

Bus Rapid Transit Planning

BRT Route B2

Configuration Options – 82 Avenue: 109 Street to 83 Street

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Project Overview

As part of the City of Edmonton's Mass Transit initiative, the City is expanding its transit network by adding Bus Rapid Transit (BRT) routes. BRT will complement the current bus and Light Rail Transit (LRT) service, providing a new, efficient and sustainable travel option as our city and population grows.

Bus Rapid Transit (BRT) typically features:

- + Dedicated bus travel lanes
- + Priority at intersections
- + Bus stations, which provide enhanced services over typical bus stops

BRT service will provide high-speed travel between urban nodes and main corridors, with only key stops along the way. The implementation of BRT in Edmonton may impact traffic lanes (removing a lane of vehicular traffic, where feasible), traffic flow, and some trees and landscaping along the selected routes.

Route B2 Overview

BRT Route B2 will create a key east-west connection between West Edmonton Mall and Bonnie Doon via the University of Alberta.

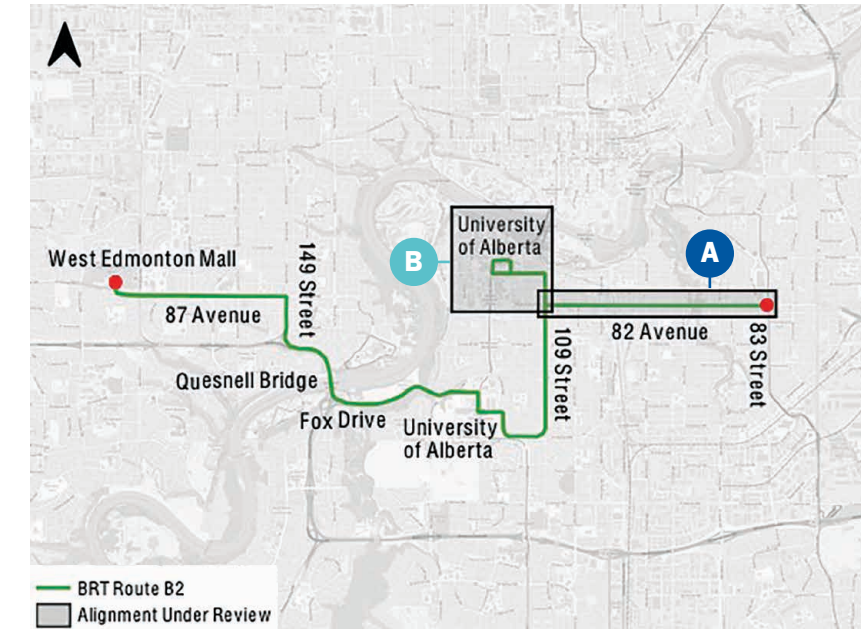
- + West Edmonton Mall to South Campus by way of 87 Avenue, 149 Street, Whitemud Drive, Fox Drive and Belgravia Road. The route crosses the North Saskatchewan River using the Quesnell Bridge
- + South Campus to the University of Alberta
- + University and Garneau areas to 83 Street (Bonnie Doon) by way of 82 Avenue. While the most eastern stop on the route will be at 83 Street (Bonnie Doon Mall), the project team is exploring the feasibility of a bus turnaround in the vicinity of 71 Street.

There are two segments along Route B2 that are being studied further to find the best:

- A. Configuration for 82 Avenue: 109 Street to 83 Street**
- B. Route to connect 109 Street to the University Transit Centre**

This booklet outlines the options proposed for A. Configuration for 82 Avenue: 109 Street to 83 Street*

*Review options proposed for B. Route to connect 109 Street to the University Transit Centre [here](#).

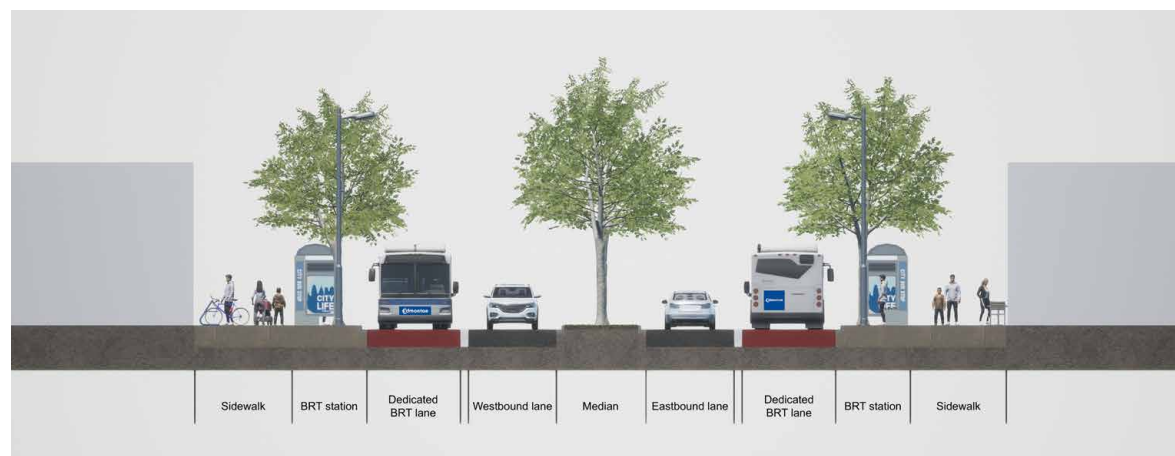


Configuration Options – 82 Avenue: 109 Street to 83 Street

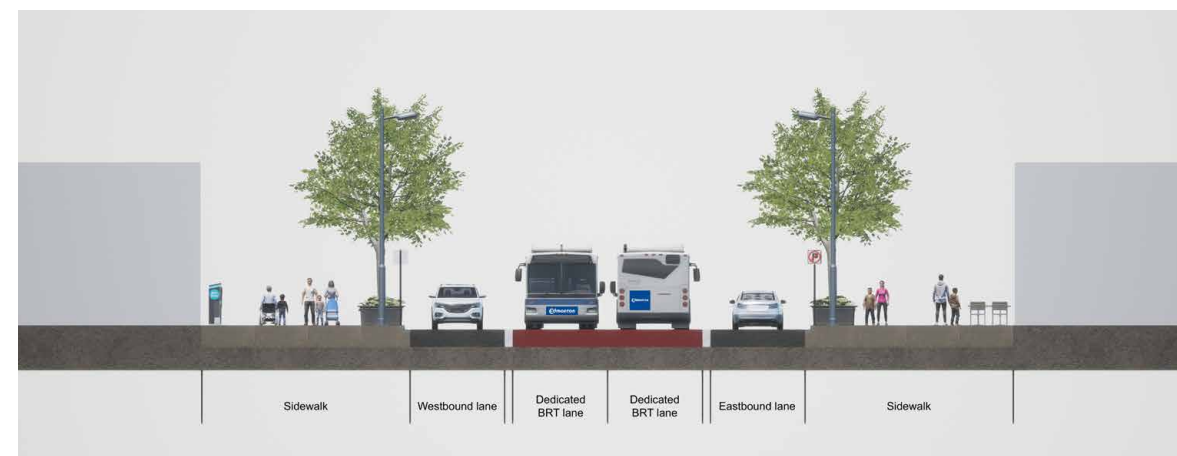
The project team is currently reviewing options to determine the lanes the BRT will use for the segment along 82 Avenue between 109 Street and 83 Street.

Two options are proposed:

Option 1: Curbside Lanes



Option 2: Centre-running Lanes



Configuration Option Details

Option 1: Curbside Lanes

Overview

Unique to Option 1:

- + BRT uses dedicated curbside eastbound and westbound lanes along the full length of 82 Avenue from 109 Street to 83 Street:
 - + Provides easy pedestrian station access directly from sidewalk
 - + Will encounter more interaction with other vehicles turning and accessing driveways
- + Six proposed BRT stations:
 - + 109 Street*
 - + Between 106 Street/107 Street*
 - + Calgary Trail*
 - + 99 Street
 - + 93 Street
 - + 83 Street (Bonnie Doon Mall).
- + All curbside stations are shared with local bus stops to provide convenient connections
- + Design removes eastbound and westbound left turns at 108 Street, 102 Street and 100 Street
- + Existing centre median and median trees retained; a few curbside trees removed to create space for loading zones
- + Curb extensions and wider sidewalks added along the corridor that create opportunities for future streetscape and public space enhancements, where feasible

**These three stations will be stops for both the Route 1 and Route 2 BRT buses.*



Both Option 1 and Option 2 will:

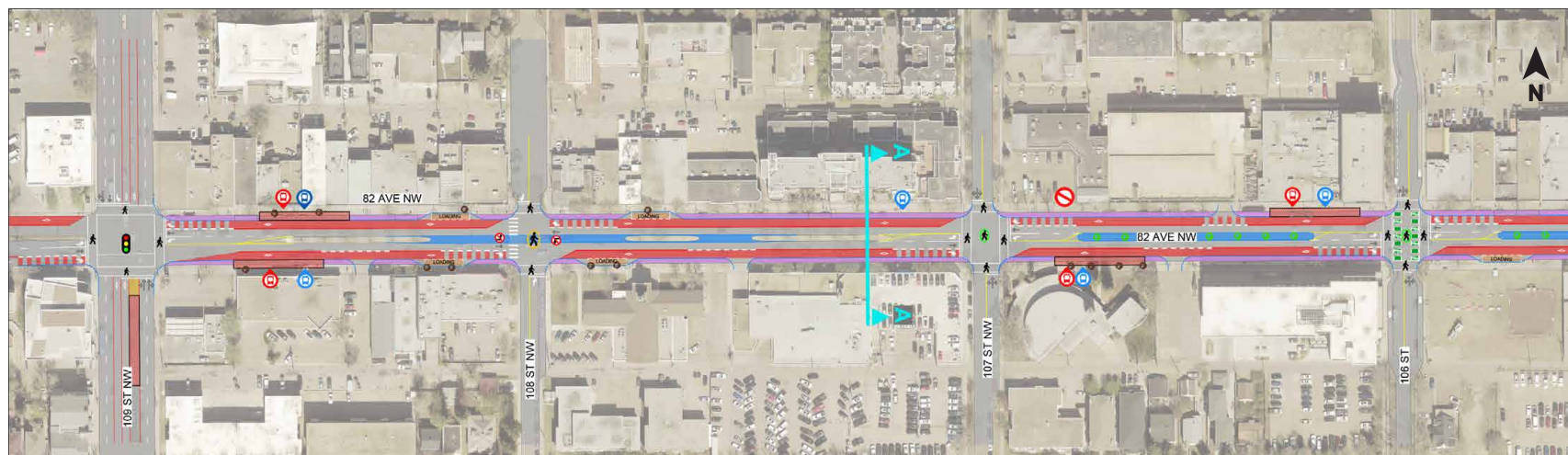
- + Maintain one vehicle lane in each direction
- + Retain all existing right turns
- + Retain property accesses (some consolidated) and provide loading/flex zones (mostly as existing)
- + Remove on-street parking from 109 Street to 91 Street
- + Retain the existing pedestrian crossings throughout the corridor
- + Allow emergency vehicles to use the dedicated BRT lanes

Option 1: Curbside Configuration Details

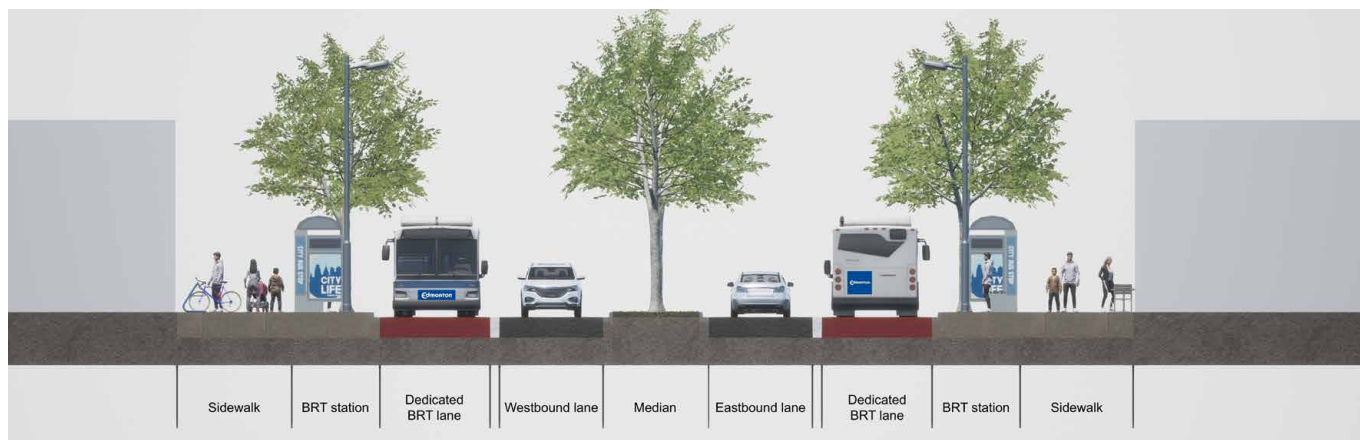
109 Street to 106 Street

Highlights

- + Station locations provide convenient walking connections to 109 Street and Calgary Trail
- + The BRT stations located between 109 Street and 108 Street and between 107 Street and 106 Street will provide transfer opportunities between Route B1 and Route B2
- + Left turns removed at 108 Street
- + Integrates with existing two-way bike lane at 106 Street
- + Removes existing on-street parking



View A



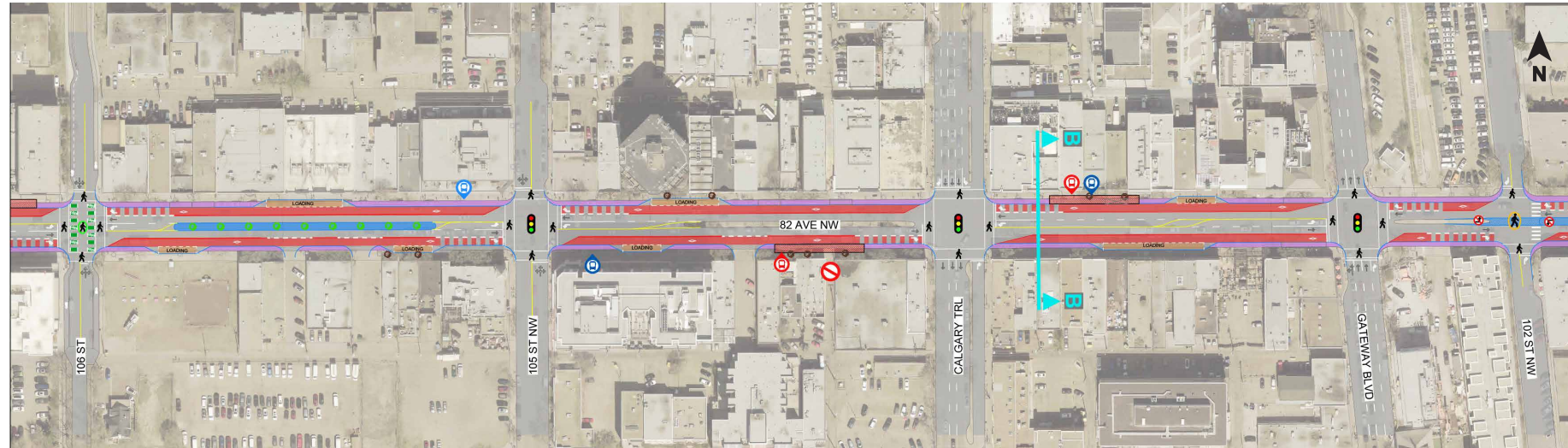
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|-----------------------------|--------------------------|----------------------------|
| BRT STATION PLATFORM | BRT STATION | NEW TRAFFIC SIGNAL |
| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |

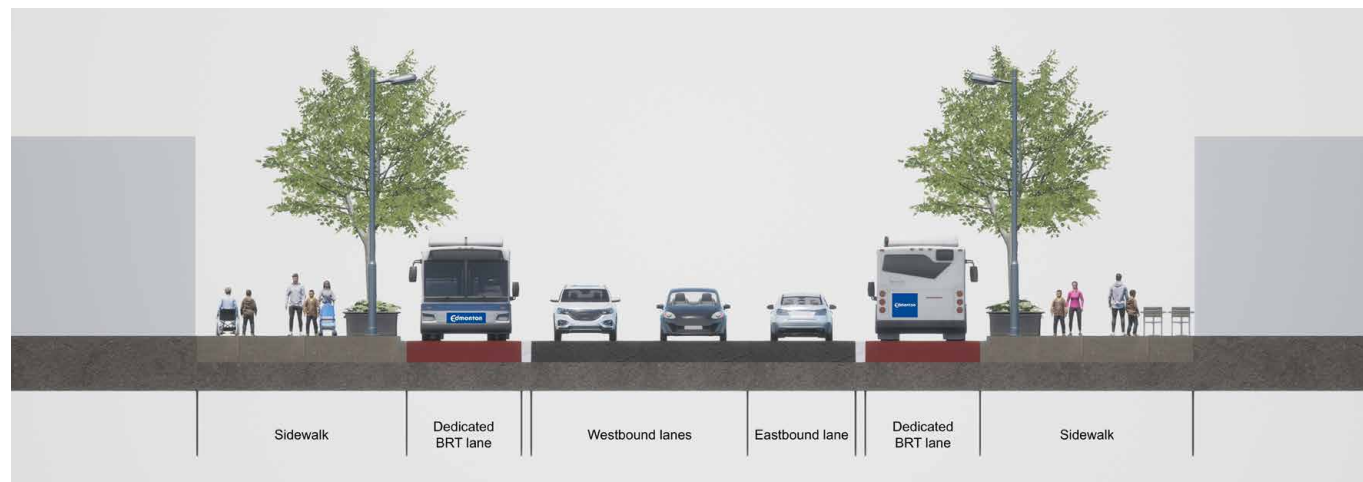
106 Street to 102 Street

Highlights

- + Left turns removed at 102 Street
- + Removes existing on-street parking



View B



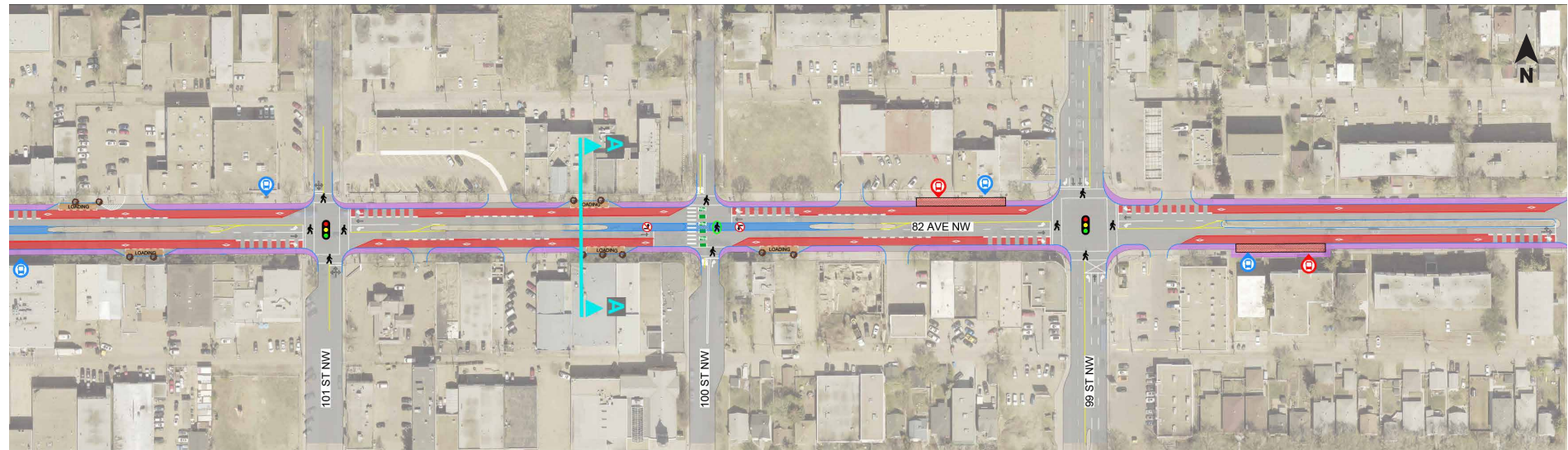
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| BRT STATION PLATFORM | BRT STATION | NEW TRAFFIC SIGNAL |
| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |

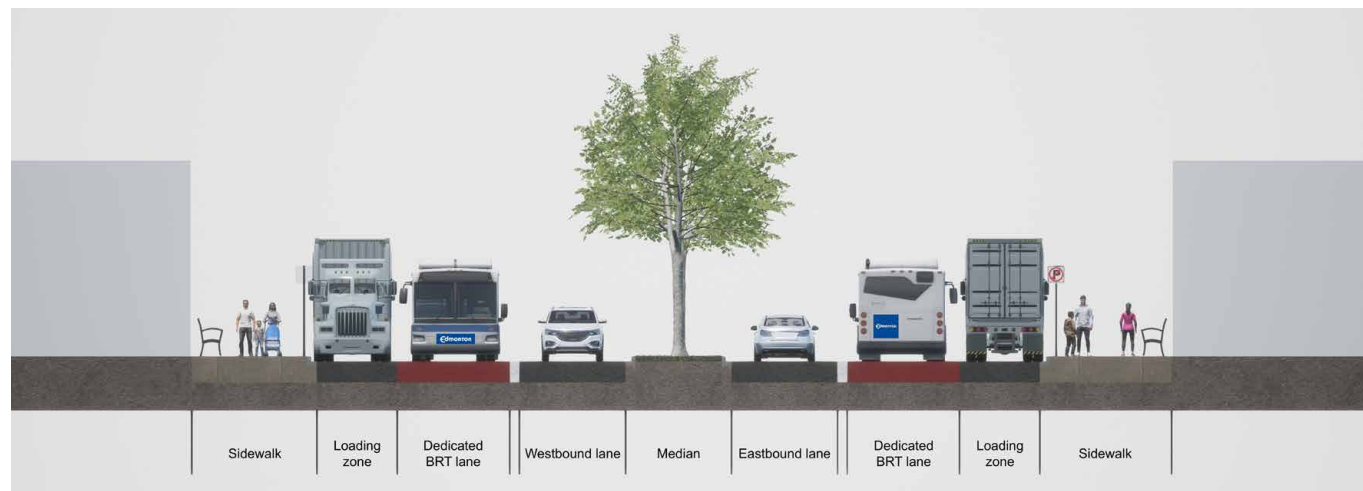
102 Street to 99 Street

Highlights

- + Station locations provide convenient walking connections to 99 Street
- + Left turns removed at 102 Street and 100 Street
- + Design supports bike lane planned for 100 Street
- + Removes existing on-street parking



View A



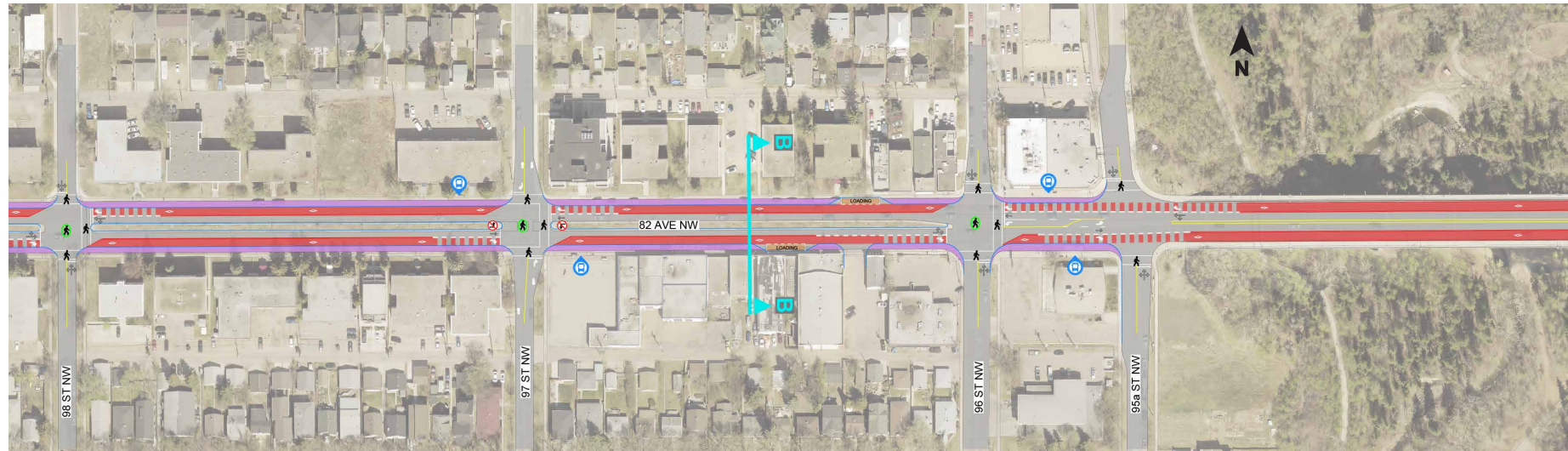
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| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |

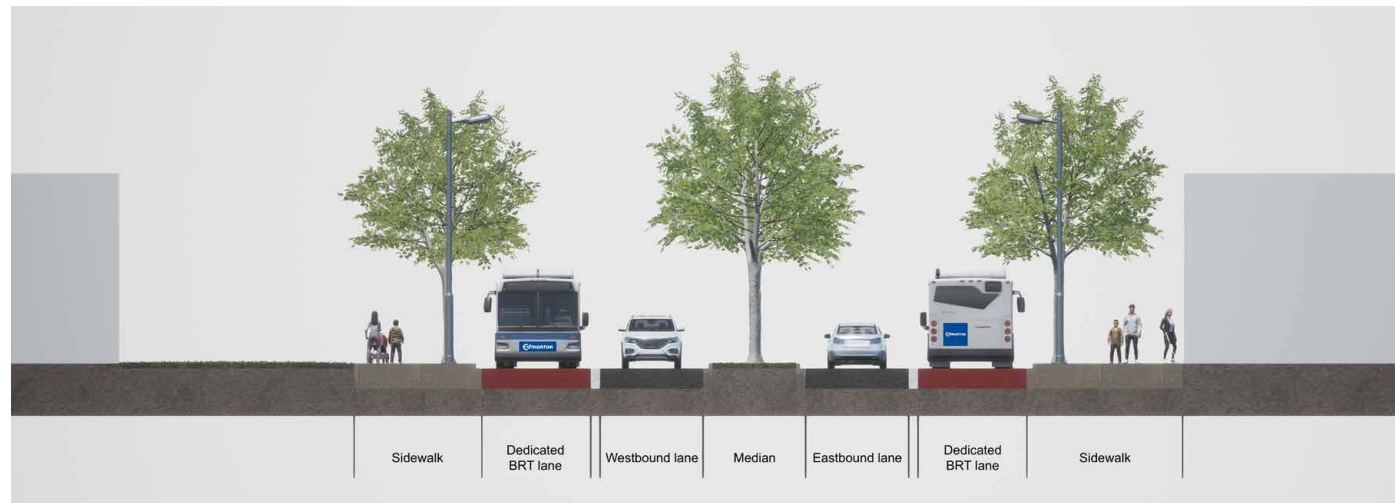
98 Street to 95A Street

Highlights

- + Removes existing on-street parking



View B



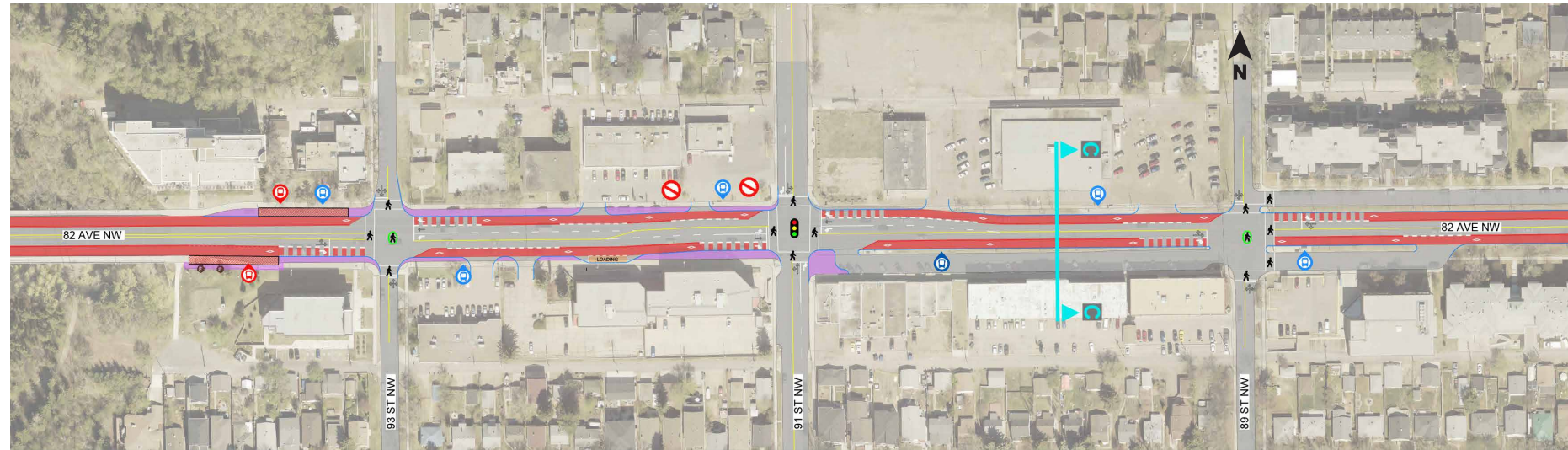
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| | PEDESTRIAN RAMP | | RELOCATED BUS STOP | | NEW PEDESTRIAN SIGNAL |
| | STATION MAINTENANCE PARKING | | NO PARKING | | EXISTING PEDESTRIAN SIGNAL |
| | NEW CURB / MEDIAN | | NO LEFT TURN | | PEDESTRIAN AMBER SIGNAL |
| | NEW SIDEWALK | | POTENTIAL ACCESS CLOSURE | | DEDICATED BRT LANE |
| | NEW VEGETATION | | DEDICATED BRT LANE | | PAINTED ARROWS |
| | LOADING ZONE | | PAINTED ARROWS | | TRAFFIC MOVEMENT |
| | PATIO | | TRAFFIC MOVEMENT | | EXISTING BIKE LANE |
| | PATIO REMOVAL | | EXISTING BIKE LANE | | NEW TREE |
| | | | TREE REMOVAL | | PEDESTRIAN CROSS WALK |

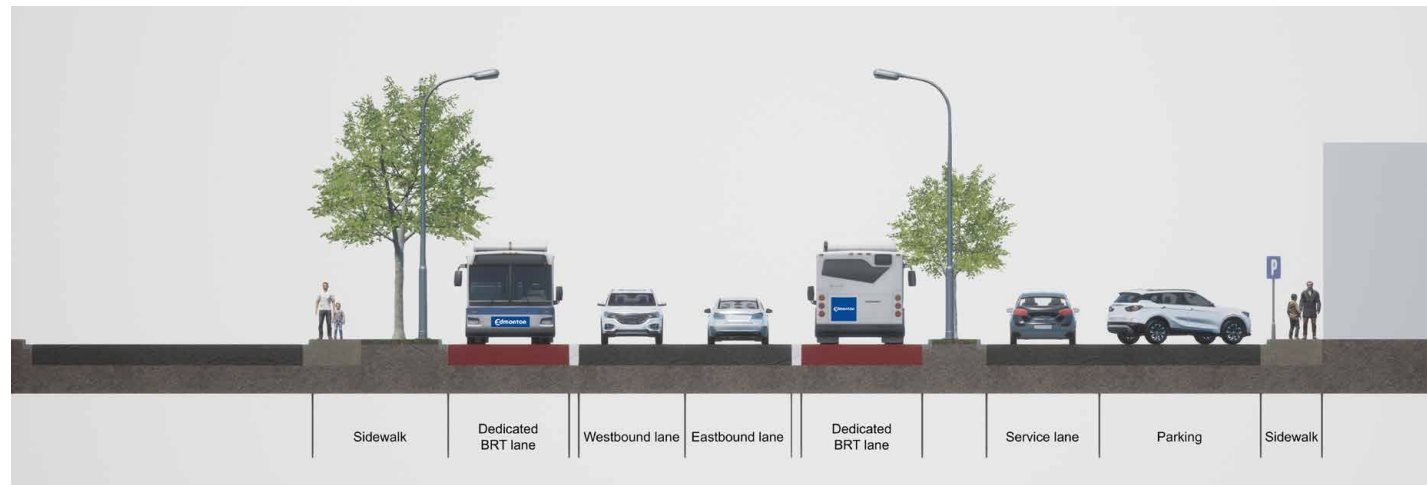
93 Street to 89 Street

Highlights

- + Removes existing on-street parking 93 Street to 91 Street



View C



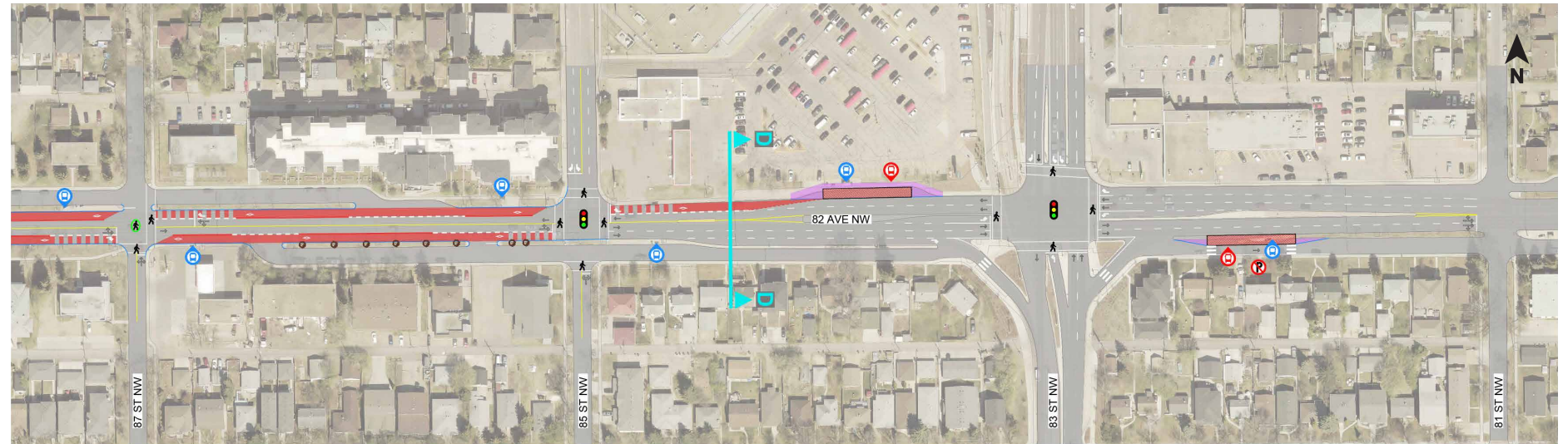
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|--|-----------------------------|--|--------------------------|--|----------------------------|
| | BRT STATION PLATFORM | | BRT STATION | | NEW TRAFFIC SIGNAL |
| | BRT LANE | | EXISTING BUS STOP | | EXISTING TRAFFIC SIGNAL |
| | PEDESTRIAN RAMP | | RELOCATED BUS STOP | | NEW PEDESTRIAN SIGNAL |
| | STATION MAINTENANCE PARKING | | NO PARKING | | EXISTING PEDESTRIAN SIGNAL |
| | NEW CURB / MEDIAN | | NO LEFT TURN | | PEDESTRIAN AMBER SIGNAL |
| | NEW SIDEWALK | | POTENTIAL ACCESS CLOSURE | | PEDESTRIAN CROSS WALK |
| | NEW VEGETATION | | DEDICATED BRT LANE | | NEW TREE |
| | LOADING ZONE | | PAINTED ARROWS | | TREE REMOVAL |
| | PATIO | | TRAFFIC MOVEMENT | | |
| | PATIO REMOVAL | | EXISTING BIKE LANE | | |

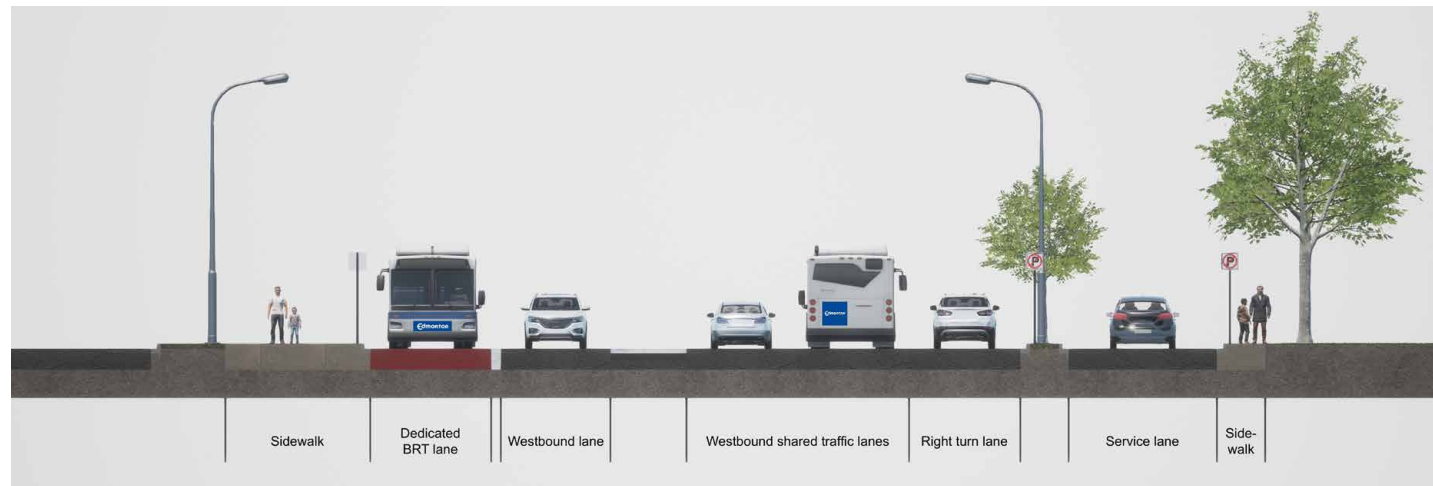
87 Street to 83 Street

Highlights

- + Approximately 10 parking spaces removed on south side service road between 83 Street and 81 Street
- + Side-street access retained between 91 Street and 83 Street



View D



LEGEND

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|--|-----------------------------|--|--------------------------|--|----------------------------|
| | BRT STATION PLATFORM | | BRT STATION | | NEW TRAFFIC SIGNAL |
| | BRT LANE | | EXISTING BUS STOP | | EXISTING TRAFFIC SIGNAL |
| | PEDESTRIAN RAMP | | RELOCATED BUS STOP | | NEW PEDESTRIAN SIGNAL |
| | STATION MAINTENANCE PARKING | | NO PARKING | | EXISTING PEDESTRIAN SIGNAL |
| | NEW CURB / MEDIAN | | NO LEFT TURN | | PEDESTRIAN AMBER SIGNAL |
| | NEW SIDEWALK | | POTENTIAL ACCESS CLOSURE | | PEDESTRIAN CROSS WALK |
| | NEW VEGETATION | | DEDICATED BRT LANE | | NEW TREE |
| | LOADING ZONE | | PAINTED ARROWS | | TREE REMOVAL |
| | PATIO | | TRAFFIC MOVEMENT | | |
| | PATIO REMOVAL | | EXISTING BIKE LANE | | |

Configuration Option Details

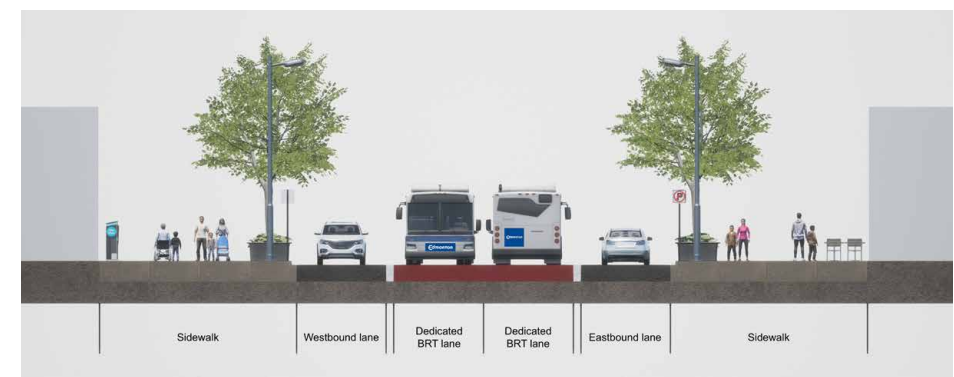
Option 2: Centre-running Lanes

Overview

Unique to Option 2:

- + BRT uses dedicated centre-running lanes along the majority of 82 Avenue between 109 Street and 83 Street
 - + Requires pedestrians to cross to centre for station access
 - + BRT has dedicated movements through intersections
 - + Fewer conflicts with other vehicles (no right turning vehicles or driveway accesses)
- + Five proposed BRT stations:
 - + 108 Street*
 - + 105 Street*
 - + 98 Street
 - + Between 93 Street and 91 Street
 - + 83 Street
- + Design removes eastbound and westbound left turns at: 108 Street, 106 Street, 105 Street, 102 Street, 101 Street, 100 Street, 98 Street, 95a Street, 89 Street, 87 Street, 85 Street
- + Existing centre median and median trees removed
- + Curb extensions (fewer than Option 1) and wider sidewalks added along the corridor that create opportunities for future streetscape and public space enhancements

**These two stations will be stops for both the Route 1 and Route 2 BRT buses.*



Both Option 1 and Option 2 will:

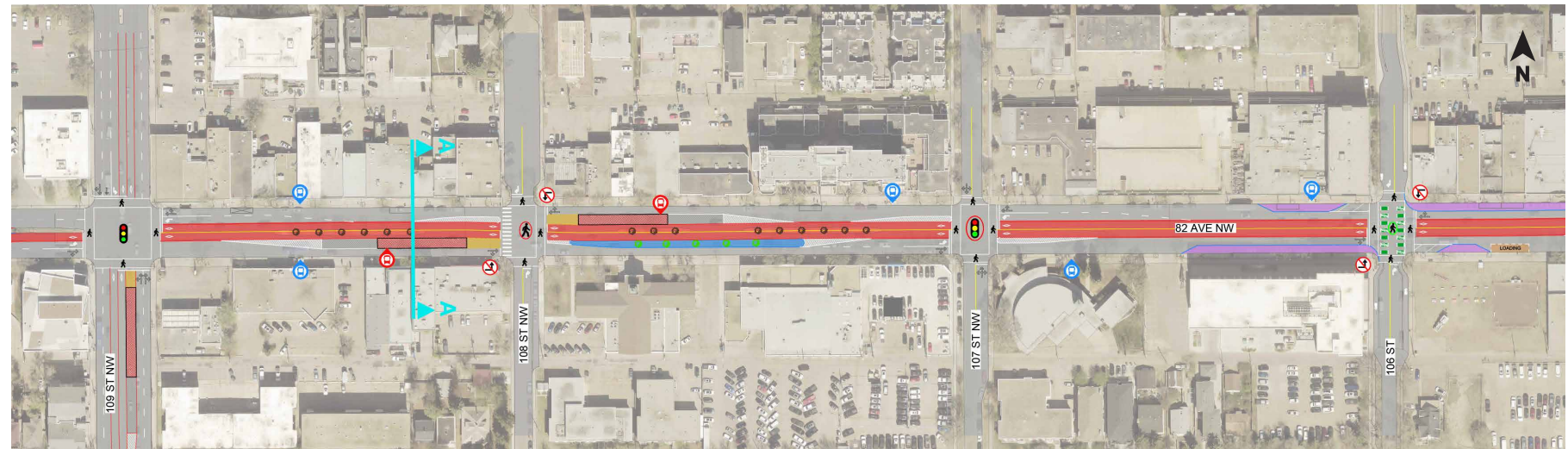
- + Maintain one vehicle lane in each direction
- + Retain all existing right turns
- + Retain property accesses (some consolidated) and provide loading/flex zones (mostly as existing)
- + Remove parking from 109 Street to 91 Street
- + Retain the existing pedestrian crossings throughout the corridor
- + Allow emergency vehicles to use the dedicated BRT lanes

Option 2: Centre-running Configuration Details

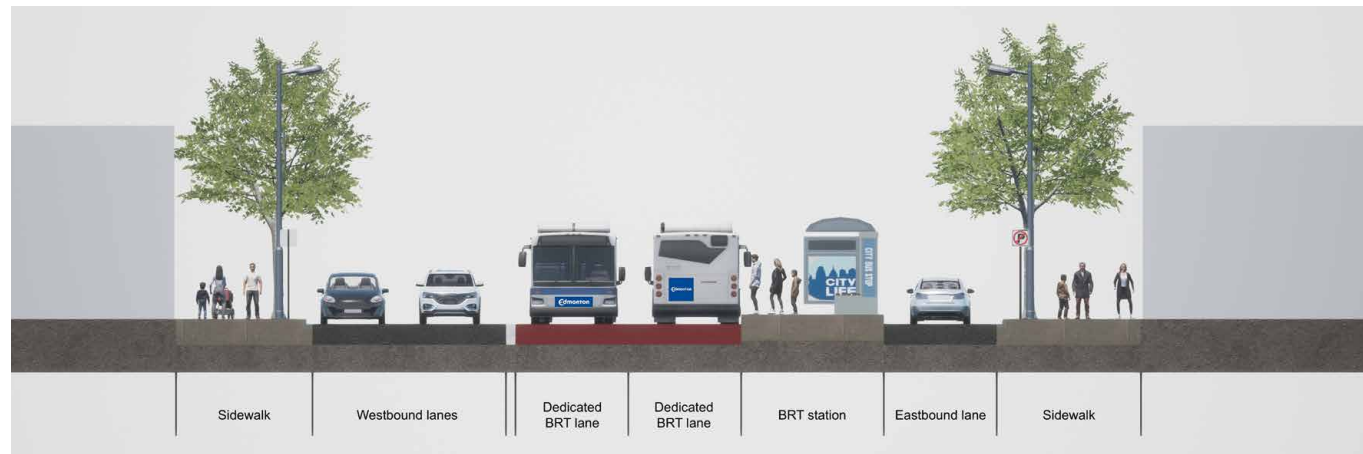
109 Street to 106 Street

Highlights

- + Left turns removed at 108 Street and 106 Street
- + The BRT stations located at 108 Street will provide transfer opportunities between Route B1 and Route B2
- + Maintains existing bike infrastructure on 106 Street
- + Removes existing on-street parking



View A



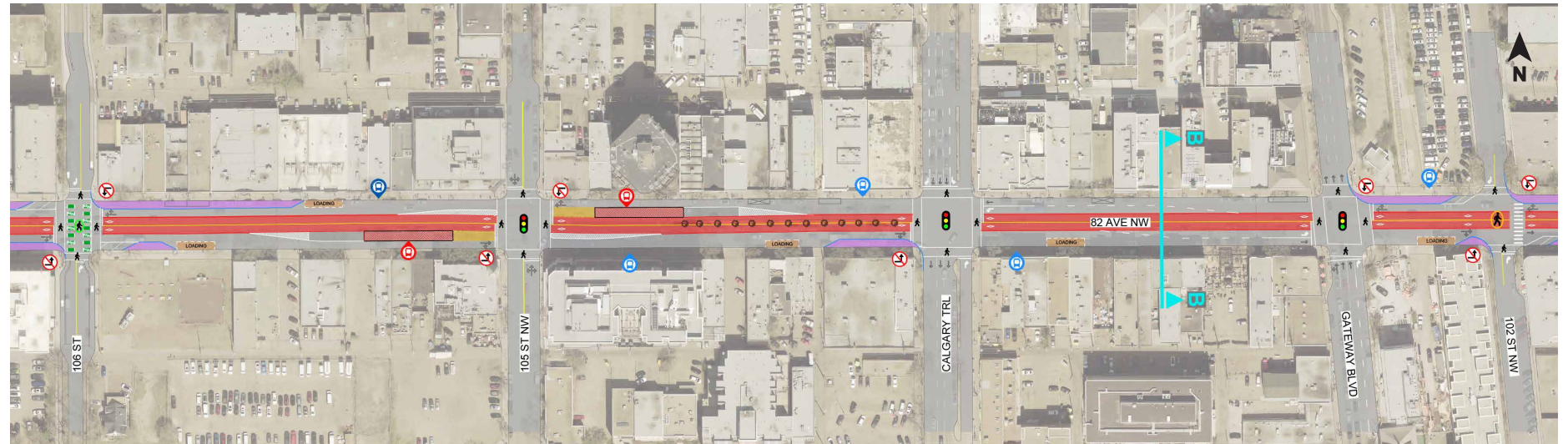
LEGEND

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|-----------------------------|--------------------------|----------------------------|
| BRT STATION PLATFORM | BRT STATION | NEW TRAFFIC SIGNAL |
| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |

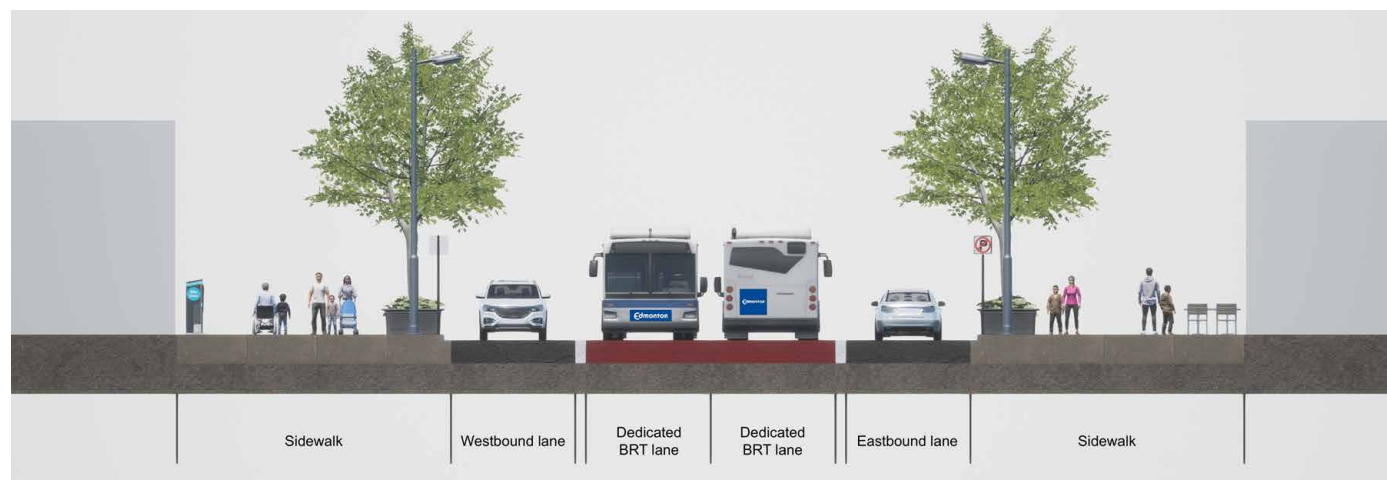
106 Street to 102 Street

Highlights

- + Design integrates with existing bike lane at 106 Street
- + Left turns removed at 106 Street, 105 Street and 102 Street
- + BRT station located at 105 Street will provide transfer opportunities between Route B1 and Route B2
- + Removes existing on-street parking



View B



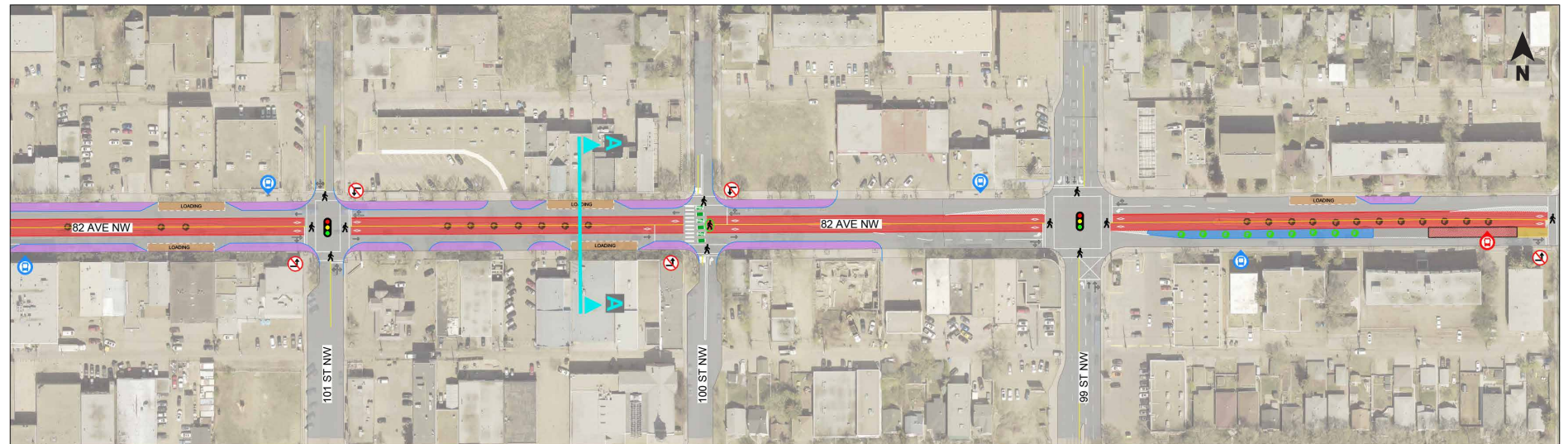
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| BRT STATION PLATFORM | BRT STATION | NEW TRAFFIC SIGNAL |
| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |

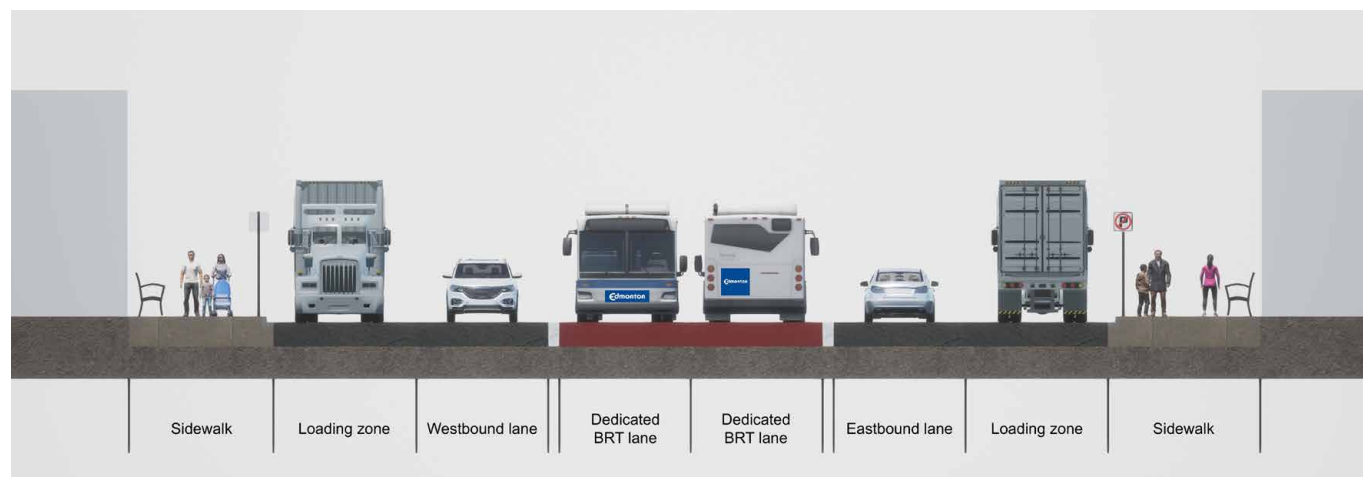
101 Street to 99 Street

Highlights

- + Left turns removed at 101 Street and 100 Street
- + Dedicated right-turn lanes are removed and replaced with a shared through-right lane at 99 Street
- + Design supports bike lane planned for 100 Street
- + Removes existing on-street parking



View A



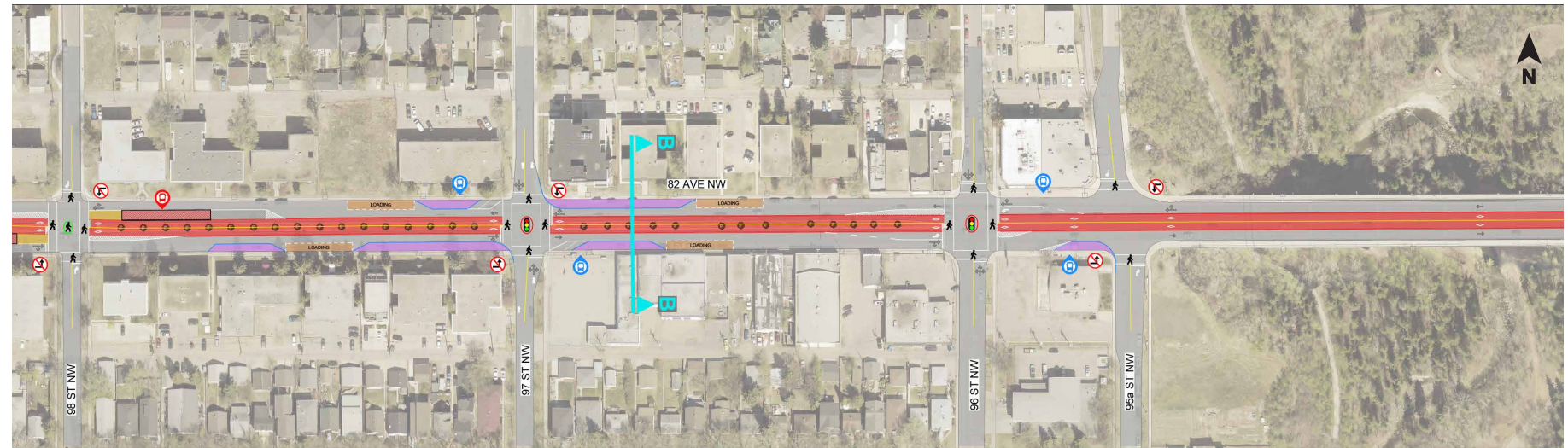
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| BRT STATION PLATFORM | BRT STATION | NEW TRAFFIC SIGNAL |
| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |

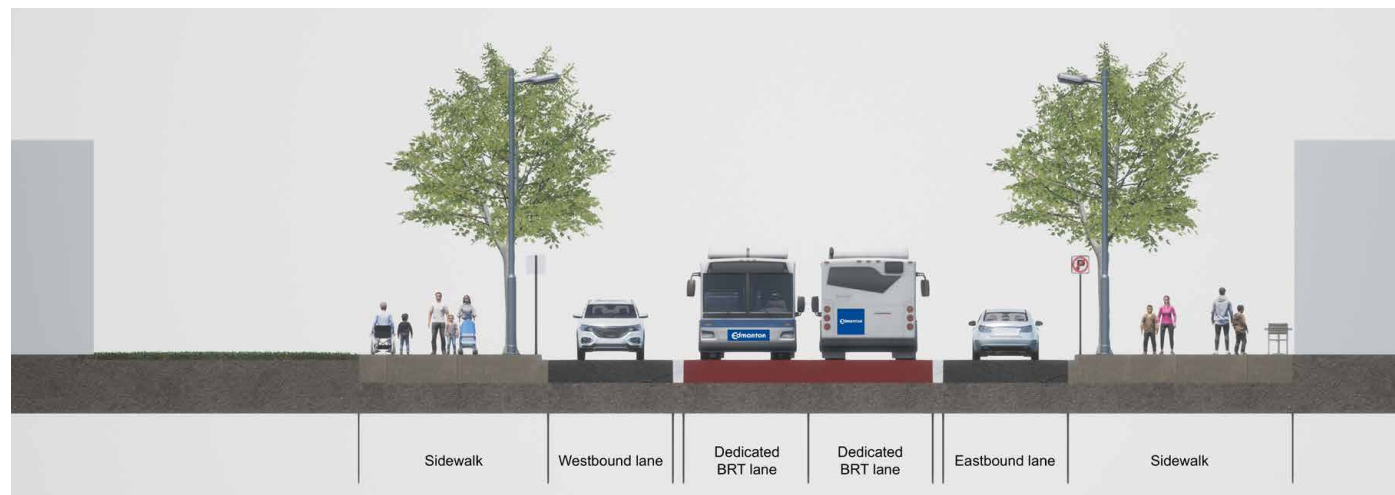
98 Street to 95A Street

Highlights

- + Left turns removed at 98 Street and 95A Street
- + New dedicated left turn added to 96 Street
- + Removes existing on-street parking



View B



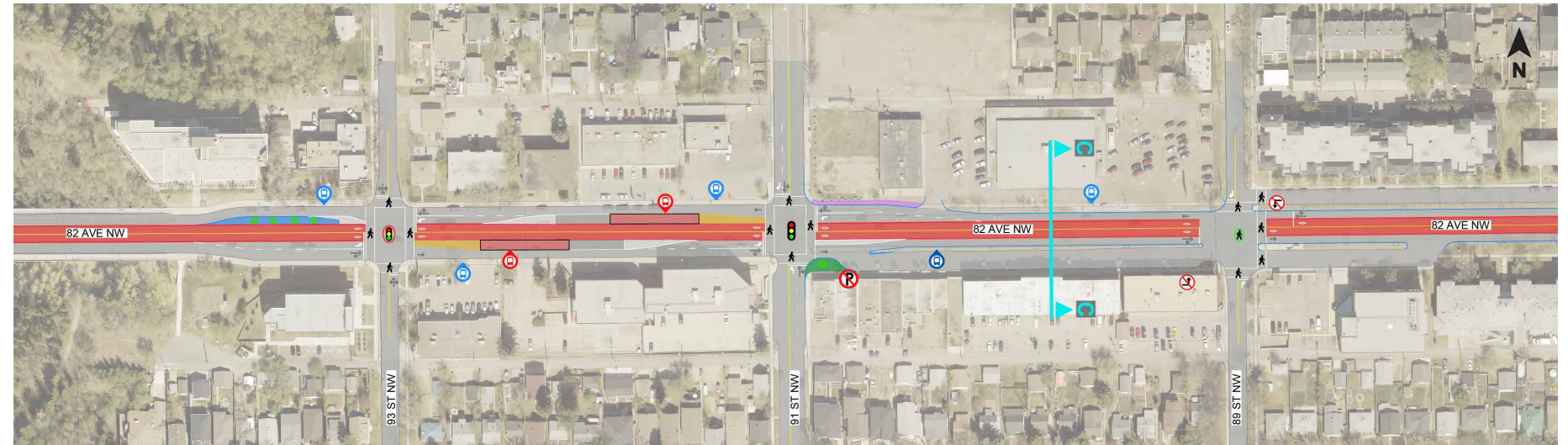
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| | BRT LANE | | EXISTING BUS STOP | | EXISTING TRAFFIC SIGNAL |
| | PEDESTRIAN RAMP | | RELOCATED BUS STOP | | NEW PEDESTRIAN SIGNAL |
| | STATION MAINTENANCE PARKING | | NO PARKING | | EXISTING PEDESTRIAN SIGNAL |
| | NEW CURB / MEDIAN | | NO LEFT TURN | | PEDESTRIAN AMBER SIGNAL |
| | NEW SIDEWALK | | POTENTIAL ACCESS CLOSURE | | DEDICATED BRT LANE |
| | NEW VEGETATION | | | | PAINTED ARROWS |
| | LOADING ZONE | | | | TRAFFIC MOVEMENT |
| | PATIO | | | | NEW TREE |
| | PATIO REMOVAL | | | | TREE REMOVAL |

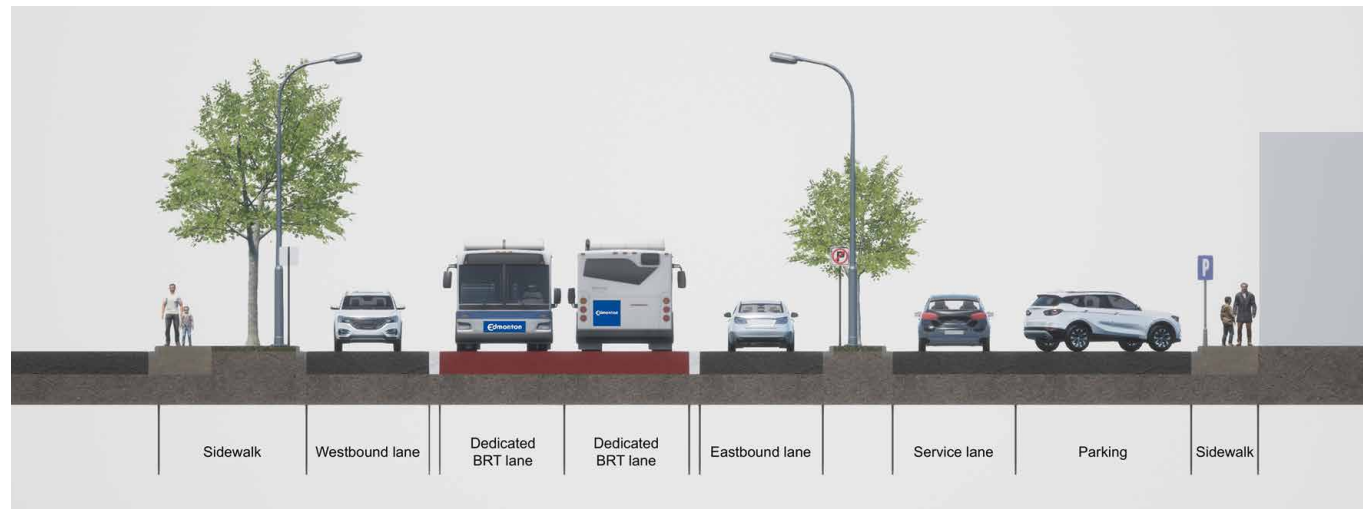
93 Street to 89 Street

Highlights

- + Left turns removed at 89 Street
- + Approximately three parking spaces removed on south side service road
- + Side-street access retained between 91 Street and 83 Street



View C



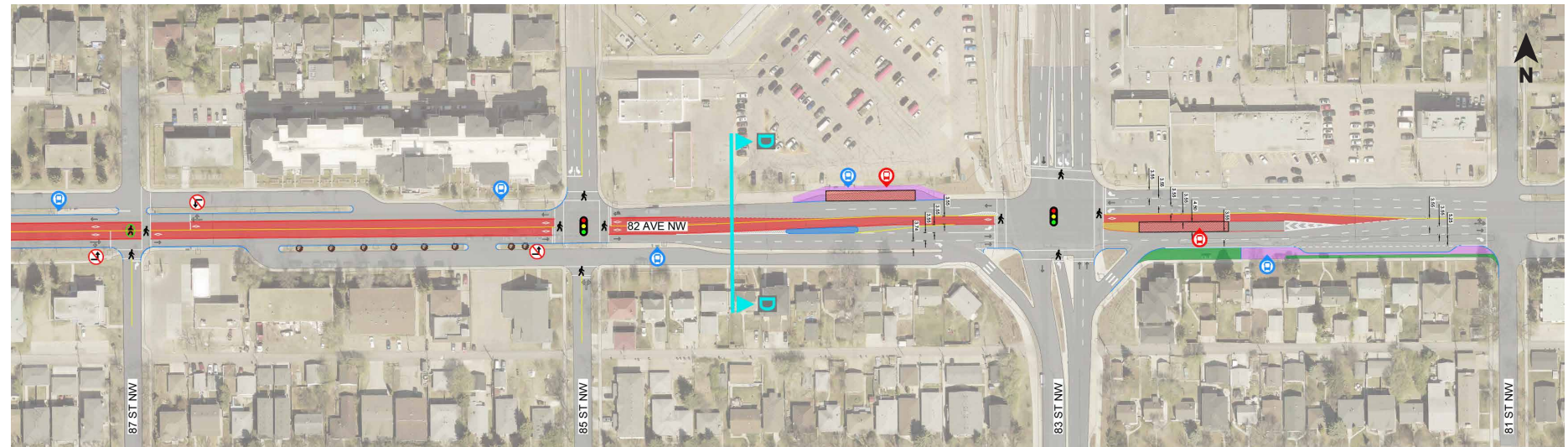
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| | BRT LANE | | EXISTING BUS STOP | | EXISTING TRAFFIC SIGNAL |
| | PEDESTRIAN RAMP | | RELOCATED BUS STOP | | NEW PEDESTRIAN SIGNAL |
| | STATION MAINTENANCE PARKING | | NO PARKING | | EXISTING PEDESTRIAN SIGNAL |
| | NEW CURB / MEDIAN | | NO LEFT TURN | | PEDESTRIAN AMBER SIGNAL |
| | NEW SIDEWALK | | POTENTIAL ACCESS CLOSURE | | PEDESTRIAN CROSS WALK |
| | NEW VEGETATION | | DEDICATED BRT LANE | | PAINTED ARROWS |
| | LOADING ZONE | | TRAFFIC MOVEMENT | | TRAFFIC MOVEMENT |
| | PATIO | | EXISTING BIKE LANE | | NEW TREE |
| | PATIO REMOVAL | | | | TREE REMOVAL |

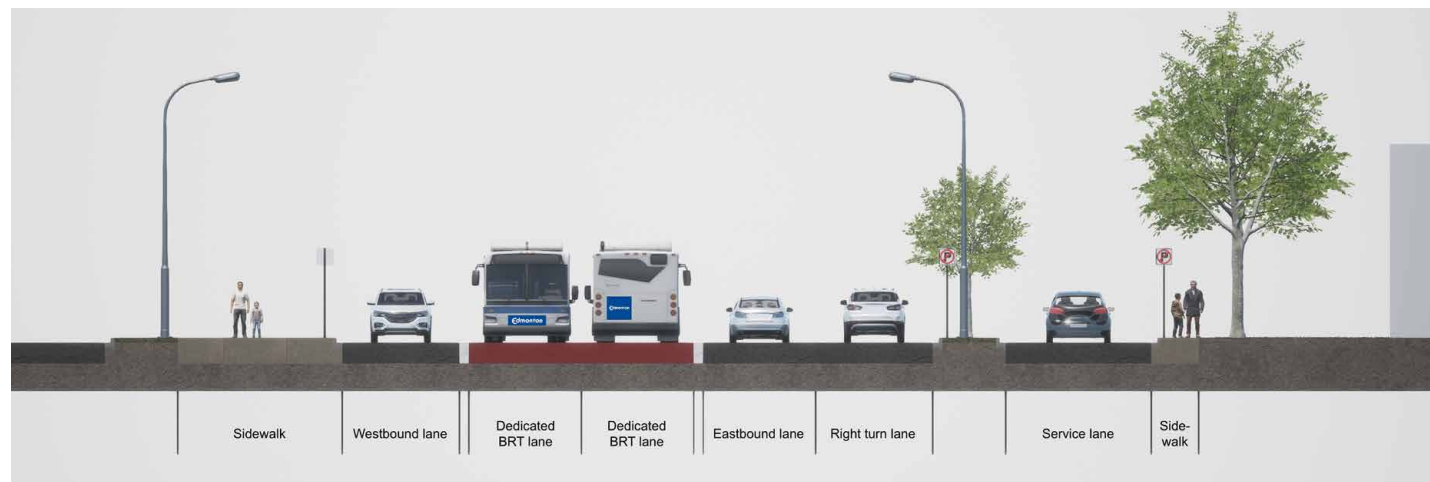
87 Street to 83 Street

Highlights

- + Left turns removed at 87 Street and 85 Street
- + Approximately three parking spaces removed on south side service road
- + Side-street access retained between 91 Street and 83 Street



View D



LEGEND

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|-----------------------------|--------------------------|----------------------------|
| BRT STATION PLATFORM | BRT STATION | NEW TRAFFIC SIGNAL |
| BRT LANE | EXISTING BUS STOP | EXISTING TRAFFIC SIGNAL |
| PEDESTRIAN RAMP | RELOCATED BUS STOP | NEW PEDESTRIAN SIGNAL |
| STATION MAINTENANCE PARKING | NO PARKING | EXISTING PEDESTRIAN SIGNAL |
| NEW CURB / MEDIAN | NO LEFT TURN | PEDESTRIAN AMBER SIGNAL |
| NEW SIDEWALK | POTENTIAL ACCESS CLOSURE | PEDESTRIAN CROSS WALK |
| NEW VEGETATION | DEDICATED BRT LANE | NEW TREE |
| LOADING ZONE | PAINTED ARROWS | TREE REMOVAL |
| PATIO | TRAFFIC MOVEMENT | |
| PATIO REMOVAL | EXISTING BIKE LANE | |