OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

FIFTH AMENDMENT TO AGREEMENT NO. 33938

33938

THIS FIFTH AMENDMENT TO AGREEMENT NO. 33938 is made and entered, in duplicate, as of May 19, 2021 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on May 18, 2021, by and between HDR ENGINEERING, INC., a Nebraska corporation ("Consultant"), with a place of business at 3230 El Camino Real, Suite 200, Irvine, California 92602, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City and Consultant (the "Parties") entered into Agreement No. 33938 (the "Agreement") whereby Consultant agreed to provide design services for the Shoemaker Bridge replacement project; and

WHEREAS, the Parties entered into a First Amendment to the Agreement to decrease the Agreement amount by $739,654.27 for a total not to exceed amount of $3,960,345.73 and attach a revised scope of work and a revised rate sheet; and

WHEREAS, the Parties entered into a Second Amendment to the Agreement to extend the term to August 30, 2019 and add $2,491,104.24 to the Agreement for a total not to exceed amount of $6,451,449.97; and

WHEREAS, the Parties entered into a Third Amendment to extend the term to August 30, 2020; and

WHEREAS, the Parties entered into a Fourth Amendment to the Agreement to add $524,937 for a total not to exceed amount of $6,976,386.97 and attach an additional scope of work and a revised rate sheet; and

WHEREAS, the Parties desire to add $22,550,235 to the Agreement for a total not to exceed amount of $29,526,622, extend the term one (1) additional four-year period, revise the Additional Costs and Redesign language, attach an additional scope of work and a revised rate sheet, and update the City's representative;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions herein contained, the Parties agree as follows:

1. Section 1.A of the Agreement is hereby amended to read as follows:

"A. Consultant shall furnish specialized services more particularly described in Exhibit "A", attached to the Agreement and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, not to exceed Twenty-Nine Million Five Hundred Seventy-Six Thousand Six Hundred Twenty-Two Dollars ($29,526,622), at the rates or charges shown in Exhibit "B"."

2. Section 2 of the Agreement is hereby amended to read as follows:

"2. TERM. The term of this Agreement shall commence at midnight on August 31, 2015, and shall terminate at 11:59 p.m. on August 30, 2024, unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner."

3. Section 13.B. of the Agreement is hereby amended to read as follows:

"B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specification, any construction documents relating to the plans and specifications, and Consultant's estimate, at Consultant's direct labor rates including overhead but with no additional profit, when the lowest bid for construction received by City exceeds by more than ten (10%) of Consultant's estimate. This modification shall be submitted to the City within four (4) months after the date on which the original construction bids were received by the City. Approving agency review and approval time for the modification is not included in the four (4) months. This requirement shall not apply if the City receives only one (1) construction bid for the Project or if the modifications include changes to the Bridge Types."

4. The Scope of Work in Exhibit "A" to the Agreement, Exhibit "A-1" to the First Amendment and Exhibit "A-2" to the Fourth Amendment is hereby amended to

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include additional services more particularly described in Exhibit "A-3", attached hereto and incorporated by this reference.

5. The Rates in Exhibit "B-2" are hereby amended in accordance with Exhibit "B-3", attached hereto and incorporated by this reference.

6. The City Representative named in Exhibit "C" to the Agreement is hereby amended in accordance with Exhibit "C-1", attached hereto and incorporated by this reference.

7. Except as expressly modified herein, all of the terms and conditions contained in Agreement No. 33938 are ratified and confirmed and shall remain in full force and effect.

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CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

IN WITNESS WHEREOF, the Parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

HDR ENGINEERING, INC., a Nebraska corporation

5/26/2021, 2021

By _____
Name Thomas T. Kim, P.E.
Title Sr. Vice President

5/26/2021, 2021

By _____
Name Kip Field
Title Sr. Vice President

"Consultant"

CITY OF LONG BEACH, a municipal corporation

June 1, 2021

By _____
City Manager

"City"

EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER.

This Fifth Amendment to Agreement No. 33938 is approved as to form on 6-2, 2021.

CHARLES PARKIN, City Attorney

By _____
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664



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IN WITNESS WHEREOF, the Parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

HDR ENGINEERING, INC., a Nebraska corporation

5/26/2021, 2021

By _____
Name Thomas T. Kim, P.E.
Title Sr. Vice President

5/26/2021, 2021

By _____
Name Kip Field
Title Sr. Vice President

"Consultant"

CITY OF LONG BEACH, a municipal corporation

_____, 2021

By _____
City Manager

"City"

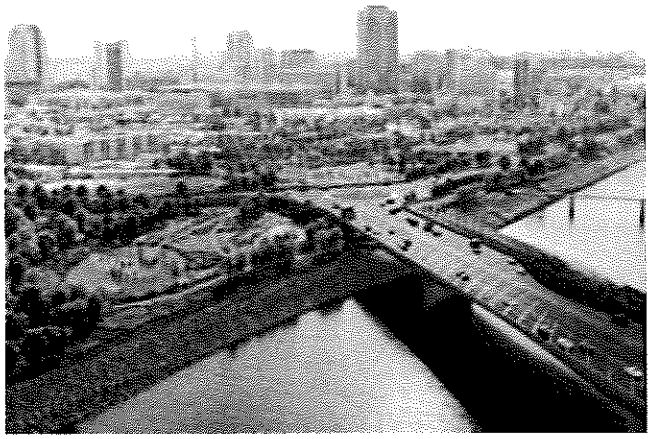
This Fifth Amendment to Agreement No. 33938 is approved as to form on _____, 2021.

CHARLES PARKIN, City Attorney

By _____
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

# Exhibit A-3
# Scope of Work



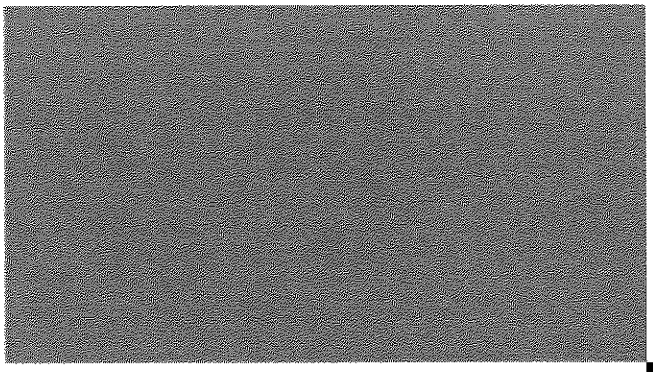
# Revised Scope of Services

Shoemaker Bridge Replacement Project

Final Design and Bid Phase Support Services

*City of Long Beach, CA*

March 23, 2021



CITY OF LONG BEACH

**City of Long Beach**
**Scope of Work for**
**Final Design Services for Shoemaker Bridge Replacement Project**
**March 2021**

## Introduction

HDR is pleased to present the following scope of work for the completion of final design services for the Shoemaker Bridge Replacement Project. HDR will be supported by a team of specialty subconsultants to assist HDR in completing this scope of services as listed below:

| Firm Name | Certification | Role/Responsibility |
|---|---|---|
| HDR | | PM, roadway, structures (LA River Bridge, roundabout structure independent check, LA River Bridge bike/ped structure), urban design, bridge architecture |
| Guida | SBE | Surveys and mapping |
| Twining | | Geotechnical |
| Evans and Walker | WSBE/VSBE | Oil field impact assessment |
| TY Lin | | Structures (roundabout structure, LA River Bridge independent check) |
| IDC | DBE | Structures (7th Street pedestrian bridge, retaining walls) |
| LIN | DBE/SBE/VSBE | Electrical design, traffic control design |
| AirX | WBE/SBE | Potholing |
| PGI | DBE/SBE | ACM and LBP surveys |
| Interphase Environmental | DBE/SBE | Soil and groundwater sampling |
| Orange Coast Analytical | VSBE/SBE/WBE | Environmental laboratory analytical |
| Southwest Geophysics | | Underground utility clearance |
| TMI | MBE | Traffic control |
| American Integrated Services | MBE | Investigation-derived waste disposal |
| MBI Media | DBE/SBE | Public outreach |
| RVA | DBE/SBE | USACE coordination |
| Tatsumi & Partners | DBE | Landscape/irrigation design |

When HDR is referenced in the scope below, it is referencing HDR Team as outlined above meaning any of the above members of the HDR team could be completing the work depending upon its nature.

A map prepared by the City of Long Beach showing the limits of the Shoemaker Bridge Replacement Project and the adjacent Shoreline Drive Realignment Project is included in **Attachment 1**. The construction contract package for the Shoreline Drive Realignment Project is being developed under a separate final design contract by the City, with the final design work

assumed to be conducted concurrently with work covered within this scope. It is assumed that the Shoreline Realignment Project will be constructed in advance of the Shoemaker Bridge Replacement Project, and the improvements included as part of that project (see **Attachment 1**) will serve as the base condition for this project. The major elements of the Shoemaker Bridge Replacement Project to be covered as part of this scope of services include the following:

1. Removal of existing Shoemaker Bridge over LA River and joining local street connectors on east and west sides of river
2. Construction of new LA River Bridge to provide new connection from SR 710 to the west to downtown Long Beach to the east
3. Construction of new SR 710 connector and associated freeway modifications along SR 710 on the west side of the LA River
4. Construction of new roundabout structure on east side of LA River to provide access from SR 710 connector to adjoining local streets
5. Construction of street modifications along adjoining local streets tying into roundabout including
   a. Shoreline Drive (proposed per Shoreline Realignment Project) from north of Broadway to roundabout
   b. Sixth Street from existing West Shoreline Drive to Daisy Avenue (Sixth Street will not connect to roundabout)
   c. Seventh Street from roundabout to Daisy Avenue
6. Construction of bike/ped structure to connect the Observation Platform (future bike/ped path) on new LA River Bridge to the existing LA River Trail along east bank of LA River
7. Construction of new pedestrian bridge over 7th Street to replace the existing bridge located at Maine Avenue.
8. Demolition of existing SD-1 Pump Station to accommodate roundabout and Construction of new SD-1 Pump Station to replace existing
9. Construction of park improvements within Cesar Chavez park including bike/ped paths, new landscape/hardscape elements, water quality features, and associated grading
10. Utility relocations needed to accommodate all local street work and park improvements included as part of Item 9 above.

Based on discussions with the City, it is assumed for the purpose of this scope that the City will break the construction of the Project as outlined above into the following construction contract packages:

| Construction Contract Package | Work item Number (see list above) | Tasks in Which Design Work is Covered Within Scope of Services |
|---|---|---|
| Package 1 | Items 1-7 | Tasks 2, 3A-5A |
| Package 2 | Items 8-9 | Tasks 2, 3B-5B |
| Package 3 | Item 10 | Tasks 2, 4C-5C |

It is assumed that the city will award, advertise, and administer all three construction contract packages separately. The following is an outline of the tasks included within this scope of services:

- **Task 1:** Project Management, Coordination, and Administration (covers work to be done as part of all three contract packages)
- **Task 2:** Preliminary Design & Bridge Type Evaluation/Selection (includes preliminary design of all project elements 1-10 as identified above)

***Task 3A-5A cover preparation of construction contract package for Package 1***

- **Task 3A:** Draft PS&E (65%) Submittal for Caltrans Work
- **Task 4A:** Initial PS&E (95%) Submittal for Caltrans Work
- **Task 5A:** Final PS&E (100%) Submittal for Caltrans work

***Task 3B-5B cover preparation of construction contract package for Package 2***

- **Task 3B:** Draft PS&E (65%) Submittal for Pump Station, Landscaping, and Urban Design Work
- **Task 4B:** Initial PS&E (95%) Submittal for Pump Station, Landscaping, and Urban Design Work
- **Task 5B:** Final PS&E (100%) Submittal for Pump Station, Landscaping, and Urban Design Work

***Task 4C-5C cover preparation of construction contract package for Package 3***

- **Task 4C:** Initial PS&E (95%) Submittal for Early Action Utility Relocations
- **Task 5C:** Final PS&E (100%) Submittal for Early Action Utility Relocations

***Work in Tasks 6-8 cover all three contract packages***

- **Task 6:** Right of Way Appraisal and Acquisition Services
- **Task 7:** Permitting Services and Other Support Services
- **Task 8:** Bid Support Services

The following scope of services will be organized according to the task listing/work breakdown structure noted above with additional subtasks included under these eight main tasks to sufficiently describe the work to be done as part of this contract by discipline. Under each task or subtask heading, the nature of the work being described is included along with listings of deliverables to be prepared and any associated assumptions and/or exclusions related to the work being done.

Several tasks within the scope are identified as optional, which means these tasks will be complete only upon prior approval from the City. The fee proposal included in **Attachment 2** also identifies these tasks and breaks out their associated costs.

*Cost Estimating*

As part of the preparation of the Engineer's Estimate of Probable Construction Cost, completed as part of Tasks 3A-5A as described below, the HDR Constructability team will perform an independent, bottoms up review the Engineer's Estimate. The review will be performed by a Senior Construction Management professional. The purpose of the review is to provide an independent check of the estimate to allow greater confidence that contractor bids will be within ten percent of the estimate. The review will:

- Verify quantity calculations for key bid items
- Evaluate key unit costs
- Consider lump sum items for reasonableness
- Evaluate regulatory issues on contractor pricing
- Identify potential risk items impacting contractor pricing

At the conclusion of each review, HDR will prepare a summary technical memorandum to document their findings and submit to the City as part of each milestone submittal.

**Task 1: Project Management, Coordination, and Administration**

HDR will provide overall project management, coordination, and supervision of the project staff to facilitate the performance of the work in accordance with the scope and requirements of the City of Long Beach, Caltrans, and other jurisdictional agencies.

This task involves the work related to managing the project on behalf of HDR, including the preparation of the required project initiation documentation, conducting internal and external meetings and coordination, the development and implementation of appropriate project controls, and the preparation of monthly invoices and progress reports. Project management hours are based on a 36 month final design schedule (NTP to approval of all final design documents by the governing jurisdictions).

***1.1: Coordination and Administration***

This task covers all formal internal and external project meetings as well as administrative activities, including the preparation and maintenance of a project risk register, preparation and maintenance of the project files, and preparation and maintenance of a project design phase schedule.

***1.1.1: Coordination and Meetings***

This task includes all meetings with both the City and third-party agencies as well as internal regular project team meetings throughout the duration of the project. Unless directed otherwise, HDR will be responsible for scheduling all meetings and preparing meeting agendas, presentation materials, and meeting minutes. The table below outlines the meetings covered as part of this task.

| Meeting Description | Meeting Purpose | Meeting Occurrence | Meeting Assumptions |
|---|---|---|---|
| PDT Meetings with Caltrans | Meeting is specific to Package 1 package development and intended to allow for regular coordination with Caltrans on project status and discussion/resolution of technical issues requiring Caltrans input. | Monthly | Thirty three (33) meetings to be attended by PM and discipline leads as necessary. PM and up to three (3) discipline leads to attend in person; others to participate virtually. |
| Meetings with City of Long Beach staff | Meeting is intended to allow for regular coordination with City on project status and discussion & resolution of technical issues requiring City input, especially regarding Packages 2 and 3. | Biweekly | Sixty six (66) meetings to be attended by PM and discipline leads as necessary |

| | | | |
|---|---|---|---|
| ***Other Agency/Third-party Coordination Meetings*** | | | |
| Meetings with Los Angeles County Dept. of Public Works and US Army Corps of Engineers (USACE) | To coordinate with agencies about work being done within limits of County and USACE jurisdiction, including the LA River which will require their approval. | Quarterly | Ten (10) meetings to be attended up to three (3) HDR staff and two (2) RVA staff |
| Crime Prevention through Environmental Design (CPTED) meetings | To review CPTED principles with local law enforcement and identify which are most applicable and feasible for implementation, and as the design develops, review to insure integration. | As appropriate during preparation of Package 2 | Three (3) meetings with Long Beach Police and other law enforcement officials attended by three (3) HDR staff |
| Meetings with US Fish and Wildlife Service (USFWS) | To coordinate with USFWS on bridge design to address their concerns raised during PA/ED phase and obtain agency concurrence. | As necessary during preparation of Package 1 | Four (4) meetings total attended by up to three (3) HDR staff |
| Coordination meetings with Shoreline Realignment and LB Must Project staff | To coordinate designs among three design teams to facilitate consistency and integration among projects. | Monthly | Twenty four (24) meetings total attended by up to four (4) HDR staff as appropriate. Assumes portion of meetings will be devoted to project visioning and integration |
| Focused workshops with Caltrans and/or City staff | To review and obtain input/resolution on technical issues requiring Caltrans and/or City input. | As needed | Three (3) meetings per month for twenty (20) months attended by up to three (3) HDR staff as appropriate |
| ***Other Meetings*** | | | |
| Internal project team meetings | To facilitate coordination amongst the project team, to review status of work completed by each discipline, and discuss interdisciplinary technical issues requiring resolution. | Biweekly | Sixty six (66) meetings total attended by PM and discipline leads as necessary |
| Constructability and Safety Review Workshops | Workshops to be led by Caltrans as part of review of Package 3 as dictated by Caltrans PS&E workflow standards. Constructability review workshops will be held as part of 65% and 95% PS&E phases and safety review workshops will be held as part of 65% and 100% PS&E phases. | Prior to 65%, 95%, and 100% PS&E submittals as required by Caltrans | Each workshop duration will be a half day and will be attended by Package 1 discipline leads |

*Task 1.1.1 Deliverables:*

- Meeting agendas, formal minutes or email records of discussion as appropriate, presentation materials

*Task 1.1.1 Assumptions:*

- See table above for specific meeting assumptions
- It is assumed that all meetings will be held virtually until September of 2021 due to the current COVID-10 panedemic situation.

### *1.1.1. Administration*

***Risk Register*** – HDR will develop and maintain a project risk register as required by Caltrans throughout the project's design phase. The risk register will be organized by package and will identify potential design and construction phase risks that may arise throughout the life of the project so that appropriate mitigation or avoidance plans can be identified and monitored throughout the design duration. The Package 1 risk register will be reviewed with Caltrans at monthly PDT meetings while the Package 2 and 3 risk registers will be reviewed with the City on a monthly basis at the biweekly coordination meetings with City staff. The format of the risk register will be in accordance with Caltrans risk management policy guidelines.

***Project files*** - HDR will develop a project filing system for use throughout the duration of the project which will be consistent with Caltrans and/or City filing guidelines as appropriate. The filing system will be submitted to the City for approval. All project files will be stored electronically utilizing HDR's ProjectWise software. City staff can be provided access to specific ProjectWise folders as appropriate to access certain project files. This will be coordinated with City staff upon NTP.

A document control log will be developed and utilized throughout the life of the project to document incoming and outgoing project materials. A copy of this log can be furnished to the City at any time upon request.

***Schedules*** – HDR will develop and submit be a Critical Path Method (CPM) draft project schedule, which will be prepared using Microsoft Project and presented in Gantt chart format. The schedule will identify the anticipated start/end dates and durations for each task identified within the scope of work and will identify the critical path. Upon approval by the City and Caltrans, the schedule will be set as the project baseline. The schedule will be updated on a monthly basis to track the project status against the baseline and advise the City and Caltrans on the project status at coordination meetings. Copies of the monthly status schedules will be provided to the City each month in conjunction with each invoice and progress report.

*Task 1.1.2 Deliverables:*

- Baseline and updated risk register
- Document control log
- Approved baseline schedule and monthly status schedules

*Task 1.1.2 Assumptions:*

- Risk register to be prepared in accordance with Caltrans formatting requirements for all three packages
- All project files to be stored electronically in ProjectWise.
- Schedule to be prepared in Microsoft Project with status schedules to be prepared on a monthly basis. Single master schedule covering the preparation of all three packages to be prepared.

### *1.2: Progress Reports and Invoices*

Invoices will be generated on a monthly basis in accordance with City invoicing guidelines. Progress reports will be generated to accompany each invoice, which will include the following information:

- Work completed over the reporting period by task
- Work to be completed over the upcoming reporting period by task
- Progress schedule which will compare the status of each activity against the baseline
- Issues or concerns related to the schedule or budget.

*Task 1.2 Deliverables:*

- Monthly invoices and progress reports (36 total)

### *1.3: Prepare Design Quality Management Plan*

HDR will develop a comprehensive Quality Management Plan that will outline the quality assurance and control procedures that will be implemented throughout the project by HDR and its subconsultants to facilitate the preparation of quality deliverables. A designated Quality Assurance Manager will be responsible for presenting the defined quality control (QC) procedures to the project staff at project initiation and conducting audits of deliverables throughout the project to check that the specified quality control procedures have been implemented and documented.

The Quality Management Plan will identify a designated quality control reviewer for each deliverable. It will also identify the estimated start and end dates that each QC review will be completed based on the baseline schedule. This information will be input into HDR's project controls monitoring system so that these QC reviews can be tracked and monitored to check that they are being completed and documented. The quality control process typically involves the following three main steps, which will all be documented to confirm completion:

1. **Detailed Check Reviews:** Individual disciplines will complete internal detailed checks of their responsible portions of each deliverable (i.e. plans, specifications, and estimates). The detailed check will be completed by the discipline lead and will involve a comprehensive review of the deliverable to confirm technical accuracy, completion, compliance with relevant engineering and plan formatting standards, and satisfaction of the scope of services. The detailed check will be completed in accordance with published HDR quality standards, documented, and filed in ProjectWise.
2. **Intradisciplinary QC Reviews:** Upon completion of the detailed checks and any revisions to the deliverables to address detailed check comments, the formal quality control process will be initiated. The first step in this process is the completion of quality control reviews of each discipline making up a multidisciplinary deliverable similar to the completion of the detailed checks. Instead of being completed by a member of the project team, technical experts within each discipline outside the project team will be assigned to complete these reviews. The names of these reviewers will be identified in the Quality Management Plan. The quality control reviews will be conducted at a higher level than the detailed checks but will still check for appropriate level of completeness consistent with the milestone submittal, consistency among the various elements of the deliverable (i.e. different plan sheets), correct formatting, technical accuracy, etc. QC review comments will be submitted to each discipline lead for review and acknowledgement (if agreed to) or response (if disagreed with), and the deliverables will then be revised to address the review comments. Updated copies of the deliverables

will then be back checked by each reviewer to confirm the comments have been adequately addressed.

3. **Interdisciplinary QC Reviews:** This step will be completed for any deliverable requiring input from multiple disciplines (i.e. plans, specifications, and engineer's estimates), with these reviews being conducted upon completion of Step 2. For the project plans, interdisciplinary reviews will be conducted in a workshop type format that will be attended by all discipline leads. This review consists of conducting a collective page-turn review of each plan sheet. The intent of this review to look for inconsistencies with other disciplines or major formatting or technical errors/omissions.

As noted, all reviews will be documented, with evidence of the review (i.e. markups generated) filed in ProjectWise. The Quality Assurance Manager will then confirm that all reviews have been completed and documented in accordance with the Quality Management Plan prior to submittal.

*Task 1.3 Deliverables:*

- Draft and Final Quality Management Plan (hard copies provided to each project team task manager and to City of Long Beach Project Manager).

*Task 1.3 Assumptions:*

- Subconsultants will be responsible for implementing the quality control procedures as defined in the Project Quality Management Plan for any deliverables (or portions thereof) for which they are responsible.

### *1.4: Prepare Project Management Plan and Financial Plan*

HDR's Project Manager will update the existing Shoemaker Bridge Project Management Plan (PMP) for this contract, which will outline the following information related to the work:

- Scope of work and schedule for completion
- Project team and client contact information
- Communication Plan
- Invoicing requirements and templates
- Project team roles and responsibilities
- Document control procedures
- Financial plan which will outlay projected expenditures by month based on draft project schedule

This document will be distributed to all project team members and the City and will act as a living document throughout the life of the contract. It will be updated periodically to reflect any changes in protocol or other information included and redistributed.

*Task 1.4 Deliverables:*

- Draft project-specific Project Management Plan to be distributed to project team members and City staff (PDF copies)
- Updates to Project Management Plan, if required during course of project, will be distributed via email to project team and City (PDF)

## Task 2: Preliminary Design & Bridge Type Evaluation/Selection

This task covers the completion of preliminary design for all elements of the Project (Items 1-10) as outlined in the Introduction. In addition, this task includes supplemental surveys, geotechnical exploration work, and hazardous materials surveys and studies needed to complete final design.

### *2.1: Conduct Geometric Workshop*

HDR will conduct a workshop with Caltrans District 7 staff, the Caltrans Safety Review Committee representatives, Caltrans District 7 Design Liaison, Caltrans Headquarters Project Development Coordinator, and City staff to review and obtain consensus on the geometrics for the proposed portion of the project design within State right of way as previously defined within the Project Report. HDR will identify and clarify and major nonstandard features included within the design.

*Task 2.1 Deliverables:*

- Workshop agenda, minutes, presentation materials, concept exhibits, etc.

*Task 2.1 Assumptions:*

- One workshop assumed to be attended by four (4) HDR staff

### *2.2: Prepare Supplemental Design Standard Decision Document (if needed)*

HDR will prepare a supplemental Design Standard Decision Document (DSDD), if necessary, for any nonstandard design features not included in the approved DSDD prepared as part of the PA/ED phase or to reflect any design modifications resulting from the geometric workshop conducted as part of Task 2.1.

*Task 2.2 Deliverables:*

- Draft and Final Supplemental DSDD prepared in accordance with Caltrans requirements.
- Responses to comments on Draft DSDD

### *2.3: Supplemental Field Surveys*

This task covers the supplemental field surveys needed to complete final design, including the surveys of utility potholes and any associated exposed utilities

### *2.3.1: Complete Design Surveys*

The current topographic mapping prepared as part of the PA/ED phase will be utilized to prepare the final design plans. HDR's surveyor will complete supplemental field surveys as necessary to allow the project team to complete final design. This will include detailed field surveys of existing street and drainage features. Cross sections and tie-in surveys will ensure accurate design fit and smooth transitions from existing roadway and infrastructure features.

HDR's surveyor will verify survey results and then transmit them in Microstation 3D and DTM formats, along with ASCII point and station-offset files of all field survey ties. All work and files will be based on project coordinate control and in accordance with Caltrans Surveys and Right

of Way Manuals and Caltrans District 7 R/W Engineering requirements for the preparation of documents and maps.

### *2.3.2 Complete Potholing Surveys*

HDR surveyors will support the utility potholing work be completing the following services:

- Locating proposed pothole or exploratory trench locations in the field for potholing contractor
- Documenting any utilities exposed as part of trenching excavations.

Survey locations of any exposed utilities will be submitted to the project team in both Microstation and ASCII formats.

*Task 2.3 Deliverables:*

- Survey data submitted in both Microstation and ASCII formats
- Field-marked locations of all proposed utility potholes and trenches

*Task 2.3 Assumptions:*

- The topographic mapping prepared to support the Project's PA/ED phase will be used for final design. New aerial topographic mapping will not be prepared to support final design.
- Preparation and recording of public street easements in the Cesar Chavez Park are not included.

### *2.4: Geotechnical Explorations*

The HDR team will complete supplemental geotechnical explorations needed to support the subsequent geotechnical analysis and design recommendations to be prepared in later tasks including the following:

- Structure foundation types
- Proposed roadway and park grading
- Pavement sections for new or widened roads

This task includes the completion of all field explorations and geotechnical boring work as well as subsequent laboratory analysis.

HDR will prepare and submit a geotechnical review and exploration plan for City and Caltrans for review. HDR will obtain permits to enter any private properties prior to exploration. HDR will conduct subsurface investigation and evaluate the results in accordance with Caltrans testing criteria.

*Task 2.4 Deliverables:*

- Geotechnical Exploration Plan
- Right of entry permits
- Water Pollution Control Plan

*Task 2.4 Assumptions:*

- Cost for the completion LA River and pavement borings for Shoreline Drive is accounted for under current City contract however, requirements of LA River geotechnical exploration may result in additional scope.

### *2.5: Prepare Supplemental Geometric Review Drawing*

If geometric revisions/refinements to the project elements within State right of way are required as a result of the geometric workshop conducted as part of Task 2.1, HDR will prepare a supplemental Geometric Review Drawing and submit to Caltrans for review and approval.

*Task 2.5 Deliverables:*

- Draft and Final Geometric Review Drawing (GRD)
- Responses to comments on Draft (GRD), if applicable

*Task 2.5 Assumptions:*

- GRD to be prepared and submitted on single sheet large size plot showing proposed geometric layout, profiles, typical sections, and proposed nonstandard features consistent with Caltrans Highway Design Manual (HDM) requirements

### *2.6: Prepare Preliminary Foundation Reports*

HDR will utilize the analysis compiled as part of Task 2.4 to prepare a Preliminary Foundation Report for the project to assist in Structure Type Selection. Separate reports will be prepared for the structures within Caltrans jurisdiction and those outside Caltrans jurisdiction as follows:

*Caltrans Structures*

- New LA River Bridge
- New roundabout structure
- Bike/ped bridge connecting observation platform on LA River Bridge to existing LA River Trail along east bank of LA River
- All retaining walls supporting local roadways adjoining roundabout structure

Local Structures

- New pedestrian bridge at 7th Street
- New pump station
- Any retaining walls needed to support Cesar Chavez park improvements or new pump station

These reports will be prepared in accordance with Caltrans Office of Structural Foundations requirements. These reports shall include a summary of the exploration program, description of the site geotechnical issues, and recommendations for foundation designs for all structures listed above.

*Task 2.6 Deliverables:*

- Draft and Final Preliminary Foundation Report for Caltrans structures
- Draft and Final Preliminary Foundation Report for Local structures
- Responses to comments on draft reports

*Task 2.6 Assumptions:*

- Due to poor soil conditions within the project limits, all retaining walls are assumed to be nonstandard, special design walls that will require foundation recommendations

### *2.7: Structures Type Selection*

This work includes the development of structure type selection for each of the structures listed in Task 2.6 above and the preparation of the associated reports. In addition, this task includes the completion of the study in coordination with City of Long Beach staff to develop the architectural themes for the LA River and roundabout structures to be incorporated into the design of these structures.

### *2.7.1: Architectural Concepts*

This task involves the development of up to three (3) potential architectural concepts for the LA River Bridge and roundabout structure and working with City staff to select a preferred concept to be carried into final design. The steps comprising this task are outlined below:

*Step 1 - Initial Theme Development and Scoping*

HDR will conduct up to three (3) workshops with City staff and stakeholder/community groups to work jointly to develop an overall architectural theme for the project that will be carried into structure aesthetics and other project elements. HDR will develop initial concept sketches, renderings, etc. to facilitate input by City and stakeholder groups at these workshops. Sketches will be modified or refined based on input received after each workshop. Once an aesthetic theme is determined based upon input received at the workshops, HDR will document this theme in an aesthetic guidelines document to show how the aesthetic theme chosen by the City and stakeholders is to be incorporated into the various project elements including bridges and retaining walls.

*Step 2 - Prepare Bridge Aesthetics Alternatives Review and Renderings (Optional Task)*

Based on the aesthetic guidelines outlined in Step 1, HDR will develop 3D digital renderings of three optional separate aesthetic treatments for the LA River Bridge and roundabout structure. The existing site conditions within the limits of the structures will also be digitally rendered to serve as a background for the renderings. The renderings will be simple and non-photorealistic in nature. A comparison matrix will be prepared to outline the various features of the three options, including opportunities and constraints associated with each. The matrix will be used as a tool to facilitate the selection of a preferred option by the City and stakeholders.

*Step 3 - Stakeholder Workshops and Constraints Identification*

HDR will work with City staff to conduct workshops with key project stakeholders that will have a say in the bridge aesthetics to review the three concepts developed as part of Step 2. Participating stakeholders to be invited to the workshop in addition to City staff include:

- Caltrans
- US Army Corps of Engineers
- US Fish and Wildlife Service

The intent of the workshops will be to obtain stakeholder input on the aesthetic treatment options to assist the City in determining the most suitable option to be carried forward. Up to

four (4) stakeholder workshops are assumed to be conducted, with refinements to the concepts made after each workshop if needed to address comments received.

*Step 4 - Alternatives Development, Costing and Preferred Alternative Selection (Optional Task)*

Upon the completion of Step 3, HDR will advance the development of each of the three aesthetic options to a conceptual level that will facilitate the development of a rough order of magnitude cost estimate and allow for a detailed evaluation. HDR will then prepare a report to summarize the work completed as part of Task 2.7.1. The report will present the three aesthetic concepts, evaluate each of the three concepts over a range of criteria including construction maintenance costs, and provide a recommendation of the preferred option to the City. The report will be submitted to the City and participating stakeholders for review and concurrence with the preferred option.

*Task 2.7.1 Deliverables:*

- Initial concept sketches, renderings, etc.
- Workshop agendas, minutes, meeting materials
- 3D existing conditions digital site model (Optional Task)
- 3D models of each bridge option including deck treatments (Optional Task)
- Bridge option comparison matrix (Optional Task)
- Developed renderings for each option for both Shoemaker Bridge over the LA River and roundabout structure (Optional Task)
- Rough order of magnitude cost estimates for each bridge option (Optional Task)
- Draft and final summary reports (Optional Task)

*Task 2.7.1 Assumptions:*

- Architectural treatments to the LA River Bridge main spans and roundabout structure will be cosmetic in nature including limited surface treatments (<4" depth additional concrete)
- Assumes three (3) City workshops with Public Involvement and stakeholder groups as part of Step 1
- For facilities designed by others within project vicinity to be included in overall assessment, HDR is to receive 3D models for these items (i.e. LB MUST)
- Design fees reflect a baseline design of the LA River Bridge and elevated roundabout only
- The LA River Bridge type is assumed to be concrete segmental with architectural elements that do not significantly impact the structural performance of the bridge structures and two piers located within the ordinary high water limits.
- Roundabout structure is assumed to be cast-in-place concrete with a maximum of 3-ft of soil with vegetation in the center. Baseline design assumes no design for a monument of any kind.
- Four (4) stakeholder workshops assumed as part of Step 3
- Assume up to three (3) options for both the LA River and roundabout structures to be fully developed and considered in summary report.

### *2.7.2: Prepare Supplemental Advance Planning Studies for LA River and Roundabout Structure (Optional Task)*

If required by Caltrans, HDR will prepare Supplemental Advance Planning Studies (APS) in accordance with Caltrans requirements for the LA River Bridge, the roundabout structure, or both to reflect any required design refinements to either structure resulting from the outcome of Tasks 2.1, 2.5, and 2.7.1.

*Task 2.7.2 Deliverables:*

- Draft and Final APS for LA River Bridge (if required)
- Draft and Final APS for roundabout structure (if required)

*Task 2.7.2 Assumptions:*

- The current 36 month schedule assumes that this task is not required.

### *2.7.3: Prepare Structure Type Selection Reports*

In accordance with Caltrans OSFP requirements, the HDR team will prepare and process the Structure Type Selection package for review and approval by OSFP. This package will include type selection reports for the following structures:

- LA River Bridge
- Roundabout structure
- Bike/ped structure connecting LA River Bridge to bike path on east bank of LA River (if applicable)
- All nonstandard retaining walls within State jurisdiction

Since Caltrans considers the Structures Type Selection process to be a fundamental step in the design of structures within State right of way, this step must be completed before extensive structures design work can be performed. The Type Selection process involves the following primary elements: 1) preparation and submittal of Type Selection Documents; 2) Type Selection Meeting and Approval; and 3) Updated General Plan submittal and distribution.

The initial stage in the Type Selection process involves identification of parameters that govern the design of the new bridge. These parameters are contained in the following documents which must be submitted before a Type Selection Meeting can be scheduled: 1) Bridge Site Data Submittal Package (BSDS), and 2) a Type Selection Report. The Type Selection Report will follow the format described in the Caltrans Bridge Memos to Designers Manual (in affect upon NTP). The report will include a discussion of the structure types considered and reasons for the selection of the proposed structure. The HDR team will prepare a General Plan Estimate of structure construction cost as part of the Type Selection Report. The HDR team will submit the BSDS and the Type Selection Report to OSFP for review.

In addition to the Type Selection Reports, the following will also be prepared as part of this task:

- Bridge deck drainage design and summary memorandum
- Conceptual Bridge Removal Plan for existing Shoemaker Bridge and walls

Although not within Caltrans jurisdiction, a similar report utilizing the Caltrans standard format described above will be prepared for the pedestrian bridge at 7th Street. This will be submitted

to City staff only for review and comment and not included with the package submitted to Caltrans for review and approval.

*Task 2.7.3 Deliverables:*

- Bridge Site Data Submittal per Caltrans requirements
- Type Selection Reports for structures within Caltrans jurisdiction (to be submitted to Caltrans)
- Type Selection Report for pedestrian bridge at 7th Street (to be submitted to City only)
- Bridge Deck Drainage Design Memorandum
- Conceptual removal plans for existing Shoemaker Bridge

*Task 2.7.3 Assumptions:*

- Elevated roundabout structure and LA River Bridge are Ordinary Nonstandard bridges and pedestrian bridges are Ordinary Standard bridges per Caltrans SDC
- Existing soils are anticipated to be improved for bridge foundation analysis/design
- Study/use of base isolation is not included.

### *2.7.4: Bridge Type Selection Meeting and Approval*

A Type Selection Meeting will be scheduled with Caltrans OSFP a minimum of two (2) weeks following the submittal of the Type Selection Report and related documents. The meeting is likely to be held in Sacramento at the OSFP Headquarters; however, it is assumed that the meeting will be conducted virtually. At the meeting, the HDR team will present the proposed structures within Caltrans jurisdiction and shall briefly discuss issues pertinent to the selection of the structure type, particularly requirements for foundations, construction, seismic design, retrofit strategy, aesthetics, traffic handling, and other information needed to support the selection of the proposed structure type. The HDR team will prepare summary meeting minutes and provide a copy to the OSFP Liaison Engineer within one week of the meeting. The summary meeting minutes may be used to update or supplement the information in the Type Selection Report to address pertinent questions or comments raised at the meeting. Within one week of receipt of the summary meeting minutes and resolution of any outstanding issues or comments, the OSFP Liaison Engineer will issue written approval of the proposed structure type.

Following Type Selection Approval, the HDR team will submit to OSFP the required number of copies of the updated Structures General Plans and General Plan Estimates for distribution to the other Caltrans functional units. The HDR team will incorporate pertinent comments resulting from the distribution into the final structures design and PS&E.

*Task 2.7.4 Deliverables:*

- Type selection meeting agenda and minutes
- Updated Type Selection documents revised to address Caltrans comments (if necessary)

*Task 2.7.4 Assumptions:*

- Type selection meeting will be held virtually with Caltrans OSFP staff
- Type selection meeting will cover Caltrans structures only; no type selection will be held for pedestrian bridges unless requested separately by City staff.

### *2.7.5: Conduct Updated Hydraulic/Scour Analysis of LA River Bridge*

The purpose of this task is to determine impacts to the flow characteristics and water surface elevation within the Los Angeles River associated with the construction of the new LA River Bridge. Any changes in the Los Angeles River flood risk management channel or the right-of-way requires approval from several divisions/departments of both the Los Angeles County Flood Control District (LACFCD) and the U.S. Army Corps of Engineers (USACE). This analysis will be conducted based upon the proposed bridge design that is to be carried forward into Structures Type Selection.

The HDR team has obtained the current HEC-RAS model and supporting documentation from the USACE. Utilizing this model, HDR will use a 3 phased approach based upon previous coordination with USACE on this work:

1. 1D HEC-RAS modeling for each alternative (completed during PA/Ed phase)
2. 2D ADH modeling, as needed
3. 3D Physical model, if needed (not included in this scope)

Our team will start with the 1D model and progress to the other 2 only if needed to satisfy the USACE that the existing water surface elevation could be maintained.

The USACE directive has long been that modifications or replacement of bridges must result in 0% change in water surface elevation. The HDR team will first model the changes in the water surface elevation based on the proposed LA River Bridge design and reduce the impact as much as possible. The HDR team will then explore offsetting or compensating the net water surface elevation change by modifying the channel walls or adding higher walls on top of the levees. Our assumption is that USACE would be open to further discussion of this approach. The desired outcome would be conceptual approval of the preferred alternative based on the preliminary design. This is the most crucial element related to obtaining the approvals from the LACFCD and the USACE. Designs that result in a 0% change in the water surface elevation would likely be considered minor modifications to the flood risk management project and would be approved at the local District offices.

Modifications to the channel geometry or heights of the parapet walls would likely be deemed major and would require the local District to submit the design and complete package to the regional and then national headquarters for approvals. Major modifications would require an additional 6-12 months for reviews at the higher level headquarters within USACE. Such major work is not included in this scope of work.

Similar to the Section 214 agreement process, close coordination with the LACFCD and the USACE is critical to gaining responses from the two agencies. The first meeting would be to brief the project and schedule and discuss the agencies' expectations. The second meeting would review the computer modeling, designs, findings to date and options on how to compensate for a rise in water surface elevation. A third meeting would review the changes ensuing from the agencies' comments from the second meeting. Finally, a meeting would be established to obtain conceptual approval of the preferred design. Notes of the discussion, key points, decisions and action items would be prepared within 7 days of each meeting. HDR would incorporate the action items into the tracking matrix for the project.

*Task 2.7.5 Deliverables:*

- Detailed scope of work to the LACFCD and the USACE.
- Results of the HEC-RAS model runs for proposed bridge design.
- Results of the ADH model runs, if required by the USACE and LACFCD.

*Task 2.7.5 Assumptions:*

- A scaled physical model, if required by the USACE and LACFCD, is not included in this scope of work.
- Work applies to LA River Bridge only.
- Assumes no mitigation measures or risk & uncertainty analysis for levee freeboard

### *2.8: Pump Station Preliminary Design*

This task covers all preliminary design work related to the relocation of the SD-01 Pump Station as part of the project. This work involves the removal of the existing SD-01 Pump Station and the construction of a new pump station at a location that is compatible with the ultimate Shoemaker Bridge Project conditions. The existing SD-01 is currently owned and operated by the City of Long Beach.

### *2.8.1: Pre-Design Activities*

This task covers the up-front activities to facilitate the design of the relocation of the SD-01 Pump Station as part of the Shoreline Drive Realignment project.

*Data Gathering and Review*

HDR will obtain and review information on the City's previous and current planning efforts along with their standards and design guidelines. This task will also include the review of the Shoemaker Bridge Project Preliminary Drainage Report (HDR, 8/16/2019) and preliminary roadway realignments.

*Site Reconnaissance*

HDR will conduct one (1) initial field site visit to identify specific physical features associated with the Project. It is assumed the field site visit will be four (4) hours in duration and include four (4) design team members. City Staff may participate in the field visit, if desired. HDR shall prepare draft and final field notes for the site visit.

*Preliminary Hydrology and Drainage Study*

HDR will conduct a preliminary hydrology and drainage study to support the pump station preliminary design work to determine approximate pipe and pump sizing for the proposed pump station. A detailed drainage design report will be prepared as part of Task 3A.

*Facility Siting Considerations*

HDR shall conduct an evaluation of various potential SD-01 Pump Station siting/location configurations (two minimum) for the selected siting area. HDR shall summarize the advantages and disadvantages of each site configuration, considering: proximity to existing and future planned facilities, existing utilities, planned utilities, ultimate street/site improvements, temporary and permanent easements, traffic, safety, permits, construction cost, site access, community impacts, potential environmental constraints, etc.

*Task 2.8.1 Deliverables:*

- Technical Memorandum summarizing the work completed as part of this task.
- SD-01 alternative site plan exhibits, select section views, and details to be included in the memorandum.

*Task 2.8.1 Assumptions:*

- A maximum of three (3) locations will be considered as part of the technical memorandum produced as part of this task.

### *2.8.2: Prepare Pump Station Geotechnical Design Report*

A separate GDR will be prepared for the construction of the new SD-01 Pump Station once the location has been determined as part of Task 2.8.1. This document will provide foundation design recommendations for the pump station structure as well as trenching recommendations for the piping entering/exiting the facility.

*Task 2.8.2 Deliverables:*

- Draft and Final Pump Station Geotechnical Design Report

### *2.8.3: Prepare Preliminary Plans*

Preliminary pump station drainage plans will include the following drawings:

- Site layout drawings
- Mechanical plans and sections
- Instrumentation and control diagrams
- Electrical single line diagrams
- Architectural elevations

The preliminary design depicted in these plans will be prepared in accordance with the requirements set forth within the Preliminary Design Report prepared as part of Task 2.8.3.

*Task 2.8.3 Deliverables:*

- Preliminary pump station plans (single alternative)

*Task 2.8.3 Assumptions:*

- Existing SD-01 Pump Station force mains and outfall will be utilized and there will be no modifications or improvement design required.
- No computational fluid dynamic (CFD) modeling will be necessary.
- No pressure transient (surge) analysis will be required.
- SCADA requirements will be identified in coordination with the City of Long Beach Maintenance Staff
- No physical modeling will be constructed for SD-01
- An automated trash screen will not be included.

### *2.8.4: Prepare Pump Station Preliminary Cost Estimate*

HDR will develop a preliminary estimate of the construction cost based upon the preliminary design plans and include with the 35% milestone submittal. The estimate will be prepared using either a standard costing template provided by the City, or one can be developed by HDR. If one is prepared by HDR, it will be submitted to the City for review and approval prior to

developing the estimate. The estimate will be based upon the pay items and quantities identified within the project plans. The cost estimate will list all pay items and their associated unit costs to calculate a total cost for each item. Unit costs will be obtained from available resources, including recent bid data on similar projects, and from the 2019 (or most current) Caltrans Cost Data. Lump sum costs will be assigned to cover items not yet designed as part of the 35% design phase but known to be needed.

"Below the line" soft costs to cover City implementation costs and construction management can be added to the construction estimate if requested by the City. It is assumed that these costs would be calculated as a percentage of the construction cost based on industry standard values or those provided by the City.

It is assumed that right of way acquisition costs will be prepared by the City based upon the preliminary right of way needs included in the plans. These can be included by HDR in the overall project implementation cost estimate if requested by the City.

*Task 2.8.4 Deliverables:*

- Preliminary pump construction cost estimate

*Task 2.8.4 Assumptions:*

- Soft costs to be included in cost estimate if requested by City
- Determination of right of way acquisition costs is assumed to be responsibility of the City

### *2.8.5: Prepare Pump Station Preliminary Design Report*

In accordance with City standards and guidelines, HDR will develop the design criteria for SD-01 to form the basis of the design. The preliminary design shall serve as the basis for final design of the Project and will address the following Project components:

| | |
|---|---|
| Facility Siting and Layout/Configuration | Aesthetics- Architectural, Landscaping |
| Building Type and Configuration (equipment access) | Equipment Selection and Specifications |
| Coordination with other Agencies (Port of Long Beach, County of Los Angeles, Caltrans, others as required) | Materials of Construction |
| Corrosivity and Corrosion Protection<br>Surge Analysis | Facility Operations/Control Strategy |
| Electrical Load Requirements and Standby Power Requirements | SD-01 Pumping Unit Selection and Configuration |
| Constraints Analysis<br>• Construction (traffic/utilities)<br>• Geotechnical including Summary of Task 2.3 Report<br>• Community and Environmental<br>• Electrical | Pipeline Connections and Valves |

| | |
|---|---|
| • Other Encumbrances (e.g. Flood Zone, coordination with Los Angeles County Flood Control District) | |
| Fencing, and Gates | Site and Facility Security |
| Electrical Plan of Service | Site Grading, Access, and Drainage |
| Project Schedule (critical path) and Estimated Costs | Project Phasing |

HDR shall prepare a Preliminary Design Report (PDR) that documents the basis of design and presents the design criteria associated with the pump station facilities, including the information and results from the scope of work tasks described above. The PDR shall represent a 50% design-level effort. The PDR shall include:

- Results and recommendations of the hydraulic evaluation refinement, including facility sizing, configuration, and requirements
- Results and recommendations of the facility siting analysis and selection, including development of preliminary layout for the selected site, inventory of improvements, materials and equipment selection, environmental and community impacts, etc.
- Preliminary list of permits, and other agency clearances
- Budgetary-level estimate of probable construction costs (AACE Class 3) and schedule of probable construction duration(s) for each potential phasing strategy
- All backup data, calculations, layout drawings, equipment catalogue data/cut-sheets, pump performance curves, etc. (included as an Appendix to the PDR)

*Task 2.8.5 Deliverables:*

- Draft and Final Preliminary Design Report (PDF copy and 5 hard copies)

### *2.8.6: Preliminary Design Workshop*

HDR shall prepare for and lead one 3-hour-duration workshop with City staff at the draft, preliminary design level to discuss and confirm the Project design basis (hydraulics, site layouts, transmission main alignment, materials of construction, equipment selection and specifications, construction schedule, estimated costs, constraints, property and easement acquisitions, transition plan to final design, etc.). Four (4) HDR design team representatives will attend the Task 3.2 preliminary design review workshop. A detailed (PowerPoint) presentation of the Draft PDR will be prepared and presented to City staff to encompass all Project facility components.

HDR shall prepare and submit the workshop agenda and presentation to the City three working days prior to meetings, and workshop minutes shall be submitted within five (5) working days following each meeting. HDR shall incorporate City comments and will issue minutes for distribution and record.

*Task 2.8.6 Deliverables:*

- Workshop agenda, presentation materials, and minutes

*Task 2.8.6 Assumptions:*

- Four (4) hour workshop to be attended by pump station design lead and discipline leads (total of 4) along with City staff.

### *2.8.7: LEED Certification*

HDR shall provide the City with copies of all agreements required by the Certifying Authority to register the Project and pursue Certifying Authority Certification. The City and HDR shall review and confirm that the terms of those agreements are acceptable to the City before proceeding with registering the project with the Certifying Authority.

HDR, as agent for the City, shall register the Project with the Certifying Authority. HDR will provide the project team with access to Certifying Authority tools and resources. HDR will act as the Certifying Authority Online portal "Project Administrator" whose responsibilities include team organization, assignment of roles and responsibilities, and project information application:

- Facilitate one (1) Sustainable Design Meeting to discuss all sustainable / Certifying Authority
- Facilitate one (1) Energy Efficiency Meeting with the project team to discuss the USGBC requirements for demonstrating energy performance savings for buildings with high process loads.
- Develop, with the assistance of the design team and the City, a Sustainability Plan based on the sustainable objectives and measures from the Sustainable Design Meeting to achieve Certifying Authority.
- Review and modify the City's Project Requirements ("CPR") as it relates to building performance and sustainability.

*Task 2.8.7 Deliverables:*

- Certifying authority agreements.
- Draft and Final Sustainability Plans (PDF copy and 5 hard copies)
- Meeting agendas, presentation materials, and minutes

*Task 2.8.7 Assumptions:*

- City is responsible for payment of any Certifying Authority registration and review fees unless otherwise specifically stated in this scope. Registration and any other fees charged by the Certifying Authority, and paid by HDR, shall be a Reimbursable Expense. These fees are subject to change at any time by the Certifying Authority. These fees are anticipated to be $1,200 for Project Registration, $2,325 for the LEED Design Submission, and $775 for the LEED Construction Submission, based on a project square footage of less than 5,000 square feet and the rates published by the Certifying Authority as of 9/25/2020.
- In the event the City elects to pursue third-party certification or the equivalent for the Project, City acknowledges that the U.S. Green Building Council® ("USGBC") LEED® Green Building Rating System, Green Business Certification Inc. ("GBCI") Guiding Principles Assessment, WELL™ Building Standard, International Living Future InstituteSM ("ILFI") Zero Energy Certification, ILFI Petal Certification, ILFI Core

Certification, ILFI Living Building Certification, Green Building Initiative® ("GBI") Green Globes®, GBI Guiding Principles Compliance, and Fitwel® (collectively the "Certifying Authority") use certain design, construction and usability guidelines or recommendations in order to promote environmental responsibility and/or energy efficiency. In addressing these guidelines or recommendations, the Architect shall perform its services with the degree of skill and care ordinarily exercised by similarly situated members of its profession involved in the design of similar projects at the same time and in the same locale as the Project. The City further acknowledges and understands that Certifying Authority are subject to various and possibly contradictory interpretations and that achieving and maintaining compliance with Certifying Authority involves factors beyond HDR's control, including without limitation, City's use and operation of the completed Project. HDR will use reasonable care, consistent with the foregoing standard, in interpreting and designing in accordance with the Certifying Authority, but does not warrant or represent that the Project will actually achieve or maintain Certifying Authority certification. HDR shall not be responsible for the Contractor's failure to adhere to the Contract Documents and any applicable laws, codes and regulations incorporated therein, nor for any changes to the design made by the City without the direct participation and written consent of HDR. Likewise, HDR shall not be responsible for any environmental, energy, health, and/or wellness issues arising out of the City's use and operation of the completed Project.

- The City acknowledges that pursuing Certifying Authority certification of the Project may necessitate the incorporation of new or innovative products, technologies or methods into the Project and that such products, technologies or methods may not realize their intended objectives or may even involve collateral consequences. The City further acknowledges that it has evaluated the potential risks and rewards in connection with the use or application of such products, technologies and methods and assumes any associated risks.

### *2.9: Utilities*

This task covers the identification of utilities in conflict with the proposed project based upon the project's preliminary design, the initiation of coordination with impacted third-party utility owners, and the potholing work to confirm locations of key utilities to facilitate final design activities.

#### *2.9.1: Update Existing Utilities Base Map*

The base mapping prepared as part of the PA/ED phase of the Project will be utilized for the final design phase and supplemented to cover project areas outside the limits of the current mapping, including the limits of 6th and 7th Streets east of Maine Avenue where proposed signal infrastructure will need to be installed in order to convert these streets to two-way traffic. The existing base mapping will be carefully reviewed to identify any other areas within the project that may fall outside the limits of current base mapping. For the purpose of this scope, it is assumed that only the limits of 6th and 7th Streets as noted above fall outside the limits of the current mapping.

HDR will obtain and review available as-built street improvement plans from the City for the noted segments of 6th and 7th Streets and identify existing utilities that are to be added to the

base map. Based on the review of the as-builts and information obtained from Underground Service Alert, HDR will identify a list of third-party owners determined to have facilities within the 6th and 7th Street corridors beyond the current limits of the mapping.

HDR will update the composite existing utility base map and inventory matrix to include the additional utilities along the 6th and 7th Street corridors.

The inventory matrix to be utilized and updated throughout the design phase will include the following information:

- Utility ownership, type, location, and depth
- Ownership rights, easements, and franchise agreements
- High or low risk determinations
- Disposition of each utility
- Utility conflicts
- Removal and relocation requirements (lengths and limits)
- Estimated relocation costs
- Reconstruction and adjustments of manholes, handholes, vaults, and other surface appurtenances

The Utility Matrix will also track the progress and schedule of each impacted utility, including all correspondence with each owner in order to have the utilities relocated prior to the start of the roadway construction. Any relocation plans prepared by owners will be obtained and included in the contract bid documents for reference.

### *Preparation and distribution of utility information request letters to owners*

As part of the recently completed Shoemaker Bridge Project preliminary engineering effort, utility information request letters were sent out to third-party utility owners known to have utility facilities within the Shoemaker Bridge Project limits in June 2019 to request facilities mapping. The existing utilities base mapping was then supplemented to incorporate the information provided by the utility companies. Based on how recently this information was obtained from utility owners, HDR only intends to repeat this process for the utilities outside the limits of the current mapping.

HDR will prepare notification letters to utility owners with facilities within the expanded project limits to notify them of the project, identify the facilities currently identified within the expanded project limits that fall under their ownership and provide the final design schedule. HDR will also request that they verify the location of their facilities as shown on the current existing utilities plans and/or provide facilities mapping for any facilities within the project limits.

### *Update composite existing utility plans and corresponding utility matrix*

Any facilities mapping received from utility owners in response to the notification letters will be cross checked against the existing utilities composite. The utility base map and inventory matrix will be updated to reflect the facilities mapping within the expanded project limits.

*Task 2.9.1 Deliverables:*

- Updated existing utility composite map and inventory matrix

- Utility information request letters (sent out on City letterhead if permitted by City)

*Task 2.9.1 Assumptions:*

- The only additional areas where supplemental base mapping is needed is along 6th and 7th Streets from Maine Avenue to Daisy Avenue, including all intersections within these limits.
- Assumes preparation of up to ten (10) letters and review of as-built plans for up to five (5) projects.
- HDR will coordinate with Shoreline Realignment Project team to facilitate joint discussions with impacted third-party owners and to share utility information.

### *2.9.2: Conflict Identification*

HDR will review the updated existing utilities base against the updated project geometrics and urban design plan for the park elements developed as part of Task 2 to conduct a supplemental evaluation of existing in conflict with the proposed Package 1 and Package 2 construction. A conflict map will be prepared to document all utilities to be found in conflict and the inventory matrix will be supplemented to indicate which utilities are in conflict. HDR will conduct prior rights research for all utilities identified to be in conflict and include this information within the matrix.

*Task 2.9.2 Deliverables:*

- Updated conflict map and inventory matrix

### *2.9.3: Utility Coordination*

HDR will notify and impacted third-party utility owners found to have facilities with the proposed Package 1 and 2 construction. HDR will schedule meetings with each impacted property owner to present the conflicts and discuss potential relocation strategies. HDR will then work with the impacted owners to develop acceptable relocation concepts and obtain their written concurrence on the agreed upon strategies as well as the final design and construction schedules for the completion of the relocation work. HDR will conduct up to three (3) meetings with each impacted owner to develop relocation concepts and obtain concurrence.

*Task 2.9.3 Deliverables:*

- Meetings agendas, minutes, presentation materials
- Relocation concept exhibits
- Letters of concurrence to document agreed upon relocation concepts

*Task 2.9.3 Assumptions:*

- Assume up to three (3) meetings each utility owner, six (6) owners with two (2) HDR attendees.
- HDR will coordinate with Shoreline Realignment Project team to facilitate joint discussions with impacted third-party owners and to share utility information.

### *2.9.4: Utility Potholing*

HDR will work jointly with City and Caltrans staff to identify critical existing utilities that warrant potholing to positively confirm their locations. These locations will be shown in a Pothole Needs

Plan. Once an agreed upon list has been developed, HDR will generate potholing work plans (if required) to define the nature of the work to be completed, work schedule, and traffic control requirements. HDR will prepare traffic control plans (if needed) for the completion of the work and obtain agency approval. These approved traffic control plans will be included within the work plans.

Upon work plan approval and obtaining the necessary encroachment permits to complete the work, HDR's potholing contractor will complete the potholing of the selected utilities using vacuum extraction technology.

*Task 2.9.4 Deliverables:*

- Pothole Needs Plan
- Pothole Work Plans (one for work in City jurisdiction and one for work in State jurisdiction, if required)
- Traffic Control Plans
- Pothole Data Reports

*Task 2.9.4 Assumptions:*

- Thirty (30) potholes assumed
- Fifteen (15) traffic control plans assumed
- One work plan per agency (if needed)

### *2.10: Hazardous Materials Investigations*

This task covers the completion of the hazardous materials investigations within the project limits as mandated within the project Environmental Document that may be encountered during construction. The purpose of these investigations will be to determine whether the following hazardous materials are present within the project limits:

- Aerially deposited lead (ADL): typically found within the shallow soil adjacent to roadways that were heavily used prior the prohibition of leaded gasoline and can present a health issue if this soil is disturbed/excavated as part of construction.
- Asbestos-containing materials (ACM): Typically found in older bridge structures and buildings can present a health issue if structures containing these materials are demolished.
- Lead-based paint (LBP): Typically found in old roadway striping or on structures built prior to the prohibition of lead-based paints and can present a health issue when removed.

### *2.10.1: Complete Aerially Deposited Lead (ADL) survey*

HDR will conduct field surveys to collect soil samples within areas identified to potentially contain ADL. Samples will be analyzed to determine concentrations of lead in the soil. If ADL is found in the soil samples, appropriate protocols for its handling and proper disposal during construction will be developed and included within the specifications for each construction package.

*Task 2.10.1 Deliverables:*

- ADL Survey Workplan

- ADL Survey Report

*Task 2.10.1 Assumptions:*

- Three (3) days of field sampling at twenty (20) total locations
- One (1) day of GPS surveying
- Hand auger boring only, to a maximum depth of 5 feet
- Four (4) samples per boring
- Borings located in unpaved landscaping within the project area only
- Excludes the areas of the Shoreline Realignment and LB-MUST projects
- Lab analysis for lead and pH only, per Caltrans ADL survey requirements and their soil reuse variance with DTSC
- No offsite disposal of investigation derived waste. Borings will be backfilled with cuttings. Decon water will be poured on plants and landscaping.
- No permits are required to access unpaved areas or dig with hand tools only
- No traffic control will be required to access sampling locations

### *2.10.2: Complete Asbestos Containing Materials (ACM) and Lead Based Paint (LBP) surveys*

Field surveys will be performed and the appropriate post-survey analysis to determine the presence of ACM and LBP within the project limits. If their presence is confirmed, appropriate protocols for their handling and proper disposal during construction will be developed and included within the specifications for each construction package.

*Task 2.10.2 Deliverables:*

- Eight ACM and LBP Survey Letter Reports (one for each structure)
- Eight ACM and LBP Compliance Plans (one for each structure)

*Task 2.10.2 Assumptions:*

- Eight structures require surveys for ACM and LBP:
    - Main Span of Shoemaker Bridge
    - Westbound 9th Street ramp
    - Eastbound 9th Street ramp
    - 7th Street ramp
    - 6th Street ramp
    - Northeastern bike path overcrossing
    - Southwestern bike path overcrossing
    - Existing SD-01 Pump Station
- Other structures, such as the Golden Shore Overpass are outside the project area and will be surveyed by others
- Reporting will conform to SCAQMD and Caltrans requirements
- Surveys will be conducted by a contractor licensed to perform lead and asbestos surveys.
- Permits are not required for crews to access the structure for sampling
- Field survey will take up to five (5) days to complete
- An HDR field engineer will oversee survey activities

### *2.10.3: Prepare Health and Safety Plan, a Contaminated Materials Management Plan, a Construction Contingency Plan, and a Lead Compliance Plan*

Plans will be prepared by HDR prior to the completion of the field surveys conducted as part of Tasks 2.10.1, 2.10.2, and 2.10.4 to outline the health and safety measures to be taken by the field crews to address hazards that may be encountered during the field activities as a result of handling these potentially hazardous substances.

*Task 2.10.3 Deliverables:*

- Health and Safety Plan
- Contaminated Materials Management Plan
- Construction Contingency Plan
- Lead Compliance Plan

*Task 2.10.3 Assumptions:*

- Health and Safety Plan and Lead Compliance Plan will need to be prepared and stamped by a Certified Industrial Hygienist
- The LCP can only be completed after The ADL survey is complete
- No intrusive work on structures containing lead-based paint is included, and safety training for lead work is not required
- The Contaminated Materials Management Plan will be based on previously available data
- Plans are for HDR's investigations related to PS&E, not for project construction or other contractors' use

### *2.10.4: Conduct Phase II Site Investigation*

The main objective of the Phase II Site Investigation (SI) is to provide an assessment of potentially contaminated sites to evaluate whether there would be an apparent impact from the potential contaminants identified from the Phase I ISA. The Phase II SI will present information regarding the understanding of the subsurface conditions, contaminant source areas, types of contaminants, media involved, and distribution of the contaminants.

Prior to conducting the Phase II SI, HDR will prepare a Work Plan and submit it to the City and Caltrans for review and comment. The Work Plan will outline procedures, standards, and required certifications for performing the investigation, statistical data evaluation, laboratory sample handling and testing, quality assurance/quality control, decontamination and disposal, permitting, and right of entry.

Proposed sampling areas will be cleared for underground utilities prior to beginning work. Southwest Geophysics will provide an independent sweep for underground obstructions. Interphase Environmental will collect soil samples with a direct-push Geoprobe rig. Groundwater may also be sampled, if construction activities on a particular site are expected to encounter groundwater. Samples will be submitted to Orange Coast Analytical for analysis. HDR will prepare a Phase II SI Report, which will summarize the findings and recommendations based on the laboratory results.

*Task 2.10.4 Deliverables:*

- Phase II SI Workplan
- Phase II SI Report
- Hazardous Materials Disclosure Documents (if needed)

*Task 2.10.4 Assumptions:*

- Four sites will be investigated:
  1. Site 1: California Resources Corp (west of LA River north of Shoemaker)
  2. Site 2: California Resource Corp (West of LA River at proposed bridge abutment)
  3. Site 5: 960 Deforest Ave. (UPRR Bulk Terminal)
  4. Site 6: 970 West Chester Pl. (former MTA Div. 12 bus terminal)
- Other sites listed in the Environmental Document will be investigated by others
- No additional or site-specific Phase Is (ISAs) will be conducted
- Cleanup/remediation of discovered conditions is not included.
- Maximum of 10 days of field sampling
- Maximum of 2 days of geophysical surveys for USTs
- Maximum of 26 borings across all 4 sites, 3 samples per boring
- Up to 15 groundwater samples
- Geophysical clearance of all borings prior to drilling
- Maximum of 4 days of traffic control for work in right of way
- Each sample analyzed for TPH, VOCs, and Title 22 Metals
- Up to 12 soil samples analyzed for PCBs, as needed
- Drilling permits will be necessary from the City of Long Beach at their normal cost
- City of Long Beach will provide encroachment permits in-kind at no cost
- Up to 4 drums of investigation-derived waste will be disposed of
- The City will provide a secure site for staging drums for disposal

### *2.10.5: Prepare Traffic Control Plans to Support Field Work*

HDR will prepare site-specific traffic control plans per Caltrans and CAMUTCD standards for the completion of any field work conducted as part of Task 2.10 that requires vehicles to be parked or work to be completed within any active roadways. These traffic control plans will be submitted to Caltrans or the City for review and approval, as appropriate, prior to the initiation of any field work.

*Task 2.10.5 Deliverables:*

- Draft and Final Traffic Control Plans
- Responses to agency comments on draft plans

*Task 2.10.5 Assumptions:*

- Up to seven (7) sheets of engineered and stamped temporary traffic control plans will be prepared to support field work

### *2.11: Urban Design and Aesthetics*

This task involves the development of an overall urban design and aesthetics concept plan for the entire project which will cover park areas within the existing Cesar Chavez Park and graded

slopes at bridges and along roadways. Specifically this concept plan will focus on the park elements to be constructed as part of Construction Package 2 but will also include aesthetic lighting for the bridges and other structures. It also includes the completion of a study to evaluate the potential for Envision Certification.

### *2.11.1: Conduct Study to Evaluate Potential for Envision Certification (Optional Task)*

HDR Envision experts will conduct a study to determine which elements of the project (Packages 1 and 2) are candidates for Envision certification by the Institute for Sustainable Infrastructure. The study will identify how each element can be constructed to obtain Envision credits under the Envision Certification Program, how many credits would be obtained, and the rough order of magnitude construct cost associated with doing so compared to standard construction. A report will be prepared to document this study and submitted to the City for review and consideration. HDR will then conduct a half-day workshop with City staff to review and discuss the study findings. HDR will prepare an updated version of the report to document any construction items selected by the City for Envision Certification for incorporation by the Project, the associated cost, and the total Envision credits obtained.

*Task 2.11.1 Deliverables:*

- Draft and Final Summary Report
- Workshop agenda, minutes, presentation materials

### *2.11.2: Prepare Overall Urban Design, Landscaping, Contour Grading and Bikeway Concept Plan*

HDR will work jointly with City staff to develop an overall concept plan for the urban design, landscaping, and bikeway elements of the project which will be constructed as part of Construction Package 2. This work will include the preparation and review of concept sketches with the City staff in the development of the overall plan. Once concurrence is obtained on the plan at a conceptual level, a rough order of magnitude cost estimate for these project elements will be developed and a technical memorandum will be prepared to formally document the concept plan ant its associated cost. This memorandum will be submitted to the City for review and approval prior to initiating any final design activities.

*Task 2.11.2 Deliverables:*

- Concept sketches, conceptual plans
- Rough order of magnitude cost estimate
- Draft and final summary memorandum

*Task 2.11.2 Assumptions:*

- All landscaping and aesthetics to be consistent with LA River Master Plan

### *2.11.3: Prepare Lighting Concept Plans*

In conjunction with the work completed as part of Task 2.11.2, HDR will develop lighting concepts for the park elements of the project, including bike/ped paths, as well as for aesthetic lighting of the bridges and other structures. Standard street lighting is not included as part of this task. Conceptual layouts of the areas to be lighted will be developed to identify the type and location of all lighting elements. These lighting concepts will be incorporated into the

concept sketches and plans developed as part of Task 2.11.2 as appropriate. Similarly, the project costs of these lighting features will be calculated and included in the cost estimate prepared as part of Task 2.11.2. City-selected lighting concepts will be documented within the technical memorandum prepared as part of Task 2.11.2 as well.

*Task 2.11.3 Deliverables:*

- Conceptual lighting concept strip maps and construction cost estimate

### *2.12: Complete Occidental (Oxy) Oil Field Impact Assessment and Facility Relocation Plan*

The objective of this task will be to identify and assess any project impacts to the Oxy Oil Facility along the west bank of the LA River within the project limits, and to work with Oxy Oil to develop the necessary mitigations and associated costs. A key project goal will be to minimize or avoid impacts to the existing Oxy Oil facility located between SR-710 and the LA River. It is HDR's understanding that this facility is owned by Long Beach Gas and Oil (an arm of the City), and the operation of the facility is licensed to Oxy Long Beach, Inc.

Evans and Walker will support the HDR team in identifying the value of potentially impacted wells early on the design development process. If project impacts cannot be avoided, Evans and Walker will work with the City, the design team and both Oxy Oil and Long Beach Gas and Oil to identify specific impacts to their facilities and develop the appropriate mitigations. This will include the development of the appropriate mitigation costs to not only cover the physical mitigations but also the loss of future revenue. HDR will summarize the assessment completed as part of this task, the proposed mitigations, and associated mitigation costs in a relocation plan technical memorandum and submit to the City for review and concurrence. It is assumed that any negotiations with Oxy Oil and Long Beach Gas and Oil on mitigation costs will be conducted by the City, although HDR can provide technical support during this process.

*Task 2.12 Deliverables:*

- Draft/final oil facility impact assessment report and mitigation plan.

*Task 2.12 Assumptions:*

- The detailed design and construction of any mitigations to the Oxy Oil facility will be completed separately by Oxy Oil Inc.'s own contractor. This work will not be part of the City's Shoemaker Bridge Replacement Project final design and/or construction contract.

### *2.13: Prepare Constructability Plan*

The purpose of this task is to complete a constructability evaluation of the refined project alternative selected for implementation as part of Task 2 and to identify issues and concerns that could potentially be addressed or mitigated as part of final design and within the final PS&E package. In addition, this task will involve the development of a high level construction staging approach for project that outlines overall staging/phasing approach for completing construction.

HDR's Construction Services staff will provide general support during the geometric refinement and structures type selection process included as part of Task 2 to identify potential constructability issues and concerns that may impact the feasibility and costs of designs being considered. Upon geometric approval and prior to the initiation of Structures Type Selection,

HDR Construction Services staff will perform a constructability review of the preliminary project plans, construction schedule, and construction cost estimate and identify potential design changes that would enhance overall constructability. Review comments will be prepared, formalized in a memorandum, and submitted to the City and Caltrans for review. The reviewer will subsequently participate in a workshop with the HDR design team and appropriate agency staff to review and discuss comments in detail and to facilitate obtaining consensus on the implementation of any suggested design changes. A draft version of the review memo will be generated to address pertinent agency comments received or to address the discussion at the review workshop.

Agreed-upon project changes resulting from the constructability review will be incorporated into the design package during the subsequent final design phase.

HDR will also develop a high level conceptual phasing approach for the construction of the various project elements included within the three assumed construction packages and outline the approach in a series of phasing exhibits highlighting the specifics of the work to be done as part of each contract package.

*Task 2.13 Deliverables:*

- Draft/Final Constructability Review Technical Memorandum
- Construction phasing layout exhibits

*Task 2.13 Assumptions:*

- The constructability review described above will be conducted on the selected project alternative only.

### *2.14: Obtain E-76 Authorization for Utilities and Right of Way*

The objective of this task is to facilitate obtaining the necessary State and Federal authorization to utilize Federal funds for construction and right of way activities. Since the City will likely seek Federal funds for construction, the HDR team can assist the City in streamlining and obtaining authorization (E-76) for Right of Way and Utilities during the initial stages of final design and obtaining authorization (E-76) for construction to prepare the project for the bid phase. Assuming that the City is using federal dollars to pay the cost of right of way, utilities, and construction, authorization for use of these funds would be processed through Caltrans District 7 Office of Local Assistance. This process will be conducted in compliance with the Caltrans Local Assistance Procedures Manual. Temporary construction easements and replacement utility easements, if any, will be noted. Also, because the project includes State owned right of way, identification of known utility prior rights will be addressed. It is important to note that an approved construction encroachment permit must be obtained prior to approval of the final E-76 (Construction).

*Task 2.14 Deliverables:*

- Completed E-76 applications

### *2.15: Conduct Edison Middle School Vehicle Circulation/Drop off Study*

Vehicular access to the Edison Middle School between 6th and 7th Streets will be impacted by the 6th and 7th Street modifications included as part of the project. Staff parking for the school is

located along Maine Avenue between 6th and 7th Streets, and vehicle turnouts are provided along existing 7th Street to allow vehicles to pick up and drop off students. HDR will conduct a focused traffic study to assess the circulation and parking impacts to the school due the 6th and 7th Street modifications. Based on the findings of the Study, HDR will propose any specific improvements than be incorporated as part of the project to mitigate these impacts. HDR will prepare a technical memorandum to document the scope of the evaluation any proposed mitigations. A draft of this memorandum will be submitted to City staff for review and consideration. The final version of the memo will be prepared to document the specific mitigations agreed upon by the City to be implemented as part of the project.

*Task 2.15 Deliverables:*

- Draft and final technical memorandum

### *2.16: Environmental Revalidation/Addendum (Optional Task)*

The project was formally environmentally cleared in 2020 with the City approval of the EIR in April and Caltrans approval of the EA in June. As part of Task 2, HDR will reevaluate the validity of the final Environmental Document (ED), in compliance with CEQA and NEPA, and prepare supplemental environmental technical studies if required to address minor changes in project design.

Since the newly constructed bridge will fall under Caltrans jurisdiction after completion of construction, and a portion of project funding will be provided through the Federal Highway Administration (FHWA), environmental clearance of the proposed project will fall under both Caltrans and FHWA requirements.

The HDR team will prepare supplemental technical studies and CEQA/NEPA revalidation/addendum documentation in accordance with Caltrans' Standard Environmental Reference (SER) guidelines to address new or altered impacts related to the human, physical, and biological environments resulting from refinements during final design. HDR will submit the supplemental technical studies and Supplemental ED to the City, Caltrans, and FHWA, as appropriate, for review and approval.

The HDR team understands the City's desire to revalidate the environmental document without the need for a Supplemental EIR/EA which would require recirculation. However, in the event a more complex and iconic bridge design is considered during the PS&E phase, additional studies may be required.

*Task 2.16 Deliverables:*

- Supplemental Environmental Technical Studies (if needed) – up to 6 months
- CEQA Addendum and NEPA Revalidation Form – 2 months (after the completion of technical studies)

*Task 2.16 Assumptions:*

- Only minimal changes are anticipated in the design refinements for the PS&E phase; therefore, it is assumed that the revalidation of the document will not require public recirculation.
- The City will pay all required permit fees.

### *2.17: Value Analysis Support Services*

Due to the estimated construction cost of the work to be completed within Caltrans jurisdiction as part of the project, Caltrans will be required to conduct a formal Value Analysis (VA) Study. This study typically includes the completion of a one-week workshop by the VA lead to review the current project design and discuss potential design modifications/refinements that will increase the project value (reduce construction cost/duration, improve safety, reduce impacts, etc.) This study will be led by Caltrans but will require the participation of the HDR team's discipline leads involved in the Package 1 project design including the roadway/civil lead, structures lead, traffic lead, and drainage/utilities lead. It is assumed that this VA study will be completed upon geometric approval and prior to the initiation of Structures Type Selection and will require participation by the Package 1 discipline leads for four (4) days. It is assumed that as part of their participation, HDR may be required to consider and evaluate design proposed refinements/options during the course of the VA workshop.

*Task 2.17 Assumptions:*

- VA Study to be led by Caltrans/others.
- Assumes participation in VA workshop by four (4) discipline leads for four (4) full days.
- Assumes no major design revisions come out of VA Study

### Tasks 3A – 5A: Preparation of Plans, Specifications and Estimates for Package 1

Tasks 3A through 5A cover the preparation of the Package 1 PS&E package. This package will be prepared in accordance with Caltrans standards as outlined in the current editions of the following manuals and others as appropriate and will require Caltrans approval:

- Caltrans Highway Design Manual
- AASHTO LRFD Bridge Design Specifications, 8th Edition incl. Interim Revisions with California Amendments
- Caltrans Division of Engineering Services Structures Manuals, including Information and Procedures Guide, Design Details, Aids, Practice and Memo to Designers Manuals
- Caltrans Project Development Procedures Manual
- Caltrans Plans Preparation Manual
- Caltrans CADD User's Manual
- Caltrans Highway Planting and Irrigation Manual
- Caltrans Guide for Submittal of PS&E
- Caltrans Construction Contract Development Guide
- Caltrans Standard Plans and Specifications
- Caltrans Storm Water Quality Handbooks
- Caltrans Signal and Lighting Guidelines
- Caltrans published Structures Technical Policies

The assumed milestone submittals follow those as prescribed in the Workplan Standards Guide and are assumed to be made at the 65%, 95%, and 100% design phases. The specific elements to be included in each package are as outlined in the manuals listed above.

***Task 3A-5A Assumptions:***

- One review cycle per agency assumed for each deliverable

**Task 3A: Draft PS&E (65%) Submittal for Package 1**

This task involves the preparation of a 65% Caltrans PS&E package for Construction Contract Package 1. This package includes unchecked structures plans for the structures within State jurisdiction and outline Caltrans Specification Special Provisions and Nonstandard Special Provisions to supplement the Caltrans Standard Specifications. All plan preparation tasks included below include the development of the associated quantities for the construction items shown on the plans, which will be shown within the quantity summary sheets.

It is assumed that Caltrans will conduct separate constructability and safety review workshops of the 65% plans prior to their formal submittal for review. Attendance by project team staff at these workshops are covered under Task 1.1.1. Any comments generated by Caltrans as part of these reviews are assumed to be addressed prior to the 65% PS&E submittal.

*Task 3A Assumptions:*

- Twenty (20) hard copies and one PDF copy of plans, specifications, and estimates to be submitted to Caltrans for review
- Ten (10) hard copies and one PDF copy of plans, specifications, and estimates to be submitted to City for review

***3A.1: Prepare 65% Roadway Plans***

HDR will utilize the Caltrans-approved geometrics per Task 2.5 as the basis for the development of the 65% roadway plans. Plan sheets to be prepared as part of this task are listed below.

*Task 3A.1 Deliverables:*

- Title Sheet
- Typical Sections
- Key Map and Line Index
- Layout Plans
- Profiles and Superelevation Diagrams
- Construction Details
- Contour Grading
- Summary of Quantities

***3A.2: Prepare 65% Drainage Plans***

This task includes the preparation of the Draft Project Drainage Report, the Draft Caltrans Stormwater Data Report, and the 65% Drainage and Stormwater Plans.

***3A.2.1: Prepare Reports***

HDR will prepare the Draft Drainage Report to address the existing drainage conditions within the project limits and the proposed drainage modifications and new drainage systems that will be needed to accommodate the project runoff. The Drainage Report will be prepared to cover the full limits of the project, including the areas both inside and outside Caltrans jurisdiction.

The report will be organized such that the drainage recommendations for the work in State jurisdiction and the work within City jurisdiction will be separated to facilitate the reviews by each agency. The drainage report will also provide the necessary final design recommendations for the design of the new SD-01 Pump Station, the design of which is covered under Tasks 3B through 5B.

The report will present a narrative of the hydrologic and hydraulic assumptions, analyses, and designs required for the proposed improvements. The report will include summary tables of pre- and post-project condition hydrologic and hydraulic analyses of sub-catchments and storm water conveyances within the project limits. The report will present the design flow rates, proposed inlet geometrics, and hydraulic grade lines. The engineering calculations relevant to the hydrologic analysis and hydraulic design of the proposed drainage improvements and a set of the draft drainage improvement plans prepared as part of Task 3A.2 will be included in the report appendices.

To address storm water quality requirements (NPDES & Caltrans) for the work within State jurisdiction, HDR will prepare a Caltrans Storm Water Data Report (SWDR) in accordance with Caltrans preparation guidelines.

*Task 3A.2.1 Deliverables:*

- Draft Drainage Report (20 hard copies and 1 PDF copy)
- Draft Storm Water Data Report (10 hard copies and 1 PDF copy)

*Task 3A.2.1 Assumptions:*

- Draft Project Drainage Report will be a single report that covers entire project and all project elements, including pump station
- Hydrology and Hydraulic calculations for facilities in State jurisdiction will be per Caltrans standards. Calculations for facilities within City jurisdiction will be per City of Long Beach and Los Angeles County Department of Public Works Standards.
- No temporary or interim drainage analysis is included in this scope of work
- No tidal influence will be analyzed on the project storm drain systems
- SWDR covers limits of improvements within State jurisdiction only

### *3A.2.2: Prepare Plans*

HDR will prepare plans for the new onsite and offsite drainage systems as well as modifications/upgrades to the existing drainage systems within State jurisdiction based on the recommendations in the Drainage Report. In addition, both Temporary Water Pollution Control Plans and Erosion Control Plans will be prepared for the areas within State jurisdiction in accordance with Caltrans requirements. The proposed BMPs shown in the Water Pollution Control Plans will reflect the SWDR recommendations.

*Task 3A.2.2 Deliverables:*

- Drainage Plans, Profiles, Details, and Quantities
- Temporary Water Pollution Control Plans
- Erosion Control Plans

*Task 3A.2.2 Assumptions:*

- Temporary Water Pollution Control Plans will be prepared for each construction stage
- Plans to cover work within Caltrans jurisdictions and adjoining local streets only. All park drainage features will be covered under Package 2
- Assumes all runoff is to be conveyed to LB MUST facility or new SD-01 Pump Station
- Determination of runoff to LB MUST and/or pump station to be made in coordination with City and LB MUST project team.

### *3A.3: Prepare Stage Construction, Traffic Handling, Detour, and Construction Area Sign Plans, and TMP*

This task involves the development of a construction staging approach in coordination with Caltrans and City staff, the development of detailed design plans to convey this approach, as well as the Caltrans Traffic Management Plan for Package 1 construction.

#### *3A.3.1: Staging Concept Development and Approval*

HDR will work jointly with City and Caltrans staff to develop an acceptable construction staging approach that will be carried forward into final design and construction. HDR will prepare an initial construction staging/maintenance of traffic concept to review with City and Caltrans staff. This concept will be presented in a set of high level schematic staging layouts for the Package 1 construction (one sheet per stage). These exhibits will show areas open to traffic and those under construction in each stage. If any detours or temporary roadways are needed to maintain traffic during each stage, these will be shown conceptually in the exhibits. These exhibits and a narrative describing the proposed staging strategy will be included in the summary memorandum.

HDR will submit these exhibits to the City and Caltrans for review and subsequently conduct a joint workshop with both agencies. The goal of the workshop will be to reach a consensus on the construction staging approach to be carried forward into final design. Based on the comments generated at the workshop, HDR will refine the concept and recirculate to both Caltrans and the City for written concurrence.

*Task 3A.3.1 Deliverables:*

- Draft and final construction staging exhibits
- Workshop agenda, minutes, presentation materials

#### *3A.3.2: Prepare Draft Transportation Management Plan (TMP)*

HDR will develop a Transportation Management Plan (TMP) to address traffic detours and operations during the construction phase. The TMP will be coordinated with the City of Long Beach, Caltrans, and other stakeholders, including the California Highway Patrol. Traffic studies conducted as part of the final environmental document will be reviewed in advance of developing the TMP to ensure that any specific mitigation is incorporated.

*Task 3A.3.2 Deliverables:*

- Draft TMP (10 hard copies and 1 PDF copy)

#### *3A.3.3: Prepare Plans*

HDR will prepare Construction Staging/Traffic Handling Plans, Detour Plans, and Construction Area Sign Plans for Package 1 construction to reflect the agreed upon approach developed as part of Task 3A.3.1.

*Task 3A.3.3 Deliverables:*

- Stage Construction/Traffic Handling Plans
- Detour Plans (including layouts, profiles, superelevation diagrams as needed)
- Construction Area Sign Plans

### *3A.4: Prepare 65% Pavement Delineation Plans*

HDR will prepare pavement delineation plan to identify locations of painted and thermoplastic stripes and markings, pavement markers, and delineators for all roadway work completed as part of Package 1.

*Task 3A.4 Deliverables:*

- Pavement Delineation Plans, Details, and Quantities

### *3A.5: Prepare 65% Sign Plans*

HDR will prepare Sign Plans to show existing and proposed new signs. The plans will include sign details and quantity sheets.

*Task 3A.5 Deliverables:*

- Sign Plans, Details, and Quantities

*Task 3A.5 Assumptions:*

- All sign and lighting design assumed to be based on current Caltrans Standard Plans. Nonstandard designs are not included in this scope.

### *3A.6: Prepare 65% Electrical Plans*

HDR will conduct street lighting analysis to determine the locations and types of safety lighting along the proposed roadways within Caltrans jurisdiction and abutting local streets to be modified as part of the Package 1 construction. Based on this analysis, HDR will prepare Lighting Plans that show the locations and details of this safety lighting as well as the aesthetic lighting along the bridges and other locations within the Package 1 limits as defined as part of Task 2.11.

HDR will prepare traffic signal plans for the traffic signal modifications required along 6th and 7th Streets within the project limits as well as to potential modifications of the traffic signal at Shoreline Drive/Broadway intersection.

*Task 3A.6 Deliverables:*

- Lighting calculations
- Lighting Plans and Details
- Traffic Signal Plans and Details

*Task 3A.6 Assumptions:*

- Assumes no ramp metering or electrical system plans are required

- All bridge/aesthetic lighting to be based on guidelines and concepts developed as part of Task 2

### *3A.7: Geotechnical and Foundation Reports*

This task involves the preparation of the necessary reports to provide recommendations regarding the design of structural foundations, embankment slopes, grading, and pavement structural sections.

### *3A.7.1: Geotechnical Design Report (GDR)*

HDR will utilize the data generated as part of Task 2 to prepare a report discussing the geotechnical basis of the project and provide recommendations for design and construction standard earth retaining structures, cut and fill slopes, pavement, and drainage facilities. The report will cover the work to be completed as part of both Packages 1 and 2. The report will be submitted to Caltrans for review. All calculations supporting the recommendations will be included in the appendix to the GDR. The report will include infiltration testing for any potential BMP infiltration basins.

*Task 3A.7.1 Deliverables:*

- Draft and Final Geotechnical Design Report

*Task 3A.7.1 Assumptions:*

- Separate GDRs will not be prepared for Package 1 and Package 2 construction
- The preparation of the GDR to support the SD-01 pump station design is covered under Task 2.8.2.

### *3A.7.2: Foundation Reports for Structures*

HDR will build upon the Preliminary Foundation Report prepared as part of Task 2 to prepare a Foundation Report based upon the Type Selection comments and additional information from the GDR analysis. The report will provide foundation recommendations for all Package 1 structures including bridges, special design retaining walls, stand-alone overhead sign structures, and traffic signals. Log of test borings will be included in 11 inch by 17 inch plans. This report will be submitted to Caltrans for review.

*Task 3A.7.2 Deliverables:*

- Draft and Final Foundation Reports

### *3A.7.3: Materials Report*

HDR will prepare a report discussing the pavement structure recommendations and/or pavement studies for the project. This report will be submitted to Caltrans for review. HDR will address any comments stemming from this review and prepare a final draft. All calculations supporting the recommendations will be included in the report appendix.

*Task 3A.7.3 Deliverables:*

- Draft and Final Materials Report

### *3A.8: Bridge and Nonstandard Retaining Wall Plans (Unchecked Details)*

This task includes the plan preparation for all Package 1 structures including the bridges, pedestrian bridges, and any nonstandard retaining walls. In addition, quantities and cost estimates for all structures will be generated based upon the designs included in the plans.

### *3A.8.1: Prepare Structures Plans*

HDR will prepare bridge and retaining wall layout plans, profiles, and structural details for the LA River Bridge and associated roundabout structure, the LA River Bridge bike/bed connection bridge, the replacement 7th Street Pedestrian Bridge, as well as all nonstandard retaining walls. Plans will incorporate aesthetic details consistent with the agreed upon concepts generated as part of Task 2. In addition, schematic removal plans for the existing Shoemaker Bridge will be prepared. Although the 7th Street Pedestrian Bridge is outside of Caltrans jurisdiction, it will be designed in accordance with Caltrans plan formatting standards.

Bridge design will be in accordance with Caltrans Seismic Design Criteria, Bridge Design Specifications, Memos to Designers, and Bridge Design Details Manual. Details and construction specifications will be prepared in accordance with Caltrans Standard Plans, Standard Specifications, and Standard Special Provisions.

*Task 3A.8.1 Deliverables:*

- Unchecked Structure Plans

*Task 3A.8.1 Assumptions:*

- Design to be initiated immediately upon Type Selection Report submittal.
- Elevated roundabout structure and LA River Bridge are Ordinary Nonstandard bridges and pedestrian bridge are Ordinary Standard bridges per Caltrans SDC.
- Existing soils are anticipated to be improved for bridge foundation analysis/design.
- Study/use of base isolation is not included.
- Bridge removal plans will be schematic in nature, with supporting specifications to indicate acceptable means and methods, monitoring requirements, etc. Detailed removal plans for the existing Shoemaker Bridge will be prepared and submitted by the successful bidding Contractor and subject to review and acceptance by the Engineer.
- 7th Street Pedestrian Bridge to be designed in accordance with Caltrans structural design and plan formatting standards.

### *3A.8.2: Prepare Updated Structures Cost Estimate*

HDR shall developed updated quantity summaries and cost estimates for each structure based upon the designs included in the Unchecked Structures Plans.

*Task 3A.8.2 Deliverables:*

- Updated structure quantity summaries and cost estimate.

### *3A.9: Prepare Utility Plans*

This task will involve updating the existing utilities composite to reflect the potholing data obtained as part of Task 2.9. It will also include the coordination with impacted third-party utility owners to facilitate their development of final design plans for the necessary relocations of their

facilities, and the preparation of Utility Plans to show all pothole locations and the identify the disposition of utilities determined to be in conflict.

### *3A.9.1: Update conflict maps and matrix based on potholing results*

HDR will review the pothole data reports prepared as part of Task 2.9 and update the existing utilities base, conflict maps, and matrix to reflect the pothole findings.

*Task 3A.9.1 Deliverables:*

- Updated existing utilities base, conflict map, and matrix

### *3A.9.2: Utility Coordination*

HDR will issue formal Notice to Relocate letters to all impacted third-party owners on the City's behalf, which will initiate relocation process by the owners.

HDR will coordinate regular coordination with the impacted utility owners to confirm that they have the necessary information and materials needed to complete the detailed relocation design of their facilities and to check on the status of their final design work to confirm they are meeting the agreed upon design schedule outlined as part of Task 2.9.

HDR will review the relocation plans prepared by the impacted owners to confirm that they are consistent with the proposed project improvements and are compatible with other existing and relocated utilities within the limits of the work. HDR will conduct workshops with each owner if necessary to discuss any comments generated based on these reviews.

*Task 3A.9.2 Deliverables:*

- Notice to Relocate Letters
- Final design plans for all third-party utility relocations (by others)
- Review comments of draft relocation plans
- Meeting agendas, minutes, presentation materials

*Task 3A.9.2 Assumptions:*

- All impacted third-party owners will complete the relocation designs for their own facilities

### *3A.9.3: Prepare 65% Utility Plans*

HDR will prepare Utility Plans to show all existing utilities within the Package 1 limits and the disposition of any utilities determined to be in conflict. Disposition shall include the utility company name, facility type, original location, and proposed location for each utility. Plans will show pothole locations.

*Task 3A.9.3 Deliverables:*

- Updated Utility Conflict Matrix
- Updated Utility Plans Sheets

### *3A.10: Prepare Outline Specifications*

HDR will prepare outline technical specifications for the work to be completed as part of Package 1. It is assumed that all work within Caltrans jurisdiction completed as part of Package 1 will completed in accordance with the current version of the Caltrans Standard Specifications.

Any work along 6th and 7th Streets outside of Caltrans jurisdiction may be subject to Green Book Standard Specifications and any associated City supplements or addenda. HDR will identify any project elements requiring Standard or Nonstandard Special Provisions to the Caltrans Standard Specifications and list these in an outline format consistent with the organization of the Caltrans Standard Specifications. HDR will complete the same exercise for any project elements along 6th and 7th Streets that will be subject to the Green Book Standard Specifications.

*Task 3A.10 Deliverables:*

- Outline of any required SSPs and NSSPs to Caltrans Standard Specifications
- Outline any technical specifications for work in City jurisdiction that is not covered within Green Book Standard Specifications or any applicable City supplements or addenda.

*Task 3A.10 Deliverables:*

- Team to use the latest Caltrans Standard Specifications and Green Book Standard Specification, available at the initiation of the PS&E

### *3A.11: Prepare Draft Engineer's Estimate of Probable Construction Cost*

HDR will assemble the quantities generated as part of Task 3A to develop a Draft Engineer's Estimate of Probable Construction Cost. Unit costs will be obtained from the latest Caltrans Cost Data Book and recent available bid data. The cost estimate will be organized in accordance with the Caltrans BEES cost estimate formatting standard unless otherwise dictated by the City.

Once the Draft Engineer's Estimate has been prepared, HDR will conduct an independent review of the estimate as discussed in the introduction and prepare a memorandum to summarize their findings.

*Task 3A.11 Deliverables:*

- Draft Engineer's Estimate of Probable Construction Cost
- Independent cost estimate review summary of findings memorandum

*Task 3A.11 Assumptions:*

- Estimate format to be consistent with Caltrans BEES formatting standards unless otherwise directed by City

### *3A.12: Envision Certification (Optional Task)*

Based upon the outcome of Task 2.16, it is assumed the City will want to pursue Envision Certification for the Project. For the purpose of the Envision Certification, the "Project" will constitute the work being done as part of Packages 1 and 2 excluding the SD-01 Pump Station construction. As part of this task, an HDR Envision Certification Specialist will work with the project team to incorporate the City-directed Envision-eligible project elements identified as part of Task 2.16 into the 65% bid set for the Package 1 construction. Upon the completion of the 65% PS&E package, the Certification Specialist will conduct an audit of the bid set to confirm the Envision-eligible elements have been appropriate incorporated and will prepare the necessary Envision compliance audit documentation.

*Task 3A.12 Deliverables:*

- Envision compliance audit documentation

*Task 3A.12 Assumptions:*

- It is assumed that the City will pursue Envision Certification for the Project, and the appropriate envision elements will be incorporated into the Package 1 bid set.

### Task 4A: Initial PS&E (95%) Submittal for Package 1

This task involves obtaining resolution on the disposition of the 65% agency review comments, updating the PS&E package to address the comments received, and advancing the PS&E package to a draft level of completion. A second Caltrans Constructability Review will be conducted as part of this design phase, with the comments addressed by the project team prior to the formal submittal of the 95% PS&E package.

*Task 4A Assumptions:*

- Twenty (20) hard copies and one PDF copy of plans, specifications, and estimates to be submitted to Caltrans for review
- Ten (10) hard copies and one PDF copy of plans, specifications, and estimates to be submitted to City for review

#### *4A.1: 95% Roadway PS&E*

This task covers the Task 4A work described above for the roadway portion of the Package 1 bid set. The roadway portion covers all portions of the bid set aside from the structures component, including the following:

- Roadway/Civil
- Drainage and Stormwater
- Construction Staging
- Pavement Delineation and Signage
- Lighting and Electrical
- Utilities
- Hazardous Materials
- Environmental Compliance

The following describes the process that will be followed to address agency review comments:

- Upon receipt of the 65% agency review comments, HDR will review the comments and develop draft responses. All responses will be documented in a series of comment-response matrices (one per reviewer).
- HDR will submit the draft comment-responses matrices to the various agency reviewers for review.
- HDR will conduct a series of comment-response review workshops with each reviewing agency (one per agency). The goal of these workshops will be to review HDR's draft responses and to reach consensus on the disposition of each comment.
- HDR will revise the comment-responses to reflect the agreed-upon disposition per the workshops and submit the revised comment-response matrices to the reviewers for sign-off.

#### *4A.1.1: 95% Roadway Plans*

HDR will complete the process described above to reach consensus with the reviewing agencies on the disposition of the 65% review comments. HDR will the revise the roadway plans to address the comments and advance the plans to a draft level of design completion. The draft 95% plans will be submitted to Caltrans for the purpose of the 95% constructability review. HDR will then update the 95% plans to address the constructability review comments and compile the revised 95% plan set in preparation for the formal milestone submittal.

### *4A.1.2: Prepare 95% Roadway Quantities and Cost Estimate*

HDR will revise the Engineer's Estimate to address any City review comments. Since the City will be advertising, awarding, and administering the Package 1 construction contract, it is assumed that Caltrans will have no interest in reviewing the Engineer's Estimate in detail. HDR will then update the quantity summaries for each discipline to reflect the updated designs. Updated quantities will then be incorporated into the Engineer's Estimate in order to update the estimate to reflect the 95% plans.

Once the Engineer's Estimate has been updated, HDR will conduct an independent review of the estimate as discussed in the introduction and prepare a memorandum to summarize their findings.

### *4A.1.3: Prepare Draft Specification Special Provisions*

HDR will prepare a complete set of Draft Specification Special Provisions and Nonstandard Special Provisions to act as a supplement to the Caltrans Standard Specifications for all work in Caltrans jurisdiction. Similarly, HDR will prepare draft technical specifications for all work along 6th and 7th Streets within City jurisdiction to supplemental the Green Book Standard Specifications and any City supplements or addenda.

HDR will assist the City in preparing the General Provisions for project specifications. It is assumed that the City will be responsible for preparing "up front" provisions and the complete set project specifications.

*Task 4A.1 Deliverables:*

- Draft/final 65% submittal comment- response matrices
- 95% Plans
- Updated Engineer's Estimate of Probable Construction Cost
- Independent Cost Estimate Review Summary of Findings Memorandum
- Draft technical specifications

*Task 4A.1 Assumptions:*

- The City will be responsible for preparing up-front provisions and compiling project specification package.

### *4A.2: Checked Bridge and Nonstandard Retaining Wall PS&E*

This task covers the Task 4A work described above for the structures portion of the Package 1 bid set. As part of this task, an Independent Check of the draft structures design will be conducted, per Caltrans requirements, for the LA River Bridge and the roundabout structure only. All agency comments resulting from the review of the Unchecked Structures PS&E will be addressed in accordance with the process outlined above under Task 4A.1.

#### *4A.2.1: Prepare Checked Structures Plans*

HDR will revise the structures plans to address the 65% agency review comments and will then conduct an independent check of the design for the LA River Bridge and the roundabout structure only. HDR will then resolve any inconsistencies resulting from the independent check and compile a set of updated structures plans in preparation for the 95% constructability review. HDR will then update the 95% plans to address the constructability review comments and compile the revised 95% structures plan set in preparation for the formal milestone submittal.

#### *4A.2.2: Prepare Draft Specification Special Provisions*

HDR will prepare a complete set of Draft Specification Special Provisions and Nonstandard Special Provisions to act as a supplement to the Caltrans Standard Specifications for all structures work included as part of Package 1. These specifications will reflect the design included in the 95% structures plans. It is assumed that the 7th Street Pedestrian Bridge will utilize Caltrans structural specifications even though the structure is outside Caltrans jurisdiction.

#### *4A.2.3: Prepare 95% Structures Quantities and Cost Estimate*

HDR will update the quantity summaries for each structure to reflect the updated designs. Updated quantities will then be incorporated into the Engineer's Estimate in order to update the estimate to reflect the 95% plans. HDR will also conduct an independent check of the quantity calculations for the LA River Bridge and the roundabout structure only.

#### *4A.2.4: Prepare Structural Calculations*

HDR will compile the structural calculations developed as part of the design of each structure into binders in preparation for inclusion with the 95% PS&E submittal.

*Task 4A.2 Deliverables:*

- Checked Structures Plans
- Updated structures quantities to be included in Engineer's Estimate
- Independent check of structures quantities for the LA River Bridge and the roundabout structure only
- Draft Structures Technical Specifications (SSPS)
- Structural design calculations
- Independent structural design check calculations for the LA River Bridge and the roundabout structure only
- Quantity Summary Sheets
- Memo to Specification Engineer

*Task 4A.2 Assumptions:*

- Independent Check of elevated roundabout and LA River Bridges and 95% Design to be initiated immediately upon 65% PS&E submittal.
- Elevated roundabout structure and LA River Bridge are Ordinary Non-standard bridges and pedestrian bridge is Ordinary Standard bridge per Caltrans SDC.
- Existing soils are anticipated to be improved for bridge foundation analysis/design.
- Study/use of base isolation is not included.

- Bridge removal plans will be schematic in nature, with supporting specifications to indicate acceptable means and methods, monitoring requirements, etc. Detailed removal plans for the existing Shoemaker Bridge will be prepared and submitted by the successful bidding Contractor and subject to review and acceptance by the Engineer.
- 7th Street Pedestrian Bridge to utilize Caltrans Structures Specifications.

### *4A.3: Prepare Construction Schedule*

HDR will prepare a draft master construction schedule for the Project that includes all three construction packages, which will be prepared in Microsoft Project. The draft construction schedule will be included as part of the 95% submittal package.

*Task 4A.3 Deliverables:*

- Draft construction schedule (20 hard copies and one PDF copy)

*Task 4A.3 Assumptions:*

- Schedule will cover all three construction packages
- Schedule to be prepared in Microsoft Project

### *4A.4: Update Storm Water Data Report*

HDR will work with Caltrans to address the comments received as part of the review of the Draft SWDR submittal. The procedure outlined as part of task 4A.1 will be followed to address the comments received. HDR will update the SWDR if necessary to reflect the advanced design of the stormwater elements and include the updated SWDR as part of the 95% submittal package.

*Task 4A.4 Deliverables:*

- Draft/final comment- response matrix
- Final SWDR (10 hard copies and 1 PDF copy)

### *4A.5: Prepare Environmental Commitments Record (ECR)*

HDR will prepare an updated Environmental Commitments Record to confirm that all mitigations recorded within the Project Environmental Documented have been incorporated into the PS&E package. As part of this task, HDR will prepare a report to document project environmental compliance.

*Task 4A.5 Deliverables:*

- Updated ECR
- Environmental commitment tracking system
- Draft and final report on project compliance

### *4A.6: Update Transportation Management Plan*

HDR will work with Caltrans to address the comments received as part of the review of the Draft TMP submittal. The procedure outlined as part of task 4A.1 will be followed to address the comments received. HDR will update the TMP to reflect the advanced design of the construction staging elements and will include the updated TMP as part of the 95% submittal package.

*Task 4A.6 Deliverables:*

- Draft/final 65% submittal comment- response matrices

- Final TMP (10 hard copies and 1 PDF copy)

### *4A.7: Envision Certification (Optional Task)*

As part of this task, an HDR Envision Certification Specialist will work with the project team to confirm the appropriate incorporation the City-directed Envision-eligible project elements identified as part of Task 2.16 into the 95% bid set similar to what was done for the 65% PS&E package. Upon the completion of the 95% PS&E package, the Certification Specialist will conduct an audit of the bid set to confirm the Envision-eligible elements have been appropriate incorporated and will prepare the necessary Envision compliance audit documentation.

*Task 4A.7 Deliverables:*

- Envision compliance audit documentation

## Tasks 5A: Final PS&E (100%) Submittal for Package 1

This task involves obtaining resolution on the disposition of the 95% agency review comments, updating the PS&E package to address the comments received, advancing the PS&E package to completion, and obtaining the necessary approvals for construction. A second Caltrans Safety Committee Review will be conducted as part of this milestone phase, with the comments addressed by the project team prior to the formal submittal of the 100% PS&E package. In addition, this task includes the preparation of ancillary items required by the City and Caltrans needed for construction including the final construction schedule, Resident Engineer's File, Materials Handouts, the Paleontological Mitigation Plan, and the Project Survey File.

### *5A.1: Final PS&E*

This task covers the preparation of the Final PS&E package and obtaining Caltrans and City approval of the final bid package. This work will include the following:

- Preparing responses to 95% review comments and obtaining consensus with the reviewers on the disposition of each comment.
- Updating the PS&E package to address agency comments.
- Finalizing the design, if necessary.
- Submitting the Draft-Final PS&E package to Caltrans for the second Safety Committee Review
- Revising the PS&E to address the Safety Review comments.

Once the Engineer's Estimate has been updated, HDR will conduct an independent review of the estimate as discussed in the introduction and prepare a memorandum to summarize their findings.

### *5A.1.1: Final Roadway PS&E*

This task covers the preparation of the roadway portion of the Final PS&E package as described above.

### *5A.1.2: Final Structures PS&E*

This task covers the preparation of the structures portion of the Final PS&E package as described above. This will also include the preparation of a 1"=4' scale Deck Contour Plot.

### *5A.1.3: Update Construction Schedule*

The draft construction schedule prepared as part of Task 4A will be updated as necessary to reflect the completed design and to address any comments received as part of the draft submittal.

*Task 5A.1 Deliverables:*

- Draft/final 95% submittal comment- response matrices
- Final approved PS&E package
- Updated construction schedule
- Independent Cost Estimate Review Summary of Findings

*Task 5A.1 Assumptions:*

- Final Design to be initiated immediately upon 95% PS&E submittal.
- Elevated roundabout structure and LA River Bridge are Ordinary Non-standard bridges and pedestrian bridges are Ordinary Standard bridges per Caltrans SDC. Existing soils are anticipated to be improved for bridge foundation analysis/design.
- Study/use of base isolation is not included.

### *5A.2: Prepare Resident Engineer's (RE) File*

HDR will meet with the Package 1 Resident Engineer (RE) and provide the following information for the RE File:

- Permits
- Survey notes
- Geotechnical and Foundation Reports
- Hydrology/Hydraulics Report and calculations
- Relevant correspondence and memoranda
- Engineering calculations (horizontal and vertical alignments, earthwork quantities, etc.)
- Environmental agreements and reports
- TMP and supplements
- SWDR
- Right of way maps and agreements (see Task 6)
- Utility relocation plans and agreements
- Safety review report
- List of project personnel
- Cooperative agreements
- Working cross sections

Hours for the preparation RE packages for Package 2 and 3 construction bid packages are covered under this task.

*Task 5A.2 Deliverables:*

- RE File (1 hard copy and 1 PDF copy) for each construction package

### *5A.3: Prepare Materials Handout*

HDR will prepare materials handout information per Caltrans Highway Design Manual Section 111.3: Materials Information Furnished to Prospective Bidders.

Hours for the preparation Materials handouts for Package 2 and 3 construction bid packages are covered under this task.

*Task 5A.3 Deliverables:*

- Materials handouts for each construction package

### *5A.4: Prepare Paleontological Mitigation Plan (PMP)*

HDR will prepare a Paleontological Mitigation Plan consistent with Caltrans and County requirements. The PMP will be implemented as part of excavation activities during construction of all 3 packages.

Hours for the preparation PMPs for Package 2 and 3 construction bid packages are covered under this task.

*Task 5A.4 Deliverables:*

- Paleontological Mitigation Plan (1 per construction package)

### *5A.5: Assist City in Preparing Bid Documents*

HDR will provide technical assistance to the City in the preparation of the construction bid documents for each construction package.

*Task 5A.5 Assumptions:*

- City will be responsible for preparing non-technical portions of bid documents for each bid package.

### *5A.6: Prepare Survey File*

HDR will prepare materials and compile documentation to be included in Survey File for use by the lead surveyor assigned to each construction package prior to construction. The following documentation will be included in the Survey Files as prescribed by the Project Development Procedures Manual Appendix QQ - Preparation Guidelines for Survey Files:

- Contact list
- Datum listing
- Project reference list
- Additional instructions
- Contract plans
- Project control
- Topography and base maps
- Horizontal and vertical alignments
- Profiles
- Cross sections – roadway cross sections at 50' intervals (Package 1 only)
- Slope staking notes/grid grades (Package 1 only)
- Right of way appraisal maps

- Right of way coordinate geometry
- Right of way monument perpetuation documentation
- Digital design model

Hours for the preparation Survey Files for Package 2 and 3 construction bid packages are covered under this task.

*Task 5A.6 Deliverables:*

- Survey Files (1 per construction package)

***5A.7: Envision Certification (Optional Task)***

As part of this task, an HDR Envision Certification Specialist will work with the project team to confirm the appropriate incorporation the City-directed Envision-eligible project elements identified as part of Task 2.16 into the final Package 1 bid set similar to what was done for the 65% and 95% PS&E packages. Upon the completion of the Final PS&E package, the Certification Specialist will prepare a Certification Compliance Report to document the Envision-eligible project elements included in the Package 1 bid set. The report will tally up the Envision Certification points obtained by the incorporation of these elements. This report will be submitted along with the report prepared as part of the Package 2 PS&E preparation to obtain Envision Certification for the Project.

*Task 5A.7 Deliverables:*

- Envision compliance audit documentation
- Certification Compliance Report

**Tasks 3B – 5B: Preparation of Plans, Specifications and Estimates for Package 2**

Tasks 3B through 5B cover the preparation of the Package 2 PS&E package, which includes the relocation of the SD-01 Pump Station and the construction of the park elements within the portion of Cesar Chavez Park bounded by Broadway to the South, future Shoreline Drive to the west, the existing Cesar Chavez park elements fronting Golden Avenue to the east, and the LB MUST facility to the north as depicted in **Attachment 1.** The work included within Package 2 all falls within City of Long Beach jurisdiction; and as such, the construction bid package will be formatted in accordance with City of Long Beach formatting standards for PS&E preparation. The designs to be advanced within these tasks are based upon the concepts and preliminary design work completed as part of Task 2 and approved by the City.

Similar to the work covered under Package 1, three milestone submittals to the City and other impacted agencies/stakeholders are assumed:

- 65% design
- Draft PS&E (90% design completion)
- Final PS&E (100% complete)

*Task 3B-5B Assumptions:*

- One review cycle per agency assumed for each deliverable

### *Task 3B: 65% Package 2 PS&E Submittal*

This task involves the preparation of a 65% PS&E package for Construction Contract Package 2, including the urban design work and the SD-01 Pump Station relocation. It also includes the preparation of the existing utility composite plans and the plans for any necessary relocations of sewer and water facilities needed to accommodate all proposed improvements east of the LA River. The sewer and water relocation design will be broken off and advanced to completion as part of Package 3, the preparation of which is covered under Tasks 4C and 5C. Package 3 is meant to be an early utility relocation construction bid package which is to occur in advance of the Package 1 and 2 construction.

The SD-01 Pump Station relocation design work will be advanced based upon the selected location per the Preliminary Design (Task 2.8) and will involve the preparation of final design plans, the preparation of draft Engineer's Estimate of probable construction cost, and the development of an outline of the technical specifications that will be required.

*Task 3B Assumptions:*

- Ten (10) hard copies and one PDF copy of plans, specifications, and estimates to be submitted to City for review

### *3B.1: Prepare 65% Plans*

The plan production work included as part of this task is outlined in the table below:

| Substask No. | Plan Description | Plan Details | Plan Scale |
|---|---|---|---|
| 3B.1.1 | General/Front End | Cover sheet, Notice to Contractor, List of abbreviations, legend & symbols, key map | NA |
| 3B.1.2 | Drainage/stormwater | Key map and notes,<br>Layouts<br>Profiles<br>Details | <br>1"=40'<br>1"=20 |
| 3B.1.3 | LID Report (see below for details) | See description below | NA |
| 3B.1.4 | Landscaping | General notes, abbreviations, symbols, and key map; landscape layouts, planting details | 1"=20' layouts |
| 3B.1.5 | Irrigation | Notes & legend, standard details, layouts | 1"=20' layouts |
| 3B.1.6 | Bike path/hardscaping | Layouts, details | 1"=20' layouts |
| 3B.1.7 | Lighting & electrical | Layouts, wiring diagrams | 1"=40' layouts |
| 3B.1.8 | Contour grading | Rough grading<br>Fine grading | 1"=40'<br>1"=20' |

| | | | |
|---|---|---|---|
| 3B.1.9 | Utilities | Sewer key map & notes<br>Sewer plan/profile<br>Sewer standard plans & details<br>Water key map & notes<br>Water plan/profile<br>Water details<br>Composite utility layouts | <br>1"=20'<br><br><br>1"=20'<br><br>1"=40' |
| 3B.1.10 | Wayfinding/Signage | Layouts, details | 1"=40' layouts |
| *3B.1.11* | *Pump Station:* | | |
| | General Sheets | Location and vicinity maps, sheet index and general notes, symbols, legend & abbreviations | NA |
| | Demolition Sheets | Layouts and photos | NA |
| | Site Civil, Piping and Force Mains Plans and Details | Horizontal control plan, site plan, piping plan | As appropriate |
| | Architectural plans | Notes & schedules, floor plan, pump pit plan, roof plan, elevations, sections and details | As appropriate |
| | Structural plans | General notes, standard details, inspection notes, floor plan, sections and details, pump wet well plan and details, concrete and reinforcing details, railing and ladder support details, pump bay plan and section; flow walls plan, section, and details; trash rack details | As appropriate |
| | Mechanical | Floor plan, pump pit plan, sections, enlarged plan, details | As appropriate |
| | Cathodic Protection | Details | |
| | HVAC Plans | Legend & abbreviations, notes, layout, section, schedules and details | As appropriate |
| | Electrical Plans | Symbology, single line diagrams, cabinet elevations, site plan, grounding plan, floor plan, pump pit plan, Area Classification, wiring diagrams, schedules, lighting & receptacle plan, photometrics, Title 24 Forms | As appropriate |
| | P&ID Plans | Symbology, SCADA Architecture, PLC control panel layout and | As appropriate |

| | | | |
|---|---|---|---|
| | | power distribution, ventilation and gas detection systems, building alarms, standby power & security, details | |
| | COLB forms | | |
| | Standard plans | Standard Plans – Public Works | |

Budget allocated to the work included within Task 3B.1 is assigned within the fee estimate to the subtasks identified above. The plan set will be formatted in accordance with City of Long Beach standards.

### *3B.1.3: Prepare Draft Low Impact Development (LID) Report*

A Draft LID Report will be prepared to identify the specific proposed BMPs for the Package 2 construction. The evaluation supporting the selection and the calculations supporting the BMP sizing will be provided. Coordination with the LB MUST Project is assumed to be needed for the selection of BMPs for the project. The LID plans/exhibits to be prepared in support of this report will include locations of BMPs, elevations, drainage patterns, size and capacity. Upon approval of this report and direction from the City, approved BMPs will be incorporated into the final drainage plans prepared as part of this task.

### *3B.1.11: Prepare Pump Station Plans (includes optional LEED Certification)*

Plans for the relocation of the SD-01 Pump Station will be prepared as listed in the table above. If directed by the City, HDR will pursue LEED Silver certification for the new pump station. The following activities will be completed related to the LEED Silver Certification if requested:

- Revise the Sustainability Plan (LEED Checklist) based on the progress of the building design.
- Provide the project team with direction in meeting the requirements outlined in the 2019 California Green Building Standards Code (CalGreen).
- Provide a preliminary Daylight analysis for the private office space included in the building design.
- Provide guidance in editing specification sections for the project team to ensure the incorporation of agreed upon Certifying Authority or sustainability requirements such that the City can obtain accurate bids for the specific scope of work required.
- Conduct a quality control review of the project documents and specifications for inclusion of the building elements needed to meet the sustainable and building performance goals.
- Facilitate sustainability and energy efficiency meetings with the project team as needed to satisfy the LEED and/or energy efficiency goals.
- Provide one (1) baseline and design bundled energy model. The baseline energy model shall be based on the ASHRAE 90.1-2010 energy standard.

*Task 3B.1 Deliverables:*

- 65% plans (20 hard copies and 1 PDF copy)
- Draft LID Report (PDF copy and 3 hard copies)
- Baseline and design bundled energy model for pump station

*Task 3B.1 Assumptions:*

- All plans to be prepared in accordance with City of Long Beach formatting standards
- Drainage and Stormwater:
    - Includes design of storm drainage and water quality features for park elements only.
    - BMP calculations will be for pre-treatment devices only to protect the pump stations draining the storm drain systems being designed for this project
- SD-01 Pump Station:
    - Based on the City's approval of the Sustainability Plan and any approved changes to the Sustainability Plan, the City shall perform those sustainable measures identified as the responsibility of the City in the Sustainability Plan, or as otherwise required by the Contract Documents. The City shall require its contractors and consultants to perform their services in accordance with the Sustainability Plan.
    - City shall provide all documents and information reasonably necessary for HDR to perform its services.
    - City agrees to execute all documents required by the LEED Certifying Authority to be executed by the City, including any documentation required to establish the authority of HDR as an agent of the City for the limited purpose of pursuing Certifying Authority Certification.
- Hardscape plans assume no mechanical fountains or water features
- HDR to prepare plans for all City owned utilities including sewer and water.

***3B.2: Prepare Outline Specifications* (includes Optional LEED Certification for pump station)**

It is assumed that the City of Long Beach utilizes the "Green Book" Standard Specifications for Public Works Construction as the basis for preparing technical specifications for public works infrastructure contracts. HDR will request a sample set of recently prepared contract specifications for a similar roadway improvement project released by the City to use as a reference in preparing technical specifications for this project. It is assumed that the City will be responsible for the ultimate preparation of the project specifications but will rely on HDR to provide technical and specifications and input to the City's general specifications.

Based on the project elements and pay items included in the 65% plans and the review of the reference contract specifications, HDR will prepare a table outlining the applicable standard technical specifications for each pay item per the Green Book. The table will also identify whether special provisions or additional/new technical specifications need to be developed for each item listed. HDR will review the General Provisions section of the reference contract specifications and identify modifications/revisions that may be required for this project. A summary of the suggested revisions will be prepared based upon this review and provided to the City along with the technical specifications outline table.

Due to the unique nature of the pump station work, many of the specifications required will need to be prepared from HDR standard sections or will be based on manufacturer's specifications (i.e. pumps, electrical, and other mechanical equipment). HDR will review the general

provisions section of the reference contract specifications and identify modifications/revisions that will be needed to fit the pump station project. A summary of the necessary revisions will be prepared based upon this review and provided to the City along with the technical specifications outline table.

*Task 3B.2 Deliverables*

- Technical specifications outline table (PDF copy and 10 hard copies)
- Summary of revisions required to General Provisions (PDF copy and 10 hard copies)

*Task 3B.2 Assumptions:*

- HDR is responsible for preparing supplemental specifications to the Green Book Standard Specifications or special provisions to the Standard Specifications as well as the bid list.
- City will provide boilerplate copy of general provisions to be reviewed and edited by HDR to fit this project.
- City will be responsible for the preparation of the overall project specifications to be included in construction bid package.

### *3B.3: Prepare Quantities and Engineers Estimate*

HDR will pull quantities and prepare a Draft Engineer's Estimate for the Package 2 construction based upon the design and the associated pay items depicted within the 65% Plans. The Engineer's Estimate will incorporate any City comments regarding the preliminary estimate generated as part of Task 2.

*Task 3B.3 Deliverable:*

- Draft Package 2 Engineer's Estimate (PDF)

*Task 3B.3 Assumptions:*

- Estimate format to be consistent with City formatting standards unless otherwise directed by City

### *3B.4: Envision Certification (Optional Task)*

As noted in Task 3A.12, it is assumed the City will want to pursue Envision Certification for the Project. For the purpose of the Envision Certification, the "Project" will constitute the work being done as part of Packages 1 and 2 minus the SD-01 Pump Station construction. It is assumed that the City will pursue LEED Silver certification for the pump station as described in Task 3.1. As part of this task, an HDR Envision Certification Specialist will work with the project team to incorporate the City-directed Envision-eligible project elements identified as part of Task 2.16 into the 65% bid set for the Package 2 construction. Upon the completion of the 65% PS&E package, the Certification Specialist will conduct an audit of the bid set to confirm the Envision-eligible elements have been appropriate incorporated and will prepare the necessary Envision compliance audit documentation.

*Task 3B.4 Deliverables:*

- Envision compliance audit documentation

*Task 3B.4 Assumptions:*

- It is assumed that the City will pursue Envision Certification for the Project, and the appropriate envision elements will be incorporated into the Package 2 bid set.

**Task 4B: 90% Package 2 PS&E Submittal (includes Optional LEED Certification for pump station)**

This task involves obtaining resolution on the disposition of the 65% agency review comments, updating the PS&E package to address the comments received, and advancing the PS&E package to a draft level of completion. Note that the sewer and water relocations included within the 65% PS&E package will be removed from the 95% package as it is assumed that the City intends to release an early bid package for sewer and water relocations. This work will be covered as part of Tasks 4C and 5C as described below.

The following describes the process that will be followed to address agency review comments on the 65% Package 2 PS&E submittal:

- Upon receipt of the 65% agency review comments, HDR will review the comments and develop draft responses. All responses will be documented in a series of comment-response matrices (one per agency).
- HDR will submit the draft comment-responses matrices to the various agency reviewers for review.
- HDR will conduct a series of comment-response review workshops (one per agency) with each reviewing agency. The goal of these workshops will be to review HDR's draft responses and to reach consensus on the disposition of each comment.
- HDR will revise the responses to reflect the agreed-upon disposition per the workshops and submit the revised comment-response matrices to the reviewers for sign-off.

Separate comment-response matrices will be prepared for each deliverable submitted as part of Task 4B, including the plans, specifications, cost estimate, etc.

*Task 4B Assumptions:*

- Ten (10) hard copies and one PDF copy of plans, specifications, and estimates to be submitted to City for review

***4B.1: Prepare 90% Plans***

HDR will complete the process described above to reach consensus with the reviewing agencies on the disposition of the 65% review comments. HDR will the revise the 65% Plans to address the comments and advance the plans to a draft level of design completion. The plans will be updated to include the City-approved stormwater treatment BMPs per the Final LID Report to be prepared as part of this task.

***SD-01 Pump Station LEED Certification* (Optional Task)**

The following activities will be conducted as part of this task related to obtaining LEED Silver Certification for the pump station:

- Finalize the Sustainability Plan based on the progress of the building design.

- Finalize specification sections to ensure the incorporation of agreed upon Certifying Authority or sustainability requirements.
- Architect shall make adjustments to the Sustainability Plan as the design and construction of the project progresses and request the City's approval.
- Conduct a quality control review of the project documents and specifications for inclusion of the building elements needed to meet the sustainable and building performance goals.
- Finalize the Daylight analysis for the private office space included in the building design.
- Provide, if required, a CalGreen checklist that may be included with the G-Sheets on the project contract documents.
- Update the one (1) baseline and design bundled energy model to reflect the current building design.

*Task 4B.1 Deliverables:*

- Draft/final 65% submittal comment- response matrices (PDF)
- 90% Plans (20 hard copies and 1 PDF copy)
- Final LID Report (PDF copy and 3 hard copies)
- Final Pump Station Sustainability Plan
- Updated baseline and design bundled energy model

### *4B.2: Prepare Draft Specifications*

This task will involve the preparation of a full set of draft general and technical provisions to be included within the Project Specifications to be assembled by the City based upon the outline table prepared and approved as part of Task 3B. HDR will prepare supplemental technical specifications for items not fully covered within the Green Book Standard Specifications. Suggested Special Provisions to standard specifications will also be prepared. HDR will amend the City's boilerplate general provisions as necessary to match the specific requirements of this project. HDR will generate the draft bid list to include in the Project Specifications based upon the pay items and quantities generated in support of the Engineer's Estimate prepared as part of Task 4B.3.

*Task 4B.2 Deliverables:*

- Draft/final 65% submittal comment- response matrices (PDF)
- Draft Technical Specifications and amended General Provisions (PDF copy and 10 hard copies)
- Draft bid list (PDF copy and 10 hard copies)

*Task 4B.2 Assumptions:*

- HDR is responsible for preparing supplemental specifications to the Green Book Standard Specifications or special provisions to the Standard Specifications as well as the bid list.
- City will provide boilerplate copy of general provisions to be reviewed and edited by HDR to fit this project.
- City will be responsible for the preparation of the overall project specifications to be included in construction bid package.

### *4B.3: Prepare Updated Quantities and Engineers Estimate*

HDR will update the quantities list prepared as part of Task 3B.3 and prepare an updated Engineer's Opinion of Probable Construction Cost based on construction drawings prepared as part of Task 4B.1.

*Deliverables*

- Draft/final 65% submittal comment- response matrices (PDF)
- 95% Package 2 Engineer's Opinion of Probable Construction Cost (PDF)

### *4B.4: Envision Certification (Optional Task)*

As part of this task, an HDR Envision Certification Specialist will work with the project team to confirm the appropriate incorporation the City-directed Envision-eligible project elements identified as part of Task 2.16 into the 95% bid set similar to what was done for the 65% PS&E package. Upon the completion of the 95% PS&E package, the Certification Specialist will conduct an audit of the bid set to confirm the Envision-eligible elements have been appropriate incorporated and will prepare the necessary Envision compliance audit documentation.

*Task 4B.4 Deliverables:*

- Envision compliance audit documentation

### *Task 5B: Final PS&E (100%) Submittal for Package 2 (includes optional LEED Certification for pump station)*

This task involves obtaining resolution on the disposition of the 95% agency review comments, updating the PS&E package to address the comments received, advancing the PS&E package to completion, and obtaining the necessary approvals for construction. The preparation of ancillary items required by the City needed for construction including the final construction schedule, Resident Engineer's File, Materials Handouts, the Paleontological Mitigation Plan, and the Project Survey File are assumed to be prepared as part of Task 5A.

HDR will follow the same process outlined in Task 3B.1 to reach a resolution with the City and other reviewing agencies on the disposition of the comments received as part of the 95% PS&E submittal. Separate comment-response matrices will be prepared for each deliverable submitted as part of Task 5B, including the plans, specifications, cost estimate, etc.

### *5B.1: Prepare 100% Plans*

This task covers the preparation of the 100% Plan set and obtaining City approval of the final bid package. This work will include the following:

- Preparing responses to 95% review comments and obtaining consensus with the reviewers on the disposition of each comment.
- Updating the plans to address agency comments.
- Finalizing the design, if necessary.
- Packaging the 100% plans and submitting to the City for formal approval and sign-off.

The project team will sign/stamp all plans within the set and coordinate with the City to obtain signatures on the plans.

***Pump Station LEED Certification (Optional Task)***

The following activities will be conducted as part of this task related to obtaining LEED Silver Certification for the pump station:

*Design Documentation and Submittal*

- Collect documentation from the project team and organize information into correct format for submission for Certifying Authority credits not assigned to specific team members. Track team progress toward completion of required documentation, develop and maintain a list of the required information, and review with the project team. Project team members will be responsible for gathering documentation and completing forms using Certifying Authority Online portal for credits for which they are responsible. This includes responses to comments or questions from the Certifying Authority.
- Provide necessary documentation as it pertains to selected Certifying Authority credits the Certifying Authority Project Administrator is responsible for providing.
- Submit the Certifying Authority Design credits for review for the certification process.
- Craft questions to Certifying Authority for clarification or interpretation of credit language as it pertains to the Project.
- Prepare responses to comments or questions received from Certifying Authority after original submission and submit additional required documentation, track the Certifying Authority review progress, resubmit documentation with additional information as required to obtain final approval of the requested credits. Manage the credit appeals process if required.

*Construction Documentation and Submittal*

- Track team progress toward completion of required documentation, develop and maintain a list of the required information and review with the project team. Project team members and Contractor will be responsible for gathering documentation and completing forms using Certifying Authority Online portal for credits for which they are responsible. This includes responses to comments or questions from the Certifying Authority.
- Provide necessary documentation as it pertains to selected Certifying Authority credits that the Certifying Authority Project Administrator is responsible for providing.
- Submit the Certifying Authority Construction credits for review for the certification process.
- Craft questions to Certifying Authority for clarification or interpretation of credit language as it pertains to the Project.
- Provide tools for the Contractor to track progress on its assigned credits. Review Certifying Authority-related submittals as identified in the project specifications during construction.
- Prepare responses to comments or questions received from Certifying Authority after original submission and submit additional required documentation, track the Certifying Authority review progress, resubmit documentation with additional information as required to obtain final approval of the requested credits. Manage the credit appeals process if required.

*Task 5B.1 Deliverables:*

- Draft/final 95% submittal comment- response matrices (PDF)
- 100% Construction Drawings (1 PDF copy and 10 hard copies)
- LEED documentation submittal to Certifying Authority

*Task 5B.1 Assumptions:*

The following items are excluded from the LEED Certification scope:

- Certifying Authority technical submission documents – The project design and construction team members shall complete the Certifying Authority documentation required for credit submissions that are directly related to the design and construction responsibilities for their discipline.
- HDR can provide a general post-occupancy survey to assist in certain Certifying Authority credit compliance, however, the administration of Thermal Comfort Verification is excluded.
- Computational Fluid Dynamics ("CFD") analysis, wind tunnel analysis, or air containment studies.
- Cost estimation for sustainable measures.
- Performance Verification services for Certifying Authority.
- Commissioning Services (to be provided by Owner).
- California Savings by Design Program Submission.
- California Title 24 Part 6 Energy Code Energy Model.
- Life Cycle Cost Analysis for Proposed sustainable design measures.
- Travel. All sustainable design and energy services project work that may ordinarily involve travel will be executed virtually.

### *5B.2: Prepare Final Specifications*

HDR will update the Draft Technical Specifications and Amended General Provisions to address pertinent agency comments received as part of the 95% PS&E submittal. The final specifications will be submitted to the City for incorporation into the final specification package. The bid list will be updated to reflect the final quantities and submitted along with the specifications.

*Task 5B.2 Deliverables*

- Draft/final 95% submittal comment- response matrices (PDF)
- Final Technical Specifications and Amended General Provisions (10 hard copies and 1 PDF)
- Final bid list (PDF)

### *5B.3: Prepare Final Quantities and Engineers Estimate*

HDR will update the Final Engineer's Estimate to reflect any quantity changes associated with addressing pertinent agency comments received as part of the 95% PS&E submittal and submit to the City.

*Task 5B.3 Deliverables*

- Draft/final 95% submittal comment- response matrices (PDF)
- Final Package 2 Engineer's Opinion of Probable Construction Cost (PDF)

### *5B.4: Envision Certification (Optional Task)*

As part of this task, an HDR Envision Certification Specialist will work with the project team to confirm the appropriate incorporation the City-directed Envision-eligible project elements identified as part of Task 2.16 into the final Package 2 bid set similar to what was done for the 65% and 95% PS&E packages. Upon the completion of the Final PS&E package, the Certification Specialist will prepare a Certification Compliance Report to document the Envision-eligible project elements included in the Package 2 bid set. The report will tally up the Envision Certification points obtained by the incorporation of these elements. This report will be submitted along with the report prepared as part of the Package 1 PS&E to obtain Envision Certification for the Project.

*Task 5B.4 Deliverables:*

- Envision compliance audit documentation
- Certification Compliance Report

## Tasks 4C – 5C: Preparation of Plans, Specifications and Estimates for Package 3

Tasks 4C and 5C cover the preparation of an advanced utility relocation/construction bid package (Package 3). This package will cover the relocation of existing City-owned sewer and water facilities needed to accommodate the Package 1 and 2 project improvements as well as the construction of any new large facilities required to service the new SD-01 pump station and urban design improvements included as part of Package 2. The City intends to release Package 3 as an early construction package ahead of the Package 1 and 2 construction.

Since the 65% PS&E for the utilities work was completed as part of Task 3B, Tasks 4C and 5C involve the preparation of a separate, stand-alone PS&E package for this work; with Task 4C covering 95% PS&E development, and Task 5C covering 100% PS&E preparation.

### Task 4C: 95% Package 3 PS&E Submittal

This task involves obtaining resolution on the disposition of the 65% agency review comments on the utilities portion of the Package 2 PS&E and the development of a stand-alone PS&E package for the sewer and water work.

The following describes the process that will be followed to address agency review comments on the utilities portion of the 65% Package 2 PS&E submittal:

- Upon receipt of the 65% agency review comments related to the City owned utility work, HDR will review the comments and develop draft responses. All responses will be documented in a comment-response matrix.
- HDR will submit the draft comment-responses matrix to the City reviewers for review.
- HDR will conduct a comment-response review workshop with the City. The goal of this workshop will be to review HDR's draft responses and to reach consensus on the disposition of each comment.
- HDR will revise the comment-responses to reflect the agreed-upon disposition per the workshop and submit the revised comment-response matrix to the City reviewers for sign-off.

The sewer and water design will then be advanced to a draft level of completion, and draft specifications and an Engineer's Estimate of Probable Construction Cost will be prepared.

### *4C.1: Prepare 95% Plans*

HDR will complete the process described above to reach consensus with the reviewing agencies on the disposition of the 65% utilities PS&E review comments. HDR will the revise the 65% water and sewer plans to address the comments and advance the plans to a draft level of design completion. The plans will be updated to include the City-approved stormwater treatment BMPs per the Final LID Report to be prepared as part of this task.

Specifically, the 95% plans will consist of the following sheets:

*Up-Front Sheets*

- Cover sheet
- Notice to contractor
- List of abbreviations, legend and symbols, key map
- Construction notes summary

*Utility Plans*

- Sewer key map & notes
- Sewer plan/profiles (20 scale)
- Standard Plans and Sewer details
- Water key map and notes
- Water plan/profile (20 scale)
- Water details
- Composite utility plans

*Task 4C.1 Deliverables:*

- Draft/final 65% submittal comment- response matrices (PDF)
- 95% plans (20 hard copies and 1 PDF copy)

### *4C.2: Prepare Draft Specifications*

This task will involve the preparation of a full set of draft general and technical provisions to be included within the Project Specifications to be assembled by the City based upon the outline table prepared and approved as part of Task 3B. HDR will prepare supplemental technical specifications for items not fully covered within the Green Book Standard Specifications. Suggested Special Provisions to standard specifications will also be prepared. HDR will amend the City's boilerplate general provisions as necessary to match the specific requirements of this project. HDR will generate the draft bid list to include in the Project Specifications based upon the pay items and quantities generated in support of the Engineer's Estimate prepared as part of Task 4C.3.

*Task 4C.2 Deliverables:*

- Draft/final 65% submittal comment- response matrices (PDF)
- Draft Technical Specifications and amended General Provisions (PDF copy and 10 hard copies)
- Draft bid list (PDF copy and 10 hard copies)

*Task 4C.2 Assumptions:*

- HDR is responsible for preparing supplemental specifications to the Green Book Standard Specifications or special provisions to the Standard Specifications as well as the bid list.
- City will provide boilerplate copy of general provisions to be reviewed and edited by HDR to fit this project.
- City will be responsible for the preparation of the overall project specifications to be included in construction bid package.

### *4C.3: Prepare Draft Engineers Estimate*

HDR will update the quantity summaries for the sewer and water work to address any 65% review comments and to reflect the 95% plans prepared as part of Task 4C.1. HDR will then prepare a Draft Engineer's Estimate for Construction of Package 3.

*Task 4C.3 Deliverables*

- Draft/final 65% submittal comment- response matrix (PDF)
- Draft Package 3 Engineer's Opinion of Probable Construction Cost (PDF)

## Task 5C: Final PS&E (100%) Submittal for Package 3

This task involves obtaining resolution on the disposition of the 95% agency review comments, updating the PS&E package to address the comments received, advancing the PS&E package to completion, and obtaining the necessary approvals for construction. The preparation of ancillary items required by the City needed for construction including the final construction schedule, Resident Engineer's File, Materials Handouts, the Paleontological Mitigation Plan, and the Project Survey File are assumed to be prepared as part of Task 5A.

HDR will follow the same process outlined in Task 3B.1 to reach a resolution with the City and other reviewing agencies on the disposition of the comments received as part of the 95% PS&E submittal. Separate comment-response matrices will be prepared for each deliverable submitted as part of Task 5B, including the plans, specifications, cost estimate, etc.

### *5C.1: Prepare 100% Plans*

This task covers the preparation of the 100% Plan set and obtaining City approval of the final bid package. This work will include the following:

- Preparing responses to 95% review comments and obtaining consensus with the reviewers on the disposition of each comment.
- Updating the plans to address agency comments.
- Finalizing the design, if necessary.
- Packaging the 100% plans and submitting to the City for formal approval and sign-off.

The project team will sign/stamp all plans within the set and coordinate with the City to obtain signatures on the plans.

*Task 5C.1 Deliverables:*

- Draft/final 95% submittal comment- response matrices (PDF)
- 100% Package 3 Construction Drawings (1 PDF copy and 10 hard copies)

### *5C.2: Prepare Final Specifications*

HDR will update the Draft Technical Specifications and Amended General Provisions to address pertinent agency comments received as part of the 95% PS&E submittal. The final specifications will be submitted to the City for incorporation into the final specification package. The bid list will be updated to reflect the final quantities and submitted along with the specifications.

*Task 5C.2 Deliverables*

- Draft/final 95% submittal comment- response matrices (PDF)
- Final Package 3 Technical Specifications and Amended General Provisions (10 hard copies and 1 PDF)
- Final bid list (PDF)

### *5C.3: Prepare Final Quantities and Engineers Estimate*

HDR will update the Final Engineer's Estimate to reflect any quantity changes associated with addressing pertinent agency comments received as part of the 95% PS&E submittal and submit to the City.

*Task 5C.3 Deliverables*

- Draft/final 95% submittal comment- response matrices (PDF)
- Final Package 3 Engineer's Opinion of Probable Construction Cost (PDF)

## Task 6: Right of Way Services

This task includes the right of way engineering services needed to formally document the project right of way needs, the post-project jurisdictional limits between the State and City, and all temporary construction and permanent utility easements that will be needed. It also includes the property appraisal and acquisition services to assist the City in obtaining the necessary rights of way to construct the project. These services are meant to support the right of way requirements for all three construction packages.

### *6.1: Right of Way Engineering*

Right of way engineering services included as part of this task include any updates to the existing right of way and parcel mapping prepared as part of the PA/ED phase, the documentation of project right of way requirements, the mapping of post-project jurisdictional boundaries between Caltrans and the City, the preparation of the necessary property acquisition documents, and the preparation of the right of way certification documents needed for Caltrans to certify the work included as part of Package 1.

### *6.1.1: Review Existing Right of Way Mapping and Supplement as Necessary*

HDR's surveyor will conduct a comprehensive review of the current digital composite map depicting existing rights of way and parcel boundaries that was prepared as part of the PA/ED Phase to check it for accuracy and completeness against available source data. HDR's surveyors will work with Caltrans and the City to obtain the latest available source data to review against the current mapping and obtain any other source data that may be available through other means. The composite map will be updated/supplemented as necessary to reflect these reviews and will be expanded if necessary to cover the limits of the work along the local streets both west of SR-710 and east of the LA River.

A copy of this base map will be provided to Caltrans if requested for them to confirm its accuracy regarding the depiction of State rights of way within the project limits.

*Task 6.1.1 Deliverables:*

- Updated digital composite right of way and parcel mapping

*Task 6.1.1 Assumptions:*

- Digital mapping file shall be prepared in Microstation format

### *6.1.2: Document Right of Way Requirements*

Various full and partial fee takes, permanent and temporary construction easements will be needed throughout the project limits. All acquisitions will be documented on Right of Way Maps as described below in accordance with the following Caltrans reference documents:

- Caltrans Right of Way Manual (with special attention to Chapter 6 – R/W Engineering)
- Caltrans Surveys Manual
- Caltrans Plans Preparation Manual, Chapter 4 – Right of Way Engineering

Specific activities to be completed as part of this task are outlined below.

*Perform Record Data Search:*

Search ownership of impacted properties, analyze ownership deeds, field notes, and survey maps contained in State, County, and City files.

*Obtain Title Reports:*

Obtain title reports for all parcels impacted by the proposed right of way requirements. Obtain updated title reports prior to the approval of the right of way appraisal mapping.

*Perform Land Net Recovery and Field Ties:*

Field and related survey effort necessary to search, recover, describe, and tie-in controlling land survey monuments

*Prepare Land net Map – "Before Condition" Record of Survey:*

This activity is required by the Professional Land Surveyors Act and involves the production and filing the "Before Condition" Record of Survey

*Prepare Right of Way Maps*

Prepare various types of Right of Way Maps as dictated by the project need. Various types of maps may include but are not limited to:

- Right of way Requirements Maps

- Appraisal Maps
- Right of Way Record Maps

*Prepare Property Acquisition Documents*

- Prepare property acquisition documents, including Plats & Legal Descriptions for all temporary and permanent property needs.
- Prepare deeds for conveyance of right of way to Caltrans, City, other public entities, and utility companies for the closeout of the project.

*Prepare Parcel Files*

For each impacted property, prepare a parcel file.

*Task 6.1.2 Deliverables:*

- Title reports for impacted properties
- Survey data
- Record of Survey
- Right of Way Requirements Maps
- Plats & Legal Descriptions for R/W needs
- Appraisal Maps
- Cover Letters
- Parcel Files
- Deeds

***Task 6.1.2 Assumptions:***

- Does not include the preparation of any monument perpetuation surveys

### *6.1.3: Right of Way Certification*

HDR will compile all the materials required for Right of Way Certification and prepare the certification binder for submittal to the Caltrans right of way staff for review and approval. Right of Way Certification is required by Caltrans before they will approve the bid package and issue an encroachment permit for construction and is meant to certify that any land being transferred to the State as part of the project is free from any encumbrances.

*Task 6.1.3 Deliverables:*

- Right of Way Certification Binder

### *6.1.4: Right of Way Design Support*

*HDR will perform the following activities as part of this task:*

- Support the acquisition of right of way requirements, HDR's surveyor will prepare right of way exhibits per impacted parcel that display right of way needs on both aerial photo and design topography. Cover letters that describe the Temporary Construction Easement (TCE) needs in detail, and coordinate with the Caltrans Design Group on the preparation of right of way mapping and appraisal maps.
- HDR's surveyor will participate in up to three (3) right of way workshops with the City and Caltrans
- HDR's surveyor will perform field staking of right of way requirements upon request

- HDR's surveyor will coordinate with Caltrans Right of Way Engineering for the review of right of way appraisal mapping and legal descriptions for approval.

*Task 6.1.4 Deliverables:*

- Right of Way Exhibits

### *6.2: Right of Way Appraisal and Acquisition Services*

This task includes the activities associated with supporting the City of Long Beach in the appraisal and acquisition of the properties needed to accommodate the Shoemaker Bridge Project, including all work included as part of Construction Packages 1 through 3. Specific activities included as part of this task are outlined below.

#### *6.2.1: Right of Way Mapping Review*

HDR right of way staff will work closely with City staff as well as HDR engineers and right of way engineers to conduct a comprehensive review the right of way needs documentation prepared as part of Task 6.1 to gain a clear understanding of the property requirements and to formulate the necessary approach for the completion of the appraisal and acquisition process.

#### *6.2.2: Conduct Property Appraisals*

For all properties and property interests to be acquired, HDR will provide appraisal services to determine the fair market value of properties and review appraisals services to assure just compensation to property owners.

HDR will provide qualified appraisers and review appraisers to prepare appraisals, appraisal reviews, fixture & equipment appraisals, and goodwill valuation to the Project delivery schedule.

Based on the information provided by the appraisal and appraisal review, HDR will prepare a Determination of Just Compensation, or similar document, for City concurrence and signature.

HDR will provide expert witness testimony to defend the conclusions reached in the appraisal and/or legal support, if required.

*Task 6.2.2 Deliverables:*

- Property appraisals and appraisal reviews
- Determination of Just Compensation documents (one per parcel or larger parcel/ownership as determined by appraiser)

#### *6.2.3: Preparation and Approval of Offer Packages*

HDR will prepare acquisition packages, including recommendation of amount of just compensation and negotiate with property owners. HDR will prepare and maintain a parcel negotiator's log (parcel diary) for each parcel.

HDR will prepare and develop the Informational Letter and Offer Letter and deliver those letters to property owners upon review and approval by the City.

HDR will prepare all applicable forms, secure grantor's approval and signature, and submit the forms to the City for review and acceptance.

HDR will establish and maintain an acquisition file for each property owner or property interest acquired and maintain a file checklist pursuit to the City's policies and procedures.

As may be required, HDR will secure Right of Entry Agreements, and licenses or permits from property owners for purposes of performing appraisals and inspections.

HDR will provide bilingual acquisition agents as needed.

HDR will prepare right of way cost estimates, as needed.

*Task 6.2.3 Deliverables:*

- Acquisition packages and files for each parcel to be acquired
- Informational and offer letter to each impacted property owner
- Real Estate Acquisition and Management Plan
- Right of way cost estimate for each parcel to be acquired

### *6.2.4: Provide Support to City in Good Faith Negotiations*

HDR will meet personally and present offers to each property owner and inform them of the City's right of way acquisition process. HDR does not have the authority to negotiate settlements on behalf of the City but will maintain a Record of Negotiations documenting that all elements of the acquisition process and transactions were performed in accordance with applicable Federal, State, and local laws and regulations.

*Task 6.2.4 Deliverables:*

- Records of negotiations with each impacted property owner

### *6.2.5: Condemnation Support*

HDR will assist the City in Eminent Domain Support – if requested, HDR will provide expert testimony in any court or administrative proceedings, and assist as required in legal matters as directed by City legal staff, especially in the litigation of cases for or against the City, including but not limited to gathering of documents and information.

### *6.2.6: Escrow Coordination*

HDR will obtain preliminary title reports and support the City with coordination of title and escrow services necessary for the acquisition of real property.

HDR will develop and maintain an escrow schedule; deliver documents and checks to the escrow companies; review all documents for submission and delivery to escrow companies; review title and escrow documents; ensure that the City is acquiring good title and/or the property rights needed for the completion of the Project; free and clear of any and all liens and encumbrances that may affect or hinder the development of future consideration; coordinate escrow closings and file all applicable forms and documents with the County Assessor's Office.

HDR will prepare all necessary documents to the title and escrow companies for approval by the City. HDR will be responsible for managing and monitoring the title and escrow companies to ensure timely delivery.

*Task 6.2.6 Deliverables:*

- Escrow schedule

*Task 6.2.6 Assumptions:*

- The City shall be responsible to pay title/escrow company directly for additional services which include, but are not limited to, litigation guarantees, policies of title, title searches, document searches, document preparation, and closing costs.

### *6.2.7: Secure Legal Possession*

HDR will support the City in securing legal possession of all acquired properties or portions thereof for the construction of the Project.

HDR will coordinate and provide support to the City legal staff to clear title, if necessary.

Upon completion of Project, HDR will provide Policy of Title insurance to the City.

Upon completion of the acquisition process for each property or property interest, or at Project completion, HDR will provide the City with the original acquisition file.

### *6.2.8: Property Owner Coordination Meetings*

HDR right of way staff will attend up to ten (10) property owner coordination meetings total for all properties to be acquired.

## Task 7: Permitting and Other Support Services

This task covers preparing and obtaining all of the necessary third-party permits needed to execute both the design and construction for all three construction packages. This task also covers public outreach, grant application preparation to seek project funding, and cost/benefit analysis support services.

### *7.1: Prepare Caltrans Encroachment Permits for PS&E phase*

At project initiation, HDR will work the City and Caltrans District 7 staff to facilitate obtaining the necessary "parent" encroachment permit needed to complete field reviews, surveys, inspections, borings, and other activities within Caltrans right of way during the final design phase of the project. Additional permits may be required under the parent permit to authorize special tasks within Caltrans right of way that may require traffic control or temporary closures. The HDR team will work closely with Caltrans District 7 staff to identify any specialized work activities that may trigger the need for any supplemental permits.

*Task 7.1 Deliverables:*

- Encroachment permit application
- Secured/approved encroachment permit

### *7.2: Prepare National Pollutant Discharge Elimination System (NPDES) General Construction Activity Stormwater Permit*

HDR will work to secure the RWQCB NPDES permit for the discharge of waste and pollutants into surface waters. This permit is Issued to maintain the quality of surface waters and check that project actions do not reduce the quality of the water. Submittal of the application would occur at approximately the 60% level of design and requires many of the same supporting documents as the 401 Permit covered under Task 7.3.

*Task 7.2 Deliverables:*

- Permit application and secured permit

### *7.3: Prepare Environmental Regulatory Permits for Construction*

This task includes the preparation of the following permits and securing their approval:

Section 401: **Regional Water Quality Control Board (RWQCB) Clean Water Act Section 401 Water Quality Certification for Project Activities in Waters of the U.S.** A Water Quality Certification is required when a Section 404 permit will be issued for a project, to confirm that project activities will not result in adverse effects to water quality as defined by the RWQCB. Submittal of the application would occur at approximately the 60% level of design and requires many of the same supporting documents as the 404.

Section 404: **U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit** for the placement of dredged or fill materials into waters of the U.S., including wetlands, below the Ordinary High Water Mark (OHWM). The application would also address tidal waters protected under Section 10 of the Rivers and Harbors Act of 1899. Submittal of the application would occur at approximately the 60% level of design and requires many of the same supporting documents as the 408.

Section 408: **U.S. Army Corps of Engineers (USACE) Modifications to USACE Structures (Section 408 permit)** for any modifications or connections to USACE constructed facilities. Submittal of the Section 408 permit requires a minimum of 60% plans, supporting geotechnical, hydrology, hydraulics, structural, design, real estate, and environmental documents, as well as the elements expected for operations and maintenance.

Section 1602: **California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement (Section 1602 permit)** for project activities that would affect the bed, channel, or banks of a stream, river, or lake, or the adjacent floodplain to the landward extent of riparian vegetation. Submittal of the application would occur at approximately the 60% level of design and requires some of the same supporting documents as the 404.

Harbor Development Permit: **Harbor Development Permit through the Port of Long Beach** for the project will be prepared in accordance with the California Coastal Act for the portion of the project located within the coastal zone on the east side of Los Angeles River, south of Anaheim Street. Submittal of the application would occur at approximately the 60% level of design and requires some of the same supporting documents as the 408.

*Task 7.3 Deliverables:*

The HDR team will prepare the permit application forms and coordinate the information required by the agencies to issue said permits or approvals. Each of these regulatory agencies has separate processes by which they review permit application materials. This requires the submission of pre-construction notifications and permit applications in a timely and coordinated manner. The HDR team will prepare the required agency notifications and coordinate permit processing to include the following tasks:

**Prepare Draft Clean Water Act (CWA) Section 404 Individual/Nationwide Permit Application**

Prepare draft 404 Permit application to include the following items:

- Cover letter addressed to the USACE Los Angeles District local contact.
- Complete the USACE standard ENG FORM 4345 form and additional pages.
- Detailed description of the proposed project, including grading plans, landscaping plans or restoration plans (if applicable). Description of the jurisdictional areas to be impacted by the project. This is generally accomplished by submittal of the jurisdictional delineation report.
- Preparation of an operations and maintenance matrix describing the types of activities, frequency, duration, and types of equipment to be used. This will be prepared after discussions with the City.
- Copy of the conceptual compensatory mitigation plan (mitigation proposal) or detailed description of how the impacts to jurisdictional areas will be mitigated prepared by HDR for the project.
- Preparation of the USACE Mitigation Ratio Worksheet in coordination with HDR.
- Financial plan for long-term management of the mitigation area. The City will assist in the preparation of this document.
- Discussion of approvals and certifications being obtained from other federal, State, or local agencies.
    - California Fish and Game Code Sections 1600 (Lake or Streambed Alteration) Notification package submitted to the CDFW.
    - Clean Water Act Section 401 Request for a Water Quality Certification package submitted to the RWQCB.
- Copy of the biological resources technical report prepared for the project.
- Copy of the cultural resources technical report prepared for the project.
- Copy of the hydrology/water resources report prepared for the project.
- Copy of the jurisdictional determination/delineation report prepared for this project.

**Prepare Draft CWA Section 401 Request for Water Quality Certification Application**

Prepare draft 401 Request for Water Quality Certification, including the following items:

- Materials required for the 404 Permit listed above.
- Cover letter addressed to the Los Angeles RWQCB.
- Complete 401 Request form and additional pages.
- Copy of Water Quality Management Plan, Drainage Plan and/or Stormwater Management Plan for the project.
- Detailed description of the proposed construction and operation (Best Management Practices, including the project's Storm Water Pollution Prevention Plan, if available).
- Copy of the project's final CEQA documentation.
- Permit application fees to be paid by the City.

**Prepare Draft Fish & Game Code 1602 Streambed Alteration Notification Application**

Prepare draft 1602 Notification of Lake or Streambed Alteration Agreement, to include the following items:

- All materials required for the 404 Permit listed above.
- Cover letter addressed to the South Coast CDFW local contact.

- Complete 1602 Notification form and additional pages.
- Detailed description of the specific vegetation communities or habitat types to be impacted.
- Discussion of other biological resources associated with the affected area.
- Discussion of how the impacts to CDFW jurisdictional areas will be mitigated.
- Copy of the project's final CEQA documentation.
- Permit application fees to be paid by the City.

**Prepare Harbor Development Permit Application**

The HDR team will prepare and submit a Harbor Development Permit Application in compliance with the California Coastal Zone program through the Port of Long Beach.

- Discussion of the project impacts to areas within the project limits
- Information necessary to complete the Harbor Develop Permit application
- Copy of the project's final CEQA/NEPA documentation.
- Permit application fees, if necessary, to be paid by the City.

**Prepare Final Permit Applications**

The HDR team will forward each of the draft applications to the City and Caltrans for review. Following the reviews, the HDR team will prepare one set of revisions to the draft permit applications described above based on comments received from City and Caltrans. The HDR team will submit the final applications to each of the respective agencies to begin the regulatory review process for each permit.

**Permit Processing Meetings**

The HDR permitting team will participate in meetings with the overall project team, City, Caltrans, Port of Long Beach, and/or regulatory agencies during the regulatory permitting process. The meetings would include both in-person meetings and conference calls. Hours for these meetings are captured under Task 1.

**Coordination of Permit Processing**

HDR will coordinate with the City, other members of the project team, and the regulatory agencies. Specific coordination tasks include communicating information needs, providing status updates and progress reports, and communicating important and time-sensitive information to the project team. The team will coordinate with the regulatory agencies to facilitate efficient processing of the project's permits. Throughout the process, the team will communicate via e-mail and phone with the regulatory agencies and project team and provide the City with debriefs of agency consultations and meetings. The team will notify the City of requests by the agencies for additional project information and will facilitate preparation of additional information submittals with the collaboration of the City.

### *7.4: Facilitate Execution of Cooperative Agreement between City and Caltrans*

HDR will support the City with the execution of a cooperative agreement between City and Caltrans for both the final design and construction phases of the project.

*Task 7.4 Deliverables:*

- Executed cooperative agreement

### *7.5: Execute Section 214 agreement between City/Metro and USACE*

The HDR team will provide the City a draft Section 214 agreement using the current model from the USACE. The Section 214 agreement will provide the City with the mechanism to fund the USACE for their staff time to meet, discuss, review, and make decisions on the replacement of the Shoemaker Bridge. Section 214 agreements are not required for all actions; rather they provide funding to establish a priority for attention and actions on the part of the USACE. Without this funding mechanism, the project will be dealt with as any other unfunded project; and the USACE will meet, discuss, and review as they have time.

The HDR team and the City will meet with USACE and several other key reviewers of the project to discuss the City's proposed project, alternatives, and schedule. Key reviewers would include specific members from hydraulics, hydrology, design, structural, geotechnical, environmental, regulatory, asset management, operations, and counsel. The HDR team will address questions from the USACE to assist them in preparing an estimate for their time to participate in meetings, discuss items on the phone or in person, read and review products, have internal meetings and prepare their decision papers/documents. The appropriate USACE staff will prepare their estimates for their Sections.

Section 214 agreements typically require several months to process. The coordination with the USACE would be initiated immediately after issuance of the NTP and the kick-off/scoping with the City and the HDR team.

*Task 7.5 Deliverables:*

- Executed Section 214 Agreement.

### *7.6: Obtain Utility Owner Approvals and Agreements for Construction*

The Right of Way Certification Package prepared as part of Task 6 will identify utilities or other encumbrances that must be cleared from any private properties or municipal land that are to be relinquished to the State as part of the project. This includes the identification any associated utility relocations to be completed by others as part of the project, with signed agreements by the respective owners that the work will be done prior to relinquishment of any land to the State. HDR will work with the owners and Caltrans to facilitate the preparation of any such agreements.

*Task 7.6 Deliverables:*

- Third-party utility owner agreements

### *7.7: Obtain Public Agency Approvals and Agreements for Construction*

Once the final PS&E package is approved, HDR will work with the City and Caltrans to facilitate obtaining the formal approvals needed to authorize construction. For Caltrans, this approval involves obtaining an encroachment permit for construction, which won't be issued until the PS&E is approved by the district and OSFP and the Right of Way Certification package is approved. HDR will work with the City and Caltrans to facilitate the issuance of the encroachment permit. Other permits that HDR will seek to obtain will be the City building permit for the pump station, the Construction Work Discharge Permit from the LA County Sanitation District, and the HDP Permit from the Port of Long Beach.

*Task 7.7 Deliverables:*

- Caltrans encroachment permit application for construction and secured permit
- City of Long Beach building permit application for pump station and secured permit
- HDP permit application from Port of Long Beach and secured permit
- Construction Work Discharge Permit application from the LA County Sanitation District and secured permit

### *7.8: Public Outreach and Social Media Support Services*

The intent of this task is to support the City in conducting the community outreach to obtain public input and support for the project. HDR understands the importance of effective community outreach on a project such as this which has the potential to benefit and enrich the local community in a myriad of ways. HDR technical leads will be available attend public outreach and community group meetings to present or answer questions. HDR staff can also assist the City in the development of boards and exhibits to facilitate this public outreach effort. The HDR team will also support the City in this effort by working with the City to provide public outreach services through available social media platforms such as Facebook, Twitter, and the City's website.

*Task 7.8 Deliverables:*

- Presentation boards, meeting exhibits, etc.
- Project pages set up on social media platforms to communicate project information to the public

*Task 7.8 Assumptions:*

- Public outreach effort is assumed to be led by the City
- Includes participation at three (3) public outreach meetings by three (3) HDR technical staff

### *7.9: Grant Application and Cost/Benefit Analysis Support Services*

HDR will assist the City in seeking available granting funding for the project and preparing the necessary grant applications needed to be eligible for this funding. In addition, HDR will assist the City in conducting cost/benefit analysis services in support of the Project.

*Task 7.9 Deliverables:*

- Grant applications
- Cost/benefit analysis worksheets, summaries, etc.

## Task 8: Bid Support Services

This task covers the technical support services to be provided by the HDR Team during the bid phases of the three construction contracts for Packages 1-3. This work is broken up between the Package 1 construction contract, which is covered as part of Task 8.1; and the work for Packages 1 and 2, which is bundled together and covered under Task 8.2.

### *8.1: Package 1 Construction*

HDR will provide technical support to the City during the bidding phase of the Package 1 construction contract, which may include the following activities:

- Pre-bid meeting attendance
- Field walks
- Preparation of addenda to bid documents as necessary.
- Responding to bidder inquiries regarding the contract documents
- Providing analysis of bid results
- Furnishing a recommendation on the award of the construction contract

*Task 8.1 Deliverables:*

- Bidder inquiry responses
- Bid addenda

### *8.2: Package 2 Construction*

HDR will provide technical support to the City during the bidding phases of the Packages 2 and 3 construction contracts, which may include the following activities:

- Pre-bid meeting attendance
- Field walks
- Preparation of addenda to bid documents as necessary.
- Responding to bidder inquiries regarding the contract documents
- Providing analysis of bid results
- Furnishing a recommendation on the award of the construction contract

*Task 8.2 Deliverables:*

- Bidder inquiry responses
- Bid addenda

# Exhibit "B-3"
# Fee Schedule

**Shoemaker Bridge PS&E**

**Fee Estimate Summary by Company - January 2021**

| Firm Name | Certification | Responsibility | Labor Cost | Reimbursable Cost | Labor Escalation | Total Cost | Percent of Total Cost |
|---|---|---|---|---|---|---|---|
| HDR | | PM, roadway, structures | $ 13,751,339 | $ 214,185 | $ 883,111 | $ 14,848,635 | 65.8% |
| Guida | SBE | Surveys and mapping | $ 465,000 | | | $ 465,000 | 2.1% |
| Twining | | Geotechnical | $ 488,650 | | | $ 488,650 | 2.2% |
| Evans and Walker | WSBE/VSBE | Oil field impact assessment | $ 120,000 | | | $ 120,000 | 0.5% |
| TY Lin | | Structures | $ 4,623,714 | $ 50,000 | | $ 4,673,714 | 20.7% |
| IDC | DBE | Structures/civil/drainage | $ 923,146 | | | $ 923,146 | 4.1% |
| LIN | DBE/SBE/VSBE | Electrical design, traffic control design | $ 216,640 | | | $ 216,640 | 1.0% |
| AirX | WBE/SBE | Potholing | $ 60,000 | | | $ 60,000 | 0.3% |
| PGI | DBE/SBE | ACM and LBP surveys | $ 95,000 | | | $ 95,000 | 0.4% |
| Interphase Environmental | DBE/SBE | ADL testing | $ 62,700 | | | $ 62,700 | 0.3% |
| Orange Coast Analytical | VSBE/SBE/WBE | ADL testing | $ 39,900 | | | $ 39,900 | 0.2% |
| Southwest Geophysics | | Phase II site investigations | $ 11,000 | | | $ 11,000 | 0.0% |
| TMI | MBE | Traffic control | $ 10,000 | | | $ 10,000 | 0.0% |
| American Integrated Services | MBE | Phase II site investigations | $ 1,500 | | | $ 1,500 | 0.0% |
| MBI Media | DBE/SBE | Public outreach | $ 75,400 | | | $ 75,400 | 0.3% |
| RVA | DBE/SBE | USACE coordination | $ 118,640 | | | $ 118,640 | 0.5% |
| Tastsumi & Partners | DBE | Landscape/irrigation & urban design | $ 340,310 | | | $ 340,310 | 1.5% |
| | | **Total** | **$ 21,402,939** | **$ 264,185** | **$ 883,111** | **$ 22,550,235** | **100%** |
| | | **DBE Percentage** | | | | | **8.6%** |

**City of Long Beach**
**Shoemaker Bridge PS&E**
**Fee Summary**

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Guida Surveys | Twining | Evans and Walker | TY Lin | IDC (DBE) | LIN (DBE) | Pathfinder Sub (DBE) | PCI (DBE/SMWBE) | Independence Environmental (DBE/MBE/WBE) | Orange Coast Analytical (VBE/SBE/MBE) | Southwest Geophysics | TAE (DBE) | American Integrated Services (MBE) | MBI (DBE) | RVA (MBE) | Tetsumi & Partners | Total Team Fee including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | DBE | DBE | DBE | DBE/SWBE | DBE/WBE/VBE | SBE/SBE/MBE | DBE | DBE | MBE | DBE | MBE | DBE | | | |
| 1 | **Project Management, Coordination, and Administration** | 6941 | $ 581,219 | $ 1,903,449 | $ - | $ - | $ - | $ 76,305 | $ 16,200 | $ 16,200 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,400 | $ 21,184 | $ 61,725 | $ 1,899,458 | | $ 47,975 |
| 1.1 | *Coordination and Admins/mtgs* | 5428 | $ 473,160 | $ 1,305,332 | $ - | $ - | $ - | $ 11,505 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,600 | $ 34,720 | $ 1,365,158 | | |
| 1.1.1 | *Coordination and Meetings* | 4164 | $ 316,844 | $ 1,149,998 | $ - | $ - | $ - | $ 11,505 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,600 | $ 34,720 | $ 1,209,794 | | |
| | PDT Meetings (monthly) | 1222 | $ 119,611 | $ 330,529 | $ - | $ - | $ - | $ 6,505 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 337,035 | | $ 13,650 |
| | Biweekly City meetings | 615 | $ 79,441 | $ 219,159 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,560 | $ 226,839 | | $ 15,600 |
| | *Agency/Third Party Coordination Meetings* | | | | | | | | | | | | | | | | | | | | | | |
| | Coordination Meetings with LACPW and USACE | 156 | $ 13,657 | $ 38,229 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,600 | $ - | $ 51,829 | | $ 2,280 |
| | Crime Prevention through Environmental Design (CPTED) | 42 | $ 3,247 | $ 8,958 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,400 | $ 15,358 | | $ 565 |
| | Coordination Meetings with USPWS | 100 | $ 8,764 | $ 24,178 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 24,178 | | $ 1,846 |
| | Monthly coordination meetings with GHD and LB MUST staff | 266 | $ 24,247 | $ 66,890 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,800 | $ 76,490 | | |
| | Utility owners meetings (see Tasks 3A-5A) | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Focused workshops with Caltrans and/or City staff | 756 | $ 66,056 | $ 182,238 | $ - | $ - | $ - | $ 5,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,200 | $ 194,438 | | $ 12,780 |
| | Biweekly internal project team meetings | 958 | $ 89,414 | $ 246,971 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,640 | $ 250,611 | | |
| | Constructability and Safety Review Workshops (65%, 95%, and 100%) | 148 | $ 12,004 | $ 33,116 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 33,116 | | $ 1,232 |
| | *Administration* | 964 | $ 56,317 | $ 155,363 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 155,363 | | |
| | Prepare and Update Risk Register | 176 | $ 14,785 | $ 40,787 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 40,787 | | |
| | Maintain Project Files and subcontracts | 648 | $ 26,403 | $ 72,839 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 72,839 | | |
| | Schedules | 140 | $ 15,129 | $ 41,737 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 41,737 | | |
| 1.2 | *Prepare Progress Reports* | 1269 | $ 89,056 | $ 245,680 | $ - | $ - | $ - | $ 64,800 | $ 16,200 | $ 16,200 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,400 | $ 7,584 | $ 27,000 | $ 382,864 | | |
| | Prepare monthly invoices | 864 | $ 47,122 | $ 129,997 | $ - | $ - | $ - | $ 43,200 | $ 10,800 | $ 10,800 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,600 | $ 4,800 | $ 18,000 | $ 221,197 | | |
| | Prepare monthly progress reports | 405 | $ 41,933 | $ 115,682 | $ - | $ - | $ - | $ 21,600 | $ 5,400 | $ 5,400 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,800 | $ 2,784 | $ 9,000 | $ 161,666 | | |
| 1.3 | Prepare Design Quality Management Plan | 72 | $ 9,233 | $ 17,195 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 17,195 | | |
| 1.4 | Prepare Project Management Plan and Financial Plan | 172 | $ 12,772 | $ 35,234 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 35,234 | | |
| | | | $ | $ | | | | | | | | | | | | | | | | | $ - | | |
| 2 | **35% Design & Bridge Type Evaluation/Selection** | 21323 | $ 1,381,237 | $ 3,810,499 | $ 100,000 | $ 488,650 | $ 129,000 | $ 791,889 | $ 151,300 | $ 139,200 | $ 60,000 | $ 95,000 | $ 62,700 | $ 36,900 | $ 11,000 | $ 10,000 | $ 1,500 | $ 20,000 | $ - | $ 8,700 | $ 5,991,488 | $ 139,700 | $ 3,510 |
| 2.1 | Conduct Geometric Walkshop | 86 | $ 6,612 | $ 18,240 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 18,240 | | |
| 2.2 | Prepare Supplemental Design Standard Decision Document (if needed) | 176 | $ 12,363 | $ 34,108 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 34,108 | | |
| 2.3 | *Supplemental Field Surveys* | 162 | $ 12,947 | $ 35,717 | $ 100,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 135,717 | | |
| 2.3.1 | Complete design surveys | 134 | $ 10,953 | $ 30,217 | $ 80,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 110,217 | | |
| 2.3.2 | Complete pothole surveys | 28 | $ 1,994 | $ 5,500 | $ 20,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 25,500 | | |
| 2.4 | Geotechnical Exploration | 360 | $ 23,363 | $ 64,452 | $ - | $ 475,000 | $ - | $ - | $ - | $ 35,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 574,452 | $ 125,000 | |
| 2.5 | Prepare Geometric Review Drawing | 218 | $ 12,663 | $ 34,935 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 34,935 | | |
| 2.6 | Prepare Preliminary Foundation Report | 940 | $ 60,513 | $ 166,941 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 166,941 | | |
| 2.7 | *Structures Type Selection* | 11678 | $ 751,596 | $ 2,072,483 | $ - | $ - | $ - | $ 791,889 | $ 151,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,000 | $ - | $ - | $ 3,036,652 | | |
| 2.7.1 | *Bridge Architectural Concepts* | 1922 | $ 128,164 | $ 353,656 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,000 | $ - | $ - | $ 373,656 | | |
| 2.7.1.1 | Initial Theme Development and Scoping | 264 | $ 18,176 | $ 50,150 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 50,150 | | |
| 2.7.1.2 | *Prepare Bridge Alternatives Review and Renderings* | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Public involvement coordination and content | 88 | $ 6,156 | $ 16,982 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,982 | | |
| | Develop 3D model of site | 216 | $ 12,464 | $ 34,439 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 34,439 | | |
| | Develop 3D model of Shoemaker Bridge and roundabout structure | 670 | $ 41,967 | $ 115,776 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 115,776 | | |
| | Develop 3D model of Shoemaker Bridge and roundabout structure deck treatments | 80 | $ 5,909 | $ 16,301 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,301 | | |
| | Prepare Bridge Alternative Matrix | 82 | $ 5,925 | $ 16,346 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,346 | | |
| | Prepare Bridge Rendering (3 views total) | 144 | $ 8,825 | $ 24,347 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 24,347 | | |
| 2.7.1.3 | Stakeholder Workshops and Constraints Identification | 80 | $ 6,331 | $ 17,465 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 17,465 | | |
| 2.7.1.4 | Alternatives Development, Costing and Preferred Alternative Selection | 308 | $ 22,420 | $ 61,850 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,000 | $ - | $ - | $ 81,850 | | |
| 2.7.2 | Prepare Supplemental Advance Planning Study for Roundabout Structure | 248 | $ 13,406 | $ 36,983 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 36,983 | | |
| 2.7.3 | *Prepare Structure Type Selection Reports* | 9200 | $ 577,268 | $ 1,592,540 | $ - | $ - | $ - | $ 767,400 | $ 151,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,511,240 | | |
| | Prepare Type Selection Report (LA River span) | 7428 | $ 450,480 | $ 1,242,762 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,242,762 | | |
| | Prepare Type Selection Report (roundabout structure) | 480 | $ 45,153 | $ 124,586 | $ - | $ - | $ - | $ 767,400 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 891,986 | | |
| | Prepare Type Selection Report (bike/ped bridge) | 640 | $ 40,652 | $ 112,148 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 112,148 | | |
| | Prepare Type Selection Report (retaining walls) | 24 | $ 2,408 | $ 6,644 | $ - | $ - | $ - | $ - | $ 56,100 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 62,744 | | |
| | Prepare Type Selection Report (7th Street ped bridge replacement) - *non-Caltrans* | 30 | $ 3,010 | $ 8,304 | $ - | $ - | $ - | $ - | $ 95,200 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 103,504 | | |
| | Prepare Conceptual Bridge Removal Plan for existing Shoemaker Bridge and walls | 304 | $ 18,200 | $ 50,209 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 50,209 | | |
| | Prepare Bridge Deck Drainage Design and Memo | 256 | $ 13,627 | $ 37,595 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 37,595 | | |
| | Prepare Bridge Type Data Submittal | 68 | $ 3,736 | $ 10,313 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,313 | | |
| 2.7.4 | *Bridge Type Selection Meeting and Approval* | 186 | $ 13,264 | $ 36,648 | $ - | $ - | $ - | $ 24,488 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 61,137 | | |
| | Attend Type Selection Meeting | 82 | $ 6,300 | $ 17,381 | $ - | $ - | $ - | $ 5,827 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 23,208 | | |
| | Prepare and submit meeting proceedings | 22 | $ 1,577 | $ 4,350 | $ - | $ - | $ - | $ 3,362 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,712 | | |
| | Update type selection reports to address meeting comments and submit for approval | 82 | $ 5,407 | $ 14,917 | $ - | $ - | $ - | $ 15,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 30,217 | | |
| 2.7.5 | Conduct updated hydraulic/scour analysis of LA River for selected alternative bridge concepts | 312 | $ 19,442 | $ 53,636 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 53,636 | | |
| 2.8 | *Pump Station Preliminary Design* | 1498 | $ 94,097 | $ 258,561 | $ - | $ 13,650 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,700 | $ 274,911 | | |
| 2.8.1 | *Pump Station Pre-Design Activities* | 296 | $ 18,019 | $ 49,709 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 49,709 | | |
| | Data Gathering and Review | 88 | $ 4,727 | $ 13,041 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,041 | | |
| | Site Reconnaissance | 32 | $ 2,490 | $ 6,869 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,869 | | |
| | Conduct preliminary hydrology and drainage study to support pump station siting & sizing | 196 | $ 10,802 | $ 29,799 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 29,799 | | |
| | Facility Siting Considerations | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| 2.8.2 | Prepare pump station geotechnical design report | 424 | $ 23,376 | $ 64,488 | $ - | $ 13,650 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 78,138 | | |
| 2.8.3 | *Prepare Preliminary Plans* | 434 | $ 27,703 | $ 76,424 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 76,424 | | |
| | Civil site layout drawings | 38 | $ 2,793 | $ 7,705 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,705 | | |
| | Mechanical plans | 76 | $ 5,064 | $ 13,970 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,970 | | |
| | Instrumentation and control diagrams | 112 | $ 6,928 | $ 19,113 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,113 | | |
| | Electrical single line diagrams | 104 | $ 5,368 | $ 14,810 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 14,810 | | |
| | Architectural elevations | 104 | $ 7,549 | $ 20,827 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,827 | | |
| 2.8.4 | Prepare pump station construction cost estimate | 96 | $ 7,223 | $ 19,926 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,926 | | |
| 2.8.5 | Prepare Pump Station Preliminary Design Report | 196 | $ 12,769 | $ 35,282 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 35,282 | | |
| 2.8.6 | Preliminary Design Workshop | 32 | $ 2,688 | $ 7,418 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,418 | | |
| 2.8.7 | LEED Certification - Silver | 30 | $ 2,300 | $ 6,345 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,700 | $ 9,045 | | |

**City of Long Beach**
**Shoemaker Bridge PS&E**
**Fee Summary**

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Guida Surveys | Twining | Evans and Walker | TY Lin | IDC (DBE) | LIN (DBE) | Potholing Sub (DBE) | PQI (DBE/SWBE) | Interphase Environmental (DBE/MBE/WBE) | Grange Coast Analytical (VSBE/SBE/MBE) | Southwest Geophysics | TMI (DBE) | American Integrated Services (MBE) | MIG (DBE) | RIVA (WBE) | Yatsumi & Partners | Total Team Fee including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.9 | *Utilities* | 942 | $ 60,737 | $ 167,544 | $ - | $ - | $ - | $ - | $ - | $ 68,800 | $ 60,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 296,344 | | |
| 2.9.1 | Update Existing Utilities Base Map | 172 | $ 9,360 | $ 25,921 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 25,921 | | |
| 2.9.2 | Conflict Identification | 336 | $ 13,129 | $ 36,221 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 36,221 | | |
| 2.9.3 | Utility Coordination (3 meetings each impacted owner, assume 6 owners) | 234 | $ 17,151 | $ 47,317 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 47,317 | | $ 3,510 |
| 2.9.4 | *Utility Potholing* | 300 | $ 21,091 | $ 58,185 | $ - | $ - | $ - | | | | $ 60,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 118,185 | | |
| | Prepare pothole needs plan | 108 | $ 8,929 | $ 19,114 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,114 | | |
| | Prepare potholing work plan | 134 | $ 9,189 | $ 25,350 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 25,350 | | |
| | Prepare traffic control plans (assume 15 plans, 32 hours each) | 60 | $ 4,973 | $ 13,721 | $ - | $ - | $ - | $ - | $ - | $ 68,800 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 82,521 | | |
| 2.10 | *Hazardous Materials Investigations* | 1353 | $ 97,526 | $ 269,050 | $ - | $ - | $ - | $ - | $ - | $ 26,550 | $ - | $ - | $ 95,000 | $ 62,700 | $ 39,900 | $ 11,000 | $ 10,000 | $ 1,500 | $ - | $ - | $ 515,710 | | |
| 2.10.1 | Complete ADL survey | 332 | $ 23,902 | $ 65,840 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,700 | $ 8,900 | $ - | $ - | $ - | $ - | $ - | $ 80,540 | $ 2,500 | |
| 2.10.2 | Complete ACM and LPB surveys | 132 | $ 9,435 | $ 26,090 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 95,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 121,090 | | |
| 2.10.3 | Prepare H&SP, CMMP, CCP, and LCP | 358 | $ 26,199 | $ 72,277 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 72,277 | $ - | |
| 2.10.4 | Conduct Phase II investigations for four sites | 511 | $ 36,479 | $ 100,036 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 57,000 | $ 31,000 | $ 11,000 | $ 10,000 | $ 1,500 | | $ - | $ 211,136 | $ 11,200 | |
| 2.10.5 | Prepare traffic control plans to support field work (assume 7 sheets) | 20 | $ 1,510 | $ 4,186 | $ - | $ - | $ - | $ - | $ - | $ 26,550 | $ - | $ - | $ - | | | | | | | $ - | $ 30,736 | | |
| 2.11 | *Urban Design and Aesthetics* | 714 | $ 49,976 | $ 126,835 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,000 | $ 132,835 | | |
| 2.11.1 | Conduct study to evaluate potential for Envision Certification | 126 | $ 10,009 | $ 27,613 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | $ 27,613 | | |
| 2.11.2 | Prepare overall urban design, landscaping, water features and bikeway concept plan | 332 | $ 13,432 | $ 37,055 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,000 | $ 43,055 | | |
| 2.11.3 | Prepare Lighting Concept Plans | 356 | $ 22,535 | $ 62,168 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | $ 62,168 | | |
| 2.12 | Complete Occidental Oil Field impact assessment and facility relocation plan | 594 | $ 41,411 | $ 114,244 | $ - | $ - | $ 120,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 234,244 | | |
| 2.13 | Prepare constructability plan | 284 | $ 22,335 | $ 61,617 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 61,617 | | |
| 2.14 | Obtain E-76 authorization for utilities and R/W | 68 | $ 5,993 | $ 16,534 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,534 | | |
| 2.15 | Conduct Edison Middle School vehicle circulation/drop off study | 248 | $ 11,132 | $ 30,711 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 30,711 | | |
| 2.16 | *Environmental Revalidation/Addendum* | 1636 | $ 107,485 | $ 298,524 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 298,524 | | |
| 2.16.1 | Prepare Supplemental Technical Studies | 1008 | $ 65,601 | $ 181,529 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 181,529 | | |
| 2.16.2 | Prepare Environmental Revalidation/Addendum | 628 | $ 41,884 | $ 114,995 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 114,995 | | |
| 2.17 | VA Support Services | 166 | $ 14,493 | $ 39,884 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 39,884 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| ***Caltrans PS&E Package for Work in Caltrans Right of Way and Adjacent Local Streets*** | | **23994.8** | **$ 2,199,085** | **$ 6,055,731** | **$ 10,000** | **$ -** | **$ -** | **$ 3,740,060** | **$ 755,946** | **$ 70,000** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 10,642,578** | **$ -** | |
| **3A** | **Draft PS&E (65%) Submittal for Caltrans Work** | 30227 | $ 1,278,773 | $ 3,530,576 | $ - | $ - | $ - | $ 1,293,368 | $ 526,841 | $ 55,360 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,396,146 | | $ 1,170 |
| 3A.1 | *Prepare Roadway Plans* | 726 | $ 51,096 | $ 140,967 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 140,967 | | |
| 3A.1.1 | Prepare Roadway Plans | 442 | $ 30,655 | $ 84,570 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 84,570 | | |
| 3A.1.2 | Prepare Contour Grading Plans | 204 | $ 15,007 | $ 41,400 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 41,400 | | |
| 3A.1.3 | Prepare Quantities | 80 | $ 5,436 | $ 14,997 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 14,997 | | |
| 3A.2 | *Prepare 65% Drainage and Stormwater Plans* | 1686 | $ 112,299 | $ 309,557 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 309,557 | | |
| 3A.2.1 | *Prepare Reports* | 850 | $ 64,108 | $ 176,857 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 176,857 | | |
| | Prepare Drainage Report | 542 | $ 40,849 | $ 112,693 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 112,693 | | |
| | Prepare Draft Storm Water Data Report | 308 | $ 23,258 | $ 64,164 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 64,164 | | |
| 3A.2.2 | *Prepare Plans* | 836 | $ 48,191 | $ 132,700 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 132,700 | | |
| | Prepare Drainage Plans | 528 | $ 30,398 | $ 83,861 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 83,861 | | |
| | Prepare Water Pollution Control Plans | 180 | $ 10,715 | $ 29,559 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 29,559 | | |
| | Prepare Erosion Control Plans | 86 | $ 4,969 | $ 13,707 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,707 | | |
| | Prepare Quantities | 40 | $ 2,020 | $ 5,573 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,573 | | |
| 3A.3 | *Prepare Stage Construction, Traffic Handling, Detour, and Construction Area Sign Plans, and TMP* | 1886 | $ 104,532 | $ 286,377 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 286,377 | | |
| 3A.3.1 | Staging Concept Development and Approval | 492 | $ 30,639 | $ 84,526 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 84,526 | | |
| 3A.3.2 | Prepare Draft Transportation Management Plan | 544 | $ 25,269 | $ 69,710 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 69,710 | | |
| 3A.3.3 | *Prepare Plans* | 852 | $ 48,623 | $ 134,140 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 134,140 | | |
| | Prepare Stage Construction and Traffic Handling Plans | 704 | $ 40,572 | $ 111,929 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 111,929 | | |
| | Prepare construction area sign plans | 64 | $ 5,453 | $ 15,044 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,044 | | |
| | Prepare Quantities | 84 | $ 2,596 | $ 7,167 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,167 | | |
| 3A.4 | *Prepare 65% Pavement Delineation Plans* | 160 | $ 9,091 | $ 25,051 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 25,051 | | |
| 3A.4.1 | Prepare Plans | 126 | $ 7,183 | $ 19,817 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,817 | | |
| 3A.4.2 | Prepare Quantities | 38 | $ 1,897 | $ 5,234 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,234 | | |
| 3A.5 | *Prepare 65% Sign Plans* | 394 | $ 20,525 | $ 56,624 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 56,624 | | |
| 3A.5.1 | Prepare Plans | 358 | $ 18,628 | $ 51,390 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 51,390 | | |
| 3A.5.2 | Prepare Quantities | 36 | $ 1,897 | $ 5,234 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,234 | | |
| 3A.6 | *Prepare 65% Electrical Plans* | 32 | $ 2,416 | $ 6,665 | $ - | $ - | $ - | | | $ 53,760 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 60,425 | | |
| 3A.6.1 | *Prepare Plans* | 28 | $ 2,114 | $ 5,832 | $ - | $ - | $ - | $ - | $ - | $ 44,800 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 50,632 | | |
| | Prepare Lighting Plans | 16 | $ 1,208 | $ 3,333 | $ - | $ - | $ - | $ - | $ - | $ 24,320 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 27,653 | | |
| | Prepare Ramp Metering Plans | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Prepare Traffic Signal Plans | 12 | $ 908 | $ 2,499 | $ - | $ - | $ - | $ - | $ - | $ 20,480 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 22,979 | | |
| | Prepare Changeable Message Sign System Plans | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Prepare Electrical Services (Irrigation) System Plans | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Prepare Temporary Electrical Plans | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| 3A.6.2 | Prepare Quantities | 4 | $ 302 | $ 833 | $ - | $ - | $ - | $ - | $ - | $ 8,960 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,793 | | |
| 3A.7 | *Geotechnical and Foundation Reports* | 1875 | $ 122,049 | $ 336,702 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 336,702 | | |
| 3A.7.1 | Prepare Geotechnical Design Report | 275 | $ 18,704 | $ 51,598 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 51,598 | | |
| 3A.7.2 | Prepare Foundation Report | 850 | $ 53,938 | $ 148,802 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 148,802 | | |
| 3A.7.3 | Prepare Materials Report | 750 | $ 49,407 | $ 136,302 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 136,302 | | |

**City of Long Beach**
**Shoemaker Bridge PS&E**
**Fee Summary**

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Gatda Surveys | Twining | Evans and Walker | TY Lin | IDC [DBE] | LIN (DBE) | Potholing Sub (DBE) | PGI (DBE/SWBE) | Interphase Environmental [DBE/MBE/WBE] | Orange Coast Analytical [VSBE/SBE/MBE] | Southwest Geophysics | TAI (DBE) | American Integrated Services (MBE) | MBI (DBE) | RIVA (WBE) | Talsant & Partners | Total Team Fee Including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3A.8 | *Bridge and Special Design Retaining Wall Plans (Unchecked Details)* | 12767 | $ 810,152 | $ 2,235,009 | $ - | $ - | $ - | $ 1,279,544 | $ 625,884 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,040,437 | | |
| 3A.8.1 | *Prepare Plans* | 12597 | $ 800,158 | $ 2,207,438 | $ - | $ - | $ - | $ 1,256,750 | $ 520,540 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,984,728 | | |
| | Prepare Bridge Plans (LA River span) | 8510 | $ 517,533 | $ 1,427,746 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,427,746 | | |
| | Prepare Bridge Plans (roundabout structure) | 752 | $ 75,458 | $ 208,164 | $ - | $ - | $ - | $ 1,256,750 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,464,913 | | |
| | Prepare Bridge Plans (bike/ped structure) | 2985 | $ 178,713 | $ 493,024 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 493,024 | | |
| | Prepare Bridge Plans (7th Street ped bridge) | 90 | $ 8,031 | $ 24,913 | $ - | $ - | $ - | $ - | $ 391,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 415,913 | | |
| | Prepare Retaining Wall Plans | 108 | $ 10,837 | $ 29,696 | $ - | $ - | $ - | $ - | $ 129,540 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 159,436 | | |
| | Prepare Bridge Removal Plans for existing Shoemaker Bridge and walls | 152 | $ 9,589 | $ 23,696 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 23,696 | | |
| | Prepare Bridge Architectural Plans | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| 3A.8.2 | Prepare Updated Structures Cost Estimate | 170 | $ 9,994 | $ 27,670 | $ - | $ - | $ - | $ 22,795 | $ 5,344 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 55,709 | | |
| 3A.9 | *Prepare Utility Plans* | 402 | $ 26,174 | $ 72,207 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 72,207 | | |
| 3A.9.1 | Update conflict maps and matrix based on potholing results | 100 | $ 5,573 | $ 15,373 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,373 | | |
| 3A.9.2 | *Utility Coordination* | 172 | $ 12,660 | $ 34,926 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 34,926 | | |
| | Owners prepare relocation plans for impacted utilities (by others) | 30 | $ 2,188 | $ 6,040 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,040 | | |
| | Review relocation plans prepared by impacted 3rd party owners | 40 | $ 2,872 | $ 7,923 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,923 | | |
| | Issue relocation letters to impacted utility owners | 24 | $ 1,882 | $ 5,192 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,192 | | |
| | Conduct workshops with impacted owners to review comments on relocation plans | 78 | $ 5,717 | $ 15,772 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,772 | | $ 1,170 |
| 3A.9.3 | Prepare utility plans to show to disposition of each facility | 130 | $ 7,941 | $ 21,907 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 21,907 | | |
| 3A.10 | *Prepare Outline Specifications* | 196 | $ 14,210 | $ 39,203 | $ - | $ - | $ - | $ 3,824 | $ 957 | $ 1,600 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 45,584 | | |
| 3A.10.1 | Prepare roadway outline specifications | 21 | $ 1,719 | $ 4,742 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,742 | | |
| 3A.10.2 | Prepare drainage and stormwater outline specifications | 20 | $ 1,516 | $ 4,180 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,180 | | |
| 3A.10.3 | Prepare traffic outline specifications | 20 | $ 1,460 | $ 4,028 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,028 | | |
| 3A.10.4 | Prepare electrical outline specifications | 4 | $ 302 | $ 833 | $ - | $ - | $ - | $ - | $ - | $ 1,600 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,433 | | |
| 3A.10.5 | Prepare utility outline specifications | 14 | $ 1,084 | $ 2,992 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,992 | | |
| 3A.10.6 | Prepare haz mat outline specifications | 40 | $ 2,164 | $ 5,970 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,970 | | |
| 3A.10.7 | Prepare environmental outline specifications | 12 | $ 799 | $ 2,205 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,205 | | |
| 3A.10.8 | Prepare structures outline specifications | 24 | $ 1,831 | $ 5,052 | $ - | $ - | $ - | $ 3,824 | $ 957 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,832 | | |
| 3A.10.9 | Prepare architectural specifications | 41 | $ 3,332 | $ 9,191 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,191 | | |
| 3A.11 | Prepare Draft Engineer's Estimate of Probable Construction Cost | 39 | $ 2,984 | $ 8,233 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 8,233 | | |
| 3A.12 | Envision Certification | 60 | $ 4,343 | $ 11,982 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,982 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 4A | **Initial PS&E (95%) Submittal for Caltrans Work** | 10147.8 | $ 684,606 | $ 1,888,657 | $ - | $ - | $ - | $ 2,095,095 | $ 134,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,118,053 | | |
| 4A.1 | *95% Roadway PS&E* | 2243 | $ 140,086 | $ 386,462 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 386,462 | | |
| 4A.1.1 | *Prepare 95% roadway plans* | 1728 | $ 105,712 | $ 291,534 | $ - | $ - | $ - | $ - | $ - | $ 21,760 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 313,294 | | |
| | Roadway Plans | 490 | $ 34,508 | $ 95,199 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 95,199 | | |
| | Drainage and Stormwater Plans | 506 | $ 29,273 | $ 80,758 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 80,758 | | |
| | Construction Staging Plans | 368 | $ 21,269 | $ 58,677 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 58,677 | | |
| | Pavement Delineation and Sign Plans | 256 | $ 14,249 | $ 39,310 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 39,310 | | |
| | Lighting and Electrical Plans | 14 | $ 1,057 | $ 2,915 | $ - | $ - | $ - | $ - | $ - | $ 21,760 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 24,676 | | |
| | Utility Plans | 94 | $ 5,356 | $ 14,776 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 14,776 | | |
| 4A.1.2 | *Prepare 95% Roadway Quantities and Cost Estimate* | 163 | $ 9,525 | $ 26,276 | $ - | $ - | $ - | $ - | $ - | $ 4,960 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 31,236 | | |
| | Roadway | 48 | $ 3,291 | $ 9,050 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,050 | | |
| | Drainage and Stormwater | 29 | $ 1,543 | $ 4,257 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,257 | | |
| | Construction Staging | 30 | $ 1,556 | $ 4,294 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,294 | | |
| | Pavement Delineation and Signage | 38 | $ 2,042 | $ 5,633 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,633 | | |
| | Lighting and Electrical | 3 | $ 227 | $ 625 | $ - | $ - | $ - | $ - | $ - | $ 4,960 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,585 | | |
| | Utilities | 15 | $ 876 | $ 2,418 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,418 | | |
| 4A.1.3 | *Prepare Draft Specification Special Provisions* | 351 | $ 24,849 | $ 68,551 | $ - | $ - | $ - | $ - | $ - | $ 7,680 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 76,231 | | |
| | Roadway | 56 | $ 4,566 | $ 12,601 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,601 | | |
| | Drainage and Stormwater | 48 | $ 3,655 | $ 10,082 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,082 | | |
| | Construction Staging | 60 | $ 4,539 | $ 12,521 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,521 | | |
| | Pavement Delineation and Signage | 48 | $ 3,538 | $ 9,759 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,759 | | |
| | Lighting and Electrical | 8 | $ 604 | $ 1,666 | $ - | $ - | $ - | $ - | $ - | $ 7,680 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,346 | | |
| | Utilities | 31 | $ 2,370 | $ 6,537 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,537 | | |
| | Haz mat | 77 | $ 4,153 | $ 11,457 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,457 | | |
| | Prepare environmental outline specifications | 21 | $ 1,424 | $ 3,928 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,928 | | |
| 4A.2 | *Bridge and Special Design Retaining Wall Plans* | 7279.8 | $ 504,723 | $ 1,392,407 | $ - | $ - | $ - | $ 2,095,095 | $ 134,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,621,802 | | |
| 4A.2.1 | *Prepare Checked Structures Plans* | 7187.8 | $ 495,492 | $ 1,366,940 | $ - | $ - | $ - | $ 1,802,212 | $ 134,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,403,452 | | |
| | Shoemaker Bridge Plans (LA River span) | 5727 | $ 383,815 | $ 1,058,882 | $ - | $ - | $ - | $ 740,308 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,799,158 | | |
| | Roundabout Structure Plans | 658 | $ 60,160 | $ 165,957 | $ - | $ - | $ - | $ 1,161,904 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,327,873 | | |
| | LA River Bike/Ped Structure Plans | 627 | $ 37,271 | $ 102,821 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 102,821 | | |
| | 7th Street ped bridge plans | 42 | $ 4,214 | $ 11,626 | $ - | $ - | $ - | $ - | $ 68,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 79,626 | | |
| | Nonstandard Retaining Wall Plans | 58 | $ 3,820 | $ 10,055 | $ - | $ - | $ - | $ - | $ 66,300 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 82,365 | | |
| | Shoemaker Bridge Architectural Plans | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Bridge Removal Plans for existing Shoemaker Bridge | 76 | $ 4,212 | $ 11,619 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,619 | | |
| 4A.2.2 | Prepare structure specification special provisions (see Task 4A.2.2 for HDR costs) | 52 | $ 5,218 | $ 14,394 | $ - | $ - | $ - | $ 117,342 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 131,736 | | |
| 4A.2.3 | Update structures quantities and cost estimate (see Task 4A.2.2 for HDR costs) | 4 | $ 401 | $ 1,107 | $ - | $ - | $ - | $ 13,953 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,060 | | |
| 4A.2.4 | Prepare structural calculations package (see Task 4A.2.2 for HDR costs) | 36 | $ 3,612 | $ 9,965 | $ - | $ - | $ - | $ 81,588 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 71,552 | | |
| 4A.3 | Prepare Construction Schedule | 56 | $ 4,381 | $ 12,087 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,087 | | |
| 4A.4 | Update Storm Water Data Report | 80 | $ 5,525 | $ 18,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 18,000 | | |
| 4A.5 | Prepare Environmental Commitments Record (ECR) | 120 | $ 8,997 | $ 24,794 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 24,794 | | |
| 4A.6 | Update Transportation Management Plan | 300 | $ 15,560 | $ 42,926 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 42,926 | | |
| 4A.7 | Envision Certification | 60 | $ 4,343 | $ 11,982 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,982 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

City of Long Beach
Shoemaker Bridge PS&E
Fee Summary

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Giddis Surveys | Thalsing | Evans and Walker | TY Lin | IDC (DBE) | LIN (DBE) | Pothoiling Sub (DBE) | PGI (DBE/SWBE) | Interphase Environmental (DBE/MBE/WBE) | Orange Coast Analytical (VSBE/SBE/WBE) | Southwest Geophysics | TMT (DBE) | American Integrated Services (MBE) | MBI (DBE) | RIVA (MBE) | Tatsumi & Partners | Total Team Fee including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5A | **Final PS&E (95%) Submittal for Caltrans work** | 3020 | $ 234,797 | $ 647,499 | $ 10,000 | $ - | $ - | $ 361,596 | $ 94,505 | $ 14,720 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,128,320 | | |
| 5A.1 | *Final PS&E* | 2934 | $ 188,686 | $ 520,539 | $ - | $ - | $ - | $ 361,596 | $ 94,505 | $ 14,720 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 991,360 | | |
| 5A.1.1 | *Final Roadway PS&E* | 848 | $ 61,266 | $ 168,959 | $ - | $ - | $ - | $ - | $ - | $ 14,720 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 183,679 | | |
| 5A.1.1.1 | *Prepare 100% roadway plans* | 736 | $ 46,551 | $ 128,423 | $ - | $ - | $ - | $ - | $ - | $ 9,600 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 138,023 | | |
| | Roadway Plans | 240 | $ 16,940 | $ 46,740 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 46,740 | | |
| | Drainage and Stormwater Plans | 172 | $ 10,166 | $ 28,045 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 28,045 | | |
| | Construction Staging Plans | 166 | $ 9,611 | $ 26,514 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 26,514 | | |
| | Pavement Delineation and Sign Plans | 110 | $ 6,338 | $ 17,485 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 17,485 | | |
| | Lighting and Electrical Plans | 4 | $ 302 | $ 833 | $ - | $ - | $ - | $ - | $ - | $ 9,600 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,433 | | |
| | Utility Plans | 44 | $ 3,192 | $ 8,806 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 8,806 | | |
| 5A.1.1.2 | *Prepare 100% Roadway Quantities and Cost Estimate* | 62 | $ 3,937 | $ 10,844 | $ - | $ - | $ - | $ - | $ - | $ 1,920 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,764 | | |
| | Roadway | 15 | $ 1,019 | $ 2,812 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,812 | | |
| | Drainage and Stormwater | 11 | $ 624 | $ 1,722 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,722 | | |
| | Construction Staging | 10 | $ 534 | $ 1,473 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,473 | | |
| | Pavement Delineation and Signage | 13 | $ 754 | $ 2,081 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,081 | | |
| | Lighting and Electrical | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,920 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,920 | | |
| | Utilities | 5 | $ 267 | $ 737 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 737 | | |
| 5A.1.1.3 | *Prepare Final Specification Special Provisions* | 150 | $ 10,727 | $ 29,592 | $ - | $ - | $ - | $ - | $ - | $ 3,200 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 32,792 | | |
| | Roadway | 24 | $ 1,936 | $ 5,341 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,341 | | |
| | Drainage and Stormwater | 20 | $ 1,519 | $ 4,190 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,190 | | |
| | Construction Staging | 22 | $ 1,665 | $ 4,593 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,593 | | |
| | Pavement Delineation and Signage | 20 | $ 1,460 | $ 4,028 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,028 | | |
| | Lighting and Electrical | 4 | $ 302 | $ 833 | $ - | $ - | $ - | $ - | $ - | $ 3,200 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,033 | | |
| | Utilities | 14 | $ 1,049 | $ 2,894 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,894 | | |
| | Haz mat | 32 | $ 1,715 | $ 4,730 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,730 | | |
| | Prepare environmental outline specifications | 6 | $ 330 | $ 1,470 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,470 | | |
| 5A.1.2 | Final Structures PS&E (SPS&E) | 1962 | $ 125,877 | $ 346,435 | $ - | $ - | $ - | $ 361,596 | $ 94,505 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 802,537 | | |
| 5A.1.3 | Update Construction Schedule | 24 | $ 1,991 | $ 5,245 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,245 | | |
| 5A.2 | Prepare Resident Engineer's File | 226 | $ 15,161 | $ 41,825 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 41,825 | | |
| 5A.3 | Prepare Materials Handouts | 150 | $ 9,441 | $ 26,045 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 26,045 | | |
| 5A.4 | Prepare Paleontological Mitigation Plan | 40 | $ 2,665 | $ 7,351 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,351 | | |
| 5A.5 | Assist City in preparing bid documents | 64 | $ 5,697 | $ 15,717 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,717 | | |
| 5A.6 | Prepare Survey File | 144 | $ 8,714 | $ 24,040 | $ 10,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 34,040 | | |
| 5A.7 | Environ Certification | 60 | $ 4,343 | $ 11,982 | | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,982 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| ***City PS&E Package for Pump Station, Landscaping, and Urban Design Work*** | | 6176 | $ 357,246 | $ 1,537,287 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 269,950 | $ 1,807,177 | | |
| 5B | **Draft PS&E (65%) Submittal for Pump Station, Landscaping, and Urban Design Work** | 3540 | $ 235,222 | $ 649,926 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 142,630 | $ 791,550 | | |
| 5B.1 | *Prepare 65% Plans* | 2828 | $ 184,276 | $ 509,373 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 126,200 | $ 634,573 | | |
| 5B.1.1 | Prepare General/Front End Plans | 78 | $ 4,949 | $ 13,376 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,376 | | |
| 5B.1.2 | Prepare Drainage/Stormwater Plans | 210 | $ 15,510 | $ 42,787 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 42,787 | | |
| 5B.1.3 | Prepare Draft LID Report | 330 | $ 24,675 | $ 68,073 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 68,073 | | |
| 5B.1.4 | Prepare Landscaping Plans | 40 | $ 4,057 | $ 11,192 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 49,800 | $ 60,992 | | |
| 5B.1.5 | Prepare Irrigation Plans | 8 | $ 988 | $ 2,726 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 42,600 | $ 45,326 | | |
| 5B.1.6 | Prepare Bike Path/Hardscape Plans | 162 | $ 11,651 | $ 32,141 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,400 | $ 34,541 | | |
| 5B.1.7 | Prepare Lighting & Electrical Plans | 110 | $ 6,930 | $ 18,280 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,800 | $ 20,080 | | |
| 5B.1.8 | Prepare contour grading plans | 116 | $ 8,140 | $ 22,457 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 22,457 | | |
| 5B.1.9 | Prepare utility plans | 312 | $ 17,922 | $ 49,442 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 49,442 | | |
| 5B.1.10 | Prepare wayfinding/signage plans | 144 | $ 9,541 | $ 26,322 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 21,600 | $ 47,922 | | |
| 5B.1.11 | *Prepare Pump Station Plans* | 1320 | $ 80,314 | $ 221,568 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 8,000 | $ 229,568 | | |
| | General Sheets | 68 | $ 4,391 | $ 12,114 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,114 | | |
| | Demolition Sheets | 80 | $ 5,064 | $ 13,970 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 13,970 | | |
| | Site Civil, Piping and Force Mains Plans and Details | 104 | $ 6,376 | $ 17,589 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 17,589 | | |
| | Architectural plans | 258 | $ 14,433 | $ 39,816 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 39,816 | | |
| | Structural plans | 180 | $ 10,528 | $ 37,320 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 37,320 | | |
| | Mechanical | 112 | $ 7,295 | $ 20,125 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,125 | | |
| | Cathodic Protection | 32 | $ 1,653 | $ 4,561 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,561 | | |
| | HVAC Plans | 72 | $ 4,529 | $ 12,494 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,494 | | |
| | Electrical Plans | 152 | $ 7,920 | $ 21,572 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 21,572 | | |
| | P&ID Plans | 112 | $ 5,793 | $ 15,991 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,991 | | |
| | COLB forms | 24 | $ 1,390 | $ 3,834 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,834 | | |
| | Standard plans | 24 | $ 1,390 | $ 3,834 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,834 | | |
| | LEED Certification - Silver | 96 | $ 6,654 | $ 18,358 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 8,000 | $ 26,358 | | |
| 5B.2 | *Prepare Outline Specifications* | 397 | $ 29,180 | $ 80,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,080 | $ 86,080 | | |
| 5B.2.1 | General Provisions | 42 | $ 3,366 | $ 9,287 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,287 | | |
| 5B.2.2 | Drainage/Stormwater | 24 | $ 1,808 | $ 4,989 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,989 | | |
| 5B.2.3 | Landscaping | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,560 | $ 2,560 | | |
| 5B.2.4 | Irrigation | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,920 | $ 1,920 | | |
| 5B.2.5 | Bike path/hardscape | 14 | $ 1,080 | $ 2,978 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 960 | $ 3,938 | | |
| 5B.2.6 | Lighting & Electrical | 14 | $ 1,056 | $ 2,914 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 640 | $ 3,554 | | |
| 5B.2.7 | Contour grading | 9 | $ 501 | $ 1,381 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,381 | | |
| 5B.2.8 | Utilities | 22 | $ 1,699 | $ 4,687 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,687 | | |
| 5B.2.9 | Wayfinding & signage | 16 | $ 1,141 | $ 3,148 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,148 | | |

**City of Long Beach**
**Shoemaker Bridge PS&E**
**Fee Summary**

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Golda Surveys | Twisting | Evans and Walker | TY Lin | IDC (DBE) | LIN (DBE) | Podhaling Sub (DBE) | PGI (DBE/SWBE) | Interphase Environmental (DBE/MBE/WBE) | Orange Coast Analytical (VSBE/SBE/WBE) | Southwest Geophysics | TMI (DBE) | American Integrated Services (MBE) | HAE (DBE) | RIVA (WBE) | Toksend & Partners | Total Team Fee Including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3B.2.10 | *Pump station* | 259 | $ 18,526 | $ 51,116 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 51,116 | | |
| | Site civil | 17 | $ 1,373 | $ 3,789 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,789 | | |
| | Architectural | 33 | $ 2,330 | $ 6,427 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,427 | | |
| | Structural | 25 | $ 2,509 | $ 6,920 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,920 | | |
| | Mechanical | 64 | $ 5,102 | $ 14,076 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 14,076 | | |
| | Cathodic Protection | 8 | $ 421 | $ 1,162 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,162 | | |
| | HVAC | 36 | $ 2,986 | $ 8,237 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 8,237 | | |
| | Electrical | 36 | $ 1,879 | $ 5,180 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,180 | | |
| | P&ID | 37 | $ 1,931 | $ 5,326 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,326 | | |
| *3B.3* | *Prepare Quantities and Engineers Estimate* | 275 | $ 18,871 | $ 52,060 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,350 | $ 62,410 | | |
| 3B.3.1 | Drainage/Stormwater | 26 | $ 1,451 | $ 4,003 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,850 | $ 6,853 | | |
| 3B.3.2 | Landscaping | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,850 | $ 2,850 | | |
| 3B.3.3 | Irrigation | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,050 | $ 1,950 | | |
| 3B.3.4 | Bike path/hardscape | 22 | $ 1,097 | $ 3,026 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,026 | | |
| 3B.3.5 | Lighting & Electrical | 15 | $ 706 | $ 1,948 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,948 | | |
| 3B.3.6 | Contour grading | 16 | $ 1,277 | $ 3,522 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,522 | | |
| 3B.3.7 | Utilities | 30 | $ 1,676 | $ 4,623 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,623 | | |
| 3B.3.8 | Wayfinding & signage | 16 | $ 1,510 | $ 4,166 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,700 | $ 6,866 | | |
| *3B.3.9* | *Pump station* | 146 | $ 11,155 | $ 30,774 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 30,774 | | |
| | Site civil | 44 | $ 3,807 | $ 10,501 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,501 | | |
| | Architectural | 20 | $ 1,265 | $ 3,489 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,489 | | |
| | Structural | 10 | $ 986 | $ 2,719 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,719 | | |
| | Mechanical | 28 | $ 2,213 | $ 6,104 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,104 | | |
| | Cathodic Protection | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | HVAC | 12 | $ 869 | $ 2,396 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,396 | | |
| | Electrical | 16 | $ 838 | $ 2,312 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,312 | | |
| | P&ID | 16 | $ 1,178 | $ 3,251 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,251 | | |
| 3B.4 | Envision Certification | 40 | $ 2,895 | $ 7,988 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,988 | | |
| **4B** | **Initial PS&E (95%) Submittal for Pump Station, Landscaping, and Urban Design Work** | 2739 | $ 190,018 | $ 524,212 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 89,469 | $ - | $ 613,672 | | |
| *4B.1* | *Prepare 95% Plans* | 2122 | $ 145,239 | $ 400,678 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 70,800 | $ 471,478 | | |
| 4B.1.1 | Prepare General/Front End Plans | 47 | $ 3,701 | $ 10,210 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,210 | | |
| 4B.1.2 | Prepare Drainage/Stormwater Plans | 208 | $ 15,671 | $ 43,785 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 43,785 | | |
| 4B.1.3 | Prepare Landscaping Plans | 103 | $ 6,916 | $ 19,086 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 31,800 | $ 50,886 | | |
| 4B.1.4 | Prepare Irrigation Plans | 8 | $ 988 | $ 2,726 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 32,700 | $ 35,426 | | |
| 4B.1.5 | Prepare Bike Path/Hardscape Plans | 382 | $ 27,330 | $ 75,396 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,400 | $ 80,796 | | |
| 4B.1.6 | Prepare Lighting & Electrical Plans | 67 | $ 4,308 | $ 11,886 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 900 | $ 12,786 | | |
| 4B.1.7 | Prepare contour grading plans | 220 | $ 16,506 | $ 45,537 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 45,537 | | |
| 4B.1.8 | Prepare wayfinding/signage plans | 322 | $ 22,164 | $ 61,200 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 61,200 | | |
| *4B.1.9* | *Prepare Pump Station Plans* | 754 | $ 47,432 | $ 130,953 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 130,953 | | |
| | General Sheets | 32 | $ 2,143 | $ 5,911 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,911 | | |
| | Demolition Sheets | 80 | $ 1,695 | $ 5,228 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,228 | | |
| | Site Civil, Piping and Force Mains Plans and Details | 90 | $ 5,952 | $ 16,420 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,420 | | |
| | Architectural plans | 104 | $ 6,075 | $ 16,760 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,760 | | |
| | Structural plans | 46 | $ 3,624 | $ 9,998 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,998 | | |
| | Mechanical | 98 | $ 6,749 | $ 18,620 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 18,620 | | |
| | Cathodic Protection | 12 | $ 624 | $ 1,721 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,721 | | |
| | HVAC Plans | 28 | $ 1,726 | $ 4,761 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,761 | | |
| | Electrical Plans | 66 | $ 4,454 | $ 12,287 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,287 | | |
| | P&ID Plans | 70 | $ 3,604 | $ 9,943 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,943 | | |
| | COLB forms | 10 | $ 637 | $ 1,757 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,757 | | |
| | Standard plans | 10 | $ 637 | $ 1,757 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,757 | | |
| | LEED Certification - Silver | 136 | $ 9,312 | $ 25,690 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 25,690 | | |
| *4B.2* | *Prepare Draft Specifications* | 436 | $ 32,772 | $ 90,409 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,280 | $ 106,689 | | |
| 4B.2.1 | General/Front end | 76 | $ 5,816 | $ 16,045 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,045 | | |
| 4B.2.2 | Drainage/Stormwater | 54 | $ 4,092 | $ 11,289 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,289 | | |
| 4B.2.3 | Landscaping | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,740 | $ 7,740 | | |
| 4B.2.4 | Irrigation | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,120 | $ 6,120 | | |
| 4B.2.5 | Bike path/hardscape | 42 | $ 3,277 | $ 9,040 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,400 | $ 11,440 | | |
| 4B.2.6 | Lighting & Electrical | 52 | $ 3,750 | $ 10,344 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,344 | | |
| 4B.2.7 | Contour grading | 17 | $ 1,396 | $ 3,851 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,851 | | |
| 4B.2.8 | Wayfinding & Signage | 54 | $ 3,669 | $ 10,123 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,123 | | |
| *4B.2.9* | *Pump station* | 143 | $ 10,771 | $ 29,715 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 29,715 | | |
| | General/Front end | 37 | $ 2,897 | $ 7,966 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,966 | | |
| | Site civil | 18 | $ 1,395 | $ 3,848 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,848 | | |
| | Architectural | 21 | $ 1,505 | $ 4,152 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,152 | | |
| | Structural | 8 | $ 903 | $ 2,491 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,491 | | |
| | Mechanical | 28 | $ 2,349 | $ 6,479 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 6,479 | | |
| | Cathodic Protection | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | HVAC | 6 | $ 481 | $ 1,326 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,326 | | |
| | Electrical | 12 | $ 626 | $ 1,727 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,727 | | |
| | P&ID | 12 | $ 626 | $ 1,727 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,727 | | |
| *4B.3* | *Prepare Updated Quantities and Engineers Estimate* | 139 | $ 9,112 | $ 25,137 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,400 | $ 27,537 | | |
| 4B.3.1 | Drainage/Stormwater | 15 | $ 761 | $ 2,099 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,099 | | |
| 4B.3.2 | Landscaping | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,350 | $ 1,350 | | |
| 4B.3.3 | Irrigation | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,050 | $ 1,050 | | |
| 4B.3.4 | Bike path/hardscape | 11 | $ 548 | $ 1,513 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,513 | | |
| 4B.3.5 | Lighting & Electrical | 11 | $ 606 | $ 1,672 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,672 | | |
| 4B.3.6 | Contour grading | 13 | $ 1,026 | $ 2,831 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,831 | | |
| 4B.3.7 | Wayfinding & Signage | 9 | $ 682 | $ 1,882 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,882 | | |

City of Long Beach
Shoemaker Bridge PS&E
Fee Summary

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Guida Surveys | Twining | Evans and Walker | TY Lin | IDC (DBE) | LIN (DBE) | Pathwing Sub (DBE) | PSI (DBE/SWBE) | Interphase Environmental (DBE/MBE/WBE) | Orange Coast Archytectual (VBE/SDVBE) | Southwest Geophysics | TMS (DBE) | American Integrated Services (MBE) | MBI (DBE) | RVA (WBE) | Tetra Tech & Psomas | Total Team Fee Including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4B.3.6 | *Pump station* | 80 | $ 5,488 | $ 15,139 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,139 | | |
| | Site civil | 24 | $ 1,896 | $ 4,989 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,989 | | |
| | Architectural | 10 | $ 632 | $ 1,744 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,744 | | |
| | Structural | 4 | $ 401 | $ 1,107 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,107 | | |
| | Mechanical | 10 | $ 779 | $ 2,125 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,125 | | |
| | Cathodic Protection | 4 | $ 211 | $ 581 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 581 | | |
| | HVAC | 8 | $ 626 | $ 1,726 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,726 | | |
| | Electrical | 10 | $ 520 | $ 1,434 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,434 | | |
| | P&ID | 10 | $ 520 | $ 1,434 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,434 | | |
| 4B.4 | Envision Certification | 40 | $ 2,895 | $ 7,968 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,968 | | |
| **5B** | **Final PS&E (100%) Submittal for Pump Station, Landscaping, and Urban Design Work** | **1897** | **$ 132,000** | **$ 364,155** | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 37,800 | $ 401,955 | | |
| 5B.1 | *Prepare 100% Plans* | 1387 | $ 95,239 | $ 262,740 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 31,800 | $ 294,540 | | |
| 5B.1.1 | Prepare General/Front End Plans | 22 | $ 1,726 | $ 4,788 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,788 | | |
| 5B.1.2 | Prepare Drainage/Stormwater Plans | 110 | $ 8,344 | $ 22,744 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 22,744 | | |
| 5B.1.3 | Prepare Landscaping Plans | 16 | $ 1,668 | $ 4,601 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,600 | $ 20,201 | | |
| 5B.1.4 | Prepare Irrigation Plans | 4 | $ 494 | $ 1,363 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 14,700 | $ 16,063 | | |
| 5B.1.5 | Prepare Bike Path/Hardscape Plans | 194 | $ 13,901 | $ 38,350 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,200 | $ 39,550 | | |
| 5B.1.6 | Prepare Lighting & Electrical Plans | 45 | $ 2,916 | $ 8,044 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 300 | $ 8,344 | | |
| 5B.1.7 | Prepare contour grading plans | 102 | $ 7,092 | $ 19,565 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,565 | | |
| 5B.1.8 | Prepare wayfinding/signage plans | 164 | $ 11,491 | $ 31,700 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 31,700 | | |
| 5B.1.9 | *Prepare Pump Station Plans* | 730 | $ 47,697 | $ 131,585 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 131,585 | | |
| | General Sheets | 46 | $ 3,447 | $ 9,510 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,510 | | |
| | Demolition Sheets | 12 | $ 917 | $ 2,255 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,255 | | |
| | Site Civil, Piping and Force Mains Plans and Details | 130 | $ 8,191 | $ 25,329 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 25,329 | | |
| | Architectural plans | 102 | $ 6,109 | $ 16,851 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,851 | | |
| | Structural plans | 40 | $ 3,320 | $ 9,159 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,159 | | |
| | Mechanical | 64 | $ 4,570 | $ 12,606 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,606 | | |
| | Cathodic Protection | 24 | $ 1,240 | $ 3,421 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,421 | | |
| | HVAC Plans | 10 | $ 770 | $ 2,125 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,125 | | |
| | Electrical Plans | 73 | $ 3,737 | $ 10,309 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,309 | | |
| | P&ID Plans | 73 | $ 3,737 | $ 10,309 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,309 | | |
| | COLB forms | 9 | $ 391 | $ 1,078 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,078 | | |
| | Standard plans | 9 | $ 391 | $ 1,078 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,078 | | |
| | LEED Certification - Silver | 144 | $ 9,966 | $ 27,554 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 27,554 | | |
| 5B.2 | *Prepare Final Specifications* | 243 | $ 17,816 | $ 49,149 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,100 | $ 54,249 | | |
| 5B.2.1 | General/Front end | 36 | $ 2,761 | $ 7,618 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,618 | | |
| 5B.2.2 | Drainage/Stormwater | 23 | $ 1,721 | $ 4,748 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,748 | | |
| 5B.2.3 | Landscaping | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,700 | $ 2,700 | | |
| 5B.2.4 | Irrigation | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,400 | $ 2,400 | | |
| 5B.2.5 | Bike path/hardscape | 28 | $ 1,900 | $ 5,241 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,241 | | |
| 5B.2.6 | Lighting & Electrical | 22 | $ 1,677 | $ 4,626 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,626 | | |
| 5B.2.7 | Contour grading | 4 | $ 356 | $ 981 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 981 | | |
| 5B.2.8 | Wayfinding & Signage | 23 | $ 1,563 | $ 4,311 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,311 | | |
| 5B.2.9 | Pump station | 110 | $ 7,838 | $ 21,624 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 21,624 | | |
| 5B.3 | *Prepare Final Quantities and Engineers Estimate* | 127 | $ 8,812 | $ 24,309 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 900 | $ 25,209 | | |
| 5B.3.1 | Drainage/Stormwater | 7 | $ 335 | $ 923 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 923 | | |
| 5B.3.2 | Landscaping | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 600 | $ 600 | | |
| 5B.3.3 | Irrigation | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 300 | $ 300 | | |
| 5B.3.4 | Bike path/hardscape | 4 | $ 158 | $ 435 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 435 | | |
| 5B.3.5 | Lighting & Electrical | 4 | $ 175 | $ 484 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 484 | | |
| 5B.3.6 | Contour grading | 9 | $ 501 | $ 1,381 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,381 | | |
| 5B.3.7 | Wayfinding & Signage | 4 | $ 295 | $ 815 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 815 | | |
| 5B.3.8 | Pump station | 102 | $ 7,348 | $ 20,272 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 20,272 | | |
| 5B.4 | Envision Certification, includes certification package preparation | 0 | $ 10,134 | $ 27,957 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 27,957 | | |
| ***City PS&E Package for for Early Action Utility Relocations*** | | **617** | **$ 41,291** | **$ 113,829** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 113,829** | | |
| 4C | **Initial PS&E (95%) Submittal for Early Action Utility Relocations** | 420 | $ 28,081 | $ 77,497 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 77,497 | | |
| 4C.1 | *Prepare 95% Plans* | 305 | $ 19,388 | $ 53,432 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 53,432 | | |
| 4C.1.1 | Prepare General/Front End Plans | 87 | $ 6,077 | $ 16,765 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,765 | | |
| 4C.1.2 | Prepare utility plans | 218 | $ 13,291 | $ 36,666 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 36,666 | | |
| 4C.2 | *Prepare Draft Specifications* | 102 | $ 8,030 | $ 22,153 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 22,153 | | |
| 4C.2.1 | General/Front end | 44 | $ 3,498 | $ 9,649 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,649 | | |
| 4C.2.2 | Erosion control | 10 | $ 812 | $ 2,239 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 2,239 | | |
| 4C.2.3 | Utilities | 48 | $ 3,721 | $ 10,265 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,265 | | |
| 4C.3 | *Prepare Quantities and Engineers Estimate* | 13 | $ 692 | $ 1,912 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,912 | | |
| 5C | **Final PS&E (100%) Submittal for Early Action Utility Relocations** | 197 | $ 13,170 | $ 36,332 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 36,332 | | |
| 5C.1 | *Prepare 100% Plans* | 160 | $ 9,747 | $ 26,890 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 26,890 | | |
| 5C.1.1 | Prepare General/Front End Plans | 40 | $ 2,909 | $ 7,751 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,751 | | |
| 5C.1.2 | Prepare utility plans | 112 | $ 6,938 | $ 19,140 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,140 | | |
| 5C.2 | *Prepare Final Specifications* | 40 | $ 3,193 | $ 8,809 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 8,809 | | |
| 5C.2.1 | General/Front end | 19 | $ 1,532 | $ 4,225 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,225 | | |
| 5C.2.2 | Erosion control | 3 | $ 235 | $ 648 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 648 | | |
| 5C.2.3 | Utilities | 18 | $ 1,426 | $ 3,934 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,934 | | |
| 5C.3 | *Prepare Final Quantities and Engineers Estimate* | 5 | $ 230 | $ 634 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 634 | | |

**City of Long Beach**
**Shoemaker Bridge PS&E**
**Fee Summary**

| Task No. | Task Description | TOTAL HDR HOURS | TOTAL HDR DTL FEE | TOTAL HDR BURDENED FEE | Giida Surveys | Twining | Eyres and Walker | TY Lin | BDC (DBE) | LIN (DBE) | Pedroling Sub (DBE) | PCI (DBE/SVBE) | Interphase Environmental (DBE/MBE/VBE) | Orange Coast Analytical (VSBE/SBE/MBE) | Southwest Geophysics | TAM (DBE) | American Integrated Services (SMBE) | HMI (DBE) | RIVA (MBE) | Talasani & Partners | Total Team Fee including Subconsultants | ODC's | Travel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | **Right of Way Services** | 1696 | $ 103,737 | $ 286,186 | $ 355,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 841,185 | | |
| 6.1 | *Right of Way Engineering* | 1006 | $ 94,452 | $ 177,807 | $ 355,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 532,807 | | |
| 6.1.1 | Review Existing Right of Way Mapping and Supplement as Necessary | 74 | $ 4,649 | $ 12,802 | $ 40,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 52,802 | | |
| 6.1.2 | *Document Right of Way Requirements* | 438 | $ 27,109 | $ 74,788 | $ 285,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 359,788 | | |
| | Perform Record Data Search | 120 | $ 5,150 | $ 16,966 | $ 10,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 26,966 | | |
| | Acquire Title Reports | 76 | $ 4,366 | $ 12,044 | $ 10,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 22,044 | | |
| | Perform Land Net Recovery and Field Ties | 0 | $ - | $ - | $ 50,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 50,000 | | |
| | Prepare Land Net Map - "Before Condition" Record of Survey | 0 | $ - | $ - | $ 65,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 65,000 | | |
| | Prepare Monument Perpetuation Surveys | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | | |
| | Prepare Right of Way Maps | 126 | $ 9,059 | $ 24,982 | $ 50,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 74,982 | | |
| | Prepare Property Acquisition Documents | 118 | $ 7,534 | $ 20,799 | $ 100,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 120,799 | | |
| 6.1.3 | Prepare ROW/Utility Certification documents | 324 | $ 20,756 | $ 57,261 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 57,261 | | |
| 6.1.4 | Right of Way Design Support | 170 | $ 11,948 | $ 32,957 | $ 30,000 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 62,957 | | |
| 6.2 | *Right of Way Appraisal and Acquisition Services* | 690 | $ 39,285 | $ 108,379 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 108,379 | | |
| 6.2.1 | Right of Way Mapping Review | 30 | $ 1,538 | $ 4,242 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,242 | | |
| 6.2.2 | *Conduct Property Appraisals* | 90 | $ 4,350 | $ 12,001 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,001 | | |
| | Appraisal Coordination - Fee Appraisal | 30 | $ 1,538 | $ 4,242 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 4,242 | | |
| | Appraisal Coordination - Independent Appraisal Review | 30 | $ 1,406 | $ 3,880 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,880 | | |
| | HDR reviews original appraisal and independent appraisal review | 30 | $ 1,406 | $ 3,880 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 3,880 | | |
| 6.2.3 | *Preparation and Approval of Offer Packages* | 120 | $ 5,626 | $ 15,520 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,520 | | |
| | Prepare draft offer packages and submit to City | 80 | $ 3,663 | $ 10,105 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 10,105 | | |
| | Coordinate with City in review and approval of offer packages | 40 | $ 1,963 | $ 5,414 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,414 | | |
| 6.2.4 | Provide support to City in good faith negotiations | 100 | $ 4,513 | $ 12,451 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,451 | | |
| 6.2.5 | Condemnnetation Support | 80 | $ 4,167 | $ 11,552 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 11,552 | | |
| 6.2.6 | Escrow Coordination | 60 | $ 2,813 | $ 7,760 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 7,760 | | |
| 6.2.7 | Secure Legal Possession | 40 | $ 1,963 | $ 5,414 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,414 | | |
| 6.2.8 | Property owner coordination meetings | 170 | $ 14,296 | $ 39,439 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 39,439 | | $ 1,950 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | **Permitting Services and Other Support Services** | 980 | $ 76,398 | $ 210,792 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 56,000 | $ 97,456 | $ - | $ - | $ 358,248 | | |
| 7.1 | Prepare Caltrans Encroachment Permits for PS&E phase | 46 | $ 3,508 | $ 9,676 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,676 | | |
| 7.2 | Prepare NPDES General Construction Activity Stormwater Permit | 72 | $ 5,908 | $ 16,299 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 16,299 | | |
| 7.3 | Prepare Environmental Clearance Permits for Construction | 368 | $ 28,205 | $ 77,810 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 80,256 | $ - | $ - | $ 158,066 | | |
| 7.4 | Facilitate execution of cooperative agreement between City and Caltrans | 66 | $ 4,607 | $ 12,710 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 12,710 | | |
| 7.5 | Execute Section 214 agreement between City/Metro and USACE | 0 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 17,200 | $ - | $ - | $ 17,200 | | |
| 7.6 | Obtain utility owner approvals and agreements for construction | 76 | $ 5,567 | $ 15,413 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 15,413 | | |
| 7.7 | Obtain public agency approvals and agreements for construction | 120 | $ 9,993 | $ 27,569 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 27,569 | | |
| 7.8 | Public Outreach and Social Media Support Services | 88 | $ 7,731 | $ 21,328 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 50,000 | $ - | $ - | $ - | $ 71,328 | | |
| 7.9 | Provide grant application preparation support services and cost/benefit analysis | 150 | $ 10,856 | $ 29,954 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 29,954 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | **Construction Bidding Phase** | 510 | $ 44,445 | $ 122,614 | $ - | $ - | $ - | $ 15,459 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 138,073 | | |
| 8.1 | *Caltrans Construction Contract* | 166 | $ 16,929 | $ 46,731 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 46,731 | | |
| 8.1.1 | Attend Pre-Bid Meeting | 20 | $ 1,990 | $ 5,491 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 5,491 | | |
| 8.1.2 | Respond to Bidder Inquiries | 106 | $ 9,818 | $ 27,085 | $ - | $ - | $ - | $ 10,043 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 37,128 | | |
| 8.1.3 | Prepare Bid Addenda | 60 | $ 5,131 | $ 14,155 | $ - | $ - | $ - | $ 5,416 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 19,571 | | |
| 8.2 | *City Construction Contract* | 324 | $ 27,506 | $ 75,882 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 75,882 | | |
| 8.2.1 | Attend Pre-Bid Meeting | 40 | $ 3,541 | $ 9,768 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 9,768 | | |
| 8.2.2 | Respond to Bidder Inquiries | 186 | $ 15,966 | $ 44,046 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 44,046 | | |
| 8.2.3 | Prepare Bid Addenda | 98 | $ 8,000 | $ 22,069 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 22,069 | | |
| | **Subtotal** | **74,239** | **$ 4,364,523** | **$ 13,791,339** | **$ 465,000** | **$ 488,650** | **$ 120,000** | **$ 4,823,714** | **$ 923,145** | **$ 216,640** | **$ 60,000** | **$ 95,000** | **$ 62,700** | **$ 39,900** | **$ 11,000** | **$ 10,000** | **$ 1,500** | **$ 75,456** | **$ 118,649** | **$ 340,316** | **$ 21,497,939** | **$ 139,700** | **$ 51,465** |

| | | | |
|---|---|---|---|
| Contract Overhead: | 1.5544 | | |
| Contract Profit: | 9% | | |
| | **Expenses** | | |
| | Travel (mileage and parking) | $ | 53,485 |
| | Reprographics | $ | 17,000 |
| | Envision Certification | $ | 5,000 |
| | Other Expenses | $ | 139,700 |
| | **Expenses Subtotal** | **$** | **214,185** |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | $ 50,000 | | | | | | | | | | | | $ - | $ - | $ 264,185 | | |
| **Subtotal (Labor + Overhead + Profit+Expenses)** | | | | $ 13,565,524 | $ 465,000 | $ 488,650 | $ 120,000 | $ 4,873,714 | $ 923,145 | $ 216,640 | $ 60,000 | $ 95,000 | $ 62,700 | $ 39,900 | $ 11,000 | $ 10,000 | $ 1,500 | $ 75,456 | $ 118,649 | $ 340,316 | $ 21,697,724 | | |

**HDR Labor Escalation** $ 883,111

**TOTAL PROPOSED FEE: $ 22,580,235**

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| 1 | **Project Management, Coordination, and Administration** | | | | $ 1,800,450 | |
| *1.1* | *Coordination and Administration* | | | | *$ 1,365,158* | |
| *1.1.1* | *Coordination and Meetings* | Conduct meetings with City, Caltrans, and other 3rd party stakeholders as well as regular internal project team meetings. | Meeting notices, agendas, minutes, and presentation materials | -All meetings assumed to be conducted virtually through mid 2021 | *$ 1,209,794* | |
| | PDT Meetings (monthly) | Meeting is specific to Caltrans PS&E package development and intended to allow for regular coordination with Caltrans on project status and discussion/resolution of technical issues requiring Caltrans input. | | -Assume 3 year design schedule, 33 meetings total. To be attended by PM, coordinator, and discipline leads working on Caltrans PS&E package as necessary.<br>-In-person participation at PDT meetings will be limited to the HDR Project Manager and up to three task leaders. Others will participate via video conferencing (i.e. WebEx, Zoom) | $ 337,035 | |
| | Biweekly City meetings | Meeting is intended to allow for regular coordination with City on project status and discussion/resolution of technical issues requiring City input. | | Assume 3 year design schedule, 66 meetings total. To be attended by PM and up to three discipline/task leads as necessary. | $ 226,839 | |
| | *Agency/Third Party Coordination Meetings* | | | | $ - | |
| | Coordination Meetings with LACDPW and USACE | | | Assume 10 meetings total attended by up to three (3) HDR staff and two (2) RVA staff | $ 51,829 | |
| | Crime Prevention through Environmental Design (CPTED) | | | Assume three (3) meetings with LBPD and other law enforcement officials attended by three (3) HDR staff. | $ 15,358 | |
| | Coordination Meetings with USFWS | | | Assume 4 meetings total attended by up to three (3) HDR staff | $ 24,178 | |
| | Monthly coordination meetings with GHD and LB Must staff | | | Assume 3 year design schedule, 24 meetings total attended by up to four (4) HDR staff as appropriate. Assumes portion of meetings will be devoted to project visioning and integration | $ 76,490 | |
| | Utility owners meetings (see Tasks 3A-5A) | | | | $ - | |
| | Focused workshops with Caltrans and/or City staff | | | Assume 3 meetings per month for 20 months, 60 total attended by up to three (3) HDR staff as appropriate | $ 194,438 | |
| | Biweekly internal project team meetings | | | Assume 3 year design schedule, 66 meetings total attended by PM, coordinator, and discipline leads | $ 250,511 | |
| | Constructability and Safety Review Workshops (65% and 95%) | | | Assumes Caltrans will require these and will be led by Caltrans. Assume that each workshop is half a day and will be attended by discipline leads. | $ 33,116 | |
| *1.1.2* | *Administration* | -Prepare and maintain project risk register throughout final design<br>-To prepare document control system and maintain project files throughout project<br>-Prepare baseline and monthly project status schedules | | | *$ 155,363* | |
| | Prepare and Update Risk Register | See task description | Baseline risk register and monthly updates throughout PS&E | Initial risk register will be developed in coordination with City and Caltrans staff and will be updated monthly and reviewed at PDT meetings. | $ 40,787 | |
| | Maintain Project Files | Set up project filing system and document all incoming and outgoing documents throughout project. File all incoming documents. | Project file log | All documents to be stored electronically on ProjectWise | $ 72,839 | |
| | Schedules | Prepare baseline and monthly status final design schedules for both construction contracts | Approved baseline project schedule and monthly status schedules | Single master schedule to be prepared that covers final design work for both construction contracts. | $ 41,737 | |
| *1.2* | *Prepare Progress Reports and Invoices* | Prepare monthly progress reports and invoices to City for work completed. | | Assumes 3 year final design duration | $ 382,480 | |
| 1.3 | Prepare Design Quality Management Plan | Prepare and maintain Project Management Plan | Design Quality Management Plans | Single plan to be prepared for project which will cover final design work for both construction contracts. | $ 17,195 | |
| 1.4 | Prepare Project Management Plan and Financial Plan | Prepare and maintain Project Management Plan | Project Management Plan, Financial Plan | Single plan to be prepared for project which will cover final design work for both construction contracts. | $ 35,294 | |
| 2 | **Preliminary Design & Bridge Type Evaluation/Selection** | | | | $ 5,234,328 | $ 667,160 |
| 2.1 | Conduct Geometric Workshop | Conduct workshop with Caltrans to review preliminary project geometrics and discuss any potential modifications that Caltrans may want to incorporate | Workshop agenda, minutes, presentation materials, concept exhibits, etc. | One workshop assumed with four (4) HDR staff | $ 18,240 | |
| 2.2 | Prepare Supplemental Design Standard Decision Document (if needed) | Document any supplemental design exceptions that may require Caltrans approval | Draft & Final DSDD | | $ 34,108 | |
| *2.3* | *Supplemental Field Surveys* | Complete supplemental design surface needed to support final design work | | | $ 135,717 | |
| *2.3.1* | Complete design surveys | | Field survey data (CADD, ASCII) | | $ 110,217 | |
| *2.3.2* | Complete pothole surveys | | | | $ 25,500 | |
| 2.4 | Geotechnical Exploration | Conduct geotechnical exploration and borings needed to support the geotechnical analysis and design recommendations | Geotechnical Exploration Plan, Water Pollution Control Plan | Our current contract included LA River Borings and Pavement borings for Shoreline. Need to include wall and pavement boring on the west side of LA River. | $ 574,452 | |
| 2.5 | Prepare Supplemental Geometric Review Drawing | Prepare GRD to reflect any agreed upon geometric design modifications per Task 2.1 and submit to Caltrans for approval. | Draft & Final GRD showing layouts, profiles, and typical sections | Assume single sheet exhibit consistent with Caltrans requirements | $ 34,935 | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| 2.6 | Prepare Preliminary Foundation Reports | Prepare Preliminary Foundation Report to provide foundation design recommendations for proposed bridges and retaining walls | Draft & Final Preliminary Foundation Report | Separate reports to be prepared for each structure, including City ped bridges | $ 166,941 | |
| *2.7* | *Structures Type Selection* | | | | *$ 2,693,628* | *$ 343,024* |
| *2.7.1* | *Architectural Concepts* | | | Architectural treatments to the LA River bridge main spans and roundabout structure will be cosmetic in nature including limited surface treatments (<4" depth additional concrete). | $ 67,615 | $ 306,041 |
| *2.7.1.1* | Initial Theme Development and Scoping | Work with City to develop overall architectural theme for project that will be carried into structure aesthetics and other project elements | -Initial concept sketches, renderings, etc.<br>-Workshop agendas, minutes, meeting materials<br>-Project aesthetic guidelines document | Assume three (3) City workshops with Public involvement and stakeholder groups. | $ 50,150 | |
| *2.7.1.2* | *Prepare Bridge Aesthetics Alternatives Review and Renderings* | Prepare digital renderings of optional bridge types to present for City consideration | Simple massing model images | For facilities designed by others to be included in overall assessment, HDR is to receive 3D models for these items. | | $ 234,190 |
| | Public involvement coordination and content | | | Design fees reflect a baseline design of the LA River Bridge and elevated roundabout only. | | $ 16,982 |
| | Develop 3D model of site | Build a 3D model of the site context, size TBD | 3D existing conditions site model | | | $ 34,895 |
| | Develop 3D model of Shoemaker Bridge and roundabout structure | Build a 3D model of the bridge and roundabout | 3D structure model | The LA River bridge type is assumed to be concrete segmental with architectural elements that do not significantly impact the structural performance of the bridge structures. | | $ 115,776 |
| | Develop 3D model of Shoemaker Bridge and roundabout structure deck treatments | Build 3D models of deck treatments | 3D model | | | $ 16,801 |
| | Prepare Bridge Alternative Matrix | | Bridge alternative matrix | | | $ 16,846 |
| | Prepare Bridge Rendering (3 views total) | Develop simple renderings (non photorealistic) of the deck treatments | | | | $ 24,847 |
| *2.7.1.3* | Stakeholder Workshops and Constraints Identification | Conduct workshops with stakeholder to review initial concepts to be considered and obtain input. | -Concept sketches, renderings, etc.<br>-Workshop agendas, minutes, meeting materials | City, USFWS, USACE and Caltrans would be involved in workshops. Assumes four step public involvement process with four weeks between each meeting for a duration of 19 weeks | $ 17,465 | |
| *2.7.1.4* | Alternatives Development, Costing and Preferred Alternative Selection | -Advance development of bridge design options and develop ROM costs for each.<br>-Prepare report to document options and associated costs and submit to City and stakeholders<br>-Work with City and stakeholders to determine preferred bridge alternatives to be incorporated into final design | -Developed renderings for each alternative for both LA River and roundabout structures.<br>-ROM cost estimates for each bridge option considered<br>-Draft and final report. Final report to formally document preferred alternatives. | Assume three (3) options for both the LA River and roundabout structures to be fully developed and considered in report. | | $ 81,850 |
| 2.7.2 | Prepare Supplemental Advance Planning Studies for LA River and Roundabout Structure | Prepare supplemental Caltrans APS for preferred roundabout structure concept and LA River structure. | Draft & Final Supplemental APS | Needed to reflect change in roundabout geometric design. Only will be completed if Caltrans requires it. Schedule does not assume supplemental APSs are required. | | $ 36,983 |
| *2.7.3* | *Prepare Structure Type Selection Reports* | Type selection reports for LA River and roundabout bridges and any nonstandard retaining walls within State jurisdiction will be submitted to Caltrans for review. Type selection documents for City bridges to be submitted to City for review. | Type Selection Reports for each Bridge and Nonstandard Wall | Elevated roundabout structure and LA River bridge are Ordinary Non-standard bridges and pedestrian bridges are Ordinary Standard bridges per Caltrans SDC. Existing soils are anticipated to be improved for bridge foundation analysis/design. Study/use of base isolation is not included. | *$ 2,511,240* | |
| | Prepare Type Selection Report (LA River span) | To be submitted to Caltrans and City | | | $ 1,242,762 | |
| | Prepare Type Selection Report (roundabout structure) | To be submitted to Caltrans and City | | | $ 891,966 | |
| | Prepare Type Selection Report (LA River bike/ped bridge) | To be submitted to Caltrans and City | | | $ 112,148 | |
| | Prepare Type Selection Report (nonstandard retaining walls) | To be submitted to Caltrans and City | | | $ 62,744 | |
| | Prepare Type Selection Report (7th Street ped bridge replacement) - *non-Caltrans* | To be submitted to City only | Caltrans Type Selection Report format to be used for bridge | | $ 109,504 | |
| | Prepare Conceptual Bridge Removal Plan for existing Shoemaker Bridge and walls | | | Detailed removal plan to be prepared and submitted by Contractor, subject to review by the Engineer. | $ 50,209 | |
| | Prepare Bridge Deck Drainage Design and Memo | Prepare Bridge Deck Drainage Design and Memo | Design memorandum | | $ 37,595 | |
| | Prepare Bridge Site Data Submittal | To prepare BSDS for Caltrans structures and submit to Caltrans | Bridge Site Data Submittal per Caltrans format | | $ 10,313 | |
| *2.7.4* | *Bridge Type Selection Meeting and Approval* | Conduct type selection meeting with Caltrans for LA River and roundabout structures to review type selection reports and obtain comments. | | | *$ 61,137* | |
| | Attend Type Selection Meeting | | Meeting agenda | Meeting assumed to be virtual. | | |
| | Prepare and submit meeting proceedings | | Meeting minutes | | | |
| | Updated type selection reports to address meeting comments and submit for approval | | Updated type selection reports | | | |
| 2.7.5 | Conduct updated hydraulic/scour analysis of LA River for selected alternative bridge concept | Conduct updated hydraulic/scour analysis of LA River for selected alternative bridge concept in accordance with Caltrans requirements | Draft & final summary report | Applies to LA River span bridge only. Assumes no mitigation measures or USACE risk & uncertainty analysis for levee freeboard | $ 53,636 | |
| *2.8* | *Pump Station Preliminary Design* | | | Pump station to be LEED Silver | *$ 279,941* | |
| *2.8.1* | *Pump Station Pre-Design Activities* | Conduct necessary activities and obtain information needed to complete preliminary design of pump station | Technical Memorandum summarizing the work completed as part of this task. SD-01 alternative site plan exhibits, select section views, and details to be included in the memorandum. | SD-01 alternative site plan exhibits, select section views, and details to be included in the memorandum. | *$ 49,709* | |
| | Data Gathering and Review | | | | $ 13,041 | |
| | Site Reconnaissance | | | | $ 6,869 | |
| | Conduct preliminary hydrology and drainage study to support pump station siting & sizing | Conduct study to determine preliminary pump sizing | | | $ 29,799 | |
| | Facility Siting Considerations | | | | $ - | |
| 2.8.2 | Prepare pump station geotechnical design report | Provide geotechnical recommendations needed to complete pump station design based on boring data | Pump station geotechnical design report | | $ 78,138 | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| *2.8.3* | *Prepare Preliminary Plans* | Prepare preliminary design plans for proposed pump station facility | Preliminary pump station plans | Existing SD-01 Pump Station force mains and outfall will be utilized and there will be no modifications or improvement design required.<br>No computational fluid dynamic (CFD) modeling will be necessary.<br>No pressure transient (surge) analysis will be required.<br>SCADA requirements will be identified in coordination with the City of Long Beach Maintenance Staff<br>No physical modeling will be constructed for SD-01<br>An automated trash screen will not be included. | $ 76,424 | |
| | Civil site layout drawings | | | | $ 7,705 | |
| | Mechanical plans | | | | $ 13,970 | |
| | Instrumentation and control diagrams | | | | $ 19,113 | |
| | Electrical single line diagrams | | | | $ 14,810 | |
| | Architectural elevations | | | | $ 20,827 | |
| 2.8.4 | Prepare pump station construction cost estimate | | Preliminary construction cost estimate | Soft costs to be included in cost estimate if requested by City<br>Determination of right of way acquisition costs is assumed to be responsibility of the City | $ 19,926 | |
| 2.8.5 | Prepare Pump Station Preliminary Design Report | | Draft & Final Preliminary Design Report | -City is responsible for payment of any Certifying Authority registration and review fees unless otherwise specifically stated | $ 35,282 | |
| 2.8.6 | Preliminary Design Workshop | to discuss and confirm the Project design basis (hydraulics, site layouts, transmission main alignment, materials of construction, equipment selection and specifications, construction schedule, estimated costs, constraints, property and easement acquisitions, transition plan to final design, etc.). | Workshop agenda, minutes, presentation materials, etc. | Half day workshop to be attended by pump station design lead and discipline leads (total of 4) along with City staff. | $ 7,416 | |
| 2.8.7 | LEED Certification - Silver | Develop considerations and a sustainability plan assing LEED Silver Certification is pursued for the pump station. | -Certifying authority agreements.<br>-Draft and Final Sustainability Plans<br>-Meeting agendas, minutes, and presentation materials | | $ 9,045 | |
| *2.9* | *Utilities* | | | | *$ 296,344* | |
| 2.9.1 | Update Existing Utilities Base Map | -Prepare and submit letter to 3rd party utility companies to request updated utilities mapping<br>-Obtain and review any as-builts for recently completed City project within project limits<br>-Update existing utilities base mapping and matrix to reflect any new facilities identified | Existing utility verification request letters, updated existing utilities base map and associated matrix | Assumes preparation of up to 10 letters and review of as-built plans for up to 5 projects. HDR will coordinate with Shoreline Realignment Project team to facilitate joint discussions with impacted 3rd party owners and to share utility information. | $ 25,821 | |
| 2.9.2 | Conflict Identification | -Conduct supplemental evaluation of existing utilities in conflict with proposed project<br>-Conduct prior rights research for impacted utilities | Conflict matrix to identify any newly discovered utilities in conflict with project. Prior rights information to be added to matrix. | | $ 36,221 | |
| 2.9.3 | Utility Coordination | Conduct coordination and meeting with City and impacted 3rd party utility owners to present utilities in conflict with project and discuss potential relocation strategies. | Coordination meeting agendas, minutes, and presentation materials; utility relocation documents | Assume up to 3 meetings each utility owner, 6 owners with 2 HDR attendees. HDR will coordinate with Shoreline Realignment Project team to facilitate joint discussions with impacted 3rd party owners and to share utility information. | $ 47,317 | |
| 2.9.4 | Utility Potholing | Conduct potholing of selected existing utilities to positively locate | Pothole needs plan, utility investigation work plans (if needed) for agency approval, pothole data reports, traffic control plans for potholing | Assume 30 potholes; 15 traffic control plans, 1 work plan | $ 118,185 | |
| *2.10* | *Hazardous Materials Investigations* | | | | *$ 515,710* | |
| 2.10.1 | Complete Aerially Deposited Lead (ADL) survey | Complete survey to determine presence of ADL within project area; and if so; define necessary precautions/mitigations to be completed by contractor. | Aerially Deposited Lead Survey Workplan<br>Aerially Deposited Lead Survey Report | -3 days of field sampling at 20 total locations<br>-1 day of GPS surveying<br>-Hand auger boring only, to a maximum depth of 5 feet<br>-4 samples per boring<br>-Borings located in unpaved landscaping within the project area only<br>-Excludes the areas of the Shoreline Realignment and LB-MUST projects<br>-Lab analysis for lead and pH only, per Caltrans ADL survey requirements and their soil reuse variance with DTSC<br>-No offsite disposal of investigation derived waste. Borings will be backfilled with cuttings. Decon water will be poured on plants and landscaping.<br>-No permits are required to access unpaved areas or dig with hand tools only<br>-No traffic control will be required to access sampling locations | $ 80,540 | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| 2.10.2 | Complete Asbestos Containing Materials (ACM) and Lead Based Paint (LBP) surveys | Complete survey to determine presence of ACM and LBP within structures to be demolished within project area; and if so; define necessary precautions/mitigations to be completed by contractor. | ACM and LBP Survey Workplan<br>ACM and LBP Survey Report | -Eight structures require a surveys for ACM and LBP:<br>• Main Span of Shoemaker Bridge<br>• westbound 9th Street ramp<br>• eastbound 9th Street ramp<br>• 7th Street ramp<br>• 6th Street ramp<br>• northeastern bike path overcrossing<br>• southwestern bike path overcrossing<br>• pump station<br>-Other structures, such as the Golden Shore Overpass are outside the project area and will be surveyed by others<br>-Reporting will conform to SCAQMD and Caltrans requirements<br>-Surveys will be conducted by a contractor licensed to perform lead and asbestos surveys.<br>-Permits are not required for crews to access the structure for sampling<br>-Field survey will take up to 5 days to complete<br>-HDR field engineer will oversee survey activities | $ 121,030 | |
| 2.10.3 | Prepare Health and Safety Plan, a Contaminated Materials Management Plan, a Construction Contingency Plan, and a Lead Compliance Plan | Prepare plans for use by the field crews to address various hazardous materials that may be encountered during field activities. | Health and Safety Plan, a Contaminated Materials Management Plan, a Construction Contingency Plan, and a Lead Compliance Plan | -Health and Safety Plan and Lead Compliance Plan will need to be prepared and stamped by a Certified Industrial Hygienist<br>-The LCP can only be completed after The ADL survey is complete<br>-No intrusive work on structures containing lead-based paint is included, and safety training for lead work is not required<br>-The Contaminated Materials Management Plan will be based on previously available data<br>-Plans are for HDR's investigations related to PS&E, not for project construction or other contractors' use | $ 72,277 | |
| 2.10.4 | Conduct Phase II investigations for four sites | Conduct studies to confirm existence of hazardous soils within project limits; and if found, develop mitigation strategies to remediate hazardous soils. | Phase II (PSI) Workplan for all four sites<br>Phase II (PSI) Report for all four sites<br>Hazardous Materials Disclosure Documents (if needed) | -Four sites will be investigated:<br>Site 1: California Resources Corp (west of LA River north of Shoemaker)<br>Site 2: California Resource Corp (West of LA River at proposed bridge abutment)<br>Site 5: 960 Deforest Ave. (UPRR Bulk Terminal)<br>Site 6: 970 West Chester Pl. (former MTA Div. 12 bus terminal)<br>-Other sites listed in the Environmental Document will be investigated by others<br>-No additional or site-specific Phase Is (ISAs) will be conducted<br>-Cleanup/remediation of discovered conditions is not included.<br>-Maximum of 10 days of field sampling<br>-Maximum of 2 days of geophysical surveys for USTs<br>-Maximum of 26 borings across all 4 sites, 3 samples per boring<br>-Up to 15 groundwater samples<br>-Geophysical clearance of all borings prior to drilling<br>-Maximum of 4 days of traffic control for work in ROW<br>-Each sample analyzed for TPH, VOCs, and Title 22 Metals<br>-Up to 12 soil samples analyzed for PCBs, as needed<br>-Drilling permits will be necessary from the City of Long Beach at their normal cost<br>-City of Long Beach will provide encroachment permits in-kind at no cost<br>-Up to 4 drums of investigation-derived waste will be disposed of<br>-The City will provide a secure site for staging drums for disposal | $ 211,138 | |
| 2.10.5 | Prepare traffic control plans to support field work | Prepare traffic control plans | Approved traffic control plans | -Up to 7 sheets of engineered and stamped temporary traffic control plans will be prepared to support field work<br>-Plans will conform to MUTCD standards | $ 30,726 | |
| *2.11* | *Urban Design and Aesthetics* | | | | *$ 105,223* | $ 27,613 |
| 2.11.1 | Conduct study to evaluate potential for Envision Certification | Determine steps to be taken and elements to be incorporated into project to be eligible for Envision certification and submit to City of consideration. Includes preparation of City and Caltrans. | Workshop agenda, materials, and minutes; summary report documenting workshop. | | | $ 27,613 |
| 2.11.2 | Prepare overall urban design, landscaping, contour gradings and bikeway concept plan | Work with City to develop concept plan for proposed bikeway, urban design, and park elements to be implemented as part of Project | Conceptual plans, cost estimate, and summary technical memorandum | All landscaping and aesthetics to be consistent with LA River Master Plan | $ 43,055 | |
| 2.11.3 | Prepare Lighting Concept Plans | Work with City to develop concept plan for bridge and park lighting elements of project | Conceptual lighting concept strip maps and construction cost estimate | | $ 62,168 | |
| 2.12 | Complete Occidental Oil Field impact assessment and facility relocation plan | Identify scope of project impacts to Occidental oil field along west side of LA River within project limits and associated mitigation costs and submit to City for review. | Impact assessment summary memo, relocation plan | Assumes final design of any mitigations to be completed by owner. | $ 234,244 | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| 2.13 | Prepare constructability plan | -Identify key constructability issues associated with project construction and develop strategies for successful completion and review with Caltrans and City.<br>-Develop high level construction staging approach for project that outlines overall staging/phasing approach for completing construction. | Constructability memorandum and exhibits | Will cover both construction contracts | $ 61,617 | |
| 2.14 | Obtain E-76 authorization for utilities and R/W | Work with City to prepare Caltrans E-76 Application required to obtain federal funding for construction. | E-76 application | | $ 16,534 | |
| 2.15 | Conduct Edison Middle School vehicle circulation/drop off study | Complete study and develop recommendation for mitigating impacts to school. Prepare tech memo to summarize and submit to City for review and consideration. | Draft & final technical memorandum | | $ 30,711 | |
| *2.16* | *Environmental Revalidation/Addendum* | | | | | *$ 296,524* |
| 2.16.1 | Prepare Supplemental Technical Studies | Complete supplemental environmental technical studies that may be needed to support environmental revalidation of project if scope and/or footprint of project is modified. | Supplemental Technical Studies to support the Revalidation/Addendum | Scope of supplemental technical studies required TBD. | | $ 181,529 |
| 2.16.2 | Prepare Environmental Revalidation/Addendum | Prepare environmental revalidation/addendum to approved environmental document | Revalidation/Addendum to capture changes in design, existing setting, or passage of time. | | | $ 114,995 |
| 2.17 | VA Support Services | Project team to provide technical support to VA study assumed to be completed by third party consultant | | VA to be led by others. Assumes participation in VA sessions by discipline leads for four (4) day VA session | $ 39,984 | |
| | | | | | | |
| **Caltrans PS&E Package for Work in Caltrans Right of Way and Adjacent Local Streets** | | | | | $ 11,221,864 | |
| 3A | **Draft PS&E (65%) Submittal for Caltrans Work** | | | | $ 5,384,164 | $ 11,982 |
| *3A.1* | *Prepare Roadway Plans* | Prepare roadway plans and develop quantities for project elements falling within Caltrans jurisdiction as well as adjoining local street work along 6th and 7th Streets in accordance with Caltrans plan formatting requirements | | Plans will be formatted in accordance with Caltrans plan formatting standards. There is no landscaping/irrigation component to Caltrans work | *$ 140,967* | |
| *3A.2* | *Prepare 65% Drainage Plans* | -Conduct hydrology and hydraulic analysis to determine scope of project drainage improvements for entire project<br>-Prepare drainage plans and develop quantities for drainage elements within State jurisdiction in accordance with Caltrans plan formatting requirements<br>-Prepare Draft Storm Water Data Report to identify permanent storm water treatment BMPs to be implemented as part of project | | Includes design of storm drainage and water quality features for street and freeway work only. All park drainage to be covered in other PS&E package. Assumes all runoff is to be conveyed to LB MUST facility or to SD-01 pump station. Determination of runoff to LB MUST and/or SD-10 to be made in coordination with City and LB MUST project team. | *$ 309,557* | |
| *3A.2.1* | *Prepare Reports* | | | | *$ 176,857* | |
| | Prepare Draft Drainage Report | | Draft Drainage Report | Report covers entire project, including pump station. | $ 112,693 | |
| | Prepare Draft Storm Water Data Report | | Draft Storm Water Data Report | Covers area within State jurisdiction only. | $ 64,454 | |
| *3A.2.2* | *Prepare Plans* | | -Drainage plans<br>-Temporary Water Pollution Control Plans<br>-Erosion Control Plans | | *$ 132,700* | |
| *3A.3* | *Prepare Stage Construction, Traffic Handling, Detour, and Construction Area Sign Plans, and TMP* | | | | *$ 288,377* | |
| 3A.3.1 | Staging Concept Development and Approval | Work with City and Caltrans to develop preferred construction staging/MOT approach that is to be carried forward into final delgn. | Initial/revised concept exhibits, workshop agendas and minutes | | $ 84,526 | |
| 3A.3.2 | Prepare Draft Transportation Management Plan | Prepare Draft TMP to outline specific steps to be implemented to minimize impacts to traveling public during construction and develop associated costs | Draft TMP | Will require input from adjacent LB Must and Shoreline Realignment project. | $ 69,710 | |
| *3A.3.3* | *Prepare Plans* | Prepare construction staging plans and develop quantities in accordance with Caltrans formatting requirements based upon preferred staging approach. | -Construction Staging/Traffic Handling Plans<br>-Detour Plans<br>-Construction Area Sign Plans | | *$ 134,140* | |
| *3A.4* | *Prepare 65% Pavement Delineation Plans* | Prepare pavement delineation plans for all work with Caltrans right of way and adjoining local streets in accordance with Caltrans plan formatting requirements and develop | | | *$ 25,051* | |
| 3A.4.1 | Prepare Plans | | Pavement delineation layouts | | *$ 19,817* | |
| 3A.4.2 | Prepare Quantities | | Pavement delineation quantity summary | | *$ 5,234* | |
| *3A.5* | *Prepare 65% Sign Plans* | Prepare sign plans for all work with Caltrans right of way and adjoining local streets in accordance with Caltrans plan formatting requirements and develop quantities | | | *$ 56,624* | |
| 3A.5.1 | Prepare Plans | | Signage layouts | | $ 51,390 | |
| 3A.5.2 | Prepare Quantities | | Signage quantity summary | | $ 5,234 | |
| *3A.6* | *Prepare 65% Electrical Plans* | Prepare lighting, traffic signal, and electrical plans for all work with Caltrans right of way and adjoining local streets in accordance with Caltrans plan formatting requirements and develop quantities | | Assumes no ramp metering or electrical system plans. All bridge lighting to be based on project aesthetic guidelines prepare in Task 2. | *$ 60,425* | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| *3A.6.1* | *Prepare Plans* | | -Lighting Plans<br>-Traffic Signal Plans<br>-Electrical Plans | | *$ 50,632* | |
| 3A.6.2 | Prepare Quantities | | Electrical quantity summary | | $ 9,793 | |
| *3A.7* | *Geotechnical and Foundation Reports* | Prepare draft and final geotechnical, foundation, and materials reports to support project grading, roadway, and structural design | | | *$ 336,702* | |
| 3A.7.1 | Prepare Geotechnical Design Report | | Draft/Final Geotechnical Design Report | | $ 51,598 | |
| 3A.7.2 | Prepare Foundation Report | | Draft/Final Foundation Report | | $ 148,802 | |
| 3A.7.3 | Prepare Materials Report | | Draft/Final Materials Report | | $ 136,302 | |
| *3A.8* | *Bridge and Special Design Retaining Wall Plans (Unchecked Details)* | | | 65% design assumed to start immediately upno completion of Caltrans Initial review of type selection documents. | *$ 4,040,437* | |
| *3A.8.1* | *Prepare Plans* | Prepare unchecked plans for all Caltrans and City bridges and retaining walls in accordance with Caltrans plan formatting requirements and develop quantities | | Design to be initiated immediately upon Type Selection Report submittal. Elevated roundabout structure and LA River bridge are Ordinary Non-standard bridges and pedestrian bridges are Ordinary Standard bridges per Caltrans SDC. Existing soils are anticipated to be improved for bridge foundation analysis/design. Study/use of base isolation is not included. | $ 3,984,728 | |
| | Prepare Bridge Plans (LA River span) | | Notes, General plan, deck contours, foundation plans, abutment plans, bent plans, typical section, girder plans, LOTBs, draft details | | $ 1,427,746 | |
| | Prepare Bridge Plans (roundabout structure) | | | | $ 1,464,913 | |
| | Prepare Bridge Plans (bike/ped bridge) | | | | $ 493,024 | |
| | Prepare Bridge Plans (7th Street ped bridge) | | | Bridge falls outside of Caltrans jurisdiction and will be reviewed by City only | $ 415,913 | |
| | Prepare Retaining Wall Plans | | General plan, layouts, LOTBs | | $ 159,436 | |
| | Prepare removal plans for existing Shoemaker Bridge | | Layouts | Detailed removal plan to be prepared and submitted by Contractor, subject to review by the Engineer. | $ 23,696 | |
| 3A.8.2 | Prepare Updated Structures Cost Estimate | Develop quantities and prepare cost estimate for all structural elements | Quantity summary, cost estimate | | $ 55,709 | |
| *3A.9* | *Prepare Utility Plans* | | | | *$ 72,207* | |
| 3A.9.1 | Update conflict maps and matrix based on potholing results | Update conflict maps and matrix based on potholing results | Updated existing utilities base, conflict maps & matrix | | $ 15,373 | |
| *3A.9.2* | *Utility Coordination* | Conduct coordination with City and impacted third party owners in the development of detailed design plans for necessary relocations (to be prepared by third parties) | | Impacted 3rd party owners responsible for development of detailed design plans for their utility relocation. Sewer and water relocation plans to be prepared by HDR as part of Tasks 3B-5B. Assume 3 meetings with each owner during design development. Impacted 3rd party owners include SCE, Tidelines Oil, Verizon, LBGO, CRC. | $ 34,926 | |
| | Owners prepare relocation plans for impacted utilities (by others) | | Draft utility relocation plans (by others) | | $ 6,040 | |
| | Review relocation plans prepared by impacted 3rd party owners | | Comments on draft relocation plans | | $ 7,923 | |
| | Issue relocation letters to impacted utility owners | | Notice to Relocate letters | | $ 5,192 | |
| | Conduct workshops with impacted owners to review comments on relocation plans | | Workshop agenda, minutes, presentation materials, etc. | Assume 1 meeting each utility owner, 6 owners | $ 15,772 | |
| 3A.9.3 | Prepare 65% Utility Plans | Prepare utility plans for all work with Caltrans right of way and adjoining local streets in accordance with Caltrans plan formatting requirements | Utility layouts | | $ 21,907 | |
| *3A.10* | *Prepare Outline Specifications* | Identify SSPs and NSSPs to be included within project | Outline technical specifications | Caltrans package will utilize Caltrans Standard Specifications. HDR to provide SSP's and NSSP's | *$ 45,584* | |
| 3A.10.1 | Prepare roadway outline specifications | | | | *$ 4,742* | |
| 3A.10.2 | Prepare drainage and stormwater outline specifications | | | | *$ 4,190* | |
| 3A.10.3 | Prepare traffic outline specifications | | | | *$ 4,028* | |
| 3A.10.4 | Prepare electrical outline specifications | | | | *$ 2,433* | |
| 3A.10.5 | Prepare utility outline specifications | | | | *$ 2,992* | |
| 3A.10.6 | Prepare haz mat outline specifications | | | | *$ 5,970* | |
| 3A.10.7 | Prepare environmental outline specifications | | | | *$ 2,205* | |
| 3A.10.8 | Prepare structures outline specifications | | | | *$ 9,833* | |
| 3A.10.9 | Prepare architectural specifications | | | | *$ 9,191* | |
| 3A.11 | Prepare Draft Engineer's Estimate of Probable Construction Cost | Develop overall engineer's estimate for construction in Caltrans BEES format | Draft Engineer's Estimate of Probable Construction Cost in BEES format | Estimate shall be in BEES format unless instructed otherwise by City. | *$ 8,233* | |
| 3A.12 | Envision Certification | Certified Envision specialist to work with project team to incorporate City-directed Envision elements into project design and PS&E package | Envision compliance audit documentation | | | $ 11,982 |
| 4A | Initial PS&E (95%) Submittal for Caltrans Work | | | | $ 4,106,071 | $ 11,982 |
| *4A.1* | *95% Roadway Plans* | | | | *$ 386,462* | |
| *4A.1.1* | *Prepare 95% roadway plans* | Modify roadway design elements to address review comments and advance to 95% completion | Completed plans with construction details | | *$ 313,394* | |
| *4A.1.2* | *Prepare 95% Roadway Quantities and Cost Estimate* | Update quantities and cost estimate consistent with updated design. | Updated quantity summaries and Engineer's Estimate for Construction | | *$ 31,236* | |
| *4A.1.3* | *Prepare Draft Specification Special Provisions* | Prepare completed draft SSP s and NSSPs for elements identified as part of Task 3A.11 | Draft Specification Special Provisions | | *$ 76,231* | |
| *4A.2* | *Bridge and Special Design Retaining Wall PS&E* | | | | *$ 3,621,802* | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| *4A.2.1* | *Prepare Checked Structures Plans* | Update structures plans to address independent check comments and advance to completion | Completed structures plans with construction details | -Independent Check of elevated roundabout and LA River bridges and 95% Design to be initiated immediately upon 65% PS&E submittal.<br>-Elevated roundabout structure and LA River bridge are Ordinary Non-standard bridges and pedestrian bridges are Ordinary Standard bridges per Caltrans SDC. Existing soils are anticipated to be improved for bridge foundation analysis/design.<br>-Study/use of base isolation is not included. | *$ 3,403,452* | |
| | Shoemaker Bridge Plans (LA River span) | | | | $ 1,799,158 | |
| | Roundabout Structure Plans | | | | $ 1,327,873 | |
| | LA River Bike/Ped Structure Plans | | | | $ 102,821 | |
| | 7th Street ped bridge plans | | | | $ 79,626 | |
| | Nonstandard Retaining Wall Plans | | | | $ 82,355 | |
| | Removal Plans for existing Shoemaker Bridge | | | Detailed removal plan to be prepared and submitted by Contractor, subject to review by the Engineer. | $ 11,619 | |
| 4A.2.2 | Prepare structure specification special provisions | Prepare completed draft SSP s and NSSPs for elements identified as part of Task 3A.11 | Draft Structures Specification Special Provisions | | $ 131,736 | |
| 4A.2.3 | Update structures quantities and cost estimate | Update quantities and Engineer's Estimate consistent with 95% design. | Updated structures quantity summaries and Engineer's Estimate for Construction | | $ 15,060 | |
| 4A.2.4 | Prepare structural calculations | Compile structural design calculations completed as part of structures design development into binders in preparation for submittal to City and Caltrans | Calculations (PDF format) | | $ 71,553 | |
| 4A.3 | Prepare Construction Schedule | Prepare draft schedule for project construction | Draft Construction Schedule | | $ 12,087 | |
| 4A.4 | Update Storm Water Data Report | Update Storm Water Data Report to address comments received from Caltrans on draft submittal | Final Storm Water Data Report | | $ 18,000 | |
| 4A.5 | Prepare Environmental Commitments Record (ECR) | Prepare ECR to confirm that EIR/EA mitigations have been incorporated into the project design. | Updated ECR, Environmental commitment tracking system, draft & final report on project compliance | | $ 24,794 | |
| 4A.6 | Update Transportation Management Plan | Update Draft TMP to address Caltrans comments and finalize for approval | Final TMP | | $ 42,926 | |
| 4A.7 | Envision Certification | Certified Envision specialist to work with project team to incorporate City-directed Envision elements into project design and PS&E package | Envision compliance audit documentation | | | $ 11,982 |
| 5A | Final PS&E (100%) Submittal for Caltrans work | | | | $ 1,116,338 | $ 11,982 |
| *5A.1* | *Final PS&E* | -Prepare responses to agency comments on 95% submittal package and obtain concurrence on disposition<br>-Update/revise Draft PS&E package to address comments received and finalize for approval | | | $ 991,360 | |
| *5A.1.1* | *Final Roadway PS&E* | | | | *$ 183,579* | |
| *5A.1.1.1* | Prepare 100% roadway plans | | Response to comments matrices (one per agency) | | $ 138,023 | |
| *5A.1.1.2* | Prepare 100% Roadway Quantities and Cost Estimate | | Final plans, quantity summaries, Specification Special Provisions, and Engineer's Estimate | | $ 12,764 | |
| *5A.1.1.3* | Prepare Final Specification Special Provisions | | Response to comments matrices (one per agency) | | $ 32,792 | |
| *5A.1.2* | *Final Structures PS&E (SPS&E)* | | Final plans, quantity summaries, Specification Special Provisions, and Engineer's Estimate | -Final Design to be initiated immediately upon 95% PS&E submittal.<br>-Elevated roundabout structure and LA River bridge are Ordinary Non-standard bridges and pedestrian bridges are Ordinary Standard bridges per Caltrans SDC. Existing soils are anticipated to be improved for bridge foundation analysis/design.<br>-Study/use of base isolation is not included. | *$ 802,537* | |
| 5A.1.3 | Update Construction Schedule | Revise construction schedule to address City comments and reflect approved PS&E | Final construction schedule | | *$ 5,245* | |
| 5A.2 | Prepare Resident Engineer's File | Prepare RE file in accordance with Caltrans requirements | -Resident Engineer's file<br>-Flash drive of project CADD files (1 flash drive) | | *$ 41,825* | |
| 5A.3 | Prepare Materials Handouts | Prepare materials handouts in accordance with Caltrans requirements | Materials handouts | | *$ 26,045* | |
| 5A.4 | Prepare Paleontological Mitigation Plan | Prepare mitigation plan for contractor | Paleontological Mitigation Plan | | *$ 7,351* | |
| 5A.5 | Assist City in preparing bid documents | Assist City in preparing bid documents | | | *$ 15,717* | |
| 5A.6 | Prepare Survey File | Prepare contractor survey file in accordance with Caltrans requirements including roadway cross sections | Survey file including roadway cross sections | | *$ 34,040* | |
| 5A.7 | Envision Certification | Certified Envision specialist to work with project team to incorporate City-directed Envision elements into project design and PS&E package and prepare Certification Documentation Report to receive credits. | Envision Certification Compliance Report | | | *$ 11,982* |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| City PS&E Package for Pump Station, Landscaping, and Urban Design Work | | | | | $ 1,807,177 | |
| 3B | 65% PS&E Submittal for Pump Station, Landscaping, and Urban Design Work | | | Assumes separate construction contract package to be prepared for pump station and park elements outside of Caltrans jurisdiction | $ 757,206 | $ 34,344 |
| *3B.1* | *Prepare 65% Plans* | Prepare roadway plans and develop quantities for project elements falling within City jurisdiction in accordance with City plan formatting requirements based upon approved design concepts prepared as part of Task 2.11. | 65% Plans (no construction details) | Plans will be formatted in accordance with City plan formatting standards. | $ 608,217 | $ 26,956 |
| 3B.1.1 | Prepare General/Front End Plans | | | | $ 13,376 | |
| 3B.1.2 | Prepare Drainage/Stormwater Plans | | | Includes design of storm drainage and water quality features for park elements only. All street drainage to be covered in other PS&E package. Assumes all runoff is to be conveyed to LB MUST facility or to SD-01 pump station. | $ 42,767 | |
| 3B.1.3 | Prepare LID Report | LID report will identify permanent stormwater treatment facilities are to be incorporated in design package. | Draft LID Report | For implementation in City right of way only | $ 68,073 | |
| 3B.1.4 | Prepare Landscaping Plans | | | | $ 60,992 | |
| 3B.1.5 | Prepare Irrigation Plans | | | | $ 45,326 | |
| 3B.1.6 | Prepare Bike Path/Hardscape Plans | | | Hardscape plans assume no mechanical fountains or water features | $ 34,541 | |
| 3B.1.7 | Prepare Lighting & Electrical Plans | | | | $ 20,099 | |
| 3B.1.8 | Prepare contour grading plans | | | | $ 22,457 | |
| 3B.1.9 | Prepare utility plans | | | HDR to prepare plans for all City owned utilities including sewer and water. | $ 49,442 | |
| 3B.1.10 | Prepare wayfinding/signage plans | | | | $ 47,922 | |
| *3B.1.11* | *Prepare Pump Station Plans* | Prepare plans for proposed relocated SD-1 pump station based upon approved preliminary design prepared in Task 2.8. | | | $ 203,211 | $ 26,356 |
| | General Sheets | | | | $ 12,114 | |
| | Demolition Sheets | | | | $ 13,970 | |
| | Site Civil, Piping and Force Mains Plans and Details | | | | $ 17,589 | |
| | Architectural plans | | | | $ 39,816 | |
| | Structural plans | | | | $ 37,920 | |
| | Mechanical | | | | $ 20,125 | |
| | Cathodic Protection | | | | $ 4,561 | |
| | HVAC Plans | | | | $ 12,494 | |
| | Electrical Plans | | | | $ 21,572 | |
| | P&ID Plans | | | | $ 15,981 | |
| | COLB forms | | | | $ 3,834 | |
| | Standard plans | | | | $ 3,834 | |
| | LEED Silver | | | | | $ 26,356 |
| *3B.2* | *Prepare Outline Specifications* | Prepare outline general and technical specifications that will be needed to supplement the Green Book Standard Specs | Draft Outline General and Technical Specifications | -HDR is responsible for preparing supplemental specifications to the Green Book Standard Specifications or special provisions to the Standard Specifications as well as the bid list.<br>-City will provide boilerplate copy of general provisions to be reviewed and edited by HDR to fit this project.<br>-City will be responsible for the preparation of the overall project specifications to be included in construction bid package. | $ 86,580 | |
| 3B.2.1 | General Provisions | | | | $ 9,287 | |
| 3B.2.2 | Drainage/Stormwater | | | | $ 4,959 | |
| 3B.2.3 | Landscaping | | | | $ 2,560 | |
| 3B.2.4 | Irrigation | | | | $ 1,920 | |
| 3B.2.5 | Bike path/hardscape | | | | $ 3,938 | |
| 3B.2.6 | Lighting & Electrical | | | | $ 3,554 | |
| 3B.2.7 | contour grading | | | | $ 1,381 | |
| 3B.2.8 | Utilities | | | | $ 4,687 | |
| 3B.2.9 | Wayfinding & signage | | | | $ 3,148 | |
| *3B.2.10* | *Pump station* | | -Technical specifications outline table<br>-Summary of revisions required to General Provisions | | $ 51,116 | |
| *3B.3* | *Prepare Quantities and Engineers Estimate* | Prepare a draft Engineer's Estimate for Construction consistent with 65% design. | Backup quantity summaries by discipline and Engineer's Estimate for Construction | Cost estimate format will be agreed upon by City prior to initiating work. | $ 62,410 | |
| 3B.3.1 | Drainage/Stormwater | | | | $ 6,859 | |
| 3B.3.2 | Landscaping | | | | $ 2,850 | |
| 3B.3.3 | Irrigation | | | | $ 1,950 | |
| 3B.3.4 | Bike path/hardscape | | | | $ 3,026 | |
| 3B.3.5 | Lighting & Electrical | | | | $ 1,948 | |
| 3B.3.6 | contour grading | | | | $ 3,522 | |
| 3B.3.7 | Utilities | | | | $ 4,623 | |
| 3B.3.8 | Wayfinding & signage | | | | $ 6,866 | |
| *3B.3.9* | *Pump station* | | | | $ 30,774 | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| 3B.4 | Envision Certification | Certified Envision specialist to work with project team to incorporate City-directed Envision elements into project design and PS&E package | Envision compliance audit documentation | | | $ 7,988 |
| | | | | | | |
| 4B | Initial PS&E (95%) Submittal for Pump Station, Landscaping, and Urban Design Work | | | | $ 605,684 | $ 7,988 |
| *4B.1* | *Prepare 95% Plans* | Modify roadway design elements to address review comments and advance to 95% completion | Completed plans with construction details | | *$ 471,478* | |
| 4B.1.1 | Prepare General/Front End Plans | | | | $ 10,210 | |
| 4B.1.2 | Prepare Drainage/Stormwater Plans | | Will include Final LID Report with plans | | $ 43,785 | |
| 4B.1.3 | Prepare Landscaping Plans | | | | $ 50,986 | |
| 4B.1.4 | Prepare Irrigation Plans | | | | $ 35,426 | |
| 4B.1.5 | Prepare Bike Path/Hardscape Plans | | | | $ 80,796 | |
| 4B.1.6 | Prepare Lighting & Electrical Plans | | | | $ 12,786 | |
| 4B.1.7 | Prepare contour grading plans | | | | $ 45,537 | |
| 4B.1.8 | Prepare utilities plans | | | | $ 61,200 | |
| 4B.1.9 | Prepare wayfinding/signage plans | | | | $ 130,853 | |
| 4B.1.10 | *Prepare Pump Station Plans* | | | | $ 5,911 | |
| *4B.2* | *Prepare Draft Specifications* | Prepare draft front end General Provisions and technical specifications to supplement Green Book Standard Specs consistent with 95% design. | Draft front end and technical specifications | HDR is responsible for preparing supplemental specifications to the Green Book Standard Specifications or special provisions to the Standard Specifications as well as the bid list. City will provide boilerplate copy of general provisions to be reviewed and edited by HDR to fit this project. City will be responsible for the preparation of the overall project specifications to be included in construction bid package. | $ 106,669 | |
| 4B.2.1 | General/Front end | | | | $ 16,045 | |
| 4B.2.2 | Drainage/Stormwater | | | | $ 11,289 | |
| 4B.2.3 | Landscaping | | | | $ 7,740 | |
| 4B.2.4 | Irrigation | | | | $ 6,120 | |
| 4B.2.5 | Bike path/hardscape | | | | $ 11,440 | |
| 4B.2.6 | Lighting & Electrical | | | | $ 10,344 | |
| 4B.2.7 | contour grading | | | | $ 8,891 | |
| 4B.2.8 | Wayfinding & signage | | | | $ 10,123 | |
| 4B.2.9 | *Pump station* | | | | $ 29,715 | |
| *4B.3* | *Prepare Updated Quantities and Engineers Estimate* | Update quantities and Engineer's Estimate consistent with 95% design. | Updated quantity summaries and Engineer's Estimate for Construction | | *$ 27,537* | |
| 4B.3.1 | Drainage/Stormwater | | | | $ 2,099 | |
| 4B.3.2 | Landscaping | | | | $ 1,350 | |
| 4B.3.3 | Irrigation | | | | $ 1,050 | |
| 4B.3.4 | Bike path/hardscape | | | | $ 1,513 | |
| 4B.3.5 | Lighting & Electrical | | | | $ 1,672 | |
| 4B.3.6 | contour grading | | | | $ 2,831 | |
| 4B.3.7 | Wayfinding & signage | | | | $ 1,882 | |
| 4B.3.8 | *Pump station* | | | | $ 15,139 | |
| 4B.4 | Envision Certification | Certified Envision specialist to work with project team to incorporate City-directed Envision elements into project design and PS&E package | Envision compliance audit documentation | | | $ 7,988 |
| 5B | Final PS&E (100%) Submittal for Pump Station, Landscaping, and Urban Design Work | | | | $ 373,998 | $ 27,957 |
| *5B.1* | *Prepare 100% Plans* | Revise plans to address agency comments on 95% design and advance to completion for City approval. | Final plans for approval | | *$ 294,540* | |
| 5B.1.1 | Prepare general/front end plans | | | | $ 4,788 | |
| 5B.1.2 | Prepare Drainage/Stormwater Plans | | | | $ 22,744 | |
| 5B.1.3 | Prepare Landscaping Plans | | | | $ 20,201 | |
| 5B.1.4 | Prepare Irrigation Plans | | | | $ 16,063 | |
| 5B.1.5 | Prepare Bike Path/Hardscape Plans | | | | $ 39,550 | |
| 5B.1.6 | Prepare Lighting & Electrical Plans | | | | $ 8,344 | |
| 5B.1.7 | Prepare contour grading plans | | | | $ 19,565 | |
| 5B.1.8 | Prepare wayfinding/signage plans | | | | $ 31,700 | |
| 5B.1.9 | *Prepare Pump Station Plans* | | | | $ 131,585 | |
| *5B.2* | *Prepare Final Specifications* | Revise specifications to address agency comments on draft submittal and advance to completion for City approval. | Final front end and technical specifications | | *$ 54,249* | |
| *5B.3* | *Prepare Final Quantities and Engineers Estimate* | Update quantities and Engineer's Estimate consistent with 100% design. | Updated/final structures quantity summaries and Engineer's Estimate for Construction | | $ 25,209 | |
| 5B.4 | Envision Certification | Certified Envision specialist to work with project team to incorporate City-directed Envision elements into project design and PS&E package and prepare Certification Documentation Report to receive credits. | Envision Certification Compliance Report | | | $ 27,957 |
| City PS&E Package for for Early Action Utility Relocations | | | | | $ 113,829 | |
| 4C | Initial PS&E (95%) Submittal for Early Action Utility Relocations | | | Assumes separate construction contract package to be prepared for sewer and water relocations outside of Caltrans R/W | $ 77,497 | $ - |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| *4C.1* | *Prepare 95% Plans* | Modify roadway and sewer relocations elements to address review comments and advance to 95% completion | Completed plans with construction details | Plans will be formatted in accordance with City plan formatting standards. | $ 53,432 | |
| 4C.1.1 | Prepare General/Front End Plans | | | | $ 16,765 | |
| 4C.1.2 | Prepare utility plans | | | Includes design of sewer and wate relocations outside of Caltrans R/W only. | $ 36,666 | |
| *4C.2* | *Prepare Draft Specifications* | Prepare draft front end General Provisions and technical specifications to supplement Green Book Standard Specs consistent with 95% design. | Draft front end and technical specifications | HDR is responsible for preparing supplemental specifications to the Green Book Standard Specifications or special provisions to the Standard Specifications as well as the bid list. | $ 634 | |
| 4C.2.1 | General/Front end | | | City will provide boilerplate copy of general provisions to be reviewed and edited by HDR to fit this project. | $ 641,186 | |
| 4C.2.2 | Erosion control | | | | $ 532,907 | |
| 4C.2.3 | Utilities | | | City will be responsible for the preparation of the overall project specifications to be included in construction bid package. | $ 52,802 | |
| *4C.3* | *Prepare Quantities and Engineers Estimate* | Update quantities and Engineer's Estimate for sewer and water relocations consistent with 95% design. | Draft quantity summaries and Engineer's Estimate for Construction | Cost estimate format will be agreed upon by City prior to initiating work. | $ 2,912 | |
| 5C | Final PS&E (100%) Submittal for Early Action Utility Relocations | | | | $ 36,392 | |
| *5C.1* | *Prepare 100% Plans* | Revise plans to address agency comments on 95% design and advance to completion for City approval. | Final plans for approval | | $ 26,890 | |
| 5C.1.1 | Prepare General/Front End Plans | | | | $ 7,751 | |
| 5C.1.2 | Prepare utility plans | | | | $ 19,140 | |
| *5C.2* | *Prepare Final Specifications* | Revise specifications to address agency comments on draft submittal and advance to completion for City approval. | Final front end and technical specifications | | $ 8,808 | |
| 5C.2.1 | General/Front end | | | | $ 4,225 | |
| 5C.2.2 | Erosion control | | | | $ 648 | |
| 5C.2.3 | Utilities | | | | $ 3,934 | |
| *5C.3* | *Prepare Final Quantities and Engineers Estimate* | Update quantities and Engineer's Estimate consistent with 100% design. | Updated/final structures quantity summaries and Engineer's Estimate for Construction | | $ 634 | |
| 6 | Right of Way Services | | | | $ 641,186 | $ - |
| *6.1* | *Right of Way Engineering* | | | | $ 532,807 | |
| 6.1.1 | Review Existing Right of Way Mapping and Supplement as Necessary | | Updated right of way base mapping | | $ 52,802 | |
| *6.1.2* | *Document Right of Way Requirements* | | | | $ 359,788 | |
| | Perform Record Data Search | Search ownership of impacted properties, analyze ownership deeds, field notes, and survey maps contained in State, County, and City files | | | $ 26,966 | |
| | Acquire Title Reports | Obtain title reports for all parcels impacted by proposed R/W requirements. | Title Reports for impacted properties | | $ 22,044 | |
| | Perform Land Net Recovery and Field Ties | Field and related survey effort necessary to search, recover, describe, and tie-in controlling land survey monuments. | Survey data | | $ 50,000 | |
| | Prepare Land Net Map - "Before Condition" Record of Survey | Activity required by Professional Land Surveyors Act and involves production and filing of "Before Condition" Record of Survey. | Record of Survey | | $ 65,000 | |
| | Prepare Monument Perpetuation Surveys | Activity required by Professional Land Surveyors Act and involves:<br>-Preparation of lists of monuments threatened with destruction<br>-Referencing threatened monuments with tie-outs for perpetuation through construction<br>-Setting replacement monuments after construction to effect said perpetuation | -List of threatened existing monuments<br>-Set replacement monuments | Activity assumed to be completed by contractor post- construction. | $ - | |
| | Prepare Right of Way Maps | Prepare maps documenting proposed Caltrans rights of way in post-project condition and submit to Caltrans for approval and filing | Right of way maps | | $ 74,992 | |
| | Prepare Property Acquisition Documents | Prepare Plats & Legal Descriptions for all right of way needs by parcel | Plats & Legal Descriptions | | $ 120,785 | |
| 6.1.3 | Prepare ROW/Utility Certification documents | To compile required information needed to convey to Caltrans that right of way being transferred to State is free of any encumberances. | R/W Certification binder | Right of way cert binder to be prepared in accordance with Caltrans requirements. | $ 57,261 | |
| 6.1.4 | Right of Way Design Support | To support R/W requirements, prepare R/W exhibit for each impacted parcel showing R/W needs, cover letters that describe TCE needs, and coordinate with Caltrans on preparation of PD-26 packages for R/W appraisal maps. | Right of way needs exhibits for impacted parcels, cover letters | | $ 62,957 | |
| *6.2* | *Right of Way Appraisal and Acquisition Services* | | | | $ 108,379 | |
| 6.2.1 | Right of Way Mapping Review | Review appraisal and right of way needs maps to understand property requirements. | | | $ 4,242 | |

**Attachment 2**
**Shoemaker Bridge PS&E**
**PS&E Task Listing and Responsibility Matrix (Revised January 2021)**

| Task No. | Task Description | Description of Key Activities | Deliverables | Notes/Assumptions | Baseline Cost | Optional Cost |
|---|---|---|---|---|---|---|
| *6.2.2* | *Conduct Property Appraisals* | Conduct appraisals of impacted properties to determine acquisition costs | | | *$ 12,001* | |
| | Appraisal Coordination - Fee Appraisal | | Property appraisals | | $ 4,242 | |
| | Appraisal Coordination - Independent Appraisal Review | | | | $ 3,880 | |
| | HDR reviews original appraisal and intendent appraisal review | | | | $ 3,880 | |
| *6.2.3* | *Preparation and Approval of Offer Packages* | | | | *$ 15,520* | |
| | Prepare draft offer packages and submit to City | See task description | Property offer packages (1 per property) | | $ 10,106 | |
| | Coordinate with City in review and approval of offer packages | See task description | | | $ 5,414 | |
| 6.2.4 | Provide support to City in good faith negotiations | See task description | | | $ 12,451 | |
| 6.2.5 | Condemnation Support | Provide support to City during property condemnation process (if needed) | | | $ 11,552 | |
| 6.2.6 | Escrow Coordination | Provide support to City in coordinating with escrow company during property purchase process | | | $ 7,760 | |
| 6.2.7 | Secure Legal Possession | Provide support to City in securing legal possession of acquired properties. | | | $ 5,414 | |
| 6.2.8 | Property owner coordination meetings | | | Assume 10 meetings attended by up to three (3) HDR staff as appropriate | $ 39,439 | |
| | | | | | | |
| 7 | Permitting Services and Other Support Services | | | | *$ 358,218* | |
| 7.1 | Prepare Caltrans Encroachment Permit for PS&E phase | Allows for access into State right of way by project staff during PS&E phase to conduct field reviews etc. | Encroachment permit applications and executed permits | | $ 9,678 | |
| 7.2 | Prepare NPDES General Construction Activity Stormwater Permit | Permit for discharge of waste and pollutants into surface waters. Issued to maintain quality of surface wters and check that projects to not impact water quality. | Permit application and secured permit | | $ 16,299 | |
| 7.3 | Prepare Environmental Regulatory Permits for Construction | See task description | 401, 404, 408, and 1602 Permit applications and Coastal Development Permit, CZMA Consistency Certification, CDP application for consistency determination | | $ 158,066 | |
| 7.4 | Facilitate execution of cooperative agreement between City and Caltrans | HDR will support City with execution of cooperative agreement between City and Caltrans for both final design and construction phases of project. | Executed cooperative agreement | | $ 12,710 | |
| 7.5 | Execute Section 214 agreement between City/Metro and USACE | Section 214 agreement provides City with mechanism to fund USACE for their staff to provide project oversight. | Permit requirements technical memorandum, executed Section 214 agreement | | $ 17,200 | |
| 7.6 | Obtain utility owner approvals and agreements for construction | HDR will support City in obtaining agreements with impacted 3rd party utility owners for the relocations of their facilities as part of project either ahead of or as part of construction. | | | $ 15,413 | |
| 7.7 | Obtain public agency approvals and agreements for construction | HDR will support City in obtaining necessary agreements and approvals from participating 3rd party agency for project construction. | -HDP Permit Application from Port of Long Beach<br>-Construction Work Discharge Permit from the LA Sanitation District of Los Angeles<br>-Building permit for pump station<br>-Caltrans Encroachment Permit for Construction | -Required prior to any ground breaking activities<br>-Application to occur prior to construction | $ 27,569 | |
| 7.8 | Public Outreach and Social Media Support Services | Provide support to the City in conducting public outreach services during final design including the use of social media platforms to provide public information and project updates. | Meeting exhibits, boards, etc. | Assumes public outreach effort will be led by City. | $ 71,328 | |
| 7.9 | Provide grant application preparation and cost/benefit analysis support services | Assist the City in preparing grant applications to seek funding for construction. | Grant applications; cost/benefit analysis worksheets, summaries etc. | | $ 29,954 | |
| 8 | Bid Support Services | Provide technical support services to the City during the bidding phase of the two construction contracts including the specific tasks listed. | | | $ 138,073 | |
| *8.1* | *Caltrans Construction Contract* | | | | *$ 46,731* | |
| 8.1.1 | Attend Pre-Bid Meeting | See task description | | | $ 5,491 | |
| 8.1.2 | Respond to Bidder Inquiries | See task description | Written responses | | $ 37,129 | |
| 8.1.3 | Prepare Bid Addenda | See task description | Bid addenda | | $ 19,571 | |
| *8.2* | *City Construction Contract* | | | | *$ 75,882* | |
| 8.1.1 | Attend Pre-Bid Meeting | See task description | | | $ 9,768 | |
| 8.1.2 | Respond to Bidder Inquiries | See task description | Written responses | | $ 44,046 | |
| 8.1.3 | Prepare Bid Addenda | See task description | Bid addenda | | $ 22,069 | |

| | | |
|---|---|---|
| **Labor Total** | **$ 20,629,545** | **$ 773,393** |
| **ODC Total** | **$ 264,185** | |
| **Grand Total** | **$ 20,893,731** | **$ 773,393** |
| **HDR Escalation** | **$ 883,111** | |
| **Grand Total with Escalation** | **$ 21,776,842** | **$ 22,550,235** |

Exhibit "C-1"
City's Representative is Keith Hoey,
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