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#### 1. Introduction

The Environmental Health & Safety Standard Operating Procedure (SOP) for road side work and the need for a Traffic Safety Plan was developed by the Department of Environmental Health & Safety in accordance with the University's Policy Statement on Health and Safety.

The purpose of this SOP is to ensure the safety of employees, students, motorists, cyclists and pedestrians while working on or in proximity to a roadway and to ensure that work being completed meets the applicable regulations and guidelines relating to traffic control for Ontario roadways.

All University employees and students are responsible for understanding and carrying out the responsibilities and duties outlined in this SOP. It is the University's responsibility to ensure that employees and students are equipped with the devices, vehicles and equipment required for traffic control when working on or in proximity to Ontario roadways.

Road side work may include, but not be limited to, research activities, contract work, field trips, academic course workshops, etc. that require activities to be carried out on or in proximity to roads in Ontario.

# 2. Applicable Legislation

Ontario Occupational Health and Safety Act and Regulations Ministry of Transportation of Ontario - Ontario Traffic Manual – Book 7 – Temporary Conditions

Ministry of Transportation of Ontario – Highway Traffic Act

# 3. Responsibilities

This section outlines the responsibilities within the University for the implementation of the SOP.

### 3.1 Department of Environmental Health and Safety

• Develop road side work procedures and review them periodically to ensure continued compliance with applicable regulations and guidelines;

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- Ensure that training is made available to all departments that may be involved in road side work;
- Approve trainers that carry out the OTM Book 7 Temporary Conditions training for the university;
- Provide technical support to departments and employees when questions or concerns arise with regard to traffic safety plans;
- Maintain a database of all employees and students who have completed the necessary training; and
- Conduct periodic audits to ensure compliance with these procedures;

# 3.2 Department Heads, Directors, Department Heads and Managers

Each has the following responsibilities under this SOP:

- Ensure that supervisors, principal investigators, employees, and students are notified of their responsibilities under this SOP;
- Ensure that all employees and student have received training and instructions on the proper work procedures with regard to creating and implementing a traffic safety plan;
- Ensure that procedures, equipment and materials appropriate for the work under his/her authority are provided to protect the health and safety of all employees and students.

### 3.3 Supervisors/Principal Investigators

Each has the following responsibilities under this SOP:

- Must be knowledgeable about the hazards and procedures associated with road side work under their authority;
- Develop an appropriate Traffic Safety Plan for the road side work being conducted by the employees or students under their authority;
- Review and modify traffic control procedures outlined in the Traffic Safety Plan as required for the protection of the employees, students and the general public;
- Document any changes to the traffic control procedures;
- Provide training and instruction to all employees and students working under the Traffic Safety Plan;
- Ensure that the proper equipment is being used and that procedures are being followed:
- Ensure that adequate equipment and materials are kept on hand; and
- Maintain documentation of OTB Book 7 Temporary Conditions training for the employees and students under their authority.



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# 3.4 Employees and Students

Each has the following responsibilities under this SOP:

- Be knowledgeable about the hazards and procedures outlined in the Traffic Safety Plan for the road side work being undertaken;
- Complete the necessary education and training requirements before performing any roadside work;
- Use all appropriate tools, safety equipment, vehicles and materials that have been provided for the work; and
- Report any issues or potential problems to their Supervisor immediately.

## 4. Traffic Safety Plan Requirements

A Traffic Safety Plan must be created, in writing, and implemented by the employer in order to protect employees and students exposed to a hazard from vehicular traffic. The creation of this plan should start before arriving on the site and be completed once an assessment of the site has been done to identify any unique issues with the location. A Traffic Safety Plan must specify the vehicular traffic hazards and the traffic control measures to be used to protect employees. This plan must be kept at the project and made available to an inspector or an employee on request. Any changes made to the plan during the course of the work must be documented. The OTB – Book 7 – Temporary Conditions outlines all of the required steps needed in order to set up a Traffic Safety Plan that will protect the health and safety of all employees, motorists, pedestrians and cyclists that will be affected by the planned work.

# 5. Types of Temporary Conditions

There are a variety of different temporary conditions classifications depending on the complexity of work and the proximity or intrusion to the roadway:

- Off shoulder;
- Shoulder;
- Lane encroachment:
- Partial lane shift(s);
- Lane closure(s);
- Detour; or
- Rolling closure.



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The most common type of work that will be completed by Queen's University employees and students is shoulder work.

## **6.** Equipment and PPE Requirements

### 6.1 Clothing

Canadian Standards Association (CSA) standard CSA Z96-09 provides recommendations for the selection of appropriate High Visibility Safety Apparel (HVSA) and sets out performance criteria for high visibility clothes. In addition, to the CSA standard, the Regulation for Construction Projects specifies the type of reflective garment and stripes that must be worn by workers who may be exposed to vehicular traffic on a construction project.

#### **6.2** Traffic Cones

The type of traffic cones used is determined by the location and type of work that will be performed. The maximum posted speed, obstructions, visibility, glare and other factors can all affect cone placement. OTM – Book 7 – Temporary Conditions provides direction on the specific traffic cones that are required for each procedure and instruction on how to set them out at the appropriate intervals.

### 6.3 Signs

There are three classifications of signs that are used in temporary conditions: regulatory, warning, and guide. Warning and guide signs include both passive as well as dynamic signs that allow for illuminated and/or changeable messaging. Signs are placed in positions where they will most effectively convey the message without restricting lateral clearance or sight distance, and at advance distances that will allow a sufficient response time. Signage requirements are based off of the location and type of work that will be performed and are prescribed in the OTM – Book 7 – Temporary Conditions.

#### 7. Duration of Work

Work duration is a major factor in determining the number and types of signs and devices to be used in temporary work zones and the manner in which they are used.

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The four categories of work duration described in the OTM Book 7 – Temporary Conditions are:

- Mobile Operations;
- Very Short Duration (VSD) work;
- Short Duration (SD) work; and
- Long Duration (LD) work.

Short Duration work refers to activities that require work areas that are continuously occupied by workers and/or equipment, for more than 30 minutes but less than one 24-hour period in duration. This is the most common type of work that will be completed by Queen's University employees and students.

# 8. Pedestrians and Cyclists

The impact on pedestrians and cyclists must be addressed in all Traffic Safety Plans where they are, or may be, present. To determine the extent of the accommodations that are required, observe existing pedestrian and cyclist traffic while taking into consideration traffic generators such as transit routes, driveways and shops.

Under the Highway Traffic Act (HTA) cyclists have the same right to safe passage as motor vehicles (except where bicycles are prohibited), and should only be required to dismount where absolutely necessary. Specifications for pedestrian travel paths, bike lane widths and other such pertinent information can be found in the OTB Book 7 – Temporary Conditions.

### 9. Inspection and Documentation

The ongoing inspection of work zones is important to ensure that the appropriate traffic control devices are in place at all times. The supervisor is responsible for maintaining documentation on site for the specific traffic control measures that are used. Any problems that arise must be corrected immediately including damaged traffic control devices or alteration to the Traffic Safety Plan. Any changes that are made to the Traffic Safety Plan must be documented.



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### 10. Out of Province Work

The OTB Book 7 – Temporary Conditions requirements only pertain to work being conducted in the province of Ontario. If road side work is being conducted in another jurisdiction, the department or the supervisor/Principal Investigator is required to determine the requirements for the work being conducted in that location.

## 11. Annual Program Review

Any Department performing work at the side of a roadway must review their specific road work procedures annually to ensure that they still meet all applicable requirements.

Revision History: March, 2019 – Initial Release