



# Traffic Signal Design Manual

ORIGINATOR Director, Bureau of Highway Operations		5-2-1
CHAPTER 5	Signal Plan Format	
SECTION 2	Temporary Signal Plan Format	
SUBJECT 1	Temporary Signal Plan	

Once the decision to install temporary signals on the state trunk highway system has been made according to TSDM 3-4-9, a temporary signal plan **shall** be developed. The temporary signal plan set **shall** include construction staging plan, temporary pavement marking and signing plan, temporary timing plan, placement of lane control devices (barrel or wands), a temporary signal plan, and an abbreviated sequence of operation sheet (see TSDM 5-5-1) for the temporary signal.

Temporary signals, as part of a construction project, are installed and maintained by the contractor for the length of the project. The Regional Traffic Unit or consultant *may* provide signal timing. Contact the Regional Traffic Unit to determine the responsible party for providing the temporary signal timing plans. The temporary signal timing plan **shall** be included in the plan set and **shall** be included in the PS&E submittal. Figure 1 shows a sample of the temporary signal timing plan.

Decisions regarding the design and operation of temporary signals on the local system, including connecting highways, are at the discretion of the local municipality.

## General Plan Development

1. Temporary signal plans for construction do not contain signature blocks indicating approvals or revision history. To show changes made to temporary signals caused by construction staging, individual plan sheets **shall** be developed. The signal plan for each stage **shall** indicate:

- North arrow
- Route designations
- Symbol legend
- Cabinet location (if known)
- Signing & marking
- Supports
- Temporary roadway geometrics
- Roadway geometrics
- Right-of-way lines
- Reference lines
- Access points (temporary & permanent)
- Utilities

- Signal indications
  - Lighting
  - Detection (if used)
  - Signal timing
  - Lane assignments
  - Work zone areas
  - Work zone traffic control devices
2. The STH *should* be designated as the mainline.
  3. NEMA phasing convention **shall** be used (see TSDM 7-1-2). Typically, NEMA phase 6 is in the Cardinal direction (Northbound/Eastbound).
  4. Show right-turn control. STOP or YIELD if separated by an island and not controlled by the signal.
  5. Configuration of each individual head **shall** be shown (3-v, 5-v, etc., **shall not** be used). The State signal cell library **shall** be used for signal design. Each signal head **shall** have a number.
  6. It is the policy of the Department to provide intersection lighting with temporary signals per TEOpS 11-05-01.
  7. If used, each detector **shall** be assigned a two-digit number, the first digit of the number being the phase number with which it is associated.
  8. Signal plans **shall** be drawn at 1"= 20' scale and printed at 1"=40' scale on an 11"x17" (D-size) number 2 tab plan sheet. For signal plans to be included in a PS&E submittal, refer to FDM Chapter 15, Plan Preparation.
  9. The Department has established a symbol legend. The legend is shown in TSDM 5-1-2 Figure 1. Refer to FDM 15-5-30 for additional CADD symbols.

### **Signal Head Numbering**

Individual signal heads **shall** be numbered consecutively by intersection approach.

### **Cabinet Numbering**

If a temporary cabinet is shown on the plan, it **shall** be labeled "TCB1".

TIMING/COORDINATION DATA									
CYCLE REFERENCE:									
TIMING PLAN _/_/_	PHASE	1	2	3	4	5	6	7	8
	GREEN								
	YELLOW								
	ALL RED								
	TOTAL								
	MODE								
	OFFSET:								
	CYCLE LENGTH:								
	TIME OF DAY:								
	DAY OF WEEK:								
TIMING PLAN _/_/_	PHASE	1	2	3	4	5	6	7	8
	GREEN								
	YELLOW								
	ALL RED								
	TOTAL								
	MODE								
	OFFSET:								
	CYCLE LENGTH:								
	TIME OF DAY:								
	DAY OF WEEK:								
TIMING PLAN _/_/_	PHASE	1	2	3	4	5	6	7	8
	GREEN								
	YELLOW								
	ALL RED								
	TOTAL								
	MODE								
	OFFSET:								
	CYCLE LENGTH:								
	TIME OF DAY:								
	DAY OF WEEK:								

**Figure 1.**  
Temporary Timing Plan Table