# NCHRP 17-113 COUNTERMEASURES

# Install Pedestrian Hybrid Beacon (PHB or HAWK) with Advanced Yield or Stop **Markings and Signs**



Pavement and roadside markings/signs guiding drivers to stop/yield earlier to improve pedestrian visibility and safety at crossings.

## Implementation Strategy

#### How and Where to Apply

- Install Pedestrian Hybrid Beacons on multilane roadways with high vehicle speeds, where pedestrian activity is frequent, and traffic signals are unwarranted, but safety concerns persist.
- Use PHBs at midblock or unsignalized pedestrian crossings where driver yielding behavior is poor and crash history indicates a high risk for pedestrian-vehicle conflicts.
- The **FHWA** states that this marking can be used "Pedestrian Hybrid Beacons have demonstrated a 55% reduction in pedestrian crashes and are considered a Proven Safety Countermeasure by FHWA."

Use in a Safe System Approach This treatment supports the Safe System Approach by creating Safer Roads and Safer People. It ensures visibility, attention, and safe yielding behavior through proactive warning systems and spatial separation between vehicles and pedestrians.

#### **Key Stakeholders**

State and local transportation agencies, Metropolitan Planning Organizations (MPOs), Pedestrian Advocacy Groups and Community Organizations

**Proactive Implementation** Transportation agencies can proactively deploy PHBs at high-risk pedestrian crossing locations especially midblock or multilane corridors before crash thresholds are exceeded or signal warrants are formally met. Prioritizing underserved areas, school zones, and transit stops ensures equitable safety outcomes. Integrating PHBs with systemic safety planning helps address crash risk through predictive, rather than reactive, safety improvements.

#### **Countermeasure Overview**

Objective: Improve Sight Distance and/or Visibility Between Motor Vehicles and Pedestrians Strategy: Signals to Alert Motorists That Pedestrians Are Crossing

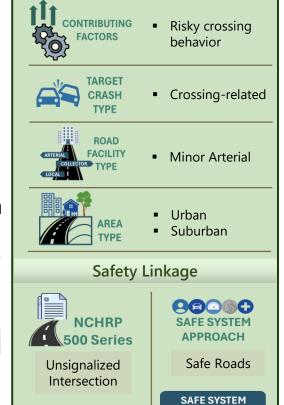
### Selected Related Countermeasures

- CM1 Advanced Yield/Stop Markings and Signs
- High-Visibility Crosswalks
- Pedestrian Refuge Islands

**Cost:** \$ (Moderate)

**Service Life:** 10 years

**Benefit-Cost Ratio:** 



**ROADWAY DESIGN** 

TIER 1

Tier 3

**Targeted Solution** 

Source: Driven2Drive

**AASHTO'S** 

**TOWARD ZERO** 

**DEATHS** 

Safer

Infrastructure



Reduce vehicle/pedestrian crashes for urban and suburban types of roads 1

Reduce all crashes for urban and suburban types of roads 2

<sup>2</sup> CMF ID: 9022





#### Resources

- FHWA Proven Safety Countermeasures
- Manual on Uniform Traffic Control Devices (MUTCD)

