

# West LRT Lewis Estates to Downtown

## Concept Plan

March 2011

### We're moving forward. Learn more.

On January 19, 2011, City Council approved the West LRT Concept Plan, with a modification to use Meadowlark Road north of 87 Avenue. Consequently, the LRT will run on 87 Avenue, turn left on Meadowlark Road and continue north on 156 Street, as it was presented in 2009. Throughout 2010, approximately 1,200 Edmontonians provided their input and

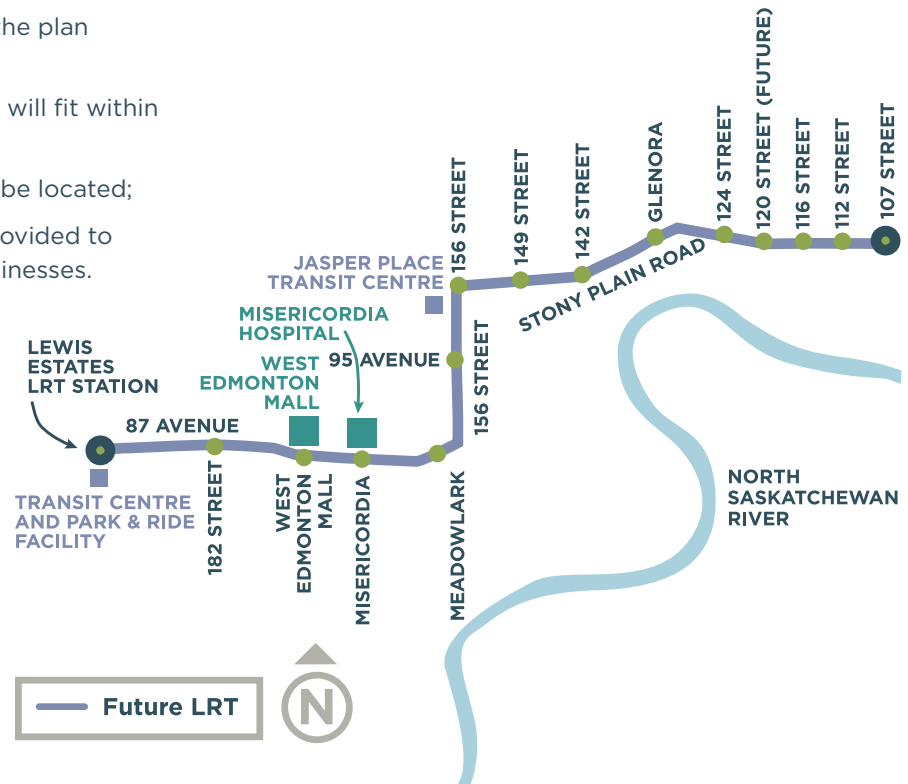
contributed to develop the plan that defines:

- where the LRT tracks will fit within the route;
- where LRT stops will be located;
- how access will be provided to communities and businesses.

### Highlights

- Travel time from Lewis Estates to downtown in 25 - 28 minutes;
- Over 50,000 future daily boardings;
- Service to West Edmonton Mall, Misericordia Hospital, Meadowlark Mall, Jasper Place Transit Centre, Jasper Gates, Oliver Square and Grant MacEwan City Centre Campus;
- A new LRT line that would connect with the future Southeast LRT line and provide opportunities for transfers to the existing LRT system in the downtown core.

No funding is currently in place to construct the West LRT line.



# LRT Network Plan

In June 2009, City Council adopted a long-term LRT Network Plan that defines the future size, scale, and operation of the regional LRT system. Eventually, the LRT network will have six lines extending to the Northwest, Northeast, East, Southeast, South, and West. The LRT Network Plan supports overarching policy direction by making downtown Edmonton the focal point of the LRT system. In reviewing the overall system operation, it was determined future expansions would need to operate on a separate LRT line due to limited tunnel capacity on the existing system.

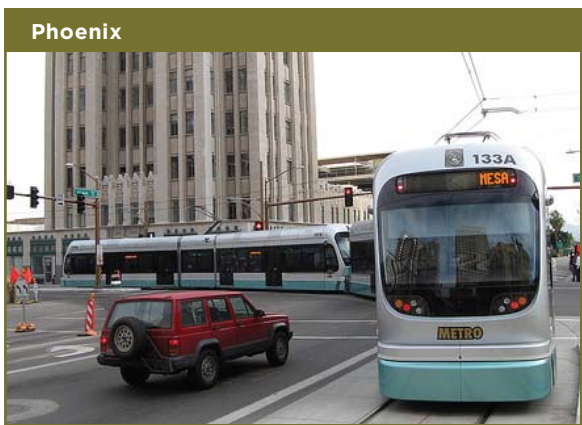
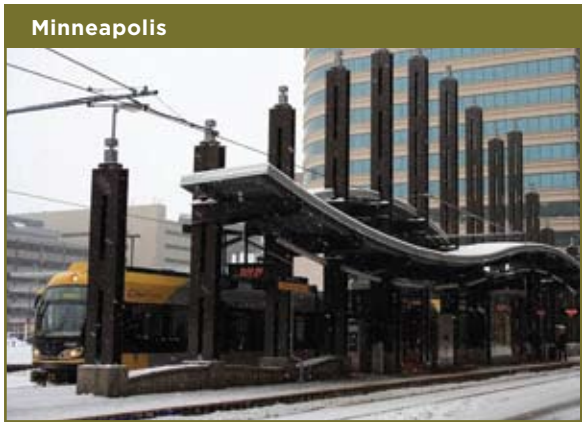
As part of the LRT Network Plan, a vehicle technology review was completed to help choose the style of LRT vehicles most appropriate to meet long-term transportation objectives. The review recommended new, low-floor LRT vehicles be used for new lines that do not connect to the existing line. The West LRT will be part of the new low-floor LRT system that will connect with the other future low-floor LRT lines such as the Downtown Connector and the Southeast LRT line.

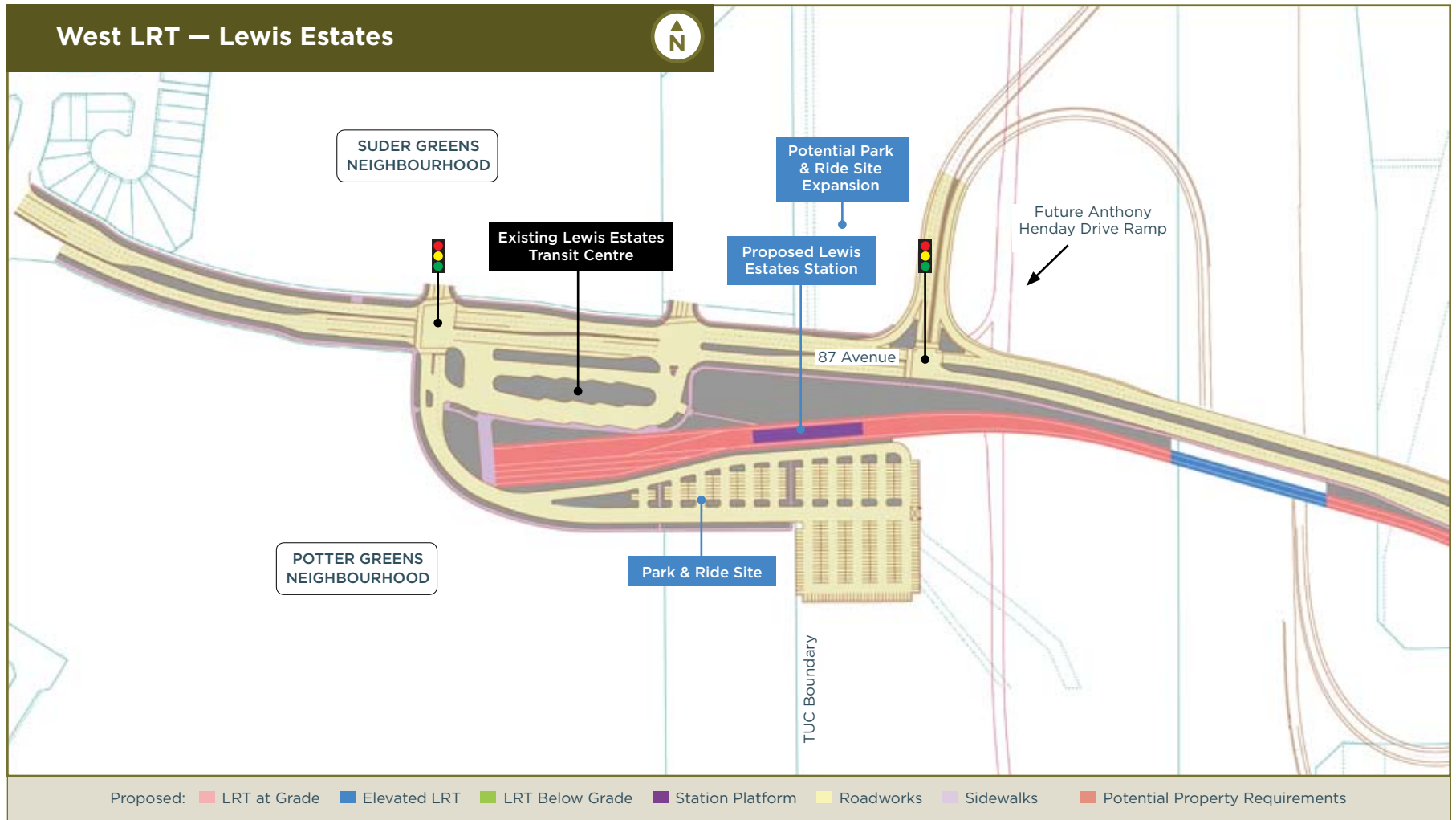


# Low-Floor LRT

Low-floor LRT vehicles were first introduced in the late 1980s and have since evolved to become the industry standard for new LRT systems in Europe and North America. Most of the mechanical equipment on a low-floor LRT vehicle is located on the roof which means doors can be provided at street-level for step-free boarding onto the vehicle.

A great advantage of a low-floor LRT system is that the stops can be small and require minimal infrastructure – a stop can be as simple as a raised curb and sidewalk. This makes it easier to integrate stops into their local surroundings with a more urban feel. Since ramps and steps are not needed, low-floor LRT stops also provide better pedestrian connections and fewer barriers to people with mobility difficulties.



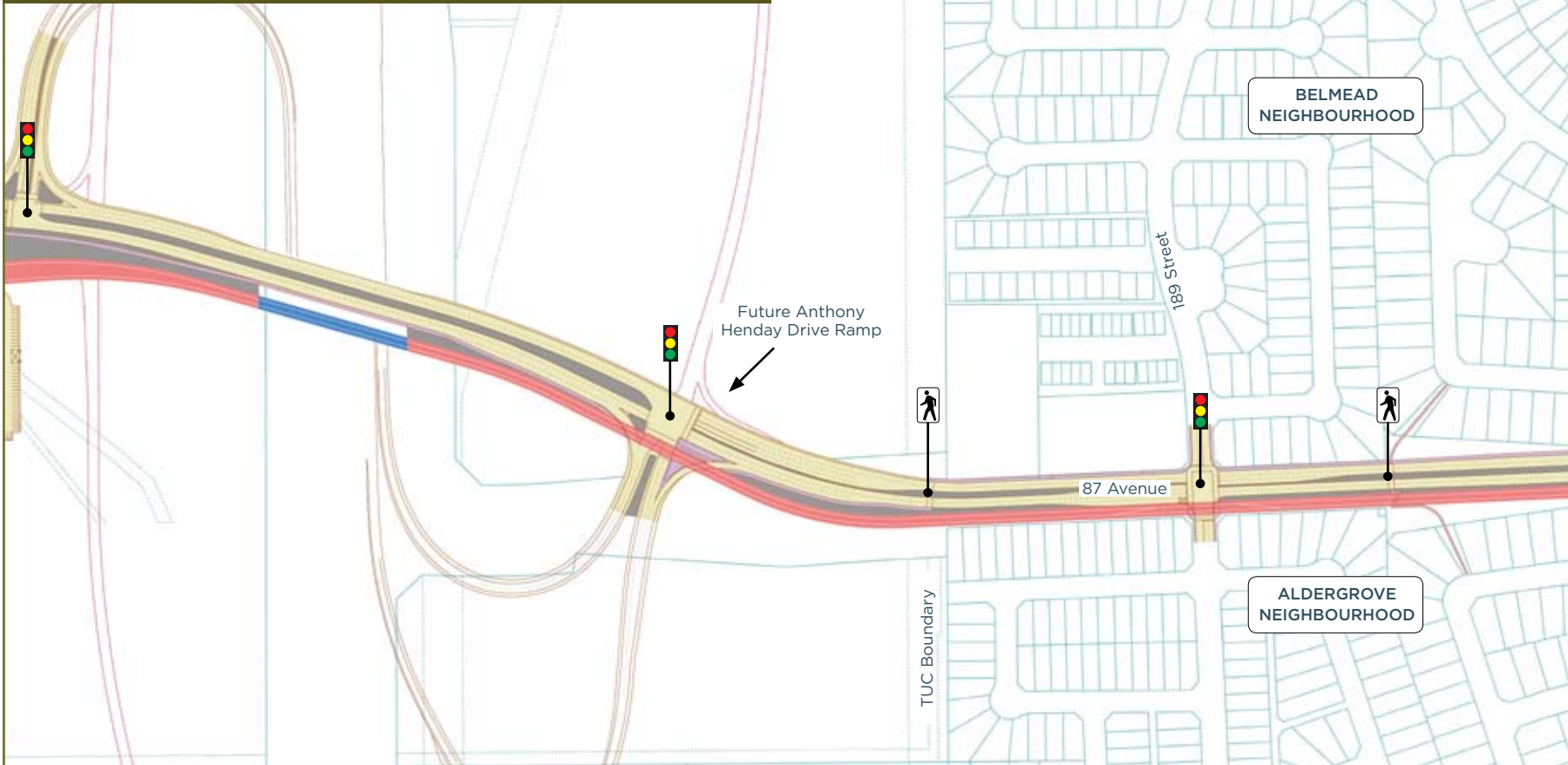


The West LRT will start at the Lewis Estates transit centre and park & ride, which is located southwest of 87 Avenue and Anthony Henday Drive. The LRT station will be integrated with the transit centre and park & ride facility. Located on the south side of 87 Avenue, the LRT will continue east across the Anthony Henday, crossing the ramps at grade, but staying above the ring road on a new bridge. The long-term expansion for the 87 Avenue interchange was considered in the planning process.

#### Key Features

- Service to developing West Edmonton neighbourhoods
- Integrated with Lewis Estates Transit Centre and Park & Ride
- Bridge over Anthony Henday Drive

## West LRT — Anthony Henday Drive



Proposed: █ LRT at Grade █ Elevated LRT █ LRT Below Grade █ Station Platform █ Roadworks █ Sidewalks █ Potential Property Requirements

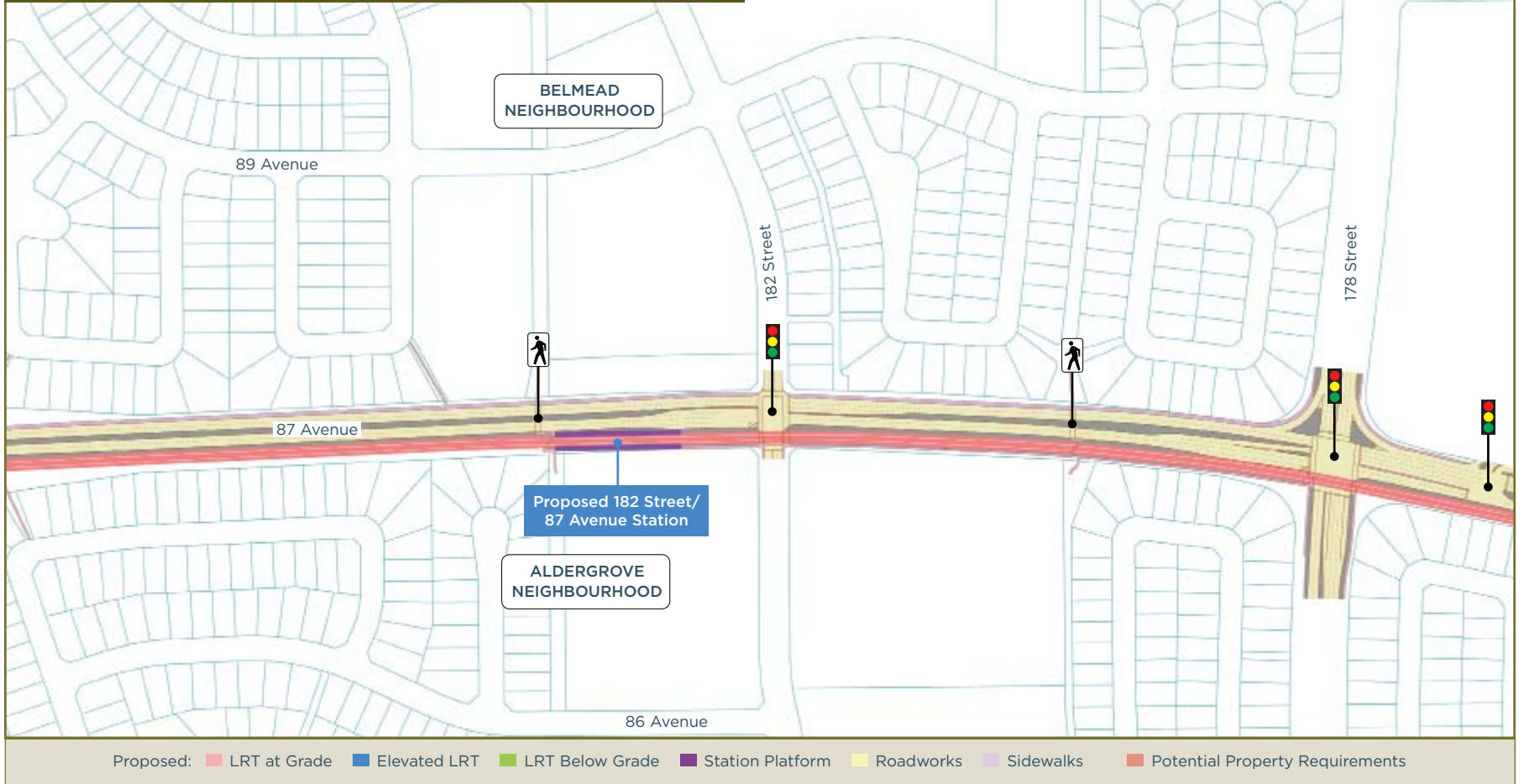
Anthony Henday Drive is the provincial ring road and a key goods movement corridor. Long-term plans for the 87 Avenue/Anthony Henday Drive interchange include a 'basket-weave' configuration that would ultimately connect with interchanges at Whitemud Drive and Stony Plain Road.

The LRT is planned for the south-side of the existing 87 Avenue roadway bridge that crosses over the Anthony Henday. The LRT will need to cross the Anthony Henday approach ramps at street level, which will require integration with existing and planned traffic signals that will be required as both the 87 Avenue/Anthony Henday interchange and LRT. This work has been considered and initiated as part of the LRT planning process.

### Key Features

- Bridge over Anthony Henday Drive
- Coordination with long-term plans for 87 Avenue interchange

## West LRT — Aldergrove / Belmead



The LRT will continue on the south side of 87 Avenue at street-level. An LRT station will be located just west of 182 Street to serve the nearby residential neighbourhood. Intersections at 189 Street and 178 Street will provide access into nearby neighbourhoods and major commuter routes and goods corridors.

### Key Features

- Service to residential neighbourhoods
- Minimized property impacts

# West LRT — West Edmonton Mall



Proposed: █ LRT at Grade █ Elevated LRT █ LRT Below Grade █ Station Platform █ Roadworks █ Sidewalks █ Potential Property Requirements

The LRT will cross 178 Street at street-level on the southside of 87 Avenue, and begin to climb up on a structure over 87 Avenue roadway lanes. An elevated West Edmonton Mall LRT Station will be located on the north side of 87 Avenue, in approximately the same location as the existing West Edmonton Mall transit centre. This station will allow the LRT to provide a

connection to the Mall and the transit centre. As the LRT leaves the LRT station and continues east, it will continue on the structure on the north side of 87 Avenue, over the 170 Street intersection. There will be no changes to intersections between 178 Street and 170 Street.

### Key Features

- Integration with major destination and transit centre
- Bridge over 170 Street
- Minimal access impacts



The LRT will cross over 170 Street on the north side of 87 Avenue, and continue on the elevated structure to the Misericordia Hospital station. The main vehicle access to the hospital will be relocated to the 169 Street intersection, and a new all directional traffic signal will be added. The existing hospital vehicle access may be maintained; however only right-in, right-out turns will be provided.

The LRT descends back to ground level just west of 164 Street, and will continue east in the centre of 87 Avenue. A traffic signal at the 163 Street intersection will provide access to the neighbourhoods north of 87 Avenue. Service roads along 87 Avenue are removed to maintain two lanes of traffic in each direction without property acquisition. On-street parking is provided in specific locations where it can be accommodated. The posted speed limit will be reduced to 50 kilometers per hour as part of this change.

#### Key Features

- Service to major healthcare facility
- Bridge over 170 Street



## West LRT — Meadowlark



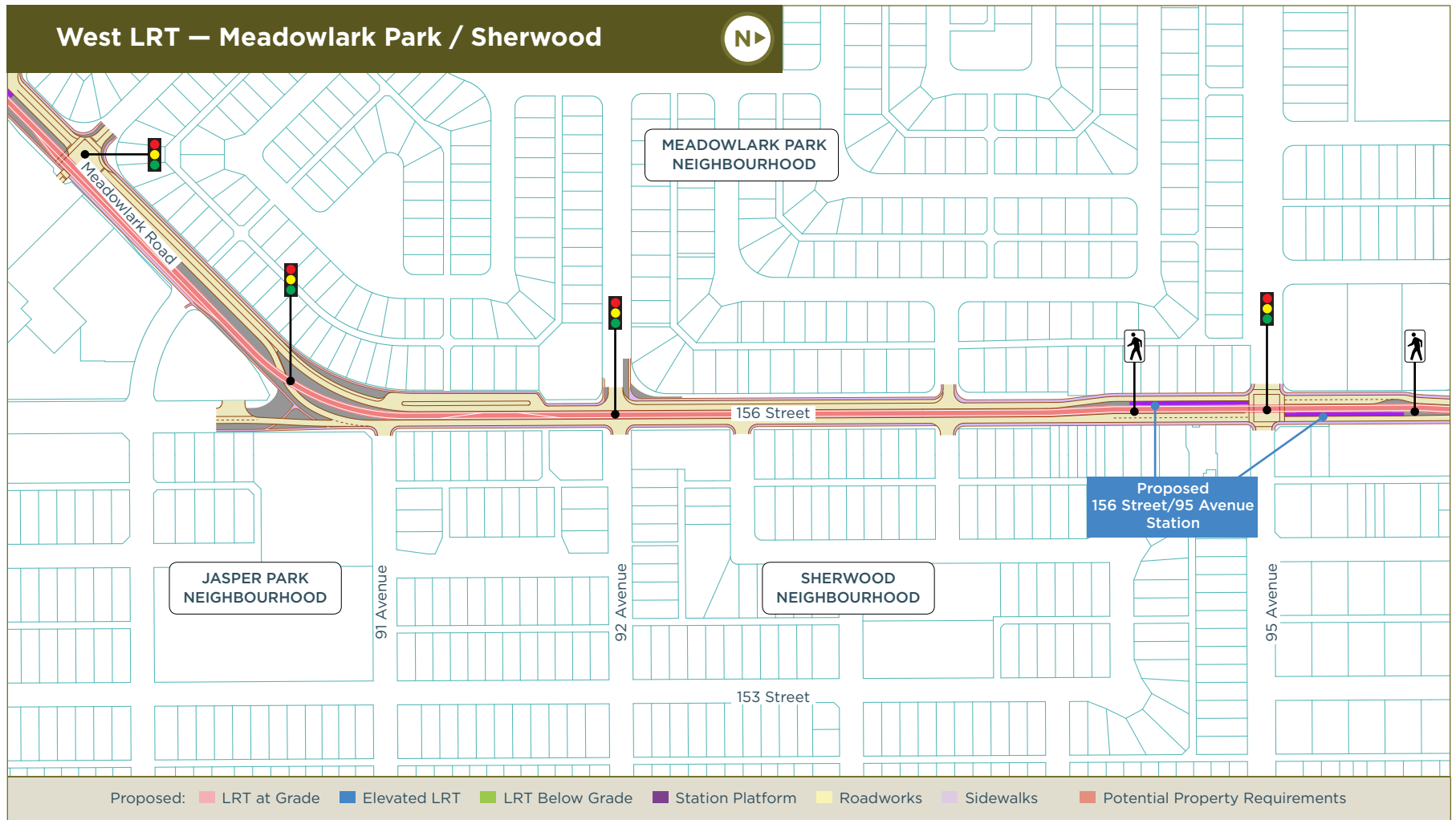
The LRT continues in the centre of the roadway along 87 Avenue to Meadowlark Road. Service roads along 87 Avenue are removed to maintain two lanes of traffic in each direction without property acquisition. On-street parking is provided in specific locations where it can be accommodated. The posted speed limit will be reduced to 50 kilometers per hour as part of this change.

The LRT will turn north on Meadowlark Road and run on the east side of the road with a new station located on the west side of Meadowlark Mall. The service road along Meadowlark Road will be removed to accommodate LRT and on-street parking.

The LRT will continue north at street level in the centre of 156 Street to Stony Plain Road.

### Key Features

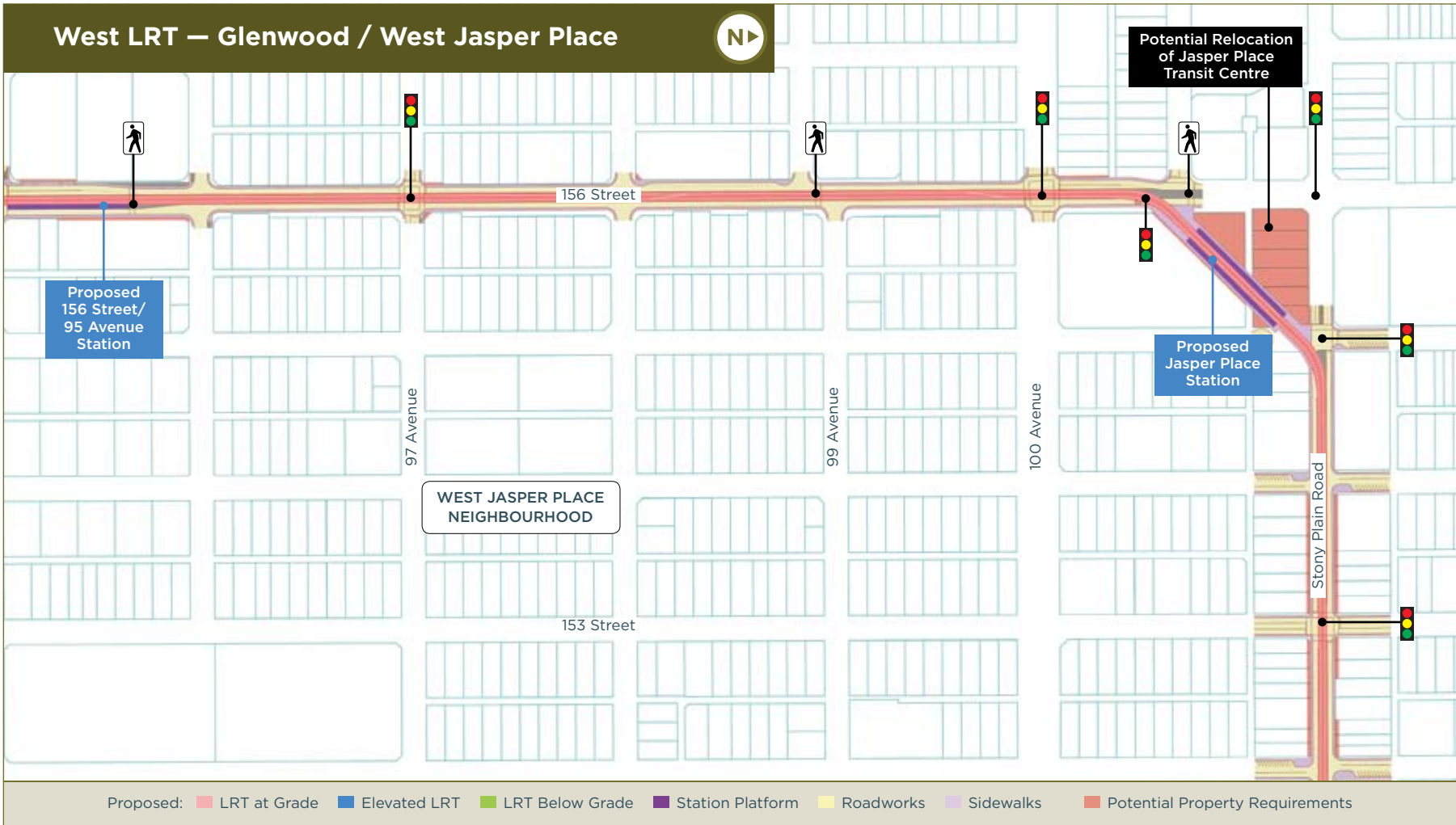
- Connection to Meadowlark Mall
- Property impacts minimized by removing service roads



The LRT will continue north on 156 Street in the centre of the roadway. On-street parking will be provided in specific locations where it can be accommodated. A station at 95 Avenue will serve a node of commercial businesses and the surrounding residential neighbourhood. The station is proposed to have staggered platforms on the north and south sides of 95 Avenue to allow left-hand traffic turn-lanes from 156 Street to 95 Avenue. Signalized intersections will also be provided at 92 Avenue and 97 Avenue.

#### Key Features

- Service to residential neighbourhoods
- Property impacts minimized by reducing roadway lanes



The LRT will continue north in the centre of 156 Street towards Stony Plain Road with a single roadway travel lane on each side of the LRT. Approaching Stony Plain Road, the LRT crosses diagonally from the centre of 156 Street to the centre of Stony Plain Road with station at south-east corner of intersection. This station serves the Stony Plain Road business area as well as the nearby residential neighbourhoods.

**Key Features**

- Service to business district and residential areas
- Station site provides opportunity for future development
- Integration with Jasper Place Transit Centre



The LRT will continue east in the centre of Stony Plain Road with one lane of traffic in each direction. Signalized intersections will be provided at 155 Street, 153 Street, and 151 Street to allow vehicles to cross the tracks. These intersections will not be able to accommodate left-hand turns.

The 149 Street/Stony Plain Road LRT station will be located east of the 151 street intersection, to serve the business district and the surrounding

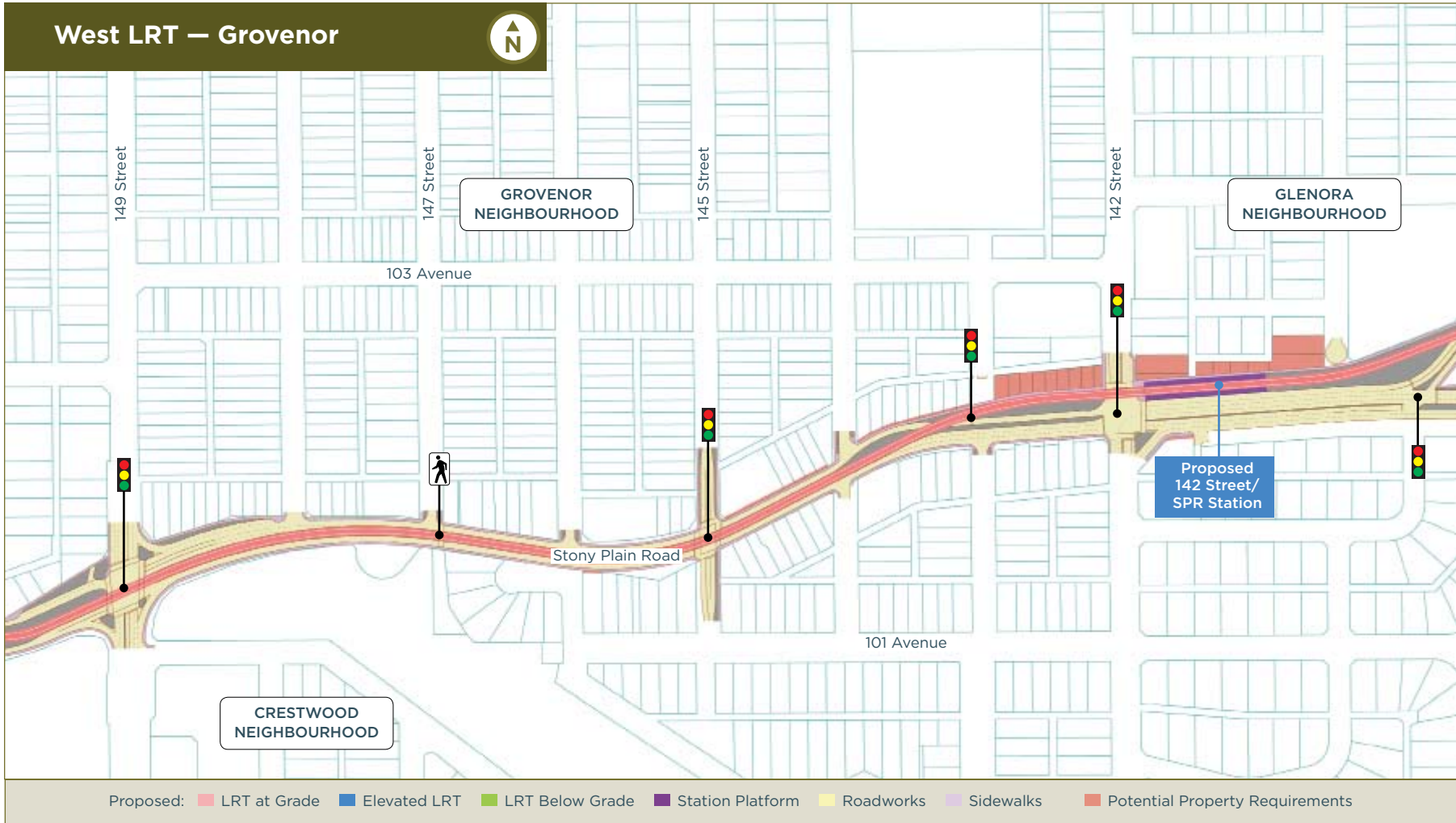
mature neighbourhood. The LRT will continue east and cross the 149 Street intersection at street-level.

In collaboration with the Jasper Place Revitalization Project, additional property in the Stony Plain Road Business District may be acquired to enhance the public realm such as sidewalks, landscaping, or provide on-street parking.

#### Key Features

- Service to business district and residential areas
- Integration with future redevelopment plans

## West LRT — Grovenor

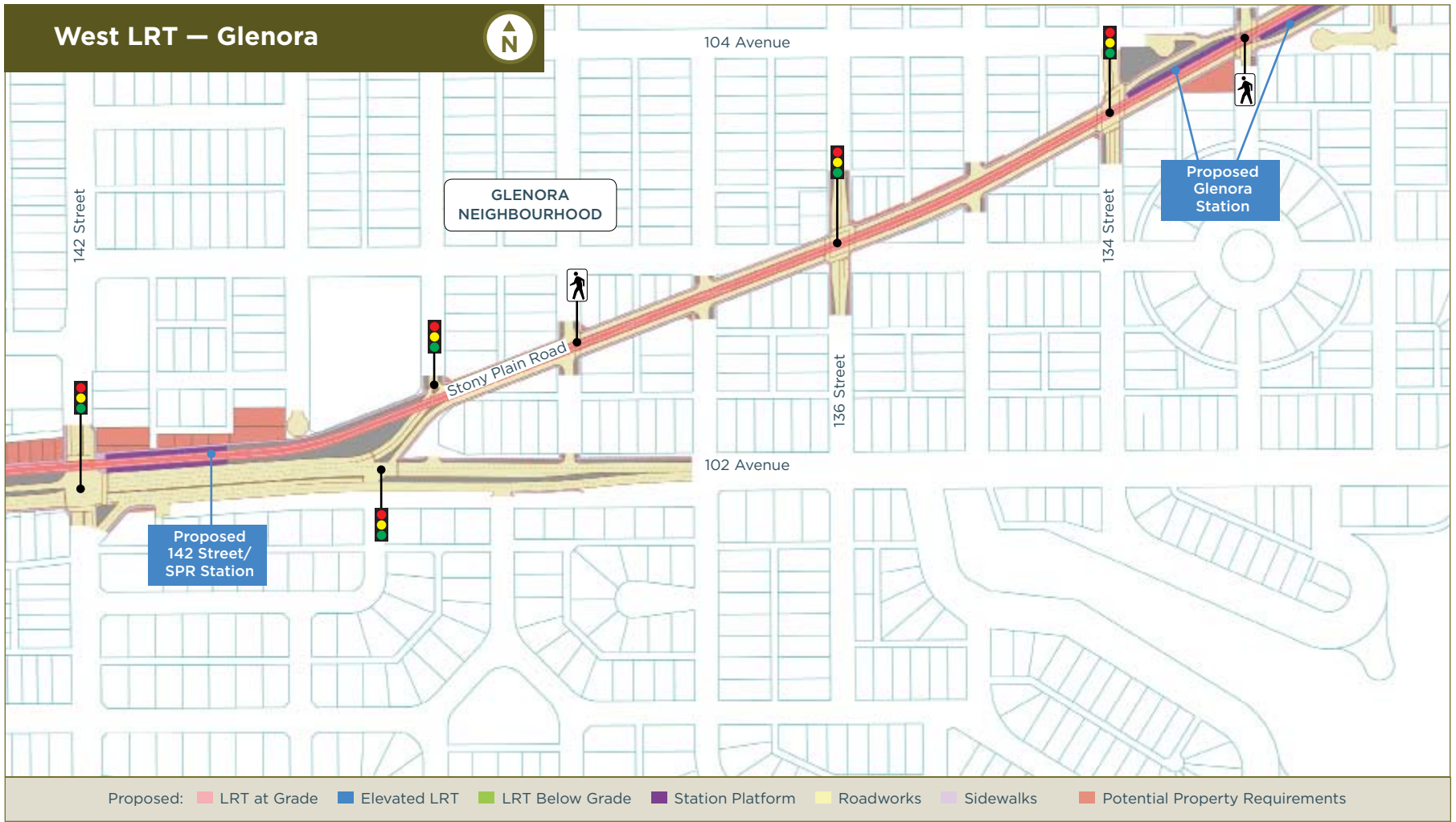


The LRT will continue east on Stony Plain Road, shifting to a north-running alignment east of 144 Street. This transition will allow an intersection configuration at the 142 Street/ Stony Plain Road to facilitate LRT along with the predominant traffic movements at this

intersection (westbound to southbound, and northbound to eastbound). The LRT will cross on the north side of this intersection travelling to the 142 Street Station, which will serve the existing mature neighbourhoods and the redevelopment project planned for the area.

### Key Features

- Service to business district and residential areas
- Integration with future redevelopment plans

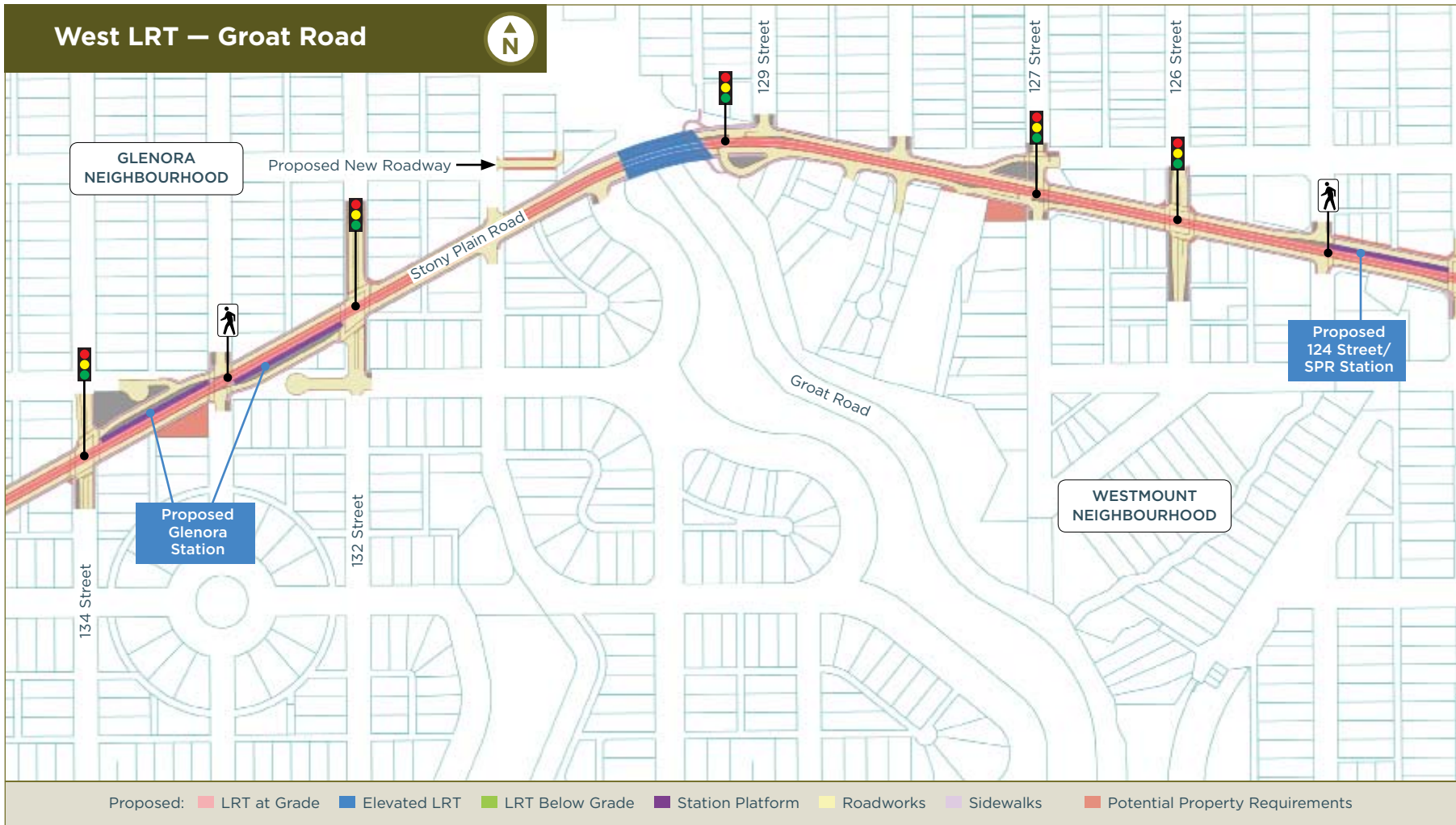


As the LRT travels east from the 142 Street Station, it will transition to the centre of Stony Plain Road at approximately 139 Street, moving towards the Glenora Station, which is located at the 133 Street intersection. The LRT will continue east to cross Groat Road and Groat Ravine on a new bridge that will combine one lane of traffic on each side of the LRT.

Traffic signals are provided at 136 Street, 134 Street, and 132 Street to maintain community connectivity and accessibility for vehicles, pedestrians, and cyclists. The new bridge to cross Groat Road will also accommodate pedestrians.

**Key Features**

- Service to business district and residential areas
- Integration with future redevelopment plans



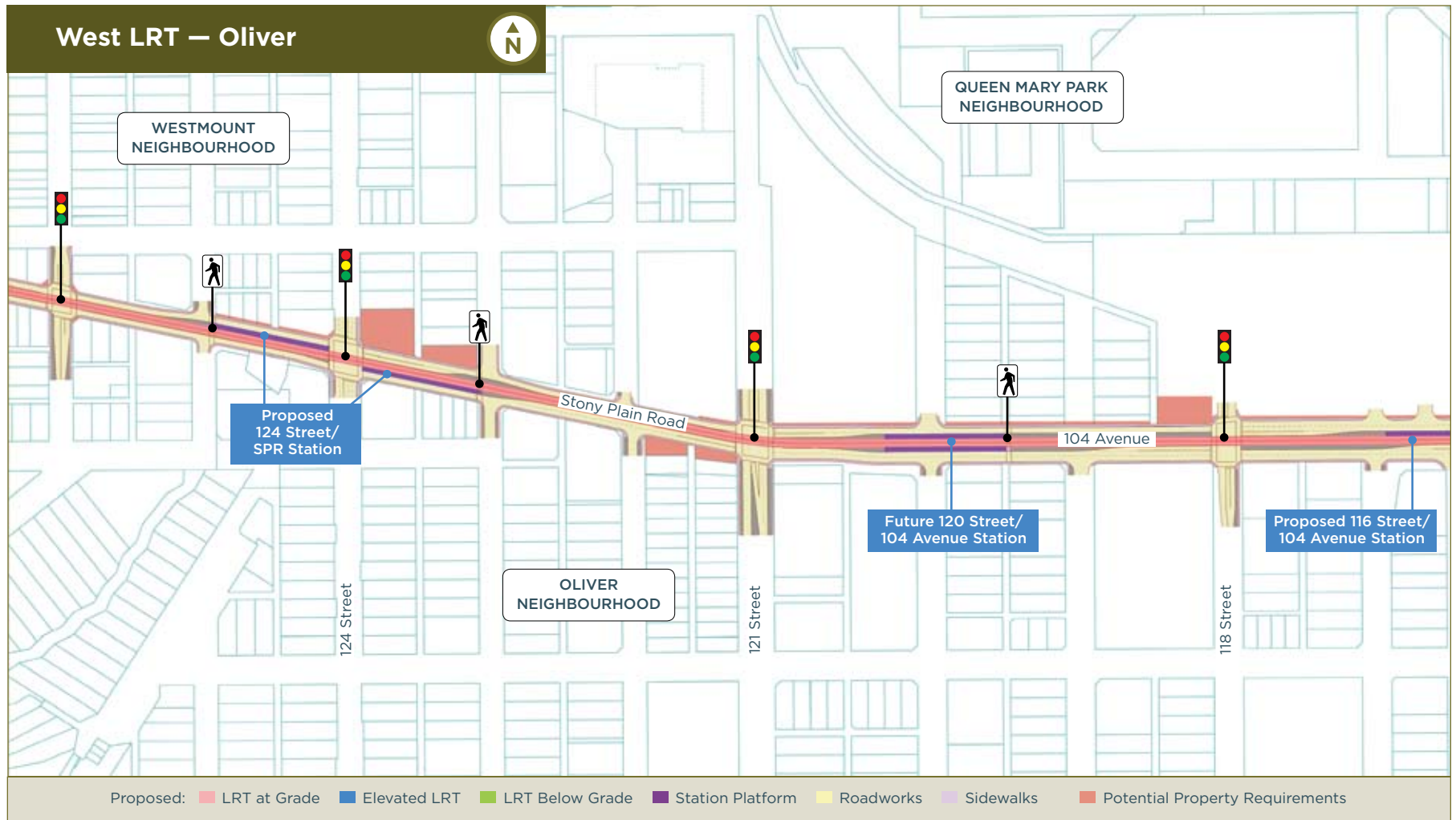
The LRT will cross Groat Road and Groat Ravine on a new bridge that is combined with one lane of traffic on each side of the LRT. A special area of note is located east of the Groat Bridge, where a section of properties located on the south side of Stony Plain Road currently has no alternative roadway access. To accommodate LRT and access for these properties, traffic

signals and road improvements are provided at 129 Street, 127 Street, and 126 Street to allow U-turns on Stony Plain Road that can provide access to these properties.

To maintain pedestrian connections, a new pedestrian crossing will be incorporated under the new LRT/road bridge crossing over Groat Road.

### Key Features

- New bridge over Groat Road



The LRT will continue east in the centre of Stony Plain Road towards the 124 Street Station. Left-turns will be available at this intersection for most directions of travel. However, eastbound left-turns onto 124 Street will not be possible in this design. Motorists travelling in this direction would need to use the surrounding street network at 123 Street and 121 Street.

#### Key Features

- Service to business district and residential areas
- Integration with future redevelopment plans



## West LRT — Downtown



The LRT will continue in a centre-running alignment along 104 Avenue, where the roadway widens and two lanes of vehicle traffic can be provided in each direction. Access to the commercial and high-density developments along this stretch of the corridor are provided at signalized intersections at 121 Street, 118 Street,

116 Street, 114 Street, and 112 Street. A station is located just east of 121 Street, and two more are staggered about the 116 Street and 112 Street intersections. The LRT remains on 104 Avenue through to 109 Street, which is the limit of this study.

### Key Features

- Service to business district and residential areas
- Integration with future redevelopment plans

West Edmonton Mall elevated station



Stony Plain Road





Strategy

Where we are today  
**CONCEPT**  
PHASE

Design

Build

Operate

## To find more about the West LRT project

**Visit** [www.edmonton.ca/LRTprojects](http://www.edmonton.ca/LRTprojects)

**Call** the LRT projects info line at 780-496-4874

**E-mail** [LRTprojects@edmonton.ca](mailto:LRTprojects@edmonton.ca)

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