STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

REQUEST FOR QUALIFICATIONS NOTICE
NUMBER 06A2613

Read carefully as the following revisions have been made to this document:

- On 2/26/19, Section I, General Information, Paragraph F, regarding fee and escalation was revised.
- On 10/2/18, Section I, General Information, Paragraph E, regarding financial documents was revised.

Note: Questions concerning this Request for Qualifications (RFQ) must be submitted in writing to the attention of Patricia Nichols at Patricia.Nichols@dot.ca.gov. Questions must be received no later than 10 calendar days after RFQ advertisement. Consultants contacting the District or Division directly seeking information about this RFQ will be disqualified from consideration in the selection process.

Proposers are advised that Caltrans has established a federally mandated overall annual DBE goal comprising both race neutral and race conscious elements to ensure equal participation of DBE groups specified in 49 CFR 26.5. In compliance with 49 CFR 26, Caltrans set a contract goal for DBEs participating in this solicitation expressed as a percentage of the total dollar value of the resultant Agreement. The DBE participation goal for this solicitation is 13 percent (13%). See section I.H. in this RFQ for requirements.

I. GENERAL INFORMATION

A. Caltrans is soliciting Statements of Qualifications (SOQs) from qualified firms that may lead to the award of a contract for Land Surveying Services. In submitting your Statement of Qualifications (SOQ), you shall comply with the instructions found herein. In addition to those programs that are specified in this solicitation, prospective consultants are encouraged to consider programs that are available, such as those for the use of small businesses, disadvantaged businesses, disabled veteran businesses, new emerging firms, and other businesses covered by State and Federal programs.
B. The estimated contract amount is $2,481,103.00 - $3,499,999.00.

C. The estimated contract term is three (3) years.

D. Interviews will be held in San Diego on April 9, 2020. Confirmation letters will be sent to those firms short-listed.

E. The most highly qualified consulting firm will be required to submit an electronic copy of the financial documents listed on the appropriate Financial Documents Submittal Checklist available on the A&E Contract Information website. The most highly qualified consulting firm will be notified of their selection and receive instructions for the electronic submission financial documents.

The most highly qualified consulting firm must submit a complete financial documents package no later than four (4) days after notification of selection. The prime consultant must submit the complete financial documents package in order for Caltrans to have the information necessary to engage in negotiations. The prime consultant is solely responsible for timely and complete submission of financial documents on behalf of the entire proposed team; financial documents will not be accepted from proposed subconsultant firms. Failure to submit a complete financial documents package by the specified due date may result in termination of negotiations with the most highly qualified consulting firm.

F. Negotiations will be held with the top-ranked firm in San Diego during the week of April 13, 2020. The fee for profit shall be 10 percent, and the escalation shall be as follows:

<table>
<thead>
<tr>
<th>Period</th>
<th>Escalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/25/2020 - 2/28/2021</td>
<td>0%</td>
</tr>
<tr>
<td>3/01/2021 - 2/28/2022</td>
<td>1.5%</td>
</tr>
<tr>
<td>3/01/2022 - 2/28/2023</td>
<td>3.0%</td>
</tr>
<tr>
<td>3/01/2023 - 6/30/2023</td>
<td>3.0%</td>
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</tbody>
</table>

Notes:
1. Partial year will only occur on the last year of the contract term. All other periods are full years.
2. Increases to the loaded billing rates after contract execution is not authorized for any reason per Article IV, Section 17 and Article XVI, Section 6 of the California Constitution.

G. The scheduled date to complete cost negotiations and submit final cost proposal is April 20, 2020.
H. Disadvantaged Business Enterprise Program

1. This solicitation and resultant Agreement are financed in whole or in part with federal funds and therefore subject to Title 49, Code of Federal Regulations, Part 26 (49 CFR 26) entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs." To ensure equal participation for Disadvantaged Business Enterprise (DBE) groups specified in 49 CFR 26.5, Caltrans specifies a contract goal for DBE participation. The required goal for DBE participation in this solicitation is not less than 13 percent.

2. Only participation by certified DBEs will count toward the contract goal for this solicitation. In order to count toward a contract goal, a firm must be certified as a DBE by the California Unified Certification Program (CUCP) and possess the work codes applicable to the type of work the firm will perform on the Agreement by the SOQ submittal due date. For a list of work codes, go to Office of Civil Rights website.

3. It is the proposer’s responsibility to verify that the DBE firm is certified as a DBE by the specified SOQ submittal due date and time. For a list of DBEs certified by the CUCP, go to Office of Civil Rights website.

4. A DBE must perform a commercially useful function (CUF) for the type of work it will perform on the Agreement as provided in 49 CFR 26.55(c)(1)-(4). A DBE performs a CUF when it is responsible for the execution of a distinct element of the work of the Agreement and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

5. See “Statement of Qualifications Submittal Instructions and General Contract Process Information 04/15/19” for detailed information and references to the required forms. Required forms will be made a part of the Agreement. Failure to meet the DBE goal or Good Faith Effort requirements and provide required DBE participation at due date and time of SOQ submittal may result in the SOQ submittal being rejected as non-responsive.

I. Federal and/or State prevailing wage rates may apply. This requirement, if applicable, will be specified in the draft Agreement. See SOQ Submittal Instructions, Section I., H. regarding the California Department of Industrial Relations (DIR) Consultant/Contractor Registration Program on the A&E Contract Information website.

J. Caltrans does not guarantee, either expressly or by implication, that any work or services will be required under any contract issued as a result of this RFQ.
K. A Pre-award or Post-award Audit will be performed on any contract issued as a result of this RFQ.

L. Contract boilerplate can be obtained on the A&E Contract Information website.

II. SCOPE OF WORK/DELIVERABLES

The work to be performed for this RFQ is described in the Scope of Work/Deliverables and is hereby incorporated as Attachment 1.

III. CONFLICT OF INTEREST

A. Conflicts of interest may occur due to direct or indirect financial or business interests in the work to be performed or in any real property acquired for such project. Conflicts of interest can include, but are not limited to, past, existing or planned activities or because of relationships with other persons or firms. If there is a conflict of interest, the proposed team, including both the prime consultants and subconsultants, and individual employees of team members would actually or potentially be unable to render impartial assistance or advice to Caltrans. The proposer's objectivity or availability in performing the contract work may be impaired due to actual or potential conflicts of interest.

B. If the proposed team determines that any actual or potential conflicts of interest exists, it must identify and describe in detail each conflict of interest to Caltrans, using the Disclosure of Potential Conflict of Interest Form, which can be found on the Caltrans A&E Contract Information website. Along with the description of the actual or potential conflicts of interest, the proposed team shall also offer measures to avoid, neutralize, or mitigate all listed conflicts. The list of conflicts, including conflicts that apply to individuals as well as firms, and the mitigation measures on the Disclosure of Potential Conflict of Interest Form must be submitted as a separate section in the Statement of Qualifications. Disclosure of information will not disqualify a proposed team from competing for a contract. The existence of actual or potential conflicts of interest will be used as a criterion to evaluate team availability during the evaluation and selection process. Caltrans reserves the right to terminate negotiations with the first selected firm and begin negotiations with the next selected firm or to cancel the procurement prior to execution if Caltrans learns that the selected team failed to disclose any actual or potential conflicts, which it knew or should have known about, or if the proposed team provided or omitted information on the disclosure form that results in the information being false or misleading.
C. After award, conflict of interest guidelines and policies shall continue to be monitored and enforced by the Caltrans Contract Manager. Additional information about Conflict of Interest issues can be found in the SOQ Submittal Instructions and General Contract Process Information document 04/15/19 (Section V. Post Government Employment Restrictions and Section VI. Conflict of Interest Concerning Consultant(s)) found on the A&E Contract Information website. The State and Federal contract boilerplates on DPAC’s website also contain information on conflict of interest issues (Exhibit D) and can be found on the A&E Contract Information website.

D. The prime consultant and subconsultants may be proposed on SOQs for other Caltrans A&E on-call contracts; however, the Caltrans Contract Manager may prohibit work on specific project(s) where Caltrans determines that a conflict of interest exists.

IV. SUBMISSION OF STATEMENTS OF QUALIFICATIONS (SOQs)

A. IMPORTANT: Download “Statement of Qualifications Submittal Instructions and General Contract Process Information 04/15/19” from the Procuring A&E Contracts website. Failure to follow these instructions may result in rejection of your SOQs.

B. SOQ Package Submittal Instructions

Read instructions below carefully. You will be required to submit SOQ packages to Sacramento, District 6 (Fresno), District 5 (San Luis Obispo) and District 10 (Stockton) (see items 1, 3, 4 and 5 below for required number of copies), as well as an electronic file to Sacramento. See paragraph B.7.

1. One (1) copy of the SOQ containing all the indicated information shall be submitted. Fax copies will not be allowed. SOQs will be accepted until 3:00 p.m. on March 25, 2020, and must be directed to:

   State of California Department of Transportation
   Administration
   Division of Procurement and Contracts, MS 65
   1727 30th Street
   Sacramento, CA 95816-7006
   Attention: Patricia Nichols
   Telephone: (916) 227 – 6067
2. If your SOQ package is hand-delivered, you must date and time stamp it immediately upon arrival. The date/time stamp machine is located in the lobby of the first floor to the right of the security guard station at the address noted above. Date/stamp one label for each SOQ package/box submitted. Ask the security guard to call the Division of Procurement and Contracts’ reception desk at (916) 227-6000 to have your SOQ package picked up by Contracts’ staff.

3. Three (3) copies of the SOQ containing all indicated information shall be submitted to District 6. FAX copies will not be allowed. SOQs will be accepted until 3:00 p.m. on March 25, 2020, and must be directed to:

   State of California  
   Department of Transportation  
   Consultant Services Unit  
   2015 East Shields, Suite 100  
   Fresno, CA 937726  
   Attention: Anita Montano

4. One (1) copy of the SOQ containing all indicated information shall be submitted to District 5. FAX copies will not be allowed. SOQs will be accepted until 3:00 p.m. on March 25, 2020, and must be directed to:

   State of California  
   Department of Transportation  
   Project Development  
   50 Higuera Street  
   San Luis Obispo, CA 93401  
   Attention: Stacey Meacham

5. Additionally, one (1) copy of the SOQ containing all indicated information shall be submitted to District 10. FAX copies will not be allowed. SOQs will be accepted until 3:00 p.m. on March 25, 2020, and must be directed to:

   State of California  
   Department of Transportation  
   Project Development  
   1976 E. Dr. Martin Luther King Jr. Blvd.  
   Stockton, CA 95205  
   San Luis Obispo, CA 93401  
   Attention: Greg Hartman
6. The SOQs must be submitted in a sealed package labeled as follows:

- RFQ Number 06A2613
- Submittal deadline: **March 25, 2020**
- “DO NOT OPEN”

7. In addition to the six (6) copies of the SOQ requested in this section IV “Submission of Statements of Qualifications,” electronic submission of a single unprotected (i.e. not password protected) PDF file of the SOQ is required. The electronic submittal will be accepted until **3:00 p.m. on March 25, 2020**.

You will be required to create a Novell Filr account with Caltrans. Send an email message to the Contract Analyst, Patricia Nichols, at Patricia.Nichols@dot.ca.gov containing the information listed below for a link and instructions to complete the self-registration page and submit the SOQ electronically.

- Your firm’s name
- Your email address
- The solicitation number for which you would like to submit an SOQ

The file name shall include the contract number, consultant name (max. 25 characters) separated by an underscore (_), ending with the “.pdf” extension.

- **Example A**: 50A0694_JohnDoeConsulting.pdf
- **Example B**: 50A0694_aaa1234engineer.pdf

8. SOQ submittals will be considered non-responsive if all copies, including electronic submittal, are not received in the specified location(s) by the date and time specified in this RFQ.

C. Request for RFQ Copies

Copies of this RFQ may be obtained on the [Cal eProcure](#) website.
SCOPE OF WORK/DELIVERABLES

Land Surveying Services
for Caltrans, Division of Project Development, District 10
On-Call Contract

LAND SURVEYING\(^1\) SERVICES

A. Purpose of Work

The consultant must perform Land Surveying Services, on an “as-needed” basis to support the California Department of Transportation (Caltrans), Division of Project Development, District 10. The Caltrans contract manager will assign specific work to the consultant to augment the Caltrans work force through issuing task orders describing the services to be performed. The consultant must only perform work assigned in an authorized task order. This contract does not guarantee that a task order will be issued.

The consultant for this contract must perform the services above after the contract authority for contract 06A2332 is exhausted (expected by April 30, 2020). The consultant must plan accordingly to meet the timing of and the volume of work load needs.

B. Location of Work

The work must be performed on projects to improve the State transportation system throughout the counties of Alpine, Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne in California. The specific location within the above-described geographical limits of the work to be performed must be identified in each task order. It may become necessary for Caltrans, Division of Project Development, District 10, projects to extend into other adjoining Districts /County line. Certain California County projects may also require studies/work that extends into adjacent counties adjoining Caltrans' District 10 outside of the boundary of Caltrans’ District 10. In such instances, the project work must not extend more than a 30-mile radius from the District/County, District 10 geographic boundary.

\(^1\) Defined in section 8726 of the California Business and Professions Code
Exclusion of Work
The following work is excluded from this agreement:

- The HQ photogrammetry projects are excluded from this contract.

- The Consultant shall not work on any projects that are in the planning phase (K-Phase) and the Consultant shall not be reimbursed for any work performed during this phase of a project.

C. Required Services

1. Under an authorized task order, the consultant must provide land surveying services within the geographical jurisdiction of this contract set forth in the “Location of Work” section, including all necessary personnel, material, transportation, lodging, instrumentation, and the specialized facilities and equipment to satisfy all appropriate agencies and required to ensure compliance with all federal, state, and local statutes, laws, codes, regulations, policies, procedures, ordinances, standards, specifications, performance standards, and guidelines, applicable to the consultant's services and work product.

2. Required services may include Right of Way Engineering Services including preparation and maintenance of Right of Way Engineering documents, such as preparation and recordation of various types of recorded maps, Land Net Maps, Appraisal Maps, Deeds, and all activities related to Right of Way Monumentation, Condemnation, Deeds, and Right of Way Record Maps.

3. Provided in attachment A is a list of proposed Caltrans projects; Division of Project Development, District 10, however, this list is not exclusive, and it constitutes no commitment that the projects will be initiated or completed, or work assigned to the consultant. Caltrans reserves the right to add or delete from this list of projects that are within the geographical jurisdiction of this contract set forth in “Location of Work” section within the Division of Project Development, District 10’s jurisdiction.
4. The projects that Caltrans, Division of Project Development, District 10, plans to work on under this contract are:

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Co-Rte-PM</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>1012000193</td>
<td>STA-99- 33.1/33.2 Riverbank Slope Protection</td>
</tr>
<tr>
<td>ii.</td>
<td>1013000148</td>
<td>SJ-26-13.3/13.8 SJ-26 Widening</td>
</tr>
<tr>
<td>iii.</td>
<td>1015000003</td>
<td>STA-99- 13.4/13.8 Stanislaus Auxiliary Lane</td>
</tr>
<tr>
<td>iv.</td>
<td>1014000148</td>
<td>MPA-140-42.0/42.7 Ferguson Slide Rock Shed</td>
</tr>
<tr>
<td>v.</td>
<td>1014000167</td>
<td>MER-99-28.2/37.3 SB Livingston Median</td>
</tr>
<tr>
<td>vi.</td>
<td>1014000168</td>
<td>MER-99-28.2/37.3 NB Livingston Median</td>
</tr>
<tr>
<td>vii.</td>
<td>1017000171</td>
<td>AMA-88-5.5/14.3 Amador SR 88 Roadway</td>
</tr>
<tr>
<td>viii.</td>
<td>1013000264</td>
<td>CAL-26-21.4/38.3 CAL-26 Slope Stabilization</td>
</tr>
<tr>
<td>x.</td>
<td>1013000002</td>
<td>MER-152-0.0 Mer-152 Upgrade ADA</td>
</tr>
<tr>
<td>xi.</td>
<td>1013000243</td>
<td>MER-140-2.3/49.0 Mer-140 Safety Devices</td>
</tr>
<tr>
<td>xii.</td>
<td>1013000104</td>
<td>TUO-108-4.3/5.1 Peaceful Oak Ramps</td>
</tr>
<tr>
<td>xiv.</td>
<td>1015000027</td>
<td>STA-132-5.5/11.5 SR 132 Dakota to Gates</td>
</tr>
<tr>
<td>xv.</td>
<td>1016000038</td>
<td>SJ-99-4.6/6.3 SR 99/120 Interchange</td>
</tr>
<tr>
<td>xvi.</td>
<td>1016000032</td>
<td>SJ-26-1.1 SJ 26 Increase Bridge V.</td>
</tr>
<tr>
<td>xvii.</td>
<td>1016000077</td>
<td>SJ-4-16.0/19.4 SR-4 Ramp Metering</td>
</tr>
<tr>
<td>xviii.</td>
<td>1017000013</td>
<td>STA-132-27.2/28.0 STA-132 ADA</td>
</tr>
<tr>
<td>xix.</td>
<td>1017000016</td>
<td>SJ-12-17.4/18.1 SJ-12 ADA</td>
</tr>
<tr>
<td>xx.</td>
<td>1013000259</td>
<td>MER-99-20.5/24.3 Mer-99 Pavement Rehab</td>
</tr>
</tbody>
</table>

The above list is not an exclusive list of projects.

5. Caltrans intends to utilize this contract to complete a specific piece of work if it is within the geographical jurisdiction of this contract set forth in the “Location of Work” for each of the projects in this contract utilizing the services described in this Scope Of Work (SOW) and as described in a task order. Caltrans may find it necessary to create a separate contract (or contracts) that involves a specific
project in this contract and includes part of the work in this contract. Caltrans reserves the right to procure A&E services involving the listed projects or unlisted projects (within the geographical jurisdiction of this contract set forth in “Location of Work” Section) involving in whole or in part the same work using a project-specific agreement if the schedule to complete performance of the specific project extends beyond the term of this contract or the cost exceeds the dollar balance remaining in the contract after accounting for amounts due to the consultant for work previously performed and for work scheduled to be performed in executed task orders.

Should a project-specific agreement be procured under these provisions, the parties mutually agree that, under Exhibit D, Section III, Termination of this Contract, Caltrans must terminate for convenience the portion of the contract that includes the common SOW identified in the project specific agreement per Exhibit D, Section III, Termination of this Contract. Such partial termination for convenience must be processed by amendment to this contract. Unless otherwise required by law, regulation, or Caltrans policy or procedure, the consultant may compete for these project specific contracts.

6. In this contract is a list of proposed staff augmentation personnel classifications for which services are anticipated to be needed by Caltrans during the term of this contract; however, this list is not exclusive if the classification performs Land Surveying Services. Caltrans reserves the right to add/or delete personnel classifications from this list. These Consultant personnel will be under the supervision of the Consultant.

This statement of work includes the services (or cost) of the following:

i. Project Licensed Surveyor

This statement of work does not include the services (or cost) of the following:

ii. Survey Technician
iii. Survey Assistant
iv. Survey Instrument Person
v. Survey Rod/Chain Person
vi. Survey Journeyman Chainman
vii. Survey Apprentice Chainman
viii. Survey Technician – LiDAR Specialist

7. When any of these positions are needed, the approximate range for the number of positions are:
   a. Project Surveyor 1-6.
   b. Land Survey Technician 1-6.
   c. Survey Assistant 1-6.
   d. Instrument Person 1-6
   e. Rod Person 1-6
   f. Journeyman Chainman 1-6
   g. Apprentice Chainman 1-6
   h. Survey Technician – LiDAR Specialist 1 - 6

   The numbers shown above are approximate. The exact number and classification of consultant staff used for augmentation is specified in the task order.

8. At the sole discretion of Caltrans, the consultant may have to provide the required services on safety projects, emergency projects, emergency storm damage projects, excess parcel assessments, or other current/future transportation projects, including minor projects not listed above, except for those specially excluded above, within the geographical jurisdiction of this contract set forth in “Location of Work” Section.

9. The potential projects may vary in scope and size and may encompass any improvement for the State transportation system including, but not limited to, roadway rehabilitation, widening and/or realignment of existing facilities, relocation of existing facilities, and construction of new facilities. The project location, project limits, purpose, expected results, project deliverables, period of performance, project schedule, and SOW to be performed must be described in each task order.
10. Consultant must be available on two days’ written notice:

   a. To meet with Caltrans; to participate in internal Project Development Team (PDT) meetings or other Caltrans meetings.

   b. To provide technical expertise on an “as-needed” basis.

   c. To provide construction staking.

11. Maintaining a stable work force is essential to the successful completion of Caltrans, Division of Project Development, District 10, work. The consultant must implement a personnel retention plan.

The consultant may be expected to spend time for extended assignments to perform support functions at Caltrans offices. Caltrans may provide the office space at various Caltrans offices assigned as "home base", when required by a task order including, but not limited to, all utilities, office equipment, and office supplies typically used by the Caltrans personnel, to the consultant personnel providing services under this contract. The consultant, including its subconsultants, must include the Office Indirect Cost Rate (OICR) in its cost proposals and use the OICR in billing Caltrans for those personnel utilizing Caltrans’ office facilities. If the consultant, including its subconsultants, has no OICR, it will develop and use an OICR to reflect an equitable distribution of allowable costs to the contract (as specified in 48 CFR 31.203(f)). The hours a Consultant must work on-site in a Caltrans facility will be defined in any issued contract task order.

D. Workplan Standards Guide (WSG) Codes

Task orders are based on the Caltrans WSG. The latest WSG is found in the Guide to Project Delivery WSG, which is available from the Caltrans’ Publication Unit and on the Internet at http://www.dot.ca.gov/hq/projmgmt/guidance.htm. The WSG references the WBS categories, which are potential and related work activities applicable to this contract. The WSG references WBS categories which present the potential and related work activities that the consultant may have to perform. All revisions to the current version of the WBS must apply during the life of this contract.
The WBS activities applicable to this Contract are limited to those set forth below:

100       Perform Project Management (Contract Management)
160.10.45 Utility Locations Determined for Preliminary Engineering
160.10.65 Right of Way Relinquishment and Vacation Study
160.20.25 Existing Records
160.20.30 Land Net Surveys
160.20.35 Land Net Map
160.20.40 Right of Way Engineering Products
160.20.50 Control Surveys
160.20.55 Photogrammetric Maps and Products (See Note 1)
160.20.60 Engineering Surveys
160.20.65 As-Built Centerline Surveys
160.20.70 Pavement Surveys
160.30.10 Surveys and Mapping for Environmental Studies
185.10.50 Control Surveys
185.10.55 Photogrammetric Maps and Products (See Note 1)
185.10.60 Engineering Surveys
185.10.65 As-Built Centerline Surveys
185.10.70 Pavement Surveys
185.20.40 Utility Locations Determined for Design
220.05.05 Existing Records
220.05.10 Land Net Survey
220.05.25 Monumentation Perpetuation Record of Survey
220.10       Land Net Map
220.15       Right of Way Maps
220.15.05 Appraisal Maps
220.15.95 Other Maps
220.20       Acquisition Documents
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>220.20.05</td>
<td>Deeds</td>
</tr>
<tr>
<td>220.20.15</td>
<td>Resolution of Necessity Package</td>
</tr>
<tr>
<td>220.25</td>
<td>Documents to convey property rights</td>
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<tr>
<td>220.25.05</td>
<td>Director’s deed package</td>
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<tr>
<td>220.25.95</td>
<td>Other deeds and documents</td>
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<tr>
<td>220.35.05</td>
<td>Flagged Right of Way (Includes Utilities)</td>
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<tr>
<td>220.35.10</td>
<td>Staked Right of Way</td>
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<tr>
<td>255.35.10</td>
<td>Construction Staking Package</td>
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<td>255.35.20</td>
<td>Project Control for Construction</td>
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<td>255.70</td>
<td>Right of Way Engineering Products</td>
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<tr>
<td>270.10.10</td>
<td>Construction Staking Package</td>
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<td>270.10.20</td>
<td>Project Control for Construction</td>
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<tr>
<td>270.10.30</td>
<td>Existing Monument Perpetuation (See Note 2)</td>
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<td>270.15.15</td>
<td>Slope Stakes</td>
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<td>270.15.25</td>
<td>Rough Grade Stakes</td>
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<td>270.15.30</td>
<td>Final Grade Stakes</td>
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<tr>
<td>270.15.35</td>
<td>Drainage and Minor Structure Stakes</td>
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<tr>
<td>270.15.50</td>
<td>Miscellaneous Stakes (Includes Utilities)</td>
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<tr>
<td>270.15.55</td>
<td>Photogrammetric Product for Construction (See Note 1)</td>
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<tr>
<td>270.15.60</td>
<td>Ground Stakes for Major Structure</td>
</tr>
<tr>
<td>270.15.65</td>
<td>Superstructure Stakes for Major Structure</td>
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<tr>
<td>270.66</td>
<td>Technical Support</td>
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<tr>
<td>285.10.05</td>
<td>Field Surveys for Change Order</td>
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<tr>
<td>285.10.10</td>
<td>Staking for Change Order</td>
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<tr>
<td>285.10.15</td>
<td>Other Functional Support</td>
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<tr>
<td>300.05.05</td>
<td>Right of Way Monumentation Survey</td>
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<tr>
<td>300.05.10</td>
<td>Filed Monumentation Record of Survey</td>
</tr>
<tr>
<td>300.10</td>
<td>Trial Exhibits and Testimony</td>
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<tr>
<td>300.25</td>
<td>Relinquishment and Vacation Maps</td>
</tr>
</tbody>
</table>
Note 1: The anticipated work for WBS code 160.20.55, 185.10.55 and 270.15.55 must be limited to field surveys and related office processing for aerial mapping control placement and positioning.

Note 2: This WBS code is to be used only for projects with no two (2) phase work.

The consultant must not work on any projects in the planning phase (K-Phase), and the consultant will not be reimbursed for any work performed during this phase of a project.

E. General Personnel Requirements

1. The consultant’s personnel must be capable, competent, and experienced in performing the work in this contract with minimal instruction. Personnel skill level must match the specific job classifications, as set forth or in the consultant’s cost proposal, attachment 2, and task complexity. The consultant’s personnel must be knowledgeable about, and comply with, all federal, state, and local laws and regulations.

2. The consultant must submit a written request and obtain the Caltrans CM’s prior written approval for any substitutions, additions, alterations, or modifications to the consultant’s originally proposed personnel and project organization, as depicted on the proposed consultant’s organization chart or the consultant’s cost proposals. The substitute personnel must have the same job classification, as set forth or in the consultant’s cost proposal, attachment 2, not exceed the billing rate, and meet or exceed the qualifications and experience level of the previously assigned personnel, at no additional cost to Caltrans.

3. In responding to Caltrans’ task order and in consultation with the Caltrans contract manager and the Caltrans task order manager, the Consultant contract manager must identify the specific individuals proposed for the task and their job assignments. The consultant must provide documentation that proposed personnel meet the minimum qualifications as required by this contract.
4. The consultant’s personnel must typically be assigned to and remain on specific Caltrans projects/deliverables until completion and acceptance of the project/deliverables by Caltrans. Personnel assigned by the consultant must be available at the start of a task order and after acceptance of the project/deliverable by Caltrans.

5. After the Caltrans contract manager’s approval of the consultant’s personnel proposal and finalization of a task order, the consultant may not add or substitute personnel without the Caltrans contract manager’s prior written approval.

6. Resumes containing the qualifications and experience of the consultant’s and subconsultant’s personnel, which include existing, additional, and substitute personnel, and copies of their minimum required certifications, must be submitted to the Caltrans contract manager for review before assignment on a project or task order. The resume and copies of current certification for each candidate must be submitted to the Caltrans contract manager within one week of receiving the request.

7. The Caltrans contract manager or Caltrans task order manager may interview the consultant’s personnel for the qualifications and experience. The Caltrans contract manager’s decision to select the consultant’s personnel will be binding to the consultant and its subconsultants. The consultant must provide adequate qualified personnel to be interviewed by the Caltrans contract manager or Caltrans task order manager within one week of receiving the request.

8. The Caltrans task order manager will evaluate the adequacy (quality and quantity) of the work performed by the consultant’s personnel, and determine whether the deliverables satisfy the acceptance tests and criteria. The Caltrans contract manager consulting with the Caltrans task order manager may reject any consultant personnel determined by the Caltrans contract manager to lack the minimum qualifications. If the level of performance is below expectations, the Caltrans contract manager may direct the consultant to immediately remove consultant personnel from the project specified in a task order and request another qualified person be assigned as needed. The substitute personnel must meet the qualifications required by this contract for performance of the work as demonstrated by a resume and copies of current certifications submitted by the consultant. Substitute personnel must receive prior written approval from the Caltrans contract manager. Invoices with charges for personnel not pre-approved
by the Caltrans contract manager for work on the contract and for each task order must not be reimbursed.

9. The consultant must not remove or replace any existing personnel assigned to task orders without the prior written consent of the Caltrans contract manager. The removal or replacement of personnel without the written approval from the Caltrans contract manager will violate the contract and may cause termination of the contract per Exhibit D, Section III, Termination of the Contract.

10. When assigned consultant personnel is on approved leave and required by the Caltrans contract manager, the consultant contract manager must provide a substitute employee until the assigned employee returns to work from the approved leave. The substitute personnel must have the same job classification, as set forth in the consultant’s cost proposal, attachment 2, not exceed the billing rate, and meet or exceed the qualifications and experience level of the previously assigned personnel, at no additional cost to Caltrans. Substitute personnel must receive prior written approval from the Caltrans contract manager to work on this contract.

11. Other project personnel not identified on the consultant’s cost proposal, must also satisfy minimum qualifications for assigned task orders. Caltrans’ prior written approval is required for all personnel not identified on the consultant’s organization chart or the consultant’s cost proposals before providing services under this contract.

12. The consultant is responsible to provide fully trained personnel to efficiently perform the work. The consultant’s personnel may be asked to attend certain special training if recommended by the Caltrans contract manager. On such occasions, with the approval of the Caltrans contract manager, Caltrans will compensate the consultant for the consultant’s actual cost for time spent in training only. All other costs, fees, and expenses associated with the training, including any transportation costs and training fees, must be the consultant’s responsibility.

13. In location(s) where the consultant personnel is expected to work for extended period(s) of time, the consultant must either relocate the personnel or strive to hire local persons.
F. Land Surveying Personnel Requirements

1. The consultant, including the prime consultant and all subconsultants, must throughout the life of the contract, retain within its firm, a staff of people properly licensed and certified under the laws of the State of California and qualified to perform all aspects of the required work described in this contract and all work specified in a task order with any emergencies that may arise during the life of this contract. The consultant must be prepared to provide additional personnel during the period performance of this contract to accommodate the work.

2. Consultant Contract Manager

The consultant contract manager must coordinate work-related matters and consultant’s operations under this contract with the Caltrans contract manager in coordination with the Caltrans task order manager.

The consultant contract manager must be a Professional Land Surveyor or pre-January 1, 1982 Registered Civil Engineer licensed in the State of California and be in good standing with the California State Board of Professional Engineers, Land Surveyors, and Geologists (BPELSG) during the contract period.

The consultant contract manager must have a minimum of five years of responsible experience performing the duties as a contract manager for similar Land Surveying Services contracts. The consultant contract manager must be knowledgeable about all Caltrans policies and procedures. The consultant contract manager must be an employee of the prime consultant.

Besides other specified responsibilities, the consultant contract manager must handle all matters related to the consultant’s personnel, subconsultants, land surveying services work, and consultant’s and subconsultants’ operations including, but not limited to:

a. Ensuring that deliverables are acceptance tested and that criteria are specific, measurable, attainable, realistic and time-bound; and that the deliverables satisfy the acceptance tests and criteria.

b. Supervising, reviewing, monitoring, training, and directing the consultant’s and subconsultants’ personnel.
c. Assigning qualified personnel to complete the required task order work as specified on an “as-needed” basis in coordination with the Caltrans contract manager and Caltrans task order manager.

d. Administering personnel actions for consultant personnel and ensuring appropriate actions taken for subconsultant personnel.

e. Maintaining and submitting organized project files for record tracking and auditing.

f. Developing, organizing, facilitating, and attending scheduled coordination meetings, and preparation and distribution of meeting minutes.

g. Implementing and maintaining quality control procedures to manage conflicts, insure product accuracy, and identify critical reviews and milestones.

h. Assuring that all applicable safety measures are in place.

i. Providing invoices in a timely manner and providing monthly contract expenditures.

j. Reviewing invoices for accuracy and completion before billing to Caltrans.

k. Managing subconsultants.

l. Managing overall budget for the contract and provide report to the Caltrans contract manager.

m. Monitoring and maintaining required DBE or DVBE involvement.

n. Ensuring compliance with the provisions in this contract and all specific task order requirements.

o. Knowledge, experience, and familiarity with prevailing wage issues and requirements in State of California.
3. Consultant Task Order Manager

For each task order, the consultant must provide a consultant task order manager to coordinate the consultant task order operations with the Caltrans contract manager in coordination with the Caltrans task order manager.

The consultant task order manager must be accessible to the Caltrans contract manager in coordination with the Caltrans task order manager during normal Caltrans working hours that task order work is underway.

The consultant task order manager (who may not be the consultant contract manager) must be assigned to conduct, or direct the conduct of, all work assigned under a single task order. The consultant task order manager must be a Professional Land Surveyor or a pre-January 1, 1982 Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG during the Contract period. The consultant task order manager must be the primary contact for the assigned task order and be available for communication with Caltrans.


The consultant task order lead person (who may not be the consultant CM) must be assigned to conduct, or direct the conduct of, all work assigned under a single task order. The consultant task order lead person must be the primary contact for the assigned task order and be available for communication with Caltrans.

5. Consultant Personnel and Team Member Qualifications.

The consultant team member must be capable of assisting the consultant contract manager in all aspects of the required work. The consultant team member’s required professional qualifications must be identified in each task order.

6. In this contract, a person authorized to review and approve consultant land surveying deliverables in place of the consultant task order manager must be called the consultant land surveying responsible person. The consultant land surveying responsible person, must be a Professional Land Surveyor or a pre-January 1, 1982 Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG during the contract period.
7. All deliverables under this contract not fully approved by Caltrans bearing the signature of the consultant land surveying responsible person who is no longer employed by the consultant or its subconsultants, must be replaced with deliverables under this contract bearing the signature of a qualified replacement consultant land surveying responsible person currently employed by the consultant or its subconsultants. In such an event, no additional time will be allowed or cost reimbursed to the consultant without the prior written approval of the Caltrans contract manager.

8. All of the consultant’s work must be conducted under the direction of the consultant contract manager who must have the experience as described in this contract. All deliverables under this contract requiring the consultant land surveying responsible person’s signature, must be produced by the responsible consultant personnel having appropriate experience, and must be signed by a consultant land surveying responsible person.

9. Party Chiefs

Party Chiefs must fulfill one of the following requirements:

a. A Professional Land Surveyor licensed in the State of California and be in good standing with the BPELSG.

b. A pre-January 1, 1982, Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG.

c. An experienced surveyor/union-certified party chief/journeyman with a documented minimum of five years of field surveying experience who serves as chief under the direction and supervision of a person who is a Professional Land Surveyor licensed in the State of California or pre-January 1, 1982, Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG. This direction and supervision must be provided in a manner and with a span of control and immediacy that enables the supervisor to be in “Responsible Charge” of the work as defined in the Business and Professions Code, Division 3, Chapter 15 (The Land Surveyors Act).
Party Chief: The duties of the survey party chief include, but are not limited to: plan, coordinate and direct the daily operations and/or assignments of a field survey party, oversees tailgate safety meetings every ten working days or more often as the work location requires, insures the survey party is working in a secure and safe manner; direct the survey party in procedures to be used in fieldwork that conforms with the Caltrans Surveys Manual; verify project datum and project control; check the accuracy of the survey data collected and construction stakes set; and produce a daily Field Surveys Party Report, which verifies the survey party time and project charges.

10. Project Surveyor

Project Surveyor must fulfill one of these licensing requirements and be in good standing with the BPELSG during the Contract period.

a. A Professional Land Surveyor licensed in the State of California.
b. A pre-January 1, 1982, Registered Professional Civil Engineer licensed in the State of California.

Project Surveyor: The duties of the project surveyor in the office include, but are not limited to: prepare survey requests and supporting information for the field survey; analyze, reduce and/or adjust field survey data to produce maps, reports, digital terrain models, project control maps, and related documents to determine property and right of way boundaries; and, research public records from counties, cities, utility companies, and other agencies to produce, signs and seals, documents and maps defining the existing location of, acquisition of, and disposal of State Right of Way, including but not limited to: legal descriptions, acquisition deeds, resolutions of necessities (Condemnation), land net maps, appraisal maps, relinquishment or vacation maps, federal application maps, final record maps and Record of Survey Maps.

11. Land Surveying Assistants

The Land Surveying Assistants must fulfill one of the following requirements:

a. A degree (Associate, Bachelors, Masters, or higher) in land surveying or surveying engineering from an ABET accredited institution (College or
University) and a minimum of two years of qualifying experience in land surveying.

b. Possession of a valid Land Surveyor-in-Training certificate issued or accepted by the BPELSG, and a minimum of two years of qualifying experience in land surveying.

c. An experienced surveyor with a documented minimum of four years of surveying experience who works under the direction and supervision of a Professional Land Surveyor licensed in the State of California or pre-January 1, 1982, Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG.

The land surveying assistants to the party chiefs and project surveyor must can assist in all required and associated field and office land surveying work, able to perform difficult survey and complex professional land surveying work involving duties in the field or office with little direct supervision. Duties include, but are not limited to, assist party chief in construction staking, design, and right of way surveys, assist office chief or project surveyor in preparing right of way maps using Computer-Aided Design (CAD), maintaining right of way records and geospatial information systems, research and compile a wide variety of data from public records, geospatial information systems and other sources using both manual and computerized processes, and survey support.

12. Land Surveying Technicians

The land surveying technicians must work under the direction of a Professional Land Surveyor licensed in the State of California or a pre-January 1, 1982 Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG. The land surveying technicians must fulfill one of these criteria:

a. The equivalent of a two-year college degree, preferably with an emphasis in mathematics and engineering and a minimum of one year of qualifying experience in land surveying.
b. A documented minimum two years of demonstrated experience acceptable to Caltrans in a land surveying services related field, under the direction of a Professional Land Surveyor licensed in the State of California.

The land surveying technicians must be capable of assisting in all required office and/or field land surveying services work.

13. Instrument person

The instrument person must be union certified as an instrument person or have a minimum six years of qualifying experience in land surveying. The instrument person reports to the party chief and must be capable of assisting the party chief in all required field and office surveying work.

14. Rod person

A rod person must have a minimum two years of qualifying experience in land surveying and may augment a party comprising at a minimum one party chief and one instrument person as the project task workload dictates, and as preapproved by the Caltrans contract manager.

15. Surveying Journeymen Chainman

The surveying journeymen chainman must be union certified as a journeyman or have a minimum four years of qualifying experience in land surveying. The surveying journeyman chainman to the party chief must be capable of assisting the party chief in all required field and office surveying work.

16. Apprentice Chainman

A surveying apprentice must have a minimum one year of qualifying experience in land surveying. The surveying apprentice may augment a party comprising at a minimum one party chief and one instrument person as the project task workload dictates, and as pre-approved by the Caltrans contract manager.

Compensation for the journeyman/apprentice chainman must be under the contract and supported by documentation from the Northern or Southern California Surveyors Joint Apprenticeship Committee and in compliance with the
Division of Apprenticeship Standards (DAS). The apprentice chainman must be enrolled in the Northern or Southern California Surveyors Joint Apprenticeship Program and have union level certification for the level achieved.

17. The consultant must have personnel with documented and demonstrated expertise and experience in the fields of Geographic Information Systems (GIS) and geodetic survey control.

18. Minimum Requirements for Survey Party Membership:

Unless otherwise specified in the task order, each survey party must comprise a party chief and up to three assistants, unless additional survey party members are required for safety. At a minimum, one assistant to the party chief must be capable of assuming temporary leadership of the survey party, absent a party chief, or in emergencies.

19. Consultant will provide consultant surveyors of classification and numbers as specified in the task order. Consultant surveyors will report directly to a Caltrans supervisor and work alongside or directly with Caltrans surveyors. Consultant surveyors assigned to an office will be provided with necessary equipment (computers, monitors, printers etc.) by Caltrans. Consultant surveyors assigned to a field crew will be provided the following by the consultant:
   - Vehicle as specified in I.2.a of this contract.
   - Hand tools including but not limited to hammers, shovels, digging bar, measure tape, and calculator.
   - Safety equipment including by not limited to hard hat, ANSI 107-2004 or higher class II garment, safety glasses, hearing protection and hard soled work boots.

20. It is expected that most the work (> 60%) must be completed as staff augmentation working alongside Caltrans staff on a survey party or in an office, in which the consultant provides staff to augment the district’s survey personnel.

21. All staff augmentation consultant personnel working in a Caltrans office or on a survey party must complete security and privacy awareness training each year (see http://itsecurity.dot.ca.gov/training).
22. All staff augmentation consultant personnel working in a Caltrans office or on a survey party must have a current certification of Defensive Driving Training and a current California Driver’s License.

G. Consultant Availability and Work Hours

1. The typical workday includes all hours worked as identified in the task order or as directed by the Caltrans contract manager. Unless otherwise specified in a task order or directed by the Caltrans contract manager, the normal work week must comprise forty (40) hours.

2. If Caltrans determines that the work cannot be performed during normal business hours or the work is necessary at off hours to avoid danger to life or property, the consultant's operations may be restricted to specific hours during the week. Night work may be required on projects involving high traffic areas. Changes in hours or schedules must be documented by amendment of task orders. Any shift differential rate pay must be reimbursed under the Department of Industrial Relations (DIR) determination.

3. The Caltrans contract manager in coordination with the Caltrans task order manager, must provide advance notice of one working day(s)/24 hours if the consultant’s services are not required, or if reassignment of personnel is required. If Caltrans fails to provide the required advance notice and the consultant personnel are not required, Caltrans must provide a maximum of four hours compensation.

4. During the contract period, the Caltrans task order manager and/or contract manager may reassign a consultant's employee from a project or an office with low activity to assist on another project or office with high activity. The consultant contract manager will be notified at least two working days prior to this reassignment.

H. General Requirements

1. The consultant must prepare the required deliverables, backup documents, and other items required by this contract according to requirements of this contract and applicable Caltrans Manuals for the work.
2. The consultant’s timesheet/invoices/expenses must be subject to the consultant contract manager’s review and the approval of the Caltrans contract manager before submitting timesheets, invoices, or expense reimbursement requests for payment.

3. The consultant must begin the required work within two working days after receiving a fully executed task order and issuing the Notice to Proceed from the Caltrans contract manager to the consultant contract manager or on the date specified in the task order. Some work, however, may require consultant personnel to mobilize within 24-hours of notifications. Once the work begins, the work must be prosecuted/performed diligently until all required work has been completed to the satisfaction of the Caltrans contract manager or Caltrans designee task order manager.

4. The work must not be performed when conditions prevent a safe and efficient operation, and must only be performed with written authorization by Caltrans.

5. The consultant contract manager, consultant task order manager, and key personnel must be accessible to the Caltrans contract manager and the Caltrans task order manager during normal Caltrans working hours or after hours as required by the Caltrans contract manager.

6. The consultant contract manager may direct the consultant’s employees to work overtime to meet task order schedules at the request of the Caltrans contract manager or task order manager. All overtime must be pre-approved by the Caltrans contract manager. Overtime must be worked only when directed in writing by the Caltrans contract manager and specifically required by the task order, and must only be paid to persons covered by the Fair Labor Standards Act.

7. All consultant personnel must sign a confidentiality and nondisclosure agreement.

8. The consultant may disclose no information to third parties without prior written approval of the Caltrans contract manager.

9. The consultant must only provide incidental non-A&E services, such as Computer Aided Drafting & Design (CADD) support, GIS support, utilities location support, traffic control, office support, field office support, and meeting support,
provided (a) such services are necessary for completing the A&E tasks and/or deliverables performed by the consultant described in executed task orders and covered by the work in this contract and (b) the rendering of the services is approved in advance by the Caltrans contract manager. These incidental services must only be provided to support the consultant’s personnel performing A&E services, tasks, and deliverables on this contract. The contract amount spent on such incidental services must be relatively minor when compared to the professional A&E services performed. The consultant must not be paid or reimbursed for any incidental non-A&E services provided to Caltrans unless provided in the fashion described in this contract and included in the executed task order. The consultant ensures that task orders only include any incidental non-A&E services.

10. Incidental training services may be provided only if the training involves the specific work product of this agreement. Such incidental training services are permitted, but only if:

   a. The training involves the specific work product created under this agreement (and does not involve general A&E training and is not the work product of a previous agreement); and

   b. The total aggregate cost of all training under this agreement does not exceed 10% of the total authority of the agreement; and

   c. The training is an incidental task within the agreement and not the purpose for entering this agreement.

11. The consultant must include the Caltrans contract manager or task order manager in written communications to other Caltrans personnel for any clarification on work.

I. Coordination

1. For each task order, the consultant must carry out instructions received from the Caltrans task order manager. If an instruction or direction is unclear to the consultant, the consultant must ask the Caltrans task order manager to clarify the instruction or direction.
2. The foregoing paragraph does not relieve the consultant of professional responsibility during the performance of this contract. Where the consultant believes a better standard solution to a task being performed or an issue being addressed is possible, the consultant must promptly notify the Caltrans contract manager and task order manager of these concerns, with the reasons therefore. However, Caltrans must make all final decisions on the consultant’s activities and investigations.

3. The consultant must work closely with the Caltrans contract manager and the Caltrans task order manager identified in the task order.

4. The consultant must have the capability to send to and receive from Caltrans’ digital electronic mail system and file transfer protocol system including, but not limited to, attachments for word processing, photographs, spreadsheets, and databases.

5. Caltrans must not reimburse the consultant for costs to relocate its personnel to the service area of this contract. Caltrans must not reimburse the consultant for per diem costs, unless preapproved by the Caltrans contract manager. Caltrans must not reimburse the consultant for out-of-state travel without prior written approval from the Caltrans contract manager.

6. The consultant must obtain the Caltrans contract manager’s approval prior to making presentations at non-Caltrans sponsored conferences or workshops for any services provided under this contract.

7. The consultant must notify the Caltrans contract manager or Caltrans task order manager in writing a minimum one week before it begins any field work, unless the task order specifies some other notification date.

8. Caltrans must not incur costs beyond the funding commitments in the contract and each task order. If the consultant anticipates that funding for work will be insufficient to complete work, the consultant must promptly notify the Caltrans contract manager.
J. General Equipment Requirements

1. The consultant or its subconsultants must incorporate no materials or equipment of a single or sole source origin without the advance written approval of Caltrans.

2. The consultant may claim reimbursement for providing equipment or supplies. However, such claimed costs must comply with 48 Code of Federal Regulation (CFR), Chapter 1, Part 31 (Federal Acquisition Regulation - FAR cost principles) and 2 CFR, Part 200, and follow the consultant's company-wide allocation policies and charging practices with all clients including federal government, state governments, local agencies, and private clients.

K. Land Surveying Equipment Requirements

1. Office Equipment and Supplies (Consultant’s Office):

   The consultant must have and provide adequate office equipment and supplies to complete the work required by this contract. Such equipment and supplies must include, but not be limited to:

   a. Office supplies.

   b. Computers with software, printers, plotters, fax machines, calculators, data collectors and their necessary attachments and accessories.

   c. Data processing systems, software packages, reference materials, or other tools, including hardware and software, used in providing transportation land surveying deliverables.

   d. The consultant must provide a computer system for each person working under a task order that meets the Caltrans current specifications. Qualified Caltrans information technology personnel must install required software. Caltrans reserves the right to provide the computer system if beneficial to Caltrans’ interest.

   e. Reference material, or other tools, used in providing deliverables.
f. Caltrans must purchase no hardware, software, or other equipment (including, but not limited to, batteries, paper, and office supplies) that may be required for the consultant to perform work required in this contract. The Caltrans contract manager must approve any consultant’s request for digital electronic connections and compatibility with current Caltrans Windows-based networks and programs in writing prior to the use and/or installation of any electronic hardware and/or software.

g. In-house printing, reproduction, and delivery services.

h. Computer Aided Drafting equipment and software capable of producing land surveying maps, drawings, and documents in the Caltrans approved format (MicroStation, AutoCAD Civil 3D ArcGIS).

2. Field Equipment and Supplies:

Consultant must have and provide adequate field tools, instruments, equipment, materials, supplies, and safety equipment to complete the required field work and that meet or exceed Caltrans specifications per the Caltrans Manuals. The tools, instruments, equipment, materials, supplies, and safety equipment required for each consultant field personnel must include, but not be limited to, the following, if required by the task order:

a. Sufficient vehicles suitable for the work to be performed and terrain conditions of the project sites. Vehicles must be fully equipped with all necessary tools, instruments, equipment, materials, supplies, and safety equipment required for the efficient operation of the consultants’ field personnel. Each vehicle must have a load carrying capacity of 1500 pounds of materials and equipment. Each vehicle must have sufficient ground clearance to safely maneuver through highway construction sites while fully loaded with equipment and materials. Each vehicle must have overhead flashing amber light(s), visible from all sides (360 degrees), with a driver control switch; fire extinguisher; and first aid kit. Vehicles without side windows must not be used. Each vehicle must be equipped to meet Caltrans safety requirements.

b. A laptop computer or tablet with software.
c. Cell phone with “Hot Spot” capabilities

d. Hand tools including but not limited to; shovels, gloves, measuring tape, sledge hammer, clip board, calculator, peg book for the requested field personnel work.

e. All necessary safety equipment including fire extinguisher, hard-soled safety footwear, white hard hats, eye protection, hearing protection, and American National Standards Institute (ANSI) 107-2004 or higher Class II garment for the requested field work to be performed safely and efficiently within operating highway and construction zone environments.

f. Necessary miscellaneous tools, non-consumables, and supplies including, but not limited to, hammers, and shovels.

g. Traffic cones, at a minimum 25, for traffic control as necessary. Such cones must be 28 inches, minimum, in height.

h. Traffic control devices (including signs, sign bases, flags, and hand held signs) as required to perform the requested field personnel work.

i. Photo target templates.

j. Leveling instruments and equipment:
   i. Self-leveling/Digital level or electronic bar code level rod capable of achieving the precisions stated in the Caltrans Surveys Manual.

   ii. Suitable leveling rods for the work to be performed.

k. A Total Station Survey System comprising:
   i. A digital electronic angle measuring instrument with a manufacturer’s listed accuracy for the direct circle reading of the horizontal and vertical angles of three seconds or better.

   ii. A digital electronic distance measurer with a manufacturer’s listed accuracy of five-millimeters plus/minus three ppm or better.
iii. A digital electronic data collector capable of running Caltrans’ surveys data collection and stakeout software.

iv. Prior to the commencement of the first Task Order for construction staking or topographic surveys, Consultant must have a data collector compatible and interchangeable with Caltrans’ standard Trimble Data collector.

v. Total station survey system must be capable of producing reports sufficient for Quality Assurance.

l. Dual frequency Global Positioning System (GPS)/Global Navigation Satellite System (GNSS) Equipment: GPS/GNSS equipment must be used when required by the Task Order or the CCM.

i. GPS/GNSS receivers and antennas suitable for the specific survey.

ii. GPS/GNSS antennas with ground planes as specified in the Caltrans Surveys Manual.


iv. Real Time Kinematic (RTK) or Real Time Network (RTN) GNSS system equipment comprising a base station, base radio, and a rover unit.

m. Survey-grade terrestrial stationary laser scanning, and mobile terrestrial laser scanning equipment as specified in the Caltrans Surveys Manual.

3. The consultant must provide all necessary tools, instruments, equipment, materials, supplies, and safety equipment required to perform the work identified in each task order and this contract accurately, efficiently, and safely. The consultant’s personnel must be fully trained in using such necessary tools, instruments, equipment, materials, supplies, and safety equipment. The consultant must not be reimbursed separately for tools of the trade, which may include, but not be limited to, the above-mentioned equipment.
L. Standards

1. All work/services under this contract must be performed under all federal, state, and local statutes, laws, codes, regulations, policies, procedures, ordinances, standards, specifications, performance standards, and guidelines, including the latest Caltrans regulations, policies, procedures, manuals, standards, specifications, performance standards, directives, guidelines, handbooks, guidance documents, forms, templates, policy memo, methodologies, and other informational or directive publications, including compliance with FHWA and State guidelines for implementing those requirements; and any permits, licenses, agreements or certifications that apply to specific task orders; the terms and conditions of this contract; and current Caltrans Manuals and any future revisions. Work not covered by the “Manuals” must be performed as specified in the task order. If no standards exist, task orders may call for developing new standards, so long as these standards do not conflict with the requirements, or amend the Scope Of Work under of this contract.

   a. The consultant obtains, at its expense, all necessary manuals, reference documents, and other materials.

   b. Caltrans Manuals may be purchased from the Publication Distribution Unit. The publications staff may be reached at (916) 263-0822, and the center is at this address:

   State of California
   California Department of Transportation
   Publication Distribution Unit
   1900 Royal Oaks Drive
   Sacramento, CA  95815-3800

   c. Manuals and documents that are not available from the Caltrans Publication Distribution Center or are not available from Caltrans’ internet website may be requested from the Caltrans contract manager. Caltrans does not guarantee the availability of publications nor its internet web pages.

   d. Caltrans’ regulations, policies, procedures, manuals, standards, specifications, performance standards, directives, guidelines, handbooks, guidance documents, forms, templates, policy memo, methodologies, and
other informational or directive publications, are dynamic documents and subject to change. The consultant is responsible to verify that the latest version or update is used.

2. Manuals, Documents, and Websites

These manuals, documents and links to internet sites are referenced in association with the work in this contract. The list is not all-inclusive, but should illustrate the reference material and sources of information.

a. Caltrans’ Internet Home Webpage:
   http://www.dot.ca.gov/

   California Manual on Uniform Traffic Control Devices:
   http://mutcd.fhwa.dot.gov/
   http://www.dot.ca.gov/trafficops/engineering/

c. Caltrans Surveys Manual:

d. Caltrans CADD User’s Manual:
   http://www.dot.ca.gov/hq/oppd/cadd/usta/ppman/toc.htm

e. Caltrans Standard Plans and Standard Specifications:

f. Caltrans Right of Way Manual:
   http://www.dot.ca.gov/hq/row

3. Land surveying services and associated work performed by the consultant must conform to the California Land Surveyors Act. Business & Professions Code §§ 8700 et. seq. The consultant personnel in “Responsible Charge”, as defined in the California Land Surveyors Act, must be a PLS licensed in the State of California or a pre-January 1, 1982, Registered Professional Civil Engineer licensed in the State of California and be in good standing with the BPELSG during the Contract period
M. Field Safety

Besides the requirements specified elsewhere in this contract, the following also must apply:

1. The consultant must maintain a working environment safe for project personnel and the public. The consultant’s personnel must comply with all safety provisions of the Caltrans Safety Manual, Caltrans Surveys Manual, Caltrans Traffic Manual, and Caltrans Code of Safe Practices. The consultant must comply with all federal, state, and local Occupational Safety and Health Administration (OSHA) statutes, laws, codes, regulations, policies, procedures, ordinances, standards, rules, specifications, performance standards, and guidelines, and the safety instructions that Caltrans issues for performance of task order work, applicable to the work under this contract, regarding safety equipment and procedures (including, but not limited to, use and operation). Under no circumstance must the consultant’s safety policies be less stringent than Caltrans.

2. The field work must not be performed when conditions prevent a safe and efficient operation, and must only be performed with written authorization by Caltrans.

3. The consultant must provide, at no cost to Caltrans, all safety equipment to perform the required services safely including, but not limited to: gloves, coveralls, sunscreen, insect repellents, fire extinguisher, hard-soled safety footwear, white hard hats, eye protection, hearing protection, and ANSI 107-2004 or higher Class II garment. The consultant’s personnel must wear hard-soled safety footwear, white hard hats, eye protection, hearing protection (when applicable), and ANSI 107-2004 or higher Class II garment.

4. The consultant must provide, at no cost to Caltrans, appropriate safety training for all the consultant’s and the subconsultant’s office, and field personnel, including training required for performing the work in an office setting or in the field to work on and near highways safely.

5. The consultant must be solely responsible for protecting health and safety of its personnel, subconsultants, and subconsultant’s personnel in performance of this contract.
6. Traffic Control

   a. If specified in the task order, Caltrans must provide traffic control to accomplish the work within Caltrans’ right-of-way. When Caltrans is to provide traffic control, the consultant must request the traffic control before the work to obtain proper clearance. Limited work hours, night work or weekend work may be necessitated by the closure schedule approved by Caltrans for work on State freeways or highways. For work outside of Caltrans’ right-of-way, the consultant must provide traffic control in coordination with the local jurisdiction and/or private owners.

   b. If the task order requires the consultant to provide traffic control or traffic control devices, the consultant must follow policy and procedures per the FHWA Manual on Uniform Traffic Control Devices (MUTCD) and the California Manual of Traffic Control Devices.

N. Orientation Provided by Caltrans

   Caltrans may provide orientation regarding the requirements for this contract and each task order as deemed necessary by Caltrans. The orientation may comprise instructions on Caltrans procedures, practices, and requirements for the specific work to be performed and sharing of project related files and notes. However, if the orientation instructions conflict with the contract or task order requirements, the contract and the executed task order must prevail over any instructions provided.

O. Monitoring and Review Procedure

1. The Caltrans contract manager and task order manager will have the unilateral right, occasionally, or as requested by the consultant, to monitor and review the progress and processes of the consultant related to work performed under this contract.

2. The performance of the consultant contract manager, key personnel, and team must be evaluated by the Caltrans contract manager but no less frequently than annually, and at the expiration of the contract. Unsatisfactory reviews of specific consultant personnel may cause Caltrans requesting that they be replaced with new personnel. The consultant must immediately replace personnel with individuals whose qualifications at a minimum equal those of the personnel.
replaced at no additional cost to Caltrans. Evaluation includes, but not be limited to:


b. Quality of Work.

c. Timely submittal of reports, invoices, daily diaries, and other required documents.

d. Early detection of problems and timely resolutions.

e. Requesting timely approval for personnel changes and travel expenditure.

f. Responsiveness and ability to control costs.

g. DBE or DVBE Participation.

h. Conflicts of interest.

Poor performance and any negative evaluations may cause replacement of the consultant contract manager, key personnel, or any personnel; the need to replace key personnel must reflect adversely on the consultant’s performance evaluation, and if warranted, may cause the termination of the contract per Exhibit D, Section III, Termination of the Contract.

3. The survey party chief for each consultant’s survey party must prepare a daily “Survey Party Report.” The reports must be prepared on Caltrans-provided forms and must be prepared daily.

4. The office survey team leader for each consultant's office survey team must prepare a weekly "Office Survey Report." The report must be prepared weekly at the end of the week's work.

5. The consultant must provide a monthly Task Order Summary Report detailing all work performed under each task order. This report should coincide with the dates covered by the monthly invoice period of performance. The report should be included with the invoice submittal.

P. General Materials to be provided by Caltrans

Materials (if deemed applicable, necessary, and when available from Caltrans) that may be furnished or provided by Caltrans and where listed in the individual task orders and
this contract, are for the consultant’s use only, must be returned at the end of the contract. The consultant must use the materials in the execution of the specific work described in the task order. These materials may include, but not be limited to:

1. Background or reference information for each task order.

2. Project special provisions, full-size and reduced-size sets of project plans, materials information handout, and construction contract and proposal, as necessary.

3. Caltrans standardized forms.

4. If Permits to Enter onto private property are required to complete work identified in a task order, Caltrans will issue letters of the Intent to Survey for the identified properties. Caltrans will provide the consultant with Caltrans approved “Notice to Property Owners” door hangers.

5. Background information, site topographic maps, as-built drawings, blank Caltrans plan sheet overlays, digital electronic seed files, cell libraries, lane closure request forms, right-of-way alignments and survey limits, preliminary utility location maps, areas where focused studies are needed, and Construction Contract Documents, as available, for each task order.

6. Digital Electronic templates of task order formats.

Q. Land Surveying Materials to be provided by Caltrans

1. Relevant and existing documents, right-of-way record data, survey maps, control, data, topographic maps, and planimetric maps, if any are available, that apply to the current project within the project limits.

2. Monument disks, plugs, tags, and marker posts.


Note: The consultant handles the return to Caltrans, in original condition, of all items provided for use under this contract. The consultant must replace, at the consultant’s sole expense, all lost or damaged Caltrans data or materials.
R. Materials to be provided by the Consultant

Unless otherwise specified in this contract, the consultant must provide all materials to complete the required work under the delivery schedule and cost estimate outlined in each task order.

1. The consultant must provide to its land surveying services personnel sets of the following that apply to the current project:
   c. Materials under section “Equipment Requirements”.

2. When performing work within railroad company property, the consultant must obtain sufficient and/or adequate insurance coverage that must comply with the railroad company’s requirements when performing work within their jurisdiction. The insurance and types of coverage required by the railroad company may be above and beyond that required by Caltrans. The consultant may have to provide additional railroad liability insurance including, but not limited to:
   b. Business Automobile Coverage Insurance.
   c. Worker Compensation and Employers Liability Insurance.
   d. Railroad Protective Liability Insurance.
   e. Umbrella or Excess Insurance.
   f. Pollution Liability Insurance.

S. Product Approval and Payment

1. Deliverables, backup documents, and other items produced by the consultant in the performance of this contract, must be subject to the approval and acceptance by the Caltrans contract manager or task order manager prior to invoicing and payment for these items.
2. All deliverables and tasks provided for acceptance under each task order must comply with the terms, covenants and conditions of this contract.

3. Upon completion of each deliverable or task, the Caltrans contract manager or task order manager must either accept or reject the completed work. In the event of non-acceptance due to errors, omissions, or non-compliance with the Caltrans Manuals, as revised by the time of the task order, or this contract, the consultant must remedy the errors, omissions, or non-compliance to the satisfaction of the Caltrans contract manager or task order manager at no cost to Caltrans prior to payment. Caltrans must withhold payment until the work is satisfactorily completed and approved by the Caltrans contract manager. Additional cost incurred to correct errors will not be compensated.

4. Caltrans must not pay the consultant for the consultant’s work under this contract and the charges incurred by the consultant that ignores the requirements specified in this contract and to the task order, and such work must be corrected at the consultant’s sole expense at no additional cost to Caltrans.

5. All reviews, inspections and approvals made prior to the final acceptance of deliverables or task orders are intended only to provide interim authorizations to proceed and do not constitute final approval of the deliverable or task order.

6. Notwithstanding any other provision, until final acceptance of a task order under the agreement, any acceptance or approval means approval to proceed, but it does not mean acceptance or approval of a deliverable or task, and, it does not reduce or eliminate any of contractor’s duties or responsibilities under this agreement.

T. General Deliverables

All deliverables developed under this contract and subject to Exhibit D, sections XIX and XX, must be sent to Caltrans upon completion of each task order deliverable and with the acceptance/approval of the work by the Caltrans contract manager or task order manager. The consultant must retain a copy of all documents furnished to Caltrans until expiration of the contract.

Unless otherwise specified in the task order, the deliverables must conform to Caltrans current hardware and software platforms.
1. The consultant must work in close liaison with the Caltrans contract manager and task order manager. Time is of the essence. Caltrans must exercise review and approval functions through the Caltrans contract manager or task order manager at key points, as specified in each task order. Milestone reviews must be performed with the Caltrans contract manager and task order manager for the specific performance, products, and deliverables in each task order.

2. The consultant must prepare a cost estimate showing task, subtask, personnel, personnel hours estimated for each task or subtask, and a schedule of deliverables.

3. All deliverables, backup documents, and other items required by this contract must be prepared on Caltrans standardized forms. Necessary forms will be provided by Caltrans for the consultant’s use.

4. All deliverables, backup documents, and other items required by this contract must be submitted in both hardcopy and unprotected and modifiable digital electronic files in the Caltrans-approved forms and in the Caltrans-approved and designated digital electronic formats under the guidelines in this contract and each task order. The unprotected and modifiable digital electronic files must include the responsible person’s digital electronic signature and seal. The consultant must verify the latest version of software used prior to submittal.

5. At the end of each task order or when requested by the Caltrans task order manager, the consultant must also submit one unprotected and modifiable digital electronic copy of all deliverables, backup documents, and other items required by this contract in a specified digital device format. The file formats must be specified in each task order. Documentation must accompany each digital device indicating the contents of each file.

6. The Consultant personnel involved in preparation or review of deliverables, backup documents, and other items must be identified in the prepared or review report.

7. If the consultant fails to submit the required deliverables, backup documents, and other items required by this contract and any approved task order, Caltrans may withhold payment and/or terminate this Contract under the termination provisions of this contract per Exhibit D, Section III, Termination. If the contract is
terminated, the consultant must, at Caltrans’ request, return all materials
recovered or developed by the consultant under the contract.

8. The consultant must prepare and update the Caltrans WBS in this contract for
each task order issued by the Caltrans task order manager showing a deliverables
schedule. The consultant must complete and meet the agreed upon schedule for
each task order. Failure to complete the work based on the agreed upon schedule
in the task order may cause termination of the task order or this contract. Caltrans
may have work completed allowed by law, for which the consultant must be liable
for any additional costs incurred by Caltrans to complete the work. Such costs
may be deducted from amounts due to the consultant in pending or future
invoices, or if the contract is terminated, may be recouped by any means allowed
by law.

9. Deliverables specified in each task order must be delivered to the attention and
address stated in each task order.

10. The Consultant must be capable of working in either English or Metric units.

11. All deliverables must be prepared in U.S. Customary English Units unless an
exception is approved. The units to be used for deliverables must be addressed
within individual task orders.

12. A task order may require the consultant to use software and digital electronic
formats other than those stated in this contract as needed to accomplish the
objectives of the task order.

13. Quality Control Plan:

Prior to the work, the consultant must prepare the quality control plan and the
minimum standard of work quality and obtain approval from the Caltrans task
order manager, in effect for every task order during the entire time the work is
being performed under the contract. The consultant must complete the quality
control plan and certify at completing work that all measures contained were
satisfied. Caltrans must perform quality assurance on the quality control plan to
assure that quality control was satisfied.
The Consultant’s quality control plan must establish a process whereby:

a. All deliverables are reviewed for accuracy, completeness, and readability before submittal to Caltrans.

b. Calculations and plans are independently checked, corrected and re-checked.

c. All job-related correspondence and memoranda are routed and received by affected persons and then filed in the task order file.

d. Field activities are routinely verified for accuracy and completeness, such that any discovered deficiencies do not become systemic or affect the result of a task order deliverable.

The consultant must provide an outline of the quality control program before a specific task begins and must identify critical quality control reviews within each task order. The Caltrans task order manager must periodically request evidence that the quality control/quality assurance plan is functioning. All deliverables, backup documents, and other items required by this contract must be submitted to the Caltrans task order manager for review. The deliverables must be marked clearly as being fully checked or unchecked, and that preparing the material followed the quality control plan established for the work. The Quality Control/Quality Assurance (QC/QA) plan must contain provisions for developing appropriate “checklists” to maintain product quality and control. These “checklists” must be delivered to the Caltrans task order manager with the QC/QA plan. The consultant must update these documents when directed by the Caltrans task order manager. Within 30 calendar days of the Notice to Proceed, the consultant must submit to the Caltrans task order manager or Caltrans designee a job specific QC/QA plan and staffing plan.

14. Subject to Caltrans review, approval, and acceptance, the consultant has total responsibility for and must verify the accuracy and completeness of the deliverables, backup documents, and other items required by this contract prepared by the consultant or its subconsultants for the projects as specified in this contract and in each task order. All deliverables, backup documents, and other items required by this contract must be reviewed by Caltrans for conformity with project standards and the requirements in the task order and this contract. The
deliverables, backup documents, and other items required by this contract are subject to Caltrans’ review, approval, and acceptance. Reviews by Caltrans do NOT include detailed review or checking of major components, quantitative calculations, related details or accuracy of information. The responsibility for accuracy and completeness of such items remains solely that of the consultant.

15. The Caltrans contract manager or task order manager must address all questions which may arise on the quality or acceptability of deliverables furnished and work performed for this Contract.

16. Prepare the deliverables, backup documents, and other items required by this contract under prevailing industry standards and in a form acceptable to the Caltrans contract manager or the Caltrans task order manager. These items must identify the preparer, the designated reviewers, and the criteria for acceptance. The deliverables must satisfy the Caltrans acceptance criteria and tests. The work product must be complete, of neat appearance, well-organized, technically and grammatically correct, independently checked for error, checked by designated reviewers (Caltrans and Consultant Personnel), dated, and must conform to industry standards and all Caltrans, State, and Federal Standards, Requirements, and Procedures. All deliverables must be approved by the Caltrans Contract Manager or Caltrans designee.

17. The minimum standard of appearance, organization, and content of deliverables, backup documents, and other items required by this contract, must be that of similar types produced by Caltrans and set forth in related Caltrans manuals.

18. Caltrans and the consultant must develop and agree to a schedule for the services and deliverables to be completed and delivered, and where appropriate, for acceptance criteria and acceptance tests that the services and deliverables must satisfy as a prerequisite for approval by Caltrans. All deliverables must satisfy the standards set forth in “Standards” section to be accepted for payment.

U. Land Surveying Deliverables

1. The consultant must obtain written approval from Caltrans for all deliverables, backup documents, and other items required by this contract. If there are no Caltrans standardized forms, the format and content requirements for all
deliverables, backup documents, and other items required by this contract must be specified in each task order.

2. All land surveying services deliverables, backup documents, and other items required by this contract performed on computer must be delivered in Caltrans approved hardware and software formats. Specific deliverable file formats must be identified in the individual contract task orders.

3. All maps must be submitted in unprotected and modifiable digital electronic files in the Caltrans-approved and designated formats and must conform to Caltrans standards.

4. Survey points, lines, and monuments must be established, marked, identified and referenced, as required by Standards and Symbols for Photogrammetric Mapping, CADD Standards, task order, and the requirements in this contract.

5. Survey notes, drawings, calculations and other survey documents and information must be completed as required by the task order and the requirements in this contract.

6. All original survey documents resulting from this contract (including original field notes, data collector raw files, edits to field data, adjustment calculations, final results, and intermediate documents) must be delivered to Caltrans and must become the property of Caltrans. The consultant must retain a copy of all survey documents furnished to Caltrans. When the survey is performed with a Total Station Survey System, the original field notes must be a hard copy listing in a readable format of the data (observations) as originally collected and submitted by the survey party. The person in “Responsible Charge” of the survey must sign the listing.

7. The final results of all surveys must be delivered to Caltrans in the formats specified below:

a. The HORIZONTAL CONTROL must be submitted in unprotected and modifiable digital electronic files in the Caltrans-approved and designated formats, and must conform to Caltrans standards. The digital electronic medium must follow the Caltrans computerized system. Also, an
alpha/numeric hard copy point listing with adjusted California Coordinate System northings and eastings and descriptions must be submitted.

b. The VERTICAL CONTROL must be submitted in unprotected and modifiable digital electronic files in the Caltrans-approved and designated format, and must conform to Caltrans standards. The digital electronic medium must follow the Caltrans computerized system. Also, an alpha/numeric hard copy benchmark listing with adjusted elevations and descriptions must be submitted.

c. The TOPOGRAPHIC DATA must be submitted in unprotected and modifiable digital electronic files in the Caltrans-approved and designated formats, and must conform to Caltrans standards. The digital electronic medium must follow the Caltrans computerized system as specified in the task order (AutoCAD Civil 3D). Also, hard copy drawings and an alpha/numeric hard copy listing must be submitted.

d. Other - As specified in the Task Order.

8. Caltrans role must be limited to technical oversight only and monitoring the Consultant's quality assurance program.

9. Quality assurance must be required for Caltrans produced data or data produced by another consultant.

V. Conflict of Interest

1. All land surveying services provided by the consultant and deliverables produced by the consultant must be free of any conflict of interest and must be subject to the approval and acceptance of the Caltrans contract manager. The consultant must inform the Caltrans contract manager of any ‘perceived’ conflict of interest when discovered.

2. The consultant must not receive compensation for any services or products in which the consultant is found to have a conflict of interest. In the event of non-acceptance due to discovery of conflict of interest, the consultant must provide replacement deliverables free of any conflict of interest prior to payment. If replacement deliverables are not possible, the consultant must not receive
compensation for the deliverables containing conflict of interest. An example of conflict of interest include but is not limited to:

a. Providing land surveying services for Caltrans on a particular project and providing land surveying services for the construction contractor on the same project.

The above conflict of interest scenario is only an example of possible conflicts of interest for the services provided under this contract but is not intended to describe all circumstances for potential or actual conflicts.

W. Travel Transportation and subsistence cost to be reimbursed shall be the actual costs incurred, but not to exceed the rates stipulated in the “Caltrans Travel Guide Consultant/Contractors Travel Policy”. See http://www.dot.ca.gov/hq/asc/travel/ch12.htm When prevailing wages apply to the services described in Attachment 1, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination. See http://www.dir.ca.gov/.

X. List of Abbreviated Terms

A&E (Architectural and Engineering)
BPELSG (California State Board of Professional Engineers, Land Surveyors, and Geologists)
CADD (Computer Aided Drafting & Design)
Caltrans (California Department of Transportation)
DBE (Disadvantaged Business Enterprise)
DPAC (Division of Procurement and Contracts)
DVBE (Disabled Veterans Business Enterprise)
FHWA (Federal Highway Administration)
GNSS (Global Navigation Satellite System)
GPS (Global Positioning System)
MUTCD (Manual of Uniform Traffic Control Devices)
OSHA (Occupational Safety and Health Administration)
OICR (Office Indirect Cost Rate)
PDT (Project Development Team)
PLS (Professional Land Surveyor)
RTK (Real Time Kinematic)
Y. Datum Requirements

1. Caltrans must designate the existing horizontal and vertical control monuments to be the basis of Consultant performed surveys and mapping. Caltrans must provide the California Coordinate System values for the horizontal control monuments and the elevation values for the vertical monuments. All bearings and distances must be on the California Coordinate System as based on the primary control furnished to consultant. The consultant must adjust the consultant performed surveys utilizing the designated control monument values. Exceptions need prior written approval from the Caltrans district survey engineer.

2. All surveying data and maps prepared by the consultant must conform to Sections 8801 through 8902 of the Public Resources Code. Distances and bearings shown must be grid and the maps and documents must show the datum and combination factor for surface conversion.

3. The task order must designate which epoch of the California Coordinate System is to be used for horizontal coordinate values.

4. The task order must designate the vertical datum to be used for elevations.

Z. Monument Markings

Monuments established by the consultant must be marked by the consultant with Caltrans-furnished disks, plugs, or tags. In addition, the consultant must identify State furnished monuments by tagging or stamping the monuments with the license or registration number of the consultant's surveyor in "Responsible Charge" of the work.
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