

**5TH REPORT OF THE**  
**RAPID TRANSIT IMPLEMENTATION WORKING GROUP**

Meeting held on March 9, 2017, commencing at 4:30 PM, in Council Chambers, Second Floor, London City Hall.

PRESENT: Councillor P. Squire (Chair), Mayor M. Brown; Councillors B. Armstrong, J. Helmer, A. Hopkins P. Hubert, T. Park and H. L. Usher; S. Rooth, D. Sheppard and E. Southern and J. Martin (Secretary).

ALSO PRESENT: Councillor M. van Holst; M. Hayward, J. Fleming, J. Ford, K. Graham, H. Lysynski, D. MacRae, K. Paleczny, K. Scherr, J. Smolarek, E. Soldo and S. Spring.

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**I. CALL TO ORDER**

1. Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

**II. SCHEDULED ITEMS**

None.

**III. CONSENT ITEMS**

2. 4th Report of the Rapid Transit Implementation Working Group

That it BE NOTED that the 4th Report of the Rapid Transit Implementation Working Group, from its meeting held on February 9, 2017, was received.

**IV. ITEMS FOR DISCUSSION**

3. STAFF REPORT - Summary of February 23, 2017 Public Information Centre 4

That it BE NOTED that the Rapid Transit Implementation Working Group received the following:

- a) a verbal presentation from M. Hayward, Managing Director, Corporate Services and City Treasurer, Chief Financial Officer and Acting City Manager, with respect to an overview of the Rapid Transit project;
- b) the attached presentations from E. Soldo, Director of Roads and Transportation and J. Fleming, City Planner, with respect to an overview of the Rapid Transit project; and,
- c) a presentation from B. Hollingsworth, IBI Group and K. Paleczny, General Manger, London Transit Commission, with respect to a summary of the Public Information Centre 4.

4. STAFF REPORT - Downtown Routing Alternatives Assessment

That it BE NOTED that the Rapid Transit Implementation Working Group received a report dated March 6, 2017 and a presentation from B. Hollingsworth, IBI Group and E. Peissel, WSP Group and with respect to Downtown Routing Alternatives Assessment.

5. STAFF REPORT - North Corridor Routing Alternatives Assessment

That it BE NOTED that the Rapid Transit Implementation Working Group received a report dated March 6, 2017 and a presentation from B. Hollingsworth, IBI Group, with respect to the North Corridor Routing Alternatives Assessment, including Richmond Street Transit Tunnel.

**V. DEFERRED MATTERS/ADDITIONAL BUSINESS**

6. (ADDED) Municipal Council Resolution - 1st Report of the Town and Gown Committee

That it BE NOTED that the Municipal Council resolution adopted at its meeting held March 2, 2017 with respect to the 1st Report of the Town and Gown Committee, was received.

7. (ADDED) Routing Alternatives Assessment - Discussion

That the Civic Administration BE DIRECTED to take the following actions with respect to the Rapid Transit Implementation Project:

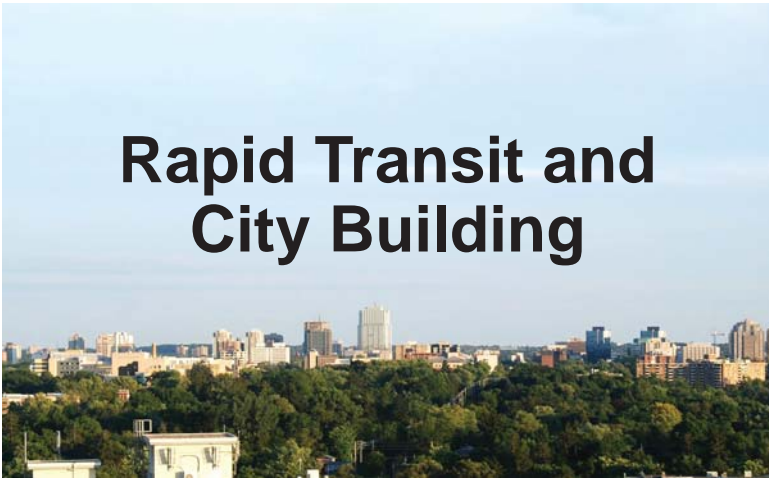
- a) bring forward two alternate route options including an alternative north-south route and an alternative east-west route, with a high-level cost analysis included;
- b) develop an analysis of potential business impacts by Zone, with mitigation strategies in consultation with businesses on Richmond Row, from Oxford Street to Central Avenue, on King Street and with Budweiser Gardens and the Covent Garden Market; and,
- c) hold a public participation meeting related to the above-noted alternate routing options.

**VI. ADJOURNMENT**

The meeting adjourned at 7:21 PM.

**NEXT MEETING DATE: April 13, 2017**

# Rapid Transit and City Building



March 9, 2017

## From a Long-term Planning Perspective London is at a Fork in the Road

Council has been planning to transform.....

- The way we **GROW**
- The way we **MOVE**



Transit  
Ridership  
in London has  
grown by **94%**

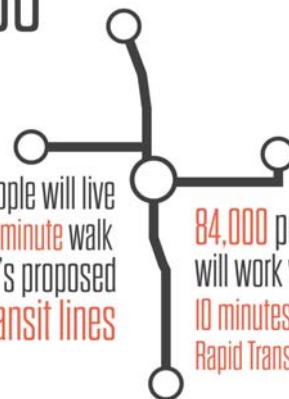


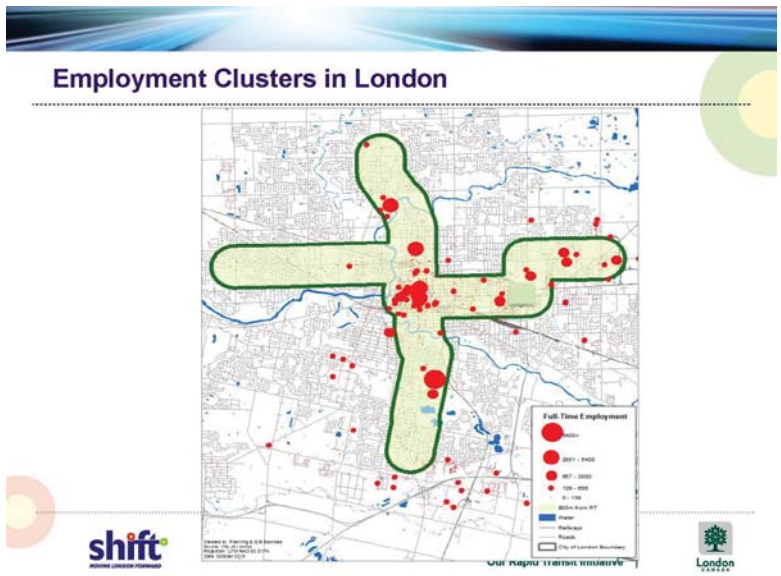
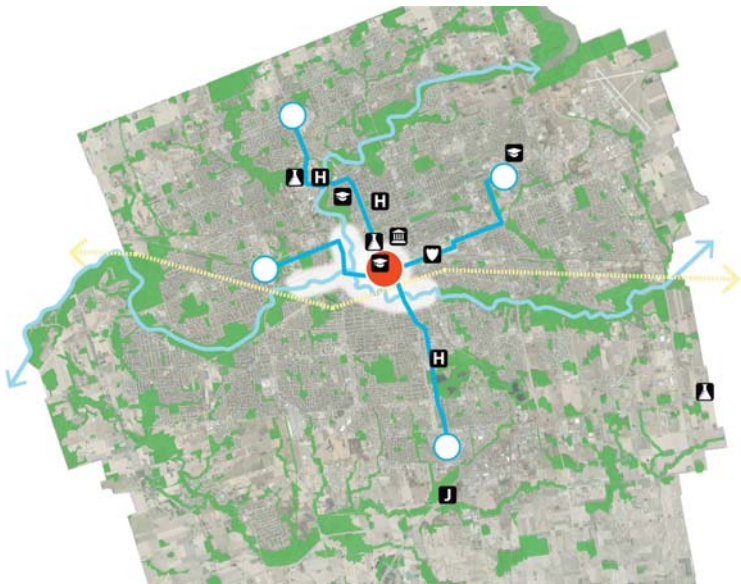
**1 IN 3** Londoners are **MILLENNIALS**:  
born between 1980 and 2000

2035

115,000 people will live  
within a 10 minute walk  
of London's proposed  
Rapid Transit lines

84,000 people  
will work within  
10 minutes of the  
Rapid Transit lines

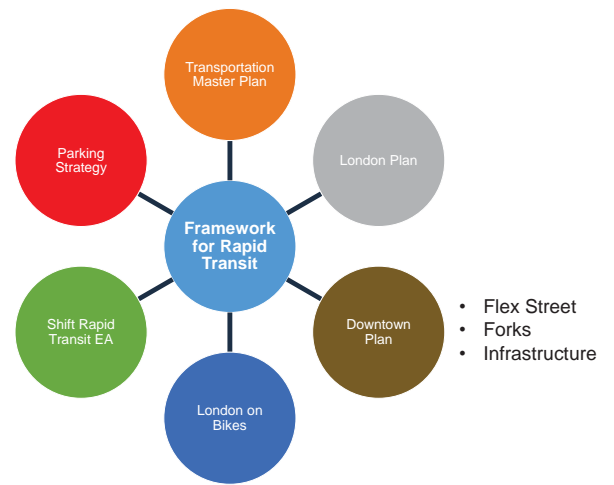




## What's at Stake?

- Our climate
- Our environment
- Energy conservation
- Our agricultural lands
- Small business development
- Our financial sustainability
- Urban regeneration
- Our ability to attract talent – our economy
- Our personal health

## The City-Building Framework



## The City-Building Framework



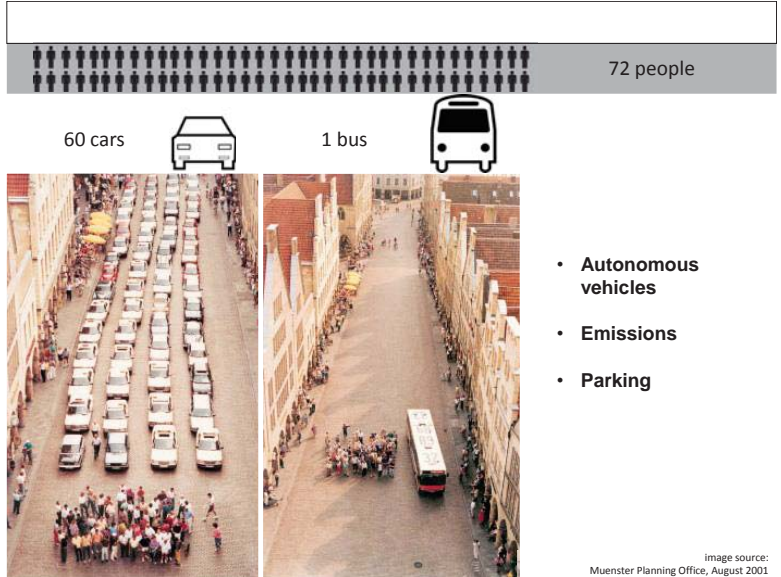
## The Transportation Master Plan

- We have options for how we MOVE
- Auto-dominated status quo doesn't work anymore....
  - Promotes sprawl
  - Creates air pollution
  - Big energy consumer
  - Creates future risks
  - Undermines the ability to provide quality transit services
  - Bad for personal health
  - Comes with huge costs – initial and ongoing
  - Expensive for users
  - Unsustainable – environmentally, socially, economically
  - Unresolvable congestion



Some 57% of travel in the City occurs during the morning and evening peak travel periods, with almost one quarter of total daily trips being work-related. Commuter travel directs much of the need for road infrastructure improvements.”

*Smart Moves - Transportation Master Plan*



## Dedicated Lanes



## Tunnel



## Transportation Master Plan - A Different Approach to Mobility

- Multi-modal approach
- Less reliance on automobiles
- Not suggesting everyone takes transit!
- Environmental benefits
- Healthy, active mobility options
- Help to Grow Our City
- Assist with Urban Regeneration
- Avoid significant widening costs (\$290M)



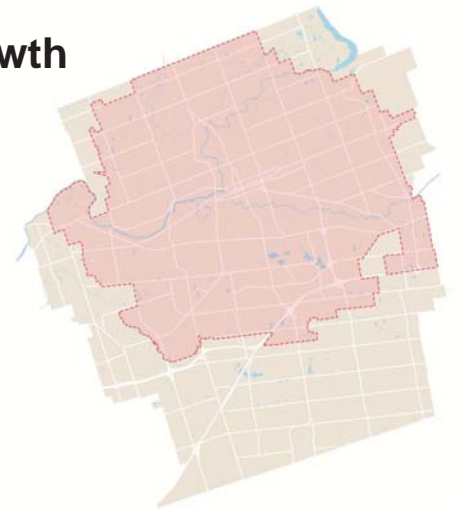
## OUR TEN BIG MOVES

- ➔ 1. Shaping our City around rapid transit
- ➔ 2. Planning for exceptional places and spaces
- ➔ 3. Regenerating our urban main streets
- ➔ 4. Growing inward and upward
- ➔ 5. Building a city that attracts talent and investment
- ➔ 6. Giving real and attractive mobility choices – walking, cycling and transit
- ➔ 7. Creating a cosmopolitan city – one that is culturally rich and diverse
- ➔ 8. Building strong and healthy neighbourhoods for everyone
- ➔ 9. Planning a smart city – connecting London to the world
- ➔ 10. Building one of the greenest cities in all of Canada

**Municipal Boundary**

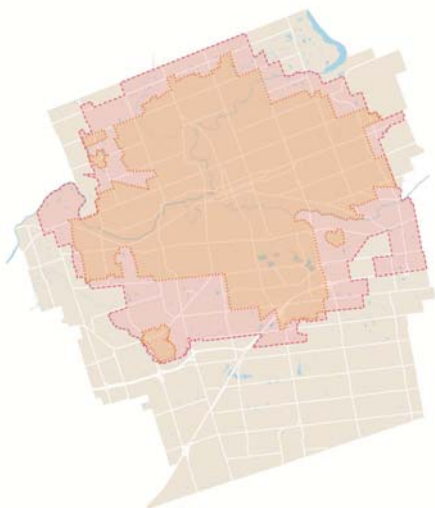


**Urban Growth Boundary**



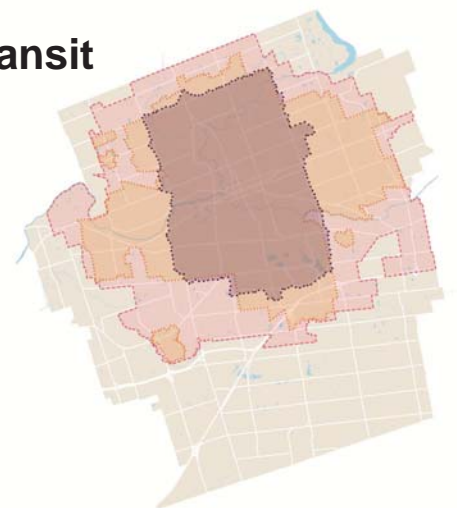
**Built Area Boundary**

**45%**

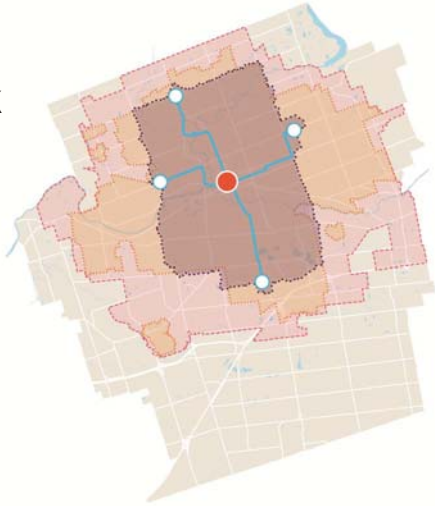


**Primary Transit Area**

**75%**



## Growth Framework



## Place Types



## Rapid Transit & The London Plan

- RT can stimulate inward and upward growth
- RT can encourage growth that uses existing infrastructure
- RT can encourage transit-oriented growth
- RT can help us to conserve agricultural land
- RT can help us to reduce carbon emissions – climate change
- RT can help us to reduce energy consumption
- RT can help us to alleviate congestion
- RT can support active forms of transportation – healthier lifestyles

## Rapid Transit & The London Plan

- RT can help us provide truly attractive mobility options
- RT can help us to stimulate growth where it is most advantageous
- RT can help us to regenerate urban neighbourhoods
- RT can help us to regenerate main streets and downtown
- RT can stimulate small business opportunities
- RT can connect our institutions
- RT can reduce the personal cost of mobility
- RT can help us to be more resilient to rising costs of energy
- RT can help us attract talent to London

## Keeping an Eye on the Big Picture When Considering Routing

*It is an integrated network and changes to benefit one objective can have negative impacts on another objective*



## Flex Street



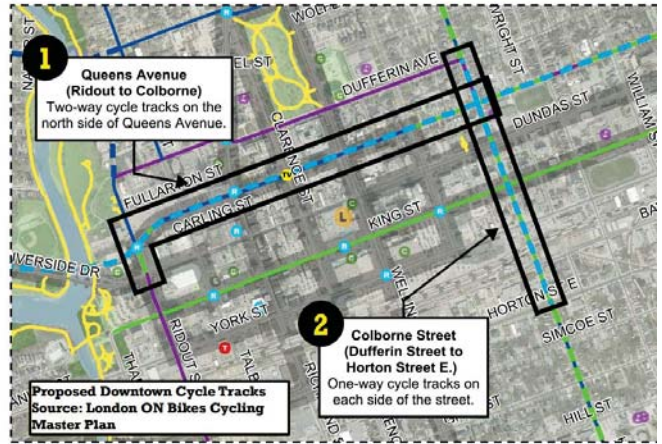
# International Design Competition – Forks Of The Thames



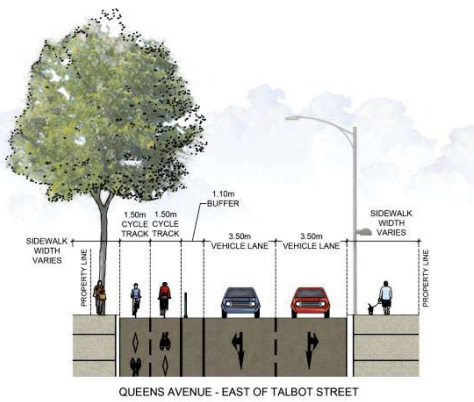
## Queens Avenue and Colborne Street Cycle Track Design Project



### LONDON BIKES Project Background



### LONDON BIKES Cross Sections



## Mitigating Construction Impacts



## Lesson from Banff







END

## Our Rapid Transit Initiative

Rapid Transit Implementation Working Group #5  
Downtown and North Corridor Routing Alternatives Assessment  
March 9, 2017



## Purpose of Presentation

To present a summary of the analysis and evaluation completed to date for Rapid Transit route alternatives, in the Downtown and on the North Corridor, in support of the preferred routes.



## Evolution of Rapid Transit (2011-2015)

- 2011: Downtown London BRT Routing Options Study
  - Examined six different routing options
  - Base option assumed York/Richmond routing
  - Recommended three options for consideration in EA
- 2013: London Transportation Master Plan
  - Four main corridors: Wellington South, Richmond North, Oxford West and Dundas/Oxford East
  - Also recommended Central Transit Terminal
- 2014: Rapid Transit Environmental Assessment commences
  - Kick-off of public consultation in February 2015
  - Included evaluation of routing options for all corridors
  - Routing options presented at PIC 2 (May 2015) and recommendations at PIC 3 (December 2015)
- 2015: Our Move Forward: London's Downtown Plan
  - Provided overall framework for Downtown London
  - Dundas Place concept endorsed by Council



## Evolution of Rapid Transit (2016-2017)

- 2016: Rapid Transit Business Case
  - Approved by Council, May 2016
  - Identified Full BRT network with routing in the downtown and tunnel grade separation on Richmond
- 2016: The London Plan adopted June 2016
  - Established land use planning framework for RT corridors
- 2016: London ON Bikes
  - Approved by Council September 2016
  - Protects Queens Avenue for two-way cycle track
- 2016: Dundas Place Flexible Street Class Environmental Assessment
  - Confirmed Dundas Place flex street, approved by Council December 2016
- 2017: Draft Rapid Transit Master Plan
  - Final proposed transit network presented at PIC 4 for comment



## Public Information Centre #4 Summary

**197**  
People Signed In

**~400**  
People attended

Thursday, February 23, 2017  
5 to 8 pm  
Library Central Branch  
Drop-in format





## What we heard: Route Selection

- Why King Street and not York Street?
- Why not Queens Avenue or Dundas Street?
- Why Richmond Street and not Western Road to Oxford, or to Wharnccliffe?
- Why Richmond Street and not Adelaide Street?
- Why Wharnccliffe and not Woodward?
- Why go through Western University? Delay to through-trips. "Students are young and can walk"

## What we heard: Design and Construction

- Concerns about construction impacts on business viability, particularly downtown on King Street and Richmond Street
- Concerns about Budweiser Gardens access from Ridout Street and truck loading/unloading
- Questions regarding need for Richmond Street tunnel. "Can't you connect communications with CP trains?" "Can't you take a different route?" "Tunnel is too expensive"
- Concerns about widening Wellington Street without widening the CN underpass. "Gains from dedicated lanes will be lost if buses are stuck in mixed traffic."
- Concerns about property impacts

## What we heard: Operations and Technology

- Electric buses should be seriously considered as the vehicle for the system
- Will Autonomous Vehicles (AVs) help or hurt the case for rapid transit?
- Concerns about reducing or eliminating existing transit routes, and time required to transfer from local to RT. For example, Route 13 provides a direct connection from White Oaks area to St. Joseph's Hospital.
- Concerns about loss of on-street parking on RT routes
- Concerns over increased traffic congestion
- Questions over park-and-ride facilities, will they be provided? Where?

## Concerns around the Market

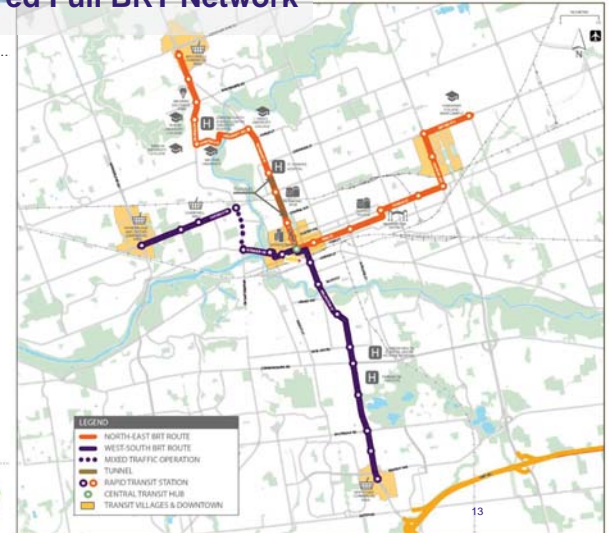
- Loading and unloading; loss of loading zone on King Street which is one of the most used areas; currently unable to get delivery trucks to rear loading doors
- Covent Market Place generally blocked by various deliveries, parking, pick-up/drop-off; access will become worse with RT
- Impact to King Street access to and from Market underground parking
- Original Kids theatre group – over 70,000 visits a year of parents dropping off and picking up kids; already a challenge

## What we heard: Other Ideas

- Implementing this project is great, however, some of the adjacent places/corridors need to be tied in or also upgraded (such as Dundas St Old East, Windermere Rd, etc.)
- There is a need for better transit in London
- The project will offer significant benefits to the community and for the environment
- Skepticism about the benefits of the investment. "Why not just upgrade the existing bus routes?"
- Future public meetings should include a formal presentation with question and answer period
- PIC was very informative, glad to speak one-on-one

# Downtown Routings

# The Preferred Full BRT Network



# Preferred Downtown Routing

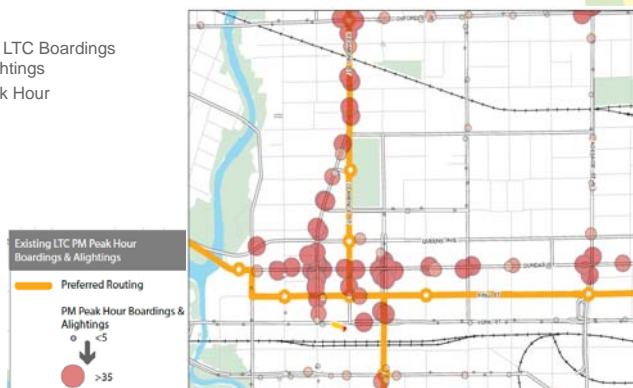


# Process – Downtown Routings

- Identified and evaluated city-wide routing alternatives
- Started with “blank slate” to determine what makes sense for Rapid Transit
- Incorporated objectives and constraints of other planned projects
- Developed feasible alternatives for:
  - North and East routing (higher ridership)
  - South and West routing
- Reviewed key generators and attractors of transit
- Examined key technical criteria including transit ridership, traffic, access, and parking impacts
- Considered public and stakeholder input (4 PICs plus stakeholder meetings)
- Developed concept designs to test feasibility of potential routing options, including bridges, constructability, operations, streetscape
- Evaluation involved numerous iterations to balance inputs and constraints

# Supporting Information: Transit

Existing LTC Boardings and Alightings  
PM Peak Hour



# Supporting Information: Population

Existing 2016 Day-time population  
(workers plus population at home)

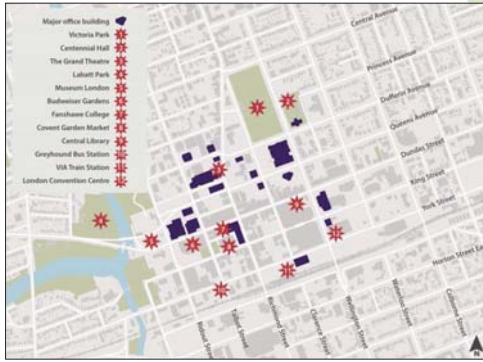
- Downtown Core Total: 53,100 people
- Queens Avenue Corridor: 40,364
- King Street Corridor: 6,000



Source: Stewis Data, London Downtown

## Supporting Information: Generators

Activity  
Generators  
(London's  
Downtown Plan,  
2015)



## Supporting Information: Traffic



## Supporting Information: Changes for Dundas Place

Transit Route Changes:

- King Street to carry approximately 1 eastbound bus every 1 to 2 minutes during peak hours
- To accommodate bus stops approximately 12 parking spots removed: 10 from King Street between Ridout Street and Wellington Street, plus 2 from Ridout Street south of Dundas Street



## North and East Route Alternatives through Downtown



## Preferred North and East Route

- Clarence Street: two-lanes converted to transit-only, removal of on-street parking, maintain one or two lanes for general traffic (varies by block)
- King Street: two-lanes converted to transit-only, removal of on-street parking, removal of bike lane, maintain one lane for eastbound general traffic
- Summary of Evaluation:
  - Shortest route (1.1 km) with fastest transit travel time
  - Serve most Activity Generators and Priority Sites for Redevelopment
  - Central Transit Hub at or near Clarence/King, within desirable walking distance of VIA station (~200m)
  - Removal of on-street parking on Clarence (48) and King (43)
  - Driveway access generally maintained on Clarence and King; no physical barrier along RT lanes; RT may be impeded by turning traffic
  - Maintains traffic capacity of Richmond Street and York Street

## South and West Route Alternatives through Downtown



## Preferred South and West Route

- Wellington Street: two-lanes converted to transit-only, removal of planted median, removal of on-street parking, maintain two lanes for general traffic
- King Street: two-lanes converted to transit-only, removal of on-street parking, removal of bike lane, maintain one lane for eastbound general traffic
- Ridout Street: two-lanes converted to transit-only, removal of on-street parking, maintain two lanes for southbound general traffic
- Summary of Evaluation:
  - Shortest route (1.5 km) with fastest transit travel time
  - Serve more Activity Generators
  - Central Transit Hub at or near Clarence/King, within desirable walking distance of VIA station (~200m)
  - Removal of on-street parking on King (6) and Ridout (6)
  - Compatible with cycle tracks on Queens Avenue, Dundas Place Flex Street, and conversion of Kensington Bridge to transit/active modes

## Downtown Routing: Summary

- Clarence & King, and King & Wellington, are the preferred routes for rapid transit in dedicated lanes
- Fastest transit travel time, simple routing, good transit rider experience
- Stations cover transit "centre of gravity" at Dundas & Richmond
- Good transit and walkable access to Dundas Place, major transit trip generators, and VIA station
- Supports Queens Avenue cycle track
- Converts Kensington Bridge to transit/active modes
- Supports Back to the River Initiative
- Design process will identify and mitigate impacts to parking, access, construction management, deliveries, pedestrians, among others

## North Corridor Routings

## Preferred North Corridor Routing



## Process – North Corridor Routings

- Identified and evaluated city-wide routing alternatives
- Reviewed key generators and attractors of transit
- Examined key technical criteria including transit ridership, traffic, access and property impacts
- Considered public and stakeholder input (4 PICs plus stakeholder meetings)
- Included input and on-going studies by Western University
- Developed concept designs to test feasibility of potential routing options
- Evaluation involved numerous iterations to balance key inputs and constraints

## North Corridor Short-listed routings



1a: Richmond Street

1b: Western Road / Wharnccliffe Road

1c: Western Road / Western University / Richmond Street

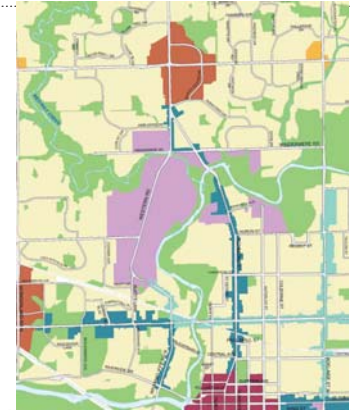
## Supporting Information: Transit

Existing LTC Boardings and Alightings  
PM Peak Hour



## Supporting Information: Land Use

Map 1: Place Types  
The London Plan, 2016



## Preferred North Corridor Route: 1c Western University

- Provides direct high-quality transit service to:
  - Richmond Row
  - St. Joseph's Hospital and King's University College
  - Western University campus centre and future planned expansion areas
  - University Hospital
  - Transit Village at Fanshawe Park Road
- Avoids significant engineering challenges and associated costs with Oxford Street West crossing of Thames River and CP Rail crossings
- Best serves transit ridership in the north part of London
- Minimizes natural environment impacts to North Thames River valley by using existing University Drive bridge
- Consistent with land use planning framework in The London Plan and other city building initiatives

## Richmond Street Tunnel

Route alternatives to the Richmond Street Rail Crossing



## Preferred Solution: Richmond Street Transit Tunnel

- All north corridor alternatives constrained by CP Rail (Richmond, Oxford, Western) and Thames River
- Re-routing CP Rail is not feasible: requires property acquisition, public consultation, federal approvals, cost of new tracks, yards, grade separations
- City has no jurisdiction over CP Rail in terms of restricting train frequency, length or time-of-day scheduling
- Proposed Richmond Street transit tunnel:
  - Benefits every transit trip (1 to 2 minute savings)
  - Protects against unpredictability of train crossings; gates currently down for up to 12 minutes per train
  - Critical to achieving objectives of rapid transit (i.e. fast, reliable service)
  - Added benefits to police, fire, ambulance to by-pass traffic
- Without the tunnel, rapid transit will not be an attractive and reliable mode
- If people stay in their cars, roads and intersections will need to be widened to accommodate cars

## Next Steps

- Additional detailed consultation with businesses and stakeholders to understand concerns: March – April 2017
- Address impacts with potential mitigation measures: April 2017
- Finalize Rapid Transit Master Plan and seek Council approval on preferred routes: April – May 2017
- Continue to the next phase, the Transit Project Assessment Process, which includes:
  - Development and evaluation of design solutions to minimize negative impacts
  - Consultation with the public, agencies and stakeholders