

# LIGHTING STANDARDS FOR HIGHWAY MAINTENANCE OR CONSTRUCTION VEHICLES AND SERVICE VEHICLES

## OVERVIEW

The Texas Transportation Code defines the types of equipment designated as highway maintenance or construction vehicles and service vehicles. These types of vehicles must be equipped with safety and warning lights to increase visibility to the traveling public. The Transportation Code requires the Texas Department of Transportation (TxDOT) to adopt standards and specifications for this type of lighting on these types of vehicles.

## VEHICLE DEFINITIONS

Highway maintenance or construction vehicles perform any of these functions:	Service vehicles must meet one of the following criteria:
Road construction or off-road use (i.e. motor graders, road rollers, excavators, pneumatic tire equipment, movers, tractors)	Owned and operated on a highway by or for a governmental agency and performs a function requiring the use of a lamp or illuminating device in accordance with Texas Transportation Code <a href="#">§ 547.105</a> .  Has a public service function, including the following types of vehicles: garbage trucks, roadside assistance vehicles, tow trucks, highway or traffic maintenance vehicles, escort flag vehicles (as defined by Section Texas Transportation Code <a href="#">§ 623.099</a> ) or utility service vehicles*.  For a list of qualified service vehicles, see page 5.
Sign maintenance	
Striping	
Skid resistance testing	
Sweeping	
Spraying	
Guardrail repair	
Temporary traffic control device placement/removal	
Lifting (e.g. aerial platform machines)	
Road profiling	
Snow removal	

\* "Utility" includes a publicly, privately, or cooperatively owned utility that provides telephone, telegraph, communications, electric, gas, heating, water, railroad, storm sewer, sanitary sewer, or pipeline service.

## LIGHTING STANDARDS

TxDOT's equipment lighting policy states that all on-road and off-road equipment shall, as a minimum, meet the lighting requirements specified in Texas Transportation Code [Chapter 547, Subchapter D. Texas Transportation Code § 547.105](#) authorizes TxDOT to adopt additional warning light standards. The National Highway Traffic Safety Administration and Federal Motor Carrier Safety Administration of the U.S. Department of Transportation (DOT) have the authority to change lighting requirements. If changes conflict with TxDOT requirements, please contact TxDOT's Fleet Operations Division at (817) 370-3674 or [Fleet\\_Operations@txdot.gov](mailto:Fleet_Operations@txdot.gov) for clarification. A unit not equipped with the required lighting must be transported on a trailer or other suitable conveyance equipped with the required lighting. The unit may not be driven or towed to and from a designated work zone.

### Flashing Lights

Vehicles that may be equipped with alternately flashing red, white, and blue lighting include school and church buses, authorized emergency vehicles, certain tow trucks, and escort flag vehicles.

Use of flashing amber lights is not prohibited under the Texas Transportation Code. Highway maintenance or construction vehicles and service vehicles are prohibited from using or being equipped with flashing white lights. See Texas Transportation Code [§ 547.305](#) for detailed requirements.

## LENS COLORS – HIGHWAY MAINTENANCE OR CONSTRUCTION VEHICLES

Highway maintenance or construction vehicles shall use flashing amber lights and may use simultaneous amber and blue warning lights in the following situations:

- Snow and ice removal.
- In a mobile operation where the work moves continuously or intermittently (stopping approximately up to 15 minutes).
- When responding to or parked at an incident.
- When employees must be out of the equipment and in a lane of traffic, and channeling devices are not positioned to close the lane to adjacent traffic.
- When working on or near the edge of the shoulder (e.g. edge repair, sign installation/repair, guardrail inspection, debris removal, shoulder maintenance, etc.) outside the protection of a standard work zone.

*Note: Turn off blue warning lights when the vehicle is not in use for one of the above applications. Blue and amber lights should be set up to operate independently. It is recommended to install blue warning lights on the driver's side to enhance visibility.*

## Lens Colors – Specific Service Vehicles

The following types of vehicles may use flashing lights in the colors and circumstances listed below:

- Tow trucks shall be equipped with a roof-mounted light bar that displays amber warning lights. Tow trucks may be equipped with flashing red and blue lights, which shall be used only when stopped at an incident. Amber lights should be set up to operate independently from blue/red lights.
- Escort flag vehicles used to escort manufactured housing shall be equipped with a roof-mounted light bar that displays the lights specified in [Transportation Code § 623.099\(c\)\(1\)](#), in addition to the other requirements of that section. Escort flag vehicles used to escort manufactured housing may also be equipped with flashing blue lights as service vehicles. Flashing blue lights are not permitted on the towing vehicle or manufactured housing.
- Escort flag vehicles escorting oversize loads other than manufactured housing shall be equipped with a roof-mounted light bar that displays an amber warning light. Escort flag vehicles may be equipped with a flashing blue light as specified in [Transportation Code § 547.305\(e-3\)](#). Flashing blue lights are not permitted on the towing vehicle or oversize load.
- Garbage trucks shall use flashing amber lights and may use flashing blue lights while removing or transporting municipal solid waste or recyclable material from a location adjacent to the highway. Flashing blue lights may not be used enroute to or from the disposal site.
- Service vehicles, including utility service vehicles, shall display amber warning lights and may display flashing blue lights **while stationary** when providing a public service during an incident.

## MOVE OVER/SLOW DOWN LAW

[Texas Transportation Code § 545.157](#) provides protection to certain types of vehicles operating in service to the public by requiring drivers to vacate the lane nearest the protected vehicle if an adjacent lane is available, or slow down to 20 mph less than the posted speed limit. The protected vehicles must be operating with compliant warning lights. Vehicles included in the move over/slow down law include:

- Highway maintenance and construction vehicles (including contractors) operating on a roadway without a traffic control device separating the vehicle from traffic while using amber or amber and blue flashing lights.
- Utility service vehicles (including contractors) while using amber or amber and blue flashing lights.
- Stationary municipal solid waste/recycling collection vehicles while using amber or amber and blue flashing lights.
- Stationary tow trucks while using red flashing lights.
- Stationary emergency vehicles while using red or red and blue flashing lights.

## VEHICLE LIGHTING SUMMARY

Vehicle	Color of Flashing Lights	Transportation Code
Police Vehicles	Red/Blue/White/Amber	547.305 & 547.702
Fire/EMS Vehicles	Red/Blue/White/Amber	547.305 & 547.702
Volunteer Fire/EMS	Red/Blue/White/Amber	547.305 & 547.702
School Bus	Red/White (rooftop)/Amber	547.305 & 547.701
Highway Maintenance or Construction Vehicles <sup>1</sup> and Service Vehicles <sup>2</sup>	Amber/Blue	547.105 & TxDOT Lighting Standards
Airport Security Vehicles <sup>3</sup>	Amber/Blue	22.091(b)
Security Patrol Vehicles <sup>4</sup>	Green/Amber/White	547.305
Tow Trucks <sup>5</sup>	Amber/Blue/Red	547.305, 547.702, 547.105, & TxDOT Lighting Standards
Escort Flag Vehicles <sup>6</sup>	Amber/Blue	547.305 & 623.099 & TxDOT Lighting Standards
Garbage Trucks	Amber/Blue	547.305 & TxDOT Lighting Standards
Utility Service Vehicles <sup>7</sup>	Amber/Blue	203.091 & TxDOT Lighting Standards

## FURTHER REFERENCES

*Texas Transportation Code*

[§ 545.157](#) (Passing Certain Vehicles)

[§ 547.001](#) (Definitions)

[§ 547.105](#) (Lighting Standards for Certain Vehicles)

[Chapter 547, Subchapter D](#) (General Provisions Regarding Lighting Requirements)

[§ 547.305](#) (Restrictions on Use of Lights)

[§ 623.099](#) (Escort Flag Vehicles)

## QUESTIONS?

Contact TxDOT's Fleet Operations Division at (817) 370-3674 or [Fleet\\_Operations@txdot.gov](mailto:Fleet_Operations@txdot.gov) for more information.

For law enforcement questions, contact the Texas DPS State Crash Reconstruction Team at (512) 424-5417 or [StateCrashTeam@dps.texas.gov](mailto:StateCrashTeam@dps.texas.gov).

## DEFINITIONS

<sup>1</sup> TRC 547.001 (2-b) - "Highway Maintenance or Construction Vehicle" means a highway or traffic maintenance or construction vehicle designated by the Texas Department of Transportation. The term includes equipment for:

- (A) road maintenance or construction, including:
  - (i) equipment for snow removal, line striping, skid resistance testing, sweeping, spraying, guardrail repair, sign maintenance, and temporary traffic-control device placement or removal;
  - (ii) aerial platform lift machines; and
  - (iii) road profiler machines; and
- (B) road construction or off-road use, including motor graders, road rollers, excavators, pneumatic tire equipment, movers, and tractors.

<sup>2</sup> TRC 547.001 (6-a) - "Service Vehicle" means a highway or traffic maintenance vehicle that:

- (A) is owned and operated on a highway by or for a governmental agency and performs a function requiring the use of a lamp or illuminating device in accordance with the standards and specifications adopted under Section 547.105; or
- (B) has a public service function, including public utility vehicles, tow trucks, and any vehicle designated as a service vehicle by the Texas Department of Transportation or as an escort flag vehicle under Section 623.099.

<sup>3</sup> TRC 22.091(a) - "Airport Security Vehicle" means a motor vehicle that:

- (1) is owned or leased by a joint board; and
- (2) has been designated or authorized by the joint board.

<sup>4</sup> TRC 547.305 (f)(1) - "Security Patrol Vehicle" means a motor vehicle being used for the purpose of providing security services by:

- (A) a guard company described by Section 1702.108, Occupations Code; or
- (B) a security officer as defined by Section 1702.002, Occupations Code.

<sup>5</sup> TRC 502.001 (41) - "Tow Truck" means a motor vehicle adapted or used to tow, winch, or otherwise move another vehicle.

Tow trucks must be equipped with a roof-mounted light bar that displays amber warning lights. Tow trucks may also be equipped with flashing red and blue lights, which may be used **only** at the direction of a police officer or while stationary at an incident. Amber lights should be set up to operate independently from blue/red lights.

<sup>6</sup> TRC 547.305 (f) - "Escort flag vehicle" means a vehicle that precedes or follows an oversize or overweight vehicle that precedes or follows an oversize or overweight vehicle described by Subtitle E for the purpose of facilitating the safe movement of the oversize or overweight vehicle over roads.

<sup>7</sup> TRC 203.091 - In this subchapter, "utility" includes a publicly, privately, or cooperatively owned utility that provides telephone, telegraph, communications, electric, gas, heating, water, railroad, storm sewer, sanitary sewer, or pipeline service.

## TYPES OF SERVICE VEHICLES

- Utility vehicles as defined by TRC 203.091
- Garbage trucks
- Roadside assistance vehicles
- Tow trucks
- Highway or traffic maintenance vehicles
- Escort flag vehicles under TRC 623.099 or TRC 547.305 (e-3)
- A vehicle owned by or operated for the U.S. Geological Survey or any federal, state, or local agency engaged in monitoring water conditions or maintaining/installing equipment for monitoring water conditions
- Vehicles that have a public service function

Contact the [Texas Department of Transportation](#) if you have questions about whether a specific piece of equipment is a service vehicle.