
GRADE-SEPARATED CROSSINGS



An underpass continues this shared use bicycle path beneath a 4-lane highway with high traffic volume

DEFINITION

A grade-separated crossing provides continuity of a bicycle/pedestrian facility over or under a barrier. A bicycle/pedestrian crossing structure may be either a bridge or an underpass.

WHEN TO CONSIDER THIS TYPE OF FACILITY

A grade-separated crossing should be considered when a bicycle facility meets a barrier, such as an active multi-track railroad, stream, or freeway, and continuity of the route is desired. There are two main types of grade-separated crossings: overpasses (bridges) and underpasses (most often these would be culverts). When a heavily utilized multi-use

pathway intersects with a high volume multi-lane roadway, it is desirable to provide an overpass or an underpass to separate multi-use pathway users from conflicts with motor vehicle traffic.

- A grade-separated crossing is a safe way for bicyclists and pedestrians to cross rivers, streets, and railroads.
- This type of crossing provides continuity of the bicycle or pedestrian facility.

PRINCIPAL PLANNING CONCERNS WITH GRADE-SEPARATED CROSSINGS

- This type of facility can be expensive and difficult to implement. For these reasons, advance planning, identification of a source of funds, and a compelling purpose and need are primary factors in obtaining approval for construction of bicycle/pedestrian bridges or underpasses.
- Bicycle/pedestrian grade separations that are to be included as part of state highway construction projects should already be identified in locally adopted bicycle or greenway master plans by the time a proposed highway improvement is in the early stages of development.
- Many bicyclists and pedestrians will not use an overpass that is inconvenient. Instead, pedestrians may choose a time saving, and sometimes more hazardous crossing. Fencing or other controls may be required to reinforce the safe crossing point.

PLANNING AND DESIGN CONSIDERATIONS

There are many safety considerations when proposing this type of facility, such as lighting, maintenance, and bicycle/pedestrian friendly design features. The key items to consider when planning a grade-separated crossing is a well-justified purpose and need for continuing the facility over or under a barrier. It is important to consider the need for bicycle/pedestrian overpasses and underpasses in conjunction with future highway improvements when local bicycle or greenway master plans are being developed.

TYPICAL CULVERT CROSSING FOR MULTI-USE PATH

