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Issue 53



Bicyclist and Pedestrian User Types and Facilities

This is the fourth in a series of issues that highlight the findings of ODOT's ongoing *Walk.Bike.Ohio* (WBO) Plan. For more information, visit our [website](#) and review the [User Types and Facilities Report](#).

Take our 2020 Groundwork Survey! Nominate your favorite active transportation projects from the year and let us know what additional resources you would like from ODOT's Active Transportation program.

[2020 GroundWork Survey](#)

When selecting and designing bicycle and pedestrian facilities, it is important to understand the people that will be using them and the context in which they will be found. Users can vary greatly in their reasons for walking and biking, their

comfort with different types of facilities and their needs.

User Characteristics

Many of the bicycle user type aspects were covered in *Issue 41 of Groundwork*. The majority of adults in the US identify as being interested in bicycling, but not comfortable sharing space with vehicular traffic.

Most people are pedestrians at some point of any given day or trip. Therefore, it is important to design and create connected pedestrian networks that are safe and comfortable for pedestrians with a variety of needs, abilities and possible impairments.

Age is one major factor that affects pedestrians' physical characteristics, walking speed and environmental perception. *According to the Ohio Department of Aging*, by 2030 Ohioans ages 60 and older will make up more than 26% of the state's total population. While there is no universal classification of pedestrian user types, other categories that differentiate pedestrians include **activity type**, **social use**, **trip purpose** and **ability**. People walking, people using wheelchairs, people with strollers and people rolling on skateboards or scooters all have different needs for space, speeds and abilities to navigate slopes and stairs.

AGE	CHARACTERISTICS	% OHIOANS
0-4	Learning to Walk Requires Constant Supervision Developing peripheral vision and depth perception	5.9%
5-8	Increasing independence, but still requires supervision Poor depth perception	5.9%
9-13	Susceptible to "darting out" in roadways Insufficient judgement Sense of invulnerability	6.4%
14-18	Improved awareness of traffic environment Insufficient judgement	6.6%
19-40	Active, aware of traffic environment	31.4%
41-65	Slowing of reflexes	26.5%
65+	Difficulty crossing street Vision loss Difficulty hearing vehicles approaching from behind	17.1%

Facility Types for Walking and Biking

Linear Facilities

Connected, linear bicycle and pedestrian facilities such as **shared use paths**, **separated bike lanes**, **shared lanes**, **sidewalks** and **paved shoulders** increase

access and safety for everyone. When there are more vehicles driving faster on a roadway, there is a greater need to separate pedestrians and bicyclists from the roadway.

Ultimately, pedestrians and bicyclists will choose the route and facility that feels safest to them. In a *survey of Ohio residents*, 98% of respondents indicated they would be **comfortable on greenway trails and sidewalks**, while 51% were uncomfortable walking on a road with a paved shoulder. Bicyclists indicated a strong preference for more separated facilities, with 92% of respondents **very comfortable** with using a **shared use path** compared to only 9% **very comfortable** with using **shared lanes**.

Crossing Facilities

Intersections are critical locations as they are the places with the greatest potential for conflicts between pedestrians or bicyclists and motor vehicles. Among survey respondents, 98% indicated they would be **comfortable on highly-visible crosswalks**. With 73% of respondents feeling **uncomfortable crossing at unmarked locations**.



There are a range of treatments that can be used to enhance the safety of crossing locations and intersections. For pedestrians, **high-visibility crosswalks**, **warning signage** and **yield lines**, **active warning** and **hybrid beacons**, and **traffic signals** can alert motorists of a pedestrian's presence and increase pedestrians' comfort using the facilities. For bicyclists, **intersection markings**, **bicycle signals**, **bike boxes** and **two-stage turn boxes** can help communicate potential bicyclist movements and clarify the right of way.

Context, Connectivity Matters

Land use and the transportation network (the built environment) have a significant impact on the comfort and safety of pedestrians and bicyclists of all ages and abilities. Many corridors in Ohio would benefit from some type of active transportation improvement, but the approach to each corridor will vary depending on the specific characteristics of the roadway and the surrounding areas, the needs of roadway users and costs of construction and maintenance. For example, corridors in a more rural area with less dense development will need different types of facilities than a roadway in the middle of an urban core.

RURAL



Bike facility in rural context

Potential Improvements:

- Wider shoulders
- Bicycle route signs
- Advisory shoulders
- Paved shoulders
- Yield roadways
- Shared use paths

SUBURBAN



Low volume street improvements in suburban context

Potential Improvements:

- Wider sidewalks
- Enhanced crossings
- Shared use paths
- Sharrows

URBAN

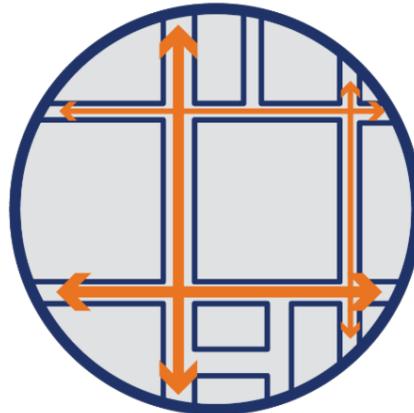


Separated bikeways in urban context

Potential Improvements:

- Sidewalks on both sides of the roadways
- Marked crosswalks and pedestrian signals
- Bike lanes or separated lanes
- Bike boulevards

In addition, a well-connected network will provide lower stress and higher comfort to users. Not all treatments will be appropriate for every corridor, nor will every corridor need every treatment. However, with a variety of different types of facilities on different roadways forming a cohesive network, people walking and biking will have many options for comfortably reaching their destinations. See the [User Types and Facilities Report](#) for more on the impact of land use, network connectivity and facility type on the range of user types and needs.



Announcements

- Starting with our next issue, Groundwork will be transitioning to the GovDelivery platform. We'll add current subscribers to the list. If you are not yet a subscriber, [click here](#) and click the "Active Transportation" list near the bottom of the page. And,

you can always [access past issue of GroundWork](#) on our [website](#).

- Setting up your social media posting schedule for 2021? Check out the [Your Move Ohio Facebook Toolkit](#) and [2021 Calendar](#) for [tips](#), [messages](#) and accompanying [graphics](#). Learn more about the campaign materials at [YourMove.Ohio.gov](#).
- Remember to review the [2021 Safe Routes to School Application Guidance](#) if you plan on [submitting an application](#) now open through Friday, March 5 . Reach out to your [ODOT District SRTS Coordinator](#) to discuss applications.
- The [Traffic Calming for Active Transportation](#) e-learning course is now available on demand from LTAP.
- ...And don't forget to [take our survey!](#)

Questions? Feedback?

Drop us a line, bikeohio@dot.ohio.gov



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