



# Eglinton Crosstown LRT Interchange Stations – Final Designs

**Date:** March 20, 2018  
**To:** TTC Board  
**From:** Chief Capital Officer

## Summary

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Metrolinx is currently constructing the Eglinton Crosstown LRT between Weston Road and Kennedy subway station, scheduled to open in 2021. This new LRT line will be operated by TTC and be identified as TTC Line 5.

Approximately half of the 19 km LRT line will run underground, and connect to three existing subway stations. These interchange stations are currently under construction and will connect to Line 1 at Eglinton West Station (to be renamed Cedarvale Station) and Eglinton Station, and Line 2 at Kennedy Station.

As the owner and operator of the subway system in Toronto, the TTC has a responsibility to ensure that the structural integrity of the existing subway infrastructure is maintained during construction, and that safe and efficient operation of the system is maintained.

This report presents the final Metrolinx/Crosslinx Transit Solutions designs of the 3 interchange stations at Eglinton West (Cedarvale), Eglinton and Kennedy.

## Recommendations

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It is recommended that the Board:

1. Approve the final designs for Cedarvale, Eglinton and Kennedy interchange stations, as presented in this report.

## Financial Summary

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The Master Agreement between Metrolinx, the City of Toronto and the TTC, states that Metrolinx, as owner and developer, is responsible for expenditures related to the delivery of the Eglinton Crosstown Light Rail Transit Project.

The Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## Equity/Accessibility Matters

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The new interchange stations are designed to be accessible, with barrier free paths from street to platform levels. Barrier free connections are also provided between the LRT stations and the existing TTC stations.

The TTC's Advisory Committee on Accessible Transit (ACAT) has been consulted during design review for the ECLRT project. Metrolinx's Accessibility Advisory Committee (AAC) has also been consulted during the design stage.

## Decision History

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At its November 18, 2013 meeting, the TTC Board approved Metrolinx's preliminary design concepts for the Yonge-Eglinton and Eglinton West interchange stations, to be constructed as part of the Eglinton Crosstown LRT (ECLRT) project.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2013/November 18/Reports/Yonge-Eglinton and E.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2013/November%2018/Reports/Yonge-Eglinton%20and%20E.pdf)

At its March 26, 2014 meeting, the TTC Board approved Metrolinx's preliminary concept design for the Kennedy interchange station, to be constructed as part of the ECLRT project.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2014/March 26/Reports/Kennedy Interchange Station Concept Design Approval.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2014/March%2026/Reports/Kennedy%20Interchange%20Station%20Concept%20Design%20Approval.pdf)

At its November 23, 2015 meeting, the TTC Board approved changing the name of the Eglinton West integrated station to Cedarvale, when the ECLRT (Line 5) goes into operation (2021).

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2015/November 23/Reports/Eglinton Line Station Names Combined Report.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2015/November%2023/Reports/Eglinton%20Line%20Station%20Names%20Combined%20Report.pdf)

## Issue Background

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Metrolinx's Eglinton Crosstown LRT (ECLRT) Project is a 19 km light rail line currently under construction, which runs along and underneath Eglinton Avenue from Mount Dennis (Weston Road) in the west to Kennedy subway station in the east. Ten kilometres of the line will be underground between Keele Street and Laird Drive, with three of the proposed LRT stations directly connecting to the TTC's existing Eglinton West (Cedarvale), Eglinton, and Kennedy stations. Crosslinx Transit Solutions (CTS) has been retained by Metrolinx to deliver the ECLRT project.

Since 2015, TTC staff has been working with Metrolinx and CTS on the review of various technical submissions prepared by CTS for the ECLRT Project, including designs for the three subway interchange stations.

In accordance with the terms of the Master Agreement, TTC staff is reviewing design submissions for the interchange stations at various design milestones. At the time of writing this report, milestone reviews up to and including 90% design are completed for all 3 interchange stations. The TTC reviews focus on the following three core elements:

- ensure structural integrity of existing TTC infrastructure is safely protected during construction of the LRT;
- ensure a safe and efficient operation of the existing subway system during construction of the LRT; and
- provide efficient future transfers between the subway and the LRT.

## **Comments**

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Based on the most recent 90% design milestone submissions from CTS, the following summarizes the proposed final designs at Cedarvale, Eglinton and Kennedy stations.

### **Detailed Design of Cedarvale Interchange Station**

The new LRT Cedarvale station provides an interchange to the TTC's existing Eglinton West station. The LRT station is composed of a main entrance building at the north-west corner of Allen Road and Eglinton Avenue West, a secondary entrance structure at the north-east corner of those same arteries and a third entrance on the south side of Eglinton Avenue West. Underground is a two-level concourse interconnecting the various entrances to the LRT platform and to the existing TTC station. The new LRT platform level is located under Eglinton Avenue West, immediately below the existing subway structure.

The existing Eglinton West station entrance building is mostly unchanged, and will continue to provide barrier free access to the subway platform.

Barrier free access from the LRT station to the LRT and subway platforms will be available at both the LRT main entrance and secondary entrances.

The southern end of each of the subway platforms will connect, through new public passageways, to the LRT lower concourse.

The design demonstrates a level-of-service that meets TTC standards for customer circulation. The Metrolinx/CTS final design of the Cedarvale interchange station is presented in Attachment 1.

## **Detailed Design of Eglinton Interchange Station**

The new LRT station at Yonge Street and Eglinton Avenue provides an interchange to the TTC's existing Eglinton station. The new LRT platform is situated under Eglinton Avenue, approximately two levels below the existing subway structure.

A new main entrance to the LRT station will be constructed on the south side of Eglinton Avenue West, west of the existing subway entrance. Other street access to the station will be available underground from the existing Rio-Can property at the north-west corner of Eglinton Avenue and Yonge Street, from a new connection to the Bazis development at the north-east corner, and from a new connection to the south-east corner. The existing TTC entrance at the south-west corner is maintained.

Barrier free access from street level to the LRT and subway platforms will be available from the new LRT main entrance. The TTC's existing barrier free access at the existing south entrance will be maintained. A new TTC elevator will be built between the existing subway concourse and platform levels. There will also be a new elevator providing a direct connection between the LRT and subway platforms.

The preliminary concepts approved by the TTC Board in 2013 included a possible 70-metre extension of the subway platform to the north, to improve customer transfer distribution. The final design reduces the platform extension to approximately 24 metres. Although this platform extension will result in a shift of the train position to the north, access to the existing elevator and stairs to the south entrance will be maintained.

This design demonstrates a level-of-service that meets TTC standards for customer circulation. The Metrolinx/CTS final design of the Eglinton interchange station is presented in Attachment 2.

## **Detailed Design of Kennedy Interchange Station**

The new LRT station at Kennedy provides an interchange to the TTC's existing Kennedy subway station. It is to be located underground, south of Eglinton Avenue East, and approximately 30 metres north of the subway station. The main entrance to the LRT station is situated at the south-west corner of West Service Road and Transway Crescent. There is also a secondary entrance on the east side of the existing GO rail corridor, which serves as a new main entrance to the GO Station.

The existing main entrance to the subway station, situated at the south-east corner of the West Service Road and Transway Crescent, is being demolished and replaced by the new entrance.

The new LRT entrances connect to an LRT concourse situated immediately above the new LRT platform. The LRT concourse connects to the existing subway concourse through two north-south public passageways. The existing subway concourse remains mainly unchanged, with modifications to the existing fare lines.

Barrier free access to the interchange station is available by an elevator at each of the main and secondary entrances. Two elevators connect the new concourse to the LRT platform. The public passageways between the LRT and subway concourses are barrier free. The current accessibility features of the subway station remain unchanged.

The design demonstrates a level-of-service that meets TTC standards for customer circulation. The Metrolinx/CTS final design of the Kennedy interchange station is presented in Attachment 3.

## **Contact**

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Pierre.laurin@ttc.ca

## **Signature**

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Susan Reed Tanaka  
Chief Capital Officer

## **Attachments**

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Attachment 1 - Cedarvale Station Layouts  
Attachment 2 - Eglinton Station Layouts  
Attachment 3 - Kennedy Station Layouts

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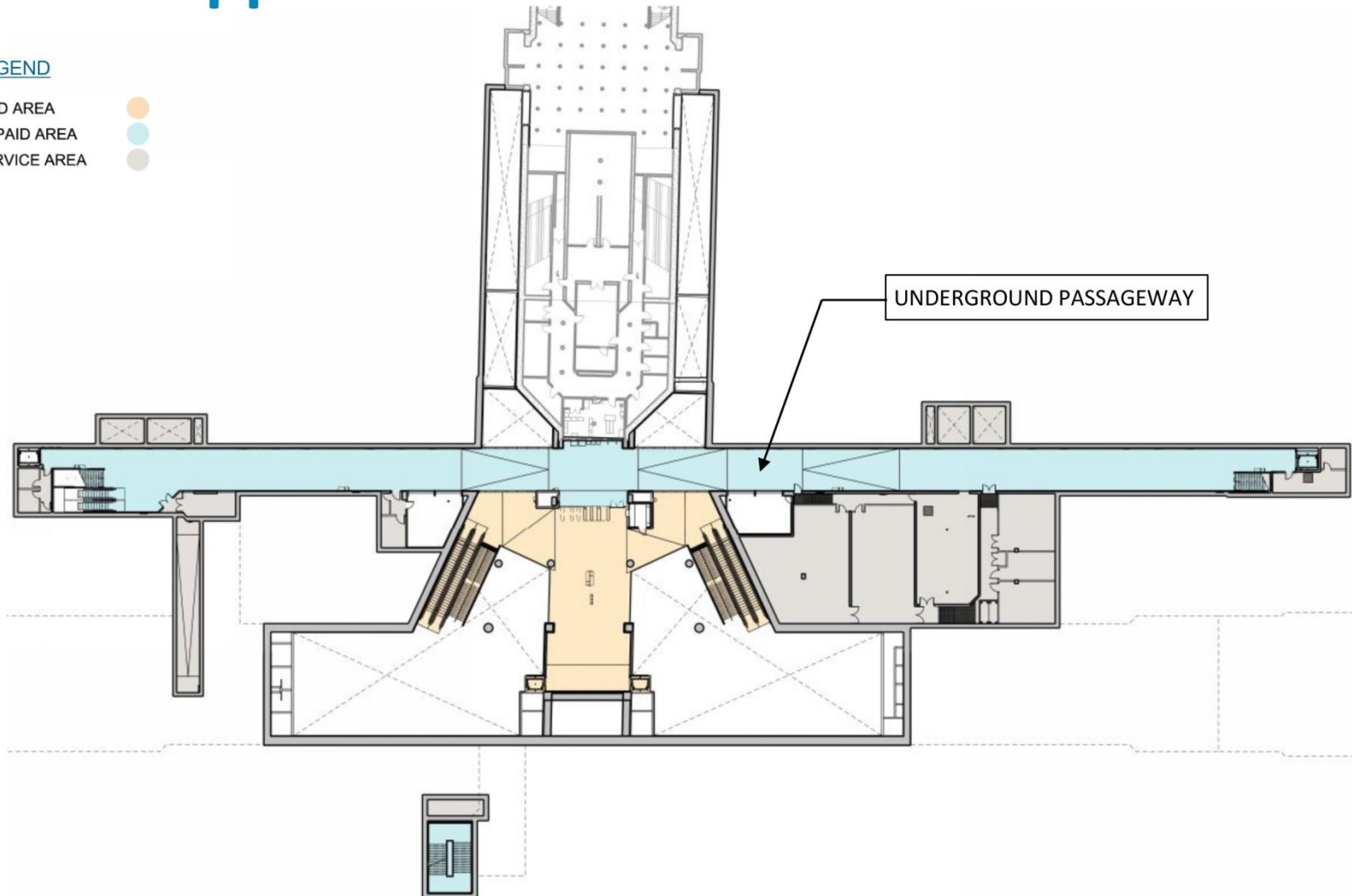
# Aerial View



# ECLRT Upper Concourse Level

LEGEND




- PAID AREA 
- UNPAID AREA 
- SERVICE AREA 

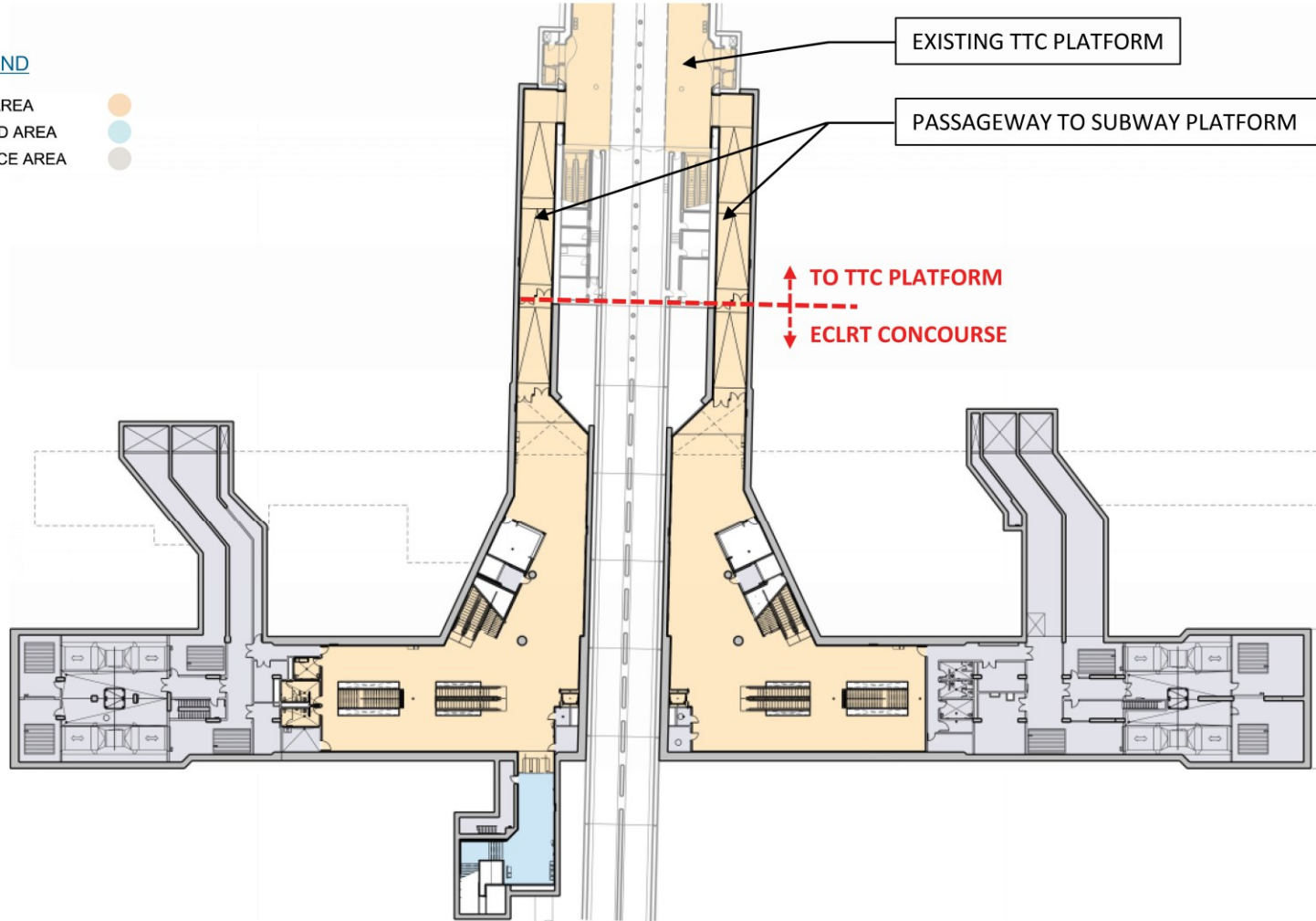




# ECLRT Lower Concourse Level

**LEGEND**

- PAID AREA 
- UNPAID AREA 
- SERVICE AREA 






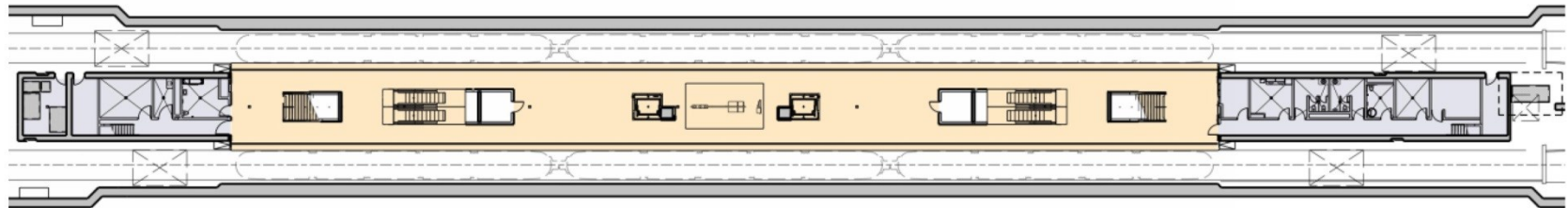


# Attachment 1 – Cedarvale Station

## ECLRT Platform




### LEGEND

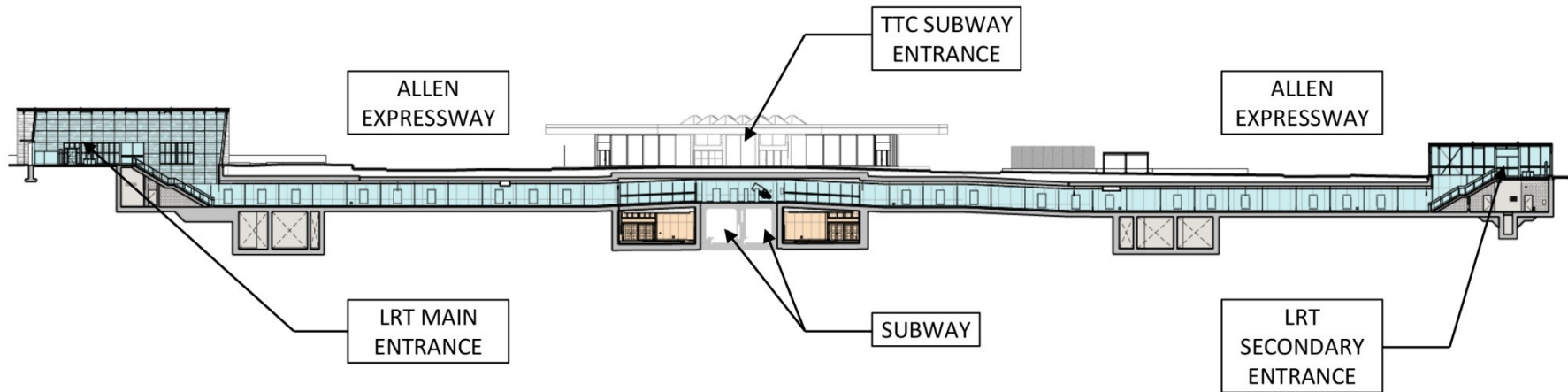
- PAID AREA 
- UNPAID AREA 
- SERVICE AREA 



# Section Along ECLRT Passageway Looking North

LEGEND

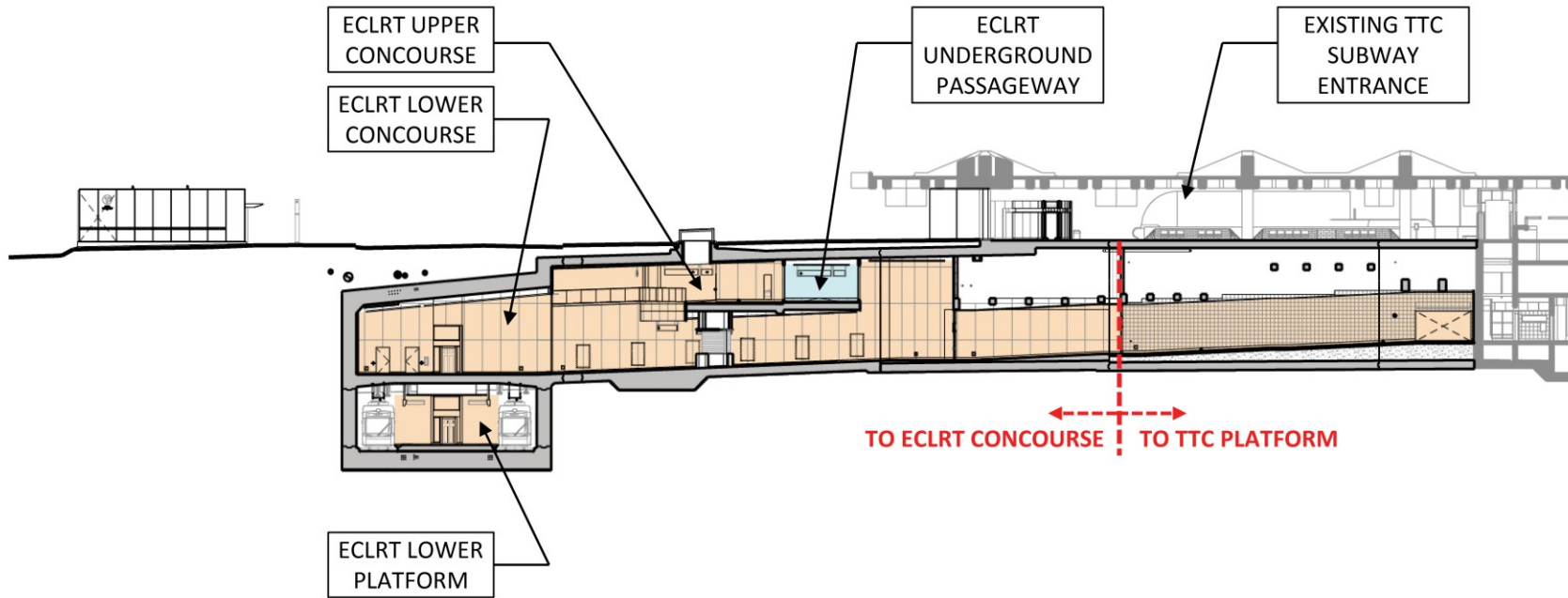
- PAID AREA 
- UNPAID AREA 
- SERVICE AREA 



# Section Along ECLRT Passageway Looking West

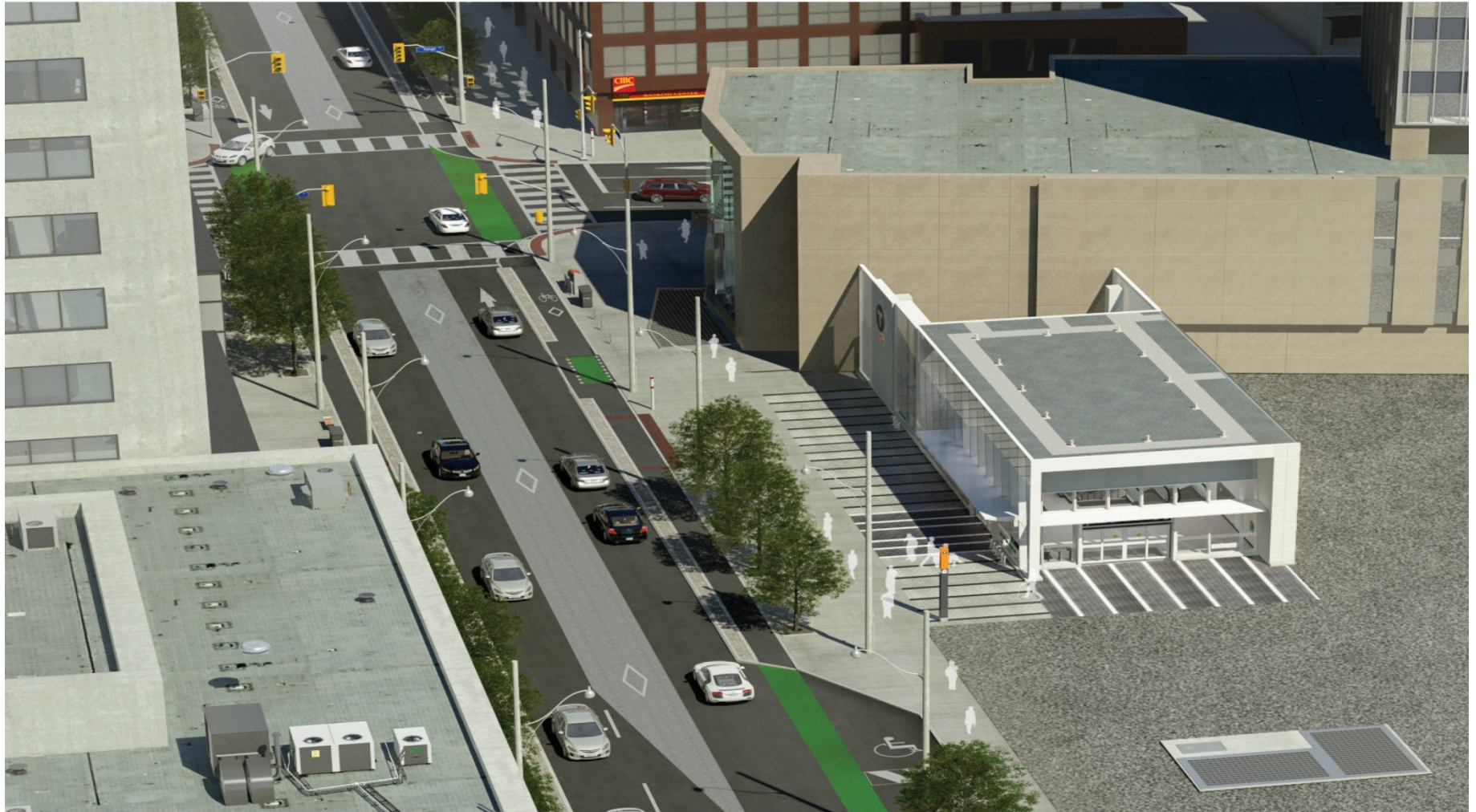
LEGEND

- PAID AREA ●
- UNPAID AREA ●
- SERVICE AREA ●

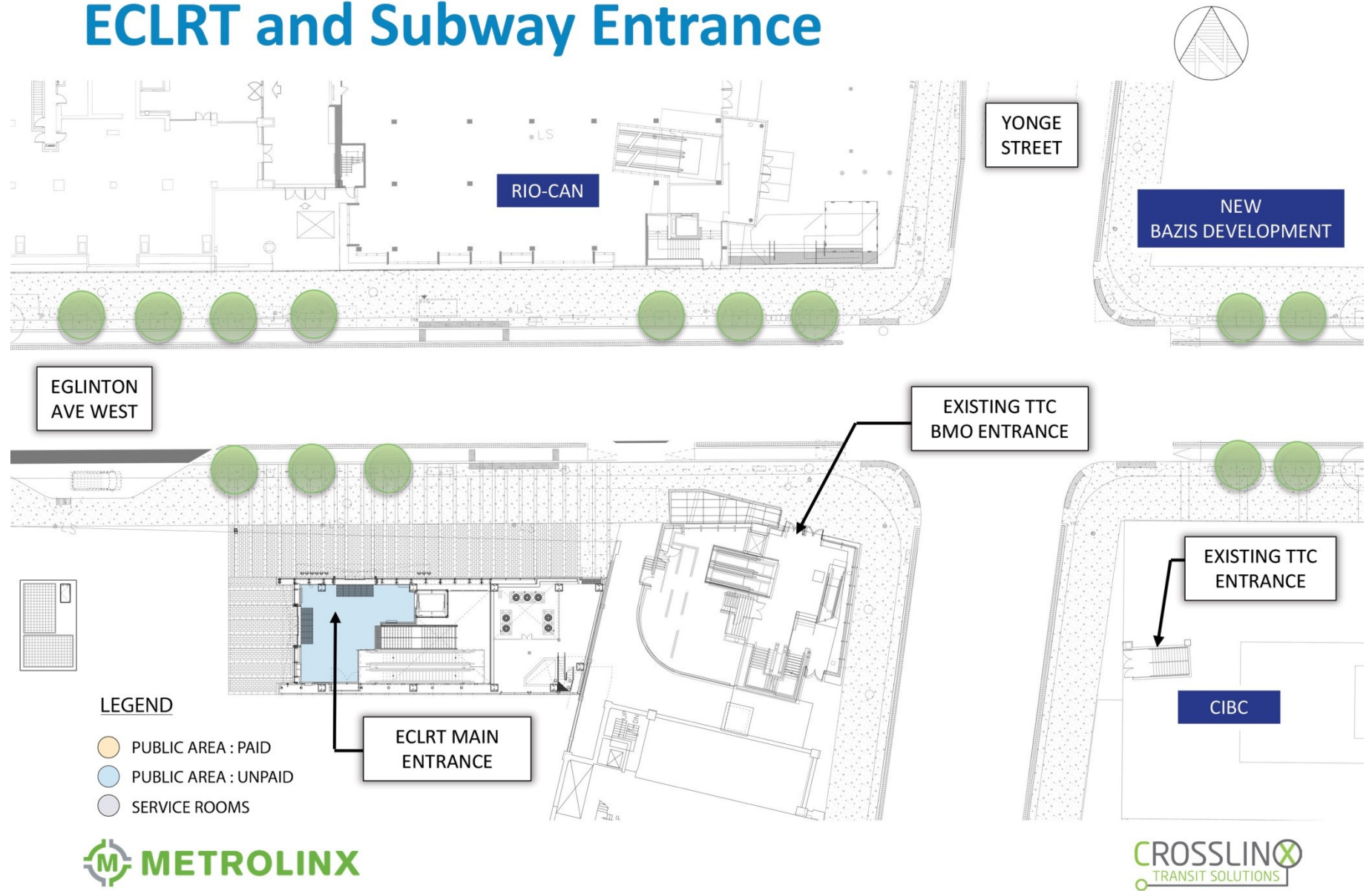




# AERIAL VIEW

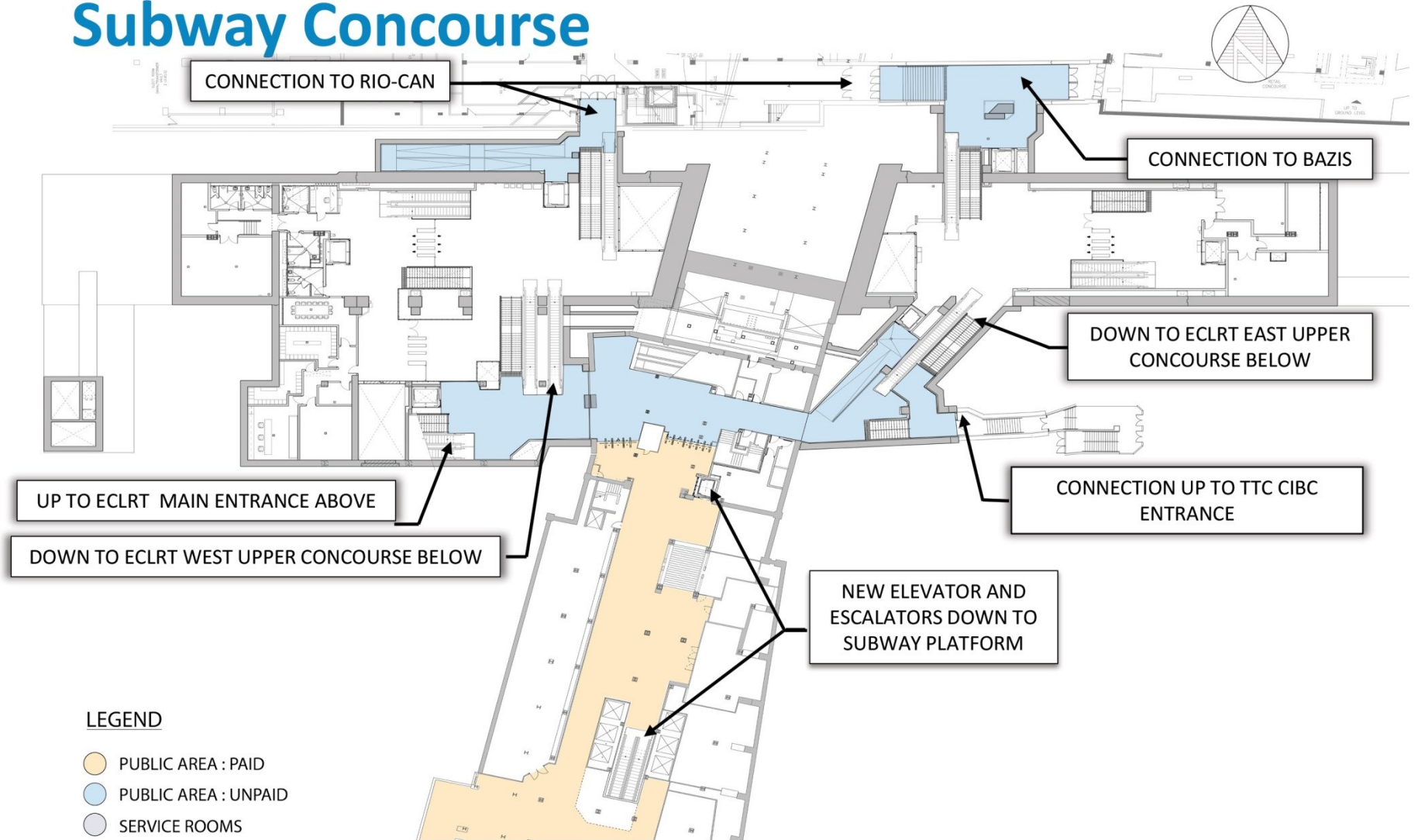


# ECLRT and Subway Entrance

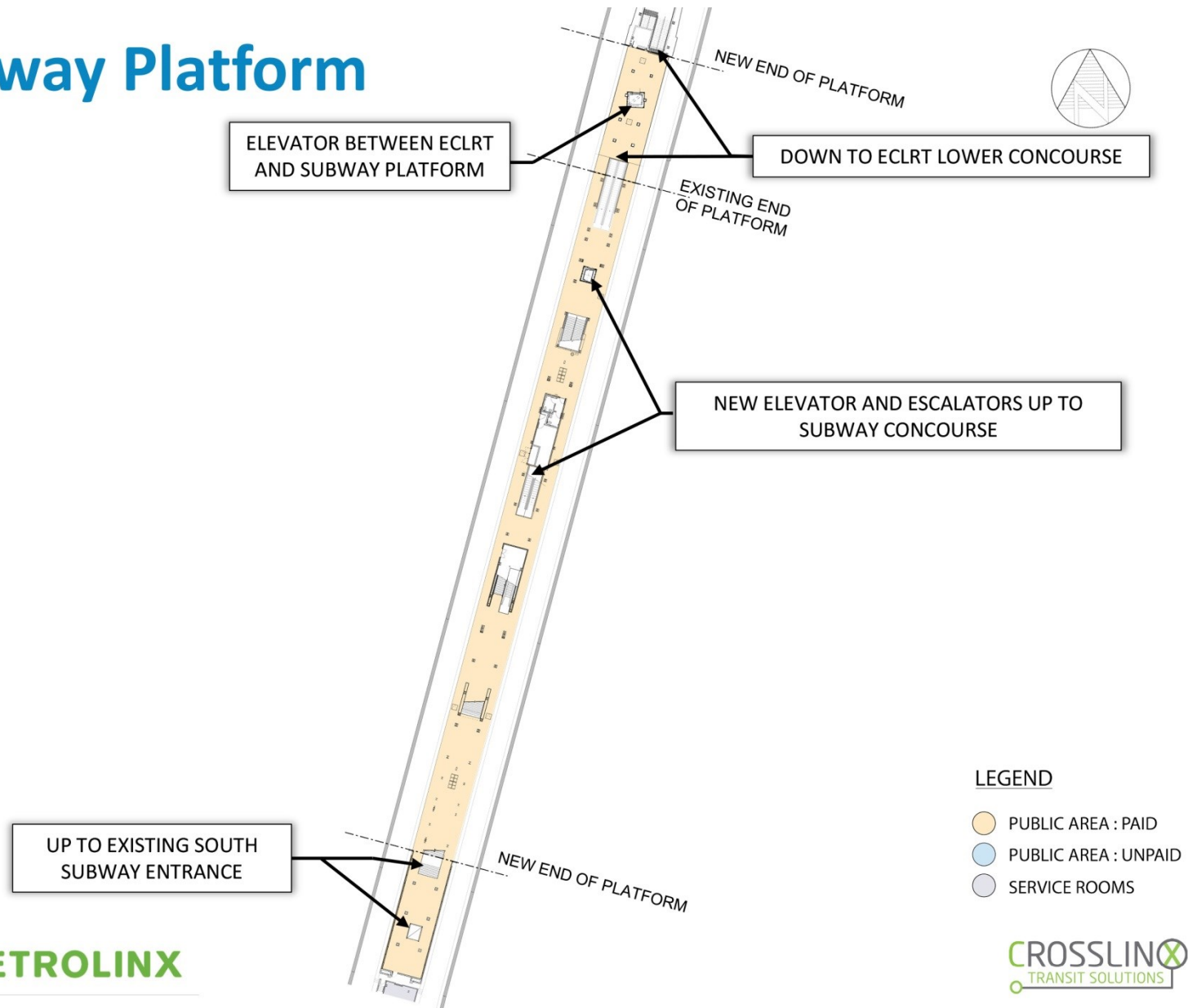




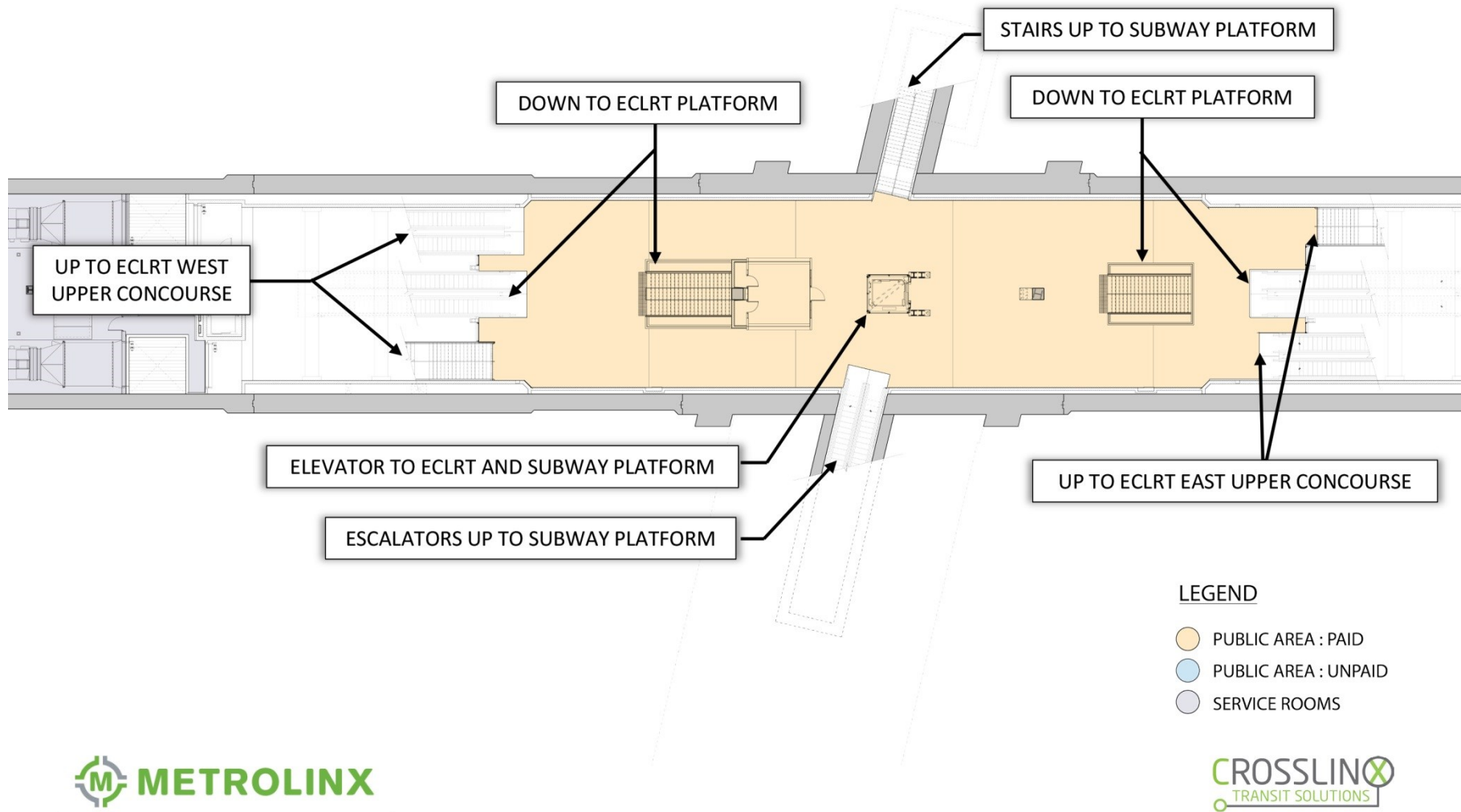
# Subway Concourse



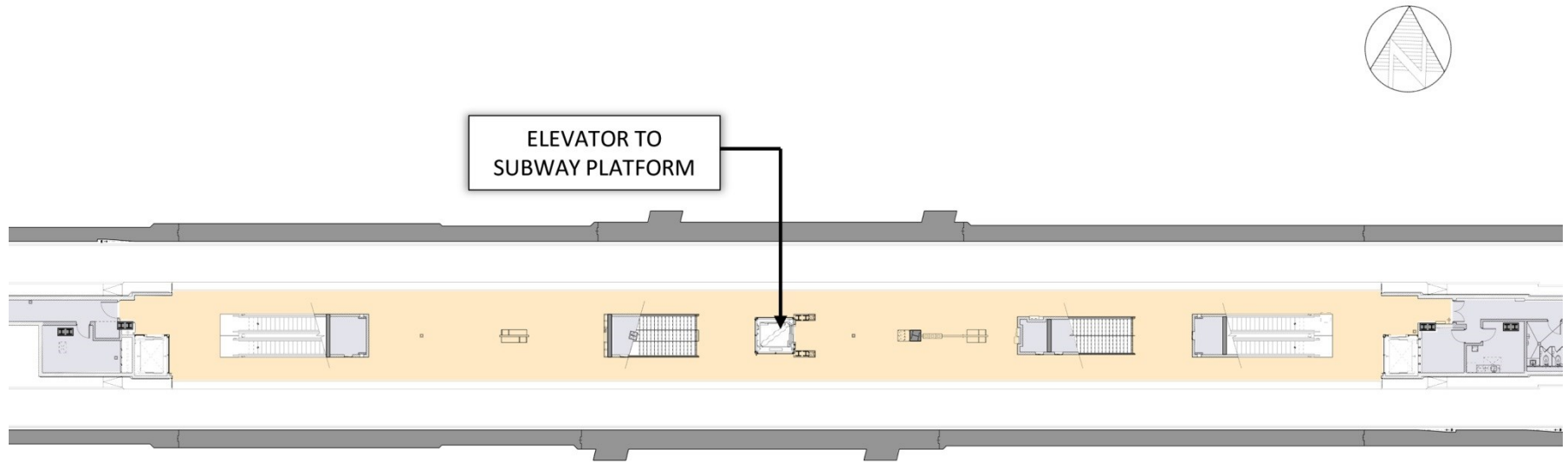
# Subway Platform



# ECLRT Lower Concourse



# ECLRT Platform

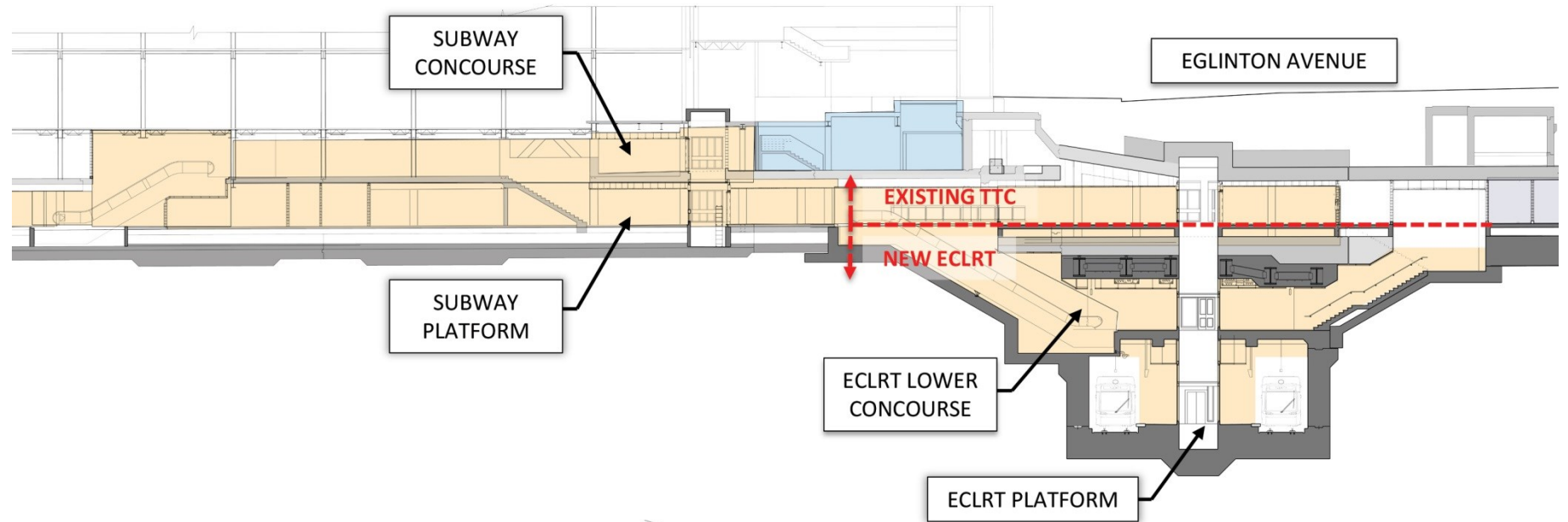


## LEGEND

-  PUBLIC AREA : PAID
-  PUBLIC AREA : UNPAID
-  SERVICE ROOMS



# Section Through Subway Looking West



**LEGEND**

- PUBLIC AREA : PAID
- PUBLIC AREA : UNPAID
- SERVICE ROOMS



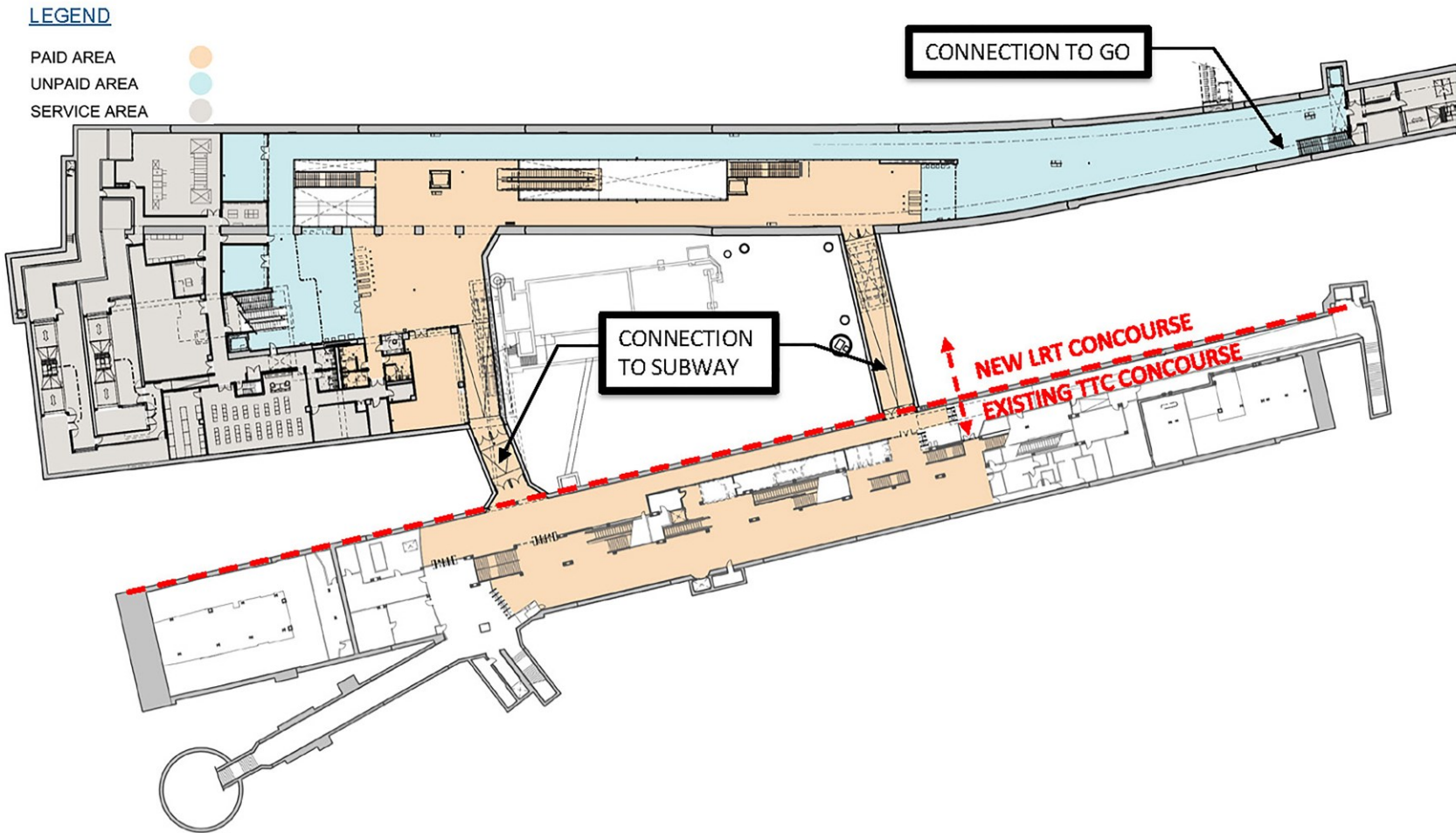


# Aerial View








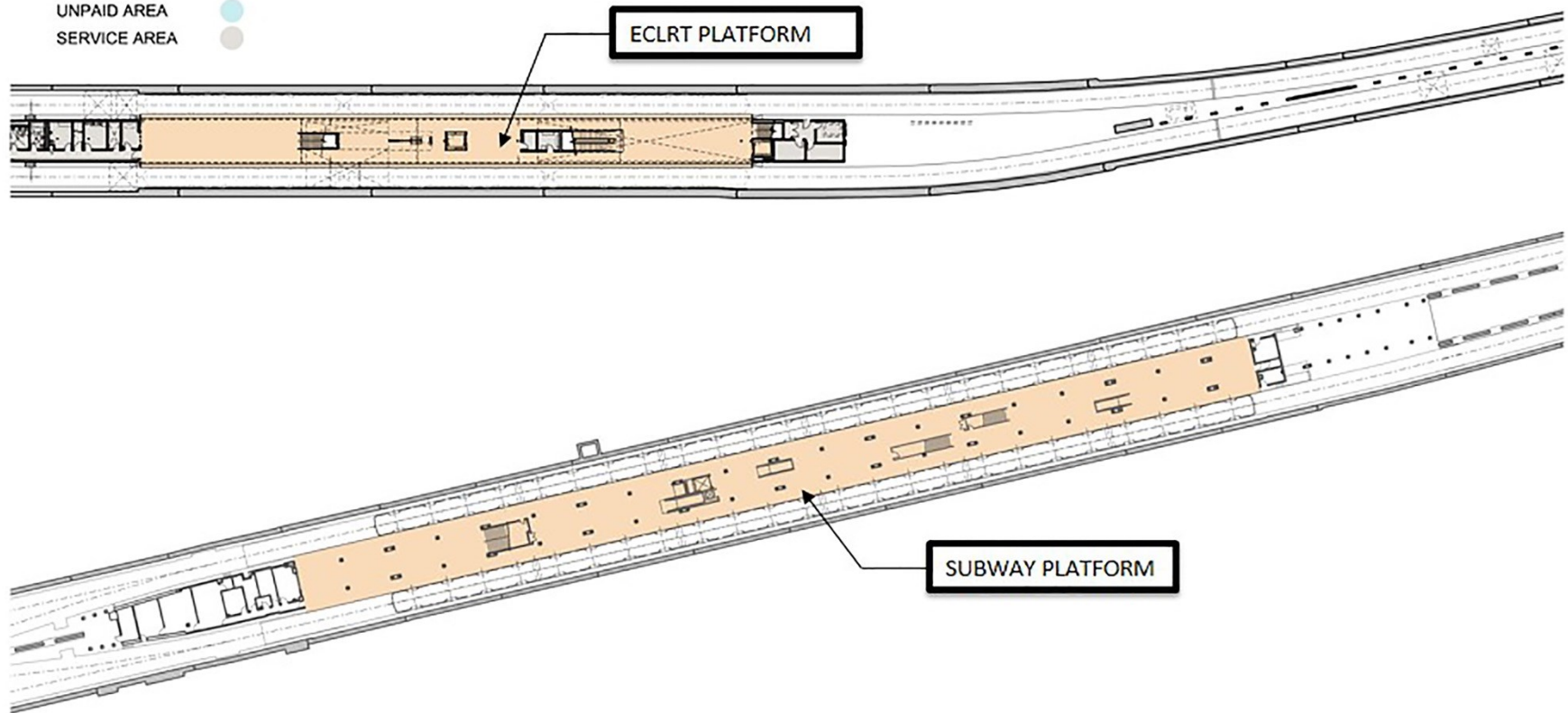
# ECLRT and Subway Concourse Level



# ECLRT and Subway Platform Level



**LEGEND**

- PAID AREA 
- UNPAID AREA 
- SERVICE AREA 



# Section Looking East

**LEGEND**

- PAID AREA 
- UNPAID AREA 
- SERVICE AREA 