



# Traffic Guidelines Manual

ORIGINATOR State Traffic Engineer		1-30-1
CHAPTER 1	General	
SECTION 30	Project Delivery Process	
SUBJECT 1	Traffic Role in Improvement Program	

## INTRODUCTION

The following tables summarize the standard role for Traffic Operations in developing and delivering Improvement Projects in order to promote increased consistency of how traffic-related items are incorporated into projects, and to increase the consistency of work assignments played by Traffic Operations staff in the Regional Offices.

## DEFINITIONS

'Acceptance Review' is defined as a field review of the completed project/item with the PDS Project Engineer for purposes of developing a 'punch-list' of activities to be accomplished within a specific Traffic Engineering function before the contractor moves off the project and/or payment to the contractor is made for the items in each work category. As a general rule, this is accepted as the minimal role Traffic Operations would provide for all Traffic Engineering functions on projects.

## ROLES & RESPONSIBILITIES

### Signing

Refer to Table 1 for Traffic Operations and PDS roles in the signing function. Traffic Operations is directly responsible for producing Signing Plans for all improvement projects. Traffic Operations *may* accomplish this in a variety of ways, including in-house design by Operations staff; consultant design under a Traffic Master contract; or consultant staff under a (PDS managed) Design Contract. If the latter method is utilized, it is critical that the Traffic Operations staff person in responsible charge of the Signing Plan remain in the communication chain with PDS staff and the Consultant so effective work reviews (Preliminary plan, DSR plan, Pre-PS&E) can occur. During construction inspection by PDS, Traffic Operations role is to provide technical guidance to PDS inspectors and be involved in acceptance review with the project engineer. The acceptance review *should* be completed shortly after signs are installed so the contractor can fix any signing that needs to be addressed before the contractors finish construction operations.

**Table 1. Signing Roles**

NEEDS IDENTIFICATION		DESIGN		CONSTRUCTION			
Identify need for replacement or new installation	Present need in project scoping or project initiation	Directly manage consultant in design & drafting (Consultant Mgmt for Delivery)	Complete design (In House Delivery)	Provide technical guidance to PDS staff or PDS consultant in construction inspection	Complete construction inspection	Acceptance Review	Field Review for Compliance WZTC
Operations	Operations	Operations	Operations	Operations	PDS	Operations	PDS

**Pavement Marking**

Refer to Table 2 for Operations and PDS roles in the pavement marking function. Pavement Marking plan production remains the responsibility of the PDS section. Traffic Operations role is to provide technical guidance and design review when requested by PDS during design. Traffic Operations role is to provide technical guidance to PDS inspectors and be involved in acceptance review with the Project Engineer during construction inspection conducted by PDS. The acceptance review *should* be completed shortly after the pavement marking is placed so the contractor can fix any marking that needs to be addressed before the contractors finish construction operations.

**Table 2. Pavement Marking Roles**

NEEDS IDENTIFICATION		DESIGN			CONSTRUCTION			
Identify need for replacement or new installation	Present need in project scoping or project initiation	Provide technical guidance to PDS staff or PDS consultant in design	Directly manage consultant in design & drafting (Consultant Mgmt for Delivery)	Complete design (In House Delivery)	Provide technical guidance to PDS staff or PDS consultant in construction inspection	Complete construction inspection	Acceptance Review	Field Review for Compliance WZTC
Operations	Operations	Operations	PDS	PDS	Operations	PDS	Operations	PDS

**Intersection Control**

Traffic Operations role is to identify the need for replacement, upgrade, or new installation of intersection control and present the need in project scoping or project initiation. Refer to Table 3 for Operations and PDS roles in the various intersection control functions.

Intersection Geometrics

Traffic Operations role is to provide technical guidance on geometric and operational issues as necessary dependent upon skill levels of staff involved on projects during the design by PDS.

Traffic Signal/Electrical Plans

Traffic Operations staff is directly responsible for producing Signal/Electrical Plans (separate from geometrics). Traffic Operations *may* do this in a variety of ways including: via in-house staff; via a Traffic Master Contract; or via the Design Contract used for the project. If the latter method is used, it is critical that the Traffic Operations staff person in responsible charge of the Signal/Electrical Signing Plan remain in the communication chain with PDS staff and the Consultant so effective work reviews (Preliminary plan, DSR plan, Pre-PS&E) can occur.

Traffic Operations electrical staff are to serve as first-line inspectors on signal installations, and are involved in acceptance review with the Project Engineer during construction inspection. The PDS Project Engineer is the lead on contract

administrative duties. Operations staff and the PDS Project staff agree prior to construction on proper level of inspection for electrical installations.

Roundabout Geometrics & Operations Analysis

Regional Traffic Operations staff *should* provide technical guidance to PDS staff or PDS consultant staff by completing needs analyses for alternative intersection control during the project initiation process, by analyzing intersection crash data, and comparing and evaluating the alternatives relative to intersection control guidelines and warrants. Traffic Operations staff *should* also estimate size and placement of roundabouts using traffic flow worksheets, geometric parameters, and/or Rodel software. Once the geometrics are determined, the Operations section *may* determine operational and maintenance costs, impacts on access, pedestrian and bicycle movements.

PDS role is to prepare cost estimates of intersection control alternatives and will work with TSS to incorporate right-of-way and utility costs. PDS will develop the roundabout geometrics and detailed design and will determine the impacts of the design. Traffic Operations and PDS staff will jointly perform technical outreach and support public information/awareness for projects.

**Table 3. Intersection Control Roles**

	DESIGN			CONSTRUCTION		
	Provide technical guidance to PDS staff or PDS consultant in design	Directly manage consultant in design & drafting (Consultant Mgmt for Delivery)	Complete design (In House Delivery)	Complete construction inspection	Acceptance Review	Field Review for Compliance WZTC
Intersection Geometrics	Operations	PDS	PDS	PDS	PDS	PDS
Traffic Signal/ Electrical Plans		Operations	Operations	Operations	Operations	PDS
Roundabout Geometrics	Operations	PDS	PDS	PDS	PDS	PDS
Roundabout Operations Analysis	Operations	PDS	PDS			

**Intelligent Transportation Systems**

Intelligent Transportation Systems (ITS) includes items such as CCTV (closed circuit television) cameras, ramp meters, detector stations, count stations, permanent message boards, etc.

Refer to Table 4 for Operations and PDS roles in the ITS functional area. Traffic Operations staff is directly responsible for producing ITS Component Plans. Traffic Operations *may* do this in a variety of ways including: via in-house staff; via a Traffic Master Contract; or via the Design Contract used for the project. If the latter method is used, it is critical that the Traffic Operations staff person in responsible charge of the ITS Component Plan remain in the communication chain with PDS staff and the Consultant so effective work reviews (Preliminary plan, DSR plan, Pre-PS&E) can occur.

Traffic Operations/electrical staff are first-line inspectors on ITS construction installations, plus they are involved in acceptance review with Project Engineer.

**Table 4. ITS Roles**

NEEDS IDENTIFICATION		DESIGN		CONSTRUCTION		
Identify need for replacement or new installation	Present need in project scoping or project initiation	Directly manage consultant in design & drafting (Consultant Mgmt for Delivery)	Complete design (In House Delivery)	Complete construction inspection	Acceptance Review	Field Review for Compliance WZTC
Operations	Operations	Operations	Operations	Operations	Operations	PDS

**State-owned Highway Lighting**

Refer to Table 5 for Operations and PDS roles in the state-owned highway lighting function. Traffic Operations staff is directly responsible for producing State-Owned Highway Lighting Plans. Traffic Operations *may* do this in a variety of ways including: via in-house staff; via a Traffic Master Contract; or via the Design Contract used for the project. If the latter method is used, it is critical that the Traffic Operations staff person in responsible charge of the Lighting Plan remain in the communication chain with PDS staff and the Consultant so effective work reviews (Preliminary plan, DSR plan, Pre-PS&E) can occur.

Traffic Operations/Electrical staff are first-line inspectors on state owned lighting installations, and involved in acceptance review with the Project Engineer.

**Table 5. Highway Lighting Roles**

NEEDS IDENTIFICATION		DESIGN		CONSTRUCTION		
Identify need for replacement or new installation	Present need in project scoping or project initiation	Directly manage consultant in design & drafting (Consultant Mgmt for Delivery)	Complete design (In House Delivery)	Complete construction inspection	Acceptance Review	Field Review for Compliance WZTC
Operations	Operations	Operations	Operations	Operations	Operations	PDS

**Work Zone Transportation Management Plan**

Refer to Table 6 for Operations and PDS roles in the work zone transportation management plan (TMP) task. Traffic Operations role during the work zone TMP process is to provide technical guidance to PDS on:

- assessing work zone impacts
- determining mitigation strategies
- developing TMP documents, and
- reviewing work zone traffic operations during construction

Additional details on roles and responsibilities of Traffic Operations and PDS in the TMP process are discussed in FDM 11-50-1.

**Table 6. Work Zone TMP Roles**

NEEDS IDENTIFICATION		DESIGN			CONSTRUCTION			
Identify work zone management needs & issues	Present need in project scoping or project initiation	Provide technical guidance to PDS staff or PDS consultant in design	Directly manage consultant in design & drafting (Consultant Mgmt for Delivery)	Complete design (In House Delivery)	Provide technical guidance to PDS staff or PDS consultant in construction inspection	Complete construction inspection	Acceptance Review	Field Review for Compliance WZTC
Operations	Operations	Operations	PDS	PDS	Operations	PDS	PDS	PDS