GRANITE

ELECTRONIC

Statement of Qualifications

State Route 99 Realignment
Construction Manager/General Contractor Services
Contract No. 06-2HT101

Prepared for: State of California, Department of Transportation
Prepared by: Granite Construction Company

November 19, 2013

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Form A
TRANSMITTAL LETTER

SOQ Date: November 19, 2013

California Department of Transportation

Administration

Division of Procurement and Contracts

1727 30th Street

Sacramento, CA 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 November 19, 2013 (as amended, the "RFQ"), issued by California Department of Transportation ("Department") to provide preconstruction services and construct the related facilities within the State Route 99 Realignment, 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:

Granite Construction Company acknowledges: Addendum One (1) issued on 11/14/13 and Addendum Two (2) issued on 11/14/13 as viewed on BidSync with access via Caltrans website.

Granite Construction Company also acknowledges the following Addenda and Q&A which are shown on BidSync by direct access to the BidSync website: Addendum One (1) issued 10/08/13, Addendum Two (2) issued 10/23/13, Addendum Three (3) issued 10/28/13, Addendum Four (4) issued 10/29/13, Addendum Five (5) issued 10/30/13, Addendum Six (6) issued 10/30/13, Question and Answers for Contract #06-2HT101 - State Route 99 Realignment (Questions submitted continuously through 10/23/13, last answered on 10/30/13)

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:

2716	Granite Court		
(No.)	(Street)		(Floor or Suite)
Fresno,	CA	93706	
(City)	(State or Province)	(ZIP or Postal Code)	(Country)

State or Country of Incorporation/Formation/Organization: California

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

Granite Construction Company

By: Martin P. Matheson

Print Name: Martin P. Matheson

Title: Sr. V.P. & CA Group Manager

2. Sample signature block for partnership or joint venture:

[Insert Proposer's name]

By: *[Insert general partner's or equity member's name]*

By: _____

Print Name: _____

Title: _____

[Add signatures of additional general partners or equity members as appropriate]

3. Sample signature block for attorney in fact:

[Insert Proposer's name]

By: _____

Print Name: _____

Attorney in Fact

See Attached California All-Purpose Acknowledgment

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

WITNESS my hand and official seal.

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.

ACKNOWLEDGMENT

State of California
County of Sacramento)

On November 19, 2013 before me, Kelly Rinehart
(insert name and title of the officer)

personally appeared Martin P. Matheson, Sr. V.P. & CA Group Manager,
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.

KELLY RINEHART
Commission # 2041839
Notary Public - California
Sacramento County
My Comm. Expires Oct 15, 2017

WITNESS my hand and official seal.

Signature Kelly Rinehart (Seal)
Kelly Rinehart

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 Sacramento)

I, (printed name) Martin P. Matheson, being first duly sworn, state that I am the (title) Sr. V.P. & CA Group Manager 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 State Route 99 Realignment 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.

Martin P. Matheson
(Signature)

Martin P. Matheson
(Name Printed)

See Attached California All-Purpose Acknowledgment

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

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

WITNESS my hand and official seal.

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.

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).

ACKNOWLEDGMENT

State of California
County of Sacramento)

On November 19, 2013 before me, Kelly Rinehart
(insert name and title of the officer)

personally appeared Martin P. Matheson, Sr. V.P. & CA Group Manager,
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.

KELLY RINEHART
Commission # 2041839
Notary Public - California
Sacramento County
My Comm. Expires Oct 15, 2017

WITNESS my hand and official seal.

Signature Kelly Rinehart (Seal)
Kelly Rinehart

GRANITE™

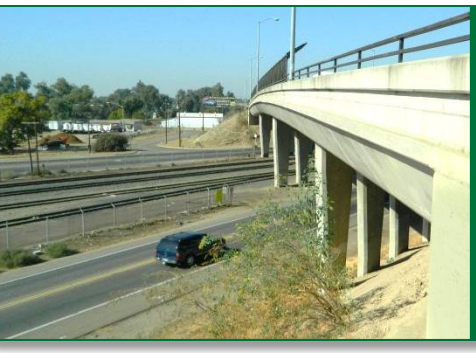
Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Section 1

LEGAL STRUCTURE

Ashlan Avenue Overcrossing over Weber Avenue, UPRR, and Golden State Blvd.

SECTION 1



Proposer:

Granite Construction Company

LEGAL STRUCTURE

Stable . Viable . Accountable

BENEFITS

As the sole Major Participant, Granite offers:

- Singular Accountability
- "Best Value" Approach
- Local, Stable Presence
- Proven CM/GC Systems and Processes
- Greater Flexibility for SB and Subcontractor Pricing and Participation

Introduction: Granite Construction Company (Granite) was founded in 1922 and is one of the nation's largest, heavy civil contractors and construction materials producers with a demonstrated annual bonding capacity of $5B. Headquartered in Watsonville, California, and having executed over $2.6B in transportation infrastructure contracts with the California Department of Transportation (Caltrans) within the past decade, we consider Caltrans to be our highest priority client. Our organization and legal structure, shown in Table 1.1, and **our 90+ year history working in and for the State of California** demonstrates our commitment and ability to remain stable and viable for the duration of the State Route 99 Realignment Project (SR99 Project) and be contractually bound to Caltrans.

In the last 15 years, Granite has delivered over $3.7B in CM/GC and similar type contracts and has the legal capability to carry out all project responsibilities. As a licensed heavy-civil contractor in the state of California and one of the largest bridge builders in the country, the SR99 Project is well-suited to our capabilities in size, scope and procurement methodology; allowing us to serve as the sole Major Participant for the Project. **This ensures Caltrans will receive a true "Best Value" approach.** Since we are not locked in to any particular partner or subcontractor, we have the flexibility to obtain the best prices and appropriate Small Business (SB) and subcontractor resources at the right time; based on the projects' ultimate design. This will be especially critical due to the coordination and demand of the adjacent High Speed Rail contract.

Table 1.1: Legal Structure — *Single Entity to Provide Best Value*

Company Name/CA License #	**Granite Construction Company/#89**
Local Business Address	**2716 Granite Court, Fresno, CA 93706**
Year Established	**1922**
State of Incorporation	**California**
Type of Ownership/Legal Entity	**Corporation**
Name/Address of Parent Company	**Granite Construction Incorporated 585 West Beach Street, Watsonville, CA 95077**

Enclosed herein are **Form E, Proposer's Organization Information**; and **Form F, Proposer's Small Business Project Goal and Community Benefits Declaration Affidavit**. Referenced organizational documents are included in Appendix B.

Form E
PROPOSER'S ORGANIZATION INFORMATION

Name of Proposer: Granite Construction Company

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

Proposer (Individual Firm / Joint Venture / Partnership / LLC)
Name of Entity: Granite Construction Company Address: 585 West Beach Street, Watsonville, CA 95077 Contact Name: Martin P. Matheson Title: Sr. V.P. & CA Group Manager Telephone No.: (831) 724-1011 Fax No.: (831) 722-9657 E-mail: pete.matheson@gcinc.com
Local / Regional Contact
Name: Michael Tatusko, V.P. Valley Region Address: 2716 Granite Court, Fresno, CA 93706 Telephone No.: (559) 441-5700 Fax No.: (559) 441-5791 E-mail: michael.tatusko@gcinc.com

Form F

PROPOSER'S SMALL BUSINESS PROJECT GOAL AND COMMUNITY BENEFITS DECLARATION AFFIDAVIT

Name of Proposer: Granite Construction Company

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) has established a proposed Small Business goal of 30 % based on the total project value for this CMGC Project. This affidavit further serves to confirm that **Granite Construction Company** will aggressively exercise good faith efforts to the satisfaction of Department to meet the proposed Small Business goal in accordance with Authority's Small and Disadvantaged Business Enterprise Policy and requirements defined in the Construction Contract documents, when issued. Proposer acknowledges that it will comply with the Authority's Community Benefits Policy and related requirements defined in the Construction Contract when issued.

STATE OF California)

COUNTY OF Sacramento)

Each of the undersigned, being first duly sworn, deposes and says that Martin P. Matheson
(Contact Name)

is the Sr. V.P. & CA Group Manager of Granite Construction Company and ----------is the ----------
(Title) (Company) (Contact Name) (Title)

of ---------- _____, which entity(ies) are the ---------- _____
(Company) (Joint Venture/Partnership, Other)

of ---------- _____, the entity making the foregoing Statement of Qualification.
(Joint Venture Company)

The Proposer hereby affirms that it will either meet the ~~DBE~~ **Small Business** 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)	(Signature)
Martin P. Matheson	
(Name Printed)	(Name Printed)
Sr. V.P. & CA Group Manager	
(Title)	(Title)

See Attached California Jurat

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Public in and for said County and State

[Seal]

My commission expires: _____.

[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.]

JURAT

STATE OF CALIFORNIA }
}
COUNTY OF Sacramento }

Subscribed and sworn to (or affirmed) before me on

this 19th day of November, 20 13.

by Martin P. Matheson, Sr. V.P. & CA Group Manager

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

KELLY RINEHART
Commission # 2041839
Notary Public - California
Sacramento County
My Comm. Expires Oct 15, 2017

By: Kelly Rinehart (Seal)
Signature of Notary Public

Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Section 2

FINANCIAL CAPACITY

Ashlan Avenue Overcrossing at Marty Avenue

SECTION 2

$450M
Single Project Bonding Capacity

FINANCIAL CAPACITY

Strong . Stable . Insurable

BENEFITS

- Established Financial Strength and Stability
- Local Qualified and Available Resources
- Large, Local and California Air Quality Compliant Construction Equipment Fleet
- Granite-Owned Asphalt and Aggregate Plant Assets
- Ability to Support SB and Subcontractor Financial Needs

Introduction: Granite possesses the financial capacity to enter into a contract with the Department and the resources to successfully complete the SR99 Project by the end of 2017. **We maintain an overall bonding capacity of $5.0B and a capability of bonding any single project up to $450M.**

Our significant public sector contract experience is derived from successfully completing over $25B in projects in the last 15 years, ranging from minor service agreements to larger alternate delivery projects such as CM/GC and Design-Build. Our contract backlog is approximately $2.8B and represents 25% of our overall capacity over the next four years of the SR99 Project contract duration. Publically traded since 1990 (NYSE symbol GVA), our website includes detailed information regarding our corporate structure and current financial information on the company, www.graniteconstruction.com.

Granite has one of the largest contractor-owned heavy construction equipment fleets in the United States. We believe ownership of these assets enables us to deliver more effectively by ensuring the availability of this equipment to our customers. The replacement value of our equipment fleet exceeds $650M and includes over 2,000 pieces of heavy construction equipment. Our local portfolio of emission compliant heavy equipment includes excavators, loaders, bulldozers, rollers, motor graders, pavers, scrapers, cranes, trucks and backhoes. In addition, Granite has the ability to draw certain specialty equipment from a pool of resources around the country. This large, local presence ensures we can meet the demands of this project.

Our established financial capacity also enables us to support local small and disadvantaged businesses when required. We understand that cash flow is critical to the viability of these businesses and we have worked individually with SB owners to help remove financial barriers to their participation in state and federally funded contracts.

Enclosed herein is a **Surety Letter** verifying our ability to secure the required Performance and Payment Bonds as well as **Written Evidence** indicating our ability to obtain the following types of insurance: Commercial General Liability, Auto Liability, Workers' Compensation/Employers Liability and Pollution Liability.

CHUBB GROUP OF INSURANCE COMPANIES
3 Mountain View Road, Warren, NJ 07059

October 21, 2013

California Department of Transportation
Division of Procurements and Contracts
1727 30th Street
Sacramento, CA 95816

Re: State Route 99 Realignment, Contract No. 06-2HT101

To whom it may concern:

The undersigned surety companies are pleased to execute contract bonds for Granite Construction Company ("Granite"). Granite has been provided with bonds for bid, performance, and payment since 1926. During that time, individual bonds have been underwritten in excess of $450,000,000, while an aggregate work program well above that amount has been supported.

The aggregate bonding capacity is $5,000,000,000. Currently, Granite has available bonding capacity in excess of $2,800,000,000. Granite is capable of obtaining 100% performance and payment bonds each in the amount of the estimated construction price, $100,000,000, subject to acceptable contract terms, contract conditions, bond forms, and underwriting conditions at the time the bonds are requested.

We have the utmost confidence in the integrity and ability of Granite Construction Company and consider them to be one of the premier construction companies in the United States. We are pleased to give them our highest recommendation.

Sincerely,

FEDERAL INSURANCE COMPANY, A.M. Best Rating: A++ XV
TRAVELERS CASUALTY and SURETY COMPANY of AMERICA, A.M. Best Rating: A+ XV
ZURICH AMERICAN INSURANCE COMPANY, A.M. Best Rating: A+ XV

Lillian Tse
Attorney in Fact

ACKNOWLEDGMENT

State of California
County of Santa Cruz)

On October 21, 2013 before me, Ashley Stinson, Notary Public
(insert name and title of the officer)

personally appeared Lillian Tse,
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.

ASHLEY STINSON
Commission # 1947513
Notary Public - California
Santa Cruz County
My Comm. Expires Sep 7, 2015

Signature _____ **(Seal)**
Ashley Stinson, Notary Public

Chubb Surety	POWER OF ATTORNEY	Federal Insurance Company Vigilant Insurance Company Pacific Indemnity Company	Attn: Surety Department 15 Mountain View Road Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint **Jigisha Desai, John D. Gilliland, Catherine Gustavson, Cynthia P. Johnson, Kathleen Schreckengost, Ashley Stinson and Lillian Tse of Watsonville, California**----------

each as their true and lawful Attorney- in- Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business on behalf of Granite Construction Incorporated and all Subsidiaries alone or in joint venture----------
in connection with bids, proposals or contracts to or with the United States of America, any State or political subdivision thereof or any person, firm or corporation. And the execution of such bond or obligation by such Attorney- in- Fact in the Company's name and on its behalf as surety thereon or otherwise, under its corporate seal, in pursuance of the authority hereby conferred shall, upon delivery thereof, be valid and binding upon the Company.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this **10th** day of **April, 2013.**

Dawn M. Chloros, Assistant Secretary

David B. Norris, Jr., Vice President

STATE OF NEW JERSEY

ss.

County of Somerset

On this **10th** day of **April, 2013** before me, a Notary Public of New Jersey, personally came Dawn M. Chloros, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By- Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By- Laws and in deponent's presence.

Notarial Seal

KATHERINE J. ADELAAR
NOTARY PUBLIC OF NEW JERSEY
No 2316685
Commission Expires July 16, 2014

Notary Public

CERTIFICATION

Extract from the By- Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, 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 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 upon the Company with respect to any bond or undertaking to which it is attached."

I, Dawn M. Chloros, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

(i) the foregoing extract of the By- Laws of the Companies is true and correct,
(ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
(iii) the foregoing Power of Attorney is true, correct and in full force and effect

Given under my hand and seals of said Companies at Warren, NJ this **October 21, 2013**

Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@ chubb.com

November 18, 2013

California Department of Transportation
Division of Procurements and Contracts
1727 30th Street
Sacramento, CA 95816

RE: General Contractor Services
Project: State Route 99 Realignment, Contract No. 06-2HT101
Granite Construction Company
Insurance Requirements

To Whom It May Concern:

This letter declares that Granite Construction Company, if awarded the contract, can and will provide the Commission with the required insurance as detailed in Section 1.15.2 and financial capacity as detailed in section 3.3 of Contract No. 06-2HT101 for the above referenced project. This is to include the following types of insurance: Commercial General Liability, Automobile Liability, Workers' Compensation, Excess Liability Insurance and Pollution coverages with at least the minimum limits required by contract. Please see the attached certificate as reference..

Coverages are subject to the policy terms, conditions and exclusions. CNA/Valley Forge Insurance Companies are the carriers for Granite Construction Company for all above-mentioned coverages other than pollution. CNA/Valley Forge are both licensed to do business in the State of California and have Best's ratings of A XV respectively. Zurich/Steadfast Insurance Company is the carrier for Granite Construction Company for the pollution coverage. Zurich/Steadfast are both licensed to do business in the State of California and have Best's ratings of A+ XV.

Please do not hesitate to contact us if you need any further information in regards to this insured.

Sincerely,

Catherine Gustavson, CRIS
Sr. Vice President
1418 S. Main Street, Suite 104
Salinas, CA 93908
831-775-4798
kate.gustavson@aon.com

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/18/2013

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 LIC #0G62759 1-415-486-7000
Aon Risk Insurance Services West, Inc.
199 Fremont Street, Suite 1500
San Francisco, CA 94105

CONTACT NAME:
PHONE (A/C, No, Ext): FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : VALLEY FORGE INS CO	20508
INSURER B : CONTINENTAL CAS CO	20443
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Granite Construction Company
PO Box 50085
Watsonville, CA 95077

COVERAGES **CERTIFICATE NUMBER:** 36988495 **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			GL 2074978689	10/01/12	10/01/15	EACH OCCURRENCE	$ 2,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 2,000,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$ NIL
	X Contractual Liability						PERSONAL & ADV INJURY	$ 2,000,000
	X XCU Hazards						GENERAL AGGREGATE	$ 10,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
	POLICY PRO-JECT LOC							$
A	AUTOMOBILE LIABILITY			BUA 2074978692*	10/01/12	10/01/15	COMBINED SINGLE LIMIT (Ea accident)	$ 2,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
	X Contractual							$
B	X UMBRELLA LIAB X OCCUR			L2068209453	10/01/13	10/01/14	EACH OCCURRENCE	$ 5,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 9,000,000
	DED RETENTION $						Follow Form	$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WC 274978630 (CA)	10/01/12	10/01/15	X WC STATU-TORY LIMITS / OTH-ER	
A	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WC 274978644 (AOS)	10/01/12	10/01/15	E.L. EACH ACCIDENT	$ 2,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
JOB# 900000 FOR BIDDING PURPOSES ONLY ON CONTRACT NO. 06-2HT101 SR99 Realignment

CERTIFICATE HOLDER

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
ADMINISTRATION DIVISION OF PROCUREMENT AND CONTRACTS
1727 30TH STREET
SACRAMENTO, CA 95816-7006
USA

CANCELLATION

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

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/18/2013

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 LIC #0G62759 1-415-486-7000
Aon Risk Insurance Services West, Inc.

199 Fremont Street, Suite 1500

San Francisco, CA 94105

CONTACT NAME:
PHONE (A/C, No, Ext): FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: STEADFAST INS CO	26387
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Granite Construction Company

PO Box 50085

Watsonville, CA 95077

COVERAGES **CERTIFICATE NUMBER:** 36989052 **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	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	CLAIMS-MADE / OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC						PRODUCTS - COMP/OP AGG	$
								$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						WC STATUTORY LIMITS / OTHER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	POLLUTION			EOC5087922-09	10/01/13	10/01/14	SEE LIMITS BELOW	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
JOB# 900000 FOR BIDDING PURPOSES ONLY ON CONTRACT NO. 06-2HT101 SR99 Realignment

Each Incident: $15,000,000 and Aggregate: $30,000,000

CERTIFICATE HOLDER

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
ADMINISTRATION DIVISION OF PROCUREMENT AND CONTRACTS

1727 30TH STREET

SACRAMENTO, CA 95816-7006

USA

CANCELLATION

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

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TRAVELERS

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. **226331**

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, 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 ***John D. Gilliland, Jigisha Desai, Cynthia P. Johnson, Kathleen Schreckengost, Catherine Gustavson, Ashley Stinson, and Lillian Tse*** of the City of **Watsonville**, State of **California**, 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.

This Power of Attorney is limited to bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof for Granite Construction Incorporated and all subsidiaries and affiliates, alone or in joint venture.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 14th day of March, 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: _____
Robert L. Raney, Senior Vice President

On this the 14th day of March, 2013, before me personally appeared George W. Thompson, 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.

Marie C. Tetreault
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, Kori M. Johanson, 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 **October 21, 2013**

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. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **Geoffrey Delisio, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Jigisha DESAI, Catherine GUSTAVSON, Cynthia P. JOHNSON, Kathleen SCHRECKENGOST, John D. GILLILAND, Ashley STINSON and Lillian TSE**, each its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings, issued on behalf of Granite Construction Incorporated, Watsonville, California and all subsidiaries alone or in a joint venture** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this **1st** day of **March**, A.D. **2013**.

By: _____
Vice President – Geoffrey Delisio

By: _____
Assistant Secretary – Gerald F. Haley

State of Maryland
County of Baltimore

On this **1st** day of **March**, A.D. **2013**, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Geoffrey Delisio, Vice President and Gerald F. Haley, Assistant Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

By: _____
Constance A. Dunn - *Notary Public*
My Commission Expires: July 14, 2015

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,

This **October 21, 2013**

Thomas O. McClellan, Vice President

State of California
Secretary of State

CERTIFICATE OF STATUS

ENTITY NAME:

GRANITE CONSTRUCTION COMPANY

FILE NUMBER:	C0097484
FORMATION DATE:	01/04/1922
TYPE:	DOMESTIC CORPORATION
JURISDICTION:	CALIFORNIA
STATUS:	ACTIVE (GOOD STANDING)

I, DEBRA BOWEN, Secretary of State of the State of California, hereby certify:

The records of this office indicate the entity is authorized to exercise all of its powers, rights and privileges in the State of California.

No information is available from this office regarding the financial condition, business activities or practices of the entity.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of October 15, 2013.

DEBRA BOWEN
Secretary of State

MMS

NP-25 (REV 1/2007)

Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Section 3

SAFETY PROGRAM

Proposed HSR Alignment, and UPRR Fresno Yard north of Clinton Avenue

SECTION 3

"Make it Personal
Take it Personal"

SAFETY PROGRAM

Established . Cultural . Exemplary

BENEFITS

- Award-Winning Safety Program
- Company Record Exceeds Industry Standards
- Embedded as Part of Our Culture
- Personal Responsibility and Accountability
- Subcontractor Prequalification and Training
- Fresno Construction Operation has **Zero Recordable Injuries** over the Past 2 Years

At Granite, safety is not something we do in addition to the work – **IT IS HOW WE DO THE WORK.** Prevention of accidents is both a moral obligation and good business. The company's safety culture is based on the belief that every working person is entitled to a safe and healthy place to work. The responsibility for the health and safety of Granite's employees goes far beyond compliance with federal and state regulatory requirements. The company recognizes that the protection of its employees, property, the public and the environment are essential to the efficient and successful completion of every construction project we undertake.

Granite's established **Accident Prevention Program** includes formal safety training, inspections, audits, and a formalized system of reporting. All personnel are trained to identify and correct unsafe conditions and unsafe work practices. Our commitment to the health and the safety of our work force is demonstrated by our better than industry standard safety statistics shown in Table 3.1. Our experience modification rate is less than 1.0, and our average total recordable injury/illness rate and average lost work rate do not exceed applicable statistical standards. This is a result of Granite's focus on safety as an ethical and moral responsibility.

Table 3.1: Safety Record

GRANITE	2010	2011	2012
Experience Modification Rate/ Worker's Compensation History	.72	.73	.71
OSHA Recordable Incident Rate	2.2	1.7	1.5
Average Lost Work Rate	0.7	0.5	0.5
Total Man-Hours Worked (millions)	5.8	5.0	6.4

Granite is a strong proponent of partnering and has worked diligently to establish alternative methods of dispute resolution and issue prevention through its working relationships with all stakeholders. **Granite is party to collective bargaining agreements that provide for alternative dispute resolution for matters relating to employment as provided for in Labor Code Sec. 3201.5.**

Over the past five (5) years, Granite has not received any citations or been assessed any penalties for any serious, willful or repeat violations of California's occupational safety and health regulations. On July 11, 2011 we did receive one (1) Federal Occupational Safety and Health Administration (FOSHA) citation on the US 82 Project in Mississippi and were assessed the following penalties: 1926.1501 (a)(i) "serious" $5,500 for "Employer did not comply with manufacturer's Specs", 1926.1501(f)(i)(iv), "serious" $5,500 for "Mobile cranes on barges were not positively secured".

Granite has been building safe projects in California for over 90 years. Our safety record is one of the best in the heavy civil construction industry, and we will bring our award-winning safety program to the SR99 Project. Our safety goal for the Project is zero injuries, while simultaneously avoiding equipment and third party property damage or environmental incidents. For work performed by subcontractors we employ a rigorous selection process on qualification, capabilities, and most importantly their culture with respect to safety and quality. In circumstances where subcontractors are utilized, Granite considers these specialists as "our own" and we hold them to our high quality, performance, and safety standards.

Recent Safety Awards

- 2012 American Road & Transportation Builders Association
  Safety Excellence Working Over One Million Hours
- 2012 California Highway Patrol
  Certificate of Achievement for Satisfactory Terminal Inspections
- 2011 Associated General Contractors of California
  2nd, Safety Award of Excellence Working Over One Million Hours
- 2011 American Road & Transportation Builders Association
  Safety Excellence Working Over One Million Hours
- 2011 California Highway Patrol
  Certificate of Achievement for Satisfactory Terminal Inspections
- 2010 Associated General Contractors of California
  Safety Award of Excellence Working Over One Million Hours
- 2010 American Road & Transportation Builders Association
  Safety Excellence Working Over One Million Hours
- 2009 Associated General Contractors of California
  Safety Award of Excellence Working Over One Million Hours

Worker Safety Program Summary

Granite has a comprehensive Accident Prevention Program (APP) that is continually being revised and updated to meet our goals, rigorous regulatory requirements and to incorporate the practices and procedures that improve employee safety and health. The primary function of our APP is as a ready reference for our frontline managers, supervisors, and subcontractors. Using our program this way ensures more than just regulatory compliance, it helps us prevent accidents and successfully complete our work leading to Granite winning numerous safety awards across all areas of our industry.

As an example of Granite's commitment to providing a safe workplace, our Corporate APP specifically addresses the following areas:

- Subcontractor Safety Prequalification
- New Hire Orientations
- Site and Activity Specific Employee Training and Induction
- Pre-Operational Inspections
- Position & Activity Hazard Analysis (PHA & AHA)
- Daily Jobsite Inspections

Safety During Preconstruction Services

Creating and executing an incident-free project starts long before the ground breaking. The CM/GC process allows the design team to collaborate with the contractor to discuss safety issues of specific elements to incorporate into the specific Project Safety Plan. To execute an effective safety program, Granite will work with Caltrans during the preconstruction phase to ensure that safety is considered in the design and work plans. Reviews will include the following: anticipated shoring techniques for footings and utility trenching; size, location, and swing path of cranes; hoisting patterns; incorporating K-rail or other positive barriers between work and travel zones; and review of work related to the UPRR ROW.

Project Specific Safety

While the APP may define our safety culture at Granite, its execution is the key to our success. It specifically describes how we will provide protection to prevent damage, injury, or loss to our project employees, subconsultants, subcontractors and other persons who are on the project site and will minimize lost or restricted workdays due to injuries. Granite's fundamental safety goal is to complete the Project with zero accidents or injuries to our own crews, to our subcontractors, Caltrans staff, and the traveling public. In addition, our goal is to have zero equipment and third party damage claims. To accomplish this, our local Safety Manager, Jeremiah Merritt will assist our project management team and frontline supervisors in the daily administration of Granite's APP.

Jeremiah brings over 13 years of experience and has successfully administered Granite's APP on Caltrans projects, including the I-80 Reconstruct Colfax, I-5 Elk Grove Rehab and SR99 Realignment and HOV lanes in Atwater. His involvement in ensuring that our safety goals and expectations are met on these and other projects have contributed to the continuous improvement we have seen in our safety performance. Jeremiah will work with the Project Team to create a Project Specific Plan for the SR99 Project.

Specific attention will be given to:

- Traffic Handling – Traffic Control
- Demolition Activities
- Crane Operation
- Rigging
- Shoring-Support of Excavation
- Working near/above Active Heavy Rail Lines
- Trenching/Underground
- Hazardous Material Abatement
- Fall Protection
- Third Party Training
- Site Security

Pre-Pour Inspection

The execution of our safety efforts on the SR99 Project will be compliant with both Granite's fundamental safety goals and the requirements of Caltrans. In addition to administering the APP, Jeremiah will direct, lead and train our supervisory staff to use the following activities to ensure safety is our highest priority.

- **STOP Training:** We use our effective Safety Training Observation Program (STOP) to help supervisors improve their observation and communications skills. The STOP process uses a preprinted checklist to remind supervisors of the areas of interest that should be observed during their daily inspection for Granite and subcontractors.

- **Tailgate Safety Meetings:** Crews will start every week with a Tailgate Safety Meeting. These meetings are an in-depth discussion between crew members and subcontractors regarding specific safety topics applicable to that week's work. The focus of these meetings is to prevent future events that may occur due to working around exposure areas and/or hazards.

- **Daily 'Take-Five':** Granite crews and subcontractors will start each shift with a Take Five meeting to discuss that day's work, any associated safety hazards, any recent near-misses, and the expected productions for the day. During the Take Five, each crew member will participate in a brief Stretch-and-Flex series of exercises aimed at preventing strain injuries by warming up muscles and joints to achieve flexibility.

Take-Five in Progress

- **Activity Hazard Analysis:**
  A specific safety tool used to evaluate work and prevent accidents through careful planning and education of employees. Working together, our managers, superintendents, foremen, engineers, and safety manager perform a detailed analysis of every work activity. This process breaks down the work tasks to be performed, identifies the hazards associated with the task, and develops a plan to mitigate the identified hazards allowing safe execution of the work. The Activity Hazard Analysis is shared with all crews and subcontractors during Tailgate Safety Meetings and Take Five Meetings.

- **Daily Jobsite Inspections:** Supervisors perform inspections of areas of responsibility daily to identify and correct unsafe conditions or work practices as well as ensure compliance with the work plans established during that day's Take Five. These inspections also include close monitoring of all subcontracted work. Figure 3.1 on the following page is an example of Granite's Concrete and

Structures Work Area Inspection Form. This form will be filled out daily at the location for every structural component on the SR99 Project including the +/- 14 retaining walls and the bridge structures at McKinley, Ashlan and Clinton.

Figure 3.1: Inspection Form

GRANITE Safety

Form
Appendix F-7 - Concrete and Structures Work Area Inspection

Date:	Foreman:	Job Name:	Job #:

I have identified with a check mark the work areas I inspected. The areas that needed attention or may have resulted in an unsafe condition have been addressed:

FIRST AID & MEDICAL SERVICES
- ☐ Location of nearest hospital
- ☐ First Aid kit available

SANITATION
- ☐ Hand washing facilities available
- ☐ Drinking water provided
- ☐ Non-potable water posted
- ☐ Toilet facilities clean & available

HOUSEKEEPING
- ☐ Storerooms clean & orderly
- ☐ Haul roads clear & established
- ☐ Material storage off roadway
- ☐ Work area clean and orderly
- ☐ _____

PERSONAL PROTECTIVE EQUIP
- ☐ Eye/Face protection available
- ☐ Ear protection available
- ☐ Hand protection available
- ☐ Fall protection available
- ☐ Head protection available
- ☐ Foot protection available
- ☐ Respiratory protection available

FIRE PREVENTION & PROTECTION
- ☐ Extinguishers inspected monthly
- ☐ Extinguishers rated at least 2A 10BC
- ☐ Flammables near ignition source
- ☐ Combustibles near ignition source
- ☐ Flammables in approved containers

CONSTRUCTION EQUIPMENT
- ☐ Daily inspections performed
- ☐ Cab Glass free of distortion/broken
- ☐ Ground engaging tools lowered
- ☐ Seat Belts available
- ☐ Haul patterns established
- ☐ Lighting for night work
- ☐ Equipment provided with ROPS
- ☐ Equipment with Back-up alarms
- ☐ 20' Clearance from power lines
- ☐ Safety devices in place prior to work
- ☐ Mobile equipment unattended
- ☐ Tools & equip secured in transport
- ☐ Impalement prevention & protection

TRAFFIC CONTROL
- ☐ Proper devices available
- ☐ Sufficient size & number of devices
- ☐ Personnel available for monitoring
- ☐ Set up according to plan/MUTCD
- ☐ Inspection logs/reports
- ☐ Only trained flaggers

HAND & POWER TOOLS
- ☐ No trigger locks on tools
- ☐ Blade guards in place
- ☐ Air hoses over ½" chained/secured
- ☐ Walkways free of trip hazards
- ☐ Metal parts of electric tools grounded
- ☐ Grinding wheels/discs undamaged

CRANES & RIGGING
- ☐ Operator NCCO Certified
- ☐ Rotation area appropriately guarded
- ☐ Outriggers on stable ground/pad
- ☐ No personnel under loads
- ☐ 10' clearance from 50KV electrical
- ☐ Only welded alloy chains with tags
- ☐ Chains not used for towing/pulling

ENCLOSED & CONFINED SPACES
- ☐ Type of ventilation used: _____
- ☐ Type of confined Space: _____
- ☐ Atmospheric testing tools available

Noted below are the actions I have taken to address / correct those conditions.
(Correction should always include a conversation with affected employees.)

1) _____
2) _____
3) _____
4) _____
5) _____

QUALITY
- ☐ Sampling, Testing and Inspection
- ☐ Clean Forms
- ☐ Rebar/Steel
- ☐ Vibration/Finishing
- ☐ Cylinder/Beam Storage

ENVIRONMENTAL
- ☐ Track Out
- ☐ Dust Control
- ☐ Storm Water Controls
- ☐ Concrete Wash Out Area
- ☐ Spill Kits Available

What was done today to satisfy Granite's Code of Conduct? _____
Were today's production expectations met? Yes ☐ No ☐ _____

I have observed the employees in my work area and identified, with a check mark, the safe and / or unsafe work behaviors:

PERSONAL PROTECTIVE EQUIPMENT
- ☐ Head
- ☐ Eyes & Face
- ☐ Ears
- ☐ Respiratory Systems
- ☐ Arms & Hands
- ☐ Trunk (Body)
- ☐ Legs & Feet

REACTIONS OF PEOPLE
- ☐ Adjusting Personal Protective Equip
- ☐ Changing their Position
- ☐ Rearranging their Job
- ☐ Stopping their Job
- ☐ Attaching Grounds
- ☐ Performing Lock-Outs
- ☐ _____

POSITIONS OF PEOPLE
- ☐ Striking Against Objects
- ☐ Struck by Objects
- ☐ Caught In, On or Between Objects
- ☐ Falling
- ☐ Contact with Temperature Extremes
- ☐ Contact with Electrical Current
- ☐ Inhaling a hazardous substance

POSITIONS OF PEOPLE (Continued)
- ☐ Absorbing a hazardous substance
- ☐ Swallowing a hazardous substance
- ☐ Overexertion
- ☐ Repetitive Motions
- ☐ Awkward Positions
- ☐ Static Postures
- ☐ _____

TOOLS & EQUIPMENT
- ☐ Wrong for the Job
- ☐ Used Incorrectly
- ☐ In an Unsafe Condition

PROCEDURES & ORDERLINESS
- ☐ Procedures Inadequate
- ☐ Procedures not known/followed
- ☐ Orderliness not known/followed

Noted below are the actions I have taken to reinforce the safe work behaviors and address or correct the unsafe work behaviors:
(Correction should always include a conversation with affected employees.)

1) _____
2) _____
3) _____
4) _____

Granite Management System (GMS)	Form #: S-F-020	Page 1 of 2
The printed version of this document is uncontrolled.	Effective Date: 5/1/12	Version No.: 1
The current version is stored in electronic format.	Approved: GCI Compliance Safety Mgr.	

In addition to these structured events, Granite emphasizes personal responsibility for all workers and subcontractors. All craft employees are trained on the specifics of the Safety Plan and held accountable for doing the right thing; looking out for their fellow employees, subcontractor teams, company equipment, and adjacent public or private property. Granite tracks safety trends and incidents. In response, we adjust our

use of Personal Protection Equipment (PPE) and activities to mitigate exposure. When we see an increase in eye, hand or muscle-strain incidents, we immediately check the compliance with safety glasses, gloves and daily stretching requirements in the field and take measures to proactively prevent future incidents.

We know that it takes much more than just management commitment to have successful safety outcomes. Our senior managers provide safety leadership by being actively involved in our safety systems. This involvement starts at the top with our CEO, Jim Roberts, and flows through every level of the company. Active involvement and safety leadership are so important to us that we have established measurable safety expectations (participation in safety meetings, conducting safety meetings, etc.) for all of our managers - the foreman level all the way to the CEO's office.

Granite's accident prevention efforts contribute to the value of our work because they are successful. Over the years we have reduced both the frequency and severity of accidents. This exemplary safety record is not the result of luck, some gimmick, or a magic bullet; but rather the focused leadership and dedicated effort to continuously improve our safety program. We firmly believe, and communicate to our employees, that the goal of Zero Accidents is achievable. Safety is a primary driver in all that we do. We plan each of our operations to be safe and count safety as one of the measures of our success, understanding that ultimately it's not about the numbers, but rather it's about the people who we work with every day.

Granite is a company with a strong set of core values and exceptional employees who have the knowledge, experience, integrity and commitment to safely build the infrastructure of the future. Our Core Values represent who we are. They provide, without question, the standard of behavior by which we conduct business. These values are the heart, soul, and character of Granite.

January 15, 2013

Granite Construction Company
PO Box 50085
Watsonville, CA 95077-5085

RE: NCCI Workers' Compensation

To Whom It May Concern:

The following are the current and past four years' NCCI Workers' Compensation Experience Modifications.

The modifications are currently effective October 1st for the period of one year.

2012	.71
2011	.73
2010	.72
2009	.67
2008	.62

Do not hesitate to contact us with any additional questions.

Sincerely,

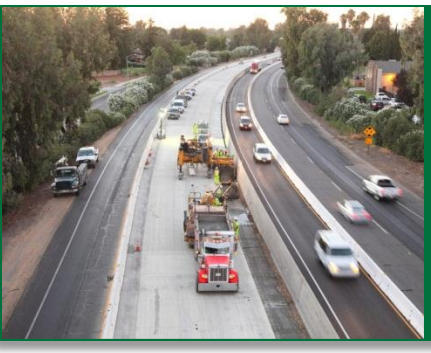
Catherine Gustavson | Sr. Vice President
Aon Risk Services | Construction Services Group
199 Fremont Street, Suite 1500, San Francisco, CA 94105
m +1.831.206.0189
kate.gustavson@aon.com | aon.com

Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Section 4

FIRM EXPERIENCE AND PAST PERFORMANCE

SR99 looking north from Clinton Avenue



90+ Year History in California

Perfect Blend of Local Caltrans Experience and Successful CM/GC Delivery

FIRM EXPERIENCE/ PAST PERFORMANCE

Exceeding Project Goals . On Time . Within Budget

ENR Engineering News-Record

New ENR 2013 Sourcebook Rankings

Granite's Rankings

- # 2 Top 20 – Highways
- # 5 Top 20 – Transportation
- # 4 Top 50 – Domestic Heavy Contractors
- #26 Top 100 – Design-Build
- #30 Top 400 – Contractors
- #21 Top 25 – Bridges (2012)

BENEFITS

- Proven CM/GC Performance
- Specialists in Creating Collaborative Cultures that Integrate Design and Construction
- Effective Partnering with Caltrans to Reduce or Eliminate Risk
- Innovative Solutions that Accelerate Construction, Reduce Cost, and Minimize Impacts to the Public
- Record of Effectively Managing Contracts to Minimize Delays and Claims

Granite is proud to have been named one of the world's most ethical companies for the 4th year in a row.

2013 WORLD'S MOST ETHICAL COMPANIES WWW.ETHISPHERE.COM

Granite's technical and management experience on similar scope projects as SR99 is derived from having successfully completed $25B in public projects in the last 15 years, including over $3.7B in CM/GC contracts. As one of the nation's largest heavy civil contractors, we focus almost exclusively on transportation infrastructure improvements; earning a particularly high reputation for delivering complex urban highway reconstruction projects ranging in size from $20M to $200M on time and within budget.

During the past five years, Granite's local Fresno office has successfully completed over 35 projects for Caltrans with a total value of over $225M. These projects include the $72M Merced Co. McHenry Road to Childs Avenue O/C (#10-363114), and the $27M Madera 99 Rehabilitation Design-Build (#06-0E0404); the first design-build contract awarded by Caltrans. We also recently prepared a technical proposal for the CAHSR Package #1. With this experience, and our 30+ years as a local contractor in the Fresno area, we have worked with many of the businesses, utilities, and agencies that will be impacted by the SR99 Project. We have outstanding working relationships with PG&E, Fresno Metropolitan Flood Control District, San Joaquin Valley Air Pollution Control District, and the City of Fresno. We have also worked closely with Union Pacific Railroad to safely complete numerous projects within the railroad right-of-way throughout the Fresno area.

Pairing our local knowledge and experience with our successful CM/GC systems and processes, offers the Department a dynamic team that brings proven local techniques and innovative designs, methods, and materials to the Project. Key areas of expertise include:

- Complex Staging and Traffic Control
- Staged and Accelerated Bridge Construction
- Design Optimization Development
- Public/Municipal Utility Relocation and Construction
- Stakeholder/Community Outreach and Coordination

Table 4.1 illustrates our extensive experience managing projects of similar size and complexity to the SR99 Project on time, within budget; exceeding the project goals.

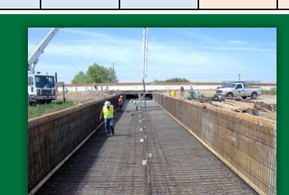
SECTION 4 — EXPERIENCE MATRIX

Table 4.1: Granite Relevant Project History – *Blend of Local and National Expertise Offers Best Value*

Caltrans: Madera 99 Rehabilitation

Project Name/Location	Contract Type	Contract Role	Contract Size	Key Project Elements Related to SR99 Project Goals: Project Delivery					Quality				Safety & Mobility			Environmental	
				On Time and Within Fixed Budget	No Liquidated Damages	Aggressive Schedule	Preconstruction Services	Coordination with other Projects/Contractors	Complex Highway Reconstruction	Staged/Accelerated Bridge Construction	Innovative Concepts/ Value Engineering	Utility Coordination and Relocation	Complex Staging and MOT Strategies	Minimized Impacts to Public, Businesses, Emergency Services	Stakeholder Coordination and Outreach	Environmental Compliance	SWPPP
• **Mountain View Corridor, UT**	**CM/GC**	**Prime**	**$245M**	•	•	•	•	•	•	•	•	•	•	•	•	•	•
• **Riverdale Road, UT**	**CM/GC**	**Prime**	**$70M**	•	•	•	•	•		•	•	•	•	•	•	•	•
• **#06-0E0404 – Caltrans: Madera 99 Rehabilitation, CA**	**DB**	**Prime**	**$27M**	•	•	•	•	•	•		•	•	•	•	•	•	•
• **I-80 Robb to Vista Drive, NV**	**DB**	**Prime**	**$81M**	•	•	•	•	•	•		•	•	•	•	•	•	•
• **I-64 Reconstruction, MO**	**DB**	**Prime**	**$438M**	•	•	•	•	•	•	•	•	•	•	•	•	•	•
I-15 / Dixie Drive Interchange, UT	CM/GC	Prime	$51M	•	•	•	•		•	•	•	•	•	•	•	•	•
I-70- Eagle Canyon, UT	CM/GC	Prime	$5M	•	•	•	•			•	•	•	•	•	•	•	•
Houston Light Rail, TX	CM/GC	Prime	$1,200M	•	•	•	•	•		•	•	•	•	•	•	•	•
San Jose Terminal Area Improvement Program, CA	CM/GC	Sub	$116M	•	•	•	•	•			•	•	•	•	•	•	•
I-15 Reconstruction, UT	DB	Prime	$1,400M	•	•	•	•	•	•	•	•	•	•	•	•	•	•
San Joaquin Hills Toll Road, CA	DB	Prime	$790M	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Inter-County Connector – Contract A, MD	DB	Prime	$478M	•	•	•	•		•	•	•	•	•	•	•	•	•
US 90 Bay St Louis Bridge Replacement, MS	DB	Prime	$284M	•	•	•	•		•	•	•	•	•	•	•	•	•
I-15 New Ogden Weber (NOW), UT	DB	Prime	$233M	•	•	•	•	•	•		•	•	•	•	•	•	•
#10-363114 – Caltrans: Merced Co., McHenry Road to Childs Avenue O/C, CA	BB	Prime	$72M	•	•	•			•	•	•	•		•	•	•	•
#03-1A8014 – Caltrans: Placer Co., Magra Overhead to Carpenter Flat U/C, CA	BB	Prime	$69M	•	•	•		•	•	•		•		•		•	•
#03-3E0404 – Caltrans: Placer Co., Route 174/80 Separation to Alta Road U/C, CA	BB	Prime	$46M	•	•	•		•	•	•	•	•	•	•	•	•	•
#03-1A5304 – Caltrans: Nevada Co. Line to Oak Canyon Drive, CA	BB	Prime	$33M	•	•	•		•	•	•	•	•	•	•	•	•	•
#04-3A3004 – Caltrans: Solano Co., Pedrick Road O/C to Yolo County Line, CA	BB	Prime	$12M	•	•	•		•	•	•	•	•	•	•	•	•	•
#03-3822V4 – Caltrans: Butte Co., Route 70, Campbell Creek Bridge to Route 191; Route 99 Dry Creek Bridge to Durham Pentz I/C; Route 149 to Route 99, CA	BB	Prime	$81M	•	•	•		•	•	•		•	•	•	•	•	•

On the #10-363114: Merced County project, Granite earned the maximum allowable bonus for meeting a construction milestone that many stakeholders considered to be unobtainable. Overcoming one of the wettest California winters in recent history, Granite accelerated construction by tripling its estimated daily production for imported borrow and modifying its bridge construction plans. Those efforts cut three months out of the construction schedule and allowed Granite to move traffic to the new freeway alignment before the fixed milestone date.



- • **Denotes Granite Projects highlighted on Form B**
- **Award-Winning Project**

Form B: PROJECT DESCRIPTION

Mountain View Corridor CM/GC, Salt Lake County, Utah

Name of Proposer: **Granite Construction Company**

Name of Firm: **Granite Construction Company**

Project Role: **CM/GC Management**

Principal Participant: **Granite Construction Company** Designer: H.W. Lochner

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

Roads/Streets: **90 years** Bridges/Structures: **90 years** Utility Relocations: **90 years**

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

Mountain View Corridor CM/GC, Salt Lake County, Utah

Granite, as the JV managing partner was responsible for preconstruction services and construction delivery of this $245M, 15-mile signalized highway project.

Highlights/Scoring Criteria

- Similar urban complexity and scope to SR99 Project
- Completed within budget
- Critical sections open 7 months ahead of schedule
- No claims on the Project
- Successful co-located integration with UDOT and design team
- Significant innovative solutions; over $31M in savings

Provide Project Description and Describe Site Conditions:

Scope Elements Similar to SR99 Project:

- ✓ CM/GC Delivery Method
- ✓ Preconstruction Services
- ✓ Highway Construction – Major Urban Corridor
- ✓ Multiple Bridge Construction
- ✓ City Street Construction/Reconstruction
- ✓ ROW Coordination
- ✓ Utility Coordination/Relocation
- ✓ Community Outreach
- ✓ Environmental Permit Compliance
- ✓ Concrete Paving
- ✓ Extensive Project Phasing

Construction of projects of similar size, scope, and complexity;

This $245 million, 15-mile, new signalized highway project included earthwork, utilities, walls, nine miles of asphalt and six miles of concrete paving, 10 new bridges, drainage (pipe and small structures), traffic signals and lighting, reconstruction of local cross streets and an ITS system. The Granite Team joined the project at a point when design was approximately 10% complete, no utility agreements had been executed, and only a handful of more than 300 right-of-way parcels had been acquired. The initial substantial completion date for opening was December 31, 2012, but the project was completed early and opened through phased openings beginning in June 2012, and completely opened in early December 2012.

Preconstruction Services: Granite was the JV managing partner and provided preconstruction services, coordinating the inputs of a range of stakeholder contributors and integrating their ideas into the final project design. Granite's preconstruction services team coordinated value engineering and other critical design reviews

on which the quality manager performed a predetermined series of quality reviews to ensure compliance with contract specifications. **Preconstruction services included design validation, bridge type selection, input on design package timing and scope, constructability reviews, feasibility studies, staging/phasing analysis, assistance in ROW acquisition, cost estimating design alternatives and developing schedules to determine their approach feasibility.** Granite also used our CM/GC processes to provide open book cost estimates, risk analysis, and environmental compliance checks.

Construction Services: As the general contractor, Granite self-performed 77% of the scope of work and managed more than 20 first-tier subcontractors. Self-performed construction work included, demolition of existing roadway facilities, drainage, earthwork, 10 bridges (structural steel and pre-cast concrete girder bridge construction), HMA paving, concrete paving, and all traffic control services. Project controls maintained a constant monitoring of performance value, including checking budget expenditures and scheduling monthly project maintenance. Granite was responsible for worker and public safety, public information distribution, and 100% environmental compliance.

Experience of team members working together as an integrated team;

Granite has a long and successful history of partnering with our clients. Granite **co-located with UDOT, the program manager, and UDOT's designer** to encourage open communication and dialogue. Granite stressed personal contact throughout the preconstruction services process. Employees of all organizations were intermingled within the co-located office to further promote this culture. In fact, many observers commented that it was often hard to tell who worked for the contractor and who worked for UDOT, as both organizations were so well integrated with a genuine buy-in to the "one team" mentality. This was a major factor in the project's overall success and early completion. With our strong Central Valley presence, we will maximize the personal interaction during the SR99 Project.

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

Granite worked diligently with the design team and owner to provide budgetary pricing based on preliminary design concepts in order to better define the project scope. Granite provided alternate construction concepts as well as constructability reviews to reduce project costs while increasing project scope. Elements evaluated included: use of precast partial depth bridge deck panels, eliminate sound walls through alignment optimization, use of performance grade liquid asphalt, increasing earthwork scope to reduce structure scope, substructure alternatives and storm drain materials. Overall, the **project documented savings of over $31 million** which allowed UDOT to add scope in the form of additional roadway construction. The Granite/UDOT team identified an opportunity to experiment with innovative internal curing concrete on two of the project's five pairs of bridges. At each pair of bridges, one of the structures was placed with a special concrete mix design that substituted 25% of the sand with Utelite ™ which helps the cement absorb more of the mix water and reduces cracking. Many of the innovations used on MVC will be considered on the SR99 Project.

Implementation of complicated staging and traffic handling;

The MVC included significant highway traffic handling to accommodate the high flow of traffic. Granite helped design the staging for the MOT and validated the plan through constructability reviews and schedule analysis. The ultimate traffic handling design was a best value approach integrating cost, safety, public convenience and schedule. There were a total of **11 major cross streets and 14 minor cross-streets** that were affected during construction. At any one time, crews had about five major cross streets and up to six minor cross streets under construction simultaneously, with adjacent projects that had to be coordinated with our traffic control. Staging was a challenge right from the start. Acquisition of more than 300 parcels of ROW was required for the new alignment. Traffic staging on early construction packages was integrated with the ROW acquisition schedule.

Accelerated construction of major elements common to this project;

Portions of the MVC were opened almost seven months early, with all other sections open prior to the scheduled substantial completion date of December 31, 2012. To achieve this, the project optimized the schedule and as described above, focused on keeping the critical path activities from being impacted. When the team identified a potential delay due to right-of-way acquisition, Granite and UDOT developed an alternative earthmoving plan that mitigated the impacts of this delay.

Staged bridge construction over existing freeway and railroad;

The project included five pairs of new bridges. Approach design, foundation type, super-structure type, false work design and construction staging were all evaluated with consideration for adjacent third parties. Working collaboratively with UDOT, the project team was able to design and construct the optimum elements for the project. Staging plans allowed for public travel while maintaining sufficient space for efficient and safe

construction. There were two bridges that crossed over existing municipal cross streets. These were constructed without incident or major inconvenience to the traveling public.

Construction of jointed plain concrete pavement and/or continuously reinforced concrete pavement;

Granite self-performed 300,000 square yards of jointed plain concrete paving. This work was evaluated during the design process to maximize productions and minimize schedule. During constructability reviews, the Granite team created detailed paving plans that allowed the final design to maximize machine paving during construction. Granite also self-performed the batching and QC of the concrete mix. Sections were paved with PCCP, a section of three-inches of hot mix asphalt (HMA) immediately below the PCCP. This allowed better control of the PCCP placement, improved its ride quality, usable life span, and in one section completely eliminated the dowel bars.

Innovative retaining wall design to reduce construction timeline and impacts;

The Granite team reviewed multiple wall types (MSE panel, soil nail, gravity, and MSE modular block) to determine the most cost effective and efficient walls to construct. Schedule, cost, ROW constraints were all considered to determine the best value approach for the project. During our task group meetings we worked with the designers and UDOT to **eliminate walls entirely** through the acquisition of additional ROW, thereby saving over $1,000,000 to the project.

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

With the alignment extending through six municipalities, the Granite team and UDOT were regularly challenged to meet the needs of multiple stakeholders without impacting overall construction. Early in the process, individual cities provided input into the design of the MVC corridor. During construction, **Granite met with representatives from all municipalities weekly** to discuss schedule, maintenance of traffic, any utility work affecting local city facilities and any information requested by the stakeholders.

Coordination of complex public utility relocation as well as construction of municipal utilities (i.e. water and sewer).

The project was built along a corridor occupied by Rocky Mountain Power's interstate transmission lines and Kern River Gas' twin 36-inch, 350-psi natural gas interstate transmission lines. Construction of the new MVC highway created several utility conflicts with these utility owners as well as the numerous local utility agencies and facilities found at each cross street, which had the potential to delay the project several months. To develop the best solutions, the **Granite/UDOT team formed a Utility Coordination Team**, which consisted of UDOT, program management and Granite's Utility Coordinator. Together, this team created solutions for each conflict and negotiated and executed the many utility agreements needed for the project. The group successfully managed all utility conflicts with no delay to the project schedule.

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

- 2011 AASHTO Excellence Award for Project Development
- 2011 AGC Utah Platinum Safety Award
- 2012 FHWA Excellence in Right-of-Way Stewardship Award
- 2012 Utah Best of State Award
- 2012 Annual AGC Award - Urban Highway Project of the Year Award
- 2012 Annual AGC Partnering Award - Utah Chapter

Name of Client (Owner/Agency, Contractor, etc.): Utah Department of Transportation (UDOT)
Address: 2010 South 2760 West, Salt Lake City, UT 84104
Contact Name: Teri Newell **Telephone:** 801-685-2917 **Fax No:** 801-887-8770
Owner's Project or Contract No.:
1. 7703_MP-0182(6) – CM contract
2. 8201_S-0182-8-0 – Early action contract
3. 8202_S-0182-9-0 – Segments 1-3
4. 8203_S-0182-10-0 – Segments 4-5

Contract Value (US$): $220 million **Final Value (US$):** $245 million
CCO Summary: Contract value increased through Owner requested change orders, generally for added scope.
Percent of Total Work Performed by Company: 77%

Commencement Date:	**Planned Completion Date:**	**Actual Completion Date:**
09/2009 CM Services	12/31/2012	12/01/2012

Amount of Claims: $0.00 **Any Litigation?** Yes ____ No __X___
Claim Summary: Zero Claims on the this project **DRB Summary:** No DRB was used on this project

Form B: PROJECT DESCRIPTION

Riverdale Road Reconstruction CM/GC

Name of Proposer: **Granite Construction Company**

Name of Firm: **Granite Construction Company**

Project Role: **CM/GC Management**

Principal Participant: **Granite Construction Company** Designer: Michael Baker Corp.

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

Roads/Streets: **90 years** Bridges/Structures: **90 years** Utility Relocations: **90 years**

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

Riverdale Road Reconstruction CM/GC, Utah

Granite was responsible for preconstruction services and construction delivery of this $70M, 2.5 mile highway reconstruction project.

Highlights/Scoring Criteria

- **Similar urban scope and complexity to SR99 Project**
- **Completed within budget**
- **Substantial completion achieved ahead of schedule**
- **No claims on the Project**
- **Co-located integration with UDOT and design team**
- **Significant innovative solutions; over $3M in savings**

Provide Project Description and Describe Site Conditions:

Scope Elements Similar to SR99 Project:

- ✓ CM/GC Project
- ✓ Preconstruction Services
- ✓ Urban Street Construction
- ✓ Retaining Wall Construction
- ✓ Accelerated Bridge Construction
- ✓ Complex Traffic Control
- ✓ Utility Coordination/Relocation
- ✓ Community Outreach
- ✓ Environmental Permit Compliance
- ✓ PCCP sections

Construction of projects of similar size, scope, and complexity;

This CM/GC delivery for improvements to one of the busiest corridors in Utah involved the reconstruction of a 2.5 mile section of Riverdale Road adding lanes and building a single-point urban interchange in a busy commercial/residential area where room for staging was minimal. **Maintaining pedestrian and vehicle traffic was vitally important as were the environmental considerations** needed to protect the Weber River from runoff. We achieved these goals while placing more than 25,000 tons of asphalt pavement and 80,000 sy of PCCP and reconstructing the interchange in multiple stages.

Preconstruction Services: Granite's preconstruction services manager directed services including design management and validation, integration of stakeholder contributions, and value engineering reviews. The Granite Team provided constructability reviews, cost estimates for design alternatives, schedules to determine feasibility of alternative plans, transportation management plans, and extensive risk management analysis and mitigation. The Granite Team executed an extensive communications outreach strategy involving a range of meeting agendas and tools for conveying project information.

Construction Services: Granite self-performed 55% of the construction work on this CM/GC project. Major elements of work included demolition, earthwork, retaining wall construction, phased bridge construction, MOT, HMA and PCCP paving. Granite's **construction manager provided the link from the preconstruction services design team to the general contractor construction team**. Additional services included quality control, public outreach, environmental mitigations and storm water pollution prevention.

Experience of team members working together as an integrated team;

Granite, Michael Baker and UDOT employees were all **co-located in one office for ease of communication and acceleration of design and constructability reviews**. The co-location was also an integral component of the partnering process and was a contributing factor to the project's completion and overall success. Granite's "Team First" approach focused effort on building a true a partnership in the initial phases on the project.

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

Granite provided innovation and creativity throughout the preconstruction and construction phases while embracing solid engineering principles. Alternate concepts were considered by evaluating technical compliance, cost and schedule impact, ROW availability, and stakeholder impacts. **Total project savings is estimated to be $3,223,000.** Specific innovations included:

- Modifications to the drainage system, the elimination of multiple tie-ins, resulted in a $600,000 savings to the project.
- Design modifications to the paving section resulted in a $1,600,000 project savings
- Unsuitable subgrade was uncovered during the project. Granite constructed 3 test sections to determine the optimum solution. Final solution incorporated a new geotextile with 3" granular borrow.
- Granite designed the phasing plan and the sequencing of traffic control to reduce the impact on business and the traveling public. A safer solution was determined that also created schedule advantages to the project. Access to local businesses was also optimized. Coordinating traffic control needs for utility relocations saved the project $270,000.
- Granite evaluated several retaining wall designs. Ultimately retaining wall construction was done with lightweight backfill (Scoria mined in Idaho) materials which reduced fill weight and eliminated the 90-day settlement period. This resulted in a cost and schedule savings to the Project.

Implementation of complicated staging and traffic handling;

This CM/GC contract required extensive traffic management on the undivided thoroughfare. The major bridge reconstruction was performed in 3 phases. Intersections were reconstructed in up to 9 sub-phases. Granite was active in the planning and then solely responsible for self-performing the implementation of the traffic handling plans. The existing five lane configuration had to be maintained throughout construction while building seven new lanes in the same footprint. The other stipulation was to maintain all business access during construction. UDOT recognized the importance of public access. The Business District Advisory Committee (BDAC), comprised of small business owners and managers, rated Granite's overall safety plan, business access, traffic control, and site cleanliness at 95%.

Accelerated construction of major elements common to this project;

Granite replaced the bridge over I-84 and reconfigured it into a single-point urban interchange using accelerated bridge construction (ABC) techniques. The ABC techniques included pre-casting elements onsite, such as abutments, diaphragms, deck panels, girders, and approach slabs. Granite self-performed this precast work.

Staged bridge construction over existing freeway and railroad;

The Riverdale Rd. bridge over I-84 was constructed in multiple stages. During the initial stage, both sides of the structure were widened 40 feet, traffic was switched and then in Stage two, the interior section was demolished and reconstructed. The new 180-foot x 180-foot single-point urban interchange (SPUI) spanning Interstate 84 was a major part of this project.

Construction of jointed plain concrete pavement and/or continuously reinforced concrete pavement;

The design and construction included two miles of jointed plain concrete pavement (JPCP) on a multilane, urban arterial that carries 45,000 vehicles a day. Granite evaluated the concrete paving during the preconstruction services portion of the contract. Paving plans, construction details, transition elements were all reviewed to ensure the final design documents were complete, constructible and efficient to build. Transit mixer access and impact to lane closures was also evaluated during design. Although Granite had the ability to self-perform the PCCP work, **it was in the best interest of the Project to subcontract to a local contractor** for the work including batching the concrete, sawing and sealing.

Innovative retaining wall design to reduce construction timeline and impacts;

The Granite preconstruction team evaluated every retaining wall on the project with the goal of reducing or eliminating unneeded elements. Multiple footing types, wall types and ROW/adjacent impacts were considered. Granite coordinated the geotechnical and structures task groups to consider alternative backfill material. Ultimately Granite **designed a wall system with light-weight backfill that eliminated the need for a 3-month settlement period**. This innovation allowed the work to progress in a single construction season and improved the project schedule.

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

Traffic control on the Project was a key issue for the surrounding stakeholders. Civic events, emergency service access and access to adjacent projects all needed to be integrated into the traffic handling plans. Granite implemented a comprehensive outreach program that started very early in the preconstruction phase of the project. Understanding of stakeholder needs and the potential impacts of surrounding projects was essential. There were a number of third party utility contracts associated with the project (gas, electrical, telephone) that all had to be coordinated within the traffic control and construction phasing. This was accomplished without incident which helped the project open approximately 30 days ahead of schedule.

Coordination of complex public utility relocation as well as construction of municipal utilities (i.e. water and sewer).

Granite collaborated with utility companies during the preconstruction and construction phases of the project. The project included several major utility relocations/installations including sewer, water, gas, power and fiber optics. Granite conducted a thorough as-built review and spoke directly to representative of the utilities to better understand their existing facilities and their concerns during the relocation work. Granite also upgraded the storm drain system to provide for increased surface runoff and to pre-treat it before discharging into the Weber River.

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

- 2011 - AGC Urban Highway Project of the Year
- 2011 - UDOT Partnered Consultant Award
- 2011 - ACPA Excellence in Concrete Pavement Award (local)
- 2011 - ACPA Excellence in Concrete Pavement Gold Award Winner (national)
- 2011 - ACI Excellence in Concrete Pavement Award.2010 - Utah AGC $10 million plus Project of the Year
- 2010 - UDOT Best Partnered Consultant Award
- 2009 - ACPA National Excellence in Pavement Silver Award Winner (National)
- 2009 - AASHTO National Value Engineering Award
- 2008 - ACPA Excellence in Paving

Name of Client (Owner/Agency, Contractor, etc.): Utah Department of Transportation (UDOT)
Address: 4501 South 2700 West, Salt Lake City, UT 84114

Contact Name: Randy Jefferies, P.E., Program Manager

Telephone: (801) 620-1690
Fax No: (801) 887-8770

Owner's Project or Contract No.:

1. SP-0026(4)0, 2. SP-0026(4)-0-B, 3. S-0026(10)2

Contract Value (US$): $70.2 million **Final Value (US$):** $70.2 million

CCO Summary: Contract value finished at $70.2 and included several Owner requested change orders
Percent of Total Work Performed by Company: 55%

Commencement Date:	Planned Completion Date:	Actual Completion Date:
08/2008	10/2010	09/2010

Amount of Claims: $ 0.00 **Any Litigation?** Yes ____ No _X_

Claim Summary: Zero Claims on the this project
DRB Summary: No DRB was used on this project

Form B: PROJECT DESCRIPTION

#06-0E0404 Madera 99 Rehabilitation Design-Build

Name of Proposer: **Granite Construction Company**

Name of Firm: **Granite Construction Company**

Project Role: **Design-Builder**

Principal Participant: **Granite Construction Company** Designer: Wood-Rodgers

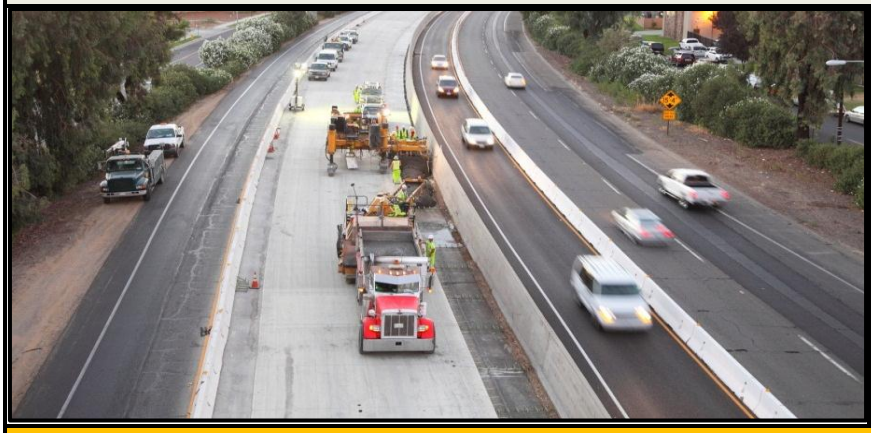
Years of Experience (provide length of activity as it relates to the following three elements):

Roads/Streets: **90 years** Bridges/Structures: **90 years** Utility Relocations: **90 years**

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

#06-0E0404 Madera 99 Rehabilitation Design-Build, CA

Granite was the prime contractor responsible for delivery of design-build (DB) services.



Highlights/Scoring Criteria

- **Similar urban complexity and scope to SR99 Project**
- **Completed within budget**
- **Substantial completion achieved ahead of schedule**
- **No claims on the Project**
- **Successful integration with Caltrans and design team**
- **Significant innovative solutions; over $175,000 in savings**

Provide Project Description and Describe Site Conditions:

Scope Elements Similar to SR99 Project:

- ✓ Preconstruction Services with Caltrans
- ✓ Design Coordination with Caltrans
- ✓ Highway Reconstruction on SR99
- ✓ Coordination with Other Projects/Contractors
- ✓ Multiple Key Personnel
- ✓ Complex Maintenance of Traffic on SR99
- ✓ Utility Adjustments
- ✓ Community Outreach
- ✓ Environmental Permit Compliance
- ✓ CRCP structural section along with HMA, JPCP

Construction of projects of similar size, scope, and complexity;

The purpose of this demonstration project – Caltrans' first design-build – was to rehabilitate State Route (SR) 99 from South Gateway Overcrossing to Avenue 16 Overcrossing in the northbound and southbound directions through urban Madera. This project's $27 million scope of work included preconstruction and construction services. The project **rehabilitated major sections along four miles of SR 99** by reconstructing both HMA and PCC lanes, and HMA shoulders. Guardrails, lighting, signage and drainage located within the project limits were upgraded or repaired as needed. The scope and complexity is similar to the SR99 Project. This project was constructed in four different stages, with each stage including traffic detours and ramp closures requiring the development of a Traffic Management Plan (TMP) and innovative traffic handling.

Preconstruction Services: Granite managed the design process and developed complete construction drawings. This process included working closely with the Caltrans District 6 design staff and the Safety Review Committee to develop multiple design packages and develop standard special provisions compliant with the

contract documents and the Highway Design Manual (HDM). The design process included the preparation of multiple sets of construction drawings to allow construction of improvements while other elements of the design progressed. Three mandatory design exceptions were required for sight distance, sight distance at the vertical curves, and vertical clearance. The preparation of the Design Exception Fact Sheets required coordination with the District and headquarters. During the design phase, the DB team facilitated several design brainstorm sessions and over the shoulder reviews with the Department. Additionally, as part of the project's quality control process, both Wood Rodgers and Granite conducted constructability reviews to incorporate innovative ideas and identify value engineering opportunities.

Construction Services: Granite's construction services included extensive traffic handling, demolition and removal of old pavements, re-paving of HMA pavement, placement of Jointed Plain Concrete Paving (JPCP) and Continuously Reinforced Concrete Paving (CRCP) pavements, drainage improvements, barrier rail construction, and overhead sign construction. The Granite Team self-performed over 80% of the work and managed over one dozen key specialty subcontractors to maintain the accelerated project schedule. Granite also performed quality control and quality assurance for both design and construction.

Experience of team members working together as an integrated team;

While not co-located, Granite, design lead Wood Rodgers and Caltrans met regularly during all phases of the project to facilitate a collaborative team atmosphere. **Communication was open and efficient among all team members to accelerate design and constructability reviews**. The team's ability to work collaboratively and productively together through design and construction issues was an integral component of the partnering process and was a contributing factor to the project's timely completion and overall success. Key personnel involved in the Madera 99 DB project who will also work on the subject SR99 Project include Jeff Grimm, Jeremiah Merritt, Mark Thornton, and Mike Tatusko. These individuals all have a successful history of integration with Caltrans including the Team in District 6.

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

A critical element in the overall project's success for both schedule and budget was the innovative traffic handling plan developed by Granite during the proposal stage. The plan improved on the Indicative Design's traffic handling plan by reducing the number of stages to reconstruct each direction of pavement from three stages to two stages. This **innovative solution created a cost savings benefit, reduced the project schedule and ultimately provided a safer project for the traveling public**. Granite will bring this type of innovative traffic handling to the SR99 Project.

A second innovation brought to the project by Granite involved the structural section. While the pavement types were prescriptive in the Contract, Granite worked with the Department to successfully change the HMA pavement section through a Value Engineering proposal. This innovation saved the project $175,000. Granite's pavement experts will work with the Caltrans SR99 Project Team to ensure the best value pavement section(s), including life-cycle analyses, are designed on the project.

Granite incorporated recycled demolition material from the pavement removal in both aggregate sub base and in a stabilizing material to repair yielding subgrade. These innovations created environmental benefits while reducing project cost and schedule. Granite consistently brought creative material balancing concepts and innovative material applications into our projects.

Implementation of complicated staging and traffic handling;

One of Granite's core competencies is the safe and effective handling of traffic. On the Madera 99 DB the **project team accommodated over 100,000 vehicles per day** through the work area for over two years. Traffic control and staging was a large element of the work. In two stages, construction crews split traffic to create work zones in-between travel lanes, construct new pavement then shifted traffic back to its original configuration. Coordination of entrance and exit ramp closures were also required to perform the work, as were extended traffic detours. Granite's project team developed a comprehensive Public Information Program that included a website, project hotline, weekly email updates and public outreach meetings to keep the community up to date on major traffic changes, lane closures and ramp closures. Granite has extensive experience handling traffic on SR99 throughout the Central Valley.

Accelerated construction of major elements common to this project;

Accelerated items included: 1) The staged design approach released certain elements of the design early to allow construction to begin almost one year earlier than if the design was released in one complete package 2) Reducing the number of traffic stages allowed for acceleration of the project schedule and 3) CRCP work was

scheduled, planned and executed to maximize paving full width travel lanes and minimize and consolidate hand pours and paving near ramps. The Granite Team worked with Caltrans to create work areas that allowed for effective concrete paving. This same approach can be used on the SR99 Project. **Granite's CRCP/PCCP paving experts will coordinate with traffic planners and traffic handling designers to maximize productivity and reduce project cost and schedule**. The project achieved substantial completion ahead of schedule and is currently completing project closeout activities.

Construction of jointed plain concrete pavement and/or continuously reinforced concrete pavement;

The project required a total of 32,000 cubic yards (cy) of concrete pavement on SR99, of which 9,000 cy were CRCP, and 23,000 cy were JPCP. The concrete pavement was constructed in multiple stages to accommodate traffic handling. Granite self-performed this work including: creating detailed paving plans, batching of ready mix concrete, subgrade preparation, HMA base course installation, managing our reinforcing steel subcontractor, place, consolidate, finish and cure the concrete. Granite also performed QC duties on all of the related work. **The JPCP/CRCP work performed on the Madera 99 DB is expected to be very similar on the SR99 Project**. The experience gained on the project will be invaluable.

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

Substantial project coordination was required, as there were three other projects occurring simultaneously with the Madera 99 DB. A bridge was constructed at the north end of the project limits, a highway crossing was constructed in the middle of the project and an interchange was constructed at the south end. All required careful coordination to avoid major impacts on the traveling public and the construction projects. Granite's proactive public information program helped to coordinate needs with these other projects and minimize delays. Granite worked daily with Caltrans and COZEEP to ensure the public travelled through a fully integrated corridor on SR99.

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

This project included the lining of a water siphon below SR99 and adjustment of an AT&T facility. As locals to the Fresno area, the Granite crews work seamlessly with the utility companies to plan, schedule and execute the work. This utility work was kept off the schedule's critical path.

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

This project is in the final stages of close-out. Several award applications, including partnering will be submitted in the near future.

Name of Client (Owner/Agency, Contractor, etc.): Caltrans District 6
Address: 2015 E Shields Ave, Suite 100 - Fresno, CA 93726

Contact Name: Oscar Sherill, R.E. **Telephone:** (559) 444-2409
Owner's Project or Contract No.: #06-0E0404 **Fax No:** (559) 445-6259
Contract Value (US$): $22.6 million **Final Value (US$):** $27 million

CCO Summary: Contract value increase through Owner requested change orders, generally for added scope.

Percent of Total Work Performed by Company: 83%

Commencement Date: 10/2011 **Planned Completion Date:** Expected 12/2013 **Actual Completion Date:** Substantial Completion 11/19/13

Amount of Claims: $ 0.00 **Any Litigation?** Yes ____ **No** _X_

Claim Summary: Zero Claims on the this project

Form B: PROJECT DESCRIPTION

I-80, Robb Drive to Vista, Design-Build, Reno

Name of Proposer: **Granite Construction Company**

Name of Firm: **Granite Construction Company**

Project Role: **Design-Builder**

Principal Participant: **Granite Construction Company** Designer: Atkins (formerly PBS&J)

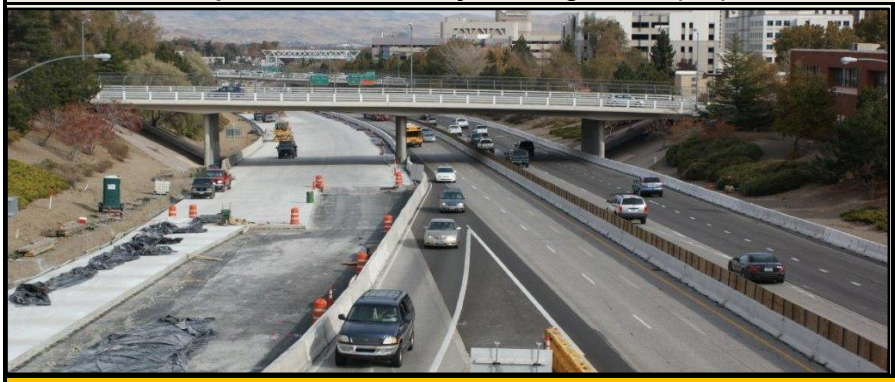
Years of Experience (provide length of activity as it relates to the following three elements):

Roads/Streets: **90 years** Bridges/Structures: **90 years** Utility Relocations: **90 years**

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

I-80, Robb Drive to Vista, Design-Build, Reno

Granite was responsible for delivery of design-build (DB) services for highway reconstruction.



Highlights/Scoring Criteria

- Similar scope, size and urban complexity to SR99 Project
- Completed within budget
- Substantial completion achieved ahead of schedule
- No claims on the Project
- Successful integration with Owner and design team
- Significant innovative solutions; over $250,000 in savings

Provide Project Description and Describe Site Conditions:

Scope Elements Similar to SR99 Project:

- ✓ Preconstruction Services
- ✓ Highway Construction in Busy, Urban Setting
- ✓ City Street Construction
- ✓ Complex Maintenance of Traffic
- ✓ Utility Coordination/Relocation
- ✓ Community Outreach
- ✓ Environmental Permit Compliance
- ✓ PCCP Structural Sections

Construction of projects of similar size, scope, and complexity;

The project's $81 million scope of work included preconstruction and construction services to redesign and reconstruct approximately 10 miles of pavement involving a range of intersections, ramps and overpasses. The "I-80 Robb Project" was the first freeway design-build project in northern Nevada. The 10-mile corridor improvement included PCC pavement rehabilitation on I-80, Intelligent Transportation System (ITS) infrastructure, traffic handling, new signing and striping, operational improvements, and landscaping and aesthetics throughout the project corridor. The project was difficult given required 7-hour lane closure windows and winter weather which shortened the construction season. Combined with the discovery of unsuitable subgrade material beneath the existing roadway, the project team faced many challenges to complete the project on time. With partnering and innovation, these obstacles were overcome and traffic opening was achieved 80 days ahead of schedule earning Granite a $4 million incentive. The Project Team worked closely during the two-year construction timeframe to overcome challenges and build the project safely, efficiently and of the highest quality. The Granite Team always dealt with challenges and decisions based on what was best for the project.

Preconstruction Services: Scope included, developing a design that was constructible and fully compliant with Project specifications. **Special attention was paid to preparing traffic handling plans to accommodate the 116,000 AADT, value engineering evaluations, risk analysis, preliminary geotechnical investigations and utility location.** Granite, with Atkins as lead designer, worked with the Nevada Department of Transportation (NDOT) and the FHWA to develop a final design solution to several Alternative Technical Concepts (ATC's). This collaborative process resulted in the approval of three ATC's that improved the freeway facility for the end user by increasing the level of service on a portion of I-80, enhancing traffic safety by metering traffic at ramps, and increasing regional traffic communications by expanding coverage of the ITS elements that were installed as part of the project.

Construction Services: Granite managed all construction services, which included demolition and removal of old pavements, earthwork, drainage, maintenance of traffic, concrete paving, HMA paving, community outreach, and construction of new traffic lanes. Granite self-performed 70% of the work and managed several specialty subcontractors to maintain the accelerated project schedule. Over 230,000 man-hours were logged on the project over the course of two years on this busiest section of highway. Special emphasis was placed on construction work done in areas of live traffic and extreme congestion. Double shifts and working seven days a week was normal on this project because of the short construction season.

Experience of team members working together as an integrated team;

Granite's fully integrated DB management teams provided personnel skilled in quality transportation engineering design and construction. **Granite, Atkins, and NDOT employees were co-located** in one office for ease of communication and acceleration of design and constructability reviews. The co-location was also an integral component of the partnering process. Frequent and timely over-the-shoulder reviews were carried out to keep the entire team informed on all major decisions and risk points during preconstruction services. During construction, the partnering process was embraced to keep the team focused on Project goals and remain proactive in identifying and addressing Project risk.

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

Granite brought significant creativity and innovation to the I-80 project. During task group meetings dozens of "best value" concepts were evaluated. Innovations implemented on the project included:

- Onsite material crushing within the existing footprint of the roadway. Efficient use/reuse of material provided the Owner with reduced construction costs and environmental advantages.
- Geometry optimization to increase merging distances. The design evaluation created options to increase Traffic safety without negative cost or schedule impacts.
- Reduced shoulder widths to add travel lanes. During the design, Granite brought alternatives to the NDOT regarding the tradeoff on shoulder paving versus additional travel way.
- Ramp metering to control to traffic merging at busy on-ramps
- Revised staging to reduce schedule. Granite evaluated several traffic handling plans and ultimately produced and implemented a plan with fewer stages. This increased work areas, reduced disruption to the traveling public, and created cost and schedule savings to the Owner.
- The Team **decreased project cost by $250,000 and increased value by redesigning a significant portion of the project's flexible pavement** during development of the final design. By utilizing Granite's in-house pavement design team, expert consultants and leveraging the owner's expertise, we were able to develop a solution that used materials processed on site to minimize the amount of excavation required and reduce the amount of imported aggregates. This reduced overall project cost and minimized impacts to the travelling public by reducing the number of trucks hauling materials.

Implementation of complicated staging and traffic handling;

Located on the **busiest highway in Nevada**, the I-80 project bisected downtown Reno, and involved the removal and replacement of existing pavements. Traffic handling was a major concern of the Owner and Granite met the challenge. To achieve optimum traffic flow, traffic was shifted to the west, the new pavement constructed on the east side of the highway, then traffic was shifted east onto the new lanes and the process repeated on the west side. Although not a project requirement, **Granite was able to keep the majority of the highway's entrance and exit ramps open to minimize impact to the public through careful planning and design**. Traffic plans were reviewed and approved by internal traffic specialists and the installation, maintenance and removal of the traffic devices was carried out by qualified construction personnel. Daily reviews were conducted to ensure all devices were in good condition and placed per approved plans. Granite kept the community informed on changes to the traffic patterns and status of the project.

Accelerated construction of major elements common to this project;

I-80 Robb involved a short construction season due to the region's winter weather conditions. Despite those challenges Granite met the project's key milestone: opening to traffic, 80 days ahead of schedule. Project management achieved efficiencies through scheduling crews to work double shifts, weekends and overtime as well. This resulted in the team being awarded $4 million in early completion incentive payments.

Construction of jointed plain concrete pavement and/or continuously reinforced concrete pavement;

Similar to the SR99 Project, the I-80 Robb project included significant pavement section work. During the preconstruction phase **Granite was able to optimize the pavement section and create a work plan to ensure smooth and cost effective execution**. Granite managed the construction and installation of 50,000 cubic yards of jointed plain concrete paving; 53,000 tons of Asphalt Concrete paving; and 35,000 tons of ATPB. Concrete paving included both mainline machine paving as well as smaller manual pours to fill in ramp entrances and exits that were left open. Granite crews batched the ready mix for the project and placed, consolidated, finished and cured the pavement section. Strength of the concrete was tested frequently to allow for early access of construction and public traffic.

Innovative retaining wall design to reduce construction timeline and impacts;

Granite collaborated with the designers to optimize mainline and ramp geometry and in the process was able to eliminate 2 retaining structures. This resulted in both cost and schedule savings

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

The I-80 Project had significant traffic management challenges. The major interchange of Highway 395 and Highway 80 fell within the limits of the work area. These 2 major arterials have the heaviest traffic in Northern Nevada and particularly within the interchange. The **Highway 395 Moana Reconstruction Project was also underway during the I-80 Robb construction and required extensive coordination** to avoid major conflicts. Additionally, another contractor was performing a bridge deck overlay project within our project limits which required coordination. The Granite Team produced detailed schedules and coordinated our work with the other projects. Creating comprehensive P6 schedules and then consistently meeting milestones were critical success factors in the coordination. Their traffic management plans, and movement of construction equipment were coordinated with the I-80 project by the Granite Team.

Coordination of complex public utility relocation as well as construction of municipal utilities (i.e. water and sewer).

I-80 Robb involved coordination with local utilities regarding relocation of a sanitary sewer line belonging to the city of Sparks, Nevada. A section of the old line had to be replaced in order to support the load of the new onramp being built over it. Granite coordinated required work with the city public works to ensure continuation of service while the line was relocated away from the new ramp.

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

2012 NDOT Partnering Award
2012 AGC Pinnacle Award

"Your team completed the project ahead of schedule, within budget and with minimal impacts to the traveling public. Your team's performance and end result exceed our expectations."

Rick Bosch, PE NDOT Assistant District Engineer

Name of Client (Owner/Agency, Contractor, etc.): Nevada Department of Transportation (NDOT)
Address: 1263 S. Stewart Street, Carson City, NV 89712

Contact Name: Jeff Lerud PE, CPM, Project Manager
Telephone: (775) 888-7589
Fax No: (775) 888-7115

Owner's Project or Contract No.: NDOT 3441B

Contract Value (US$): $72 million **Final Value (US$):** $81 million

CCO Summary: Contract value increase through Owner requested change orders, generally for added scope.
Percent of Total Work Performed by Company: 70%

Commencement Date:	Planned Completion Date:	Actual Completion Date:
04/2011	12/2012	12/2012

Amount of Claims: $ 0.00 **Any Litigation?** Yes ____ No _X_

Claim Summary: Zero Claims on the this project
DRB Summary: No Issues were brought to the DRB for resolution

Form B: PROJECT DESCRIPTION

The "New" I-64 Design-Build, Missouri

Name of Proposer: **Granite Construction Company**

Name of Firm: **Granite Construction Company**

Project Role: **Design-Builder**

Principal Participant: **Granite Construction Company** Designer: Parsons Transp. Group

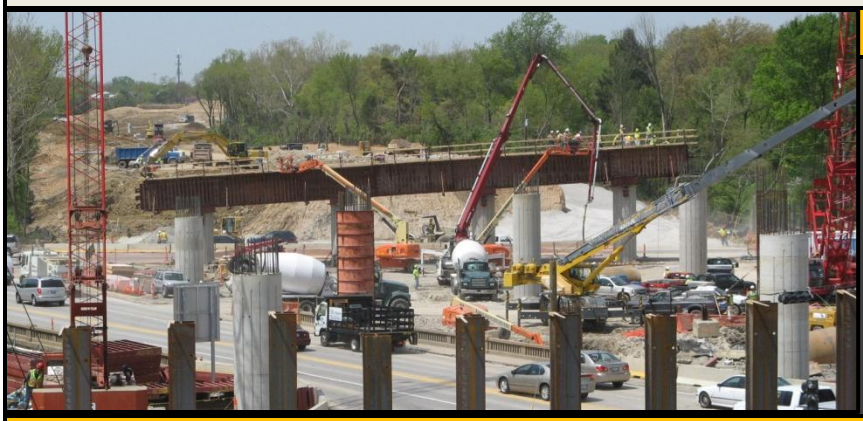
Years of Experience (provide length of activity as it relates to the following three elements):

Roads/Streets: **90 years** Bridges/Structures: **90 years** Utility Relocations: **90 years**

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

The "New" I-64 Design Build, Missouri

Granite led Joint Venture was responsible for delivering design-build (DB) services for urban highway reconstruction.



Highlights/Scoring Criteria

- Similar urban scope and complexity to SR99 Project
- Completed within budget
- Substantial completion achieved ahead of schedule
- No claims on the Project
- Co-located integration with Owner and design team
- Accelerated bridge construction and innovative retaining walls

Provide Project Description and Describe Site Conditions:

Scope Elements Similar to SR99 Project:

- ✓ Preconstruction Services
- ✓ Extensive Maintenance of Traffic
- ✓ Highway Construction
- ✓ Bridge construction/reconstruction
- ✓ Accelerated Bridge Construction techniques (ABC)
- ✓ City Street Construction
- ✓ Retaining Wall Construction
- ✓ ROW Coordination
- ✓ Utility Coordination/Relocation
- ✓ Community Outreach
- ✓ Environmental Permit Compliance
- ✓ PCC Paving
- ✓ Extensive Phased Construction

Construction of projects of similar size, scope, and complexity;

This $438 Million, nine-mile full reconstruction of I-64 in urban St Louis consisted of 34 bridges, 2 pedestrian tunnels, 1 pedestrian overpass, 414,000 sf of MSE wall, 781,000 sf of soundwall, nearly a 1,000,000 sy of concrete paving, and 99,000 lf of new drainage. I-64 contained every design discipline and scope of work that is being contemplated for the SR99 Project.

Preconstruction Services: The Granite led team co-located with the design team, Parsons Transportation Group (PTG) and the Missouri Department of Transportation (MoDOT). Granite practiced "hands on preconstruction services" by fully integrating Granite staff with PTG. One of the keys to the success of this

project was the partnership nurtured by Granite to include key stakeholders that included the affected municipalities, the utilities, and permitting agencies throughout the design and construction of the project. Granite utilized 3-D modeling for conflict identification, design, and constructability reviews. This project had numerous innovations including items such as a Slip-Formed wall system (eliminated 300,000 sf of MSE wall), new precast girder types and designs, and the construction of one of the first Single-Point Urban Interchanges (SPUI) in MO. The Team developed tools to quickly evaluate engineering and construction decision to assess risk, determine construction and life cycle cost, as well as evaluate stakeholder commitments to ensure that the best value was achieved for MoDOT and the stakeholders.

Construction Services: Granite managed construction services, including demolition and removal of old pavements, re-paving, construction of new traffic lanes, 34 bridge structures, retaining and sound walls, new lighting, signalization, signing, striping, landscaping, aesthetics, and traffic management systems. The Team self-performed over 70% of the work and managed several specialty subcontractors to maintain the accelerated project schedule. Granite also managed all aspects of Quality on the project. Initially starting with Quality Control processes, the Team demonstrated a system of check and balances that ultimately resulted in Granite also managing the Quality Assurance processes replacing the Owners systems and consultants. The team also managed all of the public information during construction of this critical urban freeway.

Experience of team members working together as an integrated team;

Co-location of the project team played a vital role in the project's success. With all the players under the same roof decisions were made quickly, which added to project efficiency. Granite also used formal and informal partnering and team building at the beginning of the project to focus on the common goals of the stakeholders. The message of "Best for Project" decisions was echoed by all parties involved in the project. **The result was a project that met or beat every construction milestone and won over fifteen national awards specifically for quality and production.** During construction, special efforts were taken to minimize and mitigate construction impacts to the commuters through construction staging and community communication efforts, including the use of a Public Information Manager and a project website that was updated daily. The project also exceeded the 16% goal for DBE participation.

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

The Project Team's preconstruction services processes yielded multiple innovations, many of which have been adopted as standards by MoDOT. Some of the most notable innovations on the project related to retaining walls, sound barrier, and geotechnical designs. James Waller (listed as a Key Person on SR99) developed a wall system that was derived from a Caltrans C60 barrier. The wall system could be Slip-Formed from 36" to over 9 feet and was infinitely variable between the heights. **This system eliminated over 300,000 sf of MSE wall.** This innovation could place a nearly 15,000 sf of wall per day per crew, complete with a crash-tested barrier for protection. The Team devised systems for barrier mounted sound walls that combined precast and slip formed elements. Granite also pioneered alternative solutions for foundation replacement technologies that have since been published and recognized for their innovation. In addition, Granite leveraged our national engineering footprint to optimize the structures on the project by using girder designs from other state's DOT to find the best solution for the engineering and construction of the project.

Implementation of complicated staging and traffic handling;

Granite employed a full time staff of maintenance of traffic engineers and specialists to help design and implement the **hundreds of traffic control plans** on the project. Granite developed significant detour routes complete with capacity improvements to assure mobility in this critical corridor. The project involved not only complicated staging and detour routes but also addressed the mobility of emergency services. When the pre-planning and execution were combined with a very effective PI campaign, the impact to traveling public on this major artery of St Louis were not only minimized in terms of travel time delays but also nearly incident free. The successful staging and traffic handling culminated with nearly 40,000 people attending the project opening ceremony on December 7th, 2009.

Accelerated construction of major elements common to this project;

The project's pace was extremely demanding, and it required that every discipline and scope be examined to develop solutions that did not compromise quality, function, or maintenance. Through these examinations the Team developed walls that could be constructed in one-fifth of the amount of time compared to other systems. Repeatable formwork bridge abutment designs and the incorporation of precast elements were incorporated when possible.

The Project's pace also dictated that each utility relocation be examined for a "protect in place" solution to minimize third party influence on the schedule.

Staged bridge construction over existing freeway and railroad;

Of the 34 major structures on the project over 17 were constructed in stages, over live traffic, or rail lines. The Team evaluated each structure during preconstruction services and then optimized the design and construction work plan to fit the project needs.

Construction of jointed plain concrete pavement and/or continuously reinforced concrete pavement;

The Granite led joint venture placed nearly 960,000 sy of PCCP, utilizing two portable batch plants. The pavement design was led by in-house pavement experts from Granite and focused on installing the right pavement section for the right area without compromising the life cycle cost or maintenance considerations for the Department.

Innovative retaining wall design to reduce construction timeline and impacts;

Over 12 miles of sound walls and 414,000 sf of retaining walls were designed and constructed on the project. The Granite Team evaluated and ultimately incorporated a variety of wall designs to meet the project's goals. Specific innovations included: 1) slip-formed gravity walls, 2) hybrid sound walls that were a combination of precast and slip-formed elements, 3) alternative backfill materials that were not moisture or frost sensitive, and 4) securing FHWA approval for a barrier design on MSE walls that did not require moment slabs.

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

The Granite led team coordinated daily with MoDOT Traffic Operations for daily and extended traffic restrictions, shifts and detours. **The project was in the heart of St. Louis** and coordination with adjacent projects and local cities was performed on a continuous basis.

Coordination of complex public utility relocation as well as construction of municipal utilities (i.e. water and sewer).

The project included the design, construction, relocation, and protection of **hundreds of utilities** throughout the nine-mile corridor. Significant coordination and 4D infrastructure modeling was used to ensure design and schedule optimization.

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

- 2011 - Achieve Technologies Platinum Award for Community Relations
- 2010 - DBIA Project of the Year
- 2010 - APWA Project of the Year
- 2010 - ACPA National Project of the Year Best Portland Concrete
- 2010 - ACPA Excellence in Paving
- 2010 - AASHTO Miss. Valley America's Transportation Award
- 2009 - ACPA MO/KS Concrete Award-Large Project
- 2008 - Missouri Governor Award for Quality and Productivity
- 2008 - AASHTO Presidents Award for Quality

Name of Client (Owner/Agency, Contractor, etc.): Missouri Department of Transportation
Address: 1590 Woodlake Drive, Chesterfield, MO 63017

Contact Name: Ron Morris ronald.morris@modot.mo.gov **Telephone:** (314) 565-4293
Owner's Project or Contract No.: C-3-0663 **Fax No:** (314) 340-4119

Contract Value (US$): $420 million **Final Value (US$):** $437.8 million

CCO Summary: Changes requested by the owner for additional scope
Percent of Total Work Performed by Company: 70%

Commencement Date:	Planned Completion Date:	Actual Completion Date:
01/2007	10/2010	8/2010

Schedule extension: As a result of additional scope request by the owner

Amount of Claim: $0 **Any Litigation?** Yes ____ **No** _X_

Claim Summary: No Claims
DRB Summary: None

Summary Of Claims

Project Name	Claims
Mountain View Corridor CM/GC, UT	0
Riverdale Road Reconstruction CM/GC, UT	0
#06-0E0404 Madera 99 Rehabilitation Design-Build, CA	0
I-80 Robb Drive to Vista Design-Build, NV	0
The "New" I-64 Design-Build, MO	0

There were no claims on the above referenced projects.

Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Section 5

PROPOSER ORGANIZATION AND KEY PERSONNEL

SR99 looking south from northern tie-in location

SECTION 5

Consistent Team from Preconstruction thru Construction and Project Close-Out

PROPOSER KEY PERSONNEL

Dedicated . Collaborative . Experienced

BENEFITS

- Consistent Team Committed to the SR99 Project
- Local Construction Experts with a History of Providing Best Value to Caltrans and specifically District 6
- Licensed Professional Engineer and Caltrans Construction Expert George Delano, PE Leading the Team as Project Manager
- Nationally Recognized Preconstruction Services Manager James Waller brings Millions of Dollars' worth of Cost Savings Innovation Experience
- Licensed Professional Engineer and Caltrans Structures Specialist John Boies, PE to serve as Structures Manager

We offer Caltrans a highly experienced, dedicated team of construction professionals, knowledgeable in all aspects of CMGC delivery and Caltrans construction standards. They are qualified and prepared to effectively manage all aspects of the Contract and integrate with Caltrans in a cohesive and seamless manner. Their unique experiences enable them to bring forth innovative design and construction practices that will minimize risk and impacts while at the same time adding value through improved schedule and lower costs. Attached herein is **Form D: Proposed Key Personnel Information** and the **Required Licenses** requested in the RFQ. Key Personnel resumes can be found in Appendix A. Our team includes:

- **Project Principal – Michael Tatusko, VP**
  As a Vice President and Granite's local Region Manager, Mike brings his 33 years of experience as a successful builder, trusted partner, effective leader and innovative problem solver to ensure smooth execution from preconstruction services through the construction phase and project close-out. He manages 500 local salaried and craft employees and has authority to commit those and other resources to the SR99 Project.
- **Project Manager – George Delano, PE**
  As a manager, constructor and former Caltrans employee, George has successfully built numerous bridge and roadway projects throughout the state in the last 35 years. He brings expertise in assessing project parameters and requirements; including risk mitigation, schedule and cost savings concepts for concrete structure intensive projects. He is well versed in the federal, state and local permitting process, and understands their impact on design, schedule, and costs. George will serve as the Point of Contact on the Project and will bring his unique blend of design and construction expertise to the team.
- **Project Construction Manager – Jeffrey Grimm**
  Jeff, a Fresno resident, brings extensive Caltrans construction knowledge and specific Highway 99 experience including innovative traffic handling and construction sequencing expertise gained from his recent work on the Madera 99 Design-Build. His experience includes preconstruction services, permitting and environmental compliance, California design standards and quality requirements.

- **Lead Estimator – Scott Hennessy**
  Scott's strong knowledge base of the Department's standard specifications and design standards will be vital to our CM/GC delivery of the SR99 Project. He is skilled at developing the quantities and cost estimates critical to the analyses of design and staging alternatives and to discovering ways to meet project objectives while reducing overall costs.
- **Scheduler – Tom Logue**
  Tom's specialty is developing preconstruction and construction schedules for transportation projects in addition to providing monthly updates and schedule narrative reports. He brings specific experience working with the Caltrans District 6 staff in the Fresno area.

Larger alternative procurement projects, such as CM/GC, typically have several value-added positions that support and enhance overall project management, define and promote delivery solutions and increase design and construction quality. The individuals designated for the following additional key positions were specifically chosen for the SR99 Project based on their significant and relevant experience in complex, urban transportation development design and construction. Their talents will further advance our efforts during preconstruction and will transition, as appropriate, to ensure an efficient project execution.

- **Preconstruction Services Manager – James Waller**
  During Preconstruction, our team acts more like a consultant to the owner; providing recommendations and support on design, risk mitigation and constructability. Managing this phase successfully requires an individual with a strong design and construction background, as well as someone who is creative and collaborative. As Granite's Design Coordination Manager, **James has led our large project design and construction teams in the development of approved alternative technical concepts (ATCs) worth over $100M** and will bring this ability to find innovative solutions to accelerate schedule, reduce cost and minimize risk.
- **Constructability Expert/Area Superintendent – Mark Thornton**
  Mark has been responsible for the day-to-day execution for projects of similar size, value, complexity, and scope as the Caltrans 99 Realignment project. Mark is an experienced manager and has built successful roadway, structures, and highway projects for Caltrans' District 6 and throughout the Central Valley of California. His expertise will be available during Preconstruction Services as our lead constructability reviewer.
- **Structures Manager – John Boies, PE**
  John is a structures specialist with talents in structure selection, work planning, constructability review, estimating, and managing large construction projects. His expertise will be effectively utilized in both preconstruction services and construction. He will collaborate with the Caltrans design team to find the right solutions to structure selections, bridge construction phasing, and support of excavation challenges.

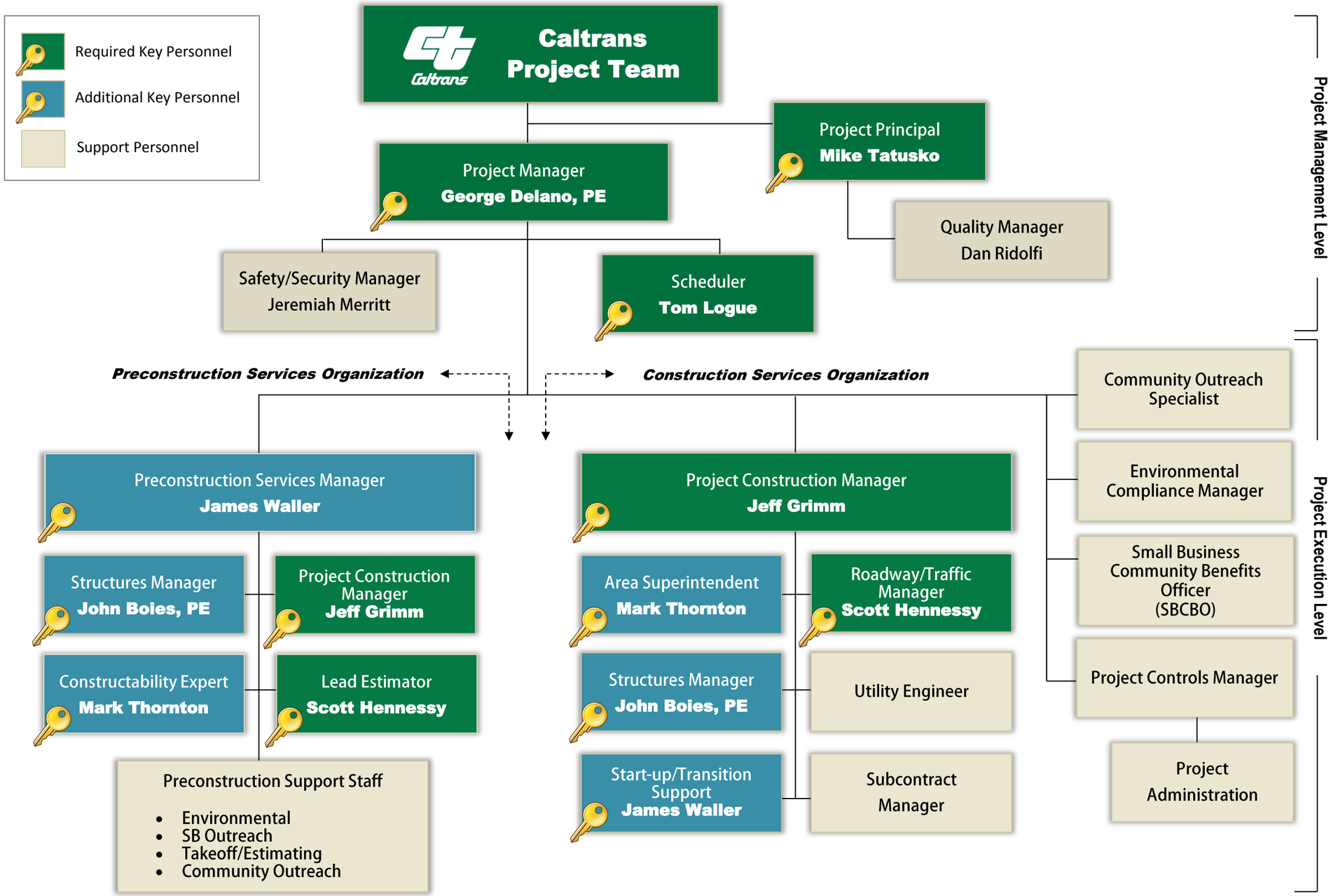
We have assembled a team that integrates local Caltrans design and construction experience with national CM/GC design innovation to offer the perfect blend of expertise in collaboration with the SR99 Project Team. Table 5.1 on the following page depicts our time commitment by key individual for the preconstruction and construction services phases.

Figure 5.1 on page 5-4 illustrates our integrated project organization, designed to meet the needs of the project and support the CM/GC contracting approach.

Table 5.1 Key Personnel Commitments — Preconstruction and Construction Phases			
Key Team Members	Preconstruction (CM Phase)	Construction (GC Phase)	Commitment/Description of other projects
Michael Tatusko, Project Principal	50%	50%	Mike will maintain his Valley Region Manager duties for the remaining 50%. This will enable him to pull in other resources as needed.
George Delano PE, Project Manager	100%	100%	George is 100% committed to the SR99 Project. He will only work on other projects if time allows.
Jeff Grimm, Project Construction Manager	100%	100%	Jeff is 100% committed to the SR99 Project. He will only work on other projects if time allows.
Scott Hennessy, Lead Estimator (CM)/ Roadway-Traffic Manager (GC)	100%	100%	Scott is 100% committed to the SR99 Project. He will only work on other projects if time allows.
Tom Logue, Scheduler	100%	100%	Tom is 100% committed to the SR99 Project. He will only work on other projects if time allows.
James Waller, Preconstruction Services Manager	100%	25%	James is 100% committed to the SR99 Project for Preconstruction Services. He will only work on other projects if time allows. As design is completed, James' services will taper off during construction. Other projects to be determined.
Mark Thornton, Constructability Expert (CM)/ Area Superintendent (GC)	100%	50%	Mark is 100% committed to the SR99 Project during preconstruction services. He will only work on other projects if time allows. Mark will integrate this project with the other Granite projects in the San Joaquin Valley. This will ensure a skilled and efficient work force readily available to the project.
John Boies PE, Structures Manager	100%	50%	John is 100% committed to the SR99 Project during the Preconstruction Services. During the Construction Phase, he will take the lead on resource planning (e.g. subcontract versus self-perform) to ensure a timely and cost effective execution.

1. Granite fully understands that Caltrans has the final decision on actual hours of the key personnel on the project. 100% commitment means that this person is 100% available to meet Caltrans' schedule for meetings and providing deliverables.
2. Preconstruction effort is expected to change from week to week depending on the project needs and Caltrans' schedule.
3. The SR99 Project will be the primary responsibility for the Key Personnel. Work on other projects will be performed as time allows.

SECTION 5 — CM/GC SR99 REALIGNMENT PROJECT ORGANIZATION



ORGANIZATIONAL BENEFITS

- The Granite CM/GC Management Team is assigned and dedicated to the Project from preconstruction services through construction services
- Key preconstruction services personnel Jeff Grimm, John Boies, Mark Thornton and Scott Hennessy will transition to active management roles during construction offering consistency and coordination
- James Waller will manage the preconstruction services and then provide start-up support at the beginning of the construction phase
- Our preconstruction services team is an effective balance of national CM/GC expertise with local Fresno Valley construction experience
- Several of our Key Personnel have significant District 6 experience, facilitating a seamless integration of the Granite Team with Caltrans.
- The Granite Team has the solid constructability experience on ALL of the Project elements

Form D

PROPOSED KEY PERSONNEL INFORMATION

Name of Proposer: **Granite Construction Company**

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.]

Position	Name	Years of Experience	Education and Registrations	Parent Firm Name
Project Principal	Michael G. Tatusko	33	BS, Construction Management, University of Maine, 1991	Granite Construction Company
Project Manager	George C. Delano, P.E.	35	BS, Civil Engineering, University of Vermont, 1980 / Professional Engineer (PE) CA #36342	Granite Construction Company
Project Construction Manager	Jeffrey Grimm	16	BS, Construction Management , California Polytechnic State University, San Luis Obispo, 2002	Granite Construction Company
Lead Estimator	Scott Hennessy	30	BS, Construction Management, California State University, Chico 1982	Granite Construction Company
Scheduler	Tom Logue	27	Associates / Architecture NEC - Phoenix, AZ 1986, Primavera Project Planner 3.0 Training School San Francisco, CA 1998, Primavera Project Planner 6.0 Training School San Francisco, CA 2008	The Swaney Corporation
Preconstruction Services Manager	James Waller	26	BS, Accounting, American University, 1992, BS, Chemistry, Minnesota State University, 1991	Granite Construction Company
Constructability Expert / Area Superintendent	Mark Thornton	36	Frontline Leadership Development Program, Frontline Time Management Course, STOP Training Program Blaw-Knox, CAT Training, Caltrans AGC Liaison, Sacramento Chapter, State Board-AGC, Sacramento	Granite Construction Company
Structures Manager	John Boies, P.E.	23	BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, 1990 / Professional Engineer (PE) CA #058404	Granite Construction Company

State Of California
CONTRACTORS STATE LICENSE BOARD
ACTIVE LICENSE

Consumer Affairs

License Number **89**

Entity CORP

Business Name GRANITE CONSTRUCTION COMPANY

Classification(s) C36 C10 A B C57 C-2 C-8 C12
C21 C27 C29 C35 C42 C45 C39
C50 C51 C31

Expiration Date 05/31/2015

www.cslb.ca.gov

GRANITE™

Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Section 6

PROJECT UNDERSTANDING AND APPROACH

SR99 looking north from Clinton Avenue. UPRR Fresno Yard in background

A Perfect Blend…

Superior Caltrans Experience and Nationally Recognized CM/GC Experience

PROJECT UNDERSTANDING AND APPROACH

Dedicated . Collaborative . Experienced

BENEFITS

- Rail and High-Speed Rail Experience – Understands CHSR Criteria
- Annually Granite completes more Caltrans Projects than any other Contractor
- Local Fresno experience since 1978
- Successful execution of $3.7B CM/GC projects nationwide
- Proven CM/GC tools and Processes

Granite possesses the perfect blend of Caltrans partnering and project history, Caltrans District 6 experience, High Speed Rail (HSR) understanding, local Fresno presence and knowledge, and successful CM/GC delivery.

A. PROJECT UNDERSTANDING

We understand the scope of this project includes working with Caltrans as the CM/GC to design and construct the realignment of SR99 between Ashlan and Clinton Avenues in Fresno California. This work is funded by the California High-Speed Rail Authority (CHSRA) as work on the project includes the accommodation of the future HSR infrastructure. Additional work is expected at the McKinley undercrossing. Major elements of work include: ROW acquisition, demolition, maintenance of traffic, utility relocation, overcrossings, Jointed Plain Concrete Pavement (JPCP) and Continually Reinforced Concrete Paving (CRCP) structural sections, city street reconfiguration, SWPPP, environmental compliance and substantial third party coordination. Figure 6.1 on the following page illustrates our understanding of these major scope elements, and our potential approaches to address them.

The SR99 Project is unique; it is the first CM/GC project let by Caltrans, will be designed and constructed in the middle of the $1B HSR Package #1, contains funding restraints from the Federal government, has significant stakeholders including the City of Fresno, and is associated with the politically sensitive HSR Program.

The following sections demonstrate our in-depth knowledge of the SR99 Project, the CM/GC delivery model and the specific value we bring to Caltrans to ensure successful execution of the project goals.

Project Understanding - High-Speed Rail Experience

Granite was part of the California High-Speed Ventures team (CHSV) for HSR Package #1 (HSR 11-16) through the City of Fresno. Granite's estimating and engineering staff spent over 12,000 hours on this pursuit conducting many of the same preconstruction activities as required on the SR99 Project such as: reviewing technical documents/directive drawings, participating in design development workshops, conducting constructability reviews, preparing take-offs,

SECTION 6 — MAJOR PROJECT ELEMENTS APPROACH CONSIDERATIONS

Maintaining Mobility/Business Access/Community Outreach

- Collaborate with Caltrans and provide immediate input on traffic control staging and phasing plans
- Consider temporary embankment widenings to facilitate traffic patterns at interchanges
- Participate in robust public information plan during preconstruction and construction phases. Maintain comprehensive project website
- Coordinate demolition of existing properties. Facilitate business access as needed
- Coordinate Ashlan and Clinton bridge work to reduce impacts on public
- Provide unrestricted alternatives to East-West travel at all times
- Consider Accelerated Bridge Construction techniques to minimize lane/road closures and detours
- Assist in evaluating cost/schedule traffic impact balance
- Assist in planning comprehensive pedestrian and bicycle access during construction

Utilities

- Identify tie-in points and all limits of work for the power line on West side of SR99, 8" sewer at Ashlan, 10" sewer at North Parkway Drive, 45" sewer that crosses SR99 at West Princeton, 14" water line that crosses SR99 near Ashlan
- Locate and ensure protection of existing fiber optic line and existing underground power line
- Ensure protection of an existing petroleum line and existing OH Power line east of the alignment
- Place new waterlines in Clinton structure and coordinate cross over with City of Fresno
- Analyze easement needs, incorporate into schedule
- Evaluate the need for temporary reroute of utilities
- Use 3D modeling to identify conflicts. Pothole as needed during preconstruction
- Consider temporary facilities to prevent outages to homes and businesses

ASHLAN AVENUE

CALIFORNIA 99

CLINTON AVENUE

MCKINLEY AVENUE

CHSR Criteria/HSR Alignment

- Coordinate tie-in points and schedule with HSR Package #1
- Evaluate minor alignment shifts to avoid some portions of intrusion barrier
- Evaluate maintenance access for HSR alignment
- Evaluate import materials to satisfy HSR criteria
- Determine most cost-effective protective layer for trackway grade
- Monitor amount of cover material over all HSR utility/drainage crossings. Ensure compliance with HSR transition structure criteria
- 100 year flood plain may require box culverts

Widening over McKinley undercrossing

- Construct widening high and then lower into place
- Use of precast girders (Bulb T or Tubs)
- Temporary lowering of McKinley Ave. Replace street structural section after bridge construction
- Explore detour scenarios during construction and accelerate work to minimize impact

Bridges

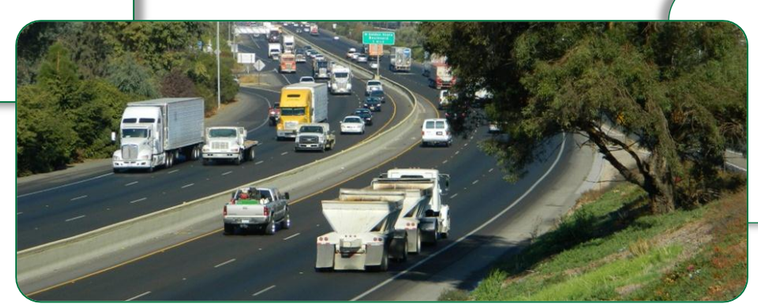
- Consider multiple bridge types and substructure construction to satisfy design criteria, optimize schedule and cost
- Evaluate advantages to Accelerated Bridge Construction (ABC) techniques
- Evaluate temporary shoring needs. potential to use soldier pile, plate and shotcrete
- Look at minimizing bridge depth to avoid raising finished elevation and impacting adjacent intersection
- Close coordination with UPRR and City for design reviews and approvals

Retaining Walls

- Consider multiple wall construction methods, Pre-cast panels, MSE, Cast in Place, T-Wall, soil nail and tie-back
- Evaluate the use of MSE walls for embankments exceeding 16'
- Design geometry of cast-in-place walls (including HSR Barriers) to facilitate form work reuse and production
- Collaborate with Caltrans to eliminate walls in design through grade changes and/or ROW changes
- Balance cost to construct with access, aesthetics, continuity with surrounding structures, schedule impacts
- Evaluate footing construction with property line constraints

PCC Paving

- Consider a portable batch plant to ensure quality and timely delivery of mix
- Evaluate use of "Super-Slab" precast panels for installation at north and south tie-ins
- Create paving plan early and coordinate with traffic control staging. Work to incorporate full paving lanes and minimize hand pours
- Create design and work plans to accommodate access and staging room for rebar installation and concrete delivery
- Consider "high early" concrete to allow early use of completed PCCP lanes
- Using life cycle costing tools, evaluate the use of CRCP in truck lanes through project



Roadway

- Investigate presence of lead soils (ADL)
- Consider using geotextile reinforcement to steepen slopes and avoid walls
- Upgrade, widen and enlarge existing drainage systems. Avoid full replacements using CIP liner techniques
- Recycle of old roadway section into proposed section
- Drought resistant landscaping
- Soundwalls and sound berms

conducting maintenance of traffic impact analyses, attending public outreach meetings, and cost estimating the project. The technical scope of work for the HSR Package is very similar to the SR99 Project. Parallels include: demolition of buildings and infrastructure, environment compliance, utility relocation and coordination, working over active heavy rail facilities, complicated maintenance of traffic, construction of high-speed rail embankments, major over-crossing construction and street relocations/closures.

Our experience with the HSR pursuit also included non-technical elements that provide Granite a superior understanding of the Project scope. These non-construction elements include: understanding and appreciation for the City for Fresno design guidelines, small business focus and need for outreach, and coordination with local businesses and accommodating city events. Delays to the SR99 Project have the potential to delay the HSR Program. We understand this and will not let it happen.

Project Understanding - Caltrans Experience

Our Company performs dozens of Caltrans jobs per year and routinely builds work per Caltrans plans and specifications with dozens of other agencies around the State. The Caltrans major construction elements on the SR99 Project are: concrete structures including cast in place box girder (with a potential to use precast girders), concrete pavement including both conventional JPCP and CRCP, traffic handling plans, earthwork, drainage, median barrier, construction of auxiliary and HOV lanes, and widening overcrossings. These Caltrans elements are successfully constructed by Granite on a regular basis across the State.

In District 6 we have a long relationship with the Caltrans Team and have a proven record of understanding Caltrans' technical and project management needs. Our experience with Caltrans goes beyond the role of General Contractor. With the Madera 99 Design-Build project, we proved we can work as a Construction Manager within the Caltrans design department and develop designs that are fully compliant with Caltrans' specifications and are constructible in a cost effective and schedule sensitive manner.

Project Understanding - Local Experience

Granite has been constructing road and highway projects, and producing construction materials, in the City of Fresno and the Fresno area for 30 years. This local knowledge provides us with a greater understanding of and ability to meet the project challenges. Examples of this include:

- Understanding of traffic patterns at Ashlan and Clinton and the impact to residents
- Availability of materials and subcontractors for construction
- Relationships with local trucking firms (i.e. Lawson Rock and Oil, Clay Miranda Trucking) ensuring availability of trucks for demo off haul, import of borrow, transportation of baserock and concrete/concrete aggregates
- Aggregate sources and relationships with other producers (i.e. Vulcan Materials, Calaveras Materials)
- Understanding of SWPPP requirement, Air Board expectations, and other local regulatory requirements such as Surface Mining and Reclamation Act (SMARA)
- Effective public outreach and communication methods
- Creating schedules with realistic weather conditions (i.e. valley fog) and local events impacts
- Existing relationships with the UPRR to facilitate approval of construction work plans

SR99 Realignment - Local and Regional Significance

As a local member of the Fresno community and a major contractor in California, we have a complete appreciation for the local and regional significance of this project. The HSR project through Fresno and central California is the largest public works undertaking in the State's history. Success of the program, including the SR99 realignment, is significant to the City of Fresno, Caltrans, the High-Speed Rail Authority, State taxpayers, and the Federal stakeholders. These many stakeholders will measure success in terms of; designing and building a cost effective project, completion of a high quality infrastructure project, minimizing adverse impacts to the City of Fresno businesses, emergency services and the traveling public, creating an aesthetic design that is complementary to the HSR construction and the City of Fresno, environmental compliance and excellence in sustainable construction, SB and DBE participation, and delivering the project well ahead of the published delivery date of February 2018.

Project Elements/Schedule

The SR99 Project has many elements that could directly impact the overall project schedule. Several of these are preconstruction related and several are construction elements. Efforts to keep these items off of the critical path will be essential for project delivery in early 2018.

- **Right of Way Acquisition** is a critical operation and will affect the Team's ability to start demolition, environmental remediation and then utility relocation. During preconstruction services Granite will provide guidance on construction access needs, cost-to-cure estimates, and detailed sequencing of parcel acquisition.
- **Utility Relocation** is also critical to the overall project schedule. The major utility lines need to be relocated as soon as possible to open up work areas on the project. Power lines parallel to SR99, 18" and 24" storm drain lines, 12" and 14" water lines, among others, must be relocated prior to construction in the respective areas. The CM/GC process allows these relocations to be performed by Granite (or a SB/DBE subcontractor) in early work packages to mitigate schedule impacts.
- **Maintenance of Traffic** is a critical factor in the project schedule. East-West mobility is a key goal on the project, to the City of Fresno and the traveling public. Granite routinely balances the need to maintain traffic flows with innovative solutions to minimize phasing and disruptions. Phasing plans and traffic control plans must be designed to accommodate the local traffic but also provide safe and efficient progression of the work. One of Granite's core competencies is the design and implementation of complex maintenance of traffic plans in urban settings, such as the plans we executed for the Merced County/Mission Avenue Project. On the SR99 Project we can bring multiple traffic phasing options for Caltrans to consider and determine the best solution for the project.
- **Bridge Construction** and **Concrete Paving** are key elements that will impact the project schedule. As experts in performing these disciplines, our team, including John Boies, PE as our Structure Manager will bring detailed work plans into the design process. Accelerated Bridge Construction options will be presented. Cost, schedule and maintainability data will be prepared so the State can adequately compare options for bridge type and structural sections selection. Ultimately, the overall design will be cost effective, schedule sensitive, and responsive to the City of Fresno, UPRR and other stakeholders.

B. CM/GC CONTRACTING APPROACH

Granite's overall approach to CM/GC Contracting is to provide "CM Consulting" services during Preconstruction and "GC Delivery" services during Construction. This approach is best executed by assigning a team of experienced construction professionals for the preconstruction phase and then transition that same team to lead the construction contract. This continuity will provide for:

- Effective and consistent integration of the different areas of expertise within the Granite's CM/GC team with the current Caltrans Project Team, stakeholders and the CHSRA.
- Final design development and construction implementation of innovative, efficient solutions that reduce risk and ensure delivery of the Project within the budget and schedule constraints.

Approach as a Sole Major Participant

Granite made the deliberate decision to propose on this CM/GC project as a sole Major Participant. We are confident this approach provides the best value to Caltrans and the Project. As national leaders in transportation construction, including CM/GC delivery, our experience shows that having additional JV partners or dedicated subcontractors/consultants for a project such as SR99 may create constraints and even misalignment amongst the CM/GC team that would inhibit the ability to bring creative and optimized solutions to the project. As the sole Major Participant we have the ability to consider and build all structure types, consider multiple construction elements, and ensure all design decisions are solely based on what is best for the Project.

During the preconstruction services phase, details surrounding design elements, schedules and phasing will be developed. Only after these details are provided can the CM/GC team accurately select the most capable

subcontractors and professional services, guided by value and availability. Taking advantage of the timing of available industry horsepower allows us to manage costs and compress schedules. This also provides the ability to increase small business participation. Design input will not be limited or influenced by our internal capabilities for construction. Moreover, our local, state and national portfolio of successful highway projects will provide the full suite of design options to Caltrans. Unburdened by implied teaming obligations, Granite's sole Major Participant format affords us the unique ability to serve as your CM/GC partner first and construction contractor second providing Caltrans with the true best value.

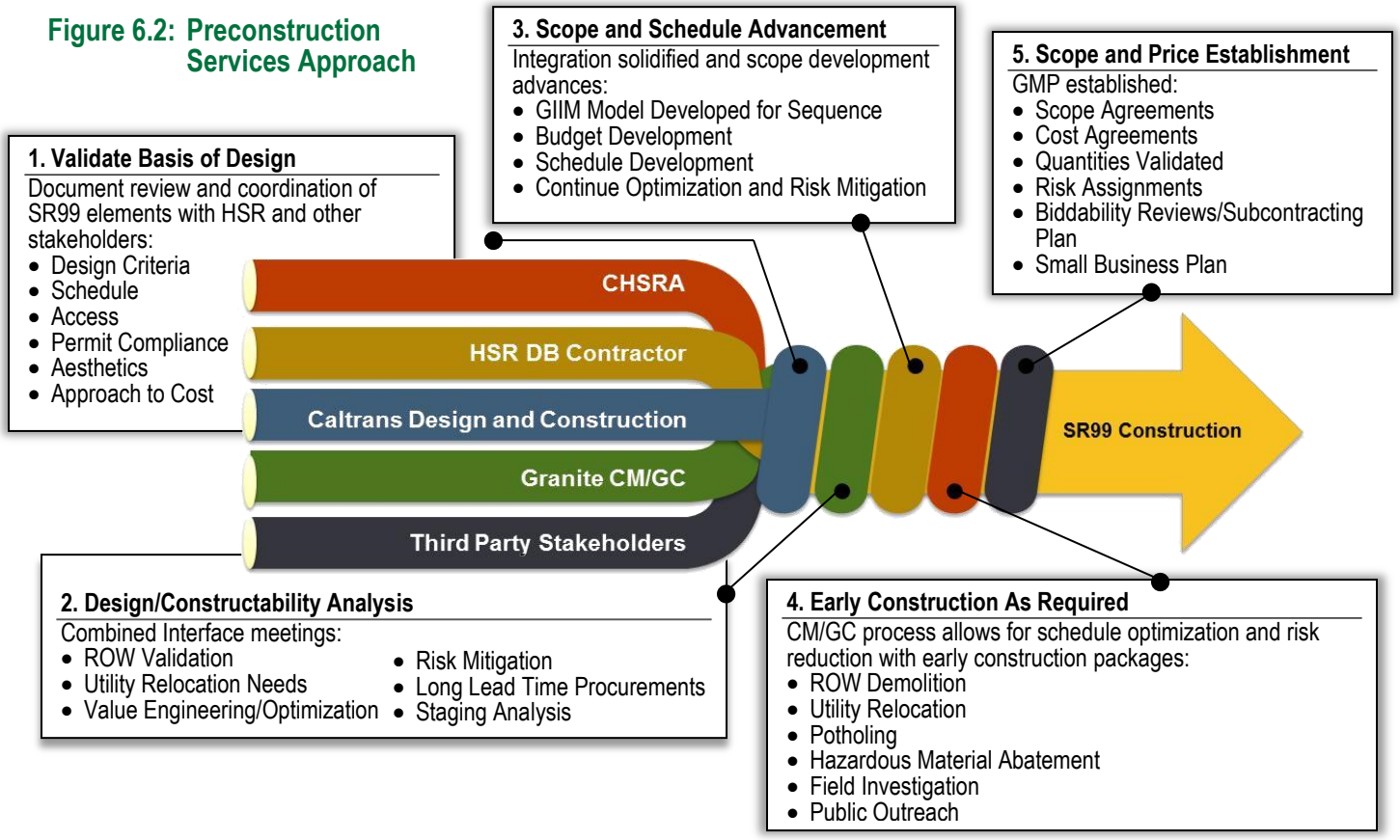
Partnering is Paramount

Partnering is about continuously cultivating the strong positive relationships necessary to realize project success. It is the backbone of our successful CM/GC management platform and has led to winning the AGC Marvin M. Black Excellence in Partnering Award on 16 projects over the past fifteen years. The Granite Team has extensive experience participating in the Caltrans Partnering Process, most recently on the Madera 99 Design-Build. Project Manager, George Delano, PE will promote the Project's partnering principles on a daily basis and create an atmosphere of collaboration, innovation and creativity during preconstruction services.

Preconstruction Services Approach

Our goal during preconstruction services is to optimize design and construction, and reduce risk by tackling the project challenges together as a collaborative Project Team. Project Manager, George Delano and Preconstruction Services Manager, James Waller will guide our team through the process. As design-construction liaisons they will conduct design and constructability reviews, feasibility studies/analyses, cost engineering reviews, estimate development and schedule/risk analyses. They will support the Project Team in finding the best solutions for the Project. James Waller has played an integral role in the procurement and delivery of over $6B worth of construction work and he supervises the set-up of nearly all the Company's Design-Build and CM/GC projects. Our experience combined with our understanding of the Project offers Caltrans a comprehensive contracting approach, as illustrated on Figure 6.2.

Figure 6.2: Preconstruction Services Approach



1. **Validate Basis of Design.** Immediately following the Project kick-off meeting and partnering meeting, the Granite Team would recommend scheduling meetings with CHSRA, their Design-Build contractor, as well as other design criteria stakeholders to establish relationships, develop clear lines of communication and review current status of the design and schedule. These meetings will facilitate information sharing and document flow. It is essential that Caltrans and Granite have a comprehensive understanding of the Project requirements. Coordination and continuity throughout the corridor is critical and the SR99 plans and specifications need to address third party considerations and create continuity through the Fresno corridor.

   - **Key Personnel involved**: Project Manager – George Delano, Preconstruction Services Manager – James Waller, Project Construction Manager – Jeff Grimm
   - **Outcomes/Deliverables**: Comprehensive Criteria Compliance Document, HSR Project Assessment, Communications Plan, Action Plans for Resolving Conflicts with Third Parties, Additional Field Investigation/Testing, Summary of Environmental Mitigation Measures, Updated Risk Register, Meeting Schedule, Current Project Schedule, Basis of Estimate

2. **Design and Constructability Analysis.** Optimization and innovation are an important part of the preconstruction process, and Granite can assist the Project Team in generating, evaluating, tracking and documenting them. With our current understanding of the Project we believe there are opportunities to realize significant cost and schedule savings and reduce risk through innovative design and construction sequencing. The Granite Team will participate in design reviews and conduct constructability reviews to identify improvement areas and ensure the Project can be constructed within the budget and schedule constraints. Right-of-way, utility relocations, long lead time materials and staging will be carefully analyzed for cost and schedule improvements. In addition to our key personnel, we can also offer in-house experts in all facets of civil design, pavement design, rail interfaces, and geotechnical engineering to provide additional value to Caltrans when/if their expertise is requested.

   During this stage of preconstruction risk items are identified and tracked. Granite will work with Caltrans in progressing the Project's Risk Register, to track progress and decisions regarding risk. Other tools, such as our Decision and Resolution Tracking (DART) system and the Granite Infrastructure Information Model (GIIM) can be brought to the Project and are discussed in more detail in Section E: Risk Mitigation Approach.

   - **Key Personnel involved**: George Delano PM, James Waller PSM, Jeff Grimm PCM, Structures Manager – John Boies, Constructability Expert – Mark Thornton
   - **Outcomes/Deliverables**: ROW Prioritization Plan, Utility Relocation Plan, Material/Equipment Market Survey, Construction Phasing Plans, Schedule/Estimate Updates

3. **Scope and Schedule Evaluations.** As design is being refined, our Scheduler Tom Logue will develop and maintain the project schedules. These will be updated, at a minimum, at major design milestones designated by Caltrans. Using Primavera P6, Tom has the ability to forecast and provide trend analysis and what-if scenarios on multiple project options. Our network capabilities of P6 allow our team to more accurately model the entire scope of work, and capture construction sequencing and work item dependencies. When changes occur during the project, we can analyze the impact of those changes and examine alternate strategies in completing the project in a timely manner. Our systems ensure accountability and transparency not only with ourselves, but the entire Project Team and stakeholders/third parties.

   - **Key Personnel involved**: George Delano PM, James Waller PSM, Jeff Grimm PCM, Scheduler – Tom Logue
   - **Outcomes/Deliverables**: Primavera P6 Project Schedules, Sequencing Recommendations, Construction Phasing Plan, Updated Risk Register

4. **Early Construction As Required.** One of the unique elements of CM/GC delivery is the ability for Caltrans to develop early work packages. The potential benefits of early packages include optimization (shortening) of the overall schedule and also generating field information that may affect the final design

of the project. Understanding the field conditions early can lead to cost savings, schedule savings and a reduction of Project risk. Scope, cost, schedule and risk mitigation benefits of early packages will be evaluated by the project team during preconstruction services.

Areas of early work package to consider will include: demolition of Right-Of-Way facilities, utility potholing, utility relocation, and investigation/mitigation of hazardous materials. Caltrans can also consider more aggressive schedule enhancement options. These early construction packages would include traffic handling switches or bridge sub-structure installation.

- **Key Personnel Involved:** George Delano PM, Jeff Grimm PCM, Mark Thornton CE
- **Outcomes/Deliverable:** Construction Package for Early Work (Plans/Specs/Estimate), Schedule Improvement, Field Data for Design Development, Reduction of Project Risk

5. **Scope and Price Establishment.** Scott Hennessy will lead the Granite estimating team by creating and updating a production based cost model that will be compatible with Caltrans' Engineer's estimate format. It will be based on the baseline production rate assumptions, current schedule, and escalations, mark-ups, profit and contingencies established in the initial "Approach to Cost" meeting with the Department and Independent Cost Estimator (ICE). He has access to our cost histories and project reports not only for local areas, and in California, but also those covered by our national foot print. Scott will utilize our HCSS estimating systems and processes which are designed to provide quick reliable rough orders of magnitude to support individual design decisions and provide a cost book as the Opinions of Probable Construction Cost (OPCC) are developed on milestone design deliverables.

   Scott will develop and submit the contract construction price including direct costs, risk contingency, and CM/GC fee within a week of receiving the final design. Immediately following the construction price submittal we will begin open book negotiations with a goal of reaching a GMP within 30 days. ***We have reached an acceptable GMP on every one of our CMGC projects.*** Scott Hennessy and George Delano will start negotiating the final GMP at final design after all alternative methods of performing the work under the Subcontracting Plan have been discussed, the Small Business Plan is reviewed and approved, and all alternative value engineering methods based upon the 90% design have been incorporated. This open book negotiation will entail sharing information provided by both the contractor and the Department, including all supporting background information, unit prices, quantities, scope and detailed pricing data. Project Principal Mike Tatusko will support as needed. The negotiations will be finalized when a mutually agreeable GMP is reached.

   - **Key Personnel involved**: Lead Estimator - Scott Hennessy, George Delano PM, Project Principal – Mike Tatusko,
   - **Outcomes/Deliverables**: Cost estimates at each Milestone, summary of quantities, narrative of estimate assumptions, narrative of estimate mark-ups and escalations, Subcontracting Plan, Small Business Plan, GMP with all backup.

Construction Services

Smooth transition from preconstruction to construction. Granite's construction management process begins with transitioning its staff from preconstruction to construction, maintaining the continuity of personnel who understand the project and will hit the ground running. The team, led by Project Manager George Delano, has a successful work history of projects of similar size and scope. George and the team will continue the collaborative effort and strong partnership developed during preconstruction into the construction phase. Some of their construction project management strategies and approaches will include:

- Weekly coordination meetings with all stakeholders including Caltrans, Granite, UPRR, City of Fresno, subcontractors, and major suppliers.
- Daily, weekly, and monthly job cost tracking along with monthly cost forecasts to insure the project is constructed under the GMP.
- Continue robust public information program including website, project hotline, weekly email updates, and public outreach meetings.

- Weekly CPM schedule review and updates, including any necessary mitigation plans, to ensure the project meets milestones and is completed within the contract time.
- Monthly senior management meeting to assess project progress, promote partnering, and recognize accomplishments of the Team.
- Creating a series of management plans and executing the plans during construction.

C. CM/GC ORGANIZATION ALIGNED WITH THE PROJECT GOALS

Granite's local, experienced team and our approach as previously described is in perfect alignment with the goals of the SR99 Project. Our approach to the project and knowledge of the corridor, the HSR goals, Caltrans standards and practices and CM/GC best practices offers Caltrans the right combination of experience and confidence to successfully deliver the project, as summarized in Table 6.1.

Table 6.1: Alignment with SR99 Project Goals

Project Goals	Project Organization and Approach
Safety: Maintain safety of the traveling public and employees during construction of Project	• Engage Safety Manager in constructability reviews as appropriate • Develop Safety Plan and Training Program during preconstruction • Full-time, onsite Safety Manager
Mobility: Minimize impacts to the motoring public, businesses, and emergency services during construction of the Project	• "Virtually" test/validate maintenance of traffic plans • Meet early and often with project stakeholders • Develop construction mitigation plans to avoid/minimize impacts • Regularly coordinate with HSR Contractor • Use Accelerated Bridge Construction techniques where applicable
Quality: Construct a high quality, fully functional freeway that meets current design standards	• Develop Quality Plan and Training Program during preconstruction • Structures Manager engaged with design team during preconstruction services to determine best solutions • Provide robust contractor's quality control integrated with Caltrans quality assurance program • Conduct/participate in aesthetic workshops
Environmental Compliance: Comply with all environmental commitments and permits	• Develop Environmental Compliance Program during preconstruction services • Dedicated Environmental Compliance Manager during construction • Integrate permitting activities in the overall project schedule
Project Delivery: Develop and implement innovative solutions to obtain substantial completion by February 2018	• Provide both local construction expertise and national CM/GC expertise on major tasks throughout preconstruction • Implement proven CM/GC tools such as DART to manage innovation and risk • Develop productive relationships with HSR Contractor • Transition key personnel from preconstruction to construction • Use GIIM and predictive scheduling techniques to virtually construct the project before breaking ground • Consider Early Work Packages • Determine ROW sequencing that best fits the needs of the project • Coordinate early with utilities and other third party stakeholders

D. PROJECT RISKS, MITIGATION STRATEGIES AND CONSTRAINTS

No project is without design and construction risk. However, we are confident that with the collective talents and experience of Caltrans and the Granite Team the SR99 Project will be successful and achieve each of the project goals. The team will be proactive in identifying risks and creating the plans to eliminate or minimize them. Table 6.2 provides a brief summary of some of the project risks, mitigation measures, and project constraints that the Granite Team along with Caltrans will aggressively address.

Table 6.2: Project Risks, Mitigation Strategies and Constraints

Design Risks		
Risk	**Mitigation Measures/Strategies**	**Project Constraints**
Identifying design conflicts that arise from unexpected or unknown site conditions.	• Comprehensive coordination with third parties (City of Fresno, UPRR, other utilities, HSR Contractor) to document potential construction impacts • Develop a construction mitigation plan to avoid/minimize impact to schedule/budget • Develop contingency plans to shift work locations if conflicts arise • Extensive subsurface surveys at tie-ins and conforms to adjacent projects and transportation facilities	• Limited access before ROW is acquired • Limited as-builts • Limited access to RR property • Budget and timing for geotechnical exploration
Receiving timely design reviews from third parties.	• Develop and implement an efficient design review process with UPRR and Fresno • Integrate Caltrans and third parties in weekly task force meetings • Execute MOUs with well-defined criteria including review periods • Identify changes in design concepts early • Package design submittals to facilitate quick reviews	• Multiple third parties, including UPRR, City of Fresno, FMFCD, • Design schedule • ROW acquisition timing
Ability to accommodate multiple parties' aesthetic preferences. Minimizing the impacts to schedule and budget.	• Implement context-sensitive design process early • Create schedule and cost impacts for aesthetic options (including betterments) for Caltrans review and approval • Conduct aesthetic workshops with third parties • Formal Partnering with City of Fresno and HSR construction team • Coordination with HSR Team to ensure integrated look/feel through Fresno	• Multiple criteria docs (City of Fresno aesthetic guidelines, Caltrans design manual) • Budget of the project • Design schedule
Identifying design conflicts that arise between Caltrans, third parties and HSR criteria.	• Develop the Design Criteria Matrix to document all design requirements • Propose design criteria that best meets the requirements of all parties • Perform "Clash Detection Electronic Interrogation" to identify design conflicts • Maximize the use of Granite's 4D modeling expertise. Use electronic analysis for constructability reviews • Meet with affected parties to establish and get consensus to their affected criteria (Design workshops) • Incorporate advanced scheduling techniques: linear, interactive and 4D modeling	• Multiple criteria documents (HSR, Caltrans, City of Fresno) • Design Schedule • Defining betterments or enhancements
Construction Risks		
Risk	**Mitigation Measures/Strategies**	**Project Constraints**
Ability to identify constraints early that could impact or impede start of construction.	• Complete the ROW plan as early as possible. Find opportunities to minimize ROW through temporary easements or small element changes • Stage geotechnical testing to meet access and design dates • Create environmental compliance checklist. Incorporate mitigation measure in design criteria • Establish a critical issues resolution team (an integrated technical and administrative team) to assist Caltrans and third parties identify and resolve issues • Develop and implement a construction plan with optimum flexibility to adapt to early constraints	• ROW acquisition (+/- 59 parcels) • Utility relocation (self- performed and by others) • Incorporation of permit conditions • Site investigation: Understanding of existing underground utility and geotechnical conditions • Multiple permits required

Risk	Mitigation Measures/Strategies	Project Constraints
Attracting and retaining sufficient levels of trained craft workforce.	• Commit resources from Fresno and other Valley Granite offices • Satisfy "Targeted Worker" Goals from Community Benefit Agreement • Develop a resource-loaded project schedule and work phasing that balances resources and maintains an efficient workforce • Understand the scope of work, complete a detailed estimate and engage qualified subcontractors early • Meet with local unions to understand their pool of available workers • Execute Granite's Small Business Plan to engage the use of local man-power	• Competition with other local transportation projects • Competition with HSR Package 1 • Competition with HSR Packages 2-3 • Limited pool of SB contractors
Construction Commodities- The Project demand exceeds the market supply of critical commodities. Rebar/Cement/Ready Mix Concrete/Asphalt Potential schedule and Cost Impacts	• Mitigate commodity risks by proposing design alternatives that minimize the use of impacted commodities i.e. Consider the use of precast concrete elements to minimize stress or demand on local ready-mix market • Fully understand project needs through multiple quantity takeoff • Survey qualified vendors and determine capacity to meet project demands • Integrate purchasing supply chain (submittal approval, manufacturing, shipping, and handling, and quality testing durations) into the project schedule • Assign a procurement manager to expedite acquiring materials • Use Granite's buying power/relationships with vendors to secure commodities • Consider use of Granite portable PCC and AC batch plants • Work with corporate partners such as John Lawson Rock and Oil Co., Shell, and Paramount for liquid asphalt supply • Use a combination of local ready mix suppliers such as Calaveras Materials, Builder's Concrete, and CEMEX • Leverage relationships with CEMEX, Cal Portland, Riverside Cement, and others to pre purchase an adequate supply of cement • Maximize the use of early fabrication of rebar and steel products via local suppliers, (Harris Rebar or Franklin Steel) and stockpiling in local Granite yard	• Local market capacity • Design of Construction elements (use of concrete vs. asphalt in pavement sections, use of steel vs. concrete in structures. precast vs. cast in place elements) • Competition from other projects • Pace of Construction • Need to minimize haul costs/environmental impacts
Availability, and trucking, of imported borrow material and aggregates.	• Design project components and phasing with consideration of material balance • Design structural section with consideration of local materials • Balance material usage by using existing parcels • Maximize use of recycled materials • Secure borrow sites early • Establish agreements with the Fresno Metropolitan Flood Control District and Fresno Irrigation District to obtain borrow material. Local market has the ability to supply 18 million cubic yards of borrow material • In addition to our internal Coalinga source, use a combination of local aggregate suppliers such as Vulcan, CEMEX, CMI, who have indicated an ability to supply more than 4.5 million tons annually	• Local borrow sites capacities • Supply from flood control basins • Balance of materials on the job • Structural section design • Phasing/staging • Local material producer supply • Competition for materials from other projects • Sustainability
Construction over live railroad facilities	• Include UPRR in all partnering processes • Enter into formal agreement with UPRR detailing scope of work, expectations and roles/responsibilities • Use Granite experience with working over live railroads to develop comprehensive safety and work plans • Assist Caltrans in design efforts to accommodate footing and false work impacts	• Busy existing UP railroad facility • Design elements include major structures over the live tracks

Environmental and Stakeholder Risks		
Risk	**Mitigation Measures/Strategies**	**Project Constraints**
Time, scope and cost impacts of existing hazardous material (HM) or Culturally significant sites	• Coordinate HM testing program with schedule for parcel acquisitions • Conduct HM testing inside Caltrans ROW at earliest opportunity • Establish contingency plans to shift construction efforts if HM is discovered during construction • Coordinate cultural surveys as property becomes available	• Unknown limits, types, quantities of Hazardous Materials – Cultural sites • Limited ability to test on private properties. • At least 6 known locations with potential environmental concern (PEC) • Caltrans is responsible for HM-1 found within SHS ROW • Limited Cultural surveys to date
Storm Water Pollution Prevention Compliance	• Use Granite's expertise of implementing storm water BMP's • Create comprehensive SWPP plan • Stage construction to limit exposure • Regular dust and noise, vibration monitoring • Onsite QSD and QSP	• Urban setting • Limited availability of settlement ponds • High profile, highly visible Project • Potential for unusual weather events • Raising profile grades at intersections
Acquiring critical environmental permits in a timely manner including, 404, 401, CDFG Section 1602, and ESA Section 7.	• Identify risks that are associated with submittal activities before, during and after approvals and accommodate them in the schedule • Assist Caltrans with developing design and construction information needed for permit acquisition. Work with USACE, CDFG,USFWS, NMFS • Use Granite's local permit expertise to acquire contractor furnished permits • Include all permitting activities in the overall project schedule	• CHSRA is responsible for preliminary programmatic permits • CHSRA is the CEQA lead agency. FRA is NEPA lead • Need demo permits, tank removal, storm water discharge, borrow source permits • Most permits needed to begin work
Movement of traffic issues – Impacts to emergency services and business. Maintaining East-West connectivity.	• Staging and phasing design planning sessions • Agreed work windows for lane closures, minimize daily closures • Extensive Public outreach and notification (Websites, message boards etc.) • Review and approval of traffic control plans with City of Fresno traffic department as early as possible	• Nature of the construction elements (i.e. Over crossing removal and replacements) • Traffic impact from other projects (HSR) • Existing heavy traffic volumes with limited detour options.
Impact to/from working over UPRR heavy rail facility	• Implement best practices from Granite's previous rail projects • Set up communication protocol for Flaggers and Engineers-In-Charge • Create contingency plans for construction work • Coordinate working hours with train schedule	• Overcrossing falsework • Bridge foundation installation • Wall foundation work • Utility Crossings • Field investigation for design
Managing the small business component of the Project to achieve the small business utilization goal. Helping small businesses manage scopes of work and making the small business firms successful.	• Coordinate design documents to identify appropriate scopes of work based on capacity and capability of small business firms • Assign full-time small business oversight team to coordinate a comprehensive Small Business Performance Plan for the Project • Develop an internal program that provides fair approaches to requiring bonds for SB enterprises, provides for early release of payments, mobilization payments, and optimizes SB firms' cash flows • Work closely with SB (and DBE) advocacy groups	• Very aggressive project goal (30% SB) • Capacity of the Small Business community • Scope of Construction work • Essential to maintain quality, cost and schedule

E. RISK MITIGATION APPROACH

On every Granite construction project risks are identified early, regularly evaluated, reasonably quantified, and mitigated systematically. A fundamental component of the CM/GC process is the opportunity for the owner/designer and construction manager to identify and effectively manage potential project risks together during design, thereby eliminating risk or implementing cost-effective mitigation plans. Granite's experience on multiple CM/GC and DB contracts has resulted in a robust "toolbox" of proven systems and processes that proactively manage risk, including:

- **"Project First"** Partnering Commitment
- Owner led Design Task Forces / Constructability Reviews
- Collaborative Risk Workshops - DART Decisions Making Process
- Comprehensive Risk Register
- Predictive Design/Scheduling Tools/Detailed Schedule
- Risk/Opportunity Sharing Philosophy

Partnering

Granite's "PROJECT FIRST" Partnering approach is well recognized throughout the industry and by Caltrans. We have won 16 Marvin M. Black "Excellence in Partnering" awards over the past 15 years on projects ranging in size from $10M to $500M. The premise of our approach is to create and nurture a collaborative culture based on mutual respect, shared accountability and fairness; with everyone putting the needs of the Project ahead of the individual needs of our organizations. This philosophy aligns the goals of the Project Team, places the final decisions for the project with the Department, and safeguards the project schedule and funding (risk) as if it were our "own" time and money.

Design Task Forces / Constructability Reviews

Project risk will be initially identified through the Design Task Force/Constructability Review process. These meetings include members from the entire Project Team and serve as the brainstorming sessions that analyze and guide the design approach. As the design is progressed, Granite constructability experts will identify potential issues/risks, consider schedule impacts, create mitigation/contingency plans, and create cost estimates of impacts and options. This information will be tracked on the Risk Register to keep the Team informed of the status of the risk items throughout the process.

Collaborative Risk Workshops -- Decision Analysis and Resolution Team (DART)

In collaboration with the Department, we will hold several "Risk Workshops" at key milestones throughout preconstruction to continuously identify, track and mitigate project risks. While these risks are routinely discussed during our Design Task Force meetings and project management meetings, the specific Workshops focus solely on achieving an understanding of and consensus on risk items and the mitigation strategies.

Our approach includes forming a Decision Analysis and Risk Team (DART) to review all major design decisions and project approaches, as well as priorities

Figure 6.3: DART Tracking Matrix Evaluation and Scoring – Mountain View Corridor CM/GC

COPPER HILLS CONSTRUCTORS

Decision Analysis and Resolution Team (DART) Tracking Matrix

Issue: Lower roadway profile 3 feet from station 1273-1373+00 to avoid transmission line relocation. Plans at 60%

1. Impacts to Design Scope on a Dollar Basis	2. Impacts to Construction Scope on a Dollar Basis	3. Impacts to Owner on a Dollar Basis	4. Impacts to Schedule CPM Basis
Redesign will take 3 weeks. Vertical profiles will have to be remodeled. Slight impact to drainage and abutment elevation of one structure	Affects dirt balance on project and will increase haul off by 35,000 cubic yards	Avoids ROW acquisition and utility relocation	Relocation is currently listed as precedent activity for construction in segment
FACTOR (check appropriate box)	FACTOR (check appropriate box)	FACTOR (check appropriate box)	FACTOR (check appropriate box)
4 ☐ >$250K in Cost	4 ☑ >$250K in Cost	4 ☐ >$250K in Cost	4 ☐ >6 Weeks Added
3 ☐ $101K–$249K in Cost	3 ☐ $101K–$249K in Cost	3 ☐ $101K–$249K in Cost	3 ☐ 2–4 Weeks Added
2 ☑ $50K–$100K in Cost	2 ☐ $50K–$100K in Cost	2 ☐ $50K–$100K in Cost	2 ☐ 1–2 Weeks Added
1 ☐ $1–$50K in Cost	1 ☐ $1–$50K in Cost	1 ☐ $1–$50K in Cost	1 ☐ <1 Week Added
0 ☐ No Impact	0 ☐ No Impact	0 ☐ No Impact	0 ☐ No Affect
-1 ☐ $1–$50K in Savings	-1 ☐ $1–$50K in Savings	-1 ☐ $1–$50K in Savings	-1 ☐ >1 Week Cut
-2 ☐ $50K–$100K in Savings	-2 ☐ $50K–$100K in Savings	-2 ☐ $50K–$100K in Savings	-2 ☐ 1–2 Weeks Cut
-3 ☐ $101K–$249K in Savings	-3 ☐ $101K–$249K in Savings	-3 ☐ $101K–$249K in Savings	-3 ☑ 2–4 Weeks Cut
-4 ☐ >$250K in Savings	-4 ☐ >$250K in Savings	-4 ☑ >$250K in Savings	-4 ☐ >6 Weeks Cut
20 Weighted score (Factor x10)	80 Weighted score (Factor x20)	-80 Weighted score (Factor x20)	-120 Weighted score (Factor x40)
ROM Cost: $95,000	ROM Cost: $1,200,000	ROM Cost: ($2,300,000)	ROM Time Impact: 3 Weeks

Total Score: -100

Champion(s): Construction: Jason Brada, UDOT: Josh VanJura, Design: Scott Lucas

DART Recommendations: Rough order of magnitude cost born by state will substantially offset design and construction cost. Further follow-up required. Taget resolution: 3 weeks

Schedule for Follow-up: -100 Requires weekly update to DART

Final Resolution: TBD

for items based on their Risk and Opportunity assessments. This information, reviewed at the monthly Caltrans risk assessment meeting, enables the team to understand the remaining risks on the project.

Granite will develop a rough order of magnitude cost to apply to each item to understand the cost impact. A Sample DART Form is shown in Figure 6.3 on the previous page. The rating system not only captures and prioritizes risk items that have potential to impact cost or schedule but also identifies those items that have potential to reduce cost or develop schedule flexibility. The focus is on minimizing potential impacts and maximizing potential gains for the identified items. Information from our DART analysis is then transferred to an overall risk register.

Comprehensive Risk Register

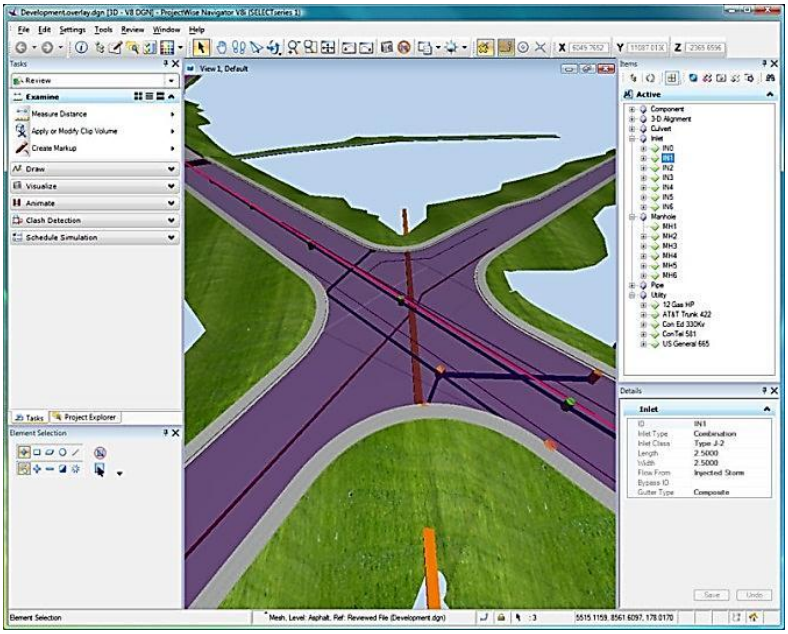
Risk will be evaluated, quantified, and mitigated on a regular basis during Preconstruction Services. Information and decisions made and captured on DART forms will be combined in an overall summary. Granite routinely uses a Risk Register very similar to the one used by Caltrans. We will develop and maintain a Risk Register throughout the project, regularly reviewing and updating it at our Design Task Force meetings and risk management meetings and during construction.

As we identify risks, all team members will have the opportunity to contribute to the mitigation options, their estimated costs, impacts to other stakeholders, schedule impacts, and which team member will be the champion of ongoing action items to continue to define and mitigate project risks.

Predictive Design/Scheduling Tools

Making decisions on a technically challenging project from two dimensional plans may result in misidentification of risks. To prevent this, Granite will utilize a linear infrastructure information model developed for projects just like the SR99 Realignment. The Granite Infrastructure Information Model (GIIM) surpasses the traditional BIM model limitations for linear projects. The use of GIIM early in the process will facilitate items that surpass the normal clash detection systems of a BIM model, allowing our team to see the logistical constraints imposed on this linear project. When these physical constraints are tied to limits in time, such as foundation excavations, the options for sequencing begin to narrow. This 4D approach can be utilized not only during preconstruction but also during construction to ensure we have optimized our approach and met the commitments and conditions of the project.

Figure 6.4: GIIM Model



Granite utilizes the Critical Path Method (CPM) of scheduling not only to establish a Project Baseline Schedule, but also to track periodic performance and forecast remaining work as the project progresses. The network capabilities of CPM allows the team to more accurately model the entire scope of work, and capture construction sequencing and work item dependencies. When changes occur during the performance of the contract, those same network capabilities allow Granite to analyze the impact of those changes and examine alternate strategies in completing the project in a timely manner.

Our experience has proven that a comprehensive cost loaded, resource loaded, schedule is invaluable in understanding the impacts of project risks. Key items that need to be included on CM/GC project schedule include: ROW acquisition items (records search, appraisals, etc.), hazardous material investigation, geotechnical investigation, permits/permitting, work performed or coordinated with utilities/third parties.

Risk/Opportunity Sharing

Our Risk sharing philosophy generally follows the principle: *Risk should be owned by the party best suited to manage the risk*. This is in concert with the State's approach to managing risk. For example, Caltrans' contracts generally have asphalt escalations clauses to allow for fluctuations in liquid asphalt pricing. On large, multi-year projects it can be impossible to lock in the price of liquid asphalt so a risk/opportunity is created based on the likelihood of prices increases or decreasing. Caltrans generally assumes this risk/opportunity and ultimately pays the fair market value for the product.

Quantity and production risk are generally owned by the contractor. With the CM/CG process, plans and specs are advanced to a point where the contractor can do a detailed takeoff and put together a hard dollar estimate for the work. Schedule risk generally follows quantity and production risk. When quantities and scope are known, the contractor should have responsibility for schedule risk.

There are many items where some type of shared risk should be considered. No black and white rule exists and each situation should be evaluated independently and fairly. On the SR99 Project, some of these items could include cost and schedule risk of: discovery of contaminated material, utility work performed by third parties, and Right-of-Way acquisition impacts. The creative use of contingencies, allowances, not-to-exceed amounts, float ownership, and force account work can produce a fair and balanced approach to many risk items.

F. SMALL AND DISADVANTAGED BUSINESS ENTERPRISE POLICY/ COMMUNITY BENEFITS POLICY

Caltrans has included comprehensive documents for the Small and Disadvantaged Business Policy and Community benefit Policy in the RFQ for the SR99 Project. As the Project is fully funded through the California High-Speed Rail (CHSR) Authority, Caltrans is "passing through" the project policies related to SB participation and Community Benefits. Granite fully understands the goals for these essential Project elements. In short, the Small and Disadvantaged Business Enterprise Policy establishes commitment "to ensuring SB's have the maximum practical opportunities to compete for and participate in" the Project. The Community Benefit Agreement (CBA) Policy directs its contractors to "provide meaningful employment opportunities and construction careers to those residing in the disadvantages areas and/or currently facing barriers to employment."

Addendum No. 1 removed the DBE goal language from Form F. Although Caltrans has limited the official goal of the project to Small Businesses, Granite will also pursue and subcontract with Disadvantaged Business Enterprises (DBE) for the benefit of the Project and the community.

SB Policy/Community Benefit Approach

From our local office in Fresno, Granite has a unique perspective and has gained the understanding of the economically disadvantaged residents and businesses throughout the Central Valley Region. Granite has built many relationships with local small businesses, and is committed to maximizing benefit to the community in the execution of this contract.

Our team will use a nine element approach to achieve the Small Business and targeted hiring goals. The nine elements are:

1. **Small Business and Community Benefit Officer (SBCBO) -** Granite will designate a Small Business and Community Benefit Officer (SBCBO) who shall be responsible for developing, implementing, monitoring and managing the day-to-day operations of the plans. This position will coordinate all elements of the Plans to effectively track, monitor and report on Small Business and community utilization throughout the duration of the contract. The SBCBO will coordinate efforts at all subcontractor tier levels to institute innovative strategies and remedies to meet Granite's commitments and the intended goals and objectives of the Program. The SBCBO shall work in close coordination with Caltrans, and shall report quarterly on Granite's success in reaching the established utilization goals during the design work and the construction period.

2. **Creating a dedicated team** Granite will build a team focused on SB and Community Benefit goals. The team will be led by the SBCBO and include hiring personnel, subcontractor administrators, procurement specialists, and outreach coordinators. The team will be fully integrated with the project staff.
3. **Develop Comprehensive Management Plans** – The Granite Team will develop comprehensive Small Business and Community Benefit plans. These documents will include the details to achieving project goals, metrics, and contingency plans. All requirements from the CHSRA's *Revised Small and Disadvantaged Business Enterprise Program* will be incorporated into the SB plan. All requirements from the *Community Benefits Agreement* will be incorporated into the Community Benefit plan.
4. **Identify meaningful roles for Small Business** - We will identify and tailor specific scopes that are available for Small Business participation based on experience in the local region and meeting the resource requirements of the Project. During the preconstruction phase, we will work with Caltrans designers to make sure portions of the work, plans and specifications are manageable for Small Businesses. We will hold quarterly strategic planning sessions with Caltrans to identify work scope packages, available firms, and potential obstacles to overcome in order to maximize SB utilization.
5. **Execute extensive Small Business and local community outreach program** - Based on our local knowledge, we will establish an extensive outreach program through local media, our project website, industry associations, labor pool affiliations, and open house events that will provide information about the Project, how to do business, and a point of contact with Granite for follow-up. Granite currently has a data base with over 1,200 potential SB firms.
6. **Assess Small Business capabilities** - Our relationships with many subcontractors, suppliers, and vendors in the Central Valley Region will enable Granite to thoroughly assess and find a suitable fit with Small Businesses to maximize participation.
7. **Assist and Mentor Small Business -** Granite has extensive experience in mentoring Small Business firms. There are many projects where we have partnered with Small Business firms and helped them develop and grow by tailoring scopes and bid packages to fit their firm's expertise, help with bonding requirements, and facilitate cash flow through materials on hand payments.
8. **Work with Local Organizations/Hiring Halls -** The Community Benefit Agreement is signed by dozens of labor organizations that all made the commitment to recruit and retain Targeted Workers. Presenting our anticipated hiring needs to these organizations in advance will provide the greatest opportunity for Targeted Worker availability. Granite will develop a referral program to supplement the hiring halls as needed.
9. **Data Collection, Reporting, Record Keeping –** An integral part of these elements is the continual tracking and reporting of our status. This reporting will include both Small Business participation and Targeted Worker employment. Frequency and format for the tracking and distribution will be detailed in our respective plans. Understanding where the team stands compared to the goals will drive contingency planning.

Granite takes pride in meeting or exceeding Small Business goals. A recent success story is the Granite-HP Joint Venture project for the construction of the California Health Care Facility in Stockton. This $130 Million project started with a State goal of 25%. We committed to 30% at bid time and ultimately delivered 36% Small Business participation! We have a very successful history of exceeding goals on our projects.

GRANITE™

Statement of Qualifications
State Route 99 Realignment
CM/GC Services
Contract No. 06-2HT101

Appendix A

RESUMES

Intersection of Clinton Avenue and Weber Avenue

Local
Experienced
Effective
Leadership

PROJECT PRINCIPAL

MICHAEL G. TATUSKO, VP

Years of Experience: 33

Education:

BS, Construction Management,
University of Maine, 1991

Areas of Expertise:

- Operations and Business Management
- Resource Allocation
- Partnering
- Alternate Procurement Project Delivery
- Urban Highway Construction
- Innovative Maintenance of Traffic
- Construction Sequencing to Minimize Impacts
- Stakeholder Coordination
- Utilities Coordination

- **Position Description/Responsibilities:** As Project Principal on the SR99 Project, Mike will ensure that adequate personnel and other resources are made available for this project and will handle all contractual matters. He will provide oversight for the Quality Management Program and participate in Partnering sessions as sheduled throughout the duration of the Project. This position will ensure that the project is tracking as planned, both in terms of schedule and budget. Mike's previous experience on CM/GC and Design-Build projects will provide added value to the Team.
- **Authority:** Mike shall have the authority to assign resources, both staff and equipment, in the best interest of the Project. He will also share the same authority levels as the Owner for the purposes of change management and issue escalation.

As a Granite Vice President, the Valley Region Manager and Project Principal for this project, Mike Tatusko is accountable and responsible for ensuring that our key personnel and other resources are available for this project as promised. He currently leads one of Granite's largest operations servicing Oroville, Stockton, Sacramento and Fresno, employing a workforce of over 500 with a 2012 volume of $250M. He manages personnel and resource allocation for the Valley Region, as well as business and contractual matters and is ultimately responsible for safety, production, quality, client satisfaction and environmental stewardship for Granite's Valley operations.

An active leader on all Region projects, Mike is responsible for maintaining the positive relationships and long-standing reputation we have earned with the Department and in particular District 6. As such, he will handle all contractual matters and be accountable for the quality and timeliness of Granite's performance. This role is well-suited to Mike's background and qualificiations. Besides his experience as the Region Manager, he has served in leadership roles throughout the Company, including Construction Manager, Project Manager, and Large Project Executive and is known as a successful builder, trusted partner, effective leader and innovative problem-solver.

Throughout the Preconstruction Phase of the SR99 Project, Mike will provide support to the team through his superior knowledge in value engineering studies, master planning, quantity verification, phasing and MOT, budget preparation, public outreach, resource-loaded scheduling, funding and cost projections.

Since 2002, Mike has provided leadership, resources and oversight for several successful CM/GC and design-build projects. Mike has managed a wide range of alternate procurement delivery method projects through design and construction with contract values between $5M and $400M. He has coordinated successful project teams of local, state, federal agencies, designers, subcontractors, and end-users to provide safe, efficient and economical project delivery. He understands the needs of this work and will provide the best resources from our pool of local and national CM/GC and Caltrans experienced experts.

$27M Hwy 99 Madera Design-Build Project

Project Role: **Project Principal/Region Manager** | Dates: 2011 – Present
Contact: Oscar Sherill, Resident Engineer, (559) 444-2409 | Time On Project: 10%
Email: oscar.sherrill@dot.ca.gov | Project # 06-0E0404

As Caltrans' first design-build demonstration project, The Highway 99 Madera Design-Build project rehabilitated 3.5 miles of Highway 99 through the City of Madera. Granite was the prime contractor responsible for delivery of design-build (DB) services for highway reconstruction. The Granite team self-performed over 80% of the work and managed over one dozen key specialty subcontractors to maintain the accelerated project schedule. Major scope items included 32,000 cy of PCCP, 70,000 ton asphalt overlay, removal of existing pavement and placement of continuously reinforced concrete pavement, guardrail, street lighting, signs and drainage. The project was delivered on-time and on-budget, and enjoyed a very successful partnering atmosphere.

Responsibilities included: Mike assumed the Project Principal role toward the end of the contract when he became regional VP. He provided support to the team in contract maintenance, schedule and budget oversight, and project close-out.

$85M ADOT SR 202L San Tan Freeway , HOV Lane Construction Design-Build

Project Role: **Design-Build Executive** | Dates: 08/10 – 10/11
Contact: James Windsor, (602)768-4546 | Time On Project: 50%
Email: jwindsor@azdot.gov | Project # 044 H745701C

This 12-mile design-build project included design and construction of directional HOV flyover bridges at I-10 and the 101 loop, as well as bridge widening, retaining walls, drainage improvements, signing, lighting, barrier, landscaping, MOT, utility coordination/relocation and HOV lane construction on the 202.

Responsibilities included: Design consultant agreements, joint-venture teaming agreements, proposals, estimating, scheduling, contracts, design coordination, resource allocation, safety, environmental, quality control, project execution and close-out.

$185M ADOT U.S. 60 Superstition Freeway Design-Build Tempe to Mesa, AZ

Project Role: **Operations Manager/Project Principal** | Dates: 04/01 – 06/03
Contact: Floyd Roehrich, State Engineer, (602) 712-7550, | Time On Project: 30%
Email: froehrich@azdot.gov | Project # AC-NH-060-C(1)MA172

$185M design-build project to widen and reconstruct 12 miles of US 60 and 1 mile of I-10 between the I-10/US60 Interchange and Val Vista Drive in Tempe and Mesa, Arizona. The work involved adding travel and auxiliary lanes to the outside on US60 to make room for HOV lanes on the inside and re-aligning and widening ramps. A new flyover ramp bridge was constructed to connect existing HOV lanes on I-10 with new HOV lanes on US60. Six existing bridges were widened to accommodate the added lanes. Quality assurance/acceptance of the work was also performed as part of the project.

Responsibilities included: Branch construction operations, resource allocation, design coordination, estimating, contract management, safety, stakeholder coordination, environmental, costs, scheduling.

$17M Thornydale Road, Orange Grove to the CDO Wash CMAR, Marana, AZ

Project Role: **Operations Manager/Project Principal** | Dates: 11/07 – 11/08
Contact: Ryan Benavidez, Assistant Public Works Director | Time On Project: 30%
(520) 382-2600 | Project # 2002-058

537 calendar day Construction Manager at Risk (CMAR) project. Granite was responsible for the Master Schedule; coordinated crews, subcontractors, materials, managed the project contract documents and oversaw all administrative activities. Project scope included 3300 lf 18" to 54" RCP, 1800 lf pre-cast box culverts, 60 drainage structures, 30 lf 10'x10'x10 barrel CIP box culvert extensions, 19000 cy roadway embankment, 66,000 sy cemented treated sub-grade, 21000 lf concrete curb, and 54,000 sf concrete sidewalk. This schedule-driven project created many great opportunities to showcase the advantages of partnering. An extremely unique challenge throughout the duration of the project was the close attention required to aid the well-being of the near 100 businesses with direct access to the project.

Responsibilities included: Branch construction operations, resource allocation, design coordination, estimating, contract management, safety, stakeholder coordination, environmental, costs, scheduling.

$225M Folsom Dam Phase 3 – U.S. Army Corps of Engineers (ACOE)

Project Role: **Project Principal/Region Manager** | Dates: Current – 03/15
Contact: Matthew Hancsarik, U.S. Army Corps of Engineers | Time On Project: 10%
(916) 557-7480, Matthew.P.Hancsarik@usace.army.mil | Project # W91238-10-C-0038

Phase-3 requires significant coordination with the ACOE designers and project management staff to provide design support for $100M in additional Owner-directed design scope. Major scope items include blasting and rock excavation, on-site crushing and processing, rock bolting and shotcrete reinforcement, foundation preparation, on-site batching and placement of 125,000 cy of mass structural concrete, installation of six 36-foot radial tainter gates and accompanying bulkhead gates.

Responsibilities include: Contract maintenance and performance, resource and equipment allocation; schedule and budget oversight, safety, quality and environmental compliance oversight.

$400M Department of Homeland Security Tactical Infrastructure Design-Build Multiple Award Task Order Contract, CA, AZ, TX

Project Role: **Design-Build Executive** | Dates: 07/07 – 07/12
Contact: Julie Martinez, Dep. Area engineer USACE, (520) 907-6711, | Time On Project: 25%
Email: julie.a.martinez@usace.army.mil | Project: MATOC (16 task orders)

This was a Multiple Award Task Order Contract (MATOC) administered by the United States Army Corps of Engineers for Customs and Border Patrol Sectors. Design and construction scope highlights included; 142-miles of tactical infrastructure, 158-miles of all-weather patrol road, 256,000 cy of structural concrete, 94,000-ton of structural steel, 229-each low water crossings, 5-each single span bridges. 713,000-man hours worked, delivered safely while on-time and on-budget.

Responsibilities included: Contract administration, joint-venture teaming agreements, estimating, scheduling, resource allocation, safety, environmental, quality, project execution and close-out.

Comprehensive Leadership and Bridge Construction Experience

PROJECT MANAGER

GEORGE C. DELANO, P.E.

Years of Experience: 35

Licenses/Registrations:

- Professional Engineer, CA #36342 -1983 - Present, Expire (06-2014)
- American Society of Civil Engineers (Member)

Education:

BS, Civil Engineering, University of Vermont, 1980

Areas of Expertise:

- Project Management
- Highway Construction & Realignment
- Bridge/Structures
- Caltrans Partnering Process
- Preconstruction Services Management
- Stakeholder Coordination
- Design Management
- Value Engineering
- Constructability Review
- Construction Phasing
- Risk Identification & Mitigation
- Maintenance of Traffic
- Subcontractor Management
- Project Controls Management

- **Position Description/Responsibilities:** As Project Manager, George Delano will plan, organize, schedule and direct all project activities. He will act as the Single Point of Contact with Caltrans. George will collaborate with the Project Team and manage the CM/GC team to ensure delivery of all tasks required for Preconstruction and Construction Services. George will be responsible for ensuring that 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. He will be present at the site of work at all times while construction is in progress.
- **Authority:** George has the management authority over all of the Granite direct reports and will ensure dedication of these employees to the project. He has the authority to negotiate a GMP with Caltrans. He has authority to enter into subcontracts, consulting agreements, and purchasing agreements on behalf of Granite. During construction George is empowered to "Stop Work" when a dangerous situation is observed, or for an environmental or quality issue. He has authority over daily construction operations as well as field and subcontractor staff.

George has been in the construction industry for 35 years, for the last 7 years working for Granite on heavy-civil public and private contracts with a market value in excess of $400M. He is selected for the State Route 99 Realignment project for the experience and expertise he brings to the preconstruction services and construction phases of CM/GC project delivery, and for his experience with Caltrans bridge, highway construction and realignment, and grading projects, as well as work in sensitive environments. He has a proven track record of team building and partnering with Caltrans.

George began his civil engineering career with Caltrans, leaving the department in 1985 to work in private industry. He was the project manager on the massive Santa Monica Freeway Rebuild project, fast-tracked as part of Los Angeles' recovery efforts following the 1994 earthquake. His team earned recognition for completing the 140-day reconstruction contract in a mere 66 days through innovative sequenced-design and construction, creative maintenance of traffic and accelerated bridge construction techniques. This coordinated effort incorporated value engineering and constructability review in new and innovative ways

and furthered George's expertise for redesign of transportation projects. Over the next many years, these redesigns saved Caltrans millions of dollars on bridge and highway reconstruction projects.

George has provided design management and project execution that has ensured adherence to project schedules and budgets while maintaining safety and quality standards with zero-lost days due to accident, and zero-violations with regard to environmental reviews. His civil engineering expertise includes sound geotechnical design and naturalistic grade contouring to support hydrological details of water management, as well as the requirements of protected and endangered species.

He has described the keys to successful CM/GC project execution as ***"Identifying the scope of work, the concerns of the stakeholders; looking for the highest value process to deliver projects on time and on budget to the client's satisfaction…"***

Select Project Experience

$51M Sacramento Railroads Track Relocation, Sacramento, CA

Project Role: **Project Manager**	Dates: 03/11 – 03/13
Contact: Jon Blank, City of Sacramento - (916) 808-7914	Time On Project: 100%
jblank@cityofsacramento.org	Project # T15029005

George served as Project Manager for this high-profile $51M relocation of railroad tracks in an environmentally sensitive (Brownfield) area. The work involved relocation of approximately 2.3 miles of heavy rail track, utility infrastructure and site improvements, along with construction of new passenger tracks and platforms. The project was part of a 245-acre redevelopment effort in downtown Sacramento. Granite completed over 140,000 man-hours on the project with no injuries and zero environmental violations.

This project consisted of relocating approximately 2.3 track miles of heavy mainline rail and constructing station tracks, platforms and a passenger tunnel complex. The significant structural concrete work (15,000 cubic yards) included the construction of a cast-in place concrete pedestrian tunnel, maintenance and fueling truck service tunnel, various utility modifications, and new utility installations. Other aspects of the work included the construction of structural steel canopies, underground and above ground water detention structures, a pump station, and various architectural finishes and site furnishings. Other utility installations included domestic and fire water systems, fire sprinkler systems, sewer, combined sewer, storm water, fuel dispensing and computer tracking systems, oil water separation systems, track pan and under-drain systems. Utilities were installed by cut and cover, bore and jack, micro-tunneling and via directional bore methods. The 200,000 cubic yards of grading operations included extensive over-excavation and re-compaction.

Responsibilities include: George was responsible for all aspects of construction management, contract compliance, scheduling, procurement, and safety. He managed the onsite project team including coordination with the owner and third party stakeholders. George provided leadership and extensive coordination with government and regulatory agencies and stakeholders during each phase of the project, including coordination with UPRR. He managed aspects of environmental sensitivity including the protection of historic structures and coordination with ongoing soil, ground water remediation, hazardous materials, archeological, noise and vibration monitoring.

$35M Highway 20 Roadway Realignment, Smartsville, CA

Project Role: **Project Manager**
Contact: Phil Zink, Caltrans - (530) 682-7747
Email: phil_zink@dot.ca.gov

Dates: 09/06 – 08/08
Time On Project: 100%
Project # 03-1A5304

George served as Project Manager for the Caltrans $35M rehabilitation of a 4.2- mile stretch of highway in Nevada County, California. George managed bridge construction over a watershed area and executed the project with zero violations of environmental regulations The work involved roadway realignment, stabilization of exposed slopes that had become unstable due to heavy rain seasons. The work was performed parallel to sensitive creek and watershed areas - environmental protections were of paramount importance. He oversaw the development and administration of a Health, Safety & Environmental plan that protected the environment from stormwater pollution, motorists from construction-related environmental hazards, and workers from the hazards of performing construction in an active transportation corridor.

Project scope included: construction of two box girder bridges, three stream diversions, 216,000 cubic yards of roadway excavation, 108,000 cubic yards of blasting excavation, 4,200 linear feet ductile iron, construction and/or removal of 54 each drainage systems (6,275 linear feet of 8-inch to 54-inch corrugated steel pipe/reinforced concrete pipe), 418 linear feet 48-inch to 80-inch welded steel pipe casing, 78,000 tons of aggregate base, and 52,000 tons of asphalt concrete. Major challenges included the coordination of 10 subcontractors, working adjacent to a hazardous highway, tight work windows to complete the bridges (one season), sensitive SWPPP considerations, and extensive blasting zones in populated areas. This was a unit price contract built in staged construction.

Responsibilities included: George was responsible for all aspects of construction management, contract compliance, scheduling, procurement, safety, and profitability. He represented Granite in all communications with Caltrans, the owner of the project. The Highway 20 Roadway Realignment required phased construction and special staging plans. George led the team to develop innovations in scheduling and traffic staging that allowed early opening of the revised alignment to the public and substantial completion four months ahead of schedule with shared savings to the Department and Granite.

Oakland Bay Bridge Transition to Yerba Buena Island, Oakland, CA

Project Role: **Manager of Engineering and Estimating**
Contact: (Prime) **Steve Francis – (916) 635-9370**
Email: sfrancis@ccmyersinc.com

Dates: 01/04 – 08/04
Time On Project: 100% during Concept Design/Bid
Project # 04-0120R4

George was the Manager of Engineering and Estimating responsible for all aspects of conceptual design, scheduling, and estimating for the successful bid of the temporary bypass. The project created the temporary span between the steel cantilever trusses of the Oakland Bay Bridge and the connections to the Yerba Buena Island Tunnel. This involved 7,600 tons of steel and 13 footing and column supports to create the bypass that would allow the 280,000 vehicles per day that pass over the Bay Bridge to continue to use the structure while the new permanent span was being constructed.

Responsibilities included: George was responsible for providing quantities and cost estimates, value engineering, and constructability review during the conceptual design and bidding phase. He coordinated roadway improvements with the structures components on the project.

$64M I-680/I-780 Interchange, Benicia, CA

Project Role: **Project Manager**
Contact: Igor Tsigelman, Caltrans Resident Engineer- (925) 602-9004
Email: igor_tsigelman@ dot.ca.gov

Dates: 01/02 – 09/03
Time On Project: 100%
Project # 04-006064

George was the Project Manager for this $64M new highway interchange in a historic section of Benicia, California. The project featured multiple high level bridges and freeway ramps in rugged terrain with multiple crossings of railroads and fuel lines, multistage construction and coordination with adjacent main

span crossing of Carquinez Strait and new toll plaza contracts. The bridges are post-tensioned cast in place construction with conventional and lightweight concrete supported on large diameter CIDH foundations. Even with the heavy civil scope of work involving large scale use of heavy equipment in confined and environmentally sensitive spaces, the work was performed without lost time incident or violation of environmental protections.

Responsibilities included: George was responsible for scheduling, cost control, change order negotiations, and coordination with Caltrans, stakeholder agencies and subcontractors. He served as the Point of Contact with Caltrans and participated in the Caltrans Partnering process.

$50M Lake Natoma Crossing, Folsom, CA

Project Role: **Project Manager**	Dates: 1997 – 2000
Contact: Dave Nugen – Folsom City Engineer - (916) 355-7247	Time On Project: 100%
Email: dnugen@folsom.ca.us.	Project # Not Available

George managed the overall construction of this new $50M Lake Natoma Crossing project. That work involved new arterial realignment, installation of trestles, and construction of a new concrete bridge (in water with piers) over the American River. He also managed the Design-Build portion of the Sacramento LRT ramp structure and a Cost Reduction Incentive Proposal for the redesign of the structure terminus of the Regional Transit's Folsom Line on this project. This was an AGC Constructor Award project. The environmental issues included protection of a salmon fishery, and realignment of tributary creeks, and the work was performed with zero fish and game or environmental violations.

The Lake Natoma Crossing was proposed to relieve transportation bottlenecks that occurred as motorists crowded onto the few bridges spanning the Sacramento River. The existing bridge was a two-lane, poorly aligned structure that contributed to the problem and so a new high-capacity, 2,300-foot span was designed as a replacement. The new bridge featured elegant design elements, including architectural arches, parabolic arched 328-foot main spans, and state of the art friction pendulum seismic bearings. It was constructed through the environmentally sensitive Negro Bar State Park, across Lake Natoma, and through Old Town Folsom.

Responsibilities included: George was responsible for all aspects of construction management, contract compliance, scheduling, procurement, safety, and profitability. George was also responsible for all communications with the City of Folsom; the owner of the project.

RESUME

Local
Innovative
Construction
Solutions

PROJECT CONSTRUCTION MANAGER

JEFFREY GRIMM

Years of Experience: 16

Licenses/Registrations:

MSHA, First Aid/CPR, Qualified SWPPP Developer

Education:

BS, Construction Management, California Polytechnic State University, 2002

Areas of Expertise:

- Caltrans District 6 Experience
- Preconstruction Services
- Urban Highway Construction
- Highway Construction Estimating
- Innovative Maintenance of Traffic
- Highway Design Manual and Caltrans Standards
- Construction Sequencing to Minimize Impacts
- Stakeholder Coordination
- Value Engineering

- **Position Description/Responsibilities:** Jeffrey Grimm, as Project Construction Manager on the SR99 Project will plan, organize, schedule and direct all project construction activities. He will work with the team to develop a schedule and budget; and then deliver to those specific plans. He will participate in Constructability Reviews and estimating during preconstruction services and will be present at the site of work at all times construction is in progress.He will manage construction staff, craft labor, subcontractors and suppliers. Jeff will be responsible for enforcing the Project's safety, quality and environmental plans and policies. Jeff will be responsible for ensuring that the project is constructed in accordance with the design and project contract requirements.
- **Authority:** Jeff has the authority to "Stop Work" when a dangerous situation is observed, or for an environmental or quality issue. He has authority to over daily construction operations including field and subcontractor staff.

Jeff has over 16 years of heavy civil construction experience including the management of bridge, highway, underground, grading, and design-build projects. He most recently served and the Project Manager/Construction Manager on the $27M Madera 99 Rehabilitation Design-Build Project in Madera, CA. The first design-build demonstration project administered by Caltrans, Jeff worked closely with the design team of Wood Rodgers and the Caltrans management staff to effectively delivery the design and rehabilitation of 3.6 miles of urban Highway 99 through Madera.

Jeff is a well-rounded, solid construction professional with expertise in project management, construction management and cost estimating. For Granite's traditional bid-build work, Jeff usually leads the estimate development and then builds the project as the Construction Manager. This experience will be valuable during the preconstruction phase as Jeff collaborates with the design team during constructability reviews and the estimating team during development of the project's cost estimates.

He has estimated large DB pursuits as well, most recently Granite's joint-venture pursuit of the California High Speed Rail (HSR) DB Project. His involvement in both the pursuit and management of multiple design-build projects has given him familiarity with design processes, Caltrans design standards and an ability to optimize design for improved construction efficiency and to reduce risk.

As Project Construction Manager, Jeff will participate during preconstruction servcies and will be on-site at all times during construction ensuring that the SR99 Realignment Project is constructed in accordance with the design and project requirements. His knowledge of the HSR Project corridor, the project stakeholders and Caltrans design standards will provide significant value as he works closely with the Department design team during preconstruction services. He brings experience as a collaborative leader on projects that require enhanced levels of coordination, increased attention to detail, and challenges requiring multi-disciplinary solutions; e.g., utility coordination and relocations, maintenance of traffic, bridge reconstruction and environmental compliance.

He has managed several Caltrans, municipal and county agency projects that required knowledge in protection of waterways, careful environmental planning to accommodate nesting birds, and other species. As a Qualified SWPPP Developer (QSD), Jeff is also very familiar with storm water quality issues and working to prevent soil erosion and slope stabilization. Jeff has a proven ability to develop contingency plans and innovative solutions to keep projects moving forward and on schedule. In addition, Jeff's projects have exemplified Granite's focus on excellence in project safety, quality and environmental compliance.

Select Project Experience

$27M Madera 99 Rehabilitation Design-Build Project, Madera, CA

Project Role: **Project Manager/Estimator**	Dates: 02/11 – 10/12
Contact: Oscar Sherill, Resident Engineer, (559) 444-2409	Time On Project: 100%
Email: oscar.sherrill@dot.ca.gov	Project # 06-0E0404

The first design-build demonstration project administered by Caltrans, this $27 million project involved the design and rehabilitation of 3.6 miles of urban Highway 99 through Madera. Work on the project included extensive MOT, demolition of existing concrete lanes, construction of 32,000 cubic yards of concrete paving consisting of both JPCP and CRCP, removal and replacement of approximately 70,000 tons of HMA, drainage improvements and extensive signage and barrier improvements. This project had multiple stakeholders. Granite has completed the project to date with no injuries and zero environmental violations.

Responsibilities included: Jeff had several roles on the project; Project/Construction Manager and Lead Estimator. As the lead estimator for the project, Jeff was responsible during the proposal stage of the project to develop production and pricing for this project, which was awarded based on low-bid, while having design drawings that were not complete. As Project Manager, Jeff managed the design process and worked closely with Caltrans project, operations and design personnel to develop design packages for all scopes of the project. This involved extensive working knowledge of the Highway Design Manual, Caltrans standard special provisions and other design standards. Also, during preconstruction, Jeff and the DB Team developed innovative solutions to resolve potential FHWA design exceptions, maintenance of traffic and pavement structural sections. He negotiated value engineering proposals reducing the overall cost of the project by approximately $175,000. During Construction, Jeff was responsible for ensuring the project was completed per the contract specifications. He managed project subcontractors and suppliers. He was also responsible for implementing the project management and controls systems to manage the project schedule and budget. Additionally, Jeff was responsible for overseeing DBE participation both during the estimating and construction phases of the project. Through ongoing outreach efforts with subcontractors and suppliers, he ensured that the project exceeded the 13.5% DBE participation goal.

$61M Carmel River Re-Route and San Clemente Dam Removal Design-Build Project, Carmel Valley, CA

Project Role: **Project Manager** | Dates: 02/13 – Current
Contact: Dylan Wade, Resident Project Representative, Water Systems Consulting, (805) 431-3784, dwade@wsc-inc.com | Time On Project: 100%
Project # M1310

The largest dam removal project in the history of California, this design-build project involves the removal of a seismically unsafe dam and re-routing and restoring a river. This $61M project involves the design, construction and permitting of access roads and bridges to establish access to the site, extensive clearing, dewatering of soils, water diversion and treatment, earthwork, drilling and blasting, and habitat restoration. The project is a Risk Level III project and involves over 13 various environmental and regulatory agency permits.

Jeff is working with over one dozen project stakeholder groups including California American Water, National Marine Fisheries and California Coastal Conservancy, regulators, environmental organizations, local agencies and local community members to progress project design; refine the schedule and implement construction. He coordinates directly with environmental agencies and regulators including California Department of Fish and Wildlife, National Marine Fisheries Service, Regional Water Quality Control Board, U.S. Fish and Wildlife and the Regional Water Quality Control Board to implement and modify project permits.

Responsibilities include: As Project Manager, Jeff has overall responsibility for design, permitting, schedule, environmental compliance, quality and construction. He is managing a staff of 16 as well as field crews consisting of Granite and subcontract craft workers in excess of 50 people per day. There are over a dozen key subcontractors on the project.

$16M Hwy 101 / 41 Interchange, City of Atascadero, CA

Project Role: **Project Manager/ Estimator** | Dates: 10/07 – 06/09
Contact: Rick Silva, Resident Engineer, Caltrans (805) 226-8279 | Time On Project: 100%
Email: rick.silva@dot.ca.gov | Project # 05-402804

This $16 million project involved the reconstruction of an existing interchange including construction of a double span cast-in-place box girder bridge, temporary shoring, 50,000 cy of excavation, temporary surcharges, 20,000 tons of HMA paving and extensive drainage work. This complex fifteen-phase project required extensive coordination with project stakeholders including adjacent business owners, property owners and local agencies. By improving the phasing, the project was delivered ahead of schedule. The project was completed with an excellent safety performance and zero environmental violations.

Responsibilities included: Jeff was responsible for ensuring the construction was completed per the contract specifications. He managed project subcontractors and suppliers. He was also responsible for implementing the project management and controls systems to manage the project schedule and budget. Although this project was a conventional bid-build project, Jeff worked closely with the Department's project and design staff during construction to develop and implement eight value engineering proposals reducing project costs by $264,000 and reducing the duration of the project. He worked with the owner, community leaders, local agencies and business to ensure a successful outcome for all stakeholders.

$7M Highway 33/166 Rehabilitation, Ventucopa, CA

Project Role: **Project Manager/ Estimator** | Dates: 03/05 – 11/05
Contact: Mike Lew, Resident Engineer, Caltrans, (805) 348-3105 | Time On Project: 100%
Email: mike_lew@dot.ca.gov | Project # 05-0A4004

This $7M project included the reconstruction of 12 miles of highway in rural San Luis Obispo and Santa Barbara counties. The work included widening and overlaying two bridges over drainage channels with lightweight concrete, widening 11 miles of highway and completing one of the first major cold-foam-in-place-recycling projects for Caltrans. The project was delivered on schedule with no lost time injuries or environmental violations.

Responsibilities included: As Project Manager for this highway reconstruction project, Jeff was responsible for all construction operations, budget and schedule, and subcontractor management. He oversaw the Team's quality, safety and environmental programs. Jeff worked with Caltrans to quickly and economically resolve design related challenges relating to highway profile and cross slope.

$6.5M Hwy 1 Median Barrier, San Luis Obispo CA

Project Role: **Project Manager/Estimator** | Dates: 08/03 – 02/04
Contact: Charles Hench, Resident Engineer, Caltrans, (805) 927-4559 | Time On Project: 100%
Email: charlie_hench@dot.ca.gov | Project # 05-0A1304

This 5-mile long safety project between the Cal Poly and Cuesta colleges required the installation of one of the first slip-formed and stamped barrier rail projects for Caltrans. In addition to the miles of barrier installed, the project included installation over 11,000 lf of slotted CSP, significant drainage improvements, signal installation, shoulder widening and reconstruction and the widening of JPCP lanes. The A+B project was required to be completed in 89 working days. Granite's bid schedule was 40 days shorter than all other bidders.

Responsibilities included: Jeff was the Project Manager for this reconstruction project. He was responsible for project scheduling, subcontractor management, material procurement, cost management, project correspondence and all interaction with the Owner's team. Jeff worked closely with the entire project team to ensure the early completion of this fast-paced project. In addition, he identified and implemented value engineering proposals, reducing the overall cost of the project for Caltrans by $194,000.

Local
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LEAD ESTIMATOR

SCOTT HENNESSY

Years of Experience: 30

Licenses/Registrations:

OSHA Competent Person Training, Granite Supervisors Training Program, AGC Supervisory Training Program

Education:

BS, Construction Management, California State University, Chico 1982

Areas of Expertise:

- Quantities Estimates
- Cost Estimating Alternatives
- HCSS Estimating Software
- Value Engineering
- Constructability Review
- Earned Value Calculation
- Market Survey of Vendor and Supplier Resources
- Guaranteed Maximum Price Development
- Construction Bid Package Development
- Project Management
- Construction Management

- **Position Description/Responsibilities:** As Lead Estimator, Scott Hennessey will lead the estimating effort through preconstruction services including GMP negotiations. During construction, Scott will transition into a role of Roadway/Traffic Manager. Scott 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 Granite takeoff 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. During construction Scott will use his project knowledge and integrate into the project team focusing on roadway construction and maintenance of traffic. Preparation of work plans will be a key responsibility.
- **Authority:** Scott has the authority to share cost information including crew composition and history of productions with his Caltrans and Independent Cost Engineer counterparts. Scott has the authority to interact with subcontractors and suppliers and discuss innovation alternatives, current cost considerations and escalations.

Scott has been the lead estimator on Sacramento-area transportation projects valued at over $10 billion, and over the course of his 30-year career has managed projects totaling more than $500 million in their overall scope of work. A great deal of this work has been for Caltrans, providing him with a knowledge base of the agency's standard specifications and design standards that will be vital to CM/GC delivery of the SR99 Project. He is skilled at developing the quantities and cost estimates critical to the analyses of design alternatives and to discovering ways to meet project objectives while reducing overall costs.

Currently, Scott is providing estimating and GMP development support on the Granite's $150M Southeast Connector CM/GC Project in Reno, NV. Scott is an expert in HCSS estimating software. The program is an industry leading estimating program that allows interface with P6 schedules and excel spreadsheets. The software allows Scott to prepare detailed estimates and conduct cost comparisons accurately and efficiently.

He has experience in all aspects of cost estimating, from the development of Opinion of Probable Construction Cost (OPCC) cost models, to the entire range of reports required for Caltrans contract packaging. These include the experience assessing price and risk, definition of project assumptions, and cost estimations of design alternatives that are critical to the development of a Guaranteed Maximum Price (GMP) for the general contractor phase of construction.

Scott was selected for this project based on his long history of success with similar projects, and in finding innovative ways during the preconstruction phase to evaluate and reduce their construction costs and project risk. Examples include the Highway 4 Willow Pass Project, valued at $45 million, for which project savings were achieved through an innovative restaging of the project during the early stages of construction. Recognizing that the project design was bid at the 30 percent completion stage, required the development and management of 19 detours, he led the re-design effort with the design firm, BART, and Caltrans to develop cost-saving alternatives. He further collaborated with Caltrans on this project to help develop the estimate model for the agency's current SWPPP standards and procedures.

Other Caltrans project successes include his estimating and management of the $40 million Route 85 New Highway project, which was similar in scope to the SR99 Project: a 4.5 mile highway construction involving new alignment and extensive utility relocation, homeowner coordination, and local city street re-routing.

Other examples of Scott's history of providing cost-savings design stage innovations are a $4 million paving section change on the Highway 99/Route 4 project, and a $1.6 million shoring and dewatering alternative on the Route 880 Thornton project. He led a collaborate effort with Jacobs Engineering and the County Transportation Board to develop a design alternative saving the cost of condemnation of up to 15 houses, which Caltrans otherwise would have had to buy to execute the initial project design.

Select Project Experience

$150M Regional Transportation Commission – SouthEast Connector CM/GC, Reno, NV

Project Role: **Estimator**	Dates: 11/13 – 01/14
Contact: Maverick Gibbons, Preconstruction Manager	Time On Project: 20%
Email: maverick.gibbons@gcinc.com	Project # 532013

Scott is the Estimator for this $150 million CM/GC project, which will connect Sparks Boulevard and Greg Street down to the intersection of Southwest Parkway and Veterans Parkway. This corridor is presently underserved to meet the challenge of 120,000 cars per day from 13 regional roads to the west of I-580, and another 103,000 vehicles funneled in from three regional roads. Granite is leading the preconstruction services and Scott is developing the GMP for the general contractor phase of work. The project includes a six-lane road, provides opportunities for multimodal improvements, and is being designed to emphasize and protect the assets of the natural environment. Stakeholder contribution to the design involves a range of public interest and community groups. Being developed through a wetlands area, the design includes bridges and culverts, along with recreational pedestrian paths and biking trails.

Responsibilities included: Developing estimate work breakdown structure, final estimate development, quantity calculations, owner coordination/collaboration, vendor communications, and subcontractor management.

$87M Caltrans: Hwy 99 Arch to Highway 4, Stockton, CA

Project Role: **Lead Estimator / Project Sponsor**	Dates: 04/13 – 12/15
Contact: Troy Scheiber, Caltrans, (209) 948-3966,	Time On Project: 10%
Email: troy.scheiber@dot.ca.gov	Project # 0034-11

Scott prepared the final estimate and is the Granite Project Sponsor for the staged construction of four new interchanges and a new railroad overpass along four miles of highway rehabilitation. The work involves extensive relocation of utilities, which was a major impact on the way the work was managed. The $87 million project ($40 million Granite scope of work) includes construction of new roadways, reconstruction

of an existing highway, and new interchanges and pump stations. This involves 600,000 cubic yards of roadway excavation, 253,000 tons asphalt concrete paving, 135,000 cubic yards of aggregate base, 105,000 lf of K-rail, 5,000 cubic yards of minor concrete, and approximately 40,000 linear feet of drainage pipe.

Responsibilities include: Estimate development, coordination of roadway elements with structure construction, take off quantities, vendor communications, subcontractor management, budget, safety, and production.

$34M Atwater-Merced Expressway, Atwater, CA

Project Role: **Lead Estimator / Project Sponsor** | Dates: 08/13 – 12/15
Contact: (Prime) Todd George, Nolte Vertical Five, (559) 661-5226 | Time On Project: 10%
Email: Todd.George@nv5.com | Project # 300-997

Scott was the Lead Estimator and is currently the Granite Project Sponsor for the realignment of Route 99 through Atwater, California, which involves staged construction to realign this section of the existing highway. The $34 million project involved the construction of new roadways, 5 bridges, 200,000 cy of roadway excavation, 467,000 cy of import borrow, 22,000 cy of jointed plain concrete pavement, 50,000 cy of aggregate base, 45,000 tons asphalt concrete paving, 4,000 cy of minor concrete.

Responsibilities include: Estimate development, evaluation and costing project risk items, value engineering concept development and pricing, pricing impacts of multiple traffic handling alternatives, quantities, vendor communications, subcontractor management, budget, safety, and production.

$29 Highway 99 Stanislaus County Road Rehabilitation, CA

Project Role: **Lead Estimator** | Dates: 2011 – 2012
Contact: Clinton Myers Jr., Myers & Sons Construction, (916) 649-4504 | Time On Project: 10%
Email: CWMyers@myers-sons.com | Project # Not Available

Scott was the Lead Estimator for $29 million of scope in this overall $87 million project. The roadway realignment involved 300,000 tons of asphalt concrete paving, 30,000 cy of roadway excavation), and 40,000 tons of aggregate base. The project involved night shift work requiring close coordination with other activities in adjoining road closures and other contracts, detailed and innovative traffic control configurations requiring extensive planning.

Responsibilities included: Estimate development, quantities, vendor communications, subcontractor management, evaluation of traffic control options, profit and loss, safety, and production, as well as project planning, scheduling and coordination.

$20M Route 50 Red Hawk Parkway Interchange, Cuming Corporation, Shingle Springs CA

Project Role: **Estimator / Project Manager** | Dates: 01/07 – 01/08
Contact: Mike Schieberl, (916) 215-8709 | Time On Project: 100%
Email: mike.schieberl@dot.ca.gov | Project # Not Available

Scott was the Lead Estimator and Project Manager for this $20 million project consisting of constructing highway widening and rehabilitation, new interchange with ramps and access roads for a new casino development. Project scope performed under several traffic shifts included cast-in-place walls, bridges, soil nails walls, overlay of existing highway, approximately 170,000 cubic yards of roadway excavation; 50,000 cubic yards of blasting including pre-splitting; drainage facilities;.

Responsibilities included: Estimate development, take off quantities, vendor communications, subcontractor management, profit and loss, safety, and production.

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Leadership

SCHEDULER

TOM LOGUE

Years of Experience: 27

Education:

Associates / Architecture
NEC - Phoenix, AZ
1986

Primavera Project Planner 3.0
Training School
San Francisco, CA
1998

Primavera Project Planner 6.0
Training School
San Francisco, CA
2008

Areas of Expertise:

- CPM Time-Scaled Scheduling and Monthly Updating, including Narrative and Concurrent Impact Analysis
- Project Progress and Productivity Analysis
- Resource Loading P6 Schedule Development
- Schedule of Values Implementation
- Value Engineering and Design/Build Coordination

- **Position Description/Responsibilities:** As Scheduler, Tom Logue will work with the Project Team and Caltrans to develop and maintain the baseline project schedule. Using Primavera P6, or another approved software, Tom will support the CM in validating the current schedule and analyzing schedule risk. Tom's responsibilities as Project Scheduler will include developing and updating the projects' preconstruction and construction schedules. In conjunction with Caltrans and the design team, he will develop a baseline construction schedule that will be updated at major design milestones.
- **Authority:** Tom shall have the authority to work directly with his Caltrans counterpart to validate the Caltrans schedule logic, provide updates and create alternative schedules.Tom has the Authority to share all of Granite's schedule information directly with Caltrans.

Tom Logue has over 27 years experience in construction. He has served as a Project Coordinator, Chief Estimator and Project Manager in the construction and manufacturing industries. In 1997 he began training as a CPM scheduler with The Swaney Corporation (TSC). Today, Tom is a Senior Scheduler with the company, routinely sought by consultants and contractors to develop and maintain project schedules.

Tom oftern works directly for general contractors and has a long history with Granite Construction. In particular our team in the Fresno Area. Tom has prepared many preconstruction schedules in addition to the construction baseline version. He integrates with the project team and coordinates resource loading, durations, activity links with the construction engineers and estimating team.

Tom has had exposure to multiple Caltrans districts over the last 10 years, including Districts 4, 6, 9 and 10. In his work with District 6, Tom has had positive interactions with the schedulers and project REs during baseline schedule development and periodic schedule revision and TIA's processes. It is always his goal from the outset of a project to develop a level of trust with the Caltrans management team and maintain a transparent working relationship throughout.

Special Training/Affiliations include:

- Primavera 6 (8.2)
- Primavera Project Planner (P3), Version 3.0
- SureTrak Project Manager, Version 3.0
- Claim Digger, Version 2.0
- Schedule Analyzer Professional, Version 2.56
- AutoCAD Windows

Tom's initial duties as a scheduler focused on preparing concurrent Time Impact Analyses' and forensic schedule delay analyses for civil roadway and bridge projects. As a Senior Scheduler, Tom is responsible for developing baseline schedules for clients in addition to providing monthly updates and schedule narrative reports. Similar to his project management and estimating experience, Tom's experience generating forensic delay analyses has provided him a unique perspective on how to avoid, mitigate and resolve delays issues of all types and causes.

$19M Highway 198 and 19th Avenue Interchange, Lemoore, CA

Project Role: **Project Scheduler** | Dates: 01/13-Present
Contact: Todd Hill , (559) 441-5724 | Time On Project: 20%
Email: Todd Hill@gcinc.com.com | Project #06-325504

The Caltrans Highway 198 Project consists of constructing a new interchange and overcrossing at 19th Avenue in Lemoore. The project features an MSE wall and temporary shoring to support the north bridge abutment fill. Items of work include 20,000 lineal feet of temporary k-rail, 60,000 cubic yards of roadway excavation, 200,000 cubic yards of import borrow, 40,000 tons of HMA paving and 3,500 cubic yards of structural concrete along with SWPP plan and implementation, new drainage systems, and concrete paving. The project is divided into four construction stages to maintain all four lanes of Highway 198 traffic during each phase of construction.

Responsibilities included: Tom Logue is the lead scheduler for Granite Construction on this project. The project started in January of 2013 and is scheduled for completion by December 2014. The project's scheduling challenges include unique phasing requirements necessary to keep traffic flowing through Highway 198 and maintain temporary detours on 19th Avenue from Iona Avenue to Silverado Drive.

$72M Caltrans Mission Avenue Interchange on Highway 99, Merced, CA

Project Role: **Project Scheduler** | Dates: 12/05-04-08
Contact: Kewel Virk, (209) 724-9097 | Time On Project: 20%
Email: kewal_virk@dot.ca.gov | Project #10-363114

The Caltrans Mission Avenue Project consisted of realigning and upgrading 2.2 miles of Highway 99 and adding a diamond interchange with five on/off ramps at Mission Avenue to feed the new U.C. Merced Campus. Items of work included over 1,000,000 cubic yards of import borrow, 35,000 cubic yards of jointed plain concrete paving, 60,000 tons of HMA paving, and numerous storm drainage systems. The project also included over 13,000 cubic yards of structural concrete for several flat-slab bridges, box culverts and two box girder bridges over Highway 99 and UPRR. The schedule contained non-adjustable milestones and commenced in December of the wettest winter in recent history. All milestones were completed ahead of schedule and the project earned the maximum bonus incentive. The project earned the Granite West 2007 Construction Operations Best Large Project Award.

Responsibilities included: Tom Logue was the lead scheduler for Granite Construction. The project started in December of 2005 and was complete in April 2008. The project's scheduling challenges included 14 individual bridge and overflow structures as well as coordination of multiple public utility cross-over installations within the Mission Avenue overpass. The project was planned to be complete within 550 work days and was actually completed after 509 work days.

$3M Highway 99 Warlow Roadside Rest Area, Kingsburg, CA

Project Role: **Project scheduler**
Contact: Contact: Todd Hill , (559) 441-5724
Email: Todd Hill@gcinc.com.com

Dates: 02/08 – 02/09
Time On Project: 20%
Project #06-432004

The Caltrans Highway 99 Warlow Rest Area project consisted of the complete reconstruction and upgrade of an existing roadside rest area. Items of work included SWPP plan and implementation, demolition of existing facilities, new restroom and locker facilities, entrance sign, piping, architectural concrete, and site landscaping. The new construction included two new restroom buildings and extensive site work including, stamped, stained and sandblasted finishes.

Responsibilities included: Tom Logue was the lead scheduler for Granite Construction on this $3 million project. The project started in January of 2008 and was complete in February 2009. The project was unique and included asbestos abatement and removal of buried structures.

Additional Experience include:

Project Role: **Project Scheduler**

Project / Client	Scope of Work	Value
Highway 216 – Visalia, Granite Construction Co.	Baseline & Updates	$14 Million
LAX Taxiway T Rehab, Coffman Specialties	Baseline & Updates	$33 Million
Maryland Ave Overpass, Scottsdale AZ, Coffman Spec.	Baseline & Updates	$18 Million
College of Marin Student Services, Wright Contracting	Baseline & Updates	$23 Million
SRJC Culinary Arts Center, Wright Contracting	Baseline & Updates	$20 Million
SRJC Bertolini Student Center, Wright Contracting	Baseline & Updates	$41 Million
SRJC Bailey Parking Structure, Wright Contracting	Baseline & Updates	$30 Million
SRJC Doyle Library, Wright Contracting	Baseline & Updates	$37 Million
SRJC Petaluma Campus Expansion, Wright Contracting	Baseline & Updates	$65 Million
Queen of the Valley Hospital, Wright Contracting	Baseline & Updates	$70 Million
De Anza High School, Wright Contracting	Baseline & Updates	$63 Million
Walnut Creek Main Library, West Bay Builders	Baseline & Updates	$25 Million
Happy Hollow Zoo & Park, West Bay Builders	Baseline & Updates	$39 Million
Union City BART Intermodal, West Bay Builders	Baseline & Updates	$26 Million
Santa Rosa Memorial Hospital, Wright Contracting	Baseline & Updates	$33 Million

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PRECONSTRUCTION SERVICES MANAGER

JAMES WALLER

Years of Experience: 26

Licenses/Registrations:

Member ASCE
Member DBIA

Education:

BS, Accounting, American University, 1992, BS, Chemistry, Minnesota State University, 1991

Areas of Expertise:

- CM/GC Project Delivery
- Preconstruction Services
- Large Project Estimating
- Value Engineering Studies
- Urban Highway Design & Construction
- Highway Geometrics
- 3D Modeling
- Innovative Maintenance of Traffic
- Construction Sequencing to Minimize Impacts
- Stakeholder Coordination
- Utilities Coordination

- **Position Description/Responsibilities:** As the Preconstruction Services Manager, James Waller will report to Project Manager, George Delano and will lead the preconstruction services effort, coordinating with Caltrans and our team to ensure the collaboration, communication, and integration necessary to the achieve the benefits of the CM/GC process. James will coordinate a staff of preconstruction specialists, including our key personnel to complete all of the tasks required of the CM. He will bring all of Granite's CM/GC processes and procedures to Caltrans for their consideration and use on the project. James will participate in process training as needed. He will also participate in construction startup to ensure a smooth transition to the execution phase.
- **Authority:** James has the authority to bring on additional Granite resources during the preconstruction phase to meet the changing needs of the project. He has the authority to commit Granite to timelines and work products during preconstruction.

James is a Design Manager/Design Coordination Manager with more than 26 years of experience in the construction industry working on major infrastructure projects with cumulative value of over $6.0 billion. He has spent the last 10 years collaborating with design teams on large, complex design-build projects. During this time, he has demonstrated the ability to find innovative solutions to project challenges and worked to deliver projects on time and under budget. James' practical experience as a construction manager and estimator provides a strong foundation for his current role.

Granite Management Experience

As the Manager of Design Build & Engineering Services Group for Granite, James identifies best practices and procedures for engineering and alternative procurement throughout Granite. He has played an integral role in the procurement and delivery of over $6B worth of work and he supervises the set-up of nearly all the Design-Build, CM/GC, and Public Private Partnership (PPP) projects. James has been responsible for creating tools for use on CM/GC such as DART, Granite Infrastructure Information Models (GIIM), Granite Rough Order of Magnitude Systems (GROMS), and the Granite Automated Machine Control processes. James takes on direct management roles on projects that are identified as "Key Market" or "Key Owner" projects for the Company. The SR99 Project fits both categories because of its Pilot status, and the fact it is for Caltrans.

As a result, James' responsibilities and schedules have been cleared to ensure that when Granite is selected as the CM/GC contractor, Caltrans (Granite's largest client) will receive his full attention ensuring a positive experience. CM/GC projects he and his group have been involved with include:

- Mountain View Corridor, UT
- Houston Light Rail, TX
- Southeast Connector, NV
- Moana DDI, NV
- I-15 Dixie Drive, UT
- I-205 Portland Mall Light Rail, OR

Select Project Experience

$1.3B Houston Light Rail Phase 2 CM/GC, Houston, TX

Project Role: **Assistant Design Manager**
Contact: Rick Brown, Senior Director/Chief Engineer, (713) 574-0221, Email: rick.brown@ridemetro.org

Dates: 01/09 – 12/11
Time On Project: 50%
Project #CT0800120

This project includes 20 miles, in four corridors of new light rail in an urban environment. He established the implementation of the design quality program and establishing design directives, standards and criteria. Construction began in 2009 on this $1.3 billion project and is proceeding on schedule. Project involved constructing approximately 15 miles of light rail transit systems across four corridors and two storage/inspection facilities in the greater Houston metropolitan area.

Responsibilities included: As Assistant Design Manager during preconstruction services, James oversaw the design management and represented the Joint Venture and the Owner with third parties, permitting agencies, and other municipal agencies. He was responsible for the development of a design control process and deliverables schedule to maintain an aggressive construction schedule. He also managed the development and vetting of alternative technical concepts and value engineering efforts. Tasks also included preparation of estimating deliverables and estimating support for final contract scope and price.

$306M SR 520 East Side Transit and HOV Design-Build Project, Bellevue WA

Project Role: **Sr. Design-Build Coordinator**
Contact: Brian Dobbins, Construction Eng. Manager, (425) 998-5260, Email: DobbinB@wsdot.wa.gov

Dates: 01/10– 12/11
Time On Project: 50%
Project #(AC)NH-520(046)

This $306M urban freeway improvements project includes complete mainline reconstruction, median transit stations and facilities, direct access ramps, interchange reconstruction, shared multi-use paths and trails, landscaped cut and cover lids over the highway, fish passageways, and extensive stormwater treatment and detention facilities. Project involves the complete reconstruction and widening of 2.8 miles of existing SR 520 from I-405 to the SR 520 Floating Bridge.

Responsibilities included: James managed the preconstruction services including the establishment of estimating deliverables, design standards, design quality programs, and construction hand-off protocols. Developed valued engineering and alternative technical concepts through the design development process totaling a savings in excess of $60M. He developed significant engineering solutions for maintenance of traffic through the use of 3D infrastructure modeling.

$88M SR 202L HOV Design-Build, Chandler AZ

Project Role: **Senior Design Build Coordinator**
Contact: James Windsor, ADOT, (602) 768-4546, Email: jwindsor@azdot.gov

Dates: 01/10 – 12/10
Time On Project: 50%
Project #202-C(202)N

New construction of 10 miles of HOV lanes on an urban connector. Scope included: construction of two high-speed, direct connect fly-over ramps in stacked interchanges, 3 bridges, for a total of 24 spans. The Team also provided design and construction of approximately 20 miles of HOV (high-occupancy vehicle) lanes on the SR202L between the I-10 Interchange and Gilbert Road in Chandler, Arizona. The project was accelerated delivery and was completed with construction and design in 390 days from NTP. The project was also the recipient of a prestigious Marvin M. Black Award for Excellence in Partnering.

Responsibilities included: As Sr. Design-Build Coordinator, James led the estimate and procurement process, established packaging, implemented design quality program, and established design directives, standards and criteria. His efforts reduced initial scope by over 20 million dollars through the use of alternative engineering concepts and methods. He was also responsible for the development of maintenance of traffic concepts that eliminated significant traffic switches on I-10 through Phoenix. Developed plans and outreach to accommodate the largest shopping district in Phoenix (Chandler Mall) which was directly affected by the project. James solved multiple utility conflicts with engineering solutions that significantly reduce cost and schedule.

$478M Intercounty Connector-Contract A (ICC), Rockville, MD

Project Role: **Senior Estimator, Design-Build Coordinator**
Contact: Eric Mellor, Owner's Design Manager (RK&K), (410) 728-2900, Email: emellor@rkk.com

Dates: 01/07 – 01/08
Time On Project: 100%
Project #AT3765960

The Intercounty Connector (ICC) links existing and proposed development areas between the I-270/I-370 and I-95/US 1 corridors with a state-of-the-art; multimodal east-west highway. This $478M project encompassed approximately 650,000 square yards of paving and 2,400,000 cubic yards of earthwork. The work consisted of 7 miles of new urban interstate, 600 feet of cut and cover tunnel accommodating 6 lanes, 17 bridges, 50,000 square feet of retaining wall, and in excess of 1 million yards of earthwork. Scope included: mainline, ramps and cross roads pavement, utility relocations, bridges, retaining walls, noise walls, earth berms, drainage facilities, landscaping, signing, signals, lighting, pavement markings, tolling infrastructure, maintenance of traffic, intelligent transportation devices, and environmental compliance. It was selected as an ENR Project of the Year in 2011.

Responsibilities included: James provided design coordination and review post-proposal, including trouble shooting and design direction. James developed design deliverables and coordinated all construction reviews and planning and developed innovative concepts for the protection of critical waters that were impacted by the project including numerous crossings. James also created and implemented a utility clearance process to eliminate significant utility conflicts or remove them for the critical path of the project. He also led estimates for roadway disciplines, including take-offs, estimate set-ups, and design coordination pre-proposal.

$430M I-64 Reconstruction, St. Louis, MO

Project Role: **Sr. Roadway Estimator, Design-Build Coordinator**
Contact: Ron Morris, MODOT, (314) 565-4293, Email: ronald.morris@modot.mo.gov

Dates: 01/06 – 01/07
Time On Project: 100%
Project #J610978

10.9 miles of urban interstate reconstruction, interstate to interstate fly-over interchange reconstruction, 32 bridges, 600,000 square feet of retaining wall, and 1 million yards of earthwork. "The New I-64" project scope included the complete reconstruction of approximately 10 miles of I-64 in the St. Louis metropolitan area. It also included 34 new bridges and 13 interchanges including a freeway to freeway connection with I-170. At $420 million, it was MoDOT's largest contract ever and its first design-build contract. The project met or beat every construction milestone and won over fifteen national level awards for quality and production. During construction, special efforts were taken to minimize and mitigate construction impacts to the public through construction staging and community communication efforts, including the use of a Public Information Manager and a project website that was updated daily. The project also exceeded the 16% goal for DBE participation and received a Marvin M. Black Excellence in Partnering Award.

Responsibilities included: During preconstruction services James led the civil estimates, including take offs, estimate set ups, and design coordination pre-proposal as well as, design coordination and direction post proposal. His efforts yielded nearly 40 million dollars in scope and construction savings through value engineering and alternative technical concepts. Most of the design assumptions were verified through the use of 3D infrastructure modeling.

RESUME

Local Construction Knowledge and Solutions

Constructability Expert/Area Superintendent

MARK THORNTON

Years of Experience: 36

Licenses/Registrations:

Frontline Leadership Development Program

Frontline Time Management Course

STOP Training Program

Blaw-Knox CAT Training

Caltrans AGC Liaison, Sacramento Chapter

State Board-AGC, Sacramento

Areas of Expertise:

- Local Fresno Construction Experience (Significant SR99 experience)
- Alternate Procurement Project Delivery
- Urban Highway Construction
- Federal, State and Local Permitting Compliance
- Innovative Construction Phasing and Staging
- Effective Maintenance of Traffic planning and implementation
- Stakeholder Coordination
- Utilities Coordination

- **Position Description/Responsibilities:** Mark Thornton will serve in two roles on the project providing consistency and continuity from preconstruction services through construction. During preconstruction, Mark will conduct constructability reviews, traffic handling reviews, SWPPP reviews and support the preconstruction team in the analysis of phasing alternatives for the Project. Mark will also schedule and plan all field releated preconstrucion work such as utility relocations and geotechnical investigation. During construction, Mark will serve as the Area Superintendent. Mark's responsibilities include suporting Jeff Grimm, Project Constuction Manager, in the coordination and oversight for all of the field work. Participation in work planning, safety reviews and training. Assign work crews and coordinate with ongoing local work. He will be actively involved in construction planning and execution.
- **Authority:** Mark has the authority to communicate directly with local labor halls for dispatching of resources, hiring, reasigning and terminiation of field employees. Mark has the authority to order equipment for the project and bring in Granite resources from the nationwide Granite system. Mark has the authority to stop work if any safety or quality issue could affect the Project .

Mark has over 36 years of comprehensive experience in heavy civil construction. He has held positions as a laborer, foreman, and earthwork superintendent, and general superintendent for roadway, highway, dam, and vertical construction projects. As the Area Superintendent, Mark has been responsible for the day-to-day execution for projects of similar size, value, complexity, and scope as the Caltrans 99 Realignment project. Mark is an experienced manager and has built successful roadway, structures, and highway projects for Caltrans' District 6 and throughout the Central Valley of California.

Mark is currently the Area superintendent for Granite's Fresno Operation with oversight responsibility for all of the field work performed by the Fresno operations. His is actively involved in project planning and execution and works hand-in-hand with the engineering and field staff to create innovative solutions to reduce project schedules; improve safety execution, and reduce construction costs. He has been instrumental in developing value engineering proposals and cost reduction incentive plan concepts for the mutual benefit of Granite and our Owners.

Mark interfaces with Caltrans engineers and testing personnel on a regular basis. His project experience has translated into a superior understanding of Caltrans construction elements and an ability to plan and execute this work in an efficient and economical manner.

Coordination with utility companies and other stakeholders is a common responsibility for Mark. He has 21 years of experience coordinating Granite field work with PG&E, City of Fresno, UPRR, Fresno Metropolitan Flood Control District, and Fresno Irrigation District. As an excellent communicator, he ensures that Stakeholders are adequately informed and crews are managed to meet Stakeholder expectations. His relationships with local agencies, combined with his construction knowledge, will be invaluable in the preconstruction Services portion of the Project. Planning for utility relocations, understanding access and egress, and construction of bridge foundations adjacent to the UPRR Right-of-Way are a few examples where Mark will provide significant value to the design process.

Current Experience

Area Superintendent

Project Role: **Area Superintendent** Dates: Current
Contact: Todd Hill, Area Manager, Granite Construction Fresno Office, (559) 441 – 5724, Email: Todd.Hill@gcinc.com

For the past 9 years, Mark has been responsible for the planning and execution of $400M in construction work in the Fresno market as the Region's Area Superintendent. Responsibilities include:

- Supervise functional construction efforts to ensure projects are constructed in accordance design, budget, and schedule
- Create detailed work plans for specific construction elements. Work plans address quality, safety, constructability and coordination with third parties
- Provide constructability reviews on all projects
- Evaluate and implement traffic maintenance phasing and staging. Work with local agencies and safety department to maximize traffic flow while providing essential work area, access and constructability
- Interface with onsite team to resolve problems, ensure quality, safety, scheduling
- Coordinate Granite field work with environmental agencies, utility companies and public agencies
- Participate in safety reviews prior to and during construction
- Review SWPPP and environmental elements for conformance with project conditions

Select Project Experience

$27M Caltrans 06-0E0404 Madera 99 Rehab Design-Build Project , Madera, CA

Project Role: General Superintendent Dates: 2011 – Present
Contact: Oscar Sherill, Resident Engineer, (559) 444-2409 Time On Project: 10%
Email: oscar.sherrill@dot.ca.gov Project #06-0E0404

As Caltrans' first design-build demonstration project, the Highway 99 Madera Design-Build project rehabilitated 3.5 miles of Highway 99 through the City of Madera. Granite was the prime contractor responsible for delivery of design-build (DB) services for highway reconstruction. Major scope items included 70,000 ton asphalt overlay, removal of existing pavement and placement of 32,000 cy Continuously Reinforced Concrete Pavement (CRCP) and Jointed Plain Concrete Pavement (JPCP), guardrail, street lighting, signs and drainage. The project was delivered on-time and on-budget, and enjoyed a very successful partnering atmosphere.

Responsibilities include: Mark worked with Project Manager Jeff Grimm on this Project. He was responsible for coordination and management of field crews, equipment, and other local resources; oversight of project management team; project planning and constructability reviews; and partnering with Caltrans to resolve all issues at the field level.

$72M Caltrans Mission Avenue Interchange on Highway 99, Merced, CA

Project Role: **Construction Manager**
Contact: Kewel Virk, Caltrans, (209) 724-9097
Email: Kewel.Virk@dot.ca.gov

Dates: 2006 – 2008
Time On Project: 100%
Project # 10-363114

Construction Manager for the construction of this $72 million project from January 2006 to April 2008. This project realigned Highway 99 south of Merced, California and included over 1,000,000 cubic yards of import borrow, 35,000 cubic yards of jointed plain concrete paving, 60,000 tons of HMA paving, and numerous storm drain systems and other features. The project also included over 13,000 cubic yards of structural concrete for several flat-slab bridges, box culverts and two box girder bridges over Highway 99 and UPRR. The schedule contained non-adjustable milestones and commenced in December/January of the wettest winter in recent history. All milestones were completed ahead of schedule and the project earned the maximum bonus incentive. The project earned the Granite West 2007 Construction Operations Best Large Project Award.

Responsibilities included: Coordination and management of field crews, equipment, and other local resources; oversight of construction operations.

$15M Caltrans Highway 65 Lincoln, Lincoln, CA

Project Role: **General Superintendent**
Contact: Salah Bouzid, Resident Engineer, Caltrans, (530) 634-7640
Email: Salah.Bouzid@dot.ca.gov

Dates: 1999 – 2000
Time On Project: 100%
Project # 03-4475U4

Mark was General Superintendent on this $15M freeway widening project that extended from 1999-2000. The project included widening the roadway from two lanes to four. The project included construction of new bridges, asphalt paving, installation of storm drain systems, earthwork, and electrical components as well as numerous utility relocations.

Responsibilities included: Mark's duties included direction and coordination of the activities of subcontractors. Monitoring the project progress according to schedule, material and equipment acquisition and allocation. Coordination and management of field crews, equipment, and other local resources; oversight of construction operations and maintenance of traffic.

$23M Caltrans Freeway 41 at the San Joaquin River, Fresno, CA

Project Role: **General Superintendent**
Contact: Jeff Pallesen, Resident Engineer, Caltrans, (559) 488-4067
Email: Jeff.Pallesen@dot.ca.gov

Dates: 1999 – 2000
Time On Project: 100%
Project # 06-305504

Mark was General Superintendent on this $23M roadway improvement project 1999-2000. This project included earthwork, structures over the San Joaquin River, concrete paving, storm drain installation, asphalt paving and electrical.

Responsibilities included: Mark's duties included direction and coordination of the activities of subcontractors. Monitoring the project progress according to schedule, material and equipment acquisition and allocation Coordination and management of field crews, equipment, and other local resources; oversight of construction operations and maintenance of traffic.

Local
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STRUCTURES MANAGER

JOHN BOIES, PE

Years of Experience: 23

Licenses/Registrations:

Professional Engineer (PE)
CA #058404,
AGC – North Bay Board of Directors, Vice-Chair, California

Education:

BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, 1990

Areas of Expertise:

- Significant Caltrans Experience
- Bridge Type Selection
- Retaining Wall Selection
- Support of Excavation
- Structures Estimating
- Experience Building Structures over/next to live Heavy Rail
- Preconstruction Service Experience
- Bridge Demolition
- Multiphase Construction
- Accelerated Bridge Construction
- Falsework/Shoring design

- **Position Description/Responsibilities:** As the Structures Manager, John Boies will provide constructability reviews, and input on Accelerated Bridge Construction and innovative bridge construction techniques during preconstruction. During Preconstruction, John will report to Preconstruction Services Manager James Waller. He will work closely with Scott Hennessy to price out structures work and all alternatives related to bridges, retaining structures and support of excavtion. John will lead the evaluation of SB and non-SB subcontractors to determine the optimum bid package distribution. He will be a key member in the evaluation of super and sub-structure selection, evaluation of shoring methods, negotiating with specialy subcontractors and creating phasing and construction workplans. John will integrate with the eathwork task force to ensure coordination of all strucrual excavation and backfill. John will coordinate structure related schedule information with Tom Logue. As the project transitions to the construction phase, John will report to Project Construction Manager Jeff Grimm and will manage the structures execution during construction.
- **Authority:** John as the authority to schedule and conduct planning sessions, negotiate with subcontractors and suppliers.

John has held a variety of key positions over his 23 years in the construction industry. Over his career, he has developed into a structures specialist with talents in structure selection, work planning, constructability review, estimating, and managing large construction projects. John has been involved in the estimating and construction of over $2B in heavy civil construction projects with a focus on concrete structures.

His previous roles include Estimating, Project Manager, and senior management roles in Granite's Healdsburg office. John is a master at collaboration and uses his abilities to create highly engaged teams that attack and solve complex problems. He has specialized in structures projects throughout his career. John brings an engineering approach to tackling projects and embraces the partnering philosophy. He enjoys working with the Owner's design teams to identify project issues early and helps create opportunities for success for all parties. John's integration with the Caltrans design department will be seamless.

His experience in evaluating, estimating and constructing structures includes:

Bridges	Foundations	Earth Retaining Structures both Permanent and Temporary
• Caltrans CIP/Prestressed Box Girder Bridges • Precast Segmental Bridges • Precast Girder Bridges • Steel Girder Bridges • Flat Slab Bridges	• H-Pile, Steel Pipe and Pre-cast Driven Pile • Small and Large Diameter CIDH Piling • Spread Footings	• CIP walls • MSE walls • Soil Nail Walls • Soldier Pile, Lagging and Tieback Walls • Sheet-pile Walls • CDSM Walls

Select Pre-Construction Experience

California High Speed Rail Package #1 (Pursuit) Design - Build

Project Role: **Structures Task Force and Estimating Lead** Dates: 01/2012 – 01/2013
Contact: Stephen Bridge Project Executive Time On Project: 80%
Email:Stephen.bridge@gcinc.com Project # HSR 11-16

The billion dollar HSR package #1 pursuit was a joint venture with Granite as a major participant and JV partner. The 29 miles of HSR corridor included embankment and viaduct for the HSR alignment, over 20 overcrossings of railroad, City facilities, and State Route 99 facilities, 10,000 lf of retaining walls, and detailed support of excavation around abutments, state-owned facilities and railroad right-of-way. The design-build project included months of preconstruction type services where the team evaluated HSR design criteria and local conditions to determine the structure type to incorporate into the RFP design. In the determination of elements, John evaluated potential impacts of: constructability, maintenance, schedule, environmental constraints, availability of materials, and aesthetic preferences. The SR99 Project was originally included in the HSR 11-16 package and John is intimately familiar with this exact scope of work. The construction elements on the HSR project will be viable alternatives on the SR99 Project.

Responsibilities included: John was a preconstruction structures lead focused on the design of overcrossings, retaining walls and support of excavation for utility installation, footings and substructure construction. He worked with our design team to evaluate project constraints, consider options/alternatives and prepared a detailed analysis to determine the selected project elements. After preliminary design was produced, John worked with our take-off department to generate quantities and then personally prepared a detailed estimate for this portion of the project.

Select Project Experience

$90M San Bruno Grade Separation Project, Caltrain

Project Role: **Structures Manager/Superintendent** Dates: 2013-Current
Contact: Bill Sorfleet, R.E., (415) 971-172 Time On Project: 100%
bills@cpmservices.com Project # 10-PCJPB-C-002

The 1.4 mile long grade separation project for Caltrain runs through the City of San Bruno. The purpose of this safety related project is to elevate the Caltrain tracks above three existing at-grade road crossings at San Bruno, San Mateo and Angus Avenues by installing steel girder railroad bridges at these locations allowing traffic and pedestrians to pass safely through. Due to right-of-way restrictions a temporary railroad shoe-fly was constructed to maintain train traffic during the course of the project immediately adjacent to the alignment requiring the extensive use of temporary shoring utilizing steel soldier pile and trench plate lagging as well as sheet-piles. In order to facilitate the alignment within the limited ROW and raise the grade, the new approaches are contained by pre-cast MSE wall panels which are backfilled with light weight cellular concrete. The project also includes a new elevated station, replacing the existing station with the addition of three pedestrian tunnels.

Responsibilities included: With a focus on structure elements, John is ensuring that all field operations are performed in the most cost effective manner and in compliance with our corporate and project specific safety requirements while maintaining adherence to the project schedule and delivering a quality product. Daily interface with Railroad EIC to ensure that all work activities are being performed in accordance with specific railroad safety requirements and safety protocols. Coordination and scheduling of sub-contractor activities.

$11M Alton Interchange, Caltrans, Alton, CA

Project Role: **Area Manager**
Contact: Geoff Wright, Caltrans RE, (707)725-1022 Email: Geoffrey_Wright@dot.ca.gov

Dates: 2009 – 2010
Time On Project: 100%
Project # 01-290304

Project involved the construction of a three-span flat slab bridge over a drainage canal and a two span CIP/Prestressed Box Girder Bridges crossing Hwy 101 as part of the Hwy 36/101 interchange project. .

Responsibilities included: Structures Package: Contract administration, subcontract origination and administration, change order negotiation, claims recognition and documentation, CPM scheduling, budgeting, costing and cost forecasting.

Over the course of his career, John has concentrated on structures-related projects throughout the State of California including:

Additional Caltrans and California Structures Design and Construction Experience

- Hwy 20 Pet Hill, Caltrans, Grass Valley, CA
- Bond/Waterman Bridge Replacements, City of Elk Grove, CA
- River Rock Casino Design-Build
- Dos Rios/Mina Road Seismic Retrofit
- Mokelumne Aqueduct Retrofit: EBMUD, Stockton, CA
- Collins Landing Sidehill Viaduct: Caltrans
- Yerba Buena Retaining Wall & Structure, Caltrans
- El Camino Bridge Replacement
- Iron Horse Trail Bridge: Walnut Creek, CA
- Blueslide and Highpoint Retaining Walls, Caltrans, Jenner, CA
- "D" Street Bridge Rehabilitation: Petaluma, CA
- Rodman Narrows Bridge Retrofit: Lakeport, CA
- Pillar Point Retaining Wall: Half Moon Bay, CA
- Eel River Bridge Retrofits: Humboldt County, CA
- Hwy 101/Squaw Rock, Caltrans, Hopland, CA
- Hwy 37/Petaluma River Bridge Retrofit, Caltrans, Novato, CA
- Hwy 101 Cloverdale By-Pass, Caltrans, Cloverdale, CA
- Hwy 85 Saratoga, Caltrans, Saratoga, CA