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Street Types

Boston's streets have developed their character over centuries of growth and evolution. Short, meandering streets in historic areas such as the North End and Highland Park cede to more generously scaled, 20th century tree-lined boulevards. Residential streets with narrow setbacks intersect linear connector roads, curvilinear parkways, and lively small-business districts. As the city continues to evolve, understanding how different streets interact with adjacent land uses and contexts is central to creating Complete Streets. This chapter defines new character and context-based Street Types to supplement the traditional functional classification system.





Street Type Principles

The City of Boston has developed a new set of Street Types that classify Boston's streets based on the adjacent land uses and character of the street, in order to guide both future development and road design projects. The new Street Types will supplement the traditional functional classification system of streets, and support Complete Street designs that reflect the diverse range of conditions in Boston. Guidance is provided throughout each chapter of how different elements of the public realm, such as roadways, sidewalks, intersections, and uses along the curb, should function in respect to Street Types.

Street Types are not necessarily continuous along the entire length of a street; a single street may change typology as the surrounding land uses or functions of the road changes. For example, a street may transition from a Neighborhood Residential to a Neighborhood Main Street, and then back to a Neighborhood Residential Street again as it passes through the commercial center of a community.

Different Street Types serve different functions; every street is unique and each Street Type plays an important role in the surrounding neighborhood. Roadway designs and streetscape projects must support Boston's economy and local businesses. Designs should balance the movement of freight and motor vehicles with the goal of creating vibrant, lively public spaces that enhance the quality of life for residents and encourages healthy living and active transportation.

Street typology has been defined using the following principles:

Multimodal

- ▶ Designs must prioritize users based on the context of the Street Type, and aim to equitably share limited right-of-way space. Each Street Type will balance the needs of users, giving priority based on the context, land use, existing built environment, and constraints of each site.
- ▶ Within Boston's constrained right-of-way, trade-offs to achieve multimodal streets must be balanced and equitable, and should always strive to promote healthy and active transportation. Depending upon the Street Type, the degree of accommodations for walking and bicycling will vary; a Downtown Mixed-Use Street will typically accommodate wider sidewalks with street furniture, trees and greenscape, and transit stop amenities, while a Neighborhood Residential Street may have narrower sidewalks, on-street parking, and "neighborway" treatments. Regardless of tradeoffs, all Street Types must consider the needs of pedestrians and bicyclists.

Green

- ▶ Boston is a city with a wealth of historic sites and buildings, treasured landscapes, and vital waterways and harbors. Each location in the city has a rich and sensitive environmental context, with specific local concerns of sea level rise, falling ground water levels, water and air quality, and historic preservation. Street design and redevelopment projects should determine how the design of the street functions with the natural and existing built environment, and seek to protect and preserve those resources.
- ▶ Street trees and greenscape should be selected based on the context of the surrounding environment in conjunction with available right-of-way space. When selecting trees and plantings, consideration should be given to the context of the neighborhood and local environment, especially for the purpose of phytoremediation, or the use of plants to remove and treat pollutants in the water, ground, and air; Industrial Street Types are particularly important locations to include phytoremediation strategies.

Smart

- ▶ Smart technology should optimize the functionality of a street while remaining sensitive to the character of Boston's different Street Types. As technology progresses, the City aims to monitor and enhance curbside uses such as parking, as well as energy efficiency, signalization, and wayfinding with respect to the street typology.

1 STREET TYPES



Functional Classification and Boston's Street Types

- 6 Downtown Commercial**
- 7 Downtown Mixed-Use**
- 8 Neighborhood Main Street**
- 9 Neighborhood Connector**
- 10 Neighborhood Residential**
- 11 Industrial**
- 12 Shared Streets**
- 13 Parkways**
- 14 Boulevards**

Functional street classification systems use a hierarchy to group classes of streets based on the relative emphasis of vehicle mobility versus property access. The system is used to design roads that support different speeds, volumes, and types of traffic. On one end of the spectrum are **arterial** roadways, which facilitate higher vehicle speeds and longer trips, and accommodate the greatest number of trips for all modes of travel. At the other end of the spectrum are **local** streets, which provide easy access to individual residences at slower speeds. In between arterial and local streets are **collectors**, streets characterized by a balance between access and mobility.

The functional classification system is the basis for most local, state, and national roadway design guides and manuals. The functional classifications are based on operational characteristics predominantly for the mobility and capacity of motor vehicles, and are used to recommend values for elements such as lane widths, speeds, geometry, and intersection design.



Functional classification systems predominantly emphasize the operational characteristics for the mobility and capacity of motor vehicles.

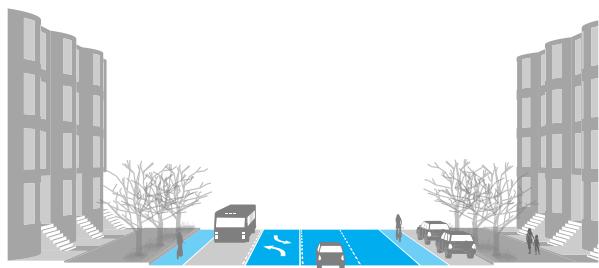
Functional Classification System

- Arterials
- Collectors
- Locals

The traditional classifications by themselves, however, are not sufficient when designing a Complete Street. Street design must also take into consideration the local neighborhood context, such as the type and concentration of adjacent land uses, since these factors influence how the street is used. A more nuanced system that reflects the diverse uses and functions of Boston's streets is necessary to supplement the functional classification system. Boston's Street Types were developed to provide additional guidance during the selection of design elements, and can serve as models or options when communities need to make informed choices in the visioning process of a corridor redesign project.

Boston's Street Types offer a balance between functional classification, adjacent land uses, and the competing needs of all transportation modes. Each Street Type prioritizes users and various design elements based on the context and character of the neighborhood and street. Within Boston's constrained public right-of-way, trade-offs must be balanced and equitable, and should always encourage the healthy and active transportation options of bicycling and walking.

In addition to reflecting a range of land use contexts, the new Street Types include three special types—Shared Streets, Parkways, and Boulevards—that are characterized more by design elements unique to that type of street rather than solely by adjacent land use.



Complete Street Types help supplement functional classification by balancing operational capacity and mobility with the context and character of the street and surrounding neighborhood.

Boston's Street Types

- Downtown Commercial
- Downtown Mixed-Use
- Neighborhood Main Street
- Neighborhood Connector
- Neighborhood Residential
- Industrial
- Shared Street
- Parkway
- Boulevard

Downtown Commercial

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

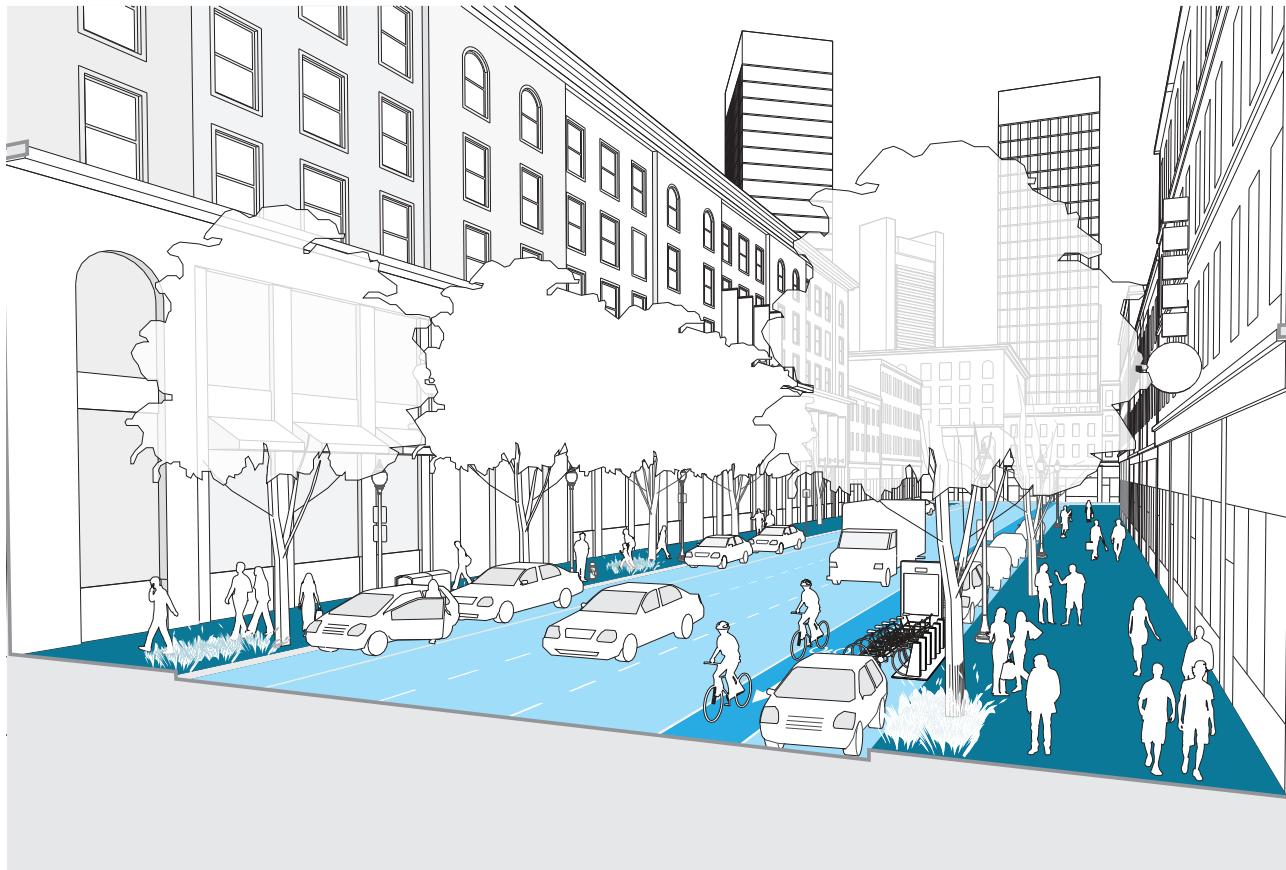
Downtown Commercial Streets define Boston's dense commercial core. These Street Types are found primarily in the Financial District, Government Center, Chinatown, the Leather District, Back Bay, and the South Boston Waterfront. Containing a mix of mid- and high-rise office buildings, the streets serve as international cultural destinations and connect with highways and transit hubs that serve the Greater Boston region.

These often iconic streets play a key role in the regional movement of people, and designs must support extremely high user volumes. Congestion, commercial vehicle traffic, and high volumes of pedestrians and bicycles, combined with relatively short blocks and numerous irregular intersections, make achieving the right modal balance a considerable challenge. Lined with a mix of centuries-old and modern

building facades and grand lobbies, these streets require wide sidewalks which typically feature enhanced finishes and materials. Designs must also respect the historic significance of these streets.

Example Streets

- ▶ Congress Street (Government Center/Financial District)
- ▶ State Street (Government Center/Financial District)
- ▶ Kneeland Street (Chinatown/Leather District)
- ▶ Summer Street (Financial District/South Boston Waterfront)
- ▶ Boylston Street (Back Bay)



Downtown Mixed-Use

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

Downtown Mixed-Use streets serve a more diverse variety of land uses than Downtown Commercial Streets. Found in the downtown neighborhoods such as Back Bay, Beacon Hill, North End, South End, Fort Point Channel, West End, and in the Kenmore Square and Fenway Park areas, these streets support a lively mix of retail, residential, office, and entertainment uses; this wide-range creates many of the city's most dynamic public spaces. While usually smaller in scale than Downtown Commercial Streets, they similarly serve residents, visitors, and workers. They should support high levels of walking, bicycling, and transit, as well as support frequent parking turnover, including loading zones to foster economic vitality.

On Downtown Mixed-Use Streets, a lively and visually stimulating public realm should be supported by greenscape, street furniture (i.e., benches, information kiosks, trash and recycling receptacles, etc.), outdoor cafés, plazas, and public art. Boston's Downtown Mixed-Use Streets are where people work, play, shop, eat, and gather to enjoy city life.

Example Streets

- ▶ Newbury Street (Back Bay)
- ▶ Tremont Street (South End)
- ▶ Salem Street (North End)
- ▶ Brookline Avenue (Fenway)



Neighborhood Main Street

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

Neighborhood Main Streets are typically located in the heart of a residential part of the city. Characterized by dense single-floor commercial and retail use, they are often concentrated in an area only a few blocks long. They are the nucleus of the city's neighborhood economies, providing residents with daily essentials, locally-owned businesses, and services ranging from banking to dry cleaning. Similar to Downtown Mixed-Use Street Types, the curbside uses on Neighborhood Main Streets prioritize walking, bicycling, transit, and short-term parking access and loading for local shops and restaurants.

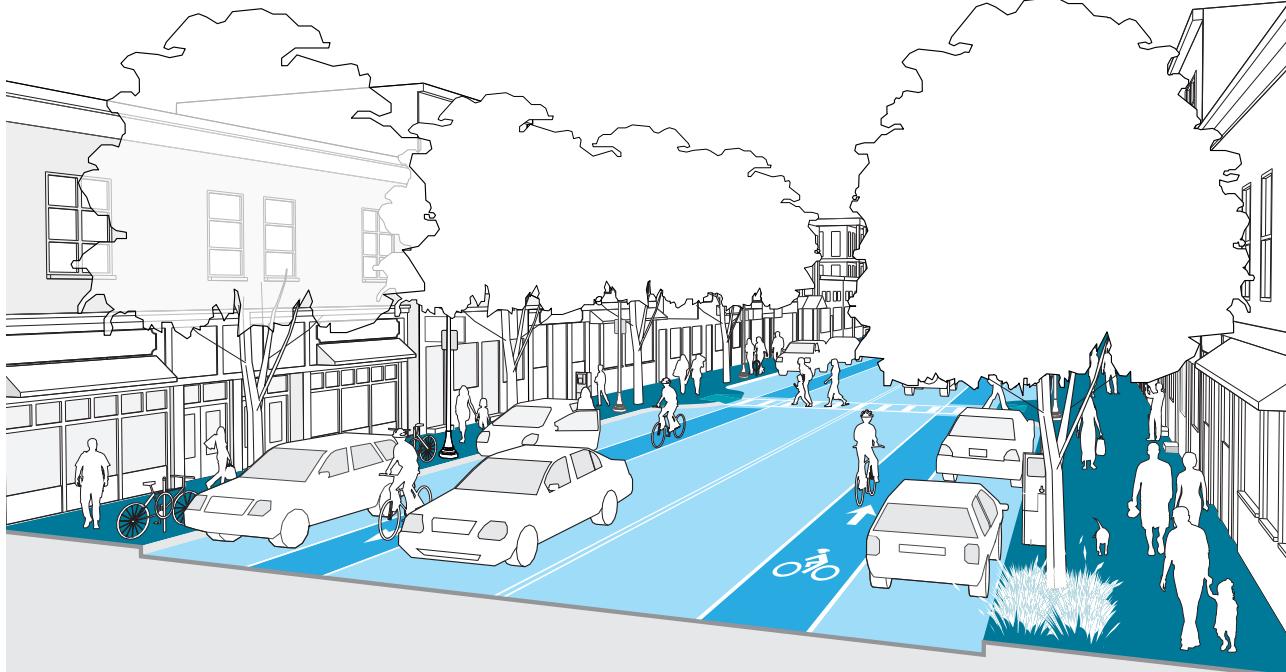
Because these streets are a meeting ground for residents, they should be designed to support gathering and community events such as farmers' markets and festivals. In addition they are characterized by public facilities such as libraries, as well as community and health centers.

Many of Boston's Neighborhood Main Streets are often the only through streets in a neighborhood, and are linked with well-known neighborhood squares, for example Dorchester Avenue and Peabody Square, or Dudley, Warren, and Washington Streets in Dudley Square. These streets and squares often serve as hubs for bus routes and as destinations for local walking and bicycling trips.

In 1995, the City of Boston established the Boston Main Streets program, a community-based, public-private partnership designed to revitalize and strengthen local business districts through strong organizational development, community participation, resident and merchant education, and sustainable development. For more information on the Boston Main Streets program, visit the City of Boston's website. (Note Neighborhood Main Streets can include corridors not currently participating in the Main Streets Program.)

Example Streets

- ▶ Dorchester Avenue (South Boston/Dorchester)
- ▶ Center and South Streets (Jamaica Plain)
- ▶ Dudley Street (Roxbury)
- ▶ Birch Street and Roslindale Square (Roslindale)
- ▶ Meridian Street, Maverick and Central Squares (East Boston)



Neighborhood Connector

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
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Parkways
Boulevards

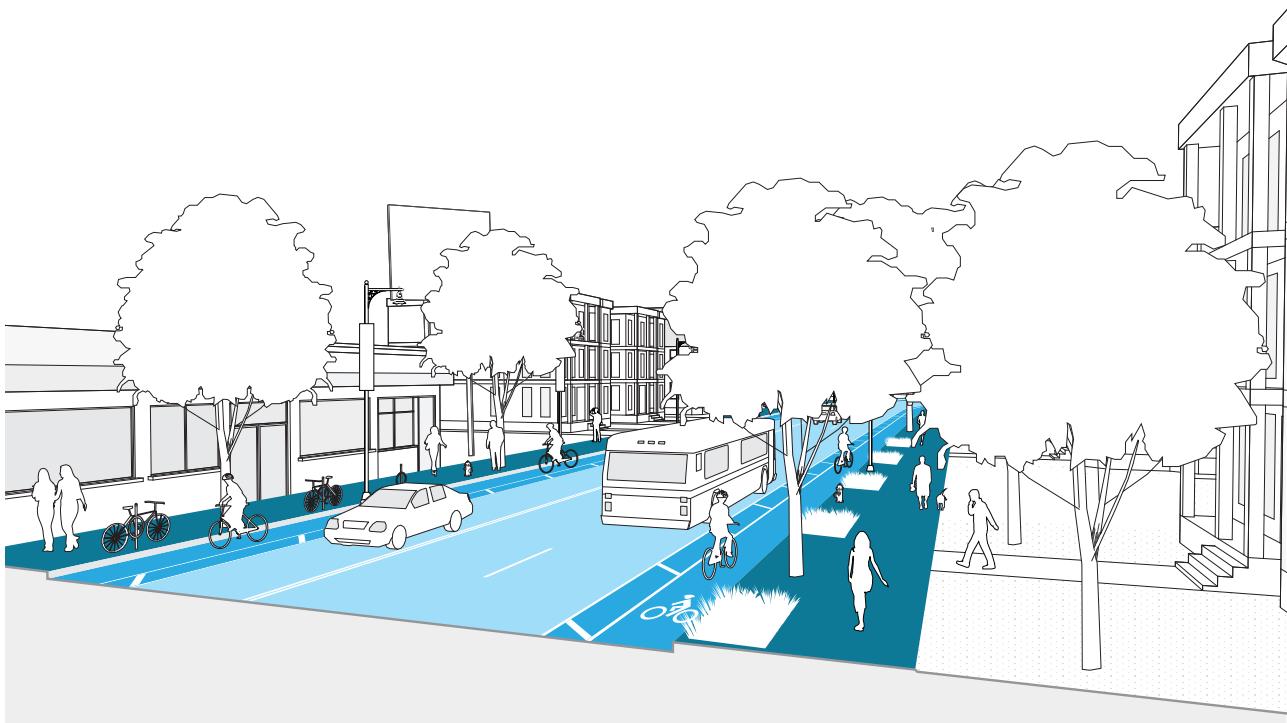
Overview

Neighborhood Connector Streets are through streets that traverse several neighborhoods and form the backbone of Boston's multimodal street network. They provide continuous walking and bicycling routes and accommodate major bus routes. While they are essential to the flow of people between neighborhoods, the needs of people passing through must be balanced with the needs of those who live and work along the street.

Neighborhood Connector Streets may be single or multi-lane streets. Land uses, speeds, and right-of-way widths can vary, and the street typology may change throughout the duration of the street. Design considerations include encouraging efficient movements of vehicle and transit traffic, continuous and comfortable bicycle facilities, wide sidewalks with sufficient buffers to motor vehicle traffic, and safe pedestrian crossings at intersections. Street lighting, tree plantings, street furniture, and other urban design elements should create a unifying identity for the entire street.

Example Streets

- ▶ Cummins Highway (Roslindale/Mattapan)
- ▶ Washington Street (South End/Roxbury/Jamaica Plain)
- ▶ Cambridge Street (Allston/Brighton)
- ▶ Centre Street (West Roxbury/Roslindale/Jamaica Plain)



Neighborhood Residential

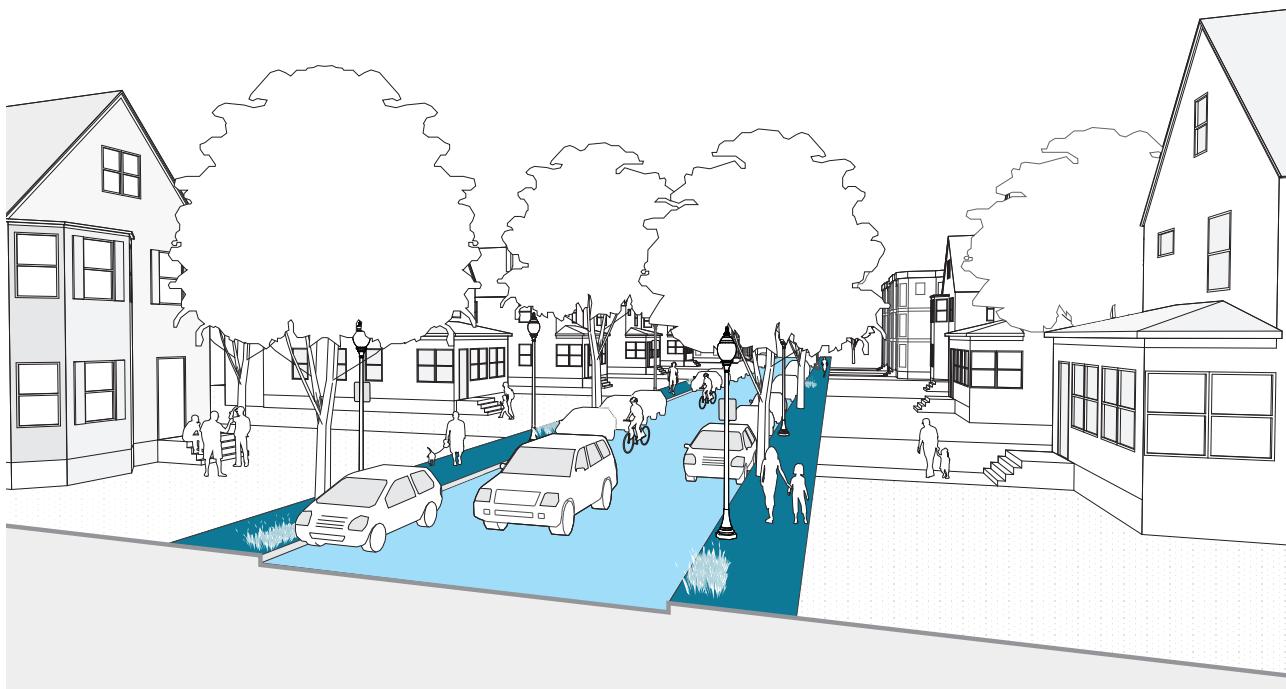
Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
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Boulevards

Overview

Neighborhood Residential Streets provide immediate access to Boston's vast residential fabric of town houses, triple-deckers, and single family homes. They are used primarily for local trips and are characterized by lower vehicle and pedestrian volumes. They often have on-street residential permit parking. The primary role of Neighborhood Residential Streets is to contribute to a high quality of life for residents of the city. Typically they are not more than two travel lanes (one in each direction) and are not intended for through-traffic.

The design of Residential Streets focuses on encouraging slow speeds. The emphasis is on pedestrian safety, space for children to play, ample street trees, and well defined walking and bicycling paths to nearby parks, bus stops, transit stations, community centers, and libraries. Neighborhood Residential Streets are excellent candidates for Neighborways as well as local community programming such as block parties. For more information about Neighborways, see Chapter 3, Roadways, Design Features that Reduce Operating Speeds.



Industrial

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

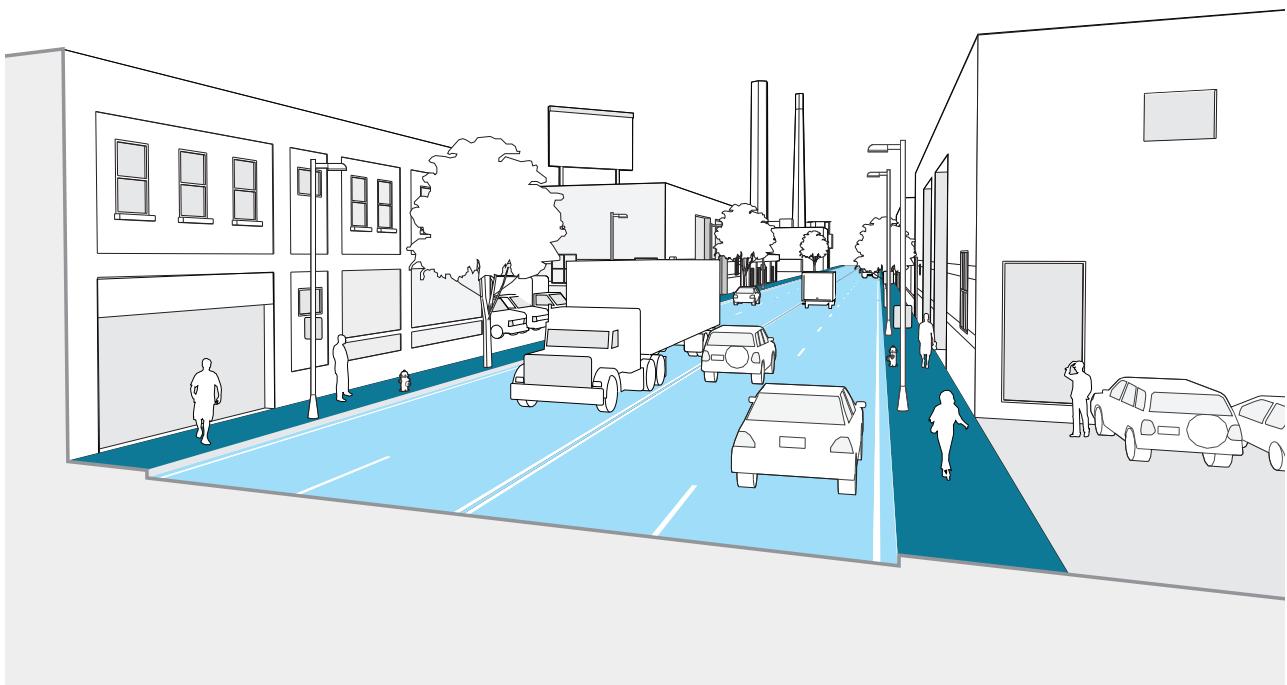
Industrial Streets are indispensable to Boston's economy and support the manufacturing and commercial businesses that form Boston's industrial base. Boston is committed to a "no net loss of industrial space" policy. These Industrial Streets support truck traffic and accommodate the loading and distribution needs of wholesale, construction, commercial, service, and food-processing businesses. They are typically located away from downtown and residential communities, and connect directly to the regional highway system and other distribution hubs such as Logan Airport, the Marine Industrial Park in South Boston, the Newmarket district, and Moran Terminal in Charlestown.

Accommodation of truck traffic, including providing adequate turning radii at intersections, is a primary design consideration for these streets. While pedestrian use may be light, sidewalks and accessible accommodations must also be provided. Traffic volumes and congestion may be higher on Industrial Streets compared to more pedestrian-oriented streets. When designing Industrial Streets, consideration should be given to discourage and minimize cut-through traffic on residential streets in the surrounding neighborhoods.

On these Street Types, it is important to consider the use of trees and greenscape specifically for phytoremediation, or the ability of plants to uptake and remove contaminants from the water, soil, and air.

Example Streets

- Harborside Drive (East Boston)
- West First Street (South Boston)



Shared Streets

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

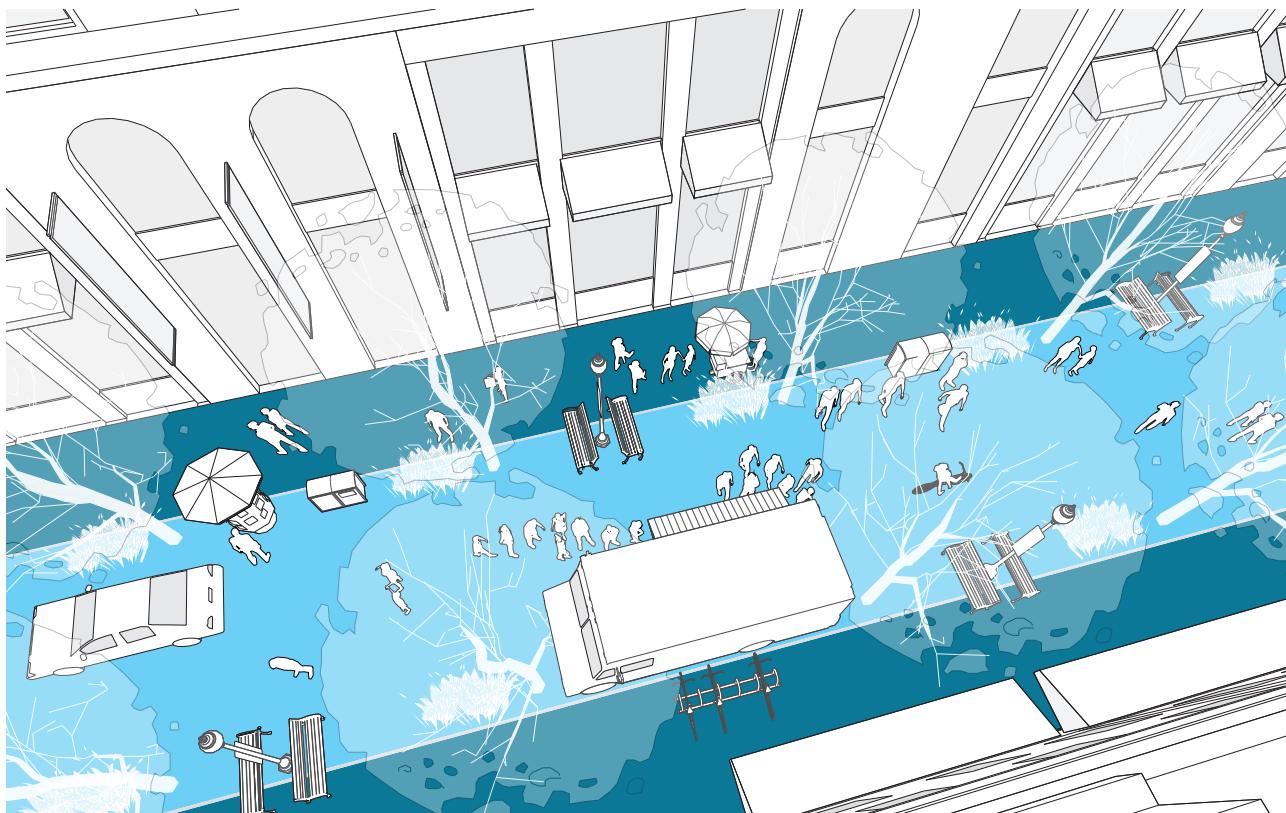
A Shared Street is a street with a single grade or surface that is shared by people using all modes of travel at slow speeds. Curbs are removed, and the sidewalk is blended with the roadway. Speeds are slow enough to allow for pedestrians to intermingle with bicycles, motor vehicles, and transit. Shared Streets can support a variety of land uses, including commercial and retail activity, entertainment venues, restaurants, offices, and residences. They are unique spaces where people can slow down to enjoy the public realm, and create an environment where everyone must pay attention due to the organic movement of people.

When designing Shared Streets, special consideration must be given to accommodating pedestrians with disabilities. Because Shared Streets are at one grade, materials can vary and street furnishings such as bollards, planters, street lights, and benches can be strategically placed to define edges. These streets are often surfaced with pavers or other types of decorative surface treatments.

Overall, the primary design consideration for Shared Streets is maintaining slow vehicular speeds (no more than 15 mph) in order to minimize the potential for conflicts with pedestrians. Entrances to Shared Streets are usually raised and often narrowed to one lane in order to force drivers to slow before entering. Chicane can be used to help regulate vehicular speeds along the length of the street, and can be formed using trees, benches, plantings, play areas, and parking areas that are laid out in an alternating pattern to deflect and slow traffic. If desired, Shared Streets may restrict access to personal vehicles but permit use by taxis, commercial vehicles, and buses. They may also incorporate Neighborway treatments. For more information about Neighborways, see Chapter 3, Roadways, Design Features that Reduce Operating Speeds.

Example Streets

- ▶ Winter Street (Downtown)
- ▶ Cross Street (North End)



Parkways

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

Parkways are typically four lane higher-speed roads, characterized by long, uninterrupted stretches running parallel to Boston's open space systems such as the Emerald Necklace and the Charles River. Many Parkways have historic elements, including continuous rows of trees and curbing adjacent to the parkland. As Parkways have fewer intersections, which is convenient for motor vehicles, the combination of higher speeds and longer distances between signalized crossings can make Parkways difficult for pedestrians and bicyclists to cross. At intersections along Parkways, it is extremely important to provide safe and accessible pedestrian and bicycle accommodations.

Normally, Parkways do not provide transit accommodations or on-street parking, and sight lines are often limited due to hills and the curvature of the roadway. Typically, existing Parkways in the city are under the jurisdiction of the state.

Example Streets

- ▶ West Roxbury Parkway (West Roxbury/Roslindale)
- ▶ Riverway (Fenway/Mission Hill)



Boulevards

Downtown Commercial
Downtown Mixed-use
Neighborhood Main Street
Neighborhood Connector
Neighborhood Residential

Industrial
Shared Streets
Parkways
Boulevards

Overview

Boulevards, like Parkways, are defined by a grand scale and specific urban design characteristics such as wide sidewalks lined with street trees and furnishings. Boston has a rich heritage of these streets, with Commonwealth Avenue in the Back Bay being recognized as one of the nation's premier Boulevards. They usually have a consistent design for the length of the corridor, often with wide planted medians or Greenscape/Furnishing Zones, and they connect important civic and natural places. Also, Boulevards often feature longer block lengths.

Significant, mature tree cover, combined with promenades or median malls provide great walking and social spaces along Boulevards. Boulevards differ from Parkways in that they normally have buildings and active land uses along both sides of the street. Medians may also accommodate light rail or bus rapid transit service.

Example Streets

- ▶ William J. Day Boulevard (South Boston)
- ▶ Commonwealth Avenue (Back Bay/Fenway/Allston/Brighton)
- ▶ Huntington Avenue (Fenway/South End)



Using Street Types in Complete Streets Design

The new Street Types form the basis of the Boston's Complete Street Guidelines. They can serve as models or as options when communities need to make informed choices in the visioning process of a corridor redesign project. Taking into consideration the type of street will help ensure that land use contexts are reflected in the design and use of Boston's streets.

The new Street Types have been developed to refine the existing street classification system and to provide additional guidance during the selection of design elements. In the following chapters, the recommendations and guidance for designs of sidewalks, roadways, intersections, and uses along the curb will be categorized by the new Street Types where appropriate.

