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What are Complete Streets?
The focal point for most transportation systems is the automobile. Decades of auto-centric design has left streets as single-purpose transportation systems that marginalize all other forms of transportation. In recent years, there has been a growing recognition of the need to plan, design, construct, and maintain streets to meet the needs of all ages and abilities of all roadway users—that is, creating “complete streets.” In addition to balancing the transportation needs of all users, the design of complete streets must be flexible and context sensitive. Rather than an “all modes for all roads” approach, the elements of complete streets will vary based on the existing or future character of the environment—including street classification and land use (e.g., rural, suburban, or urban landscapes).

2-1. Definition of Complete Streets

What is a “complete street?” America Bikes first used the term “complete streets” in 2003 in an effort to change federal transportation law to foster the creation of streets that serve all users. However, the definition of complete streets has evolved from federal initiatives that support the “routine accommodation” of non-motorized transportation, including the Americans with Disabilities Act of 1990, the 1998 Transportation Equity Act of the 21st Century (TEA-21), and policy guidance issued by the Federal Highway Administration (FHWA) and the U.S. Department of Transportation (DOT). These laws and regulations called for all transportation agencies to routinely accommodate bicyclists, pedestrians, and persons with disabilities in all transportation planning, design, construction, operations, and maintenance activities. In March 2010, the U.S. DOT issued a new Bicycle and Pedestrian Accommodation Regulations and Recommendations policy statement, which goes beyond routine accommodation. It reaffirms the need for transportation agencies to “incorporate safe and convenient walking and bicycling facilities into transportation projects.” This includes (U.S. DOT, 2010):

- Considering walking and bicycling as equals with other transportation modes
- Ensuring that there are transportation choices for people of all ages and abilities, especially children
- Going beyond minimum bicycling and pedestrian design standards
- Integrating bicycle and pedestrian accommodation on new, rehabilitated, and limited-access bridges
- Collecting and analyzing trip data to optimize investments
- Setting mode-share targets for and tracking walking and bicycling over time
- Removing snow from sidewalks and pedestrian facilities
• Improving non-motorized facilities during maintenance projects

While many complete-streets definitions incorporate fundamental principles derived from federal regulations and guidance, there is not one universal definition of complete streets. The National Complete Streets Collation definition broadly states, “Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street” (National Complete Street Coalition, 2010).

Many states and local governments have tailored their definitions of complete streets to reflect their particular vision, broader transportation goals, planning practices, policy formulation needs, and capital improvement priorities. The State of Minnesota’s Complete Streets Law emphasizes the dynamic nature of transportation-improvement initiatives, rather than a static build-it and forget-it policy. The policy states that:

> Complete streets is the planning, scoping, design, implementation, operation, and maintenance of roads in order to address the safety and accessibility needs of users of all ages and abilities. Complete streets considers the needs of motorists, pedestrians, transit users and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings in a manner that is sensitive to the local context and recognizes that the needs vary in urban, suburban, and rural settings (State of Minnesota, 2010).

AARP provides both a definition and a graphic illustration of complete streets that emphasizes the need for roads to be designed, built, and maintained for all modes of transportation as well as for all roadway users (AARP, 2008). It states that complete streets are:

> ...Roadways designed, built, and maintained to safely accommodate travelers of all ages and abilities—motorists, pedestrians, bicyclists, and public-transit users—including children, non-drivers, older adults, and persons with disabilities (AARP, 2008).
AARP recognizes that mobility-constrained populations—including children, elderly, persons with disabilities, zero-car households, and low-income and minority groups—face substantial challenges and transportation inequities in such a car-dominated culture. A recent AARP inventory found that while the goal of complete-streets policies is to be inclusive, “less than one-third of the 80 state and local complete-streets policies explicitly address the needs of older road users” (Haase and others, 2009, 3). The organization recommends the adoption of complete street policies, future road investments, and the redesign of highway design guidelines to balance the needs of all users and enhance engineering practices for older drivers and pedestrian safety.

2-2. Complete Streets as One Approach to Community Livability

The concept of complete streets is just one approach to enhancing livability of a community. Recently, the issue of community livability has come to the forefront of federal transportation policy and planning. The new vision stresses the need to link transportation and land-use planning to provide a safe, reliable, and integrated transportation system that serves people of all ages, abilities, ethnicities, and income levels. Like complete streets, there is not one consensus definition of community livability. According to the American Institute for Architects, there are ten principles for livable communities, including (AIA, 2005):

- Design on a human scale (compact, pedestrian-friendly design)
- Provide choices (in housing, shopping, recreation, transportation, employment)
- Encourage mixed-use development
- Preserve urban centers
- Vary transportation options (walking, biking, and using public transit)
- Build vibrant public spaces
- Create a neighborhood identity
- Protect environmental resources
- Conserve landscapes
- Design matters

Livable communities foster active community environments, smarter growth, and pedestrian- and transit-friendly design. The Federal Highway Administration (FHWA) also endorses similar principles through its Interagency Partnership for Sustainable Communities—a tri-agency initiative of the U.S. DOT, U.S. Environmental Protection Agency (EPA), and U.S. Department of Housing and Urban Development (FHWA, 2008). Federal livability initiatives
have focused on the need for communities to increase housing and transportation choices, enhance economic competitiveness, develop and implement revitalization strategies, and enhance the quality of life in rural, suburban, and urban areas (U.S. EPA, 2010).

While there is not one consensus definition of community livability, walking is a critical community livability factor. Most organizations, including the AARP, acknowledge that livable communities provide options for multimodal transportation, access to public transit, and opportunities for improved mobility. A balanced transportation system, good road design, and sound land use plans can form the basis of characteristics of a livable community (AARP, 2008).

In addition, AARP has developed a comprehensive framework that identifies six key components of a livable community—housing, transportation and mobility, land-use plans, cooperation and communication, public education and involvement in community planning, and leadership. The transportation and mobility element of AARP’s livable-community agenda focuses on the need to develop multimodal transportation systems that safely and equitably serve people of all ages, abilities, ethnicities, and incomes.

Complete streets can support and fulfill federal, state, and local community livability objectives. Strategies for improving community livability, which are consistent with complete-streets principles, include improving sustainability of land use and development (e.g., smart growth, transit-oriented design, new urbanism), providing non-motorized-transportation options, instituting traffic-calming measures, integrating land-use and transportation planning, and encouraging pedestrian-friendly design and mixed-use development.