Memorandum

To: DISTRICT DIRECTORS
DIVISION CHIEFS, DESIGN AND CONSTRUCTION
CHIEF, ENGINEERING SERVICES
ALL CONSTRUCTION SENIORS and RESIDENT ENGINEERS
ALL DESIGN SENIORS and PROJECT ENGINEERS

Date: February 28, 2001

File: CPD 01-1

From: **DEPARTMENT OF TRANSPORTATION CONSTRUCTION PROGRAM**

Subject: Construction Contract Time

POLICY

Caltrans employs standard industry production rates and critical path method (CPM) schedules on all major projects to determine construction contract time. Construction contract time is sufficient to both successfully complete the construction work and to avoid/minimize public traffic exposure. On projects where accelerated construction completion is in the best interest of the public and the standard contract time is insufficient to complete the work, Caltrans requires the use of innovative construction methods to accelerate completion of the construction work within the limited contract working days.

BACKGROUND

Public Contract Code Section 10120 states, "Before entering into any contract for a project, the department shall prepare full, complete, and accurate plans and specifications and estimates of cost, giving such directions as will enable any competent mechanic or other builder to carry them out." In addition, Federal Highway Administration regulations require state transportation departments to use consistent procedures to accurately determine construction contract working days.

DEFINITIONS

Contract Working Days – the number of days necessary to successfully complete all construction work and avoid/minimize public traffic exposure. Working days are generally any day except Saturday, Sunday and legal holidays. On accelerated projects, all calendar days may be specified as working days.

Construction Work Plan (Standard) – A schedule based on standard industry production rates and completing the work on a single-shift basis. This schedule determines the number of contract working days to be specified.

Construction Work Plan (Accelerated) – A schedule based on standard industry production rates and includes acceleration techniques such as, completing the work with multiple shifts and cost-plus time with incentive and disincentive provisions. This schedule determines the number of contract working days to be specified.

Critical Path – the continuous chain of activities with the longest duration determining the project duration.

RESPONSIBILITIES

Division Chiefs Performing Design Functions

- Establish contract time estimating units to prepare, assist in preparation, or review contract time determinations.
- Assure that contracts with accelerated construction work plans are in the best interest of the public.
- Assure construction work plans are developed using CPM scheduling and are based on standard industry production rates. The schedule shall determine the necessary number of allotted contract working days and recognize constraints such as staging and permits.

Division Chiefs, Construction:

- Approve the allotted contract working days in major projects.

Project Engineers:

- Include both an electronic and paper version of the construction work plan in the resident engineer's pending file.
- Compare their construction schedules with the contractor's baseline and final update schedules to improve their skills in determining sufficient allotted contract working days.

Resident Engineers:

- Provide the project engineer a copy of the contractor's baseline and final update schedules as feedback on his/her construction work plans.

Contract Time Estimating Units

- Assure that standard construction work plans are developed employing standard construction methods, standard industry production rates and CPM scheduling tools.
- Assure that contracts with accelerated construction work plans include special provisions to enable the contractor to successfully complete the work in the time specified.

GUIDELINES

Sources for construction industry standard production rates include RS Means and F.W. Dodge publications.

A good reference on construction scheduling and contract time estimating is "Means Scheduling Manual" F. William Horsley.

All major projects submitted to the Division of Office Engineer after July 1, 2001, are to have the construction contract time developed in accordance with this policy. The Design and Construction Programs will perform process reviews to ensure implementation and identify improvements.

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