

**SAN BERNARDINO COUNTY  
DEPARTMENT OF PUBLIC WORKS**

**GENERAL PERMIT  
CONDITIONS  
AND  
TRENCH  
SPECIFICATIONS**

Effective November 1, 2006



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## 1 - GENERAL

1.1 Standards and Specifications -- The work shall be done in accordance with the current San Bernardino County Standards, Caltrans Specifications and these Conditions and Specifications. Any deviation shall be approved in writing by the Permit Engineer.

1.2 Changes or Additions to Permit -- The Department of Public Works reserves the right to make any changes or additions to a permit after issuance if such changes or additions are believed necessary for the protection of the roads or for the health and safety of the public.

1.3 Relocation -- If any part of an installation interferes with the present use of roads by the general public or is in conflict with future or current County improvement projects, it shall be removed or relocated as directed by the Department of Public Works at the expense of the Permittee or his successor in interest.

1.4 Utility Construction -- Permits for utility trenching, including utility service trenching, within County right-of-way, shall be issued to the respective utility purveyor or a California licensed contractor. The permittee shall warranty the trench repair for one year from the Department of Public Works approval date. Following the permittee warranty period, the respective utility purveyor shall be responsible for the trench repair.

Developers may apply for a no fee permit for trenching of all utilities within the tract boundaries and shall be responsible for the warranty period of one year.

1.5 Licensed Contractor -- All excavation, repair and restoration in County road right-of-way shall be performed by a contractor with the appropriate license, Class A, C-12 (trenching only, no paving) issued by the State of California Contractors License Board or by utility purveyor's regular employees.

1.6 Permit Possession -- Other than emergency repairs, there shall be no work performed in County road right-of-way until a road permit is issued. A copy of this permit, a set of approved plans and permits required by any other legally constituted authority shall be on site at all times construction is in progress. Permits that require excavation shall be valid only after an Underground Service Alert inquiry identification number is issued. All permitted work in the mountain regions shall cease between October 31 and April 15 of the following year unless approved by the Department of Public Works. Start work approval shall be dependent on weather conditions.

1.7 Sanitary Facilities -- The Permittee shall provide and maintain enclosed toilets for the use of employees at all times while work is in progress.

1.8 Permittee Responsibility -- In addition to all conditions herein, the Permittee is responsible for safety and construction requirements within the limits of the project. The Permittee or his employees shall abide by all the regulations of any legally constituted authority.

1.9 Hold Harmless -- The Permittee shall preserve and save harmless the County and each officer and employee thereof, from any liability or responsibility for any accident, loss or damage to persons or property happening or occurring as a proximate result of Permittee's negligence or the negligence of Permittees' agents, servants, employees or contractors in the

design or performance of any work undertaken under any permit granted to Permittee pursuant to the application [51.0113 County Code].

1.10 Notification -- Except in emergencies, the Permittee shall notify the assigned Inspector one working day, excluding weekends and holidays, prior to starting a project and for each phase of construction. In addition, the Permittee shall notify USA 48 hours prior to any excavation.

1.11 Inspection -- All construction performed in relation to a road permit shall be inspected prior to and during installation by County personnel. Construction performed without inspection may be subject to removal and replacement. The entire cost of removal and replacement shall be borne by the Permittee, regardless of whether the installation removed was found to be defective.

1.12 Failure To Comply -- Should a Permittee fail to comply with the provisions of the road permit or the requirements of any legally constituted authority, the Transportation Department may order the Permittee to stop work, wholly or in part, until the discrepancies have been resolved to the Department's satisfaction. Upon satisfactory completion of corrections, written approval from the Department shall be required before work resumes. Failure to comply shall result in revocation of permits. The Department may perform the work required or arrange for the work to be done and the entire cost of the required work shall be borne by the Permittee.

## **2 - PUBLIC CONVENIENCE AND SAFETY**

2.1 Traffic and Access -- The Permittee's operation shall cause no unnecessary inconvenience to the public. The access rights of the public shall be considered at all times and unless otherwise authorized, traffic shall be permitted to pass through the work area at all times. Safe and adequate pedestrian and vehicular access shall be provided and maintained to fire hydrants, residences, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, hospitals, and establishments of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the Department's Traffic Engineer.

2.2 Traffic Control -- Traffic Control shall conform to the current Caltrans Manual of Traffic Controls. The handbooks published by American Traffic Safety Services Association Guide and the Work Area Traffic Control Handbook or other traffic control manuals may be used with approval of the Department's Traffic Engineer.

2.3 Working Hours -- Except for emergency repairs, no work shall be performed within County road right-of-way on weekends, County holidays, before 7 AM or after 4:30 PM unless authorized by the Permit Engineer.

2.4 Dewater Operations -- Release of, or the directing of water onto County roads shall be authorized only by the Department of Public Works and shall include traffic control per Section 2.2, clean-up per Section 4.1 and erosion control. If erosion occurs, grading shall be as required in Section 5.4. Discharges shall comply with the National Pollutant Discharge Elimination System and with Federal law, State law and local ordinance.

2.5 Closing Roads -- No road shall be closed without authorization from the Department of Public Works except in the case of an emergency under the direction of an authorized agency. An authorized road closure will allow the detour of *through* traffic only. The Permittee shall

provide a smooth dust controlled route that allows unimpeded access for emergency vehicles and residents at all times. A minimum of ten (10) working days are required to process the application.

To apply for a road closure authorization, submit the following to the Road Permit Section, 825 E. Third Street, San Bernardino, CA 92415-0835.

- Written request for the closure with the time schedule included.
- Detour route and sign locations, a detour plan designed by a Registered Civil or Traffic Engineer, if required by the Department.

### **3 - PRESERVATION OF PROPERTY**

3.1 Protection of Property -- The Permittee shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.

The Permittee shall repair or replace all existing improvements damaged within the right-of-way which are not designated for removal on the approved plans to match the original in finish and dimension. Trees, lawns and shrubbery that are not designated for removal on the plans shall be protected from damage or injury. If damaged or removed because of the Permittee operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible as approved by Department personnel. The Permittee shall give seven (7) days notice to occupants or owners of adjacent property to allow them to salvage or relocate plants, trees, fences, sprinklers and other improvements within the right-of-way which are designated for removal on the plans and would be destroyed because of the work.

3.2 County Facilities -- Prior to construction, the Permittee shall assess the condition of County facilities within project limits and report to the inspector all damaged, defaced or missing pavement, sidewalk, curb, gutter, traffic signs, pavement markings or hazardous conditions that may exist before work is started. Prior to final acceptance of the project, all County facilities shall be in the same or better condition as determined by Department personnel.

3.3 Traffic Signals -- Traffic signal detector loops, wiring or appurtenant facilities damaged by the Permittee's operation shall be reported immediately to the Traffic Division of the Department of Public Works , 825 East Third Street San Bernardino, CA 92415, telephone (909) 387-2833. Any damage shall be repaired immediately at no expense to the County as directed by the Department of Public Works.

3.4 Survey Monuments -- The Permittee shall locate, protect or tie-out all survey monuments which may be disturbed or destroyed. Survey monuments shall be located, referenced and a Corner Record filed with the County Surveyor prior to the start of construction. Following completion of the work, the monuments shall be reset in the surface of the new construction, a suitable monument box placed thereon, or permanent witness monuments set and a Corner Record filed with the County Surveyor prior to final project notice of completion issued by the Department of Public Works. All work shall be performed under the direction of a licensed Land Surveyor or registered Civil Engineer at no expense to the County.

#### **4 - PROJECT SITE MAINTENANCE**

Surplus dirt, debris, rocks or building materials shall be contained during permit work and the site broomed daily to reduce possibility of being carried by runoff into a storm drain, stream or natural drainage course or lake. At the completion of the permit work, the previous drainage patterns must be restored. Material shall not be placed in such a manner which might result in the blockage of any drainage structure at either the inlet or outlet.

4.1 Clean-up and Dust Control -- Throughout all phases of construction, including suspension of work, the Permittee shall keep the work site clean and free from rubbish and debris. The Permittee shall also abate dust nuisance by cleaning, sweeping and sprinkling with water or other means as necessary. The use of water resulting in mud on roads or drainage facilities will not be allowed as a substitute for sweeping or other cleaning methods. All soil and construction material shall be removed prior to that portion of the road being made available to traffic.

4.2 Haul Routes -- When required by the Department, obtain a haul route permit before beginning work. Permits are issued approximately five (5) working days after filing of proper plans, fees and application to the Department of Public Works. Care shall be exercised to prevent spillage on, or damage to County roads. Any such spillage or damage shall be removed or repaired immediately. Dust control and traffic control shall be provided for all hauling operations.

4.3 Storage in County Roads -- There shall be no equipment or materials stored or stockpiled in road right-of-way. Equipment and materials shall be removed from road right-of-way when not in use and at the end of each working day, except as approved by the Transportation Department.

4.4 Snow Removal -- The Department of Public Works will remove snow on all County maintained roads that are safe for the snow removal operation. If conditions are such as to endanger personnel or equipment due to Permittee operation (sunken trenches, irregular paving, or other hazards) the Department will cease snow removal operations. The Permittee shall then be responsible for removal of snow to the surface of the road and maintain such, including sanding operations, for a minimum width of 20-feet or as directed by Department personnel.

4.5 Emergency Response -- Before work is started, the Permittee shall furnish names and telephone numbers of persons on-call if emergency work is required by the County. The Department, at its sole discretion, may elect to perform emergency work if it is judged as necessary for the protection of the roads or for the health and safety of the public. All emergency work shall be accomplished at no expense to the County.

4.6 Maintenance of Trenches -- Permittee shall perform continuing maintenance of all trenches, including periods of suspension of work, during the course of construction and shall maintain the trench for the life of the installation in accordance with County Ordinance No. 2377.

## **5 - MATERIALS AND EQUIPMENT**

5.1 Pavement Traffic Markings and Striping -- Pavement traffic markings and striping shall be constructed of two coat paint material and all damaged or removed markings shall be replaced with two coat paint material unless otherwise approved by Department personnel. Visual uniformity, as determined by Department personnel, may require that adjacent markings and all markings within an intersection be replaced with thermoplastic material by the Permittee at no cost to the County.

5.2 Asphalt Concrete -- Paving asphalt shall be PG 64-10 for the Valley area, PG 64-16 for the Mountain area, PG 70-10 for the Desert area, 1/2-inch Type B maximum, medium shall be used. Asphalt dike shall be PG 70-10 paving asphalt with Type B 3/8-inch maximum, medium grading.

5.3 Base Material -- Base shall be Class II Aggregate Base or as approved by Department personnel.

5.4 Grading Equipment -- Grading of soil roads or soil shoulders may be accomplished by any means that will provide a smooth, compacted and uniform surface that varies less than 0.1-foot in 10-feet for line or grade up to 300-feet. Projects greater than 300-feet in length will require grading be performed by an approved motor grader.

5.5 Track Equipment -- Track equipment and outriggers used on paved surfaces shall be equipped with street pads and be operated so as not to mar the surface or cause damage to any County facility. If pavement is marred, it shall be resurfaced over the entire width as required in Section 8, Trench Resurfacing. If County facilities are damaged, they shall be replaced or repaired as specified in Section 3, Preservation of Property.

5.6 Equipment -- Paving 6-feet wide or wider in a driving lane shall be accomplished by use of a paving machine approved by Department personnel. Shoulder paving and miscellaneous paving shall be as approved by the Inspector.

## **6 - TRENCHING**

6.1 CalOSHA -- All excavations shall conform to the requirements of the State of California Division of Occupational Safety and Health. The applicant for a road permit shall possess a permit to excavate from the Division of Industrial Safety, Department of Industrial Relations, State of California.

6.2 New Roads -- Trenches installed in roads that have been paved within 3 years shall not be open-cut unless otherwise authorized by the Permit Engineer. If authorized, the permittee shall be required to overlay the roadway to restore it to its original condition per attached trench overlay drawing.

6.3 Depth of Installation -- Underground installations shall have a minimum of 2.5-feet of cover below finished grade. Refer to San Bernardino County Standard Plan No. 311 for recommended locations.

6.4 Pavement Removal -- Paving shall be cut for removal and excavated in a manner that does not disturb the adjacent pavement. Paving shall be sawcut or cold planed for permanent repair as specified in Section 8. Remnant strips of paving less than 2-feet wide shall be removed and included in the replacement paving. Replacement paving along the edge of paving that does not have curb and gutter, AC dike or AC berm shall be a minimum of 2-feet wide. When sidewall slippage occurs within the trench under the pavement, the pavement in the affected area shall be removed and the area of slippage shall be recompact, paving of this area shall be included in the replacement paving. Any voids under the pavement shall be filled by an appropriate method approved by the inspector.

6.5 Open Trench -- The maximum length of open trench (excavation or backfill not resurfaced) allowed during construction shall be the distance of construction which can be reasonably installed in a single day. An open trench shall be attended by contractor's personnel at all times. Where pavement has been removed, a minimum of 2-inches of temporary paving shall be placed before that area is made available to traffic. Before leaving the project and at the end of each day, all areas of pavement removal, including sidewalk, drainage courses and driveway approaches shall be backfilled, compacted and surfaced with temporary asphalt. Upon approval of the Department personnel, appropriate areas of the trench may be protected by plate bridging or protective fencing.

6.6 Trench Bridging -- Plate bridging in the traveled way shall be as shown in the Work Area Traffic Control Handbook and the Plate Bridging Standard drawing herein.

6.7 Protective Fencing -- When protective fencing is used to secure an area, it shall be constructed of 6-foot high, pipe framed chain link panels or equal material, secured into position and placed in a manner that there are no gaps larger than 3-inches. Fencing shall be placed a minimum of 4-feet from the nearest driving lane and shall be protected by appropriate signing and barriers per Section 2.2, Traffic Control.

6.8 Trench Backfill -- Unless otherwise specified, the material obtained from the project excavations will be suitable for use as fill or backfill, provided that all organic material and other objectionable material is removed. Rocks, plain concrete rubble and pavement grindings obtained from the project will be permitted in the fill subject to the following limitations:

- In trenches up to 3-feet wide, the maximum dimension of any piece used shall be 6-inches; in trenches more than 3-feet wide, 1-foot is the maximum dimension.
- Pieces larger than 4-inches shall not be placed within 1-foot of any structure.
- Pieces larger than 3-inches shall not be placed within 1-foot of the subgrade for paving.
- Any trenching that involves bundled conduits of more than 5 2-inch conduits shall be slurry backfilled.

Rocks or rubble included in the fill shall be mixed with approved material to eliminate voids. Slurry (1-1/2 sack) is also an acceptable option for backfill.

6.9 Narrow Trench -- Unless otherwise authorized, trenches in paved areas, 1-foot or less in width, shall be backfilled to pavement subgrade with 1-1/2 sack aggregate/cement slurry. The slurry shall be protected until cured and pavement placed per Section 8, Trench Resurfacing.

6.10 Inclement Weather -- Other than emergency repairs or as directed by the Department of Public Works, there shall be no excavation within the traveled way of County roads during periods of inclement weather.

6.11 Manhole Construction -- Manholes shall remain below the grading plane until final paving has been completed and then set flush with the surface, except in areas that require snow removal, the manhole frame shall be set 1/2-inch to 3/4-inch below pavement surface. In graded earth shoulders or earth flowline areas, asphalt concrete shall be placed to a minimum width of 3-feet around the manhole and paved out at 45 degrees to the edge of existing pavement per San Bernardino County Standard Plan No. 311A. Backfill and testing shall be per Section 7, and shall be independent of the main line trench tests.

## **7 - COMPACTION**

7.1 Relative Compaction (RC) -- RC of 95% minimum shall be required for asphalt pavement, paving base material and that portion of backfill which is within 0.5-foot of the paving base material. RC of 90% minimum shall be required for all other fill or backfill. All compaction shall be in accordance with California Test No. 216 or No. 231 (ASTM D-1556 or D-1557-70). Use of an alternate compaction test method (e.g. Dynamic Cone Penetrometer) must be approved in advance and will be approved on a case-by-case basis.

7.2 Compaction Testing Frequency And Location -- Trench backfill testing shall be at 250-foot maximum intervals. One test shall be performed for each 4-foot of depth or fraction thereof. Pavement subgrade and pavement base material shall be tested at 500-foot intervals. Tests for backfill shall be taken at mid-depth of each 4-feet of backfill starting at the top of the installation. 20% of laterals and 100% of manholes shall be tested independently of the main line. Failure of a compaction test will result in the entire area represented by that test being uniformly reworked and retested at a random location.

7.3 Test Reports -- Tests shall be certified by a registered California civil or geotechnical engineer or testing laboratory in accordance with the State of California test requirements. Test locations shall be determined by Department personnel. Test reports shall be listed individually for each trench or for each type and phase of construction that includes an accurate description of the test location. Compaction reports shall be submitted to Inspector prior to permanent paving. If an alternate compaction method is approved per Section 7.1, alternate test reports specified at time of permit issuance shall be submitted.

7.4 Mechanical Compaction -- Backfill shall be placed in horizontal layers of thickness compatible to the material being placed and the type of equipment being used. Each layer shall be evenly spread then tamped or rolled until the specified relative compaction is attained.

7.5 Water Densification -- Densifying by ponding and jetting will not be allowed within 4-feet of finish grade unless confined to the pipe zone and approved by the Inspector. Water densification may be allowed when, as determined by Department personnel, the base and backfill materials have a sand equivalent of 20 or greater (California Test No. 217) and are of such character that they will be self-draining when compacted and the foundation material will not soften, or otherwise be damaged by the applied water. For authorization to use water densification, submit request and test reports representing the foundation soils and backfill material, at a maximum of 1000-foot intervals to the Inspector five (5) working days prior to starting work.

## 8 - TRENCH RESURFACING

8.1 Temporary AC Pavement -- Temporary asphalt compacted to 2-inches thick shall be placed and maintained in a smooth and compacted condition at all locations where paving has been removed and before traffic is allowed to pass over areas of pavement removal. Temporary asphalt shall be removed for permanent repair.

8.2 Pavement Repair-General -- Damaged paving adjacent to the trench edges shall be sawcut and removed in rectangular sections. Remnant strips of paving 2-feet wide or less will be removed and that area included in the paving repair. Asphalt paving shall be placed in a minimum of two lifts and be in accordance with Caltrans Standards Section 39 and be a minimum of 95% RC. The repaired section shall be 1-inch thicker than the existing paving but not less than 3-inches thick. Paving shall be placed within thirty (30) days of completion of the subsurface installation in accordance with Section 1.5. Areas to be joined with asphalt paving shall be cleaned of all soil and foreign material and tacked 100% coverage of asphaltic emulsion or paint binder.

8.3 Permanent Pavement Repair -- Base paving will be in compacted lifts a maximum of 3-inches thick and the use of 3/4-inch MC PG 64-10 for the Valley area, PG 64-16 for the Mountain area, PG 70-10 for the Desert area, may be required at the discretion of the Permit Inspector. Finish course shall be a minimum of 1-inch and a maximum of 2-inches thick of 1/2-inch MM PG 64-10 for the Valley area, PG 64-16 for the Mountain area, PG 70-10 for the Desert area, flush with the existing paving. Trench sections over 6-feet in width shall utilize a self-propelled vibrating screed paving machine (Barber-Greene or equivalent) and may be subject to additional requirements.

### 8.4 Trench Options

- T-Cut Trench -- After backfill is completed, trench edges shall be sawcut or ground to straight lines a minimum of 1.0-foot from the edge of the excavation or pavement removal and shall be parallel and at right angles to the centerline of the road (see Trench Detail A).
- Optional T-Cut Trench -- In cases where the existing pavement has a thickness in excess of 4-inches, grinding a minimum of 1-foot from each edge of the excavation or pavement removal to a minimum depth of 2-inches may be allowed at the discretion of the Permit Inspector (see Trench Detail B).
- Non T-Cut Trench Alternative -- Trench Detail C requires overlay paving in accordance with Section 8.5 for trenches over 300-feet.

8.5 Overlay Paving -- When the T-cut trench or T-cut option is used to repair or restore pavement removal to 300-feet or longer, an overlay may not be required unless the road has been paved within three years (see Section 6.2) or the road has a superelevation, or tilt cross section, or falls within Section 8.6 below. When the non T-cut trench is used to repair or restore pavement removals of 300-feet or longer, an overlay shall be required per attached trench overlay drawing. The determination of the overlay shall be made by the Department of Public Works at the prebid/preconstruction meeting or prior to issuance of the permit. Substantial damage to the roadway beyond the trench excavation as a result of negligence by the permittee or their contractor shall meet or exceed prior street conditions and will be determined by the Department of Public Works. The overlay, when required, shall be a minimum of 1-inch thick of PG 64-10 for the Valley area, PG 64-16 for the Mountain area, PG 70-10 for the Desert area, 3/8-inch MM placed with a paving machine per Section 5.6 and shall extend beyond pavement removal a minimum of 1-foot laterally and 5-feet longitudinally and shall cover the driving lane or shoulder full width. Roads that have a superelevation or tilt cross section may require full road width overlay in the area of the superelevation or tilt section.

8.6 Excessive Pavement Removal -- Regardless of the trench method used, removal of six or more separate areas of pavement or the removal of 15% of the total area of a lane or shoulder by a Permittee within 300-foot length of street, shall require an overlay per Section 8.5 and the attached trench overlay drawing.

8.7 Pavement Surfacing -- Where there are existing surface coats on the existing paving, open graded paving, chip seal or any type of surfacing that has been removed, the surfacing and paving shall be replaced in-kind.

8.8 Driveway Approaches -- Driveway approaches constructed of asphalt concrete shall be repaired as required and shall also be overlaid 1-inch thick full width to the property line or slurry sealed per Caltrans Section 37-2.01.

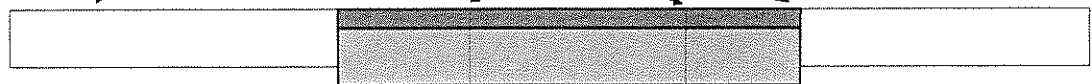
8.9 Portland Cement Concrete -- Potholes or trenches in PCC shall be repaired by sawcutting or grinding and removed in full panels at the score lines or as directed by Department personnel.

8.10 Trench Failure and Repair -- When the Department of Public Works notifies Permittee of a failure of the trench (settlement, excessive cracking or alligating, etc.) the Permittee shall coordinate the proposed trench repair method and schedule with the Department of Public Works.

2' OR LESS FROM EDGE, REMOVE AND INCLUDE IN REPAIR

SAWCUT OR COLD PLANE 1' FROM TRENCH CUTS

SAWCUT OR COLD PLANE FOR TRENCHING



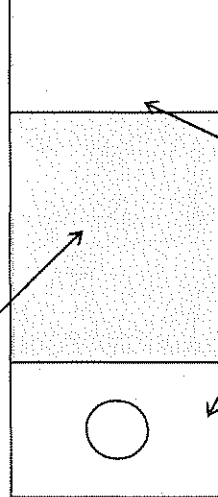
95% R.C. AC PAVEMENT TO BE 3" MIN.. AND 1" THICKER THAN EXISTING. TOP 1" - 2" TO BE PER SECTION 8.5

6" Min

95 % RC. CLASS II BASE (IF EXISTING) MATCH EXISTING THICKNESS OR 4" MIN.

90% RC. 12" WIDE OR LESS USE 1-1/2 SACK CEMENT SLURRY.

90% R.C.



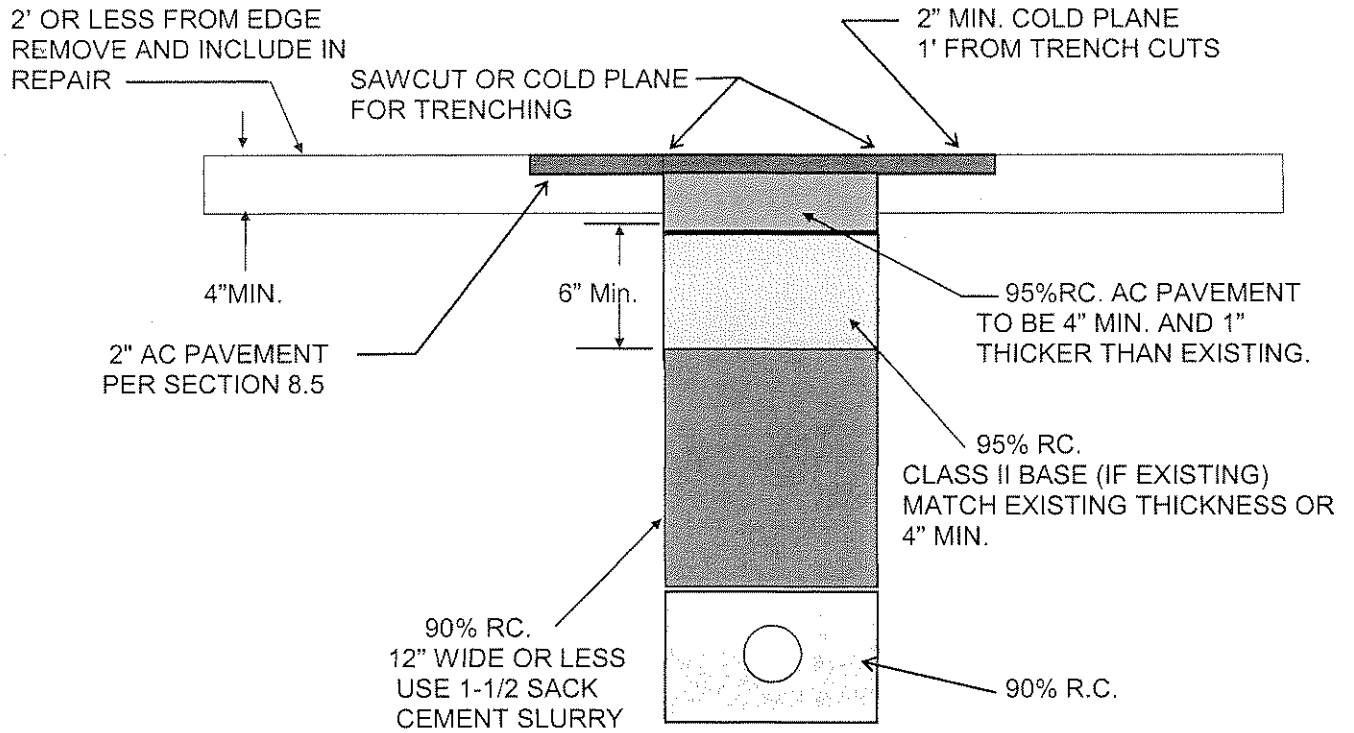
NOTES :

1. ALL EXCAVATIONS WITHIN COUNTY RIGHT-OF-WAY REQUIRE AN EXCAVATION PERMIT FROM THE ROAD PERMIT SECTION.
2. ROAD PERMITS ARE NOT VALID WITHOUT FULL COMPLIANCE OF UNDERGROUND SERVICE ALERT REQUIREMENTS.
3. ALL EXCAVATIONS SHALL BE CONSTRUCTED AS PRESCRIBED BY CAL. OSHA.
4. TEMPORARY PAVING 2" THICK COMPACTED SMOOTH AND FLUSH, SHALL BE PLACED IN ALL AREAS PAVING WAS REMOVED PRIOR TO OPENING TO TRAFFIC AND AT THE END OF EACH DAY.
5. COMPACTION TEST ON BACKFILL IN THE 90% RC ZONE SHALL BE AT VARYING DEPTHS ON 250' INTERVALS AND SUBMITTED TO INSPECTION PRIOR TO PERMANENT PAVING. CLASS II AGGREGATE BASE AND THE GRADING PLANE SHALL BE 95% RC ON 500' INTERVALS.
6. NOTIFY PERMIT INSPECTOR ONE WORKING DAY PRIOR TO STARTING A PROJECT AND FOR EACH PHASE OF CONSTRUCTION.
7. OVERLAY PAVING WILL NOT BE REQUIRED PER SECTION 8.5 EXCEPT FOR ROADS THAT HAVE BEEN PAVED WITHIN THREE YEARS AND ROADS THAT HAVE SUPERELEVATIONS OR TILT CROSS SECTION OR EXCESSIVE PAVEMENT REMOVAL PER SECTION 8.6.

T-CUT TRENCH

TRENCH DETAIL

A



#### NOTES :

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3. ALL EXCAVATIONS SHALL BE CONSTRUCTED AS PRESCRIBED BY CAL. OSHA.
4. TEMPORARY PAVING 2" THICK COMPACTED SMOOTH AND FLUSH, SHALL BE PLACED IN ALL AREAS PAVING WAS REMOVED PRIOR TO OPENING TO TRAFFIC AND AT THE END OF EACH DAY.
5. COMPACTION TESTS IN THE 90% RC PIPE ZONE SHALL BE ON 250' INTERVALS AND SUBMITTED TO INSPECTION PRIOR TO PERMANENT PAVING.
6. NOTIFY PERMIT INSPECTOR ONE WORKING DAY PRIOR TO STARTING A PROJECT AND FOR EACH PHASE OF CONSTRUCTION.
7. OVERLAY PAVING WILL NOT BE REQUIRED PER SECTION 8.5 EXCEPT FOR ROADS THAT HAVE BEEN PAVED WITHIN THREE YEARS AND ROADS THAT HAVE SUPERELEVATIONS OR TILT CROSS SECTIONS OR EXCESSIVE PAVEMENT REMOVAL PER SECTION 8.6.

OPTIONAL T-CUT  
TRENCH

TRENCH DETAIL

B

2' OR LESS FROM EDGE, REMOVE AND  
INCLUDE IN REPAIR

SAWCUT OR COLD PLANE

95% R.C. AC PAVEMENT TO BE 3" MIN. AND 1"  
THICKER THAN EXISTING.  
TOP 1" - 2" TO BE PER SECTION 8.5

90% RC.  
12" WIDE OR LESS  
USE 1-1/2 SACK  
CEMENT SLURRY.

6" Min.

95 % RC.  
CLASS II BASE (IF EXISTING)  
MATCH EXISTING  
THICKNESS OR 4" MIN.

90% RC.

#### NOTES :

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2. ROAD PERMITS ARE NOT VALID WITHOUT FULL COMPLIANCE OF UNDERGROUND SERVICE ALERT REQUIREMENTS.
3. ALL EXCAVATIONS SHALL BE CONSTRUCTED AS PRESCRIBED BY CAL. OSHA.
4. TEMPORARY PAVING 2" THICK COMPACTED SMOOTH AND FLUSH, SHALL BE PLACED IN ALL AREAS PAVING WAS REMOVED PRIOR TO OPENING TO TRAFFIC AND AT THE END OF EACH DAY.
5. COMPACTION TEST ON BACKFILL IN THE 90% RC ZONE SHALL BE AT VARYING DEPTHS ON 250' INTERVALS AND SUBMITTED TO INSPECTION PRIOR TO PERMANENT PAVING. CLASS II AGGREGATE BASE AND THE GRADING PLANE SHALL BE 95% RC ON 500' INTERVALS.
6. NOTIFY PERMIT INSPECTOR ONE WORKING DAY PRIOR TO STARTING A PROJECT AND FOR EACH PHASE OF CONSTRUCTION.
7. OVERLAY SHALL BE REQUIRED PER SECTION 8.5 OF THE TRENCH SPECIFICATIONS FOR TRENCHES OVER 300 FEET. TRENCHES UNDER 300 FEET DO NOT REQUIRE AN OVERLAY UNLESS ROADWAY HAS BEEN RESURFACED WITHIN THE LAST THREE (3) YEARS OR PER SECTION 8.6.

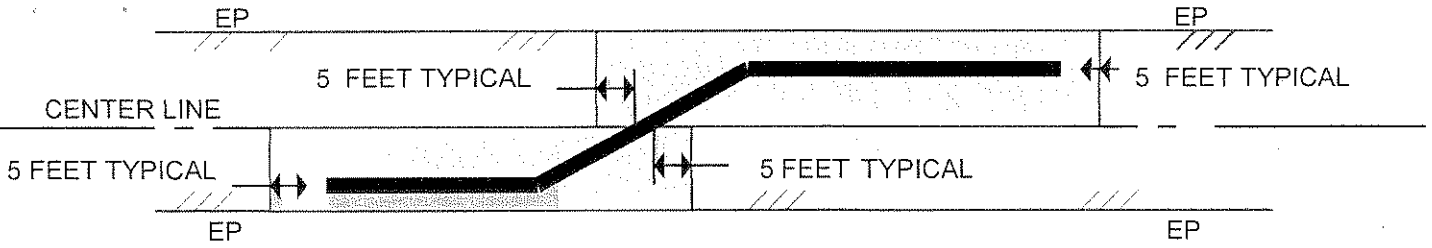
NON T-CUT  
TRENCH

TRENCH DETAIL

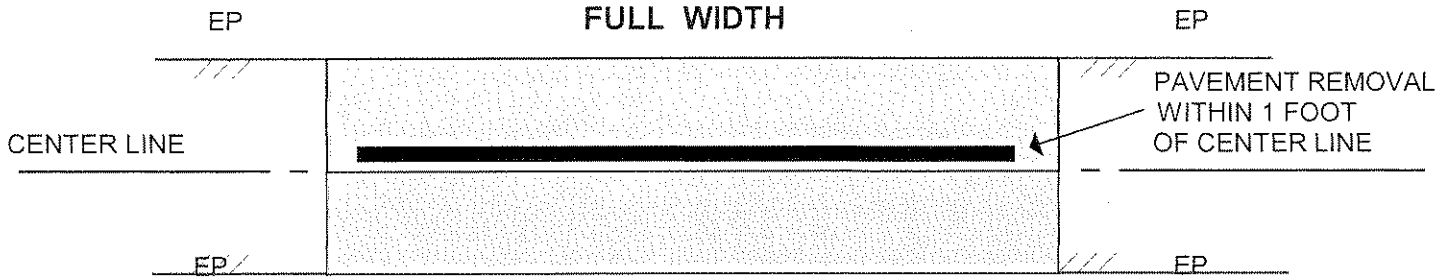
C

# TRENCH OVERLAY

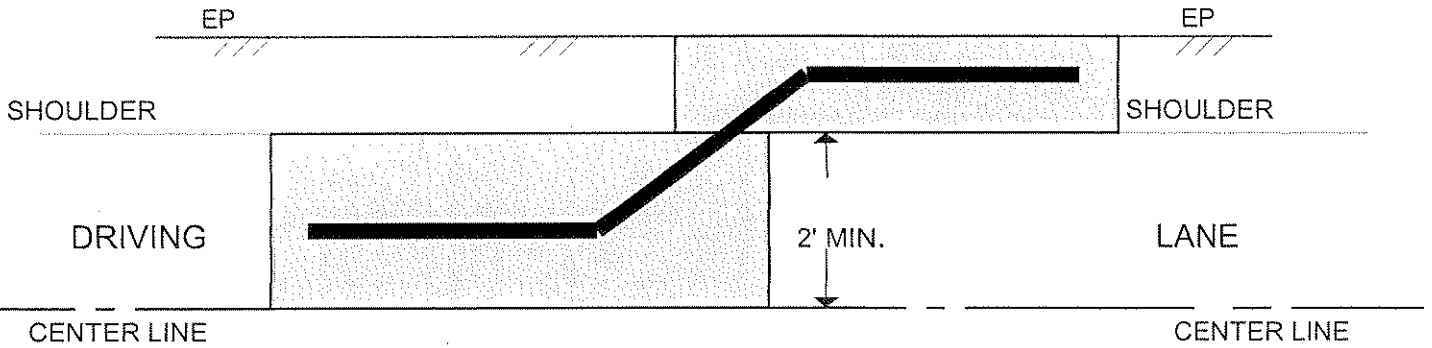
## HALF WIDTH



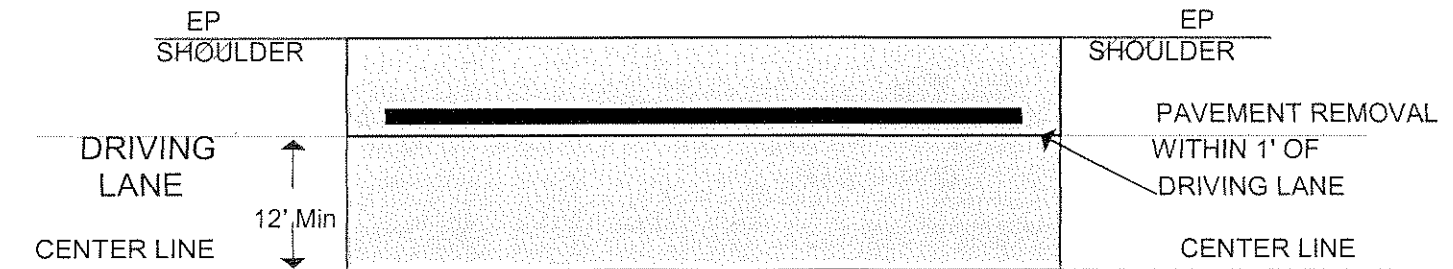
## FULL WIDTH



## DRIVING LANE TO SHOULDER



## DRIVING LANE AND SHOULDER



**NOTE:** OVERLAY TO EXTEND BEYOND TRENCH A MINIMUM 5' LONGITUDENLY AND 1' TRANSVERSELY. PAVING JOINTS SHALL BE AT THE EDGES OF THE DRIVING LANES OR SHOULDERS.

**LEGEND :**

TRENCH

OVERLAY

