SS4A Safety Action Plan Draft

Leadership Commitment and Goal Setting

- **Commitment resolution**

SS4A Committee of South Sioux City

- Erin Berzina – Planning Director, SIMPCO
- Becky Eckhardt – Director of Student Services, South Sioux City Community Schools
- Melanie Gillaume – Membership/Tourism, South Sioux City Chamber
- Oscar Gomez – Public Works Director, Assistant City Administrator, South Sioux City
- Gene Maffit – Parks and Rec Director, South Sioux City
- Ed Mahon –Police Chief, South Sioux City
- Pat Somsky – Grant Administrator, South Sioux City
- Joan Spencer – Clerk, Dakota County

Introduction

The City of South Sioux City has committed to advance roadway safety through its Zero Goal resolution as guided through this Action Plan. Transportation network improvements as they address walking, biking, transit, and driving, are to be strategically determined using priorities established here and in conjunction with the South Sioux City's Comprehensive Plan, Zero Goal initiative, and Complete Streets Policy (& ???). Projects also consider advancement of its Bicycle Friendly Community status.

In order to achieve safe streets and roads for all users, the City of South Sioux City has developed the SS4A Safety Action Plan. The Action Plan incorporates essential factors of national safe streets initiatives emphasized through the Bipartisan Infrastructure Law to prevent roadway deaths and serious injury. The Action Plan addresses key components as outlined below.

Leadership Commitment and Goal Setting

Commitment Resolution

SS4A Committee

Introduction

Planning Structure

Community Profile & Demographics

Plan Development Process
Engagement & Collaboration
Equity Considerations
Safety Analysis
Policy & Process Changes
Strategy & Project Selections
Progress & Transparency

Community Profile

South Sioux City is located in northeast Nebraska, flanked to the north and east by a bend in the Missouri River. It lies at the intersection of the Nebraska, South Dakota, and Iowa state lines, across the Siouxland Veterans Memorial Bridge from Sioux City, Iowa. It is a diverse community of 14,043 residents.

Analysis of the community's housing, demographics, and economics significantly contributes to an effective approach to equity in project planning and implementation. Discussion of South Sioux City's existing transportation network provides perspective for the provided safety analysis and proposed strategies.

Land Use

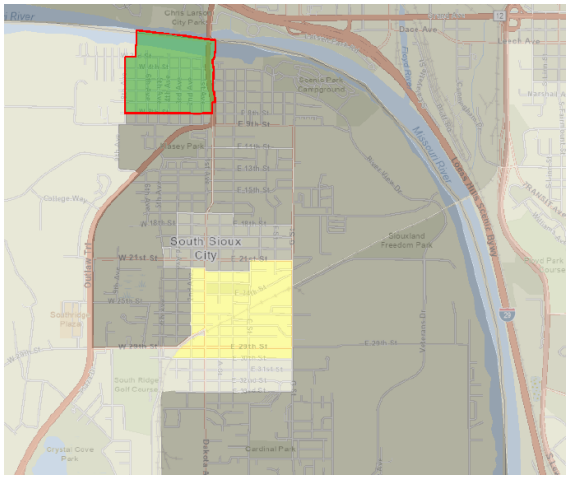
Development in South Sioux City is primarily oriented toward the major transportation channels of Dakota Avenue, Highway 77, and Interstate 129. Most of the commercial development in the city follows Dakota Avenue and Highway 77, the major north-south routes. On the west side of the city, big box stores with large footprints are located off of Highway 77, while strip malls populated by local businesses and auto-oriented restaurants make up the commercial development along Dakota Avenue. Industrial uses are located in large part along the BNSF railway and near the perimeter of the city. Some light industrial uses are located adjacent to residential areas, while heavy industrial uses have the highest concentration in the southernmost part of the city, easily accessible from the railway, Dakota Avenue, and Interstate 129, which connects Interstate 29 in Sioux City to Highway 20 in Nebraska. Residential areas lie predominantly between Riverview Drive to the east and Highway 77 to the west.

Future development/expansion

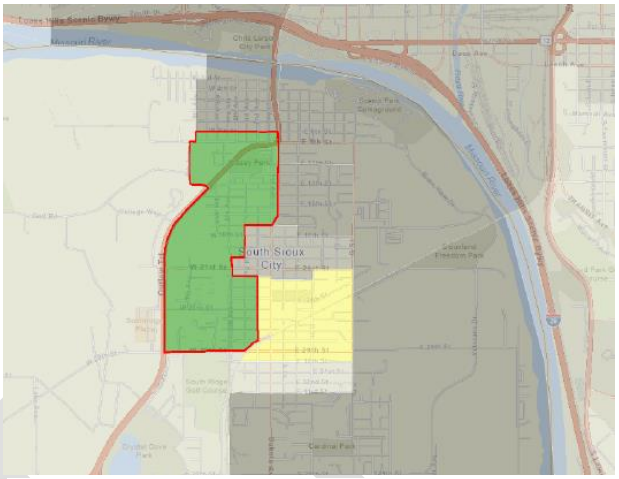
The city has recently annexed adjacent land east of Dakota Avenue and south of the interstate, in anticipation of future developments by Ho Chunk Capital. The group plans to build a racetrack and casino, as well as additional housing units in the coming years. While these developments represent an opportunity for city revenue and jobs for residents, the impact of these large-scale projects on the transportation network should be considered in this safety plan. South Sioux City is a relatively small town, and precautions should be made to ensure the increase in traffic volume does not cause congestion or present safety hazards for residents.

Environmental Justice

Using the U.S. Environmental Protection agency's EJScreen Tool to determine residents' vulnerability to various environmental health hazards, it was found that South Sioux City falls at or above the 88th



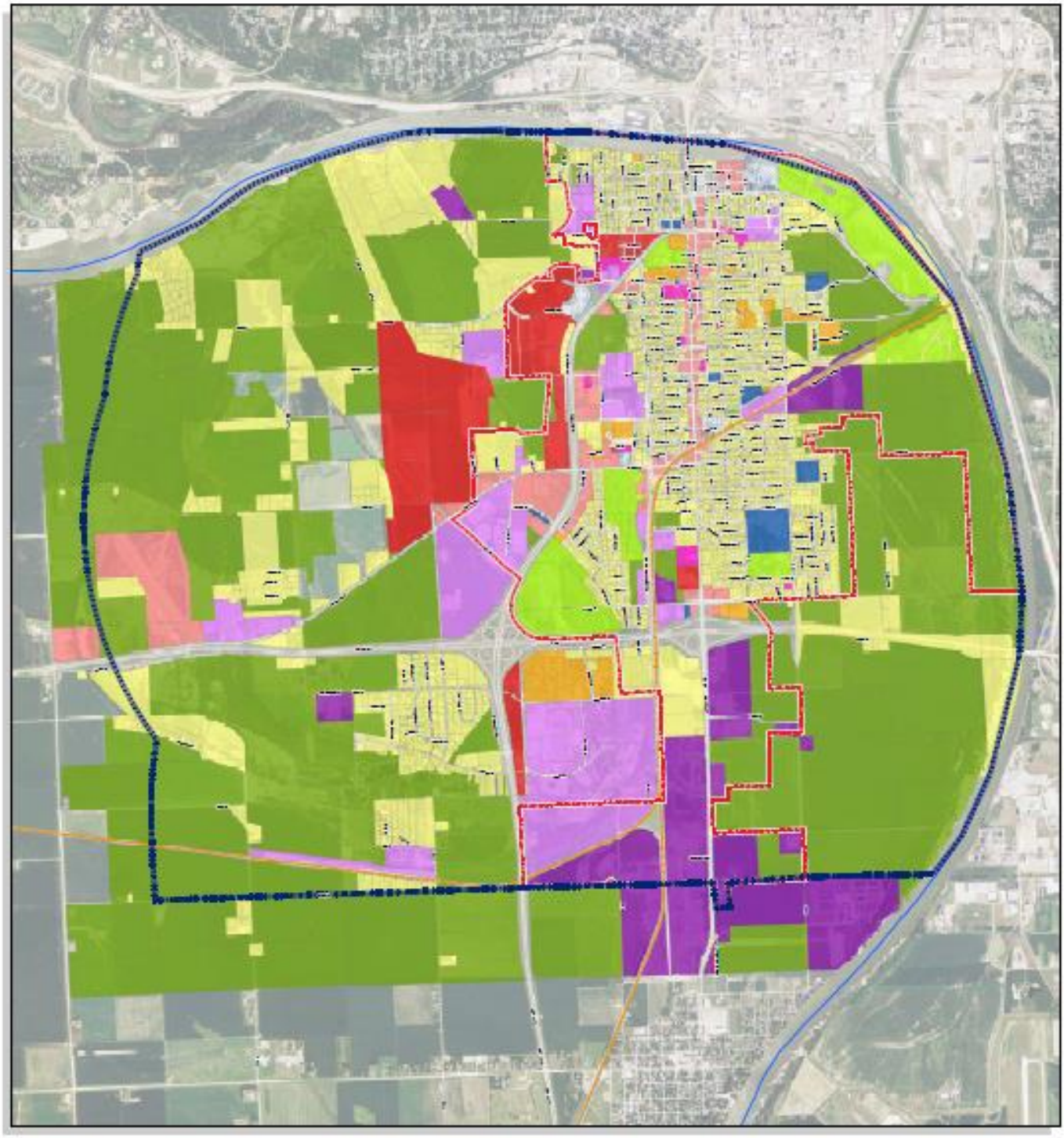
Block group 310430101004; 86th percentile for traffic proximity compared to State of Nebraska.



Block group 310430101003; 72nd percentile for traffic proximity compared to State of Nebraska.

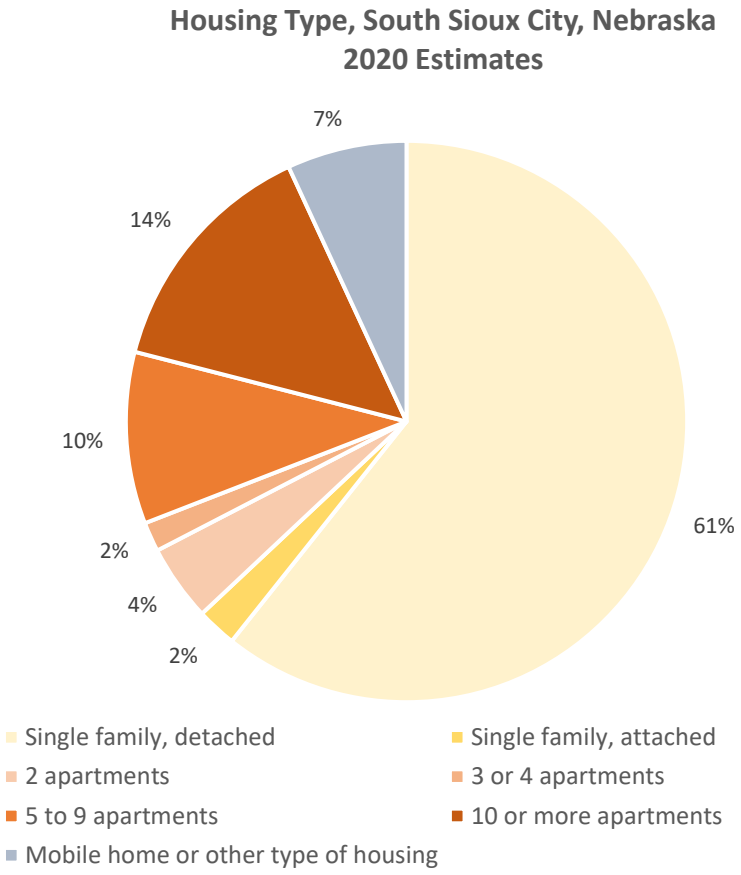
percentile compared to the State of Nebraska on all 12 of the environmental justice indexes assessed in the tool. The leading indicators related to transportation pollution and risk compared to state-level averages are ozone, diesel particulate matter, air toxics cancer risk, and traffic proximity. Ozone levels for all block groups are at the 89th or 90th percentile, air toxics cancer risk is at the 75th percentile, and diesel particulate matter is at the 92nd percentile of state levels. Air pollution in South Sioux City likely stems from residential proximity to truck routes, industrial uses located along the railway and railyard that border many residential blocks, and several heavy industrial operations on the southern end of the city such as food production, food processing, trucking and distribution companies, and other freight transportation logistics establishments. While all block groups have a very high percentile of ozone, diesel particulate matter, and air toxics cancer risk, there are two block groups in particular that are at or above the 72nd percentile for traffic proximity. These block groups, shown in the figures above, are both located on the west side of South Sioux City, in neighborhoods surrounding highway 77.

The demographic index of South Sioux City residents, which assesses the concentration of people of color and low-income residents, is 50% or at the 88th percentile of state residents. The socioeconomic indicators evaluating the concentration of people of color, linguistically isolated residents, and residents with less than a high school education, are particularly high: at or above the 93rd percentile of Nebraskans. These demographic factors limit residents' ability to overcome unforeseen health or financial challenges and reduce their housing mobility. This increased vulnerability amplifies the risks of transportation-related environmental hazards located within the city. Mitigation of such hazards should be considered when planning future safety-enhancing transportation projects.


Existing Land Use (2009)
South Sioux City, NE
Comprehensive Plan
Legend
Two-Mile Zoning Jurisdiction
City Boundary
Streams
Railroad
Low Density
Medium Density
Light Commercial
Heavy Commercial
Light Industrial
Heavy Industrial
Parks/Open Space
Agricultural
ROW
Schools/Comm College
Public
Religious
Vacant
N
Created By: C. Skow
Date: June 2010
Revised:
Software: ArcGIS 10.2
File: 140860.00
Miles
0 0.375 0.75 1.5

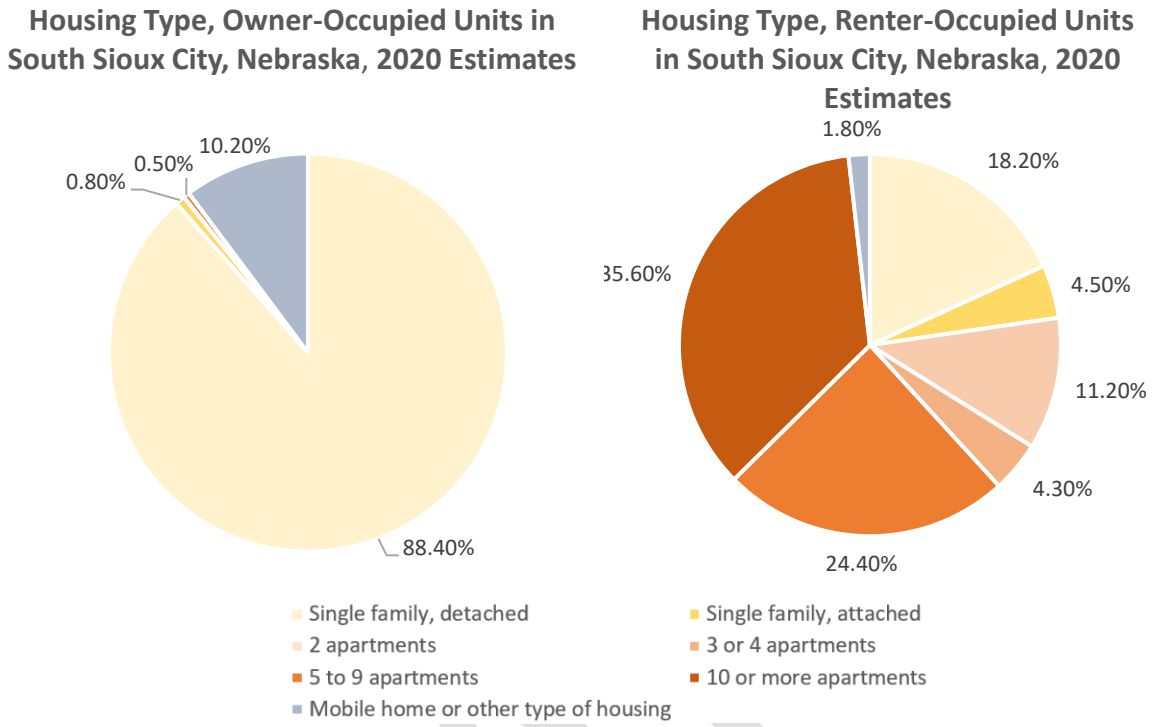
Housing

A majority of South Sioux City's housing is comprised of detached single-family homes, with 61 percent of units taking this form. About two percent are single-family attached units incorporated into neighborhoods dominated by single family detached homes. Multi-family buildings of varying density make up 30 percent of housing units and these are typically located on the fringes of residential areas where larger lots were available to develop these complexes. Six mobile home parks are located in South Sioux City, accounting for about seven percent of housing units: Siouxland Estates, Shady Elm, Lake Village, Orr, Parkview, and Tan Tara Hollow.



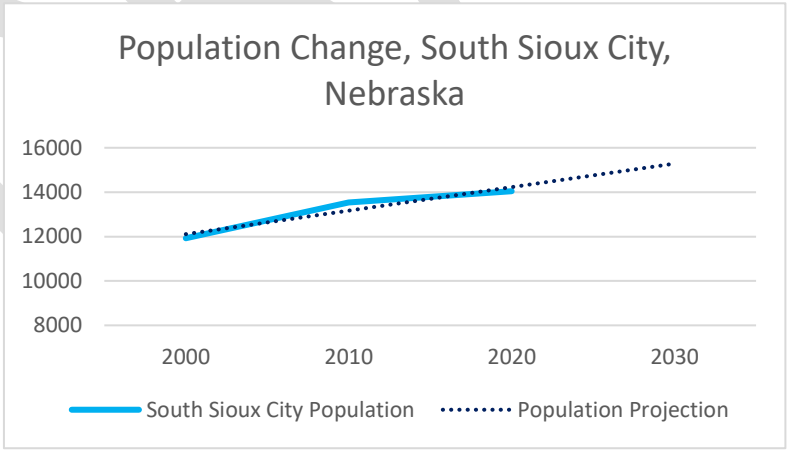
Residents who rent rather than own their home are much more likely to live in multi-family apartment buildings, while those who own their home almost exclusively live in single-family and mobile homes. Most of the largest apartment complexes in South Sioux City are located in census tracts 101.01 and 101.02, where roughly half of residents are renters.

Housing units are owned disproportionately by some racial or ethnic groups than others. Most notably, we would expect 276 Black or African American residents and 87 American Indian residents to own homes, but instead it was estimated in 2020 that there were just 9 and 52 home owners of these groups respectively. This represents a 187% difference in the number of Black or African American homeowners than would be expected based on the overall proportion of owners and renters in South Sioux City, and a 50% difference for American Indian homeowners.



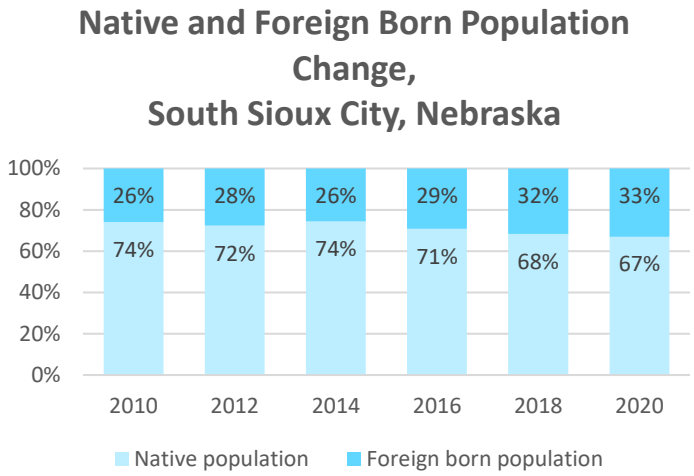
Demographics

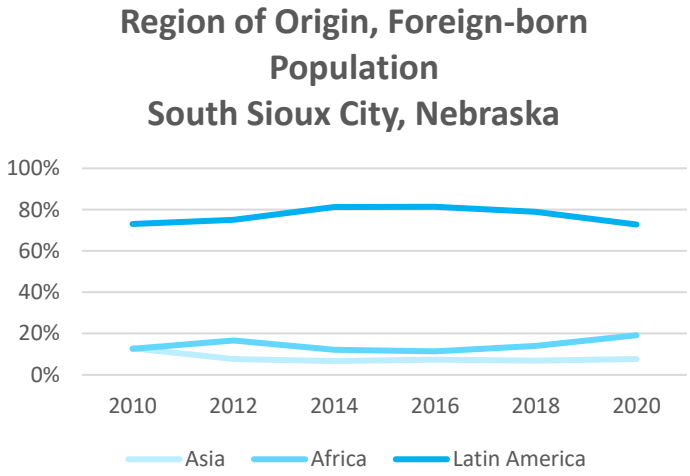
South Sioux City's population has grown quite steadily over the past two decades, from just under 12,000 residents in 2000 to about 14,000 in the 2020 census. Assuming a linear pattern of growth at the same rate into the future, the population would approach roughly 15,250 in 2030.



Over the past two decades, an increasing percentage of residents living in South Sioux City were born in a foreign country and moved to the United States, suggesting that immigration accounts in part for the city's population growth during this time. In the recent past, migration from African countries has been increasing year after year, while migration from Latin American countries has decreased slightly. However, a majority of foreign-born residents were still originating in Latin American countries in 2020.

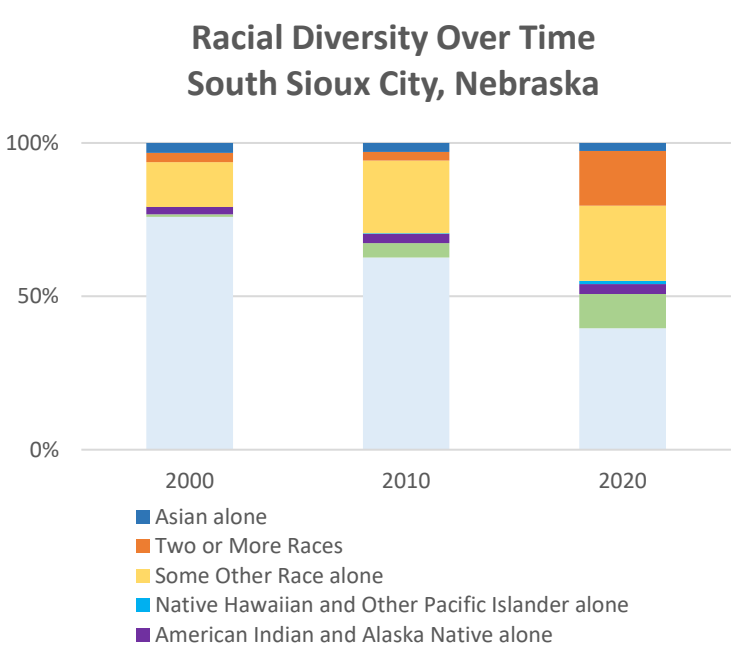
In Census tracts 101.01, 101.02, and 102, the proportion of foreign-born residents was roughly one third of the population. Many residents of these neighborhoods can be expected to have a native language other than English and feel more comfortable communicating in that language.

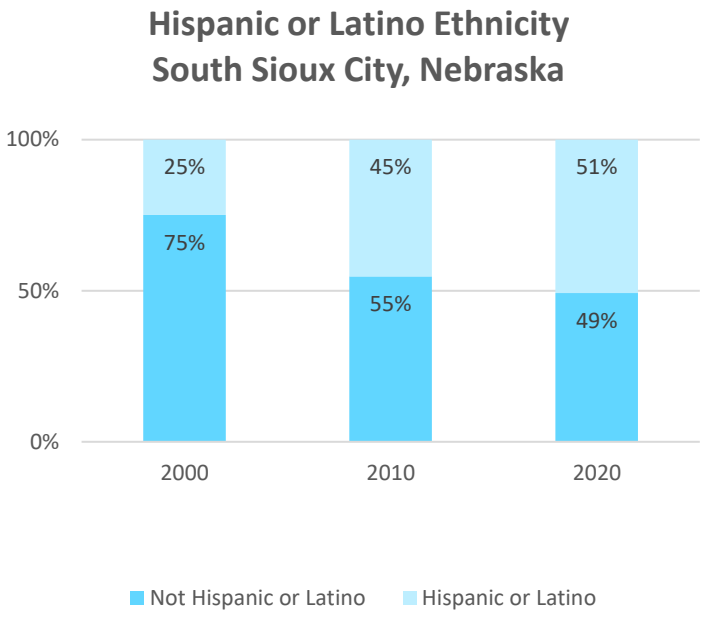




It was estimated by the American Community Survey in 2020 that over half of the population spoke a language other than English at home. About 80% of these residents spoke Spanish at home, followed by eight percent speaking "other languages", and less than five percent speaking Asian and Pacific Islander languages, or other Indo-European languages. It is likely that the "other languages" category represents the significant population of residents who are of African heritage and most commonly speak ____ and _____. There is a notable number of households where a language other than English is spoken at home that also have limited proficiency in speaking English. Over one quarter of South Sioux City's residents reported speaking English "less than very well" in the 2020 American Community Survey estimates. In census tracts 101.01 and 102, the majority of residents who have limited skill with English speak Spanish at home, while those with limited English in census tract 101.02 most frequently reported speaking "other languages" at home.

South Sioux City has become increasingly racially and ethnically diverse over the past 20 years. In the year 2000, residents of Hispanic or Latino ethnicity accounted for one quarter of the population, and by 2020, that percentage had increased to just over half of the population. In contrast, 12 percent of residents in the state of Nebraska overall identified as Hispanic or Latino in the 2020 census. In a similar pattern, the city has grown in terms of racial diversity during this same period. In the year 2000, about 25 percent of residents were non-white or multi-racial, and 20 years later, that percentage had increased to about 60 percent. In the state of Nebraska, 14 percent of residents identified as such in 2020.



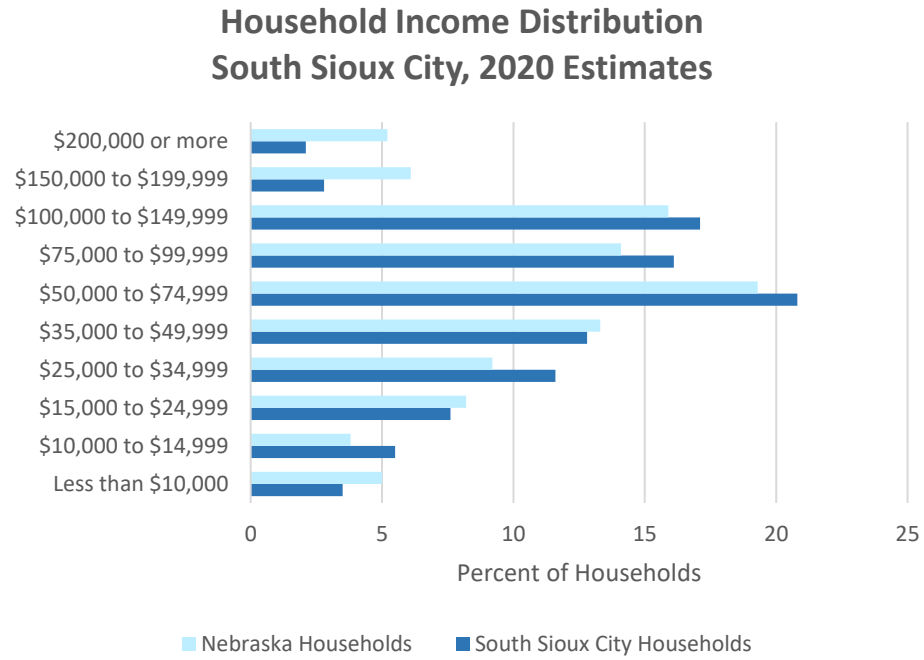


The median age of South Sioux City residents was estimated in 2020 to be 32.7, about 4 years younger than the Nebraska median of 36.6 years. The child dependency ratio describes the proportion of people younger than 15 to those ages 15 to 64. By comparing South Sioux City's child dependency ratio of 49.3 to Nebraska's of 41.4, it is clear that there is a higher proportion of children living in the city compared to in the state as a whole.

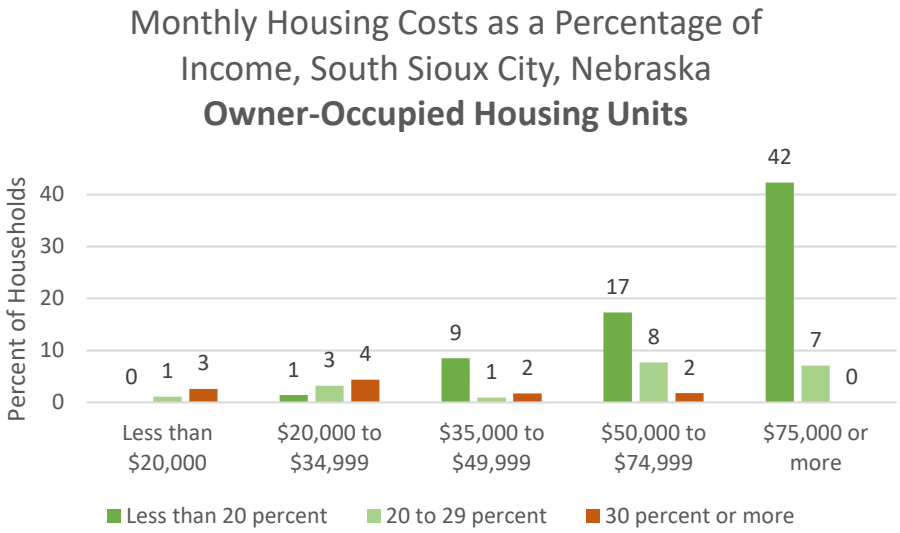
Economics

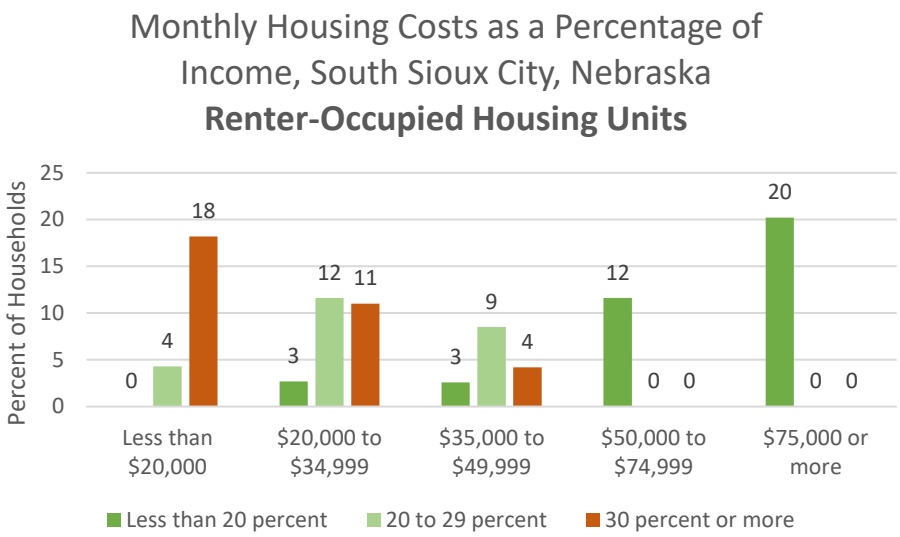
Household Income

The median household income in South Sioux City of $56,744 is 11 percent lower compared to $63,015 at the state level. While the overall pattern of income distribution is similar across many income categories when comparing South Sioux City and the state, the largest difference can be observed in the highest income categories. A far smaller proportion of households in South Sioux City were earning above $150,000 in 2020 compared to households at the state level.



The distribution of monthly housing costs as a percentage of household income in South Sioux City is remarkable when comparing owner and renter occupied units. When analyzing housing costs relative to income for rental units only, it is clear that renters are far more likely to be burdened financially by housing costs, with a significant percentage of households at lower income levels paying 30 percent of income or more toward rent.



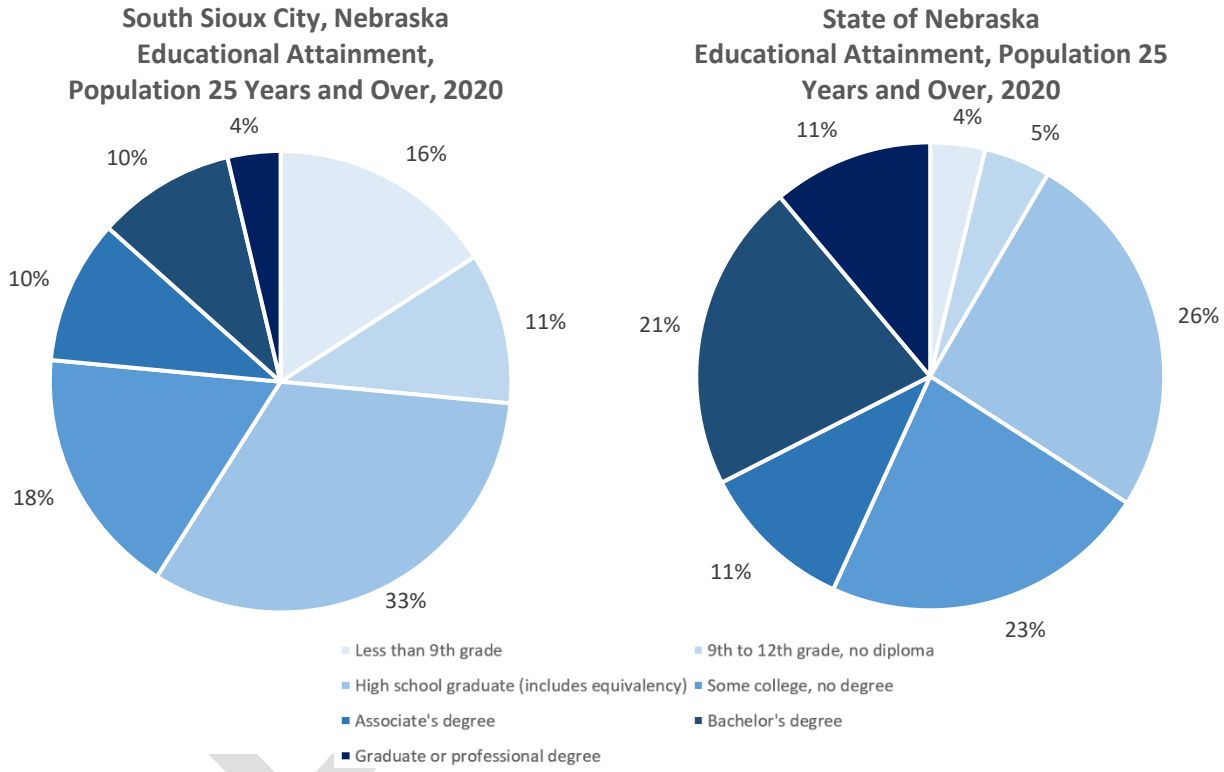


Poverty

The percentage of residents in South Sioux City estimated in 2020 to have earned incomes below the federal poverty level in the past 12 months was 14 percent. The proportion of residents living on incomes below the poverty level varies greatly depending on the neighborhood in which they live. The areas with the highest estimate of residents earning below the poverty level in 2020 were Census tracts 101.01 and 103 where over one third and about 18 percent of residents were living in poverty, respectively.

The primary industry of employment for residents of South Sioux City is manufacturing, with an estimated 35 percent of the population ages 16 and over employed in this industry in 2020. About 16 percent of residents were estimated to be employed in the Educational Services, Health Care, and Social Assistance fields. The most frequent occupational category across all industries was Production, Transportation, and Material Moving, with 37 percent of workers in these occupations, followed by Management, Business, Science, and Arts with about 25 percent of workers falling into this classification.

On average, educational attainment tends to be lower in South Sioux City when compared to achievement at the state level. The percentage of residents age 25 years and over in South Sioux City who were reported to have graduated from high school or earned an equivalent credential in 2020 was about 74 percent, while 92 percent of Nebraska residents had this level of education. Similarly, 13 percent of South Sioux City residents were estimated to have earned a bachelor's degree or higher compared to about one third of Nebraska residents.



Transportation

Transportation network

As previously described, the primary arterials of South Sioux City's roadway network are Dakota Avenue, US Highway 77, and Interstate 129. The city follows a grid system layout with streets running east to west and avenues running north to south. Apart from faster highway speeds, speed limits on most roads are 25 miles per hour and 20 miles per hour in school zones.

Roadway designs

Much of Dakota Avenue is designed as a two-lane road with a center turn lane. This is the case between 11th street and 18th street, south of 29th street through the residential neighborhoods, and on the

commercial corridor leading down to 39th street and the entrance to Interstate 129. Near busy four-way intersections in commercial corridors, the roadway expands to four lanes with a central median to divide opposing lanes of traffic, while dedicated lanes and signals are used for vehicles making left turns. The commercial corridors on Dakota Avenue are characterized by frequent, wide driveway entrances to the many businesses and restaurants that line this central, busy street.

Traveling south on Dakota Avenue from the north end of town, drivers encounter a major intersection at 9th street. Here, Dakota avenue continues south, and some traffic moves to the right to enter Highway 77 branching off to the southwest. The roadway design on Highway 77 consists of two lanes traveling in either direction with a lane-width central median. At signalized intersections, the central median narrows to allow for left turn lanes. Entrances to the highway are minimal. Service roads provide access to the businesses along the commercial corridor, allowing traffic exiting and entering the highway to be controlled by six signalized intersections between the northern entrance and the southern interchange.

Residences are by and large arranged on a grid pattern between the major arterials. Residential streets are designed for two-way traffic and allow street parking on both sides unless otherwise marked. While the naming convention follows a grid, not all streets remain connected throughout the city. Many end after several blocks, which prevents traffic from cutting through residential neighborhoods. A few notable exceptions to this broken grid pattern are 5th avenue on the west side, as well as B and G Street on the east side, which run parallel to Dakota Avenue, uninterrupted for many blocks.

Bike/Ped network

Most areas of the city have sidewalks, with several exceptions. In older neighborhoods and commercial areas the sidewalks are relatively narrow, compared to trail-width sidewalks that have been constructed in the past several years, such as around the Flatwater Apartment complex, and along much of the Highway 77 commercial corridor. The city has a 10-foot-wide concrete trail network that extends 19 miles, primarily around the perimeter of the city. There are plans to expand the network to provide more connectivity for alternative modes of transportation in the future, and to construct a new pedestrian bridge across the Missouri River that would connect to the Lewis and Clark Trail on the east side of Sioux City's Chris Larsen Park. The trail network in South Sioux City is also connected with a ## mile on-street bike network that is indicated by bike route road signs.

Commuting

The primary means of commuting to work in 2020 for about 68 percent of South Sioux City residents was driving alone by car, followed by carpooling which was the case for nearly 20 percent of working residents. About four percent, or 240, were estimated to walk to work and less than one percent used public transportation. The remaining seven percent of residents worked from home, negating the need for commuting altogether.

Nearly 60 percent of residents in 2020 reported commuting to work within Dakota County, while 40 percent worked out of state. For all drivers, including carpools, the median commute length was under 20 minutes. For transit riders, the median length was 20-29 minutes, but a quarter of these commuters traveled an hour or longer to get to work via bus.

Vehicle Access

While some residents who commuted to work by walking had access to a vehicle and likely lived within convenient walking distance to work, over one quarter of walkers in 2020 did so due to a lack of vehicle access. Over three quarters of South Sioux City residents without a vehicle lived in census tract 101.01 in 2020. Residents in this area were far more likely than residents of other census tracts to rely on public transportation or walking to commute to work, representing 75% of the city's public transit users, and 66% of walkers.

Transit network

South Sioux City contracts with the City of Sioux City in Iowa for accessible fixed route transit service. The bus operates in South Sioux City Monday through Friday, from 6:00 in the morning until 6:00 in the

evening. There are just over 30 outbound stops on the looped route with about 20 inbound stops back to the transit transfer center in Sioux City. The route includes access to destinations such as grocery stores, the YMCA, parks, City Hall, several school campuses, and other points of interest. The bus makes one circuit per hour. Standard fare for adults is $1.80 per ride, $18 for a ten-ride pass, and $48 for a monthly pass. Reduced rates are available for students, seniors, Medicare recipients, and persons with disabilities. Children under five and veterans with service-related disability ride for free.

Siouxland Regional Transit System expanded On-Demand services into Dakota County in 2022. This system provides ADA-accessible, door to door transportation services to the general public between 5:30 AM and 7:00 PM, Monday through Saturday. Rides are scheduled at least 24 hours ahead of time. The service is free for rides between South Sioux City and other Dakota County destinations, excluding rides within South Sioux City. All other Sioux City Metro area rides are five dollars each way.

Public Services Accessibility

Many of the city's public services, such as City Hall, the library, Haven House social services, the South Sioux City Housing Authority, and the Northeast Community Action Agency, to name a few, are centrally located on or near Dakota Avenue with ample parking spaces available. Accessibility for pedestrians is possible via the sidewalk network for those walking or using mobility devices. Bus stops are located every few blocks on Dakota Avenue, allowing transit users to access these social services as well.

In a city that has historically been designed for vehicles first and foremost, it will take a concerted and continued effort to ensure that the roads and pedestrian infrastructure, particularly in neighborhoods that rely on alternative forms of transportation out of financial necessity, are safe for all users.

Plan Development

The Safe Streets for All Committee of South Sioux City is made up of representatives from the city administration, the Parks and Recreation Department, Police Department, Public Works Department, the South Sioux City Chamber of Commerce, the South Sioux City Community School District, Dakota County, and the Metropolitan Planning Organization, SIMPCO. This group met to discuss the need for a comprehensive safety action plan to reduce the frequency of severe vehicle crashes and improve the safety of alternative modes of transportation. During initial meetings, this group identified immediate safety needs of the community and a budget plan of corresponding improvement projects to address these needs. In addition to these initially identified projects, the committee has relied on the planning team to compile demographic and transportation data as well as public input to inform the selection of transformative safety improvement projects with a longer time horizon. The committee has reviewed and submitted comments to the planning team for the draft of this plan and has approved of the scope and timeline of projects as presented.

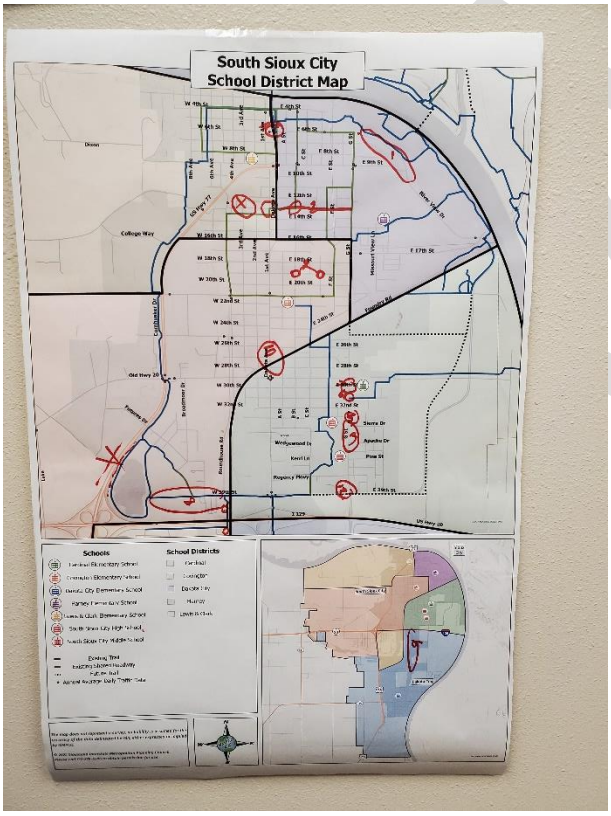
Going forward, this committee will annually review the safety action plan to evaluate progress toward the implementation of each planned project. This review will take place in advance of the annual budgeting process to ensure that projects the city should pursue according to the plan are accounted for in the Capital Improvement Program.

Public Engagement Activities

Public engagement is integral to the development of this transportation safety action plan. While focusing on interactive opportunities, the planning team also created and distributes a survey as an

alternative data collection tool. Available on paper and online, the survey further enabled public comment about participants' comfort and safety levels while walking, biking, taking public transportation, and driving in different areas in South Sioux City. A combination of multiple choice, ranked priority, and open-ended questions allowed respondents to describe their person walking, biking, riding, and driving experiences.

Prioritizing in-person conversations as means for collecting local data, the planning team attended fourteen already-established events to gather public input about transportation safety concerns. The team attended four Friday Coffee Hour networking events organized by the South Sioux City Chamber of Commerce to spread the word about the need for public input and distribute flyers with a link to the electronic survey. Throughout five-day Dakota-Thurston County Fair, the planning team and project partners staffed a table in the vendor hall with a map of South Sioux City displayed. Attendees were encouraged to mark the map they may have experienced or expect to experience safety concerns. Conversations included discussion of intersection safety, missing sidewalks, school traffic congestion, and many other aspects that present safety concerns. Cards were provided to collect additional comments about the places they identified and ideas about how to make improvements. The survey, survey results, and a compilation of interactive responses are included in the appendix.



Additional in-person engagement was conducted during the district's back to school open house night at three South Sioux City Community Schools: Lewis and Clark Elementary, the middle school, and the high school. The planning team also had conducted outreach during two food pantries at the St. Paul Methodist Church and the First Lutheran Church. One final open house event was hosted at City Hall prior to the regularly scheduled Public Works meeting at the start of the public comment period for the draft plan. Each session included opportunity for attendees to map their concerns. In between open house events, the team gave presentations about the plan and the need for public input to three community organizations with extensive outreach capacity within the human services network: the South Sioux Optimist Club, Voices for Food, and Growing Community Connections, a monthly collaborative meeting of regional health and human services providers. Flyers were distributed by the South Sioux City Housing Authority to landlords of housing complexes for veterans, low-income residents, and residents with disabilities; and posted at the YMCA, the City Library, and Northeast Community College Center campus. Notices of the Open House to kick off the public comment period included links to the electronic survey and were posted on the city website's home page, the city's Facebook page, SIMPCO's Facebook page, and the South Sioux City Public Library's home page.

City administrators contributed to outreach and plan development by providing data, contacts of community leaders connected to targeted outreach populations, and input from observed trends and known safety issues. The City also assisted with marketing the survey and open house events.

In choosing events to promote the Safety Action Plan and establishing community connections, the planning team intentionally targeted opportunities involving diverse populations (the fair, library, YMCA, schools, and NECC) as well as potentially disadvantaged individuals and families (Lewis and Clark Elementary school, food pantries, and service coordinators and agencies). Such measures were taken to ensure opportunity to participate by traditionally underserved persons. To further expand on equity and to incorporate South Sioux City's unique demographic make-up, this plan includes such in the following section of considerations.

Equity Considerations

South Sioux City, Nebraska is a racially, ethnically, and economically diverse city. It was determined in the 2020 Census that 51% of South Sioux City residents identified as Latino or Hispanic ethnicity. Non-Latino or Hispanic people of color comprised 19% of the city's population.

According to estimates from the Census Bureau's 2020 American Community Survey, about 1,392 or 11.7% of Spanish-speaking residents aged five and over described their ability to speak English as "not well" or "not at all". Therefore, it was very important to the planning team to translate the survey into Spanish and provide translation services at all open house events to encourage these residents to engage with the planning process.

In addition to the prominent Latino population in South Sioux City, it was estimated in the 2020 American Community Survey that 1,023 or 8% of residents' first ancestry is the Sub-Saharan African region. The countries most frequently represented within this region were Somalia, Ethiopia, and Sudan. It was estimated that about 816 residents of this community were born in Africa and subsequently moved to the United States. Outreach attempts were conducted, however an improved process of engaging persons from these countries and others as immigration patterns change is among projects identified in this plan.

It was estimated in the Census Bureau's 2020 American Community Survey that 14% of all South Sioux City residents earned an income below the poverty level in the previous 12 months. About 244 South Sioux City residents identified walking as their primary transportation to work. Those earning less than 100% of the poverty level were much more likely to be walkers compared to higher income categories. Furthermore, over 60% of American Indian or Alaskan Native residents, 17% of those identifying with two or more races, and 15.5% of Black or African American residents were earning below the poverty

level in 2020, compared to 12.4% of white residents. Due to these socioeconomic disparities in income and access to a vehicle, the planning team ensured that several of the open houses were located within low-income and/or minority neighborhoods. One open house was located at Lewis and Clark Elementary School which serves many of the families living within census tract 101.01, where about 69% of residents were people of color, 59% were of Latino ethnicity, and over one third earned incomes below the poverty level according to the 2020 Census. Two open houses were located at the Middle School and High School in census tract 102 where nearly 50% of residents identified as having Hispanic or Latino ethnicity in 2020. Community leaders within these groups or otherwise connected through existing organizations assisted in disseminating surveys and notices of upcoming public input events.

Targeted affordable rental unit housing- renters in general tend to have a higher housing burden relative to their income, and most renters occupy multi-family apartment buildings rather than single family homes. Therefore, the planning team made efforts to advertise public input opportunities through landlords of affordable rental units. Landlords posted the flyers in public spaces within apartment buildings and emailed flyers to residents.

Equity considerations in data analysis:

- Neighborhoods with highest number of pedestrians, bikers, transit riders
- Lowest-income neighborhoods and connectivity to public services
- Environmental justice considerations- sources of pollution, mitigation measures (EJ Screen tool)
- Health Disadvantage: adverse health outcomes, disability, and environmental exposures (CDC Social Vulnerability Index)
- Transportation Access disadvantage: communities that spend more and longer to get where they need to go (EPA Smart Location Map, HUD Location Affordability Index); access to transit, reliance on vehicles, etc.
- Economic disadvantage: areas with high poverty, lack of local jobs, low homeownership, low educational attainment, high inequality
- Resilience disadvantage: communities vulnerable to hazards caused by climate change (FEMA National Risk Index)
- Equity disadvantage: communities with a high percentile of people who speak English less than well
- Safety for pedestrians near multi-family affordable residences, institutional living such as senior housing, medical facilities, etc.

Current Transportation Policy

The City of South Sioux City adopted a Complete Streets Policy in 2011. The goal of this policy is to accommodate pedestrians, transit riders, people of all abilities, and bicyclists on roadways, concurrent with transportation improvement projects. Performance measures to track progress toward implementing this policy include the number of new linear feet of pedestrian infrastructure, the amount of reduction in transportation collisions, and the amount of increase in the use of alternative modes, such as public transportation, biking, and walking. In cooperation with the SIMPCO Metropolitan Planning Organization, the city installs a trail counter on one segment of the trail system each year between May and September to track its utilization rate over time.

The city also recently updated their subdivision code to require consideration of bicycle paths in preliminary plans. If it is determined that a bike path is financially feasible and should be installed where a sidewalk is required, the cost is split 40/60 between the developer and the city. If it is determined that a bike path should be incorporated into the development where a sidewalk is not required, the city will pay for this infrastructure. This policy ensures that the incorporation of bike paths is considered early in the design phase for new developments, reducing cost for both parties and increasing the feasibility of new trail construction. Over time, this policy will increase the connectedness and efficiency of the trail system as an alternative transportation route.

Throughout South Sioux City, the speed limit on a majority of streets is 25 miles per hour with a few exceptions. School zones are designated at a slower 20 miles per hour, while Highway 77, Old Highway 20, and the U.S. Highway 20 bypass have higher limits. While setting speed limits is valuable from a goal-setting perspective, user behavior does not naturally align with speed limits, as was commonly reported from public input comments. As will be detailed in the following section about safety strategies and project selection, it is recommended that 25 mile per hour and other low speed limits be supplemented by proactive roadway designs that are proven to reduce vehicle speeds. The statement below from the National Association of Transportation Officials' Urban Street Design Guide summarizes this approach succinctly:

"**Conventional Highway Design:** Operating Speed = Design Speed = Posted Speed.
Proactive Urban Street Design: Target Speed = Design Speed = Posted Speed." – *From National Association of Transportation Officials, Urban Street Design Guide*

Safety Analysis and Potential Solutions

Over the ten-year period between 2015 and 2020, South Sioux City averaged 365 crashes per year. While only one of these crashes resulted in a fatal outcome, there were 1,829 total crashes that resulted in injury and/or property damage. Please note that property damage prevention is not a direct goal of this plan, however it does figure highly into potentially furthering the effects of poverty for individuals involved. For a city that is relatively small in terms of population and geographic extent, these numbers indicate that there is a need for safety improvements in this road network. The city's roadways and pedestrian trail networks were analyzed according to many aspects of safety, such as high-risk road features, residential and commercial walkability, pedestrian and bicycle connectivity, current city policies, and behavioral safety risks.

City administrators, elected officials, public safety departments, and many organizations across the community are resolved to uphold a zero-tolerance policy for severe and fatal crashes. There is widespread support for making roadway design changes that promote a safe system and advocating for shifts in the collective thinking around which road users are prioritized. The safety improvement projects that address the identified safety concerns were informed by historical crash data, comments received during the planning process from members of the public, public survey results, the city's comprehensive plan, input from city administrators, and comments from the safe streets committee. Projects were also informed by best practices published in resources made available by the U.S. Department of Transportation, Federal Highway Administration, and National Association of Transportation Officials.

GIS map of crash locations. Identify intersections with higher number of incidents.

Accessibility

First consideration must be given to the overall accessibility of the community in terms of the ability of the most vulnerable residents to access public amenities and services without barriers. In doing so, quality of life improves for the whole community. Data collection included conversation about inability to get to a grocery store without spending a significant amount of the food budget on transportation. South Sioux City's trail network is well connected for recreational use but does not necessarily accommodate a direct route to essential services such as food suppliers and medical providers.

Recommendation: Complete an inclusion-focused community accessibility assessment of public facilities including buildings and transportation infrastructure including but not limited to sidewalks, trails, curb cuts, ADA accommodated street crossings, crossing signals, and public transit. Many such components are aspects of other identified safety concerns.

High-risk Roadway Features

Despite South Sioux City having a speed limit of 25 miles per hour throughout a majority of the road network, speeding was one of the most frequently reported safety hazards during public outreach events.

School Zones

School zones were identified on several occasions as areas of concern for drivers violating the speed limit. Several comments were received related to students having difficulty crossing streets around school campuses, for example, at the intersection of Dakota Avenue and 39th Street outside of one of the middle schools, as well as on G Street and E 33rd Street near the combined middle and high school campus.

B and G Streets

In addition, B and G streets were identified as routes that are often used as alternative routes when there is traffic congestion on Dakota Avenue because these roads run parallel to the main arterial, uninterrupted for many blocks. Speeding on both of these routes was mentioned in public feedback. The city's most recent fatal car crash took place on B Street at the intersection with 15th and involved substance impairment. Speeding on G Street near the schools was particularly concerning due to the number of walkers present on this corridor. Several other specific intersections were identified on the G street corridor as troublesome, including at E 30th Street where drivers to not stop, E 31st Street where many said a stop sign was needed to control speeding, and at E 33rd Street, which was identified as a point where children struggle to cross the road because of fast traffic.

In the vicinity of this neighborhood, speeding was also reported to be a problem on Riverview Drive between G Street and the soccer field complex where there are many walkers as well. One intersection in this area that was recognized by members of the public as well as city officials as a spot of frequent crashes or near misses is where G Street and Riverview Drive come to a "T"-shaped intersection. Here it

is unclear for those unfamiliar with the road which driver has the right of way, and what traffic will come to a stop. Traffic turning right onto G Street from Riverview Drive must only yield, while Riverview Drive traffic continuing straight in either direction have stop signs. However, G street traffic turning in either direction does not have a stop or a yield sign.

Atokad Road

It was also reported that vehicles speed on Atokad Road, adjacent to one of the trailer home courts without sidewalks, to the point that one father told the planning team that he does not allow his children to play outside for fear of their safety. Other residents reported seeing drivers texting while speeding on this route, the presence of many trucks, and pavement that contains potholes that could cause vehicle damage.

The 13th Street corridor

One conclusion that emerged from many public comments is that the 13th Street corridor from Dakota Avenue to G Street is hazardous to drivers and pedestrians alike. Here, speeding and running stop signs were the primary concerns cited. Multiple intersections on this corridor were separately identified by residents as well: B Street, Dakota Avenue, 3rd avenue, and 1st Avenue. All of these intersections with the exception of the signal at Dakota Avenue have stop signs for just some directional traffic, while perpendicular traffic flow continues uninterrupted. Furthermore, the intersection of 13th Street and 2nd Avenue does not have a stop sign.

Dakota Avenue and 6th Street, at base of the bridge

The 6th Street signalized intersection lies near the base of the Veterans Memorial Bridge, a high-volume connection to the City of Sioux City. The planning team received many comments about this junction as one that is very busy with frequent near misses. User behavior was often to blame in comments, such as failing to stop before turning or running red lights.

A little south from there down Dakota Avenue, where right lane traffic branches off to enter Highway 77 going southwest while other traffic continues south on Dakota Avenue, some residents reported this to be an intersection with many near misses as well. The proximity of this intersection to the busy Veteran's Bridge combined with the traffic turning onto Dakota Avenue from 6th Street near the bridge necessitate drivers to make quick lane shifts on a busy road amongst quickly moving traffic.

Recommendations: High-risk Road Features

Speeding on streets with a target speed limit of 25 miles per hour was a frequently reported issue in South Sioux City. To quell speeds on B, G, 13th streets, or any other cut-through routes that are intended for slower traffic, the city should consider adjusting street designs for this target. The installation of traffic calming devices, such as small traffic circles paired with four way stop signs, raised crosswalks, speed tables, and chicanes can all slow vehicles by introducing small changes to the roadway that must be navigated carefully. Narrowing street lane widths and adding curb bump-outs also encourage drivers to slow down due to constrained lane boundaries, while planting street trees that line the roadway and on-street parking have the effect of limiting drivers' visual field, which allows them to focus on their immediate surroundings. Similar strategies could be implemented to slow traffic near residential zones that have been identified as having frequent violations, such as on Atokad near Siouxland Estates.

Photo examples

The city has plans to address the "T"-shaped intersection at Riverview Drive and G Street using a roundabout, which will greatly reduce the potential for crashes at this location. It is recommended that the city also investigate the feasibility of subsequent roundabouts on Dakota Avenue at the intersection with 6th Street to control traffic entering and exiting the Veterans Memorial Bridge as well as the 9th Street and Highway 77 junction. Roundabouts at these points could increase the predictability of traffic movements, allow a large volume of vehicles to flow through with minimal idling, reduce potential conflict points between vehicles, and offer a safer environment for pedestrian crossing.

Red-light running was cited by residents as a common occurrence in South Sioux City. While this is largely a driver behavioral issue, this behavior could be driven in part by signal timing issues, such as overly short cycles for turning vehicles. The city could take steps to reducing this behavior by evaluating the length of turn signals at higher volume intersections. Another strategy that could be employed to reduce this behavior is the coordination of signal timings concurrently with the target speed limit, so that drivers travelling at the speed limit hit very few red lights along a corridor.

Bike & Pedestrian Safety

There are many aspects of the pedestrian and bicyclist network that were identified as hazardous or in need of improvement. Sidewalk maintenance and connectivity, cross walks, lighting, traffic proximity, and commercial driveways were all found to present hazards to pedestrians and bicyclists. The landscape and scale of commercial areas are by and large vehicle-oriented, causing uneasiness for those on the sidewalk, and discouraging walking.

Recommendation: There is no walkable commercial area in South Sioux City that would be considered "downtown" or "Main Street", the development of which was a placemaking and sustainability goal from the 2017 comprehensive plan. Taking strides to create such an environment would not only present a quality-of-life amenity for residents, but greatly improve safety for pedestrians and drivers alike by slowing traffic.

Improvements to the pedestrian landscape to increase comfort such as installing occasional benches along the sidewalk and providing additional trash cans, could go a long way to encourage walking. Street trees would provide much-needed shade for pedestrians during hot weather; the effects of which are

amplified by the prevalence of concrete, asphalt, and other heat-absorbing materials in the urban landscape.

Sidewalk condition

In the oldest parts of town on the original grid system, sidewalks are narrower than in newer developments and on the trail system. From a cursory visual analysis, the planning team noted areas of vegetation that encroach on the sidewalks and some areas of uneven surfaces. Public comments about the overgrowth of weeds on 5th Avenue alongside railroad right of way and in front of several businesses reflected this assessment.

Missing Sidewalks

Several parts of the city lack sidewalks altogether or on one side of the road. For example, the Siouxland Estates and Parkview trailer courts are in need of sidewalks, while Highway 77 cuts off the sidewalk connectivity of Klasey Park to the surrounding network. It was brought to the attention of the planning team that the sidewalk connecting the middle and high schools is disconnected. Constructing a connection here should be a priority to ensure that students do not have to walk in the roadway on this shared campus.

Sidewalk Recommendations: It is recommended that the city construct sidewalks where there are gaps in the network or missing entirely. A full assessment of the sidewalk network is needed to document all such disconnections as well as sidewalk condition and accessibility issues.

Driveways

On the Dakota Avenue commercial corridor, driveways often interrupt the even grade of sidewalks, prioritizing vehicles entering and exiting parking lots. The distinction between parking lot, sidewalk, and roadway is at times unclear, making vehicle movements somewhat unpredictable for pedestrians. Driveways along this stretch are often overly wide, causing many potential conflict points between vehicles and pedestrians.

Recommendation: To limit the number of driveways crossing the sidewalk, traffic from adjacent parking lots could be funneled into a shared driveway to limit the number of entry points pedestrians must contend with. This would improve safety for drivers as well by reducing the number of potential conflict points. Differentiation between the sidewalk, parking lot and road can be accentuated with the use of consistent grade, materials, and paint. Sidewalks should maintain the same material and grade across driveways to visually indicate to all road users the continuation of the walkway.

Vegetated buffer

Walking along the Dakota Avenue commercial corridor, pedestrians have the road to one side and a parking lot on the other, with vehicles frequently crossing their path to enter or exit commercial parking lots. Several blocks lack an adequate buffer between the sidewalk and roadway to protect the safety and comfort of pedestrians.

Recommendation: The use of vegetated buffers between the sidewalk and roadway not only enhances the aesthetic of the streetscape, but also creates a safer environment by providing clear differentiation and distance between pedestrian and vehicle routes. Green infrastructure such as bioswales and rain gardens installed on buffer strips can provide many additional benefits. Native plants in these installations are low maintenance compared to conventional grass, enhance water quality, provide flood control, and help to counteract the heat island effect.

Crosswalks

Comments from public input reported crosswalks that are spread too far apart to be useful. One intersection in particular at Dakota Avenue and W 28th Street was reported by many to be difficult for pedestrians to cross.

In school zones, public input emphasized the need for safer street crossings near the high school, middle school, and Harney Elementary school. Traffic gets very congested in these areas before and after school, with additional risk coming from a concentration of young drivers in the high school parking lot. The sidewalk near the high school and middle school campus is disconnected, causing students to navigate this section in the roadway.

Recommendations: Pedestrians would benefit from additional crosswalks on commercial corridors to increase the accessibility of businesses on foot. Crosswalks with signs, those that flash on-demand, or pedestrian hybrid beacons that trigger red light signals could be placed between intersections. This would reduce the distance residents had to walk to use a crosswalk. Frequent, visible crosswalks, especially those with curb bump-outs or a raised design, could also provide visual cues to drivers that the corridor is one that should be taken at lower speeds.

Student pedestrian safety was noted as a concern of the public on multiple occasions. The installation of such visible crosswalk designs as noted above would enhance the safety of students in school zones during rush hour. The city and schools can also organize carpool programs for students to reduce congestion in and around parking lots and reduce the risk of crashes during pick-up and drop-off times.

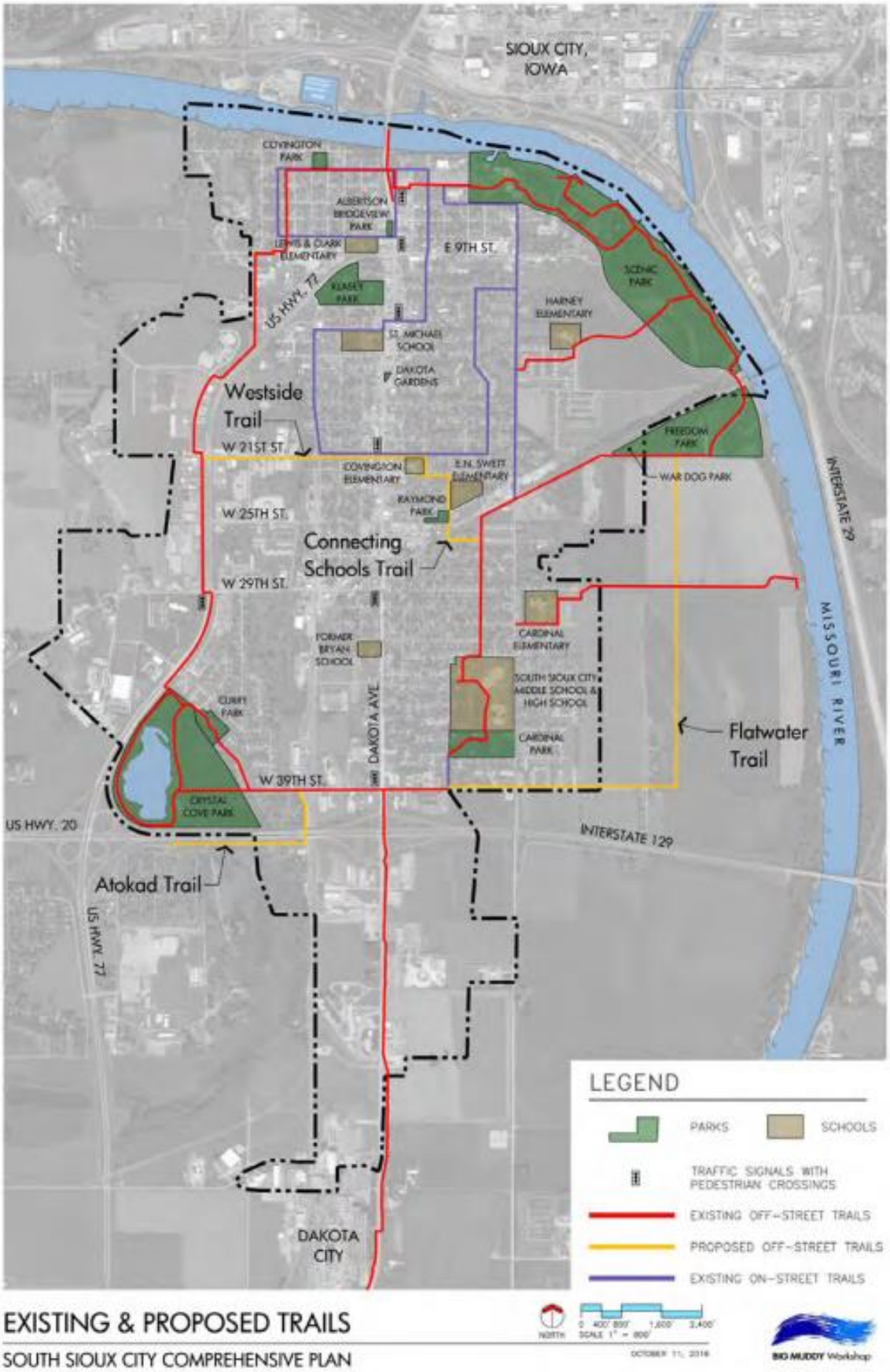
Trail Connections

The trail network has grown quickly over the past several years, offering a safe route for walkers and cyclists alike. However, there is a section that has yet to connect where bicyclists report needing to ride in the street. The trail primarily provides access for bicyclists and pedestrians around the perimeter of the city but does not yet have an off-street trail route cutting across the city centrally from east to west. Many public services and city amenities are located centrally, and it would benefit residents to have safe access to these via pedestrian infrastructure. Furthermore, while the trail is linked to an on-street network of bike routes, the results of the public survey indicate that residents tend to feel safer with dedicated bike lanes rather than sharing lanes with vehicles. Currently, on-street bike routes are identified only by signs indicating such (pictured below).

- missing trail connection Daniels Ln/Rhino Rd area to Crystal Cove Park

Recommendation: The city has plans to construct the Westside and MidAmerican trail connections which will allow affordable and accessible housing on the southwest side, such as Liberty Place and Canterbury Apartments, access to 21st Street amenities and schools. These connections will allow trail users to cut across town while remaining on the trail system without having to loop around the city's perimeter. This would provide dozens more households in central neighborhoods access to the trail network within a ¼ mile radius of their home. In addition to these planned trail connections, it is recommended that the city prioritize trail construction where the public has reported disconnection.

For on-street bike routes, bike lanes instead of shared route signs would improve safety for inexperienced riders. Wide rights-of-way on commercial corridors would provide ample space for bike lanes if reconfigured, for example by slightly narrowing traveling lanes and locating on-street parking on one side.


SIOUX CITY, IOWA
COVINGTON PARK
ALBERTSON BRIDGEVIEW PARK
LEWIS & CLARK ELEMENTARY
E 9TH ST.
US HWY. 77
KLASEY PARK
ST. MICHAEL SCHOOL
DAKOTA GARDENS
HARNEY ELEMENTARY
SCENIC PARK
Westside Trail
W 21ST ST.
COVINGTON ELEMENTARY
E.N. SWETT ELEMENTARY
RAYMOND PARK
FREEDOM PARK
WAR DOG PARK
INTERSTATE 29
W 25TH ST.
Connecting Schools Trail
W 29TH ST.
FORMER BRYAN SCHOOL
CARDINAL ELEMENTARY
SOUTH SIOUX CITY MIDDLE SCHOOL & HIGH SCHOOL
CARDINAL PARK
DAKOTA AVE
CURRY PARK
Flatwater Trail
MISSOURI RIVER
W 39TH ST.
CRYSTAL COVE PARK
US HWY. 20
INTERSTATE 129
Atokad Trail
US HWY. 77
DAKOTA CITY
LEGEND
PARKS
SCHOOLS
TRAFFIC SIGNALS WITH PEDESTRIAN CROSSINGS
EXISTING OFF-STREET TRAILS
PROPOSED OFF-STREET TRAILS
EXISTING ON-STREET TRAILS
EXISTING & PROPOSED TRAILS
SOUTH SIOUX CITY COMPREHENSIVE PLAN
NORTH
SCALE 1" = 800'
OCTOBER 11, 2016
BIG MUDDY Workshop

Lighting

Lastly, resident feedback indicates that many would feel safer and more comfortable walking in the evening or at night with improved lighting on trails and sidewalks.

Recommendation: The city has plans to install 480 new LED lights to enhance the safety of the pedestrian and trail network. *priority locations?*

Signs

The reflectivity of roadway signs was reported by city officials to be lacking. This becomes especially apparent during the extreme weather events not uncommon in northeastern Nebraska that cause poor visibility, such as snow, sleet, and heavy rain.

One hazard that was frequently identified by the public is the absence of stop signs in some residential areas. While most residential intersections have at least two stop signs, more than 60 percent of survey respondents identified four-way stop signs in residential intersections as a top strategy that would improve their safety while driving. Several residents alerted the planning team to the complete absence of stop signs at some residential intersections, such as F Street between 18th and 21st, and where E 19th Street intersects with B and D streets.

Lastly, throughout the city there are relatively few signs indicating the speed limit. While school zones tend to be clearly marked as 20 miles per hour, signs are not posted consistently on commercial corridors.

Recommendations: Signs

It is recommended that the city install four way stop signs in residential neighborhoods, prioritizing locations that have no stop signs and intersections that have been identified as problematic in public input. Additional speed limit signs should also be installed, with a focus on corridors that currently have few and areas that will be developed as pedestrian-friendly zones in the future.

The city has plans to purchase and install road signs with higher reflectivity, prioritizing snow removal routes.

Traffic congestion

The primary arterials of South Sioux City can get quite congested during rush hour and after school. Traffic coming to and from Sioux City via the Veterans' Memorial Bridge contributes heavily to traffic on the north-south routes through town. Congestion on Dakota Avenue is reported to spill over onto B and G streets, causing safety hazards for the residential neighborhoods where traffic volumes and speeds should be low. Public input identified end-of-shift traffic coming from the Tyson plant in Dakota City to

the south as a major contributor to traffic congestion. Residents also expressed concern about traffic congestion during the beginning and end of the school day, causing traffic to back up on G Street between Sierra Drive and El Paso Drive near the shared middle and high school campus.

The public also raised questions about the impact of planned developments on traffic congestion in the future. In the next few years the construction of a new casino and horse track on the south side of town will likely bring hundreds more weekly visitors to the city once completed.

Recommendations: Traffic Congestion

Traffic management should be carefully considered early in the design process for future developments to ensure that residents are not put at risk from additional congestion that would result in more vehicles cutting through residential neighborhoods, more pollution, and an increased risk of vehicle collisions.

Another strategy that could reduce roadway congestion is for the city to facilitate partnerships between top employers and the Siouxland Regional Transit System (SRTS), which offers vanpooling services. Groups of employees living within a reasonable distance of one another use a van supplied by SRTS and arrange a daily pickup and drop-off route and schedule to travel to the company's campus together. Similarly, the city could work with the school district to implement a school-sponsored carpool system that would reduce the number of vehicles entering and exiting the school parking lots. This would not only reduce congestion on the roads, but also improve the safety of students walking or biking to school.

Lastly, the timing of traffic lights on higher volume streets can be assessed to ensure that traffic flows as efficiently as possible without compromising safety for all modes. On long corridors with evenly spaced intersections, such as Dakota Avenue, the timing of lights can be coordinated in line with the target speed limit. This could reduce traffic congestion while helping to enforce lower speeds.

Behavioral/operational safety risks

Several public comments received by the planning team expressed concerns about operational safety risks of other drivers. These comments included distracted and impaired driving, rampant speeding, and drivers regularly running red lights and stop signs. The behavioral and operational concerns of other drivers represented the largest category of public concerns reported to the planning team. When asked about the need for police enforcement, it was suggested by residents that due to the frequency of such offenses, the police would likely have trouble contending with them. One resident summed up their feelings about this dilemma saying, "if you pulled over one, you'd have to pull over everyone". Routes that were commonly identified as having frequent speeding vehicles were G Street, B Street, 13th Street, and Atokad, however many other individual trouble spots were identified as well.
The team also received feedback about the location of bus stops for middle school children. At least one stop is located in an industrial corridor, where children have reportedly been harassed by adults, and generally feel uneasy by the surroundings.

Recommendations: Behavioral/operational safety risks

A full review of school bus stop locations in coordination with the school districts would be needed to evaluate where any safety issues are taking place and to identify potential alternatives.

It is recommended that the city focus police enforcement of speed limits and impaired driving violations on areas where it reportedly happens frequently based on public feedback. Enforcement should also

focus on school zones, pedestrian areas, and near senior housing, accessible and low-income housing, and trailer courts.

Roadway features that proactively slow vehicles can be incorporated into corridors with known repeat speeding violations. Design elements such as narrower lane widths, roadside landscaping, speed humps, curb extensions, and chicanes reduce traffic speeds and improve the quality of the bicycle and pedestrian realm. Street trees and on-street parking narrow the driver's visual field, allowing them to focus on their immediate surroundings. These strategies also create "friction" for vehicles that require them to slow down to maintain their level of comfort.

Transit users

Bus stops in South Sioux City are located frequently along primary arterials, and distributed evenly nearby public services, attractions, and on the perimeter of residential neighborhoods. Typical bus stops are indicated by a sign posted in the buffer strip between the sidewalk and street (pictured to the right). The stops outside of the high school, Azria Health Care assisted living facility, and the South Sioux City aquatic center have a sheltered bench to protect passengers from poor weather conditions. The planning team encountered several stops that are not located directly beside a curb cut which could present a barrier to accessibility. Another potential safety hazard for transit riders is that the lighting at each stop varies by location, dependent on the proximity to streetlights. Each stop would need to be assessed after dark to determine which ones require lighting enhancements.

Recommendations: Transit improvements

About 11 percent of South Sioux City residents were estimated in 2020 to have a disability, with the most common being ambulatory difficulty, followed by disabilities impacting independent living, hearing, cognition, self-care ability, and vision impairment. Several apartment complexes, Autumn Park, The Villas at Crystal Court, and Prairie Haven, provide affordable rental units specifically for elderly residents and/or residents with disabilities. It is vital to ensure that the street and pedestrian network adjacent to these apartment complexes are designed to protect the safety of residents that may have mobility, sensory, or cognitive disabilities. Residents with disabilities are often more likely to rely on public transit for transportation. Therefore, providing adequate space and appropriate infrastructure for paratransit vans and transit buses to access these sites should be a consideration in plans for safety improvements.

Bus stops that are accessible, covered, and strategically located to serve residents who are more likely to rely on the bus system are also important transportation safety elements. It is recommended that the city invests in bus stop upgrades to provide shelters with seating. A full accessibility assessment of the

pedestrian network would also include consideration of curb cuts near bus stops and pathways between the sidewalk and bus shelters.

One resident made the suggestion that the transit system could train residents, especially seniors and non-drivers who need the service, on how to use the bus because not knowing the schedule and payment system could be a barrier to use.

Interactive Community Input Process

As populations become more diverse, it is necessary for the city to incorporate multiple means of communicating resident safety concerns in as many languages as possible. Of the many languages spoken in the region, only Spanish translations of information is required under federal guidelines. Ideally, even languages spoken by a single family should be considered for public information. Only recently has such a concept been made possible through technology.

Recommendation: Expand efforts to provide publications and information in all languages spoken within the community with in-time translation services for print and digital communications. Include method of accommodating oral translation through such providers in the community and/or teleconferencing providers. Such efforts should include online input methods to report concerns such as damaged sidewalks to broken trail lights.

Air quality/environmental hazards

As summarized in the community profile at the beginning of this plan, South Sioux City has several air quality hazards that are likely influenced by transportation. According to EPA's EJScreen tool, ozone levels, air toxics cancer risk, and diesel particulate matter are all at or above the 75th percentile of state concentrations. The two block groups adjacent to Highway 77 have a very high traffic proximity percentile as well. These hazards present a risk to an area with a high proportion of people of color and low-income residents. When combined with these demographic factors that increase their overall vulnerability, the risk of adverse health outcomes is amplified for these residents.

Traffic congestion and the number of vehicles on the road are likely contributors to air quality issues in South Sioux City. Furthermore, as manufacturing is a key driver of the city's economy, the transportation of goods and materials to and from industrial areas by truck and rail impacts air quality as well.

According to FEMA's resiliency tool, Dakota County is most at risk from extreme temperatures, strong winds, tornadoes, snowstorms, and hail. It was identified by the city that roadway signs should have higher reflectivity to ensure they are visible during extreme weather. Snow route signs in particular were of concern to city officials based on the experience of snow removal staff.

Recommendations: Air/Environmental Quality

Many strategies detailed above that improve transportation safety would also reduce air pollution from vehicle congestion. For example, encouraging institutional carpooling arrangements, building bicycle lanes and continuing to expand the trail network, and the designation of several blocks as a walkable "Main Street" or Downtown district. Making the walking environment of South Sioux City pleasant and enjoyable will encourage residents to replace short vehicle trips when possible. The use of tree plantings and other vegetated buffer strips between residential neighborhoods and industrial corridors would improve the aesthetic quality of the neighborhoods while improving local air quality and capturing particulate matter.

While these strategies would help to reduce air pollution, it is recommended that the city consult with an environmental agency to assess the sources of pollutants and develop specified mitigation measures. This partnership could assist the city in developing target reductions and monitoring progress toward these goals.

While the frequency of extreme weather events is not within anyone's control, the city can take measures to improve transportation infrastructure proactively to prepare for the effects of climate change. The installation of highly reflective road signs would improve safety for road users and emergency personnel during low visibility weather events. The use of green infrastructure in buffer strips and medians would provide many benefits including flood control to keep roadways operational during increasingly frequent high-volume rain events.

Strategy and Project Selections

The city's strategy to bring Zero Goal to attainment by 2030 is to implement best practices by way of result-driven data in planning all transportation projects. In doing so, the city will adhere to the following standards as itemized in their resolution to a Zero Goal approach to a Safe System for all users.

1. While no crashes are desirable, the Safe System approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.

2. People will inevitably make mistakes that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.

3. People have limits for tolerating crash forces before death and serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.

4. All stakeholders (transportation system users and managers, vehicle manufacturers, etc.) must ensure that crashes don't lead to fatal or serious injuries.

5. Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterwards.

6. Reducing risks requires that all parts of the transportation system are strengthened, so that if one part fails, the other parts still protect people.

7. All city departments will be required to address safe system approach with integrated training, shared implementation strategies, to achieve the goal of Zero while adhering to the aforementioned Resolution and Ordinance already adopted.

A list of prioritized projects is provided showing short-term for projects expected to be completed within one year, mid-term for projects expected to be completed in 1-3 years, and long-term timeframes for projects expected to be completed within five years. Feasibility including but not limited to related cost and access to materials and related labor are considered. However, such components alone do not dictate priorities. The potential affect on improved safety along streets and roads for all users is given highest consideration. Explanation of applicability of project types is provided in the Safety Analysis and Project Description section.

Project	Timeframe	Intervention Type
Roundabout at Riverview Dr and G St	mid-term	infrastructure
PSAs/Demonstrations on how to use roundabouts	short-term	behavioral
Pedestrian Crossing, Stop, Handicap Signs	short-term	operational & behavioral
Pedestrian Crossing Beacons	mid-term	operational & behavioral
LED Lights / Street	short-term	operational
Westside Pedestrian Bicycle Lane	long-term	infrastructure
Alcohol Checks	short-term	operational & behavioral
Painting, Planters, cross walk visibility enhancements	short-term	operational
Variable Signs	mid-term	operational
Comprehensive Accessibility Assessment	short-term	operational
MidAmerican Trail	long-term	infrastructure

Additional Considerations

Corridor improvement studies
Dakota Ave - potential for roundabouts, runoff control such as bioswales, on-street protected bike lane, enhancements that create barriers between the sidewalk and the street
US Hwy 77 - potential for roundabouts to slow flow of traffic
G Street - modification to accommodate school bus lane near middle school, high school pending effects of pedestrian crossing improvements and other traffic calming measures

Demonstration projects

Dakota Ave - temporary barriers between sidewalk and street with varying function
bioswale - vegetation to aid in runoff collection; reduce impacts of extreme heat
expanded sidewalks for patio seating &/or benches
on-street bike lane
US Hwy 77 - barrier preventing left-hand turns on W 13th (both directions)
US Hwy 77 - left-turn lane for turns onto W 13th St (both directions)

Progress and Transparency

Projects as selected for completion have already been prioritized through due process including consistency with established plans, community development standards, public input, and results-based data. The city has policies in place guiding project implementation in terms of procurement and budget appropriations. In the interest of maintaining the integrity of the safe system approach to Zero Goal, the city will:

1. track project progress and implementation
2. include applicability of Zero Goal standards when projects are introduced and when implemented
3. assess new technologies to further improve the transportation network
4. complete a full review and update of the Safety Action Plan every five years
5. amend local policies and procedures as necessary to comply with the resolution for Safe Streets and Roads for All
6. consider the strategies and recommendations herein for all future transportation-related projects
7. maintain SS4A Committee to oversee plan compliance and sustainability
8. Incorporate an addendum to the plan labeled “Appendix B” to track annual progress in reduction of fatalities and/or serious injuries as associated with the city’s transportation network
9. Post the Safety Action Plan online including incremental and annual updates and progress reports

Appendix A

Public Input

- Survey
- Survey Responses
- Public engagement feedback

Appendix B

Annual safety reports

Progress/Project Completion Reports

Amendments

New/Proposed Projects