

Roadway Surfaces and Traffic Control Elements

Lines of Business: General Liability, Public Officials Liability

Risk Control Strategy/Key Issues: To establish and document a program for the inspection and maintenance of roadways and traffic control devices.

Suggested Program Elements:

1. Policy Statement

State the goals and responsibilities of the entity with respect to the maintenance of roads and traffic control devices. Provide a brief statement explaining the importance of these goals, usually to protect the public using the roadways and to facilitate smooth and efficient travel.

Appoint the person with ultimate program authority, usually the streets and roads or public works director. Provide that person with the management and budgetary authority to effectively operate the program.

Indicate which employees are responsible for carrying out related functions and indicate a clear chain of command.

2. Inspection Process

Develop a regular inspection plan for all roadways and traffic control devices. Divide the service area up and indicate how often each area is to be inspected. The best practice is to use pavement management software that tracks the age and condition of the roads and painted surfaces. Modules can also be added for traffic control devices and road signs. Scheduling for inspections can be done on the software, and reports will print indicating what activity is next on the list. Inspections and maintenance can be documented in this system providing an excellent management tool and an excellent risk management record of your activity.

Involve all employees and encourage the general public to note problems with the roads and traffic controls and to report them. Develop a complaint/report log to record all reports and log them into the system so crews can be dispatched. Once the crew responds the activity should be documented in the system. To encourage public participation, and to tout your responsiveness to their needs, have a system to report back to any one calling with a concern advising them what action was taken.

3. Training Program

Provide awareness training to all employees that will help them notice and know how to report problems they observe while traveling the roadways, both while on and off the job. This training should be revisited at least yearly during department or safety meetings.

Train all employees directly involved in the inspection and maintenance process in their role. They should understand how the reporting process works, how to use the information from the pavement management software (if any) or from the report log. It is important that all inspections or repairs be logged in as completed, even if an inspection reveals no issues in need of attention.

All reports should be tracked to insure they have been properly handled and should be signed off when completed. They should then be filed for future reference, and destroyed in accordance with the public records retention policy.

4. Road Maintenance Inspection Form (the following should be evaluated for condition and improvement needs):

1. Infrastructure:

- Concrete surfaces
 - ✓ Surface repair - cracked, raised, sunk slabs; spalling (chipping or splintering); irregularities
 - ✓ Expansion joints - missing, damaged, water penetration
 - ✓ Asphalt surfaces
 - ✓ Potholes - severe depressions and distortions
 - ✓ Surface repair - bumps, humps, cracks, depressions, distortions, rutting, and other irregularities
- Non-paved roads
 - ✓ Rutting, potholes
 - ✓ Uneven surface - appropriate grade and slope
- General Conditions
 - ✓ Shoulder conditions
 - ✓ Rutting at driveways, mailboxes, intersections
 - ✓ Shoulder heights appropriate
 - ✓ Edge ruts or loss of shoulder slope
- Major work
 - ✓ Surface deteriorated beyond normal maintenance capability
- Bridges
 - ✓ Approaches
 - ✓ Concrete deck
 - ✓ Steel grid deck
 - ✓ Concrete curbs and rails
 - ✓ Paint on metal rails
 - ✓ Caps or floor beams
 - ✓ Steel or timber truss members
 - ✓ Expansion devices
 - ✓ Abutments, bulkheads, piers, and intermediate bents
 - ✓ Waterways
- General - accumulation of dirt and debris

2. Roadside vegetation:

- Vegetation blocking ditches flow, or causing direction of flow changes
- Erosion and breaks or shifts in structures, waterways, catch basins, culverts, slope drains, conduits, paving, etc.
- Brush blocking or hindering sight at/of curves, bridges, fences, intersections, signs, traffic signals, driveways, etc.
- Debris on road and roadside

3. Signs and Signals:

- Worn or faded pavement markings
- Sign, traffic signals, guideposts delineators - needed replacement, repair, cleaning, repainting, resetting, lamp replacement, torque check, alteration, or moving
- Guardrails or medium barriers need servicing or repair
- Crash attenuators need servicing or repair
- Appurtenances need servicing or repair - traffic islands, curbs, median barriers, guardrails, culverts, impact attenuates, pedestrian overpasses, and right-of-way fencing.

- Street illumination - lamp replacement, pole damage, electrical problems, need of

Program Activities Calendar: Use a calendar to track yearly program review elements.

- Conduct an audit of the program at least yearly to measure its effectiveness and to highlight any problem areas which might signal training needs. Advise all responsible employees of the results.
- Review the complaint/report log monthly to make sure complaints are properly taken, logged into the system, properly responded to, and signed off when completed. Supervisors should spot-check a selection of responses each month to make sure the work is being properly done on site.
- Calendar the dates for follow up training for staff responsible for the inspection and maintenance process. The remainder of the staff should be reminded of their role in meeting the goals of the road and traffic control devices program.

Web Site Links:

- United States Department of Transportation
<http://www.dot.gov/>
- National Highway Traffic Safety Administration
<http://www.nhtsa.gov/>

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STREET MAINTENANCE AND REPAIR SAFETY CHECKLIST

Municipality

Location

Date

Inspector

Time

Check YES or NO. If NO, recommendations or comments should be made on the reverse side of the form identified by the number that corresponds to the question.

QUESTION	YES	NO
1. Are all maintenance and repairs coordinated with local agencies and utilities?		
2. Are the police and fire departments notified when maintenance and repairs will close, or seriously \ restricts movement of a public street?		
3. Are traffic control devices (barricades, signs, flashing lights (especially at night), etc. used when work is being performed in any public right-of-way?		
4. Is traffic control device placement pre-planned, standardized, and uniform?		
5. Are flag workers used where traffic must be periodically stopped or is obstructed by equipment or workers?		
6. Are flag workers furnished with appropriate safety equipment; i.e., reflective vest, paddles, flags two-way radios, etc.?		
7. Have flag workers been instructed in proper site traffic procedures?		
8. Are workers required to wear reflective vest when working near a roadway?		
9. Are temporary traffic lanes at least 10 feet wide, and 5 feet from any excavation?		
10. Is construction equipment, parked officials and crews personal vehicles positioned as to not obstruct or restrict traffic flow?		
11. Do official vehicles and equipment operating in or near maintenance and repair sites have operating warning lights and caution placards appropriately attached?		
12. Are all excavations barricaded from the general public		
13. Are sidewalks, walking paths and bike trails located by maintenance and repair sites properly barricaded from the site, and free of debris and soil?		
14. Are temporary plates used to cover holes in the street, sidewalk, or other secured to keep them from moving?		
15. Is the placement of all barricades and warning devices documented at the end of each work day, in case they are removed after hours?		
16. Have all equipment operators been appropriately trained on the equipment they operate?		
17. Do equipment operators receive refresher training on the equipment they operate?		

18. Is all equipment training documented?		
19. Have all employees who operate equipment or vehicles obtained the required certification or special licenses needed to operate it; i.e., Commercial Driver's License?		
20. Is all equipment serviced according to the manufacturer's recommendations?		
21. Is all equipment inspected prior to use to assure that it is in proper working order?		
22. Are inspections and servicing of equipment documented?		
23. When parking equipment, are blades, bowls, booms, shovels, and buckets lowered to ground level?		
24. When equipment is left at a site overnight, is it secured and positioned where it does not interfere with the flow of traffic?		
25. Are flashing caution lights and appropriate warning signs in place when unfinished sites are left overnight?		
26. Are all supplies and equipment secured during transportation to the site?		
27. Are employees required to wear seat belts when being transported?		
28. Are safety chains available and used when securing a trailer to a hitch?		
29. Is slow moving equipment operated in public right-of-ways equipped with a triangular shaped, reflecting orange colored, slow moving vehicle sign and flashing lights?		
30. Are slow moving vehicles required to use the right lane only, unless involved in a left turn?		
31. Are slow moving vehicles required to give the other motor vehicles the right-of-way?		
32. All slow moving vehicles should have their headlights on during transportation from site to site?		
33. Is heavy equipment outfitted with backup signals		
34. Is an employee designated to assist operators of heavy equipment when backing		
35. Are unauthorized persons not allowed to ride in or on official vehicles at any time		
Any other comments regarding the facility that may not have been mentioned or noted:		