STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

REQUEST FOR PROPOSALS

FOR DESIGN AND CONSTRUCTION ON STATE HIGHWAY IN

MADERA COUNTY, IN AND NEAR MADERA FROM 0.3 MILE SOUTH OF SOUTH MADERA OVERCROSSING TO 0.4 MILE NORTH OF AVENUE 16 OVERCROSSING

DISTRICT 06, ROUTE 99

CONTRACT NO. 06-0E0404

06-Mad-99-9.5/13.1

Project ID 0600000043

Federal Aid Project

NH-P099(538)N

Addendum No. 3 Issued April 20, 2011

The Department issues this Addendum No. 3 to inform Proposers of the following changes and corrections to the RFP.

INSTRUCTIONS TO PROPOSERS

The Instructions to Proposers is modified as indicated by the deletions and additions set forth below.

Section 6.5 is modified as indicated below.

6.5 Contract Award and Execution

Following selection of a Preferred Proposer by Department and verification that Preferred Proposer has complied with the requirements of the RFP, Department will award the Contract and will deliver five sets of execution copies of the Contract and five sets of execution copies of each available Master Utility Agreement (if any) to the selected Preferred Proposer within 5 days of the conclusion of the discussions between Department and the Preferred Proposer. Within five days of Department's award of the Contract, the Preferred Proposer shall provide the following:

(a) Executed Contract;

(b) Executed Master Utility Agreement(s) (if any);

(c) Evidence of authorization to execute the Contract, in the form of a certified resolution of the governing body of Proposer expressly stating such body's authorization to execute the Contract and, if Proposer is a partnership, joint venture, or unincorporated association, of the governing bodies of the entity's partners or members;

(d) Payment and Performance Bond in the forms shown in Book 1, Exhibits K and L (Forms of Payment and Performance Bond for Design-Build Contracts) and a Warranty Bond in the form shown in Book 1, Exhibit M, (Warranty Bond) and issued by the surety listed in the Proposal, or an equivalent surety meeting the requirements stated in Book 1, Section 8;

(e) The insurance policies, endorsements, and/or certificates required under Book 1, Section 9;

(f) Evidence that Proposer, its Major Participants, and other identified Subcontractors hold all licenses as of award necessary to perform the Work;

(g) If any entity described in Appendix B that is a corporation, or limited partnership is not organized or formed in the State of California, a Certificate of Status dated no earlier than 90 Days before the Proposal Due Date from the California Secretary of State for each such entity; and

(h) A written opinion from counsel for Design-Builder, which counsel shall be Approved by Department (which may be in-house or outside counsel, provided that the enforceability opinion shall be provided by an attorney licensed in the State of California), in substantially the form attached hereto as Form 15 (Form of Opinion of Counsel); ~~and~~

~~(i) If applicable, Guaranty in the form attached hereto as Form 16 (Form of Guaranty), together with appropriate evidence of authorization thereof.~~

Department shall have three Business Days to review and respond to subsequent submittals of the deliverable. Delivery of the preceding is a condition precedent to execution. Should the Preferred Proposer fail to comply with any of the above requirements, Department shall call upon the Proposal Bond in its entirety.

Subject to the mutual agreement of the parties otherwise, if Department does not execute the Contract within four days following receipt from the Preferred Proposer of the information and documents listed in this Section 6.5, the Proposer shall have the right to withdraw the Proposal without penalty.

If the Preferred Proposer fails to execute the Contract within the time periods identified above, Department may award the Contract to the Proposer whose Proposal was the next apparent Low Bid Proposal, re-advertise and complete the work under a different contract, cancel the Project or pursue any other option it chooses in its sole discretion. The Contract will not be effective until it has been fully executed and delivered by both of the parties thereto.

BOOK 1 DESIGN-BUILD CONTRACT

The Book 1, Design-Build Contract, is modified as indicated by the deletions and additions set forth below.

Section 21.1.1, Project Warranties is modified as follows:

21.1.1 Project Warranties

Design-Builder warrants that:

(a) all design Work furnished pursuant to the Contract Documents shall conform to all professional engineering principles generally accepted as standards of the industry in the State;

(b) the Project shall be free of defects (including design defects except to the extent that such defects are inherent in prescriptive specifications included in the Contract Documents, unless (i) Design-Builder has actual or constructive knowledge of such defects and (ii) Design-Builder fails to request a change thereto by Department);

(c) materials and equipment furnished under the Contract Documents shall be of good quality and, when installed, shall be new;

(d) the Work shall meet all of the requirements of the Contract Documents;

(e) the specifications and/or drawings selected or prepared for use during construction are appropriate for their intended use; and

(f) the Project shall be fit for use for the intended function pursuant to and in accordance with the specifications of the Contract Documents.

Section 22.2, Subcontractor Pricing Documents is modified as indicated:

22.2 Subcontractor Pricing Documents

Design-Builder shall require each Subcontractor of a Subcontract over 1/2 of 1 percent of the Contract Price ~~$50,000~~ to submit to Design-Builder a copy of all documentary information used in determining its Subcontract price, immediately prior to executing the Subcontract or change orders or amendments thereto, to be held in the same manner as the EPD and which shall be accessible by Design-Builder, Department, and other dispute resolvers, on terms substantially similar to those contained herein. Each such Subcontract shall include a representation and warranty from the Subcontractor stating that its EPD constitutes all the documentary information used in establishing its Subcontract price. Each Subcontract that is not subject to the foregoing requirement shall include a provision that requires the Subcontractor to preserve all documentary information used in establishing its Subcontract price and to provide such documentation to Design-Builder and/or Department in connection with any claim made by such Subcontractor.

BOOK 2 PROJECT REQUIREMENTS

The Book 2, Project Requirements, is modified as indicated by the deletions and additions set forth below.

Section 1.3.3. is modified as indicated below:

1.3.3 General Description

The Design-Builder shall not rely on the physical description contained in this Section 1 to identify all Project components. The Design-Builder shall determine the full scope of the Project through thorough examination of the RFP and the Project Site, or as may be reasonably inferred from such examination.

- The Project is to replace with full depth hot mix asphalt the failed existing concrete panels as determined by the Department in its sole discretion. The limits of concrete panel replacement are from Post Mile 9.5 to Post-Mile 10.0 and from Post Mile 11.7 to Post Mile 13.1. A typical panel dimension is 12 ft x 15 ft. The preliminary locations are shown in reference drawing Q-1. Design-Builder shall coordinate with the Department for final locations of panels to be replaced. The quantity of concrete panel replacement to be paid for will be measured by the cubic yard. Department estimates that 1800 cubic yards of concrete panel replacement will be required. The volume to be paid for will be calculated on the basis of the dimensions identified during a field review in coordination with the Department. Concrete panel replacement shall consist of removing existing portland cement concrete pavement and underlying cement treated base and replacing with full depth hot mix asphalt in conformance with Section 39 “Hot Mix Asphalt” of the Standard Specifications.

- From post mile 10.0 to 11.6, replace lane No. 2 with a 14' wide continuous reinforced concrete pavement (CRCP). Remove the 10' existing outside shoulder and replace with 8'wide hot mix asphalt concrete shoulder.

  For Hot Mix Asphalt/CRCP transition use Concrete/Hot Mix Asphalt transition panel as shown on the Caltrans Revised Standard Plan P30, a terminal joint per Caltrans New Standard Plans P31A/B, and then one of the following combinations:

  a. wide flange beam and expansion joint per Caltrans New Standard Plan P32A/B, or

  b. expansion joint and 2 pavement anchors per Caltrans New Standard Plans P31A/B.

  For bridges and joining to jointed plain concrete pavement, place terminal joint per Caltrans Standard Plans P31A/B followed by one of the following combinations:

  a. wide flange beam and expansion joint per Caltrans New Standard Plans P32A/B

  b. expansion joint and 2 pavement anchors per Caltrans New Standard Plans P31A/B

  If expansion joints are placed within the CRCP, 2 pavement anchors on each side are required.

- From post mile 10.0 to post mile 11.6. Rebuild the median with a 12' Jointed Plain Concrete Pavement (JPCP) from edge of travel way with 2% slope away from the concrete barrier. Replace lane no.1 with Jointed Plain Concrete Pavement (JPCP). All concrete lanes shall be design supported.

  ~~For bridges and joining to jointed plain concrete pavement, place terminal joint per Caltrans Standard Plans P31A/B followed by one of the following combinations:~~

  ~~a. wide flange beam and expansion joint per Caltrans New Standard Plans P32A/B~~

  ~~b. expansion joint and 2 pavement anchors per Caltrans New Standard Plans P31A/B~~

- No work on the deck of Fresno River Bridge (PM 11.6 to 11.7).

The Project will include:

- Cold Plane 0.35 thick of Asphalt Concrete pavement from PM. 9.5 to 10.0 and PM. 11.7 to 13.1. As determined by the Department in its sole discretion, repair any localized areas such as rutting greater than 0.05' and/or loose or spalling pavement and pumping cracks in the PCC with HMA and, if necessary, aggregate base also. Seal any remaining cracks wider than 0.02'. Then overlay with 0.1'dense grade hot mix asphalt (type A) as a leveling course, place SAMI-R (stress absorbing membrane interlayer, rubberized) and overlay with 0.5 ft. dense graded hot mix asphalt (type A).
- Construct rumble strips on the inside and outside AC shoulders between Post mile 9.5 to 10.0 and Post mile 11.7 to 13.1
- Upgrade all existing guard rail to current standards within the project limits.

- Construct a new metal beam guard rail to shield the existing census control box on the right side of Route 99

  Location: North of southbound off-ramp to Route 145.
- Modify lighting and sign illumination at the following approximate locations (PM 9.52, 10.03 to 10.2, 10.5 to 10.5, 10.8 to 11.0, 11.2 to 11.3, 11.9 to 12.0, 12.3 to 12.3, 12.6 to 12.7, and 13.0 to 13.1.
- Modify Traffic Monitoring Station at the following approximate locations PM (9.8, 10.2, 10.6, 11.2, 11.6, 12.1 to 12.2, 12.5, and 12.8)
- Closed circuit Television System at these approximate locations (PM 9.8,10.8,)
- Changeable Message Sign System (CMS). Model 500 CMS with LED sign. Design foundation and post will be determined by Design Builder. (PM 10.5)
- Modify Roadside Weather Information system. Replace the existing sensor and install a new sensor with a surface probe
- Add count loops to all On and Off Ramps and tie into existing Traffic monitoring system.
- Add piezo's on the existing count loops on Route 99 mainline both Northbound and Southbound
- Ensure to upgrade all traffic signs within the project limits are to current standards.
- Install a drainage system under the Avenue 16 Bridge on the northbound side by the shoulder to drain to the outside of the roadway.
- Replace all Type A dike with Type A dike in cut areas and with Type E dike in non-cut areas.
- Place temporary and permanent striping and signing
- Maintain two 12' lanes open during construction in both direction
- Night time closure to one lane permitted per lane closure chart
- Maintain existing roadway profile and vertical clearance under the bridges
- Need to have a 1' shoulder on each side of temporary detour lane.
- Within the project Location there are three pump house with a storage box under the Freeway:

  Cleveland Ave. Pump house Post Mile 12.1

  Route 99/145 Pump house Post Mile 10.3

  Madera 99 undercrossing pump house Post Mile 11.1
- The alternate Department approved crash cushions to be considered to shield the south end of the concrete barriers at gore area are TL3 Non gating System: TAU II, Smart Cushion, or QuadGuard.

Section 2.2.2.2.2, Invoice Calculations is modified as indicated below:

2.2.2.2.2 Invoice Calculations

The Department will base payments on the Department's estimate of physical percent complete of the Work, not on measured quantities (except where specifically stated in the Contract).

The payment to the Design-Builder will be the amount shown on the Design-Builder's Approved invoice less deductions made by the Department.

The following Project Management items from Form 9 submitted with the price proposal will be paid by prorating any unpaid balances by the amount of time remaining until Substantial Completion:

- Contract Management (includes Scope Management, Cost Management, and Schedule Management)
- Quality Management
- Safety Management
- Public Information Management
- Environmental Management
- Maintenance During Construction
- ~~Insurance (no payment will be made for insurance until insurance invoices are provided)~~
- ~~Bonds~~

Payment for Insurance and Bond premiums will be made upon presentation of a paid invoice by the Design-Builder.

The Department makes the payments for Mobilization according to Public Contract Code § 10264. The Department pays the item total for mobilization in excess of 10 percent of the total bid in the first payment after Final Acceptance.

Earned value does not include the costs of bonds, insurance and prior mobilization payments.

The Department will base payments for design based on estimated percentage complete for each Release for Construction (RFC) package with the following limitations:

- A maximum 90 percent will be paid when RFC Documents have been issued.
- A maximum of 95 percent will be paid when all construction Work associated with each RFC package is complete.
- A maximum of 100 percent will be paid when all As-Built and Project History File Documents have been accepted.

The Department will base payments for Time Related Overhead on the number of Working Days that occurred during that monthly estimate period, including compensable suspensions and delays. Working Days granted by Contract Change Order due to Extra Work or changes in character of the work, will be paid for upon completion of the Contract. The amount earned per

Working Day for time-related overhead shall be the amount for Time Related Overhead on Form 9 submitted with the Price Proposal divided by the number of Working Days in the Contract.

Section 2.3, Schedule Management is modified as indicated below:

2.3 Schedule Management

The Design-Builder shall complete and maintain a computerized Critical Path Method (CPM) Schedule as described in Exhibit 2-B.

~~Schedule Management shall be in accordance Section 8-1.04 (Progress Schedule) of the Caltrans Standard Specifications.~~

Section 4.4.1.7, Wildlife and Vegetation is modified as indicated below:

4.4.1.7 Wildlife and Vegetation

The Design-Builder shall provide notification if either of the following occurs:

• Species are discovered within the Project area that are identified in the Project's environmental documentation based on the federal or State threatened or endangered species list

• New threatened or endangered species are listed or discovered within the Project area

General Migratory Bird Treaty Act

The Design-Builder shall comply with the Federal Migratory Bird Treaty Act (15 USC 703-711) 50 CFR Part 21 and 50 CFR Part 10, and the California Department of Fish and Game Code Sections 3503, 3513, and 3800, that protect migratory birds, their occupied nests, and their eggs from disturbance or destruction.

- The Design-Builder shall provide a Biologist to ~~be responsible for completing~~conduct the migratory bird nest survey within the Project limits prior to construction. The Biologist shall possess a degree in biological or natural science from an accredited college or university and have 1-year experience in performing bird nesting surveys or as approved by the Department.
- The Design-Builder is required to provide documentation identifying the number of nests removed and whether or not the nests are occupied with eggs or nestlings.

Exhibit 2-A is modified throughout as indicated below:

Replace the following statements:

> "Test records and daily diaries shall be submitted to the Caltrans by 0900 am the next business day."
>
> and
>
> "Test records and daily diaries shall be submitted to the Department by 0900 (9:00 am) the next business day."

with the following:

> "The daily diaries shall be submitted to the Department by 9:00 am the next business day."

Section 7B.2.9 of Exhibit 2-A is modified as indicated below:

7B.2.9. Quality Records

Quality records are documents that specify the design, document results of inspections and tests, and include all other related documents. Quality records shall be identified, collected indexed and stored in a manner that precludes damage, loss or deterioration. Specific retention times and location shall be designated and the records shall be accessible for use. At a minimum, quality records shall be identified by title, contract number, revision, date, and signed by an authorized individual. Quality records are considered valid only if stamped (controlled) or signed by an authorized individual. Corrections or revisions to quality records shall receive the same level of review and approval as the original document. All quality records shall be available for review by the Department upon request. The Quality Assurance ~~diaries and~~ material test results and test records shall be submitted to the Department ~~on daily basis~~within 24 hours of a test either electronically or hardcopy. For material testing of items in which a longer testing period is required, the test results and test records shall be submitted within 24 hours of completing the test. All records shall be filed in accordance to the filing categories as discussed in Chapter 5-1.2 of the *Caltrans Construction Manual*.

Add Exhibit 2-B Critical Path Method Schedule as attached to this Addendum.

REFERENCE INFORMATION DOCUMENTS (RID)

See revised RID Index for a list of provided Reference Information Documents in the Data Room.

EXHIBIT 2-B

Critical Path Method Schedule

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2.3.2 Administrative Requirements

2.3.2.1 Definitions

The following definitions used in this Section are intended to supplement or supersede definitions provided with Oracle Primavera P6 Professional Project Management for Windows and shall have the following intents and meanings:

- As-Built Schedule: A schedule that records actual dates, work days, non-workdays, re-work and/or out of sequence work.
- As-Planned Schedule: The schedule representing the Design-Builder's best judgment and intended plan for completion of the Work in compliance with Contract Documents. The as-planned schedule shall take into account all foreseeable activities; to include but not limited to activities by any separate contractors, interface dates with utility owners/railroads/municipalities/agencies, submittal and submittal review.
- Baseline Schedule: The first Accepted As-Planned Schedule, which incorporates as-built activities from the Preliminary Schedule; and fully includes the entire scope of Work from NTP1 to Final Acceptance.
- Controlling Item of Work: The non-completed activity(s) with the earliest start date that resides on the Critical Path(s) of the current Working Schedule.
- CPM Schedule: Computerized Resource/Cost loaded schedule in CPM format.
- CPM Format: The structure of the computerized schedule. CPM Format defines the construction logic in terms of all of the activities with their logical dependencies. All activities shall be logically tied to a predecessor and successor with the exception of the first and last activities respectively.
- Critical Activity: An activity with zero or negative Total Float.
- Critical Path(s): The chain or parallel chain(s) of continuous activities controlling the last activity of the schedule and/or Milestone(s). See also Longest Path.
- Date Constraint: A constraint placed on an activity that overrides or impedes logic and/or restricts or distributes Float to control a network and/or sub-network of logic. A Date Constraint shall only be used on contractual obligate date(s).
- Float: The number of Days the start of an activity can be delayed without affecting a Milestone and/or the Project finish date. See also Total Float.
- Free Float: The number of Days available to an activity without delaying the early start of a successor activity. Free Float is uniquely available to an activity.
- Impact Schedule: A schedule prepared to demonstrate the impacts of a change, or a proposed change from the last accepted working schedule. An accepted Impact Schedule becomes the current Working Schedule and is submitted via a Time Impact Analysis.
- Longest Path: The Longest single path from the start of the schedule to the last activity of the schedule. See also Critical Path.
- Milestone: A contractual obligated Project Start or deadline and shall be designated with an activity type of Milestone. Milestones are the only activities allowed a Start and Finish date constraint. The Design-Builder may use activity coding to designate other activities of interest.
- Near Critical Activities: Activities with equal or less than 10 Days Total Float.
- Preferential Sequence: A sequence of Work chosen by the Design-Builder that otherwise could be performed in a different sequence than the one chosen.
- Preliminary Schedule(s): The schedule(s) submitted as parties work toward Baseline Schedule Acceptance.

- Revision Schedule: Any accepted schedule that substantially differs from the plan depicted in the accepted Baseline Schedule. An Accepted Revision Schedule becomes the current Working Schedule and is submitted via an Impact Schedule.
- Sequestered Float: The causation of a withdraw into seclusion to screen from view and make smaller a value of Float other than that as shown in the schedule as a result of manipulation and techniques of network logic intentional or unintentional, that diminishes, sequesters or removes Float that would otherwise be available to both parties.
- Total Float: Number of Days by which a part of the Work in the Schedule may be delayed from its Early Dates without necessarily extending the Contract Time or Milestone. See also Float.
- Two Week Look-Ahead Schedule: Schedule which spans a forward looking, rolling period of at least 14 Calendar Days.
- Working Schedule: The current accepted Schedule. The Working Schedule shall be used for planning the remainder of the Work, as well as recording actual start/finish dates of activities, and work/non-work days.

2.3.2.2 Computer Software

The Design-Builder shall submit to the Department for review a description of proposed schedule software to be used. After Department Accepts the proposed software, furnish schedule software and all original software instruction manuals. All software must be compatible with the current version of the Windows operating system in use by Department. The schedule software must include the latest version of Oracle Primavera P6 Professional Project Management for Windows, or equivalent.

If a schedule software equivalent to P6 is proposed, it must be capable of:

1. Generating files that can be imported into P6
2. Comparing 2 schedules and providing reports of changes in activity ID, activity description, constraints, calendar assignments, durations, and logic ties

The Design-Builder is responsible for any conversion discrepancies.

The schedule software and schedule-comparing software will be returned to the Design-Builder before the final estimate.

Instruct the Department in the use of the software and provide software support until the contract is accepted. Within 15 days of contract approval, provide a commercial 8-hour training session for 2 Department employees in the use of the software at a location acceptable to the Department. It is recommended that Design-Builder also send at least 2 employees to the same training session to facilitate development of similar knowledge and skills in the use of the software. If schedule software other than P6 is submitted, then the training session must be a total of 16-hours for each Department employee.

2.3.2.3 Schedule Calculations

The following scheduling settings will govern and the schedule will be calculated in P6.

2.3.2.3.1 Interruptible Activities

The schedule method shall be set to interruptible activities.

2.3.2.3.2 Total Float Calculations

Total Float shall be calculated utilizing the Finish Dates. Hammocks will be ignored when determining Float and Critical Path(s).

2.3.2.3.3 Progress Override

The schedule will be calculated utilizing Progress Override. This method assumes that once an activity is started that work may continue without concern for uncompleted predecessor activities. It is the

responsibility of the Design-Builder to work in sequence. Department may analyze the schedule with "Retained Logic" and require any illogical results of Progress Override to be corrected prior to the schedule's Acceptance.

2.3.2.4 General Requirements

Changes to the Schedule shall be closely coordinated with Department and are subject to Department's Acceptance. If Department deems Work is performed substantially out of sequence, Department may request the Design-Builder to demonstrate the impacts in accordance with the Time Impact Analysis section contained herein.

The Design-Builder shall manage and Work with each Subcontractor and Supplier to obtain information on Activities for implementation and sequencing of the Work. The schedules shall reflect Contract requirements and known limitations.

Errors or omissions within schedules shall not relieve the Design-Builder from finishing all Work within the time limit specified for completion of the Contract. If, after a schedule has been Accepted by Department, and either the Design-Builder or Department discovers that any aspect of the Schedule has an error or omission, it shall be corrected and the effects indicated in accordance with the Time Impact Analysis section contained herein.

Any condition or Work that impacts the Design-Builder's commencement of an activity shall be identified as outside impacts to the Schedule, such as work under another contract, which affects the Project. In a case where Work affects or is affected by work under another contract and the affected contracts are being performed by the same contractor, the Design-Builder shall coordinate the Work to minimize impacts to both contracts' project completion dates.

2.3.2.5 Naming Convention

2.3.2.5.1 Preliminary and Baseline Schedule

Schedules shall be assigned a file name and a version, starting with file name "BL00" and version "Rev. 0". Until the Department accepts the schedule the Design-Builder shall resubmit the same file name and increment the version number by one (e.g., BL00 Rev1). The Preliminary Schedule that is ultimately Accepted as the Baseline shall be resubmitted with file name of "BL00" and a version "Baseline". Updates shall increment the file by one with version starting back at "Rev 0" and versions incremented by one until accepted (e.g., BL01 Rev0).

2.3.2.5.2 Impact Schedule

Impact Schedules are submitted via a Time Impact Analysis in accordance with the "Time Impact Analysis" section contained herein. Impact Schedules shall be assigned a file name starting with file name "I001" and incremented by one for every submitted Impact Schedule.

2.3.2.5.3 Revision or Recovery Schedule

The first accepted Impact Schedule (new Working Schedule) shall be assigned a file name starting with file name "RE00"; however, the revision shall indicate the accepted Impact Schedule's file name (e.g., file name RE00 RevI001). Subsequent updates shall have a file name incremented by one, with revision started back at "Rev.0" (e.g., RE01 Rev0).

2.3.2.6 Notice to Proceed(s)

2.3.2.6.1 Preliminary Schedule(s)

All schedules submitted prior to Acceptance of the Baseline Schedule will be considered Preliminary Schedules. The first Preliminary Schedule shall communicate that all Milestone dates are understood and sufficiently detail a 30-Day look-ahead period.

The Design-Builder shall continually improve upon the Preliminary Schedules and shall show the status of work actually completed until it is Accepted as the Baseline. Preliminary Schedules shall be submitted with data dates of the 21st day of the month; the schedule shall be submitted to Department as soon as possible after the applicable data date, but in no instance shall be later than four Calendar Days after applicable data date.

2.3.2.6.2 Baseline Schedule

The Baseline Schedule shall not extend beyond any Completion Deadlines, contain negative Float, or utilize any other prohibited scheduling techniques. A total of not more than 20 percent of the Baseline Schedule activities shall be Critical Activities or 30 percent Near Critical Activities, unless otherwise authorized by Department.

The Baseline Schedule shall include, at a minimum, the applicable level of detail indicated in the "Level of Detail" section contained herein, unless changes are approved by Department. Failure to include any element of required Work in any Schedule shall not relieve the Design-Builder from completing all Work necessary to complete the Project according to Completion Deadlines.

2.3.2.7 Schedule Updates

At a minimum, the Design-Builder shall submit an updated schedule, with a data date of the 21st day of the month or other date established by the Department, that accurately records the dates Work started and completed. The schedule should be received as soon as possible after the applicable data date, but in no instance shall be later than four Calendar Days. Changes to the Schedule shall be closely coordinated with Department and are subject to Department's Acceptance. If Department deems Work is performed substantially out of sequence, the Design-Builder shall demonstrate the impacts in accordance with the "Time Impact Analysis" section contained herein.

The Design-Builder shall minimize the number of changes and state within the update narrative, the reasons for any changes to Schedule. Department may elect to allow the Design-Builder to include modifications such as adding or deleting activities or modifying activity descriptions, durations or logic without submitting a "Time Impact Analysis" as long as, in the sole opinion of Department, the modifications do not:

- Alter the critical path(s) or near critical path(s)
- Extend the scheduled Completion Deadlines or Milestone(s) compared to that shown on the current accepted Working Schedule
- Disrupt the integrity or comparative relationship between the last accepted Working Schedule
- Consume "unreasonable" amount of Total Float
- Modify Budget Estimates on In-Progress Activities
- Delete In-Progress Activities with Budget Estimates

The Design-Builder shall minimize the number of changes and state in writing, within the update narrative, the reasons for any changes to Schedule or planned work. If in the opinion of Department any proposed changes in planned work will result in any of the above stated conditions, the Design-Builder shall submit a "Time Impact Analysis" as described herein.

2.3.2.8 Acceptance of Schedule

Department's review and Acceptance of Schedules will not waive any Contract requirements and shall not relieve the Design-Builder of any obligation or responsibility for submitting complete and accurate information. By review and Acceptance of the Schedule, Department does not endorse or otherwise certify the validity or accuracy of any part of the Schedules. The responsibility for validity and accuracy of all Schedules is the sole responsibility of the Design-Builder. Errors or omissions within Schedules shall not relieve the Design-Builder from finishing all Work within the time limit specified for Completion Deadlines.

If, after a Schedule has been Accepted by Department, and either the Design-Builder or Department discovers that any aspect of the Schedule has an error or omission, it shall be corrected and the effects indicated in accordance with the "Time Impact Analysis" section contained herein.

Errors or omissions within schedules shall not relieve the Design-Builder from finishing all work within the time limit specified for completion of the Contract. If, after a schedule has been Accepted by Department, and either the Design-Builder or Department discovers that any aspect of the Schedule has an error or omission, it shall be corrected and the effects indicated in accordance with the "Time Impact Analysis" section contained herein.

2.3.2.8.1 Preliminary and Baseline Schedules

Department will Accept or return comments on submitted schedules within seven Calendar Days after being received. Schedules that are not Accepted shall be corrected by the Design-Builder within seven Calendar Days after Department has returned comment. It is the Design-Builder's responsibility to meet with Department as often as necessary to satisfy Department's comments within said seven Calendar Days.

2.3.2.8.2 Schedule Updates

Department will accept or return comments on submitted schedules within seven Calendar Days after being received. Schedules that are not accepted shall be corrected by the Design-Builder within seven Calendar Days. It is the Design-Builder's responsibility to meet with Department as often as necessary to satisfy Department's comments within said seven Calendar Days. All Change Orders shall be incorporated into the Schedule Updates by separate activities with Approved Costs and Resources. All Change Orders must be coded appropriately by Change Order number and appropriate activity coding.

2.3.2.8.3 Impact Schedules

Department will Accept or return comments on submitted schedules within 14 Calendar Days after being received. Schedules that are not Accepted shall be corrected by the Design-Builder within seven Calendar Days. It is the Design-Builder responsibility to meet with Department as often as necessary to satisfy Department's comments within said seven Calendar Days.

2.3.2.9 Weekly Look-Ahead Schedule

The Design-Builder shall submit weekly, a detailed forward looking period of at least 14 Calendar Days. This schedule may be a hand- or computer-generated bar chart, but specifically references the applicable CPM Activity ID. This Look-Ahead Schedule" shall be in greater detail than the "Working Schedule" and define specific daily operations at each specific location to be performed during the two-week period.

2.3.2.10 Schedule Recovery

Unless otherwise directed in writing by Department, whenever the current working schedule indicates negative Float greater than 5 percent of the remaining Calendar Days before a contractual obligate milestone, but in no case greater than negative 40 Working Days, the Design-Builder shall submit, within seven Calendar Days, a Time Impact Analysis (TIA) as described in "Time Impact Analysis" section herein; whereas the impact schedule shall recover the negative Float regardless of fault of either party for past delays. The requirement to recover negative Float regardless of fault is not a directive by Department to accelerate the Work but rather a directive to provide a proposal. Any cure involving acceleration, at a cost to Department, shall be directed in writing from Department prior to any execution of acceleration thereof.

2.3.2.11 Change Management

The Design-Builder shall provide Department with the schedule activity(s) that were affected and document them in the Change Order. All Change Orders shall be incorporated into the schedule. Each Change Order shall have its own activity ID and specifically reference the Change Order Number as the P6 Resource; and assigned to a cost account "CO".

2.3.2.12 Time Impact Analysis

The Design-Builder shall determine the effect of an impact as contemporaneously as possible, and shall not wait to analyze the effects of an impact; this may require estimates of the duration of the impact. The Design-Builder shall submit a Time Impact Analysis (TIA) at any time the Design-Builder is unsure if any one event, or accumulation of events, impacts a Completion Deadline. Failure for the Design-Builder to submit a TIA addressing the impact will be considered prima facie evidence that Department was not afforded the opportunity to mitigate the impact. At any time Department may require the Design-Builder to demonstrate the impacts of any change, or proposed change, to the schedule via (TIA) and shall submit within seven Calendar Days of receiving the request, even if the Design-Builder believes that there is no impact to the schedule.

A Time Impact Analysis (TIA) shall include a statement that there is "No effect to the schedule" OR, the (TIA) shall include the following:

- An Impact Schedule
- Any associated cost burden or savings
- A narrative report developed specifically to demonstrate effects of deviations from the current working schedule to include:
  - A detailed factual statement of the impact, and its cause, providing all necessary dates, locations, and items of Work affected and included in each impact
  - The dates or dates on which actions resulting in the impact occurred or conditions resulting in the impact became evident
  - Identification and copies of all pertinent documents relating to such impact
  - Basis for entitlement and identification of the provisions of the Contract which support the impact
  - All, if any, concurrent Design-Builder caused delays during the time frame of the impact
  - Affected activity ID(s) of the Schedule for which the impact is to be presented and how they were affected
  - Any additional information requested by Department

Department may Accept the Impact Schedule as the new Working Schedule while parties determine associated cost burden or savings. All accepted Impact Schedules shall become the next Working Schedule and with the Impact Schedules file name referenced in the Revision field.

2.3.2.13 Float Suppression / Sequestered Float / Use of Float

The Design-Builder shall not engage in Float suppression manipulations which have the net effect of sequestering Float time. It is expressly agreed and understood that the Design-Builder shall not be entitled to any compensation or damages on account of delays which could have been avoided by revising activity time or logic used to sequester Float and will exclude the Design-Builder's right to recover any delay damages or compensation. Lags/Leads are subject to the consent of Department. The Design-Builder shall remove any Lags/Leads and replace with an activity identifying the Lag/Lead upon request of Department, regardless of prior Acceptance on previous schedules

The Design-Builder acknowledges that all Float is a shared commodity available to the Project and is not for the exclusive benefit of any party, but is an expiring resource available to accommodate changes in the Work, however originated. Contract time extensions for Contract performance will be granted only to the extent that delays or disruptions to effected work paths exceed total Float along those paths of the current Working schedule in effect at the time of delay or disruption. It is understood that identified contingencies, as described in the "Calendar and Identified Contingency" section, become available Total Float as time elapses and the contingency was not used.

2.3.2.14 Early Completion

Should the Design-Builder intend to complete, or complete the Work, or any portion thereof, earlier than any Completion Deadline, it is understood that Project benefits from the increase in shared Total Float. The Design-Builder agrees that delays shall only be based on impacts to the Completion Deadlines, not the Planned Early Finish date of the Schedule. Completion Deadlines can only be changed by an executed Change Order.

2.3.2.15 Calendars and Identified Contigency

The duration of each activity shall include the necessary work days to actually complete the work defined by the activity; contingency shall not be built into the durations. Each activity shall be assigned the appropriate calendar as it relates to each major item of Work. Each calendar, with the exception of the calendar utilized for tracking Calendar Days, shall include contingent non workdays. It is the responsibility of the Design-Builder to estimate sufficient weather contingency. The Design-Builder shall include a minimum of 15 percent weather contingency for each major item of Work affected by weather. The Design-Builder shall submit a statement indicating duration (in hours) of their normal work day as it relates to the work week (e.g., M-F [10 hrs] and Sat [6 hrs] for each calendar). Contingency will be the amount of indicated non workdays compared to this statement. If the Design-Builder does not submit this statement it will be considered prima facie evidence that the Design-Builder did not account for sufficient weather impacts.

2.3.2.16 Non-Compliance

The Design-Builder's refusal, failure, or neglect to diligently pursue timely acceptance of any schedule or TIA shall constitute reasonable evidence that the Design-Builder is not prosecuting the Work, or separable part, with the diligence that will ensure its completion within the applicable Completion Deadline and shall constitute sufficient basis for Department to exercise one or a combination of the following options: withhold an amount up to 100 percent of the estimated value of work performed, or assess a non-recoverable monetary deduction of $1,000/Day for every Day past an applicable schedule submittal deadline stated herein.

2.3.2.17 Level of Detail

The Schedule shall be cost- and resource-loaded and will be used to administer the payments to the Design-Builder. If the Design-Builder intends to bill for materials on hand, all procurement activities must be scheduled and cost/resource loaded separate from the installation activities.

The costs assigned to schedule activities shall roll up to equal the price for the items identified in Form 9 of the ITP. The total cost of all schedule activities shall equal the Contract Price. The cost assigned to individual schedule activities shall reflect the Design-Builder's cost for each activity, and shall not artificially inflate, imbalance, or front-load the items. Each activity shall identify a reasonable estimate of either a commodity or labor hour upon which the activity value is based Combining multiple Resource/Cost Account codes on single activities is not recommended (i.e., "Install Soundwalls" should not include both Painting and Installation cost/resources).

As a minimum each activity shall:

- Have a unique activity description and contain a verb
- Be a duration of not more than 20 Working Days nor less than 5 Days, unless otherwise authorized by Department
- Have at least one predecessor and one successor activity, except for Project start and finish, respectively
- Express activity durations in Days
- Utilize the Activity Code "DETL" to best represent a geographic area of the project. The DETL code field shall be shorter than 5 characters

The Baseline Schedule shall be sufficiently detailed to accurately reflect the complexity and numerous construction operations of this Project to the satisfaction of Department. The level of detail described below is an example of the kind of detail expected, but can be improved upon or changed as applicable.

Administration:

- Schedule Milestones
- Mobilization
- Foundations, substructure, superstructure, and decks
- All Submittals (Design packages, shop drawings, etc)
- Department review periods
- Utility notification and relocation, by utility
- Material on hand (procured items) requests and payments
- Substantial completion
- Punch list

Bridges:

- Test piling
- Test holes
- Embankment for each abutment location
- Fabrication and delivery of piling
- Structural steel fabrication and delivery, per structure
- Pile installation, per bent, per structure
- Drilled shaft installation, per pier, per structure
- Pile caps, per bent, per structure
- Footings, per pier, per structure
- Columns, per pier, per structure
- Caps, per pier, per structure
- End bents, per structure
- Beam or girder erection, per structure
- Diaphragms
- Deck placement, per structure
- Parapets, per structure
- Erection and removal of falsework and shoring

Roadway:

- Traffic switches
- Submission of job mix formula for asphalt pavement
- Delivery schedule for items such as drainage pipe, guardrail, sign structures and signs, permanent lighting facilities, and permanent traffic signals
- Internal access and haul roads (location and duration in-place)
- Clearing and grubbing by stationing and roadway

- Excavation
- Embankment placed for each roadway
- Drainage – by run with structures for each roadway
- Retaining walls per location
- Subgrade for each roadway
- Base for roadway
- Curb, barrier wall and sidewalks for each roadway
- Pavement (asphalt and/or concrete) for each roadway
- Bridge approach slabs per location
- Guardrail for each roadway
- Slope pavement or riprap
- Roadway lighting for each roadway
- Signing for each sign structure location and for each roadway
- Striping for each roadway
- Traffic signals per location
- Topsoil, sodding, seeding and mulching for each roadway
- Landscaping
- Finishing roadway and final cleanup

2.3.3 Deliverables

2.3.3.1 Schedule Submission

The Design-Builder shall include a narrative for each schedule submittal to include and discuss:

- A bar chart, of all activities, sorted by Early Start and indicating Longest Path in red
- A bar chart sorted by Early Start for each Milestone's Critical Path
- A bar chart, of only activities with Total Float less than 10 Days, sorted by Early Start
- Upcoming and pending coordination required with Department, or third parties
- Potential problem areas
- Description and reason for any changes made to the schedule and the effects the changes have on Milestones or Project Completion Date

The Design-Builder shall include Bar Charts for each Schedule submittal containing the following information:

- The Baseline Schedule in grayscale above the current progress bar for each task
- Activity ID and description
- Original Duration
- Early Start, Late Start, and Late Finish.
- Total Float
- Predecessors and successors
- Include a title block and a timeline on each page. At a minimum, the title block shall include file name, revision, start date, finish date, data date, and run date.

One CD-R compact disk containing a backup, in P6 compressed format (PRX files).

2.3.3.2 Preliminary Schedule

The Design-Builder shall submit to Department a Preliminary Schedule for Acceptance. Acceptance of the first Preliminary Schedule shall be a condition of NTP1.

2.3.3.3 Baseline Schedule

The Design-Builder shall submit a Baseline Schedule for Department Acceptance within 21 Calendar Days following NTP 1.

2.3.3.4 Schedule Updates

The Design-Builder shall submit an updated schedule, with a data date of the 21st day of the month or other date established by the Department, that accurately records the dates Work started and completed. The schedule shall be submitted as soon as possible after the applicable data date, but in no instance shall be later than four Calendar Days.

2.3.3.5 Time Impact Analysis

The Design-Builder shall submit a TIA to determine the effect of any delay event or any ordered or proposed change to the current Working Schedule. A TIA includes an Impact Schedule, any associated cost burden or savings, and a narrative report developed specifically to demonstrate effects of deviations from the current working schedule.

2.3.3.6 Weekly Look-Ahead Schedule

The Design-Builder shall submit weekly, a detailed forward looking period of at least 14 Calendar Days. This schedule may be a hand- or computer-generated bar chart, but specifically references the applicable CPM Activity ID.

Index of Reference Information Documents

A "W" under available column indicates documents that can be found on the Internet, an "E" indicates the document will be provided electronically, and "CO" indicates the Contractor shall obtain the document. Web sites are not guaranteed but are supplied for information. It is ultimately the Contractor's responsibility to locate the documents.

Title	Available
EXISTING INFORMATION	
RW Maps 001-018 Portfolio.pdf – Existing Right-of-Way Maps	W
Utility Search.pdf – Existing Utilities	W
As-Built Plans Folder	
06-328104.pdf – June 29, 1995 Plans in and near Madera from Route 145/99 Separation to Avenue 16 Overcrossing PM 10.2/12.8	W
06-400604.pdf – January 06, 1999 Plans in Madera from 0.5 km south of the South Madera Overcrossing to the Route 145/99 Separation KP 15.2/16.9	W
58-6TC2.pdf – January 21, 1957 Plans between 0.5 mile south and 1.5 miles north of Madera	W
Pump House Cleveland PM12.12.pdf – Cleveland Avenue Overcrossing Pumping Plant	W
Pump House Madera Ave.pdf – Route 145/99 Separation Pumping Plant	W
Pump House Madera Underpass.pdf – Madera Underpass Pumping Plant	W
06-0E0404-Mad 99-Additional-As-Built-Plans.zip – Zipped file containing 6 more additional As-Built Plans	W
06-0E0404-Mad-99-Structures-As-Built-Plans.zip – Zipped file containing 9 Structures As-Built Plans	W

Title	Available
EXISTING INFORMATION (CONTINUED)	
CAiCE and Survey Files Folder	
0E0401.zip – 56 CAiCE and Survey Files in a zip file	W
Survey File PM 12.6 to PM13.1.pdf – Survey Request SR 0906-0005 and Completion Memos	W
Allpts.doc – Original Survey Point Listing File	W
06-0E0404-Mad-99-Supplemental-Survey.zip – Supplemental Project Survey Files in a zip file	W
PROJECT STUDIES AND REPORTS	
Hydraulics Recommendation.pdf – PS&E Hydraulics Recommendation	W
Materials Recommendation.pdf – Flexible Deflection Studies Report and the Rehabilitation Recommendations	W
Project Scope Summary Report.pdf – Signed Project Scoping Summary Report	W
Railroad Clearance and Sec 13.pdf – Railroad Clearance and Short Clauses for Special Provisions	W
Site Investigation Report - Geocon 40060.pdf – Aerial Lead Site Investigation Report for EA 06-40060K dated 03/09/98	W
Site Investigation Report - IT Corp 4036U.pdf – Aerial Deposited Lead Study for EA 06-4036U1 dated 08/16/00	W
Utility Encroachment Permit Request.pdf – Request for Utility Longitudinal Encroachment Exception	W
Value Analysis Report.pdf – Final Value Analysis Study Report prepared by Value Management Strategies, Inc.	W
06-0E0401-Longitudinal-Encroachment-Exception.pdf – Approved Exception for existing AT&T Underground Telecommunications Facilities	W

Title	Available
Deflection Study.pdf – Flexible Pavement Deflection Study Report dated December 22, 2009	W
Materials-R-Values.zip – Zipped 15 Materials Report of Test on Soil Design Samples	W
Supplemental_Material_Recommendations.pdf – Supplemental Material Recommendations for project limits PM 10.00 to PM 10.10 and PM 10.45 to PM 11.60	W
Traffic Study Report Folder	
Planning Design Designation.pdf – Design Designation for Madera 99 at the project location	W
Safety Analysis.pdf – Updated Safety Analysis provided by the Office of Traffic Operations	W
Transportation Management Plan.pdf – Transportation Management Plan for reference only. Please use the Lane Requirement Chart Guidelines included in Book 2 for the development of the Lane Closure Charts	W
Safety-Analysis-Update - Traffic Operation.pdf – Updated Safety Analysis dated January 10, 2011	W
CONCEPTUAL PLANS	
06-0E040 Mad 99 Rehab Plans.pdf – PDF File of all the conceptual plans	W
60E040ua007.pdf – Missing Electrical Plan Sheet E-7 on Count Loops Modify Lighting	W
0e0401 Pre-Bid Meeting Display.pdf – Display posted at the Pre-Bid Meeting	W
Revised_Typical_XSect X1-X2-X3.pdf – Revised Typical Cross Section Plan Sheets X1, X2 & X3 dated 03-25-11	W