

APPENDIX A: EXISTING PLANS, POLICIES, AND TRANSPORTATION CONDITIONS MEMO



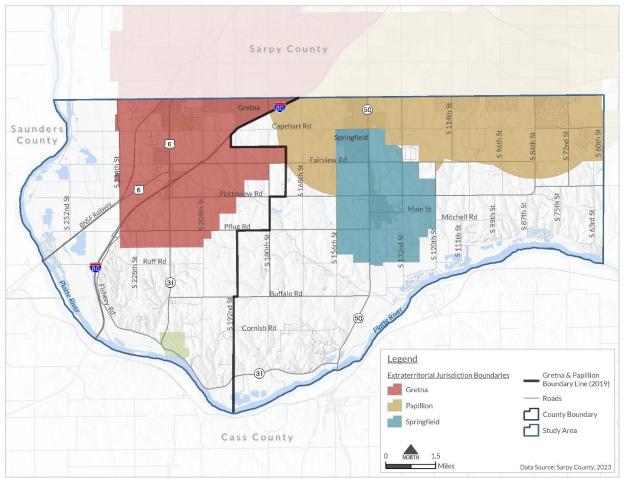




Task 3.2 – Existing Plans & Policies

The WE-STEP study was initiated with the understanding that each jurisdiction (**Figure 1**) has a distinct set of guiding plans and policies in place that influence the development of a local and regional transportation network. It is anticipated by the review team for this study that some of these plans and policies may have consistency while others may not and lead to potential conflicts in the efficient development of a transportation network that best serves future growth in western Sarpy County.

FIGURE 1: Study Jurisdiction Boundaries



This memorandum summarizes the sources of data, plans, and policies/standards that currently guide development and maintenance of the transportation network. Additionally, the summary provides information about commonalities and incongruent elements that exist between jurisdictions. Finally, the summary and associated review may be used to help support recommendations for shared policies adopted into local plans of the study partners.







Study references included:

- Gretna PlanGretna adopted 2009, updated 2021 and current subdivision regulations
- Springfield Springfield Comprehensive Plan adopted 2015 and current subdivision regulations
- Papillion The Papillion Plan updates 2022 and current subdivision regulations
- Sarpy County Sarpy County Comprehensive Plan (rev. Nov. 2020) and current subdivision regulations
- MAPA 2050 Long Range Transportation Plan (2020)

Goals and Performance Measures

Transportation goals summarized in the Comprehensive Plans of Gretna, Springfield, Papillion, Sarpy County, and MAPA, provide common themes including an interconnected network, diverse transportation options, and responsive services. Papillion and Sarpy County prioritize safety and adequate infrastructure that supports community development. Urban design with street planning includes the use of parkways and green streets as transportation networks which support all modes of transportation in Gretna and Papillion. Springfield strives for a transportation network that supports vibrant district development for its future growth. Sarpy County concentrates on infrastructure preservation. MAPA adopts a regional perspective, ensuring equity, enhancing the living environment, boosting economic growth, and managing transportation systems. These shared and distinctive transportation goals reflect shared efforts to support community mobility and overall quality of life.

Data and Analysis Results

Comprehensive Plans for local jurisdictions use current traffic volumes compiled by MAPA to measure existing and future level of service (LOS) which can be useful for forecasting how land use changes may create the need to increase roadway capacity over time. All jurisdictions rely on the regional Travel Demand Model which uses land use and growth information provided to MAPA by each community. This iterative method of transportation and land use planning can help with forecasting when traffic flows are projected to change significantly leading to demands that may overwhelm capacity during peak travel periods of the day.

Papillion includes a summary of the capacity analysis for the transportation network included in the Comprehensive Plan. Although not included in other Comprehensive Plans, this same approach is used by each of the local jurisdictions. Papillion's projected traffic volumes are compared against capacity guidelines for central and non-central business district settings. Roadways that are forecast with future volumes that exceed available capacity provide a trigger for the community to begin programming for roadway improvements which may include alternatives evaluation and design for corridor right of way protection, roadway cross section, access management, intersection design, and accommodation for active transportation. For individual developments, local jurisdictions will require traffic impact studies to be completed with subdivision applications. This process helps to ensure that the planned capacity and traffic management intended for the arterial and collector street network can support the proposed development demand. Development proposals are typically only reviewed by the jurisdiction responsible for approving the application.



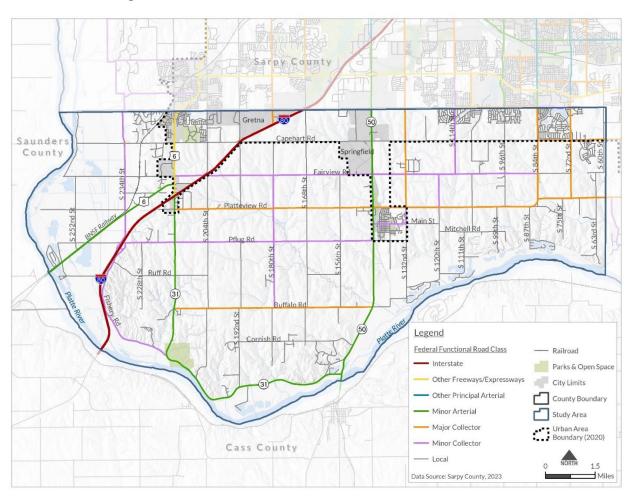




Strategies and Network Recommendations

The Federal Highway Administration (FHWA) groups roadways into classes according to the character of service they are intended to provide. A roadway must be classified, at minimum, as a planned or existing Minor Collector in an urban area or Major Collector in a rural area to be eligible for Federal Surface Transportation Funds. The Urban Area Boundary is typically the dividing line between urban and rural areas. On the outer fringe of rapidly growing regions, rural standards applied in the County should be reviewed to anticipate future corridor protection needs that may be different than less developing rural areas. Federal Functional Classifications (Figure 2) provide state, regional, and local planning context for the transportation network and focus primarily on the purpose of the roadway rather than the design requirements. Federal legislation continues to use functional classification in determining eligibility for funding under the Federal-aid program. Federal transportation agencies describe roadway system performance, benchmarks and targets by functional classification. As these agencies continue to streamline performance-based decision making, functional classification will be an increasingly important consideration in setting expectations and measuring outcomes for preservation, mobility and safety. Comprehensive Plans and Long Range Transportation Plans must reflect the Federal Classification of the road network and may include additional classification maps for State and Local considerations.

FIGURE 2: Existing Federal Functional Road Classification



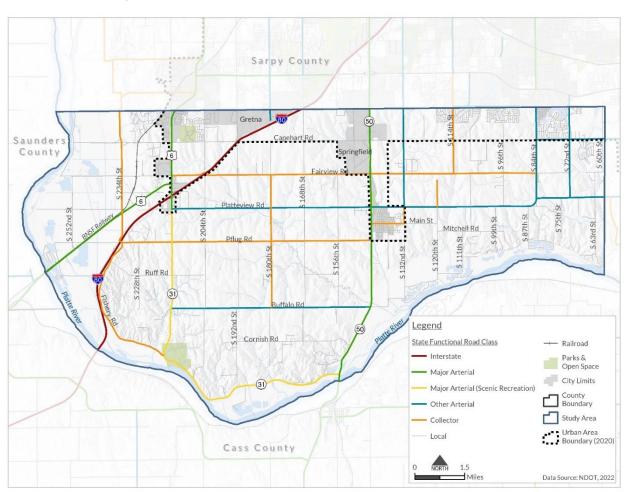






The State Highway Classification System, administered by NDOT, provides jurisdictions with the minimum design criteria that must be achieved for a federal-aid supported project. The State Classification system (**Figure 3**) is used to ensure that the transportation facility is designed appropriately for the context and purpose it is intended to serve for the regional network purpose. The State Classification System establishes criteria such as minimums for right-of-way widths, design speeds, lane widths and many others. It is important to note that a State Classification for minimum design standards can apply to multiple Federal Functional Classifications. For example, a Major Arterial State Functional Classification Design Standard can be applied to both a Major Collector and a Minor Collector assigned on the National Functional Classification system. Nebraska Title 428 is maintained by the Board of Public Roads Classifications and Standards where these procedures for Standards are provided in Chapter 2. Standards are divided between urban and rural standards for the same classification type. This is an important consideration for planning rapidly growing urban areas where jurisdictions will grow into the rural county and eventually connect boundaries with each other. The MAPA urban planning area boundary is typically used as the delineation between urban and rural standards for roadway design requirements.

FIGURE 3: Existing State Functional Road Classification









Additionally, local classification systems may supplement State Classifications within local jurisdictions. This is not common, but they may either exist within subdivision regulations as a legacy standard that is no longer used or a purpose-built classification to support hyper-local transportation needs of a transportation integrated, land use strategy. Local classifications do not replace Federal of State classifications and rely only upon local regulations to oversee subdivision regulation and design requirements applied to development. As such, the roadway classifications (Table 1) and descriptions of minimum design criteria are specified within local subdivision regulations.

Table 1: Existing Plan Typologies

Jurisdiction	Reference	Description
City of Springfield	Comprehensive Plan Chapter 4, Page 171	Provides four (4) typologies according to the Federal Classification System; major arterial, other arterial (only for Platteview Road), collector streets, local streets
City of Papillion	Comprehensive Plan Chapter 3, Page 49	Provides five (5) typologies according to the State Classification System; expressways, major arterials, other arterials, collectors, and local streets. Additional definitions in the Plan for civic streets and parkways add to, but do not replace, the underlying functional classifications in Papillion.
City of Gretna	Comprehensive Plan Chapter – Transportation Plan, Page 187	Provides six (6) "Street Classification" typologies best considered through a local planning lens; major arterial, interstate highway, other major arterial, other arterial, collector street, and local street Also provides six (6) "Street Designation" typologies which align with the Federal Classification System: interstate, other freeways & expressways, other principal arterial, minor arterial, major collector, minor collector
Sarpy County	Comprehensive Plan Chapter 5, Page 116	Provides six (6) typologies according to the Federal Classification System; interstate, other freeway & expressway, principal/minor arterial, major collector, minor collector, and local road
МАРА	Long Range Transportation Plan, Page 5	Provides six (6) typologies according to the Federal Classification System; Interstate, other freeways & expressways, other principal arterial, minor arterial, major collector, minor collector (local roads are not included as a typology)

Local jurisdictions must plan and program transportation projects in a manner that upholds Federal Classifications and satisfies minimum State Classification design standards. Failing to track the different naming and purposes of functional classifications in comprehensive plans can lead to discrepancies in corridor strategies where jurisdictions will grow together. Local policies provide guidance for the roadway routing standards each jurisdiction intends to achieve within the applied typologies. Most local plans provide a short policy guideline for roadway routing standards. For continuity, they are listed here. While they do not contradict each other, they are distinctly different.



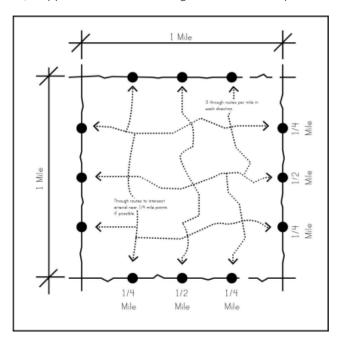




Roadway Routing Standards

• Papillion: Page 57 of the Comprehensive Plan describes connectivity and how the network should connect. The street network should have segments which connect to one another internally and to collector streets. Several measures to evaluate the connectivity of street networks have been developed. One measure included in the Comprehensive Plan that may not be applied to future planning is the ratio of the number of street links divided by the number of nodes (intersections or cul-de-sac heads). A target ratio of 1.40 may produce a good neighborhood mix of connectivity and privacy when site development conditions allow. The subdivision regulations (Article V Chapter 170-16.A (6) also regulates the subdivision of streets to support a through route strategy including three north-south and three east-west through routes provided per mile, unless infeasible, on the half and quarter mile intersections with adjacent streets. Access management (Figure 4) is recommended as full access each quarter mile with turn movement limited to right-in, right-out only on the quarter mile. Quarter mile spacing is preferred at 1,320 feet with 1,200 feet minimum.

FIGURE 4: Typical Three-Through Street Policy



- Gretna: Page 113 of the Comprehensive Plan provides general expectations for connectivity. The
 transportation network for Gretna will provide interconnected access between neighborhoods and
 commercial areas, a balance of opportunities for vehicular, pedestrian, and other forms of
 transportation and levels of service that respond to and influence land use needs. Gretna
 Comprehensive Plan also adopts the three through streets per mile policy described for Papillion.
- Springfield: Page 169 of the Comprehensive Plan provides a few notes about transportation network connections. Adequate circulation systems are essential for the safe and efficient flow of vehicles and pedestrians, to all parts of the community. Communities need to be able to provide adequate transportation services to move people and goods around and through the community. In addition, access to facilities, industries, and businesses should facilitate efficient traffic patterns







while minimizing conflicts between vehicular and pedestrian traffic. Springfield does not address the three through streets per mile policy in their Comprehensive Plan or Subdivision Regulations.

• Sarpy County: Page 89 and 131 of the Comprehensive Plan provide goals and policy statements regarding connectivity that is safe, reliable, efficient as well as acknowledging the important role of coordinating activities as local jurisdictions grow into the county. Transportation goals and policies, including the creation of a complete streets policy, arterial access policies, and the implementation of accessibility guidelines; Provide a connected transportation system that offers safe, efficient and reliable options for all modes of travel; Coordinating the development of public infrastructure and facilities will enhance the overall connectivity and continuity of public amenities, thereby creating comprehensive systems available throughout the county. Sarpy County Comprehensive Plan (Page 130) is enforced by subdivision regulations and adopts the three through streets per mile policy described for Papillion. Access management is recommended as full access each quarter mile with turn movement limited to right-in, right-out only on the eighth mile.

The technical differences between typologies at the local level can be further narrowed down to three primary elements – roadway classification, the differences between rural and urban areas according to the state classification and the ROW standards from jurisdiction to jurisdiction.

Roadway Classifications

Interstate Highway (Major Arterial): While Papillion does not provide an definition of Major Arterial of Interstate Highway, Sarpy County uses the federal classification of Interstate as opposed to Major Arterial. Sarpy County's definition also includes "a divided, limited access facility with no direct land access and no at-grade crossings or intersections" as a component of its definition.

Expressway: Papillon provides its own definition for an expressway, whereas Sarpy County provides the federal classification for a freeway/expressway. In Papillion's definition, it states that expressways will be constructed with only grade-separated intersections, whereas Sarpy County simply notes that there should be limited at-grade access.

Other Major Arterial: Papillion does not provide a category for 'Other Major Arterial,' and instead uses its own definition of 'Major Arterial.' Sarpy County uses the Principal/Minor Arterial state federal classification for 'Principal/Minor Arterial.' Papillon states that these articles 'connect major activity centers,' which is not mentioned in any of the other definitions. Papillon references the use of 'traffic control devices' such as medians, which are not referenced in any of the other definitions.

Arterial Street: Many Gretna, Springfield and Papillion all have 'Other Arterials' listed as functional classes. Papillion's comprehensive plan specifies that these other arterials are designed for speeds of 40 mph or below, while neither Springfield nor Gretna mention speed limit regulations. Sarpy County, on the other hand, uses 'Principal/Minor Arterials' as its categories. Sarpy County's primary focus is on prioritizing traffic movement, not localized access.

Collector Streets: All the plans include Collector Streets with a common purpose of facilitating access and circulation within different areas, they vary in their specifications, such as speed limits, configuration requirements, and the distinction between Major and Minor Collectors in Sarpy County's plan.







Local Street: As Gretna and Springfield have identical descriptions for Local Streets, Papillion provides additional details about their role in serving individual properties and the challenge of cul-de-sacs. Sarpy County emphasizes the importance of Local Streets in providing direct access to adjacent land uses and highlights their prevalence in the street network.

Urban and Rural Criteria

Minor Arterials: In Urban areas, Minor Arterials have a designated speed of 30 mph (45 mph) with 11 ft. lane width. However, in rural areas Minor Arterials have a designated speed of 50 mph (55 mph) with 12 ft maximum lane width max and 10 ft minimum.

Major Collectors: In Urban areas, Major Collectors have a designated speed of 30 mph (55 mph) with 11 ft lane width max and 10 ft minimum. However, in Rural areas Major Collector have a designated speed of 50 mph (55 mph) with 12 ft maximum lane width max and 10 ft minimum.

Minor Collectors: In Urban areas, Minor Collectors have a designated speed of 20 mph (45 mph) with 11 ft lane width max and 10 ft minimum. However, in Rural areas Minor Collector have a designated speed of 50 mph (55 mph) with 12 ft maximum lane width max and 10 ft minimum.

Local Streets: In Urban areas, Local Streets have a designated speed of 20 mph (45 mph) with 11 ft lane width max and 10 ft minimum. However, in Rural areas Local Street have a designated speed of 50 mph (55 mph) with 12 ft maximum lane width max and 10 ft minimum.

Right of Way Standards

Rural ROW standards are straight forward to understand. In Sarpy County, the minimum ROW for Major Arterials is 150 feet, while the Other Arterials can range from 66 to 100 feet. Gretna is the only other jurisdiction that makes a distinction between rural and urban, noting that the minimum ROW for Major Arterials is 150 feet.

Urban ROW standards are slightly more complicated. All jurisdictions have a minimum ROW of 150 feet for Major Arterials, but Other Arterials range from a minimum of 70 feet in Sarpy County to 100 feet in Gretna, Springfield, and Papillion. Collector roads have a minimum of 80 feet ROW in Springfield, 70 feet in Sarpy County, and 60 feet in Gretna and Papillion. Local roads have a 50-foot minimum in Sarpy County and Gretna, 60-foot minimum in Springfield, and no specified ROW in Papillion.

Development Standards

Subdivision Regulations are used to enforce development review procedures for the purposes of subdividing land according to local codes and ordinances. Within subdivision regulations adopted by each of the four local jurisdictions, the minimum standards for streets networks, design, construction, rights-of-way, and other criteria are provided for use.







Table 2: Subdivision Regulation Standards

Jurisdiction	Minimum Standards	Streets	Design	Construction	Rights-of-Way
<u>Sarpy</u> <u>County</u>	10.1 Shall not be subdivided unless adequate methods for subdivision are formulated by the developer and approved by the Planning Commission and County Board.	shall conform to the Comprehensive Plan. Where such is not shown, provide for the continuation or appropriate projection of existing principal streets in surrounding areas.	Table 10-2 Minimum Design Standards of the State of Nebraska Board of Public Roads.	In accordance with the current edition and any revisions or amendments thereto of the "City of Omaha Standard Specifications for Public Works Construction" and/or the current edition and any revisions or amendments thereto of the "Nebraska Department of Roads Standard Specifications for Highway Construction."	10.2.13 Shall not be less than the minimum dimensions nor more than the maximum grades as set forth in the current version, including any revisions or amendments thereto, of the "Nebraska Administrative Code, Title 428, Rules and Regulations of the Board of Public Roads Classifications and Standards."
Gretna	4.01 No subdivision shall be approved unless it is in conformance with the requirements of this Ordinance and the Comprehensive Development Plan	4.02 Arrangement, character, extent, width, grade and location of all streets shall conform to the Comprehensive Plan	4.24 Per NDOR Standards or as directed by the City Engineer	4.24 Per design standards by AASHTO	4.03 (New) shall meet the right-of-way requirements as stated in Section 4.24 4.04 (Existing) shall dedicate additional right-of- way or easements if necessary to meet the minimum street width requirements set forth in this Ordinance.







Jurisdiction	Minimum Standards	Streets	Design	Construction	Rights-of-Way
Springfield	4.01 No subdivision shall be approved unless it is in conformance with the requirements of this Ordinance and the Comprehensive Development Plan	4.02 Arrangement, character, extent, width, grade and location of all streets shall conform to the Comprehensive Plan	4.02 New or reconstructed streets shall conform to Nebraska Board of Public Roads Classifications and Standards, Minimum Design Standards	4.02 The Nebraska State Standard Specifications shall be the Nebraska Department of Transportation Standard Specifications for Highway Construction	4.04 (New) shall meet the right-of-way requirements as stated in Schedule A 4.05 (Existing) shall dedicate additional right-of-way or easements if necessary to meet the minimum street width requirements set forth in this Ordinance
<u>Papillion</u>	170-16 All streets shall conform as near as possible to the Comprehensive Plan	170-16.A Roadway system shall conform to the City's Comprehensive Plan.	Table II Standards for arterial streets shall be determined by AASHTO standards or state highway officials	Table II Standards for arterial streets shall be determined by AASHTO standards or state highway officials	170-16.C (New) shall meet the right-of-way requirements as provided in Table II of these regulations. and D (Existing) shall dedicate additional right-of- way, if necessary, to meet the minimum street width requirements set forth in these regulations.

Right of Way Protection and Cross Sections

Local jurisdictions provide their own requirements for ROW protections within subdivision regulations. While MAPA's LRTP provides helpful guidance for the organizing of the regional transportation network, it is the local regulations, in conformance with local Comprehensive Plans and Zoning that direct technical aspects of street, sidewalk, curb ramp or trail construction. Sarpy County protects 300' of ROW for Rural Interstate and Expressways and 150' for Rural Major Arterials. No other local jurisdiction applies Rural standards to ROW protection. Minimum ROW protections for Urban standards are summarized in Table 3 by jurisdiction.







Table 3: ROW Protection Required by Subdivision Regulations

Jurisdiction	Major Arterial	Other Arterial	Collector	Subcollector	Local
Sarpy County	100′	70'	70'	N/A	50'
Gretna	100′	100'	6o '	N/A	50'
Springfield	100′	100'	80'	N/A	6o'
Papillion	100′	100'	60-70'*	50-60'*	N/A

^{*} Parking may be provided within Collector and Subcollectors in Papillion

Each local jurisdiction provides additional cross section references for minimum paved width, number of lanes, radius, sight distance, and paved thickness within subdivision regulations. Comprehensive Plans for Papillion, Gretna, and Sarpy County also provide visual examples of typical cross sections. Sarpy County includes four cross-section alternatives that fit within the minimum 100' ROW. Additionally, a 150' ROW and 120' ROW cross-section are provided to support dual center turn left lanes with either six or four through-lane options respectively. Gretna provides visual examples of seven typical cross-sections of 50-150' ROW widths. Gretna also includes variable width ROW for three green street cross sections. The Crossings Corridor Master Plan for Gretna extended nine variable ROW width cross sections for green streets. Papillion Comprehensive Plan updates introduced visual examples of typical cross sections for Parkways and Ridgeline Boulevard streets in 2022.

Cross section criteria in subdivision regulations and visualized in local plans are considered specific to the local Comprehensive Plan. They neither intentionally compliment nor contradict each other between jurisdictions. They exist separately without necessary coordination for arterial and collector street corridors to be established consistently. They also do not exist at this time to provide and coordinated strategy for preserving ROW and designing cross sections across jurisdictions.

Funding Transportation Improvements

The local designation of future roadway classification helps establish corridor protections needed for roadway projects and provides methods for funding local improvements made by the community. Municipal codes for each jurisdiction enable the cost of street improvements within an improvement district to be assessed toward the value or size of the adjacent property benefiting from the road. For street improvements to Arterial Streets, value provided by the roadway is regional. Papillion maintains local authority that allows funds to be set aside for Arterial Street Improvement cost sharing with Sarpy County when projects are included on the County One- and Six-Year plan. This Arterial Street Improvement Program (ASIP) provides for and efficient method of cooperative improvement for arterial streets. Regional funding is also available for arterial street projects through MAPA and the Transportation Improvement Program. Projects included on the TIP must be amended into the LRTP if they are not already included, but projects selected from the pool of applicants are eligible for State Transportation Block Grant (STBG) funds directed by Federal Highway Administration. Local jurisdictions alone, or in partnership with each other, must provide a minimum local 20% match for requested funding. Without STBG funding, local jurisdictions must use any combination of general funds, sales tax, or bonds to plan, design, and construct projects.







Task 3.3 – Data Inventory

Several studies are currently available that provide recent and ongoing efforts to capture land use, demographic, and transportation data. Data from these plans and studies was requested from MAPA, NDOT or the individual jurisdictions. Studies referenced include:

- MAPA 2050 LRTP
- Metro Area Travel Improvement Study
- Sarpy County I-80 PEL
- Platteview Road Corridor Study
- Platteview Road Design
- Sarpy County Comprehensive Plan
- Gretna Comprehensive Plan
- The Crossings Corridor Master Plan (Gretna)
- Papillion Comprehensive Plan Update
- Springfield Comprehensive Plan
- Sarpy County Transit Feasibility Study
- 18oth / 192nd Corridor Feasibility Study
- Sarpy County Trail Plan
- Lake 8o
- South Sarpy County Sewer Plan

Task 3.4 – Existing Conditions Analysis

A review of existing conditions was completed to summarize 2023 baseline conditions of the region's current multimodal transportation system. Analysis included existing land uses and multimodal transportation infrastructure of the study area. The existing conditions for the largely rural area of Sarpy County summarized in this analysis is lightly beneficial to the future conditions analysis and recommendation to support the study area in the future. The task summary provides a basic assessment of the following topics:

- Planning level traffic operations
- Crash history assessment
- Network connectivity and gap assessment by mode
- Environmental constraints
- Other constraints
- Asset conditions for pavement and bridges

Planning Level Traffic Operations

The rural transportation network is composed of section line roads that focus traffic moving through the county to highways and the Interstate. Travel speeds are posted throughout the County and within each community. As shown on **Figure 5**, most of the current section line roads list a 50 mile per hour posted speed limit. Most of these roads are county gravel roads that have supported agriculture and low-density residential areas throughout the study area. Posted speeds for highways and interstates provide limits of 55 mph or greater. Posted speeds on local roads with the communities are typically

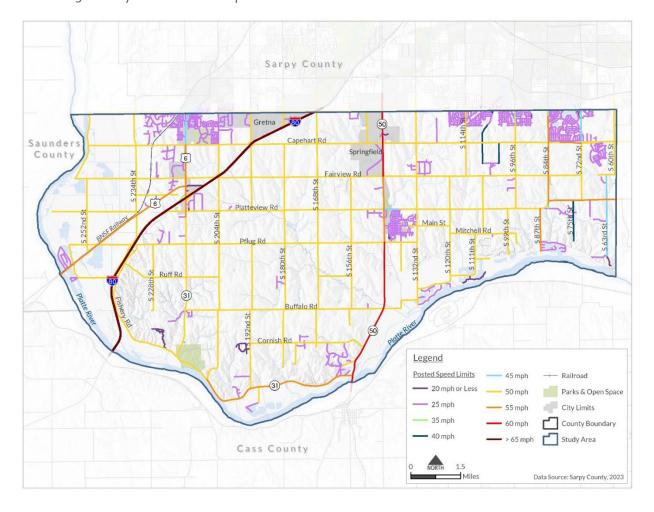






35 mph or lower. State Functional Classification establishes the minimum values for criteria that support posted speed and coordinating the transition between County and Urban design standards requires careful coordination for rapidly growing urban areas.

FIGURE 5: Study Area Posted Speed Limits



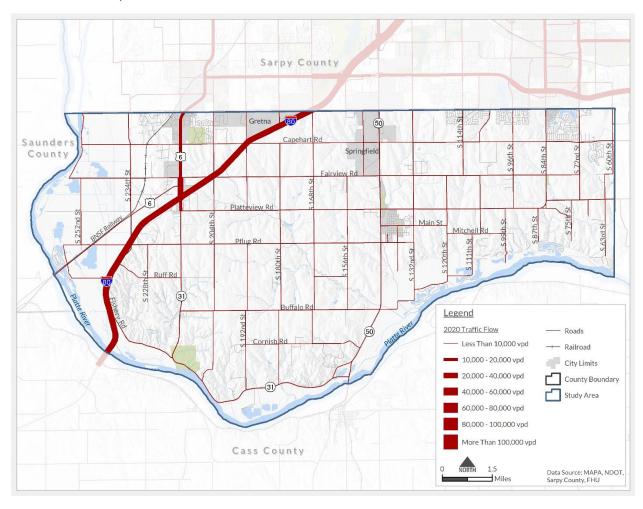






Traffic data (Average Annual Daily Traffic) provided by MAPA and NDOT was useful to consider density of traffic flow along major roadways within the study area. Roadways with more travel lanes or higher posted speeds are expected to carry more vehicles by comparison with county roads that have slower speeds. This correlation is represented in **Figure 6**. Major roadways outside the study area that currently carry higher traffic flows include Highway 370 and Highway 6. Traffic flows largely reflect the number of vehicles that move through the area and the intensity of development within the area which are both expected to increase substantially from current conditions.

FIGURE 6: Study Area Traffic Flows



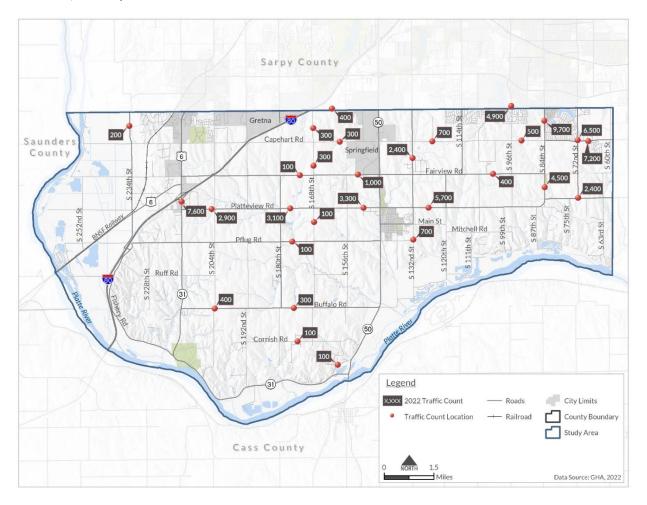






Traffic count data collected in 2022 was provided by MAPA which is useful to review with the traffic flows and understand how much traffic is using the county road network. Count data is typically collected over a 24-hour period and the timing is scheduled to coincide with typical traffic volumes understanding that there will be some days with more or less than typical volumes collected during the count. The count volumes in **Figure 7** generally correspond well to the modeled traffic flows provided by MAPA for the study. Traffic counts for state highways and the interstate are also available. The data presented on **Figure 7** is helpful for considering traffic that is on the local road network of Sarpy County.

FIGURE 7: Study Area Traffic Counts





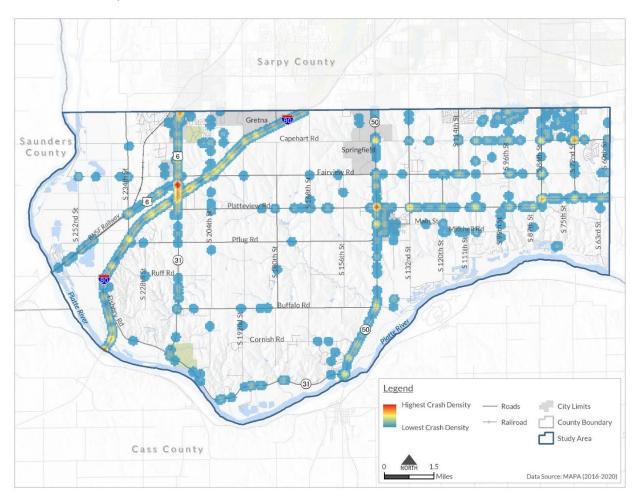




Crash History Assessment

A high-level review of available crash records was completed for roadways within the study area. Records of crashes recorded between 2016 and 2020 were provided to MAPA by NDOT. Crashes are the result of numerous factors that are not explored in this analysis. The density of crashes shown on **Figure 8** provides confirmation that the heaviest traveled roadways also have the most records of crashes. Outside of individual communities included with the study, state highways and interstates represent the largest number of overall crash records. Fairview Road, Platteview Road, and S. 204th Street represent the County roadways with the largest number of crash records.

FIGURE 8: Study Area Crash Record Counts









Recorded crash locations are commonly associated with intersections and are described according to the nearest intersection to where the crash occurred. The provided data was screened to identify the twenty intersections that represented the largest number of crashes. An analysis of these intersections or the type of crashes was not completed for existing conditions of this study, but the density of crash at specific locations was of interest. The locations of these 20 intersections are represented in **Figure 9** where more than three quarters of these locations occur on the State highway network or Platteview Road.

FIGURE 9: Study Area Top 20 Crash Record by Intersection



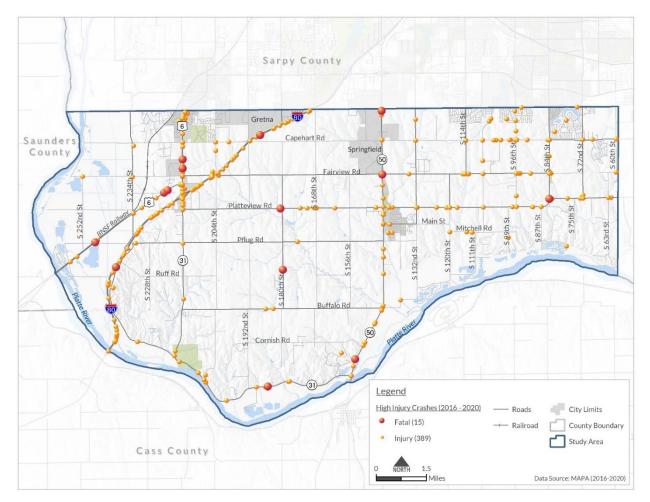






Crash data was also screened to identify the locations where records indicate that a fatality or significant injury had occurred. More than 400 records are represented in **Figure 10** with the predominant number of crashes meeting these criteria located along the interstate, a state highway, or Platteview Road. Six of the 15 fatalities occurred at intersections those roadways. MAPA has initiated a review of existing crash data to prepare a comprehensive safety action plan which will identify the recommended best practices and standards to design roadways and intersections that are safe for all users.

FIGURE 10: Study Area High Injury and Fatality Crash Locations



Bikeways and Trails

Several plans from the different jurisdictions in western Sarpy County addressed recreational trails in the area. Five trails emerged from an analysis of these plans as major connectors in the region. These consisted of the MoPac Trail, the 144th Street Trail, the Keystone Trail, the Bellevue Loop Trail, and the West Papio Trail. Together, these trails will play a major role in enhancing mobility and connectivity across the region.

The MoPac Trail is predominantly shown in **Figure 11** and is part of the national Rails-to-Trails Conservancy travels along a north-south alignment, running through Springfield before turning west to intersect with the Lied Platte River Bridge crossing south of Highway 31. North of the study area. the 144th Street trail extends south into Sarpy County from the greater Omaha area and stops at the

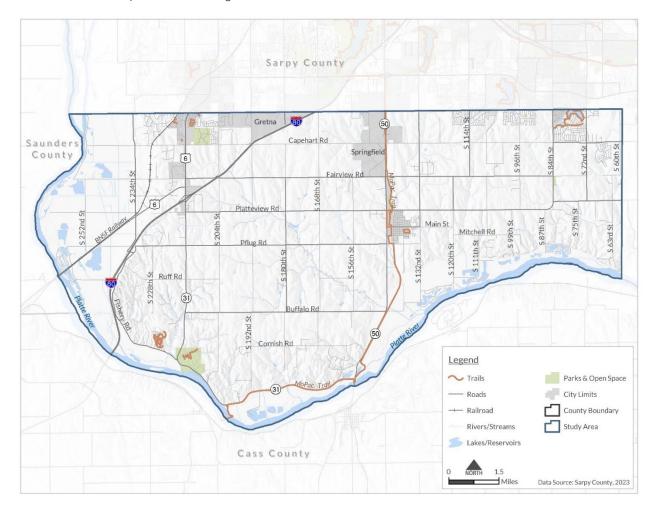






intersection of 144th Street and Emily Street. The West Papio Trail has a northwest-southeast alignment as it runs along Papillion Creek. The Keystone Trail is another major northwest-southeast trail along the east side of the project area that provides many connections to the greater Omaha area. To the south, the Keystone Trail turns into the Bellevue Loop Trail, which continues southeast beyond the project area, and then north again following the Missouri river.

FIGURE 11: Study Area Existing Trails



The respective comprehensive or transportation plans of the three cities in Western Sarpy County – Springfield, Gretna, and Papillion – each showcases its own existing trail network. However, outside of each city's limits, gaps exist with the regional network. Each plan detailing the bicycle network addresses the importance of connectivity with this network, often setting a concrete goal of connectivity and proposing additional trails to be constructed. The Keystone Trail in the north, the West Papio Trail in the northwest, and Bellevue Loop Trail in the east are great examples of trails that connect multiple communities in the region, as together, they connect Papillion, La Vista, and Bellevue, as well as other communities in between. However, the City of Springfield and City of Gretna do not have trail connections that connect either to each other or to the greater Omaha metropolitan area. Unfortunately, in many instances, bicycles or pedestrians must resort to a roadway shoulder to navigate a gap between jurisdictions, a practice that is often only comfortable for experienced riders.



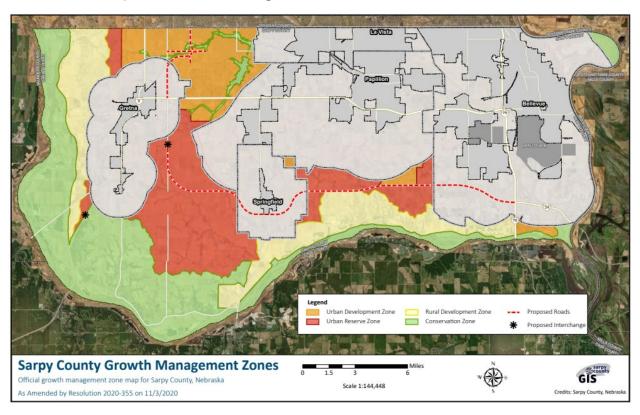




Constraints

An environmental screening of the study was prepared to support Tasks 3.4 and 3.5. The official growth management zone map of Sarpy County (**Figure 12**) was used as the study boundary for this screening. The results of the environmental screening are included with this memorandum as Attachment 1. Water resources and conservation areas along the western and southern boundary of the study area support land uses that limit development pressure. Water resources, parks, and farmland areas of statewide importance are environmental resources that most influence the current land use context within the study area. Individual transportation infrastructure projects are completed through NDOT, MAPA and/or local jurisdictions and must comply with federal regulations for protecting water resources, protected species and critical habitat among other requirements. These regulations are summarized in Attachment 2.

FIGURE 12: Study Area Growth Management Zones









Asset Conditions for Pavement and Bridges

A review of the asset conditions for existing Sarpy County roads was documented for the study area. Information about existing conditions may be helpful for the study recommendations to consider ongoing maintenance needs and possible prioritization of future improvements. Between I-80 and the Platte River, Platteview and Buffalo Road provide paved cross section from east to west (**Figure 13**). The remaining alignments provide a gravel road on section lines with local access provided to more heavily used roadways. The north south roadways between Highway 50 and I-80 remains gravel, while growth pressure near Papillion and Bellevue have led to paving sections of multiple roads to the east of Highway 50.

FIGURE 13: Study Area Existing County Roadway Surface Type



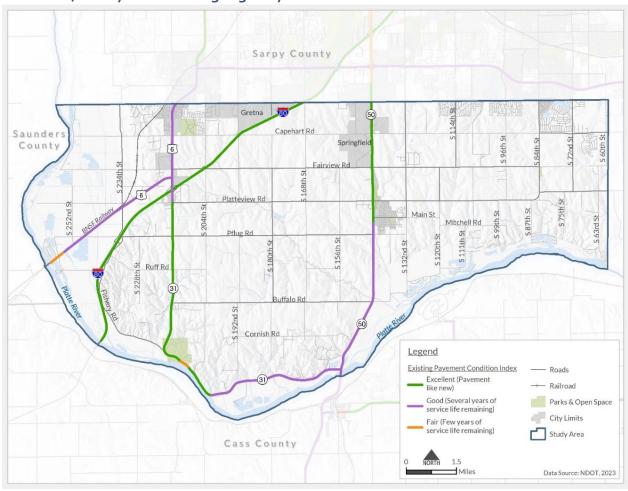






Data provided by NDOT is presented to document the existing condition of the Interstate an Non-Interstate State Highway System. Pavement condition is one performance measure used by MAPA and NDOT to evaluate progress toward achieving goals of the Long Range Transportation Plan. This regional planning document is updated every five years. No segments of the existing network are currently rated Poor and the majority of segments are listed as Good or Excellent condition. Because performance measures like pavement condition index (**Figure 14**) are federally mandated, it is reasonable to expect that NDOT and MAPA will continue to prioritize projects that maintain or improve upon the existing pavement condition ratings.

FIGURE 14: Study Area Existing Highway Surface Condition



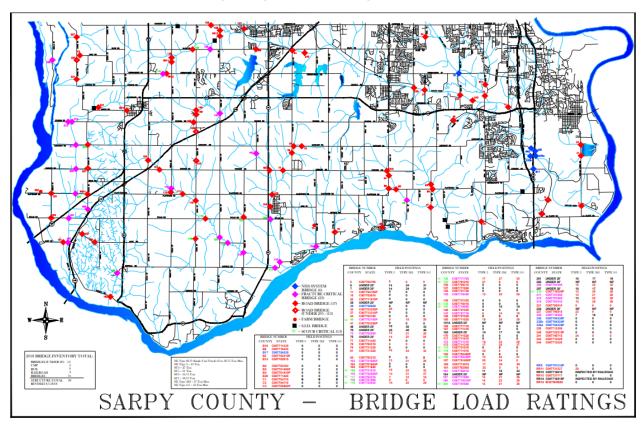






Bridges located in Sarpy County are inspected routinely. Information about each bridge structure that exceeds 20-feet of span length and small structures that provide greater than 16 square feet of open width (ie, culvert(s)) are listed in the National Bridge Inspection Standards database. The information provided in **Figure 15** from <u>Sarpy County Engineering & Permitting</u> provides a summary of the information Sarpy County maintains for Bridge Load Ratings of these NBIS structures. Locations of bridges will be considered in the design of any future roadway improvements. Buffalo Creek flows from Gretna to the Platte River. After crossing I-80, half of the 10 bridge structures are listed as fracture critical. The bridges serve a unified purpose to convey surface runoff to the Platte River. As bridges are replaced to support new roadway cross sections, designs should provide for the grade separated crossing of a new trail corridor as well.

FIGURE 15: Study Area Existing Bridges Load Rating



Task 3.5 – Future Conditions Analysis

The existing conditions assessment provided with this memorandum may be used by the study team to consider future conditions for land use, multi-modal needs, and an environmental assessment. Following the review and recommendation of alternatives with project stakeholders, this section of the analysis will be expanded.







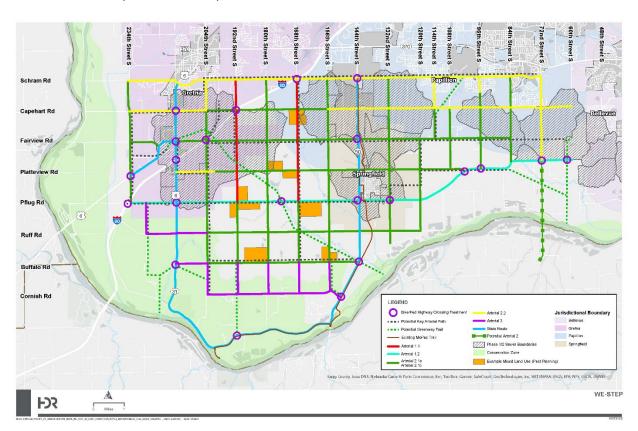
Land Use / Development Trends

The study team coordinated with MAPA and local jurisdictions to develop three land use assumptions for evaluating alternatives. The assumptions were presented to the steering committee.

Multi-Modal Transportation Needs Assessment

Urban growth within the study area will provide the need to improve the existing cross section of section line roads to support the many developments that will occur over time. The study process has identified multiple options for arterial cross sections. Each alternative is envisioned to incorporate the needs of active transportation users as well as personal vehicles. A sequence of priority arterial alignments have been recommended to incorporate a wider sidepath and specifically enhance the intersection approaches to support pedestrians as well as bicycles. These are shown on **Figure 16** in addition to potential greenway trails that do not typically follow the section line roads. Locations where bike/pedestrian crossings are anticipated to require a higher level of design and possible grade separation are shown below as purple circles. Interstate 80 and the State Highway routes carry the highest speeds and most vehicles through the study area. Providing safe ways for active transportation to cross these facilities should be considered in all roadway design plans.

FIGURE 16: Study Area Priority Arterials and Trail Network









Environmental Review

Development pressure and the resulting transportation network must be accomplished in a manner that supports local and regional policies as well as all Federal and State environmental regulations. The size of the study area is large and individual transportation projects will be evaluated in a manner that aligns with the use of Federal funds, state aid, or local funding. A summary of environmental resources applicable to the western Sarpy County planning area are summarized in Attachment 2.

Noise

Noise abatement may need to be evaluated for individual projects within the study area, depending on the nature of the project and adjacent land uses near the project location. For federal and state funded projects, noise evaluation would follow the NDOT Noise Analysis and Abatement Policy. Based on noise modeling projections, noise abatement measures would be evaluated for feasibility and reasonableness.

Floodplains

The Federal Emergency Management Agency (FEMA) is the primary agency responsible for evaluating impacts to the floodway and the 100-year floodplain. A regulatory floodway is the area of a channel and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Floodway is designated by FEMA and must remain free of development for this purpose. The 100-year floodplain is the land area covered by floodwaters during a 100-year flood event (i.e., areas that have a 1% annual chance of flooding). Areas of Zone A/AE floodplain and floodway are present within a number of areas throughout the study area as identified in **Attachment 1-Figure 4**. In particular along the Platte River in the south and west of the study area; and along Springfield and Buffalo Creeks in the central portion of the study area.

Western Sarpy County study area exists outside the Papillion Creek Partnership which has adopted floodplain development standards enforced by each jurisdiction. The same floodplain management principles are applicable to areas of Sarpy County outside the Papillion Creek Watershed where unless exempt from local floodplain policy adopted by the Papio Partnership, A setback area equal to three (3) times the channel depth plus fifty (50) feet (3:1 plus 50 feet) from the edge of low water on both sides of channel shall be required for any above or below ground structure exclusive of bank stabilization structures, poles or sign structures adjacent to any watercourse defined within the watershed drainage plan. Grading, stockpiling, and other construction activities are not allowed within the setback area and the setback area must be protected with adequate erosion controls or other Best Management Practices, (BMPs). The outer 30 feet adjacent to the creek setback limits may be credited toward meeting the landscaping buffer and pervious coverage requirements. The Floodway Fringe encroachment and creek setback schematic is represented above.

Wetlands

Based on the National Wetland Inventory and National Hydrography Data set, potential wetlands and channels are present within the environmental study area. The southern border of the project area includes approximately 35 miles of Platte River shoreline including numerous tributaries such as Buffalo Creek, Springfield Creek, and Turtle Creek. In addition, the proposed project area encompasses the Elkhorn River confluence with the Platte in the northwest corner. Many other wetlands and water resources are likely to be present throughout the study area and would need to be determined with a field review of specific project locations.







Air Quality

The study area is not in a non-attainment zone. On October 1, 2015, the Environmental Protection Agency imposed tougher national air quality standards related to ground-level ozone. The Omaha-Council Bluffs metropolitan area meets these new standards and remains in "attainment" status, but barely. The new standard for ground-level ozone is 70 parts per billion (ppb). Our region's current measurement according to the area's air quality monitors is 67 ppb, just three points lower than the new standard.

Sensitive Species

Federal and/or State listed species that could occur within the study area include:

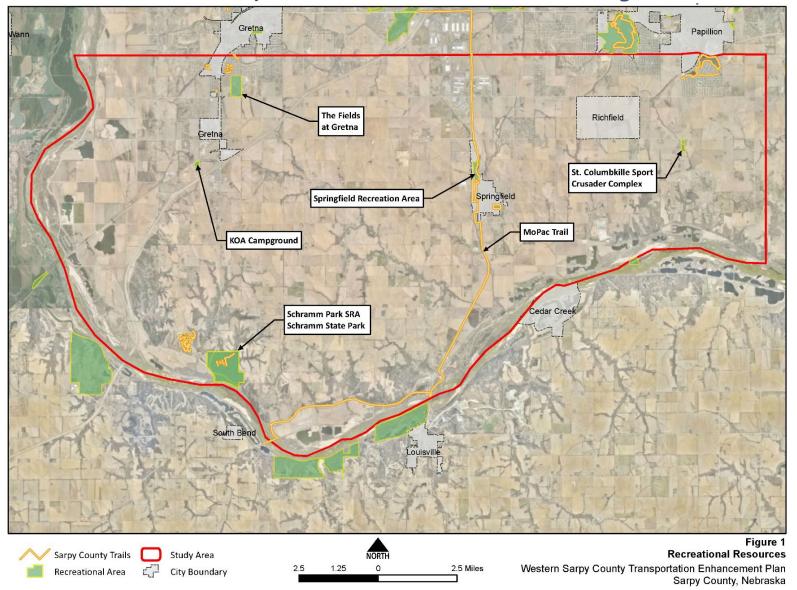
- Interior Least Tern (Sternula antillarum athalassos) state endangered
- Piping Plover (Charadrius melodus) state and federally threatened
- Pallid Sturgeon (Scaphirhynchus albus) state and federally endangered
- Lake Sturgeon (Acipenser fulvescens) state threatened
- Sturgeon Chub (Macrhybopsis gelida) state endangered
- Western Prairie Fringed Orchid (Platanthera praeclara) state and federally threatened
- Northern Long-eared Bat (Myotis septentrionalis) state threatened and federally endangered

Habitat for the first five species is generally associated with the Platte and Elkhorn Rivers. Western prairie fringed orchid habitat is present in native prairie remnants, wherever present. Northern long-eared bat habitat is generally found within forested areas throughout the study area, including riparian areas along creeks. Northern long-eared bat hibernacula is also known to be present in the south portion of the study area, and may require additional coordination for any impacts to suitable habitat in this area.





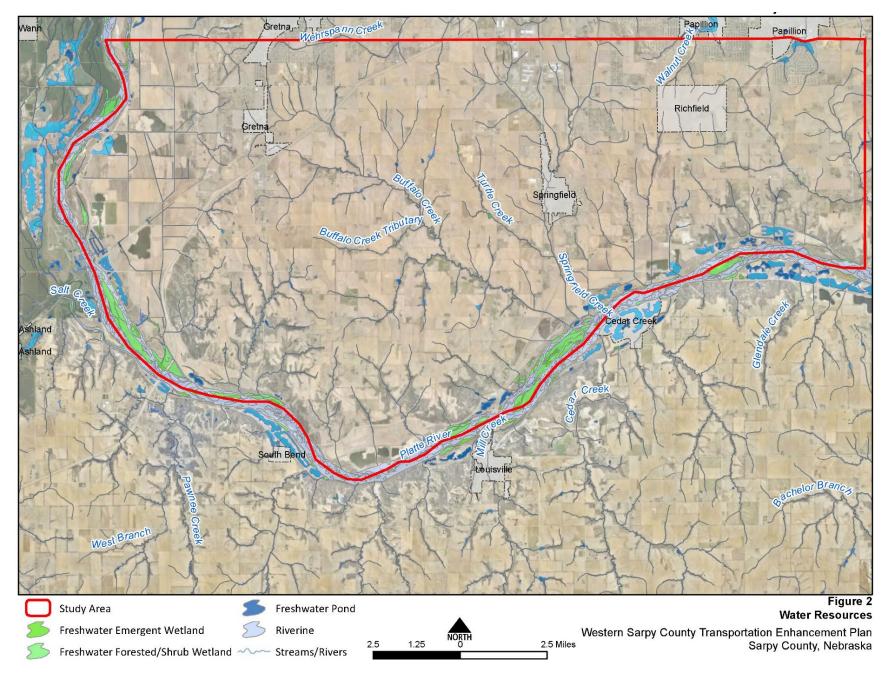
Attachment 1 - Summary of Environmental Resource Findings







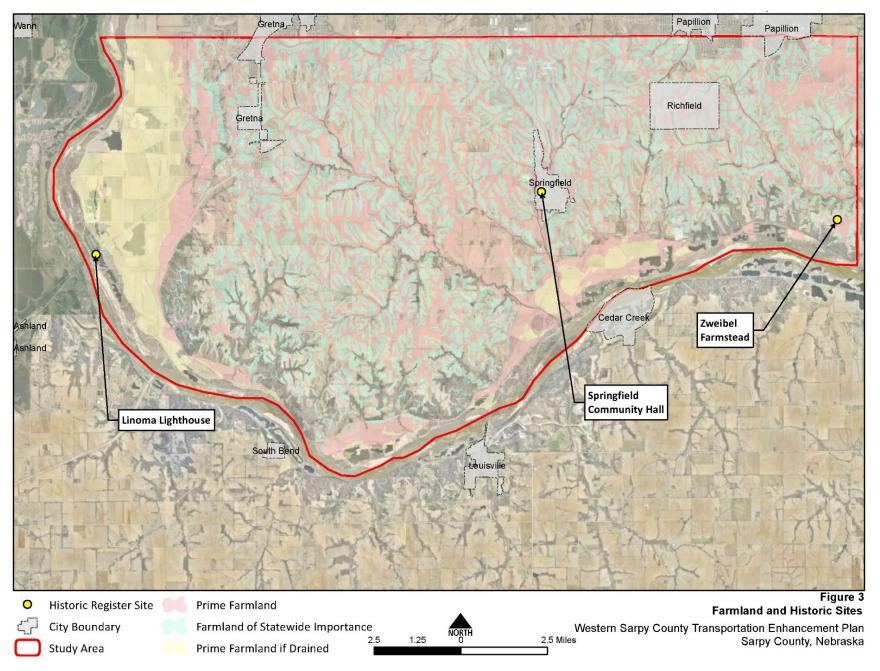


























Attachment 2 - Summary of Environmental Resource Findings

Environmental Resource	Applicable Regulations	Findings
Wetlands	Section 404 of the Clean Water Act (CWA). Title 117 of the Nebraska Administrative Code.	Wetlands and other water resources are afforded protection under the Clean Water Act (CWA) as amended, and EO 11990 of 1977 (Protection of Wetlands). They are also afforded protection from Title 117 of the Nebraska Administrative Code (NAC). Impacts to these resources could require obtaining a Section 404 permit from U.S. Army Corps of Engineers (USACE). Depending on potential impacts, wetland or channel mitigation may be necessary. Based on the National Wetland Inventory and National Hydrography Data set, potential wetlands and channels are present within the environmental study area (Attachment 1-Figure 2). The southern border of the project area includes approximately 35 miles of Platte River shoreline including numerous tributaries such as Buffalo Creek, Springfield Creek, and Turtle Creek. In addition, the proposed project area encompasses the Elkhorn River confluence with the Platte in the northwest corner. Many other wetlands and water resources are likely to be present throughout the study area and would need to be determined with a field review of specific project locations.
Water Quality	Section 303(d) of the CWA; Safe Drinking Water Act of 1986.	Water Quality is regulated under the Federal Water Pollution Control Act Amendments of 1972 (CWA). The objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and non-point pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. Each individual state has jurisdiction for managing water quality in its respective state. Section 303(d) of the CWA requires each state to evaluate water quality conditions in designated water bodies and list as impaired any water bodies not meeting water quality standards; this is to be reported every other year. Based on the 2022 Nebraska Water Quality Integrated Report, two Category 5 impaired waters are present within







Environmental Resource	Applicable Regulations	Findings
		the environmental study area: Platte River and Walnut Creek. Future projects would need to implement BMPs to ensure they do not contribute to the impairment of these waterbodies.
FEMA Floodplains	National Flood Insurance Program; National Flood Insurance Act of 1968.	Floodplain Management Guidelines, EO 11988, outlines the responsibilities of the federal agencies in the role of floodplain management. Each agency shall evaluate the potential effects of actions on floodplains and should avoid undertaking actions that directly or indirectly support floodplain development. The Federal Emergency Management Agency (FEMA) is the primary agency responsible for evaluating impacts to the floodway and the 100-year floodplain. A regulatory floodway is the area of a channel and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Floodway is designated by FEMA and must remain free of development for this purpose. The 100-year floodplain is the land area covered by floodwaters during a 100-year flood event (i.e., areas that have a 1% annual chance of flooding). Areas of Zone A/AE floodplain and floodway are present within a number of areas throughout the study area as identified in Attachment 1-Figure 4. In particular along the Platte River in the south and west of the study area; and along Springfield and Buffalo Creeks in the central portion of the study area.
Cultural Resources	Section 106 of the National Historic Preservation Act (NHPA); Native American Graves Protection Act.	Section 106 of the National Historic Preservation Act (NHPA) requires that federally funded or permitted projects be evaluated for impacts on historic properties (buildings, archaeological sites, etc.). Publicly available data for the National Registers of Historic Places identified three listed historic sites in Attachment 1-Figure 3. Other sites not currently listed on the National Register may be present within the study area. Specific projects areas would need to be reviewed to determine if there are potentially eligible structures that are protected under Section 106. Coordination with the Nebraska State Historic Preservation Office is also recommended for specific projects to determine if there are other sites not listed in public databases.







Environmental Resource	Applicable Regulations	Findings
Threatened & Endangered Species	Endangered Species Act; Nebraska Nongame and Endangered Species Conservation Act.	The Endangered Species Act protects imperiled species and their habitats. Section 9 of the Endangered Species Act makes it unlawful for any person—including private and public entities—to "take" individuals of an endangered Species Act requires federal agencies to consult with the US Fish and Wildlife Service (USFWS) for any federally permitted project that may affect a species listed under the study area. The USFWS is the primary agency responsible for administering the Endangered Species Act. The Nebraska Nongame and Endangered Species Conservation Act, administered by the Nebraska Game and Parks Commission (NGPC), protects state listed Threatened and Endangered species. Federal and/or State listed species that could occur within the study area include: Interior Least Tern (Sternula antillarum athalassos) - state endangered Piping Plover (Charadrius melodus) - state and federally threatened Pallid Sturgeon (Scaphirhynchus albus) - state and federally endangered Lake Sturgeon (Acipenser fulvescens) - state threatened Sturgeon Chub (Macrhybopsis gelida) - state endangered Western Prairie Fringed Orchid (Platanthera praeclara) - state and federally threatened Northern Long-eared Bat (Myotis septentrionalis) - state threatened and federally endangered Habitat for the first five species is generally associated with the Platte and Elkhorn Rivers. Western prairie fringed orchid habitat is present in native prairie remnants, wherever present. Northern long-eared bat habitat is generally found within forested areas throughout the study area, including riparian areas along creeks. Northern long-eared bat hibernacula is also known to be present in the south portion of the study area, and may require additional coordination for any impacts to suitable habitat in this area.







Environmental Resource	Applicable Regulations	Findings
Migratory Birds and Bald and Golden Eagles	Migratory Bird Treaty Act (MBTA); Bald and Golden Eagle Protection Act (BGEPA)	Under the Migratory Bird Treaty Act (MBTA), construction activities that would otherwise result in the "taking" of migratory birds, eggs, young, and/or active nests, should be avoided. Additionally, Nebraska Revised Statute §37-540 prohibits take and destruction of nests or eggs of protected birds. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in Nebraska occurs from April 1st to July 15th and from February 1st to July 15th for raptors; however, some birds may nest outside these periods. Bald and golden eagles have specific protection under the Bald and Golden Eagle Protection Act (BGEPA), administered by the USFWS. Projects with tree removal activities have the potential to directly impact birds, eggs, young, or active nests protected by MBTA. Tree and shrub clearing should be avoided during the primary nesting season, or surveys should be conducted by a qualified biologist prior to construction. Additionally, bald eagles nest in tall trees near large, open waterbodies where they can forage. Project areas with large trees (e.g., mature cottonwoods) near large bodies of water should be surveyed for potential bald eagle nests. This includes areas near the Platte River, as well as larger reservoirs and creeks throughout the study area.
Parks & Recreational Areas	Section 6(f) of the Land and Water Conservation Act; Section 4(f) of the U.S. Department of Transportation Act.	Recreational resources developed with federal funding through the Land and Water Conservation Fund (LWCF) are protected under Section 6(f) of the LWCF Act, which prohibits the conversion of these properties to anything other than public outdoor recreation uses. This protection applies regardless of whether a project has federal funding. Section 4(f) of the United States Department of Transportation Act (USDOT Act) of 1966 stipulates that FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless certain conditions apply. Several state parks, recreation areas, wildlife management areas, and trails are identified in Attachment 1-Figure 1. These and other publicly owned recreational resources would be protected by Section 4(f).







Environmental Resource	Applicable Regulations	Findings
		Additionally, several recreational resources in the study area were funded through Land and Water Conservation and are protected by Section 6(f). These Section 6(f) properties are generally located in Springfield, Gretna, Papillion, and Schramm State Park.
Environmental Justice	Executive Order 12898	Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, directs federal agencies to incorporate environmental justice in their decision-making process. Environmental Justice populations could be present within the study area. Environmental Justice populations are possible within the study area. Individual project areas would need to be reviewed for the presence of potential environmental justice populations and, if present, evaluate whether the project would result in disproportionate adverse impacts to Environmental Justice populations.
Airspace	Federal Aviation Administration (FAA)	Protected airspace surrounds Millard Airport and Offutt Air Force Base. However, both are located outside the study area and therefore are unlikely to be a constraint to any proposed projects. Construction equipment height will need to comply with the requirements of the FAA. If the proposed project would have any structures or equipment that exceed 200 feet above ground level, FAA Form 7460-01 (Notice of Proposed Construction or Alteration) must be submitted to FAA.
Air Quality	Clean Air Act (CAA), National Ambient Air Quality Standards (NAAQS)	Federal air quality policies are regulated through the Clean Air Act (CAA) of 1963, as amended (42 USC § 7401 – 7671). The CAA is intended to "protect and enhance the quality of the Nation's air resources to promote the public health and welfare and the productive capacity of its population." The CAA directs the attainment and maintenance of National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50). The EPA also implements the NAAQS and determines attainment of federal air quality standards on a short- and long-term basis. The study area is not in a non-attainment zone.
Noise		Noise is defined as unwanted sound that interferes with normal activities or in some way reduces the quality of the environment. In urban areas, most noise comes from transportation, construction, industrial, and human sources.







Environmental Resource	Applicable Regulations	Findings
		Noise abatement may need to be evaluated for individual projects within the study area, depending on the nature of the project and adjacent land uses near the project location. For federal and state funded projects, noise evaluation would follow the NDOT Noise Analysis and Abatement Policy. Based on noise modeling projections, noise abatement measures would be evaluated for feasibility and reasonableness. For locations meeting the feasibility and reasonableness criteria, noise abatement measures would be carried forward for a vote by the benefitting property owners and tenants. At least 75 percent of points from returned ballots must be in favor of the proposed noise barrier in order for noise abatement to be provided.

APPENDIX B: PUBLIC AND STAKEHOLDER ENGAGEMENT SUMMARY

STAKEHOLDER	CATEGORY/NOTES	CONTACT
Sarpy Sewer Agency	Resources	Dan Hoins
South Sarpy Watershed Partnership/NRD	Resources	
Grow Sarpy	Growth and Development	Mike Rooks
Sarpy Chamber of Commerce	Growth and Development	Karen Gibler
South Sarpy Environmental Group	Resources	
OPPD	Utilities	Matt Core
MUD	Utilities	Tim Cavanaugh
MUD	Utilities	Mike McGowan
City of Bellevue	Municipalities	
Nebraska Department of Transportation	Transportation Agency	Tom Goodbarn
Gretna Area Chamber of Commerce	Growth and Development	
Black Hills Energy	Utilities	
City of Omaha	Municipalities	David K. Fanslau
WernerTrucking	Logistics/Freight	
Claas	Logistics/Freight	

STAKEHOLDER	CATEGORY/NOTES	CONTACT
Meta/Facebook Data	Data Centers	
Yahoo Data	Data Centers	
Amazon Distribution	Logistics/Freight	
Sarpy County Sheriff's Office	Emerency Response	Tori Boldt
Sarpy County Emergency Response Agency	Emerency Response	Jesse Eret
Papillion Fire Department	Emerency Response	Robb Gottsch
Papillion Police Department	Emerency Response	Christiaan E. Whitted
Springfield Volunteer Fire Department	Emerency Response	
Gretna Fire & Rescue	Emerency Response	Rod Buethe
City of La Vista	Municipalities	Joe Soucie
Papillion - La Vista Community Schools	School Districts	Stephanie Scheller
Springfield-Platteview Community Schools	School Districts	Nichole Baugh
Gretna Public Schools	School Districts	Travis Lightle
Metropolitan Community College	School Districts	Stan Horrell
MOBA	Builders/Developers	Jaylene Eilenstine
Build Omaha	Builders/Developers	Colleen Newton



Western Sarpy Transportation Enhancement Plan

Community Engagement Summary

May 2024

This document provides a summary of all engagement conducted for the Western Sarpy Transportation Enhancement Plan (WE-STEP) between June 2023 and April 2024. WE-STEP is a strategic transportation plan that prepares Sarpy County for future growth by identifying an arterial network and supporting collectors in the currently rural portions of the county, and to develop a unified set of policies and standards for each jurisdiction for consistent and safe connections between communities. Community engagement was designed to inform the public and promote awareness of the project and associated opportunities for input. This included meetings with a steering and technical advisory committee, stakeholder meetings, and an online public meeting, and related outreach for each, which are summarized below.

Steering and Technical Advisory Committee (STAC) Meetings

A meeting was held with the STAC once per month beginning in June 2023. The STAC includes representatives from the City of Gretna, City of Papillion, City of Springfield and Sarpy County. Meetings with the STAC are ongoing, but 12 meetings have been held as of May 2024. Topics of discussion included the following:

- Community engagement for WE-STEP
- Data inputs to be used in the study
- Regional transportation network
- Typical cross sections and roadway design
- Study considerations, including safety
- Through route policy
- Decision tree for design
- Development of design standards
- Priority corridors for implementation

Each STAC meeting was documented with meeting minutes. The STAC was often asked to provide additional input through an online workshop tool, Mural, in between meetings. A list of STAC members is available in Table 1. STAC meetings also included representatives from Metropolitan Area Planning Agency (MAPA), including Jim Boerner, Michael Blank, and Carlos Morales.



Table 1: STAC Members

Name	Contact	Jurisdiction	Role
Kristine Stokes	kristine@cityofgretna.com	Gretna	Project Manager
Gregory Perry	gregp@eagleengineeringgroup.com	Gretna	Public Works
Paula Dennison	paula@cityofgretna.com	Gretna	City Administrator
Mark Stursma	mstrusma@papillion.org	Papillion	Deputy City Administrator
Mike Kleffner	mkleffner@papillion.org	Papillion	Public Works
Travis Gibbons	tgibbons@papillion.org	Papillion	Planning
Scott Bovick	sbovick@sarpy.gov	Sarpy County	As available
Steven Jensen	snjensen@cox.net	Sarpy County	Planning
Zachary Hergenrader	zhergenrader@sarpy.gov	Sarpy County	Public Works
Kathleen Gottsch	kathleen@springfieldne.org	Springfield	City Administrator

Online Public Meeting Summary

An online public meeting for WE-STEP was available from March 25 through April 15, 2024 at westernsarpytep.com or via the City of Gretna's project page for WE-STEP. The purpose of the meeting was to provide information about WE-STEP and gather public feedback on safety and design, bicycle and pedestrian connections, future development, and where the transportation network needs to support an anticipated increase in traffic. The meeting provided information about the goals and objectives of the plan, the proposed regional transportation network, and study considerations. Attendees were encouraged to provide feedback via a comment map or a general comment form. 934 users visited the meeting throughout the available dates.

Outreach

Outreach for the online public meeting was conducted via an email to stakeholders, a press release, and social media content. The online public meeting was also promoted on the City of Gretna's website on the WE-STEP project page. Outreach for the online public meeting can be found in Appendix 1.

Meeting Materials

The online public meeting was available from March 25 through April 15, 2024, and was hosted at westernsarpytep.com. The website provided information about the plan, current progress and developments, addressed considerations of the plan, and provided an opportunity for the public to provide input via a location-specific comment map or a general comment form. A full copy of the online public meeting content can be found in Appendix 2.

Public Feedback and Comments

Summary

Common themes from feedback are summarized below. A full list of public comments can be found in Appendix 3. Common themes included traffic congestion, including the need for higher capacity roads for north-south and east-west travel during commute times, speed limits, trail connections for bicycles and pedestrians, and paving.



Demographics

A user is an individual who interacted with the website. The online public meeting had 934 users.

An engaged session is a single visit to the website that lasted longer than 10 seconds or includes two or more page views. The online public meeting had 473 engaged sessions.

Participants in the online public meeting came from several metro area cities, including Omaha, Papillion, Gretna, Bellevue, and Lincoln. The number of engaged sessions from each city is detailed in Figure 1 below.

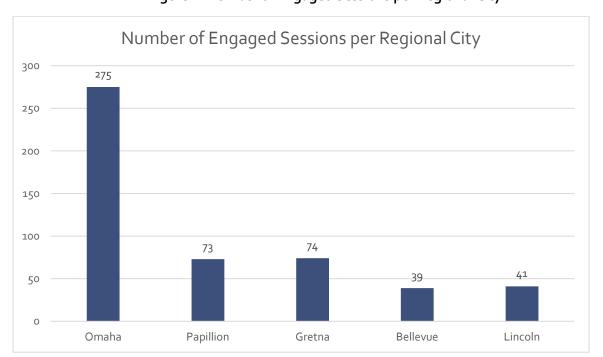


Figure 1: Number of Engaged Sessions per Regional City

Nearly half of participants accessed the online public meeting by going directly to the website. Other referral sources are noted in Figure 2 below. The sources of referrals are detailed in Table 2.



Figure 2: Online Public Meeting Referral Sources

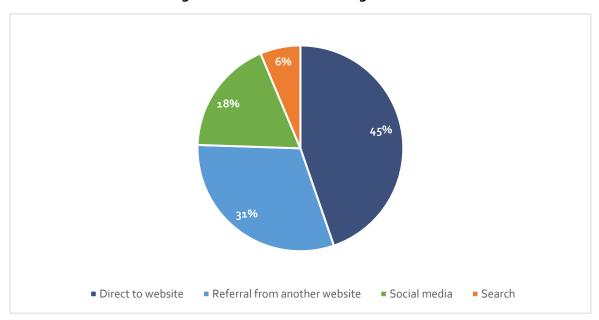
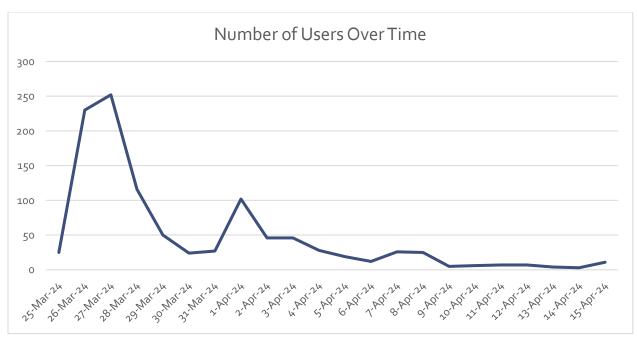


Table 2: Sources of Online Public Meeting Referrals

Source	Number of engaged sessions
Wowt.com	87
Omaha.com	37
Facebook.com	75
Journalstar.com	10
t.co	8
Eomahaforums.com	5
1011now.com	4
Linkedin.com	3
Webmail.centurylink.net	2
Mail.yahoo.com	1

Of the 934 total site visitors, the highest number of users in one day to the online public meeting occurred on March 27, 2024, two days after it was launched.





Other Public Comments

Jim Boerner of MAPA served as the project contact on all materials and fielded questions from members of the public. A record of those communications is included in Appendix 4.

Small Group Stakeholder Meetings Summary

The project team hosted a series of small group stakeholder meetings, including four in-person meetings and one virtual meeting, for a series of identified stakeholders who operate in Sarpy County. These meetings were hosted in April and May 2024. The purpose of these meetings was to present information on the status of the study and solicit input on the future of transportation in western Sarpy County from the stakeholders' point of view.

Outreach

Outreach for all meetings was conducted via an email to a list of stakeholders identified by the STAC and desktop research of the project area, and a calendar invitation sent to those stakeholders. For the virtual meeting, additional outreach was conducted via Lisa Scheve, the executive director of Grow Sarpy, the economic development organization for the county.

Outreach for these meetings can be found in Appendix 5, and the stakeholder list can be found in Appendix 6. A full list of attendees can be found in Appendix 7.

Meeting Materials

In-person meetings were held at the Sarpy County Administration Building on Friday, April 5, Thursday, April 11, and Friday, April 12, 2024. A presentation provided information about the study background and objectives, schedule, previous progress and status of development, and plan considerations. Following the presentation, attendees asked questions verbally of the project team. Questions were answered verbally. Attendees were also encouraged to provide feedback using the online activity tool Mentimeter.



In-person meetings were grouped by stakeholder category, and were organized and attended as noted in Table 3.

Table 3: Small Group Stakeholder Meeting Organization

Stakeholder Group	Date & Time of Meeting	Number of Attendees
Resources, Utilities, and Transportation Agencies	Friday, April 5, 2024 1:00 – 2:30 pm	3
Growth and Development, Data Centers, and Builders/Developers	Thursday, April 11, 2024 10:30 am – 12:00 pm	3
Emergency Response and Logistics/Freight	Thursday, April 11, 2024 1:00 — 2:30 pm	4
Municipalities, Community Groups, and School Districts	Friday, April 12 1:00 – 2:30 pm	5
Virtual	Thursday, May 2, 2024 10:30 am – 12:00 pm	7

The project team hosted an additional stakeholder meeting for stakeholders who were not able to attend their designated grouped meeting. The project team hosted this meeting virtually to make it more accessible to remaining stakeholders. The virtual stakeholder meeting was hosted on Zoom on Thursday, May 2, 2024, and featured the same presentation from previous stakeholder meetings and the same opportunities for questions and answers, along with the Mentimeter input activity with one additional question. The virtual stakeholder meeting had seven attendees.

Through all small group stakeholder meetings, the project team reached a total of 22 stakeholders.

Meeting materials can be found in Appendix 8.

Stakeholder Feedback and Comments

Comments from each meeting are summarized below.

Resources, Utilities, and Transportation Agencies Metropolitan Utilities District

A representative from Metropolitan Utilities District (MUD) attended the meeting and noted that in the future, the City of Gretna is highly likely to become a wholesale partner of MUD, and that they will be building infrastructure along several of the corridors in the study area. The representative noted that this study area is the "last frontier" of development for MUD. The representative noted the need to get utilities located correctly the first time to avoid costly utility relocations.

MUD intends to develop infrastructure from 36th Street to 156th Street along Platteview Road, and they would like to coordinate their work with the roadwork being done on Platteview Road. MUD is also coordinating with the City of Bellevue and HDR on infrastructure from 36th Street east through Bellevue.

The representative noted that water infrastructure is usually located farther from the roadway, so there is room for the incorporation of trails as the plan notes.



South Sarpy Watershed Partnership/Papio-Missouri River Natural Resources District

A representative from the South Sarpy Watershed Partnership/Papio-Missouri River Natural Resources District attended the meeting and noted that their watershed planning looks at the same buildout timeframe as the WE-STEP plan. Their current intentions also align with the priority to provide greenspace for trails throughout the area.

The representative noted that a new policy will take effect on July 1, 2024 that any stream crossing of streets with a drainage area of one-half square mile or greater will require in-stream stabilization work.

The representative also encouraged the project team to consider bridge design, particularly a 2- or 4-lane section decision at interim build versus ultimate buildout.

The representative noted that they do not currently have a designed reservoir project, but that the following areas may be of note due to current and future residential areas for walkability:

- 180th Street and Giles Road
- 204th Street and Schram Road
- 214th Street USACE project
- WP2 and WP4 are currently under construction and part of the Papillion Watershed District

Growth and Development, Data Centers, and Builders/Developers

There was a comment about opportunities for public transit in the study area and to consider the 2016 study that looked at transit in Sarpy County. It was noted that getting workers access to jobs is a priority for the business community and that transit considerations in this plan are important.

There was discussion about considering connector streets for active transportation, including motor scooters. This discussion focused on the difference in use on neighborhood roads versus main arterials and highways.

There was a discussion about having 10-foot sidepaths versus 12-foot sidepaths and the pros and cons that go with each. It was determined that 12-foot sidepaths would be preferred.

There was a comment about getting the southeast Sarpy County transportation study information on the Connect Sarpy website. The project team noted that they will pass along this information.

It was noted that top priorities are active transportation, trails, and regional connections to travel to entertainment and business districts and the Platteview Expressway for planning growth.

Specific areas of future development within the project area were also provided by attendees.

Emergency Response and Logistics/Freight

There was discussion about roundabouts and how they function for large vehicles, particularly as related to fire trucks and ambulances for emergency response purposes. It was decided that roundabouts are okay as long as they are designed for fire trucks to use mountable curbs. It was also noted that the jurisdictions in the study area have slightly different trucks and they may have different intersection design needs. It was also noted that it takes approximately four years for emergency response agencies to order new vehicles, so they are planning now for future trucks. They also noted that the center of roundabouts would need deep enough concrete to hold emergency response vehicle



weight, and that roundabouts provide limited space for emergency vehicles to park when needed in an emergency situation.

Emergency response agencies also noted that transportation greatly affects their evacuation plans in an emergency. These agencies also noted that the greater the distance is between pedestrians and the roadway, the safer transportation is for all users.

There was discussion about streetscaping and the concern that landscaping (vegetation) may decrease sight distance for both vehicles and pedestrians, particularly for neighborhood collector street crossings. The project team noted that any landscaping considerations should be selected and maintained for maximum sight distance.

There was also discussion about golf carts on arterial streets and the enforcement of rules related to this type of transportation. The project team noted that jurisdictions should work with related agencies to enforce those rules, but that it would not be considered as part of WE-STEP.

Municipalities, Community Groups, and School Districts

There was a question about land use in the southern part of Sarpy County. The project team explained that current traffic models do not show a demand for a 6-lane section, but that WE-STEP is planning now for a long-term future development buildout of the region.

There was a question about jurisdictional governance and how WE-STEP will work to get everyone on the same page. The project team explained that the process of developing WE-STEP has involved all jurisdictions in the study area, and that development started with a comparison of current standards in each, getting agreement on a standard set of terms and understanding what each means, getting agreement on a standard right-of-way (ROW) and what concessions would be made where that is not possible. The project team also mentioned the development of a decision-making tree that will help the jurisdictions to implement the plan.

There was a question about how developers have been involved. The project team explained that developers are feeling the pressure now to plan ahead this far out, and that WE-STEP will help jurisdictions make decisions based on development in the future.

There was a question about utilities and where that fits into the plan, including what work is done upfront versus later. The project team explained that WE-STEP will encourage jurisdictions to do more work upfront, and that this is expensive upfront, but saves money and time in the long-run by avoiding costly relocations. The project team also explained that building on one side first for an interim roadway (including utilities) has been very successful in other cities.

The project team also answered a question regarding the prioritization of projects and corridors. The project team explained that WE-STEP will not make prioritizations, but it will run some "pilot cases," and there may be some recommendations based on those.

The project team also had a conversation with a representative from Metropolitan Community College, particularly regarding the proposed new 140-acre site located between Highway 50 and 132nd Street, and between Schram Road and Capehart Road. The representative mentioned that the goal is to get the main roads and utilities for this sight in soon, and that they are very interested in having public transit for this sight.



Mentimeter Feedback

Mentimeter was used to gather feedback from attendees on plan considerations. Results from this activity are summarized below. Mentimeter results per stakeholder meeting can be found in Appendix 9.

Attendees were asked to describe their vision for the future of western Sarpy County in a few words. Responses are summarized in Table 4.



Table 4: Vision Words for the Future of Western Sarpy County

Response	
Friendly	
Plush	
Booming	
Transformative	
Multi-faceted	
Profitable	
Populated	
Growing	
Concerning	
Inclusive	
Prepared	
Consistent	
Bike share	
E-bikes	
Bikes 2	
Connected 2	
Navigable	
Suburban	
Coordinated	
Progressive	
Forward thinking	
Not congested	
Fun	
Balanced	
Walkable	
Bikeable	
Green with lots of trees	
Destination	
Well planned	
Easy traffic flow, not 370	
Public transportation 3	
Bike lanes	
Shaded trail system	
Housing developments	
Walkways	
High class	
Minor industrial	

Attendees were asked to share an example of how transportation connectivity affects them or their organization. The responses are summarized in Table 5.



Table 5: Transportation Connectivity Effects

Response

No public transportation halts business growth in Sarpy and linking workers to the area

Can be a barrier for growth as it relates to moving workforce around the county

Better flow to small communities and small business retailers

Timeliness and efficient

Traffic flow and pedestrian safety along with emergency response are the primary concerns for SCSO

Delay response, access to developments

Quality of life

Needs easy access to the freeway system, wider roads for employees to travel on

Bussing schedules

We operate the bikeshare program and want to be able to provide bike share as a safe active transportation option across the entire county

Take a lot of throughput traffic/shortcomings of other transportation networks

As a utility we are often challenged to find space. Consistency is much easier to work through

Drives the utility growth

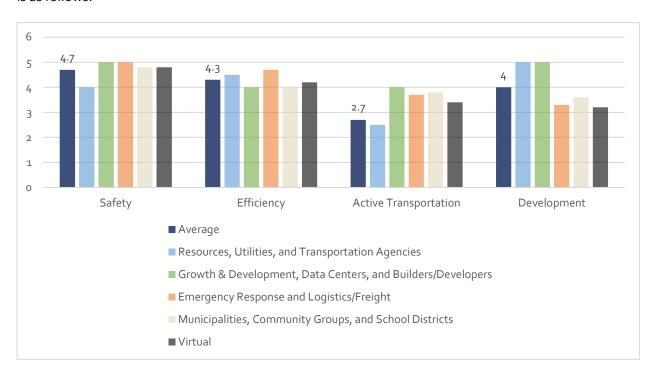
Park connectivity and recreation access

We have over 3000 employees with over 25% that have expressed interest in access to Omaha public transportation. Would increase our reach to future hires.

I live and work in Sarpy in the logistics field. Trucks need better maneuverability.

We cover a large portion of Sarpy, but out schools currently are pretty centralized...getting people to and from our schools to their communities is imperative.

Attendees were asked to rate the goal areas of WE-STEP by their level of importance to them or their organization on a scale of 1 to 5, where 1 = least important and 5 = most important. The average rating is as follows:





Attendees were asked to rank the considerations of WE-STEP in order of their importance to them or their organization. The average ranking is noted below:

- Future development projections
- 2. Connectivity
- 3. Safety
- 4. Roadway design
- 5. Land use
- 6. Traffic demand
- 7. Alternative modes of transportation
- 8. Costs
- 9. Environmental considerations
- 10. Transit
- 11. Pedestrian amenities

Attendees were asked to rank the elements included in WE-STEP standards in order of their importance to them or their organization. The average ranking is noted below:

- 1. Bike and pedestrian crossings
- 2. Roundabouts
- 3. Sidepaths separated by landscaped buffers
- 4. Lower speeds for safety
- 5. Transit stops

One additional question was asked to attendees of the virtual stakeholder meeting. Attendees were asked to identify some high priority corridors for expansion in western Sarpy County. The responses are as follows:

- Access to I-80 west of 120th Street
- Less restrictive access to I-80, Highway 75, etc.
- 72nd Street to 84th Street north/south corridor
- 132nd Street from Giles towards Highway 370
- Better access to I-8o from Highway 370
- Expressway over Highway 370
- Long term plans for Platteview Road will have serious impacts in our future
- Highway 370 between 144th Street and 132nd Street we struggle with traffic lights and better access to site
- Platteview Road and Pflug Road expansion creates issues with future planning and too close to community

Board & Commission Presentations

The project team provided materials and support on presenting information about WE-STEP to the jurisdictions' City Councils, County Board, and Planning Commissions. Materials made available to the jurisdictions can be found in Appendix 10.



Engagement Appendix 1: Online Public Meeting Outreach

Outreach	Responsibility	Launch Date
Email	Consortium Agencies	March 11, 2024
Letter	Consortium Agencies	March 11, 2024
Press Release	Consortium Agencies	March 11, 2024
Social Media	Consortium Agencies	March 18, 2024

Letter

Please join us for an online public meeting for the Western Sarpy County Transportation Enhancement Plan (WE-STEP)! The online public meeting provides information about WE-STEP and gathers feedback on the proposed regional transportation network and arterial types and will be available from March 25 to April 8, 2024, at westernsarpytep.com.

WE-STEP will be a strategic transportation plan for western Sarpy County, developed in collaboration with the City of Gretna, City of Papillion, City of Springfield, Sarpy County, and the Metropolitan Area Planning Agency (MAPA). WE-STEP will provide a framework for changing communities to develop for future generations.

The plan identifies a proposed future regional transportation network and proactive standards that are flexible and can fit with what develops around it. You can provide feedback on the transportation network and standards in the online public meeting.

If you have questions, please contact:

Jim Boerner jboerner@mapacog.org

Email

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If you have questions, please contact:

Jim Boerner jboerner@mapacog.org



Press Release

FOR IMMEDIATE RELEASE

Jim Boerner, Transportation Planner, Metropolitan Area Planning Agency (MAPA) 402-444-6866

iboerner@mapacog.org

Metropolitan Area Planning Agency (MAPA) to host online public meeting for Western Sarpy County Transportation Enhancement Plan (WE-STEP)

Sarpy County, Neb. – Metropolitan Area Planning Agency (MAPA) is hosting an online public meeting to introduce and receive input for the Western Sarpy County Transportation Enhancement Plan (WESTEP). The online public meeting will be available from March 25 to April 8, 2024, at westernsarpytep.com.

The Western Sarpy Transportation Enhancement Plan (WE-STEP) will be a strategic transportation plan for western Sarpy County, and developed in collaboration with the City of Gretna, City of Papillion, City of Springfield, Sarpy County, and MAPA. WE-STEP will provide a framework for changing communities to develop for future generations.

The plan identifies a future regional transportation network and proactive standards that are flexible and can fit with what develops around it. You can provide feedback on the transportation network and standards in the online public meeting.

###

Social Media

Dates	Content	Graphic	Platform
March 25 April 1 April 5 April 8	Please join us for an online public meeting for the Western Sarpy County Transportation Enhancement Plan (WE-STEP). WE-STEP will provide a framework for changing communities to develop for future generations. Visit [online meeting link] to learn more and provide your feedback. The meeting will be available from March 25 to April 8, 2024.	WISTORY CARPY PRODUCTION OF THE PRODUCTION OF T	FB



Engagement Appendix 2: Online Public Meeting Materials







Thank you for joining the Western Sarpy Transportation Enhancement Plan (WESTEP) online public meeting!

This online public meeting will run from March 25 through April 15, 2024.

Learn about:

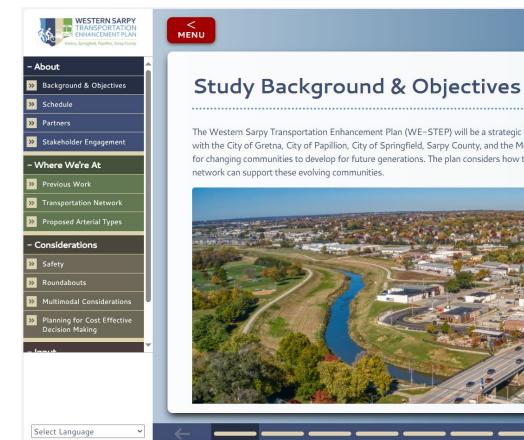
- Goals and objectives of the plan
- Proposed regional transportation network
- Schedule
- Ways to provide input

We want your feedback on:

- Safety and design
- Bicycle and pedestrian connections
- Future development
- Where the transportation network needs to support the anticipated increase in traffic

Enter the Online Meeting \rightarrow









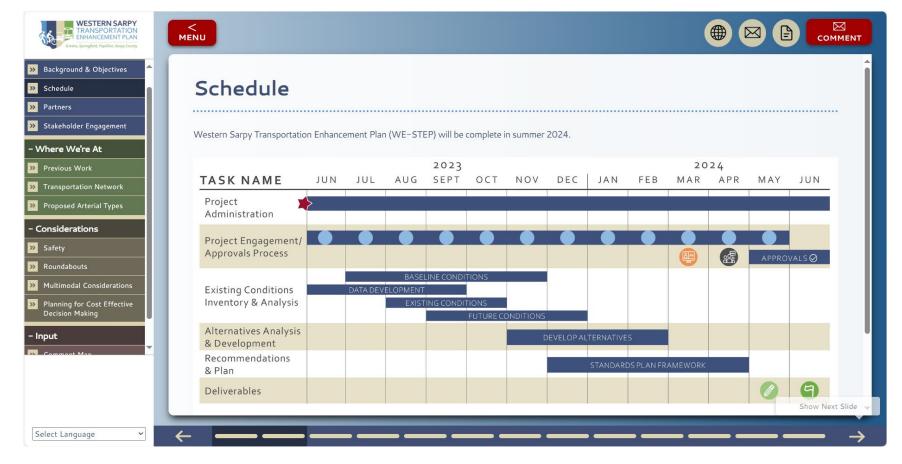




The Western Sarpy Transportation Enhancement Plan (WE-STEP) will be a strategic transportation plan for western Sarpy County, and developed in collaboration with the City of Gretna, City of Papillion, City of Springfield, Sarpy County, and the Metropolitan Area Planning Agency (MAPA). WE-STEP will provide a framework for changing communities to develop for future generations. The plan considers how the involved communities are changing and how the advancing transportation



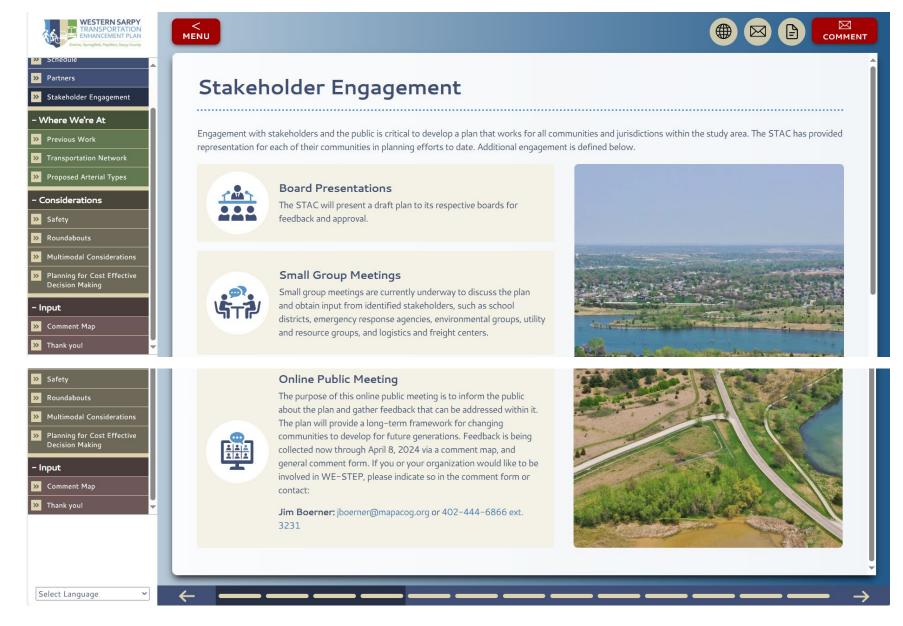


























Previous Work

To prepare for the study and develop understandings of the region, the plan development team utilized data from traffic studies and growth projections to develop land use scenarios. The plan development team studied these scenarios for the current transportation network, long term transportation needs through a 50-year and beyond future development build out of the region, and a range of alternative future street network configurations.

Growth in the study area by 2050 alone is expected to include 28,000 new households and 18,000 new jobs, an increase of more than six times current levels. This increase in households and new jobs produces a need for a transportation network with greater capacity.

Other projects that inform WE-STEP include the Unified Southern Sarpy Wastewater System project, the Sarpy County I-80 Planning and Environmental Linkages (PEL) study, and comprehensive plans from the partner agencies.



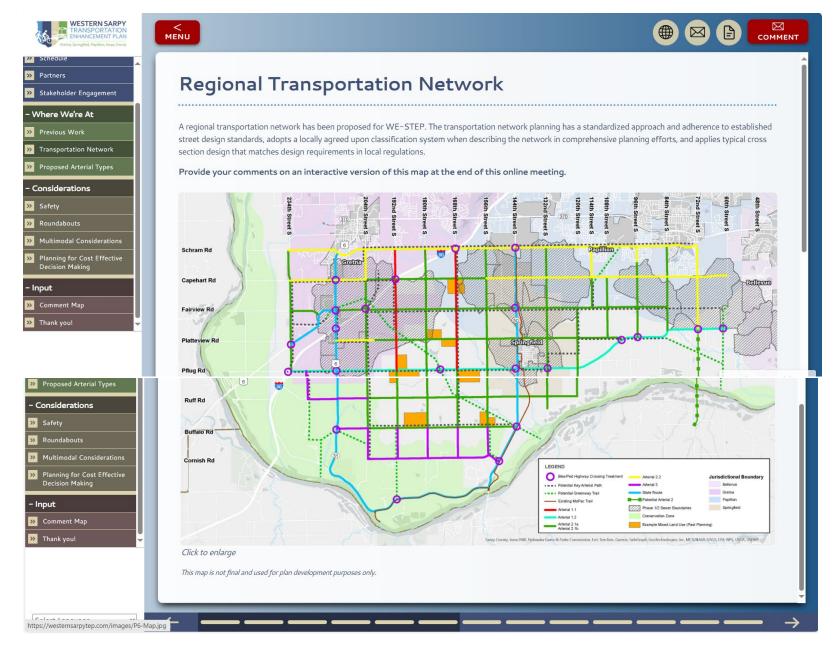
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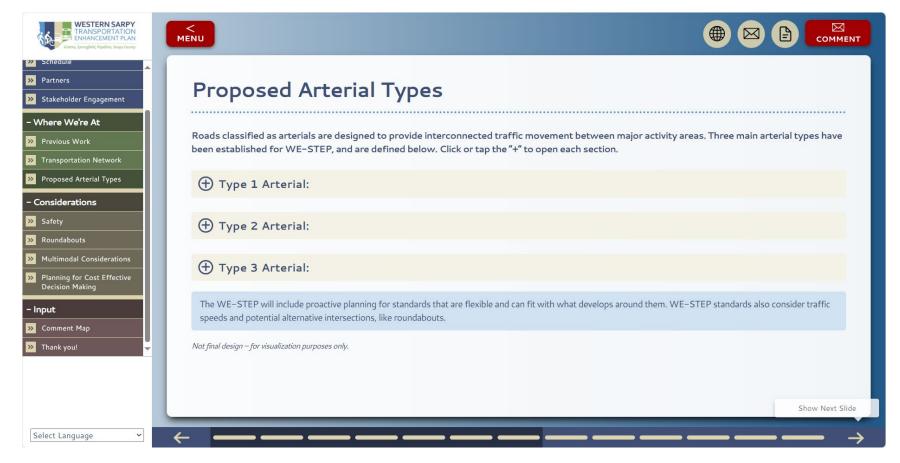
- Input

>> Comment Map

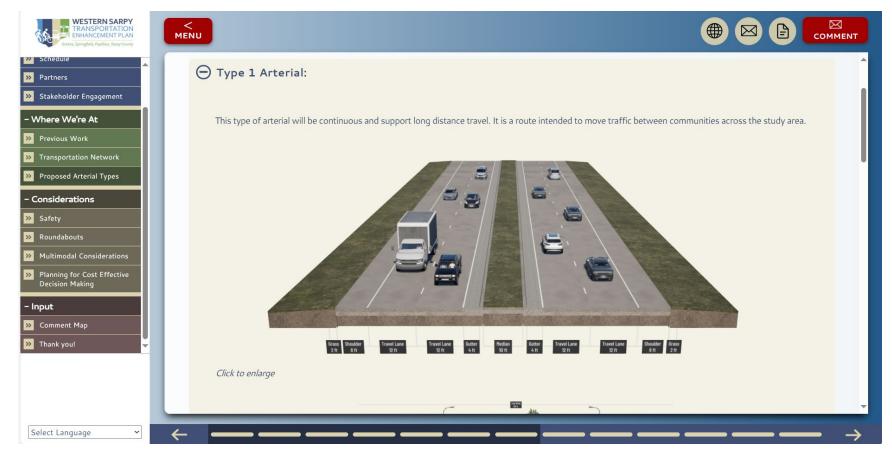




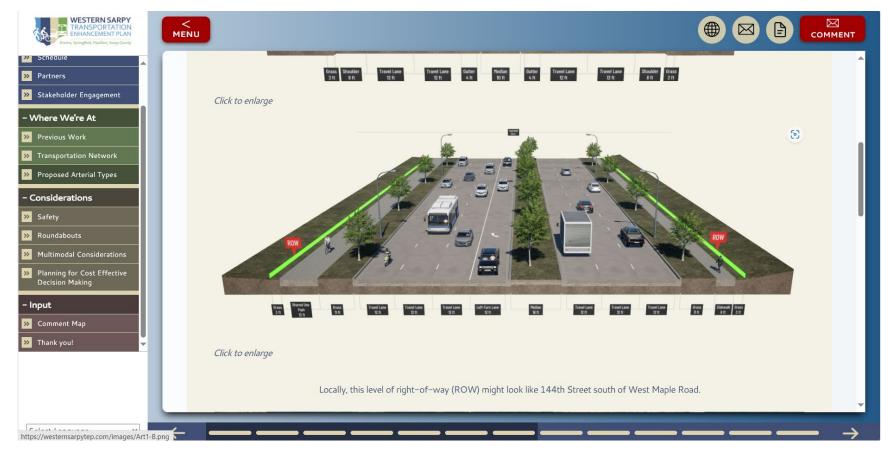








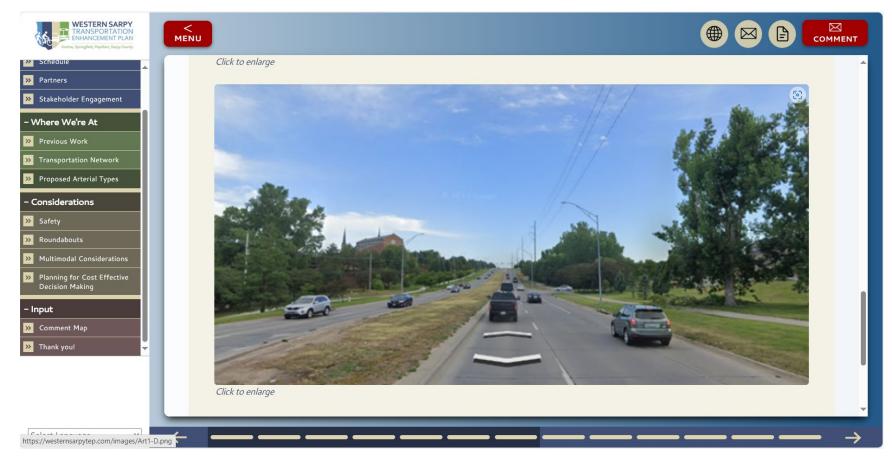




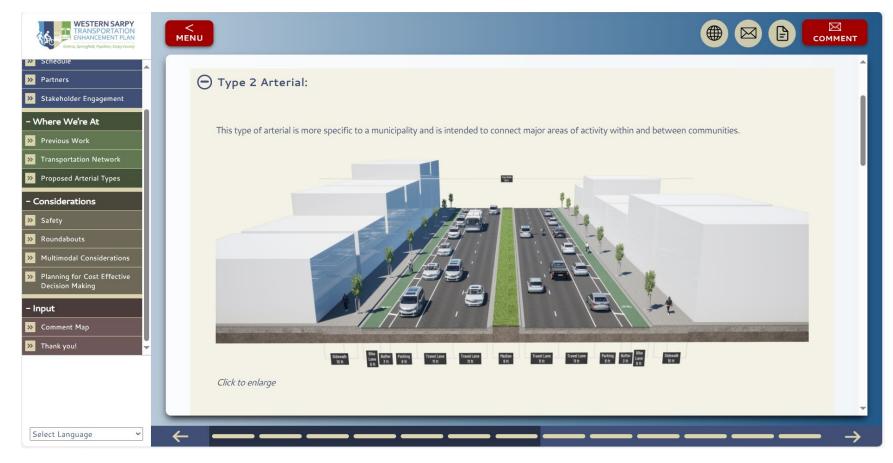




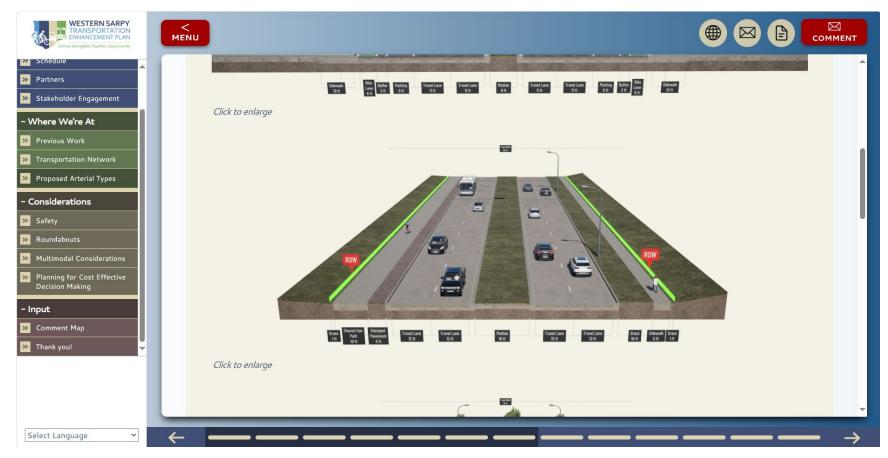




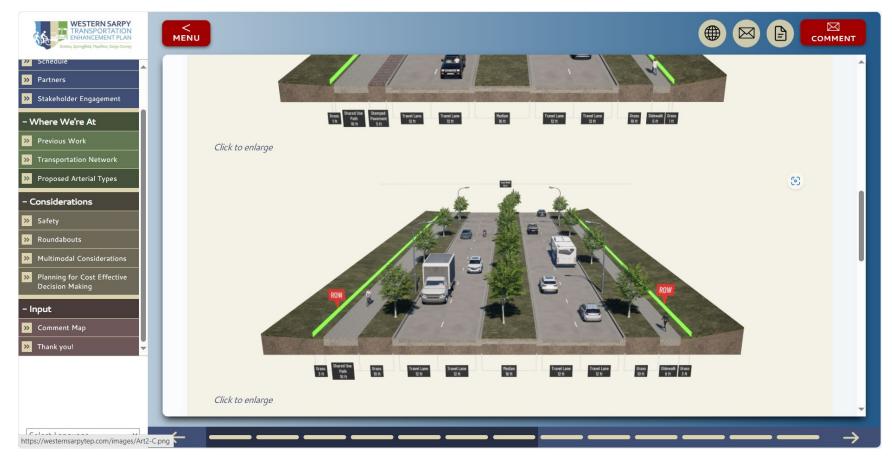




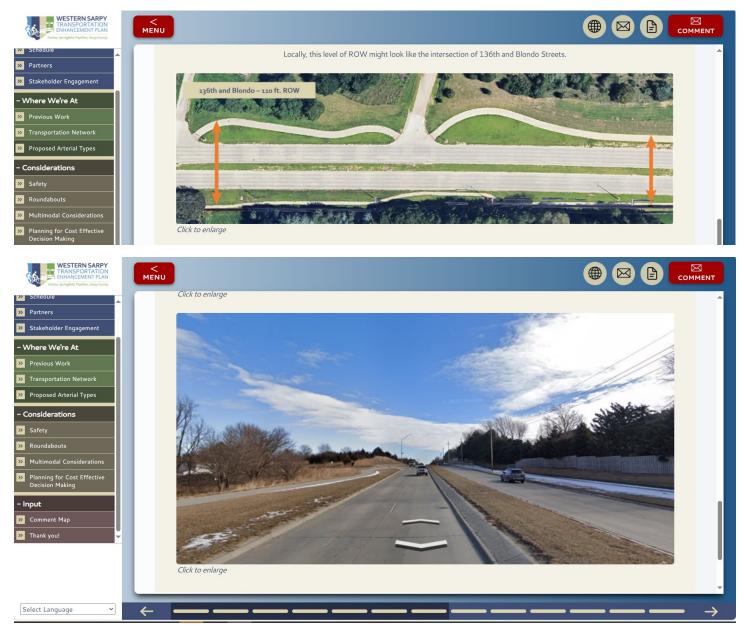




































Pedestrian/Multimodal Considerations

Planning for pedestrian use and other multimodal options for transportation is a major consideration of WE-STEP. The plan considers shared-use paths, sidewalks, and landscaped buffers. The location of a section of roadway in a more urban, suburban, or rural area may influence features such as shared-use paths, sidewalks, landscaped buffers, wider sidewalks with and on-street parking.



A facility for pedestrians and bicyclists that has minimal cross flow with motor vehicles and serves as an extension of the roadway network. They are commonly designed for two-way travel and



Sidewalk

A paved path for pedestrians along the side of the road, narrower than a shared-use path.

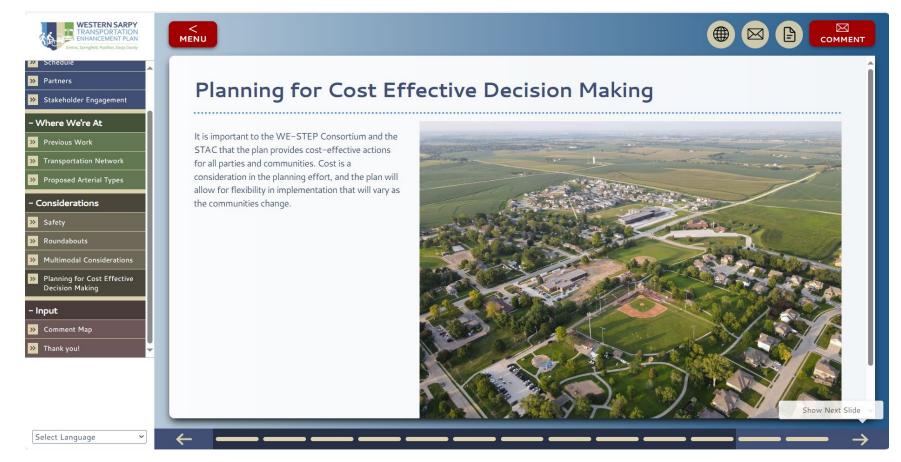


Landscaped Buffer

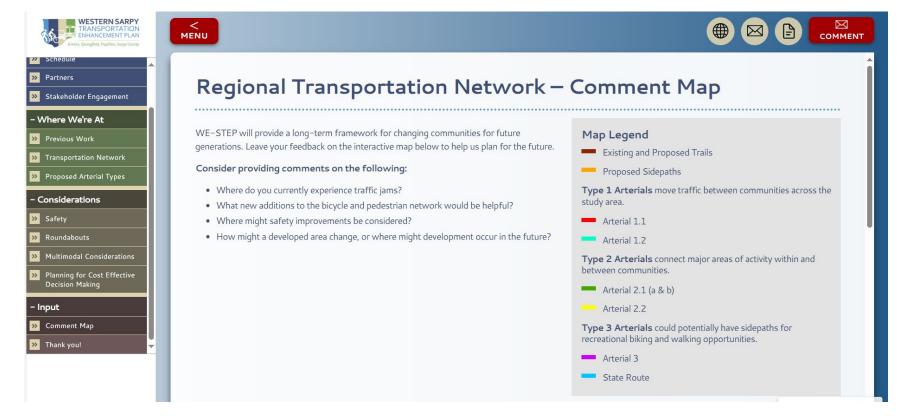
A continuous edge of land along the perimeter street and used as a transition between the roadway and pedestrian facilities. If wide enough they can include street trees or other plantings.

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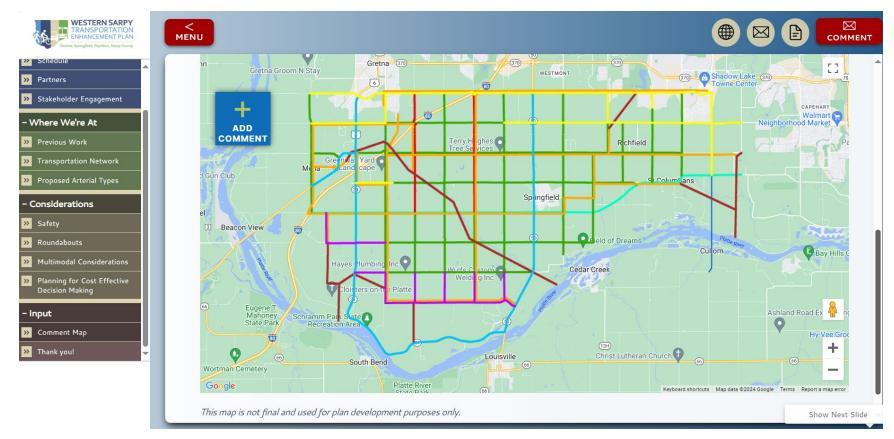




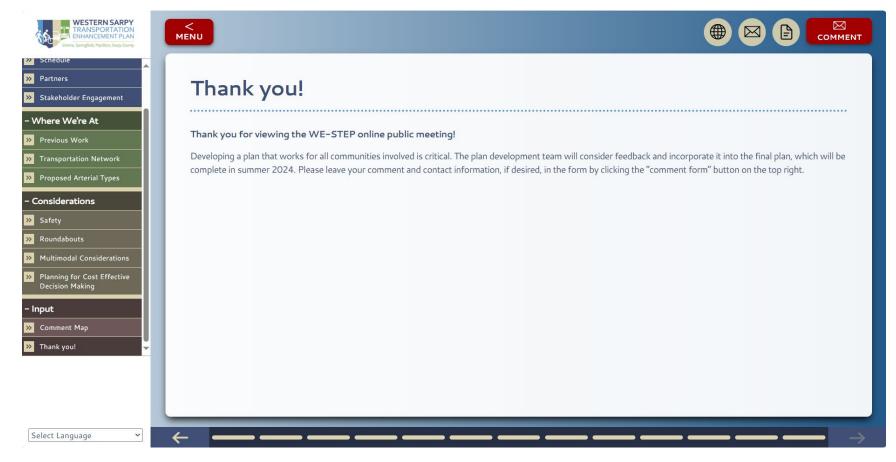














Engagement Appendix 3: Online Public Meeting Comments

Engagement Appendix 3. Onlin		ig comments		
General Comments				
Questionable speed limits and lack of enforcement				
Platteview Road should be a limited access expressway	5			
Shared use path – north side of Platteview Road bet	ween Springfield High Sch	nool and 84 th Street		
Landscaped buffers – unusable land – increased cos	ts to developers, business	owners, and		
homeowners				
Use 4' sidewalks				
Most drivers prefer lights/intersections over roundal				
PEL study – interstate interchange at 192 nd Street –	when will a decision be ma	ade?		
Need a limited access east/west route through the County	5			
Highway 370 used to be a good through east/west, but is not anymore.	9			
Roundabouts are great but need to be big enough to	o allow traffic to flow			
Include landscaping				
No on-street parking				
Traffic is too congested near I-80 interchange between	een Papillion and Gretna –	need better on/off ramp		
Do not develop this part of the county	2			
Need additional lanes on 180 th Street and 192 nd Stre	et to Highway 370 and 168	S th Street		
Bike lanes / additional trails	From Papillion towards Springfield, Louisville, ar westward Papillion to Chalco Hills or Gretna Papillion to the southern side of Bellevue (Capehart Rd) Consider where they connect to Chalco to MoPac trail Chalco to Highway 370 or Highway 6 Highway 370 to the Gretna Outlet Mall Highway 370 to I-80 interchange at 192nd Connections to MoPac trail Between Springfield and Papillion Gretna Crossing Park to Schram Park and east to the Lied Bridge over the Platte River near South Bend. This can then connect to the trail nearby the Lincoln Bike lanes in the street are more helpful than			
	trying to ride on the sidewalk 168th Street from Platteview Road to Highway 370			
Paving	Schram Road from Highway 50 to 168th Street			
	Fairview Road from 84 th Street to 144 th Street.			
It looks like there is a proposed highway through ou on 108 th Street	r farm between Platteview	Road and Mitchell Road		



Add public transportation/bus lanes

Current trail plan goes across private property

192nd Street is classified as an Arterial 1 south to Pflug Road. Shouldn't it extend east from the

intersection?
Reduce the Highway 50 speed limit from Platteview Road to Pflug Road from 50 to 35 MPH

Need turn lanes at West Center Road between Wright Street and 240th Street

Make sure to coordinate with the Sarpy County and Cities Wastewater Agency because new roads are great but not helpful if they go to places with no utilities

Consider a roundabout here

Intersection of 170th Street and Chandler Road Schram Road connection to Highway 6/Highway 31 and 204th Street

192nd Street and Chandler Road – How many lights will be added? Are there going to be turning lanes for property owners? What development do you foresee? Will the speed limit change? It seems like 3 lanes would provide what is needed for this area.

Keep the marked crosswalk across 96^{th} along Hardwood until a multi-use path is complete along Schram Road west of 96^{th}

Sarpy Heights Neighborhood – Would like our neighborhood to stay private and not connect to Schram Road. Speed will be more of an issue with paved roads. We need traffic quieting and low light emitting streetlamps.

The study should address area planning, including industrial zones, air taxi locations, and utilities, and roadways are corridors for these.

Limit wind and solar farms to rural areas outside of the study area to densify and utilized mixed use development.

There are no north/south connections east of 144th Street that are viable for high-speed, high-volume traffic like the Kennedy Freeway at 96th Street from I-80 to Schram Road. Urban core connections are lacking from Eppley to the study area. Consider the transit time from the study area to the airport including Lincoln.

There are no planned east-west connections from Bellevue to Gretna. Traffic will ramp up quicker at the intersection of Highway 75 and Highway 34 with the plans for a casino, waterpark, and hotels than in the Papillion and Springfield area.

Roundabouts will cause more issues then benefits

Cornhusker Road and Highway 31 is very dangerous and the bridge under the train is closed so you can no longer take an alternate route.

The new interchange of I-80 and 192nd Street needs to happen today.

2

The study should address interim improvements, considering ways that do not hinder a corridor's ability to accommodate the ultimate roadway section, while not over building as development enters the areas and drives the need for the improvements.

At 216th and West Gruenther Road – the type of development in this area and the lack of connectivity to Highway 370 calls for a Type 3 arterial rather than a Type 2.

264th Street – with the unlikelihood of 180th Street ever crossing I-80, this would be more appropriate as a Type 3 arterial.

Given road termination before the river and no bridge, these roads would be best likely with an Arterial 3 designation (180th and Platteview Road)

A second priority I-80 interchange should be considered for Platteview Road, particularly for semi traffic.



Schram Road near Papillion was recently widened and paved, with the existing road left intact and the new road built to the south, leaving access to established homes intact and separate from the new road. Please consider this type of build for Capehart Road from 192nd west to Highway 6/31.

North of Capehart Road to Schram Road should be a Type 3 arterial with non-automotive traffic options due to high school, neighborhood, and Gretna Crossing Park/YMCA traffic.

252nd and Harrison Street is a residential property and would create a great deal of issues if these streets or intersections are increased in size. We do not want the increased traffic in these areas.

Consider the width of the roads and the impact construction will have on property and property owners along Platteview Road, specifically between 99th Street and 84th Street. Sidewalks are also not needed along this road. This should be an arterial 3.

There should be a regional public transit network from Omaha to Lincoln via Nebraska Crossing. The intentions for a major mixed use development could make this feasible.



Engagment Appendix 4: Other Public Comments

Contact	Public Comment	Response
Kim Staley kstaley@sappbros.net	Hi, We live on Pflug Rd. Can you tell me know what we can expect? Thank You. Kim	Hi Kim, The majority of this connection would occur in Phase 3 of the Platteview Road Expressway project, which is separate from the broader WE-STEP study. Options to connect I-80 will be determined at a later phase of the study and have not been identified. The project team anticipates evaluating alternatives for that area near Gretna later this year. Public information meetings will be scheduled in the future to share additional information, but the timing of these meetings is yet to be determined. You can find current project information on the Connect Sarpy website, and the Platteview Road Expressway project team will also add you to their mailing and email lists. Please feel free to reach out at any time with questions or concerns to either of the contacts listed below. Zach Hergenrader Sarpy County Public Works 402-537-6917 Chris Malmberg Project Manager 402-399-4959 Thanks, Jim



Engagement Appendix 5: Small Group Stakeholder Meetings

Stakeholder Group	Number of Stakeholders	Meeting Date
Resources and Utilities	6	Friday, April 5
Growth and Development, Data Centers, and Builders/Developers	9	Thursday, April 11
Emergency Response and Logistics/Freight	11	Thursday, April 11
Municipalities, Community Groups, and School Districts	9	Friday, April 12

Letter

Dear [insert contact or organization],

The Western Sarpy County Transportation Enhancement Plan (WE-STEP) Consortium is pleased to invite you to participate in a Stakeholder Workshop for WE-STEP, which will be a strategic transportation plan for western Sarpy County, developed in collaboration with the City of Gretna, City of Papillion, City of Springfield, Sarpy County, and the Metropolitan Area Planning Agency (MAPA). WE-STEP will provide a framework for changing communities to develop for future generations.

The Stakeholder Workshop is designed to present information about plan development, identification of a future regional transportation network and standards that are flexible and can fit with what develops around it. You can also provide feedback on the transportation network and standards in the meeting.

The meeting will be in-person. Your attendance is requested at the following:

Resources and Utilities

- Friday, April 5, 2024
- 1:00 2:30 pm
- Sarpy County Planning & Building 1210 Golden Gate Drive, Papillion, NE 68046

Growth and Development, Data Centers, and Builders/Developers

- Thursday, April 11, 2024
- 10:30 am 12:00 pm
- Sarpy County Planning & Building
 1210 Golden Gate Drive, Papillion, NE 68046

Emergency Response and Logistics/Freight

- Thursday, April 11, 2024
- 1:00 2:30 pm
- Sarpy County Planning & Building 1210 Golden Gate Drive, Papillion, NE 68046



Municipalities, Community Groups and School Districts

- Friday, April 12, 2024
- 1:00 2:30 pm
- Sarpy County Planning & Building
 1210 Golden Gate Drive, Papillion, NE 68046

We look forward to your participation in the Stakeholder Workshop. Please let us know if you or a representative from your organization can join us by contacting Delani Watkins at delani.watkins@hdrinc.com. If you have additional questions, please contact:

Jim Boerner

jboerner@mapacoq.orq

Email

SUBJECT: You're Invited: Western Sarpy County Transportation Enhancement Plan (WE-STEP) Stakeholder Workshop

Dear [insert contact or organization],

The Western Sarpy County Transportation Enhancement Plan (WE-STEP) Consortium is pleased to invite you to participate in a Stakeholder Workshop for WE-STEP, which will be a strategic transportation plan for western Sarpy County, developed in collaboration with the City of Gretna, City of Papillion, City of Springfield, Sarpy County, and the Metropolitan Area Planning Agency (MAPA). WE-STEP will provide a framework for changing communities to develop for future generations.

The Stakeholder Workshop is designed to present information about plan development, identification of a future regional transportation network and standards that are flexible and can fit with what develops around it. You can also provide feedback on the transportation network and standards in the meeting.

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Resources and Utilities

- Friday, April 5, 2024
- 1:00 2:30 pm
- Sarpy County Planning & Building 1210 Golden Gate Drive, Papillion, NE 68046

Growth and Development, Data Centers, and Builders/Developers

- Thursday, April 11, 2024
- 10:30 am 12:00 pm
- Sarpy County Planning & Building 1210 Golden Gate Drive, Papillion, NE 68046

Emergency Response and Logistics/Freight

- Thursday, April 11, 2024
- 1:00 2:30 pm
- Sarpy County Planning & Building



1210 Golden Gate Drive, Papillion, NE 68046

Municipalities, Community Groups and School Districts

- Friday, April 12, 2024
- 1:00 2:30 pm
- Sarpy County Planning & Building 1210 Golden Gate Drive, Papillion, NE 68046

We look forward to your participation in the Stakeholder Workshop. Please let us know if you or a representative from your organization can join us by contacting Delani Watkins at delani.watkins@hdrinc.com. If you have additional questions, please contact:

Jim Boerner

jboerner@mapacog.org

Calendar Invitation

Resources and Utilities

TITLE: Western Sarpy County Transportation Enhancement Plan (WE-STEP) Stakeholder Meeting – Resources and Utilities

DATE/TIME: Friday, April 5 – 1:00 – 2:30 pm

LOCATION: Sarpy County Planning & Building – 1210 Golden Gate Drive, Papillion, NE, 68046

COPY: Thank you for participating in the WE-STEP stakeholder meeting. MAPA, Sarpy County, and the Cities of Gretna, Papillion, and Springfield are working together to develop a strategic transportation plan for western Sarpy County.

We look forward to hearing your perspective and feedback!

Growth and Development, Data Centers, and Builders/Developers

TITLE: Western Sarpy County Transportation Enhancement Plan (WE-STEP) Stakeholder Meeting – Growth and Development, Data Centers, and Builders/Developers

DATE/TIME: Thursday, April 11 – 10:30 am – 12:00 pm

LOCATION: Sarpy County Planning & Building – 1210 Golden Gate Drive, Papillion, NE, 68046

COPY: Thank you for participating in the WE-STEP stakeholder meeting. MAPA, Sarpy County, and the Cities of Gretna, Papillion, and Springfield are working together to develop a strategic transportation plan for western Sarpy County.

We look forward to hearing your perspective and feedback!

Emergency Response and Logistics/Freight

TITLE: Western Sarpy County Transportation Enhancement Plan (WE-STEP) Stakeholder Meeting – Emergency Response and Logistics/Freight

DATE/TIME: Thursday, April 11 - 1:00 - 2:30 pm

LOCATION: Sarpy County Planning & Building – 1210 Golden Gate Drive, Papillion, NE, 68046



COPY: Thank you for participating in the WE-STEP stakeholder meeting. MAPA, Sarpy County, and the Cities of Gretna, Papillion, and Springfield are working together to develop a strategic transportation plan for western Sarpy County.

We look forward to hearing your perspective and feedback!

Municipalities and School Districts

TITLE: Western Sarpy County Transportation Enhancement Plan (WE-STEP) Stakeholder Meeting – Municipalities, Community Groups and School Districts

DATE/TIME: Friday, April 12 – 1:00-2:30 pm

LOCATION: Sarpy County Planning & Building – 1210 Golden Gate Drive, Papillion, NE, 68046

COPY: Thank you for participating in the WE-STEP stakeholder meeting. MAPA, Sarpy County, and the Cities of Gretna, Papillion, and Springfield are working together to develop a strategic transportation plan for western Sarpy County.

We look forward to hearing your perspective and feedback!



Engagement Appendix 6: Stakeholder List

Category/Notes	Stakeholder	Contact	Email	Phone Number	Address	City	State	Zip
Resources	Sarpy Sewer Agency	Dan Hoins	danh@sccwwa.org	402-593-2347	1210 Golden Gate Dr	Papillion	NE	680
	South South Materials Double of the MDD	Les Characatt	papadmin@papionrd.org	402 444 6222	0004 6 45 411 61	0	NE	604
Resources Jtilities	South Sarpy Watershed Partnership/NRD OPPD	Ian Ghanavati Matt Core	<pre>ighanavati@papionrd.org https://ww3.oppd.com/contact-</pre>	402-444-6222 n 531-226-3515	8901 S 154th St	Omaha	NE	681
Jtilities	OPPD	Water conc	neepsi, / www.oppu.com, contact	<u> </u>				
Jtilities	OPPD	Michaela Valentine	mvalentin@oppd.com					
Jtilities	MUD	Cory Erspamer	cory erspamer@mudnebr.com					
Jtilities	MUD	Mike McGowan	boardemails@mudnebr.com					
Jtilities	Black Hills Energy	Dustin Snyder	dustin.snyder@blackhillscorp.co	<u>r</u> 402-949-2266	11526 Valley Ridge Rd	Papillion	NE	680
Transportation Agency	Nebraska Department of Transportation	Damion Stern	damion.stern@nebraska.gov					
					4425 South 108th St			
Fransportation Agency	Nebraska Department of Transportation	Curtis Nosal	curtis.nosal@nebraska.gov	402-595-2534	PO Box 45461	Omaha	NE	681
) .: ! .d /Dd	AAODA	Jaylene Eilenstine	jaylene@moba.com	402 222 2000	2027 C 450th Pl- 0t- 250	0	NE	604
Builders/Developers	MOBA	Mark Westergard	mark@moba.com	402-333-2000	2637 S 158th Plz Ste 250	Omaha	NE	681
Builders/Developers	Laura Osborn Realty	Laura Osborn	laura@lauraosbornrealty.com					
Data Centers	Meta/Facebook Data	Stephanie Seger	stephanieseger@meta.com					
Pata Centers	Google Data	Matt Sexton	mattsexton@google.com					
Oata Centers	Yahoo Data	John Branigan	braniganj@yahooinc.com					
rowth and Development	Grow Sarpy	Lisa Scheve	Ischeve@selectgreateromaha.co	<u>n</u> 402-233-7155	808 Conagra Dr, Ste 400	Omaha	NE	68
rowth and Development	Sarpy Chamber of Commerce	Karen Gibler	president@sarpychamber.org	402-339-3050	1243 Golden Gate Dr, Ste 1	Papillion	NE	680
rowth and Development	Springfield Business Association		welovesba@gmail.com	402-689-9794	PO Box 185	Springfield	NE	680
Growth and Development	Papillion Historic Downtown Business Association	Joe Hunter	https://papilliondba.com/contac	t-us/				
Growth and Development	Gretna Area Chamber of Commerce		info@gretnachamber.com	402-332-3535	798 Village Square	Gretna	NE	680
mergency Response	Sarpy County Sheriff's Office	Tori Boldt	tboldt@sarpy.gov	402-593-2288	8335 Platteview Road	Papillion	NE	680
mergency Response	Sarpy County Emergency Response Agency	Jesse Eret	sarpyema@sarpy.gov	402-593-5785	1210 Golden Gate Drive Suite 1310	Papillion	NE	680
Emergency Response	Papillion Fire Department	Robb Gottsch	rgottsch@papillion.org	402-339-8617	10727 Chandler Road	La Vista	NE	681
mergency Response	Papillion Police Department	Christiaan E. Whitted	PoliceChief@papillion.org	402-597-2035	1000 E 1st Street	Papillion	NE	680
mergency Response	Springfield Volunteer Fire Department	Bob Engberg	bobengberg@yahoo.com	402-253-2600	505 S 1st St	Springfield	NE	080
mergency Response	Gretna Fire & Rescue	Rod Buethe	firechief@cityofgretna.com	402.660.4644	21825 Capehart Rd	Gretna	NE	680
ogistics/Freight	Werner Trucking	nou buchie	https://www.werner.com/conta		14507 Frontier Rd	Omaha	NE	68:
ogistics/Freight	Claas	Matt Ristow	matt.ristow@claas.com	402-861-1000	8401 S 132nd St	Omaha	NE	68:
ogistics/Freight	R&R Nebraska Division	Mike Homa	Rupprecht.Paul@RRRealty.com.		8881 West Dodge Road, Suite 100 We		NE	680
ogistics/Freight	HRC Industrial West, LLC	Dave Vogtman	dave.vogtman@thehomecompa	<u>n</u> 402-537-5801	6900 Westown Parkway	West Des N	ΛΙΑ	502
ogistics/Freight	Amazon Distribution	Jason Vangalis	vangalis@amazon.com		11650 S 154th St	Omaha	NE	683
N unicipalities	City of Bellevue	Harrison Johnson	harrison.johnson@bellevue.net	402-293-3000	1500 Wall St	Bellevue	NE	680
1unicipalities	City of Bellevue	Jim Ristow	jim.ristow@bellevue.net					
Municipalities	City of Omaha	Derek Miller	derek.miller@cityofomaha.org	402-444-5150	1819 Farnam St, Suite 1100	Omaha	NE	683
1unicipalities	City of La Vista	Joe Soucie	jsoucie@cityoflavista.org	402-331-8927	9900 Portal Road	La Vista	NE	68:
community Group	ROAM (formerly Heartland BCycle)	Benny Foltz	benny@roamshare.org	402-350-0421				
chool Districts	Papillion - La Vista Community Schools	Dr. Andrew Rikli	andrew.rikli@plcschools.org	402-537-6200	420 S. Washington Street	Papillion	NE	680
chool Districts	Springfield-Platteview Community Schools	Dr. Ryan Saunders	ryan.saunders@spcsne.org	402-592-1300	765 Main St	Springfield	NE	68
chool Districts	Gretna Public Schools	Travis Lightle	tlightle@gpsne.org	402-332-3265	11717 South 216th St	Gretna	NE	68
School Districts	Metropolitan Community College Jennifer Peters Dustin Crouch	Stan Horrell	SHorrell@mccneb.edu	531-622-2532				



Engagement Appendix 7: Small Group Stakeholder Meetings

<u> </u>	1 1 / 1	
Meeting	Attendees	
Resources, Utilities, and Transportation Agencies	South Sarpy Watershed Partnership/NRD	Ian Ghanavati
	MUD	Cory Erspamer
Growth and Development, Data Centers, and Builders/Developers	MOBA	Mark Westergard
	Grow Sarpy	Lisa Scheve
	Sarpy Chamber of Commerce	Karen Gibler
Emergency Response and Logistics/Freight	Sarpy County Sherriff's Office	Tori Boldt
	Sarpy County Emergency Response Agency	Jesse Eret
	Papillion Fire Department	Robb Gottsch
	Gretna Fire & Rescue	Rod Buethe
	City of Omaha	Derek Miller
Municipalities,	City of La Vista	Joe Soucie
Community Groups, and School Districts	Heartland Bike Share	Benny Foltz
	Gretna Public Schools	Travis Lightle
	Metropolitan Community College	Stan Horrell
Virtual	Black Hills Energy	Dustin Snyder
	Laura Osborn Realty	Laura Osborn
	Google Data	Matt Sexton
	Yahoo Data	John Branigan
	Class	Matt Ristow
	Amazon Distribution	Jason Vangalis
	Black Hills Energy	Jennifer Peters
	Amazon Distribution	Dustin Crouch



Engagement Appendix 8: Small Group Stakeholder Meeting Materials



Virtual Stakeholder Meeting
May 2, 2024

Welcome

Please type your name and organization in the chat

Introductions

Agenda

- Study Background & Objectives
- Study Schedule
- Where We're At
 - Previous Work
 - Regional Transportation Network
 - Corridors of the Future
- Network Planning Considerations
 - Safety
 - Roundabouts
 - Pedestrian / Multimodal Considerations
 - Planning for Cost Effective Decision Making
- Q&A / Feedback

Mentimeter

Visit menti.com and enter input code 3915 4789 to start the live poll

OR

Scan the QR code



Study Background & Objectives

Study Area

- The Western Sarpy County Transportation Enhancement Plan (WE-STEP) is a strategic transportation plan for Western Sarpy County
- Partnership between Gretna, Papillion, Springfield, Sarpy County, and the Metropolitan Area Planning Agency (MAPA)
- Partner agencies will develop a unified framework for the coordination of future transportation improvements



Coinciding Planning Efforts

- WE-STEP draws upon the goals identified in coinciding planning efforts from all agencies involved, including:
 - 2050 Long Range Transportation Plan (LRTP) MAPA
 - Gretna Comprehensive Plan
 - Papillion Comprehensive Plan
 - Springfield Comprehensive Plan
 - Sarpy County Planning











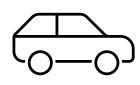
Plan Considerations



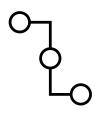
Future development projections



Land use



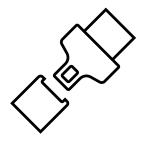
Traffic demand



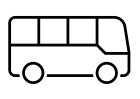
Connectivity



Roadway design



Safety



Transit



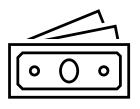
Alternative modes of transportation



Pedestrian amenities



Environmental considerations



Costs

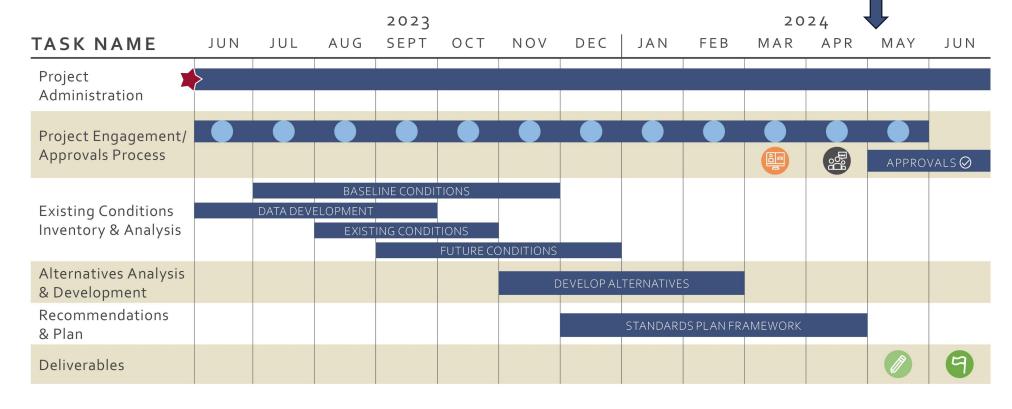
Plan Goal

Provide a flexible framework for changing communities to facilitate a connected and consistent future transportation network for all users, beyond what the existing transportation system in the area can offer.

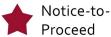
Study Schedule

Schedule

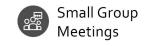
Currently finalizing options for future street standards



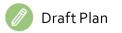














Where We're At

Previous Work

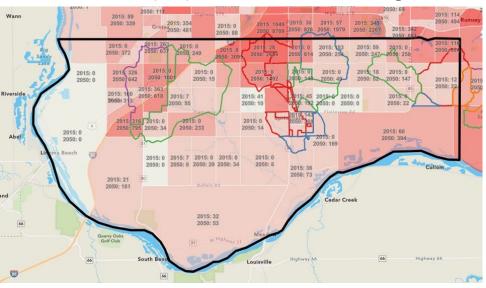
Previous Work

- Reviewed past studies and plans from each jurisdiction
- Considered long-term needs for 2050 and beyond (50+ years)

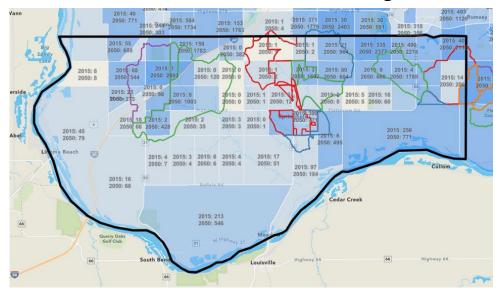
Forecasted Traffic Volume Growth (through 2050)



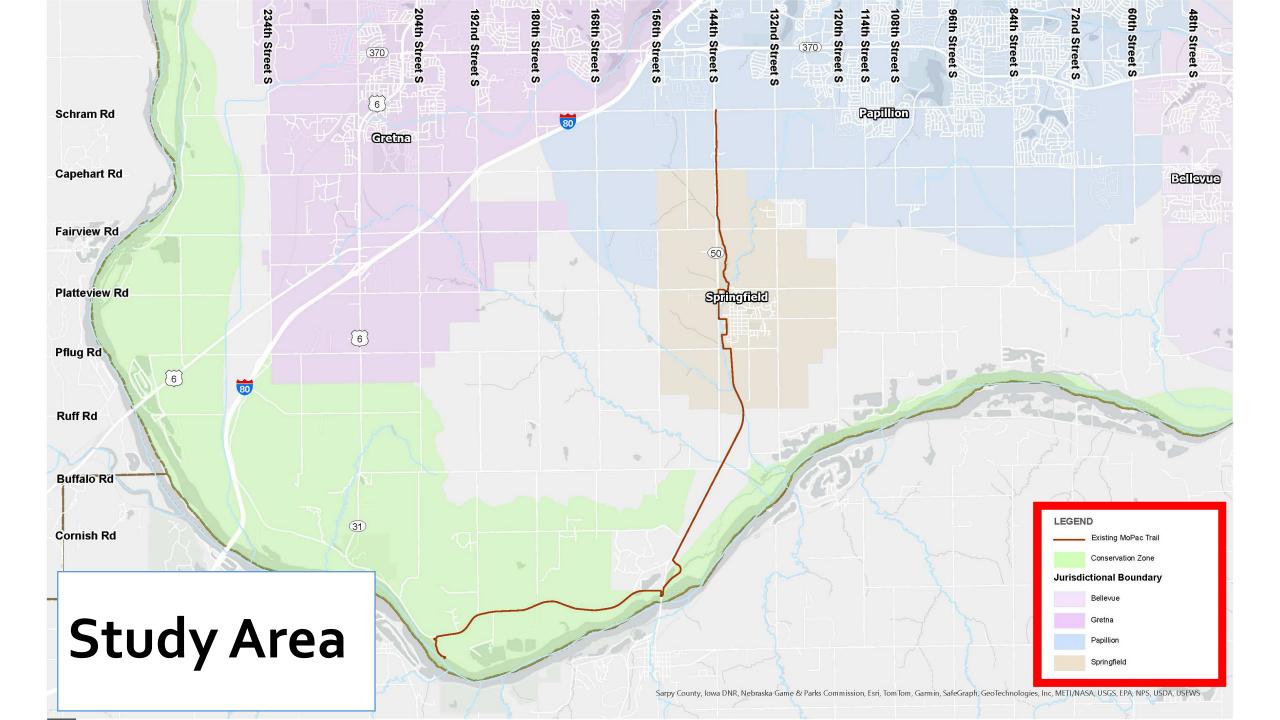
Forecasted Employment Growth (through 2050)

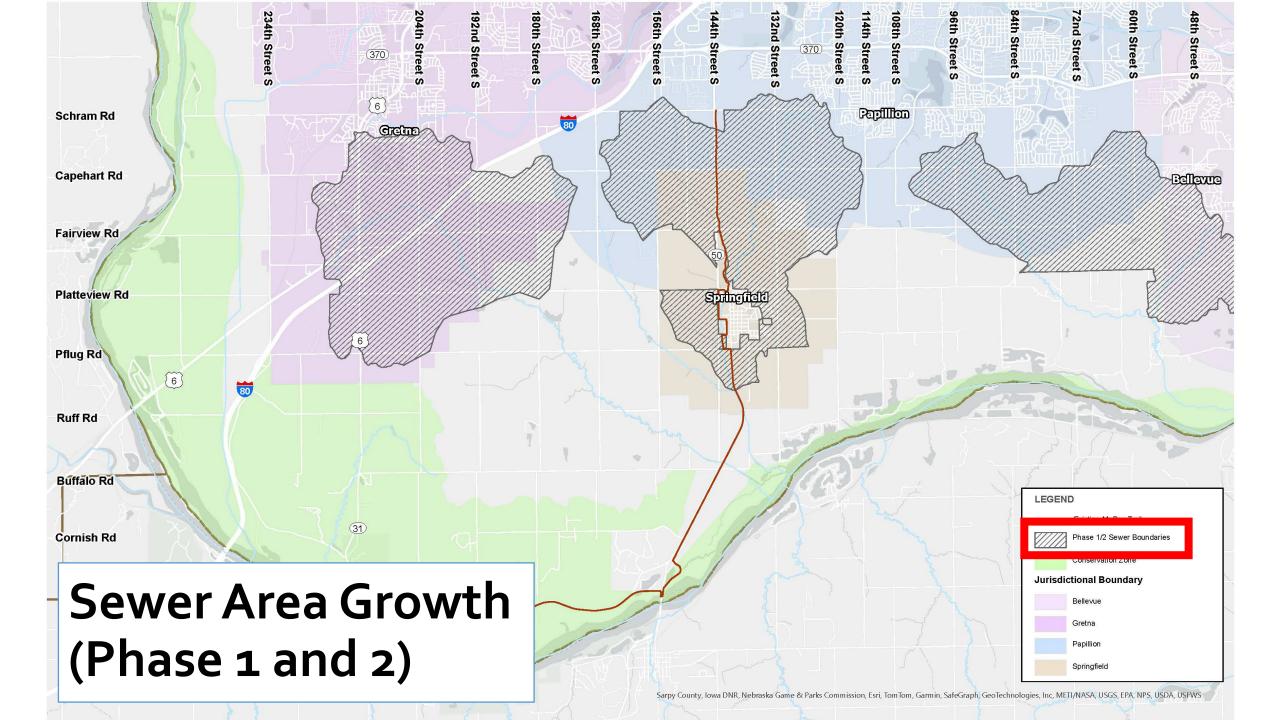


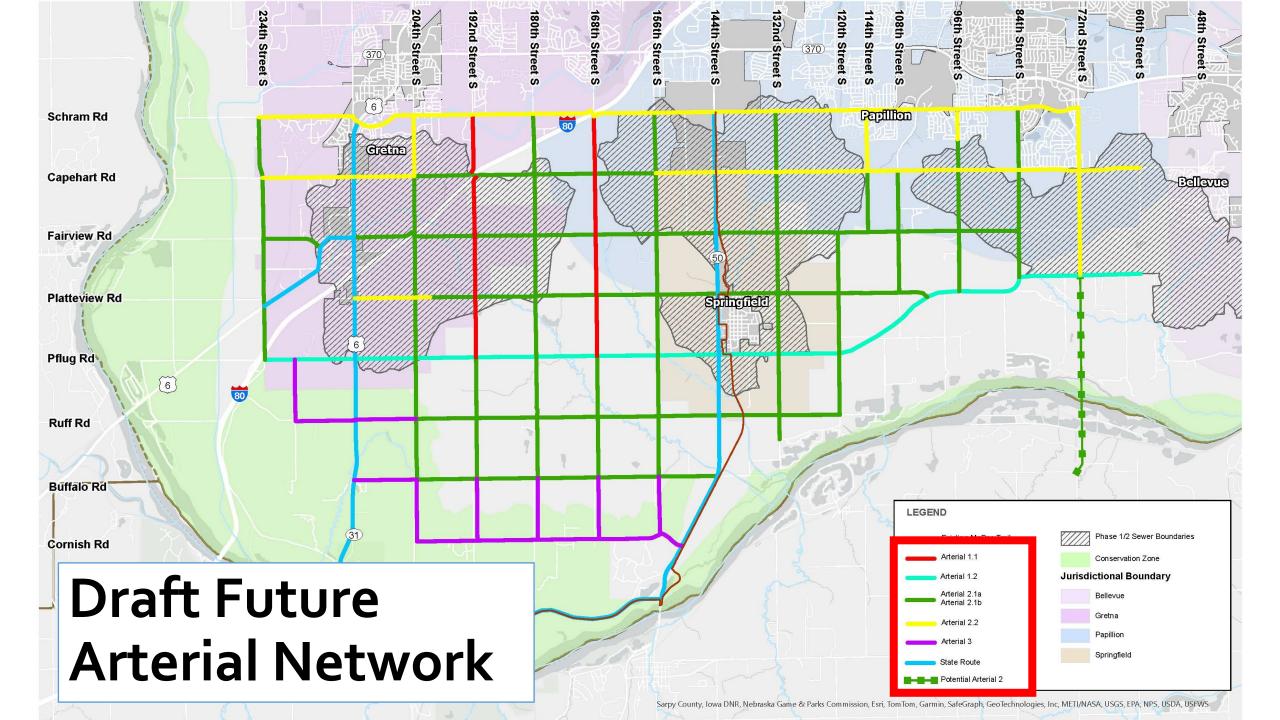
Forecasted Household Growth (through 2050)

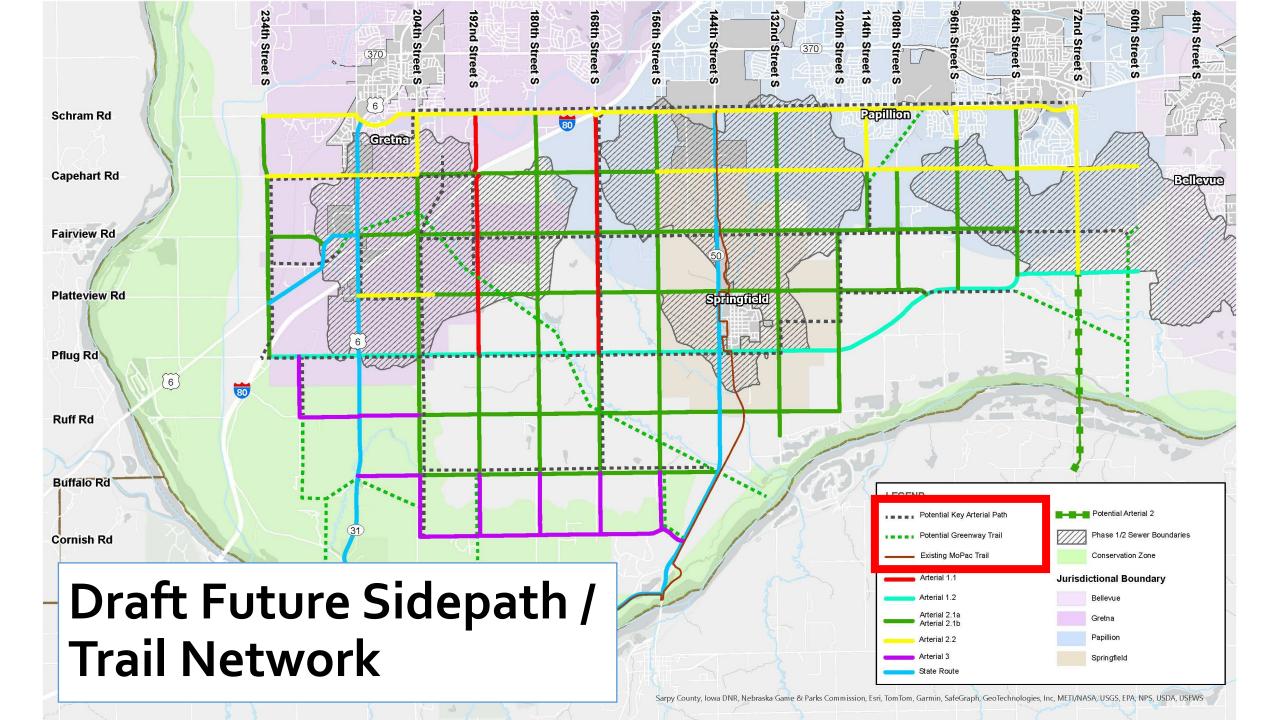


Regional Transportation Network



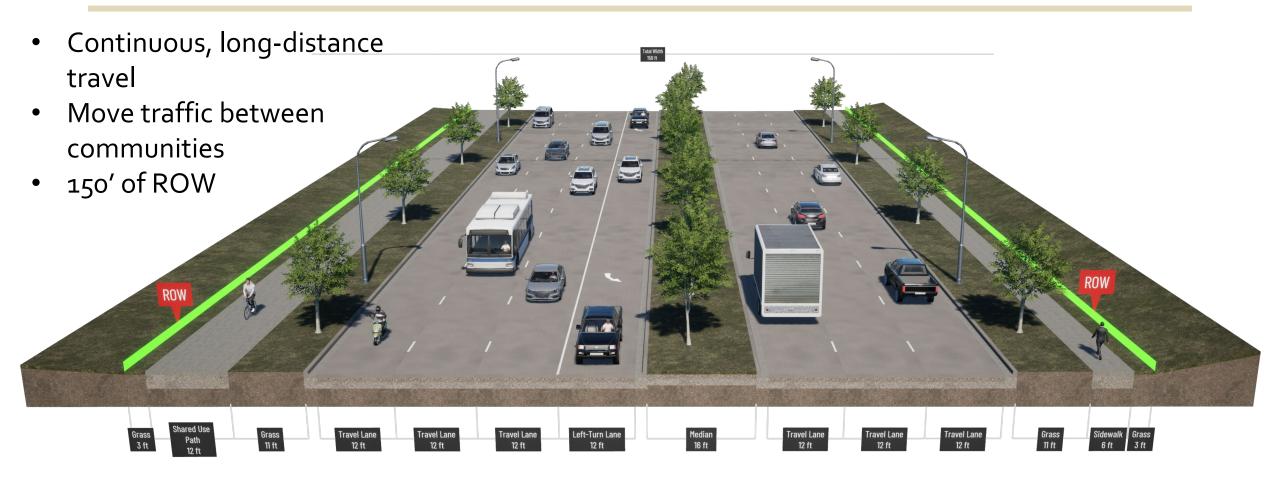




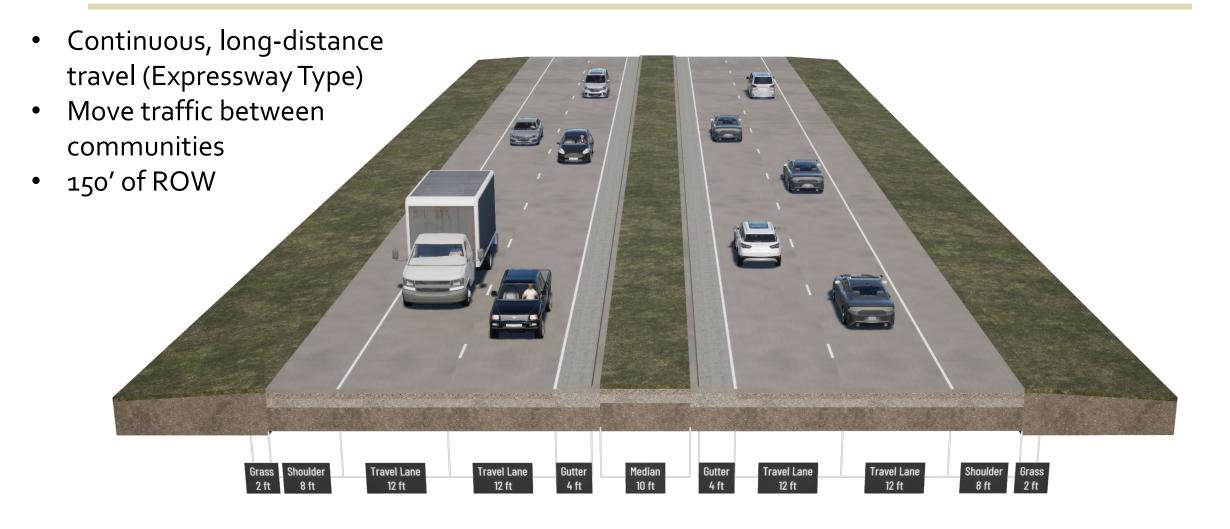


Corridors of the Future

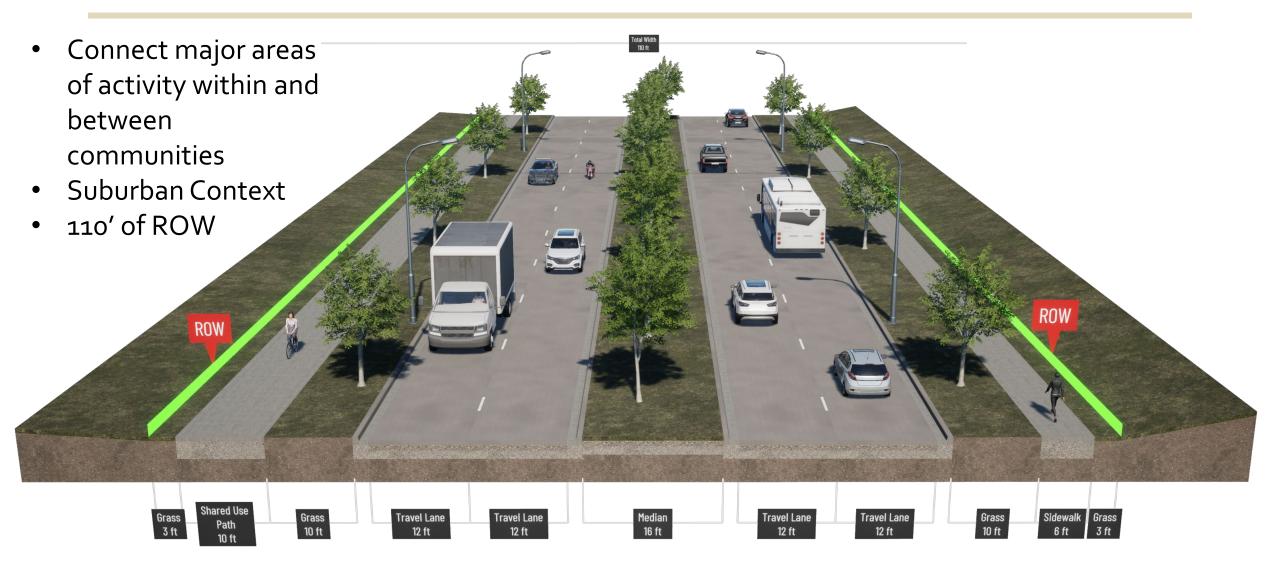
Type 1.1 Arterial (Ultimate Build)



Type 1.2 Arterial (Ultimate Build)

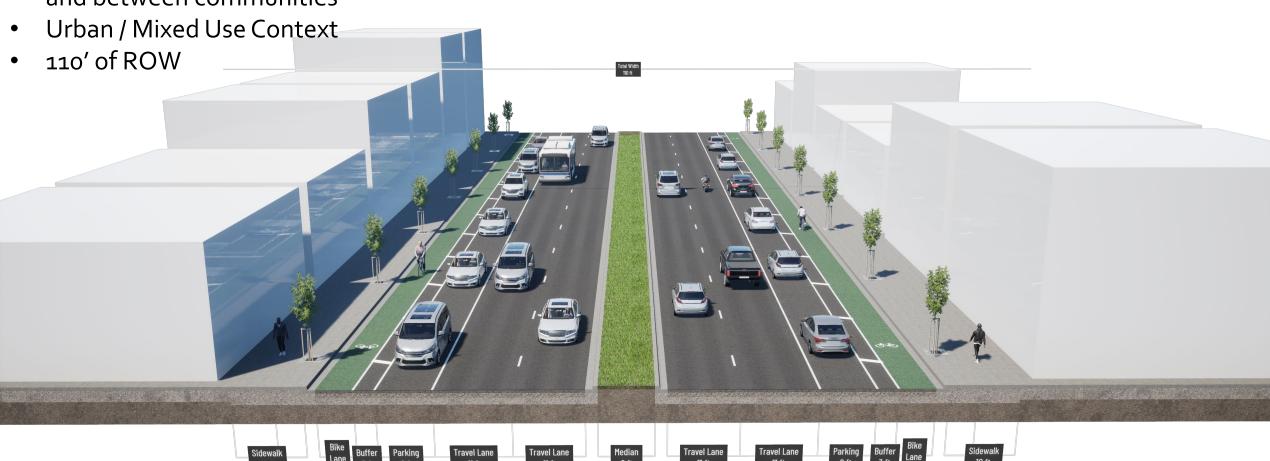


Type 2.1a Arterial (Ultimate - Suburban)

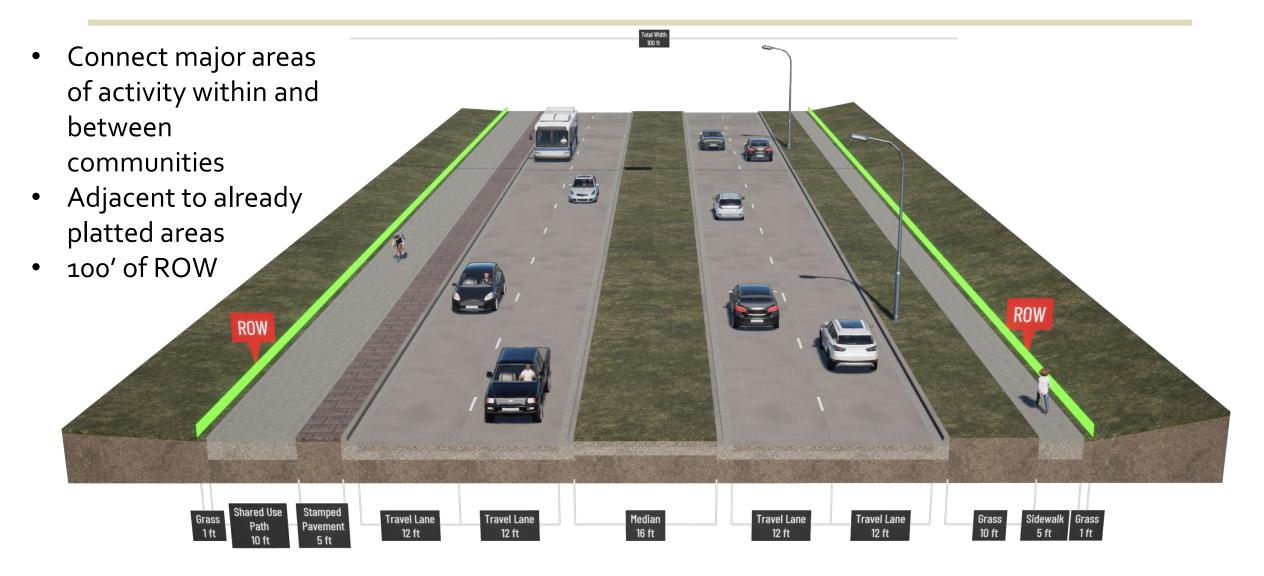


Type 2.1b Arterial (Ultimate Build – Urban Mixed Use)

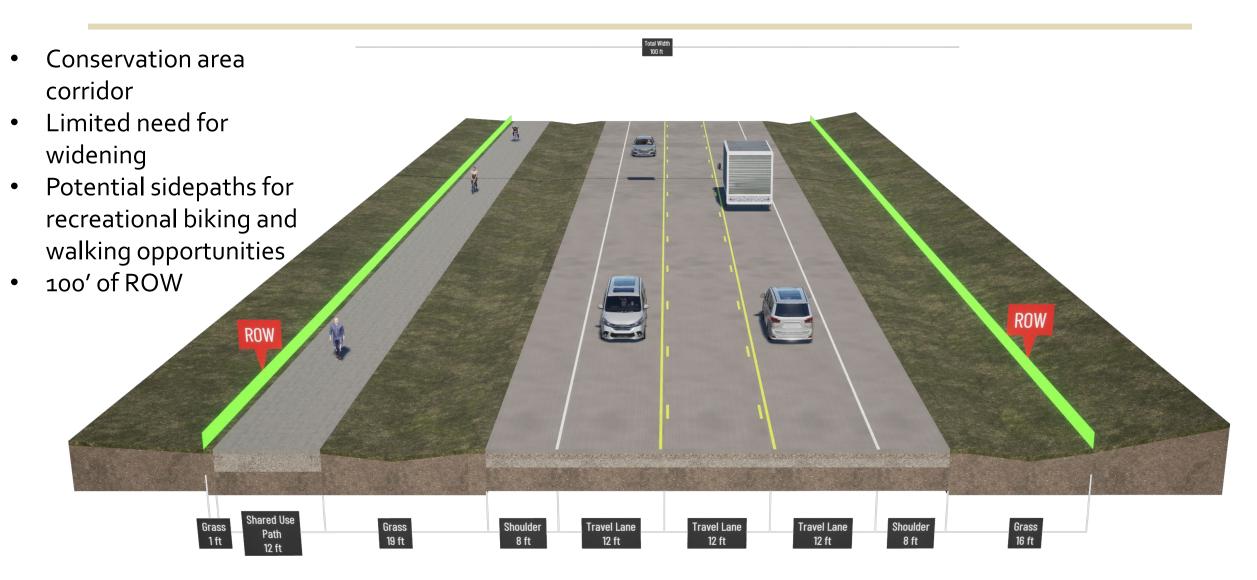
 Connect major areas of activity within and between communities



Type 2.2 Arterial (Ultimate)

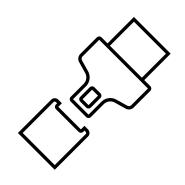


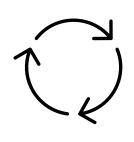
Type 3 Arterial (Ultimate)



Network Planning Considerations

Network Planning Considerations









Safety

Roundabouts

Pedestrian / Multimodal Considerations Planning for Cost Effective Decision Making

Safety



Crashes occur more frequently at intersections or access points



A raised median is safer for all users of the transportation network



High speed vehicle traffic does not create a safe space for pedestrians and bicyclists

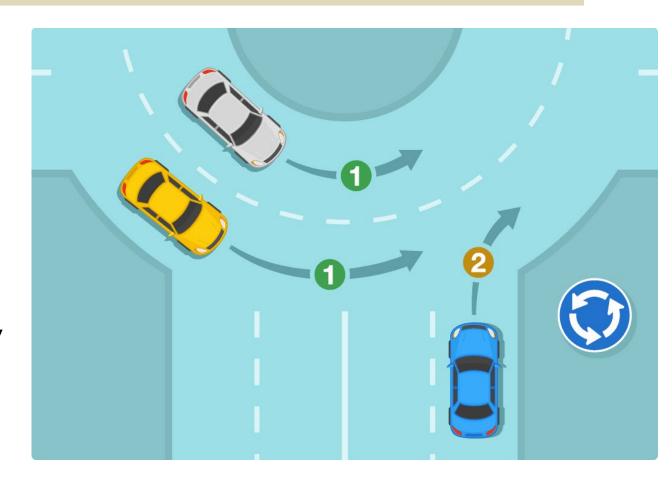


Roundabouts are safer than signalized intersections in most instances

Roundabouts

Roundabouts

- Roundabouts considered where feasible
- Roundabout features:
 - Long-term cost-effective compared to traffic signals
 - Improved safety for all users, reducing all crashes by 33% and fatal and serious injury crashes by 80% compared to signals
 - Continuous traffic flow and can reduce congestion



Pedestrian / Multimodal Considerations

Pedestrian / Multimodal Considerations

- Planning for pedestrian use and other multimodal options for transportation
 - Shared Use Path
 - Sidewalk
 - Landscaped Buffer
- The location of a section of roadway in a more urban, suburban, or rural area may influence availability of these features and on-street parking

Shared Use



Sidewalk



Landscaped Buffer



Planning for Cost Effective Decision Making

Planning for Cost Effective Decision Making

- It is important to the partner agencies that the plan provides costeffective actions for all agencies
- Cost is a consideration in the planning effort
- The plan will allow for flexibility in implementation that will vary as communities change



Q&A / Feedback

Mentimeter

Visit menti.com and enter input code 3915 4789 to start the live poll

OR

Scan the QR code



Thank you!



Engagement Appendix 9: Small Group Stakeholder Meetings Mentimeter Results

Instructions

Go to

www.menti.com

Enter the code

1545 9260



Or use QR code

In a few words, describe your vision for the future of western Sarpy County.

5 responses

```
friendly plush
booming
transformative
multi faceted
```

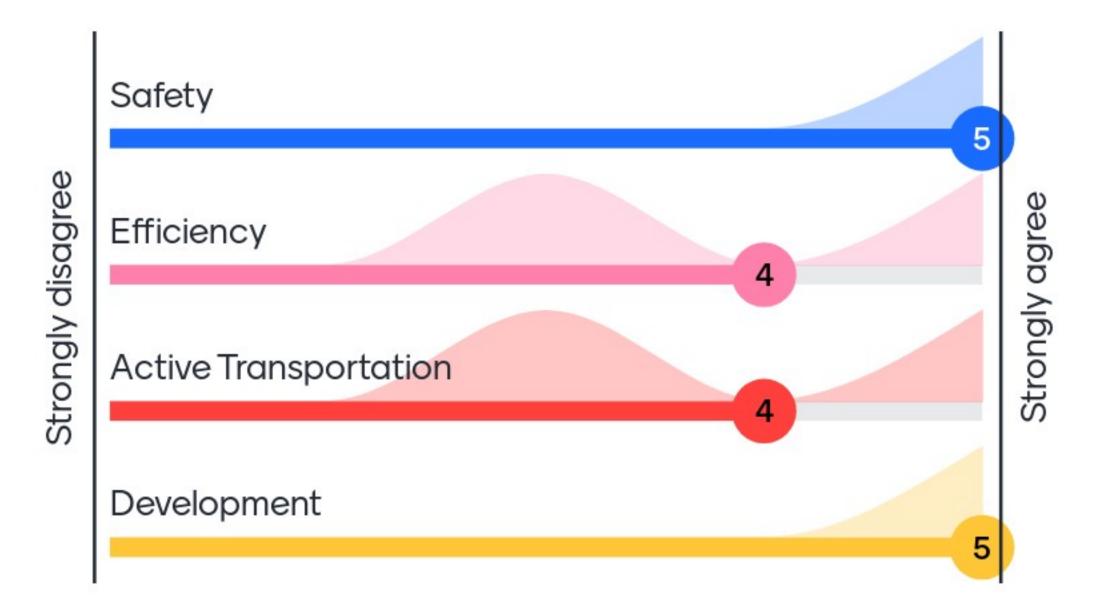


Share an example of how transportation connectivity affects you or your organization.

Can be a barrier for growth as it relates to moving workforce around the county.

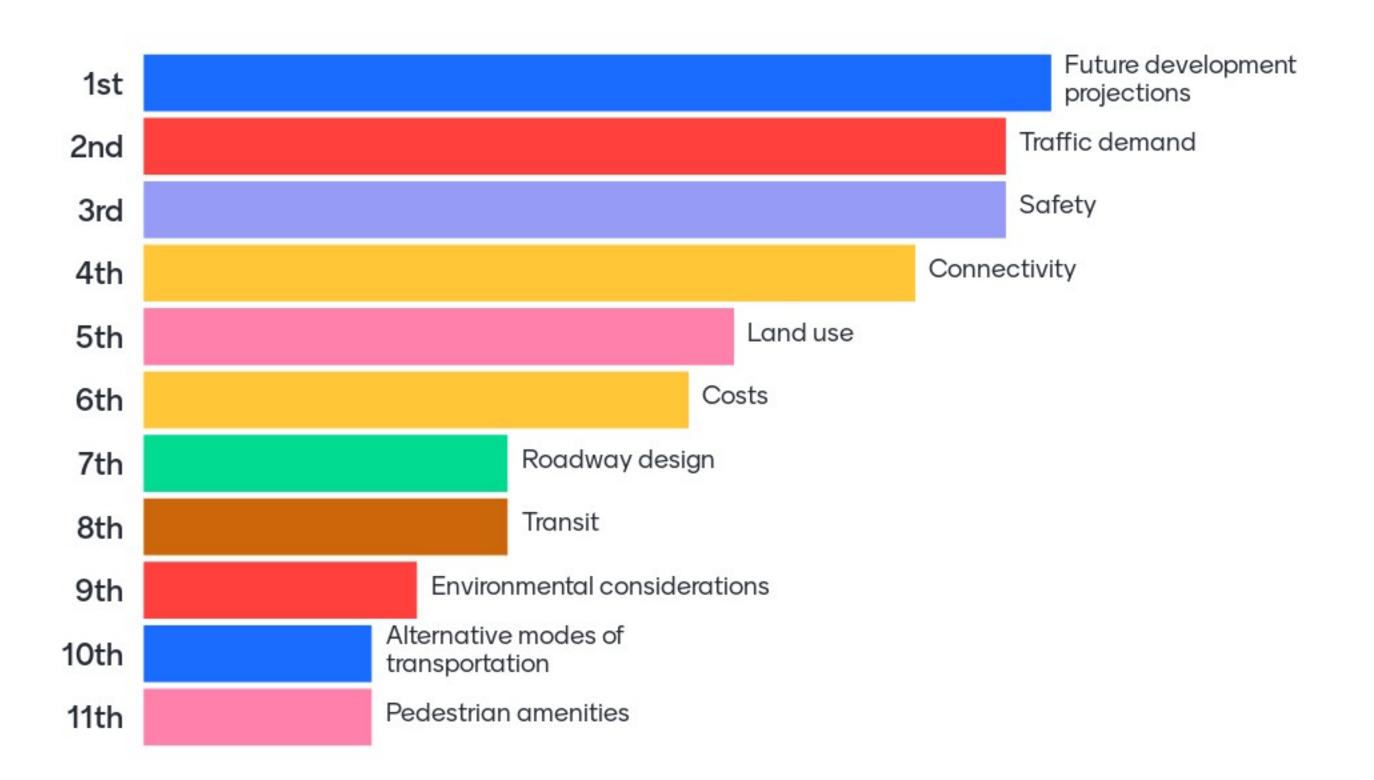
Timeliness and efficient

Please rank the following goal areas of WE-STEP by their level of importance to you or your organization.



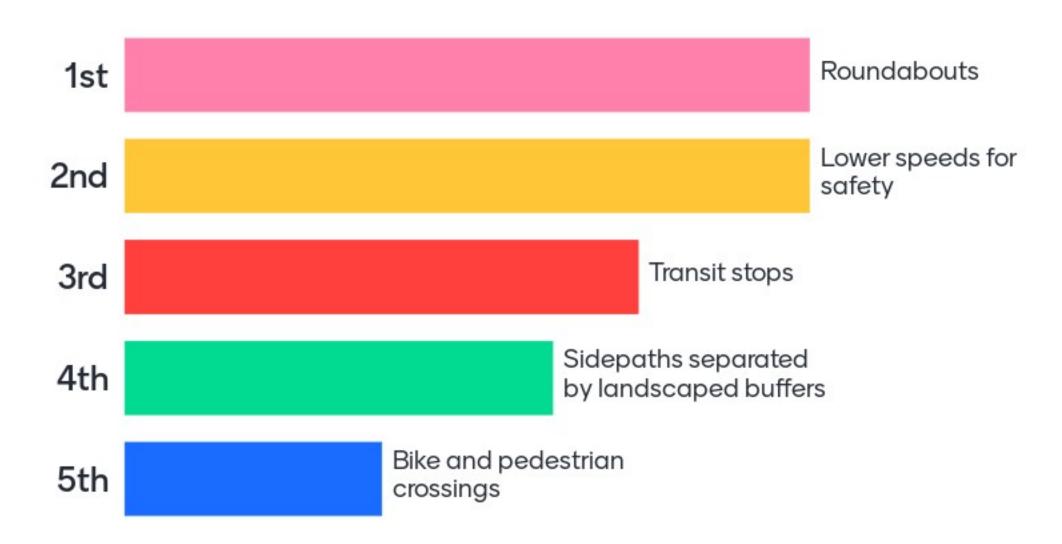


Please rank the considerations of WE-STEP in order of their importance to you or your organization.





Please rank the elements included in WE-STEP standards in order of their importance to you or your organization.



Instructions

Go to

www.menti.com

Enter the code

7186 7956



Or use QR code

In a few words, describe your vision for the future of western Sarpy County.

5 responses

```
profitable populated growing concerning inclusive
```

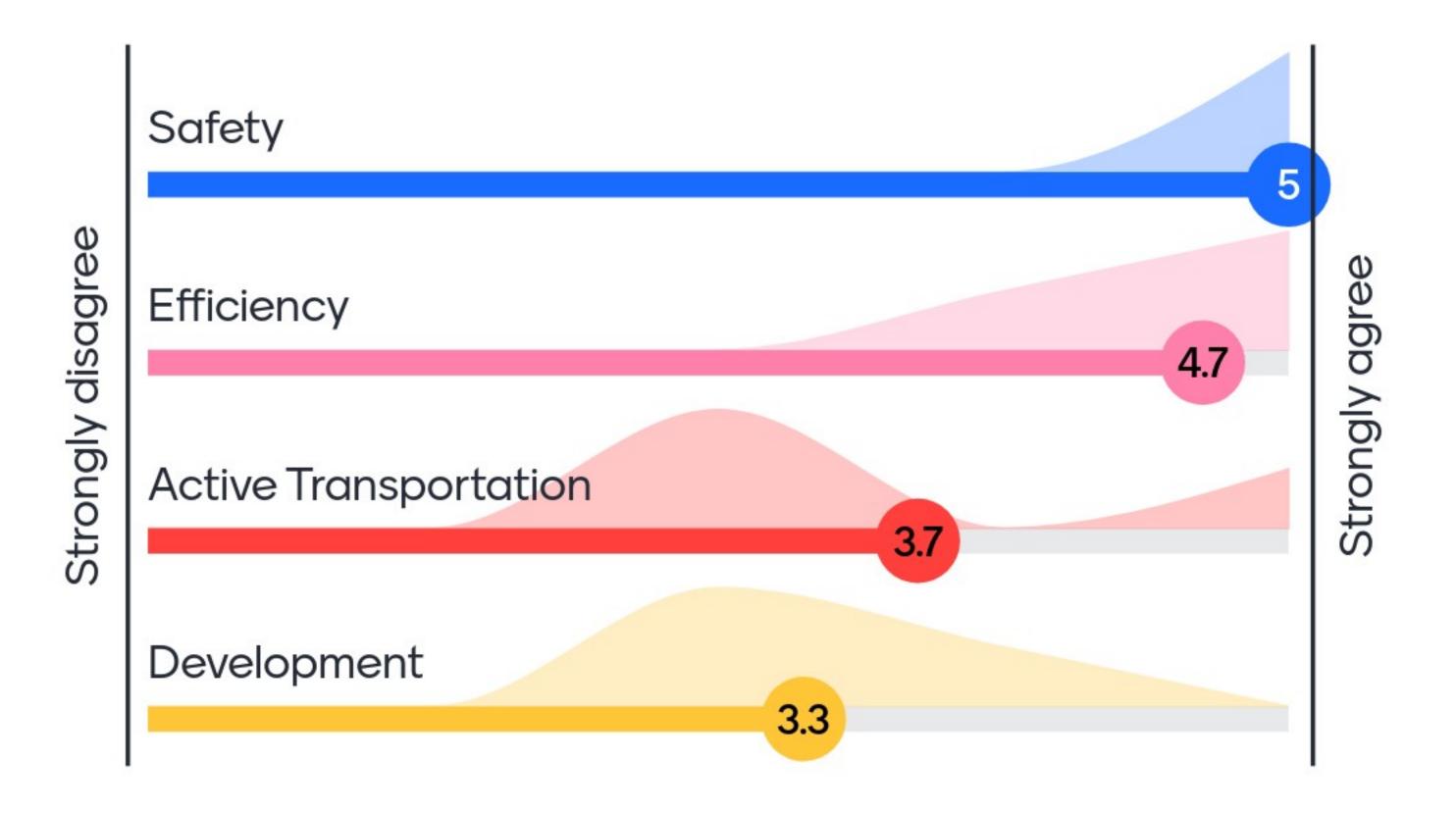


Share an example of how transportation connectivity affects you or your organization.

Traffic flow and pedestrian safety along with emergency response accessibility are the primary concerns for the SCSO.

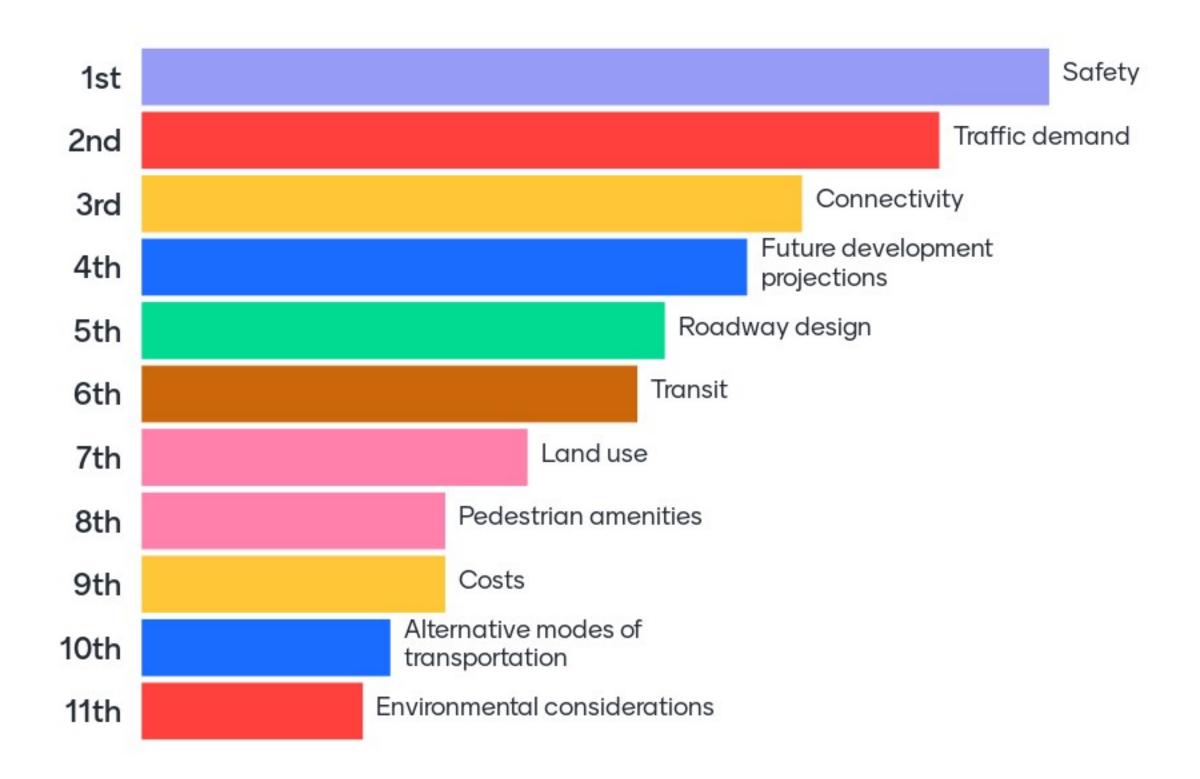
Delay response, access to developments

Scales



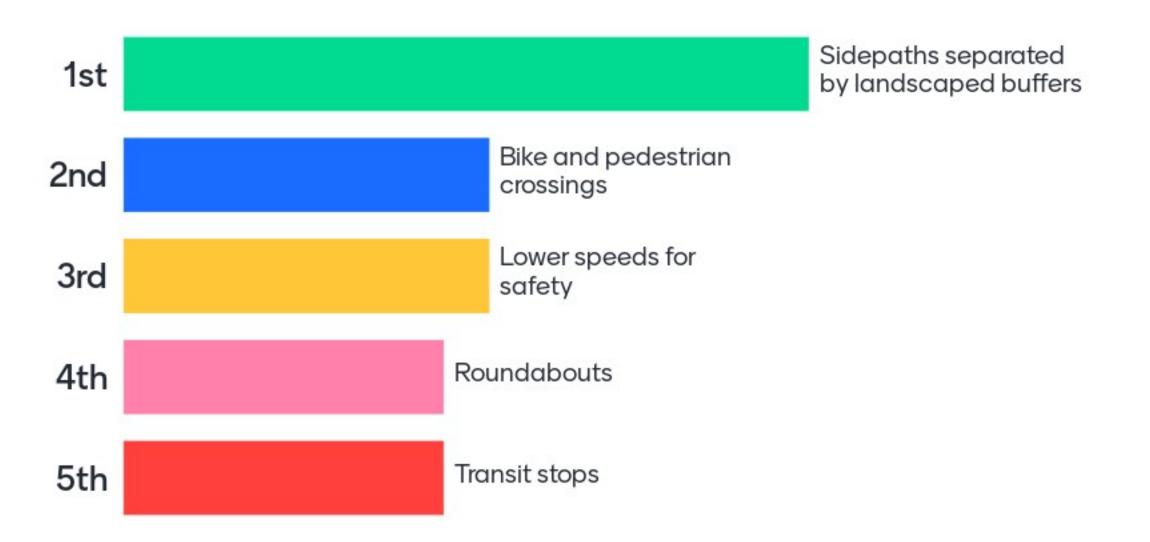


Please rank the considerations of WE-STEP in order of their importance to you or your organization.





Please rank the elements included in WE-STEP standards in order of their importance to you or your organization.



Instructions

Go to

www.menti.com

Enter the code

8749 3195



Or use QR code



In a few words, describe your vision for the future of western Sarpy County.

14 responses



Share an example of how transportation connectivity affects you or your organization.

Quality of life

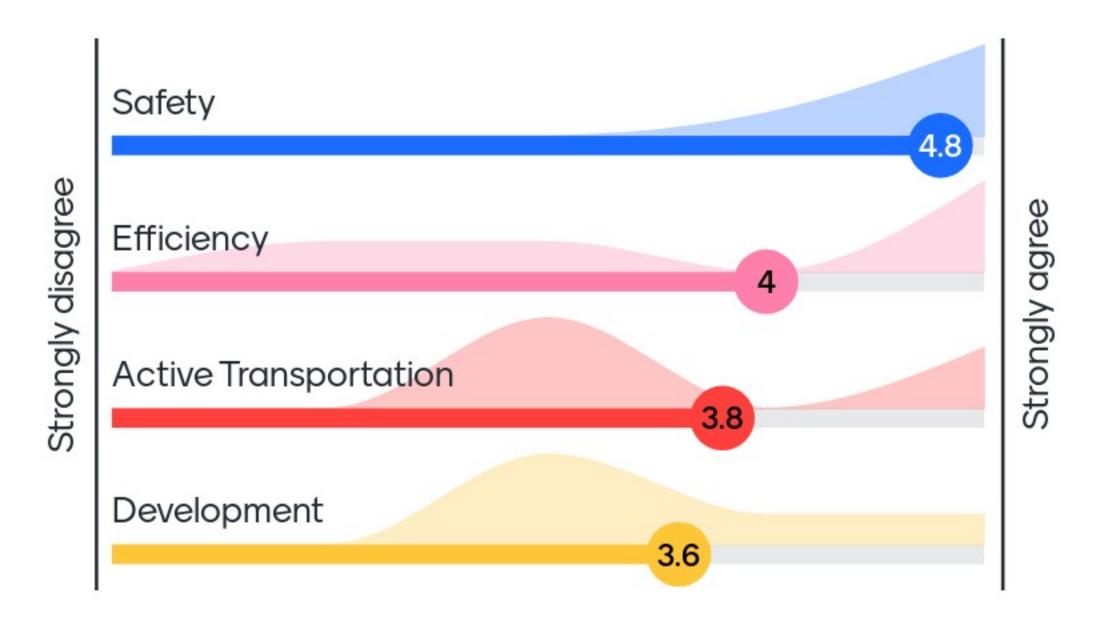
Bussing schedules

We operate the bike share program and want to be able to provide bike share as a safe active transportation option across the entire county.

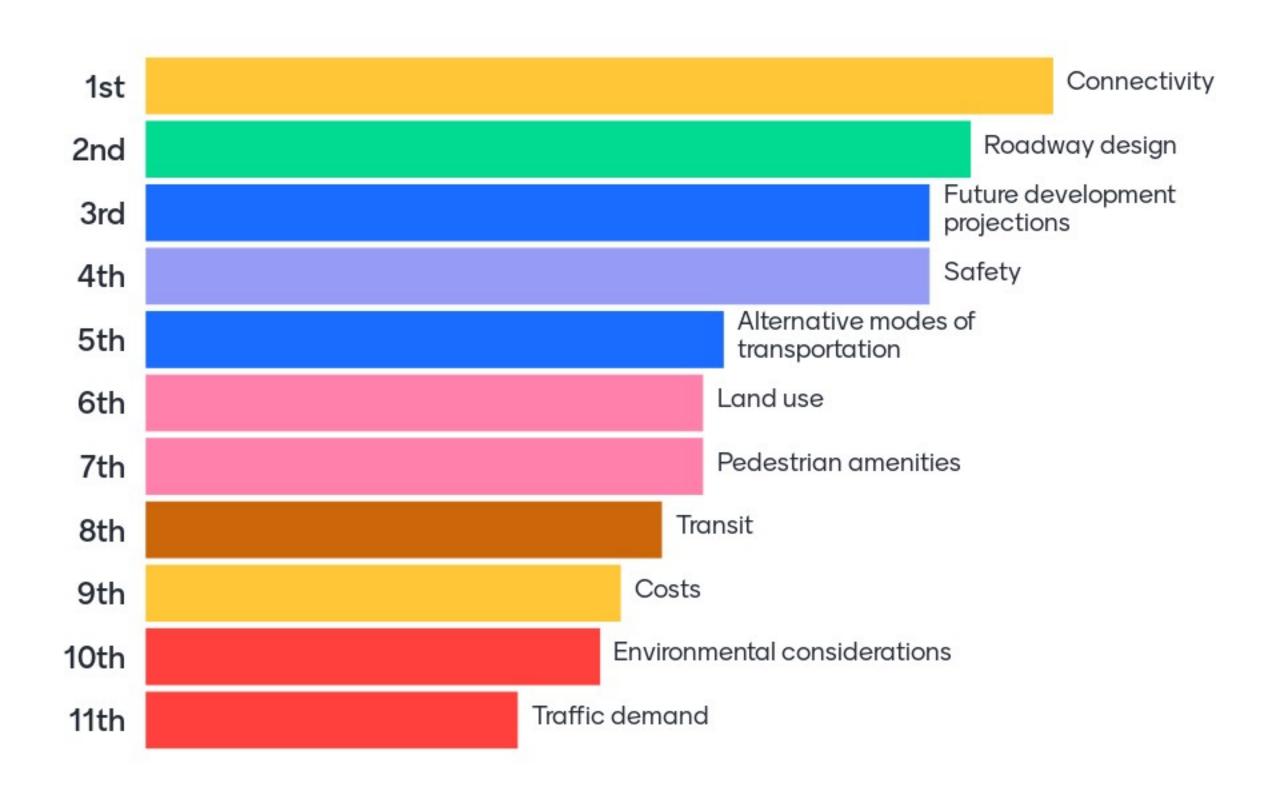
Take a lot of throughput traffic /shortcomings of other transportation networks.

As a utiltiy we are often challenged to find space.
Consistency is much easier to work through.

Please rank the following goal areas of WE-STEP by their level of importance to you or your organization.

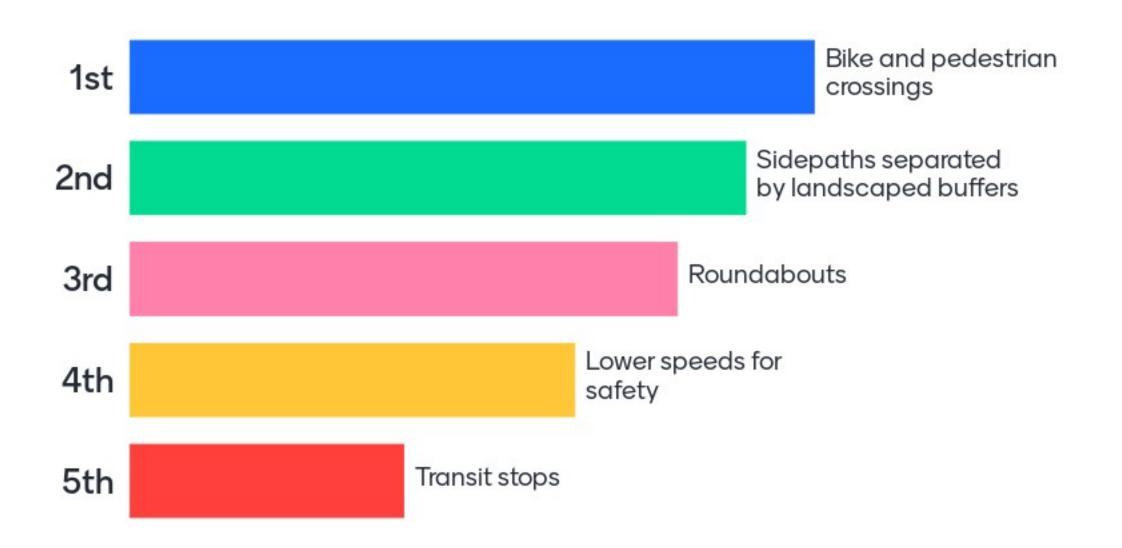


Please rank the considerations of WE-STEP in order of their importance to you or your organization.





Please rank the elements included in WE-STEP standards in order of their importance to you or your organization.



Instructions

Go to

www.menti.com

Enter the code

44078494



Or use QR code



In a few words, describe your vision for the future of western Sarpy County.

0 responses



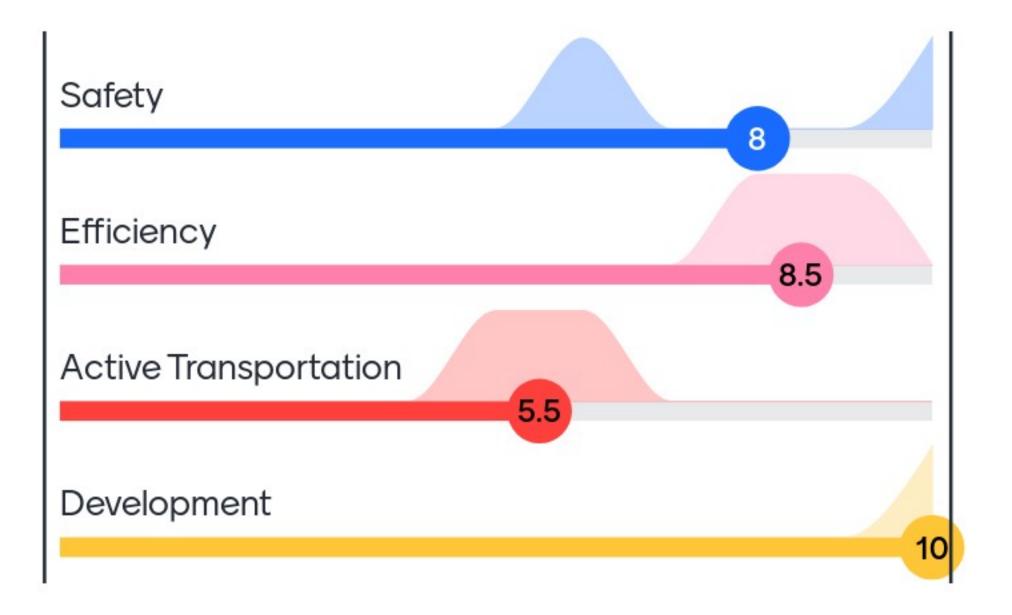
Share an example of how transportation connectivity affects you or your organization.

Drives the utility growth

Park connectivity and recreation access

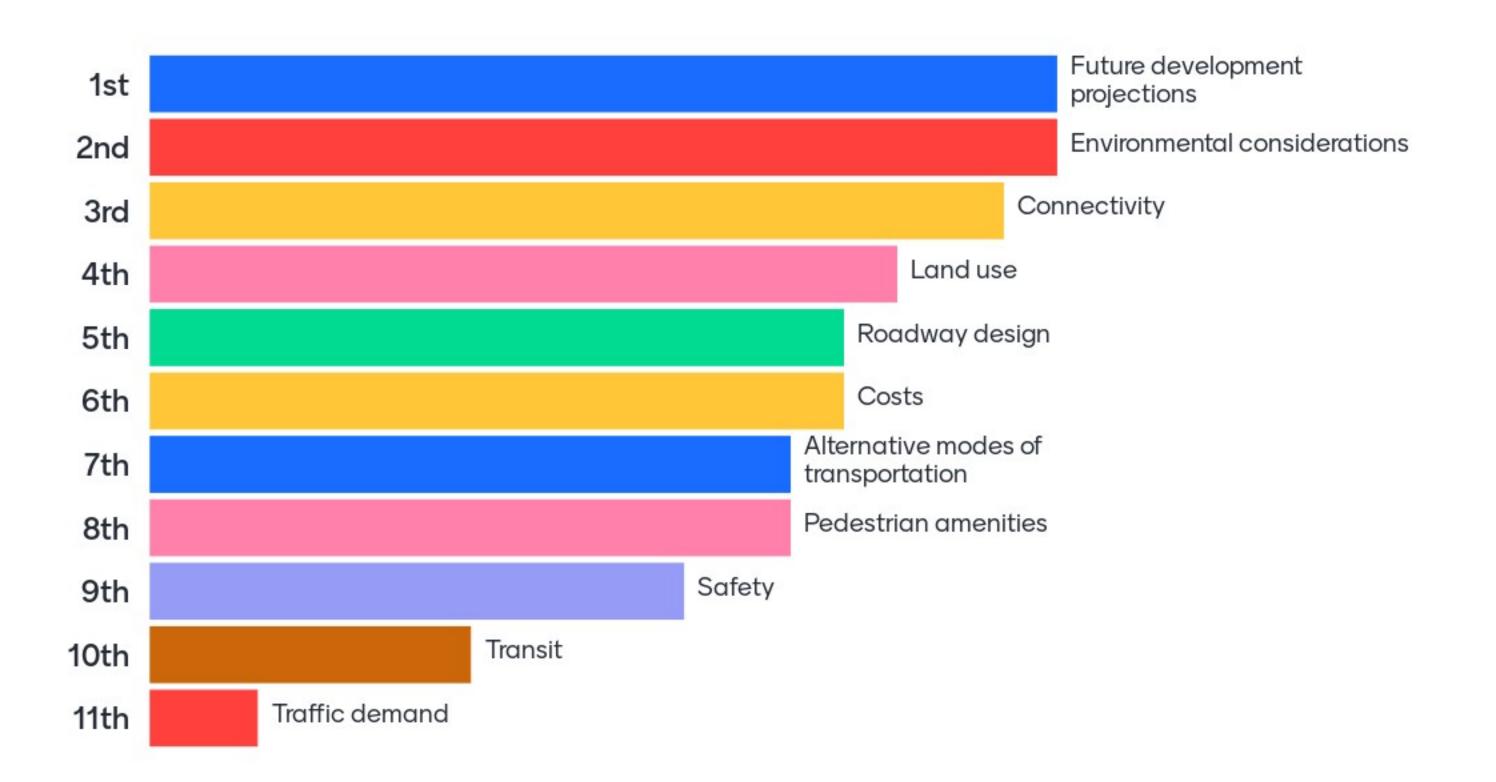


Please rank the following goal areas of WE-STEP by their level of importance to you or your organization.



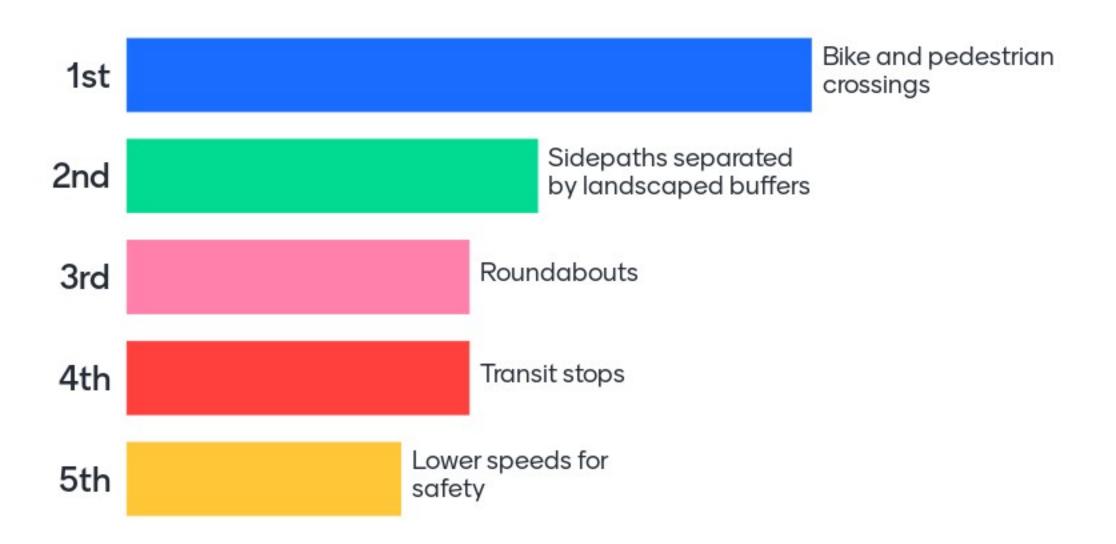


Please rank the considerations of WE-STEP in order of their importance to you or your organization.





Please rank the elements included in WE-STEP standards in order of their importance to you or your organization.



Instructions

Go to

www.menti.com

Enter the code

3915 4789



Or use QR code



In a few words, describe your vision for the future of western Sarpy County.

15 responses

shaded trail system
housing developments

minor industrial
walkways
high class

public transportation

palanced

destination well planned
easy traffic flow not 370
walkable bikeable
green with lots of trees

Share an example of how transportation connectivity affects you or your organization.

No Public transportation haults business growth in Sarpy and linking workers to the area Better flow to small communities and small business retailers

We have over 3000 employees with over 25% that have expressed interest in access to Omaha public transportation.
Would increase our reach to future hires.

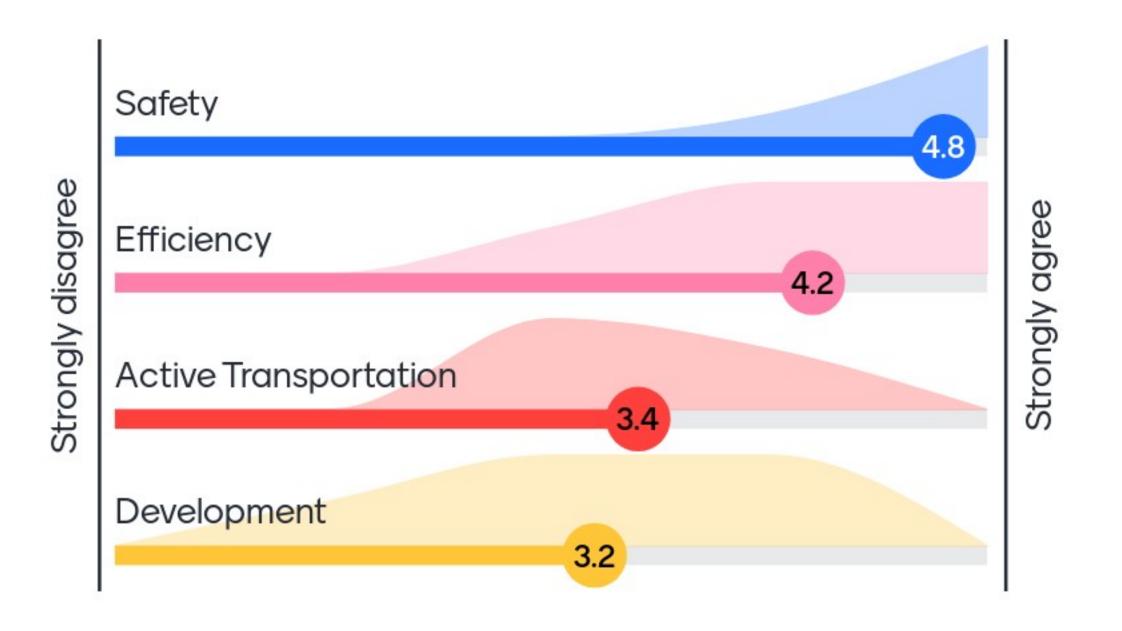
I live and work in Sarpy in the logistics field. Trucks need better maneuverability

Needs easy access to the freeway system. Wider roads for our employees to travel on.

We cover a large portion of Sarpy, but our schools currently are pretty centralized... getting people to and from our schools to their communities is imperative.

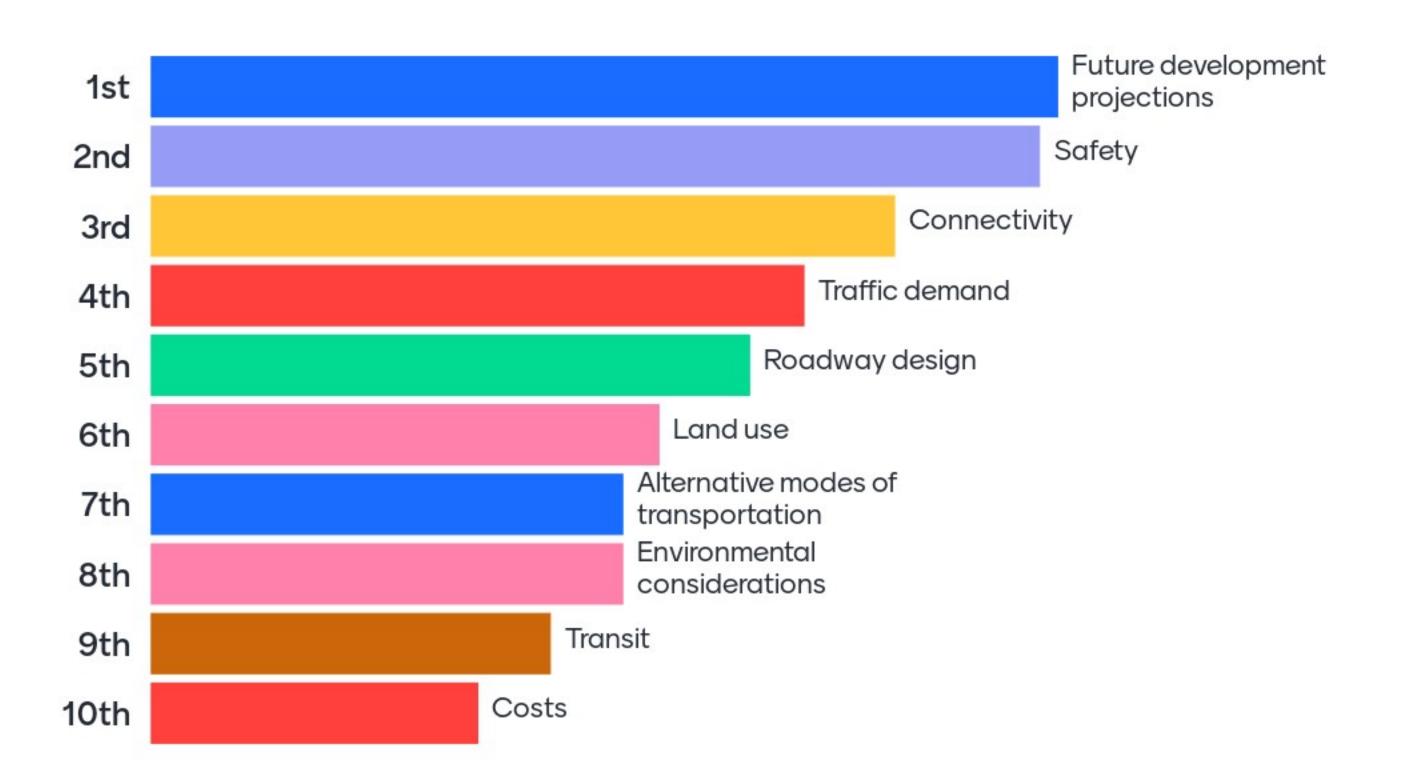
EfficiencyDevelopmentS afetyActive Transportation

Please rank the following goal areas of WE-STEP by their level of importance to you or your organization.



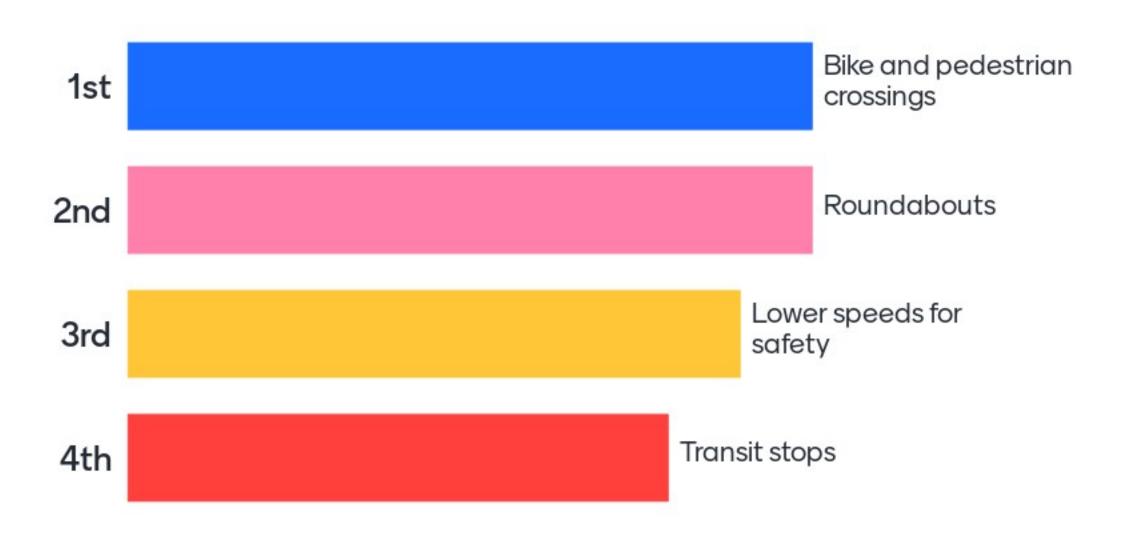


Please rank the considerations of WE-STEP in order of their importance to you or your organization.





Please rank the elements included in WE-STEP standards in order of their importance to you or your organization.



Which are some high priority corridors for expansion in western Sarpy County?

Access to I80 west of 120th Street

Less restrictive access to I-80, hwy 75, etc.

72nd to 84th north/south corridor

132nd from Giles towards 370. Better access to 180 from 370

Expressway over Highway 370!

Long terms plans for Platteview road... will have serious impacts in our future Hwy 370 between 144th and 132nd we struggle with the traffic lights and better access to site.

Platteview Rd and Pflug expansion creates issues with future planning and too close to community



Engagement Appendix 10: Boards & Commissions Presentation



Interim Update
Spring 2024

Agenda

- Study Background & Objectives
- WE-STEP Progress
- Network Planning Considerations
- Next Steps

Study Background & Objectives

Plan Background

- Long-term plan funded by a Heartland 2050 grant written by the City of Gretna to study long-range transportation network needs
 - Federal grant funds:\$100,000
 - Involved communities are over-matching funds



Omaha - Council Bluffs Metropolitan Area Planning Agency









Plan Goal

Provide a flexible framework for changing communities to facilitate a connected and consistent future transportation network for all users, beyond what the existing transportation system in the area can offer.

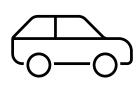
Plan Considerations



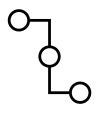
Future development projections



Land use



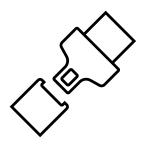
Traffic demand



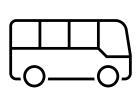
Connectivity



Roadway design



Safety



Transit



Alternative modes of transportation



Pedestrian amenities



Environmental considerations



Costs

WE-STEP Progress

Progress to Date



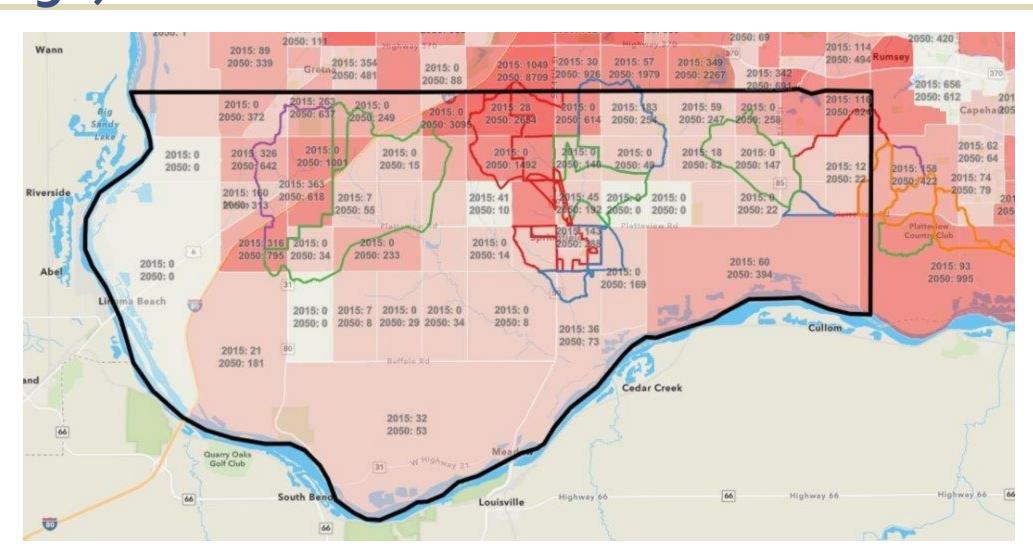
Reviewed past studies and plans from each jurisdiction

Progress to Date

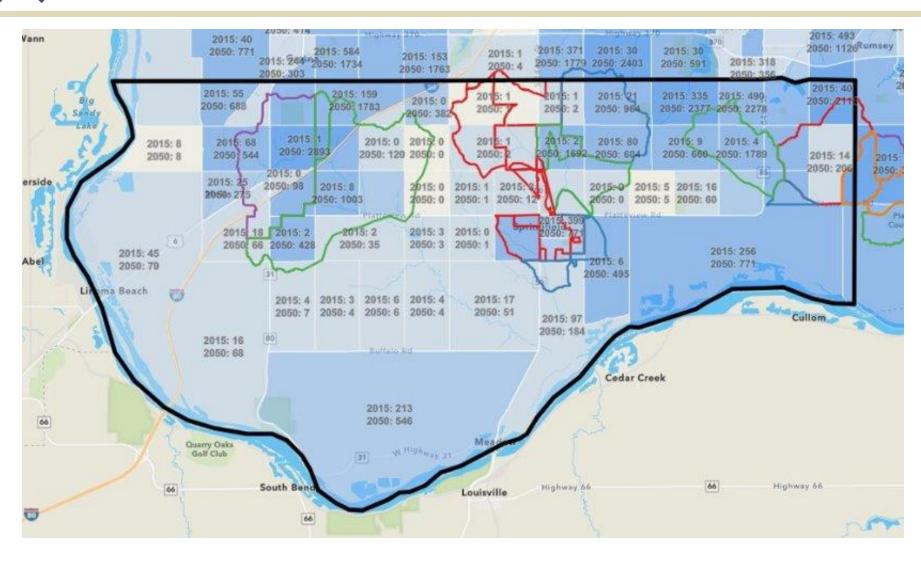


Considered long-term needs for 2050 and beyond (50+ years)

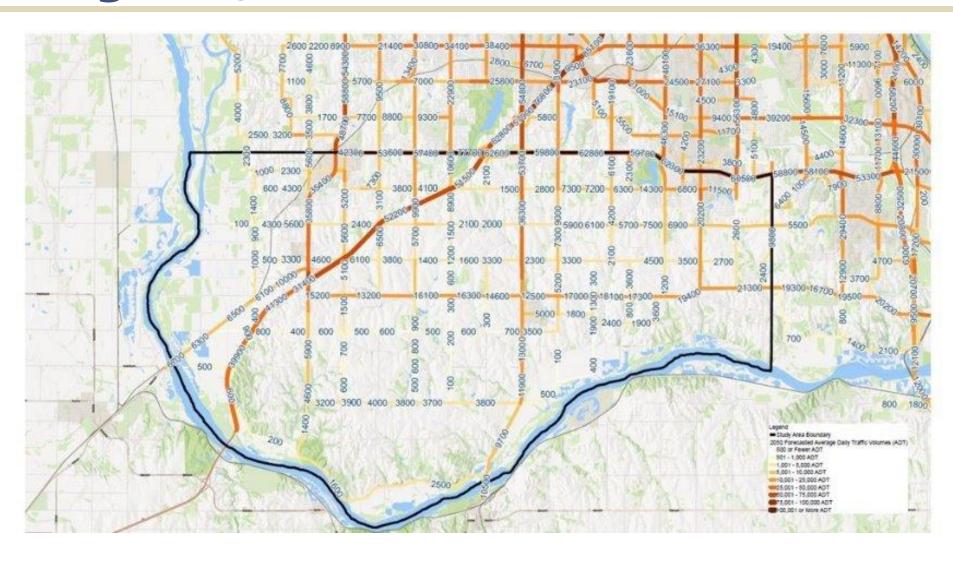
Forecasted Employment Growth (through 2050)



Forecasted Household Growth (through 2050)



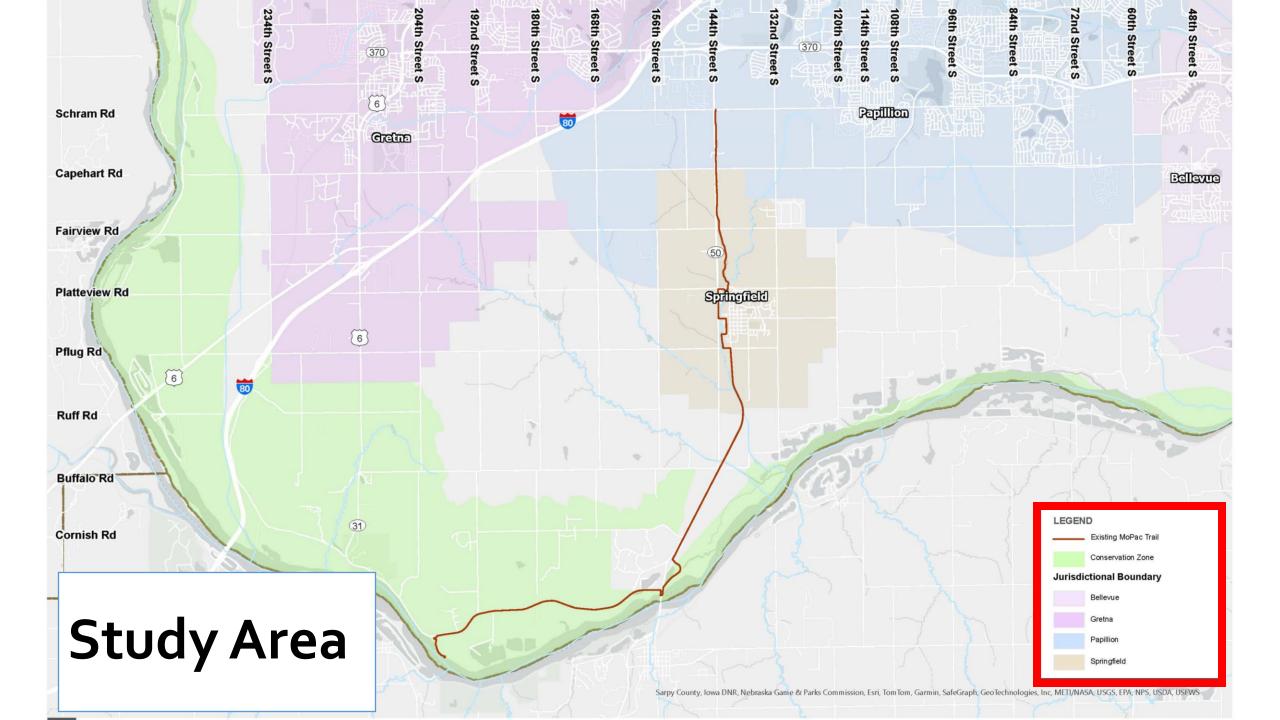
Forecasted Traffic Volume Growth (through 2050)

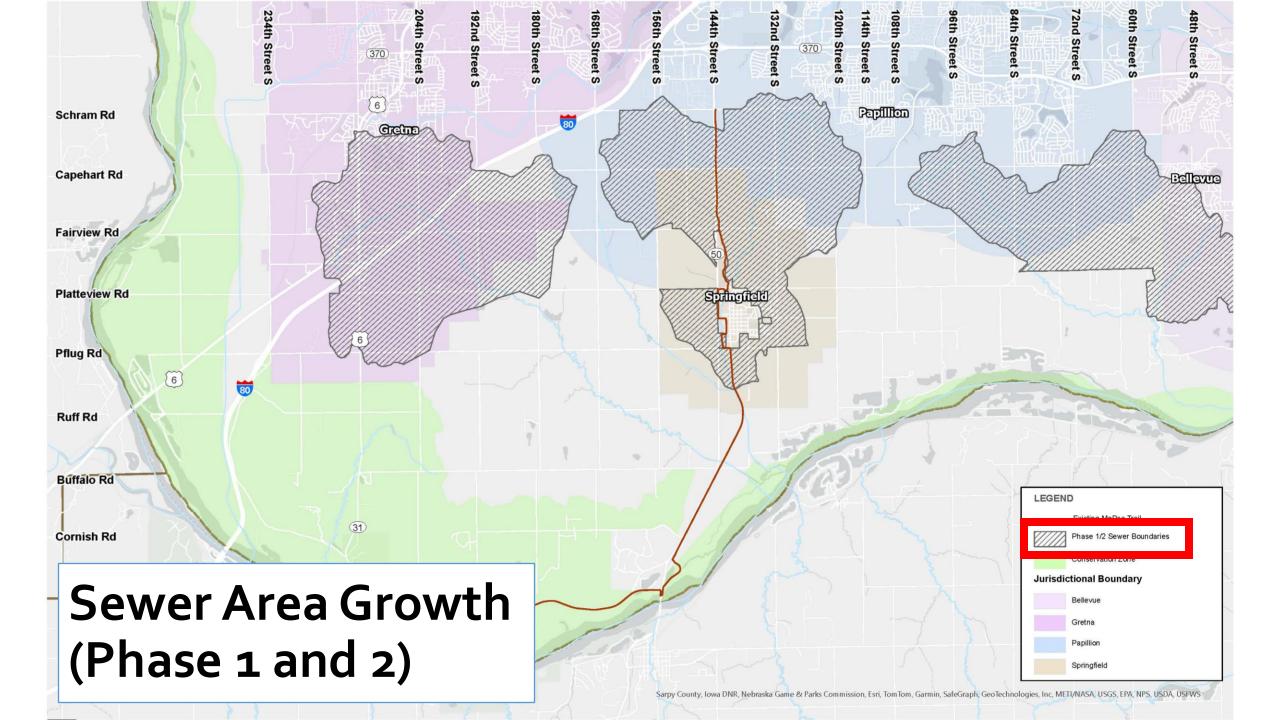


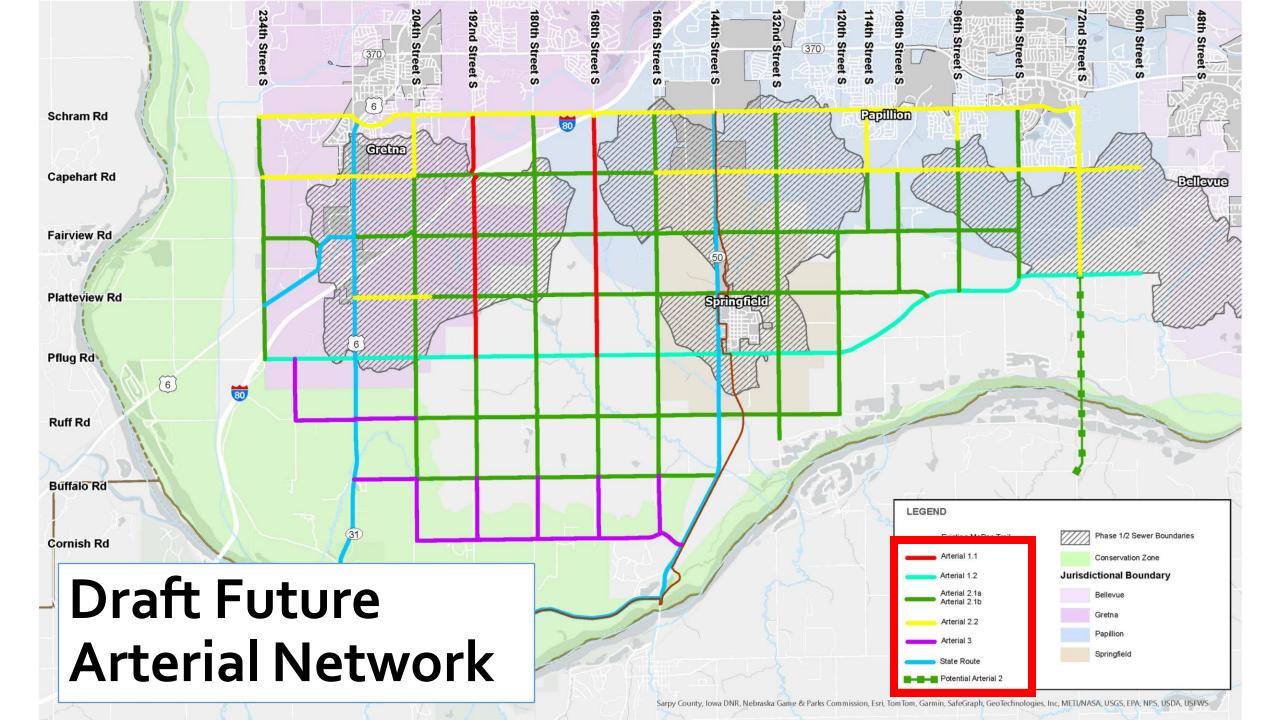
Progress to Date

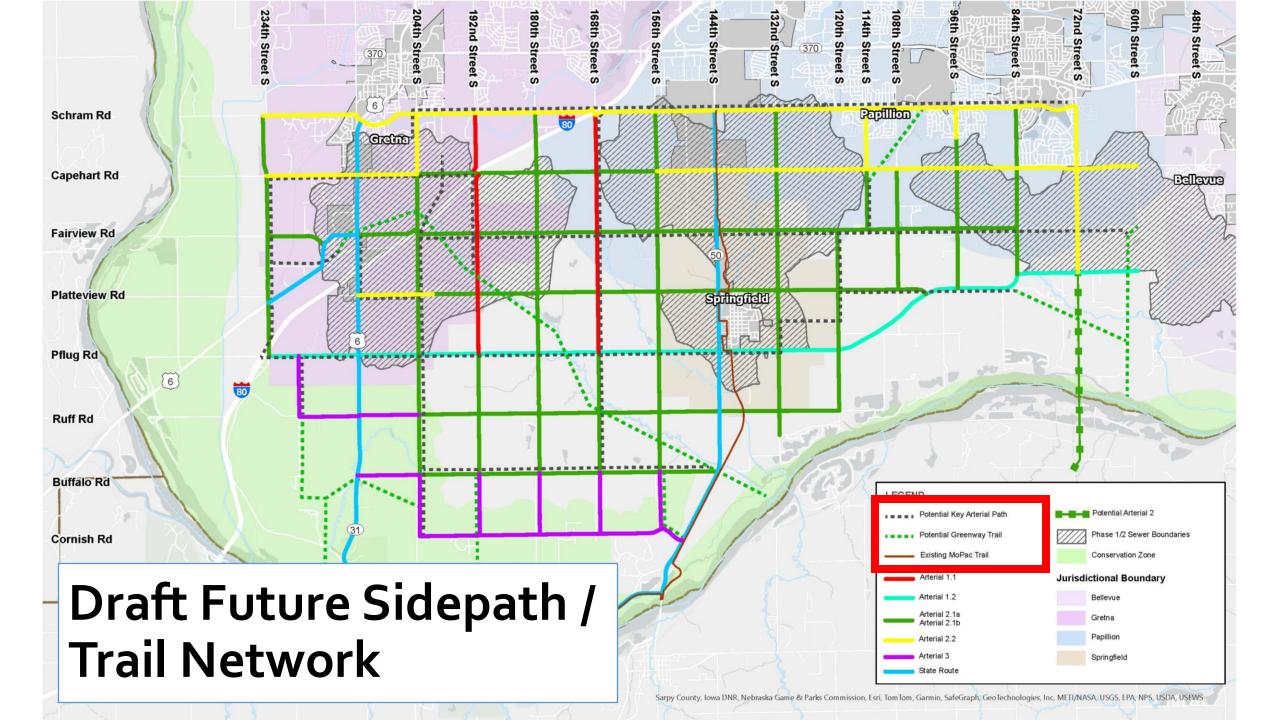


Developed a regional transportation network







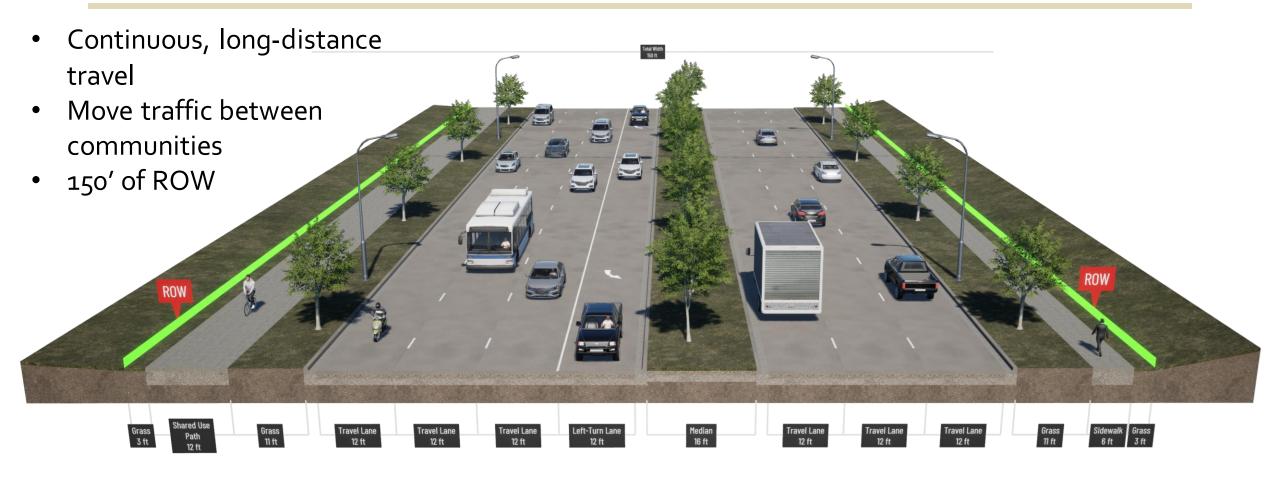


Progress to Date

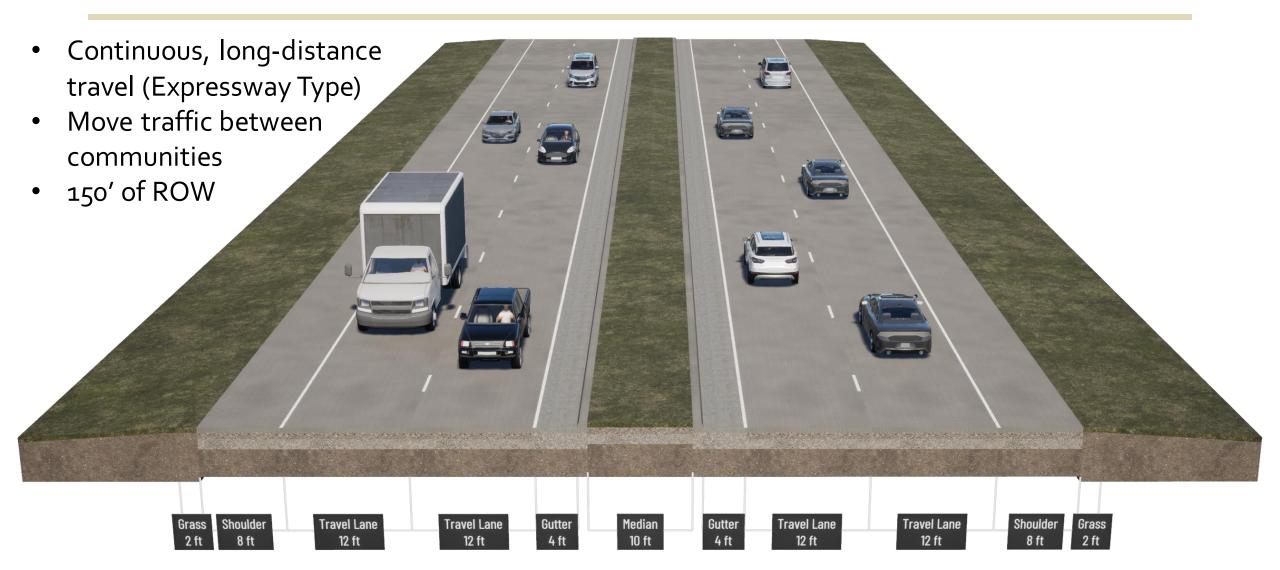


Developed corridor classifications and design standards

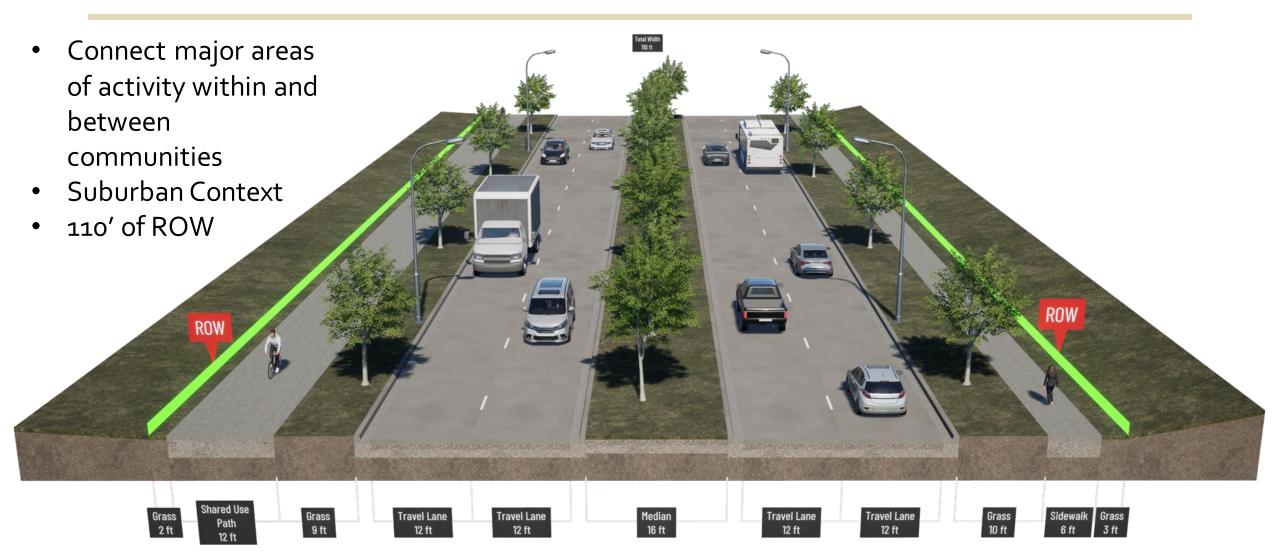
Type 1.1 Arterial (Ultimate Build)



Type 1.2 Arterial (Ultimate Build)

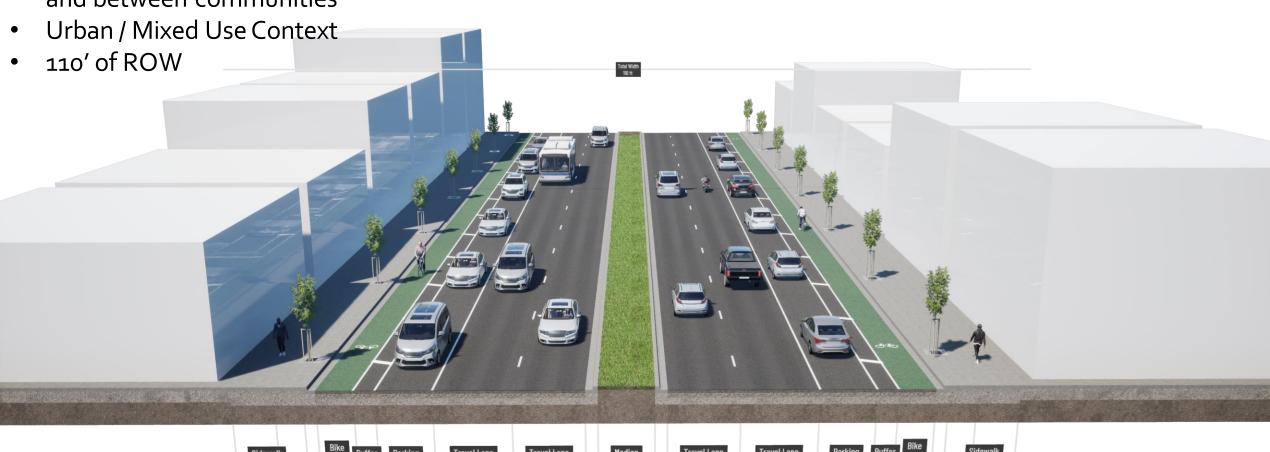


Type 2.1a Arterial (Ultimate - Suburban)

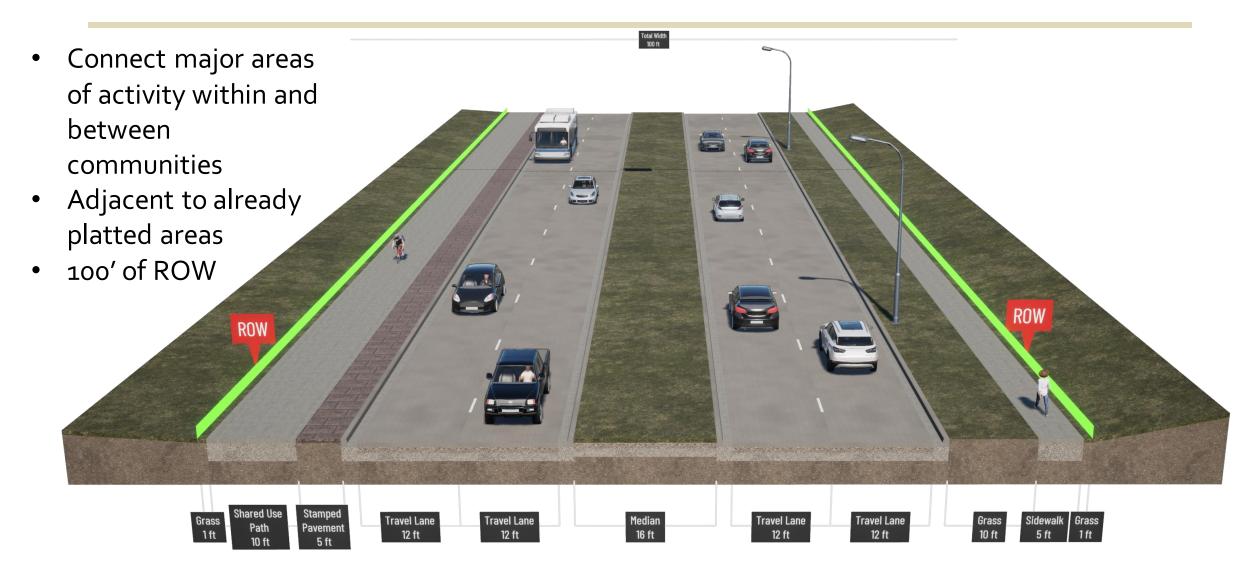


Type 2.1b Arterial (Ultimate Build – Urban Mixed Use)

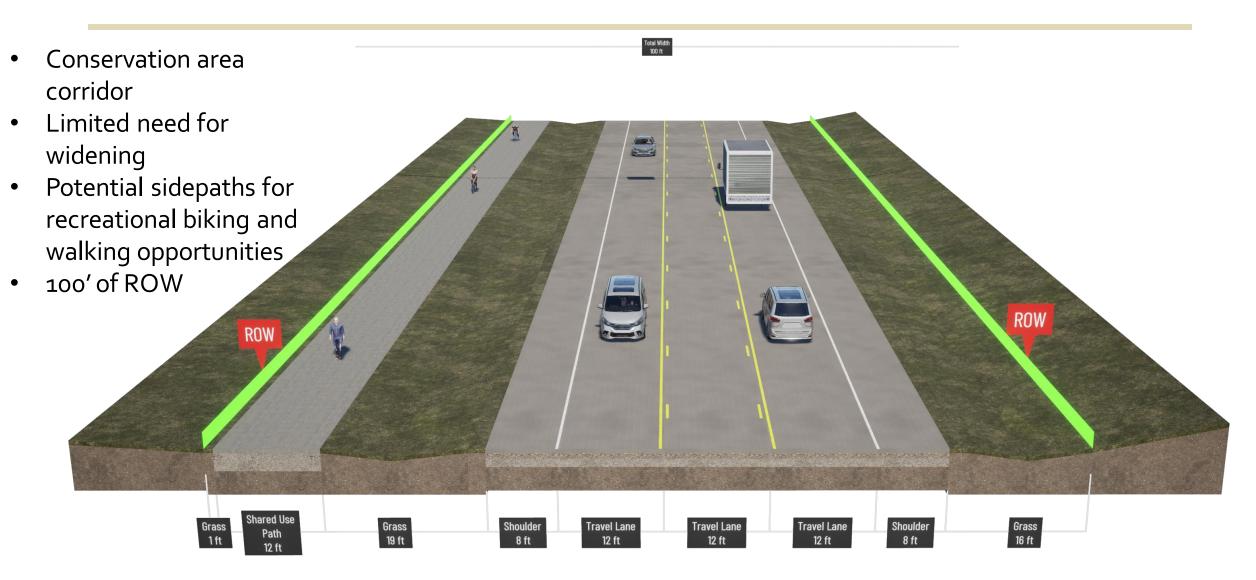
 Connect major areas of activity within and between communities



Type 2.2 Arterial (Ultimate)



Type 3 Arterial (Ultimate)



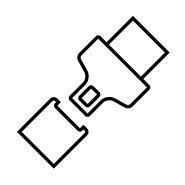
Progress to Date

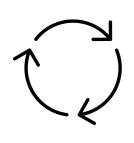


Developed decision making tool to assist jurisdictions in implementing WE-STEP standards

Network Planning Considerations

Network Planning Considerations









Safety

Roundabouts

Pedestrian / Multimodal Considerations Planning for Cost Effective Decision Making

Safety



Crashes occur more frequently at intersections or access points



A raised median is safer for all users of the transportation network



High speed vehicle traffic does not create a safe space for pedestrians and bicyclists



Roundabouts are safer than signalized intersections in most instances

Roundabouts

- Roundabouts considered where feasible
- Long-term cost-effective compared to traffic signals
- Improved safety for all users, reducing all crashes by 33% and fatal and serious injury crashes by 80% compared to signals
- Continuous traffic flow and can reduce congestion

Pedestrian / Multimodal Considerations

- Planning for pedestrian use and other multimodal options for transportation
 - Shared Use Path
 - Sidewalk
 - Landscaped Buffer
- The location of a section of roadway in a more urban, suburban, or rural area may influence availability of these features and on-street parking

Shared Use



Sidewalk



_andscaped 3uffer



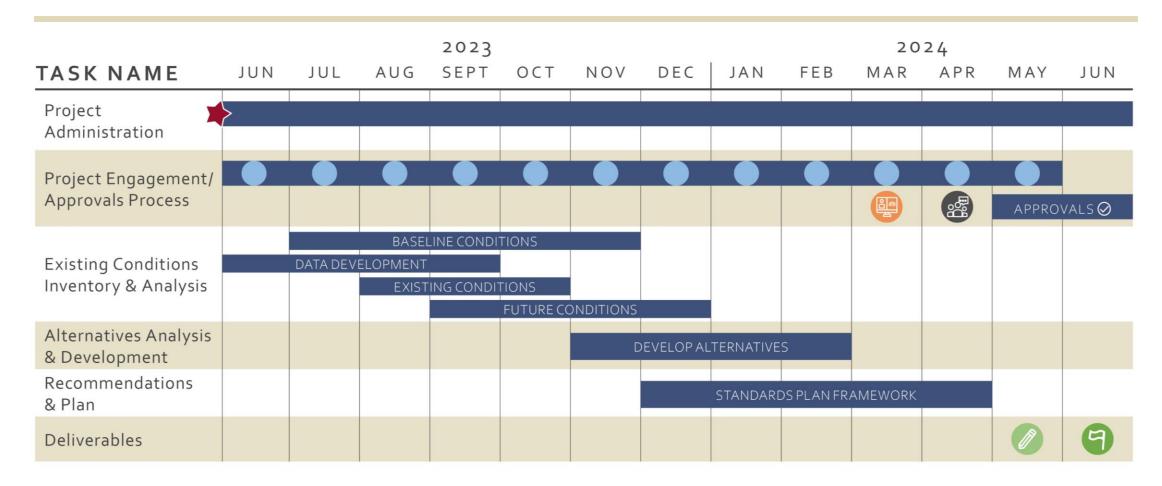
Planning for Cost Effective Decision Making

- It is important to the partner agencies that the plan provides costeffective actions for all agencies
- The plan will allow for flexibility in implementation that will vary as communities change
 - Interim improvements can cost-effectively implement part of the ultimate streetscape to save on long-term costs.

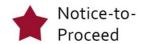


Next Steps

Next Steps



KEY















APPENDIX C: DESIGN GUIDANCE/ STANDARDS CHECKLIST



WE-STEP Development Checklist

Abbreviations

- WE-STEP: Western Sarpy County Transportation Enhancement Plan
- TDM: Travel Demand Model
- MAPA: Metro Area Planning Agency
- RIRO: Right-In-Right-Out
- ROW: Right of Way
- LOS: Level of Service
- ITE: Institute for Transportation Engineers
- N, S, E, & W: North, South, East, and West

General Steps

- 1. Provide a project area map of the study area limits. List the corridor(s), arterials and collectors, adjacent to or within the development.
- 2. What corresponding roadway classifications (Arterial 1.1, Arterial 1.2, Collectors, etc.) are within the study area based on **Figure 1**? What ROW width will be acquired for this project?

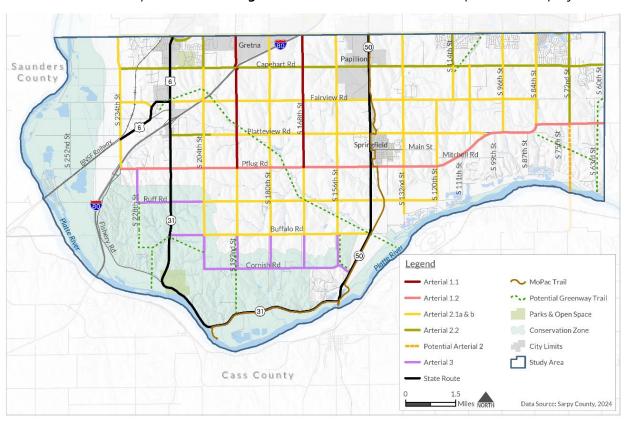


Figure 1. WE-STEP Network Map



- 3. List any designed or constructed projects within a 1-mile radius along the corridor(s) listed in Item 1.
 - a. What was the cross section determined during previous projects (interim and/or ultimate)?
 - b. Does the existing alignment offset for this project (N, S, E, or W) align with previous projects adjacent to study area?
- 4. Does MAPA's Travel Demand Model Horizon Year (opening year + 20 years) traffic forecast (WE-STEP Land Use Scenarios) align with the arterial(s) being evaluated?
 - a. If TDM Output < 20,000 Daily Trips, traffic study should consider traffic analysis for an ultimate 3-lane section.
 - b. If 20,000 < TDM Output < 35,000 Daily Trips, traffic study should consider traffic analysis for an ultimate 4-lane divided section.
 - c. If TDM Output > 35,000 Daily Trips, traffic study should consider traffic analysis for an ultimate 6-lane section.

Justification needs to be provided for deviating from the Horizon Year traffic forecast guidelines above.

- 5. Implement the Collector and Through-Route policy outlined in the WE-STEP guide and shown in **Figure 2**.
 - a. Collector roads at 1/2 mile spacing (see Collector and Through Route policy for guidance. Collectors should be placed where they can be contiguous for at least 2 miles.)
 - b. Local roads at 1/8 mile spacing.

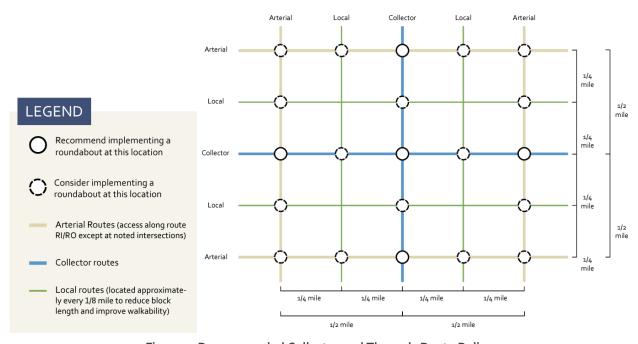


Figure 2. Recommended Collector and Through-Route Policy



Access Points

- 6. If the development is adding a new access point, confirm the following (shown in Figure 3):
 - a. Full access intersections are at ¼ mile spacing.
 - b. RIRO or 34 access at 1/8 mile spacing.
 - c. Existing access points align with proposed spacing.

Provide justification if access points do not align with 1/8 and 1/4 mile spacing listed above. Arterial 1.2 (Expressway) will have more restrictive access levels.

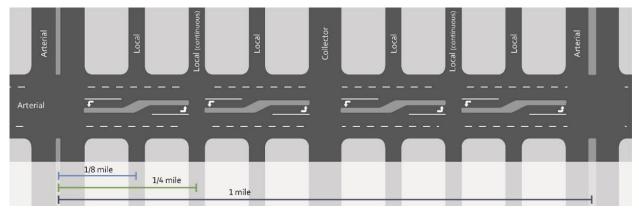


Figure 3. Recommended Arterial Access Management Policy

- 7. If the development is adding a new access point at the ¼ mile, does the access through the development conform to the WE-STEP through-route policy?
 - a. Provide development plans highlighting proposed through-routes.
 - i. Add "stub outs" callouts for border of development that doesn't connect to the arterial network.
 - b. List traffic calming measures along through-routes.
 - c. List pedestrian and bicycle accommodations along through-routes.

Traffic Operations

- 8. Discuss the approach and process of estimating future year volumes / forecasts. Provide an ITE Code from the current edition of ITE's Trip Generation Manual and the calculation for sitegenerated trips (when applicable).
- List the analysis study peak hour(s). Provide justification for selecting study hours if different than AM and PM peak hour. List any unique traffic observations / assumptions used it operations analysis.
- 10. Provide a map of trip distribution percentages (when applicable if ITE Codes were utilized). List any unique distribution patterns.
- 11. Calculate roundabout LOS for all proposed full access intersections on the arterial system.
 - a. If Horizon Year roundabout LOS < LOS `F', strongly consider roundabout.
 - b. If roundabouts exist elsewhere along the study corridor (within X miles), strongly consider roundabout.
 - c. If Horizon Year roundabout LOS = LOS 'F', perform signal warrant analysis and determine LOS for signalized intersection.



Roadway Design

- 12. Determine if an ultimate vertical profile exists for the study corridor(s). If available, use ultimate vertical profile for design and locating access points tie-in locations.
- 13. If a roundabout is recommended within the study area, design shall follow guidelines from the following sources:
 - a. NCHRP 1043 (updated version of NCHRP 672)
- 14. List the design and posted speed(s) within the study area, as identified in Item 2.
 - a. Does the proposed project align with the design speeds elsewhere in the corridor?
 - b. List roadway and intersection elements included in design to reduce / calm traffic speeds within the study area. Some examples include:
 - i. Median
 - ii. Pinchpoint
 - iii. Chicane
 - iv. Lane shift
 - v. Speed hump
 - vi. On-street parking
 - vii. Roundabout
 - viii. Diverter
 - ix. Signal progression
 - x. Building lines
 - xi. Street trees
- 15. List Construction Standards based on the following hierarchy:
 - a. Omaha Standards (Specifications/Plates/Design Guides)
 - b. NDOT (Specifications/Plans/Design Manual) required when intersection a state route
 - c. Other (SUDAS, etc)

Active Transportation

- 16. Elsewhere in the study area, which side of the road is the multi-use trail and sidewalks on (N, S, E, or W)? Align multi-use trail and sidewalks on the side of the proposed roadway that matches previous projects. Provide justification if not able to align with previous design/construction.
- 17. Are any mid-block crossings being recommended? If so,
 - a. Are RRFB's or PHB's being recommended? Provide justification if not.
 - b. Are sight obstructions (like landscaping, poles, etc) placed at an acceptable distance away from the crossing(s)?
 - c. Is the vertical or horizontal profile a concern for the mid-block crossing?
- 18. Refer to Item 7c confirm bicycle and pedestrian accommodations do not have "gaps" in the system.
- 19. Does transit serve this area? Identify any stop location wants / needs from an employer.

Bridges & Culverts

- 20. If a bridge/culvert is located within the study area, are there adequate setbacks from the abutments/end of culvert to the nearest access point to allow for sufficient turn lane tapers?
- 21. If a bridge is being added / replaced, is there enough lateral & vertical clearance under the bridge to provide a future trail connection.



Utilities

- 22. Elsewhere in the study area, identify which side of the road each of the following utilities are located: water, storm sewer, sanitary sewer, gas, power, communications.
- 23. Contact utility providers in the study area and list anticipated location and utility extensions within project area.
- 24. If project typical section includes interim offset 3-lane alternative, identify location of proposed utilities within ROW to avoid conflict with ultimate roadway buildout.



APPENDIX D: RECOMMENDATIONS DEVELOPMENT SUMMARY

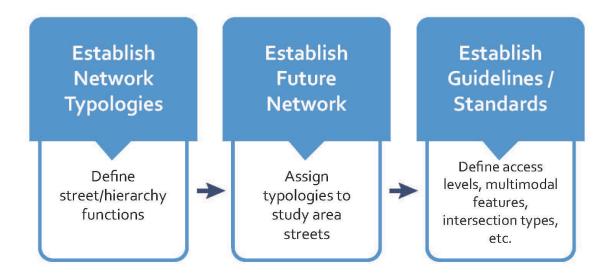






Task 4 and 5 Summary – Guidance / Standards Evaluation and Recommendations

The WE-STEP study is tasked with establishing a recommended future street network and associated standards for each of the network corridor typologies and making a set of recommendations for implementation. Developing the guidelines / standards and ultimate recommendations followed this general process:



Core **performance objectives** were established by the team to help guide the development of plan recommendations. In addition to network recommendations, this memo also provides multimodal guidance and systemic safety planning considerations to use going into network implementation.

Performance Objectives

A set of performance objectives were developed to help evaluate how well ideas generated for the WE-STEP system fit with stakeholder and agency study area goals. These performance objectives guided the decision-making process that led to plan recommendations. The performance objectives are documented and described in **Table 1**.







Table 1. WE-STEP Performance Objectives

Performance Objectives	Description and Considerations
Future development	Areas of future urban scale development should provide corridors that
projections and land use	will have sufficient multimodal access and capacity. Typology
	designations are flexible to respond to adjacent land use context.
Travel demand	Multimodal travel demand is a direct result of land use patterns; more
	development leads to more trips. Corridors were designated to meet
	reasonably anticipated travel throughout the WE-STEP study area.
Connectivity	A well-connected network has a dense set of street connections with
	many through connections. High connectivity leads to decreased travel
	distances and increased route choice for more direct travel.
Roadway design	Roadway design considerations overlap with many of the other
	performance objectives including safety, connectivity, and cost. In many
	cases design is less an objective rather than a tool for implementation.
Safety	Safety is becoming the primary consideration in transportation planning
	and was a primary consideration in WE-STEP. Features and standards are
	included in the study that increase travel safety for all system users.
Transit Access	There is currently no transit service in the study area due to its
	predominantly rural nature. However, as the study area urbanizes, the
	network needs to plan for transit access. Many stakeholders recognize
	that transit access may be important in the future.
Bicycle and Pedestrian	As the study area urbanizes, the opportunities for bikeable and walkable
Access	trips will increase significantly. Decisions made in this study considered
	how to create safe bicycle and pedestrian connections.
Environmental	An environmental screening was a part of Task 3, and the future network
Considerations	recognizes environmental constraints, including conservation areas
	where limited future development is anticipated.
Freight and Emergency	Recommendations for network connections and standards recognize
Response Access	that larger freight and emergency response vehicles will be traversing
	the future network and standards will need to accommodate these uses.
Cost	The scalable network recommendations in WE-STEP recognize that as
	corridors transition from rural to urban corridors, there are opportunities
	to reduce long-term lifecycle costs.

Network Typologies

A range of street typologies were identified for the WE-STEP study area that could serve the various transportation modes within a given context. The future 2050 MAPA model was reviewed for insights into the future growth areas that are most immediately anticipated. The MAPA model was in the process of being updated during this study and, given the higher-than expected recent growth of study area development, it is thought that these forecasts might be somewhat underrepresenting growth in the WE-STEP area by 2050. The following principles were established by the Steering and Technical Advisory Committee (STAC) for WE-STEP:

- The typologies should be distinct from Federal and state functional classes.
- The typologies should accommodate all modes of travel.







- The typologies should be flexible to its surrounding land use.
- The typologies should be flexible to accommodate an interim and an ultimate cross-section.

Arterial Typologies

Given the desire to look beyond the 2050 travel patterns identified in the MAPA model, the typologies identified two different categories of main growth arterials:

- Arterial 1 Highest level of mobility arterial with no on street parking and the ability to expand to 6-lanes of traffic in addition to bicycle and pedestrian infrastructure.
- Arterial 2 Typical arterial corridor with a high level of mobility, no on street parking, and the
 ability to expand to 4-lanes of traffic in addition to bicycle and pedestrian infrastructure. Every
 arterial on the one-mile grid will at least be an Arterial 2 in the WE-STEP growth area defined
 by the potential sewered area, shown in Figure 2.

A third typology, Arterial 3, was added to address conservation area corridors. If development occurs in

these areas, it is anticipated to be limited, so the need for widening should be limited. These corridors could potentially have sidepaths for recreational biking and walking opportunities.

To accommodate these mobility and functional needs of these two typologies, the general characteristics of each were:

- Right-of-Ways:
 - Arterial 1: 150 foot wide right-of-way
 - Arterial 2: 110 foot wide right-of-way
 - Arterial 3: 100 foot wide right-of-way
- Access Control:
 - o Full Access every 1/4 mile (Arterial 1 and 2).
 - o Partial Access at 1/8 mile(Arterial 1 and 2).

An illustration of recommended access control standards is shown in **Figure 1**.

- Bicycle and Pedestrian Infrastructure:
 - All Arterial 1 and Arterial 2 routes will have an adjacent sidepath, with a recommended width of 12 feet.
 - Pedestrian crossings at all controlled intersections and key non-controlled intersections.

In some of the corridors, particularly in the northern parts of the study area large portions of some corridors are already being platted due to development in process. In these corridors (Arterial 2.2), right-of-way is set at 100 foot wide due to past policy in the WE-STEP jurisdictions.

WE-STEP TYPOLOGIES

Arterial 1: Highest mobility corridors with 150' dedicated right-of-way.

Arterial 2: High mobility corridors that accommodate all modal users, developed on the one-mile grid.

Arterial 3: Conservation area arterials, anticipated to remain rural roads for the foreseeable future. If development occurs along these corridors a right-ofway of 100' width is recommended to accommodate a potential turn lane and potential recreational trails in the long-term.

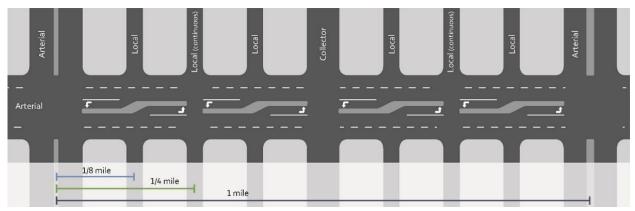
Collector: Corridors that connect neighborhoods and connect to arterials. Located 1/2 mile from arterials.







FIGURE 1: Recommended Access Control Standards



Note that 1/8-mile spacing access may provide 3/4 access intersections (provide left-turns off of the arterial, but not onto). 1/4-mile spacing intersections may be roundabouts or signalized intersections.

A series of roadway design criteria (**Table 2**) wer developed for each of the arterial typologies. The design criteria include recommendations for posted speed, lane width, vertical alignment, and other roadway features. Arterial typologies are illustrated in the **Appendix**. An example of how an interim 3-lane cross-section might be developed is also shown.

Table 2. General Roadway Criteria

General Roadway Criteria	Arterial 1.1	Arterial 1.2	Arterial 2.1a	Arterial 2.1b	Arterial 2.2	Arterial 3								
Posted Speed	40-45	50+	30-45	25-30	30-45	45-55								
Ultimate Number of Lanes	6	4	4	4	4	3								
Lane Width	11'-12'	12'	11'-12'	11'-12'	11'-12'	11'-12'								
Right-of-Way	150'	varies	110'	110'	100'	100'								
Roadway Width	104'	84'	68'	90'	68'	52'								
Vertical Alignment	Ultimate Vertical Profile or AASHTO Standards													
Shoulder / Curb & Gutter	2' curb & gutter	8' shoulder	2' curb & gutter	2' curb & gutter	2' curb & gutter	8' shoulder								
Sidewalk with Landscaped Buffer	6'	-	6'	6'	5'	-								
On-Street Parking Allowed	No	No	No	Yes	No	No								
On-Street Parking Width	-	1	-	8'	1	-								
Shared Use Path Required	1 side	No	1 side	No	1 side	1 side								
Shared Use Path	12'	-	12'	-	12'	12'								







Collector Typologies

The STAC recognized the following benefits of a system of continuous collector and local streets within the one-mile grid:

- This system of grid street provides a resilient system where an incident or closure on one segment allows for multiple alternative paths with less negative impacts due to rerouted traffic.
- Less out-of-direction travel due to multiple route choices for each trip, particularly for shorter trips within a neighborhood or subarea. This eliminates the need to travel to an arterial for trips less than a few miles long.
- Improved connectivity for pedestrians and bicyclists. These trips tend to be shorter, and the distance and directness of connections have a significant impact of the practicality and probability someone can and will walk or bike for that shorter trip.
- Potentially delayed or eliminated need for arterial improvements and widenings due to traffic dispersing to collector and local streets for some trips.

The collector typology was identified such that it would ideally:

- Have no direct driveway access.
- A right-of-way width of 60 feet.
- Typical pavement width of 36 feet that could accommodate on-street parking or bike lanes.
- Recommendations for speed control and safety features like chicanes and roundabouts.

Collector typologies are illustrated in the **Appendix**.

Establishing the Future Network

A future network was established with each corridor being assigned the relevant typology. The network was established based on the latest information available in the study area, including:

- Travel demand model runs through the year 2050. The input data used an older version of the MAPA model, which indicated lower growth in the WE-STEP are than the latest land use growth assumption. Thus, the traffic forecasts did not assume as much land use and traffic growth as the in-progress model updates (anticipated for late 2024) will assume.
- Current planning for new I-80 interchange access in Sarpy County anticipates that the 168th Street and 192nd Street corridors have the greatest potential for future I-80 interchanges. Both of these corridors also have significant connections to the northern parts of Sarpy County and Douglas County, indicating that these two corridors are the highest mobility corridors (Arterial 1) in the WE-STEP area.
- Northern portions of the network were developing quickly during this study, particularly Schram and Capehart corridors. Thus, these right-of-way constrained corridors were designated Arterial 2.2 to reflect the limited 100-foot right-of-way widths available.
- A conservation district (CD) overlay is designated for much of the southwest portions of the WE-STEP area which limits the development potential. Thus, this part of the network was given an Arterial 3 designation.

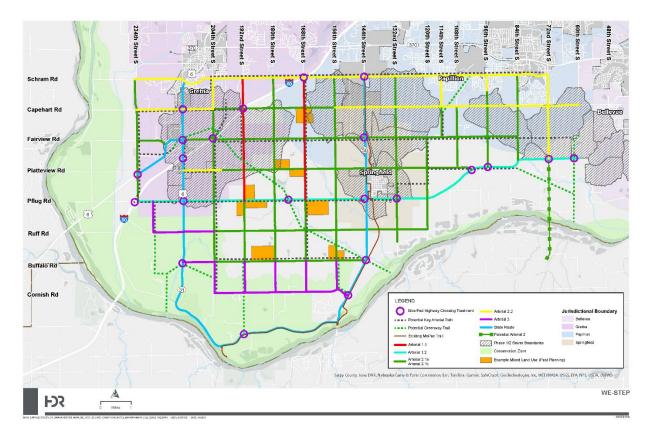
The recommended WE-STEP arterial network is shown in Figure 2.







FIGURE 2: Study Area Priority Arterials and Trail Network



Collector and Through Route Policy

To reflect the benefits of a continuous collector routes and connected grid system outlined early in this study, the study team recommended a collector and through-route policy. This policy states that where existing human and development barriers do not exist, every section of the network within the 1-mile grid should include three continuous local streets approximately every 1/4 mile. Specifically:

- The ½ mile street in the middle of the section should be designated a collector street when possible.
- The three through streets from each section should form an intersection and align with three through streets on all adjacent sections. This network design overlaps with the access control elements of the WE-STEP arterials that bound each section, such that a full access intersection will occur at the 1/4 mile spacing interval with the three through-route streets.
- Roundabouts are an intersection type that could potentially be implemented as a part of this
 policy. More information is provided on the traffic safety and flow benefits later in this
 document.

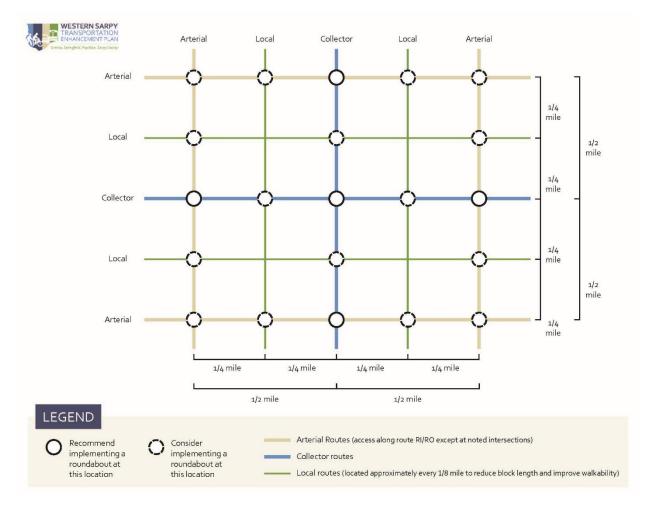
The illustration of this policy and associated potential roundabout intersection control is shown in **Figure 3**.







FIGURE 3: Recommended Collector and Through Route Policy



Active Transportation Routes

Sidewalks

Sidewalks are paved routes that typically parallel the street network, with a separation from the motorized travel lanes. They are designed for people walking and must be compliant with the Americans with Disabilities Act. The minimum recommend width is 6 feet; however, wider sidewalks may be appropriate to support walkable land uses. Sidewalks are proposed on one side of all arterial streets, with a shared use path on the opposite side. Sidewalks are proposed on both sides of all collector and local streets. In mixed-use urban nodes that might develop, typologies have been developed that would allow for wider sidewalks and street-oriented buildings and on-street parking.

Shared Use Paths

Shared use paths are paved, off-road routes that are designed for bi-directional travel for all non-motorized users. The minimum recommended width is 10 feet; however, 12 feet provides more comfort when supporting a mix of users and allows people to walk or bike side by side rather than single file. Most riders are comfortable using shared use paths and they are considered suitable for people of all







ages and abilities. Paved shared use paths can serve as both destinations and connectors, enabling people to walk or bike to their desired locations safely and conveniently. Shared use paths are recommended along all future arterial streets, with a separation buffer from the motorized travel lanes where possible. When a shared use path parallels a street, it may be referred to as a "sidepath."

Active Transportation Crossings

Intersections and midblock street crossings present conflict points between different types of roadway users which can lead to crashes. To improve safety conditions, there are several intersection treatments that can be used which improve the visibility of people biking and walking to motorists through dedication of roadway space, signage, signals, or facility design.

Controlled Crossings

Controlled crossings are most often found at the intersections of two streets. Controls may include traffic signals or STOP signs for one or more approaches of the intersection. In areas where these intersections include shared use paths or sidewalks, the crossing may also include:

- Painted stop bar: indicates to the motorist where to stop.
- Continental style marked crosswalk at school and shared use path crossings: indicates to the motorist that pedestrians may be crossing and indicates to the pedestrian where to cross.
- Detectable warnings (truncated domes) and ramps: provides ADA compliance.
- **Pedestrian countdown timers at traffic signals:** indicates time remaining to cross, which reassures pedestrians on ability to cross before the signal changes.
- Turning Vehicles Yield to Pedestrians (or Bicycle/Pedestrians) sign (MUTCD R10-15): indicates to motorist to yield to people using the trail at a signalized crossing where vehicles are allowed to make a right turn on red.
- Pedestrian refuge islands: provides protected area in the middle of the street for people crossing, which is particularly useful when crossing the ultimate build out cross-section of Arterial 1 and Arterial 2 streets which include 4 or 6 travel lanes and medians.

Uncontrolled or Midblock Crossings

Uncontrolled crossings are locations where designated sidewalks or shared use paths intersect roadways without any traffic control. Uncontrolled crossings are commonly found at midblock locations, sidewalk or shared use path crossings, or intersections with only two-way traffic control. These crossings require enhancements to improve visibility and establish right-of-way for people walking or biking across the street and to enhance safety for all users.

Improvements for these crossings depend on factors

like road type, width, traffic volume, speed, and the specific context of the location. To determine suitable interventions, the FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, provides guidance as shown in Figure 5. Locations with uncontrolled crossings would

Figure 4: Continental Crosswalk with Curb Ramps







benefit from continental style marked crosswalks (**Figure 4**), detectable warnings, crossing signage, and median islands if crossing three or more lanes. Additional treatments may include:

- Yield pavement markings: indicates to motorists where to yield to pedestrians.
- **Bicycle/pedestrian crossing warning signs**: This includes crossing warning signs and advance warning signs and in-street pedestrian crossing signs.
- **Crossing beacons**: This includes Rectangular Rapid Flashing Beacons (RRFB) which draws driver attention to pedestrians in the crosswalk and Pedestrian Hybrid Beacons that directs vehicular traffic to stop as people use the crosswalk.
- **Curb extensions**: also known as bulb-outs, this narrows the roadway to slow motorists and shortens the crossing distance for pedestrians.

Figure 5: Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations

	Posted Speed Limit and AADT																											
	Vehicle AADT <9,000								Ve	Vehicle AADT 9,000-15,000										Vehicle AADT >15,000								
Roadway Configuration	≤3	30 mph 35 mph			≥40 mph			≤30 mph			35 mph			≥40 mph			≤30 mph			35 mph			≥40 mph					
2 lanes (1 lane in each direction)	4	_	6	7	5	6 9	1	5	6 0	4	5	6	7	5	6 9	1	5	6 ②	0 4 7	5	6 9	7	5	6 9	1	5	6 ②	
3 lanes with raised median (1 lane in each direction)	4	5	3	7	5	9	①	5	6	-	5	3	1	5	3		5	③	① 4 7	5	9	①	5	6	1	5	3	
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	0 4 7	5	3 6 9	7	5	6 9	1	5	6 0	① 4 7	5	3 6 9	1	5	6 0	1	5	6 0	① 4 7	5	6 9	1	5	6	① 5	6	6	
4+ lanes with raised median (2 or more lanes in each direction)	7	5 8	9	7	5	9	1	5 8	6		5 8	9	①	5		1	5	③	1	5	6	1	5	6	1	5	③	
4+ lanes w/o raised median (2 or more lanes in each direction)	7	5 8	6 9	7	5	6 6 9	1	5 8	0		5 8	6 6 9	1	5	0	1	5	6 6 0	1	5 8	6 6 0	1	5 8	6 6 0	1	5	6 6 0	
Given the set of conditions in a cell, # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location. Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location. Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.* The absence of a number signifies that the countermeasure 1 High-visibility crosswalk markings, parking restrictions crosswalk approach, adequate nighttime lighting levels and crossing warning signs 2 Raised crosswalk 3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line 4 In-Street Pedestrian Crossing sign 5 Curb extension 6 Pedestrian refuge island 7 Rectangular Rapid-Flashing Beacon (RRFB)** 8 Road Diet										els,																		
is generally not an appropriate treatment, but exceptions may be considered following engineering judgment. 9 Pedestrian Hybrid Beacon (PHB)**																												

Source: Federal Highway Administration

Figures 6-8 show example illustrations of Active Transportation Crossings. Priority should be given to midblock crossings near key pedestrian generators like schools, parks, and other amenities. All midblock crossings must be marked with appropriate signage and pavement markings and shall incorporate the recommended improvements based on the specific roadway context.

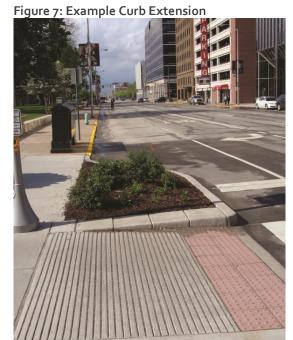






Figure 6: Midblock Crosswalk with Signage





Source: FHWA Souce: NACTO



Source: City of Austin, <u>Signal Requests | AustinTexas.gov</u>







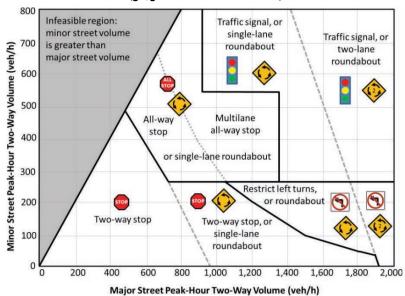
Systematic Safety Considerations

Crashes skew heavily to intersections, midblock crossings, and access points (such as driveways). Implementing an access spacing standard, as shown in **Figure 1**, helps reduce crash potential by only allowing full access intersections at the ¼ mile. Installing raised medians on the arterials can also provide a safer facility for all users.

Raised medians may provide refuge for pedestrians and bicycles at mid-block crossings.

Another safety concern is overbuilding intersections for expected growth. Intersections should be sized for opening day needs for safety reasons despite the risk to long-term operations. It is also recommended that enough right-of-way be acquired to accommodate any future buildout. Roundabouts are a recommended intersection control type due to their safety benefits and efficiency at keeping people moving. Figure 9 shows that single lane roundabouts cover a very large range of operating

Figure 9. Intersection control type by peak hour volume (50/50 volume distribution)



(a) 50/50 Volume Distribution on Each Street

Source: NCHRP 825

conditions. Roundabouts also have lower ongoing costs for management and maintenance, and they decrease almost 80% of fatal and serious injury crashes in areas where they have been introduced as a safety countermeasure.

Figure 10. Speed & Pedestrian Risk

- PEDESTRIAN FATALITY & SERIOUS INJURY RISK +

13% 40% 73%

- 20
MPH 40 +

CONE OF VISION

Source: NHTSA

Sidewalks and shared-use paths are highly recommended to provide separation between vehicles and pedestrians and cyclists. As shown in **Figure 10**, the faster a vehicle is traveling, the greater the risk for a pedestrian fatality or serious injury. Sidewalks provide safe routes for pedestrians to use that are separated from vehicles. However, cyclists' speeds can be unsafe for pedestrians and sidewalks do not provide enough space for the two users to interact safely and comfortably. Shared-use paths provide a better facility for

both pedestrians and bicyclists to use due to the increased width that allows for safe passing.







Public Transit Considerations

Existing transit service in the WE-STEP area is provided through a service contract with the Regional Metropolitan Transit Authority of Omaha (Metro). Bellevue and Papillion currently pay a nominal fee to Metro to provide contracted transit service in the form of express routes not currently in the study area. The previously completed Sarpy County Transit Feasibility Study (August 2017) included the WE-STEP study area and identified potential future improvements such as:

- A Gretna/Bellevue Express Route.
- A countywide demand-response service.
- Fixed-route corridor service on 168th, 144th, 84th, and 72nd Streets.
- An express route to Springfield and Gretna/Nebraska Crossing.

The improvements proposed in the Transit Feasibility Study includes elements such as new infrastructure (including park-and-ride facilities), additional planning and design studies, and identifying funding and a governance structure, including the possibility for WE-STEP partner agencies to join Metro provides an option for funding and a governance structure.

The existing and near future development of western Sarpy County urban and suburban areas (developed areas that are part of Gretna, Springfield, and Papillion) contain enough potential transit ridership market to begin the implementation of these concepts. As new developments are built and the street and road network is improved, it will be important to consider the potential implementation of transit service through placement of sidewalks and other active transportation to increase accessibility as well as the placement of bus routes and bus stops.

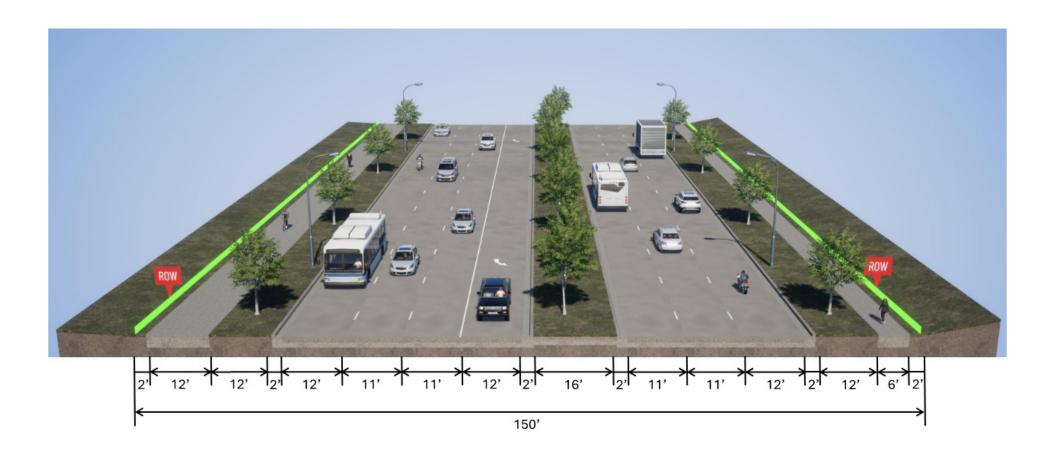
Summary

The alternatives and recommendations phase of WE-STEP first developed a set of typologies that would meet the range of demands and modal needs of future WE-STEP system users. The next step establishes the future WE-STEP network by overlaying those typologies onto the area corridors. Finally, the standards and elements associated with the network were defined based on input of technical staff and system stakeholders.

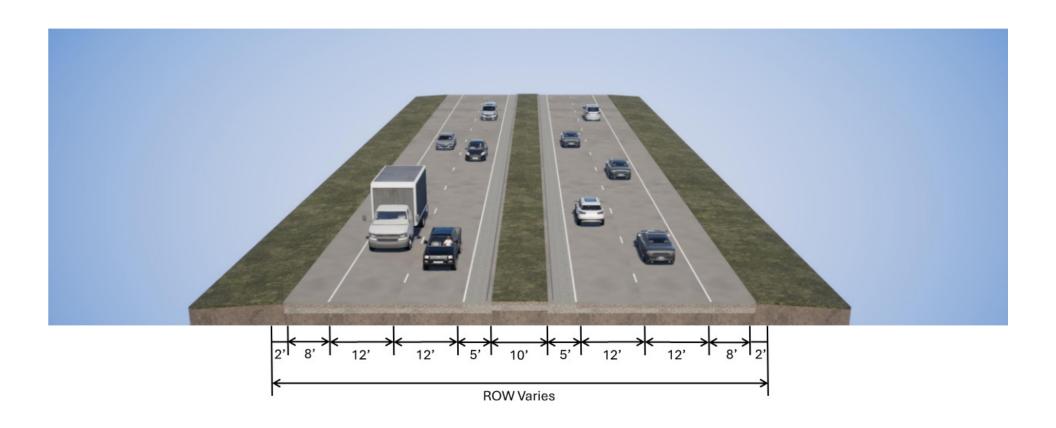
The next steps in the study will be to develop a set of application steps and toolbox for WE-STEP standards implementation, test the toolbox approach on soon-to-be-developed corridors like 156th Street and 204th Street, and run network scenarios with the MAPA travel demand model when it is available in late 2024.



Arterial 1.1 – Ultimate Cross Section

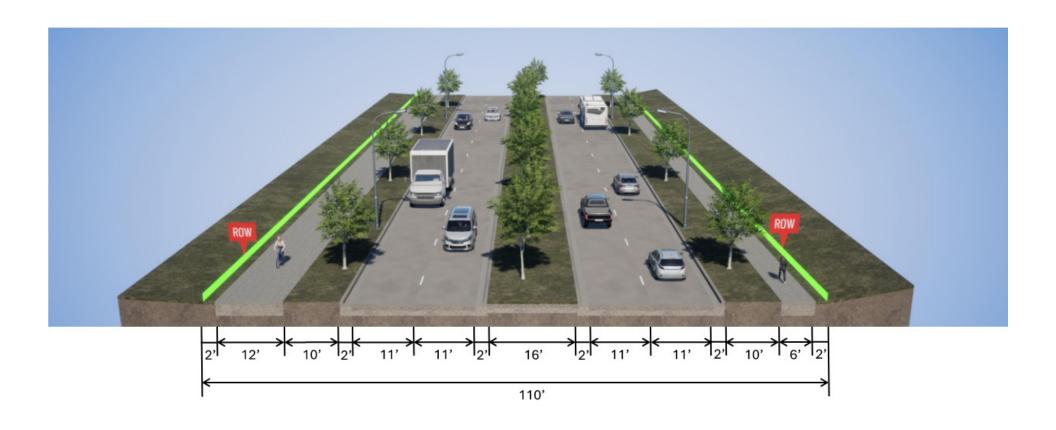


Southern Sarpy Expressway – State Highway/Expressway Ultimate Cross Section





Arterial 2.1a – Suburban Context Ultimate Cross Section

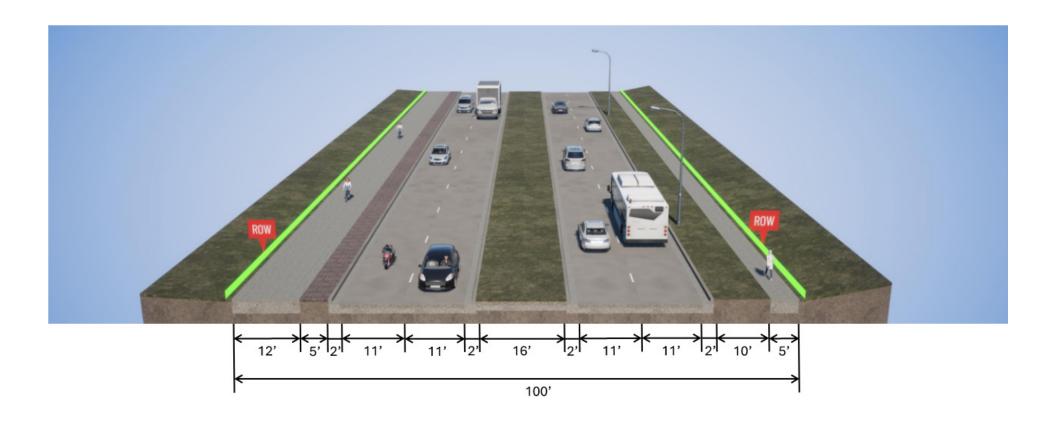


Arterial 2.1b – Mixed-Use Urban Context Ultimate Cross Section



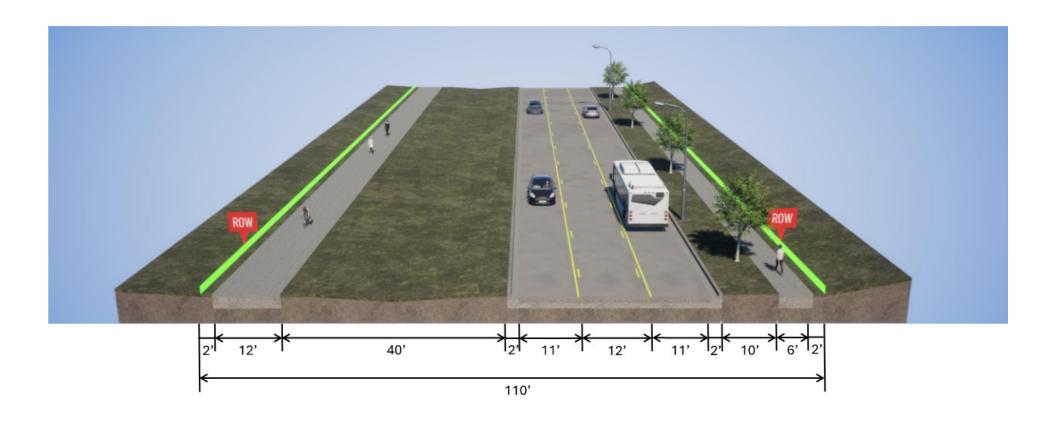


Arterial 2.2 – Constrained ROW Ultimate Cross Section



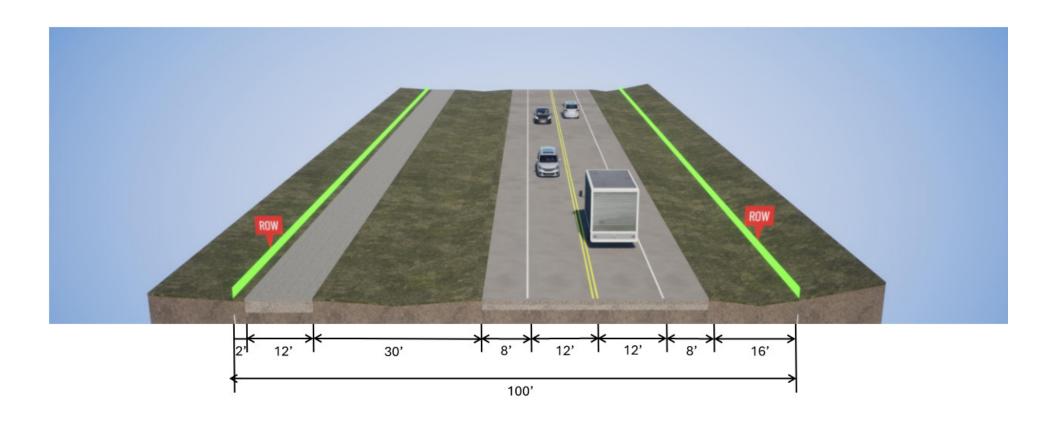


Arterial 1 or 2 – Interim Three-Lane Cross Section



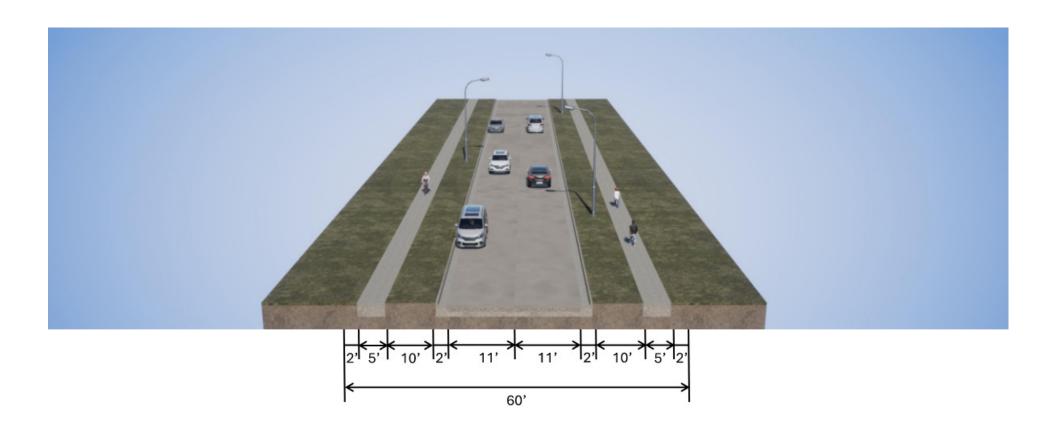


Arterial 3 – Conservation Area Ultimate Cross Section (if necessary)



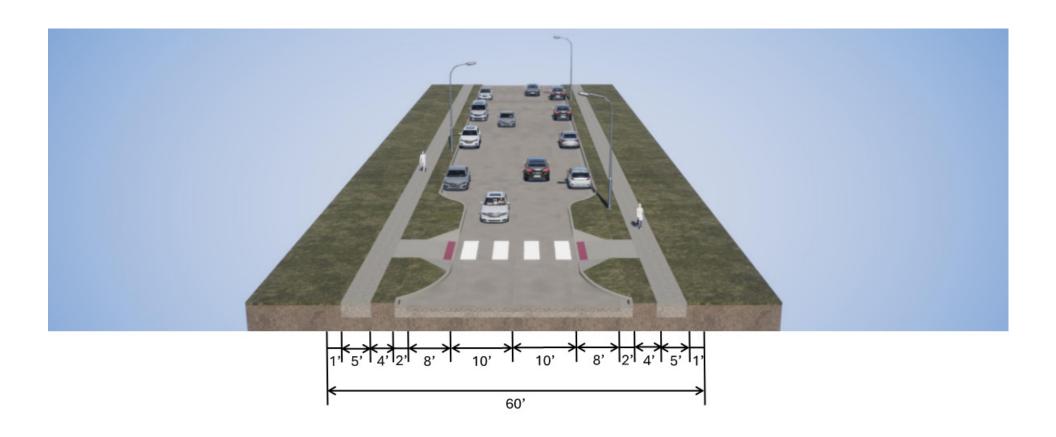


Collector Option 1





Collector Option 2 with On-Street Parking





Collector Option 3 with On-Street Bike Lanes

