

Solicitation RDS 2660-421

Roadway Design Software (RDS) Project

State of California

Bid RDS 2660-421 Roadway Design Software (RDS) Project

Bid Number RDS 2660-421
Bid Title Roadway Design Software (RDS) Project

Bid Start Date Jul 7, 2009 8:10:43 AM PDT
Bid End Date Jan 22, 2010 1:00:00 PM PST

Bid Contact Debra Dykes
916-375-4392
Debra.Dykes@dgs.ca.gov

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The information published and/or responded to on these websites is public information. Confidential questions/issues/concerns should be directed to the contact on the ad.

Description

The purpose of this Request for Proposal (RFP) is to acquire Roadway Design Software (RDS) to replace the Computer Aided Civil Engineering (CAiCE) software currently in use by the State of California, Department of Transportation (Caltrans).

APPENDIX A

STATE CONTRACT

APPENDIX A – STATE CONTRACT

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Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this Agreement as if attached hereto. *These documents can be viewed at:*

[http://www.documents.dgs.ca.gov/pd/modellang/ITGP%20June%202006%20\(Final\)1.pdf](http://www.documents.dgs.ca.gov/pd/modellang/ITGP%20June%202006%20(Final)1.pdf)

<http://www.documents.dgs.ca.gov/pd/modellang/softwarespecial012103.pdf>

<http://www.documents.dgs.ca.gov/pd/modellang/PersonalServiceSpecial020807.pdf> and

<http://www.documents.dgs.ca.gov/pd/modellang/maintenancespecial12103.pdf>

STATE OF CALIFORNIA

STANDARD AGREEMENT

STD. 213 (NEW 06/03)

STANDARD AGREEMENT**FOR I.T. GOODS/SERVICES ONLY**

		REGISTRATION NUMBER
PURCHASING AUTHORITY NUMBER		AGREEMENT NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below
 STATE AGENCY'S NAME
Department of Transportation (hereafter called State)
 CONTRACTOR'S NAME
 _____ (hereafter called Contractor)

2. The term of this Agreement is:

3. The maximum amount of this Agreement is: \$ _____

4. The parties agree to comply with the terms and conditions of the following attachments which are by this reference made a part of the Agreement:

Attachment 1 – Statement of Work**Attachment 2 – Budget Detail and Payment Provisions****Attachment 3 – Information Technology General Provisions****Attachment 4 – Information Technology Software Special Provisions****Attachment 5 – Information Technology Personal Services Special Provisions****Attachment 6 – Information Technology Maintenance Special Provisions****Attachment 7 – Response Forms****Attachment 8 – Cost Forms****IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.****CONTRACTOR**
CALIFORNIA
Department of General
Services
 Use Only

CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.)

BY (Authorized Signature)

DATE SIGNED



PRINTED NAME AND TITLE OF PERSON SIGNING

ADDRESS

STATE OF CALIFORNIA

AGENCY NAME

Department of General Services, Procurement Division

BY (Authorized Signature)

DATE SIGNED



PRINTED NAME AND TITLE OF PERSON SIGNING

ADDRESS

☐ Exempt per

Roadway Design Software (RDS) Project
Contract 1 – Configuration and Training
ATTACHMENT 1 – Statement of Work

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ATTACHMENT 1

STATEMENT OF WORK

Roadway Design Software (RDS) Project
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STATEMENT OF WORK

1. General

- A. The purpose of this project is to acquire Roadway Design Software (RDS) to replace software currently in use by the State of California Department of Transportation (Caltrans). The Computer Aided Civil Engineering (CAiCE) software used by Caltrans since the late 1990's is being discontinued and is no longer being enhanced or supported. The software will soon be unavailable, necessitating acquisition of a replacement software product.

This Statement of Work (SOW) defines the tasks needed to implement and support the Department of Transportation (Caltrans) Roadway Design Software (RDS) Project; and also establishes responsibilities for completing these tasks.

This contract will consist of two phases:

The first phase will include:

- Preparation of the Project Management Plans;
- Configuration of the software;
- Development of training materials customized to meet Caltrans business processes; and
- Training and software usage/maintenance in the first year for 73 Key Support Users.

The second phase will begin after successful completion of phase one. This phase includes training for approximately 4,000 engineering staff statewide over a four-year period.

- B. The State reserves the right to terminate this contract for convenience.
- C. This Agreement shall begin contingent upon approval by the State, and expire five years after award. The term of this contract is for one year of implementation plus four years of training.
- D. All Tasks and Deliverables shall be provided for the fixed price listed in this Agreement.

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All inquiries during the term of this Agreement will be directed to the project representatives listed below:

Department of Transportation	Contractor:
Section/Unit: Division of Design	Section/Unit:
Contract Manager: Mark O'Dowd	Project Manager:
Address: P.O. Box 168041 MS 30	Address:
Sacramento, CA 95816	
Bus. Phone No.: (916) 227-2631	Bus. Phone No.:
Fax No: (916) 227-2200	Fax No:

2. Contractor Responsibilities

A. Insurance and Bond

The Contractor must maintain in force a valid Worker's Compensation and Employers Liability Insurance Policy for all employees engaged in the performance of the contract and agree to furnish Caltrans satisfactory evidence at any time. The Contractor must also maintain Commercial General Liability and Professional Liability insurance.

Insurance

- Workers Compensation and Employers Liability - Contractor shall maintain statutory worker's compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract. Employer's liability limits of \$1,000,000 are required.
- Commercial General Liability – Contractor shall maintain general liability on an occurrence form with limits not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined with a \$2,000,000 annual policy aggregate. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal & advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy must include:

In the case of Contractor's utilization of subcontractors to complete the contracted scope of work, contractor shall include all subcontractors are insured under Contractor's insurance or provide the State evidence of insurance that is equal to the policy's coverage and limits required of the Contractor.

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- Professional Liability – Contractor shall maintain Professional Liability covering any damages caused by a negligent error, act or omission with limits not less than \$2,000,000 per occurrence and \$2,000,000 policy aggregate. The policy's retroactive date must be displayed on the certificate of insurance and must be before the date this contract was executed or before the beginning of contract work.

General Provisions Applying to All Policies

- Coverage Term – Coverage needs to be in force for the complete term of the contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least ten days prior to the expiration of this insurance. Any new insurance must still comply with the original terms of the contract.
- Policy Cancellation or Termination & Notice of Non-Renewal – Insurance policies shall contain a provision stating coverage will not be cancelled without 30 days prior written notice to the State. In the event Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.
- Deductible – Contractor is responsible for any deductible or self-insured retention contained within their insurance program.
- Primary Clause – Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.
- Insurance Carrier Required Rating – All insurance companies must carry a rating acceptable to the Office of Risk and Insurance Management. If the Contractor is self insured for a portion or all of its insurance, review of financial information including a letter of credit may be required.
- Endorsements – Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- Inadequate Insurance – Inadequate or lack of insurance does not negate the contractor's obligations under the contract.

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Bond

A performance bond for 20% of the total value of this contract shall be submitted by the Contractor to the State within 21 calendar days after contract award. An untimely submittal of the bond may be cause for contract termination. The bond shall remain in force during the entire term of this contract and will be returned to the surety company after completion and acceptance of the first phase of the RDS project.

B. Staffing and Personnel

1. Contractor shall make available personnel as listed on their final proposed staffing plan for the purpose of providing the services required to accomplish the tasks, including:
 - Project Manager, who must have five years of project management experience implementing RDS projects, and at least one project where the RDS was implemented at a state Department of Transportation;
 - Application Configuration Manager(s), who must have four years of application development experience on RDS projects, at least one project where the RDS application was implemented at a state Department of Transportation; and
 - Training Manager, who must have two years experience in software training and one year managing training staff.
2. Contractor shall provide a single point of contact who will manage and oversee the entire implementation of the software and training and assist the Caltrans Contract Manager by attending project meetings in person, or by telephone.
3. Contractor agrees to perform the services for which it and all subcontractors are responsible in order to accomplish the proposed work in the manner and time stated in the Contract.
4. Contractor shall provide dedicated personnel to support software related malfunctions and support issues. Contractor will provide a monthly report on the status of all issues reported by Caltrans.
5. Training may be required concurrently in multiple locations, starting the first year of statewide implementation and beginning with the Survey and Roadway design courses; therefore, Contractor must have adequate training staff available.

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6. As needed, Contractor will provide replacement personnel in a timely manner to ensure that contract deliverables are not impacted. The proposed replacement staff must have the same or higher-level skills and experience as the staff person originally assigned to the project. Resumes of the proposed staff must be provided to Caltrans for review and approval.

C. Contractor Performance

1. Contractor shall verify that the installed software functions properly on existing infrastructure and standard department hardware imaged with a typical suite of engineering, administrative, and networking software.
2. Contractor shall correct problems discovered during the acceptance testing as documented by the Caltrans Contract Manager and reported to the Contractor's onsite support staff in writing. Such problems must be corrected within 10 State business days after notification.
3. Contractor shall provide knowledge transfer to the Office of CADD and Engineering GIS Support,(OoCEGS) staff of the software configuration during Caltrans acceptance testing.
4. Contractor shall provide on-site support for Caltrans OoCEGS staff during acceptance testing and knowledge transfer of the software configuration.
5. Contractor will provide Caltrans the ability to run software in a protected network. There is a need to keep the software directory protected, yet still have rights to necessary files to run the program.
6. Contractor shall provide maintenance and support for the software usage and all future versions as follows, via the Caltrans Contract Manager:
 - a. Telephone technical support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time Monday through Friday (except holidays); with a call back within four business hours, inside the time schedule. Telephone technical support number to be provided by the Contractor.
 - b. Fax support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time Monday through Friday (except holidays). The Caltrans Contract Manager may fax a problem or sketches to the Contractor's support personnel. Fax number to be provided by the Contractor.
 - c. E-mail support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time Monday through Friday (except holidays). E-mail address to be provided by the Contractor.
 - d. Access to the customer service website.

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- e. Provide notification of and make available for download from the customer service web site, all upgrades, updates, and program extensions to software and all future versions of software released, during the term of this Agreement, within three weeks of release, at no additional cost to the State.
- f. Information regarding periodic Technical Support News and Update patches will be made available to Caltrans as they are released from the Contractor. These shall be made available for download from Contractor's website.
- g. Support includes software problem diagnosis consisting of problem isolation and definition, problem resolution, monthly preparation of software problem report including estimated time, and assistance with the proper operation of the supported program on Caltrans hardware and operating system configuration.
- h. Support includes up to thirty (30) state business days of on-site services, in the first year following completion of acceptance testing, at the Caltrans Contract Manager's direction for the purpose of technical issue diagnosis, planning and implementation of software upgrades, software deployment assistance, identification of future software functionality needs, or to provide an emergency bypass or temporary work-around for problems with software in critical situations. These services will be provided at Caltrans Sacramento Offices, or the 12 District offices, on an as needed basis, at a mutually agreed upon schedule, and under the direction of OoCEGS.

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D. Contractor Deliverables:

Deliverable	Timeline
Deliverable Expectation Document (DED) (prepared jointly by Caltrans and the Contractor)	Within 30 calendar days after award
Final Project Management Plan	Within 45 calendar days after award
Final Training Plan	Within 45 calendar days after award
Draft Training Manuals	Within 4 months after award
Documentation of planned test activities	At least 2 months before Configuration Complete
Delivery and Demonstration of fully configured software	Within 6 months after award
System Administration Manual	Within 6 months after award
Final Training Manuals	2 months after Acceptance Testing Complete
Key User Support Training	Begins 3 weeks after delivery of final training manuals
Final Training Schedule	1 month after completion of key user training
Statewide Training	Years 2-5

3. Caltrans Responsibilities:

- A. Document and prioritize malfunctions and support issues.
- B. Provide training facilities in Sacramento and the 12 District offices, including access to computers and audio/visual equipment.
- C. Work with the Contractor to schedule training classes based on the availability of facilities in each district and HQ. Contractor will be given a minimum of two weeks notice confirming course session and location prior to the class.
- D. Ensure staff sign up and attend training classes.
- E. A single point of contact from OoCEGS will be assigned to distribute any computer training data set(s) and any files needed to conduct the training class.

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- F. A single point of contact from OoCEGS will be assigned to coordinate the training facilities, and reproduce and distribute training data to ensure training facilities and materials are available and ready for use.
- G. Caltrans has the right to reproduce all documentation and training materials developed by the contractor.
- H. Provide and collect roster sheets and evaluation forms at the end of each class.
- I. Provide sample data sets, via email or CD/DVD media, to be used for training within 10 State business days following contract execution.
- J. Deploy and install the software on Caltrans workstations statewide.
- K. Deploy and install upgrades, updates, and program extensions to software and all future versions of software released, on Caltrans workstations statewide.
- L. Provide at least one (1) week's notice to the Contractor, whenever possible, when on-site support is required so that Contractor may schedule appropriate resources and make suitable arrangements.
- M. Provide Subject Matter Experts to support the contractor in understanding of the requirements, data, the business and technical environment that exists at Caltrans.
- N. Perform acceptance testing of the software.
- O. Caltrans IT and OoCEGS staff will provide first level user support of the implemented solution in conjunction with Contractor software maintenance and support.
- P. The Caltrans Contract Manager will be the single point of contact to report software/maintenance related issues/problems. However, an individual user may be identified to work with the Contractor as necessary at the discretion of the Caltrans Contract Manager.
- Q. Caltrans reserves the right to have the Contractor's key personnel removed and replaced under this contract. Caltrans reserves the right to approve replacement or additional staff before they start on the project. Caltrans will notify the Contractor in writing if personnel issues arise.
- R. Caltrans reserves the right to have CADD support personnel on-site during training sessions.

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Exhibit 1: Sample Deliverable Expectation Document Template

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Exhibit 1 – Sample Deliverable Expectation Document Template

[This is a sample of the required contents of a deliverable expectation document. Work plans that support the activity summary can be attached, and may be referenced to support the methodology and schedule summary.]

1. Introduction

[A brief overview defining the purpose of the deliverable and how it fits within the overall completion of the project. Indicate if there are pre-requisite tasks and subsequent tasks.]

2. Deliverable Description

[Describe the deliverable's objectives and scope. Discuss the level of detail to be provided such as "will describe the rationale for design decisions, will provide a textual summary of the design with detailed design pseudocode in the appendices, will include database schema diagrams and database table relationships, field sizes and descriptions, and indices and keys."

Discuss the intended audience. If the document assumes a specific knowledge level, list the key concepts that must be understood (e.g., understanding of backup rotation schedules, understanding of registry editing, etc.). Do not use vague terms such as "basic knowledge of system administration".]

(a) Methodology for Creating the Deliverable

[Provide a brief explanation of tasks, activities, and methods to be used to develop the deliverable. If appropriate, include a process flow diagram. Do not duplicate methodologies described elsewhere (e.g., if the design methodology was described in detail in the proposal and project management plan, reference the appropriate document section). Indicate if there are any assumptions or constraints on the development of the deliverable.

In cases where the contractor's methodologies differ significantly from the State's, it may be appropriate to require the contractor to provide a mapping of their methodology to the State's methodology (as an appendix to the DED and/or the deliverable).]

(b) Applicable Standards

[List the specific industry and/or government standards that must be observed. Do not simply list "industry standards" or "IEEE." Indicate if the format/order of the standard must be observed or if the contractor may provide a mapping of their format to the standard to show compliance.]

(c) Table of Contents

[List the table of contents or outline of the document. Discuss the content of each major section. Where appropriate or as requested by the project, provide a sample of this document from other engagements/projects or sample content, level of detail and format of key sections.]

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(1) Section 1 – Introduction

[This section will provide a high-level overview of the deliverable, its scope and purpose.]

(2) Section 2 –

(3) Section 3 –

(4) Section 4 –

(5) Section 5 -

(6) Appendix A –

(7) Appendix B –

(8) Appendix C –

(d) Deliverable Requirements

[List the specific requirements for this deliverable from the Request for Proposal, Statement of Work, and/or contract. List the specific source of the requirement, including document name, document date/version, paragraph or page number, and requirement number (from the Requirements Traceability Matrix/Database).]

Table 1. Deliverable Requirements

REQMT #	REQUIREMENT DESCRIPTION	SOURCE OF THE REQMT	COMMENT
--------------------	------------------------------------	--------------------------------	----------------

(e) Deliverable Format

[List any required templates, diagrams, tables or specific content required for this deliverable. For instance in design and test deliverables, an updated requirements traceability matrix should be included in the final deliverable.

Indicate the format of the document and any associated diagrams, spreadsheets (e.g., MS Word, MS Visio, MS Project, etc.). Estimate the length/size of the document, and number of copies to be delivered.]

3. Deliverable Acceptance Criteria

[List the specific acceptance criteria for the deliverable. The first criteria should always be “were the requirements met. The criteria should be specific to the deliverable and indicate key needs of the project (e.g., must include detailed description of database sizing, growth considerations, performance considerations, and de-/normalization considerations).

Other general review criteria (which are primarily the same for all deliverables) may be referenced or attached. The following are the minimum acceptance criteria.]

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Exhibit 1: Sample Deliverable Expectation Document Template

- Did the deliverable comply with the applicable standards from Section 0 (above)?
- Were all requirements from Section 0 (above) met?
- Did the deliverable comply with the stated format requirements from Section 0 (above)?
- Is the deliverable consistent with other deliverables already approved?
- Did the deliverable meet the general review criteria (e.g., pages numbered, free of formatting and spelling errors, clearly written, no incomplete sections, etc.)?

4. Deliverable Schedule

(a) Key Deliverable Dates

[List the key activities and due dates in the preparation and review of this deliverable. If appropriate, list key meetings, walkthroughs, inspections, and reviews. These tasks should be consistent with the activities and dates in the workplan and contractual timeframes regarding deliverable delivery, review, and approval/rejection.]

Include time for state review of the deliverable and contractor incorporation of comments. Indicate if any activities/dates are on the critical path or have significant dependencies. The following is a sample.]

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Table 2. Key Deliverable Dates

KEY ACTIVITY	DUE DATE	COMMENT
DED Approval	xx/xx/20xx*	
Internal Walkthrough with Project		
Draft Deliverable Submitted		
State Review of Draft		Minimum of 1 week
Walkthrough of Draft with Stakeholders		
Deadline for Comments on Draft		
Contractor Incorporation of Comments		
Final Deliverable Submitted		
State Review of Final		Minimum of 1 week
Deliverable Approval		
Contractor Incorporation of Final Comments (if necessary)		

*Critical Date

(b) Schedule for Deliverable Updates

[If the deliverable is expected to be updated on a periodic basis, list the proposed schedule of updates and tentative time frames. Dates may be either “hard dates” (e.g., May 5 2004) or “soft dates” (30 days prior to System Test). If appropriate, reference the appropriate RFP/SOW requirement for the update.]

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Table 3. Deliverables Update Schedule

REASON FOR DELIVERABLE UPDATE	SOW REFERENCE	DATE DUE	COMMENT
Incorporate any changes from Code/Unit Test phase	[Reference, as used in SOW; i.e. paragraph #, or unique reference]		
Incorporate any changes from the Integration and System Test phase			
Incorporate any changes from the Acceptance Test phase			
Incorporate any changes from the Implementation phase			
Incorporate updates related to the first (M&O) system release			

5. Resources Required

[List the specific resources involved in the deliverable preparation and review. Estimate the amount of time required from each key resource, particularly for any sponsor, user, or stakeholder staff involved. If appropriate, list the specific skill or knowledge required, such as knowledge of case management policy or experience with current system's financial reports. It is not necessary to list all contractor staff involved in the preparation, only the key staff or required skills.

This list is not intended to replace the workplan resources, but to identify specific individuals/skills needed to ensure successful completion of the deliverable.]

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Exhibit 1: Sample Deliverable Expectation Document Template

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Table 4. Required Resources

ROLE	NAME(S)	RESPONSIBILITIES	ESTIMATED NEED
Deliverable Lead			2 months
Deliverable Approver			5 days
Deliverable Reviewers			7 days
Subject Matter Experts			10 days
Policy Representative			10 days

6. Deliverable Payment

[If applicable, indicate if this is a payment deliverable.]

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Contract 1 – Configuration and Training

ATTACHMENT 2 – Budget Detail and Payment Provision

ATTACHMENT 2

Budget Detail and Payment Provision

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 ATTACHMENT 2 – Budget Detail and Payment Provision

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Budget Detail and Payment Provision

1. Invoicing and Payment

- A. During Phase 1, payment will be made for deliverables completed as described in the table below. The Contractor will submit one itemized invoice, monthly, for deliverables completed. All contract deliverables are subject to approval by the Caltrans Contract Manager prior to payment. In cases where deliverables have been grouped together, payment will be made when all deliverables in that group have been completed and approved.

During Phase 2, payment for on-going project management activities in years 2-5 and training will be paid monthly, in arrears. The Contractor will submit one itemized invoice, monthly, for services rendered. Completion of services will be verified by the Caltrans Contract Manager prior to payment.

Payment Milestones
Phase 1 (Payable upon approval by Caltrans Contract Manager)
Development and Delivery of Approved Project Management and Training Plans
Configuration and Acceptance Testing includes the acceptance of the following items: • Project Management activities through completion of configuration and installation of software • Software Configuration
Development and Delivery of Approved Final Training Schedule
Development and Delivery of Training Manuals
Key User Support Training and Fees Includes the following: • Completion of Key User Support Training • COTS Software Usage/ Maintenance Cost Year 1 • Project Management and Implementation activities after configuration and through completion of Key Support user training.
Phase 2 (billable monthly in arrears)
Ongoing Project Management Activities (Year 2-5)
Training – Year 2
Training – Year 3
Training – Year 4
Training – Year 5

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- B. In accordance with Public Contract Code, Section 12112, the State will withhold, from the invoice payment amount to the Contractor, an amount equal to ten percent (10%) of the payment. Such retained amount shall be held by the State and only released to the Contractor upon successful completion of the contract.
- C. Invoices shall be itemized by the deliverable and/or service billed. Invoices shall include this Agreement Number and be submitted to the following address:

Department of Transportation
Office of CADD & Engineering GIS Support, MS# 30
Attention: Oanh Thai
P.O. Box 168041
Sacramento, CA 95816-6041

2. Liquidated Damages

It is agreed by the State and the Contractor that in the event of failure to meet the requirements, damage shall be sustained by the State and that it is and will be impractical and extremely difficult to ascertain and determine the actual damages which the State will sustain in the event of and by reason of such failure; and it is therefore agreed that the Contractor will pay the State for such failures at the sole discretion of the State. The purpose of liquidated damages is to compensate the State's losses due to Contractor delay. No punitive intention is inherent.

It is the State's intent to meet the expected schedule for deliverables as specified in Statement of Work. If for any reason the Contractor is delayed in meeting any milestone, Liquidated Damages in the amount of one thousand dollars (\$1000) per State business day may be assessed for each State business day the milestone is delayed. The State will notify the Contractor, in writing, when Liquidated Damages are being invoked. The State will provide the Contractor a complete accounting for all Liquidated Damages.

Roadway Design Software (RDS) Project
Contract 1 – Configuration and Training
ATTACHMENT 3 – Information Technology General Provisions

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ATTACHMENT 3

Information Technology General Provisions

The Information Technology General Provisions are incorporated into this contract.

[http://www.documents.dgs.ca.gov/pd/modellang/ITGP%20June%202006%20\(Final\)1.pdf](http://www.documents.dgs.ca.gov/pd/modellang/ITGP%20June%202006%20(Final)1.pdf)

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Contract 1 – Configuration and Training

ATTACHMENT 4 – Information Technology Software Special Provisions

ATTACHMENT 4

Information Technology Software Special Provisions

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<http://www.documents.dgs.ca.gov/pd/modellang/software/special012103.pdf>

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ATTACHMENT 5 – Information Technology Personal Services Special Provisions

ATTACHMENT 5

Information Technology Personal Services Special Provisions

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Contract 1 – Configuration and Training

ATTACHMENT 6 – Information Technology Maintenance Special Provisions

ATTACHMENT 6

Information Technology Maintenance Special Provisions

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Roadway Design Software (RDS) Project
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ATTACHMENT 7 – Response Forms

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ATTACHMENT 7

Response Forms

- Draft Project Management Requirements
- Mandatory and Desirable System Administration Requirements
- Mandatory Functional Requirements
- Desirable Functional Requirements
- Other Technical Requirements

Roadway Design Software (RDS) Project
Contract 1 – Configuration and Training
ATTACHMENT 8 – Cost Forms

RFP RDS-2660-421

ATTACHMENT 8

Cost Forms

(Contractor cost forms to be inserted here.)

Form VII-1: Total Cost Summary Worksheet
Form VII-2: Project Management and Implementation Services Cost
Form VII-3: Software Configuration Cost Worksheet
Form VII-4: Training Manuals Cost Worksheet
Form VII-5: COTS Software Usage/Maintenance Cost Worksheet (Year 1)
Form VII-6: Training Services Cost Summary Worksheet
Form VII-6A: Key User Support Training
Form VII-6B: Survey Data Processing and DTM Training
Form VII-6C: Survey COGO and Map Production Training
Form VII-6D: Introduction to Roadway Design Training
Form VII-6E: Intermediate Roadway Design Training
Form VII-6F: Basic Structure Design Training
Form VII-6G: Basic Hydraulic Design Training

STATE OF CALIFORNIA

STANDARD AGREEMENT

STD. 213 (NEW 06/03)

STANDARD AGREEMENT FOR I.T. GOODS/SERVICES ONLY
--

	REGISTRATION NUMBER
	AGREEMENT NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below

STATE AGENCY'S NAME

Department of Transportation (hereafter called State)

CONTRACTOR'S NAME

(hereafter called Contractor)
2. The term of this Agreement is:
3. The maximum amount of this Agreement is: \$
4. The parties agree to comply with the terms and conditions of the following attachments which are by this reference made a part of the Agreement:

Attachment 1 – Statement of Work
Attachment 2 – Budget Detail and Payment Provisions
Attachment 3 – Information Technology General Provisions
Attachment 4 – Information Technology Software Special Provisions
Attachment 5 – Information Technology Personal Services Special Provisions
Attachment 6 – Information Technology Maintenance Special Provisions
Attachment 7 – Cost Forms

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

CONTRACTOR	CALIFORNIA Department of General Services Use Only
CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.)	
BY (Authorized Signature)	DATE SIGNED
PRINTED NAME AND TITLE OF PERSON SIGNING	
ADDRESS	
STATE OF CALIFORNIA	
AGENCY NAME	
Department of General Services, Procurement Division	
BY (Authorized Signature)	DATE SIGNED
PRINTED NAME AND TITLE OF PERSON SIGNING	
ADDRESS	
☐ Exempt per	

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 1 – Statement of Work

RFP RDS-2660-421

ATTACHMENT 1

STATEMENT OF WORK

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 1 – Statement of Work

RFP RDS-2660-421

STATEMENT OF WORK

1. General

- A. The purpose of this project is to acquire Roadway Design Software (RDS) to replace software currently in use by the State of California Department of Transportation (Caltrans). The Computer Aided Civil Engineering (CAiCE) software used by Caltrans since the late 1990's is being discontinued and is no longer being enhanced or supported. The software will soon be unavailable, necessitating acquisition of a replacement software product.

This Statement of Work (SOW) defines the software usage fees and software maintenance/ support for the Department of Transportation (Caltrans) Roadway Design Software (RDS).

- B. The State reserves the right to terminate this contract for convenience.
- C. The Contractor must maintain in force a valid Worker's Compensation and Employers Liability Insurance Policy for all employees engaged in the performance of the contract and agree to furnish Caltrans satisfactory evidence at any time. The Contractor must also maintain Commercial General Liability and Professional Liability insurance.

Insurance

- Workers Compensation and Employers Liability - Contractor shall maintain statutory worker's compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract. Employer's liability limits of \$1,000,000 are required.
- Commercial General Liability – Contractor shall maintain general liability on an occurrence form with limits not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined with a \$2,000,000 annual policy aggregate. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal & advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy must include:

In the case of Contractor's utilization of subcontractors to complete the contracted scope of work, contractor shall include all subcontractors as insured's under Contractor's insurance or supply evidence of insurance to The State equal to policies, coverages and limits required of Contractor.

- Professional Liability – Contractor shall maintain Professional Liability covering any damages caused by a negligent error, act or omission with

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 1 – Statement of Work

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limits not less than \$2,000,000 per occurrence and \$2,000,000 policy aggregate. The policy's retroactive date must be displayed on the certificate of insurance and must be before the date this contract was executed or before the beginning of contract work.

General Provisions Applying to All Policies

- Coverage Term – Coverage needs to be in force for the complete term of the contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least ten days prior to the expiration of this insurance. Any new insurance must still comply with the original terms of the contract.
 - Policy Cancellation or Termination & Notice of Non-Renewal – Insurance policies shall contain a provision stating coverage will not be cancelled without 30 days prior written notice to the State. In the event Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.
 - Deductible – Contractor is responsible for any deductible or self-insured retention contained within their insurance program.
 - Primary Clause – Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.
 - Insurance Carrier Required Rating – All insurance companies must carry a rating acceptable to the Office of Risk and Insurance Management. If the Contractor is self insured for a portion or all of its insurance, review of financial information including a letter of credit may be required.
 - Endorsements – Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
 - Inadequate Insurance – Inadequate or lack of insurance does not negate the contractor's obligations under the contract.
- D. This Agreement will begin after successful completion of Phase 1 of Contract 1 – Configuration and Training, and will expire four years thereafter, unless extended by amendment.
- E. The software must be capable of allowing any user, on any machine, at any time, to use the software, up to the allocated number of users for that year (i.e. based

Roadway Design Software (RDS) Project
 Contract 2 – Software usage and maintenance fees
 ATTACHMENT 1 – Statement of Work

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on usage and not the number of installations.) The number of users is as follows: 1,000 first year, 2,000 second year, 3,000 third year, and 4,000 fourth year.

- F. Caltrans may choose to exercise the extension of the optional year for the software usage fees and software maintenance/ support at the bid price.
- G. All inquiries during the term of this Agreement will be directed to the project representatives listed below:

Department of Transportation	Contractor:
Section/Unit: Division of Design	Section/Unit:
Contract Manager: Mark O'Dowd	Project Manager:
Address: P.O. Box 168041 MS 30	Address:
Sacramento, CA 95816	
Bus. Phone No.: (916) 227-2631	Bus. Phone No.:
Fax No: (916) 227-2200	Fax No:

2. Contractor Responsibilities

- A. Provide dedicated personnel to support software related malfunctions and support issues.
- B. Provide a monthly report on the status of all issues reported by Caltrans.
- C. Contractor will provide Caltrans the ability to run software in a protected network. There is a need to keep the software directory protected, yet still have rights to necessary files to run the program.
- D. Contractor shall provide maintenance and support for the software usage and all future versions as follows, via the Caltrans Contract Manager:
 1. Telephone technical support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time Monday through Friday (except holidays); with a call back within four business hours, inside the time schedule. Telephone technical support number to be provided by the Contractor.
 2. Fax support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time Monday through Friday (except holidays). The Caltrans Contract Manager may fax a problem or sketches to the Contractor's support personnel. Fax number to be provided by the Contractor.
 3. E-mail support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time Monday through Friday (except holidays). E-mail address to be provided by the Contractor.
 4. Access to the customer service website.

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 1 – Statement of Work

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5. Provide notification of and make available for download from the customer service web site, all upgrades, updates, and program extensions to software and all future versions of software released, during the term of this Agreement, within three weeks of release, at no additional cost to the State.
6. Information regarding periodic Technical Support News and Update patches will be made available to Caltrans as they are released from the Contractor. These shall be made available for download from Contractor's website.
7. Support includes software problem diagnosis consisting of problem isolation and definition, problem resolution, monthly preparation of software problem report including estimated time, and assistance with the proper operation of the supported program on the Department's hardware and operating system configuration.
8. Support includes up to fifteen (15) days of on-site services, per contract year, at the Caltrans Contract Manager's direction for the purpose of technical issue diagnosis, planning and implementation of software upgrades, software deployment assistance, identification of future software functionality needs, or to provide an emergency bypass or temporary work-around for problems with software in critical situations. These services will be provided at Caltrans Sacramento Offices or the 12 District offices, on an as needed basis, at a mutually agreed upon schedule, and under the direction of OoCEGS.

3. Caltrans Responsibilities:

- A. Document and prioritize malfunctions and support issues.
- B. Deploy and install the software on Caltrans workstations statewide.
- C. Deploy and install Upgrades, Updates, and Program Extensions to software and all future versions of software released, on Caltrans workstations statewide.
- D. Caltrans IT and OoCEGS staff will provide first level user support of the implemented solution in conjunction with Contractor software maintenance and support.
- E. Provide at least one (1) week's notice to the Contractor, whenever possible, when on-site support is required so that Contractor may schedule appropriate resources and make suitable arrangements.
- F. Caltrans reserves the right to have the Contractor's key personnel removed and replaced under this contract. Caltrans reserves the right to approve replacement or additional staff before they start on the project. Caltrans will notify the Contractor in writing if personnel issues arise.
- G. Perform acceptance testing of the software.

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 1 – Statement of Work

RFP RDS-2660-421

- H. The Caltrans Contract Manager will be the single point of contact to report software/maintenance related issues/problems. However, an individual user may be identified to work with the Contractor as necessary at the discretion of the Caltrans Contract Manager.

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 2 – Budget Detail and Payment Provision

RFP RDS-2660-421

ATTACHMENT 2

Budget Detail and Payment Provision

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 2 – Budget Detail and Payment Provision

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Budget Detail and Payment Provision

Invoicing and Payment

- A. Upon approval by the Caltrans Contract Manager, all payments will be made monthly in arrears. Contractor cannot submit an invoice more frequently than once a month.
- B. Invoices shall include this Agreement Number and be submitted to the following address:

Department of Transportation
Office of CADD & Engineering GIS Support, MS# 30
Attention: Oanh Thai
P.O. Box 168041
Sacramento, CA 95816-6041

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 3 – Information Technology General Provisions

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ATTACHMENT 3

Information Technology General Provisions

The Information Technology General Provisions are incorporated into this contract.

[http://www.documents.dgs.ca.gov/pd/modellang/ITGP%20June%202006%20\(Final\)1.pdf](http://www.documents.dgs.ca.gov/pd/modellang/ITGP%20June%202006%20(Final)1.pdf)

Roadway Design Software (RDS) Project

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Contract 2 – Software usage and maintenance fees

ATTACHMENT 4 – Information Technology Software Special Provisions

ATTACHMENT 4

Information Technology Software Special Provisions

The Information Technology Software Special Provisions are incorporated into this contract.

<http://www.documents.dgs.ca.gov/pd/modellang/software/special012103.pdf>

Roadway Design Software (RDS) Project

RFP RDS-2660-421

Contract 2 – Software usage and maintenance fees

ATTACHMENT 5 – Information Technology Maintenance Special Provisions

ATTACHMENT 5***Information Technology Personal Services Special Provisions***

The Information Technology Personal Services Special Provisions are incorporated into this contract.

<http://www.documents.dgs.ca.gov/pd/modellang/PersonalServiceSpecial020807.pdf>

Roadway Design Software (RDS) Project

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Contract 2 – Software usage and maintenance fees

ATTACHMENT 6 – Information Technology Maintenance Special Provisions

ATTACHMENT 6

Information Technology Maintenance Special Provisions

The Information Technology Maintenance Special Provisions are incorporated into this contract.

<http://www.documents.dgs.ca.gov/pd/modellang/maintenancespecial12103.pdf>

Roadway Design Software (RDS) Project
Contract 2 – Software usage and maintenance fees
ATTACHMENT 7 – Cost Forms

RFP RDS-2660-421

ATTACHMENT 7

Cost Forms

(Contractor cost forms to be inserted here.)

Form VII-7: COTS Software Usage/Maintenance Fees Summary (Years 2-5)

Form VII-8: COTS Software Usage/Maintenance Fees (Optional Year 6)

APPENDIX F

CONFIGURATION REQUIREMENTS

(This Appendix to be incorporated into the Contract)

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Roadway Design Software (RDS) Project Appendix F: Configuration Requirements

RFP RDS-2660-421

A. Introduction

The roadway design software must be configured to meet Caltrans' drafting, design, and surveying standards and methods, per the Caltrans Highway Design Manual (e.g. "Index. 201.3", "Topic 504"), CADD Manual, and Plans Preparation Manual.. Links to those manuals are shown below:

Caltrans Highway Design Manual:

<http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm>

CADD Manual:

<http://www.dot.ca.gov/hq/oppd/cadd/usta/caddman/english/toc.htm>

Plans Preparation Manual:

<http://www.dot.ca.gov/hq/oppd/cadd/usta/ppman/toc.htm>

Surveys Manual:

http://www.dot.ca.gov/hq/row/landsurveys/SurveysManual/Manual_TOC.html

All software configurations must be complete within six months following contract execution.

As design and drafting standards may change, the software must be configurable by Caltrans. Contractor must provide a System Administration Manual that includes software configuration procedures when acceptance testing begins.

B. General Configuration

General configuration requirements are as follows:

1. The default preferences (drafting, display, save, and security preferences, etc.) and options must be set up for each functional unit (roadway, hydraulics, landscape, structures, and right of way.)
2. Custom definable toolbars and/or menus must be created to run the typical commands for each of the following processes:
 - a. Survey Processing;
 - b. Horizontal Alignment;
 - c. Vertical Alignment;
 - d. SuperElevation;
 - e. Drainage;

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

RFP RDS-2660-421

- f. COGO;
 - g. DTM/Contours; and
 - h. Plans Preparation.
3. Styles (fonts, weights, levels, colors, and line styles), if applicable, for roadway data must be developed to match the Caltrans Plans Preparation and CADD manuals for:
- a. Text;
 - b. Points;
 - c. Line work (e.g. alignments, Existing ETW, Design EP, HP, contours, etc.); and
 - d. DTM's.

NOTE: If the software is unable to assign different styles to a feature based on existing vs. design, the survey features can add the prefix "su-" to those survey features.

4. Filters (selection criteria) must be developed based on styles for the following:
- a. Photogrammetric data;
 - b. Survey data;
 - c. R/W data; and
 - d. Roadway data.
5. Data Transfer:
- a. Methods of transferring the following types of data among users within the same software must be developed for:
 - Photogrammetric data, points and line work;
 - Survey data, points and line work;
 - Geometry; and
 - DTM's.
 - b. Methods of exporting the following data for use with Trimble Survey Controller must be developed for:

Roadway Design Software (RDS) ProjectRFP RDS-2660-421Appendix F: Configuration Requirements

- Points;
 - Roadway definitions (alignments, profiles, and cross sections); and
 - Design DTM.
- c. Methods of exporting the following data for use with Machine Guidance must be developed for:
- Roadway definitions (alignments, profiles, and cross sections); and
 - Design & Existing DTM's.

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

RFP RDS-2660-421

C. Survey Configuration

1. Photogrammetric Data:

a. A method must be developed to:

- Import data from a V7 & V8 format 3D DGN file, and
- Assign codes to the data based on graphical attributes, using the following table:

Code	Linestyle	Weight	Color	Level Slot
PCNTGNV	3	2	7	7
PCNTGNV	3	0	7	7
PCNT	0	2	7	7
PCNT	0	0	7	7
PASPH	0	0	9	2
PASPH	0	0	9	3
PBRK	0	0	3	11
PBRK	0	0	27	15
PBRKGNV	2	0	27	15
PBRKGNV	3	0	27	15
PCONC	3	0	4	2
PCONC	3	0	4	3
PCURB	0	3	4	2
PCURB	0	2	4	3
PCURB	0	3	4	3
PDIKE	0	2	2	2
PDIKE	0	2	2	3
PDIRT	2	0	4	2
PDTRD	0	0	6	2
PETW	0	0	2	3
PEW	0	0	1	6
PFL	0	0	17	6
PHDWL	0	2	5	5
PRWL	0	2	5	2
PSPOT	0	0	0	11
PSPOT	0	0	7	11
PSTRP	7	0	2	3

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

RFP RDS-2660-421

- b. The software shall categorize photogrammetric data with a feature name or code. The graphics attributes of the data shall follow the table contained in the bidder's library within PhotoFeatures.doc

2. Survey Data:

- a. The workflow to import and process raw data from a Trimble Survey Controller must be developed.
- b. The software shall categorize survey data with a feature name or code. The graphics attributes of the data shall follow the table contained in the bidder's library within SurveyFeatures.doc

3. R/W Data:

The software shall categorize R/W elements with a feature name or code. The graphics attributes of the elements shall follow the table contained in the bidder's library under RWFeatures.doc

4. Customized metes and bounds report:

The metes and bounds deed description shall be similar to the following format:

THENCE (1) South 67°56'53" West, 119.03 feet to the beginning of a curve concave southeasterly, said curve has a radius of 414.00 feet;

THENCE (2) southwesterly along said curve a distance of 272.77 feet through a central angle of 37°45'00" to a point of tangency;

THENCE (3) South 30°11'53" West, 100.00 feet to the beginning of a curve concave northwesterly, said curve has a radius of 386.00 feet;

THENCE (4) southwesterly along said curve a distance of 204.35 feet through a central angle of 30°20'00" to a point of compound curvature, said curve has a radius of 100.00 feet and is concave northerly;

THENCE (5) westerly along said curve a distance of 144.86 feet through a central angle of 83°00'00" to a point of compound curvature, said curve has a radius of 200.00 feet and is concave easterly;

THENCE (6) northerly along said curve a distance of 313.62 feet through a central angle of 89°50'42" to [INSERT END OF DESCRIPTION];

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

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D. Roadway Design Configuration

The software shall categorize design data with a feature name or code. The graphics attributes of the data shall follow the table contained in the bidder's library within RoadwayFeatures.doc.

1. Horizontal Alignment:

The software will check alignment design speeds based on the following table.

Relation of Conditions to Design Speed

Conditions	Design Speed (mph)
LIMITED ACCESS TYPES	
Freeways and expressways in mountainous terrain	50-80
Freeways in urban areas	55-80
Freeways and expressways in rural areas	70-80
Expressways in urban areas	50-70
CONVENTIONAL HIGHWAYS	
Rural	
Flat terrain	55-70
Rolling terrain	50-60
Mountainous terrain	40-50
Urban	
Arterial streets	40-60
Arterial streets with extensive development	30-40
LOCAL FACILITIES (Within State right of way)	
Facilities crossing a freeway or expressway, connecting to a conventional highway or traversing a State facility	AASHTO (1)
Facilities connecting to a freeway or expressway	35M/45A
M=Mandatory A=Advisory	
(1) If outside of State right of way and no specific local standards apply, the minimum design speed shall be 30 mph.	

Roadway Design Software (RDS) Project

Appendix F: Configuration Requirements

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a. Curve Radius Standards

The software shall check alignments to make sure they have the minimum curve radius for a given design speed based on the following table.

Standards for Curve Radius

Design Speed mph	Minimum Radius of Curve (ft)
20	130
30	300
40	550
50	850
60	1,150
70	2,100
80	3,900

The software will check to make sure that for central angles less than 10 degrees, the minimum curve length will be 800 feet and checks that for central angles smaller than 30 minutes, no curve is required.

b. Alignment Graphics Attributes

The software shall categorize alignments with a feature name or code. The graphics attributes of the alignments shall follow the table below for those features listed:

Linear Feature Attributes Table

Feature	Linestyle	Weight	Color	Level
Mainline	0	3	0	15 Main Align
Frontage	0	2	0	17 Front Align
Ramp	0	2	0	13 Ramp Align
Stage 1	0	2	3	51 Stage 1
Stage 2	0	2	3	53 Stage 2
Stage 3	0	2	3	55 Stage 3
Temporary	0	2	0	25 Temp Rdwys

c. Stationing and Annotation Attributes

The text and tic sizes for alignments are based on a plotting scale of 1" = 50' (Caltrans Base Scale). It is important to place text at the appropriate CADD size within the drawing based on the intended scale of the plotted plan sheet. For any plot scale, the text and tic marks will appear 0.14

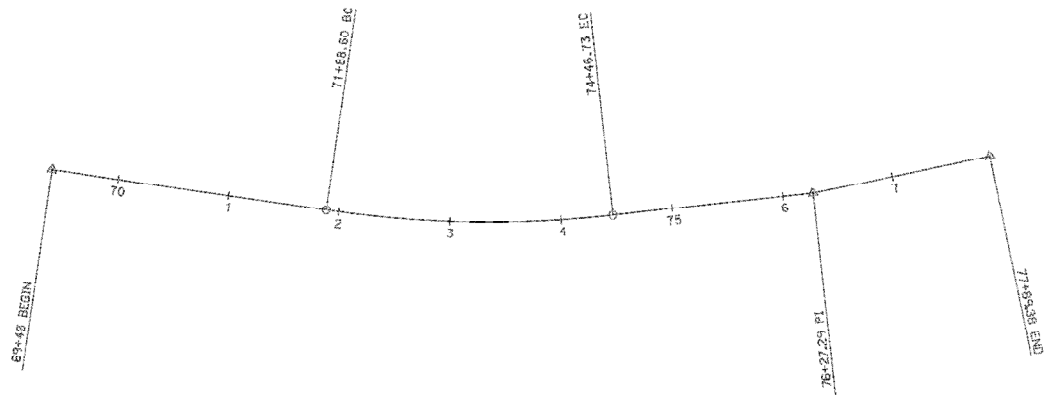
Roadway Design Software (RDS) Project Appendix F: Configuration Requirements

RFP RDS-2660-421

inches when plotted on a 22" x 34" plan sheet. Leader lines at the beginning and ending of alignment and horizontal curves will appear 2.4 inches long. Leader lines at the beginning and ending of curves will extend radially toward the center of the curve with the station value and the letters BC and EC following the station values respectively.

The tic intervals for stationing will be every 100'. The whole number value of the station will be annotated without the "+00" portion of the station every 500'. The annotated value of the other 100' intervals will be the single hundred values for that station.

Example:



The annotation attributes for the alignments with the listed feature name or code shall follow the table below:

Stationing and Annotation Attributes Table

Feature	Weight	Color	Level
Mainline	1	0	16 Main Anno
Frontage	1	0	18 Front Anno
Ramp	1	0	14 Ramp Anno
Stage 1	1	3	52 Stage 1 Anno
Stage 2	1	3	54 Stage 2 Anno
Stage 3	1	3	56 Stage 3 Anno
Temporary	1	0	25 Temp Rdwys

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

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2. Vertical Alignment:

- a. The software will check vertical alignment design grades based on the following:

Maximum Grades for Type of Highway and Terrain Conditions

Type of Terrain	Freeways and Expressways	Rural Highways	Urban Highways
Level	3%	4%	6%
Rolling	4%	5%	7%
Mountainous	6%	7%	9%

- b. The software shall check vertical alignments for the following criteria:

- i. Minimum grades should be 0.5 percent in snow country and 0.3 percent at other locations.
- ii. Minimum Curve Length:
 - For algebraic grade differences of 2 percent and greater, and design speeds equal to or greater than 40 miles per hour, the minimum length of vertical curve in feet should be equal to $10V$, where V = design speed in miles per hour.
 - For algebraic grade differences of less than 2 percent, or design speeds less than 40 miles per hour, the vertical curve length should be a minimum of 200 feet.
 - Vertical curves are not required where the algebraic difference in grades is 0.5 percent or less.

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

RFP RDS-2660-421

c. Graphics Attributes

The graphics attributes of the alignments shall follow the table below:

Roadway Profile and Vertical Alignment Attributes Table

Type	Linestyle	Weight	Color	Level
Roadway Vertical Alignment	0	1	0	60 Nongeo Data
Original Ground Profile	3	1	0	60 Nongeo Data

d. Stationing and Annotation Attributes

Profile lines shall be shown with the designation and grade percent. The beginning and ending of vertical curves will be annotated with the station, elevation and letters BVC or EVC for begin and end of curve respectively. The length of curve will be displayed between the BVC and EVC. The vertical point of intersection (VPI) shall be annotated with the station and elevation value. The vertical scales for alignment shall be 1" = 10', 1" = 5' or 1" = 2' depending on the type of terrain and roadway.

The text is based on a plotting scale (horizontal) of 1" = 50' (Caltrans Base Scale). It is important to place text at the appropriate CADD size within the drawing based on the intended scale of the plotted plan sheet. For any plot scale, the text will appear 0.14 inches when plotted on a 22" x 34" plan sheet. All text annotation for vertical alignments will use the font CTFont1.

e. Stopping Sight Distance:

The software shall check vertical alignments to make sure they have the minimum stopping sight distance required for a given design speed based on the following table. To calculate the stopping distance for crest or sag vertical curves, see the diagrams and equations below the table. If any curve in the alignment fails the minimum stopping sight distance requirement, the software shall report both the stopping sight distance calculated and the stopping distance required.

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

RFP RDS-2660-421

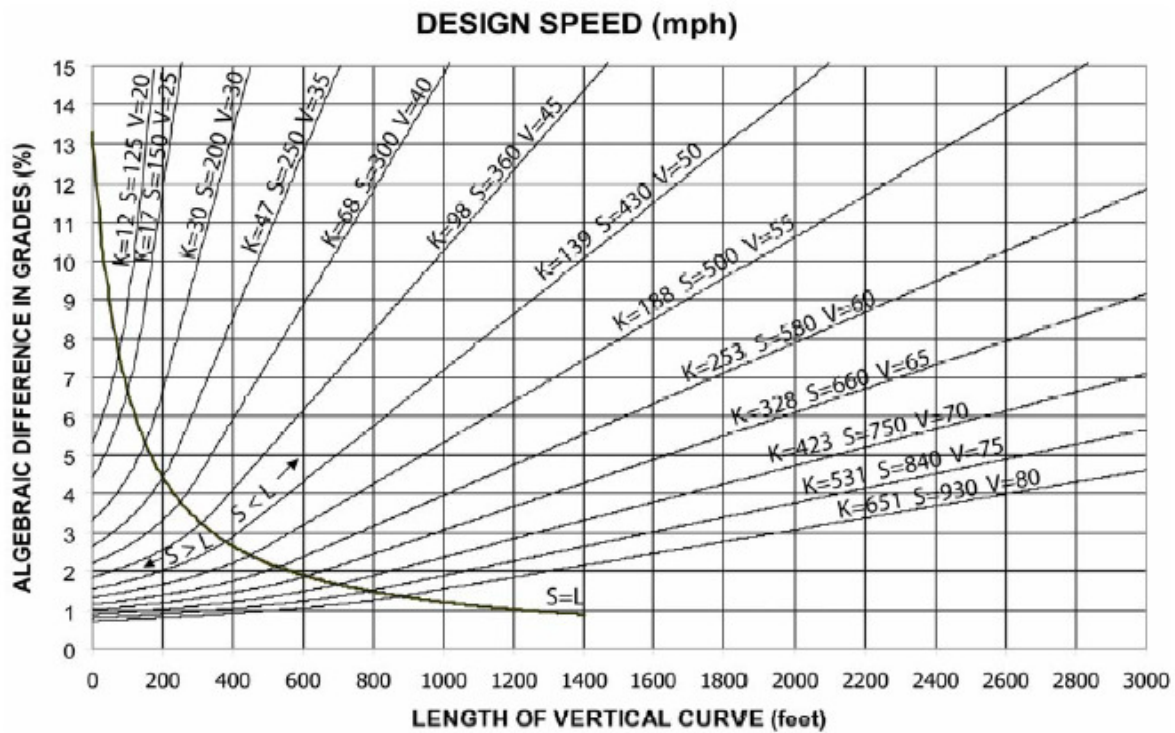
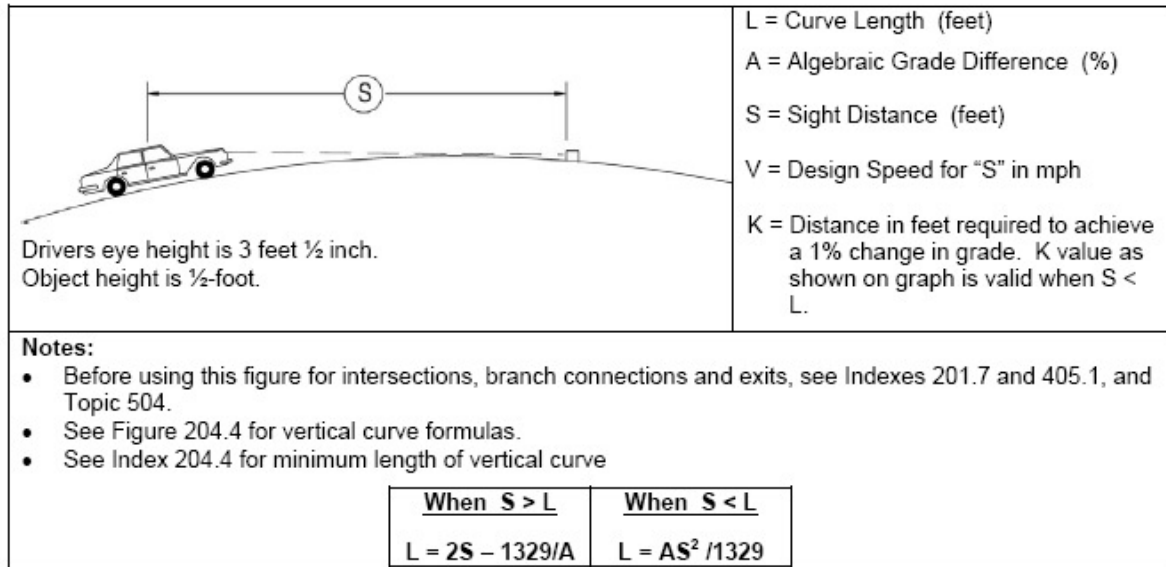
Minimum Stopping Sight Distances

Design Speed ⁽¹⁾ (mph)	Stopping ⁽²⁾ (ft)
20	125
25	150
30	200
35	250
40	300
45	360
50	430
55	500
60	580
65	660
70	750
75	840
80	930
⁽¹⁾ See Topic 101 for selection of design speed.	
⁽²⁾ For sustained downgrades, refer to advisory standard in Index 201.3	

Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

RFP RDS-2660-421

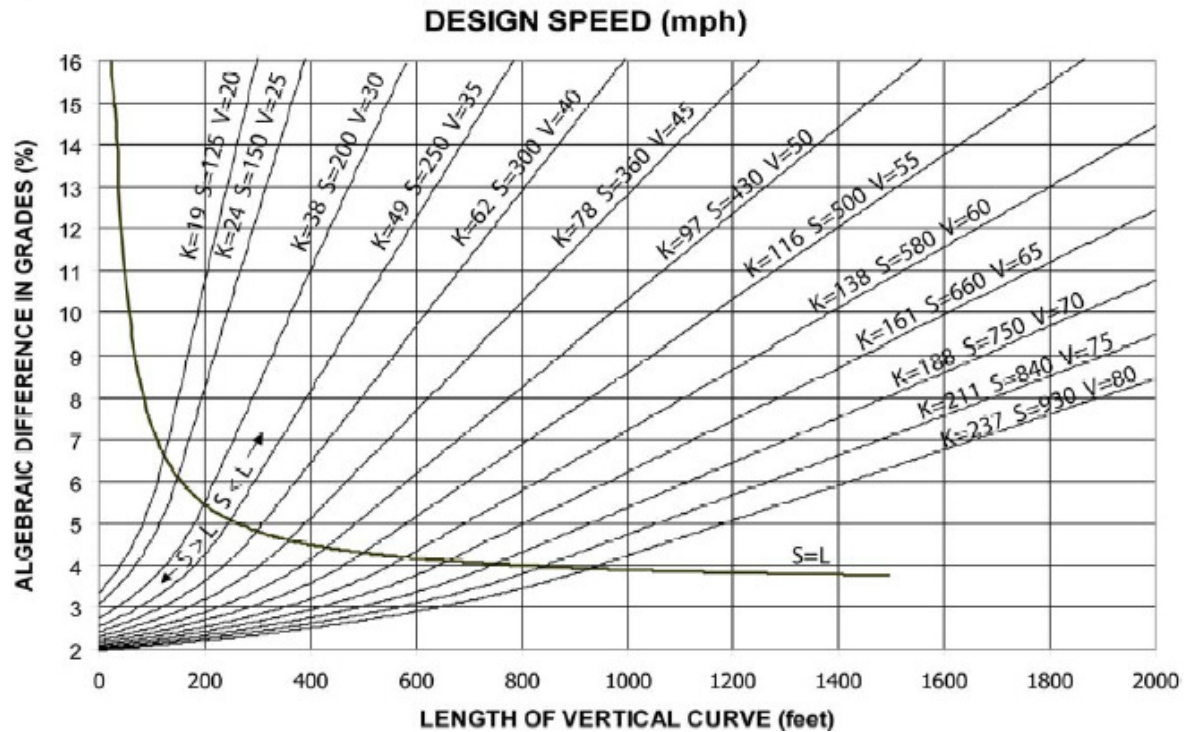
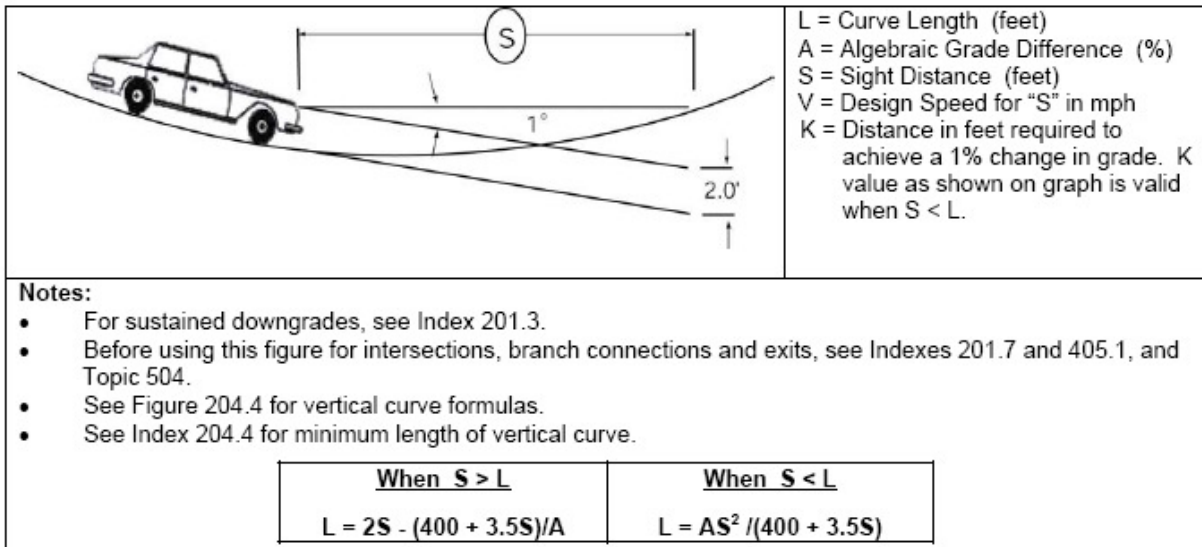
Stopping Sight Distance on Crest Vertical Curves



Roadway Design Software (RDS) Project
Appendix F: Configuration Requirements

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Stopping Sight Distance on Sag Vertical Curves



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3. Superelevation:

- a. The software will check and specify alignment standard Superelevation rates based on the following table.

Standard Superelevation Rates
(Superelevation in Feet per Foot for Curve Radius in Feet)

Ramps, 2-Lane Conventional Highways, Frontage Roads ⁽¹⁾		Freeways, Expressways, Multilane Conventional Highways		When Snow & Ice Conditions Prevail (Usually over 3,000 ft elevation)		Urban Roads (35 – 45 mph)		Urban Roads (less than 35 mph)	
For e _{max} = 0.12		For e _{max} = 0.10		For e _{max} = 0.08		For e _{max} = 0.06		For e _{max} = 0.04	
Range of Curve Radii	e Rate	Range of Curve Radii	e Rate	Range of Curve Radii	e Rate	Range of Curve Radii	e Rate	Range of Curve Radii	e Rate
Under 625	0.12								
625 – 849	0.11								
850 – 1,099	0.10	Under 1,100	0.10						
1,100 – 1,349	0.09	1,100 – 1,349	0.09						
1,350 – 1,599	0.08	1,350 – 1,599	0.08	Under 1,600	0.08				
1,600 – 1,899	0.07	1,600 – 1,899	0.07	1,600 – 1,899	0.07				
1,900 – 2,199	0.06	1,900 – 2,199	0.06	1,900 – 2,199	0.06	Under 600	0.06		
2,200 – 2,699	0.05	2,200 – 2,699	0.05	2,200 – 2,699	0.05	600 – 999	0.05		
2,700 – 3,499	0.04	2,700 – 3,499	0.04	2,700 – 3,499	0.04	1,000 – 1,499	0.04	Under 500	0.04
3,500 – 4,499	0.03	3,500 – 4,499	0.03	3,500 – 4,499	0.03	1,500 – 1,999	0.03	500 – 999	0.03
4,500 – 19,999	0.02	4,500 – 19,999	0.02	4,500 – 19,999	0.02	2,000 – 6,999	0.02	1,000 – 4,999	0.02
20,000 & over	(2)	20,000 & over	(2)	20,000 & over	(2)	7,000 & over	(2)	5,000 & over	(2)
Notes:									
(1) For frontage roads under other jurisdictions see Index 202.7.									
(2) Use standard crown section.									

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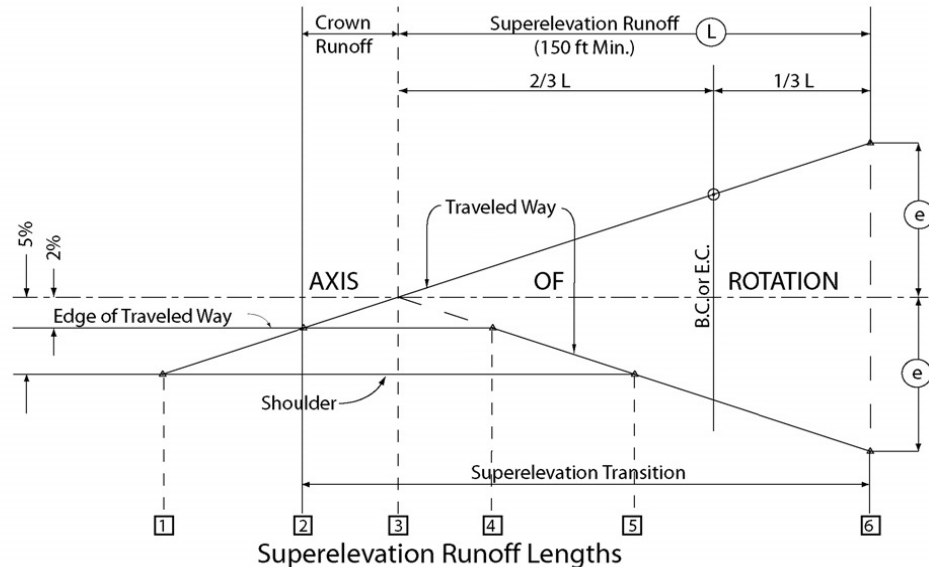
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- b. The software shall specify a Superelevation transition. The length of Superelevation transition should be based upon the combination of Superelevation rate and distance from axis of rotation to outside edge of lanes in accordance with the tabulated Superelevation runoff lengths in the following table and diagram.

Superelevation Transition

Formulas	Explanation of Terms
2-Lane Roads $L = 2500 e$	(L) = Length of Superelevation Runoff - ft
Multilane Roads & Branch Connections $L = 150 D e$	(e) = Superelevation rate - ft/ft
Ramps	(D) = Distance from axis of rotation to outside edge of lanes - ft
Multilane $L = 2500 e$ if possible	
Single Lane $L = 2000 e$	
MINIMUM $L = 150$ FT	MAXIMUM $L = 510$ FT

Adjust computed length to nearest 10 ft. length divisible by 3



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Superelevation Rate "e" ft/ft	Length, L (feet)								
	2-Lane Highway s & Multilan e Ramps	Single Lane Ramps	Multilane Highways and Branch Connections With Various "D" Widths						
			24 ft	36 ft	48 ft	51 ft	60 ft	63 ft	75 ft
0.02	150	150	150	150	150	150	180	180	240
0.03	150	150	150	180	210	240	270	270	330
0.04	150	150	150	210	300	300	360	390	450
0.05	150	150	180	270	360	390	450	480	510
0.06	150	150	210	330	450	450	510	510	
0.07	180	150	270	390	510	510			
0.08	210	150	300	450					
0.09	240	180	330	180					
0.10	240	210	360	510					
0.11	270	210	390						
0.12	300	240	420						
For widths of "D" not included in table, use formula above.									

c. The software shall check Superelevations for the following criteria:

- Flat spots (i.e. where the Superelevation and profile are flat) must be revealed. Flat spots are undesirable from a drainage standpoint and should be avoided.
- Where curve radius and length, and tangents between curves are short and standard SuperElevation rates and/or transitions may not be attainable. In such situations, the highest possible SuperElevation rate(s) and transition length should be used, but the rate of change of cross slope should not exceed 6 percent per 100 feet.

d. Superelevation Graphics Attributes

The graphics attributes of the Superelevation diagrams shall follow the table below:

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Linear Feature Attributes Table

Feature	Linestyle	Weight	Color	Level
Left ES	0	1	0	60 Nongeo Data
Right ES	0	1	0	60 Nongeo Data
Left ETW	0	1	0	60 Nongeo Data
Right ETW	0	1	0	60 Nongeo Data
Axis/Rotation	pp-axis	3	0	60 Nongeo Data

e. Stationing and Annotation Attributes

- The text is based on a plotting scale of 1" = 50' (Caltrans Base Scale). It is important to place text at the appropriate CADD size within the drawing based on the intended scale of the plotted plan sheet. For any plot scale, the text will appear 0.14 inches when plotted on a 22" x 34" plan sheet.
- All text annotation for SuperElevation diagrams will use the font CTFont1.

4. Templates:

Software shall provide the following design template objects:

a. Lane 1

- A design lane template piece that shall accommodate up to 5 different pavement layers.
- The cross slopes of this lane template can be defined by both a value typed in by the user or from a predefined SuperElevation definition.
- The width of the lane template can be defined by both a value typed in by the user or by the intersection along the cross section line with a pre-defined geometry element.

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Appendix F: Configuration Requirements

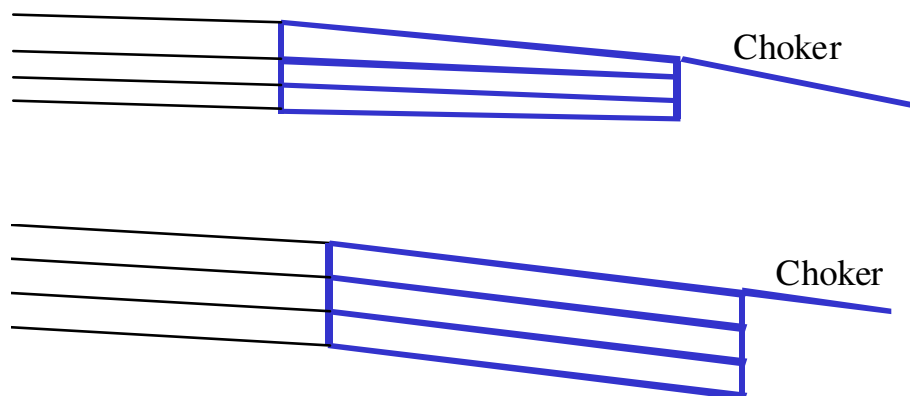
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b. Lane 2

- The design lane template piece shall accommodate up to 5 different pavement layers.
- The cross slopes and the width of this lane template shall be determined by the intersection along the cross section line with a pre-defined, 3-dimensional string.

c. Shoulder 1

- A design shoulder template piece that shall accommodate up to 5 different pavement layers.
- The cross slopes of this top surface (finished grade) of the shoulder template can be defined by both a value typed in by the user or from a predefined superelevation definition.
- The width of the shoulder template can be defined by both a value typed in by the user or by the intersection along the cross section line with pre-defined geometry element.
- The outside edge of the shoulder template shall have an option to add a “choker” when the edge is in a fill section. See diagram below.
- The cross slope of the bottom of the shoulder template shall have the option to either follow the cross slope of the top surface or follow the cross slope of the Lane template at the same cross section. See diagram below.



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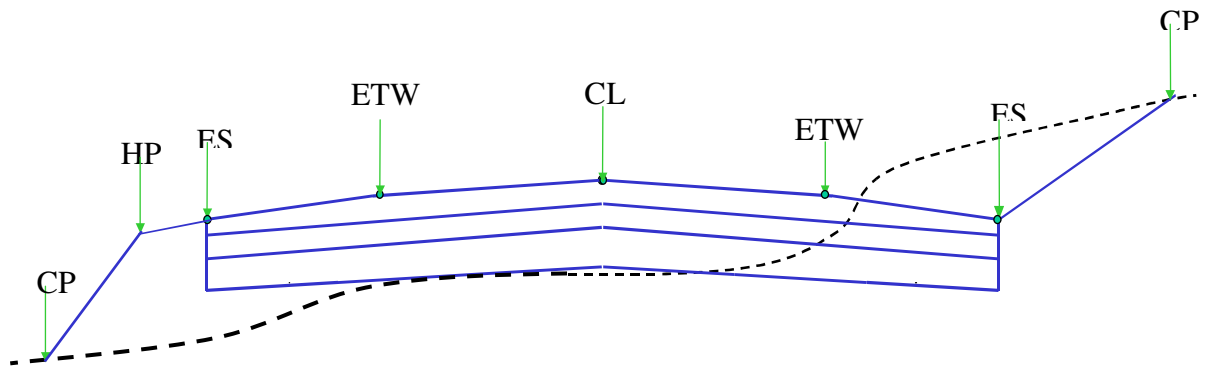
d. Side Slope 1

- A Side Slope template piece that shall intersect to a named existing surface at a user-defined slope with a default value of 4:1.

e. Side Slope 2

- A Side Slope template piece that shall intersect to a named existing surface at a user-defined distance with a default distance value of 18' from the edge of shoulder.

Below is a sample of a design template with the names of the points specified.



The names of labels on the templates shall follow the naming convention listed below.

5. Cross Section Plotting:

- The cross-sections shall plot to at least a 1"=10' scale and a 1" = 5' scale.
- The linear attributes of the cross section lines shall match the following table.

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Linear Feature Attributes Table

Feature	Linestyle	Weight	Color	Level
New Cross Sections elements	0	2	*	60 Nongeo Data
Major Grid	0	2	2	11 Undefined
Minor Grid	0	0	3	9 Profile Grid
Frame	0	0	0	10 Sheet Format
Border	0	3	0	10 Sheet Format
Leaders	0	1	0	60 Nongeo Data

*Refer to Roadwayfeatures.doc in the Bidder's Library.

- c. The annotation attributes of the cross section lines shall match the following table.

Annotation Attributes Table

Feature	Wt.	Color	Level	Font	Plotted Text Size (inches) *
Dist-Co-Rte	1	0	10 Sheet Format	CTFONT1	0.175
EA	1	0	10 Sheet Format	CTFONT1	0.175
Sheet No.	1	0	10 Sheet Format	CTFONT1	0.175
Scale	1	0	10 Sheet Format	CTFONT1	0.175
Sheet Title	0	0	10 Sheet Format	CTFONT43	0.60
Date	1	0	10 Sheet Format	CTFONT1	0.175
Labels	1	0	60 Nongeo Data	CTFONT1	0.14
Station	1	0	60 Nongeo Data	CTFONT1	0.20
Grid Labels	1	0	60 Nongeo Data	CTFONT1	0.175
Alignment	1	0	10 Sheet Format	CTFONT1	0.24

* For any plot scale, the plotted text will appear as noted above on a 22" x 34" cross-section sheet.

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- d. The grade break labels on the design cross-sections shall have the naming convention listed in the following table.

Grade Break Labels Table

Label	Description
BAR	Barrier – used for both faces. If point is coincidental with ES then use BAR.
BEN	Bench – used for both edges
BKWALL	Back of wall
BKCURB	Back of curb – typically not staked by Surveys but this provides clarifying information for Construction
BKSW	Back of sidewalk
CL	Centerline
CONFM	Conform
CONT	Contour grading lines
CP	Catch point – intersection of design surface with existing surface
EP	Edge of pavement – only for use with miscellaneous roadway sections including bike paths, rest stops, dike pads, etc.
ES	Edge of shoulder
ETW	Edge of traveled way
FL	Paved or unpaved flow line
FSW	Front of sidewalk
FWALL	Face of wall
HP	Hinge point – top of slopes within the design surface
LL	Lane line – also used for Pavement Structure change
LOL	Layout line for retaining, sound, or wing walls
ML	Match line
PG	Profile grade
R/W	Right of way
RSP	Rock Slope Protection
S/C	Saw cut line
SL	String line – the plane of the traveled way
TBERM	Top of berm
TCURB	Top of curb – typically not staked by Surveys but this provides clarifying information for Construction
TDIKE	Top of dike – typically not staked by Surveys but this provides clarifying information for Construction
TDITCH	Top of ditch
TOE	Toe – bottom of slopes within the design surface, not the catch point
TWALL	Top of wall

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6. Custom Reports

a. Project Report

Summary of project data must include options for:

- Alignments with associated profiles and cross sections,
- DTM's, and
- Geometry layout lines.

b. Slope Stake Listings;

The software shall create slope stake listings on an 8 ½" by 11" sheet which contains all the information depicted in the examples listed below, as applicable. The software must also have the following options when generating the listings:

- With a display of the cross section at each station;
- Without a display of the cross section at each station;
- With the cuts/fills between every offset calculated from catch point to centerline;
- Without the cuts/fills between every offset calculated from catch point to centerline;
- Includes R/W located by the entered offset or by the selection of an element;
- Saves one, two, three, or more stations per page;
- Landscape layout; and
- Portrait layout.

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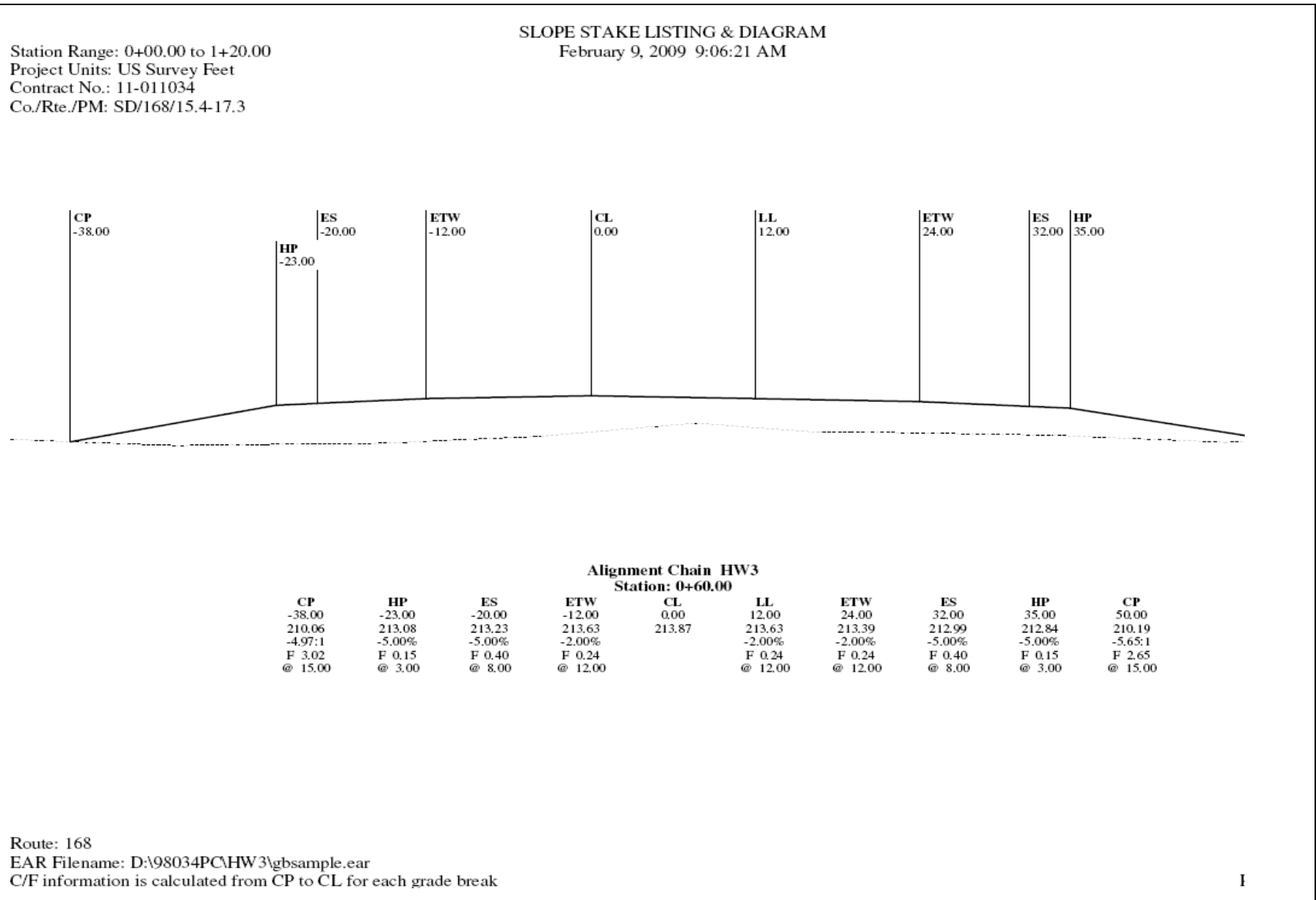
Annotation Attributes Table

Feature	Font	Font Style	Text Size (pt.)
Header & Footer	Times New Roman	Regular	10
Alignment Name	Times New Roman	Bold	10
Station	Times New Roman	Bold	10
Key Point Feature	Times New Roman	Bold	8
Key Point Data	Times New Roman	Regular	8

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SLOPE STAKE LISTING EXAMPLE #1



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SLOPE STAKE LISTING EXAMPLE #2

SLOPE STAKE LISTING

Station Range: 0+00.00 To 1+20.00
 Project Units: US Survey Feet
 Contract No.: 11-011034
 Co./Rte./PM: SD/168/15.4-17.

February 09, 2009 9:14:29 AM

Alignment Chain: HW3 Station: 0+00.00

CP	HP	ES	ETW	CL	LL	ETW	HP	CP
-38.00	-23.00	-20.00	-12.00	0.00	12.00	24.00	32.00	47.00
214.18	214.44	214.59	214.99	215.23	214.99	214.75	214.35	215.09
-1.72%	-5.00%	-5.00%	-2.00%		-2.00%	-2.00%	-5.00%	4.96%
F 0.26	F 0.15	F 0.40	F 0.24		F 0.24	F 0.24	F 0.40	C 0.74
@ 15.00	@ 3.00	@ 8.00	@ 12.00		@ 12.00	@ 12.00	@ 8.00	@ 15.00

Alignment Chain: HW3 Station: 0+20.00

CP	HP	ES	ETW	CL	LL	ETW	HP	CP
-38.00	-23.00	-20.00	-12.00	0.00	12.00	24.00	32.00	47.00
213.52	213.93	214.08	214.48	214.72	214.48	214.24	213.84	214.32
-2.74%	-5.00%	-5.00%	-2.00%		-2.00%	-2.00%	-5.00%	3.23%
F 0.41	F 0.15	F 0.40	F 0.24		F 0.24	F 0.24	F 0.40	C 0.48
@ 15.00	@ 3.00	@ 8.00	@ 12.00		@ 12.00	@ 12.00	@ 8.00	@ 15.00

Alignment Chain: HW3 Station: 0+40.00

CP	HP	ES	ETW	CL	LL	ETW	ES	HP	CP
-38.00	-23.00	-20.00	-12.00	0.00	12.00	24.00	32.00	35.00	50.00
211.61	213.49	213.64	214.04	214.28	214.04	213.80	213.40	213.25	211.85
-12.52%	-5.00%	-5.00%	-2.00%		-2.00%	-2.00%	-5.00%	-5.00%	-9.35%
F 1.88	F 0.15	F 0.40	F 0.24		F 0.24	F 0.24	F 0.40	F 0.15	F 1.40
@ 15.00	@ 3.00	@ 8.00	@ 12.00		@ 12.00	@ 12.00	@ 8.00	@ 3.00	@ 15.00

Route: 168

EAR File Name: D:\98034PC\HW3\gbsample.ear

C/F information is calculated from CP to CL for each grade break

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APPENDIX B
GLOSSARY OF TERMS AND ACRONYMS

Roadway Design Software (RDS) Project

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Appendix B – Glossary of Terms and Acronyms

Glossary of Terms and Acronyms

Term/Acronym	Definition or Description
2D	Two Dimensional
3D	Three Dimensional
AASHTO	American Association of State Highway and Transportation Officials
AC	Asphalt Concrete
ALN	Caltrans CTDC alignment file
ArcSDE	Arc Spatial Data Engine
ArcGIS	The name of a group of geographic information system software product line produced by ESRI
ASCII	American Standard Code for Information Interchange, a standard code consisting of 128 7-bit combinations, for characters stored in a computer or to be transmitted between computers
BC	Beginning of Curve
BVC	Beginning of Vertical Curve
C++	A general purpose programming language
CAD	Computer Aided Drafting
CADD	Computer Aided Design and Drafting
Caltrans	California Department of Transportation
CCS	California Coordinate System
CIFS	Common Internet File Sharing (Windows Networking)
CL	Center Line
COGO	Coordinate Geometry
COTS	Commercial Off the Shelf
CP	Catch Point
CR5	Tripod Data Systems (TDS) data file
CTDC	Caltrans Data Collection
DC	Trimble's Survey Controller Data Format
DD input	Decimal Degree
DDM	Digital Design Modeling
DEM	Digital Elevation Model
DGN	MicroStation's File Format
DGS	California Department of General Services
DGS PO	Department of General Services Procurement Official
DLL	Dynamic Link Library
DMS	Degree Minute Seconds
DPAC IT-AS	Division of Procurement and Contracts IT Acquisitions Specialist
DTM	Digital Terrain Model
DWF	Design Web Format
DWG	AutoCAD File Format

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Appendix B – Glossary of Terms and Acronyms

Term/Acronym	Definition or Description
EAR	CAiCE's filename extension for cross sections. "EndARea"
EC	End of Curve
EGL	Energy Grade Line
EP	Edge of Pavement
ES	Edge of Shoulder
ESA's	Environmentally Sensitive Areas
ETW	Edge of Travelled Way
EVC	End of Vertical Curve
Excel	Microsoft's Excel
FHWA	Federal Highway Administration
GIS	Geographic Information System
GPS	Global Positioning System
HA	Horizontal Alignment
HA#	A CAiCE format for storing horizontal alignment information
HDS No. 5	FHWA's Hydraulic Design Series Number 5 is for the use of Hydraulic Design of Highway Culverts
HEC No. 22	FHWA's Hydraulic Engineering Circular Number 22 (Urban Drainage Design manual)
HGL	Hydraulic Grade Line
HP	Hinge Point
HQ	Headquarters
IRWS	Integrated Right of Way System
IDF	Intensity Duration Frequency
IT	Information Technology
JGW	Map file
JPG	A commonly used method of compression for photographic images. It got it's name from the Joint Photographic Experts Group
KCM	A file created in CAiCE's database explorer. This is actually a Microsoft access database file with an extension of .kcm. The KCM file can be used to transfer data from one Visual CAD project to another, and can then be used to export data to Access, use Access as a data editor, then import the data back into Visual CAD
KCP	The "CAiCE Project File" is an ASCII file that can be used to transfer all types of geometry elements between projects
legacy data	data pertaining to older computer hardware, software or data
LISP	List Processing Language
Lt	Left

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Appendix B – Glossary of Terms and Acronyms

Term/Acronym	Definition or Description
mass-haul diagrams	Plots of the cumulative volumes of cut and fill along an alignment
MDL	MicroStation Development Language
Mean Sea Level	The average (mean) height of the sea, with reference to a suitable reference surface.
N-E-Z	Northing - Easting - Elevation
NFS	Network File Sharing (UNIX)
OG	Original Ground
OoCEGS	Office of CADD & Engineering GIS Support
PC	Point on the Curve
PDF	Adobe's Portable Document Format
PI	Point of Intersection
PRO	A CAiCE format file
PT	Point of Tangency
R/W	Right of Way
RAW	Tripod Data Systems (TDS) raw file
RD5	Tripod Data Systems (TDS) template file
RDS	Roadway Design Software
RPN	Reverse Polish Notation
Rt	Right
RW5	Tripod Data Systems (TDS) raw field measurements file
SCS Method	Soil Conservation Service Method determines the unit hydrograph which provides an easy method for estimating stream discharge
SDO	Spatial Data Option
SID	System Identifier
SMB	Server Message Block (Windows Networking)
SRV	Visual CAD Survey file is an ASCII file for storing survey points and chains
StarNet DAT files	A StarNet Raw Data Format
TFW	Arcview world file for a tif image
TIF	Tagged Image File Format
TIN	Triangulated Irregular Network
TP5	A File Format suitable for Machine Guidance
TSS	Caltrans reduced data format
TTM	Trimble's surface data format
UNC	Universal Naming Conventions (Windows)
VA	Vertical Alignment
VB.NET	Visual Basic .NET is an object-oriented computer language
VBA	Visual Basic for Applications
VPI	Vertical Point of Intersection

Roadway Design Software (RDS) Project

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Appendix B – Glossary of Terms and Acronyms

Term/Acronym	Definition or Description
Word	Microsoft's Word
XML	Extensible Markup Language
XY#	A CAiCE format for storing DTM information

APPENDIX G

TRAINING REQUIREMENTS

(This Appendix to be incorporated into the Contract)

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Roadway Design Software (RDS) Project
Appendix G – Training Requirements

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A. General

The Contractor will develop course curricula, create training materials, conduct training, and provide support for the software. Seventy-three (73) Key Support Users and approximately 4,000 users statewide must be trained. The course curricula and all training material; including, manuals, user tutorials with sample data sets, and quick reference guides must be developed by the Contractor and must incorporate Caltrans policies, standards, and workflow processes. All training material shall become the property of Caltrans and may be modified or supplemented by Caltrans at any time.

1. Contractor Responsibilities:

- a. A Final Training Plan must be completed and approved by the Caltrans Contract Manager within 45 calendar days after contract award. The Final Training Plan must include an outline of the development of the curriculum course content, and a proposed training schedule.
- b. A Final Training Schedule must be completed and approved by the Caltrans Contract Manager within one month of completion of the training for the 73 key users.
- c. The following courses must be developed by the Contractor:
 - Survey Data Processing and DTM
 - Survey COGO and Map Production
 - Introduction to Roadway Design
 - Intermediate Roadway Design
 - Basic Structure Design
 - Basic Hydraulic Design

Course content, training logistics including locations and capacity, and approximate users to be trained are provided later in this Appendix. All training will be conducted at designated Caltrans training facilities.

- d. The Contractor must provide draft training material for all courses within four months after the contract is executed to provide Caltrans the opportunity to comment before work is complete and to ensure that the material follows Caltrans methods, policies and standards.
- e. The course curricula and training materials must be completed and approved by the Caltrans Contract Manager within eight months contract execution.
- f. Upon approval of the course curricula and training materials, the Contractor will train 73 Key Support users at a Caltrans training facility in Sacramento.

Roadway Design Software (RDS) Project

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Appendix G – Training Requirements

Once the Key Support users are trained, a four year training cycle will begin to train 4,000 (approximate) users statewide.

- g. The Contractor must have the resources available to provide the required services within the allotted timeframe. Due to the volume of classes required, it is expected that training may be required concurrently in multiple locations, starting the first year of statewide implementation and beginning with the Survey and Roadway design courses. There must be a minimum of 3 to 6 months between the Introduction to Roadway and the Intermediate Roadway Design courses, in order for students to become familiar with the content of the first course before taking the second course.
- h. Training manuals, handouts, data sets, video demonstrations, guides, and any other media developed for the training courses must be provided to the OoCEGS three weeks prior to the actual training date in order for the Caltrans Reproduction department to produce and ship course materials.
- i. All training manuals, handouts, guides and any other printed media, must be provided in both .pdf and .doc electronic format. In addition, two hard copies of each training manual must be provided to Caltrans.
- j. The Contractor shall provide available on-line training, video demonstrations, and knowledgebase resources to Caltrans as learning tools to address frequently asked questions. Video demonstrations will be placed on Caltrans servers for the use of all Caltrans employees.
- k. Training materials must be updated, as needed, within three weeks of any software upgrades or updates, at no cost to the State, for the duration of the maintenance agreement.
- l. Prior to commencement of training, the Contractor must provide resumes for all trainers. Each trainer is required to have:
 - Knowledge and expertise with the software and the curricula. A minimum of one year of training experience is required.
 - Training experience with other agencies and/or private entities utilizing their respective policies, standards, needs and workflow process. A minimum of one year of training experience will be required with at least five training classes taught.

2. Review and Approval Procedures:

- a. Caltrans shall have the right during any phase of the Contractor's work, or as requested by the Contractor, to monitor and review the progress and/or processes of the Contractor.

Roadway Design Software (RDS) Project**RFP RDS-2660-421****Appendix G – Training Requirements**

- b. All training manuals, handouts, data sets, videos demonstrations and guides produced by the Contractor shall be subject to the acceptance and approval of Caltrans before the training sessions can begin.
- c. At the end of each training class each student will be asked to complete an instructor evaluation form for the Contractor's instructor. If the more than half of the class students give a below average rating to the Contractor's instructor on more than two occasions, Caltrans reserves the right to reject any future training by that particular instructor(s).

B. Course Content

Caltrans has identified six training courses that must be developed by the Contractor. Each course must be created using U.S. Survey feet and include the topics/content described below. It is the Bidder's responsibility to identify additional course content that is deemed necessary for staff to effectively and efficiently use the roadway design software.

1. Survey Data Processing and DTM**a. General Software Use:**

- Create project and file structure
- Configure files and setup
- Customize interfaces
- Review differences in data types: survey data, surface data, geometry data
- Review Survey Control and feature coding methods

b. Topographic Data (using survey equipment supplied by Caltrans):

- Assign codes and descriptive information
- Collect data in a cross section mode
- Collect data in a template mode, if possible
- Collect multiple lines of data at the same time
- Perform a small traverse through intermediate control

c. Working With Multiple Survey Data Sets:

- Import raw survey data from Trimble Survey Controller, applying codes per Caltrans standards.
- Process data
- Display data
- Resolve errors

Roadway Design Software (RDS) Project

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d. Working With Multiple Photogrammetric Data Sets:

- Import photo data from 3D DGN files, applying codes per Caltrans CADD Users Manual.
- Display data
- Resolve errors

e. Creating a DTM With Combined Survey & Photogrammetric Data:

- Merge survey and photo data
- Display the DTM
- Create & review cross sections
- Create & review contours
- Create & review drive through
- Resolve errors
- Edit DTM
- Prepare for delivery to design
- Work with georeferenced images

f. COGO:

- Create horizontal alignment
- Create profile

g. Creating Reports:

- Traverse report
- Point listing of codes used in project, i.e. legend
- Export roadway definitions & control to Trimble Survey controller
- Stakeout report
- Station & offset
- XML Style sheets

h. Preparing Deliverables for Design:

- Create a 3D DGN topo map per Caltrans CADD Users Manual
- Package DTM
- Package survey data for use by design

2. Survey COGO and Map Production

a. General Software Use:

- Create project and file structure
- Configuration of files and setup
- Customize interfaces

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- Review differences in data types: survey data, surface data, geometry data
 - Review feature coding methods
- b. Working with Survey Control and R/W Data:
- Import raw survey data from Trimble Survey Controller.
 - Process data
 - Display data
- c. COGO:
- Convert between Metric & U.S. Survey feet
 - Work with ground and grid coordinates
 - Create horizontal alignments
 - Perform traverse adjustments, i.e. compass rule
 - Calculate landnet, parcels & R/W with a variety of methods to include:
 - Store by bearing & distance
 - Store by angle & distance
 - Station & offset
 - Parallel offset
 - Intersection
 - Divide a closed boundary by a specified area
 - Edit geometry
 - Subdivide parcels
- d. Preparing Map:
- Annotate & label geometry on base map per Caltrans CADD Users Manual and Plans Preparation Manual.
 - Edit geometry and update annotation
 - Create geometry tables
 - Create multiple sheet drawing
 - Work with georeferenced images
- e. Reports & Export:
- Deed descriptions
 - Traverse report
 - Point listing of codes used in project, i.e. legend
 - Export geometry & control to Trimble Survey controller
 - Stakeout report
 - Station & offset
 - XML Style sheets

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3. Introduction to Roadway Design

- a. Overview of the Roadway Design Software
- b. Introduction to the Roadway Design Software
- c. Project Setup
- d. Existing Digital Terrain Model
- e. Geometry, COGO
- f. Horizontal Alignment
- g. Original Ground Profiles
- h. Original Ground Cross Sections
- i. Vertical Alignments
- j. Superelevation
- k. Roadway Design
- l. Templates
- m. Digital Design Model Surface
- n. Cross Sections and Annotation
- o. Special features and Tools
- p. Earthwork Volumes
- q. Reports
 - Slope stakes, earthwork, volumes
 - Survey file deliverables

4. Intermediate Roadway Design

- a. Intermediate Roadway Design
- b. Intermediate Template Design
 - Creating/building templates
 - Transitions
 - Template Controls

Roadway Design Software (RDS) ProjectRFP RDS-2660-421Appendix G – Training Requirements

- c. Intermediate Superelevation Design
- d. Design with Multiple Roadways
- e. Advanced Earthwork and Design Volumes
- f. Edit Design
- g. Site Design
- h. Digital Design Model
- i. Special Reports
 - Slope stakes, earthwork, volumes, quantities
 - Survey file deliverables.

5. Basic Structure Design

- a. Bridge Layout
 - Locate Pts
 - Station Offset
 - Angle and distance
 - Intersection
 - Superelevation
 - Creation and Modification
 - Cross Section
 - Creation and Modification relative to Model surface
 - Advance Planning
 - Import aerial images for prelim layout.
- b. COGO Tools
 - Geometry/Alignment generation/Modification
 - Generation of reports (chain description)
 - Generation of design chains (EOD, Pave Notch, etc)
 - Generation of breaklines for modification of surfaces
- c. Modeling
 - Basic 3D usage

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- View Perspective
 - Rotate View
- Solids -
 - Blending
 - Filletting
 - Modification
- Generation of Deck Contours from model
- d. Drafting Aspects
 - Plotting and Manipulation on border sheets
 - Annotation tools
- e. DTM
 - Building design DTM triangles
 - Calculating Surface volumes for earthwork cut/fill
- f. Data Export
 - For use with existing analysis software
 - Xml
- 6. Basic Hydraulic Design
 - a. Hydrology:
 - Watershed Delineation
 - DTM Surface and Topography
 - Imported DEM Data, Aerial Photos, and Images
 - Interface With ArcGIS (Import/Export)
 - Analysis
 - Time of Concentration
 - Rational Method
 - SCS Method
 - b. Cross Drainage:
 - Inlet Control Culvert

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- Headwater Depth
 - Capacity
 - Outlet Velocity
- Outlet Control Culvert
 - Tailwater Depth
 - Critical Depth
 - Barrel Velocity
 - Hydraulic Radius
 - Total Head Loss
 - Capacity
- c. Open Channels:
 - Cross-Sectional Shapes
 - Trapezoidal
 - Triangular
 - Irregular
 - Analysis
 - Normal Depth
 - Critical Depth
 - Capacity
 - Alignments
 - Horizontal
 - Vertical
 - Earthwork
- d. Roadway Drainage:
 - Inlet-Spread Analysis
 - On-Site Hydrology
 - Shoulder/Gutter Flow Depth
 - Spread Width
 - Inlet Interception (On-Grade/Sag) and Layout
 - Bypass Flow
 - Storm Drains
 - Pipe Sizing

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- Pipe Layout (Main/Lateral)
- Head Losses (Major/Minor)
- Hydraulic Grade Line
- Energy Grade Line
- System Modeling

e. Detention Basins

- Inflow Hydrograph
- Pond Routing
- Stage-Storage Relationship
- Outflow Hydrograph

C. Training Logistics1. Training room locations and capacity limits

Caltrans district and headquarters training room locations and capacity limits are shown in the chart below. Training classes will vary in size according to the District training room capacities listed. When the training room capacity exceeds 12, two instructors will be required for each class held at that location.

Training Room Locations and Capacity Limits

District	Location	Training Room Capacity
1	1656 Union Street Eureka, CA	10
2	1657 Riverside Avenue CADD Training Room Redding, CA	10
3	703 B Street Marysville, CA	17
4	111 Grand Avenue 10th Floor, Room 436 Oakland, CA	20

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Training Room Locations and Capacity Limits

District	Location	Training Room Capacity
5	66 Madonna Road Shop 5 San Luis Obispo, CA	10
6	2015 East Shields Avenue CADD Training Room Fresno, CA	12
7	100 South Main Street 8th Fl, Rm 8.038 Los Angeles, CA	12
8	464 West 4th Street San Bernardino, CA	16
9	500 South Main Street CADD Training Room Bishop, CA	7
10	1976 East Charter Way CADD Training Room Stockton, CA	16
11	4050 Taylor St. RM 1-139 San Diego, CA	12
12	3337 Michelson Drive, Suite 380 C1152 Bld 3347 Irvine, CA	19
HQ-FM3	1727 30th Street, 3rd Floor Sacramento, CA	16

Roadway Design Software (RDS) Project
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Training Room Locations and Capacity Limits

District	Location	Training Room Capacity
HQ-eLearn*	1616 29th Street, 1st Floor Sacramento, CA	18

- HQ-eLearn is available as an alternative to HQ-FM3. Classes are not expected to run concurrently in both HQ facilities. Either training facility may be utilized for training at HQ.

2. Number of Key Support Users to be trained

The training courses that the 73 Key Support Users will be attending and the number of students are listed below. All Key Support Users will be trained at Headquarters in Sacramento, California

Training Course	Number of Key Support Users
Survey Data Processing and DTM	13
Survey COGO and Map Production	13
Introduction to Roadway Design and Intermediate Roadway Design (47 Key Support Users will attend each course)	47

IMPORTANT NOTICE TO ALL BIDDERS

Roadway Design Software (RDS) RFP RDS 2660-421

This solicitation is being conducted under Public Contract Code § 12125, et seq., the Alternative Protest Process.

Submission of a proposal constitutes consent of the Bidder for participation in the Alternative Protest Process.

Any protests filed in relation to the proposed contract award shall be conducted under the procedures in this document for the Alternative Protest Process.

Any Bidder wishing to protest the proposed award of this solicitation must submit a written Notice of Intent to Protest (facsimile acceptable) to the Alternative Protest Process Coordinator before the close of business on the last day of the protest period, which will be established in the Notice of Intent to Award. Failure to submit a timely, written Notice of Intent to Protest waives the Bidder's right to protest.

Alternative Protest Process Coordinator/Dispute Resolution
Department of General Services
Procurement Division
Purchasing Authority Management Section
707 Third Street, 2nd Floor South
West Sacramento, CA 95605
Voice: 916 / 375-4587
Fax: 916 / 375-4611

Roadway Design Software (RDS) Project

REQUEST FOR PROPOSAL RFP RDS-2660-421

July 7, 2009

Issued by:

STATE OF CALIFORNIA
Department of General Services
707 Third Street
West Sacramento, CA 95605

In conjunction with:

Department of Transportation
1120 N Street
Sacramento, CA 95814

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I. INTRODUCTION AND OVERVIEW OF REQUIREMENTS

A. Purpose of this Request for Proposal

The purpose of this Request for Proposal (RFP) is to acquire Roadway Design Software (RDS) to replace software currently in use by the State of California Department of Transportation (Caltrans). The term "Department" as used in this RFP will refer to Caltrans. The Computer Aided Civil Engineering (CAiCE) software used by Caltrans since the late 1990's is being discontinued and is no longer being enhanced or supported. The software will soon be unavailable, necessitating acquisition of a replacement software product.

This RFP is to obtain proposals from responsive, responsible firms who can provide Caltrans with a RDS capable of supporting the design engineering processes utilized by Caltrans as a replacement for CAiCE. The selected Bidder will provide Caltrans with Commercial-Off-The-Shelf (COTS) software with functionality satisfying the requirements specified in Section VI of this RFP.

This procurement is being conducted under the provisions of the Alternative Protest Process (Public Contract Code Section 12125, et seq.) By submitting a bid to this solicitation conducted under the Alternative Protest Process, Bidders agree that all protests of the proposed award be resolved by binding arbitration. See Section II.E.1 regarding the details of the Alternative Protest Process.

Responses to this RFP will be evaluated based on the value effectiveness to the State. Value effectiveness to the State is the proposal that best meets, and potentially exceeds, the State's administrative and technical requirements at the most reasonable overall cost to implement and operate, at an acceptable level of risk. It is the Bidder's responsibility to carefully read and understand the requirements set forth in this RFP.

The term of the contract is expected to be five years plus one optional usage/maintenance year.

Refer to Appendix B for Glossary of Terms and Acronyms used throughout this RFP.

B. Scope of the RFP and Bidder Admonishment

This RFP is being conducted under the policies developed by the Department of Finance (DOF) and the Office of the State Chief Information Officer (OCIO), and procedures developed by the Department of General Services (DGS) as provided under Public Contract Code Section 12100 et seq. This RFP contains the instructions governing the requirements for a firm proposal to be submitted by interested Bidders. The format in which the proposal is to be submitted and the material to be included are described in Section VIII. This RFP also addresses the

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requirements that Bidders must meet to be eligible for consideration, as well as addressing Bidders' responsibilities.

Caltrans will procure a COTS software product to replace CAiCE. The Contractor will configure the application to comply with Caltrans drafting and design standards in order to support current business processes, provide training for approximately 4,000 users throughout the state over five years, develop functional unit specific manuals, and provide ongoing software maintenance and support.

Two contracts will be awarded to the successful Bidder. The following list includes the deliverables and documents that may be incorporated into each contract. This list in no way represents the contents of the completed contracts.

1. Contract 1 – Configuration and Training:

This contract will consist of two phases:

- o The first phase will include:
 - Preparation of the Project Management Plans;
 - Configuration of the software;
 - Development of training materials customized to meet Caltrans business processes; and
 - Training and software usage/maintenance in the first year for 73 Key Support Users.
- o The second phase will begin after successful completion of phase one. This phase includes training for approximately 4,000 engineering staff statewide over a four-year period.

This contract will incorporate the following:

- Draft Project Management Plan
- Completed Mandatory and Desirable System Administration Requirements Response Form VI-2, located in Appendix D
- Completed Mandatory Functional Requirements Response Forms VI-3, located in Appendix D;
- Completed Desirable Functional Requirements Response Forms VI-4, located in Appendix D;
- All Configuration Requirements located in Appendix F;
- Draft Training Plan and all Training requirements identified in RFP Section VI.F and Appendix G; and
- Cost Tables from Appendix E (Forms VII-1 through VII-7)

2. Contract 2 – Software Usage and Maintenance Fees:

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The second contract will begin after successful completion of phase one, Contract 1 - Configuration and Training and will include costs for ongoing software usage/maintenance, support, and upgrades. This contract will incorporate the following:

- Cost Tables from Appendix E (Forms VII-1, VII-8 and VII-9)

The contract terms and conditions are identified in Appendix A of this RFP. Bidders will prepare and submit to the State a single proposal. The single Bidder proposal determined by the State to be the most value effective will be awarded the contracts, if contract award is made.

Issuance of this RFP in no way constitutes a commitment by the State of California to award a contract. The State reserves the right to reject any or all proposals received if the State determines that it is in the State's best interest to do so. The State may reject any proposal that is conditional or incomplete. Any assumptions made by the Bidder in responding to this RFP do not obligate the State in any way. In the event a Bidder's assumption is incorrect, the Bidder is still responsible for meeting the RFP requirements. Additionally, assumptions made by the Bidder may make the proposal conditional and be cause for the Bidder's proposal to be rejected. Bidders should refer to Section II to obtain any needed clarifications.

This procurement is conducted in compliance with the Americans with Disabilities Act (ADA) as further explained in this Section. If you have any questions or requests pertaining to this compliance, contact the Procurement Official identified in this Section.

This procurement will follow a phased approach designed to increase the likelihood that Final Proposals will be received without disqualifying defects. The additional step(s) will:

- ensure that the Bidders clearly understand the State's requirements before attempting to develop their final proposals;
- facilitate the ability of the State to clearly understand what each Bidder intends to propose before proposals are finalized; and
- give the State and each Bidder the opportunity to discuss weaknesses or potentially unacceptable elements of a Bidder's proposal and give the Bidder the opportunity to modify its proposal to correct such problems.

Specific information regarding such steps is found in Section II.

IF A BIDDER EXPECTS TO BE AFFORDED THE BENEFITS OF THE STEPS INCLUDED IN THIS RFP, THE BIDDER MUST TAKE THE RESPONSIBILITY TO:

Section I: Introduction and Overview of Requirements**RFP RDS-2660-421**

- **CAREFULLY READ THE ENTIRE RFP;**
- **IF CLARIFICATION IS NECESSARY, ASK APPROPRIATE QUESTIONS IN A TIMELY MANNER;**
- **SUBMIT ALL REQUIRED RESPONSES, COMPLETE TO THE BEST OF BIDDER'S ABILITY, BY THE REQUIRED DATES AND TIMES;**
- **MAKE SURE THAT ALL PROCEDURES AND REQUIREMENTS OF THE RFP ARE ACCURATELY FOLLOWED AND APPROPRIATELY ADDRESSED; AND**
- **CAREFULLY REREAD THE ENTIRE RFP BEFORE SUBMITTING EACH BID.**

C. Availability

Bidders must be aware that all staff proposed for this solution must be available to commence work on this project within 30 calendar days of contract award.

D. Procurement Official

Debbie Dykes, Procurement Official
DGS – Procurement Division
707 3rd St., 2nd Floor
West Sacramento, CA 95605
Phone: 916.375.4392
Email: debra.dykes@dgs.ca.gov

E. Key Action Dates

Listed below are the important actions, dates, and times by which the actions must be taken or completed. If the State finds it necessary to change any of these dates, it will be accomplished via an addendum to this RFP.

ALL DATES AFTER THE FINAL PROPOSAL SUBMISSION DEADLINE ARE APPROXIMATE AND MAY BE ADJUSTED AS CONDITIONS INDICATE, WITHOUT ADDENDUM TO THIS RFP.

Section I: Introduction and Overview of Requirements**RFP RDS-2660-421**

<u>ACTION</u>	<u>DATE</u>
1. Release of RFP	7/07/09
2. Last day to submit Letter of Intent to Bid (Form I-A) and signed Confidentiality Statement (Form I-C), found in Appendix C.	7/21/09
3. Last day to submit final questions and request changes to RFP requirements prior to submittal of Draft Proposals *	8/18/09
4. Last day to protest the RFP-Requirements only**	9/30/09
5. Submission of Draft Proposals No later than 1pm Pacific Time (PT)	10/07/09
6. Confidential Discussions with Individual Bidders #	12/08/09
7. Submission of Final Proposals No later than 1pm PT***	1/22/10
8. Demonstration of Software	2/08/10
9. Public Cost Opening	4/26/10
10. Notification of Intent to Award	5/18/10
11. Last Day to Protest Selection No later than 5pm PT	5/19/10
12. Contract Award and Approval	7/01/10
13. Project Start Date	7/02/10

These dates will be determined when the number of Bidders is known, and each Bidder will be notified of its schedule.

* Or five calendar days following the last Addendum that changes the requirements of the RFP. See Section II, B.4, Questions regarding the RFP.

** See Section II, E.1, Protests.

*** BIDDERS: REVIEW BID SUBMISSION CHECKLIST (Form I-B in Appendix C) PRIOR TO SUBMITTING FINAL PROPOSAL

Section I: Introduction and Overview of RequirementsRFP RDS-2660-421***F. Intention to Bid***

Bidders that want to participate in the RFP process should submit a notification of intention to bid to the Procurement Official by date noted in Key Action Dates. Only those Bidders acknowledging interest in this RFP will continue to receive additional correspondence throughout this procurement. Bidders should complete the Letter of Intent to Bid, Form I-A, Appendix C. The State is responsible for notifying one contact person per Bidder. Information related to a Bidder will be submitted by the State to the designated contact person. It shall be the Bidder's responsibility to immediately notify the Procurement Official identified in this Section, in writing, regarding any revision to the information. The State shall not be responsible for proposal correspondence not received by the Bidder if the Bidder fails to notify the State, in writing, about any change pertaining to the designated contact person.

G. Americans with Disabilities Act (ADA)

To comply with the nondiscrimination requirements of ADA, it is the policy of the State to make every effort to ensure that its programs, activities and services are available to all persons, including persons with disabilities.

For persons with a disability needing a reasonable modification to participate in the procurement process, or for persons having questions regarding reasonable modifications of the procurement process, you may contact the Procurement Official identified in this Section. You may also contact the State at the numbers listed below.

IMPORTANT: TO ENSURE THAT WE CAN MEET YOUR NEED, IT IS BEST THAT WE RECEIVE YOUR REQUEST FOR REASONABLE MODIFICATION AT LEAST 10 STATE BUSINESS WORKING DAYS BEFORE THE SCHEDULED EVENT (i.e., MEETING, CONFERENCE, WORKSHOP, etc.) OR DEADLINE DUE-DATE FOR PROCUREMENT DOCUMENTS.

The Procurement Division TTY telephone numbers are:

Sacramento Office: (916) 376-1891

The California Relay Service Telephone Numbers are:

Voice: (800) 735-2922 or (888) 877-5379

TTY: (800) 735-2929 or (888) 877-5378

Speech to Speech: (800) 854-7784

Section I: Introduction and Overview of Requirements

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H. Bidder's Library

The Bidder's Library is included to provide additional background and reference information related to the RDS project. Data sets required to perform the Demonstration portion of this solicitation are also included. The Bidder's Library is available at:

<http://www.dot.ca.gov/hq/oppd/cadd/rfp/rds.htm>

Table I-1 lists the documents contained in the Bidder's Library.

Table I-1

Name	Description /Link
2dseedp10.dgn & 3dseedp10.dgn	Seed files to be used when creating a new design MicroStation file
94062_DESIGN.XML	CAiCE legacy data files
94062_FINAL.SRV	CAiCE legacy data files
A1-WFR-CD1-D3-SNW42.XML	Alignments and profiles
AIMS	Agency Information Management Strategy which includes the Information Technology Strategic Plan, Software Management Plan, Operation Recovery Plan, and HQ and District Information Technology Consolidation project.
AlignProfPntsSChn.kcm	CAiCE legacy data files
Basin.dgn	Basin parameters
BayTaper.pdf	Cross referenced with the layouts
BestFitPoints.txt	Best-fit data in the following comma delimited format Point Name, Northings, Eastings, Description
BestFitSketch.pdf	As-built plan sheet
Caltrans CADD Users Manual	http://www.dot.ca.gov/hq/oppd/cadd/usta/caddman/english/toc.htm
Course Comments Form.doc	Instructor/Training evaluation form
D1-HA.txt	Alignment traverse
D1-VA.txt	Profile description
D2-VA.txt	Profile description
Demo_Design_Speed.tbl	Superelevation design speed table
DEMO_KEY.pdf, DEMO_L01.pdf TO DEMO_L08.pdf	Project layouts
Demo_Super.tbl	Superelevation runoff length table
DEMO_SUPER_D1.pdf & DEMO_SUPER_D2.pdf	Superelevation diagrams

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Table I-1 (continued)

Name	Description /Link
DEMO_XSECT_01.pdf TO DEMOXSECT_04.pdf	Project typical cross sections
Easement-Points.txt	Best-fit data in the following comma delimited format Point Name, Northings, Eastings
FHWA HDS 5 - Hydraulic Design of Highway Culverts	http://isddc.dot.gov/OLPFiles/FHWA/012545.pdf
FHWA HEC 22 - Urban Drainage Design Manual	http://isddc.dot.gov/OLPFiles/FHWA/010593.pdf
Highway Design Manual	http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm
IDF_TABLE.xls	Intensity duration frequency curve table
MetesBounds.doc	Metes & bounds description
PhotoData.dgn	Photogrammetric data
PhotoFeatures.doc	Photogrammetry Attributes and Feature Codes
Plans Preparation Manual	http://www.dot.ca.gov/hq/oppd/cadd/usta/ppman/toc.htm
RDS FSR.pdf	Approved Feasibility Study Report
Roadwayfeatures.doc	Roadway Attributes and Features Codes
RW_Parcel.dgn	Right of Way (R/W) & parcel data
RWFeatures.doc	Right of Way Attributes and Feature Codes
Slopestake-Example.doc	An example Slope Stake Note
SlopeStakeNotesExample.doc	Slope stake notes example
SurveyData.txt	Survey data in the following comma delimited format Point Name, Eastings, Northings, Elevation, Topo Code, Line Code The beginning of a line is coded with a B, the end of a line is coded with an E, and all other points in a line are coded with a C. Individual point shots do not have a line code.
SurveyFeatures.doc	Survey Attributes and Feature Codes
Surveys Manual	http://www.dot.ca.gov/hq/row/landsurveys/SurveysManual/Manual_TOC.html
Table.rpt	Translation table used for TSS format
Table.sym	Translation table used for TSS format
TSS-Example.tss	Example TSS file
TSS-File-Format.PDF	Document explaining TSS file format
TSS-Result.dgn	DGN file of resulting TSS data
Typ_1_retn_Wall.pdf	Standard plan sheet for type 1 retaining wall
Typ60_barrier.pdf	Standard plan sheet for type 60 barrier

II. RULES GOVERNING COMPETITION

A. Identification and Classification of RFP Requirements

1. Requirements

The State has established certain requirements with respect to bids to be submitted by prospective contractors. The use of "shall," "must," or "will" (except to indicate simple futurity) in the RFP, indicates a requirement or condition which is mandatory. A material deviation exists when the Bidder's response is not in substantial accord with the RFP requirements, provides an advantage to one bidder over other bidders, or has a potentially significant effect on the delivery, quantity or quality of items bid,* amount paid to the supplier, or on the cost to the State. Material deviations cannot be waived.

2. Desirable Items

The words "should" or "may" in the RFP indicate desirable attributes or conditions, but are non-mandatory in nature. Deviation from, or omission of, such a desirable feature, even if material, will not in itself cause rejection of the bid¹.

B. Bidding Requirements and Conditions

1. General

This RFP, the evaluation of responses, and the award of any resultant contract shall be made in conformance with current competitive bidding procedures as they relate to the procurement of goods and services by public bodies in the State of California. A Bidder's Final Bid is an irrevocable offer for 180 days following the scheduled date for contract award specified in Section I. A Bidder may extend the offer in the event of a delay of contract award.

2. RFP Documents

This RFP includes, in addition to an explanation of the State's needs, which must be met, instructions which prescribe the format and content of bids to be submitted and the model(s) of the contract(s) to be executed between the State and the successful bidder(s).

If a Bidder discovers any ambiguity, conflict, discrepancy, omission, or other error in this RFP, the Bidder shall immediately notify the Department Official identified in Section I of such error in writing and request clarification or modification of the document.

¹ If this solicitation document is an RFP, the word "bid" as used throughout is intended to mean "proposed," "propose" or "proposal" as appropriate.

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Modifications will be made by addenda issued pursuant to Paragraph B-7, Addenda, below. Such clarifications shall be given by written notice to all parties who have identified themselves as Bidders to the Department Official identified in Section I, without divulging the source of the request for same. Insofar as practicable, the State will give such notices to other interested parties, but the State shall not be responsible therefore.

If the RFP contains an error known to the bidder, or an error that reasonably should have been known, the bidder shall bid at its own risk. If the bidder fails to notify the State of the error prior to the date fixed for submission of bids, and is awarded the contract, the bidder shall not be entitled to additional compensation or time by reason of the error or its later correction.

3. Examination of the Work

The Bidder should carefully examine the entire RFP and any addenda thereto, and all related materials and data referenced in the RFP or otherwise available to the bidder, and should become fully aware of the nature and location of the work, the quantities of the work, and the conditions to be encountered in performing the work. Specific conditions to be examined may be listed in the RFP section on ADMINISTRATIVE REQUIREMENTS and/or the section on TECHNICAL REQUIREMENTS.

4. Questions Regarding the RFP

Bidders requiring clarification of the intent or content of this RFP or on procedural matters regarding the competitive bid process may request clarification by submitting questions, in an email or envelope clearly marked "Questions Relating to RFP RDS-2660-421", to the Procurement Official listed in Section I. To ensure a response, questions must be received in writing by the scheduled date(s) given in Section I. Question and answer sets will be provided to all bidders without identifying the submitters. At the sole discretion of the State, questions may be paraphrased by the State for clarity.

A bidder who desires clarification or further information on the content of the RFP, but whose questions relate to the proprietary aspect of that bidder's proposal and which, if disclosed to other bidders, would expose that bidder's proposal, may submit such questions in the same manner as above, but also marked "CONFIDENTIAL," and not later than the scheduled date specified in Section I to ensure a response. The bidder must explain why any questions are sensitive in nature. If the State concurs that the disclosure of the question or answer would expose the proprietary nature of the proposal, the question will be answered and both the question and answer will be kept in confidence. If the State does not concur with the proprietary aspect of the question, the question will not be answered in this manner and the bidder will be so notified.

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If the bidder believes that one or more of the RFP requirements is onerous, unfair, or imposes unnecessary constraints to the bidder in proposing less costly or alternate solutions, the bidder may request a change to the RFP by submitting, in writing, the recommended change(s) and the facts substantiating this belief and reasons for making the recommended change. Such request must be submitted to the Department Official by the date specified in Section I for submitting a request for change. **Oral answers shall not be binding on the State.**

5. Bidders' Conference – NOT APPLICABLE FOR THIS RFP

6. Supplier's Intention to Submit a Bid

Suppliers who want to participate in the bidding process are asked to state their intention by the date specified in Section I, with respect to submission of bids. The State is also interested as to a supplier's reasons for not submitting a bid; as, for example, requirements that cannot be met or unusual terms and conditions, which arbitrarily raise costs. Suppliers are asked to categorize their intent as follows:

- a. Intends to submit a bid and has no problem with the RFP requirements.
- b. Intends to submit a bid, but has one or more problems with the RFP requirements for reasons stated in this response.
- c. Does not intend to submit a bid, for reasons stated in this response, and has no problem with the RFP requirements.
- d. Does not intend to submit a bid because of one or more problems with the RFP requirements for reasons stated in this response.

If a supplier intends to submit a bid, the letter should include additional information identified in Section I. If suppliers have indicated significant problems with the RFP requirements, the State will examine the stated reasons for the problems and will attempt to resolve any issues in contention, if not contrary to the State's interest, and will amend the RFP if appropriate. All suppliers who have submitted an intention will be advised by the State of any actions taken as a result of the suppliers' responses. If after such actions, a supplier determines that the requirements of the RFP unnecessarily restrict its ability to bid, the supplier is allowed five working days to submit a protest to those RFP requirements or the State's action, according to the instructions contained in paragraph E.1 of this section.

Hereafter, for the purposes of the instructions of this RFP, all suppliers who have indicated their intent to submit a Final Bid are called bidders until such time that the bidder withdraws or other facts indicate that the bidder has become nonparticipating. Should a bidder not participate in a bid step, the State reserves the right to drop them from the participating bidder list and they will not receive

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any further correspondence until they contact the Department Official to indicate that they would like further correspondence.

7. Addenda

The State may modify the RFP prior to the date fixed for Contract Award by issuance of an addendum to all bidders who are participating in the bidding process at the time the addendum is issued, unless the amendments are such as to offer the opportunity for nonparticipating bidders or suppliers that submitted an intention to become participating, in which case the addendum will also be sent to those parties. Addenda will be numbered consecutively. If any supplier determines that an addendum unnecessarily restricts its ability to bid, the supplier is allowed five working days to submit a protest to the addendum according to the instructions contained in Paragraph E.1 of this section.

8. Plastic Trash Bag Certification Violations

Public Resources Code Section 42290 et seq. prohibits the State from contracting with any supplier, manufacturer, or wholesaler, and any of its divisions, subsidiaries, or successors that have been determined to be noncompliant to the recycled content plastic trash bag certification requirements. This includes award of a State contract or subcontract or renewal, extension, or modification of an existing contract or subcontract. Prior to award the State shall ascertain if the intended awardee or proposed subcontractor is a business identified on the current California Integrated Waste Management Board noncompliant list(s). In the event of any doubt of the status or identity of the business in violation, the State will notify the Board of the proposed award and afford the Board the opportunity to advise the State. No award will be made when either the bidder or a subcontractor has been identified either by published list or by advice from the Board, to be in violation of certification requirements.

9. Bonds

The State reserves the right to require a faithful performance bond or other security document as specified in the RFP from the supplier in an amount not to exceed the amount of the contract. In the event a surety bond is required by the State, which has not been expressly required by the specification, the State will reimburse the supplier, as an addition to the purchase price, in an amount not exceeding the standard premium on such bond.

10. Discounts

In connection with any discount offered, except when provision is made for a testing period preceding acceptance by the State, time will be computed from date of delivery of the supplies or equipment as specified, or from date correct invoices are received in the office specified by the State if the latter date is later than the date of delivery. When provision is made for a testing period preceding acceptance by the State, date of delivery shall mean the date the supplies or

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equipment are accepted by the State during the specified testing period. Payment is deemed to be made, for the purpose of earning the discount, on the date of mailing the State warrant or check.

Cash discounts offered by bidders for the prompt payment of invoices will not be considered in evaluating offers for award purposes; however, all offered discounts will be taken if the payment is made within the discount period, even though not considered in the evaluation of offers.

11. Joint Bids

A joint bid (two or more bidders quoting jointly on one bid) may be submitted and each participating bidder must sign the joint bid. If the contract is awarded to joint bidders, it shall be one indivisible contract. Each joint contractor will be jointly and severally responsible for the performance of the entire contract, and the joint bidders must designate, in writing, one individual having authority to represent them in all matters relating to the contract. The State assumes no responsibility or obligation for the division of orders or purchases among joint contractors.

12. Air or Water Pollution Violations

Unless the contract is less than \$25,000 or with a non-competitively bid contractor, Government Code Section 4477 prohibits the State from contracting with a person, including a corporation or other business association, who has been determined to be in violation of any state or federal air or water pollution control law.

Prior to an award, the State shall ascertain if the intended awardee is a person included in notices from the Boards. In the event of any doubt of the intended awardee's identity or status as a person who is in violation of any state or federal air or water pollution law, the State will notify the appropriate Board of the proposed award and afford the Board the opportunity to advise the Department that the intended awardee is such a person.

No award will be made to a person who is identified either by the published notices or by advice, as a person in violation of state or federal air or water pollution control laws.

13. Fair Employment and Housing Commission Regulations

The California Government Code Section 12990 requires all State contractors to have implemented a Nondiscrimination Program before entering into any contract with the State. The Department of Fair Employment and Housing (DFEH) randomly selects and reviews State contractors to ensure their compliance with the law. DFEH periodically disseminates a list of suppliers who have not complied. Any supplier so identified is ineligible to enter into any State contract.

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14. Exclusion for Conflict of Interest

No consultant shall be paid out of State funds for developing recommendations on the acquisition of information technology (IT) products or services or assisting in the preparation of a feasibility study, if that consultant is to be a source of such acquisition or could otherwise directly and/or materially benefit from State adoption of such recommendations or the course of action recommended in the feasibility study. Further, no consultant shall be paid out of State funds for developing recommendations on the disposal of State surplus IT products, if that consultant would directly and/or materially benefit from State adoption of such recommendations.

15. Seller's Permit

This RFP is subject to all requirements set forth in Sections 6452, 6487, 7101 and 18510 of the Revenue and Taxation Code, and Section 10295 of the Public Contract Code, requiring suppliers to provide a copy of their retailer's seller's permit or certification of registration, and, if applicable, the permit or certification of all participating affiliates issued by the State of California's Board of Equalization. Unless otherwise specified in this RFP, a copy of the retailer's seller's permit or certification of registration, and, if applicable, the permit or certification of all participating affiliates, must be submitted within five State business days of the State's request. Failure of the supplier to comply by supplying the required documentation will cause the supplier's bid to be considered non-responsive and the bid rejected.

16. Disclosure of Financial Interests

Proposals in response to State procurements for assistance in preparation of feasibility studies or the development of recommendations for the acquisition of IT products and services must disclose any financial interests (i.e., service contract, Original Equipment Manufacturer (OEM) agreements, remarketing agreements, etc.) that may potentially allow the individual or organization submitting the proposal to materially benefit from the State's adoption of a course of action recommended in the feasibility study or the acquisition recommendations. If, in the State's judgment, the financial interest will jeopardize the objectivity of the recommendations, the State may reject the proposal.

17. Unfair Practices Act and Other Laws

Bidder warrants that its bid complies with the Unfair Practices Act (Business and Professions Code Section 17000 et seq.) and all applicable State and Federal laws and regulations.

Section II: Rules Governing CompetitionRFP RDS-2660-421**C. Bidding Steps****1. General**

The procurement process to be used in this acquisition is composed of at least one phase of bid development. **REFER TO SECTION I TO DETERMINE WHICH PHASES AND STEPS ARE INCLUDED IN THIS RFP. REFERENCES IN THIS SECTION II TO STEPS NOT INCLUDED IN SECTION I ARE NOT APPLICABLE TO THIS RFP.** There is always a Final Phase, which may include a Draft Bid and revisions, and will always include a Final Bid. Prior to the Final Phase, there may be a Compliance Phase. The possible steps of the Compliance Phase are a Conceptual Proposal, Detailed Technical Proposal and revisions of either or both. A description of these phases and their steps follows.

The Final Bid is a mandatory step for all bidders; all other steps are optional. However, all bidders are strongly encouraged to follow the scheduled steps of this procurement to increase the chance of submitting a compliant Final Bid. **Cost submitted in any submission other than the Final Bid may preclude the bidder from continuing in the process.**

2. Compliance Phase – NOT APPLICABLE FOR THIS RFP**3. Final Phase**

The purpose of the Final Phase is to obtain bids that are responsive in every respect. This phase may include a Draft Bid and will always include a Final Bid, as described below:

a. Draft Bid

The purpose of the Draft Bid is to provide the State with an "almost final" bid in order to identify any faulty administrative aspect of the bid which, if not corrected, could cause the Final Bid to be rejected for ministerial reasons.

The Draft Bid should correspond to submittals and agreements of the Compliance Phase, if required, and must be complete in every respect as required by the RFP section on PROPOSAL FORMAT, except cost. **The inclusion of cost information in the Draft Bid may be a basis for rejecting the bid and notifying the bidder that further participation in the procurement is prohibited.**

REVIEW OF THE DRAFT BID BY THE STATE MAY INCLUDE CONFIDENTIAL DISCUSSIONS WITH INDIVIDUAL BIDDERS AND WILL PROVIDE FEEDBACK TO THE BIDDER PRIOR TO SUBMITTAL OF THE FINAL PROPOSAL. IF NO SUCH DISCUSSION STEP IS INCLUDED IN THE KEY ACTION DATES THEN THE REVIEW OF THE DRAFT BID DOES NOT INCLUDE ANY ASSESSMENT OF THE BID'S

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RESPONSIVENESS TO THE TECHNICAL REQUIREMENTS OF THE RFP. Regardless of the inclusion of a confidential discussion, the State will notify the bidder of any defects it has detected in the Draft Bid, or of the fact that it did not detect any such defects. Such notification is intended to minimize the risk that the Final Bid will be deemed defective; however, THE STATE WILL NOT PROVIDE ANY WARRANTY THAT ALL DEFECTS HAVE BEEN DETECTED AND THAT SUCH NOTIFICATION WILL NOT PRECLUDE REJECTION OF THE FINAL BID IF SUCH DEFECTS ARE LATER FOUND.

If the State finds it necessary, the State may call for revised Draft Bid submittals, or portions thereof. The bidder will be notified of defects discovered in these submittals as well. Again THE STATE WILL NOT PROVIDE ANY WARRANTY THAT ALL DEFECTS HAVE BEEN DETECTED AND THAT SUCH NOTIFICATION WILL NOT PRECLUDE REJECTION OF THE FINAL BID IF SUCH DEFECTS ARE LATER FOUND.

b. Final Bid

The Final Bid must be complete, including all cost information, required signatures, contract language changes agreed to in writing and corrections to those defects noted by the State in its review of the Draft Bid. If required in the RFP section PROPOSAL FORMAT, cost data (as identified in the above referenced section) must be submitted under separate, sealed cover. CHANGES THAT APPEAR IN THE FINAL BID, OTHER THAN CORRECTION OF DEFECTS, INCREASE THE RISK THAT THE FINAL BID MAY BE FOUND DEFECTIVE.

4. Confidentiality

FINAL BIDS ARE PUBLIC UPON OPENING; HOWEVER, THE CONTENTS OF ALL PROPOSALS, DRAFT BIDS, CORRESPONDENCE, AGENDA, MEMORANDA, WORKING PAPERS, OR ANY OTHER MEDIUM WHICH DISCLOSES ANY ASPECT OF A BIDDER'S PROPOSAL SHALL BE HELD IN THE STRICTEST CONFIDENCE UNTIL NOTICE OF INTENT TO AWARD. BIDDERS SHOULD BE AWARE THAT MARKING A DOCUMENT "CONFIDENTIAL" OR "PROPRIETARY" IN A FINAL BID MAY EXCLUDE IT FROM CONSIDERATION FOR AWARD AND WILL NOT KEEP THAT DOCUMENT FROM BEING RELEASED AFTER NOTICE OF INTENT TO AWARD AS PART OF THE PUBLIC RECORD, UNLESS A COURT HAS ORDERED THE STATE NOT TO RELEASE THE DOCUMENT. THE CONTENT OF ALL WORKING PAPERS AND DISCUSSIONS RELATING TO THE BIDDER'S PROPOSAL SHALL BE HELD IN CONFIDENCE INDEFINITELY UNLESS THE PUBLIC INTEREST IS BEST SERVED BY AN ITEM'S DISCLOSURE BECAUSE OF ITS DIRECT PERTINENCE TO A DECISION, AGREEMENT OR THE EVALUATION OF THE BID. ANY DISCLOSURE OF

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CONFIDENTIAL INFORMATION BY THE BIDDER IS A BASIS FOR REJECTING THE BIDDER'S PROPOSAL AND RULING THE BIDDER INELIGIBLE TO FURTHER PARTICIPATE. ANY DISCLOSURE OF CONFIDENTIAL INFORMATION BY A STATE EMPLOYEE IS A BASIS FOR DISCIPLINARY ACTION, INCLUDING DISMISSAL FROM STATE EMPLOYMENT, AS PROVIDED BY GOVERNMENT CODE SECTION 19570 ET SEQ. TOTAL CONFIDENTIALITY IS PARAMOUNT; IT CANNOT BE OVER EMPHASIZED.

5. Submission of Proposals and Bids

The instructions contained herein apply to the Final Bid. They also apply to the Conceptual Proposal, Detailed Technical Proposal, and Draft Bid, except as noted.

a. Preparation

Proposals and bids are to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFP. Expensive bindings, colored displays, promotional materials, etc., are not necessary or desired. EMPHASIS SHOULD BE CONCENTRATED ON CONFORMANCE TO THE RFP INSTRUCTIONS, RESPONSIVENESS TO THE RFP REQUIREMENTS, AND ON COMPLETENESS AND CLARITY OF CONTENT.

As stated above, the State's evaluation of Conceptual and Detailed Technical Proposals is preliminary, and the review of Draft Bids is cursory. Therefore, bidders are cautioned to not rely on the State, during these evaluations and reviews, to discover and report to the bidders all defects and errors in the submitted documents. Before submitting each document, the bidder should carefully proof it for errors and adherence to the RFP requirements.

b. Bidder's Cost

Costs for developing proposals and bids are the responsibility entirely of the bidder and shall not be chargeable to the State.

c. Completion of Proposals and Bids

Proposals and bids must be complete in all respects as required by the RFP section on PROPOSAL FORMAT. A Final Bid may be rejected if it is conditional or incomplete, or if it contains any alterations of form or other irregularities of any kind. A Final Bid must be rejected if any such defect or irregularity constitutes a material deviation from the RFP requirements. The Final Bid must contain all costs required by the RFP sections on COST and PROPOSAL FORMAT, setting forth a unit price and total price for each unit price item, and a total price for each lump sum price item in

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the schedule, all in clearly legible figures. If required in the RFP section PROPOSAL FORMAT, cost data (as identified in the above referenced section) must be submitted under separate, sealed cover. Draft Bids must contain all information required in the Final Bid **except cost**. Exhibit II-A entitled COMPETITIVE BIDDING AND BID RESPONSIVENESS emphasizes the requirements of competitive bidding and contains examples of common causes for rejection of bids. Bidders are encouraged to review this exhibit.

d. False or Misleading Statements

Bids which contain false or misleading statements, or which provide references which do not support an attribute or condition claimed by the bidder, may be rejected. If, in the opinion of the State, such information was intended to mislead the State in its evaluation of the bid, and the attribute, condition, or capability is a requirement of this RFP, it will be the basis for rejection of the bid.

e. Signature of Bid

A cover letter (which shall be considered an integral part of the Final Bid) and Standard Agreement Form 213 (if directed in Appendix A, CONTRACTS TO BE SUBMITTED IN THE PROPOSAL), or a Bid Form shall be signed by an individual who is authorized to bind the bidding firm contractually. The signature block must indicate the title or position that the individual holds in the firm. An unsigned Final Bid shall be rejected.

The Draft Bid must also contain the cover letter and Form 213, or Bid Form, similarly prepared, including the title of the person who will sign, but need not contain the signature. The Conceptual Proposal and Detailed Technical Proposal need not contain the cover letter and Form 213, or Bid Form.

f. Delivery of Proposals and Bids

Mail or deliver proposals and bids to the Department Official listed in Section I. If mailed, it is suggested that you use certified or registered mail with return receipt requested as delivery of documents is at the bidder's own risk of untimely delivery, lost mail, etc.

Proposals and bids must be received in the number of copies stated in the RFP section on PROPOSAL FORMAT and not later than the dates and times specified in Section I and in the individual schedules provided the bidders. One copy must be clearly marked "Master Copy." All copies of proposals and bids must be under sealed cover which is to be plainly marked "CONCEPTUAL PROPOSAL," "DETAILED TECHNICAL PROPOSAL," "DRAFT BID," or "FINAL BID" for "RFP RDS-2660-421". Also, the sealed cover (envelope) of all submittals, except the Final Bid,

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should be clearly marked "CONFIDENTIAL," and shall state the scheduled date and time for submission. Bidders should be aware that marking the Final Bid "confidential" or "proprietary" may exclude it from consideration for award. Proposals and Draft Bids not submitted under sealed cover will be returned for sealing. Final Bids not received by the date and time specified in Section I, or not sealed, will be rejected.

If required in the RFP section PROPOSAL FORMAT, all cost data (as identified in the above referenced section) must be submitted under separate, sealed cover and clearly marked "COST DATA." If cost data is required to be submitted separately sealed, and is not submitted in this manner, the bid will be rejected.

Proposals and bids submitted under improperly marked covers may be rejected. If discrepancies are found between two or more copies of the proposal or bid, the proposal or bid may be rejected. However, if not so rejected, the Master Copy will provide the basis for resolving such discrepancies. If one copy of the Final Bid is not clearly marked "Master Copy," the State may reject the bid; however, the State may at its sole option select, immediately after bid opening, one copy to be used as the Master Copy.

g. **Withdrawal and Resubmission/Modification of Proposals and Bids**

A bidder may withdraw its Conceptual Proposal, Detailed Technical Proposal or Draft Bid at any time by written notification. A bidder may withdraw its Final Bid at any time prior to the bid submission date and time specified in Section I by submitting a written notification of withdrawal signed by the bidder authorized in accordance with Paragraph C.5.e, Signature of Bid. The bidder may thereafter submit a new or modified bid prior to such bid submission date and time. Modification offered in any other manner, oral or written, will not be considered. Other than as allowed by law, Final Bids cannot be changed or withdrawn after the date and time designated for receipt, except as provided in Paragraph 7.d. of this section.

6. **Rejection of Bids**

The State may reject any or all bids and may waive any immaterial deviation or defect in a bid. The State's waiver of any immaterial deviation or defect shall in no way modify the RFP documents or excuse the bidder from full compliance with the RFP specifications if awarded the contract.

7. **Evaluation and Selection Process**

a. **General**

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Proposals and bids will be evaluated according to the procedures contained in the RFP section on EVALUATION AND SELECTION. Special instructions and procedures apply to Conceptual Proposals, Detailed Technical Proposals, and Draft Bids.

b. Evaluation Questions

During the evaluation and selection process, the State may desire the presence of a bidder's representative for answering specific questions, orally and/or in writing. During the evaluation of Final Bids, the State may ask the bidder to clarify their submitted information but will not allow the bidder to change their bid.

c. Demonstration

This procurement will require a demonstration of the bidder's response to specific requirements (including benchmark requirements) before final selection in order to verify the claims made in the bid, corroborate the evaluation of the bid, and confirm that the hardware and software are actually in operation. The date and location of the demonstration will be determined by Caltrans and prior notice will be given. The State reserves the right to determine whether or not a demonstration has been successfully passed. See Section X for additional information.

d. Errors in the Final Bid

An error in the Final Bid may cause the rejection of that bid; however, the State may at its sole option retain the bid and make certain corrections.

In determining if a correction will be made, the State will consider the conformance of the bid to the format and content required by the RFP, and any unusual complexity of the format and content required by the RFP.

- i. If the bidder's intent is clearly established based on review of the complete Final Bid submittal, the State may at its sole option correct an error based on that established intent.
- ii. The State may at its sole option correct obvious clerical errors.
- iii. The State may at its sole option correct discrepancy and arithmetic errors on the basis that if intent is not clearly established by the complete bid submittal the Master Copy shall have priority over additional copies, the bid narrative shall have priority over the contract, the contract shall have priority over the cost sheets, and within each of these, the lowest level of detail will prevail. If necessary, the extensions and summary will be recomputed accordingly, even if the lowest level of detail is obviously misstated.

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The total price of unit-price items will be the product of the unit price and the quantity of the item. If the unit price is ambiguous, unintelligible, uncertain for any cause, or is omitted, it shall be the amount obtained by dividing the total price by the quantity of the item.

- iv. The State may at its sole option correct errors of omission, and in the following four situations, the State will take the indicated actions if the bidder's intent is not clearly established by the complete bid submittal.
 - (a) If an item is described in the narrative and omitted from the contract and cost data provided in the bid for evaluation purposes, it will be interpreted to mean that the item will be provided by the bidder at no cost.
 - (b) If a minor item is not mentioned at all in the Final Bid and is essential to satisfactory performance, the bid will be interpreted to mean that the item will be provided at no cost.
 - (c) If a major item is not mentioned at all in the Final Bid, the bid will be interpreted to mean that the bidder does not intend to supply that item.
 - (d) If a major item is omitted, and the omission is not discovered until after contract award, the bidder shall be required to supply that item at no cost.

The determination of whether an item is minor or major is the responsibility of the State.

- v. If a bidder does not follow the instructions for computing costs not related to the contract (e.g., State personnel costs), the State may reject the bid, or at its sole option, re-compute such costs based on instructions contained in the RFP.

If the re-computations or interpretations, as applied in accordance with this section, subparagraph d, result in significant changes in the amount of money to be paid to the bidder (if awarded the contract) or in a requirement of the bidder to supply a major item at no cost, the bidder will be given the opportunity to promptly establish the grounds legally justifying relief from its bid.

IT IS ABSOLUTELY ESSENTIAL THAT BIDDERS CAREFULLY REVIEW THE COST ELEMENTS IN THEIR FINAL BID, SINCE THEY WILL NOT HAVE THE OPTION TO CORRECT ERRORS AFTER THE TIME FOR SUBMITTAL.

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- vi. In the event an ambiguity or discrepancy between the general requirements described in Section IV and the specific technical requirements set forth in Section VI is detected after the opening of bids, Section VI, and the bidder's response thereto, shall have priority over Section IV, and the bidder's response thereto. Refer to Paragraph B.2 regarding immediate notification to State contact when ambiguities, discrepancies, omissions, etcetera are discovered.
- vii. At the State's sole discretion it may declare the Final Bid to be a Draft Bid in the event that the State determines that Final Bids from all bidders contain material deviations. Bidders may not protest the State's determination that all bids have material deviations. If all bids are declared noncompliant, the State may issue an addendum to the RFP. Should this occur, confidential discussions will be held with bidders who are interested in continuing to be considered. Each bidder will be notified of the due date for the submission of a new Final Bid to the State. This submission must conform to the requirements of the original RFP as amended by any subsequent addenda. The new Final Bids will be evaluated as required by Section IX.

8. Award of Contract(s)

Award of contract(s), if made, will be in accordance with the RFP Section IX, to a responsible bidder whose Final Bid complies with all the requirements of the RFP documents and any addenda thereto, except for such immaterial defects as may be waived by the State. Award, if made, will be made within 180 days after the scheduled date for Contract Award specified in Section I; however, a bidder may extend the offer beyond 180 days in the event of a delay of contract award.

The State reserves the right to determine the successful bidder(s) either on the basis of individual items or on the basis of all items included in its RFP, unless otherwise expressly provided in the State's RFP. Unless the bidder specifies otherwise in its bid, the State may accept any item or group of items of any bid. The State reserves the right to modify or cancel, in whole or in part, its RFP.

Written notification of the State's intent to award will be made to all bidders submitting a Final Bid. If a bidder, having submitted a Final Bid, can show that its bid, instead of the bid selected by the State, should be selected for contract award according to the rules of Paragraph C.7, the bidder will be allowed one working day to submit a protest to the Intent to Award, according to the instructions contained in Paragraph E.1 of this section.

Section II: Rules Governing Competition**RFP RDS-2660-421****9. Debriefing**

A debriefing may be held after contract award at the request of any bidder for the purpose of receiving specific information concerning the evaluation. The discussion will be based primarily on the technical and cost evaluations of the bidder's Final Bid. A debriefing is not the forum to challenge the RFP specifications or requirements.

D. *Contractual Information***1. Contract Form**

The State has model contract forms to be used by State agencies when contracting for information technology (IT) goods and services. The model contract(s) appropriate for the specific requirements of this RFP are included in the RFP.

2. Specific Terms and Conditions – NOT APPLICABLE FOR THIS RFP**3. Approval of Proposed Contract – NOT APPLICABLE FOR THIS RFP****4. Term of Contract**

The State intends to retain the required goods and services for at least the period specified elsewhere in this RFP. Ideally, the term of the contract will be for the specified period. If the State requires the contract to be terminated during the contract period, such a requirement will be specified in the RFP Section V, Administrative Requirements. The State will accept a contract for a longer period than specified if, at the sole option of the State, the contract may be terminated at the end of the period specified with or without the payment of termination charges. Such termination charges, if any, must be included in the evaluated cost of the bid.

E. *Other Information***1. Protests**

Before a protest is submitted regarding any issue other than selection of the "successful bidder," the bidder must make full and timely use of the procedures described in this Section II to resolve any outstanding issue(s) between the bidder and the State. The procurement procedure is designed to give the bidder and the State adequate opportunity to submit questions and discuss the requirements, proposals and counter proposals before the Final Bid is due. The protest procedure is made available in the event that a bidder cannot reach a fair agreement with the State after exhausting these procedures. There two types of protests: requirements (initial) protests and award protests. A protest shall be submitted according to the procedure below. Protests regarding any issue other than selection of the "successful bidder" are requirements protests and will be

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heard and resolved by the Deputy Director of the Department of General Services, Procurement Division, whose decision will be final.

An award protest is where a bidder has submitted a bid, which it believes to be totally responsive to the requirements of the RFP and to be the bid that should have been selected according to the evaluation procedure in the Section IX, Evaluation and Selection, and the bidder believes the State has incorrectly selected another bidder for award.

IMPORTANT NOTICE TO ALL BIDDERS: This solicitation/acquisition is being conducted under the provisions of the Alternative Protest Process Project (Public Contract Code Section 12125, et seq.) By submitting a bid or proposal to this solicitation, the Bidder consents to participation in the Alternative Protest Process Project, and agrees that all protests of the proposed award shall be resolved by binding arbitration pursuant to the California Code of Regulations, Title 1, Division 2, Chapter 5 (Exhibit II-B). The link to the regulations is:

<http://www.oah.dgs.ca.gov/Laws/bidprotestRegs.htm#1400>

During the protest period, any participating Bidder may protest the proposed award on the following grounds:

- a. For major information technology acquisitions – that there was a violation of the solicitation procedure(s) and that the protesting Bidder's bid should have been selected; or
- b. For any other acquisition – that the protesting Bidder's bid or proposal should have been selected in accordance with the selection criteria in the solicitation document.

Submit Notice of Intent to Protest to the Coordinator at:

Alternative Protest Process Coordinator
Dispute Resolution Unit
Department of General Services
Procurement Division
707 Third Street, 2nd Floor
West Sacramento, CA 95605
Voice: (916) 375-4652
Fax: (916) 375-4611

A Notification of Intent to Award for this solicitation will be publicly posted in the Procurement Division reception area, posted to the California State Contracts Registry and sent via facsimile to any Bidder who made a written request for notice and provided a facsimile number.

A written Notice of Intent to Protest the proposed award of this solicitation must be received (facsimile acceptable) by the Coordinator before the close of

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business 5 p.m. PST/PDT on the 1st day following public posting. Failure to submit a timely, written Notice of Intent to Protest waives Bidder's right to file a protest.

Within seven working days after the last day to submit a Notice of Intent to Protest, the Coordinator must receive from the protesting Bidder, the complete protest filing to include the detailed written statement of protest, filing fee and deposit, or small business certification as applicable. Untimely submission of the complete protest filing waives the Bidder's right to protest.

Bidder is to send the detailed statement of protest to:

Alternative Protest Process Coordinator
Dispute Resolution Unit, Procurement Division
Department of General Services
707 Third Street, 2nd Floor
West Sacramento, CA 95605

This award is being made under the provisions of Public Contract Code Section 12125 et seq., the Alternative Protest Process, and is subject to protest after award. Under the terms of this contract, the State reserves the right to terminate the contract for convenience.

Protest bond requirement: Bond amount for this Alternative Protest Process Project shall be ten percent of the estimated contract value. See California Code of Regulations, Title 1, and Section 1418 in Exhibit II-B.

All protests must be made in writing, signed by an individual authorized under Paragraph C.5.e, Signature of Bid, and contain a statement of the reason(s) for protest; citing the law, rule, regulation or procedures on which the protest is based. The protester must provide facts and evidence to support the claim. Protests must be mailed or delivered to:

Street Address:

Jim Butler, Deputy Director
Procurement Division
707 Third Street, 2nd Floor
West Sacramento, CA 95605

Mailing Address:

Jim Butler, Deputy Director
Procurement Division
P.O. Box 989052
Sacramento, CA 95798-9052

All protests to the RFP requirements or procedures must be received by the Deputy Director of the Procurement Division as promptly as possible, but not later than the respective time and date in the Key Action Dates in Section I for such protests. Protests concerning the evaluation, recommendation, or other aspects of the selection process must be received by the Deputy Director of the Procurement Division as promptly as possible, but not later than the respective time and date specified in Section I, Introduction and Overview of Requirements, for such protests or the respective date of the Notification of Intent to Award,

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whichever is later. Certified or registered mail should be used unless delivered in person, in which case the protester should obtain a receipt of delivery.

2. Disposition of Proposals and Bids

All materials submitted in response to this RFP will become the property of the State of California and will be returned only at the State's option and at the bidder's expense. At a minimum, the Master Copy of the Final Bid shall be retained for official files and will become a public record after the Notification of Intent to Award as specified in Section I, Introduction and Overview of Requirements – Key Action Dates. However, materials the State consider confidential information (such as confidential financial information submitted to show bidder responsibility) will be returned upon request of the bidder.

3. Contacts for Information

Bidders may contact the Procurement Official listed in Section I, for visits to the physical installation for purposes of familiarization and evaluation of the current processes. Visits shall be made by appointment only, during normal business hours, and will be limited to the Procurement Official or the Contact's designee. Visits shall be permitted to the extent that they do not unduly interfere with the conduct of State business.

Oral communications of department officers and employees concerning this RFP shall not be binding on the State and shall in no way excuse the bidder of any obligations set forth in this RFP.

Section II: Rules Governing CompetitionRFP RDS-2660-421***Exhibit II-A: Competitive Bidding and Bid Responsiveness***

The purpose of competitive bidding is to secure public objectives in the most effective manner and avoid the possibilities of graft, fraud, collusion, etc. Competitive bidding is designed to benefit the public body (the State, in the present context), and is not for the benefit of the bidders. It is administered to accomplish its purposes with sole reference to the public interest. It is based upon full and free bidding to satisfy State specifications, and acceptance by the State of the most effective solution to the State's requirements, as determined by the evaluation criteria contained in the RFP.

Competitive bidding is not defined in any single statute but is more in the nature of a compendium of numerous court decisions. From such court decisions, the following rules have evolved, among others:

1. Request for Proposals must provide a basis for full and fair competitive bidding among bidders on a common standard, free of restrictions tending to stifle competition.
2. The State may modify the RFP, prior to the date fixed for Contract Award, by issuance of an addendum to all parties who are bidders.
3. To have a valid bid, the bid must respond and conform to the invitation, including all the documents which are incorporated therein. A bid which does not literally comply may be rejected.
4. For a variance between the request for bids and the bid to be such as to preclude acceptance (the bid must be rejected), the variance or deviation must be a material one.
5. State agencies usually have the express or implied right to reject any and all bids in the best interests of the State. Bids cannot, however, be selectively rejected without cause.
6. Bids cannot be changed after the time designated for receipt and opening thereof. Other than allowed by law, no negotiation as to the scope of the work, amount to be paid, or contractual terms is permitted. However, this does not preclude the State from clarifying the bidder's intent by asking questions and considering answers.
7. A competitive bid, once opened and declared, is in the nature of an irrevocable option and a contract right of which the public agency cannot be deprived without its consent, unless the requirements for rescission are present. All bids become public documents.
8. Bids cannot be accepted "in part," unless the invitation specifically permits such an award.

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9. Contracts entered into through the competitive bidding process cannot later be amended, unless the Invitation for Bids includes a provision, to be incorporated in the contract awarded, providing for such amendment.

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Since competitive procurement became the required method for securing certain IT goods or services, the State has received a number of bids which were deemed to be non-responsive to the Invitation for Bids or which could not be considered as valid bids within the competitive bidding procedures. Non-responsive bids or bids which contain qualifications must be rejected. Many of the causes for rejection arise from either an incomplete understanding of the competitive bidding process or administrative oversight on the part of the bidders. The following examples are illustrative of more common causes for rejection of bids. These examples are listed to assist potential bidders in submission of responsive bids.

1. A bid stated, "The prices stated within are for your information only and are subject to change."
2. A bid stated, "This proposal shall expire 30 days from this date unless extended in writing by the ____ Company." (In this instance award was scheduled to be approximately 45 days after bid submittal date.)
3. A bid for lease of IT equipment contained lease plans of a duration shorter than that which had been requested in the RFP.
4. A personal services contract stated, "in its judgment, believes that the schedules set by the State are extremely optimistic and probably unobtainable. Nevertheless, _ will exercise its best efforts..."
5. A bid stated, "This proposal is not intended to be of a contractual nature."
6. A bid contained the notation "prices are subject to change without notice."
7. A bid was received for the purchase of IT equipment with unacceptable modifications to the Purchase Contract.
8. A bid for lease of IT equipment contained lease plans of a duration longer than that which had been requested in the RFP with no provision for earlier termination of the contract.
9. A bid for lease of IT equipment stated, "...this proposal is preliminary only and the order, when issued, shall constitute the only legally binding commitment of the parties."
10. A bid was delivered to the wrong office.
11. A bid was delivered after the date and time specified in the RFP.
12. An IFB/RFP required the delivery of a performance bond covering 25 percent of the proposed contract amount. The bid offered a performance bond to

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- cover "x" dollars which was less than the required 25 percent of the proposed contract amount.
13. A bid did not meet contract goal for DVBE participation and did not follow the steps required by the bid to achieve a "good faith effort."
14. A bid appeared to meet contract goal for DVBE participation with the dollars submitted, but the supplier had miscalculated the bid costs. When these corrections were made by the State, the supplier's price had increased and the dollars committed for DVBE participation no longer met goal. The supplier had not followed the steps to achieve a "good faith effort."

Section II: Rules Governing CompetitionRFP RDS-2660-421***Exhibit II-B: California Code of Regulations*****Title 1, Division 2 Chapter 5. Procedures for Conducting Protests Under the Alternative Protest Pilot Project****Article 1. General Provisions****§1400. Purpose; Scope of Chapter.**

Protests under the Alternative Protest Pilot Project (AB 1159, Chapter 762 of 1997 Statutes, Public Contract Code Division 2, Part 2, Chapter 3.6 (sections 12125-12130)) shall be resolved by arbitration as defined and established by this chapter.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New chapter 5 (articles 1-3), article 1 (sections 1400-1404) and section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1402. Definitions.

- (a) Arbitration, as used in this chapter, means a dispute resolution procedure in which the Department of General Services, Office of Administrative Hearings provides a neutral third party who decides the merits of a protest and issues a binding decision to the Parties.
- (b) Awardee includes Proposed Awardee and means the person or entity that was a successful Bidder to a Solicitation and has been, or is intended to be, awarded the contract.
- (c) Close of Business, as used in this chapter, means 5p.m. Pacific Standard Time (PST) or Pacific Daylight Time (PDT), as applicable.
- (d) Contracting Department means either Procurement or the department which has applied and been approved by the Department of General Services to conduct the Solicitation under the Alternative Protest, Protest Project (Public Contract Code sections 12125-12130.).
- (e) Coordinator means the person designated as the Alternative Protest, Protest Project Coordinator by the Department of General Services, Procurement Division, to coordinate all aspects of the Solicitation under the Alternative Protest, Protest Project (Public Contract Code sections 12125-12130).
- (f) Estimated Contract Value means the value of Protestant's bid.
- (g) Frivolous means a protest with any or all of the following characteristics:

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- (1) It is wholly without merit.
 - (2) It is insufficient on its face.
 - (3) The Protestant has not submitted a rational argument based upon the evidence or law which supports the protest.
 - (4) The protest is based on grounds other than those specified in section 1410.
- (h) Major Information Technology Acquisition means the purchase of goods or services, or both, by a state agency, through contract, from non-governmental sources, that has significant mission criticality, risk, impact, complexity, or value attributes or characteristics. Pursuant to subdivision (e) of Section 11702 of the Government Code, these purchases shall include, but not be limited to, all electronic technology systems and services, automated information handling, system design and analysis, conversion of data, computer programming, information storage and retrieval, telecommunications that include voice, video, and data communications, requisite system controls, simulation, electronic commerce, and all related interactions between people and machines.
- (i) OAH means the Department of General Services, Office of Administrative Hearings.
- (j) Party means the Procurement Division of the Department of General Services, the Contracting Department, the Awardee, and Protestant(s).
- (k) Procurement means the Procurement Division of the Department of General Services.
- (l) Protestant means a person or entity that was an unsuccessful Bidder to a Solicitation under the Alternative Protest, Protest Project (Public Contract Code sections 12125-12130) and that protests the award.
- (m) Small Business means a Certified California Small Business, pursuant to Government Code Division 3, Part 5.5, Chapter 6.5 (commencing with section 14835) and Title 2, California Code of Regulations, section 1896.
- (n) Solicitation means the document that describes the goods or services to be purchased, details the contract terms and conditions under which the goods or services are to be purchased, and establishes the method of evaluation and selection.
- (o) Solicitation File means the Solicitation and the documents used by the Contracting Department in the Solicitation process, including documents used to evaluate Bidders and select a Proposed Awardee. The Solicitation File shall remain available to the public except information that is confidential or proprietary.

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Authority cited: Section 12126, Public Contract Code. Reference: Section 11702, Government Code; and Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1404. Notice of Intent to Award Contract.

The Contracting Department shall post a Notice of Intent to Award Contract in a public place specified in the Solicitation, send rejection facsimiles to rejected Bidders, and send Notice of Intent to Award Contract facsimiles to any who made a written request for notice and provided a facsimile number. The Contracting Department shall indicate that the Solicitation File is available for inspection. The Contracting Department has the discretion to award a contract immediately, upon approval by the Director of the

Bidder

Department of General Services and, if the Solicitation was for a Major Information Technology Acquisition, the Director of the Department of Information Technology.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

Section II: Rules Governing CompetitionRFP RDS-2660-421***Exhibit II-B: California Code of Regulations (continued)*****Article 2. Protest Procedure****§1406. Notice of Intent to Protest; Service List.**

- (a) An unsuccessful Bidder who intends to protest the awarded contract pursuant to this chapter must inform the Coordinator. The Notice of Intent to Protest must be in writing and must reach the Coordinator within the number of days specified in the Solicitation, which shall be not less than 1 working day and not more than 5 working days after the posting of the Notice of Intent to Award Contract, as specified in the Solicitation. Failure to give written notice by Close of Business on that day shall waive the right to protest.
- (b) On the day after the final day to submit a Notice of Intent to Protest, the Coordinator shall make a service list consisting of those Bidders who did submit a Notice of Intent to Protest, the Awardee, and the Contracting Department. The Coordinator shall include addresses and facsimile numbers on this list and shall forward this service list to those Bidders who submitted a Notice of Intent to Protest.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New article 2 (sections 1406-1418) and section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1408. Filing a Protest.

- (a) A protest is filed by the submission of: the Detailed Written Statement of Protest and any exhibits specified in section 1412; a check or money order made payable to the Office of Administrative Hearings for the OAH filing fee of \$50; and the arbitration deposit as specified in subsection (c) or (d) to the Coordinator by the Close of Business on the 7th working day after the time specified in the Solicitation for written Notice of Intent to Protest under section 1406.

A copy of the Detailed Written Statement of Protest and exhibits must also be served on all Parties named in the service list as specified in section 1406. A Protestant who fails to comply with this subsection waives Protestant's right to protest.

- (b) Protestant(s) must provide a FAX (facsimile) number. Notification by facsimile is sufficient for service. If the Detailed Written Statement of Protest is sent to the Coordinator by facsimile, Protestant must:

- (1) Verify that the pages sent were all received by the Coordinator; and

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- (2) Remit the required deposit and filing fee to Coordinator by any reasonable means.

If sending via carrier, the postmark date or equivalent shall be used to determine timeliness.

- (c) Each Protestant not certified as a Small Business shall make a deposit of the estimated arbitration costs, by check or money order made payable to the Office of Administrative Hearings, as determined by the Estimated Contract Value.

- (1) For contracts up to \$100,000.00, the deposit shall be \$1500.00.

- (2) For contracts of \$100,000.00 up to \$250,000.00, the deposit shall be \$3,000.00.

- (3) For contracts of \$250,000.00 up to \$500,000.00, the deposit shall be \$5,000.00.

- (4) For contracts of \$500,000.00 and above, the deposit shall be \$7,000.00.

- (5) Failure to remit a timely required deposit waives the right of protest.

- (6) Any refund to Protestant(s) shall be made per section 1436.

- (d) Each Protestant certified as a Small Business shall submit a copy of the Small Business Certification in lieu of the deposit specified in subsection (c). If Protestant is a Small Business and the protest is denied by the arbitrator, the Contracting Department shall collect the costs of the arbitration from Protestant. If Protestant does not remit the costs due, the Contracting Department may offset any unpaid arbitration costs from other contracts with Protestant and/or may declare Protestant to be a non-responsible Bidder on subsequent solicitations.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

- 1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

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- (a) The Public Contract Code, at section 12126(d) provides: Authority to protest under this chapter shall be limited to participating Bidders.
 - (1) Grounds for Major Information Technology Acquisition protests shall be limited to violations of the Solicitation procedures and that the Protestant should have been selected.
 - (2) Any other acquisition protest filed pursuant to this chapter shall be based on the ground that the bid or proposal should have been selected in accordance with selection criteria in the Solicitation document.
- (b) The burden of proof for protests filed under this chapter is preponderance of the evidence, and Protestant(s) must bear this burden.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1412. Detailed Written Statement of Protest.

- (a) The Detailed Written Statement of Protest must include the grounds upon which the protest is made, as specified in 1410(a).
- (b) The Detailed Written Statement of Protest shall contain reasons why Protestant should have been awarded the contract.
 - (1) For Major Information Technology Acquisition protests, the Detailed Written Statement of Protest must specify each and every Solicitation procedure which was violated and the manner of such violation by specific references to the parts of the Solicitation attached as exhibits and why, but for that violation, Protestant would have been selected.
 - (2) For other acquisition protests, the Detailed Written Statement of Protest must specify each and every selection criterion on which Protestant bases the protest by specific references to the parts of the Solicitation attached as exhibits.
 - (3) For all protests, Protestant must specify each and every reason that all other Bidders who may be in line for the contract award should not be awarded the contract.
- (c) The Detailed Written Statement of Protest must be limited to 50 typewritten or computer generated pages, excluding exhibits, at a font of no less than 12 point or pica (10 characters per inch), on 8 1/2 inch by 11-

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inch paper of customary weight and quality. The color of the type shall be blue-black or black. In addition to a paper copy, the arbitrator may request that a Protestant submit such information on computer compatible diskette or by other electronic means if the Protestant has the ability to do so.

- (d) Any exhibits submitted shall be paginated and the pertinent text highlighted or referred to in the Detailed Written Statement of Protest referenced by page number, section and/or paragraph and line number, as appropriate.
- (e) The Detailed Written Statement of Protest shall not be amended.
- (f) Protestant(s) may not raise issues in hearing which were not addressed in the Detailed Written Statement of Protest.
- (g) A Protestant who fails to comply with this subsection waives Protestant's right to protest.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1414. Review by Coordinator.

- (a) Within 2 working days after receipt of the Detailed Written Statement of Protest, the Coordinator shall notify the Contracting Department and the Awardee of a potential protest hearing.
- (b) The Coordinator shall review the Detailed Written Statement of Protest within 5 working days after receipt to preliminarily determine if the protest is Frivolous and notify Protestant of the option to withdraw or proceed in arbitration.
 - (1) If Protestant withdraws the protest within 2 working days after the notification by the Coordinator of a preliminary determination of Frivolousness, the Coordinator shall withdraw the preliminary finding of Frivolousness and refund Protestant's deposit and filing fee.
 - (2) If the Protestant previously filed two protests under the Alternative Protest, Protest Project preliminarily determined Frivolous by the Coordinator but then withdrew or waived them before the arbitration decision, the Coordinator shall make final the preliminary determination of Frivolousness for the Department of General Services.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government

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Code section 11343.4(d) (Register 98, No. 34).

§1416. Review and Response by Contracting Department and Awardee.

- (a) The Awardee shall have 7 working days after notification by the Coordinator to submit to the Coordinator and Protestant a response to the Detailed Written Statement of Protest.
- (b) The Contracting Department, in conjunction with the Coordinator, shall have 7 days after the filing of the Detailed Written Statement of Protest to send a response to Protestant and Awardee.
- (c) Responses shall follow the standards set forth in section 1412(c) and (d).

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1418. Bond Requirement.

- (a) If the Coordinator has determined that a protest is Frivolous and the Protestant does not withdraw the protest, the Protestant shall be required to post a bond in an amount not less than 10% of the Estimated Contract Value.
- (b) The percentage of the bond shall be determined by the Contracting Department and specified in the Solicitation.
- (c) Protestant shall post the bond, pursuant to Chapter 2 (commencing with section 995.010) of Title 14 of Part 2 of the Code of Civil Procedure, within 15 working days of the filing of the Detailed Written Statement of Protest or shall be deemed to have waived the right to protest.
 - (1) If the arbitrator determines that the protest is Frivolous, the bond shall be forfeited to Procurement and the Coordinator will impose Sanctions.
 - (2) If the arbitrator determines that the protest is not Frivolous, the bond will be returned to the Protestant and no Sanctions imposed.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 995.010 et. seq., Code of Civil Procedure; and Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

Section II: Rules Governing CompetitionRFP RDS-2660-421***Exhibit II-B: California Code of Regulations (continued)*****Article 3. Arbitration Procedure****§1420. Arbitration Process.**

Within 19 calendar days after the Notice of Intent to Award has been posted, the Coordinator shall consolidate all remaining protests under the Solicitation, and send to OAH:

- (a) a copy of all Detailed Written Statements of Protest;
- (b) OAH filing fees;
- (c) arbitration deposits, and/or notice that any Protestant is a Small Business;
- (d) Awardee responses;
- (e) Coordinator/Contracting Department responses;
- (f) the Solicitation File; and
- (g) notice to OAH whether interpreter services will be needed for any Protestant or Awardee. OAH shall arrange interpreter services which shall be paid by the Contracting Department.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New article 3 (sections 1420-1440) and section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1422. Selection of Arbitrator.

- (a) Within 2 working days after receipt of the protest from the Coordinator, OAH shall furnish the names of ten arbitrators to Protestant(s), the Awardee, and the Coordinator. The arbitrator list shall include administrative law judges who are employees of OAH and contract private arbitrators who are not employees of the State of California. Protestant(s), the Awardee, and the Coordinator may each strike two of the ten names and notify OAH within 2 working days. Protestant(s) may also indicate if they prefer a contract arbitrator or an OAH administrative law judge. OAH may then select as arbitrator any name not stricken and shall notify Protestant(s), the Awardee, and the Coordinator within 2 working days. If all names are stricken, the Director of OAH shall appoint an arbitrator.
- (b) A proposed arbitrator shall be disqualified on any of the grounds specified in Section 170.1 of the Code of Civil Procedure for the disqualification of a judge.

Section II: Rules Governing CompetitionRFP RDS-2660-421***Exhibit II-B: California Code of Regulations (continued)***

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1424. Authority of Arbitrator.

- (a) Arbitrators are authorized to
 - (1) Administer oaths and affirmations;
 - (2) Make rulings and orders as are necessary to the fair, impartial, and efficient conduct of the hearing; and
 - (3) Order additional deposits from Protestant(s) to cover additional estimated costs. If OAH does not receive the required deposit(s) in the time specified, the right to protest will be deemed waived.
- (b) The arbitrator shall have exclusive discretion to determine whether oral testimony will be permitted, the number of witnesses, if any, and the amount of time allocated to witnesses.
- (c) It shall be in the arbitrator's exclusive discretion to determine whether to
 - (1) Conduct a pre-hearing conference; and/or
 - (2) Permit cross-examination and, if so, to what extent; and/or
 - (3) Review documents alone for all or part of the protest.
- (d) It shall be in the arbitrator's exclusive discretion to determine whether additional responses and rebuttals are to be submitted, and the timelines and page limits to be applied.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

Section II: Rules Governing CompetitionRFP RDS-2660-421***Exhibit II-B: California Code of Regulations (continued)*****§1426. Decision Based in Whole or in Part on Documents Alone.**

Any Party may request that the arbitrator base the arbitrator's decision on documents alone. It shall be the arbitrator's exclusive discretion to do so.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1428. Pre-hearing Conference.

- (a) If the arbitrator determines that a pre-hearing conference is necessary, OAH shall set the time and place and notify Protestant(s), the Awardee, and Procurement at least 5 working days prior to the pre-hearing conference.
- (b) The pre-hearing conference shall be held to identify and define issues in dispute and expedite the arbitration. The parties should be prepared to discuss, and the arbitrator may consider and rule on, any of the following matters applicable to the protest:
 - (1) Clarification of factual and legal issues in dispute as set forth in the Detailed Written Statement of Protest.
 - (2) The extent to which testimony shall be permitted and the extent to which cross-examination will be allowed.
 - (3) Identity of and limitations on number of witnesses, need for interpreters, scheduling and order of witnesses, etc.
 - (4) Any other matters as shall promote the orderly and efficient conduct of the hearing.
- (c) At the pre-hearing conference, Protestant(s), the Awardee, and Procurement shall deliver a written statement which contains the name of each witness a party wishes to call at hearing along with a brief written statement of the subject matter of the witness's expected testimony. If the arbitrator, in his or her exclusive discretion, allows an expert witness to be called, the party calling the witness shall provide the name and address of the expert along with a brief statement of the opinion the expert is expected to give. The party shall also attach a statement of qualifications for the expert witness.

Section II: Rules Governing Competition

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Exhibit II-B: California Code of Regulations (continued)

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1430. Scheduling the Hearing.

The arbitrator shall schedule the date, time, and place of hearing and notify all Parties.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1432. Discovery.

The arbitrator has exclusive discretion to issue subpoenas and/or subpoena duces tecum. There shall be no right to take depositions, issue interrogatories, or subpoena persons or documents.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1434. Attendance at Hearings.

The Arbitration hearings shall be open to the public unless the arbitrator, in his or her exclusive discretion, determines that the attendance of individuals or groups of individuals would disrupt or delay the orderly conduct or timely completion of the proceedings.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1436. Arbitrator's Decision.

- (a) The final decision shall be in writing and signed by the arbitrator. It shall include a Statement of the Factual and Legal Basis for the decision, addressing the issues raised in the Detailed Written Statement(s) of Protest, and shall include an order upholding or denying the protest(s). The arbitrator's order shall not award a contract.

Section II: Rules Governing Competition

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Exhibit II-B: California Code of Regulations (continued)

- (b) A copy of the decision shall be sent by regular mail to Procurement, the Contracting Department, the Awardee, and Protestant(s) within 45 calendar days after the filing of the first Detailed Written Statement of Protest. In the arbitrator's exclusive discretion, this timeline may be extended for an additional 15 calendar days. The arbitrator's failure to issue a decision within the time specified by this section shall not be a ground for vacating the decision.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1437. Costs.

- (a) For protests not determined Frivolous by Procurement:
- (1) If the arbitrator denies the protest, Protestant(s) will be liable for all costs of the arbitration.
 - (2) If the arbitrator upholds the protest, the Contracting Department shall pay for all costs of the arbitration and Protestant(s) will be refunded the deposit by OAH.
- (b) If Procurement determined that the protest was Frivolous and the arbitrator affirms that the protest is Frivolous, the bond shall be forfeited to Procurement, the protest will be denied, and Protestant(s) will be liable for all costs of the arbitration.
- (c) If Procurement determined that the protest was Frivolous and the arbitrator determines that the protest is not Frivolous, any bond(s) posted by Protestant(s) shall be returned.
- (1) If the arbitrator denies the protest, Protestant(s) shall be liable for half of the costs of the arbitration. The Contracting Department shall pay the remaining half of the arbitration costs.
 - (2) If the arbitrator upholds the protest, the Contracting Department shall pay for all costs of the arbitration and Protestant(s) will be refunded the deposit by OAH.
- (d) A Protestant who withdraws his or her protest before the arbitrator's decision has been issued will remain liable for all arbitration costs up to the time of withdrawal. These costs include, but are not limited to, the arbitrator's time in preparation, pre-hearing conferences, and hearing the protest. If Procurement deemed the protest Frivolous, any bond posted shall be forfeited to Procurement.

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Exhibit II-B: California Code of Regulations (continued)

- (e) Except as provided in (f), if any costs are determined to be payable by Protestant(s), that amount shall be subtracted from deposit(s) of Protestant(s) as ordered by the arbitrator. Any additional costs shall be billed to Protestant(s) and any refunds shall be sent to Protestant(s) by OAH.
- (f) If a Protestant is a Small Business, then the Contracting Department shall pay OAH all arbitration costs and collect the amount due from Protestant.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1438. Judicial Review.

The grounds for judicial review shall be as set forth in Chapter 4 of Title 9 of Part III of the Code of Civil Procedure (commencing with section 1285).

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

§1440. Transcripts.

- (a) A party desiring a transcript of the proceedings shall contact the OAH Transcript Clerk to make arrangements to pay for preparation of the transcript. Prior to preparation of the transcript, a deposit equal to the estimated cost of the transcript shall be paid. Preparation of the transcript will be arranged by the OAH Transcript Clerk. The deposit shall be applied to the actual cost and any excess shall be returned to the party that submitted the request. Any balance due shall be paid by the party or a representative on behalf of the party requesting the transcript before the transcript is released to the requesting party.
- (b) Unless a record of a proceeding or any portion thereof was sealed, any person may request a transcript or a recording of the proceeding. If a record of a proceeding or any portion thereof was sealed, only parties to the proceeding may request a transcript of the sealed portions, and the sealed portions shall not be disclosed to anyone except in accordance with the order sealing the proceeding or subsequent order.

Authority cited: Section 12126, Public Contract Code. Reference: Sections 12125-12130, Public Contract Code.

1. New section filed 8-18-98; operative 8-18-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 34).

III. CURRENT SYSTEM

A. Existing System Function Processes

CAiCE Visual Transportation 10 from Autodesk is Caltrans' current Roadway Design Software (RDS). It is used in the preliminary design up to completion of Plans, Specifications and Estimates (PS&E). It is used to calculate quantities, including earth material, that are needed to construct a project, as well as material needed to build the roadbed, such as concrete and asphalt. The alignment of the road, both the horizontal and vertical position, is designed using CAiCE. Surveyors use it to process and store existing terrain data for engineers to use in their base mapping. CAiCE also assists the engineer in visualizing the roadway in a 3-dimensional view, and it is used during construction for change orders.

MicroStation is the official drafting software for Caltrans that is used during preliminary and final design to develop contract plans for roadway and structures projects. It is used to delineate the work to be done by a contractor in a 2-dimensional plan view, and to generate and develop the plans showing location of work, items to be constructed, and the quantities associated with the work. MicroStation is also used in construction to delineate the changes made in the field to develop the as-built plans.

Approximately 4,000 users statewide use CAiCE, including engineers and surveyors. Currently, CAiCE training is provided annually on the following:

- Introduction to Roadway Design
- Advanced Design
- Alignment
- Digital Terrain Modeling for Engineers
- Visualization Tools

B. Information Flow

CAiCE files interface with MicroStation in two ways:

- The first method is through translation, whereby a CAiCE file is converted to a graphic file that is viewable by other programs and imbedded as graphical elements in the MicroStation file. Engineers and delineators export files back and forth between MicroStation and CAiCE. These translations result in inefficiencies and usually require editing of files.

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- The other method is to use a program within CAiCE called Cadlinks. The Cadlinks utility provides a link from the CAiCE file to the MicroStation file and vice versa. The Cadlinks program allows the user to interactively view and access information in a CAiCE file as well as in MicroStation. This allows changes to be made to the original CAiCE file and viewable in the MicroStation file.

C. Hardware Configuration that Supports the Above Elements

Caltrans currently uses the CAiCE roadway design software as a desktop application running on Windows (2000 and XP) workstations deployed statewide. Approximately 90% of the desktops are three years old or less, running on Windows XP with the specifications as listed below:

1. Hardware:

- HP xw4300 or equivalent:
 - o Intel Pentium 4 630 (3.0 GHz) Single-Core CPU
 - o 1 GB RAM
 - o 80 GB Hard Drive (Partitioned 40GB C: Drive, 40GB D: Drive)
 - o ATI FireGL V3100 128 MB Video Card
 - o 10/100/1000 Broadcom NetXtreme Gigabit Network Interface
 - o RealTek Sound Card

Section III: Current SystemRFP RDS-2660-4212. Operating System:

- Microsoft Windows XP Professional SP3

3. Installed Software:

- Microsoft Office Professional 2003
- Bentley MicroStation V8 2004
- Autodesk CAiCE Visual Transportation 10 SP6
- Microsoft Internet Explorer 6.0
- Novell Client 4.91 SP4
- Novell ZenWorks Client 7.0.1.4
- McAfee Enterprise Viruscan 8.5.0.781
- Hummingbird NFS Maestro Ver. 10
- Bentley InterPlot Client 8.5.2.89
- ESRI ArcGIS 9.3
- Transoft Solutions AutoTURN 6.0
- SignCAD 8.18
- Lotus Notes 6.5.4

4. Network:

- Novell Directory Services
- NFS by mapped drive.
- Windows Active Directory (CIFS/SMB)

Project files are stored by work locations on file servers located in the respective Districts and Headquarters (HQ). Access is through mapped network resources. Once projects have been constructed and accepted by Caltrans, files are archived for future reference. These same resources will be used for the new application.

IV. PROPOSED SYSTEM

A. *Functionality*

The proposed Roadway Design Software (RDS) is to replace the existing CAiCE software, and is expected to provide at least equivalent functionality. The new software will be used by roadway design engineers, bridge engineers and surveyors in Caltrans to produce timely and quality Plans, Specifications and Estimates (PS&E) for transportation improvement projects statewide. The new software, which will be a vital tool used extensively for project delivery, will allow the roadway design engineers and surveyors to do the following tasks:

- Project setup
- Photo/field data import and digital terrain modeling (DTM)
- Create digital design modeling (DDM)
- Coordinate geometry/horizontal alignment
- Original ground cross sections
- Vertical alignment
- Super elevation
- Design cross sections
- Contour Grading
- Earthwork quantities
- Drainage design
- Right of way engineering
- Slope stake notes
- Cross section plots
- Plans production
- Create survey engineer file

Section IV: Proposed SystemRFP RDS-2660-421**B. Workload Requirements and Growth Expectancies**

The user base is about 4,000. Workload supported by the software is dependent on the number of projects being executed by Caltrans and is not expected to increase significantly in the foreseeable future.

Software performance is not expected to be affected by workload, as it is expected to reside on individual workstations with individual users manipulating individual files. The performance will be evaluated based on response times for activities performed in this manner.

C. Security and Privacy

The software solution will comply with the Caltrans Agency Information Management Strategy (AIMS) dated August 2007, which is located in the Bidder's Library. Security for the software will be provided by existing workstation and network access controls. Workstation access is controlled locally via Windows logon security. Network access is controlled by Novell and Windows Active Directory network security software. IT staff responsible for supporting the application will be granted the access to the software and hardware necessary to perform system administration activities. There is no confidential information stored in the RDS.

Key elements of RDS security will include:

- Physical security will be achieved by locating the hardware for the new system within controlled State facilities.
- Network access security will be maintained at various levels by using firewalls, a Virtual Private Network (VPN), and a network directory structure to facilitate a secure network environment.
- Application security will be achieved using workstation logon controls to prevent unauthorized access. Existing user logon security and password requirements will be used.
- Security of data will be maintained using established procedures for existing Caltrans systems including:
 - o System will be housed in secure locations.
 - o Backup tapes and other media will be protected.
 - o Access to application software and data will be authorized by supervisors and system administrators.
 - o Critical data will be encrypted as appropriate.
 - o Data transmitted over the network will be encrypted as appropriate.

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- Auditing and logging will be used to track and log access to the system and to any sensitive data.

D. Reliability and Backup

Caltrans' RDS software is mission critical. The application is assumed to be available at all times except during scheduled maintenance periods. Maintenance will be scheduled to minimize the impact on end users and business processes.

E. General Hardware/Software for Support of the Above Elements

The proposed software is expected to run as a desktop application on workstations deployed statewide. The bidder shall provide their version of software that meets Caltrans configuration as listed below. The workstation configurations are continually being upgraded. Caltrans anticipates upgrading their hardware on a 4-year replacement cycle, pending availability of funds. The proposed configuration is listed below.

1. Hardware:

- HP xw4600 or equivalent:
 - o Intel Core 2 Duo E6550 (2.33 GHz) Dual-Core CPU
 - o 4 GB RAM
 - o 80 GB Hard Drive (Partitioned 40GB C: Drive, 40GB D: Drive)
 - o Nvidia Quadro NVS290 256 MB Video Card
 - o 10/100/1000 Broadcom NetXtreme Gigabit Network Interface
 - o RealTek Sound Card

2. Operating System:

- Microsoft Windows XP Professional SP3 and Vista SP1 (32 bit versions)

Section IV: Proposed SystemRFP RDS-2660-4213. Installed Software:

- Microsoft Office Professional 2003
- Bentley MicroStation V8i
- Autodesk CAiCE Visual Transportation 10 SP6
- Microsoft Internet Explorer 7
- Novell Client 4.91 SP4
- Novell ZenWorks Client 7.0.1.4
- McAfee Enterprise Viruscan 8.5.0.781
- Hummingbird NFS Maestro Ver. 10
- Bentley InterPlot Client 8i
- ESRI ArcGIS 9.3
- Transoft Solutions AutoTURN 6.0
- SignCAD 8.18
- Lotus Notes 6.5.4

4. Network:

- Novell Directory Services
- NFS by mapped drive.
- Windows Active Directory (CIFS/SMB)

Section IV: Proposed System**RFP RDS-2660-421**

Project files are expected to be stored by work locations on file servers located in the respective Districts and Headquarters (HQ). Access is through mapped network resources. Once projects have been constructed and accepted by Caltrans, files are archived for future reference. These same resources will be used for the new application.

F. Production Environment

The proposed solution will include installation and initial production deployment of the configured software in the existing hardware environment and development of a deployment strategy to implement the proposed software throughout the state. Following initial installation and training of Key Support Users, Caltrans staff will support continuing deployment to complete the statewide rollout.

G. Configuration and Testing Environments

As part of the solution, the Bidder will specify the proposed software configuration and testing environments. This will include all minimum hardware and software required for configuration and testing (including unit, integration, system, and performance testing).

Caltrans will provide the acceptance testing environment utilizing existing hardware onsite at the Headquarters office in Sacramento, CA.

V. ADMINISTRATIVE REQUIREMENTS

A. Introduction

Bidders must adhere to and provide a written response to all the administrative requirements in this section in order to be responsive. The requirements are considered "Pass/Fail." If the Bidder fails an administrative requirement the bid may be rejected. Bidders must complete Form V-H: Administrative Requirements Response Matrix in Appendix C.

1. Proposal Cover Letter

The Bidder must include a cover letter signed by an individual who is authorized to bind the Bidder contractually. The cover letter must state that the individual is so authorized and must identify the title or position that the individual holds in the Bidder's firm. An unsigned cover letter shall cause the Final Proposal to be rejected.

Requirement A1: Bidder's proposal must contain a signed Cover Letter, which must contain the following:

- a. Signature from an authorized individual and indication that the signer is authorized to bind the firm contractually, and identifies the signer's title;
- b. Statement that the proposal is firm's binding offer good for 180 calendar days from final proposal due date, as noted in Key Action Dates in Section I;
- c. Statement indicating that the Bidder has available staff with the appropriate skills to complete performance under the contract for all services and provide all deliverables as described in this RFP; and
- d. Statement accepting full Prime Contractor responsibility for coordinating, controlling, and delivering all aspects of the contract and any subcontractors on their team.

2. Executive Summary of Proposal

Requirement A2: Bidder's proposal must contain an Executive Summary of their proposed solution, which includes the following information:

- a. Summary of the proposed solution;
- b. List of the firms and individuals proposed as subcontractors (if applicable), staff names, and the

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experience of the proposed team with roadway design software;

- c. Summary of the technology proposed; and
- d. The degree to which the proposed solution components are currently in use.

3. Seller's Permit

Requirement A3: A copy of the retailer's seller's permit or certification of registration with the State of California, and, if applicable, the permit or certification of all participating affiliates must be submitted within five State business days of the State's request, as described in Section II.

B. Productive Use Requirements

The objective of the Productive Use Requirements is to protect the State from being an experimentalist for new equipment and software that has no record of proven performance.

1. Customer In-Use

The purpose of the Customer In-Use requirement is to allow time for the Bidder to correct defects that could prevent new equipment and software from performing correctly in support of State programs.

Caltrans requires that the software proposed must have been installed and in productive use, in substantially the conformation bid, by a minimum of two other states' Department of Transportation (DOT), for at least six months prior to the required Final Bid submission date. Software used must be the other DOT's primary roadway design software.

Substantial design changes are also subject to the Customer In-Use requirement. Minor modifications or updates to software to provide improvements or features, to correct errors, or to accommodate hardware changes may be exempt from the In-use requirement by the Department of General Services, Procurement Division, if no substantial changes in logic, architecture or design are involved.

Requirement A4: Bidders must provide data to support that the solution proposed meets the Customer In-Use requirements. Supporting evidence could include, but is not necessarily limited to, one or more of the following:

- Customer purchase order or contract showing implementation dates for software.

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- Customer invoice for software.
- Sworn notarized statement from an officer of the bidding firm and/or a paying customer.

2. Customer References

The purpose of the Customer References requirement is to provide the State the ability to verify the claims made by the bidder. Prior to award of the contract, Caltrans must be assured that the Bidder selected has the resources to successfully perform under the contract. This includes, but is not limited to, experience in delivering the software and services similar to those required for this project, personnel with the skills required, and experience in similar endeavors.

The Bidder must provide six Form V-A: Customer Reference Questionnaires (which is located in Appendix C) from customers of the Bidder who presently have the proposed software installed and operating and is used as their primary roadway design software. At least two references must meet the Customer In-Use requirement. Of the remaining four references, at least two must be from consulting engineering firms performing similar roadway design functions. The Bidder's Customer Reference Questionnaires must be returned to the Bidder in a sealed envelope.

Bidders should provide references as closely comparable to the Caltrans Roadway Design Software requirements as possible. Evaluation of the customer references will be scored as discussed in RFP Section IX.

All required references must be submitted in separately sealed envelopes with the Final Proposal. The Bidder is strongly encouraged to submit any references in their possession with their Draft Proposal. References submitted with Draft Proposals must be in separately sealed envelopes and will be reviewed by the Evaluation Team. Bidders will be advised of any incomplete references during Confidential Discussions. In addition, during the final review, the State may contact references for clarification of submitted Bidder's Reference Questionnaires.

Requirement A5: Bidders must provide six customer references, including two that meet the Customer In-Use requirements and at least two must be from consulting engineering firms performing similar roadway design functions.

3. Exceptions

The State will not consider exceptions to Productive Use Requirements for this procurement.

Section V: Administrative Requirements**RFP RDS-2660-421****C. Bidder Responsibility**

Prior to award of the contracts, Caltrans must be assured that the Bidder selected has all of the resources to successfully perform under the contract. This includes, but is not limited to, experience in delivering the products and services similar to those required for this project, personnel in the numbers and with the skills required, equipment of appropriate type and in sufficient quantity, financial resources sufficient to complete performance under the contract, and experience in similar endeavors. If, during the evaluation process, the State is unable to assure itself of the Bidder's ability to perform under the contract, if awarded, the State has the option of requesting from the Bidder any information that the State deems necessary to determine the Bidder's responsibility. If such information is required, the Bidder will be so notified and will be permitted five working days to submit the information requested.

1. Insurance Requirements

The bidder must maintain in force a valid Worker's Compensation and Employers Liability Insurance Policy for all employees engaged in the performance of the contract and agree to furnish Caltrans satisfactory evidence thereof at the time of Final Proposal submittal and at any time Caltrans may so request after contract award. In addition to Workers Compensation and Employers Liability insurance, the bidder must also maintain Commercial General Liability and Professional Liability insurance.

a. Insurance

- **Workers Compensation and Employers Liability** - Contractor shall maintain statutory worker's compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract. Employer's liability limits of \$1,000,000 are required.
- **Commercial General Liability** – Contractor shall maintain general liability on an occurrence form with limits not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined with a \$2,000,000 annual policy aggregate. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal & advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy must include:

The State of California, its officers, agents, employees and servants as additional insureds, but only with respect to work performed under the contract. This endorsement must be supplied in a format acceptable to the Office of Risk and Insurance Management within the California Department of General Services.

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In the case of Contractor's utilization of subcontractors to complete the contracted scope of work, contractor shall include all subcontractors as insured's under Contractor's insurance or supply evidence of insurance to The State equal to policies, coverages and limits required of Contractor.

- Professional Liability – Contractor shall maintain Professional Liability covering any damages caused by a negligent error, act or omission with limits not less than \$2,000,000 per occurrence and \$2,000,000 policy aggregate. The policy's retroactive date must be displayed on the certificate of insurance and must be before the date this contract was executed or before the beginning of contract work.

b. General Provisions Applying to All Policies

- Coverage Term – Coverage needs to be in force for the complete term of the contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least ten days prior to the expiration of this insurance. Any new insurance must still comply with the original terms of the contract.
- Policy Cancellation or Termination & Notice of Non-Renewal – Insurance policies shall contain a provision stating coverage will not be cancelled without 30 days prior written notice to the State. In the event Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.
- Deductible – Contractor is responsible for any deductible or self-insured retention contained within their insurance program.
- Primary Clause – Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.
- Insurance Carrier Required Rating – All insurance companies must carry a rating acceptable to the Office of Risk and Insurance Management. If the Contractor is self insured for a portion or all of its insurance, review of financial information including a letter of credit may be required.
- Endorsements – Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- Inadequate Insurance – Inadequate or lack of insurance does not negate the contractor's obligations under the contract.

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Requirement A6.a: Bidder must provide proof of a valid Worker's Compensation and Employers Liability Insurance Policy and completed Form V-B, which is located in Appendix C. .

Requirement A6.b: Bidder proposal must affirm on Form V-H, in Appendix C, that proof of Commercial General Liability and Professional Liability Insurance will be provided within five business days after contract award.

2. Bonds

In order to protect the State and reduce the potential project risks, all Bidders must submit the following security instrument as described below with the Final Proposal response. Final Proposal responses submitted without a Letter of Bondability shall be considered non-responsive and the bid shall be rejected. For this requirement, the length of the surety consideration shall be through implementation and warranty/maintenance period of one year.

Letter of Bondability and Bond

The Bidder shall furnish at no cost to the State, a Letter of Bondability from an admitted Surety Insurer which states the surety unconditionally offers to guarantee to the extent of 20% of Contract 1 – Configuration and Training Costs. The Letter of Bondability shall be on a form from an admitted surety insurer and must guarantee the Bidder's performance in all respects of the terms and conditions and provisions of the agreement.

Because of the potential consequences, which might result if the successful Bidder is unable to furnish the surety document, Bidders should take the necessary steps, prior to submittal of their proposals, to ensure that if awarded the contract, they will be able to comply with this requirement. Failure to submit the required Bond within 21 calendar days after contract award may be cause for termination of the contract.

Requirement A7: Bidder must submit a Letter of Bondability from an admitted Surety Insurer which states the surety unconditionally offers to guarantee to the extent of 20% of the Project Deliverable Costs for Contract 1 – Configuration and Training. In response to this Requirement, said letter must have the cost figures redacted. The complete unaltered letter must be included in the Cost Volume in the Final Proposal.

3. Company Experience

Bidders must provide background information related to their prior experiences both with the software application and the nature of its use. Specific attention

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should be paid to projects that are similar in scope to the requirements of this project for Caltrans. Bidders must include the project term (start and end dates), project description, number of users, and customer type (other state Department of Transportation or California-based consultant). A minimum of three years experience with projects of this scope is required. Bidders must also provide details of all terminations for cause on any contracts with the State of California.

Requirement A8: Bidder must complete Form V-C: Bidder Information and Background (located in Appendix C) detailing the firm's history and experiences as described above, including Contract performance on previous State of California contracts.

4. Staff Capability

The Bidder must provide resumes for each key member of the proposed project staff listed below. The Contractor must commit to the continuing availability under the Contractor's control of the Key Personnel for the duration of the project, or for their proposed period of involvement. In the event that a Contractor's Key Personnel is no longer available to the project, it is the Contractor's responsibility to substitute Key Personnel of equal or greater competency at no increase in cost. Caltrans reserves a right of approval for such substitution.

Key Personnel includes:

- Project Manager, who must have five years of project management experience implementing RDS projects, and at least one project where the proposed software was implemented at a state Department of Transportation;
- Application Configuration Manager(s), who must have four years of application development experience on RDS projects, at least one project where the proposed software application was implemented at a state Department of Transportation; and
- Training Manager(s), who must have two years experience in software training, one year managing training staff.

Requirement A9: At a minimum, resumes shall be included for the key personnel. It is expected that no individual identified by the bidder will simultaneously fill more than two of the positions listed above. All resumes supplied shall be for specific named individuals and all supporting information shall include dates that include the month and year so that minimum experience can be validated. In addition, Form V-D: Key Personnel Qualifications Certification (located in Appendix C) must be completed and signed by the Bidder's

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Project Manager, Application Configuration Manager(s), and Training Manager(s).

D. Confidentiality

To preserve the integrity of the security and confidentiality measures integrated into the State's automated information systems, each bidder is required to sign the Confidentiality Statement, Form I-C located in Appendix C, and submit by the date specified in Section I – Key Action Dates.

The Contractor engaging in services pertaining to this project, requiring contact with confidential State information, will be required to exercise security precautions for all such data that is made available and must accept full legal responsibility for the protection of this confidential information. This includes all statistical, personal, technical and/or other confidential data and information designated confidential by Caltrans.

Requirement A10: Bidder must provide a signed Form I-C – Confidentiality Statement.

E. Specific Software Support and Maintenance Requirements

Distribution of software within Caltrans will be centralized. Contractor will provide software and all subsequent releases (within three weeks of release) to Caltrans Office of CADD & Engineering GIS Support (OoCEGS). OoCEGS and Caltrans Information Technology (IT) staff will then distribute software to engineering workstations by use of the Caltrans computer network. OoCEGS will provide one contact person (to be identified by the Caltrans Contract Manager) to report malfunctions to the contractor. The Contractor will not be required to respond to questions from other individual users unless, for a particular problem, an individual contact will provide the best solution. In those instances, the Caltrans Contract Manager will identify the user.

Technical support is defined as:

- software problem diagnosis consisting of problem isolation and definition;
- problem resolution;
- preparation of software problem report; and
- assistance with the proper operation of the supported program on Caltrans' hardware and operating system configuration.

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During the contract term, Contractor will provide Caltrans OoCEGS with the following software maintenance and technical support services:

- Telephone technical support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time, Monday through Friday (except holidays); with a call back within four business hours, inside the time schedule. Telephone technical support number to be provided by the Contractor.
- Fax support between the hours of 7:00 a.m. and 5:00 p.m. Pacific Time, Monday through Friday (except holidays). The Caltrans Contract Manager may fax a problem or sketches to the Contractor's support personnel. Fax number to be provided by the Contractor.
- Email support between the hours 7:00 a.m. and 5:00 p.m. Pacific Time, Monday through Friday (except holidays). E-mail address to be provided by the Contractor.
- Contractor will provide access to their customer service website.
- Contractor will provide notification of and make available for download from the customer service web site, all upgrades, updates, and program extensions to software and all future versions of software released, during the term of this Agreement, within three weeks of release, at no additional cost to the State.
- Information regarding periodic Technical Support News and Update patches will be made available to Caltrans as they are released from the Contractor. These shall be made available for download from Contractor's website.
- Contractor will provide up to 15 working days of on-site services per contract year, at Caltrans' direction, for the purpose of technical issue diagnosis, identification of future software functionality needs, or emergency bypass or temporary work-around for problems with software in critical situations. Whenever possible, Caltrans will provide at least one week notice prior to the on-site visit so that Contractor may schedule appropriate resources and make suitable travel arrangements.
- Contractor will provide an additional 15 working days, during the first year of production roll out, for on-site technical support services to Caltrans. These services will be provided at Caltrans Sacramento Offices or the 12 District offices at a mutually agreed upon schedule, and under the direction of OoCEGS.
- Caltrans will prioritize software malfunctions and support issues. Contractor will provide a monthly report on the status of the identified malfunctions and issues, including estimated time of resolution.

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- Contractor will provide Caltrans the ability to run software in a protected network. There is a need to keep the software directory protected, yet still have rights to necessary files to run the program.
- Caltrans shall have the right to reproduce all documentation and training materials, whether in paper or electronic format, developed by the Contractor.

Requirement A11: Bidder proposal must affirm on Form V-H, in Appendix C, that all services described above will be accomplished.

Requirement A12: Under the annual Software Usage and Maintenance Fees agreement, updates and upgrades to the software must be made available to the State at no additional cost. Bidder must affirm on Form V-H in Appendix C, concurrence with this requirement.

F. Disabled Veteran Business Enterprise (DVBE) Participation Requirements**1. California DVBE Program Requirement - Mandatory**

PLEASE READ THESE REQUIREMENTS CAREFULLY. FAILURE TO COMPLY WITH THE MINIMUM DVBE PARTICIPATION REQUIREMENT WILL CAUSE YOUR SOLICITATION RESPONSE TO BE DEEMED NONRESPONSIVE AND YOUR FIRM INELIGIBLE FOR AWARD OF THE PROPOSED CONTRACT(S).

Caltrans has established a DVBE participation goal of 5% for this procurement. If the bidder documentation shows participation of less than 5%, a Good Faith Effort must be documented.

Bidders must fully comply with DVBE Participation Program requirements. Failure to submit a complete response will result in a non-responsive determination, in which case the Final Proposal will be rejected. Refer to the website below for the DVBE Resource Packet, Documentation of DVBE Program Requirements, and DVBE form (STD. 840) that must be completed and submitted with the Final Proposal.

Review the DVBE instructions and complete applicable forms, accessible on-line at:

<http://www.pd.dgs.ca.gov/publications/default.htm>

NOTE: In Option B, Good Faith Effort, Step 3, advertisement(s) must be published at least fourteen (14) days prior to the Final Proposal submission date for a period of fourteen (14) days. It is acceptable to advertise in just one (1) trade or DVBE paper if it fulfills both trade and focus requirements as defined in California Code of Regulations, Title 2, Section 1896.61(k), in which case one (1) ad is acceptable. Please see the DVBE Resource Packet for a list of acceptable publications.

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The Office of Small Business and DVBE Services offers program information and may be reached at:

Office of Small Business and DVBE Services
707 Third Street, 1st Floor, Room 400
West Sacramento, CA 95605
<http://www.pd.dgs.ca.gov/smbus>
Receptionist: (916) 375-4400 Fax: (916) 375-4613
(800) 559-5529

It is important to note that all participation commitments are to be captured on the STD. 840, found at:

<http://www.documents.dgs.ca.gov/pd/poliproc/Std840webproof5.pdf>

This form allows for submission of a percentage and/or cost figures. For the Draft and Final Proposal, do not include dollar values on the copy of the DVBE participation form included in Volume I of the bidder's response – use "XXX" or percentage in place of any dollar values. In the Final Proposal, also include the completed form with the cost tables and actual dollar amounts in the sealed Final Proposal Volume III - Cost. Inclusion of dollar amounts in any volume other than the Cost section may be a material deviation.

2. Disabled Veteran Business Enterprise (DVBE) Incentive – Optional

The DVBE Incentive requirement is optional, but will provide additional points to be factored in for contract award purposes.

New law, effective January 1, 2006 (Senate Bill 115) revised the Military and Veterans Code Section 999.5(a) to provide an incentive for DVBE participation in State contracts. The incentive for this procurement provides additional points for those bidders that achieve at least one percent (1%) certified DVBE participation. Participation incentives will be rewarded based on the table that follows, also described in Section IX - Evaluation and Selection.

NOTE: This change of statute does not preclude the requirement to meet the Caltrans' minimum five percent (5%) participation, and/or to perform a "good faith effort."

In accordance with Section 999.5(a) of the Military and Veterans Code, Incentive points will be given to bidders who provide Disabled Veteran Business Enterprise (DVBE) participation surpassing designated minimum thresholds. For contract award purposes only, the State shall add Incentive points to proposals that include California certified DVBE participation as identified on the Bidder Declaration GSPD-05-105 located at:

<http://www.documents.dgs.ca.gov/pd/delegations/GSPD105.pdf>

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To meet the required minimum DVBE participation and/or to gain an optional DVBE Incentive, the bidder must also complete the STD. 840 and STD. 843. The Incentive amount for awards is based on the amount of DVBE participation obtained. The Incentive is only given to those bidders who are responsive to the DVBE Program Requirement and propose DVBE participation in the resulting contract.

3. DVBE Declarations

Bidders who have been certified by California as a DVBE must complete the form Std. 843, Disabled Veteran Business Enterprise Declaration. An online version of the form is available at:

<http://www.documents.dgs.ca.gov/pd/poliproc/STD-843FillPrintFields.pdf>

All disabled veteran owners and disabled veteran managers of the DVBE(s) must sign the form(s). The completed form(s) should be submitted with your proposal. Failure to provide the form within the time frame specified by the State may cause your bid to be rejected.

In addition, on January 1, 2004, Chapter 623, Statutes of 2003, became effective and required all Small Businesses, Micro Businesses and Disabled Veteran Business Enterprises (DVBEs) to perform a "Commercially Useful Function" in any contract they perform for the State.

Requirement A13: Bidder must complete Form V-E and all documentation required in Form V-E, which is located in Appendix C.

G. *Preference Programs*

The items discussed in this section are optional. The State's denial of any of the preference requests is not a basis for rejection of the proposal. Bidders not claiming any of these preferences may enter "Not Applicable" in response.

1. Target Area Contract Preference Act (TACPA)

The intent of the Target Area Contract Preference Act (TACPA) is to promote economic development and employment opportunities in distressed areas of the State by offering bidding preferences on qualified RFPs. TACPA provides for two preferences: worksite and workforce. Target Area Contract Preference will be granted to California-based companies in accordance with Government Code Section 4530 whenever contracts for goods or services are in excess of \$100,000. Bidders must meet certain requirements as defined in the California Code of Regulations (Title 2, Section 1806.30 et seq.) regarding labor needed to provide the goods being procured. Bidder's questions regarding this preference are to be directed to the Office of Small Business and DVBE Services, (916) 375-4940. Bidders desiring to claim this preference for services must submit a fully executed copy of the TACPA form, STD. 830 with their Final Proposal. Refer to the following website link to obtain the appropriate form:

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<http://www.documents.dgs.ca.gov/osp/pdf/std830.pdf>. Bidders desiring to claim this preference must submit a fully executed copy of the STD. 830 to claim the TACPA preference. Bidder's Draft and Final Proposals need not contain this item if there is no intention to claim this preference.

2. Enterprise Zone Act (EZA)

The intent of the Enterprise Zone Act (EZA) is to promote economic development and employment opportunities in designated enterprise zones by offering bidding preferences on qualified solicitations. EZA provides for two preferences: worksite and workforce. These preferences are explained in detail on the STD. 831. For a copy of the STD. 831 refer to:

<http://www.documents.dgs.ca.gov/osp/pdf/std831.pdf>. Government Code Section 7070, et seq., provides that California-based companies may be granted preferences when bidding on State contracts in excess of \$100,000 for goods and services (excluding construction contracts) if the business site is located within designated Enterprise Zones.

A bidder that has claimed an EZA preference and is awarded the contract based on such preference(s) will be obligated to perform the contract in accordance with the Act.

Bidders desiring to claim this preference must review the instructions and submit a fully executed copy of the STD. 831 with their Final Proposal. Bidder's Draft and Final Proposals need not contain this item if there is no intention to claim this preference.

3. Local Agency Military Base Recovery Area Act (LAMBRA)

Local Agency Military Base Recovery Area (LAMBRA) Act, Government Code section 7118 et seq., promotes employment and economic development at designated military bases by offering preferences when bidding on State contracts in excess of \$100,000. The firm must be California based. Bidders desiring to claim this preference must submit a fully executed copy of STD. 832 with their Final Proposal. Bidders proposing to perform the contract at a designated LAMBRA worksite(s) are required to identify such site(s) on the Std. Form 832. Failure to identify a site(s), which qualifies for LAMBRA, will result in denial of the claimed preferences. Refer to the following website link to obtain the appropriate form: <http://www.documents.dgs.ca.gov/osp/pdf/std832.pdf>. A bidder that has claimed a LAMBRA preference and is awarded the contract based on such preference(s) will be obligated to perform the contract in accordance with the Act.

Bidders desiring to claim this preference must review the instructions and submit a fully executed copy of the STD. 832 with their Final Proposal. Bidder's Draft and Final Proposals need not contain this item if there is no intention to claim this preference.

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Requirement A14: Bidders wishing to request any of the preferences listed above (TACPA, EZA, or LAMBRA) must complete the appropriate forms and include them in response to this requirement. If not requested enter "Not Applicable" in response on Form V-H in Appendix C.

4. Small Business Preference

California Government Code Section 14835, et seq. requires a five percent preference be given to bidders who qualify as a Certified Small Business or up to a five percent preference be given to non-small business bidders claiming at least 25% California certified small business subcontractor participation. The rules and regulations of this law, including the definition of a small business for the delivery of goods and services are contained in Title 2, California Code of Regulations, Section 1896, et seq. A copy of the regulations is available upon request from the Procurement Division, Office of Small Business and DVBE Services (OSDS).

In order to claim the Small Business Preference, Bidder's proposal must contain a copy of each OSDS Small Business Certification Letter or must evidence the application(s) is/are on-file at OSDS. Bidders not certified by 5:00 p.m. on the Final Proposal due date must be certified prior to the proposed date of the Letter of Intent to Award (see Section I.E – Key Action Dates). Additionally, Bidders must meet all the requirements of California Code of Regulations Section 1896, et seq. to claim this preference.

In addition, on January 1, 2004, Chapter 623, Statutes of 2003, became effective and required all Small Businesses, Micro Businesses and Disabled Veteran Business Enterprises (DVBES) to perform a "Commercially Useful Function" in any contract they perform for the State. State Form GSPD-05-105 located at: <http://www.documents.dgs.ca.gov/pd/delegations/GSPD105.pdf> and a complete Form V-F: Small Business Certification Form must be completed by bidders utilizing small business contractors. Form V-F is located in Appendix C.

A business that is performing a Commercially Useful Function is one that does all of the following:

- a. Is responsible for the execution of a distinct element of the work of the contract;
- b. Carries out its obligation by actually performing, managing, or supervising the work involved;
- c. Performs work that is normal for its business, services and function, and
- d. Is not further subcontracting a portion of the work that is greater than that expected to be subcontracted by normal industry practices

Section V: Administrative Requirements**RFP RDS-2660-421**

Requirement A15: Bidders requesting Small Business Preference must provide Form V-F and all documentation required in Form V-F, which is located in Appendix C.

Please refer to Section IX – Evaluation and Selection for more information regarding the scoring of the Small Business Preference.

H. Qualification To Do Business In The State Of California

The Prime Bidder and all subcontractors proposed which are to receive 10% or more of the total compensation must be qualified to do business and in good standing in California, and for such firms, the Bidder's proposal must contain California business qualification(s). For more information on how to obtain qualification to do business in California, or to obtain copies of such certification, see the California Secretary of State Business Portal at their website: <http://www.ss.ca.gov/business/business.htm>

Requirement A16: The Prime Bidder and all subcontractors proposed which are to receive ten percent or more of the total compensation must submit a California Certificate of Good Standing.

I. Other Administrative Requirements***1. Subcontractor Requirements***

Any subcontractor that the bidder chooses to use in fulfilling the requirements of this RFP, and which is expected to receive more than 10 percent of the value of the contract must complete Form V-G, Subcontractor Information. Upon award, notice shall be given by DGS to the subcontractors listed on Form V-G, in Appendix C, of their participation in the contract. Notification to the subcontractor(s) by the Contractor is encouraged immediately after award of a contract.

Bidders must complete and sign the Bidder Declaration, GSPD-05-105 and include it with the bid. All proposed subcontractors must be identified on the form. Bidders must download the form at:
<http://www.documents.dgs.ca.gov/pd/delegations/GSPD105.pdf>.

Requirement A17: Bidders must provide completed and signed Forms V-G and a Bidder Declaration Form GSPD-05-105.

2. Payee Data Record, STD. 204

Bidders must submit a signed Payee Data Record, STD. 204 with their Final Proposal submission. Bidders must download the form at:
<http://www.documents.dgs.ca.gov/osp/pdf/STD204.pdf>

Requirement A18: Bidders must submit a signed Payee Data Record (STD. 204).

Section V: Administrative Requirements**RFP RDS-2660-421*****J. Testing and Acceptance***

Two months prior to delivery of the fully configured software, the Contractor will provide to Caltrans documentation of Contractor's planned test activities that validate compliance with all requirements.

Prior to delivery of the configured software to Caltrans, the Contractor will demonstrate to designated Caltrans personnel, all specifications and functionality as set forth in Contract 1 – Configuration and Training. The demonstration will occur at a Caltrans facility in Sacramento, CA.

Within one month following the demonstration, Caltrans will perform acceptance testing to confirm that the software is functioning as required. It will be the decision of the Caltrans Contract Manager when acceptance testing has been successfully completed. Problems discovered during the acceptance testing will be documented in writing, by the Caltrans Contract Manager, and provided to the Contractor's onsite support staff. Such problems must be corrected within 10 State business days.

Requirement A19: Bidder must affirm on Form V-H in Appendix C, concurrence with this requirement.

VI. BUSINESS AND TECHNICAL REQUIREMENTS

A. Introduction

This section contains the mandatory and desirable System Administration and Functional Requirements that must be addressed by the software. It will also address the Project Management, Configuration, and Training requirements.

Caltrans has identified mandatory and desirable requirements for the software. Supporting documentation must be provided to support all claims made by the Bidder. Supporting documentation may include product “glossy” brochures, equipment technical specification brochures, technical or user manuals that may be advertised in response to the requirements, and other advertising materials.

B. Project Management Activities and Plans

Bidders must prepare and submit a Draft Project Management Plan with their proposal. The plan must include the Bidder's approach to the project activities described in Form VI-1, located in Appendix D. The Draft Project Management Plan will allow Caltrans to evaluate the Bidder's knowledge and application of best practices, and competence in managing a project of this size and complexity. Failure to address all required elements of the Draft Project Management Plan will result in a lower score. Information regarding the evaluation and scoring of the Draft Project Management Plan can be found in Section IX of this RFP.

To facilitate the evaluation process, Bidders must complete Form VI-1: Draft Project Management Requirements Response Form, located in Appendix D.

C. System Administration Requirements

The System Administration Requirements are broken into eight parts, each with a set of mandatory and desirable requirements as described in Form VI-2, located in Appendix D. Bidders shall indicate whether the software meets or does not meet each of the System Administration Requirements.

1. Mandatory:

Bidders must indicate whether or not the software meets the requirement. Failure to meet each mandatory requirement may cause the Bidder's proposal to be deemed non-responsive. Additionally, for each requirement, the Bidder must include a narrative response consisting of:

Proposed Solution Description: Bidders shall provide a description of how their proposed solution meets the requirement.

Supporting Literature or Documentation Reference: Bidders shall indicate in their response (Volume number, page number(s), or section(s)) where documentation can be found to substantiate the bidder's response.

Section VI: Business and Technical Requirements**RFP RDS-2660-421**

Documentation must be complete and in sufficient detail for the Evaluation Team to understand how the requirement is to be met.

2. Desirable:

Bidders are not required to offer the desirable requirements in order to be compliant with this RFP. However, Bidders must indicate if the desired System Administration requirement is included in the proposed COTS software by entering "Yes" or "No" as indicated on the response form. Where Bidders indicate that the requirement will be met, a narrative response is also required, as described above.

Points will be awarded as described in Section IX, for each desirable requirement met in the Bidder's response.

Bidders must complete Form VI-2 located in Appendix D, as described above, and submit with their response to this RFP. Bidders must not retype or edit the requirements or forms except to enter requested information. Making a material change to the form may make the Bidder's proposal unacceptable to the State and may cause the proposal to be excluded from further consideration.

D. Functional Requirements

Caltrans has identified the mandatory and desirable functional requirements for the roadway design software that will best meet the business needs.

1. Mandatory:

Form VI-3, located in Appendix D, contains the mandatory functional requirements. Bidders shall affirm that each requirement will be met by indicating whether the software meets the requirement as indicated on the response form. Failure to meet each mandatory requirement may cause the Bidder's proposal to be deemed non-responsive. Additionally, for each requirement, the Bidder must include a narrative response consisting of:

Proposed Solution Description: Bidders shall provide a description of how their proposed solution meets the requirement.

Supporting Literature or Documentation Reference: Bidders shall indicate in their response (Volume number, page number(s), or section(s)) where documentation can be found to substantiate the bidder's response. Documentation must reference the requirement ID #, and be complete and in sufficient detail for the Evaluation Team to understand how the requirement is to be met.

Section VI: Business and Technical Requirements**RFP RDS-2660-421****2. Desirable:**

Form VI-4, located in Appendix D, contains the desirable functional requirements. Bidders are not required to offer these desirable features in order to be compliant with this RFP. However, Bidders must indicate if the functionality is included in their proposed COTS software by entering "Yes" or "No" as indicated on the form for each desirable functional requirement. Where Bidders indicate that the functionality is included in their response, a narrative response is also required, as described above.

Points will be awarded as described in Section IX, for each desirable requirement met in the Bidder's response.

Bidders must complete Forms VI-3 and VI-4, as described above, and submit with their response to this RFP. Bidders must not retype or edit the requirements or forms except to enter requested information. Making a material change to the form may make the Bidder's proposal unacceptable to the State and may cause the proposal to be excluded from further consideration.

E. Configuration

The software must be configured within six months following contract approval to support Caltrans' business needs. A complete list of the configuration requirements is included in Appendix F. All configuration requirements and specifications will be incorporated into the Contract.

Requirement T1: Bidder must affirm on Form VI-5, located in Appendix D, that a System Administration Manual will be provided to the Caltrans Contract Manager prior to commencement of acceptance testing.

Requirement T2: Bidders must affirm on Form VI-5, located in Appendix D, that the proposed software meets, or will be configured to meet, all software Configuration Requirements as listed in Appendix F.

Section VI: Business and Technical Requirements**RFP RDS-2660-421*****F. Training***

The Bidder must submit a Draft Training Plan as part of their proposal. The Draft Training Plan must include an outline of the development of the curriculum, course content, and a proposed training schedule. The Draft Training Plan must not include cost figures.

To ensure an even distribution of costs and to assist the Bidder with the proposed schedule, Caltrans has included a tentative distribution of training classes in Appendix E – Cost Tables. Classes may occur concurrently in multiple locations. At the end of each training class each student will be asked to complete an instructor evaluation form. A copy of the evaluation form (Course Comments Form.doc) is located in the Bidder's Library.

Refer to Appendix G for all training requirements, course content, and training logistics.

Requirement T3: The Bidder must submit a Draft Training Plan as part of the proposal. The Draft Training Plan must include an outline of the development of the curriculum, course content, and a proposed class schedule.

Section VII: Cost

RFP RDS-2660-421

VII. COST**A. Introduction**

Bidders must provide costs for the software configuration, usage fees, support, and training using the Cost forms located in Appendix E. The list of required cost forms and their respective descriptions can be found in Table VII-1.

Table VII-1 – Cost Forms

Cost Category	Form	Form Title
Total Costs	VII-1	Total Cost Summary
Contract 1	VII-2	Project Management and Implementation Services Cost
Contract 1	VII-3	Software Configuration Cost
Contract 1	VII-4	Training Manual Cost
Contract 1	VII-5	COTS Software Usage/Maintenance Fees (Year 1)
Contract 1	VII-6	Training Services Cost Summary
Contract 1	VII-6A	Key User Support Training
Contract 1	VII-6B	Survey Data Processing and DTM Training
Contract 1	VII-6C	Survey COGO and Map Production Training
Contract 1	VII-6D	Introduction to Roadway Design Training
Contract 1	VII-6E	Intermediate Roadway Design Training
Contract 1	VII-6F	Basic Structure Design Training
Contract 1	VII-6G	Basic Hydraulic Design Training
Contract 2	VII-7	COTS Software Usage/Maintenance Fees Summary (Years 2-5)
Contract 2	VII-8	COTS Software Usage/Maintenance Fees (Optional Year 6)

Cost proposals will not be opened for evaluation until after the Evaluation Team has determined that the Bidder's proposal is fully compliant and has achieved the minimum score required (70% of available non-cost points) to advance to the cost opening. Bidders may refer to Section IX for additional information on the scoring of proposals.

All proposed software and services must be included in the Bidder's proposal. Any software or service that is not specifically priced or identified in the Bidder's cost proposal, or that is identified after award of the contract and is needed to meet the requirements of this RFP, will be provided by the Bidder at no additional cost to the State.

Cost is a primary evaluation criterion. Points earned in this category will be based on the lowest total estimated net cost to the State as calculated according to the methodology in Section IX.

Section VII: Cost**RFP RDS-2660-421*****B. Project Budget***

Caltrans has an approved Feasibility Study Report (FSR) for the RDS project. The FSR can be found in the Bidder's Library.

Two contracts will be awarded to the successful Bidder as described in Section I.

1. Contract 1 – Configuration and Training:

The approved project budget for Contract 1 is \$3,978,375.

During Phase 1, payment will be made for deliverables completed as described in Section VII.C. The Contractor will submit one itemized invoice, monthly, for deliverables completed. All contract deliverables are subject to approval by the Caltrans Contract Manager prior to payment. In cases where deliverables have been grouped together, payment will be made when all deliverables in that group have been completed and approved.

During Phase 2, payment for on-going project management activities in years 2-5 and training will be paid monthly, in arrears. The Contractor will submit one itemized invoice, monthly, for services rendered. Completion of services will be verified by the Caltrans Contract Manager prior to payment.

All invoices for Contract 1 are subject to a 10% withhold. Such retained amount shall be held by the State and only released to the Contractor upon the Caltrans Contract Manager's acceptance all of the required services related to the Contract.

2. Contract 2 – Software Usage and Maintenance Fees:

The approved project budget for Contract 2 is \$8,400,000, and will be allocated yearly based on the expected number of users.

Software usage/maintenance fees shall be invoiced monthly in arrears and will not be subject to a 10% withhold.

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C. Payment Milestones for Contract 1 – Configuration and Training

Costs may not exceed the percentages indicated below. All payments are subject to a 10% withhold until successful completion of Contract 1,

Payment Milestone
Phase 1 <i>The total of all deliverables in this phase must not exceed 17% of the Bidder's costs for Contract 1: Configuration and Training.</i>
Development and Delivery of Approved Project Management and Training Plans (Form VII-2)
Configuration and Acceptance Testing includes the acceptance of the following items: • Project Management activities through completion of configuration and installation of software (Form VII-2) • Software Configuration (Form VII-3)
Development and Delivery of Approved Final Training Schedule (Form VII-2)
Course Development and Delivery of Approved Training Manuals (Form VII-4)
Key User Support Training and Fees Includes the following: • Completion of Key User Support Training (Form VII-6A) • COTS Software Usage/Maintenance Fees Year 1 (Form VII-5) • Project Management and Implementation activities after configuration and through completion of Key Support User training. (Form VII-2)
Phase 2 (billable monthly in arrears)
Ongoing Project Management Activities (Year 2-5) (Form VII-2)
Training (Year 2-5) (Form VII-6)

D. Cost Form Definitions

A firm fixed price must be provided for each of the cost forms contained in Appendix E. Bidders must not retype or edit the cost forms except to enter the requested information. Making a change to the form may make the proposal unacceptable to the State and may cause the proposal to be excluded from further consideration.

It is the sole responsibility of the Bidder to ensure all cost data and mathematical calculations are correct in the proposal.

The Cost Forms and a brief description are as follows:

1. Total Cost Summary (Form VII-1) (Contracts 1 and 2)

The Total Cost Summary must contain the Bidder's total price to provide the software and services as proposed, including implementation services and ongoing software usage fees and support costs. This form summarizes cost totals from subsequent forms.

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The Bidder shall include the cost of services related to project management and implementation of the software.

3. Software Configuration Cost (Form VII-3) (Contract 1)

The Bidder shall include the cost to configure the software to meet Caltrans' standards identified in Appendix F.

4. Course Development and Training Manual Cost (Form VII-4) (Contract 1)

The Bidder shall include the cost of developing Caltrans-specific courses and training manuals.

5. COTS Software Usage/Maintenance Fees (Year 1) (Form VII-5) (Contract 1)

The Bidder shall identify all software proposed for the project. Cost information shall include usage fees per user for 73 Key Support Users. Information for software proposed must include software title, description, and version number of the items.

6. Training Services Cost Summary (Form VII-6) (Contract 1)

All training requirements and logistics are located in Appendix G. All expenses associated with training delivery must be incorporated into the cost per class.

Form VII-6 summarizes cost data from the following forms:

Form VII-6A: Key User Support Training

Form VII-6B: Survey Data Processing and DTM Training

Form VII-6C: Survey COGO and Map Production Training

Form VII-6D: Introduction to Roadway Design Training

Form VII-6E: Intermediate Roadway Design Training

Form VII-6F: Basic Structure Design Training

Form VII-6G: Basic Hydraulic Design Training

7. COTS Software Usage/Maintenance Fees Summary (Years 2-5) (Form VII-7) (Contract 2)

The Bidder must provide annual usage and maintenance fees for each year of the contract.

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During the second year of the project, the end user count will rise to approximately 1,000, including the initial 73 trained in the first year. The software will be deployed to approximately 1,000 additional users in each of the next three years, for a total of approximately 4,000 end users when rollout is complete. A user is defined as any one person using the software at any time regardless of machine.

8. COTS Software Usage/Maintenance Fees (Optional Year 6) (Form VII-8) (Contract 2)

The Bidder must provide usage and maintenance fees for one additional (optional) year.

VIII. PROPOSAL FORMAT

A. Introduction

This section contains instructions and prescribes the mandatory proposal format for the development and presentation of Bidder's RFP response. Format instructions must be adhered to, all requirements and questions in the RFP must be responded to, and all requested data must be supplied. There is no intent to limit the content of the bid. Additional information deemed appropriate by the Bidder and their proposed solution must be included. However, including irrelevant material only makes the evaluation more difficult. Do not include testimonials about products in the requirement responses. These may be included in Volume IV – Literature. It is the responsibility of the Bidder to respond in the prescribed format ensuring the Caltrans RDS Evaluation Team can locate all response information.

Page numbers should be located in the same page position throughout the proposal. Figures, tables, charts, etc. must be assigned index numbers and must be referenced by these numbers in the proposal text. Figures, etc. must be placed as close to text references as possible. All pages in the proposal must be consecutively numbered, and must be standard 8.5x11" paper (except charts, diagrams, etc., which may be foldouts). If foldouts are used, the folded size must fit within the 8.5x11" format. Each volume of the various proposal submissions must be provided separately in an appropriately sized binder.

It is the Bidder's responsibility to ensure its proposal is submitted in a manner that enables the Evaluation Team to easily locate all response descriptions and exhibits for each requirement of this RFP.

The following must be shown on each page of the proposal and cost data:

- RFP RDS-2660-421
- Name of Bidder
- Proposal Volume Number and Page Number
- Label: "Draft Proposal" or "Final Proposal" or "Cost Proposal"

The proposal package must be completely sealed. All proposal package submissions must be clearly labeled "RFP RDS-2660-421". Submissions must be identified as the proposal (Draft or Final), or Cost Data (cost data must be sealed and submitted separately from the proposal) and include the Bidder's name and return address. Each proposal package must include one complete set of all volumes containing original signatures marked "Master Copy".

Bidders must notify the Procurement Official when the proposal (Draft and Final) are being delivered.

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Bidders must ensure that no costs are included in the Draft or Final Proposal, except in the sealed Volume III – COST DATA envelope, submitted with Final Proposal. The inclusion of pricing in any fashion or format in any other place in the proposal may result in immediate rejection of the bid (e.g. “provided at no additional cost..., etc.”). Supporting literature containing costs or rates (such as catalogs, maintenance service rates, etc.), submitted as part of the proposal must have all cost figures replaced with “XXXX.”

B. Final Proposal Format and Content

Failure to clearly identify the proposal on the outside of the package may result in the rejection of the proposal. The State is not responsible for receipt of any Final Proposal, which is improperly labeled, and accepts no responsibility for lost and/or late delivery of Final Proposals.

Bidders must not retype or edit the templates, or forms, except to enter requested information. Making a material change to any form may make the Bidder's proposal unacceptable to the State and may cause the proposal to be excluded from further consideration.

The complete proposal should be submitted in the format and numbers of copies indicated, and include the following items:

1. Volume I—Response to Requirements (1 Master copy and 10 copies)

This volume must contain all responses to the ADMINISTRATIVE REQUIREMENTS (RFP Section V), and TECHNICAL REQUIREMENTS (Section VI) of the RFP. All forms and questionnaires, EXCEPT for cost data, must be completed and included in this volume. Volume I will be incorporated into both contracts as appropriate.

The organization is to be as follows:

Section 1—Cover Letter and Executive Summary (Appendix C, Requirements A1 and A2)

Section 2—Administrative Requirements Response (Appendix C, Requirements A3 through A19)

Section 3—Technical Requirements Response (Appendix D)

Section 3 should contain tabs to separate each of the following sections:

- Tab 1: Project Management
- Tab 2: System Administration
- Tab 3: Mandatory Functional
- Tab 4: Desirable Functional
- Tab 5: Other Technical Requirements

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2. Volume II—Completed Contracts (1 Master copy and 1 copy)

This volume must contain the complete contract terms and conditions and all Attachments, complete in every detail. The Standard Agreement Form 213IT must be signed.

3. Volume III—Cost Data (1 Master copy and 10 copies)

This volume must be in a separately sealed, marked envelope or container containing all completed cost sheets and any other document with cost data identified as required in this RFP. Volume III will be incorporated into the contracts as appropriate.

The organization is to be:

Section 1—Cost Worksheets (Forms VII-1 through VII-8)

Section 2—Letter of Bondability

4. Volume IV—Literature (1 Master copy and 10 copies)

This volume must contain all technical and other reference literature the Bidder deems necessary to support the responses to the requirements of this RFP. **This volume must be tabulated so that the various reference materials can be located for evaluation purposes.**

5. Electronic Response Requirements

Two CD's must be included with Volume I containing all of Volume I response data in electronic form (Word or searchable PDF), two CD's must be included with Volume III containing all cost data (separate sealed with Volume III hardcopy and not in PDF format), and two CD's may be included with Volume IV containing electronic copies of any technical or other reference literature.

C. Draft Proposal Format and Content

The Draft Proposal must contain all the material specified above for the Final Proposal **except cost figures**. The costs should all be indicated with "XXXX". The completed contract (Appendix A), including Attachments **must also be included with products and services identified, but no cost figures included**. The contract need **not** be signed at this point. It is **important that all cost tables/sheets, with all entries except cost figures, be included**. The number of copies of the Draft Bid to be submitted for validation is as follows:

Volume I—	1 Master copy and 10 copies
Volume II—	1 Master copy and 1 copy
Volume III—	1 Master copy and 10 copies
Volume IV—	1 Master copy and 10 copies

IX. EVALUATION AND SELECTION

A. Introduction

The procurement process is a multi-step process to determine the most responsible and responsive proposal that offers the “best value” business solution to Caltrans. A “best value” evaluation does not emphasize low cost at the exclusion of other factors. It is a balanced assessment consisting of cost and perceived risk matched to the business needs.

This section discusses the process Caltrans will follow in evaluating proposals submitted by Bidders in response to the RFP and the criteria to be used in evaluating proposals. The selection process includes review of the Draft Proposals, with confidential discussions where Caltrans provides feedback to each Bidder, followed by a scored evaluation of Final Proposals.

This procurement is being conducted under the guidance of a Procurement Official from the Department of General Services (DGS) (refer to RFP Section I). Caltrans has established an Evaluation Team comprised of individuals selected from Caltrans staff from different regions and different disciplines. The RDS Evaluation Team is considered one group, and the opinion of that group is by consensus. Review of Bidder Draft Proposals and evaluation and scoring of Final Proposal Submissions will be by consensus of the entire Evaluation Team.

The DGS official serves as the point of contact for the Bidder for questions and clarification. Caltrans may engage additional qualified individuals or subject matter experts (SME's) during the evaluation process to assist the team in gaining a better understanding of technical, or program issues. SME's do not have voting privileges or responsibility for the evaluation process, but they may serve in an advisory capacity.

Bidders are required to thoroughly review all RFP requirements to ensure that the proposal and the proposed approaches and plans are fully compliant with RFP requirements. If the Evaluation Team finds that a Final Proposal has a material deviation, that proposal will be considered non-responsive and will not be considered for further evaluation.

Complete proposals must be delivered by the dates and times specified in Section I, Key Action Dates. The Procurement Official will verify that all responses are submitted under an appropriate cover, sealed and properly identified.

Proposals will remain sealed until the designated time for opening.

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B. Review of Draft Proposals

Draft Proposals submitted by the date and time designated in the RFP Section I, will be opened and reviewed for compliance with the requirements of the RFP.

1. Draft Proposal Review

The Draft Proposal must contain the complete Bidder proposed solution, **without costs**. The main purpose of the Draft Proposal is to provide Caltrans with a complete proposal (except for cost figures) to identify areas in the Bidder's proposal that, if not corrected, are unclear or could cause the Bidder's Final Proposal to be rejected. The Draft Proposal format and submission must follow the guidelines presented in Section VIII.

Draft Proposals will be reviewed by the Evaluation Team for compliance with the complete set of RFP requirements along with any explanations provided by the Bidder to add substance or provide background on how requirements will be met. The Evaluation Team will conduct the reviews to:

- Verify completeness of Reference Questionnaires; and
- Identify Conditional Statements – “Qualifiers” or conditions (conditional proposals) are not acceptable; and
- Document Deficiencies – Identify and document areas in which a proposal appears to be non-responsive, unclear, incomplete, defective, or require additional clarification.

After Draft Proposals have been reviewed, individual Confidential Discussions will be scheduled with each Bidder to discuss items that need clarification and to disclose defects found by the Evaluation Team. Prior to Confidential Discussions with the Bidder, the State will prepare a Confidential Discussion Agenda itemizing the identified defects.

The review of Draft Proposals is not an opportunity to make major changes to the bid, but only to correct those errors that could cause the Final Proposal to be deemed non-responsive. **THE STATE MAKES NO WARRANTY THAT ALL SUCH ERRORS WILL BE IDENTIFIED DURING THE REVIEW OF THE DRAFT PROPOSAL OR THAT SUCH ERRORS REMAINING IN THE FINAL PROPOSAL WILL NOT CAUSE THE PROPOSAL TO BE REJECTED.**

2. Confidential Discussions

The Evaluation Team will meet with each Bidder to discuss the Bidder's Draft Proposal. These Confidential Discussions will allow the Bidder to request clarification or ask questions specific to its proposed solution, thus protecting the confidential nature of each unique solution. Caltrans will discuss its concerns and ask for clarification if a response to a requirement is not clear or well defined, or if the proposed solution contains deficiencies. Bidders are

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strongly encouraged to bring their proposed project team and discuss the Evaluation Team comments at this time.

The Confidential Discussions are intended to minimize the risk that a Bidder's Final Proposal will be deemed defective; however, such discussions will not preclude rejection of the Bidder's Final Proposal if such defects are later found. The State does not warrant that all defects will be detected during the Draft Proposal Review.

C. Evaluation and Scoring of Final Proposals – Overview

Final Proposals will be logged as received by the Procurement Official listed in RFP Section I; and verified to ensure that all responses are submitted under an appropriate cover, sealed, and properly identified.

Failure to meet each mandatory requirement may cause the Bidder's proposal to be deemed non-responsive.

The evaluation of Final Proposals will consist of the following steps.

1. Preliminary Review and Validation (Pass/Fail)

All proposals received as specified in Section I, will be acknowledged as having been received at that time. Volume III - Cost Data shall remain sealed and in the possession of the Procurement Official until the evaluations of all requirements have been completed for all Bidders. The Final Proposals will be checked for the proper identification and required information, as specified in Section VIII. The results of this review will be documented using the Preliminary Review Sheet, Exhibit IX-1. **Unsealed proposals may be rejected.**

Cost proposals will only be opened for compliant Bidders receiving 70% or more of the available non-cost points. On the date of the public cost opening, the State will post a summary of the non-cost points awarded to each Bidder. This summary will be provided to all Bidders and the public in attendance at the cost opening as well as persons who request the summary.

- **Validation Against Requirements**

The State will check each proposal in detail to determine its compliance to the RFP requirements. If a proposal fails to meet an RFP requirement, the State will determine if the deviation is material as defined in Section II. A material deviation will be cause for rejection of the proposal. If a deviation is deemed to be non-material; evaluation will continue.

The proposals will be reviewed by the Evaluation Team to determine completeness of required documentation and compliance with Disabled Veterans Business Enterprise (DVBE), Small Business, TACPA, LAMBRA, and EZA requirements, as described in Section V.

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2. Administrative Requirements (Pass/Fail)

The RDS Evaluation Team will review the Bidder's response to determine if all administrative requirements have been met. All Administrative Requirements are Pass/Fail. See Appendix C, Form V-H: Administrative Requirements Response Matrix, for a complete list.

NOTE: The Reference requirement consists of two components, Pass/Fail and scored. The scored portion is included in the Business and Technical Requirements (Technical Requirements) and contributes to the total non-cost points.

3. Maximum Available Non-Cost Points = 6454

The Evaluation Team will review and evaluate the Bidder's responses to the various Business and Technical Requirements (Technical Requirements) described in detail in Subsection D, in this Section. The maximum available non-cost points are 6454. For each category, points will be awarded based on the Bidder's response and the evaluation criteria within this section.

4. Bid Opening and Cost Assessment

There will be a public cost opening for all responsive/responsible Bidders' proposals that meet all the mandatory requirements and achieve at least 70% of the available non-cost points (4518). Bidders that do not meet this minimum score will not have their Cost Proposals opened.

After cost opening, all bids will be validated to verify that they are complete and free of mathematical errors. If necessary, errors and inconsistencies will be resolved in accordance with Section II.

5. Determination of Winning Proposal

The total score (requirements and cost) will be calculated for each proposal. All necessary adjustments for preference and/or incentive points will be calculated and applied before determining the final score for each proposal. The Contract award, if any, will be made to the proposal with the highest final score.

D. Technical Requirements – Evaluation Process and Determination of Score (Maximum Score = 6454)

A maximum score of **6454** is possible for the technical requirements portion of the proposal. Details and scoring examples for the various components of the Technical Requirements follow:

1. Draft Project Management Plan

(Maximum Score = 320)

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Each Bidder must include a Draft Project Management Plan as part of their proposal. The Draft Project Management Plan will be assessed and scored based on the criteria and points shown in Tables IX-1 and IX-2. A maximum of 320 points are available for the Draft Project Management Plan.

Table IX-1: Project Management Plan Scoring Criteria

Criteria	Percentage of Available Points
The narrative response is compliant with the requirement, describes the specific approach which has been tailored for this project, and demonstrates to the Evaluation Team that the Bidder has a comprehensive and detailed understanding of the project scope.	100%
The narrative response is compliant with the requirements for this project, and demonstrates to the Evaluation Team that the Bidder has a fundamental understanding of the project scope.	50%
The narrative response only partially addresses or fails to address the requirements of the project, and demonstrates to the Evaluation Team that the Bidder has little or no understanding of the project scope.	0%

The Evaluation Team shall document their findings to show how the percentage of Points Earned was applied for each requirement. The Evaluation Team documentation will be included as a comment in the Evaluation and Selection Report.

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Table IX-2: Project Management Plan Components and Scoring

Requirement Number	Requirement	Percentage of Points Earned	Available Points	Points Earned
Project Schedule (70 points total)				
P1	Project schedule reflects expected timeframes		10	
P2	Includes full list of project tasks		10	
P3	Includes start/end dates with durations		10	
P4	Includes milestones (as appropriate)		10	
P5	Dependencies are accurate		10	
P6	Includes resource assignments		10	
P7	Schedule management plan includes schedule monitoring and update procedures		10	
Proposed project organization, including roles and responsibilities (50 points total)				
P8	Project organization chart is included		20	
P9	Roles and responsibilities are well defined		20	
P10	Project organization chart conforms to resource assignment in project schedule		10	
Risk/issue management plan (50 points total)				
P11	Issue resolution procedures are well defined		10	
P12	Includes list of planned risk and issue resolution activities, including responsibilities		10	
P13	Includes risk/issue identification and tracking process		10	

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Table IX-2: Project Management Plan Components and Scoring (continued)

Requirement Number	Requirement	Percentage of Points Earned	Available Points	Points Earned
P14	Risk mitigation procedures are defined		10	
P15	Issue escalation procedures are defined		10	
Communication Plan (50 points total)				
P16	Communications are well defined		20	
P17	Includes list of planned communication activities, including responsibilities and audience		30	
Change Management Plan (50 points total)				
P18	Change management procedures are well defined		20	
P19	Includes list of planned change management activities, including responsibilities		30	
Quality Plan (50 points total)				
P20	Requirements tracking procedures are defined		20	
P21	Documents conformance to Caltrans hardware/software standards. Refer to Section IV.E		20	
P22	Documents understanding of Caltrans security standards. Refer to Section IV.C		10	

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Project Management Plan Components and Scoring Sample (i.e. Project Schedule):

Table IX-3 contains a sample of how the Project Management components will be scored.

Table IX-3: Project Management Plan Components and Scoring Sample

Requirement Number	Requirement	Percentage of Points Earned	Available Points	Points Earned
Project Schedule (70 points total)				
P1	Project schedule reflects expected timeframes	50%	10	5
P2	Includes full list of project tasks	0%	10	0
P3	Includes start/end dates with durations	50%	10	5
P4	Includes milestones (as appropriate)	100%	10	10
P5	Dependencies are accurate	100%	10	10
P6	Includes resource assignments	0%	10	0
P7	Schedule management plan includes schedule monitoring and update procedures	100%	10	10

In this example, the Bidder has the total score of 40 points (5+0+5+10+10+0+10=40) for the Project Schedule portion of the plan.

2. System Administration Requirements

(Maximum Score = 660)

The System Administration Requirements are broken into eight parts, each with a set of mandatory and desirable requirements. The mandatory System Administration Requirements are pass/fail. A complete list of requirements is located in Appendix D, Form VI-2.

The desirable System Administration Requirements are scored. Table IX-4 provides the available points for each desirable requirement. For each desirable requirement met, the available points for that requirement will be awarded. The Requirement Numbers listed in this table match the desirable requirements listed in Appendix D.

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Table IX-4: System Administration - Desirable Requirements

Requirement Number	Requirement	Meets Requirement (YES/NO)	Available Points	Earned Points
Part 1. Hardware Requirements				
S2	The minimum amount of RAM (published by vendor) required to run the software is less than or equal to 512 megabytes.		20	
S3	The minimum amount of RAM (published by vendor) required to run the software is less than or equal to 1 gigabyte.		20	
S4	The recommended amount of Hard Disk space (published by vendor) needed to install the software is less than 1 gigabyte.		4	
S5	The minimum CPU (published by vendor) required to run the software is less than or equal to a Pentium 4 2.0GHz processor.		4	
Part 2. Software Requirements				
S10	The software is compatible/supported with Microsoft Windows XP Professional, Vista, and the latest Microsoft operating system available.		20	
S11	The software is compatible/supported with import/export to Microsoft Office Professional 2000.		4	
S12	The software is compatible/supported with import/export to Microsoft Office Professional 2003.		20	

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Table IX-4: System Administration - Desirable Requirements(Continued)

Requirement Number	Requirement	Meets Requirement (YES/NO)	Available Points	Earned Points
S13	The software is compatible/supported with PDF export.		4	
S14	The software is compatible/supported with Internet Explorer 6.0 import/export.		4	
S15	The software is compatible/supported with Internet Explorer 7.0 import/export.		4	
S16	The software supports multiple users on the same computer, each with customizable settings, on Windows XP Professional.		20	
S17	The software supports multiple users on the same computer, each with customizable settings, on Windows Vista Business.		20	
Part 3. Installation				
S20	The installer is available as a Microsoft Installer (MSI) format.		20	
S21	The installer is installable from a network server by mapped drive and by UNC.		20	
S22	The installer is capable of installing silently (no prompts).		20	
S23	Multiple versions of the software can be installed, co-exist, and function on the same computer.		20	
S24	Components can be installed/added without full re-install.		20	

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Table IX-4: System Administration - Desirable Requirements(Continued)

Requirement Number	Requirement	Meets Requirement (YES/NO)	Available Points	Earned Points
Part 4. Configuration				
S26	The configuration settings can be packaged into a single file.		20	
S27	The configuration settings can be text file configurable.		20	
S28	The configuration function has built-in error checking.		20	
S29	Multiple users can configure custom settings.		20	
S30	Multiple users can configure custom settings without using Windows Profiles.		20	
Part 5. Usage Rights				
S32	Usage is fully open. (i.e. Program can be installed and used without the use of the original CD/DVD, a unique key, etc.)		20	
S33	Usage is controlled via a pool at the local area network server.		20	
S34	Usage can be granted for use without network operation.		20	
Part 6. Uninstalls				
S36	Patches/Updates can be discretely uninstalled.		20	
S37	Uninstall uses standard Windows uninstall.		20	
S38	Components can be uninstalled without uninstalling entire software.		20	
S39	Uninstall is capable of silent uninstall (no prompts).		20	

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Table IX-4: System Administration - Desirable Requirements(Continued)

Requirement Number	Requirement	Meets Requirement (YES/NO)	Available Points	Earned Points
Part 7. Patches/Updates				
S41	Patches/Updates are modular and do not require complete re-install of product.		20	
S42	Patches are configurable (i.e. allows user-defined settings such as installation path, reboot options, etc.)		4	
S43	Patches are capable of silent install (no prompts).		20	
S44	Patches can be managed centrally.		20	
S45	Patches can be performed on-demand by ordinary user.		4	
S46	Summary of installed patches can be given on demand.		20	
S47	Patches auto-detect pre-requisites.		20	
S48	Reports can be gathered for machines that do not have certain patches.		20	
S49	Users can be notified of new patches.		20	
S50	Users can be notified of missing patches.		20	
Part 8. User Security				
Desirable:				
S52	Users can secure their projects within the software to keep other users from modifying their projects.		4	
S53	If the software has integrated security, Administrators have ability to access the projects of users that have secured their projects using the software's integrated security.		4	

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A scoring sample for the Desirable System Administration Requirements is provided in Table IX-5.

Scoring Sample (i.e. Part 7: Patches/Updates)**Table IX-5: Desirable System Administration Requirements Scoring Sample**

Requirement Number	Requirement	Meets Requirement (YES/NO)	Available Points	Earned Points
Part 7. Patches/Updates				
S41	Patches/Updates are modular and do not require complete re-install of product.	YES	20	20
S42	Patches are configurable (i.e. allows user-defined settings such as installation path, reboot options, etc.)	YES	4	4
S43	Patches are capable of silent install (no prompts).	YES	20	20
S44	Patches can be managed centrally.	NO	20	
S45	Patches can be performed on-demand by ordinary user.	NO	4	
S46	Summary of installed patches can be given on demand.	YES	20	20
S47	Patches auto-detect pre-requisites.	NO	20	
S48	Reports can be gathered for machines that do not have certain patches.	YES	20	20
S49	Users can be notified of new patches.	YES	20	20
S50	Users can be notified of missing patches.	NO	20	

In this example, the Bidder earned 104 points for this part of the System Administration Desirable requirements. Four requirements were not met S44, S45, S47 and S50; therefore, no points were awarded for those desirable requirements.

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3. Mandatory Functional Requirements

All Mandatory Functional Requirements are Pass/Fail. See Appendix D, Form VI-3, for a complete list.

4. Desirable Functional Requirements

(Maximum Score = 1684)

For each desirable requirement met, the available points for that requirement will be awarded. See Table IX-6 for the available points for each Desirable Functional Requirement.

Table IX-6: Desirable Functional Requirements

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
GENERAL SPECIFICATIONS				
GENERAL SPECIFICATIONS: General				
D1	The software should provide design and drafting features in MicroStation.		20	
D2	The software is capable of running in MicroStation and in other drafting software.		20	
D3	If the software doesn't work within MicroStation, the software should use multiple tables during translation process (e.g. symbol, color, layer/level, line style tables, etc.)		16	
GENERAL SPECIFICATIONS: Documentation				
D4	The solution includes online tutorials and online training.		16	
GENERAL SPECIFICATIONS: File Structure/Management				
D5	The software provides user tools to manage files (not computer managed only).		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D6	The software generates a project history/log file.		12	
D7	The software allows multiple users to access the same project files simultaneously, with security features to prevent users from overwriting changes made by others.		20	
GENERAL SPECIFICATIONS: User Interface				
D8	The software provides a consistent look of menus, dialog boxes, messages, and functions (i.e. same fonts, colors, and formatting.)		20	
D9	The software provides menu-driven commands with characteristics as follows:			
	a. Has three or less submenus in a stream for all menu-driven commands;		16	
	b. Provides a grouping of commands based on transportation design process (e.g. Pull Down Menu has groups for Horizontal Alignments, Vertical Alignments, Superelevation, etc. and all commands needed to design and display that item are under that menu); and/or		20	
	c. Has user-defined toolbars and menus transferable between users/projects.		16	
D10	The software provides the ability to repeat the last command without invoking the menu structure.		16	
D11	The software displays object attributes with cursor.		16	
D12	The software provides the ability to recall the data entry from the last use of that command.		12	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D13	The software provides at least two "Undo" actions for design commands. (e.g. Undo modified and deleted data by selection set or working session.)		20	
DTM SURFACES				
DTM SURFACES: General Specifications				
D14	The software provides a dynamic interface with the DTM engine.		12	
D15	The software is capable of working with large data sets (e.g. laser-scanned data with a large number of points).		16	
D16	The software is able to lock DTM from manipulation/modification.		16	
D17	The software creates DTM extents for GIS purposes.		16	
DTM SURFACES: Input				
D18	The software develops and generates surfaces from a LandXML file format.		16	
DTM SURFACES: Contours				
D19	The software dynamically links contour modifications to DTM surface.		16	
DTM SURFACES: Cross Sections				
D20	The software automatically updates cross sections based on changes to the DTM.		16	
D21	Cross sections identify void areas.		16	
D22	The software extracts cross section data directly from 3D digital contour maps or Digital Elevation Models (DEM's) without the use of a surface (TIN) model.		12	
D23	The software resolves crossing sections (e.g. at curb returns and bridge cones).		16	
DTM SURFACES: Modifications				
D24	The software provides dynamic interactive manipulation of multiple surfaces.		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D25	The software allows user-defined boundaries and void areas.		16	
D26	The software provides for point filtering (i.e. thinning).		16	
D27	The software is able to process a portion of the DTM in user-defined areas.		16	
DTM SURFACES: Reports/Output				
D28	The software provides DTM export in LandXML format.		16	
D29	The software is compatible with Machine Guided Grading.		16	
COGO				
COGO: Spirals				
D30	The software constructs a spiral based upon a "least squares" fit through a series of points. Should report residual values and allows user to determine point list based on residuals.		12	
COGO: Manipulation/Modifications				
D31	The software provides dynamic modification capabilities for single or complex geometry elements (e.g. modifying a circular curve in a horizontal alignment would also affect tangents to that curve), with an option to let user save changes as a new element rather than automatically updating the existing element.		16	
COGO: Traverse				
D32	The software graphically previews traverse before it is stored.		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
COGO: User-Defined Annotations				
D33	The software provides user-definable tabular element annotation including tables for areas with descriptions and dynamically updates tables when geometry changes.		16	
D34	The software provides radial or tangent bearing annotation at a given point on a curve.		16	
COGO: Reports/Output				
D35	The software provides a report with the ability to list or display user-defined elements, for example: • Duplicate points; and • Points not in a string.		16	
D36	The software provides command listing that can be used to edit and re-run a series of commands.		16	
HORIZONTAL ALIGNMENT				
HORIZONTAL ALIGNMENT: Construct Horizontal Alignment				
D37	Horizontal Alignment reports are capable of providing point descriptors.		20	
VERTICAL ALIGNMENT				
VERTICAL ALIGNMENT: Construct Vertical Alignment				
D38	The software is capable of displaying vertical curves superimposed over Horizontal Alignment curves (visualization tool for improved HA and VA design continuity).		16	
D39	The software is capable of constructing a vertical alignment by a best-fit method.		16	
VERTICAL ALIGNMENT: User-Defined Vertical Alignment Annotations				
D40	The software provides and displays profiles with automatic annotation including K-value.		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
VERTICAL ALIGNMENT: Modify Vertical Alignment				
D41	When any interactive modification is made, all affected features and elements of the alignment, including stationing, are automatically updated and saved in the design file/model with on/off switch.		20	
VERTICAL ALIGNMENT: Reports/Output				
D42	Vertical alignment reports and output provide:			
	a. Slope differences;		16	
	b. Passing sight distance; and/or		20	
	c. Decision sight distance.		20	
D43	The software computes minimum vertical distance between any two vertical alignments or line strings at overlapping points.		16	
SUPERELEVATION				
SUPERELEVATION: General				
D44	The software provides Superelevation transition curves.		16	
D45	The software imports Excel spreadsheets with Superelevation data.		12	
SUPERELEVATION: Modifications				
D46	The software allows user to copy, edit, delete, insert, move, and revise previously defined Superelevations.		16	
D47	The software is able to graphically modify previously defined Superelevations.		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D48	When any modification to Superelevation is made, the affected elements of the design (e.g. cross sections or design model) are automatically updated; including automatic Superelevation plot update with on/off switch.		16	
SUPERELEVATION: Superelevation Plots				
D49	The software provides user-defined Superelevation diagram annotation including:			
	a. Superelevation runoff lengths		16	
	b. Point of intersection for coincidental rates		16	
D50	The software provides Horizontal Alignment Curve annotation (e.g. BC, EC, etc.) on Reference Line.		16	
ROADWAY DESIGN: General				
D51	The software provides a configurable design specification checker (including horizontal and vertical alignments as well as Superelevation.)		20	
ROADWAY DEFINITION				
ROADWAY DEFINITION: General Cross Section Requirements				
D52	The software displays longitudinal features in cross-section view including: • Edge drains; and • Utilities (gas lines, pipes, etc.)		16	
ROADWAY DEFINITION: Defining Roadway Segments				
D53	The software allows a minimum of 10,000 segments, strings of segments, and strings.		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D54	The software allows the user to graphically review design sections and strings in cross section window and planimetric window before storing to database.		16	
ROADWAY DEFINITION: Slope Selection/Ditch Design				
D55	The software allows a minimum of 100 slope segments/strings per: • Station; • Range of stations; or • Section of roadway.		16	
D56	The software allows slope input by both ratio and percents.		20	
ROADWAY DEFINITION: Earthwork Quantity Parameters				
D57	The software generates mass-haul diagrams, including the option of forced balance.		16	
ROADWAY DEFINITION: Roadway Cross Section Output (Quantities, Plots, and Reports)				
D58	The software provides a station and offset report of grinding areas and intersection with Original Ground (OG) surface.		16	
ROADWAY DEFINITION: Cross Section Plots				
D59	The software is able to plot partial cross sections.		16	
SITE MODELING/DESIGN				
SITE MODELING/DESIGN: General				
D60	The software allows data input graphically and/or interactively in a dynamic environment.		20	
VISUALIZATION TOOLS				
D61	The software provides 3D animation capabilities (e.g. drive-thru).		16	
D62	The software is able to manipulate and edit in a 3D view.		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D63	The software provides photo-realistic rendering capabilities, including the modeling of manmade features (e.g. buildings, vehicles, utility objects, etc.) and natural features (e.g. trees, shrubs, pedestrians, etc.).		16	
D64	The software provides line of sight measurements, distance and bearings between any two defined locations.		16	
D65	The software produces 3D views that are color coded by elevation or slope intensity and allows the user to modify shading settings.		16	
D66	The software is able to view GIS data as a background.		16	
AUTOMATED PLAN/MAP PRODUCTION				
D67	The software has the ability to automate the composition and placement of plan view labels onto plans.		16	
MISCELLANEOUS CRITERIA				
D68	The software has user-defined save options (e.g. auto-save every 5 minutes vs. only when user activates a save command.)		16	
D69	The software provides quantity takeoff and cost estimating capabilities.		16	
D70	The software provides a scientific calculator (able to do RPN, convert from DMS to Radians, etc.).		12	
D71	The software is able to link multiple images to any object.		12	
D72	The software allows multiple input methods (e.g. quadrants, azimuths, bearings, mathematical operations, deflection, etc.)		20	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES				
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Hydraulics/Hydrology				
D73	The software can create annotated drainage profiles with the following parameters:			
	a. Pipe type;		16	
	b. Pipe size;		16	
	c. Inlet type;		16	
	d. Flowline elevations, including entrance and exit invert elevations;		16	
	e. Grades;		16	
	f. Normal and critical depth lines where applicable;		16	
	g. User-defined text size, font style and justification;		16	
	h. Original ground/finish grade;		16	
	i. Hydraulic Grade Line (HGL) and Energy Grade Line (EGL) for storm drains; and/or		16	
	j. Station and offsets.		16	
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Landscape Design				
D74	The software is able to provide user-defined plant labeling.		12	
D75	The software provides automatic take-offs for quantities.		12	
D76	The software provides a customizable item database.		12	
D77	The software provides piping analysis (pressure loss, sizing, etc.).		12	
D78	The software is able to display plant growth with 3D rendering capabilities applying time and plant species parameters.		12	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Right of Way Engineering				
D79	The software generates user-defined metes and bounds/legal descriptions from complex horizontal alignments including alignments with spirals and curves (chord or arc definition).		16	
D80	The software provides user-defined tables for parcel area management.		16	
D81	The software is able to access a parcel database through a user-defined index (e.g. Oracle, Access, SQL).		16	
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Bridges				
D82	The software is able to report superstructure and substructure concrete, structural excavation, and structural backfill pay item quantities.		16	
D83	The software is able to create and export a 3D model of bridge superstructure and substructure to a 3D MicroStation file.		16	
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (General)				
D84	The software provides the ability to restrict modifications to specific files (e.g., DTM, survey, design, etc.) to specified users.		16	
D85	The software allows the user to assign different Epoch dates to the coordinate systems.		16	
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Data Reduction)				
D86	The software has the ability to do least squares network adjustment of survey data from mixed collection methods (GPS, conventional, etc.)		16	

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Table IX-6: Desirable Functional Requirements (Continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Data Validation and Editing)				
D87	The software is able to combine terrain breaklines by user-definable criteria (e.g. same terrain features that fall within a user-defined horizontal and vertical tolerance in order to remove spaces or gaps between lines).		20	
D88	The software is able to identify all points that fall next to other points within a user-defined horizontal and vertical tolerance.		16	
D89	The software is able to accurately divide large DTM surfaces along existing triangulation lines.		16	
GEOGRAPHIC INFORMATION SYSTEMS				
D90	The software is able to directly link, to one of the following GIS databases: • ArcSDE; • Geodatabases; or • Spatial Data Option (SDO) for 2D and 3D data; including: • Lines and curves (e.g. Alignments, right of way lines); • Polygons (e.g. parcels, ESA's, soil types); and • Points (e.g. cells).		16	
D91	The software is able to facilitate through another module, to one of the following GIS databases: • ArcSDE; • Geodatabases; or • Spatial Data Option (SDO) for 2D and 3D data; including, : • Lines and curves (e.g. Alignments, right of way lines); • Polygons (e.g. parcels, ESA's, soil types); and • Points (e.g. cells).		12	

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A scoring sample for the Desirable Functional Requirements is provided in Table IX-7.

Table IX-7: Desirable Functional Requirements Scoring Sample

Requirement Number	Desirable Functional Requirements	Meets Requirement (YES/NO)	Available Points	Earned Points
D5	The software provides user tools to manage files (not computer managed only).	YES	16	16
D6	The software generates a project history/log file.	NO	12	0
D7	The software allows multiple users to access the same project files simultaneously, with security features to prevent users from overwriting changes made by others.	YES	20	20

In the sample above, the proposed software will provide two of the desired requirements. The Bidder receives the available points for those requirements, in this example, a total of 36 points are awarded. No points are given for the requirement that is not met. Points will be totaled and used to determine the Bidder's score for this category.

Section IX: Evaluation and SelectionRFP RDS-2660-4215. References

(Maximum Score =1,600)

The Customer Reference Questionnaire – Appendix C, Form V-A, will be scored in two parts. Part 1, consists of Questions 1 thru 6, and determines the weight factor for each reference.

Part 2 summarizes the points from Questions 7 thru 21. The weight factor is then applied to determine the total score. **If the weight factor equals zero, no points will be given for that reference.**

The Evaluation Team may contact references for clarification of submitted Bidder's Reference Questionnaires. Responses will be recorded and follow-up questions may be asked to confirm or clarify the response. If after three attempts, the Evaluation Team is unable to confirm a response; the reference question may receive zero points.

Any unanswered questions will be valued as zero.

Part 1: Reference Weight Factors

The reference weight factor will be calculated to accurately reflect the bidder's ability to satisfy the requirements in this RFP for each reference. References similar to Caltrans will be given a greater weight. The reference weight factor is determined using Questions 1-6 and by the following steps:

Step 1: Determine the scores for each reference. See Table IX-8.

Step 2: For each reference, determine the subtotal of points.

Step 3: Sum up the total points for all references.

Step 4: Determine each reference weight factor by dividing the subtotal of points of each reference by the total points for all references.

Refer to Table IX-9 for Steps 2-4.

See Table IX-12 for example.

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Table IX-8: Point values for Questions 1 thru 6

Bidder's name:

GENERAL INFO					
Questions	0 (0 points)	1-25 (1 point)	26-100 (2 points)	101-999 (3 points)	1000+ (4 points)
1. Number of land surveyors that do drafting and design related work					
2. Number of engineers that do roadway design related work					
3. Number of MicroStation licenses					
REFERENCE'S HISTORY WITH (SOFTWARE)					
		1-3 years (1 point)	3-4 years (2 points)	4-5 years (3 points)	5+ years (4 points)
4. How long has your company been using (SOFTWARE)?					
CURRENT USE					
	0 (0 points)	1-25 (1 point)	26-100 (2 points)	101-999 (3 points)	1000+ (4 points)
5. Approximately how many surveyors use (SOFTWARE)?					
6. Approximately how many engineers use (SOFTWARE)?					

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Table IX-9: Calculation of Reference Weight Factor

Bidder's Name:

Software:

Row	Questions	Reference 1		Reference 2		Reference 3		Reference 4		Reference 5		Reference 6		Total
1	1. Number of land surveyors that do drafting and design related work													
2	2. Number of engineers that do roadway design related work													
3	3. Number of MicroStation licenses													
4	4. How long has your company been using the software?													
5	5. Approximately how many surveyors use the software?													
6	6. Approximately how many engineers use the software?													
7	Subtotal (Row 1-6)													
8	Grand Total (Sum of Row 7)													
9	Weight Factor (Row 7/Row 8)													

Section IX: Evaluation and SelectionRFP RDS-2660-421Part 2: Determining Reference Score

For each question answered in Part 2, the total points for each reference will be summarized, multiplied by a weight factor determined in Part 1, and totaled to determine the total reference score. The reference questions are categorized as follows:

- Software (questions 7 through 12);
- Vendor (questions 13 through 16);
- Training (questions 17 through 20); and
- Implementation Assistance (question 21)

The reference score will be calculated using Questions 7 thru 21 as follows:

Step 1: Determine the scores for each reference. See Table IX-10.

Step 2: Calculate the sum of points for each reference.

Step 3: Multiply the reference weight factor to the sum of points for each reference.

Step 4: Calculate the sum of total points from each reference. This is the total reference score

Refer to Table IX-11 for Steps 2-4.

See Table IX-12 for example.

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Table IX-10 Reference Scoring

SOFTWARE					
Questions	Poor	Below Average	Average	Above Average	Excellent
	(0 points)	(33 points)	(66 points)	(99 points)	(132 points)
7. Functionality (ability to do complex designs)					
8. Ease of use/user friendliness					
9. Ability to meet your requirements					
10. Value for the money spent					
11. Compatibility with other design software					
12. Overall satisfaction					
VENDOR					
	Poor	Below Average	Average	Above Average	Excellent
	(0 points)	(15 points)	(30 points)	(45 points)	(60 points)
13. Technical support					
14. Availability of resources/support					
15. Quality of support					
16. Overall satisfaction					
TRAINING					
	Poor	Below Average	Average	Above Average	Excellent
	(0 points)	(30 points)	(60 points)	(90 points)	(120 points)
17. Quality of training materials					
18. Availability of trainers					
19. Quality of trainers					
20. Overall satisfaction with training					
IMPLEMENTATION					
	Poor	Below Average	Average	Above Average	Excellent
	(0 points)	(22 points)	(44 points)	(66 points)	(88 points)
21. How would you rate the vendor's involvement?					

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Table IX-11: Determination of Reference Score

Bidder Name: _____

Software: _____

Row	Questions	Reference 1	Reference 2	Reference 3	Reference 4	Reference 5	Reference 6	Total
9	Weight Factor From Table IX-9							
SOFTWARE - 792 points								
10	7. Functionality (ability to do complex designs)							
11	8. Ease of use/user friendliness							
12	9. Ability to meet your requirements							
13	10. Value for the money spent							
14	11. Compatibility with other design software							
15	12. Overall satisfaction							
16	Subtotal (Rows 10-15)							
17	Subtotal (Row 16) x Weight Factor (Row 9)							
VENDOR - 240 points								
18	13. Technical support							
19	14. Availability of resources/support							
20	15. Quality of support							
21	16. Overall satisfaction							
22	Subtotal (Rows 18-21)							
23	Subtotal (Row 22) x Weight Factor (Row 9)							
TRAINING - 480 points								
24	17. Quality of training materials							
25	18. Availability of trainers							
26	19. Quality of trainers							
27	20. Overall satisfaction with training							
28	Subtotal (Rows 24-27)							
29	Subtotal (Row 28) x Weight Factor (Row 9)							
IMPLEMENTATION - 88 points								
30	21. How would you rate the vendor's involvement?							
31	Implementation Score (Row 30) x Weight Factor (Row 9)							
32	Total Score per reference (Sum of Rows 17, 23, 29, 31)							

Total Reference Score (Sum of Row 32): _____

Refer to Table IX-12 for a sample reference score calculation.

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Table IX-12: Reference Scoring Sample

Bidder Name:

Software:

Row	Questions	Reference 1		Reference 2		Reference 3		Reference 4		Reference 5		Reference 6		Total
1	1. Number of land surveyors that do drafting and design related work	1		2		3		4		3		2		
2	2. Number of engineers that do roadway design related work	3		2		3		2		3		4		
3	3. Number of MicroStation licenses	3		2		2		4		3		4		
4	4. How long has your company been using the software?	3		2		2		4		3		4		
5	5. Approximately how many surveyors use the software?	1		2		3		4		3		2		
6	6. Approximately how many engineers use the software?	3		2		2		2		3		4		
7	Subtotal (Rows 1-6)	14		12		15		20		18		20		
8	Grand Total (Sum of Row 7)													99
9	Weight Factor (Row 7/Row 8)	14.1%		12.1%		15.2%		20.2%		18.2%		20.2%		

SOFTWARE - 792 points														
10	7. Functionality (ability to do complex designs)	66		132		132		132		132		132		
11	8. Ease of use/user friendliness	132		132		132		132		99		132		
12	9. Ability to meet your requirements	66		132		99		33		132		132		
13	10. Value for the money spent	132		132		132		132		33		132		
14	11. Compatibility with other design software	66		132		33		132		0		132		
15	12. Overall satisfaction	132		132		132		132		132		132		
16	Subtotal (Rows 10-15)	594		792		660		693		528		792		
17	(Software Subtotal) x (Weight Factor)		84		96		100		140		96		160	676

VENDOR - 240 points														
18	13. Technical support	60		60		40		60		60		40		
19	14. Availability of resources/support	40		60		40		60		40		60		
20	15. Quality of support	60		60		40		20		60		60		
21	16. Overall satisfaction	60		60		20		60		60		60		
22	Subtotal (Rows 18-21)	220		240		140		200		220		220		
23	(Vendor Subtotal) x (Weight Factor)		31		29		21		40		40		44	205

TRAINING - 480 points														
24	17. Quality of training materials	0		120		120		120		0		120		
25	18. Availability of trainers	0		120		120		60		0		120		
26	19. Quality of trainers	0		30		60		120		0		90		
27	20. Overall satisfaction with training	0		120		120		120		0		120		
28	Subtotal (Rows 24-27)	0		390		420		420		0		450		
29	(Training Subtotal) x (Weight Factor)		0		47		64		85		0		90	286

IMPLEMENTATION - 88 points														
30	21. How would you rate the vendor's involvement?	88		44		22		66		88		66		
31	(Implementation Score)x(Weight Factor)		12		5		3		13		16		13	62
32	Total Score per reference (Sum of all four categories)		127		177		188		278		152		307	

Total Reference Score (Sum of Row 32): 1229

Section IX: Evaluation and SelectionRFP RDS-2660-421**6. Other Technical Requirements (Pass/Fail)**

The Evaluation Team will review the Bidder's response in Appendix D, Form VI-5: Other Technical Requirements Response Form, to determine if the requirements have been met.

7. Demonstration of Software**(Maximum Score = 2,190)****a. Introduction**

The Demonstration of Software will be performed in accordance with instructions provided in Section X.

b. Evaluation Process

The Evaluation Team will evaluate and award points for each of the demonstrated requirements based on the tasks and evaluation factors in Table IX-14. Scoring for each task will be based on the Criteria for Award of Points as defined in Table IX-13. The current software, CAiCE, was used as the benchmark.

Some of the Evaluation Factors in Table IX-14 use the term "interface". The following will apply when the term "interface" is used:

- An interface can be a method that allows the user to interact outside of the application:
 - o An external program, e.g. VURBAN, a hydraulics program, or
 - o An interconnection between programs, e.g. a DLL used in one application that runs another application.
- An interface can be a method that runs within the application:
 - o A dialog box,
 - o A key-in command, or
 - o A VBA macro.

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- A new instance of an interface can be any of the following:
 - o Interaction with a new dialog box,
 - o Interaction with a nested dialog box,
 - o A key-in command,
 - o The use of a VBA macro,
 - o The modification of a file provided in the project data, e.g. creating a comma delimited file from a traverse report, or
 - o A mechanism, e.g. a toolbar or menu drop down, that performs a function.
- The following will not be considered new instances of an interface:
 - o A mechanism, e.g. a toolbar or menu drop-down, that initiates a routine or opens a dialog box,
 - o File management commands, e.g. creating, saving, opening or closing folders and/or files,
 - o Interaction with a file provided in the project data, e.g. copying and pasting coordinates from the file to a dialog box,
 - o Confirmation prompts,
 - o The use of tabs or other selection tools within a dialog box, or
 - o The use of a dialog box that is opened more than once within the same task.

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Table IX-13 Criteria for Award of Points

Points	Criteria
30 points	Demonstrated software exceeds current standards and any of the following comments apply: • Performance was quicker than anticipated (if applicable); or • Demonstration exhibited efficient workflow; or • Software task replaces multiple menu items with a single interface; or • Software task exhibited a workflow or functionality superior to the current software.
15 points	Demonstrated software meets current standards, but any of the following comments apply: • Performance was as anticipated (if applicable); or • Software task exhibited a workflow or functionality equal to the current software.
0 point	Demonstrated software does not meet current standards or any of the following comments apply: • Performance was slower than desired (if applicable); or • Software task exhibited a workflow or functionality more difficult than the current software; or • Procedural workarounds were required to fully accomplish the requirement; or • Allotted time for Demonstration expired; or • Could not demonstrate.

Table IX-14 identifies the tasks for demonstrating the software, the factors to be considered in the evaluation, and the points available. Some of the requirements have more than one set of evaluation factors that will be scored, these are identified in the "Demonstration #" column as "Evaluation Factor 1", "Evaluation Factor 2", etc. In addition, some of the mandatory requirements relating to the demonstration tasks are listed for information only.

At the end of the allotted time period, any tasks not demonstrated by the Bidder will be given a point value of zero.

The points awarded for each factor will be summed to obtain the total points earned for the Demonstration of Software.

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Project Setup and Directory Structure			
DM1	(One (1) evaluation factor will be scored for this requirement) Launch the software and demonstrate its interaction with MicroStation. Mandatory requirements M3 and M4.	30 points max	
DM 1: Evaluation Factor 1	The software runs within MicroStation.	30	
	- OR - The software does not run within MicroStation but does provide an interface to MicroStation.	15	
	- OR - The software runs in another drafting software and does not provide an interface to MicroStation.	0	
While creating a project:			
DM2	(One (1) evaluation factor will be scored for this requirement) Demonstrate the level of control that a user has on how the project data structure is created. Mandatory requirement S51.	30 points max	
DM2: Evaluation Factor 1	The project data is stored in user-defined locations.	30	
	- OR - The project data is automatically stored in multiple files within a user-specified directory.	15	
	- OR - The user has no control over project data structure.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM3	(One (1) evaluation factor will be scored for this requirement) During the project setup, demonstrate as many of the following features as possible: 1. Set the working units: U.S. Survey Foot 2. Set the horizontal datum: CCS 83, Zone 5 3. Set the vertical datum: NGVD 29 4. Set the stationing format: ##+00.00 5. Set the elevation report accuracy: #0.00 6. Set the coordinate report accuracy: #0.000 7. Set the distance report accuracy: #0.000 8. Specify which users can modify the survey data and which users can modify the design data 9. Save and access the settings with another project Mandatory requirements M6 and M7.	30 points max	
DM3: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Seven or eight of the features were demonstrated.	15	
	- OR - Six or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Photogrammetric and Field Data Import and DTM Development			
DM4 (Timed Demonstration)	(Two (2) evaluation factors will be scored for this requirement) Import and display the photogrammetric data from a 3D DGN file using the following parameters and information: - Photogrammetric data: <i>PhotoData.dgn</i> Photogrammetric data attributes: - CURB breaklines: Level = 2 Line style = ph-Curb - ETW breaklines: Level = 2 Line style = ph-ETW - STRIPE breaklines: Level = 2 Line style = ph-LnStrp - WATER breaklines: Level = 6 - CONT breaklines: Level = 7 - SPOT points: Level = 8 - BREAK breaklines: Level = 11 Demonstrate as many of the following features as possible: - Assign the codes noted above to the points and breaklines - Import the data without modifying the DGN file - Save the import set up for subsequent use Mandatory requirements M13, M23, M24, and M157.	60 points max	
DM4: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM4: Evaluation Factor 2 (TIMED)	It took less than 10 minutes to set up and assign unique codes and import the data.	30	
	- OR - It took between 10 & 20 minutes to set up and assign unique codes and import the data.	15	
	- OR - It took greater than 20 minutes to set up and assign unique codes and import the data.	0	
Photogrammetric and Field Data Import and DTM Development			
DM5	(One (1) evaluation factor will be scored for this requirement) Import the field survey points and breaklines using the following parameters and information: • Comma delimited ASCII file: <i>SurveyData.txt</i> • The format of the file is: Point Name, Eastings, Northings, Elevation, Topo Code, Line Code • Line Code format: ○ The beginning of a breakline is coded with a B ○ The end of a breakline is coded with an E ○ All other points in a breakline are coded with a C ○ Individual point shots do not have a line code Mandatory requirements M23, M24, M233, M240, and M241.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM5: Evaluation Factor 1	The software has a user interface that guides the user through dialog steps to determine the file format and then imports the survey data as points and breaklines.	30	
	- OR - The software has an interactive interface where the user defines the file format and then imports the survey data as points and breaklines.	15	
	- OR - The software could not import the comma-delimited file without manipulation and/or not all of the survey data points and breaklines were imported.	0	
DM6	(One (1) evaluation factor will be scored for this requirement) Identify the field survey points with elevations outside the elevation range of 2699 to 2906. Demonstrate as many of the following features as possible: 1. An interface is used that lists the points 2. An interface is used that sorts the list by elevation 3. Dynamically navigate to the points Mandatory requirements M205 and M246.	30 points max	
DM6: Evaluation Factor 1	All of the features were demonstrated	30	
	- OR - One or two of the features were demonstrated.	15	
	- OR - None of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM7	(One (1) evaluation factor will be scored for this requirement) While resolving the conflict in point order in the field survey breakline coded SW, demonstrate as many of the following features as possible: 1. Use one interface 2. Graphically manipulate the breakline 3. Dynamically update the display Mandatory requirement M239.	30 points max	
DM7: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	
DM8	(Two (2) evaluation factors will be scored for this requirement) For Evaluation Factor 1, demonstrate how to display and resolve crossing breaklines using the following parameters and information: • Vertical difference at the crossing: > 0.01' For Evaluation Factor 2, demonstrate as many of the following features as possible: 1. An interface is used that lists and sorts the crossings 2. Interactively track to the crossings one at a time 3. Trim one of the breaklines at a crossing 4. Insert a gap in one of the breaklines at a crossing 5. Insert a common point in both breaklines as a batch process at three user selected crossings Mandatory requirement M247.	60 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM8: Evaluation Factor 1	Only the crossing breaklines within the user specified parameters are displayed.	30	
	- OR - Only crossing breaklines are displayed but not within the user specified parameters.	15	
	- OR - All of the breaklines are displayed	0	
DM8: Evaluation Factor 2	All of the features were demonstrated.	30	
	- OR - Four of the features were demonstrated.	15	
	- OR - Three or less of the features were demonstrated.	0	
DM9	(One (1) evaluation factor will be scored for this requirement) While creating a single DTM of the field survey data and the photogrammetric data, demonstrate how the software can use an automated method of excluding the survey data with the following codes from triangulation (e.g. a selection set of codes or filters): • CLF • CULT • CULV • DI • MBGR • SDRN Mandatory requirements M23 and M24.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM9: Evaluation Factor 1	An attribute or code can be assigned to the survey data that specifies if the elements will be triangulated. No filters are needed.	30	
	- OR - A selection set of codes and filter is used to create a selection set of elements that will be triangulated.	15	
	- OR - Survey data can not be excluded using an automated method.	0	
DM10	(One (1) evaluation factor will be scored for this requirement) While creating a DTM of the field survey data and the photogrammetric data, demonstrate how to remove the photogrammetric data lying within the limits of the field data. Mandatory requirement M18.	30 points max	
DM10: Evaluation Factor 1	The underlying photogrammetric data is removed while the DTM is created.	30	
	- OR - The underlying photogrammetric data is removed before the DTM is created.	15	
	- OR - The software can not remove photogrammetric data within the limits of the field data.	0	
DM11 (Timed Demonstration)	(Two (2) evaluation factors will be scored for this requirement) Triangulate and view the DTM of the field survey data and the photogrammetric data using the least number of interfaces. Mandatory requirements M17 and M211.	60 points max	
DM11: Evaluation Factor 1	A single interface is used.	30	
	- OR - Two to three interfaces are used.	15	
	- OR - Four or more interfaces are used.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM11: Evaluation Factor 2 (TIMED)	It took less than two minutes to triangulate and view the DTM.	30	
	- OR - It took between two and four minutes to triangulate and view the DTM.	15	
	- OR - It took greater than four minutes to triangulate and view the DTM.	0	
DM12	(One (1) evaluation factor will be scored for this requirement) Demonstrate the software's ability to create and display a freehand cross section/profile of the DTM using as many of the following methods as possible: 1. Along a CADD element 2. Along a multiple vector digitized location 3. Along a single vector digitized location Mandatory requirement M29.	30 points max	
DM12: Evaluation Factor 1	All of the methods were demonstrated.	30	
	- OR - Two of the methods were demonstrated.	15	
	- OR - One or none of the methods were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM13	(One (1) evaluation factor will be scored for this requirement) While resolving exterior erroneous triangles, demonstrate as many of the following features possible: 1. Erroneous triangles can be manually resolved 2. A shape can be used to identify the erroneous triangles to be resolved 3. Erroneous triangles can be automatically resolved whenever the DTM is triangulated Mandatory requirements M17, M22, and M35.	30 points max	
DM13: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated	15	
	- OR - One or none of the features were demonstrated.	0	
DM14	(One (1) evaluation factor will be scored for this requirement) While preparing the survey and photogrammetric data for delivery to Design, demonstrate as many of the following features as possible: 1. The design process only requires the original ground DTM 2. The original ground DTM can be delivered separately from the survey and photogrammetric data 3. The original ground DTM is contained in a single file Mandatory requirement M41.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM14: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated	15	
	- OR - One or none of the features were demonstrated.	0	
Coordinate Geometry Import and Development			
Geometry for the “A1” (A Line), “WFR1”(WFR Line), “CD1” (CD1 Line), “D3” (D3 Line), and “SNW42” (Retaining Wall 124) alignments			
DM15	(One (1) evaluation factor will be scored for this requirement) Import alignments and profiles from the XML file as provided using the following parameters and information: - Geometry: A1-WFR-CD1-D3-SNW42.XML - Use one interface Mandatory requirement M44.	30 points max	
DM15: Evaluation Factor 1	A single interface is used that does not require modifications to the XML file as provided.	30	
	- OR - A single interface is used after modifications to the XML file are performed.	15	
	- OR - More than one interface is used to achieve the task.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM16	(One (1) evaluation factor will be scored for this requirement) Develop the superelevation of the "WFR1" line using the following parameters and information: • Station Range: 00+00 – 64+68.74 • Based on the standard Superelevation tables <i>Demo_Super.tbl</i> and <i>Demo_Design_Speed.tbl</i> Demonstrate as many of the following features as possible: 1. Automatically calculates a superelevation definition based on the above tables 2. Allows modifications 3. Resolves overlap errors automatically 4. Capable of copying and pasting elements from one graphical diagram to another Mandatory requirement M130.	30 points max	
DM16: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Three of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Geometry for the "D1" line			
DM17	(Two (2) evaluation factors will be scored for this requirement) Create an alignment for the "D1" line using the following parameters and information: • Traverse data: <i>D1-HA.txt</i> • For purposes of demonstrating the integrity checker there is an intentional error in the bearing between STA 142+36.02 and STA 153+60.37. The correct bearing is N 58°08'56.9" E. For Evaluation Factor 1, demonstrate as many of the following features as possible: 1. Use an interface that guides the user through dialog steps to import the .txt file and store an alignment 2. Use one interface to manually enter the alignment data 3. Use an automated method of checking the alignment integrity For Evaluation Factor 2, demonstrate whether the alignment integrity checker can automatically correct an integrity issue. Mandatory requirements M93 and M99.	60 points max	
DM17: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM17: Evaluation Factor 2	The alignment integrity checker has the option of automatically correcting the alignment integrity within a user defined tolerance.	30	
	- OR - The alignment integrity checker identifies issues but does not have the option of automatically correcting the alignment integrity within a user defined tolerance.	15	
	- OR - The software does not provide an alignment integrity checker.	0	
DM18	(One (1) evaluation factor will be scored for this requirement) Create a profile for the “D1” line using the following parameters and information: • Profile data: <i>D1-VA.txt</i> Demonstrate as many of the following features as possible: • Use an interface that guides the user through dialog steps to import the .txt file and store a profile • Use one interface to manually enter the profile data Mandatory requirement M109.	30 points max	
DM18: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - One of the features was demonstrated.	15	
	- OR - None of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM19	(One (1) evaluation factor will be scored for this requirement) Develop and display the superelevation of the “D1” line using the following parameters and information: • Station Range: 142+36.02 – 165+89.65 • Superelevation diagram: <i>DEMO_SUPER_D1.pdf</i> • Layouts: <i>DEMO_L03.pdf</i>, <i>DEMO_L05.pdf</i> and <i>DEMO_L08.pdf</i> Demonstrate as many of the following features as possible: 1. Key-in entry 2. Import from XML or Excel spreadsheet 3. Allows modifications after it is stored 4. Is capable of copying and pasting elements from one graphical diagram to another Mandatory requirements M131 and M132.	30 points max	
DM19: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Three of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	
Geometry for the "D2" line			
DM20	(One (1) evaluation factor will be scored for this requirement) Calculate the alignment for the “D2” line using the least number of interfaces. • Layouts: <i>DEMO_L05.PDF</i> and <i>DEMO_L08.PDF</i> Mandatory requirement M42.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM20: Evaluation Factor 1	Four or less interfaces are used.	30	
	- OR - Five to seven interfaces are used.	15	
	- OR - Eight or more interfaces are used.	0	
DM21	(One (1) evaluation factor will be scored for this requirement) Create a profile of the "D2" line using the following information: - Profile data: <i>D2-VA.txt</i> Demonstrate as many of the following features as possible: - Use an interface that guides the user through dialog steps to import the .txt file and store a profile - Use one interface to manually enter the profile data - The ability to solve for unknowns Mandatory requirements M109 and M115.	30 points max	
DM21: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	
DM22	(No evaluation factors will be scored for this requirement) Develop the superelevation using the following parameters and information: - Station Range: 152+22.49 – 165+45.64 - Superelevation diagram: <i>DEMO_SUPER_D2.pdf</i> Mandatory requirements M131, M132, and M133.	This item is not being scored but will be used for demonstration of DM34.	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Geometry for the "S.W. On-ramp"			
DM23	(One (1) evaluation factor will be scored for this requirement) Develop a best-fit horizontal alignment for the "S.W. ON-RAMP" using the following parameters and information: • Comma-delimited ASCII file: <i>BestFitPoints.txt</i> • Format of the file: Point Number, Northings, Eastings, Description • Existing alignment data: <i>BestFitSketch.pdf</i> While using a best-fit utility, demonstrate as many of the following features as possible: 1. Ability to fix as-built radii 2. Ability to apply weighted factors to different topographic elements 3. Ability to automatically identify horizontal curves and tangent elements Mandatory requirements M57 and M93.	30 points max	
DM23: Evaluation Factor 1	All of the features were demonstrated..	30	
	- OR - One or two of the features were demonstrated.	15	
	- OR - None of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Roadway Design			
Mainline rehabilitation and widening of the "A1" line			
DM24	(One (1) evaluation factor will be scored for this requirement) Perform roadway rehabilitation on the "A1" line using the following parameters and information: • Station Range: 123+22.32 – 129+50 • Typical cross sections: <i>DEMO_XSECT_01.pdf</i> • Layouts: <i>DEMO_L01.pdf</i>, <i>DEMO_L02.pdf</i>, and <i>DEMO_L03.pdf</i> • Cross Slope Correction: +/- 2% Demonstrate as many of the following features as possible: 1. Read the existing terrain profile and perform user-defined profile smoothing 2. Overlay the existing pavement with a cross-slope correction 3. Perform auto-leveling while overlaying the existing pavement 4. Perform all of the features in a single step Mandatory requirements M173, M175, M176, M177, and M180.	30 points max	
DM24: Evaluation Factor 1	All of the features were demonstrated..	30	
	- OR - Three of the features were demonstrated.	15	
	- OR - Two or less features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM25	(One (1) evaluation factor will be scored for this requirement) Perform roadway rehabilitation on the “A1” line using the following parameters and information: • Station Range: 146+37 – 159+50 • Typical cross sections: <i>DEMO_XSECT_02.pdf</i> and <i>DEMO_XSECT_03.pdf</i> • Layouts: <i>DEMO_L03.pdf</i>, <i>DEMO_L04.pdf</i>, <i>DEMO_L05.pdf</i>, and <i>DEMO_L08.pdf</i> Demonstrate as many of the following features as possible: 1. Read the existing terrain profile and perform user-defined profile smoothing 2. Overlay the existing pavement to match the existing cross-slope 3. Perform all of the features in a single step Mandatory requirements M173, M175, M176, M177, and M180.	30 points max	
DM25: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM26	(One (1) evaluation factor will be scored for this requirement) Perform roadway rehabilitation and widening on the "A1" line using the following parameters and information: • Station Range: 130+00 – 136+25.65 • Overlay pavement from centerline to 47.33' Rt with 0.3' AC • Widen to retaining wall (RW 124) lay out line 'SNW42' from 47.33' Rt of centerline with 0.8' AC, 0.6' Lean Concrete Base pavement section Demonstrate as many of the following features as possible: 1. Read the existing terrain profile and perform user-defined profile smoothing 2. Overlay the existing pavement with a cross-slope correction 3. Perform auto-leveling while overlaying the existing pavement 4. Widen the pavement to match the cross-slope of the overlaid lanes 5. Perform all of the features in a single step Mandatory requirements M173-M182	30 points max	
DM26: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Four of the features were demonstrated.	15	
	- OR - Three or less features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM27	(One (1) evaluation factor will be scored for this requirement) Widen the pavement on the “A1” line while matching the cross-slope of the existing adjacent lane using the following parameters and information: • Station Range: 160+00 – 165+00 • 12’ Lane at 47.33’ Lt of centerline • 0.8’ Hot Mix Asphalt, 0.6’ Lean Concrete Base pavement section Mandatory requirements M174, M178, and M179.	30 points max	
DM27: Evaluation Factor 1	The software analyzes the entire surface of the existing adjacent lane and determines the cross-slope.	30	
	- OR - The software analyzes user defined sample points of the existing adjacent lane and determines the cross-slope.	15	
	- OR - The software is unable to determine the cross-slope of the existing adjacent lane.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM28	(One (1) evaluation factor will be scored for this requirement) Insert a median barrier on the “A1” line using the following parameters and information: • Station Range: 123+22.32 – 136+25.65 Demonstrate as many of the following features as possible: 1. Use a library of median barriers 2. Insert a shape to represent the barrier 3. Apply a 0.3’ asphalt structural section underneath the barrier 4. The centerline controls the location of the barrier 5. Perform all of the features in a single step Mandatory requirements M152 and M183.	30 points max	
DM28: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Four of the features were demonstrated.	15	
	- OR - Three or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM29	(One (1) evaluation factor will be scored for this requirement) While designing the "A1" line, insert a Type 1 retaining wall using the following parameters and information: • Station Range: 130+00 – 136+25.65 • Typical cross sections: <i>DEMO_XSECT_01.pdf</i> • Layouts: <i>DEMO_L01.pdf</i>, <i>DEMO_L02.pdf</i>, and <i>DEMO_L03.pdf</i> • Retaining wall layout line: "SNW42" • Standard Plan sheet: <i>Typ_1_retn_Wall.pdf</i> Demonstrate as many of the following features as possible: 1. Use a library of walls 2. Insert a shape to represent the wall 3. Automatically recognizes cut/fill situations 4. Automatically adjust the height of the wall to daylight 5. The retaining wall layout line controls the location of the wall 6. Perform all of the features in a single step Mandatory requirements M152, M155, and M183.	30 points max	
DM29: Evaluation Factor 1	Five or more of the features were demonstrated.	30	
	- OR - Three or four of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Ramp design of the "D1" line			
DM30	(One (1) evaluation factor will be scored for this requirement) Design the "D1" line roadbed using the following parameters and information: • Station Range: 150+00 – 165+00 • Roadbed: from ES to ES • Typical cross sections: <i>DEMO_XSECT_04.pdf</i> • Layouts: <i>DEMO_L03.pdf</i>, <i>DEMO_L05.pdf</i>, and <i>DEMO_L08.pdf</i> • Highway design manual: <i>BayTaper.pdf</i> Demonstrate as many of the following features as possible: 1. Use the "D1" horizontal alignment, profile, and superelevation 2. Constrain to control strings 3. Layout tapers with user defined parameters 4. Use a library of roadway structural sections 5. Modify the design elements to demonstrate how they are dynamically linked to the roadway surface (i.e. when any elements are changed the design is updated automatically) Mandatory requirements M153, M156, M159, M160, and M161.	30 points max	
DM30: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Three or four of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM31	(One (1) evaluation factor will be scored for this requirement) Design the "D1" line side slopes and benching using the following parameters and information: • Station Range: 150+00 – 165+00 • Typical cross sections: <i>DEMO_XSECT_04.pdf</i> • Layouts: <i>DEMO_L05.pdf</i>, and <i>DEMO_L08.pdf</i> Demonstrate as many of the following features as possible: 1. Use the "D1" horizontal alignment, profile, and superelevation 2. Use a library of side slopes and benching 3. Define side slopes and benching with user-defined parameters 4. Define catch points with user-defined parameters to adjust for varying site conditions 5. Graphically manipulate the design Mandatory requirements M162, M163, M164, and M165.	30 points max	
DM31: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Three or four of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM32	(One (1) evaluation factor will be scored for this requirement) While designing the "D1" line, insert a Type 1 retaining wall using the following parameters and information: • Station Range: 160+40 – 162+00 • Typical cross sections: <i>DEMO_XSECT_04.pdf</i> • No backfill is required behind the retaining wall. • Standard Plan sheet: <i>Typ_1_retn_Wall.pdf</i> Demonstrate as many of the following features as possible: 1. Use a library of walls 2. Insert a shape to represent the wall 3. Automatically recognizes cut/fill situations 4. Automatically adjust the height of the wall to daylight 5. The retaining wall layout line controls the location of the wall 6. Perform all of the features in a single step Mandatory requirement M183.	30 points max	
DM32: Evaluation Factor 1	Five or more of the features were demonstrated.	30	
	- OR - Three or four of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM33	(One (1) evaluation factor will be scored for this requirement) While designing the "D1" line, construct a drainage swale/"v" ditch using the following parameters and information: • Station Range: 158+20 – 159+60 • Typical cross sections: <i>DEMO_XSECT_04.pdf</i> • Layouts: <i>DEMO_L03.pdf</i>, <i>DEMO_L05.pdf</i>, and <i>DEMO_L08.pdf</i> Demonstrate as many of the following features as possible: 1. Use a library of swales and "v" ditches 2. Define the swales and "v" ditches with user-defined parameters 3. Graphically manipulate the design Mandatory requirement M162.	30 points max	
DM33: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Ramp design of the "D2" line			
DM34	(Two (2) evaluation factors will be scored for this requirement) Design the "D2" line roadway including lanes, shoulders, side slopes and concrete barrier using the following parameters and information: • Station Range: 152+22.49 - 165+45.64 • Typical cross sections: <i>DEMO_XSECT_04.pdf</i> • Layouts: <i>DEMO_L05.pdf</i> and <i>DEMO_L08.pdf</i> • Standard Plan sheet: <i>Typ60_barrier.pdf</i> For Evaluation Factor 1, demonstrate as many of the following features as possible: 1. Use the "D2" horizontal alignment, profile, and superelevation 2. Use a library of roadway structural sections 3. Modify the design elements to demonstrate how they are dynamically linked to the roadway surface (i.e. when any elements are changed the design is updated automatically) For Evaluation Factor 2, demonstrate the ability to concurrently display the design in the following views: 1. 3D 2. Plan 3. Cross section 4. Superelevation and profile Mandatory requirements M149, M152, and M183.	60 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM34: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	
DM34: Evaluation Factor 2	All of the views were displayed.	30	
	- OR - Three of the views were displayed.	15	
	- OR - Two or less of the views were displayed.	0	
Basin design			
DM35	(One (1) evaluation factor will be scored for this requirement) Design a basin using the following parameters and information: • Perimeter, elevations, and slope variables: <i>Basin.dgn</i> Demonstrate as many of the following features as possible: 1. Use multiple values for side slopes 2. Perform smooth transitions between side slopes 3. Graphically manipulate the side slopes Mandatory requirements M162, M164, and M167.	30 points max	
DM35: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Contour Grading			
DM36	(One (1) evaluation factor will be scored for this requirement) Create and display contours across the surface of the "D1" line. Apply the following parameters using the least number of interfaces: • Regular contours: ○ even 2-ft elevations ○ line weight = 1 ○ no labels • Index contours: ○ even 10-ft elevations ○ line weight = 3 ○ label with the elevation value Mandatory requirements M27 and M28.	30 points max	
DM36: Evaluation Factor 1	Two or less interfaces are used.	30	
	- OR - Three to four interfaces are used.	15	
	- OR - Five or more interfaces are used.	0	
DM37	(One (1) evaluation factor will be scored for this requirement) Create contours across the basin design from DM35. Graphically modify the location or elevation of any point in the basin and view the new contours. Mandatory requirement M27.	30 points max	
DM37: Evaluation Factor 1	Contours respond instantly to changes.	30	
	- OR - Contours must be recalculated and/or redrawn.	15	
	- OR - Contours cannot be created without reloading information into the basin design.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Earthwork Quantities			
DM38	(Two (2) evaluation factors will be scored for this requirement) Create a report showing the volume of embankment and excavation between the new and existing surfaces of the "D1" line. Apply the following features and parameters using the least number of interfaces: • Use the average end area method • Station Range: 150+00 – 165+00 The report should include as many of the following items as possible: 1. Area name 2. Area quantity 3. Incremental volume 4. Cumulative volume 5. Mass haul diagram Mandatory requirements M184, M188, and M207.	60 points max	
DM38: Evaluation Factor 1	All of the items were reported.	30	
	- OR - Four of the items were reported.	15	
	- OR - Three or less of the items were reported.	0	
DM38: Evaluation Factor 2	A single interface is used.	30	
	- OR - Two to three interfaces are used.	15	
	- OR - Four or more interfaces are used.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM39	(Two (2) evaluation factors will be scored for this requirement) Create a report showing the volume of proposed pavement structural section materials of the "A1" line. Apply the following features and parameters using the least number of interfaces: • Use the average end area method • Station Range: 123+22.32 -165+00 The report should include as many of the following items as possible: 1. Pavement layer name 2. Pavement layer quantity 3. Incremental volume 4. Cumulative volume 5. Units of measure Mandatory requirements M188, M189, M190, and M191.	60 points max	
DM39: Evaluation Factor 1	All of the items were reported.	30	
	- OR - Four of the items were reported.	15	
	- OR - Three or less of the items were reported.	0	
DM39: Evaluation Factor 2	One interface is used.	30	
	- OR - Two to three interfaces are used.	15	
	- OR - Four or more interfaces are used.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM40	(One (1) evaluation factor will be scored for this requirement) Generate a report showing the volume of embankment and excavation between the new and existing surfaces of the “D2” line. Apply the following feature using the least number of interfaces: • Use the prismatic method Mandatory requirement M188.	30 points max	
DM40: Evaluation Factor 1	Three or less interfaces are used.	30	
	- OR - Four to five interfaces are used.	15	
	- OR - Six or more interfaces are used.	0	
Drainage Analysis and Development			
(NOTE: Hydraulics demonstrations can be performed anywhere that the DTM includes existing and/or roadway finished grade surfaces.)			
DTM Surface - Hydraulics Tools & Hydrology			
DM41	(One (1) evaluation factor will be scored for this requirement) Create and display flow-paths that indicate directions and magnitude of the slopes at a user-defined point on the DTM. Mandatory requirement M221.	30 points max	
DM41: Evaluation Factor 1	Software can display the flow-paths and indicate the slope magnitude from a user-defined point on the DTM.	30	
	- OR - Software can display the flow-paths from a user-defined point on the DTM, but cannot indicate the magnitude of the slope along the flow-path.	15	
	- OR - Flow-paths cannot be displayed from a user-defined point on the DTM.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM42	(One (1) evaluation factor will be scored for this requirement) Create and display slope arrows that indicate directions and magnitude of the slopes within a user-defined area on the DTM. Mandatory requirement M221.	30 points max	
DM42: Evaluation Factor 1	Software can display the slope arrows on the DTM that indicate the magnitude of the slopes within a user-defined area on the DTM.	30	
	- OR - Software can display the slope arrows on the DTM that indicate the magnitude of the slopes within a user-defined area on the DTM but the user-defined area is limited to a window size.	15	
	- OR - Software can display slope arrows that indicate directions and magnitudes of the slopes, but not within a user-defined area on the DTM.	0	
DM43	(One (1) evaluation factor will be scored for this requirement) Create and display high points and low points within a user-defined area on the DTM. Mandatory requirement M221.	30 points max	
DM43: Evaluation Factor 1	Software can display the high points and low points within a user-defined area on the DTM.	30	
	- OR - Software can display the high points and low points within a user-defined area on the DTM but the user-defined area is limited to a window size.	15	
	- OR - Software can display the high points and low points but not within a user-defined area on the DTM.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM44	(No evaluation factor will be scored for this requirement) Delineate a single on-site watershed boundary based on slope arrows and high/low points. Mandatory requirement M217.	This item is not being scored but will be used for demonstration of DM45.	
DM45	(One (1) evaluation factor will be scored for this requirement) Calculate the volume flow-rate ("flow") in the area delineated in DM44 using the following parameters and information: - Intensity Duration Frequency Curve table: <i>IDF_TABLE.xls</i> - Duration: 10 minutes - Intensity: based on 10-year frequency - C factor: 0.95 Demonstrate as many of the following features as possible: - Determine the area - Use the Rational Method for the volume flow-rate - Create and graphically display an intelligent IDF curve Mandatory requirement M217.	30 points max	
DM45: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Storm Drains (FHWA HEC-22 Methodology)			
DM46	(One (1) evaluation factor will be scored for this requirement) Determine the placement of a single roadway sag drainage inlet based on slope arrows and high/low points using the least number of interfaces. Mandatory requirements M220 and M221.	30 points max	
DM46: Evaluation Factor 1	A single interface is used.	30	
	- OR - Two or three interfaces are used.	15	
	- OR - Four or more interfaces are used.	0	
DM47	(One (1) evaluation factor will be scored for this requirement) Perform inlet-spread analysis to determine two on-grade inlet locations using the least number of interfaces. Report the following calculations: 1. Tributary “flow” at each on-grade and sag inlet 2. Shoulder/gutter flow-depths 3. Inlet interception and bypass 4. Spread Width Mandatory requirement M220.	30 points max	
DM47: Evaluation Factor 1	Two or less interfaces are used.	30	
	- OR - Three or four interfaces are used.	15	
	- OR - Five or more interfaces are used.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM48	(One (1) evaluation factor will be scored for this requirement) In plan view, display and layout the on-grade and sag drainage inlets, storm drain mainline pipes, and outfall pipes from DM47 using the least number of interfaces. (Ignore lateral pipes for demonstration) Mandatory requirement M220.	30 points max	
DM48: Evaluation Factor 1	Two or less interfaces are used.	30	
	- OR - Three or four interfaces are used.	15	
	- OR - Five or more interfaces are used.	0	
DM49	(One (1) evaluation factor will be scored for this requirement) Utilizing information from DM48, demonstrate as many of the following features as possible: 1. Determine storm drain mainline and outfall pipe slopes 2. Generate a profile of storm drain system 3. Graphically display the storm drain mainline and outfall pipe slopes and the profile of the storm drain system 4. Dynamically update the graphic display Mandatory requirement M216.	30 points max	
DM49: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Two or three of the features were demonstrated.	15	
	- OR - One or none of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM50	(One (1) evaluation factor will be scored for this requirement) Utilizing information from DM49, determine storm drain pipe sizes, calculate, and display the major/minor head losses using the least number of interfaces. Mandatory requirement M216.	30 points max	
DM50: Evaluation Factor 1	Two or less interfaces are used.	30	
	- OR - Three or four interfaces are used.	15	
	- OR - Five or more interfaces are used.	0	
DM51	(One (1) evaluation factor will be scored for this requirement) Utilizing information from DM50, generate and display hydraulic grade line (HGL) and energy grade line (EGL) using the least number of interfaces. Mandatory requirement M219.	30 points max	
DM51: Evaluation Factor 1	A single interface is used.	30	
	- OR - Two interfaces are used.	15	
	- OR - Three or more interfaces are used.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Right of Way			
DM52	(One (1) evaluation factor will be scored for this requirement) Create the R/W & parcel boundaries from the original, unedited 2D DGN file, <i>RW_Parcel.dgn</i>, using the following parameters and information: • R/W Level Name: 32 New RW L • Parcel Level Name: 38 Minor Land L Mandatory requirement M71.	30 points max	
DM52: Evaluation Factor 1	Geometry elements are created directly from the DGN file within MicroStation.	30	
	- OR - Geometry elements are created directly from the DGN file through an interface with MicroStation.	15	
	- OR - Can not create the R/W and boundaries from the original, unedited DGN file (e.g. file would require translation to another format.)	0	
DM53	(One (1) evaluation factor will be scored for this requirement) Import points, POB1 and POE1, as provided, from a comma delimited ASCII file using the following parameters and information: • Comma-delimited ASCII file: <i>Easement-Points.txt</i> • Format of the file: Point Name, Northings, Eastings Mandatory requirement M43.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM53: Evaluation Factor 1	Software has a user interface that guides the user through dialog steps to determine the file format and then imports the points.	30	
	- OR - Software has a user interactive interface where the user defines the file format and then imports the points.	15	
	- OR - Software could not import the comma-delimited file without manipulation and/or not all points were imported.	0	
DM54	(One (1) evaluation factor will be scored for this requirement) Input and adjust a metes and bounds description using the following parameters and information: • Metes and bounds description: <i>MetesBounds.doc</i> • Beginning point: POB1 from DM53 • Closing point: POE1 from DM53 • There is an intentional error in the first course of the description which will be corrected in DM56 Demonstrate as many of the following features as possible: 1. Perform a compass rule adjustment 2. Convert the description from meters to U.S. Survey Feet 3. Apply a grid factor of 0.99991234 4. Dynamically display the courses as they are entered 5. Perform all of the features within the same interface Mandatory requirements M71, M73, M74, M75, M76, M77, M78, M83, and M84.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM54: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Four of the features were demonstrated.	15	
	- OR - Three or less of the features were demonstrated.	0	
DM55	(One (1) evaluation factor will be scored for this requirement) Annotate and display the resulting geometry from DM54 in a DGN file. Mandatory requirements M3, M4, M78, M80, M81, M82, M83, M84, M103 and M104.	30 points max	
DM55: Evaluation Factor 1	The annotated geometry is dynamically displayed and saved directly to a DGN file within MicroStation.	30	
	- OR - The annotated geometry is displayed and saved to a DGN file through an interface with MicroStation.	15	
	- OR - The annotated geometry can not be displayed and/or saved to a DGN file.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM56	(One (1) evaluation factor will be scored for this requirement) Re-enter and adjust the geometry from DM54 using the following parameters and information: - Change the first course of the description from 71.293 m to 74.341 m Demonstrate as many of the following features as possible: - Perform a grant boundary line adjustment - Modify the course from the previously entered geometry - Dynamically display the geometry as the course is re-entered - Perform all of the features within the same interface Mandatory requirements M71, M73, M74, M75, M76, and M78.	30 points max	
DM56: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Three of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	
DM57	(One (1) evaluation factor will be scored for this requirement) Re-annotate the resulting geometry from DM56 and update and display the DGN file created in DM55. Mandatory requirements M3, M4, M78, M80, M81, M82, M83, M84, M103, and M104.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM57: Evaluation Factor 1	The re-annotated geometry is dynamically updated and displayed in the original DGN file directly within MicroStation.	30	
	- OR - The re-annotated geometry is updated and displayed in the original DGN file through an interface with MicroStation.	15	
	- OR - The re-annotated geometry can not be updated and displayed in the original DGN file.	0	
DM58	(One (1) evaluation factor will be scored for this requirement) Subdivide the parcels with the R/W, from DM52. Mandatory requirement M65.	30 points max	
DM58: Evaluation Factor 1	The parcels were subdivided in a batch process.	30	
	- OR - The parcels were subdivided one at a time.	15	
	- OR - The parcels can not be subdivided.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
	Plans Production		
DM59	(One (1) evaluation factor will be scored for this requirement) Create a base map of the "D1" line and save to a DGN file. Display the DGN file and identify the following features on the base map: 1. Ramp alignment with annotated stationing 2. Design edge of traveled ways 3. Design edge of shoulders 4. Design contours 5. Design cut/fill lines 6. Annotation of cut/fill lines to delineate when it switches between cut and fill (e.g. label with "C" for cut and "F" for fill) Mandatory requirements M3, M4, M27, M103, and M104.	30 points max	
DM59: Evaluation Factor 1	All of the features were displayed.	30	
	- OR - Three to five of the features were displayed.	15	
	- OR - Two or less of the features were displayed.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM60	(One (1) evaluation factor will be scored for this requirement) Using the base map created in DM59, create layout sheets using the following parameters and information: • Scale: 1" = 50' Demonstrate as many of the following features as possible: 1. Reference the base map DGN file 2. Create a separate DGN file delineating the sheet boundaries and match lines 3. Create a separate DGN file for each layout sheet 4. Automatically orientate the layout sheets with the view rotated, aligning the bottom of the sheet to a horizontal view while keeping the base map coordinate correct Mandatory requirement M214.	30 points max	
DM60: Evaluation Factor 1	All of the features were demonstrated.	30	
	- OR - Three of the features were demonstrated.	15	
	- OR - Two or less of the features were demonstrated.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM61	(Two (2) evaluation factors will be scored for this requirement) Create a profile sheet of the "D1" line and save to a DGN file using the least amount of interfaces. Display the DGN file and identify as many of the following features on the profile sheet as possible: 1. Horizontal Scale: 1"=50' 2. Vertical Scale: 1"=5' 3. Design profile 4. Original ground profile 5. Station and elevation of vertical points of intersections (VPI) 6. Station and elevation of the beginning (BVC) and end (EVC) of vertical curves 7. Length of vertical curve at VPI 8. Grade of tangent sections in percent 9. Match lines of adjoining sheets 10. Earthwork quantities Mandatory requirements M122, M123, and M214.	60 points max	
DM61: Evaluation Factor 1	Nine or more of the features were displayed.	30	
	- OR - Six to eight of the features were displayed.	15	
	- OR - Fewer than six of the features were displayed.	0	
DM61: Evaluation Factor 2	A single interface is used.	30	
	- OR - Two or three interfaces are used.	15	
	- OR - Four or more interfaces are used.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM62	(One (1) evaluation factor will be scored for this requirement) Display a superelevation diagram of the “D1” line including as many of the following features as possible: 1. Edge of traveled ways 2. Edge of shoulders 3. Stations at the transition points 4. Stations at the beginning (BC) and end (EC) of horizontal curves 5. Axis of rotation 6. Superelevation rates 7. Depict the superelevation above the profile Mandatory requirements M137-M142.	30 points max	
DM62: Evaluation Factor 1	All of the features were displayed.	30	
	- OR - Six of the features were displayed.	15	
	- OR - Five or less of the features were displayed.	0	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
Prepare Files for Construction Stakeout			
DM63	(Two (2) evaluation factors will be scored for this requirement) Create cross section plots of the "D1" line and save to a DGN file using the least amount of interfaces. Display the DGN file and identify as many of the following features on the cross section sheets as possible: Each sheet border shall include: 1. Horizontal and vertical scale 2. Horizontal and vertical gridlines with corresponding elevations and offset values 3. Sheet number 4. Total number of sheets 5. Units or dimensions of measurements 6. Time and/or date of plot 7. Alignment name Each cross-section on the sheet shall include: 8. Station 9. Original ground 10. Finished grade and sub-grade layers 11. Finished grade offsets and elevations at cross-section pivot points such as design edge of travel ways, edge of shoulders, hinge points and catch points 12. Point descriptors at cross-section pivot points such as ETW, ES, HP and CP 13. The slopes between cross-section pivot points 14. Earthwork area Mandatory requirements M30, M31, M196, and M197.	60 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM63: Evaluation Factor 1	A single interface is used.	30	
	- OR - Two interfaces are used.	15	
	- OR - Three or more interfaces are used.	0	
DM63: Evaluation Factor 2	13 or more of the features were displayed.	30	
	- OR - 12 of the features were displayed.	15	
	- OR - 11 or less of the features were displayed.	0	
DM64	(One (1) evaluation factor will be scored for this requirement) Create slope stake notes for the "D1" line including as many of the following features as possible: The page header shall include: 1. Alignment name 2. Project information 3. Date and time of report 4. Page number Each station shall include: 5. Station label 6. Catch point 7. Right of way 8. A diagram of the section 9. Earthwork area Each offset shall include: 10. Offset and elevation 11. Offset name 12. Cross slope 13. Cut and fill to adjacent offset, towards CL Mandatory requirements M32 and M195.	30 points max	

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM64: Evaluation Factor 1	All of the features were included.	30	
	- OR - 12 of the features were included.	15	
	- OR - 11 or less of the features were included.	0	
DM65	(One (1) evaluation factor will be scored for this requirement) Create a Trimble Survey Controller DC file of the roadway definitions for the "D1" and "D2" lines including as many of the following features as possible: 1. Horizontal alignments, profiles, and cross sections 2. The cross sections contain a single contiguous finish surface without modification 3. All data is written to a single DC file simultaneously 4. Append the "A1" alignment directly to the original DC file Mandatory requirements M252 and M253.	30 points max	
DM65: Evaluation Factor 1	All of the features are included in the file.	30	
	- OR - Three of the features are included in the file.	15	
	- OR - Two or less of the features are included in the file.	0	
DM66 (Timed Demonstration)	(One (1) evaluation factor will be scored for this requirement) Export the existing ground DTM to a LandXML file format. Mandatory requirements M37 and M253.	30 points max	

Section IX: Evaluation and Selection

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**Table IX-14 Demonstration of Software -
Tasks, Evaluation Factors and Point Values (Continued)**

Demonstration #	Tasks and Evaluation Factors	Maximum & Individual Point Values	Earned Points
DM66: Evaluation Factor 1 (TIMED)	It took less than two minutes to export the data.	30	
	- OR - It took between two minutes and four minutes to export the data.	15	
	- OR - It took greater than four minutes to export the data.	0	

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8. Final Technical Scoring Example**Step 1. Responsive Bids**

There are a total of 6454 non-cost points available. Bidders must achieve at least 70% (4518) of the total possible non-cost points in order to advance to the cost opening.

Table IX-15: Final Technical Score Example

Bidder	A	B	C	D
Project Management Requirements (320 maximum)	220	280	300	100
System Administration Requirements (660 maximum)	594	212	573	43
Desirable Functional Requirements (1684 maximum)	1366	1400	1135	777
Reference (1600 maximum)	1376	1263	1550	175
Demonstration (2190 maximum)	1391	1949	2091	2029
Total:	4947	5104	5649	3124
Is the total score greater than 4518?	YES	YES	YES	NO

In this example, Bidder D failed to achieve at least 70% of the maximum points possible. The costs for this Bidder will not be opened. The Total Bidder Score for Technical Requirements will be calculated for Bidders A, B, and C as described in Step 2.

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Step 2. Calculation of Total Bidder Score for Technical Requirements:

Each Bidder's score is divided by the highest score to determine their percentage of the maximum points possible:

Bidder A - $(4947)/(5649)=0.876$ or 87.6%

Bidder B - $(5104)/(5649)=0.904$ or 90.4%

Bidder C - $(5649)/(5649)=1.000$ or 100%

Once the percentage of the maximum points has been determined, it is multiplied by the total maximum points possible (6454), to determine each Bidder's final score for Technical Requirements.

Bidder A - $6454 \times 0.876 = 5654$

Bidder B - $6454 \times 0.904 = 5834$

Bidder C - $6454 \times 1.000 = 6454$

Table IX-16: Total Bidder Score for Technical Requirements Example

Bidder	A	B	C
Technical Score	5654	5834	6454

E. Cost Points**(Maximum Score 2,766 points)**

Sealed Cost Proposals will not be opened until the Evaluation Team has completed the previous steps in the evaluation process. If a Bidder's proposal has been determined to be non-responsive during any of the steps, or the Bidder has failed to achieve at least 70% of the maximum non-cost points, the Cost Proposal will remain unopened. The maximum number of cost points are 2,766.

All participating Bidders will be notified of the date and time of the Public Cost Opening.

Determining cost points is a two-step process:

Step 1: The Evaluation Team will validate all cost tables for accuracy (math errors) and to ensure all items identified in the Bidder's Proposal (i.e., deliverables) have been included in the Cost Tables.

Step 2: Calculation of Bidder Cost Score:

There are a total of 2766 cost points possible.

Section IX: Evaluation and Selection**RFP RDS-2660-421****Bidder Final Proposal Costs:**

Bidder A - \$1,100,000

Bidder B - \$3,000,000

Bidder C - \$1,740,000

The lowest final proposal costs of all Bidders is divided by each Bidder's final proposal cost to determine their percentage of the maximum points possible.

Bidder A - $(1,100,000)/(1,100,000)=1.000$ or 100%Bidder B - $(1,100,000)/(3,000,000)=0.367$ or 36.7%Bidder C - $(1,100,000)/(1,740,000)=0.632$ or 63.2%

Once the percentage of the maximum points has been determined, it is multiplied by the total maximum points possible (2766), to determine each Bidder's final score for Cost.

Bidder A - Cost Point= $2766 \times 1.000 = 2766$ Bidder B - Cost Point= $2766 \times 0.367 = 1015$ Bidder C - Cost Point= $2766 \times 0.632 = 1748$

Bidder	A	B	C
Cost Score	2766	1015	1748

F. Determination of Winning Proposal**1. Summarization of Final Proposal Points**

All Bidders' points awarded for each area of the Evaluation are tallied to determine the total points awarded for each. Table IX-17 illustrates the maximum possible in each evaluation area.

Table IX-17 – Maximum Possible Points for Each Evaluation Area

Evaluation Area	Maximum Possible Points	
Business and Technical Requirements:		
Draft Project Management Plan	320	
System Administration Requirements	660	
Desirable Functional Requirements	1,684	
References	1,600	
Demonstration of Software	2,190	
Subtotal:		6,454
Cost:		2,766
TOTAL POSSIBLE POINTS:		9,220

Section IX: Evaluation and Selection**RFP RDS-2660-421****2. Determination of the DVBE Incentive**

The maximum incentive for this procurement is 5% of the points available, and is based on the amount of DVBE participation obtained, according to Table IX-18. For this RFP, the total points available are 9220.

Table IX-18 - DVBE Participation Incentive

DVBE Participation of:	DVBE Incentive	DVBE Incentive Points
5% or more = 5%	5%	461 points
4% to 4.99% inclusive = 4%	4%	369 points
3% to 3.99% inclusive = 3%	3%	277 points
2% to 2.99% inclusive = 2%	2%	184 points
1% to 1.99% inclusive = 1%	1%	92 points
Less than 1%	0%	0 points

Table IX-18 – DVBE Participation Incentive illustrates the incentive points available based on the Bidder's confirmed percent of DVBE participation.

3. Determination of Small Business Preference

The Small Business Preference will be applied after the scores for cost have been calculated. The 5% preference is calculated on the total number of points awarded to the highest scoring non-small business that is responsible and responsive to the proposal requirements.

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Table IX-19, Scoring Example with DVBE Incentive and Small Business Preferences Applied, illustrates how DVBE incentives and Small Business Preferences would be applied.

Table IX-19 Scoring Example with DVBE Incentive and Small Business Preferences Applied				
	Bidder	A	B	C
1	Technical Requirement Points	6150	5500	6430
2	DVBE participation (% claimed)	5%	3%	GFE (0%)
3	DVBE points awarded	461	277	0
4	Subtotal of Non-Cost Points (Row 1 + Row 3)	6611	5777	6430
5	Cost Points	2450	2759	2202
6	Total Points with DVBE applied (Row 4+Row 5)	9061	8536	8632
7	Bidder Firm is a Small Business?	No	No	Yes
8	Proposal Meets Small Business Requirements?	No	Yes	Yes
9	Non-Technical points (none for this Procurement)	0	0	0
10	The Bidder's Cost bid that has the total Combined Highest Cost and Technical Points with DVBE applied	X		
11	Small Business Preference - Highest points from Row 6 that is not a small business, times 5%		(9061 x .05= 453)	(9061 x .05= 453)
12	Total Points with Small Business Preference Applied (Row 6 + Row 11)	9061	8989	9085
13	Subtraction of Preference Points from Non-Small Businesses		-453	
14	Final Points with DVBE Incentive and Small Business Preference Applied	9061	8536	9085

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In the example, Bidder A has the most points before preferences are applied and is claiming 5% DVBE participation. Bidder B is a non-small business that is using California-certified small businesses to perform work that amounts to 25% of the value of the contract. Bidder B is also claiming 3% DVBE participation. Bidder C is a California-certified small business.

In this scenario, Bidder A receives 461 DVBE incentive points which are added to the technical and cost points to yield the highest point total before preferences are applied. Bidder B receives 277 DVBE incentive points. Bidder C receives the 5% small business preference.

After points were awarded for small business participation, Bidder C has the highest overall point total and would be recommended to receive the award.

4. Winning Proposal Summary

The Evaluation Team will determine which responsive/responsible Bidder proposal has the highest total score after all points and preferences have been calculated.

5. Contract Award

The contract award, if any, will be to the responsive/responsible Bidder having the highest total score.

Section IX: Evaluation and Selection

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EXHIBIT IX-1 – PRELIMINARY REVIEW FORM

Bidder Name: _____

The response package includes the following:	YES	NO
Volume I – Response to Requirements Received 1 master + 10 copies of Volume I		
Volume II – Completed Contracts Received 1 master + 1 copy of Volume II		
Volume III – Cost Data <i>(to be evaluated after cost opening)</i> Received 1 master + 10 copies of Volume III		
Volume IV – Literature Received 1 master + 10 copies of Volume IV		
Received (2) CD versions of Volume I, and III <i>(Vol. III validated at cost opening)</i>		
Received (2) CD versions of Volume IV (OPTIONAL)		
Received by time and date specified in RFP		
One complete set of all volumes containing original signatures marked “Master Copy”		
VOLUME I – RESPONSE TO REQUIREMENTS	YES	NO
Section 1: Cover Letter and Executive Summary		
Proposal Cover Letter must be signed by authorized individual and indicate that the signer is authorized to bind the firm contractually, and identifies the signer's title.		
Statement that the proposal is firm's binding offer good for 180 calendar days from scheduled date for contract award.		
Statement indicating that the Bidder has available staff with the appropriate skills to complete performance under the contract for all services and provide all deliverables as described in this RFP.		
Statement accepting full Prime Contractor responsibility for coordinating, controlling, and delivering all aspects of the contract and any subcontractors on their team.		
Executive Summary		

Section IX: Evaluation and Selection

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EXHIBIT IX-1 – PRELIMINARY REVIEW FORM (Continued)

<i>The response package includes the following:</i>	YES	NO
Section 2: Administrative Requirements Response (Section V)		
Documentation of Productive Use requirements are met (Requirement A4)		
Form V-A – Customer Project References (Requirement A5)		
Form V-B – Proof of Workers Compensation and Employers Liability (Requirement A6.a)		
Letter of Bondability with all cost figures redacted (Requirement A7)		
Form V-C – Bidder Information and Background (Requirement A8)		
Form V-D – Key Personnel Qualifications Certification and Resumes (Requirement A9)		
Form I-C – Confidentiality Statement (Requirement A10)		
Form V-E – DVBE Participation Requirements (Requirement A13)		
TACPA Preference Claimed (Requirement A14a)?		
EZA Preference Claimed (Requirement A14b)?		
LAMBRA Preference Claimed (Requirement A14c)?		
Form V-F – Small Business Certification (Requirement A15)		
California Certificate of Good Standing for Prime Bidder and key subcontractors (Requirement A16)		

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<i>The response package includes the following:</i>	YES	NO
Form V-G: Subcontractor Requirements and Bidder Declaration Forms (Requirement A17)		
Signed Payee Data Record STD.204 (Requirement A18)		
Form V-H – Administrative Requirements Response Matrix (Requirements A6b, A11, A12, and A19)		
Section 3: Technical Requirements Response	YES	NO
• Project Management Requirements		
• System Administration Requirements		
• Mandatory Functional Requirements		
• Desirable Functional Requirements		
• Other Technical Requirements		
VOLUME II – COMPLETED CONTRACT		
This volume must contain a completed contract with all Attachments. Submission of a contract with Caltrans unapproved modifications may cause the Final Proposal to be deemed non-responsive.		
VOLUME III – COST DATA		
Cost Proposal is submitted in a separate and sealed envelope.		

Section IX: Evaluation and Selection

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<i>The response package includes the following:</i>	YES	NO
VOLUME IV - LITERATURE		
This volume will contain all technical and other reference literature necessary to support the responses to the requirements of this RFP (i.e., product “glossy” brochures, equipment technical specification brochures, technical or user manuals that may be advertised in response to the requirements, and other advertising materials). Literature must be tabbed, page numbered, indexed, and properly annotated so Caltrans can readily verify compliance with the stated requirements. <u>Any references to cost figures in the literature must be replaced with “XXXX”.</u>		
Comments:		

Procurement Official

Date

X. DEMONSTRATION OF SOFTWARE

A. General

The demonstration is intended to give Caltrans the opportunity to evaluate the software's performance. Bidders will be asked to demonstrate various tasks involved in a typical Caltrans project. A series of tasks was developed from a Caltrans project for an interchange reconstruction in the City of Victorville (District 8). The Caltrans project data files are included in the Bidder's Library, (see Section I), for use in conjunction with this demonstration only. During the Demonstration, all MicroStation files should be created using Caltrans seed files from the Bidder's Library.

The tasks as described in Table IX-14 will be demonstrated.

Only the proposed software and software that is included in the Caltrans base computer configuration can be used during the demonstration. See Section IV for a complete listing of the Caltrans base computer configuration.

B. Preparation

The Bidder will be provided up to eight hours, between the hours of 8:00 am and 5:00 pm PT, the day before the demonstration to install and test the proposed software on two computers (one primary and one backup) furnished by Caltrans. The computers will be provided with the Caltrans configuration as defined in Section IV. Modification to the existing hardware (including the addition of external memory devices) and base software will not be permitted.

Full administrative rights will be provided for the installation and testing of the proposed software while all aspects of the demonstration shall be performed with a non-administrative user interface. The Bidder will be permitted to test the proposed software with the typical Caltrans user interface and may adjust settings as required. Caltrans staff will oversee and approve all software installation activities.

Following the installation of software by the Bidder, Caltrans will install the project data in the D: drive (40 GB partition) on the two available computers prior to the demonstration. No additional files can be loaded or accessed after this point. Internet access will not be allowed.

All demonstrations will be conducted at a Caltrans facility located in Sacramento, CA. The Evaluation Team will score the demonstration. The Bidder will be provided two consecutive eight-hour days to successfully complete the demonstration. The hours of the demonstration will be 8:00 am to 5:30 pm PT with a one-hour lunch and two 15-minute breaks. If Caltrans cancels a demonstration, in whole or in part, due to unforeseen circumstances, the Bidder will be given an opportunity to complete the demonstration at a later date. The Bidder will be expected to continue where they

Section X: Demonstration of Software**RFP RDS-2660-421**

left off if requirements were completed prior to the interruption. Should an unforeseen circumstance occur, the Evaluation Team will note the task in progress and the time of interruption.

After each Bidder's demonstration, Caltrans staff will remove and keep the hard drive that contains the Bidder's installed demonstration software. A new hard drive will be installed for each Bidder. Each removed hard drive will be stored in a secure location until contract approval, at which time it will be destroyed or reformatted.

C. Evaluation Process

For each task, the Evaluation Team will award points using the criteria detailed in Section IX.

Throughout the demonstration the Bidder shall identify the Demonstration # to indicate the beginning of the task. For the timed demonstrations, Bidder's must advise the timer of the beginning and completion of the task by clearly announcing "start" or "stop", as appropriate. Once a timed event starts the timing continues until completed.

Each demonstration task is given one scoring opportunity. The Bidder shall not begin the next task until evidence of successful completion has been identified to the satisfaction of the Evaluation Team. Evidence of successful completion can include, but is not limited to:

- Requested data fully displayed (e.g. DTM displayed), or
- Requested features or results are identified, or
- Visual notification that the process is complete (such as pop up notification or use of hourglass during the process)

APPENDIX C

BIDDER'S FORMS FOR ADMINISTRATIVE REQUIREMENTS

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Form I-A: Letter of Intent to Bid
Form I-B: Bidder's Final Proposal Checklist
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Form V-A: Customer Reference Questionnaire
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Form V-E: Disabled Veterans Business Enterprise Program
Form V-F: Small Business Certification
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Roadway Design Software (RDS) ProjectRFP RDS-2660-421Appendix C –Bidder's Forms for Administrative Requirements***Form I-A: Letter of Intent to Bid***

Department of General Services – Procurement

Attn: Debbie Dykes

707 3rd St., 2nd Floor

West Sacramento, CA 95605

Phone: 916.375.4392

Email: debra.dykes@dgs.ca.gov

Reference: RFP RDS-2660-421

This is to notify you that it is our present intent to do the following regarding the above referenced RFP (Bidder shall specify):

- q We intend to submit a proposal, and we have no problems with the RFP requirements.
- q We intend to submit a proposal, but we have one or more problems with the RFP requirements for reasons stated in an attachment to this letter.
- q We do not intend to submit a proposal for reasons stated in an attachment to this letter, and we have no problems with the RFP requirements.
- q We do not intend to submit a proposal because of one or more problems with the RFP requirements for reasons stated in an attachment to this letter.

The following is the contact person for our company:

Name and Title:

Address:

City, State, and Zip:

Phone Number:

Fax Number:

E-mail Address:

We are enclosing with this letter, as requested, the following completed documents:

- o Signed Confidentiality Statement (Form I-C)

Sincerely,

Name (Signature)

Typed Name and Title:

Company:

Phone Number:

Fax Number:

Form I-B: Bidder's Final Proposal Checklist

BIDDER'S FINAL PROPOSAL CHECKLIST

- DOES YOUR FINAL PROPOSAL SUBMITTAL DOCUMENTATION FOLLOW THE FORMAT SPECIFIED IN SECTION VIII OF THE RFP?
 - ⇒ COVER LETTER WITH ORIGINAL SIGNATURE INCLUDED
 - ⇒ EXECUTIVE SUMMARY OF PROPOSAL
 - ⇒ LABELED VOLUMES AS IDENTIFIED AND IN THE SPECIFIED NUMBER OF COPIES
 - ⇒ NO COST DATA PROVIDED IN ANY VOLUMES EXCEPT VOLUME 3
- IS THE CONTRACT IN YOUR FINAL PROPOSAL AND IN ORDER?
 - ⇒ CONTRACT SIGNED BY AN INDIVIDUAL AUTHORIZED TO BIND THE FIRM
 - ⇒ HAVE THE CALCULATIONS FOR THE COSTS BEEN CHECKED FOR ACCURACY
 - ⇒ DO THE COSTS ENTERED ON THE COST SHEETS IN VOLUME III OF THE FINAL PROPOSAL SUBMITTAL CORRESPOND WITH THOSE COSTS IDENTIFIED IN THE CONTRACT EXHIBIT(S)
- BONDS AND OTHER SECURITY DOCUMENTS REQUIREMENT SATISFIED?
- IN THE STATE'S "DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION REQUIREMENT" (RFP SECTION V), IS THE REQUIRED DOCUMENTATION INCLUDED?

BIDDERS: THE STATE MAKES NO WARRANTY THAT THE CHECKLIST IS A FULL COMPREHENSIVE LISTING OF EVERY REQUIREMENT SPECIFIED IN THE SOLICITATION. CHECKING OFF THE ITEMS ON THE CHECKLIST DOES NOT ESTABLISH YOUR FIRM'S INTENT NOR DOES IT CONSTITUTE RESPONSIVENESS TO THE REQUIREMENT(S). THE CHECKLIST IS ONLY A TOOL TO ASSIST PARTICIPATING BIDDERS IN COMPILING THEIR FINAL PROPOSAL RESPONSE. BIDDERS ARE ENCOURAGED TO CAREFULLY READ THE ENTIRE SOLICITATION. THE NEED TO VERIFY ALL DOCUMENTATION AND RESPONSES PRIOR TO THE SUBMISSION OF FINAL PROPOSALS CANNOT BE OVER EMPHASIZED.

Form I-C: Confidentiality Statement

As an authorized representative and/or corporate officer of the company named below, I warrant my company and its employees will not disclose any documents, diagrams, information, or information storage media made available to us, by the State, for the purpose of responding to RFP RDS 2660-421; or in conjunction with any contract arising there-from. I warrant that only those employees who are authorized and required to use such materials will have access to them.

I further warrant that all materials provided by the State will be returned promptly after use and that all copies or derivations of the materials will be physically and/or electronically destroyed. I will include with the returned materials, a letter attesting to the complete return of materials, and documenting the destruction of copies and derivations. Failure to so comply will subject this company to liability, both criminal and civil, including all damages to the State and third parties. I authorize the State to inspect and verify the above.

I warrant that if my company is awarded the contract, it will not enter into any agreements or discussions with a third party concerning such materials prior to receiving written confirmation from the State that such third party has an agreement with the State similar in nature to this one.

(Signature of representative)

(Date)

(Typed name of representative)

(Typed name of company)

Form V-A: Customer Reference QuestionnaireGeneral Information

[VENDOR]= _____

[SOFTWARE]= _____

Please complete the survey, taking care to answer each question as accurately as possible. **To ensure proper consideration, ALL questions should be answered, unless denoted as optional.**

Reference Information

Company Name: _____

Office Location: _____

Your Name: _____

Your Title: _____

Telephone Number: _____

E-mail addresses: _____

Signature/Date: _____

Roadway Design Software (RDS) Project**RFP RDS-2660-421****Appendix C –Bidder's Forms for Administrative Requirements****Form V-A: Customer Reference Questionnaire (Continued)****Please place an "X" in the proper column for each question.**

1. Approximately how many land surveyors in your company do drafting and design related work?

0	1-25	26-100	101-999	1000+

2. Approximately how many of the engineers in your company do roadway design related work?

0	1-25	26-100	101-999	1000+

3. Approximately how many MicroStation licenses does your company have?

0	1-25	26-100	101-999	1000+

4. How long has your company been using **[SOFTWARE]**?

1-3 years	3-4 years	4-5 years	5+ years

5. Approximately how many surveyors in your company use **[SOFTWARE]**?

0	1-25	26-100	101-999	1000+

6. Approximately how many engineers use **[SOFTWARE]**?

0	1-25	26-100	101-999	1000+

Roadway Design Software (RDS) Project**RFP RDS-2660-421****Appendix C –Bidder's Forms for Administrative Requirements****Form V-A: Customer Reference Questionnaire (Continued)****Please rate [SOFTWARE] related to:**

	Poor	Below Average	Average	Above Average	Excellent
7. Functionality (ability to do complex designs)					
8. Ease of use/user friendliness					
9. Ability to meet your requirements					
10. Value for the money spent					
11. Compatibility with other design software					
12. Overall satisfaction					

Please rate [VENDOR] related to:

	Poor	Below Average	Average	Above Average	Excellent
13. Technical support					
14. Availability of resources/support					
15. Quality of support					
16. Overall satisfaction					

Roadway Design Software (RDS) Project**RFP RDS-2660-421****Appendix C –Bidder's Forms for Administrative Requirements****Form V-A: Customer Reference Questionnaire (Continued)****TRAINING****Did [VENDOR] provide training for [SOFTWARE]?**

YES	NO

If yes, continue to question 17.

If no, skip to question 21.

	Poor	Below Average	Average	Above Average	Excellent
17. Quality of training materials					
18. Availability of trainers					
19. Quality of trainers					
20. Overall satisfaction with training					

IMPLEMENTATION**21. Did [VENDOR] assist in your implementation of [SOFTWARE]?**

YES	NO

If yes, how would you rate the [VENDOR]'s involvement?

Poor	Below Average	Average	Above Average	Excellent

Form V-B: Workers' Compensation Certification

The undersigned in submitting this document hereby certifies the following:

I am aware of the provision of Section 3700 of the California Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with such provision before commencing the performance of the work of this contract.

Signature

Date

Name (Print or Type)

Title (Print or Type)

Firm Name

Street Address

City, State, and ZIP

Roadway Design Software (RDS) ProjectRFP RDS-2660-421Appendix C –Bidder's Forms for Administrative Requirements***Form V-C: Bidder Information and Background***

Bidder's Name:	
Contact Person's Name:	Title:
Contact Person's Phone Number:	Contact Person's Fax Number:
Contractor's Firm Name (if different from Bidder's Name above):	
Firm Address:	
Length of Time in Business:	Length of Time Offering RDS Systems
Brief Company History and Background (Provide specific information on relevant projects: term of the project (from-to dates), description, number of users, and customer type (other state Department of Transportation or California-based consultant))	

Briefly provide full details of all terminations for default experienced by the Bidder during the past five (5) years, including the other party's name, address, and telephone number.

Roadway Design Software (RDS) ProjectRFP RDS-2660-421Appendix C –Bidder's Forms for Administrative Requirements***Form V-D: Key Personnel Qualifications Certification*****POSITION TITLE – Project Manager****Proposed Staff:** _____
Name**SUMMARY OF QUALIFICATIONS:**

Minimum Qualifications: I have five (5) years of project management experience on implementing RDS projects, and at least one project where the proposed software was implemented at a state Department of Transportation.

Attached is a professional resume that supports the above summary of qualifications.

By signing this form, I certify that I meet the minimum qualifications requirement for Project Manager for RFP RDS 2660-421.

Typed Name_____
Date_____
Signature

Form V-D: Key Personnel Qualification Certification**POSITION TITLE – Application Configuration Manager****Proposed Staff:** _____
Name**SUMMARY OF QUALIFICATIONS:**

Minimum Qualifications: I have four (4) years of application development experience on RDS projects, and at least one project where the proposed software application was implemented at a state Department of Transportation.

Attached is a professional resume that supports the above summary of qualifications.

By signing this form, I certify that I meet the minimum qualifications requirement for Application Configuration Manager for RFP RDS 2660-421.

Typed Name_____
Date_____
Signature

Roadway Design Software (RDS) ProjectRFP RDS-2660-421

Appendix C –Bidder's Forms for Administrative Requirements

Form V-D: Key Personnel Qualification Certification**POSITION TITLE – Training Manager****Proposed Staff:** _____
Name**SUMMARY OF QUALIFICATIONS:****Minimum Qualifications:** I have two (2) years of software training experience, and at least one (1) year managing training staff.

Attached is a professional resume that supports the above summary of qualifications.

By signing this form, I certify that I meet the minimum qualifications requirement for Training Manager for RFP RDS 2660-421.

Typed Name_____
Date_____
Signature

Form V-E: Disabled Veterans Business Enterprise Program

ALL BIDDERS PLEASE CHECK THE APPROPRIATE LINE AND FILL IN (WHERE APPLICABLE) THE ESTIMATED PERCENTAGE(S) CONCERNING DVBE PARTICIPATION RATES AND INCENTIVES:

_____ I am a certified Disabled Veteran Business Enterprise (DVBE) and will be meeting the DVBE participation requirement based on a _____% DVBE participation rate in this project. I will be performing a "Commercially Useful Function," which I have described in the proposal. A copy of my DVBE certification from the OSDS is attached along with the completed required forms (GSPD-05-105, STD. 840, and STD.843).

_____ I am not a certified DVBE and have not yet established a certified DVBE participation in this project. I will therefore be completing a "Good Faith Effort" (GFE) to solicit DVBE subcontractor participation, in the event I am unable to garner at least 5% participation from certified DVBEs. In the event that I am able to obtain certified DVBE participation via a GFE, I will provide the DVBE certifications and required forms (GSPD-05-105, STD. 840, and STD. 843) with my Final Proposal.

_____ I am not a certified DVBE but I am using certified DVBE subcontractors as listed on the GSPD-05-105 form. A copy of the participating DVBE certification(s) from the OSDS is attached along with the completed required forms (GSPD-05-105, STD. 840, and STD.843).

Form V-F: Small Business Certification**PLEASE CHECK THE APPROPRIATE LINE:**

_____ I am a certified Small Business and/or Micro-Business and will be claiming the Small Business Preference. A copy of my certification from the OSDS is provided along with a completed GSPD-05-105 form.

_____ I have recently filed for the Small Business and/or Micro-Business preference but have not yet received certification. A copy of my filing and a completed GSPD-05-105 is provided. I understand I must be certified by OSDS prior to 5:00 PM on the scheduled Letter of Intent to Award date, to receive this preference.

_____ I am not a Small Business but will be subcontracting at least 25% of the total contract dollar value to a certified Small Business. A copy of the Small Business certification from the OSDS is provided along with a completed GSPD-05-105 form

Roadway Design Software (RDS) ProjectRFP RDS-2660-421Appendix C –Bidder's Forms for Administrative Requirements**Form V-G: Subcontractor Information**

Each subcontractor included in the contract must complete a Form V-G.

A – Subcontractor Information		
Company Name:		
Primary Contact Name	Primary Contact Title	Phone
Address	City, State	Zip
B - Description of Commercially Useful Function the subcontractor will provide:		
As described in Military & Veterans Code § 999(b)(5)(B)(i):		
Is this subcontractor responsible for the execution of a distinct element of the work of the contract? ____ Yes ____ No		
Does this subcontractor carry out the obligation by actually performing, managing, or supervising the work involved? ____ Yes ____ No		
Is this subcontractor being proposed to perform work that is normal for its business services and functions? ____ Yes ____ No		
Is this subcontractor NOT further subcontracting a portion of the work that is greater than that expected to be subcontracted by normal industry practices? ____ Yes ____ No		
Description of the commercially useful function to be performed by this subcontractor:		
(attach additional pages if necessary)		
C – Proposal Amount (Yes response required for one of C1, C2, or C3)		
C1	This subcontractor will represent 25% or more of the proposal amount: ____ YES ____ NO	
	If yes to above, this subcontractor must respond to the following RFP administrative requirements in addition to the Prime contractor's response: § V.2.3.1 – Certification to do Business in the State of California § V.2.3.2 – California Contractor Certification (Appendix C - Form C.12) § V.2.4 – Payee Data Record § V.3 – Confidentiality of Information (Appendix C - Form C.3)	
	This subcontractor satisfies the Small Business Preference Requirements: ____ YES ____ NO	

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C2	This subcontractor will represent between 10% and 25% of the proposal amount: _____ YES _____ NO
	If yes to above, this subcontractor must respond to the following RFP administrative requirements in addition to the Prime contractor's response: § V.2.3.1 – Certification to do Business in the State of California § V.2.3.2 – California Contractor Certification (Appendix C - Form C.12) § V.2.4 – Payee Data Record § V.3 – Confidentiality of Information (Appendix C - Form C.3)
C3	This subcontractor will represent less than 10% of the proposal amount: _____ YES _____ NO
D – Subcontractor Signature:	
I, the official named above, as an authorized representative of the company named above, warrant my company has been advised of, and agrees to, its participation in the contract, if awarded.	
Signature:	Date:

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Appendix C –Bidder's Forms for Administrative Requirements

Form V-H: Administrative Requirements Response Matrix

Requirement #	Name of Requirement	Meets Requirement? Yes/No	Response Section/Page #
A1	Cover Letter		
A2	Executive Summary		
A3	Seller's Permit		
A4	Customer-In-Use Requirement		
A5	Customer References (6)		
A6.a	Proof of Workers Compensation and Employers Liability		
A6.b	Bidder affirms that proof of Commercial General Liability and Professional Liability Insurance will be provided within five business days after contract award.		
A7	Bonds		
A8	Company Experience		
A9	Staff Capability		
A10	Confidentiality Statement		
A11	Bidder affirms all software support and maintenance requirements as described in Section V.E		Statement of Work
A12	Bidder affirms that software maintenance, updates, and upgrades to the software will be provided to Caltrans at no additional cost		
A13	DVBE Participation Requirements		

Roadway Design Software (RDS) Project**RFP RDS-2660-421****Appendix C –Bidder's Forms for Administrative Requirements****Form V-H: Administrative Requirements Response Matrix (Continued)**

Requirement #	Name of Requirement	Meets Requirement? Yes/No	Response Section/Page #
A14.a	TACPA, Preference (if applicable)		
A14.b	EZA Preference (if applicable)		
A14.c	LAMBRA Act Preference (if applicable)		
A15	Small Business Preference (if applicable)		
A16	Qualification to do Business in the State of California		
A17	Subcontractor Requirements and Bidder Declaration Form		
A18	Payee Data Record (STD 204)		
A19	Bidder affirms all testing and acceptance requirements as described in Section V.J.		

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APPENDIX D

BIDDER'S FORMS FOR BUSINESS AND TECHNICAL REQUIREMENTS

Roadway Design Software (RDS) Project RFP RDS-2660-421Appendix D – Bidder's Forms for Business and Technical Requirements**Table of Contents**

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Form VI-1: Draft Project Management Requirements Response Form

The Bidder shall indicate whether the requirement is included in their Draft Project Management Plan (Yes/No). The Draft Project Management Plan must be included in Bidder Proposal Volume 1.

Requirement Number	Requirement	Included? (YES/NO)
Project Schedule		
P1	Project schedule reflects expected timeframes	
P2	Includes full list of project tasks	
P3	Includes start/end dates with durations	
P4	Includes milestones (as appropriate)	
P5	Dependencies are accurate	
P6	Includes resource assignments	
P7	Schedule management plan includes schedule monitoring and update procedures	
Proposed project organization, including roles and responsibilities		
P8	Project organization chart is included	
P9	Roles and responsibilities are well defined	
P10	Project organization chart conforms to resource assignment in project schedule	
Risk/issue management plan		
P11	Issue resolution procedures are well defined	
P12	Includes list of planned risk and issue resolution activities, including responsibilities	
P13	Includes risk/issue identification and tracking process	

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Form VI-1 – Draft Project Management Requirements Response Form (continued)

Requirement Number	Requirement	Included? (YES/NO)
P14	Risk mitigation procedures are defined	
P15	Issue escalation procedures are defined	
Communication Plan		
P16	Communications are well defined	
P17	Includes list of planned communication activities, including responsibilities and audience	
Change Management Plan		
P18	Change management procedures are well defined	
P19	Includes list of planned change management activities, including responsibilities	
Quality Plan		
P20	Requirements tracking procedures are defined	
P21	Documents conformance to Caltrans hardware/ software standards. Refer to Section IV.E	
P22	Documents understanding of Caltrans security standards. Refer to Section IV.C.	

Form VI-2: Mandatory and Desirable System Administration Requirements Response Form

The System Administration Requirements are broken into eight parts, each with a set of mandatory and desirable requirements.

The eight parts are:

- Part 1. Hardware Requirements;
- Part 2. Software Requirements;
- Part 3. Installation;
- Part 4. Configuration;
- Part 5. Usage Rights;
- Part 6. Uninstalls;
- Part 7. Patching/Updates; and
- Part 8. User Security.

The Bidder shall provide the proposed solution and supporting literature or documentation reference for both mandatory and desirable system administration requirements.

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Part 1. Hardware Requirements				
Mandatory:				
S1	The software must have system requirements equal to or less than Caltrans system hardware specifications as listed below: HP xw4600 or equivalent: Intel Core 2 Duo E6550 (2.33 GHz) Dual-Core CPU 4 GB RAM 80 GB Hard Drive (Partitioned 40GB C: Drive, 40GB D: Drive) Nvidia Quadro NVS290 256 MB Video Card 10/100/1000 Broadcom NetXtreme Gigabit Network Interface RealTek Sound Card			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Desirable:				
S2	The minimum amount of RAM (published by vendor) required to run the software is less than or equal to 512 megabytes.			
S3	The minimum amount of RAM (published by vendor) required to run the software is less than or equal to 1 gigabyte.			
S4	The recommended amount of Hard Disk space (published by vendor) needed to install the software is less than 1 gigabyte.			
S5	The minimum CPU (published by vendor) required to run the software is less than or equal to a Pentium 4 2.0GHz processor.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Part 2. Software Requirements				
Mandatory:				
The software must run on workstations with the following software installed:				
S6	Windows XP Professional SP3 and Vista SP1 (32 bit Versions)			
	Microsoft Office Professional 2003			
	MicroStation V8i			
	CAiCE Visual Transportation 10 SP6			
	Internet Explorer 7			
	Novell Client 4.91 SP4			
	ZenWorks Client 7.0.1.4			
	McAfee Enterprise Viruscan 8.5.0.781			
	Hummingbird NFS Maestro Ver. 10			
	InterPlot Client 8.5.2.89			
	ArcGIS 9.3			
	(Continued on next page)			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
S6 (cont'd)	AutoTURN 6.0			
	SignCAD 8.18			
	Lotus Notes 6.5.4			
The software must operate with the following network environments as listed below:				
S7	Novell Directory Services			
S8	NFS by Mapped Drive			
S9	Windows Active Directory (CIFS/SMB)			
Desirable:				
S10	The software is compatible/supported with Microsoft Windows XP Professional, Vista, and the latest Microsoft operating system available.			
S11	The software is compatible/supported with import/export to Microsoft Office Professional 2000.			
S12	The software is compatible/supported with import/export to Microsoft Office Professional 2003.			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
S13	The software is compatible/supported with PDF export.			
S14	The software is compatible/supported with Internet Explorer 6.0 import/export.			
S15	The software is compatible/supported with Internet Explorer 7.0 import/export.			
S16	The software supports multiple users on the same computer, each with customizable settings, on Windows XP Professional.			
S17	The software supports multiple users on the same computer, each with customizable settings, on Windows Vista Business.			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Part 3. Installation				
Mandatory:				
S18	The installer must be able to be installed from a network server on a local area network (LAN).			
S19	The installer must be made available in DVD-ROM or CD media.			
Desirable:				
S20	The installer is available as a Microsoft Installer (MSI) format.			
S21	The installer is installable from a network server by mapped drive and by UNC.			
S22	The installer is capable of installing silently (no prompts).			
S23	Multiple versions of the software can be installed, co-exist, and function on the same computer.			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
S24	Components can be installed/added without full re-install.			
Part 4. Configuration				
Mandatory:				
S25	Configuration settings or files can be modified. (Bidder must provide sample.)			
Desirable:				
S26	The configuration settings can be packaged into a single file.			
S27	The configuration settings can be text file configurable.			
S28	The configuration function has built-in error checking.			
S29	Multiple users can configure custom settings.			
S30	Multiple users can configure custom settings without using Windows Profiles.			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Part 5. Usage Rights				
Mandatory:				
S31	The software • Must not require the use of a hardware lock to operate; and • Must be capable of allowing any user, on any machine, at any time, to use the software, up to the allocated number of users for that year (i.e. based on usage and not the number of installations.)			
Desirable:				
S32	Usage is fully open. (i.e. Program can be installed and used without the use of the original CD/DVD, a unique key, etc.)			
S33	Usage is controlled via a pool at the local area network server.			
S34	Usage can be granted for use without network operation.			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Part 6. Uninstalls				
Mandatory:				
S35	The software must have a utility to uninstall.			
Desirable:				
S36	Patches/Updates can be discretely uninstalled.			
S37	Uninstall uses standard Windows uninstall.			
S38	Components can be uninstalled without uninstalling entire software.			
S39	Uninstall is capable of silent uninstall (no prompts).			
Part 7. Patches/Updates				
Mandatory:				
S40	Contractor must have a means of providing patches/updates to the software through their own website.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Desirable:				
S41	Patches/Updates are modular and do not require complete re-install of product.			
S42	Patches are configurable (i.e. allows user-defined settings such as installation path, reboot options, etc.)			
S43	Patches are capable of silent install (no prompts).			
S44	Patches can be managed centrally.			
S45	Patches can be performed on-demand by ordinary user.			
S46	Summary of installed patches can be given on demand.			
S47	Patches auto-detect pre-requisites.			
S48	Reports can be gathered for machines that do not have certain patches.			
S49	Users can be notified of new patches.			
S50	Users can be notified of missing patches.			

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Form VI-2: Mandatory and Desirable System Administration Requirements Response Form (continued)

Requirement Number	Requirement	Meets Requirement? (Yes/No)	Proposed Solution Description	Supporting Literature or Documentation Reference
Part 8. User Security				
Mandatory:				
S51	The software shall be able to operate using an ordinary, non-administrator level account within the Windows Active Directory and Novell Directory Services environment.			
Desirable:				
S52	Users can secure their projects within the software to keep other users from modifying their projects.			
S53	If the software has integrated security, Administrators have ability to access the projects of users that have secured their projects using the software's integrated security.			

Form VI-3: Mandatory Functional Requirements Response Form

The Bidder shall provide the proposed solution description and supporting literature or documentation reference for Mandatory Functional Requirements.

Caltrans design standards and methods are defined in the Caltrans Highway Design Manual. Drafting standards are defined in the CADD Manual and the Plans Preparation Manual. Survey standards and methods are defined in the Surveys Manual. Links to all manuals are included in the Bidder's Library.

References to "intelligent" objects or elements mean the software is storing information about that object or element that governs its behavior and/ or its association to other elements (e.g. an Element with a particular feature code will display with pre-defined attributes.)

Supporting Literature or Documentation Reference may include, but is not limited to:

- Software Manuals
- Screen shots
- Statement of affirmation
- Samples

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
GENERAL SPECIFICATIONS				
GENERAL SPECIFICATIONS: General				
M1	The software shall provide all reports as user-defined and writable in ASCII text, XML, or Word file formats.			
M2	The software shall create design elements from simple graphic elements.			
M3	The software shall provide for viewing and importing files from, and exporting files to, the Department's drafting software, MicroStation.			
M4	The software shall either operate in a CAD drafting software or the software shall create graphical elements within its own environment; however, graphical elements created by the software within its own environment must allow the user to translate them into MicroStation graphical elements.			
M5	The software shall be capable of manipulating and utilizing intelligent CADD elements during the design process.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M6	The software shall support both U.S. Customary and Metric units and provide for conversion from one to the other.			
M7	The software shall provide accuracy features satisfying the following: • Double-precision accuracy for all calculations; • User-defined unit accuracies for all output reports; • Station values using the 10+00.00 format; and • Option to input stations, length, and coordinates up to double precision.			
M8	The software shall accommodate any elevation above or below Mean Sea Level or zero.			
M9	The software shall allow the user to define CADD symbology (e.g. color, weight, line style, level, cell, etc.) per feature or style of all elements.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M10	The software shall allow enhancements and/or modifications to software to accommodate automation of repetitive tasks (e.g. Batch command routines, LISP, etc.)			
M11	The software shall provide integration with commercially available programming languages (e.g. VBA, C++, VB.NET).			
M12	The software shall utilize and manipulate coordinate values in the millions.			
M13	The software shall import survey and photogrammetric data from DGN files and the following legacy data formats- TSS, SRV, and KCM.			
M14	The software shall support N-E-Z, Latitude / Longitude, and X-Y-Z input formats.			
GENERAL SPECIFICATIONS: User Interface				
M15	The software shall allow viewing of reports without leaving the program.			
M16	The software shall support 2D / 3D DGN and DWG input.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
DTM SURFACES				
DTM SURFACES: General Specifications				
M17	The software shall provide intelligent triangulation with user-defined settings.			
M18	The software shall provide the ability to cut areas with a boundary string, creating points at cut boundaries and breaklines.			
M19	The software shall allow the original DTM to be saved as backup prior to editing.			
M20	The software shall be able to measure or determine the vertical distance between two surfaces (e.g. between bridge and road).			
M21	The software shall provide user-definable curve smoothing and spline density for breaklines representing curvilinear elements.			
M22	The triangulation method provided by the software shall not allow triangles to cross breaklines.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
DTM SURFACES: Input				
M23	The software shall import points including the following filterable attributes: • Point Number; • Northing; • Easting; • Elevation; • Description; • Feature Code; • Comments; • Curve vs Linear; • DTM point; • Non-DTM point; and • Line ID.			
M24	The software shall import breaklines including the following filterable attributes: • Description; • Feature Code; and • Comments.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M25	The software shall develop and generate surfaces from the following input sources: • ASCII data files (preserving point numbers, descriptions, feature codes, etc.); • Graphics files (3D); • ASCII/Digital elevation models (DEM); and • Design Cross-Sections.			
M26	The software shall differentiate between Curve and Linear attributes of survey data, providing the automatic generation of curvilinear or splined lines when the curve attribute is assigned.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
DTM SURFACES: Contours				
M27	The software shall create contour maps, including: • Index contours; • Intermediate contours; • Quick contours; • Smoothed contours; • 3D polylines / line strings; • User-defined CADD related attributes; • User-defined contour intervals; and • Void areas.			
M28	The software shall provide labeling capabilities for automatic generation of aligned contour labels to create user-defined finished contour maps.			
DTM SURFACES: Cross Sections				
M29	The software shall provide flexibility to extract freehand / user-defined cross sections.			
M30	The software shall support the display and plotting of multiple cross sections.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M31	The software shall allow labels to be applied to cross sections at any user-defined location. Label types must include: • Original Ground (OG); • Design Features; • Elevations; • Point Descriptions; and (EP, CL, ETW, etc.) • Slopes			
M32	The software shall provide Slope Stake reporting from cross section data on any surface (finish, subgrade, etc.). Slope stake reports must: • Include user-defined headers; and • Utilize user-defined labels.			
M33	The software shall interactively measure or determine offset, elevation, and slope on cross section.			
M34	The software shall provide user-defined vertical exaggeration in free-hand / user-defined cross sections.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
DTM SURFACES: Modifications				
M35	The software shall provide the ability to edit DTM parameters for breaklines, points, and triangles. This includes the ability to add, delete, and move points; and add or drape breaklines.			
DTM SURFACES: Reports/Output				
M36	The software shall develop 3D graphic files from the DTM / Design model.			
M37	The software shall provide DTM export in the following formats: • ASCII file; • LandXML file; • Output to Trimble survey data collector; and • Cross Section file.			
M38	The software shall be able to generate volumes from multiple surfaces.			
M39	The software shall develop rectangular grids and create graphics for 3D perspective presentation.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M40	The software shall assign user-defined CADD symbology (e.g. color, weight, line style, level, cell, etc.) per code, feature, or style.			
M41	The software shall provide Original Ground and Finish Grade DTM's.			
COGO				
COGO: Input				
M42	The software shall allow both interactive and graphic input.			
M43	The software shall provide user-definable input formats for the import of points and lines. The following formats must be allowed: • Comma delimited; • Tab delimited; and • Space delimited.			
M44	The software shall support import of COGO files in LandXML format.			
M45	The software shall include the ability to reference geometric elements.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M46	The software shall convert graphical elements to COGO elements (e.g. lines, strings, curves, etc.)			
M47	The software shall provide flexible input formats in dialog boxes (e.g. quadrant and azimuths).			
COGO: Points				
M48	The software shall compute, store, and display points as follows: • At a user-defined location (precision or graphical input); • At the endpoints, or key points of an element or an optional offset element; • At the intersection of any two selected geometric elements including lines, arcs, chains, graphical shapes, or two points defining a line. If elements do not cross, projects elements for intersection; <i>(continued on next page)</i>			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M48 (cont'd)	- At a point at a defined distance and offset from another point on an element; - At a point projected perpendicular from an element from a selected location; - At a point a given distance and bearing (or azimuth) from a defined location or geometry point; - At a point a defined distance and angle from two other points; - At a point a given station and offset from a given horizontal alignment; - At a point along a tangent to an arc a given distance; - At two points tangent to two specified arcs; - At points of tangency, point of compound, or reversing arcs; and - At a point x-y-z from a selected or defined point.			
M49	The software shall execute point commands on stored lines, arcs, and chains.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
COGO: Lines				
M50	The software shall construct a line as follows: • Between two defined points; • Perpendicular to an element through a defined point; • At an angle, deflection angle, or skew to an element through a defined point; • At a user-defined bearing (or azimuth) and distance through a point; • Tangent line from a specified point on an arc a given distance or to a approximate endpoint; • Through a horizontal alignment station at a specified bearing, azimuth, or skew angle; • Based upon a "least squares" fit through a series of points. Reports residual values and allows user to determine point list based on residuals; <i>(continued on next page)</i>			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M50 (cont'd)	• By division or proportion along a line; • Tangent to two arcs; and • Parallel to any other line at a user-defined distance.			
COGO: Arcs/Circles				
M51	The software shall construct an arc as follows: • From a center point, radius, and two points indicating the endpoints of the arc; • By division or proportion along an arc / curve; • Based upon a "least squares" fit through a series of points. Reports residual values and allows user to determine point list based on residuals; • From a radius and the end points; • Tangent to two specified lines; • Tangent to a line through a point on the line; <i>(continued on next page)</i>			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M51 (cont'd)	• A circle with a specified center and radius, degree of curvature, or point on the circle; • With radius, one end point, and delta angle; • Constructs arc with radius, one end point, and arc length; • Compound and reversing curves; • Allows major arc curves to be divided into a series of minor arcs; • Has flexibility to have delta angle between 0-360 degrees; and • Fillet & chamfer curves.			
COGO: Spirals				
M52	The software shall construct spirals as follows: • By sweep angle; • By length; • By endpoints; • Including spiral-curve-spiral capability; • By minimum / maximum radius, beginning and end points; and • By chord or arc definition.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M53	The software shall construct offset points to an existing spiral.			
COGO: Chains/Shapes				
M54	The software shall build a string/ shape from existing geometric elements including points, lines, arcs, and other chains.			
M55	The software shall construct a string parallel to an existing string.			
M56	The software shall construct a string with varying offsets from an existing string.			
M57	The software shall provide a routine to construct a best-fit alignment from survey data.			
M58	The software shall provide user-definable rules when building chains (e.g. all curves will be tangent or allow non-tangent curves).			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
COGO: Manipulation/Modifications				
M59	The software shall edit geometric elements in the following manners, including: • Revising and deleting geometric element(s) individually or in groups; • Lengthening or shortening an existing line/ arc/ string by distance or by graphically defining end point; • Rotating, translating, scaling, or renumbering groups of points or point files, curves, lines, and chains; • Retrieving and displaying geometry elements based on user-defined queries; • Associating attributes to geometry elements; and • Retrieving or defining an elevation on a geometric point from a surface or user-defined input.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
COGO: Computational				
M60	The software shall calculate bearing and distance between two defined points or from a single point to a group of selected points, including options for slope distance, vertical difference, and cumulative distance.			
M61	The software shall calculate the major or minor angle between three points.			
M62	The software shall calculate the angle between two lines.			
M63	The software shall calculate the station and offset of a given point relative to a given horizontal alignment.			
M64	The software shall calculate the area of a defined shape.			
M65	The software shall be able to subdivide a shape based on user-defined parameters and/or a predetermined area.			
M66	The software shall calculate the minimum distance between any two lines, arcs, or graphical elements.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M67	The software shall compute, store, and display a line or arc parallel to an existing line or arc.			
M68	The software shall create individual geometry elements from all or part of a given horizontal alignment.			
M69	The software shall create parallel elements at a user-defined distance apart.			
M70	The software shall calculate the perpendicular offset from a point to: • An object; • Line; and • Two points defining a line.			
COGO: Traverse				
M71	The software shall provide open and closed traverse capability.			
M72	The software shall provide calculation of unknowns with the capability of solving two unknowns.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M73	The software shall provide traverse adjustment including compass, transit, Crandall, scale and rotate, and least squares.			
M74	The software shall allow for the selection of stored points and curves, input from file, and/or manual entry of traverse data including bearings and distances, ability to traverse through tangent and non-tangent curves, and points of cusp.			
M75	The software shall save traverse input and allow for edits and reprocessing.			
M76	The software shall graphically preview the traverse before stored.			
M77	The software shall rotate bearings, apply a scale factor, and convert distances between U.S. Survey feet and meters.			
COGO: User Defined Annotations				
M78	The software shall identify and label geometric elements.			
M79	The software shall provide the option of incrementally numbering elements as they are stored with the alternate option of overwriting an existing element.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M80	The software shall provide automated element labeling with on / off switch to control feature.			
M81	The software shall automate element labeling per user-defined parameters depending on the length of the element (i.e., bearing and distance on top, bearing on top and distance on bottom, creates data table).			
M82	The software shall provide user-definable annotation format including number of decimal places.			
M83	The software shall provide automatic generation and placement of element annotation including: • Bearings; • Distances; • Coordinates; • Elevation; • Station / offset; and • Curve data to a range of data or singular data.			
M84	The software shall provide intelligent element annotation.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M85	The software shall provide coordinate annotation of a user-specified point.			
COGO: Reports/Output				
M86	The software shall provide a user-definable traverse report including: • Distance; • Bearing; • Arc length; • Latitudes and Departures; • Coordinates; • Radius; • Closing course error; and • Precision of closure.			
M87	The software shall provide a report on user selected geometry elements.			
M88	The software shall provide a station and offset report for a user-defined set of points relative to a given alignment.			
M89	The software shall include geometry feature data on COGO reports and output files.			
M90	The software shall provide a report of feature data quantities.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M91	The software shall provide a report / summary listing of all features used in the project.			
HORIZONTAL ALIGNMENT				
HORIZONTAL ALIGNMENT: General				
M92	The software shall be able to generate a horizontal alignment from geometry elements.			
M93	The software shall allow input of horizontal alignments interactively, graphically, or by a combination thereof.			
M94	The software shall provide a station equation scheme for horizontal alignments, including gaps and overlaps (without any station addition for overlaps).			
M95	The software shall provide stationing up to 1000000+00.			
M96	The software shall accommodate any size curve radius or delta.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M97	The software shall provide flexible roadway naming conventions (e.g. k1, RampA).			
M98	The software shall allow for increasing and decreasing stationing.			
M99	The software shall provide diagnostic capabilities to check and highlight non-tangent curves.			
HORIZONTAL ALIGNMENT: Construct Horizontal Alignment				
M100	The software shall be able to construct horizontal alignments by points of intersection (PI's) for deltas less than 180 degrees using: • Alignment designation; • Beginning station; • PI coordinates; • Curve radii; and • Option of spiral length.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M101	The software shall be able to construct horizontal alignments by curve data using: • Alignment designations; • Beginning station; • Curve radii, delta (up to 360 degrees) and direction; • BC and EC (PC, PT) stations; and • Chord length.			
M102	The software shall be able to construct horizontal alignments by chains using: • Alignment designations; • Beginning station; and • Stored chains including arcs up to 360 degrees.			
HORIZONTAL ALIGNMENT: Horizontal Alignment Annotations				
M103	The software shall provide automatic annotation of Horizontal Alignment elements.			
M104	The software shall allow user-definable annotation of Horizontal Alignment.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
HORIZONTAL ALIGNMENT: Modify Horizontal Alignment				
M105	The software shall allow user to copy, edit, delete, insert, move, and revise Horizontal Alignment data.			
HORIZONTAL ALIGNMENT: Reports/Output				
M106	Horizontal Alignment reports shall be capable of providing the following user-defined items; including: • Curve radii; • Curve length; • Deflections or deltas; • Degree of curvature; • Total string alignment length; • Tangent lengths; • PI coordinates; • EC, BC (PC, PT) coordinates and corresponding stations; • Bearings (tangents, curve direction back, curve direction ahead, etc.); and • Point names.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M107	When Horizontal Alignment reports include spiral curves, the report shall include the following additional information: • Radius in; • Radius out; • Spiral angle; and • Spiral length.			
M108	The software shall export Horizontal Alignment(s) to LandXML & Trimble formats.			
VERTICAL ALIGNMENT				
VERTICAL ALIGNMENT: General				
M109	The software shall allow input of Vertical Alignments interactively, graphically, or by a combination thereof.			
M110	The software shall import Vertical Alignment data from other sources (e.g. LandXML).			
M111	The software shall provide flexible roadway naming conventions (e.g. k1, RampA).			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M112	The software shall provide a design specification checker configurable to Caltrans standards listed in Appendix F.			
VERTICAL ALIGNMENT: Construct Vertical Alignment				
M113	The software shall be able to construct and draw Vertical Alignment reference lines (grids).			
M114	The software shall be able to construct Vertical Alignments by VPIs.			
M115	The software shall provide for user-defined Vertical Alignment point placement by: • Station and elevation; • Station and grade from existing point; • Elevation and grade from existing point; and • Placing at grade line intersections.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M116	The software shall provide capability to construct Vertical Alignment tangents by: - Distance and grade from existing Vertical Alignment point; and - Placing the tangent between any two existing Vertical Alignment points or VPIs.			
M117	The software shall construct Vertical Alignments using parabolic curves.			
M118	The software shall be able to construct vertical curves through points using various combinations including: - Station departing grade, VC length, and VPI; - Both grades, VC length, and VPI station; - Both grades, VC length, and VPI elevation; and - Both grades and VC length from station of either start or end of VC.			
M119	The software shall be able to construct Vertical Alignments using surface data.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M120	The software shall be able to display and/or store profiles of any surface using the following selection methods: • Two-points; • Along or offset from any geometry or survey string; and • Along any user-defined line string.			
M121	The software shall be able to construct Vertical Alignments with offset and elevation differences from the surface data.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
VERTICAL ALIGNMENT: User-Defined Vertical Alignment Annotations				
M122	The software shall provide and display Vertical Alignments with automatic annotation including: • Stationing scheme including BVC's, EVC's, etc.; • Sags and crest identification (station, elevation, etc.); • VPI stationing and elevations; • Vertical curve lengths; • User-defined line codes representing OG and design; • User-defined scale along vertical and horizontal axes; • Station equations; and • Grades.			
M123	The software shall label Vertical Alignments at any user-defined location.			
M124	The software shall be able to display multiple offset design profiles of any user-defined roadway strings (e.g. CL, ETW, EP, gutters, curbing, bridge soffits) along with tabular elevations of each string at station increments, transit points, and other specified stations.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
VERTICAL ALIGNMENT: Modify Vertical Alignment				
M125	The software shall allow user to copy, edit, delete, insert, move, and revise Vertical Alignment data.			
M126	The software shall be able to copy Vertical Alignments with identical design characteristics.			
M127	The software shall be able to modify vertical elements by constraining selected parameters (e.g. station, elevation, grade back, grade ahead).			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
VERTICAL ALIGNMENT: Reports/Output				
M128	Vertical alignment reports and output shall provide the following: • Point descriptions; • Stationing at user-defined intervals and limits; • Elevations; • Grades; • Curve lengths; • Sags / crest stations and elevations; • K values; • Stopping sight distances; • Design speeds; and • Original Ground profile.			
M129	The software shall export Vertical Alignment(s) to LandXML & Trimble formats.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SUPERELEVATION				
SUPERELEVATION: General				
M130	The software shall automatically define a Superelevation per user-defined parameters.			
M131	The software shall allow for interactive input of Superelevation data.			
M132	The software shall develop Superelevation transitions by station.			
M133	The software shall be capable of defining a Superelevation in a non-crowned roadway section.			
M134	The software shall provide user-defined rollover capabilities.			
M135	The software shall provide axis of rotation along any user-defined reference line.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SUPERELEVATION: Superelevation Plots				
M136	The software shall provide Superelevation diagrams for standard, compound, and reversing curves automatically from Superelevation design parameters (e.g. Superelevation rates, runoff length, axis of rotation, etc.).			
M137	The software shall provide user-defined Superelevation diagram annotation including: • ETW's and ES's, Lt and Rt; • Points of non-linear transition (e.g. taper); • Stationing scheme, including station equations; • Superelevation rates; and • Axis of rotation.			
M138	The software shall provide user-defined line styles, etc., differentiating between existing and proposed Superelevation.			
M139	The software shall provide a user-defined super rate grid to allow for vertical exaggeration.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M140	The software shall provide a user-defined station grid.			
M141	The software shall save settings for each alignment independently.			
M142	The software shall plot Superelevation and Vertical Alignment on one Reference / Station Line.			
ROADWAY DEFINITION				
ROADWAY DEFINITION: General Cross-Section Requirements				
M143	The software shall provide for the facilitation of earthwork analysis and pavement structure quantity calculation.			
M144	The software shall provide for multiple substrata representation (e.g. a subsurface of different materials such as limestone, bay mud, etc.)			
M145	The software shall model the proposed condition and create design surfaces including: • Multiple layers of varying depths; and • Stepped subgrades.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M146	The software shall be able to design roadway cross sections using multiple roadway alignments.			
M147	The software shall provide flexibility to extract freehand/ user-defined design cross-sections from a design model (e.g. even, odd, and skewed).			
M148	The software shall calculate areas of any generated cross section.			
M149	The software shall allow viewing of cross-section window and planimetric window concurrently. Each view must be capable of displaying user-defined strings (e.g. ETW, EP, etc.)			
M150	The software shall be capable of generating cross sections at user-defined stations at any point in the design process both perpendicular and at a skew.			
ROADWAY DEFINITION: Defining Roadway Segments				
M151	The software shall allow interactive and graphic input.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M152	The software shall provide a library to model roadway segments (e.g. lanes, shoulders, curbing, dikes, gutters, retaining walls, barriers, sound walls, etc.).			
M153	The software shall define sections by segments and/ or strings.			
M154	The software shall apply segments by station or station ranges.			
M155	The software shall allow users to add to or edit the segment library.			
M156	The software shall define segments or strings by projected CL using offset, slope, superelevation, profile, ridge points, etc.			
M157	The software shall assign feature codes from user-defined feature table to points and/ or strings.			
M158	The software shall be capable of defining roadway sections where existing ground data is provided on only one side of roadway.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M159	The software shall be capable of using existing terrain strings in the proposed roadway design.			
M160	The software shall provide segment transitions.			
M161	The software shall interactively add, revise, insert, and delete segment points, segments, and strings.			
ROADWAY DEFINITIONS: Slope Selection/Ditch Design				
M162	The software shall allow interactive and graphic input.			
M163	The software shall allow any combination of variable and fixed slopes.			
M164	The software shall allow slope transitions between stations or a user-defined roadway section.			
M165	The software shall allow user-defined benching patterns.			
M166	The software shall allow slope rounding.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M167	The software shall allow user-defined minimum / maximum catch point capability (defined from any roadway or reference line string).			
M168	The software shall model chokers with the use of flat slope criteria.			
M169	The software shall provide user-defined ditch segments.			
ROADWAY DEFINITION: Median Design				
M170	The software shall be able to define any median segment in a variety of sequences.			
M171	The software shall be able to define median patterns using user-defined strings, ridge points, etc.			
M172	The software shall provide user-defined median segments.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
ROADWAY DEFINITION: Roadway Rehabilitation Design				
M173	The software shall provide for rehabilitation design on different types of roadways (e.g. divided and undivided highways, multilane highways, expressways, conventional).			
M174	The software shall be capable of adding new roadway segments utilizing a user-defined Superelevation (e.g. a roadway widening during rehabilitation).			
M175	The software shall provide for overlays across entire roadway matching existing slopes or defined Superelevation.			
M176	The software shall provide for milling, grinding, and AC leveling with user-defined tolerances.			
M177	The software shall provide for overlay after grinding and/or AC leveling with user-defined tolerances.			
M178	The software shall add lanes, shoulders, and/or overlays concurrently.			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M179	The software shall be able to match new segment's slope to existing adjacent segment's slope.			
M180	The software shall be able to create overlays or widenings with a new user-defined crown location.			
M181	The software shall add lanes and/or shoulders based on a rehabilitated surface.			
M182	The software shall support widening to the right and left of roadway sections concurrently using independent logic (e.g. divided highways).			
M183	The software shall provide for retaining walls, barriers, and other roadway features.			
ROADWAY DEFINITION: Earthwork Quantity Parameters				
M184	The software shall incorporate separate expansion/ shrinkage factors for excavation and fill.			
M185	The software shall provide for earthwork gaps (e.g. bridge begin and end stations).			

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Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M186	The software shall provide for substrata selection for user-defined stations or locations.			
M187	The software shall define material type for design pavement structure layers.			
ROADWAY DEFINITION: Earthwork Quantities Analysis				
M188	The software shall calculate earthwork volumes by the following: • Prismatic method; and • Average end area method.			
M189	The software shall allow for the quantity calculation and representation of multiple layers.			
M190	The software shall segregate quantity take-offs based on user-defined parameters (e.g. ramps).			
M191	The software shall correct earthwork volumes for curvature when using average end area method.			
M192	The software shall compute DTM-to-datum elevation volumes (e.g. volumes for ponds and lakes, borrow pits).			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
ROADWAY DEFINITION: Roadway Cross Section Output (Quantities, Plots, Reports)				
M193	The software shall provide roadway cross section reports based on user-defined parameters.			
M194	The software shall provide user-definable report formats for roadway cross-section reports (e.g. Word, XML, PDF, Excel).			
M195	The software shall provide user-definable slope stake reports including: • Station, offset, and elevation; • Labeling; • Header; • Cross slopes; • Cut and fill; • Catch point; and • Right-of-Way.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
ROADWAY DEFINITION: Cross Section Plots				
M196	The software shall provide user-defined cross section plots including the following: • OG; • Finish and subgrade elevations at defined cross section points; • User-defined point descriptors (e.g. EP, ETW, HP, CP, etc.); • User-defined line styles and colors • Segments slopes; and • Offset distances from user-defined elements (e.g. R/W, utilities, tree).			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M197	The software shall provide user-defined labels and sheet layout including: • Scale; • Grids; • Sheet size and orientation; • Margins; • Spacing between cross sections; • Single column or multiple columns of cross sections; • Page numbers including beginning page number; • Border cell selection; • Project description; and • Time and date of plot.			
M198	The software shall load/ save user-defined settings file for each cross-section independently.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SITE MODELING/DESIGN				
SITE MODELING/DESIGN: General				
M199	The software shall provide for import of data from various sources, including: • ASCII; • Land XML; • ASCII DEM; and • Shapefiles.			
M200	The software shall be capable of creating 3D surface models (e.g. building pad, retention ponds, berms, dikes and levees, landfills, stockpiles, borrow pits, general landscaping, interchanges and overpasses).			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M201	The software shall store/ edit 3D surface models using the following parameters: - Defining and positioning 3D shapes; - Defining catch slope (e.g. catch slope interval, fixed elevations, and using design profile); and - Defining catch slope rate (e.g. slope to DTM, fixed elevation, transitional slope rate, and design profile).			
M202	The software shall be capable of creating 3D surface models with user-defined contours.			
SITE MODELING/DESIGN: Modifications				
M203	The software shall be capable of merging surface models and extracting and deleting portions of surface models.			
M204	The software shall be capable of moving design pad horizontally and vertically, and to rotate design pads.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SITE MODELING/DESIGN: Reports/Output				
M205	The software shall generate reports based on user-defined parameters, including: • Coordinates; • Elevation; • Description; and • Point name.			
M206	The software shall provide user-definable report formats (e.g. Word, XML, PDF, Excel).			
M207	The software shall generate Earthwork Reports using prismatic and average end area methods.			
M208	The software shall generate user-definable Stake Out Reports (e.g. radial).			
M209	The software shall generate a report of selected points (e.g. coordinates, description, elevations, point name, etc.)			
M210	The software shall generate 3D Traverse Reports of selected closed traverses and strings.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
VISUALIZATION TOOLS				
M211	The software shall be capable of generating 3D surface models with: • Dynamic rotation; • 3D perspective views; and • User-set camera view (height of eye and target).			
M212	The software shall be capable of viewing/ draping geo-referenced raster images (e.g. TIF/TFW, JPG/JGW, SID, and other geo-referenced images).			
M213	The software shall provide user-defined vertical exaggeration in 3D views.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
AUTOMATED PLAN/MAP PRODUCTION				
M214	The software shall be capable of creating plan sheets using the following user-definable parameters: • Sheet sizes; • Sheet settings; • Sheet masks; • Percent overlap; • Match lines; • Scale and scale bars; and • Geo-referencing			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES				
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Hydraulics/Hydrology				
M215	The software shall provide an integrated hydraulic and hydrologic design module.			
M216	The software shall provide storm drain design and development per FHWA HEC No. 22.			
M217	The software shall determine on-site design flows using the following methods: • Rational method; and • SCS method.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M218	The software shall perform culvert sizing and analysis per FHWA HDS No. 5.			
M219	The software shall generate and plot energy and hydraulic grade lines from developed piping systems, including multiple branches.			
M220	The software shall model roadway drainage systems including design flows, bypass flows, gutter spreads, outlet and inlet locations, etc. per FHWA HEC No. 22.			
M221	The software shall create and display drainage flow-paths, high points, low points, and slope arrows from DTM surface.			
M222	The software shall be capable of working with "broken-back" cross sections.			
M223	The software shall provide pond analysis, including the following capabilities: • Stage/Storage/Discharge plot generation; • Pond Routing; and • Inflow/Outflow Hydrograph generation.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M224	The software shall perform open channel analysis.			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Bridges				
M225	The software shall have the capability to model a 3D bridge deck surface dependant upon user input of horizontal and vertical alignment data, superelevation data, and lateral offset distance to left and right edges of bridge deck.			
M226	The software shall have the capability to report the bridge deck surface geometry by: • Northing, easting, and elevation; • Station, offset, and elevation; and • Graphically in the form of plan view deck elevation contours.			
M227	The software shall have the capability to report vertical clearances between the modeled bridge soffit and the modeled surface below.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (General)				
M228	The software shall use and display grid and/ or ground distances.			
M229	The software shall provide U.S. Survey Foot/ Metric conversion capability.			
M230	The software shall automatically update graphics when changes are made to the database.			
M231	The software shall retain original field labels of points, lines, and descriptors.			
M232	The software shall provide automatic overwrite protection for points, while allowing user to overwrite when necessary. Includes option to re-number or increment new number.			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Input)				
M233	The software shall provide for a user-definable ASCII file format for point and string input.			
M234	The software shall provide for Coordinate, Latitude/ Longitude, DMS, and DD input.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M235	The software shall import raw & processed data directly from survey data collection systems including but not limited to Tripod Data Systems and Trimble.			
M236	The software shall import the following raw data formats including: • RAW; • RW5; • DC; and • StarNet DAT files.			
M237	The software shall import geometry, cross-section, and surface data with LandXML and legacy CAiCE formats such as, KCM and SRV files. See Bidder's Library.			
M238	The software shall differentiate survey data including: • Conventional survey points; • Photogrammetry data; • GPS survey points; • Conventional and GPS control points; • Laser scanned data; and • User-defined data (e.g. Bridge sites).			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M239	The software shall resolve conflicting data and automatically provide the ability for the user to identify potential conflicts.			
M240	The software shall import points and maintain the following attributes: • Point Number; • Northing and Easting; • Elevation; • Description; • Feature Code; • Comments; • Ground vs Planimetric; and • Curve vs. Linear attribute.			
M241	The software shall import chains with the attributes: • Description; • Feature code; • Comments; and • Ground vs. Planimetric.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Data Reduction)				
M242	The software shall allow coordinate and datum transformation of user-specified elements between CCS zones within the same datum adjustment. Refer to the Surveys Manual.			
M243	The software shall provide 2D/ 3D least squares analysis capabilities, including: • Weights user specified control and observation; • Provides error propagation capabilities, including residuals of the observations, with results in a report and graphic display; • Analyzes observation data; • Analyzes 2D/ 3D data entered manually as coordinates and/ or as bearings/ distances (e.g. LandNet adjustments); • Solves for up to two unknown items within a network adjustment; and • Includes the precision of measurement in the least squares adjustment results.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M244	The software shall use observation equations in the least squares adjustment.			
M245	The software shall provide least squares network adjustment of conventional survey data.			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Data Validation and Editing)				
M246	The software shall extract and sort terrain data by user-definable criteria including: • Northing and easting; • Terrain features; • Topographic feature/ single point objects; • Elevation; • Description; and • Points within a chain.			
M247	The software shall identify and resolve crossing breaklines within a user-defined tolerance, indicating vertical difference. Allow the user to determine the method of correction (automated and/or manual corrections).			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M248	The software shall be capable of modifying string configuration, attributes, and individual points associated with a string (e.g. transpose a selection of points).			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Output)				
M249	The software shall provide user-definable ASCII file format for point and string output.			
M250	The software shall provide for Coordinate and Latitude/ Longitude output.			
M251	The software shall provide 2D/ 3D DGN and DWG output.			
M252	The software shall export geometry, cross-section, and surface data directly to survey data collection systems including but not limited to Tripod Data Systems and Trimble.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M253	The software shall export the following geometry, cross-section, and surface data formats, including: • DC; • LandXML; • RD5; • TP5; and • File formats suitable for Machine Guidance systems.			

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Form VI-3: Mandatory Functional Requirements Response Form (continued)

Requirement Number	Mandatory Functional Requirements	Meets Requirement (YES/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
M254	The software shall provide user-definable report formats (e.g. ASCII, Word, XML, PDF) including: • Station and offset listings; • String-line notes; • Radial stakeout reports; • Point data reports including: - o X, Y, Z coordinates and/ or Latitude/Longitude of adjusted and original survey data, - o point numbers, - o features, - o descriptions, and grid/ground information; • Horizontal alignment data reports; • Vertical alignment data reports; • Area reports; and • A user-defined legend per the data in the project (e.g. for codes, features).			

Form VI-4: Desirable Functional Requirements Response Form

Bidders are not required to offer these desirable features in order to be compliant with this RFP. However, Bidders must indicate if the functionality is included in their proposed COTS software by entering "Yes" or "No" as indicated on the form for each desirable functional requirement. Where Bidders indicate the functionality is included in their software, a narrative response is also required, as described above.

Caltrans design standards and methods, are defined in the Caltrans Highway Design Manual. Drafting standards are defined in the CADD Users Manual and the Plans Preparation Manual. Survey standards and methods are defined in the Surveys Manual. Links to all manuals are included in the Bidder's Library.

Supporting Literature or Documentation Reference may include, but is not limited to:

- Software Manuals
- Screen shots
- Statement of affirmation
- Samples

References to "intelligent" objects or elements mean the software is storing information about that object or element that governs its behavior and/ or its association to other elements (e.g. an Element with a particular feature code will display with pre-defined attributes.)

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Form VI-4: Desirable Functional Requirements Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
GENERAL SPECIFICATIONS				
GENERAL SPECIFICATIONS: General				
D1	The software should provide design and drafting features in MicroStation.			
D2	The software is capable of running in MicroStation and in other drafting software.			
D3	If the software doesn't work within MicroStation, the software should use multiple tables during translation process (e.g. symbol, color, layer/level, line style tables, etc.)			
GENERAL SPECIFICATIONS: Documentation				
D4	The solution includes online tutorials and online training.			
GENERAL SPECIFICATIONS: File Structure/Management				
D5	The software provides user tools to manage files (not computer managed only).			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D6	The software generates a project history / log file.			
D7	The software allows multiple users to access the same project files simultaneously, with security features to prevent users from overwriting changes made by others.			
GENERAL SPECIFICATIONS: User Interface				
D8	The software provides a consistent look of menus, dialog boxes, messages, and functions (i.e. same fonts, colors, and formatting.)			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D9	The software provides menu-driven commands with characteristics as follows:			
	a. Has three or less submenus in a stream for all menu-driven commands;			
	b. Provides a grouping of commands based on transportation design process (e.g. Pull Down Menu has groups for Horizontal Alignments, Vertical Alignments, Superelevation, etc. and all commands needed to design and display that item are under that menu); and/or			
	c. Has user-defined toolbars and menus transferable between users / projects.			
D10	The software provides the ability to repeat the last command without invoking the menu structure.			
D11	The software displays object attributes with cursor.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D12	The software provides the ability to recall the data entry from the last use of that command.			
D13	The software provides at least two "Undo" actions for design commands. (e.g. Undo modified and deleted data by selection set or working session.)			
DTM SURFACES				
DTM SURFACES: General Specifications				
D14	The software provides a dynamic interface with the DTM engine.			
D15	The software is capable of working with large data sets (e.g. laser-scanned data with a large number of points).			
D16	The software is able to lock DTM from manipulation / modification.			
D17	The software creates DTM extents for GIS purposes.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
DTM SURFACES: Input				
D18	The software develops and generates surfaces from a LandXML file format.			
DTM SURFACES: Contours				
D19	The software dynamically links contour modifications to DTM surface.			
DTM SURFACES: Cross Sections				
D20	The software automatically updates cross sections based on changes to the DTM.			
D21	Cross sections identify void areas.			
D22	The software extracts cross section data directly from 3D digital contour maps or Digital Elevation Models (DEM's) without the use of a surface (TIN) model.			
D23	The software resolves crossing sections (e.g. at curb returns and bridge cones).			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
DTM SURFACES: Modifications				
D24	The software provides dynamic interactive manipulation of multiple surfaces.			
D25	The software allows user-defined boundaries and void areas.			
D26	The software provides for point filtering (i.e. thinning).			
D27	The software is able to process a portion of the DTM in user-defined areas.			
DTM SURFACES: Reports/Output				
D28	The software provides DTM export in LandXML format.			
D29	The software is compatible with Machine Guided Grading.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
COGO				
COGO: Spirals				
D30	The software constructs a spiral based upon a "least squares" fit through a series of points. Should report residual values and allows user to determine point list based on residuals.			
COGO: Manipulation/Modifications				
D31	The software provides dynamic modification capabilities for single or complex geometry elements (e.g. modifying a circular curve in a horizontal alignment would also affect tangents to that curve), with an option to let user save changes as a new element rather than automatically updating the existing element.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
COGO: Traverse				
D32	The software graphically previews traverse before it is stored.			
COGO: User-Defined Annotations				
D33	The software provides user-definable tabular element annotation including tables for areas with descriptions and dynamically updates tables when geometry changes.			
D34	The software provides radial or tangent bearing annotation at a given point on a curve.			
COGO: Reports/Output				
D35	The software provides a report with the ability to list or display user-defined elements, for example: • Duplicate points; and • Points not in a string.			
D36	The software provides command listing that can be used to edit and re-run a series of commands.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
HORIZONTAL ALIGNMENT				
HORIZONTAL ALIGNMENT: Construct Horizontal Alignment				
D37	Horizontal Alignment reports are capable of providing point descriptors.			
VERTICAL ALIGNMENT				
VERTICAL ALIGNMENT: Construct Vertical Alignment				
D38	The software is capable of displaying vertical curves superimposed over Horizontal Alignment curves (visualization tool for improved HA and VA design continuity).			
D39	The software is capable of constructing a vertical alignment by a best-fit method.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
VERTICAL ALIGNMENT: User-Defined Vertical Alignment Annotations				
D40	The software provides and displays profiles with automatic annotation including K-value.			
VERTICAL ALIGNMENT: Modify Vertical Alignment				
D41	When any interactive modification is made, all affected features and elements of the alignment, including stationing, are automatically updated and saved in the design file / model with on/off switch.			
VERTICAL ALIGNMENT: Reports/Output				
D42	Vertical alignment reports and output provide:			
	a. Slope differences;			
	b. Passing sight distance; and/or			
	c. Decision sight distance.			
D43	The software computes minimum vertical distance between any two vertical alignments or line strings at overlapping points.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SUPERELEVATION				
SUPERELEVATION: General				
D44	The software provides Superelevation transition curves.			
D45	The software imports Excel spreadsheets with Superelevation data.			
SUPERELEVATION: Modifications				
D46	The software allows user to copy, edit, delete, insert, move, and revise previously defined Superelevations.			
D47	The software is able to graphically modify previously defined Superelevations.			
D48	When any modification to Superelevation is made, the affected elements of the design (e.g. cross sections or design model) are automatically updated; including automatic Superelevation plot update with on/off switch.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SUPERELEVATION: Superelevation Plots				
D49	The software provides user-defined Superelevation diagram annotation including:			
	a. Superelevation runoff lengths			
	b. Point of intersection for coincidental rates			
D50	The software provides Horizontal Alignment Curve annotation (e.g. BC, EC, etc.) on Reference Line.			
ROADWAY DESIGN: General				
D51	The software provides a configurable design specification checker (including horizontal and vertical alignments as well as Superelevation.)			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
ROADWAY DEFINITION				
ROADWAY DEFINITION: General Cross Section Requirements				
D52	The software displays longitudinal features in cross-section view including: • Edge drains; and • Utilities (gas lines, pipes, etc.)			
ROADWAY DEFINITION: Defining Roadway Segments				
D53	The software allows a minimum of 10,000 segments, strings of segments, and strings.			
D54	The software allows the user to graphically review design sections and strings in cross section window and planimetric window before storing to database.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
ROADWAY DEFINITION: Slope Selection / Ditch Design				
D55	The software allows a minimum of 100 slope segments / strings per: • Station; • Range of stations; or • Section of roadway.			
D56	The software allows slope input by both ratio and percents.			
ROADWAY DEFINITION: Earthwork Quantity Parameters				
D57	The software generates mass-haul diagrams, including the option of forced balance.			
ROADWAY DEFINITION: Roadway Cross Section Output (Quantities, Plots, and Reports)				
D58	The software provides a station and offset report of grinding areas and intersection with Original Ground (OG) surface.			
ROADWAY DEFINITION: Cross Section Plots				
D59	The software is able to plot partial cross sections.			

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Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
SITE MODELING/DESIGN				
SITE MODELING DESIGN: General				
D60	The software allows data input graphically and / or interactively in a dynamic environment.			
VISUALIZATION TOOLS				
D61	The software provides 3D animation capabilities (e.g. drive-thru).			
D62	The software is able to manipulate and edit in a 3D view.			
D63	The software provides photo-realistic rendering capabilities, including the modeling of manmade features (e.g. buildings, vehicles, utility objects, etc.) and natural features (e.g. trees, shrubs, pedestrians, etc.).			
D64	The software provides line of sight measurements, distance and bearings between any two defined locations.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D65	The software produces 3D views that are color coded by elevation or slope intensity and allows the user to modify shading settings.			
D66	The software is able to view GIS data as a background.			
AUTOMATED PLAN/MAP PRODUCTION				
D67	The software has the ability to automate the composition and placement of plan view labels onto plans.			
MISCELLANEOUS CRITERIA				
D68	The software has user-defined save options (e.g. auto-save every 5 minutes vs. only when user activates a save command.)			
D69	The software provides quantity takeoff and cost estimating capabilities.			
D70	The software provides a scientific calculator (able to do RPN, convert from DMS to Radians, etc.).			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D71	The software is able to link multiple images to any object.			
D72	The software allows multiple input methods (e.g. quadrants, azimuths, bearings, mathematical operations, deflection, etc.)			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES				
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Hydraulics/Hydrology				
D73	The software can create annotated drainage profiles with the following parameters:			
	a. Pipe type;			
	b. Pipe size;			
	c. Inlet type;			
	d. Flowline elevations, including entrance and exit invert elevations;			
	e. Grades;			
	f. Normal and critical depth lines where applicable;			
	g. User-defined text size, font style and justification;			
	h. Original ground/finish grade;			
	i. Hydraulic Grade Line (HGL) and Energy Grade Line (EGL) for storm drains; and/or			
	j. Station and offsets.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Landscape Design				
D74	The software is able to provide user-defined plant labeling.			
D75	The software provides automatic take-offs for quantities.			
D76	The software provides a customizable item database.			
D77	The software provides piping analysis (pressure loss, sizing, etc.).			
D78	The software is able to display plant growth with 3D rendering capabilities applying time and plant species parameters.			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Right of Way Engineering				
D79	The software generates user-defined metes and bounds / legal descriptions from complex horizontal alignments including alignments with spirals and curves (chord or arc definition).			
D80	The software provides user-defined tables for parcel area management.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D81	The software is able to access a parcel database through a user-defined index (e.g. Oracle, Access, SQL).			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Bridges				
D82	The software is able to report superstructure and substructure concrete, structural excavation, and structural backfill pay item quantities.			
D83	The software is able to create and export a 3D model of bridge superstructure and substructure to a 3D MicroStation file.			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (General)				
D84	The software provides the ability to restrict modifications to specific files (e.g. DTM, survey, design, etc.) to specified users.			
D85	The software allows the user to assign different Epoch dates to the coordinate systems.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Data Reduction)				
D86	The software has the ability to do least squares network adjustment of survey data from mixed collection methods (GPS, conventional, etc.)			
FUNCTIONAL/SPECIALIST UNIT CAPABILITIES: Surveys (Data Validation and Editing)				
D87	The software is able to combine terrain breaklines by user-definable criteria (e.g. same terrain features that fall within a user-defined horizontal and vertical tolerance in order to remove spaces or gaps between lines).			
D88	The software is able to identify all points that fall next to other points within a user-defined horizontal and vertical tolerance.			
D89	The software is able to accurately divide large DTM surfaces along existing triangulation lines.			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
GEOGRAPHIC INFORMATION SYSTEMS				
D90	The software is able to directly link, to one of the following GIS databases: • ArcSDE; • Geodatabases; or • Spatial Data Option (SDO) for 2D and 3D data including: • Lines and curves (e.g. Alignments, right of way lines); • Polygons (e.g. parcels, ESA's, soil types); and • Points (e.g. cells).			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-4: Desirable Functional Requirements and Response Form (continued)

Requirement Number	Desirable Functional Requirements	Meets Requirement? (Yes/NO)	Proposed Solution Description	Supporting Literature or Documentation Reference
D91	The software is able to facilitate through another module, to one of the following GIS databases: • ArcSDE; • Geodatabases; or • Spatial Data Option(SDO) for 2D and 3D data including: • Lines and curves (e.g. Alignments, right of way lines); • Polygons (e.g. parcels, ESA's, soil types); and • Points (e.g. cells).			

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Appendix D – Bidder's Forms for Business and Technical Requirements

Form VI-5: Other Technical Requirements Response Form

Requirement #	Name of Requirement	Meets Requirement? (Yes/No)	Response Section/Page #
T1	Bidder affirms that a System Administration Manual will be provided to the Caltrans Contract Manager prior to commencement of acceptance testing.		N/A
T2	Bidder affirms that the proposed software meets, or will be configured to meet, all software Configuration Requirements, as listed in Appendix F.		N/A
T3	A DRAFT Training Plan is included. The plan includes an outline of the development of the curriculum, course content, and a proposed class schedule.		

APPENDIX E

COST FORMS

(This Appendix to be incorporated into the Contract)

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Appendix E – Cost Forms

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Form VII-1: Total Cost Summary

Project Cost Summary

Complete Forms VII-2 through VII-9 and transfer the totals to this sheet.

Cost Category	Summary Cost	Subtotals
Contract 1 – Configuration and Training*		
VII-2 Total Project Management and Implementation Services Cost		
VII-3 Total Software Configuration Cost		
VII-4 Total Training Manual Costs		
VII-5 COTS Software Usage/ Maintenance Fees (Year 1)		
VII-6 Total Training Services Cost		
Contract 1 Total (Sum VII-2 through VII-6)		
Contract 2 – Software Usage and Maintenance Fees		
VII-7 Total COTS Software Usage/Maintenance Fees Summary (Years 2-5)		
VII-8 Total COTS Software Usage/Maintenance Fees (Optional Year 6)		
Contract 2 Total (Sum VII-7 through VII-8)		
Total Project Costs		

***It is the Bidder's responsibility to ensure that the total of items for Phase 1 of Contract 1 does not exceed 17% of the total cost of Contract 1. Refer to Section VII.C of the RFP for details.**

NOTE: Shaded areas should be left blank.

Roadway Design Software (RDS) Project
Appendix E – Cost Forms

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Form VII-2: Project Management and Implementation Services Cost

Enter the project management costs for each item as indicated below.

Item Description	Item Cost
Development and Delivery of Approved Project Management and Training Plans	
Project Management activities through completion of configuration and initial installation of software	
Development and Delivery of Approved Final Training Schedule	
Project Management and Implementation activities after configuration and through completion of Key Support User training	
Ongoing Project Management Activities (Year 2)	
Ongoing Project Management Activities (Year 3)	
Ongoing Project Management Activities (Year 4)	
Ongoing Project Management Activities (Year 5)	
Total Project Management and Implementation Services Cost	

Transfer the Total Project Management and Implementation Services Cost to Form VII-1.

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Form VII-3: Software Configuration Cost

Enter the Software Configuration costs for each item as indicated below.

Item Description	Item Cost
General Configuration	
Survey Configuration	
Roadway Design Configuration	
Total Software Configuration Cost	

Transfer the Total Software Configuration Cost to Form VII-1

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Form VII-4: Course Development and Training Manual Cost

Enter the Training Manual costs for each item as indicated below.

Manual Description	Quantity of Hard Copies	Quantity of Electronic Copies	Item Cost
Surveys Data Processing and DTM	2	1 .pdf + 1 .doc	
Surveys COGO and Map Production	2	1 .pdf + 1 .doc	
Introduction to Roadway Design	2	1 .pdf + 1 .doc	
Intermediate Roadway Design	2	1 .pdf + 1 .doc	
Basic Structure Design	2	1 .pdf + 1 .doc	
Basic Hydraulic Design	2	1 .pdf + 1 .doc	
Total Training Manual Cost			

Transfer the Total Training Manual Cost to Form VII-1.

Note: Item costs include development and delivery of both hard copies and electronic files.

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Form VII-5: COTS Software Usage/Maintenance Fees (Year 1)

Year 1 – Initial Implementation and Rollout to Total of 73 Key Support Users
Enter information for all software titles included as part of the proposal.

Software Title	Description *	Version	User Volume (Year 1)	Software Usage Fees (Year 1)
			73	
			73	
			73	
			73	
			73	
Total COTS Software Usage/Maintenance Cost (Year 1)				

* If a Suite is proposed, please include a description of the included components.
A user is defined as any one person using the software at any time regardless of machine.

Transfer the Total COTS Software Usage/Maintenance Fees (Year 1) to Form VII-1

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Form VII-6: Training Services Cost Summary

Transfer totals from Forms VII-6A through VII-6G to this form.

Total from Form:	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
VII-6A	Key User Support Training						
VII-6B	Survey Data Processing and DTM						
VII-6C	Survey COGO and Map Production						
VII-6D	Introduction to Roadway Design						
VII-6E	Intermediate Roadway Design						
VII-6F	Basic Structure Design						
VII-6G	Basic Hydraulic Design						
Total Training Services Cost							

Transfer the Total Training Services Cost to Form VII-1

NOTE: Shaded areas should be left blank.

Roadway Design Software (RDS) Project
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Form VII-6A: Key User Support Training

(Year 1 only)

Enter the Key User Support Training costs for each course as indicated below.

Number of Days per Class is the Bidder's estimated duration for each class.

Number of Classes at Location and the **Instructors per Class** have been determined by Caltrans. See Appendix G for more details.

Training Course for Key User Support	Training Location	Number of Days Per Class (from Bidder)	Number of Classes at Location (Do Not Change) (A)	Instructors Per Class (Do Not Change)	Cost Per Class (from Bidder) (B)	Total By Location (A x B)
Survey Data Processing and DTM	HQ		1	2		
Survey COGO and Map Production	HQ		1	2		
Introductory Roadway Design	HQ		3	2		
Intermediate Roadway Design	HQ		3	2		
Total Key User Support Training Cost						

Enter Total Key User Support Training Cost into Form VII-6: Training Services Cost Summary.

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Form VII-6B: Survey Data Processing and DTM Training

(Years 2 & 3 only)

Enter the Survey Data Processing and DTM Training costs as indicated below.

				Year 2		Year 3		Year 4		Year 5	
Training Location	Number of Days Per Class (from Bidder)	Instructors Per Class	Cost Per Class	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total By Location
			(A)	(B)	(A x B)	(C)	(A x C)	(D)	(A x D)	(E)	(A x E)
District 1		1		1		1					
District 2		1		1		1					
District 3		2		1		1					
District 4		2		1		1					
District 5		1		1		1					
District 6		1		2		2					
District 7		1		2		1					
District 8		2		1		1					
District 9		1		1		0					
District 10		2		1		0					
District 11		1		1		1					
District 12		2		1		0					
HQ		2		1		1					
Training Costs per Year								0		0	

Transfer the Training Costs per Year to Form VII-6: Training Services Cost Summary

NOTE: Shaded areas should be left blank.

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Form VII-6C: Survey COGO and Map Production Training
(Years 2 & 3 only)

Enter the Survey COGO and Map Production Training costs as indicated below.

				Year 2		Year 3		Year 4		Year 5	
Training Location	Number of Days Per Class (from Bidder)	Instructors Per Class	Cost Per Class	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total By Location
			(A)	(B)	(A x B)	(C)	(A x C)	(D)	(A x D)	(E)	(A x E)
District 1		1		1		1					
District 2		1		1		1					
District 3		2		2		1					
District 4		2		1		1					
District 5		1		1		1					
District 6		1		2		1					
District 7		1		3		1					
District 8		2		1		1					
District 9		1		1		0					
District 10		2		1		1					
District 11		1		2		1					
District 12		2		1		0					
HQ		2		1		0					
Training Costs per Year:								0		0	

Transfer the Training Costs per Year to Form VII-6: Training Services Cost Summary.

NOTE: Shaded areas should be left blank.

Roadway Design Software (RDS) Project
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Form VII-6D: Introduction to Roadway Design Training

(Years 2 through 5)

Enter the Introduction to Roadway Design Training costs as indicated below.

Training Location	Number of Days Per Class (from Bidder)	Instructors Per Class	Cost Per Class	Year 2		Year 3		Year 4		Year 5	
				Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total By Location
			(A)	(B)	(A x B)	(C)	(A x C)	(D)	(A x D)	(E)	(A x E)
District 1		1		2		2		2		0	
District 2		1		2		2		5		0	
District 3		2		2		2		1		0	
District 4		2		8		9		10		8	
District 5		1		3		2		3		1	
District 6		1		8		9		8		9	
District 7		1		11		11		9		8	
District 8		2		2		2		2		0	
District 9		1		2		1		1		0	
District 10		2		2		2		2		0	
District 11		1		6		4		4		5	
District 12		2		2		2		1		1	
HQ		2		2		2		7		1	
Training Costs per Year											

Transfer the Training Cost per Year to Form VII-6: Training Services Cost Summary.

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Form VII-6E: Intermediate Roadway Design Training

(Years 2 through 5)

Enter the Intermediate Roadway Design Training costs as indicated below.

Training Location	Number of Days Per Class (from Bidder)	Instructors Per Class	Cost Per Class	Year 2		Year 3		Year 4		Year 5	
				Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total By Location
			(A)	(B)	(A x B)	(C)	(A x C)	(D)	(A x D)	(E)	(A x E)
District 1		1		1		1		2		2	
District 2		1		1		2		3		3	
District 3		2		1		1		2		1	
District 4		2		5		11		11		8	
District 5		1		2		1		3		3	
District 6		1		4		11		10		9	
District 7		1		7		11		12		9	
District 8		2		1		1		3		1	
District 9		1		1		1		1		1	
District 10		2		1		1		2		2	
District 11		1		4		3		7		5	
District 12		2		1		1		2		2	
HQ		2		1		2		3		6	
Training Costs per Year:											

Transfer the Training Cost per Year to Form VII-6: Training Services Cost Summary.

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Form VII-6F: Basic Structure Design Training
(Years 2 through 5)

Enter the Basic Structure Design Training costs as indicated below.

Training Location	Number of Days Per Class (from Bidder)	Instructors Per Class	Cost Per Class	Year 2		Year 3		Year 4		Year 5	
				Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total By Location
			(A)	(B)	(A x B)	(C)	(A x C)	(D)	(A x D)	(E)	(A x E)
District 1		1		0		0		0		0	
District 2		1		0		0		0		0	
District 3		2		0		0		0		0	
District 4		2		0		0		0		0	
District 5		1		0		0		0		0	
District 6		1		0		0		0		0	
District 7		1		0		0		0		0	
District 8		2		0		0		0		0	
District 9		1		0		0		0		0	
District 10		2		0		0		0		0	
District 11		1		0		0		0		0	
District 12		2		1		1		1		0	
HQ		2		1		1		1		17	
Training Costs per Year:											

Transfer the Training Cost per Year to Form VII-6: Training Services Cost Summary.

Roadway Design Software (RDS) Project
Appendix E – Cost Forms

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Form VII-6G: Basic Hydraulic Design Training**(Years 2 through 5)**

Enter the Basic Hydraulic Design Training costs as indicated below.

				Year 2		Year 3		Year 4		Year 5	
Training Location	Number of Days Per Class (from Bidder)	Instructors Per Class	Cost Per Class	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total by Location	Number of Classes at Location	Total By Location
			(A)	(B)	(A x B)	(C)	(A x C)	(D)	(A x D)	(E)	(A x E)
District 1		1		1		1		0		0	
District 2		1		1		1		0		0	
District 3		2		1		0		0		0	
District 4		2		1		1		2		3	
District 5		1		1		1		0		0	
District 6		1		1		1		3		3	
District 7		1		1		1		3		5	
District 8		2		1		1		0		0	
District 9		1		1		0		0		0	
District 10		2		1		0		0		0	
District 11		1		1		1		2		1	
District 12		2		1		1		0		0	
HQ		2		1		1		2		0	
Training Costs per Year:											

Transfer the Training Cost per Year to Form VII-6: Training Services Cost Summary.

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Appendix E – Cost Forms

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Form VII-7: COTS Software Usage/Maintenance Fees Summary (Years 2-5)

Enter the Bidder Costs for COTS Software Usage/Maintenance as indicated below.

Software Title	Description*	Cost for 1000 Users (Year 2)	Cost for 2000 Users (Year 3)	Cost for 3000 Users (Year 4)	Cost for 4000 Users (Year 5)	Software Usage/ Maintenance Fees
Subtotal for COTS Software Usage/ Maintenance Fees						
Grand Total						

* If a Suite is proposed, please include a description of the included components.

A User is defined as any one person using the software at any time regardless of machine.

Transfer the Grand Total to Form VII-1

Roadway Design Software (RDS) Project
Appendix E – Cost Forms

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Form VII-8: COTS Software Usage/Maintenance Fees (Optional Year 6)

Year 6 – Continued Production Use by 4,000 (approximate) Users

Enter the Bidder Costs for COTS Software Usage/Maintenance as indicated below.

Software Title	Description*	Software Usage/ Maintenance Fees for 4000 users
Total for COTS Software Usage/ Maintenance Cost		

* If a Suite is proposed, please include a description of the included components.

A User is defined as any one person using the software at any time regardless of machine.

Transfer the Total for COTS Software Usage/Maintenance Cost to Form VII-1

Question and Answers for Bid #RDS 2660-421 - Roadway Design Software (RDS) Project

OVERALL BID QUESTIONS

There are no questions associated with this bid. If you would like to submit a question, please click on the "Create New Question" button below.