

EXHIBIT A – SCOPE OF SERVICES

COUNTY OF SANTA CRUZ COMMUNITY DEVELOPMENT & INFRASTRUCTURE

The following is a sample scope of work. The Consultant shall suggest deviations as necessary to complete the plans, specifications, and cost estimates for the proposed Project in accordance with County, Caltrans, and AASHTO requirements.

Final deliverables will be provided in PDF format. Plans will be plotted directly from AutoCAD to pdf, so that pdf files are of a high quality using electronic bookmarks. Upon request, electronic files (MSWord, Excel, AutoCAD Civil 3D format, MS Project, etc.) with all supporting files will also be provided to County. Plans will be prepared and provided in AutoCAD Civil 3D.

All meetings will be held virtually (Microsoft Teams) unless specified as otherwise.

Task 1. Project Management Task 1.1.

Project Management

Consultant will manage the Project Team, monitor schedule and budget, and prepare monthly progress reports and invoices.

Task 1.2. Kick Off Meeting and Field Investigation

Consultant will coordinate an initial field review with the County Project Manager and other project stakeholders to review the proposed project and to highlight and record significant project features. The Consultant will conduct a visual on-site field investigation to identify existing conditions and establish preliminary design assumptions and parameters. The field investigation will be coordinated such that it is on the same day as the kick-off meeting. The Consultant's Project Manager and Project Engineer will attend.

Task 1.3. Progress Meetings

Consultant Project Manager and appropriate staff will meet with the County Project Manager and others as necessary to manage and deliver the Project. One-hour meetings will be scheduled virtually monthly to keep the County informed of the status of the Project and to gain timely decisions from the County. Initially more frequent meetings are likely required and should be scheduled on an as needed basis. The Consultant will prepare meeting agendas and meeting notes in a format specified by the County. Assume a total of 36 meetings.

Deliverables

- Meeting notes and meeting agendas
- Monthly updated project schedule

Task 2. Geotechnical Investigations

Task 2.1. Geotechnical Data Collection

Pre-field activities include developing a field exploration plan, contacting Underground Services Alert (USA), and notifying utilities as necessary. Consultant will provide traffic control, as necessary, for the field exploration. Boring locations and depths will be determined based on available design and alignment information.

Task 2.2. Laboratory Testing

Consultant will perform laboratory tests on selected samples collected from the drilling. Testing will be performed in accordance with the applicable standard of ASTM or Caltrans. Selected soil samples obtained during the field exploration will be tested in a Caltrans-certified laboratory to evaluate certain physical properties that will be necessary to complete the engineering analysis. The types and numbers of tests may vary depending on the results of the field exploration program and the alternative selected.

Task 2.3. Geotechnical Report

The Consultant will prepare the Geotechnical Report. The report will include a description of the Project and analyses performed, field and laboratory data collected, and graphics showing the site location, the locations of the field explorations relative to the proposed improvements, and an interpreted subsurface profile. The Geotechnical Report will also include a discussion of local geology, slope stability, and potential for geologic hazards (seismicity, faulting, slope instability, settlement, and liquefaction).

The Geotechnical Report will present final recommendations for design of the Project including seismic design criteria, bearing capacity and lateral earth-pressures for the project's structures, slope gradients and setbacks, and geotechnical material specifications. Recommendations will be made to support the new structure along Quail creek and adjacent slopes that may be affected by the Project. Recommendations will include foundation type (shallow or deep), abutments, retaining walls, etc based on structure type chosen and as determined by geotechnical site condition requirements.

If deep foundations (piles) are needed, the following will also be included in the Geotechnical Report, as applicable:

- Recommended pile type (CIDH or other).
- Liquefaction potential and the need to consider down-drag forces, seismic settlement, loads due to lateral spreading, or friction reducers in the pile design.
- Where applicable, include deep foundation analyses, minimum pile embedment and diameter, pile spacing and group effects, specified pile tip elevation, and estimated settlement.
- Lateral load versus deflection curve for selected pile foundations.
- Lateral loading on piles due to lateral spread, if determined appropriate by geotechnical seismic evaluation.
- Anticipated pile driving and/or CIDH pile drilling conditions for the foundation type selected.
- Lateral load resistance of pile foundations.

The Geotechnical Report will identify the corrosion potential of foundation soil, reinforced concrete substructures, and structural steel based on test data and Caltrans design methods. The report will also provide construction considerations regarding excavation characteristics of the soil and/or rock encountered, suitability of excavated on-site soil for reuse as compacted structural fill or structural backfill, temporary slopes, shoring, dewatering and/or stream diversions, and stability as well as requirements for temporary cuts or shoring adjacent to existing roadways, structures, or property.

Task 3. 35% Design – Preliminary Engineering Based on the outcome of the geotechnical

Task 3.1. 35% Design

The Consultant shall prepare preliminary engineering plans. Preliminary engineering includes layouts of the Project to an approximate 35% level of completion.

The Consultant will develop a preliminary design of the recommended Project including:

- Geometric alignment of the roadway, vertical and horizontal profiles
- Proposed detour alignments, if applicable
- Preliminary foundation concepts
- Preliminary slope stability considerations
- Draft construction schedule
- 35% design cost estimate

Deliverables

- 35% level preliminary engineering plans (pdf).
- Each storm damage site shall have its own individual plans set, including title sheet, details, mitigation plan etc.
- Engineer's Estimate of Construction Costs in MS Excel format

Task 3.2. 35% County Review

County Design staff will perform a 35% review of the plans and compare the concept to the approved Damage Assessment Form and provide a written markup of the plans.

Task 4. Environmental Permitting

Task 4.1 Biological Technical Report

The Consultant will prepare a Biological Technical Report in support of the CDFW 1602 permit and Section 401 Certification which will include a description of the field methods used and the assessment of the project area. The Biological Technical Report will list plant and animal species present, along with a general description of the plant communities occurring within the project area. If any sensitive resources are found on the site, the consultant will prepare and include in the study a graphic displaying the location of the sensitive plant communities on site and any sensitive biological resources observed. Mitigation measures for potential impacts to sensitive species will be included as necessary. A Habitat Mitigation and Monitoring Plan (HMMP) will also be prepared for this report, per County guidelines.

(<https://cdi.santacruzcountyca.gov/UPC/EnvironmentalPermitsTechnicalReviews/SensitiveHabitat/BioticReviewandApprovalProcess.aspx>)

Task 4.2 Section 1602 Streambed Alteration Agreement

The Consultant will coordinate with the California Department of Fish and Wildlife (CDFW) to obtain a Section 1602 Streambed Alteration Agreement. The Consultant will delineate boundaries of CDFW jurisdiction, assess project impacts, prepare a Notification of Streambed Alteration, and enter into a Streambed Alteration Agreement with CDFW. This scope of work assumes that the County will be responsible for the 1602 application fee.

Task 4.3 Section 401 Water Quality Certification

A 401 Water Quality Certification will be filed through the Regional Water Quality Control Board in accordance with Sections 3830 through 3869 of Title 23 of the California Code of Regulations. The Consultant will prepare an application for Water Quality Certification that will include a project location map and design plans. This scope of work assumes that the County will be responsible for the 401 application fee.

Task 4.4 Section 404 Nationwide Permit

The consultant will prepare and submit a Section 404 Clean Water Act permit application to the U.S. Army Corps of Engineers for activities impacting Waters of the U.S., including wetlands. This includes reviewing project plans, assisting with wetland delineation and jurisdictional determination, preparing alternatives and mitigation plans as needed, compiling the permit package, coordinating with regulatory agencies, and responding to comments to ensure successful permit approval.

Deliverables

- Biological Technical Report and Habitat Mitigation and Monitoring Plan
- Section 1602 Streambed Alteration Agreement
- Section 401 Water Quality Certification

Task 5. 65% Design

Task 5.1. 65% Design

Consultant will submit 65% plans, contract items list, and engineer's estimate to the County. The County will review the 65% submittal and submit comments to the Consultant. Consultant will create a log showing how all comments were addressed as part of the 95% submittal package.

Consultant will prepare the roadway civil design to conform to standard Caltrans and County requirements. The 65% submittal shall include Title Sheet, Typical Sections, Tree Removal and Trimming, Project Control, Layouts, Profiles, Construction Details, Diversion and Dewatering Plan (if applicable).

Drainage Plans, Utility Plans and Details, Traffic Handling, Stage Construction (if applicable), Erosion Control/Water Pollution Control Plans, Pavement Delineation, Detour Plans, and Sign Plans. The structure plan sheets will include General Plan, Cross-Sections, Typical Section, miscellaneous details, and Log of Test Borings. Consultant will identify temporary easements and/or permanent right-of-way modifications to construct the Project.

The engineer's estimate will be updated from the preliminary costs based on updated quantities and unit costs compiled from recent bid data and adjusted for County-specific construction costs.

Seismic design will be performed in accordance with applicable edition of the Caltrans Seismic Design Criteria. Detailing of plans will be in accordance with Caltrans Design Details Manual. Both the design and detailing will be based on the use of the current Caltrans Standard Plans and

Standard Specifications.

Task 6. Appraisal Exhibits

For each proposed permanent and temporary easement(s), prepare exhibit(s) to be used by County right-of-way staff showing the existing right of way, proposed right of way, the area to be acquired, and the APN.

Task 6.1. Legal Descriptions and Exhibits

Provide plats and legal descriptions with exhibits graphically showing the areas described. The legal description will be used for the acquisition of new right of way by the County and/or joint use agreements. The County will conduct appraisals and acquisitions.

Task 7. 95% Design

Task 7.1. 95% Specifications

Consultant will prepare the technical specifications using the latest Caltrans Standard Special Provisions (SSP's). The basis of the specifications shall be the Caltrans Standard Specifications. The County will prepare the "boiler plate" documents, including the notice to bidders, proposal, bond forms, and agreement. Required mitigation measures and permitting requirements from the environmental permits will be included in the specifications.

Task 7.2. 95% Design

A submittal of the 95% plans will be made to the County based on comments received on the 65% submittal. The submittal will include the plans, specifications, and estimate. A preliminary construction schedule will be submitted. The County will review the 95% submittal and submit comments to the Consultant. Consultant will create a log showing how all comments were addressed as part of the Final PS&E package submittal.

The roadway plans will be advanced to include construction area signs sheet, additional detailing for roadway conforms, grading, landscaping, drainage details, and additional structural details as needed.

95% Deliverables

- 95% Draft Plans in PDF
- Each storm damage site shall have its own individual plans set, including title sheet, details, mitigation plan etc.
- Technical Special Provisions in MS Word format
- Engineer's Estimate of Construction Costs in MS Excel format
- Estimated construction schedule in MS Project format

Task 8. 100% PS&E:

Upon receipt of comments from the 95% PS&E submittal to the County, and other jurisdictional agencies, which will be routed through the County, final revisions will be made. Consultant will incorporate appropriate comments in the plans, specifications, and estimate and log all comments and identify how each comment was addressed. The engineer's estimate will be updated based on final quantities and unit costs updated based on the most recent bid data and adjusted for County- specific construction costs.

Consultant will perform an independent QA/QC review of the Final 100% submittal package and incorporate appropriate revisions prior to submittal to the County. The Final submittal will include a detailed construction schedule with an estimate of working days.

100% PS&E Deliverables

- Electronic Microsoft Word file of specifications
- Final Technical Special Provisions signed by the Registered Engineer
- Electronic Microsoft Excel file of Construction Cost Estimate
- Estimated construction schedule with estimated working days calculation (MS Project format)
- Resident Engineer's File
- AutoCAD Project Plans
- Each storm damage site shall have its own individual plans set, including title sheet, details, mitigation plan etc.
- PDF copies of each deliverable stamped and signed as required

Task 9. Bid Period Consultation:

Consultant will provide bidding assistance to the County including interpretation of the contract documents, assisting the County in preparing addenda to the PS&E.

Bid Period Deliverables

- Prepare addenda as needed
- Respond to RFI's as needed

Task 10. Utility Coordination

The County will obtain utility atlas maps and coordinate with utilities, identify relocation liability, coordinate utility agreements, and meet with utility representatives. The County will obtain relocation plans from the utilities. The County will provide this information to the Consultant. Consultant shall identify potential conflicts, develop conflict exhibits for each utility, and incorporate existing and proposed utility relocation information into the plans and specifications. At least one plan sheet will be provided in the PS&E submittals that shows the existing utilities and proposed relocations.

Task 11. Construction Support (OPTIONAL)

Consultant shall include, in their proposal, a separate item for optional construction support services. Consultant shall provide the following services, only if requested by the County.

- Attend a pre-construction meeting
- General interpretation of plans and specifications
- Review and comment on shop plan drawings, submittals, and mix designs
- Response to RFIs
- Construction site observations
- Development of plan revisions as needed
- Preparation of As-Built drawings

Within the construction support proposal line item, the consultant shall include a clause that specifies that the budget from construction support item may be used or transferred to other design related tasks,

specified herein, if requested and approved by the County project manager in writing.