

**CEDAR-RIVERSIDE SMALL AREA PLAN
TRAFFIC OPERATIONS AND
STREETScape PLANNING**

FINAL REPORT

Prepared For:
City of Minneapolis

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By
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TABLE OF CONTENTS

	Page
INTRODUCTION	1
EXISTING CONDITIONS.....	1
YEAR 2020 FORECASTS.....	5
YEAR 2020 EXISTING ROADWAY CONDITIONS.....	7
POTENTIAL THREE-LANE FACILITY	10
YEAR 2020 THREE-LANE ROADWAY CONDITIONS	14
LONG-TERM STREETScape CONCEPT	16
STREETScape FEATURES	20
ROADWAY DESIGN IMPACTS	21
CONCLUSIONS AND RECOMMENDATIONS	23

LIST OF TABLES

	Page
Table 1 – Existing Peak Hour Capacity Analysis	5
Table 2 – Year 2020 Existing Roadway Peak Hour Capacity Analysis.....	10
Table 3 – Year 2020 Three-Lane Peak Hour Capacity Analysis	14

LIST OF FIGURES

	Page
Figure 1 – Project Location	2
Figure 2 – Existing Roadway Geometrics and Peak Hour Traffic Volumes	3
Figure 3 – Existing Peak Hour Capacity Analysis	6
Figure 4 – Year 2020 Three-Lane Roadway Geometrics and Peak Hour Traffic Volumes ...	8
Figure 5 – Year 2020 Existing Roadway Peak Hour Capacity Analysis	9
Figure 6 – Existing Roadway Cross-Section	11
Figure 7 – Year 2020 Three-Lane Roadway Cross-Section – Intersection Node	12
Figure 8 – Year 2020 Three-Lane Roadway Cross-Section – Mid-Block.....	13
Figure 9 – Year 2020 Three-Lane Roadway Peak Hour Capacity Analysis.....	15
Figure 10 – Riverside Avenue Streetscape Concept Plan	17
Figure 11 – Riverside Avenue Streetscape Concept – Cross Section A-A’	18
Figure 12 – Riverside Avenue Streetscape Concept – Cross Section B-B’	19
Figure 13 – Riverside Avenue Streetscape Concept – Typical Intersection	22

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INTRODUCTION

As part of the Cedar-Riverside Small Area Plan, SRF Consulting Group has completed an operations analysis and streetscape planning for Riverside Avenue from Cedar Avenue to Franklin Avenue in the City of Minneapolis (see Figure 1: Project Location). The purpose of the study is to determine how existing and future traffic projections will operate along the corridor. The current roadway configuration is a four-lane facility with adjacent on-street parking. The desire is to reduce the roadway capacity in line with the traffic it serves, and develop a more pedestrian/bicycle friendly two-lane facility with turn lanes at the intersection nodes as needed. The streetscape planning will identify opportunities to improve the aesthetics along the corridor while maintaining the roadway functionality of the facility for all roadway users. This study includes a traffic operations analysis during the a.m. and p.m. peak hours for existing and future no build/build conditions and a streetscape plan for future build conditions. The format of the document presents the operations analysis first, followed by the future conditions streetscape plan. This allows us to present the if/then statements of how the roadway will operate under these proposed conditions and then discuss what could be accomplished give certain parameters.

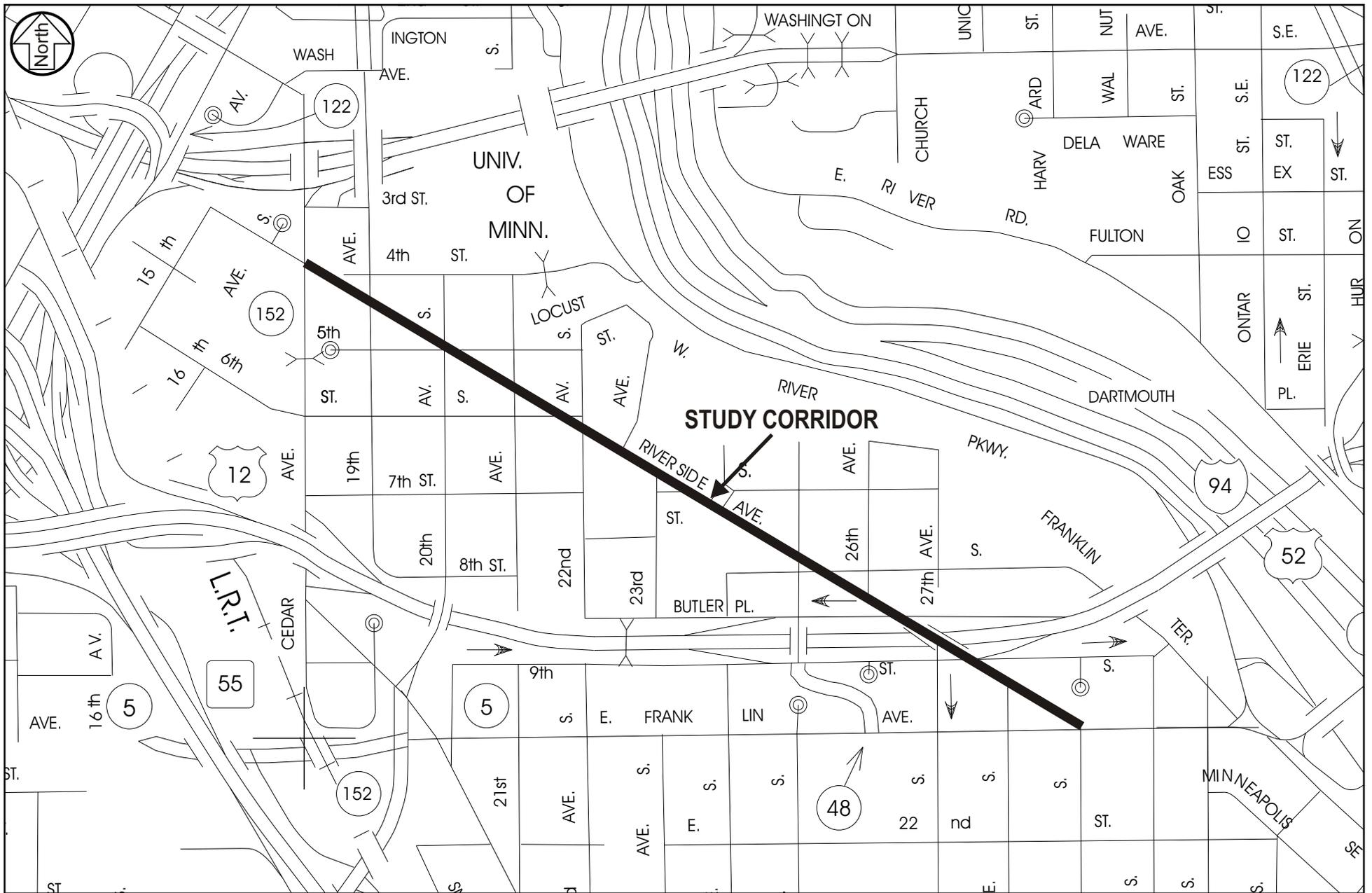
EXISTING CONDITIONS

Traffic operations were analyzed at the following key intersections:

- Riverside Avenue and Cedar Avenue
- Riverside Avenue and 19th Avenue
- Riverside Avenue and 20th Avenue
- Riverside Avenue and 21st Avenue
- Riverside Avenue and 22nd Avenue
- Riverside Avenue and 23rd Avenue
- (North Approach)
- Riverside Avenue and 23rd Avenue
- (South Approach)
- Riverside Avenue and 24th Avenue
- Riverside Avenue and 25th Avenue
- Riverside Avenue and Butler Place
- Riverside Avenue and 9th Street
- Riverside Avenue and Franklin Avenue

Current traffic controls include signalization at all key intersections, except for Riverside Avenue/23rd Avenue (South Approach) and Riverside Avenue/24th Avenue, which have side-street stop control. Existing a.m. and p.m. peak hour turning movement counts were collected by SRF Consulting Group in May 2007. Existing geometrics, traffic controls and a.m. and p.m. peak hour traffic volumes for the key intersections are shown in Figure 2.

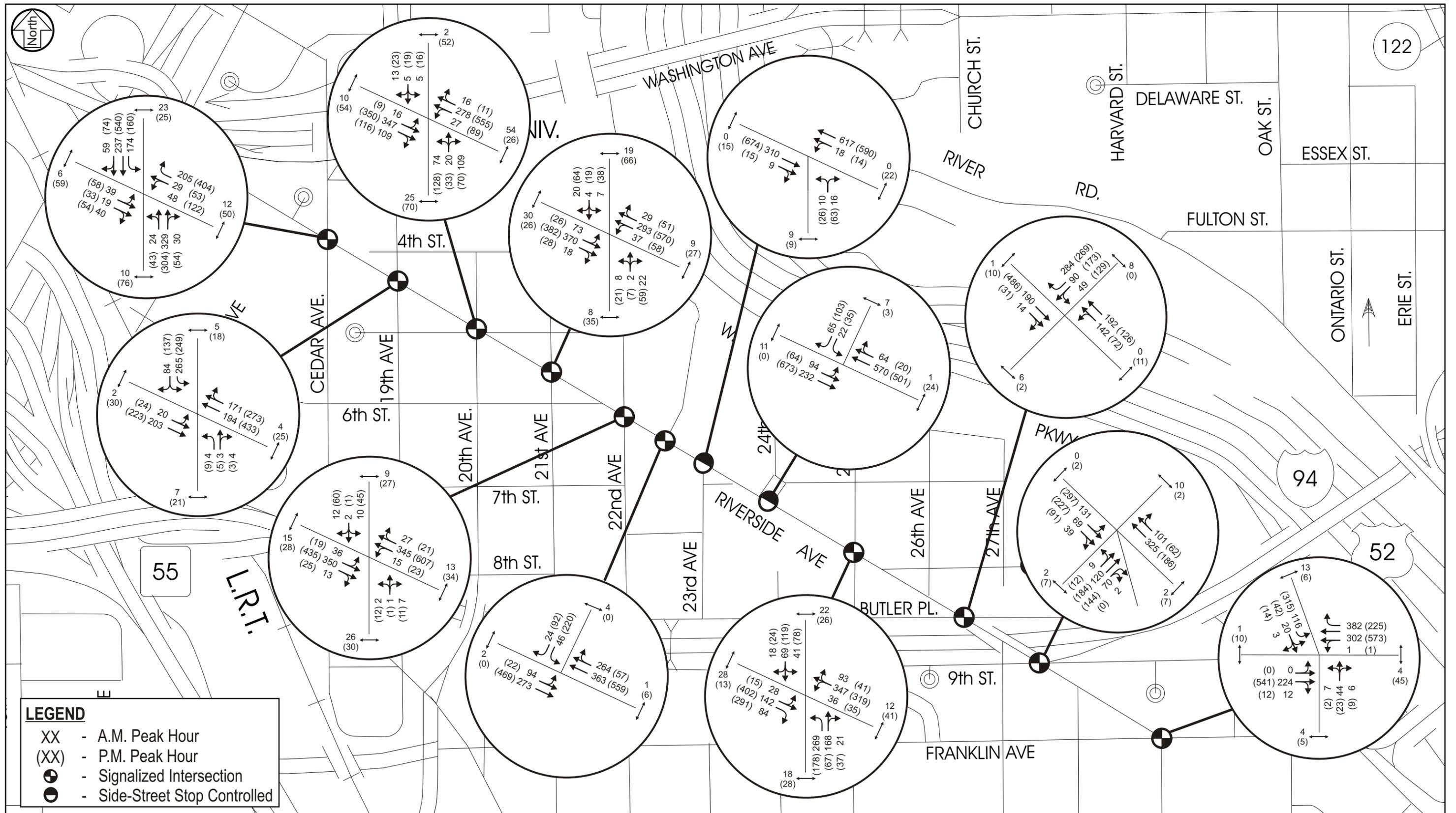
Riverside Avenue is currently a four-lane facility with on-street parking along both sides of the roadway. Fairview-University Hospital is located on the east end of the corridor, while Riverside Avenue bisects the University of Minnesota and Augsburg College through the center of the corridor. There is currently a significant amount of pedestrian/bicycle activity along Riverside Avenue, specifically located near the two Universities. It is important to maintain or improve safety for pedestrians/bicyclists along Riverside Avenue.



PROJECT LOCATION

CEDAR-RIVERSIDE SMALL AREA PLAN TRAFFIC ANALYSIS
 City of Minneapolis

Figure 1



An operations analysis was conducted for the a.m. and p.m. peak hours at each of the respective key intersections to determine how traffic currently operates along the corridor. All signalized intersections were analyzed using the Synchro/SimTraffic software and unsignalized intersections were analyzed using the Highway Capacity Software (and compared to the Synchro/SimTraffic software). Capacity analysis results identify a Level of Service (LOS), which indicates the quality of traffic flow through an intersection. Intersections are given a ranking from LOS A through LOS F. LOS A indicates the best traffic operation, with vehicles experiencing minimal delays. LOS F indicates an intersection where demand exceeds capacity, or a breakdown of traffic flow. LOS A through D is generally considered acceptable by drivers. LOS E indicates that an intersection is operating at, or very near its capacity and that vehicles experience substantial delays.

For side-street stop controlled intersections, special emphasis is given to providing an estimate for the level of service of the side-street approach. The traffic operations at an unsignalized intersection with side-street stop control can be described in two ways. First, consideration is given to the overall intersection level of service. This takes into account the total entering volume into the intersection and the capability of the intersection to support these volumes. Second, it is also important to consider the level of service on the side-street approach. Since the mainline does not have to stop at an unsignalized intersection that has side-street stop control, the majority of the intersection delay can be attributed to the side-street approaches. It is typical of intersections with high mainline traffic volumes to experience high levels of delay (poor level of service) on the side-street approaches, but an acceptable overall intersection level of service during peak periods.

Results of the analysis shown in Table 1 indicate that all key intersections are currently operating at an acceptable overall LOS D or better during the a.m. and p.m. peak hours, with existing traffic controls and geometric layout. It is important to note that existing signal timing obtained from the City of Minneapolis was used. It should be noted that queuing issues exist at spot locations along the corridor. The intersection at 25th Avenue has queues building on each of the east, west and south approaches. The intersection at Cedar Avenue has queues on the north and east approaches. The characteristics of these queues are such that they build, and then dissipate as the intersection operates (signal cycles through). The queues are not to a point where they cause unacceptable operations either for this intersection or adjacent intersections.

**Table 1
Existing Peak Hour Capacity Analysis
Level of Service Results**

Intersection	Level of Service	
	A.M. Peak	P.M. Peak
Riverside Avenue and Cedar Avenue	C	C
Riverside Avenue and 19th Avenue	B	C
Riverside Avenue and 20th Avenue	B	B
Riverside Avenue and 21st Avenue	A	A
Riverside Avenue and 22nd Avenue	A	A
Riverside Avenue and 23rd Avenue (North)	A	B
Riverside Avenue and 23rd Avenue (South) *	A/B	A/B
Riverside Avenue and 24th Avenue *	A/C	A/C
Riverside Avenue and 25th Avenue	C	D
Riverside Avenue and Butler Place	B	B
Riverside Avenue and 9th Street	B	B
Riverside Avenue and Franklin Avenue	B	C

* Indicates an unsignalized intersection. The overall LOS is shown followed by the worst approach LOS.

** See Figure 3 for a graphical representation of the LOS operations.

YEAR 2020 FORECASTS

Based on discussions with City staff, future traffic operations were reviewed for an approximate 10 year horizon. Therefore, traffic forecasts were developed for year 2020 conditions. City staff provided information on adjacent parcels expected to develop/redevelop within this timeframe. Adjacent land uses that were included in the traffic forecasts are listed below:

- Augsburg College Gateway Expansion
 - Located in the southeast quadrant of Riverside Avenue and 21st Avenue,
 - Development includes apartments, classrooms, retail and office space, and parking.
- University of Minnesota “Gateway” Development (modeled after Augsburg Gateway)
 - Located in the northeast quadrant of Riverside Avenue and 21st Avenue,
 - Development includes apartments, classrooms, retail and office space, and parking.
- University of Minnesota Hanson Hall
 - Located in the northeast quadrant of Riverside Avenue and 19th Avenue,
 - Development includes classrooms and office space.



- Fairview-University Hospital Expansion
 - Located north of Riverside Avenue near 24th Avenue,
 - Expansion includes an increase in employees.

- Currie Park Development
 - Located west of Cedar Avenue near Riverside Avenue,
 - Development includes apartments, and retail and office space.

Adjacent land use trips were distributed based on their respective projects study documentation (if available). Where not available, trip distribution was developed based on existing travel patterns and regional daily traffic volumes. Based on existing growth patterns and regional trends, an annual growth rate of one-half percent was applied to the existing peak hour traffic volumes to develop year 2020 background traffic forecasts. The trips generated by the adjacent developments were added to the background traffic forecasts to create the complete year 2020 forecast traffic volumes. The combination of background traffic and adjacent development trips for year 2020 are shown in Figure 4 (please note that this figure also indicates the proposed two-lane roadway geometrics with appropriate turn lanes, discussed later).

YEAR 2020 EXISTING ROADWAY CONDITIONS

The desire is to reduce the roadway capacity in line with the traffic it serves, and develop a more pedestrian/bicycle friendly three-lane facility. However, prior to reducing the roadway capacity it must be demonstrated that the existing roadway network (four-lane facility with adjacent street traffic) is not failing under future year 2020 traffic volumes. To determine how well the existing roadway system will accommodate year 2020 conditions, an operations analysis was conducted during the a.m. and p.m. peak hours. Results of the analysis shown in Table 2 indicate that all key intersections will continue to operate at an acceptable overall LOS D or better under year 2020 conditions during the a.m. and p.m. peak hours, with existing traffic controls and geometric layout. Please note that the signal timing along the corridor was optimized under this scenario to better accommodate the increase in traffic volume. Figure 5 presents a graphical representation of the level of service year 2020 existing roadway condition information.

The queuing issues reported as part of the existing conditions will remain into the future; however, the optimized signal timing minimizes their growth under year 2020 conditions. Under future conditions, the side-street stop controlled intersections see some degradation in their side-street operation.

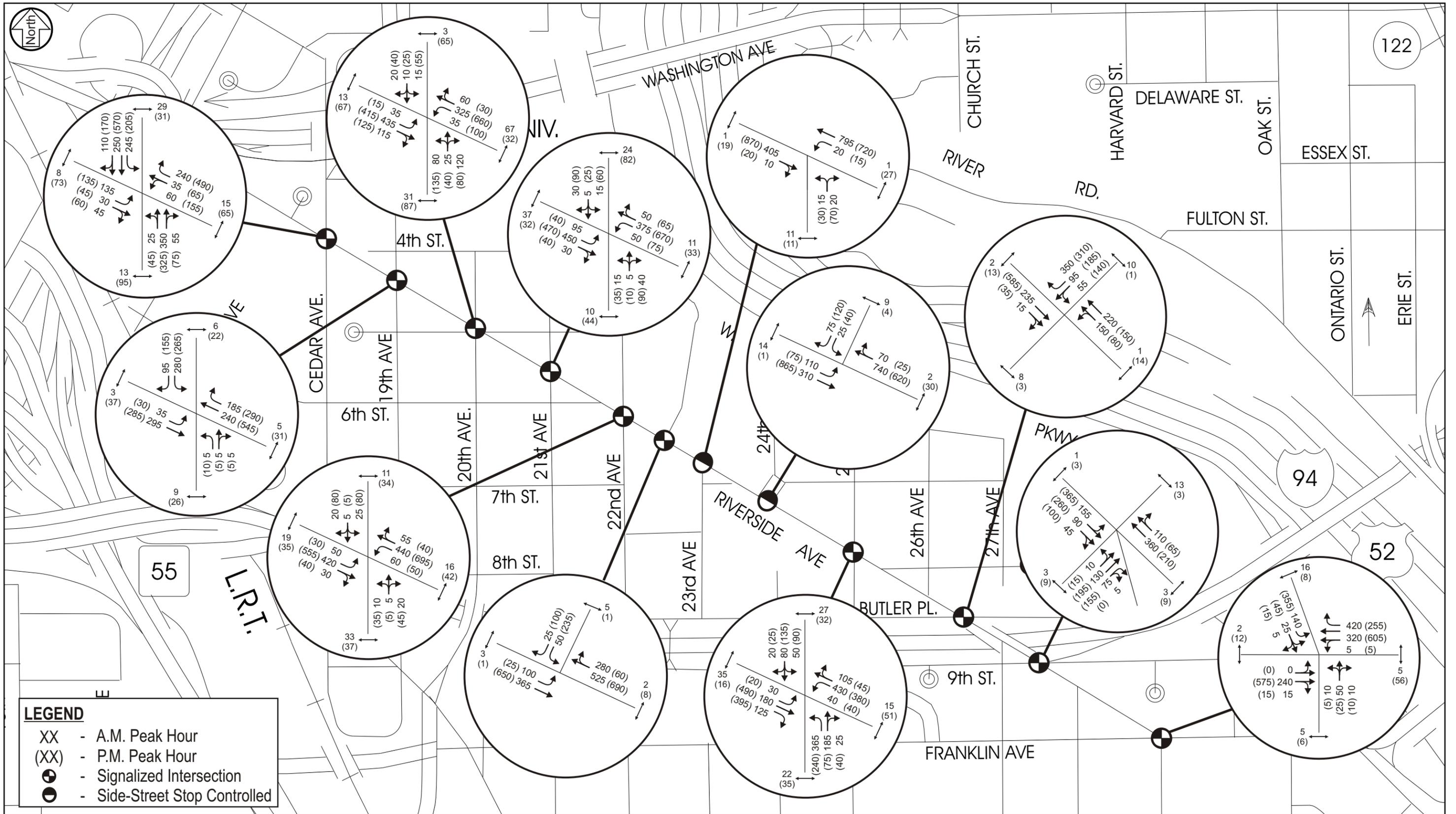




Table 2
Year 2020 Existing Roadway Peak Hour Capacity Analysis
Level of Service Results

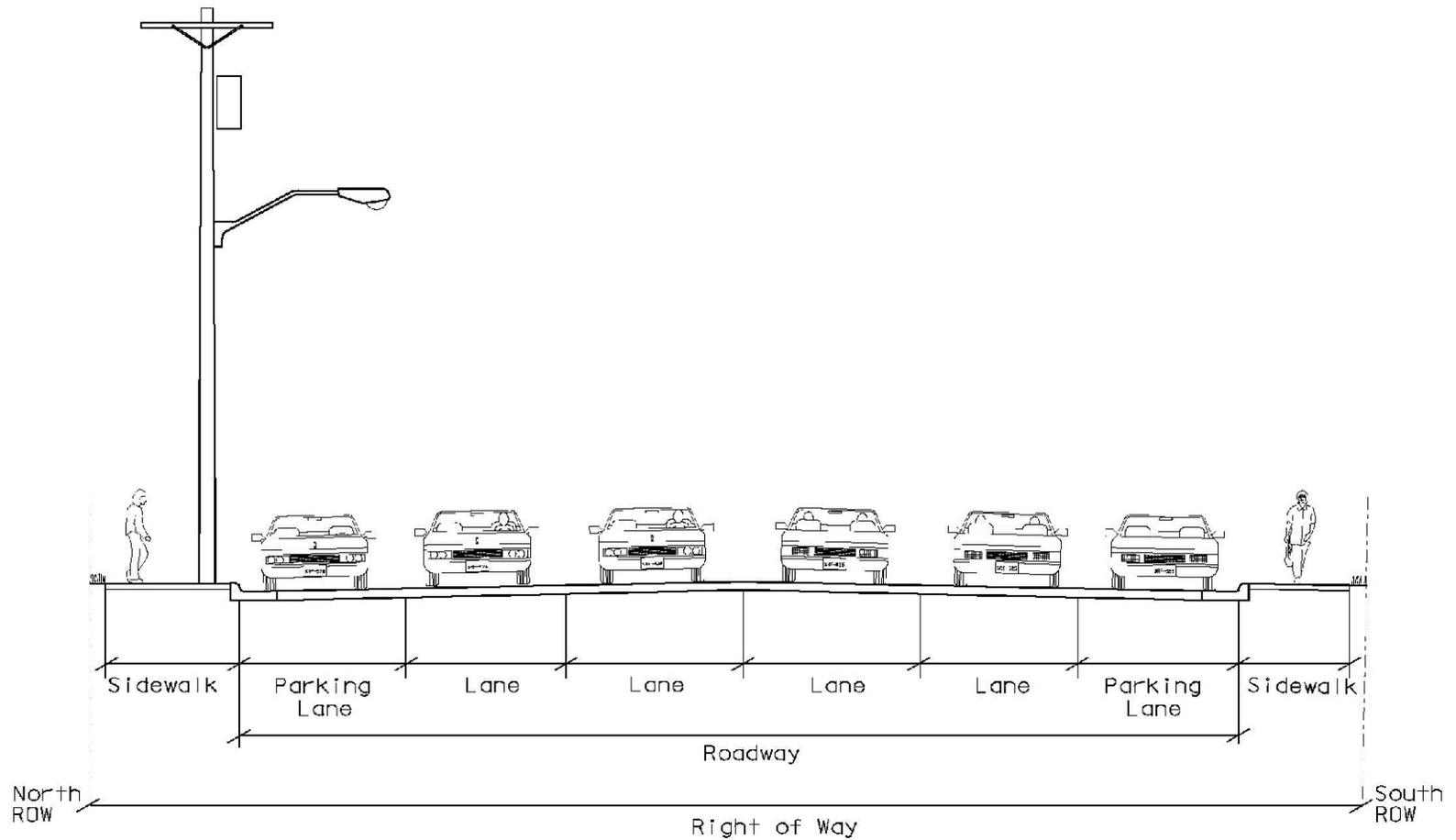
Intersection	Level of Service	
	A.M. Peak	P.M. Peak
Riverside Avenue and Cedar Avenue	C	C
Riverside Avenue and 19th Avenue	B	C
Riverside Avenue and 20th Avenue	B	C
Riverside Avenue and 21st Avenue	A	B
Riverside Avenue and 22nd Avenue	A	A
Riverside Avenue and 23rd Avenue (North)	A	B
Riverside Avenue and 23rd Avenue (South) *	A/C	A/C
Riverside Avenue and 24th Avenue *	A/C	A/C
Riverside Avenue and 25th Avenue	C	D
Riverside Avenue and Butler Place	B	C
Riverside Avenue and 9th Street	B	C
Riverside Avenue and Franklin Avenue	B	C

* Indicates an unsignalized intersection. The overall LOS is shown followed by the worst approach LOS.

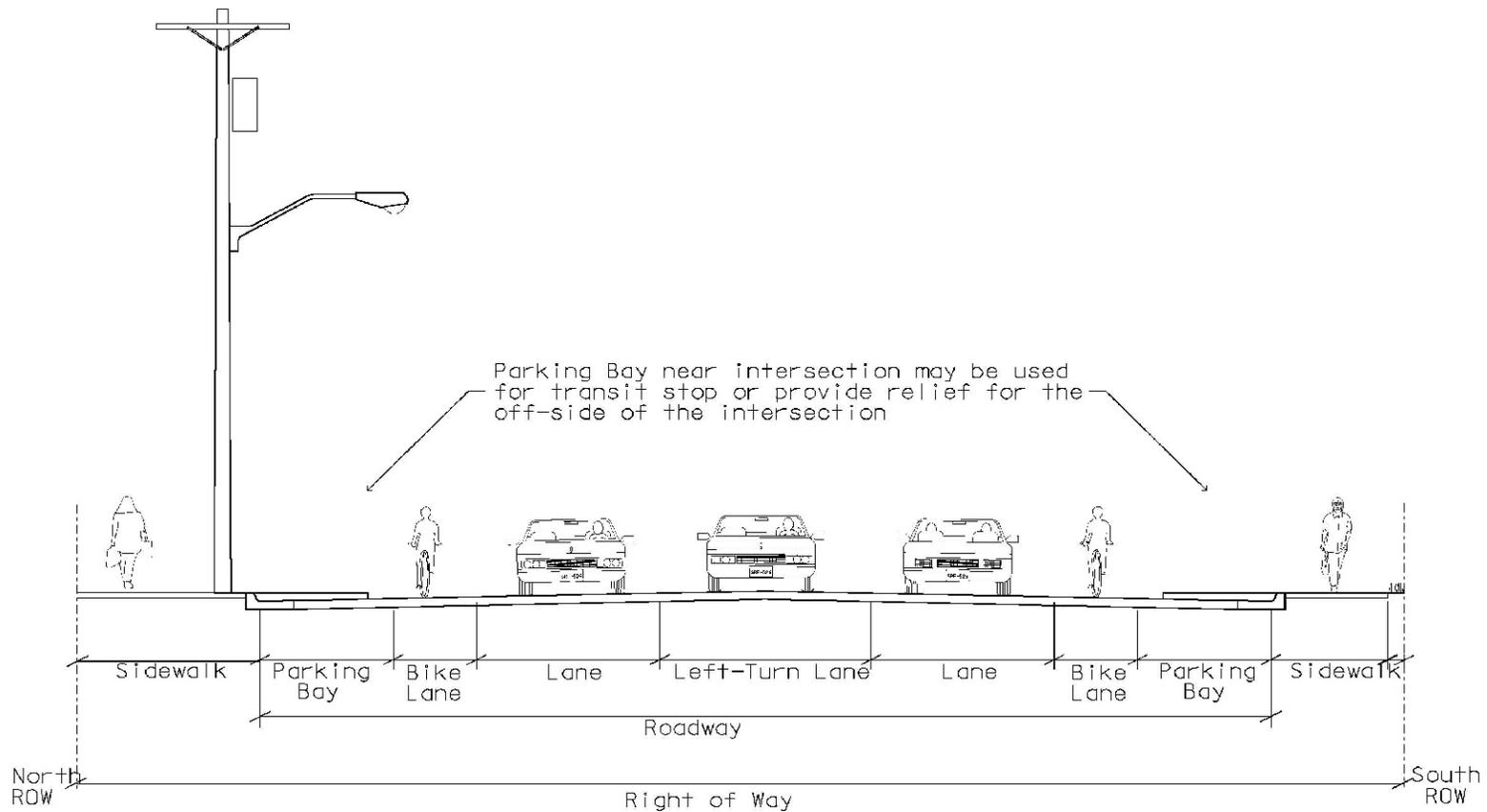
POTENTIAL THREE-LANE FACILITY

The potential three-lane facility discussed herein is described as being reconfigured within the existing curb-to-curb roadway width. This is considered to be a short-term roadway modification. The Cedar-Riverside Small Area Plan project is also reviewing what type of additional streetscape planning can be incorporated into Riverside Avenue without the curb-to-curb constraints, but within the existing right-of-way limits. This type of planning will help to create a long-term vision for the corridor as a whole. These additional design considerations will be discussed in the streetscape sections that follow.

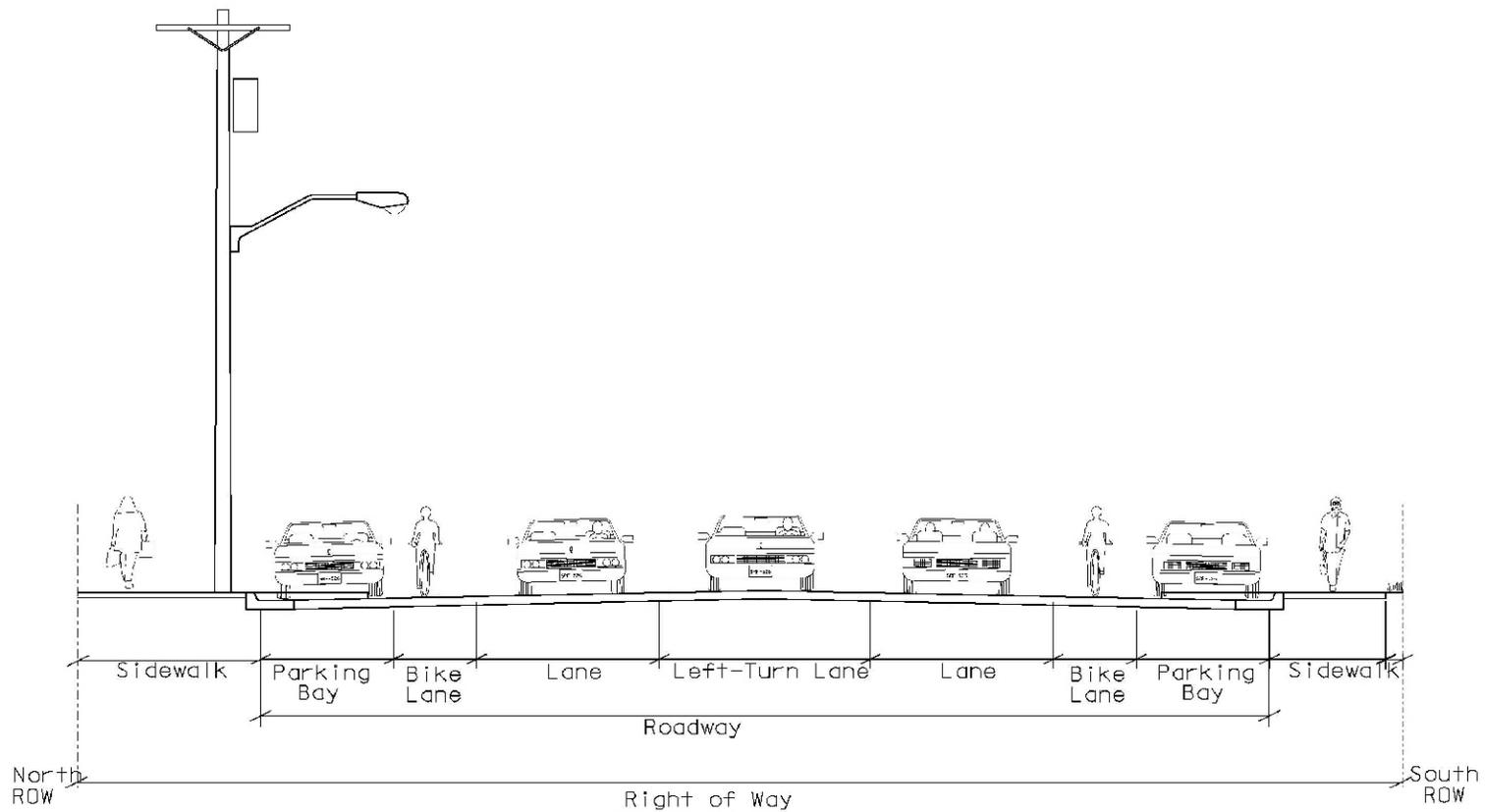
Riverside Avenue is currently a four-lane facility with adjacent on-street parking, within a 60 foot curb-to-curb roadway width between Cedar Avenue and 24th Avenue; the remainder of the roadway south/east of 24th Avenue is 50 feet wide curb-to curb (see Figure 6: Existing Roadway Cross Section). The desire is to reduce the roadway capacity and create a more pedestrian/bicycle friendly three-lane cross-section and on street bike lanes. The three-lane section may extend from Cedar Avenue through 24th Avenue and will consist of a center two way left-turn lane (TWLTL), two through lanes (with a shared right-turn lane at each intersection node), bike lanes on each side of the road, and on-street parking on each side of the road. Please note that the TWLTL is not necessarily needed due to private driveway access, and may be “striped out” between intersections if desired. This space may be considered for streetscape purposes under future conditions. Figure 7 presents a sample intersection view of the three-lane roadway cross-section. A sample mid-block roadway cross-section is shown in Figure 8. The proposed three-lane facility can be configured within the existing curb-to-curb roadway width along the entire corridor.



Mic-block - Existing Conditions



Sample Intersection - On-street Bike Lanes



Sample Mid-block
(Parking on both sides -
On-street Bike Lanes)

The roadway section between 24th Avenue and 8th Street and between Butler Place and 9th Street will need to accommodate four lanes of vehicular traffic, three lanes in the south/east direction and one lane in the north/west direction between 24th Avenue and 8th Street, and two lane in each direction across the bridge between Butler Place and 9th Street (see Figure 4 for detail). The remaining roadway section between 9th Street and Franklin Avenue can revert back to the three-lane section. In order to accommodate the three-lane section with on-street bike lanes and on-street parking, reduced lane widths will be needed and thus MSA variances requested to construct this facility.

YEAR 2020 THREE-LANE ROADWAY CONDITIONS

In order to determine whether or not a three-lane roadway facility could handle the future traffic forecasts, an operations analysis was conducted for year 2020 three-lane conditions. Results of the analysis shown in Table 3 indicate that all key intersections will operate at an acceptable overall LOS C or better under year 2020 three-lane conditions during the a.m. and p.m. peak hours, with existing traffic controls, optimized signal timing and three-lane geometric layout. Please note that the improved level of service along the corridor is due to the intersection nodes being reconfigured to provide optimum operational efficiency. Figure 9 presents a graphical representation of the level of service year 2020 three-lane condition information.

Table 3
Year 2020 Three-Lane Peak Hour Capacity Analysis
Level of Service Results

Intersection	Level of Service	
	A.M. Peak	P.M. Peak
Riverside Avenue and Cedar Avenue	C	C
Riverside Avenue and 19th Avenue	B	B
Riverside Avenue and 20th Avenue	B	C
Riverside Avenue and 21st Avenue	A	B
Riverside Avenue and 22nd Avenue	A	B
Riverside Avenue and 23rd Avenue (North)	A	B
Riverside Avenue and 23rd Avenue (South) *	A/C	A/E
Riverside Avenue and 24th Avenue *	A/D	A/C
Riverside Avenue and 25th Avenue	C	C
Riverside Avenue and Butler Place	B	B
Riverside Avenue and 9th Street	B	C
Riverside Avenue and Franklin Avenue	B	C

* Indicates an unsignalized intersection. The overall LOS is shown followed by the worst approach LOS.

There will be no major queuing issues along Riverside Avenue with the new roadway configuration. However, the south approach of 23rd Avenue will experience increased delays due to a decrease in gaps along Riverside Avenue as a result of the three-lane facility versus the existing four-lane facility.



LONG-TERM STREETScape CONCEPT

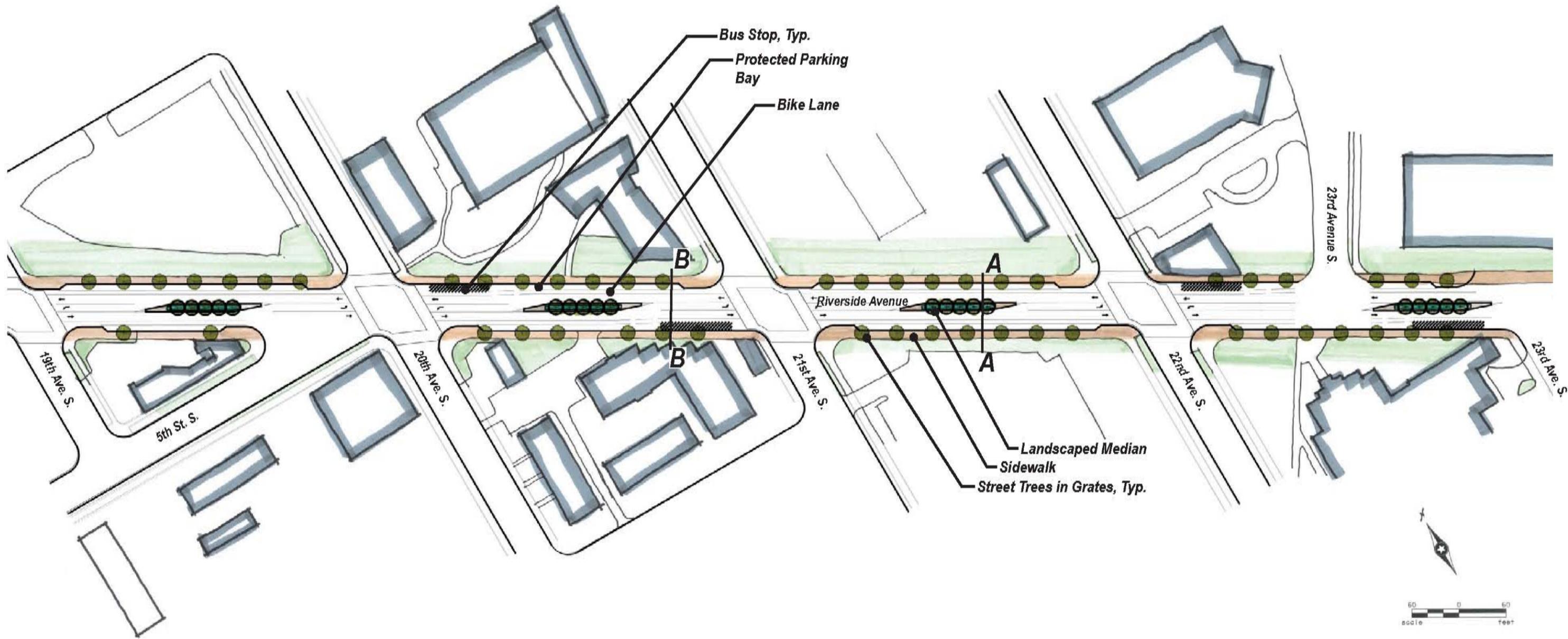
A long-term streetscape concept has been developed for Riverside Avenue. The goal of the streetscape concept is to improve the safety and comfort of the roadway corridor, to enhance corridor aesthetics and environmental quality, and to better accommodate all modes of transportation including pedestrians, bicyclists, transit and cars. The concept primarily focuses on space allocation within the existing street right-of-way (ROW) and is based upon the following assumptions:

- Street ROW will not be widened beyond the existing 80 foot ROW width.
- Streetscape improvements will be implemented as part of future street reconstruction projects, which will allow for the relocation of curb lines and utilities.
- The design of the street will be in compliance with municipal state-aid (MSA) roadway design standards, unless noted otherwise.
- Existing overhead utility lines on the north side of Riverside Avenue will be buried as part of a future street reconstruction project.
- Bus stops will be located every second block.
- Riverside Avenue will be designed to accommodate two travel lanes, left-turn lanes at intersections, on-street bike lanes, on-street parking, and bus stops for the full length of the project.

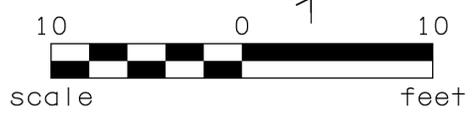
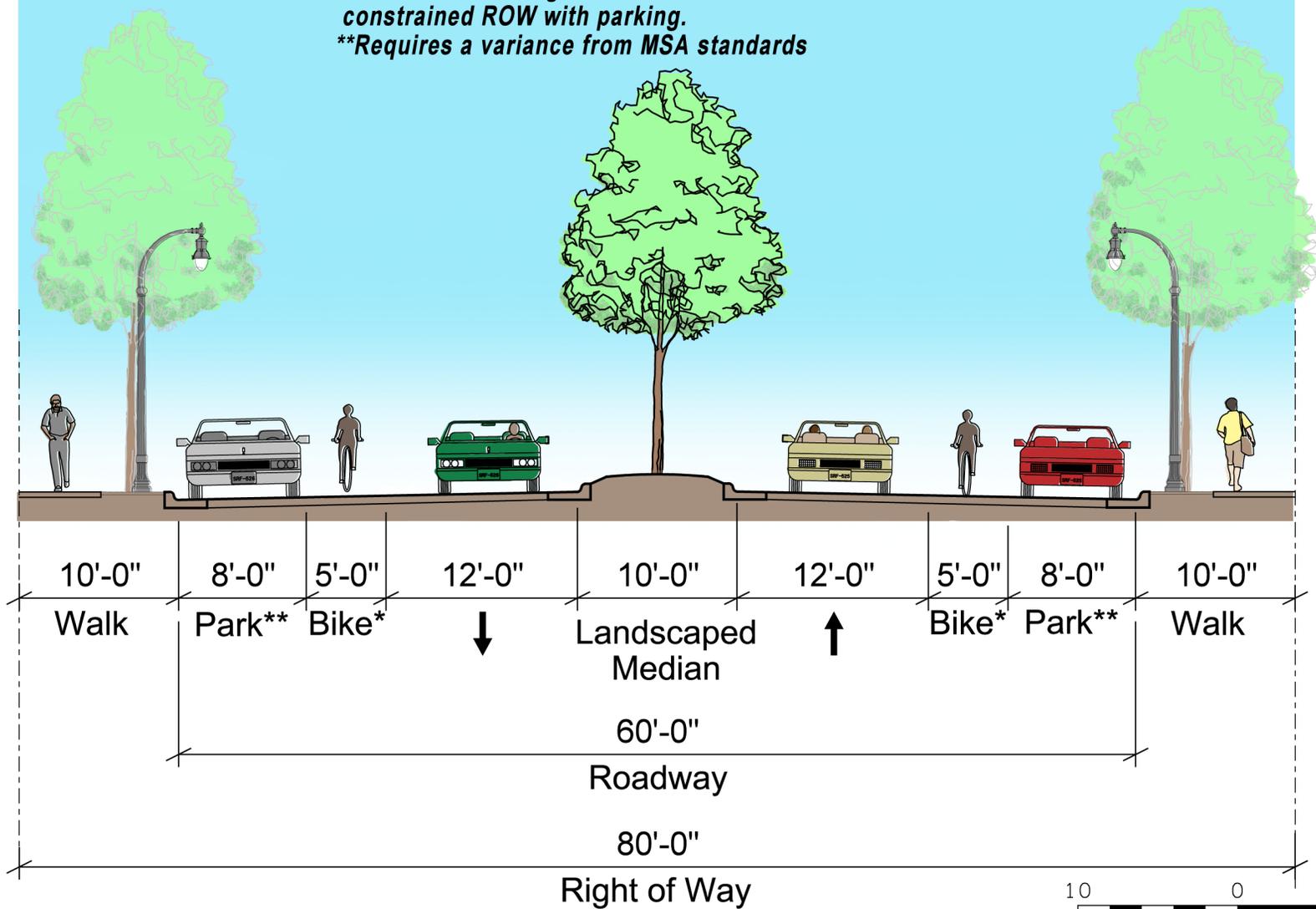
Figure 10 depicts the concept plan for a representative four block segment of the corridor (19th Avenue to 23rd Avenue). Figures 11 and 12 illustrate associated conceptual roadway cross-sections. The long-term streetscape concept proposes two travel lanes in each direction, left turn lanes where needed, bike lanes and 8 foot parking bays. Vegetated median islands are proposed for left-turn lane areas between intersections that are not needed for traffic purposes.

The above typical streetscape section is recommended for the entire Riverside Avenue corridor with the exception of the blocks between 24th Avenue and 8th Street and between Butler Place and 9th Street. At these locations, four travel lanes are necessary to adequately accommodate projected traffic volumes. For these select roadway segments, on-street parking and vegetated median islands will likely not be incorporated into the roadway section.

Previous sections of this document outline modifying Riverside Avenue from a four-lane roadway to a three-lane roadway. The three-lane roadway was discussed as a short-term improvement and would be overridden by the streetscape recommendations made herein, if adopted.



**Mn/DOT bike lane guidelines for constrained ROW with parking.
 **Requires a variance from MSA standards*



TYPICAL MIDBLOCK SECTION

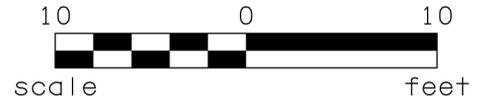
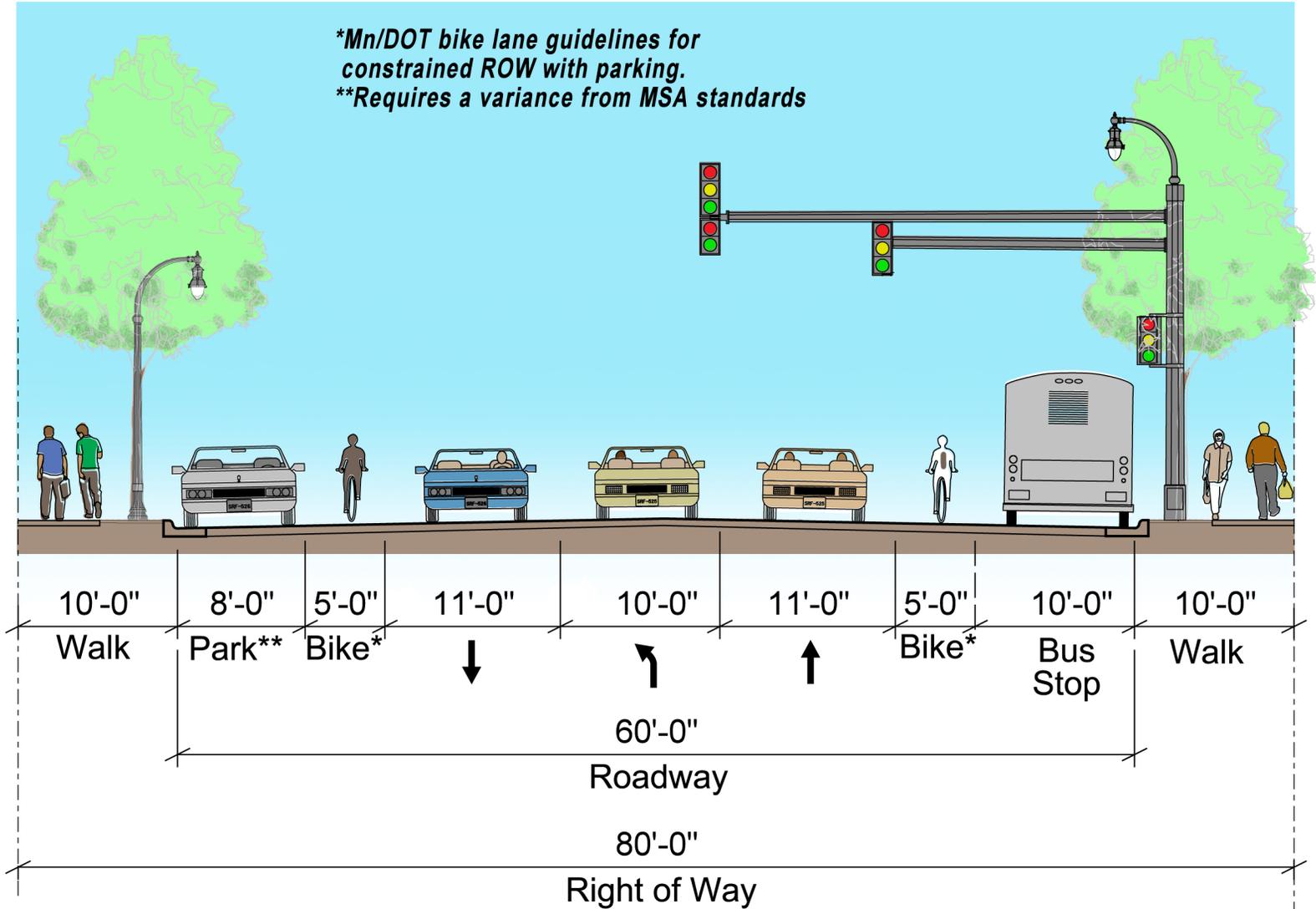
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RIVERSIDE AVENUE STREETScape CONCEPT - CROSS SECTION A-A'
 CEDAR-RIVERSIDE SMALL AREA PLAN
 City of Minneapolis

Figure 11

**Mn/DOT bike lane guidelines for constrained ROW with parking.
 **Requires a variance from MSA standards*



TYPICAL INTERSECTION SECTION

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RIVERSIDE AVENUE STREETScape CONCEPT - CROSS SECTION B-B'

CEDAR RIVERSIDE SMALL AREA PLAN
 City of Minneapolis

Figure 12

STREETSCAPE FEATURES

Changing from a four-lane roadway to a three-lane/two-lane roadway will assist with traffic calming. Vehicles that typically drive at excessive speeds will not have an opportunity to pass slower vehicles and will be required to drive at the speed of the vehicle in front of them. To further improve pedestrian safety, intersections without bus stops will be necked down (bumpouts) to reduce the width of Riverside Avenue at pedestrian crossing locations. The bumpouts also help to denote designated parking bays on the street.

Under this long-term streetscape concept, the left-turn lane area between intersections that is not needed for traffic purposes opens the opportunity for the incorporation of vegetated median islands. This typically occurs at mid block locations. Median islands will prohibit left turns into/out from mid block driveways, where they exist. The median islands are proposed to be landscaped with drought and salt tolerant trees, shrubs and perennials that will enhance the aesthetics of the corridor by reducing the visual width of the street and by providing seasonal interest and color. The median islands may require irrigation to help maintain plant vitality. The median islands could be further enhanced by the incorporation of banner poles or uplighting of trees at night.

The street space needed to accommodate two travel lanes, left turn lanes, bicycle lanes and bus stops will consume 60 feet of the 80 foot ROW. The remaining ROW will consist of 10 foot sidewalks on both sides of the roadway. Given the high level of pedestrian activity that is expected along Riverside Avenue, sidewalk widths of 10 feet are recommended. A 10 foot sidewalk is also the minimum sidewalk width that can comfortably accommodate street trees. The streetscape concept proposes the installation of drought and salt tolerant street trees in sidewalk tree grates for the full length of the project, with the exception of the bridge structure. Structural soils should be used under the sidewalks. These soils will support the sidewalk as well as facilitate the establishment of a healthy tree root system. The incorporation of street trees along Riverside Avenue will function as a unifying visual element along the roadway. They will also provide environmental benefits through the shading of paved surfaces, interception and evapotranspiration of rainfall and capturing of carbon dioxide. Similar to street trees, the use of ornamental street lights along the roadway corridor will function as a unifying streetscape feature.

The conceptual streetscape design focuses primarily on space allocation within the street ROW. However, there are a number of other important elements within the street environment that can enhance the streetscape appearance and neighborhood identity, such as:

- Banners on street lights or poles
- Street furniture (benches, trash receptacles, bike racks, and kiosks)
- Screening of surface parking lots with either fencing and/or vegetation
- Enhanced transit stops (benches, shelters, trash receptacles, lighting)
- Enhanced paving materials, such as pavers; colored, stamped concrete; or interesting joint scoring patterns in standard concrete
- Screening of newspaper stands
- Integration of public art into streetscape elements, such as transit stops and benches

Adjacent property owners also play an important role in contributing to the aesthetic enhancement of Riverside Avenue by having their buildings front onto Riverside Avenue, by using quality building materials and having building windows that face onto the street. All surface parking should be located to the side or rear of buildings. Structured parking near the roadway should be aesthetically pleasing and provide appropriate pedestrian scaled features at ground level. Other amenities that adjacent building owners can provide include: high quality signs, awnings, and flower boxes on buildings, landscape plantings and/or flower pots near door entrances. It should be noted that the final streetscape design theme, materials, and element placement will be determined as part of the final design process.

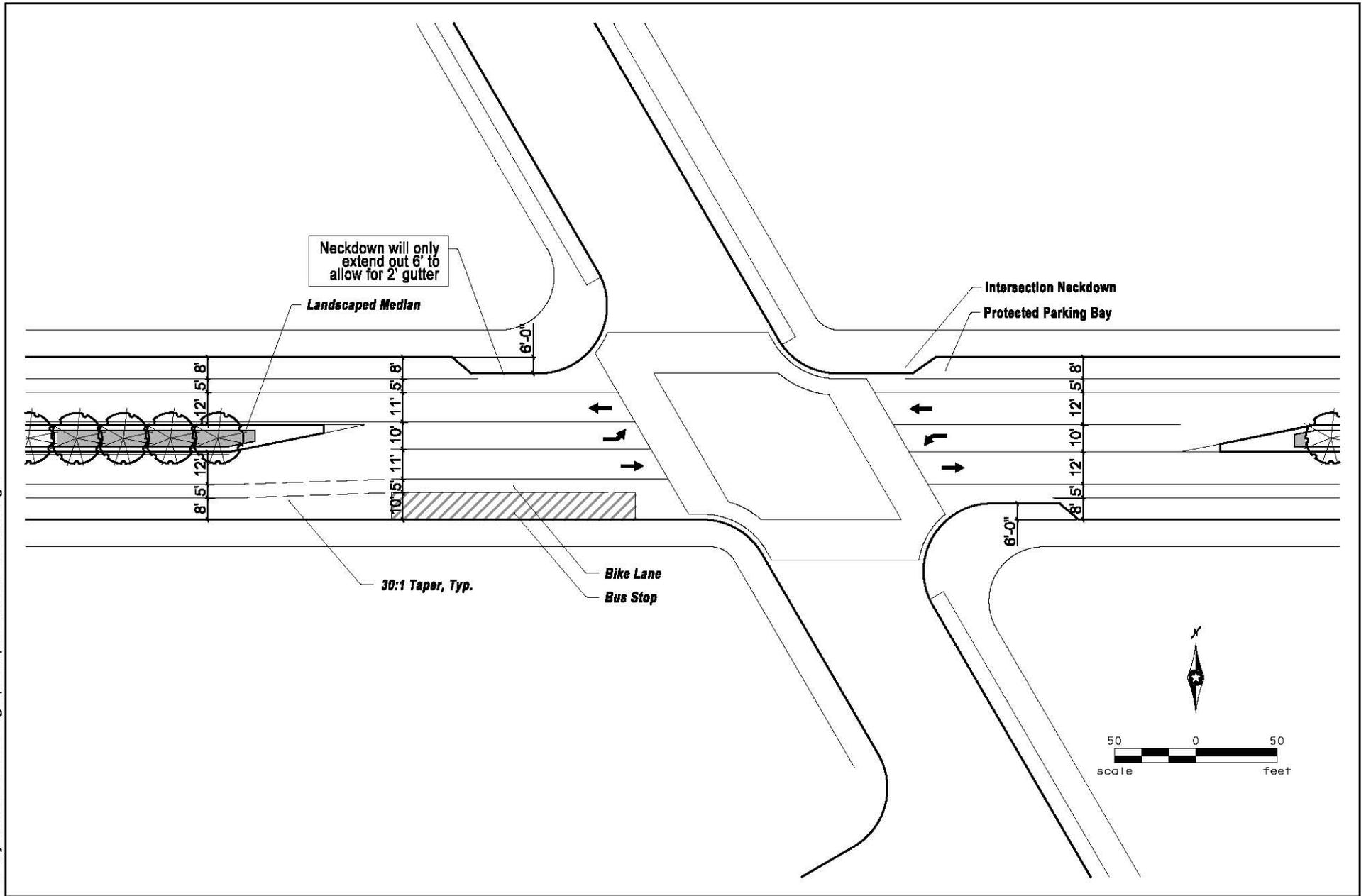
ROADWAY DESIGN IMPACTS

The conceptual roadway design will require the City to obtain an MSA design variance for the eight foot wide on-street parking lane. MSA design standards, as applied to Riverside Avenue's road classification and projected traffic volumes, normally require 10 foot wide parking lanes. But given the City's desire to accommodate multiple modes of transportation within an existing 80 foot ROW, the City will need to seek a variance in order to use the narrower parking lanes.

In order to accommodate both buses and bicyclists on the street, the design requires a bus to cross over the bicycle lane to make stops. At the bus stop cross over location, the bicycle lane striping changes from a solid line to a dashed line as a signal to both bus drivers and bicyclists that extra care is needed in these areas. When a bus exits the bus stop, and returns to the travel lane, it will cross either in front or behind the bicyclist as it passes through the intersection.

To further enhance the safety of bicyclists, the eight foot wide parking bays will transition into 10 foot wide bus stops. Providing additional space for buses will reduce the frequency of buses encroaching into the bicycle lane, while they pick up passengers at bus stops. Figure 13 depicts how the parking bay transitions into a bus stop and the bus stop approach area where a bus will cross over the dashed bicycle lane.

North of 24th Avenue, the existing width of Riverside Avenue (curb face to curb face) is 60 feet. This width will accommodate the concept plan's spatial requirements for vehicle travel lanes, turn lanes, bike lanes and on-street parking. South of 24th Avenue, the existing roadway is 50 feet wide. In order to construct the conceptual road section, the street will need to be widened by 10 feet. From initial reviews of aerial mapping, it appears that all structures along the roadway are located outside of the 80 foot ROW. The City will need to examine the issues and opportunities associated with widening the roadway from its existing 50 foot width to a 60 foot width.



CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are for your consideration:

- Under existing conditions, all key intersections currently operate at an acceptable overall LOS D or better during the a.m. and p.m. peak hours, with existing traffic controls and geometric layout. It should be noted that queuing issues exist at spot locations along the corridor.
 - The intersection at 25th Avenue has queues building on each of the east, west and south approaches. The intersection at Cedar Avenue has queues on the north and east approaches. The characteristics of these queues are such that they build, and then dissipate as the intersection operates (signal cycles through). The queues are not to a point where they cause unacceptable operations either for this intersection or adjacent intersections.
- Traffic forecasts were developed for year 2020 conditions. City staff provided information on adjacent parcels expected to develop/redevelop within this timeframe, they include:
 - Augsburg College Gateway Expansion
 - University of Minnesota “Gateway” Development (modeled after Augsburg Gateway)
 - University of Minnesota Hanson Hall
 - Fairview-University Hospital Expansion
 - Currie Park Development

Based on existing growth patterns and regional trends, an annual growth rate of one-half percent was applied to the existing peak hour traffic volumes to develop year 2020 background traffic forecasts.

- Under year 2020 existing roadway conditions, all key intersections will continue to operate at an acceptable overall LOS D or better during the a.m. and p.m. peak hours, with existing traffic controls, optimized signal timing and existing geometric layout.
 - The queuing issues reported as part of the existing conditions will remain into the future; however, the optimized signal timing minimizes their growth under year 2020 existing roadway conditions. Under future conditions, the side-street stop controlled intersections see some minor degradation in their side-street operation.
- Riverside Avenue is currently a four-lane facility with adjacent on-street parking. The desire is to reduce the roadway capacity and create a more pedestrian/bicycle friendly three-lane cross-section and on street bike lanes. The proposed three-lane facility can be configured within the existing curb-to-curb roadway width (60 foot roadway width, curb-to-curb) from Cedar Avenue through 24th Avenue. The Cedar-Riverside Small Area Plan project is also reviewing what type of additional pedestrian/bicycle friendly design options can be incorporated into Riverside Avenue without the curb-to-curb constraints, but within the existing right-of-way limits.

- The roadway section between 24th Avenue and 8th Street and between Butler Place and 9th Street will need to accommodate four lanes of vehicular traffic, three lanes in the south/east direction and one lane in the north/west direction between 24th Avenue and 8th Street, and two lane in each direction across the bride between Butler Place and 9th Street (see Figure 4 for detail). The remaining roadway section between 9th Street and Franklin Avenue can revert back to the three-lane section.
- Under year 2020 three-lane roadway conditions, all key intersections will operate at an acceptable overall LOS C or better during the a.m. and p.m. peak hours, with existing traffic controls, optimized signal timing and three-lane geometric layout. Please note that the improved level of service along the corridor is due to the intersection nodes being reconfigured to provide optimum operational efficiency.
 - There will be no major queuing issues along Riverside Avenue with the new roadway configuration. However, the south approach of 23rd Avenue will experience increased delays due to a decrease in gaps along Riverside Avenue as a result of the three-lane facility versus the existing four-lane facility.
- The streetscape concept is a long-term initiative, which is based on the assumption that streetscape improvements will be implemented as part of future street reconstruction projects. The concept primarily focuses on space allocation within the existing street ROW. The final streetscape design theme, materials, and element placement will be determined as part of the final design process.
- The long-term streetscape concept proposes two travel lanes in each direction, left turn lanes where needed, bike lanes and 8 foot parking bays. Vegetated median islands are proposed for left-turn lane areas between intersections that are not needed for traffic purposes. Street trees and ornamental lights are also proposed for the roadway corridor.
- This typical streetscape section is recommended for the entire Riverside Avenue corridor with the exception of the blocks between 24th Avenue south and 8th Street and between Butler Place and 9th Street. At these locations, four travel lanes are necessary to adequately accommodate projected traffic volumes. For these select roadway segments, on-street parking and vegetated median islands will likely not be incorporated into the roadway section.
- Future implementation of the streetscape concept will improve the safety and comfort of the roadway corridor, enhance corridor aesthetics and environmental quality, and better accommodate all modes of transportation including pedestrians, bicyclists, transit and cars.
- North of 24th Avenue, the existing width of Riverside Avenue (curb face to curb face) is 60 feet. This width will accommodate the concept plan's spatial requirements for vehicle travel lanes, turn lanes, bike lanes and on-street parking. South of 24th Avenue, the existing roadway is 50 feet wide. In order to construct the conceptual road section, the street will need to be widened by 10 feet. The City will need to examine the issues and opportunities associated with widening the roadway from its existing 50 foot width to a 60 foot width.