

Congestion Management Strategy

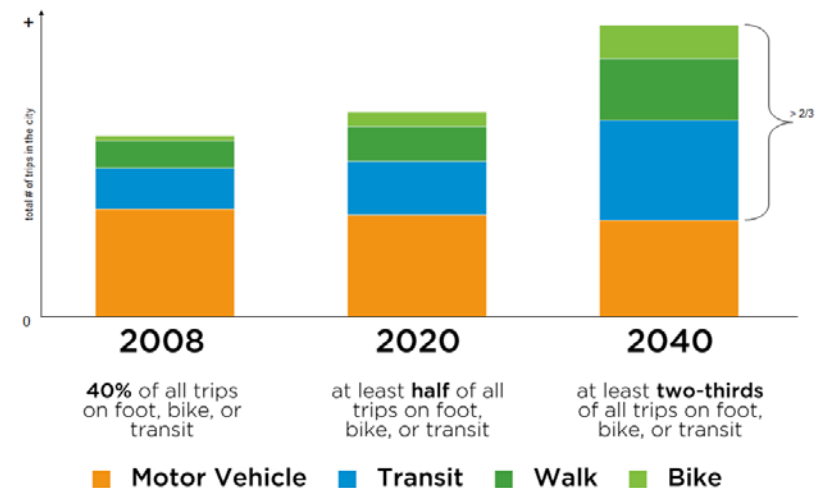


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Director, Transportation
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Transportation 2040 Targets:

- Increase walking, cycling, and transit to two-thirds
- Zero traffic-related fatalities

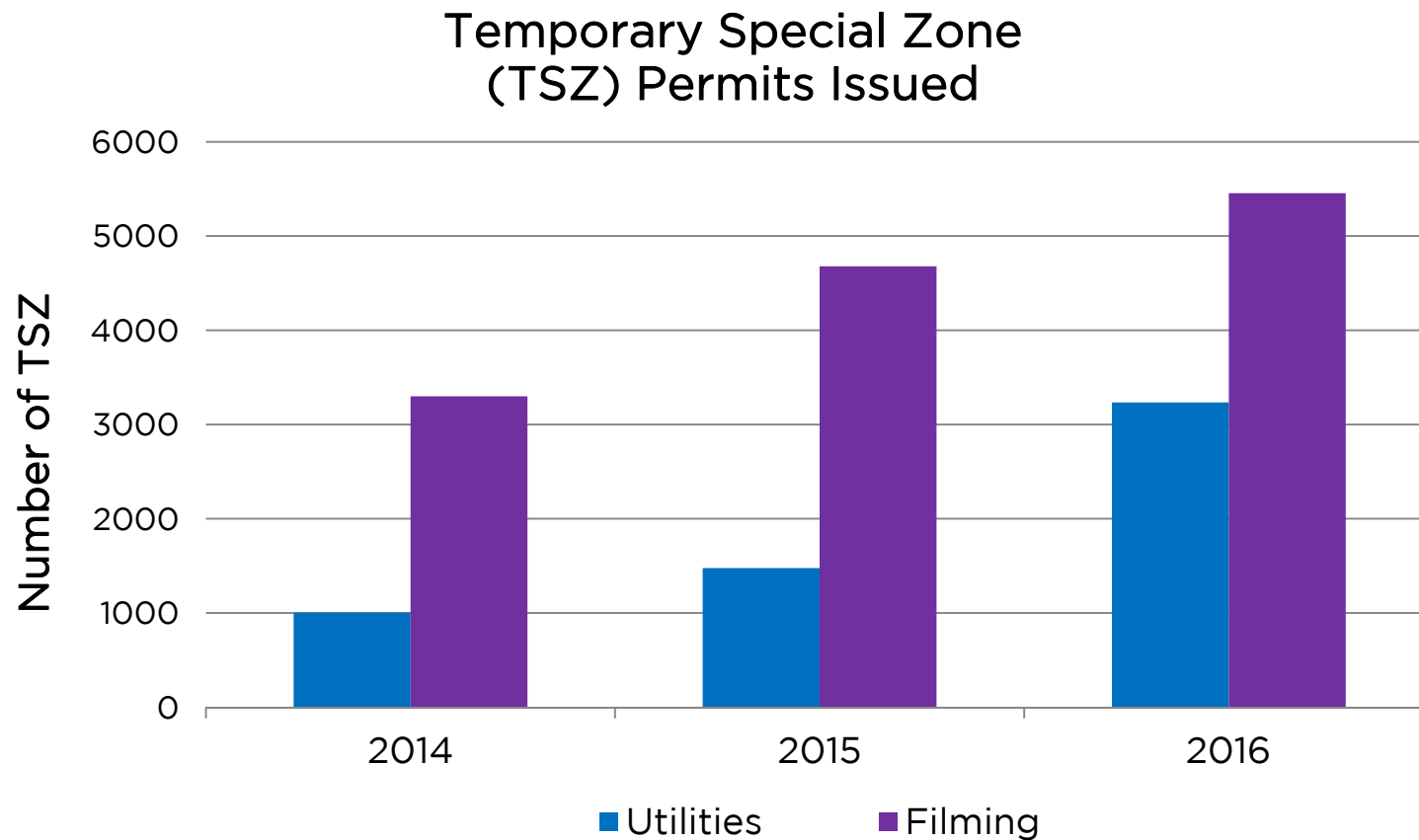




Road network policies

- Optimize network operations to manage congestion impacts
- Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
- Manage traffic to improve safety, business activity and neighbourhood livability

Competition for Street Use is at an all-time high



- **Development and Special Events also require street space which has been consistently high between 2014-2016**

AN ANALYSIS OF
TRAFFIC
CONGESTION
AND POLICY
SOLUTIONS FOR
CANADIAN
MUNICIPALITIES

PSD



City partnership with Public Sector Digest (2016):

- Defining Congestion
- Measuring Congestion
- Survey of Canadian Municipalities
- Innovative Solutions

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PSD



What is Congestion?

- In urban settings, the definition of congestion is more related to the experience of the road user

“...the difference between users’ expectations of the road network and how it actually performs”

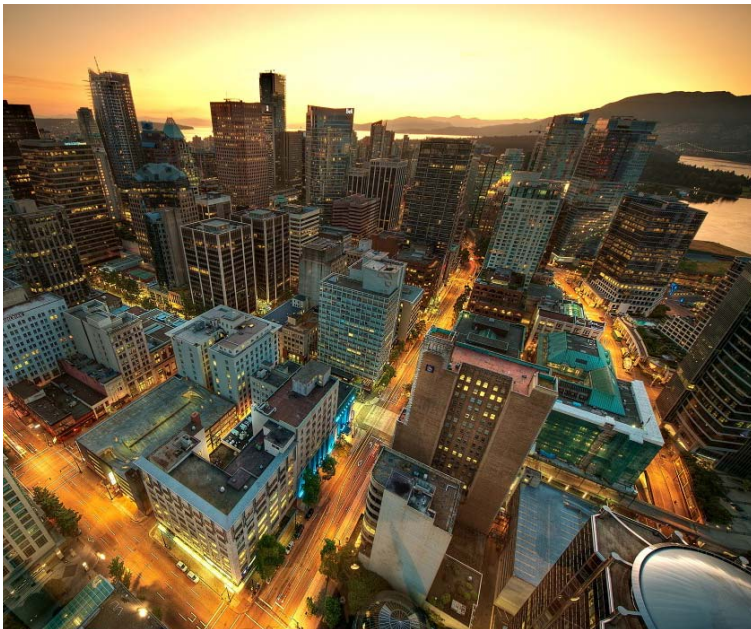
“...the level at which transportation system performance is no longer acceptable due to traffic interference”



- Slower moving vehicles can be **helpful** to improve neighbourhood livability, business activity and reduces risk of traffic-related injuries or fatalities
- Congestion is **harmful** as it impacts travel times of transit and goods movement, and increases emissions
- Sustainable transportation is prioritized in Vancouver, however vehicle congestion that is not **managed** can negatively affect urban areas and the economy



- Vancouver's grid network of streets promotes safety, sustainability, business activity, and livability
- However, congestion that is not well managed on arterial streets can lead to short-cutting in neighbourhoods
- The Congestion Management Strategy must be aligned with existing City policies and support safety, accessibility and livability of local streets



- With limited space managing congestion will need to be smart and efficient
- Recent technology has allowed cities to gather vital information on how the transportation system is used
- The congestion management strategy will include emerging technology such as Smart Street Lighting and infrastructure to support connected and automated vehicles

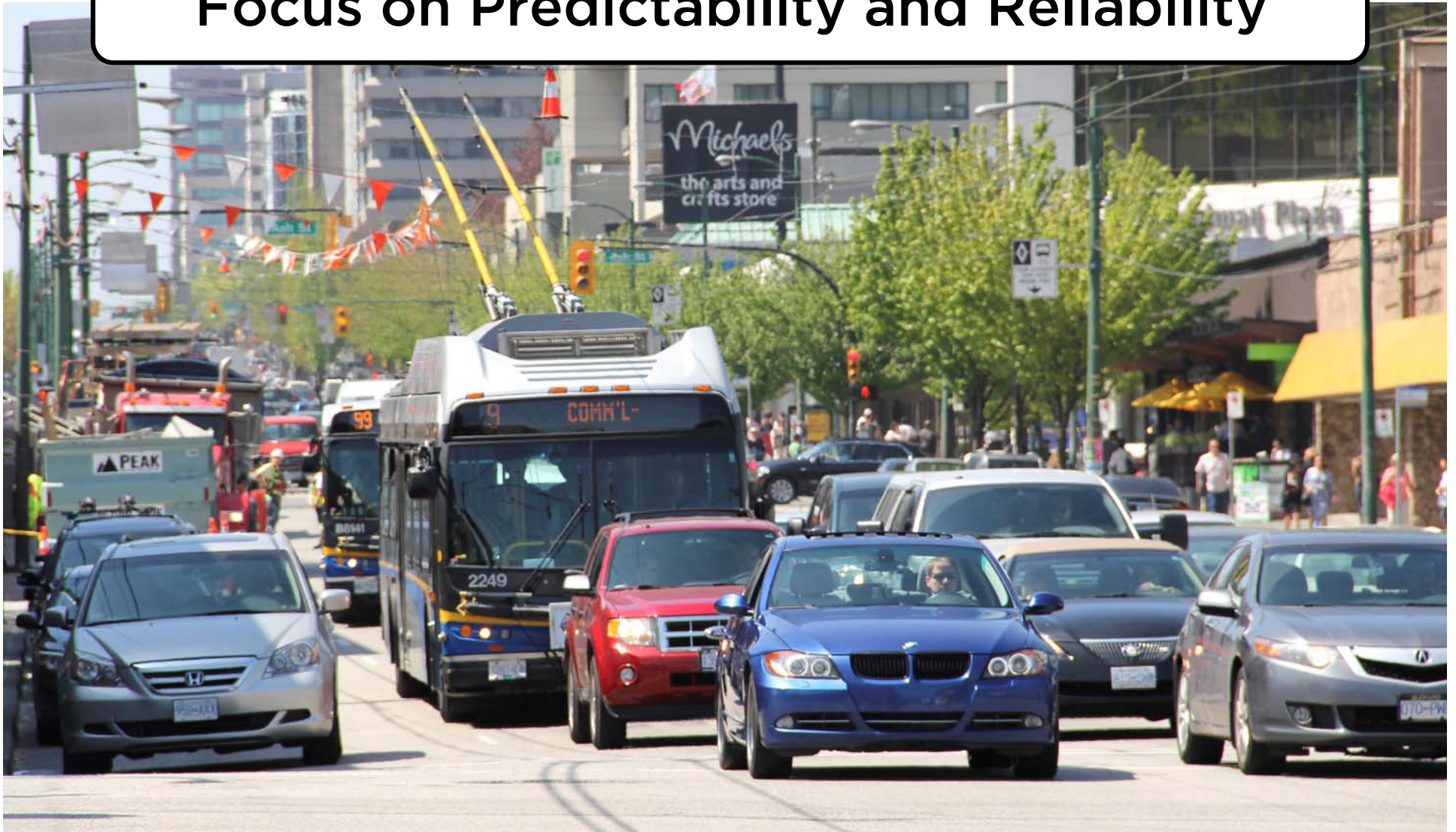
Proposed Congestion Management Strategy



Congestion Management Strategy



Focus on Predictability and Reliability



Goals

1. Improve monitoring of traffic conditions and trends
2. Improve road safety
3. Ensure a smart and efficient transportation system
4. Coordinate street use
5. Prioritize people & goods movement

Ongoing City initiatives to manage congestion:

Goal #1 Monitoring

- Street use monitoring
- Traffic control with VPD Traffic Authority
- Monitoring with traffic cameras

Goal #2 Road Safety

- Lighting improvements
- Collision analysis
- Partnerships
- Ped Safety Campaign

Goal #3 Smart Transportation

- Centralized signal management system
- Public awareness
- Parking Management Strategy

Goal #5 Prioritize People & Goods Movement

Goal #4 Coordinate street use

- Walking and cycling provisions at construction sites
- Proactive street use planning / Project Management Office
- Managing street use data

- Mobility pricing
- Supporting rapid transit
- Complete Streets
- Rail transport & safety
- Commercial vehicles regulations

Goal #1 Improve Monitoring



More information, data, and monitoring to better understand traffic conditions and congestion over time

NEW Initiatives

- Establish **baseline travel times** along major arterial streets across the city, e.g.:
 - automated travel time monitoring
 - expanded traffic count locations
- **Traffic cameras** at all major intersections

Provides more information on travel reliability and congestion hotspots



Goal #1 Improve Monitoring



More information, data, and monitoring to better understand traffic conditions and congestion over time

NEW Initiatives

- Deliver annual report to Council on travel time reliability

In the Spring, report back on travel times on major corridors and changes related to improvements



Goal #2 Improve Road Safety

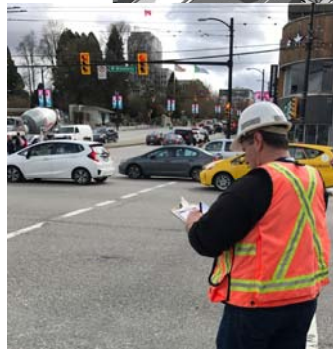
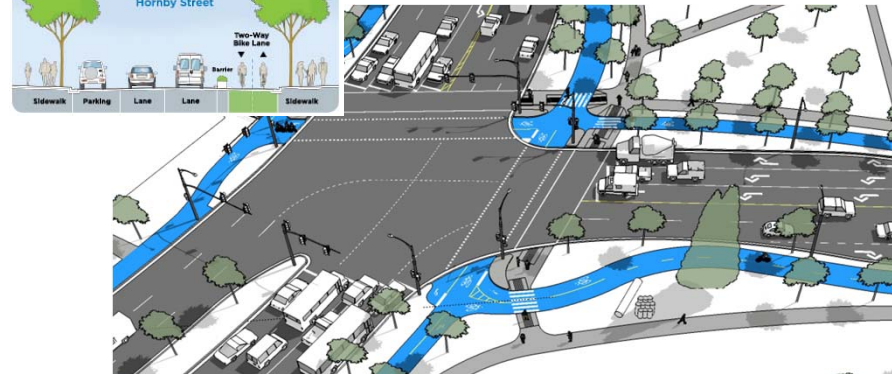
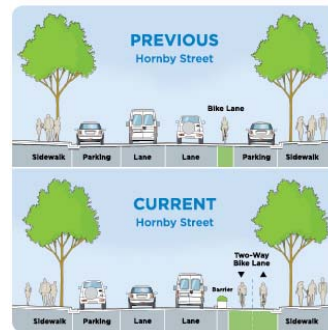


Moving towards zero-related traffic fatalities can lead to less collision-related congestion and more efficient operations

NEW Initiatives

- Conduct intersection safety studies to identify safety hotspots and areas of concerns, as well as counter measures

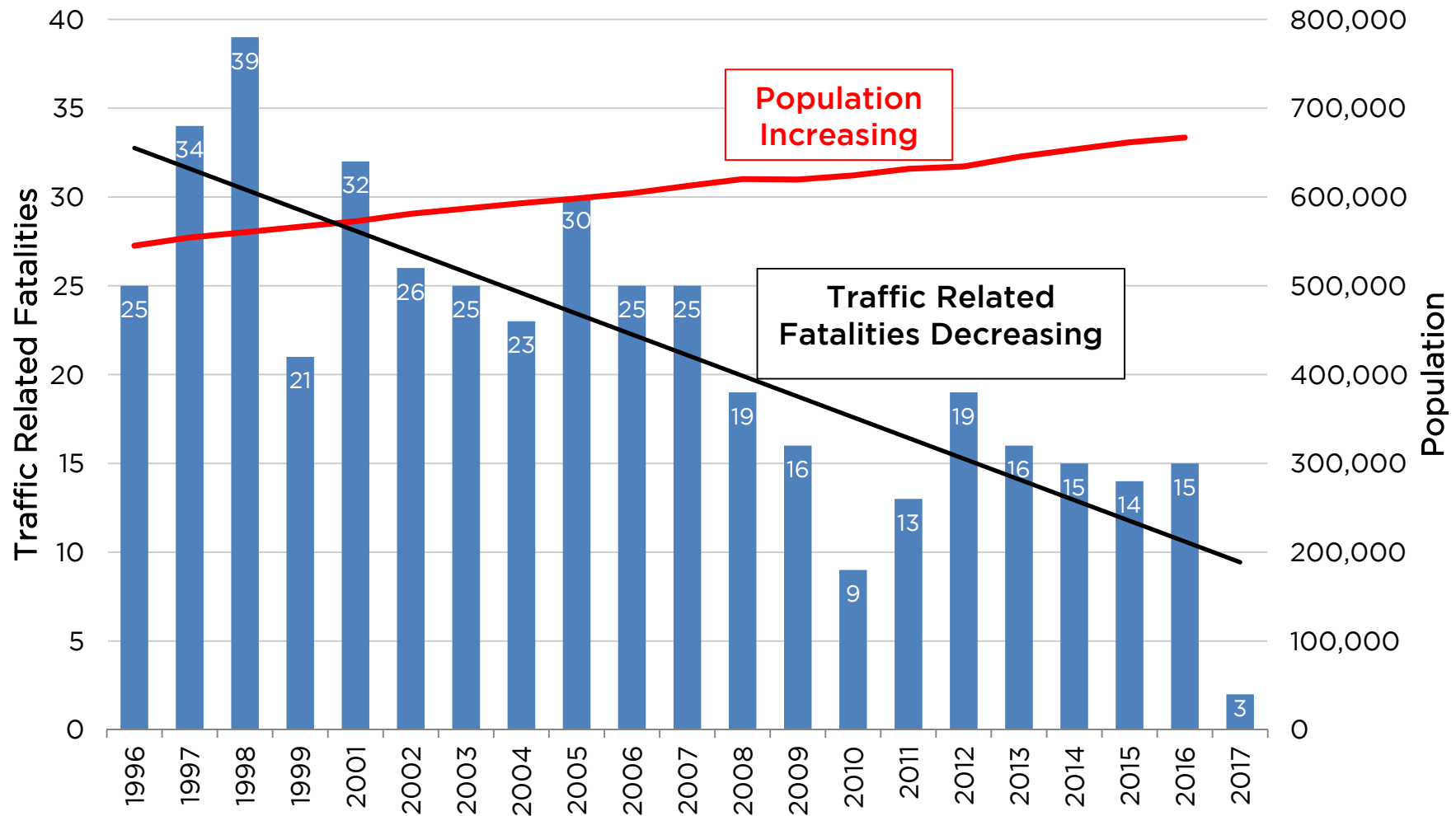
Congestion management and transportation safety goals must be aligned and support each other



Goal #2 Improve Road Safety



Transportation Related Fatalities



Goal #3 Smart & Efficient Transportation System

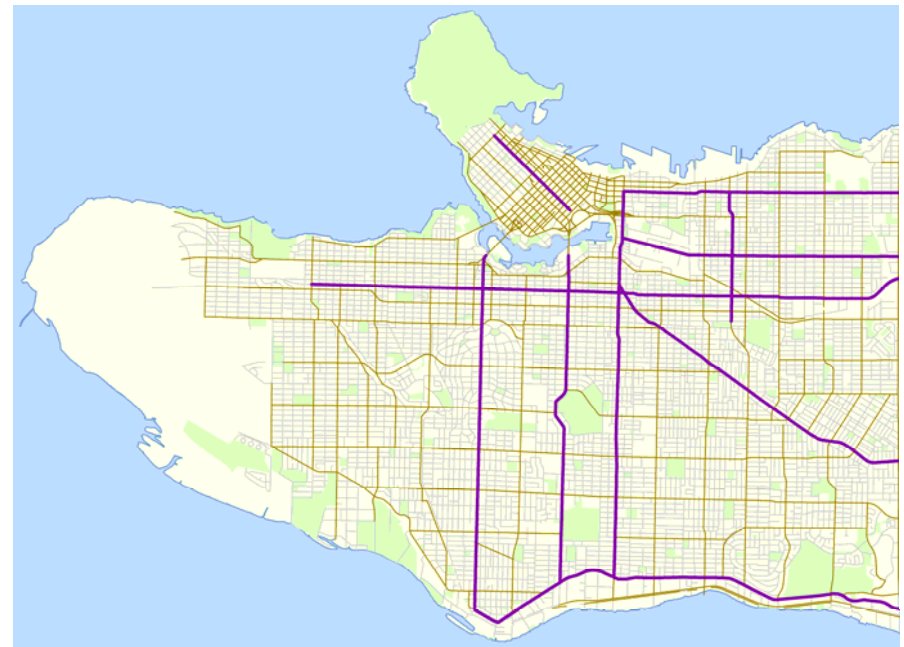


Ensure street assets are well managed, resilient and operate efficiently and effectively

NEW Initiatives

- Update corridor signal timing & optimization
- Adjust peak-period parking regulations to support transit service and overall traffic flow

Manage congestion by improving reliability on major arterial streets to protect neighbourhoods from shortcutting



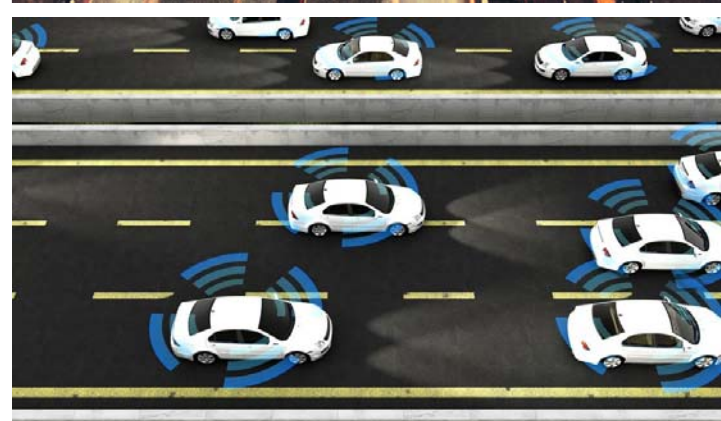
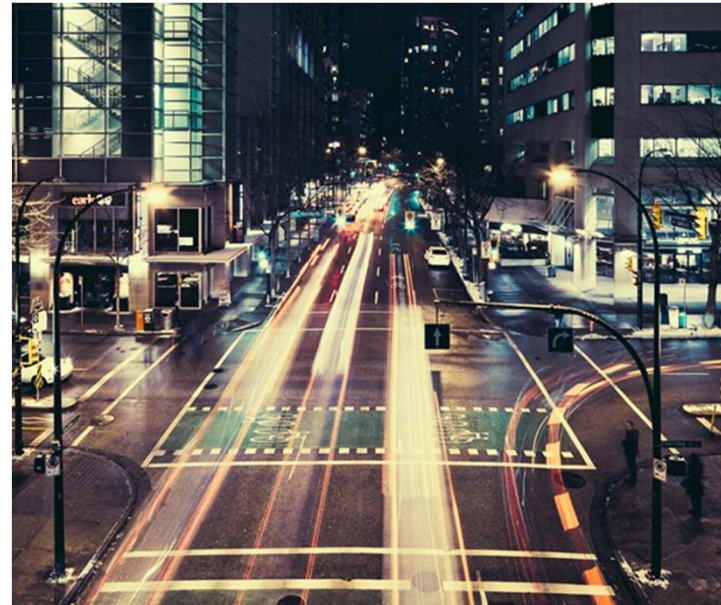
Goal #3 Smart & Efficient Transportation System



Ensure street assets are well managed, resilient and operate efficiently and effectively

New Initiatives

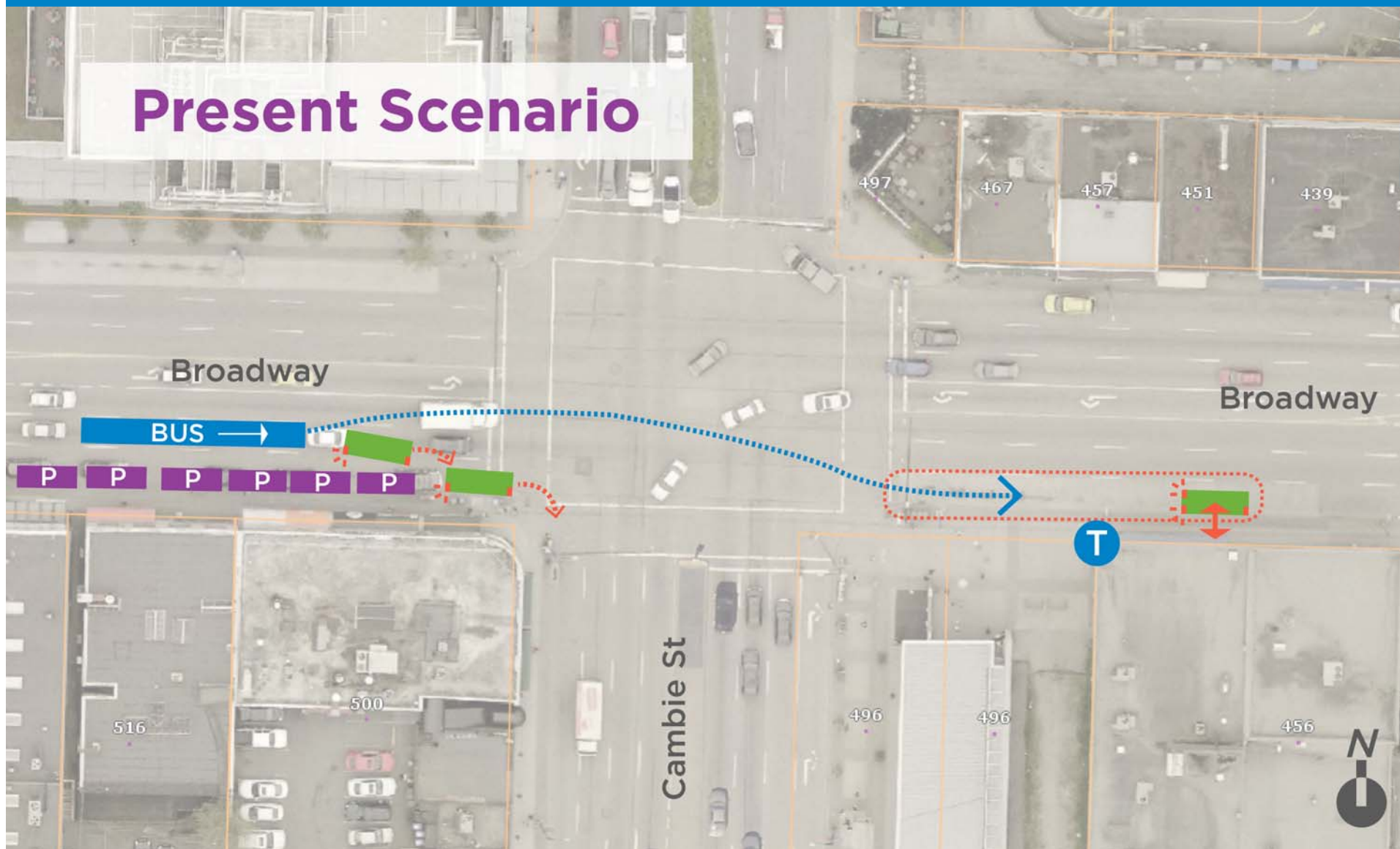
- Implement spot improvements to enhance transit service & reliability
- Explore emerging technologies including smart street lighting, responsive signal timing systems, and infrastructure to monitor and support connected and automated vehicles



Goal #3 Smart & Efficient Transportation System



Present Scenario



Goal #3 Smart & Efficient Transportation System



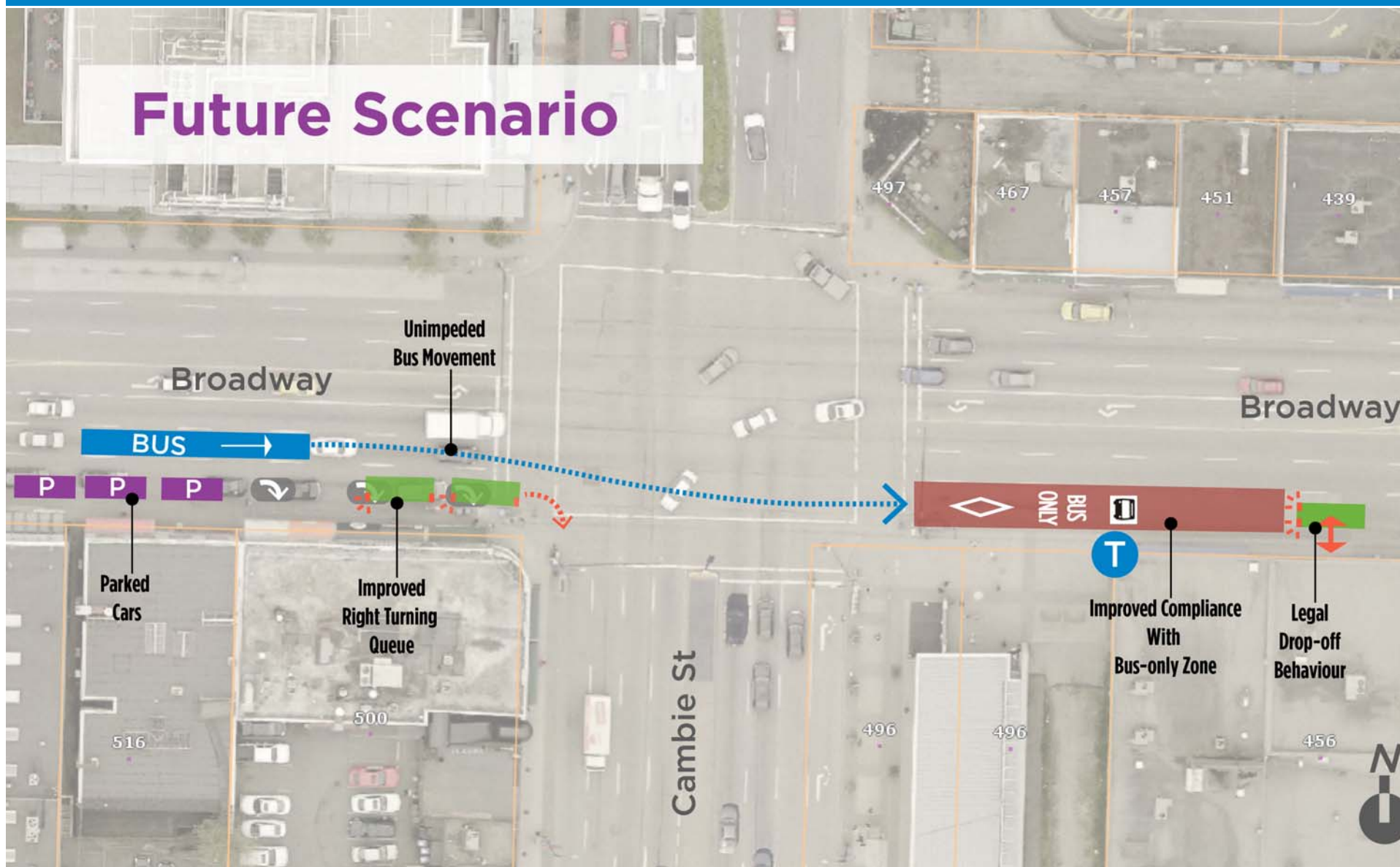
Design Improvements



Goal #3 Smart & Efficient Transportation System



Future Scenario



Goal #4 Coordinate Street Use



Manage congestion through coordinating street use impacts related to construction, development & events

NEW Initiatives

- Review Street Use practices for private development
 - e.g. look at other jurisdictions to identify when development-related street use is supported and related fees

*To mitigate impacts of **private construction and development** on road network*



Goal #4 Coordinate Street Use



Manage congestion through coordinating street use impacts related to construction, development & events

NEW Initiatives

- Develop Construction Traffic Management Manual
- *To identify traffic management practices that will minimize and coordinate traffic impacts*



Goal #5 Prioritize People & Goods Movement



Manage congestion through initiatives and policies that support sustainable transportation

Initiatives Underway

- Support planning and design for **rapid transit development**, including Broadway and future extensions
- Support regional **mobility pricing**, as a demand management tool and revenue generator for sustainable transportation



Goal #5 Prioritize People & Goods Movement



Manage congestion through initiatives and policies that support sustainable transportation

Initiatives Underway

- Developing a rail transportation grade separation strategy and upgrading crossings
- Standardize regulations and permitting for commercial vehicles



Goal #5 Prioritize People & Goods Movement



Manage congestion through initiatives and policies that support sustainable transportation

Initiatives Underway

- Develop **Complete Streets Policy framework** to support overall mode shift targets and enhance travel time reliability



Next Steps

- **Develop a monitoring strategy to assess progress**
- **Formalize the Congestion Management Strategy into a document**
- **Report back to Council annually on travel time reliability on major corridors and changes**