

The West LRT Line: How We Build It

Introduction

In February 2010, equipment was mobilized and construction crews began working in multiple areas simultaneously along the West LRT construction corridor. A number of activities were underway:

- Mobilizing equipment and site trailers.
- Clearing areas and preparing construction sites such as the future underground tunnel, below ground trench and above ground guideway.
- Excavating and relocating utilities.
- Detouring traffic to begin road infrastructure work roadwork activity



Construction completion is scheduled for the end of November 2012, with LRT opening to the public in December 2012.

The West LRT construction corridor is segmented into 4 Zones:

1. 11th Street S.W. to Crowchild Trail Overpass area
2. Crowchild Trail Overpass area to the 37th Street S.W. area
3. West of 37th Street S.W. to Sirocco Drive area
4. West of Sirocco Drive to the 73rd Street S.W. area



With construction comes a number of impacts to the surrounding areas and with commuters. These impacts include noise, vibrations, dust and traffic pattern changes. Crews will endeavour to minimize the effects of construction, and appreciate your patience and understanding.

For more information, please visit westlrt.ca

Traffic Management Corridor Wide

Traffic pattern changes along the construction corridor are governed by a Traffic Management Plan and approval processes established by The City. Lane closures and detours are planned to minimize delays to traffic where possible. Sidewalks and pathways, bus stops and transit service will also be temporarily disrupted at times. Temporary detours and bridges at designated locations will be used for vehicles and/or pedestrians to safely cross work areas.

Some activities may be scheduled to occur outside of typical daytime construction hours to further minimize inconvenience to the travelling public, particularly for the implementation of significant traffic pattern changes and for work on major intersections. Night work will be reviewed and approved by The City on a case-by-case basis, including the type of activity to occur at designated locations. Some noise can be experienced after daytime construction hours, such as reverse indicators for heavy equipment.



Roadwork and Utilities

Roadwork includes constructing temporary and/or permanent lanes and roads, implementing interim and/or permanent traffic signals, constructing new walkways and various bridge infrastructure, temporarily shifting traffic generally on the north and south sides of the corridor. Work at intersections will also be required, which may result in temporary detours and some restrictions at times while crews are in the working area.



Crews will mobilize heavy equipment to relocate utilities in conflict with West LRT infrastructure, such as underground water and sewer mains, and overhead wires. Once utility relocation and roadwork activities are completed, guideway, tunnel/trench and fixed facility construction will begin.

Roadwork and subsequent traffic pattern changes along the construction corridor will occur in carefully planned, controlled stages, particularly for main thoroughfares crossing 17th Ave SW, Bow Trail SW, and the Crowchild Trail SW interchange. It is recommended the travelling public adjust their travel times accordingly during peak and non-peak hours, as delays to traffic are likely to occur in the construction zone.

Elevated Guideway, At-grade Guideway, Tunnel/Trench and Portal Construction

The elevated guideway consists of building the substructure (foundations and columns) and the superstructure (long span overhead guideway), followed by trackwork and systems installation. A launching truss and crew will lift pre-cast concrete segments to form overhead guideway beams connecting column to column. The truss and its crew will self-advance along the guideway from east to west – quite a sight to see from ground-level.



At-grade guideway consists of concrete foundations, retaining walls and other wall structures, perimeter fencing, overhead wire installation, trackwork and systems installation.

The Tunnel Portal is where the West LRT system and trains transition between above-ground and underground. Portal construction includes excavation, foundation and abutment work, rebar and cast-in-place concrete tunnel form structures, trackwork and systems installation. Tunnel and trench construction includes excavation, concrete foundation slab work (for tunnel, trench and applicable stations), shoring, rebar installation, shotcrete (sprayed concrete) to form the tunnel walls and/or top, trackwork and systems installation.



A temporary crossing over the open trench and/or tunnel is provided at certain locations for the travelling public to safely cross the excavated area during construction. Crews will work simultaneously at several different tunnel and trench sites, as opposed to working strictly in one direction.

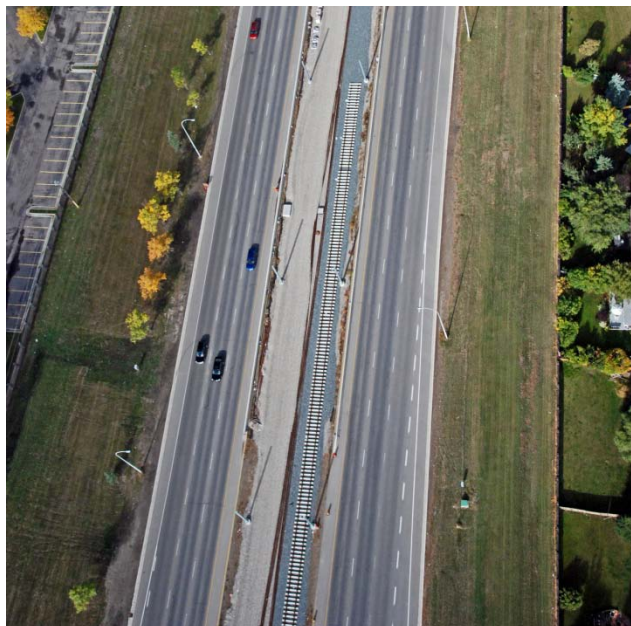
Stations and Fixed Facilities

Station and facility construction includes mobilizing station structure material to the site, station structure work (foundations, walls, platforms, roof), stair and escalator and/or elevator installation, trackwork and systems installation, mechanical and electrical works, and finishing work.



Trackwork and Systems Installation

Rail track will arrive at designated locations along the corridor, which will subsequently be welded together and be fed along the guideways, trench and tunnel. Welding plants will be located at designated locations along the alignment, and welding sparks may be noticeable in the immediate work areas during this operation.



For more information, please visit westlrt.ca