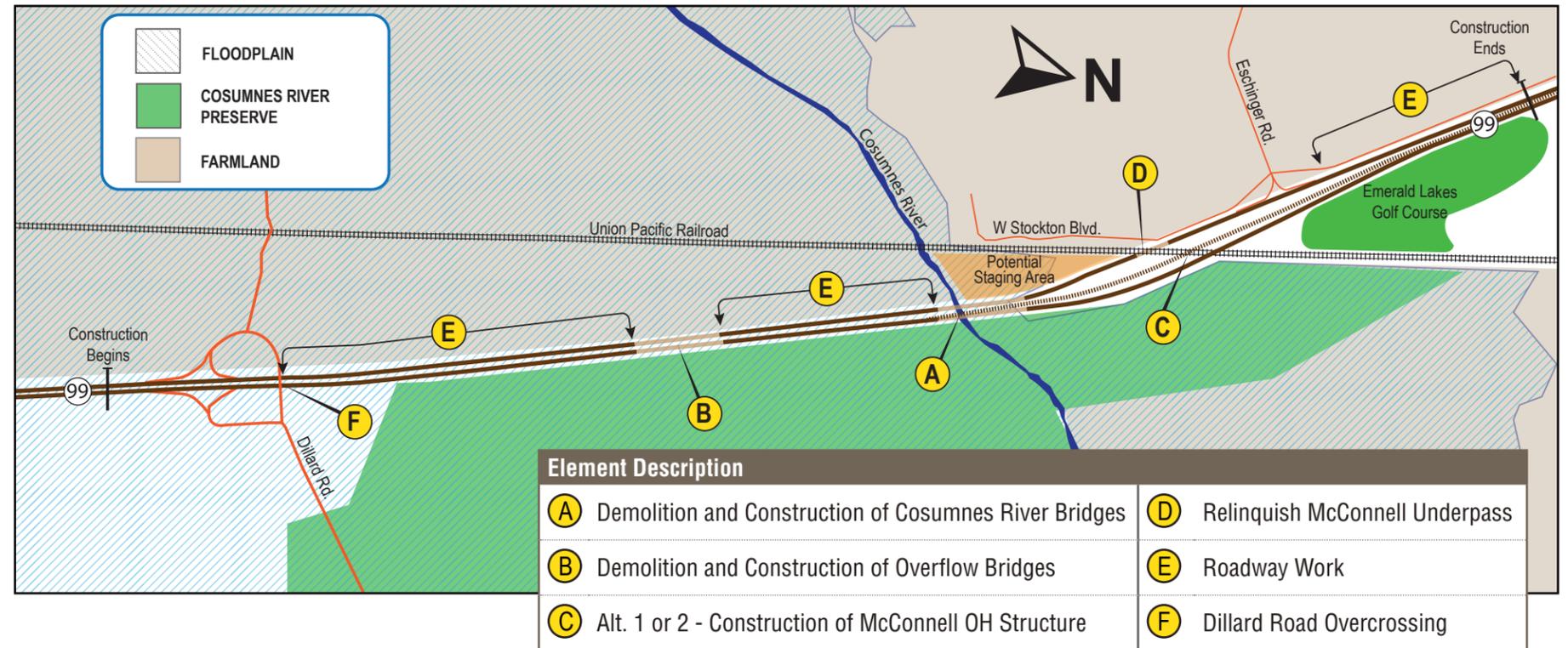
The west side of the project has considerable farmland. In addition there are several businesses adjacent to the project, including the Emerald Lakes Golf Course and McConnell Estates Winery. Coordination with local farmers and businesses will be important to proactively mitigate or eliminate potential project impacts. Maintaining a good relationship with these stakeholders through over-communication regarding upcoming project challenges will ensure stakeholders are satisfied and any concerns are addressed.

The project is less than twenty miles from downtown Sacramento and is also adjacent to Elk Grove — two large cities that rely heavily on this stretch of highway. To maintain good public perception, educating the public on project benefits and implementing phasing and construction means and methods that minimize any impacts to their commute will be important.

## Project Elements and Constraints and their Affect on Project Schedule

We have identified project elements in **Figure 2** and constraints and their affect on project schedule in **Figure 3**.

**Figure 2:** Identification of key project elements



**Figure 3:** Project elements and constraints and their affect on Project schedule

Constraint & Elements Affected	Explanation of Project Constraint	Affect on Project Schedule	Mitigation
<b>1. Environmental Permits</b> (A) (B) (C) (D) (E) (F)	<ul style="list-style-type: none"> <li>Risk of schedule delays due to CEQA/NEPA documentation needs and securing permits from multiple resources agencies, including the USACE, U.S. Fish and Wildlife Service, National Marine Fisheries Service, State Historic Preservation Office, California State Lands Commission, California Department of Fish and Wildlife, Central Valley Regional Water Quality Control Board, and Central Valley Flood Protection Board</li> </ul>	<ul style="list-style-type: none"> <li>Multiple and potentially conflicting environmental concerns from different agencies could delay approval of permits</li> <li>Lack of construction feedback from the contractor to simplify the permit process could lengthen approval for CEQA/NEPA and permits</li> </ul>	<ul style="list-style-type: none"> <li><b>Environmental/Permit Manager Erich Fischer</b> will work with Caltrans leading the environmental task force to develop strategies that accelerate the permit process</li> <li>Develop construction approaches that proactively consider regulatory constraints and avoid/minimize permit requirements</li> <li>Coordinate with regulatory agencies early to identify and resolve environmental concerns and ensure a timely approval process</li> <li>Provide construction feedback during preconstruction to minimize project impacts, including reducing staging area size, minimizing the areas impacted by construction and minimizing any impacts to wetlands</li> </ul>
<b>2. Environmental Compliance</b> (A) (B) (C) (D) (E) (F)	<ul style="list-style-type: none"> <li>Work windows involving in-water construction activities in the flood plain and the presence of nesting birds must be considered on the project schedule</li> <li>Meet all environmental commitments, including for air quality, noise, biology, visual, cultural, paleontologic and hazardous materials</li> </ul>	<ul style="list-style-type: none"> <li>Environmental issues during construction could delay schedule</li> <li>Issues with any regulatory agency could impact the schedule</li> </ul>	<ul style="list-style-type: none"> <li><b>Environmental/Permit Manager Erich Fischer</b> will lead the task force to ensure all environmental compliance requirements of the project are adhered to while looking for innovations to accelerate schedules</li> <li>Ensure that all workers and staff are trained on environmental requirements and project team commitments</li> <li>Provide rigorous inspection to ensure environmental plan compliance</li> </ul>
<b>3. Railroad (Union Pacific Railroad)</b> (C) (D)	<ul style="list-style-type: none"> <li>Significant amount of regulations, rules and processes for construction projects adjacent, over, or under the railroad tracks</li> <li>UPRR will expect little to no impact to their train operations, which typically means there will be short work windows for construction of the new overpass and demolition of the existing overpass (alt. 2)</li> </ul>	<ul style="list-style-type: none"> <li>Submittal delays and permit approvals could impact McConnell Overpass construction</li> <li>Construction operations will be limited due to short work windows, which have the potential to delay construction</li> </ul>	<ul style="list-style-type: none"> <li><b>Railroad Coordinator Anthony DiGirolamo</b> will provide his expertise, as part of his efforts on the railroad task force, to ensure construction means and methods consider all rail requirements and that permits/approvals are acquired on time</li> <li>Apply in-depth understanding of railroad regulations to ensure conformance to UPRR standards, reducing/eliminating resubmissions</li> <li>Collaborate with UPRR to garner their input into the planning and execution to maintain safety of construction operations adjacent to the railroad</li> <li>Develop a design, construction means and methods, and construction sequence that can be constructed within the short work windows allotted by UPRR</li> </ul>

Element Description		
<b>A</b> Demolition and Construction of Cosumnes River Bridges	<b>C</b> Alt. 1 or 2 - Construction of McConnell OH Structure	<b>E</b> Roadway Work
<b>B</b> Demolition and Construction of Overflow Bridges	<b>D</b> Relinquish McConnell Underpass	<b>F</b> Dillard Road Overcrossing

Constraint & Elements Affected	Explanation of Project Constraint	Affect on Project Schedule	Mitigation
<b>4. Maintenance of Traffic</b> <b>A B C D E F</b>	<ul style="list-style-type: none"> <li>MOT will affect every aspect of the project</li> <li>Impacts to traveling public have to be minimized</li> <li>Ensure no unplanned events that can adversely effect the public occur</li> <li>Maintain two lanes of traffic throughout construction</li> <li>Provide accurate and advance information to the public with respect to MOT</li> <li>Minimize impacts to businesses and eliminate impacts to emergency services</li> </ul>	<ul style="list-style-type: none"> <li>Public complaints might require a re-evaluation of the MOT plan and have the potential to cause project delays</li> <li>Safety incidents</li> <li>Affects on businesses, including freight mobility, could require time-consuming reassessment of MOT</li> </ul>	<ul style="list-style-type: none"> <li>MOT task force will work together to develop a construction sequence that minimizes impacts to the public, local businesses, and interstate commerce</li> <li><b>MOT Manager Tim Clark</b> will implement and monitor MOT plans to ensure there are no unplanned impacts and that planned impacts are minimized</li> <li>Provide detailed MOT plans that account for safety risks to both the public and workers, for example shifting traffic to the outside to provide a greater buffer between construction and the traveling public and utilizing gawk screens and physical constraints that preclude construction material from rolling into the roadway</li> <li>Design proper construction ingress/egress, signage, and engineering of an MOT plan that achieves the key project goals</li> <li>Provide accurate and advance information to the public with respect to upcoming traffic shifts</li> </ul>
<b>5. Flooding</b> <b>A B</b>	<ul style="list-style-type: none"> <li>Project area has the potential to flood multiple times a year from Dec. to April</li> <li>Flooding could have a detrimental affect on construction activities, including damage to temporary and permanent work</li> <li>Environmental impacts due to construction equipment and materials in the flood zone</li> <li>Construction cannot affect the hydraulics of the flood (e.g., cannot use barriers to protect the workzone as it could alter flood hydraulics)</li> </ul>	<ul style="list-style-type: none"> <li>Repairs and rework to both temporary and permanent features of work due to flooding could delay construction of the Cosumnes and Overflow Bridges and increase costs</li> <li>Schedule impacts from environmental clean-up efforts and waiting for flood waters to dry out in the project zone</li> </ul>	<ul style="list-style-type: none"> <li>Create a schedule for the Cosumnes and Overflow Bridges based on historic flood data that limits certain construction activities to the non-flood season, especially the superstructure work, which could be severely affected by flooding</li> <li>Implement construction strategies, means and methods, schedules, and phasing that mitigate the flood risk, such as designing a falsework system that could sustain a certain level of flooding, equipment evacuation plans, and protection to permanent work</li> <li><b>Environmental/Permit Manager Erich Fischer</b> will develop a plan for environmental compliance during a flood event and monitor rain and river levels during construction to proactively prepare for a flood event</li> </ul>
<b>6. Cosumnes River</b> <b>A</b>	<ul style="list-style-type: none"> <li>All in-water work shall be restricted to when the Cosumnes River is dry and/or within the salmonid work window (June 15-October 15)</li> <li>Pile driving will not occur within 50 feet of the Cosumnes River outside of the salmonid work window</li> <li>Meet all environmental permit requirements to protect the river</li> </ul>	<ul style="list-style-type: none"> <li>Impacting the river due to construction activities could create regulatory delays</li> <li>Improper planning and scheduling of in-water work could delay Cosumnes River Bridge construction substantially</li> </ul>	<ul style="list-style-type: none"> <li><b>Environmental/Permit Manager Erich Fischer</b> will work with the environmental task force to provide input during construction planning and will monitor construction work near and over the river to ensure compliance</li> <li>Utilize means and methods that properly protect the river during demolition of the existing bridge and construction of the new bridges (e.g., don't hoe ram, use of netting and containment systems)</li> <li>Develop detailed schedules and work plans for in-water work to ensure elements that need to be constructed within the work window are completed on time</li> </ul>
<b>7. Paleontology / Archaeology</b> <b>A B E</b>	<ul style="list-style-type: none"> <li>Protect any paleontological or archaeological findings and implement a process that reduces impacts to the project</li> </ul>	<ul style="list-style-type: none"> <li>Any paleontological or archaeological finding has the potential to delay the project</li> </ul>	<ul style="list-style-type: none"> <li><b>Principal Paleontologist Alyssa Bell</b> will work as part of the environmental task force to develop a thorough mitigation and monitoring plan, including training for construction personnel should fossils be discovered</li> <li>Perform surveys and research ahead of construction to identify potential for resources; develop plan to recover and document incidental findings expeditiously</li> </ul>
<b>8. Utilities</b> <b>A B E F</b>	<ul style="list-style-type: none"> <li>Protect all utilities adjacent to or in construction zones, including Frontier Fiber Optic Cable, SMUD/COMCAST overhead line, Kinder Morgan gas line (especially under Overflow Bridges during demolition and construction), and overhead electrical lines over Cosumnes River Bridges.</li> <li>Timelines for utility relocations/removals</li> </ul>	<ul style="list-style-type: none"> <li>Damage to utilities during construction could delay the project schedule</li> <li>Permit approvals or utility coordination could cause project delays</li> <li>Utility safety incident could require project shut down</li> </ul>	<ul style="list-style-type: none"> <li>Establish good working relationship and engage the utility companies early to understand how to best manage each utility on the project and obtain permits in a timely manner</li> <li>Understand utility needs and concerns to implement proper planning for protecting, relocating, or removing the utilities</li> <li>Utilize early work packages to protect and relocate utilities as needed ahead of construction</li> </ul>
<b>9. Right-of-Way Acquisition</b> <b>A B C E</b>	<ul style="list-style-type: none"> <li>Acquire ROW or get temporary construction easements in a cost-effective manner without having any negative impacts to the project schedule, including for the project staging areas and for construction of the Cosumnes and Overflow Bridges</li> </ul>	<ul style="list-style-type: none"> <li>Longer than anticipated negotiations, legal objections from property owners or delaying implementation of ROW acquisition could lengthen the project schedule</li> </ul>	<ul style="list-style-type: none"> <li>Experienced negotiator <b>Project Manager Zach Reilly</b> will be available to assist Caltrans to acquire the property</li> <li>Reduce ROW acquisitions by minimizing staging areas and construction zones during preconstruction, for example locating staging areas at Dillard Road Overcrossing (inside the on/off ramps) or implementing a "material delivery plan" that would require less use of staging areas in the construction zone</li> </ul>

## B) APPROACH TO CM/GC PROJECT CONTRACTING

The best approach to CM/GC contracting starts with the right team on Day One developing a strong relationship with Caltrans by integrating our organizations into One Team with common goals.

### Client Relations

Continuously improving our approach to the way we partner and collaborate with our clients is an inherent part of our culture, and we look forward to building our relationship with Caltrans District 3 as we build on the success of the SFOBB Foundation Removals and SR 58 Kramer Junction CM/GCs. We will execute this project with your goals and satisfaction in mind, combining elements of collaboration, communication, and a joint approach to finding the right solutions to technical challenges. Great client relations are the foundation of client satisfaction and will be achieved by executing these principles:

- ◆ Understand your perspective and internal processes by early alignment of expectations beginning with a kick-off meeting where we will discuss such items as the methods for tracking the preconstruction budget, the competitive procurement process and steps to the GMP.
- ◆ Spend public funds wisely by continually updating the estimate to evaluate decisions, provide timely cash flow projections, and maximize scope for the available budget.
- ◆ Build personal relationships at all

levels of each of our respective organizations through formal and informal partnering, and the development of a zipper plan that aligns key personnel.

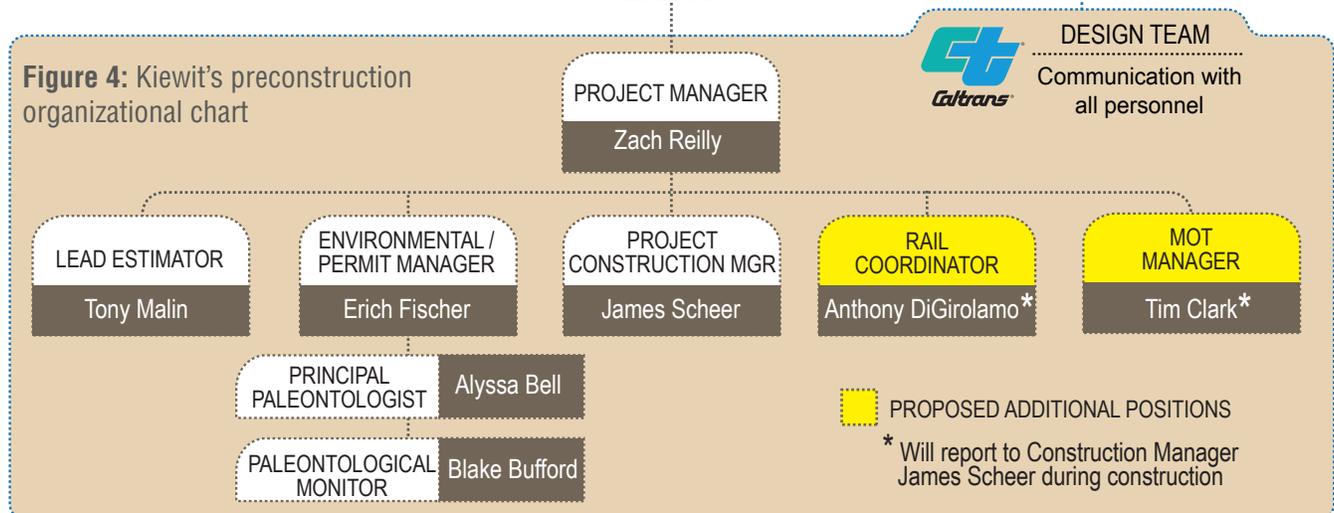
- ◆ Over-communicate from Day 1 early and often in a straightforward and transparent manner. Weekly progress meetings throughout the project duration will facilitate continued evaluation of performance and proactively address concerns.
- ◆ Let our performance do the talking by continuously monitoring it against the project goals through internal and external audits.
- ◆ Build lasting partnerships not only between Kiewit and Caltrans, but with stakeholders such as UPRR, Cosumnes River Preserve, regulatory agencies and communities along SR 99.
- ◆ Maintain a forward-focus with a solution-oriented team that anticipates and resolves issues before they impact the project.

### CM/GC Methodology

#### Assign the Right People

When selecting our Key Personnel, we analyzed the project scope and selected the right team based on who demonstrated the critical attributes needed to achieve your stated goals, as described in Section 5.

The organization chart in **Figure 4** depicts our proposed organization for this project. **Figure 5**, on the following page, shows how these individuals will integrate with the Caltrans team.



# COSUMNES BRIDGE REPLACEMENT

## Build an Integrated and Cohesive Team

Our handpicked group of senior construction professionals was selected specifically to integrate and act as an extension of Caltrans during preconstruction. As a single proposing entity (not a joint venture), we provide you with a true single point of contact and a team that is already aligned on approaches, processes, and tools.

Integrating our team with Caltrans begins with an initial kick-off meeting to jointly align expectations regarding project management. A partnering workshop will follow where we will develop functional relationships among the project team, including drafting a completely integrated organizational chart. Kiewit has successfully utilized this approach on other CM/GC projects, including the SFOBB Foundation Removals Project, to help each team member understand their role, who they will be working with directly, and the lines of communication. This fosters collaboration as well as efficiency in delivery, innovation, and strong relationships to resolve project challenges.

## Partner Every Day

We believe that partnering is a commitment to building relationships with emphasis on up-front collaboration, clear definition of common goals and objectives, and rapid issue resolution at the lowest

level. By working collaboratively every day to mitigate project risks and challenges, we establish a pattern of working together during preconstruction that carries through to construction. We take proactive steps to measure our effectiveness at quarterly intervals, keeping our focus on what matters the most to Caltrans. From the beginning, we put plans in place to address any concerns that should arise throughout the course of the project and we also define success and project milestones that will be celebrated together.

## Facilitate Ongoing Communication with Caltrans

A key component of good communication is regular meetings among all project participants. We will take a disciplined approach to formal communication to mitigate the potential for miscommunication, missed deadlines, etc., and also keep open lines of communication for casual, ongoing dialogue that is part of strong partnership. In addition to design and constructability-related meetings, we will coordinate weekly client meetings, quarterly management/partnering meetings, informal partnering events, and other meetings as needed. It is our goal to function as One Team, and we encourage Caltrans' input throughout project delivery.

**Figure 5:** Draft zipper plan showing how integrating Key Personnel into the Caltrans organization helps each person understand their role, who they will be working with directly, and the lines of communication.

KIEWIT TEAM MEMBER	KIEWIT ROLE	CALTRANS MEMBER
Zach Reilly <b>Project Manager</b>	Ultimate responsibility for meeting all project goals, Caltrans' single point of contact for issues	<b>Project Manager, Design Manager, Risk Manager</b>
James Scheer <b>Construction Manager</b>	Perform constructability reviews, ensure compliance with specifications and requirements, manage efficient operations	<b>Design Manager Chief Construction Manager</b>
Tony Malin <b>Lead Estimator</b>	Develop estimate in collaboration with team members, update risk and cost matrix weekly	<b>Independent Cost Estimator Caltrans Cost Estimator</b>
Erich Fischer* <b>Enviro/Permit Mgr</b>	Develop and implement strategy for timely acquisition of permits and will ensure environmental compliance during construction	<b>Chief Environmental Engineer</b>
Anthony DiGirolamo <b>Rail Coordinator</b>	Coordinate with railroad and design team to ensure timely approvals and permits and compliance during construction	<b>Chief Railway Engineer</b>
Tim Clark <b>MOT Manager</b>	Perform constructability reviews, develop traffic control plans, manage all aspects of traffic control	<b>Roadway/Traffic Engineer</b>

Proposed Positions

\*Erich will work with the paleontological team during preconstruction to develop mitigation and monitoring plans



## Schedule Acceleration and Cost Reduction

There are considerable opportunities to accelerate the construction schedule and reduce construction costs during preconstruction. Kiewit has identified early work packages that will reduce project risks and costs, described in Section 6C.

A key component to cost reduction and schedule acceleration is employing construction phasing that considers the flood season to avoid unnecessary cost impacts to the work. **MOT Manager Tim Clark** will provide valuable constructability input during preconstruction to maximize production while maintaining two lanes of traffic in each direction.

In addition, Kiewit will work with Caltrans to develop and evaluate innovative ideas that will reduce cost and accelerate the schedule. Innovations described on page 18/19 are just a few examples of what can be done to deliver the project 8 months or more ahead of schedule as shown in the construction schedule on page 12/13.

## C) ORGANIZATION AND APPROACH TO MEETING PROJECT GOALS

The table on the right demonstrates how we will apply our organization and processes to achieve the project goals. To develop a feasible project schedule that allows us to accelerate the project, we spent considerable time digging into the details to develop a preliminary activity timeline. This is outlined on page 12/13.

### Approach to Achieving the Planned Schedule

To develop a feasible construction schedule that meets the Project Delivery Goal, we analyzed elements of work to be completed and developed a sequence of work that would give us the best opportunity for

success. In addition to opportunities in preconstruction (identified on page 6/7), we have also identified several opportunities to accelerate the construction schedule for project completion eight months ahead of schedule outlined in **Figure 7** on the following page.

The construction schedule requires detailed and strategic considerations to ensure the shortest possible construction schedule is achieved while maintaining and achieving all of Caltrans' project goals. The intent of this schedule and narrative is to show some of the potential opportunities and key elements that we think are necessary for the success of this project.

### Flood Constraints on the Schedule

The Cosumnes River has the potential to flood within the project limits, which could greatly impact the construction schedule. During the proposal phase, we reviewed historical flood data from 1997 to 2018 and identified the highest flood probability months are January, February, and March (**Figure 8** on the following page). The months of December and April had a substantially lower probability of flooding. **Based on this information we have defined the Flood Season to be January through March.** Through reviewing the project topography, we found that all construction areas under and around the Cosumnes River Bridges and Overflow Bridges would be completely flooded by either a 5 or 10 year flood event, making several bridge operations susceptible to flooding. A real life example of the potential risk to construction activities is the derailment of a train adjacent to the Cosumnes River last year due to flooding.

To avoid this risk, the superstructure of these bridges must be built during non-flood months to eliminate the risk of significant damage to the falsework system and superstructure of the bridge during a flood event. However, the foundations and substructure

Project Goals	Project Approach
 <b>Safety</b> No lost time injuries for Department and Kiewit employees; no accidents involving the public. <b>Kiewit Leader:</b> Project Mgr., Const. Mgr., Safety Mgr.	<ul style="list-style-type: none"> <li>Safety culture, training and daily/weekly/monthly meetings that include and empower craft, Caltrans, subcontractor and Kiewit staff to take ownership of safety</li> <li>Assist Caltrans in developing a design and construction scheme that minimizes risk to safety, including eliminating the potential for equipment or material from coming into contact with the public during bridge construction</li> <li>Develop an MOT plan and haul route plan that protects the public and railroad from construction vehicles</li> </ul>
 <b>Mobility</b> Minimize planned impacts, no unplanned impacts, maintain access and proper signage. <b>Kiewit Leader:</b> Const. Mgr., MOT Mgr.	<ul style="list-style-type: none"> <li>Traffic Management Plan coordinated with the schedule and continuous inspection/documentation of MOT setup</li> <li>Identify optimal ingress/egress points, especially when constructing the RR overpass and the median</li> <li>Utilize gawk screens to prevent the public from being distracted, particularly when building the bridges in Phase 1 as new bridges are considerably higher than existing bridges</li> <li>Provide alternatives to Caltrans that will enhance the current traffic phasing plan</li> </ul>
 <b>Quality</b> Deliver a completed facility using high quality materials and workmanship. <b>Kiewit Leader:</b> Quality Mgr.	<ul style="list-style-type: none"> <li>Focus on transparent communication and a resolute commitment to be a partner with Caltrans on addressing any quality concerns</li> <li>Implement Quality Program that defines roles and responsibilities, trains all crews</li> <li>Help analyze design alternatives that might provide better quality at a more effective cost and provide quality estimates to help Caltrans make the right cost decisions every step of the way</li> <li>Provide constructability reviews to ensure design issues are not discovered in the field</li> </ul>
 <b>Public Interaction</b> Minimize impacts to quality of life and provide accurate and advance information to the public. <b>Kiewit Leader:</b> Project Mgr., Const. Mgr., MOT Mgr.	<ul style="list-style-type: none"> <li>Provide construction ingress/egress that controls track out; make dust control a priority</li> <li>Develop construction phasing and schemes that reduce impacts to the public</li> <li>Close coordination between construction staff and public information team to convey timely and accurate information</li> <li>Support Caltrans with public and stakeholder outreach efforts</li> </ul>
 <b>Enviro. Compliance</b> Meet or exceed all environmental commitments and permits. <b>Kiewit Leader:</b> Enviro./Permit Mgr.	<ul style="list-style-type: none"> <li>Involve key staff during both preconstruction and construction phases to aid in the understanding and implementation of commitments</li> <li>Coordination during design to identify project refinements that can be made to minimize impacts</li> <li>Develop complete project descriptions in environmental documents and applications to reduce the potential for amendments and delays and streamline permit process</li> </ul>
 <b>Project Delivery</b> All lanes to open traffic without further impacts to the traveling public by November 2024. <b>Kiewit Leader:</b> Project Mgr.	<ul style="list-style-type: none"> <li>Continuously update integrated permit, design and construction schedule</li> <li>Provide Caltrans timely schedules for different construction schemes being evaluated; implement early work packages</li> <li>Utilize experience of key personnel who know how to manage schedule and achieve schedule certainty</li> <li>Self-perform key elements for greater control of critical path</li> </ul>
 <b>Innovation</b> Utilize the expertise of the project team to continually evaluate the design and construction methods. <b>Kiewit Leader:</b> Project Mgr., Cons. Mgr.	<ul style="list-style-type: none"> <li>Maintain Innovation Management Matrix summarizing all proposed, accepted and eliminated options</li> <li>Assist Caltrans in evaluating design alternatives that could reduce cost, shorten the schedule or provide a better quality product</li> <li>Propose innovative construction means and methods that could improve safety, manage risk and accelerate the project schedule</li> <li>Provide prompt feedback to Caltrans on the benefits or disadvantages of different innovative options</li> </ul>
 <b>Local Req'ts.</b> Work with project team to incorporate and meet local and city requirements. <b>Kiewit Leader:</b> Project Mgr.	<ul style="list-style-type: none"> <li>Involve applicable stakeholders in task forces to incorporate requirements</li> <li>Train staff on local and city requirements to maintain compliance</li> <li>Continue meeting with and building relationships with stakeholders to understand and address concerns</li> <li>Leverage more than 70 years of experience working in California and building work to local and State requirements</li> </ul>
 <b>Railroad Req'ts.</b> Work with project team to incorporate and meet railroad requirements <b>Kiewit Leader:</b> Project Mgr., RR Coordinator	<ul style="list-style-type: none"> <li>Communicate early with UPRR to identify their concerns and integrate their needs into project planning</li> <li>Perform constructability reviews to ensure the construction scheme properly identifies railroad constraints, including working in short work windows, safety procedures around the railroad, and falsework and shoring systems that meet UPRR requirements</li> <li>Generate key submittals that have been fully coordinated with UPRR and ensure the timely approval of submittals</li> </ul>

of these bridges are not flood critical as the equipment utilized to build this work could be easily evacuated in anticipation of a flood and these elements are self-supporting shortly after the concrete has been poured. The demolition work is also not flood critical as the equipment and debris from construction activities could also be removed from the flood zone in anticipation of a flood event.

### Preconstruction Activities

The use of early work packages can help mitigate risks, lower costs, and provide greater schedule certainty. For this project, Kiewit believes there are at least three early work packages that can be implemented before the anticipated construction award in October 2020.

- Habitat Mitigation:** Implement habitat mitigation on the bridges (i.e., use of netting below bridges) and potential nesting areas (i.e., tree removal outside of the nesting season) in preparation of construction.
- Utilities:** Relocate or protect utilities in conflict with work zones in anticipation of construction activities
- Cosumnes River Bridge Foundations:** Build the first phase of in-water bridge foundations for the Cosumnes River Bridge during the 2020 salmonid period (June 15-Oct. 15). This avoids the need to wait for the 2021 salmonid period to build this work.

### Post-Award Construction Phases

**Phase 1:** Work on the McConnell Overpass Alternative 1 and the foundations work for the Overflow Bridges (which is not flood critical) will be constructed.

Construction of the superstructure of the Overflow and Cosumnes bridges will start in April, outside of the flood season. Scheduling the work during spring and summer months greatly reduces potential environmental impacts to the Cosumnes River. The median roadway work is concurrent with the bridge activities.

The first traffic switch will take place October 2021, switching traffic from the existing southbound lanes to the new median roadway and bridges.

**Phase 2:** The demolition of the Cosumnes and Overflow bridges starts in November 2022, followed by the foundations and substructure work. The superstructure work for both bridges also occurs during the non-flood months (April-Nov.). During this phase, no significant work occurs on the McConnell Overpass structure.

The existing McConnell underpass is not relinquished in this phase as the roadway will be used for access to help demolish and build the Cosumnes River Bridges. The next traffic switch occurs in December of 2022. Southbound traffic will be switched onto the new southbound lanes and the northbound traffic will be switched onto the median.

**Phase 3:** The existing northbound McConnell overpass structure is demolished and the McConnell Overpass Alternative 2 is built. The superstructure work for both bridges occurs during the non-flood months. The McConnell Underpass is also relinquished and restored. **Construction is complete in January/February of 2024, eight months ahead of the RFQ completion date.**

**Figure 8:** Percentage of days when river crests above 39-ft. flood level (data from 1997-2018)

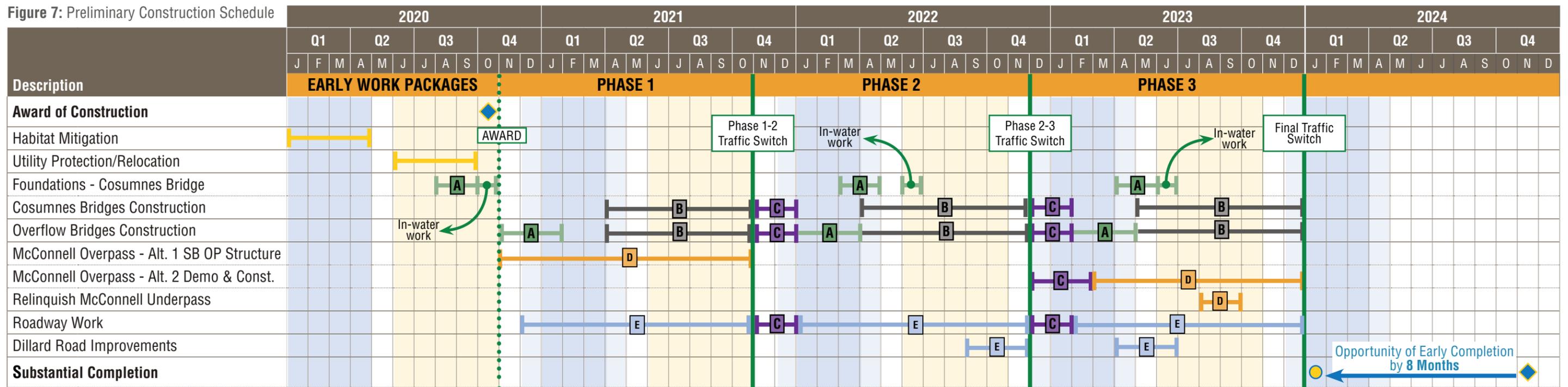
Month	Overflow Days	Total Days	%
Jan	32	651	4.9
Feb	48	593	8.1
Mar	39	664	5.9
Apr	19	645	2.9
May	0	651	0.0
Jun	0	629	0.0
Jul	0	651	0.0
Aug	0	651	0.0
Sep	0	630	0.0
Oct	0	651	0.0
Nov	0	630	0.0
Dec	10	651	1.5

In this schedule example, both the Cosumnes and Overflow bridges are demolished and constructed at the same time during each phase of construction. In actuality, considerable cost efficiencies will be realized by working some operations linearly from one bridge to the next without sacrificing schedule. In addition, there might be some opportunities to perform the bridge superstructure work during the flood season but we wanted to show a realistic schedule based on the constraints known at this time. Finally, the intent of this schedule is to show some of the opportunities available to Caltrans to accelerate the schedule. Our team will help Caltrans in the analysis of these and other alternatives for the potential acceleration of the project.

### Scope of Work Legend:

<b>A</b>	Foundations/Substructure	High Risk Flood Season
<b>B</b>	Bridge Superstructure	
<b>C</b>	Bridge/Roadway Demo	Low Risk Flood Season
<b>D</b>	McConnell Overpass/Underpass	Salmonid Work Window
<b>E</b>	Roadway Work	

**Figure 7:** Preliminary Construction Schedule



## D) IDENTIFICATION, UNDERSTANDING, AND POTENTIAL SOLUTIONS TO TOP RISKS

	Top Priority Risks	Cost Impact	Schedule Impact	Feasible Proposed Solutions	Why Kiewit is the Right Team
DESIGN	<b>Railroad Review and Approvals Delayed</b>	M	M	<ul style="list-style-type: none"> <li>Incorporate UPRR review timeline in project schedule and planning</li> <li><b>Railroad Coordinator Anthony DiGirolamo</b> to review scope to ensure conformance to UPRR standards, reducing/eliminating re-submissions</li> <li>Develop early design package for work adjacent to RR</li> </ul> <p><i>Goals Affected: ✓Safety ✓Quality ✓Project Delivery ✓Innovation ✓Railroad Requirements</i></p>	<ul style="list-style-type: none"> <li>Included <b>RR Coordinator Anthony DiGirolamo</b> on project team who has more than 25 years experience working with the RR to facilitate an efficient review/approval process</li> </ul>
	<b>Scope Growth During Iterative Design/Review Process</b>	M	M	<ul style="list-style-type: none"> <li>Collaborate with Caltrans to balance scope and budget throughout process</li> <li>Monitor quantity/cost overruns at each design deliverable</li> </ul> <p><i>Goals Affected: ✓Quality ✓Project Delivery ✓Innovation</i></p>	<ul style="list-style-type: none"> <li>On the SFOBB Foundation Removals Phase 3, <b>PM Zach Riley</b> identified key design savings early in the process reducing project cost by 10% and schedule by four months</li> </ul>
CONSTRUCTION	<b>Railroad Constraints</b>	H	H	<ul style="list-style-type: none"> <li>Incorporate railroad review timeline in project schedule</li> <li>RR Task Force - Led by <b>RR Coordinator Anthony DiGirolamo</b></li> <li>Early procurement of long lead materials from early RR design package</li> </ul> <p><i>Goals Affected: ✓Safety ✓Mobility ✓Quality ✓Project Delivery ✓Innovation ✓Railroad Requirements</i></p>	<ul style="list-style-type: none"> <li><b>RR Coordinator Anthony DiGirolamo</b> understands how to navigate RR reqs. to efficiently progress construction</li> <li>Innovative ideas to speed work adjacent to RR provided in section 6fF</li> </ul>
	<b>Utility Relocations/Coordination</b>	L	M	<ul style="list-style-type: none"> <li>Utility Task Force Meeting to include Comcast, SMUD, and Kinder Morgan</li> <li>Incorporate realistic relocation time-lines or constraints into project schedule</li> </ul> <p><i>Goals Affected: ✓Safety ✓Quality ✓Project Delivery ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li>Kiewit has proven experience in successfully coordinating with 29 different utility agencies during the Port Mann Highway 1 project</li> </ul>
	<b>Flooding During Construction</b>	H	H	<ul style="list-style-type: none"> <li>Schedule work in flood zone during typically dry months (April-November)</li> <li>Look at alternate bridge types and construction methods (eliminate falsework)</li> <li>Develop a flood evacuation contingency plan for work in the flood zone</li> </ul> <p><i>Goals Affected: ✓Safety ✓Quality ✓Environmental Compliance ✓Project Delivery ✓Innovation</i></p>	<ul style="list-style-type: none"> <li>Schedule in this proposal takes into account scheme to complete work within both habitat work windows and around high risk flood months</li> </ul>
	<b>Archaeological / Paleontological Discoveries</b>	M	M	<ul style="list-style-type: none"> <li>Develop a paleontologic/archaeologic inadvertent discovery plan</li> <li>Work with Caltrans to conduct tribal outreach and pre-screen areas with highest potential for findings</li> </ul> <p><i>Goals Affected: ✓Quality ✓Environmental Compliance ✓Project Delivery ✓Innovation ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li>Key personnel from ESA have significant experience implementing paleontologic/archaeologic mitigation and monitoring plans</li> </ul>
	<b>Resource Availability (Labor, Materials, Subcontracts)</b>	M	M	<ul style="list-style-type: none"> <li>Strength and market presence to mobilize a strong craft following</li> <li>Identify long-lead or large quantity materials; lock-in price early in preconstruction phase</li> <li>Identify crucial subcontract scopes; engage early in preconstruction phase</li> </ul> <p><i>Goals Affected: ✓Safety ✓Quality ✓Public Interaction ✓Environmental Compliance ✓Project Delivery ✓Innovation ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li>Kiewit's recent demonstrated ability to mobilize craft, subs, and materials to the fast-paced Oroville Spillways Repair to achieve all milestones to date.</li> </ul>
ROW	<b>Temporary Construction Access Approvals</b>	L	M	<ul style="list-style-type: none"> <li>Utilize alternate staging areas already within Caltrans ROW (ex. cloverleaf at Dillard)</li> <li>Negotiate a win-win agreement with adjacent landowner for borrow material and project laydown</li> </ul> <p><i>Goals Affected: ✓Mobility ✓Public Interaction ✓Environmental Compliance ✓Project Delivery ✓Innovation ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li>Kiewit has already begun the process of identifying potential landowners to approach</li> </ul>
ENVIRONMENTAL	<b>Environmental Permit Delays</b>	M	H	<ul style="list-style-type: none"> <li>Phase laydown areas for &lt;1 year of disturbance; create "temporary" classification permitted under current Nationwide Permit</li> <li><b>Enviro./Permit Manager Erich Fisher</b> to provide guidance to Caltrans on concurrent permit strategy</li> </ul> <p><i>Goals Affected: ✓Environmental Compliance ✓Project Delivery ✓Innovation ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li><b>PM Zach Reilly/Enviro./Permit Manager Erich Fisher's</b> proven record working collaboratively with Caltrans procuring permits on SFOBB - led to permit acquisition 18 months earlier than the initial timeline</li> </ul>
	<b>Impacts to River or Adjacent Conservation Areas</b>	M	L	<ul style="list-style-type: none"> <li>Develop a strategy to complete foundation work within salmonid window throughout all phases</li> <li>Work with Caltrans in preconstruction to limit temporary impacts in conservation areas</li> </ul> <p><i>Goals Affected: ✓Quality ✓Public Interaction ✓Environmental Compliance ✓Project Delivery ✓Innovation ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li>At Port Mann Highway 1 <b>CM James Scheer</b> successfully deconstructed a tied-arch bridge over Frasier River without impacts to the environment</li> </ul>
STAKE-HOLDER	<b>MOT Effectiveness</b>	L	L	<ul style="list-style-type: none"> <li>Work at night during lowest traffic period</li> <li>Separate work zone from public traffic by re-striping, designating access, and use of gawk screen</li> </ul> <p><i>Goals Affected: ✓Safety ✓Quality ✓Public Interaction ✓Local Requirements</i></p>	<ul style="list-style-type: none"> <li><b>PM Zach Reilly/MOT Manager Tim Clark</b> experience managing median work zone on the HTC project</li> </ul>

## E) APPROACH TO MANAGING RISKS

### Iterative Process

Following the partnering workshop, Kiewit will use a collaborative risk workshop within the first 30 days of preconstruction. The session will include the Caltrans, Cosumnes River Preserve group, UPRR and other appropriate stakeholders, with the goal of understanding the project risks, mitigation techniques, and opportunities that may exist. Identifying and applying risk solutions early in the design process provides the greatest opportunity to influence the cost/schedule outcome, avoid large contingencies by eliminating or reducing risks, minimize exposure to all parties, and achieve project goals.

The risk identification and management effort is an iterative process that will continue throughout the life of the project until all risks are resolved or closed. Kiewit worked with the SFOBB Foundation Removals and SR 58 Kramer Junction project teams to effectively manage risk. For example, we established an allowance item for construction water at Kramer Junction which will cover actual costs, but keep money from being unnecessarily spent compared to pricing the risk with the GMP. This proven process has been applied on all successful Kiewit CM/GC projects. **Figure 9** describes the process we use to identify, mitigate and price risk.

*The California Division of the FHWA honored the SFOBB Foundation Removals CM/GC team, along with federal and state agencies who worked together to develop an implosion method for removing the old SFOBB concrete piers. This method was found to have the least impact on the environment through scientific monitoring and measurements observed before, during and after the implosion of Pier E3. The work led to data that helped set up methodology improvements and assisted in defining boundary limits to avoid impacts to Bay Area wildlife and water quality.*

**Our approach to managing risks is to shrink risk or eliminate risk, not to simply shift risk.** Our ability as a team to meet the project goals is closely tied to our ability to identify, reduce and manage risks. The CM/GC approach to project delivery

is one of the most effective risk management tools available to identify risks early in the project lifecycle, and allow the opportunity to appropriately manage risk.

**Work with Caltrans to identify and develop risk strategies early.** This provides the opportunity to reduce the cost, shorten the schedule, and still deliver the scope required while allowing the contractor the opportunity to meet business objectives. In short, we are all incentivized to achieve common goals.

**Involve the team to determine who can best handle the risk.** Management of risk is a positive mechanism to involve the project team and build unity, camaraderie and collaboration, and will assist in “right sizing” the contingency for all parties. For example, third party utilities could be a Caltrans’ contingency whereas labor escalation could belong to Kiewit.

**Figure 9:** Effectively managing risk by identifying, mitigating and pricing.



**Accurate information on cost and schedule is key.** Kiewit will prepare detailed cost estimates and schedules based on historical information in the context of the CM/GC process. The construction means, methods, productions and schedule will be reviewed and discussed with Caltrans and stakeholders as part of the GMP process in an open-book format. The assumptions related to the risks identified as part of the risk process will be clearly established so that all parties can focus their attentions appropriately. This enables the team to reach a GMP by knowing the risks to cost certainty and schedule, and how they are being covered.

## Ongoing Risk Assessment, Pricing, and Mitigation

### Preconstruction

One of the most important preconstruction activities will be workshop meetings at agreed upon intervals to connect risk review, value engineering/constructability evaluations, and GMP planning together into a single event. This focuses the team on established goals by combining the opportunity side of value engineering with risk and constructability for a complete picture. The event is structured to allow a review of risks, cost evaluation and innovations in a collaborative discussion with Caltrans. Kiewit, designers and key stakeholders who can progress decisions, provide creative ideas and carry information back to their counterparts.

We will capture and manage the status of all risks in a manageable Risk Register, as we did on SFOBB Foundation Removals. Under the direction of **Lead Estimator Tony Malin**, risks will be continually priced and updated to ensure accurate assessment of effect on overall project cost.

### Construction

During construction, detailed work planning will be reviewed and approved by **CM James Scheer** prior to beginning field operations, with the known risks being engineered out of operations to the greatest extent possible. This detailed and systematic procedure of assessing, classifying, engineering, constructing and monitoring elements of project risk will minimize the exposure to Caltrans, the contractor, and public during construction.

## F) INNOVATION

### Approach

The CM/GC process fosters innovation by bringing together a diverse group of technical and managerial experts with different experiences, but with the common purpose of finding the best solutions to the mutually agreed upon goals. We will partner with Caltrans to ensure an environment of collaboration and innovation is adopted and the best value project is delivered. In this section, we describe the use of innovation and value engineering for this project which results in added value for Caltrans.

The team's ability to work hard upfront vetting the value of innovations will provide risk mitigation, cost certainty, and efficient use of funding. Kiewit's innovation process has been used on numerous CM/GC and design-build projects that have been very successful. For specific examples of the tangible innovation results obtained on previous projects, please see the five past project experience Form Bs in Section 4.

### Innovative Ideas

In preparation for this proposal, Kiewit began the process of brainstorming opportunities and risks with in-house subject matter experts, civil engineers, and environmental and railroad experts. Based on these sessions, we identified several significant innovations and opportunities to discuss with Caltrans that could reduce project cost by more than 10 %. Detailed in **Figure 10** on the following page is a list of innovative concepts and their benefits as it relates to the project goals. Each potential innovation must be evaluated collaboratively with Caltrans and the project team for inclusion into the project. Just as we did on SR 58 Kramer Junction, we will maintain an Innovations List where we provide solutions to reduce cost and still deliver the project scope.

We selected the following 10 innovations to demonstrate the range of solutions that our team can deliver to adapt to Caltrans' needs and achieve the project goals. We have selected four to describe in more detail (noted with \*).

Figure 10: Innovative concepts and their benefits as it relates to cost savings, schedule savings and risk mitigation.

Innovations	Benefits
<p><b>*1 Alternate Bridge Design for McConnell Overpass</b></p> <ul style="list-style-type: none"> <li>Precast CON/SPAN® sections</li> <li>Single Span with perched abutments atop MSE walls</li> </ul>	<ul style="list-style-type: none"> <li>Reduce length of bridge, therefore reducing time and cost to construct</li> <li>Simplify bridge design to speed RR design review.</li> </ul>
Goals Achieved: ✓ Safety, ✓ Mobility, ✓ Quality, ✓ Project Delivery, ✓ Innovation, ✓ Railroad Requirements	
<p><b>2 Precast Girder Bridges instead of CIP Box Bridges</b></p>	<ul style="list-style-type: none"> <li>No falsework needed; reduced cost and lower flood risk exposure</li> <li>Precast concrete girders are very cost effective spanning elements</li> </ul>
Goals Achieved: ✓ Mobility, ✓ Quality, ✓ Project Delivery, ✓ Innovation, ✓ Local Requirements	
<p><b>*3 Gantry Crane for Median Bridge Construction</b></p>	<ul style="list-style-type: none"> <li>Provides simple solution to narrow corridor constraints</li> <li>Reduces traffic impacts by minimizing the need for closures during deliveries</li> <li>Provides flood mitigation by keeping hoisting equipment out of the flood zone</li> </ul>
Goals Achieved: ✓ Safety, ✓ Mobility, ✓ Public Interaction, ✓ Environment Compliance, ✓ Project Delivery, ✓ Innovation	
<p><b>4 Early Design Packages</b></p>	<ul style="list-style-type: none"> <li>Early foundation design could allow work in 2020 salmonid window</li> <li>Early girder package allows for early fabrication of McConnell girders and reduction in escalation costs</li> <li>Early RR package initiates UPRR review as early as possible</li> </ul>
Goals Achieved: ✓ Project Delivery, ✓ Innovation, ✓ Railroad Requirements	

Innovations	Benefits
<p><b>*5 Re-Stripe Early: Separate Construction Traffic from Public Traffic</b></p>	<ul style="list-style-type: none"> <li>Improves safety for all by further separating the public from construction zone</li> <li>Reduces traffic impacts by providing a dedicated construction lane</li> <li>Maintains existing configuration with two dedicated NB and SB lanes through corridor</li> </ul>
Goals Achieved: ✓ Safety, ✓ Mobility, ✓ Public Interaction, ✓ Environment Compliance, ✓ Project Delivery, ✓ Innovation	
<p><b>6 Optimize Use of Existing Caltrans ROW for laydown</b></p>	<ul style="list-style-type: none"> <li>Utilize land inside Dillard cloverleaf already owned by Caltrans, reducing cost</li> <li>Reduces permitting effort by using less sensitive property</li> </ul>
Goals Achieved: ✓ Mobility, ✓ Public Interaction, ✓ Environment Compliance, ✓ Project Delivery, ✓ Innovation	
<p><b>7 Avoid Closing Eschinger Road Access to SR 99</b></p>	<ul style="list-style-type: none"> <li>Provides a positive publicity solution for Caltrans</li> <li>Maintains current traffic flows, thus limiting impacts to the public</li> <li>Reduces impact to agricultural community adjacent to project</li> </ul>
Goals Achieved: ✓ Safety, ✓ Mobility, ✓ Quality, ✓ Public Interaction, ✓ Project Delivery, ✓ Innovation, ✓ Local Requirements	
<p><b>8 Use Local Import Source Adjacent to Alignment</b></p>	<ul style="list-style-type: none"> <li>Traffic reduction by reducing trucking distance for haul of fill material</li> <li>Win-win solution for local landowner and Caltrans</li> </ul>
Goals Achieved: ✓ Safety, ✓ Environmental Compliance, ✓ Project Delivery, ✓ Innovation	
<p><b>9 Simplify Permit Process</b></p>	<ul style="list-style-type: none"> <li>Phase project laydown for &lt;1 year disturbance per location</li> <li>Allows for use of Nationwide Permit as opposed to lengthy Individual Permit</li> </ul>
Goals Achieved: ✓ Safety, ✓ Public Interaction, ✓ Environmental Compliance, ✓ Project Delivery, ✓ Innovation	
<p><b>10 Utilize Material Under Current Roadway for Borrow</b></p>	<ul style="list-style-type: none"> <li>Once traffic is shifted to constructed median, borrow material outside re-aligned prism near McConnell for fill in other areas of project</li> <li>Reduced import cost and haul traffic</li> </ul>
Goals Achieved: ✓ Environmental Compliance, ✓ Project Delivery, ✓ Innovation, ✓ Local Requirements	

## G) APPROACH TO SAFETY

### Ensuring Safety During Construction

Our commitment to safety is evidenced by our long-running, industry leading safety records. We understand that one of the critical risks on the Cosumnes Project is the safety of the traveling public and workers. We bring the necessary expertise and proven ability to build safety into the planning and execution of complex urban transportation infrastructure projects, and will use lessons learned, best management practices, and comprehensive planning to achieve the goal of Nobody Gets Hurt.

*"Kiewit has been uncompromising in maintaining a solid safety program, constantly assessing the work underway and ensuring the program adapts to manage risks that may be encountered so workers are trained and aware of the importance of the safety program. This recognition of maintaining a safe environment extends to ensuring construction work retains a safe roadway for vehicles at all time. Overall we are very pleased with the project's safety record and the attention that Kiewit brings to it."*

*– Gary Dawson, Project Manager, TI Corp.,  
Port Mann Highway 1*

We begin by integrating safety at every step of the process, starting with construction input on safety during design to ensure safety in the final design for both motorists and Caltrans maintenance staff. During construction, we engage on-site personnel at every level and empower them to make safety observations and provide recommendations. From tool-box safety talks to senior management safety inspections, the team is committed to safety. We hold employees and subcontractors accountable for compliance with Caltrans and Kiewit safety standards and commit to planning, promoting, and maintaining a safe, incident-free environment. All project employees are encouraged and given the authority to stop any unsafe act. Statistics and details of our program are included in Section 3.

### Safety Considerations Specific to this Project

Kiewit will develop a project-specific list of all safety hazards, risks and planned mitigations related to the completed work, work methods and

environments. The top safety considerations are summarized below. A specific Job Hazard Analysis (JHA) will be generated for all tasks prior to the start of operations.

Hazard	Preliminary Mitigation Measures
Construction adjacent to live traffic	Experienced, full-time MOT Manager; public outreach; clear delineation behind gawk screens and k-rail; variable message signs; clearly marked access points
Large workforce	Safety indoctrination, regular training and meetings, dedicated safety manager, and Craft Voice in Safety program to gain buy-in, engagement, and ownership of program by all onsite workers
Constrained work zones	Clearly marked access, use of spotters, radios to communicate plans
Human/equipment interface	Site-specific work rules will identify boundaries where ground personnel are authorized and needed to perform labor activities
Utility strike	Preconstruction utility investigation, strict policy around digging

### Enhancing Safety After Construction

During preconstruction, we will explore options to enhance the safety of the traveling public and maintenance workers after construction. In addition to improving safety along the corridor by replacing scour critical bridges, the project will provide standard width shoulders and a uniform median as well as eliminating vertical clearance issues from the railroad underpass. The project will also construct the railroad clearance envelope to current UPRR standards. We will work with Caltrans to help ensure the design allows a permanent product that mitigates safety hazards to the greatest extent possible.

*"Most proactive safety program I've seen on a jobsite. Multiple levels of oversight within the contractor's organization and shared responsibility with owner. Frequent mutual site review by safety personnel."*

*– Brian Boal, Caltrans, SFOBB Foundation Removals Phase II*

# APPENDIX A

## RESUMES



## APPENDIX A: RESUMES

PROJECT MANAGER - ZACH REILLY .....	A-1
CONSTRUCTION MANAGER - JAMES SCHEER.....	A-5
LEAD ESTIMATOR - TONY MALIN .....	A-9
ENVIRONMENTAL/PERMIT MANAGER - ERICH FISCHER .....	A-11
PRINCIPAL PALEONTOLOGIST - ALYSSA BELL .....	A-14
PALEONTOLOGICAL MONITOR - BLAKE BUFFORD.....	A-17
RAILROAD COORDINATOR - ANTHONY DIGIROLAMO .....	A-19
MAINTENANCE OF TRAFFIC MANAGER - TIM CLARK.....	A-22

# COSUMNES BRIDGE REPLACEMENT



**ZACH REILLY,**  
Project Manager

## Years of Experience

21 Industry

## Education

Oregon State University  
Bachelors of Science,  
Civil Engineering

## Licenses & Registrations

N/A

## Experience Working with Same Key Personnel

- **SFOBB Foundation Removals** – Environmental/Permit Manager Erich Fischer
- **Honolulu High Capacity Transit Corridor** – MOT Manager Tim Clark
- **Various estimate brainstormings** - Estimate Lead Tony Malin

## HIGHLIGHTS OF EXPERIENCE

- ♦ 21 years of experience, including 7 years of experience managing work on alternative delivery projects
- ♦ Led CMGC preconstruction services on the SFOBB Phase 3 project for Caltrans resulting in successfully reaching a GMP in just 4 months
- ♦ Successfully managed construction on the Caltrans SFOBB Foundation Removal Phase 2 CMGC Project
- ♦ Experience planning and managing new bridge construction over live highway traffic (Balanced Cantilever Construction over H1 Freeway in Hawaii)
- ♦ Successfully worked with Caltrans and permitting agencies to develop and implement innovative means and methods to protect environmentally sensitive waterways with listed species on SFOBB Phase 2 - 3
- ♦ Experience building structures and roadway work in narrow median with live traffic and extensive MOT

## RELATED WORK EXPERIENCE

Preconstruction Service - Project Manager | CMGC Preconstruction Services for San Francisco-Oakland Bay Bridge (SFOBB) Phase 3 | Caltrans | CMGC | \$44M | Oakland, CA

Contact: : Chris Traina, Supervising Bridge Engineer - Marine Foundations Contract Manager, (916) 412-8139, chris.traina@dot.ca.gov

Project No.: 04-0135CM      Dates on Project: December 2017 – Present

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

During the preconstruction phase, Zach worked closely with the Caltrans design team providing constructability reviews, value engineering, schedule analysis, and innovative solutions to accommodate an accelerated design timeline. Zach led the CM estimate team during preconstruction preparing estimates and cost analysis options at the various phases of design. Zach was integral to identifying multiple innovations during preconstruction, totaling 120 days in schedule savings and \$4.3 million of cost saving. In addition, he oversaw the successful negotiation with Caltrans and an Independent Cost Estimator (ICE) team to reach GMP for the project in a condensed 4-month timeline.

Zach is involved in weekly coordination meetings with East Bay Parks, Treasure Island Development Commission and the US Coast Guard to communicate schedule and ensure construction impacts are minimal. He works with Caltrans to jointly present the construction plan and help Caltrans address any stakeholder questions or concerns. Zach is currently transitioning out of his current assignment and will be immediately available for the Cosumnes project.

This project is the third phase of the CM/GC project to remove SFOBB foundation. Scope includes two foundation removals, approximately 600 lf of new public

*Zach Reilly Presented  
"CM/GC Best Practices"  
at the 2018 Bridge  
Contractor Caltrans  
Liaison Committee  
Meeting with Caltrans  
Resident Engineer Brian  
Boal*

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access wharf from Oakland into the bay and 100 lf on Yerba Buena Island. Wharf work entails driving 36-in. diameter piles, installing up to 110 ft.-long box girders and cast-in-place concrete walls and decks.

Project Manager | San Francisco-Oakland Bay Bridge (SFOBB) East Span Foundation Removal Phase 2 | Caltrans | CMGC | \$101M | Oakland, CA

Contact: Brian Maroney, Toll Bridge Seismic Retrofit Chief Bridge Engineer at Caltrans, (510) 385-7648, brian.maroney@dot.ca.gov

Project No.: 04-013574

Dates on Project: December 2016 – December 2017

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

As project manager Zach successfully oversaw the demolition of the large marine foundation in the San Francisco bay. The foundations ran along the bay floor between the new SFOBB and the Bay Area Rapid Transit (BART) tunnel, so blasting required shutting down both the bridge and tunnel to ensure public safety. After the first two piers were demolished, Zach and his team worked closely with Caltrans and the regulatory agencies to implement an innovative plan that allowed the project to implode multiple foundations during each blast event. In addition, Zach worked with Caltrans to get approval to employ alternate construction means and methods (using wire sawing instead of hoe ramming), which allowed the in-water work to progress year round. These changes resulted in the project finishing a full year ahead of schedule, greatly reduced impacts to the public by eliminating seven bridge and BART shut downs, and resulted in significant financial savings of nearly \$10 million to the department.

*The success of the CM/GC process is evidenced by the project receiving the Caltrans 2016 Partnering Success in Motion Award (gold level).*

Zach worked closely with the stakeholders and Caltrans to protect public safety, the environment, and submerged utilities. He also oversaw marine mammal monitoring to ensure permit compliance and the water blast pressure monitoring to verify levels did not exceed permit limits. Throughout construction, Zach worked with Caltrans to inform several regulatory agencies, including USACE, California Department of Fish and Wildlife, and the San Francisco Bay Conservation and Development Commission of the work plan and mitigation measures implemented to ensure compliance. As a result of the rigorous environmental program, the project received an Environmental Excellence Award from FHWA.

This CMGC project is part of the final phase of the SFOBB Seismic Safety Project, and entailed the removal of the east span's 15 marine foundations, consisting of nearly 60,000 tons of concrete. The team employed both traditional mechanical demolition and controlled implosive demolition techniques, using nearly 50,000 lbs. of explosives.

Construction Manager | Honolulu High-Capacity Transit Corridor Project | HART | Design-Build | \$1B | Honolulu, HI

Contact: Joelle DuBois, Project Manager, (808) 282-0328, jdubois@bowersandkubota.com

Project No.: RFP-DTS-0900015

Dates on Project: April 2014 – December 2016

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

As construction manager, Zach was responsible for managing the construction structures work, including in the narrow median of an active highway and associated MOT working closely with Tim Clark. Zach also

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oversaw the construction of a new three-span balanced cantilever bridge structure which was built over live traffic on Oahu's H1 freeway. In addition, he planned and coordinated the relocation of both above-and below-ground utilities and implemented and oversaw innovative MOT solutions, all with an eye towards improving public relations. For example, he implemented and managed a weekly MOT coordination meeting that brought the client and the MOT group together to look at long term planning and address any immediate concerns / hurdles the team was facing.

Kiewit designed and constructed the Farrington and Kamehameha Guideway segments, which included approximately 11 miles of two-track light rail from East Kapolei through Pearl Highlands to Aloha Stadium. The majority of the work was done within medians of Farrington and Kamehameha highways. Zach's approach to developing safe and efficient access, including for median bridge construction while providing safe and predictable passage for the traveling public was integral to the project's success. Structures work included deep drilled shafts, two-track aerial guideway, guideway and at-grade twin single track, and foundations for seven stations. Additional scope of work includes extensive relocation of existing utilities, reconfiguring the highway, widening the roadway, constructing an access road, removal and salvage of existing landscaping and installation of temporary landscaping.

Structures Construction Manager | Willamette River Transit Bridge | TriMet | Design-Build | \$126M | Portland, OR

Contact: Dave Tartadian, Civil Engineering Manager, (503) 238-7433, TertadiD@trimet.org

Project No.: RH100391JB

Dates on Project: May 2011 – April 2014

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Zach was the structures construction manager for work including the cofferdam, pier table, and balanced cantilever on this design-build project for Tri-Met in Portland, OR. On cofferdam work, he was responsible for overseeing in-water work including pile driving for the temporary work bridge, sheetpile installation for the cofferdams, and placing scour protection. He was also responsible for ensuring work complied with the strict environmental restrictions of the in-water work permits. On the pier table scope, Zach planned and oversaw the erection of heavy steel falsework, complex elevated formwork, geometry control, and concrete placements. During balanced cantilever work, Zach oversaw the segmental cast-in-place operations on the bridge including advancement and modification of the traveling form systems and post-tensioning operations.

Kiewit led the team to design and construct this cable-stayed bridge over the Willamette River, a vital element of TriMet's new 7.3- mile light rail link connecting downtown Portland, the South Waterfront, the city of Milwaukie, and North Clackamas County. This signature bridge is the nation's largest transit-only bridge and carries light rail trains, streetcars, buses, pedestrians, and cyclists, but no private vehicles. The design-build project was successfully completed on time and received several awards, including the Project of the Year Award and People's Choice Award from the American Council of Engineering Companies of Oregon, and the 2015 Champion of the Year, DBE Achievement from TriMet.

*"In a city known as 'river city' and 'bridge town' that hasn't built a bridge in forty years in a design district that needed design commissioner approval, to get this project done in three years ... I think it's a phenomenal accomplishment by the team." – Rob Barnard, Project Manager, TriMet*

*The Project won multiple awards: 2016 Honor Award, ACEC; 2016 Project of the Year Award and People's Choice Award, ACEC of Oregon; 2015 Bridge Award of Excellence, American Segmental Bridge Institute (ASBI); 2015 Grand Prize, Excellence in Concrete, Oregon Concrete and Aggregate Producers Association; 2015 Champion of the Year, DBE Achievement, TriMet*

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General Superintendent | Kearn River Water Intake Facility | Imperial Oil Limited | Bid Build | \$158M | Fort McMurray, AB

Contact: Dave Edwards, General Superintendent Fluor Canada, (780) 748-2333, david.edwards@fluor.com

Project No.: A4TE-00K038

Dates on Project: June 2009 – March 2010

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

As general superintendent, Zach managed the foundations and marine work. Zach was responsible for planning and overseeing construction of the initial site development, in-river cofferdam structures, and foundation excavation and preparation located in a remote region of Alberta Canada. The project's location presented many unique logistical challenges including staff and craft housed in temporary camps, procurement/delivery of equipment and materials, and building work in temperatures that approached -40 degrees F.

Kiewit wholly owned subsidiary General Construction Company constructed a water intake facility along the east shore of the Athabasca River north of Fort MacKay, AB, including a cofferdam consisting of 14 individual 60 ft. diameter circular sheet pile cells and connecting arcs. Following the installation of the cofferdam, crews built a pump house facility to house two 6-ft. diameter pump units and with the ability to expand to four pump units, as well as an electrical building and substation. Ten of the cofferdam circular sheet pile cells were removed at completion of the project while four remain as permanent bulkhead structure along the river.

Project Engineer | Hood Canal Bridge Retrofit and East Half Replacement | Washington State Department of Transportation | Bid Build | \$289M | Port Gamble, WA

Contact: N/A

Project No.: 6525

Dates on Project: July 2005 – October 2007; June 2008 – January 2009

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Zach started as field engineer, form fabrication superintendent, and pontoon superintendent for the replacement of the east half of the bridge. His duties included preparing schedule and work plans, and supervising and managing daily crew operations. Later, as project engineer Zach was accountable for the resolution of all field issues, administration of subcontracts, communication with the client, project schedule management, coordination of survey activities, and oversight of the superstructure engineering duties.

This project to renovate the 7,900-ft.-long Hood Canal Bridge involved replacing both bridge approaches, widening the west half, replacing the eastern floating structure, updating the electric system, and providing a new control system for the entire floating bridge. This schedule-sensitive project included erecting a 1,500-ft.-long concrete superstructure and constructing a four-story operations control tower.

# COSUMNES BRIDGE REPLACEMENT



**JAMES SCHEER,**  
Construction Manager

## Years of Experience

23 Industry

## Education

Bachelor of Science  
Construction Engineering  
Management, Oregon  
State University

## Licenses & Registrations

N/A

## Experience Working with Same Key Personnel

- **Port Mann Hwy 1**  
– MOT Manager, Tim Clark
- **Benecia-Martinez**  
– Lead Estimator, Tony Malin

## HIGHLIGHTS OF EXPERIENCE

- ♦ 23 years of construction management experience
- ♦ 5 years of alternative delivery project management on highway projects
- ♦ Ensured early completion of the PMH1 Port Mann Bridge
- ♦ Successful collaboration with the railroad to obtain permits and approvals to maintain schedule on three projects including, PMH1, Troutdale and the Big “I”
- ♦ Record of zero DRB or litigation on all projects managed
- ♦ Record of 100% on-time completion
- ♦ For the past three years, James has been supporting operations on various complex structures projects throughout the nation and developing means and methods to efficiently bid work

## RELATED WORK EXPERIENCE

Construction Manager – Segment 3 | Port Mann Highway 1 Improvements | British Columbia Ministry of Transportation | Design-Build | \$2.69B CAD | Vancouver, BC

Contact: Linda Meindersma, PE, Bridge Section Manager, Formerly TIC Corp, (604) 684-3282, linda.meindersma@jacobs.com

Project No.: N/A                      Dates on Project: August 2009 – December 2014

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

James was construction manager for the \$950 million Segment 3 bridge and approaches. In this role James oversaw the day-to-day field operations, including all labor, equipment, materials, suppliers, and subcontractors. He worked with the British Columbia Ministry of Transportation to ensure adherence to the project quality standards. Work included drilling 8-ft.-diameter shafts up to 206 ft. deep using an oscillator and temporary casing; approach substructures, including column and pier cap construction; span-by-span precast segmental installation with an overhead truss; and demolishing the existing Port Mann Bridge. As part of the demolition work, James coordinated with CN rail to maintain access to the work through railroad ROW. When necessary, demolition work was scheduled during off-shift hours to minimize impacts to the rail and increase productivity. James also worked closely with the project’s environmental manager to ensure compliance with the many regulations and permits regarding working near and over the Fraser River.

James oversaw MOT operations associated with hauling the precast segments to the new bridge. He coordinated with various jurisdictions such as providential and city agencies to obtain approvals and permits for these operations. In addition, James managed the last three phases of traffic switches on to the Port Mann bridge. Traffic was moved into its tolling configuration one year earlier than required, enabling the client to begin collecting revenue from tolling – a key goal for the project.

*“Likely the most prominent aspect is Kiewit’s unwavering focus on safety, which starts right at the planning stage through to the clean up of the site. They also bring strong engineering resources to plan and check the planned work which they recognize can be as challenging as constructing a new bridge.”*  
– Garry Dawson, Project Manager, PMH1, TI Corp.

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At the beginning of the project, CN rail established maximum durations of allowable closures that were limited to 15 minutes, with closure requests submitted days in advance. CN rail maintained ultimate control of their schedule at all times; Kiewit managed and planned around their needs. However, as CN rail developed trust in our ability to follow through as planned, longer closures were permitted whenever feasible. James understood that maintaining constant, open communication with the rail during these operations ensured safety and that rail traffic impacts were minimized to the greatest extent possible. The strong relationship James forged with CN rail resulted in cost and schedule benefits for the project.

Earlier in the project, James also oversaw and managed construction of the main bridge's two 520-ft.-tall pylons that support the record-setting 2,788-ft.-long main span, including installing and removing tower cranes and temporary elevators and fabricating and installing permanent elevators for each pylon. Once the pylons were complete, James managed the bridge deck construction and cable stay installation. The main span bridge deck, which crossed a railroad switchyard, including 15 rail lines directly underneath the work, and the Fraser River's shipping channel, was built using two S-30 derrick cranes mounted to the bridge deck. James began communicating with CN rail early and continued to foster the relationship throughout the project. Three months before bridge construction began, James reached out to CN rail, setting up meetings to explain our work and schedule. Follow-on meetings were then held regularly to discuss both long- and short-term schedules.

*"The first thing that was evident was that Kiewit understood the issues at hand both on the demolition front as well as the environmental impacts that may arise from it. They (James and his team) developed comprehensive work plans for the demolition that included environmental mitigation measures such as abatement and containment of lead paint. Any component of these plans that had a link with environmental concerns included mitigation measures that were brought forward with the various agencies to ensure they met their expectations and provided a strong level of comfort that the proposed works would not pose a serious or unacceptable risk. To date there have been no issues raised as the demolition work progresses." – Garry Dawson, Project Manager, PMH1, TI Corp.*

This highly staged and complex project widened a 23-mile section of Highway 1. It added one lane in each direction west of the Fraser River and two lanes in each direction east of the river, a new 10-lane toll bridge connecting the two sides, significant upgrades to 17 interchanges and improvements to 28 separate overpass/underpass structures. Additional scope included walls, drainage, asphalt pavement, significant utility coordination/relocation, and third-party coordination.

Construction Manager | Confluence Path Vancouver Land Bridge | City of Vancouver, Washington | Bid-Build | \$10.7M | Vancouver, WA

Contact: Charles Fell, Senior Civil Engineer, City of Vancouver, (360) 487-7750, charles.fell@ci.vancouver.wa.us

Project No.: STPD-0014(047)

Dates on Project: July 2006 – July 2008

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

For this architectural pedestrian bridge crossing SR-14 from the Columbia River waterfront to Fort Vancouver Park, James was responsible for all aspects of construction, including safety, quality, budgeting, and scheduling. The bridge is forward compatible with a future widening and ramps for a new Columbia River Crossing. Site challenges included its location close to a Native American archaeological site and its complex geometric shape, including significant horizontal and vertical curves. During construction, James worked with the archaeological principal to coordinate a two-week planned dig. Construction crews removed roughly 10 ft. of overburden material to allow archeologic exploration and

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construction work was phased around their dig. Other third-party agency coordination included working with WSDOT, the National Park Service, U.S. Army, Pearson Airfield, and the nonprofit Confluence group. James held weekly coordination meetings with these third parties to review schedule, potential issues and MOT.

Work included one-sided fascia walls, two-sided retaining walls, curb walls, trellises, overlooks, interpretive panels, and other aesthetic elements on the bridge on the project. The scope also included grading, paving, walls, utilities, steel trellises, boardwalks, traffic control, and landscaping.

Operations Construction Manager | Benicia-Martinez Bridge | Caltrans | Bid-Build | \$758M | Benicia, CA

Contact: Bob Brignano, Engineer, Caltrans, (510) 774-6276, bob\_brignano@dot.ca.gov

Project No.: 04-006034

Dates on Project: November 2001 – July 2006

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

James was responsible for several operations on this project including the on-site concrete batch plant, pier table installation, and cast-in-place segmental operations. As part of his responsibilities for the batch plant, he monitored SWPPP and ensured environmental compliance, developed the mix design and managed the material deliveries and production of the high performance lightweight concrete for the bridge's cast-in-place segmental superstructure. The mix design used lightweight coarse aggregate shipped via rail car from North Carolina and sand shipped from British Columbia. His team delivered 180,000 cu. yd. of concrete without a single quality issue.

At 8,790 ft. in length, the Benicia–Martinez Bridge is the largest cast-in-place concrete segmental bridge in California. It spans the Carquinez Straights where tidal estuaries of the Sacramento and San Joaquin Rivers merge with the San Francisco Bay. The Straights are heavily trafficked by commercial shipping and the bridge site is adjacent to several oil and gas processing plants. The bridge will accommodate future light rail and is a state Lifeline Route—a mandated safety measure that requires the bridge to remain open after an earthquake for emergency relief traffic.

Project Engineer | I-40/I-25 Interchange (The Big “I”) | New Mexico Department of Transportation | Bid-Build | \$237M | Albuquerque, NM

Contact: NA

Project No.: AC-MP-(IM)-(TPU)-025-4(78)277

Dates on Project: March 2000 – November 2001

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

For this New Mexico Department of Transportation project, James was responsible for budget, scheduling, and cost control. The project involved fast-track, phased reconstruction and expansion of nearly two miles of the existing I 25/I-40 interchange through central Albuquerque in just 24 months. While this project was a bid-build contract, there were several components that required the team to work closely together in a collaborative environment to resolve issues associated with MOT, constrained ROW and accelerated schedules. In addition, the design was not complete when we were awarded the project. James worked with the designer to incorporate constructability and identify work sequence and staging for critical areas of the project. For example, he helped identify drilled shaft locations, which would allow construction to take place without overhead constraints of the adjacent bridges within the confined construction zone. Prior to construction of bridges over the railroad and city streets, James provided schedules and work

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plans to the railroad and city jurisdictions to ensure minimal impacts and that any issues were resolved ahead of time. When bridge foundation work was on the edge of railroad ROW, James provided shoring drawings and worked with the railroad to gain all approvals to construct the work. This up-front planning ensured work sequence and area could be performed as planned and was key to the success of operations within confined work zones.

The five-level interchange carries 340,000 vehicles a day. The reconfiguration included 55 new or reconstructed bridges, including eight precast segmental bridges, four miles of sound walls, and 111 lane-miles of paving. Kiewit established an industry record when the project team developed this project's precast yard in three short months to support the fast 24-month project schedule. The project team coordinated closely with the NMDOT to notify the public in advance of construction phasing changes to better assist in travel rout planning. Community outreach efforts resulted in a 90% approval rating from the public. The project was delivered 5 weeks ahead of schedule, under budget and with zero claims or disputes.

Job Superintendent | I-84 223rd Avenue to Troutdale (Troutdale Bridges) | Oregon Department of Transportation | Bid-Build | \$25M | Troutdale, OR

Contact: N/A

Project No.: 11808

Dates on Project: June 1996 – June 1999

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

This project constructed three bridges—one cast-in-place box girder bridge, one structural steel railroad bridge for Union Pacific Railroad, and one precast plank bridge—as well as 1.7 miles of freeway to realign I-84. James began his full-time career as the field engineer for the bridges and finished the project as the acting structures job superintendent. James helped coordinate MOT and railroad flaggers. Each bridge was built in two phases, constructing one side of the bridge, then switching traffic to the new bridge and demolishing the old bridge before building the rest of the new bridge. This staged construction maintained heavy vehicle and train traffic flow.

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**TONY MALIN,**  
Lead Estimator

## Years of Experience

40 Industry

## Education

B. S. Civil Engineering,  
University of California

## Licenses & Registrations

NA

## Experience Working with Same Key Personnel

- **Benecia-Martinez** - Construction Manager James Scheer
- **Various estimate brainstormers** - Project Manager Zach Reilly

## HIGHLIGHTS OF EXPERIENCE

- ♦ 39 years of estimating experience
- ♦ Experience estimating numerous projects in Northern California
- ♦ 20+ years of field experience resulting in a comprehensive safety, risk and schedule analysis for each alternative priced
- ♦ Transparent estimating practices resulting in a high level of trust

## RELATED WORK EXPERIENCE

Chief Estimator | Various Projects | Design-Build and Bid-build | \$10B | California

Contact: N/A

Project No.: NA

Dates on Project: May 2006 – Present

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Tony is currently chief estimator and pursuit sponsor, estimating civil infrastructure projects located primarily in Northern California. In this role, Tony is responsible for bid set-up, estimate resource allocation, estimate coordination between disciplines, compliance with contract specifications, subcontractor outreach and work packaging, estimating accuracy, and close-out. He supports the design development process through estimating by helping Kiewit and clients reach an agreed-upon price. He regularly co-locates with estimate, design and client teams to streamline the process; facilitate open-book, transparent estimate development; and foster partnerships between team members.

Major projects estimated include:

- ♦ Brightwater Treatment Plant, Seattle WA, \$174M
- ♦ Mud Mountain Dam Fish Passage Facility, Enumclaw, WA, \$112M
- ♦ BART, Warm Springs Extension Design-Build, Fremont, CA, \$332M
- ♦ I-405 Sepulveda Pass Widening Project, Los Angeles, CA, \$1.3B
- ♦ BART to SFO, South San Francisco, CA, \$1.2B
- ♦ BART Silicon Valley Extension Phase 1, Santa Clara, CA, \$250M
- ♦ Various San Francisco Bay Bridges retrofit projects, Bay Area, CA, \$3B
  - SFOBB Signature Span
  - Richmond Bridge Retrofit
  - Carquinez Bridge Retrofit
  - Golden Gate Bridge South Anchor Retrofit
  - San Rafael Bridge Retrofit
- ♦ California High Speed Rail CP-1, Fresno, CA, \$1.5B
- ♦ Sacramento Regional Sanitation Tertiary Treatment, Elk Grove, CA, \$290K

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Senior Estimator in Contract Administration | Benicia-Martinez Bridge | Caltrans | Bid-Build | \$758M | Benicia, CA

Contact: Andrew Baskerville, Senior Transportation Engineer, (925) 250-5610, andrew.baskerville@dot.ca.gov

Project No.: 04-006034 Dates on Project: May 2001 - May 2006

Time on Project: [% commitment]: 80%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Tony was the chief estimator on the project. He was responsible for managing the 2,000-plus activity contract schedule, which included supervising 3 schedulers and submitting monthly schedule update submittals to Caltrans. At 8,790 ft. in length, the Benicia–Martinez Bridge is the largest cast-in-place concrete segmental bridge in California. It spans the Carquinez Straights where tidal estuaries of the Sacramento and San Joaquin Rivers merge with the San Francisco Bay. The Straights are heavily trafficked by commercial shipping and the bridge site is adjacent to several oil and gas processing plants. The bridge will accommodate future light rail and is a state Lifeline Route—a mandated safety measure that requires the bridge to remain open after an earthquake for emergency relief traffic. The project won the Marvin M. Black Award for Partnering Excellence award.

Senior Estimator / Project Engineer | San Francisco Oakland Bay Bridge Skyway Segment | Caltrans | Bid-Build | \$1.2B | San Francisco, CA

Contact: Brian Maroney, Deputy Toll Bridge Program Manager, (510) 385-7648, brian.maroney@dot.ca.gov

Project No.: 04-012024 Dates on Project: September 2000 - May 2001

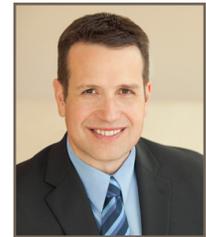
Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Tony was the senior estimator (September 2000 – December 2000) of the precast concrete segment casting, transport and placement. Tony led a team of 10 discipline estimators who collectively planned and priced the establishment of the production yard in Stockton, CA., the casting operations, storage and the logistics of transporting the segments by barge from the Port of Stockton to the Oakland Bay Bridge. After his role on the estimating team Tony transitioned to the Project Engineer (December 2000– May 2001) for the precast yard to construct the precast segments for the bridge. He was responsible for developing the production yard and procuring and setting up specialty equipment to cast, stage and load out the segments.

The Skyway Bridge project included the construction of a mile and a half of side-by-side viaduct bridge structures in San Francisco Bay. The precast segmental structure required the casting and erection of 452 precast concrete segments weighing up to 800 tons each.

# COSUMNES BRIDGE REPLACEMENT



## ERICH FISCHER, Environmental/Permit Manager

### Years of Experience

28 Industry

### Education

B.A., Biological Sciences,  
California State University,  
Sacramento

### Licenses & Registrations

- USACE Wetland Delineation Training
- Habitat Evaluation Procedures, Virginia Polytechnic Institute
- Wildlife Habitat Relationships, USFS
- Global Positioning System Procedures, USFS
- Cartography for GIS Users, USDA
- Basic Photointerpretation, USDA

### Experience Working with Same Key Personnel

- **SFOBB Foundation Removal** – CM Zach Reilly
- **California High Speed Rail** - Paleontological Monitor Blake Bufford

### HIGHLIGHTS OF EXPERIENCE

- Senior leader with ESA
- More than 25 years of experience in biological permitting, mitigation and compliance monitoring management for a variety of project types
- Extensive experience working with state and federal regulatory agencies, including California Department of Fish and Wildlife, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service and Central Valley Regional Water Quality Control Board in Northern California
- Direct experience with projects in the vicinity of the Cosumnes River Preserve and with mitigation banks in the area
- Highly experienced in permitting large, complex infrastructure projects in the region, including several bridge replacement projects for Caltrans

### RELATED WORK EXPERIENCE

Environmental Project Director | San Francisco-Oakland Bay Bridge (SFOBB) Foundation Removal Phase 1 - 3 | Caltrans | CMGC | \$1M | Oakland, CA

Contact: Stefan Galvez-Abadia, Supervising Environmental Planner, (510) 867-6785, Stefan.Galvez@dot.ca.gov

Project No.: N/A

Dates on Project: August 2014 – July 2017

Time on Project: [% commitment]: 10%

### DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

This project is part of the final phase of the SFOBB Seismic Safety Project, and entailed the removal of the east span's 13 marine foundations, consisting of extensive permitting and coordination with environmental agencies to make the project a success. Kiewit hired ESA as the environmental subcontractor on the project. The team employed both traditional mechanical demolition and controlled implosive demolition techniques, to reduce impacts to the marine environment.

Erich directed the ESA environmental compliance team for this CMGC project, who worked closely with Caltrans and Kiewit Project Manager Zach Reilly. Tasks included permitting support, surveys and mitigation monitoring for the demolition of the old bay bridge foundations. He also directed three separate studies to evaluate the effects of Pier E3 demolition on fisheries within the Bay in the fall in 2015: a sonar survey; sampling Bay fishes with trawls, and a caged fish study. Surveys were conducted by otter and mid-water trawling to develop information on species occurrence in the vicinity of the implosion to meet permit requirements under the California Department of Fish and Wildlife's Incidental Take Permit for longfin smelt.

ESA designed and carried out a caged-fish study to evaluate injury from exposure to blast pressures. The study exposed over 480 juvenile Chinook salmon held in 12 cages in the Bay at known distances from Pier E3 during the

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implosion. The exposed fish were visually assessed following the implosion and a subsample of the fish was necropsied. The studies combined to provide evidence that fishery resources near the pier were in low abundance prior to the implosion and fish exposed to the implosion displayed normal health.

Environmental Project Director | California High Speed Train Construction Package 1 Design/Build Services | TPZP | Design-Build | \$10M | Fresno, CA

Contact: Jon Waggoner, Environmental Construction Manager, (916) 225-1109, jon.waggoner@hsr.ca.gov

Project No.: N/A

Dates on Project: January 2014 – Present

Time on Project: [% commitment]: 25%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

The project involves the construction over 28 miles of high speed rail (the first in the State), and requires compliance with hundreds of mitigation measures, permit conditions and environmental commitments. The project includes several major river crossings, including viaducts over the Fresno and San Joaquin Rivers.

Erich is directing the environmental compliance and monitoring for biological and cultural resources on Construction Package 1 (CP 1) of the California High Speed Train (CHST) project, Merced to Fresno segment. He leads teams of biological and cultural resource specialist tasked with various compliance duties, including preconstruction surveys, permit amendment packages, and monitoring during construction. This requires coordination with several regulatory agencies, including CDFW, RWQCB, USACE and tribal interests. For the stream crossings, ESA has developed construction approaches to minimize the impacts of construction window constraints, including the use of underwater noise monitoring during pile driving activities.

Environmental Project Manager | Oroville Emergency Response and Recovery Environmental Compliance Monitoring | California Department of Water Resources (DWR) | Bid-Build | \$8M | Oroville, CA

Contact: Christine Alexander, Project Manager, (916) 717-9831, Christine.Alexander@water.ca.gov

Project No.: N/A

Dates on Project: March 2017 – Present

Time on Project: [% commitment]: 40%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

On February 7, 2017, erosion was discovered on the lower chute of the main flood control spillway at Lake Oroville. Because of this damage, releases down the damaged main spillway were unable to prevent the reservoir from overtopping the concrete weir (emergency spillway). Water cascaded down the emergency spillway, triggering the evacuation of more than 180,000 people downstream of Lake Oroville and the relocation of a fish hatchery. A collapse never occurred, but the main spillway suffered significant damage and the bare slope of the emergency spillway was significantly eroded. ESA was contacted within days of the emergency to assist in environmental coordination and monitoring efforts as emergency repairs and recovery progressed.

Erich is leading ESA's efforts to support DWR with compliance monitoring, permitting and agency coordination associated with the emergency response and recovery activities at the Oroville Dam Spillway. Erich led the ESA team to rapidly staff and equip a field office to address resource concerns and to coordinate directly on site with DWR response and recovery teams as their needs expanded. ESA staff currently conduct monitoring, pre-construction surveys, and agency consultation support as part of a fully integrated team with DWR staff. As part of this effort, Erich provides oversight, quality control,

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resourcing and implements standard operating procedures for surveys, reporting/data record keeping and management, and communication. Sensitive resources that have been addressed include the wetlands and other waters of the U.S., oak woodlands, nesting birds (including raptors and songbirds), mammals, and reptiles. In addition, the project's Area of Potential Effects (APE) covers 150 archaeological resources. Erich also directs the archaeological team that includes ESA and tribal monitors who are addressing numerous activities occurring simultaneously across the APE.

Environmental Project Manager | Davis-Woodland Water Supply Project/Joint Intake Design-Build Services Project | Woodland Davis Clean Water Agency (WDCWA) | Design-Build | \$2M | Yolo County, CA

Contact: Dennis Diemer, General Manager, (925) 876-0111, ddiemer@wdcwa.com

Project No.: N/A

Dates on Project: July 2005 – Present

Time on Project: [% commitment]: 20%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

This project involves the construction of a joint use surface water intake and positive barrier fish screen along the Sacramento River and the construction of conveyance infrastructure and a water treatment plant to supply the City of Davis, Woodland, and the University of California Davis with municipal and industrial water.

Erich provided overall program coordination and management of the development and completion of the environmental regulatory permitting process for this new water supply project on the Sacramento River. Permits secured included a Section 404 individual permit, Section 401 permits, Section 7 Biological Opinions from the USFWS and NMFS, and Section 2081 ITPs from CDFW. Erich also oversaw the environmental compliance during construction of the project, including biological monitoring with giant garter snake and valley elderberry longhorn beetle habitat.

Environmental Project Manager | Terminal B Replacement and Modernization Program Design-Build Services | Sacramento County Department of Airports | Design-Build | \$1M | Sacramento, CA

Contact: Kelly Moulton, Senior Airport Planner, (916) 874-0190, moultonk@saccounty.net

Project No.: N/A

Dates on Project: June 2008 – August 2012

Time on Project: [% commitment]: 20%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

The Sacramento County Department of Airports expanded the Sacramento International Airport (SMF) (The Big Build Project). The Big Build project was constructed as part of the Master Plan which began in 2008 and ended in 2012. The expansion was needed to meet additional demands for aircraft gate space and relieve congestion and other constraints to efficient passenger processing. A new passenger terminal complex and associated aircraft and landside support facilities was constructed.

Erich served as the project director, overseeing the provision of biological and compliance monitoring services. Tasks included but were not limited to daily biological, SWPPP, opacity, and MMRP compliance monitoring and reporting, burrowing owl monitoring and exclusion efforts, and providing on-call support to address CEQA and NEPA issues as related to state, federal and FAA advisories and regulatory requirements.



**ALYSSA BELL, PHD,**  
Principal Paleontologist

**Years of Experience**

12 Industry

**Education**

- Ph.D., Vertebrate Paleontology; University of Southern California
- M.S., Environmental Microbiology; University of Tennessee
- B.A. with honors, Ecology and Systematics; William Jewell College & Homerton College, Cambridge University

**Licenses & Registrations**

Orange County Certified Paleontologist

**Experience working with Same Key Personnel**

- **Phase 2 Regional Transmission** - Paleontological Monitor  
Blake Bufford

**HIGHLIGHTS OF EXPERIENCE**

- ♦ 4 years of experience preparing Paleontological Identification Reports, Paleontological Mitigation Plans, and Paleontological Mitigation Reports in accordance with Caltrans standards
- ♦ 12 years of experience working with ESA providing paleontological research/administration/management
- ♦ Extensive field experience, working with crews from a variety of institutions on field sites in Arizona, California, Montana, New Mexico, South Dakota, and Utah, as well as leading her own expeditions in Montana
- ♦ Published nine peer-reviewed articles or book chapters and given numerous presentations at scientific conferences on both her paleontological and microbiological research
- ♦ In addition to her work with ESA, Alyssa is a postdoctoral research assistant at the Dinosaur Institute of the Natural History Museum of Los Angeles County (LACM), where she is involved in pursuing her own research into fossil birds as well as working with the Institute’s field projects and museum-wide education and outreach initiatives

**RELATED WORK EXPERIENCE**

Principal Investigator | El Camino Real Bridge Replacement Environmental Services | Caltrans | Design-Build | \$50,000 | Atascadero, CA

Contact: Kidd Cody Immel, PE, PLS, County Bridge Engineer, (805) 781-5252, kimmel@co.slo.ca.us

Project No.: 25457

Dates on Project: September 2015

Time on Project: [% commitment]: 15%

**DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:**

Alyssa provided paleontological resource assessment in support of general environmental services, including preparation of all California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) documentation, technical studies, and permitting, for the replacement of the El Camino Real Bridge over Santa Margarita Creek in Atascadero. All reporting was prepared in accordance with the Caltrans Standard Environmental Reference for paleontology.

Principal Investigator & Paleontologist | Saddle Crest Homes Project | Rutter Development | Design-Build | \$560,000 | Orange County, CA

Contact: Jay Rutter, Rutter Development, (949) 863-1298 x 106, jrutter@rutterdevelopment.com

Project No.: DPRTT03.AR

Dates on Project: December 2016 – Present

Time on Project: [% commitment]: 5%

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## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Alyssa provided paleontological resources support through the development and implementation of a Paleontological Mitigation Plan for the construction of 65 homes on a 113.7 acre property in unincorporated Orange County, California. Implementation of the monitoring plan is ongoing and includes supervision and training of monitors, periodic site checks, and the collection, identification, and future curation of numerous invertebrate fossils found during monitoring, as well as a Paleontological Findings Report to be completed once construction is complete.

Principal Investigator & Paleontologist | Redlands Crossing | Gresham Savage Nolan & Tilden, PC | Design-Build | \$20,210 | Redlands, CA

Contact: Malou Reyes, malou.reyes@greshamsavage.com, (909) 890-4499 ext. 1815

Project No.: D170278.00

Dates on Project: July 2017 – August 2017

Time on Project: [% commitment]: 25%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Alyssa provided paleontological resources support for the Redlands Crossing project, developing a Paleontological Monitoring and Mitigation Plan for construction of a 275,500 sq. ft. shopping center in San Bernardino County, California.

Principal Investigator & Paleontologist | West Stanislaus Irrigation District Fish Screen Replacement Project | West Stanislaus Irrigation District | Design-Build | \$439,700 | Stanislaus County, CA

Contact: Robert Pierce, General Manager, (209)-894-3091, robertpierce@gvni.com

Project No.: 120642

Dates on Project: November 2016 – January 2017

Time on Project: [% commitment]: 10%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Alyssa provided paleontological resources support through the development of a Paleontological Resources Assessment Report with recommended mitigation measures in support of an Initial Study for a proposed replacement of a fish screen within the San Joaquin River National Wildlife Refuge in Stanislaus County, California.

Principal Investigator & Paleontologist | Confidential Solar Project | Confidential Solar Client | Design-Build | \$358,000 | Fresno County, CA

Contact: Confidential

Project No.: D120251

Dates on Project: February 2017 – March 2017

Time on Project: [% commitment]: 10%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Alyssa provided paleontological resources support through the development of a Paleontological Resources Assessment Report, including supervision of a paleontological field survey, with recommended mitigation measures in support of a solar facility covering approximately 1,600 acres in unincorporated Fresno County, California.

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Principal Investigator & Paleontologist | Eastvale Business Park Project | Campus Eastvale Property Owner, LLC. | Design-Build | \$26,125 | Costa Mesa, CA

Contact: Mr. Brad Boatman, Project Manager, (714) 918-0515, homeboatman@gmail.com

Project No.: pcr0044.00

Dates on Project: September 2016 – December 2016

Time on Project: [% commitment]: 10%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Alyssa provided paleontological resources support through the development and implementation of a Paleontological Mitigation Plan for a 738,900 sq. ft business park in Costa Mesa, California. Implementation of the monitoring plan included supervision and training of monitors, periodic site checks, and a Negative Findings report at the completion of construction.



**Years of Experience**

10 Industry

**Education**

- B.A., History, California State University, Fresno

**Licenses & Registrations**

N/A

**Experience working with Same Key Personnel**

- **Phase 2 Regional Transmission Main Segment** - Principal Paleontologist Alyssa Bell
- **California High Speed Rail** - Environmental Permit/Manager Erich Fischer

**HIGHLIGHTS OF EXPERIENCE**

- ♦ 10 years demonstrated experience providing paleontological and archaeological monitoring and mitigation on similar construction projects
- ♦ Intimate knowledge of the formations and paleontological sensitivity in Northern California working with ESA
- ♦ Director of the Fossil Discovery Center in Chowchilla, California

**RELATED WORK EXPERIENCE**

Paleontological Monitor | Phase 2 Regional Transmission Main Segment A1 | Mountain Cascade Inc. | Design-Build | \$111,000 | Fresno, CA

Contact: Kevin Williams, Project Manager, (925) 373-8370, kevinw@mountaincascade.com

Project No.: D160653      Dates on Project: September 2016 – February 2017

Time on Project: [% commitment]: 85%

**DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:**

Blake provided paleontological monitoring as they installed 13 miles of 20 to 66-inch diameter regional transmission mains. Blake managed and provided monitoring for several locations concurrently working directly with the construction crews on approach, schedule and location. In addition, due to Blake’s cross-training as an archaeologist he was able to respond to archaeological findings in compliance with mitigation measures for the project, in addition to implementing the project specific Paleontological Mitigation Monitoring Plan.

Paleontological Monitor | California High Speed Train Construction Package 1 Design/Build Services | TPZP | Design-Build | \$10 million | Fresno, CA

Contact: Andrew Russell, Environmental Coordinator, (559) 385-7606, andrew.russell@parsons.com

Project No.: D120462      Dates on Project: July 2017 – Present

Time on Project: [% commitment]: 50%

**DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:**

Blake is serving as a paleontological monitoring for the California High Speed Rail project from Madera to Fresno. He provides archaeological monitoring for the project. ESA is providing environmental compliance support services for the Merced to Fresno Construction Package 1 (CP1) segment of the California High Speed Train project. Approximately 29 miles in length, CP1 is the first segment of the expansive design build project. As such, ESA is on the front line of helping TPZP and the California High Speed Rail Authority (CHSRA) solve many complex and unique environmental challenges that have not been experienced before with the CHSRA, including how to ensure and document mitigation compliance and the more effective use of GIS mapping in the compliance process.

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Paleontological Monitor | Various Projects | Design-Build and Bid-build | California

Contact: N/A

Project No.: N/A

Dates on Project: 2007 – 2018

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Blake has completed Caltrans work in the Fresno and Monterey county area and is familiar with providing construction monitoring on Caltrans projects. Blake's extensive experience throughout California for Caltrans and other clients also includes:

- ♦ Carlsbad Energy Center, Carlsbad, CA, 2018 - Paleontological monitoring during construction for power plant. Approved monitor by the CA Energy Commission.
- ♦ Fresno Pipeline Project, Fresno, CA, 2017, - Monitored excavations for Native American and historic artifacts and as well as fossils in Holocene and Pleistocene sediment.
- ♦ Cal Flats Solar Project, Paso Robles, CA, 2016 - Paleontological and Archaeological monitoring during construction of solar project.
- ♦ Fossil Discovery Center of Madera County, Chowchilla, CA, 2011 – 2015 - The FDC is a museum adjacent to the Fairmead Fossil Site dedicated to the interpretation of the Pleistocene fossils discovered at that site in 1993. Blake managed day to day operations, as well as designed and maintained a native plant environment. Monitored excavations at the Fairmead Site when needed and wet screened sediment for micro-fossils. Prepped fossils in the fossil lab and trained employees and volunteers in fossil preparation.
- ♦ Fourth Bore Caldecott Tunnel (Hwy. 24), Orinda/Berkeley, CA, 2010 - Monitored excavations in the Orinda and Claremont (Miocene) formations. Discovered leaf impressions as well as Camel, Horse, and other fossils.
- ♦ Panoche Energy Center, Mendota, CA, 2009 - Monitored excavations in Pleistocene sediment. Wet screened 6,000 lbs. of sediment for micro fossils.
- ♦ Hwy. 180 Extension, Clovis, CA, 2008 - Monitored excavations of ponding basins in Pleistocene alluvium deposits. Discovered, preserved, and removed Columbian Mammoth, and Camel fossils.
- ♦ Hwy. 580 Interchange, Tracy, CA, 2007 - Monitored highway construction in Miocene and Cretaceous sediments.
- ♦ Hwy. 33 Devils Den, Kettleman, CA, 2007 - Monitored highway realignment in Pliocene sediment.



**Years of Experience**

25 Industry

**Education**

- Bachelor of Science, Georgia Institute of Technology

**Licenses & Registrations**

- Professional Engineer, Georgia #027405
- Colorado #45542
- Virginia #0402049646
- North Carolina #042766
- South Carolina #32605

**HIGHLIGHTS OF EXPERIENCE**

- ♦ More than 24 years of experience in the design and maintenance of railway and highway alignments
- ♦ 20 years' experience working with Class I railroads, including UPRR and as senior rail engineer for Norfolk Southern Railroad
- ♦ Extensive institutional knowledge regarding approvals, preferences and permits required for work around the rail as a result of his experience serving as Project Manager for CSX rail public projects
- ♦ Extensive rail experience makes him the ideal candidate to assist Caltrans in obtaining prompt approvals and ensure construction schemes have the least impact on rail

**RELATED WORK EXPERIENCE**

Railroad Coordinator | West Lake Corridor NEPA & Engineering Services for New Starts Project | Northern Indiana Commuter Transportation District (NICTD) | Design-Build (future) | \$650M | Hammond, IN

Contact: Chris Beck, Chief Infrastructure Development Officer, (219) 926-5744 Ext. 302, [chris.beck@nictd.com](mailto:chris.beck@nictd.com)

Project No.: N/A

Dates on Project: November 2016 – July 2017

Time on Project: [% commitment]: 70%

**DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:**

Anthony served as railroad coordinator to advance a nine-mile extension of the South Shore Line (SSL), known as the West Lake Corridor, southward to provide new passenger rail service to three municipalities in Lake County, Indiana: Hammond, Munster, and Dyer. The coordination was for new NICTD bridges over CSX rail, Norfolk Southern (NS) rail, Canadian National (CN) rail and Indiana Harbor Belt rail (IHB). One of the bridges crossed over two IHB track and one NS track in a diamond configuration. Anthony identified that a crane would need access to maintain/replace the diamond configuration. As a result, the bridge alignment was adjusted to provide enough space for diamond maintenance/replacement, even though this was not part of the rail criteria. This design adjustment greatly improved relations between IHB, NS and NICTD and started the three-year project on the right foot. Construction is to begin in 2019 pending federal funding.

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Railroad Coordinator | New Sewer Installation | City of Winston-Salem | Design-Build | \$1.5M | Winston-Salem, NC

Contact: Courtney L. Driver, P.E., Utilities Director, (336) 747-7315, courtneyd@cityofws.org

Project No.: N/A Dates on Project: February 2017 – December 2017

Time on Project: [% commitment]: 20%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

The City of Winston-Salem required a replacement of a failing gravity sewer line which was located under a Norfolk Southern (NS) Rail Yard. The pipe will be jack and bored at a thirty-foot depth below the NS Yard. Design was complete when Anthony was brought on as rail coordinator. Anthony provided quality control, reviewing plans and making adjustments where necessary to ensure compliance with rail criteria. As a result, the plans were approved after the rail's first review. In addition, Anthony worked with the NS Public Projects group for right of entry permit from NS and a Construction Agreement from NS.

Railroad Coordinator | Private Grade Crossing Upgrade | Roanoke Valley Resource Authority (RVRA) | Design-Bid-Build | \$500,000 | Ironto, VA

Contact: Daniel Miles, CEO, RVRA, (540) 857-5055, DMILES@rvra.net

Project No.: N/A Dates on Project: August 2016 – November 2017

Time on Project: [% commitment]: 10%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

As railroad coordinator for the at-grade crossing, Anthony provided a Site Investigation Report, Crossing Recommendation Report, crossing signal Preliminary Engineering Agreement between RVRA and Norfolk Southern (NS), NS signal crossing design, NS Signal Construction Agreement between RVRA and NS. Anthony's understanding of the inner-workings of NS rail helped to accelerate rail approvals of the design and improved the relationship between RVRA and NS. For example, based on his eight years of experience working for NS and using engineering judgment, he knew from the start that this crossing would require safety upgrades and started this process with NS early in the project.

The private grade crossing upgrade is part of a larger project to divert train car deliveries to truck by designing and permitting an alternative trucking route on private property. This alternative route utilizes a private at-grade crossing that currently has traffic for only a few residences. The future traffic would generate 80 additional semi-truck crossings per day.

Track Design Lead and Freight Railroad Coordinator | Eagle P3 | RTD | P3 | \$2.1B | Denver, CO

Contact: Cassandra M. Gouger, Program Manager, UPRR, (402) 544-2449, cmgouger@up.com

Project No.: N/A Dates on Project: October 2009 – December 2015

Time on Project: [% commitment]: 95%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Anthony was the track design lead and freight railroad coordinator for 36 miles of EMU Commuter Rail (CR), 15 CR Stations, 26 bridges, 36 grade crossings, and several miles of street and traffic modifications. This P3 project required extensive coordination with UPRR and BNSF railroads as 85% of the project paralleled and crossed these railroads. Anthony led and organized weekly meetings with BNSF and bi-weekly meetings with UPRR and their respective inspectors during design and construction to gain approvals for design and construction means and methods. He worked closely with the contractor to

# COSUMNES BRIDGE REPLACEMENT

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validate means and methods working near UPRR and BNSF rail. This coordination benefited the project from a scheduling perspective by constantly communicating with the freight railroads and keeping time sensitive issues high priority.

Project Manager | CSX Transportation Public Projects | CSX | Design-Bid-Build | Various Georgia Locations

Contact: Doug Spitznagel, CSX Public Projects Manager (retired)

Project No.: N/A

Dates on Project: April 2006 – September 2014

Time on Project: [% commitment]: 30%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Anthony was the project manager responsible for the coordination of utility meetings, construction inspections and review of contractor submittals for the protection of CSX facilities during construction of public projects. Public projects ranged from bridges over and under CSX facilities to adjacent construction.

Track Design Lead | Redlands First Mile | Metrolink | San Bernardino Associated Governments (SANBAG) | Design-Bid-Build | \$25M | San Bernardino, CA

Contact: Mitch Alderman, Senior Project Manager, (951) 541 3291, malderman@pacrail.com

Project No.: N/A

Dates on Project: March 2010 – March 2011

Time on Project: [% commitment]: 95%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Anthony was the track design lead responsible for the design of the extension of Metrolink service one mile from the San Bernardino Depot to a new, multi-mode Transit Center within the City of San Bernardino at Rialto Avenue and E Street. The multimodal connections will include Metrolink, Omnitrans San Bernardino Express (sbX), future Redlands Passenger Rail transit and potentially, High Speed Rail (HSR) services. This project directly affected an existing BNSF track through the San Bernardino Depot on which Amtrak operates. Anthony coordinated with both BNSF and Amtrak to ensure operational capabilities would remain whole and that disruption to services would be minimized.

# COSUMNES BRIDGE REPLACEMENT

**TIM CLARK,**  
MOT Manager



## Years of Experience

18 Industry

## Education

- B.S., Construction Engineering Technology  
Montana State University

## Licenses & Registrations

N/A

## Experience Working with Same Key Personnel

- **Honolulu High Capacity Transit Corridor** –  
Project Manager  
Zach Reilly

## HIGHLIGHTS OF EXPERIENCE

- ♦ 18 years of experience managing traffic control and civil operations on highway projects
- ♦ Well-versed in managing crews and resources to maintain budget and schedule
- ♦ Preconstruction experience includes optimizing phasing and traffic control plans for a \$400 million segment on PMH1

## RELATED WORK EXPERIENCE

Maintenance of Traffic Manager / Civil Operations Manager / General Superintendent | Honolulu High-Capacity Transit Corridor Project | HART | Design-Build | \$1B | Honolulu, HI

Contact: Kelly French, HART, (808) 349-4054, kelly.french@ch2m.com

Project No.: RFP-DTS-0900015    Dates on Project: February 2014 – October 2017

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

As MOT manager (December 2016 - May 2017), Tim managed a staff of MOT engineers and traffic control operations craft employees. At the peak of the project, Tim and his team coordinated up to eight dedicated MOT crews each night, setting and adjusting lane closures throughout the 11 mile corridor. He served as a liaison between the field operations and design to ensure that the MOT plans were approved by local agencies in a manner that supported the project's schedule. Tim provided communication about any major closures in a timely manner to the surrounding communities, stakeholders and agency entities. Tim's duties included temporary traffic control coordination to support field operations; subcontractor and field coordination for closures, striping, signage, and signal installation; daily MOT coordination meetings with field operations to develop a daily schedule of temporary closures for the following shift; daily MOT documentation; quality checks and reporting; and coordination with the client to respond to public comments.

Tim served as the civil operations manager (May 2017 - October 2017) responsible for all civil elements of work, including overseeing MOT, sidewalk restoration work, wet and dry utilities, curb and gutter restoration, maintaining access to local businesses, and coordination with the public outreach group to communicate construction updates.

As general superintendent (February 2014 - December 2016), Tim's responsibilities included managing the dry utility and traffic signal infrastructure, which amounted to managing approximately \$70 million in work. He worked with the design team to provide constructability input and finalize designs; prepared work plans for each operation; coordinated scheduling, access, and MOT with utility companies; and oversaw crews and subcontractors performing the work to ensure quality and conformance to requirements. He was responsible for

# COSUMNES BRIDGE REPLACEMENT

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managing this work to achieve project goals and for providing regular updates to the owner. Additionally, Tim was responsible for third party coordination with entities such as Hawaiian Telcom, Oceanic Time Warner, AT&T, and HECO.

Kiewit designed and constructed the Farrington and Kamehameha Guideway segments. The vast majority of the project constructed aerial guideway down the medians of Farrington and Kamehameha highway's. A median workzone was established to complete construction that provided safe and efficient passage of public traffic through the workzone as well as suitable access for large equipment. The median access developed allowed Kiewit to complete installation of hundreds of drilled shafts and columns, erect pre-cast segments for the guideway, and complete roadway restoration. Tim's experience planning and executing safe operations within a median work zone will be directly applicable to the phase 1 of the Cosumnes Project where both roadway widening and structures work are required between the existing NB and SB 99 roadways. Structures work included deep drilled shafts, two-track aerial guideway, guideway and at-grade twin single track, and foundations for seven stations. Additional scope of work includes extensive relocation of existing utilities, reconfiguring the highway, widening the roadway, constructing an access road, removal and salvage of existing landscaping and installation of temporary landscaping.

MOT Manager / Night Shift General Superintendent | Port Mann Highway 1 Improvements | British Columbia Ministry of Transportation | Design-Build | \$2.69B CAD | Vancouver, BC

Contact: Bob Jackson, TI Corp., (604) 561-8414, bjackson@ticorp.ca

Project No.: RFP-DTS-0900015

Dates on Project: February 2008 – February 2014

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Tim served as the MOT Manager for this urban project which required significant coordination between stakeholders to develop a successful phasing plan. During preconstruction, Tim worked with the construction lead on Segment 1 (approximately \$400 million of the total project value) to minimize traffic shifts, lane closures, and impacts to local business, while also increasing safety through the corridor. Tim worked with the traffic control team to coordinate necessary lane closures and flaggers needed to complete the work and successfully achieve significant schedule milestones. He also obtained permits for future MOT plans.

In addition to serving as MOT Manager during his five years on the project, Tim also worked in contract administration and Night Shift General Superintendent. He managed a \$30 million area of the job, and close-out of a segment. His management responsibilities included owner relations, coordination with third parties, schedule and cost management, and coordination between disciplines. Tim's operational experience gained in management of night shift operations on the PMH1 project assure his deep understanding of the of the construction means and methods similar to the Cosumnes project. Additionally, it assures he can foresee and mitigate the challenges that will be present when construction a large scale project adjacent to public traffic. Tim coordinated with the agency to provide the public with detailed information regarding traffic impacts and assisted in public consultations to inform and mitigate impacts. As a result of the successful traffic management, the project received the Bill Curtis Award for Traffic Management.

*"Kiewit has been uncompromising in maintaining a solid safety program ... This recognition of maintaining a safe environment extends to ensuring construction work retains a safe roadway for vehicles at all times. Overall we are very pleased with the project's safety record and the attention that Kiewit brings to it." – Gary Dawson, Project Manager, TI Corp., PMH1*

# COSUMNES BRIDGE REPLACEMENT

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This highly staged and complex project widened a 23-mile section of Highway 1. It added one lane in each direction west of the Fraser River and two lanes in each direction east of the river, a new 10-lane toll bridge connecting the two sides, significant upgrades to 17 interchanges and improvements to 28 separate overpass/underpass structures. Additional scope included walls, drainage, asphalt pavement, significant utility coordination/relocation, and third-party coordination.

Project Engineer | Various Projects | \$60M | Hawaii

Contact: N/A

Project No.: N/A

Dates on Project: March 2004 – February 2008

Time on Project: [% commitment]: 100%

## DESCRIPTION OF DUTIES PERFORMED AND WORK COMPLETED:

Tim served as project engineer on multiple civil construction and roadway projects at the beginning of his career. His responsibilities included contract administration, schedule update and management, pay applications, quality control and cost controls. This experience provided him with a solid foundation of understanding regarding what it takes to ensure a project stays on schedule and budget.

Jobs he worked on included:

- ♦ Kukui'ula Mass Grading, Koloa, HI
- ♦ Honokaia Pastoral Lands, Honkaa, HI
- ♦ Saddle Road Phase II, Hilo, HI
- ♦ Saddle Road Phase 1, Hilo, HI

# **APPENDIX B**

## LEGAL DOCUMENTS



**POWER OF ATTORNEY**

Kiewit Infrastructure West Co., a Delaware corporation (the "Corporation"), appoints **JEFFREY P. PETERSEN**, Senior Vice President of the Corporation, as its Attorney-in-Fact with the authority to act on behalf of the Corporation in submission of a response to the Request for Qualifications (the "RFQ") to the to the State of California, Department of Transportation, with respect to providing construction manager/general contractor services for design and construction on state highway in City of Elk Grove in Sacramento County, Cosumnes Bridge Replacement project, Contract No. 030F28CM, 03-SAC- PM 7.1/ 9.4, 0312000069 (the "Project"), and shall have the power to execute and deliver the response to the RFQ for the Project, and upon award of the Project, to execute and deliver the Project Contract, and related documents, on behalf of the Corporation.

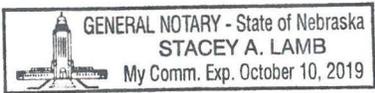
The Corporation reserves the right to revoke or amend this Power of Attorney. This Power of Attorney shall remain in effect for a period of three (3) years from its effective date, unless earlier revoked in writing, thereby expiring on May 18, 2021.

Signed on behalf of the Corporation by its duly authorized officer on May 18, 2018 (the "Effective Date").

\_\_\_\_\_  
Tobin A. Schropp, Vice President

STATE OF NEBRASKA    )  
  )ss.  
COUNTY OF DOUGLAS    )

On this 18th day of May, 2018, the foregoing instrument was acknowledged before me, the undersigned Notary Public, in and for said State, by Tobin A. Schropp, Vice President of Kiewit Infrastructure West Co., a Delaware corporation, on behalf of the corporation.



\_\_\_\_\_  
Notary Public

My commission expires: 10/10/2019

# Delaware

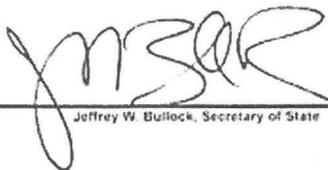
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The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "KIEWIT INFRASTRUCTURE WEST CO.", FILED IN THIS OFFICE ON THE TWENTY-FOURTH DAY OF OCTOBER, A.D. 2017, AT 10:12 O`CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



  
Jeffrey W. Bullock, Secretary of State

937630 8100  
SR# 20176754008

Authentication: 203448267  
Date: 10-24-17

You may verify this certificate online at [corp.delaware.gov/authver.shtml](http://corp.delaware.gov/authver.shtml)

**AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF  
KIEWIT INFRASTRUCTURE WEST CO.**

Kiewit Infrastructure West Co., a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

1. The name of the corporation (the "Corporation") is Kiewit Infrastructure West Co. The Corporation was originally incorporated under the name of Kiewit Pacific Co.
2. The original Certificate of Incorporation of the Corporation was filed in the office of the Secretary of State of Delaware on May 18, 1982.
3. This Amended and Restated Certificate of Incorporation, which was duly adopted pursuant to Sections 242 and 245 of the Delaware General Corporation Law, restates and integrates and further amends the provisions of the Corporation's Certificate of Incorporation.
4. The text of the Corporation's Certificate of Incorporation is hereby Amended and Restated to read in its entirety as follows:

**ARTICLE I**

The name of the Corporation (the "Corporation") is: Kiewit Infrastructure West Co.

**ARTICLE II**

The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of the registered agent of the Corporation at such address is The Corporation Trust Company.

**ARTICLE III**

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

**ARTICLE IV**

The total number of shares of stock which the Corporation shall have authority to issue is 10,000 shares of Common Stock, having a par value of \$1,000 per share.

## ARTICLE V

In furtherance and not in limitation of the powers conferred by statute, the Bylaws of the Corporation may be made, altered, amended, or repealed by the stockholders or by a majority of the entire board of directors of the Corporation (the "Board").

## ARTICLE VI

Unless and except to the extent that the Bylaws of the Corporation shall so require, the election of directors of the Corporation need not be by written ballot.

## ARTICLE VII

(a) The Corporation shall indemnify, to the fullest extent permitted under and in accordance with the laws of the State of Delaware, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

(b) The Corporation shall indemnify, to the fullest extent permitted under and in accordance with the laws of the State of Delaware, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the Corporation and except that no such indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity by the Corporation for such expenses which the Court of Chancery or such other court shall deem proper.

(c) Expenses incurred in defending a civil or criminal action, suit or proceeding shall (in the case of any action, suit or proceeding against a director of the Corporation) or may (in the case of any action, suit or proceeding against an officer, trustee, employee or agent of the Corporation) be paid by the Corporation in advance of the final disposition of such action, suit or proceeding as authorized by the Board upon receipt of an undertaking by or on behalf of person so indemnified to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this Article VII.

(d) The indemnification and other rights set forth in this Article VIII shall not be exclusive of any provisions with respect thereto in the Bylaws of the Corporation or any other contract or agreement between the Corporation and any officer, director, employee or agent of the Corporation.

(e) Neither the amendment nor repeal of this Article VIII, nor the adoption of any provision of this Certificate of Incorporation inconsistent with this Article VIII, shall eliminate or reduce the effect of this Article VIII in respect of any matter occurring before such amendment, repeal or adoption of an inconsistent provision or in respect of any cause of action, suit or claim relating to any such matter which would have given rise to a right of indemnification or right to the reimbursement expenses pursuant to this Article VIII if such provision had not been so amended or repealed or if a provision inconsistent therewith had not been so adopted.

(f) No director shall be personally liable to the Corporation or any stockholder for monetary damages for breach of fiduciary duty as a director; provided, however, that the foregoing shall not eliminate or limit the liability of a director:

(i) for any breach of the director's duty of loyalty to the Corporation or its stockholders;

(ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;

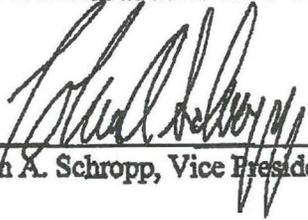
(iii) under Section 174 of the General Corporation Law of the State of Delaware; or

(iv) for any transaction from which the director derived an improper personal benefit.

If the General Corporation Law of the State of Delaware is amended after the date hereof to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

IN WITNESS WHEREOF, Kiewit Infrastructure West Co. has caused this Amended and Restated Certificate of Incorporation, to be signed and attested by its duly authorized officers effective the 24th day of October, 2017.

KIEWIT INFRASTRUCTURE WEST CO.

By:   
Tobin A. Schropp, Vice President

ATTEST:

By:   
Mary M. Carnazzo, Secretary