

# BUS RAPID TRANSIT DOWNTOWN OPTIONS SUMMARY

- Plan For Growth
- Transportation Plan
- BRT Plan



# Downtown 3rd Avenue Option

## Implications

### EXISTING TREES/MEDIAN

-7 trees

Medians changed

### PARKING

+22 spaces

### PUBLIC SPACE

Some opportunity

### VEHICLE TRAFFIC IMPACT

+1 minute

### WALKING COVERAGE

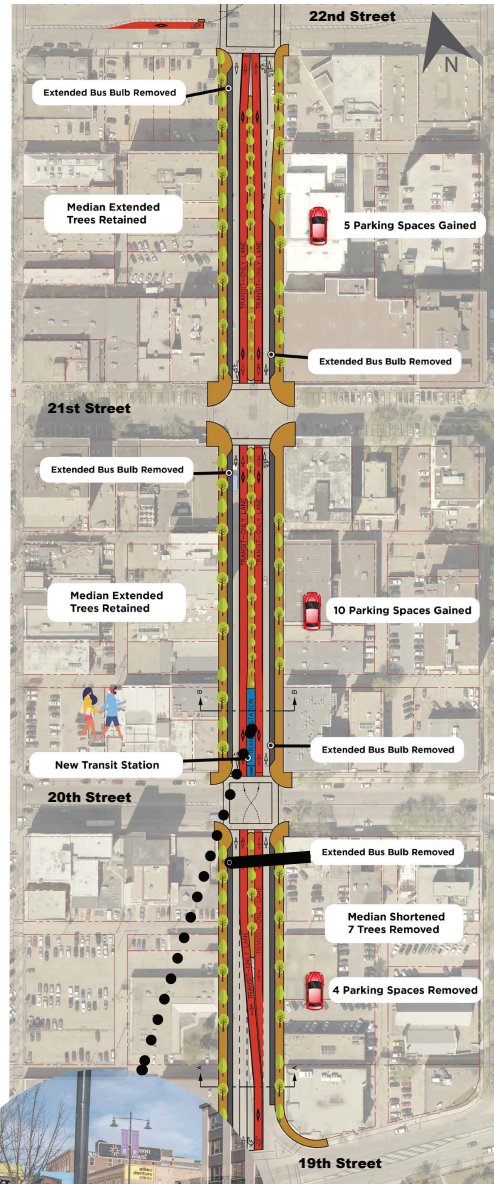
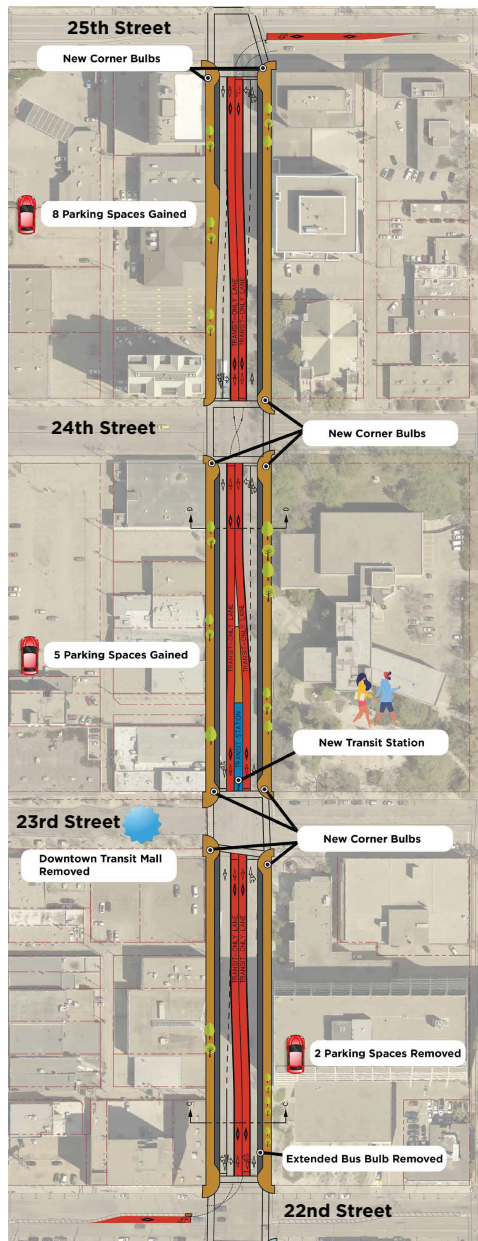
Covers all of Downtown

### RIDER EXPERIENCE

Most reliable

### # OF BUS ROUTES

5



## Legend

- Transit Only Lane
- Parking
- Transit Mall Removed
- Sidewalk/Centre Median
- Existing Trees
- Transit Station



\* design subject to change



# Downtown 1st Avenue Option

## Implications

### EXISTING TREES/MEDIAN

No change to trees  
Medians added

### PARKING

No change

### PUBLIC SPACE

Most opportunity for improvement

### VEHICLE TRAFFIC IMPACT

+1 minute

### WALKING COVERAGE

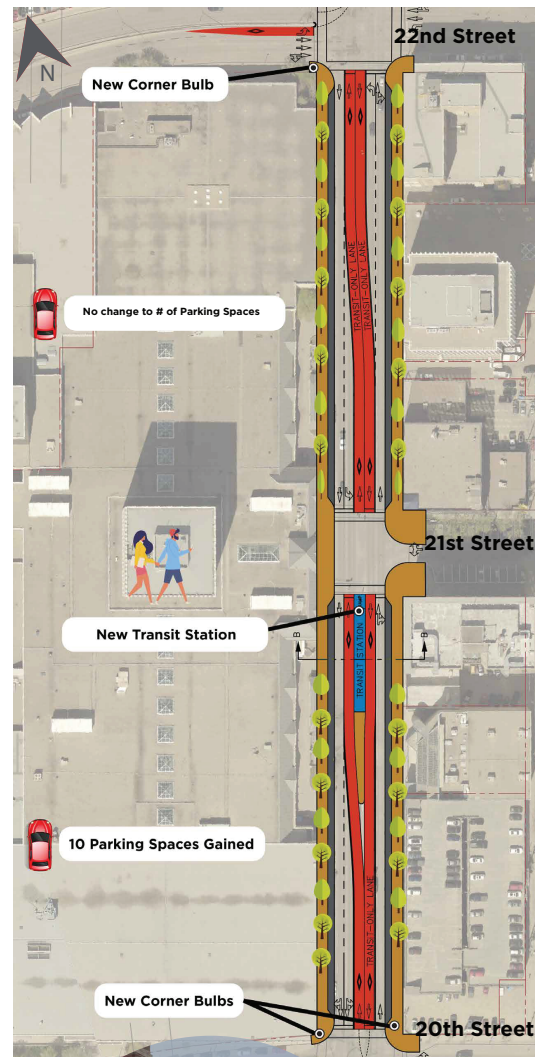
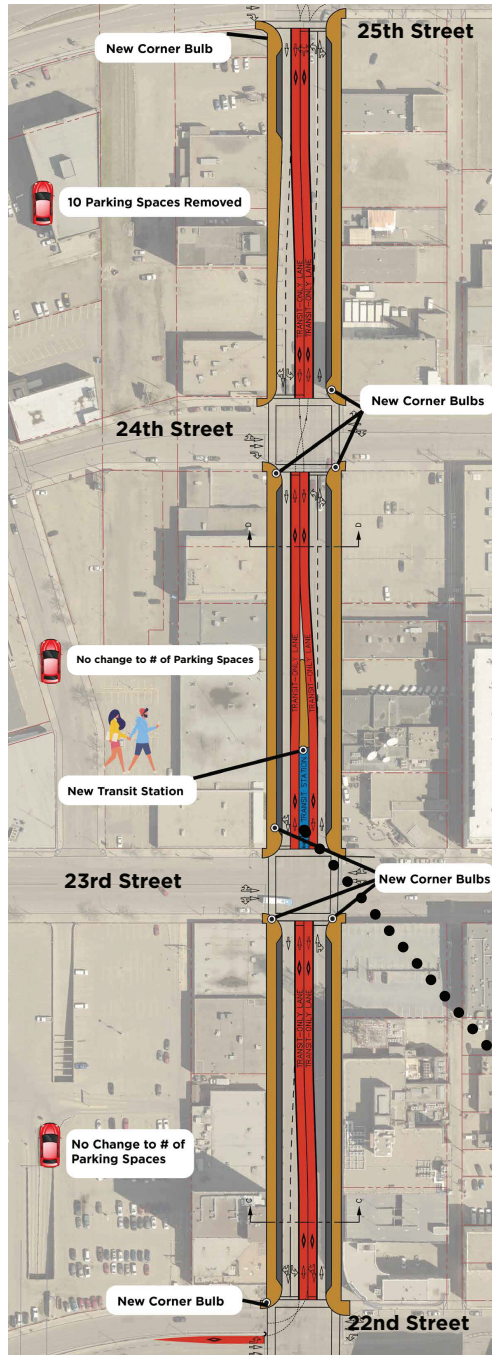
Reduced coverage of east Downtown

### RIDER EXPERIENCE

Most reliable

### # OF BUS ROUTES

3



## Legend

- Transit Only Lane
- Transit Station
- Parking
- Sidewalk/Centre Median
- Existing Trees

# BRT SUMMARY

The City of Saskatoon Growth Plan identified Bus Rapid Transit (BRT) as a key strategy to shape the future of Saskatoon. The Red, Green and Blue BRT will:

- Be major organizing elements of the Growth Plan
- Form the structural backbone of Saskatoon Transit
- Support a mode shift to transit
- Support land use intensification along major corridors
- Anchor the Transit Villages developments

This document summarizes the functional planning recommendations that builds on the work done for the Preferred Configuration Report (2017), feedback received during public and stakeholder engagement in 2018 and 2019, and previously submitted technical memos.

The functional plan sets the stage for detailed design and the summary of recommendations revolves around five foundational BRT elements:

- Runningways
- Stations
- Transit Signal Priority
- Geometric Measures
- Customer Systems

## Route Overview

The BRT system will connect the city from east to west and north to south, along major corridors:



The **Red Line** operates between the Blairmore Suburban Centre and the Briarwood neighbourhood via 22nd Street, Downtown, College Drive, Preston Avenue S, and 8th Street W.



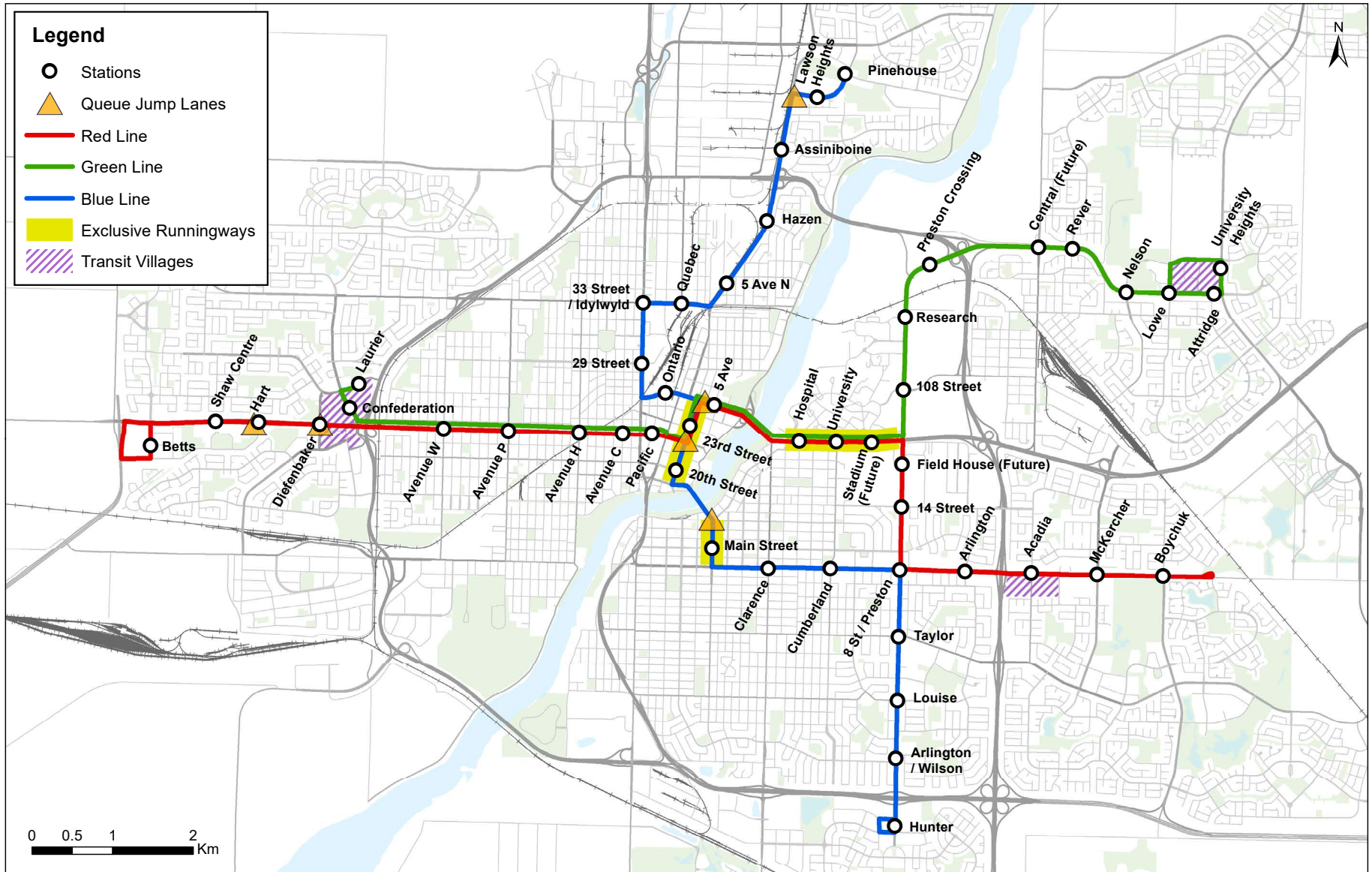
The **Green Line** operates between Confederation Mall and University Heights Square via 22nd Street, Downtown, College Drive, Preston Avenue N, and Attridge Drive.



The **Blue Line** operates between the Lawson Heights Suburban Centre and the Stonebridge neighbourhood via Primrose Drive, Warman Road, 33rd Street, Idylwyld Drive, Downtown, Nutana, 8th Street W, and Preston Drive S.

BRT Element	Scale	Quick Facts
<b>Runningways</b>	Mixed Traffic  Transitway	<ul style="list-style-type: none"> <li>• BRT route 38km</li> <li>• Mixed traffic operations 34.5km</li> <li>• Exclusive runningways (transit-only lanes) 3.5km</li> </ul>
<b>Customer Systems</b>	Few  All	<ul style="list-style-type: none"> <li>• Identification pylon</li> <li>• Real-time information display</li> <li>• Shelter &amp; on-call radiant heater</li> <li>• CCTV camera</li> <li>• Advertising display</li> <li>• Public art opportunities</li> </ul>
<b>Stations</b>	Modest  Signature	<ul style="list-style-type: none"> <li>• 85 station platforms</li> <li>• Highly functional and scalable platform and shelter</li> <li>• Unique, bright, visible, and clean shelter design</li> </ul>
<b>Geometric Measures</b>	Few  Many	<ul style="list-style-type: none"> <li>• Six bus-only queue jump locations</li> </ul>
<b>Transit Signal Priority</b>	None  All	<ul style="list-style-type: none"> <li>• 38km fibre optic communication duct</li> <li>• 114 upgraded traffic signal controllers</li> <li>• 90 intersections with transit signal priority (TSP)</li> </ul>

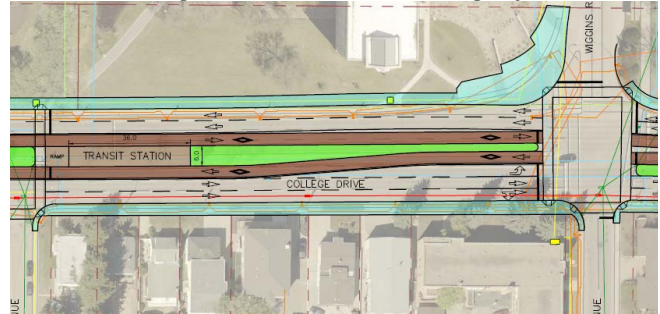
## BRT ROUTE, STATIONS AND QUEUE JUMP LOCATIONS



## RUNNINGWAYS

Of the 38km of BRT, 34.5km will run in mixed traffic and 3.5km within the inner city will have exclusive runningways (transit-only lanes) that will improve BRT travel times and reliability: Downtown, Nutana and College Drive. A centre-running contraflow runningway is recommended.

Section of College Drive Contraflow Runningway



## STATIONS

### Platforms

The BRT system will have 85 station platforms:

- Generally, station platforms will be located farside of the intersection which allows the bus to stop after the signal and take advantage of transit signal priority, eliminates bus blockage of right turn lanes and encourages pedestrians to cross behind the bus.
- For most locations, the recommended platform dimensions are 36m x 4m which will comfortably accommodate 12 to 20 waiting passengers, shelter, station furniture, customer systems, and three regular buses or two articulated buses.

### Shelter Design

The shelter is one of the most prominent features of the BRT system which will differentiate the BRT service from local routes, enhance the customer experience, and contribute to placemaking efforts.

- The design is based on stakeholder feedback for a well-lit, easily maintained, and highly visible structure.
- The warm, bright, sleek and simple design language along with the neutral colours allows the shelter to be a blank canvas onto which theming elements or public art can be applied.

Rendering of a curbside station



## TRANSIT SIGNAL PRIORITY

Transit signal priority (TSP) measures help to move buses through intersections, reducing bus travel time and increasing schedule reliability:

- Fibre optic duct communication will provide for the coordination of 114 upgraded traffic signal controllers.
- 90 intersections will be upgraded to include TSP.

## CUSTOMER SYSTEMS

Customer systems improve the passenger experience, safety and comfort and are focused at stations. In addition to the shelter, customer systems can contribute to the streetscape and placemaking efforts:

- **Pylon:** provides a strong visual station identification and houses communications and electrical panels
- **Real Time Information Display:** present bus arrival times and public announcements
- **On-Call Radiant Heaters:** mounted in the ceiling of each shelter. The heater is activated by a push-button.
- **Lighting:** illuminates the interior and exterior of the shelter. Ambient light from the station shelter and surrounding street lights will illuminate the platform.
- **CCTV Camera:** captures video of the platform and shelter area at regular intervals.
- **Advertising Display Unit:** installed at the approach end of the platform and can be backlit or digital.
- **Public Art:** incorporated at some or all of the station platforms and can be achieved in multiple ways and could be incorporated in the advertising display, as functional station furniture, as an application on the shelter glass, or along the platform.

## GEOMETRIC MEASURES

Congestion in Saskatoon is mainly located at intersections. In addition to TSP, there are six critical locations where bus only queue jump lanes will allow the BRT to bypass congestion.

*Rendering of a curbside station, with advertising display in the forefront*

