BEDFORD HIGHWAY FUNCTIONAL PLAN
About this project



STUDY AREA

The study area for this project includes the section of the Bedford Highway between Windsor Street and Highway 102, as well as the lands near the roadway.





OUTCOMES

The planning outcome will be conceptual options for transportation and land use scenarios. Each scenario will show drawings of how the roadway could be configured and how buildings could be arranged.

More specifically, the Bedford Highway Functional Plan will:

- Describe existing conditions and constraints.
- Identify options to improve consistency and quality of infrastructure for all users.
- Identify land use planning options that align with the corridor scenarios.
- Demonstrate how different modes of travel can be accommodated, as well as trade offs, implementation requirements, and costs associated with various options.
- Lay out a course for phased improvements to the roadway.

OBJECTIVE

A Functional Plan for the Bedford Highway will provide a corridor-wide vision that informs how transportation infrastructure is built and maintained. The plan will examine how the right-of-way is used and how space can be allocated to serve all modes of travel, including autos, trucks, transit, pedestrians, and cyclists. The plan will also inform land use development that enables strategic growth along the roadway and surrounding areas.

NEED

The Bedford Highway is among the most important roadways in the Halifax Regional Municipality (HRM). It provides a key north-south connection for both local and regional travel, directly linking the regional centre and the suburbs. Despite its significance in the regional transportation network, there is currently no clear vision for how the Bedford Highway should look, feel, and function. A purposeful plan is needed to guide investment in this crucial roadway, accommodate future land development, and build a transportation system that shapes communities in the area in a desirable way.

APPROACH

This project is being undertaken in the context of the Integrated Mobility Plan (IMP). Adopted by Council in 2017 after extensive community consultation, the IMP sets a new approach for how people move throughout the region, aimed at improving travel choices and creating Complete Communities. It sets targets to increase the number of trips made by walking, bicycling or transit, and recognizes the inter-relationship of transportation and land use.

The IMP provides the direction to develop long-range plans for particular roadways in the region identified as Strategic Corridors; the Bedford Highway is the first strategic corridor to undergo this planning process. The IMP also encourages pursuing Transit Oriented Development in strategic corridor planning.



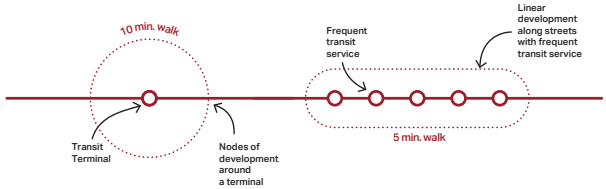
KEY DEFINITIONS

Strategic Corridors are transportation corridors that are important based on their role in traffic operations, transit, goods movement and active transportation.

Complete Communities are places where it is possible to work, shop, learn and play within an attractive walking distance of where people live.



Transit Oriented Development is an approach to development that integrates land-use planning and transit, and focuses a Complete Community around a transit terminal or along a transit corridor.



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BEDFORD HIGHWAY FUNCTIONAL PLAN
Settlement History



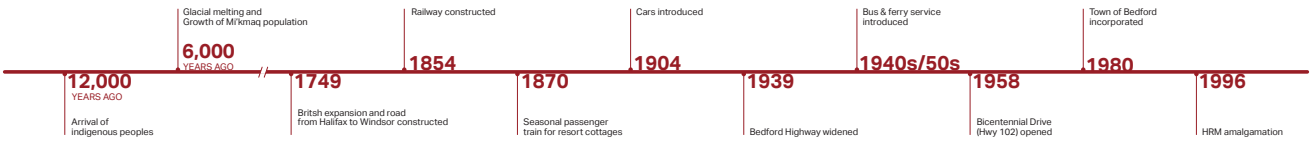
The Mi'kmaq people occupied the lands of the Bedford Highway for more than 6,000 years, until their way of life was greatly disrupted through British colonial expansion. The original Bedford Highway path was constructed in 1749 following traditional routes along waterways, enabling overland travel to Fort Sackville (site of Scott Manor House) and onward to Windsor and the Bay of Fundy.

Following the road's construction, European settlers began to inhabit the landscape. In the late 1700s The Prince's Lodge estate was constructed, and occupied by colonial elite as a rural escape. A stagecoach service from Halifax to Truro began in 1816 and the railway was introduced in 1854, with stations in Bedford and Rockingham (formerly named Ten Mile House and Four Mile House for their distances to Halifax). During this early period of horse and train transport, Bedford became known as the traditional stopping place for travellers coming to and from Halifax. The Sisters of Charity also founded the Mother House Convent and Mount Saint Vincent women's finishing school, two major institutions.

By the late 1800s Bedford was a true resort community with a local population of only 450, and passenger trains running to the community and beyond before the introduction of cars. In 1921, The Bedford Ratepayers Association was formed, reflecting a growing base of permanent residents. Mi'kmaq people also continued to have seasonal encampments at Birch Cove until around this time.

The Bedford Highway was widened in 1939 as a means to encourage investment, and the harbour continued to be active through both world wars. The population of the area grew to around 4,000 residents in the mid 1900s, and transportation networks expanded to include bus service and special occasion ferries. During the post-war boom the development pattern spread rapidly outward from the waterfront, public investments supported the freeway system, and car culture dominated.

In 1980 Bedford incorporated as a town, the beginning of another period of major population increase that continues today. Interest mounted to rejuvenate the Basin and Highway lands, and provide public waterfront access. In 1996, the communities along the Bedford Highway became part of the Halifax Regional Municipality. While the communities continue to embrace a small-town identity, by 2016 the population had grown to over 62,506 residents. Today, vehicle movement is supplemented by Highway 102, but the Bedford Highway remains the backbone for these suburban communities.




Cyclist and pedestrians use the early Bedford "Highway", undated.


Bedford train station, sometime soon after 1845.


The motor car, and traffic congestion, were introduced to the Bedford Highway in the 1920s.

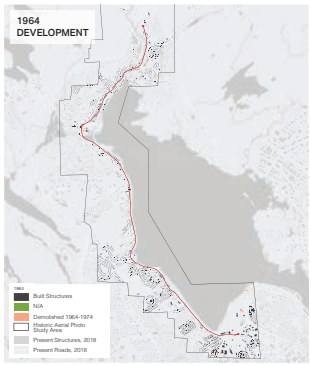

Commercial development of Bedford in the 1980s.

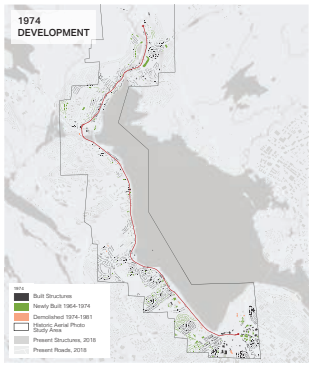

African Nova Scotian travellers heading to market in Halifax with a cartload of goods to sell. Robert Petley, Bedford Basin Near Halifax, 1835.

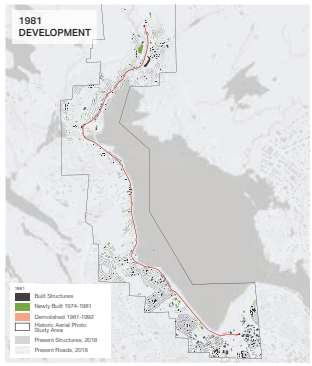

Escaping the city to Bedford for picnicking and other leisure pursuits were popular in the mid to late 1800s.

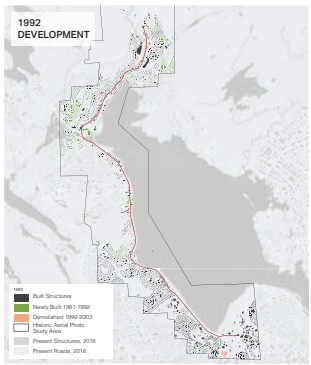

Arthur Lismer, Convoy in Bedford Basin, 1919.

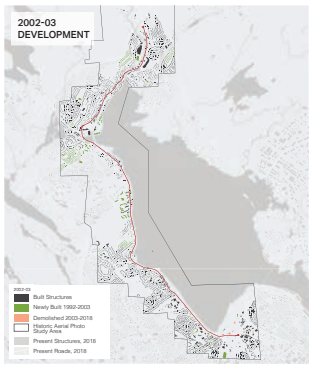
BEDFORD HIGHWAY FUNCTIONAL PLAN
Land Use and Community Character

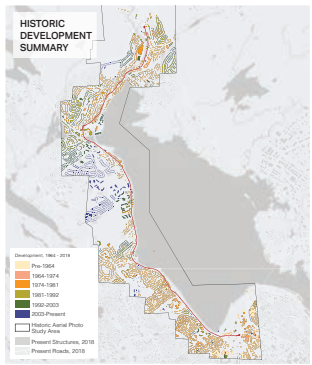








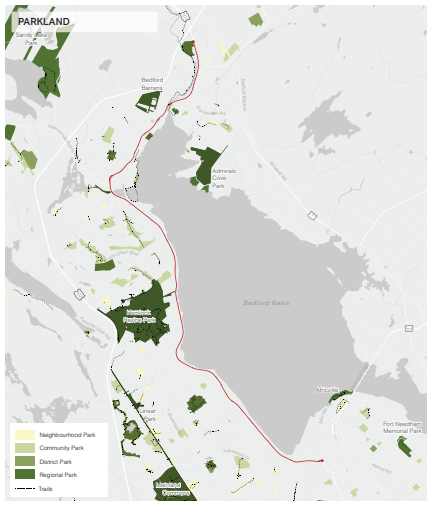




HISTORIC DEVELOPMENT PATTERNS: 1964 - PRESENT

Created with historic aerial photographs, this series of maps demonstrates the evolution of development along the Bedford Highway. A suburban pattern was emerging during the 1960s and 70s, primarily in Bedford and to the south of the study area, closer to Halifax. This pattern boomed through the 1980s, and continued in the 1990s. In the past 15 years, development has extended throughout the middle of the study area. Today, most of the remaining undeveloped land has been designated as park space.







NEIGHBOURHOODS

Local place names have always held importance for the Bedford Highway suburban communities and neighbourhoods. Some of these names are historic, while others are freshly adopted identifiers that give a sense of identity to new developments.

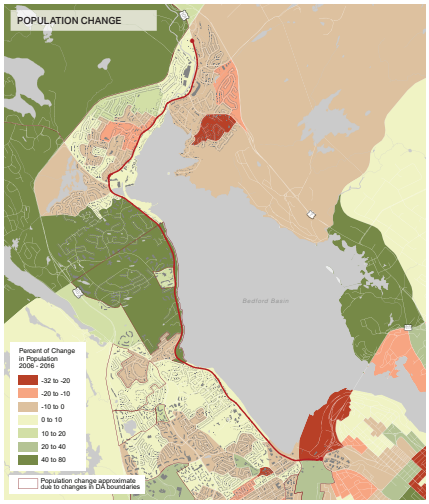
PARKLAND

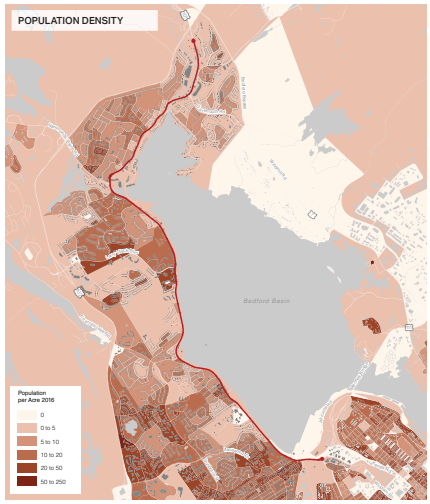
Parks are spread throughout the communities, with multiple regional parks near the edges of the study area. Most of the regional parkland features wilderness areas that serve the HRM as valuable habitat and recreation space. Smaller district, community and neighbourhood parks are spread throughout the study area. These pockets of parkland vary widely, and include all manner of open space, such as playgrounds, monuments, gathering places, and walking trails.

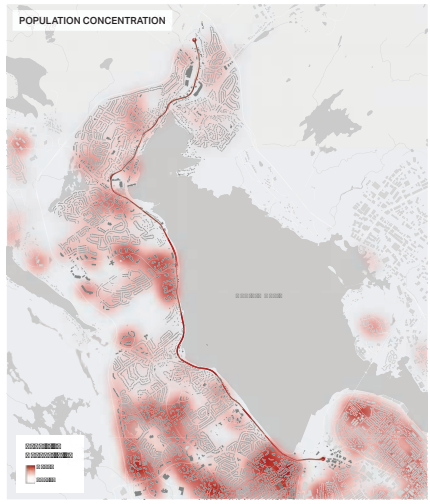
DEVELOPMENT CHARACTER

Development in the suburban neighbourhoods is defined by townhouses and single-detached dwellings following winding roads and cul-de-sacs nestled between the Bedford Highway and Highway 102. Multi-unit buildings and high-rise apartments follow main collector roads, as do institutional facilities. The largest is Mount Saint Vincent University, an important destination in the study area. Commercial development hugs the Bedford Highway and clusters in the Bedford commercial core. Much of the vacant land is slated for use, with strong interest in residential and mixed-use development.

BEDFORD HIGHWAY FUNCTIONAL PLAN
Existing and Future Development





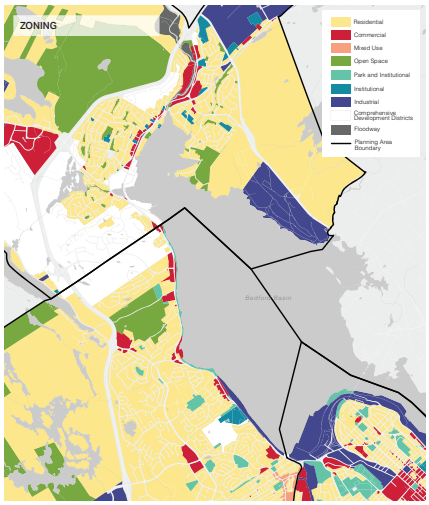


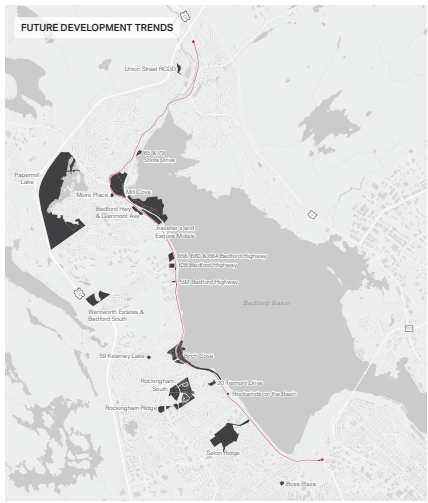
POPULATION CHANGE

Most neighbourhoods in the study area are relatively stable in population, with only a small decrease or increase over the last census period. However, the area to the north of Larry Uteck Blvd. has seen a substantial population increase with the construction of numerous multi-unit buildings since the 2006 census. The areas with the greatest percentage decline in population are typically older, more established neighbourhoods where average household size, rather than development, plays a large role in the neighbourhood population.

POPULATION DENSITY AND CONCENTRATION

The population of the study area is concentrated in pockets around Clayton Park, Fairview, Millview, Larry Uteck Blvd., and Glen Moir, with each census geographic area having a density around 10-20 people per acre and a few denser areas within these. Outside these areas, development is in the form of lower-density residential subdivisions, where residents are spread out to a greater degree, or where land is still undeveloped.





ZONING

This map shows a generalization of the current zoning regulations for Halifax Mainland, Peninsula, and Bedford plan areas. Residential zoning dominates the area. Commercial zoning is dotted along the Bedford Highway and other major roadways, with most commercial zones located near the head of the Basin. The institutional and industrial zone along the water's edge represents the CN rail yards, the Fairview Cove Container Terminal, and pyritic slate facility.

FUTURE DEVELOPMENT TRENDS

The Bedford Highway communities are growing quickly. The Future Development Trends map includes development concepts that have been proposed, approved, or put on hold. The Mill Cove and Birch Cove developments are part of plans for Phase II of the Bedford Waterfront Development Plan, including retail, public park and trail access, and housing. The Waterfront Development Plan is currently on hold pending the results of studies such as this Bedford Highway Functional Plan. Based on current interest in development for these areas, there is potential to build up to 7000 new residential units over the next 10-20 years.

BEDFORD HIGHWAY FUNCTIONAL PLAN
Roadway Character

The Bedford Highway is an arterial road that runs between Windsor Street in the south and Highway 102 in the north. Its primary function is to move people and goods as smoothly as possible. The roadway is a key commuter route and connects with many other important streets, including Dartmouth Road, Hammonds Plains Road, Larry Uteck Boulevard, and Kearney Lake Road. It also provides access to many neighbourhoods and commercial areas, as well as Mount Saint Vincent University.

The Bedford Highway has an inconsistent cross section that varies considerably in width, and ranges from two lanes to up to five lanes. Sidewalks and bicycle infrastructure are disconnected and limit the potential attractiveness for active transportation. Rush hour traffic congestion and the lack of prioritization for transit forces buses to sit in traffic, increasing delays and impacting service reliability. There are also areas where turning on and off the roadway is chaotic or difficult. There are many constraints along the roadway corridor, including:

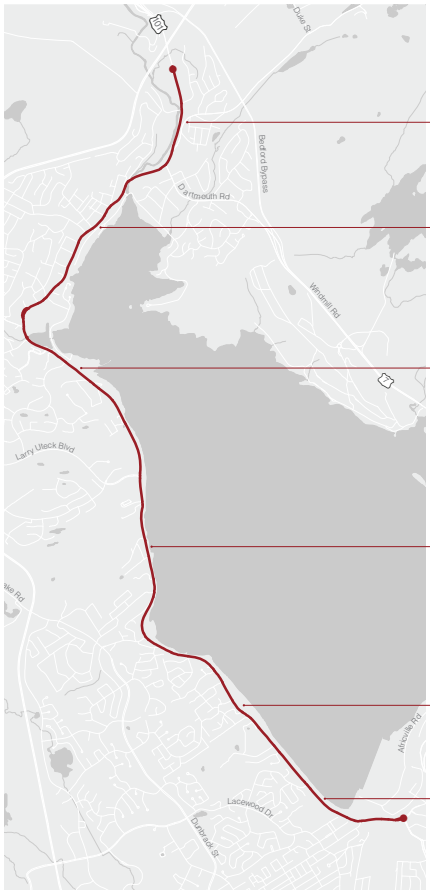
- The adjacent CN Rail line
- Narrow right-of-way
- Closely abutting development
- Overhead and underground utilities on one or both sides of the roadway
- Retaining walls and steep slopes

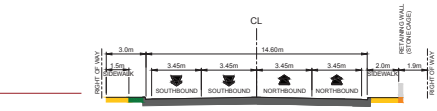
The active rail line bordering Bedford Highway is a major consideration. It is a physical barrier that restricts the roadway, and is also a potential opportunity for future commuter rail. Commuter rail could quickly transport many people to and from the regional centre, and relieve travel pressures from Bedford Highway, but it requires strategic densification to be viable. Decision making for the feasibility of commuter rail is being explored outside the scope of this project.

12 km

20,000 per day

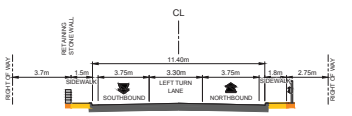
9 Routes





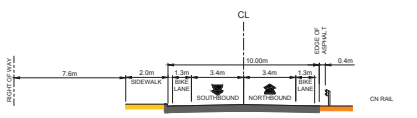
- Average of 16,400 vehicles per day
- 4 Traffic lanes
- Sidewalk on both sides
- No bike lanes





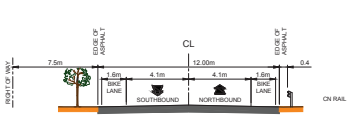
- Average of 21,500 vehicles per day
- 3 Traffic lanes
- Sidewalk on both sides
- No bike lanes





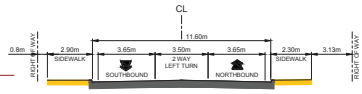
- Average of 19,500 vehicles per day
- 2 Traffic lanes
- Sidewalk on the west side
- Bike lane in each direction





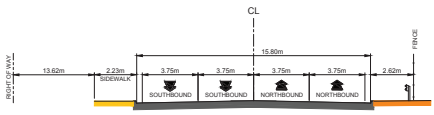
- Average of 19,500 vehicles per day
- 2 Traffic lanes
- No sidewalk
- Bike lane in each direction





- Average of 23,500 vehicles per day
- 3 Traffic lanes
- Sidewalk on both sides
- No bike lanes



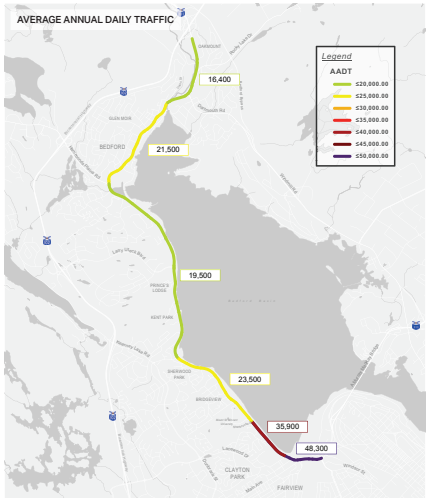


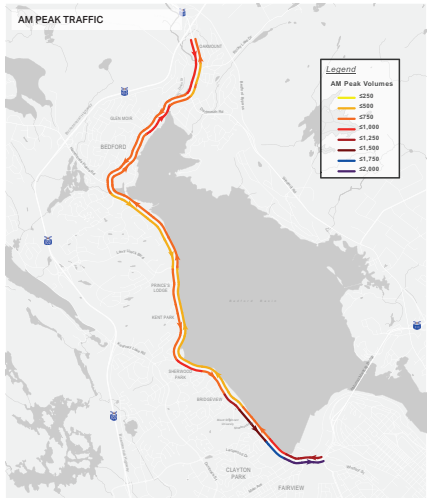
- Average of 48,300 vehicles per day
- 4 Traffic lanes
- Sidewalk on the west side
- No bike lanes

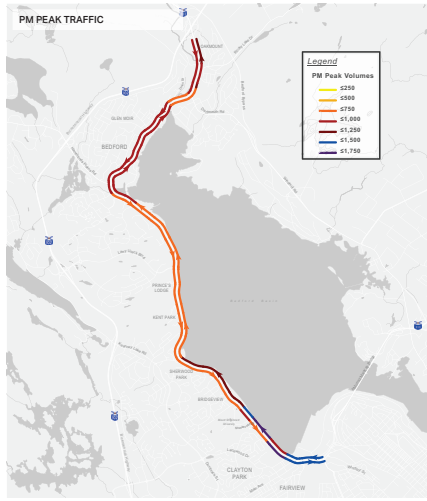


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BEDFORD HIGHWAY FUNCTIONAL PLAN
Roadway Character





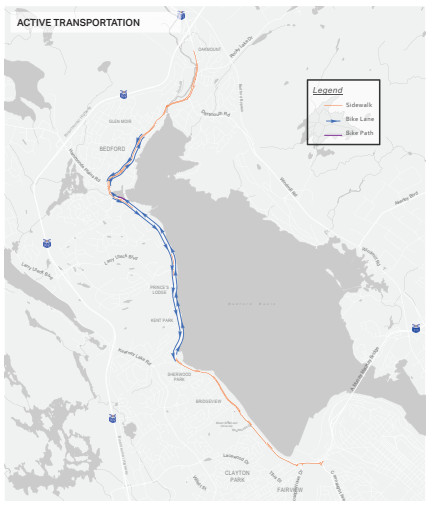


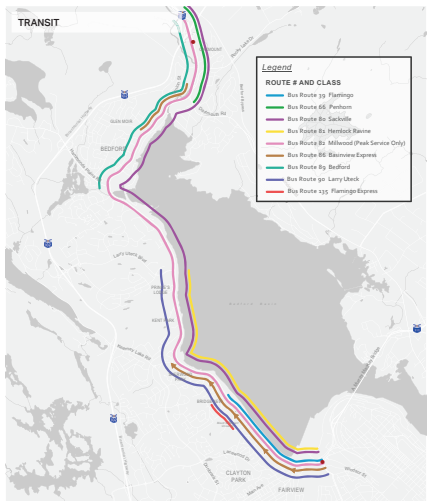
AVERAGE ANNUAL DAILY TRAFFIC

The Bedford Highway serves daily traffic volumes ranging from 16,000 to 48,000 vehicles per day, with the heaviest volumes occurring at the southern end of the corridor.

PEAK TRAFFIC

Bedford Highway is used heavily by commuters with a peak southbound flow in the morning and a peak northbound flow in the evening. High delays are experienced in the morning with long queues extending back from the Windsor Street Exchange. In the evening, congestion builds in the northern end of the study area due to heavy northbound commuter traffic, retail activity, and many closely spaced traffic signals.





TRANSIT ROUTES ON BEDFORD HIGHWAY

Route	Extent of Travel on Bedford Highway	Direction	Number of Buses per Hour		Frequency		Comments
			AM Peak	PM Peak	AM Peak	PM Peak	
82	Flamingo Drive to Windsor Street	SB	2	2	Every 30 min	Every 30 min	
	Windsor Street to Flamingo Drive	NB	2	2	Every 30 min	Every 30 min	
80	Cobequid Terminal To Dartmouth Road	SB	2	2	Every 30 min	Every 30 min	
	Dartmouth Road to Cobequid Terminal	NB	2	2	Every 30 min	Every 30 min	
90	Cobequid Terminal to Joseph Howe Drive	SB	4	2	Every 15 min	Every 30 min	
	Joseph Howe Drive to Cobequid Terminal	NB	2	4	Every 30 min	Every 15 min	
91	Larry Uteck Blvd to Joseph Howe Drive	SB	2	2	Every 30 min	Every 30 min	
	Joseph Howe Drive to Larry Uteck Blvd	NB	2	2	Every 30 min	Every 30 min	
82	Cobequid Terminal to Windsor Street	SB	2	—	Every 30 min	—	Peak Service Only
	Windsor Street to Cobequid Terminal	NB	—	2	—	Every 30 min	Peak Service Only
86	Rocky Lake Drive to Meadowbrook Drive	SB	2	—	Every 25 min	—	Express Service
	Windsor Street to Kearney Lake Road	NB	—	2	—	Every 30 min	Express Service
	Meadow Brook Drive to Rocky Lake Drive	NB	—	2	—	Every 30 min	Express Service
89	Cobequid Terminal to Hammonds Plains Rd	SB	2	2	Every 30 min	Every 30 min	
	Hammonds Plains Rd to Cobequid Terminal	NB	2	2	Every 30 min	Every 30 min	
90	Larry Uteck Blvd to Windsor Street	SB	2	2	Every 30 min	Every 30 min	
	Windsor Street to Larry Uteck Blvd	NB	2	2	Every 30 min	Every 30 min	
135	Flamingo Drive to Mount St. Vincent Univ.	SB	—	2	—	Every 30 min	Express Service
	Mount St. Vincent Univ. to Flamingo Drive	NB	4	—	Every 15 min	—	Express Service
	Total Southbound Buses		16	20			
	Total Northbound Buses		18	16			
	Total Buses		34	36			

ACTIVE TRANSPORTATION

Pedestrian and cycling facilities on Bedford Highway consist of sidewalks and bike lanes that are intermittent throughout the corridor.

Bike lanes exist from Kearney Lake Road to Meadowbrook Drive, but mostly consist of a paved shoulder and are not buffered from traffic. Sidewalk is provided on the west side of the roadway for the majority (73%) of the corridor, but is absent from Kearney Lake Road to Southgate Drive (3.6km), where pedestrians must share the paved shoulder with cyclists. The lack of continuous facilities makes for an uncomfortable experience and deters active transportation users.

TRANSIT

Nine transit routes operate along various segments of Bedford Highway. Routes 80 and 82 are the only routes that operate along the entire corridor. Route 80 runs every 30 minutes from 6am to midnight, but increases to every 15 minutes during the peak commuting hours. Route 82 is extended along Bedford Highway during peak hours only, with buses every 30 minutes. There are currently no measures in place to improve transit travel time and reliability on the Bedford Highway. Transit vehicles flow with vehicle traffic and are subject to the same high delays. It is not uncommon for inbound Route 80 and 82 buses to fall behind schedule by 30 minutes in the morning peak.

Sidewalks

West Side	East Side
8750 m	4300 m
73% of roadway	36% of roadway

Bike Lanes

West & East
5300 m
44% of roadway

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