

**EXHIBIT 1**  
**Scope of Work**

(Attached behind this cover page)

## SCOPE OF WORK

### A. BACKGROUND INFORMATION

Each year the District designs numerous projects, including, but not limited to, channels, storm drains, basins, box culverts, etc. and utilizes Comprehensive Storm Drain Plans (CSDPs) as a preliminary planning tool to identify project priorities, approximate flowrates, facility sizing, and cost estimates prior to performing a detailed hydrologic and hydraulic study of site specific projects. Multiple CSDP 3-4's have been prepared in the area generally bounded by the I-10 freeway to the north, Tamarind Avenue to the west, Riverside Avenue to the east, and the Riverside/San Bernardino County line to the south in unincorporated Bloomington, City of Fontana, and City of Rialto (see Exhibit B). The most recent of these CSDPs is from 2006, however, the area has experienced and will continue to experience significant development with many new warehouses currently under construction or planned. The watershed of CSDP 3-4 needs to be reevaluated due to this continued growth and to provide a planning tool for future storm water infrastructure in the area. Coordination between developers currently designing and constructing detention basins and storm drain infrastructure within the vicinity should occur to determine the proposed flows from these developments. In addition to updating CSDP 3-4, the District is seeking complete design of the El Rivino Basin and outlet storm drain (Line D) from the basin to the Santa Ana River in unincorporated Bloomington and City of Rialto (See Exhibit C) including environmental. Exhibit B & C are for reference only; the study area boundary limit and Line D alignment will be determined in detail as part of the scope of work.

The District will select one successful Proposer based on the selection criteria as stated in Section VII. of this RFP. The successful Proposer shall be responsible for all services and required documents identified in the Scope of Work and Terms and Conditions Section.

This project is partially funded with Hazard Mitigation Grant Program 97.039 funds awarded by the U.S Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) and the Consultant shall comply with 2 Code of Federal Regulations (CFR) 200. All subcontractors must be procured per 2 CFR §200.317-.327 and local and State procurement policies, whichever is more stringent.

### B. PROJECT MANAGEMENT

#### 1. Work Plan

The Consultant will prepare a Work Plan that includes, but not limited to, a list of deliverables, milestone submittal schedule, summary of organization responsibilities and contacts, scope of work, task budgets, reporting and invoicing procedures, quality assurance plan, and project filing system. The Work Plan shall be submitted to the District prior to the first invoice.

#### Deliverables:

- Work Plan

#### 2. Field Review

The Consultant shall conduct field reviews of the general project area, as well as the basin and outlet storm drain project site, to ensure the existing conditions are

accurately documented as required for design. This will enable the design to anticipate any potential construction problems that may arise.

### **3. Meetings/Coordination**

The Consultant shall document project meetings and prepare minutes of the meetings for the District's review within three (3) working days after each meeting. Upon receipt of the District's comments, if any, the Consultant shall incorporate comments into the meetings' minutes. Comments, which are not incorporated, shall be discussed with the District as to why such information has not been incorporated. The project at minimum shall include the following meetings:

- Kick-off Meeting - The Consultant shall organize an initial project meeting with the District staff to review and confirm project scope, risks, issues, assumptions and constraints as well as project schedule.
- Monthly Progress Updates - The Consultant shall schedule and conduct monthly progress meetings via video conference call with District staff to review project direction and redirect some elements as necessary to ensure the project's progress within the available budget and/or funding and schedule. The Consultant shall maintain a list of action items with projected completion dates and shall use this as a basis for monthly updates to the District's staff. The Consultant shall send current action item list via e-mail to the District staff three (3) working days prior to each progress meeting.
- Additional Meetings - The Consultant shall organize additional meetings, as required, to complete the project. Additional meetings include, but are not necessarily limited to, meetings to discuss review comments and responses, meetings with stakeholders such as other agencies, developers, and the community.

#### Deliverables:

- Meeting Minutes
- Written summaries of telephone/email coordination as appropriate
- Monthly Progress Reports

### **4. Quality Assurance and Quality Control**

The Consultant will have a Quality Assurance and Quality Control Plan in effect for the duration of the Scope of Services. The plan will establish a process whereby all deliverables are independently checked, corrected and verified prior to any formal submission and all job-related correspondence and memoranda are routed and received by affected persons and then appropriately filed. An appointed Quality Assurance Officer will monitor and review project activities and deliverable schedules. All deliverables shall contain signature of the Quality Assurance Officer.

#### Deliverables:

- Deliverables such as reports, maps, preliminary plans and profiles, cost analysis, etc. shall be subject to signature by Quality Assurance Officer.

### **5. Project Schedule**

The Consultant proposal shall include a Project schedule for a period that does not exceed thirty (30) months starting from the award date. The Consultant shall prepare and update a monthly Project schedule with tasks and milestones. The Consultant shall break down the schedule by logical tasks consistent with the scope of work and

with enough detail to track project progress. Both a baseline schedule and tracking updates are required. The schedule must reflect realistic estimates of review periods by the District for tasks, such as reports, plans, and coordination. The schedule shall be provided prior to the first invoice.

Deliverables:

- Project Schedule
- Updated Quarterly Project Schedule

**6. Monthly Progress Report and Invoice**

The Consultant shall establish and apply internal accounting methods and procedures acceptable to the District for documenting and monitoring contract costs. The Consultant shall submit monthly invoices broken down in a manner consistent with the Work Plan. The Consultant shall include with the monthly invoice a progress report that reflects the work completed within the invoice billing period. Payments to the Consultant are to be in arrears. In other words, the Consultant must have actually incurred and paid the costs before invoicing the District.

Invoices shall include the following:

- Prepared on the Consultant's letterhead;
- Signed by the Consultant's project manager;
- Have a unique invoice number;
- Progress report that reflects the work completed within invoice billing period;
- Appropriate backup documentation attached;
- If the contract involves subconsultants, a separate invoice for each subconsultant shall be attached in the same format as the prime Consultant's invoice and should be included in the summary of the prime Consultant's invoice.

Consultant shall regularly review project budgets per task versus percent of work completed per task to determine if there are any issues that need to be resolved, or if effective practices can be implemented to keep costs within budget. Tasks anticipated to exceed the total estimated costs must be identified and presented to the District as early as possible.

If the Consultant fails to comply with the above requirements, the District shall have the right to delay payment.

Deliverables:

- Monthly Progress Report and Invoice

**7. Submittal Requirements**

The Consultant shall submit draft reports and a final report of the Comprehensive Storm Drain Plan Study for District review. The Consultant shall submit in PDF format electronic half-size (11"x17") and full-size hydrology maps for review by the District. All deliverables shall be clearly marked as being fully checked, and the preparation of the material followed the quality control plan established for the work. All deliverables shall contain signature by the Quality Assurance Officer. Reports, Cost Analysis Estimates, etc. The Consultant shall, at no additional cost to the District, correct errors, omissions, and unworkable and/or improper design/drafting on the original reports/drawings that are covered subsequent to the completion of the review process.

The Consultant shall provide a copy of all transmittals, submittals, and letters sent to agencies regarding the project. Reports, Maps, Estimates shall be in English units and must conform to Federal, and District standards, regulations, policies, procedures, manuals, and practices. The Consultant shall provide clear, concise, and complete reports.

All plans (if applicable) shall be prepared in AutoCAD or Civil 3D. All maps shall be prepared in AutoCAD, Civil 3D, or ArcGIS Pro. The report, maps, H&H analyses, cost analyses, etc. are to be considered to be the property of the District at all times and shall be submitted to the District as hard and electronic files, upon completion or as otherwise directed by the District.

All project submittals shall meet the current guidelines and standards required by the applicable authority, be it District, County, State, FEMA, or CFR.

The Consultant shall be responsible for preparing the final Comprehensive Storm Drain Plan, Plans, Specifications, Special Provisions, and Reports (i.e. H&H, geotechnical) signed by a Professional Engineer registered in the State of California.

Deliverables:

- Specific requirements will be detailed within each relevant section.

**C. PART 1 – COMPREHENSIVE STORM DRAIN PLAN 3-4 PROJECT DESCRIPTION**

**1. Project goals and objectives**

The District is seeking Proposals from interested and qualified Proposers to prepare an updated Comprehensive Storm Drain Plan (CSDP) 3-4 in the unincorporated Community of Bloomington, City of Fontana, and City of Rialto and to design El Rivino Basin and outlet storm drain. See Exhibit B for general study area. The CSDP must include, at a minimum, the following sections:

- a. Executive Summary Section including, but not limited to, the basis of study, study approach, characteristics of the watershed, development of the master plan alternatives, issues and considerations, and conclusions and recommendations.
- b. Introduction Section including, but not limited to, the study area, purpose/general intent, goals and objectives, policies, stakeholders, Flood Control District Act compliance, facility designations (e.g. regional vs. secondary vs. local facility), and the use of study/disclaimer.
- c. Environmental Considerations and Regulatory Section including, but not limited to, policies and regulations, wildlife habitat, natural aesthetics, routine access for maintenance and improvements, and historical discussion.
- d. Hydrology Section including, but not limited to, an introduction, boundary development, watershed characteristics, hydrologic model parameter development, rational method studies, unit hydrograph studies, and hydrologic factors (land use, hydrologic soil groups, loss rate criteria, precipitation analysis, antecedent moisture condition (AMC), etc.).
- e. Existing Infrastructure Section including, but not limited to, existing drainage facilities and basin analyses, historical investigation, and deficiency analyses.
- f. Hydraulic Modeling, Design Criteria and Facility Sizing Section including, but not limited to, an introduction, discussion of closed conduits and open channel hydraulics and design criteria, alignments and proposed drainage facilities (brief

discussion of each drainage system), basin considerations, and design storm frequencies.

- g. Debris and Detention Basin Analysis Section including, but not limited to, locations, detention basin options, alternatives, and recommendations.
- h. Cost Estimate Section including, but not limited to, an introduction, assumptions, types of costs (construction, acquisitions, environmental mitigation), open channel costs, closed conduit costs, detention basin costs, contingencies, development fees analysis, and discussion of funding opportunities. This section provides general costs assumptions and drainage system specific costs are to be provided in a separate volume with the specific drainage system plans and profiles.
- i. Priority Recommendations Section including, but not limited to, general recommendations and specific project recommendations and priorities.
- j. Conclusion and Recommendations Section including, but not limited to, an introduction, study conclusions and final recommendations.

The CSDP should be divided into a minimum of four (4) volumes including, but not limited to, the following:

- Volume 1 – Final Report (includes at a minimum the sections listed above)
- Volume 2 – Plans, Profiles, and Cost Estimates
- Volume 3 – Hydrology Calculations
- Volume 4 – Hydraulic Calculations and Alternative Analyses

The approved software to be used for the CSDP hydrology analyses is Advanced Engineering Software (AES) or CivilDesign and for the preliminary hydraulic analysis is WSPG, FlowMaster, HEC-RAS, and PondPack. Current topography data should be utilized for the hydrology and hydraulic analyses.

## **2. Project Approach**

The Consultant's tasks shall include project management and all tasks necessary to complete the Master Plan of Drainage, including, but not limited to, Literature Review and Field Investigations, obtaining suitable Topography data, Hydrology Analyses, Preliminary Hydraulics, Alternative Analysis including with and without basin alternatives, Cost Estimates, Recommendations and Facility Prioritization, Specific Drainage System Plans, Profiles, and Estimates, and Community Outreach. The consultant shall thoroughly document and discuss the hydrologic and hydraulic modeling including input parameters, standards used, and assumptions in the report. The consultant shall perform the hydrology analyses per the San Bernardino County Hydrology Manual utilizing software listed above. See Exhibit B for the general study area.

### **a. Literature Review and Field Investigation**

- Literature review of all relevant plans, drainage studies, hydrology reports, and other applicable data necessary to complete the CSDP.
- The Consultant shall conduct field reviews of the project area as required for the CSDP study. Field investigation will be used to evaluate current conditions, identify potential obstacles, perform surveying or measurements as needed, and provide photo documentation for reference. The field investigation will also be important to identify and evaluate existing drainage facilities and/or drainage courses.

### **b. Hydrologic and Hydraulic Analyses**

**(a) Hydrologic Analyses**

- (i) Perform hydrology calculations for the entire watershed (see Exhibit B) per the San Bernardino County Hydrology Manual. Provide flowrates for the 5-, 10-, 25-, and 100-year storm events for the ultimate land use condition.
- (ii) Current topography data shall be used for the hydrology analyses.
- (iii) Provide all hydrology calculations as a separate volume of the CSDP.

**(b) Preliminary Hydraulic Analyses**

- (i) Current topography data shall be used for the hydraulic analyses.
- (ii) The hydraulic analyses should be performed on software specified above or using Manning's Equation to determine water surface elevations.
- (iii) The hydraulic analyses will be approximate and preliminary. Facility sizing, type, and material should be determined and the water surface elevations calculated to demonstrate adequate freeboard per the Los Angeles County Flood Control District Hydraulic Design Manual (March 1982).

**(c) Alternate Analysis**

- (i) Provide an alternative analysis that includes channel/storm drain only options versus channel/storm drain with basin options with final recommendation on channel/storm drain and/or basin combinations that should be implemented for each specific drainage system.

**c. Cost Estimates**

- (i) Provide background and basic assumptions used for planning equivalent cost estimates including design (can be a percentage of construction costs), construction, right-of-way or easement acquisitions, environmental mitigation, and contingency costs.
- (ii) Perform a development fee analysis to determine the cost per acre development to potentially fund future projects. The costs for this analysis should only consider the costs of implementing regional facilities.
- (iii) Provide planning equivalent cost estimates for each drainage system divided into logical phases or reaches and include in the Specific Drainage System Plans, Profiles and, Estimates volume of the CSDP.

**d. Recommendations and Facility Prioritization**

- (i) Provide general recommendations relating to the goals and principles of the CSDP and the District.
- (ii) Provide specific recommendations including, but not limited to, facility priorities, basin and channel/storm drain alternatives, funding recommendations (e.g. development fee implementation), and periodical update recommendations.

**e. Specific Drainage System Plans, Profiles, and Estimates**

- (i) Overall system reference map/s (could be divided into multiple maps) should be provided with existing and proposed channel and storm drain alignments. These maps can be 11"x17" format for the report but full-size maps should also be provided. Unique systems identifiers should be used to distinguish different drainage systems.
- (ii) Individual System channel and storm drain routing and alignments should be determined and include a minimum, but not limited to, approximate plans with alignments and flowrates and profiles with invert, top of channel, water surface elevations, slopes, flowrates, sizing, channel/storm drain type, channel/storm drain materials, etc.

- (iii) The alignment and profile maps should be provided on 8.5"x11" sheets in a separate volume from the report.

Deliverables:

- At the Draft submittal phases (may consist of more than one (1) draft):
  - Digital Files of all reports, studies, technical memorandums, maps, topographic data, and H&H analyses files
  - 11"x17" PDF maps
  - Full-size PDF Hydrology Maps
  - Applicable referenced reports (digital copies only)
  - Responses to previous comments (not required for first draft)
- At the Final submittal phase:
  - Four (4) hard copy sets of the final Master Plan of Drainage
  - Four (4) hard copy sets of full-size final Hydrology Maps
  - Digital Files of all reports, studies, technical memorandums, maps, and H&H analyses

### **3. San Bernardino County Hydrology Manual**

It should be noted that the District is in the process of updating its Hydrology Manual and the updated manual is anticipated to be released in the first quarter of 2026. Changes to the updated manual that may affect this CSDP include a climate change factor applied to the precipitation, slight changes in the curve numbers, revised AMC maps, and new guidance for utilizing HEC-HMS.

## **D. PART 2 – DESIGN OF EL RIVINO BASIN AND OUTLET STORM DRAIN PROJECT DESCRIPTION**

Part 2 of this proposal will be for Professional Civil Engineering Services to design the El Rivino Basin and Outlet Storm Drain including preparing the necessary separate Hydrology and Hydraulic detailed report. El Rivino Basin is proposed at the location of an existing depression where flows have historically collected. This land is currently not owned by the District, and there is currently no outlet for these flows which should eventually flow to the Santa Ana River. The consultant should determine the best routing for the proposed outlet storm drain.

The District is requiring the Project files to be prepared using Autodesk Civil 3D, Adobe or Bluebeam pdf, ArcGIS, and Microsoft Office software, as applicable, and all related work will be performed by the Consultant or their subcontractors.

### **1. Hydrology and Hydraulics**

The hydrology for the basin should already be determined from the CSDP but may require some refinement. The basin shall be designed to attenuate flows for a 100-year (1% Annual Exceedance Probability, AEP) storm event. The basin hydraulic analysis should include basin sizing, outlet sizing, basin routing, and outflow calculations. An outflow rating curve and elevation versus capacity table and curve shall be provided. The report should also provide a detailed analysis of the basin outflow and the hydraulic performance of the outlet storm drain to the Santa Ana River. Inflow scour analyses with rip-rap sizing and dissipator recommendations shall also be provided. All hydrological data including all assumptions, basis of analysis, and background information shall be included in the final basin and outlet storm drain specific Drainage Report.

Deliverables:

- The Final Drainage Report (signed and stamped by the Engineer of Record).

## 2. Geotechnical Services

The purpose of the geotechnical investigation portion of the work is to provide geotechnical recommendations for the design and construction of the proposed basin. The successful Proposer or Subcontractor shall perform adequate subsurface exploration, collect a sufficient number of samples of different types as deemed necessary, conduct relevant and sufficient number of laboratory tests, analyze the data collected during field exploration and laboratory testing, and prepare a Geotechnical Investigation Report containing conclusions and recommendations to assist in preparation of contract plans and specifications. The investigation must be planned and supervised by a California registered Geotechnical Engineer, Certified Engineering Geologist, or Civil Engineer experienced in soil mechanics. The limits of the geotechnical investigation shall be within the proposed basin footprint and along the proposed outlet storm drain routing (if deemed necessary).

For purposes of this design, the Proposer shall provide recommendations such that on-site materials can be utilized to the maximum extent practicable. Unless otherwise approved, the Proposer shall use U.S. Army Corps of Engineers (USACE) Engineering Manual EM 1110-2-1913 as a guide for design of levees (if applicable per basin design recommendations).

1. Site geology including bedding, foliation, fracture joint, fault, and land slide plane attitudes.
2. Seismic conditions including fault locations and potential seismic surface movements with respective loadings and parameters of seismic shaking.
3. Potential impact of reservoir loading on geologic structures.
4. Detailed descriptions, locations, and logs of all field explorations.
  - a. Proposed ground disturbance locations must be submitted to the District and approved by FEMA Region 9 Environmental Historical Preservation (EHP) staff prior to commencing with such activities.
5. Field and laboratory tests and analysis, descriptions and results.
6. Groundwater table elevation and analysis of near surface groundwater movement.
7. Percolation tests to evaluate groundwater recharge effectiveness.
8. Substances in the groundwater or in native soils deleterious to concrete, steel, or other construction materials.
9. Potential hazardous materials/contaminants within the existing groundwater or in native soils.
10. Potential for hydro-collapse, subsidence, expansive or collapsible soil conditions.
11. Evaluation of excavation and construction problems including subsurface rock, oversized material, caving soils, site preparation/grading (including potential over-excavation limits), backfill, drivability of temporary shoring, potential for groundwater seepage and dewatering.
12. Horizontal and vertical recommended limits for over-excavation beneath proposed embankments and concrete structures.
13. Recommended design parameters including but not limited to the following, for the embankment and its natural abutments and slopes adjacent to the basin areas:
  - a. Lateral earth loadings.
  - b. Shear strengths.
  - c. Bearing capacities.
  - d. Permeability.

- e. Slope stability analysis when saturated and during rapid drawdown conditions. Minimum design factors of safety are:
- |   | Without Seismic<br>Seismic | With |
|---|----------------------------|------|
| Embankment, abutment and<br>1.1<br>Adjacent slope stability | 1.5                        |      |
| Seepage - Piping  | 1.5                        |      |
| ---   |                            |      |
- f. Recommendations for temporary and permanent excavation slopes based on static and seismic analysis.
- g. Sieve analysis.
- h. Scour depth analysis to determine the depth of levee armoring.
- i. Sand equivalents.
- j. Liquefaction analysis including lateral spreading and dry sand settlement and, if appropriate, mitigation.
- k. Special design and construction recommendations including, but not limited to, the following:
- i. Foundation preparation requirements.
  - ii. Suitability of materials for embankments (gradation, sand equivalent, etc.) and abutments.
  - iii. Relevant earthwork recommendations.
  - iv. Shrinkage and bulking percentages.
  - v. Percentage of material suitable for embankment construction.
  - vi. Compaction methods and minimum requirements.
  - vii. Seepage and piping control provisions.
  - viii. Potential for settlement.
  - ix. Seismic considerations.
  - x. Necessity of impervious core or shear key.
  - xi. Embankment side slope protection, including recommendation for erosion protection and armoring.
14. Required relative compaction of embankment materials.
15. Location and extent of required over-excavation.
16. Determination of applicable geotechnical-related data, properties, coefficients, etc. required for structural design of the concrete box structure, spillways, channels and the design of shoring and trench stability for any work proposed underground work.
17. Provide design of spillway subdrain system(s).
18. Provide geotechnical design of embankment sections to comply with FEMA requirements. Utilize on-site materials to the maximum extent possible.
19. Provide recommendations for Special Provisions related to Caltrans Standard Specifications for construction.
20. Estimate the amount of cobble that will be generated by the proposed excavations.
21. Foundation evaluation of spillway and reinforced concrete box inlet/outlet structures.
22. Impact of the proposed construction on existing underground utilities.
23. Recommendations for construction monitoring and testing.

Deliverables:

- Geotechnical Exploration Plan (to be provided for review and approval by the FEMA Environmental and Historical Preservation Staff prior to commencement of borings)
- Regulatory Permits for Geotechnical Borings (prior to commencement of borings)
- Geotechnical Design Report

### **3. UTILITY COORDINATION**

The Consultant shall perform all utility coordination, including but not limited to: purveyor research, send utility notifications on Consultant letterhead, obtain utility atlases from purveyors, send Notice to Owners at 65% and 95% submittals, utility potholing (required) and coordinating relocations with utility purveyors. All underground utilities shall be shown on the plans as well as utility plans/detail sheet(s) based on research from atlases and potholing. Consultant shall assume 20 potholes. Consultant shall coordinate all utility potholing and relocations, as necessary.

Consultant letterhead shall be utilized for corresponding with utility agencies, and Consultant will be responsible for all costs associated with obtaining utility atlases. Consultant or subconsultant shall be responsible for any permit fees required by any jurisdictional agency for utility potholing.

#### Deliverables:

- Copies of all correspondence with utility purveyors
- Copies of all utility atlases
- Utility Potholing Report
- Utility Plan/Exhibits

### **4. RIGHT OF WAY**

- a. The Consultant shall prepare and provide an AutoCAD right-of-way base map. The basemap shall be a retracement of relevant official records (title documents) and a part of the same control and boundary network surveyed as a part of the field investigations described herein. The Consultant shall perform all right-of-way research required to create the base map, and a copy of said research shall be made available for review by the County by way of an electronic research folder containing a pdf copy of all documents and maps used to determine existing rights-of-way, including but not limited to offers of dedications, utility and other easements, Assessor Parcel numbers (APN), and deeds. Please note/label all property owners of record for each relevant parcel. The AutoCAD right-of-way file shall contain specific and separate layers identifying the exact location and boundary of all existing rights-of-way, property lines, offers of dedications, utility and other easements, along with a note providing the exact document and/or map from which this information was gathered. The Consultant shall be responsible for the accuracy of technical data (e.g. street and/or right-of-way widths, location of property lines, owner names, etc.) in addition to ensuring all relevant right-of-way is represented by the latest recorded document (official records) at the time of notice to proceed. Incomplete data or errors returned to Consultant by the District will be remedied by Consultant at no cost to the District.
- b. The Consultant shall also add to the AutoCAD right-of-way base map all proposed rights-of-way and temporary construction easements (TCEs).

The Consultant shall submit the right-of-way base map and the research files to the County at each of the 35%, 65%, 95% and final review submittals. County will review the right-of-way base map upon each submittal and direct changes if necessary.

- c. The Consultant shall prepare and provide legal descriptions and plats for all property acquisitions and TCEs, which shall be stamped and signed by a Land Surveyor licensed in the State of California.

The Consultant shall submit the stamped and signed legal descriptions and plats for all the proposed property acquisitions and TCEs, to the County at the same time as the right-of-way base map 65% review submittal. County will review all documents and plats, and direct changes if necessary.

- d. At 95% review submittal, and prior to right-of-way certification if applicable, the County shall have its final review and approval of all deliverables. A shapefile (.shp) will be a required submittal to the County at the 95% review submittal. The shapefile shall represent the final linework submitted, containing the following metadata: Property Owner, APN, Area, and Category (TCE, Fee, Easement, etc.), OR Number.
- e. The County will perform any necessary right-of-way appraisals and acquisitions, including TCEs.

Deliverables:

- Right-of-Way Base Map in Civil 3D format
- Shapefile (.shp) with corresponding Metadata
- Legal Descriptions and Plats
- Copies of Research Files

## 5. SURVEYING

The Consultant shall provide all necessary survey data to complete the project design, including but not limited to:

- a. The Consultant shall provide control, boundary, and topographic surveys for the basin and storm drain project. Provide survey data in an AutoCAD Civil 3D format. Horizontal and Vertical datum to be specified by the District. Accuracy specifications shall be determined by the District according to industry standards. **For your reference, see attached SBCO Surveyor Topographic Standards (Exhibit D).**
- b. The San Bernardino County Surveyor's Office will be responsible for the monument preservation. The County Surveyor will reset or replace any survey monumentation damaged or destroyed.
- c. All deliverables shall be reviewed and approved by a California Licensed Land Surveyor prior to submittal to the District. Incomplete surveys returned to Consultant by the District will be remedied by Consultant at no cost to the District.
- d. The consultant shall establish the necessary control to complete the acquisition of all survey data. It is the sole duty of the Consultant to responsibly place said

control so that its integrity and placement is not disturbed. If any supplemental control points are required to be established, re-established (i.e. remedied) it shall be at no cost to the District and completed by the Consultant.

Deliverables:

- Survey data in AutoCAD Civil 3D format
- .xml files
- Control Network Adjustment files and reports
- Photos
- Data Sheets (Benchmark, GPS, etc.)
- Control and Topo Point file with feature descriptions

**6. PAVEMENT DESIGN**

The District will provide the Consultant with the Pavement Design Report and Traffic Index as required for the pavement structural sections of County Maintained Roads. The Consultant shall be responsible for any pavement design within City jurisdictions.

**7. STRUCTURAL DESIGN ENGINEERING SERVICES**

The Consultant shall provide structural design for the following reinforced concrete structures:

- a. Basin Inlet and outlet structures (including subdrain system as required).
- b. Concrete spillway with subdrain system.
- c. Headwalls and wingwalls at the upstream and downstream ends of the Project.
- d. Any other necessary structures.

Design tasks include design of retaining walls, headwalls, wingwalls and L-walls, if used, for stability (sliding, overturning); structural analysis including all applicable loading conditions; structural design of structures which will have dimensions to accomplish the hydraulic, retaining and other functions of the structures shown on the civil plans; structural calculations; determination of hydrostatic uplift forces and design of subdrain systems and/or other means of relieving uplift forces to provide economical structures which resist uplift forces and prevent flotation; structural drawing sheets expressing the structural designs, including tables and sections showing concrete thicknesses, reinforcements, etc; details of connections between structural elements (i.e., connection between channels and culverts and headwalls, connection between precast and cast-in-place culverts, etc.; detailing of design including channel construction and expansion joints, chamfers, cut off walls, etc.; drawings of subdrain system.

The drawings shall be prepared and submitted using Autodesk Civil 3D software. Additional related tasks include the preparation of Special Provisions for the reinforced concrete structures.

Deliverables:

- Structural analysis and preliminary structural design: The Consultant shall perform structural analysis and preliminary structural design for the various structures. Deliverables shall consist of structural analysis and preliminary structural design calculations and sketches.
- Develop recommended configurations: The Consultant shall develop alternative structure configurations and recommend the optimum

configurations and shall recommend standard designs as applicable. The deliverable shall consist of alternative and recommended design configurations with supporting calculations and sketches.

- Final design: The Consultant shall perform structural design for the various structures and perform additional structural design as may be required in conjunction with the application of standards, if necessary. The Consultant shall submit final calculations and sketches. The Consultant shall make recommendations for standard designs to be used. The deliverable shall consist of the final structural calculations and a memorandum summarizing the design assumptions and calculations
- Structural drawings, including detailing, Special Provisions, and Estimates: The Consultant shall prepare and submit structural plan sheets using Autodesk Civil 3D, including details as previously set forth. Deliverables shall consist of structural Special Provisions and Estimates.

## **8. TRAFFIC**

The Consultant shall prepare a traffic control plan including signing, striping plans, and detour plans for the storm drain construction as well as all applicable truck routes for basin grading import/export operations. The Consultant shall contact and coordinate with SBC Public Works Traffic Division for templates, standards, and requirements on traffic control devices. Likewise, the Consultant shall conduct the same practice with roads located within the Cities of Rialto and Colton and shall ensure to incorporate all the City's requirements on the traffic plans accordingly. The Consultant shall be responsible for all the fees and permits required by the Rialto and Colton as needed.

- a. The Consultant shall prepare a schedule for Road Closure along the proposed storm drain alignment as needed and should include it in Special Provisions.
- b. Prepare Traffic Signing and Striping plans (aerial survey allow) and Traffic Control Devices should be tabled to coincide with pavement rehabilitation efforts.

### Deliverables:

- Traffic Control Plan including Signing, Striping Plans, Detour Plan, and Truck Routes
- Road Closure Schedule (if applicable)

## **9. ENVIRONMENTAL SERVICES**

The Consultant shall prepare CEQA and NEPA compliance documents and provide any necessary documents in support of regulatory permits as required. All documents prepared under this Scope of Work shall assume at minimum, delivery of one draft submittal to the Department of Public Works Environmental Management Division (EMD) for review and comment. Upon review and comment, the document shall be revised to EMD's satisfaction before acceptance. In addition, proposals shall assume up to two rounds of comments and revisions from any subsequent reviewing agencies before the document is accepted as final.

### **a. Project Management/Meetings**

The Consultant shall participate in meetings with EMD and/or regulatory agency staff during the duration of the project. The Proposal shall clearly identify within

the cost proposal any project management hours necessary to complete the project.

**b. CEQA Compliance**

The Consultant shall prepare a CEQA Initial Study and related technical reports, including but not limited to preparation of a Biological Resources Report, Jurisdictional Determination/Wetland Delineation Report and an analysis under the California Rapid Assessment Method (CRAM). Proposal should list all technical reports deemed necessary to complete the CEQA Initial Study. Consultation with the Native American Heritage Commission and applicable tribes shall be included as an Optional Task. Tribal consultation under Assembly Bill 52 will be completed by the District. If those tasks are completed by District Staff, appropriate reports shall be provided to the selected consultant for inclusion into the environmental documents.

The Consultant Shall prepare Jurisdictional Determination/Jurisdictional/Wetland Delineation and CRAM analysis including but not limited to, identification of temporary/permanent acreages impacts of Waters of the US and Waters of the State (wetland and non-wetland), and identification of acreages and types of vegetation impacted within these waters.

Services related to circulation of the CEQA document, including but not limited to, preparing required notices (e.g. Notice of Intent (NOI) and Notice of Determination (NOD)), preparing the mailing list, circulation through the State Clearinghouse, direct mailings and preparation of advertisement for publication in the local paper.

Note: District staff will be responsible for publishing notices in the local paper and Clerk of the Board and posting environmental documents to its website.

Deliverables:

- Draft CEQA document with technical reports
- Biological Resources Assessment Report
- Jurisdictional Determination/Wetland Delineation Report
- CRAM Analysis
- Final CEQA document with technical reports and responses to comments
- Mitigation Measure Summary
- NOI and NOD
- State Clearinghouse Submission Forms
- Surrounding property owner and agency mailing list and mailing certification
- Advertisement for publication in the local paper
- GIS Data

**c. Regulatory Permitting Services (Optional)**

Prepare and submit permit applications for relevant regulatory agencies, including but not limited to:

- U.S. Army Corps of Engineers (USACE)
- Regional Water Quality Control Board (RWQCB)
- California Department of Fish and Wildlife (CDFW)
- Prepare technical memos or studies in response to regulatory agency requests.

- Attend meetings, site visits, and participate in communications with regulatory agencies as requested by the District.

Deliverables:

- Draft Permit Application(s) as required
- Final Permit Application(s)
- Technical memos/studies as requested
- GIS data/maps as requested

*Note: All Deliverables should assume a minimum of one (1) draft and one (1) final deliverable to the District before submittal to regulatory agencies*

## **10. BASIN AND STORM DRAIN DESIGN**

The District proposes the construction of a regional basin and storm drain facilities, designed to convey mitigated stormwater flows from the CSDP 3-4 Subarea watershed to the El Rivino Basin and ultimately the Santa Ana River. The basin project generally consists of excavations, slope improvements, levee construction (if needed), inlet and outlet structures, splash pads, closed conduits, transition structures, wingwalls, headwalls, cutoff walls, basin embankments, emergency spillway, grated inlets, and various access roadways and ramps. The outlet storm drain portion of the project, in general, consists of the installation of large diameter reinforced concrete pipe (RCP) or reinforced concrete box (RCB), transition structures, and utility crossings along a defined corridor that runs through El Rivino Road, Agua Mansa Road, and Riverside Avenue (the District is open to proposed alternative alignments).

The existing unimproved basin storage capacity is unknown and the consultant shall determine the required storage capacity of the ultimate facility to safely attenuate and convey the 100-year storm event flows downstream to the Santa Ana River. The basin embankment slopes will be constructed at a 3 to 1 ratio (3H:1V) for the interior slopes and at a 2 to 1 ratio (2H:1V) for the exterior slopes (if applicable), with a minimum top width of 20 feet. A 20-foot wide access road shall be constructed along the top of the embankment and around the basin within and beyond the cut-and-fill slopes. Multiple access ramps shall be provided with a minimum width of 20 feet wide and shall be used for maintenance purposes.

The proposed outlet storm drain alignment must consider the existing utility constraints, topographic conditions, and constructability to minimize disruptions and improve overall drainage system efficiency. Construction will occur primarily within existing road right-of-way and will include associated drainage structures and access features to support long-term operation and maintenance. The District is open to proposed alternative alignments.

The Proposer shall provide recommendations such that on-site materials can be utilized to the maximum extent practicable.

The design consultant is responsible for the following (If applicable):

1. Design components that include and are not limited to what is listed under Structural Design Engineering Services.
2. Prepare design plans, profiles, details, and cross sections for the basin and storm drain.

3. Prepare construction bid documents including Special Provisions.
4. Calculate quantity takeoff and cost estimate.
5. Provide field and records research to prepare the necessary design parameters.
6. Coordinate with the Flood Control District Engineer throughout the design process.
7. Obtain permits and/ or approvals from all applicable agencies.
8. Provide project schedule for the design process.
9. Provide submittals to the District for review and comments at 35%, 65%, 95%, and 100% completed plans, specifications, quantity takeoff, and engineer estimate.
10. Determine the need for additional right-of-way or design survey.
11. Basin and Storm Drain specific Drainage Report.
12. Coordination with the District Environmental Management department for any update necessary.
13. Monthly progress meetings.
14. Seismic conditions including fault locations and potential seismic surface movements with respective loadings and parameters of seismic shaking.
15. Potential impact of reservoir loading on geologic structures.
16. Evaluation of excavation and construction problems including subsurface rock, oversized material, caving soils, site preparation/grading (including potential over-excavation limits), backfill, drivability of temporary shoring, potential for groundwater seepage and dewatering.
17. Horizontal and vertical recommended limits for over-excavation beneath proposed embankments and concrete structures.
18. Recommended design parameters including but not limited to the following, for the embankment and its natural abutments and slopes adjacent to the basin areas:
  - a) Lateral earth loadings.
  - b) Shear strengths.
  - c) Bearing capacities.
  - d) Permeability.
  - e) Recommendations for temporary and permanent excavation slopes based on static and seismic analysis.
  - f) Special design and construction recommendations including, but not limited to, the following:
    - i. Foundation preparation requirements.
    - ii. Suitability of materials for embankments (gradation, sand equivalent, etc.).
    - iii. Relevant earthwork recommendations.
    - iv. Shrinkage and bulking percentages.
    - v. Percentage of material suitable for embankment construction.
    - vi. Compaction methods and minimum requirements.
    - vii. Seepage and piping control provisions.
    - viii. Potential for settlement.
    - ix. Seismic considerations
    - x. Necessity of impervious core or shear key.
    - xi. Embankment side slope protection, including recommendations for erosion protection and armoring.
19. Required relative compaction of embankment materials.
20. Location and extent of required over-excavation.
21. Determination of applicable geotechnical-related data, properties, coefficients, etc. required for the structural design of the concrete box structure, spillways, channels,

and the design of shoring and trench stability for any work proposed underground work.

22. Provide design of spillway subdrain system(s).
23. Provide recommendations for Special Provisions related to Caltrans Standard Specifications for construction.
24. Foundation evaluation of spillway and reinforced concrete box inlet/outlet structures.
25. Recommendations for construction monitoring and testing.

Deliverables:

- *AT 35% complete*
  - Title Sheet
  - Storm Drain and Basin Plan and profile sheets
  - Detail sheet with schematic design for major inlets and system outlet
  - Detention basin grading plan
  - Right-of-way / easement areas identified.
  - Design assumptions / Basin Routing / Hydraulic calculations (draft Drainage Report)
  - Preliminary Cost Estimate
  - Project Schedule
  - Estimated area of impact within Waters of the State and Waters of the United States to determine if a necessary update is required for the Environmental permits.
  - Electronic copy of all submittal items in their original format and in PDF format.
- *AT 65% complete*
  - Title Sheet
  - General Notes / typical section sheet.
  - The plans and profiles are to be more refined than the previous stage.
  - Storm drain detail sheets.
  - Storm drain connector pipe profile sheets (if any).
  - Exhibit of additional right-of-way acquisition areas (if any).
  - Detention basin grading plan.
  - Detention basin inlet and outlet detail sheets.
  - Detention basin misc. detail sheets (not including steel reinforcement schedules).
  - List of contract bid items.
  - Revised cost estimate.
  - Revised project schedule with slippage.
  - Revised list of anticipated construction equipment with estimated hours of use to determine if a necessary update is required for the Environmental permits.
  - Revised estimated area of impact and quantities of materials within Waters of the State and Waters of the United States to determine if a necessary update is required for the Environmental permits.
  - Electronic copy of all submittal items in their original format and in PDF format
- *AT 95% complete*

- Complete plans, special provisions, and estimates.
- Backup quantity calculations.
- Backup structural calculations if applicable.
- Electronic copy of all submittal items in their original format and in PDF format.
- *At 100% complete*
  - Final plans, special provisions, and estimates (including signed mylars).
  - Notes to Resident Engineer.
  - Final backup quantity calculations.
  - Electronic copy of all submittal items in their original format and in PDF format.
  - The Consultant shall prepare all necessary construction ready plans, reports, and/or applications including the SWPPP and/or Water Pollution Control Program (WPCP). Provide Final SWPPP and/or WPCP.

## **11. ENGINEER'S ESTIMATE**

The Consultant is responsible for creating and presenting the Engineer's Cost Estimate(s), encompassing shared components like mobilization, construction area signs, job site management, etc. This will be followed by individual breakdowns for the Project, incorporating all feasible construction elements outlined in the design package. The anticipated quantities will encompass various aspects, including but not limited to, specific categorizations such as removals, relocations, water pollution control, water diversion, demolition, basin construction (involving excavation, fill, compaction, reinforced concrete, rock slope protection, grouting, etc.), asphalt concrete (AC) paving if relevant, fencing and gates, survey monument if applicable, traffic control systems related to the Project, painting of pavement symbols and signs, raised pavement markers where appropriate, Project-specific signs, and more.

The Consultant is obliged to periodically update the cost estimates. At a minimum, these updates must be provided at 35%, 65%, and 95% completion of the Final Plan, alongside comprehensive backup calculation documents. The final construction cost estimate from the Consultant shall be consistent with the ultimate estimated quantities, with detailed computations showcasing projected quantities and costs of tasks, including cumulative totals. These computations will be shared with the District for assessment, but this act does not negate the Consultant's responsibility for submitting a precise quantity estimate.

Maintaining confidentiality is essential; all cost estimate records are considered confidential and shall only be disclosed to the District's Project Manager. Submittals of cost estimates must clearly be labeled as "Confidential" with a watermark. Within the Consultant's organization, access of cost estimates should be limited to essential personnel on a need-to-know basis.

### Deliverables:

- Quantity Breakdown for Bidding and Engineer's Cost Estimate at 35%, 65%, 95%, & Final Plans.

## **12. SPECIAL PROVISIONS**

The Consultant shall prepare the Special Provisions for the ultimate condition of the El Rivino Basin and Outlet Storm Drain Construction Project. The Special Provisions shall reference the latest version of the California Department of Transportation

(Caltrans) Standard Specifications and Standard Plans, and Standard Plans for Public Works Construction (SPPWC). Any Caltrans Standard Drawings utilized shall be the 2023 edition, or later with the latest Revisions. The Consultant shall prepare a preliminary and final quantity and cost estimate.

The Consultant shall utilize and incorporate the District's "Boiler Plate" documents, including the Notice-to-Bidders, proposal, bond forms, insurance requirements, and agreement shall be incorporated into the Special Provisions.

The Special Provisions shall include all sections covering specifications for the project-related construction items as well as utilities, standard plates, Project special drawings, and regulatory permits.

The Consultant shall be required to periodically submit updated Special Provisions for review. At a minimum, the Special Provisions shall be submitted following the progress of the Basin Design Plan as 65%, 95%, and Final Plan.

Deliverables:

- Draft and Final Special Provisions.

**E. ADDITIONAL REQUIREMENTS**

The Consultant must be registered as a Civil Engineer with the California Board for Professional Engineers, Land Surveyors, and Geologists. The Consultant should have similar work experience in preparing Master Plans of Drainage for State or Local agencies. A list of experiences and a copy of the professional license must be submitted with the proposal.

**F. NOTICE TO PROCEED**

Consultant shall not start work until directed by the District with a written Notice to Proceed.

## Scope of Work

### TASK 1 - PROJECT MANAGEMENT

**A. Work Plan** - A comprehensive work plan is key to successfully delivering a project of this magnitude. Within two weeks of being given a notice to proceed, WEBB will provide a Comprehensive Work Plan that builds upon the proposed project approach in this proposal. The Comprehensive Work Plan will include:

- List of Deliverables
- Baseline Milestone Schedule
- Project Contacts
- Scope of Work
- Budget
- Reporting and Invoicing Procedures
- QA/QC Plan
- Project Filing System

**B. Field Review** - Aerial Photos and Google Earth are fantastic tools that facilitate project planning, design, and analysis. However, there is no adequate substitute for getting boots on the ground and observing key elements of the project. We have budgeted time for an initial field walk of the proposed basin and storm drain alignment, as well as other critical areas of the Master Plan. Additionally, our proximity to the project site enables us to easily visit the site and obtain the necessary information for the project.

**C. Meetings and Coordination** - Regular, effectively planned and executed meetings are crucial for advancing the project and maintaining stakeholder engagement. This begins with a Project Kick-off meeting and continues through the project's life cycle with Monthly Progress Meetings. WEBB will prepare draft agendas for review at least two working days before each meeting. Meeting minutes and Action Item Lists will be distributed within three working days of each meeting. Based on our proposed project schedule, we have budgeted for 30 Meetings, which include the Kick-off Meeting, Monthly Coordination Meetings, and 5 additional coordination meetings.

**D. Quality Assurance and Quality Control** - Receiving deliverables that are technically accurate and high quality is a non-negotiable expectation that the County rightfully deserves to have. To ensure that this happens, we have designated an independent QA/QC Team for this project. This team of Senior-Level Associates will review and comment on each milestone deliverable throughout the project's duration. Joseph Caldwell has been designated as the Quality Assurance Officer and will lead the Independent QA/QC Team through the duration of this project. No

Formal Submittal or Job-Related Correspondence will be submitted without Review and Documented Signoff by Joseph.

**E. Project Schedule** - A preliminary project schedule is included as part of this proposal. This schedule will be updated monthly to track the project's overall progress. This will be compared to the baseline schedule and will identify any potential schedule slippage. This will help keep the project on track by allowing us to schedule the various resources needed to complete the project and, if required, develop a schedule recovery plan.

**F. Monthly Progress Report and Invoice** - Monthly Progress Reports will be sent out with the monthly invoice, summarizing current activities, highlighting upcoming activities, and addressing critical issues that need to be resolved to keep the project on track. Included in this proposal is a copy of a Monthly Project Report that we used for the Eastern Coachella Valley Stormwater Master Plan Project, which we completed for the Coachella Valley Water District.

#### Deliverables:

- Work Plan
- Photographs from Field Review
- Meeting Agendas and Minutes
- Action Item Lists
- QA/QC Plan
- Signed QA/QC Review Sheets
- Monthly Project Schedules
- Monthly Progress Reports

### TASK 2 - COMPREHENSIVE STORM DRAIN PLAN 3-4

**A. Memorandum of Understanding** - A Memorandum of Understanding (MOU) will be provided to document the analysis and design parameters and decisions, ensuring there is no misunderstanding regarding the project's progress moving forward. The Cities and County will both have the opportunity to weigh in on this MOU. Our experience working with clients and agencies has shown that these MOUs are highly beneficial, ensuring continuity when staff rotations or transfers inevitably occur.

#### Deliverables:

- Memorandum of Understanding

**B. Literature Review** - There has been extensive development in these project areas over the years. It is essential to gather the studies and improvement plans so we can better understand and assess the opportunities and constraints of the master plan moving forward.

**Deliverables:**

- Utility Notification Letters

**C. Utility Research** - A Master Plan does not require the same level of utility research as a design project. That being said, it is essential to understand the major facilities that would be extremely costly or disruptive to relocate. For other Master Plans we have prepared, we have included major water lines (42" and larger), transmission gas lines (16" and greater), Fuel Lines, and trunk sewer lines. We will reach out to the various utility purveyors and obtain record drawings of these major facilities.

**D. GIS Base Mapping Database** - A well-designed GIS significantly improves the processing and analysis of data. WEBB will coordinate up from with the County's GIS Team to ensure County's GIS for use going forward. WEBB will develop a comprehensive GIS that includes:

- Parcels (from County GIS Layers)
- Land Use (City and County General Plans)
- Soil Type (NRCS Soil Data)
- Existing Drainage Facilities (Utility Research and City and County Data)
- Existing Major Utilities (Utility Research)
- Topographic Surface (USGS LIDAR Surface)
- Environmental Constraints (Environmental Constraints Analysis)

**Deliverables:**

- GIS Geodatabase

**E. Hydrologic Analysis** - WEBB will prepare an initial Hydrologic Analysis utilizing the San Bernardino County Methodology and ultimate build-out conditions. Anticipating the updated Hydrology Manual and forthcoming guidance on using HEC-HMS, we intend to use HEC-HMS for this analysis. We will evaluate the 2-Year, 10-Year, 25-Year, and 100-Year Storm Events with appropriate climate change adjustment factors. Using HEC-HMS will make it easier to evaluate various alternatives and ultimately prepare a refined MDP Hydrology Model.

**Deliverables:**

- HEC-HMS Model and Summary Exhibits

**F. Existing Facilities Capacity Analysis** - There are several storm drain facilities located within the Master Plan Boundary. Many of these can potentially be incorporated into the updated Master Plan. To evaluate this, we will record the design flow rate and then prepare a model to determine if there is additional capacity in the facility beyond the design flow rate. This understanding will help inform the development of viable alternatives.

**G. Preliminary Hydraulic Analysis** - Our experience in preparing the Master Drainage Plan suggests that it is cost-effective to size the facilities using normal depth calculations initially. This is much quicker and provides initial sizing that ends up being very close to what a more detailed analysis would provide. This allows multiple alternatives to be evaluated and compared quickly. WEBB will initially size a Channel/Storm Drain option for the master plan. Facility alignments will be based on prior plans, known constraints, and coordination with the County and Cities. This base model will be part of the Alternatives Analysis and will provide a baseline plan against which to evaluate the other alternatives.

**Deliverables:**

- Existing Facility Capacity Exhibit

**H. Alternatives Analysis** - With the Base Plan, WEBB will collaborate with the County to develop three additional alternatives that include detention basins and/or facility modifications in various locations. Planning-level cost estimates will be prepared for each alternative, and a Technical Memorandum will be prepared to summarize the multiple alternatives, listing the advantages and disadvantages of each.

**Deliverables:**

- Technical Memorandum and Exhibits

**I. Preferred Alternative** - WEBB will coordinate with the Stakeholders to select a preferred alternative. The hydrology model will be refined to match the preferred alternative. Additionally, detailed hydraulics will be prepared for each facility. Cost estimates will be updated based on the refinements made for the Preferred Alternative.

**☐ Deliverables:**

- Updated Hydrology, Hydraulics, and Cost Estimates

**J. Conceptual Plan and Profiles** - WEBB will prepare conceptual-level plans and profile drawings for each proposed facility. It is anticipated that the conceptual plans will be drawn on an 11x17 Sheet with a photo background. Topography, Existing Utilities, Parcel Lines, and Environmental Constraints from the GIS Database will also be included on the Conceptual Plans and Profiles. Example Conceptual Plans from other MDPs we have prepared are included as part of this proposal for reference in Appendix A.

**☐ Deliverables:**

- Conceptual Plan and Profiles

**K. CIP Facility Prioritization** - The entire Master Plan will not be constructed all at once. There are two elements that we have included in previous master plans that have been especially useful to our clients (and their clients), who are the ultimate end-users of the Master Plan. The first is an Implementing Facilities Exhibit. Depending on where a new development project is constructed in the watershed, this exhibit will help staff quickly determine what backbone drainage infrastructure is required to ensure that the project has adequate drainage. The Implementing Facilities Exhibit showcases projects driven by development demands. The second type of project is one that the County and Cities will lead as part of their Capital Improvement Plans. WEBB will identify which facilities will provide the most benefit (both in terms of existing flood removal and the opening up of adjacent properties to develop). We will prepare up to 20 CIP Project Exhibits for the prioritized plan. We have included a copy of similar exhibits we have used for other water and sewer master plans in Appendix B. These are especially useful when staff are working with board members and others who need to know the basic facts of where the project is, what it will do, and how much it will cost.

**☐ Deliverables:**

- CIP Project Exhibits

**L. Draft MDP Report** - WEBB will compile the results of the Master Plan analysis into a comprehensive Master Drainage Plan Report. Consistent with other County Master Plans, the report will be contained in Four Volumes:

- Final Report
- Plans and Profiles
- Hydrology Calculations
- Hydraulic Calculations and Alternatives Analyses

Digital and Paper Copies of the Draft Report will be submitted to the County and Cities for Review and Comment.

**☐ Deliverables:**

- Draft MDP Report and Exhibits

**M. Final MDP Report** - WEBB will address comments on the Draft MDP Report and prepare a final MDP Report. Four paper copies and a Digital Copy will be submitted as requested in the RFP.

**☐ Deliverables:**

- Final MDP Report and Exhibits

**TASK 3 - DESIGN OF EL RIVINO BASIN AND STORM DRAIN**

**A. Hydrology and Hydraulics Report** - Utilizing the base hydrology from the Preferred Alternative, WEBB will prepare a Hydrology and Hydraulics Report specific to the El Rivino Basin and Storm Drain. This report will include all necessary hydrologic and hydraulic analyses required to design the proposed storm drain and basin.

**☐ Deliverables:**

- Draft and Final H&H Report

**B. Geotechnical Report** - WEBB has teamed with Geocon, who will provide geotechnical services for this project. We have reviewed the geotechnical parameters and requirements outlined in the RFP and commit to providing the required information in our report. As directed in the proposal, we have budgeted for 25 borings.

**☐ Deliverables:**

- Geotechnical Report

**C. Utility Verification and Coordination**

- **Field Review** – WEBB will conduct a field review to further identify utilities and other

project constraints that should be considered during the design phase.

- **USA Dry and Wet Utility Research** – WEBB will utilize USA service to research and identify known utilities in the project area. Letters will be sent to each identified agency requesting backup utility information. All collected utility information will be indexed.
- **Utility Base Map** – All utility information will be plotted on a utility base map that will be used to verify the storm drain alignment.
- **Recommended Pothole Exhibit** – WEBB will identify all utilities that need to be precisely located. WEBB will collaborate with the County in developing this exhibit that will serve as the basis for the subsurface investigation.
- **Subsurface Investigation** – Existing utilities will be potholed based on the Recommended Pothole Exhibit. The horizontal alignment of all known utilities along the alignment. We have included a budget for 20 potholes as requested in the RFP; however, we will only charge for the actual number of potholes required for the design of this facility.

#### ☐ Deliverables:

- ☑ Utility Research Letters
- ☑ Utility Base Map
- ☑ Recommended Pothole Exhibit
- ☑ Pothole Report

### D. Right of Way

#### ▶ D.1 Aerial Topographic Survey with Supplemental Field Topo

To establish accurate project baselines, our team will field-locate and recover existing benchmarks, setting the survey datum to the North American Vertical Datum of 1988 (NAVD88) and horizontal control to the CCS83 Zone 5, NAD83 (2011), Epoch 2010.0. Ground control and aerial targets will be set for comprehensive topographic mapping of the project limits.

We will obtain existing ground surface elevations and identify all visible features within the project area, including curbs, gutters, pavement, sidewalks, utility appurtenances, structures, and fence lines. Supplemental field topographic surveys will be conducted in critical areas as directed by the design team, with two field crew site visits budgeted for this task. Existing manholes will be surveyed to record invert and rim elevations.

The aerial and field topographic data will be integrated to produce a detailed topographic survey with one-foot contours. All processed data will be drafted into electronic CAD files, including the existing ground surface file, Civil 3D surface file, and existing plan file, ensuring seamless integration for the design team's use.

#### ☐ Deliverables:

- ☑ Digital color orthorectified photo (1"=40' scale) from Aerial subconsultant
- ☑ Electronic PDF & CAD of Aerial Topographic Survey from Aerial subconsultant
- ☑ TO CAD (Topo) file with Civil 3D surface for design based on aerial and field topo data
- ☑ XP CAD (Existing Plan) file with existing planimetric linework from aerial topo and field data for design

#### ▶ D.2 Alignment/ROW Survey

Our team will conduct comprehensive research using public records tools to gather all relevant reference materials, including Record Maps, Corner Records, Tie Sheets, Right-of-Way, and Easement Documents. Field surveys will be performed to locate and recover existing survey monuments, establishing precise survey control for the project using CCS83 Zone 5, NAD83 (2011), Epoch 2010.0.

Leveraging both public records and County-provided easements and deeds, we will analyze and map right-of-way lines for the project alignment, including the boundary for APN: 0259-181-30. Measured right-of-way distances will be compared to recorded distances to ensure horizontal control. Where records are unavailable, adjacent monument measurements will be used.

A detailed base map will be prepared, delineating property lines, road centerlines, right-of-way lines, and easements, with all source documents clearly noted for reference.

#### ☐ Deliverables:

- ☑ Electronic PDF of Alignment/ROW Survey, signed & stamped by a Licensed Land Surveyor
- ☑ AutoCAD file with 2D linework for the existing property lines, easements, right-of-way, and street centerlines to be used and referenced for design (PB File)

**Note: This scope of work does not include a record of survey. If it becomes necessary to file a record of survey and/or set survey monuments, separate authorization will be needed.**

**We have done our best to anticipate and estimate the amount of time necessary to locate and recover existing survey monuments; however, if survey monuments are missing or destroyed, additional field time may be required. This scope of work assumes that all monuments shown on record maps can be located and includes 28 hours for field survey crews to identify and recover existing survey monuments. If existing survey monuments are missing or destroyed, additional effort may be required to locate and recover the survey monuments necessary to complete the survey. If additional effort is required to locate existing survey monuments, the Client will be notified in writing and provided with a budget for authorization, prior to proceeding.**

► **D.3 Title Reports (“T&M”)**

Since the exact number of title reports needed is unknown at this time, an allowance has been included in the budget to obtain and furnish Title Reports, as necessary, from a title company. Effort and expenses will be charged on a “time and material” basis against this allowance. Title reports will be used to verify legal ownership, legal description of the property, and other easements/encumbrances on the property that may impact the project alignment and/or easement rights.

**Deliverable:**

- PDF of Title Report(s)

► **D.4 Legal Descriptions & Plats (“T&M”)**

An allowance has been included in the budget to prepare and provide legal descriptions and plats. Since the location, number, and extent of the legal descriptions and plats needed are unknown at this time, effort will be charged on a “time and material” basis against this allowance. The scope of work will generally include the following:

- Prepare legal descriptions and plats per San Bernardino County standards and requirements for proposed easements, locations, and configurations.
- Provide coordination, attend meetings, participate in phone calls, and respond to emails with San Bernardino County Staff and project design team members who went through the preparation and review of the legal descriptions and plats for approval.

**Deliverable:**

- PDF (and wet-signed original if required) of the legal description(s) and plat(s)

**Note: Time to resolve discrepancies between existing property lines is not included in this scope of work. If necessary, it will be provided under a separate scope of work and authorization.**

► **D.5 Pothole Survey**

- After potholing is complete, field survey crews will obtain horizontal location and elevation of pothole underground utility marking data (marked by the pothole contractor) and use it for reference in determining utility elevations. (Budget assumes 20 potholes and includes 1 – 8-hour field day of field survey crew time).

**Deliverable:**

- FT CAD File & PDF exhibit depicting pothole number, location, elevation, and horizontal coordinates

► **Additional Services**

Services which are not specifically identified herein as services to be performed by WEBB are considered Additional Services for the purposes of this Proposal. The Client may request that WEBB perform services which are Additional Services. WEBB will perform such additional services upon execution of an amendment to this Agreement setting forth the scope, schedule, and fee for such additional services.

**E. Pavement Design** - The construction of the proposed facilities will affect existing paved roads. As part of the Geotechnical Report, Geocon will analyze underlying soil conditions along the alignment and then recommend structural pavement sections based on City and County Standards.

**Deliverable:**

- Pavement Design Recommendations will be included as part of the Geotechnical Report

**F. Structural Design** - It is anticipated that non-standard structural design will be required as part of this project. We have partnered with Dokken to provide structural analysis and prepare a structural design report for non-standard structures, including junction

structures, diversion structures, inlets, and outlets. Based on our experience with similar projects, we have budgeted for the design and analysis of three structures. A scope and budget will be developed if additional structural analysis is required for the project.

**☐ Deliverable:**

- Draft and Final Structural Design Report

**G. Traffic**

Coordination will be undertaken with the cities of Colton, Rialto, and Jurupa Valley, as well as the counties of San Bernardino and Riverside, to ensure compliance with all applicable standards and requirements. A preferred truck route for basin grading import and export operations will be identified and documented in a memorandum, along with supporting mapping, which will be submitted to the affected agencies for review and approval.

Comprehensive traffic control plans will be developed to facilitate the construction of storm drain lines along El Rivino Road, Agua Mansa Road, and Riverside Avenue. The strategy will be tailored to the final storm drain layout and is anticipated to consist of 18 distinct phases, covering all major segments and intersections along the project corridor. Road closure schedules, where applicable, will be prepared for inclusion in the Special Provisions.

All traffic control plans will utilize accepted methods of lane closure delineation, signage, and barricading, with specific work areas protected according to construction phase and equipment requirements. Plans will be prepared in accordance with the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD) Revision 3, Caltrans 2024 Standard Plans and Specifications, and local standards as specified by the relevant cities and counties.

**☐ Deliverable:**

- Draft and Final Traffic Control Plans

**H. Environmental Services**

**▶ H.1 CEQA Compliance**

We understand that the Project entails two parts: Part 1 is a comprehensive storm drain plan for a wider boundary of Bloomington, and Part 2 is a specific construction project of the El Rivino Basin and outlet storm drain (Line D). We understand the County does

not require CEQA documents for Part 1. Our scope will include the following tasks to support the CEQA document needed for the County's discretionary approvals associated with Part 2.

- Prepare a Project Description based on the final drainage report. The project description will be reviewed and approved by the County before commencing the CEQA document tasks outlined above. (32 hours allocated total for this task; should coordination and development of a stable project description exceed these many hours, additional budget authorization will be evaluated and requested if necessary.)
- Prepare an Initial Study (IS) checklist with explanatory text for all topical issue areas, in compliance with the requirements of CEQA, the latest State CEQA Guidelines Appendix G, and the County's IS format.
- Submittal of Technical studies outlined below; each study will be reviewed once by the County and revisions provided.
- Assumes the IS will support the preparation of a Mitigated Negative Declaration (MND)
- Three (3) Screencheck/administrative reviews of the IS are included. Changes/comments will be provided in Track Changes.
- WEBB will prepare the required CEQA notices and State Clearinghouse submission forms (i.e., Notice of Intent, Notice of Determination, and Notice of Completion).
- WEBB will mail out Notice of Intent to the distribution list created by the County (up to 20 recipients included using FedEx or Certified Mail for PO Boxes only).
- The County will provide the property owner mailing list to its prescribed noticing radius (Limited to 10 recipients or fewer)
- WEBB will file the Notice of Intent with the County Clerk.
- WEBB will file the Notice of Intent, Notice of Completion, and Project documents with the State Clearinghouse on behalf of the County as long as the County designates WEBB as a Submitter.
- WEBB will provide an advertisement of the NOI in the San Bernardino Sun newspaper
- WEBB will ensure the IS/MND for Public Review is ADA compliant for posting with State Clearinghouse.
- WEBB will prepare the Mitigation and Monitoring Program (MMRP) per Section 15097 of the State CEQA Guidelines.
- WEBB will prepare a Response to Comments to the written comments received during the 30-day public review period; up to 20 individual

comments are included. No response to late comments or litigious comments from attorneys is included. If those types of letters are received, WEBB will evaluate remaining budgets and determine if a Change Order is needed.

- WEBB will prepare a screen check of the MMRP and Response to Comments for County review and incorporate two rounds of revisions.
- WEBB will provide the County with a Final MND, which will contain the public review MND, the response to comments, and the MMRP. (Only one round of revisions is included.)
- WEBB will file a Notice of Determination (NOD) once the County adopts the MND; the NOD will be filed within five days of adoption.
- Throughout the CEQA process, WEBB's Environmental Team has allocated a total of 80 hours for meetings with the County, Stakeholders, and/or Project Design Team. Once these hours are expended, additional budget authorization will be required.

Per the RFP, we understand that the County will do the following essential tasks related to the CEQA compliance for the Project:

- The County will provide the required notice to the local newspaper.
- The County will conduct Tribal consultation under Assembly Bill 52.

No NEPA compliance documents are included.

### ▶ H.2 CEQA Project Management and Meetings

- Internal project team coordination with the engineering design team and subconsultants. Up to 40 hours total included for coordination.
- Create and maintain a CEQA Schedule.
- Meetings: Up to 40 hours of total WEBB Environmental effort for meetings with the County or other Agencies and the WEBB Team.
- No public meetings included.
- Up to two staff representatives from WEBB will attend each meeting.

### ☐ CEQA Compliance Deliverables:

- ☑ Draft IS/MND
- ☑ Public Review IS/MND
- ☑ NOI and the Surrounding property owner and agency mailing/circulation, publication in the San Bernardino Sun
- ☑ Posting NOI and NOD with State Clearinghouse

### ☑ Final MND, MMRP

### ▶ H.3 Air Quality/Greenhouse Gas Analysis

WEBB will prepare an Air Quality/Greenhouse Gas (AQ/GHG) Analysis in accordance with the South Coast Air Quality Management District (SCAQMD) requirements to evaluate the construction emissions from the Project. It is assumed that operational emissions sources are negligible and are evaluated qualitatively. The analysis will:

- Calculate emissions from construction activities from a single design of the Project using the SCAQMD's CalEEMod (version 2022.1) program.
- Prepare a regional significance threshold analysis and a localized significance threshold analysis using the LST Look-Up Tables, as required by SCAQMD.
- Prepare a GHG analysis based on consistency with the County of San Bernardino's GHG Reduction Plan, through completion of a screening-level analysis using CalEEMod and preparation of a screening table for non-residential development, as the Project is anticipated to exceed the GHG screening threshold.
- Compare Project emissions to the 2021 San Bernardino County Greenhouse Gas Reduction Plan "small project" threshold or similar screening threshold utilized by applicable jurisdictions. It is presumed that emissions fall below all applicable thresholds.
- Analyze model results and incorporate mitigation measures, as appropriate, into the computer model. It is assumed that all modeling assumptions will be approved by the District prior to the commencement of any modeling and that all required data will be readily available and provided by San Bernardino County.

A technical memorandum will summarize Project-related emissions, identify potential impacts from the Project, and recommend mitigation measures to reduce those impacts, as appropriate. WEBB will also calculate the energy consumption from construction activities associated with the proposed Project. Energy calculations will be presented in tables and included under separate cover. This scope includes revisions from one round of San Bernardino County comments that are editorial in nature.

**□ Deliverable:**

- Air Quality/GHG/Energy Technical Memorandum (1 round of revisions included)

**▶ H.4 Biological Studies (SWCA)**

The El Rivino Basin is approximately 10 acres in size, and Line D is approximately 2.4 miles in length. Based on a preliminary review for scoping purposes, the biological resources within the immediate project vicinity are considered to have high sensitivity, with a low potential for occurrence at the Storm Drain area and moderate potential at the El Rivino Basin.

A preliminary review identified records for federally listed species including Santa Ana River woollystar, Slender-horned spineflower, Gambel’s watercress, Nevin’s barberry, San Diego ambrosia, San Bernardino Merriam’s kangaroo rat, Stephens’ kangaroo rat, coastal California gnatcatcher, least Bell’s vireo, southwestern willow flycatcher, southwestern pond turtle, western spadefoot, Santa Ana sucker, Delhi Sands Flower-loving fly, and Monarch butterfly. State-listed or candidate-listed species with the potential to occur in the project area include the burrowing owl and Crotch’s bumblebee. Additionally, the project area is located within the U.S. Fish and Wildlife Service (USFWS)-designated critical habitat for the Santa Ana Sucker and Southwestern Willow Flycatcher. Riparian and potential wetland features are situated in close proximity to the project area.

Given this, SWCA will provide the following tasks (detailed scopes included in Appendix C):

- Background Research
- Biological Resources Habitat Assessment
- Biological Resources Assessment Report

**□ Deliverable:**

- Biological Resources Technical Report (1 round of revisions included)

**▶ H.5 California Rapid Assessment Method (SWCA)**

SWCA will conduct an Aquatic Resources Delineation (ARD) survey to identify and map potentially regulated aquatic resources. SWCA will incorporate the ARD survey findings into an Aquatic Resources Delineation Report (ARDR). Additionally, baseline wetland conditions will be assessed using the California Rapid Assessment Method (CRAM). The scope and costs estimated for the following tasks are based on the

assumption that the aquatic resources delineation and CRAM assessments will include riverine waters and wetlands near the outfall area at the Santa Ana River.

The following general tasks will be performed (detailed scopes included in Appendix C):

- Aquatic Resources Delineation Survey
- Aquatic Resources Delineation Report (ARDR) (aka Jurisdictional Delineation)
- California Rapid Assessment Method (CRAM)

**□ Deliverable:**

- ARDR (1 round of revisions included)

Baseline Condition Assessment Report/CRAM (1 round revisions)

**▶ H.6 Cultural Resources (SWCA)**

The Basin, Outlet, and Storm Drain likely constitutes an Undertaking, as defined by the NHPA, due to FEMA funding. Consequently, though not explicitly stated in the Request for Proposal (No. PWG 126-FLOOD-6001), a cultural resource/historic property technical report combining CEQA and Section 106 compliance and a paleontological assessment memo will both be required.

Under Section 106, typically, a request is made to the Native American Heritage Commission, and information gathering with tribes is completed as part of the cultural resource data collection process. As an Optional Task, SWCA proposes to conduct Assembly Bill (AB) 52 consultation for the District.

For the Comprehensive Storm Drain Plan (CSDP) 3-4 Project (CSDP Project), SWCA proposes to conduct a more limited Cultural Resources constraints analysis, consisting of a records search and a summary memo, to aid in the historical discussion within environmental considerations and regulatory objectives and policies as stated in the Request for Proposal.

SWCA has conducted a preliminary review of publicly available information for scoping purposes. In the Basin, Outlet, and Storm Drain Project, the likelihood of identifying surficial archaeological resources appears low because the El Rivino location is within a previously excavated borrow pit, and the outlet and storm drain are within a fully developed corridor consisting of a utility alignment, roads, and residential and commercial development. Similarly, the potential for identifying built-environment cultural resources also appears low, as no aerial photographic evidence of

construction over 50 years of age appears within the Basin, Outlet, and Storm Drain project's area.

Additional investigation and analysis will be required to assess whether the Basin, Outlet, and Storm Drain Project contains significant cultural/historical resources or historic properties. Based on our current understanding of the Project, SWCA has identified the following tasks, given that the El Rivino Basin is approximately 10 acres in size and Line D is approximately 2.4 miles in length.

A full description of SWCA's scope is included in Appendix C; below is a summary of the SWCA tasks:

- Literature Review / Archival Research
- Cultural Resources Survey
- Tribal outreach for Section 106 Compliance
- Cultural Resources Technical Report
- Optional Task: Assembly Bill (AB) 52 support

**Deliverable:**

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- Cultural Resources Technical Report (1 round of revisions included)

▶ **H.7 Paleontological Resources (SWCA)**

A preliminary review of geologic mapping within the Project area indicates low to high sensitivity for paleontological resources. Given the FEMA funding aspect of the Project, a paleontological memo documenting the risk of finding said resources will be provided. The general tasks are as follows:

- Desktop Review and Museum Records Search
- Paleontological Resources Memo.

**Deliverable:**

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- Paleontological Memo (1 round of revisions included)

▶ **H.8 Optional Task: Regulatory Permitting**

If the Project results in permanent and/or temporary impacts to potentially jurisdictional features, then regulatory permits will be required. WEBB will use the results of the JD Report to prepare the necessary applications. Permits to authorize Project impacts may be needed from the California Department of Fish and Wildlife (CDFW) pursuant to State Fish and Game Code Section 1600 et al., U.S. Army Corps of Engineers (USACE) pursuant to Clean Water Act section 404, and the Santa Ana Regional Water Quality

Control Board (RWQCB) pursuant to Clean Water Act section 401. However, if the JD Report determines that the Project does not impact Waters of the U.S., then a 404 permit and 401 permit will not be required. WEBB will instead prepare an individual dredge and fill permit with the RWQCB for impacts to Waters of the State that have no federal jurisdiction.

WEBB will draft the permit applications for client review and assist with submitting them to the agencies upon client approval. CDFW and RWQCB have application fees, which will be requested separately and are not included in this budget. The RWQCB application requires several items, in addition to the application itself, that are included in our budget: Draft Compensatory Mitigation Plan, Temporary Impacts Restoration Plan, and Alternatives Analysis. Permit applications require attachments, including the following, which are included in this proposal: biological studies/surveys, JD Report, CRAM analysis, cultural resources report, and storm drain engineering plans. After the applications are submitted, WEBB will regularly follow up with each agency to confirm that the application is complete and to address any questions during their review. WEBB will attend up to 4 hours of meetings, site visits, and communications with regulatory agencies during the permit process. Once permits are secured, this task is complete.

Our budget for the USACE permit assumes that a Nationwide Permit will apply to the Project based on our understanding that the outfall structure will be in the location of the existing structure that was installed with the warehouse; however, if USACE determines that an Individual Permit is required, then a contract amendment will be required. Our budget includes support for developing a mitigation strategy to address impacts on jurisdictional features; however, it does not cover securing mitigation, developing a Habitat Mitigation Monitoring Plan (HMMP), or similar documents. It also does not include post-award support, such as pre-construction surveys or notifications to regulatory agencies.

**Note: Based on a review of District maps, we have not included a 408 permit.**

**Deliverables:**

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- Draft Permit Application(s) as required
- Final Permit Application(s)
- Technical memos/studies as requested
- GIS data/maps as requested

**I. Basin and Storm Drain Design**

- 35% Plan
  - » 35% Design Plans - A 35% Plan Set will be developed in accordance with County Design and Drafting Standards. The 35% design will establish the permanent and temporary construction easements necessary for this project. The plans will show the plan, profile, and sections of the storm drains. Also included with the Plan Set will be survey control plans.
  - » Field Walk - Following the 30% Submittal, WEBB will coordinate a Field Walk along the alignment with County and City Staff. Taking the time to identify constraining conflicts at this stage is an investment that yields a great return in both time and budget throughout the remainder of the project. WEBB will incorporate all comments from the Field Walk into future submittals.
  
- 65% Plan
  - » The 65% Plan Set will incorporate any adjustments resulting from ongoing coordination with the County and Cities. It will also reflect adjusted utility information resulting from the potholes. The 65% plans will include all design elements for the storm drain as outlined in the RFP.
  
- 95% Plan
  - » The 95% Plan Set will incorporate any adjustments resulting from ongoing coordination with the County and Cities. It will also include traffic control plans and all required structural details.
  
- 100% Plans
  - » Final Field Walk - WEBB and the County will perform a final field walk of the project alignment. Any changes identified during the field walk will be incorporated into the 100% Plan Set.
  - » Signed 100% Plans - WEBB will provide any/all necessary revisions that have been requested so that the plans are considered approved and ready to print to mylar. Plans will be digitally signed.
  - » 100% CAD Files - All electronic CAD files will be submitted to the County.

**Note: No grant support is included.**

**Deliverable:**



- Improvement Plans at various design stages

**J. Engineer's Estimate**

- 35% Quantities & Estimate &
- 65% Quantities & Estimate &
- 95% Quantities & Estimate &
- 100% Quantities & Estimate

This project will ultimately go out to bid for construction. With that end in mind, WEBB will prepare quantity estimates based on bid and pay items. To facilitate this, we will utilize a Plan and Specification Spreadsheet that lists construction notes, Specification Section, and Plan Sheet Number. We will provide quantities by sheet using Excel and Bluebeam as backup. Cost estimates will be prepared based on previous bid results and WEBB's construction cost database.

**Deliverable:**



- Engineer's Estimates at various design stages

**K. Special Provisions**

- 65% Specifications &
- 95% Specifications &
- 100% Specifications

WEBB will utilize the County's boilerplate to prepare project specifications. The effort undertaken in Task 3.J to define payment units will help to streamline the preparation of the Project Specifications.

**Deliverable:**



- Special Provisions at various design stages