# MAPA SOUTHSIDE TERRACE-INDIAN HILL MULTI-MODAL STUDY

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FHU Reference No. 120209-01

November 1, 2022

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# I. INTRODUCTION

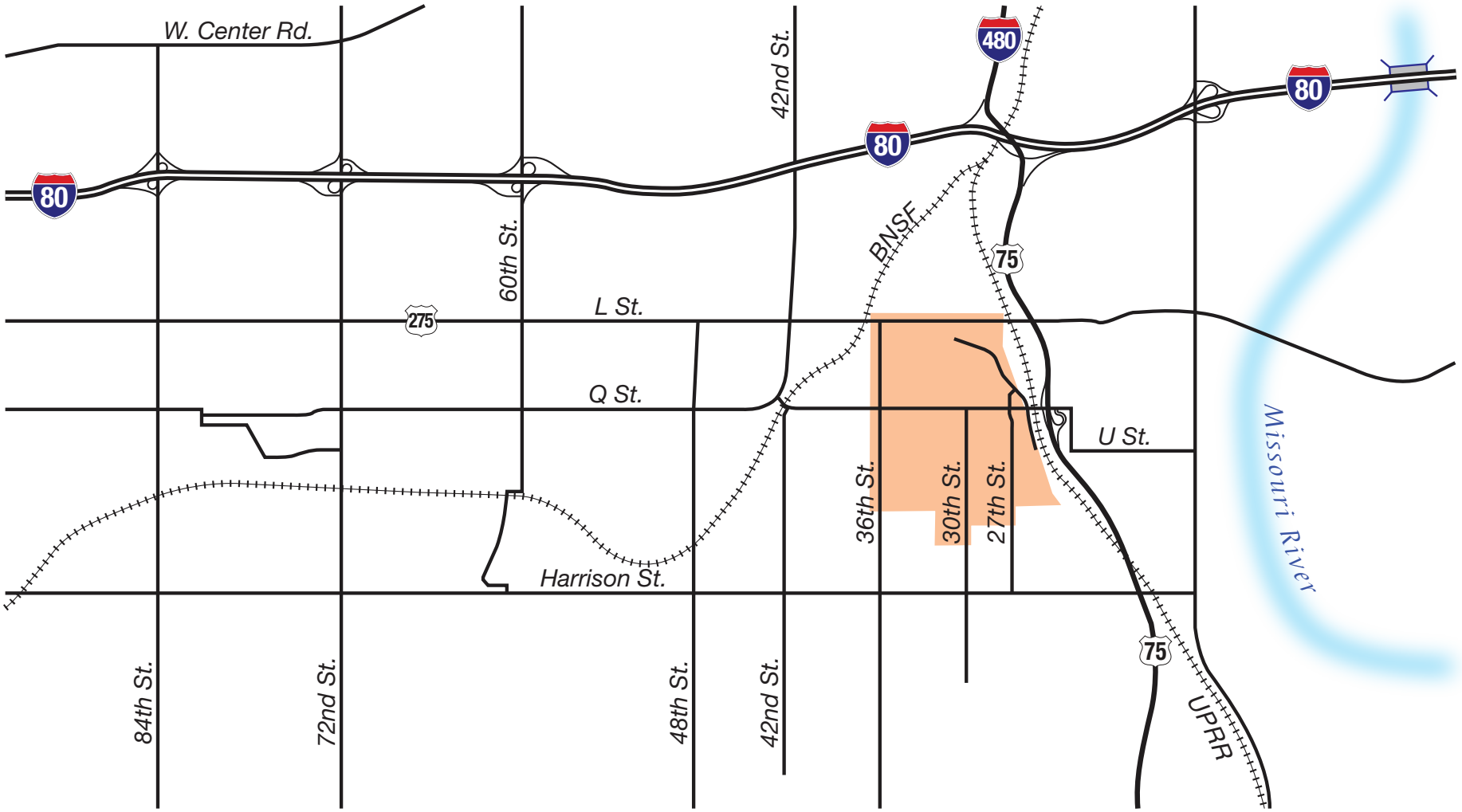
The Metropolitan Area Planning Agency (MAPA), in conjunction with the City of Omaha, commissioned a study for the purpose of developing alternatives and recommendations for an improved multimodal transportation network for the Southside Terrace Garden Apartments-Indian Hill Neighborhood area. The study area boundaries are L Street on the north, Y Street on the south (extending boundaries to include Upland Park and the Kroc Center), 36th Street on the west and 27th Street on the east. **Figure 1-1** shows the study area in relation to the greater Omaha-metro area.

This area is also the focus of a Housing and Urban Development (HUD) Choice Neighborhoods Planning + Action grant. With grant funds, the City of Omaha, Omaha Housing Authority, and Canopy South are developing a Transformation Plan; a guiding document for the revitalization of public housing units while simultaneously directing the transformation of the surrounding neighborhood and positive outcomes of families. Development of a multimodal transportation strategy is being completed concurrently with the other implementation outcomes of the Transformation Plan. Anticipated outcomes of the Transformation Plan include the replacement of Southside Terrace Garden Apartments (Southside Terrace), critical neighborhood improvements to catalyze further investment, better employment options, higher incomes, and improved health and educational outcomes.

The multimodal transportation study is being completed to analyze the movement of people using all modes of transportation (including walking, biking, transit, automobile, and freight) into, out of, and through the area. Quantitative and qualitative analysis will help determine how to best accommodate those movements in the future. Information from this study will be used by project stakeholders to support the planning and implementation of transportation design and construction projects.

This traffic study evaluated conditions in the Existing (2021) and Future (2050) analysis years to determine traffic operations and safety performance for the intersections and streets in the study area. The study included a data collection effort, intersection capacity analyses, traffic forecasting, and crash analyses. Existing land use conditions and key neighborhood destinations (**Figure 1-2**) were also evaluated along with review of the People, Housing, and Neighborhood elements of the Transformation Plan. Existing and future conditions analysis proceeded development of conceptual recommendations for transportation infrastructure improvements.

The study followed a planning process that adopted the transportation goal of the Transformation Plan, studied existing transportation and land use condition, established performance criteria, prepared conceptual alternatives for multimodal improvements, and advanced preferred concepts throughout a process of public involvement and stakeholder feedback. A combination of implementation strategies is needed to support the transportation goal for the study area. The final recommended conceptual alternatives may include a blend of strategies. The alternatives will be used by the project stakeholders to further public outreach efforts and planning through the next phases of the Choice Neighborhoods Planning grant.




**LEGEND**

= Project Study Area

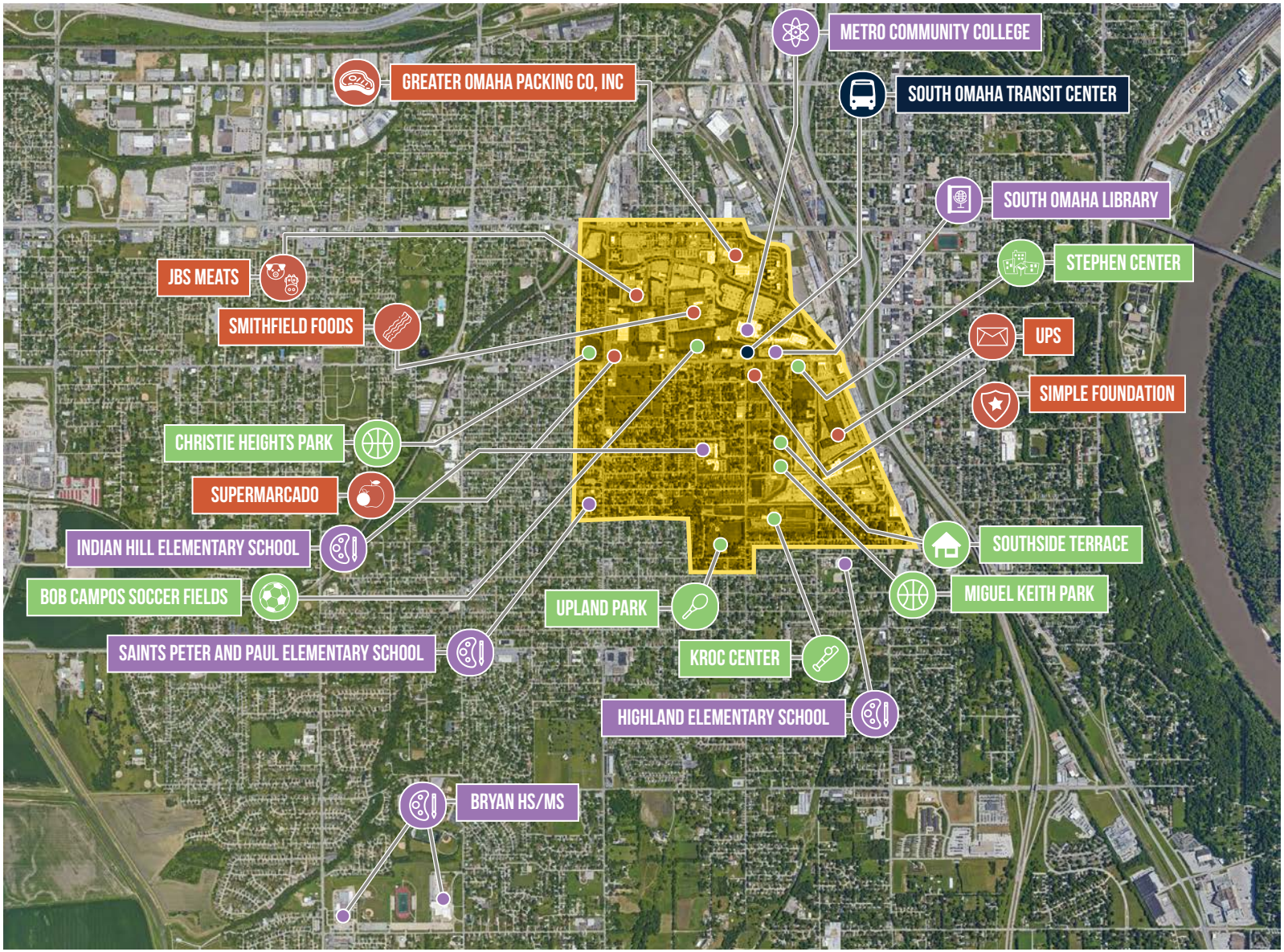
NORTH

FELSBURG HOLT & ULLEVIG

**NOTE: Drawing Not to Scale**

# FIGURE 1-1
## Vicinity Map

MAPA Southside Terrace TIA 120-209-01 2/10/22




**LEGEND**

- = Study Area
- = Education
- = Recreation
- = Employment
- = Transit

NORTH

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# FIGURE 1-2

## Key Neighborhood Destinations

MAPA Southside Terrace TIA 120-209-01 2/10/22

# II. STUDY AREA

### Existing Land Use

The project study area is approximately 534 total acres and home to Nebraska's largest public housing complex, several commercial businesses, educational institutions, and human service providers. Much of the study area is made up of industrial and commercial uses located primarily north of Q Street and east of S 28th Street. High percentages of commercial and industrial land uses indicate the study area as strong a job center. Public property covers nearly a quarter of the study area, inclusive of Metropolitan Community College located north of Q Street. Public land south of Q Street is more neighborhood focused, with the Indian Hill Elementary, Kroc Center, and St. Mary's church and cemetery. The remaining land uses within the study area includes nearly 25% of residential land uses, and 5% dedicated to parks. One park use is located north of Q Street, while the other land is near the Kroc Center and residential fabric of the study area. The independent GIS analysis breakdown of existing land use is shown in **Table 2-1**:

**Table 2-1. Study Area Land Use Types**

| Land Use Type | Total Acres | % of Land Use |
|---|---|---|
| Industrial | 151.5 | 29% |
| Public / Semi Public / Institutional | 142.5 | 27% |
| Commercial | 82.5 | 16% |
| Low Density Residential (Single Family) | 75 | 14% |
| High Density Residential (Apartments) | 40 | 8% |
| Parks / Open Space | 29 | 5.5% |
| Medium Density Residential (Townhomes/Duplex) | 3.5 | 0.5% |
| **Total** | **524 Acres** | **100%** |

The study area has several key destinations (**Figure 1-2**) that influence the movement of people and vehicles. On the northeast end of the study area, Metropolitan Community College (MCC) is located directly north of Q Street and west of Ed Babe Gomez Drive; the South Omaha Public Library is located just south of the college. Indian Hill Elementary School is located south of U Street / Avenue and west of 30th Street as well. The area north of Q Street contains several commercial and industrial businesses. Greater Omaha Packing Co., Smithfield Foods, and Phillips manufacturing are all located in this area. Other area businesses include the UPS Customer Center, Lineage Logistics, and various commercial buildings along 27th Street, between R Street and Y Street. South of Q Street and west of S. 27th Street, the project study area is primarily residential with some commercial developments along S. 30th Street.

There are also numerous community centers with neighborhood and regional services as well as parks located through the project study area. The Salvation Army Omaha Kroc Center is located south of Y Street, between 30th Street and 27th Street. Upland Park is located just west of the Kroc Center with Miguel Keith Park and Memorial being located north of Y Street and East of 30th Street. The Bob Campos Soccer Complex is located north of Q Street and east of 33rd Street. Christie Heights Park is also located north of Q Street on the west side 36th Street.

Much of the residential uses are located south of Q Street, with the exception of the high-density residential apartments north of the community college. The proximity of the residential land uses benefits greatly from the adjacent elementary school and community outreach facilities such as the Kroc Center accessible within approximately a five-minute walk. However, Q Street is a major barrier

between residents south of Q Street and the jobs and services north of Q Street. Grade is also a challenge, making walkability between land uses and services even more difficult

With the large high density residential housing between 30th and 28th changing, this may also demand that, over time, some of the single-family area might redevelop into higher density uses. Increased residential densities can anticipate some infill of retail to support housing as well.

It is evident that Q Street is a dividing barrier between land use types and makes it difficult for users to move throughout the study area safely, and the future improvements made to Q Street may be a catalyst for future private investment.

### Study Segments

The analysis focused on the evaluation of 10 corridors and 23 intersections within the study area as part of the existing conditions analysis. The study corridors and intersections were designated as being of either primary or secondary importance within the study area; this designation determined the intensity of analysis for the corridors and intersections included in the study. A breakdown of these designations can be seen below in **Table 2-2**.

**Table 2-2. Study Intersection / Segment Level of Importance**

| **Primary Study Segments** | |
|---|---|
| Q Street | 30th Street |
| **Secondary Study Segments** | |
| L Street | 36th Street |
| Ed Babe Gomez Avenue | 33rd Street/Avenue |
| U Street | 32nd Street |
| Y Street | 27th Street |
| **Primary Study Intersections** | |
| 36th Street & L Street | 28th Street & Q Street |
| 33rd Street & L Street | 27th Street & Q Street |
| 30th Street & L Street | 36th Street & X Street |
| 33rd Street & Ed Babe Gomez Drive | 32nd Street & U Street |
| 36th Street & Q Street | 30th Street & U Street |
| 33rd Street & Q Street | 27th Street & Y Street |
| 30th Street & Q Street | |
| **Secondary Study Intersections** | |
| 36th Street & Ed Babe Gomez Drive | 33rd Street & U Street |
| 30th Street & Ed Babe Gomez Drive | 36th Street & X Street |
| 27th Street & Ed Babe Gomez Drive | 33rd Street & Y Street |
| 32nd Street & Q Street | 30th Street & Y Street |
| 36th Street & U Street | Y Street & Ed Babe Gomez Drive |

**Figures 2-1** shows the intersection traffic control and segment cross-sections. Speed limits within the study area are shown on **Figure 2-2**, and a parking summary can be seen on **Figure 2-3**. **Figure 2-4** identifies the truck routes located within the study area. The study area street system includes the following major road network facilities:

- **Q Street** runs east-west and is located approximately ½ miles south of L Street and one mile north of Harrison Street. Within the study area, Q Street operates as a two-way street with a four-lane undivided cross section. The posted speed limit is miles per hour (mph) along Q Street. Five-foot sidewalks are provided on both sides of Q Street along the entire length of the corridor except for an 8-foot sidepath section adjacent to the South Omaha Branch Library and a 10-foot multi-use trail segment that was constructed on the north side of Q Street between 27th and 28th Street continuing across the highway, railroad and connecting to 25th Street. On-street parking is also available on the south side of Q Street between 33rd Street and 30th Street. Q Street, from 36th Street to 24th Street, is classified as a truck route. Multiple curb ramps along this corridor were observed to be missing or not ADA compliant.

- **30th Street** begins at Q Street and runs south to Sandra Street where it terminates, just over a mile south of the study area. The corridor is an unmarked two-lane roadway with four-foot sidewalks provided on both the east and west sides of the street. The speed limit along 30th Street in the study area is 25 mph which is posted between R and W Streets. A pedestrian activated crossing signal is provided on the south leg of the intersection with U Street. Parking is restricted along this street. Multiple curb ramps along this corridor were observed to be missing or not ADA compliant.

- **L Street** runs east-west along the north side of the study area. Within the study area, the corridor has a five-lane cross-section with a two-way left turn lane (TWLTL). Sidewalks are provided along both the north and south sides of the roadway with widths ranging from four to eight feet. Sidewalks extend from the back of curb along the north side of the street and most 4-foot-wide sidewalks are separated from the back of curb by at least 4-feet. A 12-foot-wide sidepath is provided along the south side of L Street east of 30th Street but narrows to 6-feet-

wide as it approaches the Highway 75 bridge. The posted speed limit is 35 mph along L Street and no on-street parking is provided in the study area.

- **Ed Babe Gomez Avenue** runs primarily west-southeast through the study area and is classified as a truck route. Beginning at 36th Street, just south of L Street, Ed Babe Gomez Avenue is a two-lane cross section to 33rd Street, with a posted speed limit of 30 mph and 6-foot-wide sidewalks along the north side and 5-foot-wide sidewalks along the south side. East of 33rd Street, the roadway transitions to a three-lane cross section with two travel lanes in the eastbound direction and 5 to 6-foot-wide sidewalks on both sides. The posted speed limit increases to 35 mph and the left lane of travel in the eastbound direction then becomes a two-way left turn lane west of Ed Babe Gomez Circle. Between Edward Babe Gomez Circle and S 27th Street, 5-foot-wide sidewalks are separated from the curb line. Sidewalks widen to 6-feet and extend from back of curb east of S 36th Street. All Way Stop Control (AWSC) is featured where Ed Babe Gomez Ave intersects with 28th Street. The roadway begins to run primarily northwest to southeast just north of Q Street where it transitions to a four-lane undivided roadway that terminates at the intersection of Y Street with 25th Street in the southeastern corner of the study area. Curb ramps do not exist at this intersection.

- **U Street / Avenue** runs east-west through the south of the study area and is a two-way, unmarked roadway with multiple two-way stop controlled (TWSC) intersections. The offset street grid shifts the alignment south between 36th Street and 33rd Avenue before shifting back to the north where it crosses through a school zone before connecting with S. 30th Street. Four-foot sidewalks are provided on both the north and south side of the corridor. The 25 mph speed limit is

unposted along U Street in the study area, but a 20 MPH speed limit is posted between 32nd and 31st Streets where U Street converts to one-way traffic during school hours. A 10-foot school drop off sidewalk is provided in front of Indian Hill Elementary School. Multiple curb ramps along this corridor were observed to be missing or not ADA compliant.

- **Y Street** runs east-west along the south side of the study area with TWSC intersections. The corridor is not continuous through the study area; a two block stretch between 33rd Avenue and 32nd Street is not connected. Y Street operates as a two-way unmarked roadway with a two-lane cross section. A portion of the corridor, from 32nd Street to just west of 30th Street is unpaved. Pedestrian facilities are inconsistently provided along Y Street from 36th Street to 34th Street with no sidewalk on the south side between 35th Street and 33rd Avenue. Sidewalks are also missing between 26th Street and Edward Babe Gomes Avenue/25th Street intersection. The speed limit is 25 mph.

- **36th Street** runs north-south along the west side of the study area. It operates primarily as a two-way, two-lane street; the roadway transitions briefly to a three-lane cross section with a TWLTL between O Street and Q Street. Left turn lanes are provided between O Street and L Street and on the northbound approach to Q Steet. Sidewalks are provided on both the east and west sides of the corridor. Sidewalk widths are 4-feet wide in front of residential properties and generally widen to the back of curb south of S Street in front of commercial businesses. South of L Street, roadway is classified as a truck route. The posted speed limit along 36th Street is 30 mph. A school zone with posted speed limit of 25 mph is provided between W and Y Streets and a pedestrian activated signal crossing is provided on the south leg of the intersection with X Street.

- **33rd Street / Avenue** runs north-south through the study area operating as a two-way two-lane roadway. Between L Street and Q Street, the corridor is classified as a truck route with no parking. 33rd Street transitions to 33rd Avenue south of Q Street. Between L Street and Q Street, 5-foot-wide sidewalks are provided on both the east and west sides of the corridor adjacent to the curb line. Pedestrian crosswalks are not striped at Q Street. Between South of

Q Street, 4-foot-wide residential sidewalks are set back from the curbline. The speed limit along 33rd Street / Avenue is posted at 25 mph along this corridor within the study area.

- **32nd Street** is two-lane, unmarked roadway that runs south from Q Street and terminates at Jefferson Street on the southern edge of the study area. 32nd Street is not a continuous street within the study area as there is no connection between Y Street and Upland Parkway. The 4-foot-wide residential sidewalks provided south of Q Street do not continue south of X and W Streets to connect with Y Street and Upland Park. The speed limit along 32nd Street in the study area is 25 mph.


**27th Street** runs north-south near the eastern edge of the study area. 27th Street begins just north of Q Street at the intersection with Edward Babe Gomez Avenue as a four-lane cross section to the intersection with R Street where it continues south as a two-lane cross section running south and away from the study area. Pedestrian crosswalks are provided on the north, west, and south legs of the intersection with Q Street connecting to sidewalks along the back of curb that range from five to 10-feet-wide. South of R Street, 5-foot-wide sidewalks are present on the west side of 27th Street to W Street where 4-foot-wide residential sidewalks are provided on the east side to the study area limits. The 25 mph speed limit is posted south of R Street along 27th Street.

***Figure 2-1. Roadway Cross-section & Intersection Control***

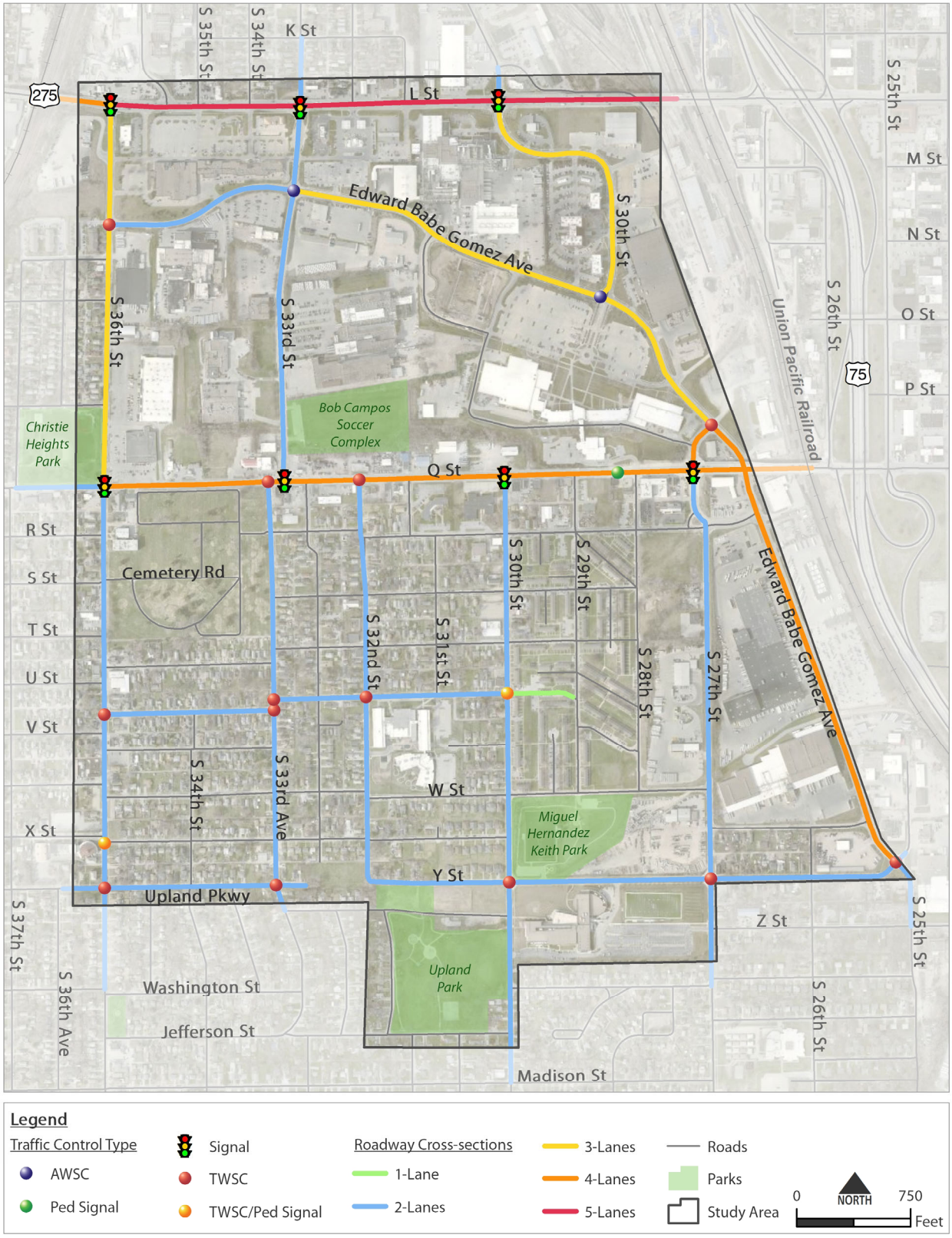


***Figure 2-2. Speed Limits***

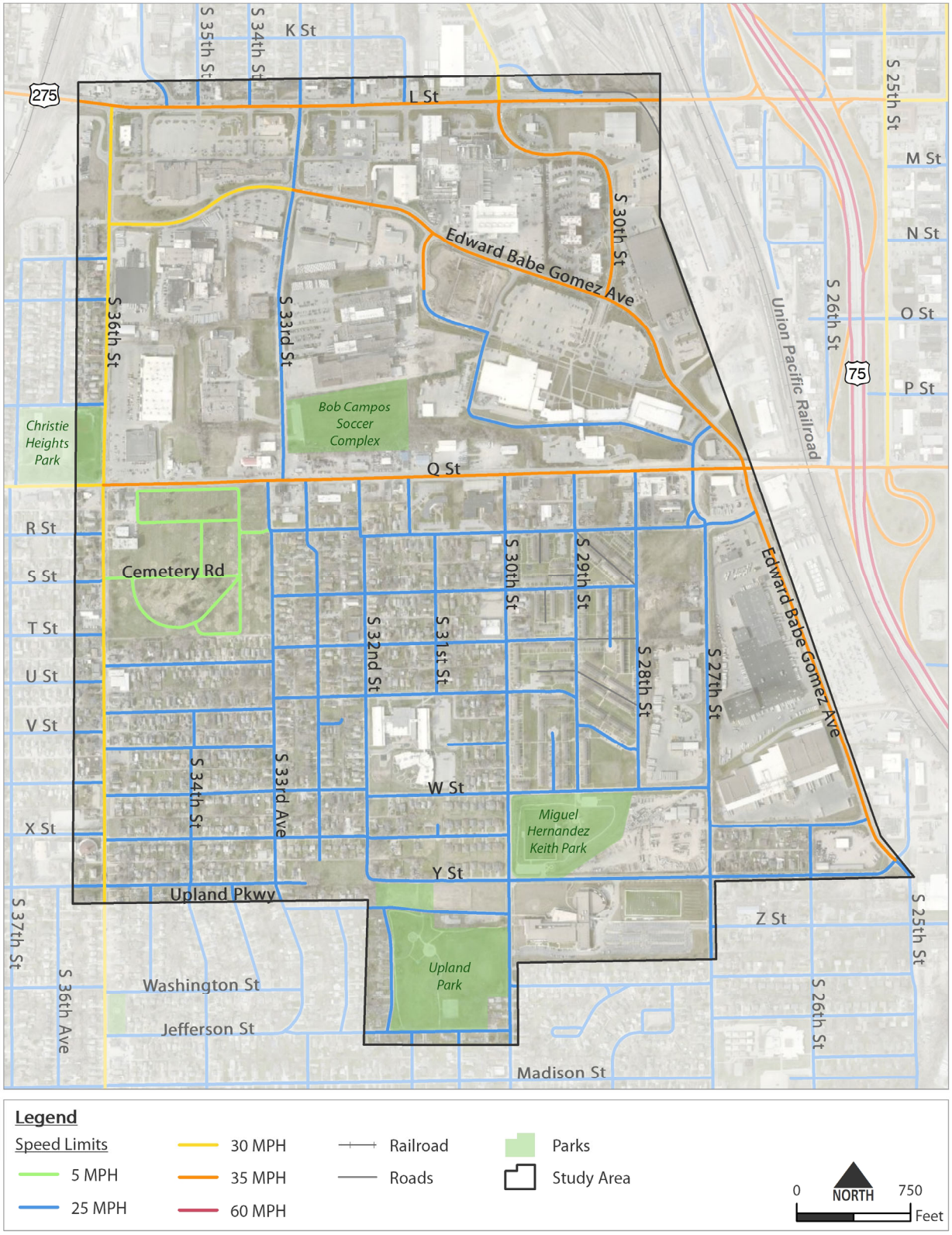


***Figure 2-3. Parking Summary***

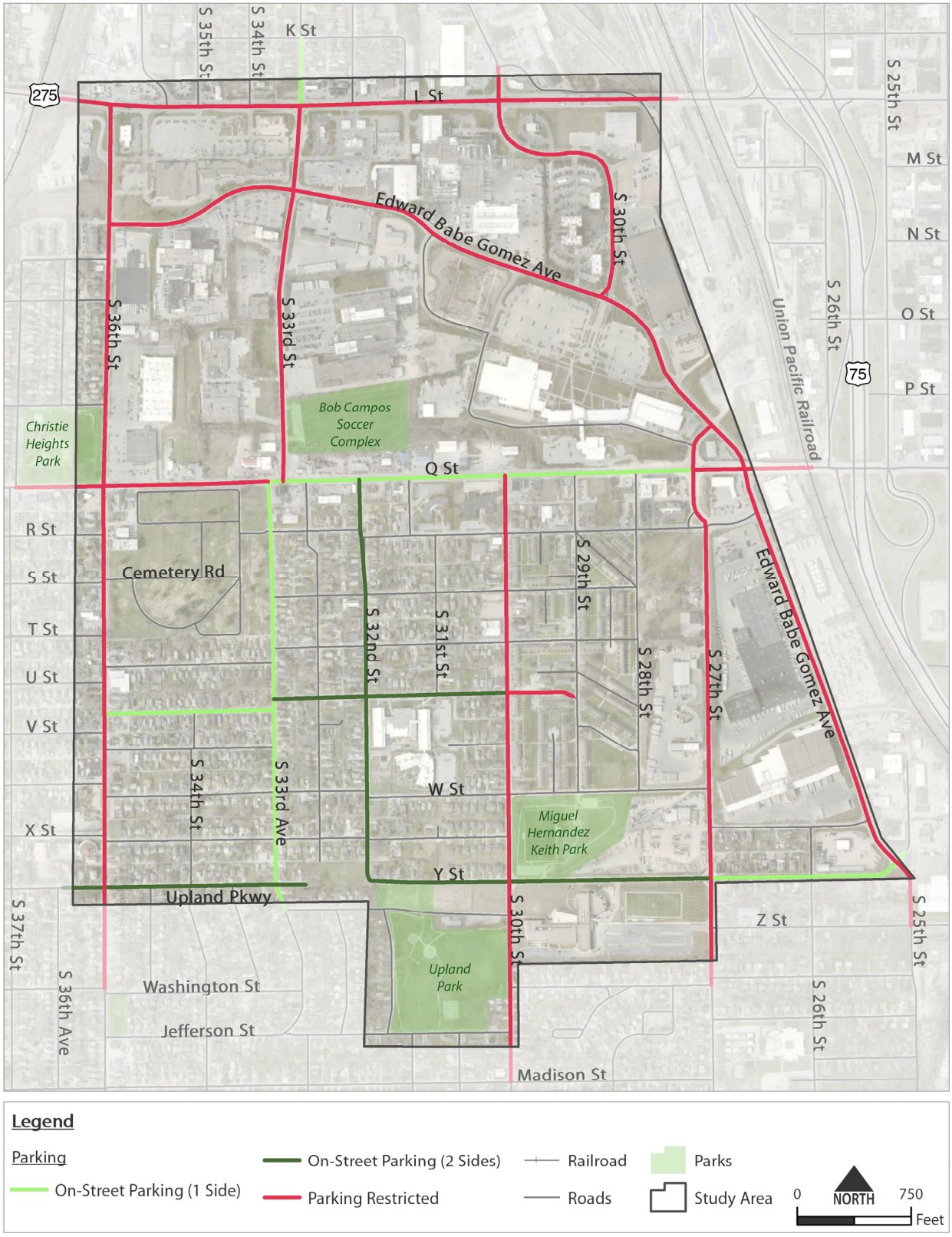


***Figure 2-4. Existing Truck Routes***

### Pedestrian Facilities

Pedestrian accommodations were documented within the study area. As part of the data collection effort of pedestrian facilities, sidewalk conditions were examined throughout the study area as well as a curb ramp inventory along all primary and secondary study segments. This inventory of sidewalk conditions and curb ramps is used to identify potential barriers to active transportation, not the demand within these neighborhoods.

Sidewalk conditions were documented along all primary and secondary segments within the study area. Conditions were graded as either (1) Acceptable, (2) Missing, or (3) Poor. A poor sidewalk was defined as a section with pavement heaving, missing panels, and/or infrastructure obstructions. The missing sidewalk designation is self-explanatory, it should be noted though that evidence of pedestrian traffic was still observed at some locations, such as desire paths through yards and along the ROW. If the sidewalk was present and traversable, it was classified as acceptable. **Figure 2-5** shows the location and condition of sidewalks within the study area.

Grade 1 – Acceptable

Grade 2 – Missing

Grade 3 - Poor

Sidewalks are generally provided along streets throughout the project area with a few exceptions. Sidewalks are present along both sides of Q Street within the study area, however, between 33rd Street and 29th Street, the facilities along the south side of the corridor is classified as poor condition. Along 32nd Street, between W Street and Y Street, sidewalk facilities are either missing or in poor condition. The same is true for sidewalk facilities along Y Street in between 32nd Street and 30th Street. Sidewalk conditions in the primarily residential areas south of Q Street are quite varied.

Curb ramps, also known as curb cuts, are typically provided at pedestrian crossings to allow wheelchair users, bicyclists, pedestrians, and all other non-motorized traffic to move onto and off a sidewalk. Within the study area, an inventory of curb ramps on both primary and secondary study segments and intersections was taken. **Figure 2-6** denotes whether a curb ramp (1) Exists, (2) Does Not Exist, or (3) Not ADA Compliant. Q Street and 30th Street were given a more thorough inspection due to their primacy within the study area.

If a curb ramp was designated as "Does Not Exist", this meant either a complimentary curb ramp across a street was missing for an existing curb ramp or a traffic control device indicated the ability for a pedestrian movement but the curb ramp(s) were not present. Whether a curb ramp was designated as "Not ADA Compliant" is based on *ADA Standards for Accessible Design, FHWA (2010).* Commonly ADA

compliance is missing due to inadequate clearance between the ramp and some obstructions nearby, missing tactile strips for visually impaired users, and/or other obstructions within the sidewalk path adjacent to the curb ramp.

***Figure 2-5. Sidewalk Conditions***

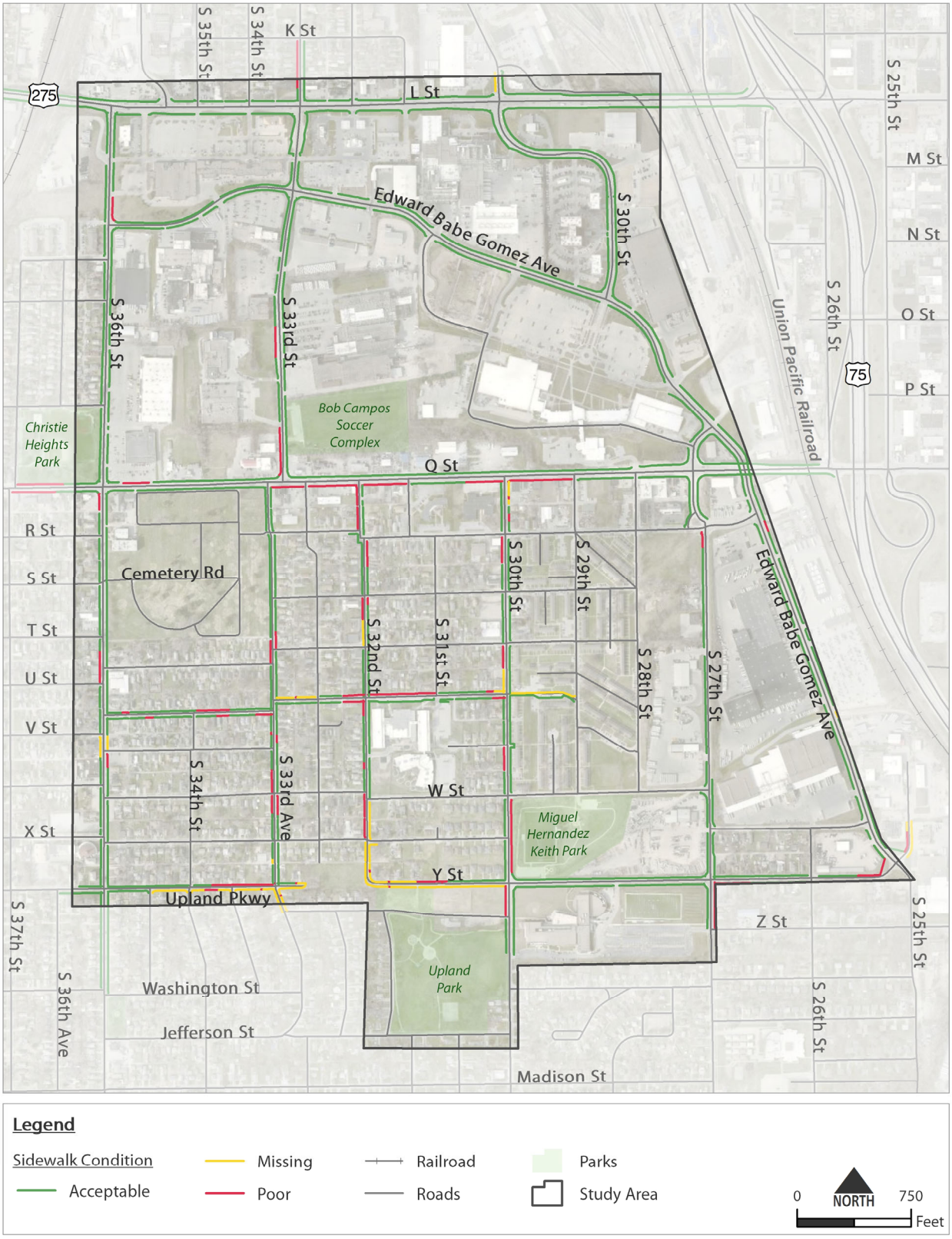
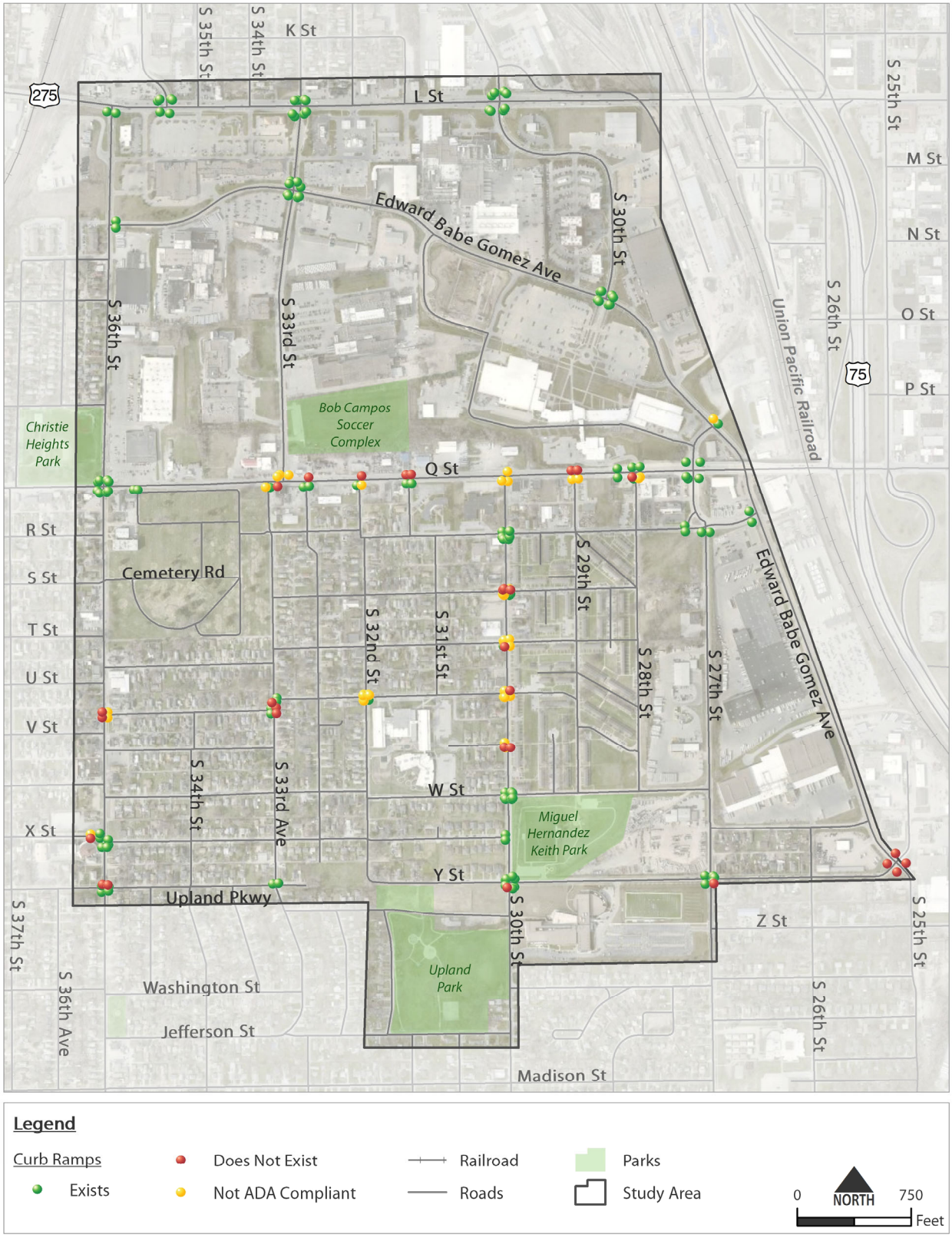


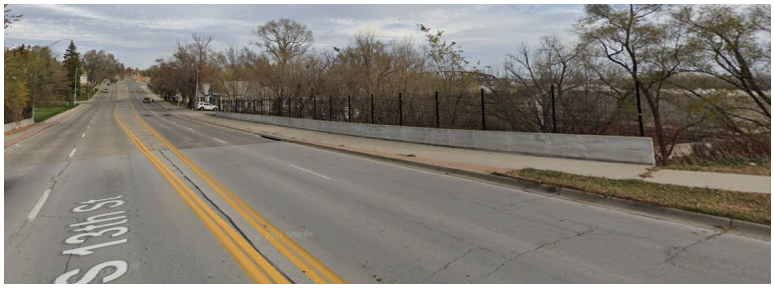
***Figure 2-6. Curb Ramp Inventory***



**Bicycle Network**

Many components of the Omaha bicycle network exist in and around the study area. Multiple route types are described in the *Omaha Metropolitan Area Bicycle Map, 2017 Edition*, which are addressed below as well as relevant routes within the study area:

- *Multi-use Trails:* The trails, for the exclusive use of non-motorized users, often run along waterways, abandoned railroads, greenways, or through parks. Other multi-use trails are especially wide paths along streets but separated from motor vehicles.

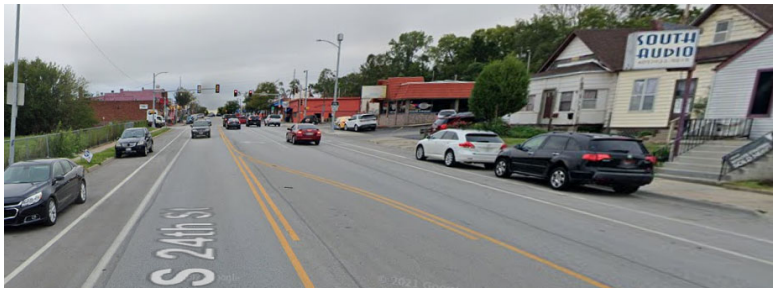



    - Trails are present in both Upland Park and Miguel Hernandez Keith Park, however these are not officially designated as Multi-use Trails on the City of Omaha's bike map. The nearest trail segment is located on the east side of 13th Street (shown below), east of the study area. The South Omaha Trail is located north of the project area with access near 36th Street and D Street. However, a shared use side path exists along the north side of Q Street from 26th Avenue to 28th Avenue.

- *Bike Omaha System:* This system of signed on-street routes connects downtown, major central city destinations, and the trail system.


    - There are no Bike Omaha System streets in the study area, but to the east the 24th Street bike corridor connects with others to the north. The Bike Omaha System routes located nearest the study area are north of Interstate 80 on Vinton Street (shown below) and east of Highway 75 on Railroad Avenue and 24th Street. Previous plans to sign the system along Q Street to Metropolitan Community College – South Campus were not completed because a safe and comfortable route to ride could not be identified under current conditions.

- *Bike Lanes:* Provide a painted lane intended only for the use of cyclists within the roadway.




    - There are no Bike Lanes in the study area. Bike lanes are installed along Railroad Avenue/24th Street (shown below) between Harrison and Q Street.

- *Marked Shared Routes:* These streets are designated bike routes, marked by signs and sharrows (shared us pavement markings).
    - There are no Marked Shared Routes in or around the study area.

- *Continuous Low-Volume Streets:* These streets have low traffic volumes and are suitable for most cyclists. The routes serve destinations, trails, and provide ways to move through neighborhoods. Continuous Low-Volume Streets within the study area include:


    - U Street/V Street, west of 30th Street
    - 30th Street, from Q Street to Monroe Street (shown below).

- *Experienced Rider Streets*: These streets have moderate traffic volumes and are generally suitable for experienced cyclists comfortable with riding in mixed traffic. Experienced Rider Streets within the study area include:


    - Ed Babe Gomez Avenue
    - 33rd Street, north of Q Street
    - Q Street (shown below)

Additionally, a B-cycle Bike Sharing Station and a Fixit Station are also located on MCC's campus. **Figure 2-7** shows the existing bicycle facilities located within the study area and immediately around it. Based on recommendations from the Transformation Plan for Southside Terrace

redevelopment, MAPA Regional Bicycle & Pedestrian Plan, and this study; a proposed existing and future bike trails map was created and shown on **Figure 2-8**.

Bicycle Level of Traffic Stress (LTS) was measured along all primary and secondary study segments. Bicycle LTS is how comfortable a roadway feels for bicyclists, based on interaction with vehicles, traffic controls, and infrastructure features. After segment variables are analyzed, the roadway is ranked on a scale of 1 to 4. A score of 1 indicates good bike ability and comfort for the cyclist, whereas a score of 4 indicates a high level of traffic stress and possibly unsafe conditions for cyclists. **Figure 2-9** shows the Bicycle LTS scores for the study area.

When considering future bicycle infrastructure, higher LTS score segments (3 and 4) may need more investment of bicycle infrastructure such as bike lanes or cycle tracks, improvements that provides a physical barrier between users and motor vehicle traffic. Lower LTS score segments (1 and 2) may function very well as a designated shared-use or continuous low-volume street.

***Figure 2-7. Existing Bicycle & Trail Network***

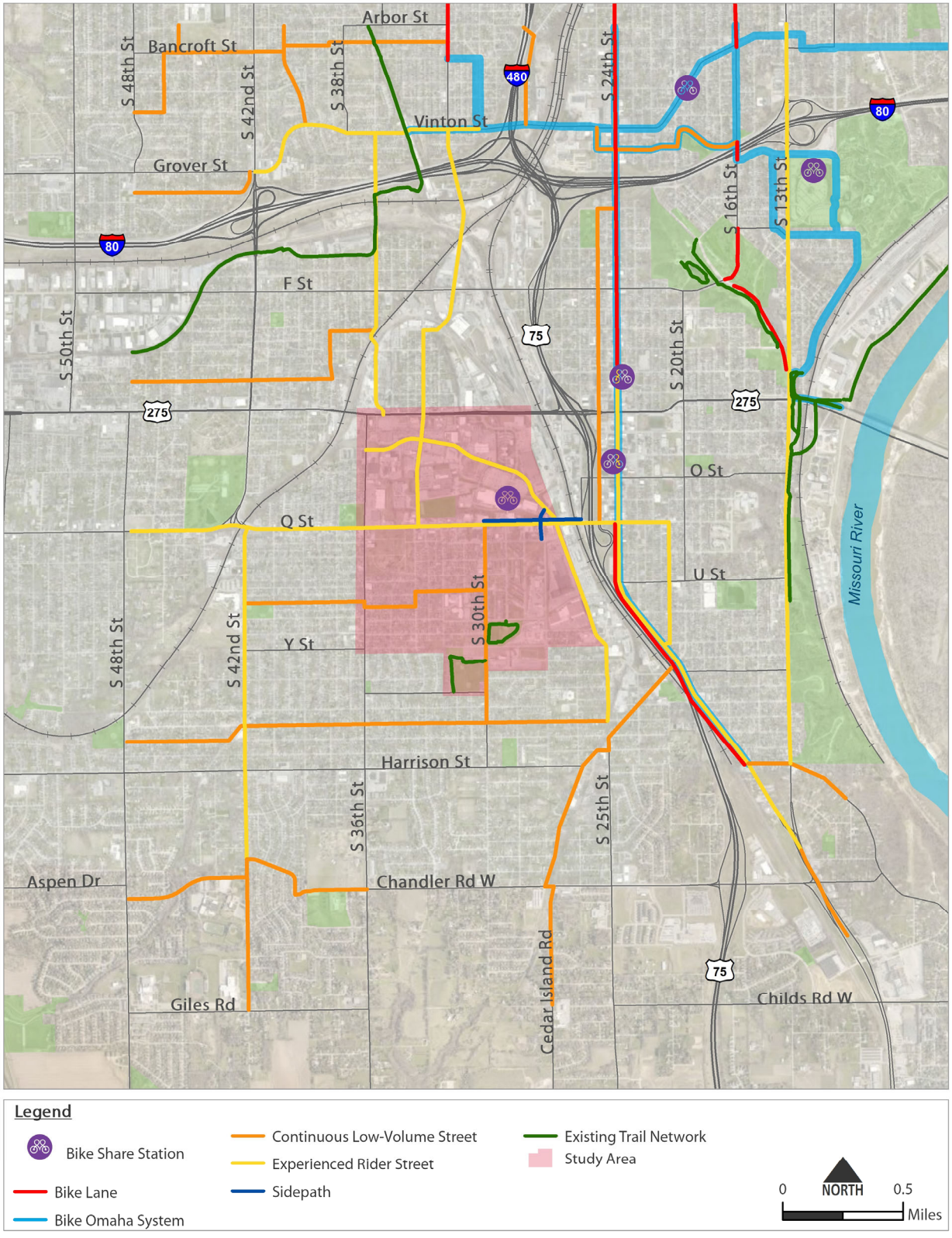


***Figure 2-8. Existing & Future Bike/Trail Network***

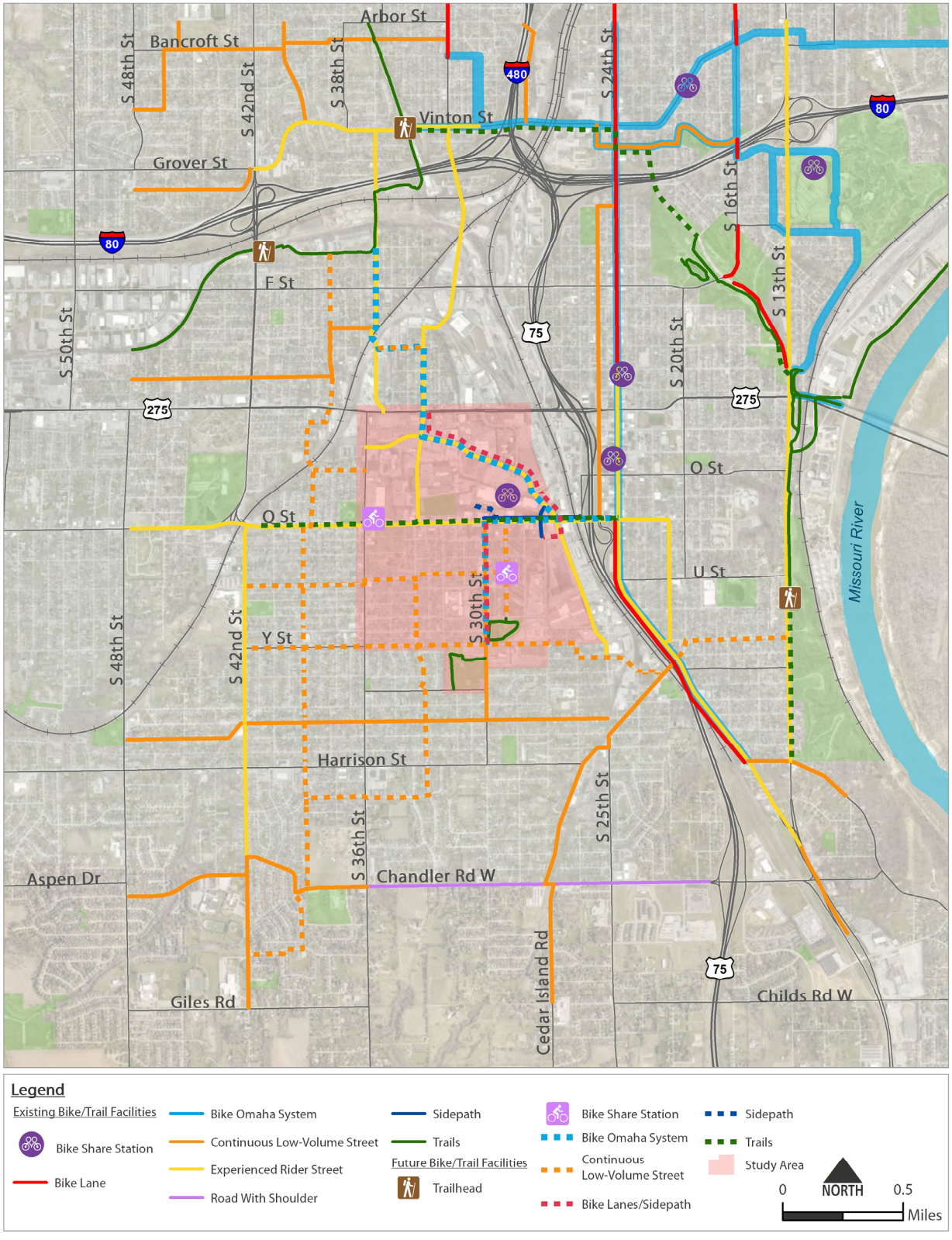
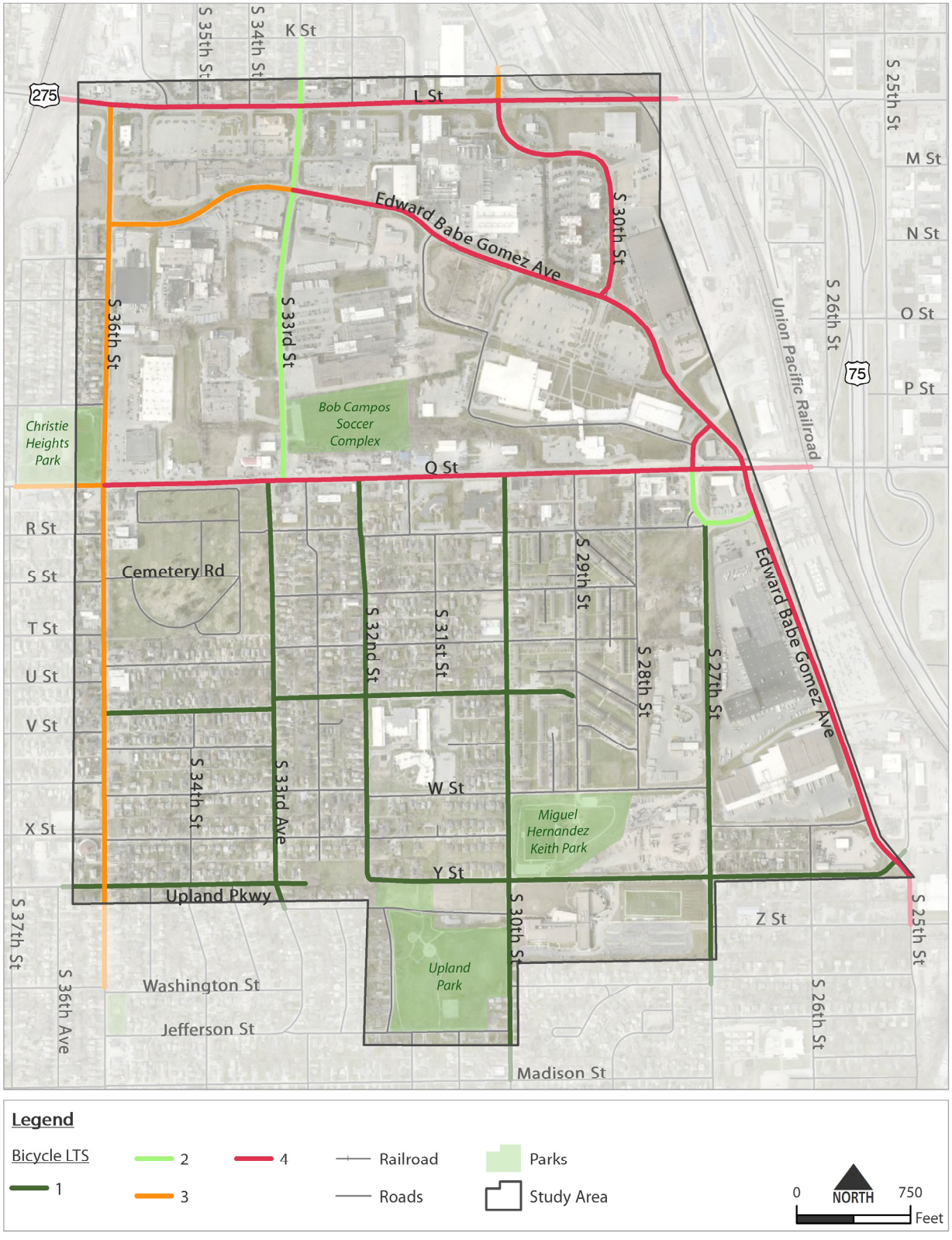


***Figure 2-9. Bicycle Level of Traffic Stress***



### Existing Metro Bus Service

There are five Metro Transit bus routes that run through and around the project study area.

- Route 3 runs north, providing access to North Omaha with stops at the University of Nebraska Medical Center (UNMC), Fontaenelle Park, and the North Omaha Transit Center. This route has 30-minute headways.
- Route 13 runs primarily along L Street and 13th Street; it provides access to Downtown and The Old Market to the east, and Baxter Arena and the Aksarben Transit Center to the west. This route has 30-minute headways.
- Route 24 runs primarily on 24th Street with stops at Creighton University and the North Omaha Transit Center. This route has 20-minute headways on weekdays from 7 AM to 6 PM.
- Route 34 only operates twice a day – once during the AM and once during the PM in peak hours. It runs from the Capitol District in the east to 120th Street in the west, making it the westmost extending bus route that runs through the study area; it should also be noted this bus route is listed as suspended by Metro Transit at the time of writing of this report. As of July 20th, 2022, this route has been temporarily suspended.
- Route 95, like Route 34, only operates twice during the AM and PM peak hours. Also known as the Bellevue Express, this route is the most southern reaching bus route through the project area, travelling as far south as Harlan Drive. This route features stops at Bellevue University and Omaha's Henry Doorly Zoo. This route is very limited in stop frequency as well as number of stops in certain directions during AM and PM peak hours.

There are several bus stops located in the study area. Most notable is the South Omaha Transit Center located on MCC campus where the described bus routes intersect. Additional stops are located periodically along the routes within the study area. A detailed map showing the location of all bus stops within the project study area can be seen in **Figure 2-10**.


As part of this study a transit travel shed map was created. This map, shown on **Figure 2-11**, considers how far an individual can travel, using only walking and transit, from a specific point and time during the day. The point used for this study was 30th Street with T Street and was analyzed during the AM peak hour between 7:30 and 8:30. Four travel sheds were included in the analysis, (1) 15 minutes, (2) 30 minutes, (3) 45 minutes, and (4) 60 minutes.

Within 60 minutes someone could reach as far west as 84th Street with Dodge Street and north to 24th Street with Hartman Avenue. Travel to the east and south is more limited. An individual within the study area could reach downtown Omaha within 45 minutes, but not get to Council Bluffs. To the South, Bellevue is not reachable within the 60-minute window during the analyzed AM period.

***Figure 2-10. Transit Routes & Bicycle Facilities***

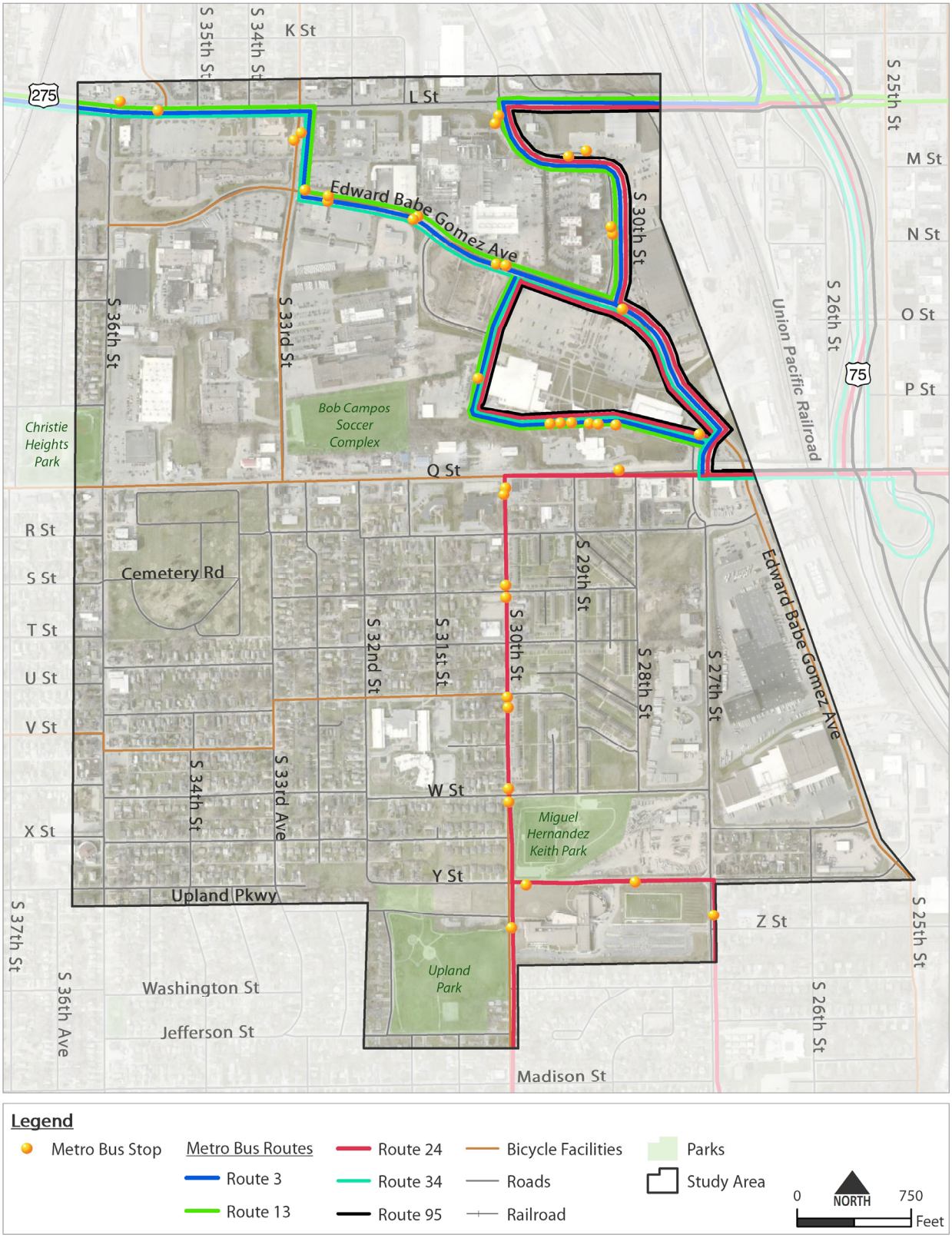
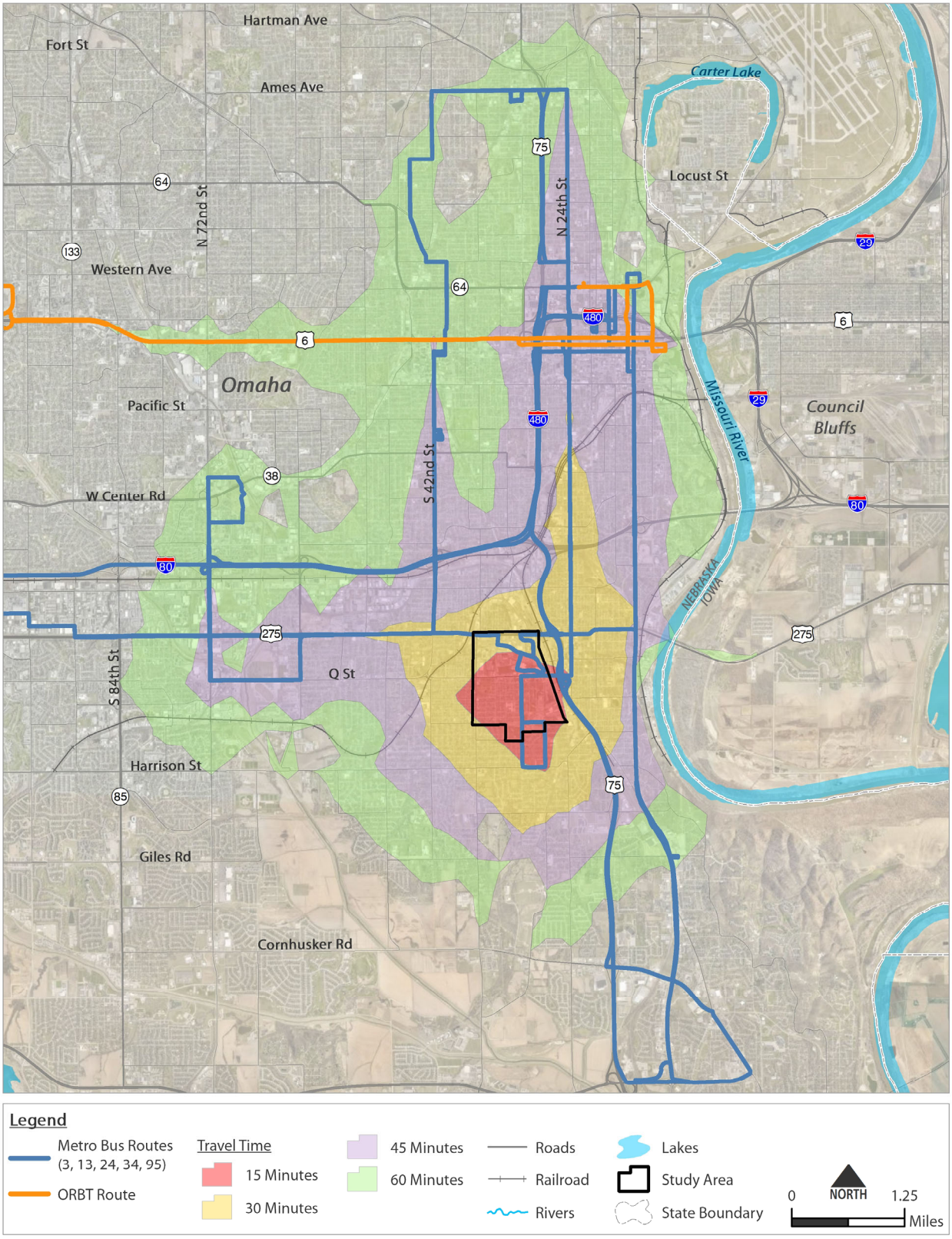


***Figure 2-11. Transit Travel Sheds***



### Omaha Public Schools Transportation

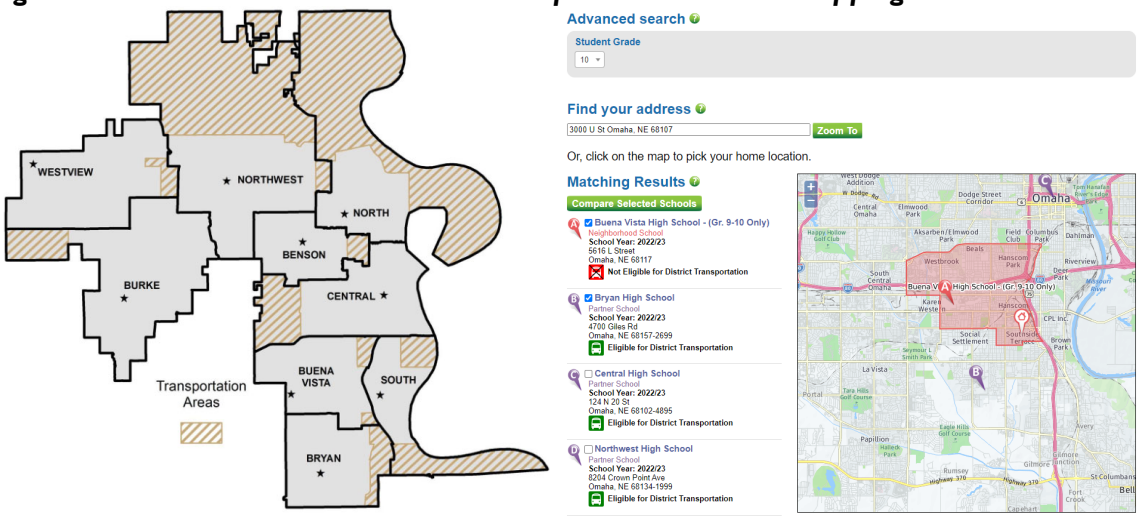
According to the Omaha Public Schools website, the student assignment plan framework at each grade level determines general education transportation eligibility. A student's eligibility for district-provided transportation is based on the Student Assignment Plan. To be eligible students, must live outside the walk zone for each school. The walk zone is determined by the shortest walking route from a school to a student's residential address. Walk distances are determined by our Transportation Department.

Student eligibility for district-provided transportation if:

- Elementary - Student lives more than 1.0 mile from an elementary school
- Middle School - The student lives more than 1.5 miles from a middle school
- High School -
    - Students attending their neighborhood high school live within the transportation area shown in bronze hatching (**Figure 2-12**) for that school
    - Students attending a non-neighborhood partner zone school who live any distance from a partner zone school.

Bryan High School and Middle School are approximately 3 and 2.5 miles travel distance from the intersection of 30th and U Street. The new Buena Vista High School located near 60th and L Street is also approximately 3 miles from the same intersection. According to the most current information available online (**Figure 2-12**), Buena Vista High School is not eligible for District transportation from this location for the coming year, but it may be available for Bryan High School.

***Figure 2-12. Omaha Public Schools Transportation On-line Mapping***



# III. MEETINGS & PUBLIC INPUT

### Project Meetings

A series of project meetings were conducted throughout the study as listed below. Project Management Team (PMT) meetings were conducted online due to the distribution of the project stakeholders and health precautions related to COVID-19. **Appendix A** includes meeting minutes or notes from each of the following meetings:

- Pre-Kickoff Meeting – September 15, 2021
- PMT Meeting #1 – October 4, 2021
- PMT Meeting #2 – October 28, 2021
- PMT Meeting #3 – December 8, 2021
- PMT Meeting #4 – January 13, 2022
- PMT Meeting #5 – April 6, 2022
- PMT Meeting #6 – May 19, 2022

### Project Team and Stakeholder Members

The project team guided the study through completion and included representatives from multiple project agencies and the consultant team. Members of the PMT included:

| Project Management Team | Organization |
|---|---|
| Kellie Johnston Dorsey, Marianna Foral | Omaha Planning Department |
| Cesar Garcia, Crystal Sierra, Juan Padilla | Canopy South |
| Brian Lodes, Jeff Riesselman, Krista Wassenaar | Omaha Public Works |
| Jim Boerner, Court Barber, Travis Halm | Metropolitan Area Planning Agency |
| Jesse Poore, Mark Meisinger, Tim Adams | Felsburg Holt & Ullevig |
| Caitlin Bolte | Confluence |
| Joe Zadina | Lamp Rynearson |

In addition to the Project Management Team, multiple steering committee participants were organized to support the integrated outcomes for the Transformation Plan. The steering committee members participated in project meetings, provided input for the concept development process, and commented on the features of the recommended alternative. Throughout the study process, information was collected from and disseminated to the steering committee, which included:

| Steering Committee Representative | Organization |
|---|---|
| Joanie Poore, Lauren Lightner, Sal Issaka | Omaha Housing Authority |
| Todd Lieberman, Kathleen Bole | Brinshore |
| Nando Micale, Michael Kimmey, Danielle Lake | LRK |
| Joe Zadina | Lamp Rynearson |
| Evan Schweitz | Metro Omaha |

### Project Management Team/Steering Committee Input

Project management team meetings were all conducted on-line. The general format of each meeting was to present the study progress to date, request data and sources for information needed, and to seek input about key questions or concepts as they related to the study outcomes. Agendas and slides for each meeting are included in **Appendix A**.

- The Kickoff meeting was used to help gather transportation opportunities and constraints that had been uncovered through the Transformation Planning process and to clarify the study purpose outcomes, goals and the statement of need. A list of technical interviewees was developed and methods for conducting small group interviews were initiated.
- Project meeting #2 reviewed the data inventory and collection progress. The recommended performance measures were described including standard measures of effectiveness and flexible performance measures that should be worked into the qualitative analysis. An outline of the existing conditions technical report was submitted, and the public input plan was reviewed for coordination with the Transformation Plan.
- During Project meeting #3, the Transportation Goal for the Transformation Plan was shared. MAPA indicated that a key outcome for them is access to all modes of transportation. Attendees discussed feedback from technical interviews and more details were shared about the housing numbers to be added with the Southside Terrace redevelopment. The alternatives development approach for Q Street and 30th Street were described including how they would be illustrated.
- Project meeting #4 was kicked off with the final review of the safety analysis of Q Street and L Street. The initial draft concepts for Q Street and 30th Street were presented for initial feedback and the neighborhood bike route assessment of alternatives was briefly shared.
- Project meeting #5 reviewed the sequence of activities that had resulted in delayed progress for a draft plan to review. Work between meeting #4 and #5 also included development of the transportation strategies included in the plan. Support had been provided during this time for Omaha Planning Department to help identify short-term investments that could be accomplished with available funds to implement the plan. This process included a substantial amount of interaction with the consultant team and Public Works. Additionally, Housing and Urban Development had reviewed the list of recommended short-term projects and raised questions about the implementation sequence of the improvements, not wanting any investments to be impacted when future improvements were made.
- Project meeting #6 was held to present the draft plan and request review comments from the Project Management Team. Capital improvement projects recommended for Q Street and 30th Street were noted to lack identified funding sources currently. Planning level cost estimates were requested to be included with the final report for these two projects. The organization of information included in the implementation section was also discussed with recommendations to change how lead agencies and funding sources were described.

### Interviews

Two types of interviews were completed to gather input that could help inform the project analysis and recommendations.

Technical Interviews were conducted with project stakeholders in addition to the Steering Committee and have developed subject area knowledge of needs, opportunities and/or possible barriers to the process of achieving the transportation goal for this study. Technical interviews were reinforced with public interviews to seek input from neighborhood residents who depend on the transportation network for their mobility needs. The list of representatives and their organizations that participated in the interviews included:

| **Representative** | **Organization** |
|---|---|
| Dennis Bryers and Josh Fry | Omaha Parks and Recreation |
| Sarah Sjolie and Claudia Granillo | Wellbeing Partners |
| Stephen Osberg | Greater Omaha Chamber - ConnectGO |
| Sarah Johnson | Mode Shift Omaha |
| Evan Schweitz | Metro Omaha Transit |
| Jeff Sobczyk | City of Omaha Vision Zero Coordinator, OPW |
| Benny Foltz | Heartland Bike Share |
| Maria Vazquez | Metropolitan Community College |

- **Roads**
  - Along Q Street, the concept that provides midblock pedestrian refuge islands within the TWLTL, a 16' width measured between back of curb is preferred by Omaha Public Works over 12' or 14' alternatives to support the existing truck route and current design standards.
  - Q Street is a truck route to 36th Street, as is 33rd Street between Q Street and L Street. Traffic operations for truck turning movements through roundabouts can be considered but would require additional analysis beyond this study. A mini-roundabout design may address the challenges presented to truck turning movements.

- **Freight**
  - No current plans have been developed to remove Q Street between 27th Street and 36th Street from the truck route network.
  - Removing this segment from the truck route would require long-term planning that exceeds the planning period for improving Q Street.
  - Q Street is designated as a Minor Arterial. Public Road Classification and Standards Chapter 2.001.02.H indicates that at design speeds less than 50 miles per hour, the lane width could be reduced to 11 feet.

- **Transit**
  - Adding a BRT line along 24th Street will decrease the time required to get to north Omaha destinations and provide faster connection to the Dodge Street BRT.
  - Expanding transit on Q Street west of 30th Street is not likely a short-term priority for Metro.
  - Expanding transit to Bellevue is only possible if Metro utilizes the new regional transit statutory authority to provide regional transit and Bellevue joins as a paying member. Many steps are required for that to occur.
  - Raising the level of information sharing about how to use Metro, routes, and destinations for non-English speakers is highly recommended to increase ridership.
  - Metro does not prefer transit stop pull outs. Stops should be in-line with the curb and gutter.

- Moving the 24 Line further east is not desirable. This Line serves the neighborhood which was previously impacted when the line was moved from 36th Street.
- Transit stop spacing for neighborhood residents should be maintained but stop locations serving the route between Q Street and Monroe Street could be modified.
- Microtransit (a service not unlike Uber or Lyft, but utilizes existing public transit infrastructure) is anticipated to result from the MetroNEXT study underway. This neighborhood is included with 6-8 others as possible test locations to trial the service. Microtransit would be provided as a pay-as-you-go service. Ability to pay could be a factor in determining where a sustainable service area boundary begins to form and expanded over time. Access and equitability are bottom line criteria for microtransit.
- A 3-lane cross section on Q Street would be welcomed as it provides a dedicated turn lane for busses. Bus operators would have no concerns operating through a roundabout as they are used commonly along various routes hundreds of times a day.
- Metro Community College has a successful transit pass system for students. An estimated 200 of the 3,000 registered students per quarter on south campus take advantage of the pass to class program.
- Ample parking is provided on campus and has been essential for community health service support during the pandemic. A parking diet was completed with construction of a new auto shop training facility. Bike racks and a bike share kiosk are available on campus, but campus is hemmed in by major roadways and freight which limits the attractiveness to cyclists.

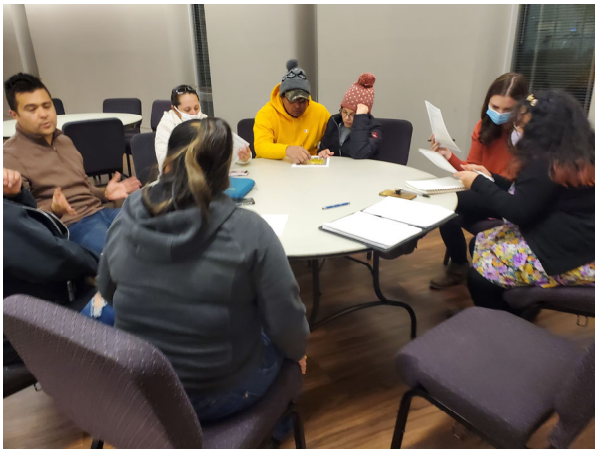
- **Bicycling**
  - Parks Department provides winter snow removal for designated trails and currently does so for the Q Street bridge separated sidewalks and the 13th Street Shared Use Pathway east of the study area. Public Works would be responsible for snow removal for bike lanes integrated in the street cross section.
  - The current Bike Omaha Network map and some wayfinding signage was supported by the Wellbeing Partners (Live Well Omaha) and could be updated again with identified network improvements. Expanding the Bike Omaha Network into the neighborhood is welcomed.
  - Bike share use will be limited by cost to use and a lack of understanding how to use by non-English speaking users.
  - Continued expansion of the Heartland B-cycle Program, an effort of the Nebraska Environmental Trust that works to foster accessibility to low-income and non-English-speaking communities, as well as other similar organizations, is encouraged.
  - Bicycling is not a predominant mode choice. Parents don't understand or trust the reliability of the bike network and generally feel the riding a bike is less safe.
  - Build awareness and experience with youth to change long term mode choice.
  - Adding trails is a priority of ConnectGO and trails are absent in this neighborhood.
  - Q Street is currently an experienced rider street. It is an important link to the east/west bicycle infrastructure network because parallel routes are not available.
  - On-street bike lanes will not fit within the available Q Street cross section if parking is maintained and the minimum median width of 16-feet is provided. Providing on-street bike lanes also reduces the available width for sidewalks for pedestrians.
  - A shared use pathway on Q Street could support the local and regional bicycle network, but no funding is identified.
  - North-South bike lanes could be helpful if they show local and regional benefit.

  - A trail segment along Q Street that incorporated the multicultural history and historic importance of the neighborhood could be helpful to the neighborhood and regional bicycle demand.

- **Walking**
  - Funding provided by the Sherwood Foundation through Wellbeing Partners is available for 2022-2025 to support projects that expand walkability and to help local advocacy groups organize themselves to increase walking as a mode choice.
  - Complete and improve sidewalks within quarter mile of transit stops and schools. Safe and complete sidewalk networks to Omaha Public Schools was commented at multiple PMT meetings.
  - Increasing population of students living in the neighborhood will require different traffic controls for pedestrians crossing 30th Street.
  - Be careful to consider all ages and abilities when designing and timing intersection crossings.
  - Universal design and complete neighborhoods were consistently high priority in ConnectGo phone surveys. Filling in sidewalk gaps is consistent with ConnectGO priorities, but no funding is identified yet.

- **Safety**
  - Lighting is not provided in parks except for sports fields. Lighting in Upland Park does not meet that criterion.
  - Make intersection crossings safer by reducing crossing distance and upgrading crossing signals to something like a High Intensity Activated Crosswalk beacon.
  - Safety and equity should go hand in hand.
  - Intersection improvements would represent low-hanging fruit toward Vision Zero strategies.
  - Fatalities and injuries are bad, but near miss data is almost impossible or cost prohibitive to collect. That is often what causes a corridor to feel like a barrier.
  - Q Street and L Street could meet the criteria of Priority Safety Corridors (defined by Vision Zero, a goal to eliminate traffic deaths in Omaha, as areas where the most harmful crashes occur). Q Street will likely be easier to address.
  - Most fatal car crashes occur between 9:00 PM and 3:00 AM. Most serious injury crashes occur between 3:00 PM and 9:00 PM.

A series of small group public interviews were organized the week of December 13-17, 2021 to gather open ended input about neighborhood transportation needs. Small group participants of the Transformation Plan were invited to reconvene for a transportation focused discussion. A total of 59 individuals participated in the small group interviews and provided insightful information for the multimodal transportation planning process.




*Small group interviews clarified how residents move into, out and through the neighborhood.*

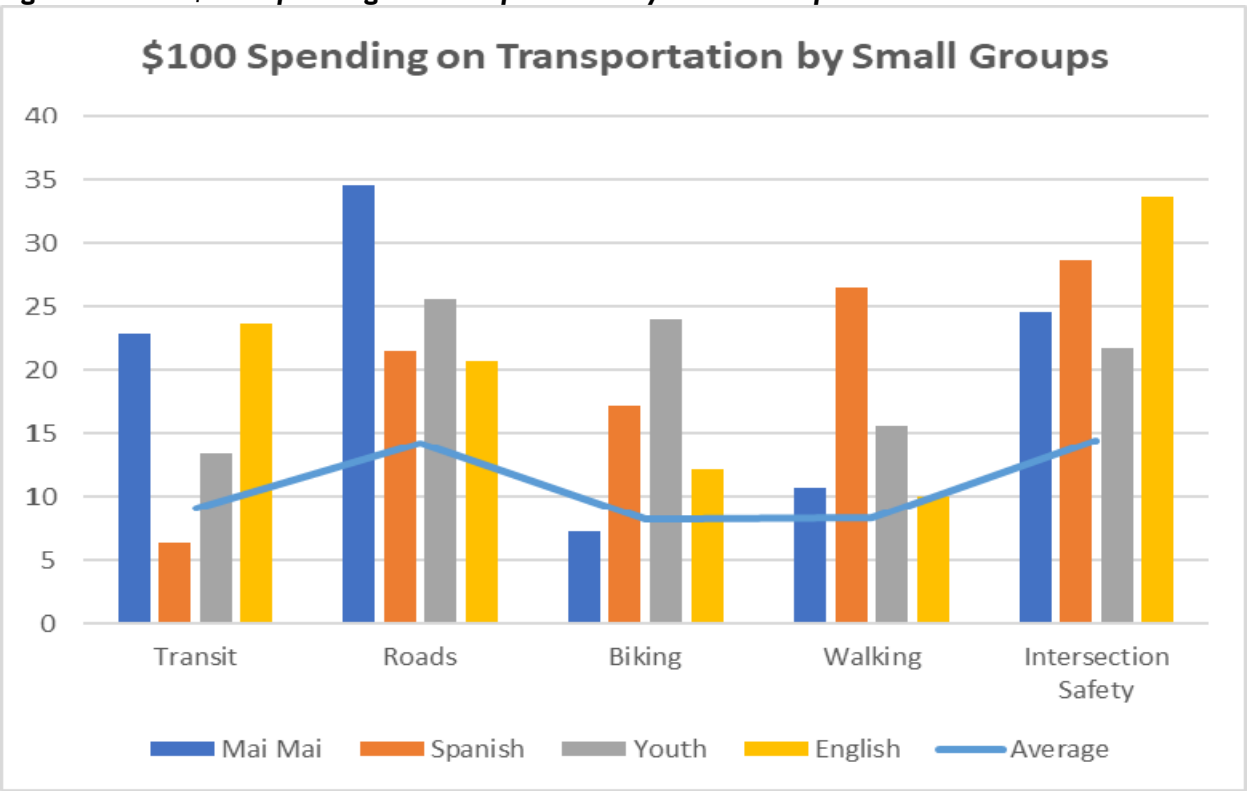
Door to door public interviews were also conducted December 15, 2021 with members of the Mai Mai-speaking population housing at Southside Terrace. Multiple residents within individual apartments were encouraged to provide input and a translator with Omaha Housing Authority was available to facilitate interviews. Spanish speaking residents of the neighborhood were invited to a round table discussion December 16, 2021 hosted at the Kroc Center. The Heartland Workers Center helped invite participants and a Spanish translator was provided by Canopy South. Support from Wellbeing Partners was also volunteered. The Simple Foundation supported the Youth Small Group on-site December 16, 2021 also as part of their youth mentoring opportunities. Youth ranged from 2nd to 11th grade, with middle and high school participants providing survey input as part of the activity. Finally, English-speaking residents of the Indian Hill Neighborhood were invited to a round table discussion. Low participation led to completion of public interview in the neighborhood by foot. Neighborhood residents around the intersection of 30th Street and U Street were asked to provide input similar to the small group activity.

One question asked what destinations are most common to visit within the neighborhood. All of the most common responses are located on the south side of Q Street including the Simple Foundation, Kroc Center, Family/Friends, Afoma "Corner" Store, and Indian Hill/Educare building. Of the remaining responses, 53% of surveys included destinations on the north side of Q Street. The most common answers were the Super Mercado, Family Dollar, One World Health, and Plaza Q 36. Each of the destinations on the north side of Q Street are one mile or less from each other.

A subsequent question asked participants to name locations they commonly travel to outside of the neighborhood. Responses were more variable than the previous question. The Neighborhood Walmart on L Street and the Bellevue Walmart were the most common destinations followed by Westroads Mall and family and friends' homes. The question was asked to get participants thinking about the different modes of transportation they may use to travel between destinations.

Small group and interview participants were then asked to share how they would distribute $100 transportation dollars. A description of the multimodal transportation study was provided to explain that the plan will support all the ways people travel around the neighborhood and the City. Participants were asked to share how they would invest the limited transportation dollars to improve the bus system, roads, bicycling, walking, and intersection crossings. **Figure 3-1** provides the mode-specific investment decisions that were provided by the individual small groups.

***Figure 3-1. $100 Spending on Transportation by Small Groups***




Investing in roads and safe intersections reflects the highest average demand with Mai Mai-speaking residents prioritizing better roads and English-speaking residents prioritizing safe intersection crossings. Spanish residents also prioritized safe intersections but valued the investment in walkability for pedestrians as a close second. Youth participants viewed roads and bicycle infrastructure as important priorities, but also valued intersection improvements to enable their friends and family to cross safely.

- Mai Mai-speaking Small Group
  - "I'm a delivery driver all over Omaha. The roads in my neighborhood are much worse than other neighborhoods where I make deliveries."
  - "Most people in this neighborhood don't bike."
  - "Q Street is not safe for kids crossing."
  - "Neighborhood safety is always a concern, but I'm not really worried about transportation."
  - "Walking around at night is not safe."
  - "Nobody knows what the speed limits are in this neighborhood."

- Spanish-speaking Small Group
  - "Enforcing on-street parking restrictions is really needed in our neighborhood."
  - "Slow cars down on 30th, 32nd and Madison Streets"
  - "Neighbors have to leave their cars unlocked on street to prevent damage when break-ins happen."
  - "If crossing a park on a trail is considered transportation, better lighting is needed at a minimum."
  - "We cross Q Street to access jobs, gas, groceries, and the bank."

  - "Provide more space between drivers and sidewalks."
  - "My first bus ride, I ended up an hour away from my destination. I don't read English and got really lost."

- Youth Small Group
  - "The bus is convenient to use and not everyone can afford gas."
  - "Bad roads are hard on cars."
  - "A bike gives freedom. It's good for the environment and fun."
  - "Not everyone can afford a car and walking doesn't pollute the air."
  - "People drive angry and way too fast. Lives are important to protect."

- English-speaking Small Group
  - "Riding a bike to Bryan Middle/High School isn't possible because trails don't serve our neighborhood."
  - "After school, I ride my bike. That's all I do. I go around the whole block."
  - "I had two bikes that were stolen from my house."
  - "30 minutes is too long to wait at the bus stop when it's this cold."
  - "I ride the bus for an hour to Metro Community College north campus."
  - "The bus needs to provide better access to Bellevue where jobs and shopping are."
  - "The kid's crossing this intersection are always at risk."
  - "The bus is great! You can't beat the bus. It'll take you anywhere."
  - "We need bus passes that can be given out so we can help more people access work and services."
  - "The pedestrian signal on Q Street is unreliable"

**Open Houses**

Opportunity to provide input about the multimodal transportation plan included two public meetings. The first open house was hosted in person November 9, 2021 at Indian Hill Elementary School in conjunction with the Transformation Plan. The Transformation Plan had consolidated public input that included themes relevant to transportation. Residents want to see improvements to transportation conditions and for transportation options to be better. A series of boards were presented that invited attendees to share their visual preferences and suggestions for making traffic move safer and transportation more convenient for all modes.

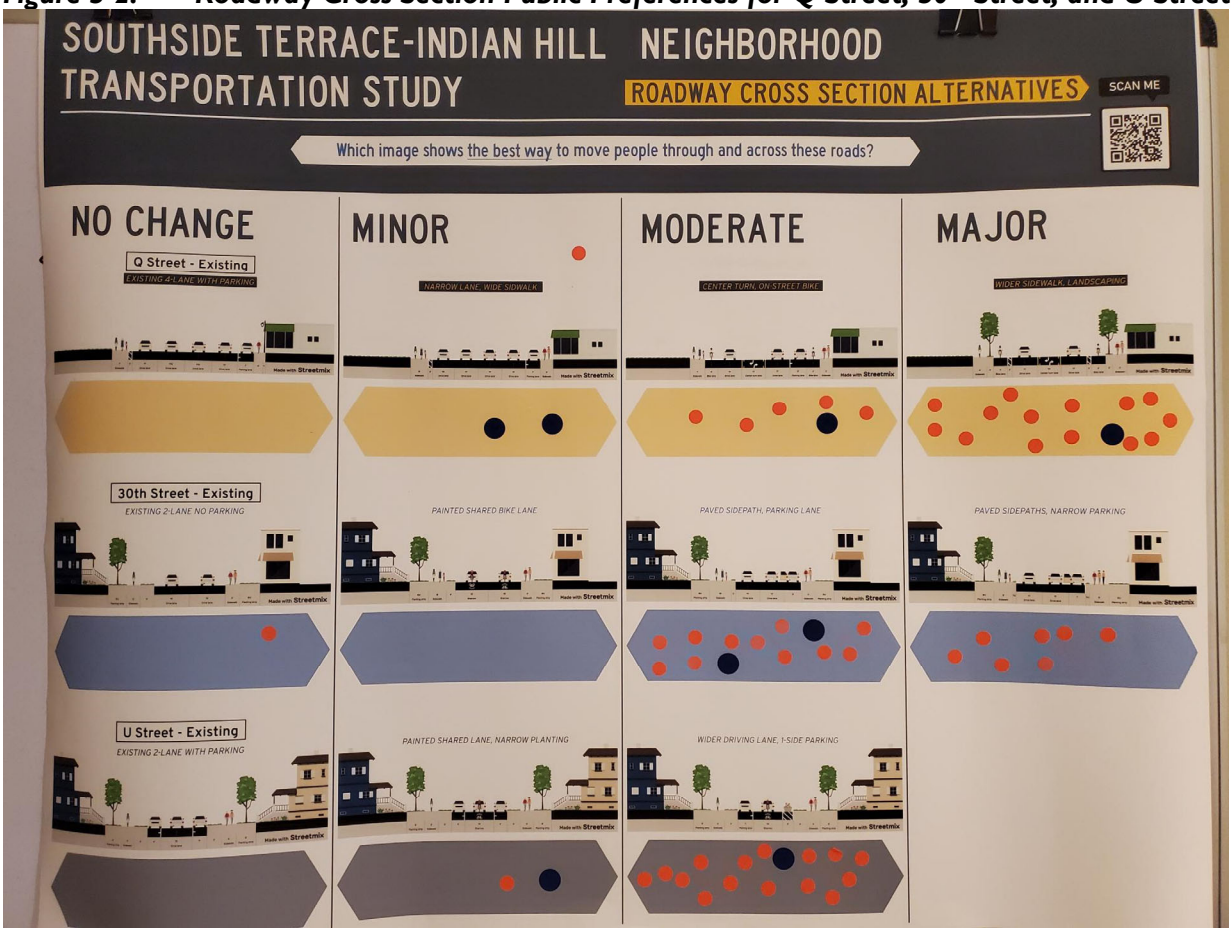

*Community members added dots to preferred transportation improvements they desire.*

***Roadway Cross Sections***

Public input for the Transformation Plan suggested that streets are not welcoming for all modes of transportation and that crossing them is difficult for pedestrians. Roadway corridors support the movement of cars and trucks, but conditions in the right of way do not provide sufficient space to support thriving businesses or encourage redevelopment. Three streets were displayed with illustrations of current conditions and what they could look like with a combination of minor, moderate, and major changes to the cross section. The purpose of this board was to understand the amount of change that residents think is needed to address the current challenges with streets in the neighborhood. Sticky dots were added to indicate the type of change desired for three street cross sections (**Figure 3-2**).

The roadway cross section board provided an opportunity to test different visual preferences and the open conversation with attendees about their perceptions of the different streets. Participants were asked which option looked like the neighborhood corridor they wanted and what types of uses are missing. The feedback provided confirmed that the corridors do not currently support the needs of the neighborhood. A combination of moderate and major changes would be desired to support businesses, residents, and service providers.

***Figure 3-2. Roadway Cross Section Public Preferences for Q Street, 30th Street, and U Street***



- **Q Street** preferences were weighted between moderate and major changes, both of which included removing one through lane to introduce a center turn lane. Participants welcomed the idea of more vegetation along the driving lanes and separation of bicycle facilities shown with major changes.

- **30th Street** preferences were also weighted between moderate and major changes, neither of which included painted bike lanes or shared lanes on the roadway. Parking along 30th Street was welcomed in combination with wider sidewalks on both sides of the street.

- **U Street** preferences leaned toward a moderate change with wider driving lane, parking on one side, painted sharrow to indicate shared bicycles use, and a wide sidewalk adjacent to the school.

***Intersections and Crossings***

Public input for the Transformation Plan suggested crossings at intersections did not feel safe and that improvements were necessary to increase the willingness to walk or bicycle to destinations within the neighborhood. It was unknown what type of improvements were desired by the public that would make crossings feel more welcoming and safer. A series of options were provided to show how crossings can be improved with above ground functions and in-ground functions at crossings. Sticky dots were added to indicate the type of change desired for intersection and crossing improvements (**Figure 3-3**).

***Figure 3-3. Intersections and Crossings Public Preferences***

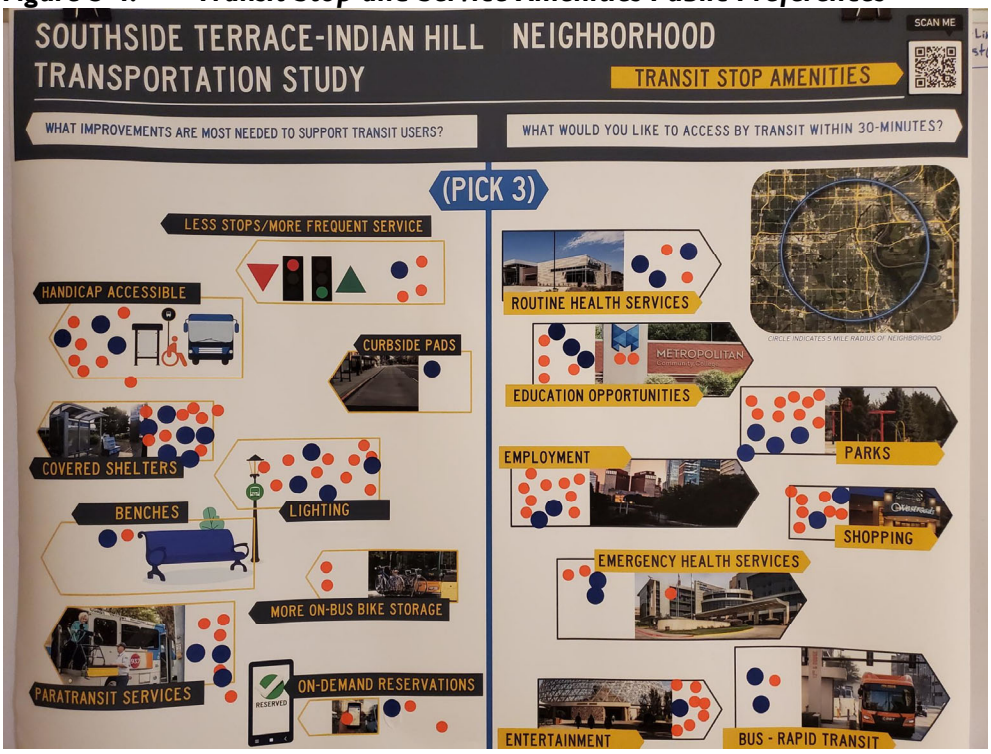
The intersections and crossings board provided an opportunity to display specific visual preferences and the open conversation with attendees about their perceptions of what makes intersections feel unsafe to cross. Participants were asked which options were most needed including the option to provide both above ground and in-ground solutions. The feedback provided confirmed vehicle speed is the most significant factor to feeling unsafe. Improvements that work in combination to reduce vehicle speeds on segments and through intersections are preferred. Narrowing intersection crossing distances was also highly recommended to support the high number of young children, elderly, and disabled pedestrians in the neighborhood.

- **Above Ground** preferences included slower driving speeds, better nighttime lighting, and pedestrian activated signals that are reliable. Multiple people indicated that current push button signals are unreliable.
- **In-Ground** preference included curb bump outs to narrow the crossing distances and pedestrian refuge islands where crossings exceed two lanes. Maintaining the pedestrian crosswalk painting is also desired along with improving curbside vegetation including more trees.

***Transit Stop Amenities***

Public input for the Transformation Plan suggested a desire to improve transit services for the neighborhood. The transit center located on the campus of Metropolitan Community College (MCC) and the existing 24 transit route serve the area. This board was used to ask input on two topics related to transit. First, what kind of amenities are most needed to improve transit services. Second, what destinations would residents like better access to by transit. A 30-minute trip length was used to bound the limits of service. The purpose of this board was to understand the type of improvements that residents think about when they suggest transit should be better. Sticky dots were added to indicate the type of change desired for transit services to be improved (**Figure 3-4**).

***Figure 3-4. Transit Stop and Service Amenities Public Preferences***



The transit stop board provided an opportunity to display specific visual preferences and open conversation with attendees about their perceptions of transit use. Most of the individuals that attended the meeting were not transit users themselves though many wanted to comment on Omaha Public Schools bus service for high school students. The discussion shifted to people they know who depend on transit or choose transit for some trips. The feedback indicated that most residents know the needs of handicap and paratransit riders is high in the neighborhood. Strategic placement of more covered shelters are highly recommended with improved lighting. Multiple participants were not familiar with on-demand reservation, but once explained, the service received positive responses for flexibility and reducing wait times. Vouchers were not shown on the board, but multiple comments were made about social service providers wanting more access to provide them for clients.

All types of destinations were desired to be provided by transit with better jobs, shopping, education, and entertainment and parks receiving highest preferences. Quicker access to educational opportunities was stressed and continued coordination to bring Bus Rapid Transit closer to the neighborhood matched that topic in conversation with participants. Bellevue and Offutt Airforce Base was also a location suggested to provide consistent service for employment and shopping opportunities.

A second public meeting was held February 1, 2022 in coordination with the Transformation Plan. This event was held virtually and was facilitated by the City of Omaha. The meeting provided an overview of the progress made to complete the Transformation Plan. All goals, including the Transportation Goal, were shared along with next steps for making neighborhood improvements with the available planning grant funds for implementation.

Three public meetings were held in January and February 2022 in coordination with the Transformation Plan. Two events were in person, one was held virtually. The meetings provided an overview of the progress made to complete the Transformation Plan and sought feedback from residents. All goals, including the Transportation Goal, were shared along with next steps for making neighborhood improvements with the available planning grant funds for implementation. A poll was taken during each meeting in order to share visual options of anticipated improvement types and gain insight into the improvements that should be prioritized first (Figure 3-5). By the end of all of the public engagement events, approximately 32.4% of responses related to improvements that supported greater walkability for the neighborhood. Improvements to 30th Street were prioritized over improvements to Q Street as residents recognized the opportunity to make smaller improvements along 30th Street with redevelopment of Southside Terrace while improvements for Q Street are likely to be longer term and more costly. The virtual public meeting poll remained open for participants to add to the responses captured during the live session (shown below). When the poll closed, improvements that make it easier to take the bus rated lowest of the transportation options considered.

***Figure 3-5. Neighborhood Priorities of Improvements Most Needed***


### Multimodal Transportation Strategies

Results of the combined efforts made to gather stakeholder and public input generated support for five interrelated strategies. These strategies are recommended to achieve the Transportation goal to make, "*Traveling in, out, and around the neighborhood intuitive, safe, and easy by car, walking, biking, and bus.*" and are therefore included within the Transformation Plan as well. Strategies provide the necessary direction for developing alternative solutions as well as deciding between two different alternatives. The Southside Terrace – Indian Hill Neighborhood will pursue infrastructure improvements that best align with the following strategies:

- **Strategy 1**: Increase safety for all modes of transportation at crossing locations.
- **Strategy 2**: Reduce real and perceived vehicle corridor widths, vehicle travel speeds, and visual barriers that discourage active transportation.
- **Strategy 3**: Update and expand the bicycle network infrastructure using a blend of bicycle facility types within and adjacent to the neighborhood that connect with the broader bicycle and transit networks, educational institutions, health service providers, neighborhood grocery, and entertainment destinations.
- **Strategy 4**: Eliminate gaps and barriers and increase space and amenities provided for walking along busy streets.
- **Strategy 5:** Expand mass transportation accessibility and service to connect residents with more Omaha metropolitan area destinations.

# IV. SAFETY ANALYSIS

The City of Omaha provided crash data for all intersections and segments in the study area, bounded by L Street to the north, Y Street to the South, 27th Street to the east, and 36th Street to west. The analysis period included the most recent six-years of data available, January 2015 through December 2020. Crash data summarized in this section is inclusive of vehicles, bicycles and pedestrian crash data provided by the City. It should be noted that 2020 crash data was omitted due to the COVID-19 pandemic impacting traffic conditions. The crash data was reviewed to identify existing crash types that will be used to develop and compare the safety performance of alternatives, and analysis was based on the five-year period from January 2015 through December 2019.

Thirty-three intersections and thirty-four segments were analyzed within the project study area. The intersections are a combination of all primary and secondary study intersections, as well as all intersection along the primary study segments (Q Street and 30th Street). The study segments were broken up based on where they crossed with other primary and secondary study segments. In total, 1,019 crashes were recorded within the study area during the analysis period, but the studied intersection crashes amounted to 499 and studied segment crashes to 318.

Findings for intersections are summarized in the following subsections, tables, and graphs. Each of the describes different attributes of the crash patterns at the intersections and segments, including crash year, crash severity, crash type, and crashes by time of day and month. Throughout, the crash rates within the study area are compared against the City of Omaha's citywide average crash rates, classified by facility type. These tables are included in **Appendix B**.

### Intersection & Segment Crash Summary

From 2015 to 2019, a total of 499 crashes occurred at the thirty-three intersections that were analyzed. Five intersections accounted for over half of this total; they were:

- 36th Street & L Street (West)
- 33rd Street & L Street
- 30th Street / Dahlman Avenue & L Street
- 36th Street & Q Street
- 27th Street & Q Street

From 2015 to 2019, a total of 318 crashes occurred at the thirty-four segments that were analyzed. Four segments accounted for over a third of this total; they were:

- Q Street, 36th Street to 33rd Avenue
- L Street, 33rd Street to 30th Street
- L Street, 30th Street to JFK Fwy (US 75) SB Ramp
- 33rd Street, Ed Babe Gomez Avenue to Q Street

**Table 4-1** and **Table 4-2** show the crash breakdown by year, citywide crash rate averages by facility type, and crash rate for each intersection and segment, respectively. Additionally, **Figure 4-1** and **Figure 4-2** visually display the crash rate data from **Table 4-1 and 4-2 by rate and relative density**.

**Table 4-1. Intersection Crashes by Year & Crash Rates**

Values for intersection crash rates are represented on **Figure 4-1** and values for intersection crash density (rate per million entering vehicles) are represented on **Figure 4-2**.

| | Intersections | Crashes by Year & Crash Rates | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total Crashes | Citywide Avg. # of Crashes/Yr. | Crash Rate per Year | Citywide Avg. Crash Rate+ | Crash Rate per MEV |
| 1 | 36th St & L St (West) | 10 | 12 | 16 | 8 | 9 | 8 | 55 | 1.03 | **10.99** | 0.58 | **0.93** |
| 2 | 33rd St & L St | 7 | 13 | 9 | 15 | 16 | 4 | 60 | 3.96 | **11.99** | 0.42 | **1.08** |
| 3 | 30th St/Dahlman Ave & L St | 10 | 8 | 12 | 8 | 21 | 11 | 59 | 1.45 | **11.79** | 0.23 | **1.02** |
| 4 | 33rd St & Edward Babe Gomez | 2 | 1 | 4 | 3 | 5 | 1 | 15 | 1.03 | **3.00** | 0.58 | **0.93** |
| 5 | 36th St & Q St | 18 | 16 | 14 | 15 | 7 | 6 | 70 | 5.05 | **13.99** | 0.60 | **1.70** |
| 6 | 33rd St & Q St (West) | 6 | 1 | 8 | 3 | 2 | 2 | 20 | 2.85 | **4.00** | 0.51 | **0.66** |
| 7 | 30th St & Q St | 5 | 6 | 6 | 7 | 4 | 1 | 28 | 3.96 | **5.60** | 0.23 | **0.85** |
| 9 | 27th St & Q St | 25 | 8 | 7 | 10 | 1 | 2 | 51 | 2.85 | **10.19** | 0.51 | **1.11** |
| 10 | 36th St & X St | 4 | 2 | 2 | 0 | 0 | 5 | 8 | 0.94 | **1.60** | 0.23 | **0.36** |
| 11 | 32nd St & U St | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0.34 | **0.40** | 0.62 | **0.91** |
| 12 | 30th St & U St | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0.34 | **0.40** | 0.62 | **0.19** |
| 13 | 27th St & Y St | 1 | 1 | 0 | 3 | 0 | 0 | 5 | 0.51 | **1.00** | 0.33 | **0.54** |
| | 36th St & Ed Babe Gomez Ave | 1 | 1 | 2 | 0 | 2 | 1 | 6 | 1.74 | **1.20** | 0.55 | **0.64** |
| | 36th St & U St (South) | 0 | 2 | 0 | 0 | 0 | 1 | 2 | 0.94 | **0.40** | 0.23 | **0.21** |
| | 36th St & Y St | 2 | 3 | 2 | 0 | 2 | 1 | 9 | 0.94 | **1.80** | 0.23 | **0.97** |
| | 33rd St & Q St (East) | 6 | 1 | 4 | 1 | 0 | 0 | 12 | 0.94 | **2.40** | 0.23 | **1.29** |
| | 33rd Ave & Q St | 3 | 4 | 7 | 4 | 1 | 4 | 19 | 0.94 | **3.80** | 0.23 | **2.04** |
| | 33rd Ave & U St | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0.34 | **0.40** | 0.62 | **0.21** |
| | 33rd Ave & Y St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.34 | **0.00** | 0.62 | **0.00** |
| | 32nd St & Q St | 3 | 1 | 1 | 2 | 1 | 2 | 8 | 0.94 | **1.60** | 0.23 | **0.86** |
| | 31st St & Q St | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0.94 | **0.40** | 0.23 | **0.21** |
| | 30th St & Ed Babe Gomez Ave | 2 | 2 | 0 | 4 | 2 | 0 | 10 | 0.49 | **2.00** | 0.71 | **1.07** |
| | 30th St & R St | 1 | 1 | 1 | 4 | 1 | 1 | 8 | 0.34 | **1.60** | 0.62 | **0.86** |
| | 30th St & S St | 2 | 0 | 1 | 1 | 1 | 2 | 5 | 0.34 | **1.00** | 0.62 | **0.54** |
| | 30th St & T St | 2 | 0 | 1 | 0 | 1 | 1 | 4 | 0.34 | **0.80** | 0.62 | **0.43** |
| | 30th St & V St | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0.34 | **0.20** | 0.62 | **0.11** |
| | 30th St & W St | 1 | 1 | 1 | 3 | 4 | 0 | 10 | 0.34 | **2.00** | 0.62 | **1.07** |
| | 30th St & X St | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0.34 | **0.20** | 0.62 | **0.11** |
| | 30th St & Y St | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0.34 | **0.20** | 0.62 | **0.11** |
| | 29th St & Q St | 0 | 1 | 0 | 1 | 0 | 2 | 2 | 0.94 | **0.40** | 0.23 | **0.21** |
| | 28th St & Q St | 5 | 5 | 4 | 1 | 3 | 0 | 18 | 0.94 | **3.60** | 0.23 | **1.93** |
| | 27th St & Ed Babe Gomez Ave | 1 | 1 | 1 | 1 | 0 | 0 | 4 | 0.49 | **0.80** | 0.71 | **0.43** |
| | Ed Babe Gomez Ave & Y St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.49 | **0.00** | 0.71 | **0.00** |
| | **Total / Average** | 119 | 96 | 104 | 94 | 86 | 59 | **499** | - | **3.19** | - | **0.75** |

2020 Crash Data ommitted in crash analysis due to COVID-19

*MEV = Million Entering Vehicles

+Omaha Citywide Intersection Average Crash Rates (per MEV) based on classificaiton of intersecting roadways (2014-2017)

>3x Citywide Crash Rate

>2x Citywide Crash Rate

Greater than Citywide Crash Rate

Less than Citywide Crash Rate

## Table 4-2. Segment Crashes by Year & Crash Rate

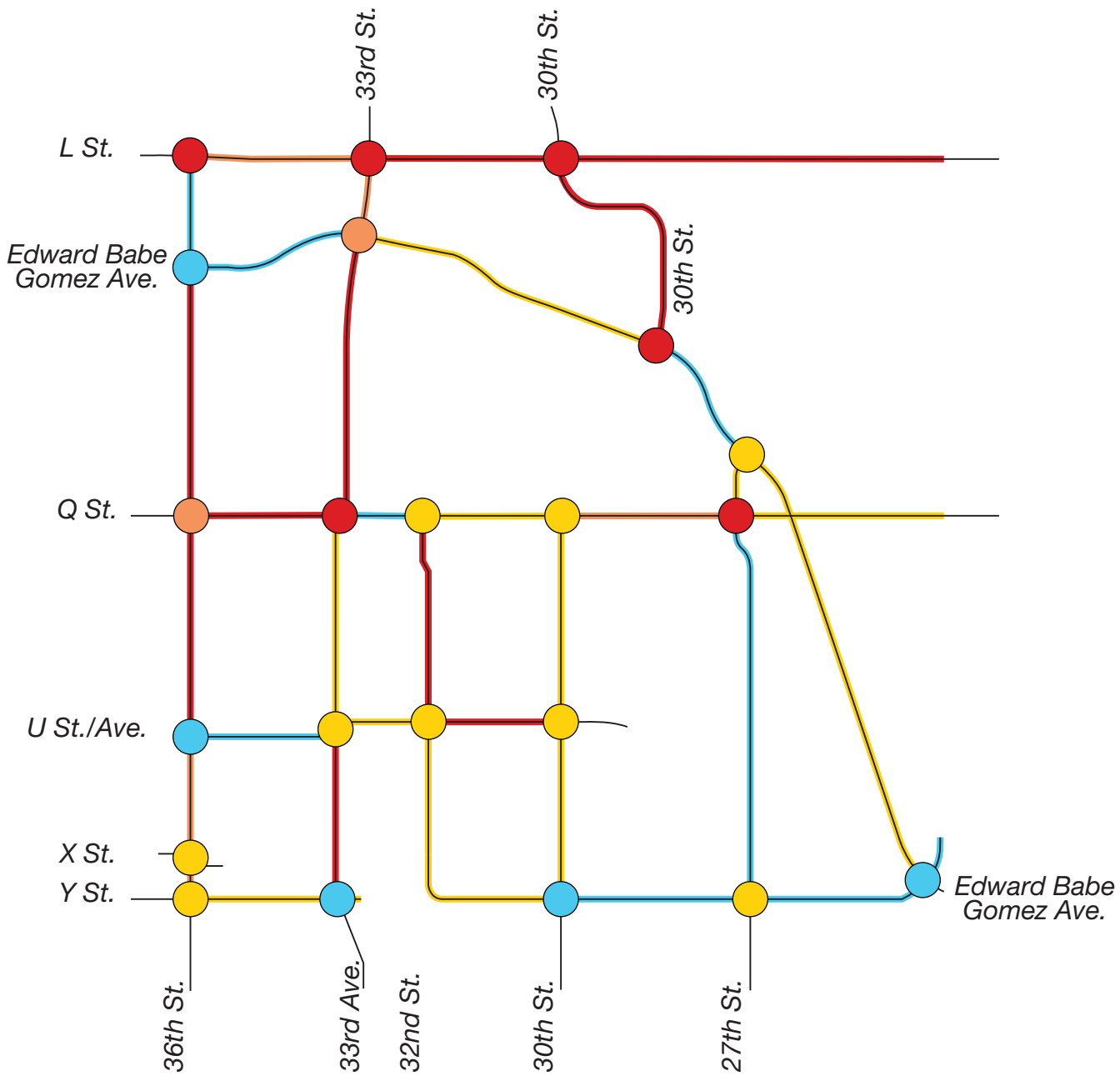
Values for segment crash rates are represented on **Figure 4-1** and values for segment crash density (rate per street mile) are represented on **Figure 4-2**.

| Segments | Crashes by Year & Crash Rates | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total Crashes | Citywide Avg. # of Crashes/Yr. | Crash Rate per Year | Citywide Avg. Crash Density+ | Crash Density per Mile |
| L St, 36th St (West) to 33rd St | 1 | 6 | 3 | 4 | 4 | 3 | 18 | 1.67 | **3.60** | 15.23 | **15.33** |
| L St, 33rd St to 30th St | 6 | 5 | 7 | 4 | 7 | 5 | 29 | 1.67 | **5.80** | 15.23 | **23.74** |
| L St, 30th St to JFK Fwy SB Ramp | 3 | 1 | 4 | 12 | 8 | 0 | 28 | 1.67 | **5.60** | 15.23 | **16.52** |
| Ed Babe Gomez Ave, 36th St to 33rd | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0.67 | **0.40** | 6.36 | **1.68** |
| Ed Babe Gomez Ave, 33rd St to 30th | 2 | 1 | 2 | 0 | 1 | 1 | 6 | 0.67 | **1.20** | 6.36 | **2.89** |
| Ed Babe Gomez Ave, 30th St to 27th | 0 | 2 | 0 | 0 | 1 | 0 | 3 | 0.67 | **0.60** | 6.36 | **2.80** |
| Ed Babe Gomez Ave, 27th St to Y St | 0 | 2 | 2 | 0 | 2 | 1 | 6 | 0.67 | **1.20** | 6.36 | **2.01** |
| Q St, 36th St to 33rd Ave | 7 | 4 | 12 | 7 | 1 | 7 | 31 | 0.98 | **6.20** | 9.77 | **30.31** |
| Q St, 33rd St (East) to 32nd St | 1 | 2 | 0 | 0 | 1 | 2 | 4 | 0.98 | **0.80** | 9.77 | **12.07** |
| Q St, 32nd St to 30th St | 0 | 1 | 2 | 0 | 3 | 0 | 6 | 0.98 | **1.20** | 9.77 | **6.67** |
| Q St, 30th to 27th St | 7 | 2 | 2 | 1 | 1 | 2 | 13 | 0.98 | **2.60** | 9.77 | **11.07** |
| Q St, 27th St to 26th Ave | 2 | 1 | 1 | 4 | 0 | 0 | 8 | 0.98 | **1.60** | 9.77 | **9.49** |
| U St, 36th St to 33rd Ave | 1 | 0 | 1 | 0 | 0 | 2 | 2 | 0.40 | **0.40** | 4.34 | **1.92** |
| U St, 33rd Ave to 32nd St | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0.40 | **0.60** | 4.34 | **5.28** |
| U St, 32nd St to 30th St | 0 | 1 | 1 | 2 | 3 | 0 | 7 | 0.40 | **1.40** | 4.34 | **8.03** |
| Y St, 36th St to 33rd Ave | 2 | 0 | 0 | 1 | 1 | 0 | 4 | 0.40 | **0.80** | 4.34 | **3.74** |
| Y St/32nd St, X St to 30th St | 1 | 0 | 0 | 1 | 1 | 2 | 3 | 0.40 | **0.60** | 4.34 | **2.66** |
| Y St, 30th to 27th St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.40 | **0.00** | 4.34 | **0.00** |
| Y St, 27th St to Ed Babe Gomez Ave | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.40 | **0.20** | 4.34 | **0.84** |
| 36th St, L St to Ed Babe Gomez Ave | 1 | 0 | 1 | 0 | 1 | 1 | 3 | 0.98 | **0.60** | 9.77 | **4.06** |
| 36th St, Ed Babe Gomez Ave to Q St | 2 | 3 | 2 | 3 | 7 | 4 | 17 | 0.98 | **3.40** | 9.77 | **10.38** |
| 36th St, Q St to U St | 3 | 4 | 3 | 5 | 4 | 4 | 19 | 0.98 | **3.80** | 9.77 | **13.29** |
| 36th St, U St to Y St | 5 | 2 | 1 | 2 | 2 | 0 | 12 | 0.98 | **2.40** | 9.77 | **11.12** |
| 33rd St, L St to Ed Babe Gomez Ave | 1 | 1 | 0 | 5 | 2 | 2 | 9 | 0.67 | **1.80** | 6.36 | **16.97** |
| 33rd St, Ed Babe Gomez Ave to Q St | 6 | 4 | 6 | 6 | 6 | 0 | 28 | 0.67 | **5.60** | 6.36 | **15.40** |
| 33rd Ave, Q St to U St | 0 | 2 | 0 | 0 | 1 | 1 | 3 | 0.40 | **0.60** | 4.34 | **2.20** |
| 33rd Ave, U St to Y St | 1 | 2 | 3 | 1 | 4 | 1 | 11 | 0.40 | **2.20** | 4.34 | **9.52** |
| 32nd St, Q St to U St | 0 | 1 | 2 | 3 | 2 | 1 | 8 | 0.40 | **1.60** | 4.34 | **5.83** |
| 32nd St, U St to X St | 1 | 1 | 0 | 0 | 2 | 0 | 4 | 0.40 | **0.80** | 4.34 | **4.49** |
| 30th St, L St to Ed Babe Gomez Ave | 2 | 3 | 3 | 1 | 8 | 3 | 17 | 0.40 | **3.40** | 4.34 | **9.81** |
| 30th St, Q St to U St | 0 | 0 | 1 | 3 | 0 | 1 | 4 | 0.40 | **0.80** | 4.34 | **2.93** |
| 30th St, U St to Y St | 0 | 3 | 1 | 0 | 0 | 1 | 4 | 0.40 | **0.80** | 4.34 | **3.41** |
| 27th St, Ed Babe Gomez Ave to Q St | 2 | 0 | 0 | 1 | 0 | 0 | 3 | 0.67 | **0.60** | 6.36 | **9.32** |
| 27th St, Q St to Y St | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0.67 | **0.40** | 6.36 | **0.77** |
| **Total / Average** | 58 | 54 | 61 | 68 | 77 | 44 | **318** | - | **1.87** | - | **8.13** |

2020 Crash Data ommitted in crash analysis due to COVID-19

+Omaha Citywide Segment Crash Density (crashes/mile) based on classifacation of roadway

>3x Citywide Crash Rate
>2x Citywide Crash Rate
Greater than Citywide Crash Rate
Less than Citywide Crash Rate




**LEGEND**

- = >3x the Citywide Average
- = >2x the Citywide Average
- = >1x the Citywide Average
- = Less than the Citywide Average

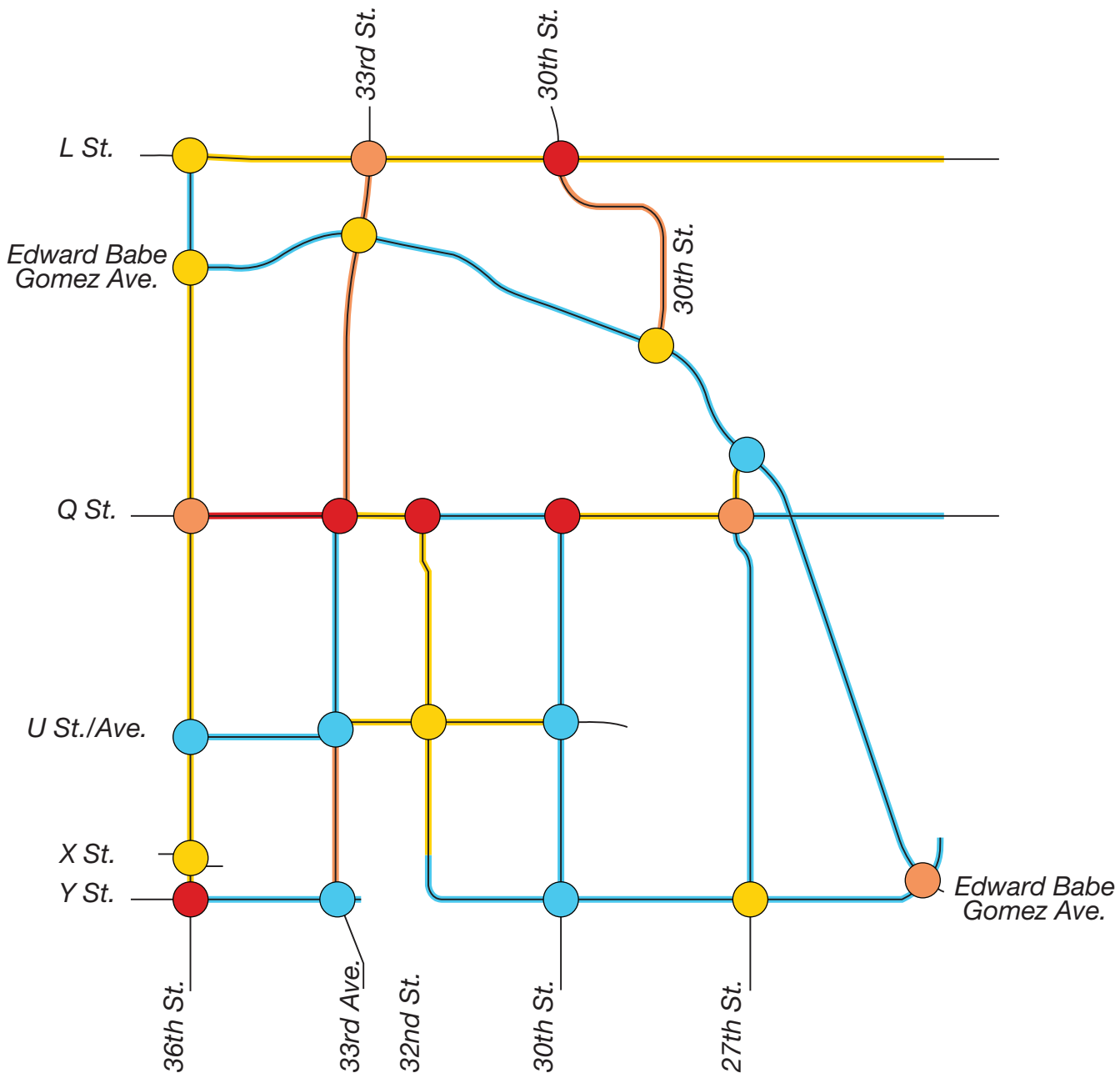
NORTH

FELSBURG HOLT & ULLEVIG

# FIGURE 4-1

## Intersection & Segment Crash Rate per Year

MAPA Southside Terrace TIA 120-209-01 2/10/22




**LEGEND**

- = >3x the Citywide Average
- = >2x the Citywide Average
- = >1x the Citywide Average
- = Less than the Citywide Average

NORTH

FELSBURG HOLT & ULLEVIG

# FIGURE 4-2

## Intersection Crash Rate per MEV & Segment Crash Density per Mile

MAPA Southside Terrace TIA 120-209-01 2/10/22

### Crash Severity

The crash rates shown in the previous section can be used to evaluate the safety of an intersection, but these rates do not consider the severity of the crashes at each intersection. **Table 4-3** and **Table 4-4** break down the crashes at each intersection and segment, respectively, by severity. The equivalent property damage only (EPDO) score has also been calculated for each study intersection and segment.

An EPDO score allows for higher severity crashes, and the higher societal costs associated with them, to be quantified and stand out compared to locations with mostly non-injury crashes. The EPDO rates use a multiplier of 12.1 for injury and fatal crashes to factor in the higher societal costs associated with each. The EPDO score is shown in the tables previously mentioned, as well as in **Figure 4-3** where the EPDO scores for intersections and segments are color coded based on degree above or below the study area average.

### Crash Type

**Table 4-5** and **Table 4-6** give the crash history of the study area intersections and segments, respectively, by crash type. The most common crash types at intersections within the study area were Rear-end (42%) and Angle (26%) type crashes. At the study area segments, Rear-end crashes (29%) stood out as the most common crash type. This crash pattern at segments indicates that drivers may not be anticipating drivers to stop or slow-down to make a turning movement.

As discussed in the previous section, the most concerning crash severities that immediately stand out at any roadway are fatalities and incapacitating crashes. These have the highest societal cost, both economically and felt within the community itself. **Figure 4-4** summarizes 17 fatal and disabling crashes that occurred during the 5-year analysis period, displaying them on the study area map and categorizes them based on their crash type. The type of crashes that resulted in a fatal/disabling crash were various; angle type, rear-end, left-turn leaving, head-on, ran-off-road, and pedestrian. Additionally, most of these crashes occurred along L Street and Q Street.

**Table 4-3. Intersection Crashes by Severity**

| | Intersections | Crashes by Severity | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Fatal | Disabling | Visible | Possible | PDO | Total Crashes | EPDO+ Score |
| 1 | 36th St & L St (West) | 1 | 0 | 6 | 8 | 40 | **55** | 222 |
| 2 | 33rd St & L St | 1 | 1 | 3 | 12 | 43 | **60** | 249 |
| 3 | 30th St/Dahlman Ave & L St | 0 | 2 | 3 | 16 | 38 | **59** | 292 |
| 4 | 33rd St & Edward Babe Gomez Ave | 0 | 0 | 0 | 2 | 13 | **15** | 37 |
| 5 | 36th St & Q St | 0 | 1 | 4 | 17 | 48 | **70** | 314 |
| 6 | 33rd St & Q St (West) | 0 | 0 | 1 | 2 | 17 | **20** | 53 |
| 7 | 30th St & Q St | 0 | 2 | 1 | 4 | 21 | **28** | 106 |
| 9 | 27th St & Q St | 1 | 0 | 0 | 12 | 38 | **51** | 195 |
| 10 | 36th St & X St | 0 | 0 | 0 | 3 | 5 | **8** | 41 |
| 11 | 32nd St & U St | 0 | 0 | 0 | 0 | 2 | **2** | 2 |
| 12 | 30th St & U St | 0 | 0 | 1 | 0 | 1 | **2** | 13 |
| 13 | 27th St & Y St | 0 | 0 | 1 | 0 | 4 | **5** | 16 |
| | 36th St & Ed Babe Gomez Ave | 0 | 0 | 1 | 0 | 5 | **6** | 17 |
| | 36th St & U St (South) | 0 | 0 | 0 | 0 | 2 | **2** | 2 |
| | 36th St & Y St | 0 | 0 | 1 | 3 | 5 | **9** | 53 |
| | 33rd St & Q St (East) | 0 | 0 | 1 | 2 | 9 | **12** | 45 |
| | 33rd Ave & Q St | 0 | 0 | 2 | 4 | 13 | **19** | 86 |
| | 33rd Ave & U St | 0 | 0 | 0 | 1 | 1 | **2** | 13 |
| | 33rd Ave & Y St | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| | 32nd St & Q St | 1 | 0 | 1 | 0 | 6 | **8** | 30 |
| | 31st St & Q St | 1 | 0 | 0 | 1 | 0 | **2** | 24 |
| | 30th St & Ed Babe Gomez Ave | 0 | 0 | 1 | 1 | 8 | **10** | 32 |
| | 30th St & R St | 0 | 0 | 1 | 2 | 5 | **8** | 41 |
| | 30th St & S St | 0 | 0 | 0 | 1 | 4 | **5** | 16 |
| | 30th St & T St | 0 | 0 | 0 | 0 | 4 | **4** | 4 |
| | 30th St & V St | 0 | 0 | 0 | 0 | 1 | **1** | 1 |
| | 30th St & W St | 0 | 0 | 0 | 2 | 8 | **10** | 32 |
| | 30th St & X St | 0 | 0 | 0 | 1 | 0 | **1** | 12 |
| | 30th St & Y St | 0 | 0 | 0 | 0 | 1 | **1** | 1 |
| | 29th St & Q St | 0 | 0 | 1 | 0 | 1 | **2** | 13 |
| | 28th St & Q St | 0 | 0 | 3 | 4 | 11 | **18** | 96 |
| | 27th St & Ed Babe Gomez Ave | 0 | 0 | 0 | 0 | 4 | **4** | 4 |
| | Ed Babe Gomez Ave & Y St | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| | **Total / Average** | 5 | 6 | 32 | 98 | 358 | **499** | 63 |

*If multiple crash severities occurred at the same crash event, the worst crash severity was the one counted

+Equivalent Property Damage Only (EPDO) takes into account the frequency and severity of crashes. Injury and fatal crashes have a factor of 12.1 applied to account for their elevated societal cost.

= One of the crashes that occurred had two fatalities or disabling injuries that occurred at the same incident.

= Noting that a fatal or disabling crash occurred

= EPDO Score is >3x the study area average

**Table 4-4. Segment Crashes by Severity**

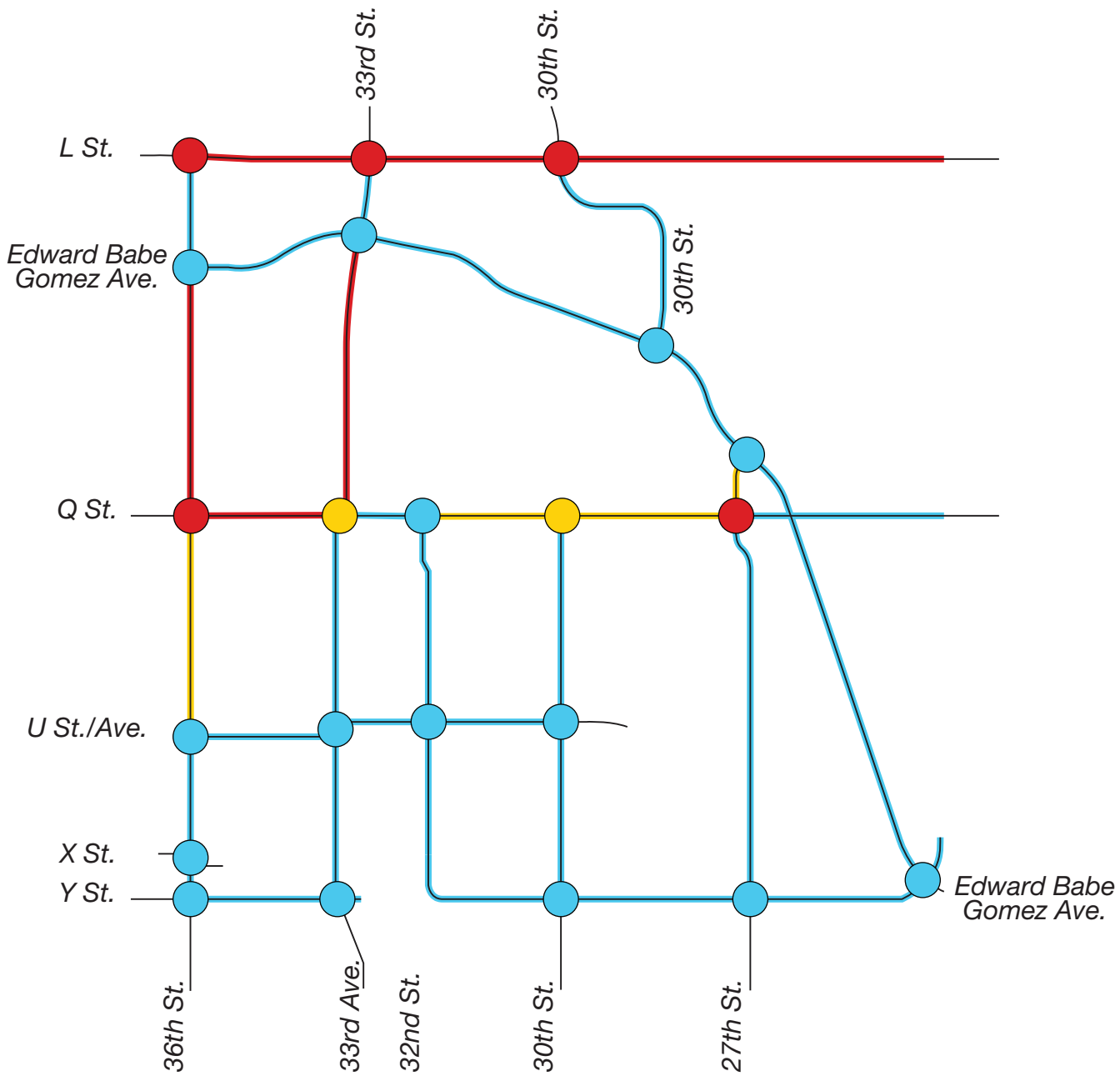
| Segments | Crashes by Severity | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fatal | Disabling | Visible | Possible | PDO | Total Crashes | EPDO+ Score |
| L St, 36th St (West) to 33rd St | 1 | 0 | 2 | 1 | 14 | **18** | 62 |
| L St, 33rd St to 30th St | 0 | 0 | 3 | 2 | 24 | **29** | 85 |
| L St, 30th St to JFK Fwy SB Ramp | 0 | 2 | 2 | 5 | 19 | **28** | 128 |
| Ed Babe Gomez Ave, 36th St to 33rd | 0 | 0 | 0 | 0 | 2 | **2** | 2 |
| Ed Babe Gomez Ave, 33rd St to 30th | 0 | 0 | 1 | 0 | 5 | **6** | 17 |
| Ed Babe Gomez Ave, 30th St to 27th | 0 | 0 | 0 | 0 | 3 | **3** | 3 |
| Ed Babe Gomez Ave, 27th St to Y St | 0 | 0 | 1 | 0 | 5 | **6** | 17 |
| Q St, 36th St to 33rd Ave | 0 | 0 | 3 | 8 | 20 | **31** | 153 |
| Q St, 33rd St (East) to 32nd St | 0 | 0 | 0 | 2 | 2 | **4** | 26 |
| Q St, 32nd St to 30th St | 0 | 0 | 2 | 1 | 3 | **6** | 39 |
| Q St, 30th to 27th St | 0 | 1 | 2 | 0 | 10 | **13** | 46 |
| Q St, 27th St to 26th Ave | 0 | 0 | 0 | 1 | 7 | **8** | 19 |
| U St, 36th St to 33rd Ave | 0 | 0 | 0 | 0 | 2 | **2** | 2 |
| U St, 33rd Ave to 32nd St | 0 | 0 | 0 | 0 | 3 | **3** | 3 |
| U St, 32nd St to 30th St | 0 | 0 | 0 | 0 | 7 | **7** | 7 |
| Y St, 36th St to 33rd Ave | 0 | 0 | 0 | 0 | 4 | **4** | 4 |
| Y St/32nd St, X St to 30th St | 0 | 1 | 1 | 0 | 1 | **3** | 25 |
| Y St, 30th to 27th St | 0 | 0 | 0 | 0 | 0 | **0** | 0 |
| Y St, 27th St to Ed Babe Gomez Ave | 0 | 0 | 1 | 0 | 0 | **1** | 12 |
| 36th St, L St to Ed Babe Gomez Ave | 0 | 0 | 1 | 0 | 2 | **3** | 14 |
| 36th St, Ed Babe Gomez Ave to Q St | 0 | 0 | 3 | 1 | 13 | **17** | 61 |
| 36th St, Q St to U St | 0 | 0 | 0 | 3 | 16 | **19** | 52 |
| 36th St, U St to Y St | 0 | 0 | 0 | 1 | 11 | **12** | 23 |
| 33rd St, L St to Ed Babe Gomez Ave | 0 | 0 | 0 | 1 | 8 | **9** | 20 |
| 33rd St, Ed Babe Gomez Ave to Q St | 0 | 0 | 0 | 3 | 25 | **28** | 61 |
| 33rd Ave, Q St to U St | 0 | 0 | 0 | 0 | 3 | **3** | 3 |
| 33rd Ave, U St to Y St | 0 | 0 | 1 | 0 | 10 | **11** | 22 |
| 32nd St, Q St to U St | 0 | 0 | 0 | 0 | 8 | **8** | 8 |
| 32nd St, U St to X St | 0 | 0 | 1 | 0 | 3 | **4** | 15 |
| 30th St, L St to Ed Babe Gomez Ave | 0 | 0 | 0 | 1 | 16 | **17** | 28 |
| 30th St, Q St to U St | 0 | 1 | 0 | 1 | 2 | **4** | 26 |
| 30th St, U St to Y St | 0 | 0 | 0 | 0 | 4 | **4** | 4 |
| 27th St, Ed Babe Gomez Ave to Q St | 0 | 0 | 0 | 0 | 3 | **3** | 3 |
| 27th St, Q St to Y St | 0 | 0 | 0 | 1 | 1 | **2** | 13 |
| **Total / Average** | 1 | 5 | 24 | 32 | 256 | **318** | 30 |

*If multiple crash severities occurred at the same crash event, the worst crash severity was the one counted

+Equivalent Property Damage Only (EPDO) takes into account the frequency and severity of crashes. Injury and fatal crashes have a factor of 12.1 applied to account for their elevated societal cost.

= Noting that a fatal or disabling crash occurred

= EPDO Score is >3x the study area average




**LEGEND**

- = 2x the Study Area EPDO Average
- = 1x the Study Area EPDO Average
- = Less than the Study Area EPDO Average

*EPDO = Equivalent Property Damage Only, (Based On a 12.1 Factor Applied to Injury & Fatal Crashes)

NORTH

FELSBURG HOLT & ULLEVIG

# FIGURE 4-3

## Equivalent Property Damange Only Crash Summary

MAPA Southside Terrace TIA 120-209-01 2/10/22

## Table 4-5. Intersection Crashes by Type

| | Intersections | Crashes by Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Angle | Sideswipe (Same) | Rear-end | Left-turn Leaving | Ran Off Road | Pedestrian | Bicycle | Other^ | Total Crashes |
| **1** | 36th St & L St (West) | 4 | 6 | 29 | 5 | 5 | 0 | 2 | 4 | **55** |
| **2** | 33rd St & L St | 10 | 11 | 29 | 9 | 0 | 0 | 0 | 1 | **60** |
| **3** | 30th St/Dahlman Ave & L St | 10 | 2 | 32 | 12 | 1 | 0 | 1 | 1 | **59** |
| **4** | 33rd St & Edward Babe Gomez Ave | 5 | 5 | 2 | 2 | 0 | 1 | 0 | 0 | **15** |
| **5** | 36th St & Q St | 17 | 1 | 34 | 15 | 0 | 0 | 0 | 3 | **70** |
| **6** | 33rd St & Q St (West) | 5 | 2 | 8 | 3 | 1 | 0 | 0 | 1 | **20** |
| **7** | 30th St & Q St | 6 | 1 | 12 | 2 | 3 | 1 | 0 | 3 | **28** |
| **9** | 27th St & Q St | 10 | 6 | 26 | 5 | 2 | 1 | 0 | 1 | **51** |
| **10** | 36th St & X St | 3 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | **8** |
| **11** | 32nd St & U St | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **2** |
| **12** | 30th St & U St | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | **2** |
| **13** | 27th St & Y St | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **5** |
| | 36th St & Ed Babe Gomez Ave | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | **6** |
| | 36th St & U St (South) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **2** |
| | 36th St & Y St | 5 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | **9** |
| | 33rd St & Q St (East) | 5 | 3 | 2 | 1 | 0 | 1 | 0 | 0 | **12** |
| | 33rd Ave & Q St | 9 | 0 | 2 | 8 | 0 | 0 | 0 | 0 | **19** |
| | 33rd Ave & U St | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | **2** |
| | 33rd Ave & Y St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | 32nd St & Q St | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | **8** |
| | 31st St & Q St | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** |
| | 30th St & Ed Babe Gomez Ave | 4 | 4 | 0 | 1 | 0 | 0 | 0 | 1 | **10** |
| | 30th St & R St | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | **8** |
| | 30th St & S St | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | **5** |
| | 30th St & T St | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | **4** |
| | 30th St & V St | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| | 30th St & W St | 5 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | **10** |
| | 30th St & X St | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| | 30th St & Y St | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** |
| | 29th St & Q St | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | **2** |
| | 28th St & Q St | 3 | 2 | 6 | 3 | 1 | 1 | 0 | 2 | **18** |
| | 27th St & Ed Babe Gomez Ave | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** |
| | Ed Babe Gomez Ave & Y St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| | **Total / Average** | **129** | **45** | **209** | **69** | **19** | **6** | **3** | **19** | **499** |

*If multiple crash severities were present at crash event, the worst crash severity was counted.

^Other is made up of the remaining four crash types.

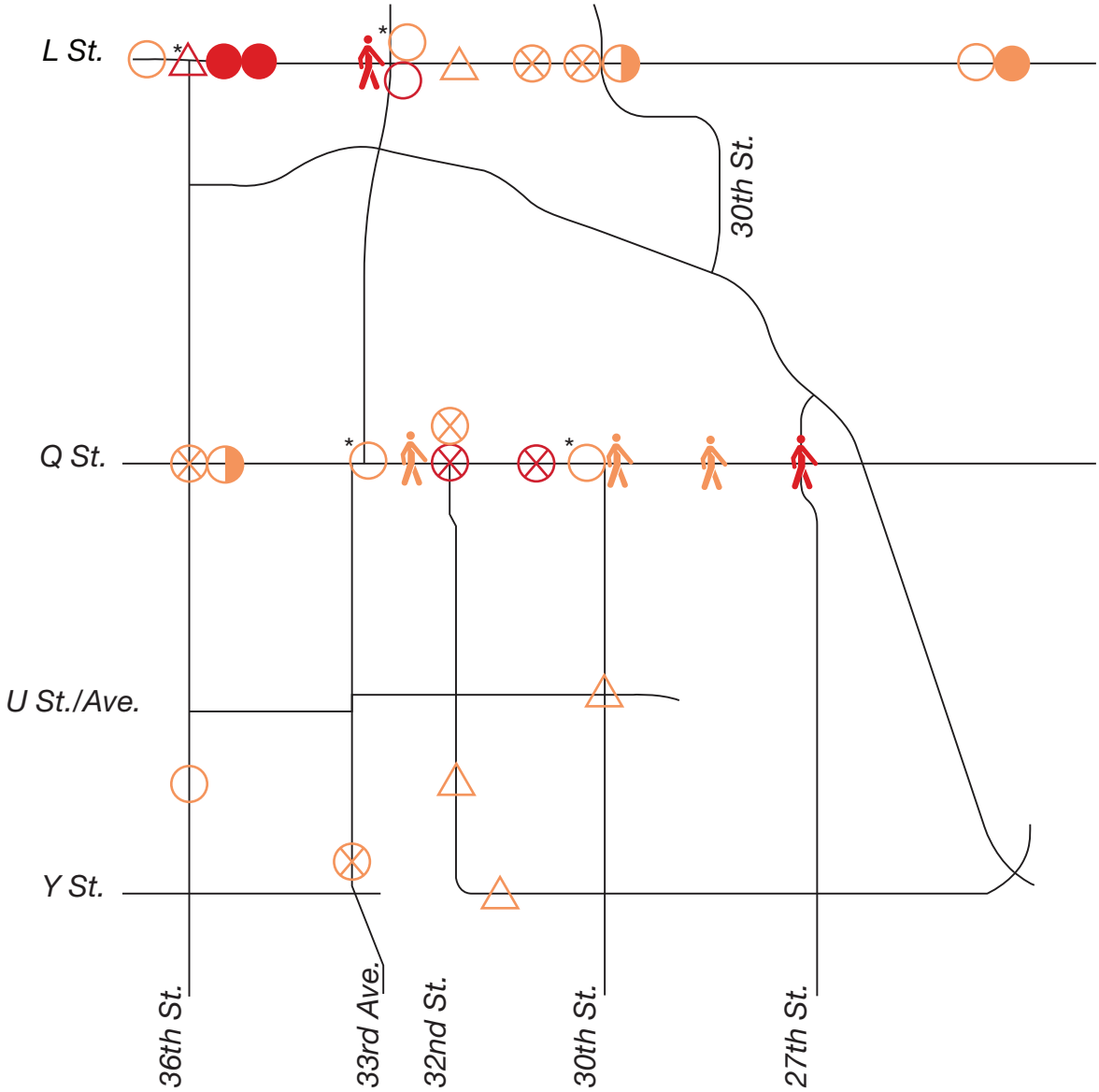
= Noting that a vulnerbale user crash occurred (pedestrian/bicycle)

## Table 4-6. Segment Crashes by Type

| Segments | Crashes by Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Angle | Sideswipe (Same) | Rear-end | Left-turn Leaving | Ran Off Road | Pedestrian | Bicycle | Other^ | Total Crashes |
| L St, 36th St (West) to 33rd St | 1 | 3 | 10 | 0 | 2 | 0 | 0 | 2 | **18** |
| L St, 33rd St to 30th St | 5 | 8 | 9 | 3 | 4 | 0 | 0 | 0 | **29** |
| L St, 30th St to JFK Fwy SB Ramp | 0 | 7 | 18 | 0 | 1 | 0 | 0 | 2 | **28** |
| Ed Babe Gomez Ave, 36th St to 33rd St | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | **2** |
| Ed Babe Gomez Ave, 33rd St to 30th St | 2 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | **7** |
| Ed Babe Gomez Ave, 30th St to 27th St | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | **3** |
| Ed Babe Gomez Ave, 27th St to Y St | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 1 | **7** |
| Q St, 36th St to 33rd Ave | 22 | 4 | 4 | 0 | 1 | 0 | 0 | 0 | **31** |
| Q St, 33rd St (East) to 32nd St | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | **5** |
| Q St, 32nd St to 30th St | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 3 | **8** |
| Q St, 30th to 27th St | 0 | 4 | 3 | 0 | 2 | 1 | 0 | 4 | **14** |
| Q St, 27th St to 26th Ave | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 2 | **8** |
| U St, 36th St to 33rd Ave | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **2** |
| U St, 33rd Ave to 32nd St | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | **3** |
| U St, 32nd St to 30th St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| Y St, 36th St to 33rd Ave | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | **4** |
| Y St/32nd St, X St to 30th St | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | **3** |
| Y St, 30th to 27th St | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| Y St, 27th St to Ed Babe Gomez Ave | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **1** |
| 36th St, L St to Ed Babe Gomez Ave | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **3** |
| 36th St, Ed Babe Gomez Ave to Q St | 4 | 1 | 8 | 0 | 4 | 0 | 0 | 0 | **17** |
| 36th St, Q St to U St | 1 | 0 | 13 | 1 | 2 | 0 | 0 | 2 | **19** |
| 36th St, U St to Y St | 1 | 3 | 7 | 0 | 1 | 0 | 0 | 0 | **12** |
| 33rd St, L St to Ed Babe Gomez Ave | 4 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | **9** |
| 33rd St, Ed Babe Gomez Ave to Q St | 5 | 1 | 5 | 2 | 7 | 0 | 0 | 8 | **28** |
| 33rd Ave, Q St to U St | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | **3** |
| 33rd Ave, U St to Y St | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 7 | **11** |
| 32nd St, Q St to U St | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | **8** |
| 32nd St, U St to X St | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | **5** |
| 30th St, L St to Ed Babe Gomez Ave | 3 | 2 | 4 | 0 | 5 | 0 | 0 | 3 | **17** |
| 30th St, Q St to U St | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | **4** |
| 30th St, U St to Y St | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | **4** |
| 27th St, Ed Babe Gomez Ave to Q St | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **3** |
| 27th St, Q St to Y St | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | **2** |
| **Total / Average** | **56** | **45** | **94** | **7** | **48** | **7** | **0** | **61** | **318** |

*If multiple crash severities were present at crash event, the worst crash severity was counted.

^Other is made up of the remaining four crash type = Noting that a vulnerbale user crash occurred (pedestrian/bicycle)




**LEGEND**

- = Fatal Crash
- = Disabling Crash
- * = Two Fatal or Disabling Injuries Occurred at Same Incident

**CRASH TYPES**

- = Angle
- = Rear-end
- = Left-turn Leaving
- = Head-On
- = Ran-off-Road
- = Pedestrian

NORTH

FELSBURG HOLT & ULLEVIG

# FIGURE 4-4
## Fatal & Disabling Crash Type Summary

MAPA Southside Terrace TIA 120-209-01 2/10/22

### *Crashes by Time of Day*

Crashes were analyzed throughout the study area of both the time of the year as well as the time of the week that crashes most often occurred. Over the 5-year study period, September was the month of the year when most crashes occur, and April has the lowest amount. Friday accounts for 17.5% of crashes during the week while Sunday only makes up 11.4% of crashes. During any given day, the period between 3:00 PM – 6:00 PM accounts for over a quarter of all crashes that occur throughout the day. **Table 4-7** and **Table 4-8** summarize the results discussed above and elaborate further.

**Table 4-7. Crashes by Month of the Year**

| Time | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | % of Crashes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Midnight - 3:00 AM | 12 | 3 | 7 | 11 | 7 | 5 | 7 | 8 | 6 | 9 | 7 | 9 | **91** | 8.9% |
| 3:00 AM - 6:00 AM | 3 | 3 | 0 | 1 | 1 | 4 | 4 | 1 | 5 | 6 | 5 | 1 | **34** | 3.3% |
| 6:00 AM - 9:00 AM | 7 | 8 | 4 | 8 | 7 | 4 | 9 | 9 | 13 | 9 | 9 | 11 | **98** | 9.6% |
| 9:00 AM - Noon | 7 | 5 | 9 | 7 | 11 | 12 | 6 | 8 | 12 | 8 | 14 | 13 | **112** | 11.0% |
| Noon - 3:00 PM | 11 | 8 | 13 | 4 | 12 | 14 | 11 | 16 | 18 | 14 | 9 | 12 | **142** | 13.9% |
| 3:00 PM - 6:00 PM | 15 | 25 | 23 | 19 | 25 | 22 | 27 | 27 | 32 | 32 | 23 | 21 | **291** | 28.6% |
| 6:00 PM - 9:00 PM | 7 | 9 | 17 | 13 | 14 | 14 | 9 | 14 | 26 | 16 | 10 | 6 | **155** | 15.2% |
| 9:00 PM - Midnight | 1 | 13 | 9 | 9 | 8 | 11 | 7 | 8 | 6 | 5 | 8 | 11 | **96** | 9.4% |
| **Total** | **63** | **74** | **82** | **72** | **85** | **86** | **80** | **91** | **118** | **99** | **85** | **84** | **1019** | |
| % of Crashes | 6.2% | 7.3% | 8.0% | 7.1% | 8.3% | 8.4% | 7.9% | 8.9% | 11.6% | 9.7% | 8.3% | 8.2% | | 100% |

**All crashes were accounted for within study area, not just on primary and secondary study corridors and intersections*

**Table 4-8. Crashes by Day of the Week**

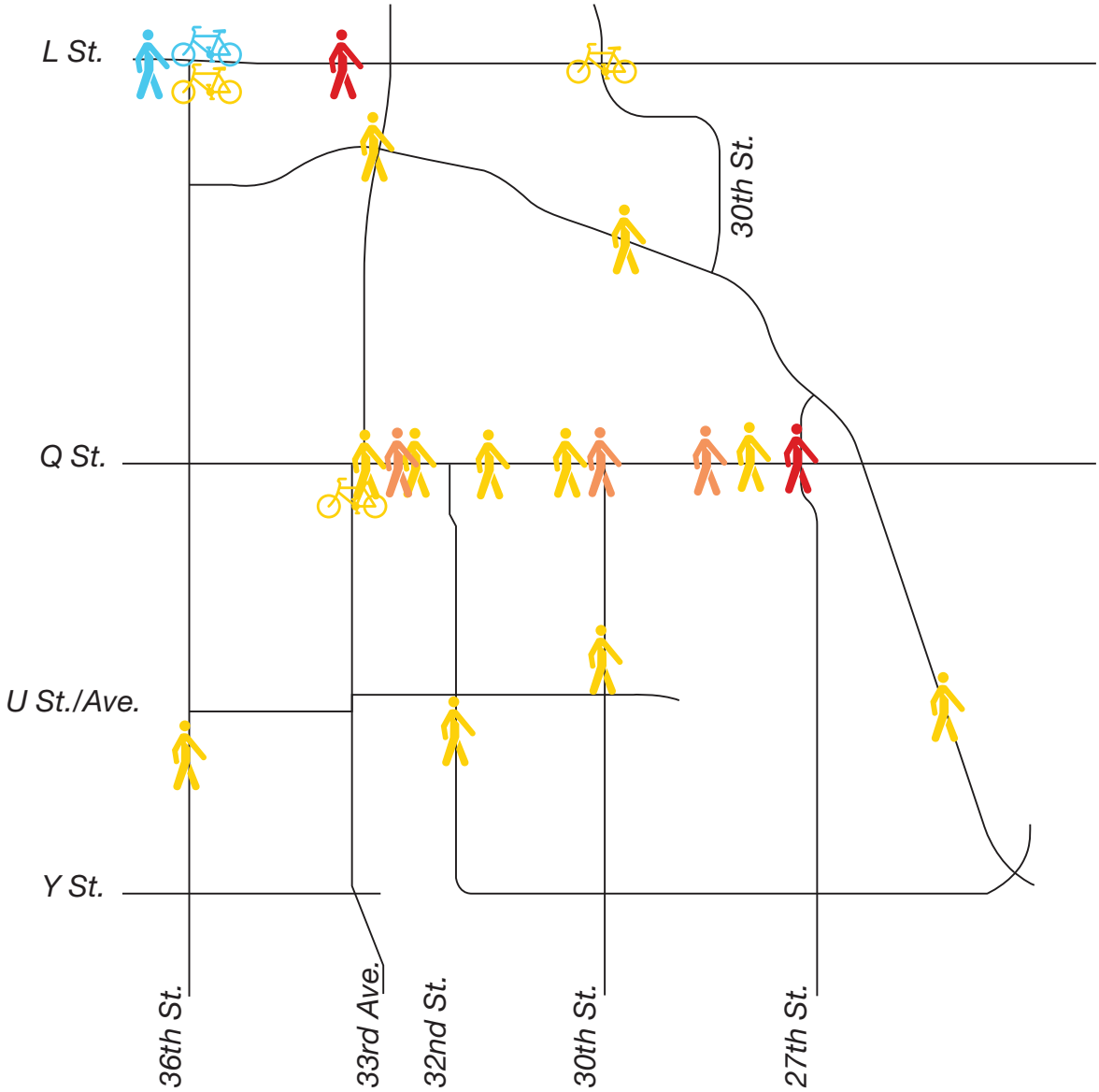
| Time | Mon | Tues | Wed | Thur | Fri | Sat | Sun | Total | % of Crashes |
|---|---|---|---|---|---|---|---|---|---|
| Midnight - 3:00 AM | 12 | 14 | 14 | 6 | 11 | 11 | 23 | **91** | 8.9% |
| 3:00 AM - 6:00 AM | 4 | 3 | 3 | 2 | 7 | 8 | 7 | **34** | 3.3% |
| 6:00 AM - 9:00 AM | 18 | 21 | 17 | 12 | 13 | 9 | 8 | **98** | 9.6% |
| 9:00 AM - Noon | 12 | 18 | 24 | 15 | 18 | 17 | 8 | **112** | 11.0% |
| Noon - 3:00 PM | 25 | 19 | 11 | 21 | 26 | 25 | 15 | **142** | 13.9% |
| 3:00 PM - 6:00 PM | 36 | 47 | 36 | 44 | 59 | 44 | 25 | **291** | 28.6% |
| 6:00 PM - 9:00 PM | 22 | 18 | 19 | 20 | 29 | 24 | 23 | **155** | 15.2% |
| 9:00 PM - Midnight | 12 | 16 | 15 | 12 | 15 | 19 | 7 | **96** | 9.4% |
| **Total** | **141** | **156** | **139** | **132** | **178** | **157** | **116** | **1019** | |
| % of Crashes | 13.8% | 15.3% | 13.6% | 13.0% | 17.5% | 15.4% | 11.4% | | |

**All crashes were accounted for within study area, not just on primary and secondary study corridors and intersections*

### Vulnerable User Crashes

Occurrences of vulnerable user crashes (pedestrian and bicycle type crashes) are a major concern at any intersection or corridor. Within the study area during the 5-year analysis time period, 21 vulnerable user crashes were recorded, two of them resulting in fatalities and three in disabling injuries. One fatality occurred at the intersection of 27th Street with Q Street and the other at 34th Street with L Street. All three disabling crashes occurred along Q Street: one at 30th Street, another between 28th Street and 29th Street, as well as between 32nd Street and 33rd Street. Relative to all fatal and severe crashes within the study area, almost1/3 included vulnerable user/pedestrian/cyclist crashes.

**Figure 4-5** displays the vulnerable user crashes within the study area. From the analysis, Q Street and the traffic that it carries are a concern for maintaining pedestrian and bicycle safety in the study area.




**LEGEND**

= Pedestrian
= Bicycle
= Fatal
= Disabling Injury
= Visible or Possble Injury
= Property Damage Only

NORTH

# FIGURE 4-5
## Vulnerable User Crash Summary

MAPA Southside Terrace TIA 120-209-01 2/10/22

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# V. TRAFFIC STUDY

As part of the multi-modal study, traffic conditions were analyzed along the study corridors and at the study intersections. The traffic study evaluated two different design years, Existing (2021) and Future (2050), during both AM and PM peak hours. The traffic operations analysis was only done for the primary study intersections and segments, though the secondary intersections and segments were given a peripheral analysis for any issues that stood out.

Additionally, an alternative analysis was done along Q Street and 30th Street as part of the study. Improvements are proposed along these corridors and different cross-sections for the streets as well intersection improvements were examined using Future (2050) developed volumes. These proposed alternatives design scenario is discussed in the following sections, called Alternatives (2050), and in more depth in the following chapter.

### Existing (2021) Data Collection & Traffic Volumes

Turning movements were provided to FHU by the City of Omaha for all primary intersections. These counts were all completed within the last five years, and none were from 2020. Adjustments and volume balancing was done if large differences in count data were found. To ensure a conservative analysis was done, balancing was mostly done by increasing traffic volumes of adjacent intersections.

For Existing (2021) traffic conditions, the global AM peak hour was determined to be 7:30 AM to 8:30 AM, and the PM peak hour from 4:15 PM to 5:15 PM. Trucks were counted separately from passenger vehicles to develop truck percentages for the study area. Volumes can be seen on **Figure 5-1** and a detailed report of the traffic count data is provided in **Appendix B**.

### Volume Development

To account for the proposed Southside Terrace development and its new land uses as well as increased housing, Trip generation average rates from the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Tenth Edition, 2017*, were utilized to estimate the traffic generated by the proposed site. The difference between the current trip generation and anticipated trips were distributed within the study network and shown on **Figure 5-2**. Trip generation tables can be found in **Appendix B**.

The Metropolitan Area Planning Agency (MAPA) provided 2050 Average Daily Traffic (ADT) projections for major streets in the study area from their 2050 long-range transportation model. The Existing (2021) volumes were grown by methodology outlined in *National Cooperative Highway Research Program (NCHRP) Report 745* and added with the trip generated traffic. **Figure 5-3** shows the Future (2050) traffic volumes. The ADT forecasts and the developed growth rates for the study area can be found in **Appendix B**.

### Capacity Analysis Criteria

Traffic operations were analyzed using methodology from the Highway Capacity Manual 6th Edition. Synchro 10 traffic analysis software was utilized for intersections with traffic signals or stop control. For intersections controlled with roundabouts, SIDRA 8 was utilized. From the analyses, a key measure or "level of service" rating of the traffic operational condition was obtained. In general, level of service (LOS) is a qualitative assessment of traffic operational conditions within a traffic stream in terms of the average stopped delay per vehicle at a controlled intersection.

Levels of service are described by a letter designation of either A, B, C, D, E or F, with LOS A representing essentially uninterrupted flow, and LOS F representing a breakdown of traffic flow with noticeable congestion and delay. Unsignalized, or stop sign controlled, intersection capacity analyses

produce LOS results for each movement which must yield to conflicting traffic at the intersection. **Table 1** summarizes LOS criteria for signalized and unsignalized (stop sign or roundabout controlled) intersections.

**Table 5-1. Level of Service (LOS) Criteria**

| Level of Service | Average Control Delay per Vehicle (sec/veh) | |
|---|---|---|
| | Signalized Intersections | Stop Sign / Roundabout Controlled Intersections |
| A | ≤ 10 | ≤ 10 |
| B | > 10 to 20 | > 10 to 15 |
| C | > 20 to 35 | > 15 to 25 |
| D | > 35 to 55 | > 25 to 35 |
| E | > 55 to 80 | > 35 to 50 |
| F | > 80 | > 50 |
| *HCM 6th Edition, Exhibit 19-8 & Exhibit 20-2* | | |

### Intersection Traffic Operations

Under Existing (2021) traffic conditions, all unsignalized intersection movements are anticipated to perform at LOS C or better for the AM and PM peak hours. Additionally, all signalized intersections within the study area are anticipated to operate at LOS C or better for AM and PM peak hours. **Figure 5-4** shows the lane arrangement and traffic conditions for Existing (2021).

Under Future (2050) traffic conditions, which is a no-build scenario, most unsignalized intersection movements are anticipated to perform at LOS D or better for the AM and PM peak hours. The intersections of 28th Street with Q Street and 30th Street with U Street are anticipated to experience LOS F on one of their side-streets during the PM peak hour. Though, it is not uncommon for minor street movements to perform at LOS E or F during peak hour periods. All signalized intersections within the study area are anticipated to operate at LOS C or better for AM and PM peak hours. **Figure 5-5** shows the lane arrangement and traffic conditions for Future (2050).

Under Alternatives (2050) traffic conditions, a three-lane cross-section is proposed along Q Street and a two-lane cross-section along 30th Street. The new lane arrangements and various traffic control devices were examined at each primary intersection along the two corridors, which are shown on **Figure 5-6**. The alternatives shown were proposed based on safety and operational considerations. In summary:

- 36th Street & Q Street - No Change
- 33rd Street & Q Street
  - Alternative 1-A: Signalize & coordinate under one controller the north and south legs
  - Alternative 1-B: Single-lane roundabout
- 30th Street & Q Street
  - Alternative 1-A: Three-lane cross-section with an eastbound right-turn lane
  - Alternative 1-B: Single-lane roundabout
- 28th Street & Q Street: Three-lane cross-section
- 27th Street & Q Street: Repaint westbound through-right lane to a right-turn lane
- 30th Street & U Street: Convert East leg to bi-directional with a receiving lane

All signalized intersections would be anticipated to perform at LOS C or better for the AM and PM peak hours. Most unsignalized intersection movements are anticipated to perform at LOS C or better for the AM and PM peak hours, except for the northbound approach at 28th Street with Q Street. It should be

noted that the queues under a coordinated signal of the north and south legs of 36th Street with Q Street may result in queueing spilling into upstream intersections and/or driveways. **Figure 5-6** displays all the alternatives and operations discussed. Capacity analysis worksheets for 2021 Existing and 2050 Future traffic conditions are provided in **Appendix D.**

### Segment Cross-section Capacity Analysis

As part of this study, a planning level traffic operations analysis was conducted along Q Street to compare existing 4-lane undivided cross-section with a proposed three-lane cross-section. Similar to the intersection LOS thresholds described in the traffic operations criteria section of this report, street segment capacity LOS thresholds have also been established. For street segments, LOS is a qualitative assessment of traffic operational conditions within a traffic stream in terms of its volume to capacity (V/C) ratio of the segment. Theoretical capacity is reached when the V/C ratio of that facility is at or exceeds 1.0. To correlate the V/C ratio to a LOS value, the following ranges were utilized:

**LOS A - B:** Volume-to-capacity ratio is less than 0.5
**LOS C:** Volume-to-capacity ratio at least 0.5 but less than 0.7
**LOS D:** Volume-to-capacity ratio at least 0.7 but less than 0.85
**LOS E**: Volume-to-capacity ratio at least 0.85 but less than 1.0
**LOS F:** Volume-to-capacity ratio is 1.0 or greater

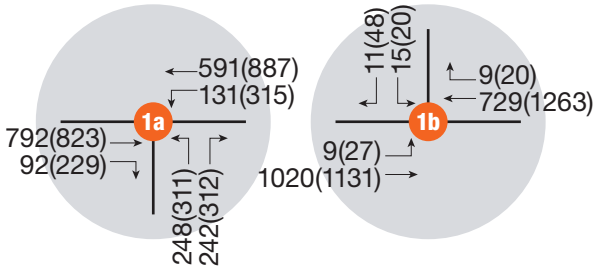
To develop street segment LOS for the study area roadway network, capacity thresholds were utilized from MAPA's Travel Demand Model. These thresholds represent the LOS E to LOS F threshold or the point at which the V/C ratio exceeds 1.0. **Table 5-2** displays the LOS thresholds by facility type and LOS conditions based on the MAPA thresholds. Supplementary information is included in **Appendix C**.

**Table 5-2. MAPA Cross-sectional Analysis**

| SS Terrace Multimodal Study | | ADT 2021 | V/C Ratio | LOS 2021 | ADT 2050 | V/C Ratio | LOS 2050 | MAPA LOS E Threshold (upper limit) |
|---|---|---|---|---|---|---|---|---|
| **Location** | **Facility Type** | | | | | | | |
| **Q Street (27th - 30th)** | 4 - Lane Urban Undivided w/o Turn Lanes | 16,300 | 0.63 | C | 18,900 | 0.73 | D | 26,000 |
| | 3 - Lane Urban w/ TWLTL | 16,300 | **1.06** | F | 18,900 | **1.23** | F | 15,400 |
| **Q Street (30th - 33rd)** | 4 - Lane Urban Undivided w/o Turn Lanes | 14,500 | 0.56 | C | 16,800 | 0.65 | C | 26,000 |
| | 3 - Lane Urban w/ TWLTL | 14,500 | 0.94 | E | 16,800 | **1.09** | F | 15,400 |
| **Q Street (33rd - 36th)** | 4 - Lane Urban Undivided w/o Turn Lanes | 12,400 | 0.48 | B | 14,400 | 0.55 | C | 26,000 |
| | 3 - Lane Urban w/ TWLTL | 12,400 | 0.81 | D | 14,400 | 0.94 | E | 15,400 |

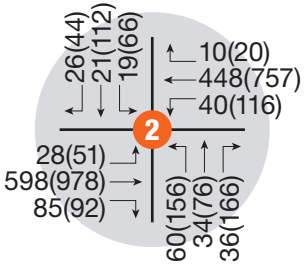
**0.5% Growth Rate used based on MAPA 2050 Forecast*
***Moderate (Mixed Zoning) Assumed*

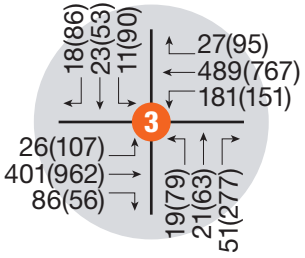
The table above shows that the proposed three-lane cross-section along Q Street would perform at LOS E or F under 2050 traffic conditions. Of note regarding the results of the analysis above:
(1) It was assumed that traffic would grow at 0.5% per year and no traffic would choose different routes.
(2) The MAPA cross-sectional analysis and capacity thresholds do not consider intersection performance. Highway Capacity Software (HCS) Urban Segment Analysis was utilized to examine intersection traffic operations during the peak hours. Based upon HCS analysis, the proposed three lane cross-section of Q Street is anticipated to operate at LOS C or better during both AM and PM peak hours under Future (2050) traffic volumes.

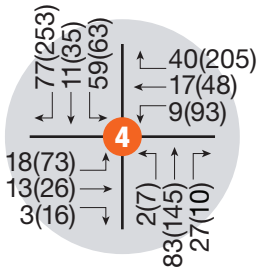




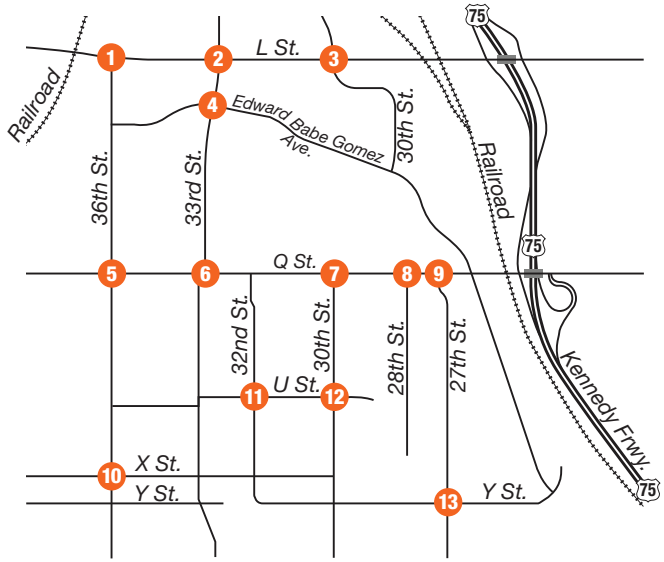


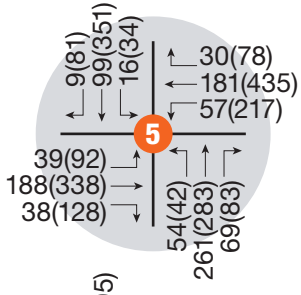


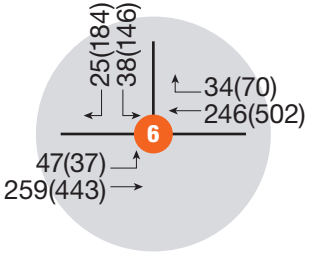



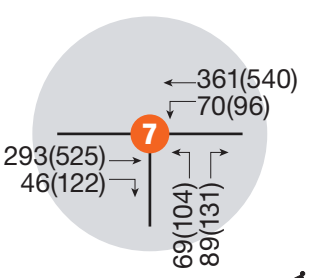



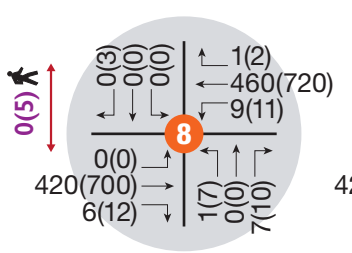

**KEY MAP**

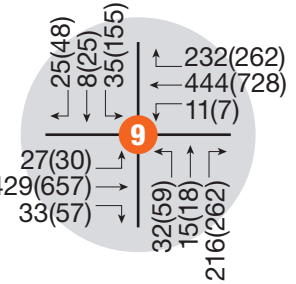


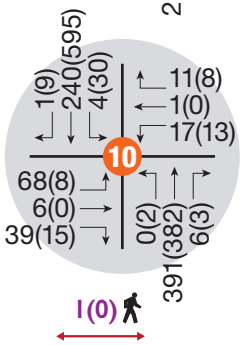



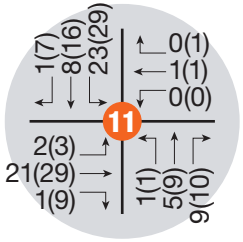



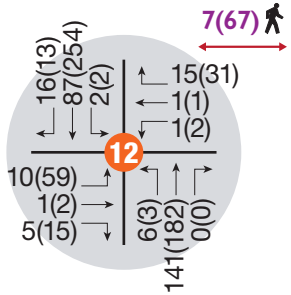



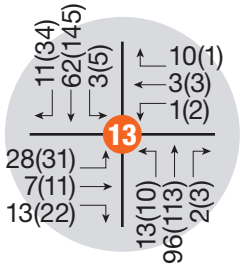




**LEGEND**

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

X(X) = AM(PM) Pedestrian Volumes

NORTH

FELSBURG HOLT & ULLEVIG

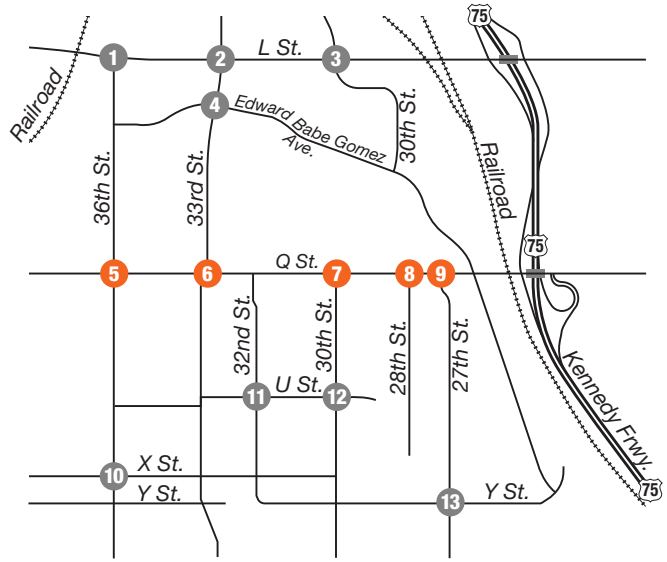
**NOTE: Drawing Not to Scale**

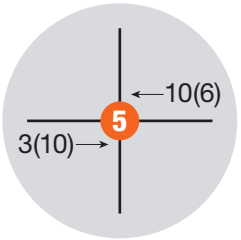
# FIGURE 5-1

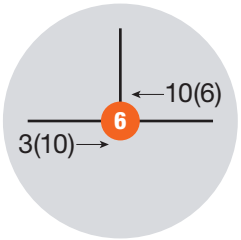
## Existing (2021) Intersection Volumes

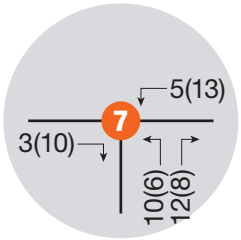
MAPA Southside Terrace TIA 120-209-01 2/10/22

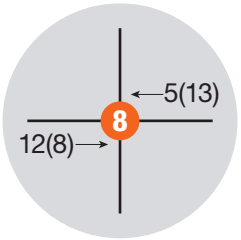
## KEY MAP

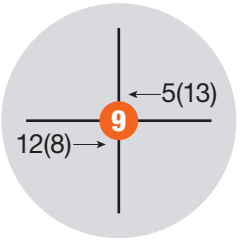



### LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

X = Intersection Numbers

X = Future Intersection

NORTH

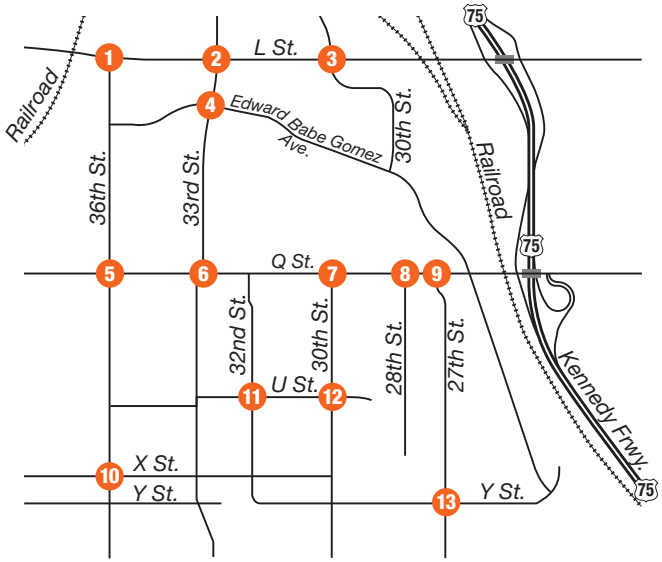
FELSBURG HOLT & ULLEVIG

**NOTE: Drawing Not to Scale**

# FIGURE 5-2
## Trip Generation and Traffic Distribution

MAPA Southside Terrace TIA 120-209-01 2/10/22


## KEY MAP




**LEGEND**

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

NORTH

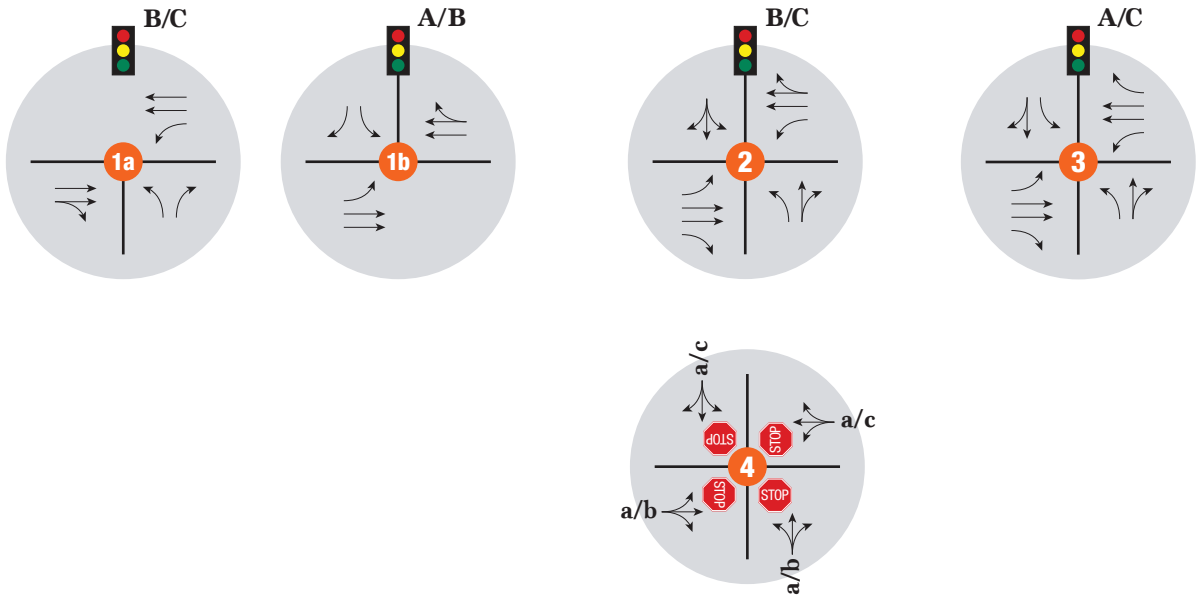
FELSBURG HOLT & ULLEVIG

**NOTE: Drawing Not to Scale**

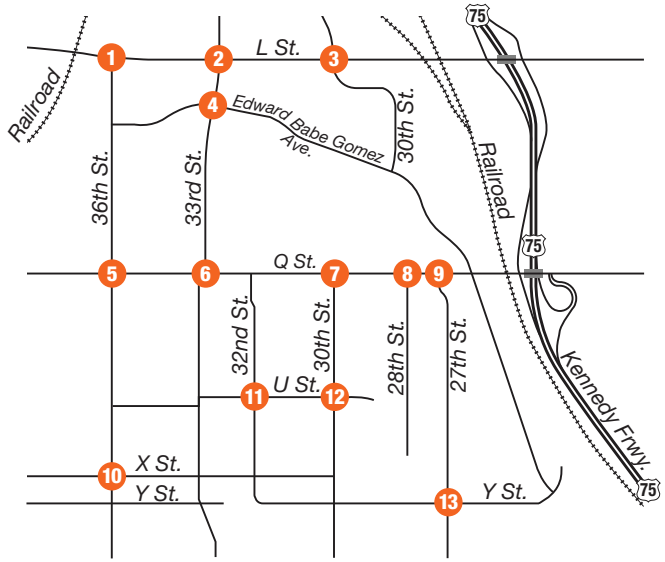
# FIGURE 5-3

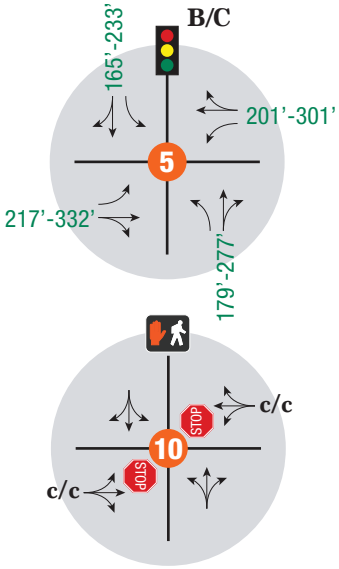
## Future (2050) Intersection Volumes

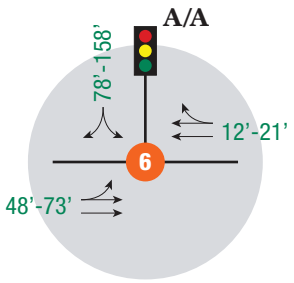
MAPA Southside Terrace TIA 120-209-01 2/10/22

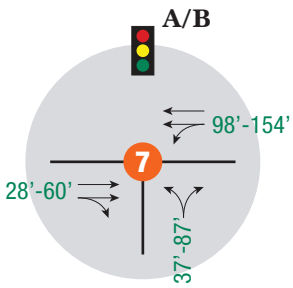


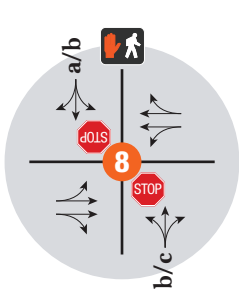

## KEY MAP

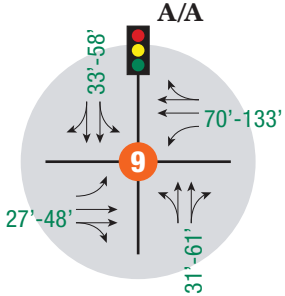


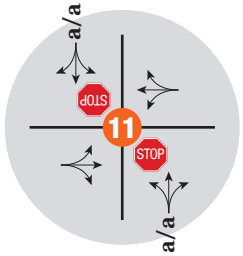



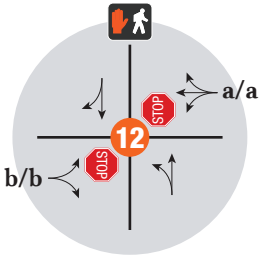



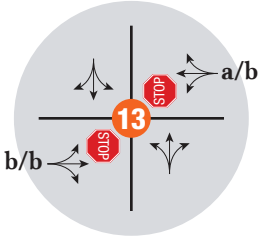




### LEGEND

x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service

X/X = AM/PM Peak Hour Signalized Intersection Level of Service

STOP = Stop Sign

= Traffic Signal

= Pedestrian Signal

xxx'-xxx' = Critical 50th - 95th Percentile Queue Length (ft)

FELSBURG HOLT & ULLEVIG

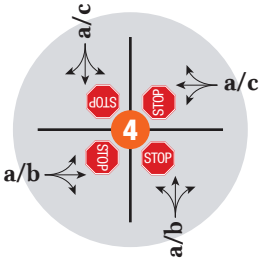
**NOTE: Drawing Not to Scale**

NORTH

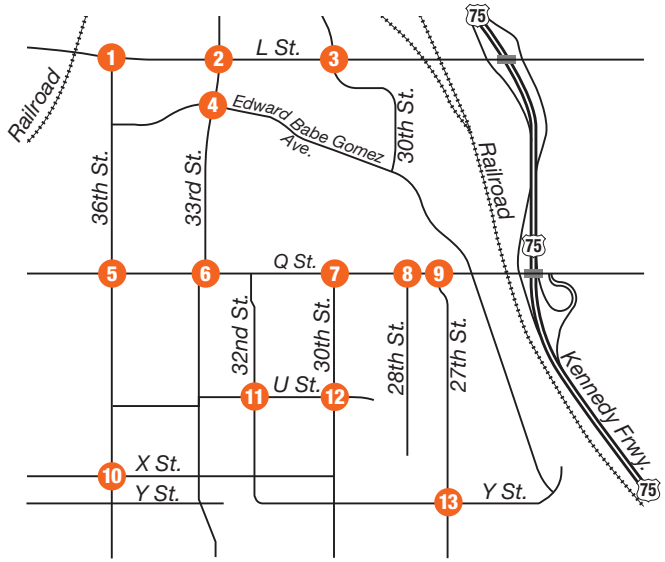
# FIGURE 5-4

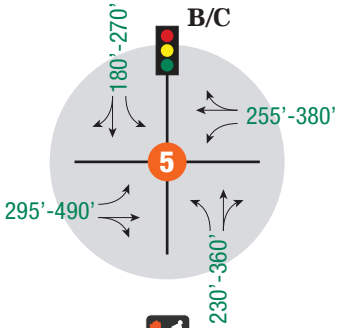
## Existing (2021) Intersection Operations

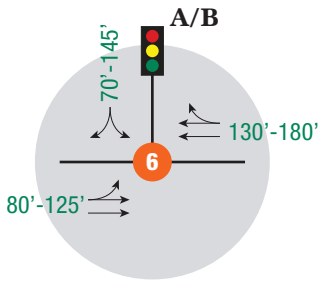
MAPA Southside Terrace TIA 120-209-01 2/10/22

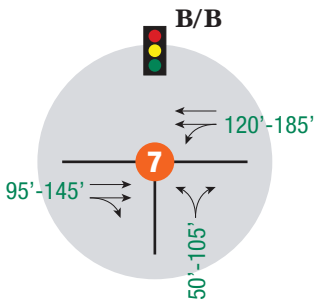



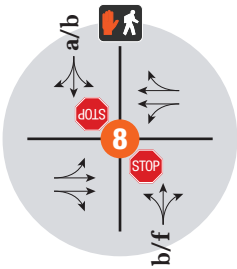

## KEY MAP

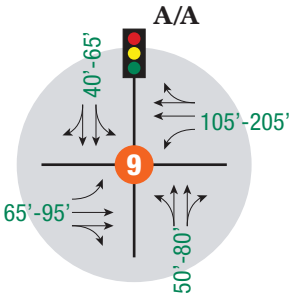


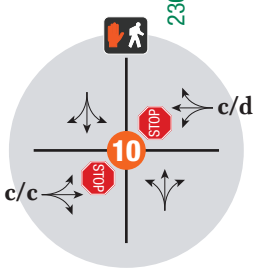



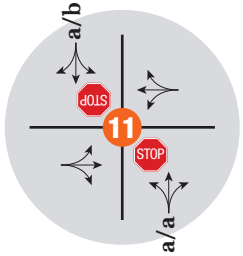



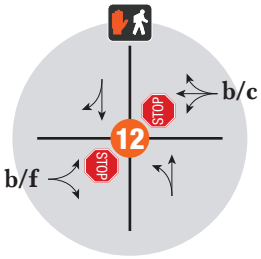



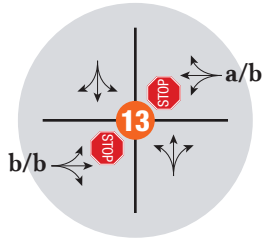




### LEGEND

| | | |
|---|---|---|
| x/x | = | AM/PM Peak Hour Unsignalized Intersection Level of Service |
| X/X | = | AM/PM Peak Hour Signalized Intersection Level of Service |
| STOP | = | Stop Sign |
| | = | Traffic Signal |
| | = | Pedestrian Signal |
| xxx'-xxx' | = | Critical 50th - 95th Percentile Queue Length (ft) |

FELSBURG HOLT & ULLEVIG

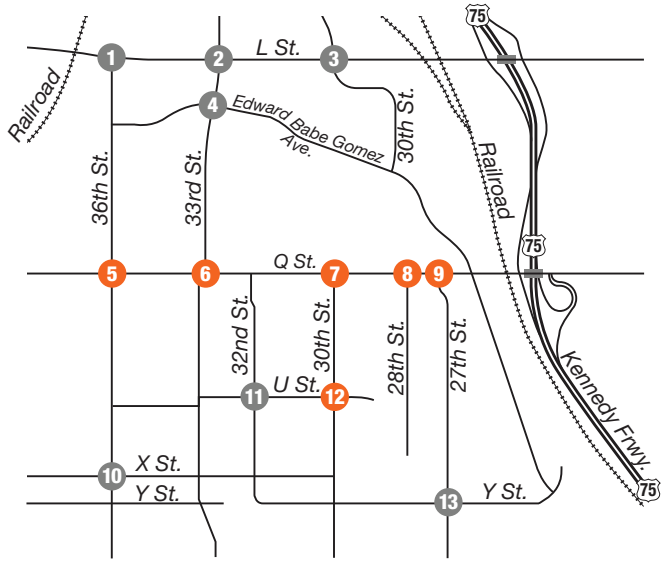
**NOTE: Drawing Not to Scale**

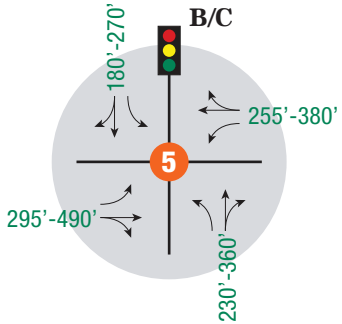
NORTH

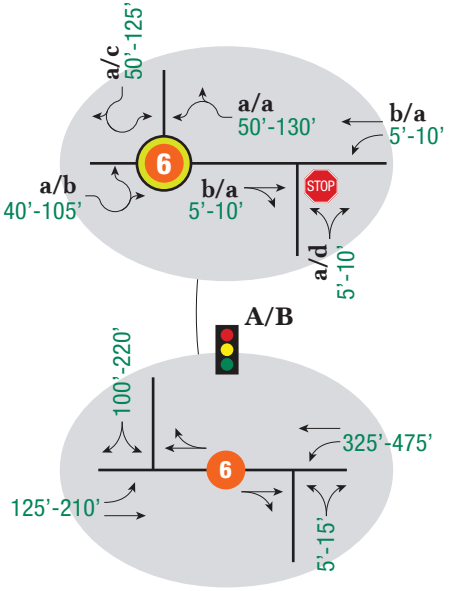
# FIGURE 5-5
## Future (2050) Intersection Operations

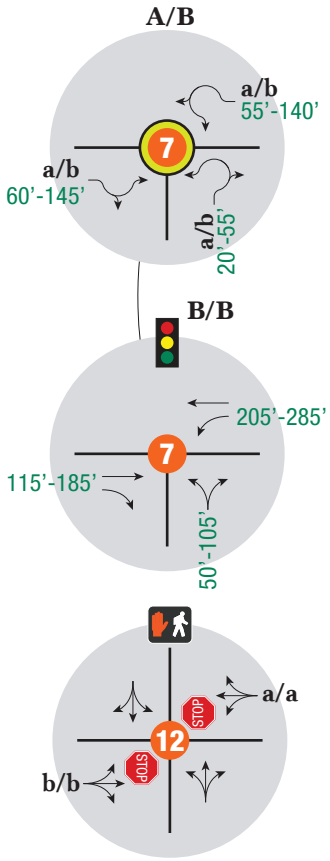
MAPA Southside Terrace TIA 120-209-01 2/10/22

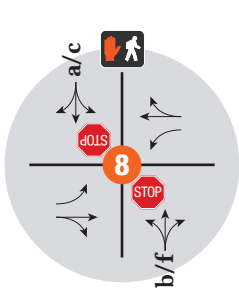
## KEY MAP

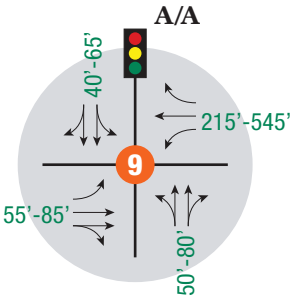



### LEGEND

| | | |
|---|---|---|
| x/x | = | AM/PM Peak Hour Unsignalized Intersection Level of Service |
| X/X | = | AM/PM Peak Hour Signalized Intersection Level of Service |
| X | = | Intersection Numbers |
| X | = | Future Intersection |
| STOP | = | Stop Sign |
| | = | Traffic Signal |
| | = | Pedestrian Signal |
| xxx'-xxx' | = | Critical 50th - 95th Percentile Queue Length (ft) |
| | = | Roundabout |

FELSBURG HOLT & ULLEVIG

**NOTE: Drawing Not to Scale**

NORTH

# FIGURE 5-6
## Alternatives (2050) Intersection Operations

MAPA Southside Terrace TIA 120-209-01 2/10/22

# VI. ALTERNATIVES ANALYSIS

This study used the evaluation of existing conditions and public input to develop a range of multimodal transportation recommendations. The conceptual alternatives are described below to give appropriate context for the source intended benefit of the recommendation. A combination of quantitative and qualitative assessment methods are used to describe the differences between conceptual alternatives to support future infrastructure decisions. Recommended actions (R-#, P-#, B-#, and T-# are organized in **Table 7-1**.

### Proposed Roadway Alternatives Development

Two roadway corridors in the study area were identified to develop conceptual alternatives that may be supported by future infrastructure projects. Following the project kickoff, review of previous public input, and data collection tasks, cross section concepts of minor, moderate, and major changes were created in StreetMix and shared at the first open house. Public input was aided by example images of various potential improvements. Along with this public input, design guidance, and existing right of way information was used to develop two conceptual alternatives for each roadway corridor to compare with a no-build alternative representing existing conditions.

Conceptual alternatives for Q Street (between 27th Street and 36th Street) and 30th Street (between Q Street and Y Street) were developed and presented to the project management team and stakeholder group to help evaluate the benefits and challenges of each. The concept design process was guided by the Transformation Plan Transportation Goal to make, "*Traveling in, out, and around the neighborhood intuitive, safe, and easy by car, walking, biking, and bus.*" The design constraints were informed by City of Omaha roadway design standards and the City of Omaha Complete Streets Design Guide. Following the analysis of each conceptual alternative, recommendations were prepared to guide future roadway design projects for the two roadway corridors.

The alternatives described below represent different conceptual improvements for the reconstruction of Q Street and 30th Street. The existing condition and conceptual design cross sections for each alternative as well as perspective illustrations are provided in **Sections VI.B** and **VI.C**. Plan view drawings are included in **Appendix E** and a summary of each conceptual alternative is included in **Tables 6-1 and 6-3**. Conceptual alternatives were screened and ranked according to the following categories of criteria shown in **Tables 6-2 and 6-4**.

- Property Impacts
- Traffic Operations
- Safety Impacts
- Access Management
- Pedestrian and Bicycle Facilities
- Parking and Truck Access
- Project Cost

### Q Street Conceptual Alternatives (R-1)

A review of the Complete Streets Design Guide determines that the land use context for Q Street is recognized as Neighborhood Commercial and a General Urban street type is suitable for the functional classification of roadway. The arterial roadway can support 2-4 four lanes with a recommended lane width of 11 feet. The center turn lane is optional for the ultimate cross section and bike lanes are recommended according to the design guidelines. On-street parking can be provided in this situation and a posted speed of 25-35 miles per hour can be considered. Evaluation of traffic operations and public input indicated that this roadway corridor represents a barrier separating residents to the south with services, jobs, education, recreation, health care, and transit.

**Table 6-1. Descriptions of Proposed Q Street Concept Alternatives**

| # | Alternative Name | Alternative Description |
|---|---|---|
| **1-A** | Q Street Road Diet with Improved Signal Coordination (**Figures 6-2, 6-3, 6-4**) | • Reduce the number of through travel lanes from four to two and provide a center turn lane that is broken up by several strategically placed pedestrian refuge islands with associated RRFBs to stop traffic for pedestrians. Maximum cross section between curbs limited to 38.5'<br>• Protect the west bound center turn lane at 36th Street and the south bound 36th Street center turn lane by raised medians.<br>• Optimize coordination of traffic signals on 33rd Street (two) with improved pedestrian crossings at 33rd Street.<br>• Construct a dedicated right turn lane for east bound vehicles turning south onto 30th Street.<br>• Remove vehicle access for the two drives nearest to the intersection with 36th Street on the east and north legs.<br>• Provide 10', multi-use trail along the north side of Q Street. Provide a maximum 3' stamped concrete edging between edge of trail and back of curb (see **Figure 6-11**).<br>• Provide an 8' tree lawn between back of curb and a 5' sidewalk along the south side of Q Street.<br>• Consolidate utilities into the tree lawn space behind the curb to maximize the unobstructed sidewalk width available on the south side of Q Street.<br>• Provide spaces for parallel parking between 30th and 27th Streets behind curb bump outs set back from intersections with 27th, 28th, 29th, and 30th Streets.<br>• Repaint westbound through-right lane to a right-turn lane at the intersection with 27th Street. |
| **1-B** | Q Street Road Diet with Mini Roundabouts (**Figures 6-2, 6-3, 6-5**) | • This concept also reduces the number of through travel lanes from four to two and provides a center turn lane that is broken up by several pedestrian refuge islands with associated RRFBs to stop traffic for pedestrians.<br>• Offset the west bound center turn lane at 36th Street with paint to increase sight distance for eastbound vehicles turning left and protect the south bound center turn lane on 36th Street with a raised median.<br>• Construct a three-point mini roundabout to serve the intersections with 33rd Avenue and 33rd Street instead of a traffic signal.<br>• Construct a three-point mini roundabout at the intersection with 30th Street.<br>• Roundabout designs support trucks and transit bus turning movements.<br>• Construct 10', continuous elevation multi-use trail along the north side of Q Street behind a maximum 3' stamped concrete edging to back of curb.<br>• Construct pedestrian crossings with raised medians on all legs of both roundabouts except for the east leg of 33rd Street.<br>• Provide spaces for parallel parking between 29th Street and 27th Street behind curb bump outs set back from intersections with 27th, 28th, and 29th Street.<br>• Repaint westbound through-right lane to a right-turn lane at the intersection with 27th Street. |

The current four-lane roadway serves as a truck route east of 36th Street and intersects the 36th Street, 30th Street, and Edward Babe Gomez Avenue truck route. The Complete Street Design Guide provides an example General Urban cross section width of 100-feet, but the right of way in this corridor is generally limited to 66-feet. Existing buildings along the south side of Q Street are supported by narrow sidewalks that are interrupted by above ground utilities and other encroachments. Limited vegetation is currently present in the right of way and compliance with designated pedestrian crossings is a concern with frequent observed mid-block crossings. There are no city trails currently provided within this neighborhood.

***Figure 6-1. Q Street Existing Conditions***

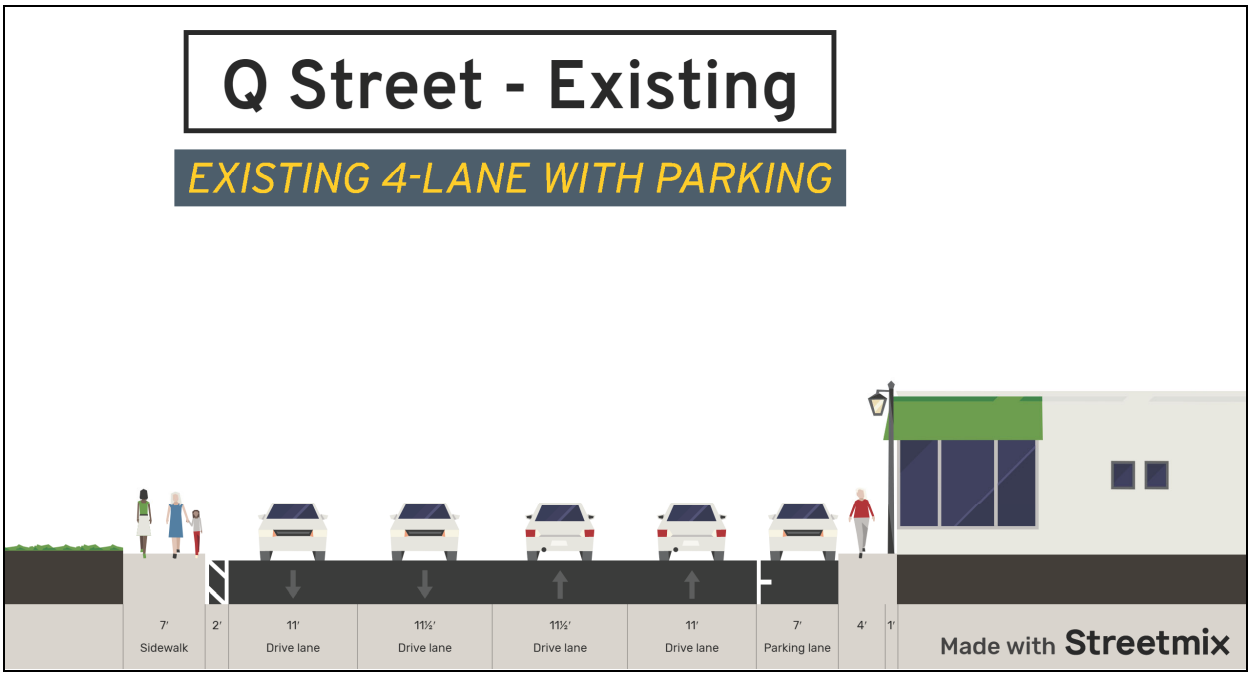


***Figure 6-2. Q Street Conceptual Alternatives at Center Turn Lane***

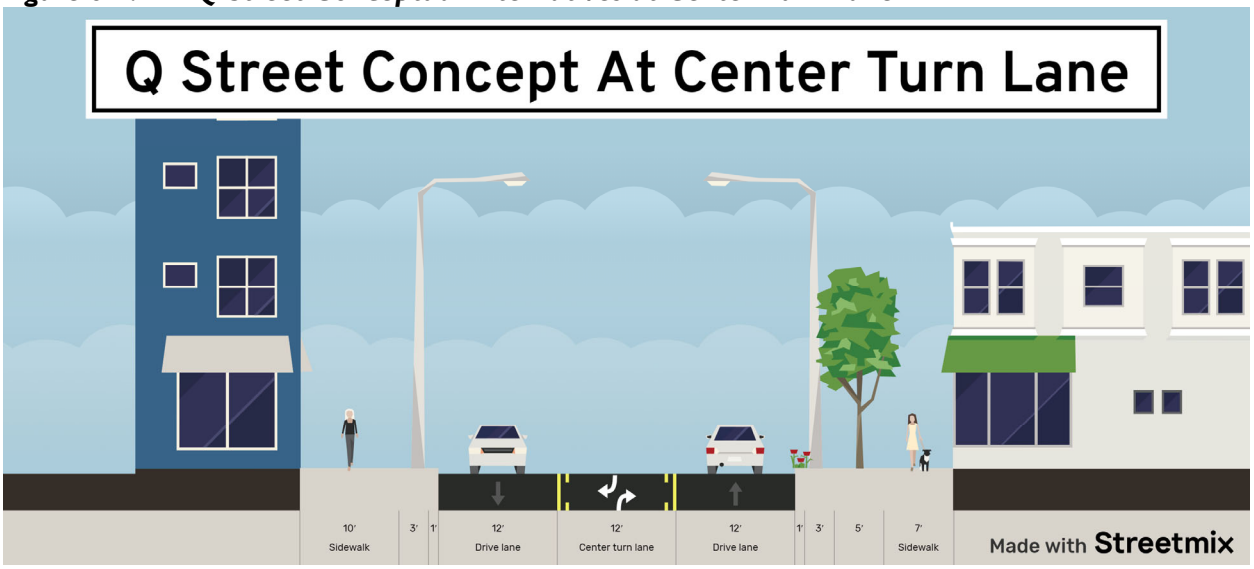



***Figure 6-3. Q Street Conceptual Alternatives at Landscaped Median***

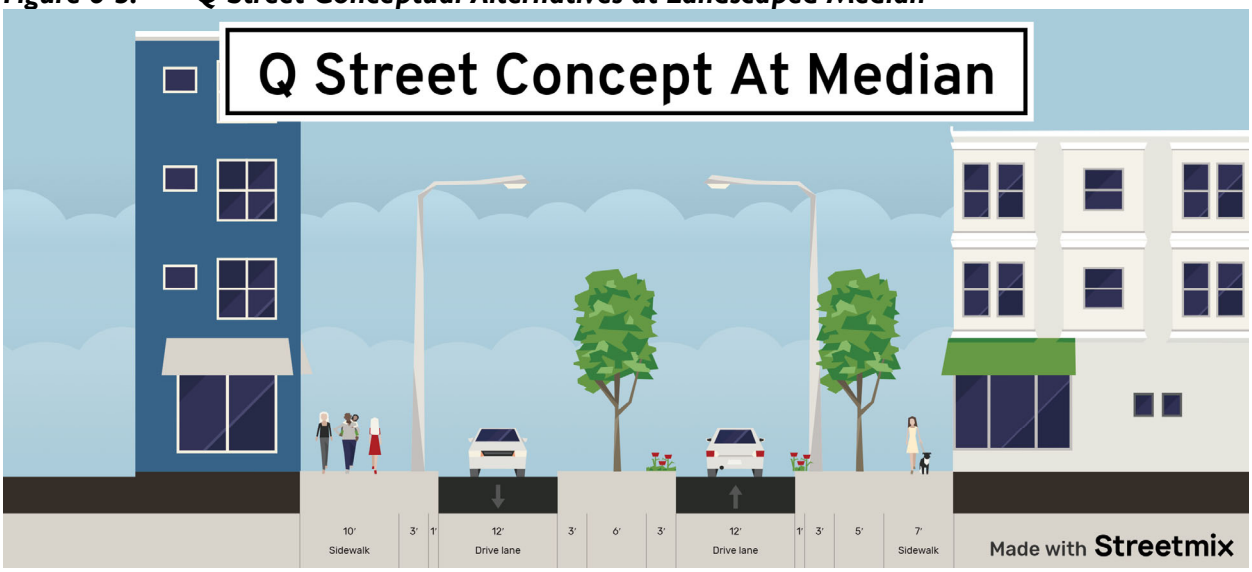


***Figure 6-4. Q Street Conceptual Alternatives 1-A With Signalized Intersections***

***Figure 6-5. Q Street Conceptual Alternatives 1-B with Roundabout Intersections***

### Q Street Conceptual Alternatives Analysis

The evaluation factors below compare the no-build alternative with infrastructure improvements envisioned by Q Street conceptual alternatives 1-A and 1-B. A summary matrix of these factors is presented in **Table 6-2**.

***Property Impacts***

- The no-build alternative utilizes the existing right of way. Property impacts for Alternatives 1-A and 1-B were evaluated against this standard. Both conceptual alternatives were designed to utilize existing right of way to the extent practicable.
- Property impacts would be slightly greater for the alternative 1-B due to the outside radius of the roundabout encroaching into the property north of Q Street at 30th Street. Future redevelopment north of Q Street could incorporate the proposed trail frontage and reduce required building setbacks to support trail-oriented development and help offset this negative impact during site design.
- Additional evaluation is necessary during preliminary design to determine the full extent of property impacts.

***Traffic Operations***

- Future year 2050 traffic operations are anticipated to be relatively consistent for the No-Build alternative. A slight reduction in level of service could be anticipated from LOS B down to LOS C.
- No significant difference in traffic operations for Q Street intersections or segments would be experienced under future year 2050 traffic conditions for conceptual alternatives 1-A or 1-B.
- Providing a road diet along this corridor would maintain acceptable levels of traffic operations and return some of the cross section to support other modes of transportation and corridor beautification.

***Safety Impacts***

- The no-build alternative does not address safety concerns documented for vehicles, pedestrians, or bicycles. Undocumented near miss crashes that can cause the corridor to feel like a barrier would also be anticipated.
- Both conceptual alternatives recommend improved pedestrian crossings at intersections as well as introduce pedestrian refuge islands at strategic mid-block crossing locations to improve bicycle and pedestrian safety and reduce the potential number of near miss crashes.
- Conceptual alternative 1-B anticipates a greater crash reduction factor due to the type and frequency of crashes anticipated to occur within roundabouts. Modulated travel speeds and the angle of crashes tend to reduce the number and severity of crashes compared to signalized intersections. Roundabouts at the two proposed locations could be expected to provide safer vehicle turning movements through the intersections.
- Roundabouts also provide a median break and set the pedestrian crossing back from the intersection to improve the sight line for oncoming vehicles to avoid crashes with pedestrians and bicyclists using the crossings.

***Access Management***

- The Transformation Plan envisions Q Street as a redevelopment corridor which will require access control that is limited for the No-Build alternative.

- A corridor access management plan that anticipates a road diet for Q Street can help support the individual redevelopment decisions that will be made over time to direct the process of access consolidation or removal.
- The conceptual alternatives were developed to limit property access impacts to existing businesses. Exceptions are recommended at locations adjacent to full-access intersections where operations would be diminished or where a center turn lane with raised medians was strategically located to support safe pedestrian crossings.
- Both conceptual alternatives documented a proposed consolidation of turning vehicle movements. Conceptual alternative 1-B has one more consolidation than 1-A.
- The roundabouts for conceptual alternative 1-B at 33rd Street and 30th Street may reduce some of the negative impacts that result from limiting turning movements or by consolidating access points.
- A multi-use trail would modify the standard geometry of a driveway apron, but access would not be impacted.

***Pedestrian and Bicycle Facilities***

- The No-Build alternative does not improve existing walkability or bike ability along or across Q Street. Nothing would be done to address the current risk for vulnerable road users and documented crash rates.
- Alternatives 1-A and 1-B both recommend a full 10' wide multi-use trail along the north side of Q Street. This alignment is essential to providing a viable east-west bicycle facility that can provide connectivity between 24th and 42nd Streets. The recommended continuous elevation trail alignment should maintain the trail elevation through all access drives rather than sloping down to the drive apron. The only street crossing is located at 33rd Street and a continuous elevation is not recommended, but the trail crossing at 33rd Street should be striped with green paint to indicate a bicycle-only facility and signed for oncoming vehicle to yield for trail users.
- Raised medians are recommended to break up the continuous two-way center turn lanes. These locations are strategically placed along the corridor to reduce the risk of mid-block crossings and provide space for landscaping. Pedestrian refuge islands are recommended within each raised median to give users space to wait for oncoming traffic to pass before proceeding through the second through lane.
- Rectangular rapid flashing beacons (RRFBs) are also recommended for each of the center turn lane median breaks. Pedestrian crossings at trail locations can provide needed safety benefit with these improvements. RRFBs are not recommended at the roundabout intersection with 33rd Street/Avenue for conceptual alternative 1-B.
- All reconstructed intersections for both alternatives would provide ADA compliance above the No-Build alternative.

***Parking and Truck Access***

- Parking along the south side of Q Street is poorly defined and vehicles are often observed parking with wheels on the passenger side up on the curb and/or sidewalk due to the poor delineation between the roadway and sidewalk elevations.
- Conceptual alternatives 1-A and 1-B anticipate a full depth reconstruction of the roadway and establishment of parking spaces behind curb bump outs. Alternative 1-B provides slightly less area for parking due to the configuration of the approach median on the east leg of the 30th Street roundabout.
- The design standard for a mini roundabout is configured to support turning movements for large freight vehicles. Input from Public Works staff indicated that mini roundabouts could be

considered along Q Street, but additional design analysis would be necessary to determine if the conceptual alternative have greater right of way impacts to support southbound trucks on 33rd Street turning east.

***Project Cost***

- The No-Build alternative does not imply it is a no cost alternative. Besides the documented safety concerns along Q Street at multiple key intersections, the life cycle cost to repair the existing cross section will be substantial to maintain and/or replace the roadway surface.
- Cost savings associated with removing traffic signals from 33rd Street/Avenue and 30th Street intersections would result in conceptual alternative 1-B to have a lower life-cycle cost.
- Both concept alternatives recommend consolidation of utilities outside of the pedestrian way which will require further analysis to develop actual cost estimates.
- Conceptual cost estimates for Alternatives 1-A ($6.9M) and 1-B ($5.8M) is included in Appendix F. Right of way costs related to Alternative 1-B were not estimated. The primary difference in estimated cost for Alternative 1-A relates to resetting traffic signals.
- The City of Omaha does not currently have dedicated Capital Improvement Program funding available to complete Alternatives 1-A or 1-B and must prioritize street improvements City-wide. A Street Maintenance Funded restriping project could be considered by the City of Omaha as an interim road diet solution until the recommended capital project can be funded.

**Table 6-2. Evaluation Factors Matrix for Q Street Conceptual Alternatives**

| **Evaluation Factors** for Q Street from 36th Street - 27th Street | **No Build: 4-Lanes** | **Alternative 1: 3-Lanes w/ Signals** | **Alternative 2: 3-Lanes w/ Roundabouts** |
|---|---|---|---|
| **Property Impacts** | | | |
| Right-of-Way Acquisition (Acres) | None | None | 2,000 Sq.Ft. |
| **Traffic Operations** | | | |
| Critical Intersection Operations (2021) | LOS B | LOS B | LOS B |
| Critical Intersection Operations (2050) | LOS B | LOS B | LOS B |
| Critical Segment Operations (2021) | LOS C | LOS C | LOS C |
| Critical Segment Operations (2050) | LOS C | LOS C | LOS C |
| **Safety Impacts** | | | |
| Max CRF of Proposed Intersection Improvement | Status Quo | 26% | 44% |
| Max CRF of Proposed Segment Improvement | Status Quo | 29% | 29% |
| **Access Management** | | | |
| Impacts to Businesses | None | Minimal | Minimal |
| Movements Consolidated | Status Quo | 4 Locations | 5 Locations |
| **Pedestrian & Bicycle Facilities** | | | |
| Provides New or Enhances Existing Facilities | Substandard | New Facility | New Facility |
| Integrates with Existing & Surrounding Facilities | Status Quo | Connects Existing | Connects Existing |
| Safety Improvements for Vulnerable Users | Above Crash Rate | Pedestrian Safety Improvements | Pedestrian Safety Improvements |
| **Parking & Truck Access** | | | |
| Existing Parking Maintained or Improved | Status Quo | Improved | Improved |
| Truck Route Movements Impacted | Status Quo | Status Quo | Roundabout Mvmts |
| **Project Cost** | | | |
| Planning Level Cost of Project | - | $6.9 M | $5.8 M |
| **Evaluation Rating** | | | |
| Status | | | |

| **Rating Scale** | |
|---|---|
| Highly Positive | |
| Moderately Positive | |
| Neutral | |
| Moderately Negative | |
| Highly Negative | |

### 30th Street Conceptual Alternatives (R-2)

The existing cross section on 30th Street is a two-lane with no parking as shown on **Figure 6-6**. A review of the Complete Streets Design Guide determines that the land use context for 30th Street is recognized as Traditional Neighborhood and a Neighborhood Residential street type is suitable for the existing functional classification of the roadway. Accordingly, this local roadway can support two-way traffic without a painted centerline and a total width of 25 feet. No center turn lane is required, nor are painted bikeways. Non-delineated parking may be accommodated and a posted speed of 25 miles per hour is recommended. The Complete Street Design Guide provides an example Neighborhood Residential cross section width of 60-feet although the right of way in this corridor is generally 66-feet, similar to the right of way for Q Street.

The 30th Street corridor serves neighborhood circulation as well as through-traffic connecting Q Street to Chandler Street. Evaluation of traffic operations and public input indicated that this roadway corridor can represent a barrier for some residents to access education, grocery, parks and community services. Traffic speed along the corridor was the most commonly documented public concern. The approximate roadway width of 30-feet provides a wide driving corridor and pedestrian crossing distance which is compounded by the challenge of vehicles gaining speed as they approach the pedestrian crosswalk and signal at U Street. Minimum sidewalk widths are too narrow to support pedestrians and bicycles safely, but traffic volumes are not consistent with the continuous low-volume street designation to support on-street bicyclists as currently designated previously on **Figure 2-7**.

***Figure 6-6. 30th Street Existing Conditions***

**Table 6-3. Descriptions of Proposed 30th Street Alternatives**

| # | Alternative Name | Alternative Description |
|---|---|---|
| **2-A** | 30th Street with Shared Use Pathway **(Figures 6-7 & 6-9)** | • Provide a striped centerline to create an 11' width for north/south driving lanes plus a 1' gutter width between Q Street and Y Street.<br>• Extend the east curb line to create curb bump outs at intersections with R, T, S, U, V, and W Streets.<br>• Provide an 8' wide parking lane along the east side of 30th Street adjacent to the curb and gutter line. Limit parallel parking areas by accommodating the minimum intersection setback distances (accommodating for proper stormwater drainage) from R Street to S Street, T Street to U Street, U Street to V Street, and V Street to W Street.<br>• Along the west side of 30th Street, construct a 5' sidewalk behind an 8' tree lawn located behind the curb line.<br>• Work with the owner of the Afoma building to recommend design improvements for parking lot access and add landscaping in front of the store on the northwest corner of 30th and U Streets.<br>• Provide 10', shared use path along the east side of 30th Street behind a 6' tree lawn located behind the curb line (see **Figure 6-11**). Maintain the continuous elevation shared use pathway through all improved intersections and driveways between Q Street and Y Street.<br>• Construct a raised intersection at 30th and U Streets with decorative stamped concrete. |
| **2-B** | 30th Street with Bike Lanes, and Floating Transit Island **(Figures 6-8 & 6-10)** | • Provide a striped centerline to create an 11' width for north/south driving lanes between Q Street and Y Street.<br>• Construct 5' wide bike lanes adjacent to north/south driving lane.<br>• Reestablish the new curbline to accommodate the 32' cross section.<br>• Construct a floating transit island on the southeast corner of 30th and T Streets. Divert the north bound bike lane behind the floating transit stop and provide ADA curb ramps to support pedestrian movements between the sidepath and the transit island.<br>• Extend the east curb line in to create curb bump outs at intersections with R, T, S, U, V, and W Streets.<br>• Along the west side of 30th Street, construct an 8' sidewalk behind a 7' tree lawn positioned behind the curb line.<br>• Work with Afoma building owner to recommend design improvements for parking lot access and add landscaping in front of the store on the northwest corner of 30th and U Streets.<br>• Along the east side of 30th Street, construct an 8' shared use pathway behind a 7' tree lawn positioned behind the curb line.<br>• Construct stamped concrete crosswalks for all four legs of the 30th and U Street intersection. |

***Figure 6-7. 30th Street Concept Alternative 2-A Cross Section***

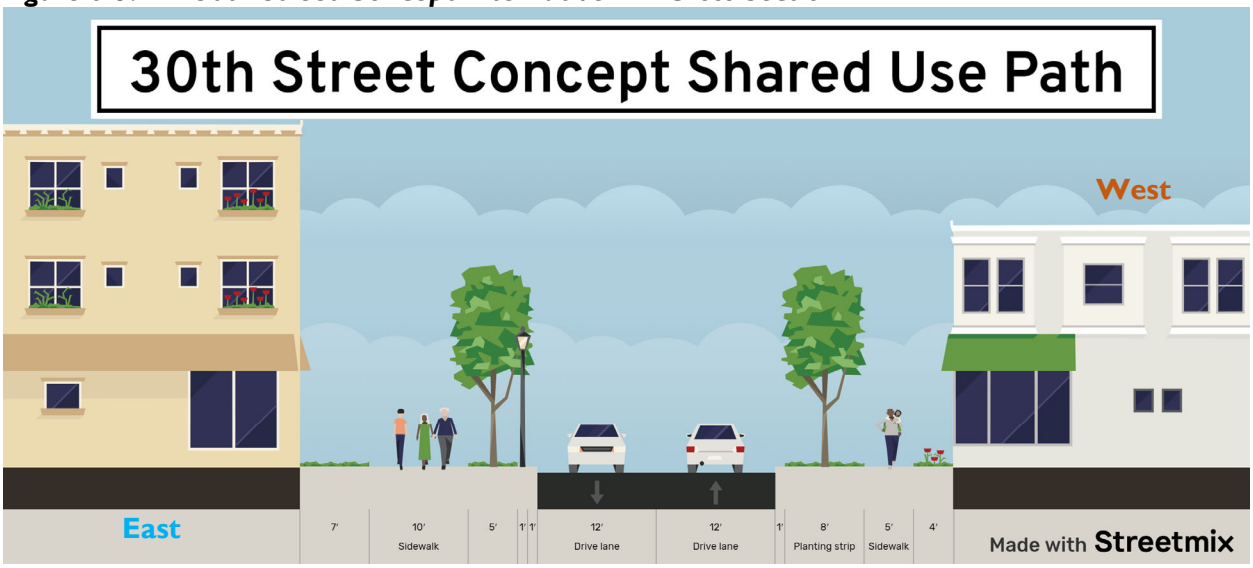



***Figure 6-8. 30th Street Concept Alternatives 2-B Cross Section***

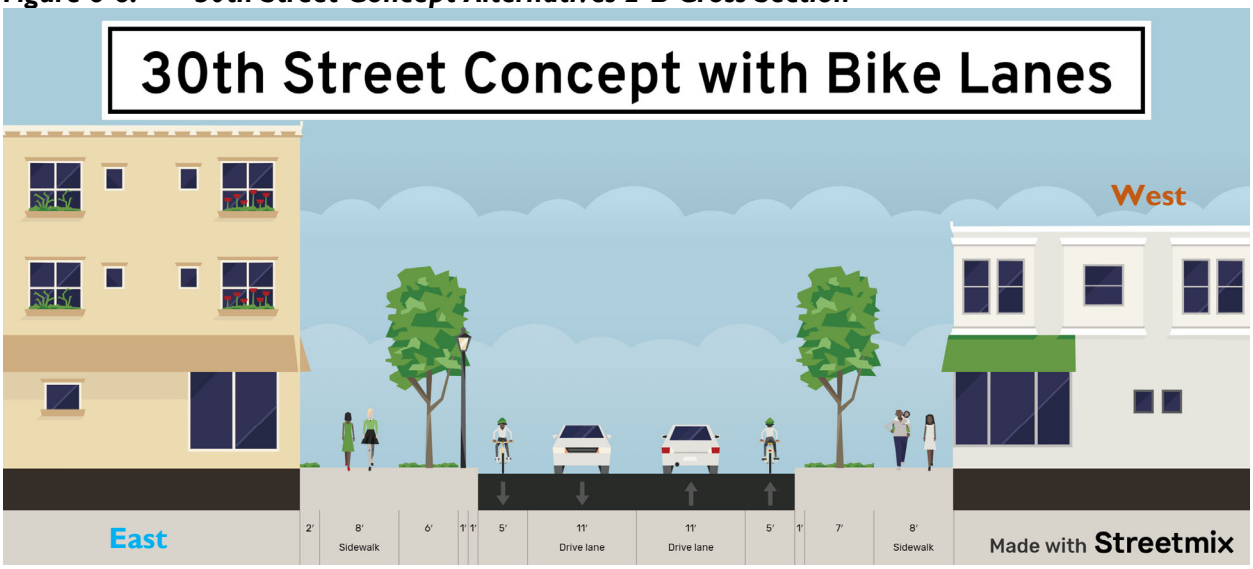


***Figure 6-9. 30th Street Conceptual Alternatives 2-A Perspective***

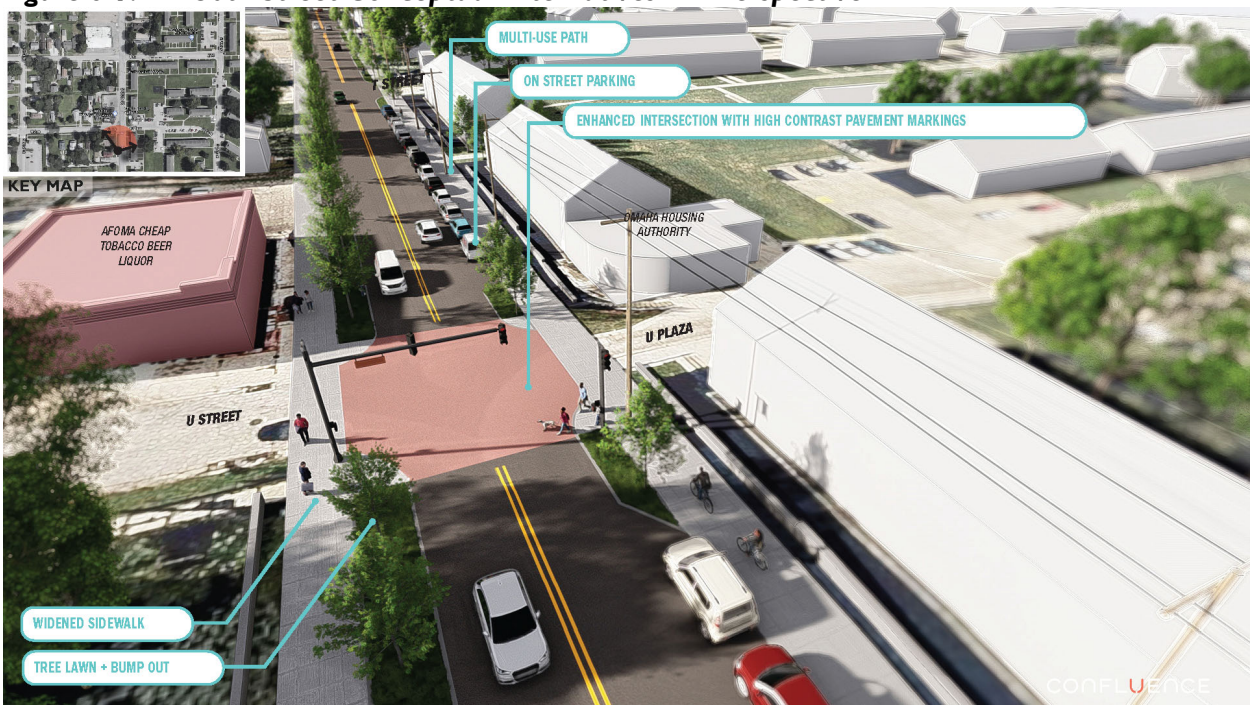
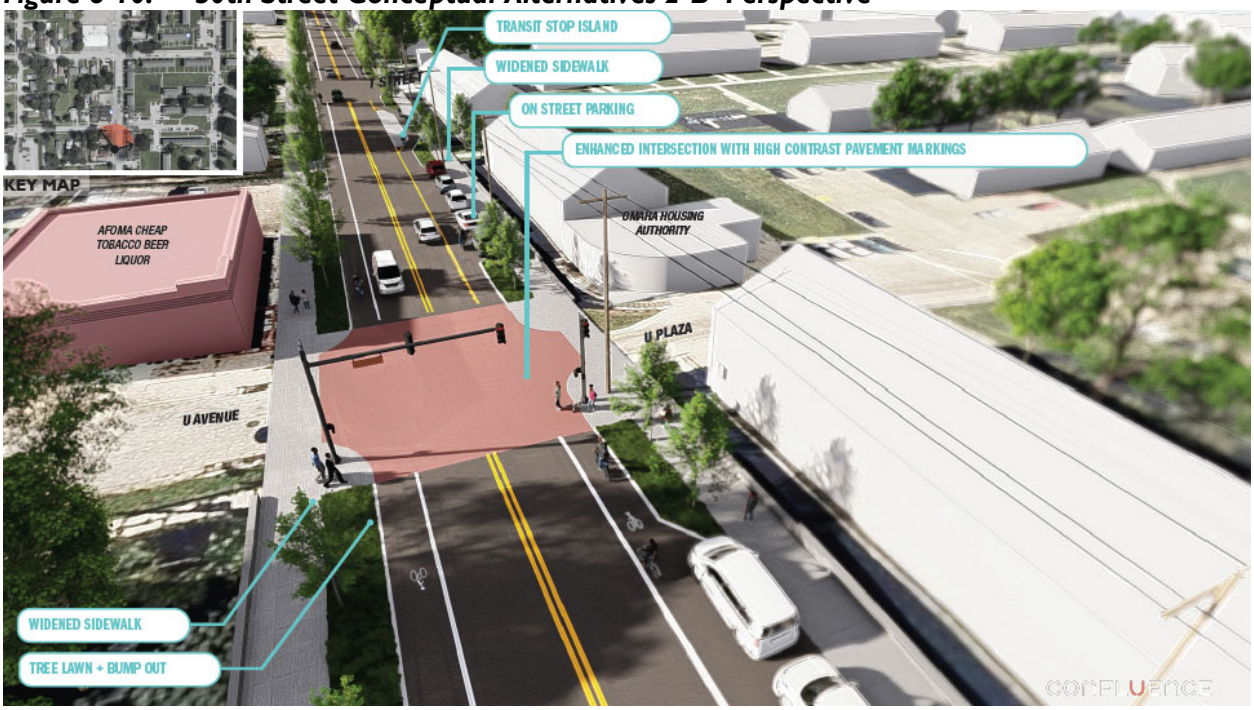



***Figure 6-10. 30th Street Conceptual Alternatives 2-B Perspective***



### 30th Street Conceptual Alternatives Analysis

The evaluation factors below compare the No-Build alternative with infrastructure improvements envisioned by 30th Street conceptual alternatives 2-A and 2-B. A summary matrix of these factors is presented in **Table 6-4**.

**Property Impacts**

- The No-Build alternative utilizes the existing right of way. Property impacts for Alternatives 2-A and 2-B were evaluated against this standard. Both conceptual alternatives were designed to utilize existing right of way to the extent practicable. Property impacts are anticipated to be minimal for both conceptual alternatives.
- Interim improvements along the east side of 30th Street are limited by locations of high-tension power poles back of the curb line and retaining walls adjacent to existing sidewalks. Ultimately, powerlines should be moved underground to support the recommended project and retaining walls removed with phased redevelopment.
- The redevelopment of Southside Terrace Garden Apartments will provide phased opportunities to improve building setbacks and improve grades to access the sidepath from newly constructed buildings and support a 10' shared use path.
- The east leg of 30th and U Street will be widened to provide a two-way street connecting to 29th Street. This impact is included with both conceptual alternative and the ultimate redevelopment site plan.
- Coordination of parking improvements and parking lot access adjacent to Afoma will also be completed in coordination with the building owner to provide beneficial property impacts.

**Traffic Operations**

- Future traffic volumes along the corridor are not anticipated to change significantly and both of the conceptual alternative cross sections proposed will have minimal impact on the perceived level of service.

**Safety Impacts**

- The No-Build alternative does not address public input about undocumented near miss crashes between vehicles and pedestrians. Maintaining the existing cross section will not help to calm traffic or make intersection crossings safer.
- A raised intersection at 30th and U Street is currently considered an unwarranted improvement based on the documented crash data. Phasing of street improvements with redevelopment east of 30th Street also challenges the design and construction of a raised intersection as a stand-alone project prior to widening the east leg of the intersection.
- Crash reduction factors for both conceptual alternatives were related to separating existing on-street bicycle traffic from the shared roadway.
- Reducing the roadway width along the corridor also reduces the pedestrian crossing distances at multiple intersections. Pedestrians represent the greatest number of vulnerable road users crossing 30th Street. Conceptual alternative 2-A provides the shortest crossing distance for the nine intersections between Q Street and Y Street and also provides adequate space within the right of way for a 10' shared use path that can support pedestrians and bicyclists safely.
- Curb extensions that shorten the pedestrian crossing distance and narrow the driving lanes have been shown to provide a safer pedestrian environment. A pedestrian safety benefit would be expected with this type of modification.

**Access Management**

- No specific access management modifications are necessary along the corridor. All existing access locations can be maintained without impacting traffic operations.
- A shared use pathway would modify the standard geometry of a driveway apron, but access would not be impacted.

**Pedestrian and Bicycle Facilities**

- The No-Build alternative would retain 30th Street designation as a continuous low-volume roadway for bicyclists. Actual traffic volumes and public perception of high travel speeds would not encourage increased transportation by bicycle between Q Street and Y Street.
- The most significant difference between conceptual alternatives 2-A and 2-B is the type of bicycle infrastructure considered. Although the study calculated a low bicycle level of stress (**Figure 2-9**) on 30th Street, public input did not indicate a reasonable level of confidence that bicycle use would increase even if dedicated bike lanes were constructed.
- When comparing conceptual alternatives, public preference commonly supported construction of wider sidewalks that could accommodate more pedestrians and bicycles safely.
- Providing dedicated bike lanes would also result in additional pedestrian crossing distance at all nine intersections between Q Street and Y Street which is not supported by public input. Minimizing crossing distances for youth, elderly, and those with physical disabilities is positive outcome of the conceptual alternatives analysis.
- Providing a dedicated bike lane on the east side of 30th Street and the anticipated increase in transit demand led to developing the concept for a floating transit island at the intersection of 30th and T Streets. The concept would allow the bus to stop in the travel lane as it does today and bicycles to bypass between the bus stop and the curbline. Transit users would have ADA access from the sidewalk with curb ramps to cross the bike lane and access the bus stop.

**Parking and Truck Access**

- The No-Build alternative would maintain the existing cross section parking on the east side of 30th Street. 30th Street would not be improved to support any of the mixed-use development potential recommended by the Transformation Plan.
- 30th Street is not a truck route and neither alternative negatively impacts access to Q Street which is a designated truck route,
- Alternatives 2-A and 2-B intentionally provide space for parking along the east side of 30th Street. As an interim measure, the east side of 30th Street could be signed to allow on-street parking set back from intersections between V and T Streets, which would reduce the width of existing travel lanes and help slow down traffic.

**Project Cost**

- The existing pavement condition of 30th Street is degrading but could be supportive of traffic for the short term before any significant maintenance projects are required.
- Reconstruction of the roadway is recommended for the benefits described in the study and to avoid costly short term maintenance needs.
- Conceptual alternative 2-B would construct a wider pavement cross section that 2-A, resulting in a lower overall project costs for conceptual alternative 2-A. The illustrative cost of a floating transit island was considered which also raised cost estimate for alternative 2-B.
- Conceptual cost estimates for Alternatives 2-A ($3.3M) and 2-B ($3.7M) is included in Appendix F. The primary difference in estimated cost for Alternative 2-B relates to wider paved surface to provide bike lanes in each direction.

- The City of Omaha does not currently have dedicated Capital Improvement Program funding available to complete Alternatives 2-A or 2-B and must prioritize street improvements City-wide. Interim improvements can be completed at the intersection of 30th and U Streets using available Choice Neighborhoods planning funds from Housing and Urban Development.

**Table 6-4. Evaluation Factors Matrix for 30th Street Coneptual Alternatives**

| **Evaluation Factors** for 30 Street from Q Street - Jefferson Street | **No Build: 2-Lanes** | **Alternative 1: Painted Crosswalks, Bike Lanes, Floating Transit Stop** | **Alternative 2: Raised Intersection, Wide Sidepath, Inline Transit Stop** |
|---|---|---|---|
| **Property Impacts** | | | |
| Right-of-Way Acquisition (Acres) | None | None | None |
| **Traffic Operations** | | | |
| Critical Intersection Operations (2021) | LOS B | LOS B | LOS B |
| Critical Intersection Operations (2050) | LOS C | LOS B | LOS B |
| Critical Segment Operations (2021) | LOS A | LOS A | LOS A |
| Critical Segment Operations (2050) | LOS A | LOS A | LOS A |
| **Safety Impacts** | | | |
| Max CRF of Proposed Intersection Improvement | Status Quo | 26% | 26% |
| Max CRF of Proposed Segment Improvement | Status Quo | 26% | 26% |
| **Access Management** | | | |
| Impacts to Businesses | None | None | None |
| Movements Consolidated | Status Quo | Status Quo | Status Quo |
| **Pedestrian & Bicycle Facilities** | | | |
| Provides New or Enhances Existing Facilities | Substandard | New Facility | New Facility |
| Integrates with Existing & Surrounding Facilities | Status Quo | Connects Existing | Connects Existing |
| Safety Improvements for Vulnerable Users | Substandard | Ped/Bike Safety Improvements | Pedestrian Safety Improvements |
| **Parking & Truck Access** | | | |
| Existing Parking Maintained or Improved | Status Quo | Improved | Improved |
| Truck Route Movements Impacted | Status Quo | Status Quo | Status Quo |
| **Project Cost** | | | |
| Planning Level Cost of Project | - | $3.3 M | $3.7 M |
| **Evaluation Rating** | | | |
| Status | - | | |

| **Rating Scale** |
|---|
| Highly Positive |
| Moderately Positive |
| Neutral |
| Moderately Negative |
| Highly Negative |

### Additional Roadway Alternatives Development

In addition to the focused effort to propose alternatives for Q Street and 30th Street, other roadways were considered for this study. The findings of these considerations are described in this section.

***L Street Study from 30th Street to 36th Street (R-3)***

Analysis of traffic operations and crash data indicated that future improvements will be necessary to address increasing vehicle traffic and documented safety concerns. The roadway represented the northern boundary of the study area. This segment represents the northern boundary of the study area, and in January 2022, Nebraska DOT released a statement about their intent to study closing the F Street interchange with US 75. This plan would require a significant study of the resulting impact on the L Street interchange and traffic along this segment beyond the limits of this study area. Recommendations identified for this study were therefore limited to ensuring that all modes of transportation are considered in a future corridor study of L Street. The City of Omaha may also designate L Street as a priority corridor for their Vision Zero strategy to increase the focus on making comprehensive safety improvement in the future.

***Y Street Construction from 32nd Street to 33rd Street (R-4)***

The Transformation Plan identified this segment for roadway construction to provide access to potential development opportunities. Completing this roadway segment would also create a continuous low volume street between 25th Street and 36th Street. The roadway improvement project could also resolve the current missing or poor sidewalk conditions identified between 31st Street and 35th Street.

***Phased Southside Terrace On-Site Strategy and Roadway Improvements (R-5)***

The Transformation Plan identifies five (5) phases of on-site redevelopment for the existing Southside Terrace Garden Apartments. Phases identified by the plan include:

- Multiple roadway improvement projects that will modify circulation patterns and turning movements to and from the bounding roadways of Q Street, W Street, 27th Street and 30th Street. Infrastructure development plans will be reviewed by Public Works.
- One-way roadways are expected to be replaced by two-way roadways and the east leg of 30th and U Street is expected to be converted from one lane to two lanes.
- S Street is proposed to operate as a private street and incorporate a shared street design allowing zero curb and plaza event space to be used on the roadway.
- The site design is anticipated to direct more traffic to the intersection of 30th Street and T Street.
- A traffic impact study would determine if a signal would be warranted at the intersection of 30th and T Streets in conjunction with Phase 4 and 5 of the redevelopment plan.
- No additional roadway recommendations were made for the Transformation Plan.

### Proposed Pedestrian Alternatives Development

The sidewalk conditions assessment (**Figure 2-5**) and curb ramp inventory (**Figure 2-6**) evaluated a limited number of corridors within the neighborhood. Sidewalks and curb ramps associated with Q Street and 30th Street roadway improvement projects have many noted deficiencies. Wider sidewalks, narrower crossing distances, pedestrian refuge islands, and RRFB signals will improve the walkability and lower the perception that 30th Street and Q Street are a barrier for pedestrians.

***Signalized Traffic Stop Improvements at 30th and U Street Intersection (P-1)***

Repainted stop bars on 30th Street north and south of U Street were recommended after the initial analysis. An interim improvement will add a blank out sign for west bound vehicles approaching 30th

Street on U Street. The blank out signs will direct westbound vehicles to stop while the north/south pedestrian crossing signal is activated. When 30th Street is improved, the traffic signal should be updated for compliance with current MUTCD standards.

***Eliminate Sidewalk Gaps (P-2)***
Eliminating sidewalk gaps from Q Street to Y Street and 27th Street to 36th Street should be resolved with a Public Works sidewalk program encouraged by ConnectGo. This effort would ensure that all sidewalks are paved within a quarter mile of all transit stops and schools in the neighborhood.

***Widen School Zone Sidewalks (P-3)***
The existing sidewalk width along the south side of U Street from 30th to 32nd Street is in acceptable condition but narrow for the number of pedestrians using it. Increasing the width to 8' would improve walking conditions for existing and future pedestrian traffic between Indian Hill and the redevelopment of Southside Terrace.

### Proposed Bicycle Infrastructure Development

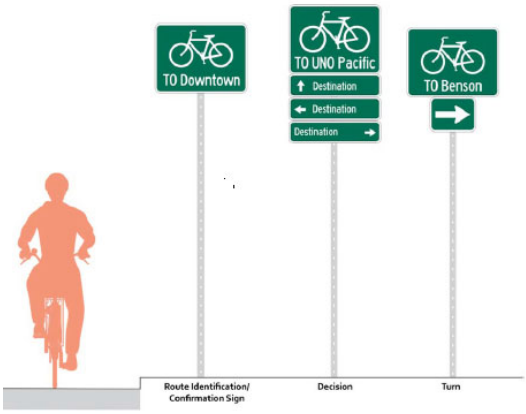
The study spent considerable effort to identify infrastructure alternatives that would lead to more bicycle use by more people along Q Street and 30th Street. These alternatives are described in the roadway concept alternatives section. These key project elements are considered foundational improvements that will support additional bicycle recommendations that make bicycling in, out and through the neighborhood intuitive, safe, and easy. Adding trails to the City of Omaha is a key initiative for ConnectGo. Including a mile of trail along Q Street that connects this neighborhood to the regional bicycle network is a reasonable goal. The continuous elevation multi-use trial (Q Street) and shared use path (30th Street) are recommended to provide greater comfort for bicycle users. An example of a continuous elevation multiuse trail intersection with and access drive in Bentonville, Arkansas is shown in **Figure 6-11**.

***Figure 6-11 Example of Continuous Elevation Multiuse Trail***

***Expand the Bike Omaha Network (B-1)***

Opportunities to link the neighborhood with the Bike Omaha Network were investigated. This network combines shared streets, bike lanes, and pathways to connect the metropolitan trail system to downtown Omaha and other important destinations across the city. Along streets in the neighborhoods supported by the network, easy-to-use wayfinding signs are provided. The robust network features more than 600 individual sign panels (**Figure 6-12)** at over 400 locations around the City. The network enhances navigation and safety while promoting travel by bicycle throughout Omaha. The network does not currently connect the study area to these destinations but opportunities to connect to the existing system were identified.

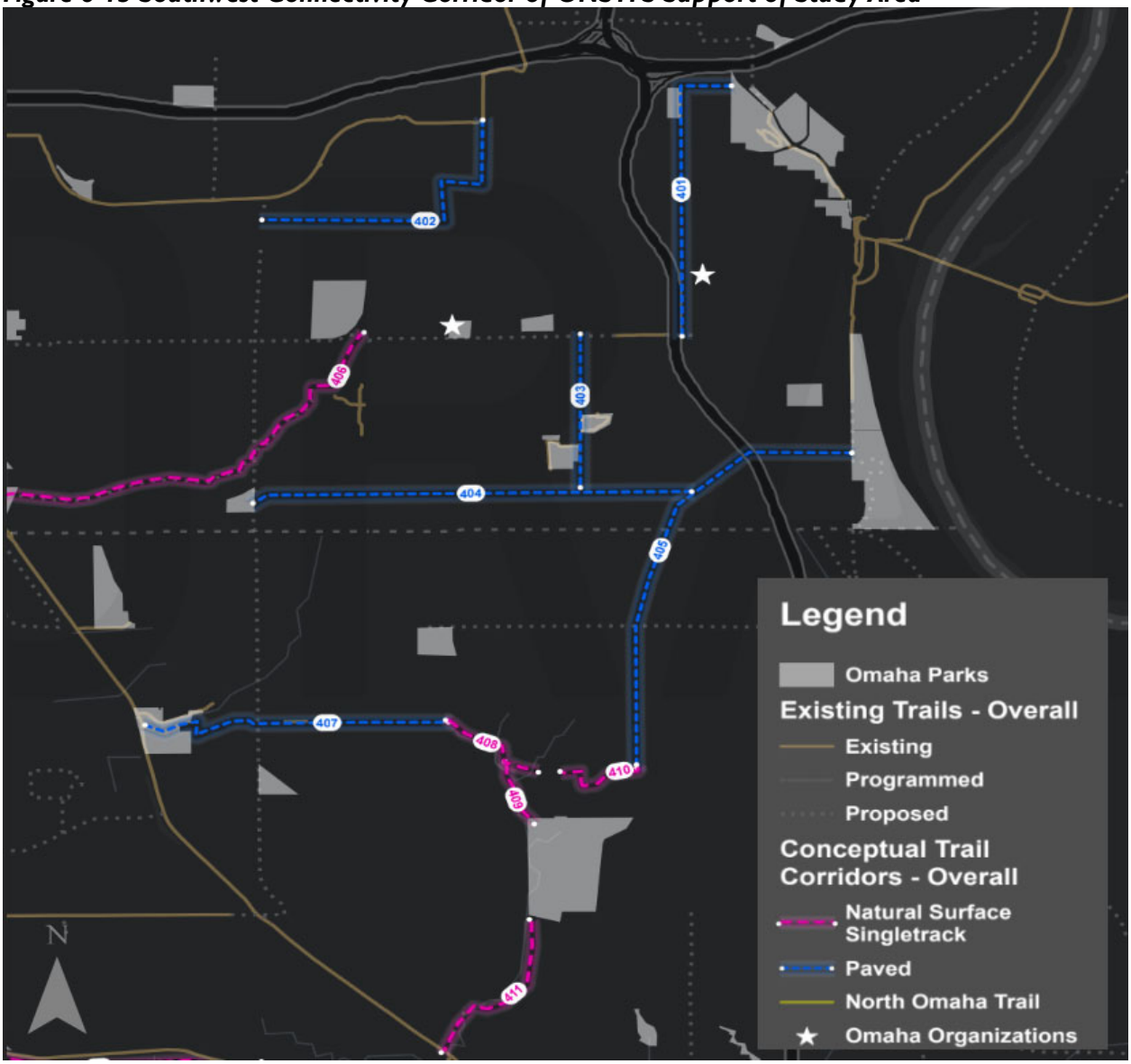
***Figure 6-12 Example of Bike Omaha Network Wayfinding Options***




The Existing and Future Bike/Trail Facilities recommended on **Figure 2-8** include specific recommendations that could extend the Bike Omaha Network to and through the study area utilizing proposed trails, sidepaths or bike lanes, and continuous low volume streets. A north/south connection is recommended along 30th Street improvements with wayfinding to indicate connections with MCC South Campus, South 24th Street District, and connection to the South Omaha Trail. The identified route would utilize Edward Babe Gomez Avenue and 33rd Street crossing north to the grade separated crossing near 36th Street and I Street. The east/west alignment of Q Street between 30th Street and 24th Street is recommended to be included in the Network also.

An east/west route was considered in the southern portion of the study area that would connect the 13th Street multiuse trail with 48th Street. This corridor utilizes segments 404/405 from the *Omaha Natural Surface Tails Feasibility Study* (ONSTFS) to link the study area with future trails at Mandan Park as shown on **Figure 6-13**. The destinations along the recommended corridor does not support the intended purpose of the Bike Omaha Network specifically, but it does support bicycle circulation safely under Highway 75 to connect with the Network as described in the next section.

***Figure 6-13 Southwest Connectivity Corridor of ONSTFS Support of Study Area***




***Expand and Adjust the Continuous Low-Volume Street Network (B-2)***

Bicycle circulation can be expanded and adjusted to connect with the improvements previously described. Each recommendation is made to provide a specific benefit independent of the other recommendations. Improvements or route modifications can be grouped or completed individually, delayed, or eliminated without impacting the other recommendations. These modifications may be studied further during the City of Omaha bicycle master plan update currently underway.

The first recommendation for the continuous low-volume street network is to designate a continuous route from Southside Terrace to the intersection of 42nd Street and Greene Avenue. This route includes segments with more uphill slope than is typically desired of continuous low-volume streets, but it provides a low stress bicycle route for Bryan Middle and High School students. The route could be initiated from T Street or Y Street intersections with 30th Street adjacent to Southside Terrace to

connect with 33rd Street south to Gertrude Street before turning south on 39th Street. From T street the route would create 2.75 miles for a convenient way to bike to school.

A trio of east/west routes are recommended. With the construction of Y Street as described previously, a connection can be made for bicyclists from 27th Street to 42nd Street. From the intersection of 27th and Y Street, the route can continue east to 26th Street and turn south to connect with Z Street then head along Washington Street to the connect with Gilmore Avenue. This alignment led to the recommendation to move the existing low-volume street route on U Street north to T Street where it would provide better spacing and connection to a key intersection with Southside Terrace redevelopment. The adjusted route would also redevelopment opportunities on 32nd Street. This adjustment would move the bike route one block north of Indian Hill Elementary school, but the wider sidewalk recommended on the south side of U street to 33rd Street would provide convenient bicycle access to the school. Finally, then southern study area can be connected with destinations east of Highway 75. Starting at the intersection of Y Street and 13th Street, designate Y Street east to 20th Street. Turn southwest to cross the existing bike lanes on Railroad Avenue before passing under Highway 75 on Gilmore Avenue. At Monroe Street the designated street would turn west and continue through 42nd Street, diverting south to Drexel Avenue and terminate at the intersection with 48th Street.

Two short lengths of continuous low volume streets are recommended to be added that will link parallel routes of different bike routes. The first segment is on O Street from 36th to 39th Street. Connecting riders along 38th Street to the study area will also maintain a third of a mile spacing between designated continuous low-volume streets. The other segment is on I Street (north of the study area) between 33rd Street and 36th Street.

***Add New Bicycle Facilities Within Study Area (B-3)***
Previous roadway project descriptions in this section for Q Street and 30th Street include bicycle facilities that will provide essential east-west and north-south connectivity for bicycle transportation. In addition to these two facilities other segments can be added over time. A combination of on-street bike lanes and sidepaths along Edward Babe Gomez Drive between 33rd Street and R Street should be provided. Bicycle connectivity to L Street can be provided along L Street to the north and between R Street and 27th Street to the south.

***Expand Bike Share Stations into Southside Terrace and on Q Street (B-4)***
Opportunities exist to provide bike share services within the study area. Omaha's bike share system is operated by Heartland Bike Share, a 501-3c non-profit organization, as a service for the benefit of the general public. Decisions about where to place bike share stations, how many bikes to provide, and what type of bikes to maintain in the bike share fleet are made by Heartland Bike Share, in consultation with the City of Omaha, adjacent property owners, and their community partners. The purpose of providing bike share services is for users to access more destinations by bike using a convenient, healthy, and environmentally friendly form of transportation. The existing bike share at the MCC campus is partially funded through a grant and cannot be moved. The Omaha South Library parking lot should be considered a relocation point once the grant ends or is renewed. Additional grant opportunities may be pursued by Heartland Bike Share to add new stations that would support Southside Terrace and redevelopment along Q Street.

Two additional bike share station locations were proposed for consideration. The first location is near the roundabout proposed for the intersection 29th and T Streets. This intersection is proposed in the Transformation Plan and sits at adjacent to an estimated 247 Phase 4 and 5 housing units. The additional

278 housing units proposed for the first three phases would also have convenient access to this bike share station location with convenient access to the 30th Street shared use pathway, T Street continuous low-volume street route, and the Q Street multi-use trail.

The second bike share station location is not as specifically established by this study. The recommendation is to locate the station along Q Street. Options considered included on the property of the Simple Foundation, on the southwest corner of the South Omaha Library parking lot (adjacent to the proposed multi-use trail), or the parking lot of businesses in the Plaza Q36 or Super Mercado with access to groceries and services.

Recommendations to help make bike share most successful in these locations should be generated through the public input process. Free or discounted monthly or annual passes for users of the area's services providers within the radius of the bike share station could be offered and reimbursed through grant funds but would add administrative cost to the service provider. Encouraging bike share use by non-English language speakers can be accomplished by providing information about bike share in the native languages of users that will approach the kiosk for information. An additional recommendation is to develop bike share ambassadors that represent each language and people group within the neighborhood. Canopy South, Heartland Workers Center, the Simple Foundation, and the Kroc Center may be able to support this initiative.

### Proposed Transit Improvements Development

Transit is considered an essential service by some and unused by many for personal transportation. The public generally recognizes the need to invest in transit services and amenities. The transit improvements proposed by this study stemmed from public input and the goal to make travel in, out, and around the neighborhood intuitive, safe, and easy by bus. Public perception of transit services and amenities were mixed. Although many individuals use transit and think well of the service provided, others shared negative views related to existing headways being too long, the inability to conveniently get to some desired destinations with transit, and general difficulty understanding how to use the transit system to reach a desired destination. Input about transit amenities centered around the concept of increasing security and comfort at transit stops in the neighborhood.

***Adjust Transit Stop Locations with Southside Terrace Redevelopment (T-1)***

Opportunity to reduce headways to the neighborhood are possible, but not without other changes to the 24 Route occurring outside of the study area. Metro Transit improved fixed route service to Southside Terrace when the last major route changes moved the 24 route from 36th Street to 30th Street. Transit stops near 30th Street intersections with U and S Streets could be consolidated to one intersection with T Street. Phased redevelopment of Southside Terrace will increase residential density with convenient access to a relocated transit stop. The road diet recommended on Q Street did not anticipate adding a fixed route transit line on that corridor.

***Support Future Planning and Coordination for 24th Street BRT (T-2)***

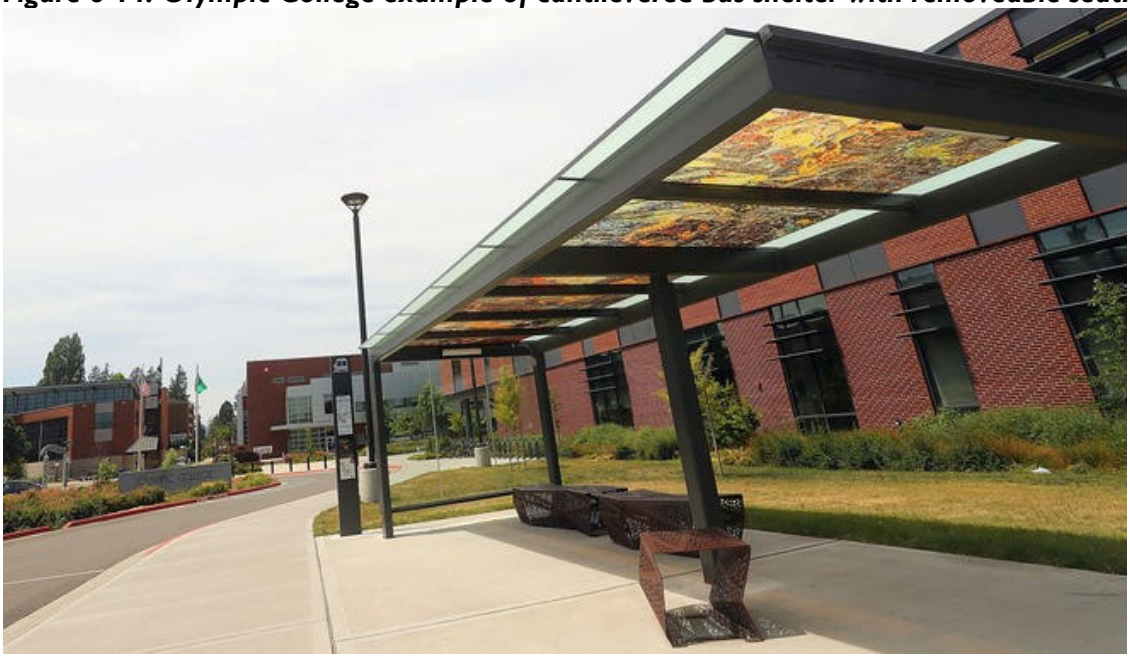
The City of Omaha and Metro Transit also announced their intention to study 24th Street as a future Bus Rapid Transit (BRT) corridor that could possibly terminate as far south as the MCC transit transfer center. Continued efforts to support this study and future construction are strongly recommended by neighborhood residents and stakeholders. Bicycle and pedestrian recommendations made for 30th Street and make crossing Q Street safer would provide additional convenience for accessing future BRT services.

***Support Future Microtransit Expansion to Include Southside Terrace (T-3)***
The MetroNEXT planning process explored opportunities for a microtransit pilot program. This program is anticipated to provide an on-demand pay-as-you-go service. Microtransit has been slowly rolling out as a service for many metropolitan transit agencies including StarTran in Lincoln and DART in Des Moines, Iowa. Ability to pay for the service will be a factor in selecting pilot locations for the study, but transit access and equity should also be driving factors. Following the pilot program, expand services available to current and future Southside Terrace residents to increase the number of areas accessible by transit and the ability to attract mixed income residents to the neighborhood.

***Support Expanding Service Areas through Regional Transit (T-4)***
Adding fixed route services to Bellevue is considered a long-term prospect that may be accomplished by Metro exercising their authority as a regional transit authority. Bellevue residents are encouraged to vote to be included in that authority in support of new route(s) that expand the number of destinations accessible within a 30-minute bus trip south of the study area. Neighborhood leaders should remain engaged in this decision-making process over time to provide support.

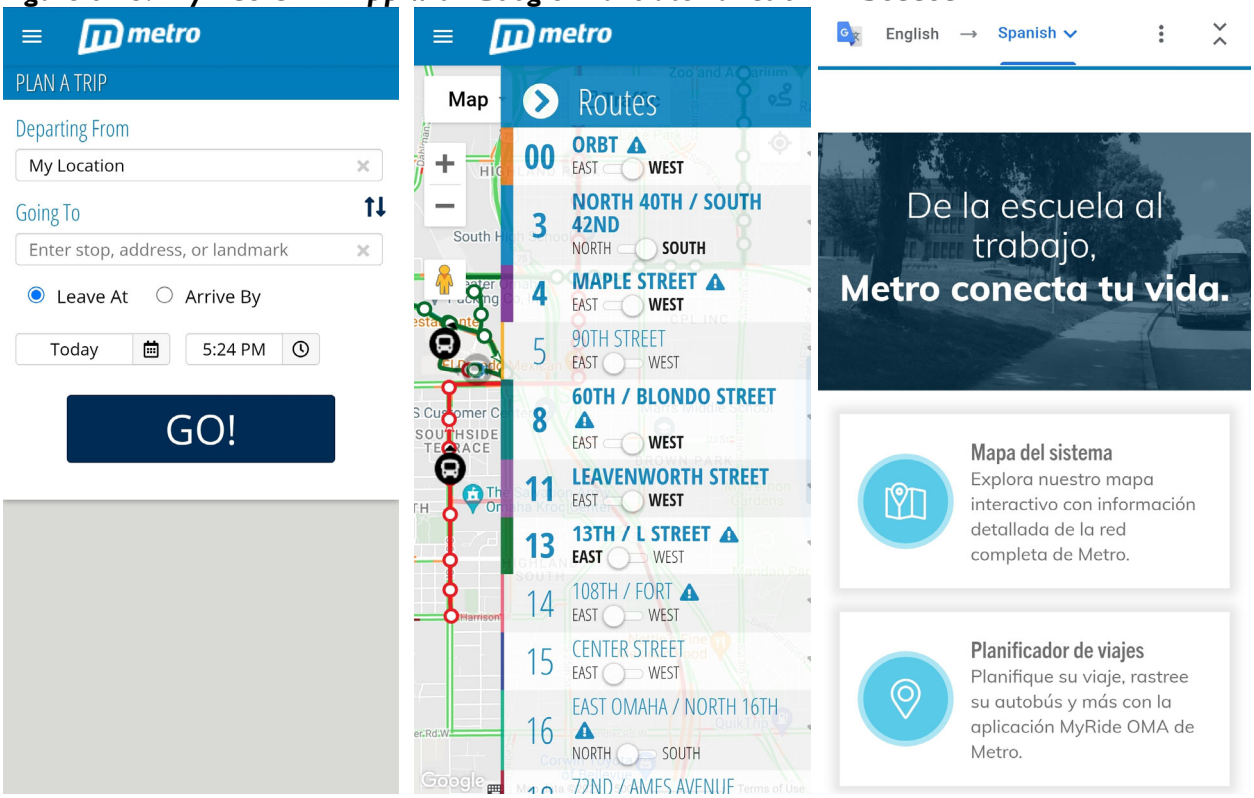
***Increase Rider Comfort at Transit Stops (T-5)***
The current 24 Route provides a range of bus stop conditions ranging from a stop pole planted in the grassed area behind a curb to a lighted and covered bus shelter near the intersection of 30th and Y Streets. Safety at bus stops is a stated concern for some transit users and the option of installing more bench seating did not receive a positive reception from residents. Transit stops are placed in the public right of way and open to all public users. The revised cross section of 30th Street will support placement of enhanced transit stop amenities. To balance the need to increase user comfort and maintain safety at public transit stops, the recommendation of a cantilevered bus shelters **Figure 6-14** is encouraged between Q and W Streets with to potential to consolidate stops from four down to two. Metro must approve any new transit stop infrastructure and should work proactively with neighborhood stakeholders to design, install, and maintain cantilevered bus stops on 30th Street with the roadway reconstruction.

***Figure 6-14. Olympic College example of cantilevered bus shelter with removeable seating***



***Extend Language Based Educational Information for MyRide OMA Metro Mobile App (T-6)***
Transit riders familiar with the existing routes and how to navigate the system are more likely to use the bus for transportation than non-English speaking residents until someone helps them to use it. One potential solution to break down the barriers to transit use for some residents is to provide language-based education about how to use the MyRide OMA Metro Mobile App (**Figure 6-15**). Most people that commented about transit use were not familiar with the mobile app. When the app was shown, the recommendation made was to ensure it can be displayed in different languages. Metro has integrated Google Translate into the mobile app settings option. A collaboration with culture centers in the neighborhood is recommended to develop and distribute language specific information about the App, how to assign the language, and how to use it to plan a trip. This resource could support increasing transit use by non-English speaking residents of the study area.

***Figure 6-15. MyRide OMA App with Google Translate Function Embedded***




***Expand Partnerships with Human Service Providers (T-7)***
Multiple human service providers offer mental, physical, and emotional support to neighborhood residents. A large proportion of the recipients for these services may not have access or have limited and unreliable access to a personal vehicle. Human services providers within the study area should work with Metro to establish a partnering relationship that includes guidelines and procedures for distributing single and routine transit passes for clients.

***Support Omaha Public Schools Policy for Bus Service Areas for High Schoolers (T-8)***
Unrelated to Metro transit, many households of Southside Terrace have a range of ages of kids in school. Households with public school students have access OPS bus service to Bryan high school based on designated transportation areas while students in the same household can access OPS bus service to

Bryan middle school. This situation will also impact students attending Bella Vista High School. The equitable access to public education and the number of zero vehicle and single vehicle households in the neighborhood may justify this policy to be modified for this neighborhood, effectively justifying a larger designated transportation area. Having reliable public school bus services will support the retention of existing residents of Southside Terrace and Indian Hill Neighborhood.

# VII. IMPLEMENTATION

The Southside Terrace-Indian Hill Multimodal Transportation Study has been completed to identify and evaluate infrastructure improvements and other coordinated actions that could be implemented to make traveling in, out, and around the neighborhood intuitive, safe, and easy by walking, biking, public transit and car. Opportunities for improvements to consider were developed through a range of stakeholder and the public input.

### Strategies

Five strategies were identified to organize and help assess conceptual action. These strategies were integrated into the HUD Choice Neighborhoods Planning grant to ensure selected actions for implementation from the multimodal transportation study are consistent with the Transformation Plan. Several multimodal transportation actions are recommended in **Table 7-1**. While the major roadway projects are conceptual, they have been identified and studied as alternatives for future design and construction programming. All recommended actions recommended will address some or all transportation strategies listed below.

**Strategy 1**: Increase safety for all modes of transportation at crossing locations

**Strategy 2**: Reduce real and perceived vehicle corridor widths, vehicle travel speeds, and visual barriers that discourage active transportation.

**Strategy 3**: Update and expand the bicycle network infrastructure using a blend of bicycle facility types within and adjacent to the neighborhood that connect with the broader bicycle and transit networks, educational institutions, health service providers, neighborhood grocery, and entertainment destinations.

**Strategy 4**: Eliminate connectivity gaps and barriers and increase space and amenities provided for walking along busy streets.

**Strategy 5**: Expand mass transportation accessibility and service to connect residents with more Omaha metropolitan area destinations.

### Recommended Actions

All recommended actions will require stakeholder coordination to initiate and complete. Each action listed in **Table 7-1** has entities assigned to initiate the work necessary and advance the actions. For major roadway projects, this work will require significant study and engineering design prior to construction with a relatively high cost compared to other study recommendations. Other recommended actions will cost significantly less and can be initiated as soon as funding can be aligned. Most of the actions identified in the study are recommended to be completed within three years to build on the momentum of the Transformation Plan while the major roadway project recommendations take time needed for programming, analysis, permitting, design, and construction. The time horizon or projects are listed below.

**Short**: Within the next year
**Medium**: 1-3 years
**Long**: More than 3 years to complete
**Ongoing**: Some work may be completed soon while others may require additional time.

## Table 7-1. Recommended Implementation and Prioritization Plan

| Item | Recommended Action | Responsibility | Horizon | Relative Cost | Funding | Addresses Strategy | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Roadway Action Items** | | | | | | **1** | **2** | **3** | **4** | **5** |
| **R-1** | Q Street Road Diet from 27th to 36th Street - Conceptual Alternative 1-B | Public Works supported by MAPA | Long | High | Federal Discretionary Grant Funding with Local Match | | | | | |
| **R-2** | 30th Street Reconstruction from Q to Y Street - Conceptual Alternative 2-A | Public Works supported by MAPA | Long | High | Federal Discretionary Grant Funding with Local Match | | | | | |
| **R-3** | L Street Study from 30th Street to 36th Street | Public Works supported by MAPA | Short | Moderate | Local | | | | | |
| **R-4** | Y Street Construction from 32nd Street to 33rd Street | Public Works | Medium | Moderate | Local | | | | | |
| **R-5** | Southside Terrace On-Site Redevelopment Strategy and Roadway Improvements | Public Works supported by Canopy South | Short | Moderate | Federal Grant with Local/Developer Coordination | | | | | |
| **Pedestrian Action Items** | | | | | | **1** | **2** | **3** | **4** | **5** |
| **P-1** | Upgrade traffic signal for MUTCD compliance at 30th and U Street | Public Works | Long | Low | Local | | | | | |
| **P-2** | Eliminate Sidewalk Gaps | Public Works | On-Going | Low | Local | | | | | |
| **P-3** | Widen School Zone Sidewalks | Public Works | Short | Medium | Local | | | | | |
| **Bicycle Action Items** | | | | | | **1** | **2** | **3** | **4** | **5** |
| **B-1** | Expand the Bike Omaha Network | Planning | Medium | Low | Local with Non-profit support | | | | | |
| **B-2** | Expand and Adjust the Continuous Low-Volume Street Network | Planning | Short | Low | Local | | | | | |
| **B-3** | Add New Bicycle Facilities Within Study Area | Public Works supported by MAPA, Greater Omaha Chamber, Parks and Recreation, and Developer | Long | Medium | Local | | | | | |
| **B-4** | Expand Bike Share Stations into Southside Terrace and on Q Street | Planning | Medium | Low | Operator / Developer | | | | | |
| **Transit Action Items** | | | | | | **1** | **2** | **3** | **4** | **5** |
| **T-1** | Adjust Transit Stop Locations with Southside Terrace Redevelopment | METRO | On-Going | Low | Transit Authority | | | | | |
| **T-2** | Support Future Planning and Coordination for 24th Street BRT | METRO with support from Greater Omaha Chamber and Canopy South | Short | High | Transit Authority | | | | | |
| **T-3** | Support Future Microtransit Expansion to Include Southside Terrace | METRO | Medum | Moderate | Transit Authority | | | | | |
| **T-4** | Support Expanding Service Areas through Regional Transit Authoirty | METRO with support from Bellevue | Long | Moderate | Transit Authority | | | | | |
| **T-5** | Increase Rider Comfort at Transit Stops | METRO | Medium | Low | Transit Authority | | | | | |
| **T-6** | Extend Language Based Educational Information for MyRide OMA Metro Mobile App | METRO with support from | Short | Low | Transit Authority | | | | | |
| **T-7** | Expand Partnerships with Human Service Providers | METRO | Short | Low | Transit Authority | | | | | |
| **T-8** | Support Omaha Public Schools Policy for Bus Service Areas for High Schoolers | Canopy South and OPS | Medium | Low | Omaha Public Schools | | | | | |

### Interim Actions

Two projects that will have the greatest potential to address public and stakeholder input are also the most expensive. A road diet along Q Street and traffic calming along 30th Street will both require long term coordination to plan, finance, design, and construct. This study brought concept alternatives for both roadways forward and interim actions were considered that could help address project strategies in the short term.

#### *Q Street Road Diet by Restriping*

This study recommends a road diet for Q Street between 36th Street and 27th Street to provide a safer corridor for active transportation. Two conceptual alternatives were considered that would change the roadway cross section but also the City to pursue additional funding for capital infrastructure improvements that are not currently planned. The City should pursue Federal discretionary funding sources through the Department of Transportation such as RAISE or INFRA grants to match with local and MAPA funds for preliminary design and NEPA. An interim action that could use street maintenance funds was considered. A road diet could be accomplished by restriping Q Street along this corridor. The project would not improve the environment for pedestrians and bikes along the corridor or at intersections which are key outcomes of the study. Restriping should not be pursued until all other options to complete the Q Street road diet proposed have been eliminated.

#### *Limited 30th Street Traffic Calming*

The City of Omaha Public Works is coordinating interim actions at the intersection of 30th and U Street. These actions will begin to address some of the public input about pedestrian safety and utilize available funding from the Choice Neighborhood planning grant. Interim improvements include:

- Street Trees with Landscaping
- Pedestrian Lights
- Bike Racks
- New Sidewalks
- Mural on south wall of Afoma
- Curb bump outs / curb extensions on the northeast and southeast corners of the intersection.
- Stop bars on 30th Street, north and south side of the intersection
- Ped crosswalk across 30th Street, south side of the intersection (to try and focus ped crossings here, with the light)
- Blank out signs
- On Street Parking on the east side of 30th Street

# APPENDICES

**APPENDIX A MEETING MINUTES & DOCUMENTS**

**APPENDIX B DATA COLLECTION**

- Traffic Counts
- Crash Data
- Bicycle Level of Traffic Stress
- Travel Forecast Model

**APPENDIX C SEGMENT CAPACITY ANALYSIS**

**APPENDIX D CAPACITY ANALYSIS WORKSHEETS**

- No Build
- Proposed
- SIDRA Roundabout Analysis

**APPENDIX E ALTERNATIVE CONCEPTS**

**APPENDIX F ALTERNATIVE COST ESTIMATES**

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