

NOTE: EGLINTON AVENUE LANE CONFIGURATIONS ARE ILLUSTRATIVE ONLY AND SUBJECT TO FURTHER STUDY BY THE CITY OF TORONTO.

EGLINTON-SCARBOROUGH
CROSSTOWN

MRC McCORMICK RANKIN
A member of **MMM GROUP**

LEGEND:

- LRT PLATFORM
- LRT ABOVE GROUND
- LRT UNDERGROUND
- LRT ALIGNMENT
- TRCA REGULATED AREA

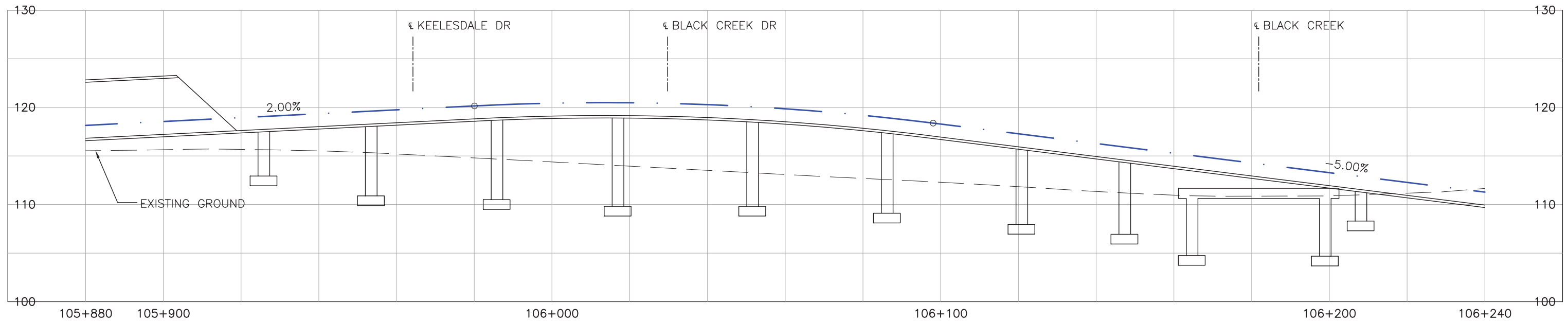
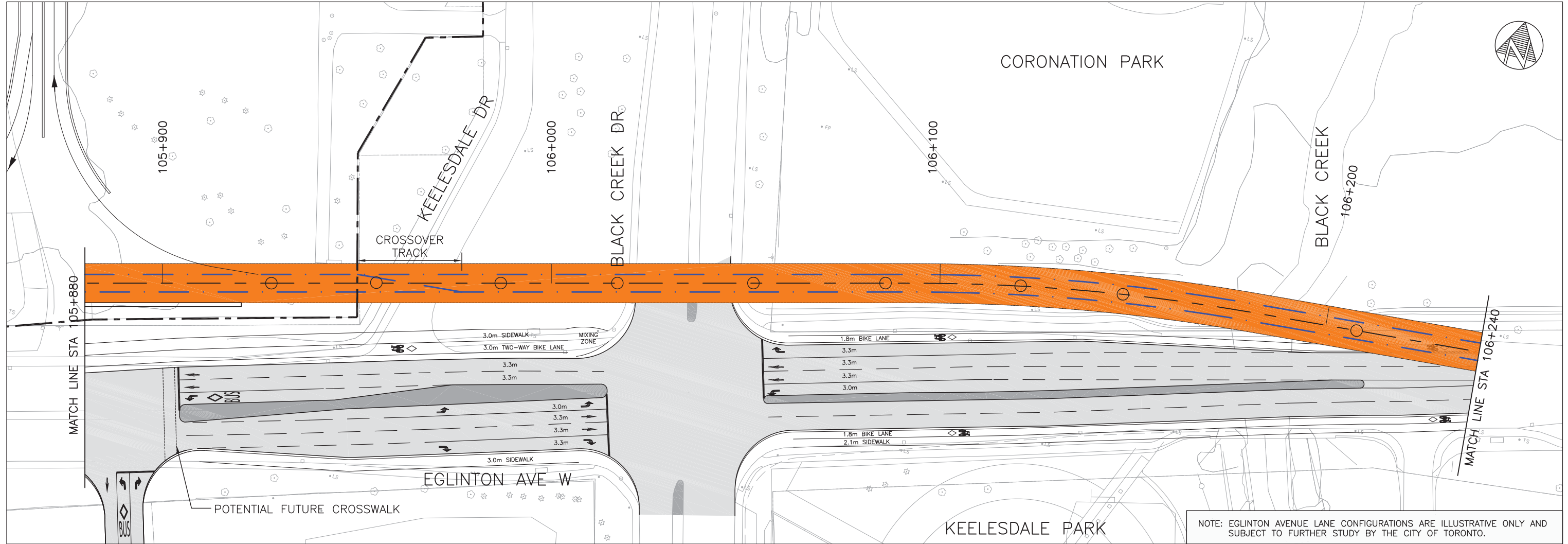
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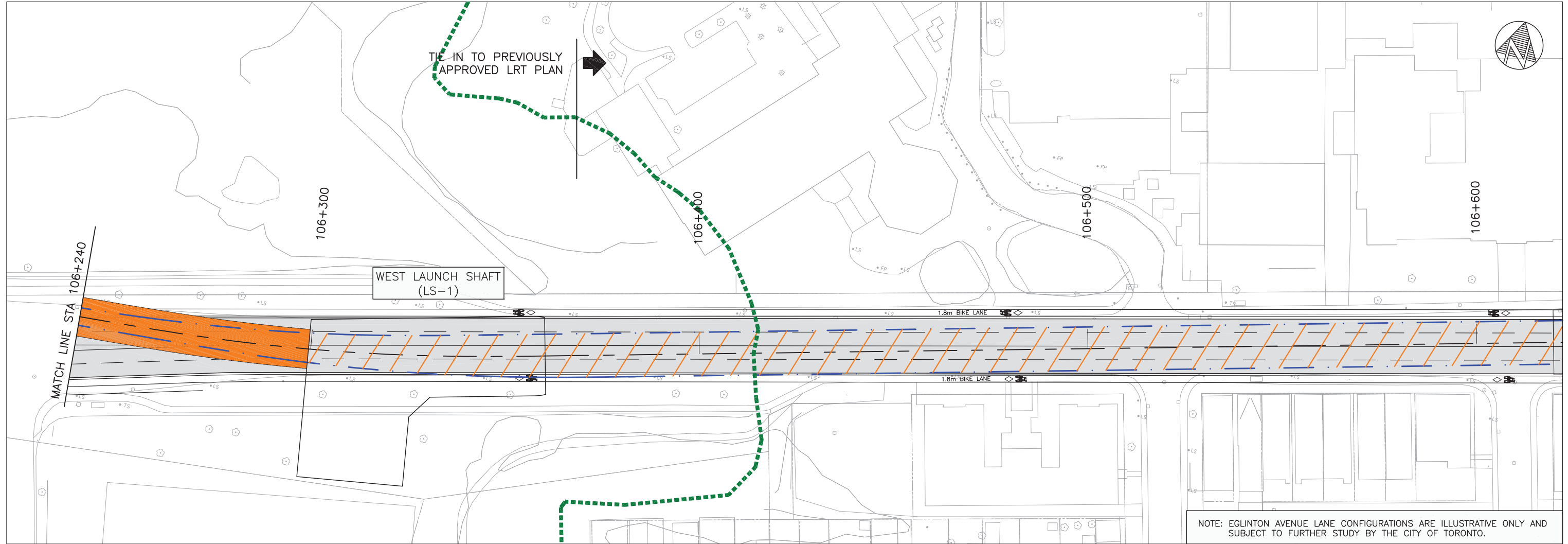
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EGLINTON CROSSTOWN LRT
ENVIRONMENTAL PROJECT REPORT ADDENDUM

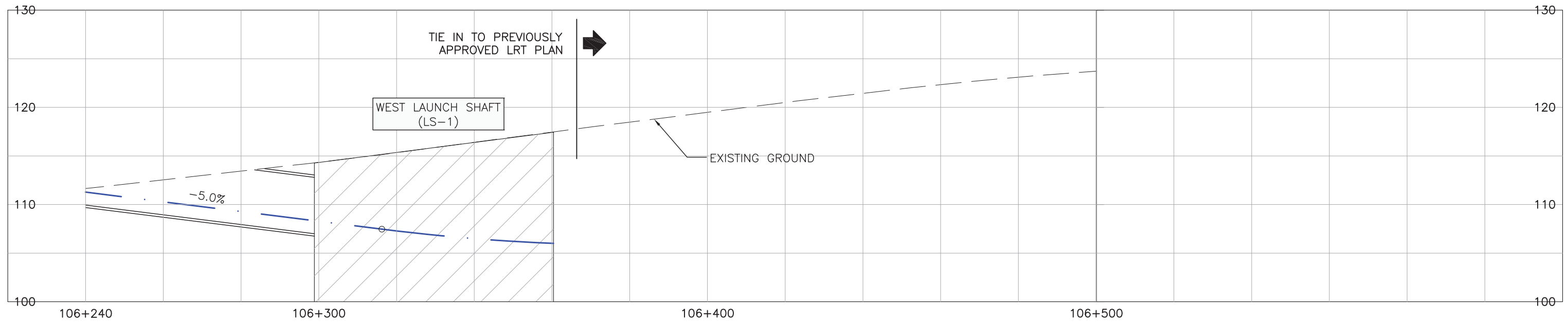
LRT WEST SECTION PROPOSED ALIGNMENT
PROPOSED MAINTENANCE AND STORAGE FACILITY

FIGURE
3-7e



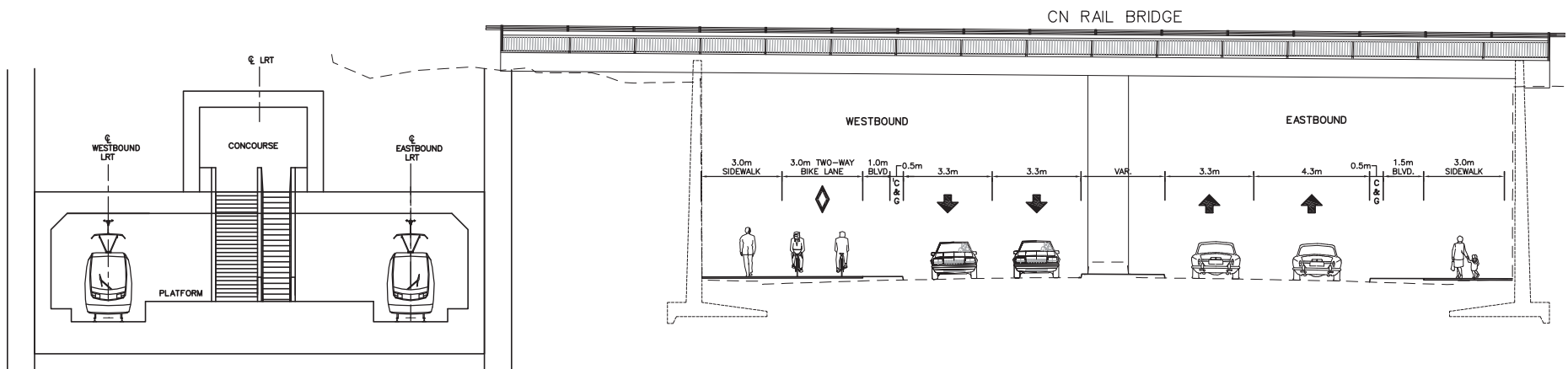


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3.4.5 Road Modifications and Traffic Management

General

Under the 2010 ECLRT EPR, the Project Team established a future Eglinton Avenue cross-section for the areas where the LRT was to be at the surface. The typical cross-section (illustrated in **Figure 3-2**) was based on a median LRT alignment, with two general purpose traffic lanes adjacent, and on-street bike lanes. With the removal of the surface LRT infrastructure from the segment between the West Launch Shaft and west of Weston Road, the question remains as to the final configuration of Eglinton Avenue that reflects the introduction of the proposed Maintenance and Storage Facility (MSF) and Mount Dennis LRT Station. This EPR Addendum maintains the previously-approved four through-lanes for general traffic, while recognizing that the final roadway configuration will be determined by the City of Toronto, with input from the EglintonConnects study and Metrolinx's Mount Dennis Mobility Hub Study, described in **Section 1.4**. Pending the outcome of the City study, the plans for Eglinton Avenue as shown in **Figure 3.6** are to be considered as preliminary and illustrative only.

Eglinton Avenue West

As the LRT emerges from underground at the West Launch Shaft, it crosses through the existing Eglinton Avenue roadway. Through this section east of Black Creek Drive, Eglinton Avenue will be re-constructed on a new alignment shifted slightly southerly within the existing right-of-way. Approximately 270m west of Keele Street, Eglinton Avenue will begin to curve south to allow the LRT structure to emerge from underground. West of the launch shaft, Eglinton Avenue parallels the LRT alignment as it moves north out of the roadway. Eglinton Avenue merges into the existing alignment 120 metres east of the intersection with Black Creek Drive.

Eglinton Avenue proceeds west of Black Creek Drive along its existing alignment to Weston Road. Approximately 500m west of Weston Road the roadway splits to allow the underground LRT to emerge through the centre of Eglinton Avenue. Eglinton Avenue continues westerly with an at-grade median LRT as previously approved in the 2010 EPR.

Bus Access to Mount Dennis Bus Terminal

As discussed in **Section 3.4.3**, access to the bus terminal from Eglinton Avenue will be provided via a new bus-only signalized intersection at the current No Frills parking lot access west of Black Creek Drive, as illustrated in **Figure 3-9**. Similar to the Finch Avenue access to the TTC's Finch Station Bus Terminal on the Yonge Subway line, the signal will provide actuated, dedicated phases for westbound left-turning buses entering the site, and northbound left-turning buses exiting the site. General traffic will still be able to access the site and the PPUDO through right-in/right-out operation.

DRAFT, April 10th, 2013

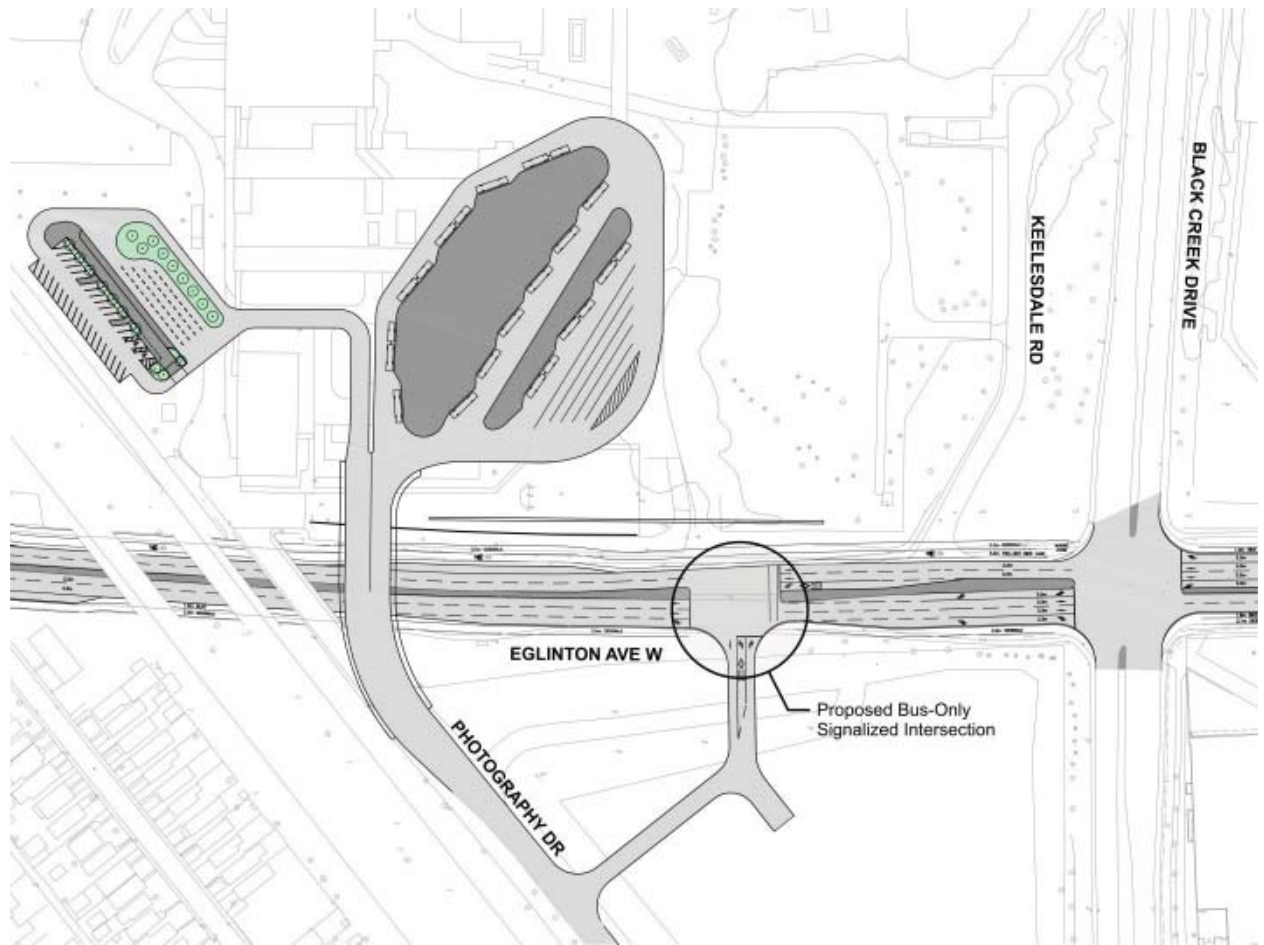


Figure 3-9: Proposed Signalized Intersection at No-Frills Site

3.4.6 Structures

As discussed in the previous section, the re-alignment of Eglinton Avenue to accommodate the LRT revised alignment will require the bridge over Black Creek to be modified / rebuilt. As the LRT emerges from underground, a new bridge is required to pass over Black Creek. The bridge will be approximately at the same elevation as the adjacent existing Eglinton structure, but will need to be separate due to the differences in vertical profile.

The LRT will pass over Black Creek Drive on a new bridge. The configuration of the bridge will be confirmed during the detailed design phase of the project. The LRT bridge will be based on piers on either side of Black Creek as this area has been identified as a flood plain requiring overflow from the Creek to pass under the LRT.

At the proposed Mount Dennis LRT Station, a station box will be built under the existing GO Transit and CP railway corridors.. West of the Station, the LRT proceeds underground in new tunnel-box structures. As the LRT emerges from underground through the centre median of Eglinton Avenue, retaining walls will

be required until the LRT meets the grade of Eglinton Avenue West, east of Jane Street.

In order to provide access to both the proposed Mount Dennis Bus Terminal and PPUDO, Photography Drive will be realigned and new structure will be constructed over Eglinton Avenue immediately east of the existing Photography Drive structure. The existing Photography Drive structure will be removed.

3.4.7 Special Track Work

In addition to the standard crossovers located every 4 kilometres along the LRT, special trackwork is required for access into the MSF yard. Turnouts were located so that a 3-car consist can be stored on each of the lead tracks into the Black Creek MSF yard on level grade without obstructing the mainline.

East of Mount Dennis LRT Station crossover tracks are required to allow trains to access the north and south platform.

3.4.8 Emergency Exit Buildings

The majority of the LRT through the study area is along open-air structures with emergency walkways that do not require EEBs. In accordance with NFPA 130 and TTC Standards DM-0102-03/4.2.1 as the distance to an exit does not exceed 381 metres in the 500 metre long underground section west of Mount Dennis Station, EEBs are not required.

3.5 Proposed Crosstown Black Creek Maintenance and Storage Facility

3.5.1 Proposed MSF Site Layout

The proposed Black Creek MSF is approximately 9 metres above the mainline LRT. The conceptual yard layout has been configured to accommodate the maximum possible fleet size at the Black Creek MSF, as well as a carhouse building where the vehicles will be maintained, a repair shop/ facility, a 'Maintenance of Way' building, work vehicles and storage, traction power substation, employee parking, and storm water management ponds.

The yard has a counter clockwise unidirectional LRV flow with vehicles passing through the carhouse building in an east to west direction. As vehicles enter the yard from the Eglinton mainline, they would rise from mainline elevation to yard elevation (approximately an 9m rise). They would then pass between the carhouse building and the storage tracks before looping around the Stormwater Management (SWM) pond at the west side of the site before entering the storage tracks. From this point, the vehicles would either continue in a counter-clockwise direction to enter the carhouse or LRV overhaul facility or return to the mainline via the yard lead tracks.

3.5.2 Road Modifications and Traffic Management

The proposed Black Creek MSF will be provided with two vehicular access points from Industry Street. Access is required for employee parking as well as material delivery for LRT and right-of-way maintenance.

3.5.3 Structures

To accommodate the elevation difference between the mainline and the yard, the lead tracks are required to cross below several of the interior yard tracks in order to reach the yard elevation at desired grades required. A benefit of the grade separation is that it removes the conflict between the yard entry/exit and internal yard movements.

Extensive retaining walls will be required to accommodate the entry and exit lead tracks at lower elevations as they rise into the yard.

3.5.4 Special Track Work

The track work entering the facility is designed to the same standards as the mainline. Mainline turnouts were located so that a 3-car consist can be stored on each of the lead tracks on level grade without obstructing the mainline.

Yard entry lead tracks rise at a maximum slope of 2%, while yard exit lead tracks drop at a maximum slope of 4%. All curve radii are minimum 25 m, except for those on sloped gradient, where radii have been increased.

Crossovers are strategically located within the yard to provide for functional circulation and parallel moves where feasible to enhance the yard's operating efficiency.

It is anticipated that the storage yard tracks would be ballasted track, while the apron areas at the carhouse would be embedded track. Paved circulation areas throughout the yard would be required for emergency service and maintenance activities.

3.5.5 Buildings

Buildings required on this site included a maintenance carhouse building, a 'maintenance of way' building, a repair shop/facility and a traction power substation. The proposed layout combines the maintenance carhouse with the repair shop/facility into one building.

The combined carhouse/ repair shop/facility is located to the northwest edge of the site so as to provide road access from Industry Street for parts deliveries and employee access, while minimizing the need for rubber tire crossings of tracks in the yard. The total estimated size of the combined facility is 37,200 m².

A "maintenance of way" building to serve as a base of operations for mainline maintenance crews assigned to the Black Creek MSF yard is situated at the north side of the site, with easy road access from Industry Street for deliveries

DRAFT, April 10th, 2013

and rubber tire work vehicles, and providing space for material laydown and storage. The total estimate size is 2,350 m². The final design and location of the buildings will be coordinated through subsequent submissions to the City of Toronto and other Stakeholders.

A traction power substation to deliver power to the carhouse, repair shop/facility, yard and a portion of the LRT line will be a stand-alone building, physically separated from other site buildings, but centrally located so as to minimize distances to each of the systems being fed. The substation has been situated in the middle of the yard, but close to the line to minimize traction power voltage drop.

As requested by Metrolinx, the existing Kodak Building on the site will remain, with space around it along the north side of Eglinton Avenue that could either be used for future development, or as a bus station, if desired.

3.5.6 Access and Parking

Employee parking will be at the north side of the site opposite to Industry Street, adjacent to the top of bank line, the current estimate for parking is approximately 400 spaces. This estimate is based on the anticipated number of LRT operators, maintenance staff, including shift changes, office staff, maintenance staff and visitors. There are opportunities to take advantage of the natural grade of the site to create a multi-level parking structure with the lower level being subsurface and utilizing a grade entry from the lower elevation from east side of Industry Street. This minimizes the construction of ramps for the parking structure. The upper level of the parking structure would be at yard elevation, which also improves emergency access to the site. Parking in this area in excess of 400 vehicles is feasible. Deliveries to the MOW building would be routed through the upper level of the parking structure. Surface parking is also indicated at the west side of the carhouse building, with access at a grade from Industry Street. Additional studies regarding traffic impact studies and Traffic Demand Management (TDM) will be provided during subsequent stages of this project.

There is insufficient upper tier land available to provide a surface parking lot of sufficient capacity.

3.5.7 Storm Water Management Facilities

Required on site will be a Storm Water Management (SWM) system in accordance with the City of Toronto's West Weather Flow Management Guidelines. A storm water drainage and management system is required consistent with the Toronto Green Standards including potentially the provision of green roofs. Due to the requirement for aprons around the buildings, locations with embedded track and a network of paved roads and parking areas, the overall site will have significant impervious space. A storm water drainage system, consisting of appropriately sized facilities including storage ponds, catch basins, storm sewers and perforated pipe subdrains will be located on site. Of particular importance is the grade separated yard lead tracks which will be at a

DRAFT, April 10th, 2013

lower elevation to the yard and may require separate storm water management controls in the lower tier of the site. The SWM system would likely outlet to Black Creek, running along the eastern edge of the property.

3.6 Eglinton Avenue

Consistent with the 2010 EPR, Eglinton Avenue will be reconstructed with four (4) general purpose lanes between Weston Road and Black Creek Drive. As discussed in **Section 3.4.5**, per the objectives of the City of Toronto's EglintonConnects study (currently underway) and the Metrolinx Mount Dennis Mobility Hub study, the road right-of-way in this section will be re-allocated to introduce additional pedestrian, cyclist, and streetscaping features. The proposed Eglinton Avenue configuration between Weston Road and Black Creek Drive is presented in **Figure 3-7**.

3.7 Construction Methods

3.7.1 Surface Construction

The LRT within the study area will be constructed primarily north of Eglinton Avenue on elevated structure. Traffic lanes in each direction will be maintained where feasible and the most northerly westbound lane between Weston Road and Black Creek Drive would be permanently closed during construction. The LRT construction will include elevated structure, concrete slabs, trackwork, LRT curbs, poles, etc.

The construction of the bus-only signalized intersection will employ traditional road construction methods.

3.7.2 Below-Grade Construction

There are two main methods to construct the LRT underground: Cut and Cover and Tunneling. Tunneling construction with a Tunnel Boring Machine (TBM) will be used where possible to minimize surface impacts. At the tunneling limits, the TBMs will require an entry/extraction shaft and a large nearby work site to facilitate tunnel access, material delivery and storage. An existing tunnel shaft has already been completed in the west section at Keele Park.

Cut and cover construction will be required at Mount Dennis Station and locations of special track work (focused to 150m long sections at each station), tail tracks and where the LRT emerges through a tunnel portal to match back into grade along the centre of Eglinton Avenue. As identified in the 2010 EPR, cut and cover construction can be very disruptive and so carefully planned staging is required. **Figure 3-10** shows an example of proposed staging plan for the construction of the LRT west of Weston Road.

- Stage 1: Eglinton Avenue traffic would be shifted to the north, and reduced to one eastbound and one westbound lane. This shift would allow for the necessary work-zone to build the first of half of a deep protection system that would allow for the future construction of the LRT. At this time, all pedestrian

DRAFT, April 10th, 2013

connections and private/commercial driveways would remain open. Temporary closures to these driveways and diversions for pedestrians may be required. The estimated duration for this stage would be 3 months.

- Stage 2: The one eastbound and one westbound lane from Stage 1 would be relocated to the south side of Eglinton Avenue. This shift would provide the necessary work-zone to build the northern portion of the protection system for future construction of the LRT. Once again, all pedestrian connections and private/commercial driveways could remain open, but temporary closures and diversions may be required. Near the end of this stage of construction, the proposed lane widening of Eglinton Avenue near Jane Street would be completed. The estimated duration of this stage would be 2 months.
- Stage 3: In this stage, Eglinton Avenue westbound traffic would be shifted south and the eastbound traffic shifted north, to allow for construction down the middle of the roadway for the LRT. With the protection system complete in Steps 1 and 2, deep construction adjacent to this Eglinton Avenue traffic would be possible. Near Weston Road, where the road is narrower, a decking structure would be completed during overnight full-lane closures that would allow more lanes to be opened to traffic. Construction vehicles would access and egress the construction zone from Jane Street. The estimated duration for this stage would be 4 months.
- Step 4: Once the roadway decking is complete, Eglinton Avenue would be open to the alignment previously approved in the EPR, with LRT construction occurring simultaneously within the tunnel box underground. The estimated duration for this step would be 16 months.

3.7.3 Maintenance and Storage Facility Construction

The construction of the MSF will employ traditional grading and earthworks construction for the storage tracks and access roads within the facility. The building and parking structure will be completed using traditional building construction methods.

3.8 Updated Project Description Results in Significant Changes

In accordance with Section 15 of O. Reg. 231/08, Metrolinx has assessed the significance of the changes to the Project. The changes have been deemed significant for the following reasons:

- The environmental effects of the MSF were not addressed in the 2010 EPR
- The change in vertical configuration of the Jane Street to Keele Park section had the potential to affect a Provincially-owned heritage building

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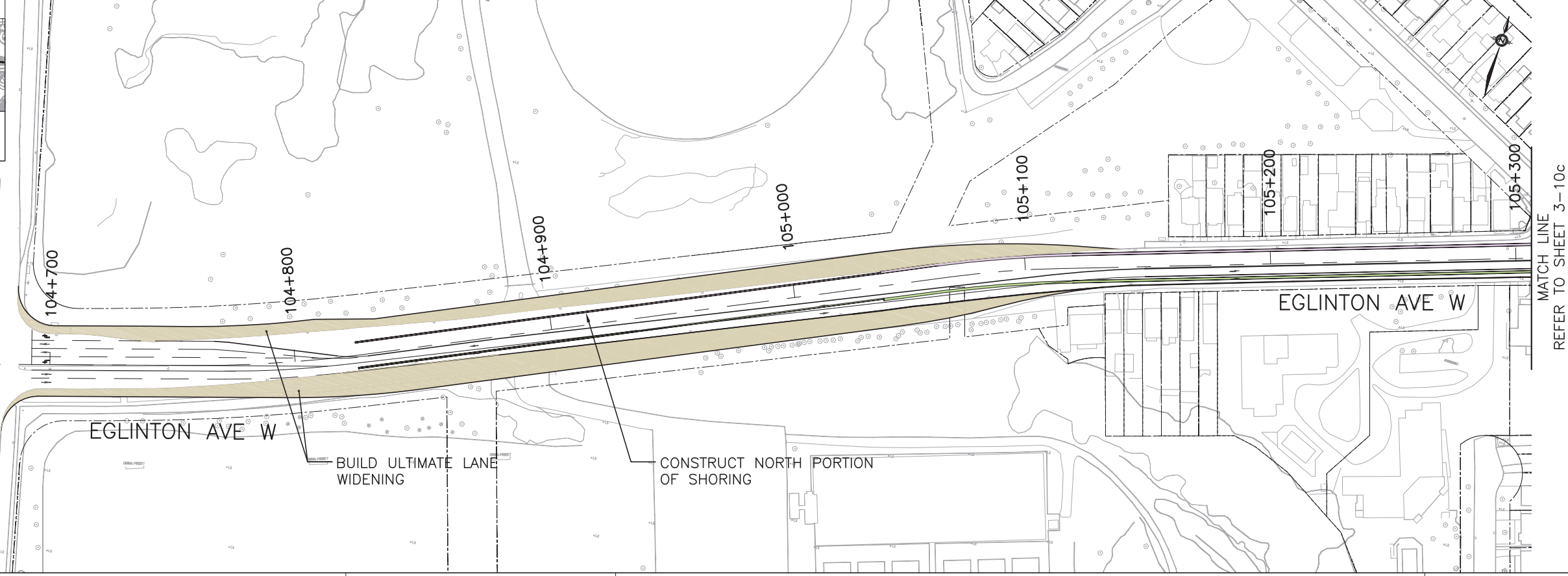
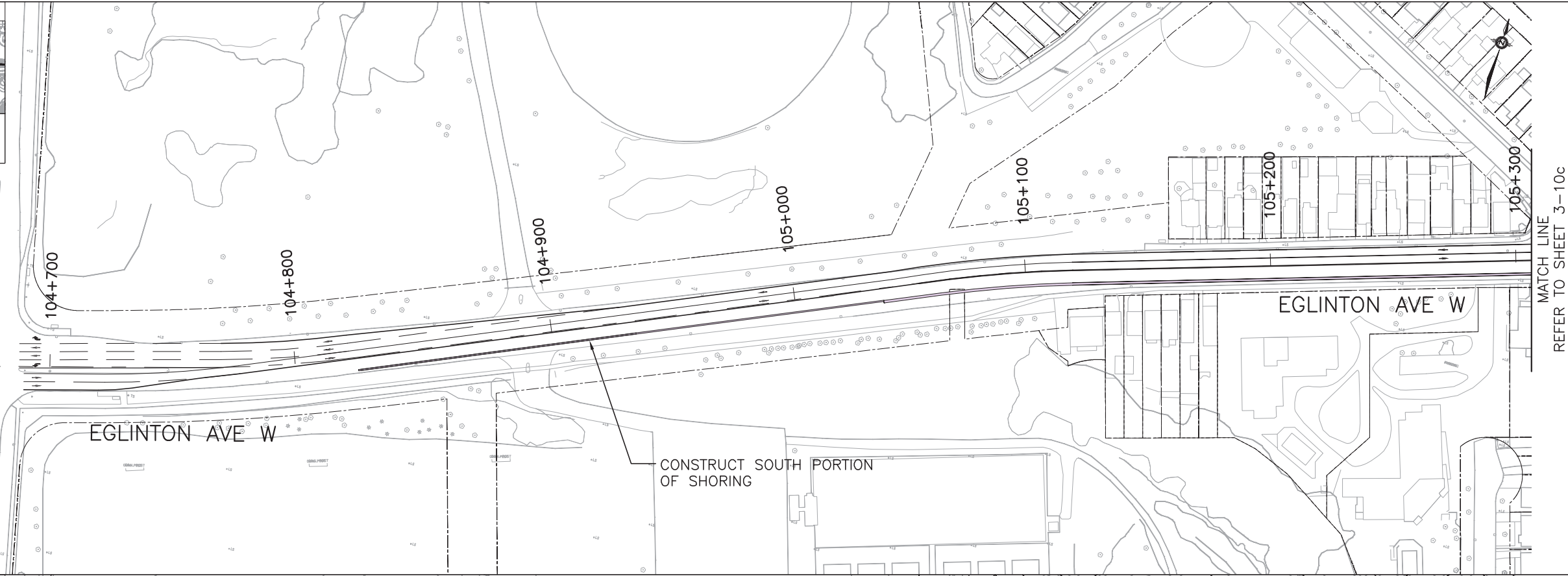
KEY PLAN

STAGE 1:
 - APPROXIMATE DURATION-3 MONTHS
 - EGLINTON LRT: CUT AND COVER CONSTRUCTION, JANE ST - WESTON RD



KEY PLAN

STAGE 2:
 - APPROXIMATE DURATION-3 MONTHS
 - EGLINTON LRT: CUT AND COVER CONSTRUCTION, JANE ST - WESTON RD



EGLINTON-SCARBOROUGH
CROSSTOWN

MRC **McCORMICK RANKIN**
 A member of **MMM GROUP**

LEGEND:

	SURFACE CONSTRUCTION FOR LRT
	UNDERGROUND EXCAVATION/CONSTRUCTION
	COMPLETED CONSTRUCTION
	ROAD WIDENING
	EXISTING PHASE 1 COMPLETED CONSTRUCTION
	LRT ALIGNMENT

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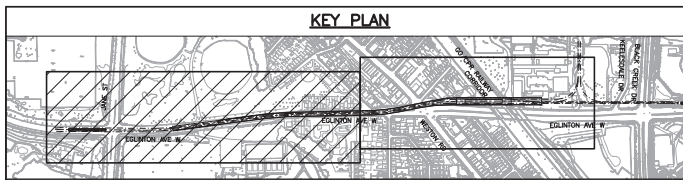
EGLINTON CROSSTOWN LRT
 ENVIRONMENTAL PROJECT REPORT ADDENDUM

CONCEPTUAL CONSTRUCTION STAGING
 WEST OF MOUNT DENNIS STATION (STAGE 1 AND 2)

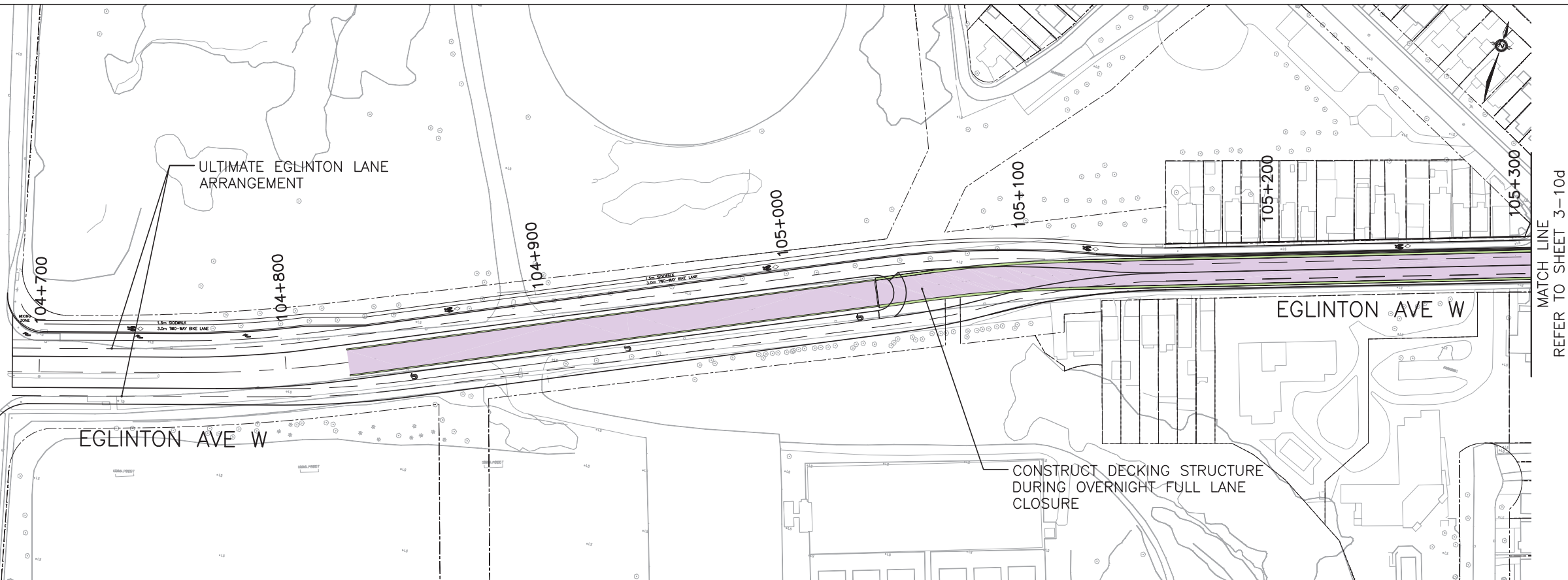
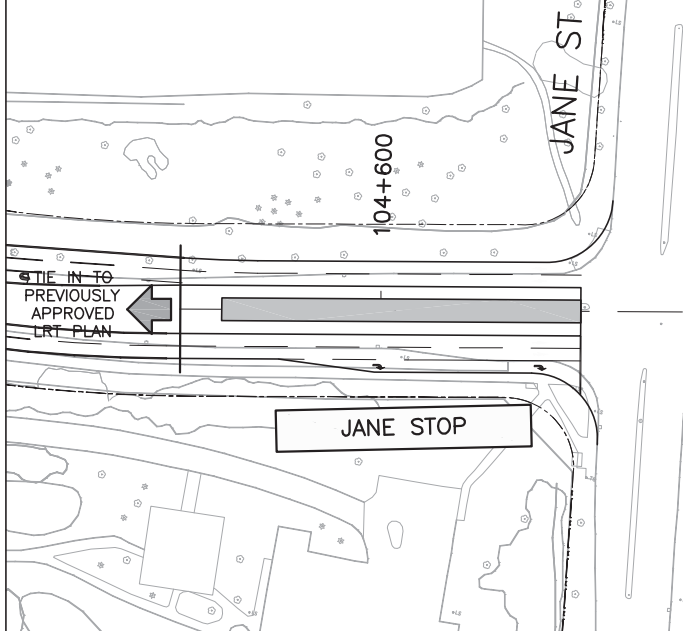
FIGURE
3-10a

MATCH LINE
REFER TO SHEET 3-10c

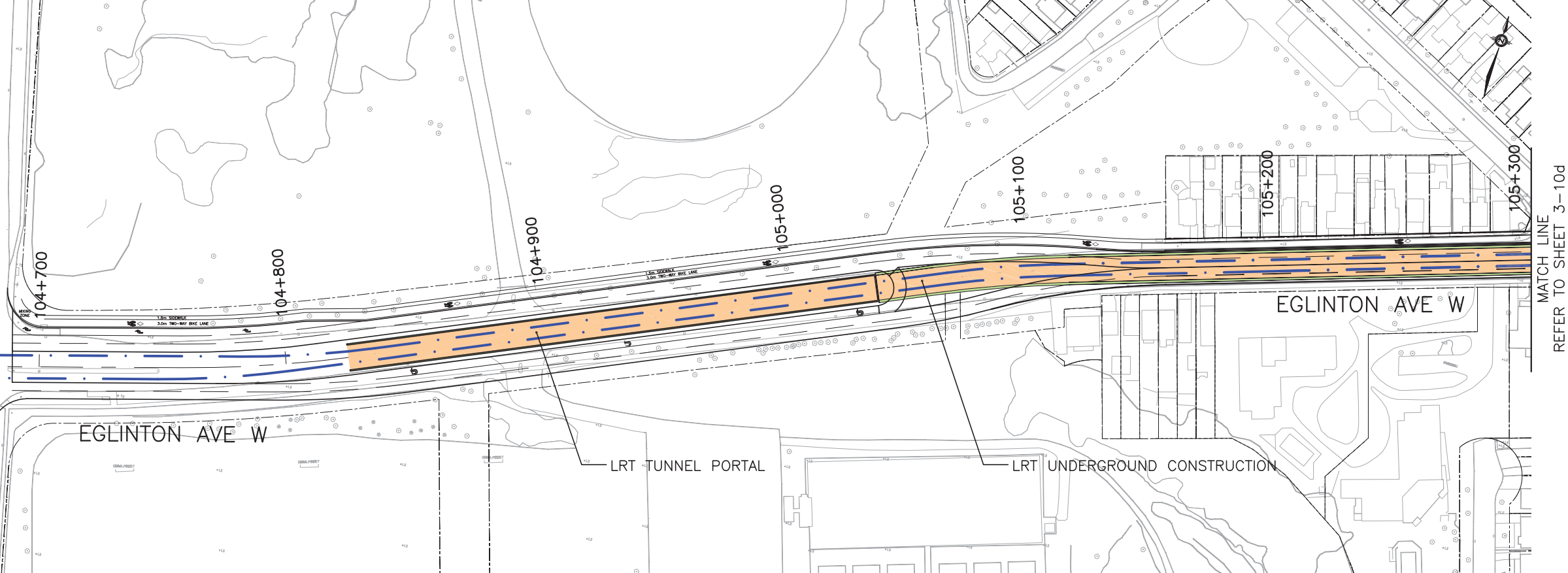
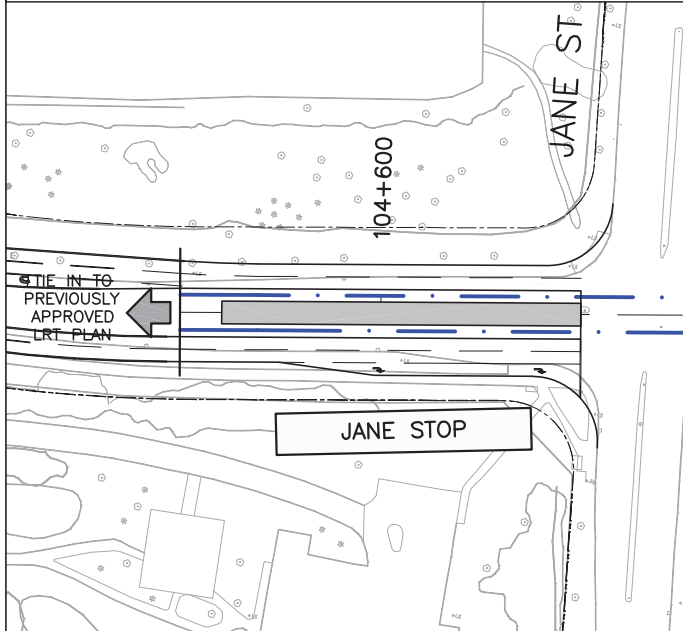
MATCH LINE
REFER TO SHEET 3-10c



STAGE 3:
- APPROXIMATE DURATION-3 MONTHS
- EGLINTON LRT: CUT AND COVER CONSTRUCTION, JANE ST - WESTON RD



STAGE 4:
- APPROXIMATE DURATION-3 MONTHS
- EGLINTON LRT: CUT AND COVER CONSTRUCTION, JANE ST - WESTON RD



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EGLINTON CROSSTOWN LRT
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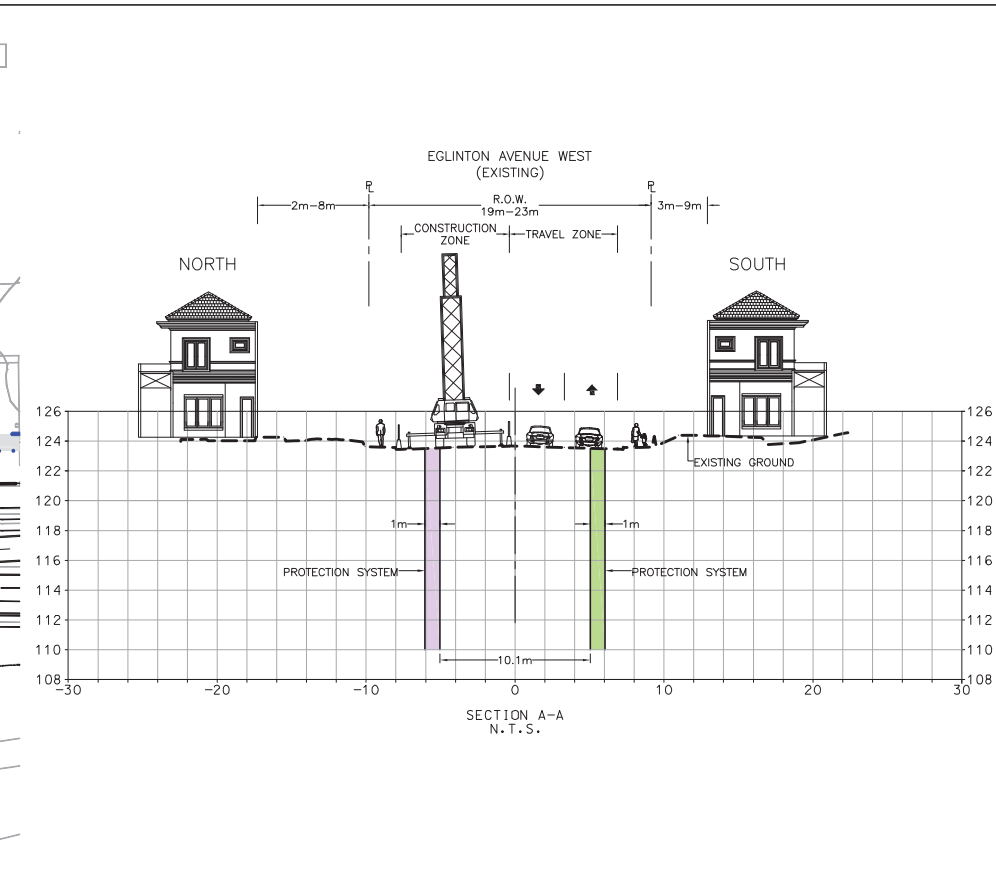
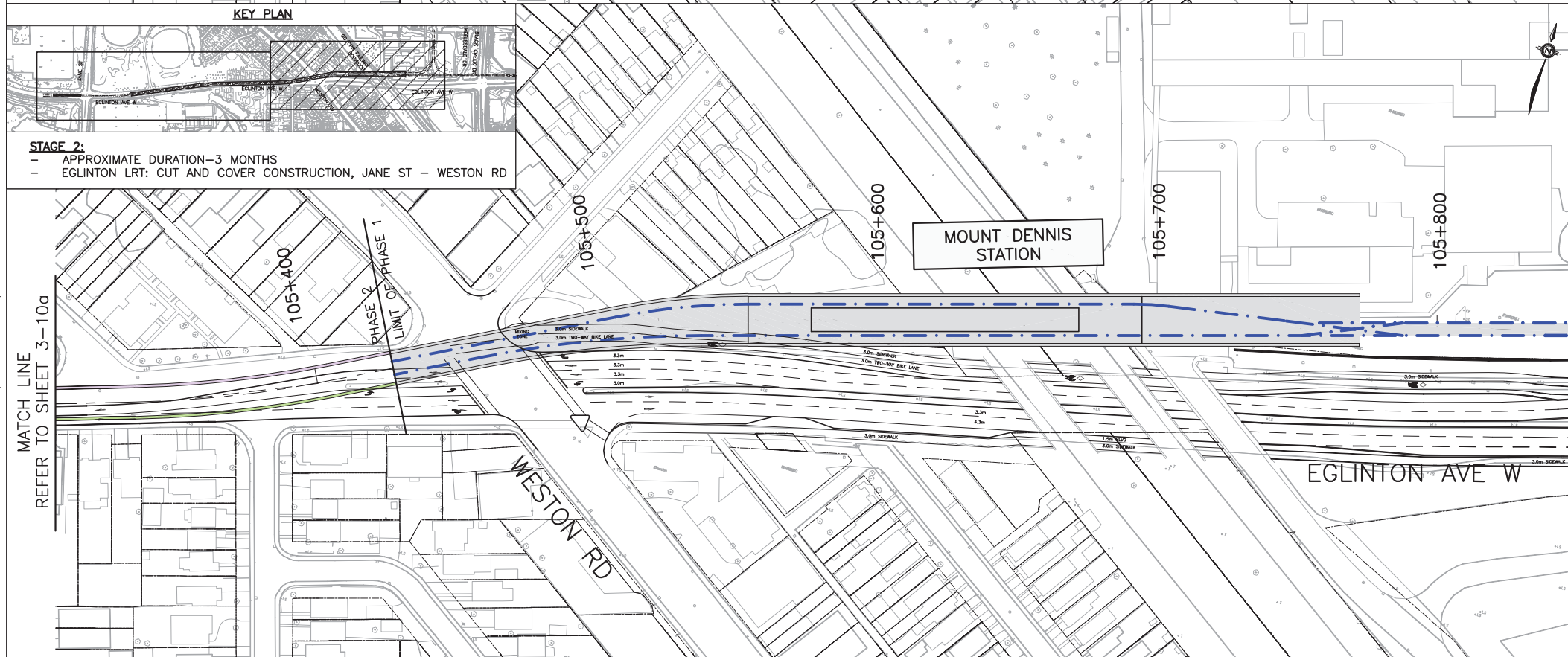
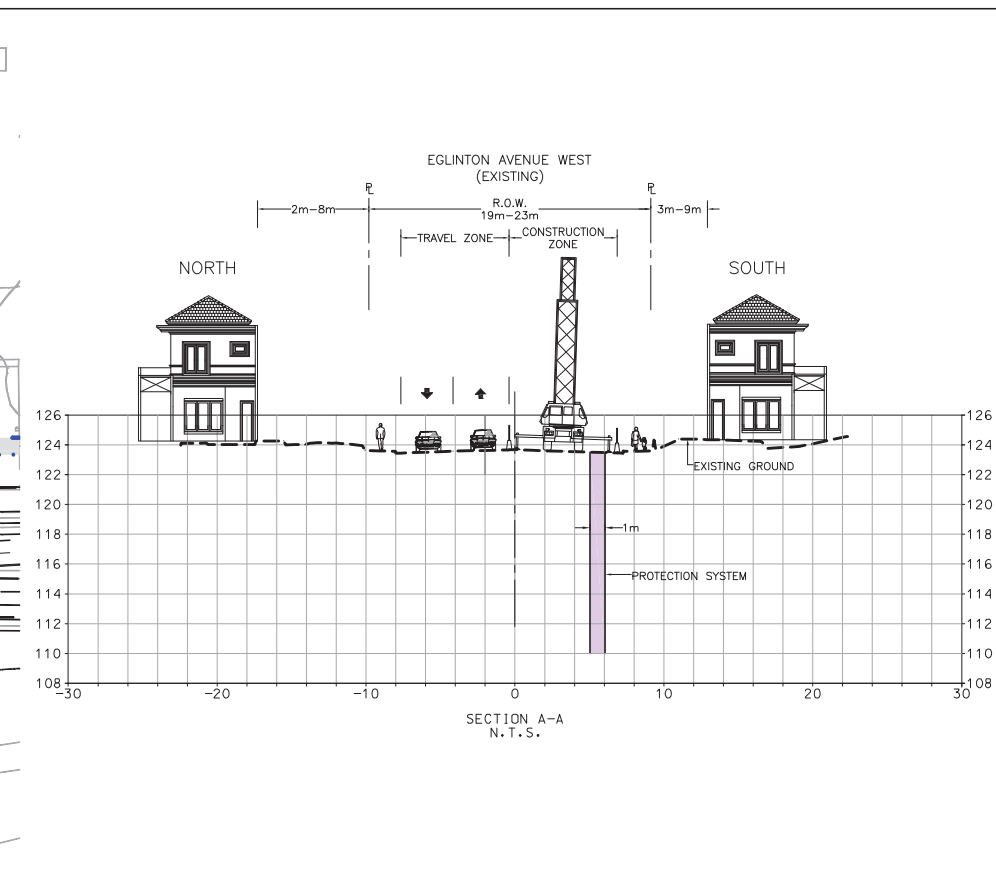
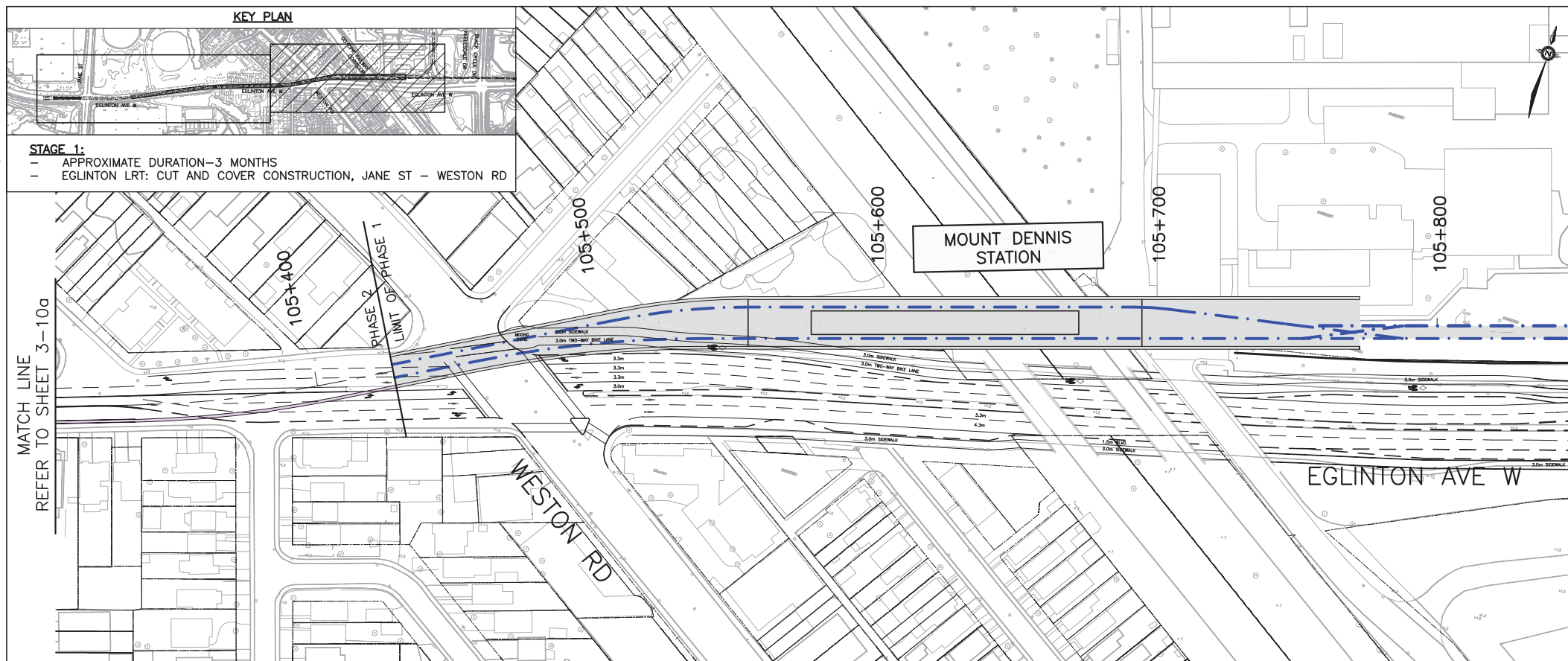
CONCEPTUAL CONSTRUCTION STAGING
WEST OF MOUNT DENNIS STATION (STAGE 3 AND 4)

FIGURE

3-10b

MATCH LINE
REFER TO SHEET 3-10d

MATCH LINE
REFER TO SHEET 3-10d



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CROSSTOWN

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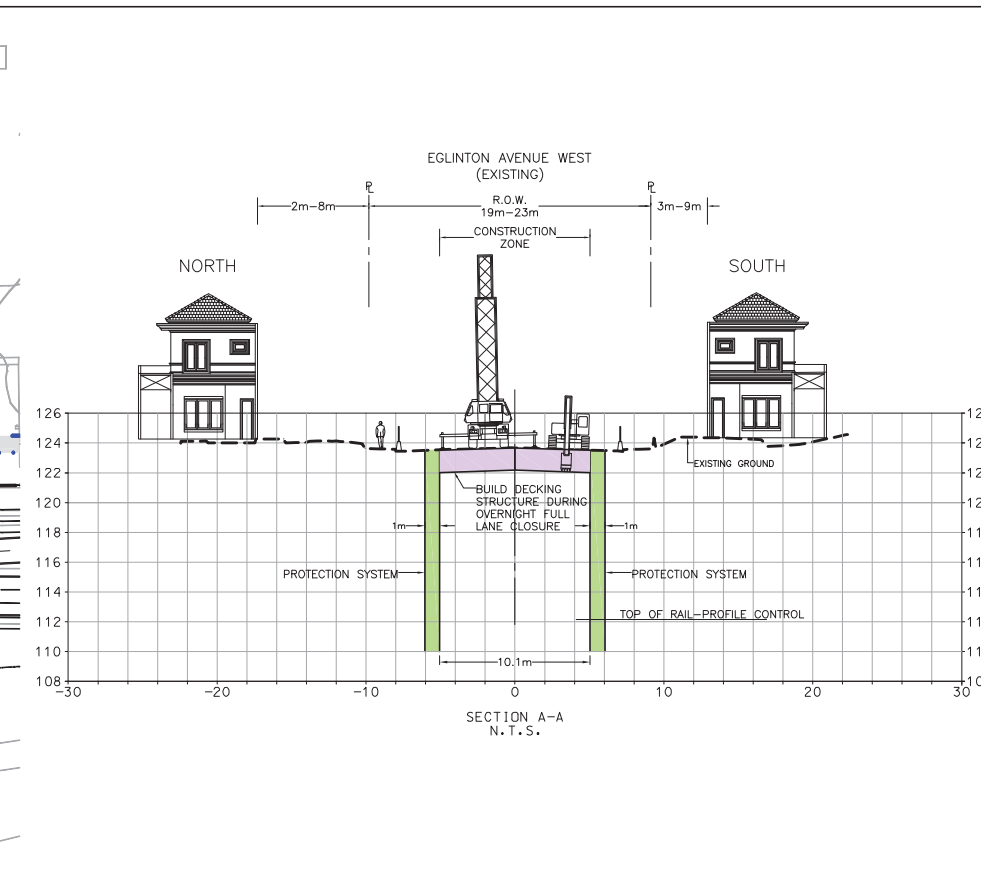
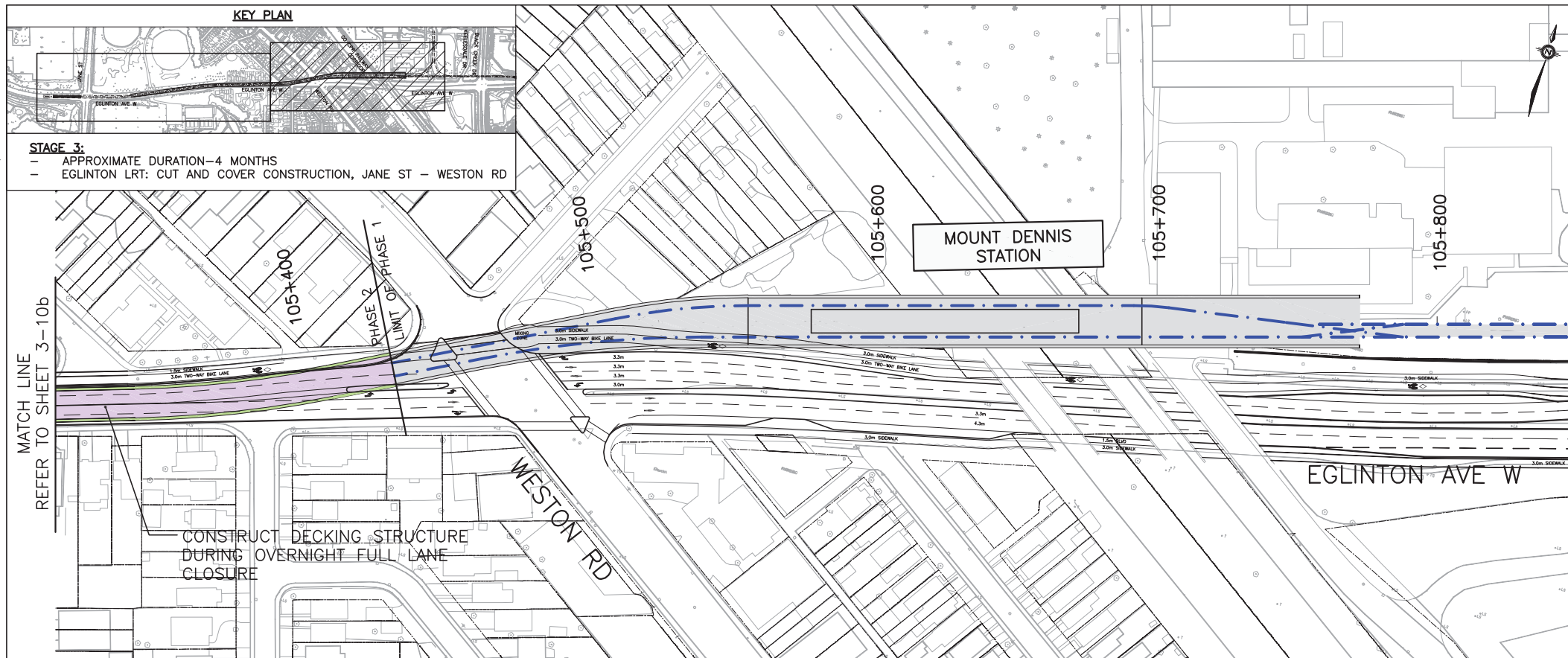
EGLINTON CROSSTOWN LRT
ENVIRONMENTAL PROJECT REPORT ADDENDUM

CONCEPTUAL CONSTRUCTION STAGING
WEST OF MOUNT DENNIS STATION (STAGE 1 AND 2)

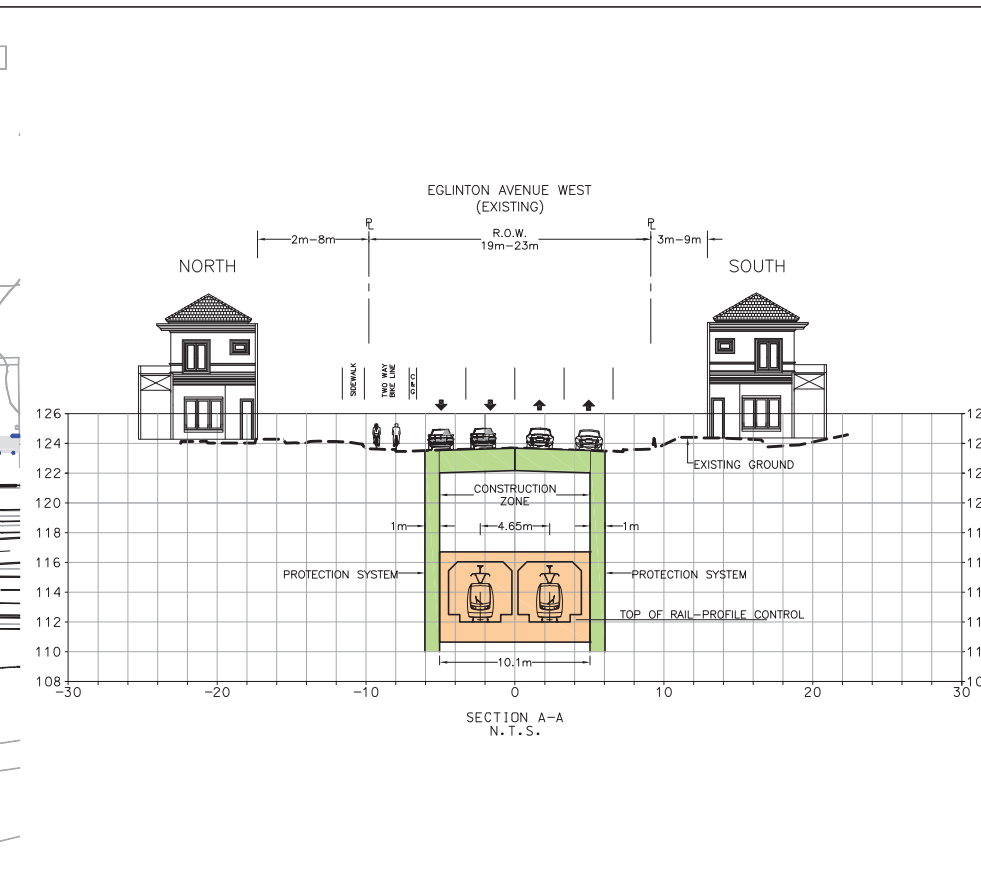
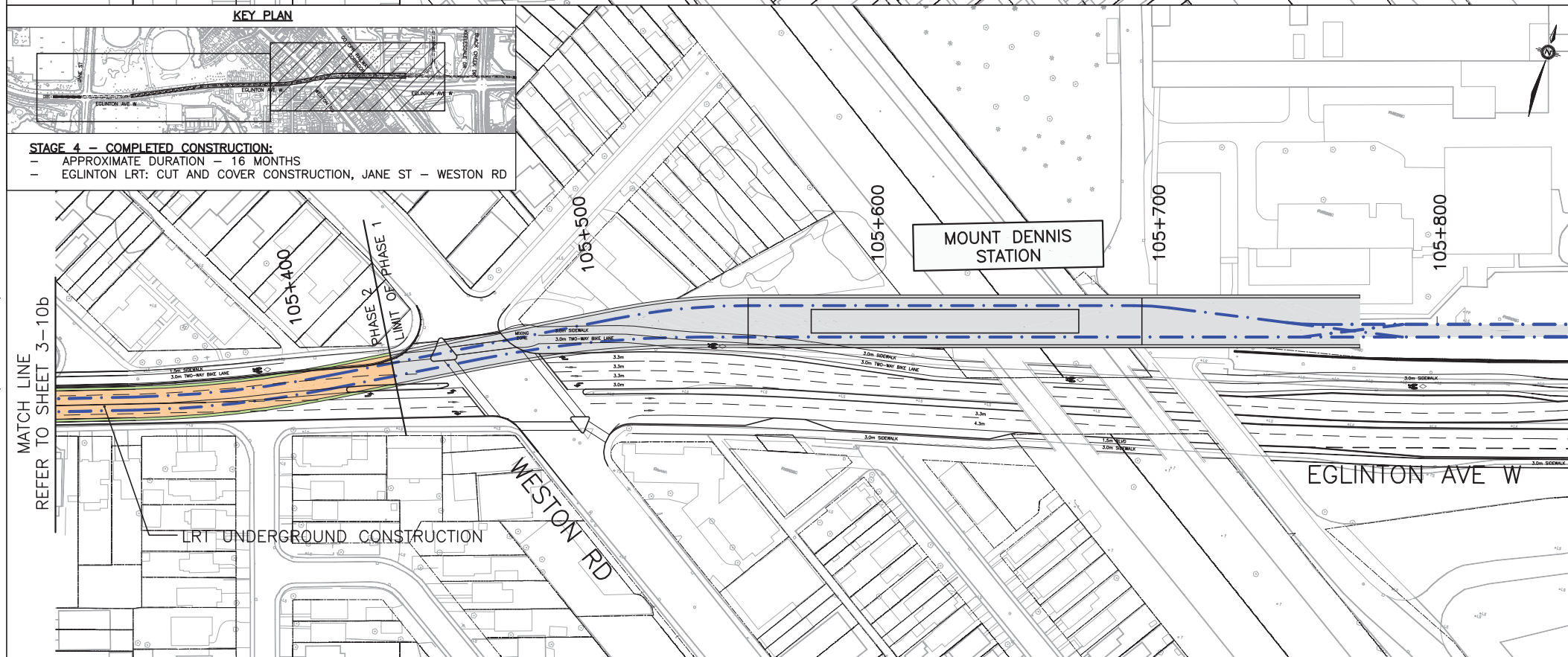
FIGURE

3-10c

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EGLINTON-SCARBOROUGH CROSSTOWN



LEGEND:

- SURFACE CONSTRUCTION FOR LRT
- UNDERGROUND EXCAVATION/CONSTRUCTION
- COMPLETED CONSTRUCTION
- ROAD WIDENING
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EGLINTON CROSSTOWN LRT ENVIRONMENTAL PROJECT REPORT ADDENDUM

CONCEPTUAL CONSTRUCTION STAGING WEST OF MOUNT DENNIS STATION (STAGE 3 AND 4)

FIGURE

3-10d

4. EXISTING CONDITIONS

When preparing the Environmental Project Report (EPR) Addendum, it was confirmed that the existing conditions identified in the original 2010 EPR have been determined to be unchanged except as described in the following sections. The following sections provide an update on existing conditions in the study area considered as part of the EPR Addendum.

4.1 Natural Environment

4.1.1 Groundwater

It is expected that regional groundwater flow is southerly towards Lake Ontario, and that local groundwater flow is towards the closest watercourse. The local groundwater flow is affected by utility trenches and other subsurface structures that are within the water table.

Aquifers throughout the study area are located in the overburden within sand and gravel deposits, and groundwater occurs in the upper three to five metres of the Georgian Bay Formation with poor water-yielding capabilities, however, there is potential to encounter artesian conditions in the vicinity of Black Creek.

4.1.2 Surface Water

LRT Alignment

Within the study area (from Jane Street to Keelesdale Park), Black Creek - which flows from north to south - crosses Eglinton Avenue. Black Creek is a tributary of the Humber River which flows in a southerly direction and ultimately discharges to Lake Ontario.

The runoff from Eglinton Avenue is collected by catchbasins and conveyed by storm sewer systems, which discharge directly to Black Creek and the Humber River. From approximately 3588 Eglinton Avenue West, the storm sewer system drains westerly to the Humber River. From approximately 3588 Eglinton Avenue West to the Eglinton Avenue Bridge, the storm runoff drains easterly to Black Creek. From the CN Railway tracks located approximately 70 m east of Blackthorn Avenue to the Eglinton Avenue Bridge the storm runoff drains westerly to Black Creek.

Currently there is no stormwater management system in place that would provide water quantity control and quality treatment before discharging to Black Creek or the Humber River.

Black Creek, within the study area, is under the jurisdiction of the TRCA.

Further details on the existing conditions in the study area are provided in **Appendix A**.

Black Creek MSF

DRAFT, April 10th, 2013

Similar to the LRT alignment, the Black Creek MSF is adjacent to the Black Creek watershed. Currently there is no stormwater management system in place that would provide water quantity control and quality treatment before discharging to Black Creek.

4.1.3 Fish and Fish Habitat

A Natural Environment Existing Conditions, Impact Assessment and Mitigation Recommendation Memo was prepared. The memo provides updates to the Natural Heritage Assessment Report, (Transit City Group), 2010 in order to address design changes resulting from the new ECLRT configuration and the MSF site. Key natural environment features are discussed in the following subsections, and further details are available in the memo provided in **Appendix B**.

The assessment of fish and fish habitat carried out in support of the original EPR (Natural Heritage Assessment Report, Transit City Group 2010) involved field investigations in the study corridor on August 5 and 6, 2008 to document the aquatic habitat conditions with background fish community information received from Toronto and Region Conservation Authority (TRCA).

A field visit was undertaken on August 7, 2012 in support of the EPR Addendum to confirm and update previous findings based on the proposed revised design. Findings from the 2012 survey were generally consistent with those from the original field investigations (2008).

The only aquatic feature identified in the study area is Black Creek. Within the vicinity of Eglinton Avenue, Black Creek consists of a combination of pool, riffle and run habitat, with a substrate composed of sand, gravel, cobble, boulder, silt and detritus. The mean wetted width was observed to be 9.7 m with a mean depth of 0.50 m, which is conveyed within a bankfull channel that is approximately 10.5 m wide and 1.15 m deep. Instream cover is provided by large pieces of concrete, boulders, and scattered woody debris. The riparian zone consists of a variety of herbaceous vegetation, trees and shrubs that provide moderate shading and overhanging cover.

As background information provided by the TRCA is sufficient to characterize the fish community of Black Creek in the study area, no fish community studies were undertaken at this watercourse during the 2008 or 2012 field investigations. TRCA records indicate a fish community dominated by warmwater baitfish, with six species reported from the vicinity of Eglinton Avenue, including Blacknose Dace (*Rhinichthys atratulus*), Brook Stickleback (*Culaea inconstans*), Common Shiner (*Luxilus cornutus*), Creek Chub (*Semotilus atromaculatus*), Goldfish (*Carassius auratus*), and White Sucker (*Catostomus commersonii*).

The TRCA characterizes Black Creek as intermediate riverine warmwater habitat with darter species listed as management targets for this watercourse.

4.1.4 Vegetation and Vegetation Communities

Vegetation surveys in support of this addendum were carried out in the study area. Vegetation communities observed are consistent with those reported in the Natural Heritage Assessment Report (Transit City Group, 2010). A copy of natural environment existing conditions mapping from the Natural Heritage Assessment Report (Transit City Group 2010) is provided in **Appendix B**.

The Natural Heritage Assessment Report (2010) indicated that 37 plant species ranging from rare to uncommon in the City of Toronto and in the Toronto and Region Conservation Authority (TRCA) watershed have been recorded for the study area (Transit City Group, 2010). During the 2012 field visits, this list was available for reference.

The Ministry of Natural Resources (MNR) Aurora District was consulted as part of the EPR Addendum for confirmation on the presence of Species at Risk (SAR) for the study area and species-specific mitigation requirements for protecting SAR. MNR indicated that there are no natural heritage features (PSWs, ANSIs and ESAs) recorded in the EPR Addendum study area and that there are records of SAR within the study area as identified below.

Vegetation surveys were carried out from August 6 to 8, 2012 on lands 50 to 100 metres on either side of Eglinton Avenue and on the Black Creek Maintenance and Storage Facility (MSF) lands (**Figures 4-1** and **4-2**). Vegetation communities observed along Eglinton Avenue are consistent with those reported in the Natural Heritage Assessment Report (Transit City Group, 2010), which are predominantly cultural in nature and occur as narrow linear and/or isolated areas. This is the case close to Jane Street where several small patches of cultural woodland and a single small deciduous forest border the roadways. A large expanse of vegetation occurs around Black Creek Drive associated with the Black Creek valley. It includes riparian cultural woodland, cultural plantation, thicket swamp and deciduous forest. A cultural woodlot borders the GO Transit/CPR track between Black Creek Drive and Weston Road on the north side of Eglinton Avenue. Cultural meadow borders the track and Eglinton Avenue on the south side. The lands at the northwest corner of Black Creek Drive and Eglinton Avenue where the MSF is proposed contribute two additional vegetation community types – cultural thicket and cattail marsh.

Red Pine (*Pinus resinosa*) was the only species recorded previously to be seen in 2012, however two new notable species were found. The new species include three Butternut trees (*Juglans cinerea*) and one Kentucky Coffee-tree (*Gymnocladus dioica*), both growing by the roadside. These two species are frequently planted as street trees by the City of Toronto (Dias, City of Toronto. pers. comm. 2012).

The Kentucky Coffee-Tree identified during the 2012 surveys is designated Threatened under the *Species At Risk Act* (2002) (SARA) and the *Endangered Species Act, 2007* (ESA). The Butternut is designated Endangered under SARA and the ESA. Both tree species identified north of the proposed works are not on

DRAFT, April 10th, 2013

federal land, which means that *SARA* does not apply, and while both trees are derived from cultivated stock, only the Butternut is exempted from the *ESA*. In the case of the Kentucky Coffee-Tree, the *ESA* still applies; however, the Ministry of Natural Resources has indicated that a permit will not be required (Kowalyk, B., MNR, pers. comm. 2012).

The MSF lands were not assessed as part of the original 2010 EPR, and as such, were not surveyed for the 2010 Natural Heritage Assessment Report. A detailed vegetation survey of these lands was conducted in support of the EPR Addendum. The results of the vegetation community characterization are provided below, and mapped in **Figure 4-2**. Additional descriptions of those communities are provided in **Appendix B**.

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- Mapping of vegetation communities is provided in the 2010 Natural Heritage Assessment Report.

