MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

Maryland State Highway Administration

Positive Protection Policy

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Work Zone Final Rule

Federal Register Docket No. FHWA-2022-0017

- The **FHWA amended** its **regulations** (23 CFR Part 630) that govern traffic safety and mobility in work zones in December 2024
- Builds on the 2007 and 2008 Final Rule
- Focus on implementing work zones to **prioritize worker and motorist safety** while minimizing travel disruptions.
- Subpart K - Temporary Traffic Control Devices discusses **positive protection requirements**

Policy & Procedures for work zone safety management

SHALL

1. Requires a Transportation Management Plan (TMP) for all Federal-aid projects
2. **Address the use of Positive Protection Devices**
3. Address the use of Exposure Control Measures
4. Address the use Other Traffic Control Measures
5. Be based on an Engineering Study
6. Address the use of uniformed law enforcement
7. Address safe entry/exit of work vehicles onto/from the travel lanes
8. Include the appropriate pay item provisions for implementing the project Transportation Management Plan (TMP) in plans, specifications and estimates
9. Develop and implement quality guidelines for adequacy of the temporary traffic control devices for the duration of the project

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2025

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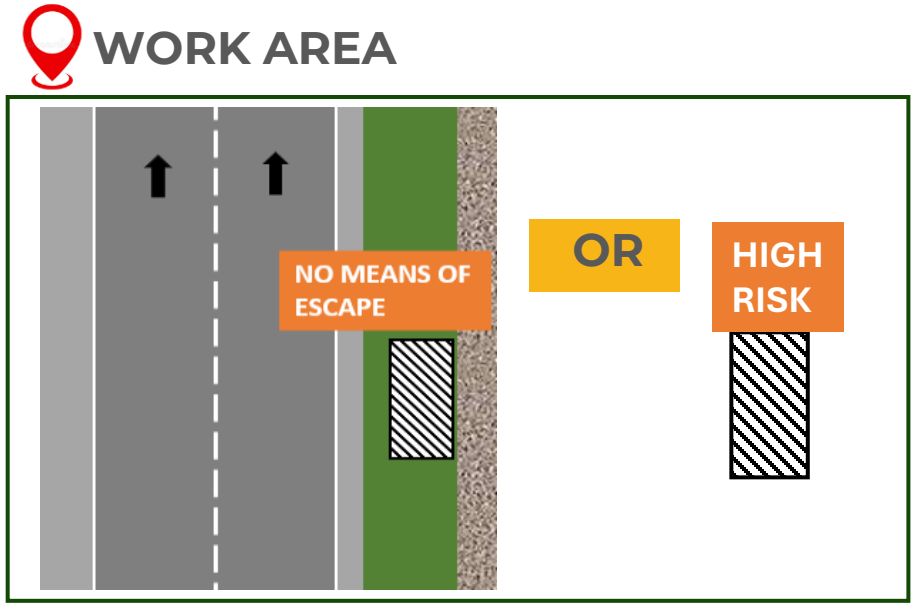
Positive Protection Devices

U.S. Department of Transportation Federal Highway Administration

At a minimum, the agency **SHALL use** positive protection devices in work zones with **high anticipated operating speeds** that provide workers **no means of escape from motorized traffic** *unless an engineering study determines otherwise*. Positive protection devices **SHALL be considered** in other **situations that place workers at increased risk**.



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Positive Protection Devices in Work Zones

COMPLIANCE DATES

1) **Develop Policy by December 31, 2025**
2) **Implement policy on** projects scheduled for construction on or after **December 31, 2026**
   - **Includes new projects and existing projects still in construction at this time**

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SHA Positive Protection Policy

- Replaces **2008 Temporary Traffic Barrier Policy**
- Aligns SHA requirements with **23 CFR Part 630 Subpart K**
- Reinforces SHA commitment to:
  - Worker safety
  - Road user safety
  - Consistent work zone protection practices

Maryland Definitions

- **High Speed** - Use posted speed of **45 MPH** or greater as the threshold.
  - Based on current Standards and Guidelines

- **Positive Protection Devices** - Use FHWA Rulemaking Definition:
  - "Devices that contain or redirect vehicles and meet applicable industry crashworthiness evaluation criteria. "

Examples: Temporary Traffic Barrier, W-beam Traffic Barrier, Moveable Barrier, Mobile Barrier, Protection Vehicle.

Maryland Definitions

- **Escape for Workers**
  - A clear, open escape area where no physical barrier or significant drop-off prevents a highway worker from safely moving out of the path of an intruding vehicle…?
  - Based on Engineering Judgement

No Escape Path Examples:
Tunnels, retaining walls, bridge abutment, guardrail, or long, steep slope.

Positive Protection Devices in Work Zones

1. Highways (Speed Limit ≥ 45 mph)

a. **Positive protection devices are required for any work duration** when any of the following conditions apply:

- No safe worker escape route
- Work on roadway / shoulder
- Work within 15 ft of open lane
- Unprotected hazards in clear zone

b. **Temporary traffic barrier shall be used when:**

- Work lasts 2+ weeks
- Work limits unchanged

Positive Protection Devices in Work Zones

2. Expressway/Freeway (Speed Limit ≥ 45 mph)

Additional Requirements:

a. If work is in the travel lane:

- **Full closure** should be considered first.
- If full closure is not feasible, **temporary traffic barriers** shall be used as positive protection.

b. If work is on the shoulder or within 15 feet of an open travel lane:

- **Temporary traffic barriers** shall be used as positive protection

Supplementary Positive Protection Assessment

- Positive protection should also be considered when workers face increased risk due to:
  - Project scope and duration
  - Traffic volume / speed / vehicle mix
  - Worker proximity to traffic
  - Type of work activity
  - Time of day / night work
  - Road geometry / sight distance
  - Workspace restrictions / access limitations

Additional Risk Reduction Measures

- **Exposure Control Measures**
  - Full / Partial Road Closures
  - Detours / Diversions
  - Ramp Closures
  - Night / Off-Peak Work
  - Buffer Lanes
  - Accelerated Construction / Phasing
- **Other Traffic Control Measures**
  - Additional Signing / CMS
  - Law Enforcement / Speed Cameras
  - Intrusion Alarms
  - Portable Rumble Strips
  - ITS Devices / Speed Display Trailers

Positive Protection Exception Process

- **If positive protection is required but not feasible:**
  - Engineering study required
  - Complete Exception Form
  - District Office approval required
  - Forward to Central Design Office – Office of Traffic and Safety

Positive Protection Blanket Exceptions

- **Short Duration Projects**
  - A single shoulder/lane closure
  - Off-peak hours
  - Protection vehicle(s)

EXAMPLE PROJECT TYPES

- **Roadway and shoulder maintenance** – patching, sweeping, and joint filing and crack sealing
- **Mobile Operations** – mowing, line striping, litter pick up
- **Roadside and drainage maintenance** – litter pickup, animal removal, foliage/tree-tree limb removal, maintaining stormwater management areas and mowing
- **Traffic services** – repairing traffic barrier or barrier end treatment/attenuators, and sign maintenance and inspection
- **Structure maintenance** – graffiti removal, bridge inspection and maintaining noise abatement walls
- **Maintenance Support Services** – may include roadway lighting maintenance or repair, signal/ITS devices (such as cameras or DMS) construction and maintenance repairs, and winter maintenance
- **Adopt a Highway** and **Sponsor a Highway Programs**

On-going Efforts

- **Utilization of Protection Vehicles (PV)**
  - Revise the current mandatory use posted speed limit threshold **from 55 MPH to 45 MPH**
  - Use of **additional PVs** when there is a safety concern

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION
TEMPORARY TRAFFIC CONTROL DEVICE SELECTION CHART
PROTECTION VEHICLE (PV) UTILIZATION MATRIX

DRAFT UNDER REVISION

LOCATION OF WORK	POSTED SPEED LIMIT **	ROADWAY TYPE	DURATION				
			MOBILE OPERATIONS		SHORT DURATION ACTIVITY	SHORT-TERM STATIONARY	LONG-TERM STATIONARY
			MOVING SLOW * , ****	MOVING NORMAL	< 15 MIN/ LOCATION ****	15 MIN-12 HRS AND DAYTIME ****	> 12 HRS OR NIGHT TIME ****
ON ROAD	> 40 MPH	TWO LANE, TWO-WAY	RQ		RQ	RQ	RQ
		MULTILANE UNDIVIDED	RQ		RQ	RQ	RQ
		MULTILANE DIVIDED UNCONTROLLED	RQ		RQ	RQ	RQ
		MULTILANE DIVIDED CONTROLLED (FREEWAY/EXPRESSWAY)	RQ		RQ	RQ	RQ
	≤ 40 MPH	TWO LANE, TWO-WAY					
		MULTILANE UNDIVIDED					
		MULTILANE DIVIDED UNCONTROLLED					
		MULTILANE DIVIDED CONTROLLED (FREEWAY/EXPRESSWAY)			RQ	RQ	RQ
ADJACENT TO ROAD ***	> 40 MPH	TWO LANE, TWO-WAY	RQ			RQ	RQ
		MULTILANE UNDIVIDED	RQ			RQ	RQ
		MULTILANE DIVIDED UNCONTROLLED	RQ			RQ	RQ
		MULTILANE DIVIDED CONTROLLED (FREEWAY/EXPRESSWAY)	RQ			RQ	RQ
	≤ 40 MPH	TWO LANE, TWO-WAY					
		MULTILANE UNDIVIDED					
		MULTILANE DIVIDED UNCONTROLLED					
		MULTILANE DIVIDED CONTROLLED (FREEWAY/EXPRESSWAY)				RQ	RQ

KEY: RQ - REQUIRED

* MOVING SLOW MEANS TRAVELING BELOW THE POSTED SPEED BY MORE THAN 15 MPH.

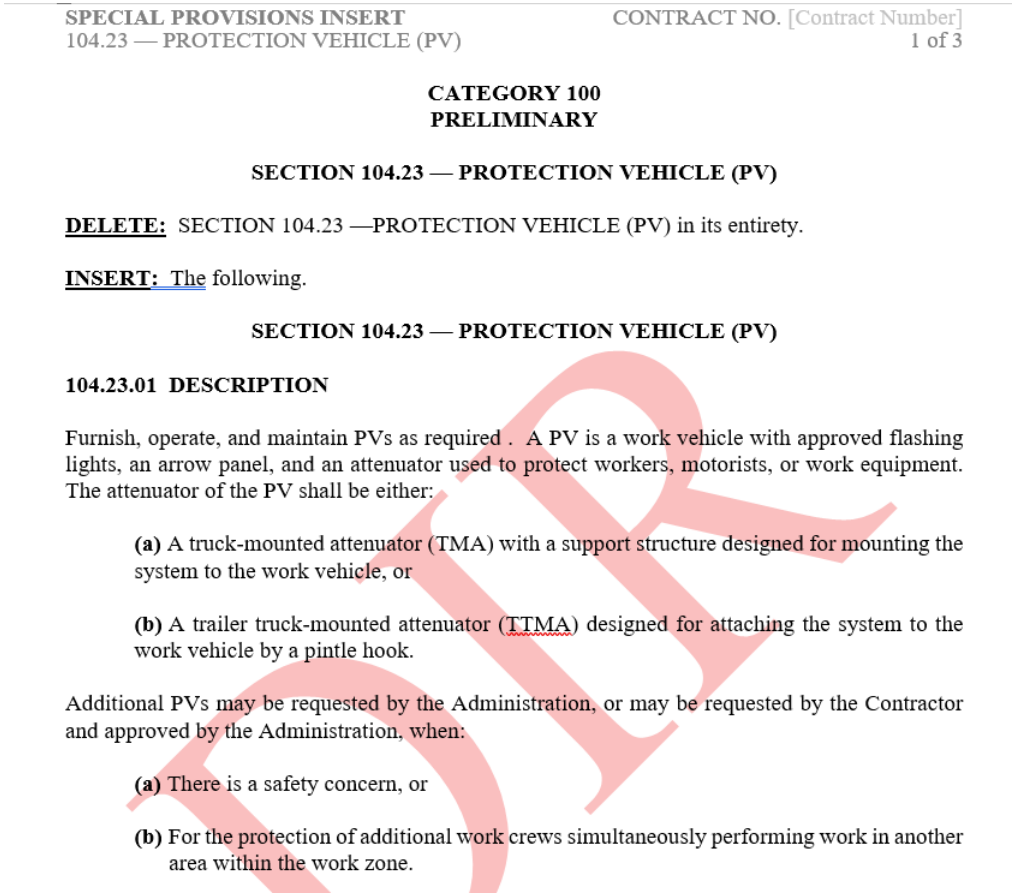
** FOR OFF-RAMPS USE THE POSTED SPEED LIMIT OF THE MAINLINE IN THE VICINITY OF THE RAMP. FOR ON-RAMPS USE THE POSTED SPEED LIMIT OF THE MAINLINE IN THE VICINITY OF THE MERGE POINT. FOR RAMP CONNECTING TWO ROADWAYS, USE THE LARGER POSTED SPEED LIMIT OF THE TWO MAINLINES.

*** ADJACENT TO THE ROAD MEANS WITHIN 15 FEET OF THE EDGE OF TRAVEL LANE.

**** SEE NOTE 1

On-going Efforts

- **Revise Protection Vehicles (PV) Related Specifications**
  - Update **speed threshold**
  - Use of **Additional PVs** for safety



SPECIAL PROVISIONS INSERT
104.23 — PROTECTION VEHICLE (PV)

CONTRACT NO. [Contract Number]
1 of 3

CATEGORY 100
PRELIMINARY

SECTION 104.23 — PROTECTION VEHICLE (PV)

DELETE: SECTION 104.23 —PROTECTION VEHICLE (PV) in its entirety.

INSERT: The following.

SECTION 104.23 — PROTECTION VEHICLE (PV)

104.23.01 DESCRIPTION

Furnish, operate, and maintain PVs as required . A PV is a work vehicle with approved flashing lights, an arrow panel, and an attenuator used to protect workers, motorists, or work equipment. The attenuator of the PV shall be either:

(a) A truck-mounted attenuator (TMA) with a support structure designed for mounting the system to the work vehicle, or

(b) A trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a pintle hook.

Additional PVs may be requested by the Administration, or may be requested by the Contractor and approved by the Administration, when:

(a) There is a safety concern, or

(b) For the protection of additional work crews simultaneously performing work in another area within the work zone.

DR

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STATE HIGHWAY ADMINISTRATION

Maryland State Highway Administration
Office of Traffic and Safety

THANK YOU!

For Questions Contact:
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STATE HIGHWAY ADMINISTRATION

FEDERAL REGISTER The Daily Journal of the United States Government

Federal Register Docket No. FHWA-2022-0017

https://www.federalregister.gov/documents/2024/11/01/2024-25065/work-zone-safety-and-mobility-and-temporary-traffic-control-devices