

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 per form 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 § 547.105 .
Sign maintenance	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 § 623.099) or utility service vehicles*. For a list of qualified service vehicles, see page 5.
Striping	
Skid resistance testing	
Sweeping	
Spraying	
Guardrail repair	
Temporary traffic control device placement/removal	
Lifting (e.g. aerial platform machines)	
Road profiling	
Snow removal	
Litter or road debris cleanup	

* "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 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

An authorized emergency vehicle may be equipped with signal lamps that display alternating or flashing white lights that are mounted as high and as widely spaced laterally as practicable and emit a light visible at a distance of 500 feet in normal sunlight.

Use of flashing amber lights is not prohibited under the Texas Transportation Code. Except as provided in this document, highway maintenance or construction vehicles and service vehicles must comply with Texas Transportation Code [§547.305](#). Highway Maintenance or construction vehicles are prohibited from using or being equipped with flashing white or red lights.

Service vehicles are prohibited from using or being equipped with flashing white or red lights except that tow trucks may be equipped with flashing red lights to be used in compliance with 547.305(d). Flashing blue lights may be used only as authorized in this document.

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 collecting waste from a location adjacent to the roadway.
- 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 Permitted in Certain Circumstances	Transportation Code
Police Vehicles	Red/Blue/White	547.305 & 547.702
Fire/EMS Vehicles	Red/Blue/White	547.305 & 547.702
Volunteer Fire/EMS	Red/Blue/White	547.305 & 547.702
Medical Examiner Vehicles ¹	Red/Blue	547.751
Justice of the Peace ²	Red/Blue	547.752
School Bus	Red/White (rooftop)	547.305 & 547.701
Highway Maintenance or Construction Vehicles ³ and Service Vehicles ⁴	Amber/Blue	547.105 & TxDOT Lighting Standards
Airport Security Vehicles	Amber/Blue	22.092
Security Patrol Vehicles	Green/Amber/White	547.305
Tow Trucks ⁷	Red/Blue/Amber	547.305 , 547.702 , 547.105 , & TxDOT Lighting Standards
Escort Flag Vehicles ⁸	Amber/Blue	547.305 , 623.099 & TxDOT Lighting Standards
Garbage Trucks	Amber/Blue	547.305 , 547.105 & TxDOT Lighting Standards
Utility Service Vehicles ⁹	Amber/Blue	203.091 , 547.105 & 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)

[§547.702](#) (Additional Equipment Requirements for Authorized Emergency Vehicles)

QUESTIONS?

Contact TxDOT's Fleet Operations Division at (817) 370-3674 or 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.

DEFINITIONS

¹ TRC [547.751](#) (new legislation) - "medical examiner vehicle" means a motor vehicle that is owned or leased by a governmental entity for use by a medical examiner or an employee of an office of a medical examiner in the performance of the examiner's or employee's duties relating to an inquest conducted under Subchapter B, Chapter 49, Code of Criminal Procedure. This vehicle may be equipped with flashing red or red and blue signal lamps that may be used only when the vehicle is being operating in the course and scope of the operator's duties relating to an inquest.

² TRC [547.752](#) (new legislation) - A vehicle operated by a Justice of the Peace in the course and scope of the justice's duties as a coroner under Subchapter A, Chapter 49, Code of Criminal Procedure may be equipped with flashing red or red and blue signal lamps.

³ [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.

⁴ 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.

⁵ 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.

⁶ 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.

⁷ TRC [547.305\(f\)\(3\)](#) - "Tow truck" means a motor vehicle or mechanical device that is adapted or used to tow, winch, or move a disabled vehicle.

⁸ TRC [547.305\(f\)\(1\)](#) - "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.

⁹ 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 HIGHWAY MAINTENANCE OR CONSTRUCTION VEHICLES

- Road construction vehicles and equipment
- Sign maintenance vehicles
- Striping vehicles
- Skid resistance testing vehicles
- Sweeping vehicles
- Spraying vehicles
- Guardrail repair vehicles
- Temporary traffic control device placement/removal vehicles
- Lifting (e.g. aerial platform machines)
- Road profiling vehicles
- Snow removal vehicles
- Ice treatment vehicles
- Litter or roadway debris cleanup vehicles

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.