

SR 140 FERGUSON  
SLIDE



# Permanent Restoration Project

Construction Manager/General Contractor Services

January 23, 2014



Contract No. 10-0P9201  
Project ID 1000000198



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Dear Members of the Selection Committee:

Kiewit Infrastructure West Co. (Kiewit) values our important relationship with the California Department of Transportation (Caltrans) and appreciates the significance of the State Route 140 Ferguson Slide project. Restoring the highway to its original alignment will benefit the surrounding communities by improving the safety of travel on State Route 140, while increasing reliability of the highway minimizing economic disruption and reduced environmental impact to one of America's most scenic regions.

Kiewit has been aware of the regional significance of the Ferguson Slide and its effects on the area since our initial work to clear the slide in 1998. Kiewit feels connected to the regions because of this and our El Portal Roadway project and that connection makes us very interested in being selected as your CMGC firm on the project. Our key personnel are committed to this project and have worked together successfully on projects that share many similar attributes and challenges as State Route 140 Ferguson Slide. These individuals have strong backgrounds in alternative delivery methods, are experienced problem solvers who can deliver high quality results to meet your budget and schedule expectations.

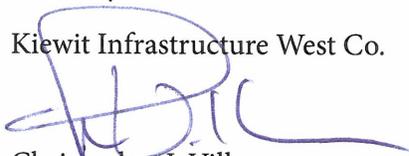
Our proposed team includes AIS Construction, the premier slope stabilization contractor in the US. LSA Associates, a premier environmental consulting firm was selected to be a part of our team based on their project experience which complements Caltrans State Route 140 Ferguson Slide goals:

- Safety – Kiewit's philosophy of "Nobody Gets Hurt" keeps workers and stakeholders safe
- Quality – "Do it Right the First Time" encourages continual improvement and Client satisfaction
- Environmental Compliance – Kiewit is committed to Excellence in Compliance
- Project Delivery – Providing value to the Client through innovation and execution

The Kiewit team has invested much effort preparing for this project and will present many of those ideas based on what we have learned from our preparation. We believe that we bring value to the project with these ideas but know that our ultimate goal is to have the opportunity to work collaboratively with Caltrans to discover and implement the plan that will best deliver success on the Ferguson Slide. Kiewit is excited for this challenging project and will bring the resources, expertise and management skills required to meet all of Caltrans' goals for a successful project.

Sincerely,

Kiewit Infrastructure West Co.



Christopher J. Villa  
Senior Vice President

# TRANSMITTAL LETTER AND PROPOSER SOQ CERTIFICATION



SR 140 FERGUSON  
SLIDE



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

SOQ Date: January 23, 2014  
California Department of Transportation  
Division of Procurements and Contracts  
1727 30<sup>th</sup> Street  
Sacramento, California 95816-7006  
Attn: Denetia Floyd-Smith, Contract Analyst

The undersigned (“Proposer”) submits this proposal and statement of qualification submittal (this “SOQ”) in response to that certain Request for Qualifications dated as of January 23, 2014 (as amended, the “RFQ”), issued by California Department of Transportation (“Department”) to provide preconstruction services and construct the related facilities within the State Route [Note to Drafter: Insert Route], 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: Firm Experience and Past Performance
- Section 5: Proposer Organization and 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 BidSync website (<http://www.BidSync.com>) as set forth in Section 1.3, and the following addenda and sets of questions and answers to the RFQ:

Addendum No. 1 – December 30, 2013

Q & A #'s 1-19

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 Contract. Proposer understands that Department is not bound to award a contract and may reject each SOQ 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.

Proposer agrees that 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

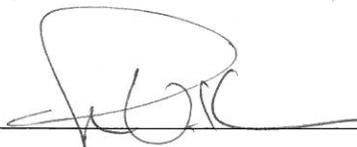
according to the laws of the State of California.

Proposer's business address:

4650 Business Center Drive  
 \_\_\_\_\_  
 (No.) (Street) (Floor or Suite)  
Fairfield, CA 94534 USA  
 \_\_\_\_\_  
 (City) (State or Province) (ZIP or Postal Code) (Country)

State or Country of Incorporation/Formation/Organization: Delaware

Kiewit Infrastructure West Co.

By:   
 Print Name: Christopher J. Villa  
 Title: Senior Vice President

**CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT**

State of California

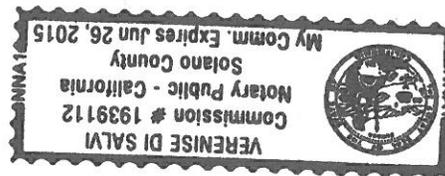
County of Solano

On 1/23/2014 before me, (Verenise Di Salvi, Notary Public), personally appeared Christopher J. Villa 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.



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.

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, Christopher J. Villa, 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 the Ferguson Slide Permanent Restoration 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.

[Handwritten Signature]
(Signature)

Christopher J. Villa, Senior Vice President
(Name Printed)

ACKNOWLEDGMENT

State of California
County of Solano

On 1/23/2014 before me, Verenise Di Salvi, Notary Public personally appeared, Christopher J. Villa, 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.

[Handwritten Signature: Verenise Di Salvi]

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).

# SECTION 1 - LEGAL STRUCTURE



**As the sole major participant, Kiewit offers the following benefits:**

- Established CM/GC experience totaling more than \$3 billion in the last 10 years
- Reputable local presence in Northern California for more than 31 years
- Sole accountability

**3.2 Section 1 – Legal Structure**

Kiewit Infrastructure West Co. (Kiewit) has experience completing CMGC projects and possesses the capacity and necessary capabilities to successfully execute the Ferguson Slide Permanent Restoration Project without the assistance of any external teaming partners. Kiewit is the sole major participant.

Kiewit is fully liable for the performance under the Ferguson Slide Permanent Restoration Project preconstruction services contract. We have provided a signed transmittal letter in Appendix C, Form A.

Kiewit is the bidding entity and an indirect subsidiary of Kiewit Corporation, one of North America’s largest and most respected construction and engineering organizations. The Kiewit Corporation contracts for work through its operating companies which generally operate out of various offices throughout North America. This approach promotes a competitive advantage and fosters close client relationships, while at the same time providing the backing of a financially stable international firm. Internally, Kiewit is teamed with additional indirect subsidiaries of Kiewit Corporation and affiliates of Kiewit. To demonstrate relevant work experience, we have listed projects performed by both Kiewit and other entities. All of Kiewit Corporation’s operating subsidiaries share experience gained on specific projects through cooperative personnel assignments, internal publications, and one of the most comprehensive internal training programs in the construction industry.

Kiewit is a Delaware Corporation organized on May 18, 1982. Effective June 30, 2010, Kiewit Pacific Co. and Kiewit Western Co. changed their names to Kiewit Infrastructure West Co. There were no changes to the capitalization, ownership structure or management of the company. Additional information can be provided to substantiate the name change.

Kiewit Infrastructure West Co. is licensed to do business in the State of California. Kiewit has the legal capability to carry out the Project responsibilities. A copy of our State of California Contractor’s License is provided in Figure 1. The information disclosed in our SOQ does not materially affect our ability to carry out the Project responsibilities potentially allocated to it.

Figure-1: State of California Contractor’s License





**Form F**

**PROPOSER'S DISADVANTAGED BUSINESS ENTERPRISE PROJECT  
GOAL 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 Christopher J. Villa  
(Contact Name)

is the Senior Vice President of Kiewit Infrastructure West Co., the entity making the foregoing Statement of Qualification.

The Proposer hereby affirms that it will either meet the DBE 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 set forth under Title 49, Code of Federal Regulations (CFR), Part 26 and subsequently published DBE Federal Regulations.



(Signature)

Christopher J. Villa

(Name Printed)

Senior Vice President

(Title)

State of California

County of SOLANO

Subscribed and sworn to (or affirmed) before me on this 23rd day of January, 2014, by Christopher J. Villa, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me..



Verenise Di Salvi

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.]*

# SECTION 2 - FINANCIAL CAPACITY



SR 140 FERGUSON  
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**As the sole major participant, Kiewit offers the following benefits:**

- Financially strong and stable company with annual gross revenue of \$12B
- One of North America’s largest employee-owned corporations
- Ability to support small businesses’ and subcontractors’ financial needs

**3.3 Section 2 – Financial Capacity**

Kiewit Infrastructure West Co. (Kiewit) has the financial capacity to enter into a contract with the California Department of Transportation (the Department) and the financial resources to successfully complete the Ferguson Slide Permanent Restoration Project. Attached is written documentation from our surety, Travelers Casualty and Surety Company of America (Travelers), verifying our 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’s 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.

We have included a certificate of insurance which verifies our current policies and/or ability to obtain the required areas of insurance including Commercial General Liability, Auto Liability, Workers’ Compensation/Employers’ Liability, and Pollution Liability. 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.

Exhibit 2-1: Kiewit’s El Portal Roadway project evidences our with on-time and on-budget projects.





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

One Tower Square  
Hartford, CT 06183

January 21, 2014

California Department of Transportation  
Division of Procurements and Contracts  
1727 30<sup>th</sup> Street  
Sacramento, CA 95816-7006

RE: Solicitation: 10-0P9201  
State Route 140 Ferguson Slide Permanent Restoration Project  
Kiewit Infrastructure West Co.

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 \$8 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

Lisa Buller  
Attorney-in-Fact

(Seal)



STATE OF NEBRASKA

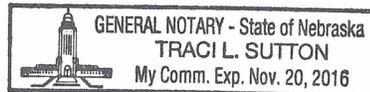
COUNTY OF DOUGLAS

I, Traci L. Sutton a Notary Public in and for said County and State, do hereby certify that

Lisa Buller Attorney-in-Fact of Travelers Casualty and Surety Company of America, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me, and acknowledged that she signed, sealed and delivered a said instrument, for and on behalf of Travelers Casualty and Surety Company of America for the uses and purposes therein set forth.

Given under my hand and notarial seal, the 21st day of

January A.D., 2014.



Traci L. Sutton  
Traci L Sutton, Notary Public



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. 225764

Certificate No. 005471056

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, Terry K. Bartel, Tammy Pike, Paul A. Foss, Lisa Buller, Marie Huggins, and Traci Sutton

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 2nd day of May, 2013.

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

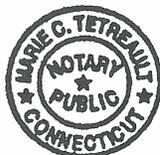


State of Connecticut
City of Hartford ss.

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

On this the 2nd day of May, 2013, 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, 2016.



[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, 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 21st day of January, 20 14.

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

  
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.

**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

12/18/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Midwest Agencies, Inc. 3555 Farnam Street Omaha, NE 68131	CONTACT NAME: Traci Sutton	
	PHONE (A/C, No, Ext): 402-271-2956	FAX (A/C, No):
INSURED KIEWIT INFRASTRUCTURE WEST CO. 4650 BUSINESS CENTER DRIVE FAIRFIELD CA 94534	E-MAIL ADDRESS: Traci.Sutton@Midwestagenciesinc.com	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Zurich American Insurance Company	
	INSURER B: American Guarantee & Liability Ins. Co.	
	INSURER C: American Zurich Insurance Company	
	INSURER D: XL Insurance America, Inc. (50%)	
INSURER E: Lloyds Syndicate 3624 (35%)		
INSURER F: ACE American Insurance Company (15%)		

**COVERAGES** **CERTIFICATE NUMBER:** 18643938 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input type="checkbox"/> OCCUR <input checked="" type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC			GLO 4641069	3/1/2013	3/1/2016	EACH OCCURRENCE \$ 5,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 5,000,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 5,000,000 GENERAL AGGREGATE \$ 10,000,000 PRODUCTS - COMP/OP AGG \$ 10,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			BAP 4641070	3/1/2013	3/1/2016	COMBINED SINGLE LIMIT (Ea accident) \$ 5,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$N/A			AUC 9141395	3/1/2013	3/1/2016	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N	N/A	WC 4641067 EWS 4641068	3/1/2013 3/1/2013	3/1/2016 3/1/2016	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 2,000,000 E.L. DISEASE - EA EMPLOYEE \$ 2,000,000 E.L. DISEASE - POLICY LIMIT \$ 2,000,000
D E F	Equipment/Property			US00063521CA12A UNS252066.12 D37400397.002	8/15/2012	8/15/2014	50,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

RE: Evidence of coverage.

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
California Department of Transportation Attention: Denetia Floyd-Smith Division of Procurement&#8203;s and Contracts 1727 30th Street Sacramento, CA 95816-7006	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE  Philip G. Dehn

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ACORD 25 (2010/05)

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# SECTION 3 - SAFETY PROGRAM



SR 140 FERGUSON  
SLIDE



**As the sole major participant, Kiewit offers the following benefits:**

- “Nobody Gets Hurt” philosophy
- Craft ownership of safety program with strong management support
- Committed to safety of all workers and stakeholders

**3.4 Section 3 – Safety Program**

Kiewit’s approach to safety can be summed up by the phrase seen, heard, and practiced, on every jobsite, every day “Nobody Gets Hurt.” Kiewit’s Nobody Gets Hurt philosophy focuses on collaboration with our crafts people. The Nobody Gets Hurt philosophy centers on fostering craft ownership of the safety program. Craft ownership of safety is combined with strong leadership and support from Project and Company management. This strong management commitment and craft leadership results in a strong foundation for safety.

**Most Recent Three-Year Safety Record**

Kiewit’s safety record for the past three years is provided in Exhibit 3-1. This data demonstrates the success of our safety program.

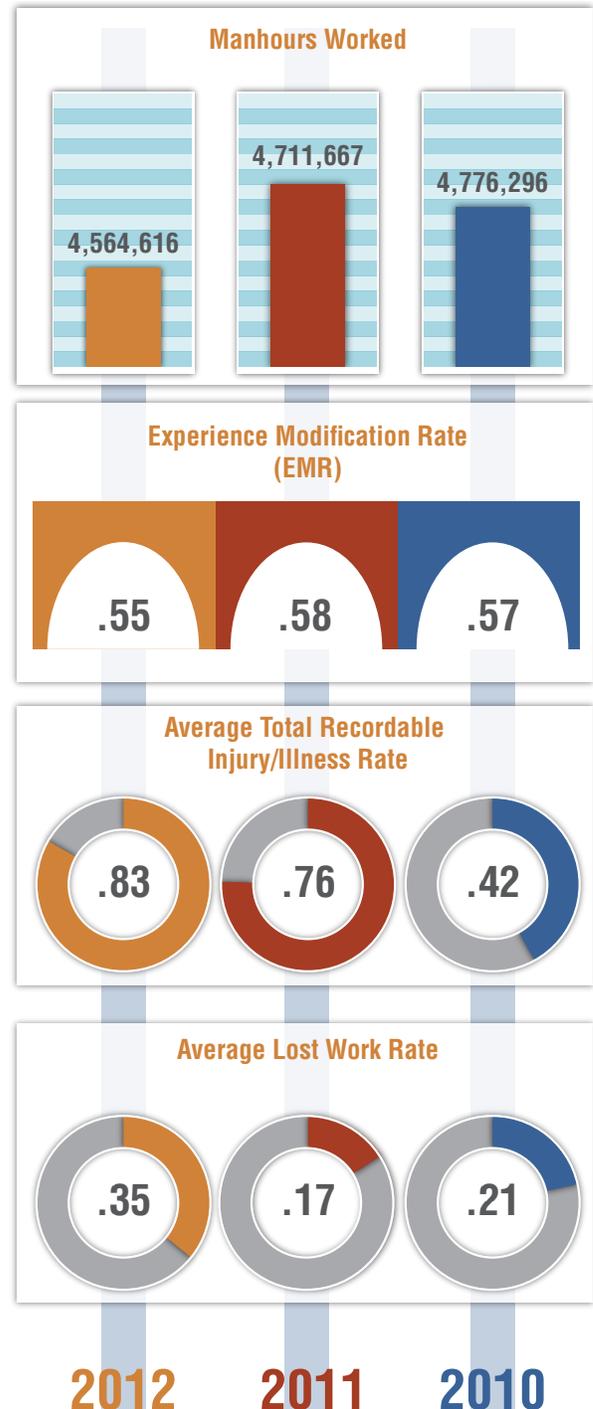
Kiewit’s EMR for the past three years has been below 0.58, well under the industry average. Our average total recordable injury/illness rate does not exceed the applicable statistical standards for our business category. Our 2013 EMR is 0.53.

Having such a low EMR has a strong impact on our business. It means that Kiewit sends people home safely from our project sites. It also means that we have lower workers’ compensation insurance premiums.

**Alternative Dispute Resolution System**

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

Exhibit 3-1: Kiewit’s safety record for the past three years



## California OSHA and Federal OSHA Citations

Kiewit is the sole Proposer and Major Participant that is responding to this Request for Qualifications. Kiewit is a member of a larger organization and has a parent company and affiliates. Based upon the Department's definition of "affiliate" in the Request for Qualifications, Kiewit is also responding on behalf of:

- Kiewit Infrastructure Group Inc., which owns 25% or more of Kiewit
- Kiewit Western Co., General Construction Company and Kie-Con Inc. because Kiewit owns 25% or more of these entities.
- Kiewit Canada Group Inc., Western Summit Constructors Inc., Kiewit Southwest Co., Kiewit Infrastructure Co. and Kiewit Infrastructure South Co. because Kiewit Infrastructure Group, Inc., Kiewit's parent owns a controlling interest in these entities.

**On June 30, 2010, Kiewit Pacific Co. and Kiewit Western Co.** changed their names to Kiewit Infrastructure West Co. This was a change in name only, the financial capacity, management structure and operational capacity of KPC was unaffected. Based upon this definition, we reviewed the Cal OSHA and Fed OSHA website and identified one citation for a serious violation.

- A citation was assessed against Kiewit Infrastructure Group, Inc. in June of 2012 on the Willamette River Bridge project, which was being performed for Tri Metropolitan Transportation District of Oregon. KIG was cited for violating OSHA Standard 1926.1433 D08, Cranes & Derricks in Construction 283851.015. This was categorized as a serious violation by FOSHA and resulted from openings in a guard on a compressor on the Derrick Barge Alameda that were too large. The penalty for this citation was \$1,500.

Kiewit Infrastructure West Co. has two pending serious citations that are under appeal.

- Both occurred on October 11, 2012. Cal-OSHA issued Kiewit two citations under Inspection No. 314863846. Citation 1 is classified as serious and proposes a \$18,000 penalty and alleges Kiewit "did not correct an unsafe work practice by allowing an employee to work within the employer identified exclusion zone between truck trailers and the concrete 'K' rail," citing Title 8 CCR 3203(a) (6). Citation 2 is classified as serious, and proposes an \$18,000 penalty and alleges Kiewit "did not secure the load against dangerous displacement," citing Title 8, CCR 3704. Both citations and penalties are under appeal.

Of the legal entities listed above, there were four findings originally categorized as serious, willful or repeat that were reduced and settled as others or deleted. The following is a summary of the citations:

- Kiewit Pacific Co. (now known as Kiewit Infrastructure West Co.) received citation number 314445545 on February 15, 2011. The citation involved a closed step used to access a cross-over on a tunnel invert arch form that exceeded the maximum 12-ft. height allowed. The step was measured at 21-ft. **This finding was deleted.**
- Citation number 311729172 was issued on February 8, 2010 to Kiewit Pacific Co. It involved closed guarding on the winch and trolley system that is on top of the gantries located inside the tunnel. **It was reclassified as "other" and Kiewit Pacific Co. received a \$1,000 fine.**
- Western Summit Constructors, Inc. received citation number 313717324 on February 9, 2010, which stated, "Employees were not protected from the hazard of cave-ins when entering or exiting the area protected by shields." **This finding was reclassified as "other" and included a \$6,300 settlement.**

- Kiewit Infrastructure West Co. was issued citation number 311725709 for violating “Posting Requirements Cal/OSHA Notice” on April 15, 2009. **This citation was deleted.**

## Kiewit Safety Program

Kiewit’s approach to safety can be summed up by the phrase seen, heard, and practiced, on every jobsite “Nobody Gets Hurt.” The Nobody Gets Hurt philosophy centers on fostering craft ownership of the safety program with strong leadership from Project Management. We achieve the excellent safety results by implementing our safety program with both craft and management dedication to:

- Thorough indoctrination of our new employees and subcontractors
- Daily/Weekly/Monthly safety meetings
- Safety tours and observations
- Safety training and recognition
- Task-specific hazard analysis

The Kiewit team has developed a plan for the Ferguson Slide Project that considers the potential safety risks for the project along with ideas to mitigate or eliminate these risks. . These ideas along with the Kiewit teams’ experience and history of excellent safety performance make Kiewit uniquely qualified to safely execute the Ferguson Slide Project.

At Kiewit when we say “Nobody Gets Hurt,” we mean, nobody. Our team is firmly committed to the safety of the traveling public, Caltrans workers, stakeholders, subcontractors, and our own personnel. We will ensure that public safety is at the forefront throughout construction. In addition to providing a safe work zone for the traveling public, Kiewit is committed to providing a safe environment for project personnel on the job site.



**ZURICH**

January 21, 2014

California Department of Transportation  
Division of Procurements and Contracts  
1727 30<sup>th</sup> Street  
Sacramento, CA 95816-7006

RE: Solicitation: 10-0P9201  
State Route 140 Ferguson Slide Permanent Restoration Project  
Kiewit Infrastructure West Co., Experience Modification Rate

Dear Sir or Madam:

As a Kiewit operating subsidiary, Kiewit Infrastructure West Co. has been assigned the following current and historical NCCI Interstate Workers' Compensation Experience Modification Rates:

2013	0.53
2012	0.55
2011	0.58

Sincerely,

Philip G. Dehn  
Authorized Representative

Zurich American Insurance Company  
550 West Washington Blvd.  
Chicago, IL 60661

Telephone 312.496.9510

Internet <http://www.zurichamerican.com>

# SECTION 4 - FIRM EXPERIENCE AND PAST PERFORMANCE



**As the sole Major Participant, Kiewit offers the following benefits:**

- 1,100 transportation projects, totaling more than \$30 billion as a corporation over the last 10 years
- Formed a strong team with AIS Construction Company and LSA Associates, Inc.
- Depth of national resources bolstered by local experience with Caltrans
- Over 130 years of national experience with more than 70 in California



# Kiewit

## 3.5 Section 4 - Firm Experience and Past Performance

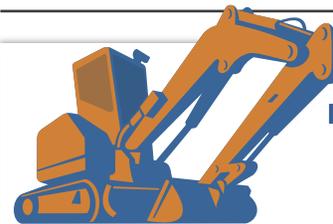
Kiewit’s track record of successfully managing diverse, challenging projects demonstrates our capability to perform all of the necessary functions to make the Ferguson Slide project successful, too. Kiewit Corporation was recently ranked No. 3 in Engineering News-Record’s Top 400 Contractors for 2013, and was voted ENR’s “California Contractor of the Year” in 2012. Over the past 10 years, Kiewit Corporation has constructed more than 1,100 transportation projects, totaling more than \$30 billion in contract revenue. Kiewit knows that a key factor in the success of all of those projects was building a strong team. We have created that same type of strong team to deliver the Ferguson Slide Permanent Restoration project. Our team for the Ferguson Slide Project includes:

- AIS Construction Company (AIS) is the industry leader in geotechnical construction, rock bolting, slope stabilization, and limited access civil engineering projects. AIS specializes in steep hillside excavation, enabling them to own and operate the largest fleet of Kaiser Spyder excavators in the United States.
- LSA Associates, Inc. (LSA) is a full service planning and environmental consulting firm. LSA provides a variety of services but has distinguished itself in the industry with

its expertise in preparing environmental documentation for transportation projects.

Kiewit has a long history of successfully managing projects similar in size and complexity, and completing contracts on time and within budget. We have several examples demonstrating this, including the Beartooth Highway Emergency Repairs project which beat an aggressive schedule deadline and finished under the project’s budget.

Exhibit 4-1: Previous Caltrans experience



# 167

## Projects with Caltrans

**Including:** Benicia-Martinez Bridge  
SFOBB Skyway Project  
Cypress E and Cypress F Contracts  
Highway 80/580 Widening and Retrofit  
Devils Slide Tunnel

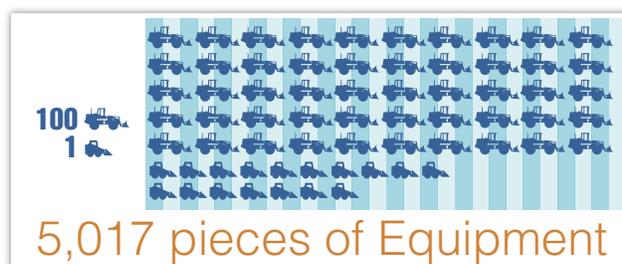
**TOTAL DOLLAR VALUE \$2.9 billion**

Over the last decade, Kiewit has become a leader in alternative delivery methods, including design-build, and CMGC. We have highlighted two projects that were completed using an alternate delivery method; the El Portal Roadway was the first design-build contract by the Federal Highway Administration; the SR-14 Project was a CMGC project for the Utah Department of Transportation. Overall, Kiewit has completed

36 CMGC projects and has successfully assisted five owners in effectively using the CMGC delivery method for the first time.

Kiewit has vast resources consisting of people, equipment, experience and expertise to apply to the Ferguson Slide Project. Kiewit employs personnel with the expertise in civil and grading work, structural concrete, rock crushing, concrete batching and precast concrete fabrication and installation. With one of the largest construction equipment fleets in the country, and much of it located in the western United States, we can draw on our equipment resources for the Ferguson Slide Project. Kiewit Infrastructure Engineers (KIE), a subsidiary of Kiewit, provides services to Kiewit projects, design of temporary structures and support of excavation and consultation services. KIE employs experienced structural and geotechnical design engineers that, if requested by Caltrans, can assist the Ferguson Slide Project in developing innovative solutions to construction challenges.

Exhibit 4-2: Equipment Capacity



Kie-Con Inc. (Kie-Con) is a manufacturer of precast / pre-stressed concrete products with facilities in Antioch CA. Kie-Con is a wholly-owned Kiewit subsidiary. Kie-Con fabricated a significant portion of the Pitkins Curve Rock Shed concrete elements. Pitkins Curve was the first rock shed constructed in California and has provided Kiewit with unique insight into the design and construction of the Ferguson Slide Rock Shed. Key personnel from Kie-Con will be involved in design reviews of the rock shed concrete elements and utilize the lessons

learned from their experience at Pitkins Curve.

A strong team includes not only the construction team but also the owner and designer. Kiewit believes the most effective way to create this complete team is through partnering. Kiewit is committed to partnering with owners and is a 12 time Marvin Black Award winner for excellence in partnering. Kiewit received this award for its work with the Department on the Benicia-Martinez Bridge project. The Benicia-Martinez Bridge is one of 167 projects that Kiewit has completed with Caltrans.

Kiewit can manage all aspects of a construction project while integrating all of the basics that are necessary to be successful. Kiewit has a strong foundation in these basics.

**Safety** “Nobody Gets Hurt” Our safety vision defines us and sets us apart. Stressing the importance of employee engagement combined with management commitment sets the foundation for Nobody Gets Hurt.

**Quality** At Kiewit, our philosophy on quality is simple — meet or exceed our clients expectations through continuous quality improvement and by building our work right the first time.

**Environmental** Kiewit has a robust program that focuses on the highest environmental compliance standards.

Kiewit has combined its history of successful project execution and vast resources with the key expertise of AIS and LSA. Our proven performance on projects similar to the Ferguson Slide project demonstrates our depth, knowledge, and skills in the successful execution of alternative delivery projects. This allows the Kiewit team to effectively partner with Caltrans to successfully deliver the Ferguson Slide project.



AIS is the industry leader in geotechnical construction, rock bolting, slope stabilization, and limited access civil engineering Projects.

Steep hillside excavation is the mainstay for AIS, enabling them to own and operate one of the largest fleet of walking excavators in the United States. Their fleet of Kaiser Spyder excavators allowed them to complete several large landslide remediation projects in California such as, Alder Creek Slide, Jackson Highway 49, and Presidio Land Trust Slide Removal. AIS's unique ability to provide the specialized equipment and operators



**State Route 140 Ferguson Slide**

Mariposa County, CA 2006

**Description:** Utilizing a single Sypder excavator, AIS scaled and removed the talus for the 2006 slide event at the Ferguson slide location.

AIS also constructed a rock impact barrier at the toe of the slope

led to the successful completion of these projects.

AIS has one of the largest fleets of specialized walking excavators in North America. Spider walking excavators can navigate slopes as steep as one-to-one to provide drilling, excavation and mechanical scaling operations at locations typically off limits to heavy equipment. With an extensive fleet of support equipment ranging from rock drills and hammers to dozers and support cranes, AIS is prepared to perform all forms of slope stabilization work.



**Big Sur Landside Repair**

Alder Creek, CA 2012

**Description:** Two Spyder excavators along with 2 D5 dozers were flown by helicopter to the top of the slide to move material toward Highway 1. Working closely with Caltrans engineers, AIS removed the slide talus and installed over 200,000 sq. ft. of drapery.

The ability to mobilize to remote locations in the country on a moment's notice has made AIS a strong name with state agencies and has allowed AIS the opportunity to work on numerous emergency contracts. This fleet of Kaiser Spyder excavators allows AIS to strategically place machines in various geographical areas and serve many projects at the same time.

AIS has approximately 50 skilled workers that are trained within the company for different types of work. Employee safety and commitment to public safety are ethical and moral obligations that AIS Construction makes an integral part of all work performed. This responsibility of safety is shared at every level within the company.

AIS trains all of its steep slope employees on proper mountaineering techniques utilizing the Department of the Army Military Mountaineering Field Manual (FM 3-97.61 (TC 90-6-1)) and has numerous employees with Society of Professional Rope Access Technicians (SPRAT) or Industrial Rope Access Trade Association (IRATA) certifications. AIS has many employees with thousands of hours of rope time each and will provide certified SPRAT and IRATA field supervisors for all work that involves working on steep slopes.

Safety is a culture at AIS, through ongoing training and enforcement of safety policies, procedures, and initiatives to support the goal of zero accidents.



**Presidio Landfill Removal**

San Francisco, CA 2007

**Description:** Contracted by the Presidio Trust of San Francisco to remove and dispose of contaminated material on the slopes above Baker Beach.

AIS has extensive experience with working in environmentally sensitive areas and working within the parameters of governing body permits. The Presidio Landfill removal project, for example, involved hazardous waste removal from within the sensitive serpentine habitat on the coastal bluffs near the Golden Gate Bridge. As the Prime Contractor on the project, AIS worked with the Presidio Trust and the National Park Service to devise a waste removal plan that met the requirements of the permits and worked for all of the parties involved.

Kiewit is confident that AIS's breadth of resources including specialized equipment, highly trained craft labor, and skilled management will provide our team with the specialized capability needed. Kiewit will provide Caltrans a dynamic team, bringing proven techniques and innovative ideas to the Ferguson Slide Project.



**Highway 49**

Amador County, CA 2006

**Description:** Contract for Caltrans to remove slide material off of Highway 49 in Amador County, CA. AIS used Spyder Excavator to scale loose slide material down the slope for off haul. AIS then placed cable net drapery on slide area.

# LSA

LSA Associates, Inc. (LSA) is a full service planning and environmental consulting firm. The firm is distinguished by the comprehensive nature of the services it provides and its commitment to providing responsive and expert support to its clients in the following disciplines:

- Biological Resources
- Archaeological/Paleontological Resources
- Construction Monitoring and Oversight
- CEQA and NEPA compliance
- Community Planning
- Noise and Air Quality Assessments
- Global Climate Change Analysis
- Transportation Planning and Engineering
- Geographic Information Systems (GIS)

LSA is an employee-owned firm that has offered its clients professional excellence, reliability and continuity since 1976. Currently the firm has a staff of more than 200, with nine offices located in California and one in Colorado. They are committed to creativity, innovation and technical proficiency in the assignments they undertake. They seek opportunities to practice our professional disciplines with challenging assignments and objective analysis.

LSA staff work on a variety of projects in many different market sectors, but as a firm they have developed an expertise in environmental documentation for transportation projects. This experience has fostered an excellent understanding of Caltrans project development procedures and environmental review requirements. This experience has also resulted in the development of outstanding professional working relationships with personnel in every

Caltrans District. LSA has extensive experience in preparing and processing environmental documents according to Caltrans requirements for its clients throughout California, as well as contracts directly with Caltrans.



## I-5/French Camp Rd. Interchange

**Owner:** Caltrans, District 10

**Description:** LSA is currently providing close coordination with the Contractor-supplied biologists and general oversight to ensure compliance with the San Joaquin Multi-Species Habitat and Open Space Conservation Plan and regulatory permits

## Biological Resources

LSA offers unusual depth of experience in biological and wetlands consulting, plus broad technical expertise in wetland science, wildlife biology, botany, entomology, soil science, and native plant horticulture. They specialize in permitting for projects with impacts on wetlands and endangered species, and have earned credibility and a reputation for professionalism with resource agencies.

LSA have considerable experience providing biological construction monitoring and oversight. Many of the projects they monitor are transportation projects, but they also provide monitoring and oversight services for our land development and alternative energy clients.

Through each stage of a project, LSA works on multidisciplinary teams with planners and engineers to develop plans that work for our

clients. They strive to help clients minimize impacts and streamline the permit process, while still achieving the project purpose and avoiding costly delays.

Biological Services Include:



**SR-88/Jackson Valley Rehabilitation**

*Owner: Caltrans, District 10*

*Description: LSA coordinated closely with the contractor to identify those construction tasks that would affect California tiger salamander habitat; LSA then surveyed these habitats and cleared these areas ahead of construction to avoid delays.*

- Surveys for rare, threatened, and endangered species — mammals, birds, reptiles, amphibians, insects, fairy shrimp, other invertebrates, and plants. (LSA holds state and federal permits required for surveys of many of these species.)
- Natural resource inventories, vegetation mapping, and habitat evaluations
- Analysis of biological opportunities and constraints — at a reconnaissance level or in depth
- Assessing biological impacts and developing feasible mitigation measures (for EIRs and EISs)
- Developing habitat restoration and mitigation plans
- Biological monitoring — during construction and after completion of a mitigation or restoration plan

- Wetland permitting — U.S. Army Corps of Engineers (Section 10 and Section 404) and California Regional Water Quality Control Board (Section 401 certifications)
- Delineating (mapping) jurisdictional wetlands
- Analyzing alternatives under the EPA's Section 404(b)(1) guideline alternatives
- Endangered Species Act consultation, under state and federal law
- Habitat Conservation Plans (HCPs)
- Permitting for coastal development
- Stream and Lake Alteration Agreements
- Developing permitting strategies



**Route 65 Lincoln Bypass**

*Owner: Caltrans, District 3*

*Description: LSA worked with both Caltrans and the U.S. Fish and Wildlife Service during the Section 7 consultation process in order to expedite issuance of the Biological Opinion*

Kiewit has chosen LSA for environmental consulting because their breadth of knowledge and relevant experience put them at the top of their industry. LSA represents the resources and expertise necessary to provide positive results and ensure first class environmental responsibility during the execution of this complex job.

# FORM B

Construction of projects of similar size scope and complexity

Innovative structure and wall design

Experience of team members working together as integrated team

Construction of projects in difficult site conditions

Development and implementation of integrated construction traffic handling plans to minimize impacts to the public

Compliance with environmental regulations and restrictive permit requirements

Difficult drilling and excavation through bedrock and granitic structural concrete elements

Experience in placing large and deep cast in place and precast concrete elements

Procurement and placement of major structural elements from off-site and/or on-site batch plants

<b>El Portal Roadway</b>	●	●	●	●	●	●	●	●	●
<b>LL Anderson</b>	●	●	●	●	●	●	●	●	●
<b>SR 14</b>	●		●	●	●	●	●		●
<b>Pitkins Curve</b>	●	●	●	●	●	●		●	●
<b>Beartooth</b>	●	●	●	●		●	●	●	●

Name of Proposer: <b>Kiewit Infrastructure West Co.</b>	
Name of Firm: <b>Kiewit Pacific Co.</b>	
Project Role: <b>Design – Build General Contractor</b>	Designer: <b>Parsons Transportation Group</b>
Principal Participant: <b>Kiewit Pacific Co (100%)</b>	
Years of Experience (provide length of activity as it relates to the following three elements): Roads/Streets: <b>2 Years</b> Bridges/Structures: <b>2 Years</b> Utility Relocations: <b>1 Year</b>	
Project Name, Location, and Nature of Work for Which Company Was Responsible: <b>El Portal Roadway (State Route 140), Yosemite National Park, CA (West Entrance)</b>	
<b>Kiewit was the Design-Build General Contractor</b>	



Photo 1: MSE wall wire straps and fill.



Photo 2: Pre-cast box culvert installation.

**Project Highlights**

- Project completed under budget
- Structural concrete, shotcrete and slurry batched by Kiewit with on-site batch plant
- Remote jobsite
- Drill and blast excavation
- Merced River adjacent with no environmental violations

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

**Scope Elements Similar to Ferguson Slide**

- First Design/Build project for the FHWA
- Repair/widening of seven miles of flood-damaged roadway on main access road
- Highway construction with difficult site conditions, including:
  - Limited staging and storage areas
  - Two lane mountain road with small right-of-way
  - Project team accommodated the 3,000 cars-per day during peak tourism season
  - Project under scrutiny by local Sierra Club and National Park Service
  - Severe impacts to surrounding communities; including significant tourism/recreational areas

**Construction of projects of similar size, scope, and complexity:**

In January 1997, several days of heavy, warm rains, combined with record flows in the Merced River produced a 100 year flood event in Yosemite National Park. The river washed out the adjacent El Portal Roadway in 19 locations, disabling the main entrance to the park. The flood also destroyed portions of the sanitary sewer lines serving the entire Yosemite Valley.

Kiewit designed and constructed approximately 65,000 sq. ft. of special MSE retaining wall. The work included drill and shoot sliver cuts, rock fills, reconstruction of the entire drainage system, rehabilitation and reconstruction of the damaged sanitary sewer lines, new road embankment, asphalt concrete pavement and replacement of the historic granite guard wall railing. The original granite stone guard rail had taken Italian stone masons nearly 12 years to construct by hand. This wall was replaced with a replicated concrete barrier that looked exactly like the original but also met federal crash standards. This was accomplished by taking molds of the existing wall to create form liners to cast the new guard rail.

The reconstruction of the roadway drainage system included installation of cut and cover pre-cast concrete box culverts ranging in size at multiple locations along the alignment. This allowed the project team to install portions of the culverts in lane closures and maintain traffic flow through the area.

**Innovative structure and wall design:**

The Federal Highway Administration's (FHWA) design intent was to perpetuate the existing characteristics of El Portal Roadway while improving the safety and traffic flow through the corridor. Our team set out to select a retaining wall system that fit these parameters, and maintained schedule and cost requirements.

Cast-in-place or pre-cast retaining walls required substantial bearing capacity with massive pile founded footings and consistent, predictable footing grades. The granite rock formations of the Yosemite Valley did not allow for either of those. We found the wire MSE wall to be the system of choice, as it easily adapts to various conditions and terrain encountered; and wall heights were easily changed with material on hand. The face of the MSE walls were shot-creted, hand-carved and stained to match the existing stone rubble masonry walls along the route; ultimately creating an aesthetically pleasing wall that blended into the surrounding environment.

**Experience of team members working together as an integrated team:**

Two of the proposed Key Personnel listed for Ferguson Slide were also involved with El Portal Roadway. Chris Villa served as project manager/sponsor and Tom Trimble was structures superintendent/project manager. The FHWA made their concerns clear at project onset; which included the project schedule (as the funding for the project was to expire by 2000), impact to the traveling public and park aesthetics. As leaders of the Kiewit-Parsons design team for the first Design/Build Project ever released by the FHWA, Chris and Tom addressed these project elements early on.

By aligning project goals, the team collaborated to alleviate the shared concerns. The construction design teams were co-located to improve project constructability and lines of communication. Being in the same building greatly improved quality and the time it took to generate the project design and approval. The team also worked together to reduce the impact to the traveling public by simply agreeing to road closure and opening expectations before they became an issue for either party. Our team also managed the third party architect, who worked directly for the National Park Service (NPS). Aesthetics were a big concern for NPS as well, but the FHWA and Kiewit successfully produced a satisfactory result.

**Construction of projects in difficult site conditions such as remote location:**

The El Portal Roadway site is located 11.5 miles from Yosemite Village, with the nearest major metropolitan area nearly two hours away. With remote locations such as this, the project team had some additional project hurdles. Construction labor workforces in these areas are limited. Kiewit brought in the key foreman for the project, but additional labor had to be located as well as subcontractors and suppliers.

With the experience gained on the El Portal Roadway and other projects in the area (Chukchansi Casino, Crane Valley Dam), Kiewit has developed contacts and a sound knowledge of the local workforce.

**Implementation of integrated construction traffic handling plans:**

Kiewit worked on an accelerated schedule to minimize disruptions to the extensive tourist traffic on the roadway. During construction, continuous access was necessary for park employees and tourists. Full eight-hour road closures were allowed in the winter months along with night shift closures during the summer. Kiewit MOT and schedule designers met the challenge of the site's special constraints of working in a 20 ft. wide roadway corridor while successfully maintaining traffic flow. Kiewit monitored schedules down to the minute to ensure re-opening the road on-time during a closure and a large portion of the work was performed at night to minimize the impact to the traveling public.

**Compliance with environmental regulations and restrictive permit requirements:**

El Portal Roadway is located in one of the most environmentally sensitive areas in the US and construction could not disturb the wildlife.

To maintain compliance, Kiewit conducted monthly environmental audits throughout the project. The audits were performed by a third party and yielded passing results. The project was under the authority of the NPS and was watched closely with no conflict. The Design/Build delivery system was beneficial as it allowed the team to design the least invasive construction methods available.

**Difficult drilling and excavation through bedrock and granitic materials:**

The sliver excavations for the project required drilling and blasting using innovative methods with regard to drill access, sequence and control of shots. Any material blasted during the course of the shift had to be removed that night to re-open the road to traffic. This required precision planning and scheduling while also developing unique access options for the drilling equipment. Mobile drill-rig platforms, hanging the drilling equipment from the hook of the crane while utilizing manlifts, were some of the methods used to complete the work.

The final phase of work involved rock scaling. The project team personnel climbed the steep terrain to remove debris and prevent loosened rocks from falling on passing cars.

**Experience in placing large and deep cast-in-place and precast structural concrete elements:**

The use of MSE walls on the project eliminated the need for large, deep cast-in-place elements. Pre-cast box culverts were utilized by the project design team for the area drainage improvements. The project team procured and installed 150 ft. of 12 ft. by 12 ft. twin box culverts, which were then faced with hand-cut granite masonry rock walls.

**Procurement and placement of major structural elements from off-site and/or on-site batch plants:**

Due to the remote project location, an on-site batch plant was required to produce the 14,000 cu. yd. of structural concrete, shotcrete and slurry fill materials. With the use of an on-site plant comes the challenge of producing concrete that meets the project specifications and the project's concrete demands. The project team produced all 14,000 cu. yd. without any quality incidents and coordinated the bulk material deliveries down to the minute to re-stock the small volume cement and aggregates silos while making daily concrete pours.

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

Name of Client (Owner/Agency, Contractor, etc.): **Federal Highways Administration**

Address: **555 Zang Street, Denver, CO 80225**

Contact Name: **F. Dave Zanetell, PE (Retired)**

Telephone: **(303) 688-7500**

Owner's Project or Contract No.: **DTFH70-03-R-00002**

Fax No: **(303) 688-8811**

Contract Value (US\$): **\$33,435,478**

Final Value (US\$): **\$32,911,173**

Percent of Total Work Performed by Company: **100 %**

Commencement Date: **June 1, 1998**

Planned Completion Date: **September 15, 2000**

Actual Completion Date: **September 1, 2000**

Amount of Claims: **0**

Any Litigation? Yes  No

Name of Proposer: <b>Kiewit Infrastructure West Co.</b>
Name of Firm: <b>Kiewit Infrastructure West Co.</b>
Project Role: <b>General Contractor</b>
Principal Participant: <b>Kiewit Infrastructure West Co.</b> Designer: <b>MWH Americas</b>
Years of Experience (provide length of activity as it relates to the following three elements): Roads/Streets: <b>1 Year</b> Bridges/Structures: <b>1 Year</b> Utility Relocations: <b>N/A</b>
Project Name, Location, and Nature of Work for Which Company Was Responsible: <b>LL Anderson Dam Spillway Modification Project, Placer County, CA (French Meadows Reservoir, Tahoe National Forest) Kiewit was General Contractor.</b>



Photo 1: 345 exc. loading off road truck in the spillway cut.



Photo 2: Completed control structure from downstream.

**Project Highlights**

- 42,000 cu. yd of drill and shoot rock excavation
- 8,000 cu. yd. of on-site batch plant produced concrete
- 170 ea. rock bolts ranging in size and length
- Technical concrete form work
- Crushed, processed and cleaned aggregates on-site

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

**Scope Elements Similar to Ferguson Slide**

- Remote location in the Sierra Nevada Mountains (1.5 hrs from nearest town), satellite phones/ internet
- Technical concrete and pre-cast elements
- Tight access and limited lay-down area
- Critical traffic control considerations
- Stringent environmental regulations and restrictive permits

**Construction of projects of similar size, scope, and complexity:**

LL Anderson Dam, constructed in 1964, is a multi-purpose water supply and hydroelectric dam which diverts water from the middle fork of the American River watershed to the Rubicon River watershed to support power generation at a series of hydroelectric powerhouses downstream. The LL Anderson Dam Spillway, located on the north abutment of the dam, originally included a 48 ft. wide approach channel excavated in rock leading to a gated concrete ogee weir equipped with two 20 ft. wide by 18.5 ft. high radial tainter gates.

Since the dam's original completion, the probable maximum flood (PMF) calculation was updated by the Army Corp of Engineers several times. Hydraulic routing of the latest PMF indicated that the spillway did not have enough capacity and the dam could be over-topped by flood in severe flood conditions.

To meet the revised requirements set forth by Federal Energy Regulatory Commission's (FERC) Division of Dam Safety and Inspections and the California Department of Water Resources' Division of Safety of Dams (DSOD), Placer County Water Agency (PCWA) enlarged the spillway. The project expanded the existing spillway by widening and deepening its channel, replaced the old spillway gate structure with a wider gate structure and raised the crest of the dam by constructing a new 2,700 ft. long cast-in-place concrete parapet wall.

Kiewit began construction in April of 2010 and was substantially complete in December of 2011. Final acceptance of this project was achieved in March of 2012 and the project did not require any dispute

resolution board (DRB) or dispute resolution processes. The project value grew by 5% primarily due to the additional work required to get into the project site following the abnormal snowfalls late in season two.

#### Innovative structure and wall design:

The Kiewit team worked closely with the owner to value engineer changes to the 35 ft. tall, single-sided walls to eliminate unnecessary warping and break points. This simplified the wall formwork and increased production on the tightly scheduled control structure concrete work.

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

Dan Hart, Project Manager, directed all aspects of this project through its completion. He applied his knowledge of structural concrete construction and project management experience to successfully complete this project. Due to PCWA's operational considerations of the reservoir and the potential need to pass emergency spills through the project site, the project was carried out in coordination with several emergency action plans. It was under the jurisdiction of several regulatory/resource agencies such as FERC, CA Safety of Dams, and the US Forest Service. With the amount of parties involved, it was critical Kiewit keep everyone informed and follow the protocols set forth in contract documents and permits.

#### Construction of projects in difficult site conditions such as remote location:

LL Anderson Dam is located 30 mi. southwest of Truckee, CA and 20 mi. west of Lake Tahoe, NV. It can only be reached via two paved roads: one from the town of Forrest Hill (1 hr. 30 min. from the site) or Georgetown (2 hr. 10 min. from the site).

An abnormally cold and wet spring of 2011 brought heavy snow falls and season two work was delayed by a month-and-a-half. Kiewit accelerated the remaining work and finished within the specified in-channel work window. The remote location required the on-site team to use satellite phone and internet service and there was no permanent power available so the team ran on full-time mobile power.

Extensive coordination with public agencies contributed to the delivery of oversized loads of equipment and materials to the site location, as there was limited road width and bridges along the route.

#### Implementation of integrated construction traffic handling plans:

The load-haul operation involved crossing the public roadway. Mobile traffic signals were used to control and maintain a single lane of traffic. Logging, forest service vehicles and outdoor recreational traffic required one lane to be open at all times. With the mobile signals the team controlled the traffic patterns through the jobsite and across the dam, with and without flagger support, and little impact to the public.

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

Kiewit ensured compliance with the all required environmental regulations and restrictive permits set forth by the agency with jurisdiction. Required permits included:

- US Army Corp of Engineers: *Nationwide Permit*
- Regional Water Quality Control Board: *Section 401 Water Quality Certification*
- California Department Of Fish And Game: *Section 1601 Lake and Streambed Alteration Agreement*
- State Water Resources Control Board: *Waste Discharge Notice of Intent*
- California Safety of Dams: *Approval of Dam Alteration Application*
- New Forestry, LLC: *Access License Agreement*
- California Regional Water Quality Control Board: *NPDES Storm Water General Permit*
- Agreement Between US Forest Service and Placer County Water Agency, Including Fire Plan

**Difficult drilling and excavation through bedrock and granitic materials:**

The project required 48,000 cu. yd. of drill and shoot rock excavation. Access into the channel was provided by crane for the drill equipment and access ramps were built to get haul equipment in and out of the spillway. Once access into the channel was established, an off road truck and excavator spread worked one-way traffic patterns for load-haul of the shot rock material to an on-site stock pile.

Kiewit crushed, processed and cleaned 33,000 tons of aggregates with an on-site crusher and screening plant. 12,000 tons of concrete aggregates and 21,000 tons of road base, drain rock, rock bolts and shotcrete rock walls were installed for slope protection. During construction of the control structure the drilling and shotcrete subcontractors worked to install 170 one in. diameter, 15 ft. deep rock bolts and 2,500 sq. yd. of shotcrete. Once the control structure was complete with the gates installed, the existing concrete gate structure was removed and the final rock plug was drilled and shot. This shot was extremely critical considering the new gates were 15 ft. away.

**Experience in placing large and deep cast-in-place and pre-cast structural concrete elements:**

The construction sequence for the new gate control structure was critical to on-time schedule completion and Kiewit coordinated all the various subcontractors, suppliers and inspectors. The new gate control structure involved many different types of concrete walls ranging from 30 ft. single-sided walls to hanging radius ogee forms.

**Procurement and placement of major structural elements from off-site and/or on-site batch plants:**

Due to the remote location, the project required an on-site concrete batch plant. Kiewit staff received and assembled the plant and produced concrete trial batches in preparation of season two work. All 8,000 cu. yd. of structural concrete, shotcrete and mass concrete fill were batched on-site by Kiewit personnel with aggregates processed on-site.

The mechanical portion of the project required Kiewit to procure and install two new radial tainter gates and the hoisting system. The gates were fabricated by a company in Massachusetts under a very tight fabrication schedule. Kiewit personnel made several trips to the fabrication yard to ensure the quality of the fabrication work and managed the scheduled delivery dates. Once assembled, each gate weighed approximate 50,000 lbs. The gates were connected to a pre-cast concrete anchor block that was stressed onto the control structure walls. These pre-cast elements had extremely tight tolerances and required a high level of quality control during the casting to ensure proper gate anchorage and function

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

1. 2012 Project of The Year” -American Public Works Association (APWA), Sacramento Chapter, Structures Category, \$10-\$50 Million
2. “2011 Heavy Civil Construction Project of the Year” – American Society of Civil Engineers (ASCE), Sacramento Section

Name of Client (Owner/Agency, Contractor, etc.): **Placer County Water Agency, CA (PCWA)**

Address: **144 Ferguson Rd. Auburn, CA 95603**

Contact Name: **Jon Mattson (PCWA Project Manager)**

Telephone: **(530) 885-6917**

Owner’s Project or Contract No.: **#PS 2009-01**

Fax No: **(530) 367-4440**

Contract Value (US\$): **\$14,645,000**

Final Value (US\$): **\$15,479,976**

Percent of Total Work Performed by Company: **100%**

Commencement Date: **March 7, 2010**

Planned Completion Date: **March 15, 2012**

Actual Completion Date: **March 15, 2012**

Amount of Claims: **0**

Any Litigation? Yes  No

Name of Proposer: <b>Kiewit Infrastructure West Co.</b>	
Name of Firm: <b>Kiewit Infrastructure West Co.</b>	
Project Role: <b>Construction Manager/General Contractor (CMGC)</b>	Designer: <b>Parsons Brinkerhoff Inc.</b>
Principal Participant: <b>Kiewit Infrastructure West Co. (100%)</b>	
Years of Experience (provide length of activity as it relates to the following three elements): Roads/Streets: <b>9 Months</b> Bridges/Structures: <b>9 Months</b> Utility Relocations: <b>9 Months</b>	
Project Name, Location, and Nature of Work for Which Company Was Responsible: <b>SR-14 Landslide Emergency Repair CMGC Services, Cedar Canyon, UT (Near Cedar City, UT)</b> <b>Kiewit was hired as the CMGC to repair 0.3 mi of highway that was destroyed by a significant landslide.</b>	

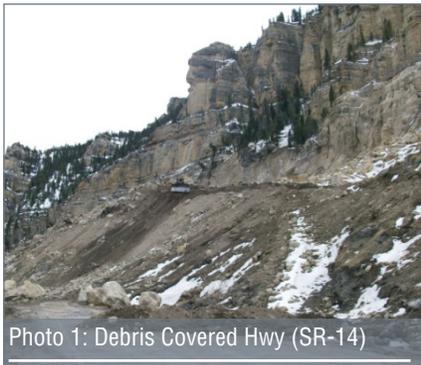


Photo 1: Debris Covered Hwy (SR-14)



Photo 2: Damaged Highway (SR-14)

**Project Highlights**

- CMGC Contract Model
- Fast-paced construction schedule
- Reduced budget and project schedule
- Complex project with difficult site conditions
- Close collaboration between Kiewit team and the client

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

**Scope Elements Similar to Ferguson Slide**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• CMGC delivery method</li> <li>• Highway construction with difficult site conditions:</li> <li>• Landslide in remote location (1.1 million cu. yd. over 0.3 mi. of highway)</li> <li>• No electronic communication signals</li> <li>• Limited staging and storage areas</li> </ul> | <ul style="list-style-type: none"> <li>• Excavation and embankment of 700,000 cu. yd. of rock and dirt</li> <li>• Construction of new MSE wall, new concrete barrier and guardrail</li> <li>• Environmental permit compliance included normal NPDS and dust control permits</li> <li>• Severe impacts to surrounding communities; including significant tourism/recreational areas</li> </ul> |
|--|---|

**Construction of projects of similar size, scope, and complexity:**

In October 2011, a landslide destroyed 0.3 mi of SR-14 in Cedar Canyon (SR-14) leaving the road impassable and severely impacting the surrounding communities. Similar to Ferguson Slide, SR-14 is a critical access point for travelers in this popular tourist area of Southern Utah. The landslide cut off access between Cedar City and many of the recreational features and destinations up the canyon.

Kiewit was hired as the CMGC to assist in the design and to rebuild the roadway. With project funding a major challenge, Kiewit was proactive early in the process and collaborated with the Utah Department of Transportation (UDOT) to ensure a project solution. The result: Kiewit and UDOT refined the project design without compromising project goals or going over UDOT's allotted budget.

Kiewit rebuilt the roadway through a landslide that consisted of 1.1 million cu. yd. of deposited and obstructing material. The damage required excavation and embankment of 700,000 cu. yd. of rock and dirt, surfacing and striping of the roadway, a new concrete barrier and guardrail, drainage improvements and a new MSE wall.

This project exemplifies the innovative nature of the CMGC delivery method, and was ideal for SR-14 due to the project constraints. Throughout its duration, Kiewit worked cohesively with UDOT to ensure the benefits of this delivery method were implemented to the fullest. Our collaborative approach facilitated highly efficient design solutions for all facets of the project.

**Innovative structure and wall design:**

Kiewit implemented innovative structure and wall design in several areas of the project. At the main landslide location we were particularly innovative in our design approach by changing the steepness of the excavation slopes. The designers proposed an increase in slope from 2:1 to 1.75:1 to reduce the amount of material that needed to be moved by about 100,000 cu. yd. Doing this would prevent Kiewit from using its large, more cost efficient CAT 5130 excavator and 777 rock trucks due to the smaller excavation area. However, running the cost models for the large equipment versus smaller lower production equipment showed it would have cost an additional \$200,000 to move the lesser quantity of material and add more than two months to the construction schedule. This method of execution facilitated a safer project for the public, which was constructed faster and with flatter slopes for reduced cost to UDOT.

Another innovative design approach was to lower the grade of the roadway. The grade in various locations were about 10% and limited the type of vehicles able to travel on the road. After discussion with UDOT's management, Kiewit designed the roadway with 8% grades instead of the previous 10% grade. By making this change the project team provided the public with a high quality roadway and reduced the quantity of material moved by more than 500,000 cu. yd. This contributed to lowered project cost and drastically reduced the schedule.

In addition to the adjustments of the roadway at the site of the landslide, Kiewit was responsible for repairing substantial road erosion at three other locations. These repairs resulted in lanes less than 10 ft. wide.

At one location the weathering of an unstable rock face made the wall design challenging. Kiewit achieved the final solution of constructing a cast-in-place concrete retaining wall installed with rock anchors by maximizing the collaborative nature of the CMGC delivery method. Erosion had reduced the roadway width at the second location. Kiewit resolved the problem by installing a soldier pile wall with lagging. The wall was faced with shotcrete to create a natural rock appearance. At the third location, the retaining wall originally required was eliminated. Kiewit remedied the damage by buttressing the roadway with large angular rock, which also prevents future erosion of the roadway.

Kiewit's solutions-oriented approach included collaborating with UDOT and implementing innovative retaining wall designs.

**Experience of team members working together as an integrated team:**

After the landslide closed the roadway, residents and travelers had to take a detour of anywhere between 40-60 mi. Both Vicki Engleman and Mike Seare worked on SR-14 during the preconstruction phase. Due to the dire nature of the closure, especially at a tourist destination, there needed to be seamless integration of the entire team. Kiewit worked closely with UDOT to quickly design and construct an affordable solution that would minimize the impacts to the surrounding citizens and communities.

**Construction of projects in difficult site conditions such as remote location:**

Successful completion of this project required overcoming several challenges - many of which are similar to Ferguson Slide. The project took place in a canyon with no electronic communication signals and the site was very constrained due the work being done in the canyon. This meant staging areas needed to be created to allow for maintenance of the equipment.

During the project’s duration an additional slide to the west of the project required an additional 309,000 cu. yd. of material to be excavated while the roadway remained open to traffic. Despite this challenge, Kiewit completed the project ahead of schedule and reduced the cost from the initial cost model. Due to two additional landslides during construction, the project scope increased and the final contract amount was \$15.1 million. The original completion date was still met by the team.

To offset the “hiccups” that can arise when working in difficult site conditions, a weekly team meeting with the construction team, management, QC, and inspectors occurred to discuss quality issues and to plan for anticipated risks. This facilitated an open dialogue for “lessons learned” during the project. We also held preactivity meetings before major items of work to agree on expectations and mitigate risks associated with a fast-paced construction schedule.

**Implementation of integrated construction traffic handling plans:**

After the project began, our team looked for every opportunity to accelerate construction and expedite opening the roadway. During contract negotiations, the team agreed to have the roadway open to traffic on nights and weekends by June 1st on a dirt roadway which required 400,000 cu. yd. of material to be moved within two months. To maintain this rigorous schedule, our team worked double and extended shifts, paving half of the roadway prior to Memorial Day weekend.

**Compliance with environmental regulations and restrictive permit requirements:**

Even with SR-14’s location in a sensitive area, the project was completed with no environmental issues and no special permits.

**Difficult drilling and excavation through bedrock and granitic materials:**

While the conditions at the slide were challenging, boulders the size of small houses were both visible and buried beneath the slide debris.

**Experience in placing large and deep cast-in-place and pre-cast structural concrete elements:**

At the old Crow Creek tunnel, a formliner was placed on the retaining wall to mimic the rock that was placed there almost a hundred years earlier. Where a soldier pile wall was required, it was overlaid with shotcrete to cover the beams and lagging, creating a more aesthetically pleasing look.

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

1. 2013 ENR Mountain States Best Projects Highway/Bridges Merit Award

Name of Client (Owner/Agency, Contractor, etc.): Utah Department of Transportation (UDOT)  
 Address: UDOT, 210 West 800 South, Richfield, UT 84701  
 Contact Name: Lief Condie – Resident Engineer Telephone: (435) 691-1879  
 Owner’s Project or Contract No.: F-0014 (34)6 (PIN 10398) Fax No: (435) 865-5564  
 Contract Value (US\$): \$ 10.9 Million Final Value (US\$): \$ 15.1 Million  
 Percent of Total Work Performed by Company: 88.8%  
 Commencement Date: February, 2012 Planned Completion Date: October 1, 2012  
 Actual Completion Date: October 1, 2012  
 Amount of Claims: 0 Any Litigation? Yes \_\_\_ No X \_\_\_

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

Name of Firm: **Kie-Con (Kie-Con, a direct subsidiary of Kiewit Infrastructure West Co.)**

Project Role: **Pre-cast Girder Fabrication and Installation**

Principal Participant: **Golden Gate Bridge Inc. (100%)** Designer: **Caltrans, Division of Engineering Services, Structural Design**

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

Roads/Streets: **N/A** Bridges/Structures: **6 Months** Utility Relocations: **N/A**

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

**Pitkins Curve Bridge and Rock Shed, Highway 1, Monterey County, CA**

**(0.6 mi. North of Limekiln Creek Bridge to 1.4 mi. South of Lucia)**

**Responsible for fabrication and installation of 59 pre-cast girders to build a rock shed.**

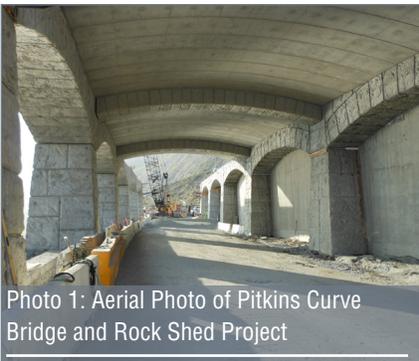


Photo 1: Aerial Photo of Pitkins Curve Bridge and Rock Shed Project



Photo 2: Pre-cast concrete girders being loaded out of Kie-CON's yard in Antioch, CA.

**Project Highlights**

- Technical rock shed project
- Minimized project delays through team collaboration and diligent communication
- Minimal disruption to traffic
- Expedited project schedule-completed over four consecutive nights

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

**Scope Elements Similar to Ferguson Slide**

- Highway construction with difficult site conditions:
- Landslide in remote location
- Construction of new rock shed
- Severe impacts to surrounding communities; including significant tourism/recreational areas

**Construction of projects of similar size, scope, and complexity:**

Highway 1 was completed in 1937 and since that time the slopes created to build the road have been in a constant state of erosion. Each year, an estimated 10,000 cu. yd. of material is hauled away from the site. This routine maintenance causes road closures, is expensive and negatively impacts the local economy. Additionally, Caltran's geologists and engineers studied the slopes at this location and concluded that the hillsides will continue to slide.

As a result, Kie-Con constructed a rock shed that allows the natural geological erosion to occur and the material slides into the ocean without blocking the highway. To complete the project, Kie-Con fabricated and installed 59 extremely large custom girders to serve as a rock shed for cars traveling up and down the coast. The project was the first of its kind in Northern California and ensures that boulders sliding off the hill will deflect off the shed and protect vehicles along this popular route.

This specific experience and successful completion of Pitkins Curve demonstrate the value we place on Ferguson Slide.

**Innovative structure and wall design:**

Fabrication of the rock shed presented unique challenges and brought about innovative project solutions. Constructing a concrete soffit for casting the arch in each girder along with completing an architectural finish for the exposed girders were innovative ways to produce a quality product.

The dimensions of the beams were also critical to the quality of the rock shed. The alignment had to be perfect to allow for post-tensioning of the structure and completion of the parapet walls. Kie-Con completed the casting with no compromises in quality related to the girders and gained valuable experience from this project - experience which will be applied to the design and construction of future rock sheds like Ferguson Slide in the form of “lessons learned”.

**Experience of team members working together as an integrated team:**

Project success was largely due to the caliber of teamwork performed by all involved parties. This teamwork has developed through years of experience of Kie-Con and Kiewit working together on other projects. Chris Villa has executive authority over the operations of Kie-Con. Dan Hart and Tom Trimble have both worked closely with Kie-Con on past projects and will apply their experience to create a cohesive team for Ferguson Slide.

**Construction of projects in difficult site conditions such as remote location:**

This project was located on a remote section of Highway 1 in Monterey County. Access and laydown areas were limited due to the existing terrain. The aerial photo of Pitkins Curve on the previous page illustrates the rock shed’s location on the side of a mountain with the Pacific Ocean right below it.

**Implementation of integrated construction traffic handling plans:**

The project was installed over four consecutive nights to minimize the interruption to on-going traffic. In order to accomplish this less any set-backs, immense shipping and installation coordination was required. Each girder traveled over 200 mi. from the Kie-Con yard to the jobsite, so seamless integration and rigorous communication across the project team was key to success.

**Compliance with environmental regulations and restrictive permit requirements:**

This job complied with all the state and federal environmental requirements.

**Experience in placing large and deep cast-in-place and pre-cast structural concrete elements:**

Kie-Con has been furnishing and installing pre-cast concrete elements since its inception in the 1960’s. The beams were hauled to the site and then erected successfully.

**Procurement and placement of major structural elements from off-site and/or on-site batch plants:**

The 59 pre-cast concrete beams for the rockshed were cast off-site at Kie-Con’s yard in Antioch, CA. We plan to operate in this same manner, as-needed for Ferguson Slide.

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

Name of Client (Owner/Agency, Contractor, etc.): California Department of Transportation	
Address: District 5, 50 Higuera Street, San Luis Obispo, CA 93401-5415	
Contact Name: Pat Connally	Telephone: (805) 549-3111
Owner's Project or Contract No.: 05-0E9604	Fax No: (805) 549-3639
Contract Value (US\$): \$ 1,400,521	Final Value (US\$): \$1,400,521
Percent of Total Work Performed by Company: 93%	
Commencement Date: August, 2012	Planned Completion Date: August, 2012
Actual Completion Date: August, 2012	
Amount of Claims: 0	Any Litigation? Yes ___ No <input checked="" type="checkbox"/> ___

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

Name of Firm: **Kiewit Western Co.**

Project Role: **Design – Build General Contractor**

Principal Participant: **Kiewit Western Co. (100%)** Designer: **HKM Engineering Inc. (HKM)**

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

Roads/Streets: **4 Months** Bridges/Structures: **4 Months** Utility Relocations: **4 Months**

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

**Beartooth Highway Emergency Repair Project, (U.S. Highway 212) Between Red Lodge, MT and Cooke City, MT**

**Kiewit was the Design/Build General Contractor that performed the highway repair.**



Photo 1: Debris covered highway



Photo 2: Micropile-supported concrete foundation pad

**Project Highlights**

- Safety record of zero incidents
- Debris materials processed on-site to increase efficiency and decrease cost
- Team collaboration contributed to meeting the design package schedule

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

**Scope Elements Similar to Ferguson Slide**

- Highly collaborative project approach
- Exceeded schedule and budget requirements:
- Opened seven days ahead of schedule and \$5 million under estimate
- Highway construction with difficult site conditions:
- Landslide in remote location
- Poor electronic communication signals
- Limited staging and storage areas
- Construction of retaining structures at eight sites, including 6,000 sq. ft. of MSE walls, 15,000 sq. ft. rock retention walls; 92,000 cu. yd. drill-and-shoot rock excavation
- Severe impacts to surrounding communities; including significant tourism/recreational areas

**Construction of projects of similar size, scope, and complexity:**

Just days before the opening of the 2005 tourist season, a debris flow damaged 13 areas on the renowned Beartooth Highway and left stretches of road, guardrail and culverts shredded and dangling. More than 500,000 tons of debris flowed through two chutes over a 12 mi. stretch of the road ranging from 5,700 ft. to 11,000 ft. elevation. The damaged roadway impacted the local economy and literally shut down the tourist industry. Approximately 200,000 tourists enter Yellowstone National Park through this entrance annually. Repairing the highway became a national priority for the Montana Department of Transportation (MDT), the Federal Highway Administration (FHWA) and the country as demonstrated by passage of HR 309.

Kiewit formed a partnership to assist MDT in completing the complex emergency repair immediately. MDT's two major goals were repairing the roadway and mitigating potential damage of any future debris flows. Using our combined expertise, the roadway reopened for public travel in 16 weeks; seven days ahead of the anticipated deadline and \$5 million under estimate.

Innovative structure and wall design:

MDT clearly defined their goals and general specifications for the project's completion in one season. To accomplish this, Kiewit designed redundant drainage systems to function during road-clearing operations and installed shoulder inlets to handle drainage when ditches were full of snow and ice. Soil nail walls required shotcrete facing placed in lifts as the excavation proceeded. Excavation and wall construction of lower lifts could not continue until the shotcrete on upper lifts had cured. At one of the sites a rock fall steel wire draped lined with a non-woven geotextile fabric was used in lieu of shotcrete. The drape was rolled down and attached to the completed set of soil nails, and construction began immediately on the next lift. The rock drape and geotextile was brought to site on one truck to save time and cost. This innovative solution eliminated the need for shotcrete cure time, specialized shotcreting equipment and shotcrete delivery to the location each time a lift was placed.

*"...Repairing this 10,947 foot elevation pass required a high level of technical expertise, coordination between multiple engineering disciplines and effective construction management...Kiewit presented innovative design options to address the constraints imposed by the unique roadway geometry and topography. These designs were effective in preserving the sensitive alpine environment, addressed highway safety issues, and accommodated future maintenance considerations." -Janice Weingart Brown, FHWA*

Experience of team members working together as an integrated team:

Beartooth Highway is a designated National Historical Roadway and required involvement from multiple federal agencies. To overcome potential inter-agency delays, Kiewit proactively included MDT, the FHWA and the US Forest Service in weekly task force meetings. Design issues were discussed and assigned as an action item tracked for resolution. This created a high level of trust with agencies that had little or no history working on projects of this size, scope and contracting method.

Several other factors contributed to an integrated team and resulted in a co-located construction, design and owner staff. One of the critical factors was the geotechnical/geologic nature of the damage and repair of the site and its associated risks. Kiewit ensured that the geotechnical engineers, design team, MDT's geotechnical consultant and engineering staff, US. Forest Service and FHWA worked together to address and resolve issues efficiently. This allowed the team to "meet or beat" every design package schedule.

*"... Reopening this highway was a top priority...The Kiewit team exemplified the caliber of talent and experience necessary to do the job right...MDT forged a strong working relationship with Kiewit. This partnership and the innovation demonstrated make this unique design-build project a model for success. In the end the road reopened a full week before MDT's deadline and came in significantly under budget...during this extremely intense job, project leaders made themselves available at MDT's request to be an active part of community meetings and local outreach efforts." -Jim Lynch, Director, MDT*

Construction of projects in difficult site conditions such as remote location:

Safety was critical due to the remote location. The nearest town was 25 mi. away and there was no cell service at the work site. Radios were used for on-site communication but had minimal reach. A sheriff was posted at the base of the mountain to control access and respond to emergency situations and all Kiewit personnel had current first aid and CPR certifications. The project was a huge success and had a perfect safety record of zero incidents, accidents or fatalities.

Implementation of integrated construction traffic handling plans:

Scaling of slopes above the work sites included hand scaling and a mechanical "slusher" to rake off loose debris. Flaggers with radios were posted at points below scaling operations to receive the all-clear signal for traffic. We created temporary access parallel to the roadway by moving the roadway alignment 15 ft. to 20 ft. into the mountain at the retaining wall reconstruction sites to provide improved user safety during and after construction.

**Compliance with environmental regulations and restrictive permit requirements:**

The project complied with state and federal environmental requirements.

**Difficult drilling and excavation through bedrock and granitic materials:**

Drilling and excavation were particularly complex. The design specifically considered long-term safety and emphasized construction safety because of the rugged conditions. Examples of our design and construction methods are listed below:

- The debris chute at site eight was 40 ft. deep and extended 300 ft. down the mountain with unstable soil deposits and boulders that posed rock fall hazards. An over-built, end-dumped engineered fill was designed for “top-down” construction to eliminate having workers and equipment within the chute.
- Blasting for a new alignment at the top of the mountain, directly up-slope of most of the other work sites, occurred daily for six weeks and impacted on-going work at multiple sites. Safety procedures included blasting at end-of-day shifts and flaggers positioned at lower sites to ensure personnel safety.

**Experience in placing large and deep cast-in-place and pre-cast structural concrete elements:**

The physical conditions at one site was formidable and included the depth of the chute, the depth to competent rock, the occurrence of a near vertical fault, the associated 12 ft. wide zone of gouged and sheared rock and the necessity to maintain construction access to other repair sites further up the mountain concurrently. Considering these constraints, a unique micropile-supported concrete foundation was developed to bridge the fault zone, reduce the MSE wall height and horizontal reinforcement lengths and improve the global stability of the wall.

**Procurement and placement of major structural elements from off-site and/or on-site batch plants:**

The debris material was processed on-site and used for construction. Doing this significantly reduced time and cost.

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

1. 2006 AON AGC Build America – Design/Build Renovation
2. American Council of Engineering Companies (ACEC) – Engineering Excellence Awards - National Honor Award
3. Billings Engineers Club – Project of the Year
4. Montana Contractors Association – Innovative Project of the Year
5. Institute of Transportation Engineers (Intermountain Section) – Project of the Year
6. American Public Works Association (APWA) National Project of the Year for Emergency Repair - \$10 - \$100 Million Division
7. US Forest Service - Gridlock Breaking Award

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

Address: **2701 Prospect Ave., P.O. Box 201001, Helena, MT 59620-1001**

Contact Name: **Jim Lynch - Director**

Telephone: **(406) 444-6201**

Owner's Project or Contract No.: **U5-212**

Fax No: **(406) 265-9707**

Contract Value (US\$): **\$ 20 Million**

Final Value (US\$): **\$ 15.2 Million**

Percent of Total Work Performed by Company: **67.8%**

Commencement Date: **June 15, 2005**

Planned Completion Date: **October 15, 2005**

Actual Completion Date: **October 7, 2005**

Amount of Claims: **0**

Any Litigation? Yes  No

# SECTION 5 - PROPOSER KEY PERSONNEL



SR 140 FERGUSON  
SLIDE



**As the sole Major Participant, Kiewit offers the following benefits:**

- Kiewit proposed key personnel have nearly 150 years of combined experience on projects similar in scope and complexity, such as the El Portal Roadway, SR 14, and LL Anderson projects
- Brian McNeal from AIS and Jeff Bray with LSA add value to the team, as demonstrated by their previous experience and success in the Ferguson Slide area
- Kiewit can draw on additional resources with expertise in precast concrete fabrication, rock crushing and concrete production and design engineering

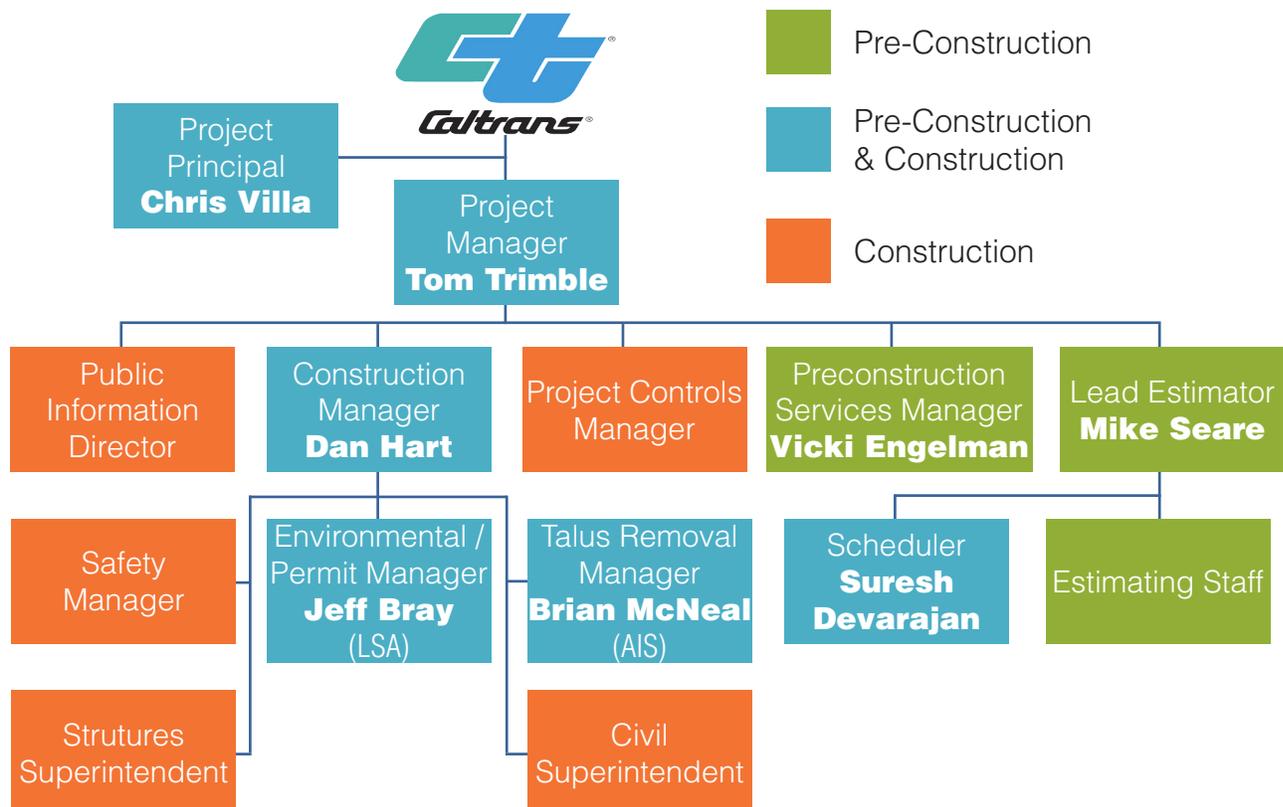
**3.6 Section 5 – Proposer Key Personnel**

Kiewit has assigned the most qualified, experienced and capable individuals to our Project team. Kiewit’s experienced personnel have a demonstrated history of delivering large, complex alternative delivery infrastructure projects successfully. This experience includes local projects, such as Crane Valley Dam and El Portal Roadway. Our project team is committed to delivering a high quality project, safely and on-time. They will work towards minimizing impacts to the public while accelerating the final

design, beginning construction operations as quickly as possible. Their professionalism and collaboration will extend to the entire team, fostering team success.

The individuals shown in Figure 5-1 understand the importance of meeting the project goals and are excited to bring their combined 100 years of experience to support Caltrans’ needs to deliver a successful project. These individuals have a strong history of working on alternative delivery projects. All of them have completed similar roles on similar projects.

Exhibit 5-1: The Kiewit team’s organizational and reporting structure.



Personnel Name / Role / Responsibilities	Qualifications	Why Selected?
<p><b>Chris Villa, Project Principal</b> Chris has executive oversight of project delivery, will handle all contractual matters and ensure the project has the proper staff and equipment resources to meet or exceed schedule and budget performance.</p>	<p><b>B.S. Civil Engineering</b> Chris has over 34 years of industry experience, is a Vice President of Kiewit, and is a member of Kiewit's executive management team and responsible for all operations in the Northern California area. He is directly responsible for the transportation, transit and engineering markets as well as Kiewit's precast concrete operations in Northern California and Arizona.</p>	<p>Chris brings an unsurpassed understanding of Caltrans' people, processes, tools and objectives garnered through more than 25 years of experience working with Caltrans on projects. His experience includes the \$1.2 billion San Francisco Bay Bridge Skyway Segment (the largest contract in Caltrans history at the time) and the El Portal Roadway. Chris also has executive authority over Kie-Con.</p>
<p><b>Tom Trimble, Project Manager</b> Tom is the on site point of contact for Caltrans. Ensures delivery of all tasks required for preconstruction and construction services.</p>	<p><b>B.S. Civil Engineering</b> Tom has 25 years of experience performing similar work and has managed alternative delivery projects and complex multi-discipline projects. Was the Project Manager on the El Portal Roadway project.</p>	<p>Tom successfully managed the complex El Portal Roadway project, which was also in a remote location. He has worked on multiple Caltrans projects including a variety of highway and grading projects. Tom is a leader and team builder who possesses a history of successful projects.</p>
<p><b>Dan Hart, Construction Manager</b> Dan oversees safety, quality and environmental personnel to ensure all project requirements are met. Remains on-site at all times while construction is in progress and has the authority to "stop work".</p>	<p><b>B.S. Construction Management</b> Dan has 25 years of heavy civil construction experience including bridge, highway, large structures work, grading and alternative project delivery methods. He is solutions-oriented and remains focused on project safety, quality and environmental compliance.</p>	<p>Dan has a career of structures experience, including extensive Caltrans experience. He has managed two projects (LL Anderson and Folsom Bridge) with difficult rock excavations where drilling and blasting were required. He has worked on numerous projects in remote locations and his time spent as the Project Manager at the LL Anderson job provided valuable lessons to be utilized on Ferguson Slide.</p>
<p><b>Mike Seare, Lead Estimator</b> Mike is responsible for estimating each milestone Opinion of Probable Construction Costs (OPCC), creating the open cost model and all other estimating requirements.</p>	<p><b>B.S. Civil Engineering</b> Mike has 37 years of industry experience, including several projects performing the CMGC delivery method. He understands both design and construction techniques necessary to develop detailed cost models, estimates and value engineering alternatives.</p>	<p>Mike has vast experience estimating and executing CMGC, which includes the SR-14 Landslide Emergency Repair project. He brings 37 years of experience and technical expertise gained from building projects of similar size, scope and complexity.</p>
<p><b>Suresh Devarajan, Scheduler</b> Suresh collaborates with the Department and preconstruction team to develop preliminary schedule and the resource-loaded project baseline schedule. Will regularly interface with the Department.</p>	<p><b>M.S. Architecture; B.S. Architecture</b> Suresh draws upon his background in architecture and his construction field experience to develop comprehensive, fully-integrated schedules that reduce risk for the owner. He excels in understanding the schedule requirements of very complex structures, as demonstrated on both the I-405 Sepulveda Pass Widening and the Benicia-Martinez Bridge Project.</p>	<p>Suresh's experience includes developing and maintaining complex schedules. Suresh is experienced in analyzing "what if" scenarios when considering multiple design options. His accuracy, attention to detail and innovative ideas will be an asset to Caltrans. His schedules will be fact-based and accurate.</p>
<p><b>Jeff Bray, Environmental / Permit Manager</b> Jeff has experience working near bodies of water. Ensures the project is constructed in accordance with all relevant environmental commitments and permits. Has the ability to "stop work".</p>	<p><b>B.S. Wildlife Biology</b> Jeff has 19 years of experience with biological resources and wetlands projects throughout California. He manages project teams and budgets, coordinates with clients and regulatory agencies regarding permitting strategies and mitigation requirements, and performs peer reviews.</p>	<p>Jeff has considerable experience working on transportation projects throughout northern and central California. He has managed the environmental component of numerous projects in Caltrans District 6 and 10, including several construction monitoring projects, and has developed a solid working relationship with their biology staff.</p>
<p><b>Vicki Engelman, Preconstruction Services Manager</b>, Vicki leads the preconstruction services effort and facilitates collaboration across the team to speed project delivery.</p>	<p><b>B.S. Civil Engineering</b> Vicki has managed the design development on 19 projects, totaling more than \$3.7 billion. She gets the most value from a CMGC project and has 10 years of experience performing similar work.</p>	<p>Vicki has managed the development of over 19,000 plan sheets and helped four owners deliver their first CMGC projects.</p>
<p><b>Brian McNeal, Talus Removal Manager</b> Brian oversees the work planning and execution of the talus removal, scarp shaping and rockfall protection system. Responsible for talus removal safety and quality.</p>	<p><b>B.S. Construction Management</b> Brian has 11 years experience performing similar work and is in charge of the Steep Slope Stabilization Division of AIS.</p>	<p>Brian is well known in the industry for his steep slope stabilization background. His experience includes Baker Beach Disturbed Areas 1 and 2A Removal and Highway 140 Ferguson Slide (in 2006). His past experience on slide remediation projects makes him a perfect fit for the project team. His wealth of knowledge will prove invaluable in the preconstruction and construction phases of this project.</p>

Name and Position	Preconstruction	Construction	Commitment and Other Projects
Chris Villa, Project Principal	10%	10%	Chris is completely committed to the success of the project. He will spend the remainder of his time continuing his role directing Kiewit operations in Northern California.
Tom Trimble, Project Manager	50%	100%	Tom is 100% committed to the Ferguson Slide project, and will only work on other projects as time allows. Tom is currently working out of our Northern California District in Fairfield, CA.
Dan Hart, Construction Manager	25%	100%	Dan is 100% committed to the Ferguson Slide project, and will only work on other projects as time allows. Dan is currently working at the Folsom Phase IV Project in Folsom, CA.
Mike Seare, Lead Estimator	25%	5%	Mike is 100% committed to the Ferguson Slide project, and will only work on other projects as time allows. Mike is currently estimating in our Salt Lake City Area office.
Suresh Devarajan, Scheduler	5%	25%	Suresh is 100% committed to the Ferguson Slide project, and will only work on other projects as time allows. Suresh is currently at our I-405 Sepulveda Pass Project in Los Angeles.
Jeff Bray, Environmental / Permit Manager	50%	50%	Jeff is 100% committed to the Ferguson Slide project, and will only work on other projects as time allows. Jeff is currently assigned to LSA's regional office in Rocklin, CA.
Vicki Engelman, Preconstruction Services Manager	50%	5%	Vicki is 100% committed to the Ferguson Slide project during the Preconstruction Phase. Vicki is serving as a Subject Matter Expert/Consultant on the Massachusetts Bay Transportation Authority Green Line project.
Brian McNeal, Talus Removal Manager	25%	100%	Brian is 100% committed to the Ferguson Slide project, and will only work on other projects as time allows. Brian is currently assigned to the AIS office in Carpinteria, CA.

100 % commitment means that the Ferguson Slide Project will be first priority. When the need for their time arises they will be made available to work on the Ferguson Slide Project.

The percent of time spent on preconstruction and construction was calculated based on the actual amount of time spent on Ferguson Slide work tasks related to the total duration of time for preconstruction or construction phases.

**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. [Note to Drafter: Edit positions for Project, refer to Section 3.6.1.]

<b>Position</b>	<b>Name</b>	<b>Years of Experience</b>	<b>Education and Registrations</b>	<b>Parent Firm Name</b>
Project Principal	Chris Villa	34	B.S., Civil Engineering	Kiewit
Project Manager	Tom Trimble	25	B.S., Civil Engineering	Kiewit
Project Construction Manager	Dan Hart	25	B.S., Construction Management	Kiewit
Lead Estimator	Mike Seare	37	B.S., Civil Engineering	Kiewit
Scheduler	Suresh Devarajan	10	B.S., Architecture M.S., Architecture	Kiewit
Environmental/ Permit Manager	Jeff Bray	19	B.S., Wildlife Biology	LSA
Preconstruction Services Manager	Vicki Engelman	15	B.S., Civil Engineering	Kiewit
Talus Removal Manager	Brian McNeal	16	High School Diploma	AIS

# SECTION 6 - PROJECT UNDERSTANDING AND APPROACH



SR 140 FERGUSON  
SLIDE



**As the sole Major Participant, Kiewit offers the following benefits:**

- Kiewit and AIS have previous experience clearing prior slide events from Ferguson Slide
- Will leverage local experience from El Portal Roadway project
- Kie-Con fabricated and erected precast elements of the Pitkins Curve Rock Shed
- AIS's firm history is built on safely removing similarly challenging rock slides
- 36 CMGC projects with all GMPs successfully negotiated
- Strong environmental support from LSA

**3.7 Section 6 – Project Understanding and Approach**

The Kiewit team has invested significant time and effort to understand the Ferguson Slide Permanent Restoration Project and the priorities of the major stakeholders. We have used this information to assemble the most qualified team of firms and individuals to successfully mitigate project risks, optimize the design, reduce costs, and supply the necessary resources and experience to safely complete the project. Kiewit successfully completed projects in the area, such as the El Portal Roadway project, while AIS has performed work during the most recent slide at the Ferguson site in 2006.

The Kiewit team through its research has gained an understanding of the importance of State Route 140 to Mariposa County communities, El Portal and the Yosemite National Park. We have learned the importance of State Route 140 to the surrounding communities economic success. We know that State Route 140, the all-season highway, is one of the main routes into Yosemite National Park. Along with being a critical highway, the area is also environmentally important for those who value it for the natural beauty and recreational opportunities. Kiewit will use the knowledge we have gained through our outreach with project stakeholders, along with the knowledge gained on previous projects, to benefit the Ferguson Slide project. We will apply the lessons learned from these projects, as well as rock shed construction experience gained

at the Pitkins Curve project. We will work with the project stakeholders to develop a plan to safely complete the project while reducing the project cost and working to create a functional, aesthetically pleasing structure that will ensure that State Route 140 will remain open through future slide events.

Our team will focus on the importance of reducing the impact to the traveling public, including the tourists that travel the road to Yosemite National Park and the locals who work to support the park. We have the experience to work with agencies during the preconstruction phase, and the construction team to ensure the environmental sensitivity of the wild and scenic Merced River is preserved and enhanced. Environmental compliance will be overseen by the exclusive subcontractor LSA, whose extensive experience will bolster the team. The Kiewit team is experienced in the CMGC contracting method of delivery and recognizes the unique opportunity to apply the concepts of CMGC contracting to this project. These opportunities can be found in 3.7 B, later in this section.

Kiewit's exclusive subcontractor AIS is the premier slope stabilization contractor to remove the talus material safely and efficiently. AIS has removed dozens of slides all over the U. S. and was the contractor working to clear the 2006 Ferguson Slide. Kiewit brings strong local knowledge gained from completing the El Portal Roadway project in Yosemite National Park in 1999. Kiewit was also awarded a contract at the



Chris and Tom's involvement on the 1999 slide removal gives Kiewit knowledge of the site's conditions.

Ferguson Slide in 1999 to clear a small slide that had occurred and impacted the road. Our combined personnel will apply this experience, familiarity with the area, and experience with the slide to develop a safe, well-thought-out plan that will ensure safe removal of the slide for the public and all the construction personnel

LSA, as a member of the team, brings their experience in working with regulatory agencies and the securing of required permits in addition to ensuring field compliance during construction. The 2081 Incidental Take Permit (ITP) for the limestone salamander is the key environmental permit associated with the project. As Caltrans is obtaining the ITP from California Department of Fish and Wildlife (CDFW), LSA will coordinate closely with Caltrans and our team to ensure avoidance of the salamander and that minimization measures in the 2081 are constructible. During the design phase, coordinating with Caltrans to discuss the status and content of the ITP will be critical. LSA will be available to meet with Caltrans and CDFW, as necessary, to facilitate completion of the ITP. They served a similar role on the Route 65 Lincoln Bypass project, working with both Caltrans and the U.S. Fish and Wildlife Service during the Section

7 consultation process to expedite permit acquisition.

LSA is currently serving in this role for the City of Stockton and San Joaquin Council of Governments (SJCOG) on the I-5/French Camp Road Interchange and Sperry Road Extension projects. This includes close coordination with the Contractor-supplied biologists and general oversight to ensure compliance with the San Joaquin Multi-Species Habitat and Open Space Conservation Plan and regulatory permits. LSA coordinates regularly with SJCOG, CDFW, and Caltrans, to discuss the status of the projects and any outstanding issues.

### 3.7 A Project Understanding –The Plan

The Kiewit team has the knowledge and experience to construct the Ferguson Slide Project and has developed a safe and workable preliminary plan to remove the talus and build the rock shed structure. The steps of this plan include:

1. Establish ground probe SSR slope monitoring system
2. Drill and install cable anchors and top cable above cliff area for a drapery mesh system
3. Install drapery mesh system on the cliff area

above talus slope. Install rock catchment fence along Merced River embankment to prevent any talus from entering the river

4. Access top of the talus slope with Spyder excavators to begin the talus removal, then install a secondary drapery mesh system over the removed talus area
5. Haul off talus material and install additional rock catchment faces above the shed construction area to prevent injury to workers
6. Construct rock shed
7. Backfill rock shed
8. Complete road work

Before any work begins, and throughout the project, a ground probe SSR unit will be installed to monitor and predict any movement. This is similar equipment to what was used during the 2006 slide work.

Spotters with radios will be used at all times to watch for potential rockfalls and to warn workers by sounding audible alarms if necessary.

The initial work activities will be to install a rockfall drape, preventing broken and loose rock from falling into the work area below. The loose debris will be trapped between the drape and the toe of the slide. The rockfall drape will be suspended from grouted cable anchors and wire rope cables along the crest of the slope and draped down the face.

Cable anchors will be installed above the cliff area on approximate 15 to 20 ft. centers and between 10 and 20 ft. deep. Drill equipment and materials will be flown to the anchor installation location with a helicopter. Bore holes will be installed with a drill mounted to a tripod that will be moved from east to west with helicopter support. A portion of the anchors will be load tested to verify the capacity of the anchors.

The cable anchors will connect to a 1-in. diameter horizontal top cable system that will

suspend the protective cable drape. The drapery panels will be installed by attaching the top of the drapery to the top cable then laying the panels to the slope with the helicopter, providing safer access and minimal environmental disruptions. Once the panels are installed, AIS climbers will rappel the vertical seam cables, lacing and mechanically attaching the panels together with hog rings.

In addition to the installation of the upper drapery protection, we will install a portable rock catchment fence at the bottom of the slope to prevent talus debris from rolling into the Merced River. AIS has successfully installed these 10-ft. rock catchments on other projects, with similar site conditions.

Spyder excavators will climb to the top of the talus pile to begin removing the talus. The talus will be removed by excavating the material and casting it to the side or behind the excavator until a bench is established. During the initial removal, we will work closely with the geotechnical engineers to determine the location of the original slope. After 30 ft. of talus has been removed and the face of the hillside exposed, 12-ft.-by-24-ft. panels of cable net drapery will be installed as we work from east to west. Due to the strong, blocky character of the rock in this excavation, the slope drape should be capable of arresting blocks up to 4 ft. diameter. Suitable drape designs include cable net, ring net, or TECCO® mesh. Due to the large quantity of mesh required, AIS will use all three major cable net drapery suppliers in the United States to meet the schedule.

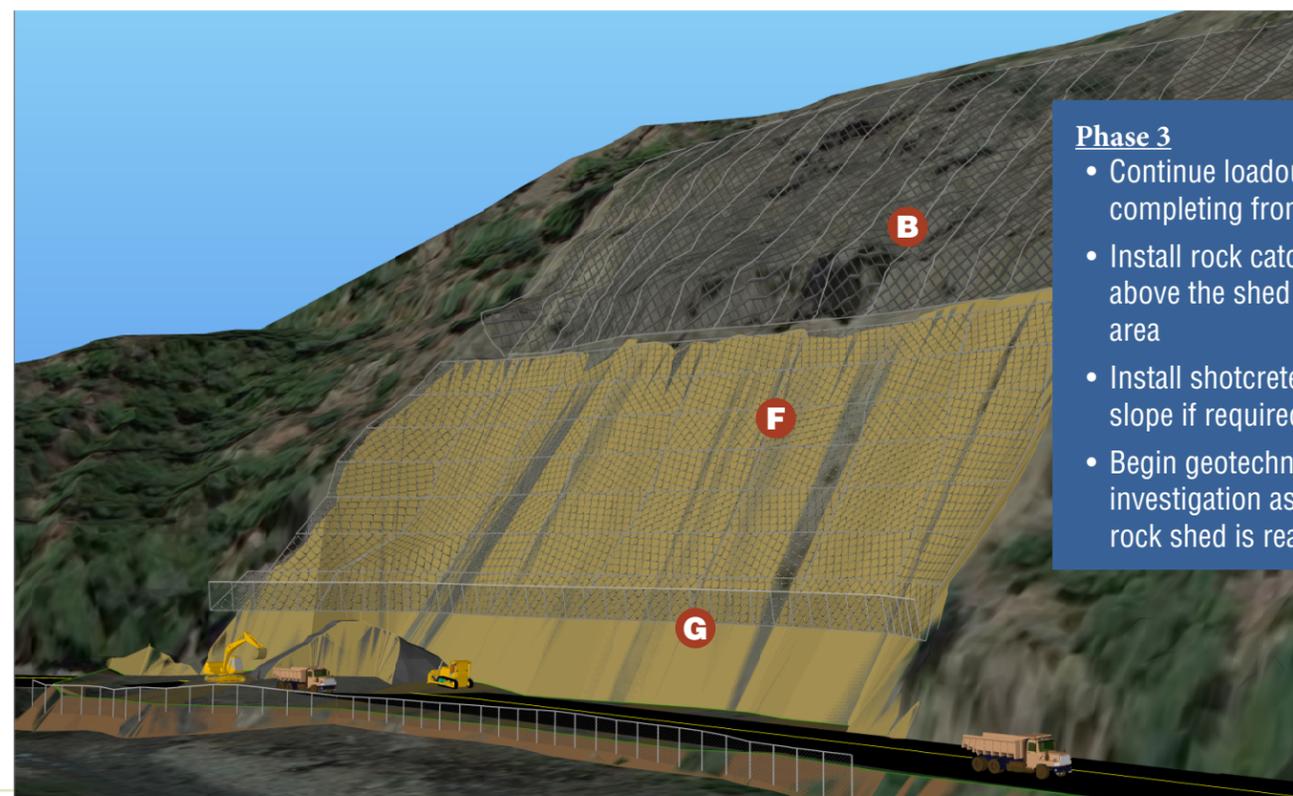
This process will be repeated until the entire slope has been excavated. Once 60 ft. of talus has been removed, a large enough bench will be established to begin excavating with conventional excavators and dozers. We are anticipating that boulders too large to move safely will be encountered within the talus pile that will require blasting to reduce the size. A blasting subcontractor will be on-site to safely break these rocks into manageable sizes.



**Phase 1**

- Drill and install cable anchors and top cable above cliff area for drapery mesh system (not shown)
- Using a helicopter to install, place drapery mesh system on the cliff area above talus slope.
- Install rock catchment fence along Merced River bank
- Access top of the talus slope with Spyder excavators to begin the talus removal
- As talus is removed, install a secondary drapery mesh system over the exposed area

- Phase 2**
- With Spydres, Pull talus down and cast behind until a bench is established
  - Using conventional equipment - push talus to west end of slide for load out
  - Haul off talus material loading trucks with excavator
  - Continue to install secondary drapery mesh system over the removed talus area



- Phase 3**
- Continue loadout of talus, completing from west to east
  - Install rock catchment fence above the shed construction area
  - Install shotcrete on face of slope if required.
  - Begin geotechnical investigation as subgrade of rock shed is reached.

**KEY**

- A Helicopter installation of drapery
- B Drapery mesh in place
- C Spyder excavator talus removal
- D Talus removal push ramp
- E Rock catchment fence - Merced River
- F Secondary drapery mesh system
- G Rock shed catchment fence

Exhibit 6-2 | Stages of talus removal.

LSA will work closely with the Kiewit team, monitoring work in and adjacent to limestone salamander habitat, in accordance with the ITP. They will identify critical stages of construction where a focused monitoring effort may be required to avoid work delays while also ensuring protection of limestone salamander habitat. LSA provided similar services for Caltrans on the SR-88/Jackson Valley Rehabilitation project. LSA coordinated closely with the contractor to identify those construction tasks that would affect California tiger salamander habitat; LSA then surveyed these habitats and cleared these areas ahead of construction to avoid delays. LSA also identified suitable nesting habitat in the project footprint, and recommended this habitat be removed in the non-nesting season.

Conventional earthmoving equipment will push the material to the west, establishing a stockpile for loadout of the talus. When enough material is produced at the east toe of the talus pile, a separate operation of loading out the talus will begin.

Care will be taken during all phases of the excavation to minimize large boulders from becoming dislodged and reaching the rock catchment fence. The safety of the crew and support staff is our highest priority. Properly assessing the slope, having the right equipment on-site, and management with intimate knowledge of the conditions is necessary to ensure safety.

As the talus removal progresses, we will cover the slope with a cable mesh drapery similar to the drapery installed on the upper cliff area. There is a small potential for a rock to start above the cable net and roll on top of the cable net. To protect the workers during construction of the rock shed, we will install an additional rockfall barrier fence placed perpendicular to the hillside approximately 25 ft. above the shed. (See Exhibit 6-2.)

Additional measures may need to be installed, such as a soil nail shotcrete wall or an additional temporary rockfall barrier. (See Exhibit 6-2.)

During installation and when complete, the cable net drapery system will be regularly inspected to make sure it will provide protection for workers below. The maintenance will consist of inspections of the netting to repair any rips or tears. If accumulation of rocks occurs behind the drapery, removal of material may be necessary to prevent the cable net drapery system from being breached.

During construction, Kiewit will provide flaggers at both ends of the project to assist with the entry and exit of construction traffic. The flaggers will communicate with one another to provide the most efficient openings in traffic. The goal is to safely move construction traffic in and out of the work site with the least impact to the traveling public.

During Kiewit's extensive early work, it became apparent that the disposal of the 70,000 to 80,000 cu. yd. of talus material is a major challenge facing the project. It will be critical to identify a location or use for the excess talus material. Considerations, such as minimizing impacts to the local communities, guest travelers, Yosemite Park employees, emergency vehicles, cost of transporting, material processing, and benefit to the community are all important in determining the best location to dispose of excess material.

Recognizing that the best solution to minimize community impacts and cost is to keep the material on-site, the Kiewit team encourages all concepts that would facilitate this. The idea of using much of the excavated material to backfill the rock shed structure walls and roof by selective excavation and strategic on-site stockpiling could reduce the hauling by as much as 30%. Partially backfilling the structure provides a natural slope for the slide to follow in the future.

**Possible benefits of backfilling the structure with the existing talus material:**

- Minimizes the need to design the structure for impact loads experienced during future slides
- Mitigates trucking and disposal fees

Kiewit has identified several potential sites and uses for the material, and upon further evaluation we are confident that one or a combination of options will provide the most cost effective and minimally impactful means of dealing with the excess material. **The Exhibit 6-3 illustrates the sites and some key characteristics of each.**

**Exhibit 6-3 | Possible uses of talus material**



**A Yosemite Management Group Octagon Employee Housing Site**  
Closest site identified at 9.6 miles from project  
Formerly used as rockslide material spoil site  
Least amount of traffic impact  
No traffic through or around the Town of Mariposa

**B Old Bear Valley Landfill**  
Would provide much needed cover material for active Mariposa Co. landfill  
Haul route bypasses downtown Mariposa  
Would require processing to meet County Landfill cover specification  
Longest haul distance at 32 miles from project

**C Midpines County Property**  
County property adjacent to Midpines Park  
14 miles from project  
County acquisition status and property logistics uncertain at time of submittal

**D Field of Dreams Development**  
County development that may have need for fill material  
Status of project, need and specification of fill material needs to be determined  
Deep fills could limit material processing

**E Yosemite Management Group's Storyhill Development**  
Development in need of fill material  
19.9 miles from project

**F Future County Courthouse site at SR140 & 11th St.**  
Identified County Project needing fill material  
Could be significant savings to County  
Status of project, need and specification of fill material needs to be determined

The geotechnical exploration will present opportunities to be innovative with the design to achieve the lowest cost of construction. It is possible that the rock directly beneath the talus is competent and can be excavated by drilling and blasting the material to construct spread footings. Kiewit and AIS have extensive experience working with the most qualified blasters in the industry. Based on our local experience and geotechnical knowledge, an innovative idea Kiewit would explore with the Caltrans design staff is the use of spread footings to replace the drilled shafts. Spread footings would greatly reduce the cost and schedule duration of the project. Eliminating the shafts reduces the risks related to the unknown subsurface conditions and the environmental risks of constructing drilled shafts directly adjacent to the Merced River.

Kiewit's wholly-owned subsidiary Kie-Con has experience constructing a similar rock shed at the Pitkins Curve project on Highway 1. We will leverage this experience for the logistics needed to fabricate, load and ship large precast elements to remote project sites. Kiewit will involve Farshad Mazloom, James Dirk, and others at Kie-Con to apply their experience to the Ferguson Slide Rock Shed to incorporate innovative design and construction methods to the structure and therefore reduce project costs. Lessons learned that we may apply include:

- Use of a durable form liner to eliminate replacing formliner on the precast elements to reduce labor costs during production.
- Complete the design with a focus on consistent soffit dimensions to reduce the need for refabrication of the casting beds during production.
- Schedule erection of the pieces to efficiently use resources, like trucks hauling product to the jobsite, cranes for erection, and erection crews.

Tom Trimble and Dan Hart have successfully

executed large, structural concrete projects similar to the Ferguson Slide Project. Tom, Dan and the construction team will apply their experience with structural concrete to the construction of the rock shed, producing a high quality product while optimizing the schedule. Dan will be involved during preconstruction and construction, applying his knowledge of many types of concrete form systems and their best applications, the placement and curing of structural concrete, as well as the site logistics and material handling in challenging environments.

We will work closely with Caltrans to overcome the challenge related to concrete delivery to the project site. Dan and Tom's knowledge and experience of batching concrete from on-site batch plants will be valuable when working with Caltrans to determine the best solution for production and delivery.

Kiewit has formed a team that is proven to be capable of safe, quality and environmentally sound execution of all portions of the project, from the talus removal and processing to the completion of the cast-in-place and precast structural concrete.

### Schedule

Kiewit believes that through collaboration with Caltrans, the proposed schedule completion of September 2018 can be improved upon. Kiewit is committed to looking for ways to improve the schedule through innovation and the opportunity to utilize early bid packages like the talus removal. An early GMP could be negotiated to allow construction to begin on the talus removal while design is being completed on the rock shed structure. Kiewit has successfully negotiated GMPs on multiple projects in the past and will allow work to proceed with an agreed upon price for a portion of the work. Another example of early work packages that can be utilized to improve the schedule is geotechnical investigation. Additional geotechnical

investigation can be performed once a sufficient portion of the talus has been removed, exposing subgrade for the rock shed, before the design is complete to support structural assumptions. By executing the fundamentals of CMGC contracting, there may be opportunity to complete the project early.

### 3.7 A Project Understanding-Stakeholders

A key to the success of any project is understanding the priorities of all major stakeholders and making a plan to address as many as possible. To this end, Kiewit has conducted a thorough Stakeholder Outreach program to understand as many project priorities and concerns as possible. This information has been crucial in helping our team develop our approach.

#### Key stakeholders identified during our outreach are:

- Local residents
- Traveling public, visitors, and workers of Yosemite National Park
- National Forest Service
- Mariposa County and Mariposa County Public Works Department
- Town of Mariposa and El Portal
- Environmental groups
- Merced River rafting community

Kiewit met with representatives of many of these groups to better understand their concerns about the project and the affect it will have on them. Our team is committed to working with all stakeholders to plan and construct this project with minimum impacts to those involved. Below are some main stakeholder concerns and possible solutions to these concerns.

**Stakeholder:** Local residents/Employees and guests of Yosemite/Traveling public

**Concern:** Impacts to traffic flow & traffic safety

**Solution 1:** Communicating the construction schedule and activities to the local residents and traveling public will be essential to limiting impacts to those who live in the area and those traveling to Yosemite National Park. Kiewit will implement a robust public information program to handle this communication. This program will ensure that all parties are informed regarding the details of the project through regularly scheduled town hall meetings, project signage, project hotline and website, advertisements in the Mariposa Gazette, and possibly channel 30 news in Fresno.

**Solution 2:** During the haul off of the talus, we will haul during nonpeak hours through the peak tourism seasons from June through September to reduce the impact of traffic. This will reduce the impact to traffic for tourists and employees traveling to the park during the peak traffic commuting hours. Talus removal will progress during the day, and hauling material to the disposal site will occur during the evening and night hours. Other activities, such as large concrete pours which require a large number of truck traffic, can be performed during the evening and night hours as well.

**Solution 3:** A thorough and efficient traffic control plan is essential to maintaining a safe traveling environment for the traveling public and craft workers. This plan includes creating a buffer zone between the stop at the traffic signals to where the haul trucks reenter the roadway by moving the traffic signals further away from the temporary bridges.

**Stakeholder:** Merced River Rafting Community

**Concern:** Rafter safety when passing the project jobsite

**Solution:** Spotters will be placed upstream from the work area to notify crews when rafters are entering the area where they may be at risk of falling debris during the short time at the beginning of the slide removal while a bench is being established. Work will stop if necessary to

allow the rafters to pass safely through the work zone. Regular meetings with representatives of the rafting community will be held to get feedback on the project.

**Stakeholder:** All concerned with project aesthetics

**Concern:** The rock shed structure might detract from the canyon's natural beauty

**Solution:** During preconstruction, we will explore options with Caltrans to determine the most desirable aesthetic treatments. Kiewit will apply experience gained on the Yosemite Project to designing and constructing natural looking aesthetics treatments to make the rock shed fit in with its surroundings. On the Yosemite Project, A carved rock shotcrete facing was applied to the MSE walls to give the appearance of stacked rock walls, as originally constructed in Yosemite.



Kiewit used a custom formliner to construct the barrier wall and later came back to hand-paint the rocks to replicate the original look of the rock wall.

**Stakeholder:** Town of Mariposa and El Portal and local residents and businesses

**Concern:** Hazards created from excessive truck traffic through town affecting business

**Solution:** During preconstruction, Kiewit will explore options with Caltrans to determine the best location for the disposal and processing of talus material. A major consideration will be the location of the site and the amount of additional traffic that it will route through the town of Mariposa. We believe there are options available that will largely eliminate traffic passing through

town and affecting local residents and businesses.

### 3.7 B CM approach to CMGC

Kiewit's approach to CMGC project contracting maximizes the benefits of this delivery method. As Caltrans' Construction Manager, we will provide input regarding estimating, constructability, and scheduling to assist in designing a successful project. The success of the CMGC model is dependent upon collaboration between all parties as early in the preconstruction phase as possible. Kiewit partners with owners soon after NTP to establish project goals and a shared vision for the project. We build a cohesive team through communication and collaboration early in the process, and maintaining both throughout the Project.

#### Creating a Fully Integrated Project Team

Kiewit's management approach to the Ferguson Slide Project is to create and sustain a fully integrated management team that focuses on collaboration. A fully integrated team atmosphere encourages frequent and open communication. The best way to form this project team is through partnering, both during preconstruction and construction. Kiewit has a history of partnering success and is a 12-time winner of the AGC Marvin M. Black Award for Partnering. Together with Caltrans, Kiewit won the 2008 Marvin M. Black award for the Benicia-Martinez Bridge project.

It is critical to maintain a consistent team on the project, during preconstruction and carrying that same team into construction. Retaining key staff through this transition preserves established relationships, enhances communications and eliminates learning curves. We are committed to maintaining our team of key personnel throughout the entire project to ensure a seamless transition. Please see the information in Section 5 - Proposer Key Personnel and Appendix A - Resumes for more detail on our proposed project team.

## Maximizing Preconstruction Value

Kiewit will begin working as soon as a contract is awarded on many of the preconstruction tasks. These tasks are critical to the schedule and any delays or disruption to their completion will impact the project. The continued investigation and acquisition of property to dispose and process the talus material is one of the most critical elements of the project. Another critical preconstruction activity is the acquisition of the permits from the regulatory agencies, primarily the 2081 permit for the limestone salamander from the California Department of Fish and Wildlife. Our team has extensive experience obtaining similar permits, allowing us to assist Caltrans as necessary with the acquisition process.

### Design and Constructability Reviews

Our goal is to maximize cost and schedule savings by performing thorough design reviews and site investigations early in the preconstruction phase. Conducting constructability reviews in conjunction with an early site investigation will facilitate a comprehensive value engineering analyses of the early design plans. This will aid Caltrans' designers in achieving an optimized design that not only results in the lowest possible construction costs, but also shortest construction schedule. Early involvement and timely, effective coordination between the design and construction teams is vital to achieve this. The experience and knowledge of our Preconstruction Services Manager, Vicki Engelman along with Project Manager Tom Trimble create integration between the design and construction groups to optimize the design early in the project. We will conduct discipline specific meetings in which Caltrans, the construction team and stakeholders can address concerns as the design progresses. Tom Trimble, Dan Hart and other experienced Kiewit builders will apply their decades of structures experience make the most efficient

design possible. Combined with thorough constructability reviews, Kiewit will work with Caltrans to construct a project that meets the needs of the local communities for the lowest cost. In addition to the key personnel included, Kiewit can offer in-house support with expertise in precast concrete from our subsidiary Kie-Con, geotechnical design, and structural design, along with experienced personnel in slide removal and structural concrete.

### Conducting Innovation Management

Kiewit develops cost saving alternatives and solutions by using the knowledge and experience of the entire project team and additional experts from within Kiewit's organization. Kiewit will use innovation workshops early in the design phase to formally explore innovative cost savings and risk reducing opportunities. These cost savings ideas are not reductions in scope, but ideas that add value to the project by reducing cost to produce the same result. Our Southeast Connector project in Reno, NV provided 23 innovation proposals. Ultimately, 12 were accepted, resulting in over \$7,000,000 in savings to the owner.

Kiewit will maintain an innovation register to track the results of innovations on the Project.

### Developing Integrated Preconstruction / Construction Schedule

Kiewit believes that there are opportunities to improve the current proposed schedule. Our scheduler Suresh Deverajan will work closely with Caltrans to develop an aggressive, achievable project schedule. This project schedule will be continually developed and maintained as the design is being finalized. The overall project schedule will include all necessary activities, resources, interim milestones, sequencing, logic, design, permits, owner milestones, and long-lead items and their effects on construction. Schedule progress will be monitored closely and updated at design milestones or as determined by Caltrans.

Using Primavera P6, Suresh will analyze multiple scenarios based on proposed design changes in the project schedule to accurately determine their effects. Regularly scheduled review meetings will be held to keep all parties informed on schedule performance.

### Cost Estimating

Cost modeling will fall under the supervision of our Lead Estimator Mike Seare. Kiewit will provide complete cost estimates at the major design milestones, or more frequently as agreed to by the project team. We will work with the Independent Cost Estimator (ICE) beginning with the Initial Approach to Cost Meeting. At that meeting, we will develop an organized and transparent method for estimate preparation and comparison. Kiewit frequently requires two independent estimates be completed for projects we bid which requires checks of quantities and productions for all estimate categories. The experience of aligning independent cost estimates will help Kiewit when working with the ICE to compare estimates. Competitive pricing information will be gathered and used in the cost models for subcontracted work and material supply. Our cost model for the Ferguson Slide Project will contain labor, equipment, and material costs based on historical past cost data from similar projects. Our past cost database and experience with similar projects is a solid supporting basis for efficiently providing cost models at the various stages of design. Kiewit believes the way to perform this project function well depends on our estimates being presented in a clear and transparent way. We have reached GMP agreements on all 36 of Kiewit's CMGC/CMAR projects.

### Construction Execution

Kiewit's commitment to construction execution begins with the continuity of its construction team from the preconstruction phase. Kiewit believes in maintaining the same core team from preconstruction to construction to utilize

the knowledge and familiarity of the project gained in the preconstruction phase and transfer that into the construction of the project. Tom Trimble, Dan Hart and the entire Kiewit team have a history of constructing projects of similar size and complexity. The team will execute the Kiewit basics of project execution to ensure that the Ferguson Slide Project is constructed safely, to the highest quality, and within schedule and budget. Some of these Kiewit basics are:

- **Safety/Quality/Environmental Compliance:** Operation hazard analysis, safety, quality, and environmental compliance plans, craft-led safety and quality tours, safety and quality recognition programs, Caltrans and Kiewit joint safety and quality tours
- **Planning and Executing Operations:** Work planning matrix, pre-activity meetings, operation work plans, cost and quantity tracking, weekly labor reports, monthly cost reports, method analysis/time studies, quality control systems
- **Scheduling:** P6 CPM baseline schedule, 90-day schedules, 3-week look-ahead schedules, "Play of the Day" meetings, commodity curves

### Management of Document Control Systems, Public Information Program

In addition to these daily functions of a successful project, the Kiewit team is committed to an ongoing and successful partnering relationship with consistent and significant involvement of our off-site management.

### 3.7 C Organization and CMGC Process Help to Achieve Goals

Kiewit's experienced team, combined with our extensive history of successful CMGC projects, makes our team a perfect fit for the Ferguson Slide Project and achieving the Project goals. Exhibit 6-5 outlines how the CMGC process will help attain the project goals.

**Exhibit 6-5 | Alignment with Ferguson Slide project goals**

Project Goals	Involved Personnel	Processes	Project Organization and Approach
<b>Safety:</b> Maintain safety of the traveling public and employees during construction of Project	Project Manager, Safety Manager, Construction Manager, Construction Team	Design reviews Constructability reviews Risk register	In conjunction with Caltrans Design staff, evaluate criteria for safety during design and constructability reviews
			Full-time safety manager on-site
			Develop the team approach by engaging all subcontractors and their craft personnel
			Develop Kiewit's philosophy of "Nobody Gets Hurt" at all levels
<b>Mobility:</b> Minimize impacts to the motoring public, businesses, and emergency services during construction of the Project	Project Manager, Public Information Director, Construction Manager	Public outreach plan	Develop traffic management plan that least impacts the local residents and visitors to Yosemite National Park
			Emergency action plans in place and communicated, maintain emergency contact with satellite phone
			In coordination with Caltrans Project Management, Public Information, and Kiewit staff: Conduct regularly scheduled town hall meetings to gauge the public's satisfaction, take action when needed Promote frequenting local business with all employees during the project Meet with emergency services to develop plans for access through the project during an emergency
<b>Quality:</b> Construct a high quality, fully functional roadway that meets current design standards	Project Manager, Construction Manager, Public Information Director, Construction staff	Design reviews Constructability reviews Discipline task forces Pre-activity meetings Post-activity meetings Joint quality tours	Compose a Quality and Training Plan during preconstruction phase, based on Kiewit's "Right the First Time" philosophy
			Form aesthetic task force with Caltrans and interested stakeholders to gather input on and implement aesthetic solutions
			Hold pre- and post-activity meetings with Caltrans to communicate expectations and get feedback, to incorporate lessons learned in future operations
			Schedule and conduct joint Kiewit/Caltrans quality tours to foster communication on quality Maintain a strong Quality Control Program to supplement Caltrans inspection efforts
<b>Environmental Compliance:</b> Comply with all environmental commitments and permits	Project Manager, Construction Manager, LSA personnel	Design reviews Constructability reviews Joint environmental reviews	In cooperation with Caltrans, we will develop thorough environmental plans with LSA's expertise, beginning at preconstruction, ensuring environmental compliance is considered in all aspects of the project.
			LSA will monitor work full-time throughout the project, ensuring environmental compliance
			If requested by Caltrans, LSA's Jeff Bray can be available to assist in permit acquisition as needed. We will form an environmental task force to ensure compliance can be achieved. Joint environmental reviews will be conducted with Caltrans, Kiewit, and other involved agencies.
<b>Project Delivery:</b> Complete final design and begin project construction by January 1, 2016	Project Principal, Project Manager, Construction Manager, Scheduler	Design reviews Constructability reviews Schedule development workshop Understanding of cost agreement Risk register Innovation register	Work collaboratively with Caltrans beginning at the understanding of cast meeting, to negotiate early GMP to begin talus removal early to accelerate project completion
			Leverage the CMGC method to efficiently complete design with no late changes. This will allow construction to begin early
			Work collaboratively with Caltrans to identify and eliminate risks during preconstruction that can delay project completion. Work with Caltrans personnel to develop plans to mitigate the occurrence of the risk's effect on the project schedule.
			Continuity of project team personnel from preconstruction to construction will allow for quick start of project. Assign adequate resources to complete project on time.

Risk Type	Risk	Potential Solution/Mitigation	Relevant Experience
Construction	Major damage or injury from reoccurrences of slide	Continual monitoring of the slope with ground probe SSR to predict any future slide during the project Constant monitoring of slide area for signs of movement by experienced AIS spotters during talus removal Audible evacuation alarms to warn people in the area of the slide	Ferguson Slide 2006 Alder Creek Slide
Construction	Injury or damage resulting from rockfall	Installation of cable drapery and rock catchment above rock shed construction to prevent rocks from rolling into work area Spotters in place to warn of active rockfall when workers are at risk below Maintain a satellite phone on-site at all times for emergency communication	Alder Creek Slide Highway 49 Jackson
Construction	Cost of talus material disposal / reuse	Immediately begin work on dump site options for the most cost effective solution Identify crushing / screening equipment internally to mobilization when needed Work with the designer on backfill specification requirements to identify scope of crushing / screening operation	LL Anderson SR 14
Construction	Impacts of cold weather months on concrete placement	Develop a plan to place and cure concrete in cold weather, using methods such as form insulation, thermal blankets, and ground heaters Be prepared to implement a plan using any necessary materials and expertise	El Portal LL Anderson
Construction	Quality reliable concrete delivery	Work with Caltrans during preconstruction to determine the feasibility of delivery from supplier in Mariposa based on the suppliers capacity, number of trucks, and travel time from the plant to the jobsite During preconstruction, evaluate cost to set up concrete batch plant at an off-site location, determine best location based on travel time to site, available area, and truck availability	El Portal LL Anderson
Design	Unknown underground conditions delaying the schedule	Accelerate talus removal, allowing time for additional geotechnical investigation Have a certified blaster on-site when large rock formations are encountered to not delay construction	LL Anderson
Design	Designing a structure that is visually and aesthetically acceptable to stakeholders and still constructible	Conduct task force meetings with stakeholders on aesthetic priorities and expectations Diligently investigate options for aesthetic treatments to structure	El Portal Pitkins Curve
Stakeholder	Injury or impact to rafters on Merced River	Spotters will be in place to stop work when rafters enter the work area, allowing them to pass safely Schedule regular meetings with rafting companies as part of Kiewit's Public Information program Keep river clear of all potential obstructions by installing a fence at the river, limiting impacts to rafting opportunities	SR 14 El Portal Ferguson Slide 2006
Stakeholder	Delays caused by construction traffic on SR 140	Develop a collaborative traffic control plan to minimize impacts to stakeholders while maintaining efficiency of operations by hauling during off-peak hours, and modifying existing traffic control measure to minimize construction traffic impacts Consider area traffic when choosing dump sites and staging areas to least impact Mariposa and surrounding areas	SR 14 El Portal LL Anderson
Stakeholder	Impact to Yosemite National Park employees and local businesses	Implement a robust Public Information program that communicates the schedule through town hall meetings, website, hotline, and signage, as well as schedules regular meetings with Yosemite National Park to communicate their concerns Schedule traffic impacting work to off-hours to limit impact to traffic, when possible	El Portal Beartooth Emergency Repairs
Environmental	Nesting birds in work zone delaying project	Remove necessary trees outside of nesting season Monitor area during construction for nesting activity	SR 88 / Jackson Valley Rehabilitation
Environmental	Issuance of Limestone Salamander 2081 Take Permit delaying the start of work and being not constructible	Collaboration between Caltrans and LSA to secure the 2081 permit, leveraging their experience and knowledge to not delay construction LSA will identify construction tasks that would affect the Limestone salamander habitat, survey, and clear these areas avoiding delays	Route 65 Lincoln Bypass Sr 88 / Jackson Valley Rehabilitation
Environmental	Work next to the Merced River	Our team will construct a barrier along the river to prevent material from entering the river Any potential impacts will be planned and reviewed with LSA to ensure any impact to the river is avoided Full-time spotters for work that could impact the river	El Portal LL Anderson I-5 / French Camp Road Sperry Road Extension
Right-of-Way	Ability to secure property for: material laydown and staging, and processing and disposal of talus material	Actively pursue all options, beginning immediately, to secure the best locations for processing and staging to reduce cost and schedule impacts Involve LSA early in property acquisition, mitigating environmental hurdles necessary for property use, preventing schedule delays	El Portal Beartooth Emergency Repairs

Kiewit recognizes that one major advantage to the CMGC contract model is the ability to identify and mitigate or eliminate risks encountered on construction projects. The occurrence or potential occurrence of these risks will drive up the costs and potentially cause delays to the schedule of projects. Kiewit is committed to working with Caltrans to identify and eliminate the risks to the project, as seen in Exhibit 6-6. The process of identifying, eliminating or mitigating risk on the project is one of the most important roles as the CMGC Contractor.

### 3.7 E. Proposer's Approach to Managing Risks

Risks are first identified and assessed during preconstruction. The entire project team, led by the Preconstruction Services Manager, will assess risk during each design review. Over the course of our CMGC experience, Kiewit has developed a risk evaluation procedure. We conduct risk workshops with the entire team and develop a risk matrix or register. This collaborative process includes the following steps:

- Identify – This is a team effort with a sole purpose to identify project risks
- Classify – Risks are classified relative to the project plan
- Quantify – The risks are priced and assessed for schedule impact
- Allocate – Risks are assigned to the party who can best manage each individual risk
- Manage/Mitigate – Determine if risks can be eliminated entirely. If not, the risks must be mitigated. Include allowances or contingency estimates to cover cost of risk occurrence.
- Retire - Risks are retired as they become no longer relevant. Contingency budgets are reassigned to other identified risks if needed
- The owner keeps all unused contingency or allowance budgets not used

ID	Risk/ Opportunity	Description of Issue	Affected Project Component	Correlation Among Dependent Components	Probability of Risk Occurring	Distribution	Expected Value of Cost	Distribution	Expected Value of Delay
1	Permitting and Interagency Agreements	Permits required from approval agencies could be delayed; agreements between grantee and other agencies might not be conducted on schedule	Design & Permitting D. Construction	Positive between Cost & Schedule of Both A & D	25% (0.25)	Triangular A. Design \$1.0m = 10% \$2.5m = Mode \$4.0m = 90%  D. Construction \$10.0m = 10% \$30.0m = Mode \$50.0m = 90%	A. \$1.8m  D. \$21.0m	Discrete A. Design 1 mos. = 25% 2 mos. = 50% 3 mos. = 25%  D. Construction 2mos. = 50% 5 mos. = 40% 10 mos. = 10%	A. 2 mos.  D. 4 mos.
2	Utility Relocations	Locations of certain utilities are unknown and their relocation could be required	D. Construction		20%	Lognormal	\$5.0m	Uniform 1-5 mos. = 20%	6 mos.

The risk register developed during preconstruction is a working document that is constantly monitored and updated. The Preconstruction Services Manager initiates the risk register and it is passed to the Project Construction Manager during the construction. The risk contingency is assigned based on the expected cost of a specific risk. It is equal to the cost of that risk times the probability of its occurrence. A sample of the detail provided in a risk register is provided on Exhibit 6-7.

### Risk Analysis and Mitigation Planning

Kiewit, in partnership with Caltrans, will manage the risk register. Our approach provides for:

- Separation of risks from the cost models by isolating the risk and its impacts separate from the direct cost of the work. Separating the risk from the cost model maintains transparency of the individual bid items within the cost model. This results in a more efficient cost comparison process and lower preconstruction costs.

- Allocation of the risk to the party that can best manage the risk increases the likelihood the risk will not occur.
- Allocation and assignment of the correct contingency for risks that cannot be eliminated by jointly agreeing to the potential impacts of the risk occurrence. This also allows Caltrans to retain any money not spent when risks are eliminated.

Assigning a risk level and probability enables the project team to focus on those items that represent the largest risks to the project and provides the best opportunity for risk mitigation and cost reduction. The result of this collaborative and transparent process to identify and manage risks from the beginning of the design process, allows the team to eliminate and mitigate known risks, and ultimately reduce the cost of the project.

### 3.7 F Approach to Safety

Kiewit's approach to safety can be summed up by the phrase seen, heard, and practiced on every jobsite,

everyday: "Nobody Gets Hurt." Kiewit's Nobody Gets Hurt philosophy focuses on collaboration with our craft builders. They are not only the builders but are our most important and experienced safety leaders. The Nobody Gets Hurt philosophy centers on fostering craft ownership of the safety program. Craft ownership of safety is combined with strong leadership and support from Project and Company management. This strong management commitment and craft leadership results in a strong foundation for safety. This collaboration is critical to a well-rounded and innovative safety culture on the project.

Our craft-led safety program empowers craft employees to create a safe worksite that motivates them to work safe based the responsibility for their families, their coworkers and themselves. This requires that the craft employees take the lead in all aspects of our safety program.

- Indoctrination of our new employees
- Plan and lead safety meetings
- Conduct safety tours and observations

- Provide hands-on safety training for their peers and our staff
- Involvement in our project recognition programs.
- Engagement in our operation planning
- Task-specific hazard analysis

Exhibit 6-8: Kiewit Safety Training Center, Vallejo, CA



Kiewit has strengthened the team's foundation of safety excellence with the addition of AIS and LSA. AIS is the first choice for a contractor to ensure the safe removal of the slide material. AIS has created a safe and workable plan for the removal. The safety of the workers and third parties during the removal of the talus and during the construction of the rock shed is the most important consideration during this project. AIS and Kiewit have planned the work with the safety of the workers and traveling public in mind, and have added safety precautions to our plan to ensure that their safety is the number one priority.

- A ground probe SSR slope unit similar to the one employed during the 2006 slide will be in place before any work begins. During construction, this data will be continually monitored for any movement that will predict a potential slide.
- A Slope Scaling Form will be completed by a competent person before permission to access the slide or talus is granted.
- Spotters will be used during the project to warn workers of isolated rockfalls through audible alarms
- An engineered cable drapery will be installed and continually inspected to prevent rock falls from entering the work area. During installation AIS has the ability to add anchors, drapery, or shotcrete in areas that require it based on filed conditions, to ensure a safe site for the workers
- A rock catchment barrier will be installed on the final slope above the rock shed construction to act as an extra precaution for any rockfalls that occur or are not arrested by the drapery.
- Additional rock catchments will be installed to prevent rocks from entering the river as a precaution to protect rafters or other recreational users of the river.
- Satellite phone communication will be available at all times during construction in case of emergency.
- A full-time safety professional will be assigned to the project.
- A fully developed traffic control plan will be implemented to reduce the risk of accidents with construction traffic and visitors to the park.
- A public information program will be used to get input from the public to monitor the safety of the work area and surrounding roads.

# APPENDIX A - RESUMES





**CHRIS VILLA:** Project Principal

<b>Education:</b> B.S. Civil Engineering	<b>Years of experience performing similar work:</b> 34
<b>Relevant Licensing and Registration:</b> N/A	<b>Years of experience:</b> 34 <b>Years with firm:</b> 34

**Position Description / Responsibilities**

Chris Villa, Project Principal, has executive oversight of project delivery. Chris will be committed to client relations and communication. Chris will ensure the project has the proper staff and equipment resources to meet or exceed schedule and budget performance. He will participate in partnering sessions throughout the project and handle all contractual matters. His previous experience on projects with similar scope and in remote areas includes a resume filled with the successful completion of challenging Caltrans projects. His leadership is an asset to the project, Caltrans and our team.

**Authority**

Chris will act on behalf of Kiewit for all matters and ensure the best resources Kiewit has to offer in staff, equipment and craft are assigned to the project. Chris will work cohesively with his Department counterpart to ensure quick and fair resolution of contractual issues.

**Professional Experience / Bio**

Chris is a Civil Engineering graduate of California Polytechnic State University in San Luis Obispo, and has over 34 years of industry experience. He is a Senior Vice President of Kiewit Infrastructure West Co., has worked his entire career with Kiewit, primarily in the Northern California area. Over his career Chris has held progressively more responsible positions, and has gathered a wide body of relevant experience. Chris has excelled in the transportation market managing many projects for Caltrans. Chris is experienced in alternate delivery methods and successfully managed the El Portal Roadway project which was the first design build project for the Federal Highway Administration. Chris is currently the Northern California District Manager responsible for all work in the Northern California region. The Northern California District which Chris is wholly responsible for performs many diverse types of work including transportation projects, water and wastewater work, power generation

and pre-cast concrete fabrication and erection. Before advancing to his current position Chris held significant positions of responsibility on many large projects in the area. He was recently the senior executive responsible for the Devil's Slide Project working with Caltrans in Pacifica California. Other major projects in the Bay Area including the \$1.23 billion Skyway and the \$275 million SAS Foundations projects for the new San Francisco Oakland Bay Bridge.

## Projects

SENIOR VICE PRESIDENT AND DISTRICT MANAGER, Kiewit, Fairfield, CA:  
June 2013 - Present

### Project Description

Chris leads the executive management team and is responsible for all operations in the Northern California area. This includes projects in the wastewater, water, transportation, transit and heavy civil construction markets. He manages more than 300 salaried staff completing approximately \$400 million of construction annually. Additionally, Chris serves as the executive sponsor for human resources, leadership succession, along with training and development.

PROJECT DIRECTOR, Oakland Bay Bridge SAS E2/T1 Foundations, Oakland, CA:  
\$275M, 2004 - 2006

### Project Description:

The project involved building the foundation of the self-anchored suspension (SAS) tower and constructing the eastern most support structure for the Skyway Segment. The eastern support (E2) features two pile-supported footings linked by a reinforced concrete box and surmounted by pier columns to support the bridge's twin road decks. The foundation for the 530 ft. tall steel tower called the T1 footing entailed constructing a concrete and steel base structure supported by 13 cast-in, drilled hole piles set deep into underlying rock.

### Caltrans

Project Manager: Mike Forner (retired)

925-212-7693

mforner@zoon\_eng.com

Project Number: 04-0120E4

### Responsibilities

- Responsible for project controls, project planning and all matters pertaining to the project, including project execution in accordance with the contract requirements
- Oversaw all safety, quality, compliance, schedule, production and financial goals
- Collaborated with his Caltrans counterparts to successfully deliver the contract

DEPUTY PROJECT DIRECTOR, San Francisco Oakland Bay Bridge Skyway Segment, Oakland, CA: \$1.2B, 2002 - 2006

### Project Description:

This Design/Build Project included 1.2 mi. of pre-cast segmental concrete girders erected using the balanced cantilever method and construction of twin 14-span bridge decks consisting of 452 pre-cast segments. The two new twin pre-cast segmental bridges accommodate five lanes of traffic in each direction and a bike path on one side.

### Caltrans

Project Manager: Mike Forner (retired)

925-212-7693

mforner@zoon\_eng.com

Project Number: 04-012024

### Responsibilities

- Responsible for project controls, project planning and all matters pertaining to the project, including project execution in accordance with the contract requirements

- Oversaw all, safety, quality, schedule, production and financial goals
- Worked closely with his Caltrans counterparts to successfully deliver the largest contract in Caltrans history

**PROJECT MANAGER/SPONSOR, El Portal Roadway, El Portal, CA:  
\$33.5M, PM 1998 - 1999/SP 1999 - 2000**

**Project Description:**

This Design/Build Project for the FHWA involved realigning and widening 7.5 mi. of the flood damaged El Portal Roadway in Yosemite National Park. This required a management approach that ensured the design and construction methods respected the needs of the project.

**Responsibilities**

- Full on-site decision making responsibility and authority
- Interfaced on a regular basis with the designer, the FHWA, Yosemite National Park and other stakeholders to ensure the project advanced on schedule and in accordance with project objectives
- Directly managed safety, quality, reporting, compliance, schedule and budget
- Ensured the safety of the traveling public and national park visitors

**Federal Highway Administration**

Project Manager: F. Dave Zanetell (retired)

303-688-7500

[dzanetell@edkraemer.com](mailto:dzanetell@edkraemer.com)

Project Number: 36-5440

**PROJECT MANAGER, Highway 80-580, Albany, CA: \$40M, 1996 - 1998**

**Project Description**

This project involved the seismic retrofit, upgrade and widening of a 1.5 mi. stretch of highway including the 80/580 interchange in Albany, CA.

**Responsibilities**

- Identified and mitigated potential delays to the project schedule by alerting Caltrans
- Explored options to reduce the impact and complete the project on time

**Caltrans**

Project Manager: Mike Forner (retired)

925-212-7693

[mforner@zoon\\_eng.com](mailto:mforner@zoon_eng.com)

Project Number: 36-4121

**PROJECT MANAGER, Highway 238/580, Caltrans/Bay Area Rapid Transit (BART),  
Hayward, CA: \$36M, 1993 – 1996**

**Project Description**

Project involved reconstruction of Hwy 238, as well as cut and cover subway and U-Wall construction to accommodate the BART extension from the Fremont line to Dublin/Pleasanton. Chris gained a familiarity with BART personnel, work practices and BFS standards.

**Responsibilities**

- Responsible for project execution including safety, quality, compliance, schedule and productivity
- Coordinated with Caltrans and BART personnel to integrate project activities and final function of the facility

**Caltrans**

Project Manager: Mike Forner (retired)

925-212-7693

[mforner@zoon\\_eng.com](mailto:mforner@zoon_eng.com)

Project Number: 04-131124



**TOM TRIMBLE:** Project Manager

**Education:**  
B.S. Civil Engineering

**Relevant Licensing  
and Registration:** N/A

**Years of experience  
performing similar work:** 25

**Years of experience:** 25

**Years with firm:** 25

**Position Description / Responsibilities**

Tom Trimble, Project Manager, will plan, organize, schedule and direct all project activities. He will act as the frontline point of contact for Caltrans. Tom will collaborate with the project team and manage the CMGC team to ensure delivery of all tasks required for preconstruction and construction services. Tom will ensure the project is delivered in accordance with the design and project contract requirements. He will participate in design and constructability reviews, public and stakeholder meetings and estimating during preconstruction services. Tom is 100% committed to Ferguson Slide. He will be on-site at all times while construction is in progress.

**Authority**

Tom will have management authority over all the Kiewit direct reports and will ensure their commitment to the project. He will have the authority to negotiate a GMP with Caltrans. He can enter into subcontracts, consulting agreements and purchasing agreements on behalf of Kiewit. During construction Tom is empowered to “stop work” when a dangerous situation is observed, or for an environmental or quality issue. He will have authority over daily construction operations as well as field and subcontractor staff.

**Professional Experience / Bio**

Tom has over 25 years of industry experience and earned his bachelor’s in civil engineering from California Polytechnic State University in San Luis Obispo, CA. He is an area manager for Kiewit and has worked his entire career at the company in Northern California, which includes Caltrans projects.

Recently on the Marsh Landing Project, Tom was Project Director for the highly successful, \$500 million power plant in Antioch, CA. This was an Engineer, Procure, Construct (EPC) contract that is similar to the CMGC model. EPC is a design/build, as well as the contractor handles approvals from the Chief Building Official (CBO). The CBO for Marsh Landing was Contra Costa County. This was a fast paced, challenging project. At its peak, Marsh Landing had over 500 people working at the site. The jobsite was

environmentally sensitive and located next to a major body of water. Tom led a winning team that built a safe, compliant project that finished on-time and under budget.

Tom has extensive experience on grading projects with many of them in remote areas. He worked on the Drum and Almanor projects, which were emergency slide repairs for PG&E in remote locations. Tom was the Project Manager on the El Portal Roadway, a Design/Build highway repair near Ferguson Slide.

Tom’s has held senior management responsibilities on major projects and will bring this knowledge and experience to Ferguson Slide. Tom is a strong team builder who possesses a history of successful management experience.

## Projects

### PROJECT MANAGER, El Portal Roadway, El Portal, CA: \$33.5M, 1998 - 2000

#### Project Description:

The team designed and constructed approximately 65,000 sq. ft. of special MSE retaining wall using soil-nailing and a textured, carved and stained shotcrete facing done to resemble the existing stone rubble masonry walls along the route while working on an accelerated schedule that minimized disruptions to the extensive tourist traffic.

Work also included drill and shoot sliver cuts, rock fills, reconstruction of the entire drainage system, rehabilitation and reconstruction of the damaged sanitary sewer lines, new road embankment, asphalt concrete pavement and replacement of the historic granite guard wall railing.

#### Responsibilities

- Responsible for the MSE wall construction
- Responsible for completing construction on the project

### AREA MANAGER, Harry Tracy Water Treatment Plant, San Bruno, CA: \$175M, 2013 - Present

#### Project Description

We were tasked with improving delivery reliability and providing seismic upgrades at this regional water treatment plant to achieve a sustained capacity of 140 MGD for at least 60 days, and to provide 140 MGD within 24 hours following a seismic event on the San Andreas Fault. The

work involves decommissioning the existing 6.5 and 8 MG treated water reservoirs and constructing a new 11 MG treated water reservoir along with five new filters, replacing the existing 0.5 MG washwater tank, constructing a new 0.5 MG washwater tank, converting washwater clarifiers to equalization basins, installing new high-rate clarifiers and performing hydraulic improvements to various treatment units.

#### Responsibilities

- On-site sponsor responsible for all project related activities
- In charge of safety, quality, environmental, owner relations, contract administration, training and all field activities and issues.

### PROJECT DIRECTOR, Marsh Landing Generating Station, Antioch, CA: \$500M, 2011 - 2012

#### Project Description:

The project involves construction of an 800 MW natural gas fired power plant with four 200-MW simple cycle units. The equipment includes four Siemens 5000F(4)

#### Federal Highway Administration

Project Manager: F. Dave Zanetell (retired)

303-688-7500

[dzantetell@edkraemer.com](mailto:dzantetell@edkraemer.com)

Project Number: 36-5440

#### San Francisco Public Utilities Commission

Project Manager: Alan Johanson

415-554-1506

[ajohanson@sfgwater.org](mailto:ajohanson@sfgwater.org)

Project Number: WD-2596

#### NRG Energy fka GenOn Energy fka Mirant Marsh Landing

Project Manager: Chuck Hicklin

925-324-3558

[charles.hicklin@nrgenergy.com](mailto:charles.hicklin@nrgenergy.com)

Project Number: 2009019

combustion turbines, four emissions control systems complete with selective catalytic reduction and oxidation catalysts, exhaust gas tempering air fan systems, three fuel gas compressors, and balance of plant equipment. The work involves moving 110,000 cu. yd. of dirt, pouring 16,000 cu. yd. of concrete, installing 30,000 ft. of two to 24 in. process pipe, 100,000 ft. of electrical conduit and all electrical and instrumentation and controls.

**Responsibilities**

- Overall manager in charge of all project related activities
- In charge of design, safety, quality, environmental, owner relations, contract administration, training and all field activities and issues

**PROJECT DIRECTOR, Bakersfield Wastewater Treatment Plant No. 3 Expansion, Bakersfield, CA: \$219M, August 2007 - May 2009**

**Project Description**

The project consisted of both an upgrade and expansion of the existing plant from 16 to 32 MGD. Work included a new head works, expansion of the primaries, full new secondary facilities, solids handling, odor control, 2 MGD tertiary treatment and all associated mechanical, piping, and electrical control systems. Details of the expansion include a 300 by 400 ft., 10 cell aeration basin, a new blower building with five each 800 hp centrifugal blowers, and four new 175 ft. diameter clarifiers. Additionally, two new digesters were added to increase solids handling, dewatering and cogeneration facilities. There were 22 cast-in-place concrete structures on this project.

**City of Bakersfield, CA**

Project Manager: Art Chianello

661-326-3715

achianel@bakersfieldcity.us

Project Number: E4K114

**Responsibilities**

- Managed all project related activities, field issues and all operations associated with building 22 complex concrete structures
- Scheduling, training, labor and owner relations

**PROJECT MANAGER, Westpark Master Plan Community Mass Grading and Backbone Improvements, Roseville, CA: \$40M, 2004 - 2006**

**Project Description:**

The complete project covered 1,483 acres and the residential subdivision was slated to hold 4,260 homes, three schools and various commercial developments. The work involved 500,000 cu. yd. of grading to construct the roads; over 160,000 ft. of wet utility pipe, including a sewer (up to 35 ft. deep), storm drain and domestic and reclaimed water; and topside improvements for 30,000 ft. of arterial roadway.

**PL Roseville, LLC**

Project Manager: Greg Martin

916-343-1144

g.martin@restoration-resources.net

Project Number: WP-9

**Responsibilities**

- Responsible for all phases of underground trunk utilities and surface improvements

**PROJECT MANAGER, Chukchansi Gold Resort and Casino: Coarsegold, CA: \$16M, 2002 - 2003**

**Project Description:**

This resort and casino project involved grading, blasting, underground utilities, structural concrete, hardscape and paving.

**Responsibilities**

- Responsible for all phases of new construction

**PROJECT ENGINEER, Drum 2/Drum 3/Pittman, Alta, CA: \$10M, 1997**

**Project Description**

These \$10 million emergency projects included removal of 100,000 cu. yd. of silt and gravel from Bear River Creekbed and Drum Powerhouse, slide repair, rip rap, gabions and lime treatment for Pacific Gas and Electric Company (PG&E).

**Responsibilities**

- Provided contract administration, schedule, cost reports and all field office operations

**FIELD SUPERINTENDANT, Cypress "E" Project, Oakland, CA: \$120M, 1995 - 1996**

**Project Description**

This was a \$120 million reconstruction of the Highway 880 Cypress Freeway in Oakland, CA.

**Responsibilities**

- Responsible for underground and grading work

**GRADING ENGINEER, Willow Pass Concord, CA: \$32.2M, 1992-1994**

**Project Description**

This was a \$36 million highway project in Concord, CA.

**Responsibilities**

- Tracked quantities and costs and pricing change orders
- Provided field supervision of grading and paving, underground piping, joint trench and mass excavation

**Chukchansi Economic Development Authority**

Project Manager: Nancy Ayala  
559-683-6633  
prci.info@chukchansi.net  
Project Number: 42-2553

**Pacific Gas and Electric**

Project Manager: Mark Matthews  
415-973-4481  
mark.matthews@pge.com  
Project Number: 3989-3990

**Caltrans**

Project Manager: Mike Forner (retired)  
925-212-7693  
mforner@zoon\_eng.com  
Project Number: 04-192244

**Caltrans**

Project Manager: Mike Forner (retired)  
925-212-7693  
mforner@zoon\_eng.com  
Project Number: 36-3803



**DAN HART:** Construction Manager

**Education:**

B.S. Construction Management

**Years of experience**

**performing similar work:** 25

**Relevant Licensing and Registration:**

N/A

**Years of experience:** 25

**Years with firm:** 22

**Position Description / Responsibilities**

Dan Hart, Construction Manager, will plan, organize, schedule and direct all project construction activities. He will participate in constructability reviews and estimates during preconstruction services. He will manage the Kiewit team to develop a schedule and budget, and will manage the construction staff, craft labor, subcontractors and suppliers to stay on track. In addition, Dan will be responsible for oversight of safety, quality and environmental personnel to ensure that all project requirements are met. As the jobsite manager, Dan will be the point of contact for any of Caltrans' day-to-day jobsite concerns.

**Authority**

Dan will manage daily construction operations, including Kiewit and/or subcontractor staff. He has the ability to "stop work" on-site for any reason, including safety, quality or environmental concerns.

**Professional Experience / Bio**

Dan is a results-driven construction manager with over 25 years of heavy civil construction experience including bridge, highway, large structures work, grading and Design/Build Projects. Dan is solutions-oriented. He envisions smart solutions and executes them with urgency. He currently serves as the structures operations manager for the Folsom Phase IV project and is responsible for getting 162,000 cu. yd. of structural concrete work planned and executed. Prior to the Folsom Phase IV project, Dan was the project manager for the LL Anderson Spillway Modification. He spearheaded completion of the complex project within the aggressive timeframe despite its remote location. Dan diligently coordinated the multitude of agency inspections required for the project, in a scenic national forest during recreation season, while maintaining exceptional quality and safety standards.

For Ferguson Slide, Dan will participate during preconstruction services and be on-site at all

times during construction to ensure accordance with the design and project requirements. He will remain focused on project safety, quality and environmental compliance.

**Projects**

**STRUCTURES MANAGER, Folsom Phase IV, Folsom, CA: \$257M, July 2013 - Present**

**Project Description**

This is the final phase to complete the flood control improvements for the Folsom Dam at Folsom Reservoir. Phase IV involves the construction of the spillway chute and stilling basin on the downstream side of the new control structure as well as the upstream approach channel and cutoff wall to direct the water to the new control structure. Excavation is currently being performed by conventional mechanical means as well as drilling and blasting. A large portion of the upstream side excavation will be performed by underwater drilling and blasting. In addition to the large, complex excavation, the

spillway chute and stilling basin will require 162,000 cu. yd. of structural concrete, including 13 ft. thick slab on grade and 66 ft. tall batter and single-sided walls.

**Responsibilities**

- Project structures pursuit lead during the estimating and proposal phase
- Lead the structures estimate group while scheming the economic and efficient methods for the project structural elements to win the job
- After award, Dan became the structures manager and is currently responsible for overseeing a 20 person structures group while planning for the upcoming concrete work

**USACE**

Project Manager: Kylan Kegel

916-717-0890

kylan.a.kegel@usace.army.mil

Project Number: 103923

**PONTOON PRODUCTION YARD MANAGER, SR 520 Floating Bridge, Aberdeen, WA: \$665M, November 2011 - October 2012**

**Project Description**

The project included the design and construction of a new, six lane floating bridge structure incorporating 44 pontoons with an additional 33 pontoons furnished by Kiewit under an existing contract. The project also included the construction of a new bridge maintenance facility and the demolition of the existing floating bridge.

**Washington State Department of Transportation**

Project Manager: Rumina Suafoa

253-680-0321

suafoar@wsdot.wa.gov

Project Number: 008066

**Responsibilities**

- Got the pontoon casting yard up and running at project onset (this is the critical path of the project and was critical that the yard set-up happened quickly)
- Critical management; the yard was setup and casting pontoons in the dry dock on schedule and under budget

**PROJECT MANAGER, LL Anderson Dam Spillway Modification Project (French Meadows Reservoir), Placer County: \$14M, March 2010 - December 2012**

**Project Description:**

Kiewit widened the existing spillway of French Meadows Reservoir, constructed a new spillway control structure, installed two new radial tainter gates, demoed the existing control structure and constructed the new four ft. tall parapet wall along the dam. Work included the hard rock excavation of the existing spillway utilizing drill and shoot; slope stabilization, rock bolting, curtain grouting, crushing native material for aggregate production and an on-site batch plant. The spillway control structure required 6,000 cu. yd. of on-site batched concrete. The control structure housed the two new 18 ft. tall by 30 ft. wide radial tainter gates and hoisting system. The gates were connected to three pre-cast concrete, high-strength anchor blocks that were stressed onto the control structure walls.

**Placer County Water Agency**

Project Manager: John Mattson

530-885-6917

jmattson@pcwa.net

Project Number: 2009-01

**Responsibilities**

- Managed all aspects of the projects daily activities, including contract compliance, scheduling, procurement, safety and quality

**PROJECT MANAGER, Folsom Dam Bridge, Folsom, CA:**  
\$89M, December 2006 - December 2009

**Project Description**

For the project we replaced the two lane road located on top of the Folsom Dam. This included the construction of a new roadway between Folsom-Auburn Road and East Natoma Street south of the Folsom Dam. The work entailed construction of approximately 9,000 ft. of a new four lane roadway, approximately 1,000 ft. long cast-in-place segmental concrete bridge, two soundwalls, four retaining walls, a box culvert and a Class 1 bicycle/pedestrian lane parallel to the roadway. Over 1 million cu. yd. of earth were moved in the process.

**USACE**

Project Manager: Larry Smith  
916-261-1545  
larry.smith@usace.army.mil  
Project Number: W91238-06--R-0020

**Responsibilities**

- Managed all aspects of the projects daily activities, including contract compliance, scheduling, procurement, safety and quality

**PROJECT MANAGER/JOB SUPERINTENDENT, San Francisco-Oakland Bay Bridge Skyway Segment, Oakland, CA: \$1.2B, January 2003 - December 2006**

**Project Description:**

Considered phase one of a four phase seismic retrofit to replace the existing double-deck steel bridge, the project is the largest single contract in Caltrans history. The two new twin pre-cast segmental bridges accommodate five lanes of traffic in each direction and a bike path on one side. The superstructure consists primarily of pre-cast segmental concrete box girders erected using the balanced cantilever method. The substructure consists of concrete filled steel footings supported by steel-cased, cast-in-place concrete piles. Project operations included access dredging, pile fabrication and driving, steel footing shell placement, pier construction and pre-cast segment erection. The 1.2 mi. long, 14 span bridge deck consists of 452 pre-cast segments, each weighing as much as 750 tons; more than 288,000 cu. yd. of concrete; more than 30,000 tons of reinforcing steel; more than 36,000 tons of structural steel; and 160, eight ft. diameter cast-in-place steel shell piling.

**Caltrans**

Project Manager: Mike Forner (retired)  
925-212-7693  
mforner@zoon\_eng.com  
Project Number: 04-012024

**Responsibilities**

- Managed all poured and placed concrete on the water, pier footing, piers, pier tables and closures

**JOB SUPERINTENDENT, Nicolaus Project, Nicolaus, CA:  
\$11.5M, 1997 - 1998**

**Project Description:**

Eight f.t widening of the Feather River Bridge and Garden Highway undercrossing.

**Responsibilities**

- Operations on bridge widening and highway undercrossing construction

**Caltrans**

Project Manager: Mike Forner (retired)

925-212-7693

mforner@zoon\_eng.com

Project Number: 03-362404

**STRUCTURES SUPERINTENDENT, Los Vaqueros Dam, Contra Costa County, CA: \$63M, 1995 - 1996**

**Project Description**

Located 40 mi. from San Francisco, the Los Vaqueros Dam serves as the primary water source for the Contra Costa water district. The project was a new 192 ft. high dam, measuring 1,000 ft. across its crest. The scope of work involved construction of 550 ft. of concrete spillway, intake and outlet works and a 1,300 ft. long, 84 in. diameter concrete and steel-lined bypass tunnel. Work included a 2.5 mi. access road, five 84 in. hydraulic gates. Environmental awareness was high priority due to several endangered and threatened species residing near the project site.

**Responsibilities**

- Responsible for planning and supervising concrete work and the development of project procedures

**Contra Costa County, California Water District**

Project Manager: Gary Darling

925-756-1900

garyd@ddsd.org

Project Number: 651000

**STRUCTURES SUPERINTENDENT, Highway 238/580 BART Expansion, Hayward, CA: \$36M, 1995 - 1995**

**Project Description**

This project involved reconstruction of Highway 238, as well as cut-and-cover subway and U-Wall construction to accommodate the BART extension from the Fremont line to Dublin/Pleasanton.

**Responsibilities**

- Monitored all disciplines to ensure that all scopes of work, the schedule and budget were clearly defined and understood by the team

**Caltrans**

Project Manager: Mike Forner (retired)

925-212-7693

mforner@zoon\_eng.com

Project Number: 04-131124

**STRUCTURES SUPERINTENDENT, Bailey Road Interchange, Pittsburg, CA: \$36M, 1993 - 1995**

**Project Description:**

State highway interchange reconstruction including grading, paving, underground, bridges, retaining walls, and a light rail station platform.

**Responsibilities**

- Ensure that all scopes of work, the schedule and budget were clearly understood by the team

**Caltrans**

Project Manager: Tim Buchanan

916-654-5266

tim.buchanan@dot.ca.gov

Project Number: 04-131124



**MIKE SEARE:** Lead Estimator

**Education:**  
B.S. Civil Engineering

**Relevant Licensing and Registration:**  
N/A

**Years of experience performing similar work:**  
23

**Years of experience:** 37  
**Years with firm:** 25

**Position Description / Responsibilities**

Mike Seare, Lead Estimator, will lead the estimating effort through preconstruction services, including GMP negotiations. Mike will be responsible for creating the open cost model for the project, estimating each milestone Opinion of Probable Construction Costs (OPCC), preparing all alternate cost estimates, managing the Kiewit take-off department for quantity verification, providing detailed production input to the scheduling team, life-cycle cost estimates and providing cost related information for all risk items. He will also be responsible for any reports required by Caltrans regarding estimation.

**Authority**

Mike has the authority to share cost information including crew composition and history of productions with Caltrans and independent cost engineering counterparts. Mike has the authority to interact with subcontractors and suppliers to discuss innovation alternatives, current cost considerations and escalations.

**Professional Experience / Bio**

Mike earned his bachelor's in civil engineering. He will bring his 37 years of technical expertise in design and construction to Ferguson Slide. Mike understands the requirements necessary to control costs and develop cost models. Mike has 23 years of specific experience in leading estimates as the district and area engineer in offices across the Western US.

Mike is recognized in the industry as a CMGC expert. Mike was a key member of the Associated General Contractors of America (AGC) joint task force that developed the Utah Department of Transportation's CMGC process. He is the current chairman of the Highway Committee for Utah Chapter of AGC.

**Projects**

**PURSUIT LEAD/LEAD ESTIMATOR, SR-14 Emergency Landslide Repair CMGC: \$32M, September 2012 - June 2013**

**Project Description**

This landslide destroyed 0.3 miles of SR-14, removing entire portions of the roadway, leaving it impassable and blocking portions of Coal Creek. SR-14 connects Cedar City of US-89 and a number of towns from Kanab to Panguitch. Primary efforts for this project required landslide removal, reconstruction of the roadway between MP 7.9 to MP 8.2 and creek restoration. This was challenging due to terrain, current slope stability and variety of size/type of debris. The project also included repair of three additional slides requiring slope stabilization and pavement repair. This project met the early completion date.

**Responsibilities**

- Collaborated with UDOT through the CMGC process to save cost by using specialized equipment

**PURSUIT LEAD ESTIMATOR, Mountain View Corridor (CMGC), Salt Lake County, UT: \$246M, July 2009 - October 2010**

**Project Description**

Mountain View Corridor (MVC) in Salt Lake County included a 15 mi. segment of MVC north from Redwood Road (at approximately 16000 South) to 5400 South. The scope of work included over 4.8 million cu. yd. of excavation, 300,000 sq. yd. of concrete paving, 290,000 tons of asphalt, 11 bridges and multiple retaining and sound walls. The corridor runs through seven municipalities.

**Responsibilities**

- Provided management review of the OPCC and pricing for the final GMP
- Worked with the owner throughout the CMGC process to save money by using on-site materials for the aggregate base and through the optimization of dirt flow

**PURSUIT LEAD ESTIMATOR, Pioneer Crossing, Lehi/I-15 American Fork Interchange Design/Build Project, Salt Lake City, UT: \$194M, October 2008 - June 2010**

**Project Description**

This Design/Build Project included six miles of a new east/west connector from American Fork Main Street through Lehi to Redwood Road in Saratoga Springs, improvements at the I-15/American Fork interchange and a new 60 in. waterline. Components included a five to seven lane urban arterial with Portland Cement Concrete Pavement (PCCP), new bridges over the Jordan River and Union Pacific Railroad (UPRR), new concrete box culverts at Dry Creek and Lehi Trail crossing, noise walls, retaining walls, aesthetics/landscaping, drainage, utility relocations, advanced traffic management systems (ATMS) and traffic signal work. An innovative diverging diamond interchange (DDI) bridge at I-15 replaced the existing diamond interchange and included new ramps and I-15 widening.

**Responsibilities**

- Worked with the design engineers to estimate the project budget requirements
- Conducted a detailed analysis of the contract documents and specifications to determine the overall project requirements (bonding, insurance, etc.) and identified any associated risk factors
- Participated in the preparation of the initial cost report and prepared cost code identification while maintaining detailed forecast tracking of all associated labor, material, equipment and

**Utah Department of Transportation**

Resident Engineer: Lief Condie  
435-691-1879  
lcondie@utah.gov  
Project Number: F-0014(34)6

**Utah Department of Transportation**

Project Manager: TeriAnne Newell  
801-975-4807  
tnewell@utah.gov  
Project Number: MP-0182(6)

**Utah Department of Transportation**

Project Manager: Daniel Avila  
801-227-8024  
davila@utah.gov  
Project Number: S-R39(42) & S-R399(59)

subtrade costs

- Successfully completed a final bid submission and upon NTP, reviewed the final document submission

**AREA ENGINEER, Various Projects, Salt Lake City, UT: March 2006 - Present**

**Project Description**

Mike is responsible for estimating coordination, scheduling of estimators, and leading estimates in Utah and Idaho.

**DISTRICT ENGINEER, Various Projects, Phoenix, AZ: March 1995 - March 1997**

**Project Description**

Mike was responsible for estimating coordination, scheduling of estimators and the accumulation of past cost information and estimating statistics. He organized and conducted training of new engineers and estimators.

**PROJECT ENGINEER, SR-85 Landfill CMAR, Phoenix, AZ: \$27.8M, April 2005 - August 2006**

**Project Description**

The SR-85 landfill project is located 48 mi. southwest of downtown Phoenix. The project included the entrance facility, upgrades to Patterson Road and the excavation and lining of Cell 1. Kiewit moved 5.6 million cu. yd. of earth in eight months. The entrance facility work consisted of five buildings with a combined total of over 12,000 sq. ft. of space.

**City of Phoenix, Arizona**

Project Manager: Marty Arambel

602-534-1157

marty.arambel@phoenix.gov

Project Number: P217800001

**Responsibilities**

- Provided constructability reviews, subcontracting packages, cost modeling and final GMP pricing as integral part of the design phase services team
- Other responsibilities included contract administration, subcontract administration, project engineering functions and change order pricing

**PROJECT ENGINEER, State Route 260 Christopher Creek Reconstruction, Payson, CA: \$70M, November 2001 - June 2004**

**Project Description:**

This project involved the construction of a 5.3 mi. long, four lane divided highway through mountainous terrain. Major items of work included 14 concrete bridge structures, 3 million cu. yd. of rock excavation, asphaltic concrete paving and asphalt rubber friction course paving, pipe culverts and erosion control measures.

**City of Phoenix, Arizona**

Project Manager: Jack Tagler

928-468-5064

jtagler@azdot.gov

Project Number: ACNH-053-2(33)B

**Responsibilities**

- Responsible for all engineering functions and subcontract administration



**SURESH DEVARAJAN:** Scheduler

**Education:**

M.S. Architecture  
B.S. Architecture

**Years of experience performing similar work:**

11

**Relevant Licensing and Registration:**

N/A

**Years of experience:** 11

**Years with firm:** 10

**Position Description / Responsibilities**

Suresh will be responsible for working with the Department and the preconstruction team to develop preliminary schedules and the resource-loaded project baseline schedule. In addition to producing project schedules and updates, Suresh will provide guidance, direction and specialized assistance to resolve complex project control issues. He will interface with Caltrans and attend regular progress meetings. Additionally, he will assess the impact of conceptual design and/or schedule changes and report the results to appropriate project management and Caltrans.

**Authority**

Suresh shall have authority to produce the preconstruction and baseline schedules while working directly with the Department and construction discipline leads. Suresh will work with his Caltrans counterpart to agree on monthly progress estimates. He will be accountable for the monthly schedule updates and for generating any necessary revision schedules.

**Professional Experience / Bio**

Suresh received his master's in architecture with a concentration in construction management from California Polytechnic State University, San Luis Obispo in 2003 and has worked for Kiewit ever since.

adversely affect the project outcome. Suresh's in-depth knowledge of project scheduling and schedule analysis make him an invaluable team member for the Ferguson Slide project from preconstruction services through construction completion.

Suresh draws on his background in architecture and his construction field experience to develop comprehensive, fully-integrated schedules that reduce risk for the owner. He excels at understanding the schedule requirements of highly complex projects, as demonstrated on both the I-405 Sepulveda Pass Widening (I-405) and the Benicia-Martinez Bridge projects. Suresh is currently working as the schedule manager on I-405 in Los Angeles, CA. Suresh and his team work seamlessly with the local transit authority to manage and mitigate project risk by collaborating to identify potential issues before they become critical and

## Projects

**SCHEDULE MANAGER, I-405 Sepulveda Pass Widening Design/Build:**  
\$757M, April 2009 - Present

### Project Description

This Design/Build Project involves the construction of a 10 mi., northbound High Occupancy Vehicle (HOV) lane on I-405 from I-10 to US-101, the addition of 10 ft. shoulders and the re-stripping of all lanes to standard 12 ft. widths. The project realigns existing on and off ramps, reconstructs 23 bridge and ramp structures, builds approximately 16 mi. of retaining walls and performs road improvements on the adjacent city streets.

### LACMTA

Deputy Project Director: Vahid Saedi

310-846-2400

saediv@metro.net

Project Number: C0882

### Responsibilities

- Collaborate with designers, builders and LACMTA to build and update the cost integrated design and construction schedule
- Review and reach agreements with owner representatives on the monthly progress estimate
- Supervise and review monthly updates and revision schedules completed by the segment schedulers
- Creates recovery schedules

**PROJECT ENGINEER, Bakersfield Wastewater Treatment Plant No. 3: \$219M, August 2007 - May 2009**

### Project Description

This \$219 million project upgraded and expanded the existing 16-MGD treatment plant to 32-MGD. The scope of work included a new head works, expansion of the primary facility, new secondary treatment facilities, solids handling, odor control, a 2-MGD tertiary treatment facility and all associated mechanical, piping, and electrical control systems. Critical to the success of the project was the development and maintenance of a realistic schedule. The schedule needed to integrate various preconstruction and construction activities.

### City of Bakersfield

Project Manager: Thomas Buckman

562-987-1833

thomas.buckman@jacobs.com

Project Number: E4K114

### Responsibilities

- Streamlined the approach to develop the baseline schedule to provide for continuous involvement of all project partners
- Developed and managed the resource loaded and leveled 2,400 activity CPM schedule
- Integrated preconstruction and construction activities, including post-design support, multiple subcontractors, vendors and other resources

SCHEDULE ENGINEER, Benicia-Martinez Bridge: \$863M, May 2003 - May 2007

**Project Description**

We constructed a five-lane, 7,500 ft. long bridge which runs parallel to the existing six-lane Benicia-Martinez Bridge and the Union Pacific Railroad Bridge. The substructure work required construction of 17 piers, 12 of which are in water. Piers are founded on concrete and steel piles that extend nearly 300 ft. into the bedrock below. The bridge's 1,700 ton footings were constructed off-site, floated into place and supported on the piles.

**Caltrans**

Project Manager: Mike Forner (retired)

925-212-7693

mforner@zoon\_eng.com

Project Number: 04-012024

**Responsibilities**

- Scheduled, updated, logged, created and maintained master copies of revised drawings, three week schedule, impact analysis schedules, resource histograms and linear schedules for monthly project updates
- Collaborated with the owner on the monthly updates and identified and communicated impacts to project progress
- Developed various recovery schedules to ensure the best possible outcome after impacts to project progress
- Streamlined the approach to develop a baseline schedule that provided continuous involvement of all project partners



**JEFF BRAY:** Environmental/Permit Manager

**Education:**  
B.S. Wildlife Biology

**Relevant Licensing and Registration:**  
N/A

**Years of experience performing similar work:**  
15

**Years of experience:** 19

**Years with firm:** 19

**Position Description / Responsibilities**

Jeff Bray, Environmental/Permit Manager, will ensure the project is constructed in accordance with all environmental commitments and permits as specified within the final environmental impact report and environmental impact statement.

**Authority**

Jeff will have the management authority to assist in procuring permits and ensure all environmental commitments are met. During construction, Jeff is empowered to “stop work” when an environmental issue is observed.

**Professional Experience / Bio**

Jeff earned a bachelor’s in wildlife biology from Humboldt State University and has over 19 years of experience with biological resources and wetlands projects throughout California. He has been with LSA for the majority of his career and has extensive experience working near sensitive water bodies. This experience contributes to an advanced understanding of both state and federal environmental regulations.

In his current position at LSA, Jeff conducts biological studies, prepares technical reports, performs jurisdictional delineations, obtains 401/404, 1600 permits, coordinates Section 7 consultations, conducts biological constraints analyses and manages construction monitoring projects. He manages project teams, budgets, coordinates with clients and regulatory agencies regarding permitting strategies, mitigates requirements and performs peer reviews. Jeff has worked on a considerable amount of transportation projects throughout California. He has managed the environmental component of numerous transportation projects in Caltrans District 6 and District 10, including several construction monitoring projects. He maintains

a solid working relationship with Caltrans Districts 6 and 10 biology staff.

**Projects**

**PROJECT MANAGER, I-5/French Camp Road Interchange and Sperry Road Extension Biological Construction Oversight, Stockton, CA: August 2012 - Present**

**Project Description**

LSA provides biological oversight of these projects on behalf of the City of Stockton and the San Joaquin Council of Governments (SJCOG). Services include coordination with the contractor supplied biologists assigned to the project and general oversight of compliance with the San Joaquin Multi-Species Habitat and Open Space Conservation Plan and regulatory permits. LSA coordinates regularly with SJCOG and California Department of Fish and Wildlife (and Caltrans as-needed) to discuss the status of the projects and any outstanding issues. Biological resources affected include nesting birds, mammals, reptiles, insects and jurisdictional waters. Although the project is located in Caltrans District 10, it is being staffed by Caltrans District 6.

### Responsibilities

- Conducts biological studies and biological constraints analyses
- Prepares technical reports
- Obtains 401/404, 1600 permits; coordinates Section 7 consultations and performs jurisdictional delineations
- Oversees field biologists
- Administers the contract and budget

#### City of Stockton

Project Manager: Ray Deyto  
209-937-8869  
ray.deyto@stocktongov.com  
Project Number: 12514A

**PRINCIPAL IN CHARGE, SR-88/Jackson Valley Rehabilitation Biological Construction Monitoring, San Joaquin Valley, CA: Fall 2012/Spring 2013/Fall 2013**

### Project Description

As a result of a referral from Caltrans District 6, LSA contracted with George Reed, Inc. to provide biological construction monitoring for this roadway rehabilitation project on three separate occasions. On each occasion, LSA was immediately responsive within a few days notice. LSA worked closely with Caltrans biological staff and the California Department of Fish and Wildlife to ensure compliance with regulatory permits. Biological resources affected included the California Tiger Salamander and nesting birds. Although the project is located in Caltrans District 10, it was staffed by Caltrans District 6.

#### Caltrans

Project Manager: Stan Oshita  
209-608-0711  
stan\_oshita@dot.ca.gov  
Project Number: 10-264444

### Responsibilities

- Oversaw the project manager
- Reviewed technical reports
- Participated in meetings

**PROJECT MANAGER, Route 65 Lincoln Bypass Biological Construction Monitoring, Lincoln, CA: August 2008 - 2013**

### Project Description

LSA assists Caltrans with biological construction monitoring for this new 13 mi. long roadway (including 8 bridge crossings). Prior to the construction phase, LSA assisted with the biological resources documentation and regulatory permitting. LSA collaborates with the Caltrans biologist to ensure contractor activities are in compliance with regulatory permits. Biological resources affected include nesting birds, vernal pool invertebrates, salmon and steelhead, riparian habitat and oak woodlands and jurisdictional waters.

#### Caltrans

Project Manager: Carl Berexa  
916-624-2791  
carl\_berexa@dot.ca.gov  
Project Number: 03-3338U1 & 03-333824

### Responsibilities

- Oversaw field biologists
- Administered the contract, budget and reviewed technical reports

**PROJECT MANAGER, North County Corridor, Oakdale, CA:**  
October 2013 - Present

**Project Description**

As part of the Drake Haglan/Dokken team, LSA provides biological resources support for the approximately 20 mi. long new roadway that begins east of SR-99 and ends east of the City of Oakdale. LSA conducts all biological surveys, prepares technical studies and coordinates with resource agencies. The environmental schedule for this project is compressed so coordination with the Caltrans biologist is key to ensuring potential issues are identified early and resolved immediately. Biological resources affected include nesting birds, vernal pool invertebrates, California Tiger Salamander, western burrowing owl, Swainson's hawk, and jurisdictional waters. Although the project is located in Caltrans District 10, it is being staffed by Caltrans District 6.

**Responsibilities**

- Manages biological, historical, paleontological and air quality technical studies

**Stanislaus County Public Works**

Deputy Director: Colt Esenwein

209-525-4814

esenweinc@stancounty.com

Project Number: 13020

**BIOLOGY TASK LEADER, SR-99/Hammett Road and Kiernan Avenue Interchanges, Ripon, CA:**  
March 2009 - February 2013

**Project Description**

As part of the Rajappan & Meyer team, LSA is provided environmental support for two interchanges on SR-99 near the City of Ripon. LSA's task for both interchanges consisted of obtaining full environmental clearance, including preparation of technical studies and CEQA/NEPA documentation. Throughout the process, LSA coordinated regularly with Caltrans environmental staff.

Although the project is located in Caltrans District 10, it was staffed by Caltrans District 6.

**Responsibilities**

- Managed biological, historical, paleontological and air quality technical studies

**Stanislaus County Public Works**

Director: Matt Machado

209-525-4153

machadom@stancounty.com

Project Number: 29001 & 29002



**VICKI ENGELMAN:** Preconstruction Services Manager

**Education:**  
B.S. Civil Engineering

**Relevant Licensing and Registration:**  
N/A

**Years of experience performing similar work:**  
10

**Years of experience:** 15

**Years with firm:** 15

**Position Description / Responsibilities**

Vicki Engelman, Preconstruction Services Manager, will report to Tom Trimble, Project Manager, and lead the preconstruction services effort. She will facilitate close collaboration, communication and total integration of our team and Caltrans to the achieve the benefits of the CMGC process. Vicki will coordinate our preconstruction specialists and key personnel to complete all of the tasks required of the construction manager. She will manage design reviews and speed project delivery. Vicki's expertise will optimize project constructability, maintainability, operability and mitigate risk. She will communicate Kiewit's CMGC processes and procedures to Caltrans for their consideration and use on the project. Additionally, Vicki will participate in process training as-needed and in construction start-up to for smooth transition to the execution phase.

**Authority**

Vicki will have the authority to bring on additional Kiewit resources during the preconstruction phase to meet the changing needs of the project. She can commit Kiewit to timelines and work products during preconstruction.

**Professional Experience / Bio**

Vicki is experienced in the role of preconstruction services manager. She is a civil engineering graduate of Arizona State University and has 15 years experience with Kiewit. Vicki is involved in design oversight to enhance the value and minimize risk in the delivery of CMGC, CM at Risk, or Design/Build projects. She has managed the design development on 19 projects totaling over \$3.7 billion in contract revenue and overseen 19,000+ design sheets. She excels in this role and understands its large impact to a project.

Vicki helped the MBTA in Boston, the Washoe County Regional Transportation Authority, the Arizona Department of Transportation and the Maricopa County Department of Transportation to successfully deliver their first CMGC projects. She is a natural leader who excels at collaborating

with designers and leading task force meetings to reduce risk, optimize constructability and find meaningful value engineering opportunities. Recently, on the \$480 million Metro Gold Line project, Vicki assisted the project team with adopting a virtual plan room. In this virtual plan room, the owner, participating municipalities and engineers are able to use electronic signatures and review sheets in real time. This has made the design review process more efficient and effective. Vicki has a proven track record of knowing how to get the most from a CMGC project.

## Projects

**CMGC SUBJECT MATTER EXPERT, Green Line Extension CMGC (GLX), Boston, MA:**  
\$700M, August 2013 - Present

### Project Description

The \$700 million Green Line Extension includes the relocation of commuter rail tracks along most of the corridor, the construction of 4.3 mi. of light rail track and systems, the relocation of Lechmere Station, the construction of six new stations, reconstruction of bridges along the corridor, construction of new viaducts, construction of retaining and noise walls, signal and communication systems, traction power and substations and development of a new maintenance/transportation facility with a vehicle layover/storage facility.

### Massachusetts Bay Transportation Authority

Senior Director, Design and Construction:  
Mary Ansley

617-222-6124

mansley@mbta.com

Project Number: CMGC-E22

### Responsibilities

- Provides CMGC assistance and training workshops for the entire team including: the MBTA, PM/CM and designer
- Develops the preconstruction management plan, design document reviews, and preparation for value engineering and risk management workshops

**PRECONSTRUCTION SERVICES MANAGER, Southeast Connector CMAR: Truckee River Bridge Phase between Greg Street and Clean Water Way, Truckee, CA:**  
\$65M, March 2012 - July 2013

### Project Description

This \$65 million southeast connector requires the construction of a new 5.5 mi., six lane high access control arterial, a 1,500 ft. long steel girder bridge/viaduct over the Truckee River, utility relocations and other improvements.

### Responsibilities

- Coordinated preconstruction activities including constructability reviews, risk management, development of GMP and schedule
- Established and implemented solicitation and prequalifications packages and selected the plan

### Washoe County Regional Transportation Commission

Project Manager: Garth Oksol

775-742-6851

goksol@rtcwashoe.com

Project Number: 532011

**DESIGN CONTROL MANAGER, Metro Gold Line Foothill Extension Phase 2, Pasadena, CA:**  
\$302M, July 2011 - December 2012

### Project Description

Provided the final design and construction of 11.5 mi. of double light rail main track, 15 bridges, six stations and a maintenance and operations facility. The project began in the middle of the I-210 freeway in Pasadena (where Kiewit and Parsons left off on the Gold Line Phase 1 Project, and runs to Citrus College in Azusa, CA. This Design/Build Project includes final design and construction of all aspects of the rail extension with the exception of the (already underway) I-210 bridge and future station parking facilities.

### Responsibilities

- Coordinated the design schedule
- Established document and quality control procedures
- Managed design constructability reviews and all procedures related to design and quality changes
- Served as the point of contact for BNSF, who operated a freight line within the alignment

### Metro Gold Line Foothill

#### Extension Construction Authority

Project Manager: Christopher Burner

626-305-7022

[cburner@foothillextension.org](mailto:cburner@foothillextension.org)

Project Number: C1135

**PRECONSTRUCTION SERVICES MANAGER, State Route 114 Geneva Road Widening Design/Build Project, Utah County, UT: \$41M, December 2010 - July 2011**

### Project Description:

This project included the reconstruction and realignment of five miles of Geneva Road and the construction of a steel girder bridge over the Union Pacific Railroad (UPRR) and Utah Transit Authority (UTA) tracks. This project team was innovative, and earned the project multiple awards including the 2011 AGC/UDOT Best Partnered Project, 2012 ENR Mountain States Best Transportation Project, Merit Award and Utah AGC Project of the Year over \$10M and the 2013 Marvin M. Black Excellence in Partnering Award.

### Utah Department of Transportation

Project Manager: Chris Memmott

801-830-9313

[cmemmott@utah.gov](mailto:cmemmott@utah.gov)

Project Number: F-0114(21)0

### Responsibilities

- Managed the designer, coordinated constructability reviews and document control

**CM PROGRAM COORDINATOR, Mountain View Corridor CMGC, Salt Lake County, UT: \$246M, June 2010 - December 2010**

### Project Description:

Mountain View Corridor (MVC) in Salt Lake County included a 15 mi. segment of MVC north from Redwood Road (at approximately 16000 South) to 5400 South. The scope of work included over 4.8 million cu. yd. of excavation, 300,000 sq. yd. of concrete paving, 290,000 tons of asphalt, 11 bridges and multiple retaining and sound walls. The corridor runs through seven municipalities.

### Utah Department of Transportation

Project Manager: TeriAnne Newell

801-975-4807

[tnewell@utah.gov](mailto:tnewell@utah.gov)

Project Number: MP-0182(6)

### Responsibilities

- Coordinated design reviews, constructability reviews and risk management



**BRIAN MCNEAL:** Talus Removal Manager

**Education:**  
High School Diploma

**Relevant Licensing and Registration:**  
N/A

**Years of experience performing similar work:**  
16

**Years of experience:** 16

**Years with firm:** 11

**Position Description / Responsibilities**

Brian McNeal, Talus Removal Manager, will be the lead manager for AIS Construction Company (AIS). AIS is the industry leader in steep slope stabilization; rockslide mitigation and limited access heavy civil construction projects. As talus removal manager, Brian will be responsible for estimating and scheduling, and the day-to-day interaction with Caltrans. He will oversee the work planning and execution of the talus removal, scarp shaping and rockfall protection system. Safety and quality is Brian's first priority and he will be responsible for the talus removal safety and quality plans.

**Authority**

Brian will act on behalf of AIS for all responsibilities that fall under their scope of work. With this authority, he will ensure that their best equipment and manpower is available for Ferguson Slide.

**Professional Experience / Bio**

At AIS, Brian is the manager in charge of their steep slope stabilization division. He is not only highly motivated, but an accomplished project manager who delivers the best in construction quality while adhering to all project deadlines and specifications. He is a competent leader, skilled in collaborating with and motivating teams to achieve aggressive goals and objectives. Brian has over 16 years of experience in the slope stabilization niche of the construction industry. Over the course of his career, Brian has developed into a slope stabilization, rock scaling and rockfall protection systems specialist. He had served as project manager or project sponsor on over 60 projects over the last 10 years. Brian has unrivaled experience managing similar projects worldwide that are in challenging environments and extremely remote locations.

Brian will be a valuable asset during the preconstruction phase of this project, as he worked at the Ferguson Slide site in 2006. He was project manager during the emergency slide repair; paving and rock fence installation constructed that year.

His vast knowledge and clear understanding of the Ferguson Slide project elements are a highly regarded asset; and he will draw on his expertise throughout the duration of Ferguson Slide.

## Projects

**PROJECT MANAGER, Alder Creek Emergency Scaling and Debris Removal: \$2.8M**  
April 2011 - July 2012

### Project Description:

This project used Spider excavators and dozers to work talus material down to the road where it was loaded out and transported to fill sites north and south of the project location. The exposed slope was covered with double twisted wire mesh as the talus moved down the slope.

### Caltrans District 5

Project Manager: Charlie Hench  
805-927-4559  
charlie.hench@dot.ca.gov  
Project Number: 05-1A4904

### Responsibilities

- Responsible for safety, production, quality, owner relations, resource allocation and cost estimation

**PROJECT MANAGER, Baker Beach Disturbed Areas 1 and 2A Removal: \$12.7M**  
July 2007 - February 2008

### Project Description

This project used Spyder excavators on slope in conjunction with conventional equipment to remove contaminated material from the slope at two locations above the beach. The materials were disposed of off-site.

### Presidio Land Trust

Project Manager: George Ford  
510-326-7356  
gforol@geosyntecs.com  
Project Number: IFB-2007-032

### Responsibilities

- Included scheduling, billing, quantities estimation, cost estimation, materials ordering and trucking coordination

**SUPERINTENDENT, Hwy 140 Ferguson Slide: \$1.2M, May 2006 - July 2006**

### Project Description

The project involved scaling loose material from the top of the slide with a Spyder excavator. Material was then hauled to nearby turnouts. A rock impact barrier was also erected at the base of the slope alongside Highway 140.

### Caltrans District 10

Project Manager: Stan Oshita  
209-333-6928  
stan.oshita@dot.ca.gov  
Project Number: 05-1A4904

### Responsibilities

- Coordinated mobilization
- Ordered barrier materials
- Organized scaling activities and maintained on-site quality control

SUPERINTENDENT, Jackson Slide-Remove Failed Material and Regrade Rte. 49  
in Amador County: \$1.0M, July 2006 - September 2006

### Project Description

Project involved scaling loose slide material down using a Spyder excavator and placing a cable net drapery over the slide area.

### Responsibilities

- Coordinated mobilization and demobilization
- Scheduled work phases
- Submitted daily work reports to the home office and to the on-site quality control officer

### Caltrans District 10

Project Manager: Harminder Deol  
209-656-1845

harminder.deol@dot.ca.gov

Project Number: 10-A0836

### Additional Relevant Experience:

### Project Descriptions

The following is a list of additional projects where Brian served as project manager for AIS. The list is intended to further demonstrate Brian's proven history of directing projects worldwide in the slope stabilization/slide remediation market in challenging environments to successful completion on time and under budget.

### Responsibilities

On the projects below, Brian demonstrated his strong technical, communication and problem solving skills. As the project manager on these jobs Brian was responsible for the planning and execution of the project scopes of work. He excels in preparing a sound plan and putting the right team members in place to execute.

PROJECT MANAGER, New Exchequer Dam: \$2.5M, June 2012 - October 2012

PROJECT MANAGER, Kuhio Highway Slope Stabilization - Vicinity of Hanalei Bridge: \$3.9M, July 2012 - October 2012

PROJECT MANAGER, US 12, Vicinity of Clear Creek Falls and Rimrock Tunnel: \$1.9M, June 2012 - October 2012

PROJECT MANAGER, Gilboa Dam: \$1.9M, June 2011 - July 2012

PROJECT MANAGER, Dix Dam Rock Stabilization Phase II: \$1.3M, November 2010 - February 2011

PROJECT MANAGER, Gwynedd Cut Slope Stabilization Project: \$4.25M, October 2009 - March 2010

PROJECT MANAGER, Slide North of Georgetown Lake: \$1.16M,

PROJECT MANAGER, Lakeside/Libby Rockfall near Libby, MT: \$855,000

# APPENDIX B - LEGAL DOCUMENTS



SR 140 FERGUSON  
SLIDE



## Appendix B

Kiewit Infrastructure West Co. (Kiewit) is a Delaware corporation and a subsidiary of Kiewit Infrastructure Group.

Kiewit possess all of the capabilities and personnel resources to successfully execute the Ferguson Slide Permanent Restoration project without the assistance of any joint venture partners. Kiewit will therefore be the sole major participant. Therefore, we have no organizational or joint venture documents to submit under this tab.



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

One Tower Square  
Hartford, CT 06183

January 21, 2014

California Department of Transportation  
Division of Procurements and Contracts  
1727 30<sup>th</sup> Street  
Sacramento, CA 95816-7006

RE: Solicitation: 10-0P9201  
State Route 140 Ferguson Slide Permanent Restoration Project  
Kiewit Infrastructure West Co.

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 \$8 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

Lisa Buller  
Attorney-in-Fact

(Seal)



STATE OF NEBRASKA

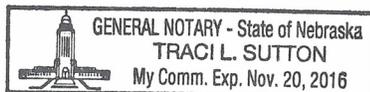
COUNTY OF DOUGLAS

I, Traci L. Sutton a Notary Public in and for said County and State, do hereby certify that

Lisa Buller Attorney-in-Fact of Travelers Casualty and Surety Company of America, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me, and acknowledged that she signed, sealed and delivered a said instrument, for and on behalf of Travelers Casualty and Surety Company of America for the uses and purposes therein set forth.

Given under my hand and notarial seal, the 21st day of

January A.D., 2014.



Traci L. Sutton  
Traci L Sutton, Notary Public



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. 225764

Certificate No. 005471056

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, Terry K. Bartel, Tammy Pike, Paul A. Foss, Lisa Buller, Marie Huggins, and Traci Sutton

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 2nd day of May, 2013.

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 2nd day of May, 2013, 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, 2016.



[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, 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 21st day of January, 20 14.

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

  
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.