

Crosswalks

Purpose

Start an informed conversation with planners and engineers about making street crossings safer and easier to use.

Overview

New Mexico law defines crosswalks as (a) the part of a road at an intersection between the edges of the traversable roadway and (b) any marked crossing intended for pedestrians. In other words, crosswalk markings do not necessarily need to be painted on the road in order for a legal crosswalk to be present. In addition to surface markings, crosswalks may have other features — usually referred to as *interventions* or *countermeasures* — to make them safer. Choosing the right features depends on factors such as location, speed limit, traffic volume, and road width. No matter how they look, the goal of all crosswalks is the same: to get pedestrians safely across a road. They accomplish this by guiding pedestrians and alerting drivers.

Location is the most important factor to consider when creating a new crosswalk. A crosswalk must be in a convenient and safe location for pedestrians. Most people will not go out of their way to use a crosswalk that is not in a useful location. The Community Guide supports this with their recommendation to implement *built environment approaches combining transportation system interventions with land use and environmental design*. Crosswalks should connect everyday destinations such as neighborhoods, schools, parks, and businesses. Engineers should also place crosswalks where drivers will expect them. This includes intersections, central business districts, and stretches of road with long sight distances (i.e., not on blind turns). Engineers should conduct an engineering study before installing a new crosswalk.

There are two general locations for crosswalks: intersections and mid-block crossings. Intersections are legal crosswalks whether or not they are marked as such. Mid-block crossings must be marked to be legal crosswalks. Longitudinal stripes (i.e. “piano keys”) are the preferred surface marking. These are much easier for drivers to see than lateral stripes (Figure 1).

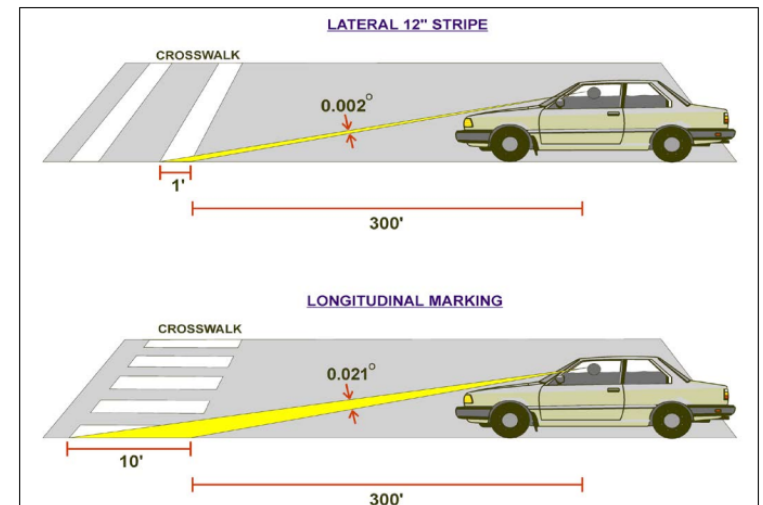


Figure 1 Longitudinal marks (“piano keys”) are much easier for drivers to see from afar than lateral stripes.

An advanced yield line (i.e. “shark teeth”) or advanced stop line makes a crosswalk even safer by alerting drivers to slow down or stop well before the actual crosswalk (Figure 2).

The faster a person is driving, the less they are paying attention to their surroundings. The Federal Highway Administration (FHWA) recommends that any crosswalk on a road with a 40 MPH or greater speed limit have more than just surface markings to indicate its presence. A pedestrian hit by a car at 40 MPH has an 85% chance of dying. One type of treatment to make crosswalks safer is signage to alert drivers of upcoming crosswalks. This includes stop signs, yield signs, or pedestrian signs. The signs could also incorporate embedded lighting or flashing beacons (Figure 3).

The shorter and wider a crosswalk, the safer it is. A pedestrian crossing a long crosswalk is exposed to oncoming traffic for a greater amount of time. To prevent long crossings on wide roads, engineers may use a raised median or pedestrian island to break a long crossing into multiple short crossings. Pedestrians have a safe place to pause if they are unable to cross the entire road at once. The FHWA recommends using a raised median or pedestrian island for any crossing on a busy road with four or more lanes of traffic. Such medians reduce crashes by as much as 40%. Installing an angled cut through the median makes the crossing even safer because it requires pedestrians to face oncoming traffic before continuing (Figure 4).



Figure 2 An advanced yield line (“shark teeth”) and yield sign alert drivers to the upcoming crosswalk and encourage them to slow down.



Figure 3 A pedestrian crossing sign with a flashing beacon. This sign makes it easier for approaching drivers to see an upcoming crosswalk. In some cases, the beacons are activated by the pedestrian pushing a button when they are ready to cross.

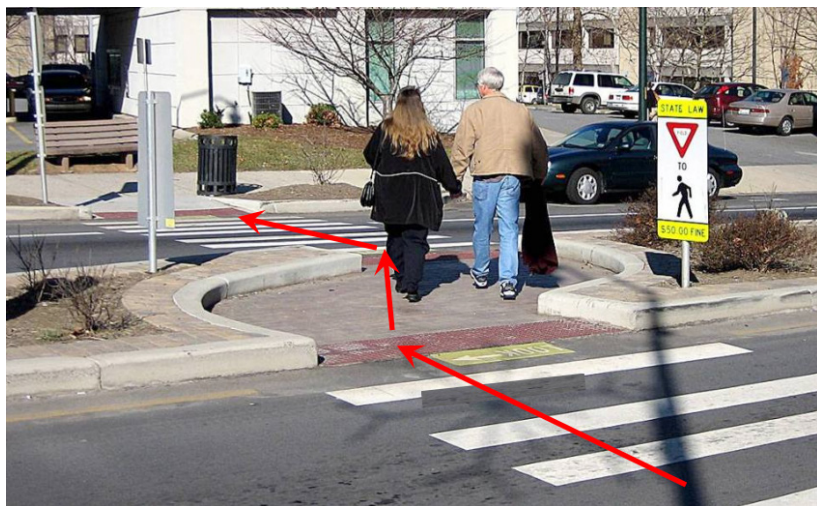


Figure 4 Crosswalk with a pedestrian island that features an angled cut-through. The island gives pedestrians a safe place to wait if they are not able to cross the entire road between cars. The angled cut-through forces pedestrians to turn slightly and look to oncoming traffic. This crosswalk also has yield signs to make the crossing even more obvious to drivers.

Raising crosswalks is another way to make them safer (Figure 5). A raised crosswalk is a crosswalk that sits on top of a wide speed bump. This makes pedestrians easier for drivers to see. Raised crosswalks, like speed bumps, are most appropriate on streets with low speed limits.

Crosswalks should be illuminated whenever possible. As many as half of pedestrian crashes occur at night. That's a large proportion, considering that both pedestrians and drivers spend much more time on the road during daylight hours. Lighting can reduce the odds of pedestrian fatalities by more than 50% (Figure 6). There are options for low cost, solar powered lights. There are also lights designed to reduce glare, limiting light pollution and conserving the dark skies of rural New Mexico.

These are just some of the interventions that planners and engineers will consider when creating or upgrading a crosswalk. They may combine interventions to come up with the safest possible crosswalk for a given location.



Figure 5 A Federal Highway Administration survey found that raised crosswalks increase pedestrian visibility and the likelihood that a driver yields to pedestrians, especially when combined with a flashing overhead light.

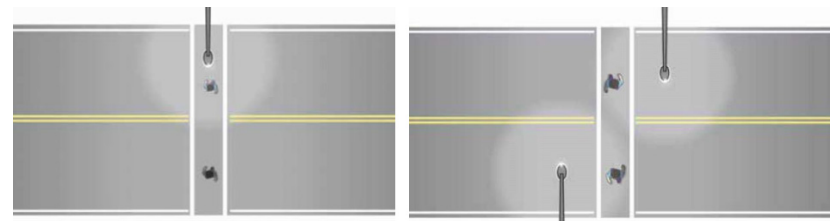


Figure 6 Older crosswalk lighting places lights directly above the crosswalk (left). Recent research has shown that pedestrians are easier for drivers to see when lights shine down directly in front of the crosswalk instead.

Steps

Knowing whom to contact about fixing or installing a crosswalk depends on the agency responsible for the road. The state, counties, and towns are each responsible for different roads. If the road belongs to the state, contact the district engineer that covers your area. The New Mexico Department of Transportation divides the state into six transportation districts (see Resources on the next page). Each district has a district engineer and assistant district engineers. These are the individuals responsible for building and maintaining crosswalks on state roads. They will conduct a study to determine which treatments are best suited to a particular crosswalk. If the road belongs to the county or town, contact the appropriate planning or public works department. If you're unsure which agency is responsible, ask someone from your Regional Transportation Planning Organization (RTPO). Your RTPO or local government may also be able to conduct a road safety audit. A road safety audit is a formal evaluation of a road or intersection.

Resources

- [Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations](#)
- [Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [New Mexico Transportation District Engineers & Information](#)
- [Pedestrian Safety \(NMSU Police\)](#)
- [Safe Routes to School Guide: Marking and Signing Crosswalks](#)
- [Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations](#)
- [Small Town and Rural Multimodal Networks](#)

Questions? Comments?

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