

CHAPTER 4 RIGHT OF WAY ENGINEERING MAPPING

4-1 GENERAL

4-1.1 Introduction

Right of Way Engineering can generally be defined as that phase of transportation engineering and surveying which involves the determination of existing right of way lines and property boundaries, the preparation of maps and descriptions for the appraisal, acquisition, and disposal of real property rights, and the maintaining of records relating to the State's right of way.

Right of Way Maps are used extensively. There are many types of maps depending on the function to be served. The users are varied: property owners, public agencies, engineers, surveyors, attorneys, utility companies, potential lessees, buyers of excess land, and the California Department of Transportation (Caltrans).

This chapter will concentrate on standards for the preparation of maps in the Right of Way effort.

Right of way map preparation requires familiarity with the terminology used in land surveying, appraisals, acquisition, condemnation, sale or transfer of property, as well as many other Right of Way activities.

4-1.2 General Standards

Computer-aided Design and Drafting (CADD) is the standard for right of way map preparation. Standards and procedures for preparing CADD documents are contained in the CADD User's Manual of Instructions.

Lettering: Refer to Chapter 2.6 and Appendix A6 of the CADD User's Manual for lettering sizes and fonts.

Line Work: Refer to Chapter 2.7 and Appendix A4 of the CADD User's Manual for line work styles and weights.

Symbols: The Caltrans Right of Way Cell Library contains standard symbols used for mapping. Refer to Appendix A3 of the CADD User's Manual for a complete listing of the symbols.

Drawing Data Levels: Refer to Chapter 2.4 of the CADD User's Manual for leveling conventions.

Color & Symbolization for Right of Way Areas: Refer to Chapter 2.8 of the CADD User's Manual for coloring conventions.

Abbreviations: Refer to Appendix 4A of this chapter for abbreviations used in right of way map preparation. For additional abbreviations, refer to Standard Plan A10A and A10B.

Map Size: Unless otherwise noted size of maps will be 22" x 34".

Map Scale: Detail sheets 1" = 50', 1" = 100', occasionally 1" = 200'; usually determined by scale of base map and density of development. Urban: 1" = 50', Rural: 1" = 100', desert or remote mountain: 1" = 200', preferably 1" = 100'.

Index maps: If to scale, usually 1" = 1000', 1" = 2000' or scale adequate to show extent of project limits.

Plan dimensioning: Dimensions in feet, tenths of a foot or hundredths of a foot are to be shown with an accompanying single quote mark. Where a dimension is to be displayed in tenths of a foot or hundredths and the dimension is less than one foot, use a zero in front of the decimal point (example: 0.2', 0.35').

When copyright clearance is needed in using maps other than State of California mapping, place copyright note on each drawing. If no permission has been granted, avoid using map except for internal circulation. *Reproducing a copyrighted map without permission from the copyright owner is strictly prohibited.*

4-1.3 General Mapping Guidelines

- Overlap each sheet to show complete continuity of right of way line. Overlap carefully to keep sheets to a minimum number. Use of match lines is encouraged.
- Use arrows if there is a possibility of misinterpreting a distance shown.
- Be sure all dimensions clear access ticks.
- When record dimensions must be shown on the same sheet as calculated ones, designate by enclosing in parenthesis, i.e. (30 m rec.) or (25' rec.).
- When the right of way line is parallel or concentric to the Design line show width of right of way on each side.
- Follow numerical progress of Design line stationing when indicating the bearing of the right of way line (N,E,S,W).
- When a total take parcel is too large to fit on one sheet and cannot be clearly shown by break lines, insert a small scale inset showing dimensions around excess.
- Use a same-ownership symbol (- - Z - -) to tie together lots or parcels from one ownership.
- Label lines PL (property line) LL (lot line), etc. for clarity in conflicting areas.
- Use light grayscale for topography to ensure the topography does not conflict with right of way lines and related data.
- Date all prints to indicate the latest status of information contained on the original.
- Map must clearly show the intent, and be legible. Add sheets, details, explanatory notes, etc. as needed.