

CHAPTER 10

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10.00 Introduction

The Caltrans Maintenance Division Asset Management Program is composed of a group of interrelated management tools that provide a basis for planning, scheduling, operating, and controlling the State's highway maintenance effort with economy and effectiveness. The use of this system places continuing emphasis on the economic utilization of personnel, equipment and materials within the resources available to each Maintenance Manager, Area Superintendent and Maintenance Supervisor.

10.01 Asset Management

Four main systems comprise the backbone of the Caltrans Maintenance Asset Management Program:

- (A) The Integrated Maintenance Management System (IMMS) is a management system that allows the Maintenance Division to effectively plan, perform, and manage maintenance work. Maintenance "Activities", which must be performed to maintain the assets, have been defined and grouped into seventeen "Families". Sixteen of these Families are used to track expenditures against the Maintenance Division allocation. Only one, the "Y" Family, is used to record charges when Maintenance forces are doing work for others. Instructions for recording Maintenance work are outlined in detail in the Maintenance Manual Volume II
- (B) The Level of Service (LOS) evaluation system, LOS 2000, helps determine how well Maintenance Division resources are able to keep up with the demands on assets.
- (C) The Pavement Management System (PMS) provides systematic, objective evaluation of pavement condition that justifies Maintenance capital budget needs and helps set project priorities.
- (D) The Bridge Management System (BMS) inventories Caltrans bridge assets, tracks inspection results, tracks work completed, and forecasts bridge maintenance and construction needs.

These components must work together as a system in order for the Maintenance Division to achieve its objectives.

10.02 Maintenance Defined

The legal definitions of maintenance as shown in Section 27 of the Streets and Highways Code include the following:

- (A) “The preservation and keeping of rights of way, and each type of roadway, structure, safety convenience or device, planting, illumination equipment and other facility, in the safe and usable condition to which it has been improved or constructed, but does not include reconstruction or other improvements.”
- (B) “Operation of special safety conveniences and devices, and illuminating equipment.”
- (C) “The special or emergency maintenance or repair necessitated by accidents or by storms or other weather conditions, slides, settlements, or other unusual or unexpected damage to a roadway, structure or facility.”
- (D) “The degree and type of maintenance for each highway, or portion thereof, shall be determined at the discretion of the authorities charged with the maintenance thereof, taking into consideration traffic requirements and moneys available.”

10.03 Maintenance Levels

The maintenance level is affected by many variables such as climatic conditions, traffic density, terrain, pavement types, geographical location, and the age of the facility. In addition, the maintenance level is also influenced by the type or class of road (freeway, expressway or conventional), its surrounding environment, characteristics, and density of traffic.

It is recognized that any defined level or quality of maintenance must be tempered by the judgment and experience of those responsible for maintaining the State highway system. It is imperative that these factors are considered, commensurate with the function of the facility maintained.

These levels are not designed to, nor do they establish a legal standard of care. They are published solely for the information and guidance of the employees of the Department of Transportation. They are subject to modification as conditions warrant.

Maintenance personnel should be constantly alert in their travels to detect and report deficiencies to, or needs of, the highway system. State highway facilities maintained in total or part by forces of other agencies should be maintained in conformance with State maintenance levels. Facilities of other agencies maintained by State forces should be maintained to the same level as State highway facilities unless otherwise directed by the agency responsible.

To ensure the overall levels of maintenance are pursued, periodic inspection trips by key personnel are recommended.

The Supervisor or a specifically designated member of the crew should travel over all highways in the section, including ramps and collector systems, at least once a week to observe overall conditions and detect deficiencies. Known or potential problem areas may require more frequent inspections.

The weekly inspections will be an integral part of the supervisor's work planning and scheduling activities.

The Area Superintendent should observe overall conditions within his or her area of responsibility to assure conformance with the established maintenance levels. Facilities maintained by other agencies should be reviewed by designated Maintenance personnel for conformance with maintenance levels as required, or at a minimum of once a month.