



Traffic Signal Design Manual

ORIGINATOR Director, Bureau of Highway Operations		4-2-4
CHAPTER 4	Field Investigation Guidelines	
SECTION 2	Intersection Inventory	
SUBJECT 4	Checklist	

The field investigation **shall** include a thorough investigation of the location to familiarize the designer with the characteristics unique to that location. To facilitate the field investigation and design of the traffic signal, the designer *should* follow the guidelines listed below. In addition, the field investigation checklist *should* be completed during the course of the investigation and filed with other project documentation.

1. A topographic survey of the location *should* be obtained prior to conducting the field investigation. The information represented on the survey *should* be verified for accuracy and include discrepancies noted during the field investigation. Information not included on the survey but observed in the field, *should* be added.
2. A photographic log of the location *should* be taken which could include photos of all approaches and photos of all the quadrants, at the intersection. This information could be used for the Signal Investigation Study and is useful during the design of the traffic signal installation.
3. The field investigation *should* be conducted when weather conditions are favorable.

The following field investigation checklist has been created by the Department for use during field visits. This list is a general checklist of items which *should*, as a minimum, be documented during the field investigation.

FIELD INVESTIGATION CHECKLIST

Intersection Geometrics

- Angles of intersecting streets
- Approach grades
- Physical features (pavement type, streetscaping, curb & gutter, loading zone, sidewalks, bike paths, shoulders, etc.)
- Distance to bridge approaches
- Corner radii (evidence of wheel tracking behind curb/median)
- Right turn movements (yield/stop conditions)
- Width of streets and travel lanes
- Lane usage and dimensions
- Turning-lane storage length
- Roadway entrances within 500 feet on minor approaches and 1000 feet on Major approaches (driveways)
- One-way streets
- Bus stops and loading zones
- Turning restrictions
- Future street connections at T-intersections

Pavement

- Existing pavement markings (stop bar locations, crosswalks, lane assignments)
- Concrete-to-asphalt joint locations
- Areas of extreme pavement distress (pavement rutting, alligator cracking)

Traffic Control Devices

- Location and message of roadside signs
- Railroad preemption/battery back-up system and/or potential preemption for emergency centers in vicinity
- Location and operation of existing signals and/or adjacent signals of state or other agency
- Existing speed limits
- Existing traffic signal standard/pole, controller, detector, etc. locations
- Potential locations for proposed underground signal facilities (potential bridge crossing for conduit)

Utilities

- Existing municipal lighting
- Utility locations including possible service location
- Overhead restrictions (phone/electrical lines, height restrictions)

Adjacent Land Use

- Right-of-way or property lines
- Current land use (schools, trucking, elderly housing)
- Existing site distance obstructions (buildings, trees, fences, outdoor advertising)
- Emergency use (fire station, police station, hospital, etc.)

Other

- Drainage features (culverts, catch basins, manholes, ditch bottoms, etc.)
- Parking restrictions