

August 4, 2000

**TRAFFIC ENGINEERING DIRECTIVE
401-2**

Supersedes TED 401

SUBJECT: GROUND SURVEY REQUIRED FOR TRAFFIC SIGNAL DESIGN

A detailed topographical and land use survey is required for all traffic signal design projects.

The area surveyed shall include each leg of the intersection for a minimum distance of 150 feet from the intersecting center line and the width of each leg should be to the right-of-way line plus 20 feet. On high speed roadways, the area surveyed shall extend to the farthest detector loop or signal ahead flasher.

Special emphasis should be given to the following:

UNDERGROUND UTILITIES

The location of all underground structures, pipe, cables and conduit is critical. Utility companies and cities should be contacted to determine the location of underground facilities in the area.

OVERHEAD UTILITIES

The location of all poles within the area should be noted.

ELEVATIONS

True or relative elevations at all corners and in the middle of the intersection.

BEARINGS

General bearing of NORTH; does not have to be true bearing unless specified.

RIGHT-OF-WAY

The right-of-way for each leg of the intersection should be clearly shown and designated by owner; for example, Division of Highways, City, County, or Private. Note that fence lines do not necessarily designate right-of-way lines. This can be obtained from tax maps, city maps, old WVDOT plans or, if necessary, by researching record deeds and plats in County Courthouse.

EXISTING SIGNAL FACILITIES

All existing facilities (poles, controller, junction boxes, conduit runs) shall be noted.

CURB AND PAVEMENT TYPE

The curb and pavement types and condition in the area surveyed must be noted. (Example: 6 inch Conc. Drop Curb-new, 6 inch Conc. Pavement-cracks and heavy spalls). In addition, information on pavement subsurface type and condition should be noted if available. Also presence and location of wheelchair ramps should be noted.

PAVEMENT MARKINGS AND PARKING

Existing pavement markings and parking limits (show meters if applicable) should be noted.

LAND USE

The use of the land within the surveyed area and adjacent thereto should be noted in the survey. Gas stations, restaurants and parking lots are especially important. Building limits, including number of stories and physical protrusions such as signs, awnings and marquees should be shown.

INTERCONNECT ROUTING

Interconnect sheets shall be provided showing curb lines, cross streets, utility poles (Type-wood, metal), utility pole numbers and distances between poles.

PLAN INFORMATION

- a. All intersection sheets shall have a scale of 1 inch = 20 feet
- b. All interconnect sheets shall have a scale of 1 inch = 50 feet
- c. All above information to be submitted to Traffic Engineering Division on disks in a microstation format (2D).
Working Units: FT, IN, 12, 1000
- d. Existing signal plans (if available) shall be provided. These old plans have changed thru the years and need to be used only as a guide. All measurements must be verified in the field.

William L. Wilshire, Jr.
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