

**PROFESSIONAL SERVICES AGREEMENT
FOR
CITY-WIDE STRUCTURAL BRIDGE INSPECTION SERVICES**

THIS AGREEMENT FOR CONTRACT SERVICES (“Agreement”) is made and entered into as of **September 20, 2022**, by and between the CITY OF YORBA LINDA, a municipal organization organized under the laws of the State of California (“City”), and **NCM Engineering Corp (NCM)**, a (“Consultant”).

NOW THEREFORE, the parties hereto agree as follows:

SECTION ONE: SERVICES OF CONSULTANT

1.1 Scope of Services. In compliance with all terms and conditions of this Agreement, Consultant shall provide those services related to **City-Wide Structural Bridge Inspection Services**, as specified in the “Scope of Services” attached hereto as Exhibit “A” and incorporated herein by this reference (the “services” or “work”). Consultant warrants that all services will be performed in a competent, professional, and satisfactory manner in accordance with the standards prevalent in the industry for such services.

1.2 Changes and Additions to Scope of Services. City shall have the right at any time during the performance of the services, without invalidating this Agreement, to order extra work beyond that specified in the Scope of Services or make changes by altering, adding to, or deducting from said work. No such work shall be undertaken unless a written order is first given by City to Consultant, incorporating therein any adjustment in (i) the Schedule of Compensation, and/or (ii) the Schedule of Performance, which adjustments are subject to the written approval of the Consultant. It is expressly understood by Consultant that the provisions of this Section 1.2 shall not apply to services specifically set forth in the Scope of Services or reasonably contemplated therein. Consultant hereby acknowledges that it accepts the risk that the services to be provided pursuant to the Scope of Services may be more costly or time consuming than Consultant anticipates, and that Consultant shall not be entitled to additional compensation therefor.

1.3 Familiarity with Work. By executing this Agreement, Consultant warrants that (a) it has thoroughly investigated and considered the work to be performed, (b) it has investigated the nature and factual context of the work and fully acquainted itself with the conditions pertaining to it, (c) it has carefully considered how the work should be performed, and (d) it fully understands the facilities, difficulties and restrictions attending performance of the work under this Agreement. Should Consultant discover any latent or unknown conditions materially differing from those inherent in the work or as represented by City, and such latent or unknown condition affects Consultant's ability to perform the Work for the Contract Sum (as defined in Section 2.1 below) Consultant shall immediately inform City of such fact and shall not proceed except at Consultant's risk until written instructions are received from the Contract Officer (as defined in Section 4.2 hereof).

1.4 Standard of Performance. Consultant agrees that all services shall be performed in a competent, professional, and satisfactory manner in accordance with the standards prevalent in the industry, and that all goods, materials, equipment, or personal property included within the services herein shall be of good quality, fit for the purpose intended.

1.5 Performance to Satisfaction of City. Consultant shall perform all work and tasks comprising the Services to the satisfaction of City within the time specified. If City reasonably determines that any portion of the services is not satisfactory, City shall have the right to take appropriate action, including but not limited to: (a) meeting with Consultant to review the quality of the work and resolve matters of concern; (b) requiring Consultant to repeat unsatisfactory work at no additional charge until they are satisfactory; (c) suspending the delivery of work to Consultant for an indefinite time; (d) withholding payment; and (e) terminating this Agreement as hereinafter set forth.

1.6 Prohibition Against Subcontracting or Assignment. Consultant shall not contract with any entity to perform in whole or in part the work and services required of Consultant herein without the prior express written approval of the City. Neither this Agreement nor any interest herein may be assigned or transferred, voluntarily or by operation of law, without the prior written approval of the City. Any such prohibited assignment or transfer shall be void.

SECTION TWO: COMPENSATION

2.1 Contract Sum. For the services rendered pursuant to this Agreement, Consultant shall be compensated in accordance with Exhibit "B" (the "Schedule of Compensation") in a total amount not to exceed **Ninety-Five Thousand, Two Hundred Thirty Dollars and Eighty-Four Cents (\$95,230.84)** (the "Contract Sum"), except as provided in Section 1.2. The method of compensation set forth in the Schedule of Compensation may include a lump sum payment upon completion, payment in accordance with the percentage of completion of the services, payment for time and materials based upon Consultant's rate schedule, but not exceeding the Contract Sum, or such other methods as may be specified in the Schedule of Compensation. Compensation may include reimbursement at Consultant's actual cost, without additional overhead or services charge, for actual and necessary expenditures for reproduction costs, transportation expense, telephone expense, and similar costs and expenses when and if specified in the Schedule of Compensation.

2.2 Method of Payment. Unless otherwise provided in the Schedule of Compensation, Consultant shall submit to City no later than the tenth (10th) working day of each month, in the form approved by City, an invoice for services rendered prior to the date of the invoice. Such invoice shall (1) describe in detail the services provided, including time and materials, and (2) specify each staff member who has provided services and the number of hours assigned to each such staff member. Such invoice shall contain a certification by a principal member of Consultant specifying that the payment requested is for work performed in accordance with the terms of this Agreement. City will pay Consultant for all expenses stated thereon which are approved by City pursuant to this Agreement no later than forty-five (45) days after invoices are received by the City.

SECTION THREE: PERFORMANCE SCHEDULE

3.1 Time of Essence. Time is of the essence in the performance of this Agreement.

3.2 Schedule of Performance. All services rendered pursuant to this Agreement shall be performed diligently and within the time period established in Exhibit "C" (the "Schedule of Performance"). Extensions to the time period specified in the Schedule of Performance may be approved in writing by the Contract Officer.

3.3 Force Majeure. The time period specified in the Schedule of Performance for performance of the services rendered pursuant to this Agreement shall be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of Consultant, including, but not restricted to, acts of God or of the public enemy, fires, earthquakes, floods, epidemic, quarantine restrictions, riots, strikes, freight embargoes, acts of any governmental agency other than City, and unusually severe weather, if Consultant shall within ten (10) days of the commencement of such delay notify the Contract Officer in writing of the causes of the delay. The Contract Officer shall ascertain the facts and the extent of delay, and extend the time for performing the services for the period of the forced delay when and if in his or her judgment such delay is justified, and the Contract Officer's determination shall be final and conclusive upon the parties to this Agreement.

3.4 Term. The term of this agreement shall commence upon execution of this agreement (initial term). This agreement may be extended upon mutual agreement by both parties (extended term). Unless earlier terminated in accordance with Sections 8.11 or 8.12 of this Agreement, this Agreement shall continue in full force and effect until completion of the services, except as otherwise provided in the Schedule of Performance.

SECTION FOUR: COORDINATION OF WORK

4.1 Representative of Consultant. Mohan Char, PHD, PE CEO is hereby designated as the principal representative of the Consultant, authorized to act in its behalf with respect to the work and services specified herein and to make all decisions in connection therewith. A substitution of the designated representative must be approved in advance by the City.

4.2 Contract Officer. The Contract Officer shall be Rick Yee, Deputy Director of Public Works / Assistant City Engineer or such other person as may be designated by the City Manager of City. It shall be Consultant's responsibility to assure that the Contract Officer is kept informed of the progress of the performance of the services and Consultant shall refer any decisions, which must be made by City to the Contract Officer. Unless otherwise specified herein, any approval of City required hereunder shall mean the approval of the Contract Officer.

SECTION FIVE: INSURANCE AND INDEMNIFICATION

5.1 Without limiting Consultant's indemnification obligations, Consultant shall not undertake the services contemplated hereunder until Consultant has obtained all of the insurance required herein from a company or companies acceptable to City, and Consultant shall maintain all such insurance in full force and effect at all times during the term of this License and any

extension or renewal thereof. Insurance shall be placed with insurers having a current A.M. Best rating of no less than A-: VII or equivalent or as otherwise approved by City.

5.2 Consultant shall take out and maintain the following insurance:

5.2.1. Workers' Compensation and Employer's Liability Insurance: Consultant shall cover or insure as required by applicable laws relating to workers' compensation insurance all of its employees performing the services contemplated hereunder, in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any Acts amendatory thereof. Consultant shall provide worker's compensation insurance and employer's liability insurance with limits not less than One Million Dollars (\$1,000,000) each occurrence, One Million Dollars (\$1,000,000) disease policy limit, and One Million Dollars (\$1,000,000) disease each employee. Such policy of workers compensation insurance shall contain the following separate endorsements:

(a) "Insurer waives all rights of subrogation against the City of Yorba Linda, its officers, directors, employees, representatives and volunteers."

(b) "This insurance policy shall not be suspended, voided, reduced in coverage or in limits, cancelled, limited, non-renewed or materially changed for any reason by the insurer until thirty (30) days after receipt by the City of Yorba Linda of a written notice of such cancellation, limitation or reduction of coverage."

5.2.2. Commercial General Liability Insurance providing coverage in the following minimum limits:

(a) Combined single limit of One Million Dollars (\$1,000,000) per occurrence for Bodily Injury, Personal Injury or Death and Property.

(b) Damage Coverage shall be at least as broad as Insurance Services Office (ISO) Commercial General Liability coverage (occurrence Form CG 0001).

(c) If Commercial General Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the project/location (with the ISO CG 2503 or ISO CG 2504, or insurer's equivalent endorsement provided to City), or the general aggregate limit shall be twice the required occurrence limit.

5.2.3. Comprehensive Automobile Liability Insurance, including owned, non-owned, leased, hired, and borrowed automobiles and similar vehicles, providing the following minimum limits:

(a) Combined single limit of One Million Dollars (\$1,000,000) per occurrence for Bodily Injury or Death and Property Damage.

(b) Coverage shall be at least as broad as Insurance Services Office (ISO) Business and Auto Coverage (Form CA 0001) covering any auto.

5.2.4. Professional Liability: Consultant shall provide coverage appropriate to the Consultant's profession covering Consultant's wrongful acts, negligent actions, errors, or omissions. The retroactive date (if any) is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the contract work. Consultant shall purchase a one-year extended reporting period i) if the retroactive date is advanced past the effective date of this Agreement; ii) if the policy is canceled or not renewed; or iii) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement. The limits shall be no less than \$1,000,000 per claim and annual aggregate.

5.3 Endorsements: The policies of liability insurance provided for in Paragraphs 5.2.2 through 5.2.4 shall specify that this specific Agreement is insured and that coverage for injury to participants resulting from Consultant's activities is not excluded, and shall be in a form satisfactory to City and contain the following separate endorsements:

(a) “The City of Yorba Linda, its officers, directors, employees, representatives and volunteers, are declared to be additional insureds on all of the above policies with respects to the operations and activities of the named insured at or from the premises of the City of Yorba Linda. The coverage shall contain no special limitations on the scope of protection afforded to the City of Yorba Linda, its officers, directors, employees, representatives and volunteers.”

(b) “This insurance policy shall not be suspended, voided, reduced in coverage or in limits, canceled, limited, non-renewed, or materially changed for any reason until thirty (30) days after receipt by the City of Yorba Linda of a written notice of such cancellation, limitation or reduction of coverage.”

(c) “This insurance policy is primary insurance and no insurance held or owned by the designated additional insureds shall be called upon or looked to cover a loss under said policy; the City of Yorba Linda shall not be liable for the payment of premiums or assessments on this policy.”

(d) “Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City of Yorba Linda, its officers, directors, employees, representatives, or volunteers.”

(e) “This insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.”

5.4 Evidence of Coverage: Consultant shall at the time of the execution of the Agreement present to City the original policies of insurance required by this Section 5 or a certificate of the insurance, with separate endorsements (Insurance Services Office Form CG 2026, or equivalent), showing the issuance of such insurance and the additional insured and other provisions and endorsements required herein, and copies of all endorsements signed by the insurer's representative. All policies shall contain the Consultant's name and location of the Premises on the certificate. At least thirty (30) days prior to the expiration of any such policy, a

signed complete certificate of insurance, with all endorsements provided herein, showing that such insurance coverage has been renewed or extended, shall be filed with City. Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

5.5 Review of Coverage: City shall have the right at any time to review the coverage, form, and limits of insurance required under this Agreement. If, in the sole and absolute discretion of City, the insurance provisions in this Agreement do not provide adequate protection for City, City shall have the right to require Consultant to obtain insurance sufficient in coverage, form and limits to provide adequate protection and Consultant shall promptly comply with any such requirement. City's requirements shall not be unreasonable but shall be adequate in the sole opinion of City to protect against the kind and extent of risks which may exist at the time a change of insurance is required, or thereafter.

5.6 Deductibles: Any and all deductibles must be declared and approved by City prior to execution of this Agreement.

5.7 Agreement Contingent Upon Coverage: Notwithstanding any other provision of this Agreement, this Agreement shall be null and void at all times when the above-referenced original policies of insurance or Certificate of Insurance or Renewal Certificates or Endorsements are not on file with City.

5.8 Workers' Compensation Insurance. By his/her signature hereunder, Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing the performance of the work of this Agreement. To the extent required by law, Consultants and subcontractors will keep Workers' Compensation Insurance for their employees in effect during all work covered by this Agreement. In the event Consultant has no employees requiring Consultant to provide Workers' Compensation Insurance, Consultant shall so certify to the City in writing prior to the City's execution of this Agreement. The City shall not be responsible for any claims in law or equity occasioned by failure of the Consultant to comply with this section or with the provisions of law relating to Worker's Compensation.

5.9 Indemnification. Consultant shall indemnify, defend, and hold City and City's agents, officers, and employees ("City Personnel") harmless from and against any and all actions, suits, claims, demands, judgments, attorney's fees, costs, damages to persons or property, losses, penalties, obligations, expenses or liabilities (herein "claims" or "liabilities") that may be asserted or claimed by any person or entity arising out of the negligence, recklessness, or willful misconduct of Consultant, its employees, agents, representatives or subcontractors in the performance of any tasks or services for or on behalf of City, whether or not there is concurrent active or passive negligence on the part of City and/or City Personnel, but excluding such claims or liabilities arising from the sole active negligence or willful misconduct of City or City Personnel. In connection therewith:

5.9.1. Consultant shall defend any action or actions filed in connection with any such claims or liabilities, and shall pay all costs and expenses, including attorney's fees incurred in connection therewith, to the maximum extent allowed under California law including but not limited to Civil Code section 2782.8.

5.9.2. Consultant shall promptly pay any judgment rendered against City or any City Personnel for any such claims or liabilities, to the maximum extent allowed under California law including but not limited to Civil Code section 2782.8..

5.9.3. In the event City and/or any City Personnel is made a party to any action or proceeding filed or prosecuted for any such damages or other claims arising out of or in connection with the negligence, recklessness, or willful misconduct of Consultant, Consultant shall pay to City any and all costs and expenses incurred by City or City Personnel in such action or proceeding, together with reasonable attorney's fees and expert witness fees, to the maximum extent allowed under California law including but not limited to Civil Code section 2782.8..

SECTION SIX: RECORDS, REPORTS, AND INTELLECTUAL PROPERTY.

6.1 Reports. Consultant shall periodically prepare and submit to the Contract Officer such reports concerning Consultant's performance of the services required by this Agreement as the Contract Officer shall require.

6.2 Records. Consultant shall keep such books and records as shall be necessary to perform the services required by this Agreement and enable the Contract Officer to evaluate the cost and the performance of such services. Books and records pertaining to costs shall be kept and prepared in accordance with generally accepted accounting principles. The Contract Officer shall have full and free access to such books and records at all reasonable times, including the right to inspect, copy, audit, and make records and transcripts from such records.

6.3 Ownership of Documents and Data. All original drawings, specifications, reports, records, data, documents and other materials, whether in hard copy or electronic form, which are prepared by Consultant, its employees, subcontractors and agents in the performance of this Agreement, shall be the property of City and shall be delivered to City upon termination of this Agreement or upon the earlier request of the Contract Officer, and Consultant shall have no claim for further employment or additional compensation as a result of the exercise by City of its full rights of ownership of the documents and materials hereunder. Consultant shall cause all subcontractors to assign to City any documents or materials prepared by them, and in the event Consultant fails to secure such assignment, Consultant shall indemnify City for all damages suffered thereby.

6.4 In the event City or any person, firm or corporation authorized by City reuses said documents and materials without written verification or adaptation by Consultant for the specific purpose intended and causes to be made or makes any changes or alterations in said documents and materials, City hereby releases, discharges, and exonerates Consultant from liability resulting from said change. The provisions of this clause shall survive the completion of this Contract and shall thereafter remain in full force and effect.

6.5 Intellectual Property and Proprietary Information.

6.5.1. Proprietary Information. All proprietary information developed specifically for City by Consultant in connection with, or resulting from, this Agreement, including but not limited to inventions, discoveries, improvements, copyrights, patents, maps, reports, textual material, or software programs, but not including Consultant's underlying materials, software, or know-how, shall be the sole and exclusive property of City, and are confidential and shall not be made available to any person or entity without the prior written approval of City. Consultant agrees that the compensation to be paid pursuant to this Agreement includes adequate and sufficient compensation for any proprietary information developed in connection with or resulting from the performance of Consultant's services under this Agreement. Consultant further understands and agrees that full disclosure of all proprietary information developed in connection with, or resulting from, the performance of Services by Consultant under this Agreement shall be made to City, and that Consultant shall do all things necessary and proper to perfect and maintain ownership of such proprietary information by City.

6.5.2. Reproduction Rights. Any and all patents and copyrights that arise from the services or the creation of work in carrying out this Agreement shall be vested in City, and Consultant hereby agrees to relinquish all claims to such copyrights in favor of City.

6.5.3. Use of Patented Materials. Consultant shall assume all costs arising from the use of patented or copyrighted materials, including but not limited to equipment, devices, processes, and software programs, used, or incorporated in the Services performed by Consultant under this Agreement. Consultant shall indemnify, defend, and save City harmless from any and all suits, actions, or proceedings of every nature for or on account of the use of any patented or copyrighted materials.

SECTION SEVEN: RELEASE OF INFORMATION/CONFLICTS OF INTEREST.

7.1 Confidentiality. All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents, or subcontractors, shall not without written authorization from the City Manager or unless requested by the City Attorney, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the City. Response to a subpoena or court order shall not be considered "voluntary" provided Consultant gives City notice of such court order or subpoena.

7.2 Release of Confidential Information. Consultant shall promptly notify City should Consultant, its officers, employees, agents, or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request, court order, or subpoena from any person or party regarding this Agreement and the work performed hereunder or with respect to any project or property located within the City. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding. Consultant agrees to cooperate fully with City and to provide the opportunity to review any response to discovery

requests provided by Consultant. However, City's right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

7.3 Conflicts of Interest Prohibited. Consultant covenants that neither he/she nor any officer or principal of their firm have any interest in, or shall acquire any interest, directly or indirectly, which will conflict in any manner or degree with the performance of their services hereunder. Consultant further covenants that in the performance of this Agreement, no person having such interest shall be employed by them as an officer, employee, agent, or subcontractor. Consultant further covenants that Consultant has not contracted with nor is performing any services, directly or indirectly, with any developer(s) and/or property owner(s) and/or firm(s) and/or partnership(s) owning property in the City or the study area and further covenants and agrees that Consultant and/or its subcontractors shall provide no service or enter into any agreement or agreements with a/any developer(s) and/or property owner(s) and/or firm(s) and/or partnership(s) owning property in the City or the study area prior to the completion of the work under this Agreement.

7.4 Covenant Against Contingent Fee. Consultant covenants that neither it nor any of its officers, employees, agents, or representatives employed or retained any company or person, other than a bona fide employee working for Consultant, to solicit or secure this Agreement. Consultant further covenants that neither it nor any of its officers, employees, agents, or representatives has paid or agreed to pay any company or person, other than a bona fide employee of Consultant, any fee, commission, percentage, brokerage fee, gift, or any other consideration contingent upon, or resulting from, the award or making of this Agreement. For breach or violation of this provision, City shall have the right to annul this agreement without liability, or, at its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fees, gift, or contingent fee.

SECTION EIGHT: LEGAL RELATIONS AND RESPONSIBILITIES.

8.1 Compliance with Law. Consultant shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect those employed by it or in any way affect the performance of services pursuant to this Agreement. Consultant shall at all times observe and comply with all such laws, ordinances, and regulations and shall be responsible for the compliance of all work and services performed by or on behalf of Consultant.

8.2 Licenses, Permits, Fees and Assessments. Except as otherwise specified herein, Consultant shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the services required by this Agreement. Consultant shall have the sole obligation to pay for any fees, assessments and taxes, plus applicable penalties, and interest, which may be imposed by law and arise from or are necessary for the performance of the services required by this Agreement.

8.3 Covenant Against Discrimination. The Consultant covenants that, by and for itself, its heirs, executors, assigns and all persons claiming under or through them, that there shall be no discrimination against, or segregation of, any person or group of persons on account of

race, color, creed, religion, sex, marital status, national origin, or ancestry in the performance of this Agreement.

8.4 Independent Contractor. Consultant shall perform all services required herein as an independent contractor of City and shall remain at all times as to City a wholly independent contractor. City shall not in any way or for any purpose become or be deemed to be a partner of Consultant in its business or otherwise, or a joint venturer, or a member of any joint enterprise with Consultant. Consultant shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of City. Neither Consultant nor any of Consultant's employees shall, at any time, or in any way, be entitled to any sick leave, vacation, retirement, or other fringe benefits from City; and neither Consultant nor any of its employees shall be paid by City time and one-half for working in excess of forty (40) hours in any one week. City is under no obligation to withhold State and Federal tax deductions from Consultant's compensation. Neither Consultant nor any of Consultant's employees shall have any property right to any position, or any of the rights an employee may have in the event of termination of this Agreement.

8.5 Non-liability of City Officers and Employees. No officer or employee of the City shall be personally liable to the Consultant, or any successor in interest, in the event of any default or breach by the City or for any amount that may become due to the Consultant or to its successor, or for breach of any obligation of the terms of this Agreement.

8.6 California Law. This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Orange, State of California, or any other appropriate court in such county, and Consultant covenants and agrees to submit to the personal jurisdiction of such court in the event of such action.

8.7 Disputes. In the event of any dispute arising under this Agreement, the injured party shall notify the injuring party in writing of its contentions by submitting a claim therefor. The injured party shall continue performing its obligations hereunder so long as the injuring party commences to cure such default within ten (10) days of service of such notice and completes the cure of such default within forty-five (45) days after service of the notice, or such longer period as may be permitted by the Contract Officer; provided that if the default is an immediate danger to the health, safety and general welfare, City may take such immediate action as City deems warranted. Compliance with the provisions of this section shall be a condition precedent to termination of this Agreement for cause and to any legal action, and such compliance shall not be a waiver of any party's right to take legal action in the event that the dispute is not cured, provided that nothing herein shall limit City's right to terminate this Agreement without cause pursuant to Section 8.11.

8.8 Retention of Funds. City may withhold from any monies payable to Consultant sufficient funds to compensate City for any losses, costs, liabilities, or damages it reasonably believes were suffered by City due to the default of Consultant in the performance of the services required by this Agreement.

8.9 Waiver. No delay or omission in the exercise of any right or remedy of a non defaulting party on any default shall impair such right or remedy or be construed as a waiver. City's consent or approval of any act by Consultant requiring City's consent or approval shall not be deemed to waive or render unnecessary City's consent to or approval of any subsequent act of Consultant. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

8.10 Rights and Remedies are Cumulative. Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

8.11 Termination Prior To Expiration of Term. This section shall govern any termination of this Agreement, except as specifically provided in the following Section 8.12 for termination for cause. City reserves the right to terminate this Agreement at any time, with or without cause, upon ten (10) days' written notice to Consultant. Upon receipt of any notice of termination, Consultant shall immediately cease all services hereunder except such as may be specifically approved by the Contract Officer. Consultant shall be entitled to compensation for all services rendered prior to receipt of the notice of termination and for any services authorized by the Contract Officer thereafter in accordance with the Schedule of Compensation or such as may be approved by the Contract Officer, except as provided in Section 8.8.

8.12 Termination for Default of Consultant. If termination is due to the failure of Consultant to fulfill its obligations under this Agreement, City may, after compliance with the provisions of Section 8.7, take over work and prosecute the same to completion by contract or otherwise, and Consultant shall be liable to the extent that the total cost for completion of the services required hereunder exceeds the compensation herein stipulated (provided that City shall use reasonable efforts to mitigate such damages), and City may withhold any payments to Consultant for the purpose of setoff or partial payment of the amounts owed City as previously stated in Section 8.8.

8.13 Attorney's Fees. If either party to this Agreement is required to initiate or defend or made a party to any action or proceeding in any way connected with this Agreement, the prevailing party in such action or proceeding, in addition to any other relief which may be granted, whether legal or equitable, shall be entitled to reasonable attorney's fees, whether or not the matter proceeds to judgment.

8.14 Safety. The Consultant shall execute and maintain his/her work so as to avoid injury or damage to any person or property. The Consultant shall comply with the requirements of the specifications relating to safety measures applicable in particular operations or kinds of work. In carrying out his/her work, the Consultant shall at all times exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed, and be in compliance with all applicable federal, state, and local statutory and regulatory requirements including California Department of Industrial Relations (Cal/OSHA) regulations; and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act.

To Consultant: NCM Engineering Corp (NCM)
Attention: Mohan Char, PhD, PE CEO
4845 Casa Loma Avenue
Yorba Linda, CA 92886

9.2 Interpretation. The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Agreement.

9.3 Integration; Amendment. This Agreement contains the entire understanding of the parties herein and supersedes any and all other written or oral understandings as to those matters contained herein, and no prior oral or written understanding shall be of any force or effect with respect to those matters covered thereby. No amendment, change or modification of this Agreement shall be valid unless in writing, stating that it amends, changes or modifies this Agreement, and signed by all the parties hereto.

9.4 Severability. In the event that part of this Agreement shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or inability to enforce shall not affect any of the remaining portions of this Agreement which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder unless the invalid provision is so material that its invalidity deprives either party of the basic benefit of their bargain or renders this Agreement meaningless.

9.5 Authority. The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties.

9.6 Statutory References. All references in this Agreement to particular statutes, regulations, ordinances, or resolutions of the United States, the State of California, or the County of Orange shall be deemed to include the same statute, regulation, ordinance or resolution as hereafter amended or renumbered, or if repealed, to such other provisions as may thereafter govern the same subject.

9.7 Special Provisions. Any additional or supplementary provisions or modifications or alterations of this Agreement, if any, shall be set forth in an additional Exhibit "D" ("Special Provisions") if any such Special Provisions exist. In the event of any discrepancy between the provisions of this Agreement and the Special Provisions, Special Provisions shall take precedence and prevail.

9.8 Contract Documents. The Agreement between the Parties shall consist of the following: (1) this Agreement, (2) the Consultant's signed, original Proposal dated July 20, 2022 ("Consultant's Proposal"), and (3) the City's Request for Proposals, dated June 20, 2022 ("City's RFP"), which shall all be referred to collectively hereinafter as the "Contract Documents". The Consultant's Proposal and the City's RFP, which are both attached hereto as Exhibits "A" and "B", are hereby incorporated by reference, and are made a part of this Agreement. All provisions of this Agreement, the Consultant's Proposal, and the City's RFP shall be binding on

the Parties. Should any conflict or inconsistency exist in the Contract Documents, the conflict or inconsistency shall be resolved by applying the provisions in the highest priority document, which shall be determined in the following order of priority, (1st) the terms and conditions of this Agreement, (2nd) the provisions of the City's RFP (Exhibit "B") and (3rd) the provisions of the Consultant's Proposal (Exhibit "A").

[SIGNATURES BEGIN ON NEXT PAGE]

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date first written above.

CITY:

CITY OF YORBA LINDA

CONSULTANT:

NCM Engineering Corp (NCM)

By: _____

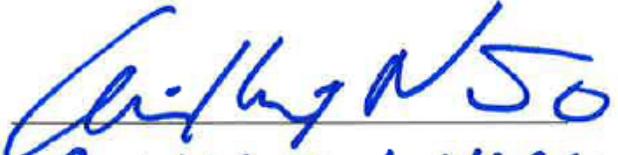
Its: _____

By: 

Name: MOHAN CHAR

Title: CEO

ATTEST:

By: 

Name: GUILHERME J. NASCIMENTO

Title: CFO

By: _____

Marcia Brown, City Clerk

By: _____

Dianna Honeywell, Finance Director

APPROVED AS TO FORM
RUTAN & TUCKER, LLP

By: _____

City Attorney, City of Yorba Linda

EXHIBIT A
SCOPE OF SERVICES

CITY OF YORBA LINDA | PUBLIC WORKS DEPARTMENT

CITY-WIDE STRUCTURAL BRIDGE INSPECTION SERVICES



Orange County Bridge Inventory Management and Maintenance Program (64 Bridges)



Kings County Bridge Preventive Maintenance Program Plan (110 Bridges)



Tulare County Bridge Preventive Maintenance Program Plan (340 Bridges)



San Diego County Bridge Preventive Maintenance Program Plan (174 Bridges)

PROPOSAL

SUBMITTED TO:

City of Yorba Linda



PUBLIC WORKS DEPARTMENT
JULY 20, 2022

SUBMITTED BY:

NCM

www.ncmcivil.com

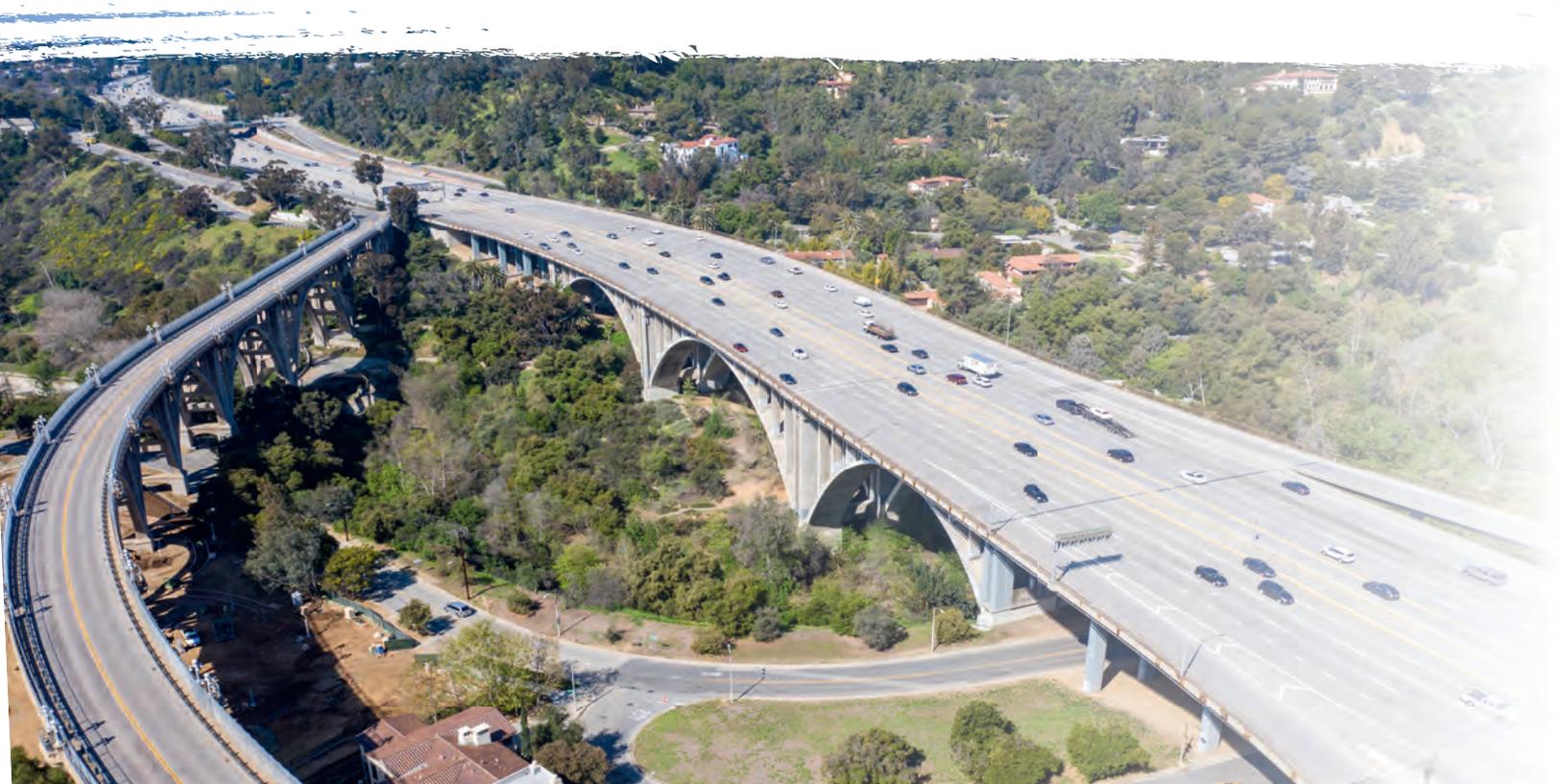
9850 Research Drive Irvine, CA 92618
Tel: 949.294.7358

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- B.** Company Data
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- E.** References
- F.** Project Understanding, Overview and Approach
- G.** Schedule of Compensation/Fees
- H.** Project Schedule
- I.** Proposal Forms



A. Cover Letter and Addendum 1 Receipt Certification



Wednesday, July 20, 2022

Attn: Jamie Lai, P.E.
Director of Public Works / City Engineer
4845 Casa Loma Avenue
Yorba Linda, CA 92886

RE: Request for Proposals | City-Wide Structural Bridge Inspection Services

Dear Ms. Lai and Members of the Selection Committee,

As a local firm, **NCM Engineering Corp (NCM)** is privileged to submit our proposal to the City of Yorba Linda (City) for City-Wide Structural Bridge Inspection Services. NCM has a long track record of successfully delivering BPMP for agencies across the state and fully grasp the task at hand. With that background, we have assembled a team of highly qualified and committed staff to assist the City with development of a tailored bridge maintenance plan covering the City's bridge infrastructure. We are excited to present the NCM team for your consideration.

Introduction of the firm

NCM was founded in 2012 as a planning and engineering services firm. NCM is a State of California and LA Metro Certified SBE Firm which provides the planning and design services to Caltrans, Metropolitan Planning Organizations, and other public agencies (Counties and local cities) in California. NCM specializes in Transportation Infrastructure.

Within a short period of 9½ years, NCM has made a name for itself, and has emerged as a well-recognized and a highly acclaimed Small Business Enterprise besting national firms in head-to-head competition consistently across a broad spectrum of clientele. This has been possible because of NCM's reputation for quality design, innovations, and delivering projects on time and under budget. NCM is committed to upholding its tradition of excellence by providing effective and innovative solutions to complex project challenges through our knowledge, expertise, and people.

Qualifications of the Firm

We have a substantial resume of successfully completing BPMP for agencies in California ranging from several hundred bridges in a given jurisdiction down to under a dozen. Our team has delivered numerous HBP funded projects and executed PS&E on even more preventative maintenance bridge projects as agencies implement their approved BPMPs. This strength with federally funded projects and the BPMP process ensures the City will reap the benefits of a well-executed plan for BPMP delivery and approval.

NCM fully understands the City's work proposal have assembled a very strong team of engineers and technical experts led by our Project Manager, Mark Stiller, PE. **NCM is THE RIGHT TEAM and THE RIGHT CHOICE** because we offer the City the following distinct benefits:

- Technical Staff who are Innovative, Experienced, Capable, and Available.
- Consistently Strive to Provide the Highest Level of Client Satisfaction
- Unparalleled Experience with Bridge Program/Management/Preventive Maintenance
- Thorough understanding of project and its goals

Staffing and Organization

NCM fully understands the City's scope of work and have assembled a very strong team of engineers and technical experts led by our Yorba Linda resident and proposed **Project Manager, Mark Stiller**. Mark has 16 years of experience dedicated to bridge project delivery and is known for his superior technical knowledge and focus on client satisfaction. He and his team have just completed a BPMP and a Bridge Inventory Assessment for two other agencies and we are excited to bring our continually expanding expertise to bear for the City. Bridge inspections, estimating, BPMP development and database management will be led by our BPMP expert, **Lalit Maharjan**. Our team providing analysis of site constraints and supporting technical guidance will be led by **Alex Torres**. Finally, our team is supported by GPA Consulting with **Erinn Silva** at the helm, working with our technical team to identify environmental scope and costs and bridge project grouping strategies. As a value added-benefit, the NCM Team will be supported by industry veteran **Mohan Char, PhD, PE (Project Principal)** who will leverage his unparalleled Bridge BPMP/ Rehabilitation experience to bear on this important project. All of our proposed staff are available and committed to the delivery of this project.

NCM will serve as the prime consultant and Mark will be your single point of contact responsible for all managerial, administrative, contractual, and technical matters on the project. We have the requisite senior and specialty staff, as well as depth of staff to enable us to expeditiously respond to City needs. NCM is financially sound and has the full administrative support needed to deliver the proposed services. We have successfully served the Counties of San Diego, Orange, Riverside, Kern, Tulare, Kings, and multiple other cities on BPMP scopes of this nature and will continue to do the same for the City.

Proposal Contact

Mark Stiller, PE, Associate Vice President / Project Manager

9850 Research Drive, Irvine, CA 92618

Tel: 949.294.7358, Cell: 909.234.2001, Fax: 951.459.3064

mark.stiller@ncmcivil.com

Proposal Certification: I, Mohan Char, as an officer of NCM Engineering Corp, certify under penalty of perjury under the laws of the State of California that NCM has complied with State nondiscrimination program requirements and that all information contained in this proposal is truthful, accurate and complete.

We look forward to the opportunity to be of service to the City of Yorba Linda.

Sincerely,

On behalf of NCM,



Mohan Char, PhD, PE

CEO



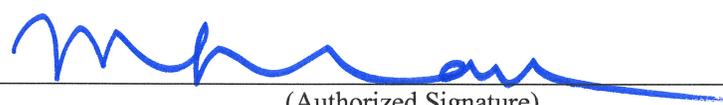
ADDENDUM RECEIPT CERTIFICATION
PROFESSIONAL ENGINEERING & DESIGN SERVICES FOR
CITY WIDE STRUCTURAL BRIDGE INSPECTION SERVICES

Proposer acknowledges receipt of this Addendum and inclusion of its conditions in his -proposal by signature below and attachment of this Addendum to his proposal. **PROPOSALS NOT CONTAINING THIS CERTIFICATION WILL BE REJECTED.**

Addendum No. 1 Date: July 7, 2022

Received by:  Date: July 20, 2022
(Signature)

Name: Mark Stiller, PE Title: Associate Vice President
(Print)

Bidder: 
(Authorized Signature)

Name: Mohan Char, PhD, PE Title: Chief Executive Officer
(Print)

B. Company Data



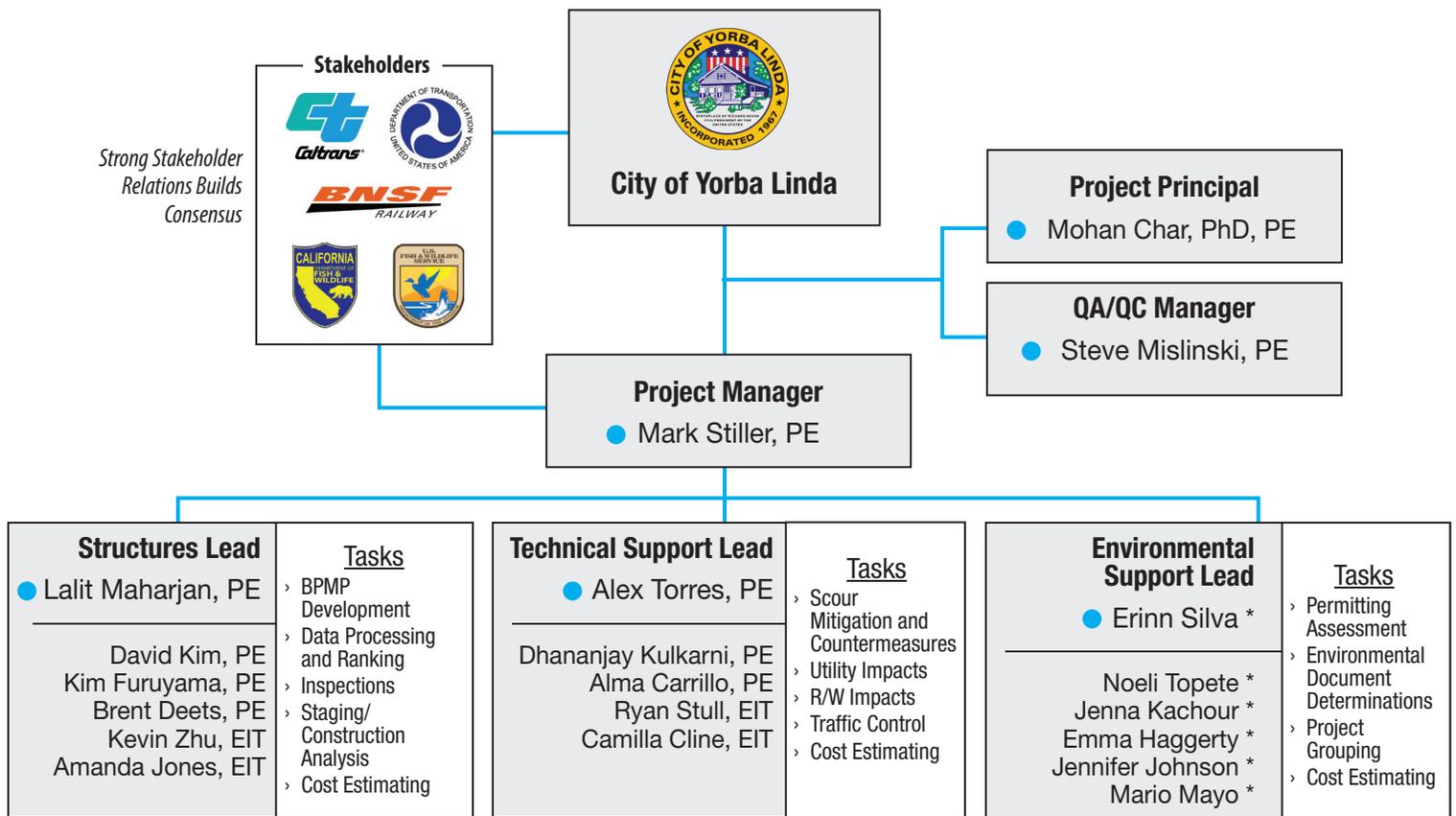
Figure B-1. Company Data

| | |
|---|---|
| 1. Official name and address: | NCM Engineering Corp 9850 Research Drive, Irvine, CA 92618 |
| 2. Name, address, and telephone number of the Proposer's primary point of contact. | Mark Stiller, PE, Associate Vice President / Project Manager 9850 Research Drive, Irvine, CA 92618 Tel: 949.546.0822, Cell: 909.234.2001 Fax: 951.459.3064 mark.stiller@ncmcivil.com |
| 3. Indicate what type of entity (corporation, company, joint venture etc.). | C Corporation |
| 4. Federal Employer I.D. Number. | 46-1487149 |
| 5. The address, telephone numbers and fax numbers of each of your firm's locations. | Irvine: 9850 Research Drive, Irvine, CA 92618 Tel: 949.294.7358 Fax: 951.459.3064 |
| | Corona: 4740 Green River Road, Suite 203, Corona, CA 92880 Tel: 909.234.2001 Fax: 951.459.3064 |
| | San Diego: 8525 Gibbs Drive, Ste 202 San Diego, CA 92123 Tel: 858.414.7803 Fax: 951.459.3064 |
| | Central California: 1322 E. Shaw Avenue, Ste 340 Fresno, CA 93710 Tel: 559.492.3016 Fax: 559.492.3539 |
| | Northern California: 11344 Coloma Road, Ste 225 Gold River, CA 95670 Tel: 916.706.1646 Fax: 916.706.3528 |
| 6. A detailed statement indicating whether Proposer is totally or partially owned by another business organization or individual. | All ownership is within NCM. NCM is not totally or partially owned by another business, organization, or individual. |
| 7. Number of years Proposer has been in business under the present business name. | NCM in business for 9 Years 8 Months |
| 8. Number of years of experience the Proposer has had in providing required, equivalent, or related services. | NCM has more than nine (9) years of experience in providing the required services. Staff has 26 years in providing the required services. |
| 9. Any failures or refusals to complete a contract and explanation. | NCM has no failed/refused contracts |
| 10. Individuals/Firms who own an interest of 10% or greater in the proposing firm. | Mohan Char, Steve Mislinski, and William Nascimento |
| 11. Financial interests in other lines of business. | NCM has no financial interest in other businesses |
| 12. Claims for Money or Damages History. | None |
| 13. Litigation/Adverse Judgement History. | None |
| 14. Termination of Contract "For Cause" History. | None |

C. Organizational Chart



Figure C-1. NCM Team Project Organizational Chart



Indicates: ● Key Staff * Subconsultant Staff

Management Contacts

Mohan Char, PhD, PE
949.294.7358
mohan.char@ncmcivil.com

Mark Stiller, PE
909.234.2001
mark.stiller@ncmcivil.com

Steve Mislinski, PE
916.396.3327
steve.mislinski@ncmcivil.com

Team Organization

Prime Consultant

NCM Engineering Corp
Structures and Technical Support

Subconsultant

GPA Consulting
Environmental Support

Key staff identified in the organizational chart will serve in their designated roles throughout the duration of the contract. Should a staffing change be necessary, NCM Engineering will submit a written staffing change request to the City for approval. This request will include the reason and justification for the change and the qualifications and resume of the replacement staff proposed by NCM. Replacement staff will have equivalent or greater qualifications for the role assigned in the project and will be billed at an equal or lower rate.

D. Resumes and Qualifications of Personnel



Firm Qualifications

NCM has assembled a project team that provides the City with exceptional Caltrans and FHWA processes experience, some of the best BPMP talent in California and firms with first-hand experience working successfully together to deliver past and current projects. Our team provides industry leading capabilities in each area of performance required to successfully deliver a comprehensive City BPMP Plan that outlines an effective strategy for maintaining the City's bridges in a serviceable and structurally safe condition. Our team experience includes significant BPMP Plan development and BPMP delivery experience, including preliminary engineering, environmental analysis and documentation, hydrology and bridge hydraulics, utility research and traffic handling plan development, and the ability to develop workable solutions using an efficient and reasonable engineering approach.

This section of our proposal introduces the NCM team and outlines our background and recent experience that is relevant to successful delivery of the City's bridge management plan.

As demonstrated in these qualifications and references, our proposed team has experience delivering BPMP projects from initial inception and plan development through preliminary engineering, environmental documentation, final design, environmental permitting, PS&E and construction. The experience outlined in this section of our proposal demonstrates success with full BPMP project delivery that will significantly benefit the quality and success of this project.

Firm Profile

NCM forms the leadership nucleus of the project team in the role of Prime Consultant and the singular entity responsible to the County for all contractual, administrative, managerial and technical matters. Our subconsultant, GPA Consulting, rounds out our overall capabilities to provide the City with the highest level of expertise in each discipline needed.

NCM and GPA have successfully worked together in the past and are currently working with on multiple projects. Consequently, the City is getting a team that "knows each other"; understands how to deliver Bridge Preventive Maintenance Program projects, and is ready and available to "hit the ground running" on day one.

NCM NCM Engineering Corp: Prime

NCM was founded by principals who have led design efforts for over 200 roadway, highway, rail and bridge projects. NCM specializes in civil and structural engineering, project management and design of transportation infrastructure improvement projects. The firm was founded to serve transportation districts, cities, counties, metropolitan planning organizations, rail authorities, transit districts, transportation joint power authorities, railroads, the state and private developers throughout California.

The senior management team at NCM has an average of more than 25 years of specific industry experience and utilizes a far-reaching skill set to provide clients with cost-efficient project solutions. NCM approaches each project with flexibility, responsiveness, uncompromising integrity and attention to detail. Our principals take pride in their work ethic and ability to offer specialized expertise with the following:

- Multiple agency experience – Caltrans, FHWA, USACE, USFWS, CDFW, RWQCB, cities, counties regional authorities, etc.
- In-depth knowledge of project delivery for Federally funded local agency projects, including HBP and BPMP
- Demonstrated expertise developing reliable project cost estimates for planning purposes and for construction bid packages
- Thorough understanding of Caltrans, AASHTO and other design procedures, policies, codes, requirements and specifications
- Flexibility to react to changing project needs
- Commitment to delivering projects "on-time" and "on-budget"
- Accurate and reliable project reporting

Our principals and staff take pride in their work ethic and ability to offer specialized expertise with local agency BPMP projects. Examples include the BPMP's for Kings, Tulare and San Diego Counties, the Cities of Sanger, Huntington Beach, Rancho Santa Margarita and Concord and BPMP improvements for Caltrans.



GPA Consulting (GPA) (DBE, Subconsultant): Environmental Support Lead

GPA Consulting is a multi-disciplinary firm specializing in environmental planning, biological resources, and historic preservation. GPA, founded in 2003,

is a certified woman-owned, disadvantaged, and small business enterprise registered as a California Corporation. The firm serves a variety of municipalities, private-sector clients, and state and federal agencies, helping them to successfully achieve project approval and implementation. The firm’s expertise is in managing the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) documentation, technical analysis, peer-reviewing environmental documents, regulatory permitting, agency coordination, and construction and mitigation monitoring. GPA’s experience includes more than 130 bridge projects that involved either maintenance, rehabilitation, or replacement. GPA completed work between 2017 and 2018 on nine bridges as part the City of Anaheim’s Bridge Preventive Maintenance Program (BPMP) and is currently working with Calaveras County on its 2019 BPMP.

GPA staff has extensive training and experience in regulatory permitting, and has the understanding needed to appropriate scope and costs associated with delivering the BPMP and capturing those in the recommended programming amounts.

Staffing Plan & Availability

The NCM team consists of available, committed, full-service technical professionals who possess recent and demonstrated BPMP Plan and project delivery experience needed to efficiently develop the City’s bridge management plan. Throughout project delivery, the NCM project manager will take a leadership role and oversee all aspects of the bridge inventory assessment, field reviews, permitting studies and requirements identification and BPMP Plan development. The NCM project manager will also ensure that appropriate and sufficient resources are available when needed to meet the County’s delivery timeline.

A draft project delivery schedule is provided in **Section F – Project Approach** of our proposal. The staff necessary to meet that schedule are presented in **Figure D-1**, with their projected availability over the project duration as defined in the draft delivery schedule.

Figure D-1. Availability of NCM key team members.

| Team Member | Project Role | % Availability | | | | |
|----------------------|--------------------|----------------|----|------|----|-----|
| | | 2022 | | 2023 | | |
| | | Q3 | Q4 | Q1 | Q2 | Q3 |
| Mark Stiller, PE | Project Manager | 60 | 75 | 70 | 80 | 95 |
| Mohan Char, PhD, PE | Project Principal | 35 | 40 | 45 | 60 | 60 |
| Steve Misliniski, PE | QA/QC Manager | 40 | 50 | 55 | 55 | 70 |
| Lalit Maharjan, PE | Structures Lead | 70 | 70 | 80 | 80 | 80 |
| Alex Torres, PE | Hydraulics/Civil | 65 | 80 | 90 | 90 | 100 |
| Erinn Silva | Environmental Lead | 40 | 65 | 80 | 80 | 90 |

Key Personnel and Support Staff

The NCM team organizational structure, as shown in Section C, is built upon a strong management team that will guide the City’s bridge management plan through development and final approval. Our project organization chart shows key personnel and support staff.

The team will be led by Mark Stiller, a strong project manager focused on client service, and Mohan Char, a seasoned principal with extensive BPMP and bridge experience. The NCM team organization chart and following discussion defines the project roles and reporting structure for our team and provides key qualifications for proposed key staff.



Mark Stiller, PE - Project Manager

Mark is a senior project manager and an acclaimed engineer with 16 years of experience designing and leading multi-discipline teams in delivering bridge and transportation infrastructure projects. He has led the delivery of multiple HBP and BPMP projects, including recently for the County of Kings and the County of Orange.

Role/Responsibilities

Mark will be responsible for leading the NCM team and managing the process and team for development of the City’s bridge management plan. He will be the single point of contact between the NCM team and the City and will work closely with the City to successfully deliver the project.



Mohan Char, PhD, PE - Project Principal

Dr. Char has over 27 years of experience in planning, engineering and design of small and large highway structures projects directly for Caltrans, as well as for local agencies. Specific relevant experience includes development and delivery of BPMP

projects for the Counties of San Diego, Kings and Tulare, the Cities of Huntington Beach, Rancho Santa Margarita and Concord, as well as directly for Caltrans.

Role/Responsibilities

Dr. Char will be responsible for ensuring adequate resources are available to meet the project delivery schedule and provide technical assistance as required.



Steve Mislinski, PE - QA/QC Manager

Steve has been delivering bridge and highway projects for over 25 years and has significant recent experience delivering BPMP's for local agencies from development of BPMP Plans through environmental clearance, design and implementation. He has served as the project manager, project engineer or principal for multiple BPMP projects, including the BPMP for Kings, Tulare and San Diego Counties and the Cities of Sanger, Concord, Rancho Santa Margarita and Huntington Beach.

Role/Responsibilities

Steve will leverage this extensive experience in his role as QA/QC manager to ensure all deliverables meet both the project needs and the highest quality standards.



Lalit Maharjan, PE - Structures Lead

Lalit is a senior bridge engineer and project engineer with 17 years of experience delivering bridge infrastructure projects. He has delivered BPMP plans for a range of agencies in the state, including RCTD and Moreno Valley. Lalit has a thorough understanding of Caltrans bridge inspection and reporting protocol and procedures and has performed extensive field reviews of bridge structures throughout California.

Role/Responsibilities

Lalit will be responsible for leading the NCM technical team for review and assessment of the County bridge inventory, identification of qualifying structures, verification of existing condition through field review, development of the BPMP Plan and documentation of a prioritized list of structures for HBP rehabilitation or replacement.



Alex Torres, PE - Technical Support Lead

Alex has over 20 years of experience in civil engineering, design, management, and administration of a wide variety of engineering projects including numerous bridge projects. Alex will bring his expertise in civil engineering, hydraulics and scour to this project as he leads the technical support team.

Role/Responsibilities

Alex will be responsible for assessment of the County bridge inventory with respect to hydraulic and erosion issues that could impact structural integrity of the bridges, utility and right-of-way issues that may conflict with proposed work activities, and traffic control estimates needed for construction.



Erinn Silva - Environmental Lead

Erinn has 19 years of experience working with public and private projects throughout California. She is a Senior Environmental Planner and Public Outreach Officer at GPA with extensive and recent BPMP experience. She conducts research, prepares environmental documents and has obtained permitting from a full range of local and federal resource agencies.

Role/Responsibilities

Erinn will be responsible for assessing sight conditions for bridges that qualify for the County BPMP Plan to determine probable environmental permits that will be required by various resource agencies for construction of the proposed maintenance improvements. She will also work with the team to identify permitting and environmental costs to be programmed with the BPMP.

Mark Stiller, PE

POSITION: Project Manager

EDUCATION

Degree(s): BS, Civil Engineering

School: California Polytechnic State University, Pomona, California

Year of Completion: 2007

WORK EXPERIENCE

Summary of Experience

Mr. Stiller is a project manager and engineer with experience in civil infrastructure development ranging from grading, roadway, and utilities to structures and bridge design. His expertise includes managing multi-disciplined projects, leading design on complex and challenging road and bridge improvements for a wide range of owners including cities, counties, MPO's and the state. He has a track record of repeatedly delivering innovative and practical solutions has been instrumental in successful delivery of projects like the recent I-15 Express Lanes Design-Build, Monte Vista Avenue Grade Separation, Union Station/Patsaouras Plaza Busway Bridge project and many others. Mr. Stiller has worked through all stages of project development from initiation through construction and has earned a reputation for being a capable, knowledgeable, responsive, and delivery-oriented resource for his clients and industry peers.

PROFESSIONAL MEMBERSHIPS/REGISTRATIONS

Civil Engineer/CA/#C-75935

WTS - Women's Transportation Seminar

PROJECTS

Kern County | T.O. 4: Bridge Preventive Maintenance Program Plan, Kern County, California, 2021-Ongoing

Role: Task Order Manager. NCM developed a Bridge Preventive Maintenance Program for the County of Kern that encompasses all 144 County bridges. Efforts included field inspections, review of Caltrans inspection records, tabulation of bridge data and assignment of criteria scoring needed to rank and prioritize bridges. NCM also evaluated site conditions that impact the proposed work activities, and generated cost estimates for bridge work, necessary site improvements, environmental permitting costs, and the engineering and management soft costs that are all eligible for reimbursement according to Caltrans Local Assistance guidelines. Mark was the Task Order Manager and was responsible for overall task completion strategy, coordinating staff work, managing schedule and budget, and ensuring quality deliverables.

Orange County Public Works | On-Call Bridge Design Services, Orange County, California, 2020 - Ongoing

Role: Project Manager. County of Orange awarded NCM engineering an on-call contract to provide bridge design services. Orange County Public Works (OCPW) has assigned NCM two task orders to date. The first task entails the inspection and implementation of bridge maintenance for corrosion and seismic damage to the Hamilton Victoria Bridge over the Santa Ana River and Greenville Banning Channel. The second task is the development of a County-Wide Bridge Inventory Management and Maintenance Program. This program required the inspection and field reporting of all County bridges, development of a Microsoft Access database to track and rank structures, and reporting to be used by the County in future years to plan and program bridge maintenance and CIP projects. Mark is serving as project manager facilitating each task order delivery and coordination with County staff.

Kings County | Bridge Preventive Maintenance Program Plan, Kings County, California, 2014/2017-2021, Construction Ongoing

Role: Structures Lead. NCM developed a Bridge Preventive Maintenance Program for the Kings County covering their 110 bridges. Scope included preparation of the BPMP to address maintenance needs, environmental clearance of the proposed work, cost estimating, data collection and bridge ranking, and ultimately delivery of PS&E to construct the proposed improvement/maintenance works. Mark was responsible for ranking, was instrumental in the database development, PS&E delivery and construction support for the project.



FIRM: NCM

TOTAL YEARS OF EXPERIENCE: 16

YEARS WITH FIRM: 9

NCM

Mark Stiller, PE - Project Manager**Caltrans District 7 | Multiphase Project Specific Upgrading Bridge Rail Projects (Contract 07A4551), Los Angeles and Pasadena, California, 2018 - Ongoing**

Role: Phase Order Manager. This contract includes comprehensive project delivery services for PA&ED, design/PS&E development, right of way and bid support and design support during construction. The contract covers projects located in Caltrans District 7 and included environmental clearance, design and construction of bridge railing upgrades at two locations – Route 134/Arroyo Seco Bridge, and SR 110/Fifth Street and SR 110/Sixth Street Overcrossings. At Route 134/Arroyo Seco Bridge, the existing railings were upgraded to Type 836 (Mod) concrete barriers. At the SR 110/5th Street and 6th Street Overcrossings, existing railings were upgraded to Type 732SW (Mod) and Type 836 (Mod) concrete barriers. Mark was the phase order manager responsible for overseeing the preparation of PS&E, coordination with subconsultants and Caltrans District 7/Caltrans HQ from PA/ED through construction.

County of Orange | Plan Check Services for OC Planning Development, Orange County, California, 2014 - Ongoing

Role: Deputy Project Manager. NCM is providing plan check services on the Rancho Mission Viejo Planned Community in south orange County near Ortega Highway. As part of these Plan Check Services contract, NCM has delivered to date more than 35 plan check review packages of various phases that involved various aspects of the project development phase. All plan check reviews were completed on schedule and budget. The plan checks included Roadway Design, Bridge Design, Drainage Studies, PRs, Type Selection Reports, PS&E, and comment resolution meetings. Mark is managing all review packages assigned to NCM Team and coordination with County and stakeholders.

Riverside County Transportation Commission (RCTC) | I-15 Express Lanes Design-Build, Riverside County, California, 2017 - 2021

Role: Structures Lead. This project improved approximately 15 miles of I-15 between Cajalco Road and SR-60 by adding two tolled express lanes in each direction. Specific project elements include freeway widening in the median and widening of 11 bridges to accommodate the new toll lanes, new overhead signs, sound walls, retaining walls, and electrical, drainage and landscape improvements. The project includes 8 sound walls with standard and nonstandard design, 5 nonstandard retaining walls, 52 overhead sign structures with standard and nonstandard designs and numerous nonstandard light pole designs. Mark's approach to apply site specific design rather than using Caltrans Standard Plans (whose development he led for Caltrans) for retaining walls, sound walls, and toll road infrastructure resulted in net cost savings up to several millions and help accelerate the construction. Each of the 11 bridge widenings had its own design challenges. Mark was responsible for Caltrans design coordination, approvals, design team leadership and management. His innovative design solutions gained consensus and swift approvals from Caltrans and the RCTC project management team.

Orange County Public Works | Qualified Vendor List (QVL) for Road/Bridge and Traffic Engineering Services, Orange County, California, 2017 - 2020

Role: Project Manager. County of Orange selected NCM for the Qualified Vendor List (QVL) in which A-E consultants are selected for various County services. Tasks may include review/support and development and PS&E for road/bridge/traffic projects. Orange County Public Works (OCPW) assigned NCM 12 task orders and another two as a subconsultant on the same QVL contract. Mark served as the Project Manager responsible for task management and overseeing the development of Plans, Specification and Estimates on multiple task orders. He completed PS&E based on the County's BPMP for 8 bridges and the Santa Ana River Improvements Phase I & II Project task order which included another 8 bridge crossings over the Santa Ana River. He also partnered with OCWP design staff on the design of the OC Loop El Cajon Bikeway Segment H.

City of Montclair | Monte Vista Avenue Grade Separation Project, Montclair, California, 2014 - 2020

Role: Deputy Project Manager. The City of Montclair, in cooperation with SBCTA and Caltrans, executed a contract with NCM for design of the new grade separation carrying Monte Vista Avenue over UPRR. The new structure features a long-span spliced precast concrete girder bridge, massive MSE walls, two new bypass roads, and extensive private property improvements. NCM was able to coordinate with utilities on an expedited timeline and seamlessly incorporated the City's new utility underground district. The NCM team managed multiple stakeholders, including SBCTA, UPRR, the City, and Caltrans Local Assistance (for the federal funding element). Mark was responsible for both administrative and technical management of the project and led 3rd-party coordination, utility and private property design solution development, bridge, roadway and drainage design. Mark successfully led efforts from project initiation through construction completion.

Mohan Char, PhD, PE

POSITION: Project Principal

EDUCATION

Degree(s): PhD, Structural Engineering
School: University of Arizona, Tucson, Arizona
Year of Completion: 1993

Degree(s): MS, Structural Engineering
School: Memorial University of Newfoundland, St. John's, Newfoundland, Canada
Year of Completion: 1988

Degree(s): BS, Civil Engineering
School: University of Madras, Chennai, India
Year of Completion: 1986

WORK EXPERIENCE

Summary of Experience

Mohan brings in over 27 years of experience in highway/roadway/bridge project development from project initiation through construction completion. Throughout his career, Mohan has managed multi-disciplinary teams, large and small, guiding funding assistance (HBP, PNRS, TIGER, ATP), geometric, traffic, structure, drainage/stormwater, hydraulic/scour, geotechnical engineers, coordinating right-of-way and utilities, and identifying and incorporating solutions that balance environmental impacts and capital costs. He keenly understands the decision-making process for each phase of project development, focusing his team on fundamental design decisions, project risks, and critical path activities during early project phases, then managing the details and processes needed for final design and construction. Mohan's industry leadership and unparalleled experience in BPMP project delivery is a key asset for the project team.

PROFESSIONAL MEMBERSHIPS/REGISTRATIONS

Civil Engineer/CA/#C-57894

PROJECTS

Bridge Preventive Maintenance Program Plan Projects (Multiple Agencies: City of Rancho Santa Margarita, County of San Diego/Tulare/Kings/Kern, City of Huntington Beach, Caltrans)

Role: Project Manager / Structure Lead. Mohan has managed all phases of BPMP projects – development, funding, programming, PAED, PS&E, and Construction across multiple clienteles. He developed the first BPMP Plan in the State of California for the County of San Diego. For clients with large bridge inventory, he developed a strategy to group bridges distributing the funding over multiple fiscal years. This provided both Caltrans and local agencies with the ability to allocate funding across multiple projects.

City of Highland | Boulder Avenue Bridge over City Creek, Highland, California, 2014

Role: Project Manager. Mohan led this bridge replacement project to address the aging and scour critical structure. During design, a sudden collapse of the existing structure due to a storm event prompted a change from CIP superstructure construction to precast girder construction to expedite reopening the bridge. Mohan was instrumental in not only the project delivery on an expedited timeframe, but for the applications and award of HBP funding for the project.

OCPW | Edinger Avenue Bridge over Bolsa Chica Channel, Orange County, California, 2014

Role: Project Manager. Mohan led the team that performed underwater inspections on the existing timber bridge to reassess the sufficiency rating (SR), successfully gaining approval from Caltrans SM&I and making the bridge eligible for HPB funding eligibility. Mohan oversaw the project from inception and funding through PS&E.



FIRM: NCM

TOTAL YEARS OF EXPERIENCE: 27

YEARS WITH FIRM: 8+

NCM

Steve Mislinski, PE

POSITION: QA/QC Manager

EDUCATION

Degree(s): MS, Structural Engineering
School: California State University, California
Year of Completion: 2003

Degree(s): BS, Structural Engineering
School: University of California, San Diego
Year of Completion: 1997

WORK EXPERIENCE

Summary of Experience

Steve is a founding principal of NCM Engineering Corp and has demonstrated experience leading multi-discipline teams in support of project delivery for Cities, Counties, MPO's and Caltrans. His broad experience includes significant design and project management for delivery of grade separations, road/highway and bridge widenings, interchange improvements, bridge retrofits and rehabilitations, bridge replacement and bridge preventive maintenance projects. Steve has a deep understanding of federally funded projects and the HBP process with Caltrans Local Assistance with an extensive list of successful HBP and BPMP project deliveries.

PROFESSIONAL MEMBERSHIPS/REGISTRATIONS

Civil Engineer/CA/#C-61834

PROJECTS

Kern County | Bridge Preventive Maintenance Program Plan, Kern County, California, 2021-Ongoing

Role: Project Manager. Project manager responsible for overseeing and coordinating the evaluation of the County's 144 bridge inventory, developing a bridge preventive maintenance program to address maintenance needs. Responsibilities also include identifying County bridges that qualify for rehabilitation and replacement funding and assisting the County with funding requests.

Kings County | Bridge Preventive Maintenance Program Plan, Kings County, California, 2014/2017 - Ongoing

Role: Project Manager. Project manager responsible for overseeing and coordinating the evaluation of the County's 110 bridge inventory, developing a bridge preventative maintenance program to address maintenance needs, environmentally clearing the proposed work and developing PS&E for implementation of the improvements at 10 bridge locations. Responsibilities also include identifying County bridges that qualify for rehabilitation and replacement funding and assisting the County with funding requests.

City of Sanger | Bridge Preventive Maintenance Program Plan, Sanger, California, 2016-2021

Role: Project Manager. Project manager responsible for managing the environmental clearance process and delivering all project elements for 8 bridges that were required to complete preliminary engineering, final design and PS&E, as well as for design support during bidding and construction.

Tulare County | Bridge Preventive Maintenance Program Plan, Tulare County, California, 2014-2015

Role: Project Manager. Project manager responsible for overseeing and coordinating the evaluation of the County's 340 bridge inventory, developing a bridge preventative maintenance program to address maintenance needs. Responsibilities also include identifying County bridges that qualify for rehabilitation and replacement funding and assisting the County with funding requests.

Kern County | Bridge Preventive Maintenance Program Plan, Kern County, California, 2021-Ongoing

Role: Project Manager. Project manager responsible for overseeing and coordinating the evaluation of the County's 144 bridge inventory, developing a bridge preventive maintenance program to address maintenance needs. Responsibilities also include identifying County bridges that qualify for rehabilitation and replacement funding and assisting the County with funding requests.



FIRM: NCM

TOTAL YEARS OF EXPERIENCE: 25

YEARS WITH FIRM: 9.5

NCM

Lalit Maharjan, PE

POSITION: Structures Lead

EDUCATION

Degree(s): MS, Structural Engineering

School: Southern Illinois University, Carbondale, Illinois

Year of Completion: 2005

Degree(s): BS, Civil Engineering

School: Tribhuvan University, Kathmandu, Nepal

Year of Completion: 2002

WORK EXPERIENCE

Summary of Experience

Lalit is a Senior Bridge Engineer with more than 17 years of experience planning and designing transportation infrastructure projects. He has an in-depth knowledge of Caltrans Standards and design procedures, Local Assistance Guidelines for HBP and BPMP as well as a thorough understanding of AASHTO LRFD Bridge Design Specifications with Caltrans Amendments, Caltrans Seismic Design Criteria, the AASHTO and APWA Greenbooks, and AREMA. Project experience includes bridge inspection and maintenance, analysis and design of numerous road and highway structure elements, including bridges, culverts retaining walls and drainage structures for highway and roadway widenings, bridge rehabilitations and seismic retrofits, widenings, replacements and grade separations.

PROFESSIONAL MEMBERSHIPS/REGISTRATIONS

Civil Engineer/CA/#C-75358

PROJECTS

OCPW | Bridge Inventory Management and Maintenance Program Plan, Orange County, California, 2021-Ongoing

Role: Senior Bridge Engineer. Lalit was part of multiple field review teams assessing all bridges maintained by the Orange County Public Works. Develop workplan for County Bridge Maintenance and Management Program, conduct site visits to collect data, create inspection records, organize data from existing inspection records and NCM inspections into MS Access database, create summary reports for priority bridges, assess need for seismic retrofit, life cycle cost analysis, construction cost estimates.

Kern County | Bridge Preventive Maintenance Program Plan, Kern County, California, 2021-Ongoing

Role: Senior Bridge Engineer. Lalit was responsible for supporting the assessment of the County's bridge inventory for the 144 County bridges. He was conducted field visits to perform verification of needed maintenance improvements and developed the final Bridge Preventive Maintenance Plan. Lalit also completed cost estimates and ranking procedures for the bridge database.

Riverside County Transportation Commission (RCTC) | I-15 Express Lanes Design-Build, Riverside County, California, 2017-2021

Role: Senior Bridge Engineer. This project improved approximately 15 miles of I-15 between Cajalco Road and SR-60 by adding two tolled express lanes in each direction. Structure scope included the widening of 11 bridges, 8 new sound walls, 5 non-standard retaining walls and 52 non-standard overhead sign structures. Lalit was responsible for the design of the I-15/SR-91 Separation and type selection of the EB-NB Express Lane Connector bridge network.

RCTD | Bridge Preventive Maintenance Program Plan, Riverside County, California, 2013

Role: Deputy Project Manager. Lalit was responsible for developing the County's BPMP for over 150 bridges, including field investigations, cost estimates, BPMP report development and funding applications.



FIRM: NCM

TOTAL YEARS OF EXPERIENCE: 17

YEARS WITH FIRM: 5+

NCM

Alex Torres, PE

POSITION: Technical Support Lead

EDUCATION

Degree(s): BS, Civil Engineering

School: California Polytechnic State University, Pomona, California

Year of Completion: 2002

WORK EXPERIENCE

Summary of Experience

Mr. Alex Torres is a senior supervising engineer specializing in hydrology/hydraulics and water quality with a 20-year history of managing complex multi-million-dollar projects across transportation and public works sectors while producing high-quality deliverables within established time and financial parameters. Expertise at efficiently coordinating full-lifecycle of project design and oversight for design-bid-build and design-build projects.

PROFESSIONAL MEMBERSHIPS/REGISTRATIONS

Civil Engineer/CA/#C-78892

QSD - BOPELS

PROJECTS

Caltrans District 3 US-50 Multimodal Corridor Enhancement & Rehabilitation Project, Sacramento, California, 2019-2021

Role: Drainage Discipline Lead. Drainage Discipline Design Lead for this design-build project funded by Caltrans District 3 in downtown Sacramento. Drainage scope included on-site drainage, bridge deck drainage, retaining wall drainage, and SWDR. Responsible for leading TWG Meetings, Comment Resolution and Verification Meetings, Interdisciplinary Review. Identified and provided Rough Order of Magnitude (ROM's) for additional \$500,000 in Potential Design Changes outside of discipline scope. Was involved from onset of project pursuit to delivering Release for Construction (RFC) on all segment packages.

Inland Valley Development Agency Mt View Ave Widening, Cities of San Bernardino and Loma Linda, California, 2019/2021

Role: Drainage Engineer. Project consisted of 1.5-mile corridor of Mt View Avenue widening. Scope Included Bridge Replacement over Mission Channel (owned and maintained by San Bernardino County Flood Control). Mr. Torres conducted design of RSP-lining over soft-bottom channel at crossing as scour-mitigation. Scour analysis first conducted using FHWA Hydraulic Toolbox for preliminary design and then used HEC-RAS for final design and to ensure new water surface elevation was 1 foot below bridge soffit. Mr. Torres also designed storm drain network (including inlets and roadside ditches) along Mt View Avenue.

CA-I-15/French Valley Parkway, City of Temecula, Riverside County, California, 2012 - 2014

Role: Drainage Engineer. Parsons, as the major design Partner to TY Lin, was selected by the City of Temecula to provide final design services for the \$130 million multi-interchange improvement project. The project extends from one mile south of the Winchester Road interchange, to one mile north of the I-15/I-215 freeway-to-freeway interchange. The project features include construction of a new interchange on I-15 at French Valley Parkway; upgrades to the existing Winchester Road/I-15 interchange; construction of barrier separated collector/distributor (C/D) lanes on both sides of mainline I-15 between the existing Winchester Road interchange and the I-15/I-215 interchange, and braided C/D lanes between Winchester Road and the I-15/I-215 interchange which will eliminate weaving on the freeway mainline. Mr. Torres set up HEC-RAS models of Warm Springs Creek and Murrieta Creek by importing alignments and terrain information from In-Roads ALG and DTM files within Storm and Sanitary module. HEC-RAS model was then used to develop scour analysis for minimum bent and abutment depths for widened portions of bridges.



FIRM: NCM

TOTAL YEARS OF EXPERIENCE: 20

YEARS WITH FIRM: <1

NCM

Erinn Silva

POSITION: Environmental Support Lead

EDUCATION

Degree(s): AS, Business Management
School: El Camino College, Torrance, California
Year of Completion: 2010

WORK EXPERIENCE

Summary of Experience

Erinn Silva is a Senior Environmental Planner and Public Outreach Officer at GPA, and has been working on public and private projects throughout California since 2003. At GPA, she conducts research and technical analysis, prepares environmental documents, performs public outreach tasks, and obtains coastal permits for projects, including several California Department of Transportation projects. Erinn excels in working with local, state, and federal agencies, including Caltrans, California Coastal Commission, California Department of Fish and Wildlife, and numerous counties and cities across California. Her diplomatic approach to projects allows her to offer practical solutions to arising challenges, and to move projects forward in a streamlined manner. In addition, Erinn's communication skills, attention to detail, and consistent work ethic have won her the support of clients and co-workers alike. Prior to joining GPA, Erinn worked for an architecture firm, acting as a liaison between developers and various agencies, gaining entitlements for residential developments, negotiating easements and quit-claims required for project mitigation, securing regulatory permits, and performing mitigation monitoring.

PROFESSIONAL MEMBERSHIPS/REGISTRATIONS

N/A

PROJECTS

Kern County | Bridge Preventive Maintenance Program Plan, Kern County, 2021 - 2022

Role: Environmental Lead. The County of Kern proposes to establish a Bridge Preventive Maintenance Program Plan to help maintain and extend the lifespan of 144 County-maintained bridges. Ms. Silva led the effort to conduct research on the environmental setting at each bridge location, and developed a document identifying the technical studies, level of environmental document, and regulatory permitting that would be required for each. The analysis also included an estimated cost to complete the environmental document and permitting phases.

City of Anaheim | Bridge Preventive Maintenance Program, Anaheim, Orange County, 2016- 2018

Role: Environmental Lead. The City of Anaheim, in cooperation with the California Department of Transportation, proposed to conduct bridge maintenance improvements on nine bridges within the city of Anaheim. Ms. Silva managed preparation of the Preliminary Environmental Study form leading to a National Environmental Policy Act Categorical Exclusion, a Notice of Exemption Memorandum for compliance with the California Environmental Quality Act, and several technical studies related to biological resources.

Culver City | Higuera Street Bridge Replacement, Culver City, Los Angeles County, 2013 - 2018

Role: Environmental Project Manager. The City of Culver City, in cooperation with the California Department of Transportation, proposed to replace the Higuera Street Bridge over Ballona Creek. Ms. Silva managed the environmental process and technical analysis, including studies related to biological resources, aesthetics, water quality, and Section 4(f). Ms. Silva also assisted with preparation of the Initial Study/Mitigated Negative Declaration for California Environmental Quality Act compliance and prepared the public notice related to the Section 4(f) *de minimis* finding. She managed several sub-consultant deliverables related to noise, air quality, and hazardous materials.



FIRM: GPA

TOTAL YEARS OF EXPERIENCE: 19

YEARS WITH FIRM: 14

Current and Previous Clients - Client List for Key Staff

Figure D-2. NCM's Key Staff as identified in the Organizational Chart have performed work for the following clientele either currently or in the past on projects with transportation/bridge scopes. Note that not all clients have been listed for the sake of brevity and relevance.

| | |
|--------------------------------|---|
| State | Caltrans (Districts 59, 3, 5, 6, 7, 8, 9, 10, 11, 12) |
| | Department of Water Resources (DWR) |
| MPO | LAMETRO |
| | SBCTA |
| | RCTC |
| | OCTA |
| | SGVCOG |
| | Gateway Cities COG |
| | SANDAG |
| Transportation Agencies | TCA |
| | CAHSR |
| | HART |
| Counties | Orange County |
| | Riverside County |
| | San Diego County |
| | San Bernardino County |
| | Los Angeles County |
| | Tulare County |
| | Fresno County |
| | Kern County |
| | Kings County |
| | Stanislaus County |
| Cities | Anaheim |
| | Corona |
| | Irvine |
| | Rancho Santa Margarita |
| | Sanger |
| | Montebello |
| | Montclair |
| | Moreno Valley |
| | Temecula |
| | Pico Rivera |
| | Santa Fe Springs |
| | Los Angeles |
| | Fontana |

E. References



References - Similar Services

Figure E-1. References for whom NCM has provided similar services of the nature and scope as set forth in the RFP, within the last five years.

| | |
|----------------------------|--|
| Client Name | Kern County Public Works |
| Project Name | Engineering Services for Development of the Kern County BPMP |
| Contact Person | Alexa Kolosky, Supervising Planner |
| Contact Information | akolosky@kerncounty.com; 661.862.5002 |
| Scope | BPMP development, bridge inspections, cost estimates * |
| Client Name | City of Sanger |
| Project Name | City of Sanger Bridge Preventive Maintenance Program |
| Contact Person | Josh Rogers, PE, City Engineer |
| Contact Information | jrogers@hymail.com; 559.246.9952 |
| Scope | BPMP development, bridge inspections, cost estimates, PS&E and construction support * |
| Client Name | Orange County Public Works Department |
| Project Name | Bridge On-Call Design Services Task 2: Bridge Inventory Management and Maintenance Program |
| Contact Person | Co Phung, PE, Senior Civil Engineer |
| Contact Information | co.phung@ocpw.ocgov.com; 714.245.4594 |
| Scope | Bridge inspections, inventory database, workplan and report development, cost estimating * |
| Client Name | Kings County Public Works Department |
| Project Name | Bridge On-Call Task 2: Bridge Inventory Management and Maintenance Program |
| Contact Person | Dominic Tyburski, PE, Director & County Road Commissioner |
| Contact Information | dominic.tyburski@co.kings.ca.us; 559.852.2698 |
| Scope | BPMP development, bridge inspections, cost estimates, PS&E and construction support * |

** Additional description of project scopes are included with the project information on the following pages.*

References - Comparable Projects

Figure E-2. Table of comparable contracts/projects entered into during the last five (5) years.

Bridge Preventive Maintenance Program (BPMP) Plan Development | Kern County, CA

Client: Kern County Public Works

Project Timeline: February 2021 - April 2022

Funding Source: HBP/Local

Key Staff: Mark Stiller (Task Order Manager), Steve Mislinski (PM), Mohan Char, David Kim, Lalit Maharjan

Client Reference: Alexa Kolosky | 661.862.5002 | jvivan@tulareciunty.gov

Kern County Public Works is responsible for the maintenance of the County's 151 bridges. Kern County contracted NCM to develop a Bridge Preventive Maintenance Program (BPMP) for the County in accordance with Caltrans Local Assistance Program Guidelines for Highway Bridge Program (HBP) Plan Funding. Funding eligibility is based on specific maintenance activities and work recommendations must be found in Caltrans bridge inspection records (BIRIS).

NCM analyzed Caltrans data to establish a shortlist of priority projects with work items that are eligible for reimbursement through the HBP program. NCM conducted site visits for priority bridge locations to confirm scope and compiled cost estimates for each bridge. Bridges were grouped and recommended for funding application by the County as part of a final BPMP summary report. The County will use the BPMP to implement future PS&E and construction projects.



Scope of Services: Bridge Inspections | Bridge Priority Ranking | Project Programming | Cost Estimating | Database Management | Reporting | Bridge Program Development | Bridge Preventive Maintenance Program Plan

Bridge Preventive Maintenance Program | City of Sanger, CA

Client: City of Sanger, CA

Project Timeline: August 2016 - February 2021

Program Cost: \$795k

Key Staff: Mark Stiller (Structures Lead), Steve Mislinski (PM), Mohan Char, David Kim

Client Reference: Josh Rogers | 559.246.9952 | jrogers@yhmail.com

The City of Sanger has 8 bridges of various types in its jurisdiction with all of them crossing over natural channels that are part of the Consolidated Irrigation District. The project was initiated by the City to identify eligible Bridge Preventive Maintenance Program (BPMP) needs, obtain funding through the Highway Bridge Program (HBP), clear and permit needed maintenance improvements under CEQA and NEPA, develop PS&E and implement the improvements. Specific work completed by NCM and its team includes the following:

- Utility studies to verify no utility conflicts
- Right of way studies to determine if TCE's would be needed for construction access
- Preliminary bridge and hydraulic engineering in support of environmental documentation and clearance for scour mitigation, slope paving repairs, methacrylate deck treatments, and spall repair
- Environmental analysis and documentation for the needed maintenance improvements and securing the required permits
- Development of PS&E, including traffic control plans for detours during construction
- Design support during bidding and construction

NCM was the prime engineering consultant responsible for managing the environmental clearance process and delivering all project elements that were required to complete preliminary engineering, final design and PS&E, as well as for design support during bidding and construction.



Scope of Services: Bridge Inspections | Bridge BPMP Needs | HBP Funding | Bridge Priority Ranking | Project Programming | Cost Estimating | Utilities | Environmental Analysis (CEQA/NEPA) | PS&E | Traffic Control Plans

Bridge Inventory Management and Maintenance Program | Orange County, CA

Client: County of Orange, CA

Project Timeline: November 2021 - Ongoing

Construction Cost: Approx \$1.5M / year

Key Staff: Mark Stiller (Project Manager), Mohan Char, Lalit Maharjan, David Kim, Brent Deets

Client Reference: Co Phung, PE |

714.245.4594 | co.phung@ocpw.ocgov.com

The County of Orange owns and maintains over 60 bridges in its jurisdiction and Orange County Public Works (OCPW) is responsible for planning and executing projects in support of this infrastructure. To maximize the efficacy of the County's project implementation, OCPW tasked NCM with the development of a Bridge Inventory Management and Maintenance Program. This effort begins with the development of a workplan that outlines the overall approach to bridge inventory management and maintenance, covering topics like regular and special inspection frequency, inspection procedures, work item scope and costs, ranking criteria for bridges and work items, etc. NCM also performed field inspections of each County bridge to confirm any work recommendations found in Caltrans reporting, capture photos, and to record a variety of site conditions. NCM compiled all data from inspection records and field work into a MS Access database. NCM created the database and a multitude of features to manipulate, sort, and isolate specific bridges based on their scores. Scores were assigned based on factors such as ADT, risk associated with outstanding work, and site conditions. NCM used



Scope of Services: Bridge Inspections | Bridge Priority Ranking | Project Programming | Cost Estimating | Database Management | Reporting | Bridge Program Development | Bridge Workplan Development

Bridge Preventive Maintenance Program Plan | Kings County, CA

Client: County of Kings, CA

Project Timeline: March 2015-October 2020

Construction Cost: >\$2.8MI

Key Staff: Mark Stiller (Structures Lead), Steve Mislinski (PM), Mohan Char, Kimberly Furuyama

Client Reference: Dominic Tybuski, PE |

559.852.2698 | dominic.tybuski@co.kings.ca.us

The Kings County bridge inventory has 110 bridges of various types. Many of the bridges are over natural drainage / creek channels with sensitive environmental settings. NCM was selected by the County to develop a Bridge Preventive Maintenance Program Plan, to clear and permit needed maintenance improvements under CEQA and NEPA and to develop PS&E for implementation. Responsibilities include the following:

- Evaluation of as-built information and bridge maintenance and inspection reports and completion of field reviews for condition verification
- Documentation of field review findings, and ranking/prioritization of bridges for the BPMP
- Development of cost estimates to complete the recommended maintenance improvements
- Development of a BPMP Plan report to document findings, project prioritization and costs
- Environmental analysis, documentation and permitting for the needed maintenance improvements
- Development of PS&E, including traffic control plans and bid and construction support



Scope of Services: Bridge Inspections | Bridge Priority Ranking | Project Programming | Cost Estimating | Database Management | Reporting | Bridge Program Development | Bridge Preventive Maintenance Program

Bridge Preventive Maintenance Program Plan | San Diego County, CA

Client: County of San Diego, CA
Project Timeline: Sep 2006 (BPMP complete); April 2017 PA/ED and PSE complete); Currently in Construction
Construction Cost: >\$5M
Key Staff: Mark Stiller (Structures Lead) Mohan Char (PM), Steve Mislinski, David Kim, Kimberly Furuyama
Client Reference: Chris Hanger | 559.852.2698 | christopher.Hanger@sdcounty.ca.gov



The County’s inventory consist of 174 total bridges for which NCM successfully delivered the BPMP, PA/ED and PS&E. The County’s BPMP project was one of the very first of its kind in the entire state. NCM key staff were responsible for following Federal guidelines in developing a bridge BPMP Plan which included some of the following activities:

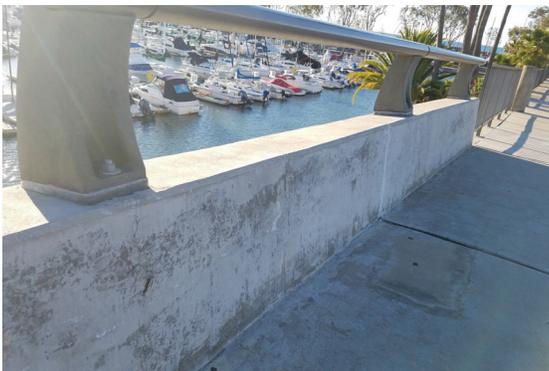
- Evaluation of existing as-built information, bridge inspection reports and performing initial scoring of the various maintenance needs.
- From the initial scoring, inspection priorities were set and 30 bridges were inspected to determine the extent of repairs needed.
- Each of the 30 bridges was re-scored based on the field inspection and reports were written for each bridge highlighting concerns and damage.
- Estimates for repair and maintenance based on field measurements and as-built plans were developed for each of the 30 bridges and inspection scores and estimates were summarized in a Bridge Preventive Maintenance Program Plan along with the field inspection reports.
- Assisting the County with the Funding Application Package and Fiscal Year Planning

Once the bridges received HBP (BPMP) funds, NCM received two task orders for PAED, PS&E and Bid & Construction Support for Bridge Painting project involving 1 bridge and BPMP project involving 18 bridges.

Scope of Services: BPMP Plan Development | Bridge Priority Ranking | Programming and Funding Support | Preliminary Engineering | Environmental Document | PS&E | Permits | Bid & Construction Support

Qualified Vendor List (QVL) for A-E | Orange County, CA

Client: Orange County Public Works
Status: Completed 12 Task Orders
Construction Cost: >\$1M
Key Staff: Mark Stiller (Project Manager), Mohan Char, David Kim, Lalit Maharjan
Client Reference: Co Phung, PE | 714.245.4594 | co.phung@ocpw.ocgov.com



County of Orange selected NCM for the Qualified Vendor List (QVL) in which A-E consultants are selected for various County services. Tasks may include review/support and development and PS&E for road/bridge/traffic projects. Orange County Public Works (OCPW) has assigned NCM 12 task orders to date. NCM has completed 10 task orders under this project with 2 projects underway. Below is a summary of 2 representative task orders executed under this contract.

Santa Ana River Bridge Improvements (Phase II): The Santa Ana River through Orange County is crossed by a multitude of bridges that connect the busy cities along its banks. This task included the completion of PS&E and construction support for the Phase II development. This project includes four bridge crossings over the Santa Ana River, Segerstrom/Slater Avenue Bridge, Hamilton/Victoria Avenue Bridge, Glassell Street Bridge, and Harbor Boulevard Bridge. The project included design of access-limiting modifications to the bridges in accordance with USACE standards. Coordination with USACE was required for design approval.

Bridge Preventive Maintenance Program PS&E: NCM completed PS&E for nine bridge preventative maintenance projects based on the OCPW BPMP. Each structure was inspected by NCM to confirm project scope and limits. Plans, specifications and estimates were prepared in OCPW format, specifically tailored to facilitate delivery through the County's JOC program. NCM also provided bid and construction support services through successful completion of each project.

Scope of Services: Bridge Inspections, Cost Estimating, PS&E, Construction Support, Engineering Studies

Bridge Preventive Maintenance Program & Santa Margarita River Bridge BPMP Improvements Delivery | Rancho Santa Margarita, CA

Client: City of Rancho Santa Margarita

Project Timeline: January 2015 - July 2021

Program Cost: \$3M (est.)

Key Staff: Mark Stiller (Structures Lead), Mohan Char (PM), Steve Misliniski, David Kim, Kimberly Furuyama

Client Reference: Tri Nguyen, PE | 949.635.1813 | tnguyen@cityofrsm.org

The City in its jurisdiction has 4 bridges, all of which traverse natural drainage / creek channels with sensitive environmental settings. NCM principals and key staff served in the role of Project Manager and bridge engineer for the development of the City's Bridge Preventive Maintenance Program Plan. Subsequently, NCM was contracted by the City to deliver the BPMP improvements for the Santa Margarita River (SMR) Bridge. Responsibilities for the BPMP development included:

- Evaluation of existing as-built information and bridge maintenance and inspection reports and completion of field reviews to verify BIRIS information
- Development of a field report to document findings and recommendations for the BPMP plan
- Development of improvement prioritization and cost estimates to implement the program
- Development of a BPMP Plan report to document findings, prioritization, costs and recommendations



Scope of Services: BPMP Plan Development | Bridge Priority Ranking | Cost Estimating

Bridge Preventive Maintenance Program Plan | Tulare County, CA

Client: County Tulare, CA

Project Timeline: October 2014-March 2015

Construction Cost: \$6 million

Key Staff: Mark Stiller (Structures Lead), Steve Misliniski (PM), Mohan Char, Kimberly Furuyama

Client Reference: Jason Vivian, PE | 559.747.8569 | jvivan@tularecounty.gov

NCM was responsible for development of a Bridge Preventive Maintenance Program Plan for the County's inventory of more than 340 bridges using field review documentation compiled by the County. The plan covers around 210 bridges with a total program cost of approximately \$6 million. NCM assessed the County's bridge inventory to identify structures that qualify for Bridge Preventive Maintenance under the Federal Highway Bridge Program, as well as to identify those better suited for rehabilitation or replacement funding. Main responsibilities and project features included the following:

- Review of Caltrans inspection reports and County field review notes
- Development of a bridge inventory database
- Ranking/prioritization of bridges based on County performed field reviews and Caltrans BIR's
- Development of cost estimates to complete the recommended maintenance improvements
- Development of a BPMP Plan report to document findings, project prioritization and costs



Scope of Services: BPMP Plan Development | Bridge Priority Ranking | Cost Estimating

F. Project Understanding, Overview and Approach



The NCM team’s understanding of the City/Wide Structural Bridge Inspection Services is based on review of the information provided in the Project RFP, the local agency bridge list for the City, and our extensive experience developing and delivering Bridge Preventive Maintenance Program (BPMP) and Highway Bridge Program (HBP) projects. The primary goal of the City’s project is to position the City for future bridge maintenance projects by scoping all needed work, planning delivery, and capturing federal BPMP funding.

Introduction

In August of 2005, the BPMP was modified to allow funding of local projects by The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU). SAFETEA LU extended reimbursable systematic bridge preventive maintenance activities to include bridges off the federal aid system (urban and rural local streets and roads and rural minor collectors). This makes all non-toll, public highway bridges with clear spans greater than 20 feet and toll bridges meeting the requirements of 23USC144(l) eligible for HBP funding for preventive maintenance activities. On December 23, 2015, Caltrans issued additional guidance to local agencies that standardizes local agency BPMP submittals with respect to policy and procedures. This guidance became effective on February 1, 2016. Bridges that are not on the National Bridge Inventory list or bridges with work that is not eligible for reimbursement through the BPMP framework must be completed using local funding. Our team will provide a plan for all City bridge needs, both federally participating and locally funded.

Bridge Preventive Maintenance Goals

Based on the BPMP guidelines, preventive maintenance is defined as “a planned strategy of cost-effective treatments applied to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without substantially increasing structural capacity).” Preventive bridge maintenance is a planned strategy of cost-effective treatments applied at the proper time to preserve and extend the useful life of a bridge.

Preserving the structural serviceability of the City’s bridge inventory is a key element of this program.

Bridge Preventive Maintenance Program Goals include the following:

- Maintain the existing County inventory of bridges in a structurally safe and serviceable condition
- Correct minor structural defects
- Correct minor structural deficiencies early in a bridge’s life, rather than wait until a bridge has major problems requiring costly rehabilitation, reconstruction or replacement
- Bridge and project selection process and grouping strategies

Preventive maintenance treatments include reducing the amount of water infiltrating the bridge, protecting the bridge elements, slowing the rate of deterioration, and repairing scour countermeasures.

Preventive Maintenance (PM) activities should concentrate on treating bridges that are in fair to good condition and show no more than minor structural distress. PM activities should not degrade safety or geometric aspects of the facility. In most cases, projects may be undertaken without geometric enhancements, significant reconstruction or considerable upgrades.

It is important to understand that once BPMP funding has been spent on a bridge, that bridge is not eligible for any Federal funding for ten years. As such, all BPMP qualifying maintenance activities should be identified for each bridge and included in the City’s program to ensure maximum participation. Furthermore, bridges that qualify for rehabilitation or replacement under the HBP should be identified and excluded from the BPMP Plan if rehabilitation or replacement funding will be pursued.

Project Description

To qualify for BPMP funds for commencement of environmental analysis, final design, PS&E and ultimately to implement preventive maintenance improvements, the City is required to develop a Bridge Preventive Maintenance Plan (BPM Plan).

Our understanding that the City’s BPM Plan will assess 11 bridges within the City’s jurisdiction. Two of these structures are railroad grade separations

and, because they carry the railroad and do not carry public traffic, are not eligible for HBP or BPMP funding. Of the remaining 9 structures, 8 have work recommendations made by Caltrans in their bridge inspection reports. BPMP eligible items are generally only approved for reimbursement through the program if those activities are consistent with the Caltrans work recommendations. Furthermore, not all recommendations made in the Caltrans inspection reports are eligible for BPMP reimbursement. These ineligible work activities would need to be performed using alternate or local funds.

Because of these various structures and work items that are ineligible for BPMP reimbursement but are still within the City’s jurisdiction to maintain, NCM’s approach must be holistic. We will identify:

1. which bridges and work is BPMP eligible and include with the BPMP
2. which bridges are HBP eligible for more significant work scopes and exclude from BPMP
3. scope work deemed necessary on the railroad grade separation
4. scope work that is ineligible for BPMP reimbursement but still necessary

Our team will compile a comprehensive final City Bridge Management Plan that serves as an outline and strategy for the maintenance of all City structures. The federal BPMP plan is a major component of this overall City plan.

Based on an initial review of the City’s bridge inventory, it is anticipated that all 11 bridges will have some work recommendations and 8 will have

BPMP reimbursable work activities. The scope of maintenance work is generally expected to include the following:

- Repair of spalled concrete, (deck, abutments, piers, bridge railing, etc.)
- Sealing of bridge decks with methacrylate
- Replacement of missing or failed steel fasteners
- Replacement of joint seals
- Scour mitigation measures

The BPMP Plan development process that NCM principals created for San Diego County and refined during development of the programs for Kings County, Tulare County, Kern County and others includes the following elements:

- Prioritization Procedures Development
- Field Review
- Final Ranking & Prioritization
- BPMP Plan Documentation

This process will be similar for all work within the City Bridge Management Plan that includes work that is eligible and ineligible for federal program reimbursement.

Project Delivery Plan

Project Prioritization Procedures

To satisfy BPMP guidelines, the City Bridge Management Plan should utilize objective procedures to prioritize the bridge preventive maintenance projects. The procedures used should also be documented in a final BPMP Plan report and maintained in the City project files for review in potential future audits.

Figure F-1. NCM has a comprehensive understanding of the process that must be followed to gain Caltrans approval and programming of funds.



NCM principals and key staff developed the BPM Plans for Kings County’s 110 bridge inventory, Tulare County’s 354 bridge inventory and San Diego County’s 174 bridge inventory and have a comprehensive understanding of the process that must be followed to gain Caltrans approval and programming of funds. Part of completing these plans included development of a process to initially screen the inventory and then rank/prioritize identified maintenance needs after completion of field reviews.

High priority projects should include the repair of scour countermeasures, embankment erosion control and the repair, restoration, and strengthening of structural elements. In addition, priority should be given to bridges that are not eligible for rehabilitation or replacement under the Federal Highway Bridge Program. The intent of the program is to keep these bridges in structurally good condition to maximize their service life and to conserve limited funds available for bridges that do require major rehabilitation or replacement. Note also that bridges rated Structurally Deficient (SD) with a sufficiency rating of 80 or less, generally do not qualify for BPMP funding if they have already been programmed for rehabilitation or replacement. A full list of maintenance items that qualify for funding under the Preventive Maintenance Program, as well as those that do not, are outlined in the Federal guidelines.

Prioritization Procedures Development.

NCM refined procedures that its principals developed for screening and prioritizing the San Diego County bridge inventory while assessing the bridge inventories of multiple other agencies following that project’s completion. The procedures initially use deficiencies and maintenance recommendations that are identified in Caltrans maintenance and inspection reports and are BPMP eligible. A scoring system, consistent with the Caltrans Element Level Inspection Manual (ELIM) as shown in **Figure F-2, below**, was developed to rank bridge condition with respect to BPMP reimbursable maintenance improvements identified in the Caltrans reports. Weight factors were also assigned to each reimbursable maintenance improvement to account for the relative critical or minor nature of the improvement. For example, embankment erosion

Figure F-2. NCM has refined procedures for screening and prioritizing bridge inventory programs.

NCM principals developed a spreadsheet program for the San Diego County BPM Plan that has been significantly refined during use on several other BPM Plans, most recently for Kings and Tulare Counties. The spreadsheet identifies all 16 eligible maintenance activities and uses a scoring system with importance weight factors to efficiently screen and prioritize a bridge inventory. The spreadsheet can also be used to track condition and maintenance activities for each bridge in the County’s inventory. With this process already defined and approved by Caltrans, NCM is positioned to hit the ground running on day one.

| State Bridge No. : 46C0001 | | ON: ROAD 196 | | Sufficiency Rating: 80.4 |
|---------------------------------------|---|---------------------|---------------|--------------------------|
| Bridge Location : 1.75 MI N OF SR 198 | | OVER: PEOPLES DITCH | | Health Index: 93.2 |
| Bridge Type : STEEL STRINGERS | | | | PCI: 75 |
| Status: | | | | |
| Item No. | Maintenance Parameter | Score (1-5) | Weight Factor | Item Total |
| 1 | Expansion Joint Seal & Assembly | 5 | 8 | 40 |
| 2 | Deck Surface/Overlay | | | |
| | Concrete Deck Surface | | 5 | 0 |
| | AC Overlay | | 6 | 0 |
| 3 | Bridge Bearing/Supports | | 7 | 0 |
| 4 | Major Structural Elements | | | |
| | Deck Slab/Soffit | | 5 | 0 |
| | Main Girders/Slabs | | 10 | 0 |
| | Cap Beams/End Diaphragm | | 7 | 0 |
| | Columns/Pile Extension | | 8 | 0 |
| | Arches | | 10 | 0 |
| | Abutments | 1 | 3 | 3 |
| | Pier Walls | | 6 | 0 |
| 5 | Timber Structural Elements | | | |
| | Timber Railing | | 10 | 0 |
| | Timber Deck Runners | | 7 | 0 |
| 6 | Moveable Bridge Components | | | |
| | Mechanical Elements | | 5 | 0 |
| | Electrical Elements | | 5 | 0 |
| 7 | Steel Girders - Fatigue Critical Details | | 6 | 0 |
| 8 | Structural Steel Paint (Paint Condition Index (PCI) must be great than 65 to qualify) | | | |
| | Bridge Railing | | 2 | 0 |
| | Girders/crossframes | 3 | 2 | 6 |
| 9 | Deck Drainage Elements | | 4 | 0 |
| 10 | Bridge Railing/Barrier | | 7 | 0 |
| 11 | Embankment Erosion Protection | | 10 | 0 |
| 12 | Existing Scour Countermeasure | | 10 | 0 |
| 13 | Approach/Approach Slab | 2 | 8 | 16 |
| 14 | Evidence of Alkali-Silica-Reactive Aggregate | | 7 | 0 |
| 15 | Active Corrosion | | 7 | 0 |
| 16 | Fracture Critical Elements | | 9 | 0 |
| 17 | No. of BPMP Approved Recommended Maintenance Procedures | | 10 | 0 |
| | | | Total Score | 65 |

Notes:

- 1) DECK A/C Removal - 3" A/C on deck. (Maint. Needed N/A)
- 2) Bridge Approach A/C Repair - Yes. Approach south side settled and alligator cracked.
- 3) Signs - P Markers OK. (Maint. Needed N/A)

a) AC over the expansion joints and moisture leaking through the joints onto the bearings and the ends of the steel girders

b) Minor spall (12" x 4" x 1" deep) at the RT side of Abut 1

c) Surface clean, spot blast areas of rust and fully paint the steel elements

and repair of scour countermeasures are considered to be the most critical maintenance improvements and use a weight factor of 10 while touch-up painting of steel elements is considered less critical and uses a weight factor of 2. The initial scoring is updated after field reviews. This process has been streamlined through development of a macro driven spreadsheet to automate the ranking / prioritization process and also to incorporate specific agency preferences, such as revisions to weight factors.

Bridge Assessment and Field Review

After establishing criteria and database management approach, the initial data collection and scoring will be based on a review of available bridge inspection reports and records. This information would be used by NCM to prepare for the field review stage of the project and to complete much of the database entry. NCM would proceed with field reviews of each structure once initial data collection and desktop review were complete. Field reviews would be conducted in accordance with Caltrans ELIM by registered engineers. Field reviews would be visual inspection/observation to verify BPMP reimbursable maintenance needs identified in the Caltrans maintenance and inspection reports, as well as to check for additional maintenance needs. Inspections of the two railroad grade separations would be conducted from City property and would not encroach on the railroad right-of-way. Information gathered would be used to update the screening/ranking spreadsheet program. NCM will complete field inspection reports to document conditions, findings, quantities and photos for the City's records.

Preliminary Hydraulic Assessment

Based on our previous BPMP experience, potential maintenance improvements could include repair of scour countermeasures and associated streambed grading. Work recommendations may also include and construction of bank erosion countermeasures and AC dyke and drainage improvements to correct scour and bank erosion issues.

Depending on site conditions, solutions for erosion control and bank protection may range from simple rock slope protection to environmentally sensitive biological bank stabilization. The design approach for bridge decks and approach roads drainage improvements should:

- Avoid point discharge and therefore eliminate the erosion potential
- Collect concentrated flows and provide adequate energy dissipating systems.

We typically find that drainage from the approach and bridge deck is carried across the bridge joint and allowed to flow around approach barriers and down the embankment along the bridge wingwall. This can result in erosion around the wingwall end and down the embankment or channel bank. One method that we have recently employed to eliminate this type of erosion issue is to construct AC dyke along the approaches and tie into the bridge railing to direct drainage flows to a drainage collection system or drainage swale. All erosion and drainage repairs should consider factors such as the construction cost, constructability, and ease for maintenance. Risks include impacts to special status species and sensitive habitats. Erosion control measures should minimize impacts to sensitive systems.

Traffic Control and Temporary Work

Implementation of bridge construction work necessarily entails some level of traffic control, restriping of traffic stripes, signage, etc. Based on the work proposed for each bridge, our team will identify the potential scope of these related activities enough to inform the team's cost estimates and environmental documentation or permitting needs.

Utility & Railroad & Right-of-Way Constraints

For bridge repair work, repair operations are not typically hindered by existing utilities; however, to avoid issues during construction of repairs, any conflicts that require temporary or permanent relocation should be identified during the BPMP Plan development stage to ensure accurate project cost estimates and sufficient programming of funds. Preliminary utility research and field verification during the BPMP Plan development phase will ensure proper programming and position utility coordination efforts for a quick start during the environmental and design phases.

Similarly, right-of-way constraints on any of the proposed work activities will be identified based on available Orange County Assessor parcel mapping. NCM expects all bridge work to be within City right-of-way and will confirm through this review effort. The City should also have Construction and Maintenance Agreements (C&M) for each of the railroad grade separations. These documents should clarify roles, process and responsibilities associated with any maintenance work performed on the railroad bridges. NCM will utilize these document requirements to capture costs such as permitting, flagging, inspections and other items typically found in C&M agreements.

Environmental Permitting Assessment

For proper programming of the City's BPMP, it is important to capture environmental documentation, permitting and mitigation costs to ensure that the program is not underfunded. A preliminary environmental permitting assessment should be conducted to itemize the potential environmental factors and constraints and to make a preliminary judgment regarding required environmental technical studies and permitting and mitigation requirements and costs for each maintenance project.

It is also important to understand that Caltrans will likely lump all projects with the same Federal project number together, including for environmental clearance and permitting. As such, all projects would be on hold until the most environmentally sensitive projects are cleared. To ensure that risks to the project schedule are mitigated, packaging of projects should be done to combine projects with similar environmental requirements, and the City should request different Federal project numbers for each group.

Under the National Environmental Policy Act (NEPA), rehabilitation or repair of City bridges should qualify for a NEPA Categorical Exclusion (CE), provided the actions meet the definition contained in 40 CFR 771.117 and do not involve significant impacts. In addition, bridge repairs are eligible for a Categorical Exemption under the California Environmental Quality Act (CEQA) provided the repair actions meet the definition contained in Section 15300 and 15301 of the CEQA Guidelines. However, a CEQA CE excludes public review, which may not meet recommendations of the California Department of Fish and Game with respect to their Responsible Agency obligations in processing a Streambed Alteration Agreement should repair work include streambed grading. In Addition, if technical studies indicate that project-related impacts require mitigation, an Initial Study/Mitigated Negative Declaration (IS/MND) may be required.

For a bridge repair program, the largest environmental risks are associated with work that could impact special status species or sensitive habitats, such as work on the banks or in the channel of a natural drainage where biological resources evaluation would need to be prepared. Furthermore, agency consultation would be required for listed species, and permits would be required from the Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

Final Ranking & Prioritization

The final step prior to documentation for developing a BPMP Plan is to conduct a final ranking of bridges to prioritize bridge inventory maintenance needs. The process involves updating the screening/ranking spreadsheet program to prioritize the reimbursable projects and should also include preliminary environmental, hydraulic and utilities assessments to ensure that all major cost factors are included in the plan cost estimate. This database of assessments and cost estimates will include all City structures and all work items, not just BPMP eligible bridge work.

BPMP Plan Documentation

The final steps in developing a BPMP Plan is to document the processes used and assessments performed to identify and prioritize reimbursable maintenance projects by bridge. This document is prepared for submittal to Caltrans Local Assistance and is focused on just those BPMP activities and bridges that are eligible for reimbursement through the HBP program. The same programming estimates will be made for ineligible work items and bridges for the City's use in budgeting work through alternate/local funding sources.

The report should outline recommendations for packaging of groups of bridges with the same or similar maintenance needs and present preliminary cost estimates for design and construction for recommended improvements. Packaging should also consider the City's Capital Improvement Program and available funds to apply toward the City's match each fiscal year of the program delivery. In addition, anticipated environmental permitting requirements should be presented and packaging of projects should take into account environmental factors to ensure that projects requiring more extensive environmental studies and permitting, such as scour countermeasures repair or creek/waterway re-grading, do not delay projects with minimal environmental requirements. For example, bridges with maintenance work that takes place at the deck level or with no disturbance to sensitive environmental sites, such as deck repair/sealing, joint seal replacement and spall repair, should be segregated and processed for early delivery.

Project Delivery Cost Estimates

Development of cost estimates for maintenance improvements at each bridge will be used to establish a total program cost that will be submitted to City for programming. As such, it is important to ensure that all project delivery costs are captured

to avoid underfunding the program. Based on our past experience, program cost should include the following primary cost factors:

- 1. Preliminary Engineering**
 - a. Environmental Documentation
 - b. Final Design and Development of PS&E
- 2. Administration** (County Administration & Management)
- 3. Right of Way** – typically right of way engineering for temporary construction easements if necessary
- 4. Construction** (Includes Mobilization)
- 5. Construction engineering and administration** to cover construction management and City administration and management

Contingencies of 25% would be applied to construction and preliminary engineering costs due to scope uncertainty at the planning stage. Mobilization for construction would be estimated as 20% of the construction cost due to the small project sizes that are typical of bridge preventive maintenance, and the standard 15% of construction cost factor would be used to estimate Construction Engineering and Administration.

BPM Plan Delivery Timeline

The following table presents a draft delivery timeline based on execution of an agreement in September 2022. The timeline allows City review times of 2 weeks for most memos and 3 weeks for the Field Review Memo and more for the Draft BPMP Report.

| Milestone | Delivery Date |
|-------------------------------|-------------------|
| NTP | October 10, 2022 |
| Draft Prioritization Criteria | November 4, 2022 |
| Final Prioritization Criteria | December 9, 2022 |
| PM Activity Summary Report | January 6, 2023 |
| Draft Bridge Database | February 17, 2023 |
| Final Bridge Database | March 24, 2023 |
| Draft BPMP Package | April 14, 2023 |
| Final BPMP Package | May 12, 2023 |
| BPMP Submittal to Caltrans | May 26, 2023 |

Project Management and Project Controls

NCM has a proven project management approach that has been structured to ensure on-time project delivery within budget. Our proposed Project Manager, Mark Stiller, will be dedicated to the project and act as the single point of contact for the City. Mark will work closely with City management and staff to refine the project schedule and project delivery plan. NCM’s delivery team is almost exclusively in-house and our subconsultant, GPA, is a close and regular associate that has proven record of reliability and quality. Our team is structured for smooth operation so our management can focus on the City, stakeholders, and project delivery.

A key element of Mark’s management approach is flexibility and the ability to adapt to changing project needs by continuously monitoring schedule and budget and scaling activities as appropriate to achieve project delivery goals. Mark will closely monitor the project to ensure adherence to schedule and budget, taking full advantage of the numerous internal budgetary tracking systems utilized by NCM. Our tracking system is 100% online and allows for real time monitoring of project budget. The system is capable of producing accurate and up-to-date earned value reports and estimates to complete any day of any month. The graphic below indicates the four-step process we use to monitor all our projects. These tools and processes allow Mark to identify any fledgling issues before they become detrimental to the project schedule or scope, so the project is delivered on-time and on-budget.

Cost Control Techniques

NCM has a proven project management approach that has been structured to ensure on-time project delivery within budget. A key element of the approach is flexibility and the ability to adapt to changing project needs by continuously monitoring schedule and budget and scaling activities as appropriate to achieve project delivery goals. Mark will closely monitor the project to ensure adherence to schedule and budget, taking full advantage of the numerous internal budgetary tracking systems utilized by NCM. The system is 100% online and allows for real time monitoring of project budget. The system is capable of producing accurate and up-to-date earned value reports and estimates to complete any day of any month. **Figure F-1** below, indicates the four-step process we use to monitor all our projects.

Quality Assurance/Quality Control (QA/QC) Plan

NCM follows a defined procedure for reviewing/checking all deliverables, from studies and reports to plans, quantities and cost estimates. NCM will perform work for this project in accordance with a project-specific quality assurance manual. Steve Mislinski will develop and enforce the QA/QC plan to verify that documents meet standards for accuracy and completeness in accordance with City and NCM requirements. **Figure F-2, Quality Control Plan Components**, shows the key components and steps in the Quality Assurance/Quality Control Plan.

Independent Quality Assurance Audits

A comprehensive program of planned and systematic audits by an independent team within NCM will verify that the team has effectively developed, documented, and implemented all applicable elements of the design quality assurance manual in accordance with the specified requirements. Mark will initiate this process at the beginning of all design activities and continue this verification through to each deliverable’s completion.

A comprehensive QA/QC program is vital and particularly important for a PS&E project to ensure that the design is thoroughly reviewed and complete to enhance constructability and minimize change orders, errors, and omissions. approach, will ensure the delivery of this project on-time and on-budget.

Subconsultant QA/QC

NCM’s QA/QC procedures extend to our subconsultants as well. Each subconsultant adopts applicable elements of our quality assurance and control program and is subject to the same quality assurance and control reviews. NCM will also provide oversight review of subconsultant-produced documents and exhibits prior to milestone submittals.

Response Procedures

An additional step that we will implement is a formal response procedure to comments received on the deliverables. NCM takes a proactive stance in addressing issues and comments as they arise, tracking them through resolution. This avoids the need for rehashing previous issues or the multi-cycle reviews and responses at each submittal milestone.

Figure F-1. Four Step Process for Monitoring and Keeping Projects on Track



Figure F-2. Quality Control Plan Components



Scope of Work - Scope of Services (Section III in this RFP) copied, in its entirety.**III. PROJECT BACKGROUND**PDF Images of **A – Scope of Work** on pages 1-3 of the RFP, copied in its entirety below.

The City of Yorba Linda is responsible to maintain 11 bridges. Caltrans has inspected these bridges and is recommending maintenance on several of them. See Appendix 3 for attached Caltrans “Structural Maintenance & Investigation” bridge list and Caltrans Bridge Inspections Records Information System for Caltrans bridge inspections for the City of Yorba Linda. The City of Yorba Linda is applying for the Bridge Preventative Maintenance Program (BPMP) which requires a thorough inspection of all bridges in Yorba Linda.

A – Scope of Work**Purpose**

To provide structural bridge inspection and related services determined to be reasonably necessary in analyzing the structural integrity and longevity of the City’s bridges utilizing Caltrans standard rating and reporting system and recommending appropriate repair and maintenance actions. In accordance with BPMP Guidelines, the consultant shall develop procedures for prioritizing preventative maintenance projects on the City’s bridge inventory. See Appendix 3 (Caltrans Bridge Inspections Records Information System) for Caltrans bridge inspections for the City of Yorba Linda.

TASK 1: PREPARE PRIORITIZATION CRITERIA FOR BRIDGE PREVENTIVE MAINTENANCE PROJECTS

Prioritization shall be based on several applicable criteria, starting with: 1) high priority given to repair of scour countermeasures, embankment erosion control and repair, and strengthening of structural elements, and 2) priority to bridges not HBP-eligible.

TASK 2: BRIDGE ASSESSMENTS**TASK 2.1 REVIEW AVAILABLE INFORMATION AND CALTRANS BRIDGE INSPECTION REPORTS**

Prior to visiting the bridges, Consultant shall review all available bridge inspection reports (BIR) prepared by Caltrans. In addition to the BIRs, consultant shall review bridge as-built plans (if available).

TASK 2.2 CONDUCT BRIDGE FIELD INSPECTIONS

Field inspection of the bridges should include verification of the previously identified repairs listed in the BIRs and to assess site conditions that may affect preventive maintenance activities. This will include determining the extent of repairs needed, chaining the deck to verify the extent of concrete delamination if deck rehabilitation is recommended and if chaining is feasible and safe without traffic control, and noting constraints. Any maintenance items observed but not identified in the BIRs shall be assessed and documented. During the site visits, potential construction issues and restrictions shall be noted. Field conditions, such as staging and traffic control needs shall also be noted.

In addition to assessing required repairs, the following observations shall be made at each site:

- Traffic control requirements
- Right-of-Way impacts and access issues
- Potential staging areas, if needed
- Environmental sensitive areas, impacts and likely permit requirements
- Nearby schools or businesses that could be impacted by volatile organic compounds associated with methacrylate treatment
- Clearance issues
- Utility conflicts
- Potential scour issues and countermeasures
- Other constraints.

TASK 3.1 ESTIMATE PROJECT COSTS

Consultant shall prepare a construction cost estimate for each preventive maintenance task. The estimated project cost for each bridge will include the maintenance treatment along with temporary traffic control items such as K-rail, flagging, traffic stripe removal and replacement, construction area signs, and temporary railing. These estimates will be used for planning and programming of construction funding to be submitted to Caltrans.

TASK 3.2 PREVENTIVE MAINTENANCE ACTIVITY SUMMARY

Field observations shall be summarized in a preventive maintenance activity/condition report and submitted to the City for review. The report will include condition assessments, preventive maintenance activity recommendations pursuant to Caltrans standard rating system, and cost estimates. This report shall include field notes along with as-built plans and photos documenting the repairs needed for each structure.

TASK 4 – PRIORITIZE PROJECTS

Using the procedures and criteria developed, the Consultant shall prepare a spreadsheet that summarizes all the relevant data for each bridge, including prioritizing the preventive maintenance needs and identifying other required work. It will include basic data on each bridge from the BIR, applicability for HBP funding for preventive maintenance items, description of proposed work, estimated project cost, its priority, and applicability of special criteria, such as importance of the bridge.

TASK 5 – SUBMIT FINAL BPMP TO CITY

The BPMP required for approval and funding will be compiled, as described in Task 5, for all bridge preventive maintenance activities. The report will include: all information developed for each bridge; recommendations for activities, and proposed grouping of preventive maintenance projects for multiple bridges into PS&E packages based on type of work to be performed, environmental issues or funding constraints.

Consultant shall prepare a cover letter, as required by the BPMP Guidelines, certifying compliance with the guidelines.

G. Schedule of Compensation/Fees



Section III. D of the RFP - Instructions to Proposers and Procedures for Submittal

Per **Section III.D of the RFP – Instructions to Proposers and Procedures for Submittal**, NCM's Cost proposal is included via email with the proposal, as a separate file.

EXHIBIT C

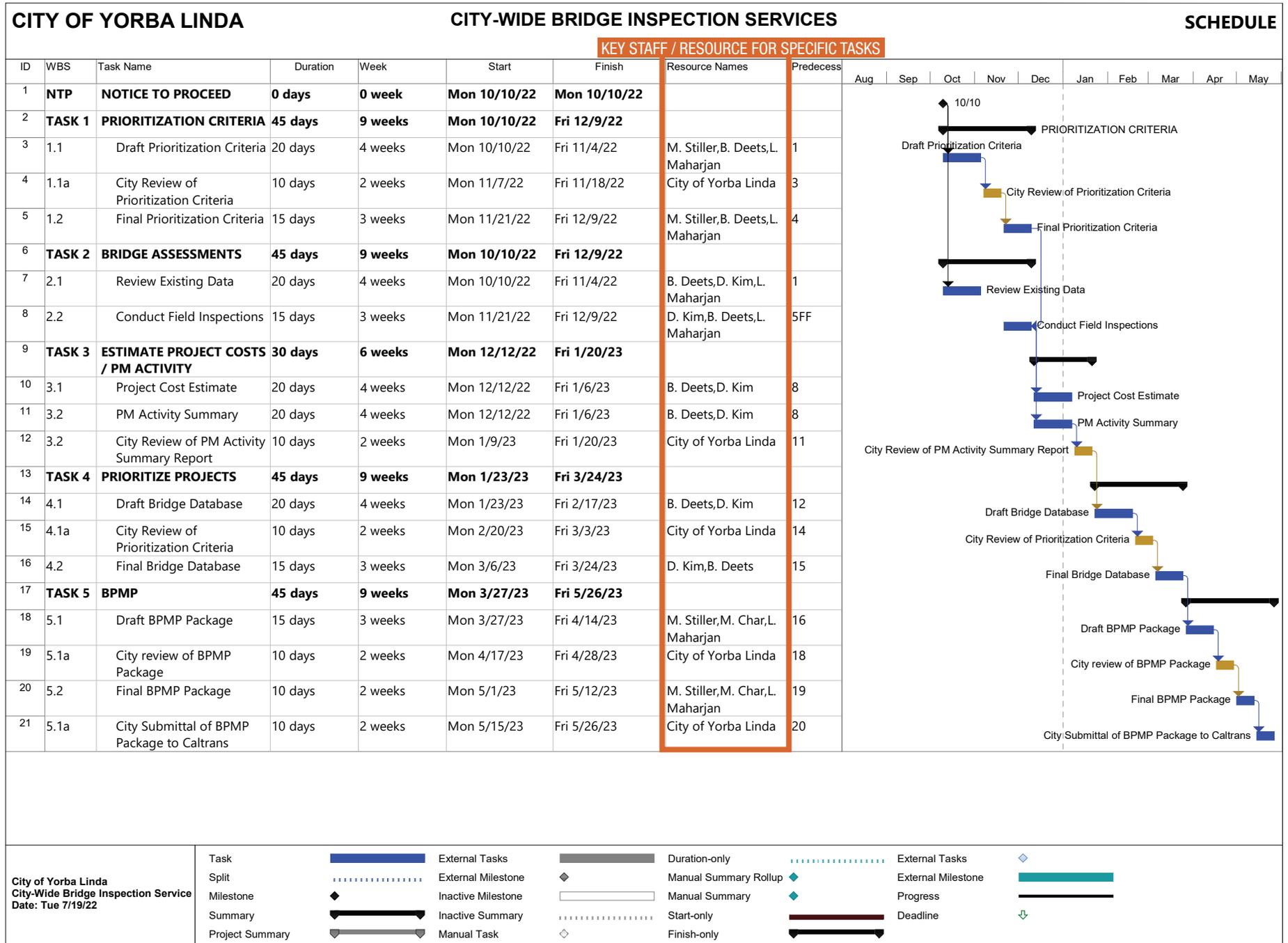
SCHEDULE OF PERFORMANCE

Consultants Project Schedule is attached and made a part of this agreement. Consultant shall complete services presented within the scope of work contained within Exhibit "A" in accordance with the attached project schedule.

H. Project Schedule



Figure H-1. Task-Based Project Schedule



I. Proposal Forms



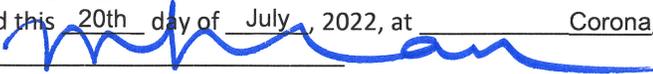
NON-COLLUSION AFFIDAVIT

The undersigned represents and certifies that:

1. This Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation.
2. This Proposal is genuine and not collusive or sham.
3. The Proposer has not directly or indirectly induced or solicited any other Proposer to put in a false or sham proposal and has not directly or indirectly colluded, conspired, connived, or agreed with any other Proposer or anyone else to put in sham proposal or to refrain from submitting to this RFP.
4. The Proposer has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price or to fix any overhead, profit or cost element of the proposal price or to secure any advantage against the City of Yorba Linda or of anyone interested in the proposed contract.
5. Proposer affirms that all statements contained in the Proposal and related documents are true and correct.
6. Proposer has not directly or indirectly submitted the proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay any fee to any person, corporation, partnership, company, association, organization, RFP depository, or to any member or agent thereof to effectuate a collusive or sham proposal.
7. Proposer has not entered into any arrangement or agreement with any City of Yorba Linda public officer in connection with this proposal.
8. Proposer understands that collusive bidding is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards.

I declare under penalty of perjury pursuant to the laws of the State of California and the United States that the foregoing facts are true and correct.

Executed this 20th day of July, 2022, at Corona, California.



Signature of Authorized Representative

Mohan Char, PhD, PE

Name of Authorized Representative

Chief Executive Officer

Title of Authorized Representative

CONSULTANT'S ACKNOWLEDGEMENT OF COMPLIANCE
WITH INSURANCE REQUIREMENTS FOR
AGREEMENT FOR PROFESSIONAL SERVICES

Consultant agrees, acknowledges, understands and is fully aware of the insurance requirements as specified in Section 5, Insurance Requirements of the attached sample Agreement for Professional Services (Appendix 2) and hereby accepts all conditions and requirements as contained therein.

Consultant: NCM Engineering Corp
Name (Please Print or Type)

By: 
Chief Executive Officer
Consultant's Signature & Title

Date: July 20, 2022

This executed form must be submitted with proposal.

CERTIFICATION OF PROPOSAL
TO THE CITY OF YORBA LINDA

The undersigned hereby submits its proposal and agrees to be bound by the terms and conditions of this Request for Proposal (RFP). By signing the Certification of Proposal and submitting a proposal to the City in response to this Request for Proposals, the Proposer hereby represents and certifies that:

- A) No elected or appointed official, officer, or employee of the City has been or shall be compensated, directly or indirectly, in connection with this proposal or for any work connected with this proposal; should any agreement be approved in connection with this Request for Proposals (“Agreement”) no elected or appointed official, officer, or employee of the City, during the term of his/her service with the City, shall have any direct or indirect financial interest in the Agreement, or obtain any present, anticipated, or future financial interest or other material benefit arising therefrom;
- B) No elected or appointed official, officer, or employee of the City shall have any financial interest, direct or indirect, in the Agreement nor shall any such official, officer, or employee participate in any decision relating to the Agreement which effects his/her personal financial interest or the financial interest of any corporation, partnership, or association in which they are, directly or indirectly, interested in violation of state law;
- C) The Proposer and its principals do not have now, nor shall it acquire any financial or business interest that would conflict with the performance of services under the Agreement;
- D) Proposer shall represent and certify that it does not and will not discriminate against any employee or applicant for employment because of race, religion, gender, color, national origin, sexual orientation, ancestry, material status, physical condition, pregnancy or pregnancy related conditions, political affiliation or opinion, age or medical condition;
- E) By submitting the response to this request, Proposer agrees, if selected, to furnish services to the City in accordance with this RFP;
- F) Proposer has carefully reviewed its proposal and understands and agrees that the City is not responsible for any errors or omissions on the part of the Proposer and that the Proposer is responsible for them;
- G) It is understood and agreed that the City reserves the right to accept or reject any or all proposals and to waive any informality or irregularity in any proposal received by the City;
- H) The proposal response includes all of the commentary, figures and data required by the Request for Proposal, dated 6/20/2022

- I) The proposal shall be valid for 180 days from the due date of this RFP.

Name of Proposer: NCM Engineering Corp

By: 

(Authorized Signature)

Type Name: Mohan Char, PhD, PE

Title: Chief Executive Officer

Date: July 20, 2022

**CONSULTANT'S ACKNOWLEDGEMENT OF RECEIPT AND UNDERSTANDING OF
THE CITY WIDE STRUCTURAL BRIDGE INSPECTION SERVICES**

Consultant acknowledges that he/she has received a copy of the CITY WIDE STRUCTURAL BRIDGE INSPECTION SERVICES and confirms that he/she has reviewed and understands all conditions and requirements as contained therein. Consultant also acknowledges that the Proposal is consistent with the terms of the CITY WIDE STRUCTURAL BRIDGE INSPECTION SERVICES.

Consultant: Mohan Char, PhD, PE Chief Executive Officer
Name (Please Print or Type) and Title

By: 

Consultant's Signature

Date: July 20, 2022

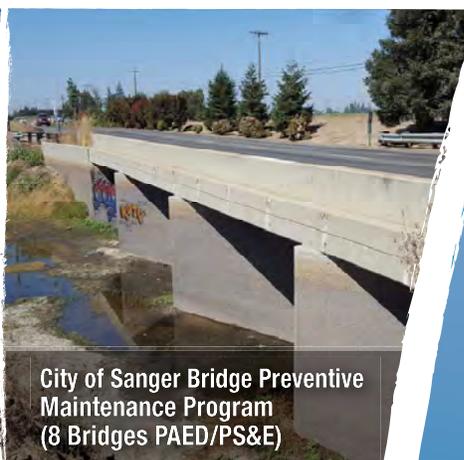
This executed form must be submitted with proposal.



Kern County Bridge Preventive Maintenance Program Plan (151 Bridges)



City of Rancho Santa Margarita Bridge Preventive Maintenance Program Plan (3 Bridges)



City of Sanger Bridge Preventive Maintenance Program (8 Bridges PAED/PS&E)



Edinger Avenue Bridge Replacement over Bolsa Chica Channel



Boulder Avenue Bridge Replacement over City Creek

SUBMITTED TO:

City of Yorba Linda



PUBLIC WORKS DEPARTMENT

JULY 20, 2022

SUBMITTED BY:

NCM

www.ncmcivil.com

9850 Research Drive Irvine, CA 92618

Tel: 949.294.7358

EXHIBIT B

SCHEDULE OF COMPENSATION

Payment shall be on a “Fixed Fee” basis in accordance with the Consultants Schedule of Compensation attached herewith for the work tasks performed in conformance with Section 2.2 of the Agreement. Total compensation for all work under this contract shall not exceed **Ninety-Five Thousand, Two Hundred Thirty Dollars and Eighty-Four Cents (\$95,230.84)** except as specified in Section 1.2 - Changes and Additions to Scope of Services of the Agreement.

CITY OF YORBA LINDA | PUBLIC WORKS DEPARTMENT

CITY-WIDE STRUCTURAL BRIDGE INSPECTION SERVICES



Orange County Bridge Inventory Management and Maintenance Program (64 Bridges)



Kings County Bridge Preventive Maintenance Program Plan (110 Bridges)



Tulare County Bridge Preventive Maintenance Program Plan (340 Bridges)



San Diego County Bridge Preventive Maintenance Program Plan (174 Bridges)

SCHEDULE OF COMPENSATION/FEE'S

SUBMITTED TO:

City of Yorba Linda



PUBLIC WORKS DEPARTMENT
JULY 20, 2022

SUBMITTED BY:

NCM

www.ncmcivil.com

9850 Research Drive Irvine, CA 92618
Tel: 949.294.7358

G. Schedule of Compensation/Fees



CITY OF YORBA LINDA | CITY-WIDE BRIDGE INSPECTION SERVICES



COMPENSATION / PAYMENT SCHEDULE

| Employee Name and Classification | Project Principal | QA/QC Manager | Project Manager | Structures Lead | Technical Support Lead | Senior Bridge Engineer | Bridge Engineer | Assistant Bridge Engineer | Senior Civil Engineer | Assistant Civil Engineer | | Subtotal Hours | Subtotal Labor Amount |
|---|-------------------|---------------|-----------------|-----------------|------------------------|------------------------|-----------------|---------------------------|-----------------------|--------------------------|--|----------------|-----------------------|
| Hourly Billing Rate for Duration of Contract | | | \$205.00 | \$170.00 | \$175.00 | \$165.00 | \$145.00 | \$110.00 | \$165.00 | \$140.00 | | | |
| Tasks | | | | | | | | | | | | | |
| Task 1: Prioritization Criteria | | | | | | | | | | | | | |
| 1.1 Draft Prioritization Criteria | | | 4 | 16 | 4 | 4 | | | | | | 28 | \$4,900.00 |
| 1.2 Final Prioritization Criteria | | | 2 | 8 | 4 | 4 | | | | | | 18 | \$3,130.00 |
| Subtotal Task Hours and Labor Amount | | | 6 | 24 | 8 | 8 | | | | | | 46 | \$8,030.00 |
| Task 2: Bridge Assessments | | | | | | | | | | | | | |
| 2.1 Review Existing Data | | | | | | | 24 | | | | | 24 | \$3,480.00 |
| 2.2 Conduct Field Inspections | | | | 32 | 40 | 40 | | | | | | 112 | \$19,040.00 |
| Subtotal Task Hours and Labor Amount | | | | 32 | 40 | 40 | 24 | | | | | 136 | \$22,520.00 |
| Task 3.1: Estimate Project Costs | | | | | | | | | | | | | |
| 3.1.1 Project Cost Estimate | | | | 4 | 4 | | 8 | 16 | 8 | 8 | | 48 | \$6,740.00 |
| Subtotal Task Hours and Labor Amount | | | | 4 | 4 | | 8 | 16 | 8 | 8 | | 48 | \$6,740.00 |
| Task 3.2: PM Activity Summary | | | | | | | | | | | | | |
| 3.2.1 Draft Summary Report | | | 8 | 8 | 8 | | 40 | | 8 | | | 72 | \$11,520.00 |
| 3.2.2 Final Summary Report | | | 4 | 8 | 4 | | 8 | | 4 | | | 28 | \$4,700.00 |
| Subtotal Task Hours and Labor Amount | | | 12 | 16 | 12 | | 48 | | 12 | | | 100 | \$16,220.00 |
| Task 4: Prioritize Projects | | | | | | | | | | | | | |
| 4.1 Draft Bridge Database | | | 4 | 8 | 4 | 16 | 32 | | | | | 64 | \$10,160.00 |
| 4.2 Final Bridge Database | | | 4 | 4 | | 4 | 8 | | | | | 20 | \$3,320.00 |
| Subtotal Task Hours and Labor Amount | | | 8 | 12 | 4 | 20 | 40 | | | | | 84 | \$13,480.00 |
| Task 5: BPMP | | | | | | | | | | | | | |
| 5.1 Draft BPMP Package | | | 8 | 24 | | | 24 | 8 | | | | 64 | \$10,080.00 |
| 5.2 Final BPMP Package | | | 4 | 8 | | | 4 | | | | | 16 | \$2,760.00 |
| Subtotal Task Hours and Labor Amount | | | 12 | 32 | | | 28 | 8 | | | | 80 | \$12,840.00 |
| Provided at no additional cost to the City | | | | | | | | | | | | | |
| Provided at no additional cost to the City | | | | | | | | | | | | | |
| Total NCM Labor Costs | | | | | | | | | | | | 494 | \$79,830.00 |

| Other Direct Costs | Quantity: | Unit | Unit Cost | Total |
|--------------------|-----------|------|-----------|-----------|
| Mileage | 400 | mile | 0.625 | \$ 250.00 |
| Reproduction | 4 | each | 100 | \$ 400.00 |

| Subconsultant Charges | |
|-----------------------|--------------|
| GPA Consulting | \$ 14,750.84 |

Total Other Direct Costs \$650.00

Total Subconsultant Costs \$14,750.84

Total Cost \$95,230.84

CITY OF YORBA LINDA | CITY-WIDE BRIDGE INSPECTION SERVICES



COMPENSATION / PAYMENT SCHEDULE

| Employee Name and Classification | Senior Associate Environmental Planner | Environmental Planner | Senior Associate Architectural Historian | Senior Associate Biologist | Senior Biologist | Biologist | Senior GIS Analyst | | | | | Subtotal Hours | Subtotal Labor Amount | |
|---|--|-----------------------|--|----------------------------|------------------|-------------|--------------------|--------------|--|--|------------|--------------------|-----------------------|-------------------|
| | Hourly Billing Rate for Duration of Contract | \$219.59 | \$79.86 | \$159.69 | \$166.36 | \$153.04 | \$66.54 | \$146.37 | | | | | | |
| Tasks | | | | | | | | | | | | | | |
| Task 1: Prioritization Criteria | | | | | | | | | | | | | | |
| 1.1 Draft Prioritization Criteria | | | | | | | | | | | | | | |
| 1.2 Final Prioritization Criteria | | | | | | | | | | | | | | |
| Subtotal Task Hours and Labor Amount | | | | | | | | | | | | | | |
| Task 2: Bridge Assessments | | | | | | | | | | | | | | |
| 2.1 Review Existing Data | 6 | 16 | 4 | | 8 | 16 | 4 | | | | | 54 | \$6,108.50 | |
| 2.2 Conduct Field Inspections | | | | 16 | | | | | | | | 16 | \$2,661.76 | |
| Subtotal Task Hours and Labor Amount | | | | | | | | | | | | | 70 | \$8,770.26 |
| Task 3.1: Estimate Project Costs | | | | | | | | | | | | | | |
| 3.1.1 Project Cost Estimate | 8 | | 4 | | 8 | | | | | | | 20 | \$3,619.80 | |
| Subtotal Task Hours and Labor Amount | | | | | | | | | | | | | 20 | \$3,619.80 |
| Task 3.2: PM Activity Summary | | | | | | | | | | | | | | |
| 3.2.1 Draft Summary Report | | | | | | | | | | | | | | |
| 3.2.2 Final Summary Report | | | | | | | | | | | | | | |
| Subtotal Task Hours and Labor Amount | | | | | | | | | | | | | | |
| Task 4: Prioritize Projects | | | | | | | | | | | | | | |
| 4.1 Draft Bridge Database | | | | | | | | | | | | | | |
| 4.2 Final Bridge Database | | | | | | | | | | | | | | |
| Subtotal Task Hours and Labor Amount | | | | | | | | | | | | | | |
| Task 5: BPMP | | | | | | | | | | | | | | |
| 5.1 Draft BPMP Package | 3 | | | | 3 | | | | | | | 6 | \$1,117.89 | |
| 5.2 Final BPMP Package | 3 | | | | 3 | | | | | | | 6 | \$1,117.89 | |
| Subtotal Task Hours and Labor Amount | | | | | | | | | | | | | 12 | \$2,235.78 |
| Total GPA Labor Costs | | | | | | | | | | | 102 | \$14,625.84 | | |
| Other Direct Costs | | | | | Quantity: | Unit | Unit Cost | Total | | | | | | |
| Mileage | 200 | | mile | 0.625 | \$ | 125.00 | | | | | | | | |
| Reproduction | | | each | 100 | \$ | - | | | | | | | | |
| Subconsultant Charges | | | | | | | | | | | | | | |
| Total Other Direct Costs | | | | | | | | | | | | \$125.00 | | |
| Total Subconsultant Costs | | | | | | | | | | | | | | |
| Total Cost | | | | | | | | | | | | \$14,750.84 | | |