

HDR

**13th National Light Rail and Streetcars Conference**  
**LRT & Streetcar Developments in Canada**

**Seamless Mobility:**  
**The Design of Interchange Stations**  
**on the new Eglinton Crosstown**  
**LRT line in Toronto**

**Americo Gonzalez, Senior Architect and Project Manager**  
**Infrastructure & Transportation Architecture**  
**HDR, Toronto, ON**

# AGENDA

- **Transit in Toronto**

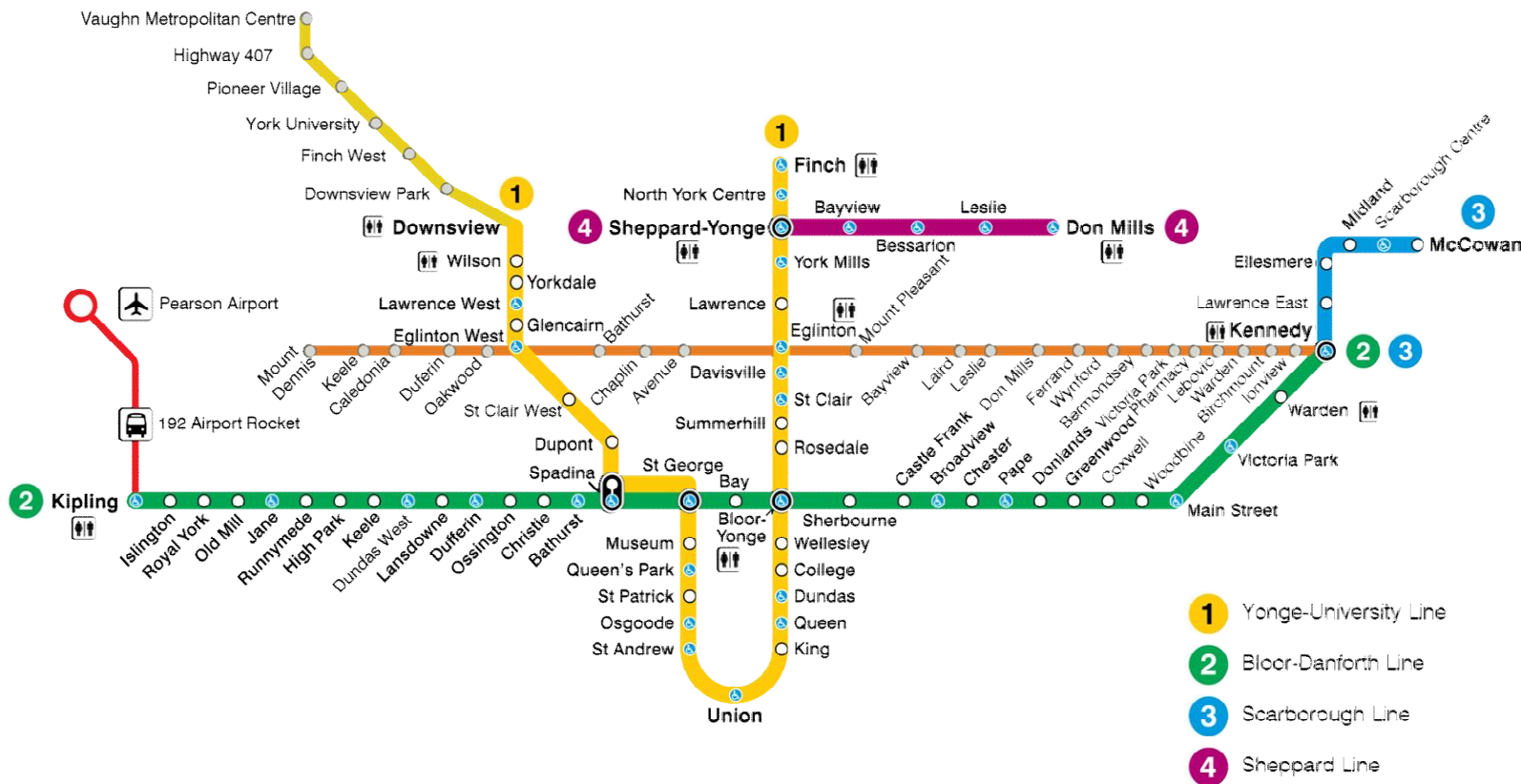
Seamless Mobility and the Passenger Experience

- **Eglinton West (Allen) Interchange Station**

Reference Concept Design and P3 Pursuit  
Layout Options and Passenger Modelling

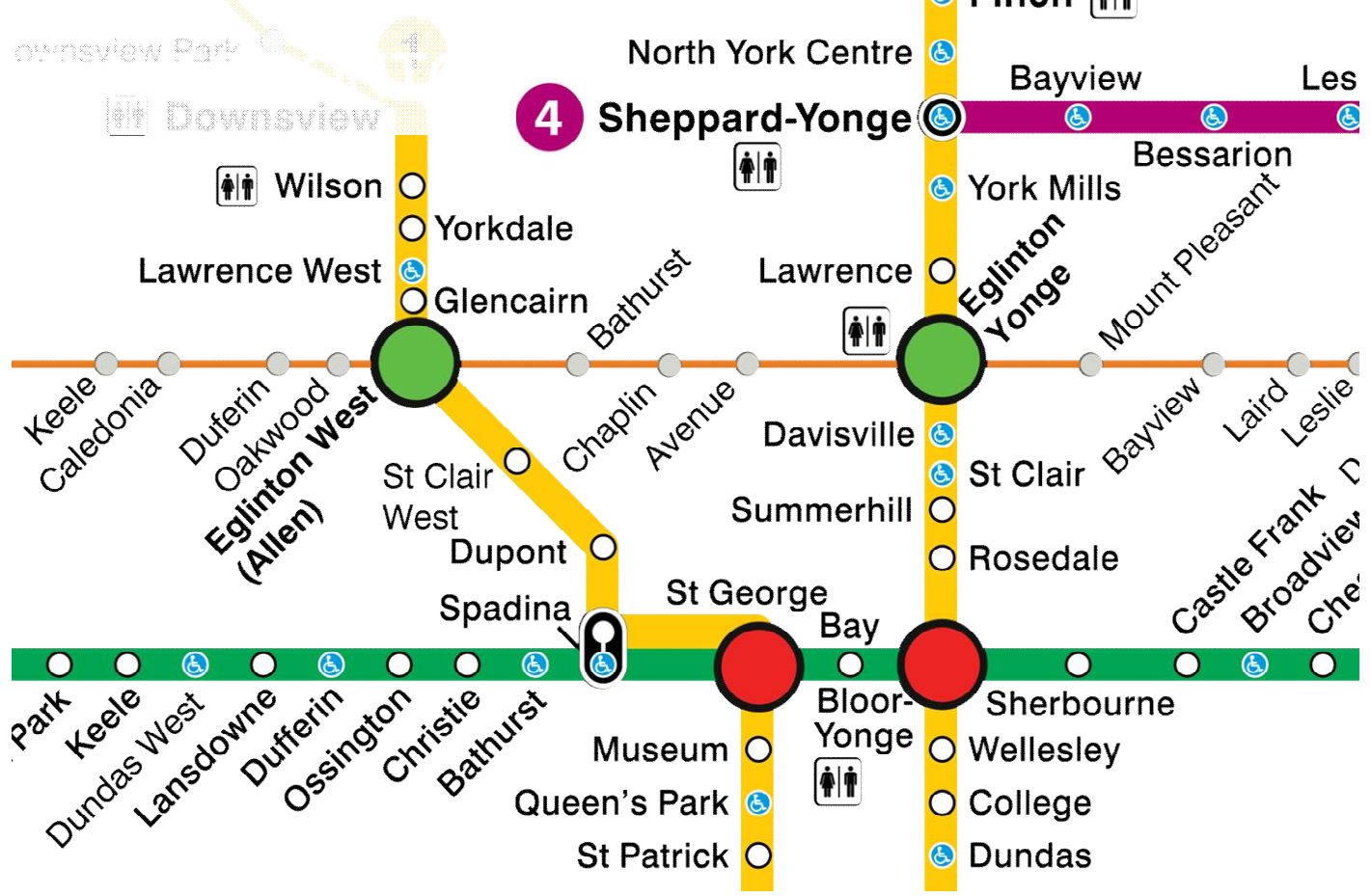
- **Eglinton Yonge Interchange Station**

Reference Concept Design and P3 Pursuit  
Layout Options and Passenger Modelling

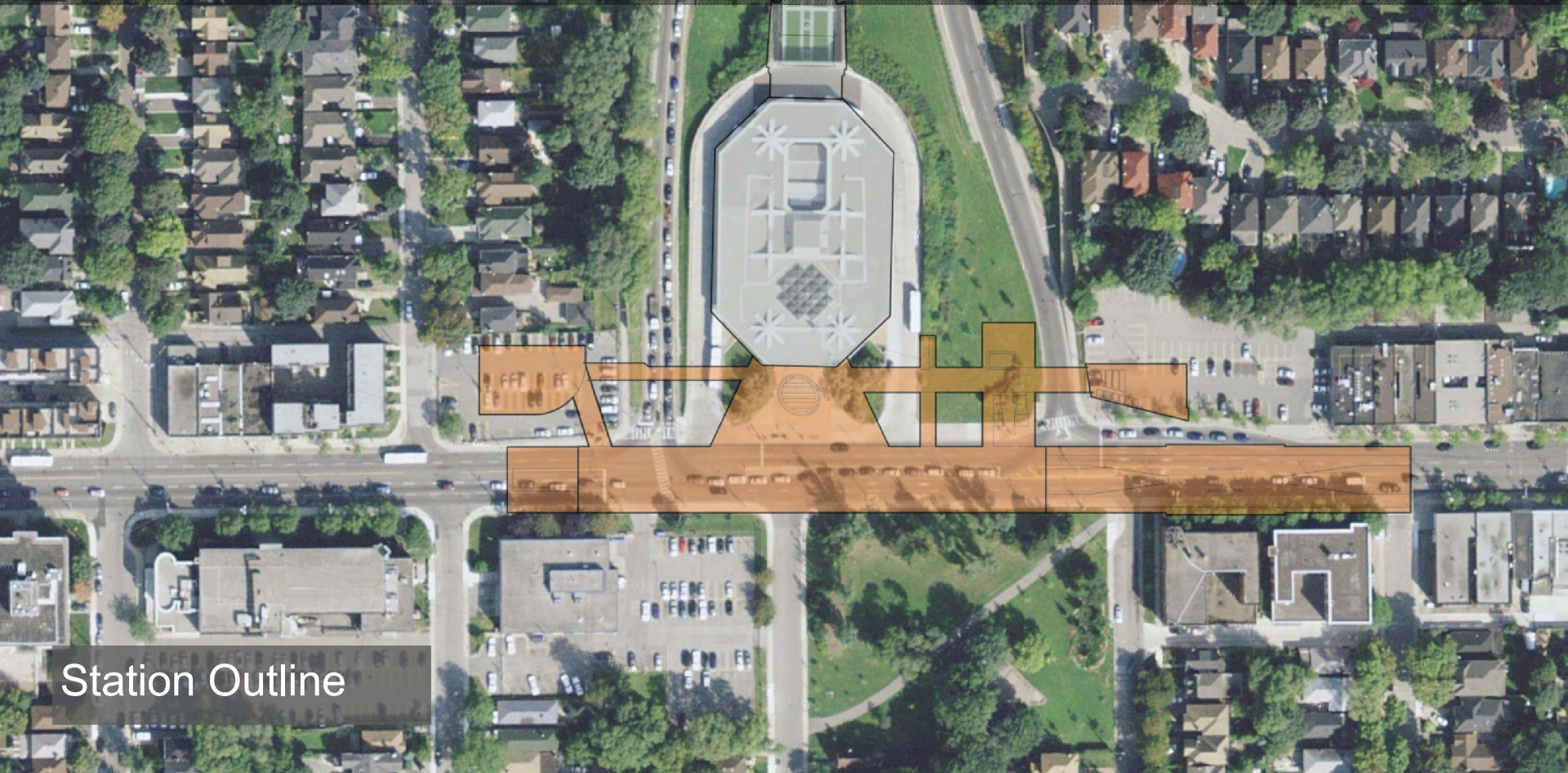


- 1 Yonge-University Line
- 2 Bloor-Danforth Line
- 3 Scarborough Line
- 4 Sheppard Line





# EGLINTON WEST (ALLEN) INTERCHANGE STATION



Station Outline

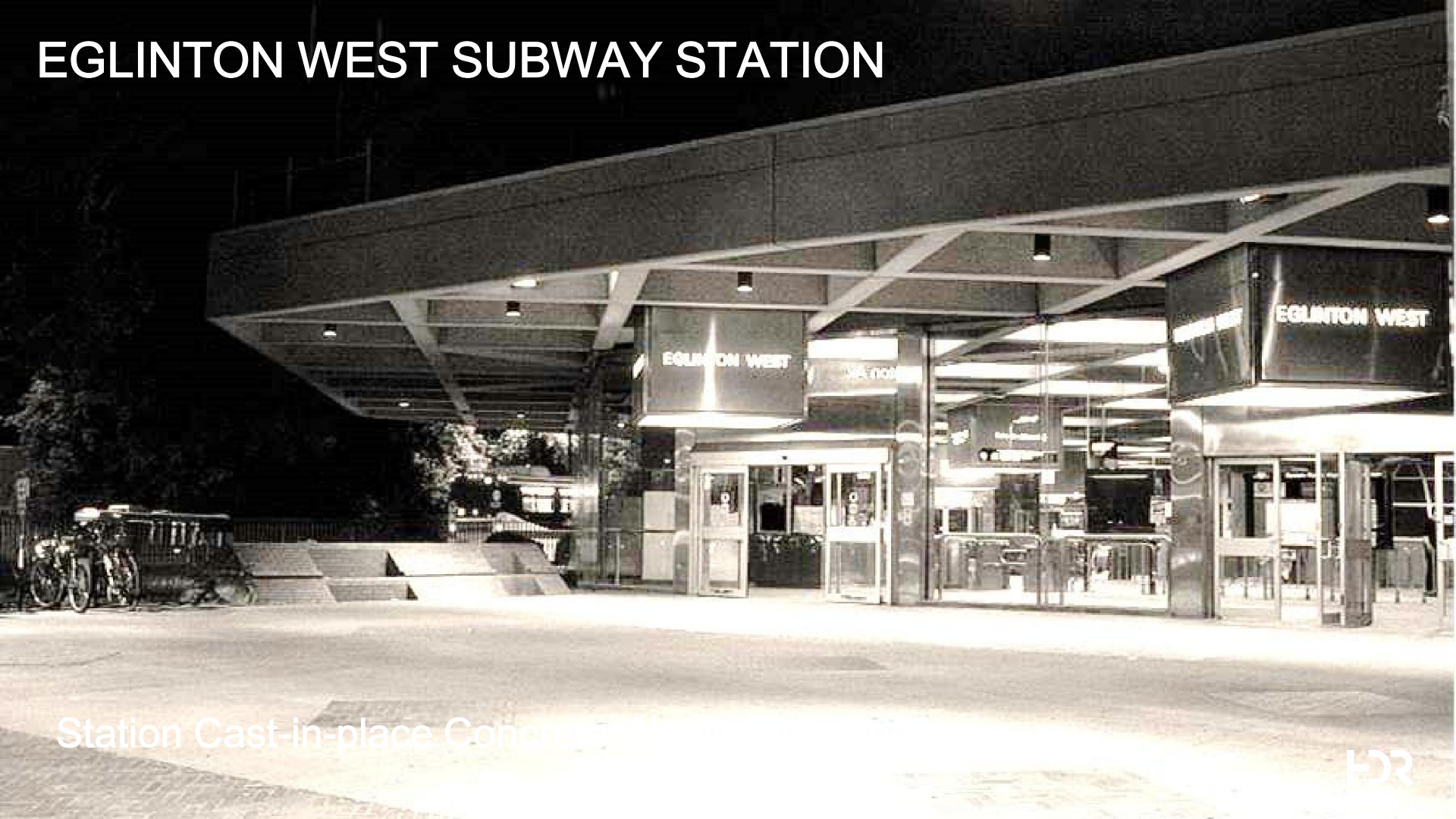


# EGLINTON WEST SUBWAY STATION



View of Station from Allen Road Northbound on-ramp

# EGLINTON WEST SUBWAY STATION



Station Cast-in-place Concrete

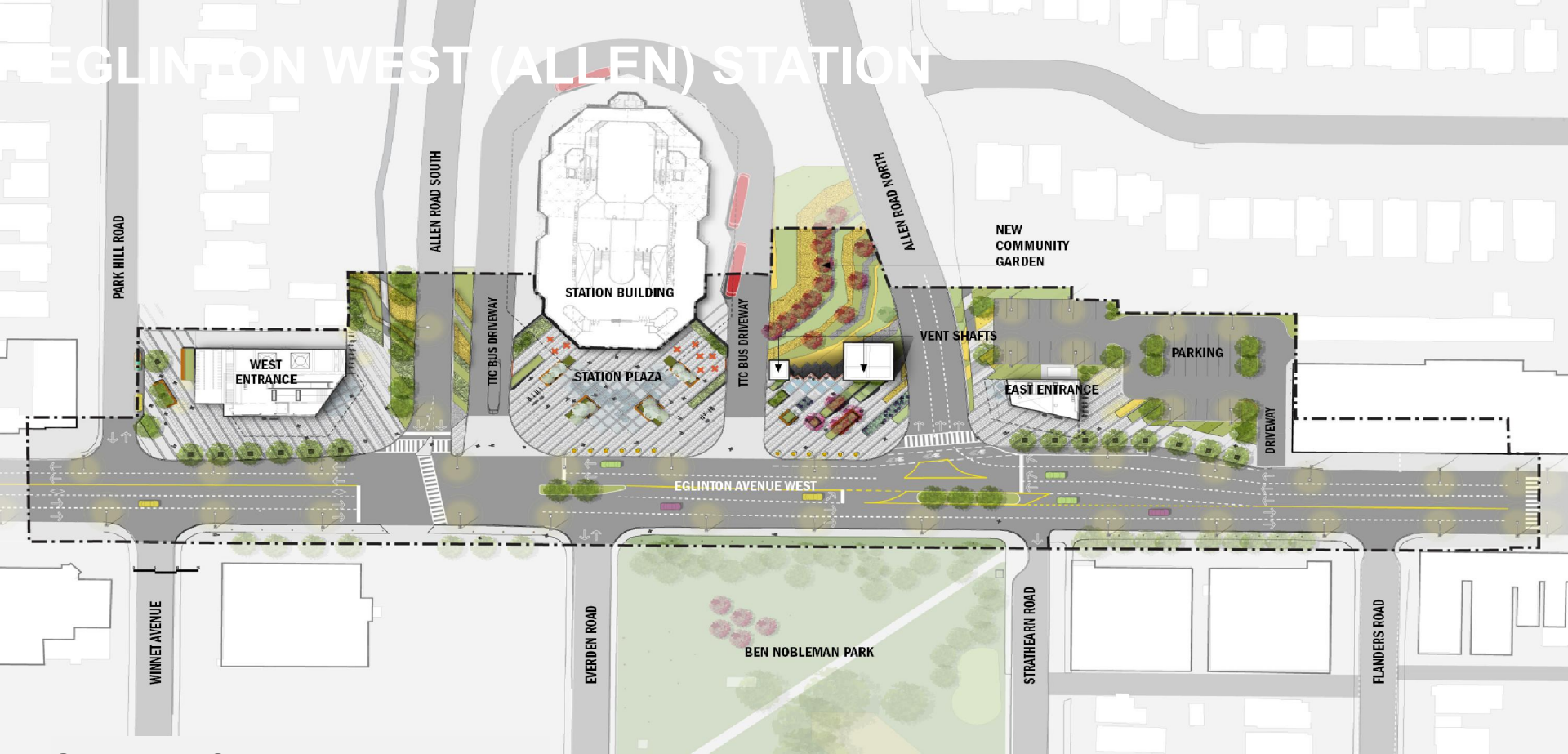


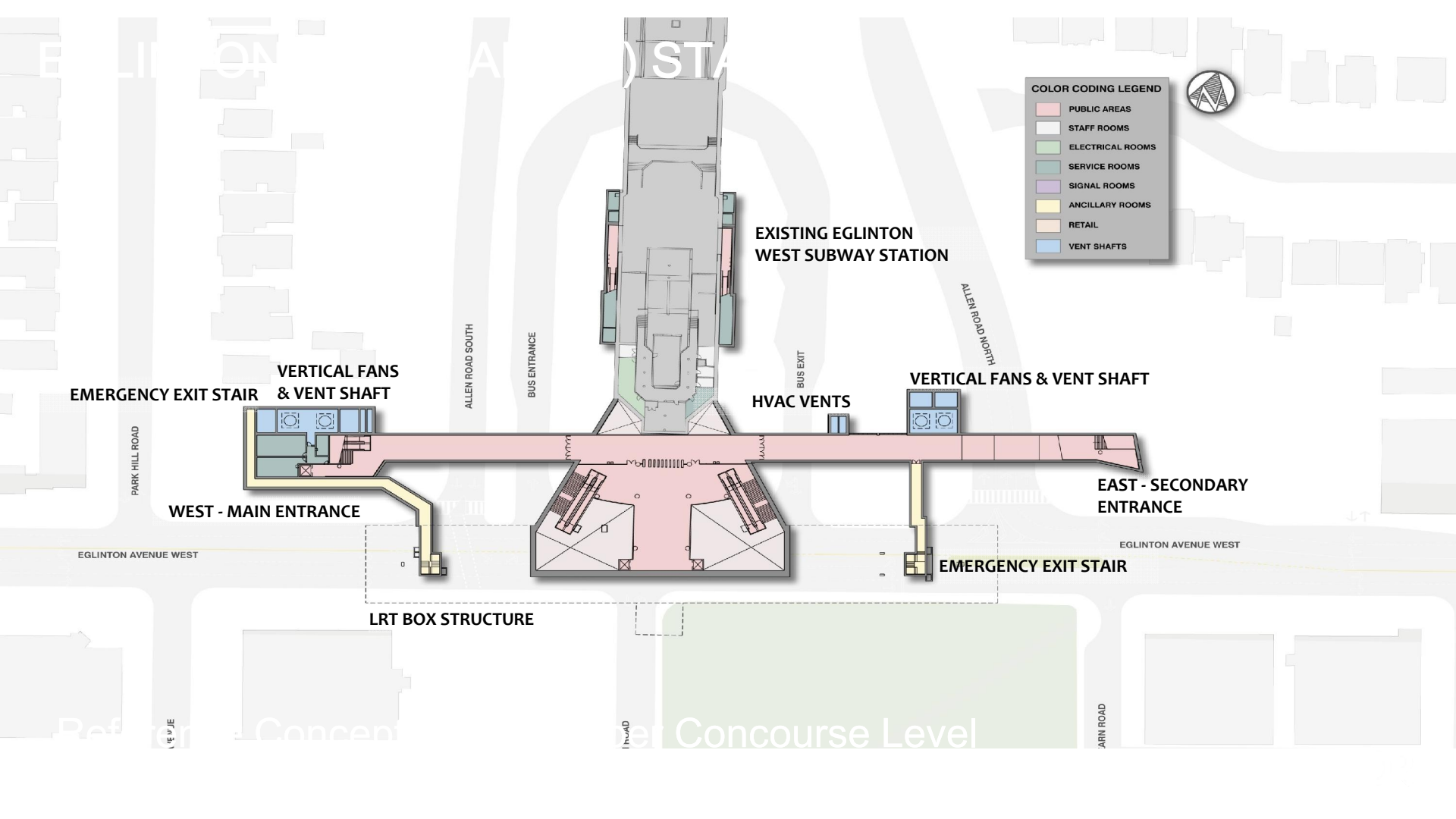
# EGLINTON WEST SUBWAY STATION



Station Fare Line and Arrival Hall

# EGLINTON WEST (ALLEN) STATION





**COLOR CODING LEGEND**

[Pink Box]	PUBLIC AREAS
[White Box]	STAFF ROOMS
[Light Green Box]	ELECTRICAL ROOMS
[Light Blue Box]	SERVICE ROOMS
[Purple Box]	SIGNAL ROOMS
[Yellow Box]	ANCILLARY ROOMS
[Light Orange Box]	RETAIL
[Blue Box]	VENT SHAFTS



**EXISTING EGLINTON WEST SUBWAY STATION**

**EMERGENCY EXIT STAIR & VERTICAL FANS & VENT SHAFT**

**WEST - MAIN ENTRANCE**

**LRT BOX STRUCTURE**

**HVAC VENTS**

**VERTICAL FANS & VENT SHAFT**

**EAST - SECONDARY ENTRANCE**

**EMERGENCY EXIT STAIR**

ALLEN ROAD SOUTH

BUS ENTRANCE

BUS EXIT

ALLEN ROAD NORTH

PARK HILL ROAD

EGLINTON AVENUE WEST

EGLINTON AVENUE WEST

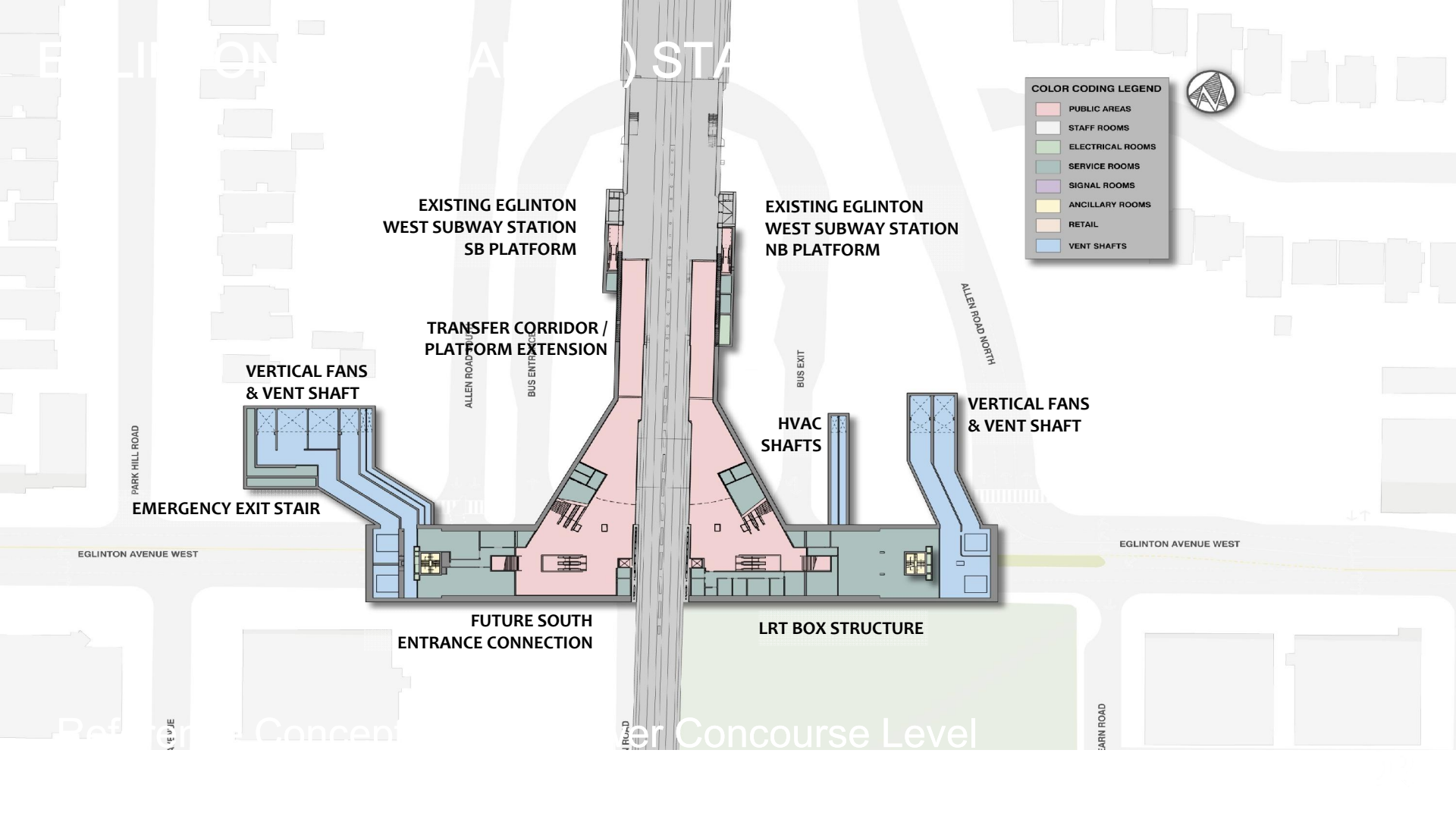
LEVEE

ROAD

JARIN ROAD

Concourse Level





STATION

EXISTING EGLINTON  
WEST SUBWAY STATION  
SB PLATFORM

EXISTING EGLINTON  
WEST SUBWAY STATION  
NB PLATFORM

TRANSFER CORRIDOR /  
PLATFORM EXTENSION

VERTICAL FANS  
& VENT SHAFT

VERTICAL FANS  
& VENT SHAFT

HVAC  
SHAFTS

EMERGENCY EXIT STAIR

FUTURE SOUTH  
ENTRANCE CONNECTION

LRT BOX STRUCTURE

COLOR CODING LEGEND

- PUBLIC AREAS
- STAFF ROOMS
- ELECTRICAL ROOMS
- SERVICE ROOMS
- SIGNAL ROOMS
- ANCILLARY ROOMS
- RETAIL
- VENT SHAFTS



PARK HILL ROAD

EGLINTON AVENUE WEST

ALLEN ROAD SOUTH

BUS ENTRANCE

BUS EXIT

ALLEN ROAD NORTH

EGLINTON AVENUE WEST

BARN ROAD

Reference Concept

Concourse Level





**COLOR CODING LEGEND**

- PUBLIC AREAS
- STAFF ROOMS
- ELECTRICAL ROOMS
- SERVICE ROOMS
- SIGNAL ROOMS
- ANCILLARY ROOMS
- RETAIL
- VENT SHAFTS

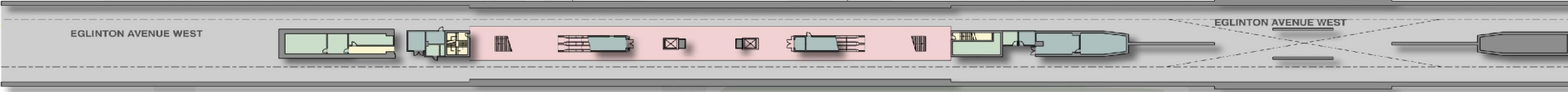
**EXISTING EGLINTON WEST SUBWAY STATION**

**VERTICAL FANS & VENT SHAFT**

**WEST - MAIN ENTRANCE ABOVE**

**FREE CORRIDOR ABOVE**

**EAST - SECONDARY ENTRANCE ABOVE**



**PROGRAM AREAS**

**CROSSTOWN PLATFORM LEVEL**

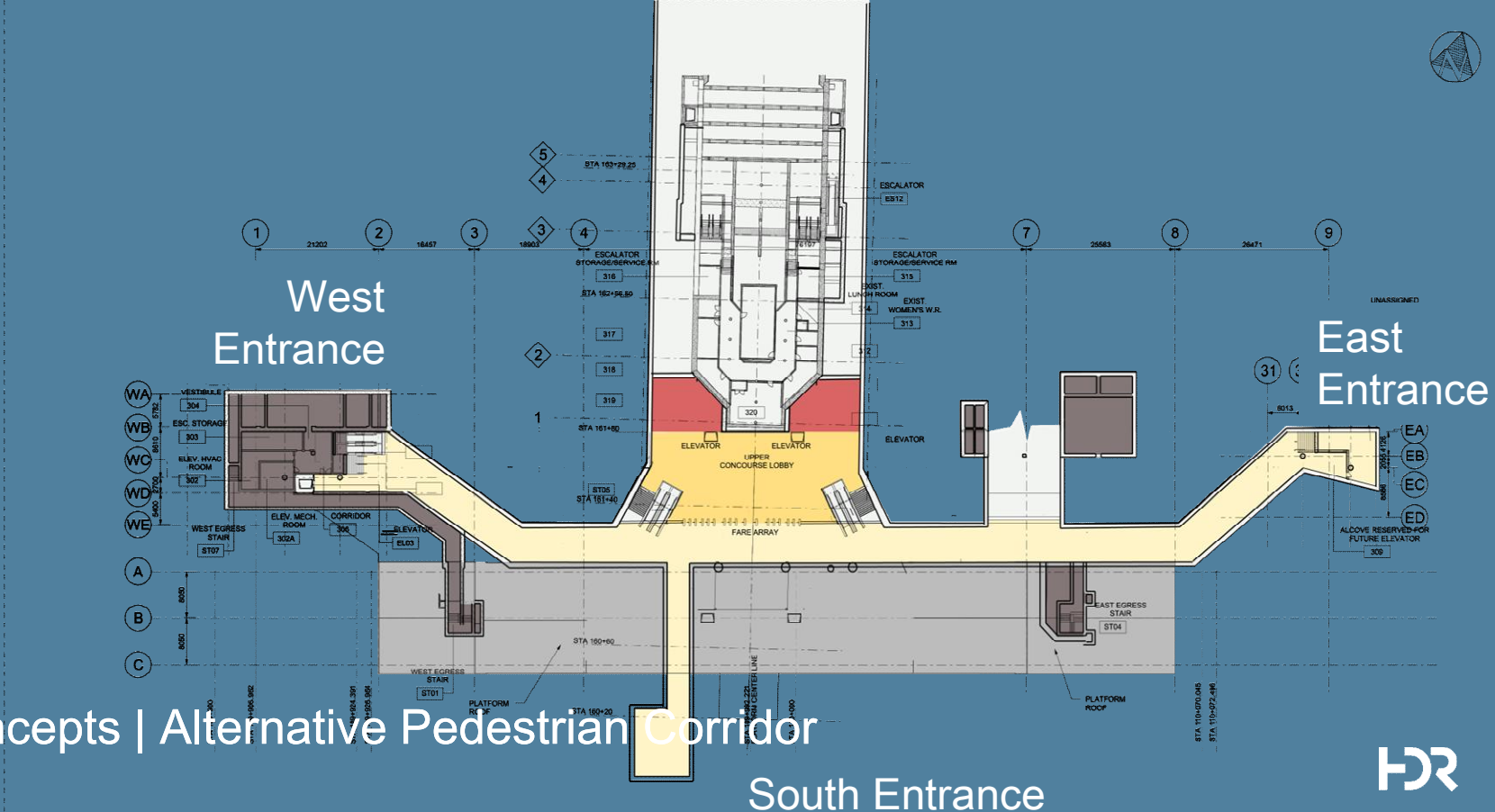
**PROGRAM AREAS**

**TRACK CROSSOVER**

**Platform Level**



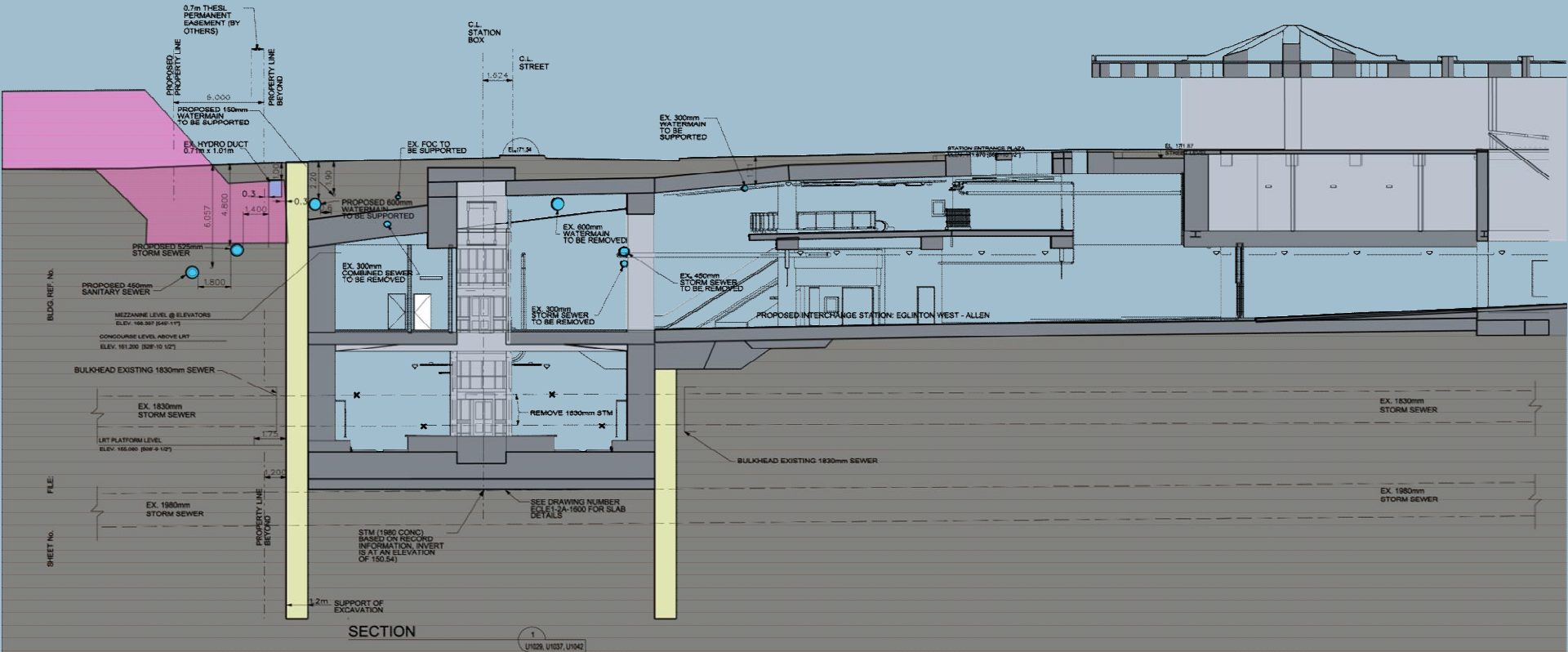
# EGLINTON WEST (ALLEN) STATION



P3 Concepts | Alternative Pedestrian Corridor

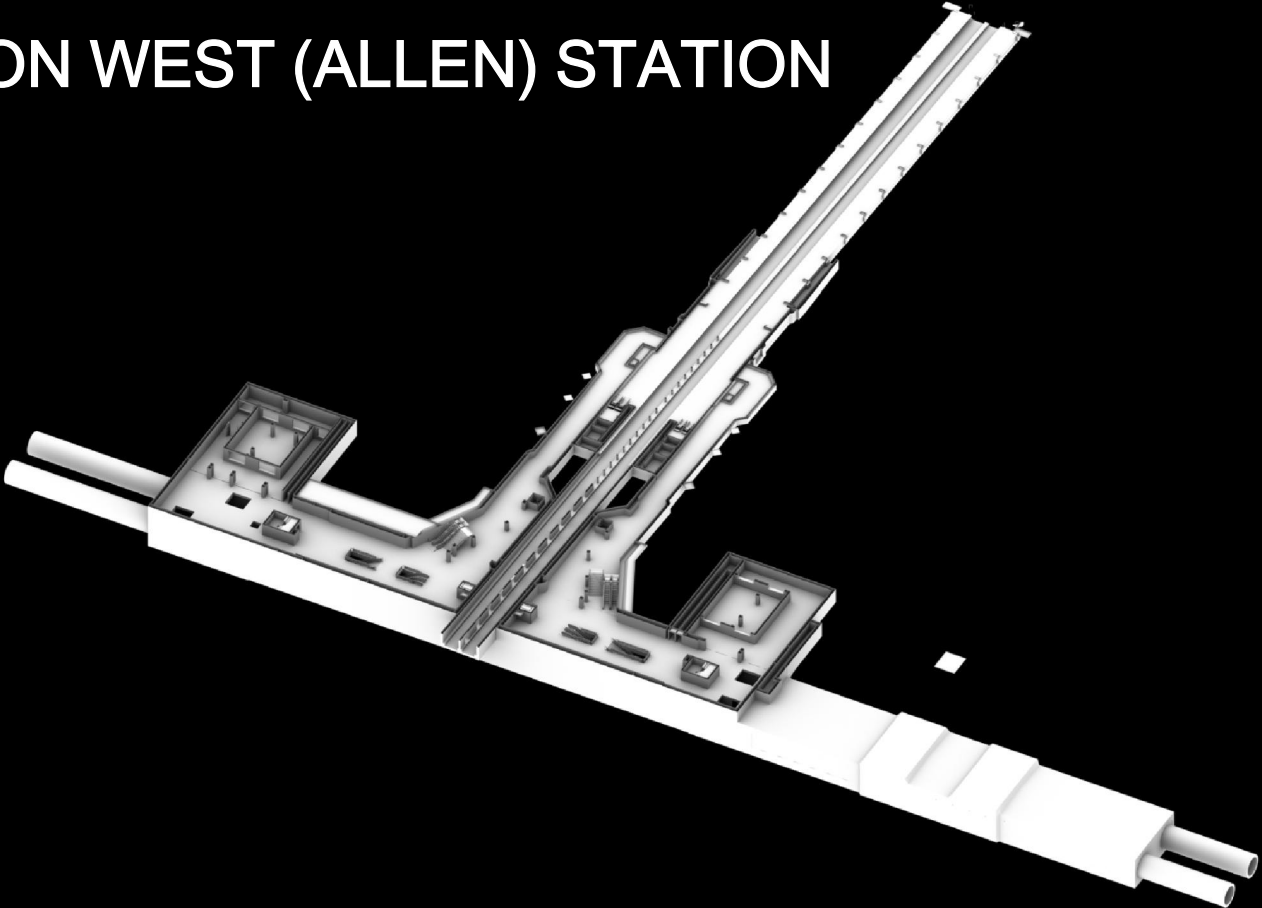


# EGLINTON WEST (ALLEN) STATION



North South Section Through Subway Station

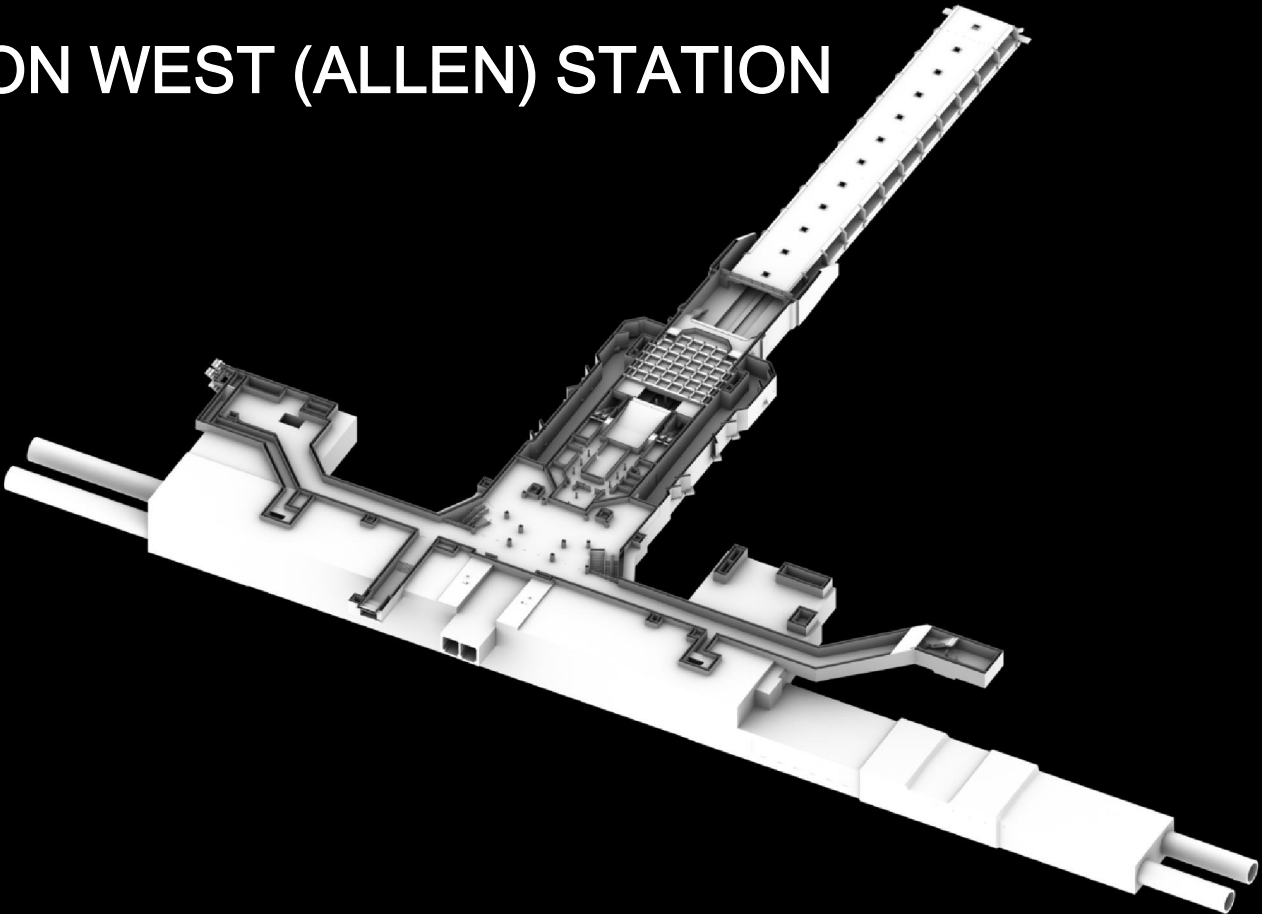
# EGLINTON WEST (ALLEN) STATION



P3 Concepts LRT Lower Concourse | TTC Platform Level

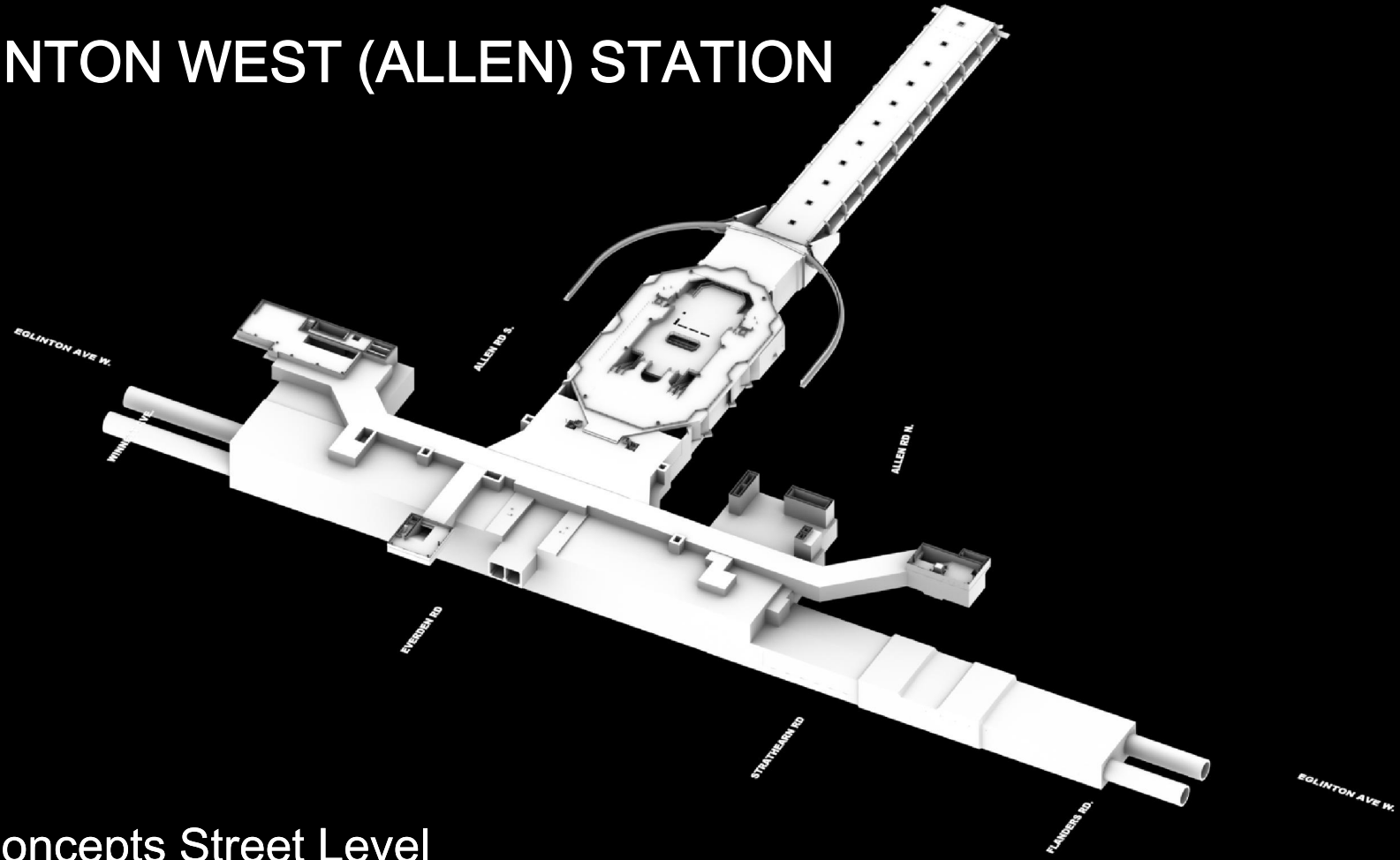


# EGLINTON WEST (ALLEN) STATION



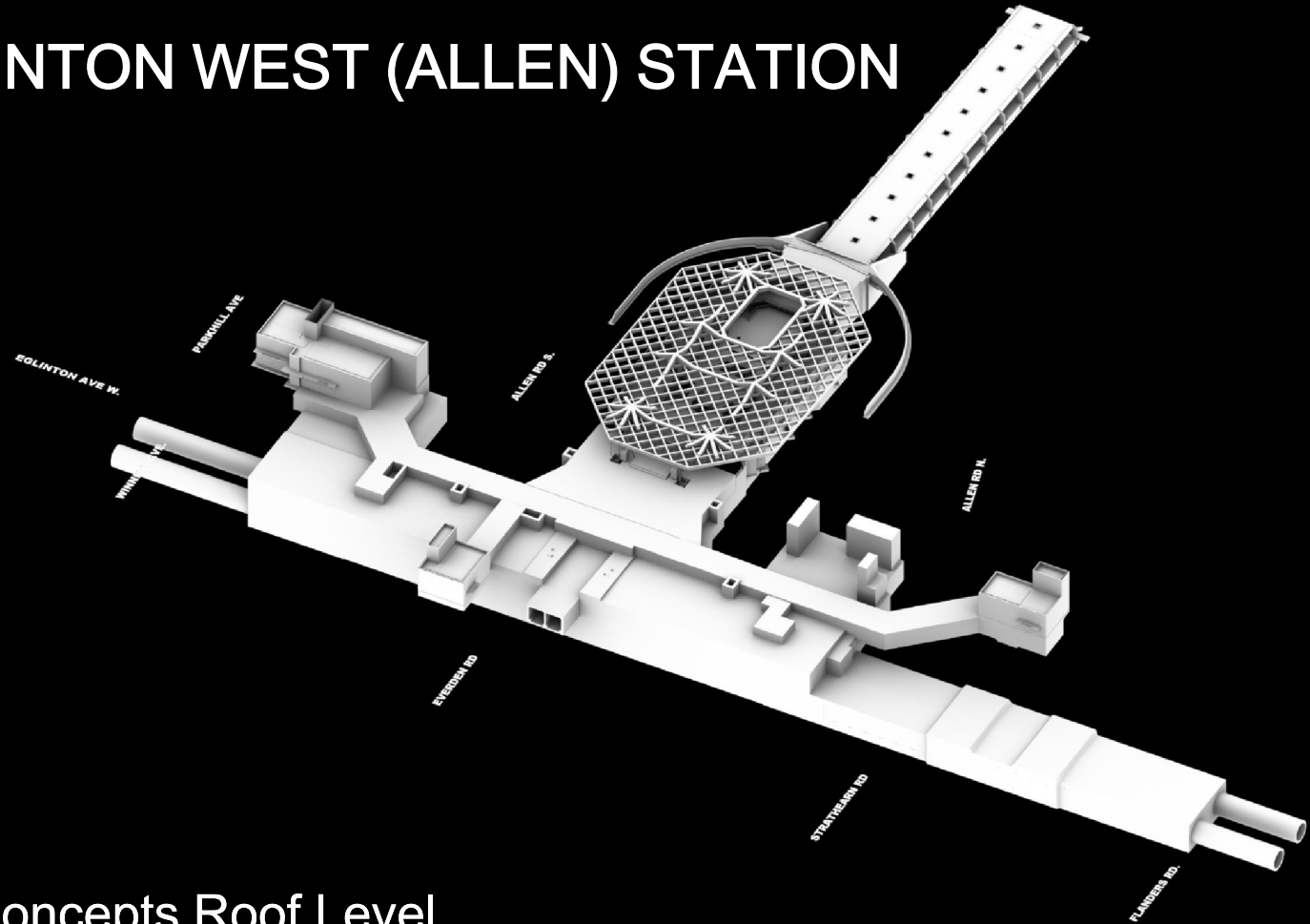
P3 Concepts LRT Upper Concourse Level

# EGLINTON WEST (ALLEN) STATION



P3 Concepts Street Level

# EGLINTON WEST (ALLEN) STATION

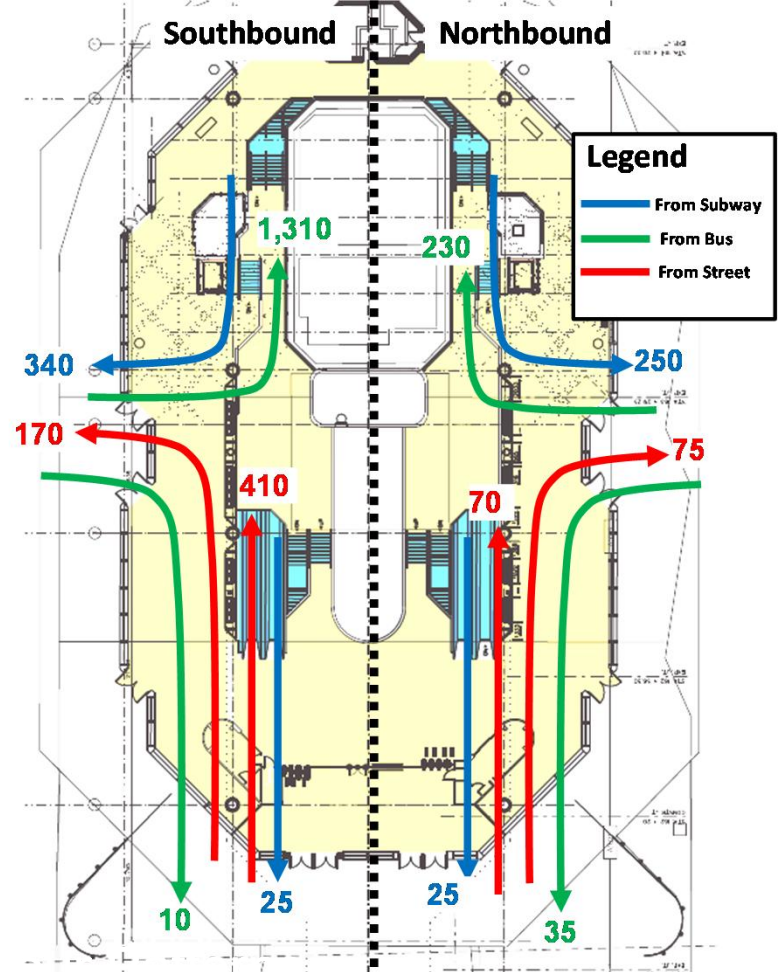


P3 Concepts Roof Level

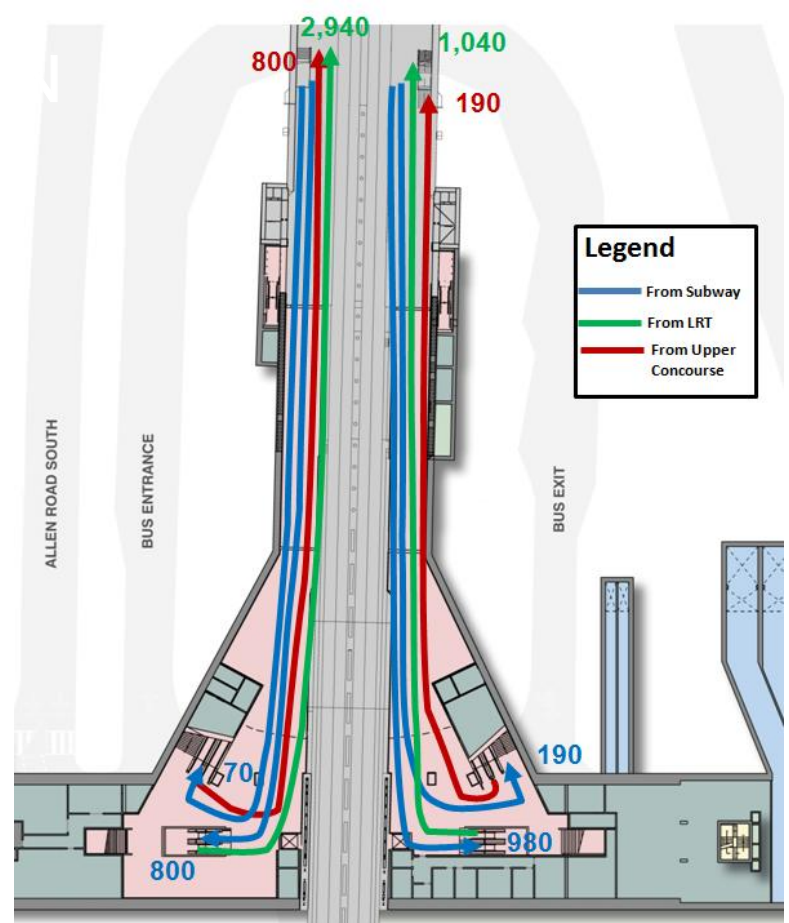




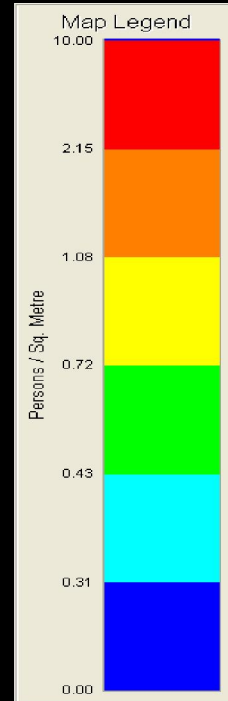
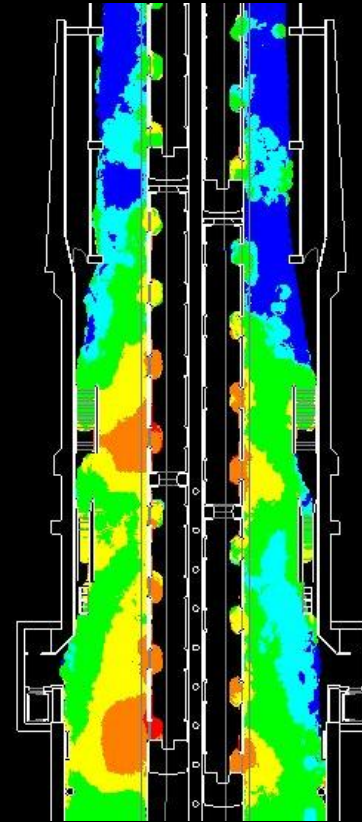
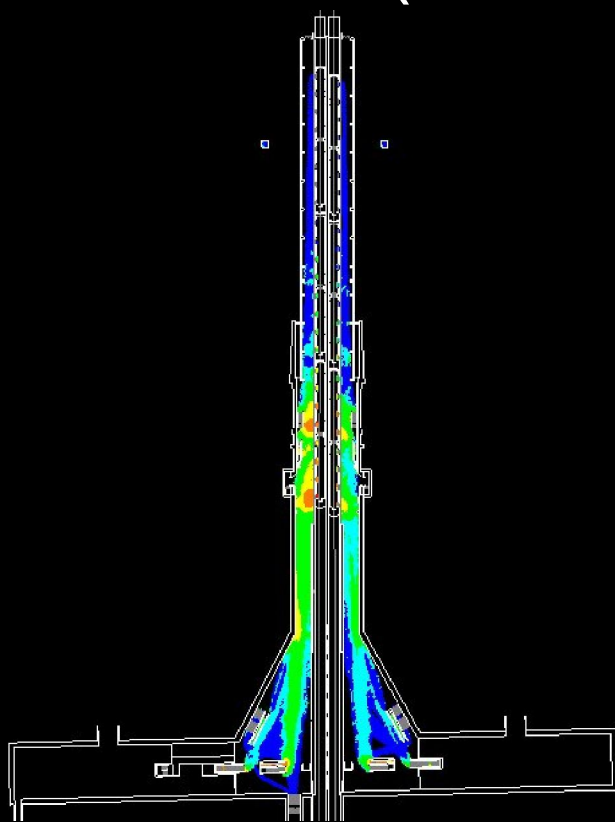
2010 AM	Bus	NB Subway	SB Subway	Walk Out	Total
Bus		230	1,310	40	1,580
NB Subway	245			25	270
SB Subway	340			25	365
Walk In	245	70	410		725
<b>Total</b>	<b>830</b>	<b>300</b>	<b>1,720</b>	<b>90</b>	<b>2,940</b>



2051 AM	Bus	NB Subway	SB Subway	EB LRT	WB LRT	Walk Out	Total
Bus		110	350	120	10	20	<b>610</b>
NB Subway	30			450	530	190	<b>1,200</b>
SB Subway	70			610	190	70	<b>940</b>
EB LRT	0	410	2,130			120	<b>2,660</b>
WB LRT	10	630	810			160	<b>1,610</b>
Walk In	20	190	800	310	130		<b>1,450</b>
<b>Total</b>	<b>130</b>	<b>1,340</b>	<b>4,090</b>	<b>1,490</b>	<b>860</b>	<b>560</b>	<b>8,470</b>

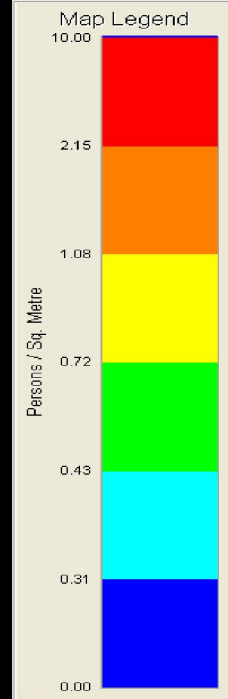
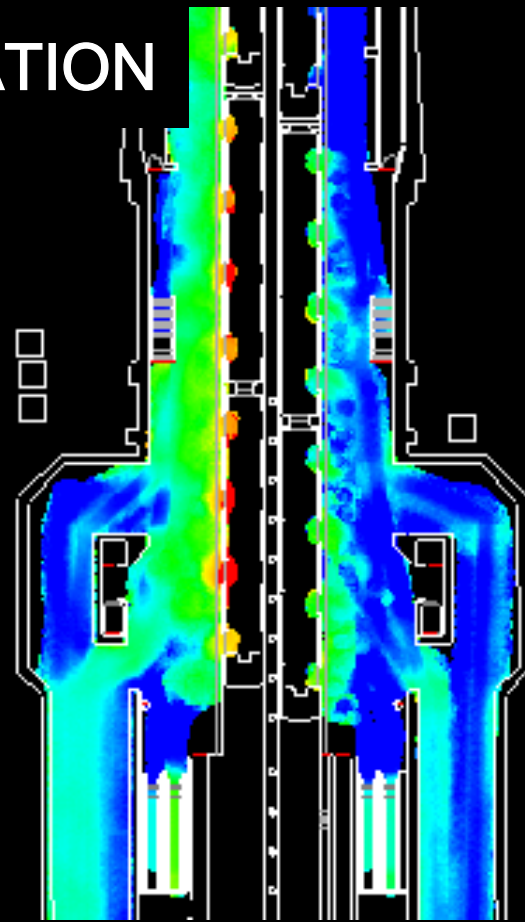
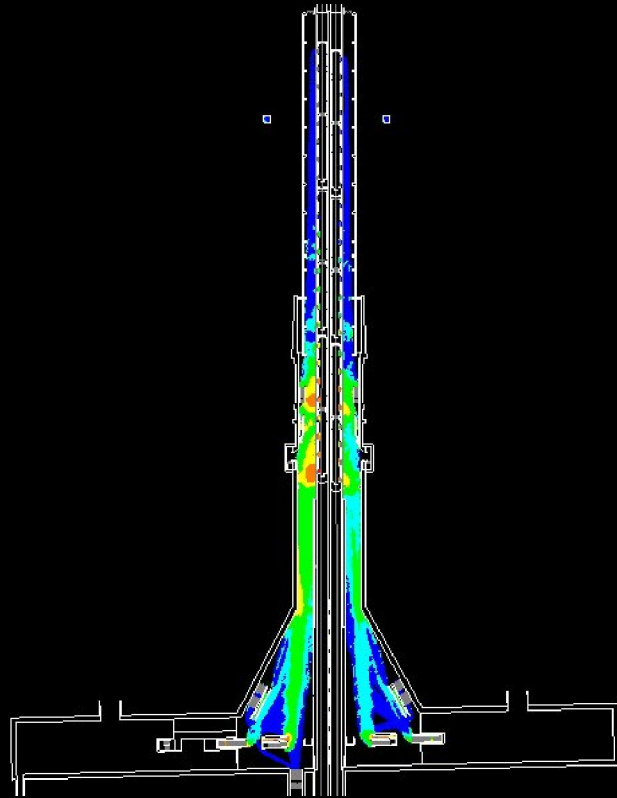


# EGLINTON WEST (ALLEN) STATION



2031 AM - SPADINA PLATFORM LEVEL Mean Density Maps - Peak

# EGLINTON WEST (ALLEN) STATION



2031 AM - SPADINA PLATFORM LEVEL Mean Density Maps - Peak

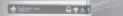
# WEST (ALLEN) STATION



Eglinton Ave  
South/Sud



↑ Eglinton Ave  
South/Sud





# WEST (ALLEN) STATION



Eglinton Ave  
South/Sud →

Eglinton Ave  
South/Sud →



# WEST (ALLEN) STATION



# EGLINTON YONGE INTERCHANGE STATION



# EGLINTON YONGE INTERCHANGE STATION



North View of Station from Yonge Street

# EGLINTON YONGE INTERCHANGE STATION



Subway Station Upper Concourse and Fare Line



# EGLINTON YONGE INTERCHANGE STATION



Aerial View of Station Context



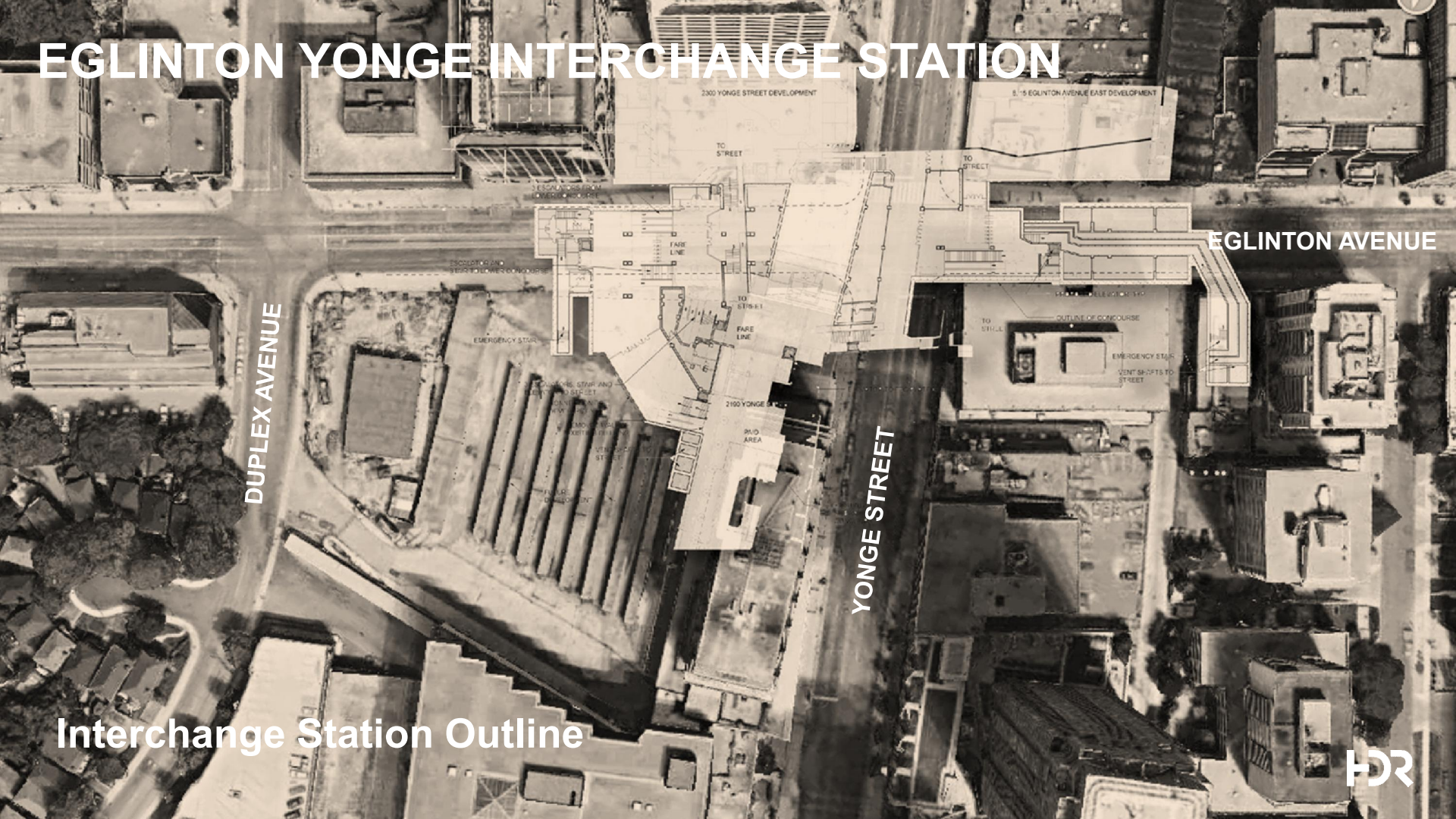
# EGLINTON YONGE INTERCHANGE STATION

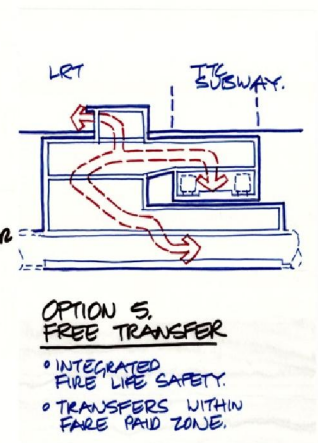
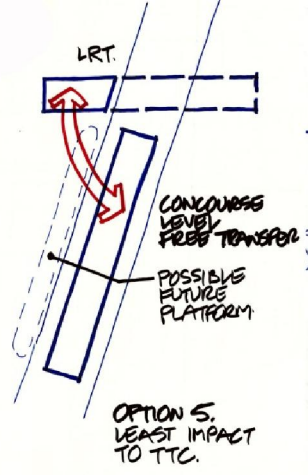
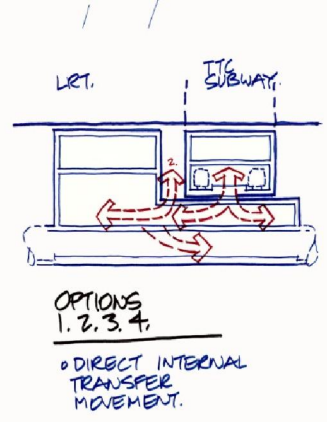
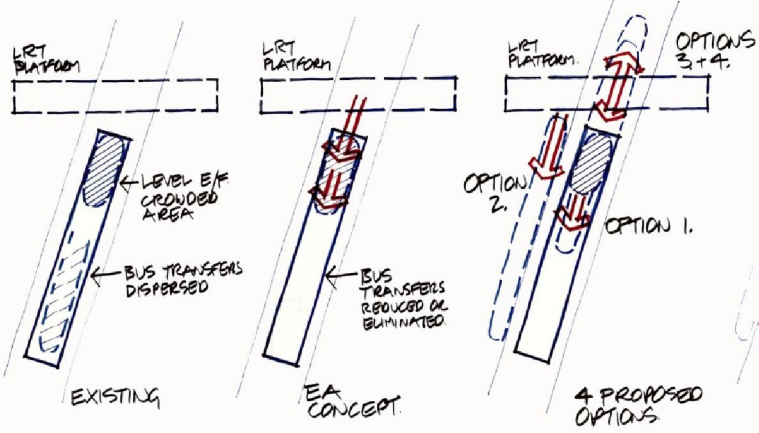
DUPLEX AVENUE

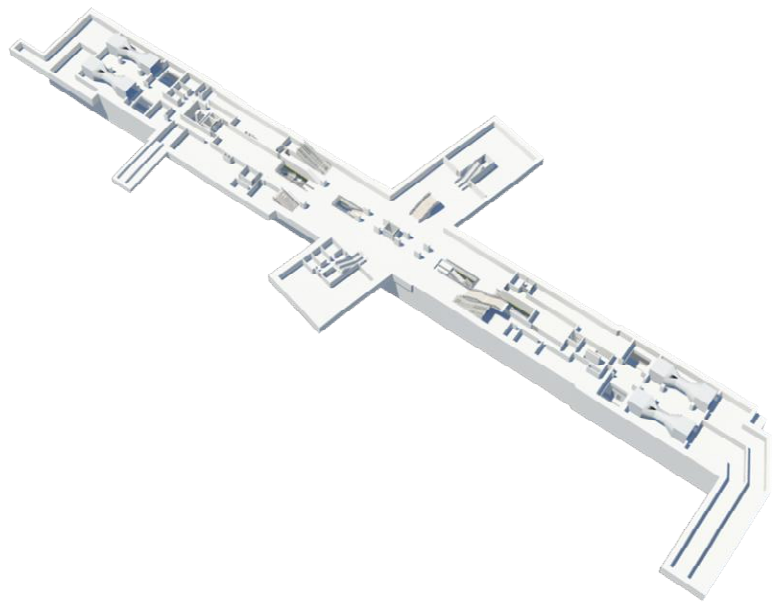
YONGE STREET

EGLINTON AVENUE

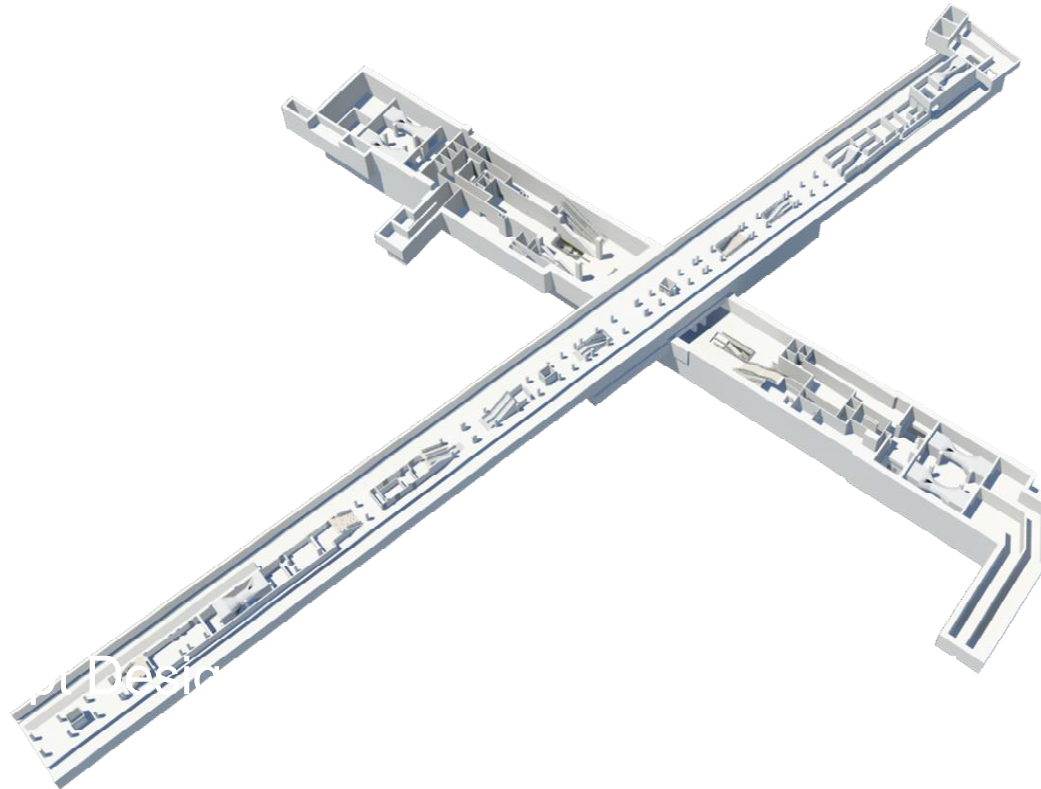
Interchange Station Outline



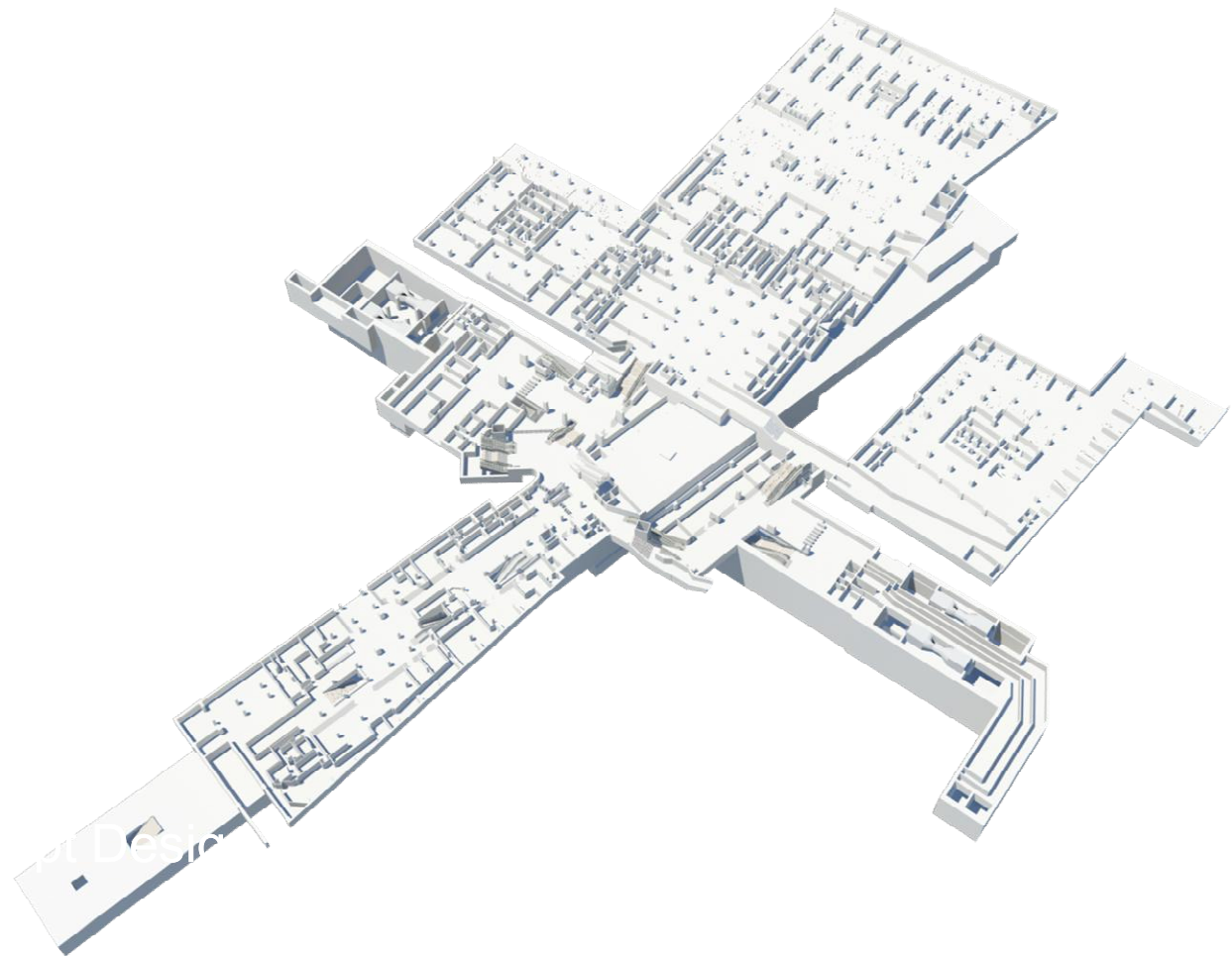




- **TTC Subway Platform has been shifted 70 metres north**
- **Pocket Track has been removed**



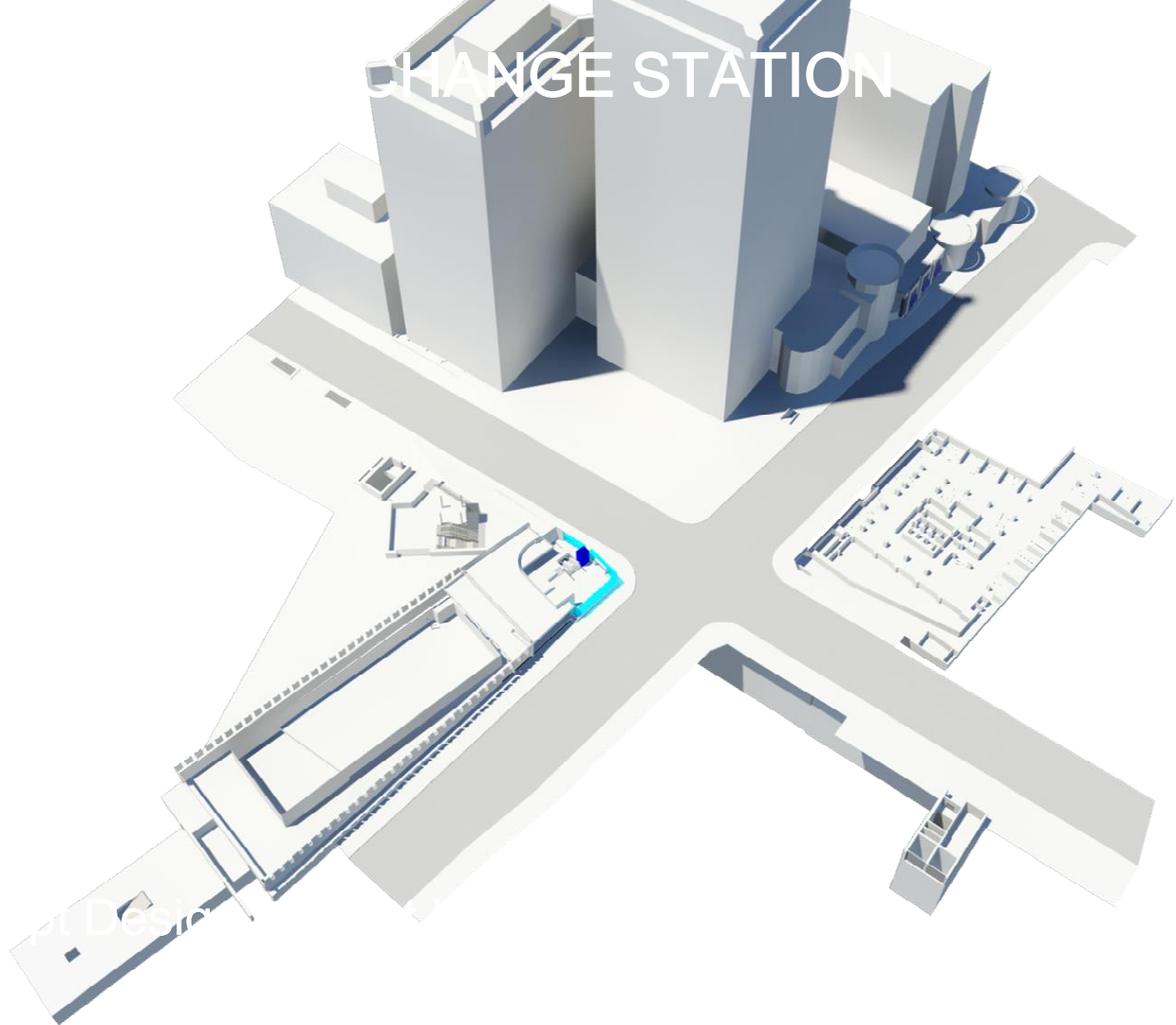




Ar. Design

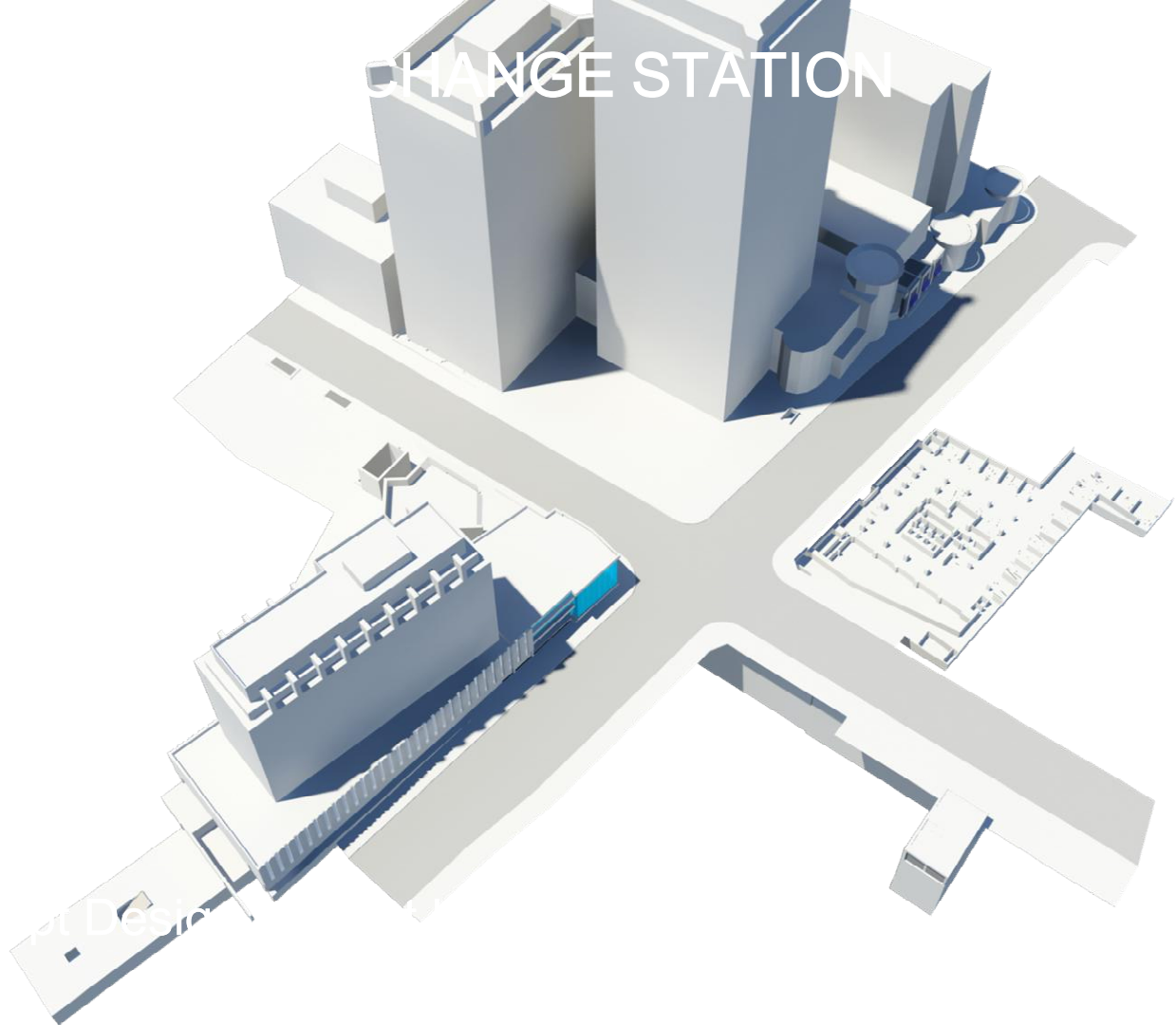


# CHANGE STATION

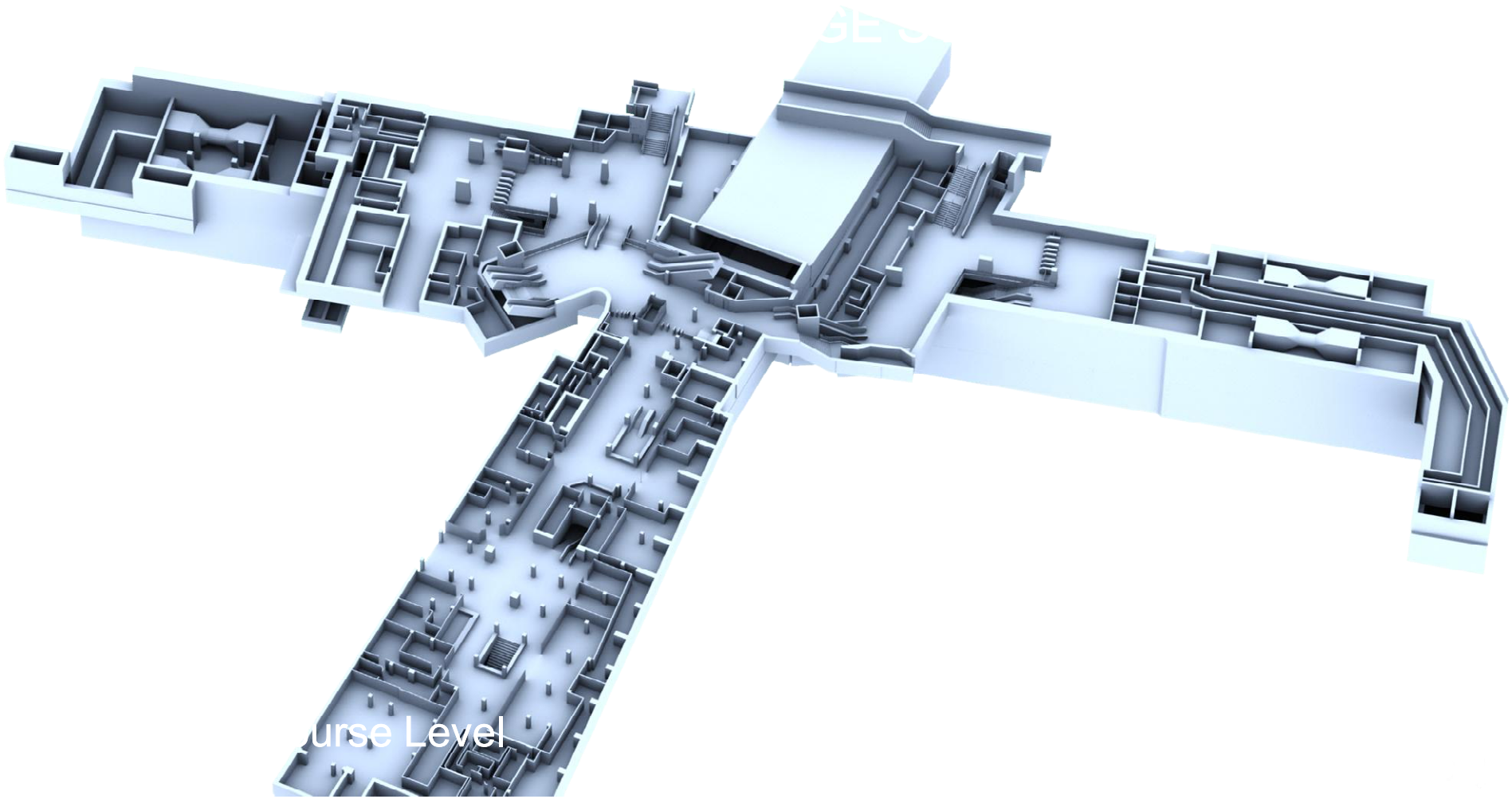


rt Design

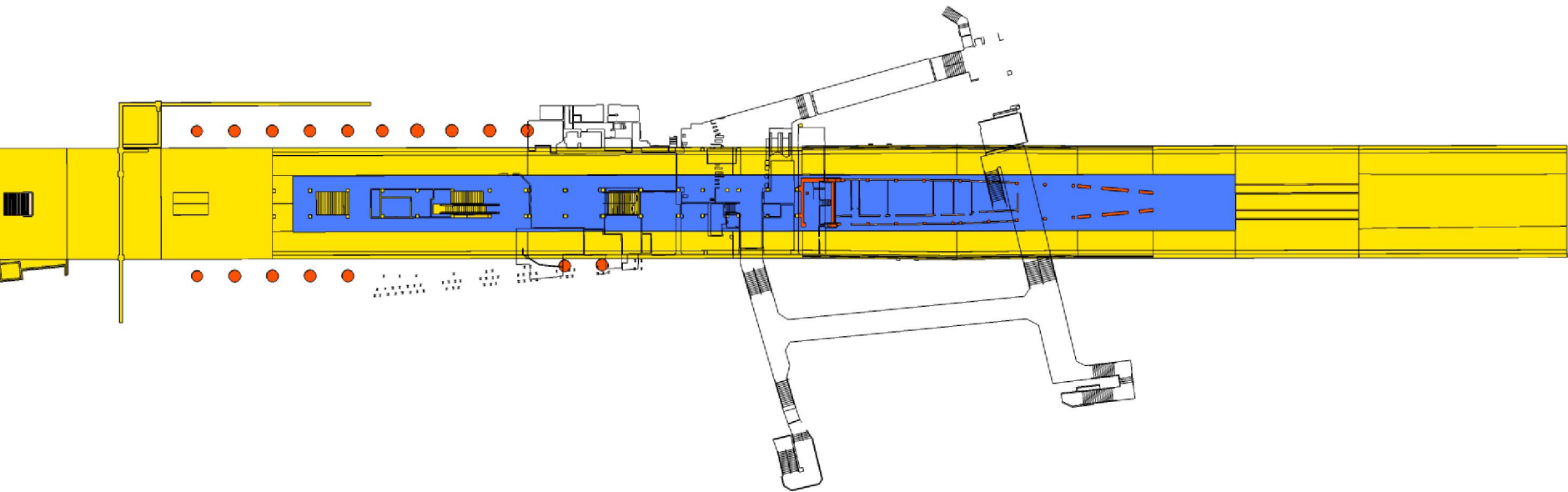
# CHANGE STATION

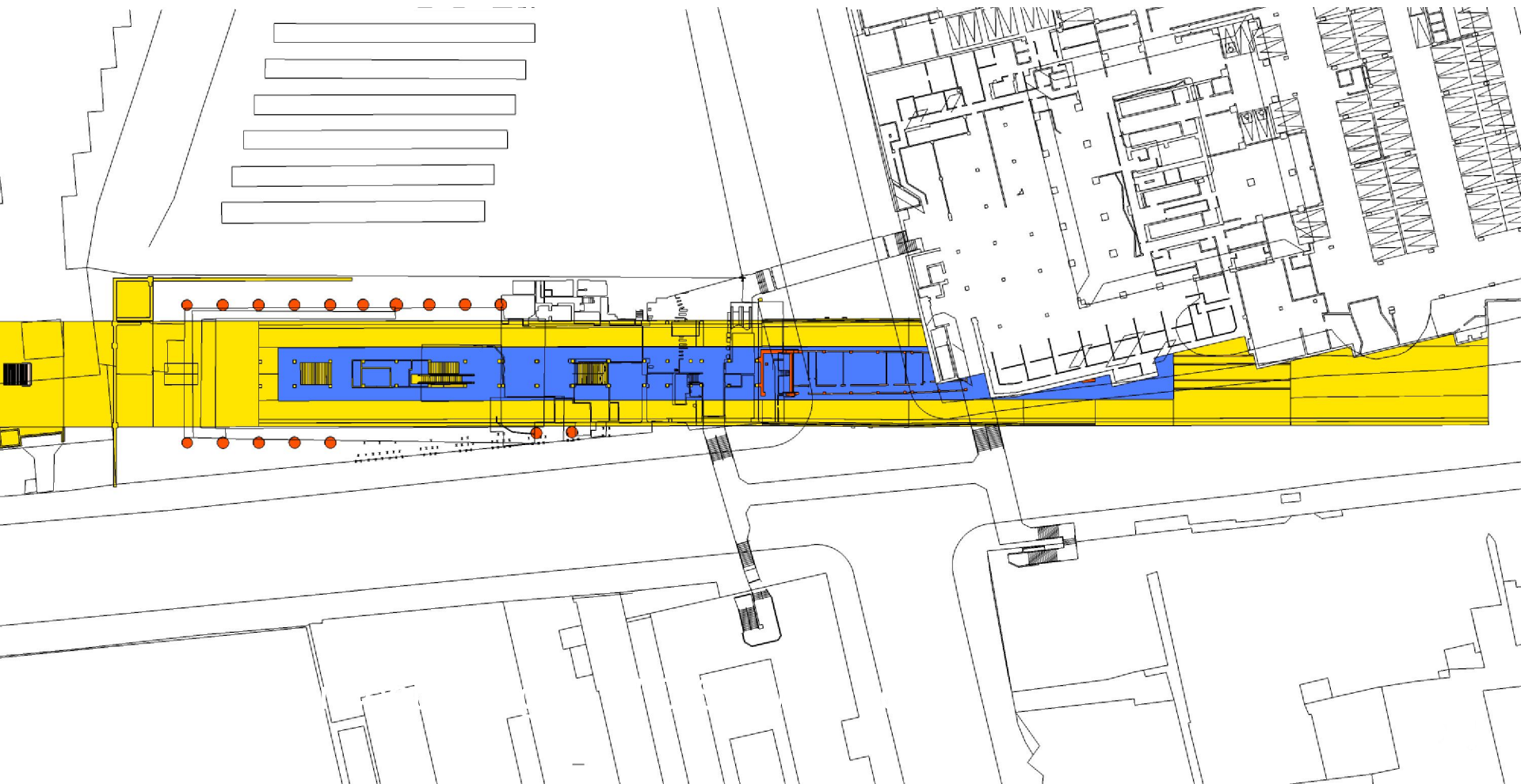


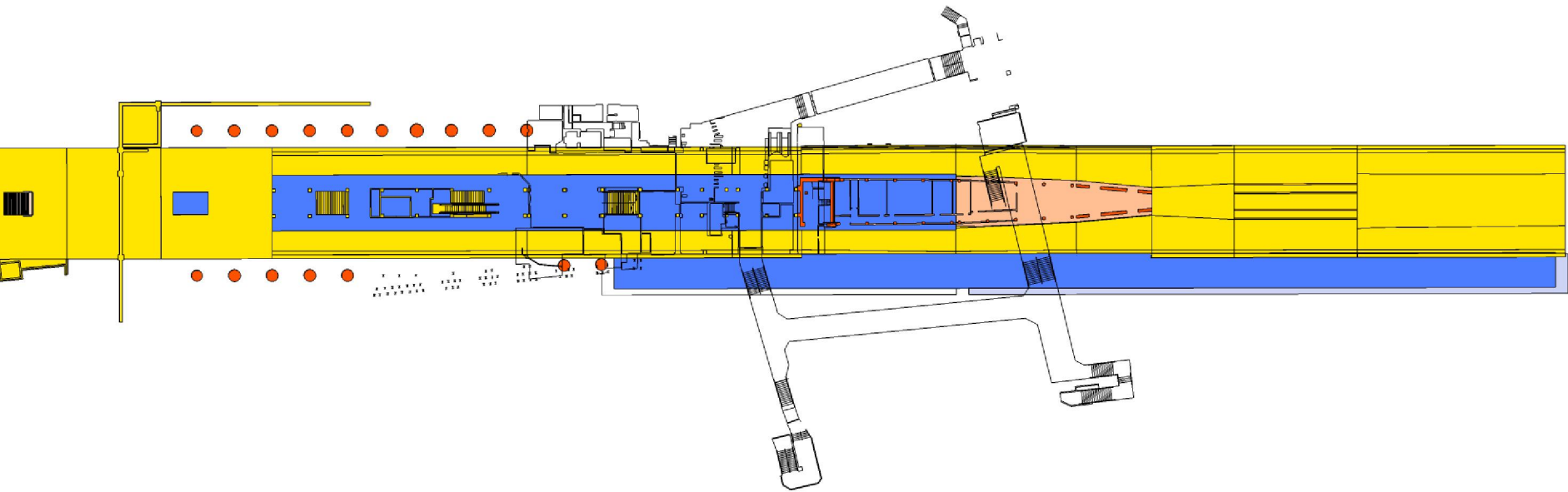
rt Design



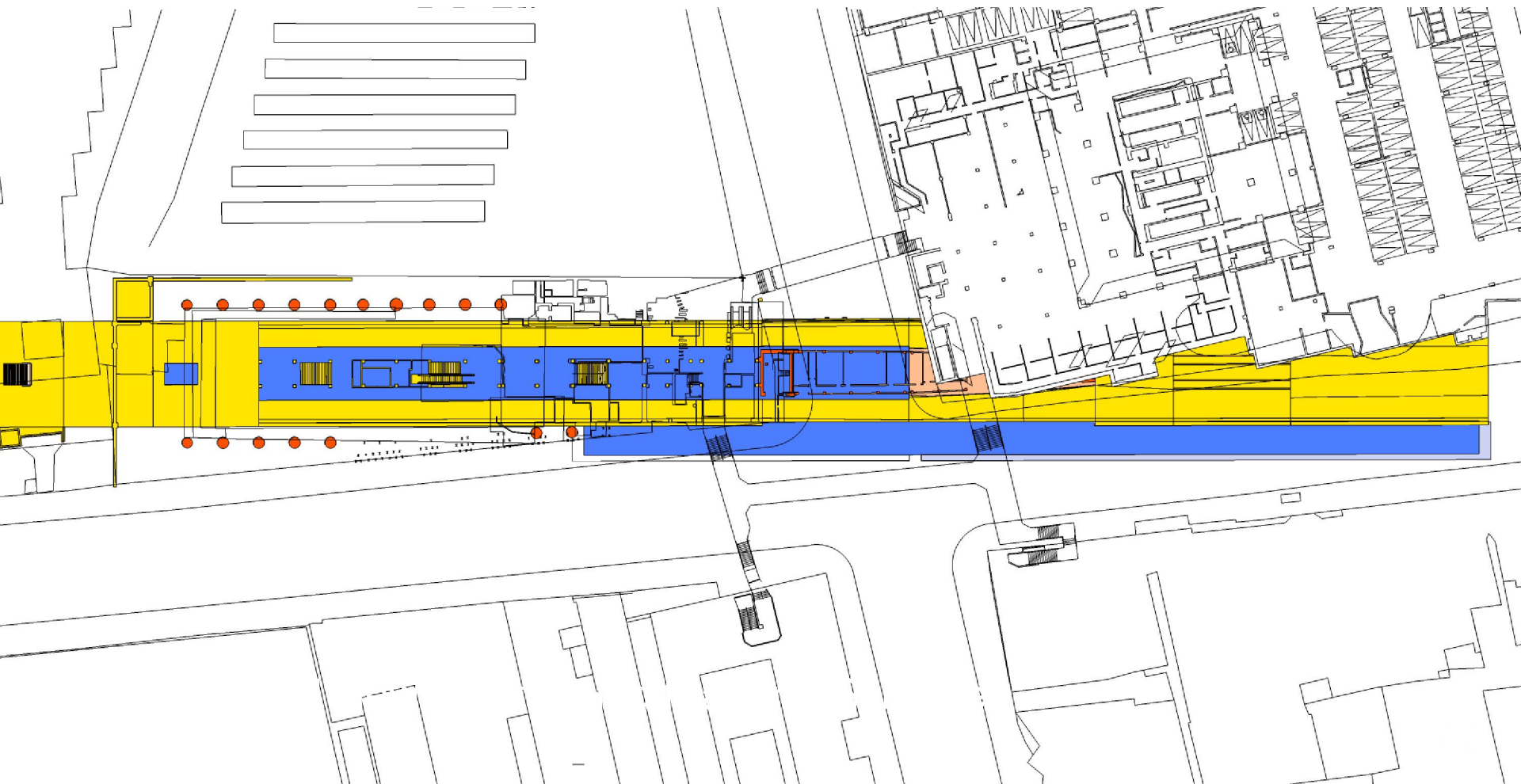
urse Level



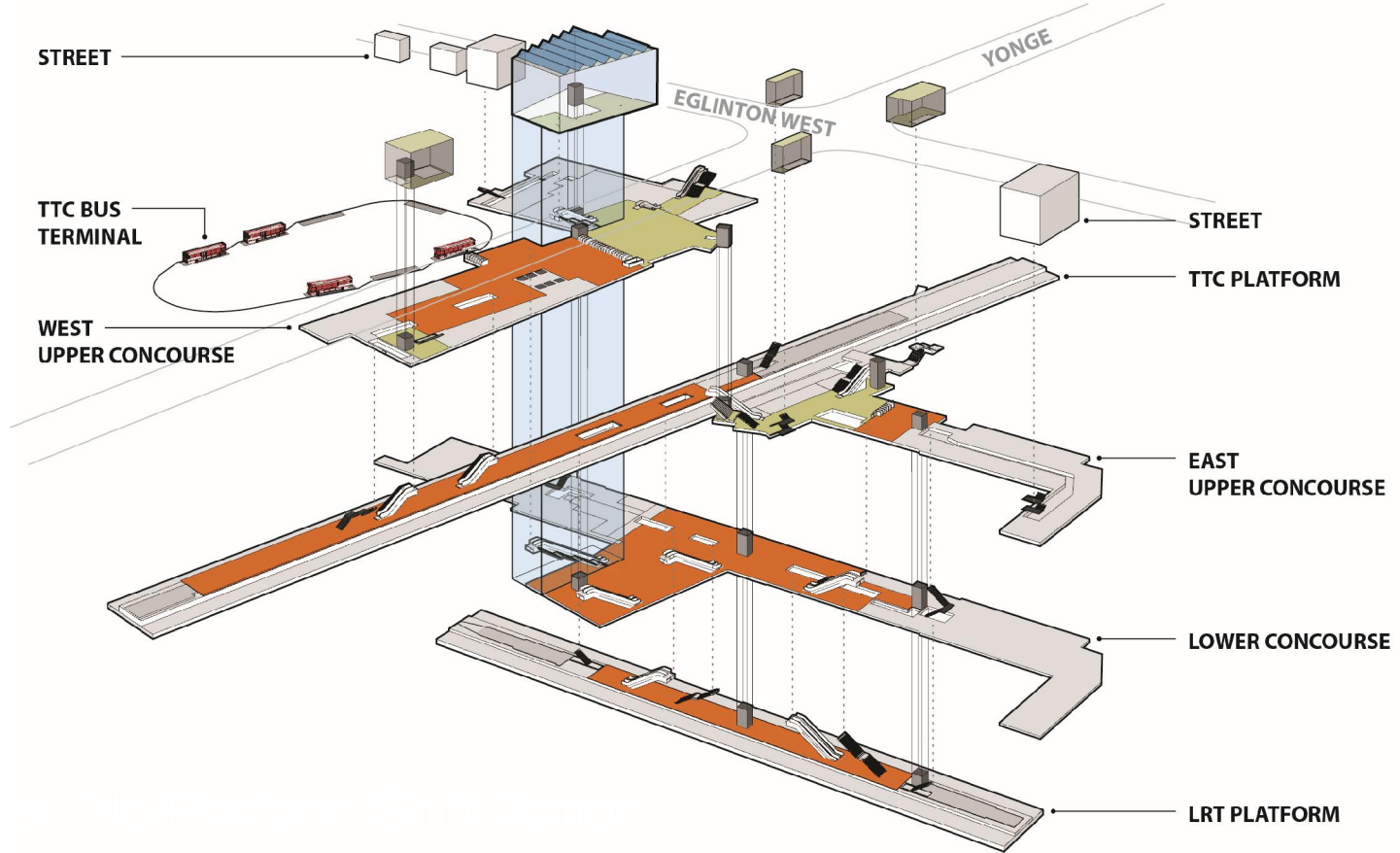




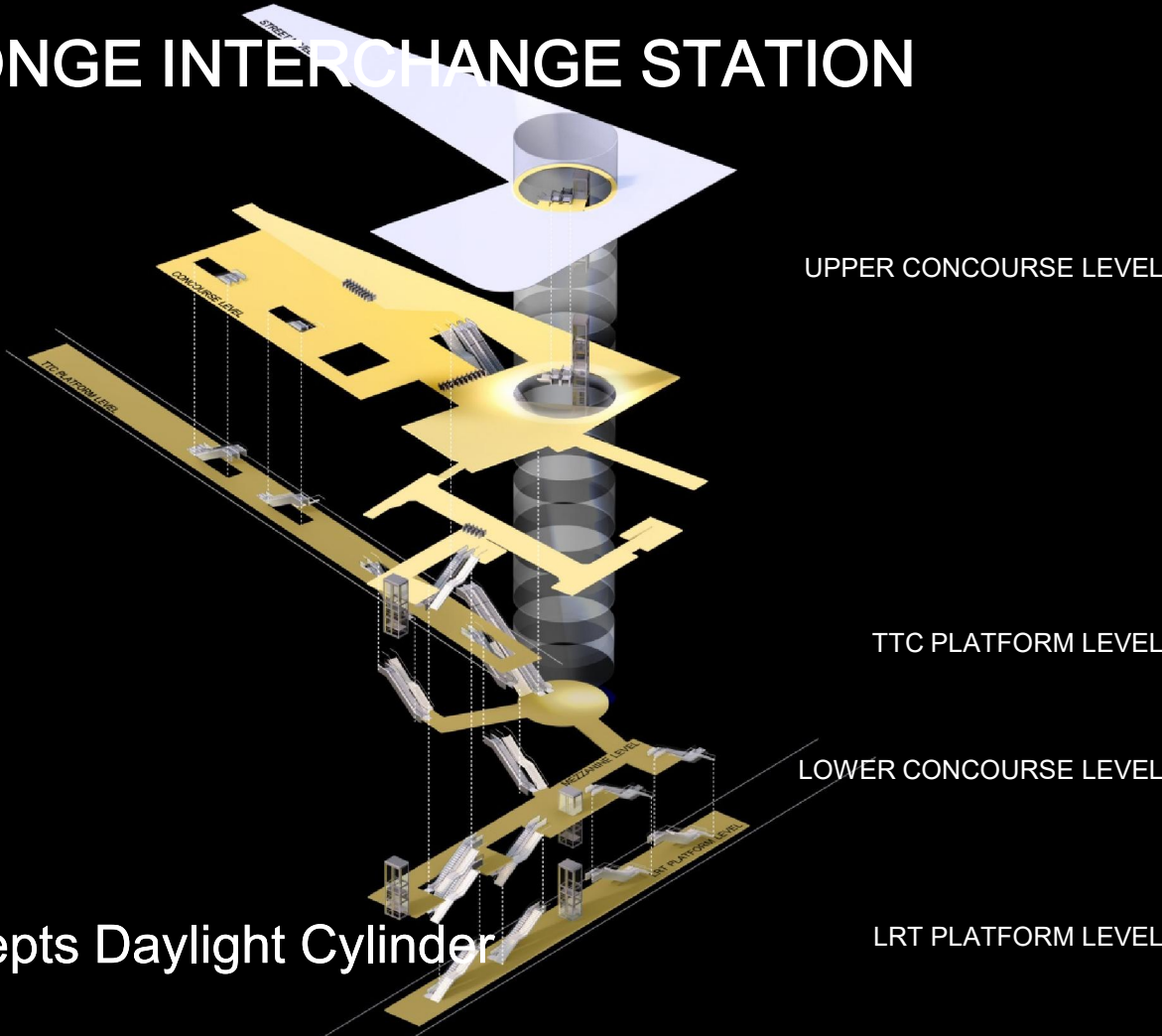








# EGLINTON YONGE INTERCHANGE STATION

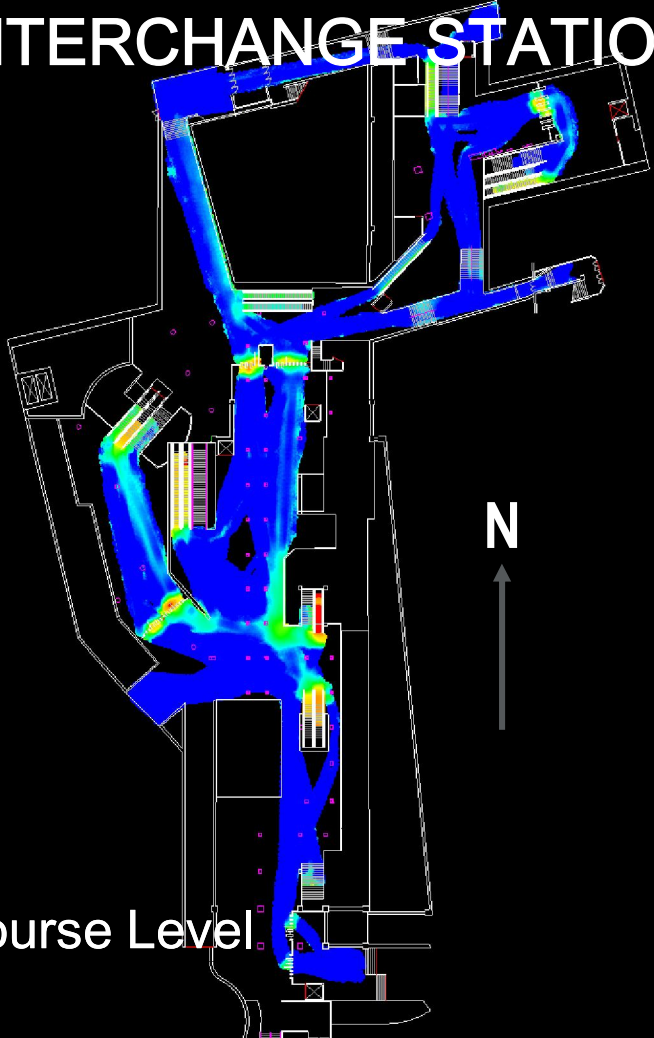


P3 Pursuit Concepts Daylight Cylinder

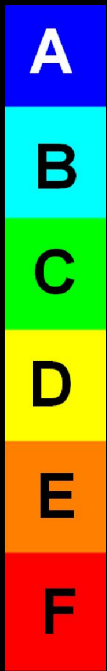


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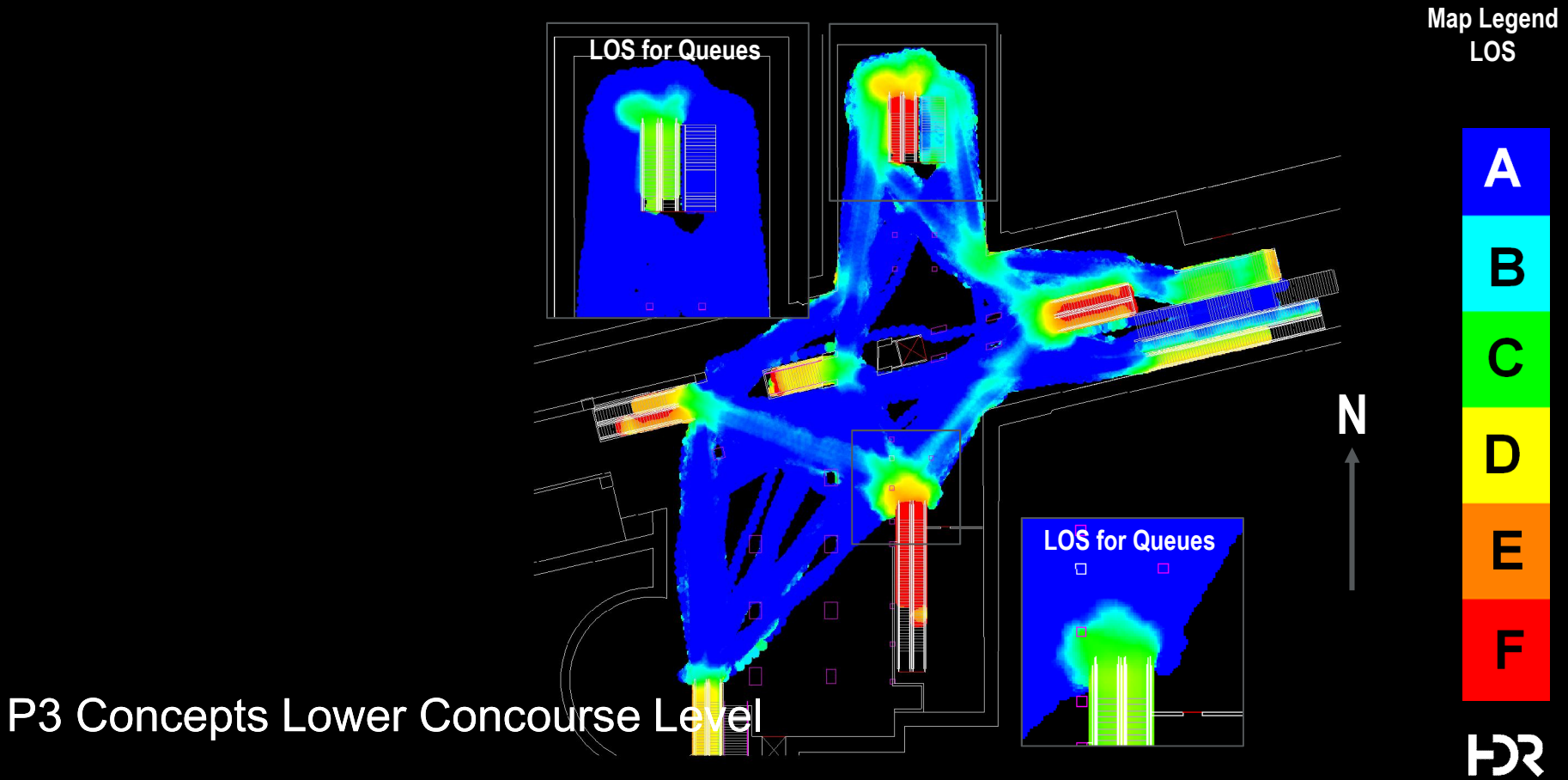
Map Legend  
LOS



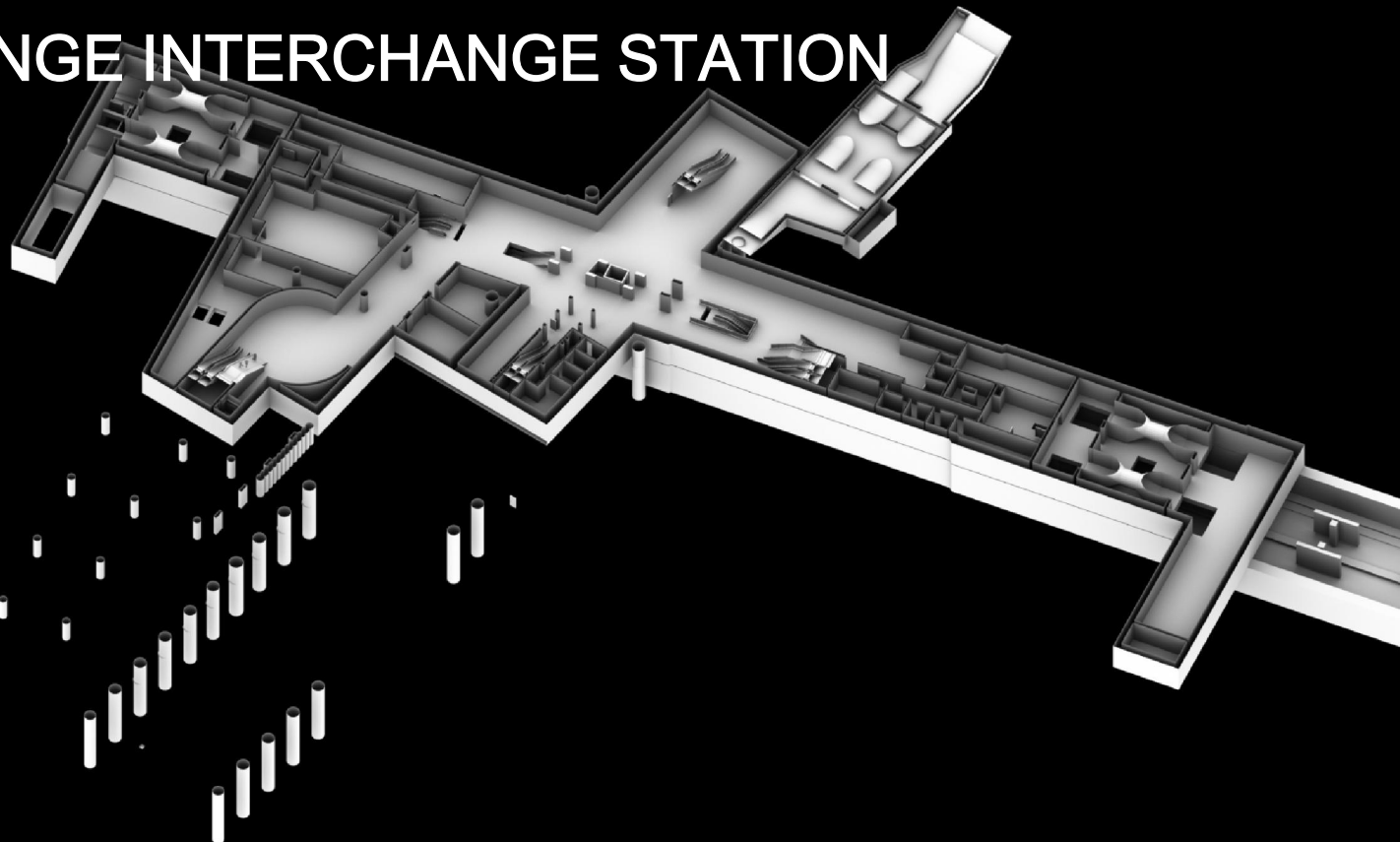
P3 Concepts Upper Concourse Level



# EGLINTON YONGE INTERCHANGE STATION



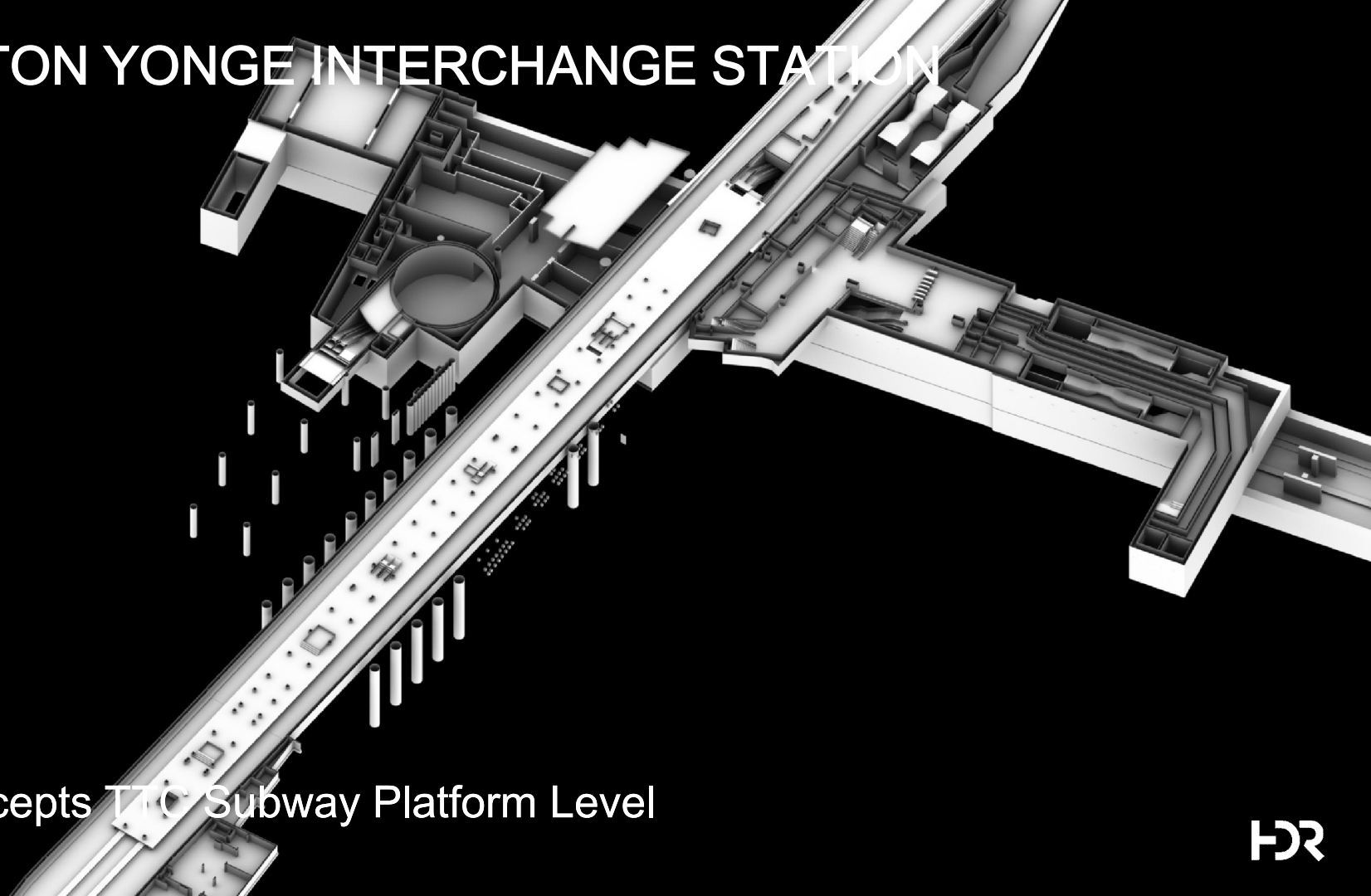
# EGLINTON YONGE INTERCHANGE STATION



P3 Concepts LRT Lower Concourse



# EGLINTON YONGE INTERCHANGE STATION



P3 Concepts TTC Subway Platform Level

# EGLINTON YONGE INTERCHANGE STATION

P3 Concepts Upper Concourse Level Plan



# EGLINTON YONGE INTERCHANGE STATION



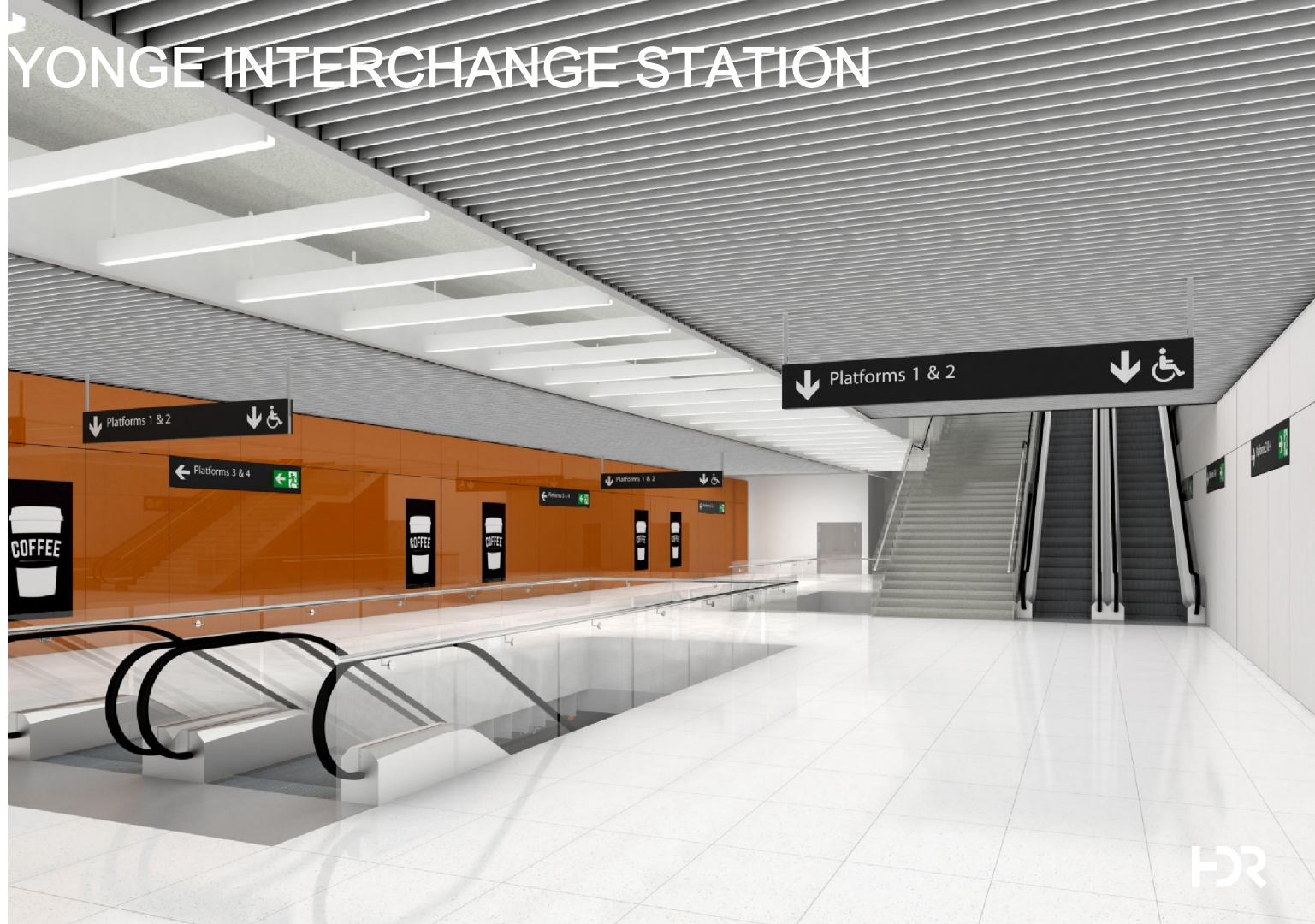
P3 Concepts Street Level Plan



# YONGE INTERCHANGE STATION



# YONGE INTERCHANGE STATION





# YONGE INTERCHANGE STATION



HDR