

Complete Streets

In the last decade transportation planners and urban designers have made a significant shift in their approach to the design and intended function of streets. Conventional transportation planning was concerned primarily with the safe and efficient movement of cars. Today many transportation planners are working with land-use experts and urban designers to create what have been termed "complete streets."

WHAT ARE COMPLETE STREETS?

A complete street is a safe, accessible, and convenient street for all users regardless of transportation mode, age, or physical ability. Complete streets adequately provide for bicyclists, pedestrians, transit riders, and motorists. Complete streets promote healthy communities and reductions in traffic congestion by offering viable alternatives to driving.

Democratizing the Streets. Because streets and roads are the largest component of public space in every city, they should benefit the entire community. Improved design, a redefinition of function, and physical reorganization are the ways to achieve these benefits. Jurisdictions that adopt complete streets policies aim to create a comprehensive and integrated local and regional transportation network for all travel modes—driving, walking, and cycling.

Policy Considerations. Creating complete streets may mean changing the policies and practices of transportation agencies. Advocates argue that it will take new training, new procedures, and design manual changes to accommodate bicycling, walking, and transit to an equal degree with motor vehicles.

Different Approaches. The principle behind complete streets policy is that multimodal corridors should become the default design mode for streets—and a formal exception process must be followed when they are not. Many existing policies are based on the U.S. Department of Transportation's

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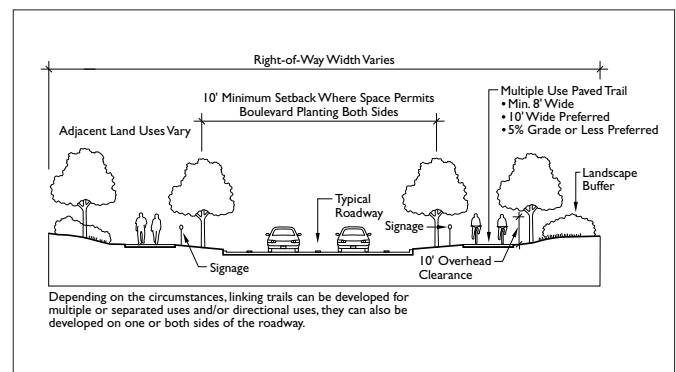
design guidance for Accommodating Bicycle and Pedestrian Travel: A Recommended Approach, which names only three exceptions where roads can lack facilities for all users: (1) excessive cost, (2) absence of need, and (3) roads where bicyclists and pedestrians are prohibited. More comprehensive policies include accommodation for people with disabilities and for transit vehicles and users.

COMPLETE STREETS DESIGN CONSIDERATIONS

Skinny Streets. Skinny, or narrow, streets complement complete streets policies. Narrower traffic lanes result in slower travel speeds that translate into safer, more accessible, and more pleasant thoroughfares for all users. A physical narrowing of the actual street may be unnecessary because on-street parking can also visually narrow the thoroughfare for drivers.

Street Connectivity. Street connectivity—meaning the directness and length of the street blocks and the density of connections within a street system— influences the accessibility of destinations in a community and holds important implications for modal choice. Complete streets in areas with higher levels of street connectivity will produce greater overall accessibility for all travelers, regardless of the mode they choose.

Context-Sensitive Streets. All streets are not alike. Streets in industrial areas have a much different character than streets in residential, commercial, and mixed use districts. Traffic engineers and urban designers are beginning to combine the functional classification of streets with their adjacent land uses to yield a more comprehensive array of street types. This approach takes into account land uses adjacent to the street and recommends five basic classes of street design: commercial streets,



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Linking trails emphasize safe travel for pedestrians to and from parks and around the community.

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mixed use streets, main streets, residential streets, and industrial streets. Streets in each class can be designed as complete streets.

Complete Streetscape Design

Elements. Undertaking major construction projects to achieve complete streets is not always necessary. In fact, small projects can have a large impact. Examples include raised medians, pedestrian refuge islands within medians, bicycle lanes, bus pullouts, transit shelters, and street furniture.

COMPLETE STREETS ARE FOR EVERYONE

Pedestrian Safety. Communities with complete streets policies protect travelers from cars. Walkways should provide secure footing, pedestrian pathways should be clearly indicated, and signaling must consider the rights of all users of the road. Designing the street with pedestrians in mind—sidewalks, raised medians, better bus stop placement, traffic-calming measures—all improve pedestrian safety. One study found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian risk by 28 percent.

Public Health. Public health officials are calling for Americans to increase their physical activity. Officials argue that increased walking and bicycling will help to combat the current obesity epidemic. A 2002 report issued by the National Conference of State Legislators noted that the most effective policy for encouraging bicycling and walking is complete streets.

Vulnerable Populations. Truly complete streets go beyond accommodating bicycling and walking to consider children, the elderly, and people with a disability. More often than not, the elderly and people with disabilities rely on the pedestrian and transit infrastructure for access and mobility. Complete streets policies make it possible for vulnerable populations to better use transportation systems by equipping streets with the necessary infrastructure, including curb ramps, textured and varied pavement, audible crossing signals, countdown signals, and high-visibility crosswalks.



Multimodal streets like this one improve access and safety for drivers, pedestrians and cyclists.

DEVELOPING WITH COMPLETE STREETS

Economic Development. Streets create marketable value for abutting private property by providing access. Complete streets can increase the economic viability of a city district by improving access for more people, thus increasing the potential number of customers to businesses.

Transit-Oriented Development. Complete streets policies go hand in hand with transit-oriented development (TOD). Traffic-calming measures, streetscape improvements, and transit have successfully been combined to revitalize entire commercial districts. Both residential and commercial projects near transit typically appreciate in value more rapidly than other projects. In a TOD land uses and infrastructure are arranged to encourage and to facilitate the use of transit while accommodating a range of travel modes and purposes. Transition points where travelers transfer easily from one mode of transportation to another are key features of both complete streets and TODs.



Multimodal streets like this one improve access and safety for drivers, pedestrians and cyclists.

Challenges. One challenge to complete streets implementation is a lack of right-of-way in cramped thoroughfares. Another is the misconception that complete streets cost more to build than “normal” streets when, in fact, complete streets most often cost no more and many times can cost less. Current methodologies for studying traffic pose another problem. Many contemporary traffic studies fail to consider how the presence of transit and decreases in automobile use associated with mixed use neighborhoods may lower trip generation rates. Communities should reevaluate traffic studies based on antiquated trip generation models. *Patrick C. Smith*

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