

**FIRST AMENDMENT TO
PROFESSIONAL SERVICES AGREEMENT**

**BETWEEN THE CITY OF CORONA
AND
MARK THOMAS & COMPANY, INC.
(DESIGN SERVICES – ONTARIO AVENUE WIDENING AT LINCOLN AVENUE
RFP NO. 23-033CA)**

1. PARTIES AND DATE.

This First Amendment to the Professional Services Agreement (“First Amendment”) is made and entered into this ____ day of _____, 2025 by and between the City of Corona (“City”) and Mark Thomas & Company, Inc., a California corporation (“Consultant”). City and Consultant are sometimes individually referred to as “Party” and collectively as “Parties” in this First Amendment.

2. RECITALS.

2.1 Agreement. City and Consultant entered into that certain Professional Services Agreement dated June 21, 2023 (“Agreement”), whereby Consultant agreed to provide civil design services.

2.2 Amendment. City and Consultant desire to amend the Agreement for the first time to (1) revise the scope of services; (2) extend the Term of the Agreement through April 4, 2028; (3) increase the Compensation amount by \$105,594 to \$854,923 to account for the added services; and (4) replace three exhibits.

3. TERMS.

3.1 Term. Section 3.1.2 (Term) of the Agreement is hereby deleted in its entirety and replaced with the following:

“3.1.2 Term. The term of this Agreement shall be from June 21, 2023 to April 4, 2028 (“Term”), unless earlier terminated as provided herein. Consultant shall complete the Services within the Term of this Agreement, and shall meet any other established schedules and deadlines. The Parties may, by mutual, written consent, extend the Term of this Agreement one or more times by executing a written amendment pursuant to Section 3.6.8 below (each a “Renewal Term”). The terms “Term” and “Renewal Term” may sometimes be generally and collectively referred to as “Term” in this Agreement.”

3.2 Rates & Total Compensation. Section 3.3.1 (Rates & Total Compensation) and Exhibit “C” (Compensation) of the Agreement, are hereby deleted in their entirety and replaced with the following:

“3.3.1 Rates & Total Compensation. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit “C-1” attached hereto and incorporated herein by reference. The total compensation, including authorized reimbursements, shall not exceed **Eight Hundred Fifty-four Thousand, Nine Hundred Twenty-three Dollars (\$854,923.00)** (“Total Compensation”), without written approval of City’s Representative. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.”

3.3 Exhibit “A-1” (Scope of Services). Exhibit “A” (Scope of Services) of the Agreement, is hereby deleted in its entirety and replaced with Exhibit “A-1” (Scope of Services) attached hereto and incorporated herein by reference.

3.4 Exhibit “B-1” (Schedule of Services). Exhibit “B” (Schedule of Services) of the Agreement, is hereby deleted in its entirety and replaced with Exhibit “B-1” (Schedule of Services) attached hereto and incorporated herein by reference.

3.5 Continuing Effect of Agreement. Except as amended by this First Amendment, all provisions of the Agreement shall remain unchanged and in full force and effect. From and after the date of this First Amendment, whenever the term “Agreement” appears in the Agreement, it shall mean the Agreement as amended by this First Amendment.

3.6 Adequate Consideration. The Parties hereto irrevocably stipulate and agree that they have each received adequate and independent consideration for the performance of the obligations they have undertaken pursuant to this First Amendment.

3.7 Counterparts. This First Amendment may be executed in duplicate originals, each of which is deemed to be an original, but when taken together shall constitute but one and the same instrument.

[SIGNATURES ON FOLLOWING PAGE]

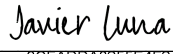
**CITY'S SIGNATURE PAGE
FOR
FIRST AMENDMENT TO
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(DESIGN SERVICES – ONTARIO AVENUE WIDENING AT LINCOLN AVENUE
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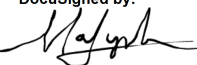
IN WITNESS WHEREOF, the Parties have entered into this First Amendment to Professional Services Agreement as of the date noted on the first page of the Amendment.

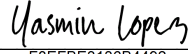
CITY OF CORONA

By: DocuSigned by:

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Savat Khamphou
Public Works Director

Reviewed By: Signed by:

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Javier Luna, P.E.
CIP Manager/Assistant City Engineer

Reviewed By: DocuSigned by:

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Lynn Nguyen
Project Manager

Reviewed By: DocuSigned by:

F8EFBE3136B4492...
Yasmin Lopez
Purchasing Manager


Attest:

Sylvia Edwards
City Clerk, City of Corona, California

**CONSULTANT’S SIGNATURE PAGE
FOR
FIRST AMENDMENT TO
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(DESIGN SERVICES – ONTARIO AVENUE WIDENING AT LINCOLN AVENUE
RFP NO. 23-033CA)**

IN WITNESS WHEREOF, the Parties have entered into this First Amendment to Professional Services Agreement as of the date noted on the first page of the Amendment.

MARK THOMAS & COMPANY, INC.
a California corporation

By:  Signed by:
CA806E0D547E42F...
Zachary Siviglia
CEO

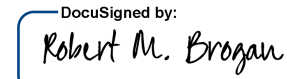
By:  DocuSigned by:
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Robert M. Brogan
Secretary

EXHIBIT "A-1"

SCOPE OF SERVICES

Consultant promises and agrees to furnish to the City all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional design services necessary for the Project. The Services are more particularly described herein.

1.0 PROJECT ADMINISTRATION

1.1 Project Schedule, Status Reports, Invoices & Administration

- Prepare a project design and estimated bidding/construction schedule in MS Project. Update schedule monthly.
- Prepare and submit with invoice monthly status reports providing an overview of progress made during the month and tasks to be accomplished during the following month.
- Submit invoices which follow the task items provided in the hours/fee table provided with the proposal and/or used as a basis for the contract. Provide a brief narrative by task of the work performed during the billing cycle and copies of invoices for direct expenses.

1.2 Engineering Phase Meetings

- Kickoff Meeting
- Project/progress meetings, monthly, assume up to twelve (12) meetings
- 30% /Preliminary Plan and Estimate Review Workshop
- 60% PS&E Submittal Review
- 90% PS&E Submittal Review
- 100% PS&E Submittal Review

1.3 Public Outreach Support & Meetings

- 30% / Preliminary Plan Review Workshop
- 60% PS&E Submittal Review Workshop
- 90% PS&E Submittal Review Workshop
- 100% PS&E Submittal Review Workshop

At City's request prior to each public outreach meeting, the Consultant will survey the right of way 'show-me-stakes' at the job site along private property frontage for stakeholders to visualize the existing right of way versus the new grading/wall/driveway/permit to enter limits.

Additional meetings may be required at City's discretion if more than two months elapse between submittal reviews listed above. At City's discretion, meetings may be held remotely to accommodate COVID-19 safety recommendations or as a matter of convenience.

TASK 1 DELIVERABLES:

- Meeting Agendas & Minutes (electronic)
- Monthly Status Reports (electronic)
- Monthly Updated Project Schedules (electronic)
- Monthly Invoices (electronic)
- Public Outreach & Support Meetings
- Show Me Stakes (3) mobilization(s) for 30%, 60% and 90%, as needed

2.0 RESEARCH EXISTING CONDITIONS

2.1 Site Reconnaissance

Conduct a site reconnaissance of the affected streets, existing improvements, and surrounding areas.

2.2 Record Drawing Review

Review existing record drawings to become familiar with on-site infrastructure and structures.

2.3 Research

Perform research of records including record drawings, and other agency records as necessary to secure information required to identify, locate, and accurately layout all existing utilities and improvements, within project limits that may interfere with proposed improvements. Information to be researched will be, as a minimum, the following:

- Perform field investigation and measurement to assess existing site conditions.

2.4 Surveying

Perform a topographic survey along the alignment of the new improvements to include the following:

- Provide topographic survey using City standard North American Datum 1983 US Feet State Plan VI from street right-of-way to right-of-way limits and to curb returns at intersecting streets along alignment.

- Provide one (1)-foot contours based on City of Corona vertical datum (NGVD 29).
- Provide spot elevations at critical locations along the alignment to verify vertical control, check existing utilities, such as sewer manholes and storm drain junction structures, and determine curb & gutter elevations necessary to design pavement and drainage improvements.
- Survey flow-line elevations of existing underground sewer, water, and storm drain utilities crossing any proposed pipeline improvements.
- Provide spot elevations at all locations where existing utilities are potholed.
- Show surface features and visible indications of existing utilities based on NAD 83 horizontal control to include curbs and gutters, sidewalks, existing structures and other elements relevant to prepare a comprehensive topographic map suitable for roadway design and construction.
- Establish street centerlines, right-of-way lines (along construction impact areas, as needed), and easements from available record information.
- Provide the basis-of-bearing and benchmark information used for the survey and necessary for construction.
- Perform a site topographic survey to the extent necessary for design and construction.

2.5 Utility Coordination

2.5.1 Utility ‘A’ Letters – Mapping Requests

- The Utility “A” Letters (record request forms) will be sent to each utility owner on City letterhead to request as-built mapping of their facilities as previously discussed in Task 2.3.

2.5.2 Existing Utility Mapping

- Maps showing the existing utilizes and the proposed improvements will be prepared for City review.

2.5.3 Utility Potholing (14)

- Pothole any and all existing utilities to verify depth and location. Measure and identify in the potholing report the depth of pavement and base material at each location potholed. Provide all required traffic control and surface repair necessary for potholing work.
- The Consultant assumes fourteen (14) potholes / utility positive identifications for the project scope.

2.5.4 Utility Conflict Mapping

- Perform and provide probable conflicts and relocation mapping that will be required for water utilities, sewer utilities, reclaimed water utilities, storm drains, and any external agency relocations that are required.

2.5.5 Utility ‘B’ Letters – Claim/Liability Determination

- Based on the Consultant’s preliminary research, all utilities within the existing right of way appear to be in by franchise agreement and utility agreements are assumed to be not necessary as compensation from the City to utility owner except for interagency purchase order transactions covering new installations of waterline (if needed), sewer laterals, reclaimed water, manhole and valve cover adjustments.
- Should the need arise to provide a claim letter to determine prior rights and relocation liability: the Consultant will provide one (1) set of Utility ‘B’ Letters (Claim Letters) to said owners on City letterhead depicting the conflict with the utility and/or appurtenances requesting prior rights documentation. the Consultant has excluded any additional utility coordination, negotiations and/or record research not already covered under Tasks 2.3 and 2.4 and noted in the above sections.

TASK 2 DELIVERABLES:

- Log of Record Drawings
- Site Visits and field measurements (depicted on engineering plans, if needed)
- Aerial topography and imaging
- Supplemental design survey and utility dips
- Existing centerline and right of way boundaries along construction impact areas, as needed
- Basis-of-bearing and benchmark information
- Utility ‘A’ Letters
- Utility Mapping
- Utility Potholing, up to fourteen (14) potholes
- Utility Conflict Mapping
- Utility ‘B’ Letters

3.0 ENVIRONMENTAL

3.1 Project Description

In addition to the physical improvements needed for the project the Consultant will also need to prepare the general plan amendment text and map revision(s) to reflect the change. This scope includes drafting of the changes to the General Plan needed to support the proposed project. The Consultant will prepare the change in track-change or graphic representation to clearly show the public and the decision makers the change. The remainder of project description will rely on engineering details taken from the larger project design.

3.2 Environmental Technical Studies

Air Quality and GHG Study

PlaceWorks (sub-consultant) will prepare an air quality and greenhouse gas (GHG) emissions analysis to evaluate impacts of the proposed roadway widening project. The analysis will be prepared in accordance with the current methodology of the South Coast Air Quality Management District (SCAQMD) for projects in the South Coast Air Basin (SoCAB). Emissions will be quantified using the latest version of SCAQMD's California Emissions Estimator Model (CalEEMod). The results of the analysis will be summarized in the IS and modeling included as an appendix.

Construction and Operation Phases. The air quality and GHG emissions technical analysis will provide an estimate of the increase in short-term criteria air pollutant and GHG emissions generated from construction of the proposed project. Construction phase regional emissions will be based on the construction schedule, including duration for each construction subphase, anticipated equipment for each construction subphase, and estimated soil haul volumes (if applicable), as provided. Where information is unavailable, CalEEMod defaults will be utilized, as appropriate. The calculated project-related construction emissions will be compared to the SCAQMD regional significance thresholds for construction. Localized air pollution impacts from construction equipment exhaust and fugitive dust will also be compared to SCAQMD's screening-level construction LSTs. If necessary, mitigation measures will be recommended to reduce impacts. Due to the linear nature of the project and the anticipated short duration for construction, a health risk analysis is not proposed. Because the proposed project would not generate new vehicle trips and would be accommodating existing vehicle trips already generated by surrounding land uses, operational impacts will be described qualitatively.

Other Areas of Impact. The SoCAB is currently designated nonattainment under the National and/or California ambient air quality standards (AAQS) for ozone (O₃), fine inhalable particulate matter (PM_{2.5}), and coarse inhalable particulate matter (PM₁₀). To address this, the SCAQMD has adopted the 2016 Air Quality Management Plan (AQMP). The AQMP is prepared to ensure the SoCAB can attain the long-term National and California AAQS. The air quality analysis will include a consistency evaluation of the project's regional emissions to SCAQMD's AQMP. Furthermore, the SoCAB has been designated in attainment for carbon monoxide (CO) under both the California and National AAQS. Therefore, the air quality analysis will include only a qualitative assessment of CO hotspots. In addition, the initial study will also include a qualitative assessment of potential odor generation to describe potential odor impacts.

Project Consistency with Plans Adopted to Reduce GHG Emissions. The GHG section will discuss the GHG reduction goals of Senate Bill 32 (SB 32), SB 375, and Assembly Bill 1279 (AB 1279). To achieve the GHG reduction targets of SB 32, the California Air Resources Board (CARB) updated its Scoping Plan in 2022. In addition, the Southern California Association of

Governments (SCAG) has adopted a regional transportation plan/sustainable communities strategy (2020-2045 RTP/SCS) to ensure that the southern California region can attain the regional transportation-related GHG reduction goals of SB 375. Project consistency with these statewide and regional GHG emissions reduction strategies will be reviewed.

Biological Resources Study

The Project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) planning area. To determine whether sensitive biological resources are present on the Project site, a reconnaissance-level survey will be performed. Prior to conducting the survey, a literature search will be conducted using public databases including California Department of Fish and Game's (CDFW's) California Natural Diversity Data Base (CNDDDB), California Native Plant Society's Electronic Rare Plant Inventory, range maps for special-status species, City of Corona's Urban Forest Management Plan, and other documentation pertinent to the region. The search will identify the approximate locations of known or expected sensitive biological resources and habitats located within or near the Project site.

Once the literature search and analysis has been completed, ECORP (sub-consultant) will perform a field survey of the Project site. Although the Project site appears to be mostly developed there may be a potential biological issue associated with urban areas, such as nesting birds in ornamental trees. The field visit will consist of a brief site walkover to assess trees and biological resources that are present. Biological resources that are known to or potentially occur on the Project site will be searched for during the survey. Habitats and vegetation communities will be mapped. Representative photographs will be taken to document the site's conditions at the time of the survey. A full list of plant and wildlife species will be recorded during the survey. If any sensitive biological resources are found within the Project site, its location will be recorded, and the resource will be discussed in the Biological Technical Report.

The Project site is subject to the requirements of the MSHCP; therefore, at a minimum, habitat assessments for riparian/riverine, vernal pool, and fairy shrimp (MSHCP Section 6.1.2), narrow endemic plant species (MSHCP Section 6.1.3), burrowing owl (MSHCP Section 6.3.2, and the urban/wildlands interface (MSHCP Section 6.1.4) would be required for compliance under the MSHCP. As a cost-saving measure, the biological reconnaissance survey and habitat assessments for the MSHCP resources, including burrowing owl, will be conducted concurrently. The burrowing owl habitat assessment will include a focused burrow survey which is considered Part A of the MSHCP focused protocol burrowing owl survey requirement. The survey will consist of walking the entire site to identify suitable burrowing owl habitat and any suitable burrowing owl burrows. If burrowing owl habitat is present, an additional 500-foot buffer around the Project site will also be walked, if permissible. Where access is not permissible, the area will be visually inspected using binoculars and/or spotting scopes. The biological reconnaissance survey and burrowing owl habitat assessment will be conducted according to the protocols required by the MSHCP.

A Biological Technical Report will be prepared to document the methods and results of the literature search and biological reconnaissance survey. The report will include a summary of the biological setting of the Project site, a Project description, discussion of survey methods and results, a description of potential sensitive species occurring on the Project site, a brief discussion of the regulatory setting, and potential biological constraints to the proposed development. Lists of wildlife and plant species observed during the surveys will be included as an appendix. The report will conform to the information needs under the California Environmental Quality Act (CEQA). If necessary, recommendations for further work, including focused surveys for sensitive species or an aquatic resources delineation, will be discussed in the report. This scope of work does not include costs for focused (protocol-level) surveys or coordination with the regulatory agencies. If those services are determined to be necessary, the cost estimate for those services will be submitted under a separate cover. ECORP (sub-consultant) will submit one electronic copy of the draft Biological Technical Report. After receiving one round of compiled comments, a final version of the report will be submitted electronically.

Noise Study

The evaluation of noise impacts associated with the Project will be completed by experienced staff members who are noise experts. The applicable noise criteria for the Project area will be reviewed and discussed as these standards will be the basis for the Project impact determination and whether mitigation is necessary. The analysis will be presented in a technical report and be supported by modeling documentation, which would be included as an attachment to the technical report.

Substantial construction noise would occur during implementation of the Proposed Project, potentially affecting the sensitive residential receptors in the area. Noise impacts from construction sources will be analyzed using the Federal Transit Administration Roadway Construction Noise Model and based on the anticipated equipment to be used. The construction noise impacts will be evaluated in terms of hourly equivalent continuous noise levels (Leq) and the frequency of occurrence at vicinity receptors. In addition to construction noise, an analysis of construction-related vibration impacts will be based on current California Department of Transportation criteria.

The Proposed Project would not be a permanent source of stationary source noise. While, the Project would not directly generate vehicle trips, a substantial source of noise in Corona, the proposed traffic facility improvements could change traffic patterns in Corona in a manner that increases traffic noise along Ontario Avenue above existing conditions. According to the 2013 Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol, doubling of traffic on a roadway is required to increase noise to a perceptible level for humans. Potential noise impacts from vehicular traffic will be assessed based on the transportation analysis prepared for the Project.

Cultural

ECORP (sub-consultant) will conduct a cultural resources inventory of the proposed Project Area along West Ontario Avenue between Oak Avenue and South Vicenta Avenue, and South Lincoln Avenue from West Ontario Avenue to Othello Lane. The cultural resources inventory will be conducted under the direct supervision of a Registered Professional Archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology. This study will be conducted pursuant to compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act.

The scope of work for the cultural resources inventory includes a records search of the California Historical Resources Information System (CHRIS) and literature review for the Project Area. ECORP (sub-consultant) will request a records search of the CHRIS from the Eastern Information Center (EIC). The CHRIS records search will identify the locations and extent of previous surveys conducted within 0.25 mile of the Project Area and will determine if there are any known cultural resources (i.e., pre-contact [prehistoric] or historic archaeological sites or historic-period features) located within or near the Project Area. In addition, the records search will identify resources listed on or determined eligible for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR) located within or near the Project Area. Note: the EIC response time is a minimum of 90 days.

ECORP (sub-consultant) will also request a search of the Sacred Lands File from the NAHC. The Sacred Lands File search will identify any known sensitive or sacred Native American resources located within or near the Project Area. It should be noted that the Sacred Lands File search will not constitute consultation in compliance with Senate Bill (SB) 18, Assembly Bill (AB) 52, or Section 106 of the National Historic Preservation Act (NHPA). SB 18, AB 52, and Section 106 consultation are separate processes from cultural resources technical studies and are not included in this scope of work.

ECORP (sub-consultant) will complete an intensive field survey of the Project Area using pedestrian transect intervals spaced 10 to 15 meters apart, where possible. An ECORP archaeologist will closely examine the Project Area for surface evidence of cultural materials, including pre-contact and historic-period (i.e., over 50 years of age) cultural deposits and features. If any resources are identified in the Project Area, they will be recorded and mapped in detail in accordance with the standards of the California Office of Historic Preservation (OHP).

Based on preliminary research, ECORP (sub-consultant) noted that all the primary roadways within the Project Area (West Ontario Avenue, Lincoln Avenue, Oak Avenue, and Buena Vista Avenue) are more than 50 years old as are the nine structures in the southeast corner of West Ontario Avenue and Lincoln Avenue. The City requested that only one structure directly at that intersection be evaluated for the NRHP and CRHR. Pursuant to compliance with CEQA and Section 106, a qualified ECORP (sub-consultant) architectural historian will record and

evaluate this residential structure and all the roadways. The evaluation will include an architectural review of the residential structure. We assume there are no other resources within the Project Area.

ECORP (sub-consultant) will prepare a cultural resources inventory and evaluation report that documents the methods and results of the CHRIS records search, Sacred Lands File search, field survey, and evaluation of the one residential structure and the roadways. The report will also present recommendations for further work, if needed.

3.3 Administrative Draft CEQA Addendum

PlaceWorks (sub-consultant) will prepare an Initial Study (IS) and addendum using the City’s template that will include a discussion of the proposed project and detailed analysis of the following environmental areas:

- | | |
|------------------------------------|---------------------------------|
| Aesthetics | Land Use and Planning* |
| Agriculture and Forestry Resources | Mineral Resources* |
| Air Quality | Noise |
| Biological Resources | Population and Housing* |
| Cultural Resources | Public Services* |
| Energy | Recreation* |
| Geology and Soils | Transportation and Traffic |
| Greenhouse Gas Emissions | Tribal Cultural Resources |
| Hazards and Hazardous Materials | Utilities and Service Systems * |
| Hydrology/Water Quality | Wildfire* |

The issues identified with an asterisk (*) will be scoped out of the initial study in the introductory text as unnecessary because of the type of project. The initial study will include detailed explanations of the remaining checklist determinations and discussions of potential environmental impacts. The analysis will be prepared in accordance with Sections 15063, 15070, and 15072 of the CEQA Guidelines.

A discussion of the existing environmental baseline conditions will be provided for each issue area. The IS will identify and evaluate: (1) potentially significant impacts; (2) potentially significant impacts unless mitigated; (3) less than significant impacts; and (4) issues resulting in no impacts. The IS will consider relevant direct, indirect, and cumulative impacts. Findings will be clearly substantiated for each checklist question to explain the basis for the environmental determination.

Except for the project-specific technical analyses, the analysis in the initial study will be based on available literature, including but not limited to the City’s General Plan EIR and Municipal Code; previously completed environmental documents; consultation with local public service and utility providers.

3.4 Final CEQA Addendum

Following City comment on the administrative initial study and addendum, PlaceWorks (sub-consultant) will prepare a final version for attachment to the staff report for the Commission and Council for the general plan amendment. PlaceWorks (sub-consultant) can also help with the wording for the staff report for environmental compliance. In this context the Addendum is essentially a summary of the technical studies and initial study and is used to support the recommendation in the staff report for environmental compliance. This scope assumes that all documents are electronic and there are no printing costs. PlaceWorks(sub-consultant) will provide both Word files and PDF suitable for posting on the City’s website.

Notice of Determination

PlaceWorks (sub-consultant) will prepare a Notice of Determination (NOD) for the project, based on the findings of the Initial Study/Mitigated Negative Declaration. PlaceWorks (sub-consultant) assumes the City will file the NOD with the County Clerk within 5 days of project approval and adoption of the MND and pay all filing fees.

3.5 Traffic Studies

3.5.1 Traffic Counts

Fehr & Peers (sub-consultant) will utilize RIVCOM to develop peak hour forecasts at the following intersections:

1. Oak Avenue & Ontario Avenue
2. Lincoln Avenue & Ontario Avenue
3. Ontario Avenue & Buena Vista Avenue
4. Ontario Avenue & South Vicentia Avenue
5. Lincoln Avenue & Othello Lane
6. Ontario Avenue & Glen Haven Drive

The Consultant will collect traffic volume data during fair weather, while school is in session, and during a typical (non-holiday) Tuesday, Wednesday, or Thursday. Intersection peak period data will be collected during typical commute periods (7:00-9:00 AM, 4:00-6:00 PM). Bicycle and pedestrian peak hour counts will be collected at up to two key intersections.

3.5.2 Intersection Traffic Volume Forecasting

Forecasts will be prepared by applying the Difference Method, which adds traffic growth from RIVCOM base to future year models to existing counts, consistent with National Cooperative Highway Research Program (NCHRP) Report 765.

3.5.3 Intersection Lane Geometrics

Fehr & Peers (sub-consultant) will utilize the future forecasts developed to recommend lane configurations at each study intersection. We will utilize Synchro Software to perform average delay estimates and verify that proposed Level of Service (LOS) at future conditions will meet minimum City standards, consistent with the City’s General Plan LOS policy.

3.5.4 VMT Forecasting

Fehr & Peers (sub-consultant) will utilize forecasting from the City’s General Plan EIR modeling and new forecasts from Riverside County’s travel demand forecasting model (RIVCOM) to estimate VMT with and without the project and determine if the project results in an increase in VMT in the study area. This analysis assumes the following scenarios, consistent with the City’s TIA Guidelines:

- Baseline Conditions No Project
- Baseline Conditions With Project
- Future Conditions No Project
- Future Conditions With Project

Fehr & Peers (sub-consultant) will apply VMT reductions associated with project features (such as bike lanes and sidewalk) to the “with project” VMT forecasts.

3.5.5 Mitigation

Fehr & Peers (sub-consultant) will work with the City on the available toolbox of feasible mitigation measures, such as road diets, bike lanes or Transportation Demand Management (TDM) measures. We will recommend the most cost-effective strategies for the project and quantify the VMT reduction potential consistent with the procedures in the California Air Pollution Control Officers Association’s (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (GHG Handbook). Mitigation will be recommended to bring the project’s impact to a less-than-significant level.

TASK 3 DELIVERABLES:

- Project Description
- Environmental Technical Studies (noted in the previous section)
- Administrative and Final CEQA Addendum
- Intersection Traffic Counts
- Intersection Lane Geometrics

- VMT Forecasting Memorandum
- VMT Mitigation Recommendations (if needed)

4.0 PRELIMINARY DESIGN AND MEMORANDUM / ENGINEERING STUDIES

4.1.1 30% Plans

Develop a preliminary design of the project site to review with City staff, to be submitted as a 11-inch x 17-inch plan set (half-size), on paper and electronic (full-size and half-size). The Preliminary design will include, but is not limited to the following:

- Existing utilities
- Existing pavement, curb, gutter, sidewalks, driveways, access ramps, structures, landscaping, and site conditions in both the public right of way and the public properties that will be directly affected by the improvements
- Permitting requirements
- Traffic impacts
- Requirements and assessments for temporary easements and permanent structure removals, if necessary
- Proposed civil, drainage, electrical, structural, and utility improvements (if known) and typical cross sections
- Renderings of the proposed improvements within the public right of way and renderings of the proposed improvements within the private properties directly affected by the improvements (8 parcels located on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street and 1 existing parcel located on the east side of Lincoln Avenue between Othello Lane and Ontario Avenue).

City will return 30% plans with comments pertaining to required improvements for the project.

4.1.2 Preliminary Design Memorandum

Prepare a memorandum either recapitulating or recommending modifications to the design criteria above based on Design Engineer's best judgment. The preliminary design memorandum needs to be concise.

As appendices to the preliminary design memorandum, prepare the following:

1. Recommended specifications for the following topics:
Summary of Work and Sequence of Construction.
2. Specification Outline: Consultant is to prepare specifications based on the Greenbook Standard Plans and Specifications and

the City of Corona Standard Plans. Technical Specification templates will be furnished to Design Engineer for editing based on specification outline and cost opinion provided.

3. Include Engineer's opinion of probable construction cost

4.2 Geotechnical Analysis

4.2.1 Pre-field and Field Activities

1. Mark the core and hand auger boring locations and notify Underground Surface Alert of Southern California to mark any subsurface utility locations near our proposed excavation locations.
2. Photograph and document pavement conditions along the roadways.
3. Prepare no fee city of Corona encroachment permit for the work.
4. Provide traffic control during coring work. Geocon (sub-consultant) has budgeted one (1) day of traffic control signage to perform the coring within the multi-lane roadways.
5. Hire a drilling subcontractor to excavate, sample, and log ten (10) pavement cores within the existing pavements, at approximate intervals of 500 linear feet with adjustments made for different pavement surfaces, distress and lane conditions. Excavations will be logged in accordance with USCS criteria and samples will be collected for laboratory testing. Excavations will be backfilled with native soils and capped with asphalt cold patch. Geocon (sub-consultant) has budgeted one (1) day for our work.
6. Excavate one (1) or two (2) hand auger borings in the location of the proposed retaining walls to collect soil samples for laboratory testing and document soil conditions. The boring(s) are expected to be 3 to 4 feet deep and will be backfilled with clean sand with the surface restored to pre-boring conditions upon completion. Geocon (sub-consultant) has budgeted one half day for this work.

4.2.2 Materials Testing / Soils Testing

Perform laboratory testing which is anticipated to include maximum density/optimum moisture, in situ moisture and density of subgrade, R-value, maximum density/optimum moisture, and direct shear. The final laboratory test program will depend on the soil conditions encountered during the investigations.

4.2.3 Prepare Draft Geotechnical Memo

Prepare a geotechnical pavement investigation memorandum which will include a discussion of the pavement, aggregate base, and subgrade

conditions encountered, soil conditions where retaining walls are proposed, laboratory test results, core and boring location map and logs, and provide pavement section recommendations for new roadway areas, recommendations for rehabilitation (if appropriate) and repaving options, and geotechnical parameters for retaining wall design.

4.3 Preliminary Drainage Report

The Consultant will prepare the proper Hydrology and Hydraulic Report for the City of Corona. The reports will include both offsite and onsite hydrologic calculations to recommend any drainage improvements needed as a result of the proposed roadway. Calculations and concise recommendations will conform to the Riverside County Hydrology and Sedimentation Manual, and City's Storm Drain Design Manual, if applicable. The onsite hydraulic computations will be based on City and County Standards.

4.4 Preliminary Water Quality Report

Based on preliminary research, The Consultant has determined that the project's construction activities are calculated at or just below the less than one acre disturbance of land surface threshold that require a General Permit. The Consultant will prepare initial land surface disturbance calculations for water quality and permitting requirements for the project to determine the approach relative to a Water Quality Management Plan and BMPs associated with the project. Should the project require offsite Water Quality mitigation as a requirement from the Regional Water Quality Control Board, The Consultant will develop additional scope under an additional scope of work request.

4.5 Traffic Technical Memorandum

Fehr & Peers (sub-consultant) will summarize traffic findings into a technical memorandum for inclusion in the Preliminary Design and Memorandum.

TASK 4 DELIVERABLES:

- Design Standard Memo
- Geotechnical Recommendations
- Preliminary Drainage Report
- Preliminary Water Quality Report
- Traffic Technical Memorandum
- 30%/Preliminary Plans and Estimate Submittal
 - Engineer's Opinion of Probable Construction Cost for each phase
 - One (1) electronic Plan set in PDF format (linework only)
 - One (1) hard copy Construction Plan set on 11" x 17" sheets

- Renderings of the proposed improvements within the public right of way and within the private properties affected by these improvements located on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street.

5.0 FINAL ENGINEERING AND PREPARATION OF CONSTRUCTION CONTRACT DOCUMENTS

5.1 60% PS&E

Final Engineering Documents prepared by the Consultant shall include all engineering services required by the City to carry out the concepts agreed upon by the City in the Preliminary Design Memoranda letters.

All plans shall be drawn to scale. Plans shall be plotted 1" = 40' with 1" = 4' vertical.

Plan views shall include north arrows. Plan sheets shall include:

A. Contract Document Drawings/General Sheets Including:

- Title Sheet
- Vicinity and location map, drawing index, legend, telephone numbers, symbols, and abbreviations
- All improvements shall conform to City Standards. The Engineer may reference standard details where applicable but shall also incorporate those details into the plans. Plans shall include all the pertinent information necessary for the construction of the improvements such as property lines, City right-of-way, home address etc...

B. Civil Improvement Sheets including:

- Typical Cross Section Plans and Detail Plans
- Roadway Layout and Profile Plans
- Improvements on the roadway, curb and gutters, sidewalks, driveway approaches, median islands, streetlights, catch basins, and ADA curb ramps as required
- Improvements to private property driveways, slopes, and/or walls

C. Drainage Sheets including:

- Cross Section Plans and Detail Plans, if necessary
- Improvements for drainage pipes and catch basins

D. Utility Plan Sheets including:

- Waterline Layout and Profile Plans
- Improvements for reclaimed water pipelines and appurtenances, sewer laterals
- Probable relocations that will be required for water utilities, sewer utilities, reclaimed water utilities, storm drains, and any external agency relocations that are required. This scope of work item, staff hours, and initial deliverable is covered under Task 2.5.4.

E. Traffic Sheets, Control & Project Phasing Plans Including:

- Traffic Signal Design Plans including Electrical Service Point and utility locations
- Traffic Signal Modification Plans
- Signing and Striping Plans
- Traffic Control Plans
- Project Phasing Plans

F. Landscaping Improvement Sheets Including:

- Parkway Landscaping
- Median Islands Landscaping
- Private Property Landscaping

G. Irrigation Improvement Sheets Including:

- Parkway Irrigation
- Median Island Irrigation
- Private Property Irrigation

H. Demolition Plans (As Applicable)

I. Sewer Lateral Extension Plans

- The Consultant will coordinate with the City of Corona to design sewer lateral extensions from the existing 10" VCP sewer line to nine (9) residential properties.

Plans and sheet count to be prepared include:

Sheet Name	Number of Sheets	Drawing Scale
Title	1	No Scale
Typical Sections	1	No Scale
Index/Construction Notes	1	No Scale

Plan and Profile	3	40
Layout (Overlay)	2	40
Water Line Layout & Profile	3	40
Water Details	1	10
Sewer Lateral Plan & Profile	4	40
Drainage	2	40
Signing and Striping	1	40
Street Lighting	2	40
Traffic Control	1	40
Traffic Signal	3	20
Temporary Traffic Signal	1	20
Traffic Signal Interconnect	1	No Scale
Construction Details	6	10
Landscape Planting Plans and Landscape Construction Details	6	20
Landscape Irrigation Plans and Details	4	20
Total Sheets	43	

TASK 5.1 DELIVERABLES:

- Engineer’s Opinion of Probable Construction Cost for each phase
- One (1) electronic Construction Plan set in PDF format
- One (1) hard copy Construction Plan set in 24” x 36” sheets
- Renderings of the proposed improvements within the public right of way and within the private properties affected by these improvements located on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street.

5.2 90% PS&E

The Consultant and design subconsultants will address up to one (1) round of comments for the 60% Final Engineering including the plans and probable construction cost estimate. The technical specifications to be included with the contract documents will be prepared at the 90% PS&E and edited in MS Word.

TASK 5.2 DELIVERABLES:

- Engineer’s Opinion of Probable Construction Cost for each phase
- One (1) electronic Construction Plan set in PDF format
- One (1) hard copy Construction Plan set in 24” x 36” sheets
- One (1) electronic set of specifications in MS Word
- Traffic Control Plans and Project Phasing Plans
- Response to 60% Comments from the City

- Rendering of the proposed improvements within the public right of way and within the private properties affected by these improvements located on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street.

5.3 100% PS&E

The Consultant and design subconsultants will address up to one (1) round of comments for the 90% Final Engineering including the plans, probable construction cost estimate and an electronic set of technical specifications.

TASK 5.3 DELIVERABLES:

- Engineer's Opinion of Probable Construction Cost
- One (1) electronic plan set in PDF format
- One (1) hard copy Construction Plan set in 24" x 36" sheets
- One (1) electronic set of specifications in MS Word
- Traffic Control Plans and Project Phasing Plans
- Renderings of the proposed improvements within the public right of way and within the private properties affected by these improvements located on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street.

Plans submitted as 100% should be close to bid-ready documents.

5.4 Final PS&E

Final Engineering shall include detailed engineering calculations, designs, construction plans, specifications and technical special provisions and engineer's construction cost estimates for the project that will enable the City to advertise and award the construction contract for the project.

TASK 5.4 DELIVERABLES:

- Engineer's Opinion of Probable Construction Cost
- One (1) signed and sealed electronic plan set in PDF format
- One (1) signed and sealed electronic set of specifications in MS Word
- One (1) copy of appendices and bid form
- Traffic Control Plans and Project Phasing Plans
- Electronic files of all submitted documents.
- Three (3) hard copy Construction Plan sets in 24" x 36" sheets
- Renderings of the proposed improvements within the public right of way from Via Pacifica to S. Vicentia Avenue and within private properties affected by these improvements located on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street.

The Consultant will provide a digital copy of the final signed/sealed project plans

in AutoCAD 2018 .dwg or later format and PDF to the City; providing by email or Sharepoint Drive is acceptable.

5.5 Final Drainage Report

The Consultant will address up to one (1) round of comments for the Preliminary Drainage Report.

5.6 Final Water Quality Report

The Consultant will address up to one (1) round of comments for the Preliminary Water Quality Report.

5.7 Right of Way Engineering

5.1.1 Identify ROW Requirements

The Consultant will provide initial right of way requirement exhibits for the City to review and discuss proposed construction and grading limits with property owners. The exhibit, most likely delivered with the 30% design plans, will include existing aerial imaging, existing right of way and project design limits and features including utilities and other constraints.

5.1.2 Finalize ROW Requirements

The Consultant will update the initial right of way requirement exhibits for the City to review and discuss proposed construction and grading limits with property owners based on the final design plans.

5.8 Structures Wall Review

The Consultant will provide a review of potential retaining walls by an engineer that specializes in wall design to verify plans and specification documents, constructability, and economic feasibility.

TASK 5.5 THROUGH 5.8 DELIVERABLES:

- Final Drainage Report
- Final Water Quality Report
- Right of Way Requirements Map (Draft and Final)
- Structural Wall Review

6.0 BIDDING SERVICES

6.1 Bidding Phase Support

The Consultant shall budget 20 hours to assist City in providing clarification and preparing information to be used in addenda as needed for questions that may arise during the bidding process. City will prepare and make available to plan holders any required addenda.

6.2 Conformed Plans and Specifications

In addition to the 20-hour budget above, prepare conformed plans and specifications for use in constructing project. Conformed plans and specifications shall reflect changes made during bidding and will be noted as a revision to final design plans.

TASK 6 DELIVERABLES:

- Bidder Inquiry Request (City Support)
- Conformed Plans and Specification (City Support)

7.0 ENGINEERING CONSTRUCTION SERVICES

7.1 Engineering Support

Assist the City with the following:

- Provide professional engineering services to address and respond to up to ten Requests for Information (RFIs) from the contractor,
- Prepare supplementary sketches and details as required to resolve field construction problems that may be encountered,
- Review and provide recommendations regarding proposed change orders, as needed, and
- Attend pre-construction meeting and one additional site visit during construction.

7.2 Review of Equipment and Shop Drawing Submittals

City staff will review the majority of submittals. Engineer of record will be asked to assist in review of shop drawing submittals for completeness and conformance with the Contract Documents, if required.

7.3 Minor Plan Revisions

The Consultant will support the City with minor plan revision as needed.

7.4 Preparation of Record Documents (Record Drawings)

The construction contract will require each Contractor to provide to the City for review and approval one (1) set of as-built plans showing the design changes made during the course of construction.

Not included in the 120 hours noted above for items A, B, and C, the Consultant will prepare record drawings from Contractor and construction inspector as-built drawing, markups, and field notes and stamp and sign the Record Drawing set.

TASK 7 DELIVERABLES:

- Attend one (1) pre-construction meeting and one (1) site visit
- Change Order recommendations
- Shop drawing review (City Support)
- Minor Plan Revision (City Support)
- One (1) set of 24-inch x 36-inch paper copy “Record Drawings”
- Downloadable files with the record drawing files saved in AutoCAD 2018 .dwg or later and PDF formats. Providing these files by email or Sharepoint Drive is acceptable.

ADD SERVICE 1:

TASK 2 – RESEARCH EXISTING CONDITIONS

Task 2.6 – Additional Surveying

Consultant’s additional scope of work includes aerial topography for the extended grind and overlay limits along W. Ontario Avenue between Via Pacifica Avenue and Oak Avenue.

Consultant will analyze two drainage depression areas along W Ontario Avenue and reconstruct two additional ADA ramps along Ontario Avenue at Silver Oak Drive, which will require the need for additional supplemental survey.

Consultant will perform supplemental survey at the locations noted above and requires 1 day of field survey, aerial photogrammetry processing, and survey technician data extraction.

DELIVERABLES:

- Supplemental topography for Ontario Avenue between Via Pacifica Avenue and Oak Avenue
- Supplemental topography for the two additional localized depression areas along Ontario Avenue
- Supplemental topography for two ADA ramps along Ontario Avenue at Silver Oak Drive

TASK 5 – FINAL ENGINEERING/CONSTRUCTION CONTRACT DOCUMENTS

Task 5.1 AM#1, 5.2 AM#1, 5.3 AM#1 & 5.4 AM #1 – 60%, 90%, 100% & Final PS&E Additional Plan Production

Street Plans and Retaining Wall Details:

Consultant’s additional scope of work includes street improvement plans for the new median areas along W Ontario Avenue between Oak Avenue and Lincoln Avenue, two additional ADA ramps along Ontario Avenue at Silver Oak Drive, retaining walls along the eight (8) property frontages affected by the widening, and localized drainage depressions between Oak Avenue and Lincoln Avenue. The additional scope of work proposed under this task will require two (2) additional Street Improvement sheets, seven (7) retaining wall plan and detail sheets, and two (2) construction detail sheets.

Based on the final geometry and comments received on the civil engineering 30% Package Submittal, Consultant will provide plans and estimates of probable construction costs for each design submittal and technical specifications at 90%, 100% and Final submittals.

Sheet Name	Number of Sheets	Drawing Scale
Street Plan	2	40
Retaining Wall Plans and Details	7	10
Construction Details	2	5

60% plans will include street improvement plans (in AutoCAD, 40-scale/10-scale). The City has provided direction to use standard wall details including plan view, footing and wall elevations, and typical sections.

At the 90% submittal level, City comments from the 60% submittal will be addressed and incorporated and refinements will be made to the street and wall plans/details. Responses to comments will be prepared and submitted. Retaining wall plans will note existing and proposed utilities and laterals protected-in-place or installed as a part of the project. Estimate will be refined based on comments and continued design and submitted for comment.

City comments from the 90% submittal will be addressed and incorporated into the 100% and Final Submittals. Responses to comments will be prepared and submitted. All final plan revisions will be made. Updates to the specifications and estimate will be completed.

DELIVERABLES:

- Roadway Plans (40-scale, provided in PDF format)
- Retaining Wall Plans and Details (10-scale, provided in PDF format)
- Construction Details (5-scale, provided in PDF format)

Landscape Improvement Plans

Consultant’s additional scope of work includes planting and irrigation plans for the new median areas along W Ontario Avenue between S Buena Vista Avenue and S Vicentia Avenue and between Oak Avenue and S Lincoln Avenue. The additional scope of work proposed under this task will require six (6) additional sheets, three (3) for landscape and three (3) for irrigation.

Based on the final geometry and comments received on the Preliminary Landscape Plans and civil engineering 30% Package Submittal, LAUD will prepare Landscape Architectural PS&E submittals at the 60%, 90%, 100% and Final milestones.

60% plans will include planting plans and irrigation plans (in AutoCAD, 20-scale). Planting plans will include tree, shrub, and groundcover locations, plant list, and plant callouts and quantities.

Irrigation plans will include points of connection locations, mainline layout, pressure loss calculations, and irrigation equipment list. Estimate will be submitted in draft form.

At the 90% submittal level, City comments from the 60% submittal will be addressed and incorporated and refinements will be made to the planting plan. Responses to comments will be prepared and submitted. Irrigation plans will include water use (MWELo) calculations, irrigation controller schedule, irrigation head and lateral layout with pipe sizing. Estimate will be refined based on comments and continued design and submitted for comment.

City comments from the 90% submittal will be addressed and incorporated into the 100% and Final Submittals. Responses to comments will be prepared and submitted. All final plan revisions will be made. Updates to the specifications and estimate will be completed.

Consultant LAUD will provide technical specifications and estimates of probable construction costs for each design submittal.

Sheet Name	Number of Sheets	Drawing Scale
Landscape Planting Plan	3	20
Landscape Irrigation Plan	3	20

DELIVERABLES:

- Planting Plans (20-scale, provided in PDF format)
- Irrigation Plans (20-scale, provided in PDF format)
- Itemized statement of probable construction costs


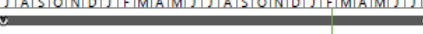

































TASK 6 & 7 - BIDDING SERVICES & ENGINEERING CONSTRUCTION SERVICES

Consultant will assist City in providing clarification and preparing information to be used in addenda as needed for questions that may arise during the bidding process and record drawings for the additional out of scope areas added to the scope of the project, and the sheets listed above.

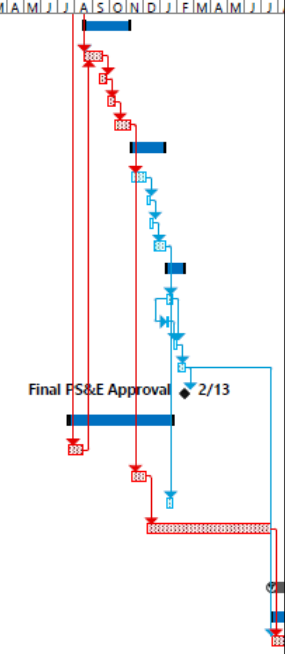
ASSUMPTIONS:

- An arborist report is not a part of this scope to evaluate existing trees and mitigation required for the project.
- Landscape treatment for median plantings will be consistent with the rest of the Ontario Avenue corridor. Customization or alternatives of private property landscape treatments for property owners is not a part of this scope.
- Stormwater plantings/LID treatments are not required and/or included with this additional scope.
- Median irrigation will be supplied by existing domestic water running on the north side of W Ontario Avenue within the project area. Capacity, size, and pressure of the domestic water system is assumed to be sufficient to extend to new planting areas.
- Landscape within the right-of-way will be maintained by the City.
- Planting and Irrigation details and specifications from the original scope will be utilized for this additional work.
- Renderings of the proposed improvements within the private properties affected by these improvements located on the south side of Ontario avenue between Lincoln Avenue and Conejo Street will be prepared in 20 scale as a single effort. Up to 12 hours are allocated for this effort in the original scope. Any additional effort required beyond the initial 12 hours will be requested as an additional service.
- Subtask budgets for the additional 60%, 90%, 100% and Final will be determined and allocated for the project budgets and invoice once the additional services has been approved by the City.

EXHIBIT "B-1" SCHEDULE OF SERVICES

		CITY OF CORONA Environmental, Final Design and Right of Way Phase Ontario Avenue Widening at Lincoln Avenue Project			PN&ST-2021-03												
					Thu 7/3/25												
ID	Task Name	Start	Finish	Duration	<table border="1" style="font-size: 8px; border-collapse: collapse;"> <tr> <td>Half 2, 2023</td> <td>Half 1, 2024</td> <td>Half 2, 2024</td> <td>Half 1, 2025</td> <td>Half 2, 2025</td> <td>Half 1, 2026</td> </tr> <tr> <td>J A S O N D</td> <td>J F M A M J</td> <td>J A S O N D</td> <td>J F M A M J</td> <td>J A S O N D</td> <td>J F M A M J</td> </tr> </table>	Half 2, 2023	Half 1, 2024	Half 2, 2024	Half 1, 2025	Half 2, 2025	Half 1, 2026	J A S O N D	J F M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J
Half 2, 2023	Half 1, 2024	Half 2, 2024	Half 1, 2025	Half 2, 2025	Half 1, 2026												
J A S O N D	J F M A M J	J A S O N D	J F M A M J	J A S O N D	J F M A M J												
1	PHASE I: PROJECT ENVIRONMENTAL AND PRELIMINARY ENGINEERING	Mon 7/10/23	Fri 8/8/25	109 wks													
2	Task 1 - Project Administration	Mon 7/10/23	Mon 7/10/23	0.2 wks													
3	Initial NTP	Mon 7/10/23	Mon 7/10/23	1 day													
4	1.1 Project Management, Coordination, Schedule, Meetings	Mon 7/10/23	Fri 10/15/27	223 wks													
5	Task 2 - Research Existing Conditions	Mon 7/17/23	Fri 8/8/25	108 wks													
6	2.1 Site Reconnaissance	Mon 7/17/23	Fri 7/21/23	1 wk													
7	2.2 Record Drawing Review	Mon 7/17/23	Fri 7/21/23	1 wk													
8	2.3 Research	Mon 7/17/23	Fri 8/11/23	4 wks													
9	2.4 Surveying	Mon 8/14/23	Fri 2/7/25	78 wks													
10	Field Work/Set Control - Targets	Mon 8/14/23	Fri 8/18/23	1 wk													
11	Aerial Survey	Mon 8/21/23	Fri 9/15/23	4 wks													
12	Topographic Processing and Quality Control	Mon 9/18/23	Fri 11/10/23	8 wks													
13	Supplemental Survey, Survey Potholes and Processing	Mon 1/27/25	Fri 2/7/25	2 wks													
14	2.5 Utility Coordination	Mon 8/14/23	Fri 8/8/25	104 wks													
15	2.5.1 Utility 'A' Letters - Mapping Requests	Mon 8/14/23	Fri 9/8/23	4 wks													
16	2.5.2 Existing Utility Mapping	Mon 11/13/23	Fri 12/1/23	3 wks													
17	Utility Potholing - Bids, Encroachment Permit & Prefield Activities	Mon 12/23/24	Fri 1/10/25	3 wks													
18	2.5.3 Utility Potholing	Mon 1/20/25	Fri 2/7/25	3 wks													
19	2.5.4 Utility Conflict Mapping	Mon 2/10/25	Fri 2/21/25	2 wks													
20	2.5.5 Utility 'B' Letters - Claim/Liability Determination	Mon 2/24/25	Fri 8/8/25	24 wks													
21	Task 3 - Environmental	Mon 9/11/23	Wed 3/19/25	79.6 wks													
38	Task 4 - Preliminary Design and Memorandum / Engineering Studies	Mon 9/11/23	Fri 5/30/25	90 wks													
39	4.1 Preliminary Design and Memorandum	Mon 11/13/23	Fri 3/22/24	19 wks													
47	4.2 Geotechnical Analysis	Mon 9/11/23	Fri 1/12/24	18 wks													
52	4.3 Drainage Report	Mon 11/20/23	Fri 5/30/25	80 wks													
56	4.4 Water Quality Report	Mon 11/20/23	Fri 5/30/25	80 wks													
60	4.5 Traffic Technical Memorandum	Mon 11/20/23	Fri 12/15/23	4 wks													
61	PHASE II: FINAL ENGINEERING	Mon 5/5/25	Fri 2/13/26	41 wks													
62	Task 5 - Final Engineering	Mon 5/5/25	Fri 2/13/26	41 wks													
63	Task 5.1 60% PS&E	Mon 5/5/25	Fri 7/18/25	11 wks													
64	60% Plans	Mon 5/5/25	Fri 5/30/25	4 wks													
65	60% Estimate	Mon 6/2/25	Fri 6/13/25	2 wks													
66	60% Plans and Estimate Internal QC	Mon 6/2/25	Fri 6/20/25	3 wks													
67	City Review	Mon 6/23/25	Fri 7/18/25	4 wks													

MARK THOMAS		CITY OF CORONA Environmental, Final Design and Right of Way Phase Ontario Avenue Widening at Lincoln Avenue Project			PN:ST-2021-03 Thu 7/3/25					
ID	Task Name	Start	Finish	Duration	Half 2, 2023	Half 1, 2024	Half 2, 2024	Half 1, 2025	Half 2, 2025	Half 1, 2026
68	Task 5.2 90% PS&E	Mon 8/18/25	Fri 11/7/25	12 wks						
69	90% Plans	Mon 8/18/25	Fri 9/19/25	5 wks						
70	90% Technical Specifications and Estimate	Mon 9/15/25	Fri 9/26/25	2 wks						
71	90% PS&E Internal QC	Mon 9/29/25	Fri 10/10/25	2 wks						
72	City Review	Mon 10/13/25	Fri 11/7/25	4 wks						
73	Task 5.3 100% PS&E	Mon 11/10/25	Fri 1/9/26	9 wks						
74	100% Plans	Mon 11/10/25	Fri 12/5/25	4 wks						
75	100% Technical Specifications and Estimate	Mon 12/8/25	Fri 12/12/25	1 wk						
76	100% PS&E Internal QC	Mon 12/15/25	Fri 12/19/25	1 wk						
77	City Review	Mon 12/22/25	Fri 1/9/26	3 wks						
78	Task 5.4 Final PS&E	Mon 1/12/26	Fri 2/13/26	5 wks						
79	Final Plans	Mon 1/12/26	Fri 1/23/26	2 wks						
80	Final Technical Specifications and Bid List/Estimate	Mon 1/12/26	Fri 1/16/26	1 wk						
81	Final PS&E Internal QC	Mon 1/26/26	Fri 1/30/26	1 wk						
82	City Approval	Mon 2/2/26	Fri 2/13/26	2 wks						
83	Final PS&E Approval	Fri 2/13/26	Fri 2/13/26	0 days						
84	Task 5.7 Right of Way Engineering	Mon 7/21/25	Fri 1/23/26	27 wks						
85	5.7.1 Identify ROW Requirements / Initial ROW Stakes	Mon 7/21/25	Fri 8/15/25	4 wks						
86	5.7.2 Finalize ROW Requirements / 90% ROW Stakes	Mon 11/10/25	Fri 12/5/25	4 wks						
87	Final Show Me Stakes	Mon 1/12/26	Fri 1/23/26	2 wks						
88	PHASE III - RIGHT OF WAY & TEMPORARY CONSTRUCTION EASEMENTS (CITY - REQUIRES INPUT FROM ROW AGENT)	Mon 12/8/25	Fri 7/17/26	32 wks						
89	Phase IV - CONSTRUCTION SUPPORT	Mon 7/20/26	Fri 2/4/28	81 wks						
90	Advertise and Award for Construction	Mon 7/20/26	Fri 11/13/26	17 wks						
91	Contract Preparation, Bid Preparation and Review	Mon 7/20/26	Fri 8/14/26	4 wks						
92	Advertise Construction Contract	Mon 8/17/26	Fri 9/11/26	4 wks						
93	Bid Opening	Fri 9/11/26	Fri 9/11/26	1 day						
94	Review Bids	Mon 9/14/26	Fri 9/18/26	1 wk						
95	Contract Award	Mon 9/21/26	Fri 11/13/26	8 wks						
96	Construction	Mon 11/16/26	Fri 2/4/28	64 wks						
97	Construction	Mon 11/16/26	Fri 2/4/28	64 wks						
98	Contract Administration/Submittals	Mon 11/16/26	Fri 12/11/26	4 wks						
99	Construction	Mon 11/30/26	Fri 10/15/27	46 wks						
100	Record Drawings	Mon 10/18/27	Fri 1/7/28	12 wks						
101	Close Out	Mon 1/10/28	Fri 2/4/28	4 wks						



**EXHIBIT "C-1"
COMPENSATION**

Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth herein.

[FEE SCHEDULE ON FOLLOWING PAGE]

COST PROPOSAL FOR PROJECT SCOPE: Corona- Ontario Avenue Widening at Lincoln Avenue (RFP) No. 23-033CA

	MARK THOMAS																Subconsultants			TOTAL COST							
	Sr. Project Manager \$260	Technical Lead \$210	Project Engineer \$162	Design Engineer II \$139	Design Engineer I \$113	Survey Manager \$217	Project Surveyor \$177	Surveyor \$129	Survey Technician \$97	2 Person Field Crew \$328	LAUD Division Manager \$253	LAUD Project Manager \$239	Landscape Architect \$145	Landscape Designer II \$114	Landscape Designer I \$92	Project Accountant \$127	Project Coordinator \$113	Sr. Graphic Manager \$169	Sr. Graphic Designer \$145		Graphic Designer \$124	Total Hours	Total MT Cost	FEHR & PEERS	GECON	PLACEMENTS	
1.0 PROJECT ADMINISTRATION																											
1.1 Project Schedule, Status Reports, Invoices & Administration	44		40													12	16					112	\$21,252	-	-	-	\$21,252
1.2 Engineering Phase Meetings	8	8	8		16							6										46	\$8,298	-	-	-	\$8,298
1.3 Public Outreach Support & Meetings	8	8	8		16					24		8	8					8	12	24		124	\$23,876	-	-	-	\$23,876
Subtotal Phase 1	60	16	56	0	32	0	0	0	0	24	0	14	8	0	0	12	16	8	12	24	282	\$53,426	\$0	\$0	\$0	\$53,426	
2.0 RESEARCH EXISTING CONDITIONS																											
2.1 Site Reconnaissance	4	4	4		8								4									24	\$4,012	-	-	-	\$4,012
2.2 Record Drawing Review	4	4	8		16								4									36	\$5,564	-	-	-	\$5,564
2.3 Research						4	12	20	8													44	\$6,348	-	-	-	\$6,348
2.4 Surveying						20	40	20	80	100												260	\$54,560	-	-	-	\$54,560
2.5.1 Utility 'A' Letters - Mapping Requests		4	4		16																	24	\$3,296	-	-	-	\$3,296
2.5.2 Existing Utility Mapping		8	4		40																	52	\$6,848	-	-	-	\$6,848
2.5.3 Utility Pot-holing (14)		4	4		16																	24	\$3,296	-	-	-	\$3,296
2.5.4 Utility Conflict Mapping		8	16		40																	64	\$8,792	-	-	-	\$8,792
2.5.5 Utility 'B' Letters - Claim/Liability Determination	8	10	20																			38	\$7,420	-	-	-	\$7,420
Subtotal Phase 2	16	42	60	0	136	24	52	40	88	100	0	0	8	0	0	0	0	0	0	0	566	\$100,136	\$0	\$0	\$0	\$100,136	
3.0 ENVIRONMENTAL																											
3.1 Project Description																						0	\$0	-	-	8,252	\$8,252
3.2 Environmental Technical Studies	4	8	16																			28	\$5,312	-	-	45,910	\$51,222
3.3 Administrative Draft CEQA Addendum																						0	\$0	-	-	13,707	\$13,707
3.4 Final CEQA Addendum																						0	\$0	-	-	5,892	\$5,892
3.5.1 Traffic Counts																						0	\$0	2,500	-	-	\$2,500
3.5.2 Intersection Traffic Volume Forecasting																						0	\$0	4,495	-	-	\$4,495
3.5.3 Intersection Lane Geometrics		4	12																			16	\$2,784	5,780	-	-	\$8,564
3.5.4 VMT Forecasting																						0	\$0	12,440	-	-	\$12,440
3.5.5 Mitigation																						0	\$0	6,500	-	-	\$6,500
Subtotal Phase 3	4	12	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	\$8,096	\$31,715	\$0	\$73,761	\$113,572	
4.0 PRELIMINARY DESIGN & MEMORANDUM / ENGINEERING STUDIES																											
4.1.1 30% Plans	8	30	80		120							4	12	20								274	\$41,680	-	-	-	\$41,680
4.1.2 Preliminary Design Memorandum	4	8	32		60							2	4									110	\$16,146	-	-	-	\$16,146
4.2.1 Pre-field and Field Activities																						0	\$0	-	4,610	\$4,610	
4.2.2 Materials Testing / Soils Testing																						0	\$0	-	8,070	\$8,070	
4.2.3 Prepare Draft Geotechnical Memo																						0	\$0	-	2,300	\$2,300	
4.3 Preliminary Drainage Report	8	16	40		60																	124	\$18,700	-	-	-	\$18,700
4.4 Preliminary Water Quality Report	4	8	16		40																	68	\$9,832	-	-	-	\$9,832
4.5 Traffic Technical Memorandum																						0	\$0	5,005	-	-	\$5,005
Subtotal Phase 4	24	62	168	0	280	0	0	0	0	0	6	16	20	0	0	0	0	0	0	0	576	\$86,358	\$5,005	\$14,980	\$0	\$106,343	
5.0 FINAL ENGINEERING/CONSTRUCTION CONTRACT DOCUMENTS																											
5.1 60% PS&E	8	16	24	140	280						1	20	40	60	100							689	\$87,301	41,769	-	-	\$129,070
5.2 90% PS&E	8	16	60	80	260						1	12	20	20	40							517	\$67,641	27,846	-	-	\$95,487
5.3 100% PS&E	4	8	24	40	200						1	4	12	8	20							321	\$40,469	13,923	-	-	\$54,392
5.4 Final PS&E	4	4	8	8	40						1	4	12	8	20							109	\$14,509	9,282	-	-	\$23,791
5.5 Final Drainage Report				8	20																	28	\$3,556	-	-	-	\$3,556
5.6 Final Water Quality Report				8	12																	20	\$2,652	-	-	-	\$2,652
5.7.1 Identify ROW Requirements	4	4	10		14																	32	\$5,082	-	-	-	\$5,082
5.7.2 Finalize ROW Requirements	2	2	4		8																	16	\$2,492	-	-	-	\$2,492
5.8 Structures Wall Review			20																			20	\$4,200	-	-	-	\$4,200
Subtotal Phase 5	30	70	146	268	834	0	0	0	0	0	4	40	84	96	180	0	0	0	0	0	1752	\$227,902	\$92,820	\$0	\$0	\$320,722	
6.0 BIDDING SERVICES																											
6.1 Bidding Phase Support		8	10										2									20	\$3,590	-	-	-	\$3,590
6.2 Conformed Plans & Specifications		8	8																			16	\$2,976	-	-	-	\$2,976
Subtotal Phase 6	0	16	18	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	36	\$6,566	\$0	\$0	\$0	\$6,566	
7.0 ENGINEERING CONSTRUCTION SERVICES																											
7.1 Engineering Support			8		40							4	8									60	\$7,932	-	-	-	\$7,932
7.2 Review of Equipment and Shop Drawing Submittals		2	8		8																	18	\$2,620	-	-	-	\$2,620
7.3 Minor Plan Revisions			4		30																	42	\$5,526	-	-	-	\$5,526
7.4 Record Drawings			8	16	30									16								70	\$9,486	-	-	-	\$9,486
Subtotal Phase 7	0	14	40	0	108	0	0	0	0	0	0	4	8	16	0	0	0	0	0	0	190	\$25,564	\$0	\$0	\$0	\$25,564	
TOTAL HOURS	134	232	516	268	1390	24	52	40	88	124	10	74	130	112	180	12	16	8	12	24	3446						
OTHER DIRECT COSTS																											
TOTAL COST	\$34,840	\$48,720	\$83,592	\$37,252	\$157,070	\$5,208	\$9,204	\$5,160	\$8,536	\$40,672	\$2,530	\$17,686	\$18,850	\$12,768	\$16,560	\$1,524	\$1,808	\$1,352	\$1,740	\$2,976		\$529,048	\$131,540	\$14,980	\$73,761	\$749,329	

CITY OF CORONA
ONTARIO AVENUE WIDENING AT LINCOLN AVENUE (RFP) NO. 23-033CA

Engineering & Planning

Intern	\$65
Technician	\$95
Design Engineer I	\$113
Design Engineer II	\$139
Sr. Technician	\$142
Project Engineer	\$162
Sr. Project Engineer	\$182
Sr. Technical Engineer	\$182
Project Manager	\$210
Technical Lead	\$210
Sr. Project Manager	\$260
Sr. Technical Lead	\$260
Engineering Manager	\$314
Design Manager	\$314
Sr. Engineering Manager	\$372
Principal	\$417

Construction Management

Office Technician	\$80
Office Engineer	\$152
* Asst. Resident Engineer	\$213
* Inspector - CM	\$210
RE/Structural Representative	\$213
Project Manager - CM	\$231
Sr. Project Manager - CM	\$251
Area Manager - CM	\$370
Division Manager - CM	\$308

Planning

Planner I	\$92
Planner II	\$116
Sr. Planner	\$139

Landscape Architecture/Urban Design

Landscape Intern	\$65
Landscape Designer I	\$92
Landscape Designer II	\$114
Landscape Architect	\$145
Sr. Landscape Architect	\$160
LAUD Project Manager	\$207
Sr. LAUD Project Manager	\$239
LAUD Division Manager	\$253

Grant Writing

Funding Specialist	\$155
Sr. Funding Specialist	\$181
Funding Manager	\$281

Surveying

Survey Intern	\$80
Survey Technician	\$97
Sr. Survey Technician	\$130
Surveyor	\$129
Sr. Surveyor	\$151
Lead Survey Technician	\$158
Project Surveyor	\$177
Sr. Project Surveyor	\$192
Survey Manager	\$217
Sr. Survey Manager	\$245
Survey Division Manager	\$323
* Single Chief	\$174
* Single Instrumentman	\$159
* Single Chainman	\$152
* Apprentice	\$107
* 1 Person Field Crew	\$174
* 2 Person Field Crew	\$328
* 3 Person Field Crew	\$435

District Management

* Inspector - Apprentice	\$80
* Inspector	\$113
* Sr. Inspector	\$136
Assistant Sanitary Engineer	\$155
Associate Sanitary Engineer	\$175
Sanitary Project Engineer	\$204
Sr. Sanitary Project Engineer	\$231
Operations Manager	\$262
Deputy District Manager	\$301
District Manager-Engineer	\$330

Project Support/Coordination

Project Assistant	\$87
Technical Writer	\$87
Sr. Project Assistant	\$112
Project Coordinator	\$113
Graphic Designer	\$124
Sr. Technical Writer	\$132
Project Accountant	\$127
Sr. Project Coordinator	\$142
Sr. Graphic Designer	\$145
Sr. Project Accountant	\$143
Sr. Graphic Manager	\$169
Project Accountant Manager	\$181

Special Services


Expert Witness	\$484
Strategic Consulting	\$484

Reimbursables including, but not limited to; reproductions, delivery and filing fees; outside consultant fees; and survey field expenses will be billed at *Cost Plus 5%*. **Mileage** will be billed per *current IRS Rate*.

* These charge rates are subject to Prevailing Wage laws and Union contract.

ADD SERVICE 1:

COST PROPOSAL FOR PROJECT SCOPE: Corona- Ontario Avenue Widening at Lincoln Avenue PO No. P23003

													Subconsultants		TOTAL COST		
		Project Engineer \$162	Design Engineer II \$139	Design Engineer I \$113	Project Surveyor \$177	Surveyor \$129	Survey Technician \$97	2 Person Field Crew \$328	LAUD Division Manager \$253	LAUD Project Manager \$239	Landscape Designer II \$114	Landscape Designer I \$92	Total Hours	Total MT Cost		FEHR & PEERS	
2.0	RESEARCH EXISTING CONDITIONS																
2.6	Additional Supplemental Survey				2	6	10	16					34	\$7,346			\$7,346
	Subtotal Phase 2	0	0	0	2	6	10	16	0	0	0	0	34	\$7,346	\$0	\$7,346	
5.0	FINAL ENGINEERING/CONSTRUCTION CONTRACT DOCUMENTS																
5.1 AM#1	60% PS&E Additional Plan Production	32	100	180					1	4	8	80	405	\$48,905	-		\$48,905
5.2 AM#1	90% PS&E Additional Plan Production	5	46	32					1	32	60	56	232	\$30,713	-		\$30,713
5.3 AM#1	100% PS&E Additional Plan Production	2	10	20					1	4	8	16	61	\$7,567	-		\$7,567
5.4 AM#1	Final PS&E Additional Plan Production	1	4	8					1	2	4	8	28	\$3,545	-		\$3,545
	Subtotal Phase 5	40	160	240	0	0	0	0	4	42	80	160	726	\$90,730	\$0	\$90,730	
6.0	BIDDING SERVICES																
6.1 AM#1	Additional Bidding Phase Support	2	2							2	2		8	\$1,308	\$500		\$1,808
	Subtotal Phase 6	2	2	0	0	0	0	0	0	2	2	0	8	\$1,308	\$500	\$1,808	
7.0	ENGINEERING CONSTRUCTION SERVICES																
7.4 AM#1	Additional Record Drawings	2	4						2	8	8		24	\$4,210	\$1,500		\$5,710
	Subtotal Phase 7	2	4	0	0	0	0	0	2	8	8	0	24	\$4,210	\$1,500	\$5,710	
	TOTAL HOURS	44	166	240	2	6	10	16	6	52	90	160	792				
	OTHER DIRECT COSTS													\$0	\$0		\$0
	TOTAL COST	\$7,128	\$23,074	\$27,120	\$354	\$774	\$970	\$5,248	\$1,518	\$12,428	\$10,260	\$14,720		\$103,594	\$2,000	\$105,594	