



Safety Customer Service Mobility



Encroachment Permits Manual

DIVISION OF TRAFFIC OPERATIONS



Preface

The Encroachment Permits Manual describes Departmental policy, revisions and legislative actions that affect the encroachment permit process. It also provides information on the intergovernmental review process, procedures of the permitting process, storm water management, as-built plan requirements, utility encasement requirements, and other related programs and Departmental policies.

The manual's purpose is to maintain uniform methods and procedures in the issuance of encroachment permits. Special situations and circumstances that require deviation from departmental design standards and policy are subject to approval by Headquarters Division of Design.

Additional information applicable to encroachment permit work may be found in other Departmental manuals.

The Encroachment Permits Manual is updated regularly. For the latest official version including any updates, users can view it at:

<https://dot.ca.gov/programs/traffic-operations/ep/ep-manual>

If a paper copy is maintained by the manual holder, it is important for the manual holder to maintain and use an up-to-date manual. This will insure proper reference to the latest policies and procedures. Responsibility for keeping the manual current belongs to the manual holder.

This manual was prepared by the Headquarters Office of Encroachment Permits.

Recent updates to the Encroachment Permits Manual

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07/15/2021	Appendix K	Traffic Signal Controller Assembly
07/15/2021	Appendix K	Rolling Traffic Breaks
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07/15/2021	Chapter 1	The Permit Function
04/06/2021	Appendix K	EP General Provisions (TR-0045)
12/04/2020	Appendix D	Permit Engineering Evaluation Report (PEER) (TR-0112)
10/27/2020	Chapter 200	Processing Permits
10/27/2020	Appendix F	Encroachment Permit File & Plan Set Archiving Guidelines
07/29/2020	Chapter 600	Utility Permits (Updates related to the revised Chapter 17 of the PDPM)
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Chapter 100 – The Permit Function

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Chapter 100

The Permit Function

The California Department of Transportation (Caltrans) is the steward of the California State highway right-of-way. Caltrans' priority is the safety of the traveling public, highway workers, and permittees. Caltrans also partners and cooperates with other public agencies and with private parties to promote the safe use and enhancement of the State highway right-of-way.

The California State highway right-of-way at times also allows for non-transportation uses such as the utility infrastructure that delivers water, power, and telecommunications that help keep communities prospering. The State highway right-of-way also enhances California's economy and livability by permitting community-sponsored special events, celebrations, and parades. This manual, and others published by Caltrans, provide policies, standards, and best practices so Caltrans can evaluate and analyze each encroachment permit application to:

- Help promote the safety of the traveling public, highway workers, and permittees,
- Protect, maintain, and enhance the quality of the State highway right-of-way during and after permitted work,
- Ensure that the proposed encroachment is compatible with the primary uses of the State highway right-of-way,
- Protect the State's and public's investment in the highway facility, and
- See if requested temporary uses of State highway right-of-way for special events, filming, etc. are planned in a way that minimizes inconvenience to the traveling public and addresses anticipated safety impacts.

Encroachment permits are issued under the authority of law. In processing permit applications, Caltrans draws upon the extensive experience of its workforce to evaluate proposed activities using federal and State law, Caltrans' policies and standards, and engineering related resources to promote safety, uniformity, and efficiency throughout the State highway right-of-way.

101 WHAT IS AN ENCROACHMENT PERMIT?

An *encroachment* is defined in Section 660 of the California Streets and Highways Code as “[...]any tower, pole, pole line, pipe, pipeline, fence, billboard, stand or building, or any structure, object of any kind or character not particularly mentioned in the section, or special event, which is in, under, or over any portion of the [State] highway right-of-way. ‘Special event’ means any street festival, sidewalk sale, community-sponsored activity, or community-approved activity.”

An encroachment permit issued by Caltrans (or issued by an authorized local agency in certain circumstances) is permissive authority for the permittee to enter State highway right-of-way to construct, alter, repair, improve facilities, or conduct specified activities.

An encroachment permit is permissive authority for the permittee or the permittee's authorized agent to enter State highway right-of-way, for example to construct, alter, repair, improve facilities, or conduct specified activities. Unless otherwise specified, the permittee is responsible for the encroachment and the condition thereof. The permittee is bound by the General Provisions, Special Provisions, and any other terms and conditions under which the encroachment permit was issued for at least as long as the encroachment remains in, under, or over the State highway right-of-way, and some have no expiration date.

An encroachment permit is not a property right. A permittee cannot transfer or assign an encroachment permit to another party. An encroachment permit is not transferred to a new owner when the property or facility (e.g. utility) is sold. New property or utility owners must apply for and obtain their own encroachment permit as soon as possible after the property or facility is sold. Any attempt to assign or transfer an encroachment permit shall be null and void.

An encroachment permit must be obtained for all proposed activities for placement of encroachments within, under, or over the State highway right-of-way. Some examples of work requiring an encroachment permit are utilities, excavations, encroachment renewals, advertisements (when allowed by statute), vegetation planting or trimming, surveys, mail boxes, driveways, installation or removal of tire chains for compensation, special events, and commercial filming activities.

Encroachment permits are not issued to allow building structures to extend into the State highway right-of-way, such as bay windows, cornices, and decorative features that extend beyond the surface of a building. To do so would grant exclusive use of public property to private entities for non-transportation use and without compensation. (Exception: see Advertising Displays, Section 501.3).

Permits for oversize or overweight transportation and outdoor advertising displays are not obtained through the encroachment permit process or District Encroachment Permits Offices. The Office of Commercial Vehicle Operations manages permitting for oversize or overweight transportation on the State highway right-of-way. The Outdoor Advertising Branch regulates the licensing, permitting, and placement of outdoor advertising displays visible from California highways. Additional information on these other permitting processes, requirements, and contact information is available at:

<https://dot.ca.gov/programs/traffic-operations/transportation-permits> and
<https://dot.ca.gov/programs/traffic-operations/oda>

102 STATUTORY AUTHORITY

Authority for Caltrans to control encroachments within the State highway right-of-way is stated in the California Streets and Highways Code starting with Section 660.

103 WHO NEEDS AN ENCROACHMENT PERMIT?

Unless under contract with Caltrans, all entities must obtain an encroachment permit to enter and conduct any activity within, under, or over the State highway right-of-way. Entities that must obtain an encroachment permit include, but are not limited to, individuals, contractors, corporations, utilities, cities, counties, Native American Tribes, and other government agencies.

Work within the State highway right-of-way is exempt from encroachment permits only when it is:

- A State Highway construction contract being performed for Caltrans.
- A Caltrans service contract that specifically exempts the contractor.
- A delegation of a maintenance agreement.
- Authorized by District Right of Way when the work is located in non-operating State Highway right-of-way.
- Authorized by the California Vehicle Code and the associated activities do not affect highway operation and/or safety.

In certain instances, the placement of an encroachment may be authorized before issuing a written permit, e.g., verbal permission granted under emergency conditions. A written application for an encroachment permit must be submitted as soon as possible. Work that can be completed under regular conditions is not considered emergency work. Law enforcement agencies may not be required to obtain encroachment permits for specified enforcement activities performed during the course of duty (See section 517.4).

104 ENCROACHMENT PERMITS ISSUED BY CALTRANS

Only Caltrans has authority to approve and issue permits for activities within State highway right-of-way. However, Caltrans may delegate permit issuing authority to cities and counties for routine encroachments by agreement but retains sole authority over the State highway right-of-way even after delegation. Agreements must contain provisions for city or county-issued encroachment permits. (See Appendix B and section 500.4).

105 ROUTINE ENCROACHMENT PERMITS ISSUED BY CITIES OR COUNTIES

Cities or counties may issue routine State highway encroachment permits on specified State highway facilities located within their jurisdictional boundaries. Local agencies must be authorized by agreement with Caltrans to issue permits. (See Appendix B and section 500.4).

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107 OFFICE LOCATIONS AND HOURS

Caltrans issues encroachment permits through twelve (12) District Encroachment Permits Offices. Applicants should direct inquiries and permit applications to the appropriate District Encroachment Permits Office having jurisdictional authority over the proposed encroachment site. Addresses and contact information can be found at:

<https://dot.ca.gov/programs/traffic-operations/ep/district-contacts>

California Government Code Section 11020 requires all State Agencies to be open for the transaction of business from 8:00 a.m. to 5:00 p.m. except weekends and holidays. Staggered lunch hours must be used to provide continuous service throughout the day.

108 OVERVIEW OF THE ENCROACHMENT REVIEW PROCESS

All projects and activities on the State highway right-of-way (by Caltrans or others) must comply with applicable laws, regulations, policies, standards, and requirements. The review and analysis of encroachment projects is managed through either the Encroachment Permits Office Process (EPOP) or Project Delivery Quality Management Assessment Process (QMAP); the applicable process is determined based on several factors including the project scope, complexity, safety, operational impacts, and the ability of the project proponent (applicant) to submit a complete application package at 100% design. The “Applicant’s Checklist To Determine Applicable Review Process” (Form TR-0416) and corresponding flowchart (Figure 1.2) help users determine the appropriate review process for their proposed project.

In accordance with Streets and Highways Code section 671.5, projects must have environmental clearance, a complete design (at 100%), and all required supporting reports, analyses, and documents (e.g., Geotechnical Reports, Traffic Studies, Warrants, Agreements, etc.) to be accepted as complete and managed through the EPOP.

The encroachment permit office process is summarized in Figure 1.1. The standard process begins when an Encroachment Permit Application Package (EPAP) is submitted to the appropriate District Encroachment Permits Office. An EPAP includes an application (“Standard Encroachment Permit Application” [form TR-0100]), appropriate checklist(s), associated forms,

plans, supporting documents, and applicable fees. The EPAP are evaluated to determine if the encroachment is allowable and can be done with minimal impact to highway users (see Chapter 200 for more details), and whether the EPAP addresses anticipated safety impacts.

An application for a standard encroachment permit must be on a current “Standard Encroachment Permit Application” (form TR-0100) and signed by the project or property owner or an authorized representative/agent whose authority is validated by a letter of authorization from the project or property owner. The standard encroachment permit application forms and related documents can be found at:

<https://dot.ca.gov/programs/traffic-operations/ep>

Activities associated with encroachments for Commercial Filming, the Adopt-A-Highway Program, the Airspace Lease Program, Chain Installer Operations, and Roadside Enhancements differ from the standard encroachment permit office process. Additional information on the processes for these encroachments is available at the websites provided below as well as their respective sections in Chapter 500 of this manual.

Commercial Filming: All applications for commercial filming must be submitted through the California Film Commission.

<http://film.ca.gov/>

Adopt-A-Highway Program: All applications associated with litter and/or graffiti removal, planting and establishment of trees or wildflowers, vegetation control, etc. must be submitted through the Adopt-A-Highway Program.

<https://dot.ca.gov/programs/maintenance/adopt-a-highway>

Airspace Lease Program: All applications associated with cellular phone towers, storage unit facilities, parklets, leasing of non-operational highway right-of-way, etc. must be submitted through the Division of Right of Way and Land Surveys – Office of Real Property Services.

<https://dot.ca.gov/programs/right-of-way>

Chain Installer Operations: All applications associated with the installation or removal of tire chains for compensation [allowed by Streets and Highways Code section 670, subdivision (a)(5)] must be submitted through either the District Encroachment Permits Office or the District Division of Maintenance depending on the District. Please contact your local District Encroachment Permits Office for the appropriate contact.

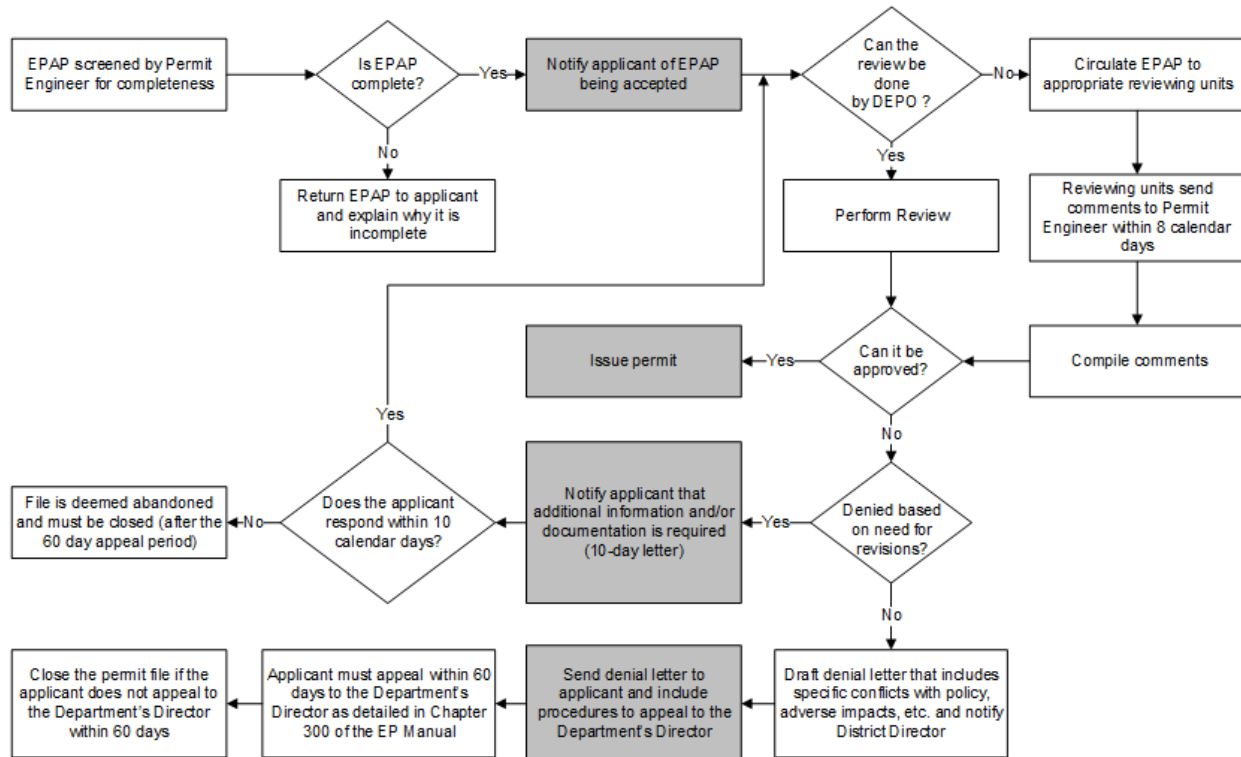
<https://dot.ca.gov/programs/traffic-operations/ep/district-contacts>

Roadside Enhancements: All applications associated with Transportation Art, Gateway Monuments, Community Identification, Scenic Highways, Blue Star Memorial Markers, and

other state transportation infrastructure that reflects and aligns with local community needs and goals must be submitted through the Landscape Architecture Program.

<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability>

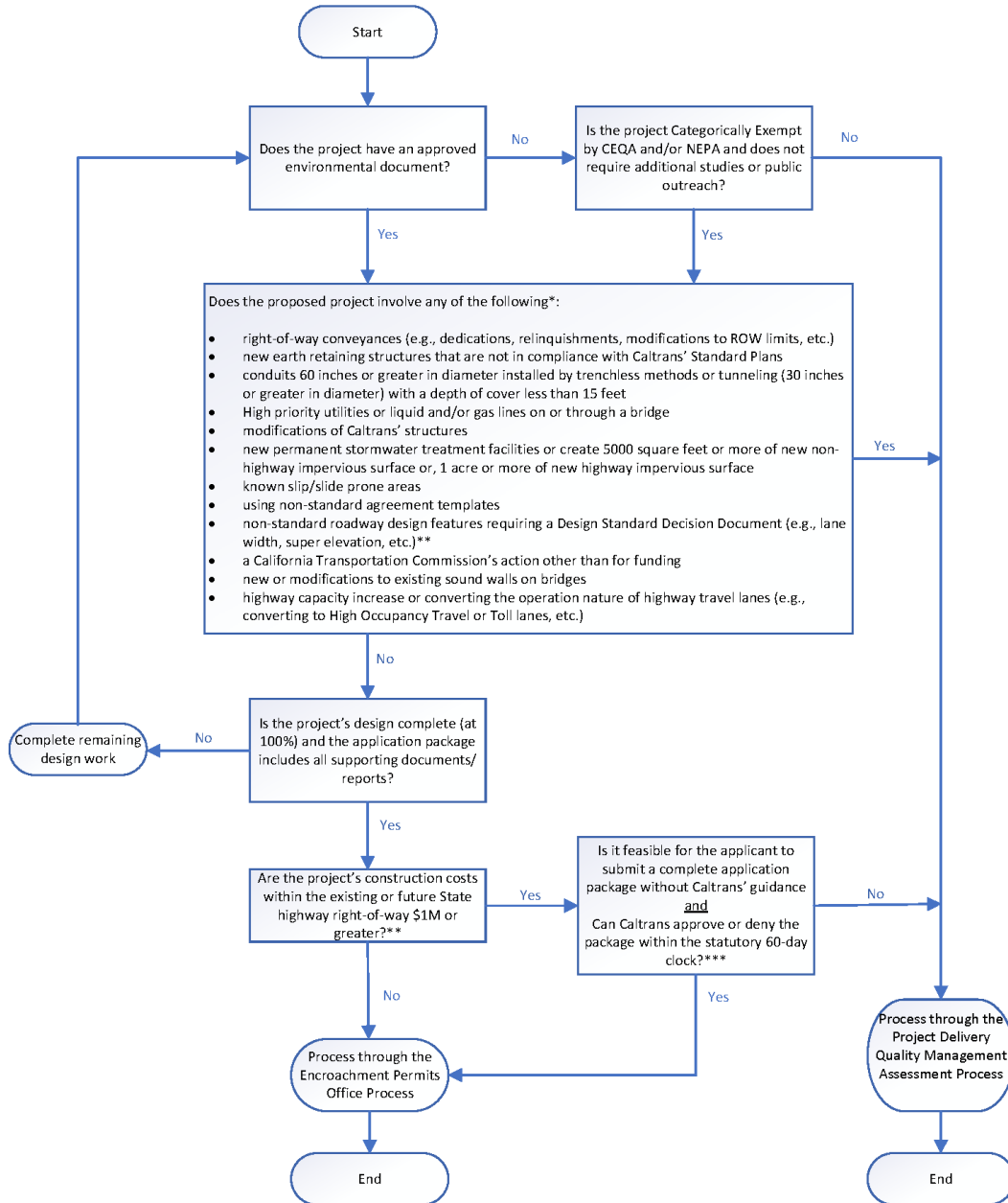
Figure 1.1 Standard Encroachment Permit Application Package (EPAP) Process



*The HQ Encroachment Permits Branch has established functions to ensure compliance with the 60 calendar day statutory requirement. These functions include:

1. Preliminary meetings,
2. The Encroachment Permits Management System database,
3. A Program goal to approve or deny a permit within 30-calendar days or less for most EPAPs.

Figure 1.2 Flowchart to Determine the Appropriate Caltrans Review Process for Encroachment Projects on the State Highway System



* Applicants are advised to consult with Caltrans (typically the District Encroachment Permit Engineer) early in the planning or design phase when their project has any of the identified elements in this box. This will facilitate the evaluation of the proposed project, and identify possible design alternatives before the applicant expends significant time and resources on a design alternative that may not be approvable.

** Not applicable to utility-only projects.

*** The District Permit Engineer, in consultation with the impacted functional units will determine the appropriate review process based on the scope and level of oversight needed to deliver a quality project. In the event of a disagreement, the DDDs will decide and in the event of disagreement, the District Director will decide.

REV 05/20/2020

108.1 QMAP Projects

These projects typically require project development assistance from multiple Caltrans Divisions and therefore are only issued an encroachment permit after the project design and environmental documents are completed. It is highly recommended that applicants with larger projects, especially those with deviations from Caltrans' standards, contact the local District Encroachment Permits Office early in project development and before submitting the encroachment permit application. Additional information can be found at:

<https://dot.ca.gov/programs/traffic-operations/ep/district-contacts>

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Chapter 200

Processing Permits

This chapter describes the requirements and procedures for processing an Encroachment Permit Application Package (EPAP) which includes the “Standard Encroachment Permit Application” (form TR-0100), appropriate checklist(s), associated forms, plans, supporting documentation, and applicable fees.

201 APPLICATION PROCEDURE

Applicants (or their authorized representatives whose authority is validated by a letter) must submit their EPAP to the appropriate District Encroachment Permits Office having jurisdictional authority over the proposed encroachment site for processing. To reduce processing times, applicants are encouraged to submit their EPAP by e-mail, but may also submit their EPAP by mail or in person.

When Caltrans requires relocation of an existing utility, the District’s Division of Right of Way initiates the Notice to Owner process described in Section 601.

201.1 Application Forms and Documents

The “Standard Encroachment Permit Application” (form TR-0100), instructions, plan set requirements, sample application checklists, related forms, and where to submit the EPAP can be found at:

<https://dot.ca.gov/programs/traffic-operations/ep/applications>

Additional supporting documentation may be required depending on the scope of work such as plans, location map, letter of authorization, environmental documentation, storm water permit(s), certification of compliance with the Americans with Disabilities Act, surety bonds, liability insurance, etc.

Applications for filming, salvage operations, litter pickup, installation and removal of tire chains, and roadside maintenance within State Highway right-of-way are addressed in specific sections of Chapters 500 and 600. The applications and forms for these types of permits vary from the Standard Encroachment Permit forms.

201.2 Permit Application Fee (Rev 10/2020)

Caltrans has established an “Encroachment Permit Fee Schedule” (form TR-0166) (see Appendix H) and charges a fee for the issuance of encroachment permits, except to public corporations (see Section 201.2A).

All payments should be made to the District’s or Headquarters’ Cashiering Office for deposit into the State Highway Account. Checks for payment of permit fees or deposits must be made

payable to “California Department of Transportation”. The Cash Handling Policy and Credit Card Security Policy are described in detail in Accounting Bulletins. The District Encroachment Permits Office must remit all payments (coin, currency, checks, warrants) to the District Cashier’s Office by the next business day. The District Encroachment Permits Office must log all payments in the Encroachment Permits Management System (EPMS) and on the “Encroachment Permit Log” (form TR-0111) (see Section 201.2C).

1. Utility Permits

Utility companies under the jurisdiction of the California Public Utilities Commission have been granted deferred billing and receive Progress Billing statements from the HQ Division of Accounting on a monthly or quarterly basis when supported by a “Progress Billing/Permit Closure” (form TR-0129) provided by the District. Utility companies in bankruptcy proceedings are not granted deferred billing status and fees are collected prior to permit issuance. A final bill is sent to HQ Accounting if fees are owed at the end of the project. The HQ Division of Accounting will not issue Progress Billing invoices to a utility company unless Accounting receives a completed “Progress Billing/Permit Closure” (form TR-0129) from the District Encroachment Permits Office. All staff must record their time expended on the Diary page in EPMS and /or on the “Encroachment Permit Report (Diary)” (form TR-0130) for each permit, to assist the District Encroachment Permits Office in maintaining accurate records of all time expended on permits.

A “Progress Billing/Permit Closure” (form TR-0129) is used to record all inspection costs and to close out a permit file. It must be signed and dated by the District Permit Engineer or the District Permit Engineer’s authorized representative, or by the District Resident Engineer (RE) when applicable. It is then submitted to the HQ Division of Accounting for billing purposes.

2. Annual / Biennial Permits

These permits are issued on a yearly or two-year basis for conventional highways. Fees for Annual / Biennial Permits are charged a minimum of two hours of review to recover the time expended in the office for processing and administration. These permits allow public corporations, utility companies, and in some cases private corporations (ex. survey permits), the ability to perform everyday routine tasks without having to apply continuously for multiple permits.

201.2A Fee Exempt Encroachment Permits

The “Encroachment Permit Fee Schedule” (form TR-0166) (see Appendix H) indicates how fees are assessed for the different types of permits and those permits which are fee exempt.

Contractors are to pay a fee under a Double Permit (DP Permit) when working for a fee exempt agency (public corporation). An exception to this policy occurs when the project is subsidized with State and/or Federal Highway funds (see Administratively Exempt Permits, below in this section). Fee exemption categories are as follows:

1. Statutorily Fee Exempt Encroachment Permits

Public corporations are statutorily exempt from encroachment permit fees (Streets and Highways Code section 671.1). However, contractors working for public corporations are not exempt from fees (see Section 501.14). Caltrans' expenses for inspection costs are recovered by charging fees to the contractor. Public corporations created for governmental purposes where the whole interest belongs to the government may be billed directly for inspection costs (as opposed to billing the contractor through the Double Permit) upon the public corporation's request or when authorized by a cooperative agreement.

A private corporation is organized for private purposes and/or for profit.

Examples of public corporations are listed as follows:

- Federal and State Government
- Counties
- Incorporated cities and towns
- All municipal corporations, including:
 - Community Service districts
 - Road improvement districts
 - Irrigation districts
 - Reclamation districts
 - Utility districts
 - County water districts
 - Incorporated school districts
 - Sanitation and lighting districts
 - Special district libraries
- Agricultural associations

2. Administratively Fee Exempt Encroachment Permits

Some encroachment permit fees are waived by Caltrans' policy. These permits are referred to as *administratively exempt*. Headquarters approval must be obtained for administratively exempt permits other than those listed below. Authority to waive fees is delegated to the Districts under the following types of administratively exempt permits and activities:

- Adopt-A-Highway Program
- Airspace rental (AS permits)
- Borrow or disposal areas used by a State contractor with approval in their contract to borrow or dispose within State Highway right-of-way outside of contract limits
- Crop identification signs installed through the California Farm Bureau Federation's Crop Identification Program

- Double Permits (DP Permits) issued for projects subsidized with any State and/or Federal Highway Funds
- Projects managed through the Quality Management Assessment Process (QMAP - Previously Oversight Process) (Project Manager will manage fees through a cooperative agreement)
- Double Permit (DP Permits) for utility tree trimming
- Entities with prior property rights providing for the encroachment (e.g. railroads)
- Environmental Enhancement projects
- Flags of the United States and the State of California displayed on sidewalks
- Landscape Maintenance (LM Permits)
- Locally funded project identification signs
- Mail and newspaper delivery boxes or newspaper vending machines (MB Permits)
- Permits for utility ownership that are installed by developers
- Memorial/Historical plaques and Blue Star memorial highway markers authorized by legislative resolution, at approved location sites
- Native American Tribal developments or activities (associated with reservations or Rancherias)
- Projects authorized by a “Consent Letter” (Appendix D)
- Railroad crossing maintenance (RX Permits)
- Required construction signs outside State or locally funded contract project limits
- State ordered utility relocation covered by a Notice to Owner issued by District Right of Way (UR Permits)
- Transportation Art Program permits (AP Permits)
- Caltrans initiated rider (RD Permits)
- Municipal Parades by community-based nonprofit organizations (see Section 514.1, “Special Events”) commemorating recognized governmental holidays (Federal, State, and/or local). Any other parade or special event by a nonprofit organization requires permit fees. With City/County support for this type of special event, the District Permit Engineer may issue a permit. Approval of the special event must be as described in Section 514.1.

201.2B Fee Calculations

Encroachment permit fees are calculated in the “Encroachment Permit Fee Calculation Sheet” (form TR-0406). The total encroachment permit fee is derived from the following components:

1. Review and Inspection Fee
2. Hourly Rate
3. Field Work Fee
4. Bridge Tolls Fee
5. Miscellaneous Fees

The components are described as follows:

1. Review and Inspection Fee

The hours for review and inspection are established by one of two methods:

- Set Fee Hours—**SF**
- Actual Fee Hours—**AX**

Actual review hours include time expended for review, and all time expended to process and administer the permit application. A minimum charge of one (1) hour applies to all permit applications and is included in the review hours shown on the “Encroachment Permit Fee Schedule” (form TR-0166).

a. Set Fee Hours (SF)

Numeric hours shown on the “Encroachment Permit Fee Schedule” (form TR-0166) for specific types of permits are set based on previous hours charged for similar permit types. Permit types using the SF fee method have numeric predetermined fixed hours for both review and inspection time.

Districts may change permits from “Set Fee” (SF) to “Actual Fee” (AX) at the discretion of the District Permit Engineer, but under no circumstances should the AX hours be less than the SF hours.

b. Actual Cost Permit Fee (AX)

The AX fee method uses the actual time expended for project and/or activity review and/or inspection. The billing statement used to collect costs for services is an executed “Progress Billing/Permit Closure” (form TR-0129) signed and dated by the District Permit Engineer, an authorized representative, or the District Resident Engineer (RE) when applicable. After the permit is issued, progress billings may be sent out for additional actual review and/or inspection hours worked.

Encroachment permits having an AX charge code require that a reasonable deposit for project review and inspection be collected at the time the permit application is submitted. The collection of costs for actual review hours expended and estimated inspection hours is required before the permit is issued.

When the initial deposit is expended, subsequent fees are estimated and collected as costs are incurred during the project or after project completion and before release of the bond.

A final bill for a permit using the AX fee method is generated from an executed “Progress Billing/Permit Closure” (form TR-0129) and sent to HQ Division of Accounting for billing purposes. The “Progress Billing/Permit Closure” (form TR-0129) is signed and dated by the District Permit Engineer or the District Permit

Engineer’s an authorized representative, or by the District Resident Engineer (RE) when applicable, indicating that it is for a final bill.

2. Hourly Rate

Each fiscal year, the HQ Division of Accounting submits a proposed Hourly Rate to the HQ Office of Encroachment Permits. The Hourly Rate is determined by calculating labor and operating expenses posted against the Project IDs designated by HQ Encroachment Permits to be included in the Hourly Rate calculation. The Indirect Cost Rate is applied to the labor expenses and included in the Hourly Rate calculation by HQ Accounting. The Hourly Rate is used for calculating encroachment permit fees.

3. Field Work Fee (Anticipated by Caltrans’ forces)

A Maintenance crew or a Traffic Operations team performing traffic control as a function of the encroachment permit is an example of field work. The Permit Engineer obtains an estimate of the hours from the appropriate Caltrans unit(s) who will perform the field work. This field work fee or deposit is collected from the applicant after review and before the permit is issued. Payment is required at the conclusion of the field work if there is a balance owed to Caltrans.

Unplanned Caltrans field work costs resulting from spilled loads, traffic control, or emergencies such as ongoing projects or traffic accidents, are generally recovered by Maintenance and/or Traffic Management staff by submitting billing forms to the HQ Division of Accounting for processing outside of the encroachment permit process.

4. Bridge Toll Fee

A bridge toll fee is collected for use of a toll bridge during a special event. The bridge toll fee is equivalent to that charged for a seven-axle truck (see Section 514, “Special Events”).

5. Miscellaneous Fees

a. Department-Furnished Materials

The cost of materials purchased or supplied by Caltrans to be used on encroachment permit projects (i.e., traffic signal controllers, lighting, etc.).

b. Transportation Laboratory Inspection Cost

The fee for inspection work or laboratory testing by the Division of Engineering Services, Office of Materials Engineering and Testing Services (METS), must be at the hourly rate multiplied by the current “Standard Average Hours” published by the Transportation Laboratory. Districts with work not shown on the “Standard Average Hours” publication must contact the Transportation Laboratory directly for an estimate.

c. QMAP Projects

Encroachment Permits staff hours for QMAP Projects (see Section 108.1 of this manual) are charged directly to the QMAP Project’s project code. Check the Highway Improvement or Cooperative Agreement for a fee exemption; many sales tax and local projects are fee exempt.

The total fee is the sum of the fee components. The District Permit Engineer records all hours and calculations on the “Encroachment Permit Fee Calculation Sheet” (form TR-0406). The District Permit Engineer ensures review hours are reported on the “Encroachment Permit Application Review” (form TR-0110) and the “Permit Engineering Evaluation Report” (PEER) (form TR-0112).

201.2C Billing and Past Due Accounts

When a progress payment or final payment for an encroachment permit project is due, the Permit Engineer sends a “Progress Billing/Permit Closure” (form TR-0129) signed and dated by the District Permit Engineer, an authorized representative, or the District Resident Engineer (RE) when applicable, indicating the billing or refund information and a copy of the performance or payment bond, if any, to the HQ Division of Accounting who then bills or refunds the permittee. The “Progress Billing/Permit Closure” (form TR-0129) should indicate the work completion date. Any legal action to recover for the unpaid amounts must be commenced within four years from the accrual of the cause of action (which could be the billing/invoice date, the work completion date, or other date depending on the circumstances), therefore timely billing/invoicing and diligent follow-up to receive payment are important (see California Code of Civil Procedure section 337). Accounting receives a copy of the “Encroachment Permit Log” (form TR-0111), which the District Encroachment Permits Office uses to chronologically record accepted permit applications, payments, and refunds. Log use is shown in Table 2.1.

Table 2.1
Encroachment Permit Log Form Use

1. A copy of the “Encroachment Permit Log” (form TR-0111) and all billing or refund requests, as listed on the log, should be e-mailed weekly to Accounts Receivable in the HQ Division of Accounting. It is not necessary to begin a new log sheet each week after sending the copy.
2. Continue to use the first column for all encroachment permit numbers assigned to applications when they are accepted (logged in). These will be in chronological order from the beginning of each year. In the designated columns, enter the applicant’s name, location of work, payment type, amount of any deposit/fee paid to the District Cashier, and date logged in.
3. When a deposit/fee is paid to the District Cashier after the initial deposit, a refund is requested, or a billing document is sent to Accounts Receivable for progress/final billing, use the next available line on the current sheet. Use the second column to enter the permit number for the payment or billing. Use the sixth column for the amount of the billing or payment to the District Cashier. Use the seventh column for the date payment was received by the cashier--for refunds, show a negative amount in the sixth column. No other columns need to be completed.

If the bill is not paid within 30 calendar days from the bill date, the HQ Division of Accounting will send a past due notice to the permittee. If still not paid, a second past due notice is sent after 60 calendar days from the bill date. Both past due notices request payment and inform the permittee that if the account remains unpaid, it may be subject to collection activities from a private collection agency. The HQ Division of Accounting monthly sends a list of permittees with past due accounts to the HQ Encroachment Permits Office and the appropriate District Encroachment Permits Office. Each District Encroachment Permits Office will maintain a list of permittees with past due accounts and inform them when they apply for a new permit that new permits may not be issued until resolution of past due accounts with the HQ Division of Accounting.

The District Permit Engineer is responsible for assisting the Division of Accounting in the collection of encroachment permit fees. For significant backlog of past due accounts, the District may:

1. Require upfront payment of fees;
2. Require a payment/performance bond;
3. Revoke annual maintenance permits and require separate permits for each work element;
4. For those not given the right to a permit by law, deny encroachment permit applications.

The District must include the performance and payment bonds with billings sent to HQ Division of Accounting for all past due accounts. When provided by the District, the performance bond information will be used by the HQ Division of Accounting to attempt to collect the past due amount from the bonding company before sending the account to a collection agency. Most performance and payment bonds expire a year after Caltrans accepts the work as complete.

Therefore, the District should send the “Progress Billing/Permit Closure” (form TR-0129) and the performance/payment bond to HQ Division of Accounting before the bond expires.

All past due accounts may be turned over to a collection agency after 180 calendar days from the bill date unless arrangements have been made through the District Permit Engineer for full payment of the account. The arrangements must be acceptable to the HQ Division of Accounting. After four (4) years have lapsed since the permit completion date, statutes prohibit the invoice and supporting documentation of the “Progress Billing/Permit Closure” (form TR-0129) from being turned over to a collection agency.

201.3 Refunds

A refund is provided when the total deposits exceed Caltrans’ expenses associated with the permit. A minimum cost of one hour’s time at the current Hourly Rate is retained as an application-processing fee when a refund is appropriate. The District Encroachment Permits Office must refund all fees for improperly accepted applications (Table 2.2 indicates the refund of permit fees when appropriate for various circumstances of permit applications). Refunds must be documented on the “Progress Billing/Permit Closure” (form TR-0129) signed and dated by the District Permit Engineer, an authorized representative, or the District Resident Engineer (RE) when applicable. The completed “Progress Billing/Permit Closure” (form TR- 0129) must be sent to HQ Division of Accounting, to the attention of the Accounts Receivable Branch-Encroachment Permits.

The date and amount of the original transaction, copies of any checks, along with all account information, should be indicated on the “Progress Billing/Permit Closure” (form TR-0129).

The HQ Division of Accounting will issue a refund to the payer, or, in cases where there are multiple parties (permittee, authorized agent/contractor), the refund will be issued to the party who made the payment unless written mutual documentation (between the permittee and their authorized agent/contractor) indicates that the refund should be issued to the other party.

In accordance with California Government Code section 13144, refunds exceeding \$10,000 generally require approval by the California Department of Finance and the California State Controller’s Office. The following documentation is required:

- Copy of the payment instrument (usually a check)
- Accounting transaction showing check number, name of payer, and dollar amount
- Calculation of refund amount due

If the HQ Division of Accounting cannot locate the payer or the payer’s address, then the refund is deposited back into the State Highway Account. Permit fees may be refunded as shown in the table, depending upon the status of the permit application.

**Table 2.2
Refund of Permit Fees**

Status of Permit Application	Appropriate Refund
A SF (Set Hours) permit is denied as a result of the review process.	The unexpended portion of the total fee collected for inspection, field work, bridge tolls, and miscellaneous fees.
An AX (Actual Hours) permit is denied as a result of the review process.	That portion of the fees that represents collected but unexpended review and inspection fees.
The applicant cancels the permit application before a permit is issued.	The collected but unexpended review and inspection fees.
The permittee cancels the permit after the permit is issued but before work has started.	That portion of the total fee collected that represents inspection and field work.
The permittee cancels the permit after the permit is issued and after work has started.	None.

201.4 Tracking / Permit Number

Immediately upon receiving an EPAP, a new EPMS record should be created by entering the information from the EPAP into the EPMS and entering the “Application Received Date.” For new EPMS records, the default tracking number code is “X” for the billing type and permit type. After the EPAP is accepted as complete, change the default “X’s” to the appropriate billing type and permit type which completes the permit number. Simplex stamps are no longer used. Encroachment permit numbers conform to the following format:

DDYY-B-PP-NNNN Example: 0320-6-SE-0260

District (DD): Two-digit District Number (01 through 12).

Year (YY): Last two digits of the calendar year in which the permit application is assigned a chronological number.

Billing Type Code (B):

One of four characters:

- 6 for Caltrans fee permits
- 7 for permits issued by Cities and Counties (see Section 500.4)
- N for Fee Exempt permits
- A for Administrative permits (see Sections 500.0 and 600.0)

Permit Type Code (PP):

A two-alpha character designation that describes the type of encroachment, as shown in the “Encroachment Permit Fee Schedule” (form TR-0166).

Chronological Number (NNNN):

A four digit, chronological number from 0001 to 9999, starting with 0001 each calendar year. The EPMS automatically assigns the chronological number when a new permit record is created.

201.5 Processing Encroachment Permit Applications (Rev 10/2020)

In accordance with California Streets and Highways Code section 671.5, subdivision (a), Caltrans is required to either approve or deny an EPAP within 60 calendar days upon determination by Caltrans that the EPAP is complete.

California Streets and Highways Code section 671.5 grants Caltrans authority to determine what constitutes a complete EPAP. The District Permit Engineer acts on behalf of the District Director in making that determination. All applicable federal and State statutory requirements, including but not limited to Storm Water, Americans with Disabilities Act (ADA), and environmental documents for the National Environmental Protection Act (NEPA) and California Environmental Quality Act (CEQA) must be complied with prior to an EPAP being deemed complete. Encroachment Permit Application Checklists are used by both applicants and Encroachment Permits Staff to determine the completeness of an EPAP.

The Encroachment Permit Application Checklists are available at:

<https://dot.ca.gov/programs/traffic-operations/ep/applications>

The Office of Encroachment Permits has established processes to ensure compliance with the 30-calendar day Encroachment Permit Program performance target and the 60-calendar day statutory requirement. These functions include:

1. Preliminary meetings
2. The Encroachment Permits Management System (EPMS) database (see Section 201.6)
3. A response time goal of 30-calendar days or less for most EPAPs. The process, actions and timelines are as follows:

PROCESS	ACTIONS	DAYS	TOTAL DAYS
1. Login	Permit Engineer enters EPAP into EPMS and EPMS assigns a tracking number	2	2
2. Screen	Permit Engineer screens the EPAP	2	4
(Screen)	(a) Sends Acknowledgement Letter - Acceptance if EPAP meets screening criteria, or	0	0
(Screen)	(b) Sends Acknowledgement Letter** - Rejection if EPAP fails to meet screening criteria, or	0	0
(Screen)	(c) If accepted, circulates EPAP for review by functional units	0	0

PROCESS	ACTIONS	DAYS	TOTAL DAYS
3. Review	Functional units review EPAP and send comments to Permit Engineer	8	12
4. Notify	Permit Engineer notifies applicant	2	14
(Notify)	(a) Approves EPAP and issues permit, or	0	0
(Notify)	(b) Notifies applicant that revisions, additional information, and/or documentation is required (10-day Revision Letter)**, or	0	0
(Notify)	(c) Denies EPAP and sends the Firm Denial/Appeal Letter**	0	0
5. Respond*	Applicant must meet schedule by responding to the notification within 10 days if revisions, additional information, and/or documentation is required	10	24
6. Final	Resubmittal with revisions is reviewed and Permit Engineer either approves or denies the EPAP	6	30
(Final)	(a) Approves EPAP and issues permit if applicant meets schedule <u>and</u> required revisions, additional information, and/or documentation is acceptable, or	0	0
(Final)	(b) Denies EPAP if applicant meets schedule <u>but</u> required revisions, additional information, and/or documentation is not acceptable (Firm Denial/Appeal letter)**, or	0	0
(Final)	(c) Closes abandoned file after 60-days from denial date if applicant does not meet schedule.	0	0

***Applicant's responsibility**

**Districts must request an acknowledgment of receipt from the applicant by e-mail response and document acknowledgment response in the permit file. If acknowledgement is not received, the district must follow-up by mailing the notification by certified mail if the letter states the application is denied.

Applicants are encouraged to submit their EPAP via e-mail. A digital EPAP will enable the District Encroachment Permits Office to enhance our quality service, increase efficiency, and reduce paper waste. All the steps in the process can be completed via e-mail using digital copies of the EPAP and permit documents. However, the applicant/applicant's agent must furnish to Caltrans the original completed and signed application in paper format, upon request.

To increase the quality of EPAPs, the District Permit Engineer may approve staff time to meet with prospective applicants to assist in submitting a complete EPAP. Except in the case of some utilities, typically applicants must pay fees prior to Caltrans expending staff resources. However, preliminary meetings should decrease the amount of re-work and ultimately decrease the cost of issuing a permit. This consultation shall not exceed one meeting. The staff time from this consultation are not charged to the applicant.

For projects that are large in scope or have other challenges (including but not limited to intersection improvements, exceptions to policy and/or design standards, environmental impacts, etc.), the applicant must contact the District Permit Engineer for a pre-permit application meeting that will include the applicant, the applicant's engineers, and applicable Caltrans personnel. Prior to the meeting, the applicant will provide the District Encroachment Permits Office draft design plans and supporting documents so Caltrans can understand the project's scope, unique needs, evaluate feasibility, identify the applicable requirements, review process, and stakeholders' expectations. Permit types: CD, CS, DD, LC, LF, MC, RC, RP, and SN are typically involved. Please note that a pre-permit application meeting is to provide direction to the applicant for a successful project and is not a project review meeting for determining approval or denial of a project. Permit writers must schedule this mandatory pre-permit application meeting before an EPAP is accepted if the applicant fails to do so.

Login - As soon as the EPAP is received, the application information must be entered into EPMS, at which time EPMS assigns a tracking number. The date the EPAP was received by Caltrans must be recorded in EPMS (see Section 201.6) as the "Application Received Date." The "Application Received Date" reflects the date on which an EPAP is received in the District Encroachment Permits Office or one of its field offices and is not the same as the "Date of Acceptance" (although the two dates may coincide). The "Application Received Date," along with the "Date of Acceptance" recorded in EPMS, provides useful information to respond to project related queries and assists management to ensure EPAPs receive timely screenings.

Screen - If the application is delivered in person, the application should be screened for completeness by using an encroachment permit checklist and accepted as complete or rejected as incomplete for specific reasons while the applicant is present, if possible. If the application is received via mail or e-mail, the screening review time should not exceed two (2) business days.

After screening the EPAP for completeness, the Permit Engineer must send a letter to the applicant, acknowledging receipt of the EPAP and stating whether the application has been deemed complete or incomplete. The standard acknowledgement letter templates are available on the Encroachment Permits intranet site.

If the EPAP is rejected as incomplete during the screening process, the Permit Engineer must send a letter to the applicant acknowledging receipt of the EPAP and provide a list of reasons why the EPAP is incomplete. Return the applicant's check or payment deposit and inform the applicant that their documents will be discarded unless a request is made for pickup. An applicant's resubmittal of a rejected EPAP is logged into EPMS as a new EPAP.

Review - When the EPAP is accepted as complete, the Permit Engineer will distribute the EPAP to the necessary Caltrans functional units to review for compliance with policy, design, and construction standards. The functional units must review the EPAP and provide a permit issuance/denial recommendation and comments to the Permit Engineer within eight (8) calendar days from the date of distribution. Based on the functional units' recommendations, the Permit

Engineer compiles the comments and determines to either approve or deny an encroachment permit.

Notify - If additional information, revisions, or supporting documentation is needed, the Permit Engineer must send a letter (10-day Revision Letter) to the applicant informing the applicant the application is denied based upon the need for additional information, revisions and/or supporting documentation. Since the 10-day Revision Letter denies the permit if a response is not received, verification of the date the letter is sent to the applicant is required to track the 60-calendar day appeal period.

If the EPAP is approved, the draft permit package is compiled, reviewed, and approved. The permittee is notified by email that the permit is approved, and the permit package is attached.

If the EPAP is denied due to noncompliance with federal or State statutes or Caltrans' standards and/or policies, a Firm Denial/Appeal Letter must be sent to the applicant detailing the reason(s) for the denial and instructions on the appeal process (see Section 304). The District Permit Engineer should notify the District Deputy Director and District Director prior to denying a permit on this basis. The Denial letter is emailed to the applicant and a return receipt is requested.

Respond - The applicant is given ten (10) calendar days to resubmit the EPAP with the requested revisions and/or additional information. The 10-day Revision Letter states that the EPAP is automatically denied unless a response is received within ten (10) days. If a resubmittal or a response is not received from the applicant by the given date, the EPAP will be deemed abandoned and closed. Allow for the appeal period of 60 calendar days after the denial date before closing the file and change the status in EPMS to "Closed."

Final - If the applicant meets the schedule, the Permit Engineer will review and distribute the revised documents to the appropriate functional units for further review. If all documents are approved, the permit package is compiled, reviewed, and approved. The permittee is notified by email that the permit is approved, and the permit package is attached.

If the applicant meets the schedule, but the required revisions, additional information, and/or documentation is not acceptable, the applicant is notified by email that the EPAP has been denied. The Denial letter is emailed to the applicant and a return receipt is requested.

If the applicant does not meet the schedule, the file is considered abandoned and is closed after 60-days from the denial date. Change the status in EPMS to "Closed."

201.6 Tracking Permit Applications

The Encroachment Permits Management System (EPMS) is a database that contains encroachment permit data, provides efficiency in processing permits, and provides informational reports to Caltrans' staff regarding the status of EPAPs and ongoing permits. It also provides information on resources expended on each individual permit. The database assists management

to ensure that statutory deadlines are met, reviews are completed on time, and Caltrans recovers the full cost of administering permits.

Districts are responsible for maintaining the integrity of the information in the database. Any unauthorized modifications to the database could result in non-retrievable functionality and loss of data. Any issues with the database must be reported immediately to the HQ Office of Encroachment Permits.

The District Permit Engineer assigns the responsibility of data input and maintenance of the database to members of their staff. These staff members may provide monthly reports to the District Permit Engineers with the most current information on the progress of EPAPs and existing permits that they handle (see Table 2.3).

Table 2.3
Procedures for Maintaining the EPMS and Tracking Applications/Permits

Basic steps for maintaining the EPMS and for tracking applications/permits are as follows:

1. Login - Immediately upon receipt, permit application information is entered into the EPMS to create a record. This step starts the performance goal period of 30 calendar days or less for permit approval or denial. The record should include pertinent information shown on the application, including:
 - Permit writer (person coordinating review of the application)
 - Name of inspector (if known)
 - Tracking number
 - Project location (click on “map” to ensure a valid county, route, and post mile)
 - Estimated cost of work within State Highway right-of-way
 - Caltrans’ project code (ID) if applicable to the project
 - Applicant’s Reference Number /Utility Work Order Number
 - Description of proposed work (concise and detailed)
 - Excavation and underground work
 - Name of permittee, Authorized Agent, and Billing Contact
 - Set fee, deposit, or total fee (use as applicable on Edit Page)
 - Application Received Date (Entered on the Edit Page)
 - Performance Bond and Payment Bond numbers (when applicable on Edit Page)
 - Comments concerning the application (e.g., longitudinal encroachment, etc.)
2. When accepted as complete, enter (or change) acceptance date, billing code, and permit type. This step starts the 60-day statutory period for EPAP approval or denial.
3. Review – On the Reviews page enter the dates when review requests are sent to functional units. Request that functional units record their hours on the review form (fee based and fee exempt).

4. Enter the dates when review comments are returned to the District Encroachment Permits Office. Enter the review hours that were charged to the permit’s project code on the Reviews page. EPMS automatically fills in the hours on the “Progress Billing/Permit Closure” (form TR-0129) as required.
5. Each business day, the person responsible for maintenance of the EPMS prints the list of reviews that are past due and asks functional units to respond.
6. Notify - After all reviews are returned, if additional information or documents are required, respond in writing to the applicant using a 10-day Revision Letter template requesting the additional information or documents. On the Reviews page, enter the date that any e-mail or letter is sent to an applicant.
7. The permit may be issued after an approval from all reviewers and the District Permit Engineer approves the application. Enter the permit approval date, the permit mailed date, and the initial permit expiration date into the EPMS. Additional fields to be completed are:
 - Performance Bond and Payment Bond Numbers (if applicable)
 - Total fee (if applicable)
 - Name of inspector
 - Transportation Laboratory’s standard or estimate of hours
8. If additional information or documents were requested, enter the date on the Reviews page when additional information/documents are received. Review procedures start and are processed as in steps two (2) through six (6) above.
9. Notify the District Permit Engineer each day of applications older than 14 days and again at 45 calendar days. Permit Engineers must respond immediately to applications older than 45 days to avoid permits being granted by default.
10. Every week print a list of permits that will expire within the next 14 days and require time extensions or completion notices. Inform permit inspectors regarding permits in their area of responsibility.
11. To close a permit file, enter in the EPMS the construction completion date, inspection hours, and time expended by other Caltrans units. If needed, submit the completed “Progress Billing/Permit Closure” (form TR-0129) to the HQ Division of Accounting for billing. All fields should be filled out indicating hours and total fees/deposits and balance.
12. Create permit riders through the “Edit Permit” screen of the primary (parent) permit, and EPMS will assign a number to the rider that is associated with the parent permit. Manage any reviews required for the rider as in steps one (1) through six (6).

202 REVIEW PROCESS

The “Encroachment Permit Application Review” (form TR-0110) is used to request Caltrans functional units review an encroachment proposal. The reviewing functional unit uses the form to provide detailed comments about the proposal, record the number of expended review hours, and recommend permit approval or denial.

202.1 General Criteria for Evaluation of Encroachment Permit Applications

The District Permit Engineer is typically responsible for determining the appropriate review process for proposed projects submitted to the District Encroachment Permits Office based on the “Encroachment Project Processes Enhancements” policy memorandum issued on June 12, 2020 and for determining when there is a need for an agreement between the applicant and Caltrans for maintenance and/or responsibility purposes.

Submittals are reviewed to determine the impacts of the encroachment on:

- The safety of motorists, pedestrians, and workers.
- Design, construction, operation, maintenance, and/or integrity of the State Highway System.
- Future and ongoing highway construction work.
- Aesthetic value of the highway corridor.
- The environment.
- Existing drainage.
- Water quality.
- The risk of tort liability.

Caltrans’ policy is to cooperate with the Reclamation Board regarding submittals for encroachment permits to install underground facilities where a State Highway is on or crosses a levee under the jurisdiction of the Reclamation Board. An applicant is required to furnish proof of a Reclamation Board permit before an encroachment permit can be issued.

202.1A Conflicting Permits

A permit applicant may propose work requiring the removal or relocation of conflicting improvements installed under prior encroachment permits (ex. removal or relocation of a driveway, curb, or gutter for a highway widening permit application). The applicant must arrange and pay for any such removal or relocation. The “Encroachment Permit General Provisions” (form TR-0045, General Provision number 11) require relocation of conflicting encroachments at no cost to Caltrans as a condition of the permit. Priority is given to the earlier encroachment.

202.1B Location of Encroachment within the State Highway Right-of-Way (Rev 10/2020)

Encroachments should not create a public hazard, disrupt highway operations, affect maintenance, restrict pedestrian facilities, or interfere with future highway construction. Consideration should be given to utility placement located within right-of-way that is planned for expansion. Refer to the Highway Design Manual’s clear recovery zone concept when reviewing proposed placement of utilities.

Care must be taken to prevent encroachments that devalue State Highway right-of-way. Potential for airspace leasing within operating right-of-way, future right-of-way, or other potential operating uses of excess lands must be preserved. Permit applications describing work within non-operating right-of-way must be sent to District Right of Way for review. In some cases, District Right of Way may coordinate the encroachment request.

For activities within an easement, the easement document determines whether a permit is needed and its cost. The District Permit Engineer should consult with District Right of Way Engineering and Right of Way Utilities if there are any questions regarding permitting or charging fees.

Activities within Caltrans’ Easements:

For activities within Caltrans’ easements (ex. slope or drainage easement) adjacent to the State Highway System (SHS), property owners must obtain an encroachment permit to ensure the work does not infringe on Caltrans’ easement rights.

When Caltrans has only prescriptive rights and not fee title, the applicant must obtain a permit from Caltrans and a permit (or approval) from the landowners (such as the U.S. Forest Service or the Bureau of Land Management).

Activities within Easements-Owned-by-Others on the State Highway System:

For activities within easements-owned-by-others on the State Highway System, such as through prior rights or a Joint Use Agreement (JUA), applicants must obtain an encroachment permit for those activities listed in the easement documents. Applicants must include the Consent to Common Use Agreement (CCUA), JUA, and JUA number in the EPAP. If easement documents are not available, the application should be reviewed by District Right of Way Engineering and Right of Way Utilities to ensure that the proposed work is authorized under a prior property right.

The District Right of Way Engineering or Right of Way Utilities branch must determine when the encroachment permit will be stamped “For Record Purposes Only.” Encroachment permits are only stamped as “For Record Purposes Only” when all necessary work by the applicant is within the rights provided in the JUA, CCUA, or other R/W document. Additional work may be added to the same encroachment permit but is not stamped “For Record Purposes Only,” and the customary encroachment permit fee is to be charged. Examples of work that may not be included in the rights provided in a Right of Way document include expanded project limits, lane closures, or other significant disruptions to highway traffic.

These types of encroachment permits must contain the following clause:

“It is understood that the Owner’s easement(s) within the area of common use within the highway or at a new location within the highway may be used for the purpose for which the original easement(s) was acquired subject to Permittee providing advance notification of planned work and adherence to traffic safety and highway integrity requirements as contained elsewhere in this permit.”

For both activities within Caltrans’ easement and an easement-owned-by-others, a fee exempt permit is issued if the scope of work is confined to what is allowed in the easement documents. The permit is stamped “For Record Purposes Only.” If traffic control is needed or the scope of work is outside the scope defined in the easement documents, then additional fees are charged for processing and inspection. The contractor’s double permit is also fee exempt except when the work falls outside the easement documents.

202.1C Traffic Considerations (Rev 10/2020)

GENERAL

When an encroachment permit project is within the roadway, within the clear recovery zone, or will impact traffic, the permittee must submit a Transportation Management Plan (TMP) and assumes responsibility for financing and implementing traffic control and safety features (see the TMP Guidelines). The permittee must use construction methods that minimize traffic delay. Lane and shoulder closures are limited to the hours approved by the traffic reviewer and allowed by the District Transportation Manager.

Permittee must submit a detailed work description, a list of lanes (or shoulders) that need to be closed, proposed time and duration of closure, and any applicable traffic control plans. Traffic control plans and working hours as determined by the traffic reviewer are often a sufficient TMP.

Caltrans’ Standard Plans for Traffic Control Systems may be used for daytime or nighttime closures if the plans are appropriate for the site conditions. The applicant must identify the applicable standard plan for the proposed work on the permit application for the review of the District Permit Engineer. If Caltrans’ Standard Plans are not appropriate for the site conditions, the applicant must retain services of a California Registered Engineer to develop and stamp traffic control plans that are appropriate for the specific site conditions using other Caltrans manuals such as the California MUTCD, Plans Preparation Manual, and the CADD Users Manual.

The approved traffic control plans must be made part of the encroachment permit.

TRAFFIC DELAYS AND LANE CLOSURES

Encroachment permit projects require a major Transportation Management Plan (TMP) if the anticipated traffic delay resulting from the permit operation or lane closure is 30 minutes above

the normal recurring traffic delay or the delay threshold set by the District Traffic Manager (DTM), whichever is less.

TMPs and contingency plans for Encroachment Permit projects are developed by the permittee. Staff time for development, review, and implementation of TMPs for Encroachment Permits is charged to the permit (see Section 7.2 of the TMP Guidelines). The TMP is developed by the applicant and when implemented, it should minimize or eliminate project-related traffic delays and collisions (see TMP Guidelines and Deputy Directive DD-60, Appendix E).

When lane closures are contemplated within access-controlled right-of-way or conventional highways, a lane closure request is submitted to the District Lane Closure Review Committee (LCRC) for approval if the closure is estimated to cause additional traffic delay of more than 30 minutes or the delay threshold set by the DTM, whichever is less (see TMP Guidelines, Appendix E). While a review is not required for emergency lane closures, i.e., accidents, natural disasters, earthquakes, storm damage, hazardous material spills, vehicular accidents, etc., nevertheless, DTM notification is still required.

The District Permit Engineer or designee submits the proposed lane closure through the District Traffic Manager for review before sending it on to the District LCRC. If the DTM can reduce the delay to less than 30 minutes, then the District LCRC review is not necessary. The submittal to the DTM should contain information listed in the TMP Guidelines shown in Appendix E. Transportation Management Centers (TMC) in metropolitan areas must be notified at least seven (7) days in advance of any planned lane closures.

In addition to the lane closure submittal, the applicant should develop a contingency plan that identifies actions to be taken to restore or minimize effects on traffic during lane closure operations when the congestion or delay exceeds original estimates. The Contingency Plan should contain information shown in the TMP Guidelines.

Approval of Lane Closures

Proposed lane closures must be approved by the DTM before initiating the closure. Refer to the “Encroachment Permit General Provisions” (form TR-0045) and Caltrans’ Standard Specifications for specific instructions on the approval process and timelines.

The District Permit Engineer is responsible for notifying the DTM if there are changes to the originally approved closure request. The DTM must review approved lane closure plans three (3) days before the date and time of the proposed lane closure operation. If in the DTM’s opinion the changes materially alter the nature of the original proposal, the LCRC will reevaluate the revised proposal.

Evaluation Statement of Lane Closures

The District Permit Engineer must prepare a statement on projects that exceed expected delay or run outside of the closure window. The statement must be prepared within

five (5) working days of exceeding the threshold criteria (for statement explanation see the TMP Guidelines shown in Appendix E).

Exceptions for Lane Closures

Unless the traffic delay threshold is exceeded, LCRC approval is not required.

MOBILE WORK

Encroachment activities for mobile work (slow continuous motions and/or frequent stops within a traffic lane) must comply with Caltrans' Standard Plans and Specifications. The activities are:

- Moving operations (work activities, such as striping, sweeping, etc.) that move along the road without stopping, usually at slow speeds.
- Short-term work activities that can be performed during light traffic volumes, do not interfere with traffic, and does not jeopardize anyone's safety. Examples of such work include pavement patching, pavement marker replacement, etc.

Several references are made on the Standard Plans to "approach speed," which could be a posted speed limit, an off-peak 85th-percentile speed, or an estimated speed determined by driving through the job site several times. Many areas are not posted, therefore this reference is intended to allow judgment in applying the realistic speed of traffic where necessary to determine traffic control devices and requirements.

202.1D Traffic Control System Plan Changes

Requests to revise, alter, or use different traffic control plans than originally approved should be directed to the District Traffic Engineer for approval. Caltrans' Standard Plans cannot be revised for individual projects.

202.1E Traffic Unit Review

The appropriate District Traffic unit must review permit applications having traffic or safety impacts, when required by other portions of this manual or if the Permit Engineer determines that such a review is necessary. Procedures and responsibilities detailed in a TMP are addressed during encroachment permit review by District Traffic staff.

202.1F Field Review before Issuing Permit

Pre-inspection of the site sometimes is necessary to ensure that the proposed work is not detrimental to the State Highway or the safety of highway users. The Permit Engineer should ensure that the proper personnel are involved in this pre-inspection.

202.1G Other Reviews

Proposals for encroachments may require review by other units. Such reviews ensure coordination with subsequent maintenance operations and planned future development by Caltrans or others.

A permit cannot be issued without environmental clearance. Chapter 400 discusses specific requirements for environmental review of encroachment permit applications.

202.1H Lane Closure System (New 10/2020)

Lane closures on the State Highway System are made available to the public via the internet through applications such as Caltrans' QuickMap. It is important that the information provided to the public be accurate and current.

With an authorized lane closure request, the permittee or their contractor must use the LCS or the LCS Mobile application to update the status of the lane closure at the time of closure. For more information on submitting a lane closure request and how to update a lane closure status, see Caltrans' Standard Specifications. The permittee or the permittee's contractor must contact the Caltrans representative at least seven (7) days prior to the closure if the permittee or the permittee's contractor is unable to perform this task.

The internet addresses for LCS training and the mobile LCS application are available through the District Permit Engineer or Caltrans' representative. Within five (5) business days after completing the training, trained representatives will receive an LCS account and a user identification. Each representative must maintain a unique password and current user information in the LCS.

202.1I Work Plan for a Temporary Pedestrian Access Route (New 07/2021)

If work activities require closure of an existing pedestrian route, the providing, maintaining, and removing of temporary pedestrian access routes must be in compliance with the Caltrans Standard Specification Section 12-4.04 Temporary Pedestrian Access Routes.

202.2 Approval Document (Rev 10/2020)

A Project Report, a Design Engineering Evaluation Report (DEER), or a "Permit Engineering Evaluation Report" (PEER) (form TR-0112) is required for every action that has a permanent traffic impact and for work that affects the operating capability of a State Highway facility.

The preparation of the Approval Document is discussed fully in the Project Development Procedures Manual (PDPM). The preparation of the PEER is the responsibility of Project Delivery or Traffic Operations.

However, on all projects managed through the Encroachment Permits Office Process (EPOP) the District Encroachment Permits Office must verify that the responsible reviewing units have considered the need for the appropriate approval document and the reviewing units have correctly completed the "Encroachment Permit Application Review" (form TR-0110).

202.2A Projects Requiring a Permit Engineering Evaluation Report (PEER)

A “Permit Engineering Evaluation Report” (PEER) (form TR-0112) is prepared to document the engineering analysis of proposed encroachment permit work. The proponent of the project is responsible for the submittal of the detailed project description/proposal section of the PEER as well as all other necessary documentation required for a complete analysis of the proposal.

Approval of the PEER is the responsibility of either Project Delivery or Traffic Operations. The analysis includes review of the proposed work to determine safety, drainage, maintenance, operational, and environmental impacts to the State Highway System. All proposed work must conform to Caltrans’ current standards and practices or be justified by an approved exception.

On proposals that cannot be adequately described in a PEER, the District may require that a combined Project Study Report/Project Report (PSR/PR) formator a PR format be utilized in lieu of the PEER format. The District Director or the delegated representative is responsible for approving the PEER.

Projects which are financed with local sales taxes require a PEER or a combined PSR/PR to serve as the PSR (Project Study Report or Project Initiation Document); this is required by California Government Code sections 14526, 14527, and 14529. If there is a Master Cooperative Agreement with a Sales Tax Measure Authority, an additional Cooperative Agreement may not be required.

Permit applications for projects requiring a PEER must comply with Table 2.4.

Table 2.4
Permit Procedures for Projects Requiring a PEER

These permit procedures are followed for projects that require a “Permit Engineering Evaluation Report” (PEER) (form TR-0112):

1. The appropriate fee is determined, and the application is accepted as complete.
2. Engineering and technical reviews are performed; additional information is requested from the applicant if it is needed to perform the reviews. A permit may be denied based upon conclusions of the reviews.
3. A “Permit Engineering Evaluation Report” (PEER) (form TR-0112) is prepared.
4. Bonding requirements are determined.
5. Additional fees, if required, are collected.
6. An encroachment permit is issued to the applicant and distributed to other Caltrans’ units.
7. The applicant begins work authorized by the permit. Project work is inspected by Caltrans for compliance with the permit.

8. As-built plans are received, a “Progress Billing/Permit Closure” (form TR-0129) signed and dated by the District Permit Engineer or an authorized representative or the District Resident Engineer (RE) when applicable, is issued and bonds are released.
9. Records are scanned, and the project is closed out.

202.2B Projects Not Requiring a PEER

Projects not requiring a PEER are usually commercial filming, miscellaneous activities, special events, surveys, and utilities. These permit applications involve the same steps as outlined in Table 2.4 with the omission of Step 3.

202.3 Quality Management Assessment Process (Previously “Oversight Projects”)

Please refer to “Encroachment Project Processes Enhancements” memorandum issued on June 12, 2020 until detailed guidance is incorporated into this manual.

For projects involving structures, the Office of Special Funded Projects (OSFP) Information and Procedures Guide gives detailed guidance for developing QMAP Projects constructed on the State Highway System. It is available at:

<https://dot.ca.gov/programs/engineering-services/special-funded-projects-and-local-assistance>

202.3A Cooperative and Highway Improvement Agreements

(Rev 10/2020)

A cooperative agreement is a formal contract between Caltrans and a city, county, or other public agency such as a transportation authority (collectively local public agencies) through which the parties to the agreement outline their high-level responsibilities regarding an improvement on the State Highway System (SHS), including identification of: project component(s), sponsor (project advocate and securer of financial resources), implementing agency (responsible for the performance of work), and funding commitments.

A cooperative agreement is required when Caltrans and any other local public agency will exchange effort, funding, materials, or any combination thereof. It requires the local public agency to adhere to the standards, policies, and procedures (or have an approved exception) that Caltrans would normally follow when it plans, designs, and constructs projects on the State Highway System. A cooperative agreement will not commit Caltrans to any arrangement that it does not have legal authority to pursue or the financial capacity to fund.

The Project Manager is the individual responsible for developing and executing cooperative agreements.

Similarly, a Highway Improvement Agreement (HIA) is executed between Caltrans and a private entity. HIAs are used as a last resort. Working with a local public agency is generally preferable to a private entity. When dealing with a private entity, it is best to have the local public agency represent the private entity and Caltrans will enter into a standard project development

agreement with the local public agency. Occasionally the local public agency is not willing to represent the private entity, in which case Caltrans may decide to enter into an HIA with a private entity.

An HIA is a project development agreement with a private entity when the project is managed through the project delivery Quality Management Assessment Process (QMAP). Because there is no legal authority for Caltrans to perform project development and construction work for private projects, the private entity is required to perform all work and provide all funding. The private entity must fully reimburse Caltrans for all QMA performed by or on behalf of Caltrans in connection with an HIA.

For additional information, please see the Cooperative Agreement Handbook available on the Office of Delivery Improvement & Agreements intranet site.

202.3B Issuing Encroachment Permits for QMAP Projects

(Rev 10/2020)

Encroachment permits must not be issued for QMAP Projects without the District Encroachment Permits Office receiving a copy of the required, fully executed agreement. The agreement will specify whether or not there will be a charge to the local public agency and/or its contractors, consultants, and agents for their respective encroachment permits.

An “Encroachment Permit Administrative Route Slip” (form TR-0154) is used by the Project Manager to request from the District Permit Engineer the issuance of an encroachment permit. The form certifies that the project has been reviewed and approved and does not require any further coordination. The permit usually can be processed and issued shortly after the District Encroachment Permits Office receives a complete application package including approved plans and a copy of the fully executed agreement for construction.

202.3C Public Transit Projects (Rev 10/2020)

Appropriate project review process for public transit projects financed by others (other than by the State) and located within existing or future State Highway right-of-way must be identified using the criteria established in “Encroachment Project Processes Enhancements” memorandum issued on June 12, 2020.

A copy of the fully executed cooperative agreement and approved plans must be delivered to the District Encroachment Permits Office before encroachment permits can be issued to the transit agency and its contractors, consultants and agents for construction work within State Highway right-of-way.

202.3D Project Development Procedures

Caltrans may be exposed to operational and maintenance responsibilities, and to tort liability, by any expansion or improvement of State Highways using local resources. Therefore, projects that must follow the project development process as identified using the criteria established in the “Encroachment Project Processes Enhancements” memorandum issued on June 12, 2020, must

comply with the Project Development Procedures Manual (PDPM), and the Environmental Handbook (EH). The permit applicant is required to use the project development procedures that Caltrans uses to do the same work. These include the project development teams, project reports, and project development categories described in the PDPM.

All State Highway improvement projects funded entirely by others and follow the project development process must be approved in concept by a Project Study Report (PSR) and approved in a Project Report following environmental compliance and public input. Caltrans is normally responsible for the PSR if it can be done on a schedule Caltrans is able to meet, and the local agency or private developer is responsible for preparing the Project Report (except for Sales Tax Measure Projects). This requirement can create special timing problems for applicants and should be pointed out during initial discussions.

An abbreviated process utilizing a combined PSR/PR format or the DEER is available for projects meeting certain criteria, which enable a local public agency or developer to prepare a combined document on their own schedule and at their own expense in lieu of the PSR and the PR.

202.4 Traffic Controller Assemblies (Rev 07/2021)

Caltrans provides Traffic Signal Controller Assemblies for installation on all State Highway projects involving signal systems. Caltrans is reimbursed for the controller assembly acquisition, quality assurance testing, and delivery. The method of reimbursement to Caltrans depends upon the type of recipient and contractual relationship. Controller allocation criteria are described as follows:

JOINTLY FUNDED COOPERATIVE AGREEMENT PROJECTS:

Caltrans provides Traffic Signal Controller Assembly as a contribution to its share of the project cost.

LOCALLY FUNDED AND SALES TAX MEASURE COOPERATIVE AGREEMENT PROJECTS

The funding local public agency pays the full cost of the controller assembly. If Caltrans is administering the construction contract, the controllers will be provided as Department-Furnished Material paid for by the local public agency as part of the project costs.

PRIVATELY FUNDED HIGHWAY IMPROVEMENT AGREEMENT PROJECTS

Caltrans provides the controller assembly as a Department-Furnished Material paid for by the permittee as part of the project cost.

ENCROACHMENT PERMIT WITHOUT AN AGREEMENT

When an agreement for the project does not exist and construction is authorized only under an encroachment permit, the private party permittee or permitted local public agency’s contractor must pay for the controller assembly and for the related field work and inspections. These costs are collected from the permittee or contractor as a Department-Furnished Material fee and added to the deposit collected for other estimated inspection field work costs.

Additional information on Department-Furnished Traffic Controller assemblies is shown in Appendices E and K. For component prices by Caltrans personnel only, please see the “Department-Furnished Electrical Equipment Price List” available on the Headquarters Division of Traffic Operations - Traffic Control Systems Branch’s intranet site. A copy of the most current “Electrical Equipment Price List” must be provided to the permittee or contractor before deposit is collected.

202.5 Registered Engineer’s Seal and Signature (Rev 10/2020)

The California Business and Professions Code (see Appendix E, Professional Engineers Act) requires that all final engineering plans, calculations, specifications, and reports shall bear the signature and seal or stamp of the licensed engineer, and the date of signing and sealing or stamping.

The California Business and Professions Code was amended by Assembly Bill 645 in 2009, which deleted but does not prohibit the requirement to include the license expiration date on engineering plans, calculations, specifications, and reports. Caltrans considered the impending changes and determined that the business practice of including the expiration date is consistent with its quality management policies and its desire to perpetuate only the highest quality engineering and surveying documents (see Appendix E, Memorandum from Malcolm Dougherty). All final engineering plans, calculations, specifications, and reports shall bear the signature and seal or stamp of the licensee, the date of signing and sealing or stamping as required by California Business and Professions Code section 6735, and the license expiration date.

For plans with multiple sheets that contain civil engineering elements such as trench plate design, excavation shoring, traffic control plans related to lane closures, etc., each sheet shall bear the signature and seal or stamp of the licensee, the date of signing and sealing or stamping and the license expiration date of the licensee responsible for the preparation of those elements. For engineering reports, the same information as required on plans must appear at a minimum on the title sheet, cover sheet, or signature sheet.

Environmental documents are not professional engineering documents and therefore do not require preparation by a California Registered Engineer.

202.5A Registered Engineer’s Seal and Signature on Utility Plan Sheets (Rev 10/2020)

For utility companies under the jurisdiction of the California Public Utilities Commission (CPUC), utility plan sheets prepared for their products, systems, or services do not require the signature and seal or stamp of a California Registered Engineer (Business and Professions Code 6747).

However, all traffic-related plans and civil (including structural and geotechnical) engineering plans, calculations, specifications, and reports are not considered utility plan sheets and therefore must bear the signature and seal or stamp of the licensee, the date of signing and sealing or stamping, and the license expiration date of the California Registered Engineer responsible for their preparation per the California Business and Professions Code.

When Caltrans issues a permit for the installation of a public utility, it does not inspect the design nor installation for compliance with CPUC and industry standards. Compliance with CPUC and industry standards is the responsibility of the public utility.

202.5B Contractor’s License (New 10/2020)

All prime contractors, subcontractors, and specialty contractors must be properly licensed by the California Contractors State License Board with a classification appropriate for the work to be performed.

202.6 Materials Testing

Materials testing is performed by the Division of Engineering Services, Office of Materials Engineering and Testing Services (METS) commonly referred to as the Transportation Laboratory or Trans Lab.

Testing is required for manufactured or fabricated materials delivered to a work site if Caltrans will own it upon completion of the work. However, in some cases, the Permit Engineer may determine that very small quantities of materials, although not previously tested by the Transportation Laboratory, are acceptable for installation when they are delivered with a Certificate of Compliance.

The Transportation Laboratory contacts the District Encroachment Permits Office to verify materials when materials inspection is requested by the permittee and the Transportation Laboratory does not receive a “Notice of Materials to be used” (CEM-3101). If District contact is unsuccessful, the Transportation Laboratory may verify materials using permit documents and plans before performing inspection and release.

In all cases, a completed “Report of Inspection of Materials” (form TL-0029) is transmitted from the Transportation Laboratory to the District Encroachment Permits Office. Contact the Transportation Laboratory in your area to verify hours of inspection.

Procedures for materials testing are described in Table 2.5.

Table 2.5
Procedures for Materials Testing

These procedures should be followed for testing materials to be used in work authorized within State Highway right-of-way:

1. Permit Engineers and reviewing units evaluating applications must determine if fabricated materials require inspection by Caltrans' Transportation Laboratory. The Transportation Laboratory unit is required to inspect all electrical components of signals, State-owned lighting, metal poles, mast arms, foundation bolts, and signs. A complete list of items is found at:
<https://dot.ca.gov/programs/engineering-services/authorized-materials-lists>
2. If inspection by the Transportation Laboratory is required, include this statement in the text of the permit: "Your attention is directed to Section 6 of the State Standard Specifications, reference to Engineer in the State Standard Specifications shall include State Representative."
3. If inspection by the Transportation Laboratory is required, send one permit copy (including plans and special provisions) to the Transportation Laboratory.
4. When the "Notice of Materials to be Used" (form CEM-3101) is received from the permittee, the Caltrans representative should review, sign, date, and forward the form to the District Encroachment Permits Office (Enter the permit number in the space for "Contract Number" on the form.).
5. District Encroachment Permits Office then makes copies for their files and transmits the "Notice of Materials to be Used" (form CEM-3101) to the Transportation Laboratory.
6. When the "Notice of Materials to be Used" (form CEM-3101) is received, the Transportation Laboratory inspects materials and returns a "Report of Inspection of Materials" (form TL-0029) to the District Encroachment Permits Office for transmittal to the State representative.
7. State representatives must ensure that all material requiring Transportation Laboratory inspection has an inspection release tag and must refuse installation of untagged materials until proper inspection is completed.

203 PERMIT FORM AND PROVISIONS

A permit will normally be written to allow six months for the work to be completed, unless the District Permit Engineer determines that a longer or shorter time period is appropriate. The District Encroachment Permits Office may extend the time of or modify any permit within the authority granted, utilizing the appropriate Rider Form.

The "Encroachment Permit General Provisions" (form TR-0045) apply to all permits **except** Adopt-A-Highway, Consent Letter, and Chain Installer Permits. Applicable Special Provisions should be added to cover each particular permit.

Standard Specifications and/or “Encroachment Permit General Provisions” (form TR-0045) cannot be paraphrased. The preferred method for emphasizing certain items is to direct a permittee to specific items, specifications, or provisions, and to state alterations as an amendment (For example, “Section XXX.X of the Standard Specifications is amended to read ____.”).

For Adopt-A-Highway Permits, the “Adopt-A-Highway Permit Special Provisions” (form TR-0156) must be included in their entirety without modification by Districts; any proposed modification must be approved by the Headquarters Division of Maintenance before the District may use the modification. The encroachment permit text should highlight the Special Provision requiring notification of State representatives serving areas affected by project work having significant traffic impacts.

203.1 Encroachment Permit General Provisions

The “Encroachment Permit General Provisions” (form TR-0045) apply to all permits **except** Adopt-A-Highway, Consent Letter, and Chain Installer Permits. Permittees must fully comply with the “Encroachment Permit General Provisions” (form TR-0045) (see Appendix K).

203.2 Encroachment Permit Special Provisions

Permittees must fully comply with the Encroachment Permit Special Provisions specific to each type of permit, which usually are added to each permit (see Appendix K).

203.3 Liability Insurance

The “Encroachment Permit General Provisions” (form TR-0045) hold the permittee responsible for all liability for personal injury and property damages. When required, the applicant must show evidence of liability insurance before issuance of the permit. Insurance must be provided by a company authorized to conduct insurance business in the State of California.

203.3A Encroachment Permits Requiring Liability Insurance (Rev 10/2020)

Liability insurance is required for commercial filming (Section 503), special events (Section 514.7), unmanned aircraft systems (Section 516.9), and tower cranes. The specific insurance requirements for each permit type are covered in their respective sections of this manual. The HQ Legal Division determines the need and sets the dollar amount of insurance. For questions, Districts must contact the HQ Office of Encroachment Permits and present permit applications for referral to the HQ Legal Division.

203.3B General Requirements for Liability Insurance (Rev 10/2020)

When liability insurance is required, the applicant must obtain an endorsement to the insurance policy naming the State of California, the California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation as additional named insureds. The applicant also must furnish a certificate of insurance and the endorsement showing those additional named insureds.

A professional liability exclusion is standard in most insurance policies. A typical exclusion clause for professional liability that is contained in many insurance policies states:

“This insurance does not apply to any professional liability claims resulting from the actions, direct or indirect, from the executive or legislative branch(s) of any State or municipal government, law enforcement or police officer, security officer, firefighter, emergency medical personnel or any employee of State or local government, unless specifically endorsed hereon. This exclusion does not apply to the original named Insured.”

Any deviation from the liability insurance requirements must first be reviewed and approved by the HQ Legal Division.

Caltrans’ policy requires that all of Caltrans’ employees, volunteers, and visitors to highway work zones follow safety and work procedures outlined in Caltrans’ “Safety Manual,” “Safety Injury and Illness Prevention Plan,” other Caltrans manuals, and specific written instructions. “Volunteers” include people participating in the Adopt-A-Highway program, and “visitors” include people participating in filming and special events.

When proposing to operate an unmanned aircraft system, refer to the Caltrans Unmanned Aircraft Systems Handbook for insurance requirements, available on Caltrans’ intranet.

When proposing to allow any part of a tower crane to be over any portion of the State Highway right of way, refer to the Caltrans Memorandum dated December 28, 2016 for insurance requirements, available on Caltrans’ Encroachment Permits intranet.

203.3C Claims

Claims against permitted work are classified in two primary categories, and guidance by the Caltrans Legal Division is necessary in both categories.

1. Public claims by persons not related to Caltrans

Claims made against a permittee or Caltrans for permitted work are referred to the HQ Legal Division immediately. The HQ Legal Division provides direction to the District Encroachment Permits Offices for handling inquiries and requests for files.

2. Caltrans’ claims against a permittee

Claims by District Encroachment Permits Offices generally are related to incomplete or unacceptable work by permittees and are either claimed or billed against bonds. Such claims may also involve damage to the State Highway caused by the permittee’s work. The HQ Legal Division manages actual legal or court action against permittees.

203.4 Surety Bonds

Surety bonds ensure the faithful performance of a permittee’s permit obligations. Letters of credit and property bonds are not acceptable forms of bonding.

A performance bond ensures completion of permitted work in compliance with plans, specifications, and permit conditions. A lawsuit for a patent (obvious) defect must be brought no later than four (4) years after discovery of the defect (California Code of Civil Procedure section 337.1). A lawsuit for a latent (hidden) defect must be brought no later than ten (10) years after “substantial completion” of a development or improvement (California Code of Civil Procedure section 337.15).

Generally, a cash deposit is not an acceptable form of bonding except for non-Public Works encroachments where latent defects are unlikely (e.g., landscaping, driveways, monitoring wells, etc.). The cash deposit with a copy of the “Standard Encroachment Permit Application” (form TR-0100) should be forwarded to the District Cashier for deposit in the State Highway Account. In accordance with Government Code section 13144, refunds exceeding \$10,000 generally require approval by the California Department of Finance (see Section 201.3).

Bond amounts should be calculated as accurately as possible to ensure that the estimated costs of projects within the State Highway right-of-way are covered at a minimum of 50% for performance bonds and 100% for payment bonds (see 2018 Standard Specifications, Section 3-1.05 “Contract Bonds”). Public Works encroachments costing \$5,000 or more should be bonded (except for most public agency projects as stated in this section). Non-Public Works encroachments may be bonded as determined by the District Permit Engineer.

Bonds for local public entities are limited to \$20,000 for failure to perform. Under this punitive action, contractors performing the work for any local public entity may be required to post a 100% payment bond and a 50% performance bond of the value of work within the right-of-way prior to the issuance of their Double Permit “DP,” naming the State as sole obligee on the bonds.

Regardless of the bonding situation, a local public entity permittee must obtain final construction acceptance and approval from Caltrans before the local public entity gives final construction approval to its contractor (see “Encroachment Permit General Provisions,” (form TR-0045) number nine (9)).

If a permittee is delinquent in payment of permit fees, the HQ Division of Accounting will attempt to collect from the permittee’s bonding company (see Section 201.2C, “Billing and Overdue Accounts”).

A payment bond ensures payment by a contractor to its own labor, subcontractors, and material suppliers.

Bonding requirements are outlined in Table 2.6. Bonding is not required of a local public entity (city, county, public corporation, or political subdivision) that is authorized by law to establish or maintain any works or facilities in, under, or over any public highway and is not normally required of a public utility (California Streets and Highway Code sections 678 and 679). However, should a local public entity fail to comply with the terms of a previous permit or to pay fees when due, Caltrans may require performance bonding on that entity’s next permit or as specified in Section 206.2A.

Table 2.6
Guidelines for Bonds

Use these guidelines when working with bonds for authorized work within State Highway right-of-way:

1. The obligee is the entity receiving benefit from the bonds supplied.
2. The obligor is the entity named as owner or payer of the bonds.
3. The District Encroachment Permits Office shall verify bonding as specified in an executed cooperative or highway improvement agreement for QMAP Projects. Agreements are processed by Caltrans' Project Manager and copied to the District Encroachment Permits Office for information. Bonds shall name obligee(s) as provided for in the agreement.
4. Bonding requirements shall be specified in the encroachment permit and/or "Encroachment Permit General Provisions" (form TR-0045) for local public entity projects. In such cases, the contractor performing work for a local public entity, which local public entity has complied with the terms of previous permits, does not require bonding when the contractor executes bonds in favor of the local public entity for at least 100% of the project ("Encroachment Permit General Provisions," number #24 [form TR-0045]). This provision applies only to contractors working for local public entities. It does not apply to private entity bonding.
5. Bonding requirements shall be specified in the encroachment permit for privately funded projects in the absence of a highway improvement agreement. Under the terms of the permit, either the developer or contractor (preferably, the developer) is bonded at 100% for payment bond and at 50% for performance bond of the estimated construction costs for work within the State Highway right-of-way. The bonds shall name only the State as obligee.

Performance bonds supplied for privately funded work involving new traffic signal equipment or for work on highway structures shall not be less than \$10,000. They are retained until the permittee furnishes accurate As-built plans for permit work.

6. Utilities and individuals, their contractors, and tree-trimming companies:
Utility work or private residential improvements not maintained by Caltrans do not require bonding unless prior experience indicates poor performance by owner or contractor, such that work may not be completed in compliance with permit terms. When bonding is required, bonds should reflect Caltrans' determination of the value for the highway facility that may require repair (roadway, base and surface, sidewalks, lighting, State-maintained landscaping, tree values, etc.). Such determinations should not include equipment owned by others or work outside the State Highway right-of-way. The bonds shall name only the State as obligee.

203.5 Cal/OSHA Safety Requirements

If the applicant’s proposed work falls within one of the provisions of Section 6500 of the Labor Code, the permittee must have a permit from the Department of Occupational Safety and Health (DOSH), or better known as Cal/OSHA, before starting permitted work.

Labor Code section 6500 deals with trenches, excavations, structures, falsework, scaffolding, and demolition, and in relevant part reads as follows:

“6500. (a) For those employments or places of employment that by their nature involve a substantial risk of injury, the division shall require the issuance of a permit prior to the initiation of any practices, work, method, operation, or process of employment. The permit requirement of this section is limited to employment or places of employment that are any of the following:

- (1) Construction of trenches or excavations that are five feet or deeper and into which a person is required to descend.
- (2) The construction of any building, structure, falsework, or scaffolding more than three stories high or the equivalent height.
- (3) The demolition of any building, structure, falsework, or scaffold more than three stories high or the equivalent height.
- (4) The underground use of diesel engines in work in mines and tunnels.”

All Permit Engineers should follow Labor Code section 6500 strictly. Labor Code section 6509 states “Any person, or agent or officer thereof, who violates this chapter is guilty of a misdemeanor.”

Therefore, the face of each encroachment permit must indicate if a DOSH permit is required and the DOSH permit number (if available).

The following agencies and activities are exempt from the requirement to obtain DOSH permits (Construction Safety Orders):

- Government bodies (but not their contractors).
- Public utilities subject to the jurisdiction of the CPUC (but not their contractors).
- Emergency repair work to underground facilities.
- Excavation or trenches where no person will descend.

Caltrans’ employees, volunteers, and visitors to highway work zones must follow safety procedures described in Caltrans’ Safety Manual, other Caltrans manuals, and written procedures and instructions for the specific work.

204 DENYING PERMIT APPLICATIONS

A permit is not issued to an applicant when the safety of the applicant or traveling public, highway workers, structural integrity, or operational capability of the State Highway may be subject to impairment or endangerment.

The District Director (or designated representative) signs letters of denial. Reasons for denial must be described in writing to the applicant. The Districts can view the letter templates on the HQ Office of Encroachment Permits intranet website.

Encroachment permits **MUST** be denied for:

- Projects that adversely affect the safety, capacity, or integrity of the State Highway.
- An encroachment that is an integral structural portion of a building (above or below the surface). This includes roof eaves, new bay windows, and cantilevered upper floors.
- Bungee jumping from State structures (**except** when approved under a filming permit).
- Gathering plant matter, except for research or education.
- Longitudinal encroachments, except for public utility and franchise facilities.
- Storage tanks, loading platforms, private truck scales.
- Temporary political signs (California Business and Professional Code section 5405.3).
- Charging parking fees on a State Highway.
- Encroachments specifically prohibited elsewhere in this manual.

Encroachment permits **MAY** be denied when:

- The applicant has not complied with the provisions of prior permits.
- The applicant is delinquent with payment on prior permits.
- The project does not have concurrence by a local agency.
- The environmental effects are significant and cannot be mitigated or mitigation is unfeasible.
- A proposed development plan includes an emergency or other access, to access-controlled right-of-way.

Except as otherwise provided for public agencies and franchise holders, encroachment permits are revocable on five (5) days' written notice (California Streets and Highway Code section 673, subdivision (b)). All such notices must be signed by the District Director or a designated representative. A written document is used to revoke and cancel permits.

Private use of State Highway right-of-way without compensation is prohibited (See California Constitution, Article XVI, Section 6). Consequently, permit applications for grading, excavating, removing materials, or placing an embankment not related to a highway improvement are considered individually. Requests for these types of encroachments require an approved encroachment policy exception (see Chapter 300). An encroachment policy exception is typically approved if the permit application satisfies all the following:

1. Caltrans is compensated for removal of material or use of the State Highway right-of-way.
2. No safety hazard is created.
3. No additional maintenance is created.
4. No additional liability is assumed by the State.
5. No transportation use restriction is created.
6. No unwanted easement or other permanent right-of-way encumbrance is created.
7. Will not create a permanent property right detrimental to our future use or expansion.

These items apply to all State highways and require approvals from Caltrans' District review units.

204.1 Denial for Time Limit Considerations

A permit application may be denied when additional information is needed but not furnished within the specified time limit. Examples are:

- Information required by the applicant to prepare an adequate environmental document.
- Information necessary to prepare a supplemental environmental impact report in compliance with Public Resources Code section 21166.
- Information needed for Caltrans' evaluation of specific engineering details.
- When Caltrans is conducting environmental studies in the area of the proposed work.

Denial of an encroachment permit for lack of information does not affect the applicant's right to reapply for a permit or to appeal a denial.

204.2 Appeals

During the encroachment permit process, the applicant may not agree with permit requirements that the District supports. If the applicant requests an exception, the District may confer with the appropriate Headquarters contacts. Procedures to obtain exceptions to design standards, policies, and practices are discussed in Sections 301 through 303. The applicant may appeal a denied permit application, see Section 304.

205 APPROVING AND ISSUING PERMITS

The primary encroachment permit for private development work is issued to the developer/property-owner and not issued to a public corporation. When the encroachment is to be maintained later by a public corporation or utility company, a second permit is required of the public corporation or utility company to own and maintain the encroachment (see Section 604).

205.1 Permits Approved by Districts

Federal law, State law, and Caltrans' policies govern the types of encroachments and activities that Caltrans can approve. The Director's statutory authority is delegated to the Chief, HQ Division of Traffic Operations, through a Delegation of Authority letter. The Encroachment

Permits Manual, information bulletins, and guidance memoranda provide the Districts with policy, guidance, and authority to issue encroachment permits. Most permits can be issued without concurrence from HQ (see Section 205.2).

Permit writers prepare, initial and/or sign, and present the permit package to the approving engineer. The approving engineer, typically the District Permit Engineer, should be the highest-ranking engineer within the District Encroachment Permits Office. Approval authority may be delegated by the approving engineer to a permit engineer that is a California-licensed engineer, except that RT permits and DP permits when no engineering review is required may be delegated to an unlicensed engineer. The approving engineer must use their signature to approve the permit. The permit writer cannot be the same person as the approving engineer or as the person delegated approval authority by the approving engineer. This procedure is intended to separate the various parts of the process to assure reasonable administrative control over the permit approval and issuance process.

Districts may authorize Maintenance Area Superintendents to issue certain permits (i.e., chain installer permits) and/or “Consent Letters” (form TR-0131) for one-day litter removal, salvage operations, gathering of donated landscape materials, vegetation control, removal of minor forest products, etc. Maintenance Area Superintendents must not exceed this specified authority, and any appropriate fees must be collected. Approval by the Deputy District Director for Maintenance is required for Consent Letters covering multiple dates (maximum of three consecutive calendar days).

205.1A Issuing the Permit Package

Permits may be issued after all reviews are returned, all reviewers recommend permit approval, and all conditions imposed by the lead and responsible agencies have been met.

Copies of the permit package are provided to the Caltrans inspector(s) who will be inspecting the project, the Office of Maintenance in the vicinity of the project, and any other offices involved in monitoring the project.

The Encroachment Permit is a legal document and should include appropriate addenda. When packaged for issuance, the contents of the “Permit Package” may consist of the following:

1. “Encroachment Permit” (form TR-0120) – each permit copy.
2. “Encroachment Permit General Provisions” (form TR-0045) – each permit copy.
3. Encroachment Permit Special Provisions – each permit copy.
4. Copy of the applicant’s completed “Standard Encroachment Permit Application” (form TR-0100) – each permit copy.
5. “Notice of Completion” (form TR-0128) (postcard) – permittee completes form.
6. “Notice to Owner” (form RW 13-4) – State-ordered Utility Relocation, see Section 601.
7. Copy of Cooperative Agreement – each permit copy.
8. Copies of liability insurance policies – Commercial Filming, Special Events, or other permit requiring insurance.

9. Copy of letter on acceptance of maintenance and liability by city or county – each permit copy.
10. “Certification by Contractor” (form TR-0113) – permittee completes form.
11. Copy of “Payment Bond” (form TR-0018) – each permit copy.
12. Copy of “Performance Bond” (form TR-0001) – each permit copy.
13. “Notice of Materials to be Used” (form CEM-3101) – permittee completes form.
14. Approved plan set (with “Encroachment Permit Dept.” stamp) – each permit copy.
15. Approved city/county Standard Plans (attachment to #14 above) – each permit copy.
16. “Progress Billing/Permit Closure” (form TR-0129) – District Encroachment Permits staff completes form.
17. As-Built Plans Submittal Route Slip used for locally advertised structure projects - completed by permittee, see Appendix K.
18. Storm water requirements – to permittee and file copy.
19. “Certification of Compliance with Americans with Disabilities Act” (form TR-0405) – permittee completes form once during package submittal and again after construction.

All correspondence related to the permit, one set of all documents that were reviewed and approved (Plans, Application, Reports, Storm water documents, agreements, supporting documentation, etc.), and a copy of the issued permit must be included in the permit file for every permit.

205.2 Permits Requiring Pre-Application Approval

Before an applicant submits an EPAP to the District Permit Engineer for review, the following types of proposed encroachments require prior approval by the appropriate Headquarters Office or District Branch, as indicated in parentheses:

- New public road connections to declared access-controlled State Highway right-of-way that have not been previously approved by Caltrans’ Division of Design and by the California Transportation Commission (CTC).
- Longitudinal encroachments within access-controlled State Highway right-of-way (Division of Design), except telecommunications when their facility access is located outside the right-of-way.
- Modifications to existing bridges, new bridges, and underground structures (Division of Design, Structure Maintenance and Investigations, and Structures Office of Special Funded Projects (OSFP)). See Appendix K for additional structure types requiring Headquarters permit approval.
- Railroad grade crossings (Division of Design).
- Nonstandard retaining wall, nonstandard noise attenuation facilities (including sound walls on retaining walls), and earth retaining systems within State Highway right-of-way (Headquarters Planning and Design Coordinator, Structure Maintenance and Investigations, and Structures Office of Special Funded Projects (OSFP)).

- Overhead sign structures, slope paving under bridges (including any paving or concrete channel lining around bridge columns), pump plants and storage boxes, transit stations, toll plazas, and seal slabs/boat sections (Division of Design, Structure Maintenance and Investigations, and Structures Office of Special Funded Projects).
- Airspace development (Right of Way).
- Deviations from the “Adopt-A-Highway Permit Special Provisions” (form TR-0156) (Adopt-A-Highway Program).
- Exceptions to boldface Caltrans’ design standards, policies, and practices on permits for all projects (see Section 301), if not delegated to Districts (Division of Design).
- First-time events or activities held within access-controlled right-of-way and toll bridges (Division of Design).
- Longitudinal installation of any privately-owned non-utility facility within any State Highway (Division of Design).

205.3 Federal Highway Administration (FHWA) Approval (Rev 10/2020)

FHWA has delegated approval to Caltrans for encroachments on conventional highways and access-controlled, non-Interstate highways (Stewardship and Oversight (S&O) Agreement, Project Action Responsibility Matrix, as of February 6, 2015).

For certain encroachments on the Interstate system, the Headquarters Division of Design obtains approval from FHWA. A copy of the Headquarters Division of Design’s approval is submitted to the District Permit Engineer and placed in the permit file before issuing a permit. See the S&O Agreement and Amendments (FHWA letter, August 26, 2020) for encroachments requiring FHWA approval on the Interstate System. For additional information and questions, contact Division of Design, Office of Project Support.

205.4 Amendments to Permits (Riders) (Rev 10/2020)

Riders are issued to amend or modify previously-issued permits. Applicants requesting to amend their permit application or permittees seeking to amend an approved encroachment permit must comply with Caltrans’ requirements and pay additional fees as required. Any new fees and/or estimated inspection costs must be collected prior to the issuance of the rider. For more information, see Sections 511 and 503.5D.

The District may issue an “Encroachment Permit Rider” (form TR-0122) if the permittee wants to modify the authorized work or needs to extend the permit expiration date because the work cannot be completed by the date specified in the permit. Riders are not used to change the Caltrans inspector; instead, it is sufficient to send a letter to the permittee (and their authorized agent), with a copy to the permit file.

Riders to modify authorized work or for time extensions must be requested by the permittee and if approved must be issued by Caltrans prior to the expiration date of the original permit. Similarly, Caltrans-initiated riders must be issued prior to the expiration date of the original

permit. If a permit has expired, the permittee is required to stop all work and must obtain a new permit prior to resuming work.

The Permit Engineer must check the validity of storm water documents and all other applicable requirements prior to issuance of the rider. A rider cannot be issued to extend a permit's expiration date beyond the expiration date of a small construction Rainfall Erosivity Waiver (REW) issued by the United States Environmental Protection Agency (U.S. EPA). A Notice of Intent (NOI) and Waste Discharge Identification (WDID) number are required as a condition of time extension riders for permits operating under a U.S. EPA REW.

A maximum of two (2) time extension riders may be issued. Each extension may be for a period up to 90 calendar days. Longer extension periods may be granted on a case-by-case basis at the discretion of the District Permit Engineer.

The rider must be issued from within the parent permit in EPMS so it is assigned a permit number that is cross-referenced to the parent permit number.

206 PERMIT INSPECTION AND ENFORCEMENT (Rev 10/2020)

Although statutes do not require Caltrans to inspect encroachment permit projects, District permit inspectors are assigned to provide oversight inspection for projects with construction costs of \$300,000 or less and Construction staff (District Resident Engineer) are assigned for projects over \$300,000 when deemed necessary. The District Permit Engineer may require inspections be performed by non-Caltrans staff such as utility companies, local agencies, or third-party private engineers hired by the permittee. The third-party inspections must be done by a licensed engineering firm hired at the permittee's expense but must be independent of the permittee, designer, or construction firm. The independent inspectors will submit reports and provide information to the Caltrans representative. The District Permit Engineer retains the authority to approve or reject any non-Caltrans inspector. If the DPE does not make a determination prior to commencement of permit work, then the non-Caltrans inspector is considered approved.

The scope of encroachment permits varies and will require varying degrees of oversight inspection. Full-time inspection by the Caltrans representative is typically not required. Higher priority for inspection should be given to those encroachments that may affect highway safety, decrease operational efficiency, affect maintenance, negatively impact highway users other than safety issues, or potentially increase Caltrans' liability.

The District Permit Engineer must furnish a copy of all approved encroachment permits involving structure work to the Structure Construction, Area Bridge Construction Engineer (BCE). The Structure Construction Area BCE must assign an oversight structure representative to ensure that the permittee abides by the provisions of the encroachment permit pertaining to structures. This review includes the permits issued to allow field investigations during the planning and design phase as well as permits issued to allow construction to commence.

Permittees must ensure that their projects meet Caltrans’ National Pollution Discharge Elimination System (NPDES) Permit requirements as well as the Construction General Permit (CGP) requirements (when applicable). For Caltrans’ NPDES Permit and CGP requirements, see Section 406.

206.A Citing of Permit Violations

The inspector (whether Caltrans staff or not) must use the “Encroachment Permit Report (Diary)” (form TR-0130) or the diary page in EPMS to document any violation(s) of encroachment permit conditions, “Encroachment Permit General Provisions” (form TR-0045), and/or Encroachment Permit Special Provisions. The inspector may cite the permittee, contractor, or both for non-compliance with the permit conditions, “Encroachment Permit General Provisions” (form TR-0045), or the Encroachment Permit Special Provisions.

The State’s representative or inspector must provide written notification to both the permittee and the permittee’s representative that a violation or violations have occurred, by providing a written copy of the recorded violation(s) via mail, fax, or in person.

Upon notification of a “second violation,” for example, non-compliance with the encroachment permit conditions, “Encroachment Permit General Provisions” (form TR-0045), and/or Special Provisions, the State’s representative/inspector must notify the permittee and their contractor/representative that, should a “third violation” occur, their permit(s) will be suspended or revoked.

Upon accumulation of a “third violation,” for example, non-compliance with the encroachment permit conditions, “Encroachment Permit General Provisions” (form TR-0045), and/or Special Provisions, the State’s representative/inspector must immediately notify the permittee and their contractor/representative in writing that all work within the State Highway right-of-way must cease immediately, and also immediately attempt to verbally notify the permittee and their contractor/representative to cease work.

During incidents of non-compliance, Caltrans must comply with the provisions of the Caltrans NPDES permit and with Section 16 of Caltrans’ Storm Water Management Plan (SWMP). The District Work Plan will identify the responsible parties for non-compliance reporting within each District. The permittee and/or their contractor/representative must immediately correct discharges from sudden, unexpected, unpreventable incidents that threaten public health, public safety, property, or the environment. The permittee or contractor (or the authorized field representative) must prepare the “Notification of Non-Compliance” (form TR-0134) for the State representative’s review and the State’s representative will submit to the District NPDES Storm Water Coordinator.

For specific guidance on reporting of noncompliance of construction activities, see Section 9.4 “Noncompliance Reporting Plan” of the Caltrans Storm Water Management Plan available at:

<https://dot.ca.gov/programs/environmental-analysis/stormwater-management-program>

The District Permit Engineer determines to either suspend or revoke the permit(s) depending upon the severity of the violations or as allowed by statute. Bonds, inspectors, and/or private full-time inspectors not affiliated with the permittee(s) (but paid for by the permittee) may be required.

206.B Suspension of Permits

In certain situations, some local public entities, franchise holders, and utility companies are granted the right to an encroachment permit by statute, and these permits cannot be revoked by the Districts.

The District Permit Engineer may place the permittee on probation for a period of up to six months. The District Permit Engineer informs the permittee that no work will be allowed to resume until the District can be assured that all conditions of the permit are met.

When a permittee is placed on probation, the District Permit Engineer may elect to suspend all annual permits that bear the name of the permittee. The permittee will be required to submit an application for every instance and location separately, for the duration of probation.

If the District cannot resolve the issues of the violations, the District should contact the HQ Office of Encroachment Permits. The HQ Office of Encroachment Permits may suspend all permits in that permittee’s name statewide.

The District Permit Engineer must notify the Maintenance Area Managers of the permittee’s suspension. Maintenance Supervisors must ensure that any encroachment work within State Highway right-of-way is covered by an encroachment permit, and that any violations are posted and reported immediately to the Area Regional Maintenance Superintendent.

206.C Revocation of Permits

Except for permits required by law to be issued to a local public entity, a franchise holder, or a utility company, any permit can be revoked upon five (5) days’ notice in accordance with California Streets and Highway Code section 673 and “Encroachment Permit General Provisions” number 2 (form TR-0045).

When a permittee is on probation but has another violation, the District Permit Engineer has the discretion to revoke the permit(s) related to that particular project and have the encroachment or facility removed from the State Highway right-of-way. In addition, the District Permit Engineer has the discretion to revoke all other encroachment permits in that District for the same permittee for which construction has not been initiated.

206.1 Encroachment Permit Report (Diary)

Inspectors (whether Caltrans’ staff or not) must compile and complete the “Encroachment Permit Report (Diary)” (form TR-0130), or use the diary page in EPMS, for each permit project whether it was inspected or not. Documentation must be included in the permit file. A single form may be used for multiple inspections of the same permit project, with inspection time totaled and

noted in the space provided on the form. Inspectors must document the reasons why inspections are not performed, such as routine parades, banners, or other minor encroachments.

The inspector must keep an accurate record of inspection hours, record the hours in three separate places, and all three records must agree (the “Encroachment Permit Report (Diary)” (form TR-0130), the “Progress Billing/Permit Closure” (form TR-0129), and the inspector’s time sheet in Staff Central). If inspection hours are recorded on the Diary page in EPMS, the program will automatically track and update the Billing page.

Use the “Progress Billing/Permit Closure” (form TR-0129), or the Billing page in EPMS, to record all inspection costs and to close out a permit file. The “Progress Billing/Permit Closure” (form TR-0129) is signed and dated by the District Permit Engineer, an authorized representative, or the District Resident Engineer (RE) when applicable, then submitted to the HQ Division of Accounting for billing purposes.

With AX (Actual Hour) Permits, the District Encroachment Permits Office should submit the “Progress Billing/Permit Closure” (form TR-0129) signed and dated by the District Permit Engineer or the District Resident Engineer (RE), when applicable, to the HQ Division of Accounting on a monthly or quarterly basis for billing purposes.

Inspectors should record the following information on the “Encroachment Permit Report (Diary)” (form TR-0130) regarding work performed under an annual utility encroachment permit:

- Permit number
- Location of work (county, route, and post mile)
- Date and time of proposed work
- Type of work performed
- Name of utility contact and telephone number
- Utility company work order number

206.2 Responsibilities of Permittee

When performing the work, the permittee must comply with the encroachment permit, “Encroachment Permit General Provisions” (form TR-0045), Encroachment Permit Special Provisions, authorized plans, and instructions by the Caltrans representative.

After the permit is issued, some of the permittee’s responsibilities to Caltrans are summarized as follows:

1. Notify the State’s representative by phone or in writing at least five (5) business days before beginning work, or as identified in the encroachment permit. When structure-related work is involved, notify the Structure Construction Area Manager at least fourteen (14) calendar days before beginning work.
2. Request shoulder and lane closures at least ten (10) business days in advance of closure or as identified in the encroachment permit.

3. Notify the State representative, not less than 25 business days and not more than 125 business days, before the anticipated start of an activity that will change the vertical or horizontal clearance available to traffic, including shoulders. Refer to Caltrans Standard Specifications section 12-4.02A (3) (b) for additional information.
4. Request approval for encroachment permit changes and time extensions prior to permit expiration date.
5. Notify State representative of any noncompliance with NPDES.
6. Submit a “Notice of Completion” (form TR-0128) to the State’s representative upon completion of the permitted work.
7. Furnish Caltrans with all required documents, for example As-built plans, post-construction ADA Certification, Maintenance Agreements, etc.
8. Pay all costs associated with the permit and/or the permitted activity.

206.2A As-Built Plans and Other Completion Records (Rev 10/2020)

It is imperative that Caltrans maintains complete and accurate permit records, including As-built plans. As-built plans must be completed and submitted for all Highway Improvement projects, utility projects, and for any project with a permanent improvement on the State Highway System. The permit writer must state in the permit that As-built plans are required and the inspector must ensure this requirement is understood by the permittee prior to the begin of work. As-built plans represent the field conditions at the completion of a project. As-built plans are the “As-awarded” or “As-approved” project plan sheets that have been updated to reflect the changes, if any, which occurred during construction. It is essential to preserve documents showing the improvements or changes to the State Highway System for storage on the Caltrans Document Retrieval System (DRS). The As-built plans and data requirements vary depending on the type of project.

The Encroachment Permit General Provisions require submittal of As-built plans (updated original project plan sheets showing changes made during construction) by the permittee when specified in the permit. Each sheet of all utility, roadway, and structure construction (all projects) plans must be legibly marked by the permittee with “As-Built”, printed first and last name, signature, and date. The individual whose name is on the As-built plan certifies that the project was constructed as shown on the plans. Each plan sheet will contain this information whether there are any changes from the approved plans or not. An example is below.

As-Built

Certified by: *Print First and Last Name and Signature*

Date:

The person signing the plans as “As-built” does not need to be a California Registered Engineer (Business and Professions Code 6735.6) but may be called to court to verify that the as-constructed field conditions match the As-built plans. Caltrans’ encroachment permit representatives do not stamp, sign, or date As-built plans for encroachment permit projects.

Upon completion of permit work, the permittee also furnishes the District, details of the locations of underground and/or hidden encroachments so the information may be retained for Caltrans’ future reference. If the permit includes any capital improvement work (whether a Capital Outlay Program or a Permit Program) involving structure-related facilities, then submittals of structure As-built plans and structure completion records are required as detailed in the Structure Work Special Provision (see Appendix K).

Additionally, utility or private entity permittees must submit accurate As-built plans and any other required completion records to Caltrans for approval, before bonds are released. If a local public agency permittee fails to provide complete and accurate As-built plans to Caltrans, Caltrans may require performance bonds on future permits and such bonds may be required until the As-built plans and completion records of the previously permitted work are submitted to Caltrans’ satisfaction (California Streets and Highways Code section 678).

The State representative assigned to the permit verifies that all As-built plan sheets have been received (including Log of Test Boring plan sheets). The originals are sent for scanning and Table 2.8 indicates the number of copies of scanned As-built plans that must be distributed to various units of Caltrans. For scanning details, see the “Encroachment Permit File & Plan Set Scanning Guidelines” (Appendix F).

**Table 2.7
Distribution of As-Built Plans**

<u>Type of Permit Work</u>	<u>Number of Copies</u>	<u>Caltrans Functional Unit</u>
Electrical	1	District Electrical Maintenance
Roadway	1	District TASAS Coordinator
Utility	1	District UEW Coordinator

Permits involving structures require As-built plans be signed and dated. The stamp or the decal shall be similar to and contain the minimum information as shown below:

CONTRACT No. _____
DATE ACCEPTED _____
AS-BUILT
STRUCTURE REPRESENTATIVE _____
REVISIONS BY _____ DATE _____

Permittees must ensure As-built data conforms to requirements stated in Caltrans’ CADD Users Manual, Survey Manual, Plans Preparation Manual, Construction Manual, Caltrans Structures Division’s “OSFP Information & Procedures Guide” in the section titled “Structure As-Built

Plans,” and with the Bridge Design Details Manual in section 1-21 titled “As-Built Plan Corrections.”

When the permit involves structure work, Caltrans’ Oversight Structure representative must notify either the District RE or the District Permit Engineer when the final structure completion records (except As-built plans) have been received and are satisfactory. Similarly, the Caltrans Structure OSFP Liaison Engineer must notify the District Permit Engineer, or the District Permit Engineer’s authorized representative, or the RE upon receipt of satisfactory structure As-built plans.

For all projects that may alter the Transportation System Network (TSN) data (anything within the roadway from edge of shoulder to edge of shoulder, or from curb to curb), the District Permit Engineer must forward a copy of As-built plans to the District Traffic Accident Surveillance and Analysis System (TASAS) Coordinator. The individual that closes the permit file should ensure the As-built plans have been forwarded. The preferred As-built file formats are a vector data file or an Adobe Acrobat file (.pdf).

When closing the project, the District Permit Engineer will review As-built plans to determine if construction will modify the roadway, ramp, or intersection elements (see examples below) and then forward relevant plans to the District TASAS Coordinator. Also, the District TASAS Coordinator will review the plans to ensure the roadway attributes are relevant to the TSN data. Lastly, the District TASAS Coordinator will forward all relevant plans to the HQ TASAS Coordinator by submitting the electronic copy to the district sub-folder. Examples of roadway modifications that warrant forwarding to the District TASAS Coordinator include, but are not limited to, the following:

1. Road realignment
2. Road name change
3. Median
 - a. Curb and Landscape: curbed with trees, curbed with shrubs, no median
 - b. Type: reversible peak hour, two-way left turn, separate grades, railroad, ditch, bus lane
 - c. Barrier: cable, metal beam, concrete, thrie beam
 - d. Width: undivided, divided, variable
4. Roadway (left and right)
 - a. PCC, AC, unpaved
 - b. Number of lanes
 - c. Special features: turnouts, passing or truck climbing, tunnel, HOV, reversible peak hour lanes, bike lane
 - d. Width: outside shoulder, traveled way, inside shoulder
5. Intersection type (standard, main line, intersecting street)
 - a. Control type: None, stop signs, flashers, yield, signals
 - b. Lighting
 - c. Signal mast arm

- d. Left-turn channelization, right-turn channelization, number of lanes
- 6. Railroad crossing

206.2B Notice of Completion (Form TR-0128)

The “Encroachment Permit General Provisions” (form TR-0045) require the permittee to notify the State’s representative when work is completed. Notification is normally provided with a “Notice of Completion” (form TR-0128) (postcard), a letter, email, or verbally. The Caltrans inspector must record a verbal notice from the permittee in the EPMS Diary page. Caltrans should conduct a final inspection of the project site within one week of notification. If the permittee has not complied with all terms and conditions of the permit, the District Permit Engineer informs the permittee of the discrepancies and requests corrections. On complex projects, corrections should be detailed in writing.

The District notifies the bond company to perform necessary work if the permittee fails to comply with this request. If the bond company fails to have the work performed in a satisfactory manner, the District may perform the work and seek to recover the expenses from the bond company, contractor, or permittee.

206.3 Unauthorized Encroachments

Caltrans’ Division of Maintenance is responsible for the abatement of unauthorized encroachments. District Encroachment Permits Office staff may assist Maintenance in the abatement activities when appropriate, and when approved by the District Permit Engineer.

When an unauthorized encroachment is found, Maintenance must contact the responsible party and explain Caltrans’ encroachment permit requirements. Unless the unauthorized encroachment is work that would normally be permitted, it must be removed. Caltrans can recover all administrative costs associated with unauthorized encroachments, in addition to statutory penalties (see California Government Code sections 720 through 734.).

Unauthorized encroachments that must be immediately removed from any State Highway include but are not limited to:

- Anything that obstructs or prevents the use of the highway by the public or creates a potential safety problem.
- Rubbish, trash, refuse.
- Advertising signs (exceptions see: Sections 501.3A, 501.7, 501.7A&B, 501.8, 500.6A, 521.1, 517.7).
- Temporary political signs (see California Business and Professions Code section 5405.3).

If the unauthorized encroachment is an encroachment which Caltrans would normally process for consideration of approval and issuance of a permit, and the only basis for removal would be the lack of a valid encroachment permit, then the work must be discontinued immediately, and the owner, contractor, etc., as applicable, may apply for an encroachment permit within the time period determined by the District Encroachment Permits Office to be appropriate for the

situation. If an EPAP is not submitted within the time period given by the District Encroachment Permits Office, the District Encroachment Permits Office should follow the encroachment removal process in Table 2.9 (see California Streets and Highways Code sections 720 through 734).

An exception may be given by the District permit inspector for that geographical location or by the Area Maintenance Superintendent with verbal concurrence of the District permit inspector, to allow a minor encroachment to remain before a permit is issued if all the following conditions are met:

1. The District Encroachment Permits Office has received an EPAP;
2. The encroachment conforms to Caltrans' policies, other than the requirement to obtain a permit before encroaching onto State Highway right-of-way;
3. It does not adversely affect traffic safety or obstruct or prevent the use of the highway by the public;
4. It does not affect the condition or appearance of the highway;
5. The person or entity causing or allowing the unauthorized encroachment agrees to follow the recommendations of the Area Maintenance Superintendent or State representative;
6. It does not involve tree removal or trimming.

The exception process described above does not relieve the encroaching party from any civil or criminal penalties or waive any cause of action or right to recovery or other remedy that Caltrans may have related to the encroachment (see California Streets and Highways Code sections 722, 723, 724, 727, 729, 730, 730.5, 732, 734).

Maintenance may request law enforcement assistance when the person placing an unauthorized encroachment refuses the order/demand to discontinue or remove the unauthorized encroachment. It is imperative to keep good documentation, and photos should be taken and kept with the records to document the encroachment, location, proximity to the State Highway, effects on the State Highway right-of-way, etc.

The law enforcement agency should be informed of the specific section of the California Streets and Highways Code being violated. Maintenance should take the steps recommended in Table 2.9 to enable support of its action by Caltrans' Legal Division.

Table 2.8
Procedures for Resolving Unauthorized Encroachments

These steps should be taken by Maintenance to resolve unauthorized encroachments:

1. Immediately remove rubbish, trash, refuse, advertising signs (for exceptions, see: Sections 501.3A, 501.7, 501.7A & 501.7B, 501.8, 500.6A, 517.7, 521.1), temporary political signs (see California Business and Professions Code section 5405.3), and anything that obstructs or prevents the use of the highway by the public or creates a potential safety problem.

2. Immediately give the encroacher/operator a “Notice of Encroachment” (form TR-0213), aka “red tag.”
3. If the problem is not resolved in a reasonable time, give a second and final violation notice by either:
 - Certified mail with return receipt and posting a copy for five (5) days at the site of the encroachment; or
 - Hand delivery to the owner, occupant, or other person in possession or control of the encroachment or person causing the encroachment.
4. Submit a full written report to the District Maintenance Superintendent and a copy to the District Permit Engineer. If the unauthorized encroachment consists of sediment discharge requiring immediate maintenance of the State facility, also submit a copy of the report and photos to the District NPDES Coordinator.
5. Do not take further removal action without specific instructions by the District Maintenance Superintendent unless the encroachment adversely affects traffic safety.
6. Contact Headquarters or a regional Caltrans Legal Office to consider what action should be taken to remove the encroachment, collect costs, enjoin further action, etc.

206.4 Retention of Permit Records

The terms and conditions of Caltrans’ encroachment permits are valid and in force as long as the encroachment remains in, under, or over the State highway right-of-way, unless revoked or otherwise specified.

Complete copies of permit files must be retained indefinitely. Districts should follow the “Permit File & Plan Set Guidelines” (Appendix F) when preparing permit files and the plan sets for archiving. Section 206.4A provides information on closing permit files.

Closing a permit file ensures all fees have been processed and all pertinent documents are retained in the file. The process for archiving a file includes combining all permit documents into two (2) read-only PDF files: one PDF containing the As-built plans (or Approved plans if As-built plans are not available), and the second containing the rest of the permit file documents. See “Permit File & Plan Set Archiving Guidelines” (Appendix F) and Section 206.4A.

206.4A Closing Permit Files (Rev 07/2021)

When a permitted encroachment is completed, the file should be closed and processed for archiving.

The permit file should be reviewed to ensure all billing and payments are complete and all documentation is completed and in the file. The permit inspector, or the individual with first-hand knowledge of the permit, is the most likely candidate to review, compile, and close the file. Each District assigns this task to the appropriate staff to ensure that files are closed accurately, efficiently, and expeditiously.

The following is a partial list of what a permit file may contain at the time of closing:

1. The original application with the permit number
2. An approved plan set or drawing, date stamped
3. Copy of the issued permit package
 - a. “Encroachment Permit” (form TR-0120)
 - b. “Encroachment Permit General Provisions” (form TR-0045)
 - c. Permit Special Provisions
 - d. Additional attachments
4. District Encroachment Permit Office Engineer’s Encroachment Permit Reports (diaries)
5. District Reviewer’s Encroachment Permit Application Review Sheets
6. Internal and external correspondence with the applicant, authorized agent, and/or external agencies
7. Permit Engineering Evaluation Report (PEER)
8. Design Standard Decision Document (DSDD)
9. Encroachment Policy Exceptions
10. Memos
11. “Notice of Materials to be Used” (form CEM-3101)
12. Approved Local Entity Standards (if required)
13. Performance Bond (if required)
14. Payment Bond (if required)
15. Cooperative Agreement (if required)
16. Letter of Responsibility from a Local Entity (if required)
17. Inspector’s Encroachment Permit Reports (diaries)
18. “Progress Billing/Permit Closure” (form TR-0129)
19. “Certification of Compliance with Americans with Disabilities Act” (form TR-0405), one for design and separate form for post-construction certification

Each “Progress Billing/Permit Closure” (form TR-0129) is to be signed and dated by the District Permit Engineer, an authorized representative, or the District Resident Engineer (RE) when applicable. The completion notice check box will not be marked until the field work is completed and all As-built plans and other completion records have either been checked “Y” (yes) received, “N” (no) not received, or “N/A” (not applicable).

207 TIME REPORTING AND CHARGING INSTRUCTIONS

Caltrans’ staff must accurately document and report all time expended on permit-related activities (review, inspection, etc.).

Caltrans’ staff uses an online time reporting system (Staff Central) to record labor costs as hours worked.

207.1 Project Code, Phase, Reporting, and Sub Object Codes

Caltrans has established time reporting procedures to categorize and track activities on time sheets. These require the use of project codes, phases, reporting, and sub object codes for all time reporting entries.

Time expended on QMAP Projects must be charged directly to the QMAP Project’s project code (ID), phase, reporting, and sub object codes.

Sub object codes are as follows:

- 002** – Supervision
- 003** – Staff Meetings
- 037** – Permit review, issuance and inspection
- 049** – Safety Meetings
- 058** – Training – Instructor
- 059** – Training – Student
- 099** – Administrative Time Off

For additional information and proper time charging procedures, please see the Program Charging Instructions and Norms (PCIN) available on the Division of Traffic Operations’ intranet site.

207.2 Specific Instructions for Inspection Staff

“Progress Billing/Permit Closure” (form TR-0129) is to be signed and dated by the District Permit Engineer or the District Resident Engineer (RE) when applicable.

Inspectors must accurately report their time to recover fully the costs associated with specific permits. They must charge the appropriate project code, reporting code, sub object code and complete diaries, “Progress Billing/Permit Closure” (form TR-0129), and permit review sheets in a timely manner.

District Permit Engineers must ensure that inspection staff time is reported correctly and that diaries agree with the hours shown on “Progress Billing/Permit Closure” (form TR-0129). Only in “Set Fee” (SF) permits may the “actual hours” shown on “Progress Billing/Permit Closure” (form TR-0129) and diaries vary from hours charged to permittees.

The hours charged on “Actual Fee” (AX) permits must agree with hours on diaries and “Progress Billing/Permit Closure” (form TR-0129). Field inspectors on a monthly or quarterly basis must submit “Progress Billing/Permit Closure” (form TR-0129), especially for annual or biannual permits.

Chapter 300 – Exceptions to Policy

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Chapter 300

Exceptions to Policy

301 APPROVAL OF EXCEPTIONS (Rev 07/2021)

The Project Development and Procedures Manual (PDPM) Chapter 17, Section 4 Exception Requests provides guidance and explains the process of exception approvals. The PDPM can be found at:

<https://dot.ca.gov/programs/design/manual-project-development-procedures-manual-pdpm>

302 ENCROACHMENTS WITHIN ANY STATE HIGHWAY RIGHT-OF-WAY (Rev 07/2021)

The PDPM Chapter 17, Section 2 Encroachments provides guidance on encroachment policies on all State highways. The PDPM can be found at:

<https://dot.ca.gov/programs/design/manual-project-development-procedures-manual-pdpm>

303 ENCROACHMENTS WITHIN ACCESS-CONTROLLED RIGHT-OF-WAY (Rev 07/2021)

The PDPM Chapter 17, Section 2 Encroachments provides guidance on encroachment policies on any access controlled highway. The PDPM can be found at:

<https://dot.ca.gov/programs/design/manual-project-development-procedures-manual-pdpm>

304 APPEAL OF PERMIT DENIAL

This section outlines the procedure for an applicant to appeal the denial of an encroachment permit application. The costs and allocation of the costs associated with the appeal are stated in section 304.3. This section is based on California Code of Regulations (CCR) Title 21, Division 2, Chapter 8, Article 2, sections 1413 through 1413.4, inclusive.

This section does not apply to a broadband facility permit applicant. See CCR Title 21, sections 1412.1 through 1412.9, inclusive, for broadband facility permit appeals.

This section does not apply to a Visibility Improvement Request. See Section 509.4 of this manual for Visibility Improvement Request appeals.

304.1 Appeal Process to the Department Director

- a) If a District denies an encroachment permit application, an applicant may appeal to the Department Director, by submitting a written appeal package as set forth in section 304.2, within 60 days after the denial letter is served by the District. The written appeal package must be submitted to:

ENCROACHMENT PERMITS APPEAL
DIRECTOR, CALIFORNIA DEPARTMENT OF TRANSPORTATION
C/O HEADQUARTERS DIVISION OF TRAFFIC OPERATIONS
1120 N STREET, MS 36
SACRAMENTO, CA 95814

- b) The applicant and the Department may mutually agree, in writing, to extend the time for the appeal process or any part of the appeal process.

304.2 Appeal Package

A written appeal package is deemed a complete submittal on the date the Department Director receives all items listed below:

- a) An appeal letter to the Department Director specifically requesting an appeal of the denied encroachment permit application and containing a detailed explanation of why the Department should issue an encroachment permit for the proposed project or activity sought by the application; and
- b) Denial letter issued by the District or a statement in the appeal letter that a denial letter was not issued by the District within 60 days after the District's receipt of a complete encroachment permit application package; and
- c) Applicant's name, company or organization, mailing address, and telephone number, and the same information for any person or entity designated by the applicant to represent applicant in the appeal; and
- d) Identification of all locations, including district, county, route, and post mile, at which the applicant and/or person or entity acting on behalf of the applicant proposes to encroach onto Department property as described in section 660 of the Streets and Highways Code or to perform any act or activity described in sections 670 or 670.1 of the Streets and Highways Code; and
- e) Description of the proposed encroachment onto Department property as described in section 660 of the Streets and Highways Code and/or the proposed act or activity described in sections 670 or 670.1 of the Streets and Highways Code, which the applicant and/or person or entity acting on behalf of the applicant proposes to perform or conduct under the denied encroachment permit being appealed, including three (3) complete sets

of plans and any applicable specifications, calculations, maps, and other supporting documents; and

- f) A \$2,000 deposit towards the applicant's fifty percent (50%) share of the administrative costs of conducting the appeal. The deposit shall be made by check or money order made payable to the California Department of Transportation; and
- g) Notice of whether the applicant requests to make a presentation to the Department Director or the Department Director's designee.

304.3 Final Determination and Costs (Rev 07/2021)

The Department Director shall notify the applicant in writing of the final decision on the appeal within 60 days after receipt of the completed written appeal package as described in section 304.2. Once the final decision has been issued, the Department will determine the applicant's fifty percent (50%) share of the administrative costs. If the applicant's deposit is less than the applicant's fifty percent (50%) share of the administrative costs, the Department will subtract the deposit amount and bill the applicant for the remainder of the applicant's fifty percent (50%) share of the administrative costs. If the deposit is greater than the applicant's fifty percent (50%) share of the administrative costs, the Department will refund to the applicant the excess remaining from the deposit. **Public corporations are statutorily exempt from encroachment permit fees including administrative appeal costs (Streets and Highways Code section 671.1).**

Throughout sections 304 to 304.3 of this manual, "Administrative costs" means the estimated administrative costs to the Department on conducting an appeal related to a specific encroachment permit, based on the standard hourly rate for processing encroachment permits in effect on the date the encroachment permit appeal package described in Section 304.2 is submitted to the Department.

Throughout sections 304 to 304.3 of this manual, "60 days" means sixty calendar days, unless the sixtieth (60th) day lands on a holiday or weekend as defined in section 12a of the Code of Civil Procedure, in which case the computation of time shall be as provided in section 12a of the Code of Civil Procedure.

Chapter 400 – Environmental Requirements

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Chapter 400

Environmental Requirements

401 COMPLIANCE WITH STATE ENVIRONMENTAL LAWS AND REGULATIONS

Most encroachment permits issued by Caltrans do not involve projects that are federally funded or that require federal approvals. Projects with no federal involvement are subject only to state environmental laws and regulations. Under state law Caltrans has discretionary approval authority, as provided in Section 670 of the Streets and Highway Code, to approve projects that encroach within the State’s highway right-of-way. This discretionary authority gives Caltrans a “Responsible Agency” status under the California Environmental Quality Act (CEQA) for the part of a project that requires work within the State’s highway right-of-way. For purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project.

For example, the increased traffic generated by construction of a residential subdivision could require installation of channelization on a State highway intersection to lessen the traffic impact. The “Lead Agency,” is the public agency that has principal responsibility for carrying out or approving the whole project. In this example, the Lead Agency would normally be the local agency that approves the subdivision and provides final conditions of approval on the project. Caltrans would, in this situation, be a Responsible Agency because it has discretionary approval authority only over the channelization improvements within the State’s right-of-way but not over the subdivision itself.

Whether the encroachment permit applicant is a public agency or a private entity, a public agency other than Caltrans is usually the Lead Agency. An exception to this situation would be if Caltrans is the only public agency with approval authority or if several public agencies have discretionary authority over the project and the public agencies involved agree that Caltrans should be the Lead Agency. When Caltrans is the Lead Agency under CEQA for projects sponsored by others, it determines the appropriate level of environmental review for the project and is responsible for preparing documents or causing them to be prepared. As a Lead Agency, Caltrans can require the applicant to provide all information necessary to prepare a Categorical Exemption (CE), a Negative Declaration (ND) or an Environmental Impact Report (EIR) that complies with the provisions of CEQA.

In accordance with California Streets and Highways Code, section 671.5 (a), Caltrans is required to either approve or deny an encroachment permit application submittal within 60 calendar days, upon determination that the submittal is complete. Section 671.5 grants Caltrans the authority in

determining what constitutes a complete submittal. The District Permit Engineer acts on behalf of the District Director in making that determination.

In addition to other required documentation, Caltrans requires that an approved environmental document accompany the “Standard Encroachment Permit Application” (form TR-0100). All required documentation, including environmental, must accompany the encroachment permit application before Caltrans deems the application complete. This is the case regardless of whether Caltrans is the Responsible or the Lead Agency. No new information can be required from an applicant once the application form with its accompanying documentation has been accepted as complete. However, the applicant can be asked to clarify, correct, or otherwise supplement the information submitted.

402 PROJECTS EXEMPT FROM CEQA REQUIREMENTS

Certain types of projects are exempt from the requirements of CEQA. Statutory exemptions are granted by the legislature and are listed in the CEQA Guidelines sections 15260 through 15285.

Categorical exemptions are classes of projects, which have been found by the Secretary of Resources not to have significant effect on the environment. Classes of projects determined to be categorically exempt are listed in the CEQA Guidelines sections 15300 through 15332.

In addition, other State laws, including those that protect historical, archaeological, and biological resources, may apply even for projects exempt from CEQA. Where these resources are known or are highly likely to be found, review by the District Environmental Branch is necessary to ensure compliance. To facilitate Permit Branch review of applications, the District Environmental Branch is responsible for providing to the District Permit Engineer the locations of all known environmentally sensitive areas (ESA) and if known, likely areas of high sensitivity, within State right-of-way. The absence of an ESA or area of high sensitivity, however, does not necessarily mean the absence of a sensitive resource.

Whether an area has been previously identified as an ESA or not, any permit application for work within the right-of-way that is on original ground (i.e. ground that has not been previously disturbed, or that has not been disturbed to the depth required by the proposed project), shall be submitted to the Environmental Branch for review. The Environmental Branch shall advise the District Permit Engineer if the proposed work can be accomplished without adverse impact through the attachment of permit conditions that would protect or avoid the resource. A project that requires mitigation to reduce or avoid impacts to resources is not categorically exempt.

402.1 CEQA Statutory Exemptions

Statutory exemptions listed in the CEQA Guidelines that are directly applicable to encroachment permits include, but are not limited to:

- restriping of streets or highways to relieve traffic congestion (Section 15282(k))

- installation, maintenance, and repair of pipelines not to exceed one mile in length (Section 15282(l))
- minor alterations to utilities for purposes of complying with Health and Safety Code (Section 15282(n))
- emergency projects that meet the criteria set forth in Section 15269

An emergency is defined in CEQA as a state of emergency that has been proclaimed by the Governor pursuant to the California Emergency Services Act. Statutorily exempt emergency projects include:

- projects undertaken or carried out to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster
- Emergency repairs to a public service facility that is necessary to maintain service essential to public health and safety.
- specific actions that are necessary to prevent or mitigate an emergency, excluding long term projects for the purpose of preventing or mitigating a situation that has low probability of occurrence in the short-term.
- projects undertaken, carried out, or approved by a public agency to maintain, repair or restore an existing highway damaged by fire, flood, storm, earthquake or subsidence.

Projects or actions which could alter significant historical resources are not included in this exemption, except when the resource's condition poses a clear and imminent danger requiring immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services (Public Resources Code, Section 5028).

A historical resource (e.g. architectural, archaeological, and cultural) is defined in Public Resources Code Section 21084.1 as a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, are presumed to be historically or culturally significant for the purpose of Section 21084.1.

The emergency exemption also does not apply to highways designated as official state scenic highways or to any expansion or widening of highways damaged by natural disasters.

Other State laws that protect historical, archaeological and biological resources also may apply.

The CEQA Guidelines, Statutory Exemptions Section, should always be consulted to ensure that a project, as described, meets all the specific criteria of an exemption.

402.2 CEQA Categorical Exemptions

To be classified as categorically exempt from CEQA, a project must meet all the criteria within one of the classes of projects found by the Secretary for Resources not to have a significant effect on the environment. Categorically exempt projects directly applicable to encroachment permit activities include, but are not necessarily limited to:

- repair, maintenance, and minor alteration to existing highways and streets, sidewalks, gutters, bicycle and pedestrian paths and similar facilities including grading for the purposes of public safety (Section 15301(c))
- addition of safety or health protection devices for use during construction (Section 15301(B)(f))
- new copy on existing on and off-premise signs (Section 15301(B)(g))
- maintenance of existing landscaping excluding the use of economic poisons (Section 15301(B)(h))
- demolition and removal of small structures (Section 15301(B)(l))
- replacement or reconstruction of existing structures located on the same site and having substantially the same purpose and capacity (Section 15302)
- replacement or reconstruction of existing utility systems involving no expansion of capacity (Section 15301(c))
- conversion of overhead electric utility distribution system facilities to underground where surface is restored to prior condition (Section 15302(d))
- construction and location of limited number of new, small, facilities (Section 15303)
- minor alterations to land, water and vegetation that does not involve the removal of healthy mature scenic trees (Section 15304)
- grading on land with a slope of less than 10% except in a waterway, in any wetland, or in an officially designated scenic area (Section 15304(a))
- new gardening and landscaping (Section 15304(b))
- fill into previously excavated land (Section 15304 (c))
- minor temporary use of land with negligible effect on environment such as sale of Christmas trees (Section 15304(e))
- minor trenching or backfill where the surface is restored (Section 15304(f))
- maintenance trenching (Section 15304(g))
- creation of bicycle lanes in existing right-of-way (Section 15304(h))
- fuel management activities within 30 feet of structures to reduce volume of flammable material (Section 15304(I))
- basic data collection, research, experimental management and resource evaluation activities (Section 15306)

The CEQA Guidelines, Categorical Exemption Section, should always be consulted to ensure that a project, as described, meets all the specific criteria of an exemption.

It is recognized that activities that normally are exempt from CEQA may have a significant effect on the environment in certain circumstances. Exceptions to categorical exemptions are outlined in the CEQA Guidelines in Section 15300.2. These exceptions may occur in particularly sensitive environments where the project may impact on environmental resources of hazardous or critical concern. Categorical exemptions may not be applicable when:

- cumulative impacts may be significant
- there is a reasonable possibility that due to unusual circumstances the activity will have significant effect
- damage may result to scenic resources within a highway officially designated as a state scenic highway
- the project is located on a hazardous waste site
- the project might cause a substantial adverse change in the significance of an historical resource

Review by the District Environmental Branch is necessary when the above conditions may pertain or if there is any other reasonable possibility that a significant impact might occur.

403 CALTRANS AS A CEQA RESPONSIBLE AGENCY

Under CEQA Responsible Agencies include all public agencies, other than the Lead Agency, which have discretionary approval power over a project in California (Public Resources Code, Sections 21069, 21080.3).

Caltrans is a Responsible Agency when a public agency requests an encroachment permit for a public project, or when a private project proponent requests an encroachment permit to carry out work on a project for which another public agency is the Lead Agency. When a project involves activities outside Caltrans right-of-way, the entire project requires environmental compliance and encroachment permit work usually is incidental to the major part of the work that lies outside Caltrans' right-of-way. Therefore, Caltrans normally is a Responsible Agency for nearly all the fee encroachment permits it issues. However, Caltrans Project Development requirements must be followed when work on the State highway is more than minor or routine.

As a Responsible Agency, Caltrans is not required to prepare environmental documentation for the project. The Lead Agency is responsible for evaluating the project to assess its effect on the environment. The Lead Agency consults with responsible agencies, including Caltrans, in deciding what type of environmental document to prepare. The environmental document should address the concerns of responsible agencies as well as the Lead Agency.

Consultation requests submitted to the District by the Lead Agency are channeled through the District Intergovernmental Review (IGR) Coordinator for preparing and coordinating the District's comments. The IGR Coordinator shall be consulted on all permit requests accompanied by an EIR or ND. The District cooperates with the Lead Agency in consultations about the

project. Responses must be made within the time allowed. The IGR Coordinator is responsible for ensuring that appropriate District units review and comment on the proposal and for preparing comments on documents received by the District. The District should advise local agencies of its need for early coordination on projects requiring permits from Caltrans.

In cases where the encroachment area has been identified as environmentally sensitive or may contain biological, historic or archeological resources, the IGR should consult with the District environmental specialists regarding the need for special studies. If the Lead Agency is preparing a categorical exemption the IGR should coordinate with the District specialists regarding the appropriateness of an exemption in the specific circumstance. If the Lead Agency is preparing an ND or EIR the IGR should coordinate with the District environmental specialists to comment prior to the receipt of the permit application. During the public review period for the environmental document, the District has an opportunity to examine the document and to comment on it. The comments of the environmental specialists regarding environmental compliance and documentation requirements should be included in the District's comment letter to the Lead Agency. Comments should encourage the Lead Agency to consult with the Native American Heritage Commission (NAHC) regarding any cultural concerns within the project area. If the project is within or contiguous to a reservation or rancheria, the District's comments shall include a recommendation that the tribe be contacted.

A permit application must include a Notice of Exemption or a certified environmental document (EIR or ND). For permits involving an EIR or ND, the Permit Engineer must certify on the permit that the information in the EIR or ND was reviewed and considered before permit approval.

403.1 Intergovernmental Review (IGR) and Permit Procedures

During the intergovernmental review process and before issuance of the encroachment permit, the procedure involving the District Permit Engineer for projects requiring environmental clearance or mitigation is listed as follows:

1. The District IGR Coordinator provides the District Permit Engineer with a copy of the draft environmental document and any supporting technical analysis provided by the Lead Agency or developer.
2. The District Permit Engineer's comments on the draft environmental document are submitted to the IGR Coordinator for inclusion in Caltrans' written response to the Lead Agency.
3. The District IGR Coordinator forwards to the District Permit Engineer a copy of the final environmental document containing all adopted approved conditions.

The District Permit Engineer should provide the District IGR Coordinator a copy of the Encroachment Permit Log on a mutually agreed upon schedule, e.g., weekly, monthly, etc. The

District IGR Coordinator should review the Log and determine if the project was previously reviewed during the IGR process (more detailed information may be needed from specific permit files). The IGR Coordinator may then provide the District Permit Engineer with a list of mitigation measures requested during IGR/CEQA review process and a copy of the conditions of project approval included in the final environmental document.

The IGR Coordinators and permit engineers should not give any approval of project alternatives (either direct or implied) which will encroach within State highways having access-controlled right-of-way. Such encroachments require approval from Headquarters' Division of Design.

404 CALTRANS AS A CEQA LEAD AGENCY

A Lead Agency is responsible for preparing environmental documents and approving the project. The following procedures are followed when Caltrans is the Lead Agency under CEQA.

404.1 Procedures

Applications for permits that require preparation by Caltrans of a Categorical Exemption Determination form, a ND or an EIR are evaluated by the Permit Engineer, the Environmental Branch Chief, and other interested units as appropriate. Caltrans requires the project applicant to provide sufficient information so that Caltrans can prepare or cause the preparation of environmental documents. However, when Caltrans is the Lead Agency all environmental documents must reflect the independent evaluation and analysis of Caltrans.

404.2 Initial Study

If a project is not categorically exempt, an Initial Study must be prepared to determine the potential environmental effects of the project. From this study, Caltrans determines whether to prepare a ND or an EIR.

404.3 Environmental Impact Report or Negative Declaration

When an ND or EIR is required the entire project must be considered, not just the portion of the work within Caltrans' right-of-way.

The procedures for preparing and processing environmental documents are outlined in the Caltrans Environmental Handbook, Vol. 1, Chapter 2. The environmental process is completed for a ND when Caltrans, as the Lead Agency approves the project and files a Notice of Determination with the State Clearinghouse, Governor's Office of Planning and Research (OPR). The process is complete for an EIR when Caltrans certifies the EIR, approves the project, prepares a final EIR, makes findings, prepares a statement of overriding considerations, and files a Notice of Determination with the State Clearinghouse (OPR).

405 COMPLIANCE WITH FEDERAL ENVIRONMENTAL LAWS

Projects involving federal funds or approvals require compliance with the National Environmental Policy Act (NEPA), Section 4(f), as well as State environmental law (CEQA) and other State and federal environmental laws that may apply. Where historical, archaeological, and biological resources are known or are highly likely to be found, review by the District Environmental Branch is necessary to ensure compliance.

Compliance with federal laws and regulations may involve the preparation of NEPA documents or joint compliance documents that meet both federal and state requirements (e.g. a Categorical exemption/exclusion (CE/CE), a Finding of No Significant Impact /Negative Declaration (FONSI/ND), or an Environmental Impact Statement/Environmental Impact Report (EIS/EIR)), Caltrans can require the applicant to provide all necessary information and/or to prepare the environmental document. Requirements of the federal and State environmental acts are similar and the supporting documentation is generally compatible. Therefore, it usually is possible to perform a single environmental analysis that satisfies both federal and State requirements when federal approval is required. When preparing joint documents the stricter of the federal or State requirements take precedence. While most of the document's content and processing can be combined, some aspects of the environmental process require separate state/local and federal actions. Examples include, but are not limited to the following:

1. Approval Procedures

State and federal agencies must take separate actions in the approval of environmental documents. FHWA issues determinations and approvals involving federal-aid projects and the NEPA. The State or local Lead Agency adopts the environmental document and approves the project under CEQA.

Categorical exemptions/exclusions are documented on Caltrans's *Categorical Exemption, Categorical Exclusion/Programmatic Categorical Exclusion Determination Form* available online at:

<https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/forms-templates#formsnepa>

When a project has federal involvement both the CEQA and NEPA portions of the form must be completed. To comply with CEQA the CE form is filed with the State Clearinghouse, Governor's Office of Planning and Research (OPR). For purposes of federal compliance the form is processed differently depending on whether the federal exclusion is programmatic categorical or categorical (see Section 405.1 and 405.2).

When a Negative or Mitigated Negative Declaration/FONSI has been prepared the Lead Agency must file a Notice of Determination with the State Clearinghouse

(OPR). In compliance with NEPA the federal agency must prepare a statement which sets forth its finding that the project will have no significant impact. This finding is attached to the Environmental Assessment for the project. The documents are then forwarded to the District Permit Engineer for filing before issuing a permit.

When an EIR/EIS has been completed the state or local Lead Agency must make findings and adopt a statement of overriding consideration for any impacts that are not mitigated below a level of significance. The federal agency must prepare a Record of Decision (ROD).

2. Circulation Requirements

State and federal circulation requirements differ for the ND and FONSI. Unlike CEQA NDs, FONSI do not have a specified public comment period. Caltrans applies the state requirement of a 30-day public circulation period for joint documents.

3. Categorical Exclusions/ Categorically Exemption Differences

CEQA lists 32 standard categories of exemptions to which all state and local agencies must adhere. By contract, each federal agency adopts its own list of categorical exclusions that differ from agency to agency. FHWA has adopted exclusions which are listed in 23 CFR 771.117 (see Section 405.1). Under the authority provided in Section 771.117(d) Caltrans and FHWA have concurred through a programmatic agreement on additional actions which are deemed to have no environmental impact (See Section 405.2)

Documentation for state exempt projects must include information as to whether the project is statutorily or categorically exempt, and if the latter, under what class of exemptions. Documentation for federal exclusions must indicate if the project is a programmatic categorical exclusion (PCE) or a categorical exclusion (CE). For projects with federal involvement both the CEQA portion and the NEPA portion of the CE form is completed. If the project is exempt under 23 CFR 771.177 or falls under the provisions of the 1990 programmatic agreement no federal agency review or concurrence is required for either local agency projects or projects on the state highway system. If the project is not a programmatically excluded action, the signed CE form is forwarded to FHWA for signature by the FHWA Transportation Engineer.

405.1 FHWA Categorical Exclusions

The following actions defined in 23 CFR 771.177 are excluded as actions that normally do not involve significant environmental impact and require no approval actions by FHWA. For these actions the NEPA section of CE form is completed, but the FHWA Transportation Engineer does not sign the form.

- The actions does not have any significant environmental impacts as described in 23 CFR 771.117(a);
- The actions does not involve unusual circumstances as described in 23 CFR 771.117(b);
- Activities which do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs; research activities as defined in 23 U.S.C. 307; approval of a unified work program and any findings required in the planning process pursuant to 23 U.S.C. 134; approval of statewide programs under 23 CFR part 630; approval of project concepts under 23 CFR part 476; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system.
- Approval of utility installations along or across a transportation facility.
- Construction of bicycle and pedestrian lanes, paths, and facilities.
- Activities included in the State's highway safety plan under 23 U.S.C. 402.
- Transfer of Federal lands pursuant to 23 U.S.C. 317 when the subsequent action is not an FHWA action.
- The installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction.
- Landscaping.
- Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.
- Emergency repairs under 23 U.S.C. 125.
- Acquisition of scenic easements.
- Determination of payback under 23 CFR part 480 for property previously acquired with Federal-aid participation.
- Improvements to existing rest areas and truck weigh stations.
- Ridesharing activities.
- Bus and rail car rehabilitation.
- Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
- Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
- The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.
- Track and railbed maintenance and improvements when carried out within the existing right-of-way.

- Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
- Promulgation of rules, regulations, and directives.

405.2 Programmatic Exclusions (1990 Programmatic Agreement)

In addition, Caltrans and FHWA have agreed through the Programmatic Agreement, September 7, 1990, that additional actions programmatically are approved if they meet all of the conditions listed below. These actions require no approval actions by FHWA. For these actions the NEPA section of CE form is completed, but the FHWA Transportation Engineer does not sign the form.

Actions which qualify under 23 CFR 771.117(d) and do not involve the following:

- The acquisition of more than minor amounts of temporary or permanent strips of right-of-way for construction of such items as clear vision corners and grading. Such acquisitions will not require any commercial or residential displacements.
- The use of properties protected by Section 4(f) of the Department of Transportation Act (49 USC 303).
- A determination of adverse effect by the State Historic Preservation Officer.
- Any US Coast Guard construction permits or any US Army Corps of Engineers Section 404 permits [other than nationwide (blanket) permits].
- Any work in wetlands.
- Any work permanently encroaching on a regulatory floodway of any work affecting the base floodplain (100-year flood) elevations of a watercourse or lake.
- Construction in, across, or adjacent to a river designated as a component or proposed for inclusion in the National System of Wild and Scenic Rivers published by the US Department of the Interior/US Department of Agriculture.
- Any changes in access control.
- The use of a temporary road, detour or ramp closure unless the use of such facilities satisfy the following conditions:
 - i. Provisions are made for access by local traffic and so posted.
 - ii. Through-traffic dependent business will not be adversely affected.
 - iii. The detour or ramp closure, to the extent possible, will not interfere with any local special event or festival.
 - iv. The temporary road, detour, or ramp closure does not substantially change the environmental consequences of the action.
 - v. There is no substantial controversy associated with the temporary road, detour, or ramp closure.
- Any known hazardous materials sites or hazardous materials remains within the right-of-way.

- The action conforms to the Air Quality Implementation Plan that is approved or promulgated by the Environmental Protection Agency in air quality nonattainment areas.
- The action is consistent with the State’s Coastal Zone Management Plan.
- The action does not affect federally listed endangered or threatened species or critical habitat.

All determinations made by Caltrans under the programmatic approach must be documented. The documentation shall be available for FHWA review upon request.

If one or more of the above conditions are not satisfied the categorical exclusion requires the review and approval of FHWA. Separate environmental documentation which demonstrates that the specific conditions or criteria for the CE's is satisfied and that significant environmental the impacts will not result must be submitted to FHWA to support the classification. A categorical exclusion will not apply if there are any "unusual circumstances" (23 CFR section 771.17).

Unusual circumstances include:

- significant environmental impacts
- substantial controversy on environmental grounds
- significant impact to properties protected under Section 4(f) or Section 106
- inconsistencies with any federal, state or local laws

406 ENCROACHMENT PERMITS STORM WATER MANAGEMENT

Caltrans Headquarters and District Encroachment Permits Offices have a commitment to oversee non-Caltrans projects in order to prevent pollution in storm water and non-storm water runoff from and into the State highway right-of-way. This section constitutes the Quality Assurance (QA) plan for the Encroachment Permits Program to ensure statewide consistency and compliance with the Caltrans National Pollutant Discharge Elimination System (NPDES) permit (Order) and the Caltrans Statewide Storm Water Management Plan (SWMP).

Section 406 does not encompass all water quality laws and regulations but provides guidance on the processes used by the Encroachment Permits Program to review and inspect storm water elements associated with projects approved using the encroachment permit process. Projects not approved using the encroachment permit process, such as Oversight projects (see Section 108), may have different requirements. This section does not relieve the project sponsor or contractor from their responsibility to comply with all Federal, State, and local laws, regulations, and policies that apply to their project.

Best Management Practices (BMPs) are used to reduce the discharge of pollutants. BMPs include management practices, control techniques and system, design and engineering methods. This section discusses requirements to design, document, use, and maintain BMPs on encroachment permit projects.

The applicant must incorporate Design Pollution Prevention BMPs for all projects that disturb soil, or are near or in an Environmentally Sensitive Area¹ (ESA). Construction site BMPs are required during construction. Post-construction BMPs are used to minimize the project's potential effects on water quality. Projects with post-construction BMPs may need to be approved using the Oversight Project process (see Section 108) not the Encroachment Permit process.

All BMPs must be Caltrans approved. For approved BMPs, tools, and further guidance, go to:

<https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents>

For further information go to Appendix A in the Caltrans Storm Water Quality Handbooks, Project Planning and Design Guide (PPDG):

<https://dot.ca.gov/programs/design/manual-project-planning-design-guide>

Section 406 - Encroachment Permits Storm Water Management is organized as follows:

- 406.1 Overview and Background
- 406.2 Best Management Practices and Storm Water Document Selection and Preparation
- 406.3 Encroachment Permit Application Review
- 406.4 Construction Site Inspection
- 406.5 Construction Site Quality Control/ Quality Assurance Plan
- 406.6 Notice of Termination
- 406.7 Record Keeping and Archiving
- 406.8 Encroachment Permit Stormwater Training

406.1 Overview and Background

The following is from the PPDG, July, 2010. Federal regulations for controlling discharges of pollutants from Municipal Separate Storm Sewer Systems (MS4s), construction sites, and industrial activities were incorporated into the NPDES permit process by the 1987 amendments to the Clean Water Act (CWA) and by the subsequent 1990 promulgation of federal storm water regulations issued by the U.S. Environmental Protection Agency (EPA). The EPA regulations require municipal, construction and industrial storm water discharges to comply with an NPDES permit. In California, the EPA delegated its authority to the State Water Resources Control Board (SWRCB) to issue NPDES permits.

¹ An ESA is defined in Section 5.3.2 of the Draft SWMP, July 2012.

The SWRCB issued an NPDES Statewide Storm Water Permit to Caltrans in 2012 (Order No. 2012-00-11-DWQ) (CAS000003), to regulate storm water discharges from Caltrans facilities. For the Order, go to:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.shtml

The Order contains three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (CGP) or the Lake Tahoe Construction General Permit
2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges
3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary construction BMPs and other measures

To comply with the Order, Caltrans has developed a statewide SWMP. The SWMP is the Caltrans policy document that describes how Caltrans conducts its storm water management activities (i.e., procedures and practices), provides descriptions of each of the major management program elements, discusses the processes used to evaluate and select appropriate BMPs, and presents key implementation responsibilities and schedules. All projects within the State right-of-way, regardless of who funds or administers the project, are required to comply with the SWMP.

Caltrans uses the encroachment permit process as a quality assurance program to ensure project sponsors comply with storm water laws and regulations. For a glossary of terms used in this section, go to:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_app_6.pdf

406.2 Best Management Practices and Storm Water Document Selection and Preparation

This section assists the applicant in selecting the appropriate BMPs and preparing the appropriate storm water document to submit with the encroachment permit application. Depending on the amount of Disturbed Soil Area (DSA) and other project conditions, the applicant provides an Erosion and Sediment Control Plan (ESCP), a Water Pollution Control Program (WPCP), a Storm Water Pollution Prevention Plan (SWPPP), and/or authorizing documents for dewatering activities.

406.2A BMP Selection

The applicant is responsible for controlling discharges of storm water and non-storm water from the construction site. The applicant shall prevent discharges from flowing through areas that have

been disturbed by construction unless appropriate conveyance systems are in-place. All projects that disturb soil must incorporate Design Pollution Prevention (DPP) BMPs. The applicant must submit a completed DPP-1 checklist to document BMP consideration. The checklist is in the PPDG, Appendix E. The plans need to show which BMPs were selected and their location.

During the project planning and design process, the applicant is responsible for incorporating treatment BMPs for all projects subject to the Order, and which meet the following criteria:

**Table 4 1
Threshold for Consideration of Structural Treatment BMPs**

Project Category	Threshold – Net New Impervious Surface (4)
Non- Highway Facilities (Rest Areas and Vista Points, Park and Ride Lots, Maintenance and support facilities)	5,000 square feet or more
Highway (1) (3)	43,560 square feet (1 acre) or more

- (1) Pedestrian/bike path projects do not require treatment BMPs.
- (2) If the net impervious area constitutes 50 percent or more of the original facility, post-construction BMPs will be designed for the entire facility.
- (3) Emergency projects are exempt from treatment BMPs based on the immediate need to provide service and protection for the public.
- (4) Routine Maintenance Activities are not required to incorporate treatment BMPs.

The applicant must use Caltrans approved BMPs. For a list of BMPs, go to:

<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/construction-site-bmp-fact-sheets>

Caltrans approved treatment BMPs include: Biofiltration strips and swales; infiltration devices; detention devices; wet basins; media filters; multi-chamber treatment train; dry weather flow diversion; gross solids removal devices; traction sand traps. See the PPDG for further guidance on use, design, and specifications.

All new development and redevelopment projects subject to consideration of treatment BMPs must also analyze the project’s potential to contribute to hydromodification impacts. There are many different approaches to managing hydromodification impacts from urbanization. In general, in-stream solutions are most appropriate for Caltrans facilities, and focus on managing the receiving stream to accept localized flow changes without becoming unstable.

406.2B Storm Water Document Selection

The type of storm water document required depends on the amount of total *disturbed soil area* (DSA) and specific project elements such as dewatering, new impervious surface area, and proximity to an ESA. DSA is exposed, erodible soil within the construction limits because of construction activities. The total construction site DSA includes DSA inside and outside the State

right-of-way. The DSA calculation must be documented in the appropriate storm water document.

For Linear Utility Projects (LUP), the DSA calculation must be documented in the storm water document and must account for all ground disturbances, not just the trenching activity itself. Examples of DSA to include are truck tracks, stock pile locations, access roads, etc. The applicant should use the guidance titled “Calculating Land Disturbance Areas in LUPs” in the CGP, A.2 for DSA calculations.

Where discrete LUP construction projects within a larger common plan of development are located at least 1/4 mile apart and the area between the projects is not being disturbed, each individual project can be treated as a separate plan of development provided any interconnecting road, pipeline or utility project that is part of the same “common plan of development” is not concurrently being disturbed.

For information on non-contiguous projects refer to EPA's Fact Sheet (page 7 of 52, 2nd paragraph)

http://www.epa.gov/npdes/pubs/cgp2008_finalfactsheet.pdf

An applicant's questions pertaining to DSA, discharge exemption, permit coverage, and general storm water requirements should be addressed to the District Encroachment Permits Storm Water Coordinator (EPSWC). Final determinations are made by the local Regional Water Quality Control Board (RWQCB). The applicant must submit a letter of concurrence from the local RWQCB concerning the determination on whether discharges from a part of a larger common plan or DSA may be exempted from coverage under the CGP.

All storm water documents should provide a simple narrative and diagram that locates the construction site, identifies potential pollutant sources on site, and shows the location of the design, construction, and post-construction BMPs. The storm water documents should also describe measures which eliminate or reduce pollution of storm water runoff by any chemicals and materials used during each phase of the construction process. The level of detail will vary with the intensity, size, and type of construction.

No Disturbed Soil Area and No Construction Site

The applicant is not required to submit a storm water document if the project does not disturb any soil and does not have a construction site: projects such as hanging banners or conducting traffic counts.

Erosion and Sediment Control Plan

The applicant must submit an ESCP if the construction site meets *all* of the following conditions:

1. Total DSA is less than one-quarter (1/4) acre

2. Construction site *does not* discharge directly² or indirectly³ to receiving waters⁴
3. Is not within an ESA nor discharges to an ESA

The applicant must submit six copies of the ESCP with the encroachment permit application package.

The applicant must refer to the local entity (City or County) or local Municipal Storm Water System owner for guidance on preparing this storm water document. The applicant must also incorporate any local city and county requirements.

The ESCP must provide the name and contact information for the construction superintendent or property owner, and must show on a construction site layout sheet the location of: selected BMPs; concentrated flows; project entry and exit; material storage; stockpiles.

Water Pollution Control Program

The applicant must submit a WPCP if the construction site is not in an ESA, and does not discharge to an ESA, and meets one of the following conditions:

1. The total DSA is less than one-quarter ($\frac{1}{4}$) acre and discharges directly, or indirectly, to a receiving water body
2. The total DSA is one-quarter ($\frac{1}{4}$) acre or more but less than one (1) acre
3. The total DSA is one (1) acre or more but less than five (5) acres, and qualifies under the U. S. EPA Rainfall Erosivity Waiver (REW) certification.

The applicant must submit six copies of the WPCP, the Qualified Storm Water Pollution Prevention Plan Practitioner’s (QSP) certification and contact information, and if applicable, the US EPA REW certification. If submitting an EPA REW, then the applicant must also submit the Notice of Intent (NOI), the Sediment Risk form, and other appropriate documents through the SWRCB Storm Water Multiple Application & Report Tracking System (SMARTS).

The WPCP must be prepared by a QSP. The QSP must use the Caltrans WPCP template.

For the WPCP template and preparation manual for completing it, go to:

<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control>

Construction Sites under the US EPA REW seeking Time Extension (Rider): A time extension cannot be issued until the applicant submits a revised EPA REW certification from SMARTS. If the new construction times do not qualify for REW certification, the applicant is

² Direct Discharge: Any discharge from the MS4 that does not meet the definition of an indirect discharge (Order).

³ Indirect Discharge: Any discharge from the MS4 that is conveyed to the receiving water through 300 feet or more of an unlined ditch or channel as measured between the discharge point from the MS4 and the receiving water (Order).

⁴ Receiving Water: A river, lake, ocean, stream or other watercourse into which wastewater or treated effluent is discharged as provided in the “Terms of Environment” (U.S. EPA Office of Communications, Education, and Public Affairs: December 1997).

required to submit a SWPPP and a Waste Discharge Identification (WDID) number as a condition of the encroachment permit time extension.

Storm Water Pollution Prevention Plan

The applicant must submit a SWPPP if the construction site meets *one* of the following conditions:

1. Total DSA is one (1) acre or more and does not have an REW
2. Is within an ESA or may discharge to an ESA
3. Is a Type 1 or Type 2 LUP (see the CGP, Attachment A & A.1)

For projects requiring only design-approval and are not ready for construction, the applicant can provide the Construction Site BMP Consideration Form, and associated checklists (Appendix E, PPDG) in lieu of the SWPPP. Submit a detailed cost estimate of the proposed BMPs with the form. The estimate must include consideration of the following items: Design Pollution Prevention, Treatment, and Construction Site BMPs; Preparation of SWPPP; right-of-way acquisition.

When applying for a double permit, or a permit for construction, the permit applicant must submit six copies each of; the SWPPP, the Notice of Intent (including an active WDID), and the Qualified SWPPP Developer's (QSD) certification and contact information.

The SWPPP must be prepared by a QSD. The QSD must approve and certify the SWPPP and ensure it is uploaded correctly into the SMARTS.

The SWPPP must address all areas that are directly related to the construction site, including but not limited to staging areas, storage yards, material borrow areas, water sampling sites, and access roads, etc.

The permit applicant must ensure that their SWPPP includes a Quality Control and Assurance Plan (QC) that describes roles, responsibilities and actions that will be implemented by the LRP's or Contractor's QSP to ensure the project activities comply with the SWPPP.

The QSD can prepare the SWPPP using templates developed by Caltrans or the California Stormwater Quality Association (CASQA). Caltrans will also accept SWPPP's developed using templates that may be required by utility districts or local agencies. The templates must contain the elements required by Caltrans and the CGP.

For the Caltrans SWPPP preparation manual and template, go to:

<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control>

For the CASQA template, go to:

<https://www.casqa.org/resources/bmp-handbooks/construction>

Dewatering Plan

For projects involving dewatering, the applicant must submit:

1. A dewatering plan and a separate Dewatering Permit (DWP) from the RWQCB, or
2. dewatering waiver acknowledgement from the RWQCB, or
3. letter of authorization from local sewer district where the effluent will be discharged

Dewatering activities must comply with the local RWQCB requirements. The applicant must submit the required documents before an encroachment permit is issued. For permits to construct (double permits), the DWP number must be submitted also. The dewatering plan must conform to Section 13-4.03G of the Standard Specifications. The dewatering plan may involve designing, installing, operating, maintaining, and removing a temporary active treatment system for the accumulated water, groundwater or surface water from excavation or temporary containment facilities. Active treatment systems must conform to the CGP, Appendix F.

406.3 Encroachment Permit Application Review

The permit applicant is responsible for documenting which BMPs were considered, incorporating the appropriate BMPs, and preparing the appropriate storm water document. The permit writer determines if the applicant has submitted the appropriate documentation by using information supplied by the applicant and may also use the “Encroachment Permit Storm Water Assessment” (form TR-0132).

The permit writer may request that other functional units review the application package. The permit writer should request a review by the Caltrans EPSWC for all projects requiring a WPCP or SWPPP. Using the “Encroachment Permit Application Review” (form TR-0110), the functional units and EPSWC will approve, deny, or request further clarification on the documents submitted. The Headquarters (HQ) EPSWC is also available to review project documents.

The permit inspector should review the stormwater document and notify the permit writer concerning possible amendments to the ESCP, WPCP, or SWPPP document.

The permit writer cannot issue the Contractor’s double permit, and the Contractor cannot begin work until Caltrans has accepted the appropriate storm water document. Issuing an encroachment permit or rider without the appropriate storm water document is a non-compliance action of the Order. If this occurs, the permit writer must fill out a “Notification of Non-Compliance” (form TR-0134). The form must be submitted to the District NPDES Coordinator within three (3) business days of the finding of non-compliance.

For projects covered under the CGP, Caltrans is responsible for reviewing the qualifications of proposed field staff including the QSD and QSP working for the contractor. To verify QSD and QSP certification, go to:

<http://www.owp.csus.edu/qsd-lookup.php>

This same website has a link to report a QSD or QSP problem to the SWRCB.

The plans and total DSA will be reviewed by the permit writer. To determine proximity to an ESA, the permit writer will review the Environmental Documents and the HQ Division of Environmental Analysis website at:

<http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx>

The permit writer will include “Storm Water Special Provisions for Minimal or No Impact” (TR-0400) for all projects that do not require a storm water document.

406.3A Erosion and Sediment Control Plan

The permit writer verifies that all BMPs are Caltrans approved. The permit writer includes “Storm Water Special Provisions for Minimal or No Impact” (TR-0400) and the “Storm Water Inspection Form” (form TR-0135) with the permit.

406.3B Water Pollution Control Program

The permit writer ensures the current version of the Caltrans WPCP template is used, a QSP has prepared it, and that Caltrans approved BMPs are used. The permit writer attaches the Encroachment Permit Storm Water Special Provisions for REW projects. The permit writer obtains acceptance from the EPSWC via the “Encroachment Permit Application Review” (form TR-0110).

The permit writer verifies that the Caltrans WPCP and drawings follow the guidance in the Caltrans SWPPP/WPCP Preparation Manual and Technical Memorandum dated 2012. For REW projects, the permit writer verifies SMARTS entries.

For high risk projects, the permit writer informs the EPSWC that an independent, third party QSD (IA) will be required for the project. The EPSWC will contract for services with the IA. The permit writer verifies the IA certification (form TR-0135) is signed by the IA, the permit applicant, and their contractor.

406.3C Storm Water Pollution Prevention Plan

The Legally Responsible Person (LRP) or authorized signatory must submit the SWPPP through SMARTS to obtain a WDID number. The LRP is typically the project sponsor or permit applicant.

The WDID number and a copy of the Notice of Intent (NOI) must be included with the SWPPP. Linear Utility Projects that span RWQCB boundaries may require more than one WDID. The WDID(s) must be submitted to the District Encroachment Permits Office before construction begins. For access to SMARTS, go to:

<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>

Caltrans requires the LRP or authorized signatory to hire an independent, third party QSD (IA) for Quality Assurance. The SWPPP must be amended to include the IA certification (form TR-0135) which is signed by the IA and the LRP. The IA certification must be uploaded into SMARTS prior to the start of the encroachment permit activity. The IA must work with the State representative to report on the Contractor’s reportable discharge or the failure to submit a notice of discharge to the RWCQB.

The permit writer will verify that the Caltrans SWPPP and drawings follow the guidance in the Caltrans SWPPP/WPCP Preparation Manual and Technical Memorandum dated 2012. The permit writer will obtain acceptance from the EPSWC via the “Encroachment Permit Application Review” (form TR-0110).

The permit writer will verify that the IA certification is in SMARTS. A permit to construct cannot be issued until Caltrans receives the WDID number from the applicant.

406.3D Dewatering Plan

Prior to issuing an encroachment permit for dewatering, the Permit Writer submits a copy of the encroachment permit application package to the EPSWC for their acceptance. The package may also need concurrence from District Hydraulics, District Maintenance, and District NPDES reviewers. An encroachment permit for dewatering activities cannot be issued until Caltrans receives the Dewatering Permit (DWP) number from the applicant.

406.4 Construction Site Inspection

The permittee and contractor are responsible for implementing and maintaining appropriate BMPs inside and outside the State right-of-way that will meet the conditions of the CGP. The contractor, the contractor’s Water Pollution Control Manager (WPCM), permit inspector, IA, regulatory inspectors work together to minimize discharges.

Construction related to soil disturbance cannot begin until the required BMPs are in place.

The permittee or contractor must ensure the storm water documents are always available to the permit inspector, regulatory personnel, and the IA.

The permit inspector records the following in the permit file:

- Caltrans SWPPP/WPCP acceptance date
- Date of pre-construction meeting with WPCM
- Start and End Construction Date
- Results of SWPPP/ WPCP inspections
- Review WPCM’s Visual monitoring reports
- Dates of notices of discharge/non-compliance

- Dates of Independent QSD (IA) inspections and report submittals to NPDES
- Dates of RWQCB inspections, NOV's, NOCs, etc.
- Verification Contractor training records in SWPPP

406.4A Erosion and Sediment Control Plan

The permittee and contractor are responsible for implementing and maintaining the construction site BMPs as described in the ESCP. The permittee must ensure that the appropriate BMPs are installed, maintained, and effective within the encroachment area.

406.4B Water Pollution Control Program

Work cannot begin on the site until the WPCP has been accepted by the permit inspector and the EPSWC. The contractor and contractor's WPCM are required to follow the Caltrans Standard Specifications for developing and implementing the WPCP (Section 13-2, Standard Specifications). The contractor is responsible for implementing and maintaining the BMPs as described in the WPCP. The Contractor is required to hire a QSP for the construction site. If the QSP is not appointed, the WPCM or the QSD shall perform the responsibilities of the QSP. The Contractor's WPCM must be a QSP to implement the WPCP. [Section 131.01D (2)].

The contractor must ensure that employees receive water pollution control training before starting work at the job site. If the BMPs identified in the WPCP are not effectively controlling discharges, the QSP must amend the WPCP and place effective BMPs. If an amendment is required, work must stop until the permit inspector has accepted the WPCP amendment. The District Permit Engineer (DPE) can require an independent, third party QSD (IA) for WPCP projects.

The Quality Control/ Quality Assurance (QC/QA) Plan applies to all WPCP projects (See Section 406.5).

406.4C Storm Water Pollution Prevention Plan

Work cannot begin on the site until the SWPPP has been accepted by the permit inspector and the EPSWC. The contractor and contractor's WPCM are responsible for implementing the BMPs as described in the SWPPP. The WPCM must be a QSD if the project requires a SWPPP [Section 13-1.01D 3(a)]. The contractor must ensure that employees receive water pollution control training before starting work at the job site. If the BMPs identified in the SWPPP are not effectively controlling discharges, the QSD must amend the SWPPP and place effective BMPs. If an amendment is required, work must stop until the permit inspector has accepted the SWPPP amendment. The LRP must retain inspection records for three years from the date they are generated.

The QC/QA Plan applies to all SWPPP projects (See Section 406.5).

406.5 Construction Site Quality Control / Quality Assurance Plan

The project owner, contractor, and the State all participate in the Quality Control/ Quality Assurance Plan (QC/QA) which consists of three levels:

1. Quality Control (QC)(contractor)
2. Quality Assurance (QA)(permit or construction inspector, and EPSWC)
3. Independent Quality Assurance (IA)(third party QSD)

406.5A Quality Control

The contractor's WPCM must implement a Quality Control and Assurance program (QC) as described in Section 13-1.01D of the Standard Specifications. The WPCM must use and maintain visual monitoring reports to document visual inspections of the construction site BMPs on a weekly basis and daily during rain events. These reports must remain at the construction site as part of the SWPPP. Standard Specification 13-3.01B (5) must be used in preparing the visual monitoring reports.

The WPCM's visual inspection must include:

- Verifying adequacy of trash receptacles
- Verifying waste disposal practices (e.g., recycle vs. hazardous waste bins)
- Examining integrity and use of containment structures
- Verifying use of employee education programs for the various activities
- Noting the location of activity (e.g., outdoor vs. indoor, concrete vs. grass)
- BMPs for any chemicals or fuels not addressed in the SWPPP must be developed
- Effectiveness of BMPs

The WPCM typically meets with the permit inspector and EPSWC at the pre-construction meeting.

406.5B Quality Assurance

Quality Assurance (QA) provides the LRP and the contractor's WPCM the opportunity to correct non-compliance in a timely manner in an effort to avoid reporting to the RWQCB(s). The LRP may delegate its QA responsibilities to an authorized signatory for SMARTS submittals.

The District Permit Inspector has the primary role for conducting regular stormwater inspections to verify that the necessary BMPs are installed and maintained according to the approved stormwater document. For projects with planting, the inspector coordinates with Landscape Architecture, EPSWC, and the PW to verify plant establishment before the project is accepted.

The District EPSWC conducts routine field inspections as part of the QA plan. The District EPSWC also acts as liaison with the HQ EPSWC and District NPDES Coordinator.

If after notification of non-compliance (see Section on Notification of Non-Compliance), the WPCM fails to correct the non-compliance, the permit inspector takes the following progressive actions:

1. Issue and document a verbal warning
2. Notify the LRP and contractor's WPCM in writing
3. Suspend the permit and notify the IA

Action one – The permit inspector will provide clear reasons for the non-compliance and corrective actions that are required. The instructions to the contractor are recorded in permit files.

Action two - The permit inspector and or the EPSWC prepares a written report of the non-compliance that specifies the required corrective actions. The report is submitted to the LRP and contractor's WPCM. The project LRP must direct the Contractor's WPCM to meet with the permit inspector and IA. The Contractor's WPCM documents all communication with the permit inspector and IA, then takes the necessary steps to comply with the terms of the non-compliance.

Action three - The permit inspector notifies the IA. The IA will complete the "Notification of Non-Compliance" (form TR-0134) and submit to NPDES with copies to the permit inspector and LRP, or permittee. The LRP or permittee and IA must meet to develop a plan that will correct the non-compliance. No work can be done, except for corrective actions, until the permit suspension is lifted.

The permit inspector removes the suspension after receiving written notification from the IA that the site is in compliance.

The contractor's Double Permit may be revoked and other permits may be suspended. In addition, the LRP may be required to secure bonds for future work within the State right-of-way.

406.5C Independent Quality Assurance

Caltrans will provide a third party, Independent QSD (IA) for WPCP projects. (Still need approval for funding) The IA for WPCP projects will only be activated when the contractor is unresponsive, fails to take corrective action, or during non-compliance with the possibility of discharge to waters of the State.

The LRP must provide the IA for SWPPP projects.

At action three, the IA prepares a "Notification of Non-Compliance" (form TR-0134) if it is a reportable action. The IA submits the TR-0134 to the permit inspector, the NPDES Coordinator and the LRP.

The IA coordinates with the LRP to develop an action plan and implementation timeline that the WPCM uses to bring the site into compliance. After concurrence by the LRP, the IA submits the plan to the WPCM for implementation. The WPCM will contact the IA when the site is ready for inspection. The IA will coordinate a site meeting with the WPCM, permit inspector, and

EPSWC. The IA issues written notification to the permit inspector when the site is in compliance.

The permit remains suspended until the site is brought into compliance.

The IA is responsible for decisions concerning SWPPP/ WPCP amendments.

406.5D Notification of Non-Compliance

The IA and the permit inspector conduct a field inspection to prepare the report. The following are triggers for the preparation of the “Notification of Non-Compliance” (form TR-0134):

1. Failure to report sudden, unexpected, unpreventable incidents that threaten public health, public safety, property, or the environment that pose a clear and imminent danger requiring immediate action to prevent or mitigate the damage or threat, and that result in a discharge or potential discharge.
2. Failure to meet any non-administrative requirement of the Order or SWMP or to meet any applicable water quality standard.
3. Failure to meet any administrative or procedural requirement of the Order or SWMP including submission of required reports, notifications and certifications.

The following documents are gathered by the IA for submittal to the District NPDES Coordinator during implementation of action three:

1. Copy of the Encroachment Permit
2. Signed (IA and permit inspector) “Notification of Non-Compliance” (form TR-0134)
3. Photos describing the time and extent of the discharge
4. Copy of the project’s vicinity map indicating approximate location of storm drain or receiving waters
5. Copy of the water pollution control plan sheet(s) or site plan to indicate the location of discharge and failed construction site BMPs
6. Documentation of verbal or written communication with the Contractor’s WPCM

The “Notification of Non-Compliance” (form TR-0134) describes when reporting is required.

406.6 Notice of Termination

Prior to electronically filing the Notice of Termination (NOT) into SMARTS, the Contractor’s WPCM must notify the permit inspector when the DSA, subject to soil stabilization requirements, is ready for inspection. The State Inspector will coordinate with Landscape Architecture, Maintenance and the EPSWC to ensure the soil is stabilized. All DSA must be stabilized before closing the site. After the RWQCB representative has certified that construction activities have been completed, the LRP or authorized signatory can process the NOT in the SMARTS database.

406.7 Record Keeping and Archiving

The LRP or authorized signatory must all monitoring and reporting records for a period of at least years from the generation or submittal date, longer as required by the RWQCB. The District Encroachment Permits Office should keep electronic copies for three years. Anything beyond that should only include basic information such as; project scope and duration, NOI/WDID, LRP or authorized signatory certification, discharge reports, names of contractor, QSD, and QSP.

The HQ and District EPSWC's compile and prepare materials for the Encroachment Permit Program's portion of Caltrans's Statewide Storm Water Management Program Annual Report to the SWRCB.

406.8 Encroachment Permit Stormwater Training

Construction site BMP training is required of all staff involved in the preparation and implementation of the SWPPP and WPCP document. The State Inspector shall verify that the Contractor's QSP has trained personnel assigned to the implementation and maintenance of construction site BMPs. The training should cover responsibilities for BMP implementation, how to implement BMPs, general good housekeeping, and protection of BMPs in place. The LRP must certify in the SWPPP document that the Contractor's QSP has delivered construction site BMP training to all staff involved in SWPPP implementation.

The HQ and District EPSWCs, and DPEs will assist Districts in assuring staff receive the required training and refresher courses to enable them to carry out the quality assurance aspects of the Encroachment Permit Program.

407 AERIALY DEPOSITED LEAD MANAGEMENT GUIDANCE FOR ENCROACHMENT PERMIT PROJECTS

Until the mid-1980's gasoline and other fuels contained lead as an additive. As each motor vehicle traveled the highways, tiny particles of lead were emitted in the exhaust and settled on the soils next to the highways. This lead is referred to as aerially deposited lead (ADL). Most of the time, lead tends not to move very far or very fast in the environment. Over the years, lead accumulated alongside the highways and became ubiquitous in the built environment. As a result, highway projects disturb soils which often contain elevated concentrations of lead.

ADL is usually found within 30 feet of the edge of the pavement and within the top six inches of the soil. In some cases, the lead is as deep as two to three feet below the surface. The Department of Toxic Substances Control (DTSC) sets regulatory thresholds for lead in soil, based on risk assessment work performed by CalEPA's Office of Environmental Health Hazard Assessment (OEHHA). In areas where road construction will occur, Caltrans has found levels of lead that exceed the regulatory threshold throughout the State.

Therefore, ADL management has to be addressed when proposed work within state highway right-of-way includes soil disturbance by either Caltrans or other entities. Encroachment Permit (EP) projects will be categorized into three classifications for ADL compliance, as follows:

- **Minimal disturbance (E.g.: pole replacement, driveways, service connections etc.):** Projects which result in minimal soil disturbance and all disturbed soil can be placed back within work limits in the immediate area from which it was excavated.
 - The following Special Provision must be included in all permits that qualify under this classification:

“Permittee must reuse the soil within the work limits in the immediate area from which it was excavated. If any excess soil is generated, it becomes the property of the permittee. Permittee must transport all excess soil outside of Caltrans’ right-of-way, and dispose of it in accordance with all applicable environmental laws and regulations.”
- **Excess Soil (E.g.: utility mainline trenching, etc.):** Projects that result in excess soil which cannot be reused within the work limits and needs to be transported off of the project site qualify under this classification.
 - “Hazardous Materials and Hazardous Waste Management Special Provisions” (TR-0408) must be included in all permits. (See appendix K)
- **All highway widening and reconfiguration projects:** All highway widening and reconfiguration projects, and projects involving right-of-way dedication must follow the following protocol:
 - Permittee will be required to perform sampling and analysis of the soils for lead and other contaminants of concern that will be excavated. For this activity, permittee will be required to submit an initial EP application for sampling. A Sampling and Analysis Plan (SAP), and a Health and Safety Plan (HaSP) must be submitted along with the application for review by the District Hazardous Waste (HW) management office. HaSP must be prepared, signed, and sealed by a Certified Industrial Hygienist (CIH). The final soil assessment report including chain of custody, laboratory data, and statistical analysis must be submitted to Caltrans for review. Upon the permit review, additional environmental documents may be required. The HW management office will review the report and recommend the need for soil management restrictions in the permit.
 - Permittee can then submit the permit application for full project review and approval. Package must include a Lead Compliance Plan (LCP) and a soil management plan, if applicable, as recommended by the HW management office. The package must be sent for review and approval by the HW management office.

- “Hazardous Materials and Hazardous Waste Management Special Provisions” (TR-0408) must be included in all permits. (see Appendix K)
- The permittee is not responsible for clean-up of contaminated material which Caltrans would be legally required to clean up regardless of whether an encroachment permit project is proposed or not. However, encroachment work should not be allowed within the contaminated areas until clean-up is complete, unless permittee is willing to clean-up within their proposed project limits within state right-of-way at their own expense to move forward with their encroachment work.

Chapter 500 – Specific Encroachment Permits

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Chapter 500

Specific Encroachment Permits

This chapter describes specific types of encroachment permits, their codes and requirements. The District Encroachment Permits Office uses permit codes for categorizing projects, determining application completeness, and file management. Specific permit codes for utility facility installation, maintenance and relocation are described in Chapter 600.

Table 5.1A and Table 5.1B lists encroachment permit types, codes and sections that discuss their requirements.

Table 5.1A
Administrative Permit Codes

SECTION	CODE	TITLE	RESPONSIBLE UNIT
500.1	AH	Adopt-A-Highway	Maintenance
500.2A	AP	Transportation Art	Landscape Architecture
500.2B	GM	Gateway Monuments	Landscape Architecture
500.2C	ID	Community Identification	Landscape Architecture
500.2D	MM	Blue Star Memorial Highways, Markers, Roadside Memorials, and Historic Plaques	Landscape Architecture
500.3	AS	Airspace Development	Right of Way
500.4	CC	City and County Issued Permits	City/County
500.5	CN	Chain Installer	Maintenance
500.6	CU	Commercial Use	Landscape Architecture, Maintenance, Right of Way or Telecommunications
500.10	OP	QMAP (Previously Oversight) Projects	Project Development

**Table 5.1B
Specific Permit Codes**

Section	Code	Description	Section	Code	Description	Section	Code	Description
501.3A	AD	On-Premise Advertising Displays	507	MB	Mail Box	516	SV	Surveys
501.3B		Arcades	508	MC	Miscellaneous	516.1		Multi-year survey permits
501.3C		Awnings	508.1		Contractor's Yard & Plant	516.2		Accident Reconstruction
501.3D		Marquees	508.5		Grading	516.3		Archaeological Surveys
501.7	BR	Banners/Decorations/Signs	508.6		Mowing Grass	516.4		Land Surveys
501.8	BS	Bus Shelters & Benches	508.7		Material Removal	516.5		Literature Distribution
501.10	CD	Commercial Development	508.8		Parking Meters	516.6		Research Projects
501.12	CS	Curb, Gutter, Sidewalk	508.9		Engineering Services	516.7		Soil Survey
502.1	DD	Major Drainage Facilities	508.10		Survey Monuments	516.8		Traffic Counts
502.2	DM	Minor Drainage Facilities	508.11		Gathering of Roadside Vegetation Materials	517	TK	Traffic Control,
501.14	DP	Double Permit				517.1		Conventional Highway
503		Filming Permits	509	OA	ODA Visibility Improvement Request	517.2		Temporary Signals
503.5A	FI	Intermittent Traffic Control				517.3		Ramp Closures
503.5B	FL	Traffic Control	510.1	RC	Commercial Driveway	517.4		Planned Checkpoints
503.5C	FO	No Moving Traffic	511.1	RD	Rider Initiated By Caltrans	517.4A		Charitable Solicitations
503.5D	FR	Film Rider	510.2	RM	Reconstruct Driveway	517.5		PCMS
503.5E	FS	Special	510.3	RP	Road Approach	517.6		Snow Closures
503.5F	FF	Facilities	510.4	RS	Single Family Driveways	517.7		Temp. Directional Signing
504	FN	Fence	511.2	RT	Rider for Time Extension	517.8		Const. Identification Signs
505.1	GC	Cable Crossing	511.3	RW	Rider to Modify Work	518	TN	Tunnel Under Road
505.2	GV	Seismic Vibrator	512	RX	RR Grade Crossing Maint.	519	WL	Wall
506		Landscape Permits	513	SC	Early Entry	520	MW	Monitoring Well
506.3A	LC	Conventional Highway	514	SE	Special Events	521	SI	Signs
506.3B	LF	Freeways	515	SN	Signal & Lighting	521.1		Guide Signs
506.3C	LM	Maintenance				521.2		Fire Hydrant Markers
506.3D	LT	Tree Trimming and/or Removal				521.3		Fire Protection Signing

Section 500 of this chapter describes Administrative Encroachment Permit codes. These permit codes are reviewed and approved by Caltrans functional units other than the District Encroachment Permits Office. Subsequent sections describe categories of permits including those that are complex and often include several permit codes.

500A Certification of Compliance with the Americans with Disabilities Act (ADA)

Encroachment permit projects that create, alter or affect pedestrian facilities are required to be designed and constructed in accordance with the policies and standards in the current Design Information Bulletin 82 (DIB 82) available at:

<https://dot.ca.gov/programs/design/design-information-bulletins-dibs>

For projects coordinated by the District Encroachment Permits Office, compliance with DIB 82 is documented with the “Certification of Compliance with the Americans with Disabilities Act” (form TR-0405) available at:

<https://dot.ca.gov/programs/traffic-operations/ep/applications>

Separate TR-0405 forms are required for the Design and Post Construction Certifications. The Design Certification must be submitted prior to the issuance of an encroachment permit or rider. The Post Construction Certification must be submitted after construction is completed.

The signature and stamp of a California Licensed Professional Engineer, Licensed Architect or Licensed Landscape Architect are required on the TR-0405 forms. A stamp is not required when the certification is done by (1) an authorized utility company representative or (2) an authorized (at the discretion of the District Permit Engineer) Caltrans representative with direct knowledge of the entire project’s pedestrian facilities.

The District Office of Encroachment Permits must retain both forms (Design and Post Construction) in the permit file. To ensure that these forms are submitted, the District Permit Engineer may require the applicant to provide a bond.

For administrative encroachment permit projects, which are reviewed and approved by other functional offices within Caltrans, the lead functional office coordinates with the applicant/permittee for appropriate ADA Design and Post Construction Certification. The lead functional office must retain the Design and Post Construction Certification in their project files.

Projects requiring ADA certification:

All encroachment permit applications are reviewed to assess the need for ADA certification. Lack of ADA certification does not relieve the permittee from following all applicable ADA guidelines. Table 5.2A and Table 5.2 list typical permit codes that require ADA certification.

**Table 5.2A
ADA Certification by Responsible Functional Office**

Section	Permit Code	Description	Responsible Office	Section	Permit Code	Description	Responsible Office
500.3	AS	Airspace Development	Right of Way	500.2A	AP	Transportation Art	Landscape Architecture
500.4	CC	City and County Issued Permits	City or County	500.2B	GM	Gateway Monument	Landscape Architecture
500.6B	CU	Safety Roadside Rest Areas and Vista points	Landscape	500.2C	ID	Community Identification	Landscape Architecture
500.6C	CU	Demonstration and Experimental projects	Right of Way	500.10	OP	QMAP Project	Project Delivery
				510.3	RP	Road Approach	Project Delivery

**Table 5.2B
ADA Certification by the District Office of Encroachment Permits**

Section	Permit Code	Description	Section	Permit Code	Description
501.3B	AD*	Arcades	510.1	RC	Commercial Driveway
501.8	BS	Bus Shelters and Benches	511.1	RD*	Rider initiated by Caltrans
501.10	CD	Commercial Development	510.2	RM	Reconstruct Driveway
501.12	CS	Sidewalks	510.4	RS	Single Family Driveways
504	FN	Fence	511.3	RW*	Rider to Modify Work
506.3A	LC*	Landscaping - Conventional Highway	515	SN	Signal and Lighting
506.3B	LF*	Landscaping – Freeways	517	TK*	Traffic Control
508.8	MC	Miscellaneous Parking Meters	618	UC*	Utility Conventional Aerial
601.3	US	SAFE Telephones			

*Not all projects under this code will require ADA certification.

500 ADMINISTRATIVE ENCROACHMENT PERMITS

The District Encroachment Permits Office issues administrative encroachment permits for projects reviewed and approved by other Caltrans functional units such as Design, Maintenance, Landscape, Traffic Operations, Right of Way and Land Surveys, etc. The applicant works with the responsible functional unit to ensure the proposed encroachment complies with all applicable guidelines, procedures, Standard Plans, Standard Specifications, Design Information Bulletin 82: Pedestrian Accessibility Guidelines for Highway Projects, Deputy Directive 64, Complete Streets - Integrating the Transportation System, etc.

Once all reviews and approvals have been obtained by the responsible functional unit, a complete application package along with an “Encroachment Permit Administrative Route Slip” (form TR-0154) is forwarded to the District Encroachment Permits Office to request the issuance of an administrative encroachment permit. This certifies that the project has been reviewed and approved and does not require any further coordination.

Encroachment Permits’ staff should not expend more than two (2) hours on the whole process of permit issuance for administrative permits. Any additional time must be charged to the Project’s Code.

500.1 Adopt-A-Highway

Permit Code AH

A fee exempt permit issued for the Adopt-A-Highway (AAH) Program allows participation by individuals, businesses, agencies, and organizations for roadside enhancement involving: litter removal, vegetation control, tree and shrub planting, wildflower planting, and graffiti removal, within the State right-of-way. In recognition for their participation, signs are placed within the right-of-way identifying the group. Certain highway segments may not be appropriate for adoption because of narrow shoulders, steep slopes, poor visibility, etc.

Participants in the AAH Program may adopt segments of a highway and perform the work themselves or hire a professional contractor to perform work on their behalf.

When a contractor is hired, Districts should issue a fee-exempt Double Permit “DP” to the party actually performing the work. The “DP” must include all applicable AAH provisions, liability insurance, etc. Bonding is not required.

The “Adopt-A-Highway Program Application” (form MTCE-018) is used for all AAH inquiries and is submitted by the applicant to the District AAH Coordinator. The AAH Coordinator will review the application and inform the applicant via an “Application Status Letter” whether the group meets participation requirements and whether the requested site(s) is/are available.

If the group meets participation requirements but the requested site(s) is/are not available, the group is placed on a waiting list.

If the group meets participation requirements and a requested site(s) is available for immediate adoption, the District AAH Coordinator prints a pre-filled “Adopt-A-Highway Permit Application” (form TR-0103) and includes it with the Application Status Letter. Additional documents (plans and schedules, recognition panel design proof, etc.) are also requested at this time. Applicants are also given a deadline for returning the documents.

Once the “Adopt-A-Highway Permit Application” (form TR-0103) and additional documentation are submitted and approved, they are forwarded to the District Encroachment Permits Office along with the “Attachment A (Adopt-A-Highway Special Provisions)” (form MTCE-09) for issuance of the permit.

AAH Special Provisions include Safety Requirements (see Appendix K). These special provisions must be included in their entirety in all AAH Permits. Any highway segment that does not allow the total use of these special provisions should not be included in the AAH Program.

The AAH Program Application and additional information can be found at:

<https://dot.ca.gov/programs/maintenance/adopt-a-highway>

500.2 Landscape Administrative Permits

Caltrans supports enriching the cultural and visual environment of the transportation system and local communities by facilitating the placement of Transportation Art, Gateway Monuments, and Community Identification within the State highway right-of-way. These projects are proposed, provided, funded, installed, maintained, removed, and/or restored by the public agency representing the area in which the project will be installed. A Maintenance Agreement may be required for the ongoing maintenance of the project. The public agency may be a city, county, tribal government, or non-federally recognized tribe.

The Caltrans Blue Star Memorial Highway Program designates various State and National routes as Blue Star Memorial Highways in tribute to the men and women of the nation’s armed forces; the District Landscape Architect oversees these encroachment permits.

District Landscape Architects or Permits Landscape Architects evaluate proposals and coordinate these proposed activities. Landscape Administrative Permits do not have associated permit fees. A Double Permit (DP), and associated fees may be required for the entity installing Transportation Art, Gateway Monuments, or Community Identification. The District Encroachment Permits Office will issue an administrative permit upon receiving the approved application package along with the “Encroachment Permit Administrative Route Slip” (TR-0154) authorizing issuance of a permit from the District Landscape Architect or Permits Landscape Architect.

Permit applicants must follow the procedures and comply with the requirements established in the applicable sections of Chapter 29 of the Project Development Procedures Manual for

Transportation Art, Gateway Monuments, Community Identification and Blue Star Memorial Highways.

<https://dot.ca.gov/programs/design/manual-project-development-procedures-manual-pdpm>

500.2A Transportation Art

Permit Code AP

Additional information on Transportation Art is on the Caltrans Landscape Architecture Transportation Art website:

<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-j-transportation-art>

All requests to wrap, decorate or install artwork on Caltrans' equipment and/or structures, including but not limited to signal cabinets and electrical boxes, must be processed through the Transportation Art Program. If the requested proposal cannot be easily determined as Transportation Art, please contact your District Landscape Architect for determination.

500.2B Gateway Monuments

Permit Code GM

Additional information on Gateway Monuments is on the Caltrans Landscape Architecture Gateway Monuments website:

<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-d-gateway-monuments>

500.2C Community Identification

Permit Code ID

Additional information on Community Identification is on the Caltrans Landscape Architecture Community Identification website:

<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-c-community-identification>

500.2D Blue Star Memorial Highways and Roadside Memorials

Permit Code MM

Additional information on the Blue Star Memorial Highways Program is on the Caltrans Landscape Architecture Blue Star Memorial Highways website:

<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-a-blue-star-memorial-highways>

Roadside memorials, such as white crosses, wreaths, flowers, personal items, etc. that commemorate the memory of loved ones that died while traveling on a particular State highway

are not allowed unless required by specific legislation or approved via the Victims Memorial Sign Program (Streets and Highways Code, Section 101.10).

Additional information on the Victims Memorial Sign Program is on the Victims Memorial Sign Program website:

<https://dot.ca.gov/programs/traffic-operations/victims-memorial-signs>

500.3 Airspace Development

Permit Code AS

Airspace Development Permits “AS” are issued in conjunction with and under the terms of an Airspace Lease Agreement (ALA) or a Telecommunication Site License Agreement (SLA) for the development of usable airspace parcels within access-controlled right-of-way, and in some instances within conventional highway right-of-way.

General requirements for “AS” Permits and specific conditions that apply to column protection, fencing, telecommunications, and FHWA approval, on Interstate Systems, associated with airspace development are described in the sections that follow.

There are occasions where property (airspace) within conventional highway right-of-way is leased. It does not occur often, but when it does, the process is the same as when airspace is leased within access-controlled right-of-way.

Installations within conventional highway right-of-way are processed through the District Encroachment Permits Office, and generally do not require an ALA or SLA.

Functional branches involved in the processing of Airspace Lease Agreement submittals must charge their time to their own program overhead Project Code.

Functional branches involved in the processing of Telecommunication Site License Agreement submittals must charge their time to their own program’s Project Code.

Encroachment permits are required for all airspace leases when located within the operational highway right-of-way, including park and ride lots, when significant permanent improvements are proposed for the development of usable airspace parcels. An encroachment permit may not be necessary if the proposal is outside the operational right-of-way. The encroachment permit is utilized to protect Caltrans’s investment during construction.

The permittee is responsible for coordinating all inspection activities with the R/W Airspace Manager, including notification to others that may be affected by the improvements. When construction is completed and accepted by Caltrans’s R/W representative, the encroachment permit file is finalized and closed, and then the provisions of the Lease Agreement govern the lessee’s operation.

500.3A General Requirements

When an encroachment permit is required (as in the case of permanent improvements), it is issued only **after** the execution of an Airspace Lease Agreement or a Telecommunication Site License Agreement. The District Airspace Manager submits the following documents to the District Encroachment Permits Office for the issuance of the encroachment permit:

- A completed “Standard Encroachment Permit Application” (form TR-0100)
- “Encroachment Permit Administrative Route Slip” (form TR-0154) must be completed by the District Airspace Manager stipulating that the package is complete
- Payment and Performance Bond (forms TR-0018 and TR-0001. Usually waived for Telecommunications SLAs)
- Copy of liability insurance
- Copy of building permit by local jurisdiction
- Final construction plans, including planting and irrigation plans, approved by the District Airspace Review Committee (DARC) and FHWA

The Airspace Lessee must provide the District Airspace Manager with six (6) sets of plans and specifications for new construction of curbs, gutters, utilities, lighting, driveway approaches, paving, planting and irrigation systems, and new, modified, or rehabilitated buildings. The District Airspace Manager is responsible for circulating the plans and other documents for review and approval by the functional units.

During lease negotiations, the District Airspace Manager must meet and confer with the District Encroachment Permit Engineer to confirm the requirements between the permit’s General and Special Provisions and the Airspace Lease Agreement.

An encroachment permit may not be required when the Airspace Lease Agreement allows minor modifications to existing improvements (e.g., re-paving, change in direction of parking stall striping, change in directional signs, repairs or minor modifications to irrigation system, painting building exteriors, etc.), or when the site is located off the operational highway right-of-way, because the Airspace Lease Agreement governs these activities. The lessee is required to notify the District Airspace Manager any time construction activities are proposed on the site, and occur near structural columns.

The usable airspace parcel must not be occupied or used by the lessee until all proposed improvements are completed to the satisfaction of Caltrans’s Airspace Development Program representative. If an encroachment permit is issued, a copy of the “Progress Billing/Completion Notice” (form TR-0129) is sent to the District Permits Office and a copy to the District Airspace Manager.

Upon completion of the work and acceptance by Caltrans, the permittee must submit one set of film positive reproducible, either matte or clear, as-built plans to the District Permit Engineer, if

an encroachment permit was issued. A full size, original quality as-built plan set must be forwarded to Structures Maintenance.

500.3B Column Protection

Lessee's plans for column protection for Airspace Lease Agreements beneath a column-supported State structure are reviewed by Structures Maintenance. Caltrans's representative must ensure that the protection is placed and maintained during the authorized work or as required by Structures Maintenance.

500.3C Fencing

A Caltrans standard 6-foot high chain link fence may be installed around the perimeter of the leased area with gate locations shown on the plans. Security may be enhanced by the installation of vertical brackets on the fence posts and attaching three strands of barbed wire to the brackets. The use of razor ribbon coils atop the fence is prohibited. An encroachment permit for new fencing is required, but not required for normal maintenance repair. The terms and conditions for maintenance are included in the Airspace Lease Agreement.

Alternative fencing materials (e.g., masonry, wood, etc.) can be used, but require DARC approval. The District Airspace Manager will forward a copy of the DARC's comments and approval of the plans and specifications, including comments by HQ Structures Maintenance, to the District Permit Engineer as part of the encroachment permit application package.

500.3D FHWA Approval on Interstate System

Airspace development plans for sites located on the Interstate System must be approved by FHWA before an encroachment permit can be issued. The District Airspace Manager forwards a copy of the FHWA approval to the District Permit Engineer when the encroachment permit application package is submitted.

Encroachment permits for short term airspace uses such as; soil testing, Christmas tree lots, interim special event parking, donation collections, and highway contractor storage use may be issued without FHWA approval.

500.3E Encroachment Permit Application

The District Airspace Manager must obtain a completed "Standard Encroachment Permit Application" (form TR-0100) from the proposed airspace lessee as part of the submittal package.

500.3F Telecommunications (Wireless)

Wireless telecommunications facilities installed within conventional highway right-of-way are processed through the District Encroachment Permits Office, and generally do not require an ALA or SLA.

A Site License Agreement (the equivalent to an Airspace Lease Agreement) and an encroachment permit are required to place wireless telecommunications facilities within

access-controlled right-of-way, and in some instances within conventional highway right-of-way before construction can begin. The plans and specifications must contain a memorandum from the District Airspace Review Committee (DARC) that the proposed facility does not interfere with Caltrans's communications systems. The telecommunications carrier must be in conformance with all other requirements for the issuance of an encroachment permit. If the installation of locked gates is necessary, approval must be obtained from DARC.

Approval of wireless facilities and access to wireless facilities within access-controlled right-of-way is delegated to the DARC. Access to the wireless facility must be made from outside the right-of-way.

- **Site Survey Permits (Pre-Construction)**

Districts may issue an annual "SV" permit to each wireless service carrier for all conventional highways within the District. A deposit equivalent to ten (10) hours of the Standard Hourly Rate must be collected upon submittal. If the surveying is contracted to a surveying company, a Double Permit "DP" will be required.

Work within U.S. Forest Service property, other leased or prescriptive right-of-way are not authorized under Caltrans's encroachment permit, approval must be obtained from that specific property owner by means of written permission or permit. A copy of authorization or issued permit must also be forwarded to the District Airspace Manager.

- **Constructing Individual Wireless Sites**

The District Airspace Manager is responsible for the review process of all Lease Agreement submittals. Preliminary and final proposals are reviewed through the DARC before coordinating a detailed plan review and obtaining approval. Deviations from current guidelines require review from the Division of Design, Chief.

- **Future Maintenance of Facilities**

When facilities are located within the operational highway right-of-way an encroachment permit may be issued to each wireless service carrier for routine and emergency maintenance work within conventional and access-controlled right-of-way within the District. The permittee must not make additions to site facilities, change access locations, or allow attachments or modifications to their equipment that would result in use by other utility providers, as approved for construction under the Master License Agreement (MLA). Maintenance requirements within access-controlled right-of-way that do not conform to current guidelines will require approval from the Division of Design, Chief.

Applicants are responsible for all Caltrans costs associated with submittals.

500.3G This section was left blank intentionally

500.3H Permanent Record

The encroachment permit is a permanent record of the privilege given to the lessee to encroach upon highway right-of-way to construct, occupy, and use the constructed improvements.

500.3I Parklets

The term “parklet” refers to a small temporary constructed seating or community gathering area over an on-street parking space or an extension of the sidewalk into the operating State highway right-of-way. The purpose of a parklet is to create a safe, comfortable and inviting pedestrian experience for the general public where narrow sidewalks cannot accommodate the expansion of an area for seating or gathering without compromising pedestrian safety or walkway area. Wide sidewalks or future widening of the sidewalk may negate the need for a parklet. Parklets may be permitted to remain in place for a period of up to one year. Renewals requests will be considered and reviewed for any additional one-year periods.

The local public entity representing the area in which the parklet is proposed is responsible for its proposal, application, installation, maintenance and removal. No other type of applicants will be accepted (i.e. businesses, individuals, organizations, etc.).

Parklet proposals are administered as “Parks” under the Division of Right of Way and Land Surveys Office of Real Property Services - Property Management, Airspace, Clearance & Demolition. A Right of Way Use Agreement is required per California Government Code Section 14013 (Marler-Johnson Park Lease). The following requirements must be written into the ‘Use’ clause of the agreement.

- Parklets must be open for use by the general public.
- Parklets must support the needs of local communities.
- Parklets may include seating areas, benches, tables, bike racks, and planting areas.
- Parklets must be constructed and/or installed to conform with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- Parklets are not intended to replace walkways.
- Parklets must be properly maintained and kept free of trash or nuisance.
- Parklets must include signage designating the parklet as a public space not reserved for patrons of adjacent businesses.
- Parklets may include a sign identifying the local public entity. No commercial advertising is permitted.
- Vending and/or table service on parklets is strictly prohibited.
- Tables and seating must be distinct from those of nearby businesses.

Parklet Proposal Package & Process

The parklet proposal package must include a project narrative, site plan, photos and comply with the parklet design requirements. It is initially submitted to the Region / District Division of Right

of Way and Land Surveys Office of Real Property Services - Property Management, Airspace, Clearance & Demolition to ensure that the parklet location and use will not risk public safety or interfere with the State highway's primary transportation use. If deemed acceptable, the proposal is then forwarded to the District Airspace Review Committee (DARC) for review.

Once a parklet proposal package has been approved by the Region / District Division Right of Way and Land Surveys Office of Real Property Services - Property Management, Airspace, Clearance & Demolition unit, a complete application package along with an "Encroachment Permit Administrative Route Slip" (form TR-0154) is forwarded to the District Encroachment Permits Office to request the issuance of an administrative encroachment permit. This certifies that the project has been reviewed and approved and does not require any further coordination.

A complete application package must contain:

- A completed "Standard Encroachment Permit Application" (form TR-0100).
- "Encroachment Permit Administrative Route Slip" (form TR-0154).
- "Certification of Compliance with Americans with Disabilities Act" (form TR-0405).
- Copy of the fully executed Right of Way Use Agreement.
- Local interest and support for the parklet in the form of an adopted ordinance, resolution, or written consent from all the local public entities impacted directly.
- Approved Design Standard Decision Document for all Highway Design Manual design exceptions.

Project Narrative

The project narrative must include a short project description (800 words or less) which must include the following elements:

1. Identify the proposed parklet as an element of the Caltrans Complete Streets and Multi-Modal Transportation Plan.
2. Identify benefits from the parklet to the neighborhood in the immediate vicinity.
3. Identify how the community can participate in the creation and/or stewardship of the parklet.
4. Identify the proposed schedule for opening of the parklet.
5. Provide information of the parklet designer, including experience in the design of similar facilities.

Parklet Design Requirements

Structural plans, calculations and specifications are required when an elevated platform is proposed and must be prepared by a licensed California Civil or Structural Engineer. Drainage plans, calculations, and specifications are required when changes to the drainage system capacity are proposed and must be prepared by a licensed California Civil Engineer and in compliance with chapter 800 of the Highway Design Manual. A Flood plain encroachment study must be completed in accordance with the Federal Highway Administration standards, if drainage is changed within a federal highway facility.

1. Parklet location is evaluated using the current Highway Design Manual policy for shoulder width, clear recovery zone, horizontal clearance and corner sight distance. A Design Standard Decision Document will be required for any deviations.
2. Parklets may be allowed on highways where the speed limit is 30 mph or less.
3. Parklets are located along the curb line on highways where on-street parking spaces exists (parallel, diagonal or perpendicular parking). Parklets may be considered in locations where marked parking spaces are not available if marking is provided by the local public entity.
4. For parallel parking, the parklet structure must be set back 48 inches from adjacent marked parking spaces. For diagonal and perpendicular parking spaces, the edge of the parklet structure must be set back 36 inches from the adjacent parking space on either side.
5. No portion of the parklet may extend more than 36 inches above the surface of the roadway, except for landscape planting.
6. Landscape planting must be free from thorns. Trees must be small trees as defined in chapter 900 of the Highway Design Manual. Trees must be single trunk. Select tree species that can be maintained with an 8-foot clearance from the surface of the roadway to the lowest branches and foliage. Select plant species, excluding trees, which can be maintained to not extend into the travelled way or adjacent parking space and with a maximum height of 42 inches above the road surface.
7. The local public entity must establish the location of a parking stall line/edge of travel way.
8. Parking spaces adjacent to parklets must have parking bumpers a minimum of 4 feet from both sides of the parklet.
9. Space for curbside trash collection of adjacent property owners on both sides of the parklet must be considered.
10. Parklet railing opening must not exceed 4 inches for visual identification and to keep children from leaving the parklet area and encroaching into the traveled way.
11. Parklet substructure must accommodate the crown of the road and provide a slip resistant level surface.
12. No bolting to the state highway or curb is allowed.
13. Parklets must
 - comply with the American with Disabilities Act (ADA) and Design Information Bulletin 82. ADA certification is required (See Section 500A).
 - not be placed over ADA parking spaces or adjacent to red, yellow, white, or green curb zones, hydrants, newspaper vending machines, or postal collection boxes.
 - not restrict access to emergency vehicles, transit routes or public utilities.
 - not inhibit drainage capacity.
 - be located in well-lit areas.
 - be at least one parking space distance from any intersection curb returns.
 - be a minimum of 2 feet from the established parking stall line, edge of travel way, or bicycle lane, whichever allows for the greatest distance between the parklet and public traffic.

- have a minimum height of 24 inches for visual identification for approaching vehicles.
- have a flush transition at the sidewalk to avoid tripping hazards. Object markers and delineators must be used to enhance the visibility of the parklets.
- be closed off to pedestrians on 3 sides, and open to the sidewalk side only. No pedestrian access will be allowed from the vehicular traffic side.

To avoid creating a distraction to the traveling public, parklets must not include the following elements:

1. Colors or combination of colors usually reserved for official traffic control devices described in the California Manual of Uniform Traffic Control Devices (CA MUTCD).
2. Illumination including blinking or intermittent lights.
3. Text that makes special interest, private, religious, or political statements.
4. Text that includes business names, trade names, jingles, or slogans.
5. Reflective glaring surface finishes.
6. Out of scale with its surroundings.
7. Seating that is not integrated into the design elements.
8. Interference with traffic control devices.
9. Moving elements (kinetic art) or simulated movement.
10. Symbols or icons, including flags and logos.

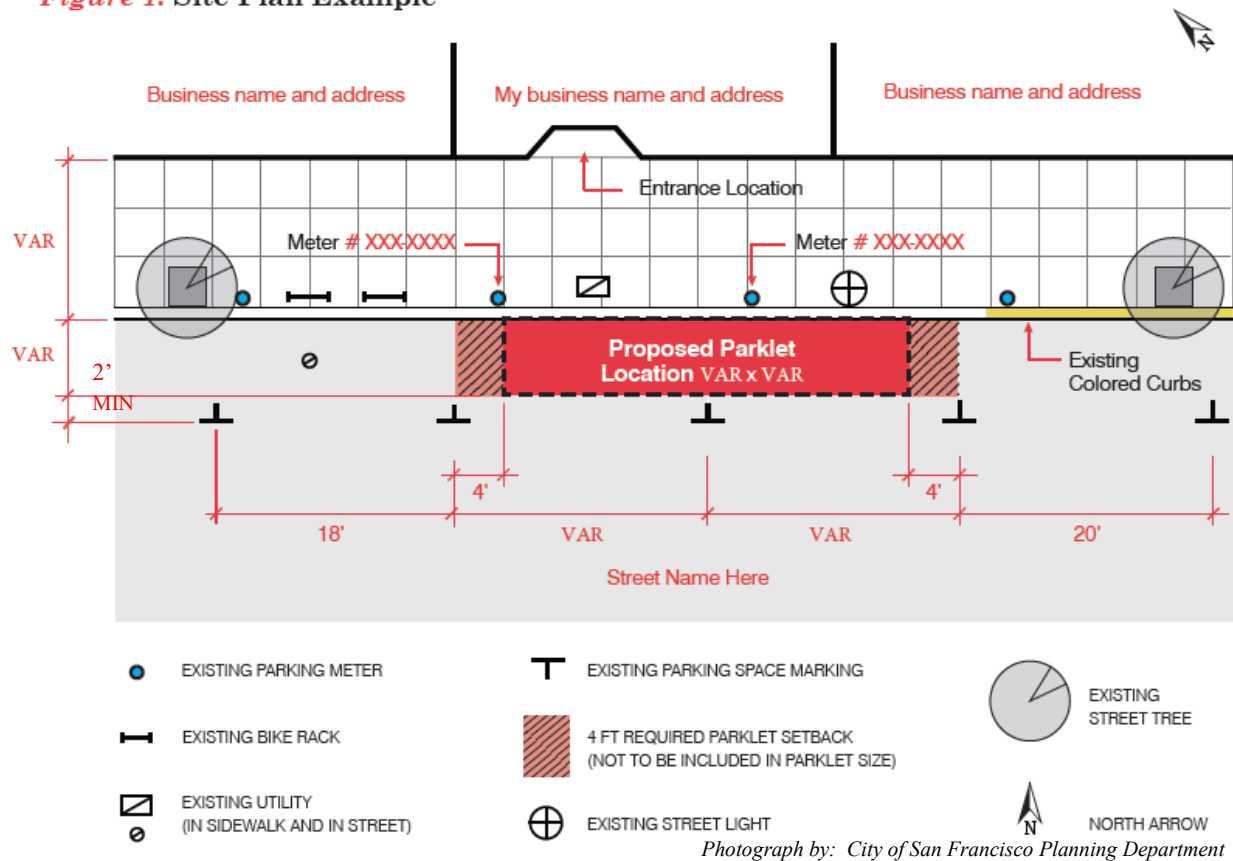
Site Plan and Photos

The site plan must be drawn to scale, with dimensions and show the parklet footprint and the following elements at least 20 feet on both sides as shown in Figure 1.

1. Parklet location and adjacent properties (existing bridge number, building or property address).
2. Horizontal dimensions from bridge supports to proposed parklet (if located under an existing bridge).
3. Parklet setback dimensions from adjacent parking spaces (48 inches minimum) and from adjacent bicycle lane or edge of travel way (24 inches minimum).
4. Adjacent bicycle lane (if existing) or auto traffic lane(s).
5. Existing parking meters with numbers of all parking meters to be covered or removed.
6. Location of existing trees and tree pits.
7. Existing sidewalk width(s).
8. Location of existing utilities in the street and sidewalk.

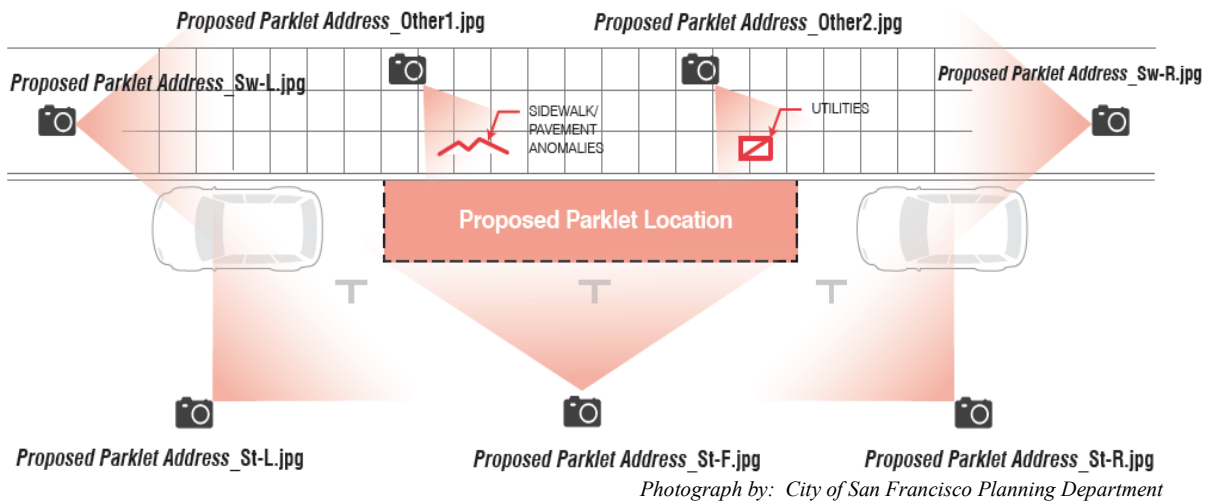
9. Location of other existing sidewalk features near proposed parklet area (fire hydrants, streetlights, utility poles and access panels, bicycle racks, etc.).
10. Existing curb ramps and driveways.
11. Location of existing drainage system.
12. All colored curb zones (red, yellow, green, white, blue).

Figure 1. Site Plan Example



Photograph by: City of San Francisco Planning Department

Photos must also be provided with the parklet submittal package and taken from specific angles around the proposed parklet site. Photos must depict existing conditions, drainage, utilities, sidewalk, curb and gutter, and pavement conditions. Image files are to be named using the conventions shown in Figure 2:

Figure 2. Existing Conditions Photos: *Locations and File Names*

500.4 Permits Issued by Cities and Counties

Permit Code CC

Cities and counties may issue specific encroachment permits on **conventional** State highways when authorized by a written agreement with Caltrans (See Appendix B). The specific permit types must be documented in the agreement. This agreement must be on file in the District Office and a copy forwarded to Headquarters Office of Encroachment Permits.

With an agreement, cities and counties may issue encroachment permits for **specific** activities under the following permit codes:

- **BR** Temporary Banners, Signs, Decorations – New or Repeat
- **CS** Curb, gutter, sidewalk (Removal or Repair of existing only)
- **FN** Fence Repair (Removal or Repair of existing only)
- **MB** Mail or Newspaper Delivery Boxes
- **RS** Driveway – Resurface, Reissue (for record purposes only)
- **SV** Land Survey – Conventional Highways only

Current Caltrans' forms must be utilized. All work must be in conformance with State policy and State design standards, unless local standards are more restrictive. The city or county must provide quality assurance personnel for review, inspection, and final acceptance.

The city or county must collect sufficient fees from the permittee to cover their cost of permit issuance, review, and inspection. Immediately after issuance, the city or county must provide Caltrans copy of the issued permits. Caltrans will retain these in their permanent permit files. After project completion, the city or county must send the completion notice, as-built plans, and other data requested by Caltrans to the District Permit Engineer for microfilming. The required data is specified in the agreement.

The city or county must maintain files on all permits issued on State highways. Federal regulations require Caltrans to monitor permits on the National Highway System. The city or county must make the permit files available for inspection at the request of the District Permit Engineer.

Table 5.3 lists the procedures that must be utilized by cities and counties in reviewing and processing permits issued on behalf of Caltrans.

Table 5.3
Caltrans' Procedures for Reviewing and Processing Permits
Issued by Cities and Counties

Use these procedures in reviewing and processing encroachment permits issued by cities and counties:

1. The city or county reviews the permit application for completeness and sends it to the respective Caltrans' District Permit Engineer.
2. The permit application is then Simplex stamped in the District Office and a copy is sent back to the city or county to issue the permit.
3. The city or county then issues the permit and sends a copy to Caltrans. Caltrans retains a copy in the District Encroachment Permits Office and sends a copy to the appropriate Caltrans permit inspector and the area maintenance superintendent for information purposes only.
4. Any Caltrans' administrative or permit processing charges are not billed on permits issued by cities or counties.
5. Any Caltrans' normal cursory inspection monitoring is not billed for permits issued by cities and counties.

500.5 Chain Installer Operations

Permit Code CN

Permit code CN is used to allow snow tire chain installers within the right-of-way for the benefit of motorists traveling in snow areas. Section 670 of the Streets and Highways Code authorizes these permits.

Districts issuing chain installer permits must institute a yearly training and testing program. Permit applicants must participate in an orientation session, pass both a written and a performance test during which snow chains must be installed properly within five minutes. Testing is conducted by either the District Encroachment Permits Office or the Maintenance Regional Managers Office and must be completed before a permit is issued. All administrative work, permittee training, testing and inspection time must be charged to the Maintenance Project Code for snow removal.

The "Chain Installer Permit Application/Release of Liability" (form TR-0106) and the "Chain Installer Permit" (form TR-0107) indicate the current fee and include the permit conditions. These forms are updated as needed by the HQ Office of Encroachment Permits and sent to all participating Districts. District Encroachment Permits Offices that do not administer the chain installer program should simplex-stamp the applications and distribute them to the Maintenance Regional Managers for permit issuance upon completion of testing.

District Division of Maintenance staff is responsible for ordering sets of consecutively numbered chain installer safety vests from the California Prison Industry Authority (CALPIA). Each permittee receives one vest with their permit. A permittee may apply for a second chain installer permit in another District, provided there is no established waiting list.

Loss of a permit or vest must be immediately reported to the District Encroachment Permits Office that issued the permit. A duplicate permit will be issued upon payment of the administrative fee (equal to one hour multiplied by the Standard Hourly Rate). A replacement vest will be issued upon payment of the administrative fee plus the cost of the vest itself.

Vests not used during the year may be retained in storage for future use.

The number of permits available for issuance is limited. First consideration must be given to prior applicants of the previous winter season, providing their permits were not suspended for more than 30 days or revoked during the previous winter season.

Any permits suspended near the end of the winter season, and/or if the suspension is found to be ineffective at the time so ordered in the opinion of the District Permit Engineer, may be applied to the next winter season if so stated in the letter of suspension to the permittee.

Appeals of any punitive action taken against a chain installer permittee must be submitted in writing within five (5) business days to the District Permit Engineer.

A written decision must be rendered within ten (10) business days from the receipt of the written appeal. The District Permit Engineer's written decision may be appealed in writing within five (5) business days, to the District Director in which the permit was issued. The District Director's decision must be rendered in writing within ten (10) working days from the receipt of the appeal, and this decision is final (There are no further administrative rights of appeal.).

Penalties noted in the "Chain Installer Permit Application/Release of Liability" (form TR-0106) and the "Chain Installer Permit" (form TR-0107) are the minimum. Severe penalties may be imposed for any infraction of Permit Conditions if warranted by the circumstances, or by the permittee's conduct.

500.6 Commercial Use

Permit Code CU

500.6A Newspaper Vending Machines

No-fee permits are issued for placing newspaper vending machines within conventional highway right-of-way. Caltrans should work with servicing news organizations to select safe locations for vending machines and encourage placement of machines on private property. Permits are issued to news organizations for their individual vending machines when no practical location exists outside the right-of-way in the area requested.

Districts may remove existing newspaper vending machines placed without a permit and cite them as illegal encroachments. When vending machines obstruct pedestrians or present a traffic hazard, the news organization must relocate or remove the obstructing vending machines.

Coin-operated newspaper vending machines featuring sex-oriented magazines and newspapers are not permitted within State right-of-way [California Penal Code Section 313.1 (c) (1)].

Newspaper vending machines must have a minimum 2 feet horizontal clearance to the face of curb and provide 4 feet of clear sidewalk. They must comply with standards for clear recovery zone and breakaway design if Districts determine that the installation would constitute a fixed object. Vending machines displaying advertising for other than the newspaper must be removed.

Newspaper vending machines are not authorized, and permits are not issued, within access-controlled right-of-way except as provided in Section 500.6B. Maintenance will immediately remove machines located within the access-controlled right-of-way, except for those statutorily authorized in roadside rest areas under a “Newspaper Distribution Agreement” (form TR-0150, see Appendix B) prepared by the District Landscape Architect.

500.6B Safety Roadside Rest Areas and Vista Points

The District Safety Roadside Rest Area Coordinator is responsible for activities pertaining to safety roadside rest areas. Vista Points’ activities are the responsibility of the District Landscape Architect. Applications that require an encroachment permit will be reviewed and approved by the appropriate functional units coordinated by the appropriate coordinator and the project documents transmitted to the District Permits Engineer by an “Encroachment Permits Administrative Route Slip” (form TR-0154) authorizing the issuance of an encroachment permit.

The coordinator performs all reviews, field studies, and document preparation before sending the completed package to the District Permit Engineer for permit issuance. Applications for the placement of Newspaper vending machines require a completed Newspaper Distribution Agreement (form TR-0150) and a deposit/fee equal to four (4) hours times the SHR. Refer to “Newspaper Distribution Guidelines for Safety Roadside Rest Areas” in Appendix E for additional information.

Safety Roadside Rest Areas and Vista Points are not a public forum. These facilities are part of the State Highway System and are not intended for exercising First Amendment rights.

Solicitation, the distribution of goods or literature, the use as a public forum, and vending activities are not permitted in safety roadside rest areas and vista points except as described below.

Activities that require a permit and the responsible Headquarters jurisdiction are listed as follows:

- | | |
|-------------------------------|------------------------|
| • Newspaper Vending Machines | Landscape Architecture |
| • Vending Machines | Landscape Architecture |
| • Coin/Credit Card Telephones | Telecommunications |
| • Coupon Distribution | Maintenance |

The Streets and Highways Code, Section 220.5 authorize the placement of vending machines and any associated shelter or structure to house the vending machines at safety roadside rest areas. One permit is issued for each site to the California Department of Rehabilitation for construction and maintenance of vending machine and any associated shelter or structure to house the vending machines. A double permit is issued to the contractor installing and maintaining the vending machines and any associated shelter or structure to house the vending machines.

For additional permitting information, see the California Code of Regulation, Title 21, Division 2, Chapter 20, Article 4.

Uses not requiring a permit and the responsible Headquarters jurisdiction are listed below:

- | | |
|--------------------------------|------------------------|
| • Agricultural Displays | Landscape Architecture |
| • Traveler Information Centers | Maintenance |

Agricultural Displays and Traveler Information Centers are governed under the terms of agreements administered by the Maintenance and Landscape Architecture. Other proposed activities or uses may require an encroachment permit. For determinations, contact Headquarters Office of Permits.

500.6C Demonstration & Experimental Projects for Commercial Use of Right-of-way

The Division of Right of Way is involved with demonstration or experimental projects involving commercial use of the right-of-way authorized by statute. The most apparent project type is a commercial kiosk used for advertising in roadside rest areas. This program involves placement of private property within the right-of-way. Right of Way manages these programs and coordinates all reviews. Permits are issued when applications are approved by Right of Way.

500.7-500.9 These sections were left blank intentionally

500.10 QMAP (Previously Oversight) Projects (Rev 08/21)

Permit Code OP

A Quality Management Assessment Process (QMAP) Project (OP) permit is issued for projects on the State highway right-of-way managed through the QMAP. See Section 202.3 for more information on the QMAP. A Caltrans functional unit (usually Project Management or Design), other than the District Encroachment Permits Office has responsibility for these projects including, but not limited to, plan review and approval, storm water document quality assurance, obtaining encroachment permits and executing applicable agreements (e.g., Cooperative Agreement, Highway Improvement Agreement, Joint Use and Maintenance Agreement, or

Maintenance Agreement). The Project Development and Procedures Manual, Deputy Directive 23, and Deputy Directive 90 have further information on projects funded/administered by others on the State highway right-of-way.

The Caltrans Project Manager will develop a workplan and provide a Project Code. The Project Manager should consult with the District Permit Engineer during workplan development to ensure that the District Encroachment Permits Office is appropriately resourced. Time expended by Encroachment Permits' staff on QMAP projects must be charged directly to the QMAP Project's Project Code.

Once all reviews and approvals have been obtained by the Caltrans Project Manager, a complete application package along with an "Encroachment Permit Administrative Route Slip" (form TR-0154) is forwarded to the District Encroachment Permits Office to request the issuance of an administrative encroachment permit. The signed TR-0154 form certifies that the project has been reviewed and approved and does not require any further coordination or approvals.

Applicant's contractor may be required to obtain an encroachment permit, coded "DP" (double permit). See Section 50.14 for more information on the Double Permit requirements.

District Encroachment Permits Office doesn't collect any fee for these projects. Project Manager will manage any reimbursements and fees for the Department's services provided on these projects in accordance with applicable Department policies. The applicant must comply with the bonding requirements in Section. 3-1.05 of Caltrans' Standard Specifications.

Table 5.4
Application Package Submittal Requirements for QMAP Projects

The Encroachment Permit application package must contain the information listed below for permit issuance on QMAP Projects:

1. A completed "Standard Encroachment Permit Application" (form TR-0100).
2. A completed "Encroachment Permit Administrative Route Slip" (form TR-0154) provided by the responsible functional unit transmitting project approval and all required items. This form indicates that the project has addressed all concerns by Caltrans functional units and is "ready to proceed."
3. A copy of the approved Project Initiation Document (DEER, PSR-PDS, PSR).
4. A copy of the fully executed agreements and exceptions to standards and policies.
5. A full set of project plans that have been reviewed and delineated "approved" by applicable functional units. Registered Engineer's Seal and Stamp Requirements are addressed in sections 202.5 and 202.5A for Plans and Utility Plan sheets respectively.

501 GENERAL TYPES OF PERMITS

The types of encroachment permits listed in Table 5.1A and Table 5.1B generally have only one permit code. They cover a wide range of authorized activities and the scope of permitted activities may vary from routine to complex. Many of the activities covered by these permit types do not require preparation of a Permit Engineering Evaluation Report (Section 202.2).

Permits covering several project locations or Districts are called blanket permits. Generally, they are issued for utility facility service connections and routine maintenance as described in Chapter 600. However, blanket permits issued for other permit types are discussed in appropriate sections of this chapter.

ANNUAL/ BIENNIALS

District review (Hydraulics, Traffic Operations, etc.) is required for a new biennial permit. The District Permit Engineer may elect to re-issue the permit without the District review if all Caltrans' requirements are satisfied and field conditions have not changed from the original biennial permit, for the same permittee.

Permits may be issued as a two-year permit (biennial) subject to the discretion of the District Permit Engineer as indicated in the appropriate sections of this chapter and the next chapter. A summary of these permits is as follows:

Table 5.5

Code	Description	Code	Description
BR	Banners	SV	Engineering Services
BS	Bus Shelters & Benches		Land Surveys
GC	Cable Crossing (Geophysical)		Research Projects Funded by FHWA
GV	Seismic Vibrator (Geophysical)		Soil Surveys
LM	Landscape Maintenance		Traffic Counts
LT	Tree Pruning (Trimming) and/or Removal	RX	Railroad Grade Crossing Maintenance
MC	Mowing Grass by Adjacent Property Owners Grading	TK	Planned Sobriety Checkpoints
OA	Outdoor Advertising Visibility Improvement	UB	Utility Maintenance

501.1 Litter, Vegetation, and Roadside Cleanup

Consent Letter

A "Consent Letter" (form TR-0131) for litter, vegetation, roadside cleanup, and minor forest service products may be issued by the Maintenance Area Superintendent for one-day activities of a type that do not meet the requirements of Caltrans' Adopt-A-Highway Program. The Consent Letter is issued to an individual or group for a one-time cleanup effort. It contains all provisions that apply to work along the highway at the location specified by the applicant and approved by the Maintenance Area Superintendent. The Deputy District Director-Maintenance may approve multiple dates at his or her discretion (maximum of three consecutive days).

501.2 Salvage Operations

Consent Letter

The Maintenance Area Superintendent issues salvage permits by issuing a Consent Letter.

Individual salvage permits are required for each specific return to an accident scene by an owner or authorized agent to remove wrecked vehicles or their loads.

Salvage permits are not required when the life or safety of vehicle occupants is involved, to recover victims, to remove wrecked vehicles or their loads that are blocking the roadway, or when a law enforcement officer orders removal from alongside the highway.

In addition, a transportation permit issued by the Caltrans Transportation Permits Issuance Branch is required for oversize or overweight tows. For more information on Transportation Permits go to:

<https://dot.ca.gov/programs/traffic-operations/transportation-permits>

501.3 On-Premise Advertising Displays, Arcades, Awnings, and Marquees

Permit Code AD

AD permits authorize installation and maintenance of on-premise advertising displays, arcades, awnings, and marquees. The following sections describe the general requirements that apply to all AD permits and the specific conditions that apply to each type of installation.

501.3A On-Premise Advertising Displays

AD permits are allowed only for on-premise installations as defined in the Business and Professions Code, Division 3, Chapters 2 and 2.5. Maintenance agreements or more restrictive ordinances or regulations by any city or county take precedence over this section.

An AD permit must not be issued if the proposed installation creates a hazardous condition because of a curb, gutter, cross slope etc., or if the encroachment is an integral structural portion of a building (including: roof eaves, new bay window, and cantilevered upper floors).

A structure advertising the business conducted on the premises may overhang the conventional highway right-of-way if it meets all the conditions specified in Table 5.6.

Contact the Headquarters Chief of Outdoor Advertising Program when questions arise as to whether or not a display conforms to Caltrans' Outdoor Advertising Regulations.

Table 5.6
Guidelines for Allowing a Structure to
Overhang the Conventional Highway Right-Of-Way

An advertising display structure may overhang State right-of-way if it satisfies **all** of these conditions:

1. Conforms to local building code.
2. Structurally adequate.
3. Supporting structure is outside the right-of-way. This includes freestanding or attached to the building it serves (except in special cases where arcades are permitted).
4. Overhang may not extend closer than 24 inches horizontally from the curb face. Exceptions are in historical districts where overhangs are permissible to the curb face. Curbs or other approved safety barriers should protect sign structures.
5. Preferred minimum vertical clearance from the sidewalk is 12 feet. A minimum 8 feet clearance is acceptable when local codes are satisfied.
6. No flashing, rotating or intermittent lights are allowed except for approved public service information signs. Signs containing red, yellow, or green lights are not permitted when they interfere with perception of traffic signals.
7. Wording on the sign may identify only the name of the owner or occupant of the premises or to identify the premises, goods sold or produced, or services rendered on the premises.
8. Displays must not interfere with or hide traffic signals or traffic signs.
9. Any future change in wording or location of a sign requires a separate permit.

501.3B Arcades

Arcades are quasi-permanent, awning-type structures that cover sidewalk areas. They generally are supported by buildings and, when permitted, by freestanding posts on the sidewalks. ADA Certification is required if poles are proposed in the design.

Arcades must not be a structural part of the building roof trusses. They also must not interfere with traffic signals and signs, nor have structural posts that reduce horizontal sidewalk clearance to less than that required under the current Design Information Bulletin 82 (DIB 82). For other requirements, see Table 5.7.

501.3C Awnings

An awning is a temporary removable or retractable shelter supported entirely from the exterior wall of a building. Awnings may identify only the owner or place of business.

501.3D Marquees

A marquee must be supported entirely by the building. Any drainage from the marquee must not fall on, or drain across, the sidewalk.

501.4 – 501.6 These sections were left blank intentionally

501.7 Banners and Decorations

Permit Code BR

Banners and Decorations are permitted only on conventional highways—they are not allowed within access-controlled right-of-way.

BR permits authorize the erection of banners, decorations, and temporary signing for events by nonprofit organizations over and within State conventional highway right-of-way.

Permanent overhead signs or arches may not be erected or suspended over any State highway. Temporary political signs placed within State highway right-of-way are prohibited by the Business and Professions Code, Section 5405.3, and must be removed immediately.

Authorized banners and decorations over the roadway must have a clearance of at least 18 feet and be suspended securely from permanent structures or poles. Vertical clearance must be 20 feet on Extralegal Load Network (ELLN) highways. No temporary supports are allowed and use of State facilities is prohibited.

501.7A Non-Decorative Banners

Permits for Non-Decorative banners are issued to a local agency or a nonprofit organization sponsoring an event approved by the local agency. Banners displaying private advertisements are not allowed. An exception is when the advertisement is part of the event's official title (e.g. Kellogg's Napa Valley Marathon). Banners are not authorized within access-controlled right-of-way nor must they be attached to State facilities.

Districts may issue biennial permits to local agencies for installation of Non-Decorative banners at specific locations for recurring events. The local agency then authorizes each banner installation, notifies the State's representative, and provides traffic control.

The restrictions for Non-Decorative banners are listed in Table 5.7 and apply to both individual banner permits and annual/biennial permits to local agencies.

Table 5.7
Guidelines for Installation of Banners in
Conventional Highway Right-of-way

1. The event must be approved by the local government having jurisdiction.
2. Display is allowed only within the community that is staging the event, or immediately adjacent to the event location.
3. The banner must be made of substantial material, such as: cloth, canvas, or plastic.
4. The permit engineer must determine the maximum number of banners allowed.
5. Rope must be without knots.
6. Banners must not contain private advertising whether in text or logo format. However, brief text, and/or logos identifying the applicant's local agency (city or county) are allowed. The telephone number of the nonprofit organizations may be included.
7. The lowest point of the banner must be at least 18 feet above the highway pavement and 20 feet on Extralegal Load Network highways.
8. Suspension or installation of banners is prohibited on State-owned traffic signal poles or other State-owned facilities.
9. Local police may provide traffic control while the banner is being installed or removed.
10. The display may be allowed two weeks before the event and may remain in place for the duration of the event. However, the total period of display should not exceed six weeks.

501.7B Decorative Banners

Decorative banner permits are issued to local agencies for beautification enhancement of their local streets. As a minimum, decorative banners must:

1. Be used exclusively on conventional highways.
2. Not contain advertising whether in text or logo format. However, decorative text or brief text, and/or logos identifying the applicant local agencies, (e.g. cities and counties) are allowed.
3. Remain in place for periods up to two years--the normal biennial permit duration. However, at the end of the two years, the local agency may reapply.
4. Be applied for by the local agency.

By State statute, the flags of the United States of America and the State of California may be placed on sidewalks within State conventional highway right-of-way. Encroachment permits are not required within city corporate boundaries; however, Caltrans should approve the method of installation and maintenance. In unincorporated county areas, no-fee permits are issued for flag installations after any needed traffic and maintenance reviews are completed. Applicants usually

are local agencies and civic organizations, but individuals may make applications for flags displayed within the right-of-way immediately fronting their property.

501.7C Holiday Decorations

Holiday decorations are permitted only on conventional highways—they are **not** allowed within access-controlled right-of-way.

Decorations attached to vertical structures (other than State-owned facilities) such as power, telephone, or light poles are not to project beyond the curb line and must be at least 14 feet above the sidewalk. Decorations attached to vertical structures that project beyond the curb line or cross the highway must have a minimum vertical clearance of 18 feet above the highway pavement and 20 feet on Extralegal Load Network (ELLN) highways. Decorations must not be attached to State-owned facilities.

Decorative red, yellow, or green lights must not be placed where it could interfere with the driver's perception of traffic signals.

501.8 Bus Passenger Waiting Shelters and Benches

Permit Code BS

BS permits authorize the construction of bus passenger waiting shelters and benches within the State right-of-way. A biennial BS permit should also be issued for the continued maintenance of the facility and advertising panels. The following sections describe the general requirements for bus shelters and the specific conditions that apply to advertising, clearances, construction details, and telephones associated with bus shelters and benches.

501.8A General Requirements

Permits may be granted to local agencies or transportation districts to construct bus passenger waiting shelters or benches within the right-of-way at official bus stops on conventional highways. The shelter design must comply with design standards of the local agency, transit agency, or Caltrans, whichever is most stringent. ADA certification is required. See the ADA certification section at the beginning of this Chapter.

Bus shelters or benches must not restrict sight distances.

501.8B Advertising

Generally, advertising within the right-of-way is prohibited by the California Constitution for to allow it could be a gifting of public funds. Specifically, it is prohibited by State statute (Streets and Highways Code 721 and Business and Professions Code 5403). Even if Caltrans received revenues for sign placement, such signs would soon clutter the highways, become a distraction to motorists, and degrade any scenic value. However, advertising on bus shelters and benches is permissible (Business and Professions Code 5408.5) provided advertising displays are not within 660 feet of and visible from any roadway segment on the National Highway System. Advertising

displays within 660 feet of, and visible from, any urban highway must be consistent with federal laws and regulations.

Advertising displays must be placed only at approved passenger loading areas and must not extend beyond the exterior limits of the shelter or bench. Advertising must not exceed two display panels per shelter or bench.

501.8C Clearance

Complete State ADA design requirements are provided in the current Design Information Bulletin 82 (DIB 82).

501.8D Construction Details

The minimum structural section design is in Index 626.4(3) of the HDM. When the existing bus pad does not meet this minimum standard, the local agency or bus transit district must reconstruct the highway at new bus stop to accept the continued vehicle loading. In addition, the permittee must ensure that all pavement is saw-cut before removal and must replace, in kind, any pavement markings that are damaged.

501.8E Telephones in Shelters

Coin-activated or credit-card-activated telephones may be placed in bus passenger shelters located on **conventional** State highways. Permits authorizing phone installations are issued to the local agency or transit district. A separate encroachment permit (double permit) must be issued to the installing company for telephone installation and maintenance.

Placing telephones in new transit shelters is authorized by the shelter permit. Permission to add a telephone to an existing shelter is provided in a rider to the original permit authorizing the shelter or in a new permit to the local agency or district.

Local agencies must adopt a parking ordinance restricting parking in front of newly established bus stops and submit it to the District Director for approval.

501.9 This section was left blank intentionally

501.10 Commercial Development

Permit Code CD

The encroachment permit code (CD) is issued for commercial developments, which are usually associated with large shopping centers or office complexes. However, housing and apartment complexes often are included when they impact State highways. Work involved in commercial development generally is more than what can be classified under a single permit type or code.

Curb, gutter, sidewalk, commercial driveways, drainage, and street lighting are common work in commercial development. Signal work sometimes is a required improvement in such

developments, and an “SN” permit code should be considered if the work involves primarily signals and lighting.

If highway improvements are required, all pedestrian facilities within the limits of the project’s scope need to comply with the current Design Information Bulletin 82 (DIB 82). If the pedestrian facility on one corner of an intersection requires modification in order to comply with DIB 82, then all adjacent corners connected by a pedestrian path are considered to be within the scope of work and are required to comply with DIB 82.

501.10A Dedication of Public and Private Property to Caltrans

Rev (07/21)

A dedication is the setting aside of real property (in fee or easement) for public use without compensation, typically as a condition of the local agency approval of a development project (building permit, land use zoning variance or change, tentative subdivision or parcel map, etc.). Where development occurs or land use changes are proposed, the local agency, through its regulatory authority, may require dedications.

Typically, the property owner or their agent initiates the request that triggers the dedication. Caltrans may also request a dedication when an encroachment permit is requested through the district Encroachment Permits Office. Due to the complexity and time required to process real estate transactions, the applicant is encouraged to contact the Caltrans’ Transportation Planning Office early in the project development and prior to submitting an encroachment permit application.

Additional information on dedication process and requirements is in the Caltrans’ Right of Way Manual Chapters 6 and 8. The manual can be accessed at:

<https://dot.ca.gov/programs/right-of-way/right-of-way-manual>

501.11 This section was left blank intentionally

501.12 Curb, Gutter, and Sidewalk

Permit Code CS

CS permits authorize construction and maintenance of curbs, gutters and sidewalks, which normally are used in urban areas to control drainage and provide accessibility. ADA Certification is required (See Section 500 and Chapter 200). Except for medians and typical installations at right-turn channels, etc., curbs are not a traffic control device and should not be used solely for traffic channelization without approval by District Traffic (See Section 508.10, “Protection of Survey Monuments”).

The CS permit code applies to residential and small commercial proposals that involve more work than driveway openings classified as RS, RM, or RC permits. The work also could involve minor paving, curb ramps, minor signing, and installation of one or two luminaires that are

owned and maintained by a city or county. Signal work and installation or relocation of State safety lighting are classified as SN or CD permits and are not allowed under a CS permit because they require intensive review and inspection.

Designs for curb ramps that are proposed in new construction or as a retrofit must satisfy requirements shown in the standard plans.

Multi-year CS permits may be issued to local agencies (cities and counties) for up to two years. Should standards change during the term of the encroachment permit, the permittee must comply with current State standards and specifications. CS permits authorize reconstruction, repair, and replacement of existing curbs, gutters, curb ramps, and sidewalks. These structures must conform to existing dimensions, configurations, alignments, and grades. Drainage facilities must not be modified and healthy trees must not be removed.

501.13 This section was left blank intentionally

501.14 Double Permit

Permit Code DP

An encroachment permit must be issued to the *owner* of the encroachment. When encroachment work is performed by someone other than the owner, the contractor also may be required by the District to obtain a permit for the work. This practice is called double permitting and is required to recover inspection charges when the original permittee is a public corporation having its work performed by contract (Section 601).

When double permitting is required, the following clause is inserted in the original permit:

“Notwithstanding General Provision #4, your contractor is required to apply for and obtain an encroachment permit prior to starting work. A fee/deposit of \$ _____ is required at the time of application.”

The contractor must keep on site copies of both the owner’s and the contractor’s permits.

The DPE may require double permits on routine encroachments. Some examples of routine encroachments are residential driveways, sidewalks, and customary utility work. Double permitting for routine encroachments may be required when Caltrans previously had difficulty securing compliance with permit provisions by either the permittee or contractor.

Deviations from requirements for double permits occur in some specific permit types and are discussed in the appropriate specific sections of this manual.

502 DRAINAGE

Encroachment permits for constructing drainage facilities are classified as major or minor projects. Any diversion of drainage run-off onto highway right-of-way are not allowed. Drainage diversions require an approved exception from the Chief, Headquarters Division of Design.

502.1 Major Drainage Facilities

Permit Code DD

Large drainage projects located within Caltrans' right-of-way can impact State drainage, traffic, and future highway design. Work can range from trenching for pipelines and boxes to new or modified multi-cell box culvert structures.

Districts should ensure that diversions in drainage are not proposed and that systems can adequately handle the drainage using Caltrans' design criteria. Connections to State systems are not authorized solely to carry the burden of increased runoff from a new development. When State facilities cannot carry the increased drainage, the applicant is responsible for enlarging the capacity of the State facility to handle the increased drainage generated by the proposed work.

Preferably, applicants should place a closed system through the State right-of-way rather than enlarge the capacity of State facilities. However, no maintenance facilities (such as manholes, basins, etc.) are authorized within State right-of-way when a closed system is constructed unless such facilities are required by the State.

Structures Maintenance should review and approve plans for major drainage channel construction. Grading and channel lining can affect the foundations of existing State structures, and structure modifications may affect traffic. Persons working within one mile upstream or downstream of a State structure are required by statute to obtain Caltrans' approval. When protection to the State facility is necessary, a permit is required before starting work within the right-of-way.

Districts should require a performance and payment bond for drainage improvements not owned or maintained by Caltrans.

502.2 Minor Drainage Facilities

Permit Code DM

Some examples of minor drainage facilities are small-diameter or low-volume drainage outfalls, through curb drains, roof drains, and minor grading to improve a State outlet or inlet. These types of facilities generally require little review, but they should not affect the State system. If the applicant's proposal appears more involved or if hydraulic concerns are raised, Districts may still classify the encroachment as minor and perform more extensive reviews with AX permit fees.

503 FILMING

To encourage motion picture and television filming in California, the California Legislature established the California Film Commission (CFC) as a one-stop permitting authority for the use of state-owned property and state employee services for making commercial motion pictures or still photography. The District 7 Encroachment Permits Office (Los Angeles) is the Caltrans Statewide Film Coordinator (CSFC) and acts as the film liaison to approve or deny all applications for film activities under Caltrans jurisdiction (Government Code, Section 14998 et al., Executive Order S-15-04).

Film production companies submit applications to the CFC in Hollywood who in turn forwards the application to the District 7 Encroachment Permits Office. The CSFC coordinates with Encroachment Permit staff in the other Districts where the film activity is proposed. Each District must designate staff as a District film coordinator.

The CSFC issues the encroachment permit for filming only after obtaining permit provisions and requirements from the affected Districts and submits the encroachment permit to the CFC for inclusion to the CFC film permit. The CSFC, whenever feasible, approves or denies an application within 24 hours. If not feasible, the CSFC will contact the CFC within five working days from the receipt of the application and provide an estimated approval/denial date. This date must be within 10 calendar days from receipt of the application.

503.1 Filming on the Interstate System

The Federal Highway Administration (FHWA) develops policy and assumes responsibility to ensure that the Interstate system is operated and maintained to enhance safety and minimize disruptions. While the control of activities that take place on a specific highway segment is Caltrans' sole responsibility, Caltrans' basic concerns are the same as FHWA's.

Filming within an access-controlled right-of-way is strictly controlled and can require extensive review by Caltrans. Some filming activities have ramp closures and traffic control, which directly impact the system. Some filming activities move over restricted portions of the Interstate system and could require closure of the entire traveled way. Such activities on the Interstate system require FHWA approval when they may cause major disruption or negatively impact the safety and integrity of the system.

503.2 CHP/Caltrans/CFC Joint Policy Guidelines for Filming on State Highways

The California Highway Patrol (CHP), Caltrans, and the California Film Commission have entered into an interagency Memorandum of Agreement (MOA), which defines the cooperative relationship and joint guidelines to assist the CFC in carrying out its duties and meeting its objectives. The MOA provides the guidelines and conditions of approval, processing, and monitoring of various types of film activities on Caltrans' facilities. The guidelines do not

preclude the development of additional guidelines by local CHP commands and Caltrans Districts covering specific issues of mutual concern or interest. A complete copy of the agreement and guidelines is included in Appendix E.

The CFC submits a completed permit application package for a commercial filming encroachment permit to the CSFC and must include the items listed in Table 5.8.

Table 5.8
Permit Application Package for Filming Permits

The encroachment package submitted to Caltrans by the California Film Commission must include:

1. A completed California Film Commission permit application
2. If required, lane closures or detour plans approved by the affected governments
3. Resolutions from all impacted governments indicating approval of the filming activities and lane closures or detour plans. Resolutions should conform to Caltrans' sample format. These resolutions are required when a directional road closure of a State highway (or local road) for filming exceeds five minutes. Sample resolutions and letters of approval are included in Appendix I. When time is of the essence, forms included in Appendix I may be completed by a local official in lieu of a resolution.

503.3 Procedures for Reviewing and Issuing Filming Permits

To minimize traffic congestion and delays during filming, District Permit Engineers should closely monitor the authorized activities associated with FL and FS permits. The DPE should consider consulting the District Traffic Operations unit for locations with substantial traffic volumes before recommending approval of an application to the CSFC. As a minimum, consultation with Traffic Operations by telephone may be appropriate when the CFC requests review on very short notice.

The procedures for reviewing and issuing filming permits are in Table 5.9.

Table 5.9
Procedures for Reviewing and Issuing Filming Encroachment Permits

1. The production company calls the CFC to discuss filming on a State highway. If the company contacts Caltrans directly, relating to the availability or feasibility of highway facilities, basic information, and guidance should be provided if requested. The production company should be referred to the CFC for the submittal of a CFC Permit Application [**California Film Commission, 7080 Hollywood Boulevard, Suite 900, Hollywood, CA, 90028, (323) 860-2960 x 104**].
2. The production company provides details about location, date, proposed activity, meeting locations, etc., to the CFC.
3. The CFC verifies that basic insurance is on file and prepares the Caltrans Permit Application Package.
4. The CFC sends the Permit Application Package to the Caltrans Statewide Film Coordinator (CSFC), calls to verify receipt, and discusses the application with the CSFC.
5. The CSFC contacts the District film coordinator in the District where filming is proposed. The District film coordinator checks with field inspectors and Traffic Operations (if appropriate) to determine the acceptability of the proposal and define any special requirements. If proposed activities are unique, headquarters Legal is consulted to determine if additional liability insurance is needed. The District film coordinator provides this information to the CSFC verbally and in writing.
6. The CSFC coordinates with the Film Media Relations Officer of the California Highway Patrol and establishes required involvement of the CHP, conditions, and requirements. The SC-5 (“Special Event Ahead”) signs are *not* allowed during traffic control for filming.
7. The CSFC prepares the encroachment permit, including the estimated fees for review and inspection to be charged on the permit, and sends it to the CFC. A copy is sent to the District film coordinator and/or field inspector in the District where filming is proposed. **The CSFC must also provide a copy to the Transportation Permits Office when a highway closure and/or detour are required.**
8. The CFC attaches Caltrans' encroachment permit to the CFC permit. The production company picks up the CFC permit from the CFC and pays Caltrans' permit fee to the CFC.
9. The CFC logs the permit and encroachment permit fees.
10. The CFC collects fees for film permits and submits the collected fees monthly to Caltrans' Division of Accounting. All collected fees are deposited into the State Highway Account.

503.4 Liability Insurance for Commercial Filming

The CFC maintains continuing insurance policies on most film companies and will ensure that necessary insurance policies are submitted to it before permit issuance. Certificates of insurance name the State of California, California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation as being additionally insured.

Insurance coverage required by the DPE normally ranges between the following two extremes shown in Table 5.10, depending on the risk. Special filming activities involving stunts, pyrotechnics, and aircraft flying below an altitude of 500 feet may require additional insurance as set by headquarters Legal.

Table 5.10
Liability Insurance Required for Commercial Filming

Coverage	Minimum Amount	Maximum Amount
Bodily Injury	\$1,000,000 each person \$1,000,000 each occurrence	\$10,000,000 each person \$10,000,000 each occurrence
Property Damage	\$1,000,000 each occurrence	\$ 2,500,000 each person
Aggregate	\$1,000,000	\$10,000,000

503.5 Permit Types for Commercial Filming Activities

Commercial filming activities within State right-of-way are authorized by FI, FL, FO, FS, and FF encroachment permits. FR permit riders are used to change permit conditions.

Special Provisions for all filming permits must not be modified. Changes in work authorized by a specific permit type, which exceed the Special Provisions for that permit type, must be covered by a different encroachment permit type and by the Special Provisions and District special requirements associated with that permit.

The following discussion describes each type of permit.

503.5A Intermittent Traffic Control/Driving Shot with CHP

Escort Rev (07/21)

Permit Code FI

FI permits authorize filming activities involving moving vehicles with CHP escort, intermittent traffic breaks, or rolling traffic breaks (the duration of a traffic break must not exceed five (5) minutes or as authorized) to allow clear highway conditions during filming on conventional highways.

FI permits are Set Fee, with charges consistent with average processing and review time on a statewide basis. Inspection and fieldwork are not involved because the CHP (rather than Caltrans) provides inspection.

503.5B Traffic Control

Permit Code FL

FL encroachment permits authorize filming activities involving traffic breaks exceeding five minutes or involving lane closures on conventional highways.

FL permits generally require engineering expertise by Caltrans to review or inspect. Permit fees are based on actual hours spent for review and inspection. The CFC collects estimated fees before issuing a permit. If the actual hours spent on review and inspection differ from the estimated fees upon completion of the filming activities, Caltrans submits to the CFC the adjusted fees and the CFC bills or refunds the difference between the estimated and actual fees.

Filming Special Provisions must not be modified, although District conditions may be added to the text of FL permits.

503.5C No Moving Traffic

Permit Code FO

FO encroachment permits authorize filming activities that do not impact moving traffic on conventional highways. FO permits usually involve the placement of stationary camera, equipment, and “No Parking” signs within the right-of-way or driving shots with the flow of traffic.

FO permits are minimum cost (two-hour review and processing) set fee, with charges consistent with average processing and review time on a Statewide basis. Inspection and fieldwork are not involved because the CHP (rather than Caltrans) provides inspection.

503.5D Film Rider

Permit Code FR

Riders are issued for minor revisions to an existing filming encroachment permit. Permit riders cannot allow work that exceeds the original permit’s Special Provisions. According to the guidelines, Caltrans’ Districts approve or deny rider requests only after review by appropriate Caltrans units. Applicants are charged fees for review time associated with requests for time extensions. Riders for time extensions cannot be issued when the original permit has expired; a new permit is required.

503.5E Special

Permit Code FS

FS encroachment permits authorize filming within an access-controlled right-of-way and filming activities requiring detours, stunts, pyrotechnics, aircraft flying below 500 feet in altitude, or other unique activities.

FS permits generally require engineering expertise by Caltrans to review or inspect. Permit fees are based on actual hours spent for review and inspection. The CFC collects estimated fees before issuing a permit. If the actual hours spent on review and inspection differ from the estimated fees upon completion of the filming activities, Caltrans submits to the CFC the adjusted fees and the CFC bills or refunds the difference between the estimated and actual fees.

503.5F Facilities

Permit Code FF

FF permits authorize filming activities within a Caltrans facility, which is defined to include any real estate property not part of the State highway or access-controlled right-of-way system. A Caltrans facility includes any office building, maintenance station, maintenance facility, Park and Ride lot, and house that is used or operated by Caltrans. Any requested activity within a Caltrans facility must not disrupt or interfere with any State business.

FF permits generally require review and inspection by the Caltrans staff responsible for the operations of the facility. Permit fees are based on actual hours spent for review and inspection. The CFC collects estimated fees before issuing a permit. If the actual hours spent on review and inspection differ from the estimated fees upon completion of the filming activities, Caltrans submits to the CFC the adjusted fees and the CFC bills or refunds the difference between the estimated and actual fees.

503.6 Inspecting and Monitoring Filming Permits

Inspecting, monitoring, and controlling filming on State highways is a cooperative effort by the CHP and Caltrans. CHP officers normally are present on all filming permits. Inspection of No Moving Traffic (FO) and Intermittent Traffic Control (FI) permits has been delegated to the CHP through the interagency MOA (see Appendix E); Caltrans inspectors may monitor FO and FI permits on a random basis at no cost to the permittee. Caltrans' inspectors and CHP officers are present when filming activities begin for Traffic Control (FL), Facilities (FF), and Special (FS) permits.

After observing a smooth and effective operation of FL permit activities for a period of time, the Caltrans inspector may depart and leave the CHP in charge. In rural areas, where few potential problems exist, the CHP may handle FL filming with no Caltrans inspector involved.

For FS permits, Caltrans inspectors normally are present throughout the activity and Traffic Operations personnel may be present to monitor and adjust traffic control as needed. FS permits

that involve only aircraft flying under 500 feet in altitude with no more than intermittent traffic control may be inspected by the CHP with no Caltrans inspector involved.

The production company is required to hire a licensed traffic control specialist to implement detours and lane closures.

For FF permits, both Caltrans and CHP personnel will typically provide inspection. Where filming is limited entirely within a Caltrans facility, CHP will not be assigned and inspection is provided by Caltrans (unless requested or there is an identified need). Where no significant stage work, stunts, and pyrotechnics is required, Caltrans may defer inspection to the CHP to monitor for quality control, safety, and security. Where significant state work, stunts, or pyrotechnics are present, both CHP and Caltrans will jointly inspect and monitor.

504 FENCE (New or Modification)

Permit Code FN

Caltrans owns and maintains all fences placed within the right-of-way to delineate access-control. Fences generally are inset 0.5 foot to 1 foot inside the State's right-of-way. Private fences are allowed within access-controlled areas to maintain the continuity of a fence during permitted work that removes an existing fence, or when placed around an excavation.

Alternate aesthetic fencing along access-controlled right-of-way is not authorized and replacement or new fences must comply with State standards. Exceptions are allowed for soundwall construction and along short tangent sections that extend along local streets and are beyond access-controlled right-of-way ramp returns. An alternate wall or fence may be installed in these locations if it also is an effective barrier to access. Minimum height of the alternate fencing must be four feet (see Highway Design Manual).

When an unmaintainable gap of 4 feet or less between the soundwall and the right-of-way fence exists, it may be in the best interest of Caltrans and the adjacent property owner for Caltrans to remove the right-of-way fence and allow the adjacent property owner to "own and maintain" that property. In order to do this, the Districts can convey the underlying fee but reserve an easement for wall maintenance.

All adjacent owners within that property block must agree with the transaction. Caltrans recognizes the benefit of allowing these property owners to take over the continued maintenance of this property in this kind of situation and may waive Caltrans' administrative cost for this complete transaction. These requests are referred to the District Right of Way Excess Land Section. They will convey the property by the decertification process. No encroachment permit is necessary for this title transaction.

Abutting property owners may place extensions on the State's access control fences to increase fence height or to place barbed wire. Barbed wire placed on brackets must extend vertically or overhang the permittees property. Razor and concertina wires are not authorized.

Local fire protection, law enforcement, and other emergency service agencies frequently request planned emergency access to an access-controlled right-of-way. Caltrans' policy is to prohibit planned emergency access to an access-controlled right-of-way for new or expanded land development projects. Emergency access must be planned and provided from local streets and conventional highways outside the access control limits of access-controlled right-of-way.

This prohibition of emergency access must apply to any additional emergency access to existing development. Existing emergency access granted in the past, such as breakaway fence panels, gates, and sod-block surfaces, may remain if installed under a valid permit.

Fencing in conventional highway right-of-way is limited to protection of pedestrians and excavations. This includes temporary fences that close off construction sites adjacent to the right-of-way when pedestrian traffic is detoured or occurs on existing and temporary sidewalks. Private property fences are not allowed in conventional State highway right-of-way.

Fences along conventional highways generally are placed on the abutting property and are owned and maintained by the property owner. Caltrans has no control over pedestrian access through conventional right-of-way and the fences do not serve as a barrier. However, vehicular gates for private, agricultural, and commercial driveways must be approved as discussed in Section 510.

505 GEOPHYSICAL TESTING

GC or GV encroachment permits authorize geophysical testing within State right-of-way that involves cable crossings or vibration equipment.

Permittees conducting geophysical testing must be responsible for property damage inside or outside highway right-of-way. A certificate of liability insurance in the minimum amount of \$1,000,000 for property damage liability is required before permit issuance. Districts should encourage testing companies to include "the State of California, California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation" as additionally insured in their annual policies, which will avoid them having to obtain a separate policy rider for each permit. Districts can then keep a copy of the additionally insured notice on file for reference. The permit may be issued as a biennial.

505.1 Cable Crossing

Permit Code GC

Cables associated with geophysical testing preferably should not cross State right-of-way, but in some circumstances, cable crossing may be required. Specific requirements for cable crossings are listed in Table 5.11.

Table 5.11
Requirements for Cable Crossings

These specific requirements apply to cable crossings of State highway right-of-way:

1. Equipment, work, or personnel must not be allowed within access-controlled right-of-way. One exception to this policy may be cable crossings required for continuity, in which case cables must cross access-controlled right-of-way in a culvert or on structures; on a temporary basis only and not in culverts during the rainy season.
2. Holes must not be drilled, and blasting is not allowed, within State right-of-way.
3. Nails, spikes, or other material must not be driven into the traveled way.
4. Nails or spikes driven into the paved shoulder area must be removed. Resulting holes must be filled with waterproof compound that blends with the original pavement in color and grade.
5. Paint must not be placed upon highway pavements, signs, or markers. Traffic tape, chalk, or crayon must be used if pavement markings are necessary. All tape, stakes, and other obvious markers must be removed upon completion of permitted work.
6. All mud, dirt, or gravel tracked onto the highway pavement must be removed immediately and completely.
7. Personnel working within the State right-of-way must wear safety glasses, hard hats, warning garments, and other appropriate personal protective equipment per the Caltrans Safety Manual.
8. Standard signing and flagging procedures must be employed according to the CA-MUTCD.
9. Permittees must comply with all requirements of the Vehicle Code and other applicable laws, except as specifically provided herein.
10. No grading is allowed without prior written permission. Grading is not authorized within access-controlled highway right-of-way.

Cables must be placed as close as possible to the right-of-way line and must be placed within 6 inches of the curb face or pedestrian sidewalk railing of an overcrossing structure. Longitudinal cables within an access-controlled right-of-way are not authorized, and therefore cables must be placed outside the right-of-way fence.

505.2 Seismic Vibrator

Permit Code GV

GV encroachment permits are issued for geophysical testing activities that use equipment to generate test waves.

505.2A Testing Method Allowed

Only geophysical testing using the “P-wave” method is allowed. Testing using the “Shear wave” method (S wave) is not allowed within State highway right-of-way because damage to State facilities and adjacent property may result. Permittees may place sensors within State right-of-way even though their test-wave generating equipment is located outside State right-of-way.

All work must comply with permit conditions. Any violations of permit conditions, complaints from adjacent property owners, or other problems should be communicated to the District Permit Engineer. Work must be suspended immediately until satisfactory steps are taken to ensure compliance with the encroachment permit.

505.2B Vibrators

Truck-mounted vibrators commonly are used to generate test waves. They operate alone or in groups and stop to place a vibrating pad on the ground surface.

Vibrators must be placed and operated as close to the right-of-way line as possible, with a minimum clearance of 4 feet from the paved shoulder or toe of slopes on embankments. They must not be operated on any paved surface and must not be operated within access-controlled right-of-way.

Vibrators must be operated so that no damage will occur to: vegetation, wells, culverts, headwalls, structures, or other improvements. Districts concerned about underground utility damage may require proof of notification and approval by utility owners in the area before starting permitted work.

506 LANDSCAPE

Highway planting may be provided by others, at their cost, within conventional highway right-of-way and within access-controlled right-of-way.

Submit permit requests to install planting, irrigation systems, landscape features or to control roadside vegetation within the State right-of-way (including tree pruning and removal) to the District Encroachment Permits Office for review and approval by the District Landscape Architect or Permits Landscape Architect.

Trimming, pruning or removal of vegetation or trees to improve visibility to or from a commercial or residential development (e.g. improving views), is not allowed within the State right-of-way.

Requests to place irrigation facilities or vines on new and existing structures must be reviewed and approved by Structures Maintenance.

Planting within State highway right-of-way is allowed through:

1. The encroachment permit process: Landscape encroachment permits assist non-Caltrans entities to install landscaping within Caltrans right-of-way. The encroachment permits process helps ensure that the planting work installed by others:
 - Conforms to Caltrans policies, procedures and standards
 - Protects the traveling public, the public's investment, and the interests of adjacent land owners and businesses
 - Achieves a proper balance between safety, aesthetics, cost effectiveness, and resource conservation
 - Does not increase Caltrans roadside maintenance workload.
2. A Caltrans-administered contract that is funded partly or totally by others: The preferred method for handling participation by others is through an encroachment permit and an agreement with the local agency (see Project Development Procedures Manual, Chapter 16 Cooperative Agreements). In this case, a Right-of-Way Use Agreement is not required.
3. Leasing the planting area to the owner of the abutting property: A Right-of-Way Use Agreement is required.

A Right-of-Way Use Agreement may also be required with the encroachment permit if the proposed project:

- Is unwarranted for highway planting (see Project Development Procedures Manual, Chapter 29, Section 2 for an explanation of warranted highway planting)
- The improvement to the property is solely to the benefit of the developer

The Right-of-Way Use Agreement will require the lessee to provide a plant establishment period and maintenance of plants and irrigation, including all water and utility costs, during the term of the lease. The District Landscape Architect or Permits Landscape Architect, in coordination with the District Airspace Manager, determines when a Right-of-Way Use Agreement is required.

506.1 Responsibilities

Table 5.12
Responsibilities – Highway Planting Funded by Others

Facility	New Landscape & Irrigation		Replacement of Existing Landscape	
	Permittee	Maintenance*	Permittee	Maintenance**
Conventional Highways	Project sponsor	Local Agency	Project sponsor	Local Agency
Access-Controlled Highways	Local Agency	Local Agency	Local Agency	Local Agency

* A maintenance agreement with the local agency is required to ensure maintenance in perpetuity. Maintenance includes all on-going water and electrical utility costs and all other maintenance expenses.

** If the replacement proposed is like to like, Caltrans will maintain the new installations once a 3-year plant establishment period is completed, if it was maintained by Caltrans prior to the replacement.

Some projects may be managed as a QMAP project, see section 202.3 for information regarding QMAP projects.

A Maintenance Agreement may be required, refer to Chapter 13 of the Project Development Procedures Manual for information regarding Maintenance Agreements.

<https://dot.ca.gov/programs/design/manual-project-development-procedures-manual-pdpm>

Projects sponsored by a local agency are not charged for plan review. The local agency's contractor may be required to have a double permit (DP). Inspection fees and DP processing fees must be paid before the DP is issued.

Government agencies are exempt from the insurance requirement, but a bond may be required under certain circumstances.

506.1A Maintenance, Replacement and Repairs

The permittee is responsible to replace plants and repair irrigation systems originally installed by Caltrans or others that are damaged or removed by their construction activity, including plant establishment, if necessary.

Caltrans will replace or repair previously permitted highway planting installed by others that is damaged or removed by State highway construction activity, including irrigation modification and/or replacement. Replacement and repair work will be included in the State highway construction project altering the landscape or may take place as a separate construction project. Damaged or removed planting provided by others will be replaced at a rate and size determined by the District Landscape Architect.

Planting and irrigation maintained by the permittee, must be maintained in a healthy, attractive, functional, and safe condition.

506.1B Pesticide Use

Pesticides may be used only with approval from the District Landscape Specialist. Use of pesticides (herbicides, insecticides, rodenticides, etc.) must be prescribed in writing by a pest control advisor licensed in California. Pesticide application may be performed only by a certified applicator in conformance with current laws, regulations, and Caltrans' policies.

506.2 Standards for Conventional Highway and Access-Controlled Highway Planting and Irrigation Plans

Planting and irrigation design must comply with the applicable policies and procedures in the Highway Design Manual (Chapter 900) and the Project Development Procedures Manual (Chapter 29) unless exempted by the District Landscape Architect or Permits Landscape Architect.

The District Landscape Architect and/or Permits Landscape Architect must review all planting and irrigation plans. The permittee must submit six copies of planting and irrigation plans, details, and specifications to the District Encroachment Permits Office for review. Projects over \$1 million of constructed work within the State Highway right-of-way are subject to the procedures outlined in Section 202.3.

As-built plans, including wiring diagrams for irrigation systems installed must be provided to the District Permit Engineer and the District Landscape Architect or Permit Landscape Architect within thirty (30) days after completion of construction.

Table 5.13
Requirements and Standards for Landscape Plans

1. Plans must be prepared, signed and stamped by a California Licensed Landscape Architect. They must show the name, registration seal, expiration date, and phone number of the Landscape Architect, and the irrigation designer (if appropriate).
2. Plans must be drawn on 24" by 36" size sheets at 1" : 50' scale (or 1" : 20' scale when more detail is required). Coordinate with the District Landscape Architect or Permits Landscape Architect for required print size and scale, reduced sized sets may be preferable. Scale and north arrow must be indicated on the plans.
3. A general location map must be provided with the plans. Show city limits, county lines, public roads, highways, limits of work, north arrow, scale, and other features.
4. Existing features must be shown on the plans, such as overhead and high-hazard utilities, street names, guard rail, signs, edge of pavement (shoulder), vegetation, irrigation, curbs, sidewalks, slopes (2:1, etc.), ditch flow lines, walls, and fences. Note existing features to be removed on the plans. The permittee is required to submit copies of correspondence with utility companies to verify utility information.
5. The State right-of-way (property line) and centerline of the highway must be shown and labeled. Indicate stations (100' on center) on the centerline. All existing highway striping, except on access-controlled highways, must be shown.
6. Planting plans must indicate botanical names and common names, quantities, plant sizes (for example, #1 (1-gallon) or flats), spacing (setbacks), and other planting descriptions.
7. Indicate electrical and water source locations on the irrigation plans with the name, address and phone number of the responsible utility service company. Minimum water connection information includes:
 - Source (potable, non-potable, or recycled water)
 - Available water pressure
 - Meter size
8. The permittee may be required to use Caltrans' Standard Details and Standard Plans. The permittee must use Caltrans Standard Specifications and Standard Special Provisions as approved by the District Landscape Architect or Permits Landscape Architect.

Table 5.14
Design Guidelines for Conventional and Access-Controlled Highway Planting and Irrigation

General Design Guidelines

1. The District Landscape Architect or Permits Landscape Architect must approve all designs prior to permit issuance.
2. Disturbed areas within State right-of-way that are not planted must be treated with hydroseed or other erosion control materials.
3. Temporary Erosion control is required for stormwater pollution prevention and dust control during construction.
4. All erosion control work must be according to the Standard Specifications, Sections 13 and 21 and the Caltrans Storm Water Quality Handbooks (available online at: <https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/manuals-and-handbooks>)
5. Projects must be designed to comply with the Model Water Efficient Landscape Ordinance (MWEL0).
6. Trenching and grading is not allowed within the dripline of the tree canopy and must be performed so tree roots are protected to the dripline of the canopy and must be as shown on a plan that is reviewed by the District Landscape Architect or Permits Landscape Architect.

Planting Design

1. Plants must be located so they do not obstruct motorists' clear vision of highway signs and signals.
2. Plants must be located so that they will not obscure existing billboards or on-premise business identification signs.
3. Plants must be selected and located so that future pruning will not be required.
4. Lighting directed at trees or plants is not allowed.
5. On conventional highways, install root barriers to prevent damage where trees are planted within 5' of sidewalks, curbs, or pavement.
6. Plants with thorns or known to be poisonous to humans and animals must not be planted adjacent to areas used for grazing animals, equestrian activities, with high public exposure, and where children have access to the planting.
7. Edible fruit or nut bearing plants must not be planted.
8. Conform plant selection, spacing, and setbacks to the "Plant Setback and Spacing Guide" at: <https://dot.ca.gov/-/media/dot-media/programs/design/documents/1997-plant-spacing-and-setback-guide-all.pdf>
9. Shrubs are woody, multi-stemmed plants with each stem having less than a 4" diameter trunk 10 years after planting.
 - Plant shrubs so that at maturity they will not grow over the curb or right-of-way.
 - Shrubs or tall ground cover in sidewalk planter strip areas may be in beds no longer than 50' in length with at least a 5' break between beds to allow pedestrian passage from curb to sidewalk.
 - Shrubs with a mature height over 3' high are not allowed within 25' of any driveway or intersection.
10. Ground cover includes low-growing plant material and inert materials such as crushed rock and wood mulch.
 - On conventional highways, grass or an approved ground cover may be installed under permit between the curb and right-of-way line, provided it is maintained for safe pedestrian traffic.
 - Loose un-grouted rock cobble, gravel or other inert ground cover material is not allowed within the clear recovery zone or, in areas where errant vehicles are expected or anticipated.

Irrigation Design

1. A separate water meter and separate electrical service for the proposed irrigation system is required.
2. Install a gate valve, with ID marker within State right-of-way where the supply line(s) enter the right-of-way. Install master valves and backflow preventers outside the right-of-way.
3. Irrigation lines under continuous pressure are not allowed. A normally closed master valve to shut off water when the irrigation system is not operating is required.
4. Provide gate valves or ball valves with ID markers, to isolate groups of remote controlled valves or areas of the irrigation system.
5. Provide separate remote controlled valves for supply lines operating overhead sprinklers at the top, intermediate, and toe of slopes.
6. Anti-siphon, anti-drain valves or check valves are required.
7. Trees must be irrigated by separate remote controlled valves.
8. Irrigation lines proposed under paved surfaces must be installed in conduit or sleeves.
9. Design all irrigation systems with a water velocity of no higher than 5 feet per second (fps).
10. Design and operate irrigation systems to minimize fogging and overspray of water onto paved surfaces.
11. Provide uniform water coverage when using overhead sprinklers.
12. Bubblers and sprinklers must be pressure-compensating or be equipped with pressure-compensating devices.
13. Drip irrigation or subsurface irrigation may be used if approved by the District Landscape Architect or Permits Landscape Architect.
14. When necessary, a subsurface drainage system must be provided in irrigated medians to prevent water flowing onto the roadway and to prevent lateral infiltration of water into the structural section of roadway and must be approved by the District Permit Engineer.

**Table 5.15
Tree Wells**

Tree wells are allowed on Conventional Highways only. The following conditions apply to tree wells:

1. Tree wells must allow for soil volume appropriate to the future tree size. Small trees require a minimum of 200 cubic feet, medium trees require a minimum of 450 cubic feet, and large trees require a minimum of 700 cubic feet of soil volume.
2. Openings for tree wells in paved areas must have a minimum of 3' x 3' square or a 3' radius circle.
3. If irrigation is not feasible, install two deep water pipes (vertical, 4" diameter perforated plastic pipes filled with ½" to ¾" crushed rock) in opposite corners of each tree well.
4. Plant trees in the center of the tree well.
5. Tree wells must be safe for pedestrians. Install tree well grates, where appropriate, that are flush with the adjacent pavement and comply with ADA requirements.
6. Tree guards may be provided to protect trees in tree wells from damage or where desirable for aesthetic purposes.
7. Trees and tree wells in parking lots should be given a minimum of 64 square feet of opening in the pavement. If this requirement cannot be met, install deep water pipes and root barriers.
8. Root barriers must be installed to prevent tree roots from causing sidewalk and pavement damage.

Table 5.16
Plants in Containers

Plant containers are permitted only when all of the following conditions are met:

- The existing speed zone is 35 mph or less.
- There is a curb or other barrier between the traveled way and the container.
- The container and planting will not reduce the sight distance.

Additional requirements are:

1. Plant containers made of wood, brick, metal, concrete, ceramic, fired clay or other appropriate material may be used.
2. Plant containers located on sidewalks or on the roadside must be a minimum of 2' back from the curb face. Plant containers must allow for a minimum 5' walkway.
3. Plant containers on medians must be a minimum of 6' back from the curb face and at least 100' from the longitudinal end of the median.
4. Plant containers must be secured to the sidewalk to prevent overturning or shifting and placed to avoid creating a pedestrian or vehicular hazard. The permittee is responsible for temporary relocation, when necessary, to install, repair, or replace facilities.
5. The proposed plant species for the container must be specified in the permit application.
6. Proper maintenance of the plant and container is required.
7. A minimum of \$10,000 liability insurance is required when permits are issued to private entities for installing plant containers.
8. No advertisement, slogans or any text is allowed on or in plant containers.

506.3 Landscape Permit Types

Installation and maintenance of planting and irrigation within State right-of-way is authorized by LC, LF, LM, and LT encroachment permits.

506.3A Conventional Highways

Permit Code LC

LC encroachment permits authorize the placement of plants and groundcover and the installation of irrigation systems within non-access controlled right-of-way. Guidelines for design and installation of landscaping including irrigation systems within non-access controlled highway right-of-way are listed in Tables 5.13 through 5.17. Maintenance requirements are established in section 506.1.

506.3B Access-controlled Right-of-way

Permit Code LF

LF permits authorize the placement of plants and groundcover and associated irrigation systems within access-controlled right-of-way. The distance between the edge of traveled way (clear

recovery zone) and large trees must not be less than the minimum required; however, the Permit Engineer, District Landscape Architect, or Permits Landscape Architect may require clearances of a greater amount. Clear recovery zone requirements are specified in the Highway Design Manual, Section 902.2.

A copy of each LF permit, including plans, bid date, and completion date, must be sent to the Headquarters Landscape Architecture Program, Landscape Classifications, for record keeping, determination, and designation of landscaped access-controlled right-of-way relative to the regulation of outdoor advertising displays.

506.3C Maintenance

Permit Code LM

LM permits authorize limited term maintenance of planting and irrigation systems within the State right-of-way. Maintenance responsibilities in perpetuity must be authorized through a Maintenance Agreement. Only replacement and repairs are authorized by LM permits (no new planting).

Two-year LM permits for landscape maintenance may be issued to local agencies (cities and counties). Contractors may perform work for the local agency under a double permit (refer to Section 510.14).

LM permits also authorize roadside vegetation control by private property owners who have entered into an agreement with Caltrans Maintenance. All requests by private property owners to assume responsibility for roadside vegetation control must be directed to the District Landscape Specialist.

Food and Agriculture Code, Division 4, Part 1, Chapter 6.5, Roadside Vegetation Control, (5501 to 5509) provides a voluntary mechanism by which private property owners and Caltrans may enter into mutually acceptable agreements to promote coordinated programs for roadside vegetation control. If such an agreement includes provisions whereby the property owner assumes responsibility for vegetation control, a Maintenance Encroachment Permit (Code LM) is required for the work.

506.3D Tree Pruning (Trimming) and/or Removal

Permit Code LT

LT permits authorize tree pruning (trimming) and/or removal within the State highway right-of-way, and access to the State highway right-of-way to prune or remove vegetation outside the State right-of-way. The removal of healthy trees requires written consent from the District Landscape Architect and local agency. The planting of new trees may be required as mitigation for tree removal and will be determined on a case-by-case basis by the District Landscape Architect.

The District Landscape Architect must evaluate potential impacts to landscaped access-controlled right-of-way status prior to approving any Tree Pruning (Trimming) and/or Removal permit requests.

Pruning (Trimming) and/or Removal of vegetation to improve visibility to or from a residential development or commercial building is not allowed.

The permit must list the contractor completing the work, or the contractor must obtain a Double Permit (DP).

See Appendix K for “Tree Pruning (Trimming) and Chemical Application Special Provisions” and “Tree Removal Special Provisions”.

This permit type does not restrict a utility company from complying with California Public Resources, California Public Utility Commission (CPUC) General Orders, and other Federal, State or local laws that require clearances between vegetation and gas lines or energized power lines.

Table 5.17
Consent Requirements for Tree Pruning and/or Removal

The following table explains property owner consent requirements for tree pruning and/or removal:

<ol style="list-style-type: none"> 1. Trees with trunks located entirely within the State right-of-way may be pruned or removed without obtaining consent from the adjacent property owner. 2. Trees with trunks located entirely within the State right-of-way with limbs overhanging adjacent City or County property must not be pruned or removed without first receiving consent from the local agency. It is the permittee's responsibility to obtain the consent letter from the local agency. 3. Trees with trunks located on the right-of-way line must not be pruned or removed without obtaining consent in advance from both Caltrans and the adjacent property owner – these trees are joint property. Trees which interfere with safe highway operations are exempt from this requirement. 4. Trees with trunks located entirely outside the right-of-way that have limbs that overhang the right-of-way may be pruned without obtaining consent from the adjacent property owner if the tree interferes with safe highway operations.
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*In some locations, local agency consent may be required for any tree pruning or removal work.

Utility contractors may place woodchips produced from tree pruning within the right-of-way after a Consent Letter is obtained from the Caltrans Maintenance Area Superintendent. Authorized disposals, under these conditions, must be accomplished within one working day. Disposals made without prior authorization are illegal.

Utility companies may apply for annual tree pruning (trimming) permits, issued directly to the utility companies involved, **not** to the company's contractors. Annual tree pruning permits are issued for conventional highways right-of-way and only in specific situations within access-controlled right-of-way. They are not issued for access-controlled right-of-way. The utility company must furnish a list of contractors with its application. Additional agents are included only by a rider to a previously issued permit. A fee-exempt double permit (NDP) will be required when the applicant lists a contractor that previously has been uncooperative. The permit does not include the NDP contractor as an agent unless the applicant and the NDP contractor provide written assurance that full cooperation will be provided.

Table 5.18
Permit Requirements for Electric Utility Tree Pruning

1. The electrical utility permittee must verify that the height of the utility lines provide the minimum clearances necessary for trees that are maintained at a 40 feet height. This is especially true for utility lines over trees whose normal growth habit precludes pruning to less than 40 feet (for example, conifers, single central leader trees of natural conical or pyramidal-type crown development). Exceptions to this requirement may be allowed when these trees:
 - Have a growth habit that can facilitate healthy growth and a natural form despite repeated pruning and thinning operations. Trees in this category include open, round crowned types, with several leaders or main branches forming their crown framework.
 - Allow utility lines to be placed through or below their crowns, minimizing pruning, maintaining main leader and limbs, avoiding permanent disfiguration of their crowns.
 - Have been top pruned for many years, and the reconditioning necessary to reestablish their natural growth habit is not cost effective.
 - Consist mainly of volunteer growth from roadside seedlings or stump sprouting and are determined by the District Landscape Architect to add little or no value to the desired condition of the roadside.
2. The District will notify the utility company if further tree pruning is not desired, either at 40 feet height, or at another height determined to be best for the tree species. This notification provides the utility company time to modify their facility, minimizing additional pruning that may harm the trees. The utility company is typically allowed two growing seasons to complete these modifications, during which light pruning is permitted by Caltrans.

Table 5.19A
Permit Requirements for Electric Utility Tree Removal

1. The electrical utility permittee must verify that removal of volunteer trees from stumps and seedlings located directly under electrical lines that may grow into electrical lines provide little or no functional roadside value as determined by the District Landscape Architect or Permits Landscape Architect. Seedlings are defined as non-planted or volunteer trees with trunk less than 4 inches in diameter, and under 20 feet in height.
2. Obtain approval from the District Landscape Architect or Permits Landscape Architect to remove trees in the following conditions:
 - Clear cutting of volunteer trees, stumps, or seedlings under electrical lines.
 - Removing groups of seedlings or volunteer trees that provide highway screening for adjacent property.
 - Removal of trees that require compensation, such as those that provide high species value, historic landscape value, highway screening, wildlife habitat, or other functional landscape benefit. Negotiating of replacement tree, compensation, or mitigation planting measures will first be required. Information on determining the fair value of an existing tree may be found in the most recent edition of the “Guide for Plant Appraisal” available from the International Society of Arboriculture. Removal of trees that provide high species value, historic landscape value, highway screening, wildlife habitat or other functional landscape benefit requires a separate permit.
3. Obtain approval from the District Landscape Specialist to remove trees in the following conditions:
 - Trees (which by mutual agreement) that pose potential hazard, such as; leaning, uprooted, or dead trees. Providing replacement trees, compensation, or mitigation planting will not be required.
 - Trees (which by mutual agreement) that are of low species value, in poor condition due to obvious poor health or severe structural defects, that do not provide highway screening, wildlife habitat or other functional landscape benefit. (Consult the Western Chapter, International Society of Arboriculture Species Classification and Group Assignment pamphlet as a reference to determine low species value.) Providing replacement, trees, compensation, or mitigation planting will not be required.
4. To remove trees specified under 2 and 3 above, submit a completed Caltrans/Electric Utility Tree Removal Request (Form TR-0168), to the District Landscape Specialist for approval. Include one or more photographs of each tree to be removed. Remove trees only after the Tree Removal Request is approved and signed by the District Landscape Specialist or designee. Keep a copy of the signed Tree Removal Request at the work site during tree removal operations.

Table 5.19B
Permit Requirements for Gas Utility Tree Removal

Tree removal permits over sub-surface gas utilities are subject to the following requirements:

1. Perform a review that identifies, maps, and locates (geo-referenced) “unacceptable” trees and shrubs proposed for removal. Removal is limited to trees defined as “unacceptable” by the utility and agreed upon by the District Landscape Architect or Permits Landscape Architect. Unacceptable trees include trees within 15 feet of the centerline of the gas utility. Trees in this zone potentially impair the function and required maintenance of the underground utility due to root and trunk growth.
2. Document review findings in a report.
3. The report must be reviewed by the District Landscape Architect, Permits Landscape Architect, District Landscape Specialist, District Environmental staff (biologists), local agencies, Native American tribes, home-owner associations, and others as applicable to determine if the unique value of the trees requires preservation or mitigation. When preservation is required Caltrans will not approve the removal of the trees until alternatives have been discussed with the utility. The report must address the following:
 - California Environmental Quality Act (CEQA)
 - Mitigation requirements
 - Existing or potentially historic landscapes
 - Listed threatened and endangered plants or endangered species habitat per the United States Department of Agriculture, United States Fish and Wildlife Service, and the California Department of Fish and Wildlife.
 - Identify Blue Oak, Engelmann Oak, Valley Oak or Coast Live Oak trees proposed for removal, include replacement planting plans. State agencies are required to preserve and protect native oak woodlands and to provide for replacement plantings whenever Blue, Engelmann, Valley, or Coast Live Oak trees are removed from native woodlands (Senate Concurrent Resolution No. 17, passed September 1989).
 - Spiritual or cultural value to Native Americans
 - Negative effects to classified landscape status (related to outdoor advertising)
 - Negative impacts to trees that contribute significant landscape value, such as:
 - Wildlife or pollinator habitat
 - Visual highway screening (from adjacent land uses) benefit
 - Significant historic or local cultural benefit
 - Significant functional or aesthetic value
 - Contiguous street tree or right-of-way planting
 - Growth habits and root structure of the species
 - Age, depth and condition of the existing gas pipeline
 - Opportunities within and outside the right-of-way to realign the utility facility
4. The utility must communicate and coordinate with Caltrans throughout the review process regarding the unique value of the trees designated for removal, evaluate viable alternatives, and develop an approach that meets both Caltrans and the utility company requirements.

5. Upon completion of the review process, the gas utility company must document the agreed upon approach in the final report and submit the report along with the tree removal permit application.

507 MAIL AND NEWSPAPER BOXES

Permit Code MB

MB permits are issued for installation and maintenance of curbside mailboxes and newspaper delivery boxes. New and replacement mailboxes must conform to Caltrans standards and policies and United States Postal Service (USPS) standards (these requirements apply to newspaper delivery boxes).

Caltrans' policy is to issue encroachment permits for curbside mailbox locations that are convenient to postal patron and mail carriers without interfering with highway safety, maintenance, operations, or signing. If located within the clear recovery zone, the mailbox support must be made breakaway.

The permittee must provide suitable all weather surfacing between the roadway and the mailbox. The surfacing must conform to the adjoining shoulder grade.

Curbside mailboxes are not permitted within new access-controlled right-of-ways except within a rural access-controlled right-of-way with driveway access openings and no frontage road. Curbside mailboxes within new access-controlled right-of-ways may be placed at a convenient location near an interchange or grade separation structure. The most desirable location at an interchange would be on the county road section off the State right-of-way but should be determined cooperatively with the local postmaster.

AASHTO's "Roadside Design Guide", 4th Edition, Chapter 11 "Erecting Mailboxes on Streets and Highways" (See Appendix H of this Encroachment Permits Manual) offers model guidelines and standards for the installation of rural mailboxes. All mailboxes within the clear recovery zone should be firmly attached to supports that would yield or break away safely if struck by a vehicle.

A single 4 inches by 4 inches square or 4 inches diameter wooden post; or a 1.5 inch - 2.0 inches diameter standard steel or aluminum pipe posts, embedded no more than 24 inches into the ground is considered acceptable as a mailbox support. A metal post must not be fitted with an anchor plate, but it may have an anti-twist device that extends no more than 10 inches below the ground surface.

Axles, ploughs, crankshafts, and similar large and heavy objects should not be used because potential collisions with them would be severe. Multiple-box installations should be located off the State highway; if that is not possible, individual supports for each mailbox must be used. The distance between the supports should be the same as the length of support above the ground.

Neighborhood Delivery and Collection Box Units (NDCBU) do not meet the breakaway requirements and should not be placed within the clear zone as described in the Highway Design Manual.

The USPS requires that all new and replacement mailboxes be approved by the postmaster general. The following information is from the Postal Operations Manual (POM) and USPS-STD-7B01. Further information and a list of approved manufacturers are located at www.usps.com.

Curbside mailboxes must be placed so that they may be safely and conveniently served by carriers without leaving their conveyances. They must be reasonably and safely accessed by customers. Boxes must also be located on the right-hand side of the road and in the carrier's direction of travel in all cases where driving on the left-hand side of the road to reach the boxes would pose a traffic hazard or violate traffic laws and regulations. On new rural or highway contract routes, all boxes must be on the right side of the road in the carrier's direction of travel. Boxes must be placed to conform to State laws and highway regulations. Carriers are subject to the same traffic laws and regulations as are other motorists. Customers must remove obstructions, including vehicles, trash cans, and snow, that make delivery difficult. Generally, mailboxes are installed at a height of 41 to 45 inches from the road surface to the bottom of the mailbox or point of mail entry. Mailboxes are set back 6 to 8 inches from the front face of the curb or road edge to the mailbox door. Because of varying road and curb conditions and other factors, the Postal Service recommends that customers contact the postmaster or carrier before erecting or replacing their mailboxes and supports (POM, Section 632.524).

Boxes should be grouped wherever possible, especially at or near crossroads, service turnouts, or other places where a considerable number of boxes are presently located (POM, Section 632.525).

Any mailbox that is found to violate Caltrans or U.S. Postal Service standards must be removed by the postal patron upon notification by Caltrans.

508 MISCELLANEOUS

Permit Code MC

MC permits authorize a variety of activities within State right-of-way that are not covered by other specific permit types addressed in this manual. Some of these activities are described in the following discussion.

508.1 Contractor's Yards and Plant Sites

A State contractor must obtain an encroachment permit for plant and yard sites located within State right-of-way, unless the sites are located within contract limits. (Guidelines are described in the Project Development Procedures Manual.)

1. Sites Described in Special Provisions of State Highway Construction Contracts.

These rules and regulations apply to sites specified in State contracts if:

- The site is excess land, (a Category 2B or 2C hold is required), and the Right of Way Excess Lands Branch processes the hold.
- The site is airspace property, see the Right of Way Manual. Analysis must be approved by the District Airspace Review Committee, and an encroachment permit is required.
- The property is being held for future construction, see the Right of Way Manual.
- The project engineer notifies District Right of Way of the proposed use and the target date for advertising the construction contract and informs District Encroachment Permits that the contractor will be applying for an encroachment permit.

The project engineer is responsible for ensuring that local and environmental approvals are obtained and that appropriate language is placed in the Special Provisions for the contract.

The resident engineer ensures that the contractor properly protects, maintains, and leaves the property in a satisfactory condition at the end of the use, as required by the Special Provisions.

2. Requests by Contractors to Use Non-Designated State Property Located Outside Project Limits.

An encroachment permit is required to use non-designated State highway right-of-way outside contract limits. Other Caltrans property is managed by a lease or rental agreement.

Upon receipt of a contractor's request to use State property outside of the contract limits and not designated in the Special Provisions, the resident engineer directs the contractor to the appropriate District Right of Way unit (Airspace, Property Management, or Excess Land). For excess land rentals, a Category 2B or 2C hold is required, and the analysis must be approved by the Excess Lands Branch (see Right of Way Manual.) For rental of property held for future construction, see the Right of Way Manual.

District Right of Way assists the contractor, as needed, in securing local approvals and environmental clearance. It also coordinates its activities with District Encroachment Permits to ensure that the encroachment permit contains appropriate wording.

Payment for use of State property is based on fair market value.

508.2 – 508.4 These sections were left blank intentionally

508.5 Grading

Caltrans will not approve requests to remove material from State right-of-way solely to benefit a developer or individual, such as to eliminate the need by the developer or individual to import material to their private property or to improve visibility to a development. The encroachment permit involving grading must include provisions to dispose of soil contaminated from air-borne lead, protect environmentally sensitive resources, protect historical and cultural resources, trees, and vegetation, and prevent erosion (see Caltrans publications on Stormwater Quality). Use permit code MC when a permit is issued solely for grading work.

Access Controlled Right-of-Way

Grading, placement, or removal of material by others within access-controlled State right-of-way is prohibited. The Division of Design, Chief may approve an encroachment policy exception to perform earthwork within access-controlled right-of-way if the State benefits from one or more of the following: improved sight distance, increased clear recovery zone, improved drainage, or reduced maintenance.

Conventional Right-of-Way

Grading, placement, or removal of material by others within conventional State highways can be permitted by the DPE without the need for an exception.

508.6 Mowing Grass by Adjacent Property Owners

District permit engineers may issue no-fee permits to adjacent property owners to allow cutting dry grass for weed abatement, preventing cattle from breaking through fences onto State right-of-way, or in areas that pose a potential fire hazard to the permittee's property. This permit is available as a biennial permit.

A "Consent Letter" (form TR-0131) may be issued by the Maintenance Area Superintendent for one day activities. The Deputy District Director-Maintenance may approve multiple dates at his or her discretion (maximum of three consecutive days).

Permits require assignment of a State maintenance worker to supervise the mowing to assure no damage occurs to State facilities. The permittee will remove all cut grass or hay. Plowing cuttings into the ground is prohibited because of potential erosion.

Protection of pollinator habitat may be required. To protect pollinator habitat limit mowing to a maximum of two times per growing season, or in areas that typically receive an annual frost, delay mowing until after the first frost.

508.7 Removing Hay, Sand, and Other Materials of Commercial Value

The Maintenance unit reviews applications for removing materials of commercial value from State highway right-of-way. It is responsible for assuring that the proposal complies with policy, obtaining formal bids, advertising for bids in newspapers, and approving and issuing permits.

Permit policy pertaining to harvesting of hay or sand removal or other similar activities where a product of commercial value may be obtained within State right-of-way is as follows:

1. Where the value of the service to Caltrans or the value of the product exceeds \$500, the permit will be issued to the high bidder following an informal bidding procedure. In the case of hay mowing, when hay is baled and removed by the permittee, competitive bidding will be used when parcels of 20 acres (8.09 ha) or more are involved. A permit is issued to the high bidder.
2. When the value of the service and the commercial value of the product both are less than \$500, permits will be issued on a “first come, first served” basis. This would be the case with haying areas under 20 acres (8.09 ha). The District estimates the value of the service based on current labor, equipment, and overhead rates for appropriate work classifications. Current market values should be used to estimate the product value.
3. When issuing permits for the purposes noted above, consider the following:
 - A. Operations must conform to the Caltrans Safety Manual.
 - B. Permittee must submit operation plans and schedule well in advance of work start to allow review and approval of details by Caltrans.
 - C. Permittee must not store harvested product within the right-of-way.
 - D. No selected harvesting unless specifically allowed in the conditions of the permit. The permittee must mow all hay and remove sand only from specified areas.
 - E. Prior to acceptance of encroachment permit fees, the permittee should be advised of pesticide use or other action that could impact the marketability or use of the product sought.
 - F. The minimum acceptable bid will be the sum of the standard permit fee plus the cost of administering the competitive bidding process.
 - G. A permit is issued as a miscellaneous permit at actual cost.
 - H. When a product of value is removed from the right-of-way the standard permit fee will be charged, except for the case where an adjacent property owner mows and harvests hay in an area less than 20 acres (8.09 ha) in size. In the case of the adjacent property owner, as described herein, or if an individual wishes to mow the hay, without harvesting, the permit fee may be waived in accordance with Chapter 200 of the Encroachment Permits Manual.

Competitive bids should be sought by Right of Way for removing, harvesting, or pruning of State highway plants, with leases not to exceed 20-acre (8.09 ha) parcels. Successful bidders need an encroachment permit before starting work; the permit is fee-exempt.

508.8 Parking Meters

Only by adoption of an ordinance may local agencies install and service parking meters and mark parking spaces on conventional highways. The ordinance establishing the parking meter zone must describe the area included within the zone. The local agency must submit the complete draft ordinance to the District Director for approval. The ordinance only becomes effective after Caltrans approval. The ordinance can include the markings designating the parking spaces (Vehicle Code 22508 and CA-MUTCD Section 3B.18, Parking Space Markings).

Where maintenance of a State highway is delegated to a city, the District Director may delegate authority to regulate parking on that highway to the city (Vehicle Code 22506).

Parking meter zone plans must be reviewed by District Traffic and Maintenance. ADA certification is required (See Section 500 and Chapter 200).

508.9 Structures - Engineering Services

Encroachment permits for structures work are usually identified as Miscellaneous Permits Code (MC), although they also may occur in other permit code categories.

Design plans for work involving construction or modification of structures (for example, bridges, tunnels, retaining walls, soundwalls, etc. (see Structure Work in Appendix K), must be approved by Division of Engineering Services (DES). Special funded projects are reviewed by DES Office of Special Funded Projects, (OSFP) through the project development QMAP as indicated in Section 202.3, 205.2, 206, 206.2A, and special provision for Structure Work in Appendix K; construction and as-built requirements are subject to conditions of the cooperative agreement. Structures Maintenance must review all encroachment work not reviewed by OSFP and must approve all work to place irrigation facilities and lines on existing structures, including outside surfaces of retaining walls.

Whenever proposed work involves structures, in addition to the five (5) sets* of plans normally required by the District Permit Engineer for District use, the encroachment permit application must include the number of contract document sets as shown below:

Number of sets	Send to:
11 OR 13 to 17 if specialties involved (contact OSFP Liaison Engineer)	Caltrans Engineering Service Center Structures, Office of Special Funded Projects 1801 30 th Street, MS 9-2/7G Sacramento, CA 95816 OR P.O. Box 168041 Sacramento, CA 95816-8041

* Additional copies may be required as determined by the District Encroachment Permit Engineer.

Performance bonds are required on all permits (except public agency permits) authorizing work on signals or structures. The bond must be a minimum of \$10,000 and must be retained until the permittee furnishes accurate as-built plans and other completion records for the permit work.

All materials used in the permanent construction must be individually tagged as inspected by Caltrans or must be accompanied by a certificate indicating compliance with the permit. These must be furnished by the permittee on a timely basis. This requirement does not preclude Caltrans from testing materials when deemed necessary.

The permittee must provide field engineering for line and grade controls and must furnish Caltrans with completion records including reproducible as-built plans upon completion of the work. As-built plans furnished to Structures must be original-quality, full-size reproducible.

508.10 Protection of Survey Monuments

Pre-inspection by Encroachment Permits should include a search for known or suspected survey monuments.

When grading **or construction and maintenance of curbs, gutters and sidewalks** is approved, existing survey monuments must not be disturbed, destroyed, or obliterated. Districts must include the following statements in all encroachment permits allowing grading, earthwork, or curb, gutter, and sidewalk work:

“Your attention is directed to Standard Specification, Section 5-1.36 Property and Facility Preservation, and Business and Professions Code, Section 8771. Permittee must physically inspect the work site and locate survey monuments before work commencement. Monuments that might be disturbed must be referenced or reset in accordance with Business and Professions Code.”

“If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved surfaces, must be constructed in accordance with Caltrans Standard Specification Section 78-2 ‘Survey Monuments’ and Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer.”

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

508.11 Gathering of Roadside Vegetation Materials

The gathering of roadside vegetation/plant-life for the purposes of research, education and/or by Native Americans for religion, arts, & crafts is allowed (Public Resources Code, Section 5097.9).

Group participation must be limited to a maximum of 20 people at a time and must have one supervisor appointed.

All participants are required to wear safety equipment, hard hats, approved vests (green or orange), gloves, and glasses/goggles (see Caltrans Safety Manual). This safety equipment may be loaned to the group participants by Caltrans for each operation. Proper dress and foot attire is also required (i.e. shirts with sleeves (long or short), pants, boots, or shoes with a hard sole, etc.) in accordance with Caltrans policies and procedures.

508.11A Permission to Enter

For activities accomplished in one-day or less, permission to enter State right-of-way can be issued through a “Consent Letter” (form TR-0131). The Consent Letter can be obtained, through the Maintenance Area Superintendent’s Office. This activity may meet Adopt-a-Highway requirements. To see if your activity meets these requirements see Section 500.1.

When the proposed activity will take more than one-day (or three days when approved by the Deputy District Director – Maintenance), the project sponsor must obtain an encroachment permit through the local District Encroachment Permits Office.

The Consent letter or encroachment permit may be waived if Caltrans deems that the activity’s impact to be minimal.

The Consent Letter or Encroachment Permit must be specific to cover the operational and safety aspects of the specific controlled access location. A copy of the Consent Letter must be sent to the Headquarters Office of Roadside Management.

- Do not work on the roadway or shoulders, on bridges, in tunnels or near railroad tracks.
- Do not cross access-controlled right-of-way traffic lanes on foot. Use caution when crossing conventional highways. Use crosswalks and signals where available.
- Face oncoming traffic as you work and keep an eye on traffic. Be prepared to move quickly, if necessary.
- Discontinue work before dusk. Do not work when fog or other conditions reduce visibility for drivers.
- Do not work when roadway is wet or icy.
- Do not touch or remove materials which you suspect may be toxic or hazardous. Items to avoid include powders, chemicals, smelly substances, suspicious packages, chemical drums or containers, weapons, syringes or hypodermic needles, dead animals and broken glass. Notify Caltrans or law enforcement (California Highway Patrol, Sheriff, etc.) of the location of weapons or suspected toxic substances immediately.

- Do not compact trash bags. Injuries from broken or jagged objects may occur.
- Wear hard hats, either ANSI Class II or III compliant vests, safety glasses or goggles and other personal safety equipment as advisable.
- Wear long pants and substantial leather shoes or boots with ankle support.
- Watch your footing and stay off steep slopes, drainage facilities or places from which you might fall.
- Do not use portable music devices that require the use of headphones or earbuds.
- Do not run, throw objects or engage in horseplay or any other activity which may distract drivers.
- Do not consume alcoholic beverages or drugs before entering or while on the roadside.
- Be alert where snakes may be located. Also be alert for stinging insects and poisoning plants (e.g. poison oak).

508.11B Removal of Protected or Sensitive Vegetation

Only roadside vegetation/plant-life which has not been identified as environmentally protected/sensitive or roadside vegetation/plant-life within an area/location that has been identified as an Environmentally Sensitive Area (ESA) by Caltrans will be allowed to be removed.

508.11C Gathering by Research or Educational Groups

Research or Educational groups will be required to have a Caltrans representative in attendance at all times. Caltrans's representative will be the final authority as to specific work locations, vehicular parking, and time limitations for the removal of roadside vegetation/plant-life.

508.11D Gathering by Native American Groups

Native American groups are permitted to gather roadside vegetation/plant-life for the purposes of religion or arts & crafts (basket weaving).

When there are less than five participants, a Caltrans representative may not be required. Discretion will depend upon the location requested for the gathering of the roadside vegetation/plant-life.

508.12 Law Enforcement Surveillance Devices

Law Enforcement Surveillance Devices (LESDs), such as automated license plate readers, may be permitted in accordance with the criteria established in Table 5.19C below, in addition to existing encroachment permit policy and Caltrans standards. Deviations from the requirements in Table 5.19C shall not be allowed.

Proposals for installing LESDs within access-controlled right-of-way must also comply with guidance and requirements established in Project Development Procedures Manual Chapter 17, Section 1, Article 4, "Non-Utility Encroachments within Access Control Right-of-Way".

Table 5.19C
Law Enforcement Surveillance Devices Permitting Criteria

1. Encroachment permits authorizing installation, ownership, and/or operation of LESDs within the State highway right-of-way can be issued only to local law enforcement agencies or the CHP.
2. Annual maintenance permits can be issued to the owner of the LESDs to maintain the infrastructure installed within non-access controlled right-of-way.
3. A double permit is required if a contractor is installing or maintaining the installations for the permittee.
4. The entire LESD system must be independent from any Caltrans structure, pole, communication system, power supply, or other Caltrans-owned facilities.
5. Poles or other fixed objects installed to mount LESDs must meet horizontal clear recovery requirements described in the Highway Design Manual Topic 309-Clearances. These poles are considered discretionary fixed objects and will be allowed only if shielded behind existing guardrail, barrier or other safety device. If there are no existing shielding devices, the poles must be placed 52 feet horizontally or 8 feet vertically up-slope from the edge of traveled way.
6. At minimum, the permittee's LESD system installation plans must:
 - a) Include all electrical, electronic, civil, and mechanical work pertaining to the LESD system;
 - b) Show the electrical installation, and demonstrate that it operates independent of Caltrans highway infrastructure; and,
 - c) Utilize separate conduit with distinctively marked pull boxes.
7. Caltrans shall have no direct access to or control of the surveillance data collected by LESD.
8. Other than the LESD permits issued to the CHP, the permittee must notify and send a copy of each issued LESD encroachment permit to the local CHP Office.
9. Upon termination of surveillance activities, the permittee must notify Caltrans District Permit Office in writing within 30 days and remove all LESD infrastructure from Caltrans' right-of-way. If the permittee fails to comply, Caltrans may remove the LESD system and the permittee must reimburse Caltrans for all associated costs of removal and storage.

509 OUTDOOR ADVERTISING VISIBILITY IMPROVEMENT

Permit Code OA

509.1 General

Section 5226 of the Business and Professions Code establishes outdoor advertising as a legitimate commercial use of property adjacent to roads and highways.

When a legal outdoor advertising display is obscured from highway visibility, the applicant may apply to modify vegetation (including but not limited to tree pruning or removal) for the purpose of improving or enhancing the traveling public's view of the advertising display.

Visibility improvements for legal outdoor advertising displays are permitted in accordance with Section 670 (a) (4) of the Streets and Highways Code.

“... the department shall not issue a permit for, or take any other action to accomplish, the destruction, removal, or topping of any tree, unless the tree is dead or diseased, for the purpose of improving or enhancing the view from the highway of an advertising sign or device or any commercial activity, unless, for any project whose cost is more than five hundred dollars (\$500), the permittee has obtained consent from the city or county in which the tree is located. Nothing in this paragraph limits the department’s authority to modify or deny any permittee’s request. If the city or county does not respond within 30 days to a request for a permit pursuant to this paragraph, the city or county is deemed to have given consent to the project.”

509.2 Commercial Buildings Obscured from Highway Visibility

Modifying vegetation (including but not limited to tree pruning or removal) to improve visibility for a commercial building (e.g. car dealership, restaurant, store, etc.) is not allowed.

509.3 Visibility Improvement Request (VIR)

General

A “Visibility Improvement Request” (VIR) (form TR-0165) is used to obtain the consent from the local entity for the pruning or removal of vegetation to improve or enhance the traveling public’s view of a legal outdoor advertising display.

Consent from the local entity does not guarantee Caltrans approval of an encroachment permit for a VIR.

A VIR will only be considered when the work to be performed is within 500 feet from the advertising display (see Figure 5.1, Typical Visibility Improvement Limits).

The permitted work must be performed under an encroachment permit at the permittees expense.

Mitigation requirements as a condition of the permit approval may be required as stipulated by Caltrans, i.e. replanting, irrigation, and a plant establishment period.

Process and Submittal

The applicant completes the top portion of the VIR for review by the local entity having jurisdiction over the location of the advertising display.

The applicant will send a copy of the VIR via certified/registered mail to the local entity. The date the correspondence is received by the local entity establishes the start of the thirty-day (30) clock. The applicant must provide the local entity approved VIR to the District Encroachment Permits Office. If the local entity does not respond to the VIR within thirty-days (30), the applicant must provide proof of correspondence with the date of correspondence clearly shown, the local entity in this instance is deemed to have given consent to the VIR.

The local entity is required to complete the bottom portion of the VIR.

A brief explanation should be provided whenever a local entity denies a VIR.

In conjunction with a completed “Standard Encroachment Permit Application” (form TR-0100), any of the following actions begin the Encroachment Permit process for an “OA” permit:

1. Receipt of the written response mailed to the local entity giving consent,
2. Receipt of certified/registered mail delivery and no response has been received for 30 days,
3. Submittal of the completed VIR with local entity approval/denial.

The “OA” encroachment permit requests are reviewed by the following Caltrans personnel:

District Landscape Architect or District Encroachment Permits Landscape Architect;

District Maintenance Landscape Specialist;

District Maintenance Landscape Supervisor responsible for that specific area;

District Right of Way Office (verify that land is not in the process of acquisition);

Office of Outdoor Advertising (ODA) (to verify the ODA permit is current).

Denial & Appeal

In the event that the VIR is denied by the local entity, there are no rights of appeal through Caltrans.

In the event that the VIR is denied by Caltrans, the applicant must be provided an explanation of denial, a copy of their appeal rights and will be notified via certified/registered mail to ensure that all time-lines of the appeal process are met.

The applicant has no right to a meeting with Caltrans staff in the appeal process; the applicant is solely responsible to ensure that all justification (i.e. information, pictures, etc.) is supplied to Caltrans for consideration through the appeal process.

The Headquarters Landscape Architecture Program reviews and comments on all appeals. If the Landscape Architecture Program denies the appeal, it will be the final decision by Caltrans and the applicant will have no further rights to appeal.

Table 5.20
Guidelines for Visibility Improvement Requests (VIRs)

General Conditions

1. Work must be performed in accordance with the guidelines of the International Society of Arboriculture current ANSI A300 Standards.
2. The tree pruning contractor must be licensed by the California Contractors State License Board and hold a current C61 or D49 license.
3. Visibility improvement modification must not detract from appearance, compromise function, or adversely affect the maintainability or longevity of the vegetation. Within these limitations, the intent is to maintain:
 - a. Visibility of off-premise displays; and,
 - b. Visibility of on-premise displays.
4. Pruning must not disfigure or compromise the plant's health.
5. Only one pruning per each 12-month time period will be allowed.
6. Removal of more than 15% of any tree's canopy within a 12-month time period or more than 25% during any 24-month time period is not allowed.
7. Apply supplemental water to pruned trees as recommended by the District Landscape Architect or District Maintenance Landscape Specialist. To conserve domestic potable water, water must be either recycled or non-potable. Comply with the requirements of non-potable and recycled water use in Section 10-6 "watering" of the Standard Specifications.
8. Where planting is owned and maintained by the local entity, e.g., on a conventional highway comply with the pruning requirements of the local entity.
9. Pruning will only be allowed during a horticulturally appropriate time of year, based upon the tree species, solar exposure (to prevent sun scald), climate zone, and biological constraints (endangered species, nesting birds, etc.). The District Maintenance Landscape Specialist will evaluate and specify in the permit the required time to prune.
10. A bond or cash deposit may be required.
11. Pruning or removing Blue Oak, Engelmann Oak, Valley Oak or Coast Live Oak trees is not allowed. State agencies are required to preserve and protect native oak woodlands and to provide for replacement plantings whenever Blue, Engelmann, Valley, or Coast Live Oak trees are removed from native woodlands (Senate Concurrent Resolution No. 17, passed September 1989).
12. Place mulch beneath pruned trees. Mulch must be 4-inches deep, not touch the trunk of the tree, and extend 5-feet beyond the outer edge of the tree canopy (drip-line). Do not place mulch in drainage ditches, in paved areas, or closer than 5-feet of the paved roadway edge. An exception to required mulch placement may be granted by the District Landscape Architect or the District Maintenance Landscape Specialist if existing site conditions do not allow for mulch placement.

Median Plant Pruning

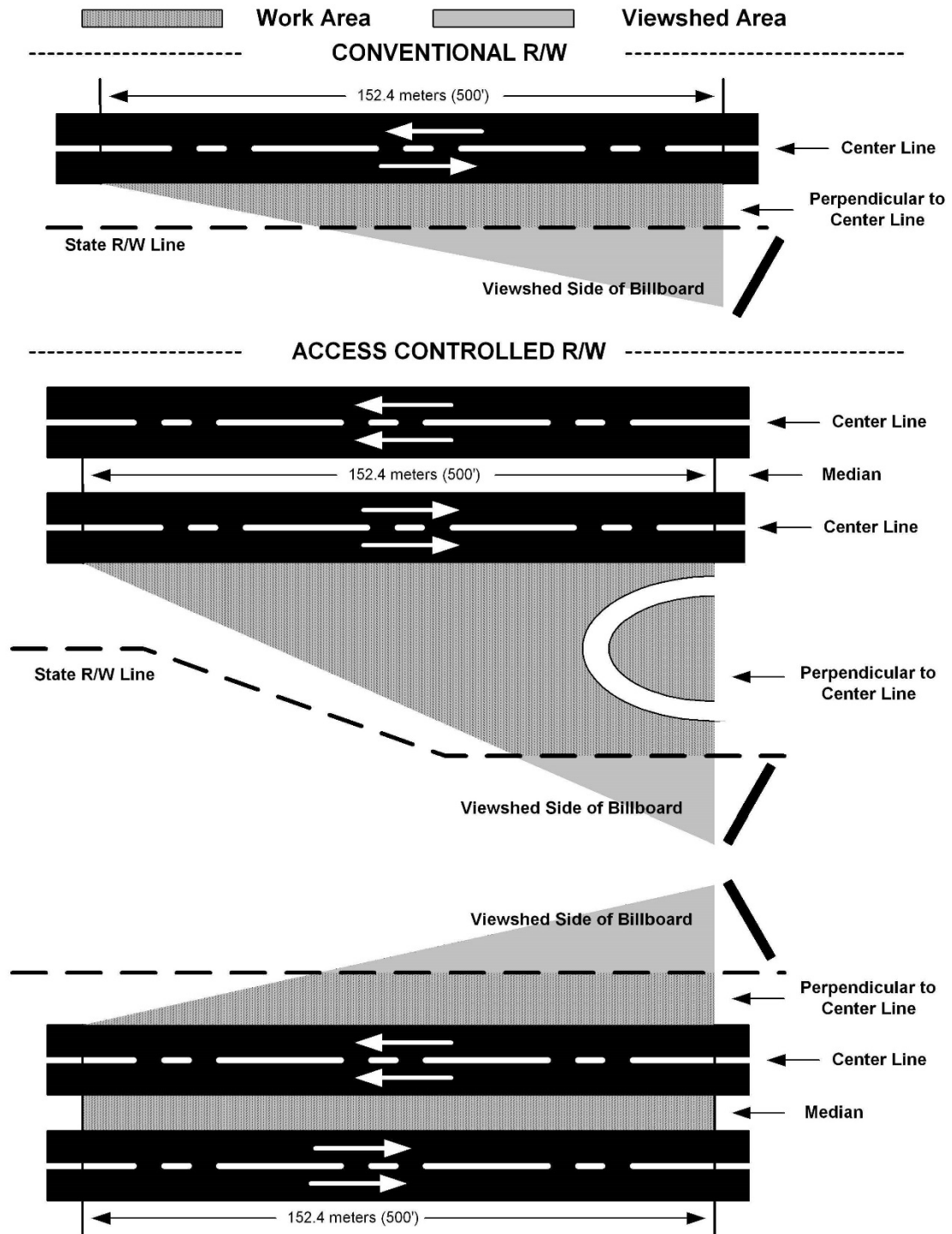
1. Permits to prune plants in the median are intended to be used on sections of highway that need pruning for safety.
2. Reasonable starting and stopping points for the median pruning should be considered, such as:
 - a. At overcrossings, undercrossings, bridges or similar structures.
 - b. Beginning or ending of a planting or breaks in the planting of 200 feet or more.
3. The permit will specify traffic control and access requirements including access times, dates, and special access requirements. The permit will also include: the time of year to prune, the type of equipment to use and any special treatment required must be based on the types of plants, site conditions, and geographical location of the project.
4. Plants are to be side pruned to a width sufficient to provide clearance required for the safety of the traveling public. Plants must not be pruned to a height under 5-feet measured from the highest paved shoulder.

Basis for Denial

1. The VIR (TR-0165) was denied by the local entity.
2. The display is illegally in place, is non-conforming to Federal standards or if Caltrans is in the process of acquiring the land where the display is located.
3. The scope of work involves removal of obstructing vegetation and/or destruction or topping of healthy trees.

Typical Visibility Improvement Limits

Shaded Areas Show Maximum Work Areas to be Considered for Visibility Improvement



REV. 5/05

Figure 5.1: Typical Visibility Improvement Limits

510 ROAD APPROACHES AND DRIVEWAYS

In granting a new public road connection, the California Transportation Commission action sets the terms and conditions of construction, which usually consist of specifying local and State responsibilities for right-of-way and construction costs of the new connection. These responsibilities usually are determined through negotiation, taking into consideration the California Transportation Commission's funding policy for interchanges adopted on April 26, 1984. New at-grade connections to existing access-controlled right-of-way are approved only if the State pays no construction or right-of-way costs.

Cases will occur where it is not clear that a proposed connection would qualify as a "public road." Headquarters and the District make a determination after evaluating the circumstances in each case. Curb returns must have review consideration in a PEER or project report if the connection is not publicly owned and maintained.

Caltrans' policy is to use existing access safely and minimize the number of new access points to a State highway. Access on access-controlled highways is limited by deed conditions. An increased use is not appropriate when the deed restricts access to a specific use. This usually applies to applicants wanting to use an agricultural or single-family access opening for commercial purposes.

The impacts of both initial and ultimate development must be assessed when a development requires a new connection to the State highway. The developer must mitigate adverse impacts on the State highway caused by the developer's initial and ultimate development. Add conditions to the permit that cause the developer to provide mitigation measures in a specific phase of future development if both initial and ultimate impacts are not mitigated in the first phase of development.

Growth inducement and its impact upon traffic generation must be evaluated. Environmental documents usually contain the information needed to make an evaluation. The permittee is responsible for mitigating conditions the proposal generates (such as increased traffic) which cause an existing private road approach to become unsafe. The permit may need to be updated and modified to address those unsafe conditions. Legal should be consulted to revoke the permit if the unsafe condition cannot be mitigated or the permittee fails to comply with the permit provisions. For information regarding unauthorized driveways, see Section 206.3.

510.1 Commercial Driveways

Permit Code RC

RC permits authorize driveways for service stations and other commercial establishments. Access from the highway also is discussed in the Highway Design Manual. A clear distance of at least 10' is required between a gasoline pump block and the right-of-way line (see the State Fire Marshal Administrative Code).

If the only project element is the driveway, then sidewalks directly adjacent to the driveway are considered to be out of the project scope. If other elements of the property frontage are being constructed or reconstructed, then all elements must comply with the current Design Information Bulletin 82 (DIB 82). ADA certification is required (See Section 500 and Chapter 200).

Permits must not be issued for servicing vehicles parked within State right-of-way. These establishments should be set back on private property to allow for service outside the right-of-way.

510.2 Resurface/Reconstruct/Reissue Driveway Encroachments

Permit Code RM

RM permits allow resurfacing or reconstruction of single family and agricultural driveways that were authorized by a previous permit. RM permits are also issued to new owners of existing driveway encroachments.

510.3 Public or Private Road Approaches

Permit Code RP

RP permits authorize construction and maintenance of a public or private road approach to a State highway facility.

City streets, county roads, and public highways are referred to collectively as public roads. A “public road” is defined to include:

- A road maintained for general public use that has dedicated right-of-way or easements and serves multiple property ownerships.
- A road maintained at public expense and that connects to a public agency facility serving the public, such as a State park, a Native American reservation, a county government center, a city landfill, etc.

A public road usually exceeds one-quarter mile in length. It functions as part of the local circulation system providing access to land uses indicated in local general plans. The California Transportation Commission may require that construction of a public road be started when Caltrans grants a permit for connection of the road to the State highway. The California Transportation Commission also may require that authorization for a new road connection be voided if construction of the public road is not undertaken within a specified period.

A private road connection to the State highway system is any connection other than public road connections and driveways. For example, a private road connection includes a stub connection, which is a publicly used access opening. A stub connection usually is less than one-quarter mile in length and serves privately-owned property which is (or is planned to be) used for commercial business or other development (for example, a shopping center, manufacturing plant, industrial park, condominium complex, etc.). This definition does not preclude a city or a county from

having jurisdiction and maintenance responsibility over a proposed stub connection, but such would not relieve the property owners from paying compensation for the private access rights to be acquired from other private property owners.

New private road connections on access-controlled highways are handled as right-of-way transactions using Director's Deeds and are processed through the California Transportation Commission. Compensation is obtained for the enhancement of values, which is based on appraisals of the property with and without the new private connection less the appropriate costs of any required State highway modifications or mitigation. The compensation never is less than the value of State highway modifications or mitigation measures required for Caltrans to accommodate the new access.

Descriptions of road approaches in the Highway Design Manual are condensed. Complete and detailed procedures for review and approval by the California Transportation Commission are described in Caltrans' Project Development Procedures Manual.

510.4 Single Family and Agricultural Driveways

Permit Code RS

RS permits authorize the construction and maintenance of driveways that provide access to private single-family residential and agricultural properties along conventional highways. The driveway permit should be issued to the property owners responsible for continued maintenance. These driveways may serve more than one resident when an easement for joint use is established. However, Districts may determine that a driveway serving more than three residents is a private road and require the facility to meet higher design standards.

Driveway standards are described in Caltrans' Highway Design Manual. Districts can require additional standards to protect the highway and the public. Proposals located in areas having curbs, gutters, and sidewalks must conform to the Standard Plans. ADA certification is required if the driveway is part of an access route. If the only project element is the driveway, then sidewalks directly adjacent to the driveway are considered to be out of the project scope.

Rural driveways connecting to State highways must be paved a minimum of 20 feet from the edge of shoulder or to the edge of State right of way, whichever is less to minimize or eliminate gravel from being scattered on the highway and to provide a paved surface for vehicles and bicycles to accelerate and merge. Where larger design vehicles are using the driveway (e.g., dump trucks, flat bed trucks, moving vans, etc.), extend paving so the drive wheels will be on a paved surface when accelerating onto the roadway.

Districts may encourage but cannot require additional pavement. Unless asphalt concrete surfaces are required for safety of operation, Districts may approve aggregate base driveways for intermittent farm field access for plowing and harvesting, or for construction, logging, and other driveways that are obliterated and removed after the work.

Before issuing an encroachment permit to establish a driveway for a logging operation, the permit engineer should review the California Department of Forestry's (CDF) timber harvest plans. These plans are sent from the Intergovernmental Review Coordinator to the permit office.

510.5 Standards for Road Approaches and Driveways

Any issued permit that does not meet the minimum standards shown in Table 5.21 must include written documentation from the District Traffic or Project Development Engineer explaining the reasons for allowing any deviation. The permanent file for the permit must include such written documentation.

Fire Safe Regulations adopted by the California Board of Forestry affect construction along roadways in unincorporated State responsibility areas. These regulations affect encroachment permit work on some State highways. Except for signs, Caltrans' standards for driveway and roadway connections exceed the standards in the Fire Safe Regulations and must be maintained. The regulations include mandatory signing standards which Caltrans has approved, and Caltrans will authorize the permittee to install and maintain signs mandated by the regulations.

Table 5.21
Minimum Standards for Road Approaches and Driveways

<p>Road approaches and driveways generally must comply with these minimum standards:</p> <ol style="list-style-type: none"> 1. Typical rural driveways with unimproved frontage on conventional State highways must conform to guidelines shown in Appendix J. <p>Exceptions may be made on low-traffic highways or where a highway is non-standard or is to be soon abandoned. Approval of exceptions for responsibilities that have not been delegated to the districts will be made by the Chief, Office of Project Support. Approval of exceptions for responsibilities that have been delegated to the districts will be made by the appropriate district representative as outlines in the district's design delegation agreement.</p> <ol style="list-style-type: none"> 2. Design of urban driveways with improved frontage and access openings on expressways must be in conformance with Caltrans' Highway Design Manual. 3. Public road connections to freeways, and the crossing of freeways must conform to the provisions of Caltrans' Project Development Procedures Manual. 4. Curb ramps at curbed public road connections must conform to Caltrans' Standard Plans. 5. ADA certification is required if the driveway is part of an access route or pedestrian facility.
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511 RIDER

A permit rider is issued to amend an approved encroachment permit. Districts may issue a rider if the permittee seeks to modify authorized work or cannot complete the authorized work by the permit's expiration date. Caltrans also may initiate a rider to modify permit requirements.

Riders to modify authorized work or for time extensions must be requested by the permittee and issued by Caltrans prior to the expiration date of the original permit. Similarly, Caltrans initiated riders must be issued prior to the expiration date of the original permit. If a permit has expired, the permittee is required to stop all work and must obtain a new permit prior to resuming work.

Regardless of who requests the rider, a complete accounting review of the permit should be performed to determine if additional fees are required. Applicants amending their approved encroachment permit must comply with Caltrans' requirements and pay additional fees as necessary for review, processing, and increased inspection.

The rider form must be Simplex-numbered and cross-referenced to the original permit.

511.1 Rider Initiated by Caltrans

Permit Code RD

RD permit riders may be initiated by Caltrans to modify permit requirements. The rider also can concurrently extend permit expiration. ADA certification is required if the proposed work modification creates, alters or affects any pedestrian facilities (See Section 500 and Chapter 200). Riders should not be initiated solely to change the name of a permit inspector; that change is made by letter.

When a permittee cancels a permit before starting work, Caltrans should issue a RD rider to terminate the permit and close the file. Inspection costs are refunded according to accounting procedures described in Chapter 200.

511.2 Rider for Time Extension

Permit Code RT

RT permit riders are issued for time extensions that commonly are requested by the permittee.

A maximum of two (2) time extension riders may be issued; each extension should be for a maximum of 90 days. The District Permit Engineer may consider exceptions to the number and length of time extensions at his or her discretion on a case by case basis.

Riders are issued after payment of a fee, normally a minimal two-hour charge.

The permits office should ensure that the requested time extension would not affect planned maintenance or construction by Caltrans. Also, projects with a U. S. EPA Rainfall Erosivity Waiver certification require a new certificate or a SWPPP. Do not issue the time extension until a WDID is submitted (see Chapter 400). Time expended to coordinate a permittee's request when it affects Caltrans' work is charged to the permittee before the rider is issued.

Caltrans may initiate time extension riders to extend a contractor's permit when the owner's permit has been extended at the owner's request; this action ensures that the contractor has a valid permit for the approved work. Caltrans also may initiate time extension riders to correct errors.

511.3 Rider to Modify Work

Permit Code RW

RW permit riders are issued at the permittees request to modify work and only after review and approval by appropriate Caltrans' units. Generally, the modification must be an integral part of work authorized under the original permit. Reviews for modified work are coordinated in the same way as permit applications and are not started until the permittee provides a deposit to cover estimated review costs. ADA certification is required if proposed work modification creates, alters, or affects any pedestrian facilities (See Section 500 and Chapter 200).

After plan approval, the permittee must submit a fee to cover any additional review and estimated inspection costs associated with new work. When the new work is substantial and may require extensive inspection, the permit engineer has the option of changing an “As Set” permit to “Actual Cost” inspection when the rider is issued.

512 RAILROAD GRADE CROSSING

Permit Code RX

Fee-exempt permits are issued to railroad companies for constructing or maintaining their existing grade crossings even though the work impacts the highway. In almost all cases where railroad bridges cross State highways, Caltrans does not own the right-of-way but crosses the railroad property by easement or agreement. These agreements control how Caltrans can utilize railroad property for highway purposes. However, State statutes also give Caltrans authority to permit activities within the area dedicated to highway use, including railroad maintenance operations that affect the highway or traveling public.

Standard Special Provisions (SSP) for fee-exempt RX annual maintenance permits issued to railroads are included in Appendix K. Districts may issue these permits for effective periods up to two years.

When a railroad company works in, under, or over a highway easement, e.g. adds new tracks within the easement, the railroad company or its subsidiaries or affiliated companies must be issued an encroachment permit. The permit provides Caltrans with notice, a record of work, and a description of terms and conditions relating to public safety and compatibility with highway purpose.

Encroachment permits issued to railroads or its subsidiary or affiliated companies must have designated across its face the words “For Notice and Record Purposes Only,” which approval must not be unreasonably withheld. The requirement for placing this statement on the encroachment permit is found in the Indenture. The Indenture is an easement agreement between Caltrans and the railroad company. The railroad right-of-way agent in each District negotiates these easement agreements.

Guides for issuing encroachment permits to railroad companies and providing inspection are listed as follows:

1. Permits issued to railroad companies performing construction or maintenance work, whether or not the work is limited to within the easement, must be fee exempt. Fee exemption pertains to permit preparation and inspection.
2. Railroad companies performing work that impacts the right-of-way, e.g., the traveled way, will be exempt from application and inspection fees.

3. Permit inspection may be provided, without fee, to ensure compliance with traffic control and roadway construction.

Additionally, railroad companies enter into lease agreements with communication service providers to install fiber optic cables within their right-of-way. Some of these cables pass through easements (e.g., grade crossings or grade separations) acquired by Caltrans from the railroads. Although Caltrans is under an easement agreement to use their property for highway purposes, the railroad retains the right to allow other uses of their property provided the lessee's activities do not conflict with highway safety or operation.

A fee exempt encroachment permit should be issued to the provider for installing fiber optic cable within Caltrans's easement. Permits are marked "For Record Purposes Only." The railroad company controls the location and inspection of the cable installation while the District performs inspection to mitigate potential highway and traffic impact.

Send new railroad grade crossing applications to Headquarters Division of Rail, Division of Design, Chief, and Structures for review. They must include full details and the District's recommendation. Details include:

1. Service to be rendered.
2. Commercial development dependent on proposal.
3. Engineering features.
4. Railroad operation.
5. Volumes of traffic.
6. Description and sketch of crossing location.
7. Effect on highway operation.
8. Railroads property rights and CPUC action.
9. Construction requirements, traffic handling plans, etc., considered necessary by the District for protection of public traffic.

These details are incorporated in special provisions for railroad construction projects.

513 CALTRANS CONSTRUCTION CONTRACT (Early Entry)

Permit Code SC

On rare occasions, District Construction allows a contractor to start work before signing a State highway contract. An encroachment permit must cover this early entry into the right-of-way. As a condition of early entry, a contractor must have bonds and insurance policies in force before permit issuance.

A contractor on a State highway contract must file a statement regarding workers' compensation insurance before starting work (see Appendix D). All Caltrans construction contracts contain this

statement, so that compliance is met upon receipt of an executed contract. The contractor must sign and submit the form with the permit application. The form reads:

“ATTACHMENT NO. 1 TO APPLICATION FOR ENCROACHMENT PERMIT
CERTIFICATION BY CONTRACTOR FOR CONTRACT NO. _____

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for worker’s compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Contractor

Licensed in accordance with an act providing for the registration of contractors
License No. _____.”

The permit engineer must contact District Construction before issuing the permit to ensure the contractor’s request is acceptable and obtain the resident engineer’s name for inspection purposes.

Encroachment permits issued to State contractors for borrow or disposal areas outside the contract limits are similar to a “Notice to Relocate” and are exempt from permit fees when those locations are designated in the contract. If locations are not designated in the contract, the contractor must obtain a lease from Right of Way and an encroachment permit.

514 SPECIAL EVENTS

Permit Code SE

The term “special events” as used in this Section refers to a marathon, bike-a-thon, walk-a-thon, parade, or other local celebration to be held on a State highway facility in such a way as to directly impact vehicular traffic on a State highway facility. Generally, a special event is an activity that is not consistent with the primary use of the State highway system and, therefore, closing a portion of a State highway and/or using special traffic control by Caltrans is necessary. However, the definition of what is (and what is not) a special event is subject to interpretation.

Because of the wide variety of requests that may be received, no attempt is made to develop a definition of “special event” that could cover all possible situations. In most cases, the District Permit Engineer should be able to decide if a proposed event falls within the above definition of “special event.” If a proposed event does not clearly fall within the definition in this Section, the District Permit Engineer should discuss the proposal with the Headquarters Permit Engineer.

Hundreds of permits are issued each year throughout the State for special events. Special events can cover a wide range of activities and may involve one or more Districts. Typical events include parades, marches, bicycle events, running events, sidewalk sales, and other activities.

When several Districts are involved, a lead District is designated by headquarters Permits and a single permit is issued by the lead District after coordination with the other district(s).

Not more than 4 (four) permits for the same activity at the same location must be issued in any calendar year (Section 682.5 of the Streets and Highways Code).

Permittees are responsible for all traffic control and fees for special events and must independently coordinate all activities with other affected jurisdictions.

Special event activities that conform to the California Vehicle Code and do not interfere with public traffic do not require a permit or are handled by the Traffic unit as an incident-response, as for example, high-density traffic before and after a major football game.

Whenever a special event is allowed, Caltrans may restrict the use of or close any State highway whenever Caltrans considers such closing or restriction of use necessary (Streets & Highway Code Section 124):

- a) For the protection of the public.
- b) For the protection of such highway from damage during storms or during construction, improvement, or maintenance operations thereon.

Caltrans's authority to issue encroachment permits for special events on State highways is derived from Streets and Highways Code Section 124, 670, and 682.5.

Legal authority for a local legislative body, e.g., city or county to close portions of State highways for special events comes from Sections 21101 and 21104 of the California Vehicle Code. These sections read in part:

Section 21101 Local authorities may adopt rules and regulations by ordinance or resolution on the following matters:

(e) Temporarily closing a portion of any street for celebrations, parades, local special events, and other purposes when in the opinion of local authorities having jurisdiction such closing is necessary for the safety and protection of persons who are to use that portion of the street during the temporary closing.

Section 21104 No ordinance or resolution proposed to be enacted under Section 21101 or subdivision (d) of Section 21100 is effective as to any highway not under the exclusive jurisdiction of the local authority enacting the same, except that an ordinance or resolution which is submitted to the Department of Transportation [Caltrans] by a local legislative body in complete draft form for approval prior to the enactment thereof is effective as to any State highway or part thereof specified in the written approval of the Department [Caltrans].

In addition, Districts should consider the following questions before deciding to issue or deny an encroachment permit for a special event. At the discretion of the District Permit Engineer, issued permits may include provisions to resolve these questions:

- Is there a staging area for event participants, and is there the potential for traffic operational problems at the staging area?
- Has the applicant obtained the cooperation of local law enforcement?
- Has the applicant made arrangements for emergency services for participants if needed?
- Has the applicant established clear rules for event participants, and have these been communicated to the participants?
- Is this a competitive event based on gender? Is there any prize compensation for participants? Is the compensation identical for each gendered category at each participant level?
- Are pets allowed in the event?
- Are sweep vehicles needed to pick up any stragglers at the end of the event?
- Are there any restrictions such as no bicycles, no skates, or other wheeled contrivances?
- Are there any restrictions on the age and physical condition of the participants?
- Have public transit agencies been notified of the event if it might affect transit operations or schedules?
- Is it necessary to notify emergency services such as police and fire departments? Have arrangements been made for passage of these vehicles through or around an event?
- Clean up

514.1 Conditions and General Requirements for Special Events

The applicant is encouraged to consult with District encroachment permits staff as early as possible. The applicant must apply at least eight weeks prior to the event date, if the event is restricted to one or two districts. For an event encompassing more than two districts, the applicant should submit the complete package for review and approval at least 16 weeks prior to the event date to facilitate timely approval. Lack of *early* coordination with Caltrans and the California Highway Patrol (CHP) could result in the denial of an applicant's encroachment permit for the special event.

Unsafe special event activities are not permitted on State highways. Caltrans approves specific events only when all concerns are mitigated.

Caltrans' general policy requires traffic control for permitted special events to be provided by a competent traffic control specialist retained by the permittee. The District Director is authorized to specify State personnel for traffic monitoring and control.

Permit Standard Special Provisions require notification of State legislators and local elected officials that serve the area affected by special events having significant traffic impacts.

Each special event permit must include the General Provisions, which are attached to all SE encroachment permits.

An event may be canceled, postponed, or terminated at any time if, in the opinion of Caltrans, weather or other conditions present unacceptable hazards. This clause must be included in the permit:

“If rain, fog, or other elements significantly affect safety for event participants or vehicular traffic, Caltrans may take whatever action is necessary to protect the public. Also, if for some unforeseen reason the traffic demand for the State facility significantly exceeds the anticipated demand, it may be necessary to terminate the event.”

The permittee must pay required fees and charges. These fees include review and analysis of traffic handling proposals, answering correspondence, coordinating with law enforcement agencies, etc. In addition, the California Transportation Commission has established the following requirement by Resolution G-18 (8-25-78):

“... that a toll charge equal to that charged for a 7-axle truck be and it is hereby established for each such event involving the use of a state-owned toll bridge...” The event sponsor must provide a bridge toll receipt as proof of payment prior to permit issuance.

Encroachment permit fees are not required of nonprofit organizations possessing a resolution for conducting municipal parades that are considered a civic event. For example, to qualify for fee exemption, parades are held on legal holidays such as: Independence Day, Veterans Day, etc., and conducted by veterans' organizations, schools, and youth organizations.

The applicant must provide proof that the responsible enforcing agency is aware of the special event and that special enforcement will be provided if it is necessary. This proof must be documented.

Caltrans issues encroachment permits to cities, counties, and nonprofit organizations for special events and cooperates with a special event sponsor but must not be considered a sponsor or cosponsor of any event. Permits are issued only when:

1. The event is sponsored by a nonprofit organization.
2. Local interest and support for the activity is evidenced by an ordinance, resolution, or written consent (see Appendix I) from all local governments impacted directly. Local resolutions are required for all special events unless a prior resolution clearly shows the intent to cover repeat events. For example:
 - If a previously-adopted resolution (still in effect) shows the intent to hold the special event on an annual basis, or
 - Written approval is provided from an individual delegated authority by the elected body by ordinance (see Appendix I).

3. The time and date of the event are acceptable to Caltrans and are specified on the permit to maximize safety and minimize traffic disruption. Event sponsors are required to schedule events at a time when traffic volumes are low. If the event requires lane closures, an analysis must be made to determine whether remaining lanes can carry expected traffic volumes. A lane closure must be limited to the shortest period of time necessary to hold the event.
4. The proposed use will not significantly detract from the safe operation of the highway, unreasonably delay or inconvenience the traveling public, or expose participants to unusual hazards. Safe operation for the motoring public and the event participants is a primary concern when planning special events. If the event requires using a lane next to high-speed traffic, it is desirable to provide a buffer lane between the event lane and live traffic lanes.

When a buffer lane cannot be provided, detouring traffic around the event should be considered. A detour route should take into account traffic volumes, length of detour, and impact on emergency vehicles. The encroachment permit must define the route for event participants and include the detour plan.

5. The applicant provides insurance to cover the State's potential liability.

Prize Compensation Requirements:

If the event awards prize compensation to competitors in gendered categories, the Permittee is required to ensure and certify that the prize compensation is identical for each gendered category at each participant level. (Streets and Highways Code, Section 682.7)

The Permittee is responsible for responding to all claims and/or complaints related to prize compensation for all gendered categories at each participant level. The Permittee must substantiate and show that the prize compensation for each gendered category was identical for the competitors at each participant level receiving prize compensation upon request. Should the Permittee fail to demonstrate compliance with gender equity, the subsequent event permit requests will be denied until demonstration of compliance is satisfactory.

514.2 Nonprofit Organizations

For the purpose of allowing special events on State highways, Caltrans issues encroachment permits only to nonprofit organizations as defined in Title 26, United States Code under Section 501(c)(3), (4), (6), (7), (8), and 501 (d) [IRS Publication 557]. Political organizations and other special interest groups **do not** qualify as nonprofit.

A nonprofit organization must satisfy all of the 5 categories listed as follows:

1. Is the applicant one of the following?
 - A corporation

- A community chest
 - A fund or foundation
 - A civic league or organization (boy scouts, veteran’s organization, etc.)
 - A chamber of commerce or a business league
 - A recreational club
 - A fund or foundation, a fraternal beneficiary society, order or association (lodges-Elks, Moose, etc.)
2. Is the organization formed and operated exclusively for one or more of the following purposes?
 - Charitable
 - Religious
 - Scientific
 - Testing for public safety
 - Literary
 - Educational
 - The prevention of cruelty to children and animals
 - National or international amateur sports competition (only if none of its activities provide athletic facilities or equipment)
 3. None of the organization’s net earnings benefit private shareholders or individuals.
 4. None of the organization’s activities is propaganda, influencing legislation, or a political campaign.
 5. None of the proposed activities can include vending within the State right-of-way (see Section 514.6) unless vending is an incidental part of the special event (authorized under Section 682.5 of the Streets and Highways Code).

514.3 Categories of Special Events

Special events are classified in one of the two following categories:

Category 1 — Events held within access-controlled right-of-way or on toll bridges.

Written approval by the Chief, Division of Traffic Operations is required before issuing a permit for Category 1 events. Headquarters Permits obtains approvals, denials, or modifications with justification for new special events.

Headquarters approval is required for any event or activity on access-controlled or toll facilities. Once an event or activity has been approved, subsequent approvals are not required unless the event or activity changes

significantly or if operational conditions on the facility change considerably.

Category 2 — Events held on conventional State highway facilities or local facilities where special traffic control on a State highway is necessary.

The District Director or his representative may approve encroachment permits on conventional highways--Category 2.

514.4 Special Events within Access-controlled Right-of-way, Toll Bridges, and the Interstate System

Special events are normally banned from access-controlled right-of-way and toll bridges. However, some events, such as marathons or nationwide events requiring lane closures, ramp closures, and traffic control are allowed under an encroachment permit. In some cases, e.g., the Olympic Torch Run and activities on toll bridges, the event moves over portions of access-controlled highways.

FHWA approval is required for special events on the Interstate system and not required for non-interstate highways. The permit engineer should obtain FHWA approval when the event is defined sufficiently to establish impact on the Interstate facility.

The policy of the Federal Highway Administration (FHWA) is to ensure that operation and maintenance of the Interstate system enhances safety and minimizes disruptions. To ensure FHWA is aware of special events that affect the Interstate system, Caltrans' normal operating procedure is to provide information to FHWA by telephone at the earliest possible date.

Exchanging information regarding the event provides FHWA an opportunity for input and approval plus background for response to any inquiries it receives. FHWA engineers are assigned to districts and their names are available from District Project Development.

514.5 Joint Policy Guidelines for Special Events

Caltrans and the CHP have adopted joint policy guidelines for special events on conventional State highways to ensure consistent Statewide treatment of events and to provide criteria that can aid local agencies in their planning for similar activities (see Appendix E).

The guidelines apply only to highways over which both CHP and Caltrans have jurisdiction. The guidelines do not preclude the development of additional guideline criteria by local CHP commands and Caltrans Districts covering specific problems of mutual concern or interest.

The applicant must submit a completed encroachment package for a special event permit to Caltrans for review and approval. The package must include the materials listed in Table 5.22.

Table 5.22
Encroachment Package for Special Events Permits

The final encroachment package submitted to Caltrans by the applicant must include these materials:

1. A completed and signed application for an encroachment permit and the appropriate fee.
2. Traffic control plans.
3. Detour plans approved by all affected Local entities (cities, counties and Tribal governments).
4. Resolutions or approvals from all impacted governments indicating formal approval of the special event and detour plans. Resolutions should conform to Caltrans' sample format (Appendix I).
5. Fully completed and signed Encroachment Permit Application Checklist – Special Events (form TR-0410).
6. A certificate of liability insurance naming the State of California, California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation as additional insured and in an amount determined by Caltrans to be appropriate for the event.

Cities, counties, public schools, local improvement districts, and other local or State agencies are exempt from insurance requirements.

514.6 Special Events Involving Vending

Street festivals involving vending and sidewalk sales within State highway right-of-way is allowable with city or county sponsorship or approval under Streets and Highway Code, Section 682.5.

Encroachment permits may be issued to cities and counties (not to the nonprofit organization) for the use of highways within their boundaries or to community-based nonprofit corporations for special events involving vending. A community-based nonprofit corporation is a corporation formed under the Nonprofit Corporation Law (Division 2, commencing with Section 5000, of the California Corporation Code) having an office located within the county where the special event is held.

A community-based nonprofit corporation must obtain an acknowledgment from the city or county before permit issuance. Acknowledgment refers to a city or county issued special event permit, road closure or detour permit, or letter of permission authorizing the special event for which an encroachment permit from Caltrans is sought.

Caltrans' permits for special events are issued in accordance with current Joint Operational Policy Statement adopted by the California Highway Patrol and Caltrans.

514.7 Liability Insurance for Special Events

The General Provisions that accompany the encroachment permit hold the permittee responsible for all liability for personal injury and property damages (see Section 203.3 and Appendix K).

Special events are classified as low, medium, or high risk and categorized as follows:

1. Low Risk Events

- The event is held on a conventional highway with low traffic volume.
- Traffic control is provided by: a law enforcement agency having jurisdiction, or by a professional traffic control company hired by the event sponsor.
- An approved detour is available.
- Event participants number less than 250.
- Expected spectator draw is less than 2,000.
- Event duration is normally one day.
- The duration of the event is normal for that type of event.

2. Medium Risk Events

- The event is held on a conventional highway with moderate traffic volume.
- Traffic control is provided by: a law enforcement agency having jurisdiction, or by a professional traffic control company hired by the event sponsor.
- An approved detour is available.
- Event participants number between 250 and 500.
- Expected spectator draw is between 2,000 and 5,000.
- Event duration is one or two days.
- The event's duration is normal for that type of event.

3. High Risk Events

- The event is held on a conventional highway with high volume.
- Any event held on access-controlled highways or toll bridges.
- The event requires rolling traffic closures.
- Traffic control is provided by: a law enforcement agency having jurisdiction, or by a professional traffic control company hired by the event sponsor.
- The number of participants exceeds 500.
- Expected spectator draw is greater than 5,000.
- Grandstands, bleachers or other structures for spectators, participants, or officials are erected within State right-of-way.
- Event duration continues for three or more consecutive days.
- The duration of the event is not normal for that type of event.

Although an event may not fit specifically into one of these three categories, the District determines the appropriate risk category and establishes insurance coverage accordingly.

Access-controlled right-of-way ramp closures normally do not require insurance for special events occurring outside the right-of-way.

Table 5.23 indicates the general criteria for the three risk categories. When the risk of an event is believed to be unusual, the Districts should contact Headquarters Permits to obtain an insurance amount beyond those indicated in Table 5.23. District permit engineers should review high-risk special events and present the information to Headquarters Permits. Caltrans Legal will establish an insurance amount.

Table 5.23
Insurance Requirements for Special Events

Coverage	Low Risk		Medium Risk		High Risk *
	Dual Limit	Single Limit	Dual Limit	Single Limit	
Bodily Injury					
Each Person	\$ 500,000	\$1,000,000	\$1,000,000	\$2,000,000	*
Each Occurrence	\$1,000,000	\$1,000,000	\$2,000,000	\$2,000,000	*
Property Damage					
Each Occurrence	\$ 250,000	\$1,000,000	\$ 500,000	\$2,000,000	*
Aggregate	\$ 500,000	\$1,000,000	\$1,000,000	\$2,000,000	*

**For high-risk events, consult Headquarters Permits regarding amounts for dual-limit and single-limit bodily injury and property damage.*

515 SIGNALS AND LIGHTING

Permit Code SN

Issue SN permits for new or modified traffic signals and street lighting. The Caltrans District must prepare a Project Report of the investigation of conditions at locations where a new traffic signal is to be installed, an existing traffic signal is to be modified, or an existing traffic signal is to be removed on the State highway (Section 4B.102 (CA), CA-MUTCD). See the Project Development and Procedures Manual for project report requirements and format. A Permit Engineering Evaluation report (PEER) may be prepared in lieu of a Project Report for projects estimated to cost \$1 million or less.

ADA Certification is required (See Section 500 and Chapter 200).

515.1 New Facilities or Modifications to Existing Facilities

Local agencies and developers may propose new or modified traffic signal and street lighting facilities. New signals and State-owned safety lighting must meet warrants and require agreements for cost and maintenance. Permits for these installations are issued only when a PEER or project report is approved and final plans are signed by a California Registered Engineer and approved by Caltrans.

Local agencies, utilities, and developers often propose continuous lighting along improved highways for future ownership and maintenance by the local agency. Caltrans cannot authorize ownership by private entities and permits are not issued unless the application is made by a local agency. The permit to the agency either can mimic the permit issued to the private entity for the

installation, or it can include text stating “Own and maintain street lighting facilities installed by ‘X’ under Permit Number ____.”

Design and construction standards for signals and lighting must conform to the latest Plans Preparation Manual, Standard Plans, Standard Specifications, 1996 Caltrans Traffic Manual (Sections 9-06 through 9-13) for lighting, California Manual on Uniform Traffic Control Devices (Part 4, Highway Traffic Signals) for signals, and the Signal, Lighting Electrical Systems Design Guide.

For continuous street lighting, the installations may conform to local standards, but Districts should ensure that the facilities meet minimum requirements for wind loading, breakaway, and location within the right-of-way. The District Traffic Electrical unit determines when lighting installations are considered safety lights that may require ownership by Caltrans.

When permit work for signals and State-owned lighting is completed, the as-built plans are signed by the appropriate inspector and copied for District Traffic Electrical and Maintenance. Permit inspectors and Maintenance electrical staff should ensure that copies of as-built plans for signals are placed inside traffic signal controller cabinets.

Plans for installation of traffic signals and lighting designed by private and local agency engineers should be reviewed by the District Traffic unit. If roadwork is involved, the entire package must be reviewed by Traffic Electrical (i.e., signal and lighting plans, striping plans, roadway plans, and any contract specifications or special provisions).

Minimum plan requirements for work involving or affecting signals, lighting, and electrical systems are shown in Table 5.24. Caltrans will not accept the job as complete until the permittee provides the Office of Encroachment Permits with one (1) 20 ft. (1: 240) scale reproducible film and an electronic copy of as-built plans within 30 days after completing authorized work.

Table 5.24
Minimum Plan Requirements for Signals, Lighting, and Electrical Systems

Plans for signals, lighting, and electrical systems must comply with these minimum requirements:

1. Separate 20 ft. (1: 240) scale plans on standard layout sheets 22"x 34"
2. Reproducible film media and an electronic copy provided for review
3. Using an existing as-built reproduction as a plan base is not acceptable.
4. Design details (such as right-of-way lines, striping, crosswalks, and curb ramps) must be shown.
5. All supporting documentation must be provided (for example, draft environmental impact reports, traffic studies, and traffic warrants)

6. These are general requirements; Districts may require additional submittals for approval
7. ADA certification is required (See Section 500 and Chapter 200)

515.2 Traffic Signal Controllers

Caltrans provides Traffic Signal Controllers for encroachment permit projects on State highways. This policy applies to each new and existing traffic signal including those at the intersection of access-controlled right-of-way ramps and local streets, whether they are maintained by the State or by a local agency.

Caltrans will, for cooperative agreement projects and other Oversight Projects involving signal systems on State highways, provide controllers to the local agency permittees as a part of the State's contribution to the project if that obligation is so stated in an executed agreement. Caltrans also supplies controllers as a Department-Furnished Material when stated in the Permit Engineers Evaluation Report (PEER) or the Project Study Report/Project Report (PSR/PR). When projects are privately funded, the State must be reimbursed for controller assembly, inspection, delivery, and installation costs (see Guidelines for Controller Assembly distribution - Appendix E).

515.3 Payment for Traffic Signal Control Equipment

When Caltrans supplies equipment for signalization projects, the cost of this equipment must be shown in the "Equipment & Materials" section of the "fee calculation" sheet, page 3 of the application, and collected in full prior to issuance of the permit. The amounts charged must coincide with the prices listed on the Guidelines for Controller Assembly distribution (See Appendix E).

516 SURVEYS

Permit Code SV

SV permits may be issued for property survey work, traffic counts, research and materials investigations, test wells, and preliminary surveys for highway improvements, depending upon accessibility, traffic conditions, available highway facilities, etc. Requests for survey assistance and an estimate of costs should be referred to the District Surveys Engineer or responsible unit.

516.1 Multi-year Survey Permits (Annuals)

Multi-year permits are issued for a two-year period only on conventional highways, for land surveys and research projects funded by FHWA. Districts may also issue multi-year permits for soil surveys, traffic counts, etc., when applicants have contracts for work District wide. Multi-year permits for individual companies with repeated permit violations will be canceled, therefore requiring individual permits for specific work locations.

516.2 Accident Reconstruction

Generally, Caltrans' policy is to prohibit accident reconstruction on State highways because of concerns about traffic impacts and liability. Encroachment permits must not be issued for accident reconstruction except upon written recommendation by Caltrans Legal staff, or when required by court order. A court order allowing accident reconstruction does not exempt investigators from encroachment permit requirements. Table 5.25 outlines guidelines for issuing permits for accident reconstruction surveys.

Requests for accident reconstruction should not be referred to the California Film Commission.

Table 5.25
Guidelines for Issuing Permits for Accident Reconstruction Surveys

Permits authorizing accident reconstruction surveys must conform to these guidelines:

1. Applications for accident reconstruction must supply:
 - Description of work.
 - Number of vehicles and support vehicles involved.
 - Number of persons involved in the investigation.
 - Filming or photography necessary.
 - Estimated time to complete the requested activity.
 - A certificate of liability insurance, as determined by Caltrans Legal, naming the State of California, California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation as additionally insured.
2. Upon receipt of an application, the permit engineer must request recommendations from District Legal.
3. Highway closures and detours must be approved by Caltrans and the affected local agency. Closures not exceeding one hour are allowed if detours are unavailable and traffic volumes are low. Advance notification signs must be placed a minimum of seven days before authorized closures.
4. Activities must be performed during daylight and conducted so that traffic in peak periods is not disrupted.
5. A preliminary meeting of Caltrans Encroachment Permits, Caltrans Legal, and the permittee must be held before permit issuance to discuss proposed activities, required personnel, traffic control, timing, and other considerations. Local agencies, law enforcement, and legal representatives should attend when appropriate.
6. An operational meeting between Caltrans, the permittee, the private traffic control vendor, the CHP, and others as appropriate is necessary before work begins to ensure that plans are finalized and participants are aware of individual responsibilities.
7. Reviews by District Traffic and Maintenance units are necessary to determine effects on State highway traffic, State-owned facilities, and the appropriateness of requested timing.
8. Unaltered accident reconstruction special provisions must be attached to the permit, and permit text must contain District special requirements. The accident reconstruction special provisions are located in Appendix K.
9. Estimated costs incurred by Caltrans must be collected from the permittee before permit issuance.

516.3 Archaeological Surveys

Permits for archaeological surveys within State right-of-way are issued for site investigations at specific locations. Applicants usually are colleges, universities, public agencies, and archaeology study groups hired to investigate sites identified in environmental impact reports. All

applications are reviewed by District Environmental staff, with Maintenance and Traffic units often involved also.

Traffic and pedestrian safety is provided by the permittee when open excavations are proposed. Excavations are managed and protected in the same way as trenches adjacent to the traveled way.

An archaeological survey sometimes is required because finds are unearthed during the course of other permitted work. These investigations are approved by the original permit, and no other permit is issued.

516.4 Land Surveys

Land surveys within the access-controlled right-of-way are authorized only for future highway improvements and only for specific projects and locations. Permits must specify the work involved, list a specific location for the work, and are not issued to cover numerous, and varying work site locations. Multi-year (annuals) survey permits are not authorized for access-controlled right-of-way, except for highway improvements funded by local agencies.

Permits for private surveys within access-controlled right-of-way are issued only for proposed highway improvements or for data collection but only when District Surveys cannot provide the required information from within State right-of-way to the private surveyors within a reasonable amount of time. All survey permits on conventional highways must include unaltered Special Provisions. Districts must cooperate with private surveyors by furnishing necessary information and survey reference points as needed to avoid work within access-controlled right-of-way. Authorized surveys are restricted to areas of comparatively low traffic volume when the work can be performed safely and there is no interference to public traffic.

Surveys performed in areas of relatively heavy traffic volume, particularly in metropolitan areas, must include a Traffic Management Plan measures approved by District Caltrans.

All encroachment permits involving land surveying must contain the following statement:

“If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved areas, must be constructed in accordance with Caltrans Standard Specification Section 81, ‘Monuments’ and Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer.”

516.5 Literature Distribution at Toll Bridges, On Ramps, etc.

The distribution of traffic questionnaires, e.g., origin and destination inquiries, to motorists at toll bridges, access-controlled right-of-way on ramps, etc., is allowable provided the survey is beneficial to Caltrans. Surveys conducted for non-transportation purposes do not qualify. Organizations applying for a permit must meet the conditions listed below (all exceptions are forwarded to Headquarters Office of Encroachment Permits):

1. The method of questionnaire distribution must be such as to minimize traffic impact.

2. The applicant must obtain a policy of liability insurance naming the State as additional insured before permit issuance. Headquarters Legal determines the policy amount.
3. Person(s) distributing questionnaires at toll bridges must be positioned at a location designated by the toll sergeant or as described in the permit.
4. CHP must be notified when surveys are conducted within access-controlled right-of-way on ramps.
5. Distribution or collection is not allowed at off-ramps.

516.6 Research Projects Funded by FHWA

The Federal Highway Administration (FHWA) occasionally funds traffic research projects involving California highways. Contractors performing such research work are subject to the conditions listed in Table 5.26.

Encroachment permits are required for research work conducted by contractors within the access-controlled right-of-way when: any personnel or stopped vehicles are within the limits of the access-controlled right-of-way, any traffic control measures are needed, or any work will be done (such as placing traffic counters or markings on the pavement). Permits also are required for research work conducted on conventional State highways when traffic control measures are needed or when any work will be performed on the traveled way or shoulders. This permit may be issued as a biennial for long-term studies.

When there is a direct contract between FHWA and Caltrans to conduct federally funded research, all permit costs are waived and the contractor is not required to post a bond. When there is not a direct contract between FHWA and Caltrans, the contractor is required to pay all permit costs and to post a bond when there is a potential for damage to the highway.

Table 5.26
Conditions for Research Projects Funded by FHWA

Research projects funded by FHWA are subject to these conditions:

Safety Equipment

- Safety equipment must conform to provisions of Caltrans' Safety Manual.

Traffic Operations

- The contractor, as part of the research project, must not flag, direct, obstruct, or interfere with public traffic or close lanes or shoulders. Any such work that is necessary is done by State maintenance personnel. A Caltrans maintenance employee must be present at all times for research projects that involve traffic control, lane closures, or shoulder closures, or any work on lanes.
- The contractor's vehicles must not have activated rooftop flashing lights. They must not be parked on traffic lanes and must be parked off the paved shoulder where practical.
- The contractor's work must be done according to conditions of the Maintenance Manual, except when the encroachment permit provides other restrictions.
- Work on lanes and crossing of access-controlled right-of-way lanes usually must be prohibited unless the lane is closed. Caltrans' policies regarding limited-time work on lanes along highways that have low volumes apply only if authorized by the permit and only if traffic volumes are low.
- The contractor's personnel must not be closer than six feet to moving traffic at any time.

Technical Equipment

- Caltrans cannot loan or rent to the contractor any equipment needed for research operations, such as time-lapse cameras, radar sets, etc.

Fires

- The contractor must comply with all local, State, and federal fire regulations. Open flames or fires are permitted only in vehicles parked over bare ground or pavement or when vegetation is wet and the appropriate officials have declared the fire season ended.
- The contractor must have one shovel per vehicle when any work is performed in grass, brush, or forests during the dry season.
- Vehicles must not be parked on tall, dry grass.

516.7 Soil Surveys

Soil surveys and material investigations are needed for the design of proposed structures and are associated most often with future highway improvements. They generally are performed by core boring. Use of open trenching is limited by trench depth and is acceptable only in rural areas.

Districts can authorize core boring outside improved highway surfaces where equipment and work do not affect public highway use. Permit inspectors should monitor access to locations within access-controlled right-of-way and require traffic control or shoulder closures for work next to shoulders or the traveled way. This permit may be issued as a biennial.

516.8 Traffic Counts

Permits for traffic counts are issued to public agencies and engineering firms for work on conventional highways and at access-controlled right-of-way ramp terminals. District traffic staff can provide the most recent information available for State count locations, thereby avoiding excessive counting. Traffic reviews ensure that unsafe practices or locations are not used for counting traffic. The permit may be issued as a biennial.

Permittees must firmly anchor count tubes to the traveled way with tape. Anchor nails or bolts are acceptable at the edges of shoulders or at the lips of gutters. Placing anchors in the traveled way or in Portland Cement Concrete is not authorized, unless they are placed in a joint at the lip of a gutter or at the centerline. Permittees must not place straps around State facilities to protect their equipment from theft, unless no other facility or location is available to which equipment can be secured.

516.9 Unmanned Aircraft Systems (UAS)

The use of UAS is authorized within the State Highway System (SHS) right of way under Deputy Directive 118 (DD-118). UAS is an all-encompassing term that refers to an unmanned aircraft, its ground-based controller, and the system of communication connecting the two. Only small UAS (weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft) may be permitted for use within the SHS.

While the Federal Aviation Administration (FAA) has exclusive regulatory authority over UAS operations, as well as civilian airspace, (which includes the airspace over the SHS right of way), an encroachment permit from Caltrans is required before launching from or landing a UAS within the SHS right of way, and before entering the SHS right of way to operate or participate in UAS related activities. Regardless of where the operators (remote pilot, visual observer, support personnel) are physically located or where the UAS is flown, operators are required to comply with all federal and State laws, and local ordinances. An encroachment permit is not required for flying a UAS over the SHS right of way if operators, launching, and landing, are all outside the SHS right of way.

To mitigate driver distraction, UAS should not be flown lower than 100 feet above the ground. Launching and landing must be at least 50 feet from the edge of traveled way unless Intermittent Traffic Control (rolling break) closure is implemented. UAS operators should be as far as possible from the edge of travelled way while operating UAS and as close to the right of way property line as possible.

UAS operations within SHS right-of-way may be permitted only when associated with authorized construction work or other permitted activities such as filming, special events, surveys, or accident reconstruction work. UAS operations for other purposes, such as recreation, private, or business uses are not allowed within the SHS right of way.

UAS permit requests associated with Caltrans capital projects or Architectural & Engineering (A&E) contracts are to be managed as administrative permits (See Encroachment Permit Manual, Section 500, Administrative Encroachment Permits) with respective project leads (Design, Construction, or A&E Contract Manager) providing oversight responsibilities.

All permitted UAS operation activities must comply with the Caltrans UAS Operations Handbook (Handbook), which provides procedures and requirements to conduct UAS operations within the SHS right of way. The Handbook can be accessed at the Division of Aeronautics internal website. The Encroachment Permit Special Provisions for Unmanned Aircraft Systems (UAS) Operation must be attached to every encroachment permit issued for UAS operations.

In addition to supporting documents, applicants must provide a completed Unmanned Aircraft Systems (UAS) Operation Data (form TR-0414) and proof of insurance (see the Handbook) with their EPAP. After the project is complete, the permittee must provide an Unmanned Aircraft Systems (UAS) Post Operation Data (form TR 0415) before the project can be accepted as complete by the State's representative.

517 TRAFFIC CONTROL AND TEMPORARY SIGNALS AND SIGNS

Permit Code TK

Traffic control measures (signing, temporary signals, ramp closures, etc.) are required when work is performed on or affects State highways to ensure the safety and convenience of the public and to protect highway workers.

ADA certification is required (See Section 500 and Chapter 200).

517.1 Traffic Control on Conventional Highways

Traffic control on State highways is performed for the safety of the traveling public even when the work is outside State right-of-way. Districts should not accept traffic disruptions solely for the applicant's convenience and should suggest that an applicant perform work so that impacts on the highway are minimized. Signing standards for traffic control must conform to the Standard Plans or to a special plan designed by the applicant and approved by District Traffic.

517.2 Temporary Signals

Temporary signal installations are requested when work outside the right-of-way disrupts State highway traffic. Such work often involves highway crossings or access by construction vehicles. District Traffic Electrical must review and approve proposals for temporary signals and recommend feasible alternatives.

Temporary signal systems should have a minimum impact on highway traffic. Their operation should be limited to the permittees work hours and hours approved by District Traffic Operations. When they are not in use, the permittee must cover the signal faces and the advance warning signs or lock the signals on green for highway traffic.

517.3 Ramp Closures

Caltrans' policy is to provide for safety, convenience, and protection of public traffic and permittees. This policy is applied to requests for ramp closures as shown in Table 5.27. Ramp closures are not permitted solely for the convenience of the permittee. Traffic control is supervised by Caltrans, and the permittee is billed for Caltrans' costs.

Table 5.27
Policy Regarding Ramp Closures

High Volume Ramps	Avoid closure, if possible, to minimize disruption of traffic. Pipes should be bored and jacked in lieu of open cutting.
Low Volume Ramps	May be closed for the minimum amount of time required to perform the necessary work.

517.4 Planned Checkpoints on Conventional Highways

The California Highway Patrol (CHP) and other law enforcement agencies periodically conduct planned sobriety checkpoints on conventional State highways. Such checkpoints are considered planned work, similar to other work for which encroachment permits are issued and all law enforcement agencies, except CHP, must obtain permits. The CHP is exempt from permit requirements because it is authorized by statute to enforce laws on State highways.

In cooperation with other law enforcement agencies, Caltrans authorizes biennial (two-year) encroachment permits for planned sobriety checkpoints at pre-approved locations on conventional highways. Access-controlled right-of-way is excluded from this surveillance. Planned checkpoints that have the potential of suspects attempting to avoid operations and eluding authorities thereby endangering public safety will not be permitted. Examples of such operations are drug interdiction and illegal immigration.

Permits require two days advance notice to the State's representative. If requested, checkpoint information furnished is confidential and the permit must be stamped confidential.

Law enforcement agencies must first consult with the CHP and get their concurrence for the checkpoint operation before District Traffic review. In addition, the enforcement agency must supply a completed encroachment permit application and a list of locations for the various checkpoints. Districts should cooperate with law enforcement in identifying checkpoint locations and establishing safe, effective traffic control. The District Traffic Operations unit must review the proposed locations for safety and suggest alternatives for unacceptable locations. Locations may be added by permit rider after permit issuance.

State Standard Plans T-11 governs the use and placement of traffic control devices, and provisions of Section 12 of the Standard Specifications are required. Sign messages shown in T-11 may be modified to address the operation.

517.4A Charitable Solicitations

SB-582 2007 modified section 17510.25 of the Business and Professions Code to authorize charitable solicitations on City and County public roadways. State Highways were not included in this legislation. Caltrans supports the intent of the legislation and may authorize the use of a State highway for charitable activities upon compliance with, and approval of the following:

1. A “Standard Encroachment Permit Application” (form TR-0100) from the local entities’ Fire Chief, Police Chief, or head of the Public Safety Section. The complete application package must be submitted to Caltrans a minimum of 40 days prior to the proposed solicitation.
2. A certificate of liability insurance naming the State of California, California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or of the California Department of Transportation as additional insured in the amount determined by the District Permit Engineer (Minimum \$1 million).
3. A full explanation of alternative locations considered other than the State highway and reasons for not using them. The safety of the traveling public and event participants is our primary concern. The proposed solicitation must not detract the safe operation of the highway, cause unreasonably delay or inconvenience to the traveling public, or expose participants to unusual hazards. Additional requirements may be imposed based on site specific conditions.
4. Resolutions or approvals from all impacted local entities indicating formal approval of the proposed solicitation and detour plans.
5. Only law enforcement personnel, firefighters, and other persons employed to protect the public safety that are in uniform with badge or insignia as public safety personnel will be allowed to perform the actual solicitation.
6. A Traffic Management Plan (TMP) prepared and signed by a California Registered Engineer for review and approval. The TMP should discuss the location and method of collection.

7. A meeting with responsible agency personnel, the charity, the permittee, the California Highway Patrol (CHP), and Caltrans must be held prior to the issuance of the permit to go over all issues, restrictions, time constraints and the TMP.
8. The District Permit Engineer may require CHP or other law enforcement personnel to assist the permittee with traffic control at the District Permit Engineer's discretion.
9. A letter from the applicant stating that all of the above have been completed and acceptance of the provisions provided in same.
10. No more than 4 (four) permits for the same activity at the same location must be issued in any calendar year (Section 682.5 of the Streets and Highways Code).
11. Charitable solicitation must not be performed within access-controlled right-of-way facilities.
12. Local agencies are exempt from encroachment permit fees for charitable solicitations.

517.5 Portable Changeable Message Signs

Portable Changeable Message Signs (PCMS) are used to inform motorists of unexpected conditions and should display only real-time information that conveys current traffic safety and congestion information. Public service messages are not permitted. For additional information, see publication titled, "Changeable Message Sign Guidelines," Division of Traffic Operations, Department of Transportation, December 2013.

517.6 Snow Closures

Certain State highway segments are normally closed (with barriers) to prevent public access during the high snow season. When Caltrans has fee title ownership, encroachment permits are not issued for recreational use of the State right-of-way or for using snow removal equipment to keep the highway traversable beyond the closure point.

When Caltrans has not obtained right-of-way by fee title but is occupying land owned by others, such as the U.S. Forest Service or the Bureau of Land Management, it does not object to the use of that portion of closed highway provided that:

- The Forest Service issues the permit;
- The special use permit issued by the Forest Service has a specific provision naming Caltrans as an additional insured on liability insurance policies; and
- Caltrans is entitled to review any permit issued for this activity to determine if appropriate liability clauses are included.

Property owners that are unable to access their land because of a snow closure (locked gate), may apply for a key through the encroachment permit process. Permits are issued fee exempt. The permittee must assume responsibility for maintaining a secure gate and agrees to indemnify and hold harmless the State against any and all claims arising out of any activity for which the permit is issued.

517.7 Temporary Directional Signing

To maintain safe highway operations, Caltrans sometimes allows nonprofit organizations sponsoring attractions or events conducted for nonprofit purposes, to place directional signing within the right-of-way. To qualify for sign placement, the attraction or event must have significant traffic generation as determined by the permit engineer. Also, traffic patterns must have local agency approval before permits are issued.

Directional signs within the State highway right-of-way must be reviewed and approved by the District Traffic unit. They must be placed and removed by the permittee at no cost to Caltrans and be covered until they are needed for actual event traffic. They must be removed immediately or under certain situations within a maximum of one week after the event.

Permanent directional signs for points of local interest and fire protection signs required by the State Board of Forestry are discussed in Section 521.

517.8 Project Construction Identification Signs

Project construction identification signs for State contracts are included in the Plans, Specifications, & Estimate.

Project construction identification signs may be provided when authorized and installed under permit for construction projects having an estimated contract cost of \$1,000,000 or more and contract duration of 50 or more working days. One sign in each direction must be placed near the limits of each qualifying project. The sign format, message content, and letter size must conform to standard sign detail sheets.

One or more of these local agency funding sources must be identified:

1. City or county road funds.
2. City or county traffic authority measure funds.
3. Private entity funding through a local agency.

The following information must not be included on the sign:

1. Dollar cost figure.
2. Funding percentages of contributing sources.
3. Names of private firms, developers, or organizations.
4. Promotional information, such as identification of public officials, organizational affiliations, or related symbols or logos.

A State or local agency contractor is often required to post advance signs warning the traveling public of restricted clearances caused by falsework or other types of construction. Standard Specifications require these signs, and they are usually placed outside the project limits. Review by Transportation Permits Office staff is required to ensure that the signs direct vehicles exceeding the restricted clearance to an approved detour. Caltrans issues permits for these signs at no charge, and inspection is performed by the resident engineer. The contractor and resident engineer are responsible for notifying Permits and other District staff for implementing Standard Specifications, Section 7-1.04.

518 TUNNEL UNDER ROAD

Permit Code TN

A tunnel is defined as any jacked casing, liner plate, or wood lagging work that is 30" in diameter or larger. A Cal-OSHA permit and tunnel classification is required for tunnels.

Tunneling must conform to the requirements for bore and jacked pipe (Section 603.6A) and the additional requirements listed in Table 5.28. All tunnels (except for jacked casings) must be reviewed by Structures Maintenance. Two soils reports must accompany the submittal.

Table 5.28
Requirements for Tunneling

Tunneling must satisfy the requirements for bore and jacked pipe (see Section 603.6A) and these additional requirements:

1. Tunneling is authorized when the permittee provides full-time inspection and is monitored by a Caltrans representative.
2. The permittee must set and check a survey grid over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes should be submitted to the Caltrans representative at Caltrans's discretion.
3. Caltrans may require sand shields as ground conditions change.
4. The method used to check the grade and alignment must be approved by Caltrans' representative before work begins.
5. Pressure grouting for liner plates, rib and spilling, or rib and lagging tunnels must be at every 8' section or at the end of work shift before the next section is excavated. All grouting must be completed by the end of each workday.
6. A method for securing the headway at the end of each workday is required. Breast plates must be installed during working hours for running sand or super-saturated soil.

519 WALL

Permit Code WL

Retaining walls and soundwalls often are proposed by local agencies and developers as part of their work outside State right-of-way. Local agencies may perform advance construction of soundwalls within State right-of-way when the project is in Caltrans' State Transportation Improvement Program (STIP) but funding is uncertain. In these cases, cooperative agreements between Caltrans and local agencies specify Caltrans' future participation in reimbursement, plan requirements, and construction standards.

The applicant is responsible for the design, construction, and future maintenance of walls constructed outside State right-of-way. Plans for construction within the right-of-way are reviewed by District Project Development, Environmental, Landscape Architecture, Maintenance, and Headquarters Structures. Project plans should include access gates and fire hose openings. Caltrans must maintain soundwalls built within the right-of-way. Structures Maintenance must approve plans for walls to be used for retaining purposes.

Applicants should store materials and provide access to the construction site from outside State right-of-way. When access from outside State right-of-way is limited, Districts may allow work and materials storage within the right-of-way but must maintain the clear zone or require K-rail protection. Permittees may relocate access control fences to ensure continuity of the fencing and allow for permitted work.

Upon completion, permittees must remove the fencing in front of the wall, set new end posts with bracing approximately 4" from the wall, and connect the remaining access fence. Salvaged fence is delivered to the nearest State maintenance facility. Retaining walls must have standard CL-6 fencing or a minimum 6' soundwall above ground surface (see Section 504).

520 GROUNDWATER MONITORING WELLS

Permit Code MW

Under State legislation, counties and regional water quality control boards may require the owners or operators of underground storage tanks and parties responsible for hazardous materials spills to test for groundwater and soil contamination. Monitoring wells are one of several methods used to determine contamination. In those situations where placement of monitoring wells within the right-of-way is unavoidable, the underground storage tank owner or operator must apply for an encroachment permit. However, an engineer or other representative may apply when properly authorized by the owner or operator.

A copy of the approved site mitigation plan should be submitted along with the encroachment permit application. Any subsequent modifications to the mitigation plan must be submitted when appropriate. A copy of the mitigation plan, permit, and all relevant information should be submitted to the District Hazardous Waste Coordinator.

1. The following policies apply to drilling wells, temporary conduits, and discharging treated water into State highway drainage facilities:
2. Permits may be issued for monitoring wells on conventional highways located safely outside the traveled way when no reasonable alternative exists outside the right-of-way.
3. Permits may be issued for monitoring wells on access-controlled right-of-way if alternate locations or means of access are unavailable or impractical due to terrain or environmental constraints and where such use will not adversely affect safety or cause damage to the State highway. Temporary wells must be located such that access to the facility can be obtained by entering from a local road or private property. The intent of this requirement is for the service vehicle to park outside of the right-of-way*.
4. Permits are not issued for discharging treated groundwater or effluent into the State drainage systems*.
5. Permits are not issued for temporary conduits or pipelines through culverts. A transverse underground crossing permit is required*.

* Requests for exceptions are submitted to the Division of Design, Chief

Regional water quality control boards and county representatives oversee the testing well operation, abandonment, and compliance with the Department of Water Resources' standards.

A maximum expiration date of five (5) years is to be used for MW permits. The permittee will need to reapply for a new MW permit (not a rider) as needed.

The owner of the required clean up must submit a minimum \$5,000.00 performance bond prior to permit issuance.

521 SIGNS Rev (07/21)

See the following sections for Signs that are installed through encroachment permits but not covered in this section:

Adopt-A-Highway sign see chapter 500.1

Gateway Monument or Community Identification see Chapter 500.2

Permit Code SI**521.1 Signs to Local Interest** Rev (07/21)

Destinations Signs to a public or nonprofit facility; Community Wayfinding Signs that direct tourists and other road users to key civic, cultural, visitor, and recreational attractions and other destinations within a city or a local urbanized or downtown area; distinctive type city limits or "Welcome" signs; "Radio Information Signing"; "Recreational and Cultural Interest Area Signs" to major rural recreational areas can be facilitated through encroachment permits. Policies governing placement of such signs are located in the CA-MUTCD and only agencies specified in CA MUTCD for each type of such signs can apply for an encroachment permit. Signs may indicate directions to locations that do not meet Caltrans' minimum qualifications or to those places of community interest, which normally do not warrant signing by Caltrans.

All above signs must meet the color, size, shape, text, symbol, and construction requirements listed on the California Sign Specification Drawings or Standard Highway Signs published by Federal Highway Administration (FHWA). Details can be found at:

<https://dot.ca.gov/programs/safety-programs/sign-specs>

https://mutcd.fhwa.dot.gov/ser-shs_millennium.htm

Sign installation and maintenance must be by the local agency at no cost to the State. Sign locations must be limited to areas where they do not block or interfere with warning, regulatory, or other guide signs necessary for the safe and efficient operation of the highway. Sign panels should be clearly marked as to city or county ownership. ADA certification may be required if supports are placed in an access route (See Section 500 and Chapter 200). Encroachment permits for placement of guide signs are issued as fee-exempt and may be biennial.

521.2 Fire Hydrant Markers and Signs

Placement of blue reflective markers and signs to identify fire hydrant locations must conform to criteria described in "Guidelines for Fire Hydrant Markings Along State Highways and Freeways" (This publication was prepared by the Office of the Fire Marshal in cooperation with Caltrans for the California State Board of Fire Services - May, 1988). Additional guidance is presented in the CA-MUTCD, Section 3B.11 and 2I.03.

Encroachment permits for placing such markers and signs are issued at no cost to the fire agency.

521.3 Fire Protection Signing

Fire Safe Regulations adopted by the Board of Forestry establish requirements for roadway name and building address signs. Caltrans authorizes such signs under encroachment permits issued to property owners and developers when the signs are set outside the clear zone or as close to the right-of-way as possible. County sign standards for height, color, and reflectivity will be accepted, but breakaway sign posts conforming to current State Standard Plans are required.

Chapter 600 – Utility Permits

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Chapter 600

Utility Permits

600 INTRODUCTION (Rev. 06/20)

Caltrans policy is to allow utilities within conventional highway right-of-way subject to reasonable conditions and to exclude them from within access-controlled right-of-way to the extent practicable with few exceptions. Requests for utility encroachments that are not allowed by Caltrans policy or utility access within access-controlled right-of-way require an approved encroachment policy exception.

The primary purpose of these policies is to protect both the public and highway workers from the hazards of a damaged, exposed, cut, or penetrated utility. The secondary purpose is to protect the public's investment in the highway system (see Project Development Procedures Manual [PDPM] Chapter 17). In the event of there being a discrepancy between this manual and the PDPM, the PDPM shall govern.

Caltrans policy does not allow the installation of septic tanks, leach fields, or any other facility that may lead to future costs for the State.

When Caltrans issues a permit for installation of public utility facilities, it does not inspect the installation for compliance with the utility or public corporation standard. Compliance with industry standards is the responsibility of the public utility or public corporation.

Although statutes do not require Caltrans to inspect encroachment permit projects, inspectors may be assigned to provide inspection. The District Permit Engineer may require inspections to be performed by other Caltrans units, utility companies, local agencies, or private engineers hired by the permittee at the permittee's expense. The District Permit Engineer retains the authority to approve any non-Caltrans inspector prior to the commencement of work

Registered Engineer's Seal and Signature requirements on utility plans are discussed in section 202.5A.

The most common utility and franchise facilities are:

- Water
- Sewer
- Broadband
- Cable Television
- Electrical
- Natural Gas

- Telephone - Cellular
- Telephone - Landline
- Common-carrier petroleum pipelines

Services, products, and commodities, such as those mentioned above, that are provided as a service to the public are called public utilities. Public corporations and private companies may own and operate facilities for the transmission and distribution of utilities. Public corporations are owned by the local governing body, e.g., the Sacramento Municipal Utility District (SMUD) and are governed by State law and the regulations of the California Public Utilities Commission (CPUC). Privately owned companies providing service to the public, such as, Pacific Gas and Electric (PG&E) and Southern California Edison are regulated by the State law and CPUC regulations. Also, privately owned companies that do not generally provide utility service to the public and are not regulated by the CPUC, may service the public under a franchise by the local governing body (e.g. city or county).

Before a privately-owned utility company can offer its services to the public it must, in most cases, first obtain a Certificate of Public Convenience and Necessity (CPCN) from the CPUC. After the CPCN is granted, the utility company must file its tariffs (rates) with the CPUC. Upon approval and under CPUC regulation, the utility company can sell its services to the public. Qualifying utility companies are issued a User Fee Number by the CPUC.

In some cases, only certain segments of a company's facilities may be public utilities, while other segments are used exclusively by the company. If there is any question regarding the status of a permit applicant or a specific facility segment as to a public utility, contact the appropriate Branch (Energy, Telecommunication, or Water Utilities) of the CPUC's Advisory and Compliance Division. They will verify the status of the company or facility.

Streets and Highways Code Section 117 grants Caltrans the authority to issue permits, under Chapter 3 (commencing with Section 660), for the location in the right-of-way of any structures or fixtures necessary to telegraph, telephone, or electric power lines or of any ditches, pipes, drains, sewers, or underground structures.

Caltrans has developed minimum utility construction standards for the occupancy and use of the State highway right-of-way for utility facilities. Additional construction standards may be required by District Policies or Highway Design Policies.

This chapter addresses requirements for the initial placement and subsequent adjustment, relocation, and replacement of utility facilities within State highway right-of-way. It also describes specific requirements associated with these permit codes:

Table 6.0A
Administrative Utility Permit Codes

SECTION	CODE	TITLE
601.1	UR	State required relocation
601.2	AS	Utility wireless installations
601.3	US	SAFE telephones

Table 6.0B
Utility Permit Codes

SECTION	CODE	TITLE
603.2A	BB	Telecommunications (including broadband)
602.7A	UB	Utilities Within or on Bridges and other Structures
603.4A	UC	Conventional Aerial
604	UE	Utility Annual Maintenance
603.4B	UF	Access-controlled Aerial
602.4B 602.5A	UJ	Utility Crossing Encroachments
602.4C 602.5B	UL	Longitudinal Encroachments
603.5	US	Service Connections, Potholing, Modifications and Miscellaneous Utility Work
603.6B	UT	Open-cut road

600.1 Utility Permitting and Billing Process (Rev. 06/20)

Procedures for determining and collecting permit fees for utility facility encroachments owned by utility companies differ from those encroachments owned by private companies or developers. Usually, utility companies providing utility facility service to the public are billed for application and inspection fees whereas other companies pay fees at the time of application. For example, cable television systems holding city or county franchises are eligible for the same encroachment privileges that are available to public utility corporations. Cable television companies are not regulated by the CPUC but are set up as a franchise by the local agency.

Cellular telephone companies are communication-type public utilities that are regulated by the CPUC. They are entitled to the same considerations granted to all communication utility companies for use of State highway right-of-way.

A permit must be issued to the owner of the encroachment. A utility facility encroachment may be constructed or installed by someone other than the owner. Double-permitting is not usually needed for private utilities and requiring a Double Permit (DP) is at the discretion of the District Permit Engineer. However, for public utilities using a contractor, a DP will be needed to recover inspection charges for the project.

The installer or contractor may be required to apply for and secure an encroachment permit (DP) if prior contractor performance was poor. In this situation, the DP provides Caltrans with direct control over the authorized work. DPs, when required, are issued at a two-hour minimum fee, but inspection costs are billed directly to the utility owner.

Utility companies or franchisees that have been non-compliant, failed to pay bills in a timely manner or have any violations of laws, regulations or standards may face adverse actions.

Adverse actions may include but are not necessarily limited to:

1. Payment of estimated fees prior to the processing of the encroachment permit submittal,
2. Require bonding in accordance with Standard Specification 3-1.05,
3. Require their contractors to obtain a DP and to furnish bonds,
4. Revocation of encroachment permits except for emergency work.

601 ADMINISTRATIVE UTILITY PERMITS

601.1 State Required Relocation (Rev. 06/20)

Permit Code UR

UR permits authorize the relocation of utility facilities or pot-holing for the exact horizontal and vertical alignment of the utility when such relocation or design information is required by State highway improvement projects.

When highway construction occurs either by a State contract or an Oversight Project in lieu of a State contract (e.g., projects programmed in STIP or SHOPP) that requires identification and/or relocation of an existing utility facility encroachment, arrangements for the identification and/or relocation are initiated by the State or approved local program. All request for information or relocated installations must be covered by an encroachment permit regardless of who finances or constructs the highway project. When information is requested, the utility must supply the exact horizontal and vertical alignment of their utility facilities.

A complete Encroachment Permit Application Package including but not limited to, a copy of the “Notice to Owner” (form RW-13-04), copies of the final approved relocation plans, a completed “Standard Encroachment Permit Application (form TR-0100), and a completed “Encroachment Permits Administrative Route Slip” (form TR-0154) must be submitted by the Right-of-Way Utility Coordinator to the District Encroachment Permits Office requesting the issuance of the UR permit. The permit should be issued in a timely manner since all applicable reviews and approvals have already been obtained as signified by the signed “Encroachment Permit Administrative Route Slip” (form TR-0154). The District Encroachment Permits Office issues the UR permit to the Right of Way Utility Coordinator for issuance to the utility owner. The Project Delivery representative is responsible for monitoring the project construction, ensuring the permit does not expire, and submitting as-built plans to the District Encroachment Permits Office. The District Encroachment Permits Office has no other involvement except to archive the permit when closed. Utility work that is ordered under a Notice to Owner is exempt from encroachment permit fees.

The text of the permit must contain:

- Utility Notice number
- A reference to the State contract and Project Code,
- A brief description of the work,
- The construction inspector's name and contact information.

The attachments of the permit must contain:

- Encroachment Permit General Provisions (TR-0045),
- A copy of the “Notice to Owner” (RW-13-04)
- A copy of the approved relocation plans.

This information is provided on the face of the notice, and the issued permit may mimic the notice to simplify procedures and avoid conflicting statements. The District Encroachment Permits Office sends copies to Maintenance, Construction, and the area permit inspector for information. Construction is responsible for inspection and permit completion including the “Progress Billing/Permit Closure” (form TR-0129).

The law governing liability for the cost of relocating utility facilities encroachments is complex and must be interpreted uniformly and fairly. The Right of Way Utilities section is responsible for the cost sharing decisions.

All permits for local agency projects constructed by encroachment permit without a cooperative agreement must contain this clause:

“If existing public or private utilities conflict with the construction PROJECT, PERMITTEE will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. PERMITTEE must inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or removal which STATE or PERMITTEE must legally pay, will be borne by PERMITTEE. If any protection, relocation, or removal of utilities is required, including determination of liability for cost, such work must be performed in accordance with STATE policy and procedure. PERMITTEE must require any utility company performing relocation work within the STATE's right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities must be correctly located and identified on the as-built plans.”

Encroachment permits for developer projects being constructed without a highway improvement agreement must contain the following clause:

“If existing public or private utilities conflict with the construction PROJECT, PERMITTEE will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. PERMITTEE must inspect the protection,

relocation, or removal of such facilities. Total costs of such protection, relocation, or removal must be borne by PERMITTEE in compliance with the terms of the Highway Encroachment Permits, Case Law, Public Utility Regulations, and Property Rights. PERMITTEE must require any utility company performing relocation work within the STATE's right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities must be correctly located and identified on the as-built plans. The PERMITTEE must ensure that relocated utilities are located and identified on the as-built plans prior to submittal to and before the District Encroachment Permits Office closes the permit.”

State highway projects constructed under cooperative or highway improvement agreements do not require the above clauses in the permit provisions because similar provisions must be included in the respective agreements.

601.1A Performing Relocation Work

Whenever possible, utility facility relocation or protection work that is required by highway improvement or construction must be performed by the owner before the highway work begins. Arrangements for such work must be made with the owners by the District Right of Way Utility Coordinator.

601.2 Utility Wireless Installations

Permit Code AS

All wireless utility installations that occupy parcel of land in Caltrans right-of-way require “right-of-way use agreement”. All such requests must be directed to District Airspace manager. District Encroachment Permits Office will support with issuing administrative permit. See section 500.3 for further details, requirements and process, related to airspace lease or right-of-way use for wireless utility installations.

601.3 SAFE Telephones

Permit Code US

Streets and Highways Code Section 2550 authorizes county and regional government bodies to establish “Service Authority for Freeway Emergencies (SAFE)” agencies. SAFE agencies are ratified by a majority of the cities encompassed by the SAFE jurisdiction.

They function as the administrative body to develop, implement, operate, and fund access-controlled right-of-way emergency telephone systems. Systems are installed by locally administered contract under encroachment permit. SAFE funding comes from a one-dollar assessment by the Department of Motor Vehicles on each registered vehicle in the jurisdiction.

SAFE telephones are acceptable within access-controlled right-of-way and connecting highways under jurisdiction of the California Highway Patrol (see Streets and Highways Code 131.1).

They also are acceptable in park-and-ride lots as provided in SAFE guidelines. SAFE systems must connect directly to a California Highway Patrol dispatch.

Only local authorities may propose SAFE systems. Site selection and design are determined by SAFE and the District SAFE Coordinator and are reviewed by appropriate Caltrans functional units. Upon acceptance of the plans as complete, a copy of the plans, the cooperative agreement, and completed “Encroachment Permits Administrative Route Slip” (form TR-0154) are sent to the permit engineer for permit issuance. No additional review is required by the permit engineer. Any Caltrans' costs attributed to the project are reimbursed according to the SAFE/Caltrans cooperative agreement.

The encroachment permits issued to SAFE for construction and subsequent maintenance of the project are fee exempt. However, SAFE’s contractor must be charged permit issuance and inspection fees under the double permit process. For additional information on SAFE call boxes, see the Publication Titled, “CHP/Caltrans Call Box, and Motorist Aid Guidelines.”

“Certification of Compliance with the Americans with Disabilities Act” (form TR-0405) is required for the installation of SAFE phones.

602 UTILITY ACCOMMODATION POLICY

602.1 Conditions of Occupancy within State Highway Right-of-way

All utility encroachments within the State highway right-of-way must be designed, installed, and maintained so that traffic disruption and other hazards to highway users are minimized. The design must comply with Caltrans standards and specifically Topic 309 of the Highway Design Manual.

Encroachments must not be constructed, installed, or maintained if they adversely affect the safety, design, construction, operation, maintenance, stability of the highway or any proposed/existing highway appurtenance, or limit the use of the right-of-way or increase the cost of future improvements.

Permittees understand and agree to relocate a permitted installation upon notice by Caltrans. Unless under prior property right or agreement, the permittee must comply with said notice at the permittee’s sole expense (Encroachment Permit General Provision # 25). District Right of Way Utilities initiates the Notice to Owner.

Damaged plants or landscaped areas must be replaced or restored, and surface structures must be consistent with aesthetic values of the highway, Caltrans standards and economic feasibility. Access to utility facilities on conventional highways is permitted from the right-of-way or roadway.

Access to utility facilities located within the access-controlled right-of-way normally is permitted only from frontage roads, public roads and streets, trails, or auxiliary roads. In some situations, the installation of a locked gate by a utility company in an access-control right-of-way fence is permitted only with an approved encroachment policy exception (see Chapter 17 of the PDPM). For sites within the right-of-way leased for wireless telecommunications facilities, the District Airspace Review Committee (DARC) approves gate installations under the right-of-way use agreement (see Section 500.3F).

Utility support structures, manholes, or other appurtenances that are proposed to be located within interchanges, median areas, or within any other access-controlled area when access for servicing is not possible by the means described above require an approved encroachment policy exception. To ensure safety, terms and conditions may be imposed on the utility company limiting access to such facilities from ramps or through traffic lanes.

602.2 Utility Owner Prior Rights

A fee exempt permit is issued for utility encroachment activities involving utility work wherein the utility owner has prior rights (utility facility in place before highway right-of-way purchase), i.e., a Consent to Common Use Agreement (CCUA) or a Joint Use Agreement (JUA). The permit can be issued for all the purposes for which the owner's original easement was acquired. These activities could include: modification, relocation, replacement, upgrade, and maintenance.

Utility owners with prior rights must submit an encroachment permit application package that includes prior rights identified for verification (CCUA or JUA number if available). District Permit Engineer may request for additional documentation if needed. If a number is not available, the application should be reviewed by District Right of Way Engineering and Right of Way Utilities to ensure that the proposed work is authorized under a prior property right.

The District Right of Way Utilities Branch must determine when the encroachment permit will be stamped "For Record Purposes Only." These types of encroachment permits must contain the following clause:

“It is understood that the Owner's easement(s) within the area of common use within the highway or at a new location within the highway may be used for the purpose for which the original easement(s) was acquired subject to Permittee providing advance notification of planned work and adherence to traffic safety and highway integrity requirements as contained elsewhere in this permit.”

When a contractor's double permit is required, it is also a fee exempt permit.

602.3 Encroachments No Longer in Use (Rev. 06/20)

Permittees must remove their facilities at their expense from the highway right-of-way when they are no longer in use. **Underground facilities may be allowed to remain in place when the**

highway segment is also being abandoned or portions may be allowed to remain if removing that portion of the facility would cause significant impacts to infrastructure or traffic.

Exception requests may be approved at the discretion of the District Permit Engineer if the facilities or the work involved to remove them:

1. create a hazard,
2. seriously disrupt traffic,
3. have the potential to damage adjacent facilities.

Exception requests must include the proper justification and supporting documents such as alternatives explored etc.

Facilities made of or containing hazardous materials (such as asbestos) must be removed in accordance with the “Hazardous Materials and Hazardous Waste Management Special Provisions” (TR-0408).

Filling abandoned pipes with sand, two-sack slurry cement, or Controlled Low Strength Material (see Appendix H) is required to protect the highway.

602.4 Utility Encroachments within access-controlled right-of-way

See PDPM, Chapter 17, Section 2, Article 2 for Caltrans’ policies related to utility encroachments within access-controlled right-of-way.

As identified in the above reference from the PDPM, utility encroachments are restricted within access-controlled right-of-way with few exceptions. This section describes requirements for crossings and longitudinal utility encroachments that are allowed within access-controlled right-of-way.

When prior rights within access-controlled right-of-way are substantiated by the utility owner (see Section 602.2), any associated encroachment permits must be stamped "For Record Purposes Only" or "Freeway Permit."

Utility service connections for State facilities along access-controlled right-of-way should have all disconnects, meters, or shut-offs outside access control lines. The utility is required to obtain a NUS (No fee Utility Service) permit for the connection.

602.4A Access Encroachments

Breaks in access are restricted on access-controlled right-of-way. See PDPM, Chapter 17, Section 2, Article 3 “Access Restrictions”, for Caltrans policies related to access to encroachments or for maintaining existing encroachments in access-controlled right-of-way.

602.4B Utility Crossing Encroachments within access-controlled right-of-way (Rev. 06/20)

Permit Code UJ

Public utility facilities must be granted permission to cross State highways, as well as facilities that are not dedicated to public use but are used for the same purposes as public utility facilities.

Table 6.1 lists the restrictions that apply to utility crossing encroachments within access-controlled right-of-way. Privately owned water, power, or communication facilities that are used for private purposes are allowed to cross State access-controlled right-of-way only when property or easements are under the same ownership on both sides of the highway and there are no utility maintenance points inside the State right-of-way.

Table 6.1 (Rev. 06/20)
Utility Crossing Encroachments within access-controlled right-of-way

<p>The following restrictions apply to utility crossing encroachments within access-controlled right-of-way:</p> <ol style="list-style-type: none"> 1. The number of crossings must be minimized to the extent practical. 2. Service connections generally are not allowed to cross. 3. When feasible, multiple installations should cross in a single conduit or structure. 4. Crossings should be normal (90 degrees) to the highway alignment where practical. 5. Clearances of overhead crossings must conform to regulations of the CPUC. 6. New installations under an existing roadbed and median must be made by trenchless technology methods approved by the District. 7. Underground encroachments in a depressed section should be avoided. 8. Sag pipes (inverted siphons) should be avoided whenever there is a possibility of sedimentation in the sag. Air vents and provisions for draining the sag must be required when sag pipes are unavoidable. 9. Overhead pipeline crossings in a depressed section must be made at street overcrossings or by a separate structure of suitable appearance. Except for pipelines in box girders, the pipeline must be placed in a watertight sleeve. A common structure should be used for multiple pipes. 10. Tunneling under access-controlled right-of-way is considered under the following conditions: <ul style="list-style-type: none"> • Studies establish that the soil structure is sufficiently stable. • Permanent tunnel portals must be located outside the right-of-way line or the access control line (if those do not coincide). Consideration may be given to a location within the access control limits if it will not adversely affect highway operation, it is beyond the toe of slope of embankments. Any deviations require an approved encroachment policy exception. 11. See Table 6.7 for encasement requirements. 12. Fixed objects higher than 4 inches above the surrounding terrain are not allowed closer than 52 feet of the traveled way of the operating highway. 13. Supports for overhead lines crossing access-controlled right-of-way: <ul style="list-style-type: none"> • Must be located outside the access-controlled right-of-way. Any deviations require an approved encroachment policy exception. <p>If approved as an exception to be installed within Caltrans right-of-way:</p> <ul style="list-style-type: none"> • Should not be permitted in median areas except when required for temporary guard poles to support netting for overhead line installation. • Should not be permitted on cut or fill slopes. • Must not impair sight distances. <p>Consideration should be given to underground facilities when spanning roadways is not feasible.</p> 14. Traffic always must be protected, and barriers or protective devices are required as necessary. 15. Open trenching is not permitted unless approval is granted by the District Permit Engineer.
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602.4C Longitudinal Utility Encroachments within access-controlled right-of-way (Rev. 06/20)

Permit Code UL

Placement of longitudinal utility encroachments within access-controlled right-of-way is prohibited under Caltrans' policy (except for Broadband installations, telecommunication facilities and temporary wells). Maintenance access points such as pull boxes and controller cabinets are not allowed within access-controlled right-of-way. Any deviations require an approved encroachment policy exception.

602.5 Utility Encroachments within conventional highway right-of-way

This section describes requirements for utility crossing and longitudinal utility encroachments within conventional highway right-of-way.

Districts are delegated authority to issue permits for the placement and maintenance of utility facilities within the conventional highway right-of-way. Applications for encroachments by publicly or privately-owned utility companies (regulated by the CPUC) dedicated for public use are reviewed and approved at the District level. The Districts may also approve encroachments by privately-owned utility companies dedicated for public use and franchised by the local governing body.

Privately-owned utility companies that use the utility for their sole purpose may be granted an encroachment permit for reasonable utility crossing of conventional highways, but longitudinal encroachments are not approved. Requests by companies for placement of longitudinal encroachment utilities for their sole purpose that are not dedicated for public use and franchised by the local governing body require an approved encroachment policy exception.

602.5A Utility Crossing Encroachments within conventional highway right-of-way

Permit Code UJ

Table 6.2 lists the restrictions that apply to utility crossing encroachments within conventional highway right-of-way. The Reclamation Board, in maintaining the integrity of the State's levee system, issues permits for construction of facilities within the levee prism. Caltrans and the Reclamation Board cooperatively agreed to authorize Reclamation Board construction methods provided that Caltrans' minimum depth requirements are met. Encroachment permits to install underground facilities where a State highway is on or crosses a levee must indicate approval and inspection by the Reclamation Board.

Table 6.2
Utility Crossing Encroachments within conventional highway right-of-way (Rev. 06/20)

<p>The following restrictions apply to utility crossing encroachments within conventional highway right-of-way:</p> <ol style="list-style-type: none"> 1. The number of crossings must be minimized. 2. Underground distribution facilities on each side of the highway should be considered to avoid numerous crossings by service connections. 3. Crossings should be normal (90 degrees) to the highway alignment where practical. 4. Clearances of overhead crossings must conform to regulations of the California Public Utilities Commission. 5. An existing authorized encroachment that will not affect new highway construction may be left in place at the District's discretion, provided the District determines that it will not constitute a safety hazard or obstruction to construction. 6. New installations under an existing roadbed must be made by boring and jacking, directional drilling or other methods approved by the District. 7. Sag pipes (inverted siphons) must be avoided whenever sedimentation in the sag is a possibility. Air vents and provisions for draining the sag must be required when sag pipes are unavoidable. 8. Tunneling under conventional highways must conform to the requirements for access-controlled right-of-way. 9. Bore pits or manholes at street intersections should be located behind the State highway curb line where possible. 10. Poles or other utility appurtenances in conventional highway right-of-way must be as close to the right-of-way line as possible, with a desirable minimum clear recovery zone identified in Topic 309 of Highway Design Manual and meet the requirements of Design Information Bulletin 82 (DIB-82). 11. Traffic must always be protected, and barriers or protective devices are required as necessary. 12. New encroachments should not adversely affect the safety, design, construction, operation, maintenance, stability of the highway or any proposed/existing appurtenance or limit the use of the right-of-way or increase the cost of future improvements.

602.5B Longitudinal Utility Encroachments within conventional highway right-of-way

Permit Code UL

New publicly owned utility facilities and privately-owned utility facilities that are regulated by the CPUC and dedicated to public use may be placed within the right-of-way of conventional highways when approved by the District. Generally, such encroachments including poles must be located as close as possible to the right-of-way line, outside of the Clear Recovery Zone (CRZ) when applicable. On conventional highways with curbs, typically in urban conditions, a minimum horizontal clearance of 1 foot 6 inches should be provided beyond the face of curbs to any obstruction (see Highway Design Manual Topic 309 Clearances). The installation must meet the requirements of the current Design Information Bulletin 82 (DIB 82). Permissible locations are shown in Table 6.3 in order of preference. Justifications for lower preference locations may be required by the DPE.

Table 6.3 (Rev. 04/18)
Permissible Locations for Installations in conventional highway right-of-way

Above ground Installations*	Underground Installations
<ol style="list-style-type: none"> 1. as close to the right-of-way line as possible 2. back of sidewalk 3. 1 foot 6 inches clearance to from back of curb 	<ol style="list-style-type: none"> 1. as close to the right-of-way line as possible 2. under sidewalk 3. under parking lane/shoulder

* Must meet CRZ requirements established in Topic 309 of Highway Design Manual

Requests for longitudinal encroachments by privately owned companies for their own use are not allowed. Any deviations require an approved encroachment policy exception.

When highways are widened, existing and new installations should adhere to setback limits or should be protected. Consideration should be given to allow utility owners to place such encroachments underground in parking areas.

In urban areas, manholes should not be located where there is a break in grade between the pavement and gutter or in major traffic lanes of a cross street. In areas where snow removal equipment is used, consideration should be given to slightly depressing the manhole.

Any existing underground facility located under the roadbed of a new unconstructed highway may be permitted to remain in place during its useful life provided its depth complies with current standards and does not require relocation (as determined by the District Right of Way Utility Coordinator and Project Development) resulting from highway construction.

If the encroachment is a public utility facility, consideration must be given to the likelihood and extent of future service connections that will require cutting the pavement. Rules governing new installations will determine whether existing facilities must be relocated, or may be replaced in the same location, after expiration of their useful life.

High priority pipelines (see section 603.1) are not permitted within the right-of-way unless they are dedicated to public use (for example, the pipeline carries products of more than one owner and is under CPUC jurisdiction). Companies having franchise rights from local agencies may place their facilities within the right-of-way with an approved encroachment policy exception.

Existing legally-placed service facilities may be permitted to remain in place if they do not interfere with highway construction, operations, or maintenance.

See PDPM, Chapter 17, Section 2, Article 2 for Caltrans' policies related to utility encroachments within conventional highway right-of-way for additional information.

602.5C Temporary Steel Plate Bridging - With a Non-Skid Surface

Highway encroachment work involving excavations shall be identified during the review process of the permit application package. To accommodate excavation work, steel plate bridging may be necessary. All permit conditions for use of steel plate bridging should be set forth in the special provisions of the permit.

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

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

When it is determined in the review process that shoring will be a part of the permitted operation, the shoring shall conform to Caltrans standards.

When backfilling operations of an excavation in the roadway including bike lanes and parking strip, whether crossing or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging within access-controlled right-of-way is not allowed.
2. Steel plates used for bridging must extend a minimum of 12 inches beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, as mentioned in Section 603.6B-2, to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

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

Method 1 For speeds 45 mph or greater:

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

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of two (2) dowels pre-drilled into the corners of the plate and

drilled 2 inches into the pavement. Subsequent plates are to be butted and tack welded to each other.

Method 2 For speeds less than 45 mph:

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

The permittee is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications.

Unless specifically noted or granted in the provisions of the permit, or approved by the State representative, steel plate bridging SHALL not exceed four (4) consecutive working days in any given week and should not be left through the weekend. Backfilling of excavations shall be covered with a minimum 3 inches temporary layer of cold asphalt concrete.

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

<u>Trench Width</u>	<u>Minimum Plate Thickness</u>
10 inches	½ inch
1 foot 11 inches	¾ inch
2 feet 7 inches	7/8 inch
3 feet 5 inches	1 inch
5 feet 3 inches	1 ¾ inch

NOTE: For spans greater than 5 feet 3 inches, a structural design shall be prepared, signed, and stamped by a California Registered Civil Engineer.

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

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal coefficient of friction (COF) of 0.35 as determined by California Test Method 342 (see Appendix H). If a different test method is used, the permittee may utilize standard test plates with known COF available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the

permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

Caltrans' Permit Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. The utility owners and contractors are responsible for maintaining plates and ensuring that they meet minimum specifications. They will also independently determine when to accept, test, or reject a plate. However, an inspector should document in a diary all contacts with the utility owners and contractors.

A "Rough Road" (W8-8) sign and a "Steel Plate Ahead" (W8-24) sign with black lettering on an orange background must be used in advance of steel plate bridging along with the required construction area signs. These signs must be used along with any other construction area signs.

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

602.6 Utility Encroachments and General Construction on Scenic Highways

The intent of the State Scenic Highway Program is to protect and enhance the natural beauty of California. Scenic highway proposals are initiated by local jurisdictions and officially designated by the Director of Caltrans. Local jurisdictions are required to develop and enforce Corridor Protection Programs for each scenic highway corridor, in the form of ordinances, with the concurrence from Caltrans.

Corridor Protection Programs contain land use elements that support scenic preservation along the route. A scenic corridor is defined as the area of land generally adjacent to and visible from the highway. The California Public Utilities Code has regulations pertaining to utilities within the scenic highway corridor.

602.6A Utility Facilities

The California Public Utility Code Section 320 prohibits new overhead utility distribution installations in scenic highway corridors and requires the California Public Utilities Commission (CPUC) to regulate approved work. Section 320 does not apply to transmission towers, conductors or related facilities designed to operate at high-side voltages of 50 kilovolts (kV) or more, unless the utility designates them as distribution lines.

The CPUC also regulates to what extent repair, replacement and maintenance of existing overhead distribution facilities can take place. Caltrans verifies that proposed construction of utility work complies with the Corridor Protection Program and issues encroachment permits for conforming work. The Encroachment Permits Office does not determine when the placement of facilities underground is required. Determination is made by the CPUC in concert with Section 320.

District Landscape Architecture and Right of Way Utilities are responsible for reviewing applications for proposed utility work in scenic highway corridors.

When the proposed work is non-complying, the applicant is notified by Caltrans' Encroachment Permit Office to provide Caltrans with the exception approval from the Energy Division Reliability Section of the CPUC.

Encroachment Permits are issued for work within a scenic highway when existing overhead distribution utilities are in need of repair, replacement, upgrade, or increased capacity if there is no significant change in appearance. No significant change in appearance is defined as no increase in the diameter of the distribution line.

California Public Utility Code Section 320 stipulates that utility owners must not install new overhead distribution facilities on scenic highways without first obtaining an exemption from the CPUC.

For purposes of CPUC Section 320, the following work does not constitute installation of new overhead distribution facilities and does not require a CPUC exemption:

1. Removing or replacing sections of worn or deteriorated cable with like-size cable or smaller.
2. Removing or replacing worn or damaged equipment, including but not limited to: transformers, connectors, protective devices or repeaters with like-size or smaller equipment.
3. Replacing a deteriorated pole with like-size or smaller pole.
4. Performing any necessary emergency work to continue service, provided any non-complying facility is corrected when the emergency is over.
5. Installing new or relocated overhead transmission facilities (50 kV or greater).
6. Performing reconductoring or an increase in capacity of existing facilities with no significant change in appearance. This includes replacing the existing conductor with a new conductor of a different capacity or changing the voltage of the line.
7. Temporarily relocating poles for other construction purposes provided such poles are removed or returned to their original position within 3 months of the completion of the construction work.
8. Installing new overhead service connections including necessary transformers and protective devices from existing distribution lines.
9. Installing guys as necessary for existing distribution lines.

With respect to electric and communications overhead distribution facilities (less than 50 kV) within the scenic highway corridor, utility owners may not perform any of the following work without first obtaining an exemption from the CPUC:

1. Install new facilities.

2. Relocate existing (distribution) facilities to a new permanent location.
3. Temporarily relocate poles for other construction purposes when such poles will not be returned to their original positions within 3 months of completion of the construction work.

All conditions listed above may be subject to exemption upon written confirmation from the CPUC that proposed work is acceptable.

602.6B General Construction

Any work performed along a designated scenic highway should comply with the Corridor Protection Program established for that scenic corridor by the local agency.

The local agency approves any development and decides if the necessary work in the scenic corridor conforms to the Corridor Protection Program. Permit applications for roadways, driveways, drainage, etc., should have appropriate design review and District Landscape Architect concurrence to assess design compatibility with the scenic corridor (see Project Development Procedures Manual, Chapter 29- Section 10, “Project Development along Scenic Highways”, for additional guidance).

When compatibility issues are identified, the applicant and local agency are notified. If design features meet Caltrans standards and compatibility issues are resolved, the District Landscape Architect approves the work and an encroachment permit is issued.

602.7 Utility Encroachments on Structures

602.7A Utilities Within or on Bridges and other Structures (Rev. 06/20)

Permit Code UB

A UB Permit Code is used when utilities are placed or maintained within or on a bridge and other structures. Utility encroachments on structures should be avoided where feasible and alternatives to locate utilities elsewhere must be analyzed.

When a utility pipeline or encasement for a pipeline crosses a bridge or other structures and has cathodic protection, that installation must be electrically isolated from the bridge or other structures. Any cathodic protection anode bed or deep anode well must not be placed near any bridge or other structures or culvert.

When a utility conduit crosses a bridge or other structures and has voltage conductors of 2000 volts and above, that installation must be evaluated for induced voltage in the rebar and prestress cables due to the close proximity to the high voltage conductors. The maximum voltage allowed in an electrical installation must never exceed 69kV regardless of the bridge type.

Installation of individual phase conductors housed in separate conduits or ducts that will pass through steel girder bridges or other structures is prohibited.

Specific induced voltage in rebar and prestress cables, stray current and cathodic protection mitigation issues must be directed to headquarters Office of Electrical, Mechanical, Water and Wastewater Engineering.

Utility facilities on bridges or other structures must meet both the standard utility requirements and the additional requirements shown in Table 6.4 and Table 6.5

All utility encroachments on new structures must be reviewed and concurred in by the Division of Engineering Services (DES) and all utility encroachments on existing structures must be reviewed and concurred in by Structures Maintenance and Investigations (SM&I). All utility encroachments on structures must be supported by a project specific analysis which shows the utility on the structure will not adversely affect the safety, design, construction, future widening, operation, maintenance, or stability of the structure and surrounding highway and meet the following conditions:

- The proposed utility loads must not downgrade the ability of the structure to safely accommodate legal loads and/or transportation permits.
- Shutoff valves for pressurized facilities must be installed outside State right of way, where feasible.
- Utility maintenance is required no more than twice a year.
- The utility is under the California Public Utilities Commission jurisdiction or is publicly owned and provides a dedicated service to the public.

When a proposed encroachment has been reviewed and approved by SM&I, one copy of the encroachment permit and completed plans authorizing work on structures is to be sent to the Office of Structures Maintenance and one copy is to be sent to Headquarters Structures Construction. When a proposed encroachment on a new structure has been reviewed and approved by DES, one copy of the encroachment permit and completed plans authorizing work on structures is to be sent to DES and one copy is to be sent to Headquarters Structures Construction.

For security purposes, high priority utilities (see section 603.1) should not be allowed on structures identified as most critical by the district.

602.7B Requirements for High Priority Utilities on Bridges or other Structures (Rev. 06/20)

Installations of new high priority utilities and any gas lines, regardless of size and pressure, are rarely allowed on structures and require an encroachment policy exception. If an existing high priority or gas utility is reconstructed, relocated, or modified, it will be treated as a new installation and an approved encroachment exception is required for the utility to remain on the

structure. A request for an encroachment policy exception will be evaluated for approval only if DES or SM&I concurs with the proposal. High priority utilities and pressurized lines must be encased throughout the length of the structure.

Table 6.4
Additional requirements for utility facilities located on bridges or other structures

(Rev. 06/20)

Utility facilities located on bridges must comply with the standard requirements and the following additional requirements:

1. Location:
 - a. Permitted encroachment must be located between girders whenever possible.
 - b. Encroachments must be installed out of sight. As a last resort, a utility may be placed on the barrier rail, but must be enclosed to look like an integral part of the bridge.
 - c. Structure Maintenance & Investigations may approve exceptions for unusual circumstances.
 - d. On very wide bridges or other structures having an expansion joint in the median, installation normally can occur between the two interior girders in the median.
2. Encroachment applications must include adequate plans of installation and pertinent details showing:
 - a. Bridge number
 - b. Location of encroachment on bridge or other structure
 - c. Method of attachment to bridge or other structure
 - d. Type of material transported
 - e. Weight per foot of facility including load, encasement, etc.
 - f. Maximum operating pressure
 - g. Maximum flow rate of high-pressure water lines in the event of a full rupture
 - h. Wall thickness of pipe
3. Gas pipelines require additional information according to CPUC General Orders.
4. Pipelines carrying highly volatile fluids must show the location of the nearest automatic shut-off valves on each side of the bridge or other structure. Shut-off valves are required to be within a reasonable distance of the bridge or other structure.
5. Pipelines conveying water, sewage, and low volatile fluids must include evidence of compliance with corrosion control requirements of the Federal Department of Transportation and the CPUC.
6. Electrical and communication conduits must indicate maximum voltage and description of carrier conduit. Additional information such as induced voltage calculations may be required by Structures (e.g. "Data for High Voltage Cables on Bridges" form DS-M-0080, see Appendix D).
7. Access to utility facilities on undercrossing structures or bridges over waterways is prohibited from the surface of the traveled way of the State highway. Manholes in the shoulder area or sidewalk area may be authorized. Access to utility facilities on overcrossing bridges or other structures, by means of manholes, may be authorized where necessary and feasible.
8. Basic Specifications
 - a. Exposed pipes or sleeves must be painted or covered with an approved coating that must match the color of the structure and be maintained to the satisfaction of Caltrans. The permittee must pay the costs of repainting or protecting the encroachment.
 - b. High pressure systems:
 - 1) Must conform to API specifications and to ASTM specifications covering sizes and types not covered by API.
 - 2) If operating pressures are over 200 psig:
 - Wall thickness must conform to CPUC General Orders.
 - Maximum allowable hoop stresses for gas must be 40 percent of the specified minimum yield strength.
 - Maximum allowable hoop stresses for other high volatile fluids must conform to ANSI, except that the maximum hoop stress under the "test pressure" must not exceed 90 percent of the yield strength.

- A pressure test at 1.5 times maximum operating pressure must be conducted for 24 hours.
 - Radiographic inspection of all field welds must be made.
- c. Sewer lines cannot be steel pipe unless corrosion protective measures are provided.
 - d. Other pipelines may be steel, cast iron, ductile iron or approved material.
 - e. Electrical and communication conduits must conform to CPUC General Orders. High voltage lines are not permitted where the traveling public could be endangered and/or the integrity of the bridge steel elements, rebar, and prestress cables is compromised due to the presence of excessive induced voltage in them.

Table 6.5 (Rev. 06/20)**Additional Encasement Requirements for Utility Facilities Located on Bridges**

In addition to the encasement requirements in Section 603.3C, utility facilities located on bridges or other structures must comply with the following:

1. High priority utilities (see section 603.1) and pressurized facilities must be encased throughout the bridge or other structure in a steel sleeve.
 - a) The sleeve must have a diameter sufficiently larger than the largest outside diameter of pipe (but not less than 4 inches) to facilitate removal and replacement of the pipe.
 - b) The space between the pipe and encasement must be vented effectively at each end of the structure so that no pressure buildup is possible. It is not permissible to vent into the earth or backfill material because of explosion possibilities.
 - c) In unusual instances, it may be impractical to provide encasement because of curvature, space limitations, etc. The Office of Structures Maintenance and Investigations or DES as appropriate must concur with the proposed and existing encasement of utilities on bridges or other structures, the wall thickness of the carrier pipe must be increased in such instances.
2. Pipelines conveying water, sewage, and low volatile fluids:
 - a) The pipeline must be encased if it passes over access-controlled right-of-way, primary road, or railroad. Other locations where encasement is required are determined by the Office of Structure Maintenance and Investigations or DES.
 - b) A box girder cell may be considered as the encasement for water and non-corrosive material if access is available on the structure for the full length of the pipeline and the carrier is metal pipe.
 - c) The pipeline must be encased to prevent leakage from flowing under or around bridge abutments.
 - d) It may be impractical to provide encasement in unusual instances because of curvature, space limitations, etc., and other safeguards may be required.
3. Electrical and communication lines must be encased in rigid metallic conduit or other approved material. All electrical conduits must be grounded according to the General Orders of the CPUC and the Electrical Safety Orders of Cal-OSHA.
4. When not required, encasement should be considered if clearance is impaired or the utility facility is near such hazards as high-tension power lines, flood channels, subsiding ground, etc.

602.7C Traffic Tunnels and Tubes

New utilities are not allowed in traffic tunnels. High priority utilities (see section 603.1) are not allowed in any traffic tunnel under any circumstances (an encroachment policy exception will not be approved).

602.7D Limited Space Highway Facility (Rev. 06/20)

A limited space highway facility is defined as a State Facility that Caltrans has determined to have a limited amount of space available for the installation of communication facilities, e.g., toll bridges. The determination of which highway facilities are limited capacity must be made by Structures, if a bridge, and the Chief, Headquarters Division of Design or district delegate, if a highway. Once a State highway facility is determined to be a limited space facility the following conditions will apply:

1. The first applicant requesting an encroachment permit for the installation of a communication facility will be required to enter into a Master Agreement for Longitudinal Encroachment on Limited Facilities.
2. The Master Agreement must contain all of the conditions that govern the installation, operation, use, and maintenance of said communication facility.
3. Each Master Agreement must be reviewed and approved by Caltrans legal.

Public utilities are not allowed on toll bridges due to existing conduits and openings being used by the State and lack of space to place new conduits. An existing encroachment on a toll bridge that is incorporated in a new highway improvement project should be relocated whenever feasible.

602.7E State Contract Plans

Structures Design must approve installation plans for each utility that encroaches on a new structure before an encroachment permit is issued. This review is coordinated through the District project engineer. After award of the contract, utility plans not reviewed previously by Structures Design should be sent to Structures Maintenance for review and approval. Installation of utility facilities in new structures is coordinated by the permit engineer through the District project engineer and solely by the permit engineer for existing structures. Installation of all relocated utility facilities is coordinated by District Right of Way.

603 UTILITY TYPES AND INSTALLATION REQUIREMENTS

Once the determination has been made that a utility can be accommodated within the State right-of-way, the utility must meet Caltrans' locating requirements, clearance and offset requirements, encasement requirements, be protected in place, or be relocated. If a utility is relocated within the right-of-way, the utility must meet the requirements for new installations. Projects must have an approved utility policy exception for utilities that do not meet the requirements in this section. During development of projects, various constraints may require deviation from these policies in the form of a utility policy exception. See PDPM, Chapter 17, Section 4 "Exception Requests," for a summary of the steps to request a utility policy exception.

603.1 High Priority Utilities

High priority utilities include the following primarily derived from the California Government Code, Section 4216:

- Natural gas pipelines greater than 6” in diameter or with normal operating pressures greater than 60 psig
- Petroleum pipelines
- Pressurized sanitary sewer pipelines
- High-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60 kV
- Hazardous materials pipelines that are potentially harmful to workers or the public if damaged

603.2 Communication Facilities

This section is only applicable to wired communication facility installations. For wireless communication facility installations, see section 601.2 and 500.3 (Permit Code AS).

603.2A Telecommunications (including broadband)

Permit Code BB

“Telecommunications” refers to any facility (including conduits and cabling) used to transmit voice, data, and/or video signals that are not transmitted through the air.

“Broadband” refers to any telecommunications facility (including copper and fiber optic cabling) that uses wide bandwidth to transmit voice, data, and/or video signals.

See section 603.2A-1 for information related to installing wired broadband through the Stand-alone Encroachment Process and the Planned Transportation Partnering Process.

Requirements:

Accommodation must be in accordance with Federal and State laws and be constructed and maintained so as not to adversely affect the safety, design, construction, operation, maintenance, and stability of the highway or any proposed or existing highway appurtenance.

Underground longitudinal telecommunications encroachments within access-controlled right-of-way may be approved at the District level if all of the requirements shown in Table 6.6B are met, in addition to complying with all other applicable requirements established in this manual.

Requests submitted for the replacement of telecommunications (regardless of capacity or upgrade issues) must adhere to policy as a new submittal.

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Table 6.6A (Rev. 06/20)**Requirements for Telecommunication Encroachments within All highway right-of-way**

- 1) Longitudinal installations must be placed as close to the right-of-way line as possible.
- 2) Installations are not permitted in the median.
- 3) All above ground installations and access points must be placed outside the Clear Recovery Zone for discretionary fixed objects. (CRZ, see Highway Design Manual Topic 309).
- 4) If any facilities are required to be relocated, all costs must be borne by the permittee.
- 5) Caltrans may consider accommodation under master agreements, airspace leases, Request For Proposals (RFP) or any other legally acceptable method.

Table 6.6B (Rev. 06/20)**Additional Requirements for Telecommunication Encroachments within access-controlled right-of-way**

- 1) All installations must be **underground** and subject to Department policy on encroachment permits including all applicable local, state and federal laws and regulations.
- 2) Routine maintenance of facilities must be conducted under individual encroachment permits and not allowed under “blanket permits”.
- 3) Longitudinal installations are not permitted in existing or planned roadbed.
- 4) District may also limit construction activities (the number of trenching, plowing or boring) to once every five years if any of the following conditions apply:
 - a) Longitudinal installation with above ground fixed objects is fully or partially proposed within the CRZ and an approved Design Standard Decision Document is granted.
 - b) Installation exceeds one mile in length.
 - c) District determines that the future installation of facilities will be limited because of physical constraints, limited right-of-way width, safety or other relevant factors.
- 5) If construction activities are limited as provided in 4), applicants will be required to provide public notice informing interested parties of the limitations and providing them an opportunity to respond and/or participate in the project (joint build). The notice process must be as follows:
 - a) Applicant publishes a notice in one newspaper of general circulation in the county/counties where the project is proposed. The notice must provide a public response period of no less than 30 days from the date of publication; and
 - b) Applicant must provide notice to all companies from the same industry (obtain list from California Public Utilities Commission - CPUC) including a response period of no less than 30 days from the day they are notified. A copy of this notice must be attached to the encroachment permit application.

Note: Maintenance access points such as pull boxes and controller cabinets are not allowed within access-controlled right-of-way (an approved exception request is required)

603.2A-1 Broadband Installation Processes

Broadband installations can be pursued through the Stand-alone Encroachment Permit Process or the Planned Transportation Partnering Process. Whichever process is pursued, all installations must comply with all applicable Caltrans policies, standards and requirements in addition to applicable state and federal laws, regulations and requirements.

Stand-alone Encroachment Permit Process:

Broadband facility owners must submit the completed and signed permit application with all required attachments and plans for review and approval to the appropriate District Encroachment Permits Office. Broadband proposals must be processed for a detailed plan review through Environmental, Design, Structures, and Traffic Operations as applicable. Broadband installation requests should be prioritized and all reasonable efforts should be made to complete the review and approve or deny such requests within 40 calendar days.

Planned Transportation Partnering Process:

Caltrans may provide partnering opportunities in planned transportation projects with Wired Broadband Stakeholders to incorporate wired broadband facilities within the State highway right-of-way.

For a wired broadband facility to be installed as a part of a planned transportation project, the facility planning, design, and construction must follow the Caltrans project development and delivery procedures, and design guidance as outlined in the Project Development Procedures Manual, Highway Design Manual, Plans Preparation Manual and other pertinent Caltrans manuals and guidance.

The Administrative Encroachment Permit Process (see Section 500) is used for these types of projects. **Permit code BB must be used for all such permits.**

After construction of the project is completed but prior to the final acceptance of the project, stakeholders must apply for and secure an encroachment permit to assume ownership of the facility. Thereafter, separate permits for work such as routine or emergency maintenance must be applied for and secured.

Additional information is available on the “User Guide on Incorporating Wired Broadband in State Highway Right-of-Way”.

<https://dot.ca.gov/programs/design/wired-broadband/>

603.2A-2 CPUC Mandate - New Telecommunication Wiring Within Existing Facilities

In conjunction with the California Public Utility Commission (CPUC) imposed mandate, existing telecommunications franchises must now share their unused conduits with competitors.

Caltrans may allow new telecommunication franchises to place their "**cabling only**" (fiber optics or wire) into an existing facility that falls under the parameters of "prior rights" or an "exception to policy", belonging to another telecommunications franchise within access-controlled right-of-way.

The requesting telecommunications franchise must submit proof of concurrence from the owning telecommunications franchise by means of an agreement, letter, or contract when submitting their encroachment permit application.

603.2A-3 Preliminary Site Survey Permits (pre-design)

Districts may issue an annual survey, “SV” permit, to each Broadband service carrier for all conventional highways within the District. Survey permit requests for within access-controlled right-of-way must be issued on a one-time basis.

A deposit equivalent to six (6) hours of the encroachment permit standard hourly rate must be collected upon submittal. If the surveying is contracted to a surveying company, a double permit (“DP”) must be required.

Work within or from adjacent property owners’ land, U.S. Forest Service property, other leased or prescriptive right-of-way are not authorized under Caltrans’ encroachment permit, approval must be obtained from that specific property owner by means of written permission or permit. A copy of that authorization or issued permit must also be included in the submittal to the District Encroachment Permits Office.

603.2B Telephones (coin and credit card operated phones)

As a public convenience, Caltrans allows telephones within the right-of-way. An encroachment permit is required for their installation, operation, and maintenance. They are placed only at locations authorized by statutes.

Districts may permit coin or credit card-operated telephones within the right-of-way only at rest areas, vista points, park-and-ride lots, truck inspection facilities, and in bus passenger waiting shelters that are located on conventional highways and are equipped to hold the telephones. State statutes and Caltrans policies do not permit coin-operated telephones at other State highway right-of-way locations because telephones are a form of vending that is prohibited by Section 731 of the Streets and Highways Code.

Caltrans, law enforcement, or local agencies may request telephone installations in roadside rest areas, vista points, park-and-ride lots, or truck inspection facilities. Permits are issued to the requesting authority (if not Caltrans) and the installing telephone company at no charge. Local public transit agencies must request permits for telephones in existing and proposed bus passenger waiting shelters.

The maximum number of telephones to be installed at roadside rests, vista points, and park-and-ride lots is determined by the District Landscape Architect in cooperation with Maintenance and Traffic Operations. The California Highway Patrol and Caltrans will agree to the number of telephones needed in truck inspection stations.

Local agencies and law enforcement may request telephones along rural conventional highways when existing facilities and suitable installation locations are not available outside the right-of-way. These telephones must **not** be coin or credit card operated. Permits are issued to the local agency, and an additional permit is issued to the installing telephone company for operation and maintenance.

When a telephone owner requests a permit to maintain existing telephones that were installed without a permit, Districts should review the facility for conformance to current policy. When appropriate, the telephones can remain in place and a permit can be issued.

All telephones must provide telephone company operator assistance.

603.2C Cable Television

Privately-owned cable television systems holding city or county franchises may be granted aerial or underground encroachment privileges the same as public utilities, if Sections 682-695 of the Streets and Highways Code are met. They may be granted biennial maintenance permits.

Other privately-owned cable television system facilities not covered by city or county franchises may only be attached to existing utility poles or placed in existing underground ducts subject to the owner's consent as set forth in CPUC General Orders.

In any case, use of highway structures is subject to Structures Maintenance approval.

603.3 Installation Requirements

603.3A Locating Requirements (Rev. 06/20)

All utilities within the right-of-way must be shown on the utility plans. Positive location is required for high priority utilities and approximate location is required for all other utilities in areas of excavation (Reference Section 3 Article 2) PDPM Chapter 17 for the entire project limits. Projects must have an approved utility policy exception to avoid the requirement for locating the utilities and depicting them on the plans. See PDPM Chapter 17, Section 3, Article 3 for more details on location and depiction requirements.

Projects that meet the following criteria are exempt from locating and depicting requirements.

Exempt Work:

Works that does not involve any excavation, as defined in PDPM CH17, Section 1, “Definitions and laws” is exempt from the locating and depicting requirements. Work that only involves limited excavation is also exempt from the locating and depicting requirements, provided that the limited excavation is in conjunction with:

- Digging less than 6 inches. below existing ground level outside the roadbed within the roadside area (outside the roadway).

- Digging within the existing limits of the pavement structural section. This includes: concrete or asphalt pavement driveways, sidewalks, curb ramps, curbs, gutters, dike, and bridge approach slabs. This does not include work that changes the grading plane within the roadbed.
- Concrete or asphalt pavement driveways, sidewalks, curb ramps, curbs, gutters, dike and bridge approach slabs. This does not include work that changes the grading plane.
- Hand digging or digging by air-lance, hydro-excavation, and vacuum excavation

Work is not exempt when it includes:

- Installation of push button assemblies or foundations for lighting
- Transition railing or anchor blocks for guardrail or three beam barrier

Exempt Utilities

The following utilities (not including State owned utilities) are exempt from these policies and do not need to be plotted on the plans unless the depiction of the utility is needed for interconnectivity with the proposed work:

- Natural gas service lines less than 2 inches in pipe diameter that have normal operating pressures of 60 psig or less and not on a structure
- Subsurface electrical service connections with a potential to ground of 50 volts or less
- Service connections (laterals) for water, sewer, telephone, telecommunication, and cable service

All State-owned utilities must be plotted on the plans.

603.3B Clearance and Offset Requirements

All installations proposed must comply with Clearance and Offset requirements (including depth of cover) for new and existing utility facilities identified in PDPM, Chapter 17, Section 3, Article 4.

New installations within streets or frontage roads to be turned over to a local agency may be installed at lesser depths, as allowed by CPUC General Orders or normal procedures.

603.3C Encasements (Rev. 07/21)

In accordance with Caltrans's Project Development Procedures Manual, except for gravity flow sewer lines, all utilities crossing the State right-of-way or crossing under ramps, roads, and other paved areas within the State right-of-way must be encased.

These installations must comply with the requirements listed in Table 6.7 and Table 6.8. The steel encasement can be either new or used, or of the approved connector system. Used steel casing must be pre-approved by a Caltrans' representative prior to installation.

When the method of Horizontal Directional Drilling is used to install the encasement, the use of High Density Polyethylene Pipe (HDPE) as the encasement is acceptable.

Reinforced Concrete Pipe (RCP) in compliance with Caltrans's Standard Specifications is an acceptable carrier for storm drain gravity flow or non-pressure flow. RCP when installed by Bore & Jack must have rubber gaskets at the joints, and holes for the grouting of voids left by jacking operations (see grouting requirements in Table 6.7.).

Based on the Memorandum dated November 9, 1994, "Exception to Policy - Uncased High-pressure Natural Gas Pipelines" (see Appendix H) and Special Provisions TR-0158 (see Appendix K), Caltrans allows an exception to this encasement policy on a case by case basis for the utility crossing installation of uncased high pressure natural gas pipelines, provided all of the requirements listed in the memo and Special Provisions are met.

Table 6.7 (Rev. 06/20)
Encasement and Protection Requirements

Utility facilities must comply with the following encasement and protection requirements:

1. Types of facilities requiring encasement or protection:

- a. New or relocated underground utility crossings must be encased so that future repair or replacement does not require trench excavation in the roadway, facilitates mechanical suction and protects the roadway and structures from damage caused by soil liquefaction, leaked fluids or gases.
- b. Consider encasement of carriers that are exempt from encasement, when these possibilities exist:
 - i. When under embankments of 10 feet or more.
 - ii. Appreciable settlement of supporting ground.
 - iii. When detrimental subsidence of the ground under a fill is anticipated. In such cases, a sleeve 6 inches larger than the outside diameter of the pipe is recommended.
 - iv. Damage to protective pipe coatings during jacking.
 - v. A corrosion protective coating and/or cathodic protection may be required due to corrosive environments or when the CPUC requires cathodic protection. (Corrosive environments can deteriorate steel and cement mortar. Check cathodic protection requirements with headquarters Structures Design, Electrical, Mechanical, Water and Waste Water Branch.)
 - vi. Cracking of mortar coating during jacking or boring operations.
 - vii. Corrosion of field-coated joints.
 - viii. Existing electrical and communication lines under an embankment of 10 feet or more.

2. Types of encasements and their purposes:

- a. A sleeve is an encasement that:
 - i. Contains or controls leaks,
 - ii. Facilitates carrier pipe maintenance and replacement,
 - iii. Protects carrier pipe from crushing or bending stresses and minimizes coating damage during installation,
 - iv. Protects the pipe from corrosive elements and aggressive salts,
 - v. Protects carrier pipe against highway maintenance and repair activities, and
 - vi. Isolates cathodically protected lines and limits stray currents.
- b. A reinforced concrete jacket is an encasement that:
 - i. Contains or controls leaks,
 - ii. Protects carrier pipe from crushing or bending stresses and minimizes coating damage during installation,
 - iii. Provides some protection from corrosive elements and aggressive salts, and

- iv. Protects against highway maintenance and repair activities.
- c. A reinforced concrete cradle protects a carrier pipe from crushing or bending stresses. However, it is not to be used with asbestos cement pipe and is not considered an encasement.
- d. A reinforced concrete slab is placed over an undisturbed facility to distribute and equalize a superimposed load. (Caution: A slab may interfere with other utilities and rock under a load.)

3. Design requirements for encasement or protection:

- a) The minimum wall thickness required for steel encasements is based on lengths and diameters of pipes. See Table 6.8.
- b) Encasements must extend to the highway right-of-way lines unless Caltrans determines that is impractical.
- c) A sleeve is preferred to a reinforced concrete jacket when practical. Considerations include soil conditions, height of embankment, and economic conditions.
- d) A sleeve under the highway must meet "D-Loading, H20-Loading and culvert requirements regarding strength and service life.
- e) A sleeve should have an inside diameter that is 4 inches larger than the outside diameter of the carrier pipe. A larger clearance may be required under unusual conditions, such as settlement.
- f) There is a spacing requirement when placement of multiple encasements is requested. The distance between multiple encasements must be the greater of either 24 inches or twice that of the diameter of the larger pipe being installed.
- g) Encasement ends must be plugged with un-grouted bricks or other suitable material approved by the Caltrans' representative.
- h) The Caltrans' representative may require the permittee to pressure grout, filling any voids generated in the course of the permitted work. Grouting must be at the expense of the permittee. Grout holes when placed inside the of the pipe, generally on diameters of 36 inches or greater, must be on 8 feet centers, longitudinally and offset 22 degrees from vertical, and staggered to the left and right of the top longitudinal axis of the pipe. Grout pressure must not exceed five (5) psig for a duration sufficient to fill all voids.
- i) Wing cutters when used must only add a maximum of 1 inch in diameter to the outside diameter of the encasement pipe. Voids in excess of the Standard Specifications must be grouted.
- j) A band welded to the leading edge of the encasement pipe should be placed square to the alignment and not on the bottom edge of pipe. A flared lead section on bores over 100 feet must not be permitted.
- k) The length of the auger strand must be equal to that of the section of encasement pipe.
- l) Highway lighting and signal facilities are exempt from these encasement requirements.
- m) See Table 6.5 for additional encasements requirements for utilities on structures.

Note: Conduit for electrical, fiber optics and telephone cable is considered encasement.

Table 6.8
Required Thickness for Steel Pipe Casings

Casing Diameter	Minimum Wall Thickness	
	Up to 150' in length	Over 150' in length
6 inches to 28 inches	¼ inches	¼ inches
30 inches to 38 inches	3/8 inches	½ inches
40 inches to 60 inches	½ inches	¾ inches
62 inches to 72 inches	¾ inches	¾ inches

603.3D Minimum Carrier Pipeline Specifications (Rev. 06/20)

Carrier pipe materials must conform to State, Federal and industry requirements, including but not limited to California Public Utilities Commission (CPUC), Code of Federal Regulations (CFR), and American Petroleum Institute (API), as described in Table 6.9

Table 6.9 (Rev. 07/21)
Minimum Carrier Pipeline Specifications

<p>Pipeline encroachments must comply with these minimum specifications:</p> <ol style="list-style-type: none"> 1. Metal Pipe <ol style="list-style-type: none"> a. Gas transmission and distribution piping systems must conform to General Order No. 112F of the California Public Utilities Commission (CPUC), and applicable provisions of Title 49, Code of Federal Regulations (CFR). b. Other fluids under pressure must conform to the American Society of Mechanical Engineers (ASME) B31 - Pressure Piping. c. Water transmission and distribution piping systems must conform to the American Water Works Association (AWWA) Standards. 2. Concrete Pipe <ol style="list-style-type: none"> a. Must not exceed the manufacturer's recommended pressure. b. Requirements for underground culverts stated in Caltrans' Highway Design Manual must apply. c. Uncoated sewer pipe that is located under the highway must be designed to flow full to protect against attack from generated acids. d. Water transmission and distribution piping systems must conform to AWWA Standards. 3. Plastic Pipe <ol style="list-style-type: none"> a. Specifications must ensure that the type of pipe is adequate for the intended purpose (see CPUC General Orders). b. Gas transmission and distribution piping system must conform to Title 49 CFR. c. High-Density Polyethylene (HDPE) line pipe for gas and oil production systems must conform to ASTM F2619 Standard Specification and contingent to CPUC approval. d. Water transmission and distribution piping systems must conform to AWWA Standard. e. A means for detection of nonmetallic material must be provided. 4. Pipe Joints <ol style="list-style-type: none"> a. Must be watertight under pressure and foreseeable conditions of expansion, contraction, and settlement. b. Recommended joint sealants include rubber, neoprene, and similar synthetic products. c. Mortar, grout, or other Portland cement materials are not allowed as joint sealants. d. Steel welding of pipeline joints must conform to Title 49 CFR. 5. Water and wastewater pipelines must be "lead free" and to CPUC General Order 103A. 6. Markers required under the permit provisions should be placed so they do not interfere with vehicle recovery areas. 7. Pipelines carrying hazardous materials can be required to have corrosion control measures as outlined in the appropriate federal or State regulations, included but not limited to Pipeline and Hazardous Materials Safety Administration (PHMSA) and Department of Toxic Substances Control (DTSC). Evidence of compliance must be submitted before issuance of an encroachment permit. 8. Specifications for pipelines on bridges are discussed in the Section 602.7
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603.4 Aerial Crossings

603.4A Conventional Aerial (Rev. 07/21)

Permit Code UC

UC permits authorize aerial facilities on conventional highways. Utility companies may use conventional highway right-of-way when adjacent utility easements or corridors do not exist on private or public property. Pole line cross-arm members or conductors may not overhang private property without an easement, so pole lines generally must be located on public property.

Pole lines that affect pedestrian facilities must process an ADA certification for design and construction compliance. Please see section 500A for more information.

Maintenance of aerial facilities is authorized by UE annual permits. These annual permits allow capacity increases when the carrying pole lines are designed and constructed to accept additional cable or a larger replacement cable and new permits are not required.

Permittee should ensure that aerial cables have the minimum vertical clearance required by the California Public Utilities Commission. CPUC Rule 84-4-A6 indicates communication cables installed longitudinally on conventional highways may have a minimum 16 feet clearance when they do not overhang the thoroughfare or they are behind established curbs, ditches, or berms. This new clearance applies even when there are connecting driveways but does not affect the 18 feet minimum clearance required for public connecting roads.

Supports for overhead lines within conventional highway right-of-way must be as close to the right-of-way line as possible, outside the CRZ (See Topic 309 of Highway Design Manual). On conventional highways with posted speeds less than or equal to 35 miles per hour and curbs, clear recovery zone widths do not apply. For these facilities a minimum horizontal clearance of 1 foot 6 inches must be provided beyond the face of curb.

The CPUC General Order 95 provides tables and details showing minimum clearances for aerial utility facilities. The Highway Design Manual (HDM), Topic 309 Clearances, provides clearance standards on state highways.

603.4B Access-controlled (formerly “Freeway”) Aerial (Rev. 07/21)

Permit Code UF

UF permits authorize aerial facilities that cross access-controlled right-of-way. Utility facilities affecting access-controlled right-of-way generally are direct crossings, but they may include existing longitudinal installations approved to remain during construction or by prior permit. These aerial utility facilities may be allowed for their useful life with relocation performed at that time, but any alterations to the existing longitudinal exception requires an encroachment policy exception.

When existing facilities are covered by a Joint Use or Consent to Common Use agreement with a utility company, the agreement specifies the utility’s right to remain within the access-controlled right-of-way and fees associated with the permit. A request for new longitudinal encroachments requires an encroachment policy exception and normally is not permitted.

Installation or removal of overhead conductors crossing access-controlled right-of-way require traffic control by the California Highway Patrol (CHP) and usually occur on weekend mornings. The CHP can perform a rolling break in traffic on most highways in accordance with Standard Specifications 12-4.02C(7)(d) Traffic Breaks. These breaks are adequate for simple cable

installation. Utility personnel carry the conductors across the access-controlled right-of-way lanes and hoist them into place on the opposite side of the access-controlled right-of-way.

On larger conductor crossings such as transmission lines, Districts may determine that safety nets are needed to prevent transmission lines from falling on traffic during cabling installations. Temporary safety-net support poles are placed at protected locations outside shoulders and in medians. If locations for temporary supports are not available, the utility company may use K-rail and sand barrel crash cushions. After rope-nets are strung during CHP traffic breaks, other work is then allowed to proceed.

Requirements that apply to transmission line supports for overhead lines crossing access-controlled right-of-way are shown in Table 6.10. Consideration should be given to underground facilities when spanning roadways with aerial facilities is not feasible.

Table 6.10
Requirements for Line Supports for Overhead Lines Crossing in access-controlled right-of-Way

Line supports for overhead lines crossing in access-controlled right-of-way must comply with these requirements, they:

- 1) Must be located outside the right-of-way or between the right-of-way line and access control line if different. Any deviations require an approved encroachment policy exception.
- 2) Should have a minimum lateral clearance of 52 feet from the edge of traveled way of a through lane and ramp lane.
- 3) Should not be permitted in medians.
- 4) Should not be permitted on cut or fill slopes.
- 5) Must not impair sight distances.
- 6) Must be compatible with access requirements.

603.5 Service Connections, Potholing, Modifications, Joint Pole Work and Miscellaneous Utility Work

Permit Code US

Service Connections:

Utility companies without a UE permit are required to apply for and obtain encroachment permits for service connections. Caltrans doesn't allow individuals or non-CPUC regulated utility entities that are not authorized by law (except for Broadband and sewer services) to own, operate or maintain utility facilities including service connections because of potential liability.

Annual permits do not authorize service connections in access-controlled right of way. Separate permits are required for these types of installations.

Utility meters and shut-offs serving State facilities may be located within access-controlled right-of-way, provided that the utility company is able to service their equipment from local roads or ramp terminal areas. The utility company must obtain a “No fee Utility Service” (NUS) permit for the connection.

A property owner or developer may be required by a city or county to construct service connections that later will be owned, operated and maintained by the utility company. Permits for the installation of such longitudinal or crossings of public utility facilities within the right-of-way are issued to the developer, private individual or non-public utility-corporation to service their property from the nearest utility distribution line. The permittee’s contractor may install the facility under the Encroachment Permit General Provision # 4.

The developer, private individual, or non-public utility-corporation assumes responsibility to coordinate submission of an application from the public utility or public corporation for a permit to “own and operate the facility”. The installation permit must not be issued until this application has been submitted.

The public utility or public corporation is not charged a fee for the permit to “own and operate and maintain the facility” through the NUS permit.

Potholing:

Utility owners must apply for and obtain individual permits for potholing when their annual permit doesn’t authorize potholing. Method of potholing, exact locations with lateral dimensions to right-of-way line and travel lanes, size and depth must be provided in the application and submittal.

Potholing, to determine utility depth before State highway contract work, is handled through a Right of Way issued utility notice and UR permit.

Modifications, Joint Pole Work and Miscellaneous Utility Work:

Permit code US can be used for modifications to existing utility facilities in place, pole replacements, relocation, or other miscellaneous utility work not covered under the scope of other utility permit codes.

Owner of the pole must be the permittee. If it is joint ownership, permittee must be one of the owners and obtain authorization from other co-owners, authorizing pole replacement. Permittee must provide authorization letters from co-owners, if requested by the state representative.

Owner or entity (in case of joint ownership) to whom the permit is issued is responsible for coordinating utility relocation with other utilities (co-owners or tenants) sharing the pole. Coordination must happen before installing new pole, and all utilities transfer to the new pole must be scheduled to be completed within 15 calendar days from installation of new pole. A schedule/timeline of new pole installation, all utility transfers and removal of old pole must be submitted to Caltrans Permit Inspector at pre-construction meeting. Utility will be considered non-compliant if permit requirements are not complied with, resulting in corrective action

including but not limited to requiring bonds or revoking annual permits or rescinding deferred payment privileges or requiring double permit from contractors of the utility, until the compliance issues are rectified to the satisfaction of the District Permit Engineer.

603.6 Methods of Installation

Underground installations within highway right-of-way must be performed using a trenchless technology method (Bore & Jack, Horizontal Directional Drilling, Microtunneling, Pipe Bursting or Pipe Ramming) unless specified otherwise by permit. Open trenching is authorized only when the applicant demonstrates that all alternatives have been investigated and that installation by a trenchless technology is not feasible.

When a number of parallel services are proposed, it is preferable to place a distribution facility. For very large installations, Districts may need to require extensive traffic control or detours. Permittees should prepare traffic control plans for Caltrans approval and obtain local approval for detours. Additionally, these large facilities can have extensive shoring. If shoring failures could damage State facilities or if the excavation is 5-ft or deeper, permittees must submit shoring plans and calculations to Structures Maintenance for approval. Allow a minimum of two weeks for review and approval (see California Code of Regulations, Title 8, Chapter 4).

Caltrans' policy for developer installed public utility facilities is discussed in Section 603.5.

603.6A Trenchless Technologies: Bore & Jack / Horizontal Directional Drilling / Microtunneling / Pipe Ramming / Pipe Bursting

The establishment of a “Survey Grid Line” is required on installations with proposed “hole-diameters at 30 inches or greater,” and may be required on installations with hole-diameters less than 30 inches as directed by the DPE or delegate. For Survey Grid and Settlement Rod Details, see forms TR-0151 and TR-0152 in Appendix E. Requirements for trenchless technologies may be increased or modified as needed by the DPE or delegate at his or her discretion.

Utility installations and service installations are not permitted to be placed within culverts or drainage structures within State highway right-of-way.

The requirement for encasement of utility installations is for the protection of the traveling public and to minimize the amount of disturbance to the structural integrity of the roadbed. Please refer to section 603.3C for encasement requirements. Any deviations require an approved encroachment policy exception. For additional information on trenchless technologies, see Appendix E and Design Information Bulletin (DIB) 83-04 Section 9.1.2.2 “Trenchless Excavation Construction Methods”

<https://dot.ca.gov/programs/design/design-information-bulletins-dibs>

603.6A-1 Bore & Jack

Utility installations placed by the bore & jack method must be monitored to ensure that the integrity of the existing roadway elevations are maintained.

Bore & Jack consists of cutting of the soil, generally 6 inches to 8 inches ahead of the pipe being jacked simultaneously, by an auger placed within the encasement. The encasement should generally support the integrity of the hole. When the encasement is also to serve as the carrier facility for hazardous materials, the use of another trenchless installation is recommended. Potential damage could occur during the jacking process, rendering the use of that facility as the carrier pipe useless.

603.6A-1A Bore and Receiving Pits

Requirements:

1. Must be located as far from the traveled way as feasible. At minimum, must be located 10 feet from the edge of pavement in rural areas, or at least 5 feet beyond the concrete curb and gutter or AC dike in urban areas, or at least 5 feet beyond the toe of slope of embankments.
2. Must be located outside of access-controlled right-of-way. Any deviations for direct crossings that are excessively long, or there is restricted space available for placement, outside of the right-of-way require an approved encroachment policy exception. Those portions of the installation not placed by Bore & Jack must be encased by the open trench method.
3. Must be protected by placement of 6 feet chain link fence or Type-K barrier around them.
4. Must be shored in accordance to Cal-OSHA requirements. Shoring of pits located within 15 feet of lanes within State highway right-of-way must not extend more than 36 inches in height above the pavement grade, unless authorized by a Caltrans' representative.
5. Reflectors must be affixed to the shoring on all sides facing traffic.
6. Pits must not affect any State facilities or create a hazard to the traveling public. Damaged State facilities must be replaced in-kind or repaired to their original state.
7. All pits should have crushed rock and sump areas to clear groundwater and water used to clean the casings. Pits must be lined with filter fabric when groundwater is found, and pumping is required.
8. Temporary Type-K railing must be placed at a 10:1 taper or as otherwise directed by the Caltrans' representative to maintain the integrity of the adjacent travel lane.

Any installation that is 30 inches in diameter or greater is defined as tunnel. See Section 518, and Table 5.29 - Permit Code TN for the requirements of such installations.

603.6A-2 *Horizontal Directional Drilling*

Horizontal Directional Drilling is another trenchless method for the placement of encasement and/or carrier pipe under, across, or within existing highway right-of-way.

603.6A-2A Backreamer Detection

The backreamer must have a sonic detection system. See attachment E “Guidelines and Specifications for Trenchless Technology Projects.”

603.6A-2B Documentation of Projected Path

The permittee must provide a copy of the bore-log showing horizontal and vertical alignment (depth). A bore-log must be kept for both the pilot bore and the reaming process. These records must be provided to Caltrans’s representative daily. The bore-log must depict a plan profile of the actual bore path.

603.6A-2C Safety Requirements

All members of the contractor’s crew must wear protective safety gear, (Die-Electric boots are recommended).

603.6A-2D Permit Application Submittal

The permit application package should contain the following information in support of the permit application; construction plan, site layout plan, project schedule, communication plan, safety procedures, emergency procedures, company experience record, contingency plan and a drilling fluid management plan in support of the permit application.

1. Location of entry and exit point.
2. Equipment and pipe layout areas.
3. Proposed drill path alignment (both plan & profile view).
4. Location, elevations, and proposed clearances of all utility crossings and structures.
5. Proposed Depth of cover.
6. Soil analysis **.
7. Product material (HDPE/steel), length, diameter-wall thickness, reamer diameter.
8. Detailed pipe calculations, confirming ability of product pipe to withstand installation loads and long-term operational loads including H2O.
9. Proposed composition of drilling fluid (based on soil analysis) viscosity and density.
10. Drilling fluid pumping capacity, pressures, and flowrates proposed.
11. State right-of-way lines, property, and other utility right-of-way or easement lines.
12. Elevations.
13. Type of tracking method/system.
14. Survey Grid establishment for monitoring ground surface movement (settlement or heave) due to the drilling operation.

Note: ** *May be waived by the District Permit Engineer on HDD jobs with pipe size of 6 inches or less in diameter and on a utility crossing less than 150 feet in length.*

All additional permit conditions must be set forth in the special provisions of the permit.

RECOMMENDED MINIMUM DEPTH OF COVER FOR HDD INSTALLATIONS	
Diameter	Depth of cover
2 inches to 6 inches	4 feet
8 inches to 14 inches	6 feet
15 inches to 24 inches	10 feet
25 inches to 48 inches	15 feet

The permittee/contractor must, prior to and upon completion of the directional drill, establish a Survey Grid Line and provide monitoring.

Upon completion of the work, the permittee must provide an accurate “As-Built” drawing of the installed pipe.

603.6A-2E Soils Investigation

A soils investigation should be undertaken, suitable for the proposed complexity of the installation to confirm ground conditions. Engineering judgment must be utilized when requiring the extensiveness of the soil analysis. A soil analysis is required in order to obtain information on the ground conditions that the contractor will encounter during the HDD operation.

If the contractor can go to the project site and do an excavation with a backhoe to one foot below the proposed depth of the bore, that excavation can be considered a soil investigation. In all cases when an excavation is made in creating of an entrance and exit pit for an HDD project, that is an example of a soil investigation. The HDD process is in itself a continual and extensive soil analysis as the pilot bore is made and it encounters the varying soils and formations the drilling slurry will change colors, therefore providing the contractor with continual additional information.

The purpose and intent of the soil analysis is to assist the contractor in developing the proper drilling fluid mixture, and to ensure Caltrans that the contractor is aware of the conditions that do exist in the area of the proposed project. This prepares the contractor in the event they should encounter a zone of pre-tectonics, and that they would need additives or preventive measures in dealing with inadvertent returns (frac-outs).

The discretion on the extensiveness of the soil analysis is left to each individual District Permit Engineer (DPE) respectfully, for their respective areas. The inspectors play a large role in assisting the DPE in making decisions on the extensiveness. Each individual inspector has a general knowledge of the soil conditions in their area of responsibility.

In many circumstances the soil information has already been prepared, either by Caltrans or by City and County Entities. This information if existing should be provided to the requesting

permittee, if there is a structure within 1/2 mile of the proposed project, then Caltrans has already done an extensive soil analysis and the information is stored in our Maps & Records Branch. As-Builts, on our access-controlled right-of-way provide stationing and detailed information regarding soil information, cut and fill areas.

603.6A-2F Determination of Soil Investigations

The District Permit Engineer (DPE) should determine the extensiveness of the soils investigation to be performed based on the complexity of the HDD operation. The DPE in consultation with the District Materials Engineer may recommend according to the guidelines listed below, a combination of, or modify the guideline to fit the respective area:

- **Projects less than 500 feet in length, where the product or casing is 8 inches or less in diameter:**
A field soil sampling investigation to a depth of one foot below the proposed drilling.
 - a) subsurface strata, fill, debris and material
- **Projects less than 800 feet in length, where the product or casing is 14 inches or less in diameter:**
A field soil sampling investigation to a depth of one foot below the proposed drilling.
 - a) subsurface strata, fill, debris and material
 - b) particle size distribution (particularly percent gravel and cobble)
- **Projects where the product or casing is 16 inches or greater in diameter:**
A geotechnical evaluation by a qualified soil engineer to determine the following.
 - a) subsurface strata, fill, debris and material,
 - b) particle size distribution (particularly percent gravel and cobble),
 - c) cohesion index, internal angle of friction, and soil classification,
 - d) plastic and liquid limits (clays), expansion index (clays), soil density, water table levels, and soil permeability,
- **Projects where the product or casing is 24 inches or greater in diameter:**
A geotechnical evaluation by a qualified soil engineer to determine the following.
 - a) subsurface strata, fill, debris and material
 - b) particle size distribution (particularly percent gravel and cobble)
 - c) cohesion index, internal angle of friction, and soil classification
 - d) plastic and liquid limits (clays), expansion index (clays), soil density, and penetration tests,
 - e) rock strength, rock joint fracture and orientation, water table levels, and soil permeability,
 - f) areas of suspected and known contamination should also be noted and characterized.

Boreholes or test pits should be undertaken at approximately 250 feet to 410 feet intervals where proposed installations greater than 1000 feet in length and parallel an existing road. For road

crossings a borehole or test pit must be undertaken on either side with one or more additional boreholes or test pits in the median where conditions permit. Additional boreholes or test pits should be considered if substantial variation in soil conditions are encountered.

Should the soil investigation determine the presence of gravel, cobble, and/or boulders, care should be exercised in the selection of drilling equipment and drilling fluids. In such ground conditions the use of casing pipes or washover pipes may be required or specialized drilling fluids utilized. Fluid jetting methods used as a means of cutting should only be considered where soils have a high cohesion such as stiff clays.

Directional drilled gravity sewers must only be considered where suitable soil conditions are present. Suitable soil conditions include homogenous soils consisting of clays, silts, silty sands, and sands that would allow for good control of the drill head during the pilot hole drilling.

603.6A-3 *Microtunneling*

Microtunneling is a hybrid of the tunneling industry (miniaturization of tunnel boring machines) and the pipeline industry where pipe jacking has been used for more than 100 years.

Microtunneling does not require personnel entry into the tunnel. Microtunneling is a special construction method suitable for many conditions where open-cut construction methods are not cost effective, too disruptive, or not physically possible.

603.6A-3A Microtunneling Permit Application Submittal

The encroachment permit application package must consist of two separate submittals. The first submittal must be by the Owner of the installation. The second submittal required must be by the owner's contractor, when applying for the "DP."

The encroachment permit application package must contain a construction plan, site layout plan, project schedule, communication plan, safety and emergency procedures, company's experience record, in addition to the information listed as follows:

The first submittal by the owning agency must contain the following plans and information:

1. Drive lengths
2. Proposed depth
3. Shaft; jacking and receiving shafts, manhole construction, shaft backfill, and shoring removal;
 - Type of shaft;
 - a) Sheet Pile
 - b) Beams and Lagging
 - c) Trench Box
 - d) Auger Drilled and Lined
 - e) Caissons
4. Intermediate jacking stations;

- Number of Stations;
 - a) Required by Specifications
 - b) On site
- 5. Geotechnical; including ground water information
 - Geotechnical evaluation by a qualified soil engineer to determine the following;
 - a) Boring logs & plan locations of borings and cross sections, Subsurface strata, fill and ground water elevations
 - b) Particle size distribution (particularly percent rock and cobble),
 - c) Cohesion indexes, internal angle of friction, and soil classification,
 - d) Plastic and liquid limits (clays), expansion index (clays), soil density, and penetration tests,
 - e) Rock strength; rock joint fracture and orientation, water table levels, and soil permeability,
 - f) Areas of suspected and known contamination should also be noted and characterized.
 - Should the soil investigation determine the presence of rock, cobbles, and/or boulders, determination of the following information would be required;
 - a) Depth and extent of rock
 - b) Rock type
 - c) Rock strength
 - d) Rock joint/fracture spacing
 - e) Hardness
 - f) RQD
 - g) Estimated range of sizes & frequency of occurrence of cobbles and boulders.

Boreholes or test pits for road crossings must be undertaken on both sides with one or more additional boreholes or test pits in the median where conditions permit. Additional boreholes or test pits should be considered if substantial variation in soil conditions are encountered. Where a proposed installation parallels an existing road, boreholes or test pits should be undertaken at approximately 250 to 410 foot intervals.

603.6A-3B Contractor's Submittal

The second submittal by the owner's contractor must contain the following plans and information:

1. Shaft; soil stability at portals and ground improvement.
2. Dewatering plans for jacking and receiving shafts, if any.
3. Shoring design for jacking and receiving shafts.
4. Survey control plan: lasers, laser mounting, laser checking.

5. Ground surface settlement monuments and subsurface settlement monuments monitoring program plan.
 - Buried points
 - a) Rebar points, or
 - b) MPBX (Multi-point borehole extensometers)
6. Recycling information; slurry mix and polymer additives, slurry separation plant type, and spoils disposal;
 - a) Removal of slurry in dump trucks.
 - b) Removal of slurry in tankers.
 - c) Settlement ponds.
 - d) Muck piles on site.
7. Contingency plan information;
 - a) Ground improvement plans when required at portals and/or behind thrust block/reaction wall due to weak and unstable soil conditions.
 - b) Obstruction removal through emergency (911) shafts or other means.
 - c) Mechanical breakdowns and recovery of the MTBM through 911 shafts or other means.
 - d) Control of hydrofracture and slurry loss.
 - e) Remediation of loss of ground and excessive ground surface settlement.

603.6A-4 Pipe Ramming

Pipe Ramming pit requirements are identical to those for Bore & Jack. Establishment of a survey-grid line is required.

Before any project begins, exploration bore-holes and a complete geotechnical investigation must be conducted to determine possible difficulties in order to determine the drilling trajectory.

The casing must be rammed open ended, except when the diameter is 6 inches or smaller. Pipes 6 inches or smaller may be rammed open ended or closed.

A soil shoe may be installed on the leading edge of the casing, either by fabrication on site or obtained from the manufacturer. No installation should be less than a service connection of 30 inches.

Lubrication must only be utilized to reduce friction and increase production. The amount of lubrication directed to the outside of the pipe must only be of a sufficient amount required to fill the void between the outside of the pipe and soil, as created by the soil shoe.

Lubrication to the inside of the casing must only be an amount adequate to assist in spoil removal when the ram is completed.

Welding of the casing at joints must be as per the manufacturer's recommendations.

The use of straps at each joint on pipe diameters of 12 inches or larger is required as is the use of the manufacturers' specified welding wire or rod.

Spoil removal for rammed encasements of 30 inches in diameter or less, may utilize pressurized air or water.

Air pressure must not exceed 150 psi and water pressure must not exceed 300 psi.

Encasements larger than 30 inches in diameter must have the spoils removed by other means than by pressurizing of the pipe, such as, manual, auguring, vacuum, washing or other means.

The Receiving Pit must be steel plated entirely when the spoils are to be removed from within the encasement by means of air or water pressurized methods.

603.6A-5 Pipe Bursting

Pipe Bursting operations generally are only performed by the owning utility when they have exceeded the operating capacity of their existing facilities. In most cases pipe bursting allows the utility owners the advantage of upgrading their existing facilities by up to 50%.

A contractor with a significant resume/track record should be obtained to perform the pipe bursting work.

On installations of diameters 12 inches or greater, it is necessary to establish a survey-grid line and establish the existing elevation points over the existing area of installation.

A soil analysis should be required and review of the information to identify any locations of difficulty, density, water table, changes in soil formation that could present or create greater friction resistance.

Request information of the proposed project as to:

1. the ratio of the proposed upgrade to determine difficulty, generally up to 25% increase in diameter is common. An increase of 25% - 50% is considered challenging and an increase of 50% or greater is considered experimental.
2. the existing depth of cover, "rule of thumb" depth of cover should be at least 10X the difference in the upgrade of the existing diameter to be burst.
3. whether or not the existing line has been viewed by video, do not allow line to be burst blind.
4. is this proposed line straight or are there bends in the line?
5. if bends are existing in the line, the location of the bend will have to be excavated and new pits re-established at those locations.

6. require that the contractor provide a list of equipment to be on site to handle an emergency, in the event that bypass pumping is required to maintain the existing service in the event of a problem.
7. as to what method will be utilized (static, pneumatic, burst and jack, or hydraulic).

603.6A-6 Tunneling - Rib & Lagging

NOTE: All projects will vary in their own characteristics. General similarities are listed below to provide a general understanding of these types of projects.

Establishment of a survey-grid line and existing elevation points must be over the centerline and wing points of the installation.

Designed plans and specifications, calculations and details (liner plates, rib & lagging, bracing, etc.) must be stamped by a California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in sub-structural design of tunnels. Proof of experience must be submitted on "Certification of Structural Experience" (form TR-0133) in conjunction with project package submittal.

A geotechnical investigation and soil analysis by a licensed geotechnical engineer/engineering geologist is required. It must provide identification of any locations of difficulty, changes in soil formation, or mixed face conditions that could present or create ground loss, exploratory soil corings and logs are required along the tunnel alignment at intervals of 25 feet to 100 feet as determined by the DPE or Structures Division.

When the length of the tunnel is greater than 400 feet, alignment holes may be required. Alignment holes must be drilled at a maximum spacing of 200 feet and a casing of 4 inches to 6 inches in diameter installed vertically, to a depth necessary for the installed casing to extend into the tunnel excavation. When alignment holes fall within the pavement area of the roadway, the pavement must be saw-cut, a cover must be placed over the end of the casing at grade, and the space around the casing within the roadway filled with concrete (EXCEPT within access-controlled right-of-way).

603.6A-6A Cal/OSHA Requirements

The California Code of Regulations (CCR) mandates the following requirements for Tunneling Projects.

The Owner or Local Entity proposing the construction of the tunnel must make a full submittal to the Department of Industrial Relations, Cal/OSHA, to determine tunnel classification (CCR 8422).

Development of a check-in/check-out procedure to ensure an accurate account of personnel underground in the event of an emergency (CCR 8410).

Development of an Emergency Plan that outlines duties and responsibilities of all personnel on the project during an emergency. The plan must include ventilation controls, firefighting equipment, rescue procedures, evacuation plans, and communications (CCR 8426).

Cal/OSHA requires a State of California certified person performing the duties of gas tester or safety representative to be certified by passing a written and an oral examination administered by the Cal/OSHA Mining & Tunneling Unit (CCR 8406(f), (h)).

A certified safety representative must direct the required safety and health program and must be on-site while employees are engaged in operations during which the Tunnel Safety Orders (TSO) apply (CCR 8406(f)).

The certified safety representative must have knowledge in underground safety, must be able to recognize hazards, and must have the authority to correct unsafe conditions and procedures subject to the TSO (CCR 8406(f)).

A State of California certified gas tester is required for the following operations:

- All classifications other than non-gassy
- Projects during which diesel equipment is used underground
- Hazardous underground gas conditions (CCR 8470).

603.6A-6B Tunnel

Tunnel construction is accomplished by the method of Hand-mining, or by Mechanical means, and the use of a protective shield.

Continuous monitoring and observation of the ground surface above the tunnel is required. In some cases, it may be required to survey and record elevations along the survey grid line, several times a day or daily.

Generally, when tunneling in good ground, tunnels with a diameter of less than 8 feet and less than 300 feet to 400 feet in length may be holed-through (excavated completely) before concreting the interior of the tunnel, when placement of pre-fabricated or pre-cast pipe is to be installed. When this is proposed, hole-through (unsupported length) before concreting of the interior of the tunnel, it must be justified by the original subsurface geotechnical investigation and design.

Tunnel lining and bracing should consist of steel ribs and steel spreaders (dutchmen) with wood, concrete, or steel lagging, or with bolted steel liner plates.

Fireproof materials should be utilized in all construction of plant structures, above ground, within 100 feet of the shaft or tunnel. The use of flammable materials or wood shoring would require that adequate fire protection be provided.

Ventilation systems must be established and provide a minimum of 200 cfm per worker.

- All equipment must maintain a minimum clearance of 25 feet from opening.
- An established contingency plan in the event of ground loss.
- Cranes utilized in operations must maintain minimum required clearances.

603.6A-6C Tunnel Shield

- The face of the shield must be provided with a hood or an approved grid system.
- The excavation face must have a sufficient length to allow for the installation of one (1) complete ring of liner plates, or one (1) complete set of ribs and lagging before advancing.
- The contractor must submit details and design information of the shield.

603.6A-6D Tunnel Lining

Tunnel lining and bracing should consist of steel ribs and steel spreaders with wood lagging and concrete, or steel lagging, or with bolted steel liner plates.

The tunnel liner and bracing must be designed (calculations provided) of an adequate strength based upon the geotechnical investigation, soil analysis, loading, and the diameter and depth of cover to provide adequate support of the tunnel.

- A ring expander must be used to expand the rib continuously outward and upward.
- Liner plates must be designed based on joint strength, minimum stiffness, critical buckling of the liner plate wall, and deflection, or flattening of the tunnel section.
- On tunnels with a diameter greater than 10 feet, the placement of ribs inside of liner plate may be required.
- When the geotechnical investigation has determined that silts and fine sands exist, that may flow under pressure, all liner plates must include a neoprene gasket adhered to each flange face.

603.6A-6E Lagging

Lags are generally started at spring line and continue upwards towards the crown.

Lag spacing consists of three methods:

1. **Wedging** – done by driving a block of wood between the earth and the lag at each end, or by driving a wedge between the rib and the lag.
2. **Stops** – by welding small angles to the ribs outer flange to prevent sliding.
3. **Clamps** – which are applied to wood or steel lags.

If the spacing of lags between ribs is used in tunnel construction, packing between lags with filler may be required.

- Lags are boards of steel plates placed longitudinally against the roof and walls of the tunnel excavation.

- Steel lagging may consist of channel, liner plate or corrugated metal.
- Steel lagging thickness must be designed on strength based upon the geotechnical investigation, soil analysis, and loading.
- Wood lagging thickness must be designed on strength based upon the geotechnical investigation, soil analysis, loading. Generally wooden lags common size are 3 inches by 6 inches, and the length is cut according to the spacing of the ribs.
- A minimum of one liner plate per ring with a 2 inch diameter coupling for grouting is required.

603.6A-6F The Construction of Shafts / Pits

Shafts / pits should be constructed of a proper size and shape, and equipped as to allow work to be carried on safely.

- Shafts must be constructed of driven steel sheet pilings, steel bracing and tight wood, or steel lagging or steel liner plates and ribs.
- The removal of spoils should be accomplished by mechanical means (muck box).
- All shafts must be provided with guardrail and a toeboard.
- When ladders are utilized within the shaft or pit, cages and/or safety devices must be provided on depths of 15 feet to 20 feet, platforms must be provided at depths of greater than 20 feet.
- Ventilation systems must be established and provide a minimum of 200 cfm per worker.
- All equipment must maintain a minimum clearance of 25 feet from openings.
- Upon completion of project all shafts, pits and drifts that are not part of the finished product must be backfilled.

603.6A-6G Placement of Shafts / Pits

Shafts /Pits must be:

- Preferred to be located as far from the traveled way as feasible. At minimum, should be located 10 feet from the edge of pavement in rural areas, or at least 5 feet beyond the concrete curb and gutter or AC dike in urban areas, or at least 5 feet beyond the toe of slope of embankments.
- Located outside of access-controlled right-of-way.
- Adequately fenced or have a Type-K barrier placed around them at a 10:1 taper or as otherwise directed.
- Shored according to Cal-OSHA minimum requirements. Located within 15 feet of traffic lanes on a State highway must not extend more than 36 inches above the pavement grade unless otherwise authorized by the State representative. Reflectors must be affixed to the sides facing traffic, and placement around the perimeter of a 6 feet chain link fence during non-working hours.

- Are only allowed within access-controlled right-of-way for direct access-controlled right-of-way crossings that are excessively long or that have restricted space available outside the right-of-way.
- They must not Affect State facilities or create a hazard to the traveling public. When placement is approved within access-controlled right-of-way, damaged State facilities must be replaced or repaired according to State Standard Specifications.
- Must have crushed-rock and sump areas to clear groundwater and water used to clean. They must be lined with filter fabric when groundwater is found and pumping is required.

603.6A-6H Excavation

In some locations Soil Stabilization may be required. It may become necessary at the direction of the Engineer to either pressure grout or freeze the soil area of the project to control water, to prevent loss of ground, to prevent settlement or displacement of an embankment. When required, a California Registered Geotechnical Engineer must prepare and stamp the plans determining the material and method for use.

In some projects masonry sections are installed, the amount of excavation of the tunnel should not exceed the amount needed for placement of a full masonry section after all lining is in place.

All excavated material must be considered as unclassified material.

- In the event of any ground movement over or adjacent to construction, all work must be suspended, except that which will assist in making the construction site secure and prevent any further additional movement of the ground.
- Excavation should not be advanced beyond the edge of the shield, except in rock.
- The geotechnical engineer/engineering geologist must determine the allowable amount of tunnel length unsupported by bracing, based on the geotechnical investigation and design.
- All voids between the excavation and the liner must be grouted after setting of ribs and lagging, if not expanded to full contact with the surrounding ground, as determined by the Safety Engineer.
- A log must be maintained of all surrounding utilities and facilities.

603.6A-6I Dewatering (Rev. 06/20)

When ground water is anticipated, pumps of sufficient capacity to handle the flow must be maintained at the site. Observation must be maintained to detect any settlement, displacement, or washing of fines into the pit, shaft or tunnel. A NPDES permit is required if the water is not put in the sewer. Dewatering operations conducted within Caltrans ROW or dewatering operations that have potential to discharge onto Caltrans ROW (whether fully or partially) must implement the most current standard specifications for construction requiring a dewatering and discharge work plan be submitted to the permit inspector prior to any work taking place in Caltrans ROW. Applicants may be subject to delays in the start of construction due to missing required

dewatering and discharge work plan and dewatering permit coverage under the applicable regional water quality control board dewatering operations/permits.

603.6A-6J **Grouting**

Grouting should be kept close to the heading (working front of tunnel). It may be required to add pea-gravel and fly ash to the grout. The pea-gravel would assist in consolidation and the filling of the voids, fly-ash works as a lubricant allowing the grout to free-flow.

- The use of grout stops may be utilized if necessary or if required by the Safety Engineer.
- Grouting must be performed when ordered by the Safety Engineer.
- At no time must progression of the tunnel exceed 6 feet beyond the grouting of the exterior void.
- Pressure on the grouting gauge should not exceed the capacity of the lining, sufficient to fill all voids.
- A gauge must be provided which will accurately indicate working pressure and must be monitored constantly during grouting procedures.
- Grouting must start at the lowest point and proceed upwards simultaneously on alternating sides.
- When grouting is complete at that location a threaded plug must be installed into the coupling.

603.6A-6K **Materials**

The form “Notice of Materials to be used,” form CEM-3101 is required.

- The manufacturer must provide a Certificate of Compliance, to ensure tensile and yield strengths.
- Steel lagging may consist of channel, liner plate or corrugated metal.
- Steel lagging thickness must be designed on strength based upon the geotechnical investigation, soil analysis, and loading.
- Wood lagging thickness must be designed on strength based upon the geotechnical investigation, soil analysis, loading. Generally wooden lags common size are 3 inches by 6 inches, and the length is cut according to the spacing of the ribs.
- When the geotechnical investigation has determined that silts and fine sands exist, that may flow under pressure, all liner plates must include a neoprene gasket adhered to each flange face.
- Ensure Manufacturer’s Specification Data Sheets (MSDS) are provided stipulating recommended:
 - Specifications of steel spreaders (spacing, tolerances).
 - Specifications of steel rib (section lengths, spacing, etc.).

603.6A-6L Project Owner's / Permittee's Responsibilities

The project owner/permittee is responsible for providing:

- **A full-time Safety Engineer;**

Must be a California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in sub-structural design or inspection of tunnels. Proof of experience must be submitted on "Certification of Structural Experience" (form TR-0133),

OR

- **A full-time Safety Representative;**

State certified by Department of Industrial Relations, Cal/OSHA, proof of certification is required.

Cal/OSHA requires persons performing the duties of gas tester or safety representative to be certified by passing a written and an oral examination administered by the M&T Unit. CCR 8406(f), (h)

- Project drawings and specifications, calculations and details stamped by a California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in sub-structural design of tunnels.
- A geotechnical investigation by a licensed geotechnical engineer to determine the following;
- Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP).
- De-Watering Plan, if needed.
- Ground water information
- Boring and soil analysis logs, location plan of borings, cross sections, subsurface strata, fill and ground water elevations;
 - Particle size distribution (particularly percent rock and cobble),
 - Cohesion index, internal angle of friction, and soil classification,
 - Plastic and liquid limits (clays), expansion index (clays), soil density, and penetration tests,
 - Rock strength, rock joint fracture and orientation, water table levels, and soil permeability,
 - Areas of suspected and known contamination should also be noted and characterized.
- The soil investigation must also determine the presence of rock, cobbles, and/or boulders, and the following;
 - Depth and extent of rock
 - Rock type

- Rock strength
- Rock joint/fracture spacing
- Hardness
- RQD
- Estimated range of sizes & frequency of occurrence of cobbles and boulders.

603.6A-6M Contractor's Responsibilities

The contractor is responsible for providing:

- Tunnel project construction plans and specifications, calculations and details, method of construction, to include the adequacy of the shield and liner material stamped by a California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in sub-structural design of tunnels.
- "Notice of Materials to be used," form CEM-3101.
- Method of construction plan.
- A Licensed Surveyor.
- Proof of rib expanders and/or liner supports.
- Working schedule of the project.
- Contingency plan for dealing with ground loss work.
- Shaft; soil stability at portals and ground improvement plan.
- Dewatering plans for entry and exit shafts/pits, if needed.
- Installation and monitoring of SWPPP or WPCP facilities and conditions.
- Shoring design for entry and exit shafts/pits.
- Survey control plan: lasers, laser mounting, laser checking.
- Ground surface settlement monuments and subsurface settlement monuments monitoring program plan.
 - Buried points

603.6A-6N Key Points of Inspection

Meet and confer with the Safety Engineer hired by the Owner/Permittee, explain exactly what is expected and required on a daily report, and any issues of concern.

State Representative and Safety Engineer/Safety Representative, together both should:

1. Review the geotechnical investigation.
2. Review the emergency and contingency plans.
3. Inspect the roadway and shoulder area for existing cracks in the ground and mark them.
4. Inspect the area for all-existing utility facilities and sub-structures.
5. Check and confirm any requirements or concessions requested by any Utility companies with the owner and the contractor.
6. Ensure that a Survey Grid line has been established over proposed alignment of tunnel.

7. Make a determination on the frequency of surface monitoring that will be required and identify what would constitute additional monitoring and/or surveying.
8. Inspect and ensure there is sufficient space for the staging area, that equipment and workers can work safely.
9. Establish the limits of minimum clearance.

Safety Engineer/Safety Representative – start of project and construction of shafts/pits.

1. Request to see OSHA permit and tunnel classification sheet.
2. Ensure the contractor has equipment on site to handle an emergency, and in the event that ground loss occurs.
3. Inspect installation of SWPPP or WPCP facilities and conditions.
4. Have knowledge of the soil conditions, density, and water table (sand, clay, cobble, etc.).
5. Inspect the shafts/pits for Cal OSHA (trenching and shoring) requirements.
6. Ensure that guardrails and toe-boards are secured around shafts.
7. Ensure the flooring of the shaft/pit is lined with gravel or ballast rock.
8. Ensure that the sump pumps setup and that they are adequate for dewatering.
9. Ensure all electrical cords and facilities are properly secured.
10. Inspect materials to be used against list provided by contractor.
11. Obtain receipt of the certificates of compliance from the manufacturer on all materials delivered and to be used for the project.
12. Ensure that ventilation system is adequate and installed.
13. Ensure a location is designated for spoils, that they are adequately stockpiled and removed.

Safety Engineer/Safety Representative – daily inspection

1. Ensure that laser is verified every morning prior to start of work.
2. Inspect SWPPP or WPCP facilities and conditions.
3. Check traffic control, signs, and delineation.
4. When warranted request line to be re-surveyed to determine heaving or subsidence, if greater than 0.2 inches take corrective measures.
5. Visually inspect gauge during grouting operations.
6. Inspect ventilation equipment, request copies of contractor's records of maintenance.
7. Ensure safety equipment is worn at all times by everyone.
8. Notify State Representative in the event of an incident or accident.
9. Ensure that all excavations are adequately protected with Type-K barrier and chain link fence around them or covered with steel plates.

State Representative and Safety Engineer/Safety Representative – close of project

1. Upon completion, visually inspect the area of installation, highway and shoulder area to ensure no new cracks, heaving or subsidence have occurred.

2. Require line to be re-surveyed to determine heaving or subsidence.
3. Ensure that all excavations were backfilled.
4. Work site and staging areas are restored to their original condition.
5. Establish a checklist if necessary for completion points (i.e. repairs or corrections).

603.6A-7 **Procedural Requirements for Structural and Sub-Structural Design and Calculations**

All submittals must be stamped by a California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in structural design and preparation of calculations, proof of experience is required by use of Encroachment Permits form "Certification of Structural Experience" (form TR-0133) to be included within the project package submittal.

Sub-structural projects may consist of but are not limited to; drainage boxes & systems, tunneling projects (mechanical or manual tunnel excavations for the placement of tunnel supports), and Trenchless Technologies for the installation of utilities when the diameter is 30 inches or larger (jack & bore, microtunneling, horizontal directional drilling, or pipe-ramming).

603.6A-7A **Structural Design and Calculations**

All Structural Project submittals (structures and structural falsework) will require review by Division of Engineering Services (DES), for construction under an encroachment permit and require the following:

- Designed plans and specifications, calculations and details (structural and falsework).
- A geotechnical investigation and soil analysis by a licensed geotechnical engineer are required. It must provide identification of any locations of difficulty, changes in soil formation, or mixed face conditions that could present or create ground loss, exploratory soil corings and logs are required along the alignment of the project.

Construction or Structures Construction will review false work and shoring submittals. Submittals may be routed through Structure Maintenance.

603.6A-7B **Sub-structural Design and Calculations**

When the distance between a tunnel and an existing structure is less than twenty times the tunnel's diameter, it must be sent to Division of Engineering Services (DES) for review of the potential lateral loading effects to the pilings and foundation. As in Section 603.6B-7, submittals may be routed through Structure Maintenance.

Otherwise, Sub-structural Project submittals, listed below and submitted with the "Certification of Experience" (form TR-0133) **do not** require review by DES.

1. Microtunneling projects.
2. Bore & Jack, HDD, or Pipe Ramming (diameter is 30-in or larger and requiring structural/sub-structural design, investigations and calculations).

3. Tunneling for the placement of tunnel support systems (rib & lagging, or steel liner plate requiring structural/sub-structural design, investigations, and calculations).
4. Drainage boxes and systems.

All Sub-structural Project submittals require the following:

- The District Encroachment Permits Office is responsible for verification of the California Registered Engineers stamp, validation of the date of expiration against the dated plan set and calculations. The permit office engineer must validate the RE's stamp at the [web site listed below](#), by entering the RE's number. A copy of the results must be printed and included within the permit file. The encroachment permit may be issued, upon completion of the normal review process (Traffic, Environmental, R/W, etc.).
<https://search.dca.ca.gov/>
- Designed plans and specifications, calculations and details (liner plates, rib, & lagging, bracing, etc.).
- A geotechnical investigation and soil analysis by a licensed geotechnical engineer are required. It must provide identification of any locations of difficulty, changes in soil formation, or mixed face conditions that could present or create ground loss, exploratory soil corings and logs are required along the alignment of the project.
- When the length of the tunnel is greater than 400 feet, alignment holes may be required. Alignment holes must be drilled at a maximum spacing of 200 feet and a casing of 4 inches to 6 inches in diameter installed vertically, to a depth necessary for the installed casing to extend into the tunnel excavation. When alignment holes fall within the pavement area of the roadway, the pavement must be saw-cut, a cover must be placed over the end of the casing at grade, and the space around the casing within the roadway filled with concrete (EXCEPT within access-controlled right-of-way).

603.6A-7C Project Owner's / Permittee's Responsibilities

On projects deemed by Caltrans as requiring full-time inspection, the project owner/permittee is responsible for providing a third-party full-time inspector.

On projects over 30 inches diameter and deemed as requiring full-time inspection, the project owner is responsible for providing:

- **A full-time Safety Engineer:**
A California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in design or inspection of Sub-structural Projects (tunnels). Proof of experience must be submitted on Encroachment Permits form "Certification of Structural Experience" (form TR-0133),
OR
- **A full-time Safety Representative:**

State certified by Department of Industrial Relations, Cal/OSHA Mining & Tunnel Unit, proof of certification is required. California Code of Regulations 8406(f), (h)

603.6A-7D Contractor's Responsibilities

Prior to issuance of the "DP" permit, the following must be submitted:

- Proof of experience, as stipulated by the District Office, in respect to diameter and length of proposed project.
- Tunnel support system construction plans and specifications, calculations and details, method of construction, to include the adequacy of the shield and liner material stamped by a California Registered Structural or Civil Engineer, with a minimum of five (5) years' experience in sub-structural design and preparation of calculations.
- "Notice of Materials to be used," form CEM-3101.
- Method of construction plan.
- A Licensed Surveyor.
- Proof of rib expanders and/or liner supports.
- Working schedule of the project.
- Contingency plan for dealing with ground loss work.
- Shaft; soil stability at portals and ground improvement plan.
- Dewatering plans for entry and exit shafts/pits, if needed.
- Installation and monitoring of SWPPP or WPCP facilities and conditions.
- Shoring design for entry and exit shafts/pits.
- Survey control plan: lasers, laser mounting, laser checking.
- Ground surface settlement monuments and subsurface settlement monuments monitoring program plan.
- Buried points

603.6B Open-cut Road

Permit Code UT

Underground installations within highway right-of-way must be performed using a trenchless technology method (Bore & Jack, Horizontal Directional Drilling, Microtunneling, Pipe Bursting or Pipe Ramming), unless specified otherwise by permit. Open trenching is authorized only when the applicant demonstrates that all alternatives have been investigated and that installation by a trenchless technology is not feasible. Procedures that must be followed in evaluating applications for open trenching are shown in Table 6.11.

The Reclamation Board, in maintaining the integrity of the State's levee system, issues permits for construction of facilities within the levee prism. Caltrans and the Reclamation Board cooperatively have developed procedures for controlling installation of underground facilities

where a State highway is on or crosses a levee. The Board prefers open-cut highway crossings to ensure the integrity of the levee. Caltrans issues permits that conform to Board requirements.

Authorized open trenching must be noted clearly in the encroachment permit or permit rider. Traffic controls must conform to State standards and recommendations of Highway Operations or Permits. Unless otherwise specified in the permit, work must be accomplished one lane-width at a time on conventional two-lane highways. If determined acceptable, two lanes of a multi-lane highway may be used for the work when one full lane width in each direction is available for traffic. Trenching, backfilling, and paving operations must conform to Caltrans' standards.

Trenching of crossings is not authorized within access-controlled right-of-way.

603.6B-1 Backfill of Excavations and Trenches

Backfilling of excavations and trenches must comply with Caltrans Standard Specifications. The specification for Controlled Low Strength Material (CLSM) is shown in Appendix H, unless otherwise specified by Caltrans' Material Engineer.

603.6B-2 Trenching and Shoring

Trenching and shoring must be in conformance to the requirements of the California Department of Safety and Health, Title 8 of the California Administration Code (Construction Safety Orders).

The Caltrans "Trenching and Shoring Manual" is available at the following website:

<https://dot.ca.gov/programs/engineering-services/manuals>

The contractor may elect to use the Construction Safety Order Details, it is not required that a Professional Engineer prepares the plan. However, a plan is still required. This plan can be a letter to the State Representative containing the information outlined in Section 2.0 "Shoring Plan Submittal" in Chapter 2 of the Caltrans Trenching and Shoring Manual (Second paragraph Section 1.6, page 1-9).

Shoring that does not meet the California Department of Safety and Health, Title 8 of the California Administration Code (Construction Safety Orders) must be designed by a California Registered Civil or Structural Engineer, and they must sign the shoring plan.

Technical Data

The technical engineering information below can be used by an Engineer when reviewing shoring plans.

The design or engineering analysis, of a shoring system is accomplished in the following sequence:

1. The soil or earth that is to be retained and its engineering properties are determined.

2. Soil properties are then used in geotechnical mechanics or procedures to determine the earth pressure force acting on the shoring system. An equivalent fluid, K_w , may be determined.
3. The design lateral force is then distributed, in the form of a pressure diagram. The distribution, or shape, of the diagram is a function of type of shoring system and the soil interaction with the system.
4. Lateral loads due to surcharges and from sources other than basic soil pressure (e.g., ground water) are determined and may be combined with the basic soil pressure diagram, modified for practicability, the resulting lateral pressures become the design, lateral pressure diagram.
5. The design lateral pressure diagram is applied to the system, and a structural analysis is made. Again, there is a range from simplified to refined or complex procedures that can be used.

In general, engineered drawings may be accompanied by the engineer's calculations. If railroads are involved, a minimum of three sets of calculations and seven sets of plans must be submitted.

The railroads require a minimum of one set of calculations each from the designer and reviewer and four sets of shoring plans. One additional complete set of calculations and drawings will be needed for the OSC Sacramento Office.

Table 6.11
Procedures for Evaluating Proposals for Open Trenching

Follow these procedures to evaluate applications for open trenching:

- 1) The applicant must supply these items for consideration by the permit engineer:
 - Profile plans or cross-sections showing the locations of all existing utilities, culverts, or other permanent installations that restrict the bore.
 - Soils information showing that trenchless technologies, such as Bore & Jack or HDD are not feasible.
 - Detail plan showing detailed restrictions.
 - Any other information indicating that trenchless technologies are not allowable methods in the area.
- 2) A design change is mandatory when the crossing location can be changed to allow boring and jacking and not affect the function of a facility.
- 3) Trenched crossings of connecting local streets and public roads where traffic is not adversely affected is acceptable with concurrence of the local agency that owns the public connection.
- 4) Casing in open trenches may be required for future maintenance or added facilities.
- 5) The District Permit Engineer will review submitted materials to determine if the request is reasonable. Reviewing units may include: Environmental, Field Inspection, Highway

Operations--Traffic Operations, Maintenance Materials Engineering, Project Development, and Right of Way Utilities.

604 ANNUAL UTILITY MAINTENANCE

Permit Code UE

Annual utility maintenance permits (UE permits) authorize utility companies that lawfully maintain a utility facility within State's conventional highway right-of-way to inspect, maintain, and repair utility facilities, to install service connections under specified conditions, pole maintenance and chemical treatment, and to make emergency repairs to remedy hazardous conditions or any interruption of service to a customer. Annual UE utility permits may be issued to public and private utility owners.

UE permits are valid for one calendar year, no extensions of the permits are allowed.

UM permits were issued prior to 2019 and has since been discontinued. See 604.1 for details.

Only those maintenance activities that can be performed using Caltrans Standard Plans for Temporary Traffic Control Systems and Temporary Pedestrian Access Routes, are authorized under the annual maintenance permit. Otherwise a separate permit application for the work, along with a traffic control plan designed and signed by a California Registered Civil or Traffic Engineer must be submitted for review and approval.

UE permits authorize communication utility companies to install additional capacity in existing ducts by placing additional cable or replacing an existing cable with a greater cable pair or fiber optics. Authorized work also includes interconnect splicing of existing cable pairs, placement of air flow monitoring transducers and air piping facilities in existing conduits, replacing pull boxes, and reconnection of existing service. Increasing the capacity of existing aerial facilities is also allowed along conventional highways. Utility owners may place new cable or replace existing cable provided the highway is not part of the State Scenic Highway System.

Communication utility owners are not authorized, under a UE Permit, to place conduit or utility vaults within highway right-of-way, or to make any excavations other than for potholing or service connections under specified conditions.

Routine or planned pole replacement / relocation are not under the scope of UE permits. A separate encroachment permit (US) must be obtained for pole replacement and relocation (see 603.5 for details). Poles that are knocked down by vehicles, accidental causes or natural disasters are authorized to be replaced by UE permits. The entire length of poles and stubs must be removed from the ground and replacement pole must be placed at the exact location.

Encroachment permits are also required for utility companies, to operate and maintain services to State owned facilities (Safety Roadside Rest Areas, etc.) within the right-of-way. Service

connections to State owned facilities installed within a conventional highway must comply with the utility company's annual permit. A no fee Utility Service (NUS) permit must be obtained by the utility company if the service connection does not qualify under the annual permit. Service connections such as service disconnects, meters, shut-off valves or switches within the access control lines require the utility owner to obtain a NUS permit for the connections (see 603.5 for details).

Maintenance work on utility facilities within the right-of-way must be authorized under an encroachment permit, and a copy present at the work site. All maintenance work must be performed in compliance with the Encroachment Permit General Provisions (TR-0045) and applicable Special Provisions.

A developer may be required by a city or county to construct service connections that later will be maintained by the utility company. Utility owners must apply for an encroachment permit to identify their ownership and establish maintenance responsibilities of a utility service within the State right-of-way. The utility company should apply before the property owner is issued an encroachment permit for the installation.

Caltrans' policy for developer installed public utility facilities is discussed in Section 603.5.

Permit inspectors should use "Encroachment Permit Report (Diary)" (form TR-0130) to record work performed under an annual utility maintenance encroachment permit. See 206.1 for details.

Requirements for Pole Maintenance by Chemical Treatment:

Utility Companies must submit copies of the Safety Data Sheets (SDS) for all chemical compounds to be used in their pole treatment maintenance operations, along with the permit application submittal.

Prior to any application or use of Tree Growth Regulators (TGR), prior approval must be obtained from the District Landscape Specialist or their designee.

Utility Companies are to notify the District Landscape Specialist or their designee and the District Encroachment Permits Office when there is any change or modification in the type(s) of chemical(s) used in their pole treatment maintenance operations.

After each treatment Utility Companies are to record a list with the pole identification, location(s), type of chemical(s) and quantities used for their pole treatment maintenance operations. This information must be provided to District Permit Office upon expiration of their UE annual permit and upon request of Caltrans during the life of the annual permit.

604.1 Encroachment Permit Annual Utility Maintenance Provisions

Permit Code UM

UM permits have been discontinued. All UM permits that are not expired are still in effect until the expiration date. No extensions are allowed.

UE permits must be issued for utility permittees requesting annual utility maintenance permit.

Chapter 700

Glossary and Definitions

Terminology used in policies and guidelines should depart little from conventional usage. However, some terms need to have restricted or special meaning. This glossary defines terms that are used commonly in this manual. Sources of definitions are AASHTO, FHWA, State statutes, and Caltrans' manuals and standard specifications.

Agency – A public entity.

Airspace Development – Any development of airspace on or above the land within the State highway right-of-way limits for non-transportation purposes.

Americans with Disabilities Act (ADA): - Federal civil rights law to establish a clear and comprehensive prohibition of discrimination on the basis of disability. The Districts must follow established procedures to certify that the project “as-built” complies with the ADA standards in DIB 82.

Average Daily Traffic (ADT) – The average 24-hour volume of traffic, being the total number during a stated period divided by the number of days in that period. The period is a year, unless stated otherwise. (HDM Topic 62.8 (1))

Backfill – Material used to replace or the act of replacing material removed during construction. Also may denote material placed or the act of placing material adjacent to structures.

Bar Hole – Using a probe (bar) to locate underground facilities.

Bedding – Composition and shaping of soil or other suitable material to support a pipe, conduit, casing, or utility tunnel.

Blanket Permit – Caltrans’ written permission to enter State right-of-way and perform authorized activities at more than one location within specified limits, and may be issued to be valid for one or two years.

Boring – A horizontal drilling operation to place a carrier pipe or casing pipe progressively behind the drilling face by jacking. Bore trailings are augered or mucked back through the pipe.

Buffer Strip – That portion of the roadside, usually vegetated, between the curb or curb line and the sidewalk, or extending about 1.21 meter (4') or more from the curb where there is no walk.

Cable – An insulated conductor or combination of insulated conductors, enclosed in a sheath.

California Manual on Uniform Traffic Control Devices (CA MUTCD) – Statewide adopted standards and specifications for all official traffic control devices.

Caltrans – California Department of Transportation.

Cap – Rigid structural element surrounding a pipe, conduit, casing, or utility tunnel.

Carrier – A pipe directly enclosing a transmitted fluid (liquid or gas). Also an electric or communication cable, wire or line.

Casing – A larger pipe, conduit, or duct enclosing a carrier.

Catch Point – The intersection of a cut or fill slope and the natural ground.

Categorical Exclusion – Federal terminology for an action that has no significant effects on the environment and requires neither an environmental assessment nor an environmental impact statement.

Categorical Exemption – State terminology for an exemption from the requirements of CEQA for a project having no significant effect on the environment.

CEQA (California Environmental Quality Act) – The State environmental legislation that establishes procedures for conducting an environmental analysis for all projects in California (California Public Resources Code, Section 21000, et. seq.).

Clear Recovery Zone – As described in the HDM Topics 304.1 & 309.1, this is an unobstructed, relatively flat (4:1 or flatter) or gently sloping area beyond the edge of the traveled way which affords the drivers of errant vehicles the opportunity to regain control.

Coating – Material applied to or wrapped around a pipe.

Common Carrier – means every person and corporation providing transportation for compensation to or for the public or any portion thereof. This includes pipelines that transport petroleum products.

Communication Line – A transmission circuit, such as fiber optic, telephone line, telegraph wire, fire alarm, or television cable.

Concurrent Resolution - Resolution requiring consideration and adoption by both the California Assembly and Senate.

Conductor – A material that contains movable electric charges such as a wire carrying electric current.

Conduit – An enclosed casing for protection of wires, cables, or lines. Conduits often occur in multiple, usually are jacketed, and often extend from manhole to manhole.

Control of Access – The condition where the right of owners or occupants of abutting land or other persons to access in connection with a highway is fully or partially controlled.

- **Full Control of Access (freeway)** – Control is exercised by providing access connection with selected public roads and by prohibiting crossings at grade or direct private driveway connections.
- **Partial Control of Access (expressway)** – Control is exercised to a degree that there may be some crossings at grade and some private driveway connections, in addition to access connections with selected public roads.

Conventional Highway – A highway with no control of access, which may be divided or have grade separations at intersections. Abutting property owners have access rights.

Cooperative Agreement – An executed document that specifies the respective roles and responsibilities of Caltrans and local government entities involved.

Coring – A small casing drilled into firm soil, which enters the pipe as it advances. The core is removed by sluicing during or after drilling.

Cover – The depth to the top of pipe, conduit, casing, cable, or similar line or utility tunnel below the earth or roadway surface.

Cradle – A rigid structural element below and supporting a carrier or casing.

CTC – California Transportation Commission.

CWA – Clean Water Act

Department – California Department of Transportation (Caltrans).

Design Exception – Written documentation of a design criteria decision, by an individual with authority for such decision, to deviate from Caltrans' design standards or policy.

Design Information Bulletin (DIB) 82 Pedestrian Accessibility Guidelines for Highway Projects – Caltrans Policy to improve mobility for all travelers on the State Highway System. DIB 82 provides ADA design guidance and standards to comply with the various federal and state laws and regulations on pedestrian accessibility.

Direct Burial – Installing a utility facility underground without encasement.

Discretionary Project – Requires analysis and consideration for its approval or disapproval.

District – A management region defined by the Department of Transportation (Caltrans).

District Utility Coordinator – The District Right of Way employee responsible for utility relocations.

Discovery – A determination that an existing installation/facility has been modified or upgraded. The installation/facility design or capacity exceeds that, which was allowed for placement under the original encroachment permit.

Double Permit – A permit issued to someone performing work for the original permittee, e.g., a contractor performing encroachment work for the owner permittee.

Drain – An appurtenance to discharge liquid contaminants from casings.

Duct – An enclosed tubular non-metal casing for protecting wires, lines, or cables. Often semi-rigid or flexible.

Electric Lines – Overhead conductors with supporting structures or underground conductors and the conduit in which they are contained.

Emergency Conditions – When a situation is life threatening, when traffic is severely impacted, or when conditions are unsafe.

Encasement – Surrounding a carrier or casing with a structural element.

Encroachment – Includes any tower, pole, pole line, pipe, pipe line, fence, billboard, stand or building, or any structure, object of any kind or character not particularly mentioned in this section, or special event, which is in, under, or over any portion of the State highway right-of-way. (S&H Code, Section 660)

Encroachment Permit – A revocable permissive authority for the permittee to enter State highway right-of-way to construct facilities or conduct special events. An encroachment permit is a valid contract between the State and the permittee. It is not a property right and is not transferable.

Environmental Assessment – A public document for which a Federal agency is responsible that provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.

Environmental Documents – Environmental impact reports and statements, negative declarations, initial studies, and environmental assessments under CEQA and NEPA.

Environmental Handbook – A Caltrans publication of guidelines for complying with State and federal environmental requirements.

Environmental Impact Report (EIR) – A detailed statement prepared under California Environmental Quality Act (CEQA) describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects.

Environmental Impact Statement (EIS) – A detailed statement prepared under the National Environmental Policy Act (NEPA) presenting studies and information needed to identify and assess the significant effects a project may have on the quality of the human environment.

Existing facility – A facility installed in a prior era of time (months, years).

Expressway – An arterial highway for through traffic with at least partial control of access, which may or may not be divided or have grade separations at intersections.

Facility – Something installed to serve a particular purpose.

FHWA – Federal Highway Administration.

Finished Grade – The top surface of the completed roadway.

Flexible Pipe – A plastic, fiberglass, or metallic pipe having a large ratio of diameter-to-wall thickness that can be deformed without undue stress.

Franchise – A privately owned company that has been licensed as a corporation and is regulated by the California Public Utilities Commission to operate in the State of California.

Freeway – A divided arterial highway with full control of access and with grade separations at intersections.

Frontage Road – A local street or road auxiliary to and located on the side of an arterial highway for service to abutting property and adjacent areas and for control of access.

General Provisions – Basic requirements that are attached to each encroachment permit.

Grade Separation – A crossing of two highways, highway and local road, or a highway and a railroad at different levels.

Grading Plane – The lowest level of original ground upon which the first layer of highway base is placed.

Grounded – Connected to earth or to an extended conducting body that serves instead of the earth, whether the connection is intentional or accidental.

Grout – A cement mortar or slurry of fine sand or clay.

Highway, Street, or Road – A general term denoting a public way for the transportation of people, materials, goods, and services but primarily for vehicular travel. Includes the entire area within the right-of-way.

Highway Improvement Agreement – An executed document that specifies the respective roles and responsibilities of Caltrans and private entities involved in developing a special funded State highway project.

Highway Right-of-way – Any public street or highway or portion thereof which is within the boundaries of a state highway, including a traversable highway adopted or designated as a state highway, shall constitute a part of the right-of-way of such state highway without compensation being paid therefore, and the department shall have jurisdiction thereover and responsibility for the maintenance thereof. (Streets and Highways Code, section 83)

Historical Resource – Includes, but not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant

in the archaeological, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (For more information see: California Register of Historic Resources “Proposed Guidelines for the Nomination of Properties, March 1, 1995).

Initial Study – Determines whether an environmental impact report or a negative declaration must be prepared to satisfy CEQA provisions.

Innerduct – A flexible sheath used to enclose cables and protect them from damage. Commonly used when running fiber optic cable through underground conduits originally designed for large-diameter telephone cables.

Interchange – A system of interconnecting roadways in conjunction with one or more grade separations that provides for the movement of vehicles between two or more roadways on different levels.

Jacket – Encasement by concrete poured around a carrier or casing.

Jacking – Pushing pipe horizontally into a bored hole behind a drilling device or to protect a manual excavation operation.

Lead Agency – The public agency having principal responsibility for a project, including preparing environmental documents and approving and carrying out the project.

Local Assistance Project – A local agency project involving federal or State highway funds.

Longitudinal – A facility located parallel to and within highway right-of-way.

Manhole – An opening in an underground system that workers may enter to make installations, removals, inspections, repairs, connections, and tests.

Median – The portion of a divided highway separating traveled ways for traffic in opposite directions.

Modification – a revision to or change of an existing installation/facility, which does not increase size or capacity.

ND – Negative Declaration. Justifies that a project subject to CEQA will not have a significant environmental effect and does not require an environmental impact report.

NEPA (National Environmental Policy Act) – The national environmental law that establishes procedures for conducting an environmental analysis for a project involving federal action.

New Installation – An installation placed in a location where none exists.

Newspaper Vending Machine – A self-service and coin-operated box, container, storage unit or other dispenser installed, used or maintained for the display and sale of newspapers.

Nonprofit Corporation – An organization that is tax exempt under Title 26 of the United States Code, Section 501(c)(3),(4),(6),(7),(8), 501(d) and the California Revenue and Taxation Code, Section 23701(d).

Non-operational Right-of-way – State land used for, but not limited to, future highway use, office buildings, District offices, maintenance facilities, and labs managed by the Division of Right of Way.

NPDES – National Pollution Discharge Elimination System

Occupation of an Existing Facility – The placement of telecommunications within an existing empty facility.

Operational Right-of-way – The area between the right-of-way limits utilized for the purpose and protection of public travel.

Occupational Safety and Health Administration (OSHA) – A federal agency of the United States that regulates workplace safety and health.

Overcrossing – A structure carrying a road or street over a State highway.

Overhead – An elevated structure carrying a highway over a railroad.

Owner – The individual, corporation, or organization responsible for an encroachment.

Pascal - Newton per square meter.

Pavement Structure – The combination of subbase, base course, and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.

PEER – A Permit Engineering Evaluation Report is prepared to document the engineering analysis of proposed work. The analysis includes review of the proposed improvements to determine drainage, maintenance, operation, tort liability, and environmental impact on the State highway system.

Pipe – A tubular product made as a production item for sale as such. Cylinders formed from plate are not defined here as pipe.

Pipeline – A pipe used to transport liquids or gases.

Plowing – Direct burial by means of a “plow-type” mechanism that in a single operation breaks the ground, places the line, and closes the break in the ground.

Pothole – An excavation to expose an underground facility.

Pressure – Relative internal pressure in psig (pounds per square inch gauge) or pascal (Pa).

Pressure Pipeline – Any pipeline flowing full shall be considered under pressure.

Probe – A rod used to locate an underground facility without exposing the facility.

Project Report – A detailed document that justifies Caltrans’ approval for a proposed State highway project and includes the appropriate environmental documents.

PSIG (PSI) – Pounds per square inch gauge pressure.

Public Corporation – Includes federal, State, cities, counties, and public Districts (not including privately-owned public utilities).

Public Road Connection – Provides an access opening through the right-of-way line which serves abutting land ownerships whose remaining access rights have been acquired by the State.

Public Utility – Includes every common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, and heat corporation, where the service is performed for, or the commodity is delivered to, the public or any portion thereof.

Public Utility Facility – Any pole, pole line, pipe, pipeline, conduit, cable, aqueduct, or other structure or appurtenance dedicated to public use and used to provide a service to the public.

Public Works - All road, bridge, street lighting, or installation of signal work performed under an encroachment permit issued and for acceptance into the State highway system, except work performed solely to allow private encroachments onto the State highway or for utility and/or drainage encroachments within the State highway.

RWQCB – Regional Water Quality Control Board

Relocation – Removal, rearrangement, reinstallation, or adjustment of a public utility facility required by highway construction or improvement.

Relocation within State Rights-of-way – Relocation is required from an existing location to a designated location remaining within the existing or proposed State rights-of-way.

Relocation out of State Rights-of-way – Relocation is required from an existing location to a location out of the existing or proposed State rights-of-way.

Repairs – To correct problems with an existing installation/facility that is deemed inoperable by the owner.

Replacement in Kind – When an owner cannot correct a problem with an existing facility and is deemed inoperable, the owner shall replace that existing facility with another of the same size or capacity.

Resolution – A written expression of the will of a legislative body, such as a city or town council, county board, of the California Assembly or Senate.

Responsible Agency – A public agency, other than the Lead Agency, which has responsibility under CEQA for carrying out or approving a project in California.

Rider – A document used to amend an approved encroachment permit. Amendments may be initiated by the permittee for time extension or to modify work, or initiated by Caltrans to modify permit requirements.

Right-of-way – A general term denoting land, property, or interest therein (usually in a strip) acquired for or devoted to transportation purposes.

Rigid Pipe – Pipe designed for diametric deflection of less than one percent (1%).

Roadbed – That portion of the roadway extending from curb line to curb line or shoulder line to shoulder line; divided highways are considered to have two roadbeds.

Roadside – A general term denoting the area adjoining the outer edge of the roadbed to the right-of-way line. Extensive areas between the roadways of a divided highway also may be considered roadside.

Roadway – That portion of the highway included between the outside lines of the sidewalks, or curbs and gutter, or side ditches including also the appertaining structures, and all slopes, ditches, channels, waterways, and other features necessary for proper drainage and protection.

Safety Roadside Rest Area – A designated area within and along State highways with parking facilities provided for motorists to stop and rest for short periods. It may include drinking water, toilets, tables and benches, telephones, information, and other facilities for travelers. (S&H Code §220 and §220.5)

Scenic Highway – A State or county highway, in total or in part, that is recognized for its scenic value, protected by a locally adopted corridor protection program, and has been officially designated by the Department. The state scenic highway system is listed in S&H Code, Section 263 et al.

Scenic Overlook – A roadside area provided for motorists to stop their vehicles beyond the shoulder, primarily for viewing the scenery in safety.

Scenic Resource – Includes but not limited to a stand of trees, a rock outcropping, or an historic building; having scenic or visual qualities, as determined by a trained individual.

Semi-Rigid Pipe – Pipe designed to tolerate from one percent (1%) to three percent (3%) diametric deflection.

Shoulder – The paved or unpaved portion of the roadway contiguous with the traveled way for accommodating stopped vehicles, for emergency use, and for lateral support of base and surface courses.

Sidewalk Sale – Use of the sidewalk for vending purposes. It may be permitted as a special event, but otherwise is prohibited by Section 731 of the Streets and Highways Code.

Slab, Floating – A slab between (but not contacting) a utility line and a structure or pavement.

Sleeve – A short casing through a pier or abutment of a highway structure.

Special Event – A street festival, sidewalk sale, or community-sponsored activity, or community approved activity as defined in Streets and Highway Code Sections 660 (b) and 682.5.

Special Funded Project – Any project on the State highway system developed with local or private funds that is planned, developed and constructed efficiently and effectively in accordance with standards and practices defined in various Caltrans policies, procedures, manuals and guidance documents.. Utility and drainage encroachment projects normally are not considered special funded projects (DD 23).

Special Provisions – Written requirements of an encroachment permit supplementary to the General Provisions.

SWMP – The Caltrans Statewide Storm Water Management Plan. A description of the procedures and practices used to reduce or eliminate the discharge of pollutants to storm drain systems and receiving waters.

SWRCB – State Water Resources Control Board

Telecommunications – The installation of wiring, to include but not limited to fiber optic cabling or hard wiring (copper or aluminum).

Telecommunication Facilities – The installation and placement of conduits (Steel, G.I.P., H.D.P.E., M.D.P.E., or P.V.C.) splice boxes, vaults, manholes, regeneration/boosting stations, or cabinets.

Temporary Traffic Barrier – An object used to prevent vehicular access into construction or maintenance work zones, and to redirect an impacting vehicle so as to limit damage to the vehicle and injury to the occupants while providing worker protection.

Traffic Barrier – A device used to prevent a vehicle from striking a more severe obstacle or feature located on the roadside or in the median to prevent crossover median accidents.

Transverse – A facility crossing from one side of a highway right-of-way to the other.

Traveled Way – The portion of the roadway used for movement of through traffic.

Trenched – Installed in a narrow open excavation.

Tunnel – A horizontal underground highway crossing of jacked pipe, liner plate, or wood lagging work in excess of 30 inches diameter.

Undercrossing – A structure providing passage for a road or street under a State highway.

Underpass – A structure providing passage for a highway under a railroad.

Untrenched – Installed without breaking the ground or pavement surface, such as jacking, boring, or mechanical compaction.

Upgrade – An upgrade consists of an increase in the size or capacity of the existing.

Utility Tunnel – An undercrossing for one or more utility lines.

Vent – An appurtenance used to discharge gaseous contaminants from casings.

Vista Point – A dedicated area, typically paved, beyond the shoulder that permits travelers to stop and view a scenic area.

Walled – Partially encased by concrete placed alongside a carrier or casing.