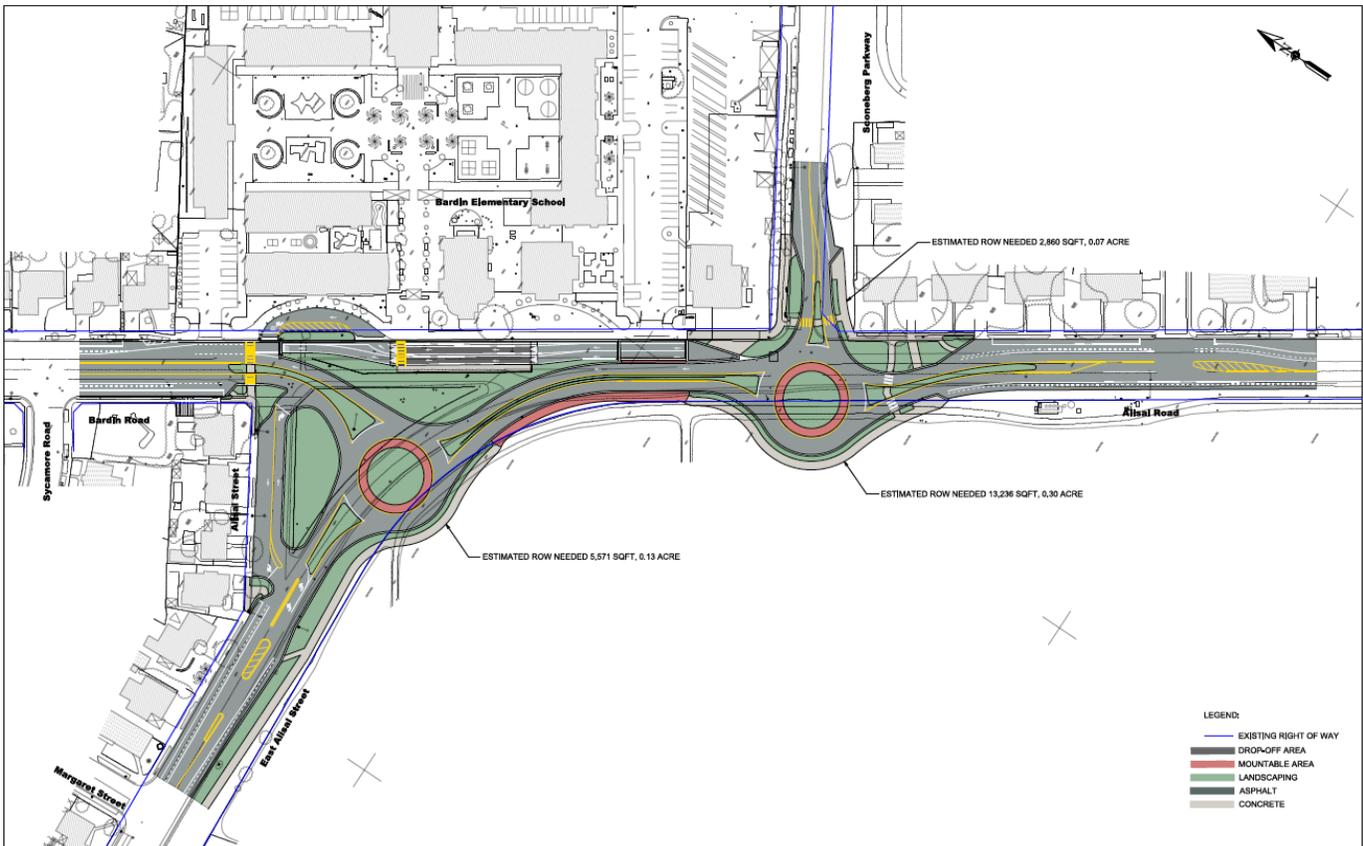


CITY OF SALINAS
 PROPOSAL TO PROVIDE CONSTRUCTION MANAGEMENT
 AND INSPECTION SERVICES FOR THE
 Bardin Road Safe Routes to School Project



PRIME CONSULTANT MNS ENGINEERS, INC.

LOCAL OFFICE 811 El Capitan Way, Suite 130
 San Luis Obispo, CA 93401
 Ph/Fax 805.787.0326

PROJECT CONTACT **Aaron Hilton, PE, QSD/QSP**, Senior Construction Manager/Project Manager
 Ph 805.279.6864 | ahilton@mnsengineers.com

AUTHORIZED SIGNATURE **Greg Chelini, PE**, Vice President
 805.896.9474 mobile | 805.692.6921 office | gchelini@mnsengineers.com



December 22, 2020

City of Salinas
Attention: Maria Contreras, Assistant Engineer, and Eda Herrera, Senior Civil Engineer
200 Lincoln Avenue
Salinas, CA 93901

SUBJECT: Proposal to Provide Construction Management and Inspection Services for the Bardin Safe Routes to School Project

Dear Ms. Contreras and Ms. Herrera,

MNS Engineers, Inc. (MNS) appreciates the opportunity to submit this proposal to provide construction management (CM) and inspection services for the Bardin Safe Routes to School Project (Project) for the City of Salinas (City). We carefully selected project team members with proven track records of successes on similar projects to address the needs of your project.

Leading the team is our Senior Construction Manager/Project Manager, Aaron Hilton, PE, QSD/QSP and Senior Construction Manager/Resident Engineer, Frank Cannizzaro, PE, QSD/QSP. Aaron has 30 years of construction management experience for transportation projects on the central coast including the City of Salinas. He has acted as Project Manager and Resident Engineer on similar projects involving multiple staging and requiring extensive coordination. He has worked with the City of Salinas and understands the City's procedures and expectations and is knowledgeable with Caltrans LAPM procedures in administrating special funded projects.

Frank also has over 30 years of experience in construction management for transportation projects. Frank's experience includes nearly 10 years working for Caltrans as a field inspector and resident engineer, and over 13 years as a project manager for a construction contractor. He has a deep understanding from both the agency and the contractor perspective which allows him to better analyze and work through project challenges in a way that minimizes cost and schedule impacts. He is currently working with the City and would be available to manage the Bardin Safe Routes to School project concurrently, which would provide overall cost more efficiency to the City. This will be a challenging project with multiple staging, utilities, drainage, traffic control, and coordination requiring an experienced team that can anticipate and resolve issues to keep the project within budget and on schedule.

MNS is confident our team is uniquely experienced and qualified to provide the quality services needed to ensure the successful project delivery to the City. Please contact me or **Aaron Hilton, PE, QSD/QSP at 805.279.6864 or ahilton@mnsengineers.com** with any questions you may have about our submittal. Thank you for your consideration.

Sincerely,
MNS Engineers, Inc.



Greg Chelini, PE
Vice President



MNS DETAILS

Legal Name

MNS Engineers, Inc.

Firm Ownership Type

C-Corporation

Year Firm Established

1962

California Department of Industrial Relations (DIR)

No. 1000003564

Corporate Office

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Project Contact

Aaron Hilton, PE, QSD/QSP
Senior Construction Manager/
Project Manager

805.592.2079 Office
ahilton@mnsengineers.com

Authorized Signature

Greg Chelini, PE
Vice President

805.692.6921 Office
gchelini@mnsengineers.com



SECTION 1

PROJECT UNDERSTANDING AND APPROACH



MNS is excited for the opportunity to serve the City of Salinas on the Bardin Safe Routes Project (Project). Our carefully selected construction management (CM) team has the professional qualifications and experience to deliver an award-winning successful project. Our team has reviewed the scope of work, plans and specifications, and project site to gain a solid understanding of the project challenges.

Project Understanding

This Safe Routes to School project is located in east Salinas on Bardin Road between Williams Road and Sconberg Parkway and on East Alisal Street between Tampa Street and Bardin Road. Portions of the project are located within Monterey County right of way on Alisal Road, immediately adjacent to Bardin Road/East Alisal Street and Sconberg Parkway.

This complete streets project is intended to increase safety for multi-model transportation through the area. The improvements include:

- Dual roundabout
- Rightsizing-reducing lanes to enhance safety
- Buffered bike lanes
- Pedestrian crossings
- Curb bulb-outs
- ADA ramp improvements
- Pedestrian paths
- Roadway reconstruction
- Sanitary sewer repairs
- Street lighting
- Drop-off/pick-up improvements at Bardin Elementary School



This project creates safety buffers between vehicles and bicyclist, reduces pedestrian crossing distances, provides improved crosswalks and ADA curb ramps, and controls key intersections. The project is intended to slow the travel speeds through the area and encourage and enhance multi-modal use within the corridor. The project will need to take place in several stages to accommodate traffic throughout construction. The project is separated into 4 schedules: A, B, C, and D. Schedule A consists of the construction of the two roundabouts, one at East Alisal Street and Bardin Road the other at Alisal Road and Sconberg Parkway. Schedule A also includes the construction of the drop off zone for Bardin Elementary School. Schedule B includes the construction of multiple bulb-outs along Bardin Road and East Alisal Street and roadway reconstruction (FDR-C) and slurry seal. Schedule C involves the reconstruction of ADA curb ramps and roadway reconstruction (FDR-C) within Monterey County's jurisdiction. Schedule D includes the replacement of portions of the sewer main in Bardin Road and East Alisal Street.

The project has already bid with the apparent low bidder being Don Chapin Co.

The City is requesting a proposal for inspection services, construction management, material testing, and public outreach for the Bardin Safe Routes to School project. The outreach will be for the major project stakeholders along the project route including the Salinas School District, Bardin Elementary School, Hartnell College, local residents, and Monterey County.

Management Approach

MNS' management approach is to provide the most qualified and experienced resources to the City with staff who best meet the needs of the project. MNS will work as an extension of the City and will keep the City fully informed of project progress. We are currently working with the City and our team is familiar with City procedures and expectations and we will work closely with the City to provide seamless administration of this project. Key tools we utilize in our approach are described herein.

Contract Coordination/Understanding

Prior to the start of the project, MNS' Senior Construction Manager/Project Manager, Aaron Hilton, PE, QSD/QSP, will meet with the City's Project Manager (PM) to establish a clear protocol and understanding of contract documents, project background, procedures, project related agreements such as the Cooperative

Agreement with Monterey County, project milestones, schedule, and expectations for the project. Communication is fundamental to establishing a firm foundation in administering the project; this includes communication with the City, County, Don Chapin, the traveling public, local residents, Hartnell College, Bardin Elementary school, Caltrans, and other project stakeholders.

Quality Assurance and Quality Control

MNS considers quality control the backbone of the value-added services we provide; thus, MNS has developed an internal Quality Assurance/Quality Control (QA/QC) program that is implemented on our projects. As the first order of work, Aaron and MNS Senior Construction Manager /Resident Engineer, Frank Cannizzaro, PE, QSD/QSP, will implement our Quality Control Plan for the contract. The program will include procedures to ensure quality and timely services such as accurate documentation, calculations, and reports—focusing on cost and schedule control. Implementation of this system has resulted in all MNS-managed construction projects successfully passing federal and state audits for funding reimbursement and timely closeout with project agencies. Aaron will act as the QA/QC Manager responsible for performing reviews of the project records and project site to ensure compliance with the contract documents. A few of the areas checked for completeness and accuracy as part of the reviews include:

- Daily reports/labor compliance /SWPPP
- Contract Change Orders (CCOs), Requests for Information (RFIs), submittals, and material logs
- Pay quantities/progress pay applications
- Project schedule and costs

Any outstanding items are tagged with notations such as a list of any areas missing information, need updating, or require special attention. We have found performing these independent reviews and implementing these QA/QC procedures results in a quality project meeting all requirements of the contract documents and efficient closeout of the project. As Senior Construction Manager/Resident Engineer, Frank will oversee the inspection of the project and ensure all work is performed in accordance with the contract documents.

Schedule Control

Schedule and costs are carefully managed to contain expenditures within the project budget. Cost and schedule often go hand-in-hand with one another. By keeping the schedule on track and minimizing delays we



will also minimize extra costs to the project as well. Our overall approach to schedule and cost control is best described as being proactive and looking ahead in lieu of reacting. This starts with the approval of a clear and representative baseline schedule

MNS will review the contractor's baseline schedule to ensure it is accurate and reasonable—the contractor's actual progress will be documented daily and will be reviewed at the weekly meetings. The contractor's three-week-look-ahead schedule will assist the team in looking ahead at upcoming items of work and address any preliminary requirements or issues in advance to help prevent potential delays or extra costs. MNS tracks work item quantities and costs throughout the project as part of its cost control.

It will be vital to review and maintain the schedule daily as the traffic control and staging on the Project will affect the adjacent residents, Hartnell College, and Bardin Elementary school in addition to the travelling public. This will also help to keep minor slips in the schedule from becoming major delays. Methods for maintaining the project schedule and costs:

- Anticipate and address any potential problems before they occur
- Provide timely responses to submittals and RFIs
- Expedite prompt processing of change orders
- Constant review of the contractor's schedule and project work

Should the project begin to slip, the contractor will be requested to submit a Recovery Schedule showing their plan to get the project back on track. We will meet with the contractor and discuss methods to bring the progress back on schedule. Possible methods include working extended hours, double shifts, weekends, re-sequencing some of the work, and performing concurrent operations.



Information Management

Proper information flow is crucial to the success of a project. A construction project generates a large amount of information, which must be disseminated to all parties promptly. The source of this information will cover the full spectrum including contracts, meeting minutes, drawings and specifications, submittals, RFIs, pay requests, invoices, inspection reports, and so forth.

MNS will act as the hub for the management of all information flow and document control. Documents

include letters, memoranda, submittals, forms, meeting minutes, drawings, and any other project data.

MNS uses a variety of web-based document management solutions. For this project we propose using our web-based software to mimic the Caltrans filing system and provide as needed access to the key project stakeholders.

Our approach to information management also includes building a communication framework to continually foster partnering and teamwork relationships for all the project stakeholders. The key component here is holding regular project progress meetings—MNS builds this framework from the start of the project with a kick-off meeting where the lines of communication and project responsibilities will be clearly defined within the City.



Cost Management

MNS will take the lead to ensure a cost management system is properly implemented and maintained. MNS' cost management role will be twofold: 1) MNS will track the progress of the completed work to ensure accurate and detailed monthly progress pay estimate is processed through the City, and 2) MNS will proactively manage the change order process.

The Progress Pay Estimate will be tied to the completed item work and backed up with calculation sheets to support all pay requests. We will also track any extra work or change order costs against the project contingency budget to manage total project costs.

Critical Elements

MNS has reviewed the plans, specifications, and the project site and based on our experience on similar projects as well as our understanding of the project we have developed a list of Critical Elements essential to the success of the project.

Bardin Elementary School

The school's drop-off/pick-up area will be reconstructed as part of the project, which will ultimately provide a two-lane area dedicated to this function. Communication with the school district prior to construction as well as during construction will be critical to the success and safety of this work. While COVID-19 has reduced the number of children at the school, eventually we anticipate the



students will return during the construction phase. The work in the area will cause a significant disruption to the daily routine of parents and students accessing the school. Careful planning and sequencing of the work is needed to minimize the disruption and maintain the safety of the students. Vehicle traffic is not the only concern during the work near the school, foot traffic from students coming and going from class will need to be accommodated. With the school closures in place, there may not be a regular pattern to the student's movement.

MNS Response

MNS will work closely with the City to inform the school of the upcoming work, the planned changes to the area, and alternative access points for the parents and students. We will notify the school of any changing conditions as warranted to keep the students and the public safe and moving smoothly through the area to and from school. The work zone will need clear signage and proper delineation to direct the public safely through the work areas. MNS will work closely with the contractor to sequence work in a manner that minimizes the impact on the school and provides safe access during construction. We had similar challenges on the Hollister Avenue Bike path project, a similar Safe Routes to School project, where work was performed adjacent to an elementary school. Advance notification to the school so they could inform the parents of the upcoming work was key in providing continuous access to the school. Working closely with the contractor and the school, the contractor was able to sequence their work in a manner that minimized heavy construction within the immediate area during the designated drop-off/pick-up windows. This helped address safety concerns for both the school and the contractor.

Hartnell College

During the reconstruction of the curb ramp and the cross gutter at the entrance to the college, there will be a time when the traffic is restricted to a single lane. As the main access to the college is off of East Alisal Street, the college entrance must remain accessible without causing major delays during the work.

MNS Response

Once again, MNS will work closely with the City, contractor, and the Hartnell College to ensure that the timing of the work does not impact the student's ability to enter the campus. The contractor will be required to have a comprehensive plan for the work with a contingency plan that can be implemented if there is a problem opening the road as planned. Advance

notification to the college along with proper signage and safe traffic control will help alleviate impacts to accessing the school.

Staging and Traffic Control

The construction of the roadway improvements will need to take place in several stages in order to maintain the flow of traffic during construction. When a new traffic pattern is introduced to an area there is always some resistance and confusion. The adjacent residents and public passing through the project will likely experience slowdowns and inconveniences during construction which can create safety concerns for all. With the implementation of a new roundabout, there will be concerns after the construction as well as it will take time for the public to adjust to the new traffic circulation. In reviewing the various bid items, we noticed that the apparent low bid contractor has a relatively low price for the traffic control item compared to the Engineers Estimate and the other bidders. A low bid of an item may be a red flag that the Contractor may feel the need to cut corners to make money. It will be important to address traffic control up front and be clear on the City's expectations.

MNS Response

As mentioned previously, the Project will involve several stages of construction for the new roadway and improvements, requiring a detailed traffic control plan and construction sequencing plan in order to safely and effectively complete the work. As Bardin Road, East Alisal Street, and Alisal Road are main thoroughfares for vehicles, pedestrians, and bicyclists in the City, minimizing the impact while maintaining safety to the public is critical. To help achieve this, it will be important for the contractor to provide a comprehensive Traffic Control Plan that includes the transitioning between the various stages of work. MNS will review the plan in conjunction with the City's review to ensure the plan adequately addresses the needed signage and delineation in accordance to City standards.

MNS will be proactive in reviewing, discussing, and mitigating any traffic impacts that may arise from the construction operations and the effectiveness of traffic control for each operation will be monitored and reviewed daily. As discussed earlier, the work will be performed in multiple stages requiring the shifting of traffic and temporary traffic control. The critical point in these operations is making the transition between stages and at intersections. The MNS team assigned to this project has over 50 years of combined similar construction experience and knowledgeable with procedures for lane closures, traffic staging,



flagging, and adhering to the Manual of Uniform Traffic Control Devices (MUTCD). A few of the methods we implement include:

- Before any work is allowed to start, the contractor's traffic control system will be thoroughly reviewed for compliance with the contract documents. Upon implementation the MNS Inspector will drive through the traffic control and assess the site for safety, bottlenecks, access, and areas that might be confusing to the traveling public and offer suggestions that will enhance the public's ease of navigating through the project.
- Prior to the contractor implementing their traffic control, MNS will hold a pre-operation meeting to specifically discuss their approved traffic control plan as well as items such as flagging, pedestrian safety, access to businesses, notifications, work windows, sweeping, ingress and egress to the work area. The MNS Construction Inspector will meet with the contractor before implementing the day's traffic control to confirm consistency with the approved traffic control plans and discuss windows and any details requiring special consideration.
- Special attention will be given to excavations and working close to live traffic. Any safety concerns will be brought to the contractor's attention for immediate resolution

MNS will implement and ensure the contractor complies with public safety, public convenience, preservation of property, and the vehicle code in compliance with the specifications for the project. MNS will work with the City to keep the public informed to ensure that the traveling public and the surrounding area has the most accurate and up to date information about the traffic control and any traffic pattern changes.

Close communication with the City and affected project stakeholders, in conjunction with advanced notification of impending work, will aid in the successful installation of improvements and minimizing impacts. MNS Resident Engineer, Frank Cannizzaro, has constructed numerous roadway improvement projects involving traffic control, drainage, and utility coordination and is familiar with the type of sequencing needed to safely and effectively construct the improvements

Utility Coordination

There are numerous utilities within the project area, conflicts with any of the utilities could cause delays and potentially cost the City time and money. The cross-section changes could conflict with older utilities that were installed in relation to the existing conditions. With a structural section over 1.5-ft, the contractor may run

into shallow utilities. The work on the sewer lines, specifically the bypass pumping will need close monitoring. The contractor will need to have comprehensive contingencies and back ups in place and on hand.

MNS Response

MNS will coordinate early with the utility companies that are potentially affected. Early potholing of utilities can be a valuable tool to identify conflicts before they impact the schedule and the budget. Establishing contact with the utility companies early on will promote more efficient communication during construction. MNS will also ensure that the contractor follows the requirements in the contract document regarding their contingency plans and the back up for the sewer line work. MNS will monitor the contractor's staffing of the bypass pumping operations.

SWPPP Compliance

A project of this size, spanning multiple seasons, can be a challenge for the contractor to maintain adequate SWPPP controls. There will inevitably be work occurring in the rainy time of the year. BMPs will need to be monitored and corrected as conditions change throughout the seasons.

MNS Response

MNS will work closely with the City to ensure that the SWPPP is implemented as approved. The contractor will be required to perform site inspections, as stated in the general permit and approved storm water plan. MNS will perform an independent inspection of the contractor's implementation of the SWPPP and will use the City's tracking and information format/system. MNS team members are QSD/QSP certified and are trained in the review of Best Management Practices (BMPs) to determine if the contractor's work and SWPPP maintenance is being performed satisfactorily throughout the year. The use of Storm Water checklists will assist the MNS inspector in monitoring the contractor's BMP implementation and maintenance. We will immediately notify the contractor to address any deficiencies in a timely manner.



SECTION 2 QUALIFICATIONS

Project Team

Based on our *Project Understanding*, MNS has developed the following organizational chart to outline our proposed staffing. We anticipate the project will require a part-time Project Manager and a part-time Resident Engineer to manage the project; a full-time Construction Inspector; a part time Peak Inspector; a part-time Office Engineer to assist with the document control. With Aaron and Frank working concurrently with the City on the Laurel Pedestrian Improvement project, it will be a benefit by providing the City with added efficiency and communication for the project. The MNS team will work directly for the City Project Manager and keep the City informed of progress on a regular basis.

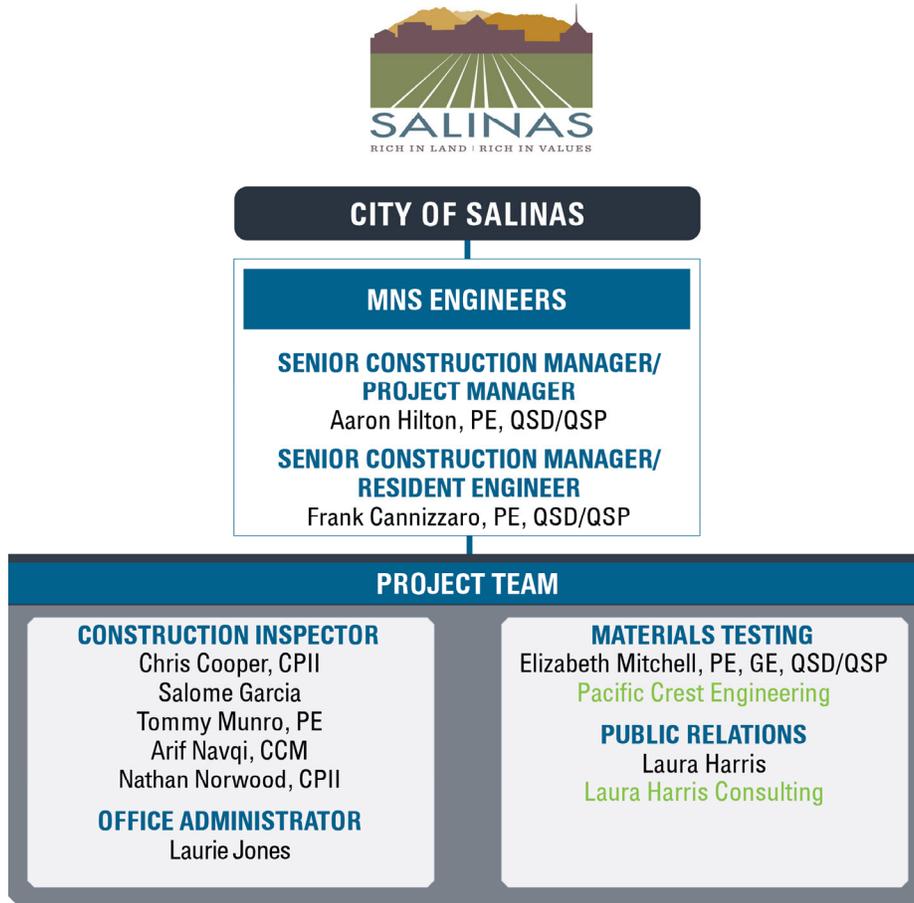


Figure 2.1. Team Organization



Transportation Construction Management (CM) Expertise

MNS has successfully delivered numerous public works projects that involve federal, state, and local funding. We understand the importance of having detailed and accurate contract administration for the City to receive 100% reimbursement of the ATP grant funding allocated to the project. Consequently, we model our procedures, contract administration, and financial database system in accordance with the Caltrans LAPM to meet all funding and administration requirements. In the last decade, we have administered over \$1B in programmable money.

Similar Roadway Projects

MNS and our individual team members proposed for the Project have successfully delivered roadway and highway projects involving challenges such as working on major thoroughfares, multiple agency coordination, funding requirements, utility coordination, staged construction, traffic control, schedule control, and community relations. In addition to working with the City of Salinas, MNS has also worked with the County of Monterey on numerous projects over the past 10 years providing a firm foundation for coordinating with them on this Project. A sample of our team's proven and recognized experience is detailed later in the proposal.

Subconsultant Support

Pacific Crest Engineering, Inc. (PCE)

Local Address	444 Airport Boulevard, Suite 106 Watsonville, CA 95076
Role	Materials Testing/Geotechnical Engineering

PCE is a local Disadvantaged Business Enterprise (DBE) firm providing full service geotechnical, materials testing, special inspection, and environmental engineering consulting services to the public and private sectors. PCE's staff of 20 professionals include California licensed geotechnical, civil, and chemical engineers; field and laboratory technicians; and support personnel.

PCE's services include geotechnical and geologic investigations; soil, aggregate, concrete, and asphalt testing; infiltration testing; special inspection; SWPPP and erosion/sediment control monitoring; slope stability studies; Phase 1 environmental site assessments; coastal engineering investigations; groundwater sampling and monitoring; soil and groundwater remediation; and laboratory services.

Laura Harris Consulting (LHC)

Local Address	825 Casanova Avenue, No. 87 Monterey, CA 93940
Role	Public Relations

LHC offers the following public relations and communications services: copywriting, web-based content production, print asset production, media relations, and community presentation design in both English and Spanish. LHC provided project management services for the City of Salinas to win an All-America City designation in 2015, a prestigious award established by the National Civic League. Established in 2014, LHC is a sole proprietorship based in Monterey, CA.

MNS Team Overview

Team Organization and Staff Biographies

Our cohesive, talented team of experienced professionals meet all the specific elements and needs for the project. Figure 2.1 displays our team organization chart. This section provides a brief overview of the responsibilities and biographies for the key MNS team members. **Appendix A** contains detailed two-page resumes for each team member.

Aaron Hilton, PE, QSD/QSP	YRS EXP	29
Firm Role	MNS Senior Construction Manager/ Project Manager	
License	Professional Civil Engineer, CA No.75698	
Certification	Qualified SWPPP Developer/Practitioner, CA No. 20698; OSHA Authorized Construction Trainer No. 32-0105996; 10-hour Construction Safety, Cal/OSHA; Confined Space Awareness; Radiation Safety Officer; Defensive Driving; CPR and First Aid	
Education	BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA	



As Project Manager, Mr. Hilton will be responsible for overall project oversight and quality control. Aaron will manage the MNS team—focusing on budget, schedule, and technical oversight. Aaron has significant experience in construction management for transportation projects



within the Salinas and Monterey County area . Aaron’s responsibilities involve onsite project construction management, and supervision for a variety of interchange, bridge and roadway replacements and widenings, realignment, embankment stabilizations, environmentally sensitive areas, and contract administration in accordance with the Caltrans Local Assistance Procedures Manual.

Frank Cannizzaro, PE, QSD/QSP	YRS EXP	31
Firm Role	MNS Senior Construction Manager/Resident Engineer	
License	Professional Civil Engineer, CA No. 48881; General Contractor (General A), CA No. 803707	
Certification	Qualified SWPPP Developer/Practitioner, CA No. 01225	
Education	MBA, Corporate Financing, Golden Gate University, CA BS, Civil Engineering, Santa Clara University, CA	



As Resident Engineer, Mr. Cannizzaro will manage the construction project for the City. Frank will oversee the construction of all work, correspondence, submittals, Requests for Information (RFIs), special inspections, survey, and materials testing; negotiate change orders; hold weekly project meetings; coordinate with the contractor, the City, and utilities; and maintain constant communication with the City’s Project Manager. Frank has over 30 years of experience in the construction industry working on numerous state, federal, and private construction projects throughout Northern California. Frank’s experience includes nearly 10 years working for Caltrans primarily in the construction branch as a field inspector and resident engineer; over 13 years as a project manager and operations manager for a general engineering construction and environmental remediation contractor; and 7 years as an engineering consultant. He has extensive working knowledge of Caltrans manuals (Construction Manual, Standard Test Methods, and Manual of Traffic Controls for Construction and Maintenance Work Zones), and contract administration including preparation of final estimates and contract closeout.

Chris Cooper, CPII	YRS EXP	17
Firm Role	MNS Construction Inspector	
Certification	Certified Public Infrastructure Inspector, APWA (see resume for full certification list)	



Mr. Cooper has over 17 years of experience as a construction inspector and materials technician working on highway/roadway improvements. Chris’ expertise includes concrete and hot mix asphalt (HMA) placement inspection, masonry, soils and geotechnical testing, and traffic control. He has provided field quality control and quality assurance for numerous roadway and public works infrastructure projects. He is knowledgeable with local agency and Caltrans methods and procedures.

Salome Garcia	YRS EXP	4
Firm Role	MNS Construction Inspector	
Education	BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA	



As Construction Inspector, Mr. Garcia will ensure all work is constructed in accordance with the project plans and specifications. Salome’s responsibilities will include coordinating with the Resident Engineer, the contractor, subconsultants, and all utilities. Salome provides on-site inspection and coordination for transportation projects. Salome is experienced in both construction inspection as well as transportation design, giving him a broad understanding of constructing roadway improvement projects. He has served as a Construction Inspector and Office Engineer on similar projects. Many of Salome’s projects involved work on busy roadways and in environmentally sensitive areas, which required extensive permitting, environmental mitigation, and multiagency coordination.



Tommy Munro, PE		YRS EXP	12
Firm Role	MNS Construction Inspector		
License	Professional Civil Engineer, CA No. 88115		
Certification	10-hour Construction Safety, Cal/OSHA		
Education	BS, Environmental Resources Engineering, Humboldt State University, CA		



Mr. Munro is experienced in providing construction inspection for transportation projects for public agencies. Tommy also has extensive experience in storm damage slide

repair project funded by FEMA. His experience includes maintenance/rehabilitation, bridge and roadway rehabilitation, bridge widening, and soldier pile retaining wall construction. Tommy is knowledgeable with Caltrans methods and procedures.

Arif Naqvi, CCM		YRS EXP	32
Firm Role	MNS Construction Inspector		
Certifications	CCM, Certified Construction Manager (CMAA), No. 1848; 10-hour Construction Safety, Cal/OSHA		
Education	MS, Construction Management, San Jose State University, CA BE, Civil Engineering, NED University of Engineering and Technology, Karachi, Pakistan BS, Statistics, University of Karachi, Pakistan		

Mr. Naqvi has more than 32 years of diversified experience managing a variety of projects from design through construction. Arif's knowledge encompasses the construction of roadways, highways, box culverts, railroads, structures, facilities, and railroad stations. Additionally, his construction experience includes utility relocation, landscaping installation, grade separations, mechanically stabilized earth (MSE), and traditional retaining walls; and modernizing school facilities.

He has enforced environmental compliance, quality assurance/quality control (QA/QC), and traffic management. Arif's proactive approach in detecting issues and using out-of-the-box cost solutions for clients is an invaluable asset. He strives to prevent potential change orders and claims and ensure all contract documents are fully coordinated, drawings are complete, buildable, and consistent with all applicable codes.

Nathan Norwood, CPII		YRS EXP	21
Firm Role	MNS Construction Inspector		
Certification	Certified Public Infrastructure Inspector, APWA		



Mr. Norwood has over 21 years of experience in construction of transportation projects. Prior to MNS, Nathan was a contractor responsible for estimation, project management,

and construction of various projects involving drainage, joint trenches, signal and fiber optic interconnect facilities, signal and lighting conduits, conductors, microwave detection, and closed-circuit television (CCTV). Many of these projects required compliance with Caltrans specifications and standards. He is knowledgeable with Caltrans and local agency standards.

Laurie Jones		YRS EXP	11
Firm Role	MNS Office Administrator		
Education	AA, General Studies, Bakersfield College, CA		



Ms. Jones will handle construction administration responsibilities and ensure all administrative requirements are performed and documented in the project files. Laurie has over 11 years

of experience with project coordination/ management and senior administration experience. She possesses extensive practical knowledge in strategic planning, project development, operational excellence, project management and scheduling for public works projects. Laurie is experienced in administering projects in accordance with Caltrans LAPM guidelines and is known for her organization and excellent communication skills.



Project Experience

MNS and our individual team members proposed for the Project have successfully delivered construction management services for similar projects. A sample of our team's proven and recognized experience is provided in this section.



PROJECT River Road Pavement Rehabilitation

OWNER County of Sonoma

This project rehabilitated a 4.83-mile section of River Road from Healdsburg Trento Road to just west of the Sonoma-Marín Area Rail Transit (SMART) railroad crossing near the town of Fulton. The scope included the localized repairs of failed asphalt concrete (digouts), placing a 0.2-foot section of rubberized asphalt along the entire length of roadway (over 14,400 tons), installation of PVC liner in eight culverts as part of the culvert rehabilitation program, and placing over 100,000 linear feet of striping. Safety improvements included adjusting 2,300 linear feet of metal beam guardrail, installing an additional 4,900 linear feet of metal beam guardrail, and constructing over 24,700 linear feet of 12-inch rumble strip along the centerline of River Road. The project required extensive traffic control and coordination with the surrounding residents and property owners.

MNS is providing construction management and inspection services.



PROJECT San Pablo Avenue Green Stormwater Spine

OWNER Bay Area Toll Authority

The work includes the demolition of existing flatwork; relocation of two East Bay Municipal Utility District (EBMUD) water lines; hot mix asphalt (HMA) paving and micro-surfacing operations; construction of concrete curb, gutter, and sidewalk; installation of new drainage systems; construction of bioretention raingardens; and landscape improvements. Challenges included maintaining vehicular and pedestrian traffic through eight sites along San Pablo Avenue and coordinating construction activities with eight different cities, Caltrans, and local businesses.

MNS is providing construction management and inspection services.



PROJECT Prunedale Improvement Project

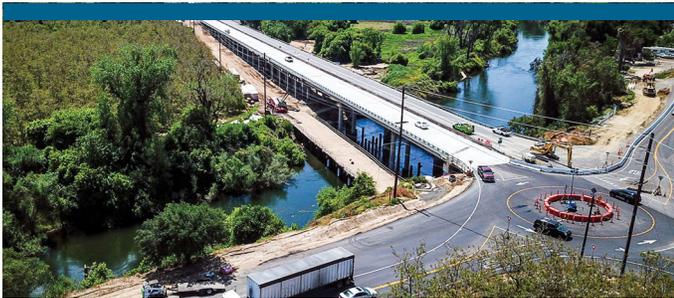
OWNER Caltrans District 5

This \$75M project spanned four areas along an eight-mile stretch of US 101, realigning over 10 miles of US 101 while raising the profile grade over 18 feet, and extending and realigning existing frontage roads. Additional construction work included construction of eight bridge structures; soil nail and soldier pile retaining walls; sound walls; reinforced box culverts; temporary



and permanent BMP measures; over one million cubic yards of earthwork, miles of hot mix asphalt (HMA) and Portland cement concrete (PCC) paving, numerous drainage systems, utility relocations; hazardous material; traffic control, and traffic signals. The project was constructed in multiple stages and required coordination with multiple stakeholders.

MNS provided construction inspection services.



PROJECT	McHenry Avenue Corridor Improvements
OWNER	County of San Joaquin

This \$24M project widened and improved a 1.1-mile segment of McHenry Avenue from south of the Stanislaus River in Modesto to Jones Road in Escalon. Key project features included replacing the 1,100-foot, two-lane bridge with an 1,100-foot, five-lane structure with pedestrian sidewalk and Class III bicycle lanes; widening and signaling the intersection of McHenry Avenue and River Road to increase the flow of commercial trucking and commuter traffic through the corridor; and widening a mile of McHenry Avenue to a three-lane roadway (two travel lanes and a center two-way turn lane) with five-foot-wide shoulders to accommodate Class III bicycle and pedestrian lanes.

The center two-way left-turn lane on the road widening facilitates turns into and out of commercial and residential driveways along McHenry Avenue without impeding the flow of through traffic.

The original four way stop at the intersection of McHenry Avenue and River Road did not allow for efficient movement through the area, resulting in long delays to the public before the work started. The team designed and installed a temporary roundabout, fondly called the "bean-about" because of its shape, at the intersection of McHenry Avenue and River Road nearly one year prior to the start of construction. While a roundabout at the

intersection was not practical to accommodate future traffic demands, it helped alleviate congestion prior to and through the nearly three-year construction duration. The design and CM team worked closely with the County and the contractor to modify and redesign the geometry of the roundabout to accommodate the various stages of construction. Four iterations of the "bean-about" were used during construction until the permanent traffic signal was turned on. The "bean-about" allowed for a free flow of traffic during project construction. This creative solution proved to be key in expediting the delivery of the project as well. Roundabouts are not a new traffic calming design. However, the ingenuity of the County and design team to use the "bean-about" during construction, modifying as needed, resulted in an innovative and replicative solution to typical construction-related traffic delays. The "bean-about" was a tremendous success, immediately reducing half-mile queues and 30-minute delays to less than 5 minutes!

Utility work involved installing an eight-phase traffic signal and safety lighting at the McHenry Avenue/River Road intersection to replace the old four-way stop and relocating the CVIN fiber optic line from the old bridge onto the new bridge. Drainage improvements channel all roadway run-off from roads and bridges to on-site infiltration systems to eliminate the past practice of placing it in the Stanislaus River. MNS also coordinated activities with seven private utilities that pass over or under the project work.

MNS provided construction management and inspection services.



PROJECT	West Broadway Urban Village Improvements
OWNER	City of Seaside

This \$6.5M improvement and beautification project completely reconstructed a half-mile roadway section in downtown Seaside. This effort was the result of a



planning process to revitalize and enhance the economic, social, cultural, and recreational fabric of the City of Seaside's (City) West Broadway Avenue—the main arterial in the City and home to many commercial and retail businesses. The work included complete excavation of the roadway to modify the profile; reconstruction of the sidewalks; and installation of new drainage systems, a stormwater collection system, 12-inch sanitary sewer, electrical systems for ornamental pedestrian and street lighting, street beautification elements and appurtenances, Americans with Disabilities Act (ADA) compliant handicap ramps, pedestrian amenities, parking, landscaping, irrigation facilities, and multiple bio-swale infiltration facilities.

The new roadway section consisted of a Class II aggregate base and 6-inch hot mix asphalt (HMA) paved surface along with new signalized intersections, signage, and thermoplastic striping and marking. This high visibility project was constructed in multiple stages and required constant coordination with the local businesses and stakeholders. Extensive traffic control was required throughout the project to detour traffic since traffic is limited to one-way direction during construction. Reconstruction of the sidewalks and curb ramps required close coordination with the businesses to provide continued access for pedestrians and bicyclists.

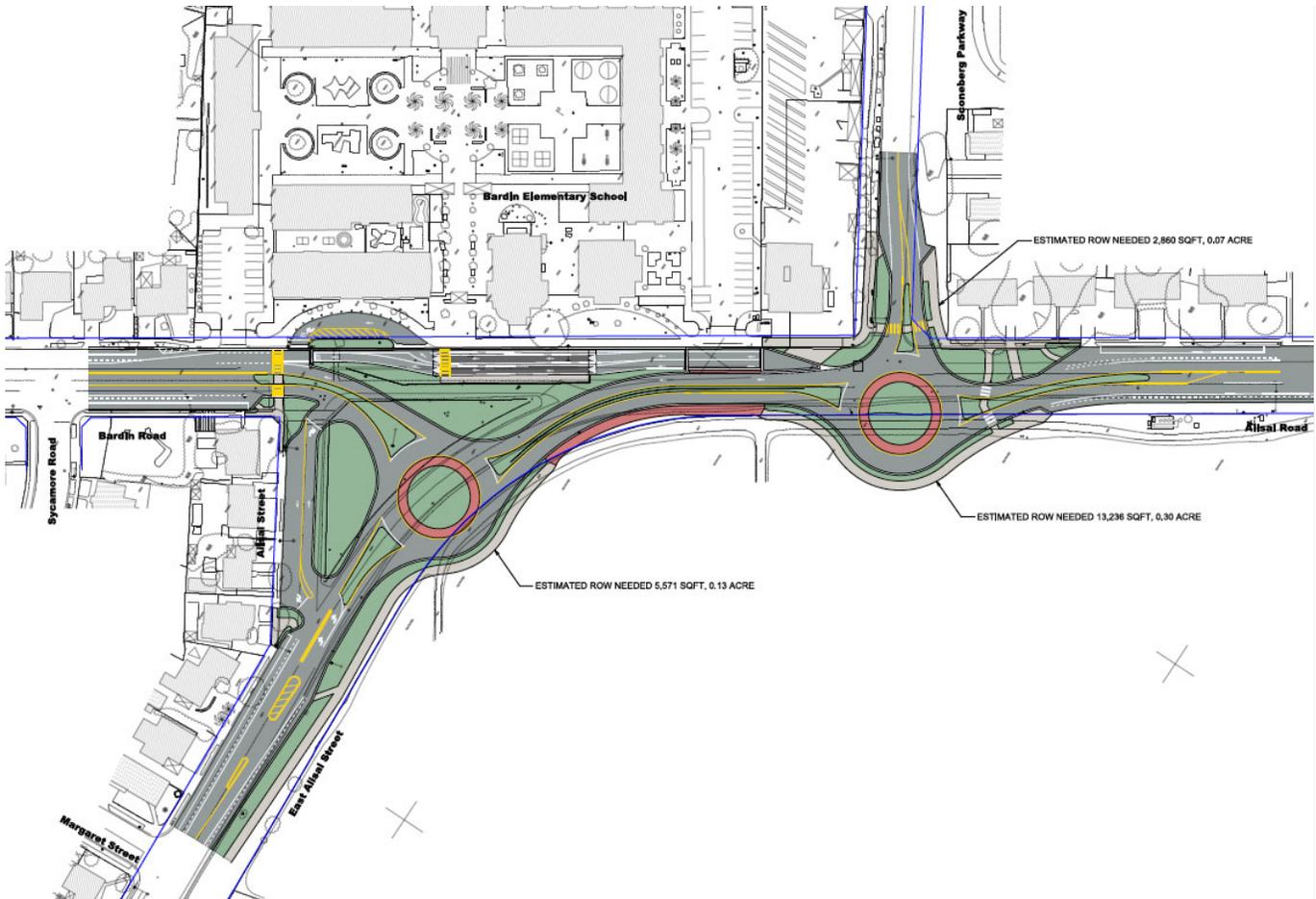
The project was funded through a federal Active Transportation Program (ATP) grant from Caltrans, District 5 and administered per Caltrans Local Assistance Procedures Manual (LAPM) guidelines. This project finished on schedule and within budget.

MNS provided construction management and inspection, office engineering, and design survey.



SECTION 3

Scope of Work



Work Plan/Scope of Work

MNS will provide the following Scope of Work:

Phase 1.0	Pre-Construction Services
TASK 1.1	Project Review and Pre-Job Coordination

Upon receipt of the Notice to Proceed from the City, MNS will contact the key individuals involved in the project and establish a clear protocol for the contract administration, lines of communication, and levels of authorization. MNS will coordinate with the City's Project

Manager to establish a firm foundation of communication and understanding of the project.

TASK 1.2 Project Set-Up

The MNS team will set up documentation and filing systems consistent with the Caltrans Local Assistance Procedures Manual (LAPM) and the City's needs.

TASK 1.3 Pre-Construction Conference

MNS will organize and conduct a pre-construction meeting. All appropriate parties will be invited including the selected contractor, City staff, and any other involved



entities at the City’s discretion. At the pre-construction conference, we will discuss the hierarchy of both the City and the contractor as well as establish the protocol to be used throughout the project. The meeting will set the tone of cooperation for the project and elaborate on contract requirements and concerns. MNS will distribute meeting minutes to all parties in attendance.

throughout the construction phase. The pre-construction conference and weekly progress meetings will help the construction team to stay abreast of project issues and progress. The Resident Engineer will act as the project liaison for the City and will keep the City informed of any disputes or unknown conditions that arise during the work.

TASK 1.4 Public Relations

MNS will work with the City to develop a plan for outreach that can inform the identified stakeholders as we start the project and move through the phases of work. This will include a monthly email blast to keep the stakeholders and the public informed. Laura Harris Consulting will be utilized to cost effectively assist the Resident Engineer in implementing the outreach plan.

TASK 2.3 Public Relations

Throughout the construction phase MNS will communicate upcoming changes the public will encounter. These changes will be traffic control changes, traffic pattern changes, closures, and general progress. The team will implement the plan that was established in the pre-construction phase of the project. Laura Harris Consulting will be utilized to assist the Resident Engineer in implementing the outreach plan as needed.

Phase 2.0 Construction Services

TASK 2.1 Contract Administration/Document Control

MNS will implement the project administration system discussed in Task 1.2. Our system will contain a method for organizing files and forms to assist in tracking correspondence, submittals, requests for information (RFIs), contract change orders (CCOs), progress payments, and documenting materials testing results. Our system is web-based, allowing the City access to the files at all times.

TASK 2.4 Project Schedule Adherence

The Resident Engineer will review and approve the contractor’s baseline schedule at the start of the project. The contractor will be required to submit monthly schedule updates, which will also be reviewed by the Resident Engineer. The contractor will be required to correct any discrepancies prior to approval. Should the contractor start to fall behind schedule, MNS will discuss with the contractor and request a recovery schedule to show how the contractor plans to get back on-schedule. MNS will review any TIA’s submitted by the contractor by reason of a change or potential change to the work.

Contract administration includes:

- Daily reports
- Labor compliance and certified payrolls
- Logs for submittals, RFIs, CCOs, and materials testing results
- Correspondence, permits, and agreements
- Progress schedule/Weekly Statement of Working Days (WSWDs)
- Progress Pay Estimates and quantities
- Invoice coordination with the County of Monterey
- Potential claims
- Safety and traffic control
- Public relations
- Weekly meetings agenda and minutes

The Resident Engineer will require and review the three-week-look-ahead schedule from the contractor on a weekly basis. This schedule will assist in managing the contractor’s progress and allows our team to schedule materials and soils testing, and coordinate with the City’s Public Information Officer in updating any social media or the City’s website. The contractor will be issued Weekly Statement of Working Days (WSWDs) to document the progress of the work and the number of working days expended.

TASK 2.2 Project Communication and Coordination

The Resident Engineer will oversee project communication and coordination with the City, Design Engineer, emergency services, utility companies, key stakeholders, contractor, and materials technicians

TASK 2.5 Cost Control

The project’s document control system will track and monitor the actual project construction costs. The tracking of contract item payments and quantities is incorporated to verify the contractor’s monthly pay requests. Contract change order payments, extra work, and item overruns and underruns will also be tracked.



The project contingency balance will be verified as part of the monthly progress pay estimate review and submittal. Costs will be tracked by the four different Bid Schedules listed in the contract. MNS will proactively identify any areas not appearing to coincide with the expected item quantities listed in the specification. The Resident Engineer will work closely with the City's Project Manager and the contractor to resolve all change orders and/or disputes.

TASK 2.6 **Quantity Calculations and Progress Estimate**

MNS will prepare accurate and complete quantity calculations (Q-sheets) for each contract item and each progress pay estimate. The pay requests will be broken out by the four different Bid Schedules and tracked separately. The Construction Inspector will track any extra work and supplemental work costs to be compared against the authorized change order amounts. We will review the contractor's monthly Request for Payment and recommend approval to the City. MNS will also coordinate with the County on pay requests for all Schedule C work.

TASK 2.7 **Submittals/RFs**

MNS will perform timely review of submittals and RFIs; all submittals and RFIs will be logged and distributed as necessary. The Resident Engineer will monitor the log to verify responses are submitted in a timely manner. Initial submittals to be reviewed and approved as the first order of work include:

- Stormwater Pollution Prevention Plan (SWPPP) and Permit registration documents
- Project Schedule
- Traffic Control Plan

TASK 2.8 **Change Orders and Claims Management**

Prior to beginning any contract work, MNS will coordinate with the City to define the CCO process. All CCOs must define the project scope of work and limits and comply with the project documents. Our construction management team will be proactive in identifying actual and potential problems and work towards a timely and cost-effective solution. The Resident Engineer will:

- Determine the validity and justification for all change orders
- Notify the City if a change order is needed
- Negotiate costs with the contractor
- Process through the City
- Track all CCOs against project contingency balance

- Any associated Time Extension requests would be thoroughly evaluated

The Resident Engineer will work closely with the City Project Manager and contractor to resolve all change orders and/or disputes. That said, if a dispute has been filed, MNS will work diligently to thoroughly understand the nature and extent of the dispute and resolve it as quickly as possible. We will act on and process any Notice of Potential Claims (NOPCs) submitted by the contractor in a timely manner and in accordance with the contract documents and the City's procedures.

TASK 2.9 **Construction Inspection**

The Resident Engineer will implement inspection guidelines for monitoring the quality of the contractor's work. The Construction Inspector will be on-site daily to inspect and ensure the work is performed safely and in accordance with the contract documents. The Inspector's responsibilities will also include:

Daily Inspection. Inspect the construction for compliance to the plans and specifications. Any non-conforming work will be rejected.

Traffic Control. Inspect the contractor's daily traffic control per approved standards. Notify the contractor of any perceived unsafe conditions.

Daily Reports. Prepare daily inspection reports including daily quantities, note any safety issues, material verification, labor compliance interviews, and include an accurate description of the work, labor, and equipment. Note any extra work or changes to the plans. Maintain photographic record of construction.

SWPPP Inspections. The Resident Engineer and Inspector will conduct SWPPP inspection independent of the contractor's inspections to ensure compliance with the permits and approved SWPPP.

Materials. Verify approved materials are incorporated into the project.

Acceptance/Performance Testing. Coordinate acceptance and performance testing in conformance with the contract documents.

Materials Testing. Coordinate with the Project Manager and Pacific Crest Engineering, Inc. (PCE), as needed.

Punch List. Prepare punch list and inspect for completion of punch list work items. Perform final walk-



through with the City Project Manager and the contractor.

TASK 2.10 Site Documentation

MNS will take pre-construction site photos to document the existing condition of the project limits and any haul routes prior to construction. Our team will also document construction throughout the life of the project. All photos will be logged and filed in the project files.

TASK 2.11 Permit Management

MNS will monitor the construction to ensure all items of work are performed in accordance with the encroachment permit and stormwater pollution control permit requirements. MNS will review and recommend approval of the contractor's SWPPP for the City prior to the start of any earth-disturbing activities. MNS will provide SWPPP inspection per the City's NPDES permit. MNS will work within the City's stormwater tracking system. The work performed within Monterey County's right of way will be monitored for adherence with the County Encroachment Permit, all required quality assurance inspections will be coordinated with the County.

TASK 2.12 Safety

The contractor has sole responsibility for compliance with safety requirements on the construction contract, but the construction management team will monitor compliance with their safety program and advise the City Project Manager of observed deficiencies. The contractor's approved Safety Plan, Manual on Uniform Traffic Control Devices (MUTCD), and Cal/OSHA Safety Orders will guide our inspectors in monitoring the contractor's work. Traffic control will be given a high priority and will be reviewed on a daily basis as the project will require ongoing traffic control and different staging throughout construction.

TASK 2.13 Materials Testing

MNS will coordinate with our materials testing subconsultant, PCE, to ensure all required testing is documented and performed in accordance with the City's Quality Assurance Plan (QAP). Sampling and testing activities will be conducted in accordance with the contract documents and approved procedures. Only certified technicians will perform the work.

Phase 3.0 Post-Construction Services

TASK 3.1 Closeout

MNS will maintain an up-to-date set of as-built plans, quantities, CCO costs, and general record keeping throughout the project's construction in order to expedite and ensure accuracy of final documents and reports. Closeout items include:

Record Drawings. MNS will maintain a field set of as-built drawings to ensure the record drawings are complete. We will utilize our field set of as-built drawings for use to ensure the contractor's copy is complete. Upon completion, the final set of record drawings will be reviewed by the Resident Engineer and submitted through the City's Project Manager to the Design Engineer for final processing.

Final Inspection and Punch List. MNS will develop a punch list for the work performed, notify the contractor, and re-inspect the completed work. A final walk through of the project will be scheduled with the City and any other party the City may wish to attend.

Acceptance and Final Report. MNS will evaluate the contractor's completion of work and make a final acceptance recommendation to the City. The proposed final estimate will be prepared and submitted to the contractor for review and acceptance. MNS will submit the Notice of Completion, project files, and the Final Reports and Certifications in accordance with the City's requirements and Chapter 17 of the Caltrans LAPM.



APPENDIX A
RESUMES



Name	Role	Firm
Aaron Hilton, PE, QSD/QSP	Senior Construction Manager/Project Manager	MNS
Frank Cannizzaro, PE, QSD/QSP	Senior Construction Manager/Resident Engineer	MNS
Chris Cooper, CPII	Construction Inspector	MNS
Salome Garcia	Construction Inspector	MNS
Tommy Munro, PE	Construction Inspector	MNS
Arif Naqvi, CCM	Construction Inspector	MNS
Nathan Norwood, CPII	Construction Inspector	MNS
Laurie Jones	Office Administrator	MNS



Aaron Hilton, PE, QSD/QSP

Regional Senior Construction Manager/Project Manager



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Caltrans procedures
- Roadways and bridges
- Utility coordination
- Storm drain systems

Years of Experience

- 29

Licensing

- Professional Civil Engineer, CA No. 75698

Certifications

- Qualified SWPPP Developer/Practitioner, CA No. 20698
- OSHA Authorized Trainer 32-0105996
- 10-hour Construction Safety, Cal/OSHA
- Confined Space Awareness
- Radiation Safety Officer
- Defensive Driving
- CPR and First Aid

Education

- BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA, 1993

Award

- 2013 ACEC Engineering Excellence Award of Merit, Pitkins Curve Bridge and Rock Shed at State Route 1

Mr. Hilton has significant experience in construction management for transportation projects. Aaron's responsibilities involve on-site project construction management, supervision, and inspection for a variety of interchange, road, and bridge projects. He has worked with many different agencies at the city, county, state, and federal level, including Caltrans, Fish and Wildlife, US Army Corps of Engineers, and Regional Water Control Board. His project roles have ranged from Resident Engineer, Structures Representative, Inspector, to Engineer. He has significant experience with the construction of interchanges, bridge and roadway replacements and widenings, realignment, embankment stabilizations, environmentally sensitive areas, and procedures in accordance with the Caltrans Construction Manual. His experience includes:

2019 East Laurel Pedestrian Improvement Project, City of Salinas Senior Construction Manager/Project Manager. This \$4.0M projects consists of the construction of a raised wooden boardwalk along East Laurel Drive to provide safe access to the local lake, park, and hospital. The boardwalk connects to a paved pathway with lighting throughout. New curb and gutter will be installed along East Laurel Drive with additional new street lighting.

2019 Alvin/Linwood SRTS Project, City of Salinas Senior Construction Manager/Project Manager. This \$2.4M project consists of the reconstruction of ADA ramps, new retaining wall, and the installation of signals. The project will ultimately include slurry seal and new striping throughout.

Newport Avenue Rehabilitation and Repair, City of Grover Beach, CA. Resident Engineer/Project Manager. Funded by Measure K-14, this \$2.3M provided full-depth street rehabilitation of Newport Avenue from 4th Street to Oak Park Boulevard including the construction of bulb-outs at most of the intersections and upgrading numerous curb ramps, sidewalks, and driveways to current Americans with Disabilities Act (ADA) standards. In addition to the concrete work, the project also involved water utility improvements at various locations, placement of a decomposed granite (DG) path, and constructing a buffered bike lane with a modified pavement section.



2018 Roadway Sealing and Laurel Lane Complete Streets, City of San Luis Obispo, CA. *Project Manager/Resident Engineer.* This \$2.3M project consisted of Type II slurry seal and new striping at various locations throughout the City of San Luis Obispo, including a major restriping of Laurel Lane to include new bike lanes. The project also installed new ADA curb ramps and traffic calming speed bumps.

State Route 1 Climbing Lane, County of Monterey, CA. *Project Manager.* This \$5M Caltrans oversight project widened the existing State Route 1 on the incline between Rio Road and Carmel Valley Road, reconstructed a bike path, and added an auxiliary northbound lane for the purpose of relieving the frequent congestion caused by larger commercial and recreational vehicles that require a longer distance to achieve highway speed. This project was located in a very high-profile and heavily travelled area that required close coordination with the local businesses, the County, and Caltrans. The project included earthwork; hot mix asphalt (HMA) paving; curb, gutter, and sidewalk; Americans with Disabilities Act (ADA) ramps; guard rail system; drainage improvements; traffic signals; staging and traffic control. Responsibilities included coordination with County, Caltrans, and the construction management team; assisting with technical items, submittals, and requests for information (RFIs).

West Broadway Urban Village Improvements, City of Seaside, CA. *Project Manager.* This \$6.5M project completely reconstructed a half-mile roadway section in a busy commercial and retail section of downtown Seaside. The work excavated the existing roadway in stages and installed new drainage systems, a stormwater collection system, a 12-inch sanitary sewer, electrical systems for ornamental pedestrian and street lighting, sidewalks, Americans with Disabilities Act (ADA) compliant handicap ramps, pedestrian amenities, parking areas, landscaping, and irrigation facilities. The new roadway section consists of a Class 2 aggregate base and 6-inch hot mix asphalt (HMA) paved surface. New traffic control devices include signalized intersections, signage, and thermoplastic striping and marking. The project required extensive coordination with the downtown businesses and the City. Project was administered in accordance with the Caltrans LAPM.

2016 Street Repairs, City of Arroyo Grande, CA. *Project Manager/Resident Engineer.* This street repair project prolonged the life of numerous streets and prepared them for a slurry seal application. Construction involved removing and replacing failing sections of pavement with a 4-inch hot mix asphalt plug on the

streets to be slurry sealed and then grinding and placing a thin maintenance overlay on streets in need of more extensive repair. The project also involved significant replacement of sidewalk and curb ramp to bring the area in compliance with the Americans with Disabilities Act (ADA). This project required close attention to the contractor's traffic control and communication with the design team to incorporate several approved design exceptions into the sidewalks and curb ramps. Continuous coordination with the residents was required to maintain access as well as the various services servicing the various properties.

Measure K-14 Light Maintenance, City of Grover Beach, CA. *Project Manager/Resident Engineer.* This pavement rehabilitation project prolongs the street life for various City streets. Failing sections of pavements are being removed and replaced (dig outs) with a 4-inch hot mix asphalt (HMA) plug followed by a crack seal and a slurry seal of the entire street. A number of the dig out locations require root removal and curb and gutter replacement to repair damage caused by tree root intrusion. The work also includes reinstalling the pavement stripe and markings. The project required extensive traffic control and coordination with the adjacent residents and businesses throughout the project. Responsibilities include overall project administration; monthly estimates; review of submittals, RFIs, and contract change orders (CCOs); inspection oversight; and project coordination.

Hollister Avenue Class I Bike Path and Pedestrian Improvements, City of Goleta, CA. *Project Manager.* This \$5M project constructed a Class I bike/multi-purpose path along the south side of Hollister Avenue from Pacific Oaks Road to Ellwood Elementary School. This project consisted of over a mile of complete street improvements such as pavement rehabilitation, multimodal path construction, replacement of over a dozen curb ramps, drainage improvements, signaled intersection upgrades, parkway and median planter construction, and curb and gutter replacement. The pavement rehabilitation entailed removal and replacement of failing pavement sections, pavement leveling courses, pavement overlays, and micro surfacing placement. The project also incorporated a detailed landscape and recycled water irrigation plan, which enhanced the bikeway and pedestrian path. The construction team-maintained access to adjacent businesses and provided safe pedestrian and bicycle passage through the project site. Proactive daily traffic control monitoring and coordination with the public also contributed to the success of the project. The multiple funding sources for this project included a \$1.6M Active Transportation Program (ATP) grant for project



construction, Measure A, and Goleta Transportation Impact Program funds. The project was administered in accordance with City and Caltrans Local Assistance Procedure Manual (LAPM) guidelines. Responsibilities included managing the service contracts with the Owner and subconsultants, overseeing project staffing, and assisting the Resident Engineer.

Los Osos Valley Road Interchange at US 101, City of San Luis Obispo, CA. Resident Engineer. This \$17M multistage project constructed a new four-span, 370-foot long, post-tensioned, box girder bridge on Los Osos Valley Road (LOVR) over US 101; widened a three-span, 112-foot-long multi-plate bridge over San Luis Obispo Creek; and upgraded all four on/off-ramps at the interchange. The new bridge provided two additional eastbound lanes, along with sidewalks and bike lanes, for traffic relief on this busy roadway. The project was built in multiple stages to accommodate traffic through this heavily traveled corridor. The project also included retaining walls, multiple drainage systems, embankments with specified settlement periods; traffic control; jointed plain concrete pavement (JPCP) and hot mix asphalt (HMA) paving; temporary signalization; permanent traffic signals; ramp metering; and utility relocations. Beautification elements included architectural treatment of the concrete barriers, ornamental lighting fixtures, permanent erosion protection, and creek restoration. Constructed within City and Caltrans right-of-way, this project was administered in accordance with applicable City and Caltrans standards, methods, and procedures.



Frank Cannizzaro, PE, QSD/QSP

Senior Construction Manager/Resident Engineer



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Project management
- Construction management and inspection
- Transportation projects (highways, bridges, roadways)
- Caltrans

Years of Experience

- 31

Licensing

- Professional Civil Engineer, CA No. 48881
- General Contractor (General A), CA No. 803707

Certifications

- Qualified SWPPP Developer/Practitioner, CA No. 01225

Education

- MBA, Corporate Financing, Golden Gate University, CA
- BS, Civil Engineering, Santa Clara University, CA

Mr. Cannizzaro has over 30 years of experience in the construction industry working on numerous state, federal, and private construction projects throughout Northern California. Frank's experience includes nearly 10 years working for Caltrans primarily in the construction branch as a Field Inspector and Resident Engineer; over 13 years as a project manager and operations manager for a general engineering construction and environmental remediation companies; and over six years managing staff augmentation contracts for various government agencies. His unique experience working for both Caltrans and the contractor gives Frank the ability to see challenges from the perspectives of both the owner and the contractor. As a retired Lieutenant Colonel from the United States Army Reserves, he has both the leadership and management skills to oversee the success of the City's projects. His experience includes:

OBAG 2 River Road Pavement Rehabilitation, County of Sonoma Public Works, CA. Resident Engineer. This \$3M pavement rehabilitation project consisted of the repair existing pavement structural section and the placement of a 0.20-foot overlay rubberized asphalt concrete over a 4.83-mile section of River Road. Responsibilities include conducting pre-construction and weekly meeting, ensuring documentation of the work meets the requirements of the LAPM, being the single point of contact of all project communications, reviewing and responding to all RFIs and submittal, reviewing monthly and final invoices for payment, conducting force account analysis and time impact analysis for contract change orders, and review project closeout documentation.

San Pablo Avenue Stormwater Project, Bay Area Toll Authority, Alameda County, CA. Resident Engineer. This \$1.8M mitigation project constructs eight bio-retention basins along San Pablo Ave in eight different cities in Alameda County. The work includes the demolition of existing flatwork; construction of new curb, gutter, and sidewalk; relocation of two East Bay Municipal Utility District (EBMUD) water lines; hot mix asphalt (HMA) paving and micro-surfacing operations; installation of new drainage systems; and landscape improvements. Responsibilities include coordinating permit requirements with eight cities and Caltrans; coordinating with EBMUD on the relocation of two water lines; conducting weekly progress meetings; reviewing submittals for contract compliance; scheduling material testing; resolving field construction issues; providing public notification for each of the sites; coordinating



construction activities with two developers, EBMUD, Caltrans oversight engineer, and the contractor; reviewing monthly progress pay estimates; and ensuring proper safety procedures are followed.

Bayfront Expressway Pedestrian Overcrossing and Signalized Intersection, City of Menlo Park, CA.

Project Manager. This \$30M Caltrans oversight project constructed a 1,025-foot-long steel girder structures with 11 spans and rerouted the Bay Trail on the north side of State Route 84. Responsibilities included performing a constructability review of the contract plans, assisting in the development of contract specifications related to the fabrications and construction of the pedestrian overcrossing, developing a quality management plan in compliance with the Caltrans Local Assistance Program and their Oversight Guidelines, performing all roadway material inspection in accordance with the frequencies identified in Caltrans Construction Manual, and participating in Caltrans oversight audits and preparing closeout documentation for the Caltrans oversight representative.

Upper Guadalupe Reach 6, Santa Clara Valley Water District, CA. Senior Project Engineer/Quality Control Manager.

This \$10M project constructed a new flood control channel and upgraded the existing concrete structures within the Guadalupe River. Work consisted of the excavation and off-haul of 190,000 cubic yards of earthwork; demolition of existing concrete features within the Guadalupe River; construction of a box culvert bridge; construction of a 17-foot-high retaining wall; and realignment of a local street. Relevant experience included reviewing and approving material submittals; field quality control (QC); estimating contract change orders; and producing daily QC reports. As the designated Qualified SWPPP Developer/Practitioner (QSD/QSP), responsibilities included overseeing the design and implementation of the Stormwater Pollution Prevention Plan (SWPPP). Tasks involved developing SWPPP and submitting addendums; performing field inspections; reviewing dewatering and diversion plans; daily water quality monitoring; monitoring water discharge requirements; assisting owner with annual report submittal; scheduling temporary and permanent erosion control measures; and submitting inspections, REAPs, and non-compliance reports to the Owner.

US 101 Widening from Millbrae to Third, Caltrans, San Mateo County, CA. Senior Project Engineer.

This \$140M project involved the outside widening of approximately four miles of freeway; and constructed more than four miles of sound wall, two pedestrian bridges, and one vehicle bridge. Relevant experience

included performing asphalt concrete (AC) street inspection and sampling; modifying the freeway stage construction plans for approval of the lane line transitions from District 4 Highway Operations; submitting pricing for proposed contract change orders; ensuring advanced warning and ramp closure notification signs, lane closures, and detours were installed in accordance with the contract plans and traffic control manual; performing weekly SWPPP inspections; coordinating inspections with District 4 and State Task Force personnel; resolving constructability issues; and tracking costs.

Cypress Freeway Replacement Project (Contract A), Oakland, CA Senior Construction Engineer/Resident Engineer.

This \$88M project was part of the southern segment for the reconstruction of Interstate 880. Responsibilities included the supervision of a construction inspection staff; ensuring projects were completed on time and within budget; designing and processing contract change orders; monitoring the quality of construction projects and making progress payments; coordinating with other federal, state, and local agencies, and ensuring compliance with all government regulations. When Frank was assigned to this project, the project was at a standstill due to environmental issues. He was able to get the project back on track and moving forward by working with the contractor to restage the project.

Fair Isaac Lindaro Campus Site Improvements, Swinerton & Walburg Builders, San Francisco, CA. Project Engineer.

Site work for the business park and campus for the Fair Isaac Company consisted of contaminated soil excavation and on-site encapsulation; demolition of Lindaro Street and complete reconstruction; and raising of roadway surfaces, concrete curbs, gutters, and sidewalks, storm drain, sanitary sewer, joint trench, street lighting and waterlines; on-site demolition of existing foundations; monitoring of wells and relocation of a groundwater pump and treat system; on-site remedial grading and import of engineered fill; on-site utilities including storm drain, sanitary sewer, water line and joint trench; on-site retaining walls; and on-site paving.

2019 Hazardous Tree removal Project Phase 2 and 3, County of Sonoma Public Works, CA Resident Engineer.

This \$3.8M FEMA funded project to remove over 4,800 trees that were damaged during the 2017 Sonoma County wildfires. Responsibilities include conducting pre-con and weekly meeting, ensuring documentation of the work meets the FEMA Debris Management Guide, reviewing monthly and final invoices for payment, assisting with public outreach, and review project closeout documentation.



Chris Cooper, CP II Construction Inspector



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Construction inspection
- Materials testing
- Transportation projects—roadways, interchanges, bridges, highways
- Pavement rehabilitation

Years of Experience

- 17

Certifications

- Caltrans CTM 105, 125, 125AC, 125AGG, 125PCC, 201, 202, 216, 217, 226, 227, 231, 504, 518, 523, 533, 539, 540, 556, 577
- Certified Public Infrastructure Inspector, APWA
- Concrete Field Testing Technician, Grade 1, ACI
- ICC Pre-Stressed Concrete Special Inspector, No. 5312076-92
- ICC Reinforced Concrete Special Inspector, No. 5312076-49
- ICC Soils Special Inspector, No. 5312076-EC
- ICC Spray Applied Fire Proofing Special Inspector
- ICC Structural Masonry Special Inspector, No. 5312076-84
- Radiation Safety Officer, APNGA
- Defensive Driving
- CPR and First Aid

Professional Development

- Temporary Pedestrian Facilities, Caltrans

Mr. Cooper has over 17 years of experience as a construction inspector and materials technician working on highway/roadway improvements. Chris' expertise includes concrete and hot mix asphalt (HMA) placement inspection, masonry, bolting, pre-stressed concrete, soils and geotechnical testing, and framing and nailing inspection, soils and geotechnical testing. He has provided field quality control and quality assurance in both structure and infrastructure projects. He is knowledgeable with Caltrans methods and procedures. His experience includes:

On-Call Construction Management/Construction Inspection, County of Santa Cruz, CA. *Construction Inspector.*

As part of an on-call construction management/inspection project, MNS is providing field inspection services to repair storm damaged roads and Capital Improvement Plan projects to ensure the construction is in accordance with the contract documents and County requirements. Chris provided inspection on several roadway rehabilitation projects including grinding of existing pavement; installation of drainage systems; traffic control; HMA paving. Responsibilities included inspection of all work, installation of slurry, inspection of ADA ramps, tracking quantities, daily reports, monitoring traffic control, and coordinating with the County.

2018 Roadway Sealing and Laurel Lane Complete Streets, City of San Luis Obispo, CA. *Construction Inspector.*

This \$2.3M project consisted of Type II slurry seal and new striping at various locations throughout the City of San Luis Obispo, including a major restriping of Laurel Lane to include new bike lanes. The project also installed new ADA curb ramps and traffic calming speed bumps. Responsibilities included inspection of stripe removal, installation of slurry, inspection of ADA ramps, tracking quantities, monitoring traffic control, and coordinating with the City.

Newport Avenue Rehabilitation and Repair, City of Grover Beach, CA. *Construction Inspector.*

Funded by Measure K-14, this \$2.3M provided full-depth street rehabilitation of Newport Avenue from 4th Street to Oak Park Boulevard including the construction of bulb-outs at most of the intersections and upgrading numerous curb ramps, sidewalks, and driveways to current Americans with Disabilities Act (ADA) standards. In addition to the concrete work, the project also involved water utility improvements at various locations, placement of a decomposed granite (DG) path, and constructing a



buffered bike lane with a modified pavement section. Chris continually monitored the traffic control and proactively minimized the impact to the public while maintaining access for residents, pedestrians, and bicyclists. Responsibilities included construction inspection, tracking quantities, monitoring traffic control, and coordination.

Longbranch Avenue Rehabilitation and Repair, City of Grover Beach, CA. Construction Inspector. Funded by Measure K-14, this \$1.3M project completely rebuilt Longbranch Avenue from 3rd Street to 10th Street. The project constructed new sidewalks and curb ramps for the entire length of the project. Each of the existing driveways was tied into the new roadway; all the existing mailboxes were moved to the edge of the new pavement. Parkways were added between the sidewalks and the new roadway. Responsibilities included construction inspection, tracking quantities, monitoring traffic control, and coordination.

US 101 Widening and Rehabilitation at San Miguel, Caltrans District 5, CA. Construction Inspector. This \$55M Caltrans project involved roadway rehabilitation and bridge construction along an 8-mile stretch of US 101 through the City of San Miguel. The roadway rehabilitation reconstructed portions of US 101 including a 1-mile realignment of highway and resurfacing the remaining portions. The new roadway section included lean concrete base and rubberized hot mix asphalt construction (RHMA). The rehabilitation also included the reconstruction 16 freeway on/off ramps and over 28 drainage systems. The project also included traffic control; jointed plain concrete pavement (JPCP) and multiple utility relocations. This project was constructed in accordance with applicable Caltrans standards, methods, and procedures.

Annual Overlay and Slurry Seal, City of Santa Clarita, CA. Construction Inspector/Materials Testing Technician. This \$4M project involved hot mix asphalt (HMA) overlay, microsurfacing, and slurry seal treatments in various areas of the City for the 2014-2015 annual overlay and slurry seal program. Construction elements included dig out and replacement; asphalt concrete (AC) grinding; placement of up to 1,500 tons of HMA per day; crack sealing; slurry placement; raising utility covers and risers; utility replacement; ongoing daily traffic control; and coordination/outreach with residents and businesses. Responsibilities included providing oversight on inspectors providing field testing and inspection. (5/2015-9/2015)

Lost Hills Interchange Improvements at US 101, City of Calabasas, CA. Construction Inspector/Materials Testing Technician. Funded by Measure R, this \$25M Caltrans oversight project widened the Lost Hills Road

overpass to five lanes, provided improvements to the on/off-ramp design onto US 101, and ensured safe access for all pedestrians. Paving consisted of a 1,500-ton minimum each day. Responsibilities included performing inspection and testing of structural concrete for bridge and retaining walls; earthwork; and hot mix asphalt (HMA) and rubberized hot mix asphalt (RHMA).

Hollister Avenue Class I Bike Path and Pedestrian Improvements, City of Goleta, CA. Construction Inspector. This \$5M project constructed a Class I bike/multi-purpose path. This project consisted of over a mile of complete street improvements such as pavement rehabilitation, multimodal path construction, replacement of over a dozen curb ramps, drainage improvements, signaled intersection upgrades, parkway and median planter construction, and curb and gutter replacement. The project also incorporated a detailed landscape and recycled water irrigation plan, which enhanced the bikeway and pedestrian path. Chris and construction team maintained access to adjacent businesses and provided safe pedestrian and bicycle passage through the project site. Project administered in accordance with Caltrans Local Assistance Procedure Manual (LAPM) guidelines.

Various Pavement Rehabilitation Projects, Various Agencies, Los Angeles, Santa Barbara, and Los Angeles Counties, CA. Public Works Inspector. For over 10 years, Chris has provided construction inspection services during all project phases for numerous pavement rehabilitation projects. Sample projects included:

- **Pavement Rehabilitation, County of Ventura, CA.** This County of Ventura project involved pavement rehabilitation of 24 roads in the areas of Ventura and Mira Monte, CA. Construction work included pre-cast drop inlets; single pipe headwall and drain pipe installation; concrete curb and gutter; curb ramp; sidewalk removal and replacement; sidewalk grinding; and concrete cross and longitudinal gutter. Pavement and roadway improvements involved cold milling and grinding; asphalt concrete (AC) taper with key; base repair; leveling course; hot mix asphalt (HMA) and rubberized hot mix asphalt (RHMA) paving; miscellaneous paving, asphalt concrete (AC) curb rehabilitation and curb seal.
- **Thousand Oaks Pavement Rehabilitation, Agoura Hills, CA.** This project was part of the City's Annual pavement rehabilitation project. Construction elements involved rubberized hot mix asphalt (RHMA) paving, grinding, and traffic control.



Salome Garcia

Construction Inspector



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Transportation projects
- Roadway design
- Construction management and inspection
- Contract administration

Years of Experience

- 4

Education

- BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA

Mr. Garcia provides on-site inspection and coordination for transportation projects. Salome serves as a Construction Inspector and Office Engineer on a wide range of public works projects including roadways and utilities. His experience includes:

On-Call Construction Management/Construction Inspection, County of Santa Cruz, CA. *Construction Inspector.* As part of an on-call construction management/inspection project, MNS is providing field inspection services to repair storm damaged roads and Capital Improvement Plan projects to ensure the construction is in accordance with the contract documents and County requirements. Salome worked on roadway resurfacing projects and drainage improvement projects with a cumulative construction cost of \$8.7M. The project work included grinding and pulverizing of pavement; installing digouts, asphalt concrete (AC) overlays, rubberized chip seal and cape seal, and microsurfacing; adjusting monuments and manhole covers to grade; excavation and placement of RCP, DI's; and placing pavement markers and striping. Responsibilities include providing daily construction inspection and monitoring traffic control; ensuring safety to the traveling public; maintaining documentation such as daily diaries, photos and material quantities; verifying locations, depths, percent fall and installation of storm drain line, culverts and manhole per County and pertaining standards.

Salinas Rail Extension, Transportation Agency for Monterey County, CA. *Construction Inspector.* This project extends passenger rail service 68 miles from Gilroy to Salinas. Construction began with the demolition of existing buildings along the planned Lincoln Avenue Extension and improvements to the Salinas Station. The project also involved the complete reconstruction of the existing parking lot including construction of planters with bio-retention areas; curb, gutter, and sidewalk including ADA ramps; lighting; landscaping and irrigation; roadway and parking lot grading; HMA and JPCP paving; Responsibilities include daily construction inspection, providing documentation such as daily diaries, photos, and material quantities. Additional tasks involve verifying and oversight of the pavement grinding and placement of hot mix asphalt (HMA); checking and verifying the correct subgrade and aggregate base grades; verifying locations, depths, and installation of storm drain line and water line per City and pertaining standards; coordinating material testing.



West Broadway Urban Village Improvements, City of Seaside, CA. Construction Inspector. This \$6.5M project completely reconstructed a half-mile roadway section. The work excavated the roadway and installs new drainage systems, a stormwater collection system, a 12-inch sanitary sewer, electrical systems for ornamental pedestrian and street lighting, sidewalks, Americans with Disabilities Act (ADA) compliant handicap ramps, pedestrian amenities, parking areas, landscaping, and irrigation facilities. The new roadway section consisted of a Class 2 aggregate base and 6-inch hot mix asphalt (HMA) paved surface. New traffic control devices included signalized intersections, signage, and thermoplastic striping and marking. Responsibilities included construction inspection, ensuring safety to the traveling public, and providing documentation such as daily diaries, photos and material quantities.

South County Overlay, County of San Luis Obispo County, CA. Construction Inspector. The project involved paving and striping of about four miles of roads, and minor concrete improvements (curb ramps, spandrels, and medians) in South County (Mary Avenue, Tefft Street, Grande Avenue, South Las Flores Avenue, Osage Street, Hill Street, Olympic Way, and Valley Road). Responsibilities included daily construction inspection, traffic control; ensuring safety to the traveling public and providing documentation such as daily diaries, photos and material quantities.

Hollister Avenue Class I Bike Path and Pedestrian Improvements, City of Goleta, CA. Construction Inspector/Office Engineer. This \$5M project constructed a Class I bike/multi-purpose path along the south side of Hollister Avenue from Pacific Oaks Road to Ellwood Elementary School. This project consisted of over a mile of complete street improvements such as pavement rehabilitation, multimodal path construction, replacement of over a dozen curb ramps, drainage improvements, signaled intersection upgrades, parkway and median planter construction, and curb and gutter replacement. The pavement rehabilitation entailed removal and replacement of failing pavement sections, pavement leveling courses, pavement overlays, and micro surfacing placement. The project also incorporated a detailed landscape and recycled water irrigation plan, which enhanced the bikeway and pedestrian path. The construction team-maintained access to adjacent businesses and provided safe pedestrian and bicycle passage through the project site. Proactive daily traffic control monitoring and coordination with the public also contributed to the success of the project. The multiple funding sources for this project included a \$1.6M Active Transportation Program (ATP) grant for project construction, Measure A, and Goleta Transportation

Impact Program funds. Responsibilities included construction inspection ensuring safety to the traveling public and providing documentation such as daily diaries, photos and material quantities. In addition, Salome was responsible for all office engineering duties such as reviewing and processing extra work bill, material certification and tickets, and certified payroll and coordination.

Old Town Sidewalk Infill Project, City of Goleta, CA. Assistant Engineer. To improve walkable connections to businesses and to promote alternative modes of transportation, MNS constructed a new network for pedestrian access. Many older, original streets are narrow, lack sidewalks, and some pathways end abruptly. The sidewalk infill provides curb, gutter, and Americans with Disabilities Act (ADA) ramps to encourage pedestrian traffic. The City's goal was to expand safe connections to transportation options, by making the area functional for all modes of street travel (walking, bicycling, public transit, and driving). Improvements include: storm drain extension, stormwater treatment, retaining walls, angled parking, reconfiguring parking in the public right of way (R/W), removing existing sidewalks, installing ADA accessible ramps, adjusting utility locations, removing private encroachments in the public R/W, improving street lighting, and maximizing vehicle travel lanes, bike lanes, and widening sidewalks. Responsibilities included developing cost estimate, creating inventory and exhibits for public property on city's right-of-way, and Area maps of utility companies that are in conflict with propose improvements, updating street cross sections, creating a summary of quantities sheets, project control sheet and construction details sheets

Stormwater Management Plan, City of Solvang, CA. Assistant Engineer. This project allowed the City to prioritize areas for upgrade or improvement in the future in relation to pollution prevention or trash amendments to the existing permits to remain in compliance with the Pollution Prevention/Good Housekeeping City Municipal General Permit. Responsibilities included creating an inventory of storm drain information which incorporated physical dimensions, current conditions, trash/debris build-up, existing treatment status, and other features that may impact the City's ability to capture and protect stormwater.



Tommy Munro, PE

Construction Inspector



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Construction inspection
- Transportation projects
- Bridge and roadway expertise
- Construction administration

Years of Experience

- 12

Licensing

- Professional Civil Engineer, CA No. 88115

Certification

- 10-hour Construction Safety, Cal/OSHA

Education

- BS, Environmental Resources Engineering, Humboldt State University, CA

Mr. Munro is experienced in providing construction inspection for transportation projects for public agencies. Tommy has extensive experience in storm damage slide repair project funded by FEMA. His experience includes bridge and roadway maintenance/rehabilitation, bridge replacement, bridge widening, steel bridge painting/lead abatement, and soldier pile retaining wall construction. Tommy is knowledgeable with Caltrans methods and procedures. His experience includes:

Valencia Road Storm Damage Repair Project, Santa Cruz County Department of Public Works, Santa Cruz, CA. *Construction Inspector.* This \$2.6M FEMA funded project constructed a 150-foot-long, 20-foot-high soldier pile tie back wall. Work also involved road reconstruction, drainage, and traffic control. Tommy was responsible for all inspection activities on the project.

Cox Road PM 2.03 Storm Damage Repair Project, Santa Cruz County Department of Public Works, Santa Cruz, CA. *Construction Inspector.* This \$873K FEMA funded project constructed a 110-foot-long, 15-foot-high soldier pile tie back wall. Work also involved road reconstruction, drainage, and traffic control. Tommy was responsible for all inspection activities on the project.

Cox Road PM 1.93 Storm Damage Repair Project, Santa Cruz County Department of Public Works, Santa Cruz, CA. *Construction Inspector.* This \$575K FEMA funded project constructed a 60-foot-long, 15-foot-high soldier pile tie back wall. Work also involved road reconstruction, drainage, and traffic control. Tommy was responsible for all inspection activities on the project.

North Rodeo Gulch Storm Damage Repair Project, Santa Cruz County Department of Public Works, Santa Cruz, CA. *Construction Inspector.* This \$890K FEMA funded project constructed a 175-foot long, 12-foot-high soldier pile tie back wall. Work also involved road reconstruction, drainage, and traffic control. Tommy was responsible for all inspection activities on the project. Our inspection services discovered the contractor ordered piles that did not comply with the Buy America requirements of the contract, and we prevented these piles from being used on the project.

Los Osos Valley Road Interchange at US 101, City of San Luis Obispo, CA. *Construction Inspector.* This \$17M project constructed a new four-span, 370-foot long, post-tensioned box girder bridge on Los Osos Valley Road (LOVR) over US 101; widened a three-span, 112-



foot long multi-plate bridge over San Luis Obispo Creek; and upgraded all four on/off-ramps at the interchange. The project was built in multiple stages to accommodate traffic through this heavily traveled corridor. The project also included retaining walls, multiple drainage systems, embankments with specified settlement periods; traffic control; jointed plain concrete pavement (JPCP) and hot mix asphalt (HMA) paving; temporary signalization; permanent traffic signals; ramp metering; and utility relocations. The project also provided for beautification with the construction of architectural treatment of the concrete barriers, ornamental lighting fixtures, permanent erosion protection, and creek restoration. Constructed within City and Caltrans right-of-way, this project was constructed in accordance with applicable City and Caltrans standards, methods, and procedures. ASCE San Luis Obispo Branch, Project of the Year-Transportation, Winner.

Last Chance Grade Slide and Soldier Pile Retaining Wall, Caltrans District 1, CA. *Assistant Structures Representative.* This \$4M emergency grade slide and soldier pile retaining wall was located in Del Norte on US 101 near Crescent City. Responsibilities included inspecting excavation of bench, excavating equipment access way, and during drilling (80 feet depth by 36-inch diameter); inspecting welded/spliced pile beams, pile placement, and structural concrete placement; maintaining record of drill progress and condition of spoils; survey pile elevations; assisting with scheduling; assisting with pay estimates; producing ASR daily reports; and tracking job progress, materials, and equipment/work hours.

Cappel Slide and Soldier Pile Retaining Wall, Caltrans District 1, CA. *Assistant Structures Representative.* This emergency slide and soldier pile retaining wall was located in Humboldt on State Route 169. Tommy was responsible for inspecting during excavation of bench, excavation of equipment access way, and during drilling (40-foot depth by 36-inch diameter), tie-back drilling and placement, wood lagging, and structure backfill placement; maintaining record of drill progress and condition of spoils during day and night shifts; producing Assistant Structures Representative daily reports; and tracking job progress, materials, and equipment/work hours.



Arif Naqvi, CCM

Assistant Resident Engineer



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Construction management
- Environmental compliance
- LRT stations and track alignments
- Rails and railroad stations
- Roadways
- Structures and bridges
- Traffic management
- Utility relocation

Years of Experience

- 32

Certification(s)

- CCM, Certified Construction Manager (CMAA), No. 1848
- 10-hour Construction Safety, Cal/OSHA

Education

- MS, Construction Management, San Jose State University, CA
- BE, Civil Engineering, NED University of Engineering and Technology, Karachi, Pakistan
- BS, Statistics, University of Karachi, Pakistan

Mr. Naqvi has more than 32 years of diversified experience managing a variety of projects from design through construction. Arif's knowledge encompasses the construction of roadways, box culverts, railroads, structures, box girder bridges, pre-cast concrete roadway and railroad bridges, facilities, and railroad stations. Additionally, his construction experience includes roadway projects building multimodal terminals, seismically reinforced tunnels (hard and soft rock), utility relocation, light rail transit (LRT) stations, and track alignments; landscaping installation, grade separations, mechanically stabilized earth (MSE), and traditional retaining walls; and modernizing school facilities. He has enforced environmental compliance, quality assurance/quality control (QA/QC), and traffic management. Arif's proactive approach in detecting issues and using out-of-the-box cost solutions for clients is an invaluable asset. He strives to prevent potential change orders and claims and ensure all contract documents are fully coordinated, drawings are complete, buildable, and consistent with all applicable codes. His experience includes:

Westside Purple Line Extension Project, Section 2, Transit/Structure, LA Metro, CA. *Construction Manager.* Arif managed construction of Metro Purple-line Extension Project 2, Design Build. He recorded change orders, change notices, and provided independent cost estimates; coordinated with third party and governmental agencies resolving critical field issues; managed all field work including inspectors, survey teams, office engineers, environmental compliance staff and Stormwater Pollution Protection Program (SWPPP) personal. He was involved in the resolution of real estate, right-of-way (R/W) and community issues; led the approval of submittals, schedules and pay estimates provided by the design-build contractor; reviewed differing site conditions; coordinated with Design Engineers and provided analyses for resolution; and conducted progress meetings.

Placentia Avenue Grade Separation Project, Railroad Bridge/Roadway, OCTA, CA. *Assistant Resident Engineer.* This was a \$30M railroad bridge/roadway project. Arif was responsible for structures, pre-cast girder/CIDH pile bridge construction, roadways, pump station construction, managed contractor's Stormwater Pollution Prevention Plan (SWPPP), Best Management Practices (BMP) compliances and confirmed contractor's adherence to California General Permit. Prepared RFIs to clarify conflicts in drawings/specifications and



reviewed contractor's submittals. Coordinated with BNSF for their part in building new track alignment regarding the grade separation. Reviewed submittals and verified notifications provided by the contractor at schedule specified and the contractor achieved all their milestones. Managed all environmental issues related to contaminated soils, asbestos abatement, and biological conformance. Managed projects Quality Assurance prepared NCRs and confirmed contractor adhered to contract documents and all QC protocols. Coordinated all surveys for the project and confirmed grades, elevations, and any conflicts, and monitored construction of structures, roadways, and railroad bridge. Provided alternate solutions at field and coordinated with third parties, cities, Water Board and Caltrans to resolve field, traffic, quality, and other R/W issues.

Van Ness Improvement (BRT) Project, Transit/Public Works, SFMTA, CA. Assistant Resident Engineer. Arif worked closely with several agencies on the challenging project and attended roadway and sewer technical design coordination meetings with the contractor and Design Engineers to resolve various roadway, sewer line, and other critical issues—such as conflicts with existing utilities and other underground abandoned structures. He worked proactively with Construction Inspectors to detect issues early at the field and provided solutions in a timely manner. Arif prepared independent cost estimates; prepared change order packages; reviewed and answered Requests for Information (RFIs), submittals, and contractor's proposals; coordinated with various agencies (including SFMTA and SFDPW design teams); and prepared field memos and correspondence for contractor design clarifications. He reviewed the contractor's three-week-look-ahead schedule to determine the priorities of work.

Removal of Dumbarton Bridge, Caltrans, Fremont, CA. Assistant Resident Engineer. Arif monitored and verified entire operation and removal of abandoned bridge using underwater blasting operation. Managed budget processed payments and coordinated with Department of Fish and Game, City of Fremont, and Coast Guard for permits and confirmation of noise mitigation measures. Ensured safety at the barge and attended contractor's toolbox meetings. Reported daily status to the Resident Engineer and video recorded all activities for record and any potential claims from the contractor. Confirmed all work was done in a safe manner following all City and County regulations.

State Route 85/17 Interchange, San Jose, CA. Assistant Resident Engineer. Responsible for monitoring the construction of foundations, retaining walls and

reinforced concrete tunnel; preparing change orders; processing estimates payments; conducting safety meetings; verifying all testing results per contract specifications

Various Bridge Improvements along State Route 87 (LRT), Guadalupe Corridor, San Jose, CA. Assistant Resident Engineer.

- **Masonic Bridge:** Checked elevations, monitored pile driving operation and inspected construction of Box-Culvert Bridge. Verified concrete testing and compaction results in accordance with contract documents. Assured QA/QC.
- **Capitol Bridge:** Monitored construction of false work verified elevations resolved critical issues and confirmed contractor's pay estimate. Assured safety and monitored pile driving operation.
- **Curtner Bridge:** Managed installation of MSE retaining walls, monitored construction of box-culvert Bridge, verified compaction and confirmed concrete and other testing. Ensured safety at the project site and involved in traffic management.
- **Caltrain/Amtrak Rail Bridge:** Managed construction of pre-cast concrete bridge. Monitored construction of abutments, steel railings and approaches. Verified concrete and compaction test results. Examined contractors pay estimates and resolved critical issues. Reviewed change orders and negotiated fair cost.

CBOSS PTC Project, Infrastructure/Rail/Communications, Caltrain, CA. Civil Quality Assurance Manager. Positive Train Control (PTC) systems are integrated command, control, communications, and information systems for controlling train movements with safety, security, precision, and efficiency. Arif performed Quality Assurance for the CBOSS PTC project assured the contractor followed all QC protocol in building the infrastructure and installation of fiber optic cables for establishing PTC along Caltrain R/W. Coordinated with the contractor, utility companies, Caltrain signal support and various agencies to resolve R/W issues and utility conflicts. Enforced adherence to contract documents and other railroad specifications.

Hayward Maintenance Complex Project—Transit/Rail, BART, CA. Construction Manager. Arif coordinated with project stakeholders, the client, third parties, and utility companies resolving critical issues timely; recorded change notices/change orders; confirmed the contractor complied with all contract documents, regulations and BART policies and procedures; conducted progress meetings and verified the contractor followed their stated schedule of activities.



Nathan Norwood, CPII

Assistant Resident Engineer



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Roadways, interchanges, and highways
- Water/Wastewater
- Underground construction
- Drainage facilities
- Utility coordination
- Caltrans

Years of Experience

- 21

Certifications

- Certified Public Infrastructure Inspector, APWA

Mr. Norwood has over 21 years of experience in construction of transportation projects. Prior to MNS, Nathan was a contractor responsible for estimation, project management, and construction of various projects involving drainage, joint trenches, signal and fiber optic interconnect facilities, signal and lighting conduits, conductors, microwave detection, and closed-circuit television (CCTV). Many of these projects required compliance with Caltrans specifications and standards. His expertise in culvert and drainage projects includes culverts (galvanized steel, reinforced concrete pipe (RCP), plastic pipe liner), headwalls, new drainage inlets, rock slope protection (RSP), best management practices (BMPs), hot mix asphalt (HMA) paving, traffic control, and modification of existing drainage inlets. In addition, Nathan's background includes a proficiency in concrete and asphalt construction for roadways and foundations. Nathan uses his extensive field experience to resolve problems quickly and works closely with owners, inspectors, and other contractors to ensure a positive working relationship. He understands how to complete a project successfully, on schedule, and according to project specifications. His experience includes:

State Route 58 Improvements, Caltrans District 5, CA. *Construction Inspector.* This \$3M project involved the grind and overlay with rubberized HMA of 12 miles of highway. The project included nightly traffic control monitoring, grinding of existing pavement, HMA paving, shoulder backing, overside drains, SWPPP conformance, and final striping. Responsibilities included inspecting the project to ensure it was constructed to the plans and specifications—ensured asphalt quantities did not overrun the project budget. He coordinated with the Caltrans testing lab for asphalt and emulsion oil samples, provided daily reports, contract item quantities, verification of extra work, tracking of HMA placement rates.

On-Call Construction Management Services Contract, City of Dublin, CA. *Construction Inspector.* Nathan has worked on a variety of public work projects for the City of Dublin. These projects include: 1) City wide encroachment permit for MCI/Verizon 5G upgrade to install 18 miles of underground duct structure installation with associate pavement and sidewalk restoration; 2) \$1.2M CIP for the "All Abilities" City Park at Dublin Sports ground; 3) Pavement, sidewalk, drainage, and SWPPP inspection of the Wallis Ranch and Tassajara Hills development projects; and 4) Traffic signal modification



project along Amador Valley Boulevard and the intersections of Stage Coach Road and Wildwood Road.

Dougherty Road Improvements, City of Dublin, CA.

Field Inspector. This \$12M project widened two miles of Dougherty Road and constructed two new vehicular travel lanes with landscaped median islands; new bicycle and pedestrian path; curb and gutter; Americans with Disabilities (ADA) curb ramps; and new bus stops and bus pull-outs. The project also involved significant utility coordination to install underground infrastructure for street lighting and signal interconnect system; locating existing unused infrastructure for fiber optic system to minimize change order costs and unnecessary conduit and pull box installation; working with the pipeline contractor on the installation of new water services and fire hydrant relocations. Additional elements included placement of over 52,000 square yards of multi-axial geogrid underlayment; 19,800 cubic yards of aggregate base; three miles and 13,100 tons of 3/4-inch hot mix asphalt (HMA) paving. In addition to the HMA paving inspection, Nathan provided roadway grade evaluation to correct low areas and cross-slope deficiencies. He was also instrumental in working with the electrical contractor to install underground infrastructure for street lighting and signal interconnect system; finding the existing unused infrastructure for fiber optic system to minimize change order costs and unnecessary conduit and pull box installation; he also worked with the pipeline contractor on the installation of new water services and fire hydrant relocations.

Amador Valley Boulevard (AVB) Pedestrian Improvements, City of Dublin, CA.

Construction Inspector. This \$650k project consisted of removing and replacing ADA ramps to current ADA specifications and traffic signal modifications. Constructed a roadway bulbout with an integrated bioswale. Responsible for insuring project was constructed to plans and specs and worked closely with city management through the process.

US 101 Rubberized Hot Mix Asphalt Bonded Wearing Course Overlay, Caltrans District 5, Paso Robles, CA.

Construction Inspector. This Caltrans pavement project rehabilitated over eight miles of existing asphalt pavement. The project involved cold-planning the existing ramps, shoulders, and travel lanes and placing a 0.10-foot rubberized hot mix asphalt (RHMA) overlay totaling approximately 26,000 tons; constructing rumble strips along the mainline shoulders; placing shoulder backing; upgrading approximately 3,000 feet of the existing metal beam guard rail (MBGR) to the Midwest Guardrail System (MGS) and replacing existing guardrail posts;

replacing traffic signal and ramp metering loops; replacing existing curb ramps to meet Americans with Disabilities Act (ADA) standards; hot mix asphalt (HMA) dike; profile grinding; upgrading existing drainage inlets; final striping; and pavement markings. The construction was performed primarily at night and in multiple locations requiring significant traffic control. Responsibilities included inspection of work, completing daily reports, coordinating materials testing, traffic control monitoring, and tracking item quantities.

State Route 123 (San Pablo Corridor), Bay Area Transit Authority (BATA), Oakland, San Pablo, and Emeryville, CA.

Electrical Inspector. This \$1.2M project installed 60,000 linear feet of high-density polyethylene (HDPE) conduit by directional boring method within State Route 123 (San Pablo Avenue) in the Cities of Oakland, San Pablo, and Emeryville as part of the Interstate 80 Integrated Corridor Mobility (ICM) project.

Responsibilities included estimating, overseeing the project, and working closely with utilities for potholing the various existing utilities to ensure no damage occurred by the directional boring operation.

Interstate 5 Communications System, Caltrans District 10, Stockton, CA.

Electrical Inspector. This \$920K project installed a communication system in the center of Interstate 5 and crossings by directional boring method across Interstate 5. The work involved installation of communication vaults, and 11,000 linear feet of main line communication run with 2,000 linear feet of crossings. The project also installed detector loops and piezo weigh in motion system along with cabinet and equipment. Responsibilities included estimating and overseeing the project.

State Route 99 and Lathrop Road Communications System, Caltrans District 10, Lathrop, CA.

Project Manager. This new \$675K communications system consisted of underground communication vaults; 5,600 linear feet of mainline communication run in the median of the highway; and 1,000 linear feet of crossings by directional boring method across State Route 99. Responsibilities included overseeing the project.

State Route 1 Microwave Vehicle Detection System (MVDS) Installation, Caltrans District 5, Watsonville, CA.

Project Manager. This \$585K project constructed a microwave vehicle detection system (MVDS) to install solar panels and wireless vehicle detection system "hockey pucks". Installation of night lane closures in accordance with Caltrans standards was required. Responsibilities included estimating and overseeing the project.



Laurie Jones

Office Administrator



Firm

- MNS Engineers, Inc.

Areas of Expertise

- Project coordination/management
- Cost/document control
- Project scheduling
- Permitting

Years of Experience

- 11

Education

- AA, General Studies, Bakersfield College, CA

Ms. Jones has over 11 years of experience with project coordination/management and senior administration experience. Laurie possesses extensive practical knowledge in strategic planning, project development, operational excellence, project management and scheduling in the oil, gas and aerospace industries. Her strengths include a wide range of office, program management and coordination skills; including, but not limited to, project scheduling, cost control, and document control. She is skilled with Microsoft Office and Project. In her last role, responsibilities included serving as custodian of project records and contracts, meeting project milestones and deadlines, negotiating pricing with vendors, creating purchase orders, balancing project budgets, developing and maintaining project dashboards, maintaining communication with project leads and clients regarding project status and invoicing completed projects. Laurie is known for her organization and excellent communication skills. Her experience includes:

Newport Avenue Rehabilitation and Repair, City of Grover Beach, CA. Office Administrator Funded by Measure K-14, this \$2.3M provided full-depth street rehabilitation of Newport Avenue from 4th Street to Oak Park Boulevard including the construction of bulb-outs at most of the intersections and upgrading numerous curb ramps, sidewalks, and driveways to current Americans with Disabilities Act (ADA) standards. In addition to the concrete work, the project also involved water utility improvements at various locations, placement of a decomposed granite (DG) path, and constructing a buffered bike lane with a modified pavement section. Chris continually monitored the traffic control and proactively minimized the impact to the public while maintaining access for residents, pedestrians, and bicyclists. Duties included: updating/archiving project files, maintaining submittal and request for information (RFI) logs, assisting the Resident Engineer/Assistant Resident Engineer with pay estimates and quantity sheets, logging and reviewing certified payrolls, coordinating with Caltrans (Caltrans oversight), and reviewing extra work bills for change orders

Los Osos Valley Road Interchange at US 101, City of San Luis Obispo, CA. Office Engineer. This \$17M project constructed a new four-span, 370-foot long, post-tensioned, box girder bridge on Los Osos Valley Road (LOVR) over US 101; widened a three-span, 112-foot long multi-plate bridge over San Luis Obispo Creek; and upgraded all four on/off-ramps at the interchange. The project also included retaining walls, multiple drainage



systems, periods; traffic control; concrete and HMA paving; traffic signals; and utility relocations. The project was constructed in accordance with applicable City and Caltrans LAPM standards, methods, and procedures. Responsibilities included updating/archiving project files, maintaining submittal and request for information (RFI) logs, assisting the Resident Engineer/Assistant Resident Engineer with pay estimates and quantity sheets, logging and reviewing certified payrolls, coordinating with Caltrans (Caltrans oversight), and reviewing extra work bills for change orders.

Hollister Avenue Class I Bike Path and Pedestrian Improvements, City of Goleta, CA. Office Engineer.

This \$5M project constructed a Class I bike/multi-purpose path along the south side of Hollister Avenue from Pacific Oaks Road to Ellwood Elementary School. This project consisted of over a mile of complete street improvements such as pavement rehabilitation, multimodal path construction, replacement of over a dozen curb ramps, drainage improvements, signaled intersection upgrades, parkway and median planter construction, and curb and gutter replacement. The pavement rehabilitation entailed removal and replacement of failing pavement sections, pavement leveling courses, pavement overlays, and micro surfacing placement. The project also incorporated a detailed landscape and recycled water irrigation plan, which enhanced the bikeway and pedestrian path. The construction team-maintained access to adjacent businesses and provided safe pedestrian and bicycle passage through the project site. Proactive daily traffic control monitoring and coordination with the public also contributed to the success of the project. The multiple funding sources for this project included a \$1.6M Active Transportation Program (ATP) grant for project construction, Measure A, and Goleta Transportation Impact Program funds. MNS utilized an in-house document control system to manage the project in accordance with City and Caltrans Local Assistance Procedure Manual (LAPM) guidelines. Responsibilities included reviewing labor compliance documentation including certified payrolls, organizing and filing all project paperwork, and reviewing extra work bills.

West Broadway Urban Village Improvements, City of Seaside, CA. Office Engineer.

This \$6.5M project completely reconstructs a half-mile roadway section. The work excavates the roadway and installs new drainage systems, a stormwater collection system, a 12-inch sanitary sewer, electrical systems for ornamental pedestrian and street lighting, sidewalks, Americans with Disabilities Act (ADA) compliant handicap ramps, pedestrian amenities, parking areas, landscaping, and irrigation facilities. The new roadway section consists of a Class 2 aggregate base and 6-inch hot mix asphalt (HMA) paved surface. New traffic control devices include signalized intersections, signage, and thermoplastic striping and marking. Responsibilities include setting up project files, maintaining submittal and request for information (RFI) logs, preparing weekly meeting agenda/minutes, assisting the Resident Engineer/Assistant Resident Engineer with pay estimates and quantity sheets, logging and reviewing certified payrolls, coordinating with Caltrans (Caltrans oversight), and reviewing extra work bills for change orders





Staffing Plan and Cost Proposal for Construction Management Services for the Bardin Road SRTS Improvements Project No 9218 R1

		2021												2022										TOTAL HOURS	HOURLY RATE 2021	HOURLY RATE 2022	TOTAL COST		
ROLE	STAFF	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT						
TASK 1.0: PRE-CONSTRUCTION Project set up/ submittal review																													
Senior Construction Manager	Aaron Hilton, PE, QSD/QSP	8	4																							12	242.00	242.00	\$2,904.00
Senior Construction Manager	Frank Cannizzaro, PE, QSD/QSP	40	40																							80	242.00	242.00	\$19,360.00
Construction Inspector	TBD		20																							20	159.00	164.00	\$3,180.00
Office Administrator	Laurie Jones	20	20																							40	108.00	111.00	\$4,320.00
TASK 2.0: CONSTRUCTION																													
Senior Construction Manager	Aaron Hilton, PE, QSD/QSP	8	8	8	8	8	8	8	8	6	6	6	6	6	6	6	6	8	8						128	242.00	242.00	\$30,976.00	
Senior Construction Manager	Frank Cannizzaro, PE, QSD/QSP	120	120	100	100	100	80	80	80	80	80	80	100	100	100	100	80	80	40						1620	242.00	242.00	\$392,040.00	
Construction Inspector	TBD	120	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	80						2952	159.00	164.00	\$474,928.00	
Peak Inspection (as Needed)	TBD					40	40	40	40																160	159.00	164.00	\$25,440.00	
Office Administrator	Laurie Jones	40	40	40	40	40	40	40	40	32	32	32	32	32	32	32	40	40	40						664	108.00	111.00	\$72,456.00	
TASK 3.0: POST CONSTRUCTION																													
Senior Construction Manager	Aaron Hilton, PE, QSD/QSP																			8	4				12	242.00	242.00	\$2,904.00	
Senior Construction Manager	Frank Cannizzaro, PE, QSD/QSP																			80	60				140	242.00	242.00	\$33,880.00	
Construction Inspector	TBD																			40					40	159.00	164.00	\$6,560.00	
Office Administrator	Laurie Jones																			80	40				120	108.00	111.00	\$13,320.00	
SUB-TOTAL		68	372	340	320	320	360	340	340	340	290	290	290	310	310	310	310	298	300	168	208	104	0		5988			\$1,082,268.00	

Direct Expenses	TOTAL COST
Pacific Crest (Material testing)	\$70,000.00
Laura Harris (Public Relations)	\$10,000.00
Direct Expenses	\$30,000.00
SUB-TOTAL	\$110,000.00

TOTAL COST	\$1,192,268
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- Notes:
- Hours based on a construction period start date of January 15, 2021 and a duration of 375 working days, with an additional time for project closeout.
 - Overtime will be billed in accordance with our Master Agreement Fee Schedule.
 - Any Subconsultant and direct costs will be billed at cost plus 10%. (included in total cost)