

WORK PLAN

EXHIBIT 1 - Scope of Work

Work Plan

Following is a description of the work tasks required to complete Phase 1, Project Corridor Evaluation, and Phase 2, Preliminary Engineering and the preparation of the Project Study Report for Tesla Road.

TASK 1 - PROJECT MANAGEMENT

Project management activities include project administration, coordination, and oversight. This task also includes the following specific tasks.

1.1 Administration

Project Administration will include the following elements:

- General Project Management Activities
- Oversee the activities of in-house staff and subconsultants throughout the contract period
- Conduct in house project team meetings on a regular basis
- Monitor project progress
- Prepare/review project correspondence and memos
- Prepare monthly invoices

Deliverables

- Monthly Progress Reports
- General Project Correspondence

1.2 Project Schedule

A critical path Microsoft Project master project schedule will be developed for the project broken down by individual tasks and will incorporate a sub-schedule for each critical project element, such as survey, environmental, and traffic. The master schedule will include all known or anticipated logic ties and constraints between project elements. The subconsultant schedules will be integrated into the master schedule so that they correspond to the work and division of responsibilities. The master project schedule will be submitted to the County and other stakeholders for review and approval. The approved schedule will then be used to establish deadlines for receiving comments and decision making. The project schedule will be updated on a monthly basis and submitted to the County with the monthly progress report.

Deliverables

- Project Schedule and Monthly Updates using Microsoft Project 2010.

1.3 Project Status Reports

Progress Reports will be prepared monthly by TYLI and submitted with the monthly invoice. The Progress Report will discuss work items that have been completed during the previous reporting period, relative progress compared to the project budget and schedule, work to be performed during the coming period, and developing issues that may affect scope, schedule, or budget. The project invoices will include percent complete by task, and remaining hours and budget by task.

Deliverables

- Monthly Progress Reports



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1.4 Project Team Meetings

The TYLI project manager and team members will organize and conduct regular meetings with County staff to ensure that the project progress and issues are discussed in a timely manner. These meetings will include:

- A project Kick Off Meeting
- Project Development Team Meetings as required (Up to 12 meetings)
- Site Review Meetings as required (Up to 4 meetings)

Deliverables

Meeting Agendas and Minutes

Meeting agendas, maps, drawings, and other relevant materials will be prepared for all project meetings, and meeting minutes will be prepared and distributed within five (5) days following all project meetings.

1.5 Project Files

TYLI will maintain Project files in accordance with Caltrans' Uniform Filing System or another preferred filing system as identified by the County. Project files will be available for the County's review during the project, and upon completion and acceptance of the project, original files will be delivered to the County. Subconsultants will utilize the same file system.

Deliverables

Electronic Copy of Final Project Files including final reports and exhibits, ACAD and C3D project drawings and support files, design calculations, meeting minutes, and official correspondences including PDF's, EXCEL spreadsheets, and Word Documents.

1.6 Quality Assurance / Quality Control

TYLI will perform Quality Assurance/Quality Control (QA/QC) reviews in accordance with our internal QA/QC Manual and Project Management Guide to assure control of quality during development of the design services. Deliverables will be checked by project staff and will receive quality reviews before being released to anyone outside the team. Subconsultants will perform similar reviews before submittal of documents to TYLI for further processing to the County.

QA/QC will be a scheduled and budgeted task within the development of each deliverable. In addition to normal, on-going routine checking and review, milestone and final reviews of plans, estimates, and reports will be conducted to assure consistent quality and accuracy.

Preparation of design calculations, design criteria, technical studies, reports, and cost estimates will conform to the procedures and guidelines established in the TYLI QA/QC Manual.

Project Engineers will review and initial all TYLI produced originals as a record of routine checking and quality control measures taken in review of design calculations.

Deliverables

Electronic copies of QA/QC checklists and/or redline reviews of reports, exhibits, and engineering calculations



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Phase 1 will consist of gathering and reviewing available project information, performing environmental field reviews, gathering existing traffic data such as traffic vehicle and bicycle counts, and performing a traffic and transportation study.

2.1 Field Reviews

The TYLI team will perform field reviews of the site to gather information on existing site conditions, project constraints, and other information as needed to support the alignment analysis and preparation of the final PSR. We anticipate one initial field review and several additional site reviews during the course of the project to refine the alignment alternatives.

Haygood & Associates (H&A) will also perform a field review to determine native oaks that are within the assumed area of disturbance of the future road work. With the quantity of native oaks in the areas of disturbance, H&A will ascertain the number replacement trees that will be required according to prescribed replacement ratios and the associated costs of replacement of same. If H&A sees other trees within the areas of potential disturbance that are of heritage quality, the firm will note them as important trees to preserve and protect.

2.2 Research and Investigation

TYLI will obtain and/or review available data and information from Alameda County and other government agencies or organizations. This includes:

- Previous report(s) or documents
- As-built plans
- CHP Traffic Accident Reports
- Utility information
- Aerial photos and mapping
- Survey control data
- Existing right--way information.

We will obtain an Access Encroachment Permit from the County as required to conduct site investigations, collect traffic data, and perform ground control surveys to prepare aerial topographic mapping.

This task will also include performing a site reconnaissance and a review of published maps and reports in order to determine any geotechnical constraints and prepare a geotechnical constraints report with preliminary recommendations as follows:

Discussion of findings and geotechnical concerns:

- Subsurface conditions
- Approximate location and extent of existing landslides
- Liquefaction potential
- Settlement of soft soils under the weight of proposed fill
- Expansive soil conditions
- Groundwater conditions

Provide recommendations for:

- Earthwork including minor cut and fill slope construction and fill placement criteria
- Preliminary asphalt concrete pavement design sections for R-value(s) based on assumed Traffic Indices (TI)



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Geotechnical Constraints Report

2.3 Prepare Base Mapping

The TYLI team will establish and survey the aerial photo control points and prepare aerial topographic mapping for the project. The specific tasks include:

Ground Control – We will obtain the county specified datum and elevation control information to be used for the project. Survey the aerial control photo control points will be established using RTK GPS to survey the base control and flight crosses and develop coordinates and elevations for use in preparing the aerial topographic mapping.

A total of 47 Ground Control Targets will be required for Tesla Road.

The project horizontal datum will be CA State Plane NAD83 Zone 3 and vertical datum will be NAVD 1988.

Aerial Photography – Geocadd will utilize a Zeiss TOP 15 camera using 9 inch aerial negative film and 6 inch focal length. The Zeiss camera is a currently calibrated eight fiducial image motion compensation precision aerial mapping camera which meets or exceeds the U. S. Geological Survey standards.

The aerial photography shall be taken when the ground is not obscured by haze, smoke, clouds or cloud shadow. The aerial photography will be taken from an altitude of 1800 feet above mean terrain in order to produce a photo scale of 1"=300'. This photo scale should be sufficient to produce a 6 inch pixel resolution for orthophotos and suitable for 1"=100' mapping (Phase 1& 2) and produce a 3 inch pixel resolution for orthophotos and suitable for 1"=40' mapping (Phase 3& 4).

A total of eight flight lines and sixty-two exposures will be required for Tesla Road.

Forward overlap of photography shall average 60 percent and any side overlap shall average 30 percent.

Aerotriangulation – After verification of ground control, analytical aerotriangulation methods will be used to obtain additional control points for the stereo models. Geocadd's vast AT experience and the use of industry standard triangulation solutions ensure highly accurate results. During the AT process, image coordinates of all tie, control, and check points in the imagery are measured, then the entire block of images is adjusted to fit the ground control coordinates in a bundle block adjustment and the true ground coordinates of the tie-points are determined.

A final aerotriangulation output will show the residuals for all control points. Once all the RMS of the control points are acceptable, Geocadd will proceed with stereo digitizing for DTM collection.

Feature Collection and DTM Generation – Geocadd Surveys will utilize (2) BAE Systems softcopy photogrammetric workstations. The final map scales will be 1"=100' with a 2 foot contour interval for Phases 1 & 2. The final map files will be an AutoCad 2010 DWG file adhering to ACPWD CADD standards. A digital terrain model (DTM) will be collected which will be used to generate the defined contour interval and to digitally orthorectify the images. A combination of 3D breaklines and mass points will be collected to define the terrain. All features visible from the aerial photography will be collected covering a 600 foot wide strip centered on the roadway.

FGDC Metadata information will be provided for the 100 scale mapping and orthophotos.

Geocadd will use existing LiDAR and survey information from ACPWD to supplement the terrain where appropriate.

Digital Orthophoto Generation – Geocadd's BAE Systems Orthomosaic software will be used for radiometric tone



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matching, cropping, and feathering to create a seamless image mosaic with invisible joint lines. This software application will match the tonal values within the images as well as between adjacent flight lines. The image process steps will correct distortions due to elevated surfaces (e.g., bridges and overpasses).

The final color orthophotos will be in a Tiff /TFW format. The final pixel resolution for the 100 scale orthophotos will be 6 inches for Phases 1& 2.

Supplemental Field Surveys – PLS will visually verify the accuracy of the aerial topographic mapping and will obtain spot elevations of critical features such as culvert locations and inverts to be used in developing the preliminary concept plans and engineers estimates.

Deliverables

Aerial Topographic Mapping at a scale of 1" = 100' with 2 foot contours.
Digital Color Orthophotos

2.4 Perform Field Studies and Gather Data

Field studies and data gathering will include the following-items of work:

Traffic

Collision History – TJKM will prepare the most recent five-year history of reported traffic collisions. TJKM has completed a preliminary analysis of January 1, 2006 through December 31, 2007. During this time period there were 25 collisions on Tesla Road. These analyses will be expanded to identify the location of accidents on a photo-plot of the study area, and summaries and findings will be prepared. There is a very high percentage of single-vehicle accidents on Tesla Road. Motorists appear to be driving too fast for conditions. TJKM will determine high priority problems areas on which to focus additional analyses.

Traffic counts – The volume, speed and classification of existing traffic on Tesla Road will be determined. TJKM will obtain current 24-hour and peak hour count data to determine the volumes, speeds and classification (axle counts) of all vehicles at two locations along the corridor. Bicycle counts will be included as part of the intersection turning movement counts. TJKM will collect a.m. and p.m. turning movement counts at up to four key intersection along Tesla Road.

Speed and delay information – Using GPS data, TJKM will conduct four peak period speed and delay runs on Tesla Road for each direction. TJKM will prepare a speed profile showing the travel speed at points along the roadway. This data will be useful in further identifying problem locations in the field.

Environmental

David J Powers and Associates (DJP&A) will be responsible for conducting the necessary environmental research and data collection to assist in the determination of preliminary environmental constraints along the project alignments. It is anticipated that the main environmental issues for the project will be related to geology/soils, hydrology/water quality, and biological and cultural resources. Research and field studies will be conducted in these main areas to determine the general environmental setting of each of the project alignments. Information regarding geotechnical and water quality conditions will be performed by ENGEO and WRECO, respectively. Existing information will be used to the extent possible for an evaluation of all other environmental issues.

Biological Data Collection – The biological data collection will include searches of the California Department of Fish and Game's California Natural Diversity Database (CNNDB), the U.S. Fish and Wildlife Service's quadrangle species list, and the California Native Plant Society's Online Inventory as background information to determine whether any special status (federal and state) plant and animal species are documented to occur in the vicinity of the project corridor. In addition, a professionally qualified biologist will evaluate habitat conditions during a site visit to



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determine the potential for these species to occur. Generalized constraints maps will be prepared to identify areas along the corridor containing potential constraints and permitting requirements.

Cultural Resources – To obtain information regarding the potential to impact prehistoric or historic cultural resources along the project alignment during construction, a records search will be conducted at the Northwest Information Center of the California Historical Resources Information System (NWIC). This records search will identify cultural resources and previous studies that might be applicable within one-half mile of the project alignments. This will include an archival research and review of their maps and literature on file. Residences are located along the Tesla Road alignment, and the records search will identify any that could be historic.

Deliverables

Existing Traffic Data Memo

- Inventory of Existing Traffic Conditions
- Collision History
- Traffic Counts
- Speed and Delay Data

Generalized environmental constraints map

2.5 Perform Design Studies and Analysis

Field studies and analysis will include the following items of work:

Traffic

Level of service calculations – Using new count and speed data, the level of service (LOS) of all roadway sections and study intersections will be determined. TJKM will use the appropriate portions of the Highway Capacity Manual (HCM) to determine roadway and intersection capacities. At non-intersection locations, the LOS will be calculated for each distinctive roadway section. Chapter 15 of the 2010 HCM deals extensively with the capacities of two-lane roadways.

Projected 2035 traffic volumes – Because each of the three routes involves inter-county travel, it will be desirable to use more than one traffic model to evaluate the most likely traffic volumes for the future. TJKM has already examined the 2035 forecasts using the newly updated Alameda CTC model and finds that the model may need adjusting and recalibrating; this is not unexpected given that the eastern projects are at the edge of the model area.

TJKM will compare the results obtained from three separate models – the Alameda CTC model, the San Joaquin COG model and the City of Livermore model. In the case of the two eastern study corridors, TJKM will also evaluate the I-580 Altamont Pass corridor since the peak hour volumes on Tesla Road are strongly influenced by travel speeds and levels of congestion on I-580. The only improvements that are currently planned are the eastbound uphill truck climbing lanes, so there is likely to be continuing pressure to utilize parallel roadways such as Tesla Road during commute periods.

Based on a review of the current Alameda CTC model, TJKM estimates that the 2035 p.m. volumes on Tesla Road will increase from 700 vehicles at present to 2,200 vehicles in 2035.

Traffic and Transportation Study

TJKM will assist in the development of the PSR, particularly the project description and traffic information such as existing and future traffic volumes, collision history and other data depicted in the Phase I traffic studies above. In addition, TJKM will help to evaluate constructability in terms of potential impacts of maintaining two-way traffic during most time periods.



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TJKM will also evaluate the No Project alternative. This alternative will require significant traffic input to properly evaluate the effects of no improvements in the study corridor.

Prioritization of Needed Improvements

The project team will evaluate the list of recommended improvements for the corridor and develop a prioritization list for implementing the improvements. The prioritization will be based on specific evaluation criteria developed for the corridor and will include factors such as improving safety and traffic flow for all modes of transportation, right of way impacts, environmental impacts, and construction cost.

Some of the key elements of these recommendations include existing observed geometrics, collision history and details, speed profile information and volume information. Based on traffic volume projections alone, it can be seen that Tesla Road can function with improved two-lane standards. However, cost considerations dictate that the roadway may need to be improved in phases, attacking the highest priority needs first. The types of improvements can include physical roadway improvements (lane, shoulder and curve improvements), signing and marking improvements, and electronic motorist information devices and systems providing current collisions and blockages and other roadway and travel time information.

Deliverables

Traffic Data

- LOS Calculations
- Projected Traffic Volumes

Traffic and Transportation Study

Project Prioritization Document

TASK 3 - PHASE 2 – PRELIMINARY ENGINEERING

The goal for Phase 2 is to develop three preliminary build alternatives for improving safety and reducing maintenance costs along Tesla Road. It is anticipated that the three preliminary alternatives will include one alternative consisting of minor improvements along the existing roadway corridor such as shoulder widening, guard rail installation, and improved signing, and two new roadway alignments. The two new roadway alignments could be based on different design speeds. The Phase 2 effort will include developing the preliminary alternatives, conducting a one day value analysis workshop on the preliminary alternatives, and preparing preliminary geometric plans and typical sections for the various alternatives along the corridor. Once agreement is reached on the build alternatives a Project Study Report and Geometric Exhibits will be prepared documenting the proposed improvements. The report will include a discussion on phasing the construction of the improvements along the corridor, the priorities for constructing the various improvements along the corridor, project costs, right of way impacts, environmental, and utility impacts, and project design criteria and design exceptions. The specific tasks are outlined below.

3.1 Develop Project Alternatives

TYLI will develop preliminary geometric concept plans for viable alternatives for improving the roadway corridor. A screening process will be conducted to assess any fatal flaws associated with each alternative and to identify viable and non-viable alternatives. The preliminary geometric exhibits will show the basic roadway alignment and centerline profile, proposed roadway and/or shoulder widening, and proposed roadway realignments. The exhibits will also include proposed roadway striping, locations of new retaining walls, guard rails, new sign installations, and other proposed improvements. Typical sections will be prepared for areas of widening and/or realignment and at other key locations.

Design criteria will be developed for the corridor. This would include design criteria to be used for the ultimate improvements along the corridor as well as interim criteria for near term improvements. An example of this would be



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an ultimate design criterion of 10 foot wide shoulders, and an interim criterion of 2 foot shoulders at a specific location along the corridor. It is anticipated that the design criteria would also vary through different segments of the roadway corridor. Criteria for relatively flat terrain would be different than the criteria for hilly terrain. A design criteria memo will be prepared for the corridor documenting the ultimate and interim design criteria for the various roadway segments.

Haygood & Associates will also prepare a one- to two-page memo that will provide preliminary guidelines for the landscape/aesthetics treatment of the project.

Deliverables

- Geometric Exhibits for the Project Build Alternative
- Design Criteria Memo
- Landscape/Aesthetics Treatment Memo

3.2 Conduct Value Analysis Workshop

A one day value analysis (VA) workshop will be held after the preliminary project alternatives are developed. The purpose of the value analysis (VA) workshop is to review the preliminary alternatives and identify other potential alternatives that should be included in the study. The existing alternatives will also be reviewed to identify potential improvements and/or cost saving measures that will not affect the utility or delivery service of the proposed alternatives. The VA team will follow the following process.

Pre-Study Preparation – Pre-Study preparation for the VA effort will consist of scheduling study participants and reviewing the project information gathered in Task 2 above.

Value Analysis Workshop – The one day workshop will include:

Information Phase – At the beginning of the workshop, the background and decisions which have influenced the development of the project alternatives must be reviewed and understood. For this reason, an overview of the project will be presented by the design team and County staff as appropriate.

Creative Phase – This phase of the workshop involves the origination and listing of creative ideas. During this phase, the team brainstorms other potential alternatives that could be considered as well as potential modifications to the existing alternatives that could lower cost to the County, or to improve the quality of the project. Judgment of the ideas is restricted during this phase.

Evaluation Phase – During this phase of the workshop, the team evaluates the ideas generated during the creative phases. Advantages and disadvantages of each idea are discussed to find the best ideas for development. Ideas found to be irrelevant or not worthy of additional study are disregarded. Those which represent the greatest potential for cost savings or improvement to the project are then documented for further consideration by the design team and the County.

Recommendation Phase – This phase includes preparation of a VA Workshop report documenting the outcome of the workshop and the recommended alternatives and/or cost saving features to be considered further by the design team and the County.

We anticipate a VA workshop team of seven (7) team members as follows:

- VA Facilitator (Harris & Associates)
- Project Manager (TYLI)
- Project Engineer (TYLI)



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Geotechnical Engineering (ENGEO)
Environmental Planner (David Powers)
Construction (Harris & Associates)
Storm Water Engineer (WRECO)

County members will also be included on the team as desired by the County.

Deliverables

VA Workshop Report

3.3 Construction Phasing

For the existing corridor improvement alternative TYLI identify smaller specific projects that will have independent utility and do not require other phases to be constructed. The smaller projects will be broken down by construction cost as follows:

- a) \$500,000 to \$1 Million
- b) \$1.1 million to \$5 million
- c) \$5.1 million to \$10 million

Preliminary construction durations will be developed for each of the smaller projects. The construction phasing analysis will evaluate the constructability of the alternatives/phases, access for construction equipment, and the potential need for road closures during construction.

Deliverables

Construction Phasing List

3.4 Prioritize Project Phases

The project team will evaluate the list of recommended improvements identified in Task 3.3 above and develop a prioritization list for implementing the improvements. The prioritization will be based on specific evaluation criteria developed for the corridor and will include factors such as improving safety and traffic flow for all modes of transportation, right of way impacts, environmental impacts, maintenance cost reduction, and construction cost.

Deliverables

Construction Phasing Priority List

3.5 Quantity and Cost Estimates

A preliminary cost estimate will be prepared for the preliminary build alternative including construction, right of way, utility relocation, and support costs to establish funding requirements for the project. The cost estimates will be prepared using either a format provided by the County or the CALTRANS 6-page cost estimate format as a template.

Deliverables

Preliminary Quantity and Cost Estimate

3.6 Right of Way Impacts

Record maps and deeds will be retrieved and analyzed to provide an approximate location of the right-of-way and neighboring properties. A land net of existing property boundaries will be prepared using the available information.

Potential right of way impacts and acquisitions will be identified for the build alternative and cost estimates will be



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prepared. This work will include the following specific tasks:

Right of way estimates will be prepared for the build alternative.

The exact number of properties and the property impacts have not been identified. For our fee estimate we have assumed that new right of way and or construction easements will be required for a maximum of 25 existing parcels.

We will conduct up to two meetings to focus on the preparation of the right of way estimates.

The right of way cost estimates will include property acquisition, relocation assistance, and title and escrow estimates.

Right of way appraisal and acquisition services would be provided in Phase 3 and are not included in this scope of work or project cost estimate.

Deliverables

Description of right of way impacts to be included in the Project Study Report prepared under Task 3.14

Right of Way Impacts Exhibits

Right of Way Cost Estimates included in the Cost Estimates prepared under Task 3.5

3.7 Environmental Analysis

DJP&A will prepare an environmental constraints analysis to identify potential environmental impacts and issues based on the research conducted in Phase 1. This analysis will include a general description of the environmental setting, potential project impacts, and required mitigation measures based on the extensive experience DJP&A has working on very similar projects in Alameda County. Early identification of project impacts allows a "mitigate by design" approach. Mitigation, especially habitat restoration, can be an expensive proposition, so identifying impacts early and including the mitigation in the project can result in better, more cost-effective projects.

DJP&A is very familiar with the NEPA/Caltrans District 4 Local Assistance process. DJP&A is currently working numerous Caltrans District 4 Local Assistance projects, each in different stages of the process. The main components of the NEPA/Caltrans Local Assistance (Categorical Exclusion) process include:

Preparation of Preliminary Environmental Study (PES) Form and supplemental information.

Caltrans Field Review/Signing of the PES Form/Determination of NEPA document to be prepared.

Receipt of Letter from Caltrans confirming our recommendations on the necessary technical study reports required for the project.

Preparation of technical study reports by the Project Team.

County review and comment on reports.

Submittal of reports to Caltrans if required for review. Revisions as necessary.

Submittal of final reports to the County and Caltrans for approval.

A more detailed description, including the reports to be completed, will be included in the PSR document.

DJP&A will also prepare a list of regulatory permits required for the project, depending on the impacts of the proposed project. It is anticipated that the Tesla Road alignment has the potential to result in impacts to waterways, including creeks and drainages. Therefore, permits from the U.S. Army Corps of Engineers, California Department of Fish and Game, and the Regional Water Quality Control Board may be required.

As part of the environmental analysis ENGEO will perform an environmental site assessment (Phase 1 ESA) along the proposed roadway alignment. The purpose of the ESA is to identify, to the extent feasible, recognized environmental conditions in connection with the study area.

The scope of services includes the following:

A review of existing environmental documents (as provided).



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A review of publicly available and practically reviewable standard local, state or tribal, and federal environmental record sources.

A review of publicly available and practically reviewable standard historical sources including aerial photographs and topographic maps.

A reconnaissance of the study area and observation of adjoining properties.

Interviews with persons knowledgeable about land uses within the proposed alignment.

Preparation of a report with our findings, opinions and conclusions.

The ESA report will be signed by a licensed California Geotechnical Engineer.

Deliverables

Environmental Constraints Analysis including C3 Requirements

Preliminary Environmental Assessment Report (PEAR) developed in accordance to Caltrans Guidelines for PEAR Document

Phase 1 ESA Report

3.8 Utility Impacts

Using the utility information gathered in Phase 1, TYLI will identify potential utility impacts for the alternatives. We will refine the proposed geometrics as appropriate to minimize the utility conflicts. The existing utility information will be shown on the preliminary plans. Potential utility relocation costs will be developed for the alternatives. This information will be included in the Project Study Report.

Deliverables

List of utility owners with facilities within the roadway corridor

3.9 Permits

Once the corridor evaluation and preliminary engineering are complete, a list of required and potential permits will be prepared and included in the Project Study Report.

Deliverables

List of potential permits needed for the project and timeframes for acquiring the permits

3.10 Identify C3 Requirements

For the Tesla Road corridor WRECO will assist the Project Team in identifying the floodplain and water quality impacts (C.3 and Construction General Permit) of the Project and the type of permits and mitigation needed for the Project. WRECO will document the findings in a technical memorandum.

Deliverables

C3 Requirements Technical Memo

3.11 Construction Duration

Preliminary construction durations will be developed for the various sub-projects along the corridor. The estimated construction duration will be included in the Project Study Report.

Deliverables

Preliminary Construction Durations



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Potential design exceptions to County standards will be identified for the alternatives and geometric refinements will be investigated to assess if any nonstandard features can be eliminated. A list of design exceptions will be prepared for each alternative.

Deliverables

Design Exceptions List

3.13 Preliminary Geometric Exhibits

Preliminary geometric exhibits will be prepared for the final roadway alternatives. The exhibits will be prepared using the aerial base mapping, and will be at a scale of 1"=100' with 2 foot contours. The geometric exhibits will include the following elements:

- Proposed roadway alignment
- Centerline profile
- Limits of cut and fill
- Preliminary pavement delineation (lane lines, shoulder striping, and bike lanes)
- Record right of way lines
- Proposed right of way acquisitions
- Existing utility and drainage facilities
- Proposed locations of new utilities/utility relocations.
- Locations of proposed retaining walls
- Driveway and private property access locations
- Locations of proposed signing and TOS elements
- Typical sections.

The geometric exhibits will be included as an attachment to the Project Study Report.

Deliverables

Preliminary Geometric Exhibits

3.14 Prepare Project Study Report (PSR)

The PSR will document the need for the project, summarize key points from the traffic studies and the preliminary environmental assessment, define the geometric project alternatives, and summarize the project scope and cost enabling the project to advance to the Environmental Document and PS&E phases. The PSR will be prepared using the Caltrans PSR format outlined in the Caltrans Project Development Procedures Manual as a guide.



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The PSR will include the following topics:

- Introduction
- Background
- Purpose and Need
- Deficiencies
- Alternatives
 - No Build Alternative
 - Build Alternatives
 - Design Exceptions
 - Operational Analysis
 - Right of Way Impacts
 - Utility Impacts
 - Drainage impacts and water quality
 - Preliminary Cost Estimates
- Community Involvement
- Environmental Determination/Documentation
- Construction Durations

Deliverables

Project Study Report

3.15 Public Meetings and Outreach

During the development of the project alternatives it will be important to solicit input from members of the public regarding the proposed road improvement projects. Our proposed outreach effort will include attending three public meetings with the County at various times during the project. Meetings will be held to solicit preliminary input and discuss comments regarding key design issues and potential project impacts, and subsequent meeting(s) will be held to present evolutions of the design concepts. PowerPoint's, exhibits, meeting agendas or handouts will be developed by the Project Team. In addition, meeting summaries will be produced after each community meeting.

Deliverables

Exhibits for public meetings
Meeting agendas, handouts, and meeting summaries

TASK 4 – PROJECT CONTINGENCY (OPTIONAL)**4.1 Project Contingency (Optional Services)**

Given the undefined nature of the possible roadway improvements that may be identified along the project roadway, this task shall constitute a contingency budget that would only be used with the approval of the COUNTY. In the case that out of scope of work is encountered, CONSULTANT shall notify the COUNTY immediately and shall request written approval from the COUNTY to reallocate the necessary budget to cover said out of scope of work from this task budget. Work performed by the CONSULTANT without written approval from COUNTY shall not be reimbursed.



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Assumptions

Our scope of work and fee estimate is based on the following assumptions:

A maximum of 12 Project Team Meetings and 4 Site Review Meetings

Soils borings are not required for the Geotechnical Constraints Report

The County will provide right of entry permits or approvals for the necessary field work

Right of way information will be based on available record information only

The County will make arrangements for the public meetings and will distribute meeting notices

A maximum of 3 public meetings

Deliverable will be in electronic format and will include 1 hard copy of geometric exhibits and final reports

