2021 SIOUX FALLS PEDESTRIAN PLAN

SIOUX FALLS PEDESTRIAN COMMITTEE
FEBRUARY 2021

CITY OF SIOUX FALLS
PLANNING & DEVELOPMENT

In memoriam to those who lived, and walked amongst us.
Their lives deserve more, than just this plan, due to what befell them.
We will remain aware that our decisions affect the health and safety
of all within our community.

To the pedestrians that have been killed by vehicles in previous years,
[and those that will be needlessly killed in the future].
We need to do better.

Acknowledgements

[2019]—Pedestrian Committee

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Glossary of abbreviations and technical terms

ADA—Americans with Disability Act

DOT—Department of Transportation

FHWA—Federal Highway Administration

FAST—Fixing America's Surface Transportation Act

HSIS—Highway Safety Information System

ISTEA—Intermodal Surface Transportation Efficiency Act of 1991

LRSP—Local Road Safety Plan

MUTCD—Manual on Uniform Traffic Control Devices

NCHRP—National Cooperative Highway Research Program

NHTSA—National Highway Traffic Safety Administration

PATH—Pedestrians Avoiding Traffic Hazards

STEP—Safe Transportation for Every Pedestrian

SDCL—South Dakota Codified Law

AASHTO—American Association of State Highway and Transportation Officials

ITE—Institute of Transportation Engineers

MPO—Metropolitan Planning Organization

NACTO—National Association of City Transportation Officials

PROWAG—Public Rights-of-Way Accessible Guidelines

Purpose of Plan

The 2021 Pedestrian Plan is an update to the 2006 Pedestrian Plan. The Sioux Falls Pedestrian Plan will refine the recommendations of the Sioux Falls Metropolitan Planning Area's Long-Range Transportation Plan, the Sioux Falls Long-Range Transportation Research Study, Sioux Falls Complete Streets, and the Sioux Falls Growth Management Plan and support recommendations of the ADA Transition Plan: *Americans with Disabilities Transition Plan April 2021*. The Pedestrian Plan will provide goals, objectives, and policies including the identification of facility improvements, programs, and actions.

When addressing the needs of pedestrians within this plan, it is generally the needs of the mobile walking mode. For all intents and purposes, when planning for the pedestrian it's taking into consideration the modes that aren't automobiles—which could include wheeled transportation, bikes, wheelchairs, strollers, scooters, long boards, etc.

Goals of this Plan

As Sioux Falls continues to grow, the additional traffic generated by the growth will make it more important to develop safe and attractive pedestrian facilities. The goals of this plan are to:

- Create a safe, accommodating, and attractive atmosphere for all pedestrians.
- Educate the public about pedestrian rules and standards to help them make informed decisions and input.

Implement the pedestrian plan through:

- Advocacy—An advisory board is a body that provides nonbinding strategic advice to the management of a municipality. The informal nature of an advisory board gives greater flexibility in structure and management compared to the City Council. Unlike the City Council, the advisory board does not have authority to vote on corporate matters or bear legal fiduciary responsibilities.

  Advocacy is an act by a body or individuals toward an issue; the act can be in speaking, researching, and educating . . . in order to influence decision makers.

- Subdivision Ordinance—Propose amendments to the pedestrian section and provide more definitive guidance.

- Zoning Ordinance—Look into options for compact development and more walkable designs to be integrated into the zoning ordinance including incentives for developers who provide more pedestrian options.

- Engineering Design Standards—Propose amendments to sections of EDS as discussed throughout pedestrian elements.

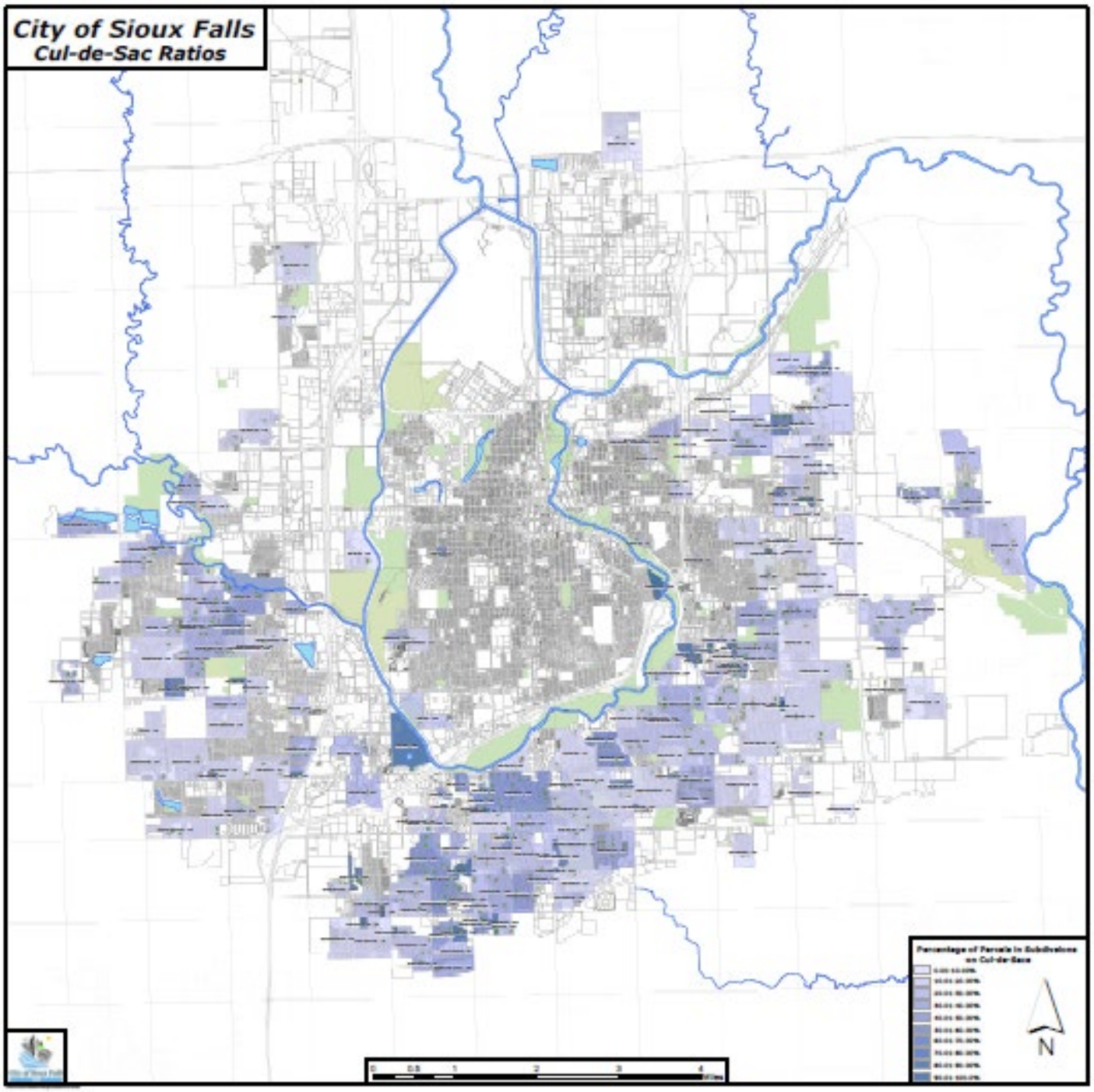
Future studies should be completed:

- Sidewalk Master Plan—After completing a sidewalk inventory of the city, determine sidewalk priorities based upon the policies of the Pedestrian Plan.
    - Implement improvements to maintenance and construction of sidewalks as detailed within the sidewalk plan.
- Street Analysis—Regarding road diets and the ability to reduce the amount of traffic lanes; the possibility of increasing pedestrian lanes.
    - Accompanying speed studies [associated with 4—safety (and speed)].

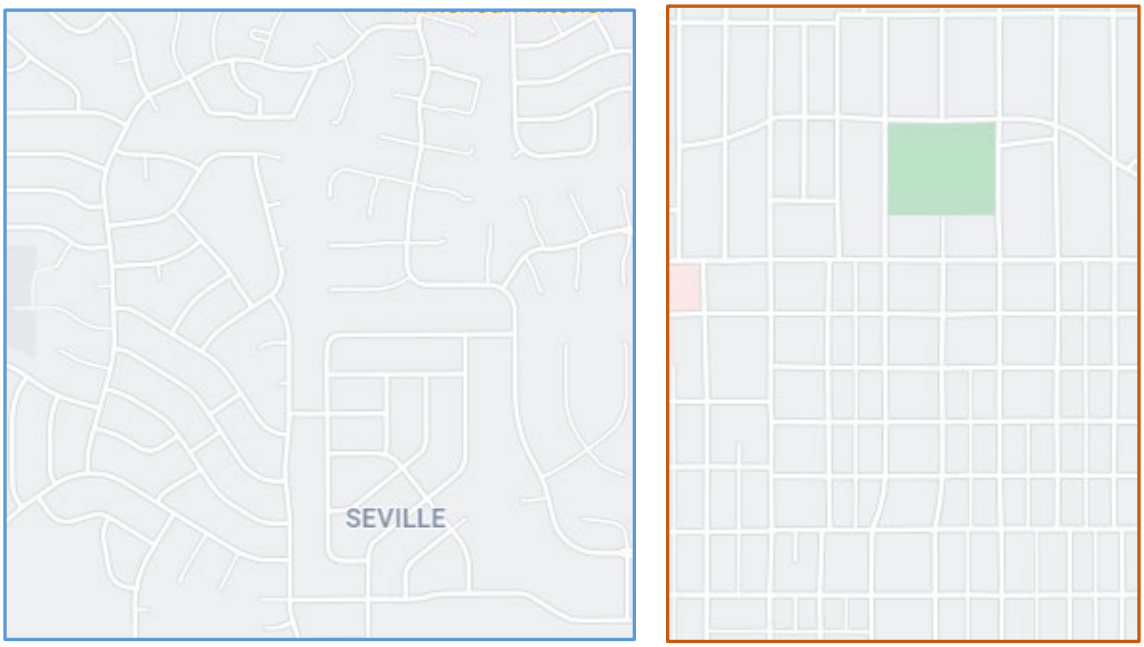
I. Walkable Community

What is a walkable community?

A walkable community is simply a place where people can walk, enjoy walking, and walk safely. Improving a community's pedestrian facilities is beneficial through lowering transportation costs, improved social interaction, and better personal and environmental health.



Suburban vs Traditional Residential Neighborhoods



For pedestrians, connectivity with through streets is important. It's efficient and allows for practical movements in all directions. While today's curvilinear streets are supported by homeowners for the deterrence of efficient and practical vehicle traffic in all directions.

Community—Neighborhoods and Development Areas

The study found traditional neighborhoods that were considered highly walkable and bikeable generally had:

1. High population density.
2. Good mix of land uses (a mixture of residential and business properties).
3. Highly connective grid-like street design.
4. Continuous sidewalks.

Neighborhoods that scored poorly on this walkability and bikeability scale tended to have the following factors:

1. Fewer residents.
2. Barriers to direct travel (cul-de-sacs).
3. Purely residential or business land uses.
4. A lack of adequate bike or pedestrian facilities (sidewalks, bike lanes, or stop signs at intersections).

(Source: Parsons Brinckerhoff Quade and Douglas, with Cambridge Systematics and Calthorpe Associates "The Pedestrian Environment" in Making the Land Use Transportation Air Quality Connection Vol. 4A [Portland, OR, 1993]).

"Regular physical activity throughout life is important for maintaining a healthy body, enhancing psychological well-being, and preventing premature death."

Regular physical activity improves health quality in a number of areas including heart health, diabetes, weight, and is associated with a decreased risk of colon cancer, healthy weight control, body strength, coordination, and symptoms and incidence of depression. 206

Healthy People 2010, U.S. Department of Health and Human Services (Nov. 2000). Available at: http://www.healthypeople.gov/2010/Document/tableofcontents.htm.

II. Existing Situation

a. Sidewalk Facilities

The predominate facility for the majority of pedestrians is the sidewalk. The sidewalk is common place in all communities, all areas, and cultures. Not only is it a facility for transportation, but it becomes a gathering place for people and groups whether in a residential or denser business setting. As diverse as the locations and placement of the sidewalks, are the users of the sidewalks. This diversity needs to be considered during planning, design, and construction.

Sidewalk Boulevard

No sidewalk

1. Sidewalk Intersection Facilities

Painted Crosswalk, along with curb ramp

Detectable Warning Panels. Detectable Warning Panels are installed at the bottom of curb ramps to provide a tactile (ability to touch or feel) cue to blind travelers that they are entering the street.

2. Street Crossing

When pedestrians are crossing the streets (of various widths, volumes, and speeds), design elements can be considered.

- Curb extensions are used quite extensively in the downtown area and other areas where traffic calming is needed. The curb extensions reduce the amount of distance for a pedestrian crossing the street.

- Median, islands, and free right-turn lanes should consider pedestrians and provide accessible street crossing connections. Free right-turn lanes should ensure that the pedestrian is considered through a safe crossing area.

b. Bicycle Facilities

The 2015 Bicycle Plan has many goals and objectives that have relevance to an updated Pedestrian Plan. It would be beneficial for pedestrian advocates to be in consensus with those bicycle objectives.

- Find design methods that safely and comfortably cross barriers such as the interstates, rivers, and major intersections. Design methods should be reviewed that include over crossings, under crossings, protected bicycle intersections, bike boxes, and others.

- Design and implement bike facilities that are appropriate for the street traffic.

- Incorporate bike routes and trails as a part of all major street corridor projects.

- Meet with developers, businesses, and citizens to provide information about the benefits of including bicycle facilities within their developments.

- Update City ordinances and design policies to be consistent with “complete streets” policies.

As a part of the strategic planning process, use the following criteria to determine if a proposed bicycle route will be effective and desirable:

- Accessibility—Residential areas and high-priority destinations (schools, shopping areas, business centers, parks, etc.) should all have safe access by bicycle.

- Directness—Studies have shown most bicyclists will not use even the best bicycle facility if it greatly increases the travel distance or trip time over that provided by less desirable alternatives.

- Continuity—The network should have few missing links.

- Route Attractiveness—Low perceived threat to personal safety, plus high visual aesthetics.

- Low Conflict—Few conflicts between bicyclists and motor vehicles.

- Cost—Costs should be reasonable to implement.

- Ease of Implementation—Room to place facility does not unduly impact traffic operations.

c. Transit Facilities

All fixed-route transit customers are pedestrians first. So, transit facilities are an important consideration for many pedestrians. This includes transit shelters, benches, and terminals. All shelters and benches should be in a location that will be accessible for transit users; “ . . . because sidewalks and the City’s bus transportation are integrally related.” ADA Transition Plan p. 2–6

With the demographics of Sioux Falls and the automobile focus, future urban developments should be designed in such a way to take advantage to transit routes, create corridors to the facilities, and lay out subdivisions of high density apartments and employment centers to include access to the transit facilities.

> Accessible public transportation furthers local economic development, regional integration generally, and the interest of the City of Sioux Falls in being a livable, vibrant, and attractive destination for all. To accomplish these goals, the City’s transit system should be planned and integrated with other public services and programs to address the needs of various stakeholders, and in ways that make environmental, social, civic, and economic sense. ADA Transition Plan p. 2-2.

d. Miscellaneous to the Facilities

In addition to the capital facilities that have been listed, there are other existing features of the pedestrian facilities.

1. Pedestrian Detours

Motorists do not want to be inconvenienced, and pedestrians do not also. More importantly, it's a real challenge for pedestrians to be detoured—the additional length and time can be insurmountable for some. Detours need to be more considerate of all pedestrian modes.

2. Pedestrian Signage/Crossing Signage

The MUTCD gives standards for type and location of signage. Education should be highlighted throughout the community regarding the intent and enforcement of the signs.

3. Design Infrastructure

Subdivisions should be designed in order to facilitate pedestrian movements. The trip beginning at residential housing and the destinations being schools, shopping, services, adjacent residential areas, etc. Therefore, corridors and the facilities between these areas should be designed with safety, efficiency, and multiple modes in mind.

When designing subdivisions and their geographic proximity, these parameters should be referenced:

Areas within 1/4 mile of transit routes.

Areas within 1/4 mile of retail areas.

Areas within 1/2 mile of parks.

Areas within 3/4 mile radius of schools.

4. Safety

According to the Fatality Analysis Reporting System, overall highway fatalities increased 9 percent between 2010 and 2019, while pedestrian fatalities increased 44 percent during the same time period. Nationwide, the majority of pedestrian fatalities have happened in the fall and winter. One-third of the fatalities are impacting pedestrians aged 50–69 years of age. During this data period, an increase was seen in the fatalities by SUVs or other light trucks. And the majority of fatalities have been on arterial streets. Along with the roadway type—**speed is a factor**—" . . . the average risk of death for a pedestrian reaches 10 percent at an impact speed of 23 mph, 25 percent at 32 mph, 50 percent at 42 mph, 75 percent at 50 mph, and 90 percent at 58 mph." p. 9

Sioux Falls Pedestrian Fatalities		
Oct. 17, 2021—1 a.m.	10th St. and Summit Ave.	69 year-old
Sept. 5, 2021—8:25 p.m.	E. Rice St. and Jessica Ave.	
Nov. 18, 2020—10:15 p.m.	W. 5th St. and N. Minnesota Ave.	77-year-old Robert Allen Scott
Sept. 3, 2020—8:30 p.m.	16th St. and Spring Ave.	67-year-old Carmen Edward Quickbear
June 8, 2020—9:45 p.m.	600 block of N. Cliff Ave.	71-year-old Rudy Crow
Feb. 5, 2020—6:50 a.m.	12th St. and Williams Ave.	69-year-old Marvin Roy Thornton
June 11, 2019—6:55 p.m.	W. 60th St. N. and I29	Kenneth Gunderson, bicyclist
March 25, 2019—4:11 p.m.	6th Ave. N.	
Dec. 23, 2018—10:16 p.m.	W. 57th St.	
Sept. 27, 2017—6:27 p.m.	Carolyn Ave. Swenson Dr.	
Aug. 29, 2017—10:04 p.m.	N. Cliff Ave. 9th	
July 19, 2016—4:42 a.m.	I 229 N Off Ramp at Benson Ave.	

South Dakota Traffic Statistical Summary

	Miles Traveled +(000,000)	Number of Pedestrians Killed	Number of Bicyclists Killed	Fatal Crashes
2020	9,703	14	1	132
2019	9,909	8	1	88
2018	9,702	11	0	110
2017	9,623	10	0	111
2016	9,464	6	0	103
2015	9,315	5	1	116
2014	9,156	9	2	125
2013	9,114	9	0	121
2012	9,077	2	0	118
2011	8,993	7	1	101
2010	8,861	9	2	124

The majority of the information in this book is compiled by the Office of Accident Records within the Department of Public Safety. Current state law requires an accident report to be filed for each motor vehicle traffic accident resulting in the death or injury of a person, or property damage to an apparent extent of one thousand dollars or more to any one person's property or $2,000 accumulated damage per accident.

Fatal Crash

Motor vehicle traffic crash in which at least one person dies as the result of the crash and dies within 30 days of the date of the crash.

- Safety Programs

  In 1969, 89 percent of K–8 American students walked or biked to school if they lived within a mile. By 2009, that number dwindled to 35 percent. Addressing the traffic speeds, drop-off locations, and turning movements . . .

  The Sioux Falls Police Department goes into public and private elementary school classrooms and instructs children on a variety of safety topics including pedestrian safety techniques and strategies. Pedestrians Avoiding Traffic Hazards (PATH) is a commission of school officials, City staff, and citizens to help determine methods and projects to help create safe routes to school for children in Sioux Falls.

5. Laws (City and State)

   State and municipal laws affect pedestrians. All too often, pedestrians are not aware of the laws affecting them, and this lack of information results in the violation of a law. Violating the laws is not only an offense, but can also lead to accidents involving the pedestrian with vehicles or bicyclists.

   Federal Legal Considerations

   The recently passed Fixing America's Surface Transportation Act (FAST, 2015) retained the transportation planning and funding framework established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). TEA-21 includes a specific requirement that bicyclists and pedestrians be given due consideration in the MPO transportation planning process and in designing and constructing transportation facilities. "In general—Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and state in accordance with Sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian uses are not permitted." (23 U.S.C. § 217 (g) (1)) "Safety considerations—Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians. Safety considerations shall include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings." (23 U.S.C. § 217 (g) (2))

   The State Department of Transportation's Intermodal Long-Range Plan mirrors the federal requirements with a similar statement. "DOT will ensure that any transportation improvements along a corridor will not make bicycles or pedestrian access more difficult or impossible."

Summary of Key Pedestrian Laws

1. The term, pedestrian, when used in this chapter, means any person moving or traveling on foot, including any person wearing roller skates, riding on a skateboard, or riding on an electric personal assistive device. (32-27-1.1)

2. Vehicle drivers shall yield the right-of-way to a pedestrian crossing a highway (or street) within any clearly marked crosswalk or at any other unmarked crosswalk except where there is a traffic signal or traffic officer. (SDCL 32-27-1 and Sioux Falls Ordinance Sec. 80.003).

3. A crosswalk is defined as that part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface. (Sioux Falls Ordinance Sec. 70.001).

4. The driver of any vehicle upon a highway within a business or residence district shall yield the right-of-way to a pedestrian crossing the highway within any clearly marked crosswalk or any regular pedestrian crossing included in the prolongation of the lateral boundary lines of the adjacent sidewalk at the end of a block, except at intersections where the movement of traffic is being regulated by traffic officers or traffic direction devices. However, no pedestrian may suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard. A violation of this section by a driver is a petty offense. (SDCL 32-27-1 **Yielding right-of-way to pedestrian making proper crossing.**)

5. At intersections where there is a traffic signal or traffic officer, the driver shall yield the right-of-way to pedestrians crossing or those who have started to cross the roadway on a green or go signal; and in all other cases pedestrians shall yield the right-of-way to vehicles lawfully proceeding directly ahead on a green or go signal. (SDCL 32-27-2.)

6. Every pedestrian crossing a highway within a business or residence district at any point other than a pedestrian crossing, crosswalk, or intersection shall yield the right-of-way to vehicles upon the highway. A violation of this section is a petty offense. (SDCL 32-27-4.)

7. Where sidewalks are not provided, pedestrians shall walk only on the left side of the roadway or on the shoulder facing traffic when practicable. (SDCL 32-27-5.)

8. Pedestrians who are blind with a guide dog or white guide cane in an extended position shall be allowed the right-of-way to cross the street by all vehicles. (SDCL 32-27-7.)

9. With pedestrian control signals, walk lights mean the pedestrian facing such signal may proceed across the roadway while the “don’t walk” light means no pedestrian may start across the roadway. (SDCL 32-28-9.1.)

10. DESIGNATION OF CROSSWALKS, ESTABLISHING SAFETY ZONES.

    (a) The city engineer may designate and maintain, by appropriate devices, marks or lines upon the surface of the roadway, crosswalks, where, in his or her opinion, there is particular danger to pedestrians crossing the roadway, and at those other places as he or she may deem necessary.

    (b) The city engineer may establish safety zones of the kind and character at the places as he or she may deem necessary for the protection of pedestrians. (Sioux Falls Ordinance Sec. 75.009.)

11. No person shall drive any vehicle or motor vehicle other than a bicycle or wheelchair upon the sidewalks. (Sioux Falls Ordinance Sec. 76.082(a).)

    (a) 81.023 INTERFERING WITH PEDESTRIANS.

    No person shall ride or propel any bicycle or e-bicycle upon any street in a manner as to interfere with any pedestrian thereon.

    Effective January 10, 2019, Sioux Falls City ordinances will allow Class 1 E-bikes on City recreational trails, sidewalks, side paths, cycle tracks, and in bike lanes.

12. A person driving a bicycle on a sidewalk or crosswalk shall yield the right-of-way to any pedestrian and shall give an audible signal before overtaking and passing such pedestrian. (Sioux Falls Ordinance Sec. 76.082 (b 1).)

13. The construction of a permanent sidewalk fronting or abutting all streets, highways, and avenues shall be accomplished by the builder, owner, or developer of all new or relocated residential and commercial buildings within the city. (Sioux Falls Ordinance Sec. 96.050 Responsibility.)

14. The construction, repair, or alteration of all sidewalks, curb ramps, and driveway approaches within the public right-of-way shall be done under the direction of the city engineer or the city engineer's designee and strictly in accordance with the City's design standards and specifications for sidewalks, curb ramps, and driveway approaches. The city engineer or the city engineer's designee shall have full power to condemn work and material not in accordance with the requirements of those specifications.

    In addition, the city engineer or the city engineer's designee shall provide notice on behalf of the governing body to adjoining property owners to construct or repair sidewalks as required by state law.

    (Sioux Falls Ordinance Sec. 96.051 Specifications and Supervision.)

15. The City Engineer shall place and maintain traffic control signs, signals, and devices when and as required under the traffic ordinances of this city to make effective the provisions of such ordinances. The City Engineer may place and maintain such additional traffic control devices as he or she may deem necessary

to regulate traffic under the traffic ordinances of this city or under state law or to guide or warn traffic. (Sioux Falls Ordinance Sec. 75.001.)

16. 157.098 PRELIMINARY SUBDIVISION PLAN STREET SYSTEM

    (g) *Private streets or roads.*

        (4) Any nonresidential development that proposes private streets shall include sidewalks on both sides of the street, curb and gutter, streetlights, and driveways all to city Engineering Design Standards.

17. 157.099 PRELIMINARY PLAN WALKWAY/BICYCLE TRAILS.

    (a) Concrete or asphalt pedestrian walks or bike trails shall be required through blocks greater than 1,320 feet when needed to reduce walk distances and increase access to current or future schools, playgrounds, employment centers, commercial areas, bus stops, bike trails, and other community facilities. They may also be required to provide access to greenways and common areas. The sidewalks shall be included within a ten-foot easement or other acceptable area as approved by the city engineer and maintained by the adjacent property owners or other acceptable landowner as approved by the city engineer. The sidewalks shall be paved at least six feet in width and shall be constructed before a certificate of occupancy is approved.

6. Pedestrian Promotion

Currently, the Sioux Falls area does not have a significant amount of pedestrian promotion. In the future, the City website and CityLink could be a good source to promote walking as a recreational and commuting option.

- Key Pedestrian Promotion Facts
  - City of Sioux Falls Bicycle Trail and Route Map.
  - Provides an easy-to-read reference of location of the city's bicycle routes and trails. The map also includes park facility information, bicycle laws, and safety tips.
    - Sioux Falls Website: siouxfalls.org/ /pedestrian-planning

      A pedestrian planning page is included on the transportation planning web page.

7. Public Involvement

During the month of September 2019, a survey was available online and was promoted through the open house, Council Informational, and citizen group emails.

Survey results [below—Appendix A]

The Pedestrian Advisory Committee met various times to discuss safety and facility items, including the objectives that are listed within this updated plan.

https://siouxfalls.org/planning-dev/planning/transportation-planning/highlights/pedestrian-planning

The public was involved through the following methods:

a. Open house

b. Long-Range Transportation Research Study

c. Pedestrian Committee

d. City Advisory Committees

- Planning Commission
- PATH (Pedestrians Avoiding Traffic Hazards)
- Disability Awareness and Accessibility Review Board
- Park Board
- Infrastructure Review Advisory Board

Progress Since 2006

Since the first Pedestrian Plan was completed in 2006, numerous projects have been completed to improve the pedestrian system. These include, but are not all inclusive . . .

West Madison Street pedestrian overpass of the Big Sioux River

West Maple Street pedestrian underpass west of Marion Road

West Maple Street pedestrian cycle track west of Career Avenue

West Benson Road and linear park underpass [maintenance bench] west of Career Avenue

Big Sioux River crossing to west side at Diversion Dam/Golf Course

Station Point at Big Sioux River and 49th Street

Western/57th Street underpass to Farm Field Park and trail connection into neighborhood

South tributary at West 69th Street west of Landau Circle

North of East 69th Street and Bahnson Pedestrian bridge between elementary school and residential area

Underpass at SD Hwy 11—Veterans Parkway and Harmodon Park

Underpass at SD Hwy 11—Veterans Parkway and Club View Drive

Copper Creek underpass—33rd Street and Veterans Parkway

Spillway Pedestrian Bridge(s)—east to Brandon/Big Sioux River Rec Area

[Big Sioux] River Greenway Project—Downtown—East Bank

East Bank—East 8th Street—Crosswalks

Pedestrian Scramble—33rd Street and Grange Avenue—Augustana University

Main Avenue Road Diet

17th Street and Phillips Avenue

Completed sidewalk gaps—57th Street between Farm Field Park and First Bank and Trust

III. Goals and Objectives

Goal 1: Create a safe, accommodating, and attractive atmosphere for all pedestrians.

Objective 1: Maintenance and condition of sidewalks must be a very high priority.

Policies

Very High Priority

1. Increase the City's budget that is dedicated to maintenance and improvement of crosswalks and sidewalks.

2. Sidewalks should be constructed, on both sides of streets, with a safe slope, grade, passing interval, and vertical clearance, all within the Americans with Disability Act guidelines [Sioux Falls Ordinance Sec. 96.051 and EDS 16.6.2 Standard Sidewalk].

High Priority

1. Sidewalks and curb cuts should be cleared of all snow within 48 hours as required by City ordinance [Sec. 96-100 Duty to Remove Snow].

2. Require landowners to keep their sidewalks clean of branches, dirt, water, etc.

Moderate Priority

1. Trees should not be planted within 3 feet of the sidewalk in that the mature tree itself or its roots will eventually cause damage to the sidewalk [Sioux Falls Ordinance Sec. 94.038].

Objective 2: Street crossings and crosswalks should be safe and accessible.

Policies

Very High Priority

1. Utilize curb extension, median, and pedestrian refuge islands more frequently to help limit the crossing distance for pedestrians. EDS 16.3.4.

2. All pedestrian facilities within the public right-of-way, including curb ramps and pedestrian push buttons, must meet ADA accessibility and City design standards.

3. Install perpendicular curb ramps whenever possible at intersections and discourage the use of diagonal curb ramps.

High Priority

1. Update traffic laws and ordinances to develop a set a vulnerable user laws that provide pedestrians additional right-of-way over automobiles. Monitor the SD legislative session for upcoming bills.

2. At intersections and crosswalks, the pedestrian space should accommodate accessibility and safety. Pedestrians should have a good view of motorists and the motorists should be able to easily see waiting pedestrians.

3. The pedestrian should not be directed by pedestrian facilities to walk into parallel traffic, or outside of the crosswalks.

4. Locate pedestrian midblock crossings where they will enhance access to popular attractors and increase the safety of the pedestrian.

5. Install countdown timers where conditions warrant. In addition, a pedestrian signal should be visible for the pedestrian at any crosswalk.

6. Utilize data on pedestrian crashes to help direct and justify resources toward crossings where improvements need to be made.

7. Design additional crosswalks with improved ways to cross streets with more than four lanes.

8. Construct additional crosswalks with the continued use of road diets to slow and calm traffic along high speed corridors.

Moderate Priority

1. Continue the full implementation of Audible Pedestrian Signals (APS) including a close cooperation with the blind community.

2. Grade-separated pedestrian crossings should be considered; where pedestrians perceive the additional [slope] effort to use an overpass or underpass is beneficial, as well as, when major pedestrian attractors exist.

3. Pedestrian Street Crossings when signals are warranted; consideration of when the general public would make a crossing.

4. The width of a crosswalk should be the same width as the sidewalk.

5. Educate the community in how signals operate and how the pedestrian button is important to ensure adequate time in crossing the street.

Objective 3: Pedestrians should have convenient and attractive linkages and connectors in their neighborhood.

Policies

Very High Priority

1. All streets should have sidewalks to allow pedestrians to travel between neighborhoods, access destinations, and access transit stops. Sidewalks are expected on both sides of an arterial urban section street.

    a. New arterial roadway construction should have a side path on one side of the street (new policy). EDS 8.4

2. A landscaped buffer/planting strip should be encouraged where feasible to safely separate the street traffic and pedestrian traffic, while also adding aesthetics to the community. In addition, bridges should safely separate pedestrians from vehicle traffic as required by the ADA and AASHTO.

3. Work with the developers to increase pedestrian connectivity within subdivisions and between subdivisions consistent with the City's subdivision ordinance [Subdivision Ordinance 156.099 (Preliminary Plan Walkway) and 157.114 (Walkways)].

High Priority

1. Where right-of-way width, utilities, or required design clearances make tree planting in the boulevard infeasible, encourage street trees to be planted behind the sidewalk, either in the remaining public right-of-way or as part of landscaping requirements on private property. The pedestrian path should be visually and functionally separated from the back of the curb by a boulevard setback or an appropriate contrasting paving color or texture.

2. Landscaped medians are much more desirable than concrete medians for aesthetic purposes.

3. Create policies for construction detours; regarding the safety and convenience of pedestrians and respective, appropriate signage.

4. Encourage development of sidewalks and private trails within developments with private streets to ensure convenient connections for residents.

5. Develop all sidewalks wherever possible with a planting strip/boulevard to create added safety and aesthetic street corridor for pedestrians.

6. All transportation projects shall be designed with the pedestrian in mind [Complete Streets Resolution 53-15].

Moderate Priority

1. Innovative subdivision and street designs may vary the width of the boulevard and the alignment of the sidewalk.

2. Recommend that all private residential streets include all the same connectivity and design standards that are required of a public street.

3. Develop distinctive street corridors for special design treatment that are of community importance.

4. Develop maps that show areas of town that are accessible to walk [e.g., areas with high walk scores].

Objective 4: The City should foster a pedestrian-oriented site design that encourages walking through the implementation of site design guidelines, ordinances, streetscaping, and other measures

Policies

Very High Priority

1. Allow mixed-use development design that includes pedestrian amenities such as large plazas with green space, adjacent restaurants, shopping, mixed use living space, hotels, fountains, and connections to parks, trails, and residential areas.

2. Implement flexible parking requirements through parking reductions when development projects can justify less parking needs.

3. Continue implementing complete streets by prioritizing pedestrian, bicycle, and transit accommodations in planning for roadway projects.

4. Within commercial and office developments, encourage the placement of parking away from the fronts of buildings and use “outdoor mall” concepts that create a more pedestrian-friendly design. Also, more shared parking should be encouraged to allow higher densities, and thus, better use of the development space for more walkable designs.

5. Submit a complete streets checklist for each roadway project for City staff review and comment.

6. Locate neighborhood parks no more than one-half mile from residential areas.

7. Increase funding for public Transit [Shape Sioux Falls p. 91 Policy 2: Provide Transit Access].

8. Remove protruding objects within the downtown pedestrian area.

High Priority

1. The sidewalk should be of sufficient width to allow for passing spaces per Public Right-of-Way Accessibility Guidelines (PROWAG), 48-inch continuous pedestrian access route, and 60-inch passing space at 200-foot intervals.

2. Continue to implement marked crosswalk standards.

3. Continue to require parking facilities to provide good connections between public sidewalks and principal building entrances. This should minimize the degree to which parking separates building entrances from adjacent streets.

4. Continue to require large parking facilities to include major pedestrian crossings with drive aisles and circulation ways to be clearly delineated to the entrance of the building with pavement markings and/or contrasting paving textures and materials.

5. Submit an annual report to the Pedestrian Advisory Committee each year.

6. Require all private commercial streets to include all the same connectivity and design standards that are required of a public street.

7. Increase the investment for biking; e.g. add cycle tracks and side paths.

8. Continue adding neck downs or curb extensions to reduce the distance you need to travel to cross streets.

9. Allow Granny Flats—Accessory Dwelling Units—on single-family residential lots.

10. Support the planting of street trees in the planting strip (between sidewalk and curb) with landscaping guidelines.

11. Incorporate green infrastructure and pedestrian safety priorities into sidewalk projects by removing unnecessary pavement and introducing rain gardens and shade trees wherever feasible and cost effective.

12. Decrease the speed of motor vehicles on the roadways adjacent to pedestrian ways.

13. Add angled parking in mixed-use areas [versus parallel parking].

14. Locating neighborhood schools so that they serve no more than one and one-half mile in diameter service area.

15. Find methods in downtown to encourage driving the speed limit.

Moderate Priority

1. Parking spaces within parking areas should be inspected to ensure that the curb overhang of vehicles does not encroach over public and private sidewalks.

2. Add pedestrian scrambles where warranted that allow pedestrians to cross safely in any direction, including diagonally.

3. Update parking lot design standards to improve parking lot circulation and user orientation.

4. Decrease the number of traffic lanes [through road diets].

5. Hide parking structures or lots through site design.

6. Decrease the length of residential blocks; allowing for shorter trips.

7. Increase downtown housing.

8. Site design standards should take into consideration pedestrian connectors and amenities, building and entrance orientation, landscape design, architectural design, parking lot design, transit orientation, and CPTED (Crime Prevention Through Environment Design).

9. Update and revise Sioux Falls engineering design parking standards to address the safety of the pedestrian within the overall parking necessary to ensure adequate parking needs for development.

10. Facilitate wider sidewalks in downtown on Phillips Avenue.

11. Add lighted bike paths in downtown area.

12. Add safety call beacons along downtown river path.

13. Increase the vertical clearance along the entire width of the downtown pedestrian corridor.

14. Putting big decals on downtown sidewalks stating no bicycles or skateboarding.

Objective 5: Update engineering road design standards to incorporate new complete street principles.

Very High Priority Policies

1. Speed analysis where there are high ped volumes decrease speeds; where speeds are high design pedestrian elements accordingly.

2. Have a boulevard between all streets and sidewalks with trees.

3. Maintain and expand use of crosswalks (including zebras) signage.

High Priority Policies

1. Clearly defined crosswalks, with bump-outs that squeeze traffic and provides a shorter place to cross.

2. Pedestrian WALK signals that work without a long wait.

3. Narrow lanes to no more than 11 feet (10 feet where practical).

4. Wider sidewalks in retail/business areas.

Moderate Priority

1. Lower speed limits.

2. Smaller curb radii.

3. No right turn on red.

4. Pedestrian walk signals that have the WALK precede the green light by at least five seconds.

Goal 2: Educate the public about pedestrian rules and standards to help them make informed decisions and input.

Objective 1: Find ways to educate the public about pedestrian safety.

Very High Priority Policies

1. Educate drivers about when they must yield to pedestrians.

2. Update City ordinance and state law that would require a motorist to stop for any pedestrian rather than just yield to pedestrians in the street.

3. Educate motorists that pedestrians have the right-of-way in many traffic situations, and always have the right to be treated with caution and respect.

High Priority Policies

1. Step up enforcement for stop signs and stop lights including drivers that do not ‘stop’ or yield for pedestrians when making right turns until their vehicle is already well into the pedestrian crosswalk.

2. Educate drivers on how to be safe and aware of pedestrians through billboards, +PSAs, and social media.

3. Educate citizens about the White Cane Law.

4. Citizens should be made more aware of City sidewalk maintenance ordinances; how to log sidewalk complaints with CityLink (website and phone numbers should be published), and that sidewalks are required to have obstacle free pathways for people with disabilities.

Moderate Priority

1. All pedestrian and pedestrian-oriented aid devices (such as wheelchairs) shall share the sidewalk space as according to City ordinances. Devices should normally be operated at less than 15 mph on the sidewalk.

Objective 2: Find ways to inform and involve the public with pedestrian facilities.

Very High Priority Policies

1. Continue meeting with the Pedestrian Advisory Committee to provide input into the status and progress of the Pedestrian Plan.

2. Citizens should work within the CIP and development review process to continue to include pedestrian facilities.

High Priority Policies

1. Continue outreach to the Disability Awareness and Accessibility Review Board regarding pedestrian facilities.

2. Facilitate a system of outreach with citizen groups, within City Council Districts for CIP priorities, in order to understand pedestrian facility needs.

3. Work with all school districts people to participate in Walk to School Day each year, and encourage walking year round.

4. Maintain bike trail station points with emergency information and methods to reach emergency personnel with station points on the greenway bike trail.

5. Maintain design standards for pedestrian facilities.

6. Continue to involve the public in future updates to the City's ADA Transition Plan.

7. Maintain the City's sidewalk network inventory, including pedestrian push buttons, in GIS.

8. Disseminate information on the White Cane Law.

9. Educate pedestrians about what driver and vehicle laws are so that they can protect themselves.

Moderate Priority

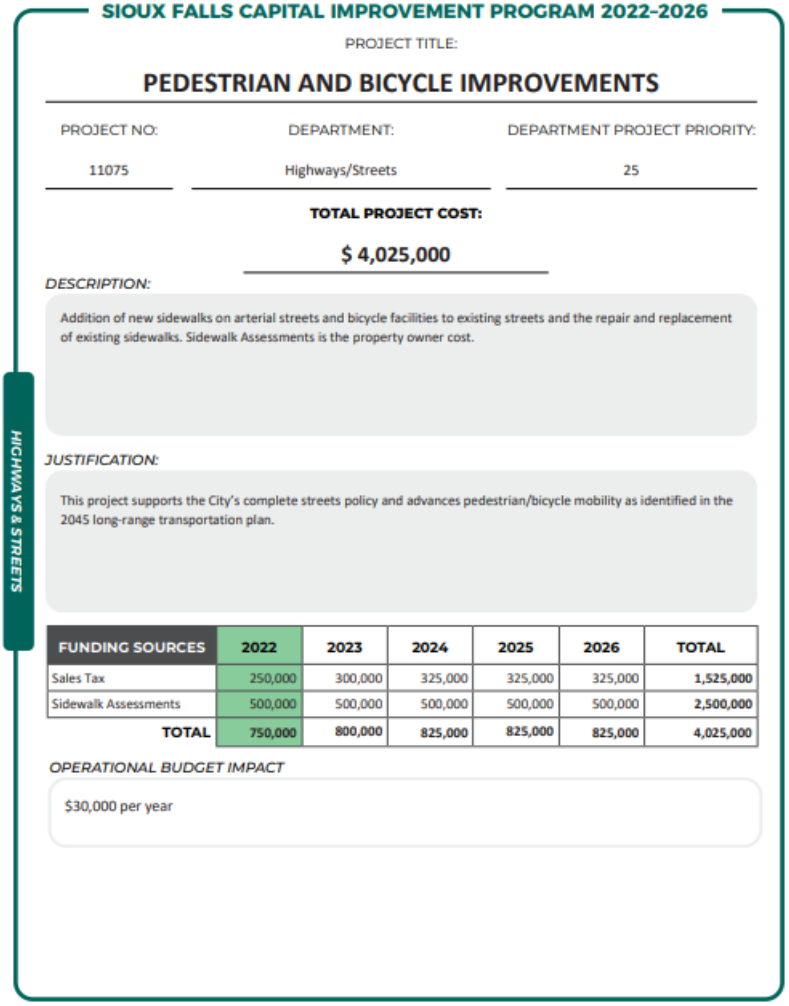
1. Continue to update the City's sidewalk website: siouxfalls.org/sidewalk with important sidewalk-related information.

2. Inform the public about why jaywalking is enforced—can't enforce stopping, just yielding, so for safety purposes.

IV. Implementation and Future Studies

The pedestrian plan, and the other plans, referenced within this document discuss implementation. In order to improve the existing pedestrian system; items need to be prioritized, items need to have consistent advocacy, and there needs to be financial resources.

Sidewalk facilities are constructed throughout Sioux Falls through subdivision projects, utility projects, or a CIP project. This Plan looks to address the objectives and policies with facilities being reviewed and programmed when each of the three projects are in development.



SIOUX FALLS CAPITAL IMPROVEMENT PROGRAM 2022-2026

PROJECT TITLE:

PEDESTRIAN AND BICYCLE IMPROVEMENTS

PROJECT NO:	DEPARTMENT:	DEPARTMENT PROJECT PRIORITY:
11075	Highways/Streets	25

TOTAL PROJECT COST:

$ 4,025,000

DESCRIPTION:

Addition of new sidewalks on arterial streets and bicycle facilities to existing streets and the repair and replacement of existing sidewalks. Sidewalk Assessments is the property owner cost.

HIGHWAYS & STREETS

JUSTIFICATION:

This project supports the City's complete streets policy and advances pedestrian/bicycle mobility as identified in the 2045 long-range transportation plan.

FUNDING SOURCES	2022	2023	2024	2025	2026	TOTAL
Sales Tax	250,000	300,000	325,000	325,000	325,000	1,525,000
Sidewalk Assessments	500,000	500,000	500,000	500,000	500,000	2,500,000
TOTAL	750,000	800,000	825,000	825,000	825,000	4,025,000

OPERATIONAL BUDGET IMPACT

$30,000 per year

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a. ADA Transition Plan

CSF Americans with Disabilities Transition Plan April 2021

Title II of the Americans with Disabilities Act [ADA] and its associated regulations (28 CFR 35) prohibit discrimination on the basis of disability in state and local government services, programs, and activities, regardless of whether the agency is

a recipient of federal aid or not. Providing streets, sidewalks, and shared use paths are considered a program; therefore, all projects involving these facilities are subject to the requirements of the ADA. One of the ADA's provisions is a requirement that public entities produce updated "transition reports" and/or "self-evaluation" reports—in 2015, 2018, and in 2021.

Without specific design considerations for certain pedestrian facilities, the Access Board developed the 2011 Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). In 2017, the City of Sioux Falls adopted design standards, standard plates, and policies based on the 2011 PROWAG and on the federal regulations found at 23 CFR 652 and 28 CFR 35.

The City is working to actively resolve an ADA complaint involving over 11 miles of sidewalks, curb ramps, and pedestrian signals. Following the receipt of the Letter of Finding (LOF) issued by the Federal Highway Administration, South Dakota Division (FHWA), the City proposed a Correction and Implementation Plan, which involves an estimated investment in accessibility improvements of over 9 million dollars in the complaint areas from 2017–2024.

Specific objectives within the Plan that reference back to the Pedestrian Plan:

- Improve snow removal enforcement and implementation of City snow removal efforts to conform to the standard.
- Implement effective plan to install curb ramps, improve sidewalks, and other aspects of public rights of way where necessary.
- Increase Public Works staff review of sidewalk conditions to maintain compliance with Sidewalk Plan agreement and speed notice to landowners for sidewalk repair. If necessary to accomplish this, add staff to this role in Engineering.
- SFPR has worked to develop its bike trail system in an accessible manner.
- SFPR has instituted policy guidance to clarify that power wheelchairs and Other Power Driven Mobility Devices (e.g., Segways) are permitted on most bike paths and hiking trails.

Other recommendations throughout the Transition Plan that address pedestrians:

> Universal design is "the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. 'Universal design' shall not exclude assistive devices for particular groups of persons with disabilities where this is needed." United Nations Convention on the Rights of Persons with Disabilities, Art. 2.
>
> - but [UD is] more broadly described to find solutions for particular locations and uses that are effective for all people.

- e.g. curb ramps not only enable people with disabilities to navigate sidewalks, but also make sidewalks more useful for others such as parents with strollers, and pedestrians with shopping carts,

Access to public sidewalks is part of the ADA's statutory text and implementing regulations. The ADA's general requirements, along with its regulations, for instance, require that sidewalks and other aspects of public rights-of-way to transit are accessible. Public rights-of-way and facilities are required to be accessible to persons with disabilities under ADA title II as well as under Section 504, as the City receives Federal funding in support of road building and other projects. p. 2-6

> U.S. Court of Appeals for the Fifth Circuit's 2011 full court (i.e., *en banc*) decision in *Frame v. City of Arlington*
> did not define "facilities," the relevant Department of Transportation (DOT) regulations define the term to include, inter alia, "roads, walks, passageways, [and] parking lots."

Maintenance of private sidewalks is the responsibility of the private property owner or person in possession, and failure to properly maintain sidewalks is enforced through the Property Maintenance Division and the Engineering Division of Public Works.

> If a private owner or person in possession fails to maintain his sidewalks, the City may intervene and repair or plow the sidewalks at the landholder's expense. p. 2-13

> <u>Potential Challenges to the Current Transit System</u>
>
> These issues include: (a) financial pressures, (b) snow removal delays, (c) inaccessible bus stops and sidewalks, (d) maintenance issues, (e) signage, (f) driver training and procedures, (g) governance, and (h) technology.
>
> Authors noted that most of the other issues listed above, from sidewalks generally, to inaccessible bus stops specifically, inadequate snow removal, and problems with signage, may contribute to more passengers using Paratransit as opposed to the fixed route bus system.
>
> Snow removal failures are a dominant grievance voiced by the public in complaints reviewed and in the public hearings. Snow impedes and outright prevents people with mobility disabilities from traveling generally and using public transit specifically.
>
> - The City investigated changes to its snow removal policies and enforcement in 2011-2012.

- The City should continue to closely monitor the effectiveness of changes to snow removal policies.

- City and SAM should not rely primarily on rider complaints and driver observations to identify and address such problems.

SAM may develop a proactive and cross-department inspection regime of the accessibility of its bus stops to identify problems that confront persons with varying disabilities. p. 2-31

The City's IT division may develop or maintain reporting systems to allow citizens and City personnel to document access issues via real time geotagged photographs taken on a user's smartphone and submitted to an online City database.

The City primarily installs curb ramps in conjunction with street rehabilitation projects. Our discussions with the Engineering division's personnel revealed that the City needed to establish a more developed plan to complete curb ramp deployment over a reasonable time period. p. 3-11

This appeared to result where Building Services and Engineering inspected new developments at different times and have different focal points. P. 3-14

> "new sidewalk and curb ramps ("new development, site redevelopment, homeowner-initiated driveway and sidewalk installation permits, private utility construction, and the City's Capital Improvement Program (CIP) Projects."

2018 PROW Transition Plan at p. 11.

SIOUX FALLS CAPITAL IMPROVEMENT PROGRAM 2022-2026

PROJECT TITLE:

ADA IMPROVEMENTS

PROJECT NO:	DEPARTMENT:	DEPARTMENT PROJECT PRIORITY:
11018	Highways/Streets	12

TOTAL PROJECT COST:

$ 8,150,000

DESCRIPTION:

Sidewalks, curb ramps, and pedestrian push buttons improvements to comply with Americans with Disabilities Act (ADA) regulations.

JUSTIFICATION:

This project is needed to meet commitments to pedestrian accessibility in resolution of Federal Highway Administration findings and in accordance with the Correction and Implementation Plan.

FUNDING SOURCES	2022	2023	2024	2025	2026	TOTAL
Sales Tax	900,000	1,200,000	1,650,000	2,200,000	2,200,000	**8,150,000**
						0
TOTAL	**900,000**	**1,200,000**	**1,650,000**	**2,200,000**	**2,200,000**	**8,150,000**

OPERATIONAL BUDGET IMPACT

No Impact

2018 PROW Transition Plan Table 2, Priorities for Public Right-of-Way
Pedestrian Facility
Accessibility Upgrades (Updated)

Priority	Existing Situation/Accessibility Issue	2017 Number of Noncompliant Locations	Target Date for Completion	2018 Number of Noncompliant Locations
1	Nonoperational push buttons	84	2 years	10
2	Vertical curb barriers (with no curb ramps) at locations with existing sidewalk crossings.	235	3 years	149
3	Curb ramps in poor condition <60 condition rating	277	5 years	235
4	Push buttons with height less than 15" and more than 48"	122	5 years	121
5	Push buttons with reach distance over 25"	77	5 years	74
6	Clear ground space at pedestrian push buttons with size less than 30"x48" or where none was identified	88	7 years	81
7	Pedestrian pushbuttons with low compliance rating <60	96	10 years	71
8	Vertical faults on sidewalks and curb ramps	16,013	15 years	15,249
9	Obstructions present on curb ramps and sidewalks (remove or mitigate)	687	15 years	653
10	Curb ramps with low compliance rating <60	1,682	20 years	1650
11	Excessively noncompliant driveways and sidewalk segments with excessive cross slope	1,013	20 years	1013

The City plans to publish a summary of pedestrian facility upgrades annually to its Website.

The City's sidewalk policy outlines typical timelines and details of the Sidewalk Inspection and Repair Program. The City's goal is to inspect sidewalks within the public right-of-way on a ten-year rotation p. 3-19.

We, therefore, recommend the City evaluate whether current staffing levels are adequate to inspect the sidewalks, process notices of deficiencies to landowners, and ensure repairs are made.

In 2010, the DOJ instituted a final rule to amend its implementing regulations of title II of the ADA. 213

Changes include adoption of a two-tiered approach to mobility devices, drawing distinctions between wheelchairs and “other power-driven mobility devices,” such as Segways.

These changes may have an impact on parks and trails. p. 4-3

b. Sioux Falls Metropolitan Planning Organization 2045 Long-Range Transportation Plan

The purpose of this study was to obtain objective input from residents, employers, and transportation stakeholders in the Sioux Falls area in order to identify long-range transportation needs. The study included a statistically valid survey of 1,500 residents and 630 employers. Pedestrian issues were a component of the study including the following:

- Requiring developers to provide sidewalks and trails—78 percent were supportive (7 percent not supportive).
- Satisfaction with the ease of a pedestrian crossing the street in Sioux Falls. (55 percent).
- Satisfaction with accessibility of safe pedestrian walkways (58 percent).
- Ease of a pedestrian crossing the street in Sioux Falls was given the third highest (out of 11) importance/satisfaction rating by the citizens in the Sioux Falls area.
- Accessible safe pedestrian walkways were given the fifth highest (out of 11) importance/satisfaction rating by the citizens in the Sioux Falls area.

The stakeholder interviews, focus groups, and surveys were designed to identify guiding objectives for long-range transportation planning in Lincoln and Minnehaha Counties. As one of the four guiding objectives, pedestrian issues were a big priority as expressed as follows:

- Improve the quality of pedestrian facilities in the Sioux Falls area.

c. Sioux Falls Complete Streets

The City of Sioux Falls promotes a comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for users of all ages and abilities, including pedestrians, bicyclists, transit riders, and motorists.

The Complete Streets approach prioritizes early consideration of pedestrian, bicycle, and transit accommodations in planning for roadway projects. This includes the use of a **Complete Streets Checklist**. [City Council resolution approving the Complete Streets Policy was adopted in July of 2015. Appendix F.]

d. Ordinances Revisions

1. Subdivision Ordinance—To update pedestrian section and provide more definitive guidance.

    a. 157.099 PRELIMINARY PLAN WALKWAY/BICYCLE TRAILS.

        (a) Concrete or asphalt pedestrian walks or bike trails shall be required through blocks greater than 1,320' when needed to reduce walk distances and increase access to current or future schools, playgrounds, employment centers, commercial areas, bus stops, bike trails, and other community facilities. They may also be required to provide access to greenways and common areas. The sidewalks shall be included within a ten foot easement or other acceptable area as approved by the city engineer and maintained by the adjacent property owners or other acceptable landowner as approved by the city engineer. The sidewalks shall be paved at least six feet in width and shall be constructed before a certificate of occupancy is approved.

        (b) Bicycle trails within identified drainageways or other similar open space areas are required to be dedicated to the city as a trail easement when identified as a part of the city of Sioux Falls Bicycle Plan. The trail easement shall include language that allows for the city or developer to construct a single-track, grass, gravel, or paved trail within the easement.

2. Zoning Ordinance—Look into options for compact development and more walkable designs to be integrated into the zoning ordinance, including density bonus incentives for developers who provide more pedestrian options.

    a. PUD PLANNED UNIT DEVELOPMENT DISTRICTS

        160.441 COMPLIANCE WITH COMPREHENSIVE PLAN

        160.450 VILLAGE (V-PUD) DISTRICT.

        (a) *Intent.* In urban villages, densities are high and projects frequently have the scale and character of a downtown or town center district. This street orientation creates a much tighter streetscape setting, reducing traffic speeds and increasing walkability. In vertical mixed-use or urban villages, the building, rather than parking lots, define the street and structures typically have two or more stories. Urban villages also create populated places rather than just providing lots for development; consequently, appearance, design, and function of the development is emphasized along with land use.

160.451 PEDESTRIAN-ORIENTED MIXED-USE (PO-PUD) DISTRICT.

(a) *Intent.* The intent of PO-PUD development is to fully integrate more than one use in a unified and fully pedestrian-connected planned project, thereby reducing vehicular trips using land efficiently, and tending to create more active and lively urban environments. A PO-PUD should encourage mixed-use development by removing regulatory obstacles and providing flexibility in its ordinances. In return, projects should authentically integrate more than one use to demonstrate the advantages of mixed-use development.

b. Transit-Oriented Development [TOD] PUD

Develop a new planned unit development—Transit-Oriented Development—that requires commercial, employment, and high density within a transit corridor.

Land use developments that are strengthen based upon the integration of pedestrians, bicycles, and transit. As well as minimizing or diminishing the INCENTIVE for having an automobile. Adding incentives to support where density goes and where transit is located. The development should be coordinated with pedestrian and transit facilities—oriented towards these facilities—instead of developed independently; . . . especially, affordable/accessible housing and economic development.

TOD guidelines: compact, vertical, and horizontal mixed use locations.

Regulate building orientation and design.

Placement of 1/4-mile access to regional bike and transit commuter routes.

Provisions for pedestrian and bike facilities and parking maximums.

Traffic calming and landscaping to increase pedestrian safety.

e. Develop a Pedestrian Level of Service

Based upon the Highway Capacity Manual which uses measures like pedestrian density and flow rates, but individualized for the Sioux Falls community and our neighborhoods. This will assist us in prioritizing and funding facilities.

The Pedestrian LOS will characterize five areas of evaluation:

i. Directness

a. Directness is a measurement of walking trip length.

ii. Continuity

a. Continuity is the measurement of the completeness of the sidewalk system.

iii. Street Crossings (signalized only)

a. If pedestrians cannot safely cross a street to get to their destination, there is little likelihood that they will be inclined to walk.

iv. Visual Interest and Amenity

a. The pedestrian system's attractiveness and features.

v. Security

a. Security is the measure of a pedestrian's sense of security.

APPENDIX

A—Survey Recommendations

B—Long-Range Transportation Plan

C—Bike Facility Options (as it relates to Pedestrian Facility Options)

D—USDOT Actions to Prevent Harmful Crashes Involving Pedestrians

E—Speck, Jeff. Walkable City Rules

F—Sidewalk and Curb Ramp Elements

G—Complete Streets

H—Lane Widths and Vehicle Sizes

Appendix A—Survey Recommendations

Document	Recommendations	Policy	Goal/Objective
Long-Range Transportation Plan		Expand and maintain a network of bicycle, pedestrian, and transit facilities that **closes gaps, removes barriers,** and **connects** homes, activity centers, and complementary amenities.	Projects Supporting Pedestrian Objectives p. 107
Long-Range Transportation Research Study			63 percent of respondents were “very” or “somewhat” satisfied with the availability of safe pedestrian facilities, down 7 percent from 2010.
			21 percent of respondents placed the funding of new pedestrian/bicycle facilities as one of their top four choices for transportation improvements.
			15 percent of respondents ranked the availability of safe pedestrian facilities in the top three most important aspects of the transportation system. Perception of traffic safety near schools have decreased 11 percent since 2005.
Growth Management Plan		Policy 7, p. 76	Ensure that the comprehensive plan defines certain corridors for special design treatment. These corridors may also include streets of community importance that have high visibility, are traveled frequently by most city residents, and/or contribute to the overall image of the community.

Document	Recommendations	Policy	Goal/Objective
			Each identified corridor shall be a complete or multimodal corridor that integrates a balanced transportation system which accommodates pedestrian, bicycle, and private motorized transportation, and public transit. Encourage local and collector streets in commercial, mixed-use, and office areas to be distinguished by distinctive streetscape elements, such as thematic lighting, and graphics such as banners or medallions.
		Policy 12: Sidewalks	All newly constructed streets shall have sidewalks conforming to at least minimum ADA standards on both sides.
ADA Transition Plan	Makes every effort to provide clear guidance on when, where, and how sidewalks should be constructed within the public right-of-way. P. 8	The relevant design standards are located in Chapter 16: Accessible Sidewalk Requirements of the Sioux Falls Engineering Design Standards, which have been developed in accordance with the Proposed Right of-Way Accessibility Guidelines	Sidewalks, curb ramps, and street crossings shall be included as part of the design process, and the details of those designs shall be included in the contract documents as appropriate.
		Prioritization strategy—Table 2 (1 thru 11)	
Ordinance		Sec. 96.051 In addition, the city engineer or the city engineer's designee shall provide notice on behalf of the governing body to adjoining property owners to construct or repair sidewalks as required by state law.	Sec. 96.050 The construction of a permanent sidewalk fronting or abutting all streets, highways, and avenues shall be accomplished by the builder, owner, or developer of all new or relocated residential and commercial buildings within the city.

Document	Recommendations	Policy	Goal/Objective
			○ Effective January 10, 2019, Sioux Falls City ordinances will allow Class 1 E-bikes on City recreational trails, sidewalks, side paths, cycle tracks, and in bike lanes.
EDS		Ch. 16	16.6.2.4 Width. Sidewalk width shall be 4 feet minimum on local streets and cul-de-sacs with residential housing. On collector and arterial streets and streets abutted by commercial, industrial, and multifamily lots, the minimum sidewalk width shall be 5 feet. When sidewalk is located back of curb, the minimum width shall be 6 feet.
Complete Streets	The planning and design of street projects will give due consideration to bicycle, pedestrian, and transit facilities from the very start of planning and design work for roadway projects		
	It will be important to the success of the Complete Streets policy to ensure that the project development process includes early consideration of the land use and transportation context of the project, the identification of gaps or deficiencies in the network for various user groups that could be addressed by the project, and an assessment of the	Implementation strategies may include but will not be limited to, the following . . .	

Document	Recommendations	Policy	Goal/Objective
	tradeoffs to balance the needs of all users.		
Subdivision Ordinance			(4) Any nonresidential development that proposes private streets shall include sidewalks on both sides of the street, curb and gutter, streetlights, and driveways all to city Engineering Design Standards.
			157.099 PRELIMINARY PLAN WALKWAY/ BICYCLE TRAILS. (a) Concrete or asphalt pedestrian walks or bike trails shall be required through blocks greater than 1,320' when needed to reduce walk distances and increase access to current or future schools, playgrounds, employment centers, commercial areas, bus stops, bike trails, and other community facilities. They may also be required to provide access to greenways and common areas. The sidewalks shall be included within a ten foot easement or other acceptable area as approved by the city engineer and maintained by the adjacent property owners or other acceptable landowner as approved by the city engineer. The sidewalks shall be paved at least six feet in width and shall be constructed before a certificate of occupancy is approved.

Appendix B—2040 LRTP—Project List

Sioux Falls METROPOLITAN PLANNING ORGANIZATION
2040 Long-Range Transportation Plan

Projects Supporting Pedestrian Objectives

The following multimodal roadway projects carried through the Go Sioux Falls prioritization process have the potential to support regional pedestrian transportation by improving the pedestrian environment within a half-mile of a school. This metric is consistent with a system improvement suggested in the Sioux Falls Pedestrian Plan to improve the pedestrian network near schools.

Table 7-16: Multimodal Roadway Projects Supporting Pedestrian Objectives

GO SIOUX FALLS RANK	MUNICIPALITY	PROJECT NAME	PROJECT TYPE
3	Sioux Falls	Marion: 60th St. N to 12th Street	Capacity - 4 lanes
4	Sioux Falls	Sertoma: 26th St. to 57th St.	Capacity - 4 lanes
8	Sioux Falls	Kiwanis: 41st Street to 49th Street	Capacity - 4 lanes
10	Sioux Falls	E. 41st St.: Southeastern to 1/2 mile west of SD 11	Capacity - 4 lanes
12	Sioux Falls	W. 26th St.: Mary Beth to Sertoma	Capacity - 4 lanes
14	Sioux Falls	Southeastern Ave.: 49th St. to 57th St.	Capacity - 4 lanes
19	Sioux Falls	Signal: 10th & Cliff - 10th priority	Adjust Signal
20	Sioux Falls	Main Avenue: 6th to 14th Streets	Road Diet
21	Sioux Falls	Cliff Ave.: RR Overpass 12th to 14th St.	Overpass
26	Sioux Falls	Sundowner: 57th St. to 85th St.	Capacity - 4 lanes
33	Sioux Falls	Intersection 2541: Cliff/Rice	Added Turn Lanes
34	Sioux Falls	85th St.: Louise to Audie	Capacity - 4 lanes
37	Sioux Falls	Madison: Burnside to West	Capacity - 4 lanes
41	Sioux Falls	Western : 69th to 85th Streets	Capacity - 4 lanes
54	Sioux Falls	Ebenezer/Career: Madison and 1/2 mile North	Capacity - 4 lanes
57	Sioux Falls	Signal: 14th and Cliff - equal priority	Adjust Signal
62	Sioux Falls	57th St.: N. Tea-Ellis Rd. to S. Tea-Ellis Rd.	Capacity - 4 lanes
65	Sioux Falls	Intersection 2543: 8th/Cliff	Added Turn Lanes
74	Sioux Falls	Intersection 2675: 6th/Sycamore	Adjust Signal
86	Sioux Falls	Intersection 2712: 26th/SD 11	Added Turn Lanes
89	Sioux Falls	Intersection 2405: Ralph Rodgers/Western	Adjust Signal

The City of Sioux Falls does not typically pursue TAP funds. Instead, independent on-road bicycle and pedestrian projects are most often funded through the CIP. An annual allocation of funds is set aside for this type of project. The Sioux Falls Parks and Recreation department funds the majority of off-street path construction in the City. That funding is considered separately from the LRTP.

Table 8-4 documents the estimated bicycle and pedestrian revenues for the area.

Table 8-4: Bicycle and Pedestrian Revenues

COST BAND	TAP FUNDS	SIOUX FALLS BIKE/PED FUNDS
2016-2020	$ 1,749,000	$ 1,300,000
2021-2025	$ 1,230,949	$ 2,459,748
2026-2030	$ 1,427,007	$ 2,851,522
2031-2035	$ 1,654,292	$ 3,404,866
2036-2040	$ 1,917,778	$ 5,920,760
Totals	$ 7,979,026	$ 15,936,896

Appendix C

Bike Facility Options in Sioux Falls: Design Guidance

Type	Where	When
Protected Bicycle Lanes	Arterial, Collector	No parking on street/adequate ROW/moderate to high traffic.
Bike Lanes	Arterial	No parking on street/adequate ROW/moderate to high traffic.
Sidepaths	Arterial	High speeds/high volumes with access no more than every quarter mile.
Cycle Tracks	Arterial/Collector	High speeds/high volumes, limited ROW. Curbside sidewalk planned. Limited access and no dedicated right turn lanes.
Wide Curb Lanes	Arterial	Accommodation on arterial when bike lanes or cycle tracks are not feasible. 13- to 14-foot lane. Signs should be added that say "Bikes may use full lane."
Sharrows	Local/Collectors	On low-volume bike routes with good connectivity. Painted every block.
Shared Lane, Bicycle Parking	Collectors	On low-volume bike routes with good connectivity and very little parking. Could combine with sharrow.
Bicycle Boulevards	Local/Collectors	Closely paralleled to arterial streets. Must do significant traffic calming and signalization for it to be effective.
Signed Routes	Local/Collectors	Signed routes should move to destination-based system and should ultimately include one of the above facilities, also.

§ 76.082 VEHICLES ON PARKWAYS OR SIDEWALKS.

(a) Generally. No person shall drive any vehicle or motor vehicle other than a bicycle or wheelchair upon the sidewalks or parkways or permit any vehicle to be driven or remain on any sidewalk or parkway. The following vehicles shall be exempt from the provisions of this chapter: vehicles used by city personnel to perform an authorized public service or carry out any authorized city function, including vehicles used by public parking and public safety personnel.

(b) Bicycles.

(1) A person driving a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall yield the right-of-way to any pedestrian and shall give an audible signal before overtaking and passing the pedestrian.

(2) A person shall not drive a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, where the use of bicycles is prohibited by official traffic control devices.

(3) A person driving a bicycle upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall have all the rights and duties applicable to a pedestrian under the same circumstances, except that a bicyclist must stop before entering a crosswalk or highway from a sidewalk or sidewalk area and must yield to all traffic on the highway.

Appendix D

USDOT Actions to Prevent Harmful Crashes Involving Pedestrians

Completed by December 31, 2020	2021 and Beyond
Update **Pedestrian and Bicycle Road Safety Audit Guide** to reflect the latest in safety information and innovative technology.	Produce a **guide on effective selection of crosswalk patterns** to help practitioners prioritize where the placement of high-visibility crosswalks would be most effective.
Develop a **Safe Transportation for Every Pedestrian (STEP) toolbox** to lead stakeholders through the steps necessary to improve pedestrian crossing locations and to learn about all relevant available STEP and pedestrian safety materials.	Develop **law enforcement trainings on bicycle and pedestrian safety** with input from law enforcement reflecting current issues and cultural changes. Assess, with NCHRP, the current state of practice of **pedestrian and bicycle planning, design, and operational issues at alternative intersections**, synthesize design guidance, and compile them into a comprehensive reference on how to effectively and safely accommodate pedestrians and bicycles at innovative intersections. Develop **Pedestrian-Intersection Crash Modification Factors** by determining the safety effectiveness of medium to low cost pedestrian engineering countermeasures in reducing nonmotorist fatalities and injuries at controlled intersections, specifically the study of the corner radius utilizing crashes and right-turning speeds in the evaluation.
Develop and deliver two **Safe Transportation for Every Pedestrian (STEP) campaigns** to increase the understanding of pedestrian crossing safety and what STEP countermeasures can be used to improve pedestrian safety by FHWA stakeholders, primarily engineering and design staffs at state and local DOTs.	Conduct **safety evaluations of innovative intersection designs for pedestrians and bicyclists** for three retrofitting designs that can turn a large at-grade intersection (vehicle centric design) into a bicyclist/pedestrian friendly combo intersection that balances the crossing needs and safety of both vehicular and nonmotorized traffic demands.
Produce the Role of Law Enforcement in Pedestrian and Bicyclist Safety: An Idea Book to describe ways in which law enforcement plays a role in addressing pedestrian safety including nontraditional examples and proactive efforts for law enforcement to conduct at the community level.	Conduct an **evaluation of aesthetically treated crosswalks** to determine the impact they have on motorists' and pedestrians' recognition and behavior at crosswalks, including pedestrians with low vision.

Completed by December 31, 2020	2021 and Beyond
Provide a **community-based bicyclist and pedestrian behavioral safety assessment** to include a tool, manual, and data analyzer for communities to assess their pedestrian and bicycle safety issues and identify local recommendations; conduct the initial pilot in ten high-risk pedestrian injury communities in the NHTSA regions.	Finalize updates to the **Manual on Uniform Traffic Control Devices (MUTCD)** to address advances in traffic control device design and placement.
Continue **Safe Transportation for Every Pedestrian (EDC4/5)** to help transportation agencies address pedestrian crashes by promoting cost-effective countermeasures that have known safety benefits including Pedestrian Hybrid Beacons (PHB), pedestrian refuge islands, leading pedestrian intervals and road diets, raised crosswalks, crosswalk visibility enhancements, rectangular rapid flashing beacon, etc.	Collaborate with the American Road and Transportation Builders Association (ARTBA) on a **Pedestrian Safety in Work Zone Learning Module**. In this module, participants will learn how pedestrians, including the disabled, should be considered and provided for during the development and implementation of the traffic control plan.
Create a comprehensive, five-year **Pedestrian and Bicycle Safety Program Strategic Plan** for FHWA's pedestrian and bicycle safety program. Launch a **Pedestrian Safety Month** with media and marketing materials promoting pedestrian safety and how state and local efforts support the effort.	Update **Pedestrian Safety Guide** and Countermeasure Selection (PedSafe) to make it current with the latest technology, research, and data on countermeasures; update case studies and add new ones as appropriate.
Develop a **pedestrian count model** that can predict pedestrian volumes at locations without this information through the Exploration of Pedestrian Safety Through the Integration of HSIS and Emerging Data Sources.	
Support and distribute **Implementing A Local Road Safety Plan (LRSP)**, which provides strategies local agencies and states have used to overcome barriers and challenges to successfully implement their plans, including pedestrian safety. LRSP is an FHWA-proven safety countermeasure that provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads.	

Appendix E

Speck, Jeff. Walkable City Rules.

Downtown Housing

Local Parks

Local Schools

Inclusionary Zoning

Granny Flats

Parking

Transit

Bikeshare

Small Blocks

Challenge LOS

Cut the extra lanes

Road diets

10' lanes

Response time to public safety

Biking investment

Cycle tracks

Angled parking

Neckdowns

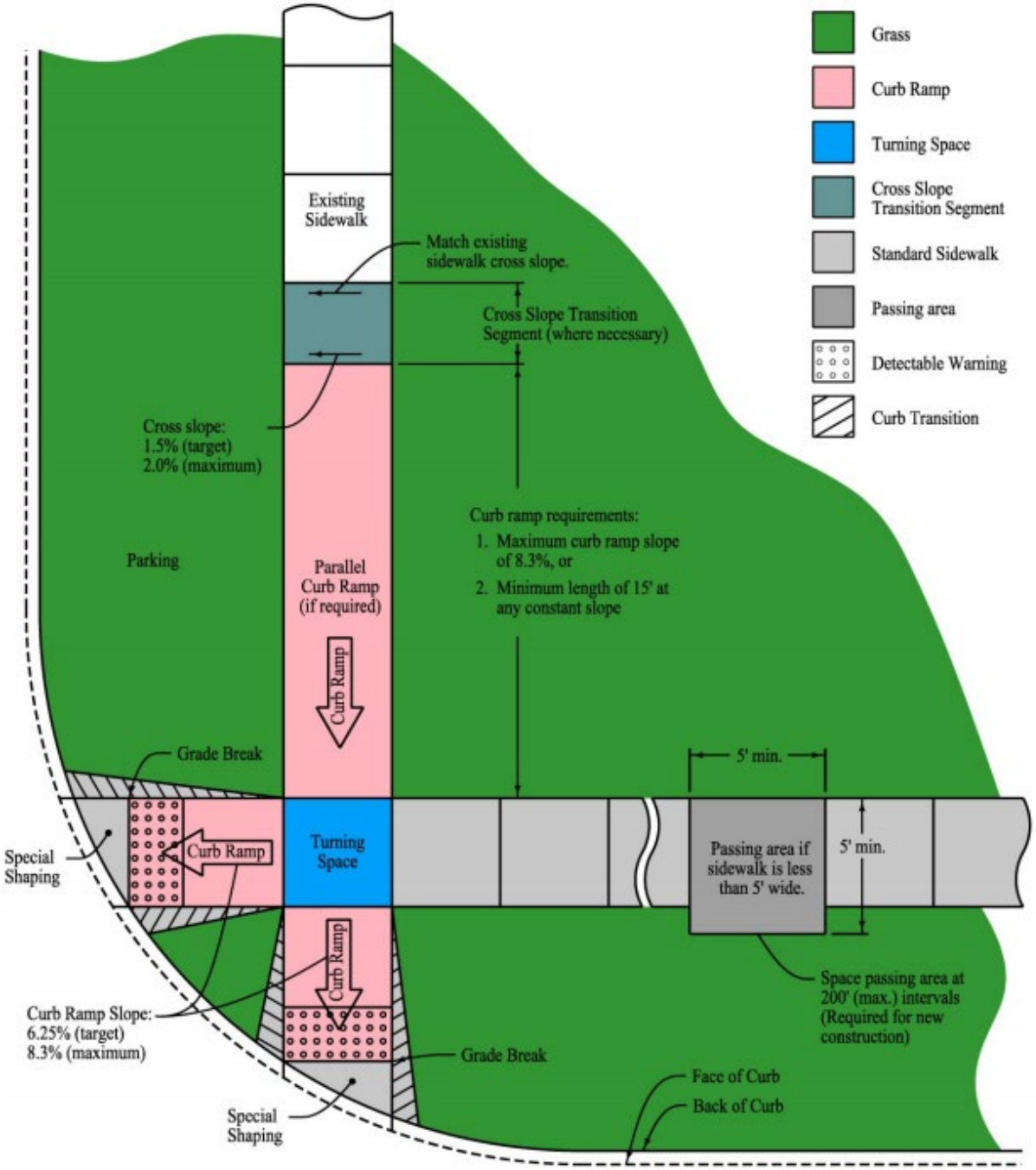
Street trees

Front parking

Hide parking structures

Appendix F

Figure 16.03: Standard Sidewalk and Curb Ramp Elements



Appendix G—Complete Streets

https://siouxfalls.org/planning-dev/planning/complete-streets

Notice of Hearing: NA
Date of Hearing: 07/07/15
Date Adopted: 07/07/15
Date Published: 07/11/15
Date Effective: 07/31/15

RESOLUTION NO. 53-15

A RESOLUTION Approving a Complete Streets Policy.

WHEREAS, the term “Complete Streets” is defined as streets that are designed to accommodate all potential users; and

WHEREAS, the Shape Sioux Falls 2035 Comprehensive Plan and the current edition of the City of Sioux Falls Engineering Design Standards includes goals and policies to accommodate all potential users by improving streetscapes and multimodal access; and

WHEREAS, the City of Sioux Falls has developed a policy reflecting national best practices available through the Complete Streets Local Policy Workbook from Smart Growth America and the National Complete Streets Coalition, which includes vision and intent, Complete Streets principles, implementation guidance, and a plan for performance evaluation; and

WHEREAS, the people of the city of Sioux Falls have expressed a strong desire for increased transportation options including walking, bicycling, and transit as indicated in the 2014 Sioux Falls MPO Long-Range Transportation Market Research Study; and

WHEREAS, the Sioux Falls MPO Long-Range Transportation Plan, the Sustainability Plan, and the Live-Well Sioux Falls 2012 Community Health Status Report all recommend increasing levels of walking, bicycling, and public transportation to improve public health, economic development, and the environment, while also reducing transportation costs, enhancing community connections, promoting social equity, and making healthy living easy and accessible;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF SIOUX FALLS, SD:

That the City of Sioux Falls adopts the following Complete Streets policy to plan, design, and construct all new City transportation improvement projects, as provided below, to accommodate pedestrians, bicyclists, transit riders, motorists, and persons of all abilities, while promoting safe operation for all users.

1. The planning and design of street projects will give due consideration to bicycle, pedestrian, and transit facilities from the very start of planning and design work for roadway projects.

2. The City of Sioux Falls will follow generally accepted or adopted design standards when designing improvements intended to fulfill the Complete Streets policy, but will also consider innovative or nontraditional design from guidance issued by AASHTO, ITE, NACTO, and the Architectural and Transportation Barriers Compliance Board.

3. The Complete Streets policy will apply to all street projects except under one or more of the following conditions as determined by the City Engineer:

    a. Ordinary maintenance activities and pavement preservation activities;

    b. Design features that would put roadway users at a relatively high safety risk; and

c. Design features that would impose excessive and disproportionate costs in relation to the need or probable use.

4. It will be important to the success of the Complete Streets policy to ensure that the project development process includes early consideration of the land use and transportation context of the project, the identification of gaps or deficiencies in the network for various user groups that could be addressed by the project, and an assessment of the tradeoffs to balance the needs of all users. The context factors that should be given high priority include the following:

   a. Whether the corridor provides a primary access to a significant destination such as a community or regional park or recreational area, a school, a shopping/commercial area, or an employment center;

   b. Whether the corridor provides access across a natural or man-made barrier such as a river or freeway;

   c. Whether the corridor is in an area where a relatively high number of users of nonmotorized transportation modes can be anticipated;

   d. Whether a road corridor provides important continuity or connectivity links for an existing trail or path network; or

   e. Whether nearby routes that provide a similar level of convenience and connectivity already exist.

5. When necessary and appropriate, the City will review and update any current code, design standard, or ordinance to ensure that design components for all new or modified streets follow the intent of a Complete Streets policy. Implementation strategies may include, but will not be limited to, the following:

   a. Update zoning and subdivision ordinances.

   b. Update City Engineering Design Standards that incorporate the following concepts:

      i. Consider, when appropriate, roadway design that slows motor vehicles and/or limits access so as to provide greater safety for bicyclists, pedestrians, and motorists (e.g., lane narrowing or the reduction of lanes, reduction of access, etc.).

      ii. Evaluate the effectiveness of narrowing pedestrian crossing distances at intersections where high motor vehicle counts and high pedestrian counts are expected. Narrowing can be accomplished with pedestrian refuge islands or curb bump-outs.

      iii. Provide appropriate bicycle accommodation in accordance with the Sioux Falls Bicycle Plan.

      iv. Use pedestrian-scale design elements adjacent to sidewalks and other pedestrian facilities (e.g., pedestrian scale lighting, application of buffers between roadways and sidewalks or shared use paths, application of street furniture, etc.).

      v. Evaluate the use of traffic calming features along all roadway corridors.

      vi. Provide pedestrian accommodation in the form of sidewalks adjacent to all streets.

      vii. Consider streetscaping along newly constructed or reconstructed roadways.

      viii. Implement items from the current City of Sioux Falls ADA Transition Plan to include design features for accessible pedestrian facilities.

      ix. Provide advance notice of construction projects to key bicycle and pedestrian network users.

x. Provide alternate routes for bicyclists, pedestrians, and transit during construction, reconstruction, and repair of streets and trails.

xi. Incorporate time traffic signals with adequate pedestrian crossing time. Consider exclusive pedestrian timing or “leading pedestrian intervals” where pedestrian crossing volumes are high.

xii. Develop a maintenance projection for on-street bike facilities, sidewalks, streetscaping, transit bus stops, and shared use paths to include pavement rehabilitation, street sweeping, pavement markings for pedestrian and bike facilities, and general cleaning.

c. Coordinate all activities that occur within the public right-of-way with the City departments affected by such activities to better utilize fiscal resources.

d. Train relevant staff in the Public Works, Health, Parks, and Planning departments on the content of the Complete Streets design policy and concepts.

e. Provide the public, and any affected user group, an opportunity to review the Complete Streets elements of a roadway project during the early design phase.

f. For each implemented Complete Streets roadway project, identify reasonable performance measures, collect baseline data, and establish an appropriate time frame for evaluation after the completion of a project to determine the qualitative and quantitative indicators of potential or actual performance of a street, corridor, or transportation network.

g. Reference the Sioux Falls Bicycle Plan, the Sioux Falls Pedestrian Plan, the Sioux Falls Sustainability Master Plan, the 2025 Downtown Plan, and Shape Sioux Falls 2035 Comprehensive Plan when conducting corridor studies to give explicit consideration to bicyclists, pedestrians, and transit users and to reduce single occupant automobile trips.

h. Where appropriate, ask transit provider(s) to review alternatives of corridor studies.

GLOSSARY

AASHTO—American Association of State Highway and Transportation Officials

ITE—Institute of Transportation Engineers

MPO—Metropolitan Planning Organization

NACTO—National Association of City Transportation Officials

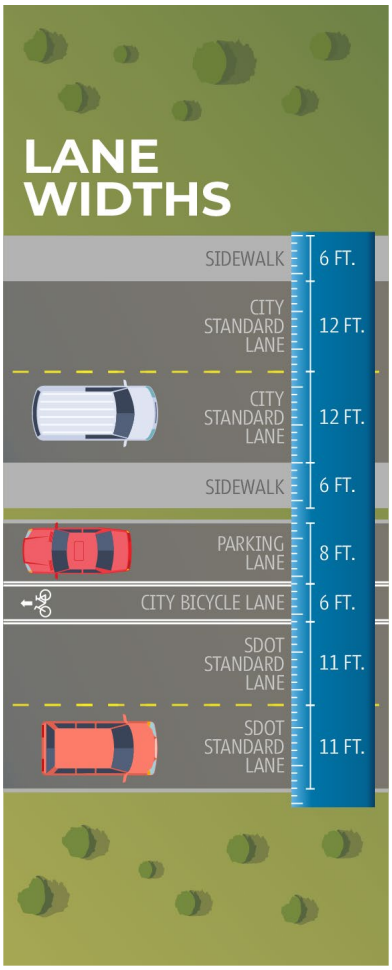
PROWAG—Public Rights-of-Way Accessible Guidelines

Date adopted: 07/07/15

Mike T. Huether
Mayor

ATTEST:
Lorie Hogstad
City Clerk

Appendix H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12 FT.
CITY STANDARD LANE
12 FT.
SIDEWALK
6 FT.
PARKING LANE
8 FT.
CITY BICYCLE LANE
6 FT.
SDOT STANDARD LANE
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SDOT STANDARD LANE
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