

SAMPLE AGREEMENT

AGREEMENT NUMBER
REGISTRATION NUMBER

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

STATE AGENCY'S NAME
 Department of Forestry and Fire Protection

CONTRACTOR'S NAME

2. The term of this Agreement is: **Upon Approval** through **May 15, 2018**

3. The maximum amount of this Agreement is: **\$0.00**

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

Exhibit A – Scope of Work	21	pages
Attachment 1 – Additional Specifications	49	pages
Attachment 2 – Maps & Site Plans	3	pages
Attachment 3 – Reporting Operating Costs form	1	page
Attachment 4 – Daily Water Use Forms	2	pages
Exhibit B – Budget Detail and Payment Provisions	2	pages
Exhibit C* – General Terms and Conditions	GTC	610
Exhibit D – Special Terms and Conditions	2	pages
Exhibit E – Additional Provisions	8	pages
Exhibit F – Digest of Laws Related to Association with Prison Inmates	1	page

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 www.ols.dgs.ca.gov/Standard+Language

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

CONTRACTOR		<i>California Department of General Services Use Only</i>
<small>CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.)</small>		
<small>BY (Authorized Signature)</small> 	<small>DATE SIGNED(Do not type)</small>	
<small>PRINTED NAME AND TITLE OF PERSON SIGNING</small>		
<small>ADDRESS</small>		
STATE OF CALIFORNIA		
<small>AGENCY NAME</small> Department of Forestry and Fire Protection		
<small>BY (Authorized Signature)</small> 	<small>DATE SIGNED(Do not type)</small>	
<small>PRINTED NAME AND TITLE OF PERSON SIGNING</small>		
<small>ADDRESS</small>		
		<input type="checkbox"/> Exempt per: _____

**EXHIBIT A
(Scope of Work)****SCOPE OF WORK**

1. The State of California, Department of Forestry and Fire Protection (CAL FIRE) hereinafter called the STATE agrees to sell to [purchaser name] of [address], hereinafter called the PURCHASER and the PURCHASER agrees to purchase from the STATE, all the live timber designated for cutting by the STATE, and merchantable as hereinafter defined at the rate and in strict conformity with the requirements and conditions hereinafter set forth for sawlogs and other merchantable material; the PURCHASER further agrees to do other work as herein specified.

PURCHASER shall provide all materials, labor, equipment, tools, permits, taxes and fees described herein and in strict conformity with the requirements and conditions hereinafter set forth for sawlogs and other merchantable material.

A. Timber Sale Location.

All live timber designated for cutting by CAL FIRE and merchantable as hereinafter defined, on an area of about 184 acres, designated on the ground by the STATE's assigned Timber Sale Officer prior to cutting in parts of Sections 23, 25, 26, 27 & 36 Township 18 North, Range 17 West, MDB&M, in the Jackson Demonstration State Forest approximately 6 miles southeast of Fort Bragg, Mendocino, California, and as designated on the attached map (Exhibit A, Attachment 2) which hereby is made part of this Agreement.

B. Sale Harvest Boundary.

The boundaries of the sale area have been marked as depicted on the attached map (Exhibit A, Attachment 2) and have been examined by the PURCHASER. All trees designated for cutting, whether merchantable or not, shall be felled by the PURCHASER, unless specifically reviewed and waived by the Timber Sale Officer. No dead standing conifer trees or undesignated hardwood trees shall be felled except as provided for elsewhere in this Agreement. The PURCHASER agrees to log the merchantable conifer timber designated for cutting as described in this Agreement. The STATE does not guarantee the amount of timber designated in the estimate.

2. GOOD FAITH PERFORMANCE.

- A. By having submitted his or her bid and entering into this Agreement, the PURCHASER hereby declares the intention to timely harvest and removal of the timber designated for cutting within the harvest area described herein. If it appears to the Timber Sale Officer that the PURCHASER does not have a good faith intention to perform the scheduled harvesting, the PURCHASER shall be provided a hearing with a STATE manager who is not directly involved in operations at Jackson Demonstration State Forest in order to provide the PURCHASER with an opportunity to explain why the STATE ought not to terminate the Agreement. The STATE manager who administers the hearing shall consider all documentation and testimony provided by the STATE and the PURCHASER, and such materials shall constitute an administrative record upon which his or her decision shall be entirely based. If the STATE manager determines that the PURCHASER's intent is to not perform the specified harvesting in a timely manner: 1) the Agreement between the STATE and the PURCHASER shall be immediately terminated based on the PURCHASER's failure to perform substantial and material term(s) of the Agreement, constituting a breach of contract; 2) the PURCHASER shall be liable to the STATE for reasonable damages associated with breach; and 3) the contract may be awarded to the next highest bidder.
- B. This contract includes work to be done as mitigation for the effects of timber operations. This work can include activities in direct mitigation, off site mitigation, or compensation for the impacts of timber operations. It includes road work such as installation of culvert watercourse crossings, installing water breaks and rolling dips, removal of stream crossings; all work done to ensure that timber operations do not result in significant effect on the environment.
- C. The merchantable species, estimated net merchantable amount by the Revised Scribner Log Rule as prepared by the Northwest Log Rules Advisory Group, July 1, 1972, the rate of payment per thousand board feet, and the estimated total value are as follows:

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Merchantable Species Value	Estimated Net Amount (Mbf)	Rate per Mbf	Estimated Total
Redwood	2,706	[/Mbf]	\$ [total value]
Douglas - fir	594	\$40/Mbf	\$ 23,200
Grand fir, Western Hemlock, miscellaneous other conifers	16	\$40/Mbf	\$ 640
TOTALS	3,316		\$ [combined total value]
Estimate confidence interval = 25%	+/- 829		+/- \$ [25% of combined total value]
Maximum contract amount	4,142		\$(combined total value+25%)

The 25 percent confidence interval represents the statistical variation that can be expected around the estimated sale value.

- D. All timber removed by reason of this sale shall be 100 percent scaled by a recognized, independent, third party scaling organization at the PURCHASER's expense. Additional provisions governing scaling appear elsewhere in this Agreement.

3. SCHEDULING**A. PRODUCTION RATE/PAYMENT SCHEDULE**

Unless written extension of time is granted by the Director of Forestry and Fire Protection, at least 1.5 MMBF, shall be paid for by June 30, 2017. This date may be extended or the required volume may be adjusted mutually by the STATE and the PURCHASER due to unforeseen circumstances. All remaining merchantable timber designated for cutting shall be paid for and felled, and all other timber operations shall be completed by November 15, 2017. This Agreement shall terminate on May 15, 2018, by which date all requirements of the Agreement must be completed.

The STATE may grant an extension of operating time to complete operations on terms and conditions as may be specified by the STATE. No extension of the specified payment schedule shall be granted unless the PURCHASER pays, in advance, an interest payment on the outstanding timber value owed the STATE under the contract. Interest shall be payable at 0.45 percent per annum, prorated for the term of the extension. The "outstanding timber value" shall be the original contract timber value established by cruise estimate, or specified portion thereof, less the sum of payments received by the STATE as of the applicable designated payment date. Upon completion of harvesting operations, the STATE shall recalculate the interest due based upon the actual value of timber removed and the actual monthly unpaid balance during the term of the extension and adjust the final payment accordingly. Operating time extensions granted under this provision shall not alter any scheduled progress payments required above. Operating time extensions shall not be granted if said scheduled progress payments have not been received by the STATE, or if any other contractual requirements have not been met by the PURCHASER.

Once timber harvesting operations have commenced, the PURCHASER agrees to continue operations at a normal production level until all contractual provisions are completed unless shutdowns are required by wet soil conditions, hazardous fire conditions, or are otherwise approved by the Timber Sale Officer.

B. PRIOR APPROVAL FOR CONDUCTING BUSINESS ON WEEKENDS/HOLIDAYS

The PURCHASER shall notify and obtain approval from the STATE in advance on each occasion of conducting timber operations in the sale area on weekends or State holidays.

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(Scope of Work)****4. The Project Representatives during the term of this agreement will be:**

State Agency: Dept. Forestry and Fire Protection	Contractor:/Purchaser
Name: Jason Serna, Timber Sale Officer	Name:
Phone: 707-964-5674 ext. 113	Phone:
Fax: 707-964-0941	Fax:
Email: Jason.Serna@fire.ca.gov	Email:

Direct all inquiries to:

State Agency: Dept. Forestry and Fire Protection	Contractor/Purchaser:
Section/Unit: Business Services – Acquisition Unit	Section/Unit:
Attention: Jeff Kincaid II, Contract Analyst	Attention:
Address: P.O. Box 944246 Sacramento, CA 95815	Address:
Phone: (916) 445-9942	Phone:
Fax: (916) 323-1888	Fax:
Email: Jeff.Kincaid@fire.ca.gov	Email:

5. PURCHASER'S REPRESENTATIVE AVAILABILITY.

At all times, when construction or logging operations are in progress, the PURCHASER shall have a representative readily available to the area of such operations, who shall be authorized to receive, on behalf of the PURCHASER, any notices and instructions given by the STATE in regard to performance under this Agreement, and to take such action thereon as is required by the terms of this Agreement.

6. CONTRACT AMENDMENT.**A. Extensions.**

PURCHASER is obligated to satisfactorily complete the work on or before the contract's expiration date. If the work called for under the contract is not completed within the time specified, CAL FIRE shall have the right to extend this agreement for 1 year by amendment at the same terms, conditions and cost or not extend the time limit for its completion as may best serve the interest of the State.

B. Services Quantity.

The Agreement may be amended to increase or decrease services at the rate(s) specified in Exhibit B.

C. Changes.

- 1) If any conflict arises between provisions of the plans, specifications, scope of work, and any such law, then the PURCHASER shall notify the STATE at once.
- 2) Whenever the necessity for a change arises either at the request of the Contractor or at the request of the State, then either party shall prepare a full and completely detailed estimate of cost and time for the change at the direction of the State.

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(Scope of Work)**

- 3) Changes in the work made necessary due to unexpected or unforeseen site conditions, discovery of errors in plans, specifications, or scope of work requiring immediate clarification in order to avoid a serious work stoppage, or changes of a kind where the extent cannot be determined until completed are types of emergency changes which may be authorized by the STATE.

7. PRODUCTION COST DATA.

The PURCHASER understands that the primary objective of the STATE in entering into this Agreement to log the sale area, which is a part of the Jackson Demonstration State Forest, an experimental forest of the State of California, is to provide a research and demonstration area and to determine the facts and data concerning the timber sale area and the treatment thereof through the actions of the PURCHASER under this Agreement.

The PURCHASER agrees to keep records and furnish the STATE production and cost data with respect to activities conducted pursuant to this Agreement. Required data shall include person-hours and equipment-hours spent on each activity, and applicable rates for employees, machines and supervision, and costs for any materials or services needed for completion of activities required by this Agreement. The information shall be reported on a form provided by the STATE (Exhibit A, Attachment 3), or in an alternative format proposed by the PURCHASER and acceptable to the STATE. The requirement for providing production and cost data shall apply equally to any contractors or subcontractors hired by the PURCHASER to complete the project specified above. This information will be furnished to the STATE before the performance bond or other security is released.

The PURCHASER understands that the protection of research and experimental values, the maintenance of low fire hazards, the prevention of injury to trees not designated for cutting, the creation of conditions favorable to the regeneration of the State Forest, and other provisions of this Agreement are for fulfillment of the research and demonstration purpose, and the provisions of this Agreement will be strictly enforced to that end.

8. DOMESTIC PROCESSING OF TIMBER

The PURCHASER agrees that pursuant to Section 4650.1, Public Resources Code, timber from State Forests shall not be sold to any primary manufacturer, nor to any person for resale to a primary manufacturer, who makes use of such timber at any plant not located within the United States unless it is sawn on four sides to dimensions not greater than 4 inches by 12 inches. The PURCHASER has not sold unprocessed timber harvested from private timberlands and exported it into foreign commerce from California within one year prior to the bid date and agrees to refrain from that activity for one year after contract termination.

The PURCHASER agrees that pursuant to Sections 1515-1521, Title 14, California Code of Regulations, timber in this sale shall not be substituted for timber exported by the PURCHASER obtained from other sources. The PURCHASER further agrees pursuant to Section 1517, Title 14, California Code of Regulations, to give written notice to the STATE of any or all locations where said timber will be processed until such time as the timber has been sawn to dimensions of 4 inches by 12 inches or less. The required written notice shall be provided to the STATE at least one week before commencement of delivery of logs to each processing location.

If the PURCHASER sells, exchanges, or otherwise disposes of said timber before it has received domestic processing, the PURCHASER agrees to require each buyer, exchangee, or recipient to execute a written agreement which shall:

- A. Specify domestic processing for the timber involved pursuant to Section 4650.1, Public Resources Code.
- B. Require the execution of said agreement between the parties to any subsequent transactions involving said timber.

The failure of any party to a transaction involving said timber to execute the required agreement shall constitute noncompliance on the part of the PURCHASER with the terms of this provision.

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The PURCHASER shall file with the STATE a copy of each such agreement and shall retain for three years from the date of each transaction the records of all sales, exchanges, or dispositions of such designated timber. Upon request, such records shall be made available to STATE.

Any purchaser of timber from State Forests who makes or permits use of said timber in violation of Section 4650.1, Public Resources Code, or Sections 1515-1521, Title 14, California Code of Regulations, shall be prohibited from purchasing State Forest timber for a period of five years and may have his timber operator license suspended for up to six months.

9. LOG BRANDING.

The PURCHASER as required by the Timber Sale Officer shall identify all timber by making a mark with a brand provided by the STATE in a conspicuous place on the end of each log or piece of timber prior to removal from the sale area. Prior approval must be obtained in writing from the Sale Officer regarding any changes in the brand or branding procedure.

10. GENERAL UTILIZATION STANDARDS. (See Item 12 for Utilization Standards and Practices.)

The minimum log dimensions for utilization purposes will be 10 feet in length and 8 inches in small-end diameter. However, any material unmerchantable because of size as herein defined, removed at the option of the PURCHASER, shall be scaled and paid for at the same rate as merchantable material.

Any log segment presented for scaling shall be scaled as merchantable which has a net merchantable volume of at least 10 board feet, provided that the log segment has a net merchantable scale of at least 25 percent of the total volume, and provided that firm stain shall not be regarded as defect and no deduction shall be made for same in scaling.

11. SCALING SPECIFICATIONS.

The forest products made and all timber removed by reason of this sale shall be scaled by a recognized independent "third party" scaling organization agreeable to the STATE. Logs will be scaled as presented and results of said scales shall be conclusive and binding upon the PURCHASER and the STATE unless otherwise contested through check scale procedures. Procedures required by the STATE for implementation of "third party" scale shall be as follows:

- A. Logs shall be scaled using the Revised Scribner Decimal C Log Rule, making allowances for visible defect in accordance with the scaling practices contained in the latest National Forest Log Scaling Handbook (Chapters 20 and 30).
- B. Payment for scaling and reporting services performed by the scaling organization shall be made by the PURCHASER of State Forest timber, and the STATE assumes no responsibility in this regard.

If more than one scaling bureau is used, data shall be transmitted to a single scaling bureau designated by the STATE for a single point-source for all reports. All expenses associated with this shall be paid by the Purchaser.

The use of a STATE approved third party log and load reporting service (LLRS) is required. PURCHASER shall ensure that log volume measurement data is received by the LLRS within one business day of logs being measured. All expenses associated with this service shall be paid by the PURCHASER.

Prior to scaling STATE logs, the STATE will provide the scaling organization with a scaler information sheet. The PURCHASER shall insure that all third party scalers who scale STATE logs delivered from this sale are knowledgeable about contract specifications governing scaling requirements under this Agreement.

- C. All loads must be scaled at the first unloading point and within three working days from the date of removal from the State Forest.

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- D. The scaling organization or the PURCHASER shall notify the State Forest Manager or the Manager's representative of all scaler rotations of one month or more so that the STATE may obtain adequate check scales.
- E. Organization scalers shall be required to make a copy of the scale tickets available to the STATE on those loads being check scaled by the STATE.
- F. Organization scalers shall perform the following services:
- 1) Record log species, diameter, length, and amount of defect on the scale tickets and forward such information to the scaling organization on the day of scaling.
 - 2) Scale all logs in a load at the same location and time.
 - 3) Identify with paint those loads that have been scaled and immediately notify the STATE when it is known by the scaler that a load has bypassed or been picked up from the designated scaling location before being scaled. In the event of a missed (non-scaled) load, the PURCHASER shall within five working days account for the load by the following process:
 - a) Average the gross volumes and net volumes of four loads hauled immediately prior to and four loads hauled immediately after the missed load. The ticket numbers of the loads used for calculating the averages shall be provided to the STATE for audit purposes.
 - b) Find a representative existing scaled load that has a gross volume within one percent of the calculated average gross load volume and a net volume within three percent of the calculated average net load volume. The gross and net volumes of the selected load must be equal to or more than the calculated averages. If no representative load can be found then a log load scale ticket must be created which meets these specifications. The STATE retains the right of approval on load selection.
 - c) Using the trip ticket number of the missed load, insert the scale ticket data of the representative or created load into the scale reporting system. The load shall be included in the 15 day summary covering the time period when the data was inserted into the system. The STATE shall be notified when this occurs.
- G. The PURCHASER shall notify the STATE of any change on a scale ticket that affects the volume of the original scale after the copy has been mailed to the STATE.
- H. The scaling organization shall process scale tickets of all STATE loads daily and mail (email may be acceptable), at its expense, copies of daily scale certifications and log listings to the State Forest Headquarters. Semi-monthly scaled volume summaries as of the 15th and the last day of the month are required to be mailed to the State Forest Headquarters. Semi-monthly summaries shall provide gross and net volume totals by species. When adjustments are required to compensate for omissions or errors in daily scaled volume summaries, the STATE may request the scaling organization to issue an adjusted summary report for those specified time periods. The PURCHASER shall also be notified by the STATE when such an adjustment has been made.
- I. At least three loads scaled within the previous five operating days shall be left rolled out in the mill yard where scaled to facilitate check scaling, unless otherwise approved by the Sale Officer.
- J. The scaling organization shall conduct a minimum of one check scale per month per scaler during the operating season to document scaler proficiency. Standards for proficiency shall be taken from Section 64 of the National Forest Log Scaling Handbook. Copies of such check scales shall be furnished to the STATE within 10 days of completion of said check scales. The STATE reserves the right to check scale organizational scalers at intervals determined by the STATE.

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- K. If, through STATE check scales, it is found that a scaler's work is unacceptable, the STATE will notify the scaling organization and the PURCHASER and request a check scale to be submitted to the STATE within 10 working days. Should remedial action fail to achieve correction, the STATE may immediately terminate the acceptance of the scaler's work until the scaler's competence is mutually certified by all concerned parties. PURCHASER scaling complaints shall be jointly and promptly investigated by the STATE and the scaling organization. The STATE may terminate third party scaling and assume scaling responsibilities at any time if the scaling organization's scale or records are unacceptable to the STATE. The PURCHASER shall pay the STATE a surcharge on stumpage payments of \$5.00 per thousand board feet net scale for all timber scaled by the STATE or by a hired agent of the STATE following termination of third party scaling pursuant to this paragraph.
- L. The maximum scaling length shall be 20 feet. Greater lengths shall be scaled as two or more logs, making allowance for taper. When the scaling lengths into which a log is divided for scaling are unequal, the longer length or lengths shall be considered as lying in, or toward the larger end of the log. Scaling lengths of multiple length logs shall be computed in accordance with the scaling practices contained in the latest National Forest Log Scaling Handbook.
- M. Allowance for trim shall not exceed 6 inches for each 20 feet of length or fraction thereof. Logs overrunning the specified trim allowance shall be scaled to the next higher foot in length.
- N. Logs shall be scaled at the small end and the average diameter inside bark taken to the nearest inch. Logs 21 feet and longer shall be measured at both ends and the average diameter inside bark taken to the nearest inch. Taper in logs 21 feet and over will be distributed according to the latest National Forest Log Scaling Handbook (Chapter 10). Taper in butt logs 21 feet and over shall be distributed according to USFS Supplement 4 dated March 1987, for all species as follows:

DIAMETER TAPER FOR BUTT LOGS 21 FEET AND OVER - ALL SPECIES

<u>Log Length</u>	<u>Taper</u>
21 to 27 feet:	2"
28 to 40 feet:	4"
41 to 51 feet:	6"
52 feet and over:	butt measurement required

- O. The STATE shall provide the PURCHASER with a sufficient supply of five-part load receipts to identify each load of forest products removed. The fifth copy (card stock) shall be affixed to the load and shall stay with the load until decked. The white original shall be retained in the load receipt booklet and returned to the Timber Sale Officer by the operator as called for.

The PURCHASER may, on approval, provide equivalent load receipts to be used in place of the STATE's form. If the PURCHASER's forms are used, the PURCHASER shall provide to the STATE a sufficient quantity of forms for the estimated volume to be removed, prior to commencement of operations, forms to then be distributed to the operator by the Sale Officer. The STATE's copies of the load receipts shall remain in the load receipt booklet until collected by the Sale Officer.

To provide additional identification of loads of forest products removed, the PURCHASER shall paint the last three digits of the load receipt number on the rear end of each of the two outside bunk logs of each load. The PURCHASER shall provide for this purpose a sufficient quantity of high-visibility aerosol paint of a quality and color acceptable to the STATE.

- P. To facilitate monitoring of periodic sale volume harvested, the PURCHASER shall (1) record unit identification on each log load receipt presented to the STATE, and (2) provide a weekly report of faller days and volume felled by unit. Weekly falling information is to be available for collection by the Timber Sale Officer or delivered to the State Forest headquarters no later than the following Tuesday.

**EXHIBIT A
(Scope of Work)****12. UTILIZATION STANDARDS AND PRACTICES.**

The PURCHASER agrees to the following utilization standards and practices:

- A. Only that merchantable downed timber that is designated by the Timber Sale Officer shall be removed, and it shall be scaled the same as timber felled under this Agreement. Other downed timber, whether merchantable or not, shall be left in place, except where it occurs within the clearing limits for construction of truck roads and landings. Snags, whether merchantable or not, shall be left standing unless they must be felled for road or landing construction, for cable corridors, for safety reasons, or for fire protection purposes as designated in the Timber Harvesting Plan or by the Sale Officer.
- B. Stumps shall be cut as low as possible and in no case shall be over 12 inches on the uphill side except where more height is needed to save timber or insure safe working conditions. Stumps which are not cut in accordance herewith and which should have been so cut in the judgment of the Timber Sale Officer shall, at the STATE's option, be either recut to 12 inches or less, if redwood, or paid for at the rate of \$15.00 each. Such payments shall be regarded as liquidated damages in view of the difficulty of determining the actual damage to the STATE through wastage of the quantity and quality of the material involved.
- C. All merchantable conifer trees felled by the PURCHASER shall be utilized to the fullest extent practicable, and at least to a top diameter inside bark of eight inches. Maximum log length, including trim, shall be 41 feet unless longer lengths are approved in writing by the STATE.
- D. The PURCHASER shall make every effort to conduct the felling operations to prevent careless or unnecessary breakage of timber. All trees designated for cutting shall be felled within the timber harvesting plan boundaries to the fullest extent practicable, considering locations of watercourses, felling damage, yarding method, and damage to leave trees. No trees shall be felled across the State Forest property line. When topography, lean of tree, regeneration and residual timber, location of roads, landings, watercourses, utility lines and buildings permit, all trees shall be felled in line with skidding direction. Gulch bottoms and other areas of heavy stands of timber as designated by the Timber Sale Officer shall be felled and logged in two or more stages in order to minimize blocked layouts and breakage.

Cable tree-pulling methods shall be used where needed to prevent unnecessary breakage to all trees having volumes in excess of 1,500 board feet, to prevent felling of trees into or across watercourses, or to control felling direction near utility lines, public roads and property lines. Where poor volume recovery is expected because of anticipated breakage, the Sale Officer may specify that individual trees otherwise designated for cutting shall be left standing.

All fallers shall be equipped with falling wedges at all times. Fallers working in the Watercourse and Lake Protection Zones shall have ready access to and be knowledgeable in the use of tree-falling jacks and shall use them as necessary to direct the fall of trees away from watercourses.

- E. Timber wasted in tops, timber wasted by careless or improper bucking, timber broken in careless felling, and any timber merchantable according to the terms of this Agreement which is cut and not removed from any portion of the cutting area when operations on such portions are completed, or before this Agreement expires or is otherwise terminated, unless such wastage or nonremoval involves small amounts, and in the judgment of the Timber Sale Officer, is justified by existing conditions, shall be paid for at double the stumpage price in this Agreement. The amounts herein specified shall be regarded as liquidated damages as it will be impractical or extremely difficult to fix the actual damage.

Unless extension of time is granted by the Director of Forestry and Fire Protection, the right, title and interest to any timber for which payment has been made under the provisions of this section shall revert to the STATE without compensation unless it shall have been removed from any portion of the sale area accepted by the Sale Officer by the date of that acceptance as designated in accordance with provisions hereunder.

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- F. Cull logs or conifer species not merchantable as defined in the Agreement, removed in separate truck loads from the sale area at the request of the PURCHASER and with the prior written approval of the STATE, shall be paid for by the PURCHASER at the rates set forth in Exhibit B, "Budget Detail and Payment Provisions, Item 2A, "Payment Schedule".
- G. When approved in writing by the STATE, hardwood trees felled, knocked down or damaged by logging operations may be removed by the PURCHASER under conditions prescribed by the STATE. Hardwoods removed from the sale area shall be paid for by the PURCHASER at the rates set forth in Exhibit B, "Budget Detail and Payment Provisions, Item 2A, "Payment Schedule".

13. TIMBER HARVEST PLAN ("Walton Gulch #2" THP 1-14-130 MEN & "Tunnel #2" THP 1-15-146 MEN).

- A. The Forest Practice Rules for the Coast Forest District, and the Timber Harvesting Plans for this timber sale ("Walton Gulch #2" THP 1-14-130 MEN and "Tunnel #2" THP 1-15-146 MEN), are hereby made a part of this Agreement, and the PURCHASER agrees to comply with each and all of the terms thereof in the same manner as if said Timber Harvesting Plan and Rules and each thereof were set forth at length in this Agreement. Rules or regulations which become effective during the term of this agreement, and any amendments to the Timber Harvesting Plan, shall be adhered to by the PURCHASER to the extent required by law.

Operating conditions and specifications shall be modified as required to comply with changes in the legal status of, or in the laws pertaining to protection measures for, any species under the federal Endangered Species Act. Such modifications shall be agreed upon mutually by the STATE and the PURCHASER.

Timber operations required under this Agreement shall be conducted by a Licensed Timber Operator. On completion of timber operations satisfactory to the Timber Sale Officer on that portion of the Timber Harvesting Plan area for which each Operator is responsible, the Operator shall certify by letter to the STATE that all operations are complete and that they comply with the Forest Practice Rules and the Timber Harvesting Plan. The STATE may prepare annual partial completion reports when it is in the STATE's interest to do so.

Forest Practices and operational procedures in addition to those set forth in the said Rules and Timber Harvesting Plan shall be required as follows:

- 1) A pre-work conference to be attended by representatives of the STATE, the PURCHASER, and all timber operations subcontractors is required before any timber harvesting activities may begin. A detailed logging plan for the sale area shall be prepared and submitted by the PURCHASER to the Timber Sale Officer for approval at least two working days prior to the pre-work conference. The logging plan shall include the locations of any proposed new landings and roads not anticipated in the Timber Harvesting Plan; a schedule of road construction, felling, logging, cleanup, and other operations within the sale area; and the number, types and special requirements of the equipment to be used in the sale area.

Also required are pre-work conferences for any other projects associated with this Agreement, with attendance by representatives of the STATE, the PURCHASER, and all project subcontractors. The PURCHASER is responsible for ensuring that all contractors are provided with relevant portions of any applicable documents, including the Timber Harvesting Plan, the Timber Sale Agreement, and permits from other agencies.

The PURCHASER shall notify the Timber Sale Officer of any changes in the numbers or types of logging equipment or personnel assigned to the sale area that may affect productivity.

- 2) All logging operations shall be by natural logging areas and in an efficient, orderly, and progressive manner, unless otherwise approved by the Timber Sale Officer. The STATE may designate the sequence in which the units are to be logged.

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No timber operations shall be conducted after January 31 of any year until the STATE or the PURCHASER has completed required surveys for northern spotted owls, and extension of the No-Take determination has been received from the appropriate reviewing agency. Presence of owls in or near the sale area may impact the conduct, extent or timing of harvesting operations.

No timber operations shall be conducted within 400' of a Townsend's big-eared bat habitat tree after January 1 of any year until the STATE has completed required surveys for them. Presence of this species of bat in or near the sale area may impact the conduct, extent or timing of harvesting operations.

- 3) In the sale area not designated for skyline yarding, any method of yarding other than by means of crawler tractor or rubber-tired skidder shall be employed only with the advance approval of the Timber Sale Officer, and under such conditions and restrictions as may be required. Equipment used for skidding logs shall be equipped with winches and fair-leads. Grapple skidding equipment may be used only with the advance approval of the Sale Officer.

The locations of all existing skid trails to be reused and new skid trails to be constructed shall be flagged by the Timber Operator at least two weeks prior to their intended use, failure to do so by the LTO may result in unnecessary delay in harvesting. Timber Sale Officer will be notified when an area has been flagged for skid trails and landings and location approval by the Sale Officer is required prior to use. If timber felling substantially obliterates skid trail flagging, the Timber Operator shall reflag the locations of approved skid trails prior to their construction or reuse. Heavy equipment shall not be operated within cable areas, equipment exclusion zones, or equipment limitation zones unless their use is in compliance with the Timber Harvesting Plan and approved by the Sale Officer.

- 4) The width of tractors or other equipment used for skidding purposes shall not exceed 10 feet 6 inches without written permission of the Sale Officer. Rubber-tired equipment shall not be operated off of approved skid trails and truck roads. Tracked equipment shall not be operated off of approved skid trails or roads unless specifically authorized in each case by the Sale Officer.
- 5) Minimum distance permitted between new skid trails will be 100 feet measured along the surface of the ground unless specifically waived in each case by the Sale Officer.

Tractors shall not be used to forward logs on well established truck roads (bed and grade established) unless specifically approved by the Sale Officer.

At all times of the year, erosion control structures shall be installed on all skid trails and temporary or seasonal truck roads within 30 days of completion of their use, or at the end of the day if the U. S. Weather Service forecast is a "chance" (30 percent probability or more) of rain before the next working day, or at any time that the equipment needed to install such structures leaves the sale area.

The Timber Sale Officer may suspend timber operations in whole or in part when environmental damage may result from the operation of equipment in logging or hauling the timber included in this Agreement. Operations shall not resume until approval is given by the Sale Officer.

- 6) No unnecessary damage shall be done to regeneration, hardwoods, and leave trees. To the greatest extent feasible, leave trees greater than 12 inches DBH shall not have bark torn back from the bole of the tree by log skidding equipment, whether by ground-based or skyline yarding equipment. Leave trees damaged in logging shall be cut and paid for, if so required by the Timber Sale Officer. Trees specifically marked for leave, and all unmarked trees in watercourse and lake protection zones, shall be protected to the fullest extent feasible.
- 7) Each merchantable tree that is felled shall be bucked to log lengths, limbed to the 8-inch top, and the top bucked at the time of felling. Felled hardwoods shall be topped to the 6-inch top at the time of felling. This requirement shall apply to marked trees and also to any unmarked trees felled for safety reasons, in clearing for road or

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landing construction, as directed by the Timber Sale Officer for cutting of damaged trees, or as otherwise necessary for the conduct of harvesting operations.

- 8) All slash created by timber operations within 100 feet of appurtenant roads within the THP boundary of Walton Unit A (Road 431), Walton Unit C (Road 431 & 430), Walton Unit E (Temporary Road 431A), Road 440 (adjacent Tunnel Unit A), Highway 20 (adjacent Tunnel Unit A) and Highway 20 (at intersection of Road 490B) shall be lopped to the extent that no portion shall remain over 24 inches above the ground. All slash created by timber operations within 50 feet of all other appurtenant roads shall be lopped to the extent that no portion shall remain over 24 inches above the ground. Prior to October 15 of each operating season, and concurrent with lopping activities conducted after that date, slash and other logging debris shall be removed from truck road surfaces, cut banks, ditches and berms, and from the inlets and outlets of culverts, unless otherwise directed by the Timber Sale Officer.
- 9) To reduce fire hazards, concentrations of slash and logging debris created by the logging operations around landings or located within the sale area shall be piled and isolated for burning as specified by the Timber Sale Officer; or, where designated, landing slash shall be placed to block skid trails where they lead onto truck roads or landings, or shall be spread along skid trails and packed by dozer track to reduce erosion. Waste piles shall be kept substantially free of soil. On slopes greater than 20% where piles are to be burned, they shall be isolated by building a 10-foot wide fire line to mineral soil using hand tools. On slopes of 20% or less a dozer may be used to build the fire line. Fire lines shall be waterbarred at the time of construction.

Where slash is piled for burning, the PURCHASER shall provide a sufficient quantity of 80 lb water resistant kraft paper and shall cover a minimum 10-foot by 20-foot section near the center of each pile, weighting the paper adequately to hold it in place during windy weather.

In order to utilize wood residues and reduce fire hazards, logging wastes on landings on permanent and seasonal roads shall be segregated into large materials which can be utilized by firewood cutters, and other wastes such as bark, branches, etc. For the purposes of this section, material at least 8 inches in diameter and 6 feet in length shall be considered suitable for firewood. On completion of use of each landing, firewood material shall be placed in a stable position where it can be reasonably utilized by firewood cutters.

- 10) Section corners, quarter section corners, meander posts and bench marks shall not be destroyed, defaced or removed to another place, nor shall any witness trees be cut or scarred. Should corners, meander posts or bench marks be accidentally destroyed, the PURCHASER shall be responsible for their replacement by a licensed land surveyor, and all notes, plates or records shall be delivered to the STATE for its approval and files.
- 11) Timber to be harvested in the area designated for cable logging on the attached timber sale map (Exhibit A, Attachment 2) shall be yarded using a standing, live or running skyline system which meets the following requirements:
 - a) Holds the skyline carriage stationary until logs are yarded laterally to the skyline corridor.
 - b) Can yard laterally a distance of at least 100 feet perpendicular to the skyline corridor.
 - c) Supports logs clear of the ground as the carriage moves along the skyline when logs are above Class I or II watercourses and, to the greatest extent feasible, within Class I or II Watercourse Lake Protection Zones to avoid unnecessary damage to riparian soil and vegetation. In other locations, logs shall be yarded with at least one end suspended, provided logs follow directly behind the skyline carriage.
 - d) Is capable of yarding for a slope distance of approximately 1,800 feet from the landing, and which can reach a slope distance of approximately 2,200 feet to the tailhold.
 - e) Can be used to pull trees against their lean.

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The practice of tight-lining to move yarder lines to their next position shall not be used.

- 12) The locations of all cable corridors shall be flagged and mapped by the Timber Operator for approval by the Timber Sale Officer prior to rigging. The distance between corridors shall not be less than 200 feet at the back of the cable road without approval of the Sale Officer. Specific approval from the Timber Sale Officer is required for backside yarding across any designated watercourse.
- 13) Except in the Watercourse and Lake Protection Zone, unmarked trees within approved yarder cable corridors may be felled before rigging and yarding, but not to exceed a pre-cut corridor width of 10 feet as determined by the centerline of the entire corridor from the yarder location to the tailhold, or wider if approved in advance in each case by the Sale Officer. Within the Watercourse and Lake Protection Zone, only those trees which directly interfere with the movement and safe operation of yarding cables may be cut. Trees may not be cut within a WLPZ of a Class I watercourse. The Sale Officer may specify that such corridor trees felled within the WLPZ be left on the ground, and if provided for in the Timber Harvesting Plan, that they be felled towards or across the watercourse. Trees leaning into or over the corridor may be felled only if they jeopardize the safety of the operation. Unmarked trees removed from the yarder cable corridors shall be logged and paid for at the same rate as marked timber. Trees pulled over during cable logging operations shall be bucked to log lengths, with the roots and top removed, before yarding.
- 14) All rigging shall be slung on stumps as far as practical. With the advance approval of the Sale Officer, leave trees may be used as spar trees or felled to provide suitable stumps for rigging purposes, provided that the merchantable timber in such trees shall be paid for by the PURCHASER in full at the rate set forth in Section 1. Spar trees shall be felled following their use as spar trees except where not required by the Sale Officer. With advance approval, the PURCHASER may utilize fabric straps on standing trees in lieu of cable straps for tail hold, guy anchor, or spar tree rigging, where such use of standing trees is in compliance with applicable safety regulations.

The PURCHASER may be required to rig tail trees or lift trees to overcome difficult deflection situations.

- 15) Any use of tractors in the area designated for skyline yarding shall have prior written approval of the Sale Officer, and must be provided for in the Timber Harvesting Plan. Throughout the sale area, red and white striped flagging marks the limit beyond which heavy equipment may not travel without approval. These limits are shown on the attached maps (Exhibit A, Attachment 2) and where mapped adjacent to a road or landing, the travel limit for heavy equipment is the road or landing.
- 16) The PURCHASER and PURCHASER's agents may post temporary signs in order to display on-site messages (e.g. haul route mile posts, CB channel, etc.). Signs shall be removed once their function is completed, and in all cases before the term of this Agreement. No messages are to be painted on any tree, rock, stump, or other permanent feature.
- 17) Any flagging used by the PURCHASER in the sale area shall correspond to the table of flagging colors in the Timber Harvesting Plan, or shall otherwise be approved by the Timber Sale Officer.
- 18) At any time that cable lines cross any Forest road, including roads within the sale area, the PURCHASER shall place warning signs to notify traffic of the location of the lines, and shall block the road or shall have a person stationed on the road to control traffic when lines are being raised or lowered, or when cable road changes are being made. As directed by the Timber Sale Officer, when such roads might be used by other than the PURCHASER or the Sale Officer, the PURCHASER shall either block the road from both sides or provide a flag-person for traffic control.

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- 19) The PURCHASER'S Licensed Timber Operator shall be responsible for maintenance of erosion controls on all skid trails and truck roads used by that Operator until the work completion report for the Timber Harvesting Plan has been approved by the Director of the Department of Forestry and Fire Protection.
- 20) As called for by the Timber Harvesting Plan or by Department of Fish and Wildlife stream alteration permits, the PURCHASER shall provide and apply seed and straw or slash mulch for erosion control purposes. In addition, bare soil associated with equipment disturbance within WLPZs and ELZs that exceed 100 square feet are to be mulched to achieve at least 95% coverage to a minimum depth of four inches.
- 21) The PURCHASER shall provide and use trash cans for papers, cans, oil filters and other debris. Broken chokers, wire rope and other debris shall be removed and all trash shall be disposed of at a public disposal facility.

Within 100 feet of any truck road or log landing, human waste shall be buried immediately at a depth of at least 12 inches. Human waste shall not be deposited within any Watercourse and Lake Protection Zone or any Class III Watercourse Equipment Limitation Zone.

14. HARVEST ONLY DESIGNATED TREES.

The PURCHASER shall cut all and only those trees designated for cutting. No timber shall be removed from the State Forest until scaled or released by the Timber Sale Officer.

Merchantable timber designated for cutting by the Sale Officer for the construction of landings, bridges, or roads, or for the reconstruction, rehabilitation, or improvement thereof, or for development of rock quarries, within the sale area or for access thereto, shall be paid for at the rates set forth in Exhibit B, "Budget Detail and Payment Provisions, Item 2A, "Payment Schedule".

15. LIABILITY/DAMAGES PAYMENT RATE.

It is agreed that because of the effect upon the State Forest land as a whole and upon its future productivity and because of the nature of the case, it will be extremely difficult and impractical to fix the actual injury to the STATE by the following type of breaches of this Agreement by the PURCHASER:

- A. The failure to remove all merchantable material designated for cutting as agreed herein; and
- B. The loss of merchantable timber from fire, or from other injury caused by the PURCHASER or which the PURCHASER might have prevented and by the terms of this Agreement the PURCHASER is required to prevent; and
- C. The cutting or severely damaging by logging of leave trees as agreed herein.

And it is further agreed that by reason of such extreme difficulty and impracticability the PURCHASER shall pay to the STATE for such merchantable material the PURCHASER so fails to remove, and for merchantable material so lost or damaged, at double the rate hereinbefore set forth, provided that such payments shall not release the PURCHASER from liability for any damage suffered by the STATE in addition to the value of said trees so not removed or lost or cut or damaged as aforesaid shall be regarded as liquidated damages. In cases of occasional injury as described above and involving small amounts of material only, the Timber Sale Officer will use discretion and judgment in determining whether any breach of contract has occurred within the meaning of this paragraph.

16. PROTECTION OF STATE FOREST INFRASTRUCTURE.

All telephone lines, ditches, pipelines, water developments, power lines, and fences; and all structures, and improvements located within or immediately outside the exterior boundaries of the sale area, shall be protected so far as possible in logging operations, and if damaged, shall be repaired immediately by the PURCHASER at PURCHASER's expense; and the

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Timber Sale Officer may, when it is necessary, require the PURCHASER to move or cause to have moved, any such lines or fence from one location to another.

Roads shall at all times be kept free of logs, slash and debris resulting from the PURCHASER'S operations hereunder. Any road used by the PURCHASER in connection with this sale that is damaged through such use shall promptly be restored by the PURCHASER to its original or better condition at the PURCHASER's expense.

17. FOREST ROADS.

Logging roads, skid trails, bridges, watercourse crossings, and landings shall be constructed in a manner consistent with the goals of good forest management. Operations in or near sensitive or critical areas will be reviewed and approved by the Timber Sale Officer. The Sale Officer will use whatever means are necessary to insure that operations conform to the approved specifications.

- A. Roads and landings to be constructed or reconstructed by the PURCHASER shall be built and maintained in accordance with applicable Forest Practice rules. Except where more specific instructions are given elsewhere in this Agreement or in the Timber Harvesting Plan, roads and landings shall be constructed to the following specifications:
- 1) Cut and Fill Slopes: Normal fill slopes will be 1½:1 minimum; normal cut slopes will be ½:1, or as determined on a site specific basis by the Timber Sale Officer. In solid rock, and in construction of temporary roads, cut slopes may be steeper. In localized unstable soils, slopes shall be flattened as determined by the Sale Officer, but not to exceed 2:1.
 - 2) Compaction: Structural fill shall be compacted by dozer track in lifts not to exceed eight (8) inches in depth, or by compactor in lifts not to exceed twelve (12) inches in depth. Compaction shall be equal to or greater than the natural state of the soil or a minimum of seventy (70) percent relative degree of compaction. Woody material shall not be deposited in fills.
 - 3) Width: The standard roadbed width for straight road sections shall be 14 feet, including a one-foot shoulder on each side of a 12-foot traveled surface, with additional width on curves as needed to allow passage of log trucks. Roadbed width is measured from the base of the cut slope to the top of the fill slope. The maximum width allowed on minimum-radius switchbacks is 20 feet. Excavation shall be limited to that necessary to construct the minimum road width. New roads constructed wider than these standards shall be narrowed by pulling back excess fill or sidecast and placing it at locations designated by the Timber Sale Officer. Normal spacing for turnouts is 1,000 feet.
 - 4) Radius of Curvature: 50 feet minimum.
 - 5) Construction Method: Excess material shall not be sidecast onto slopes greater than 65%. On side slopes exceeding 50%, new roads shall be full bench construction, keeping sidecast to less than three feet in thickness by drifting excess excavated material along the road surface or utilizing it as fill elsewhere. Length of through-cut sections shall be minimized, and shall in no case be longer than the standard waterbar spacing unless provision is made for disposal of road surface water.
 - 6) Surface Drainage: Unless otherwise specified, roads shall be constructed and maintained with a 2-5% outslope and without a berm or inside ditch. The road surface shall be insloped or bermed only where needed to direct water to a drainage facility or away from a sensitive area. Where grade is 10% or less, permanent and seasonal roads shall have rolling dips incorporated into their running surface during their construction at locations proposed by the PURCHASER and approved by the Timber Sale Officer. Spacing between rolling dips shall be consistent with the waterbreak spacing requirements of the Forest Practice Rules and the Timber Harvesting Plan. Rolling dips shall be constructed in accordance with the attached diagram, Exhibit A, Attachment 1. Where grade of permanent or seasonal roads is more than 10%, waterbreaks or other suitable forms of water dispersal, shall be

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installed by bulldozer at locations specified or approved by the Sale Officer upon completion of use of the road for log hauling, but prior to final road grading.

7) Landings: The locations and extent of all new landings shall be approved in advance by the Sale Officer.

- B. Where the Timber Sale Officer has set construction stakes or marked trees or placed flagging to establish road centerlines and grades or cut and fill markers for road work, culverts, erosion control or other necessary structures, these markers shall constitute the field control by and in accordance with which the PURCHASER shall govern and execute the road or other work as portrayed on such road plans, profiles, or specifications furnished the PURCHASER.
- C. All required new seasonal road construction, including Roads 490 and 490B segments, shall be completed prior to log hauling on those roads and no later than October 15, 2016 in the sale area unless otherwise approved by the Sale Officer. Culvert and downspout installations on roads to be constructed shall be concurrent with road construction and prior to their use for hauling timber.

Prior to excavation for new road or landing construction, trees and other live woody vegetation greater than two inches dbh within the designated right-of-way shall be felled. Any tree boles or portions thereof six inches in diameter and eight feet in length, or larger, whether merchantable or not, shall be limbed, cut to lengths not exceeding the maximum log length allowed in this Agreement, and removed to landings or to other disposal sites approved by the Timber Sale Officer. Remaining limbs, tops, slash and other woody debris shall not be mixed with or buried by excavated material, but may be windrowed below the toe of the fill or sidecast slope.

All new road construction shall be done by using a hydraulic excavator, or by using a bulldozer equipped with a square or semi-U blade. Provisions elsewhere in this Agreement may further specify the equipment to be used. No material or debris removed from the right-of-way shall be deposited in watercourses or drainage channels. After the road bed has been substantially completed, it shall be given appropriate surface drainage as specified in Paragraph 17.a(6) above, or as otherwise directed by the Sale Officer. Prior to its use as a log truck access road it shall be shaped and dressed with a grader in conformance with all finish lines, grades and typical cross sections or specifications furnished by the STATE. Side slopes shall be finished in a neat manner with no undercuts or overhanging edges.

- D. The PURCHASER shall furnish new polyethylene pipe culvert, downspouts, and metal stakes in accordance with the attached culvert materials list (Exhibit A, Attachment 1). The PURCHASER shall provide any additional materials needed to perform the work required below. The PURCHASER shall install culverts and downspouts and do other associated work in locations designated by, and to the specifications of, the Timber Sale Officer and as shown on the attached road work list and map (Exhibits A, Attachments 1 and 2) and culvert installation specifications (Exhibit A, Attachment 1). Any additional culvert or drainage facility material needed for unanticipated road drainage structure installations or to lengthen or enlarge designated installations will be provided by the STATE and shall be installed by the PURCHASER. Any culvert, culvert couplers, or downspout listed in Exhibit A, Attachment 1 which is required to be provided by the PURCHASER and which is surplus following completion of all specified work shall be retained by the STATE and shall be delivered by the PURCHASER to the STATE'S yard adjacent to the Parlin Fork Conservation Camp within 30 days of completion of log removal from the sale area.

All required culvert installations, rolling dips and work described in Exhibit A, Attachment 1 (Culvert and Miscellaneous Road Work) on existing roads shall be completed prior to log hauling on those roads, and not later than October 15, 2017 in the sale area unless otherwise approved by the Sale Officer.

The culvert shall be laid to lines and grades approved by the Timber Sale Officer. Where culverts are being placed in live streams, the flowing water shall be impounded and diverted around the work site, and any other provisions of the Timber Harvesting Plan or Stream Alteration Permit shall be adhered to. Culverts installed as watercourse crossings shall be placed at the grade of the natural stream channel such that downspouting is not needed, unless specified otherwise. Trench width shall be sufficient to accommodate compacting equipment on each side of the culvert.

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Bedding and backfill material shall be well graded, and shall be substantially free of woody material and large rocks. The culvert bed shall be smoothed to grade and bedding material shall be shaped and packed to provide firm support for the full culvert length. Haunches shall be well compacted, and all backfill shall be compacted in six-inch lifts, using a powered mechanical compacting device.

For installations done after July 15, or at any time that backfill material is too dry for good compaction, backfill shall be watered during placement and compaction to increase its moisture content to an appropriate level for the type of soil.

Where trenches are excavated in existing permanent or seasonal roads for culvert or other work, the disturbed portion of the road surface shall be restored by surfacing with a minimum six-inch compacted layer of 1 ½ minus inch rock provided by the PURCHASER. The amount of rock needed for each installation is noted on the Work List (Exhibit A, Attachment 1). Backfill and rock shall be mounded over the disturbed portion of the road to allow for settling of fill, and a berm shall be constructed as necessary to protect the fill slope from erosion caused by road runoff.

Unless otherwise approved by the Sale Officer, culvert outlets shall be cut back and downspouts installed so that the downspouts are in contact with the ground throughout their entire length. Downspouts shall be secured by wrapping with wire to metal fence pickets driven solidly into the ground. Energy dissipaters made up of suitable native material shall be placed at the outlets of culverts and downspouts, and at culvert inlets as directed by the Sale Officer. Trench construction, pipe bearing surfaces, and back-filling shall be approved by the Timber Sale Officer. The Sale Officer shall be given at least two business days notice of the date(s) of culvert installations.

The PURCHASER shall install a metal fence picket culvert marker at the head of each installed culvert in accordance with the instructions of the Sale Officer.

All inlets and outlets of existing and installed culverts on any roads used or constructed by the PURCHASER shall be kept open to their full capacity at all times. The PURCHASER shall replace or repair any culverts, downspouts, or culvert location stakes lost, damaged, or destroyed by the PURCHASER's operations. All old culvert and debris resulting from culvert replacement shall be crushed and disposed of by the PURCHASER at a public disposal site.

- E. The PURCHASER shall protect existing watercourse crossing structures on State Forest land from any damage that might be caused by PURCHASER's equipment and/or loads in the performance of this Agreement. Any bridge or culvert used by the PURCHASER on State Forest land in connection with this sale that is damaged or injured through such use shall promptly be restored by the PURCHASER to its original condition at the PURCHASER's expense. STATE bridges and culverts are designed for highway loads unless load signs are posted.
- F. All Forest roads and landings which are used by the PURCHASER for decking, loading or hauling logs or for other operations conducted under this Agreement, including roads used by timber fallers or rigging crew, and roads used for hauling rock or water for use on the sale area, shall be maintained by the PURCHASER in serviceable condition during and immediately following periods of use at the PURCHASER's expense.
- G. Road or landing use shall be discontinued if firm, stable road and landing surfaces acceptable to the Timber Sale Officer cannot be maintained, or if trucks cannot operate under their own power, and the PURCHASER shall take measures necessary to improve the condition of the road or landing. These measures may include stabilizing the road or landing surface with rock and geotextile fabric, or postponing further use of the road or landing until a period of drying allows the surface to become firm and stable. Saturated loose material and fines that accumulate on the road or landing surface shall not be bladed off to permit hauling without specific approval from the Sale Officer in each case. Such material must be bladed back onto the road or landing after it has dried. Additional wet weather road use restrictions appear in Item 18 and 23 of the Timber Harvesting Plan.

Truck roads shall be treated for dust control in one or a combination of the following ways:

- 1) Truck roads will be watered daily and graded as necessary to maintain a good road surface as designated by the Timber Sale Officer. Watering shall be done in the evening or early morning so that water penetrates the road

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surface before hauling begins, and shall be repeated during the day if necessary to maintain a stable road surface.

- 2) Truck roads may be treated using lignin or other surfacing chemicals approved by the Timber Sale Officer. Treatment must be in accordance with manufacturer's specifications and reapplied as necessary to maintain a dust-free environment. Any ruts or chuck holes that develop on said roads after surfacing shall be immediately removed by grading or patching. If the PURCHASER is unable to maintain a good road surface by this method, the Sale Officer by written notice may require the PURCHASER to maintain the roads in accordance with paragraph 17.g.(1) of this Agreement.
- H. Maintenance work shall also be done within 15 days of the end of hauling operations on each road each season, and immediately on completion of hauling on any road after October 15. Maintenance shall include outcropping or installation or improvement of waterbars, rolling dips, or other road surface drainage facilities as specified by the Sale Officer; final watering and grading to remove ruts and other irregularities that would prevent adequate drainage of the road surface; removal or breaching of berms; and a final clearing of drainage ditches and culvert inlets and outlets as necessary to insure proper functioning of the road drainage system.
- I. Where more than one timber sale must use the same road at the same time, the PURCHASER of the sale with the largest estimated timber volume to be removed over that road during the current operating season, as determined by the STATE prior to the start of timber operations, shall have the primary responsibility for routine maintenance (watering and grading) of those roads being used simultaneously, and shall also be responsible for any additional unanticipated work needed to maintain a firm, stable road surface or to provide proper road drainage. The last user of each road each year shall be responsible for the final road maintenance required at the end of the operating season, as described in the paragraph above. Joint road users are encouraged to share routine road maintenance burdens equitably on a basis proportional to actual use. When only one party is using a road then that party is solely responsible for all road maintenance requirements.
- J. The PURCHASER shall construct and maintain approximately 1.0 miles of new seasonal truck road as indicated on the attached map (Exhibit A, Attachment 2) to conform to provisions in the Timber Harvesting Plan and to road specifications set forth in paragraphs 17.a through 17.f of this Agreement.
- K. The STATE has water sources that the PURCHASER may use for road watering as directed by the Timber Sale Officer. When the STATE cannot provide water for road watering as directed by the Timber Sale Officer, the PURCHASER shall provide water as necessary for road watering and maintenance. When the PURCHASER is directed by the Timber Sale Officer to provide water from alternative sources at the PURCHASER's expense for road watering and maintenance, the PURCHASER shall be compensated at the rate set forth in Exhibit B, "Budget Detail and Payment Provisions, Item 2.A.4. The STATE shall deduct the total value of the alternative source water from the final stumpage payment.

To facilitate monitoring of water supplied the PURCHASER shall provide a weekly report of PURCHASER supplied water on the attached Water Supply Reporting Form (Exhibit A, Attachment 4,) or an alternative form provided by the PURCHASER, approved by the Timber Sale Officer. Weekly information water supply information shall be delivered to the State Forest headquarters no later than the following Tuesday.

The PURCHASER shall comply with a Department of Fish and Wildlife Stream Alteration Permit obtained by the STATE. A copy of the approved permit shall be provided by the STATE prior to commencement of permitted activities.

- L. At two locations along new Road 490, Walton Gulch #2 THP 1-14-130 MEN - Map Points 1 and 22, as shown on the attached map (Exhibit A, Attachment 2), the new road shall be constructed by an excavator and built as full bench with spoils end-hauled, as described in the Timber Harvesting Plan. Excavated material shall be hauled to spoil sites at locations described in Exhibit A, Attachment 1 or designated by the Timber Sale Officer. Spoil sites shall be

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prepared by removal of vegetation and slash, which shall be placed in a location suitable for burning. End-hauled spoils shall be graded to blend with the topography, compacted by dozer or compactor in lifts.

- M. The PURCHASER shall comply with an encroachment permit from the California Department of Transportation; shall provide all needed material, temporary and permanent signs, equipment, labor, traffic control and supervision; and shall construct an encroachment at the location shown on the attached map (Exhibit A, Attachment 2). The STATE has obtained approval for establishment of an encroachment at this location. The scope of the required work is shown in Exhibit A, Attachment 1.

The PURCHASER shall obtain, pay application fees for, place performance bond for, and comply with an encroachment permit (Double Permit) from the California Department of Transportation. Prior to beginning work on the encroachment, the PURCHASER shall provide a copy of all permits to the STATE and a work plan for encroachment construction. The PURCHASER shall provide an engineer to interpret, implement, supervise and approve work conducted under said permit as necessary; shall provide four sets of as built plans to the STATE; shall provide all needed material, equipment and labor required to construct an encroachment in compliance with the permit including any necessary traffic control and supervision; and shall construct a commercial road approach at the location shown on the attached timber sale map (Exhibit A, Attachment 1) and as outlined in Encroachment Permit Number 0114-N-RC-0357, Rider Permit Number 0111-N-RW-0007 and attached Plan Set Job Number 2306 (Exhibit G). Encroachment construction is to comply with the Encroachment Permit and accompanying Rider Permit and the PURCHASER understands that the attached Plan Set Job Number 2306 is an interpretation of the permits and that the permits take precedent over the plan set. The attached encroachment permits (Exhibit G) shall be utilized by the PURCHASER to obtain a separate encroachment permit (Double Permit).

In addition to constructing the above encroachment, the PURCHASER is responsible for acquiring all materials and supplies in order to complete the encroachment project. These materials and supplies are not reflected in Exhibit A, Attachment 1 – Additional Specifications.

Encroachment construction shall be completed no later than August 31, 2016 unless otherwise approved by the Timber Sale Officer.

- N. The PURCHASER shall provide any culvert or other material needed during the course of the operation for temporary truck road or skid trail watercourse crossings. Such crossings shall be removed and the culvert or other material disposed of by the PURCHASER at completion of operations.
- O. The PURCHASER shall comply with a Department of Fish and Wildlife Stream Alteration Permit obtained by the STATE.
- P. The PURCHASER shall, to the satisfaction of the Timber Sale Officer, provide and install one (1) iron pipe gate as specified in the attached work list (Exhibit A, Attachment 1) and shown on the accompanying maps (Exhibit A, Attachment 2), in accordance with the attached "heavy" gate plan and specifications (Exhibit A, Attachment 1). All gate installations shall be completed by August 31, 2016, accompanied with the encroachment described in Item 17.M. above.

The PURCHASER shall paint new gate at JDSF Road 490 (at Highway 20), and existing gates at JDSF Roads 400 (3 gates), 410, 420, 430 and 490 as follows: Bare metal shall be cleaned and prepped for painting. One coat of primer as specified shall be applied to the exposed metal surfaces. Two coats of safety yellow paint as specified shall be applied onto the primer coat. Road number shall be painted with black gloss paint in 3" numbers to the vertical gate posts facing out. Reflective safety sticker shall be applied to the entire length of the cross arm on both sides facing the road. Specifications attached (Exhibit A, Attachment 1).

The PURCHASER shall remove gate at old JDSF Road 490 and Highway 20, after a new gate is installed at the entrance to the new JDSF Road 490 (at Highway 20).

**EXHIBIT A
(Scope of Work)**

The PURCHASER shall provide locks and double locking plates or pins, as needed, for each gate installed by the PURCHASER or used by the PURCHASER or by the PURCHASER's contractors for access to the sale area or other work area, and shall immediately replace locks and plates or pins that may be lost during operations. Locks provided by the PURCHASER may be keyed or combination if needed for use by the PURCHASER or contractors; the STATE will provide locks for use by STATE personnel. The STATE shall be given keys or the combination for each of the PURCHASER's locks to ensure that the STATE always has access through the gates.

- Q. The PURCHASER shall provide, haul, place and compact 1 ½" minus rock for road stabilization at locations specified in the Culvert and Miscellaneous Road Work List or as specified by the Timber Sale Officer.
- R. Timber hauled from the sale area shall access the public highway system via Road 490/490B, east to Highway 20 as well as Road 440, east to Highway 20.
- S. All Culverts and other non-native material removed from watercourse crossings, and elsewhere described in this agreement, shall be disposed of at an off-forest public disposal site

The PURCHASER shall deactivate section of Road 445A at locations shown on the attached map (Exhibit A, Attachment 2) and as described in the Timber Harvesting Plan.

- T. The STATE may, from time to time, schedule organized public events which require weekend or holiday use of roads used by the PURCHASER within or appurtenant to the sale area. With a minimum of two weeks notice from the STATE, the PURCHASER shall make specified roads available for such use by removing down timber and slash from the road surface, positioning equipment off of the road, and otherwise making the road passable for the designated use.
- U. The PURCHASER agrees to keep records and furnish the STATE daily water use data with respect to water drafting activities. Required data shall include landowner, operator name, year and month of water drafting and drafting site location, filing time, pump rate and total gallons used. The information shall be reported on a form provided by the STATE (Exhibit A, Attachment 4). Daily water use information will be furnished to the STATE no later than the first Tuesday following the month water use information was collected.
- V. Points of entry by vehicles into the timber harvest area from the Highway 20 (above JDSF Road 440) shall be blocked by the PURCHASER at completion of operations as directed by the Timber Sale Officer.

18. HEALTH AND SAFETY LAW, TEMPORARY STRUCTURES.

No permanent structures shall be allowed on State Forest land. Temporary structures shall be kept to a minimum necessary for the logging operation and shall be maintained at PURCHASER'S expense. They shall be located, built to standards, and operated as may be required by the Timber Sale Officer to prevent the pollution of the water in any watercourse. Outhouses and toilets shall be constructed and maintained so as to prevent, so far as possible, the breeding of flies or the development of unsanitary conditions. The PURCHASER shall abide by all Health and Safety Laws of the State. All structures shall be removed when cutting is completed or the sale terminated, and the grounds cleaned up to the satisfaction of the Sale Officer.

19. FOREST FIRE SUPPRESSION.

During the time that this Agreement remains in force, the PURCHASER shall independently of STATE effort do all that can be done to prevent and suppress forest fires on the sale area and shall require all employees, agents, contractors, subcontractors, and employees of contractors and subcontractors to do likewise.

**EXHIBIT A
(Scope of Work)**

Unless prevented by uncontrollable circumstances, the PURCHASER shall place all employees, agents, contractors, subcontractors, and employees of contractors and subcontractors, and their equipment at the disposal of any authorized representative of the Director of Forestry and Fire Protection for the purpose of fighting forest fires on or adjacent to the State Forest, with the understanding that where fire fighting services are not rendered on the sale area of the PURCHASER, payment to the PURCHASER, and to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER by the STATE for such services shall be made at standard rates established by the Director of Forestry and Fire Protection where such services are specifically ordered or requested by the Department of Forestry and Fire Protection Officer in charge of the fire; provided further, however, that no payment shall be made by the STATE to the PURCHASER if said fire occurred or spread as the result of violation of law, Forest Practice Rules, or actionable negligence attributable to the PURCHASER, or to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER.

In cases where fires occur upon the sale area or spread across the sale area from an adjacent area, the PURCHASER will bear all expenses incurred in action taken upon the fire prior to the arrival of the Department Officer in charge of the fire. Upon arrival of the Department Officer in charge of the fire the PURCHASER, and employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, may be reimbursed by the STATE for fire fighting services rendered by them in response to specific orders and requests made by the Department Officer in charge of the fire at the rates provided for in the second paragraph of this section; provided further, however, that when the fire has been surrounded by control lines, the PURCHASER will assume all costs of patrol until the fire is declared to be out by the State Forest Officer in charge of the fire protection in the area and provided further, that in the event said fire has occurred or spread as a result of violation of law, Forest Practice Rules, or actionable negligence of the PURCHASER, or employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, then the PURCHASER shall not be reimbursed in any amount by the STATE for services rendered by PURCHASER, or by employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, in control of the fire.

When the STATE becomes legally obligated by contract expressed, implied or otherwise, to make payment for any fire fighting services under the second and third paragraphs of this section and the said fire occurred or spread as the result of violation of law, Forest Practice Rules, or negligence attributable to the PURCHASER, or to employees, agents, contractors, subcontractors, or employees of contractors and subcontractors of the PURCHASER, said PURCHASER shall reimburse the STATE for that payment.

The provisions of this section shall not be construed as relieving the PURCHASER of fire suppression costs for which the PURCHASER is otherwise liable under State law.

20. WATER WAGON.

In addition to the required complement of fire tools, during the period specified by law, the PURCHASER shall have readily available to the sale area for fire suppression purposes a "water wagon" or similar self-propelled vehicle of at least 1,000 gallons capacity which shall be maintained in good operating condition. The "water wagon" shall be located within a 60 minute drive to the sale area. This unit shall be kept filled to capacity except when in actual physical use on the logging operation and equipped with at least 150 feet of serviceable 1½ inch fire hose with National Standard thread fittings and a serviceable nozzle for said hose; and further, said unit shall be equipped to draft water from a stream or pond as well as to pump water from the tank mounted on the vehicle.

21. TIMBER, STATE PROPERTY UNTIL PAID IN FULL.

All timber included in this Agreement shall remain the property of the STATE until paid for in full by the PURCHASER in the manner hereinbefore set forth, provided that the risk of loss thereof, by fire or otherwise, after operations have begun with reference to the particular logging area, shall be on the PURCHASER.

**EXHIBIT A, Attachment 1
(Additional Specifications)****Additional Specifications**

1. CULVERT:

<u>ITEM</u>	<u>MATERIAL</u>	<u>GAUGE</u> alum/galv	<u>DIAM.</u>	<u>PIECE</u> <u>LENGTH</u>	<u>PIECES</u>	<u>TOTAL</u> <u>LENGTH</u>
Pipe	polyethylene	*	18"	20'	26	520'
Coupler	polyethylene	*	18"	-	15	-
Pipe	polyethylene	*	24"	20'	12	240'
Coupler	polyethylene	*	24"	-	8	-
Pipe	polyethylene	*	36"	20'	5	100'
Coupler	polyethylene	*	36"	-	3	-

* Polyethylene culvert material shall be high density polyethylene plastic. Pipe shall have annular corrugations and an interior liner. The PURCHASER must submit product description and specifications to the Timber Sale Officer for approval before delivery or installation.

2. OTHER MATERIALS TO COMPLETE THE WORK LISTED:

<u>ITEM</u>	<u>QUANTITY</u>
Fence posts, steel, six-foot	24 ea2
Crushed rock, 1½"	600 yd ³
Crushed rock, 3" Road Base	10 yd ³
Cobble & Riprap (1/4 ton)	150 yd ³
Riprap (1/2 ton)	2 yd ³
Lignin or equivalent	per Item 17.p
½ Ton Boulders	8-10

A sufficient quantity of bolts, nuts, washers, and 12 gauge wire to install coupling bands and attach downspout stakes to the satisfaction of the Timber Sale Officer.

3. Additional materials may be needed to comply with other sections of the Timber Sale Agreement.

Acquisition of rock by the PURCHASER for this or any other section of this Agreement shall be consistent with Section 10295.5(a) of the Public Contract Code. If requested by the STATE, the PURCHASER shall provide documentation of such compliance.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

Culvert and Miscellaneous Road Work List

The following work list combines description and work to be done for two approved Timber Harvest Plans, Walton Gulch #2 THP 1-14-130 MEN and Tunnel #2 THP 1-15-146 MEN. Map point identifiers for timber harvest plan uses numeric and letters are used for additional map points associated with this agreement. All work is illustrated on attached maps, Walton-Tunnel 2016 TSA Maps 1 and 2 (Exhibit A, Attachment 2).

The following map points are associated with the Walton Gulch #2 THP 1-14-130 MEN:

<u>Map Point</u>	<u>Road Number</u>	<u>Work to be Done</u>
1	490	Utilizing an excavator, build road using full bench construction with end-hauling. Minimize sidecast to the extent feasible. Spoils not utilized for road construction shall be disposed of at an existing landing site located at the far southern extent/beginning of full bench road construction and/or at a location specified by the Timber Sale Officer.
2	462	Disconnect the inside ditch and install rocked rolling dip. Rock rolling dip with 5 cubic yards of 1 ½ inch road base.
3	462	Excavate existing culvert and replace with 50 feet of new 24 inch diameter culvert with critical dip. Rock armor (with cobble) from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface with 10 cubic yards of 1 ½ inch road base.
4	463	Install cobble or riprap at the outlet of existing culvert, filling in hole and acting as an energy dissipater.
5	463	Excavate existing culvert and replace with 50 feet of new 36 inch diameter culvert with critical dip. Rock armor (with ¼ ton riprap) the inlet and bottom of the fill slope to the top of the culvert inlet. Rock armor (with ¼ ton riprap) the outlet and from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface with 10 cubic yards of 1 ½ inch road base.
6	463	Install cobble or riprap at the outlet of existing culvert, acting as an energy dissipater.
7	463	Install 30 feet of new 18 inch diameter ditch relief culvert. Rock disturbed portion of the road surface with 10 cubic yards of 1 ½ inch road base.
8	400	Excavate existing culvert and replace with 30 feet of new 18 inch diameter ditch relief culvert. Rock armor (with cobble) the culvert inlet. Rock armor (with ¼ ton riprap) the culvert outlet for energy dissipation and fill slope to the road hinge-line/top of fill slope. Rock the disturbed portion of the road surface with 10 cubic yards of 1 ½ inch road base.
9	445A	Utilizing an excavator, remove perched fill along top of fill slope above culvert outlet. Rock armor (with ¼ ton riprap) the excavated/reconstructed fill slope.
10	445A	Install a rolling dip.
11	445A	Excavate existing culvert and replace with 40 feet of new 24 inch diameter culvert. Rock armor (with cobble) from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface with 10 cubic yards of 1 ½ inch road base.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

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| 12 | 445A | Use crossing for one operational season. Following road use, excavate and remove culvert and restore the gradient of the watercourse as best feasible. A channel > 1.5 feet shall be created. The grade shall be even and not stepped. Channel banks shall be sloped back to approximately 40% where feasible and this grade shall extend from the bed of the channel to the top of the road prism. Work shall be completed prior to October 15 of the first year of operations in Unit E. |
| 13 | 445A | Utilizing an excavator, excavate sinkhole and re-compact with fill material. |
| 14 | 445A | Fill in sinkhole and use crossing for one operational season. Following road use, excavate and remove culvert and restore the gradient of the watercourse as best feasible. A channel > 1.5 feet shall be created. The grade shall be even and not stepped. Channel banks shall be sloped back to approximately 40% where feasible and this grade shall extend from the bed of the channel to the top of the road prism. Work shall be completed prior to October 15 of the first year of operations in Unit E. |
| 15 | 445A | Use crossing for one operational season. Following road use, excavate and remove ditch relief culvert and install a dip across road. Work shall be completed prior to October 15 of the first year of operations in Unit E. |
| 16 | 445A | Use crossing for one operational season. Following road use, excavate and remove culvert and restore the gradient of the watercourse as best feasible. A channel > 1.5 feet shall be created. The grade shall be even and not stepped. Channel banks shall be sloped back to approximately 40% where feasible and this grade shall extend from the bed of the channel to the top of the road prism. Work shall be completed prior to October 15 of the first year of operations in Unit E. |
| 17 | 400 | Excavate existing culvert and replace with 30 feet of new 18 inch diameter ditch relief culvert. Rock armor (with cobble) the culvert inlet and outlet to act as an energy dissipater. Rock armor (with cobble) both the outlet and inlet from the bottom of fill slope to top of fill slope/ road hinge line. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 18 | 400 | Cut off approximately three (3) feet of shotgun ditch relief culvert on the outlet side. Rock armor (with ½ ton riprap) the fill slope below culvert outlet to armor fill slope and act as an energy dissipater. |
| 19 | 430 | Install cobble or riprap at the outlet of existing culvert, filling in hole and acting as an energy dissipater. |
| 20 | 430 | Excavate existing ditch relief culvert and install a rock ford. Design criteria shall be consistent with the ROCK FORD diagram (Exhibit A, Attachment 1). Rock size to be used includes 3 inch (aggregated) road base, cobble (sub-aggregated) and ¼ ton or larger rip rap. |
| 21 | 431B | Install rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 22 | 490 | Utilizing an excavator, build road using full bench construction with end-hauling. Minimize sidecast to the extent feasible. Spoils not utilized for road construction shall be disposed of at a location specified by the Timber Sale Officer. The extent of full bench road construction is flagged. |

**EXHIBIT A, Attachment 1
(Additional Specifications)**

The following map points are associated with the Tunnel #2 THP 1-15-146 MEN:

7	463	Excavate existing culvert with downspout and replace with 60 feet of new 24 inch diameter culvert with critical dip. Rock armor (with cobble) the culvert inlet and from the bottom of the fill slope to top of the culvert inlet. Rock armor (with ¼ ton rip rap) the culvert outlet and from the bottom of the fill slope to top of the culvert outlet. At a minimum, place the new culvert outlet to the same depth as the existing/old 18 inch metal culvert outlet. If the new culvert outlet is not installed below the existing 18 inch culvert outlet, rock armor the fill slope a minimum of 5 feet below the culvert outlet. If the new culvert is installed below the existing culvert, rock below the culvert outlet accordingly. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 20 cubic yards of 1 ½ inch road base.
8	463	Excavate existing culvert with downspout and replace with 30 feet of new 18 inch diameter culvert with critical dip. Rock armor (with cobble) the culvert inlet. Pull back fill and rock armor (with cobble) a minimum of 10 feet below the culvert outlet and to top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
9	460	Pull back fill and rock armor (with cobble) culvert inlet.
10	460	Excavate existing culvert with downspout and replace with 50 feet of new 24 inch diameter culvert with critical dip. Rock armor (with cobble) the culvert inlet. Rock armor (with ¼ ton rip rap) the culvert outlet and from the bottom of the fill slope to top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
11	460	Install a rocked rolling dip. Disconnect inside ditch and outslope road 50 feet on either side of dip. Place cobble 4 feet in width within the centerline of rolling dip across road and a minimum of 15 feet continued down the lower fill slope. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 20 cubic yards of 1 ½ inch road base.
12	460	Excavate existing culvert and replace with 40 feet of new 18 inch diameter culvert with critical dip. Rock armor (with cobble) the culvert inlet. Rock armor (with ¼ ton riprap) the culvert outlet and bottom ½ of the fill slope on the outlet side. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
13	460	Install a rocked rolling dip. Disconnect inside ditch and outslope road 30 feet on either side of dip. Place cobble 4 feet in width within the centerline across road and through outfall of rolling dip. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 20 cubic yards of 1 ½ inch road base.
14	463	Excavate existing culvert with downspout and replace with 30 feet of new 18 inch diameter culvert with critical dip. Rock armor (with cobble) the culvert inlet. Rock armor (with cobble) the culvert outlet a minimum of 20 feet below the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
15	462	Excavate existing culvert with downspout and replace with 30 feet of new 18 inch diameter culvert, with critical dip. Rock armor (with cobble) the culvert inlet. Rock armor (with cobble) from the bottom of the fill slope to the top of the culvert outlet and pull back fill and armor at a minimum of 5 feet below the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

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| 16 | 462 | Remove culvert and install a rocked rolling dip across road. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base. |
| 17 | 460 | Remove culvert and install a rocked rolling dip across road. Place cobble 4 feet in width within the centerline across road and through outfall of rolling dip. Rock the rolling dip surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 18 | 460 | Remove culvert and install a rocked rolling dip. Place cobble 4 feet in width within the centerline across road and through outfall of rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 19 | 460 | Remove culvert with downspout and install a rocked rolling dip. Place cobble 4 feet in width within the centerline and through outfall of rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 20 | 460 | Remove culvert with downspout. Disconnect inside ditch and outslope road 30 feet on each side of dip. Install a rocked rolling dip and pull back perched fill near old culvert outlet. Place cobble 4 feet in width within the centerline across road and through outfall of rolling dip. Rock the disturbed portion of the rolling dip and other road surface to a compacted depth of 6 inches with 20 cubic yards of 1 ½ inch road base.

Install a rolling dip approximately 100 feet above map point 20. |
| 21 | 460 | Remove culvert with downspout. Disconnect inside ditch and outslope road 30 feet on each side of dip. Rock the disturbed portion of the rolling dip and other road surface to a compacted depth of 6 inches with 20 cubic yards of 1 ½ inch road base. |
| 22 | 460 | Excavate existing culvert with downspout and replace with 30 feet of new 18 inch diameter culvert. Rock armor (with cobble) the culvert inlet. Rock armor (with cobble) the culvert outlet and from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 23 | 460 | Excavate existing culvert with downspout and install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 24 | 460 | Excavate existing culvert with downspout and replace with 30 feet of new 18 inch diameter culvert. Rock armor (with cobble) the culvert inlet and inside ditch on the downside of the culvert inlet. Rock armor (with cobble) the culvert outlet and from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 25 | 460 | Excavate existing culvert with downspout and replace with 40 feet of new 36 inch diameter culvert. Rock armor (with cobble) the culvert inlet. Rock armor (with cobble) the culvert outlet and fill slope from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. |
| 26 | 460 | Excavate existing culvert and install a rocked rolling dip 20 feet up road grade. Disconnect inside ditch drains and outslope road approximately 50 feet above and 20 feet below, center of dip. Rock the rolling dip to a compacted depth of 6 inches with 20 cubic yards of 1 ½ inch road base. |

**EXHIBIT A, Attachment 1
(Additional Specifications)**

27	460	Excavate existing culvert and install a rocked rolling dip. Rock armor (with cobble) rolling dip outlet/outfall. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
28	460	Excavate existing culvert with downspout and replace with 40 feet of new 18 inch diameter culvert. Rock armor (with cobble) the culvert inlet. Rock armor (with cobble) the culvert outlet (to act as an energy dissipater) and from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base. Install a rolling dip 100 feet above map point 28.
29	460	Excavate existing culvert and install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
30	460	Excavate existing culvert and install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
31	460	Excavate existing culvert and install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
32	440	Excavate existing culvert and install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
33	440	Install a critical dip of an existing Class II watercourse crossing. Rock disturbed area to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
34	440	Excavate existing culvert with downspout and replace with 40 feet of new 24 inch diameter culvert. Rock armor (with ¼ ton riprap) the culvert outlet (to act as an energy dissipater) and from the bottom of the fill slope to the top of the culvert outlet. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
35	440	Excavate existing culvert with downspout and replace with 30 feet of new 18 inch diameter ditch relief culvert. Rock armor (with cobble) the culvert outlet (to act as an energy dissipater). Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
36	460	Remove downspout and pull back fill between existing culvert outlet and active channel and rock armor (with ¼ ton rip rap) the excavated area.

The following map points are made part of this agreement:

A	463	Install 40 feet of new 18 inch diameter ditch relief culvert. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
B	463	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
C	463	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
D	463	Install a rolling dip.
E	460	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.

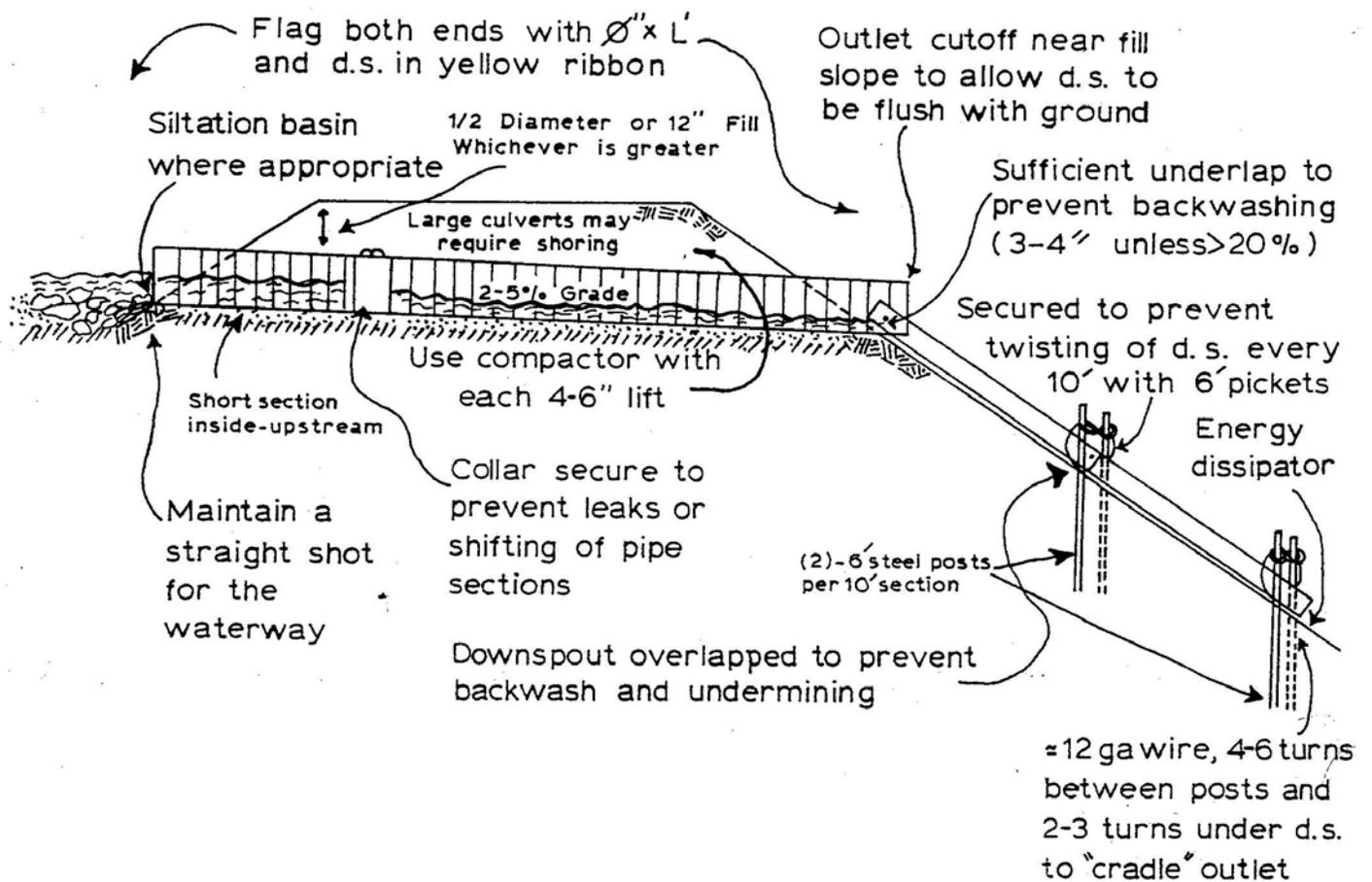
**EXHIBIT A, Attachment 1
(Additional Specifications)**

F	460	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
G	460	Install 40 feet of new 18 inch diameter ditch relief culvert. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
I	460	Remove existing ditch relief culvert and install 40 feet of new 18 inch diameter ditch relief culvert. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
J	460	Install a rolling dip.
K	460	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
L	460	Install 40 feet of new 18 inch diameter ditch relief culvert. Rock the disturbed portion of the road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
M	460	Install a rolling dip.
N	460	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
O	460	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
P	460	Install a rocked rolling dip. Rock the disturbed portion of the rolling dip and other road surface to a compacted depth of 6 inches with 10 cubic yards of 1 ½ inch road base.
R	460	Remove existing ditch relief culvert and install a rocked rolling dip. Rock the disturbed portion of the rolling dip and other road surface to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
S	460	Install a rocked rolling dip. Rock the rolling dip to a compacted depth of 6 inches with 5 cubic yards of 1 ½ inch road base.
T	460	Remove and dispose pile of old metal culvert material. Note: Location is on existing landing, between Tunnel Unit C and Tunnel Unit D.
U	400	Remove and dispose old metal culvert material. Note: Location is at the Road 400 and Road 440 intersection.
V	440A	An existing berm and root wad is located at the intersection of Road 440A and turnout off Highway 20. Immediately upon completion of use of Road 440A, re-construct berm and position root wad acting as a barrier to vehicles.
W	463A	Remove three (3) ditch relief culverts and re-compact fill across road and place fill material within culvert inlet locations. Note: Culverts are located on Road 463A, above the intersection with Road 463. Waterbars intercepting ditch shall be installed on Road 463A.
X	491	Remove and dispose of metal gate. Upon removal of gate, block entrance with redwood stumps excavated from the new encroachment site. Redwood stumps shall be buried at a depth where the root collar is at or below ground level.

EXHIBIT A, Attachment 1
(Additional Specifications)

CULVERTS AND DOWNSPOUTS

LENGTH: 40' minimum in curves (inturns) where yarder will have to pass. Use drop inlets near steep, unstable banks.



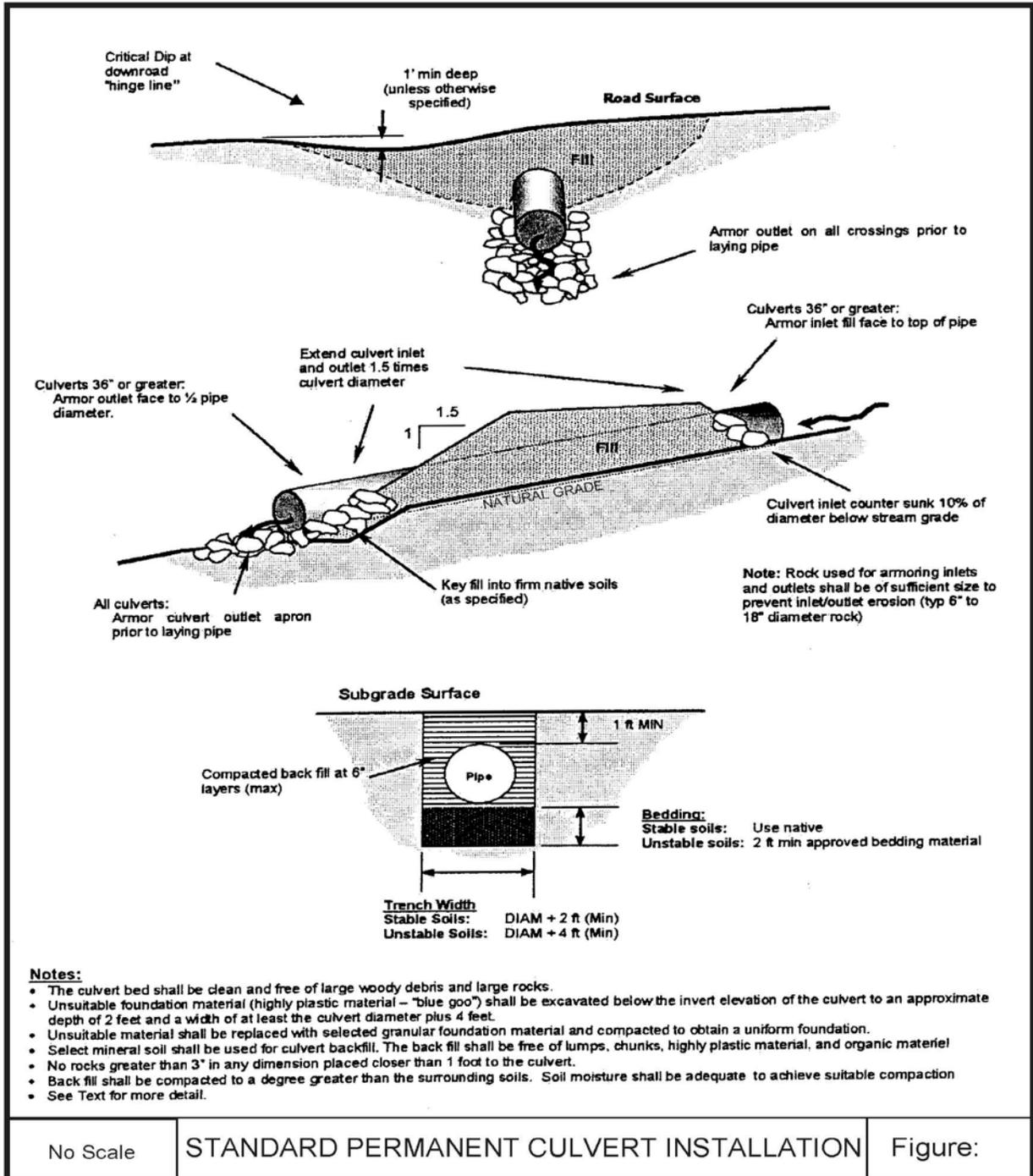
Ditch relief culverts shall be placed on an optimum grade of 3% (2% minimum - 5% maximum)

All **stream crossing culverts** shall be placed at grade of original streambed.

Use adequate length of downspout to get the water off of the fill.

Bolt ALL connections: downspout to pipe, downspout to downspout, pipe collar.

**EXHIBIT A, Attachment 1
 (Additional Specifications)**



No Scale

STANDARD PERMANENT CULVERT INSTALLATION

Figure:

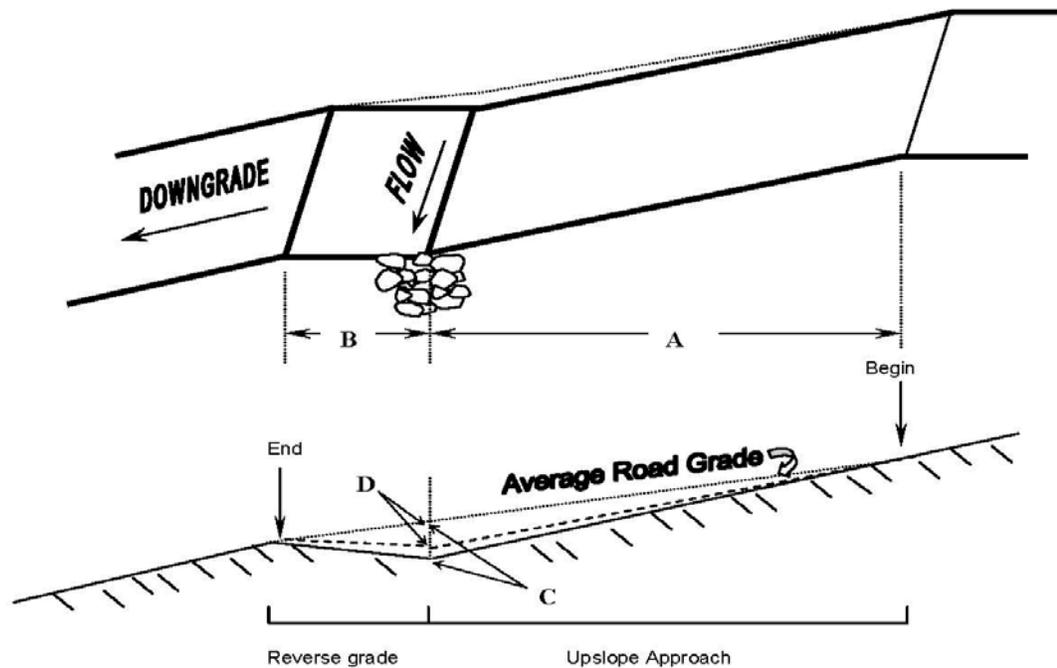
**EXHIBIT A, Attachment 1
(Additional Specifications)**

Rolling Dip Installation Guidelines

A rolling dip is a smooth shallow ditch or depression that is at least 6" in depth and should be constructed at an angle of 45 to 60 degrees from the centerline of the road (can be nearly perpendicular). The cross grade should be at least 1 percent greater than the grade of the road. Rock riprap or down-drain flumes may be needed to prevent erosion on outsloped roads (see diagrams below).

Dips should be constructed deep enough into the road subgrade so that traffic and subsequent road grading will not obliterate them. Their length and depth should provide the needed drainage, but not be a driving hazard.

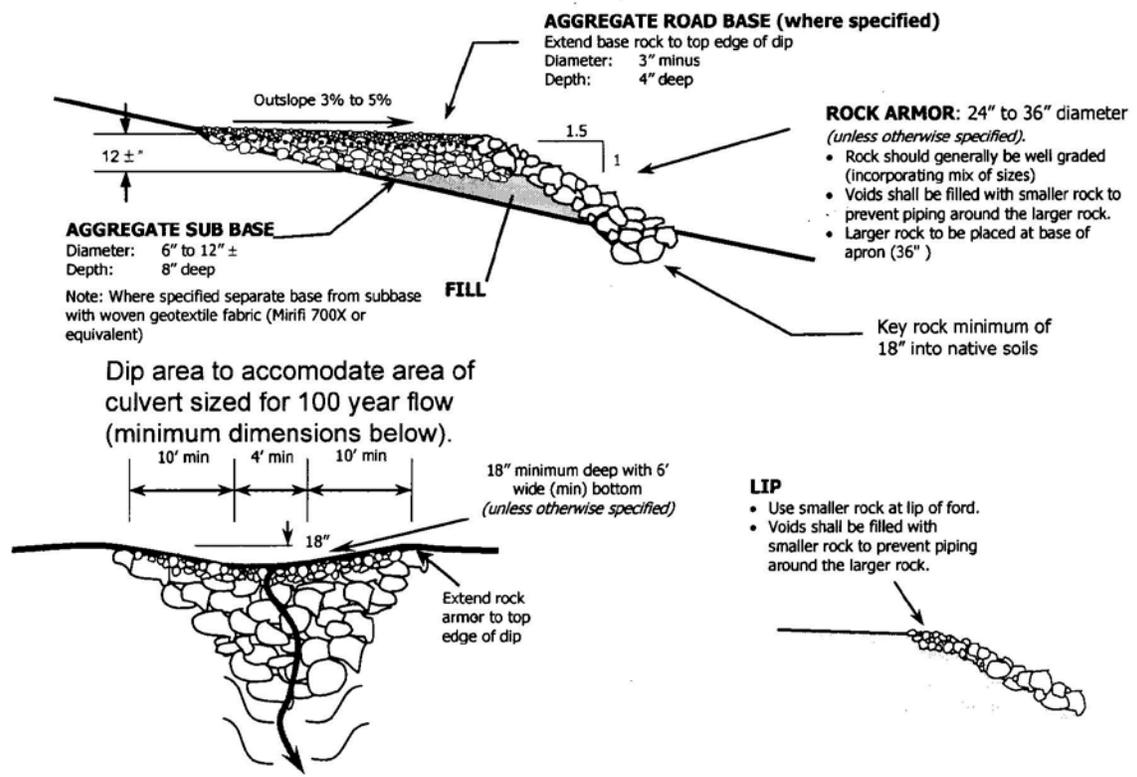
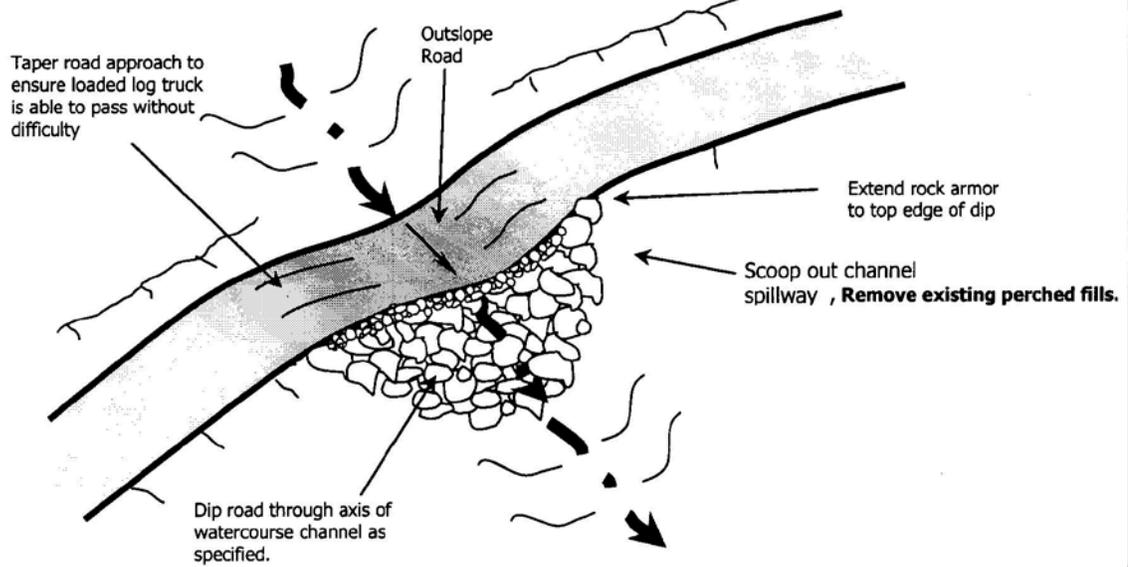
ROLLING DIP DIMENSIONS				
Road Grade (%)	Upslope approach (distance from up-road start of rolling dip to trough in feet)	Reverse Grade (distance from trough to crest in feet)	Depth below average road grade at discharge end of trough (ft)	Depth below average road grade at upslope end of trough (ft)
	A	B	C	D
<6	55	15-20	0.9	0.3
8	65	15-20	1.0	0.2
10	75	15-20	1.1	0.1
12	85	20-25	1.2	0.1
>12	100	20-25	1.3	0.1



Text and diagrams from W. Weaver and D. Hagans, *Forest and Ranch Roads*, MCRCD, June 1994, pp. 48, 58.

**EXHIBIT A, Attachment 1
 (Additional Specifications)**

ROCK FORD



NOTE

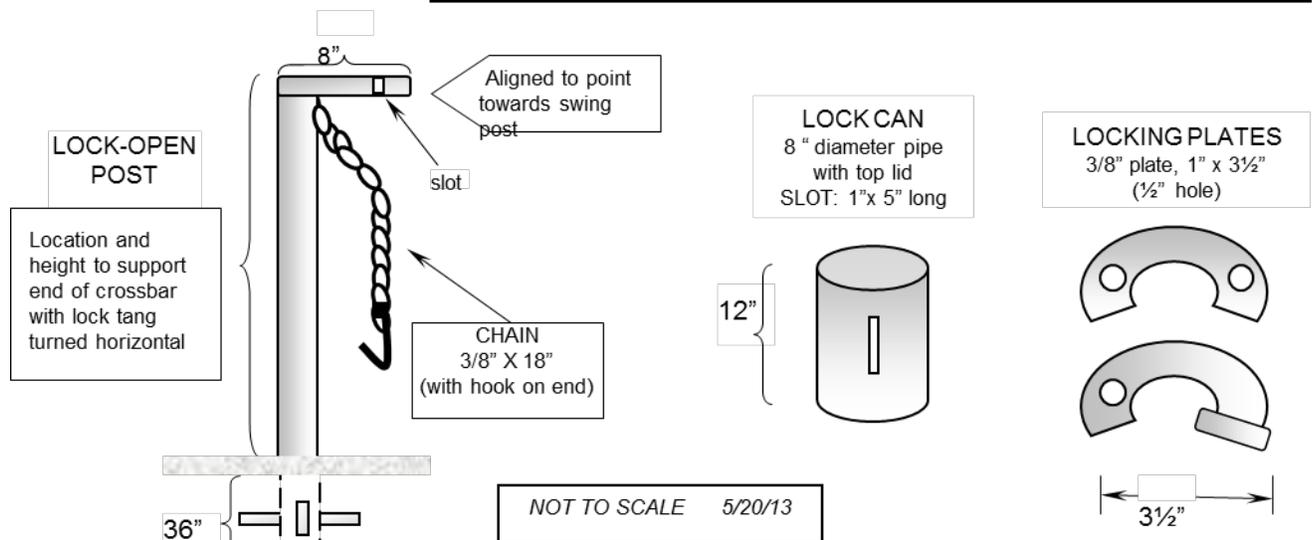
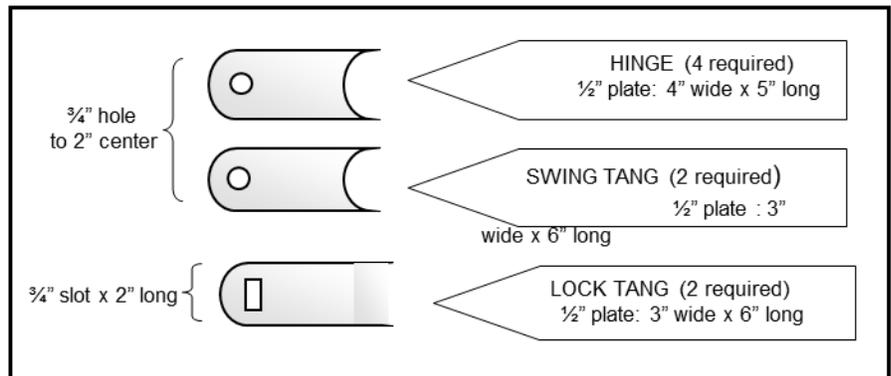
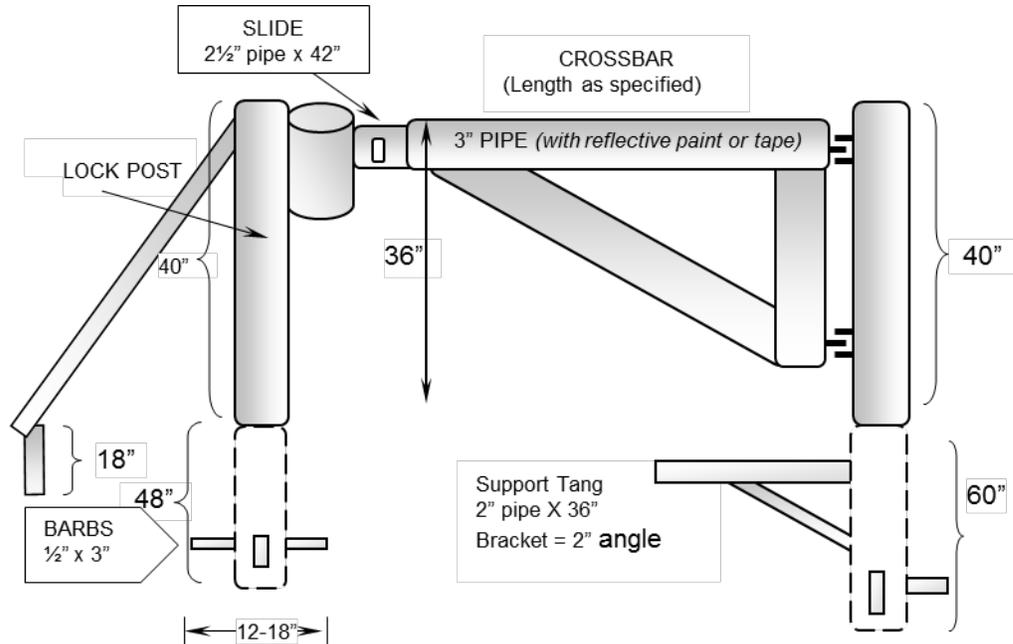
- Details are typical and intended for use as a guideline. Adjustments to the actual design may need to occur in field during time of construction due to local site conditions.
- Refer to site details for specific design criteria where applicable.

TYPICAL ROCK FORD DESIGN

Figure:

**EXHIBIT A, Attachment 1
 (Additional Specifications)**

Heavy Gate Plan and Specifications



NOT TO SCALE 5/20/13

HEAVY GATE MATERIAL LIST & INSTALLATION SPECIFICATIONS

**EXHIBIT A, Attachment 1
(Additional Specifications)**

MATERIALS	DESCRIPTION
6" heavy wall pipe	swing and lock posts
3" black pipe	Gate, lock-open post; barrier posts as needed
42" of 2½" pipe	slide
12" of ¼" x 8" black pipe	lock can with top lid
20" of ½" x 4"	Hinges on gate post
12" of ½" X 6"	Swing Tangs on gate
16" of ½" x 3"	Lock tang & top piece for lock-open post
½"-¾" rebar or round stock	Barbs for swing/lock post
¾" x 2½" bolts, nuts, flat washers	Hinges and support rod
1" x 3/8" plate	Locking plates
3" black pipe, rail, or structural steel	lock post braces
18" of minimum 3/8" chain	Chain for lock-open post
hook	Hook for end of chain on lock-open post
Rust-inhibiting undercoat, tractor yellow enamel topcoat	Coatings
approximately 3 - 4 cubic yards	concrete

CONSTRUCTION

Fabrication shall be neat and professional. Welds shall be complete, with burrs and sharp edges smoothed. Gate length shall be as specified or sized to fit the site.

A ¼" bead shall be welded on the outside of the end of the slide opposite the lock tang, and on the inside of the crossbar at the end opposite the hinge. This will be done to prevent the slide from being pulled all the way out of the crossbar while not inhibiting the slide from moving freely.

INSTALLATION

Holes for hinge post shall be dug approximately 4 foot long by 2 foot wide and 5 foot deep to accommodate support bracket. The lock post hole shall be dug approximately 3 foot long by 2 foot wide and 4 foot deep. Concrete shall fill the holes. Concrete shall be used to fill the posts to the top. Two rigid diagonal braces shall be attached to the lock post. They shall be of lengths and at angles to best fit the site, and shall have vertical legs set in a minimum of 18" of concrete. Barrier posts set in concrete, or other obstructions such as stumps, logs or boulders, shall be placed as necessary to block any gaps greater than 30" across which motor vehicles, including ATVs, might use to drive around the gate. Installation shall align the lock tang through the center of the slot on the lock can. Between 30 and 90 days after installation, the gate shall be inspected and adjusted or modified as necessary to produce smooth, free-swinging operation that does not require lifting and that allows easy insertion and removal of the locking plate.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT
TR-0120 (REV 6/2012)

Permit No. 0114-N-RC-0357	
Dist/Co/Rte/PM 01-MEN-20-7.53 (RT)	
Date 12 NOV 2014	
Fee Paid \$ EXEMPT	Deposit \$
Performance Bond Amount (1) \$	Performance Bond Amount (2) \$
Bond Company	
Bond Number (1)	Bond Number (2)

In compliance with (Check one):

Your application of October 6, 2014

Utility Notice No. _____ of _____

Agreement No. _____ of _____

R/W Contract No. _____ of _____

TO: [CAL FIRE
JACKSON DEMONSTRATION STATE FOREST
802 N MAIN STREET
FORT BRAGG, CA 95437
ATTN: DAVE DERBY
(707) 964-5674 EXT. 113] , PERMITTEE

and subject to the following, PERMISSION IS HERBY GRANTED to:

Enter the State highway right-of-way at post mile 7.53, Right, on State Route 20 in Mendocino County to construct a new commercial road approach to provide access for forest management activities, including timber harvest, recreation, protection, and administration, relocate curve warning sign and associated traffic control as per the sketch and application received by the Caltrans District 1 Permit Office and as amended by this encroachment permit and all future riders.

NOTIFY DEPARTMENT'S/STATE'S REPRESENTATIVE: The assigned Department's/ State's Representative is Clyde Blundell at telephone (707) 489-2471.

Permittee must arrange a pre-job meeting with the Department's Representative upon receipt of this encroachment permit.

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (Check applicable):

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	General Provisions
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Utility Maintenance Provisions
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Special Provisions
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Storm Water Special Provisions
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	A Cal-OSHA permit, if required: Permit No. _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	As-Built Plans Submittal Route Slip for Locally Advertised Projects
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Storm Water Pollution Protection Plan

In addition to fee, the permittee will be billed actual costs for:

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Review
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Inspection
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Field Work

(if any Caltrans effort expended)

Yes No The information in the environmental documentation has been reviewed and considered prior to approval of this permit

This permit is void unless the work is completed before **November 15, 2015**

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.

No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

A CHRISTIAN
D MORGAN
T CAMPER

M SILLS
D YORK
K SARTORIUS

C BLUNDELL+2
D CARDIFF
D HILL

APPROVED:

CHARLES C. FIELDER, District Director

BY:



JAMES T. VAN BONN, P.E., District Permit Engineer

FILE

D.P.E.

Permit Writer: LF

**EXHIBIT A, Attachment 1
(Additional Specifications)**CAL FIRE
0114-N-RC-0357
01-MEN-20-7.53 (RT)**SPECIAL PROVISIONS**

In addition to the attached Encroachment Permit General Provisions, Form TR-0045, the following special provisions are applicable:

1. NOTIFY NORTH REGION TRANSPORTATION PERMIT OFFICE
2. Permittee's attention is directed to Caltrans 2010 Standard Specifications Section 12-4.03, "Closure Schedule and Conditions."
3. NOTIFICATION FOR LANE OR SHOULDER CLOSURES
4. By noon Monday of the week prior to the planned work, the Permittee/Contractor must fax or email to the Department's Representative at 707-463-4736 a written schedule of planned closures for the following week periods defined as Sunday Noon through the following Sunday Noon. The term closure, as used herein, is defined as the closure of a traffic shoulder, lane or lanes, including ramps or connector lanes, within a single traffic control system. The closure Schedule must take the form of the attached District 1 Lane Closure Request Form furnished by the District Permit Engineer and shall show the locations and times when the proposed closures are to be in effect. Include times of closures under the "Details" paragraph at the bottom of the page. Closure Schedules submitted to the Department's Representative and Traffic Operations with incomplete, unintelligible or inaccurate information will be returned for correction and resubmittal. It is the Contractor/Permittee's responsibility to confirm approval of the Lane Closure Request Form prior to beginning any days work. Permittee must also notify the Department's Representative if a scheduled closure is cancelled.
5. Permittee must immediately communicate with the Caltrans District 1 Transportation Management Center by telephone at (707) 441-5747 at the time a lane or shoulder closure are placed, and again when the closure are picked up or when a planned closure on the written schedule is cancelled. If no answer is received by calling (707) 441-5747, the Permittee must call (707) 441-5774 and leave a message that updates the status of the closure. Permittee must provide the following information; Permittee's name, encroachment permit number, location (county, route and post mile limits), direction of closure (e.g. southbound, eastbound, full road), and the time when installing or ending the closure. For weekends and after hours, Permittee must leave a message at the above telephone number, with the details as indicated. Permittee must also notify Encroachment Permits office if a scheduled closure is cancelled. Permittee **MUST** call to report status each day a closure has been requested. Traffic control is not authorized unless Permittee complies with these requirements.
6. PRE-CONSTRUCTION REQUIREMENTS
7. The taper on the eastern end of the driveway acceleration lane should be 4:1 or longer. Example: if lane is 12' wide, minimum taper would be 48 feet in length back to the highway. Since the minimum taper length on a turnout is 50 feet, that is the number which should be used.
8. The existing curve warning sign for eastbound should be relocated to the back side of the ditch line once the driveway has been installed.
9. The new road approach slopes must be 1.5:1 or less.
10. Road approach width must be 20 feet.
11. The approach wing must be longer and wider at the east end than Caltrans standards as directed by the Department's Representative in the field.
12. The approach must be paced back to the apex of the slope which will exceed 33' setback for paving so that sediment will not run into the traveled way.
13. The existing paved road approach at PM 7.56, built under EP #0181-N-RA-0033 must be obliterated during the construction of the new road approach leaving only the existing apron and drainage.
14. Stop bar and stop sign must be placed on Calfire property behind the 30' right-of-way easement.
15. A dotted line should be placed in lieu of a solid edge line at the road approach apron to the west and continue to the end of the apron at the east end where the solid line would begin.
16. GENERAL
17. Failure to comply with any terms of this encroachment permit may be grounds for denial of future permits.
18. If Permittee decides to utilize a contractor for any work authorized under this encroachment permit, Permittee must submit a rider request. In addition, your contractor is required to apply for and obtain an encroachment permit prior to start of work. A

**EXHIBIT A, Attachment 1
(Additional Specifications)**CAL FIRE
0114-N-RC-0357
01-MEN-20-7.53 (RT)**SPECIAL PROVISIONS**

fee/deposit of \$492.00 is required at the time of application. The decision regarding a performance bond and amount will be decided at the time of application.

19. DRIVEWAY, COMMERCIAL

20. Permittee's attention is directed to Pre-Construction Requirements above.

21. Asphalt Concrete or PCC pavement must be saw-cut at conform location.

22. Excavations made within the limits of the right of way must be backfilled before leaving the work for the night unless otherwise authorized by Department's Representative. After backfilling, temporary surfacing must be placed if required by Department's Representative.

23. The Permittee must contact Department's Representative before placing structural section materials for the roadway pavement.

24. The approach fill area must slope away from the highway pavement or improved shoulder and must be so constructed as to avoid any flowing water reaching the traveled way and to avoid pocketing or ponding of water.

25. If not shown on project plans, the road approach or driveway must conform to the "Standard Private and Commercial Road Approach in Rural Areas with Unimproved Frontage on Conventional State Highway".

26. TRAFFIC STRIPING, MARKINGS, AND SIGNS

27. Permittee's attention is directed to Pre-Construction Requirements above.

28. Traffic striping, pavement markings and signs must be furnished and placed by the Permittee and the cost shall be borne by the Permittee. Where new asphalt concrete has been placed, painted striping and pavement markings must be installed within 24-hours.

29. Where shown on the plans, after thirty (30) days curing time, thermoplastic materials must be applied in compliance with Section 84 of the Standard Specifications.

30. Roadside signs must be placed at locations shown on the permit plans and must be installed in compliance with the latest edition of Caltrans Standard Plans.

31. Permittee must furnish to Department's Representative a completed Form CEM-3101 "Notice of Materials to be Used," and approval of the material used must be obtained prior to its installation.

32. DRAINAGE

33. All drainage work must be completed as shown on the submitted plans. There must be no pocketing or ponding of water.

34. EXCAVATIONS

35. Your attention is directed to Standard Specifications 2010 Section 5-1.36, "Property and Facility Preservation," and Business and Professions Code, Section 8871. Permittee shall physically inspect the work site and locate ALL survey monuments before work commencement. Monuments that might be disturbed shall be referenced or reset in accordance with Business and Professions Code.

36. If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved surfaces, shall be constructed in accordance with Caltrans Standard Specification 2010 Section 81, "Monuments," and Caltrans Standard Plans 2010 A74, "Survey Monuments," Type D or equal with prior approval of the District Surveys Engineer.

37. Copies of Corner Records filed or Record of Surveys recorded in compliance with the Business and Professions Code shall be forwarded to the District Surveys Engineer.

38. TRAFFIC CONTROL

39. Encroachment Permit General Provisions #13, "Pedestrian and Bicyclist Safety," is modified by deleting the reference of Section 7-1.09 and replacing it with Section 7-1.04.

40. All traffic control systems, including but not limited to lane and/or shoulder closures, require an approved Lane Closure Request Form in conformance with Caltrans standards which includes Caltrans Standard Specifications, Standard Plans, MUTCD and approval by the Department's Representative.

41. TRAFFIC CONTROL SYSTEM: When personnel or vehicles or work encroach upon the highway traveled way (white edge stripe), reversing, one-way traffic control must be performed in compliance with the submitted Caltrans Revised Standard Plans T13, attached, during allowed closure timeframes unless a different traffic control plan has been approved by the District Permit

**EXHIBIT A, Attachment 1
(Additional Specifications)**

CAL FIRE
0114-N-RC-0357
01-MEN-20-7.53 (RT)

SPECIAL PROVISIONS

- Engineer. Additional advance flaggers may be required as determined by the Department's Representative due to sight distance concerns.
42. **TRAFFIC CONTROL RESTRICTIONS:** Traffic control measures shall not be placed during inclement weather or when the roadway is icy or frozen.
 43. **LANES OPEN TO PUBLIC:** Caltrans Standard Specifications 7-1.04, "Public Safety," is modified from "Do not reduce an open traffic lane width to less than 10 feet." to "... less than 12 feet." When construction operations are not actively in progress, all lanes must be open to public traffic.
 44. **EXISTING HIGHWAY FACILITIES**
 45. If existing public or private utilities conflict with the construction Project, Permittee will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. Permittee shall inspect the protection, relocation, or removal of such facilities. Total cost of such protection, relocation, or removal which State or Permittee must legally pay, will be borne by Permittee. If any protection, relocation, or removal of utilities is required, including determination of liability for cost, such work shall be performed in accordance with State policy and procedure. Permittee shall require any utility company performing relocation work in the State's right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities shall be correctly located and identified on the as-built plans.
 46. **OTHER REQUIREMENTS**
 47. After completion of the authorized work, please complete and mail the attached "Notice of Completion" postal card.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STORM WATER SPECIAL PROVISIONS for MINIMAL or NO IMPACT
TR-0400 (Rev 09/2012)

Page 1 of 2

- 1. GENERAL:** The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP) that would require a waste discharge identification number or coverage under the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*). The Permittee shall comply with the following Special Provisions and the direction of the State Representative.
- 2. NPDES REQUIREMENTS:** The Permittee shall be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements. It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices before performing daily work activities. Installation and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, and 9) illicit connection, illegal discharge detection and reporting. The Permittee shall report to the state representative when discharges enter into receiving waters, adjacent property, drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee shall also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency shall be provided to the State representative within 48 hours of reported activity. For additional information on storm water compliance, visit the State Water Resources Control Boards storm water Website at http://www.waterboards.ca.gov/water_issues/programs/stormwater
- 3. RESPONSIBILITY FOR DEBRIS REMOVAL:** The Permittee shall be responsible for preventing sediment, trash, debris, and other construction waste from entering the street, the storm drains, local creeks, or any other bodies of water.
- 4. SPOILS AND RESIDUE:** The Permittee shall vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. shall be washed into a drainage system.
- 5. SWEEPING:** Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective. Roadways or work areas shall not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of the State of California standard specifications for construction (most current version) <http://www.dot.ca.gov/hq/esc/oe/specifications/SSPs/2010-SSPs/>
- 6. VEHICLES AND EQUIPMENT:** Permittee shall prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.
- 7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT:** Maintenance and fueling of equipment shall not result in any pollution at the job site. The Permittee shall immediately clean up spills/leaks, and properly dispose of contaminated soil and materials.
- 8. CLEANING VEHICLES AND EQUIPMENT:** Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. The Permittee shall clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc shall be used in State right of way. Any water from this operation shall be collected and disposed of at an appropriate site. Containment berms or dikes shall be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain. Keep adequate quantities of absorbent spill-cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.
- 9. DIESEL FUELS:** The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.
- 10. WEATHER CONDITIONS AT WORKSITE:** Any activity that would generate fine particles or dust that could be transported off site by stormwater shall be performed during dry weather.
- 11. HOT MIX ASPHALT:** Runoff from washing hot mix asphalt shall not enter into any drainage conveyances.
- 12. PROTECTION OF DRAINAGE FACILITIES:** The Permittee shall protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of the State of California standard specifications for construction (most current version). No such protection measures shall cause an obstruction to the traveling public. The Permittee shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site in accordance to section 13-4.03B(1-3) Spill Prevention and Control, Water Pollution Control, of the State of California standard specifications for construction (2010 version).
- 13. PAINT:** Rinsing of painting equipment and materials is not permitted in state right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner shall be disposed of at an approved hazardous waste site.
- 14. CONSTRUCTION MATERIALS:** Stockpile of all construction materials, including, but not limited to: pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, shall conform to section 13-4.03C Material Management (Storage & Stockpiles), Water Pollution Control, of the State of California standard specifications for construction (2010 version).
- 15. CONCRETE EQUIPMENT:** Concrete equipment shall be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION
STORM WATER SPECIAL PROVISIONS for MINIMAL or NO IMPACT
TR-0400 (Rev 09/2012)

Page 2 of 2

16. EXISTING VEGETATION: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation shall be replaced as directed by the State Representative.

17. SOIL DISTURBANCE: Soil disturbing activities shall be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures shall be implemented in advance of soil disturbing activity.

18. SLOPE STABILIZATION AND SEDIMENT CONTROL: Consider a certified expert in Erosion and Sediment control in cases where slopes are disturbed during construction. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization and Section 21 Erosion Control of the State of California (2010 version) standard specifications for construction during application of temporary soil stabilization measures to the soil surface. Fiber rolls or silt fences may be required down slope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height.

19. STOCKPILES: Stockpiles containing aggregate and/or soil shall be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and shall be covered and protected with a temporary perimeter sediment barrier. Cold mix stockpiles shall be stored on an impermeable surface and covered with 9mil plastic to prevent contact with water.

20. DISCOVERY OF CONTAMINATION: The State Representative shall be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.

21. SANITARY AND SEPTIC WASTE: Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.

22. LIQUID WASTE: Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other nonstorm water liquids not covered under separate waste water permits shall be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal

23. WATER CONTROL AND CONSERVATION: Manage water use in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Direct runoff water, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with jobsite water.

24. PILE DRIVING: Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans,

absorbent pads, or plastic sheeting with absorbent material, and away from storm water run-on when not in use.

25. DEWATERING: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations shall comply with the latest Caltrans guidelines. Contact State representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee shall provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.01B Submittals, Water Pollution Control, of the State of California standard specifications for construction (2010 version). A copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board shall be provided to the State representative.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 05/2007)

1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
2. **REVOCAION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.09 Public Safety of the Department Standard Specifications.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. While providing traffic control, the needs and control of all road users [motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA)] shall be an essential part of the work activity.

Day and night time lane closures shall comply with the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control), Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the California Manual on Uniform Traffic Control Devices (Chapter 6E, Flagger Control).
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this specific encroachment permit. If Encroachment Permit Special Provisions allow for the storage of equipment or materials within the State right of way, the equipment and material storage shall comply with Standard Specifications, Standard Plans, Special Provisions, and the Highway Design Manual. The clear recovery zone widths must be followed and are the minimum desirable for the type of facility indicated below: freeways and expressways - 30', conventional highways (no curbs) - 20', conventional highways (with curbs) - 1.5'. If a fixed object cannot be eliminated, moved outside the clear recovery zone, or modified to be made yielding, it should be shielded by a guardrail or a crash cushion.
17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).

**EXHIBIT A, Attachment 1
(Additional Specifications)**

19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.
20. **COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.
21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, permittee shall submit one (1) set of folded as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:
1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
 2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
 4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
 5. As-Built plans shall contain the Permit Number, County, Route, and Post Mile on each sheet.
 6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.
24. **BONDING:** The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the permittee shall comply with said notice at his sole expense.
26. **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
28. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.
- The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

29. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**
 A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:
 1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
 2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
 3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.
 4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
 5. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.
31. **MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

The permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

33. **PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State.

The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

34. **FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.
35. **NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.

**EXHIBIT A, Attachment 1
(Additional Specifications)****STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT STEEL PLATE BRIDGING UTILITY PROVISIONS
TR -0157 (Rev. 07/2009)**

To accommodate excavation work, steel plate bridging may be necessary. All conditions for use of steel plate bridging should be set forth in the special provisions.

Consideration of steel plate bridging should take into account the following factors:

1. Traffic speed.
2. Traffic Volume and Composition.
3. Duration and dimensions (width & daily estimated lengths) of the proposed excavation.
4. Weather conditions.

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring (see Trenching & Shoring) may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging on freeways is not allowed.
2. Steel plates used for bridging must extend a minimum of 12" beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, (as mentioned in Section 629 of the Encroachment Permits Manual) to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

As required by the district, steel plate bridging and shoring shall be installed using either Method (1) or (2):

Method 1 For speeds of 45 MPH or greater:

The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other.

Method 2 For Speeds less than 45 mph:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry, epoxy or an equivalent that is satisfactory to the Caltrans' representative.

The permittee is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications. Unless specifically noted or granted in the special provisions, or approved by the State representative, steel plate bridging shall not exceed 4 consecutive working days in any given week. Backfilling of excavations shall be covered with a minimum 3" temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

Trench Width	Minimum Plate Thickness
10"	One-half inch - 1/2"
1'-11"	Three-quarters inch - 3/4"
2'-7"	Seven-eighths inch - 7/8"
3'-5"	One inch - 1"
5'-3"	One & three-quarter inch - 1 3/4"

NOTE: For spans greater than 5'-3", a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right of way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and should reject any plate that is permanently deformed.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H, Encroachment Permits Manual). If a different test method is used, the permittee may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

Caltrans Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. However, an inspector should document in a diary all contacts with the contractor.

A Rough Road sign (W8-8) with black lettering on an orange background may be used in advance of steel plate bridging. This sign is used along with any other required construction signing.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

**EXHIBIT A, Attachment 1
(Additional Specifications)**



DISTRICT 1 ENCROACHMENT PERMITS LANE CLOSURE REQUEST FORM

- Every Monday by noon, submit a schedule of planned closures for the next week period. The next week period is defined as Sunday noon through the following Sunday noon.
- Fax this form to (707)-463-4736

Requestor Name: _____ Field Contact (if different): _____

Company: _____ Company: _____

Contact #: _____ Contact #: _____

Encroachment Permit # 0114-6-RC-0357

Start Date of Planned Work: _____ End Date of Planned Work: _____

Days(s): Sun PM Mon Tues Weds Thurs Fri Sat Sun AM

County	Route	Post Mile or Cross road		Time	
		Start	End	Start	End

Direction (check all that apply): NB SB EB WB

Types of Closure (check all that apply):

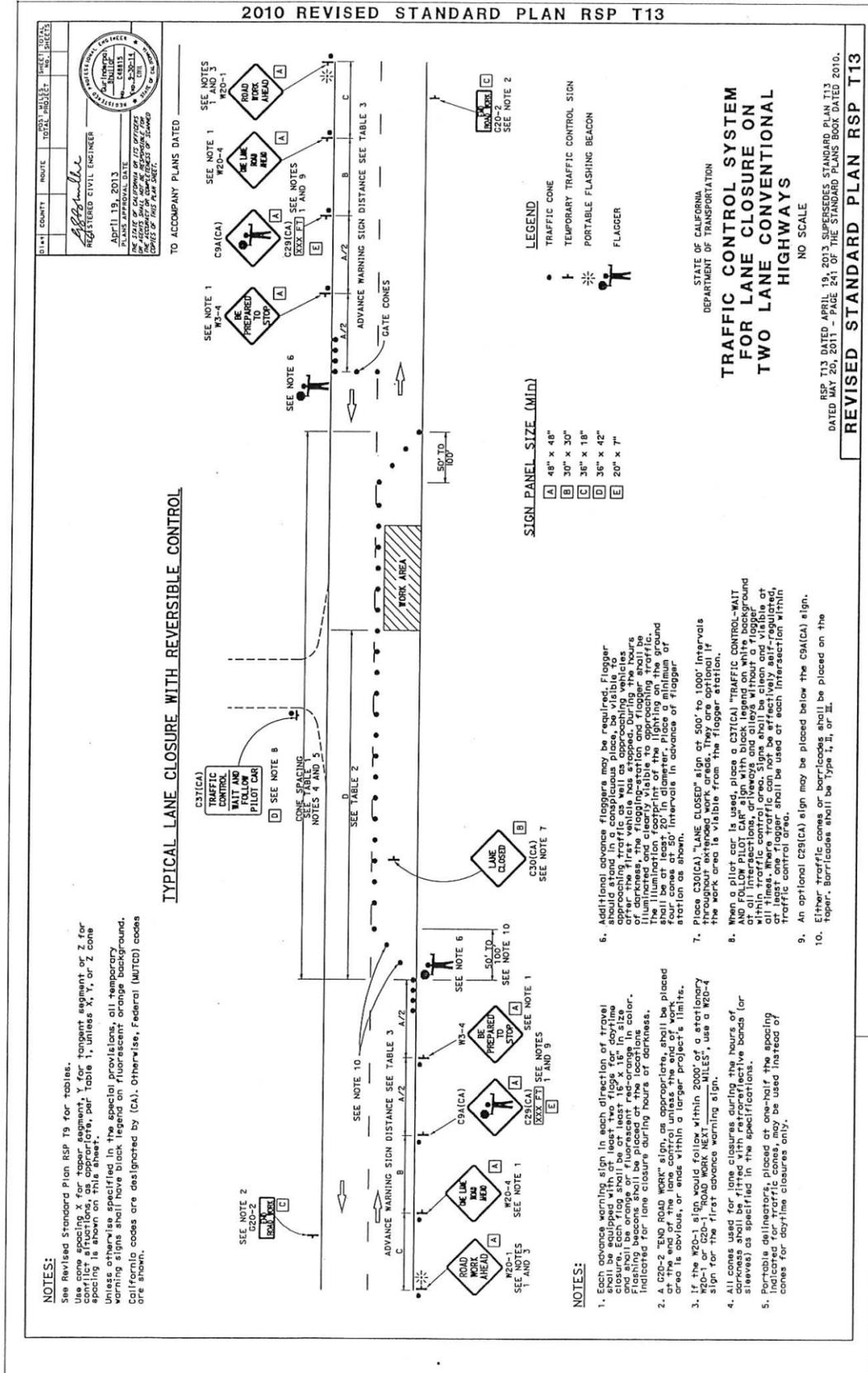
Lane Closure One Way Controlled Full Closure Moving Closure

CHP Break Ramp Closure Shoulder Closure

Estimated Delay: _____ Minutes Describe Planned Work: _____

Additional details: _____

**EXHIBIT A, Attachment 1
 (Additional Specifications)**



RSP T13 DATED APRIL 19, 2013, SUPERSEDES STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.
REVISED STANDARD PLAN RSP T13

**EXHIBIT A, Attachment 1
 (Additional Specifications)**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STANDARD ENCROACHMENT PERMIT APPLICATION
 TR-0100 (REV. 07/2007)

Permission is requested to encroach on the State Highway right-of-way as follows:
 (Complete all BOXES [write N/A if not applicable] Please print single sided)
 This application is not complete until all requirements have been approved.

FOR CALTRANS USE	
PERMIT NO.	0114-N-RC-0357
DIST/CO/RTE/PM	01-MEN-20-7.54
SIMPLEX STAMP	140357
DATE OF SIMPLEX STAMP	10-6-14

1. COUNTY MENDOCINO		2. ROUTE 20		3. POSTMILE 7.54	
4. ADDRESS OR STREET NAME N/A			5. CITY near FT. BRAGG		
6. CROSS STREET (Distance and direction from site) approx. 0.9 mi E to SR-20 x CR-408			7. PORTION OF RIGHT-OF-WAY SOUTH SHOULDER		
8. WORK TO BE PERFORMED BY <input type="checkbox"/> OWN FORCES <input checked="" type="checkbox"/> CONTRACTOR		9. EST. START DATE MAY 2015		10. EST. COMPLETION DATE NOV 15, 2015	
11. EXCAVATION	MAX. DEPTH 12ft	AVG. DEPTH 5ft	AVG. WIDTH 8ft	LENGTH 210ft	SURFACE TYPE NATURAL
12. EST. COST IN STATE HIGHWAY RIGHT-OF-WAY \$15,000			FUNDING SOURCE(S) <input type="checkbox"/> FEDERAL <input checked="" type="checkbox"/> STATE <input type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE		
13. PIPES	PRODUCT TYPE N/A	DIAMETER N/A	VOLTAGE / PSIG N/A	14. CALTRANS' PROJECT CODE	

15. Double Permit Parent Permit Number _____
 Applicant's Reference Number / Utility Work Order Number _____

16. Have your plans been reviewed by another Caltrans branch? NO YES (If "YES") Who? _____

17. Completely describe work to be done within STATE highway right-of-way :
 Attach 6 complete sets of plans (folded to 8.5" x 11"), and any applicable specifications, calculations, maps, etc.
 All dimensions shall be in U.S. Customary (English) Units.

The California Department of Forestry & Fire Protection, Jackson Demonstration State Forest, proposes to enter the highway right-of-way on State Route 20 to construct a new commercial road approach to provide access for forest management activities, including timber harvest, recreation, protection, and administration. Construction of this new road approach will permit abandonment of an older existing permitted road approach which has poor sight distance.

Please see the attached for additional information and details:

- Supplemental information
- Plan schematic
- Profile detail sheets
- Speed survey summary

RECEIVED

OCT 06 2014

PERMITS

18. Is a city, county, or other agency involved in the approval of this project?
 YES (If "YES", check type of project and attach environmental documentation and conditions of approval.)
 COMMERCIAL DEVELOPMENT BUILDING GRADING OTHER _____
 CATEGORICALLY EXEMPT NEGATIVE DECLARATION ENVIRONMENTAL IMPACT REPORT OTHER _____

NO (If "NO", please check the category below which best describes the project, and complete page 4 of this application.)

<input checked="" type="checkbox"/> DRIVEWAY OR ROAD APPROACH, RECONSTRUCTION, MAINTENANCE, OR RESURFACING	<input type="checkbox"/> FENCE
<input type="checkbox"/> PUBLIC UTILITY MODIFICATIONS, EXTENSIONS, HOOKUPS	<input type="checkbox"/> MAILBOX
<input type="checkbox"/> FLAGS, SIGNS, BANNERS, DECORATIONS, PARADES AND CELEBRATIONS	<input type="checkbox"/> EROSION CONTROL
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> LANDSCAPING

19. Will this project cause a substantial change in the significance of a historical resource (45 years or older), or cultural resource?
 (If "YES", provide a description) YES NO

20. Is this project on an existing highway or street where the activity involves removal of a scenic resource including a significant tree or stand of trees, a rock outcropping or a historic building? YES NO (If "YES", provide a description)

21. Is work being done on applicant's property? YES NO (If "YES", attach site and grading plans.)

**EXHIBIT A, Attachment 1
(Additional Specifications)**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

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STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV. 07/2007)

PERMIT NO.

0114-N-RC-0357

22. Will this proposed project require the disturbance of soil? YES NO
If "YES", estimate the area within State Highway right-of-way in square feet AND acres: 3780 (ft²) AND 0.09 (acres)
estimate the area outside of State Highway right-of-way in square feet AND acres: 1150 (ft²) AND 0.03 (acres)
23. Will this proposed project require dewatering? YES NO
If "YES", estimate total gallons AND gallons/month: _____ (gallons) AND _____ (gallons/month)
SOURCE: STORM WATER NON-STORM WATER
(*See Caltrans SWMP for definitions of non-storm water discharge: <http://www.dot.ca.gov/hq/env/stormwater/index.htm>)
24. How will any storm water or ground water be disposed of from within or near the limits of this proposed project?
 Storm Drain System Combined Sewer / Storm System Storm Water Retention Basin
 Other(explain): Via existing highway ditch with new outdrain to follow the new driveway and to drain away from the highway.

PLEASE READ THE FOLLOWING CLAUSES PRIOR TO SIGNING THIS ENCROACHMENT PERMIT APPLICATION.

The applicant, understands and herein agrees that an encroachment permit can be denied, and/or a bond required for non-payment of prior or present encroachment permit fees. Encroachment Permit fees may still be due when an application is withdrawn or denied, and that a denial may be appealed, in accordance with the California Streets and Highways Code, Section 671.5. All work shall be done in accordance with Caltrans rules and regulations subject to inspection and approval.

The applicant, understands and herein agrees to the general provisions, special provisions and conditions of the encroachment permit, and to indemnify and hold harmless the State, its officers, directors, agents, employees and each of them (Indemnitees) from and against any and all claims, demands, causes of action, damages, costs, expenses, actual attorneys' fees, judgments, losses and liabilities of every kind and nature whatsoever (Claims) arising out of or in connection with the issuance and/or use of this encroachment permit and the placement and subsequent operation and maintenance of said encroachment for: 1) bodily injury and/or death to persons including but not limited to the Applicant, the State and its officers, directors, agents and employees, the Indemnitees, and the public; and 2) damage to property of anyone. Except as provided by law, the indemnification provisions stated above shall apply regardless of the existence or degree of fault of Indemnitees. The Applicant, however, shall not be obligated to indemnify Indemnitees for Claims arising from the sole negligence and willful misconduct of State, its officers, directors, agents or employees.

An encroachment permit is not a property right and does not transfer with the property to a new owner

DISCHARGES OF STORM WATER AND NON-STORM WATER: Work within State Highway right-of-way shall be conducted in compliance with all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Department of Transportation (Department), to govern the discharge of storm water and non-storm water from its properties. Work shall also be in compliance with all other applicable Federal, State and Local laws and regulations, and with the Department's Encroachment Permits Manual and encroachment permit. Compliance with the Departments NPDES permit requires amongst other things, the preparation and submission of a Storm Water Pollution Protection Plan (SWPPP), or a Water Pollution Control Program (WPCP), and the approval of same by the appropriate reviewing authority prior to the start of any work. Information on the requirements may also be reviewed on the Department's Construction Website at:

<http://www.dot.ca.gov/hq/construc/stormwater>

25. NAME of APPLICANT or ORGANIZATION (Print or Type) CAL FIRE, Jackson Demonstration State Forest		E-MAIL ADDRESS Dave.Derby@fire.ca.gov	
ADDRESS of APPLICANT or ORGANIZATION WHERE PERMIT IS TO BE MAILED (Include City and Zip Code) 802 N MAIN ST, FORT BRAGG, CA 95437			
PHONE NUMBER 707-964-5674 ext. 113	FAX NUMBER 707-964-0941		RECEIVED
26. NAME of AUTHORIZED AGENT / ENGINEER (Print or Type) N/A	IS LETTER OF AUTHORIZATION ATTACHED? <input type="checkbox"/> YES <input type="checkbox"/> NO	E-MAIL ADDRESS N/A	
ADDRESS of AUTHORIZED AGENT / ENGINEER (Include City and Zip Code) N/A			
PHONE NUMBER N/A	FAX NUMBER N/A		PERMITS
27. SIGNATURE of APPLICANT or AUTHORIZED AGENT 	28. PRINT OR TYPE NAME DAVE DERBY	29. TITLE FORESTER II	

**EXHIBIT A, Attachment 1
 (Additional Specifications)**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STANDARD ENCROACHMENT PERMIT APPLICATION
 TR-0100 (REV. 07/2007)

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PERMIT NO. 0114-N-RC-0357
WORK ORDER/REFERENCE NUMBER

FEE CALCULATION -- FOR CALTRANS USE					
<input type="checkbox"/> CASH <input type="checkbox"/> CREDITCARD NAME ON CARD _____ PHONE NUMBER _____ <input type="checkbox"/> CHECK NUMBER _____ NAME ON CHECK _____ PHONE NUMBER _____ <input checked="" type="checkbox"/> EXEMPT <input type="checkbox"/> PROJECT CODE _____ <input type="checkbox"/> DEFERREDBILLING (Utility)					
CALCULATED BY	(1)		(2)		
REVIEW	1. FEE / DEPOSIT	DATE	2. FEE / DEPOSIT	DATE	TOTAL FEE / DEPOSIT
1. _____ HOURS @ \$ _____ *	\$ _____		\$ _____		\$ _____
2. _____ HOURS @ \$ _____ *			\$ _____		\$ _____
INSPECTION	1. FEE / DEPOSIT	DATE	2. FEE / DEPOSIT	DATE	TOTAL FEE / DEPOSIT
1. _____ HOURS @ \$ _____ *	\$ _____		\$ _____		\$ _____
2. _____ HOURS @ \$ _____ *			\$ _____		\$ _____
FIELDWORK					
_____ HOURS @ \$ _____ *	\$ _____		\$ _____		\$ _____
EQUIPMENT & MATERIALS	DEPOSIT	DATE	DEPOSIT	DATE	DEPOSIT
	\$ _____		\$ _____		\$ _____
CASH DEPOSIT IN LIEU OF BOND	\$ _____		\$ _____		\$ _____
TOTAL COLLECTED	\$ _____		\$ _____		
CASHIER'S INITIALS	_____		_____		\$ _____
* The Standard Hourly Rate is set annually by HQ Encroachment Permits. District Office staff do not have authority to modify this rate.					
PERFORMANCE BOND	<input type="checkbox"/>	DATE			AMOUNT \$
PAYMENT BOND	<input type="checkbox"/>	DATE			AMOUNT \$
LIABILITY INSURANCE REQUIRED?		<input type="checkbox"/> YES <input type="checkbox"/> NO			AMOUNT \$

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(Additional Specifications)**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STANDARD ENCROACHMENT PERMIT APPLICATION
TR-0100 (REV. 07/2007)

Page 4 of 4

PERMIT NO.
0114-N-RC-0357

INSTRUCTIONS
for completing page 4

This page needs to be completed when the proposed project **DOES NOT** involve a City, County or other public agency.

Your answers to these questions will assist departmental staff in identifying any physical, biological, social or economic resources that may be affected by your proposed project within the State highway right-of-way and to determine which type of environmental studies may be required to approve your application for an encroachment permit.

It is the applicant's responsibility for the production of all required environmental documentation and supporting studies and in some cases this may be costly and time-consuming. If possible, attach photographs of the location of the proposed project.

Please answer these questions to the best of your ability. Provide a description of any "YES" answers (type, name, number, etc.)

1. Will any existing vegetation and/or landscaping within the highway right-of-way be disturbed?
YES. Small vegetation within areas of excavation will be removed.
2. Are there waterways (e.g. river, creek, pond, natural pool or dry streambed) adjacent to or within the limits of the project or highway right-of-way? **NO**
3. Is the proposed project located within five miles of the coast line?
NO
4. Will the proposed project generate construction noise levels greater than 86 dBA (e.g. jack-hammering, pile driving)?
NO
5. Will the proposed project incorporate land from a public park, recreation area or wildlife refuge open to the public?
NO
6. Are there any recreational trails or paths within the limits of the proposed project or highway right-of-way?
NO
7. Will the proposed project impact any structures, buildings, rail lines, or bridges within highway right-of-way?
NO
8. Will the proposed project impact access to any businesses or residences?
NO
9. Will the proposed project impact any existing public utilities or public services?
NO
10. Will the proposed project impact existing pedestrian facilities, such as sidewalks, crosswalks, or overcrossings?
NO
11. Will new lighting be constructed within or adjacent to highway right-of-way?
NO

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(Additional Specifications)**

0114-N-RC-0357

SUPPLEMENTAL INFORMATION TO ACCOMPANY ENCROACHMENT PERMIT APPLICATION
CALFIRE - Jackson Demonstration State Forest
01-MEN-20-7.54

Project Description

Jackson Forest Road 490 currently connects to the south side of State Route 20 at Postmile 7.51. This encroachment was constructed under permit number 0181-N-RA-0033 in 1981. There is poor sight distance to the west at this location (approximately 350 feet). The current application proposes to replace the existing approach with a new one 193 feet further to the east, thereby increasing sight distance to the west. Once the new approach is constructed, the old one can be removed. The location chosen for the new approach will provide 572 feet of sight distance to the west and 510 feet to the east.

The siting and configuration of the new approach take into account the connecting road's intermittent use for hauling logs from the State Forest. With the closure of the sawmills on the coast several years ago, virtually all log trucks will turn east (right) onto Highway 20. An acceleration lane is proposed to allow the east-bound trucks to gather speed before merging onto the highway.

A deceleration lane for east-bound vehicles turning off of the highway was considered but rejected for two reasons. First, there will be very few east-bound heavy vehicles making this turn off of the highway. The second reason concerns the frequent use of the paved apron at the existing approach by east-bound traffic as a pull-out to allow passing. A deceleration lane would logically connect to and extend from this existing pavement, resulting in the slower vehicles often continuing onto the paved apron of the new approach and potentially interfering with log trucks stopping at or attempting to enter onto the highway. The paved area at the existing approach will be retained for this use as a pull-out when Forest Road 490 is realigned to the new approach location.

The new road approach is designed to slope away from the highway to the south at about 6% via an excavation through the high ground to the south. However, because of the super-elevation of the highway, a slight vertical curve will be appropriate in order to avoid an abrupt grade change at the transition from the side road to the highway.

The existing drainage ditch from the east along the highway shoulder will be continued adjacent to the acceleration lane and then turned to the south around the paved apron flare and alongside the new road. On the west side of the approach, drainage next to the highway will be into the existing ditch.

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PERMITSSight Distance and Prevailing Speed

Included in this application are the results of a traffic speed survey that was conducted to determine the adequacy of the available sight distances in each direction. The survey documents 85th percentile speeds of 50 mph westbound and 49 mph eastbound, and concludes that the corresponding stopping sight distance of 430 feet is exceeded by the available sight distances of 572 feet (west) and 510 feet (east).

Design and Construction Features

Note: Unless otherwise stated, the datum for longitudinal distances is the intersection of the centerline of the new road approach and the south edge of travel way (fog line). Transverse distances are from the south fog line.

The highway at the approach location is super-elevated at a slope of about 3 degrees (6%) away from the new road connection. The highway is two 12-foot lanes with gravel shoulder widths varying from 2.1 to 9.3 feet through the encroachment area. A cut bank from 2 feet to 13 feet high and from ¾:1 to almost vertical runs above the ditch and shoulder, with native slopes above the top of the cut bank ranging from -3% to 30%.

Highway grade through the encroachment is uphill west-to-east at 3.5%.

Right-of-Way width through the encroachment area is 30 feet from the highway centerline, or 18 feet from the fog line. All encroachment activity is within Jackson Demonstration State Forest.

The approach will comply with the specifications for a Standard Commercial Driveway Approach as provided by the Ukiah Permit Office, specifically:

- 20-foot minimum driveway width
- 33-foot radius apron flare
- 50-foot driveway taper
- 41-foot limit of mandatory paving from edge of travel way
- 6-inch minimum depth of aggregate base
- 4-inch minimum asphalt concrete

Additional specifications:

- The east-bound acceleration lane will be paved for a minimum width of 10 feet for a distance of 110 feet from the datum. It will then taper to the highway for another 25 feet.
- Within the highway right-of-way, a 2-foot gravel shoulder will be provided adjacent to the edge of the new pavement.
- Excavated cut slopes within or directly adjacent to the highway right-of-way will be laid back to no steeper than 1½:1 wherever possible, but in no case steeper than 1:1, and will be treated by hydro-seeding or an equivalent treatment.
- The existing highway pavement will be saw-cut before the new apron is joined to it.

**EXHIBIT A, Attachment 1
(Additional Specifications)**

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- Lane closure will be required in accordance with standard provisions.
- It is anticipated that a "STOP" sign and bar will be required.
- The State Forest's construction contractor will be required to obtain a "Double Permit" and to pay applicable fees.

Discussion of Items on the Application Form

Items 9-10: We are requesting a 12-month completion window to allow flexibility in scheduling with the contractor. However, once initiated, work should be completed within one month.

Item 11: The heights entered reflect the extent of excavation within the highway right-of-way. Additional excavation will occur beyond the right-of-way, but will not exceed the maximum depth of 12 feet noted in this Item.

Item 22, The estimate of the area of soil disturbance outside the right-of-way reflects the area of excavation only as far as the 41-foot limit of mandatory paving. Additional soil disturbance from road construction will occur beyond this limit, but is not considered part of the road approach construction.

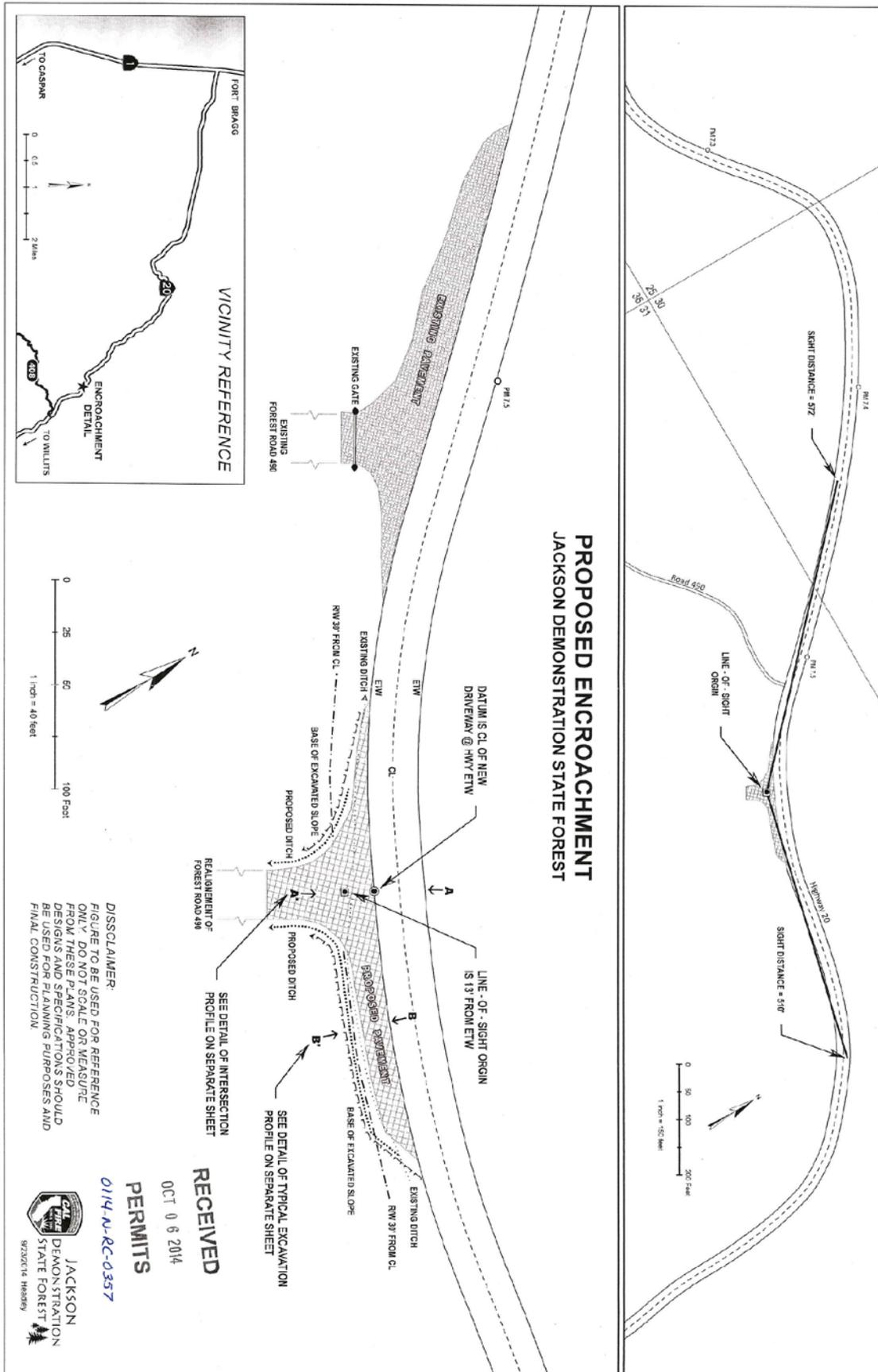
Page 4, Item 1: There are only tree saplings and brush within the portions of the highway right-of-way that will be affected by this project. This vegetation will be removed during the course of excavation for the approach construction.

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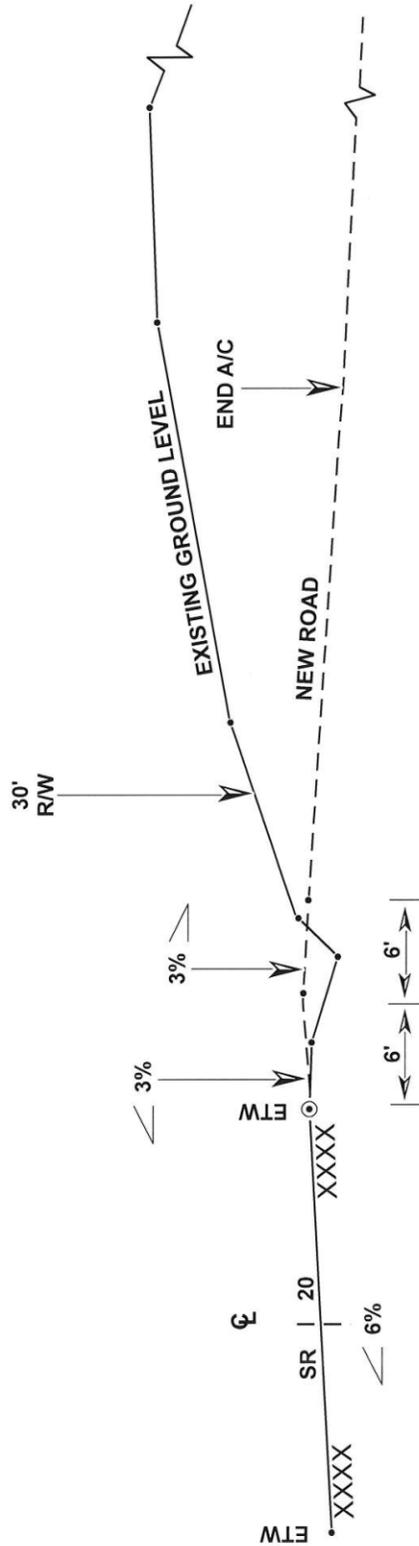
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(Additional Specifications)**



**EXHIBIT A, Attachment 1
(Additional Specifications)**

**EXCAVATION PROFILE THROUGH A-A' (TYPICAL)
1" = 10'**

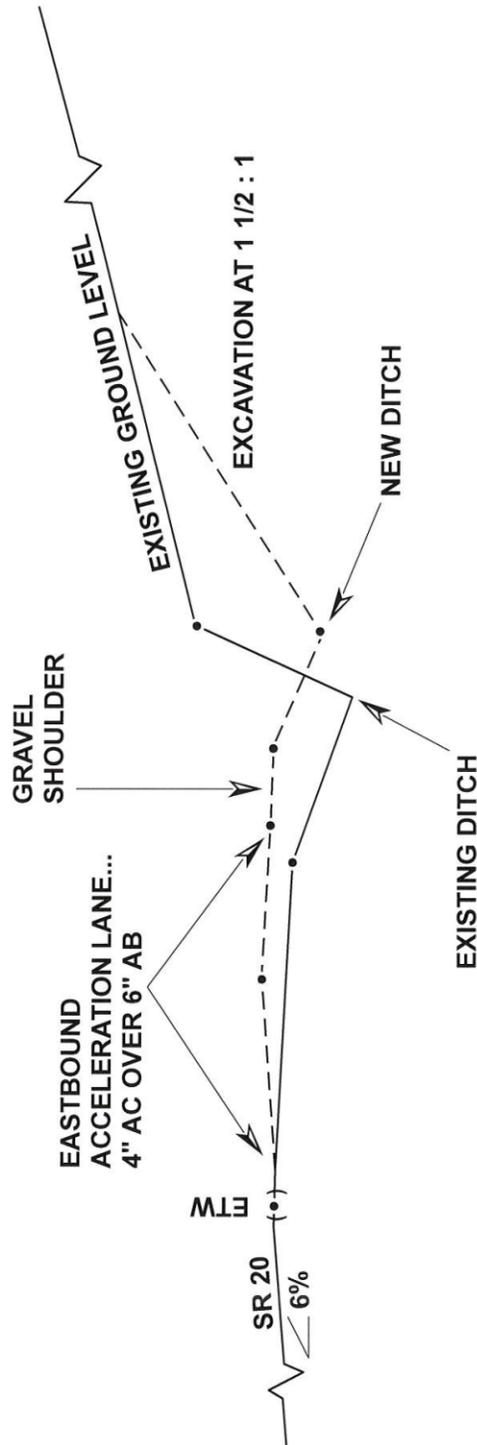


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EXCAVATION PROFILE THROUGH B-B' (TYPICAL)

1" = 5'



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STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY

Edmund G. Brown Jr., Governor



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Northern Region
135 Ridgway Ave.
Santa Rosa, CA 95401
(707) 576-2923
Website: www.fire.ca.gov



August 11, 2014

Speed Survey, Highway 20 (PM 7.54), Mendocino County

To Whom It May Concern:

A Speed Survey was conducted on Friday, July 11, 2014, in the Jackson Demonstration State Forest (JDSF) to determine the 85th Percentile Speed. A proposed driveway at Road 490 (Post Mile 7.54) and State Highway 20, in Mendocino County, has limited sight distance to the east and west.

The Speed Survey was done according to the California Manual for Setting Speed Limits, Chapter 3, Engineering and Traffic Surveys (E&TS). The Speed Survey zone was 1,058 feet, and the speeds were calculated using digital stopwatches and two observers who were hidden from view. The weather was clear, and the road surface was dry. The survey started at 10:45 am and ended at 3:45 pm. The Posted Speed Limit is 55 mph.

The 85th Percentile Speed was determined to be 50mph (westbound) and 49mph (eastbound). According to the Caltrans Highway Design Manual, Chapter 200, Geometric Design and Structure Standards, for an 85th Percentile Speed of 50mph (Table 201.1), the Stopping Sight Distance is 430 feet. The actual measured Sight Distance from the proposed driveway (PM 7.54) is 572 feet to the West and 510 feet to the East.

There are adequate Sight Distances from the proposed driveway on Highway 20.

Please contact me if you have any further questions.

Albert Lau
Associate Civil Engineer
CAL FIRE
Tech Services, Northern Region
(707) 696-7120 Cell
Albert.Lau@fire.ca.gov



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Prevailing Speed Survey	
Highway 20 at Road 490 (post mile 7.54)	
Distance:	1,058 feet
Friday, July 11, 2014	
Start Time: 10:45 am ... End Time: 3:45 pm	
Timing Device:	digital electronic stopwatch
Timers:	Erik Snow, Nochella Ozard

Study procedure and results certified by:
 John Griffen, Reg. Prof. Forester #1737
 Calif. Dept. of Forestry & Fire Protection

- Notes:
1. This study was conducted as part of the planning for a proposed new road encroachment onto Highway 20 to replace the existing Road 490 encroachment at PM 7.51.
 2. A total of 100 observations in each direction was deemed an adequate sample size.
 3. Data in the table is sorted by Speed. It is not in the order in which vehicles were observed.
 4. 85th Percentile Speed was calculated per the California Manual for Setting Speed Limits, Chapter 3, Engineering and Traffic Surveys (E&TS)
 5. Vehicle speed was converted from feet/second to miles/hour by a factor of 0.6818 mph per ft/sec.

WESTBOUND	
Results	
85th Percentile:	50 MPH
Range of Observations :	35-60 MPH
Standard Deviation :	4.9 MPH

EASTBOUND	
Results	
85th Percentile:	49 MPH
Range of Observations :	25-56 MPH
Standard Deviation :	5.5 MPH

Data			
Elapsed Time (sec)	Vehicle Type *	Speed	
		Feet/sec	Miles/hr
12.00	car	88.17	60
12.45	MC	84.98	58
12.88	car	82.14	56
13.05	car	81.07	55
13.26	car	79.79	54
13.37	car	79.13	54
13.49	car	78.43	53
13.65	car	77.51	53
13.72	car	77.11	53
13.84	car	76.45	52
14.06	MC	75.25	51
14.14	car	74.82	51
14.23	car	74.35	51
14.29	PU	74.04	50
14.40	car	73.47	50
14.43	car	73.32	50
14.45	car	73.22	50
14.58	car	72.57	49
14.63	PU	72.32	49
14.78	car	71.58	49
14.90	car	71.01	48
14.96	PU	70.72	48
15.03	car	70.39	48
15.36	PU	68.88	47
15.39	car	68.75	47
15.39	car	68.75	47
15.41	car	68.66	47
15.41	car	68.66	47
15.52	car	68.17	46
15.73	PU	67.26	46
15.76	PU	67.13	46
15.76	PU	67.13	46
15.78	car	67.05	46
15.80	PU	66.96	46
15.83	PU	66.84	46
15.85	car	66.75	46
15.87	car	66.67	45
15.87	PU	66.67	45
15.90	car	66.54	45
15.92	PU w/ trl	66.46	45
15.95	PU	66.33	45
15.95	car	66.33	45
15.95	car	66.33	45

Data			
Elapsed Time (sec)	Vehicle Type *	Speed	
		Feet/sec	Miles/hr
12.90	trk	82.02	56
12.93	PU	81.83	56
13.45	PU	78.66	54
13.68	car	77.34	53
13.70	car	77.23	53
13.83	PU	76.50	52
13.83	car	76.50	52
13.85	car	76.39	52
13.90	PU	76.12	52
14.30	PU	73.99	50
14.36	trk	73.68	50
14.55	PU	72.71	50
14.63	PU	72.32	49
14.65	PU	72.22	49
14.71	PU	71.92	49
14.85	PU	71.25	49
14.88	car	71.10	48
14.95	car	70.77	48
15.03	car	70.39	48
15.16	car	69.79	48
15.30	PU	69.15	47
15.33	car	69.02	47
15.38	car	68.79	47
15.51	car	68.21	47
15.51	PU	68.21	47
15.53	PU	68.13	46
15.63	car	67.69	46
15.63	PU	67.69	46
15.75	car	67.17	46
15.83	PU	66.84	46
15.85	PU	66.75	46
15.86	PU	66.71	45
15.88	car	66.62	45
15.90	PU	66.54	45
15.90	car	66.54	45
15.93	car	66.42	45
16.02	car	66.04	45
16.18	PU	65.39	45
16.18	car	65.39	45
16.18	PU	65.39	45
16.30	car	64.91	44
16.33	car	64.79	44
16.36	car	64.67	44

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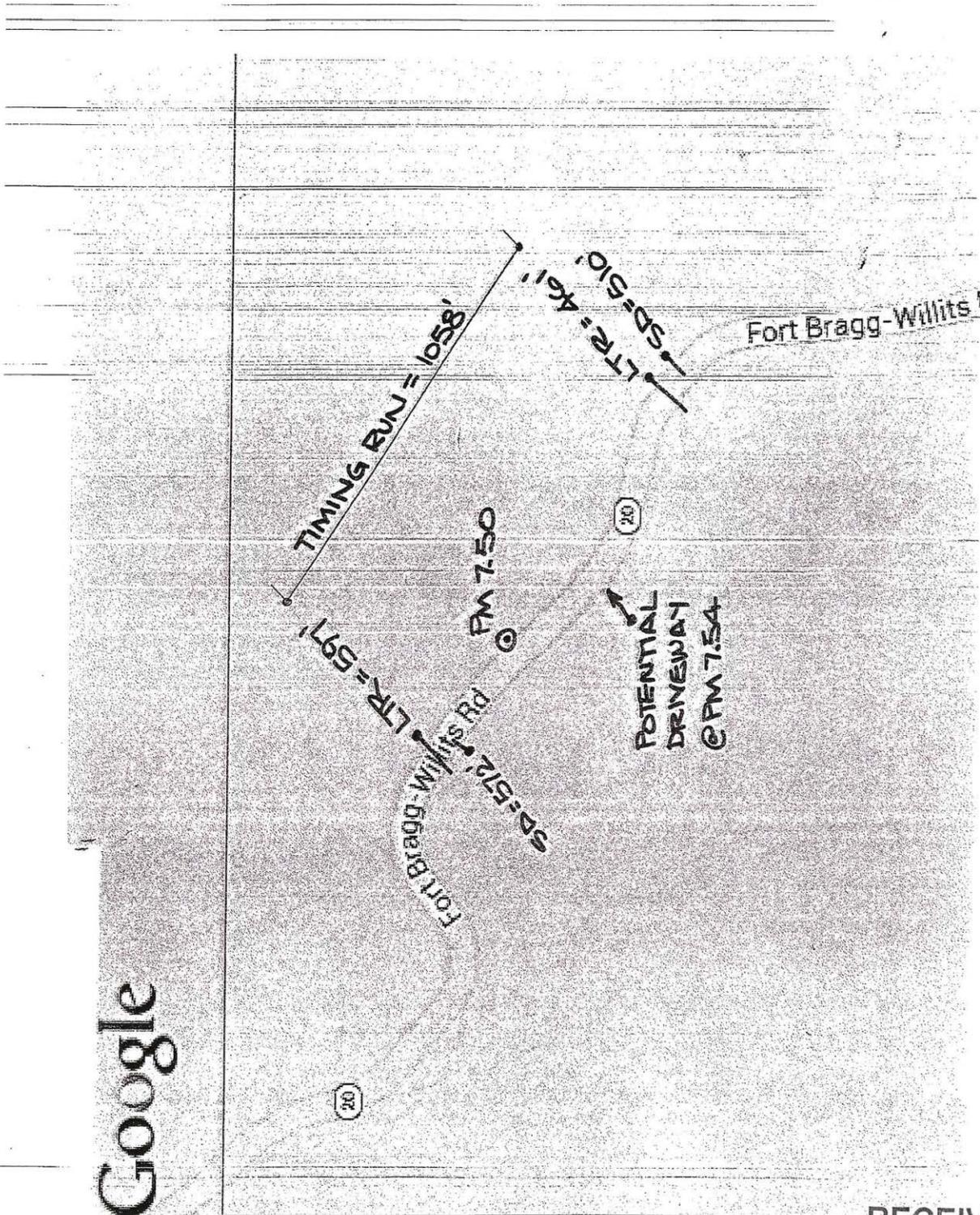
Data				Data			
Elapsed Time (sec)	Vehicle Type *	Speed		Elapsed Time (sec)	Vehicle Type *	Speed	
		Feet/sec	Miles/hr			Feet/sec	Miles/hr
16.01	car	66.08	45	16.36	car	64.67	44
16.04	car	65.96	45	16.38	PU	64.59	44
16.10	trk	65.71	45	16.46	car	64.28	44
16.19	car	65.35	45	16.57	car	63.85	44
16.28	PU	64.99	44	16.70	car	63.35	43
16.32	trk	64.83	44	16.72	car	63.28	43
16.36	car	64.67	44	16.80	PU	62.98	43
16.46	PU	64.28	44	16.81	car	62.94	43
16.49	car	64.16	44	16.86	car	62.75	43
16.59	car	63.77	43	16.88	car	62.68	43
16.60	car	63.73	43	16.88	car	62.68	43
16.61	PU	63.70	43	16.88	car	62.68	43
16.64	PU	63.58	43	16.91	PU	62.57	43
16.67	car	63.47	43	16.98	car	62.31	42
16.69	PU	63.39	43	17.01	car	62.20	42
16.79	trk w/ trl	63.01	43	17.03	PU	62.13	42
16.82	car	62.90	43	17.08	PU	61.94	42
16.82	car	62.90	43	17.20	trk	61.51	42
16.82	car	62.90	43	17.22	PU	61.44	42
16.86	RV	62.75	43	17.26	MC	61.30	42
16.87	PU	62.71	43	17.30	car w/ trl	61.16	42
16.87	car	62.71	43	17.38	car	60.87	42
16.88	PU	62.68	43	17.55	PU	60.28	41
16.93	car	62.49	43	17.63	trk	60.01	41
17.05	car	62.05	42	17.71	PU	59.74	41
17.11	PU	61.84	42	17.71	car	59.74	41
17.18	car	61.58	42	17.78	car	59.51	41
17.19	PU	61.55	42	17.88	PU	59.17	40
17.21	car	61.48	42	17.90	car	59.11	40
17.21	car	61.48	42	17.90	PU	59.11	40
17.23	PU	61.40	42	18.01	PU w/ trl	58.75	40
17.43	car	60.70	41	18.08	car	58.52	40
17.45	car	60.63	41	18.20	trk	58.13	40
17.45	PU	60.63	41	18.20	PU w/ trl	58.13	40
17.52	PU	60.39	41	18.23	car	58.04	40
17.55	car	60.28	41	18.25	PU w/ trl	57.97	40
17.74	car w/ trl	59.64	41	18.40	car	57.50	39
17.77	car	59.54	41	18.42	PU w/ trl	57.44	39
17.79	PU	59.47	41	18.71	PU	56.55	39
17.85	car	59.27	40	18.73	car	56.49	39
18.05	car	58.61	40	18.76	car	56.40	38
18.13	car	58.36	40	19.01	PU w/ trl	55.65	38
18.21	car	58.10	40	19.23	car	55.02	38
18.21	car	58.10	40	19.25	PU w/ trl	54.96	37
18.23	PU w/ trl	58.04	40	19.50	PU w/ trl	54.26	37
18.40	car w/ trl	57.50	39	19.51	PU w/ trl	54.23	37
18.67	car	56.67	39	19.53	car	54.17	37
18.69	car	56.61	39	19.58	RV	54.03	37
18.70	car	56.58	39	19.65	PU w/ trl	53.84	37
18.81	car	56.25	38	19.93	PU w/ trl	53.09	36
18.83	PU	56.19	38	20.12	car	52.58	36
18.96	PU	55.80	38	20.18	car	52.43	36
19.02	RV w/ trl	55.63	38	20.53	car	51.53	35
19.30	PU w/ trl	54.82	37	23.20	PU w/ trl	45.60	31
20.04	car	52.79	36	23.30	car	45.41	31
20.06	car	52.74	36	25.30	car	41.82	29
20.62	RV w/ trl	51.31	35	28.31	RV w/ trl	37.37	25

* Vehicle Types: "car" = sedan or small SUV; "PU" = pickup or large SUV; "trk" = commercial truck
 "MC" = motorcycle; "RV" = recreational vehicle; "w/ trl" = with trailer

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Willits Rd

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California Manual for Setting Speed Limits

Chapter 3 ENGINEERING AND TRAFFIC SURVEYS (E&TS)

3.1 Overview

In order for the court systems and the public to accept and respect the responsible public agencies' posting and enforcement of posted speed limits, an E&TS must incorporate sound, repeatable methods conforming to the CVC and engineering principles. The following information assists public agencies with conducting and implementing an E&TS, meeting these purposes.

3.1.1 Scope of Survey

In accordance with CVC Section 627, an E&TS consists of engineering measurements of the prevailing free flow speeds in the proposed roadway segment, a review of the collision history, and a review of roadside conditions. Residential and business density as well as pedestrian and bicyclist safety should also be considered. The E&TS should document compliance with the conditions of CVC Section 627 and identify conditions not readily apparent to a motorist.

3.1.2 Components of an E&TS

The documentation of the findings of the survey consists of three elements:

1. A Strip Map with a schematic plan drawing of the roadway showing the results of the speed measurements, collision data, and related physical information.
2. Justification memo, a discussion of the roadway characteristics, 85th percentile speeds, collision data, non-apparent conditions, and a summary with a recommended speed limit. See appendix B.8.
3. Order or ordinance documenting the speed limit. An E&TS may have any number of speed zones on the strip map, but each speed zone should have a separate justification and order.

3.2 Data Collection and Analysis

3.2.1 Equipment

Proper equipment is essential for an accurate measurement of the free flow state of vehicles, including:

- An unmarked, plain colored vehicle. If the vehicle has amber flashing lights, the lights must be off and inside the vehicle so as to not affect the speed of traffic. No other special equipment can be attached to the outside of the vehicle. Marked police vehicles cannot be used.
- Portable Radar or Lidar. The accuracy of the equipment should be verified in a manner to assure the engineer vehicle speeds are being accurately measured to within 3 mph.

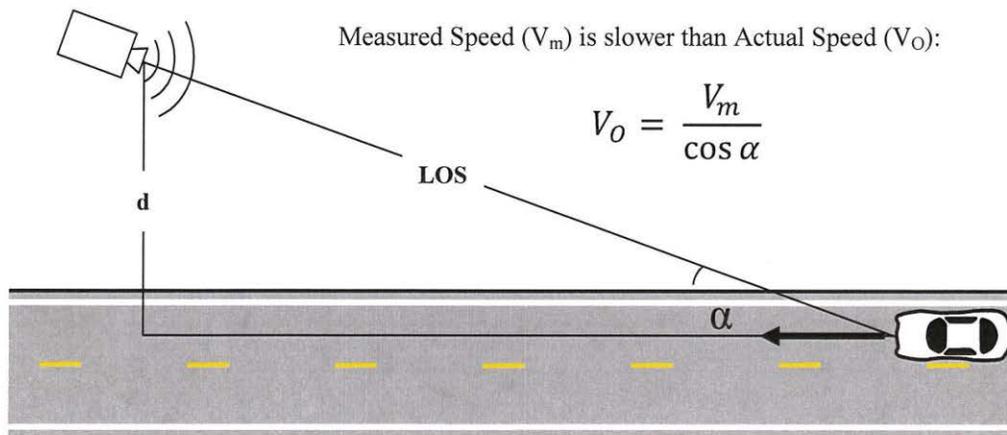
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California Manual for Setting Speed Limits

- Radar or Lidar equipment must be calibrated in the same manner as the equipment used by law enforcement personnel. Equipment should be calibrated at a minimum of every three years.
- Pneumatic hoses or other roadway automated equipment can only be used to assist trained personnel. As automated equipment cannot determine which vehicles are in a state of free flow, trained personnel must eliminate the recordings of non-free flow vehicles from the automated equipment's data.
- Basic equipment training, understanding of the cosine effect, and knowledge of which cars to use for the Speed Survey Sheet are required.

Figure 3-1: The Cosine Effect

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The cosine effect shows that the speed measured by the radar (or other device), V_m , can be an inaccurate measurement of the vehicle's actual speed, V_o , depending on the angle, α , between the radar's line of sight (LOS) and the vehicle's direction of travel. One can minimize the difference between V_m and V_o by minimizing the perpendicular distance, d , between the radar and the vehicle's direction of travel.

3.2.2 Location of Speed Measurements

Locations to take speed measurements should be chosen to provide true free flow speeds. Avoid uncharacteristic locations of the represented segment. Other areas to avoid include intersections with signal or stop control, roadway narrowing for a short period, intersections and driveways with high turning/cross movements, and any location affected by emergency personnel, roadwork or law enforcement presence. Since radar detectors are readily available and in use, a check for radar emitting devices (many stores use radar detection to open doors) may be necessary to find locations with true free flow speeds. In order to obtain true free flow speeds, any radar feedback signs, photo enforcement signs, cameras or other automated systems designed to affect or monitor the speed of traffic should be turned off and covered or removed at least two weeks prior to the day of speed data collection.

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California Manual for Setting Speed Limits

3.2.3 Selecting Vehicles Under Free Flow Conditions

The intent of the speed measurements is to determine the actual speed of unimpeded traffic. Free flow is a condition of traffic where a vehicle's speed is not influenced by anything other than the roadway geometry. Some of the conditions that exist in a free flow state are:

- Minimum 5 second gap between vehicles. The Highway Capacity Manual defines delay as a percentage of vehicle headways less than or equal to 5 seconds.
- Appropriate distance for the vehicle to reach a steady velocity not influenced by start-up or slow-down speeds due to traffic signals, stop signs, or other traffic control devices.
- Not influenced by slow vehicles such as trucks or buses.
- Not influenced by enforcement or the perception of enforcement, construction or lane closures, inclement weather or special event traffic.

3.2.4 Measuring Vehicle Speeds

Prevailing speeds collected during the spot speed survey are used to determine the 85th percentile speed. It is important to obtain an accurate measurement of free flow traffic speed to provide consistency for law enforcement and the court system. Guidelines for a spot speed survey include:

- Choose survey locations as necessary to represent the roadside development, pedestrian and bicycle traffic, and other physical conditions for the entire posted speed limit area.
- In urban areas, survey locations should be at 0.25 mile intervals or as necessary to ensure accurate representation of the speed patterns. Choose locations midway between traffic signals or 0.2 miles away from signals, whichever is less. If signals are so close together that free flow is never reached, the prima facie speed limits for a business or residential district may apply.
- In rural areas, survey locations may be further than 0.25 miles apart, as long as the roadside development, pedestrian and bicycle traffic, and other physical conditions remain consistent. It may be only necessary to survey at the beginning, middle and end of a zone.
- Record prevailing speeds where the speeds are representative of the entire speed zone section. If speeds vary on a given route, more than one speed zone section is required.
- Measure the prevailing speed of 100 vehicles in each location.
- Do not combine data from multiple locations to reach 100 vehicles.
- Read speeds directly from the radar device or other electronic speed measuring devices.
- Measure prevailing speeds in both directions for all types of roadways.
- Take speed measurements during any daytime period with free flowing traffic.
- Take speed measurements under dry conditions and clear visibility.
- The surveyor and equipment cannot be in a location that will affect the traffic speeds before the speed is measured. An unmarked car is necessary to avoid the

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appearance of law enforcement. The appearance of law enforcement will alter the speed of vehicles and free flow conditions will not exist.

- In order for the sample to represent the actual traffic flow, the minimum sample should be 100 vehicles in each survey. In no case should the sample contain less than 50 vehicles. On very low volume roadways, use of devices capable of accurately distinguishing and measuring the speed of free flow traffic may be appropriate.
- Do not identify speeds of vehicles with more than two axles or towing a trailer.
- Do not take speed measurements with radar or Lidar in areas affected by changes in the roadway horizontal or vertical alignments (i.e., curves or steep grades).

3.2.5 Recording Measured Speeds

Recording the prevailing speeds of traffic is a critical part of the E&TS and is used to determine the 85th percentile speed. Law enforcement, the public, and other engineers must be able to review the data after it was taken to verify its integrity. See Appendix Sections A.1.1 - A.1.3 for suggested forms.

Speed Zone Survey Sheets should include the following:

- Printed name of recorder.
- Location (city, street name, post mile).
- Weather.
- Posted speed.
- Divided or undivided.
- Begin time / end time.
- Roadside development.
- Conditions not readily apparent to the driver.
- Summary of total number of free-flow vehicles used.
- Clear and easily understandable graphic representation of the 85th percentile speed.

The speed zone survey sheet will provide a graphical representation of the vehicle speeds surveyed.

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3.2.6 Calculating 85th Percentile Speed

If 100 vehicle speeds are plotted, the 85th percentile speed is determined by looking at the speed of the 15th vehicle down from the top speed. Fifteen percent of the vehicles are travelling faster than this speed, and eighty five percent are travelling at or below this speed. If less than 100 vehicles are counted, the 85th percentile speed must be determined by calculating 85 percent of the number of vehicles counted and determining the vehicles' 85th percentile speed. For example if 70 vehicles were counted, $0.85 \times 70 = 59.5$. The speed of vehicle 60 represents the 85th percentile. Examples are shown in Appendix A on the Speed Zone Survey Sheet examples.

3.2.7 Collision Analysis

Collision data should be reported as actual collisions per million vehicle miles (acc/mvm) and average acc/mvm. Actual rates should use the most recent three years available or the most

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recent data available for the latest roadway reconfiguration. Average rates should be based on the type of roadway being studied.

Statewide collision rates are found in a Caltrans Table B. According to Highway Safety Improvement Program (HSIP) Guidelines, Table B is an on-demand report that summarizes collisions and volume data, and calculates collision rates for a given time period for a highway segment, ramp or intersection location. The District traffic operations personnel can run Table B reports. An example of a Table B report is included in Appendix A.4.

Higher than average collision rates need investigation to determine if they are related to the posted speed. Collision reports indicating speeding as a cause should be investigated to determine if CVC Section 22350 Basic Speed Law (also referred to as driving too fast for conditions) is the cited section. This section does not necessarily indicate that the posted speed limit was violated; many collisions occur at intersections and in stop and go traffic at speeds much lower than the posted limit.

Summarize the collision history and review for speed related issues. TASAS Selective Record Retrieval (TSAR) reports are on-demand reports that list the details of collision records and a summary of the results. A TSAR report may facilitate collision analysis. A TSAR report example is included in Appendix Section A.4. Using collision rates to justify a change of speed limits requires an analysis showing that the proposed speed change would reduce the collision rate or severity. Collision rates may not be used to lower the speed limit an additional 5 mph if the speed limit has already been lowered 5 mph for non-apparent conditions. Other appropriate counter measures should also be considered to reduce collision rates.

3.2.8 Evaluating Existing Conditions

The speed zone segment should be reviewed to determine local land uses, traffic control devices, number of lanes, striping details, existing posted signs and existing posted speed limits. Traffic should be observed to determine areas of conflicts, high pedestrian/bicycle movements and other driver behaviors.

Conditions not readily apparent to the motorist is a condition which, if the motorist were aware, they would adjust their speed accordingly. Motorists are aware of the width, curvature, grade, and surface conditions. CVC Section 22358.5 specifically prohibits downward speed zoning for these conditions and any other conditions readily apparent to the driver. Special events, construction, or congestion are also apparent when present. The basic speed law CVC Section 22350 is sufficient regulation for such conditions. If readily apparent conditions are of great concern, advisory speed signs may be posted for specific roadway conditions. See Section 2 for a full discussion on advisory speed signs.

Non-apparent conditions include those high volume traffic generators (vehicular, bicycle or pedestrian) not visible and access points that are not visible to the motorist. Warning signs can be placed for such conditions however, this is not always adequate. Every attempt should be made to make the motorist aware of non-apparent conditions before a decision is made to lower

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the speed limit. Non-apparent conditions may not be used to lower the speed limit an additional 5 mph if the speed limit is also being lowered for a higher than average collision rate.

3.3 Developing Strip Maps**3.3.1 Strip Map Example**

See Appendix Section A.2 for an example of a strip map showing the roadway under review for a particular E&TS.

85th percentile speeds are recorded on the strip map at speed survey locations. As the goal is to measure free flow traffic, not every point on a roadway can be used to measure the 85th percentile speeds. However, the points where the data is taken are connected by lines on the strip map to graphically represent the progression of speed. These lines do not indicate actual 85th percentile speeds.

3.3.2 Scale for Strip Maps

The scale is left at the engineer's discretion and is meant to be schematic in nature rather than show a high level of detail of the roadway features. An aerial photograph can be used with speed zone details shown as an overlay.

3.3.3 Information to Include on the Strip Map

- A north arrow.
- Post Mile or other distance measurement.
- Limits of the proposed speed zones for each direction of travel.
- Roads and road names, number and width of lanes.
- Appropriate notations showing type of roadside zoning and development, such as "scattered business," "solid residential," etc. Schools adjacent to the highway are shown, but other buildings need not be plotted unless they are a factor in the speed recommendation or the point of termination of a speed zone.
- Important traffic generators, such as factories, shopping centers/malls etc.
- Uncontrolled marked pedestrian crossings including school crosswalks.
- Railroad crossings – show number of tracks.
- Collision rates for the zones involved.
- Average daily traffic volume.
- Location of traffic signals, signs, striping details, and markings. Signs should include all regulatory signs, advisory curve warning signs, and school signs. Guide signs may be shown to indicate city limits.
- Distinction between divided and undivided sections of the roadway.
- Areas where CVC 22352 Prima Facie by Statute speeds are being used.
- Plotted 85th percentile and lower limit of pace speeds at locations taken showing speed profile.
- City and County jurisdictional boundaries.

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3.4 Speed Zone Design**3.4.1 Zone Length**

The length of any section of roadway set for a particular speed zone should be as long as possible and consistent with changes in roadway conditions, roadside development, and land use. Speed zone or speed limit changes need to be coordinated with changes in roadway conditions, roadside development, and land use. Speed zones of less than 0.5 miles should be avoided. Create separate speed zones at City, County or other jurisdictional boundaries with a consistent speed limit across the boundary.

Speed zone transitions can be accomplished in one of two ways. Speed limits can be stepped down in 5 or 10 mph increments or changed abruptly with “speed zone ahead” warnings. If stepped down, the speed limit changes should be supported by the E&TS and be set near the 85th percentile speed. If the transition is accomplished by changing abruptly from highway speed to city speed, place “speed zone ahead” warning signs in advance of the change. Table 2C-4 in the CA MUTCD should be used to determine the minimum distance for placing warning signs advance of the lower speed zone (see Appendix A.3). Upward speed transitions are signed in accordance with the downward zoning on the opposing traffic lanes. Either speeds are increased incrementally to match the downward increments or signed “end speed zone” followed by the posted highway speed limit.

Example 1:

Based on observed 85th percentile speeds, a speed zone on a two-lane conventional highway through a town starts with a 55 mph zone (length 0.6 miles), followed by a 45 mph zone (length 0.5 miles), and then by a 35 mph zone (length 0.5 miles).

Example 2:

A divided freeway with a posted speed limit of 65 mph approaches a City with cross traffic and signalized intersections. The 85th percentile speeds within the City indicate a posted speed limit of 40 mph. Since it may be very difficult to establish 0.5 miles or longer speed zones with 5-10 mph reductions based on observed speeds on this approach, a “40 Zone Ahead” sign should be installed at an appropriate distance before the first “Speed Limit 40” sign.

See Appendix Section A.7 for general illustrations.

3.4.2 Directional Differences

The 85th percentile speeds may differ considerably by direction at some locations. Such conditions are usually caused by relatively heavy development on one side of the road. Next to the development, motorists will tend to drive slower.

On divided highways with independent alignments, the zone speeds should conform to the 85th percentile speed in each direction, even though this may require zoning for different speeds in opposite directions.

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On undivided roadways, and divided roadways without independent alignments, the zones in opposite directions should be the same for clarity for the driver and law enforcement purposes. If there is a difference between the 85th percentile speeds of 5 mph or more in the opposing directions, the data from both directions can be averaged to obtain one 85th percentile or the higher 85th percentile may be used to set the limit.

3.4.3 Variation from the 85th Percentile

Speed limits are established at or near the 85th percentile speed. Speed limits higher than the 85th percentile are not generally considered reasonable and prudent. Speed limits below the 85th percentile do not ordinarily facilitate the orderly movement of traffic and require constant enforcement to maintain compliance. Speed limits established on the basis of the 85th percentile conform to the consensus of motorists of the reasonable and prudent speed, rather than the judgment of one or a few individuals. The majority of drivers comply with the basic speed law. Speed limits set at or near the 85th percentile provide law enforcement officers with a limit to cite drivers who do not conform to what the majority considers reasonable and prudent. Further studies such as FHWA-RD-92-084 and FHWA-RD-98-154 show that establishing a speed limit at less than the 85th percentile generally results in an increase in collision rates.

3.4.4 Applying a 5 Mile Per Hour Reduction

When a speed limit is to be posted, it shall be established at the nearest 5 mph increment to the 85th percentile speed of free-flowing traffic, rounding as standard mathematics directs. Under some circumstances, the posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th percentile speed.

If a 5 mph reduction is justified, the E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Section 22358.

The following examples are provided to explain the application of these speed limit criteria:

1. If the 85th percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. The 35 mph established speed limit can be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.
2. If the 85th percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. The 35 mph established speed limit can be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.

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CVC 21400 allows for setting the speed limit at the 5 mph increment below the 85th percentile even if mathematical rounding would require the speed to be posted above the 85th percentile. If this option is used, then the additional 5 mph reduction cannot be used. In effect, this law allows an engineer to round down to the nearest increment of the 85th instead of up. The engineer cannot then take a further reduction.

When roadside development results in traffic conflicts and conditions which are not readily apparent to drivers, speed limits somewhat below the 85th percentile may be justified; however, speed limits shall not be lowered more than 5mph less than the nearest increment to the 85th percentile speed. The factors justifying a reduction below the nearest increment to the 85th percentile speed are the same factors mentioned above. Whenever such factors are considered to establish the speed limit, they should be documented on the speed zone survey or the accompanying engineering report. Generally, collision history is the most decisive evidence of conditions not readily apparent to the driver.

3.4.5 Trial Runs

A "trial run" is a drive through the speed zoned section of a roadway at the chosen speed(s) confirming if the speed(s) are appropriate for the area. After the 85th percentile speeds and zone lengths have been selected, several trial runs may be made through the area in both directions driving at the selected speeds. This should show any irregularities in the zoning which may need adjustment.

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HIGHWAY DESIGN MANUAL

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200-1

March 7, 2014

**CHAPTER 200
GEOMETRIC DESIGN AND
STRUCTURE STANDARDS****Topic 201 - Sight Distance****Index 201.1 - General**

Sight distance is the continuous length of highway ahead, visible to the highway user. Four types of sight distance are considered herein: passing, stopping, decision, and corner. Passing sight distance is used where use of an opposing lane can provide passing opportunities (see Index 201.2). Stopping sight distance is the minimum sight distance for a given design speed to be provided on multilane highways and on 2-lane roads when passing sight distance is not economically obtainable. Stopping sight distance also is to be provided for all users, including motorists and bicyclists, at all elements of interchanges and intersections at grade, including private road connections (see Topic 504, Index 405.1, & Figure 405.7). Decision sight distance is used at major decision points (see Indexes 201.7 and 504.2). Corner sight distance is used at intersections (see Index 405.1, Figure 405.7, and Figure 504.3J).

Table 201.1 shows the minimum standards for stopping sight distance related to design speed for motorists. Stopping sight distances given in the table are suitable for Class II and Class III bikeways. The stopping sight distances are also applicable to roundabout design on the approach roadway, within the circulatory roadway, and on the exits prior to the pedestrian crossings. Also shown in Table 201.1 are the values for use in providing passing sight distance.

See Chapter 1000 for Class I bikeway sight distance guidance.

Chapter 3 of "A Policy on Geometric Design of Highways and Streets," AASHTO, contains a thorough discussion of the derivation of stopping sight distance.

201.2 Passing Sight Distance

Passing sight distance is the minimum sight distance required for the driver of one vehicle to pass another vehicle safely and comfortably.

Passing must be accomplished assuming an oncoming vehicle comes into view and maintains the design speed, without reduction, after the overtaking maneuver is started.

**Table 201.1
Sight Distance Standards**

Design Speed ⁽¹⁾ (mph)	Stopping ⁽²⁾ (ft)	Passing (ft)
10	50	---
15	100	---
20	125	800
25	150	950
30	200	1,100
35	250	1,300
40	300	1,500
45	360	1,650
50	430	1,800
55	500	1,950
60	580	2,100
65	660	2,300
70	750	2,500
75	840	2,600
80	930	2,700

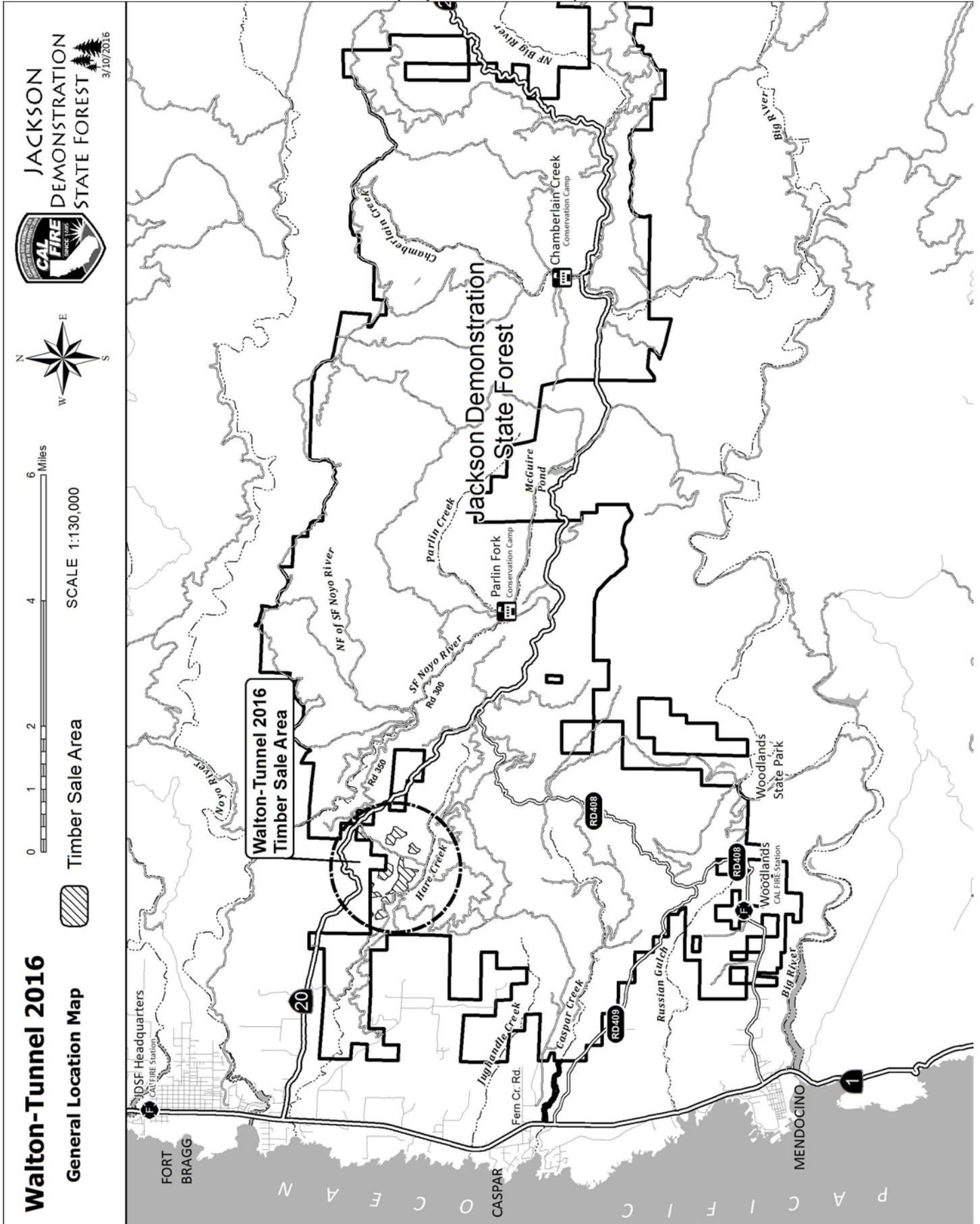
(1) See Topic 101 for selection of design speed.

(2) For sustained downgrades, refer to advisory standard in Index 201.3

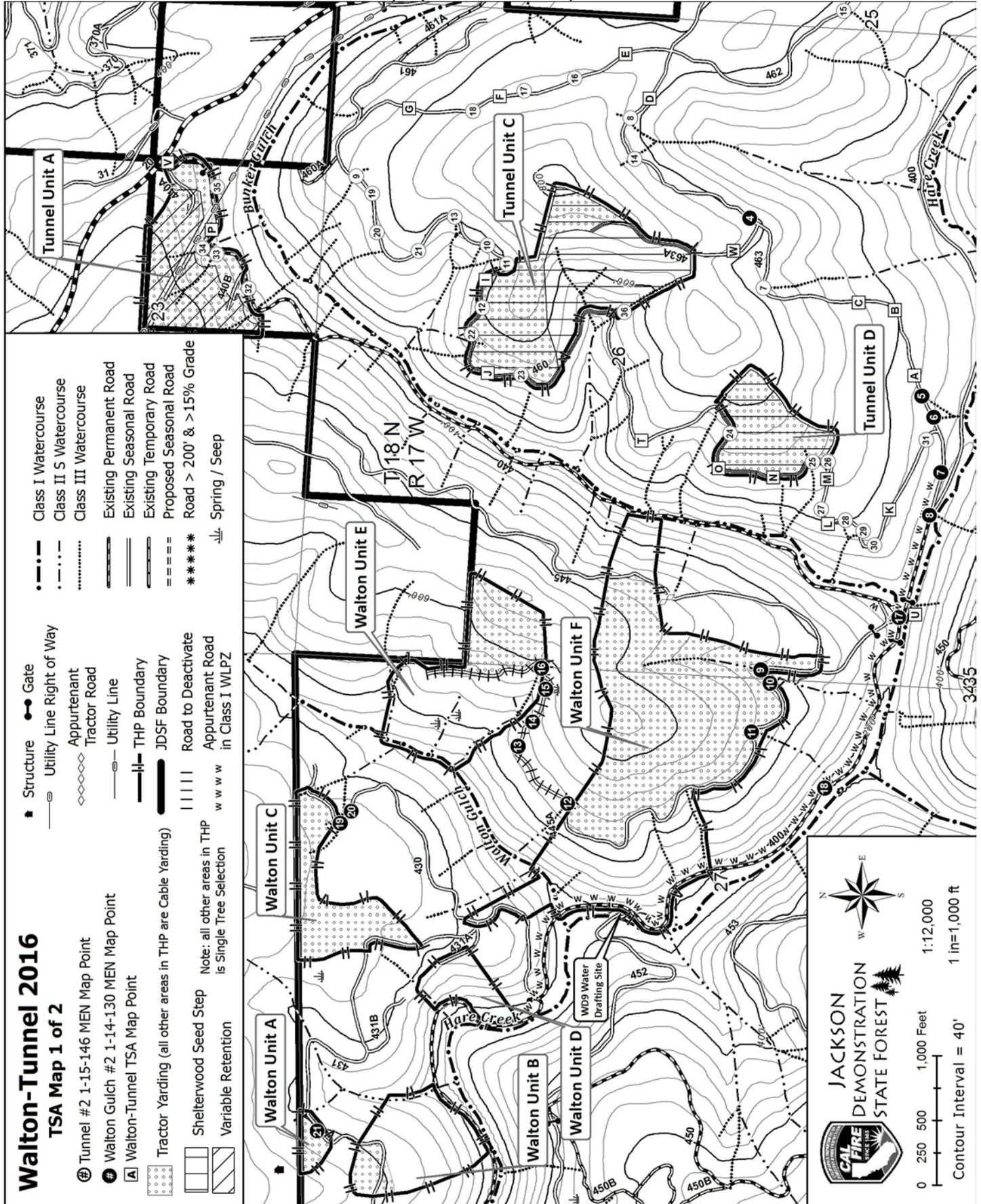
The sight distance available for passing at any place is the longest distance at which a driver whose eyes are 3 ½ feet above the pavement surface can see the top of an object 4 ¼ feet high on the road. See Table 201.1 for the calculated values that are associated with various design speeds.

In general, 2-lane highways should be designed to provide for passing where possible, especially those routes with high volumes of trucks or recreational vehicles. Passing should be done on tangent horizontal alignments with constant grades or a slight sag vertical curve. Not only are drivers reluctant to pass on a long crest vertical curve, but it is impracticable to design crest vertical curves to provide for passing sight distance because of high

EXHIBIT A, Attachment 2
(Maps and Site Plans)



**EXHIBIT A, Attachment 2
 (Maps and Site Plans)**



**EXHIBIT A, Attachment 3
 (Reporting Operating Costs Form)**

REPORTING AND OPERATING COSTS FORM

Page ___ of ___ for ACTIVITY: _____ AREA or UNIT: _____

PART 1. EQUIPMENT

<u>Equipment Type</u>	<u>No. of Hours Worked</u>		<u>Rate per Hour</u>	<u>Check if * With Oper.</u>	<u>Total Cost</u>
	<u>Straight</u>	<u>OT</u>			
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

PART 2. LABOR

<u>Labor Type</u>	<u>No. of Hours Worked</u>		<u>Rate per Hour *</u>		<u>Total Cost</u>
	<u>Straight</u>	<u>OT</u>	<u>Straight</u>	<u>OT</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

* Labor rates, whether with equipment rates or listed separately, must include state comp insurance, benefits, and other employer costs.

PART 3. MATERIALS, SERVICES, OVERHEAD, ETC.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Attach additional information as appropriate.

**EXHIBIT A, Attachment 1
EXHIBIT A, Attachment 4
(Water Supply Reporting Form)**

WATER SUPPLY REPORTING FORM

Page ___ of ___ for BEGINNING DATE: _____ END DATE _____ AREA or UNIT: _____

DATE

MILES

TOTAL MILES OF ROAD WATERED WITH WATER PROVIDED BY PURCHASER THIS PERIOD _____

EXHIBIT B
(Budget Detail and Payment Provisions)

BUDGET DETAIL AND PAYMENT PROVISIONS

1. BID DEPOSIT/ADVANCE PAYMENT.

The deposit of \$40,000 submitted with the bid for this timber shall be held by the STATE as a guarantee that all periodic payments as called for by the Timber Sale Officer shall be made in advance of cutting of timber referable thereto and for the satisfactory performance by the PURCHASER of all the terms and conditions hereof. If the PURCHASER's bid exceeds the advertised minimum rate by 25 percent, the PURCHASER shall increase the bid deposit to 2.5 percent of the estimated total value of the bid prior to STATE approval of this Agreement. This deposit shall be applied by the STATE to any final payments called for by the Timber Sale Officer upon completion of faithful performance by the PURCHASER. No cutting shall proceed on any trees for which payments have not been made. During active operations, the Timber Sale Officer shall establish a payment schedule based on the estimated rate of cutting. Periodic payments will be required in increments of not less than the value of two weeks of cutting, and shall be based on three-week cutting projections provided to the STATE by the PURCHASER. Cutting projections shall be updated each week by the PURCHASER at the time weekly falling scale is reported, as described in Section 11.p of this Agreement. Payments shall be made when requested by the STATE. If payment is not received by the date requested, the STATE may suspend the PURCHASER's operations until payment is received.

If legal action by a third party prevents the initiation of timber harvesting activities within 90 days of STATE approval of this Agreement, the PURCHASER may request and the STATE will approve the termination of the Agreement without prejudice, and the STATE will return the PURCHASER's performance security and bid deposit(s), not including any accrued interest. The PURCHASER's written request for termination must be submitted within the 90-day period and must reference this condition of the Agreement.

2. Payment Schedule

A. For final payment, all merchantable material in accordance with the terms and conditions stated herein, and upon receipt of the Timber Sale Cutting Report, the PURCHASER agrees to compensate the STATE in accordance with the rates specified as follows based on 100% scale pursuant to the Revised Scribner Log Rule:

1)

Merchantable Species Value	Rate per Mbf
Redwood	\$ [/mbf]
Douglas - fir	\$ 40.00
Grand fir, Western Hemlock	\$ 40.00

2) The final payment shall be reduced by \$270.00 per mile of watered road for each day that water is delivered by the PURCHASER from alternative sources at the direction of the Timber Sale Officer.

3) Hardwoods removed from the sale area shall be paid for at the rate of \$0.20 per ton

4) Cull logs or conifer species not merchantable shall be paid for at the rate of \$1.25 per ton, or at \$5.00 per thousand board feet gross scale, if scaled.

B. The contractor shall submit periodic advanced stumpage payments based on the estimated three-week rate of cutting. Each payment shall be made for not less than two weeks of cutting. Cutting projections shall be updated each week by the PURCHASER at the time weekly falling scale is reported. Each payment shall contain the following information

- 1) The agreement number (**OCA00000**).
- 2) The time-period and estimated volume which the payment covers.
- 3) Timber Sale name.

EXHIBIT B
(Budget Detail and Payment Provisions)

4) Certified Small Business or DVBE # if applicable.

C. Payments shall be made to:

California Department of Forestry and Fire Protection
Jackson Demonstration State Forest
RE: Walton-Tunnel 2016 Timber Sale
802 North Main Street
Fort Bragg, CA 95437

3. Yield Tax Payment.

A. The PURCHASER shall be solely responsible for filing reports with the State Board of Equalization and payment of the timber yield tax levied on timber cut under this Agreement as provided by the Z'Berg-Warren-Keene-Collier Forest Taxation Reform Act, Statutes of 1976, Chapter 176. The PURCHASER'S yield tax payments shall not be credited in any way for timber cut or other obligations of this Agreement.

The PURCHASER further agrees to furnish the STATE copies of the Timber Yield Tax calculations and reporting forms submitted to the Board of Equalization for timber harvested pursuant to this Agreement. Yield tax information shall be provided no later than January 31 for timber harvested during the previous calendar year.

B. By signing this contract, the PURCHASER swears under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against the PURCHASER within the immediately preceding two-year period because of the PURCHASER'S failure to comply with an order of a federal court which orders compliance with an order of the National Labor Relations Board.

**EXHIBIT D
(Special Terms and Conditions)**

SPECIAL TERMS AND CONDITIONS

1. Excise Tax

The State of California is exempt from federal excise taxes, and no payment will be made for any taxes levied on employees' wages. The State will pay for any applicable State of California or local sales or use taxes on the services rendered or equipment or parts supplied pursuant to this Agreement. California may pay any applicable sales and use tax imposed by another state.

2. Settlement of Disputes

In the event of a dispute, within ten (10) days of discovery of the problem contractor shall file a "Notice of Dispute" with:

Department of Forestry and Fire Protection
Attention: Acquisitions Manager
P.O. Box 944246
Sacramento, CA 94244-2460

Within ten (10) days of CAL FIRE receiving contractor's notice, the contracts manager or designee shall advise contractor of the findings and recommend a method to resolve the dispute. Decision of the contracts manager or designee shall be final.

In the event of a dispute, the language contained within this Agreement shall prevail over any other language including that of the bid proposal.

3. Right to Terminate (SCM 7.85)

The State reserves the right to terminate this agreement immediately if any of the performance criteria are not met. (Refer to GTC, Exhibit C, Item 7. Termination for Cause)

Contractor may submit a written request to terminate this agreement only if the State should substantially fail to perform its responsibilities as provided herein.

4. Potential Subcontractors

Nothing contained in this Agreement or otherwise, shall create any contractual relation between the STATE and any subcontractors, and no subcontract shall relieve the PURCHASER of his responsibilities and obligations hereunder. The PURCHASER agrees to be as fully responsible to the State for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the PURCHASER. The PURCHASER'S obligation to pay its subcontractors is an independent obligation from the STATE'S obligation to make payments to the Contractor. As a result, the STATE shall have no obligation to pay or to enforce the payment of any moneys to any subcontractor.

5. Evaluation of Contractor

Performance of the Contractor under this Agreement will be evaluated. The evaluation shall be prepared on Contract/Contractor Evaluation Sheet (STD 4), and maintained in the Agreement file. For consultant agreements, a copy of the evaluation will be sent to the Department of General Services, Office of Legal Services, if it is negative and over \$5,000.

EXHIBIT D
(Special Terms and Conditions)

6. Agency Liability

The Contractor warrants by execution of this Agreement, that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the State shall, in addition to other remedies provided by law, have the right to annul this Agreement without liability, paying only for the value of the work actually performed, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

7. Force Majeure

Neither party shall be liable to the other for any delay in or failure of performance, nor shall any such delay in or failures of performance constitute default, if such delay or failure is caused by "Force Majeure." As used in this section, "Force Majeure" is defined as follows: Acts of war and acts of God such as earthquakes, floods, and other natural disasters such that performance is impossible.

8. Contractor Name Change

Contractor shall provide a written notice to the State at least thirty (30) days prior to any changes to the Contractor's current legal name.

**EXHIBIT E
(Additional Provisions)****ADDITIONAL PROVISIONS****1. Insurance Requirements.****A. General Provisions Applying to All Policies.**

- 1) 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.
- 2) 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.
- 3) The Department will not provide for nor compensate Contractor for any insurance premiums or costs for any type or amount of insurance.
- 4) When Contractor submits a signed contract to the State, Contractor shall furnish to the State a certificate of insurance stating that all required insurance is in effect for the Contractor.

B. General and Commercial Liability Insurance.

Contractor shall provide commercial general liability insurance of not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined in effect for the Contractor.

The certificate of insurance will include provisions 1, and 2, in their entirety:

- 2) That the insurer will not cancel the insured's coverage without 30 days prior written notice to the State.
- 3) That the State of California, its officers, agents, employees, and servants are included as additional insured, but only insofar as the operations under this contract are concerned.

Contractor agrees that the bodily injury liability insurance herein provided for shall be in effect at all times during the term of this contract. In the event said insurance coverage expires at any time or times during the term of this contract, Contractor agrees to provide at least 30 days prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of the contract, or for a period of not less than one year. New certificates of insurance are subject to the approval of the Department of General Services, and Contractor agrees that no work or services shall be performed prior to the giving of such approval. In the event the Contractor fails to keep in effect at all times insurance coverage as herein provided, the State may, in addition to any other remedies it may have, terminate this contract upon occurrence of such event.

C. Worker's Compensation Insurance.

Contractor shall provide Worker's Compensation Insurance with Waiver of Subrogation in favor of the State of California. Employer's liability shall be not less than \$1,000,000.00. The following clause should be included: "Waiver of Subrogation in favor of the State of California or in favor of CAL FIRE:" By signing this Agreement, the Contractor hereby warrants that it carries Workers' Compensation Insurance on all of its employees who will be engaged in the performance of this Agreement. If Staff provided by the Contractor is defined as independent contractors, this clause does not apply.

D. Commercial Automobile Insurance on Owned, Hired, and/or Non-Owned vehicles.

Contractor shall provide Commercial Automobile Insurance on Owned, Hired, and/or Non-Owned vehicles of not less than \$1,000,000.00 policy.

**EXHIBIT E
(Additional Provisions)****2. Regulations.**

- A. Contractor shall observe and comply with all federal, state, city, and county laws, rules or regulations affecting the work. Any work done that does not comply with any laws, rules, or regulations will be remedied at the Contractor's expense.
- B. Contractor shall cooperate with the Department of Forestry and Fire Protection (CAL FIRE) authorities and shall observe and comply with all regulations presently in force on Department of Forestry and Fire Protection grounds.
- C. The PURCHASER, in all activities under or pursuant to this Agreement, as well as in handling, reselling or otherwise dealing with respect to the timber and other material realized by the PURCHASER by reason of this Agreement, whether such timber and other material is in its original form or in a changed form, agrees to comply in all respects with all lawful acts, rules, regulations and directions of any legislative, executive, administrative or judicial body or officer exercising any power of regulation or supervision with respect to such matters and whether arising out of the provisions of this Agreement or otherwise.
- D. The PURCHASER shall comply with all applicable State Safety Orders, Title 8, California Code of Regulations.
- E. The PURCHASER and PURCHASER's employees, agents, contractors and subcontractors shall comply with the attached Digest of Laws Related to Association with Prison Inmates, Exhibit F.
- F. No provision of this Agreement shall authorize the PURCHASER or PURCHASER's agents or servants to act as an officer, agent, or employee of the STATE.
- G. If the PURCHASER breaches any of the provisions of this Agreement, the STATE may serve written notice of such breach upon the PURCHASER, and thereupon the STATE may suspend the operations of the PURCHASER hereunder until such time as such breach is remedied, and if such breach is not remedied within ten days, the STATE may, at its option, without further notice, terminate this Agreement.

3. License and Permits.

- A. The Contractor shall be an individual or firm currently licensed to do business in California and shall obtain at his/her expense all license(s) and permit(s) required by law for accomplishing any work required in connection with this contract. In the event the Contractor fails to keep in effect at all times all required license(s) and permit(s), the State may, in addition to any other remedies it may have, terminate this contract upon occurrence of such event.
- B. If you are a Contractor located within the State of California, a business license from the city/county in which you are headquartered is necessary however, if you are a corporation, a copy of your incorporation documents/letter from the Secretary of State's Office can be submitted. If you are a Contractor outside the State of California, you will need to submit to the California Department of Forestry and Fire Protection Contracts Unit a copy of your business license or incorporation papers for your respective State showing that your company is in good standing in that State.

4. Performance Bond.

As further guarantee of a faithful performance of the conditions of this Agreement, the PURCHASER delivers herewith a faithful performance bond, or approved alternate form of security, satisfactory to the STATE in the sum of \$80,000. Upon satisfactory completion of all timber harvesting activities, the PURCHASER may request a one-time reduction of this security to an amount determined by the STATE to be sufficient to cover all remaining provisions of this Agreement.

Alternate forms of security in lieu of a performance bond are:

**EXHIBIT E
(Additional Provisions)**

- A. Certificate of deposit with the California Department of Forestry and Fire Protection as payee, issued by a bank or similar financial institution which is a member of the Federal Reserve System or is insured by the Federal Deposit Insurance Corporation.
- B. Irrevocable letter of credit issued by a bank or financial institution which is a member of the Federal Reserve System or is insured by the Federal Deposit Insurance Corporation.

All bonds, letters of credit, or certificates of deposit, must be in a form acceptable to the STATE.

The PURCHASER agrees that all monies deposited and the faithful performance bond, or security, delivered under this Agreement may, upon failure on the PURCHASER's part to fulfill all and singular the requirements herein set forth or made a part hereof, may be retained by the STATE to be applied as far as may be to the satisfaction of the PURCHASER's obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the STATE. As soon as the STATE determines that security for the performance of the terms of this Agreement or provisions for the settlement of claims or for damages incident thereto is no longer necessary to be retained or made, any balance of the initial deposit that may be left after applying it to any payment due or owing will be returned to the PURCHASER.

5. Camp Access Instructions

Individuals who are not employees of the California Department of Corrections and Rehabilitation (CDCR) or the California Department of Forestry and Fire Protection (CAL FIRE), but who are working in and around inmates who are incarcerated within California's camps, are to be apprised of the laws, rules and regulations governing conduct in associating with prison inmates. The following is a summation of pertinent information when non-departmental employees come in contact with prison inmates.

By signing this contract, the Contractor agrees that if the provisions of the contract require the Contractor to enter a camp, the Contractor and any employee(s) and/or subcontractor(s) shall be made aware of and shall abide by the following laws, rules and regulations governing conduct in associating with prison inmates:

- A. Contractor, contractor's employee(s) and/or subcontractor(s) shall observe all security rules and regulations and comply with all instructions given by institutional authorities.
- B. Contractor and contractor's employee(s), and/or subcontractor(s) must complete and submit a Camp Access Clearance Form prior to providing services. This form must be completed for all persons entering the facility a minimum of ten (10) working days prior to commencement of service. Information may be submitted to the Contract Manager or their designee. Form may be subject to a CDCR California Law Enforcement Telecommunications System (CLETS) check. This check will include Department of Motor Vehicles, Wants and Warrants, and Criminal History checks.
- C. All persons entering the facility must have a valid state driver's license or photo identification card on their person.
- D. All persons entering into a camp consent to search of their person, property or vehicle at any time. Refusal by individuals to submit to a search of their person, property, or vehicle may be cause for denial of access to the premises.
- E. It is illegal for an individual who has been previously convicted of a felony offense to enter into camps without the prior approval of the Warden. It is also illegal for an individual to enter onto these premises for unauthorized purposes or to refuse to leave said premises when requested to do so. Failure to comply with this provision could lead to prosecution.
- F. Encouraging and/or assisting prison inmates to escape are a crime. It is illegal to bring firearms, deadly weapons, explosives, tear gas, drugs or drug paraphernalia on camp premises. It is illegal to give prison inmates firearms, explosives, alcoholic beverages, narcotics, or any drug or drug paraphernalia, including cocaine or marijuana.

EXHIBIT E
(Additional Provisions)

- G. It is also illegal to give or take letters from inmates without the authorization of the Warden. It is also illegal to give or receive any type of gift and/or gratuities from prison inmates.
- H. In an emergency situation the visiting program and other program activities may be suspended.
- I. CDCR does not recognize hostages for bargaining purposes. CDCR has a "NO HOSTAGE" policy and all prison inmates, visitors, and employees shall be made aware of this.
- J. For security reasons, while on camp grounds, Contractor, contractor's employee(s) and/or subcontractor(s) shall be professionally and appropriately dressed in clothing distinct from that worn by inmates at the camp. Visitors must not wear clothing that in any way resembles state issued prison inmate clothing. Specifically orange/red/yellow/white/chartreuse jumpsuits and/or yellow rainwear shall not be worn onto camp grounds, as this is inmate attire.
- K. Unless otherwise directed by the entrance gate officer and/or Contract Manager, the contractor, contractor's employee(s) and/or subcontractor(s) shall enter the camp through the main entrance gate and park private and nonessential vehicles in the designated visitor's parking lot. Contractor, contractor's employees and subcontractors shall remove the keys from the ignition when outside the vehicle and all unattended vehicles shall be locked and secured while on institution grounds.
- L. Gate clearance may be denied for the following reasons: Individual's presence in the camp presents a serious threat to security, individual has been charged with a serious crime committed on institution property, inadequate information is available to establish positive identity of prospective individual, and/or individual has deliberately falsified their identity.

**EXHIBIT E
(Additional Provisions)**

CAMP ACCESS CLEARANCE FORM

The following information is required of all contractor employees who will be on the property of a CDCR/CAL FIRE Conservation Camp. All applications will be processed for approval.

Name of Company	
Employee	
Date of Birth	
Birth Location & State	
Employee Driver's License	
Social Security Number	
Signature	
Date	

**EXHIBIT E
(Additional Provisions)**

6. Small Business (SB) Bid Preference

As an incentive, a non-small business prime contractor who uses certified small business subcontractors for at least 25% of its net bid price is eligible for a bid preference of five percent (5%) of the lowest responsible bid when competing against another non-small business. A prime contractor who is a small business is eligible for the five percent bid preference. For more information: <http://www.dgs.ca.gov>

7. DVBE Program Requirements and Incentives

a. Disabled Veteran Business Enterprise (DVBE) Program Requirement:

The Disabled Veteran Business Enterprise (DVBE) Participation Goal Program for State contracts is established in Public Contract Code (PCC), §10115 et seq., Military and Veterans Code (MVC), §999 et seq., and California Code of Regulations (CCR), Title 2, §1896.60 et seq.

The Disabled Veteran Business Enterprise (DVBE) Participation Program was established to acknowledge disabled veterans for their service and to further DVBE participation in state contracting, promote competition and encourage greater economic opportunity. The state established a DVBE participation goal of at least three percent.

An explanation of the DVBE Program can be found on the internet at:
<http://www.dgs.ca.gov/pd/Programs/OSDS.aspx>

This solicitation requires a minimum DVBE participation percentage or goal of 3 percent. Responsive bidders must meet the minimum DVBE program requirement by utilizing a DVBE to perform work for at least 3 percent of the total bid amount.

b. Disabled Veteran Business Enterprise (DVBE) Incentive

In accordance with section 999.5(a) of the Military and Veterans Code, an incentive will be given to bidders who exceed the DVBE program requirement. For evaluation purposes only, the State shall apply an incentive to bids that propose California certified DVBE participation as identified on the Bidder Declaration GSPD-05-105 and confirmed by the State. The incentive amount for awards based on low price will vary in conjunction with the percentage of DVBE participation.

The following incentive award will apply. Incentive points will be applied to the non-cost points section for evaluation purposes.

Confirmed DVBE Participation of:	DVBE Incentive
5% or Over	5%
4% to 4.99% Inclusive	4%
3% to 3.99% Inclusive	3%

For awards based on low price, the net bid price of responsive bids will be reduced (for evaluation purposes only) by the amount of DVBE incentive as applied to the lowest responsive net bid price. If the lowest responsive, responsible bid is a California certified small business, the only bidders eligible for the incentive will be California certified small businesses.

An explanation of the Disabled Veteran Enterprise Program (DVBE) Incentive can be found at the Internet web site <http://www.dgs.ca.gov/pd/Programs/OSDS.aspx>.

**EXHIBIT E
(Additional Provisions)****8. SB/DVBE Activity Reports**

The Contractor is required to furnish the Department with reports of SB and/or DVBE subcontractor activity. Reports are to be made on a semi-annual basis and must identify the subcontractor, the services performed or commodities used and the total paid to the subcontractor during the period reported. A final activity report is to be submitted prior to the contract expiration date. If multiple SB and/or DVBE subcontractors are providing services or commodities, the Contractor must furnish individual reports for each SB and/or DVBE used.

Reports are due on June 15th and November 1st for each year the contract is in place. At the Department's request, the Contractor shall submit copies of the SB and/or DVBE subcontractor's paid invoices issued for that semi-annual reporting period or final report.

If the Contractor fails to furnish the required reports, the Department may withhold final payment until the Contractor provides the required reports and, when requested by the Department, copies of paid invoices.

Final reports must be received by the Department at least 14 days prior to the contract expiration date.

Reports shall be made using the Small Business and Disabled Veteran Business Enterprise Activity Report form, Exhibit E, Attachment 1. All reports shall be made to the Department of Forestry and Fire Protection's SB/DVBE Advocate as follows:

By mail to:

Department of Forestry and Fire Protection
Business Services Office
Attn: SB/DVBE Advocate
P.O. Box 944246
Sacramento, CA 94244-2460

9. Contractor Certification of Payment to Small Business and DVBE Subcontractor(s)

- A. If for this Contract, Contractor made a commitment to achieve small business participation, then Contractor must within 60 days of receiving final payment under this contract (or within such other time period as may be specified elsewhere in this contract) report to the awarding department the actual percentage of small business participation that was achieved (Gov. Code §14841)
- B. If for this Contract, Contractor made a commitment to achieve disabled veteran business enterprise (DVBE) participation, the Contractor must within 60 days of receiving final payment under this Contract (or within such other time period as may be specified elsewhere in this Contract) certify in a report to the awarding department: (1) the total amount the prime Contractor received under the Contract; (2) the name and address of the DVBE(s) that participated in the performance of the Contract; (3) the amount each DVBE received from the prime Contractor; (4) that all payments under the Contract have been made to the DVBE; and (5) the actual percentage of DVBE participation that was achieved. A person or entity that knowingly provides false information shall be subject to a civil penalty for each violation not less than \$2,500 and not to exceed \$25,000. (Military & Veterans Code §999.5(d); Govt. Code §14841)

Contractor Certification must be made using the Department's "Small Business (SB) and Disabled Veteran Business Enterprise (DVBE) Subcontractor Payment Certification" form on Exhibit E, Attachment 1.

EXHIBIT E. Attachment 1

SMALL BUSINESS (SB) AND DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) SUBCONTRACTOR PAYMENT CERTIFICATION

As Contractor of record for the Department of Forestry and Fire Protection, Contract number _____, I certify, in accordance with Government Code 14841 and Military and Veteran Code § 999.5, that pursuant to the terms and conditions of the contract, all payments have been made to the Small Business or DVBE firm(s) listed below for commodities or services rendered as the SB or DVBE subcontractor(s) of record. I understand certification must be made to the Department of Forestry and Fire Protection within 60 days of receiving final payment under this Agreement. I further understand and acknowledge that falsification of this Certification may result in the imposition of civil or criminal penalties for not less than \$2,500 or more than \$25,000 for each violation.

Please copy this form to include as many Small Businesses or DVBE firms as necessary. Authorized signatures and information are required on each separately submitted form. Return to: Department of Forestry and Fire Protection, Business Services Attn: West Ramsey, SB/DVBE Advocate, P.O. Box 944246, Sacramento, CA 94244-2460

SMALL BUSINESS/DVBE SUBCONTRACTOR INFORMATION

Contract Firm Name	
Name of Firm Representative	
Title	
Firm Address	Phone: _____ Fax: _____
	Street: _____
Contract Number	City: _____ State: _____ Zip: _____
Total Amount Received Under this Contract	\$ _____ Date Final Payment Received: / /

SMALL BUSINESS/DVBE SUBCONTRACTOR INFORMATION

SB/DVBE Subcontractor	Street Address	City	State	Zip	Amount Paid	Participation Achieved
						%
						%
						%
						%
						%

Printed Name		Signature:	
Title:		Report Date:	

**EXHIBIT F
(Digest of Inmate Laws)**

DIGEST OF LAWS RELATED TO ASSOCIATION WITH PRISON INMATES

The sale area lies in the vicinity of the Parlin Conservation Camp, a minimum-security California Department of Corrections prison facility. All persons entering the Conservation Camp or the sale area are to be familiar with the following:

1. It is a felony for anyone to assist inmates to escape. Bringing firearms, deadly weapons, explosives, or tear gas onto prison grounds, or giving inmates firearms, weapons, explosives, liquor, cocaine or other narcotics, or any kind of drugs, including marijuana, is a felony.
2. Giving letters to inmates or taking letters out for inmates is a misdemeanor. Additionally, do not accept from, nor deliver to, an inmate any message or package.
3. Giving gifts or presents to inmates, or accepting gifts or presents from inmates, is a misdemeanor.
4. Do not permit former inmates or persons of disreputable character to associate with inmates.
5. Do not allow any inmate to use a telephone or other communications device.
6. Do not allow any person not associated with the camp program or work project to associate with inmates or interfere with inmate activity. Visitors must conform to rules stipulated by the person in charge of custody.
7. Do not in any way contact or communicate with families or known associates of inmates for any purpose.
8. No person shall strike or lay hands on an inmate unless it be in defense of himself or unless it be necessary to prevent serious injury to person or property.
9. All persons should avoid becoming involved in the personal affairs of inmates or former inmates.
10. Do not photograph nor allow anyone to photograph inmates, unless permission is obtained in accordance with the Department of Corrections procedures.
11. Refusal of visitors to submit to search and inspection of their person and of vehicles may be cause for denial of access.