

CHAPTER 3. Walk and Roll Allegheny (ADA)

ALLEGHENYPLACES identified key challenges to increasing pedestrian travel as a mode share. Some of those challenges included a “lack of continuous sidewalk network in new developments” and incorporation of pedestrian facilities into roadway projects. ACTIVEALLEGHENY details the deficiencies and constraints for pedestrians in Allegheny County and offers solutions from engineering to education.

3.1 Walking & Rolling in Allegheny

Pedestrians, and wheelchair users, have identified desired access to destinations in the County. Although some sidewalks and pedestrian accommodations are available in high density retail areas and neighborhoods, in many cases there is a gap in the network. As a result, pedestrian trips are converted to vehicle trips to access destinations which may only be a half-mile long. PennDOT’s Design Manual^{xxxii} states “pedestrians are a part of every roadway environment and attention must be paid to their presence in urban as well as rural areas.”



Pedestrians, City of Pittsburgh

Desired Access

Through discussions with stakeholders and the public and analysis of the online survey results, pedestrian access and/or improvements are desired in nearly every municipality in Allegheny County. Destinations listed most frequently included access to schools, bus stops, hospitals, and commercial districts. Specific destinations identified for desired access are listed in **Table 3-1**.

Table 3-1. Desired Access for Pedestrians

To	From
Downtown	<ul style="list-style-type: none"> • Mt. Washington
Frank Curto Park (Bigelow Boulevard)	<ul style="list-style-type: none"> • Oakland
Chateau Trail (North Side)	<ul style="list-style-type: none"> • McKees Rocks
Hazelwood Business District	<ul style="list-style-type: none"> • Hazelwood Avenue • Eliza Furnace Trail
Bethel Park Giant Eagle	<ul style="list-style-type: none"> • Bethel Village T Station
Great Allegheny Passage	<ul style="list-style-type: none"> • East End Communities
West Busway Carnegie Station	<ul style="list-style-type: none"> • Panhandle Trail (Collier)
North Shore	<ul style="list-style-type: none"> • Mt. Washington
Millvale Riverfront Park	<ul style="list-style-type: none"> • Millvale
Duck Hollow Trail (Hazelwood)	<ul style="list-style-type: none"> • Frick Park • Eliza Furnace Trail
Schools in Mt. Lebanon	<ul style="list-style-type: none"> • Mt. Lebanon (specifically Washington Road)
South Park	<ul style="list-style-type: none"> • Library T Station
Pittsburgh Zoo & Aquarium	<ul style="list-style-type: none"> • Baker Street and vicinity (parallel to Route 8)
Route 48 (Monroeville)	<ul style="list-style-type: none"> • Penn Center Boulevard (Monroeville)
Oakland	<ul style="list-style-type: none"> • Polish Hill
Ben Avon & Avalon Parks	<ul style="list-style-type: none"> • Kilbuck

Identified Deficiencies

A review and analysis of existing conditions, survey results, pedestrian crashes and public feedback was performed to identify locations for potential pedestrian facility improvements. Although there are many locations throughout Allegheny County that could benefit from the installation of sidewalk, curb ramps, and crosswalks, 18 roadways and 19 intersections were identified in this plan. **Table 3-2** lists the corridors targeted for pedestrian enhancements and **Table 3-3** lists the intersections. Improvements at these locations can serve as a model for other locations throughout the County as they are identified in the future. The crash summary and pedestrian crash map are contained in **Appendix L**, which is included in a separate document.

Table 3-2. Pedestrian Corridors for Facility Improvements

Roadway	Municipality
Ardmore Boulevard	Forest Hills
Bates Street	Pittsburgh
Beadling Road	Mt. Lebanon
Beaver Street	Glen Osborne
Belmar Place	Swissvale
Bigelow Boulevard	Pittsburgh
Braddock Avenue	Braddock
Campbells Run Road	Robinson
Chartiers Avenue	McKees Rocks
Grove Road	Castle Shannon
Route 51/Island Avenue	McKees Rocks
Lincoln Way	White Oak
Mayview Road	Upper St. Clair
McLaughlin Run Road	Bridgeville and Upper St. Clair
Park Manor Boulevard	Robinson
River Road	Haysville
Robinson Town Center Boulevard	Robinson
Route 19 Truck/Washington Road	Mt. Lebanon
Route 19 Truck/West Liberty Avenue	Dormont
Business Route 22	Monroeville
Route 50	Heidelberg, Carnegie, Collier, and Bridgeville
Route 837	Clairton
Route 837	Duquesne
Steubenville Pike	Robinson

Table 3-3. Intersections for Facility Improvements

Intersection	Municipality
Thorn Run Road & Route 51	Coraopolis
Beadling Road & Washington Road	Mt. Lebanon
Negley Run Boulevard & Washington Boulevard	Pittsburgh (East Liberty)
Foster Street & 40 th Street	Pittsburgh (Lawrenceville)
Route 19 Truck & Brookline Boulevard	Dormont

Intersection	Municipality
Cochran Road & Washington Road/Route 19	Mt. Lebanon
Bethel Church Road & Broughton Road	Bethel Park
Smithfield Street & Carson Street	Pittsburgh (South Side)
Campbells Run Road & Steubenville Pike	Robinson
Route 837 & Amity Street	Homestead
Belmar Place & Woodstock Avenue	Rankin
Braddock Avenue & 4 th Street	Braddock
Braddock Avenue & 7 th Street	Braddock
Brinton Avenue & Ridge Avenue	East Pittsburgh
Boulevard of the Allies & Bates Street	Pittsburgh (Oakland)
Boulevard of the Allies & Halket Street	Pittsburgh (Oakland)
S. Bellefield Avenue & 5 th Avenue	Pittsburgh (Oakland)
Ardmore Boulevard & Yost Boulevard	Forest Hills
Castle Shannon Boulevard & Mt. Lebanon Boulevard	Castle Shannon
PJ McArdle Road & Liberty Bridge	Pittsburgh (Mt. Washington)
Route 28 & River Front Drive	Millvale
10 th Street & E. Carson Street (Crash Concentration)	Pittsburgh (South Side)
E. Ohio Street & Cedar Avenue (Crash Concentration)	Pittsburgh (North Side)
18 th Street & E. Carson Street (Crash Concentration)	Pittsburgh (South Side)
Baum Boulevard & Roup Avenue (Crash Concentration)	Pittsburgh (East Liberty)
Cherry Way & Boulevard of the Allies (Crash Concentration)	Pittsburgh (Downtown)
17 th Street & E. Carson Street (Crash Concentration)	Pittsburgh (South Side)
Main Street & 4 th Avenue (Crash Concentration)	Coraopolis
Butler Street & 45 th Street (Crash Concentration)	Pittsburgh (Lawrenceville)
S. Main Street & Wabash Street (Crash Concentration)	Pittsburgh (West End)
E. Ohio Street & Middle Street (Crash Concentration)	Pittsburgh (North Side)

Equal Opportunities

During the course of the ACTIVEALLEGHENY study, the Study Team worked closely with the City of Pittsburgh/Allegheny County Task Force on Disabilities and the Committee for Accessible Transportation (CAT) to incorporate deficiencies and opportunities for older adults and those with ambulatory, visual, hearing, or cognitive impairments. Several deficiencies and opportunities were raised by members of these groups and the general public, in both the online survey and at public meetings, including:

- ♿ ADA upgrades are vital for older neighborhoods and especially where there are concentrations of older adults.
- ♿ Connecting the Panhandle Trail from the trailhead in Collier to the Carnegie Busway Station on West Main Street would provide a safer route for those in electric wheelchairs currently forced to travel on Noblestown Road to reach bus service, due to recent service cuts.
- ♿ Bates Street in Oakland needs sidewalks and ADA compliant curb ramps.
- ♿ Ongoing improved access upgrades to Port Authority facilities (bus and light rail stops and busway, light rail, and incline stations) is a goal throughout the County. Access to Amtrak and Greyhound stations in Downtown Pittsburgh should also be improved to serve those with mobility impairments.
- ♿ Desire for “recharging stations” for electric wheelchairs in the City of Pittsburgh.
- ♿ Audible signals for signalized intersections are desired by those with visual impairments.

- ♿ Increasing the width of curb cuts and ramps to 4' (not including the flares) is crucial as narrow curb ramps present constraints for motorized wheelchairs.
- ♿ Perpendicular curb ramps are preferred by those with visual impairments.
- ♿ Increase availability, reliability, and timeliness of door-to-door ACCESS transit service or reduce the distance between bus stops in areas of concentrated disabled populations (recommendations in the PAAC Transit Development Plan may address these issues).
- ♿ Brownsville Road in Mt. Oliver needs ADA upgrades and improved maintenance.
- ♿ Business Route 22 and Old William Penn Highway in Monroeville need sidewalks and curb ramps to facilitate safe travel for those with visual impairments.
- ♿ Create a model ordinance for municipalities to maintain the sidewalk network, including curb ramps, and pedestrian signals.

Recommendations for ADA compliant improvements are contained in the Pedestrian Facilities Toolbox of this Plan. Additionally, the City of Pittsburgh ACCESS Transportation Board compiled a list of trip origins and destinations for pedestrians with visual impairments. This list, which is available in **Appendix M** (included in a separate document) identifies the need and location for accessible pedestrian signals and detectors in the City of Pittsburgh.

3.2 SYSTEM IMPROVEMENTS

It is recommended that responsible local municipalities and other agencies study the feasibility of pedestrian improvements listed in this plan, including ADA compliant upgrades to existing facilities. Existing roadways and intersections should be evaluated for design compliance with PennDOT and MUTCD guidelines.

Pedestrian Corridors

Pedestrian corridors for improvement should be studied relating to feasibility of sidewalk installation, curb ramp installation, and for crosswalks at any unsignalized intersection, where pedestrian activity indicates a need for their installation. Improvements should focus on sections of the corridors that facilitate pedestrian movements to transit, schools, commercial centers, and parks. Sidewalk and curb ramp installation are typically mid-term (3-5 years) to long-term (5+ years) improvements requiring design prior to construction. Potential constraints associated with sidewalk installation include utility relocation, environmentally sensitive areas requiring permits, stormwater management, and right-of-way acquisition. The corridors in this plan were investigated in the field and the results of those investigations are detailed in **Table 3-4**.

Table 3-4. Field Investigation Findings for Pedestrian Corridors

Roadway	Findings
Ardmore Boulevard (Forest Hills)	<ul style="list-style-type: none"> • Observed to be an active pedestrian corridor. • Transit stops and shelters exist. • Intermittent sidewalk. Desire lines are present where there is no sidewalk. • Connects southeast suburbs of Forest Hills and Chalfant with the City of Pittsburgh's Wilksburg neighborhood.
Bates Street (Pittsburgh – Oakland)	<ul style="list-style-type: none"> • Intermittent sidewalk exists. • Southbound sidewalk in disrepair (overgrowth, cracking, and obstacles) and then ends. • Northbound sidewalk passable, but width reduced to 3' due to utility poles.

Roadway	Findings
Beadling Road between Washington Road and Cedar Boulevard (Mt. Lebanon) 	<ul style="list-style-type: none"> • Sidewalk on one side of roadway. • Crosswalk at Markham Elementary School standard striped (potential improvement: restripe with high visibility crosswalk and overhead school warning signs with flashing beacons). • Safe Route to School investigation potential.
Beaver Street (Glen Osborne)	<ul style="list-style-type: none"> • Continuous sidewalks exist. • Yield to Pedestrian Channelizing Devices exist at Osborne Elementary School. • Transit route located along roadway. • Crosswalks at Osborne Elementary School are faded (potential improvement: restripe with high visibility crosswalk and overhead school warning signs with flashing beacons). • Safe Route to School investigation potential.
Belmar Place (Swissvale)	<ul style="list-style-type: none"> • Sidewalk in disrepair (cracking, overgrowth, and obstacles). • Connects to Woodstock Avenue for access to Swissvale East Busway Station and South Braddock Avenue (potential complete street).
Bigelow Boulevard (Pittsburgh – Hill District, Polish Hill, & Oakland)	<ul style="list-style-type: none"> • Posted speed limit of 35 mph, actual operating speed closer to 55 mph+. Speed control traffic calming measures should be investigated. • Intermittent sidewalks exist. • Sidewalks overgrown, resulting in reduced passable width, in some locations. • Provides a motor vehicle connection between Oakland to Downtown.
Braddock Avenue (Braddock)	<ul style="list-style-type: none"> • Continuous sidewalks exist in fair condition. • Transit route located along roadway. • Faded crosswalks at bus stops. • Connectivity to Swissvale via Belmar Place and South Braddock Avenue.
Campbells Run Road (Robinson)	<ul style="list-style-type: none"> • Connects hotels and businesses (Marquis Plaza and Bayer Corporation) to Steubenville Pike (Robinson Town Centre, the Pointe at North Fayette, and the Mall at Robinson). • No existing sidewalk.
Chartiers Avenue (McKees Rocks)	<ul style="list-style-type: none"> • Sidewalks continuous in fair condition. • Transit route located along roadway. • Connects Route 51 through business district. • Lane striping overlaps crosswalk striping at some intersections.
Grove Road (Castle Shannon)	<ul style="list-style-type: none"> • Provides connection between Baptist Road (Whitehall) and Route 88 (Castle Shannon). • Caste Village is located at Baptist Road, while a T Station is located at Route 88 (Memorial Hall). • Bicycle and pedestrian activity observed. • No shoulders or sidewalks.
Route 51/Island Avenue (McKees Rocks)	<ul style="list-style-type: none"> • Transit route located along roadway. • Cars observed parked on sidewalk. • Northbound sidewalk clear width reduced to 3' due to utility poles. • No buffer between sidewalk and roadway. • Faded crosswalks exist.

Roadway	Findings
<p>Lincoln Way (White Oak)</p> 	<ul style="list-style-type: none"> • No sidewalks or limited sidewalks. • Crosswalks faded. • Pedestrian activity observed. • Pedestrians with visual impairments (walking sticks) observed walking in street. • Children riding bicycles in street without helmets. • Yield to Pedestrian Channelizing Devices exist at locations without crosswalks.
<p>Mayview Road (Upper St. Clair)</p> 	<ul style="list-style-type: none"> • Provides connection between residential areas and Boyce Mayview Park. • Transit route located along roadway. • Bicycle and pedestrian activity observed. • No existing sidewalks.
<p>McLaughlin Run Road (Bridgeville)</p>	<ul style="list-style-type: none"> • Sidewalk in disrepair (cracking, overgrowth, and obstacles). • Cars parked on sidewalk. • Sidewalk replacement and maintenance needed.
<p>McLaughlin Run Road (Upper St. Clair)</p> 	<ul style="list-style-type: none"> • 5' sidewalk southbound along Recreation Center and park. • Sidewalk reduces to 4' southbound at municipal complex and ends at Route 19 interchange. • Sidewalk exists on north side of roadway through Route 19 Interchange. • Sidewalk provided to Route 19 Southbound; sidewalk not provided to Route 19 Northbound. • Limited number of crosswalks provided.
<p>Park Manor Boulevard (Robinson)</p>	<ul style="list-style-type: none"> • Connects retail to Montour Trail via Robinson Town Centre Boulevard. • Serves vehicular-oriented retail center. • Transit route located along roadway. • Unofficial park and ride facilities exist along corridor. • No existing sidewalk. • Pedestrian population consists of employees of local businesses and business patrons.
<p>River Road (Haysville)</p>	<ul style="list-style-type: none"> • One lane roadway with sidewalk northbound. • Cars drive on sidewalk and park on sidewalk. • Sidewalk limited on River Road to ¼ mile distance from Ohio River Boulevard.
<p>Robinson Town Centre Boulevard (Robinson)</p>	<ul style="list-style-type: none"> • Transit route located along roadway. • Connects to Robinson Town Centre, the Pointe at North Fayette, and the Mall at Robinson. • Serves vehicular-oriented retail center. • No sidewalk. • Pedestrians observed walking in median. • ACTA performed a pedestrian access improvement study for Robinson Town Centre, the Pointe at North Fayette and the Mall at Robinson.
<p>Route 19 Truck/ Washington Road (Mt. Lebanon)</p>	<ul style="list-style-type: none"> • Continuous sidewalk in good condition. • Standard striped crosswalks at intersections. • Curb ramps provided at most locations. • At unsignalized intersections upgrade crosswalks to high visibility or HAWK (high-intensity activated crosswalk) signals to accommodate level of pedestrian activity. • Washington Road is accessible from the Mt. Lebanon T Station.

Roadway	Findings
Route 19 Truck/ West Liberty Avenue (Dormont)	<ul style="list-style-type: none"> • Continuous sidewalk in varying condition. • Curb ramps at intermittent intersections. • Faded crosswalks at signalized intersections. • Strong pedestrian activity observed. • Transit route located along roadway.
Business Route 22 (Monroeville)	<ul style="list-style-type: none"> • Intermittent sidewalks exist. • Transit route located along roadway. • Observed pedestrian activity. • ADA accessibility concerns noted by the Committee for Accessible Transportation.
Route 50 (Heidelberg)	<ul style="list-style-type: none"> • Transit route located along roadway. • Yield to Pedestrian Channelizing Devices exist at unmarked midblock crossings. • Intermittent sidewalk. • Faded crosswalks at signalized intersections.
Route 837 (Clairton)	<ul style="list-style-type: none"> • Intermittent sidewalk in disrepair (cracking and overgrowth). • Cars observed parked on sidewalk. • Faded crosswalks at signalized intersections.
Route 837 (Duquesne)	<ul style="list-style-type: none"> • Sidewalk southbound, Steel Valley Trail northbound. • Transit route located along roadway. • Faded crosswalks at Grant Avenue.
Steubenville Pike / Route 60 (Robinson)	<ul style="list-style-type: none"> • Transit route located along roadway. • Intermittent sidewalk. • Connects to Robinson Town Centre, the Pointe at North Fayette, and the Mall at Robinson via Park Manor Boulevard

Pedestrian corridors are illustrated on the System Improvements Map – Pedestrian Corridors and Intersections contained in **Appendix N**, which is included in a separate document.

Intersections

Intersections recommended for improvement should be evaluated for upgrades to accommodate all types of pedestrians. Improvements should focus on striping crosswalks or restriping existing crosswalks; providing curb ramps with tactile surfaces and truncated domes; upgrading pedestrian signal heads to countdown signal heads with audible tones or vibrating surfaces; and evaluating signal timing directives and phasing to accommodate MUTCD guidelines. Intersection improvements are typically short-term (less than 3 years) to mid-term (3-5 years), with vehicle traffic analysis performed prior to design to determine impacts to motor vehicle level-of-service. The intersections in this plan, which were identified through the public involvement stakeholder process, were investigated in the field and the results of those investigations are detailed in **Table 3-5**. Intersections identified as having a concentration of crashes were not investigated in the field since they were automatically carried forward and recommended for further study to reduce the incidence of crashes.

Table 3-5. Field Investigation Findings for Intersections

Intersection	Findings
Thorn Run Road & Route 51 (Coraopolis)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Several “no pedestrian crossing” signs could cause confusion for pedestrians since there are striped crosswalks. • No curb ramps. • Sidewalk connection not provided to Coraopolis business district. • Sidewalk connection not provided to Sewickley Bridge.
Beadling Road & Washington Road/ Route 19 (Mt. Lebanon)	<ul style="list-style-type: none"> • Unsignalized intersection. • Recent pedestrian crash. • No crosswalks.
Negley Run Boulevard & Washington Boulevard/ Route 8 (Pittsburgh – East Liberty)	<ul style="list-style-type: none"> • Signalized intersection. • Proposed trail alignment through intersection desired. • Crosswalk faded. • Push button inaccessible (overgrowth) northbound. • No curb ramps or connecting sidewalk. • Pedestrian signals do not meet MUTCD 2009 guidelines.
Foster Street & 40th Street (Pittsburgh - Lawrenceville)	<ul style="list-style-type: none"> • Unsignalized intersection. • Wide intersection without refuge islands. • Transit route bus stops located near intersection. • Faded crosswalks. • Intermittent sidewalk does not provide complete connections between sidewalks and bus stops.
Route 19 Truck & Brookline Boulevard (Dormont)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Pedestrian activity observed. • Curb ramps are not ADA compliant. • Transit route bus stops located near intersection.
Cochran Road & Washington Road (Mt. Lebanon)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Pedestrian activity observed.
Bethel Church Road & Broughton Road (Bethel Park)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Curb ramps are not ADA compliant.
Smithfield Street & Carson Street (Pittsburgh – South Side)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Pedestrian activity observed. • PAAC identifies this location as a major transit hub in Pittsburgh with the Station Square T Station and lower station of the Monongahela Incline. All routes operating on the South Busway, as well as several local routes (e.g., #51 Carrick) have stops at this location.

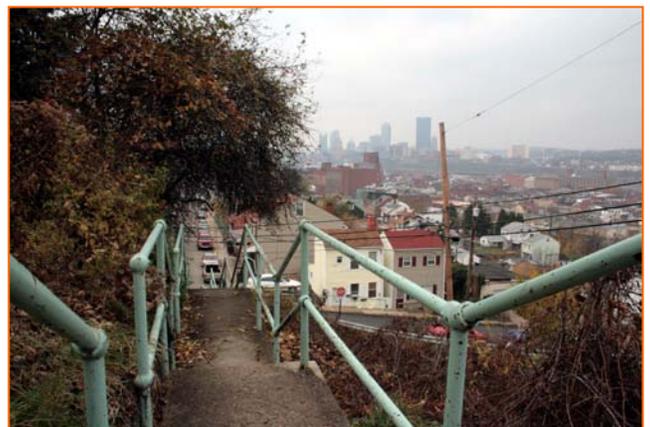
Intersection	Findings
Campbells Run Road & Steubenville Pike/ Route 60 (Robinson)	<ul style="list-style-type: none"> • Signalized intersection. • Accesses Robinson Town Centre, the Pointe at North Fayette, and the Mall at Robinson. • No crosswalks. • No curb ramps.
State Hwy 837 & Amity Street (Homestead)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Curb ramps not ADA compliant. • Pedestrian activity observed. • At-grade railroad crossings with heavy rail activity located near intersection.
Belmar Place & Woodstock Avenue (Rankin)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Curb ramps not ADA compliant.
Braddock Avenue & 4th Street (Braddock)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Curb ramps not ADA compliant. • Transit route bus stops located near intersection.
Braddock Avenue & 7th Street (Braddock)	<ul style="list-style-type: none"> • Unsignalized intersection. • Faded crosswalks on 7th Street. • No crosswalk on Braddock Avenue. • Transit route bus stops located near intersection serving Community College of Allegheny County facility.
Brinton Avenue & Ridge Avenue (East Pittsburgh)	<ul style="list-style-type: none"> • Unsignalized intersection. • Standard striped crosswalks with no connecting sidewalk. • No curb ramps. • Transit route bus stops located near intersection.
Boulevard of the Allies & Bates Street (Pittsburgh - Oakland)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Curb ramps are not ADA compliant. • Pedestrian signals do not meet MUTCD 2009 guidelines. • Transit route bus stops located near intersection.
Boulevard of the Allies & Halket Street (Pittsburgh - Oakland)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Curb ramps are not ADA compliant. • Wide intersection without refuge islands. • Transit route bus stops located near intersection serving Magee-Womens Hospital of UPMC.
S. Bellefield Avenue & 5th Avenue (Pittsburgh - Oakland)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Pedestrian signals do not meet MUTCD 2009 guidelines. • Pedestrian access to University of Pittsburgh.

Intersection	Findings
Ardmore Boulevard & Yost Boulevard (Forest Hills)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • Intermittent curb ramps not ADA compliant. • Transit route bus stop located near intersection.
Castle Shannon Boulevard & Mt. Lebanon Boulevard (Castle Shannon & Mt. Lebanon)	<ul style="list-style-type: none"> • Signalized intersection. • Faded crosswalks. • No connecting sidewalk or curb ramp northbound. • Located near major light rail station, Park and Ride lot, and commercial center.
PJ McArdle Road & Liberty Bridge (Pittsburgh – Mt. Washington)	<ul style="list-style-type: none"> • Signalized intersection. • Signed “No Pedestrian Crossing.” • Connecting sidewalk on both sides of intersection. • No curb ramps. • Provides access to Downtown via Liberty Bridge sidewalk. • Access to Station Square area via “city steps” in very poor condition. • Guiderail is a barrier to pedestrian access.
E. Ohio Street & River Front Drive (Millvale)	<ul style="list-style-type: none"> • Unsignalized intersection. • Faded crosswalk. • No curb ramps. • Access to Millvale Waterfront Park and Three Rivers Heritage Trail. • No rail crossing. • Pedestrian Warning Signs exist. • Pedestrian access improvements currently under construction at this location as part of Route 28 corridor improvement project.
Steubenville Pike/ Route 60 & Park Manor Boulevard (Robinson)	<ul style="list-style-type: none"> • Gateway into vehicular-oriented retail center. • Pedestrian crossing of Steubenville Pike/Route 60 very difficult due to amount and speed of traffic. • Motorists often do not yield to pedestrians in crosswalk despite signage.

Recommended intersections for improvement are also illustrated on the System Improvements Map – Pedestrian Corridors and Intersections contained in **Appendix N**.

Public Steps

According to Bob Regan in his book “Steps of Pittsburgh,” the City of Pittsburgh has 912 sets of public stairs. This isn’t inclusive of Allegheny County, which has numerous sets of municipality-owned steps outside of the City of Pittsburgh. In the online survey for **ACTIVEALLEGHENY**, residents of Allegheny County were asked how frequently they utilize public steps (including steps at transit stops and stations). Twenty-five percent (25%) of respondents indicated they sometimes use them, while the remaining 75% indicated almost never or never using public steps/stairs. South Side Slopes were noted as the public steps used most frequently by respondents. The survey also requested the location of public steps/stairs that may need



*Public Steps, South Side Slopes, Pittsburgh
Photo: Kevin Smay*

maintenance. Public steps in the South Side Slopes, Troy Hill, Mt. Washington, and the Negley Avenue Bus Station were listed most frequently for needed maintenance.



Public Steps and Pedestrian, South Side Slopes
Photo: Lynn Heckman

To improve the public steps in Allegheny County, consideration must be given to accessibility. The Revised Draft Guidelines for Accessible Public Rights-of-Way (Draft PROWAG), released by the United States Access Board in November 2005, recommends that new construction or modifications to existing structures be met with equal opportunity with regards to access and mobility for those with disabilities. While these are currently guidelines, it is likely that they will eventually become mandates when the guidelines are formally adopted. Accessibility is a concern, however, many of the public step locations within Allegheny County have significant physical, site, and right-of-way constraints. If and when public steps are rehabilitated, an accessibility assessment should be conducted to determine if alternative accommodations are technically feasible. As with all accessibility design issues, appropriate documentation of the accessibility review is required, including the reasons for any determination that an ADA alternative is technically infeasible. In situations where a technically infeasible determination is made, the accessibility assessment may include a discussion of other ADA-compliant parallel or alternative routes, however, those routes are not necessarily justification for not providing ADA-compliant accommodations.

3.3 PEDESTRIAN FACILITIES TOOLBOX

Types of Pedestrians

The transportation network must accommodate a full spectrum of pedestrians. The American Association of State Highway and Transportation Officials *Guide for the Planning, Design and Operation of Pedestrian Facilities*^{xxxiii} identifies a variety of pedestrians including:

-  † Children
- † Adults (age 19-65)
- † Older Adults (age 65+)
- † Pedestrians with Ambulatory Impairments (wheelchairs, scooters, canes, prosthetics, etc.)
- † Pedestrians with Hearing Impairments
- † Pedestrians with Vision Impairments (white cane users, dog guide users, etc.)
- † Pedestrians with Cognitive Impairments



Penn Avenue, City of Pittsburgh

It is important to recognize the different types of pedestrians when planning and designing pedestrian facilities since walking speed, spatial needs, and mobility issues are unique to each type of pedestrian. For example, pedestrians with ambulatory impairments require sufficient width to maneuver their devices, plus level and hard surfaces.

Sidewalks

PennDOT's Design Manual 2, Chapter 6, Section 6.6 establishes the criteria for sidewalks in PennDOT projects. The Department may participate when criteria are met and where communities support sidewalks and participate in cost sharing, ownership, and future maintenance. Municipal buy-in to add sidewalks is sometimes a challenge. Municipalities should be educated on Smart Transportation and the benefits of sidewalks.



Sidewalk activity in the Strip District

Locations identified for sidewalk construction or maintenance in this plan in Section 3-2 should follow guidelines set forth in PennDOT's Design Manual Part 2, Chapter 6; the MUTCD; and AASHTO *Guide for the Planning, Design and Operation of Pedestrian Facilities*. This includes constructing new sidewalk at a minimum of 5' to provide for a wheelchair to u-turn or pass another wheelchair. If 5' cannot be accommodated, then a minimum of 4' may be acceptable if passing spaces of 5' are provided every 200'.

In a central business district or Village Center, it is recommended that sidewalk widths be increased to 6' - 10' per AASHTO Design Guidelines and the Smart Transportation Guidebook. Robinson Town Centre is an example of a location where providing such

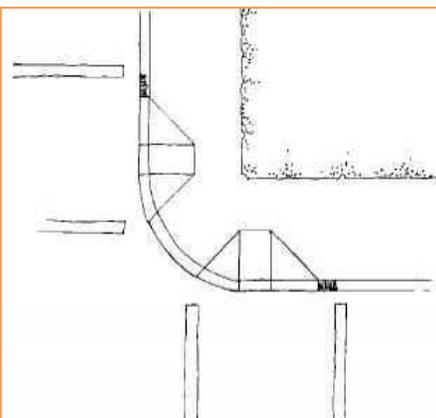
sidewalk widths would promote the use of the area as a village center.

PennDOT sidewalk design criteria further states that sidewalks must be physically separated from vehicles through the utilization of a buffer, curb, or other barrier depending on roadway conditions and pedestrian activity levels. Grade should not exceed 5% on a pedestrian access route and slope should not exceed 2% to accommodate different types of pedestrians. On bridges, sidewalk widths should be equivalent to the approaching sidewalk width. Eight feet (8') is desirable for the clear width of sidewalk on bridges per AASHTO guidelines, however 4' is the acceptable minimum clear width if 8' is not feasible. Most of the bridges within Allegheny County have narrow lane widths as compared to current standards. Motor vehicle travelers rarely have the choice to take alternate routes. For pedestrians and bicyclists, safe accommodations on bridges are critical and should be provided via wide sidewalks whenever possible.



University Boulevard, Moon Township

Curb Ramps



Two Perpendicular Curb Ramps

Source: FHWA

ADA Law, 28 CFR Part 35.151(e) maintains that new construction or alterations to streets, roads, or highways must have curb ramps at any intersection which has curbs or barriers to entry from a street level pedestrian walkway. PennDOT Design Manual, Part 2, Chapter 6, Sections 6.2, 6.3 and 6.9 further states that striping of a crosswalk (new installation) requires an upgrade and/or installation of curb ramps at the crossing. However, restriping does not constitute an alteration. A suggested revision of this policy will be evaluated in Section 3-4 of this plan. AASHTO guidelines specify that the grade of a curb ramp not exceed 8.33% and the cross slope be no greater than 2%. A curb ramp should be a minimum 4' wide, not including the flares. Detectable warning surfaces (e.g., truncated domes) must be provided per PennDOT and AASHTO Design Guidelines.

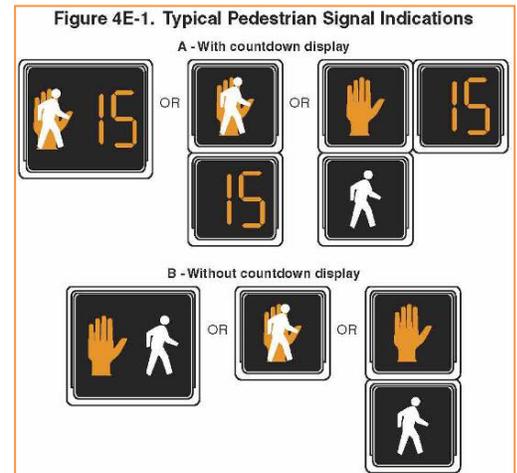
There are three (3) types of curb ramps: perpendicular, parallel, and diagonal. However, diagonal ramps are not recommended since they may cause additional roadway exposure for pedestrians or aim a visually impaired pedestrian away from the crosswalk and into the intersection. PennDOT Design Manual, Part 2, Chapter 6, Section 6.9 provides additional guidance on adaptations with regards to curb ramp types which provides for various configurations in limited space locations.

Intersection Facilities

The Smart Transportation Guidebook, Chapter 7, Section 7.6, discusses the importance of designing intersections that balance the needs and features desired by different intersection users including motor vehicles, bicyclists, and pedestrians. Pedestrians desire short crossing distances, adequate time to cross the intersection through proper signal timing, and marked crosswalks. Additionally, movements at the intersection are facilitated by providing sidewalks approaching the intersection and curb ramps.

Traffic Control Signals

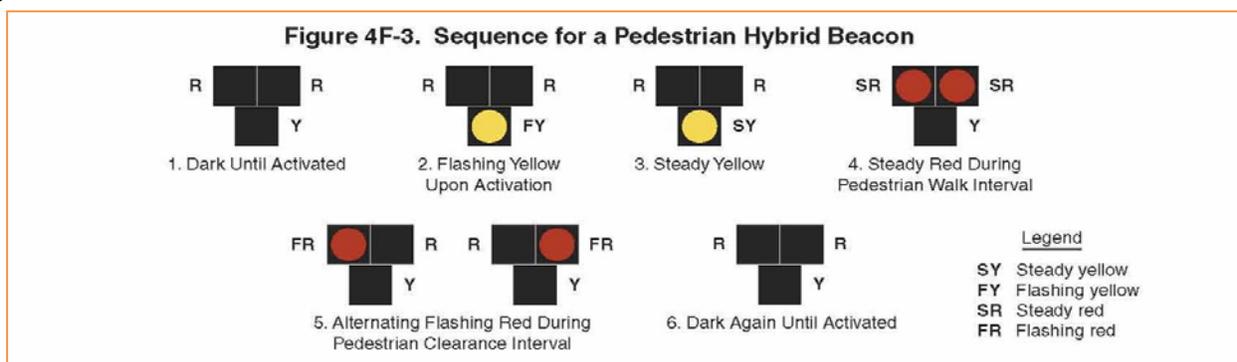
MUTCD, Chapter 4, Section 4D.03 provides standards and guidance for the design and operation of traffic controls for pedestrians. It states specifically, “where pedestrian movements regularly occur, pedestrians should be provided with sufficient time to cross the road by adjusting the traffic control signal operation and timing to provide sufficient crossing time every cycle or by providing pedestrian detectors.” MUTCD guidelines mandate a walking speed of 4’ per second be used to determine pedestrian clearance times. Where slower pedestrian traffic is anticipated, as is the case with older adults and those with ambulatory impairments, a walking speed of 3.5’ per second should be considered. PennDOT *Publication 149, Traffic Signal Design Handbook* states that a walking speed of 3.5’ per second should typically be used.



Pedestrian Signal Indications
Source: MUTCD 2009 Edition

Revisions to the 2009 Edition of the MUTCD include the use of pedestrian change interval countdown displays on pedestrian signal heads used at crosswalks where the pedestrian change interval is more than 7 seconds. If less than 7 seconds, the countdown display should still be considered to inform pedestrians of remaining time in the change interval.

Accessible pedestrian signals and detectors providing audible tones, vibration, or speech should be considered for intersections where pedestrians with visual disabilities need to cross. MUTCD guidelines state that an engineering study should be performed in these cases to determine the needs of pedestrians to be accommodated at the intersection, and the need for accessible pedestrian signals. Several factors should be considered prior to the installation of accessible signals including pedestrian volumes, traffic volumes, the complexity of the intersection geometry, and the complexity of traffic signal phasing. MUTCD cites the importance of involving local organizations who provide support services for pedestrians with hearing and/or vision impairments. At unsignalized crosswalks, Pedestrian Hybrid Beacons are an option for interrupting traffic flow to provide pedestrians with priority movement. MUTCD 2009 Edition provides warrants for their installation. The following graphic illustrates how the hybrid sequence functions at a midblock crossing.



Pedestrian Hybrid Beacon Sequence
Source: MUTCD 2009 Edition

Crosswalks

The Smart Transportation Guidebook, Chapter 8, Section 8.1.4 states that “crosswalks should be present on all legs of a signalized intersection, unless hazardous conditions make one or two legs unsuitable for installation.” MUTCD and AASHTO agree that crosswalks provide a pedestrian guidance and right-of-way when crossing roadways. Crosswalk design and striping can range from transverse (standard) lines to colored or textured treatments. This toolbox recommends crosswalks with longitudinal (ladder) striping for the following reasons:

- 1) Due to the parallel line positioning, fading from vehicle wheel paths is not as prevalent.
- 2) Motorists can see a longitudinal striped crosswalk from a further distance than a diagonal or standard striped crosswalk.

Crosswalks, regardless of type, should include curb ramps to facilitate pedestrian movements to and from the push button assemblies and to the connecting sidewalk. Crosswalks should also be high visibility and striping should be thermoplastic for longevity.



Rendering of a Midblock Crosswalk

Midblock crosswalks should be considered for unsignalized intersections if pedestrian demand and activity supports their installation. The placement of a crosswalk is dependent upon the context of the area, however, a midblock crosswalk should have adequate sight distance and it should not be located less than 200’ from a signalized intersection. Pedestrians crossing less than 200’ from a signalized intersection should be encouraged or channeled to use the signal crossing, if needed. Pedestrian warning signs and longitudinal striped crosswalk with ADA compliant curb ramps and truncated domes should be installed at midblock crosswalks at uncontrolled locations.

Signs, Direction and Reflection

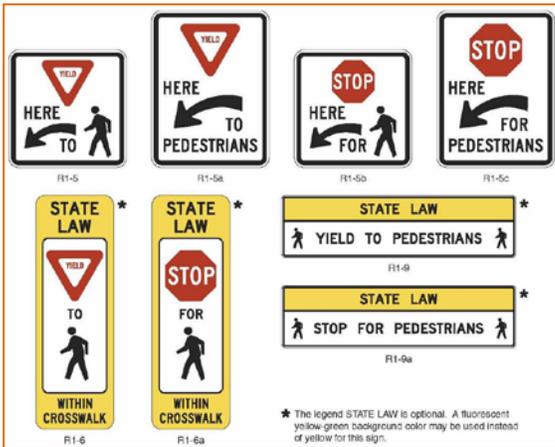
Signs not only provide direction to pedestrians, but also serve to alert motorists to the presence of pedestrians. At signalized intersections, pedestrian signs provide direction on push button operation, preferred crossing location, and pedestrian signal head use. Regulatory signs, such as “No Turn on Red” (MUTCD R10-11a) and “Turning Vehicles Yield to Pedestrians” (R10-15) at intersections alert motorists to the presence of pedestrians and provide direction on priority movements at the intersection.



* A fluorescent yellow-green background color may be used instead of yellow for this sign.

From Left to Right: Pedestrian Warning Sign, Handicap Warning Sign, Turning Vehicles Yield to Pedestrians for use at Signalized Intersections

Source: MUTCD 2009 Edition



Pedestrian Channelizing Devices for MidBlock Crosswalks
Source: MUTCD 2009 Edition

At unsignalized intersections, pedestrian warning signs and/or bollards alert motorists to yield or stop for pedestrians in the crosswalk. The Yield signs are used in the state of Pennsylvania, rather than the Stop signs. Yield to Pedestrian Channelizing Devices should be placed on the approach to a midblock crosswalk to increase motorist awareness of the crossing and to slow vehicular traffic (traffic calming effect).

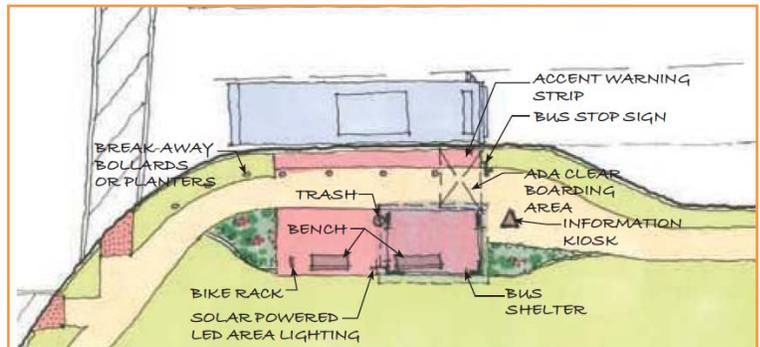
These pedestrian bollards were observed throughout Allegheny County, however they had been moved to the sidewalk or curb side at many of those locations. This observed displacement of the bollards should be monitored by municipalities who utilize the channelizing devices at unsignalized crossing locations.

Traffic Calming and Streetscapes

Speed control traffic calming measures and streetscapes provide for an improved pedestrian environment by reducing vehicular speeds, increasing pedestrian activity and providing an economic stimulus to the corridor through the use of decorative materials and pedestrian amenities (e.g., street furniture, landscaping, etc.).

Transit Stops and Stations

Transit facilities are an important component of active transportation and transit stops and stations facilitate connectivity and encourage multimodal trips (walking/bus or biking/bus). According to the *Smart Transportation Guidebook*, bus stops should be well-lit, provide safe access, and facilitate mobility for a variety of pedestrians in order to encourage trips by bus. Properly designed passenger waiting shelters provide pedestrians rest and cover from the weather, hence a more desirable and comfortable trip. Transit-Oriented Development (TOD) strategies further enhance the accessibility of transit stops and stations. The ACTA (www.acta-pgh.org/) has developed a prototype bus stop design in an attempt to improve the user experience. Additionally, the *20/20 Transit Vision Study* (developed by the SPC, Port Authority of Allegheny County, and the region's other transit providers) includes a TOD Toolbox with a section on typology for passenger facilities (http://www.portauthority.org/PAAC/Portals/Capital/VisionStudy/images/Toolbox_C.pdf).



Suburban Bus Stop Concept
Source: ACTA

Order of Magnitude Costs

Costs associated with implementing pedestrian facility improvements will vary. Interim improvements (e.g., crosswalk striping and signage) will have less design requirements and will therefore be less expensive than an improvement that would need to go through feasibility assessment and design before obtaining funding for construction (e.g., sidewalk construction). Typical costs are contained in **Table 3-6**.

Table 3-6. Typical Costs for Pedestrian Facilities

Item	Cost Per Unit	Quantity	Cost	Source
Cost Per Lane Mile				
5' Concrete Sidewalk	\$5.19 / SF	26,400 SF	\$137,016.00	2010 Means Sitework and Landscape Cost Data: G 2030 120 1580 Concrete Sidewalk 4" on 4" converted to SF
Crosswalk Striping	\$3.00 / LF	240 LF	\$720.00	12" White Hot Thermoplastic Pavement Markings (ECMS)
Cost Per Item				
Curb Ramp	\$1,500 EA	1 Ramp	\$1,500.00	Walkinginfo.org
Pedestrian Warning Sign	\$25.00 / SF	6.25 SF	\$156.25	30" X 30" Pedestrian Warning Sign, Type B Post Mounted (W11-2) (ECMS)
Pedestrian Signal Head	\$650.00 EA	1 Signal Head	\$650.00	Pedestrian Crosswalk Signal Head (LED), Type B, Countdown (ECMS)
Audible & Vibrating Push Button	\$1,400.00 EA	1 Pushbutton	\$1,400.00	Pedestrian APS Push Button (ECMS)
In-Street Pedestrian Channelizing Device	\$300.00 EA	1 Device	\$300.00	12" X 36" In-street Crossing Sign per MUTCD 2009 (private supplier)
Bench	\$810.00 EA	1 Bench	\$810.00	2010 Means Sitework and Landscape Cost Data: 12 93 43.13 0610 Site Seating
Pipe Bollard	\$525.00 EA	1 Bollard	\$525.00	2010 Means Sitework and Landscape Cost Data: 32 17 13.13 1300 Pipe Bollards

Source: PennDOT, <http://www.dot14.state.pa.us/ECMS/> and 2010 RS Means Site Work and Landscape Cost Data, 29th Edition

Pedestrian Innovation

Both ITE and FHWA offer alternative treatments to existing pedestrian facility improvements. ITE's *Innovative Treatments at Unsignalized Pedestrian Crossing Locations* offers treatments specifically for unsignalized locations. FHWA's *Study Tour for Pedestrian and Bicyclist Safety in England, Germany and the Netherlands* showcases innovative European approaches to pedestrian facility design. Some innovative pedestrian facility designs and/or treatments are detailed in **Table 3-7**.

Table 3-7. Innovative Pedestrian Facilities and Treatments

<p>Pedestrian Zones</p>	<p>A Pedestrian Zone or Mall blocks access to an area or roadway for vehicles, and in some cases bicycles. Pedestrian zones create a sense of place where pedestrians are not in conflict with motor vehicles, and an otherwise vehicle congested area is transformed into an area with exclusive pedestrian access. Times Square in New York City has embraced the vehicle free pedestrian zone, and locally the City of Pittsburgh recently redeveloped Market Square to be more pedestrian-oriented. The square has already generated increased pedestrian activity with its picnic tables. Market Square, when complete, will boast a children's play area, garden, and public art.^{xxxiv}</p>	 <p>Market Square, Pittsburgh</p>
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<p>Zebra, Pelican, Toucan and Puffin Crossings</p>	<p>Zebra, Pelican, Toucan and Puffin Crossings are different types of nonstandard crosswalk striping. According to the FHWA Study Tour, Zebra crossings are specifically used in uncontrolled midblock locations and are a zig-zag pattern at vehicle approaches indicating that pedestrians have the right-of-way. Pelican crossings are dotted lines marking the crosswalk and controlled by traffic signals and push buttons. Puffin (Pedestrian User-Friendly Intersection) crossings are a combination of traffic and pedestrian signals with infrared detectors and barriers to channel pedestrians into the crosswalk. Finally, Toucan (cyclists “too can” cross together) crossings are a shared pedestrian and bicycle treatment with tactile surfaces, audible signals, push buttons, monitors, and detection.</p>	 <p><i>Zebra Crossing, Abbey Road, London, UK</i> Photo: www.Wired.com</p>  <p><i>Toucan Crossing, Longden Road, Shrewsbury, UK</i> Photo: www.Shropshire.gov.uk</p>
<p>Pedestrian Pavement Messages</p>	<p>Utilized most frequently in Europe, these pavement messages alert the pedestrian to “Look Right” and/or “Look Left” before proceeding through the crosswalk.</p>	 <p><i>Pavement Messages in London, UK</i> Photo: FHWA</p>

3.4 POLICY & PROGRAMMATIC CONSIDERATIONS

This plan was developed to serve as a guide for Allegheny County and its local municipalities to assist in improving active transportation facilities and encouraging active transportation. Based on the public outreach activities and document comments, there is growing public support for improved pedestrian facilities for access and mobility. Policies and programs that support walking improve the built environment for all transportation modes. Everyone starts their trip, regardless of trip purpose, as a pedestrian (even if you are getting in your car, you walk and/or roll there).

Policies

PennDOT's Design Manual

Sidewalks – PennDOT's Design Manual 2, Chapter 6, Section 6.6 establishes the criteria for sidewalks in PennDOT projects. The Department may participate when criteria are met and where communities support sidewalks and participate in cost sharing, ownership and future maintenance. Municipal buy-in to add sidewalks is sometimes a challenge. Municipalities should be educated on Smart Transportation and the benefits of sidewalks:

- To emphasize the importance of pedestrian safety,
- To advance the implementation of smart and healthy transportation principals,
- To assist with placemaking and to discourage sprawl, and
- To reduce fossil fuel consumption and to reduce costs in the long term.

Municipalities should be further encouraged to support the local match with applicable local funding sources or creative funding programs, such as grants, donation credits, and/or private and business participation.

Curb Ramps – PennDOT Design Manual, Part 2, Chapter 6, Sections 6.2, 6.3 and 6.9 states that striping of a crosswalk (new installation) requires an upgrade and/or installation of curb ramps at the crossing. Within the next ten years, PennDOT will be upgrading curb ramps for ADA compliance per federal regulations. However, if specific locations are identified as a concern by a user or an evaluation is requested, PennDOT or the local municipality will address a potential location upgrade expeditiously.

Pennsylvania Driver's Manual

Chapter 2: PA's signal, sign, and pavement marking requirements state "always yield to pedestrians" as they may not know their responsibility at an intersection with regards to pedestrian signals. Pedestrian crossing and school crossing signs are also addressed. It is recommended that when the Driver's Manual is revised, it incorporate language advising drivers not to stop in a crosswalk as it hinders pedestrian mobility at an intersection.

Hazardous Walking Routes



Pennsylvania code sections 506 and 2001 of the Administrative Code of 1929 and sections 1362 and 2541 of the Public School code of 1949 empowers schools to designate a school student walking route along a public highway as hazardous provided they meet the outlined criteria. The hazardous walking routes designation discourages students from walking to school on roadways without sidewalks, shoulder provisions, or designated crossings. While the code has the best interest of students in mind, schools should be required to evaluate potential safe routes to school prior to designation of hazardous walking routes. If funding is available for improvements, it is recommended that the potential hazardous walking routes be improved. If hazardous route designation is unavoidable, it is recommended that parallel routes to school be evaluated and designated by the school. It is further recommended that hazardous designations be reviewed periodically, and if necessary updated, to reflect infrastructure improvements.

State Bicycle and Pedestrian Coordinator

The Federal Highway Administration (FHWA) indicates that each state should have a Bicycle and Pedestrian Coordinator "to promote and facilitate the increased use of non-motorized transportation, including developing facilities for the use of pedestrians and bicyclists and public educational, promotional, and safety programs for using such facilities." For Pennsylvania, that person is based out of PennDOT's Bureau of Design, Highway Quality Assurance Division in Harrisburg. The Bicycle and Pedestrian Coordinator position facilitates the following:

- ✓ "Increased use of nonmotorized transportation, including developing facilities for the use of pedestrians and bicyclists and public education, promotional and safety program for using such facilities."^{xxxv}
- ✓ Implementation of the goals and objectives set forth in the 2007 PennDOT Bicycle and Pedestrian Plan
- ✓ Information exchange among public agencies with regards to bicycle and pedestrian travel.

Given this ambitious program, the implementation of this plan may require additional staff resources to achieve the program goals.

Programs

United States

Many states and their communities have developed programs in the past decade to encourage walking for the numerous benefits it provides to an individual and the environment. Walkinginfo.org^{xxxvi} offers strategies to promote walking including special events, clubs, incentives, programs, and maps. Some examples of successful programs across the country are detailed in this section.

Pennsylvania – “PACommutes” caters to alternative transportation in Pennsylvania, including ridesharing, transit, bicycling, and walking. Resources for pedestrians are provided on www.PACommutes.com including the benefits of walking, safety and laws in the state, information and links to trails and paths, and “walkscore.” “Walkscore” provides pedestrians with a checklist to evaluate their community for walkability and suggests ways to take action if their community scores low. A tool is also available on the PACommutes website to calculate how much money an individual could save through switching from single occupancy vehicle commutes to alternative modes of transportation.



PA Commutes Website

Source: www.pacommutes.com

Allegheny County, Pennsylvania – The TMAs in Allegheny County (Oakland Transportation Management Association, the Pittsburgh Downtown Partnership and Airport Corridor Transportation Association) have been developing programs to raise awareness of walking as a viable mobility alternative. The following programs were provided by ACTA for the Plan:

- † Walk Challenge (www.walk-challenge.org) – An eight-week Summer Walk Challenge “Ready, Set, Walk” and a Winter Walk Challenge “See a Smaller Shadow” are held jointly by the TMAs to promote walking as a means of commuting to destinations. People can track their steps via provided pedometers and record their numbers on the Walk Challenge website for weekly prizes and a grand prize.
- † Walk Pittsburgh – CMAQ funded project under development via website to encourage walking. Walk Pittsburgh will provide walking maps of the Greater Metropolitan Area, as well as other resources once publicly available.
- † Walkability Audits – Utilizing grant monies recently applied for by the TMAs, there are plans to assist Allegheny County municipalities in performing walkability audits in their communities. Walkability Audits focus on improving and enhancing pedestrian conditions along corridors and at intersections to improve access, mobility and safety.



Walk Challenge Poster

Source: walk-challenge.org/sass2011/default.asp

Cambridge, Massachusetts – “Cambridge Walks and the Hunt for the Golden Shoes” is an incentive program by the Cambridge Public Health Department to increase walking as a mode share through rewards. It enlightens people on the benefits of walking, while providing an interactive experience of hiding gold shoes around the city where people may walk. Shoes can then be turned in by the finder for prizes donated by local merchants. For more information, visit www.cambridgema.gov/cdd/et/ped/index.html.

Yolo TMA, California – Yolo Transportation Management Association has a pedestrian incentive program that provides financial compensation to single occupancy vehicle commuters who switch to walking as a mode of commuting. There are guidelines for participation including an application process. Compensation includes \$10 per month for three months and bonuses for continued participation of ten days of commuting at least one mile each way for a period of one year.

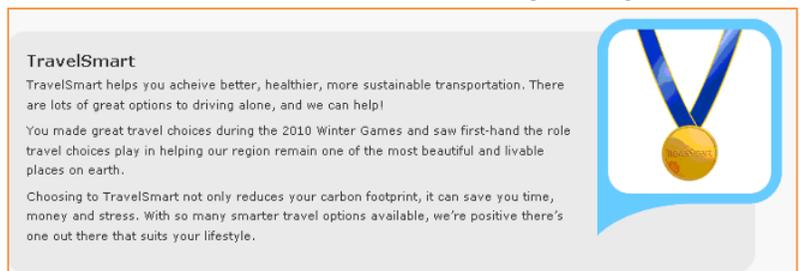
Wilsonville, Oregon – Wilsonville implemented the “WalkSmart” program, which provides residents and employees with a pedometer and log book to encourage walking within the community. Participants in the program who submit their logs are eligible to receive prizes in a monthly drawing as well.

Canada

With high concentrations of pedestrian activity in their cities, Canada has several programs for its residents who choose to walk. The “Commuter Challenge” is a national one week event urging commuters to leave their vehicles parked and travel to work by other means. The goal is to educate commuters on the numerous benefits of commuting by alternative transportation and encourage trips by walking, biking, or transit.

Toronto and Hamilton Metropolitan Area – “Smart Commute” assists employers and commuters through emergency ride home services, incentives, and promotions for those who are interested in commuting through alternative transportation.

Vancouver – The Greater Vancouver Transportation Authority piloted a program “TravelSmart” to promote sustainable travel through education and incentives. “TravelSmart” participants who requested additional information about walking as a travel mode choice were rewarded with prizes.



TravelSmart
TravelSmart helps you achieve better, healthier, more sustainable transportation. There are lots of great options to driving alone, and we can help!

You made great travel choices during the 2010 Winter Games and saw first-hand the role travel choices play in helping our region remain one of the most beautiful and livable places on earth.

Choosing to TravelSmart not only reduces your carbon footprint, it can save you time, money and stress. With so many smarter travel options available, we're positive there's one out there that suits your lifestyle.

TravelSmart Summary
Source: travelsmart.ca/

Alberta – Alberta Winter Walk Day is an event held in February to promote active transportation, including school trips. Schools can become a member of “Safe Healthy Active People Everywhere (SHAPE)” and information for students will be sent to the school. Total number of minutes walked to school is logged into the membership profile of SHAPE, who promotes active and safe routes to schools in Alberta.



3.5 EDUCATION, ENFORCEMENT & PUBLIC AWARENESS

To properly plan for future growth of pedestrian facilities usage in the county, it is important to implement educational programs that encourage proper safety techniques among pedestrians and motorists statewide, countywide, and on a municipal level. When educating the targeted users of the transportation network, it is important to dispel myths, encourage courteous, respectful and lawful behavior, and enhance awareness and acceptance of alternative modes. By utilizing the resources of the police, schools, municipal administration, and libraries, educational programs have the potential of reaching a broader audience and cross section.

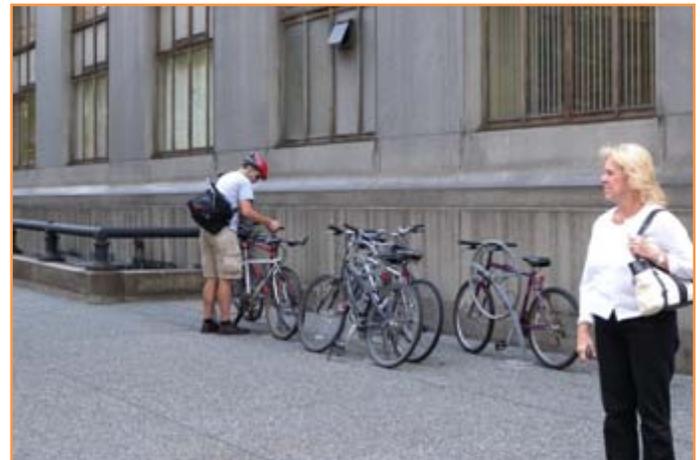
It is important to educate each group on the most frequent causes of crashes and injuries. Pedestrian safety programs and educational materials should be made available to everyone. The U.S. Department of Transportation (USDOT) – Federal Highway Administration (FHWA) provides materials and training to assist states, counties, and local jurisdictions in enhancing pedestrian access, mobility, and safety. These materials and/or training are detailed on FHWA’s website and include:

- † **FHWA University Course on Bicycle and Pedestrian Transportation** – Provides current information on pedestrian planning and design techniques, as well as practical lessons on how to increase walking facilitated by land use and engineering. (www.fhwa.dot.gov/publications/research/safety/pedbike/05085/)
- † **National Highway Institute (NHI) Pedestrian Facility Design Course** – A one and a half day session that provides information and application opportunities for those involved in the design of pedestrian facilities. (www.nhi.fhwa.dot.gov/training/course_detail.aspx?num=FHWA-NHI-142045&num=)
- † **Safer Journey CD-ROM** – An interactive CD-ROM that takes the user through various pedestrian safety scenarios encountered every day by pedestrians. (http://safety.fhwa.dot.gov/ped_bike/ped_bike_order.cfm)
- † **PEDSAFE** – The Pedestrian Safety Guide and Countermeasure Selection System (FHWA-SA-04-003) is intended to provide practitioners with the latest information available for improving the safety and mobility of those who walk. (www.walkinginfo.org/pedsafe/about.cfm)
- † **Pedestrian Road Safety Audit Guidelines and Prompt Lists** – This publication (FHWA-SA-07-007) provides transportation agencies and teams conducting road safety audits with a better understanding of the needs of pedestrians and their abilities. (<http://drusilla.hsrc.unc.edu/cms/downloads/PedRSA.reduced.pdf>)
- † **A Review of Pedestrian Safety Research in the United States and Abroad** – This report (FHWA-RD-03-042) examines pedestrian safety across the 50 states and in countries abroad to draw comparisons and conclusions. (www.fhwa.dot.gov/publications/research/safety/pedbike/03042/)

KIDS

Several other organizations and agencies provide information regarding walking including the National Center for Bicycling and Walking (www.bikewalk.org), the Pedestrian and Bicycle Information Center (www.walkinginfo.org), America WALKS (www.americawalks.org), Perils for Pedestrians (www.pedestrian.org), and Walkable Communities (www.walkable.org).

In Allegheny County, the SPC (www.spcregion.org), BikePGH (www.bike-pgh.org) and Friends of the Riverfront (www.friendsoftheriverfront.org) provide pedestrian resources as well as bicycle resources detailed in Chapter 2.



Pedestrian and Bicyclist, City of Pittsburgh

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