

**SAN BERNARDINO COUNTY  
DEPARTMENT OF PUBLIC WORKS**

**GENERAL PERMIT  
CONDITIONS  
AND  
TRENCH  
SPECIFICATIONS**

Updated November 2012

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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 and Specifications, Caltrans Standard Specifications and San Bernardino County General Permit Conditions and Trench Specifications. Any deviation shall be approved in writing by the Permit Engineer prior to the issuance of the permit. Should conflict arise among the above listed documents for an item of work in a particular permit, the Permit Engineer shall have the sole responsibility to determine the document that ultimately governs for that item of work in that particular permit.

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' acceptance date. Following the Permittee warranty period, the respective utility purveyor shall be responsible for the lifetime trench maintenance and repair.

Developers may apply for a no fee permit for trenching of all utilities within the tract boundaries and be responsible for the warranty period of a minimum of one year from the date of acceptance of work, following which the utility purveyor shall be responsible for the lifetime trench maintenance and repair.

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

1.6 Permit Possession -- Other than emergency repairs, no work shall be performed within the 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 cognizant agency shall be on site at all times while construction is in progress. Permits that require excavation shall be valid only after an Underground Service Alert (USA) inquiry identification number is issued and evidence of the same provided to the Inspector or Permit Engineer upon request. 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 upon weather conditions.

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

1.8 Permittee's Responsibility -- The Permittee is responsible for the safety and for the implementation of all construction requirements within the limits of the project. The Permittee or his employees shall abide by all prevailing laws, rules and regulations governing

construction activities within public right of way. The Permittee shall also be responsible for obtaining any and all necessary approvals/permits, etc. from all applicable agencies prior to beginning the permitted work.

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].

The Permittee shall indemnify and hold the County of San Bernardino (County) and all officers, employees and agents of said public body free and harmless from any and every claim, demand or action for damages, or injury to any person or persons or property of any kind whatsoever, and any cost or expense in connection therewith, and agrees to defend the County and all officers, employees and agents of said public body against any claims or demands which may arise out of or result from Permittee's construction, operation, use or activities on County road right-of-way.

1.10 Notification -- Except in emergency, the Permittee shall notify the assigned Inspector two working days, excluding weekends and County holidays, prior to starting a project and for each phase of the construction requiring inspection. In addition, the Permittee shall: a) notify DIG ALERT a minimum of 48 hours prior to any excavation, and b) notify residents/businesses/schools and others, located within a 300 foot segment of the same road on which construction is being performed, including those located within the project reach, at least 5 working days in advance of beginning the work provided any such work is scheduled to last longer than a work day. Depending upon the site conditions, the Inspector can request Permittee to notify additional nearby residents/businesses on adjoining streets. Any variation to this shall be as approved by the Inspector.

1.11 Inspection -- All construction authorized by a road permit shall be inspected by County personnel during construction. 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 removed installation was found to be defective.

1.12 Failure To Comply -- Should a Permittee fail to comply with the provisions of the road permit, 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, mailboxes, 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..

2.2 Traffic Control -- Traffic Control shall conform to the current California Manual of Uniform Traffic Control Devices (MUTCD), Caltrans Traffic Control Standards and any approved traffic control plan Traffic Control Plan, when prepared, shall be submitted for review at least 4 weeks prior to the expected issuance of permit.

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 Dewatering 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. Permittee shall exercise caution to minimize erosion. Inadvertently, if it 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 Road Closures -- No road shall be closed partially or fully 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. **Subsequent to the approval of a traffic detour plan, a minimum of fifteen (15) working days are still required to process the application.** During partial or full emergency road closures, reasonable effort shall be made to comply with MUTCD. A copy of the road closure policy can be obtained by calling the Department at (909) 387-7995. To apply for a road closure authorization, the following must be submitted to the Road Permit Section, at 825 E. Third Street, Rm. 120, San Bernardino, CA 92415-0835: Written request describing the necessity for the road closure along with the time schedule.
- A comprehensive plan, showing detour routes and sign locations etc. signed by a Registered Civil or Traffic Engineer.
- Unless absolutely necessary, the Department discourages the detouring of traffic onto the non-maintained roads. It shall be the Permittee's responsibility to present the Department with a compelling reason for proposing road closures. The Department's approval may be contingent upon evaluating additional input from the underlining fee owners of the roadways, insurance documents, etc. The Department reserves the right to decline any proposal for road closure.

### 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, restore or replace improvements damaged or removed as part of the construction of the permitted activity which are not designated for removal on the approved plans. All repair, restoration and replacement work shall meet the prevailing standard and specifications 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 the property owner and the 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. Prior to the start of work, the Permittee is encouraged to take photographs of the areas that are likely to be disturbed for documentation and comparison with the post project condition.

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, the assigned permit inspector and/or the Operations Support Division at 909-387-7995. Any damage shall be repaired immediately by the Permittee to conform to the current edition of California MUTCD and Caltrans Standard Specifications at no expense to the County and as directed by the Department of Public Works. Also, it shall be the Permittee's responsibility to implement traffic control measures, as may be necessary and as quickly as possible, until the repair work is completed and accepted by the Department.

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 a registered Civil Engineer who is eligible to practice Land Surveying, and 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 cleaned 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, Permittee shall obtain a haul route permit from the Department 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 R/W -- There shall be no equipment or materials stored or stockpiled in County road right-of-way. Equipment and materials shall be removed from such road right-of-ways when not in use and at the end of each working day, except as approved by the Department of Public Works.

4.4 Snow Removal -- The Department of Public Works removes snow on County maintained roads when it is safe to do so. If Permittee's project operations (sunken trenches, irregular paving, or other hazards) are inhibiting the County personnel and/or equipment from performing the snow removal activities, the Department will cease the snow removal operations in the affected areas. 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 the Department personnel.

4.5 Emergency Response -- Before work is started, the Permittee shall furnish names and telephone numbers of staff 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 during any periods of suspension of work and during the course of construction. The Permittee/Owner shall maintain the trench for the life of the installation in accordance with County Ordinance No. 2377. (See Section 1.4 above)

## **5 - MATERIALS AND EQUIPMENT**

5.1 Pavement Traffic Markings and Striping -- All new, removed or damaged pavement traffic markings and striping shall be constructed of two coats of paint material followed by a glass bead application, unless otherwise approved by Department personnel. To ensure visual uniformity, as determined by Department personnel, Permittee may be required, at no cost to the County, to replace all affected markings within an intersection and adjacent areas with thermoplastic material if existing markings are thermoplastic, otherwise, apply two coats of paint material followed by glass bead application by the Permittee at no cost to the County.

5.2 Asphalt Concrete -- Asphalt Paving shall be as follows:

Location	Asphalt Mix Type	Aggregate size
Valley Areas	PG 64-10 (< TI=8.0)	½" Max Medium for TI under 8.0
	PG 70-10 (≥ TI=8.0)	¾" full depth for TI 8.0 and greater
Mountain Areas	PG 64-16	½" Max Medium for TI under 8.0
		¾" full depth for TI 8.0 and greater
Desert Areas	PG 70-10	½" Max Medium for TI under 8.0
		¾" full depth for TI 8.0 and greater

- Base course paving shall be ¾" aggregate size, asphalt mix per above chart.
- Asphalt Dikes shall be constructed with Type "A", PG 70-10, ¾" Maximum grading.
- Rubberized Asphalt shall be replaced with RHMA PG 64-16.

5.3 Base Material -- Base shall be Class 2 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 or private 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 Cal OSHA - 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 roadways 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 the trench overlay section 8.5 and associated drawings.

6.3 Depth of Installation -- Underground installations shall have a minimum of 2.5-feet of cover below finished grade depending upon the type of utility line. Refer to the attached San Bernardino County Standard Plan No. 311 for recommended locations including depths.

6.4 Pavement Removal -- Pavement shall be cut for removal and excavated in a manner that does not disturb the adjacent pavement. Pavement shall be saw cut or cold planed for permanent repair as specified in Section 8. Remnant strips of pavement less than 2-feet wide shall be removed and included in the replacement pavement. Replacement pavement along the edge of pavement 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 a trench under the pavement, the pavement in the affected area shall be removed and the area of slippage shall be recompacted and repaved as replacement pavement. 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 can 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 sub grade 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 sub grade 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 flow line 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 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, the type of equipment being used, however, consistent with Caltrans or San Bernardino County Standards and Specifications. 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/REPAIR**

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 Trench Pavement Repair-General -- Damaged pavement adjacent to the trench edges shall be sawcut and removed in rectangular sections. Remnant strips of pavement 2-feet wide or less shall be removed and such area(s) included in the pavement repair. Asphalt pavement shall be in accordance with Caltrans Standards Section 39 and be a minimum of 95% RC. The repaired section shall be 0.10' thicker than the existing pavement but the total thickness not less than 0.25'. Pavement 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 pavement shall be cleaned of all soil and foreign material and tacked with 100% coverage of asphaltic emulsion or paint binder. If the existing AC thickness is significantly thick, the Inspector shall seek County's Pavement Engineer's recommendation on whether or not the replacement thickness shall still be 0.10' thicker or not. The Pavement Engineer's recommendation shall be considered as final.

8.3 Permanent AC Pavement Repair -- Base pavement shall be placed in compacted lifts of a maximum of 3-inches in thickness. Asphalt mix types shall conform to section 5.2. The finish course shall be 0.17' thick and conform to sections 8.4 and 8.5 and be flush with the finished surface. Trench sections over 6-feet in width shall utilize a self-propelled vibrating screed paving machine (Barber-Green or equivalent) and may be subject to additional requirements.

8.4 Trench Pavement Repair Options -

- T-Cut Trench (For asphalt thickness less than 4"): After trench backfill is completed, trench edges shall be sawcut or ground to full asphalt depth, and to straight lines a minimum of 1.0-foot from the edge of the excavation or pavement removal. The edges shall be parallel and at right angles to the centerline of the road (see Trench Detail A).
- T-Grind Trench -- In case 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).
- Butt Trench -- Trench Detail C requires an overlay paving. It may also be used for roadways scheduled for reconstruction.

8.5 Overlay Paving -- When overlays are required:

Pavement replacement Level	Age of last surface improvement	Street Pavement Resurfacing Requirements:
1	<p>0-3 Years* After Roadway Reconstruction/Resurfacing (Trench Moratorium Applies)</p> <p>0-3 years* after Chip or Slurry**</p>	<p>Full lane milling and resurfacing when existing AC pavement is greater than 4".</p> <p>For AC thickness 4" or less, will require a full depth replacement.</p> <p>Project length has no bearing in either of the above two cases.</p> <p>Full lane chip or slurry**, including all lanes affected by laterals.</p>
2	<p>3-5 years after Roadway Reconstruction/Resurfacing (Trench Moratorium Does Not Apply)</p> <p>3-5 years after Chip or Slurry**</p>	<p>For trenches in excess of 300 linear feet:</p> <p>Full lane milling and resurfacing when existing AC pavement is greater than 4"</p> <p>For AC thickness 4" or less will require a full depth replacement.</p> <p>For trenches less than 300 linear feet, repair pavement utilizing appropriate T- Repair method.</p> <p>Full lane chip or slurry for linear cut. For lateral cut, use T- Repair.</p>
3	<p>5 to 10 years – road identified on CIP project list for reconstruction or resurfacing</p> <p>5 to 10 years – road not identified on CIP list for reconstruction or resurfacing.</p>	<p>T-Repair</p> <p>T-Repair and full lane slurry/chip**</p>
4	Over 10 years	T-Repair

\*Trench Moratorium – only allowed in emergencies

\*\* Chip Seal / Slurry Seal also include other surface seal categories as determined by the Pavement Management Group, i.e., Cape Seal, Rubberized Chip, etc.

The determination of the overlay shall be made by the Department of Public Works prior to issuance of the permit. Absent this, and subsequent to the issuance of the permit, the Department still reserves the right to make a determination of the overlay based upon field conditions. 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 still meet asphalt types and grades per Section 5.2. Paving shall be 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 super elevation or tilt cross section may require full road width overlay in the area of the super elevation or tilt section.

If multiple agency permit activity is occurring within a roadway simultaneously, for the cost of repairing excavations, the department will calculate the required repair area and designate an equivalent area to be repaired so that the entire permit area is proportionately repaired at the conclusion of the permit activities.

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 or reconstruction depending upon the age of last surface improvement and roadway width per Section 8.5 and the attached trench overlay drawing.

8.7 Pavement Surfacing -- Where there are existing surface coatings on the existing pavement, such as open graded pavement, chip seal or any type of surfacing that has been removed, the surfacing and pavement 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 saw cutting 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 their trench (settlement, excessive cracking or alligating, etc.), the Permittee shall coordinate the proposed trench repair method and schedule of repairs with the Department within two working days or sooner depending upon the severity of the failure.

## **9 - NEW CONSTRUCTION**

9.1 Construction of Street Improvements -- This consists of construction of curb & gutter, sidewalk, driveway approaches and new asphalt concrete placement or any combination thereof.

Only single family residences with one unit proposal fronting on local streets (non corner lots) are exempt from obtaining a pavement structural section report. All other developmental proposals must still submit the required structural section report in accordance with the General Construction Notes obtained from the San Bernardino County Department of Public Works – Land Development Division.

Match up asphalt concrete paving for single family residences may be constructed by utilizing an approved detail shown on the attached trench repair drawings.

9.2 Construction of Storm Drain --- The construction of new storm drains that are to be maintained by the County shall be video inspected prior to the permit completion. Subsequent to inspection, appropriate documentation shall be provided to the County Inspector.