



STANDARD CONDITIONS

for

Roadway Encroachment Permits

El Dorado County Department of Transportation

<https://www.eldoradocounty.ca.gov/Land-Use/Transportation>

The Permit

All work shall be performed in conformance with the El Dorado County Road Encroachment Ordinance, the approved encroachment permit ("permit"), including any approved drawings, the permit's standard conditions, the permit's special conditions, and the most recent version of the Caltrans Standard Specifications. There will be no changes in the work described by the approved permit without written permission from the El Dorado County Department of Transportation (DOT). The Encroachment Permit or a copy thereof shall be kept at the site of the work and must be shown to any representative of the DOT or any law enforcement officer on demand. Work shall be suspended if permit is not at work site during construction.

1. Permittee Authorization for Others to Perform Work:

This encroachment permit allows only the Permittee and/or Permittee's authorized contractor(s) to work within or encroach upon the County right-of-way, and the Permittee may not assign or transfer this encroachment permit. Any attempt to assign or transfer this encroachment permit shall render the permit null and void. Permittee shall provide to the DOT a list of Permittee's authorized contractors, on the "Authorized Contractors List" form and an executed "Encroachment Permit Contractor Authorization" form for each contractor prior to the start of work. Permittee shall keep the list current and shall provide updates to DOT immediately upon any change to the list of authorized contractors, including but not limited to the addition, removal, or substitution of an authorized contractor, or a new address or new contact information for an existing authorized contractor. Permittee is responsible for the acts and/or omissions of any person or entity acting on behalf of the Permittee, even if such person or entity is not included on Permittee's list of authorized contractors. Contractors authorized to work under the encroachment permit are required to adhere to the Standard Permit Conditions for "Indemnity", "Insurance", "Proof of Insurance Requirements", and "Insurance Notification Requirements".

2. Notification & Correspondence

The Permittee shall notify the DOT **24 hours in advance of the day the work** within County rights-of-way is to begin by contacting the Utility Encroachment Division at edcutilitypermits@edcgov.us (**West Slope**) or edcutilitypermits.tahoe@edcgov.us (**Tahoe Basin**) for any of the following work items:

- A) Initial start of work
- B) Restarting work when work has been interrupted
- C) Any saw cutting of Asphalt Concrete (AC) or paving
- D) Any changes to scope of the approved permit

A pre-job conference between County and Permittee is required before work begins. Permittee personnel in attendance shall be (at a minimum) project manager(s), supervisors, foremen, and key contractor personnel (if applicable). Permittee shall provide County with the name, address, email, and phone numbers (office and cell) of the person in responsible charge of Permittee's work prior to the beginning of work.

Permittee shall be responsible for coordination with local businesses, fire protection agencies, law enforcement agencies, emergency response, school district(s), and residents that are affected by Permittee's work as determined by County. The level of public outreach will be determined by the County and will be commensurate with the approved scope of work to be performed by Permittee.

Additional Notification for Signalized Intersections: Permittee shall provide notification to the appropriate email address above of any work within 500 feet of a signalized intersection a minimum of **14 calendar days prior** to any excavating or saw cutting so that DOT can locate and mark underground traffic signal infrastructure.

3. Inspection, Inspection Fees, and Approval by DOT

All work is subject to inspection at any time by DOT. All work in County right of way is subject to DOT approval. The Permittee shall notify the DOT when the work has been completed by submitting a **NOTICE OF COMPLETION** form.

DOT will inspect all work within County rights of way. The Permittee shall pay DOT the actual cost of DOT inspection, including any material testing performed by DOT. Inspection fees are to be paid in accordance with Section 12.08 of the El Dorado County Ordinance Code. Charges for inspection services will be billed to the Permittee at 30-day intervals and upon completion of the project.

4. Compliance with California Business and Professions Code Section 8771

Permittee shall use a professional land surveyor (California licensed land surveyor or licensed civil engineer legally authorized to practice land surveying) to research and determine whether Permittee's work will impact existing survey monuments. If Permittee's professional land surveyor determines that no existing survey monuments will be impacted by the permitted work, then Permittee's professional land surveyor shall stamp, sign, and return the El Dorado County Certificate of Monument Preservation. If Permittee's professional land surveyor determines that existing survey monuments will be impacted by the permitted work, Permittee shall comply with Section 8771 and have its licensed land surveyor locate and reference the existing survey monuments and file a corner record or record of survey with the El Dorado County Surveyor's Office. If any existing survey monuments are damaged, destroyed, or otherwise impacted by Permittee's work, Permittee shall replace such monuments in accordance with California Business and Professions Code Section 8771.

5. Relocation of Facilities—Section 1463, Streets & Highway Code

Permittee or Permittee's successor in interest is responsible for the proper maintenance of the encroachment covered by this permit. Permittee is required to maintain its facility and repairs to the roadway in perpetuity.

In the event the future improvement of the highway necessitates the relocation of this encroachment, Permittee will relocate its encroachment at Permittee's sole expense. DOT shall serve on the Permittee a written demand specifying the place of relocation and specifying a reasonable time within which the work of relocation must be concluded. Permittee must complete such relocation within the time specified.

6. Working Hours, Traffic Control, and Public Convenience

A. Daytime Working Hours

All work will be performed during the daylight hours of **8:30 am to 6:00 pm**, Monday through Friday, only on non-holidays, unless otherwise indicated in the permit. Working hours may be re-assessed on a case-by-case basis as determined by DOT. For some areas, including but not limited to areas with heavy traffic, Permittee will be required to perform its work at night (see Special Conditions in approved Permit). For all work that impacts traffic, a traffic control plan approved by DOT will be required before Permittee starts any work. If, after work starts, traffic control measures are not satisfactory for existing traffic conditions, then revisions will be necessary as directed by DOT.

The County observes the following holidays:

New Years Day	Memorial Day	Veteran's Day
Martin Luther King, Jr. Day	Independence Day	Thanksgiving Day and the Day after Thanksgiving
President's Day	Labor Day	Christmas Eve and Christmas Day

B. Nighttime Working Hours

When night work is required, Permittee shall notify DOT at least 5 working days in advance of the proposed work start date. Night work hours shall be from **9:00 pm. to 6:00 am**, Sunday night through Friday morning, and only on non-holidays. Permittee is allowed to have traffic control hardware set up and staged, but Permittee shall not close any lanes until 9:00 p.m. Permittee shall comply with DOT directives to mitigate noise and light. Permittee shall immediately mitigate all complaints received regarding Permittee's night work to the satisfaction of DOT. Permittee must reopen all lanes by 6:00 a.m.

C. Signing / Traffic Control

A traffic control plan (TCP) shall be prepared by Permittee for specific site conditions prior to work beginning. The TCP will be prepared by an experienced traffic control systems specialist, in compliance with the requirements of the most recent version of the California Manual on Uniform Traffic Control Devices (MUTCD) and Caltrans Standard Plans. DOT approval of Permittee's TCP is required before Permittee implements any traffic control on County roads.

Permittee’s TCP shall provide accommodation for pedestrians and cyclists to pass safely through the job site. When flaggers are required, permittee shall use only California certified flaggers.

When Changeable Message Sign (CMS) boards are required for construction in the County right-of-way, the signs shall be placed 72 hours in advance of construction activity. Permittee is required to get DOT approval of CMS board locations 48 hours prior to placement.

When applicable, R30 24” x 24” barricade mounted “NO PARKING” notices shall be placed in the area of proposed shoulder closure and work zone a minimum of 72 hours prior to the start of work. Spacing shall be a maximum 20 ft. apart or as determined by DOT.

During active construction, Permittee may hold traffic for a maximum of 5 minutes. Permittee must obtain explicit approval from DOT for any traffic holds that exceed 5 minutes.

The approach end of temporary railing (Type K) shall be offset a minimum of 15 feet from the edge of the traffic lane open to public traffic. The temporary railing shall be installed on a skew toward the edge of the traffic lane of not more than one foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15 foot minimum offset cannot be achieved, the temporary railing shall be installed on the 10-to-1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules appropriate for traffic speed shall be installed at the approach end of the temporary railing in accordance with Caltrans Standard Plans.

Whenever work is performed or vehicles/equipment are operated in the following work areas, the Contractor shall close the adjacent traffic lane unless otherwise provided in the Permit:

Approach Speed of Public Traffic Posted Limit in Miles per Hour	Work Areas
45 mph or over	Off the traveled way but within 6 feet of the edge of traveled way
Below 45mph	Off the traveled way but within 3 feet of the edge of traveled way

The lane closure provisions of this section shall not apply if permanent or temporary railing or barrier protects the work area.

When traffic cones or delineators are used to delineate a temporary edge of traffic lane, the line of cones or delineators shall be considered the edge of the travel lane. The Contractor shall not reduce the width of an existing lane to less than **12** feet without approval from DOT.

D. Public Convenience and Public Safety

Protection of the public is paramount. In the Interest of public safety and convenience, DOT reserves the right to make any changes and prescribe such additional conditions to any permit as DOT may deem necessary for public safety or public convenience. No work that impacts public traffic is permitted during inclement weather. This limitation includes those conditions which would make the roadways wet, snowy, icy, or slippery, or any conditions that would limit driver visibility. Only emergency work may be performed during inclement weather.

The fact that inclement weather or other causes, either within or beyond the control of Permittee, may force delay of the work shall in no way relieve the Permittee of their responsibility for maintaining traffic through the project and providing local access as specified herein. At all times there shall be kept on the job such material, force, and equipment as may be necessary to keep roads, shoulders, and driveways within the project open to traffic and in good repair, and Permittee shall expedite the passage of traffic using such force and equipment as may be necessary.

The work shall be performed in an expeditious manner to minimize inconvenience to the traveling public. Permittee shall be responsible for maintaining a free and clear travel way for emergency vehicles. Private driveways may only be closed when Permittee’s work is actively impacting such driveways, and all private driveway closures must be coordinated with residents to allow for reasonable resident use of the driveway during construction. Driveways shall be open for use when work is not actively impacting those driveways. Commercial driveways shall not be closed during business hours.

Permittee shall provide safe passage for pedestrians and bicyclists through or around the active work zone at all times. When approved by DOT as part of Permittee’s TCP, Type II barricades with “SIDEWALK CLOSED TO PEDESTRIANS”

shall be placed prior to start of work. Sidewalks may only be closed to through pedestrian traffic and shall not prevent local pedestrian access. Pedestrian detours shall not increase the path of pedestrian travel by more than 500 feet. Detour routes shall be limited to existing sidewalks and marked pedestrian crossings. Pedestrians shall not be detoured onto private property. During working hours when pedestrian traffic is present, at least one worker shall be assigned escort elderly, disabled or any other pedestrians in need of assistance through the construction site.

If Permittee's work requires removal of existing signs or snow stakes, they shall be replaced at the end of the shift during which they were removed. Signs or stakes damaged by construction shall be replaced at the Permittee's expense.

No work is permitted while any snow is on the roadway unless work is emergency work.

No aerial (overhead) work shall be permitted over an active lane of traffic. No loads shall be hoisted over an active lane of traffic, and portions of cranes or boom trucks shall not be placed over active lanes of traffic. Any lane(s) over which Permittee plans to hoist loads shall be closed per Permittee's approved TCP.

This permit does not provide for full closure of any road. All full road closures require a "Full Road Closure" permit and take approximately thirty (30) calendar days to process. Permittee must download, complete, and email the "Full Road Closure" permit application dotpermits@edcgov.us should it be determined that a road closure will be required.

7. Joint Trench Coordination

Utility encroachment permit applicants shall cooperate with the other utilities (cable, gas, electric, and telecommunications) to share trench space in order that additional street cuts will not be necessary for the next few years. Documentation of this coordination is required.

8. Utility Location Plan

Where a utility crossing is to be installed within an existing paved area, the utility shall be placed as near as perpendicular to centerline as possible, and in no case at an angle less than 45 degrees from the centerline of the roadway. Where a utility is to be installed longitudinally within an existing paved area, the utility shall be placed parallel to the centerline and outside of wheel paths.

Facilities shall have a minimum horizontal and vertical separation of one foot from existing facilities, including but not limited to drainage culverts and other utilities, unless greater separation is required by the adjacent utility company facility. This requirement typically results in the utility lines being placed below all storm drain pipes, manholes and drainage inlets. Any exceptions may require the utility to be placed in a rigid sleeve as approved by DOT. Steel sleeves, when allowed, will be required to extend a minimum of 10 feet beyond either side of the existing facility, with no joints allowed directly over the existing facility. Minimum cover from the bottom of drainage ditches to the top of the new facility installed by Permittee is 18".

When utility equipment is placed under pavement above 2,000' elevation, lid or surface of utility equipment shall be surrounded by 12" wide concrete collar, 6 inches thick. Concrete collar shall be placed perfectly flush with adjoining road surface. Lid or surface shall be recessed ¼" below the concrete collar. Below 2,000' elevation, no concrete collar or recessed lid or surface will be required.

9. Obstructions

For the purpose of encroachment permits, obstructions are understood to mean fixed utility appurtenances or equipment (e.g., transformers, switches, splicing hardware, blow-offs, valves, service pedestals/risers, etc.). When possible, obstructions shall be placed below ground and outside the traveled way. When required, above ground obstructions shall be placed a minimum of 10 feet from the edge of traveled way and outside of the roadway cross section (pavement, shoulder, and roadside ditch). Above ground obstructions (excluding utility poles) shall be breakaway and shall not obstruct sight distances for motorists or interfere with drainage.

Above ground obstructions (including utility poles) shall be placed a minimum of 10 feet from the edge of traveled way. When no longer in use, poles shall be removed at ground level.

No obstructions shall be placed in roadside ditch.

10. Earthwork

A. Excavation Requirements

1. In the Tahoe Basin there shall be no grading or land disturbance between October 15 and May 1. Permittee is referred to the Tahoe Regional Planning Agency (TRPA) Code of Ordinances, subsection 33.3 and Attachment Q: Standard Conditions of Approval for Grading Projects regarding grading standards in the Tahoe Basin.
2. No blasting shall be permitted within the County's right-of-way without authorization from DOT. Blasting shall be planned and executed in accordance with current requirements in the Caltrans Standard Specifications.
3. When rock wheel trenching is proposed by Permittee and approved by DOT, the edge of rock wheel trenches in roadways shall be a minimum 12 inches from the lip-of-gutter.
4. Where an excavation consists of trenching parallel to the centerline of the road, the total length of open trench shall not exceed 500 feet at any time. All excavations in the roadway must be backfilled and temporarily patched with HMA, cold mix, or plated over the backfill at the end of each work day. All other open excavations outside the limits of paving and/or behind curb and gutter shall be backfilled or covered with steel plate bridging and protected with appropriate barrier fencing at the end of each work day.
5. Permittee shall design and install a DOT approved subdrain system to address all areas where pumping or seepage exists due to disruption of subsurface conditions encountered during excavating in the County's right-of-way.
6. Trenches shall be constructed such that any groundwater present will not be held within the trench. If groundwater is present in Permittee's trench, a "plug and drain" plan shall be submitted by Permittee, approved by DOT, and implemented by Permittee to allow groundwater in the trench to release into an existing DOT drainage inlet. Since groundwater elevations can rise during the winter, this permit condition may apply to trenches that are dry in summer

B. Trench backfill material requirements:

Reference is made to Utility Trench Detail, attached to these Standard Conditions. This Utility Trench Detail supersedes County Standard Plan 119. Trench backfill must immediately follow the placement of the utility. See Section 10, Temporary Steel Plates if trench backfill cannot be performed in the same day. Trench backfill requirements are specified as follows:

1. Pipe zone backfill:
 - i. Shall be at the discretion of the utility company and submitted to DOT and shall be compacted to 90% relative compaction.
2. Intermediate trench backfill:
 - i. Sewer / Water lines: Backfill to consist of Class 2 Aggregate Base. The material is to be compacted in 8-inch lifts to 95% relative compaction.
 - ii. All other utility facilities: Backfill to consist of DOT approved cement slurry mix. DOT approved 'popcorn' cement slurry mix shall be placed in 8" lifts and compacted to 95% relative compaction.
3. Structure backfill (manholes, vaults, headwalls, etc.):
 - i. Structure backfill for all structures in paved areas shall conform to the cement slurry mix provisions noted below.

C. Cement Slurry Mix (CSM) requirements:

1. DOT prefers that Permittee use DOT approved CSM mixes from DOT approved vendors.
2. Permittee may use alternate CSM mix designs and/or alternate vendors, but any such alternate CSM mix design must be submitted to DOT for review and approval prior to starting any permitted work for which CSM is being used. The CSM mix design and test data shall demonstrate that the CSM mix design meets the following provisions:
 - i. A 28-day compressive strength of 50 psi to 150 psi is required. Compressive strength shall be determined by ASTM Designation: D4832, Preparation and Testing of Soil-Cement Slurry Test Cylinders.
 - ii. Can be excavated by a standard sized backhoe after 28 days of trench cure time.
3. When CSM is used for utility pipe zone for sewer and waterlines, the clear width on each side of the pipe may be reduced to a minimum of 6" instead of the 12".

4. Any CSM temporarily placed to the surface of existing pavement shall be maintained by the Permittee and removed prior to final paving to accommodate final HMA thickness.

D. **Compaction Testing requirements:**

Where Class 2 Aggregate Base is allowed by permit, Permittee shall be responsible for compaction testing. Testing shall be performed at 100' intervals (or at tighter intervals when directed by DOT) for each 8-inch lift of compacted aggregate base backfill for the full trench profile by a geotechnical engineering firm approved by DOT. All testing results must be submitted to the DOT within 10 days of work completion if project work is less than one month.

11. Temporary Steel Plates

When Permittee is on site actively working from day to day, temporary steel plates may be used to cover Permittee's work in the roadway with DOT prior approval. Permittee must submit design by California registered civil engineer. If approved for use by DOT, Permittee must install temporary steel plates in accordance with manufacturer's tabulated data or design by California registered civil engineer. All temporary steel plates must include non-skid surface that complies with current Caltrans Standard Specifications. Steel plates shall only be placed parallel or perpendicular to the travel way. After plates have been in place for 5 working days, plates must be replaced with temporary hot mix asphalt, cold mix or final pavement restoration per Utility Trench Detail.

A. **Use of Temporary Steel Plates Over Backfilled Trench**

1. Temporary steel plates used over backfilled trenches shall be installed per manufacturer's tabulated data.
2. Temporary steel plates shall be secured against displacement by using pins or other devices. Adjoining plates shall be tack welded together.
3. Where the speed limit is 25-mph or less, temporary steel plates may be placed on top of the existing pavement for up to 48-hours. After 48 hours, plates must be recessed into the surrounding pavement by grinding the pavement to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate. Temporary cold mix paving shall be placed around the plates and appropriate signage placed.
4. Where speeds are greater than 25-mph, plates must be recessed at first use by grinding the pavement to match the thickness of the plate. W8-24 "Steel Plate Ahead" signs will be required.

B. **Use of Temporary Steel Plates Over Open Trench**

1. Temporary steel plates may be used over a trench or excavation that is not backfilled only if the trench or excavation is shored. Any such use of plates over a shored excavation requires DOT approval of a design prepared by a California registered civil engineer or a design that utilizes manufacturer's tabulated data. The design must be submitted to DOT for review at least 14 days before intended use and must demonstrate that the plates combined with the shoring are appropriate for the size of the excavation, the soil type(s) present, and HS20 traffic surcharge loading on the plates and the shoring.
2. Temporary steel plates shall be secured against displacement by using pins or other devices. Adjoining plates shall be tack welded together.
3. Where the speed limit is 25-mph or less, temporary steel plates may be placed on top of the existing pavement for up to 48-hours. After 48 hours, plates must be recessed into the surrounding pavement by grinding the pavement to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate. Temporary cold mix paving shall be placed around the plates and appropriate signage placed.
4. Where speeds are greater than 25-mph, plates must be recessed at first use by grinding the pavement to match the thickness of the plate. W8-24 "Steel Plate Ahead" signs will be required.

12. Roadway Surfacing and Roadway Base Materials (see Utility Trench Detail)

When permit authorizes installation by open cut method in roadway, Permittee shall excavate and restore roadway per Utility Trench Detail.

Permittee shall complete final pavement restoration in a timely manner. Failure to complete timely final pavement restoration as determined by DOT will result in suspension of review and issuance of subsequent encroachment permits to Permittee until final pavement restoration is complete. All final pavement restoration must be complete by October 15th, or Permittee will be required to patch pave all excavations with HMA and maintain all patch paves until final

pavement restoration is complete. Installation of HMA patch paves does not relieve Permittee from performing final pavement restoration in a timely manner.

A. Potholing:

Potholing through existing roadway for any purpose shall be performed using coring machine and Hydro-vac. No jackhammering of roadway surfacing will be allowed.

Pothole excavations performed by coring will be backfilled to 3 inches below top of roadway with one-sack wet flowable sand slurry mix consolidated by mechanical vibration or full depth rodding. Permittee shall submit and obtain DOT approval of one-sack flowable sand slurry mix prior to excavating any potholes. The top 3 inches of one-sack wet flowable slurry mix shall be mixed separately in a suitable container with an additional 2 cups of Type II Portland cement, carbon black pigment (or equal) and a very small amount of water to form a well-blended homogeneous mixture. This mixture shall be finished off smooth at top of roadway surface.

All potholing outside of proposed trenching limits and not exhumed in the process of trenching shall be permanently backfilled per these requirements by the end of each workday. Potholes that are within the trenching limits may be temporarily backfilled with class 2 aggregate base and capped with cold mix asphalt concrete by the end of each shift.

B. Temporary Pavement Repair:

Temporary repairs to pavement shall be made and maintained upon completion of backfill until final pavement restoration is complete. Temporary pavement patches shall be placed and maintained with a smooth riding plane.

Temporary Pavement Patches shall consist of:

1. Hot Mix Asphalt on all major and minor collector roadways, arterial roadways, and expressways having a posted speed limit greater than 25 mph, and on un-posted rural roadways.
2. Cold mix (cut-back) asphalt, free of humps or depressions and made suitable for pedestrian, bicycle, and vehicle traffic may be used as temporary pavement repair on low-speed residential roadways and roadways having a posted speed limit of 25 mph or less.

C. Final Pavement Restoration Requirements:

No permanent HMA patch is allowed over areas that have failed compaction testing. Do not place HMA on wet pavement or frozen surface. Before placing HMA, subgrade must be free of loose and extraneous material. Remove loose paving particles, dirt, and other extraneous material by sweeping.

Hot Mix Asphalt (HMA) Mix shall be a DOT pre-approved HMA mix or shall be submitted by Permittee and approved by DOT pursuant to the following criteria:

1. AC aggregate size and grading shall be Caltrans Type A ½ inch HMA, unless otherwise directed by the DOT. Up to 25% RAP is acceptable.
2. AC Binder will be PG 64-16 (for AC dike use PG 70-10) (West Slope) and PG 64-22 or PG 64-28 (Tahoe Basin).
3. For RAP substitution of 15% or less, the grade of the virgin binder must be the specified grade shown above. For RAP substitution greater than 15% and not exceeding 25%, the grade of the virgin binder must be the specified grade of asphalt binder for Type A HMA with the upper and lower temperature classification reduced by 6 degrees C.

Limits and thickness of final pavement restoration shall comply with the Utility Trench Detail. Any damage to existing adjacent pavement caused by Permittee activity will require repair or replacement as determined by DOT.

Before placing HMA apply a tack coat to existing pavement including planed surfaces and vertical surfaces of curbs, gutters, and joints.

If the ambient air temperature is below 50 degrees F cover the loads in trucks with tarpaulins. If the ambient air temperature is below 60 degrees F and the time from HMA discharge to truck at the HMA plant to the transfer to paver's hopper or pavement surface is 60 minutes or greater, cover the loads in trucks with tarpaulins. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or the pavement surface.

Spread HMA at the ambient air temperature of 50 degrees F and rising. When HMA is deposited by windrow the temperature of the HMA shall not drop below 250 degrees F.

Compact the first coverage of breakdown compaction before the HMA surface temperature drops below 240 degrees F, breakdown and intermediate compaction before the HMA surface temperature drops below 190 degrees F, and finish

compaction before the HMA surface temperature drops below 140 degrees F. Static rolling may continue below 140 degrees F to remove roller marks. HMA may be cooled with water when rolling activities are complete if authorized by DOT.

D. Smoothness Requirements:

Finish pavement surfacing shall have a straight uniform appearance without numerous jogs, shall be placed level with the adjacent paving after compaction, and shall match existing cross-slope and roadway crown. If new surfacing is too high, it shall be cold planed to grade, and a type 2 bituminous seal coat applied per current Caltrans Standard Specifications. If new surfacing is too low, it shall be ground out and repaved correctly.

DOT accepts HMA pavement surfaces for smoothness based on compliance with straightedge smoothness specifications. HMA pavement smoothness is determined using a 12-foot straightedge. The pavement surface must not vary from the lower edge of the straightedge by more than:

1. 0.01 foot when the straightedge is laid parallel with the traffic lane centerline
2. 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

13. Care of Drainage

Roadside ditches, culverts, pipes, dikes, curbs, and other drainage facilities pertinent to County roads shall be protected from damage by Permittee. Facilities disturbed or damaged shall be returned to their original conditions or replaced by Permittee in accordance with direction from DOT.

Trenching and excavations across or through roadside drainage ditches shall be backfilled to finish grade (flow line) with CSM or minor concrete as approved by DOT and made to drain. Utility lines crossing a ditch shall be a minimum of 18" below flow line. Ditches that have been disturbed by Permittee and have evidence of high volume or storm water velocities will require velocity dissipation as determined by DOT.

Any removal of curb and gutter shall be to expansion joints and replaced with a concrete mix design, submitted by Permittee and approved by DOT, having a minimum of 463 lb/cy. cementitious material. Curb concrete will contain 3 each #4 rebar dowels drilled and epoxied 6 inches into adjacent existing curbs. Any utility service location stamps i.e.: "S", "W", "G", "R" that are in the existing curb face and removed by reason of permittee's work shall be included in the new concrete replacement. Tunnel under curb and gutter shall be backfilled with a CSM mix. Asphalt binder for HMA dike shall be PG 70-10.

14. Shoulder Restoration

All soils off pavement and within County right-of-way that have been disturbed or impacted by Permittee activity shall be groomed and compacted to 90% minimum. Disturbed soils shall be treated with temporary and permanent soil stabilization and erosion control measures as directed by DOT.

Disturbed shoulder areas that are available for motorist use, unpaved, and un-landscaped will be re-established to the original width with class II aggregate base a minimum of 4" thickness after compaction to 95%. Such areas will match existing roadway cross-slope and graded to drain.

All landscape improvements in County right of way (including but not limited to decorative rock or fiber mulch surface cover including fabric barrier, ornamental iron fencing, established lawn, perennial shrubs, etc.) disturbed by Permittee shall be re-established to pre-work conditions or better.

15. Clean-Up of Right of Way

A. During work activities:

No spoils, backfill material, or import material shall be placed on a County Road or anywhere in County right of way. All roadways shall remain free of dirt and debris during all Permittee activities, including but not limited to all periods of excavation, load-out, boring and backfill. Permittee will be required to use a vacuum street sweeper as directed by DOT. Kick-broom sweepers shall not be used.

B. End of workday:

All debris and material shall be entirely removed and the County's right-of-way left in a safe, clean, and presentable condition as before work started.

C. Pavement Striping and Pavement Markings:

Permittee shall replace any roadway striping or pavement markings that become marred, chipped or otherwise obliterated due to construction activities. Materials for use by Permittee for new striping or markings shall be submitted to DOT for approval and shall meet current MUTCD requirements.

All USA marks will be blacked out by Permittee. Black out will form a square or rectangle over the original USA markings and will provide for permanent elimination of Permittee's USA markings. Do not use water or chalk-based paints.

16. Locator Wire

All runs of non-metallic pipe shall have a minimum No. 12 gauge, solid insulated soft-drawn copper wire securely affixed along the top of the pipe. The wire shall be stubbed up inside each valve box and dead-end blow-off assembly. SW Gas Corporation is permitted to use 14-gauge copper wire per their standards.

17. Horizontal Directional Drilling

Bore and receiving pits shall not create a hazard and must be shored in accordance with Cal OSHA requirements. All pits must be lined with filter fabric when ground water is encountered and pumping is required.

A. Drilling mud/fluids:

1. Permittee shall ensure that all drilling fluids are disposed of in a manner acceptable to all appropriate local, state, and federal regulatory agencies.
2. Drilling mud shall be used during drilling and back reaming operations. The drilling mud in the annular region shall NOT be removed after installation, but permitted to solidify and provide support for the pipe and neighboring soil.
3. Excess drilling fluids shall be contained at entry and exit points until recycled or removed from the site. Entry and exit pits shall be of sufficient size to contain the expected return of drilling fluids and soil cuttings. Drilling fluids shall not enter ditches, streets, manholes, sanitary sewers, storm drains or any other drainage systems.

B. Surface monitoring/restoration requirements:

1. Permittee is responsible for repair or replacement (as determined by DOT) to any highway or non-highway facility caused by escaping (frac-out) drilling fluid, or by any facet of the directional drilling operation.
2. Permittee shall, prior to and upon completion of the directional drill, establish a Survey Grid Line and provide monitoring as outlined in their submitted detailed monitoring plan.
3. Subsurface monitoring points shall be utilized to provide early indications of settlement, as large voids may not materialize during drilling due to pavement bridging.
4. Should the drilling operation be unsuccessful, Permittee shall backfill of any voids with pressurized grout. If a bore hole beneath a roadway must be abandoned, the hole shall be pressure backfilled with grout.

C. Prior to beginning boring operation:

1. Call "811" to locate underground utilities.
2. Pothole and locate all "USA" identified existing facilities.
3. Visually check surrounding area for other possible underground utilities not marked, including but not limited to storm drain manholes, fire hydrants, pedestals, etc.
4. Submit and obtain DOT approval of Boring Plan, to include the following:
 - i. Pipe size and depth
 - ii. Location and pitch of entry and exit pits (including test pits or boreholes undertaken during the soil investigation)
 - iii. Working areas and their approximate size
 - iv. Proposed pipe fabrication and layout areas
 - v. County right-of-way lines, property lines, easement lines
 - vi. All existing utilities (both horizontal and vertical)
 - vii. Construction method including diameter of pilot hole, number, and size of pre-reams
5. Submit and obtain DOT approval of Drilling Fluid Management Plan, to include the following:

- i. Mix design of drilling fluid
- ii. Method of slurry containment
- iii. Method of recycling drilling fluid and spoils (if applicable)
- iv. Method of transporting drilling fluid and spoils off-site

D. Safety Requirements:

1. The drilling unit must be equipped with an electrical strike safety package. The package shall include warning sound alarm, grounding mats (if required for that specific rig), and protective gear.
2. Drilling unit and bore pit hole shall be fenced. All potholes, entry pits, and exit pits are to be barricaded. If the bore pit is closer than 12 feet from the edge of traveled way, temporary railing (type K) and crash cushions shall be placed per Section 6 of this Permit, "Working Hours, Traffic Control, and Public Convenience."

18. Fugitive Dust, Asbestos Dust Controls, and Water Quality Regulations

Permittee shall comply with all County, State and Federal air and water quality regulations and all directives issued by DOT regarding mitigation of Permittee's impacts to air and water quality.

Minimum BMP's must be maintained at each site including, but not limited to ingress/egress from County roadway, perimeter controls, track-out prevention, and concrete washout facilities.

A. Fugitive Dust and Asbestos Dust Controls

El Dorado County has a "zero dust" policy. Water must be always available on-site for dust control.

Fugitive and asbestos dust shall be mitigated in accordance with El Dorado Air Quality Management District (AQMD) *Rule 223-1, Fugitive Dust - Construction Requirements* and/or *Rule 223-2, Fugitive Dust - Asbestos Hazard Mitigation*.

Permittee shall be responsible for checking and following the most current procedures and regulations of the AQMD prior to beginning work. These are available at: www.edcgov.us/airqualitymanagement

If AQMD rules require Fugitive Dust Plan or Asbestos Dust Mitigation Plans be prepared for permitted work, Permittee shall submit and obtain AQMD approval of required plans. Permittee must submit AQMD approved Fugitive Dust Mitigation or Asbestos Dust Mitigation plans to DOT prior to beginning project.

If no Fugitive Dust Plan is required by AQMD rules, Permittee's work must still comply with the provisions of AQMD Rule 223-1.

B. Water Quality Regulations

Permittee shall comply with all County, State and Federal air and water quality regulations and all directives issued by DOT regarding mitigation of Permittee's impacts to water quality.

Temporary and permanent erosion control best management practices (BMPs) shall be placed and maintained to prevent sediment and other pollutants from impacting water quality. All waste resulting from saw cutting of pavement will be removed using a vacuum during the cutting process or immediately thereafter. Discharge of waste material to any drainage facility is prohibited.

Permittee shall provide an approved storm water pollution prevention plan (SWPPP) to DOT if a SWPPP is required by the SWRCB for Permittee's work.

For projects that do not require a WDID from the SWRCB, Permittee shall implement temporary and permanent best management practices for erosion and sediment control to eliminate discharge of sediments and other pollutants outside the limits of Permittee's work.

For projects that do not require a permit from the SWRCB, erosion and sediment control measures are to be in place prior to any storm event, and in place and in operable condition by October 15. Site inspections shall be conducted by Permittee before and after each storm event to identify areas that contribute to erosion and sediment problems or any other pollutant discharges. During each inspection, Permittee shall immediately install any additional BMPs required to eliminate pollutant discharges from Permittee's work.

Permittee shall be responsible for fines, penalties, and damages, whether proposed, assessed, or levied against the Permittee, or El Dorado County (including employees, agents and assigns of the County) as a result of the Permittee's failure to comply with Federal, State, or local water quality regulations and requirements or as a result of citizen lawsuits.

Penalties shall also include but not be limited to payments made or costs incurred in settlement for alleged violations of the Federal, State or County laws. Costs incurred include but are not limited to sums spent in lieu of penalties, such as settlement agreements, mitigation, or remediation.

Permittee shall complete post-work re-vegetation and stabilization of all disturbed soils, both within and outside of County's right-of-way, as required by DOT.

When applicable, Permittee is required to comply with:

1. Section 404 of the Clean Water Act regulating dredging and filling of Waters of the United States and shall provide evidence of compliance to the County upon demand.
2. Section 1600 of the State of California Fish and Wildlife Code regulating work in streambeds and shall provide evidence of compliance to the DOT upon demand.

19. Safety and Health Provisions

In addition to other specifications, definitions and provisions, Permittee is also hereby categorized and designated as the following types of employer for this project:

- **Exposing Employer** – the employer whose employees are exposed to a hazard
- **Creating Employer** – the employer who is creating a hazard
- **Controlling Employer** – the employer who is responsible and who has the authority for ensuring that a hazardous condition is corrected
- **Correcting Employer** – the employer who has the responsibility for correcting a hazard

Permittee's Safety Officer(s) shall be certified as a competent person for controlling this project's workplace safety. Permittee's Safety Officer shall be on the site, at a minimum, each day that work is in progress or periodically, when work is not active, and shall have the authority to correct any safety violation.

All workers exposed to traffic, work vehicles, or construction equipment in the County right of way shall wear high visibility safety apparel.

20. Trees

A. Tree Protection

Any underground work within the drip line of any trees in County right-of-way shall conform to the following requirements:

1. No roots over two inches in diameter shall be cut.
2. Hand trenching and tunneling will be required when excavation exposes roots two inches in diameter or larger.
3. Roots two inches in diameter or larger which are exposed to the air shall be kept moist by wrapping the root in a wet towel or blanket.
4. Roots two inches in diameter or larger which are accidentally damaged shall be treated by Permittee as directed by DOT.
5. If roots two inches in diameter or larger are cut or broken, the tree shall be trimmed by Permittee to compensate for the decreased root system as directed by DOT.
6. Manholes or boring pits shall not be installed within 20 feet of any tree trunk.

B. Tree Removal

No trees in County right of way shall be removed unless specifically authorized by DOT. If tree removal and/or trimming is authorized by DOT, Permittee will meet the following requirements:

1. Permittee shall submit and obtain DOT approval of Tree Removal/Tree Trimming Plan when required by DOT. Plan shall include name and qualifications of proposed tree removal contractor.
2. Permittee shall notify DOT 24 hours in advance of any tree trimming or tree removal.
3. Trees are not to be felled onto El Dorado County roads.

4. When directed by DOT, Permittee shall grind stumps to six inches below grade. Other stumps are to be cut flush with ground.
5. All debris from tree removal and trimming shall be removed from the County right-of-way at the end of each work shift and disposed of by Permittee.

21. Indemnity

To the fullest extent of the law, the Permittee shall defend, indemnify and hold the County of El Dorado harmless against and from any and all claims, suits, losses, damages and liability for damages, including attorney's fees and other costs of defense brought for or on account of injuries to or death of any person, including but not limited to, workers and the public, or on account of injuries to or death of the County of El Dorado employees, or damage to property, or damages proximately resulting from Permittee's work, operations, or performance hereunder, to the extent consistent with Permittee's County of El Dorado Franchise Agreement, regardless of the existence which are claimed or which shall in any way arise out of or be connected with Permittee's work, operations or performance hereunder, regardless of the existence or degree of fault or negligence on the part of the County of El Dorado, the Permittee, the contractors, subcontractors or employee of any of these, except the active, or sole negligence or willful misconduct of El Dorado County, its officers, employees, contractors, subcontractors or employee of any of these where expressly prescribed by statute.

The duty to indemnify and hold harmless the County of El Dorado specifically includes the duties to defend set forth in Section 2778 of the Civil Code. The insurance obligations of the Permittee, and/or Contractor are separate, independent obligations under the Permit, and provision of this defense and indemnity are not intended to modify nor should they be construed as modifying or in any way limiting, the insurance obligations set forth in the Permit.

22. Insurance

General Requirements - Permittee must procure and maintain and must require the Permittee's contractors to procure and maintain for the duration of the permit, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Permittee, the Permittee's agents, representatives, employees or contractors. The Permittee must provide proof of a policy(s) of insurance satisfactory to the County of El Dorado before work begins. Permittee must not commence performance of this permit unless and until compliance with every requirement of the insurance provisions is achieved. Any failure to comply with the reporting provisions of the policies must not affect coverage provided to the County, its officers, officials, employees or volunteers.

Coverage must be at least as broad as:

- A. Full Workers Compensation and Employers Liability Insurance covering all employees of the Permittee as required by law in the State of California.
- B. Commercial General Liability (CGL) Insurance of not less than One Million Dollars (\$1,000,000.00) combined single limit per occurrence for bodily injury and property damage, including but not limited to endorsements for the following coverage: Premises, personal injury, operations, products and completed operations, blanket contractual, and independent contractors' liability. Automobile Liability Insurance of not less than \$1,000,000.00 is required in the event motor vehicles are used by the Permittee in performance of the permit.
- C. In the event Permittee is a licensed professional and is performing professional services under this contract, professional liability is required with a limit of liability of not less than One Million Dollars (\$1,000,000.00) per occurrence.
- D. Explosion, Collapse and Underground coverage is required when the scope of work includes XCU exposures. For the purpose of this permit, XCU coverage is required.

23. Proof of Insurance Requirements

- A. Permittee must furnish proof of coverage satisfactory to the County of El Dorado as evidence that the insurance required herein is being maintained. The insurance will be issued by an insurance company acceptable to the County of El Dorado Risk Management Division or be provided through partial or total self-insurance likewise acceptable to the Risk Management Division. Before beginning work the Permittee shall provide the name, address, and telephone number of the nearest claims adjusting office of the company which has issued liability insurance.
- B. The County of El Dorado, its officers, officials, employees, and volunteers are included as additional insureds, but only insofar as the operations under this Permit are concerned. This provision shall apply to General Liability only.

Proof that the County of El Dorado is named additional insured shall be made by providing a certified copy, of other acceptable evidence, of an endorsement to Permittee's insurance policy naming the County of El Dorado additional insured.

- C. Certificates of insurance must meet such additional standards as may be determined by the DOT either independently or in consultation with the Risk Management Division, as essential for protection of the County
- D. If the Permittee cannot provide an occurrence policy, Permittee must provide insurance covering claims made as a result of performance of this Permit for not less than three (3) years following completion of performance of this Permit.
- E. Any deductibles or self-insured retentions must be declared to and approved by the County of El Dorado.
- F. The Permittee must require each of the Permittee's contractors to procure and maintain commercial general liability insurance, automobile liability insurance, and workers compensation insurance of the types and in the amounts specified above, or the Permittee must insure the activities of the Permittee's contractors in the Permittee's policy in like amounts. The Permittee must also require each of the Permittee's contractors to name the Permittee and County of El Dorado, its officers, officials, employees, and volunteers as additional insureds.

24. Insurance Notification Requirements

- A. Permittee must provide written notice to the County of El Dorado thirty (30) days prior to any cancellation or material change in any policy. Send the written notice to the County of El Dorado, Department of Transportation, Utility Encroachment Division, 2850 Fairlane Court, Placerville, CA 95667.
- B. Permittee agrees that the insurance required herein shall be in effect at all times during the term of this Permit. If the insurance coverage expires at any time or times during the term of this Permit, Permittee must provide, thirty (30) days prior to the expiration date, a new certificate of insurance as evidence of the insurance coverage herein provided. New insurance coverage must extend for the remaining of the term of the Permit. If the Permittee fails to keep in effect at all times insurance coverage as herein provided, County may, in addition to any other remedies it may have, terminate this permit upon the occurrence of this event. New certificates of insurance are subject to the approval of the Risk Management.

25. Appeal Process

The appeal process for DOT encroachment permit requirements shall escalate to the following individuals, or successors:

	West Slope	Tahoe Basin
1	Greg Hicks, P.E. Senior Civil Engineer	Daniel Kikkert, P.E. Senior Civil Engineer
2	John Kahling, P.E. Deputy Director of Engineering	John Kahling, P.E. Deputy Director of Engineering
3	Rafael Martinez Director of Transportation	Rafael Martinez Director of Transportation

The governing board of each utility agency has the right to appeal to the Board of Supervisors.

No public utility will commence work encroaching upon the County's right-of-way unless it will comply with the encroachment permit conditions. If the public utility does not agree with the encroachment conditions, it can exercise its appeal right.