

Amendment to Standard City of San José Consultant Agreement
(Capital Projects)

- First**
 Second
 Third

Consultant's Name: HMH Engineers

(CPMS Contract No. N/A)
(Standard Agreement AC No. 660880)

This Amendment is made and entered into this _____ day of _____, 2018. The City and Consultant amend the above-referenced agreement as set forth herein.

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1. Capitalized words in this Amendment have the same meaning as in the Agreement.
 2. The provisions of this Agreement and any previous amendments not modified by this Amendment remain in full force and effect.
 3. The provisions of this Amendment are effective upon execution of the Amendment by both parties.
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4. **Agreement Term:** Subsection 2.1 is amended to extend the expiration date from June 30, 2018 to December 31, 2021.
 5. **Maximum Total Compensation:** Subsection 10.1 is amended to Increase Decrease the Maximum Total Compensation from \$1,585,100 to \$5,363,700.
 6. **Agreement Section(s):**
Section(s) _____ is/are amended to read as set forth in Attachment A of the Amendment.
 7. **Scope of Basic Services – Exhibit A:** The original First Revised Second Revised Exhibit A is amended to read as set forth in the attached First Second Third Revised Exhibit A, which is incorporated by reference into this Amendment.
 8. **Compensation – Exhibit B:** The original First Revised Second Revised Exhibit B is amended to read as set forth in the attached First Second Third Revised Exhibit B, which is incorporated by reference into this Amendment.
 9. **Schedule of Performance – Exhibit C:** The original First Revised Second Revised Exhibit C is amended to read as set forth in the attached First Second Third Revised Exhibit C, which is incorporated by reference into this Amendment.
 10. **Additional Service:** The Consultant is authorized to perform the Additional Services set forth in the attached Additional Services Exhibit, which is incorporated by reference into this Amendment.
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This Amendment is executed by the authorized representatives of the City and Consultant as follows:

City of San José

By _____

Name: TONI J. TABER **Date**
Title: City Clerk

Consultant

By _____

Name: WILLIAM J. WAGNER **Date**
Title: Vice President

Approval as to Form (City Attorney):

Form Approved by the Office of the City Attorney.

(Maximum Total Compensation, as amended, is \$100,000 or less, and the provisions of the form are not altered.)

Approved as to Form:

By _____

Name: DAVID WILSON **Date**
Title: President

JON CALEGARI **Date**
[Sr.] Deputy City Attorney

- First**
 Second
 Third

Revised Exhibit A: Scope of Basic Services

(Capital Project)

This revised Exhibit A is an attachment to the First Second Third amendment to Agreement.

The tasks set forth in the original Exhibit A, or in any previous amendment to the original Exhibit A, are amended to include the following tasks as follows:

General Description of the Project: The City proposes to improve the US 101/Blossom Hill Road interchange to conform with the Envision San José 2040 General Plan and the Edenvale Area Development Policy. The project will include the installation of a Class I bicycle and pedestrian facility connecting Monterey Road and the Coyote Creek Trail; reconfiguration, additional lanes or signal modifications of the interchange on/off ramps as described in the Edenvale Area Development Policy (April 2014 Update); reconfiguration to increase eastbound weaving distance between the Monterey Road connector and US 101 southbound on-ramp; and construction of a bridge structure over US 101 between the two existing Blossom Hill Road bridge decks to accommodate the addition of a lane in each direction. The Class I bicycle and pedestrian facility connecting Monterey Road and the Coyote Creek Trail will include undercrossing structures beneath the southbound off-ramp and the southbound loop on-ramp and an overcrossing over the northbound on-ramp, which will be lowered in grade to allow adequate clearances.

The planning and design for the US 101/Blossom Hill Road Interchange Improvement Project consists of phases in accordance with California Department of Transportation (Caltrans) Project Development Procedures Manual (PDPM). The phases generally include services related to the preparation of the Project Initiation Document (PID), the Project Approval and Environmental Document (PA&ED), Right of Way (ROW), and Plans, Specifications and Cost Estimates (PS&E), all as required by Caltrans prior to construction.

This Agreement includes services for the planning, analysis, technical reports and document, preparation necessary for the Caltrans PID, PA&ED public outreach and preliminary engineering (30% PS&E) as modified by City in the Adjustment of Costs/Tasks letter dated December 21, 2017. The amendment adds engineering services for the ROW and PS&E phases, and for Consultant's support of the City during Construction phase. The ROW and PS&E scope of services is based upon preparation of a single construction contract package that will be advertised, awarded and administered (AAA) by the City.

More specifically, the Consultant shall provide the following services:

PHASE 2: TASK 3 – PLANS, SPECIFICATIONS AND ESTIMATES - PRELIMINARY PS&E (60%)

Consultant will be responsible for project organization and monitoring. This involves planning the work program, organizing the team personnel to implement the program, monitoring the team's progress, and controlling the quality of the work products to complete the project on time and within budget.

3.1-1 Project Management

Consultant will continue project management activities initiated in Phase 1 throughout Phase 2, including 60%, 90% and 100% PS&E. This will include monitoring and tracking task activities, development and

maintenance of a critical path method (CPM) design schedule, preparing progress reports and communicating project management issues with the City and Caltrans. The progress reports will be provided on a template approved by the City and be of sufficient detail to track the project status and contract expenditures on a monthly basis.

3.1-2 Project Coordination

Consultant will provide coordination with the City, Caltrans, other agencies and its subconsultants for performance of the services including preparation of 60%, 90% and 100% PS&E. This will include regular communication and coordination among the parties to share project information, identify critical issues, make recommendations and assign tasks to maintain progress. Project files will be maintained and information provided as needed.

3.1-3 Meetings

The work program will include monthly team meetings or conference calls with the City and Caltrans Project Development Team (PDT) members to communicate project goals, design criteria, schedules and budgets. The purpose of the PDT meetings will be to provide a forum to share project information, identify critical issues, make decisions, assign project tasks, review the project schedule, estimates and budget or any other items critical to project delivery. Design workshop meetings will also be conducted with the City and Caltrans to review and discuss design criteria and proposed design features with technical specialists and functional units. A log of data requests and submittal status will be maintained and minutes will be taken at meetings summarizing topics discussed, decisions made and actions to be taken. Meeting minutes will be distributed to participants and appropriate affected parties.

A Risk Management Matrix will be prepared and updated periodically, and presented to the PDT for review and comment.

Deliverables: Meeting agendas and minutes
Schedules, submittal and action item logs
Risk Management Matrix

3.1-4 QC/QA Management

Consultant will maintain and implement its Quality Control/Quality Assurance (QC/QA) Plan to establish procedures for checking work including establishing appropriate levels of design development for intermediate submittals, identification of plan check procedures, design checklists, calculation checking and methods of project documentation. The QC/QA Plan will be adopted by and complied with by subconsultants, unless the subconsultant commits to compliance with its own equivalent in-house quality plan. Consultant will perform reviews of draft deliverables by subconsultants for consistency and clarity, and will require audits of subconsultants quality control activities to confirm compliance with the QC/QA Plan.

3.1-5 Public Outreach

Consultant will continue outreach effort required for the project during final design and prior to construction including efforts for website updates and community stakeholder meetings. Consultant and subconsultant Apex Strategies will assist the City in planning and implementing a public information program to allow for consistent communication with stakeholders. It is anticipated that two community meetings will be included, one meeting early in the project to communicate updated project elements and potential aesthetic or context sensitive features, and a second meeting prior to construction to explain construction methods and staging requirements. Consultant will prepare presentation materials, including slideshows and display boards, and coordinate with City staff who will be responsible for scheduling and other

logistics. A written community meeting summary will be provided for each meeting and comments will be summarized by Consultant.

3.2-1 Supplemental Surveys

Consultant will conduct supplemental field topographic surveys to obtain locations of utility surface facilities, and inverts of accessible storm drain manholes, inlets and sanitary sewer manholes. Obtain locations and sizes of significant trees and other existing features that may affect the design. Obtain existing pavement elevations at points of conform and other spot elevations to check the elevations shown on the aerial topographic map.

Deliverables: Survey data plots and notes

3.2-2 Utility Coordination

Consultant will engage Associated Right of Way Services (ARWS) to serve as a Caltrans qualified Utility Coordinator on behalf of the City. ARWS will assist Consultant in contacting utility providers in the area to review the existing utility location versus the proposed improvements. Consultant will discuss preliminary conflicts with each utility provider, and coordinate regarding proposed solutions/relocations.

As part of this coordination, Consultant will prepare exhibits showing relocation of utilities which are affected by the project, such as water, sewer, gas, electric, cable TV, and telephone. Subconsultant ARWS will coordinate with the Caltrans Utility Coordinator and prepare utility relocation documents, including requests for information, claim of liability, report of investigation, determination of liability, report of investigation, notice to owner and utility agreements for relocations. Relocation plans for third-party utility facilities will be prepared by others.

Consultant will provide potholing, including providing horizontal and vertical surveys to locate high-priority utilities in accordance Caltrans Utility Policy. Pothole survey and excavation shall be limited to ten locations.

Deliverables: Utility coordination summaries, notices, documents, exhibits and communication notes
Pothole plans and exhibits

3.3 Preliminary Plans, Specifications and Estimate (Preliminary PS&E - 60%)

As part of Task 3, Consultant will provide a written response to 30% Submittal review comments received from the City, Caltrans and other agencies, and provide responses to the comments. Consultant will conduct a comment resolution meeting or conference call with the City, Caltrans and other agencies to resolve comments and issues from 30% Submittal review. Consultant will incorporate the agreed upon comments received from the City, Caltrans and other agencies and will prepare Preliminary PS&E (60%) documents.

3.3-1 Plan Sheets

Consultant will prepare Plan Sheets in English units in accordance with Caltrans requirements. Highway design plans will contain some or all of the following sheets:

- Title Sheet
- Typical Cross Sections
- Project Control and Monumentation
- Key Map and Line Index

- Layout
- Profile and Superelevation Diagrams
- Construction Details
- Contour Grading
- Temporary Water Pollution Control
- Temporary Water Pollution Control Details
- Erosion Control
- Erosion Control Details
- Drainage Plan
- Drainage Profiles
- Drainage Details
- Drainage Quantities
- Utility Plan
- Utility Details
- Utility Quantities
- Stage Construction Traffic Handling Plan
- Detour Plans
- Construction Area Signs
- Pavement Delineation Plan
- Pavement Delineation Quantities
- Summary of Quantities
- Sign Plan
- Sign Details
- Sign Quantities
- Sign Materials Summary
- Signal, Lighting and Electrical Systems Plans and Details
- Sound Wall Plans (standard soundwalls)
- Planning and Irrigation Plans, Schedules and Details

A set of structure plans (overcrossing, bike /pedestrian overcrossing and undercrossings and retaining walls) will be prepared in accordance with Caltrans Bridge Manual and contain some or all of the following sheets:

- Bridge General Plan
- Abutment Plan and Elevation
- Abutment Details

- Bent Details
- Girder Layout
- Girder Details
- Deck Contours
- Typical Section
- Foundation Plan
- Structural Approach Slab
- Structural Approach Drainage Details
- Retaining Wall Plans (non-standard walls)
- Slope Paving
- Log of Test Borings

Deliverables: 60% Highway Plans
60% Replacement Planting Plans
60% Structure Plans

3.4 Specifications and Special Provisions

Consultant will review Caltrans Standard Specifications dated 2015 or later, the latest Revised Standard Specifications (RSS), applicable Caltrans Standard Special Provisions, and relevant City of San Jose Standard Specifications and Standard Details for items outside Caltrans right-of-way.

For all work items included in construction of the project, Consultant will prepare drafts of modifications to the Standard Special Provisions, to address project specifics and incorporate provisions of relevant City of San Jose Specifications for items maintained by the City or outside Caltrans right-of-way. These Draft Special Provisions will be combined with the general provisions provided by the City, including the RSS as an appendix, for the Preliminary PS&E (60%) Submittal.

Deliverables: Draft Special Provisions (60%)

3.5 Construction Quantities and Cost Estimate

Consultant will update the estimate of Construction Quantities and Cost Estimates to reflect design development from 30% Submittal to Preliminary PS&E (60%). The estimate will be prepared in a format acceptable to the City and Caltrans.

Deliverables: Estimate of Probable Construction Cost (60%).

3.6 Geotechnical Reports

3.6-1 Geotechnical Design Report and Materials Report

Consultant's subconsultant Parikh Consultants will prepare a combined Materials Geotechnical Design and Report for the roadway and embankments in accordance with Caltrans current requirements. This will include:

- **Research and Data Collection:** Review of additional available geologic and soil literature in the vicinity of the site including review of any as-built drawings. Previous explorations will be used as appropriate.
- **Field Exploration:** Perform two deep (35-45 feet) borings for sign structures and approximately eight shallow R-value borings to a depth of five feet for the roadway work including ramps and paths at locations selected based upon the available access and boring data from previous studies. Classify and continuously log subsurface soil conditions encountered in each test boring at the time of drilling. Obtain "relatively undisturbed" and bulk samples of substrata from test borings. The borings will be drilled and capped in accordance with the permit requirements.
- **Laboratory Testing:** Perform laboratory tests on representative soil samples such as moisture and density, gradation analyses, Plasticity Index test, R-value tests, and corrosion tests, as necessary.
- **Soils Analysis/Evaluation:** Perform engineering analyses and develop design recommendations for the embankments, pavement design, sign foundations and retaining walls. Traffic Index will be provided by the City.
- **Prepare Draft Geotechnical Design and Materials Report:** Prepare detail report including design recommendations for roadway pavement sections for the ramps and the trail. R-value borings will be tabulated and no special Log of Test Borings (LOTB) will be prepared. Alternative storm drain pipe material analyses will be conducted based on soil corrosivity and hydraulic considerations. Prepare final report based on review comments and any updates subsequent to the draft report and assist design team during design review process and attend meetings.

3.6-2 *Foundation Reports for Blossom Hill Road Overcrossing, Bike /Pedestrian Overcrossing and two Bike/Pedestrian Undercrossings*

Consultant's subconsultant Parikh Consultants will prepare a foundation report and log of test borings for the proposed overcrossing widening and each of the bike/pedestrian structures:

- **Research and Data Collection:** Consultant will review readily available geologic and soil literature in the vicinity of the site including review of the previous LOTB. Parikh Consultants has the LOTB from previous investigations performed in 2003.
- **Field Exploration:** The proposed exploration program will include;
 - **Blossom Hill Road Overcrossing:** Conduct two Cone Penetrometer Tests (CPT) to a depth of 120 feet near the abutments. A truck mounted CPT rig is anticipated for this work, including classifying and continuously logging subsurface soil conditions electronically. Obtain "relatively undisturbed" samples of substrata from CPT's. The CPT's will be drilled and capped in accordance with the permit requirements.
 - **Bike/Pedestrian Overcrossing:** Conduct two borings to a depth of 80 feet and two CPT. A truck mounted drill rig and a truck mounted CPT rig are anticipated for this work, including classifying and continuously logging subsurface soil conditions encountered in each test boring or CPT at the time of drilling. Obtain "relatively undisturbed" and bulk samples of substrata from test borings. The borings and CPT's will be drilled and capped in accordance with the permit requirements.
 - **Bike/Pedestrian Undercrossings:** Conduct a total of three borings to a depth of approximately 100 feet. A truck mounted drill rig is anticipated for this work, including classifying and continuously logging subsurface soil conditions encountered in each test boring at the time of drilling. Obtain "relatively undisturbed" and bulk samples of substrata from test borings. The borings will be drilled and capped in accordance with the permit requirements.

- **Laboratory Testing:** Perform limited laboratory tests on bulk samples from the CPT probes and borings. Previous LOTB included laboratory test data which we will be utilized.
- **Engineering Analysis/Evaluation:** Perform engineering analyses and develop design recommendations for the proposed bridge foundation system. The footprint for the widening is limited by adjacent structures, therefore the foundation system will have to be carefully selected to meet project constraints. Alternate foundation systems such as CIDH piles, CISS piles or Caltrans Standard piles will be discussed. Parikh will discuss considerations, evaluate the liquefaction potential and comment on the site soil conditions. Information related to Caltrans Seismic design criteria (SDC v 1.7 - 2010 and updates 2012 version) will be provided. Information related to the revised Seismic Design Guidelines (2010) and the ARS curves will be provided.
- **Prepare Draft and Final Foundation Reports:** Prepare preliminary recommendations for the proposed bridge foundations including results of the analyses. The format will follow current Caltrans guidelines for preparing Bridge Foundation reports. Using the general plan as a base map, provide boring logs using the standard Caltrans LOTB sheets. Convert the previous LOTB sheets (Metric) to the current standards in English units as the previous work was not finalized. Prepare final report including design recommendations for the bridge foundation based on review comments and any updates subsequent to the draft report preparation.

3.6-3 Foundation Reports for Non-Standard Retaining Walls

Consultant's subconsultant Parikh Consultants will prepare a foundation report and log of test borings for each of the three non-standard retaining walls:

- **Research and Data Collection:** Consultant will review readily available geologic and soil literature in the vicinity of the site including review of the previous LOTB. Parikh Consultants has the LOTB from previous investigations performed in 2003.
- **Field Exploration:** The proposed exploration program will include conducting a total of five borings to a depth of approximately 40-45 feet. A truck mounted drill rig is anticipated for this work, including classifying and continuously logging subsurface soil conditions encountered in each test boring at the time of drilling. Obtain "relatively undisturbed" and bulk samples of substrata from test borings. The borings will be drilled and capped in accordance with the permit requirements.
- **Laboratory Testing:** Perform limited laboratory tests on bulk samples from the borings. Previous LOTB included laboratory test data will be utilized.
- **Engineering Analysis/Evaluation:** Perform engineering analyses and develop design recommendations for the three non-standard retaining walls. Alternate retaining wall types including MSE, soil nail, ground anchored and cantilever will be discussed. Parikh will discuss considerations, evaluate the liquefaction potential and comment on the site soil conditions.

Prepare Draft and Final Foundation Reports: Prepare a separate draft and final foundation report for each of the three non-standard retaining walls including recommendations for foundations including results of the analysis.

3.6.4 Aerial Deposited Lead (ADL) and Asbestos Report

Consultant subconsultant Geocon will prepare draft and final Preliminary Site Investigation Reports to investigate for hazardous materials in accordance with Caltrans procedures. A work plan and Health and Safety plan will be prepared for review and approval prior to field investigations. The draft and final Preliminary Site Investigation Reports will address:

- Soil and groundwater sampling for drilled foundations of bridges and retaining walls, including borings up to 20 feet deep, laboratory analysis and testing for heavy metals, total petroleum hydrocarbons and volatile organic chemicals.
- Aerial deposited lead (ADL), naturally occurring asbestos (NOA), pesticide sampling for drilled foundations of bridges and retaining walls, including shallow borings 2.5 feet deep, laboratory analysis and testing for ADL, NOA, pesticides, heavy metals and total petroleum.
- Asbestos and lead paint surveys on the existing bridge structure and soundwalls, including laboratory analysis and testing for asbestos and lead.

Submit draft and final Preliminary Site Investigation Reports to City and Caltrans for review and approval.

Deliverables: Draft and Final Geotechnical Design and Materials and Report
Draft and Final Foundation Reports for Blossom Hill Road Overcrossing, Bike /Pedestrian Overcrossing and two Bike/Pedestrian Undercrossings
Draft and Final Foundation Reports for Non-Standard Retaining Walls
Draft and Final Preliminary Site Investigation Reports for hazardous materials.

3.7 Design Reports

Update Design Reports: Consultant will respond to Caltrans comments on the Draft Design reports, complete agreed upon revisions, and prepare the Final Design Reports for resubmittal:

- Preliminary Drainage Report: Consultant will prepare a preliminary drainage report of local drainage and overland flow conditions, historic drainage information, hydraulic analysis, proposed systems and permanent water quality Best Management Practice (BMP) features, and alteration of other agency's facilities.
- Transportation Management Plan (TMP): Consultant will update the Transportation Management Plan identifying TMP elements to minimize construction-related congestion impacts and mitigate those impacts where appropriate through outreach and awareness strategies. This will include a review of traffic control restrictions, recommendations for anticipated lane closures, construction staging/traffic requirements, and a review of construction strategies. The Report will be prepared using Caltrans latest TMP Guidelines.
- Storm Water Data Report (SWDR) and Treatment BMP Checklists. Consultant will prepare a Storm Water Data Report and Treatment BMP Checklists in accordance with current Caltrans standards.
- Preliminary Construction Schedule: Consultant will prepare a Preliminary Construction Schedule or the project based on the data developed by Consultant in Section 3. The schedule will be prepared using Microsoft Project. Consultant will promptly notify the City of any differences between this construction schedule and the construction schedule in the most recent edition of the Base Case Plan.
- Design Information Bulletin Number 82 (DIB 82): Consultant will prepare a Design Information Bulletin Number 82 for the project based on the Geometric Skeleton developed by Consultant. Consultant will document design features or elements that deviate from mandatory and/or advisory standards, which required approval of the Caltrans Design Chief, District Director and Department of State Architecture.

In addition, Consultant will prepare the following design reports to accompany 60% PS&E:

- Lane Closure Report: Consultant will prepare a Lane Closure Report, presenting the traffic data and methodologies used to develop project lane closure charts. Lane closure charts will show the

number of lanes required during different hours of the day. Reported closures to include freeway mainline, local roads, and interchange maps. Consultant will obtain the latest available 7-day, 24 hours traffic counts from Caltrans. Consultant will perform lane closure calculations per Caltrans standard methodology and submit draft lane closures reports to Caltrans for review.

- Design Exception Fact Sheets: Consultant will prepare Supplemental Design Exception Fact Sheets for Mandatory or Advisory Design Standards for any additional items identified in final design for review and approval by Caltrans.

Deliverables: Preliminary Drainage Report
Draft Transportation Management Plan (TMP):
Draft Storm Water Data Report (SWDR) and Treatment BMP Checklists
Draft Design Information Bulletin Number 82 (DIB 82):
Preliminary Construction Schedule
Draft Lane Closure Report
Supplemental Design Exception Fact Sheets for Mandatory Design Standards
Supplemental Design Exception Fact Sheets for Advisory Design Standards

3.8 Right of Way and Utility Certification

Consultant will update right-of-way and utility certifications, including exceptions to utility policy, based upon comments received from the Preliminary Engineering (30%) submittal and resubmit to City and Caltrans.

Deliverables: Right-of-way and Utility Certifications

3.9 Quality Control (QC)

Prior to submittal of Unchecked PS&E (60%), Consultant will perform quality control and quality assurance activities in accordance with its QC/QA Plan. As required by the City, Consultant will be available meet with the City and provide documentation of QC/QA performance and confirm that all agreed upon comments received from the City, Caltrans and other agencies were incorporated into the Unchecked PS&E (60%) package.

3.10 Exception to Caltrans Separate Contract Policy for Highway Planting Projects

Consultant will assist the City to pursue an exception to Caltrans Contract Policy for Highway Planting Projects in order to include replacement planting and plant establishment within the roadway improvement contract, Consultant will prepare the following documentation to assist the City in obtaining approval of the exception.

- A draft Fact Sheet for Exception to Caltrans Separate Contract Policy for Highway Planting Projects, including project description, existing conditions, project cost summary, reasons for requesting the exception and other information including project reviews concurrence and attachments that support the request. Consultant will submit the draft Fact Sheet to Caltrans, respond to comments, make revisions, and assist the City in pursuing approval of the exception.
- A draft Supplemental Project Report (PR) to document this change in the approved project and summarizing other relevant changes to the project, since approval of the PSR-PR. Consultant will submit the draft Supplemental PR to Caltrans, respond to comments, make revisions, and assist the City in pursuing approval of the Supplemental PR.

Deliverables: Draft and Final Fact Sheet for Exception to Caltrans Separate Contract Policy for Highway Planting Projects
Draft and Final Supplemental Project Report

PHASE 2: TASK 4 – DRAFT PLANS, SPECIFICATIONS & ESTIMATES - (90%)

Task 4 Includes incorporating comments from Task 3 and preparing Draft PS&E (90%) documents for review by the City, Caltrans District 4 and Division of Structures (DOS).

4.1 Draft Plans, Specifications and Estimate (Draft PS&E - 90%)

As part of Task 4, Consultant will provide a written response to Preliminary PS&E (60%) review comments received from the City, Caltrans and other agencies. Consultant will conduct a comment resolution meeting or conference call with the City, Caltrans and other agencies to resolve comments and issues from Preliminary PS&E (60%) review. Consultant will incorporate the agreed upon comments received from the City, Caltrans and other agencies and will prepare Draft PS&E (90%) documents.

4.1.1 Plan Sheets

Consultant will incorporate agreed upon comments received from Caltrans, the City and other agencies into the plan sheets and prepare complete highway and structure construction plans.

For the Draft PS&E 90% structures submittal, Consultant will perform an independent check of structure drawings, prepare independent quantity calculations and review the special provisions per Caltrans Standard Procedure for external review of structures PS&E package.

Deliverables: Draft (90%) Highway Plans
Draft (90%) Replacement Planting Plans
Draft (90%) Structure Plans

4.2 Specifications and Special Provisions

Consultant will incorporate all agreed upon comments into the Special Provisions submitted with Preliminary PS&E (60%) and prepare Special Provisions (90%).

Deliverables: Special Provisions (90%)

4.3 Construction Quantities and Cost Estimate

Consultant will update the construction quantity and cost estimates submitted with Preliminary PS&E (60%) and prepare Estimate of Probable Construction Cost (90%).

Consultant will submit quantity calculations showing sketches, diagrams and dimensions to support quantity calculations for use by field inspectors. Quantity calculations will be independently checked in accordance with the QA/QC Plan.

Deliverables: Estimate of Probable Construction Cost (90%).

4.4 Final Design Reports

- Update Design Reports: Consultant will respond to Caltrans comments on the Final Design Reports, complete required revisions, and prepare the Final Design Reports for approval.
- Consultant will finalize the Supplemental Mandatory and Advisory Design Exception Fact Sheets, make final submittal (for approval) to Caltrans' Project Development and include these in the Resident Engineer's File.

Deliverables: Preliminary Drainage Report
Transportation Management Plan (TMP):
Stormwater Data Report (SWDR) and Treatment BMP Checklists
Design Information Bulletin Number 82 (DIB 82):
Preliminary Construction Schedule
Lane Closure Report
Supplemental Design Exception Fact Sheets for Mandatory Design Standards
Supplemental Design Exception Fact Sheets for Advisory Design Standards

4.5 Permits

Prepare draft applications for permits required to construct the project, including a Caltrans Encroachment Permit and a City Tree Removal Permit, if required. After the City's receipt of permits from the permitting agencies, Consultant will review conditions of project permits with the City and update the design documents accordingly.

Deliverables: Draft Caltrans Encroachment Permit
Draft City of San Jose Tree Removal Permit

4.6 Right-of-Way and Utility Certification

Consultant will update right-of-way and utility certifications based upon comments received from the Preliminary PS&E (60%) submittal and provide them to the City. On behalf of the City, a qualified Right-of-Way Professional from Subconsultant ARWS will prepare and submit Pre-Final Right-of-Way and Utility Certification documents to the City and Caltrans for final review.

Deliverables: Right-of-way and Utility Certifications

4.7 Quality Control (QC) and QC Meeting

Prior to submittal, Consultant will perform quality control and quality assurance activities in accordance with its QC/QA Plan. As required by the City, Consultant will be available meet with the City and provide documentation of QC/QA performance and confirm that all agreed upon comments received from the City, Caltrans and other agencies were incorporated into the Draft PS&E (90%) package.

PHASE 3: TASK 5 – FINAL PLANS, SPECIFICATIONS & ESTIMATES - (FINAL PS&E 100%)

Task 5 Includes incorporating comments from Task 4 and preparing Final PS&E (100%) documents ready for approval by Caltrans District 4 and Division of Structures (DOS) and project advertisement.

5.1 Plans, Specifications & Estimates

As part of Task 5, Consultant will provide a written response to Draft PS&E (90%) review comments received from the City, Caltrans and other agencies. Consultant will conduct a comment resolution meeting or conference call with the City, Caltrans and other agencies to resolve comments and issues from Draft PS&E (90%) review. Consultant will incorporate the agreed upon comments received from the City, Caltrans and other agencies and will prepare Final PS&E (100%) documents.

5.1-1 Consultant will update and incorporate the comments received from the City, Caltrans and other agencies into the Plan Sheets, Specifications and Quantity Estimates submitted for Task 4.

5.1-2 Consultant will submit to the City and Caltrans the revised Quantities and Cost Estimate.

5.1-3 Consultant will coordinate the plans, specifications and estimates with those of other design consultants and provide highway design interfaces with structures design when all documents are combined to form a single Project PS&E package.

5.1-4 Consultant will submit the Final PS&E (100%) Specifications in Caltrans format.

5.2 *Permits*

For all permits required from permitting agencies, Consultant will prepare draft documents and supply required project design and construction information to the City and Caltrans to ensure conditions are resolved, and include these permits as part of the Bid Documents.

5.3 *Right-of-Way and Utility Coordination*

If required, Consultant will update pre-final right-of-way and utility certifications based upon any comments received. On behalf of the City, a qualified Right-of-Way Professional from Subconsultant ARWS will sign and submit Final Right-of-Way and Utility Certification documents to the City and Caltrans for approval.

5.4 *Construction Bid Documents*

The Bid Documents will be prepared in accordance with the latest editions of the Caltrans manual, Guide for the Submittal of Plans, Specifications and Estimates and the Division of Structures office of Specially Financed Projects (OSFP Information and Procedures Guide). Consultant will perform in-house quality control review and submit the following documents:

- Final Design Plan Sheets
- Cross Sections (Earthwork)
- Special Provisions
- Permits, Certifications and Agreements
- Updated Cost Estimate and Quantities
- Updated Marginal Estimate for structures
- Quantity summary forms for structures
- Construction Schedule
- Materials Information Handout
- Final Design Calculations
- Final Design Check Calculations

Consultant will incorporate into the bid documents comments received from the City, Caltrans and other reviews.

5.5 *Resident Engineer's File*

Consultant will prepare and submit a Resident Engineer's file in accordance with Caltrans Project Development Activities Guide, OSFP Information and Procedures Guide, Bridge Memo to Designers and include project relevant items identified in the Resident Engineer's file checklist.

The following items, as a minimum, will be included in the Resident Engineer's file:

- Bridge deck contour (4 scale) plans in accordance with Caltrans Memo to Designers 2-2 or latest practice
- Final Foundation Report
- Cross Sections
- Grid Grade Notes
- As-Built plans of the existing structures
- Final/Approved reports
- Quantity Calculations and Quantity Summary Sheets (Roadway and Structures)
- Conceptual Storm Water Pollution Prevention Plan and Estimates
- Joint Movement Rating Calculations

5.6 Quality Control (QC)

Prior to submittal of Final PS&E (100%), Consultant will perform quality control and quality assurance activities in accordance with its QC/QA Plan. As required by the City, Consultant will be available meet with the City and provide documentation of QC/QA performance and confirm that all agreed upon comments received from the City, Caltrans and other agencies were incorporated into the Final PS&E (100%) package.

PHASE 3: TASK 6 – CONSTRUCTION BIDDING SERVICES

Consultant will provide engineering services to support the construction bidding phase of the project.

The following types of services are anticipated under this task:

- Attendance at the pre-bid meeting as requested.
- Providing information to the City for responses to bidders' questions regarding the bid documents.
- Preparation of addenda to the bid documents.

PHASE 4: TASK 7 – CONSTRUCTION PHASE SERVICES

Consultant will provide engineering services to support the construction phase of the project as described herein. Construction administration is the responsibility of the City or their assignee.

Consultant will perform the following services under this task at the request of the City:

- Attendance at meetings as requested during construction.
- Providing responses to Requests for Information (RFI's) and questions about the plans and specifications.
- Providing clarification of existing design and documents for City staff and other consultants.

- Review of shop drawings and other contractor technical submittals for conformance with the plans and specifications, and recommendation for acceptance, denial or resubmittal.
- Providing data addition to the submittals required in the Scope of Services for the final PS&E.
- Review of recommendations regarding proposed change orders, and preparation of change order documents.
- Preparation of Record Drawings in CAD, based upon change orders and redline markups provided by the Contractor.

ADDITIONAL SERVICES:

The Consultant may perform the following additional services as requested by the Director and as so authorized in advance in writing by the Director or Director's designee.

Additional Services shall be paid for on time and material basis in accordance with the rates set forth in Revised Exhibit B, "Compensation", including but not limited to:

- Additional PSR-PDS documentation such as consideration of more than one build alternative.
- Additional submittals for the PSR-PDS such as Traffic Operations Analysis, Environmental Technical Studies, Environmental Document, or Project Report.
- The 30% submittal will be considered complete when ready for submittal to the City and Caltrans for review. Response to comments, or revisions related to comments on the 30% submittal; preparation of specifications or special provisions for the 30% submittal is not included.
- Highway geometric improvements which may be required by Caltrans, such as widening the southbound off-ramp to a 2-lane exit with auxiliary lane.
- Web hosting services to provide information and updates on the project to the public.
- Two additional Preliminary Foundation Reports (PFR) for the undercrossing structures to carry the Class I bicycle/pedestrian facility under the southbound off-ramp and southbound loop on-ramp required by Caltrans in conjunction with review of the Advance Planning Studies.
- Structural engineering for type selection and 30% PS&E for bicycle/pedestrian undercrossing at southbound off-ramp.
- Aesthetic treatments of structures are limited to treatment of concrete railings, retaining wall and wingwall surfaces and chain link railings that are consistent with Caltrans normal practices.
- Up to three retaining walls for the bike/ped path will be non-standard retaining walls requiring review and approval by DOS; soundwall reconstruction near the northbound diagonal on-ramp will be a standard soundwall that does not require review and approval of DOS. Overhead sign structure foundations will be standard foundations.
- Utility potholing subconsultant costs are limited to an allowance of \$35,000 for an estimated 10 potholes unless authorization for additional services is provided.
- Design of private utility relocations, including water, electric, gas, telephone and communications, will be performed by the utility companies or others.
- The Storm Water Pollution Prevention Plan (SWPPP) is not included, as it will be provided by the Contractor and reviewed as a construction submittal.

- Responses to bidability and constructability reviews by other consultants engaged by the City for construction management or other services, and revisions to PS&E related to these reviews, are limited to reviews conducted concurrently with reviews of the 30%, 60% and 90% submittals by Caltrans and the City.

Revisions to the plans, specifications or other documents will be considered additional services when such revisions are:

- Required by City or Caltrans comments that conflict with comments provided in an earlier submittal, or inconsistent with direction previously given by the City or Caltrans.
- Required as a result of changed field or other conditions subsequent to preparation of the documents or as a result of relying upon incomplete or inaccurate information provided by the City or Caltrans and for which Consultant has diligently worked to confirm the accuracy or resolve any conflicting information.
- Required by new regulations, policies or standards, or changes or revised interpretations of existing requirements, including Caltrans standards and procedures.

Submittals will be made electronically in PDF, Word, Excel or other standard file formats. Printing of hardcopy submittals will be limited to a maximum of twenty (20) 11"x17" plans and specifications for each submittal. Printing of reports and other documents will be limited to a maximum of five (5) hardcopies for each submittal.

First **Second** **Third** **Revised Exhibit B: Compensation** (Capital Projects)

This revised Exhibit B is an attachment to the First Second Third amendment to the Agreement.

A. MAXIMUM AMOUNT

The maximum amount of compensation the City shall pay to the Consultant under this Agreement for professional services is amended from \$1,585,100 to not exceed Five Million, Three Hundred Sixty Three Thousand Seven Hundred Dollars (\$5,363,700). Any work performed for which payment would result in a total exceeding the maximum amount shall be at no cost to the City.

B. MANNER OF PAYMENT

City shall pay the Consultant for work performed under this Agreement on a lump sum basis, upon successful completion to the satisfaction of the Director of Transportation ("Director") of each Task listed below. The lump sum amount compensates the Consultant for all its costs necessary to complete the work. Consultant shall complete all work listed in each Task for the lump sum amount listed below. Upon completion of a percentage of the work for each Task to the Director's satisfaction, the Consultant shall invoice the City for the percentage of the lump sum amount for that Task. The City shall pay the lump sum amount within thirty (30) days of the Director's approval of the Consultant's invoice.

Task No.	Task	Task Total
1.1 & 1.2	PID Phase Project Management / Meetings / Purpose & Need	\$11,000
1.3	Initial Engineering Analysis and Alternatives	\$32,100
1.4, 1.5, 1.6-1 & 1.6-2	Draft PSR-PDS, including TEPA, PEAR & Supporting Documents	\$98,500
1.6-3	Final PSR-PDS	\$21,100
2.1	PA&ED Phase Project Management / Meetings / QC/QA Mgmt.	\$95,000
2.2	Data Gathering, Aerial Mapping, Surveys & Utility Mapping	\$53,800
2.3	Traffic Forecast & Operational Analysis	\$124,500
2.4	Alternative Development and Analysis	\$93,400
2.5	Geometric Drawings (GeD)	\$43,800
2.6	Structures Advance Planning Study (APS)	\$41,000
2.7-1 & 2.7-2	Environmental Technical Studies & Draft Envir. Document	\$232,000
2.7-3	Final Environmental Document	\$78,400
2.8	Public Outreach	\$13,900
2.9	Preliminary Engineering Technical Reports	\$43,100
2.10	Design Exception Fact Sheets	\$23,800
2.11	Probable Cost Estimates	\$8,900
2.12	Draft and Final Project Report	\$53,500
2.13	Right of Way and Utility Analysis	\$7,100
2.14-1	30% Roadway Design	\$167,800
2.14-2	30% Structure Design and Type Selection	\$167,400

2.14-3	30% Electrical Design	\$15,300
2.14-4	30% Utility Relocation/Occupation Plans	\$14,200
2.14-5	30% Design Reports	\$35,700
2.14-6	30% Cost Estimates	\$14,300
2.14-7 & 2.14-8	30% Submittal QC/QA & Value Engineering Analysis	\$15,500
3.1-1 thru 3.1-5	Project Management, Coordination, Meetings, Public Outreach	\$165,200
3.2-1 & 3.2-2	Supplemental Surveys, Utility Coordination, including Potholes	\$79,600
3.3-1	60% Highway Plans	\$407,300
3.3-1	60% Signal, Lighting and Electrical Plans	\$56,000
3.3-1	60% Planting & Irrigation Plans	\$45,800
3.3-1	60% Structure Plans- Blossom Hill Road Overcrossing (Widen)	\$240,900
3.3-1	60% Structure Plans- Bike/Pedestrians Structures & Retaining Walls	\$391,700
3.4 & 3.5	60% Specifications and Cost Estimate	\$13,700
3.6-1	Geotechnical Design Report and Materials Report	\$56,700
3.6-2 & 3.6-3	Geotechnical Foundation Reports	\$272,600
3.6-4	Aerial Deposited Lead (ADL) and Asbestos Report	\$79,400
3.7	60% Final Design Reports	\$52,100
3.8	60% Right-of-Way and Utility Certification	\$9,500
3.9	60% PS&E Quality Control	\$15,900
3.10	Exception to Caltrans Policy for Separate Planting Contracts & Supplemental Project Report	\$34,900
4.1	90% Highway Plans	\$210,000
4.1	90% Signal, Lighting and Electrical System Plans	\$43,500
4.1	90% Planting & Irrigation Plans	\$22,900
4.1	90% Structure Plans/ Blossom Hill Road Overcrossing	\$186,600
4.1	90% Structure Plans- Bike/ Pedestrian Structures & Retaining Walls	\$365,000
4.2 & 4.3	90% Specifications and Cost Estimates	\$10,200
4.4	90% Design Reports	\$31,100
4.5 & 4.6	90% Permits, Right-of-Way and Utility Certification	\$16,900
4.7	90% PS&E Quality Control	\$12,700
5.1	100% Highway Plans	\$80,800
5.1	100% Electrical PS&E	\$27,600
5.1	100% Structures PS&E	\$232,600
5.1	100% Specifications Estimates	\$31,800
5.1	100% Reports	\$12,700

5.2 & 5.3	100% Permits, Right-of-Way and Utility Coordination	\$13,500
5.4	Construction Bid Documents	\$6,400
5.5	Resident Engineer's File	\$9,500
5.6	100% PS&E Quality Control	\$12,700
6.1	Construction Bidding Services	\$24,900
7.1 thru 7.5	Construction Phase Services	\$413,200
7.6	Record Drawings	\$12,700
	Allowance for Additional Services Authorized by the City on a Time and Materials Basis at Hourly Rates Shown Below	\$160,000
	TOTAL	\$5,363,700

SCHEDULE OF RATE AND CHARGES

Principal	\$220 per hour
Civil Engineering or Land Surveying Manager	\$182 per hour
Senior Civil Engineer, Land Surveyor, or Landscape Architect	\$160 per hour
Design Specialist	\$180 per hour
Project Civil Engineer, Land Surveyor, or Landscape Architect	\$150 per hour
Engineer, Planner, Surveyor, or Landscape Designer	\$142 per hour
Assistant Engineer, Surveyor, Planner, or Landscape Designer	\$130 per hour
Junior Engineer, Surveyor, Planner, or Landscape Designer	\$120 per hour
Senior Technician	\$134 per hour
Project Technician	\$124 per hour
Technician	\$114 per hour
Assistant Technician	\$104 per hour
Junior Technician	\$ 88 per hour
Project Support Staff	\$ 86 per hour
2-Man Survey Crew	\$242 per hour
3-Man Survey Crew	\$318 per hour
1-Man Survey Crew	\$170 per hour
Senior Field Engineer	\$160 per hour

- First**
 Second
 Third

Revised Exhibit C: Schedule of Performance
 (Capital Project)

This revised Exhibit C is an attachment to the First Second Third amendment to Agreement.

Work shall commence immediately upon full execution of this Agreement. All work under this Agreement shall be completed on or before December 31, 2021. Consultant shall schedule work such that tasks are completed in accordance with the schedule in this Exhibit C.

Due Date, on or before	Deliverables
12/1/15	Contract Approval, Notice to Proceed and Kickoff Meeting
1/31/16	Initial Engineering Analysis and Bikeway Alternatives (Task 1.3) Submittal to City
3/15/16	City Selects Bikeway Alternative
4/30/16	Aerial Mapping and Utility Mapping Base Sheets
5/15/16	Draft PSR-PDS, including TEPA, PEAR & Supporting Documents
8/15/16	Final PSR-PDS
12/31/16	Traffic Operations Analysis Report
12/31/16	Geometric Drawings
2/28/17	Environmental Technical Reports
7/31/17	Draft Environmental Document and Draft Project Report
4/15/18	Final Environmental Document and Final Project Report
4/31/18	30% Plans, Estimate and Reports
10/1/18	Submit Preliminary PS&E (60%)
3/1/19	Submit Draft PS&E (90%)
7/1/19	Submit Final PS&E (100%)
9/1/19	Bidding Services

CPMS Contract No.: N/A
Standard Agreement AC No. 660880
Consultant Name: HMH Engineers

11/1/19	Construction Services
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