



Building Livable Communities with Transit

Station Area Planning to Accommodate Different Rail Characteristics



Tuesday
18 October 2011
10:00 - 11:30 am



U.S. Department
of Transportation
Federal Railroad
Administration



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Welcome -

Station Area Planning to Accommodate Different Rail Characteristics

- Station area planning plays an important role in creating a development framework for the future.
- Today, more than ever, multiple rail modes are being looked at to capture the energy related to a new station.
- Each mode has its own operating parameters.
- How can each be successfully planned --- as a catalyst for the development of livable communities?
- Let's hear some real-life stories from the people who have planned around and for --- these different rail modes.



Moderator:

Rick Leisner, RLA, AICP

- Director of Planning
- Completed over 15 TOD plans and 20 downtown & special
- district plans, strong focus on sustainability.

Panel Members

Susan Herre, AIA, AICP

Federal Railroad Administration
Washington DC



U.S. Department
of Transportation

**Federal Railroad
Administration**

- Susan is an Architect and Urban Planner at the Federal Railroad Administration (FRA).
- For the High-Speed and Intercity Passenger Rail Program, she is responsible for station projects & station area planning.
- She is a representative to the Federal Livability Partnership of HUD, EPA and DOT.
- Susan has spoken at numerous technical meetings and conferences held by the Federal Transit Administration, Rail-Volution, TRB and AIA.

susan.herre@dot.gov

Panel Members

James Hencke, ASLA

Supervising Urban Designer
PB's Placemaking Group
Portland, Oregon



- James is a Landscape Architect /Urban Planner and Chair of ASLA's Urban Design Professional Practice Network.
- His creative, multi-disciplinary approach combines infrastructure, landscape, and urbanism to fashion communities of lasting value --- that are sustainable, equitable and livable.
- He is a TOD design veteran with over 50 TOD plans, 100 workshops, in 15 states and 6 countries.
- His past work has resulted in 5 state, national and/or international awards and he has spoken at 8 national conferences on TOD, sustainability and community planning.

Panel Members

Martin Nielsen, MAIBC, P. Eng., LEED AP

Principal

Vancouver, BC

P E R K I N S
+ W I L L

- Martin is an Architect and Engineer.
- His portfolio showcases a seamless integration of innovation, sustainable & efficient planning and design.
- His extensive experience leading green projects ensures that sustainable initiatives are the foundation for every solution.
- Along with past success in mixed-use design, development and transit projects, including the firm's award-winning and internationally acclaimed transit stations, Martin has extensive experience in the coordination of large-scale planning projects --- building communities & neighborhoods.



Rail-Volution

Building Livable Communities with Transit



Station Area Planning

*For High-Speed and
Intercity Passenger Rail*

Federal Railroad Administration
U.S.DOT

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Building Livable Communities with Transit

The Context

Changing Preferences
Federal Leadership

Changing Preferences



Changing Preferences

Opportunities for
improvements in
quality of life
through
passenger
transport



Changing Preferences



<http://www.nbm.org/blueprints/00s/fall00/page6/sprawl.jpg>

Federal Leadership: High-Speed Rail Vision



"Imagine whisking through towns at speeds over 100 miles an hour, walking only a few steps to public transportation, and ending up just blocks from your destination. Imagine what a great project that would be to rebuild America."

January 2009

Federal Leadership: Livability



Federal Leadership: FRA's Station Area Planning For High Speed & Intercity Passenger Rail





Building Livable Communities with Transit

FRA

Station Area Planning recommendations

Station Area Planning Principles

1. Location: OPTIMIZE

**2. Transportation Connectivity:
MAXIMIZE**

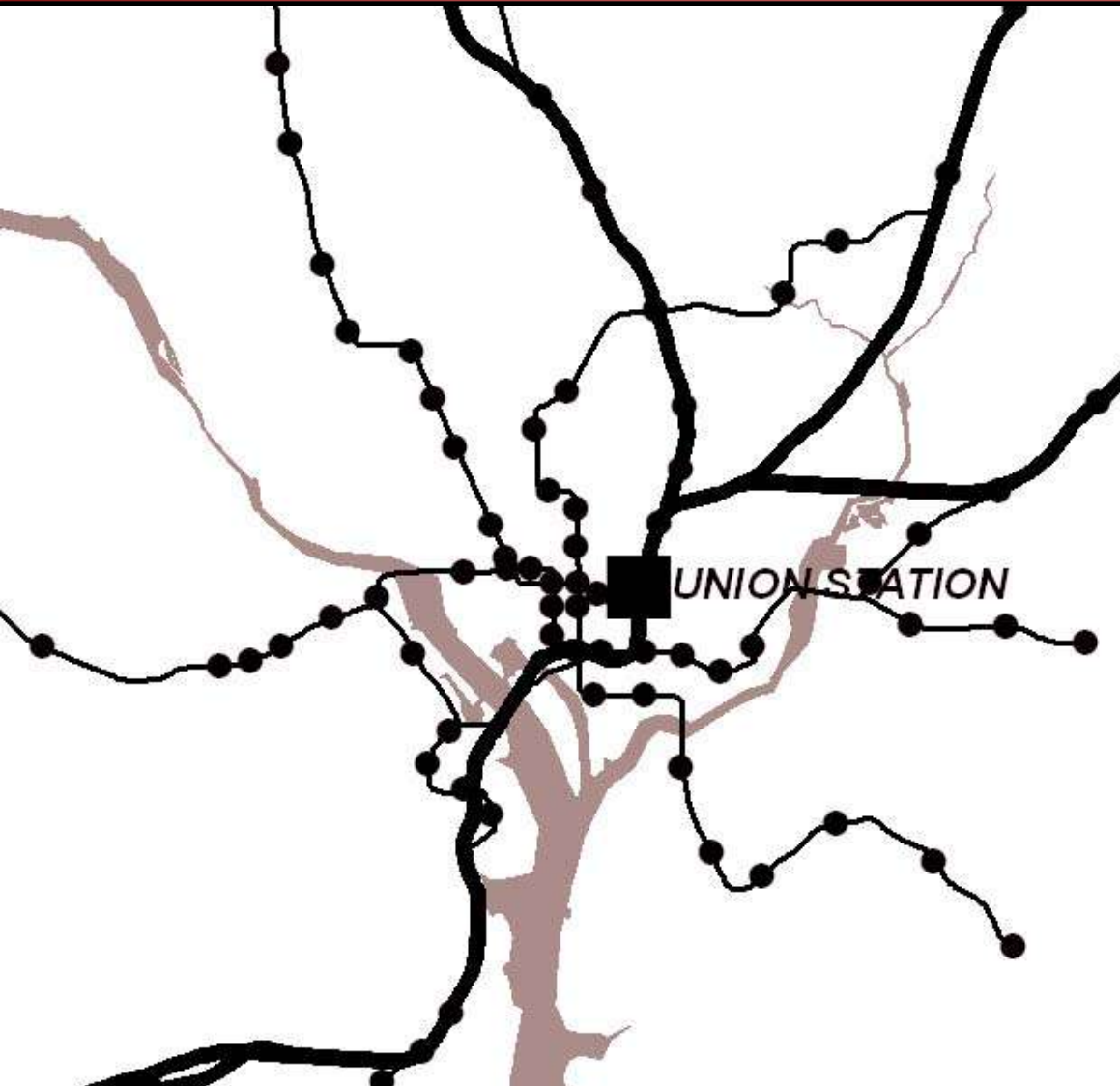
3. Development: DESIGN and INFILL

1. LOCATION: Optimize the station location.



Is the station located to support existing population and employment densities?

1. LOCATION: Optimize the station location.



Is the station located to maximize access between regional or city centers to create a regional network?

1. LOCATION: Optimize the station location.



Is the project serving and at the same time capitalizing on viable existing development?

1. LOCATION: Optimize the station location.



FIG. 60. Streets and buildings, Scollay Square

Is the station located in the “heart” of the area, where it would be most convenient and safe for the traveler to arrive?

HSR: Reinforce Existing Patterns

Amsterdam, Netherlands



Strasbourg, France



HSR: HSR stations \neq Airports

Strasbourg, France

Train Station



Airport



HSR: HSR stations \neq Airports



HSR: Station Area - Strasbourg



2. Transportation: Maximize connectivity

Is the station physically connected to other passenger transport such as intercity rail, light rail, streetcars, so that transfers are convenient?



2. Transportation: Maximize station connectivity



2. Transportation: Maximize station connectivity

In the station area, do streets include continuous sidewalks of adequate width for pedestrians?

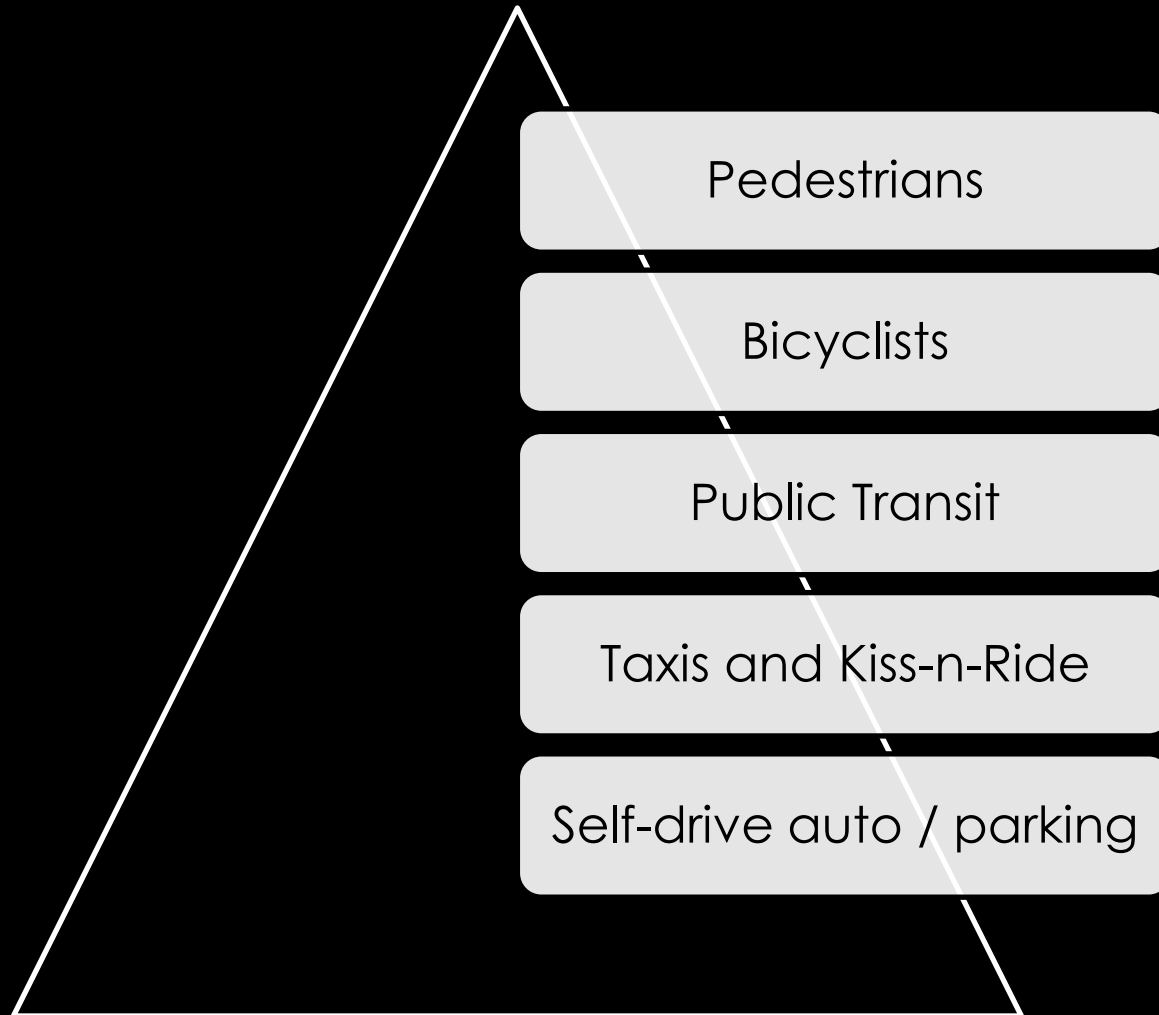


2. Transportation: Maximize station connectivity

Do
bikeways
form a
network
throughout
the city?



HSR Station Area: Design Prioritization



HSR Station Area: Parking Demand Mgmt.

Before adding more parking



3a. *DEVELOPMENT: Shape it through urban design.*



Is there a perceptible station area district?
What are the markers?

3a. **DEVELOPMENT:** *Shape it through urban design.*



In the station area,
are the
streetscapes
designed to invite
walking, biking,
and use of public
transit?

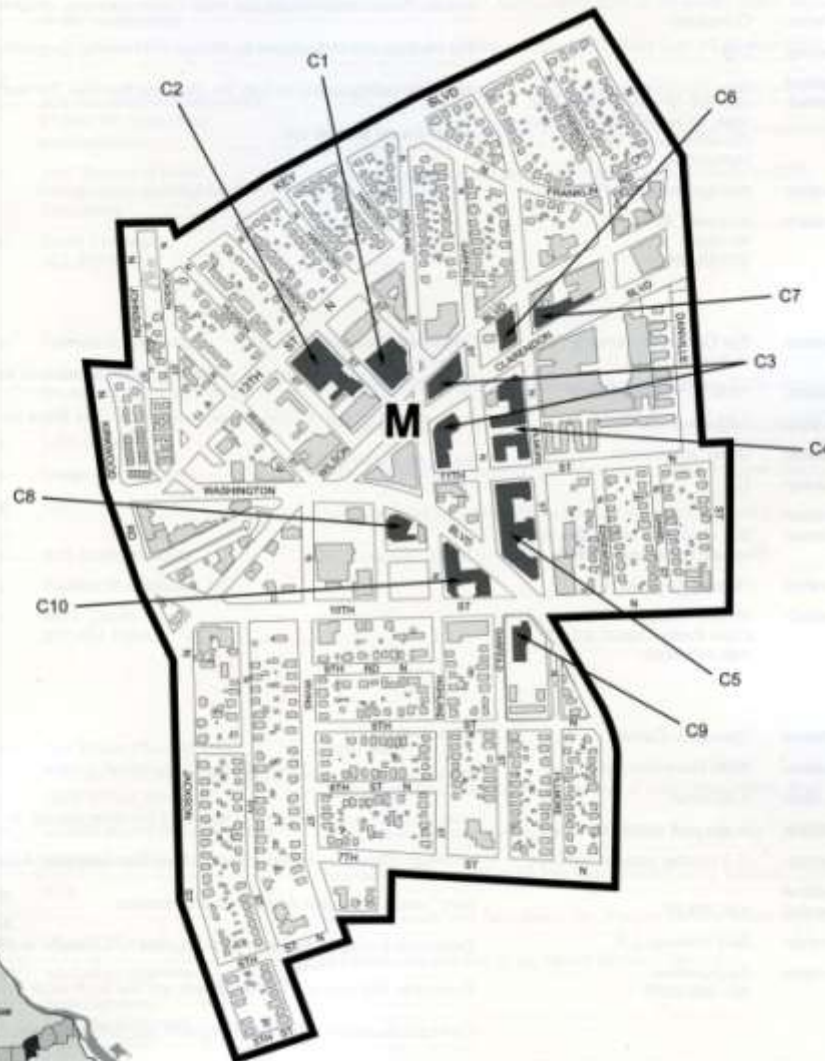
Is there a mix of
land uses?

3a. DEVELOPMENT: Shape it through urban design.



Through its design presence, does the station serve as a landmark in the city?

3b. **DEVELOPMENT:** *Infill Around the Station*



What kinds and how many infill projects are proposed to be completed within 5 and 10 years of railway revenue operations?



Building Livable Communities with Transit

In Closing

Challenges

The national view

Challenges



Life 1/14/11;
Photo: Mark
Wilson/Getty
Images, Aug
13, 2002

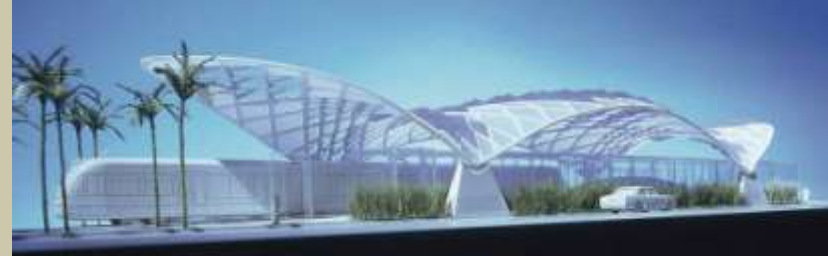


The National View



Station Area Planning – Building a Sustainable Future

Martin Nielsen, MAIBC, P.Eng.
Principal,
Perkins + Will



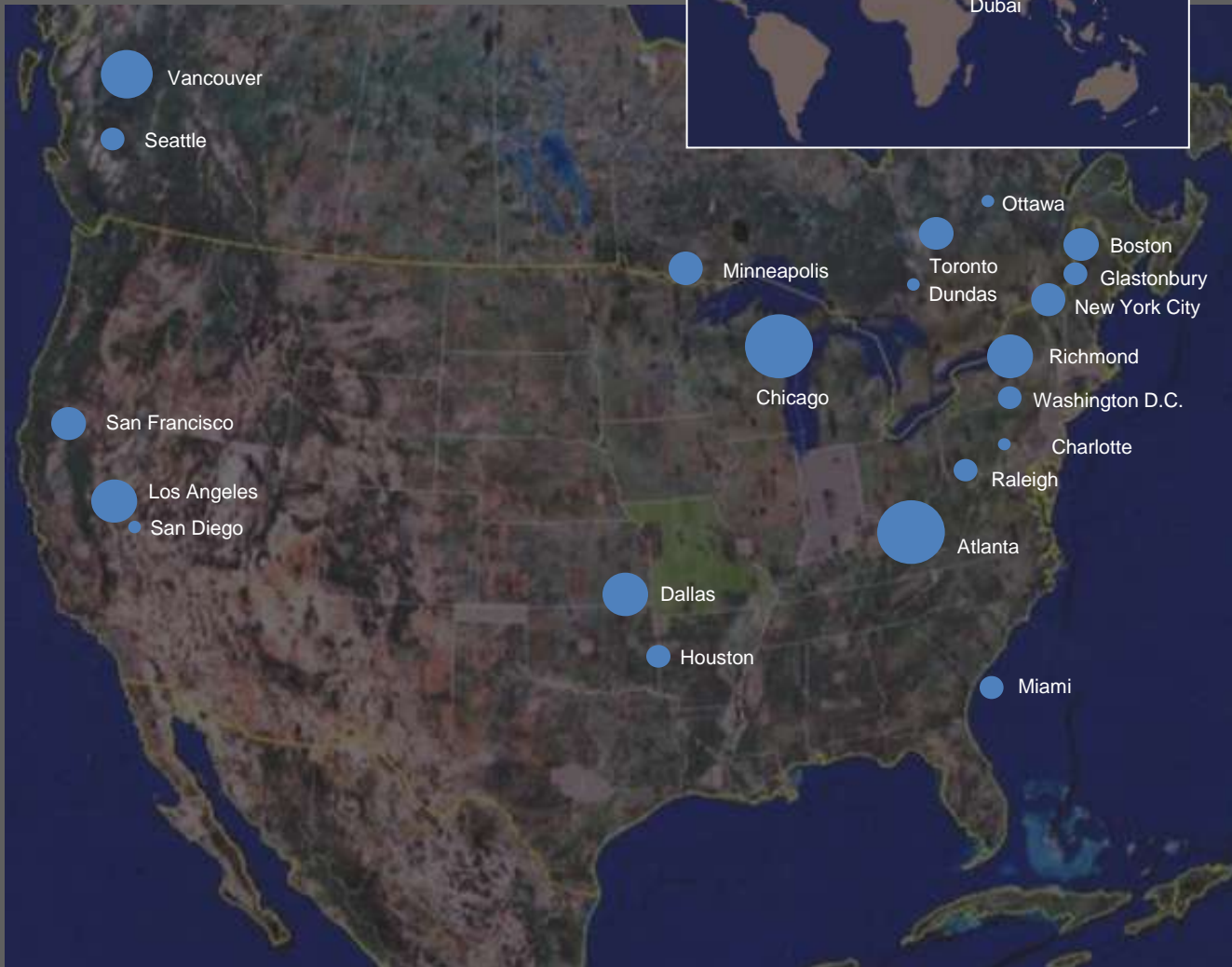
U.S. Department of Transportation
Federal Railroad Administration



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Firm Overview



Firm wide

- 1600 Staff
- Over 85% are LEED

Accredited
Professionals

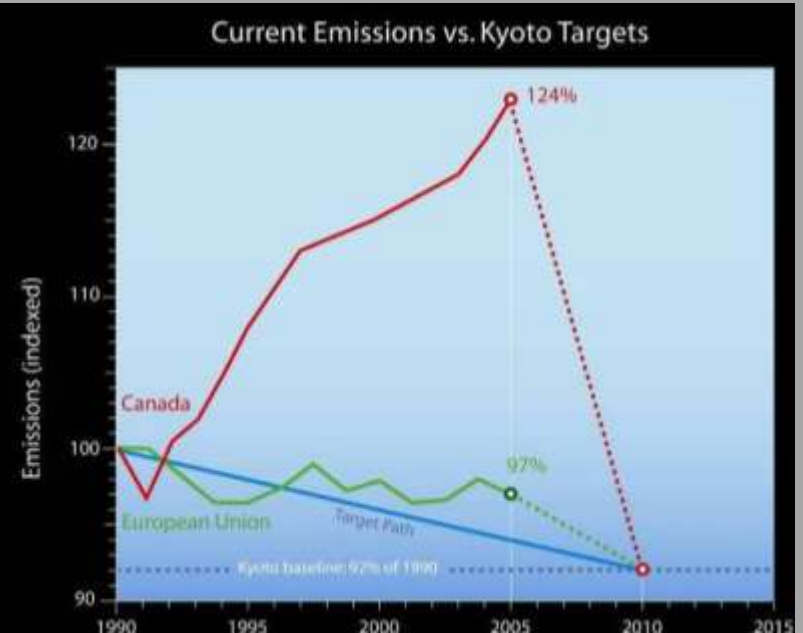
Perkins+Will

Vancouver Office

- 90 staff
- 92% are LEED

Accredited
Professionals

Climate Change - the ecological imperative



Environmental Context



Energy



Water



Materials



Land Use



Health & Well-being

Environmental Context



Industrial Design



Architecture



Transportation / Infrastructure



Urban Planning

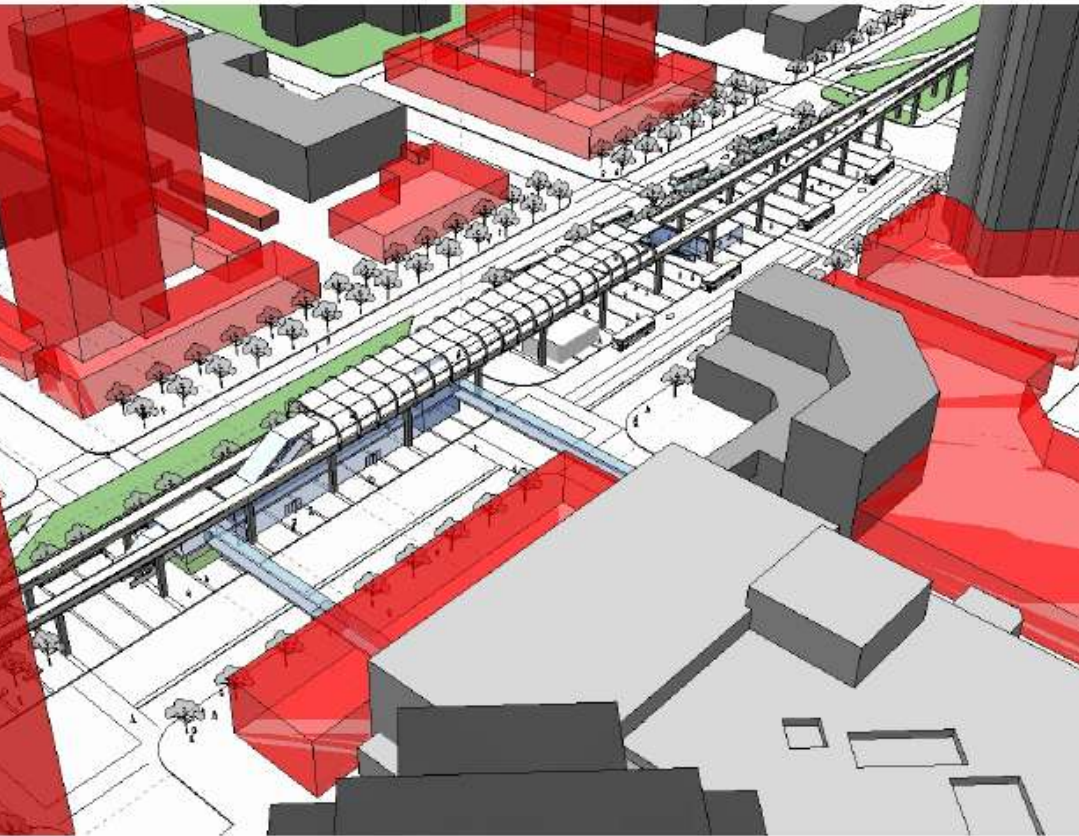


Greater Vancouver Regional District

Skytrain Rapid Transit System & Transit Village Plan



Metrotown SkyTrain Station – Transit Village Plan



Options and Evaluation
August, 2007

Metrotown SkyTrain Station – Transit Village Plan



Existing
Station

Metrotown SkyTrain Station – Transit Village Plan



Neighborhood Context

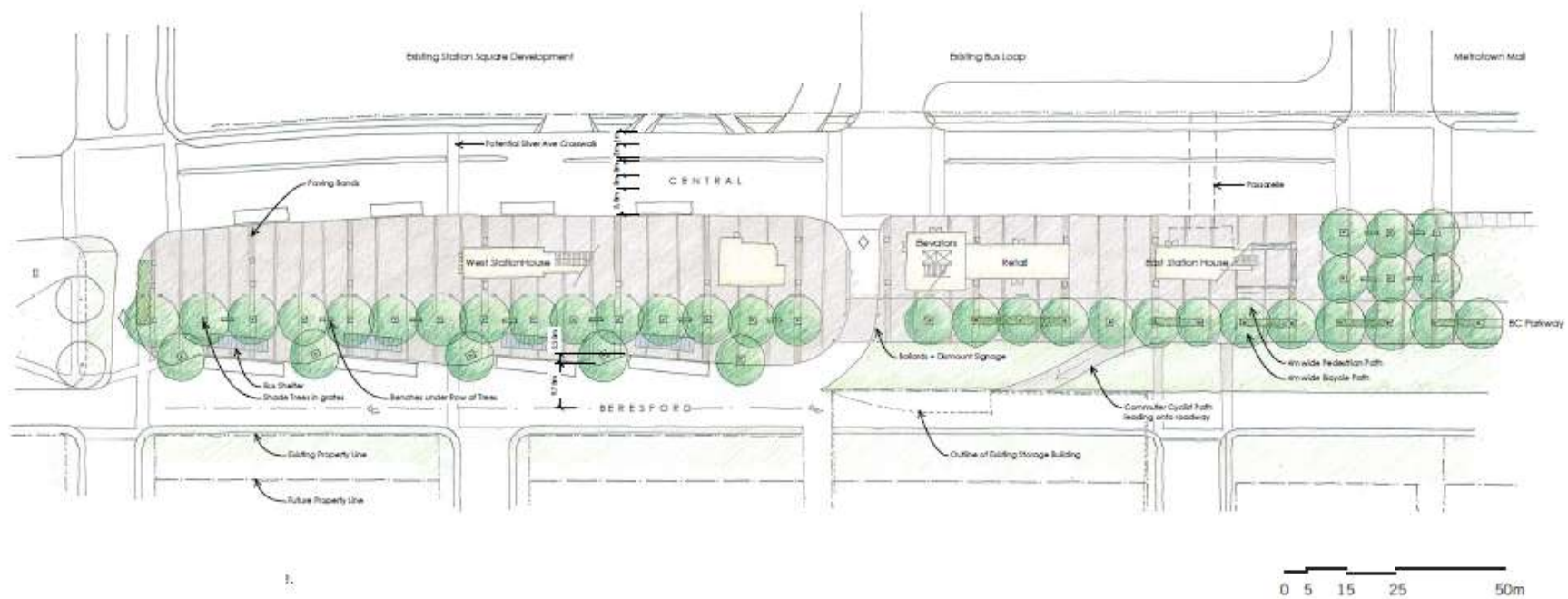
Metrotown SkyTrain Station – Transit Village Plan

Schematic View of Existing Station



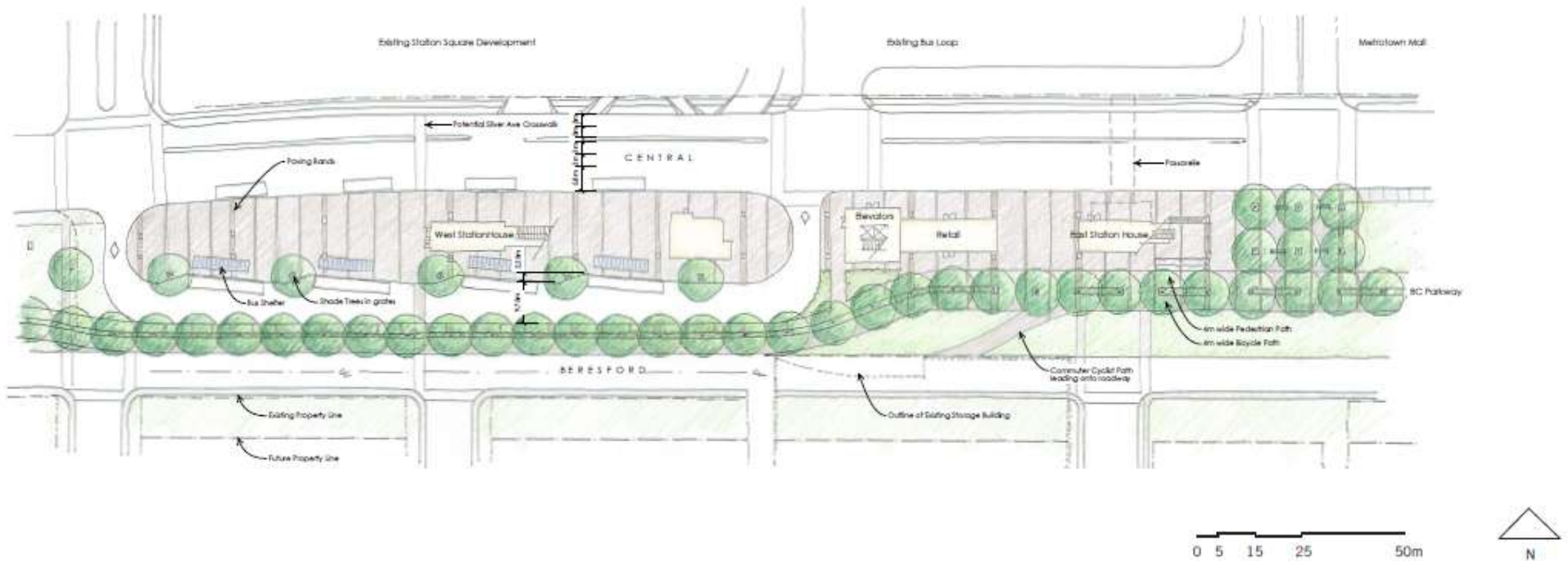
Metrotown SkyTrain Station – Transit Village Plan

Option A – Wide Exchange

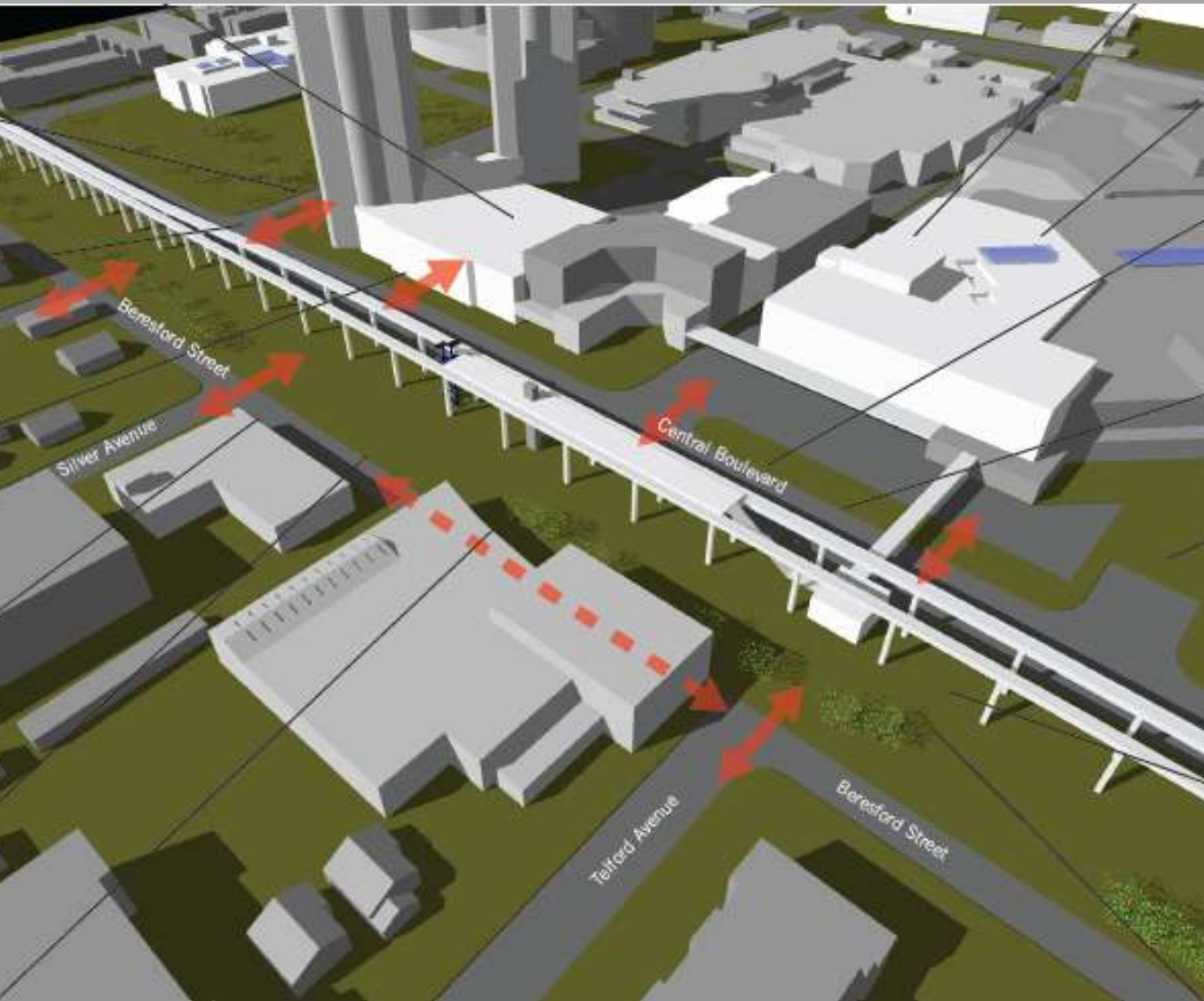


Metrotown SkyTrain Station – Transit Village Plan

Option B – Narrow



Metrotown SkyTrain Station – Transit Village Plan



Station Area Strategies

Pedestrian Streets

Pedestrian Access

Retail Experience

Re-connect Street Grid

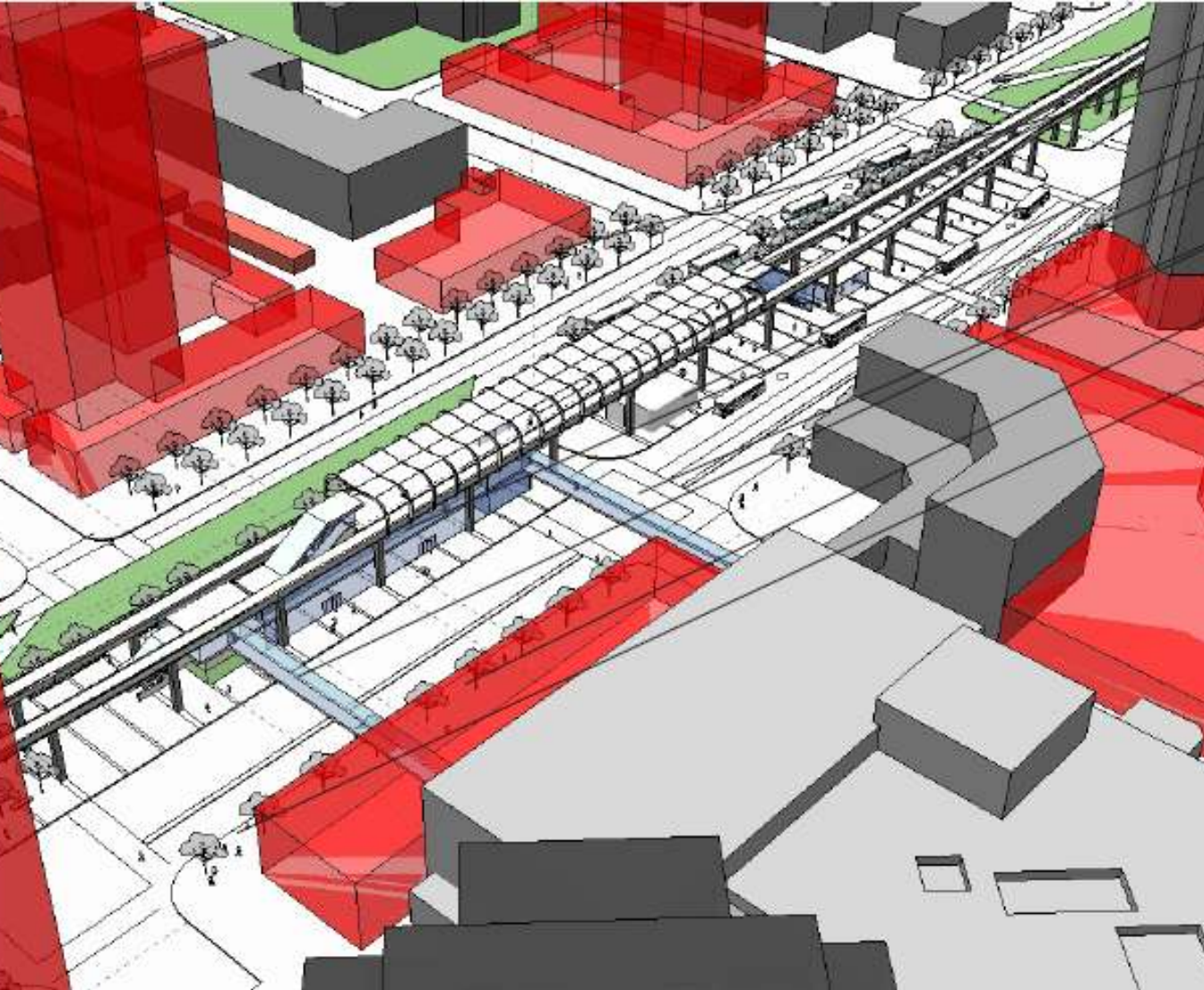
Neighborhood Street

Metrotown Mall Entry

BC Parkway

Sustainability Strategies

Metrotown SkyTrain Station – Transit Village Plan



Parkway Square and Exchange

Improved Pedestrian Access

Improved Streetscape

Expanded Station

Bike Storage Facilities

Elevated Walkway

Redeveloped Maywood





Key Tenets

Linkages

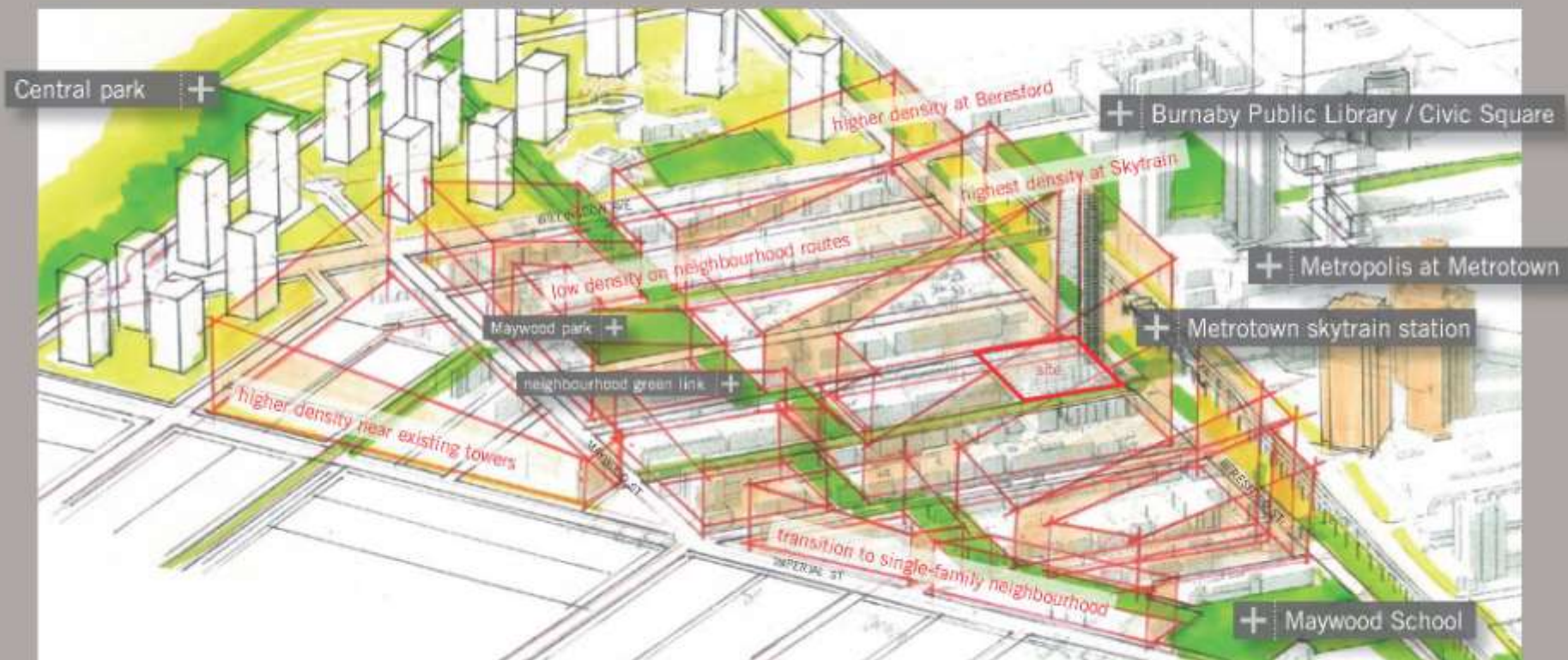
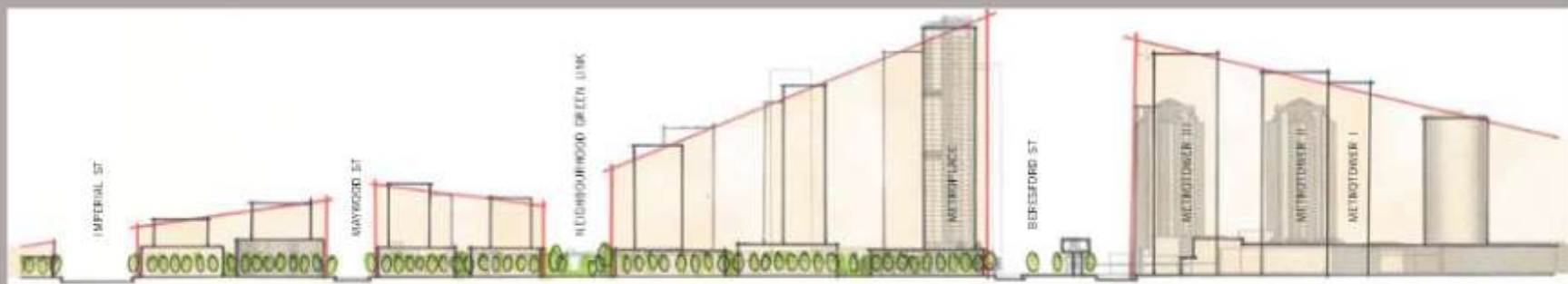
Community

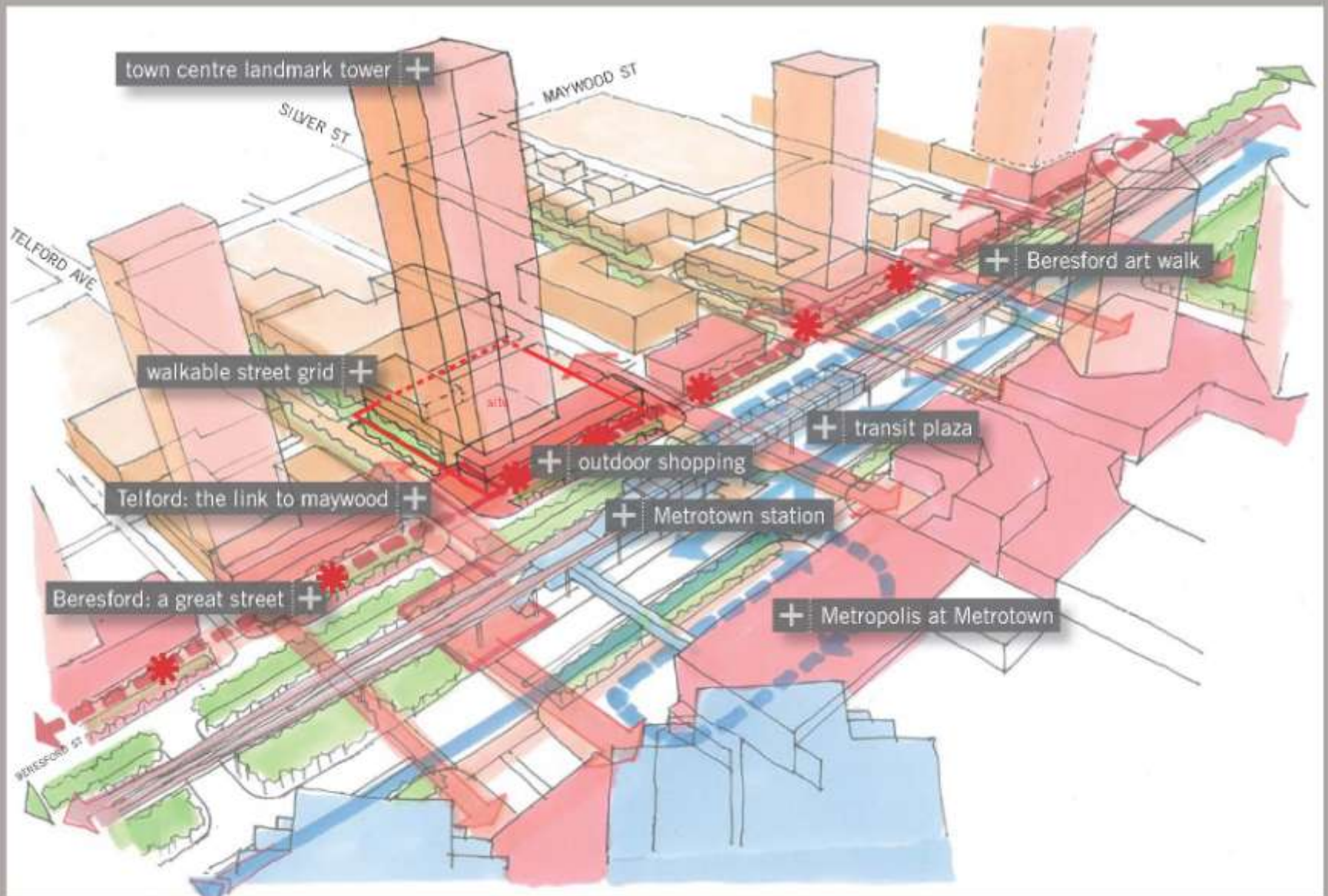
Town centre integration

Outdoor shopping street:
Beresford as a Great Street

Creative and exceptional
urban design and architecture











A Beresford art walk



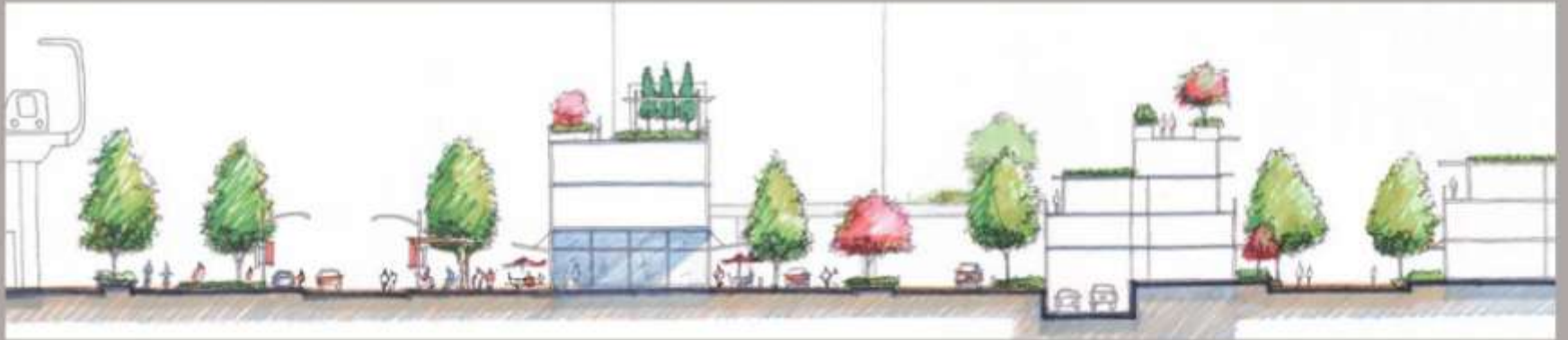
B Celebratory street



C Maywood mews

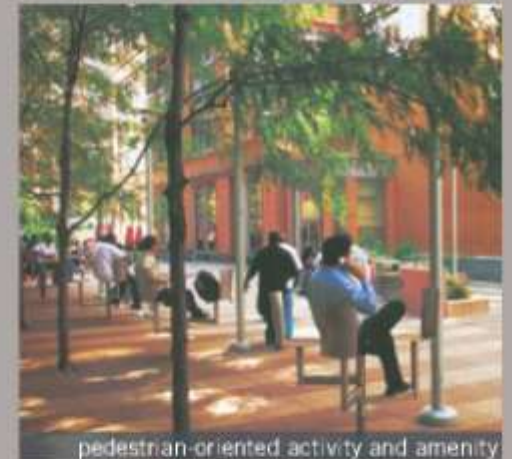


D Active lanes





an outdoor living room



pedestrian-oriented activity and amenity



landmarks to aid orientation













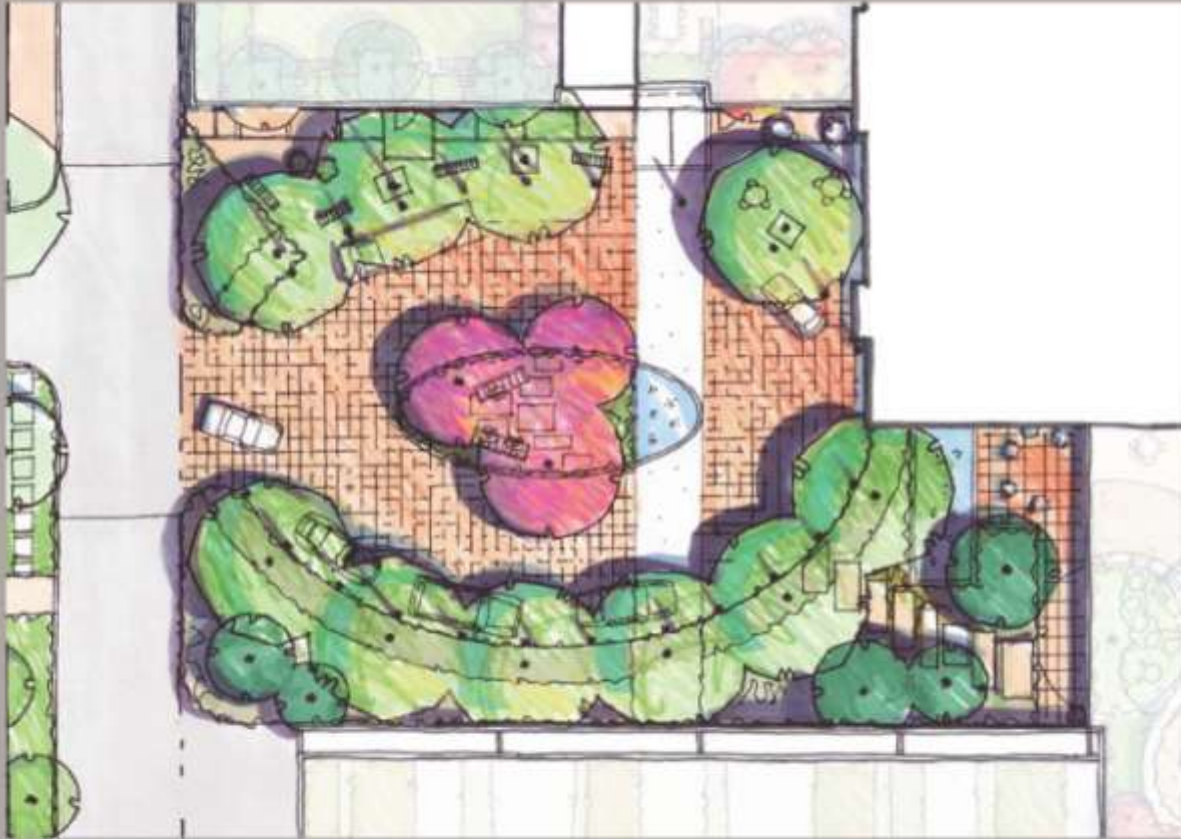
parking ramp

mews houses

adjacent development
follows mews pattern



Maywood news



strong street relationships



daytime and evening pedestrian amenity



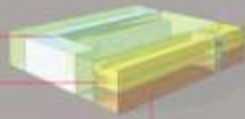
a mix of uses within the courtyard



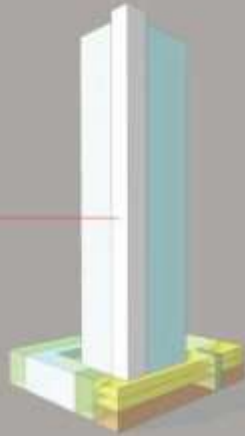
Residential:
Townhomes

Offices

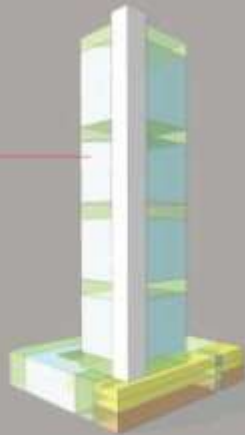
Shops and
Restaurants



Corner of Telford and Beresford
emphasized by form and material



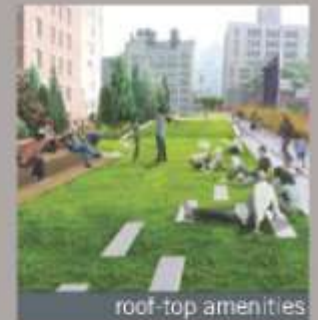
Residential:
Tower



articulation of corner at Beresford and Telford



lantern element



roof-top amenities



outdoor green spaces





A pedestrian-oriented neighbourhood



A live-work-play community



Access to multi-modal public transit



District-scale utility systems



Green building practices



↗ Beresford art walk



↗ Celebratory street



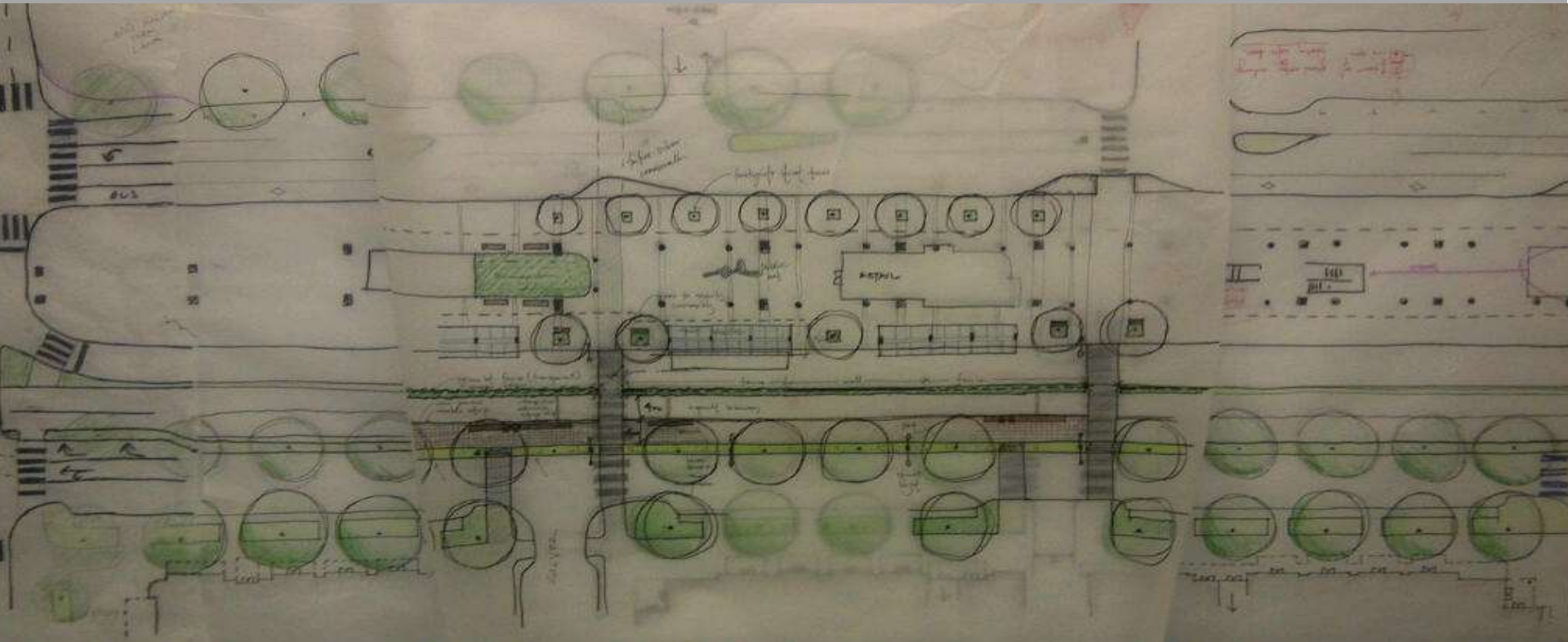
↗ Maywood mews



↗ Active lanes

Metrotown Exchange – Workshop

Option B – Narrow Exchange



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Questions for Our Panel Members?

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