

California Department of Forestry and Fire Protection  
Jackson Demonstration State Forest

**S-A-M-P-L-E TIMBER SALE AGREEMENT**

**14 Gulch 2011**

THIS AGREEMENT, made this [date] day of [month], [year], at Sacramento, County of Sacramento, State of California, by and between the State of California, through its duly appointed, qualified and acting Director of Forestry and Fire Protection, hereinafter called the STATE, and [purchaser name] of [address], hereinafter called the PURCHASER.

WITNESSETH, that for and in consideration of the covenants, conditions, agreements, and stipulations hereinafter set forth, the parties hereto agree as follows:

**TIMBER SALE LOCATION**

1. The STATE agrees to sell to 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, on an area of about 235 acres, designated on the ground by the STATE's assigned Timber Sale Officer prior to cutting in parts of Sections 3,4,9 and 10, Township 17 North, Range 16 West, MDB&M, in the Jackson Demonstration State Forest approximately 9 miles southeast of Fort Bragg, California, and as designated on the attached map (Exhibit A) which hereby is made part of this Agreement, 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.

**GOOD FAITH PERFORMANCE**

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.

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 abandonment, installing water breaks and rolling dips, removal and improvement of stream crossings, and wildlife habitat improvement; all work done to ensure that timber operations do not result in significant effect on the environment.

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:

<b>Merchantable Species Value</b>	<b>Estimated Net Amount (Mbf)</b>	<b>Rate per Mbf</b>	<b>Estimated Total</b>
Redwood	859		
Douglas-fir	694	\$10.00	\$6,940.00
Grand fir, western hemlock	105	\$10.00	\$1,050.00
<b>TOTALS</b>	<b>1,658</b>		

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.

#### **BID DEPOSIT/ADVANCE PAYMENT**

2. The deposit of \$15,000 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 7.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.

### **PRODUCTION RATE/PAYMENT SCHEDULE**

3. No merchantable timber may be felled prior to April 15, 2011. Unless written extension of time is granted by the Director of Forestry and Fire Protection, at least two-hundred thousand board feet shall be paid for and cut by June 30, 2011. 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 by October 30, 2011, and all other timber operations must be completed by November 15, 2011. This Agreement shall terminate on April 1, 2012, 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 .51 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.

#### **SALE HARVEST BOUNDARY**

4. The boundaries of the sale area have been marked as depicted on the attached map (Exhibit A) and have been examined by the PURCHASER. All trees marked 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 unmarked 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.

#### **PRODUCTION COST DATA SPECIFICATIONS-DEMONSTRATION**

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 all timber harvesting operations and other activities conducted pursuant to this agreement, including road abandonment, crossing installation/removal, installation of water breaks and rolling dips, and road outsloping cost. 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 E), 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 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.

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.

#### **DOMESTIC PROCESSING OF TIMBER and LOG BRANDING**

5. 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.

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.

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.

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.

**GENERAL UTILIZATION STANDARDS (See Item 8 for Specific Standards)**

6. The minimum log dimensions for utilization purposes will be 8 feet in length and 6 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.

**SCALING SPECIFICATIONS, Items 7a-7p**

7. 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.

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 each 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.
- 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(s) shall process scale tickets of all STATE loads daily and mail, at its expense, copies of daily scale certifications and log listings to the State Forest Headquarters. Also required are semi-monthly scaled volume summaries as of the 15th and the last day of the month. 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.
- j. The scaling organization(s) 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.
- 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.

1. 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.

#### **UTILIZATION STANDARDS AND PRACTICES, Items 8a-8g**

8. 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 six 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.

- 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 rate of \$1.25 per ton, or at \$5.00 per thousand board feet gross scale, if scaled.

- 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. Hardwood trees shall be topped at the time of felling and shall be limbed prior to logging any such tree. Hardwoods removed from the sale area shall be paid for at the rate of \$0.20 per ton.

**PRIOR APPROVAL FOR CONDUCTING BUSINESS ON WEEKENDS/HOLIDAYS**

9. 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.

**TIMBER HARVEST PLAN (THP number 1-08-081 MEN), Items 10a-10p**

10. The Forest Practice Rules for the Coast Forest District, and the Timber Harvesting Plan for this timber sale (THP number 1-08-081 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:

- a. 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.

- b. All logging operations shall be by natural logging areas and in an efficient, orderly, and progressive manner.

No timber operations shall be conducted after February 1 of any year until the STATE or the PURCHASER has completed required surveys for northern spotted owls, and extension of the No-Take Certification has been received from the appropriate agency. Presence of owls in or near the sale area may impact the conduct or timing of harvesting operations.

Timber operations shall comply with the wet weather restrictions described in the Timber Harvesting Plan.

- c. 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.

- d. 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, except that a width of up to 12 feet may be permitted for adverse skidding with advance approval of the Timber 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.
- e. 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.

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.

- f. 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 severely damaged in logging, as described in the Timber Harvesting Plan, 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.
- g. Each merchantable tree that is felled shall be bucked to log lengths, limbed to the 6-inch top, and the top bucked 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 landing construction, as directed by the Timber Sale Officer for cutting of damaged trees, or as otherwise necessary for the conduct of harvesting operations.

All slash created by timber operations within 100 feet of permanent and seasonal roads shall be lopped to the extent that no portion shall remain over 30 inches above the ground. Prior to October 15 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.

- h. 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 spread along skid trails and spur roads and packed by dozer track as directed 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. With prior approval from the Timber Sale Officer slash may be piled and isolated for burning. Approval for such piling is required for each instance in which a pile will be created. Waste piles shall be kept substantially free of soil. Where plies are to be burned they shall be isolated by a 10-foot wide fire line to mineral soil. 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.

- i. 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.
- j. Timber to be harvested in the area designated for cable logging on the attached timber sale map (Exhibit A) shall be yarded using a standing, live or running skyline system which meets the following requirements:

- (1) Holds the skyline carriage stationary until logs are yarded laterally to the skyline corridor.
- (2) Can yard laterally a distance of at least 100 feet perpendicular to the skyline corridor.
- (3) 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.
- (4) Is capable of yarding for a slope distance of approximately 1800 feet from the landing, and which can reach a slope distance of approximately 2000 feet to the tailhold.
- (5) Can be used to pull trees against their lean.

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

The locations of all cable corridors shall be flagged 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. 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.

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.

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 map (Exhibit A) and when mapped next to a road or landing the limits which heavy equipment may not travel is the road or landing.

- k. 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.
- l. 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.
- m. 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.
- n. 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.
- o. As called for by the Timber Harvesting Plan or by Department of Fish and Game 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.

- p. 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.

#### **HARVEST ONLY DESIGNATED TREES**

11. 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 rate set forth in Section 1 of this Agreement.

#### **LIABILITY/DAMAGES PAYMENT RATE**

12. 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.

#### **PROTECTION OF STATE FOREST INFRASTRUCTURE**

13. 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 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.

#### **FOREST ROADS, Items 14a-14q**

14. 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: On side slopes 50% and less fill may be used to construct roads provided that the minimum amount of fill necessary to achieve adequate road width in conformance with 14.a.3 above is used. At no time shall fill volumes exceed cut volumes and may at a maximum be balanced with cut volumes. On side slopes exceeding 50%, new roads shall be full bench construction with no fill using an excavator and dump truck to end haul spoil material. Spoils shall be end hauled to locations where slopes are less than 30% and either incorporated into the road prism or piled and compacted with tracks and shaped to promote drainage. No spoils created during road construction shall be located in any WLPZ or ELZ. Roads shall not be constructed as through-cut sections unless approved by the Timber Sale Officer. 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 7% 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. Where grade of permanent or seasonal roads is more than 7%, waterbreaks or other suitable forms of water dispersal, shall be installed bulldozer or road

grader 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. 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 D.

- (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. 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 14.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 corrugated metal or polyethylene pipe culvert, metal downspout, rock, riprap and metal stakes in accordance with the attached culvert materials list (Exhibit B). The PURCHASER shall provide any additional materials needed to perform the work required below. The PURCHASER shall install culverts and energy dissipaters and do

other associated work in locations designated by, and to the specifications of, the Timber Sale Officer and as shown on the attached timber sale map and road work list (Exhibits A and C). 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 B 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 on existing roads shall be completed prior to October 15, 2011.

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. 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.

Energy dissipaters shall be placed at the outlets of culverts and at culvert inlets in accordance with the attached road work list (Exhibit C) and 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

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.

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 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 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 14.f.(1) of this Agreement.

Maintenance work shall also be done within 15 days of the end of hauling operations on each road, and immediately on completion of hauling on any road after October 15. Maintenance shall include outsloping 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.

- g. The PURCHASER shall construct and maintain approximately 1.75 miles of new seasonal truck road as indicated on the attached map (D) including approximately 600 feet of full bench construction. Seasonal truck road shall conform to provisions in the Timber Harvesting Plan and to road specifications set forth in paragraphs 14.a through 14.f of this Agreement.
- h. The Purchaser shall reshape approximately .19 miles of existing forest roads, as shown on the attached timber sale map (Exhibit A), to outslope the road surface and eliminate the inside ditch except in specific locations as indicated in the Timber Harvest Plan. Outsloping shall be achieved by pulling berms and fill material from the outboard edge of the road, spreading and compacting said material on the inside edge of the road to achieve a 2-5% outsloped road surface. The road surface and material used to outslope the road shall be watered as necessary to achieve adequate compaction consistent with paragraph 14.a(2). Rolling dips or waterbreaks shall be installed to create surface drainage consistent with paragraph 14.a(6) above. Reshaping of any designated roads which are not used for hauling logs shall be completed by 10/15/2011.
- i. 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) and as outlined in Encroachment Permit Number 0110-N-RP-0435, 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).

- j. The PURCHASER shall, to the satisfaction of the Timber Sale Officer, provide and install 1 gate at the newly constructed encroachment on road 78 as shown on the accompanying timber sale map (Exhibit A), and in accordance with the attached gate plan and specifications (Exhibit F), and in accordance with the attached encroachment permit (Exhibit G). Gate installation shall occur concurrently with encroachment construction, and shall be completed as soon as feasible.
- k. 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.
- l. The PURCHASER shall comply with a Department of Fish and Game Stream Alteration Permit obtained by the STATE, and shall supply all materials for the project. A copy of the approved permit shall be provided to the STATE prior to commencement of permitted activities.
- m. The PURCHASER shall provide, haul, place and compact 50 cubic yards of 3" minus crushed rock for road stabilization at locations specified by the Timber Sale Officer.

- n. Timber hauled from 14 Gulch shall access the public highway system via Road 70 north to Highway 20, or via newly constructed roads as indicated on the attached map (Exhibit A) to Highway 20.
- o. The PURCHASER shall abandon Forest Road 70 as shown on the attached timber sale map (Exhibit A) and as described in the Timber Harvesting Plan. Culverts and other non-native material removed from watercourse crossings shall be disposed of at an off-forest public disposal site. Road cross drains shall be constructed by using the dozer blade to push into the road and leave the excavated material on the road surface as a berm, rather than carving waterbars with the corner of the blade and wasting material over the side of the road. Areas of disturbed soil within the Watercourse and Lake Protection Zone shall be mulched with slash or straw provided by the PURCHASER.

Abandoned roads shall be effectively blocked to vehicles by installing tank traps or placement of stumps or partially buried unmerchantable logs as directed by the Sale Officer.

- q. 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.

#### **HEALTH AND SAFETY LAW, TEMPORARY STRUCTURES**

15. 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.

#### **FOREST FIRE SUPPRESSION**

16. 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.

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 Ranger 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.

#### **WATER WAGON**

17. 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. 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.

#### **TIMBER REMAINS STATE PROPERTY UNTIL PAID IN FULL**

18. 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.

#### **PURCHASER'S REPRESENTATIVE AVAILABILITY**

19. 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.

#### **INDEMNITY CLAUSE**

20. The PURCHASER agrees to indemnify and save harmless the STATE, its officers, agents, and employees, from any and all claims and losses accruing or resulting to persons engaged in or about the performance of this Agreement, or to third persons who may be injured or damaged by the PURCHASER or PURCHASER's agents, in the performance of this Agreement except negligent acts of the STATE. The PURCHASER shall provide necessary Workers' Compensation Insurance at the PURCHASER'S own cost and expense.

#### **COMPLY WITH ALL REGULATIONS/LAWS**

21. 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.

The PURCHASER shall comply with all applicable State Safety Orders, Title 8, California Code of Regulations.

22. 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.

23. This Agreement is entered into by the STATE in reliance upon the knowledge and skill of the PURCHASER, and is not assignable by the PURCHASER either in whole or in part except on prior written consent by the STATE.

24. Time is the essence of each and all of the provisions of this Agreement.

25. 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.

26. 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 \$75,000. 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:

- 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.

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.

27. 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.

28. Upon mutual consent, either party may amend this contract in writing.

29. The PURCHASER understands that his/her performance under this contract will be evaluated by the STATE.

30. If contract involves the expenditure of public funds in excess of \$10,000, contracting parties shall, in accordance with Government Code section 8546.7, be subject to examination and audit of the Bureau of State Audits for a period of three years after final payment under the contract. Examination and audit shall be confined to those matters connected with performance of the contract including, but not limited to, cost of administering contract.

#### **NON-DISCRIMINATION/ FAIR EMPLOYMENT**

31. During the performance of this Agreement, PURCHASER and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. PURCHASER and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. PURCHASER and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations

of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. PURCHASER and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement. PURCHASER shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

32. The PURCHASER certifies under the penalty of perjury under the laws of the State of California to have, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990, California Code of Regulations, Title 2, Section 8103, and the general terms and conditions contained in the document CCC-307 are hereby incorporated by reference and made a part of this Agreement by this reference as if attached hereto.

33. This contract is complete and in force only after all STATE approvals are obtained.

IN WITNESS WHEREOF this Agreement has been executed by and on behalf of the parties hereto, the day and year first above written.

STATE OF CALIFORNIA  
DEPARTMENT OF FORESTRY  
AND FIRE PROTECTION

\_\_\_\_\_  
(Name of PURCHASER)

By \_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
(Printed name)

\_\_\_\_\_  
(Title)



## EXHIBIT B

## CULVERT AND MISCELLANEOUS ROAD WORK MATERIALS LIST

## 1. CULVERT:

<u>ITEM</u>	<u>MATERIAL</u>	<u>GAUGE</u> <u>alum/galv</u>	<u>PIECE</u> <u>DIAM.</u>	<u>LENGTH</u>	<u>TOTAL</u> <u>PIECES</u>	<u>LENGTH</u>
Pipe	HDPE plastic Double wall bell/spigot		18"	20'	4	80'
Pipe	HDPE plastic Double wall bell/spigot		42"	20'	2	40'
coupler	HDPE plastic		18"	-'	1	-'
Coupler	HDPE plastic		42"	-	1	-

\* 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 IN EXHIBIT C:

<u>ITEM</u>	<u>QUANTITY</u>
Fence posts, steel, six-foot	1 ea.
Crushed rock, 3" base	30 yd <sup>3</sup>
Riprap 6-10"	15 tons
Riprap ≥ 12"	24 tons
Straw	293 bales
Seed	20 sacks

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 C****CULVERT AND MISCELLANEOUS ROAD WORK LIST**

## A. Map Points

Map  
Point

Work to be done

- A Using an excavator and tractor, remove existing culvert and remove crossing. If the road will be used past this point install 40 linear feet of 18 inch plastic culvert and 1 coupling to drain watercourse during operations. Remove the temporary culvert prior to completion or prior to October 15<sup>th</sup> of the year of operations. All fill at the site shall be removed, placed on the road surface and used to outslope the road where feasible. Channel side slopes shall be excavated to no greater than 50% slope. Waterbreaks shall be installed on both sides of the crossing with tailouts located no further than 25 feet from the hinge-line of the excavated road prism. Seed and mulch bare mineral soil in the area between the waterbreaks.
- B Using a backhoe or excavator and tractor, install rock armored ford consistent with design criteria found in the THP on pages 17 and 18 and diagram on page 55. Fill dip in road surface with 20 cu.yd. of rock 2"-6". Place 10 cu. yd. of rock  $\geq$  12" in keyway and spillway of dip. Install a waterbreak at the flagged location upslope from the rock armored ford. Seed and mulch exposed mineral.
- C Using an excavator and tractor, remove existing culvert and install 40 linear feet of 42 inch corrugated metal culvert, 1 coupling, 1 metal stake for the inlet and a critical dip centered over the culvert. Install culvert at grade of original stream so bottom of outlet is level with stream bed. Armor the inlet with 3 cu. yd. of rock 6-16". Armor the outlet with 3 cu. Yd. of rock 6-16". Seed and mulch bare mineral soil.
- E Using a backhoe or excavator and tractor, install a rolling dip at flagged location upslope of a cutbank failure. Pull berm and fill material from the rolling dip to 50 feet downslope of the bank failure. Remove overhanging material remaining on rolling dip. Place spoil material on the inside of the road prism, compact with tracts and utilize material to outslope the road. Seed and mulch bare mineral soil.
- F Using an excavator and tractor, install/enhance inside ditch from beginning flagged location to ending flagged location and construct a rocked rolling dip to drain inside ditch. Place 10 cu. yd. of rock, 6-10" in the base, outlet and keyway of rolling dip. Cap rolling dip with 10 cu. yds of 3" rock. Seed and mulch bare mineral soil.

<u>Map Point</u>	<u>Work to be done</u>
G	Install inside ditch at flagged location for 60 feet to ditch relief culvert. Seed and mulch bare mineral soil.
H	Using a backhoe or excavator and tractor, maintain waterbreak and pull fill material at outlet. Incorporate material into road prism. Seed and mulch bare mineral soil.
I	Using a backhoe or excavator and tractor, remove ditch relief culvert and install a cross-road drain. Seed and mulch bare mineral soil.
J	Using an excavator and tractor, remove existing culvert and restore the gradient of the watercourse. The top and bottom of channel re-grading is identified with pink flags. A channel $\geq$ 2.5 feet shall be created at the location. Remove all fill material at the crossing and incorporate into the road prism. Slope channel banks back to approximately 40% from the bed of the channel to the top of the road prism. Incorporate all spoils material into the road prism shaped to promote drainage and packed with tracks. Seed and mulch bare mineral soil.
K	Using a backhoe or excavator and tractor, remove ditch relief culvert and install a cross-road drain. Seed and mulch bare mineral soil.
L	Using an excavator and tractor, restore the gradient of the watercourse. The top and bottom of channel re-grading is identified with pink flags. A channel $\geq$ 2 feet shall be created at the location. Remove all fill material at the crossing and incorporate into the road prism. Slope channel banks back to approximately 40% from the bed of the channel to the top of the road prism. Incorporate all spoils material into the road prism shaped to promote drainage and packed with tracks. Seed and mulch bare mineral soil.
M	Using an excavator and tractor, restore the gradient of the watercourse. The top and bottom of channel re-grading is identified with pink flags. A channel $\geq$ 2 feet shall be created at the location. The flagged channel alignment contains a slight angle to avoid removing a clump of redwoods. The resulting angle shall be armored with woody material. Remove all fill material at the crossing and incorporate into the road prism. Slope channel banks back to approximately 40% from the bed of the channel to the top of the road prism. Incorporate all spoils material into the road prism shaped to promote drainage and packed with tracks. Seed and mulch bare mineral soil.

Map  
Point

Work to be done

- N Using an excavator and tractor, remove existing culvert and restore the gradient of the watercourse. The top and bottom of channel re-grading is identified with pink flags. A channel  $\geq 3$  feet shall be created at the location. Remove all fill material at the crossing and incorporate into the road prism. This includes material associated with an adjacent skid trail and landing. Slope channel banks back to approximately 40% from the bed of the channel to the top of the road prism. Incorporate all spoils material into the road prism shaped to promote drainage and packed with tracks. Seed and mulch bare mineral soil.
- O Using an excavator and tractor, restore the gradient of the watercourse. The top and bottom of channel re-grading is identified with pink flags. A channel  $\geq 1.5$  feet shall be created at the location. Remove all fill material at the crossing and incorporate into the road prism. Slope channel banks back to approximately 40% from the bed of the channel to the top of the road prism. Incorporate all spoils material into the road prism shaped to promote drainage and packed with tracks. Seed and mulch bare mineral soil.
- P Using a backhoe or excavator and tractor, remove ditch relief culvert and install a cross-road drain. Seed and mulch bare mineral soil.
- Q Using an excavator and tractor, remove existing culverts and restore the gradient of the watercourse. The top and bottom of channel re-grading is identified with pink flags. A channel tapering from 1.5 feet (at upper flag) to 10 feet (at current location of culverts) shall be created at the location. Remove all fill material at the crossing and incorporate into the road prism. Slope channel banks back to approximately 40% from the bed of the channel to the top of the road prism. Incorporate all spoil material into the road prism shaped to promote drainage and packed with tracks. Seed and mulch bare mineral soil.
- R If this road segment is used and water is present install 20 linear feet of 18 inch culvert. If the road segment is used and no water is present maintain a rolling dip. Prior to completion of operations or prior to October 15<sup>th</sup> of the year of operations the crossing shall be removed regardless of whether the road is used or not. All fill at the site shall be removed, placed on the road surface and used to outslope the road prism. Channel side slopes shall be excavated to no greater than 50% slope. Install a waterbreak on the upslope

side of the crossing with tailout located no further than 25 feet from the hinge-line of the excavated road prism. Seed and mulch exposed mineral soil within 25 feet of the crossing.

- S If this road segment is used and water is present install 20 linear feet of 18 inch culvert. If the road segment is used and no water is present maintain a rolling dip. Prior to completion of operations or prior to October 15<sup>th</sup> of the year of operations the crossing shall be removed regardless of whether the road is used or not. All fill at the site shall be removed, placed on the road surface and used to outslope the road prism. Channel side slopes shall be excavated to no greater than 50% slope. Install a waterbreak on both sides of the crossing with tailouts located no further than 25 feet from the hinge-line of the excavated road prism. Seed and Mulch exposed mineral soil within 25 feet of the crossing.
- T Ramp over cut bank failure and incorporate material into road prism. Seed and mulch bare mineral soil prior to October 15<sup>th</sup>.

B. Road 70 abandonment

Using a tractor, install cross road drains at locations flagged along WLPZ road segment shown on the attached map (Exhibit A). Flagged locations are designated with one pink and one white flag together. Cross road drains shall be excavated as exaggerated dips 1 foot in depth below the road surface with at least a 2 foot berm on the downgrade side of the drain. The bottom of the cross road drains shall be flat for at least 1 foot to minimize scour. All bank slopes, berm material and drain bottoms shall be compacted with tracks. No sidecasting or placement of perched fill on outside edge of road shall occur. Seed and mulch bare mineral soil exposed by operations along the entire WLPZ road as shown on the attached map (Exhibit A).

C. Road 70 outsloping

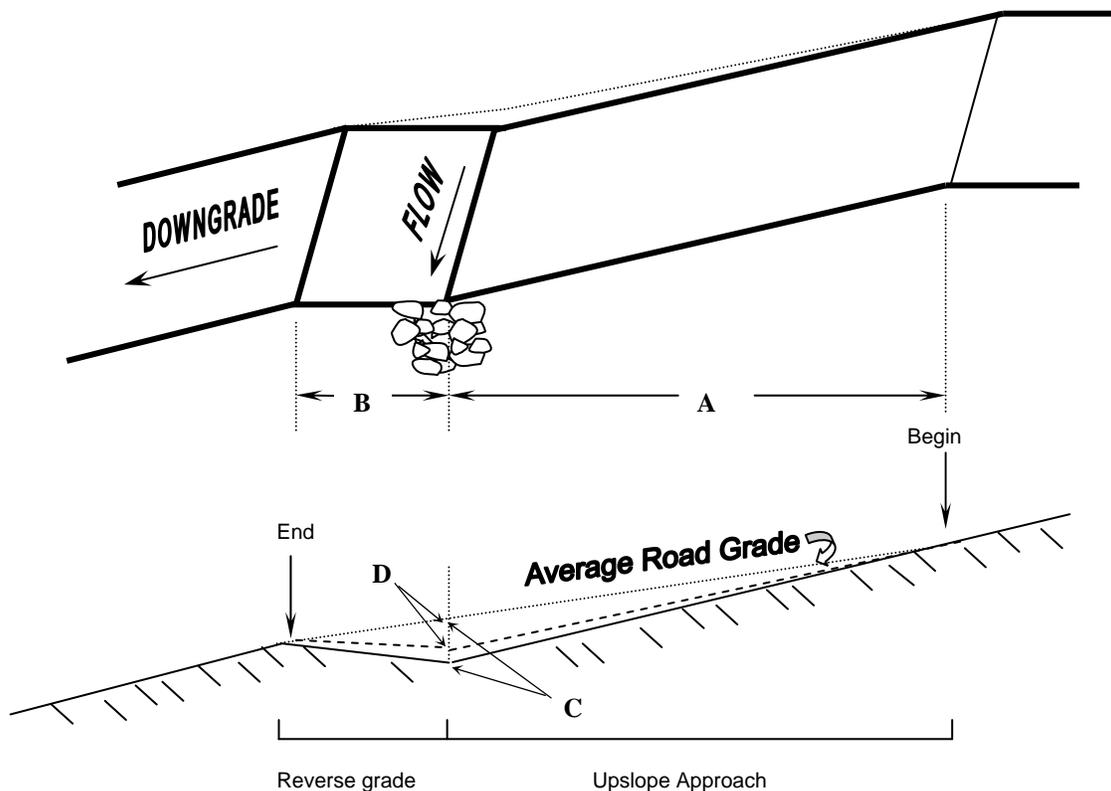
Using a backhoe or excavator and tractor, pull berm and fill material from outboard edge of road and outslope road for 1000 feet at flagged locations. Locations are flagged with one orange and one white flag together with marking indicating beginning and ending of segments to be outsloped. Place, spread and compact fill material on inside edge of road prism and inside ditch. Leave road as outsloped 2-5% with no inside ditch except in specific locations as indicated in the Timber Harvest Plan. The road surface and material used to outslope the road shall be watered as necessary to achieve adequate compaction consistent with paragraph 14.a(2). Rolling dips or waterbreaks shall be installed to create surface drainage consistent with paragraph 14.a(6) above. Seed and mulch bare mineral soil exposed by operations along the entire WLPZ road as shown on the attached map (Exhibit A).

**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.

<b>ROLLING DIP DIMENSIONS</b>				
<b>Road Grade (%)</b>	<b>Upslope approach (distance from up-road start of rolling dip to trough in feet)</b>	<b>Reverse Grade (distance from trough to crest in feet)</b>	<b>Depth below average road grade at discharge end of trough (ft)</b>	<b>Depth below average road grade at upslope end of trough (ft)</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
< 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 E**

**SAMPLE FORM FOR REPORTING OPERATING COSTS**

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>	Check if *		<u>Total Cost</u>
			<u>With Oper.</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>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

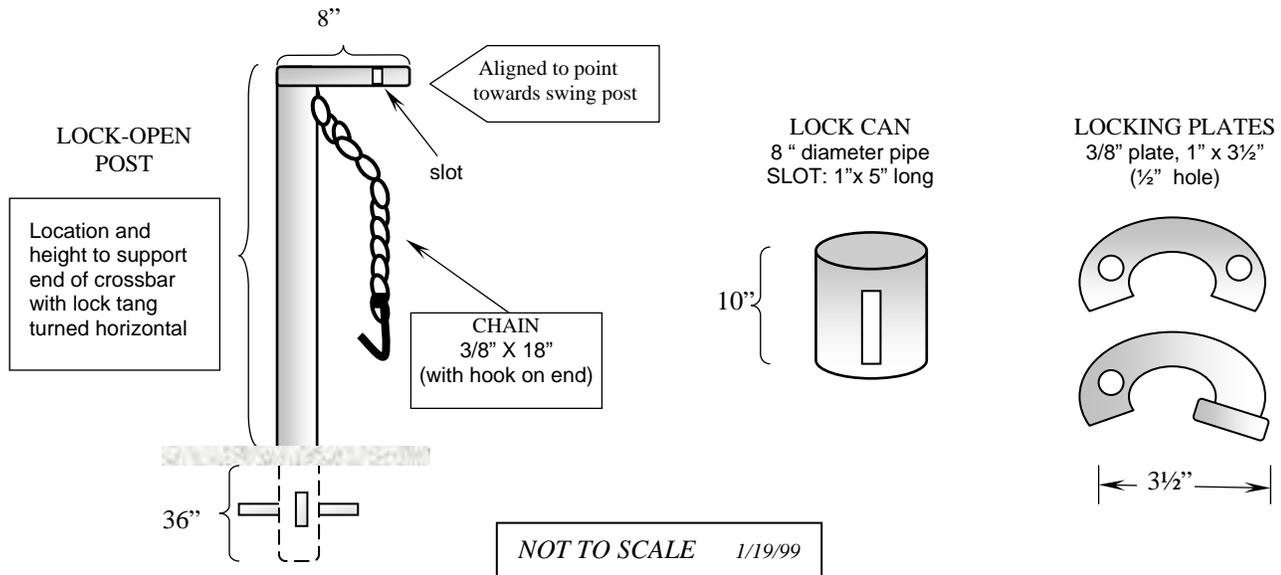
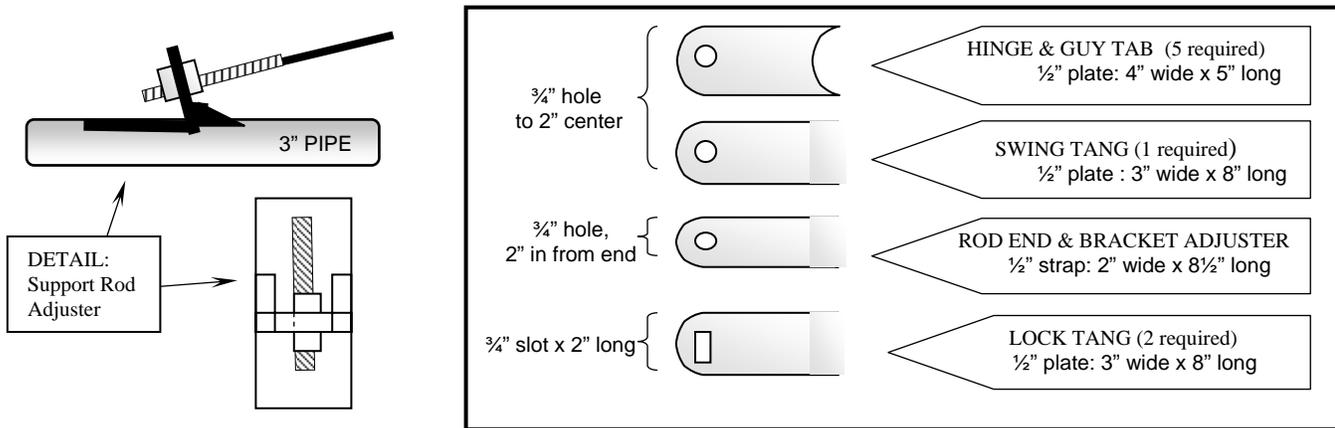
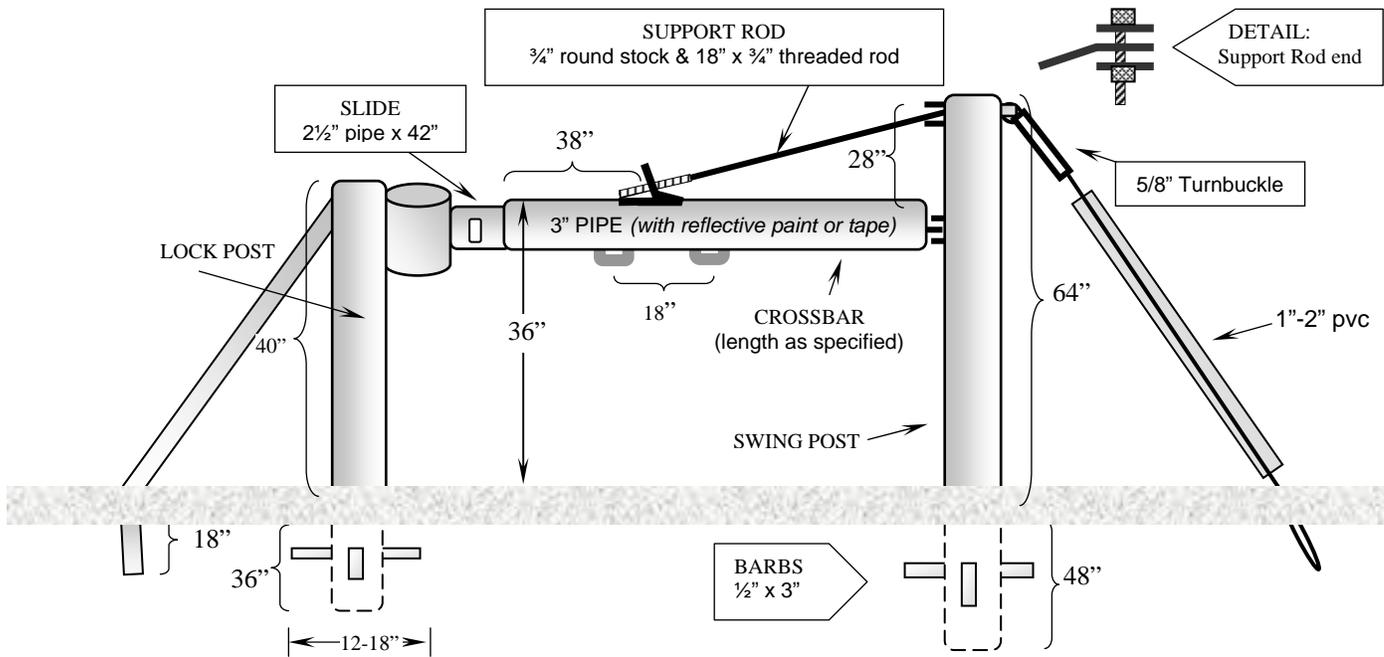
\* Labor rates, whether with equipment rates or listed separately, must include state comp insurance, benefits, and other employer costs.

**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.

**GATE PLAN**



**ENCROACHMENT PERMIT**

TR-0120 (REV 6/2000)

Permit No. 0110-N-RP-0435	
Dist/Co/Rte/PM 01-MEN-20-11.3	
Date December 17, 2010	
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 November 22, 2010
- Utility Notice No. \_\_\_\_\_ of \_\_\_\_\_
- Agreement No. \_\_\_\_\_ of \_\_\_\_\_
- R/W Contract No. \_\_\_\_\_ of \_\_\_\_\_

**PERMIT EXPIRES  
December 31, 2012**

TO: CAL FIRE  
P.O. BOX 944246  
SACRAMENTO, CA 94244-2460

ATTN: CAMERON HENION  
(916) 324-7184

, PERMITTEE

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

Enter the State highway right of way at post mile 11.3 on State Route (SR) 20 in Mendocino County to construct a commercial road approach for temporary and intermittent logging access with work within the State highway right of way to comply with State standards and work outside of the State highway right consisting of installing an 18" RCP culvert, flared end sections and aggregate base road approach as per the plans and application received by the Caltrans District 1 Permit Office on November 22, 2010 and as amended by this encroachment permit and all future riders.

A pre-job meeting with the assigned Department's Representative, Kelley Schultz (707) 463-4726, is required prior to the start of any work under this permit. Failure to do so may result in permit cancellation and resubmittal may be required. The Department's Representative shall be notified 5 days before work is initially started and 3 days prior to subsequent restarts.

The Permittee shall notify the Ukiah Permit Office when work starts or of any changes in work schedule.

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):

- Yes     No    General Provisions
- Yes     No    Utility Maintenance Provisions
- Yes     No    Special Provisions
- Yes     No    Stormwater Special Provisions
- Yes     No    A Cal-OSHA permit, if required: Permit No. \_\_\_\_\_
- Yes     No    As-Built Plans Submittal Route Slip for Locally Advertised Projects
- Yes     No    Storm Water Pollution Protection Plan

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

- Yes     No    Review
- Yes     No    Inspection
- Yes     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 December 31, 2012

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.

DE FIGUEIREDO	DR RAMERIZ	K SCHULTZ+2	APPROVED:
AM JONES_2	TA ARSENEAU	JD SHUPE	
D BONGIO	MD VINA	D YORK	
K SARTORIUS	C GRAHAM		CHARLES C. FIELDER, District Director
PLAN SET#2010-020 15			BY: <i>Jon D. Forsyth</i> 12-17-10
FILE		D.P.E.	JON D. FORSYTH, P.E., District Permit Engineer
Permit Writer: L.FIELDS			

## SPECIAL PROVISIONS

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

1. PENDING APPROVAL
2. This permit is written to allow temporary and intermittent use, and is written to expire December 31, 2012. Before expiration the Permittee shall remove and obliterate this access, including culvert installation. The ditch line shall be reconstructed back to existing.
3. Should Permittee desire a permanent access the road approach shall be paved with a minimum of 4" of asphalt concrete from the edge of the existing road, back to a point 33' from the edge of traveled way, and the depth of existing paving in the turnout shall increase to meet that standard, unless proven otherwise by core drilled samples. This work shall be requested by either a separate encroachment permit application or rider request.
4. This encroachment permit shall remain INVALID IF the below items, in each direction, have not been completed:
  - a) Submittal of documentation that a minimum of 605' of unobscured "Corner" sight distance is proposed and achievable.
  - b) Submittal of documentation that a minimum of 525' of stopping sight distance is proposed and achievable.
  - c) All work within the State highway right of way is to be completed to State standards, including the road approach work.
  - d) Prior to placing base rock Permittee shall prove to the Department's Representative on-site satisfaction that the minimum corner stopping sight distance of 605 feet has been met.
5. Once the requirement in special provisions #5a through #5c have been completed, Permittee shall is authorized to perform the work necessary to complete these items in the field. The Department's Representative shall inspect the field location and complete his determination and approval this work has been completed to the standards listed in special provision #5a through #5c before Permittee is authorized to begin any other work under this encroachment permit. Only clearing and grubbing work is authorized under this encroachment permit until Permittee has complied with special provision #2d above.
6. PRE- CONSTRUCTION PLAN CHANGES
7. Permittee shall complete all items listed under pending approval above BEFORE beginning any other work.
8. The "throat" of the road approach shall be placed either radial or perpendicular to the highway.
9. Plans shall be updated to reflect the changes in pending approval.
10. The proposed State highway encroachment plans received on November 19, 2010 as submitted are NOT APPROVED. Plans shall be updated to reflect that all work within the State highway right of way is being designed and constructed to State standards. This includes, but is not limited to the following:
  - a) All items listed under pending approval.
  - b) Commercial road approach driveways shall be a minimum of 20 feet in width measured at a point 41 feet from the edge of the traveled way (fog stripe) and paved to the Caltrans right of way.
  - c) The driveway shall have 33' radius flares, and the curves shall be tangent to the existing edge of pavement.
  - d) The commercial road approach shall meet State standards.
  - e) The Reinforced Concrete Pipe (RCP) shall be Class V, complying with Caltrans Standard Specification Section 65, "Reinforced Concrete Pipe".
  - f) Flared end sections complying with Caltrans Standard Specifications Section 70-1.02C, "Flared End Sections" shall be metal or plastic and attached to the RCP per Caltrans Standard Plan D94A, "Metal and Plastic Flared End Sections".
  - g) The exact length of the culvert shall be determined in the field. The open top portion of the Flared End Section (FES) shall be a minimum of two feet from the edge of the proposed Class II Aggregate Base logging road.
  - h) Upon conversion to a permanent commercial road approach, the separate encroachment permit application or rider request shall include paving the area within the State highway right of way, including road approach, tapers and flares, a minimum of 4" Asphalt Concrete over 6" Aggregate Base. Permittee shall remove and replace existing pavement unless Permittee furnish sufficient documentation is provided to the District Permit Engineer and he issues his approval.
11. ORDER OF WORK
12. No work may begin until the District Permit Engineer confirms Permittee's submittal of documentation to achieve corner and stopping sight distance above listed under pending approval has been completed.
13. Only clearing and grubbing work is authorized under this encroachment permit until Permittee has complied with special provision #4d above.
14. During active logging, any mud or debris tracked onto the State highway shall be immediately removed to the satisfaction of the Department's Representative.

### SPECIAL PROVISIONS

15. Log hauling or moving heavy equipment on to or off the state highway shall occur during daylight hours only. Hours of daylight are defined as those hours between Sunrise to Sunset, as listed in the local newspaper for that day.
16. GENERAL INFORMATION
17. Chemical control or spraying, including herbicide treatment, is prohibited under this encroachment permit.
18. This Encroachment Permit, as approved by the District Permit Engineer, shall take precedence in the event of any discrepancies between the Permittee's proposed plan and this Encroachment Permit (including amendments by future riders). The Department's Representative shall have the authority to resolve any discrepancies between the Permittee's proposed work and the approved Encroachment Permit (including amendments by future riders). If it is deemed by the Department's Representative that the proposed work is outside the scope of the permit the Permittee shall apply for a new encroachment permit.
19. USA-N (Underground Service Alert - North) shall be notified at 811 or 1-800-227-2600 at least 2 working days before work begins in accordance with provision 37 of the attached General Provisions.
20. Caltrans Electrical Technician, Kevin Parks at Ukiah, (707) 463-4713, shall be notified at least 3 working days before work is to begin so any Caltrans electrical facilities may be located.
21. It is the responsibility of the Permittee/Contractor to notify local City/County or public agencies to locate any buried facilities prior to any excavations.
22. Randy Haralson, Senior Transportation Surveyor at Ukiah (707) 463-5427 shall be notified 1 week before work is started so any Caltrans survey monuments may be located.
23. Monuments shall be protected and not be disturbed.
24. Your attention is directed to Standard Specification, Section 7-1.11 Preservation of Property, and Business and Professions Code, Section 8771. 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.
25. 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 Section 81 'monuments' and Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer.
26. 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.
27. The District Public Information Office, (707) 445-6444, shall be contacted two weeks in advance of the start of construction.
28. The Permittee shall contact the Senior Construction Engineer, Cindy Graham (707) 498-2122, to coordinate work with Caltrans construction contracts in Mendocino County.
29. Caltrans Landscape Specialist, Domenic Bongio (telephone 707-445-6391), shall be notified in order to coordinate tree trimming/removal mitigation before work is started.
30. The State of California, Department of Transportation makes no assurance or expressed warranty that the plans are complete or that the planned construction fits field conditions. Should additional work or modifications of the work be required in order to meet established Department Standards or in order to fit field conditions, the work shall be performed by the Permittee as directed by the Department's Representative.
31. The Permittee shall indemnify and save harmless the State of California and all officers and employees thereof connected with the work or activity authorized by this permit, including but not limited to the Director and the Engineer, from all claims, suits or actions of every name, kind, and description, brought forth, or on account of, injuries to or death of any person including but not limited to workmen or participants and the public, or damage to property resulting from the performance of the activity authorized by the permit, except as otherwise provided by statute. 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.
32. It is the intent of the parties that the Permittee will indemnify and hold harmless the State, its officers and employees from any and all claims, suites of actions as set forth above regardless of the existence or degree of fault or negligence on the part of the State, the Permittee, the employee or volunteer of any of these, other than in the active negligence of the State, its officers and employees.
33. The Permittee's work shall be subordinated to any operations which the Department may conduct and shall not delay, nor interfere with the Department's Forces or the Department's Contractors.

### SPECIAL PROVISIONS

34. All work on the State highway shall be performed in conformance to current Caltrans construction and safety policies, guidelines and standards, including Encroachment Permit General Provisions and Storm Water Special Provisions for Minimal or No Impact.
35. Notwithstanding General Provisions #4, your contractor is required to apply for and obtain a separate encroachment permit (known as a "Double Permit") prior to start of work. A fee/deposit of \$492.00 and a performance bond in the amount of \$5,000.00 is required at the time of application. The Double Permit shall be approved and issued prior to the contractor beginning work.
36. DRAINAGE
37. The Reinforced Concrete Pipe (RCP) shall be Class V, complying with Caltrans Standard Specification Section 65, "Reinforced Concrete Pipe".
38. Flared end sections complying with Caltrans Standard Specifications Section 70-1.02C, "Flared End Sections" shall be metal or plastic and attached to the RCP per Caltrans Standard Plan D94A, "Metal and Plastic Flared End Sections".
39. The exact length of the culvert shall be determined in the field. The open top portion of the Flared End Section (FES) shall be a minimum of two feet from the edge of the proposed Class II Aggregate Base logging road.
40. The ends of the culvert shall be marked with Class I delineators per Caltrans Standard Plan A73C, "Delineators, Channelizers and Barricades".
41. Where a culvert is installed, it shall be installed in the flowline of the existing drainage ditch at a slope to provide maximum drainage, as directed by the Department's Representative.
42. A standard flared end section shall be installed at the inlet and outlet of the culvert per Caltrans Standard Plan D94A, "Metal and Plastic Flared End Sections".
43. The existing ditch shall be "graded to drain" and perpetuate existing drainage patterns that follow to the lines and grades as approved by the Department's Representative.
44. Permittee shall maintain the driveway, culvert and ditch to its fully functional capacity. The Permittee shall submit encroachment permits to cover this work as needed in the future.
45. The Permittee shall maintain existing drainage patterns as required by applicable drainage law. The Permittee shall not perform grading or allow connections to the Caltrans drainage system that would allow additional offsite drainage to damage the Caltrans or non-Caltrans drainage facilities or other property at this location. Any changes or modifications to the Permittee's drainage system shall require submittal of a Caltrans encroachment permit application with drainage calculations indicating the drainage quantities before and after modification and the effects to the capacity to the Caltrans drainage system signed by a Registered Engineer licensed to practice in the State of California.
46. Any change in the existing drainage pattern, whether occasioned by increase or diversion, and the cost of any damage, repair or restoration of the State highway right of way shall be the responsibility of the Permittee.
47. Permittee assumes all responsibility for remedy/payment to others or Caltrans in the event of a hazardous material spill that enters the State Highway Right of Way in amounts in violation of any current, past or future law or regulation governing hazardous wastes.
48. Permittee's drainage discharge shall meet the requirements of all Federal and State Storm Water Pollution Prevention laws, regulations and requirements before entering the Caltrans drainage system at this location. The Permittee shall be responsible for the cost of all treatment facilities and the maintenance necessary to prevent illegal pollutants or discharge from entering Caltrans drainage system at this location (this includes but is not limited to providing a chemical analysis of imported material to be placed in the Caltrans right of way).
49. Permittee shall not allow any contaminants generated by this excavation to enter local waterways. All water used in the process of this repair shall be contained, collected and disposed of in the proper manner.
50. METAL GATE
51. Gate and gate post(s) shall be a minimum of 75' beyond the edge of traveled way, located outside the State highway right of way, as denoted on the submitted plans. In addition, the gate shall be placed far enough back for adequate staging of trucks and vehicles necessary for Permittee's operations to ensure that there will not be any impacts to the State highway right of way.
52. Gate installation shall not depict right-of-way ownership.
53. ROAD APPROACH CONSTRUCTION

### SPECIAL PROVISIONS

54. Asphalt Concrete or PCC pavement shall be saw-cut at conform location. The Permittee shall "saw-cut" the existing pavement to the line and grade approved by the Department's Representative before installation of the structural section.
55. Excavations made within the limits of the right of way shall be backfilled before leaving the work for the night unless otherwise authorized by State's representative. After backfilling, temporary surfacing shall be placed if required by State's representative.
56. The Permittee shall contact State's representative before placing structural section materials for the roadway pavement.
57. The approach fill area shall slope away from the highway pavement or improved shoulder and shall be so constructed as to avoid any flowing water reaching the traveled way and to avoid pocketing or ponding of water.
58. If not shown on project plans, the road approach or driveway shall conform to the "Standard Private and Commercial Road Approach in Rural Areas with Unimproved Frontage on Conventional State Highway".
59. The Permittee shall apply for and obtain a separate Caltrans Encroachment Permit or Rider approving a change in usage (i.e. any use other than intermitted logging access and paving this approach) before such usage may legally occur.
60. A minimum unobscured Corner Sight Distance of the road approach of 605-feet to the East and West shall be maintained by grading and the removal of vegetation and trees to the lines and grades approved by the Department's Representative.
61. A minimum of 525-feet of Stopping Sight Distance shall be achieved and maintained as well.
62. Asphalt dikes are not required.
63. After paving the Permittee shall provide Shoulder Backing Imported Material to be placed to the lines and grades approved by the Department's Representative and compacted to 95% relative compaction in accordance with Section 19-5.03 of the Standard Specifications.
64. The road approach shall be constructed with a maximum -5% (downward) slope or +5% (upward) slope within 20' of the traveled way unless otherwise approved by the Department's Representative.
65. **SALE OF PROPERTY:** This encroachment permit is not transferred with the property to a new owner at the time of sale. New property owners must apply for and obtain a new permit.
66. **MAINTENANCE OF FACILITIES:** Permittee is responsible for all routine and emergency maintenance of any facilities constructed or permitted under this permit. Routine road approach maintenance includes, but is not limited to, pavement repairs, restriping, replacement/maintenance of signs, keeping approach culvert(s) clear, maintaining headwall, and snow removal (including berms created by highway plowing operations).
67. **MAINTENANCE ENCROACHMENT PERMIT:** All routine and emergency maintenance work required for facilities located within the State right-of-way will require a separate encroachment permit.
68. **MAINTENANCE FOR SITE DISTANCE:** Trees and brush shall be cut or trimmed and additional grading done to provide sight distance, as directed by Department's Representative. For as long as Permittee utilized the road connection, Permittee is responsible to maintain sight distance through the trimming or removal of offending vegetations.
69. **EXCAVATION PROTECTION REQUIREMENTS**
70. No earth or construction materials are to be dragged, scraped across the highway pavement and no excavated earth shall be placed or allowed to remain at a location where it can be tracked onto the highway traveled way or any public or private approach by the Permittee's construction equipment or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach shall be immediately removed by the Permittee.
71. Excavation slopes shall be constructed in conformance with the lines and grades established by the Department's Representative. Driveway and sight bench cut slopes shall not be steeper than 1.5:1 (horizontal:vertical) unless otherwise approved in advance by the Department's Representative.
72. Excavations both transverse and longitudinal to the highway within 12' of the traveled way shall be restricted to the amount of work that can be completed in one work shift unless otherwise approved by the Department's Representative in advance of the work.
73. The Permittee shall submit a "Trenching and Shoring Safety Plan" to the Department's Representative a minimum of two weeks prior to any excavation greater than 5' in depth. The "Trench Shoring Safety Plan" must be approved by Caltrans prior to the start of work. The shoring plan shall conform to all CAL-OSHA requirements and shall provide the following information:
  - a) Type of shoring to be used.
  - b) Manufacturers tabulated data and specifications for the shoring signed by a Registered Civil Engineer.
  - c) Soils classification as determined by a Registered Civil Engineer or the name of the individual trained to classify soils that will

## SPECIAL PROVISIONS

be on the job site.

- d) Assurance that the competent person or Engineer who will determine the surcharge loading will be on site.
- e) A copy of the Permittee / Contractors valid excavation permit.

74. All excavations shall be backfilled and able to support legal highway loads prior to the end of the daily shift, or:
  - a) Unattended and accessible excavations IN EXCESS OF 12' of the traveled way (fog stripe) shall be shored and covered by steel plates or protected by 6' high chain link construction fencing around the entire perimeter of the excavation.
  - b) Open excavations 12' OR LESS of the traveled way (fog stripe) shall be protected at all times by means of: 1) traffic control and flaggers; 2) Temporary Railing (Type K); 3) shoring and adequately thick steel cover plates; or 4) a combination of the above as directed by the Department's Representative.
75. Any vertical deviations shall be tapered to existing grade with a 12:1 (horizontal:vertical) at the end of each shift.
76. Trenches shall not be left unprotected and unattended at any time.
77. Excavations shall be adequately shored in accordance with Cal-OSHA requirements and to the satisfaction of the Department's Representative. All excavations 5' or deeper in depth shall be shored.
78. BACKFILL REQUIREMENTS
79. The subgrade in the culvert trench shall be compacted to 95% relative compaction prior to pipe placement.
80. Earthwork shall conform to the provisions in Section 19, "Earthwork" of the Caltrans Standard Specifications as approved by the Department's Representative. The structural section of the road approach shall consist of a minimum of six inches of Aggregate Base compacted to 95 % relative compaction in accordance with Section 19-5.03 of the Standard Specifications and surfaced with 4 inches of Asphalt Concrete placed in accordance with Section 39, "Asphalt Concrete" of the Standard Specifications.
81. Base compaction shall be approved in advance of paving by the Department's Representative.
82. Permittee's / Contractor shall provide compaction test results as requested by the Department's Representative.
83. Permittee /contractor shall have vendors provide "Certificates of Compliance" for concrete and slurry material utilized.
84. TREE TRIMMING AND REMOVAL - GENERAL
85. Traffic control is authorized only from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays. Any traffic control that requires lane closure shall be in compliance with the appropriate traffic control plan. Where required by the plan, the use of a flashing arrowboard is MANDATORY.
86. All debris shall be removed from the right of way and the area left in a safe and presentable condition at the end of each work day.
87. Climbing Spurs shall not be used except when removing trees or when working in the tops of Eucalyptus, Palms and Conifers.
88. Head back trim consists of reducing the height and/or spread of a tree by not more than one third. Head back trim is performed by a method called "drop crotch" pruning, which permits the preservation of a natural appearing foliage margin. Drop crotch pruning consists of removing perimeter branches at their junction with shorter branches. The shorter branches are retained intact to form a new foliage margin at the specified height and/or spread.
89. Permittee/contractor shall provide a (other than a water truck) means of removing "tracked" mud or dirt before or after entering the State right of way as approved by the Department's Representative before usage.
90. TREE TRIMMING
91. Tree trimming and excavation within the root systems of existing trees within the Caltrans right of way shall be approved by Caltrans District 1 Maintenance Landscape Specialist, Domenic Bongio, at (707) 445-6391 before work is started.
92. Tree trimming within the State highway right of way shall be performed by or under the detailed supervision of a qualified tree trimmer and the work must conform to the following:
  1. In general, only light trimming of annual growth 2" or less in diameter will be permitted. The basic structure of the tree must be preserved. All large cuts shall be painted.
  2. All trees shall be left in a symmetrical shape that is characteristic to their species.
  3. This Permit alone does not grant permission to trim trees which are wholly or partly on private property. Permission must also be secured from the local property owner before trimming these trees.
  4. Permittee shall trim excessive growth on the sides or top of the tree in all instances where it is obvious that previous pruning practices (topping and/or side trimming) are the cause of the excessive growth over State or adjacent private property. The finished tree shall be balanced and symmetrical.
  5. Crown reduction shall be accomplished by use of selective trimming, not directive. Cuts, whenever possible, shall be made at

### SPECIAL PROVISIONS

strong laterals. Stubbing and/or shear pruning will not be permitted.

6. Limbs larger than 2" in diameter may be removed for restructuring of the crown framework or to remove undesirable growth. Entire limbs may be cut off at the trunk. Care must be taken to avoid large holes in the canopy or to avoid creating unbalanced trees.

7. Trimming which would have the effect of forcing an unbalanced side growth or hazardous overhang on the highway will not be permitted. Under these conditions, proper thinning and heading in will be required before top or center trimming is permitted. The terminal bud of the leader shall not be removed.

8. Restructuring growth shall be cut for removal of crows nests or brooms. Locate these cuts at strong laterals on older wood. Thinning by selective trimming or drop crotching for a more open canopy is desirable. The terminal bud shall not be removed.

9. Pruning should be done only to maintain minimum required clearances for a two year (2) maximum period.

10. All Elm trees shall be pruned and debris removed according to Department of Forestry Regulations.

11. All Pines shall be pruned and debris removed according to recommendations of Department of Forestry to prevent spread of pitch canker.

12. Final pruning cuts shall be made without leaving a stub. They shall be made in a manner to favor the earliest possible covering of the wound by callus growth. This requires that the wound be as small as practicable; the cut be reasonably flush and within the shoulder ring area; and that the cambial tissues at the edge of the cut be alive and healthy. Extremely flush cuts that produce large wounds and weaken the tree at the cut shall not be made.

#### 93. TREE REMOVAL

94. Tree removal within the State highway right of way shall be approved by Caltrans District 1 Maintenance Landscape Specialist, Domenic Bongio, at (707) 445-6391 before trees are removed.

95. When permit is issued for removal of a tree as an independent operation or as a part of other work, the entire stump shall be taken out for a depth of at least 2' below the ground surface. All debris shall be removed from the right of way. The hole left by the stump shall be backfilled and thoroughly tamped and the site left in a safe presentable condition.

96. Trees shall be cut to fall away from the State Route 20.

97. Trees, tree limbs and all debris shall be hauled and removed to a location as determined by the Department's Representative in advance of beginning work.

98. Tree falling next to the highway is prohibited without traffic control approved in accordance with TRAFFIC CONTROL section below to "stop" traffic unless otherwise approved by the Department's Representative in advance of the work.

#### 99. CHEMICAL CONTROL

100. Chemical applications are not authorized under this encroachment permit.

#### 101. SIGNS

102. For temporary, intermittent access, the following sign shall be furnished, erected and maintained in both directions of travel:  
a) Vehicular Traffic (W8-6) "Truck Crossing" signs at Permittee's field marked locations and approved by the Department's Representative on-site.

103. Vehicular Traffic (W8-6) "Truck Crossing" signs shall be removed or covered when the condition or activity does not exist. These signs shall be covered when logging activity is not occurring.

104. If this is to be a permanent encroachment, Permittee shall include the sign details, including installation, in the separate encroachment permit or rider application.

105. Permittee shall sign paved shoulders with signs and barricades to denote "No Parking" and no stopping during active log handling. These signs and barricades shall be removed when the condition or activity does not exist.

106. Sign(s) shall be approved by Traffic Safety before installation.

107. Final positive location of these signs shall be at the discretion of the Department's Representative and Traffic Safety.

108. Sign shall be installed in accordance with Standard Plans, RS-2 Page 215, July 1999.

109. Posts shall 4 inches by 6 inches.

110. Posts shall be drilled for breakaway requirements.

111. Sign edge shall be no closer than 12' from ETW unless they are behind guardrail.

112. Sign shall not interfere with corner sight distance or other signs in area.

## SPECIAL PROVISIONS

### 113. ENVIRONMENTAL

114. The majority of the proposed road approach and site bench construction is proposed outside of the State highway right of way.
115. The work proposed within the State highway right of way is minor, and is incidental to the Timber Harvest operations proposed by the Permittee. Therefore, the Permittee is the lead agency for regulation purposes, and compliance with environmental regulations shall be in accordance with their approved Timber Harvest Permit.
116. The Permittee's attention is directed to Section 12, "Permits from Other Agencies," and Section 26 "Archaeological/Historical," of the Encroachment Permit General Provisions. The Caltrans Representative for the District 1 Environmental Branch is Dana York at (707) 445-6416.
117. It is the responsibility of the Permittee to obtain all necessary permits from other regulatory agencies. Permittee shall provide copies of all required environmental permits to the Department's Representative before working in areas covered by the permit.
118. Permittee shall make provisions to adhere to all applicable "dewatering" regulations. If necessary the Permittee shall contact the Regional Water control Board (Region 1) to determine whether or not a water discharge permit is required.
119. Local Native American Communities shall be given notice and the opportunity to be on-site when excavations occur. They shall have the opportunity to view the excavation spoils.
120. Raw, disturbed soil shall be seeded, fertilized and mulched for erosion control as approved by the Department's Representative. Silt fences, straw bales and/or straw wattles shall be placed as directed by the Department's Representative to prevent erosion and siltation from entering ditches and waterways. Seed-mix for erosion control shall be approved in advance by Caltrans.
121. Permittee shall have a qualified botanist survey for rare plants during the appropriate time of year. If listed species are found it is the Permittee's responsibility to coordinate with the appropriate agencies to ensure protection of rare plants. Documentation of agency consultation shall be submitted to Caltrans North Region Environmental Branch E-2, Dana York, prior to this encroachment permit being approved.
122. In addition, the vegetation removal and/or trimming should take place outside of the migratory bird nesting season, specifically from September 1 through February 28.
123. If vegetation removal/trimming will occur during the nesting season (March 1 to August 31), surveys shall be conducted by a qualified biologist prior to vegetation removal/trimming to determine if suitable nesting habitat for sensitive bird species occurs in any part of the project limits. Surveys shall be conducted no more than 14 days prior to the initiation of vegetation removal/trimming. The surveying biologist shall inspect all suitable nest trees and shrubs and a 50-foot radius around trees and shrubs for indications of nesting by sensitive bird species.
124. If migratory or nongame bird nests are discovered that may be adversely affected by project activities, Permittee must notify the California Department of Fish and Game, Caltrans and other responsible resource/permitting agencies with jurisdiction for the project and proceed according to their guidance.

### 125. TRAFFIC CONTROL

126. By noon Monday, the Permittee/Contractor shall fax to the Department's Representative at 707-463-4736 and to Jeannette Candalot, Caltrans Traffic Operations (fax # 707 441-3914) a written schedule of planned closures for the following week period, defined as Friday Midnight through the following Friday Midnight. The term closure, as used herein, is defined as the closure of a traffic lane or lanes, including ramp or connector lanes, within a single traffic control system. The Closure Schedule shall 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. The Contractor will be notified of disapproved closures or closures that require coordination with other parties as a condition of approval.
127. A "Lane Closure Request" form shall be submitted to the Ukiah Permit Office by noon on Monday of the week prior to the week of the planned restriction. This form can be faxed, phoned or emailed.
128. All traffic control shall conform to the "CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California) issued September 26, 2006". (Copies of the California MUTCD are available online at: <http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/CaliforniaMUTCD.pdf>)
129. Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas the Permittee shall close the adjacent traffic lane in accordance with the above as approved by the

### SPECIAL PROVISIONS

Department's Representative:

Approach speed of public traffic (Posted Limit)  
(Miles per Hour)

Over 45

35 to 45

Work Area

within 6 feet of a traffic lane but not on a traffic lane.

within 3 feet of a traffic lane but not on a traffic lane.

130. At a minimum a SHOULDER CLOSURE consisting of a "SHOULDER WORK AHEAD" advance warning sign and a line of cones extending through the work area shall be in place when work is in progress unless the work zone is protected by a more substantial traffic control.
131. On two-lane two-way highways, when a lane closure is necessary a complete traffic control system with a minimum of 4 advance warning signs and 2 flaggers for each direction of travel shall be in place to stop traffic for one-way reversible control in accordance with the attached Caltrans Standard Plan T-13. The maximum length of closure shall not exceed 1,000 feet. The backup flagger shall be stationed in a position to safely stop traffic before reaching the last car in the traffic control queue. All accumulated traffic must be cleared after 5 minutes before conducting another stoppage.
132. When tree felling operation are in effect, a complete highway closure with a minimum of 4 advance warning signs and 2 flaggers in each direction of travel shall be in place to stop traffic in accordance with a TA-13 "Temporary Road Closure Figure 6H-13(CA) from the California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2003 Editions, as amended for use in California.
133. When flaggers are not present, trucks shall not back onto or off of the State highway.
134. The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays, designated legal holidays and the day preceding designated legal holidays, after 3:00 p.m. on Fridays, and when construction operations are not actively in progress. If a legal holiday falls on a Monday the full width of the traveled way shall be open on the preceding Friday.
135. A minimum of one paved 12' lane with abutting associated 4' paved shoulder shall be available for public use at all times.
136. Any emergency service agency whose ability to respond to incidents will be affected by any lane closure must be notified prior to that closure.
137. No work is authorized during periods of inclement weather or when visibility is reduced to less than 1,500 feet.
138. Access to side roads and residences shall be maintained at all times.
139. Permittee shall notify the Department's Representative not less than 15 days before the anticipated start of work which reduces the total width of the traveled way to less than 16 feet or reduces the vertical height to less than 18 feet high or any road closures/reopening that may affect extra-legal loads traveling through the project area.
140. This work shall occur during daylight hours only. Hours of daylight are defined as those hours between Sunrise to Sunset, as listed in the local newspaper for that day.
141. All flaggers and traffic control personnel shall be provided with and required to read the attached Caltrans "Flagging Instruction Handbook" dated May 2007. Additional copies are available through the Caltrans Publications Distribution Unit, 1900 Royal Oaks Drive, Sacramento, CA 95815-Telephone (916) 445-3520 Fax # (916) 324-8997.
142. EXISTING HIGHWAY FACILITIES
143. 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 costs of such protection, relocation, or removal which STATE or PERMITTEE must legally pay, will be borne by PERMITTEE. If such 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.
144. The work area, including but not limited to drainage ditches, shall be restored to a neat, clean condition and all debris shall be removed from the State highway right of way.
145. Any ground that is disturbed by wheel rutting or during the digging/grading process of this job must be graded to match the surrounding area and returned to original condition as much as possible. Where bare ground exists after a job completion when natural grasses existed previously, the area must be re-seeded in accordance with the attached Storm Water Special Provisions for Minimal or No Impact.

### SPECIAL PROVISIONS

146. Any and all damage to State highway facilities incurred during the performance of this work, including the fences, drainage facilities, shoulders and roadsides shall be repaired by the Permittee, to the satisfaction of the Department's Representative.
147. All cleanup work shall be approved to the line and grade approved by the Department's Representative and to the satisfaction of the Department's Representative.
148. Permittee/contractor shall clean the surface of the highway if dirt, mud, or other debris is tracked onto the roadway prior to the end of each shift.
149. During active logging and/or log hauling, any dirt, mud or other debris tracked onto the State highway shall be immediately removed to the satisfaction of the Department's Representative.
150. OTHER REQUIREMENTS
151. Two sets of "As-Builts" plans following construction of the project shall be provided to Caltrans.
152. All personnel working in the Caltrans right of way shall wear hard hats, Class II or Class III safety vests and other appropriate safety gear and equipment conforming to Caltrans and CAL-OSHA requirements.
153. Upon completion of the work, please fill in the attached post card and mail at once.
154. If the work covered by this permit is not completed by the completion date shown, the Permittee shall be responsible for requesting a time extension rider for a maximum of two 90-day periods in writing at the following address:  
Caltrans Permit Office  
Attn: Jon Forsyth  
District Permit Engineer  
P.O. Box 3700  
Eureka, CA 95502  
TEL. #: (707) 445-6389      FAX. # (707) 445-6317      EMAIL: jon.forsyth@dot.ca.gov
155. An Encroachment permit application may be obtained at the following website address:  
<http://www.dot.ca.gov/hq/traffops/developserv/permits/applications/index.html>

2006 STANDARD PLAN A73C

DIST COUNTY ROUTE TOTAL SHEETS SHEET NO. TOTAL PROJECT

REGISTERED CIVIL ENGINEER

May 1, 2006

PLANS APPROVAL DATE

774 State of California or its officers or agents shall not be responsible for the accuracy, completeness or adequacy of this plan or any information or data contained therein.

To go to the California web site go to: <http://www.ced.ca.gov>

TABLE 1 - DELINEATORS

TYPE	RETROREFLECTIVE SHEETING	
	FRONT	BACK
E	White	White (See Note 1)
F	White	None
G	Yellow	None
I	Yellow (See Note 1)	None
J	Red	None

NOTES:

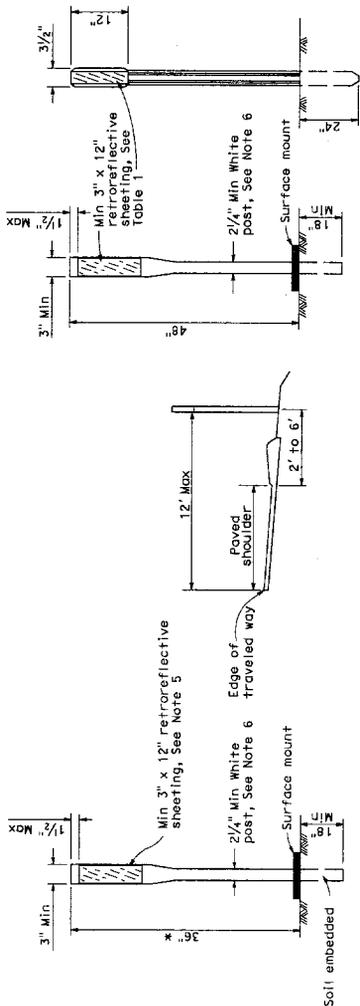
- The retroreflective sheeting used on the back of delineator shall be a minimum size of 3" x 3", designated on the plans.
- All barricade stripes shall be retroreflective.
- See Standard Plan A738 for Metal Post Details.
- Unless shown otherwise on the plans, or as directed by the Engineer, the color of the retroreflective sheeting for permanent channelizers shall conform to the color of the pavement markings it supplements.
- Except, Class 1 (Flexible Post) temporary delineators and temporary channelizers in work areas shall be orange post with white retroreflective sheeting.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DELINEATORS, CHANNELIZERS  
AND BARRICADES

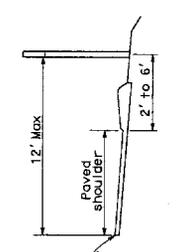
NO SCALE

A73C



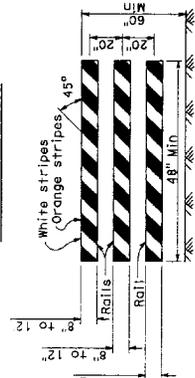
CLASS 1 FLEXIBLE POST  
CLASS 2 METAL POST  
See Note 4

DELINEATOR POSITIONING

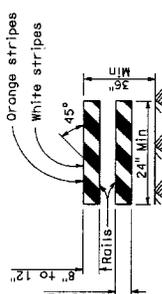


CHANNELIZERS

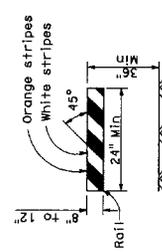
\* 36" Min where speeds are 40 miles/h or less.



TYPE III BARRICADE



TYPE II BARRICADE



TYPE I BARRICADE

BARRICADES (See Note 3)  
only face of rails shown. Barricade construction materials and supports as specified in the specifications.

TABLE 2 - BARRICADES

BARRICADE	TYPE I	TYPE II	TYPE III
Width of Rail	8" Min - 12" Max *	8" Min - 12" Max *	8" Min - 12" Max *
Length of Rail	24" Min	24" Min	48" Min
Width of Stripes **	6"	6"	6"
Height	36" Min	36" Min	60" Min
Number of Retroreflective Rail Faces	2 (one each direction)	4 (two each direction)	3 if facing traffic in one direction 6 if facing traffic in two direction

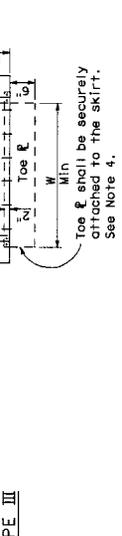
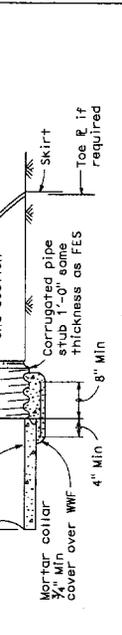
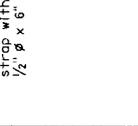
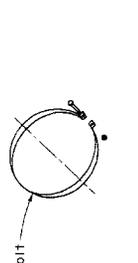
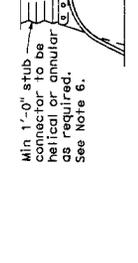
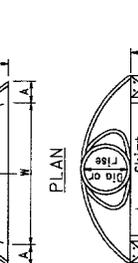
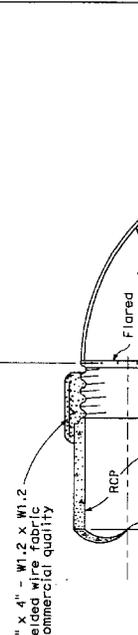
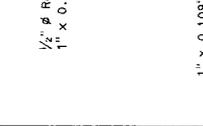
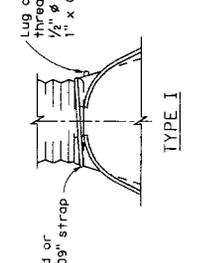
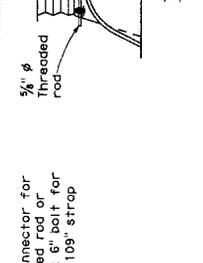
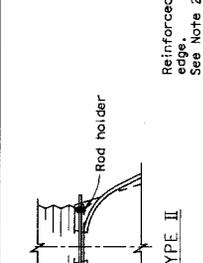
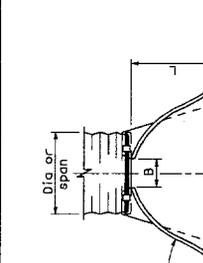
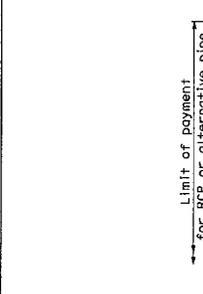
\* For the wooden option dimensions are nominal lumber dimensions.  
\*\* For rails less than 36" long, 4" wide stripes shall be used.

NOTE A:  
Barricades to have a minimum of 270 square inches of retroreflective area facing traffic when used on freeways, expressways, and other high speed highways.

DIST COUNTY ROUTE 1031 PROJECT NO. SHEETS

REGISTERED CIVIL ENGINEER  
 MAY 1, 2006  
 PLANS APPROVAL DATE  
 The State of California or the engineer or licensee shall not be responsible for the accuracy, completeness or appropriateness of this plan, specification or electronic copies of this plan, specification or electronic copies of this plan, specification or electronic copies of this plan.

To get the latest version, visit us at <http://www.dgs.ca.gov>



CIRCULAR PIPES

PIPE DIA	END SECTION THICKNESS	DIMENSION			
		A	B	H	W
12"*	0.064"	6"	6"	1 1/2"	2 1/4"
15"*	0.064"	7"	8"	1 1/2"	2 1/4"
18"*	0.064"	8"	10"	1 1/2"	2 1/4"
21"*	0.064"	9"	11"	1 1/2"	2 1/4"
24"*	0.064"	10"	12"	1 1/2"	2 1/4"
30"*	0.079"	12"	14"	1 1/2"	2 1/4"
36"*	0.109"	14"	16"	1 1/2"	2 1/4"
42"	0.109"	16"	18"	1 1/2"	2 1/4"
48"	0.109"	18"	20"	1 1/2"	2 1/4"
54"	0.109"	20"	22"	1 1/2"	2 1/4"
60"	0.109"	22"	24"	1 1/2"	2 1/4"
66"	0.109"	24"	26"	1 1/2"	2 1/4"
72"	0.109"	26"	28"	1 1/2"	2 1/4"
78"	0.109"	28"	30"	1 1/2"	2 1/4"
84"	0.109"	30"	32"	1 1/2"	2 1/4"

PIPE-ARCHES

DESIGNATION	SPAN	RISE	END SECTION THICKNESS	DIMENSION			
				A	B	H	W
1 1/2"	10'	6"	1 1/2"	10'	6"	1 1/2"	3'-0"
2"	10'	6"	2"	10'	6"	2"	3'-0"
2 1/2"	10'	6"	2 1/2"	10'	6"	2 1/2"	3'-0"
3"	10'	6"	3"	10'	6"	3"	3'-0"
3 1/2"	10'	6"	3 1/2"	10'	6"	3 1/2"	3'-0"
4"	10'	6"	4"	10'	6"	4"	3'-0"
4 1/2"	10'	6"	4 1/2"	10'	6"	4 1/2"	3'-0"
5"	10'	6"	5"	10'	6"	5"	3'-0"
5 1/2"	10'	6"	5 1/2"	10'	6"	5 1/2"	3'-0"
6"	10'	6"	6"	10'	6"	6"	3'-0"
6 1/2"	10'	6"	6 1/2"	10'	6"	6 1/2"	3'-0"
7"	10'	6"	7"	10'	6"	7"	3'-0"
7 1/2"	10'	6"	7 1/2"	10'	6"	7 1/2"	3'-0"
8"	10'	6"	8"	10'	6"	8"	3'-0"
8 1/2"	10'	6"	8 1/2"	10'	6"	8 1/2"	3'-0"
9"	10'	6"	9"	10'	6"	9"	3'-0"
9 1/2"	10'	6"	9 1/2"	10'	6"	9 1/2"	3'-0"
10"	10'	6"	10"	10'	6"	10"	3'-0"

\* Equivalent plastic FES to meet AASHTO M-294 and ASTM D-1248 Specifications, and shall conform to all dimensions shown above except for end section thickness, which may be 0.004" thinner.

**FLARED END SECTION CONNECTION TO RCP**

**NOTES:**

- All 3-piece bodies to have 0.109" thick sides and 0.138" thick center panels. Width of center panels to be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams which are to be tightly joined by rivets or bolts.
- The 60" thru 84" round, 77" x 52" and 83" x 57" pipe-arch sizes for thru 72" round, 77" x 52" and 83" x 57" pipe-arch sizes and 2 1/2" x 2 1/4" for 78" and 84" round. The angles to be attached by 3/4"  $\phi$  nuts and bolts.
- Angle reinforcement shall be placed under the center panel seams on the 77" x 52" and 83" x 57" pipe-arch sizes.
- Toe plate to be available as an accessory when specified.
- End of pipe to be finished with annular corrugations to conform flared end sections so that minimal leakage results from the connection. Other designs may be used with approval of the Engineer.
- Form 12 thru 24 metal end section connection, a universal connection for the metal end section by rivets, bolts or 1" long end cap stack welds attached to the metal end section as depicted in place of the 12" stub. See Standard Plan D97C.
- The types of alternative connections for pipes to metal flared end sections shall conform to the following:
  - CIRCULAR PIPES -
    - 12" thru 84" Type I or III
    - 30" thru 84" Type II or III
  - PIPE-ARCHES -
    - 21" x 15" thru 57" x 37" Type II or III
    - 64" x 43" thru 83" x 58" Type III

**METAL AND PLASTIC FLARED END SECTIONS**

NO SCALE

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**D94A**

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.).

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.

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.

1. **GENERAL:** 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 NPDES Permit requirements. For additional information, visit the State Water Resources Control Boards Stormwater Website at <http://www.swrcb.ca.gov/stormwtr/index.html>
3. **RESPONSIBILITY FOR DEBRIS REMOVAL:** The Permittee shall be responsible for preventing all dirt, trash, debris, and other construction waste from entering storm drains, local creeks, or any other bodies of water.
4. **SPOILS AND RESIDUE:** The Permittee shall vacuum or sweep any saw-cut spoils, debris, residue, etc. No spoils, debris, residue, etc. shall be washed into a drainage system.
5. **SWEEPING:** Roadways and other paved areas shall be swept daily. Roadways or work areas shall not be washed down with water.
6. **VEHICLES AND EQUIPMENT:** Permittee shall prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways.
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, and properly dispose of contaminated soil and materials.
8. **CLEANING VEHICLES AND EQUIPMENT:** 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.
9. **DIESEL FUELS:** The use of diesel 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, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. No such protection measures shall cause an obstruction to the traveling public.
13. **PAINT:** Rinsing of painting equipment and materials is not permitted in state right-of-way. Oil based paint sludge and unusable thinner shall be disposed of at an approved hazardous waste site.
14. **CONSTRUCTION MATERIALS:** All construction materials, including concrete, grout, cement containing premixes, and mortar, shall be stored under cover and separated away from drainage areas. Stored materials shall not reach a storm drain.
15. **CONCRETE EQUIPMENT:** Concrete equipment shall be washed in a designated washing area that prevents effluent from discharging to drainage conveyances.
16. **EXISTING VEGETATION:** Established existing vegetation is the best form of erosion control. Disturbance to existing vegetation shall be minimized whenever possible. Damaged or removed vegetation shall be replaced as directed by the State Representative.
17. **SOIL DISTURBANCE:** Soil disturbing activities shall be avoided during the rainy season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures shall be implemented.
18. **SLOPE STABILIZATION AND SEDIMENT CONTROL:** In cases where slopes are disturbed during construction, soil shall be secured with soil stabilization and sediment control measures. Fiber rolls or silt fences may be required downslope until permanent soil stabilization is established.
19. **STOCKPILES:** Sand, dirt, and similar materials shall be stored at least 50 feet from drainage features and shall be covered and protected with a temporary perimeter sediment barrier.
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. **DEWATERING:** All dewatering operations shall comply with the latest Caltrans guidelines. Any effluent discharged into any storm water system requires approval from the Regional Water Quality Control Board. The Permittee shall provide the State Representative with a copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board.



**DISTRICT 01 ENCROACHMENT PERMITS BRANCH  
LANE CLOSURE REQUEST FORM**

THIS FORM MUST BE SUBMITTED BY NOON ON MONDAY PRIOR TO THE WEEK OF THE PLANNED RESTRICTION.

COMPLETE FORM AND SUBMIT BY FAX TO THE TWO APPROPRIATE FAX NUMBERS INDICATED AT THE BOTTOM OF THE PAGE.

Today's Date: \_\_\_\_\_ Time: \_\_\_\_\_ Permittee: \_\_\_\_\_

Permittee: \_\_\_\_\_ Field Contact \_\_\_\_\_

Phone #: \_\_\_\_\_ Cell \_\_\_\_\_

Encroachment Permit #: \_\_\_\_\_ Office \_\_\_\_\_

Pager \_\_\_\_\_

FAX \_\_\_\_\_

LOCATION & DATE OF CLOSURE: \_\_\_\_\_ FOR THE WEEK OF: \_\_\_\_\_  
Reporting Week begins on Saturday

Days(s):  Saturday  Sunday  Monday  Tuesday  Wednesday  Thursday  Friday

	COUNTY	ROUTE	PM	KP	DESCRIPTIVE LOCATION	TIME
FROM						
TO						

Types of Closure, Closure Characteristics (check all of the following that apply):

- One-Way       Complete Closure       24 - Hour / 7 Day - closure       Detour info available
- No detour available       Ramp Closures       COZEEP/MAZEPP
- Northbound       Southbound       Eastbound       Westbound

Closure conforms to the FHWA's Manual of Uniform Traffic Control Devices (MUTCD) 2003 EDITION & MUTCD CALIFORNIA SUPPLEMENT, copies of which are available online at <http://mutcd.fhwa.dot.gov> and <http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp>, respectively

Estimated Delay: \_\_\_\_\_ Minutes Reason for Restriction: \_\_\_\_\_

Details: (Detour information, CHP Break, Flaggers, Temporary Signals, Estimated reopen date CMS Equipment, etc.)

- FAX FORM TO JEANNETTE CANDALOT @ 707-441-3914 AND:
- JIM SHUPE @ 707-463-4736 FOR MENDOCINO & LAKE COUNTIES OR
- CHRIS P. CLIFFORD/VERNON J. CALLAHAN @ 707-445-6317 FOR HUMBOLDT & DEL NORTE COUNTIES

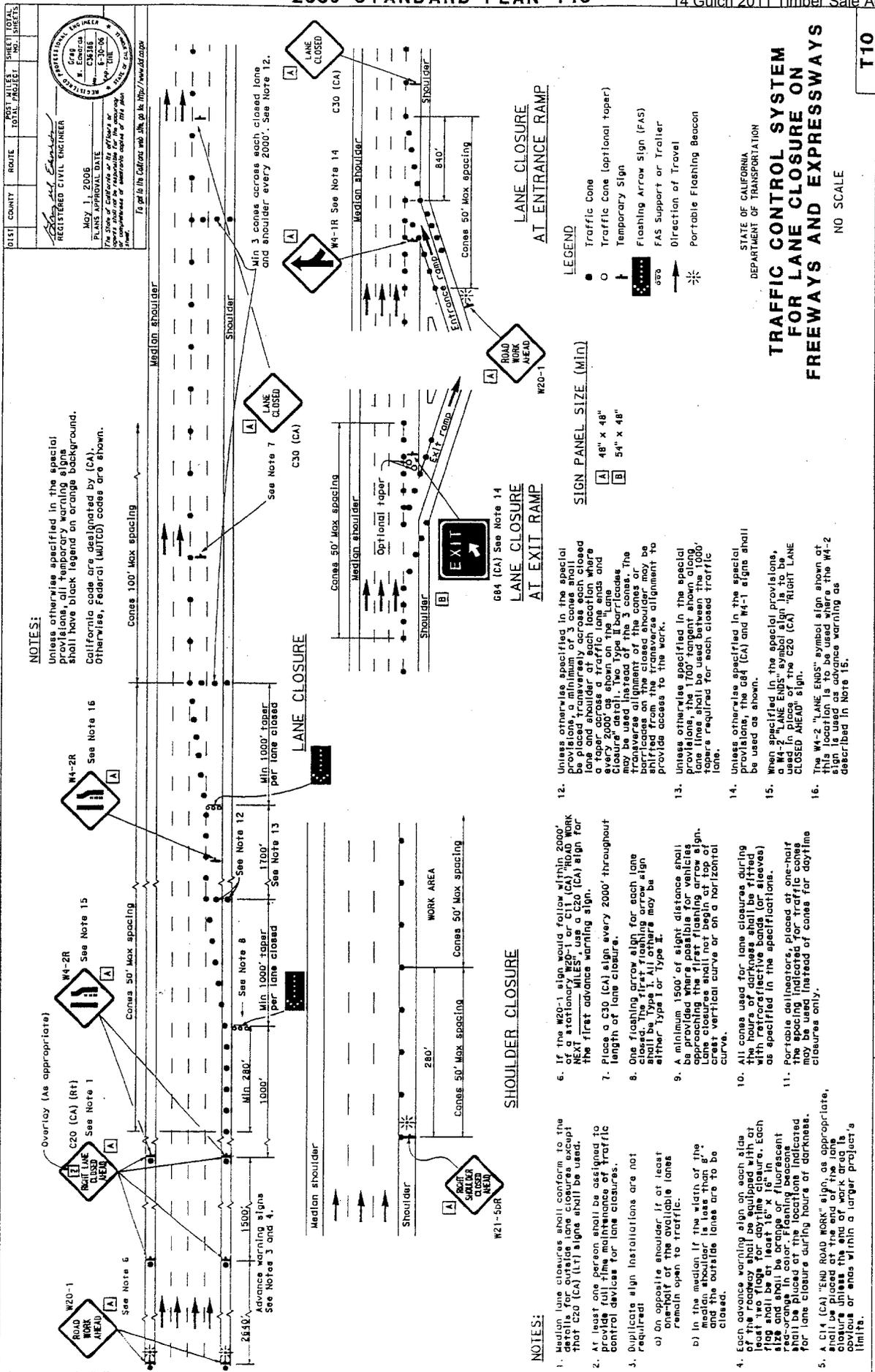
0151 COUNTY ROUTE POST MILES SHEET TOTAL  
TOTAL PROJECT NO. SHEETS

REGISTERED CIVIL ENGINEER  
MAY 11, 2006  
PLANS APPROVAL DATE  
The State of California or its officers or employees are not responsible for the accuracy or completeness of the information or data shown on this plan.

REGISTERED PROFESSIONAL ENGINEER  
C48  
C38385  
6-30-06  
THE STATE OF CALIFORNIA

To get the California web site go to: <http://www.dgs.ca.gov>

**NOTES:**  
Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



- LEGEND**
- Traffic Cone
  - Traffic Cone (optional taper)
  - ⊥ Temporary Sign
  - Flashing Arrow Sign (FAS)
  - FAS Support or Trailer
  - Direction of Travel
  - Portable Flashing Beacon

- SIGN PANEL SIZE (Min)**
- A 48" x 48"
  - B 54" x 48"

- NOTES:**
1. Median lane closures shall conform to the details for outside lane closures except that C20 (CA) (LT) signs shall be used.
  2. At least one person shall be assigned to each device for lane closures.
  3. Duplicate sign installations are not required
    - a) on opposite shoulder if at least one-half of the available lanes remain open to traffic.
    - b) in the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
  4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each sign shall be equipped with fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
  5. A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of work area closure unless the end of work area is obvious or ends within a larger project's limits.

**SHOULDER CLOSURE**

**LANE CLOSURE AT EXIT RAMP**

**LANE CLOSURE AT ENTRANCE RAMP**

6. If the W20-1 sign would follow within 800' of stationing, use C14 (CA) "ROAD WORK NEXT ADVANCE WARNING" sign at the first advance warning sign.
7. Place a C30 (CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The first flashing arrow sign shall be placed at the beginning of the taper either Type I or Type II.
9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the closure. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. Unless otherwise specified in the special provisions, the 1700' tangent shown along the lane closure shall be used between the 1000' tapers required for each closed traffic lane.
13. Unless otherwise specified in the special provisions, the 1700' tangent shall be used as shown.
14. Unless otherwise specified in the special provisions, the 1700' tangent shall be used as shown.
15. When specified in the special provisions, the W4-2 "LANE ENDS" symbol sign is to be used between the C20 (CA) "ROAD LANE CLOSED AHEAD" sign.
16. The W4-2 "LANE ENDS" symbol sign shown at the end of work area is to be used where the W4-2 sign is used as advance warning as described in Note 15.

**TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

NO SCALE

T10

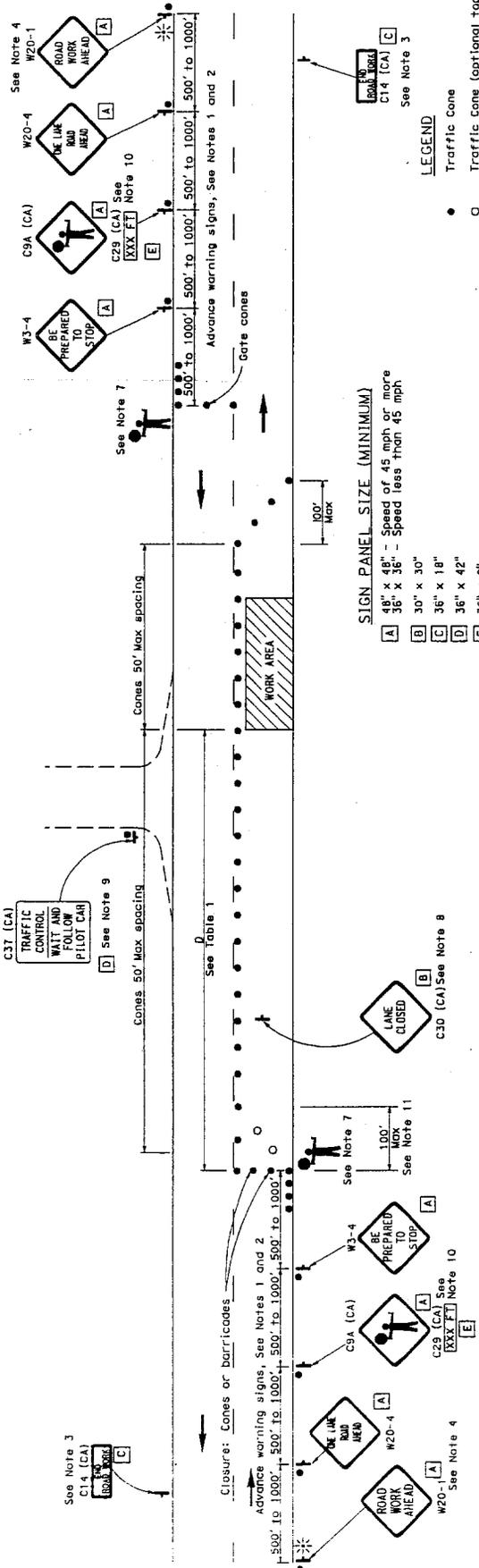
COUNTY ROUTE POST MILES SHEET TOTALS  
 PROJECT NO. SHEETS

REGISTERED CIVIL ENGINEER  
 MDY 1, 2006  
 C36386  
 6-30-06

PROFESSIONAL ENGINEER  
 State of California  
 License No. C36386  
 6-30-06

To get the Contract, visit us at: <http://www.daluz.com>

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



**TABLE 1**

Approach Speed	Minimum D	Downgrade	
		Minimum	D * %
25 and below	155	158	165
30	200	205	215
35	250	257	271
40	305	315	333
45	360	378	400
50	425	446	474
55	495	520	553
60	570	598	638
65	645	682	728

\* Use on sustained downgrade steeper than 3 percent and longer than 1/4 mile.

- NOTES:**
- When approach speeds are low, advance warning signs shall be placed at 300 spacing, and closer in urban areas.
  - Each advance warning sign in each direction of travel shall be at least 16" x 18" for daytime closure. Each sign shall be at least 16" x 18" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
  - A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
  - If the W20-1 sign would follow within 2000' of a stationary sign for the first advance warning sign, use a W20-4 sign.
  - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
  - Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
  - Additional advance flaggers may be required. Flaggers should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging station and flagger shall be illuminated. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
  - Place C30 (CA) "LANE CLOSED" sign at 500' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
  - When a pilot car is used, place a C37 (CA) "TRAFFIC CONTROL - WAIT AND FOLLOW PILOT CAR" sign at all intersections within all times.
  - An optional C29 (CA) sign may be placed below the C9A (CA) sign.
  - Traffic cones or barricades may be placed on the optional taper as shown. Barricades shall be Type I, II, or III.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURE ON  
 TWO LANE CONVENTIONAL  
 HIGHWAYS**

NO SCALE

T13

**Notes for Figure ~~6H-13~~ 6H-13(CA)—Typical Application 13****Temporary Road Closure****Support:**

1. Conditions represented are a planned closure not exceeding 20 minutes during the daytime.

**Standard:**

2. **A flagger or uniformed law enforcement officer shall be used for this application. The flagger, if used for this application, shall follow the procedures noted in Sections 6E.04 and 6E.05.**

**Guidance:**

3. The uniformed law enforcement officer, if used for this application, should follow the procedures noted in Sections 6E.04 and 6E.05.

**Option:**

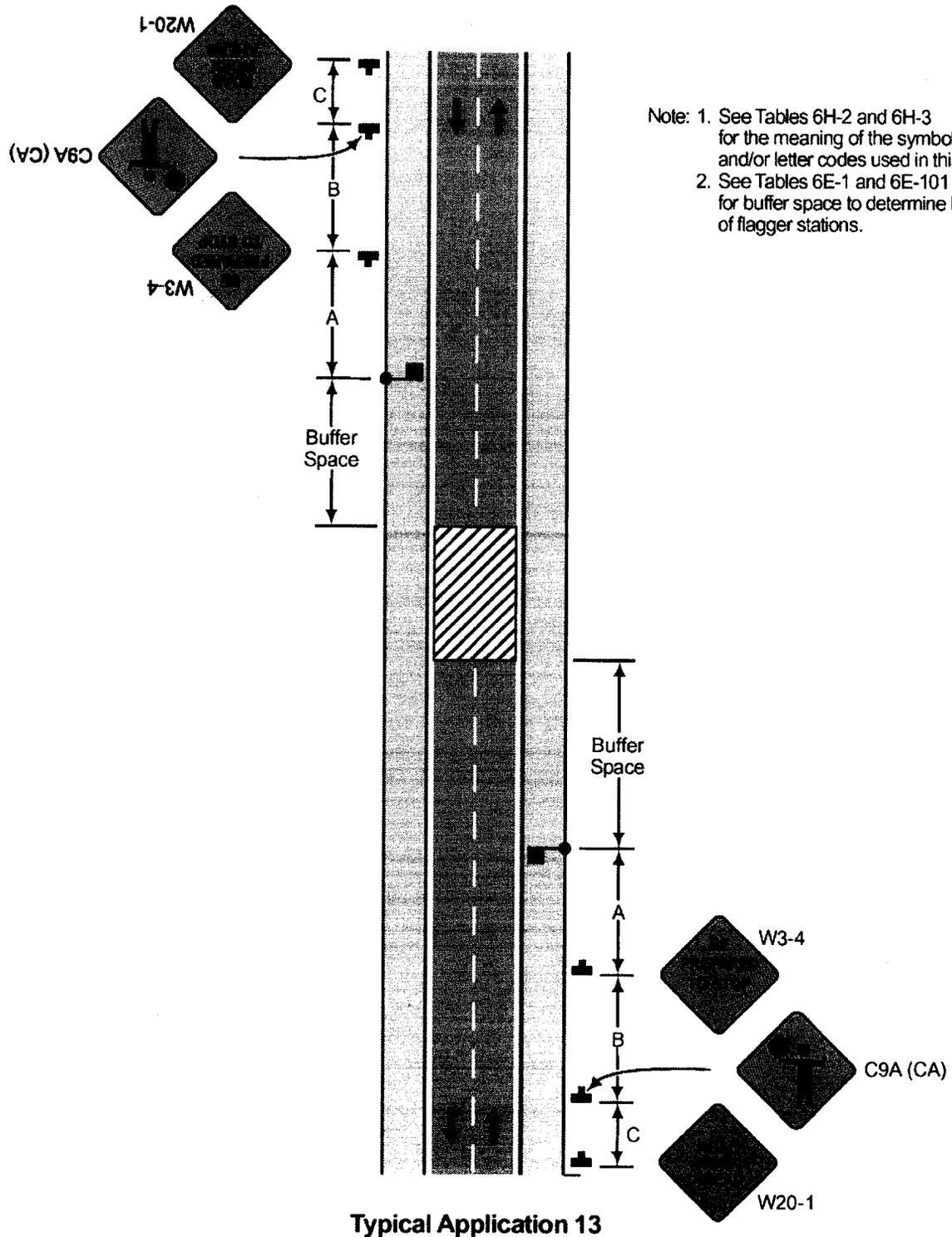
4. A BE PREPARED TO STOP sign may be added to the sign series.

**Guidance:**

5. When used, the BE PREPARED TO STOP sign should be located ~~before~~ after the Flagger symbol sign.
- 

*(This space left intentionally blank)*

**Figure 6H-13 (CA). Temporary Road Closure (TA-13)**



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])  
This application is not complete until all requirements have been approved.

<b>FOR CALTRANS USE</b>	
PERMIT NO.	0110-N-RP-0435
DIST/CO/RTE/PM	01-MEN-20-11.3
SIMPLEX STAMP	
000435	
01 67N RP	
DATE OF SIMPLEX STAMP	11-22-10

1. COUNTY Mendocino		2. ROUTE HW 20		3. POSTMILE 11.3	
4. ADDRESS OR STREET NAME N/A			5. CITY N/A		
6. CROSS STREET (Distance and direction from site) N/A			7. PORTION OF RIGHT-OF-WAY South		
8. WORK TO BE PERFORMED BY <input type="checkbox"/> OWN FORCES <input checked="" type="checkbox"/> CONTRACTOR			9. EST. START DATE April 2011		10. EST. COMPLETION DATE May 2011
11. EXCAVATION	MAX. DEPTH 5 FT	AVG. DEPTH 3 FT	AVG. WIDTH 4 FT	LENGTH 30 FT	SURFACE TYPE Natural
12. EST. COST IN STATE HIGHWAY RIGHT-OF-WAY \$2000.00				FUNDING SOURCE(S) <input type="checkbox"/> FEDERAL <input checked="" type="checkbox"/> STATE <input type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE	
13. PIPES	PRODUCT TYPE RCP	DIAMETER 18 INCH	VOLTAGE / PSIG 0 PSI	14. CALTRANS PROJECT E.A. NUMBER	

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? James Shupe

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

Cal Fire will be encroaching on HW 20 near postmile 11.3. The encroaching road will be a very low flow forestry road used mainly by logging trucks accessing the forest to the south. Limiting Caltrans prescriptive right zone to the areas maintained by Caltrans; for this project it is assumed the the prescriptive right line is on the south edge of the HW ditch. Therefore, the work to be done within the Caltrans prescriptive right zone is minimal. This work includes placing a culvert with a AB road over the existing ditch. Please see submitted plans for full details of work.

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.)

DRIVEWAY OR ROAD APPROACH, RECONSTRUCTION, MAINTENANCE, OR RESURFACING  FENCE

PUBLIC UTILITY MODIFICATIONS, EXTENSIONS, HOOKUPS  MAILBOX

FLAGS, SIGNS, BANNERS, DECORATIONS, PARADES AND CELEBRATIONS  EROSION CONTROL

OTHER \_\_\_\_\_  LANDSCAPING

**RECEIVED**  
NOV 19 2010  
**PERMITS**

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

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.)

**ADA NOTICE:** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or

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

PERMIT NO.  
0110-N-RP-0435

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: 500 (ft<sup>2</sup>) AND .01 (acres)  
 estimate the area outside of State Highway right-of-way in square feet AND acres: 2500 (ft<sup>2</sup>) AND .06 (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): HW ditch, same as existing

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

**The applicant, understands and herein agrees to 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.**

**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/stormwater1.htm>**

25. NAME of APPLICANT or ORGANIZATION (Print or Type) Cal Fire, Cameron Henion, Tech Services E-MAIL ADDRESS chenion@fire.ca.gov

ADDRESS of APPLICANT or ORGANIZATION WHERE PERMIT IS TO BE MAILED (Include City and Zip Code)  
PO Box 944246, Sacramento, CA 94244-2460

PHONE NUMBER 916-324-7184 FAX NUMBER 916-324-3400 **RECEIVED**

26. NAME of AUTHORIZED AGENT / ENGINEER (Print or Type) \_\_\_\_\_ IS LETTER OF AUTHORIZATION ATTACHED?  YES  NO E-MAIL ADDRESS \_\_\_\_\_ **NOV 19 2010**

ADDRESS of AUTHORIZED AGENT / ENGINEER (Include City and Zip Code) \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_ FAX NUMBER \_\_\_\_\_ **PERMITS**

27. SIGNATURE of APPLICANT or AUTHORIZED AGENT Cameron Henion 28. PRINT OR TYPE NAME Cameron Henion 29. TITLE Junior Civil Engineer 30. DATE 11/15/10



**STANDARD ENCROACHMENT PERMIT APPLICATION**

TR-0100 (REV. 07/2007)

PERMIT NO.

0110-N-RP-0435

**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, 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?

No

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

RECEIVED

NOV 19 2010

PERMITS

**ENCROACHMENT PERMIT RIDER**

TR-0122 (REV 6/1999)

Collected By	Permit No. 0110-N-RP-0435
Rider Fee Paid <b>EXEMPT</b>	Dist/Co/Rte/PM 01-MEN-20-11.3
Date January 10, 2011	Rider Number <b>0111-N-RW-0007</b>

**TO:** CAL FIRE  
P.O. BOX 944246  
SACRAMENTO, CA 94244-2460

ATTN: CAMERON HENION  
(916) 324-7184

, PERMITTEE

In compliance with your request of January 4, 2010, we are hereby amending the above numbered encroachment permit as follows:

Date of completion extended to: **NO CHANGE**

Work description is modified to read as follows: "Enter the State highway right of way at post mile 11.3 on State Route (SR) 20 in Mendocino County to construct a permanent but intermittent logging access with work within the State highway right of way to comply with State standards. The dimensions shall comply with "Commercial Road Approach" standards per Encroachment Permit Manual Appendix "J" but shall have the structural section consisting of crushed large aggregate (3-inch plus, 6-inch minus) per Caltrans Construction Site Best Management Practices (BMP) Manual dated March 2003, detail TC-1. Work outside of the State highway right of way consisting of installing an 18" RCP culvert, flared end sections and the extension of the road approach as per the plans and application received by the Caltrans District 1 Permit Office on November 22, 2010 and as amended by encroachment permit EP# 0110-N-RP-0435, as amended by this encroachment permit rider and all future riders."

The following Special Provisions shall be modified as follows:

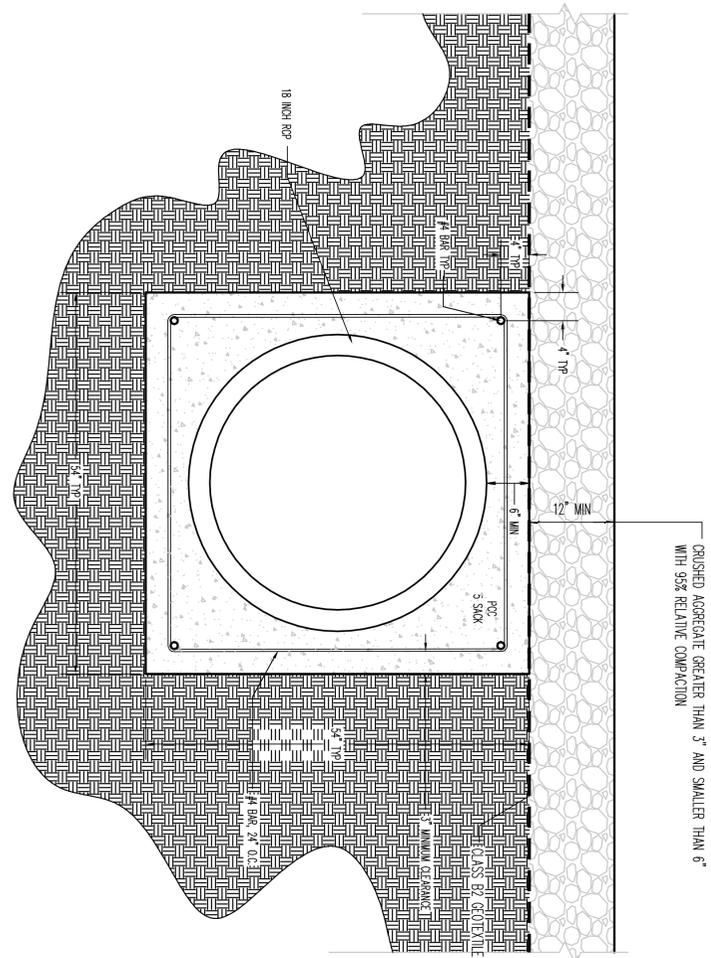
- #2 : "This permit is written to only allow intermittent access for logging and forestry purposes, with the understanding that the Permittee will not be using this road approach as a heavily-used regular access to these lands."
- #3: "Should Permittee desire to upgrade the proposed use from intermittent logging purposes, to a more regularly used access, the road approach shall be paved with a minimum of 4" of asphalt concrete from the edge of the existing road, back to a point 33' from the edge of traveled way, and the depth of existing paving in the turnout shall increase to meet that standard, unless proven otherwise by core drilled samples. This work shall be requested by either a separate encroachment permit application or rider request."
- #4d: to replace "base rock" with "crushed aggregate greater than 3-inches but smaller than 6-inches".
- #5 : to replace "#5a through #5c" with "#4a through #4c", and "2d" with "4d".
- #10d: "Caltrans Construction Site (BMP) Manual dated March 2003, detail TC-1, shall meet State Standards".
- #54 : "... sawcut at conform location located on the outside edge of the existing turnout unless otherwise directed by the Department's Representative. The ... "
- #56: "The Permittee shall contact Department's Representative before excavating for SCE/E (Type1) and before placement of filter fabric and/or crushed aggregate for Caltrans Construction Site (BMP) Manual March 2003, detail TC-1".
- #58: "... Conventional State Highway and the Caltrans Construction Site (BMP) Manual March 2003, detail TC-1)."
- #63: "At the description of the State Representative, the Permittee.....".

The following SSP is added: "The EastBound Turnout Ahead sign shall be covered during periods of active log hauling. Traffic Control to close the Turnout shall be as directed by the State's Kelley Schultz, if necessary to increase the safety of merging trucks.

Except as amended, all other terms and provisions of the original permit shall remain in effect.

DE FIGUEIREDO AM JONES+2 D BONGIO K SARTORIUS PLAN SET#2010-015	DR RAMIREZ TA ARSENEAU MD VINA C GRAHAM	K SCHULTZ+2 JD SHUPE D YORK	APPROVED:  CHARLES C. FIELDER, District Director
FILE Permit Writer: L FIELDS		D.P.E.	BY: <i>Jon D. Forsyth</i> 1-10-2011 JON D. FORSYTH, P.E., District Permit Engineer





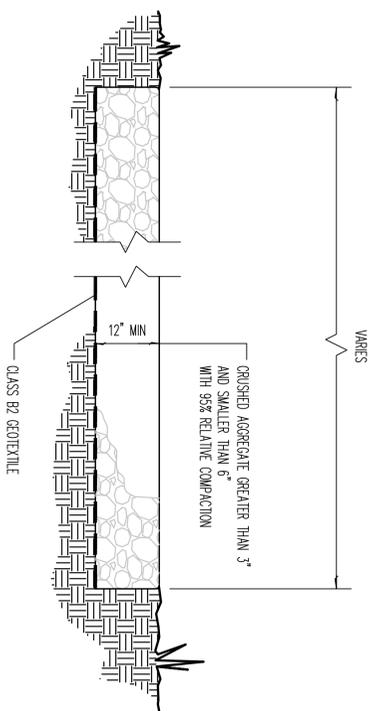
NOTE: INVERT ELEVATION SHALL DETERMINED IN THE FIELD

**CULVERT CROSS SECTION**

SCALE N.T.S.

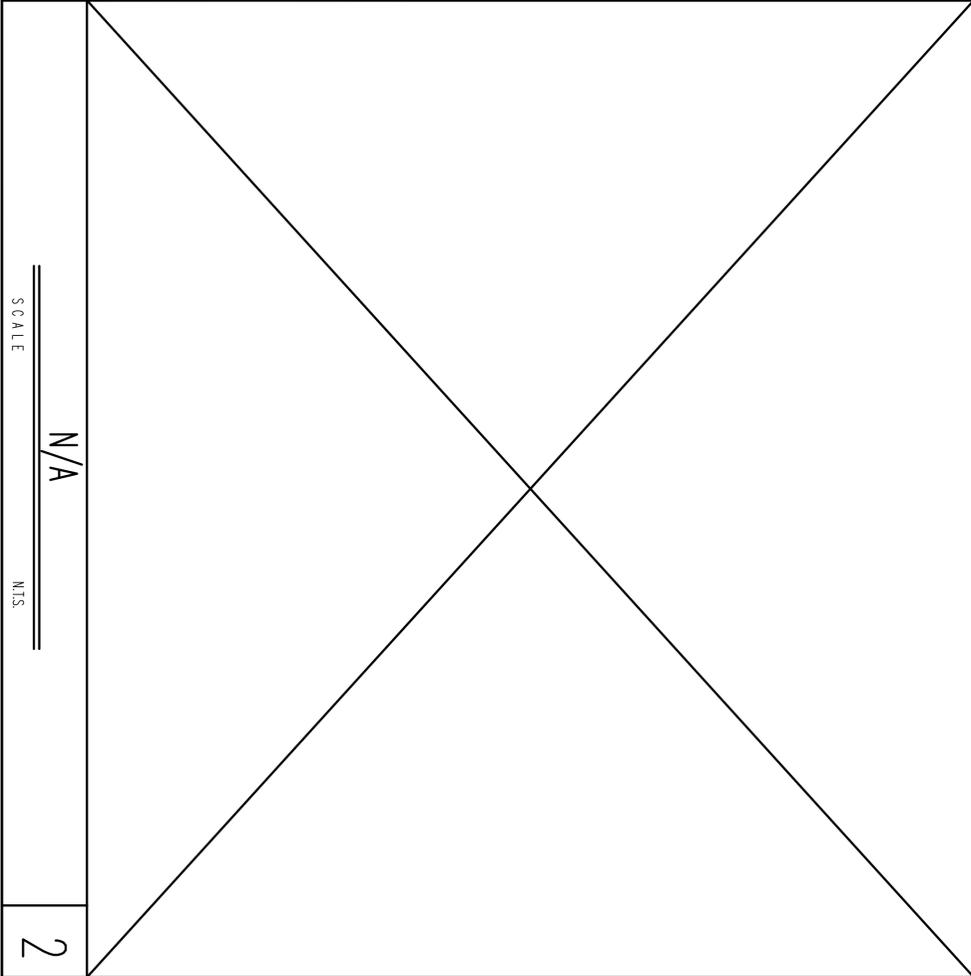
CRUSHED AGGREGATE GREATER THAN 3" AND SMALLER THAN 6" WITH 95% RELATIVE COMPACTION

- NOTES**
- 1) CULVERT SHALL USE CALTRANS STD FLARED END SEE CALTRANS STANDARD PLAN SHEET D94A
  - 2) IF ANY CONFLICT OR VACANCY EXIST, CALTRANS ENCROACHMENT PERMIT GOVERNS OVER PLANS



**LOGGING ROAD**

SCALE N.T.S.



SCALE N/A N.T.S.

1

2

3

PROJECT TITLE		ENCROACHMENT PERMIT	
SHEET NUMBER		CEX02	
PROJECT TITLE		JACKSON DEMONSTRATION STATE FOREST	
PROJECT TITLE		MENDOCINO COUNTY	
DETAILS		DATE:	
APPROVED:		DATE:	
DESIGNED BY:		C. HENION	
DRAWN BY:		CAL FIRE	
REVIEWED BY:		M. DUGGAN	
JOB NO.:		2306	
STATE OF CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION TECHNICAL SERVICES SECTION			
DO NOT SCALE DIMENSIONS FROM THESE PLANS. FIGURED OR WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. IT IS INTENDED THAT THE DRAWINGS, DETAILS AND SPECIFICATIONS SHOULD AGREE. SHOULD ANY DISCREPANCY OR APPARENT ERROR OCCUR THE CONTRACTOR SHALL NOTIFY THE STATE REPRESENTATIVE AT ONCE. UPON DISCOVERY OF CONFLICTS OR ERRORS THE STATE'S REPRESENTATIVE SHALL SEEK GUIDANCE FROM THE DESIGNER OF RECORD TO RESOLVE THE PROBLEM AND WHOSE DECISION SHALL BE FINAL. APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM THE APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS AND SPECIFICATIONS SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.			
REV 1	01/11/11	TO COMPLY WITH PERMIT	CDH
No.	DATE:	DESCRIPTION	BY:



January 13, 2014

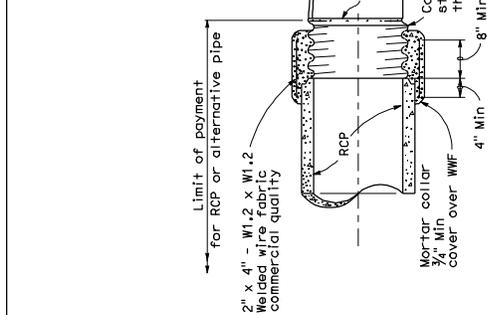
OF SHEETS  
CEX02

PLOT DATE: Jan 11, 2011 - 2:49PM

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL SHEETS

REGISTERED CIVIL ENGINEER  
 May 1, 2006  
 License No. C34547  
 The State of California, by the Office of the State Engineer, is responsible for the accuracy and completeness of electronic copies of this plan.

To get to the Culverts web site, go to <http://www.dwr.ca.gov>



**FLARED END SECTION CONNECTION TO RCP**

**NOTES:**

- All 3-piece bodies to have 0.109" thick sides and 0.138" thick center panels. Width of center panels to be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams which are to be tightly joined by rivets or bolts.
- Reinforced edges to be supplemented with stiffener angles for the 60" thru 84" round, 77" x 52" and 83" x 57" pipe-arch sizes. The angles will be 2" x 2" x 1/4" for the 60" thru 72" round, 77" x 52" and 83" x 57" pipe-arch sizes and 2 1/2" x 1/4" for 78" and 84" round. The angles to be attached by 3/8"  $\phi$  nuts and bolts.
- Angle reinforcement shall be placed under the center panel seams on the 77" x 52" and 83" x 57" pipe-arch sizes.
- Toe plate to be available as an accessory when specified.
- End of pipe to be finished with annular corrugations to conform flared end section so that minimal leakage results from the connection. Other designs may be used with approval of the Engineer.
- For 12" thru 24" helical end section connection, a universal coupling band attached to the metal end section by rivets, bolts or 1" long snap track welds spaced at same intervals as dimples may be used in place of the 12" stub. See Standard Plan D97C.
- The types of alternative connections for pipe to metal flared end sections shall conform to the following:

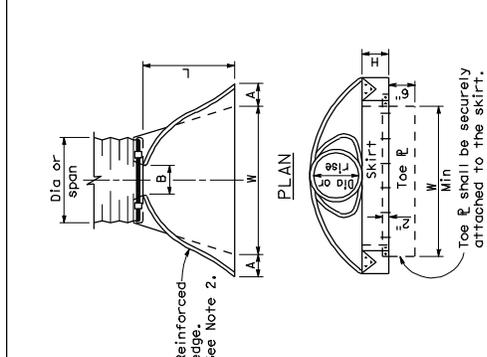
- CIRCULAR PIPES -**  
 12" thru 24" Type I or III  
 30" thru 84" Type II or III
- PIPE-ARCHES -**  
 51" x 45" thru 67" x 38" Type II or III  
 64" x 43" thru 83" x 57" Type III

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

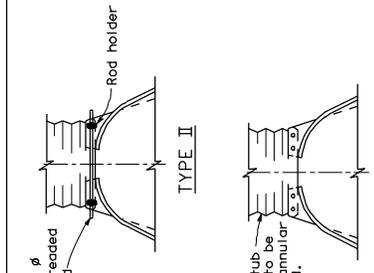
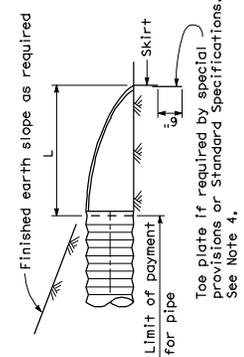
**METAL AND PLASTIC FLARED END SECTIONS**

NO SCALE

**D94A**



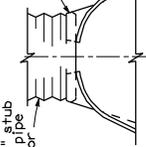
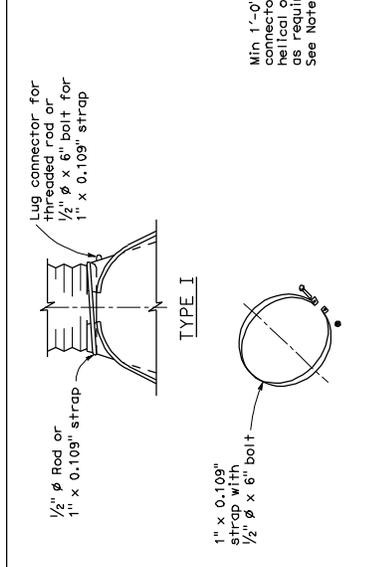
**TYPICAL CROSS-SECTION**



**CONNECTOR STRAP DETAIL**

**ALTERNATIVE CONNECTIONS FOR PIPE TO METAL FLARED END SECTIONS**

See Note 7



**ALTERNATIVE CONNECTIONS FOR PIPE TO PLASTIC FLARED END SECTIONS**

PIPE DIA	END SECTION THICKNESS	DIMENSION			
		A	B	H	L
12"	0.064"	1 1/2"	Max 6"	1 1/2"	2 1/2"
15"	0.064"	7"	8"	2'-2"	2'-6"
18"	0.064"	8"	10"	2'-7"	3'-0"
21"	0.064"	9"	1'-0"	6"	3'-6"
24"	0.064"	10"	1'-1"	6"	4'-0"
30"	0.079"	1'-0"	1'-4"	8"	4'-3"
36"	0.079"	1'-2"	1'-7"	9"	5'-0"
42"	0.109"	1'-4"	1'-10"	11"	5'-9"
48"	0.109"	1'-6"	2'-3"	1'-0"	6'-6"
54"	0.109"	1'-6"	2'-6"	1'-0"	7'-0"
60"	0.109"	1'-6"	2'-9"	1'-0"	7'-3"
66"	0.109"	1'-6"	3'-0"	1'-0"	7'-3"
72"	0.109"	1'-6"	3'-3"	1'-0"	7'-3"
78"	0.109"	1'-6"	3'-6"	1'-0"	7'-3"
84"	0.109"	1'-6"	3'-9"	1'-0"	7'-3"

\* Equivalent plastic FES to meet AASHTO M-294 and ASTM D-1248 Specifications, and shall conform to all dimensions shown above except for end section thickness, which may be 0.004" thinner.

**FLARED END SECTIONS FOR CORRUGATED METAL AND PLASTIC PIPE CULVERTS**