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TRANSPORTATION SOLUTIONS LIMITED

# 359 Wellington Road London Transportation Impact Assessment

Paradigm Transportation Solutions Limited

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## 359 Wellington Road, London Transportation Impact Assessment

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**Client:****LJM Developments**

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# Executive Summary

## Content

Paradigm Transportation Solutions Limited (Paradigm) has been retained to conduct this Transportation Impact Assessment (TIA) for a proposed Residential and Commercial Development located at 359 Wellington Road in the City of London.

This TIA includes an analysis of existing traffic conditions, a description of the proposed development, analysis of future traffic conditions, and assessment of development traffic impacts with recommendations as appropriate to accommodate the proposed development.

## Development Concept

The subject property is located in the southwest corner of Wellington Road and Base Line Road. The development is proposed to include a 23-storey building, accommodating 250 apartment units and 118 underground parking spaces.

The property is located in proximity to the City's BRT System and station on Wellington Road. There will be no vehicular access on Wellington Road, but a Right-in-Right-Out (RIRO) driveway is proposed on Base Line Road.

The development is expected to be completed in 2026.

## TIA Scope

The scope of the Transportation Impact Assessment for the proposed development includes:

- ▶ **Study Area Intersections:**
  - Wellington Road and Base Line Road (signalized);
  - 343 Wellington Road driveway and Base Line Road (unsignalized);
  - Balderstone Avenue/633 Base Line Road Site Access and Base Line Road (unsignalized); and
  - proposed RIRO driveway and Base Line Road.
- ▶ **Analysis Periods:** Weekday AM and PM peak hours.
- ▶ **Background Developments:**
  - Mixed Residential Development at 712 Base Line Road;



- Commercial Redevelopment at 352 Wellington Road; and
- Residential Development at 633 Base Line Road East.
- ▶ **Traffic Conditions:** Existing (2023), year of development (2026), and five years after development (2031).
- ▶ **Network Modifications:** The intersection lane configuration at Wellington Road and Baseline Road will be modified as part of the implementation of the BRT System on Wellington Road. The modified lane configuration is used in the analysis of future traffic conditions.
- ▶ **Parking Review:** Assess adequacy of the proposed supply of 118 spaces.

## Conclusions

Based on the investigations carried out, it is concluded that:

- ▶ **Existing Traffic Conditions:** The study area intersections are operating at acceptable levels of service, except for the westbound left-turn movement at the intersection of Wellington Road and Base Line Road, which is operating at LOS E with a v/c ratio of 0.98, and 95<sup>th</sup> percentile queue lengths exceeding the storage of 85 metres during the PM peak hour.
- ▶ **Development Trip Generation:** The development is forecast to generate 59 and 70 trips during the AM and PM peak hours, respectively.
- ▶ **2026 Background Traffic Conditions:** The study area intersections are forecast to operate at acceptable levels of service during the AM and PM peak hours, except for the following critical movements at the intersection of Wellington Road and Base Line Road:
  - The westbound left-turn movement is forecast to operate at LOS F with a v/c ratio of 1.00 during the AM and PM peak hours and a 95<sup>th</sup> percentile queue length exceeding the available storage of 85 metres during the PM peak hour;
  - The northbound left-turn movement is forecast to operate at LOS F with a v/c ratio greater than 1.00 during the PM peak hour;
  - The northbound right-turn movement is forecast to operate at LOS F with a v/c ratio of 0.98 and a 95<sup>th</sup> percentile queue length exceeding the available storage of 85 metres during the AM peak hour;



- The southbound left-turn movement is forecast to operate at LOS E with a v/c ratio of 0.96 during the AM peak hour; and
  - The southbound through movement is forecast to operate at LOS E with a v/c ratio of 0.93 during the PM peak hour.
- ▶ **2026 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2026 background traffic conditions.

The Site Driveway intersection to Base Line Road is noted to operate at satisfactory levels of service (LOS A/B).

- ▶ **2031 Background Traffic Conditions:** All study area intersections are forecast to operate at similar levels of service as under 2026 background traffic conditions, except for the additional critical movement of the northbound right-turn at Wellington Road and Base Line Road, which is projected to operate with a 95<sup>th</sup> percentile queue length exceeding the available storage of 70 metres during the PM peak hour.
- ▶ **2031 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2031 background traffic conditions.
- ▶ **Wellington Road & Base Line Road:** This intersection is noted to be experiencing capacity issues and critical movements under existing and future traffic conditions independent of the subject development. Also, subject development traffic does not involve any of the critical movements identified in the operational analysis. Specific to queuing issues at the intersection, they could potentially be addressed by extending storage lengths as part of the BRT reconstruction.
- ▶ **Site Driveway:** The RIRO Site Driveway on Base Line Road is forecast to operate at satisfactory levels of service (LOS A/B) under 2026 and 2031 total traffic conditions.
- ▶ **Parking Review:** The subject site is located in the Open Option Parking area of the City's Zoning By-law No. Z.-1-223046, where a minimum number of parking spaces is not required, and the proposed supply of 118 spaces is appropriate for the development given its proximate location to a BRT Station and the potential for implementing site specific TDM measures.
- ▶ **Transportation Demand Management:** The following TDM measures are appropriate for implementation at the subject development:
- Internal sidewalks with connections to the adjacent roadway network.



- Bicycle parking in accordance with the City's Zoning By-Law requirements for residential developments.
- Access to existing and future transit routes on adjacent roadways.
- Parking unbundled from the sale/rent of apartment units.
- Transit, carshare, and active transportation information provided in a welcome package to new residents and/or posted in central locations on-site.

## Recommendations

Based on the findings and conclusions of this study, it is recommended that the development be considered for approval as proposed.



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# 1 Introduction

## 1.1 Overview

Paradigm Transportation Solutions Limited (Paradigm) has been retained to conduct this Transportation Impact Assessment (TIA) for a proposed Residential and Commercial Development located at 359 Wellington Road in the City of London. **Figure 1.1** details the subject development location.

The subject property is located in the southwest corner of Wellington Road and Base Line Road. The development is proposed to include a 23-storey building, accommodating 250 apartment units and 118 underground parking spaces.

The property is located in proximity to the City's BRT System and station on Wellington Road. There will be no vehicular access on Wellington Road, but a Right-in-Right-Out (RIRO) driveway is proposed on Base Line Road.

The site has frontages of 45 metres along Wellington Road and 60 metres along Base Line Road. The site frontage on Base Line Road is of the same length as the existing eastbound shared through/right-turn lane on Base Line Road. A limited RIRO access on Base Line Road is appropriate given the road frontages of the site.

The development is expected to be completed in 2026.

## 1.2 Purpose and Scope

The purpose of this report is to identify and assess the potential traffic impact resulting from the proposed development. The scope of the study, developed in consultation with City of London staff via e-mail in August 2023, includes:

- ▶ assessment of the current traffic and site conditions within the study area;
- ▶ estimates of background traffic growth for year of development (2026) and five years after development (2031);
- ▶ the following developments are included in background traffic forecasts:
  - Mixed Residential Development at 712 Base Line Road;
  - Commercial Redevelopment at 352 Wellington Road; and
  - Residential Development at 633 Base Line Road East.



- ▶ estimates of additional traffic generated by the subject site;
- ▶ analyses of the impact of the future traffic on the surrounding road network, including the following study area intersections:
  - Wellington Road and Base Line Road (signalized);
  - 343 Wellington Road driveway and Base Line Road (unsignalized);
  - Balderstone Avenue/633 Site Access and Base Line Road (unsignalized); and
  - proposed RIRO driveway and Base Line Road.
- ▶ recommendations, if necessary, to mitigate the site generated traffic in a satisfactory manner.

**Appendix A** contains the pre-study consultation material and responses from the City of London.

Also included is the City's Pre-Study Consultation Comments, dated 8 November 2023, requiring restricted RIRO access on Base Line Road or Wellington Road.

This study has been prepared in accordance with the requirements detailed by the City of London Transportation Impact Assessment Guidelines<sup>1</sup>.

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<sup>1</sup> Transportation Impact Assessment Guidelines, City of London, April 2012.





## Location of Subject Site

359 Wellington Road, London TIA  
203396

Figure 1.1

## 2 Existing Conditions

### 2.1 Existing Roadways

The main roadways near the subject development considered in assessing the traffic impacts of the development include:

- ▶ **Wellington Road** is a north-south rapid transit boulevard<sup>2</sup> with a four-lane cross-section north of Base Line Road and a six-lane cross section to the south. Sidewalks are provided on both sides of the roadway. No visible cycling facilities are present along this roadway within the study area. The posted speed limit is 50 km/h.
- ▶ **Base Line Road** is an east-west neighbourhood connector road with a two-lane cross-section west of Wellington Road and five-lane cross-section, including a two-way centre turn lane, to the east. Sidewalks are provided on both sides of the roadway. No visible cycling or pedestrian facilities are present along this roadway. The posted speed limit is 40 km/h.
- ▶ **Balderstone Avenue** is a north-south local road with a two-lane cross-section. A sidewalk is provided on the west side of the road. No visible cycling facilities are present along this roadway within the study area. The assumed speed limit is 50 km/h.

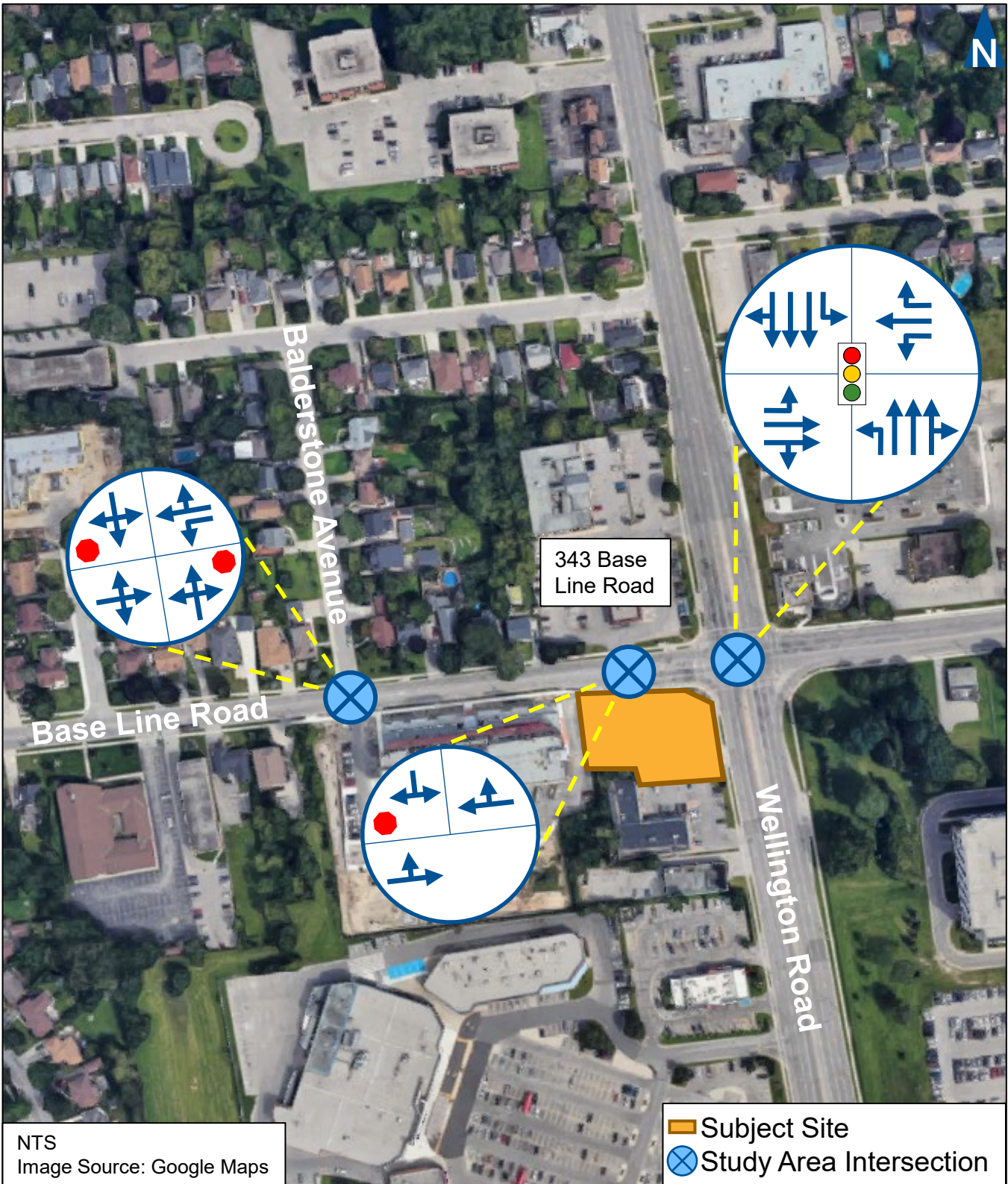
Traffic signals are provided at the intersection of Wellington Road and Base Line Road, and side-street stop control is provided at the intersections of Balderstone Avenue and Base Line Road and at the 343 Wellington Road driveway on Base Line Road.

**Figure 2.1** illustrates the traffic control and lane configuration at the study area intersections.

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<sup>2</sup> City of London, The London Plan, Map 3: Street Classifications, 2016.





## Existing Lane Configuration and Traffic Control

## 2.2 Transit Service

London Transit operates four routes within the study area. **Figure 2.2** illustrates the existing transit service. The routes include:

- ▶ **Route 1 (Kipps Lane – Pond Mills Rd / King Edward)** provides service along Wellington Road, Colborne Street, and Adelaide Street between Kipps Lane and Shelborne Street and Deveron Crescent. The route operates seven days a week with 15-minute headways on weekdays and 15- to 30-minute headways on Saturdays and Sundays. The nearest stops for the route are on the east side of Wellington Road north of Base Line Road (Stop ID 2911) and on the south side of Base Line Road east of Wellington Road (Stop ID 206).
- ▶ **Route 6 (University Hospital – Parkwood Institute)** provides service primarily on Richmond Street and Wellington Road between the University Hospital and Parkwood Hospital. The route operates seven days a week with 20- to 30-minute headways. The nearest stops for the route are on north and south sides of Base Line Road west of Wellington Road (Stop ID 210 and 208, respectively).
- ▶ **Route 13 (Masonville Place – White Oaks Mall)** provides service primarily along Richmond Street and Wellington Road between Masonville Place and White Oaks Mall. The route operates seven days a week with 15-minute headways on weekdays and Saturdays and approximately 30-minute headways on Sundays. The nearest stops for the route are on the west side of Wellington Road north of Base Line Road (Stop ID 1924) and on the east side of Wellington Road south of Base Line Road (Stop ID 1923).
- ▶ **Route 90 (Express Masonville Place – White Oaks Mall)** provides express service of Route 13 between Masonville Place and White Oaks Mall. Route 90 has 15-minute headways on weekdays, 25-minute headways on Saturdays, and 20-minute headways on Sundays. The nearest stops are the same as Route 13.

It is noted that the City's Bus Rapid Transit (BRT) system on Wellington Road is currently being implemented and will include a new BRT Station near Base Line Road. In addition, BRT construction will involve lane modifications at the intersection at Base Line Road.



## 2.3 Traffic Volumes

Paradigm conducted turning movement counts at the study area intersections on 15 November 2023.

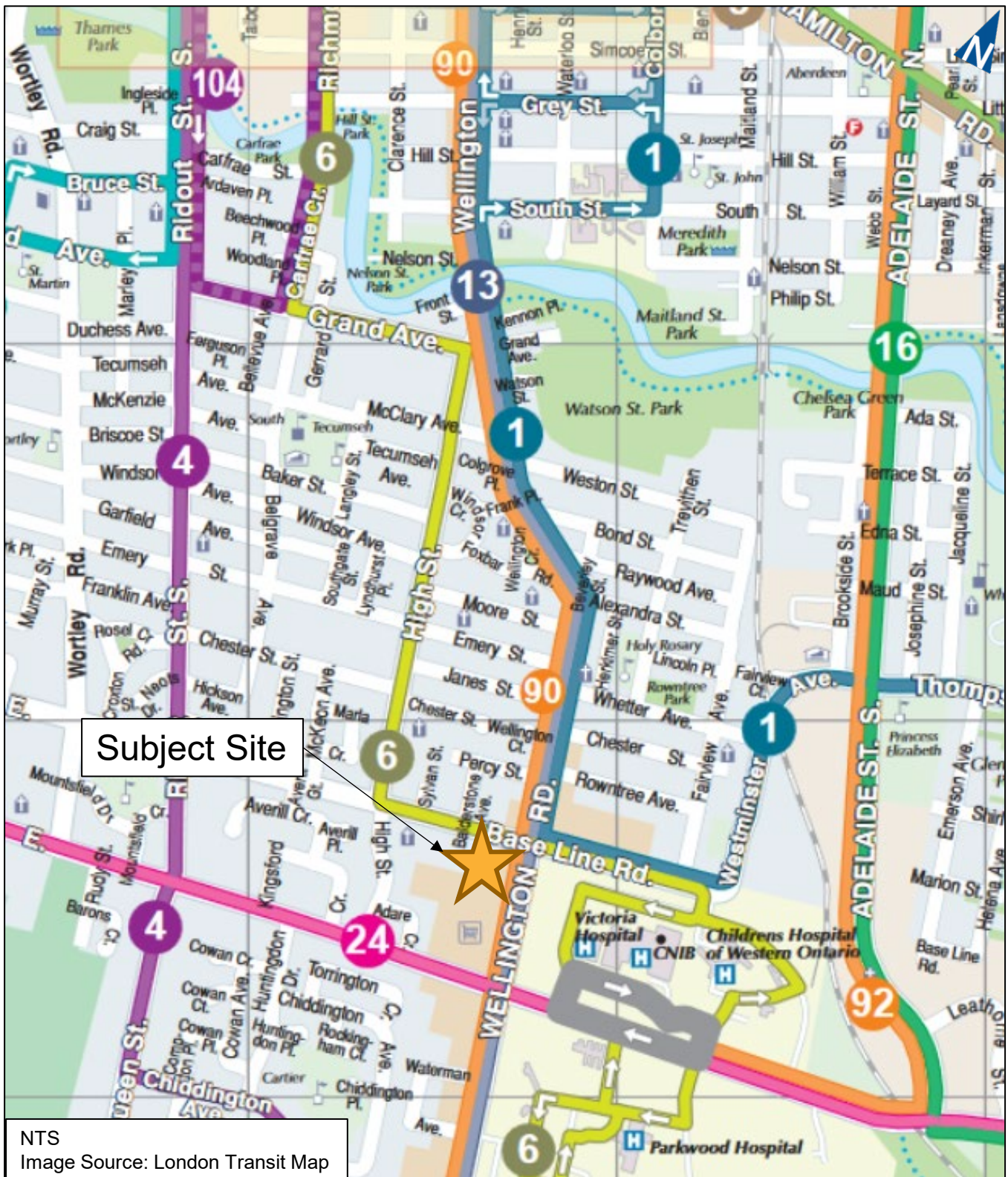
**Figure 2.3** illustrates the existing AM and PM weekday peak hour turning movement traffic volumes. **Table 2.1** summarizes the peak hours at each intersection.

**TABLE 2.1: INTERSECTION PEAK HOURS**

Intersection	AM Peak Hour	PM Peak Hour
Wellington Road and Base Line Road	7:45 – 8:45	4:00 – 5:00
Balderstone Avenue and Base Line Road	7:45 – 8:45	4:00 – 5:00
Base Line Road and 343 Wellington Road	7:45 – 8:45	4:00 – 5:00

**Appendix B** contains the detailed traffic counts and signal timings for the study area intersections.





## Existing Transit Network





## 2.4 Traffic Operations

The level of service conditions at the study area intersections have been assessed through intersection operational analysis using Synchro 11.

Intersection level of service (LOS) is a recognized method of quantifying the average delay experienced by drivers at intersections. It is based on the delay experienced by individual vehicles executing the various movements. The delay is related to the number of vehicles intending to make a particular movement, compared to the estimated capacity for that movement. The capacity is based on several criteria related to the opposing traffic flows and intersection geometry.

The highest possible rating is LOS A, under which the average total delay is equal or less than 10.0 seconds per vehicle. When the average delay exceeds 80 seconds for signalized intersections, 50 seconds for unsignalized intersections or when the volume to capacity (v/c) ratio is greater than 1.00, the movement is classed as LOS F and remedial measures are usually implemented if they are feasible. LOS E is usually used as a guideline for the determination of road improvement needs on through lanes, while LOS F may be acceptable for left-turn movements at peak times, depending on delays.

Movements are considered critical under the following conditions:

- ▶ v/c ratios for overall intersection operations, through movements or shared through/turning movements increased to 0.90 or above and LOS 'E' or worse;
- ▶ v/c ratios for dedicated turning movements increased to 0.90 or above and LOS 'E' or worse; or
- ▶ 95<sup>th</sup> percentile queue lengths for individual movements exceeds available lane storage.

**Table 2.2** summarizes the results of the intersection operational analysis under existing conditions, including the AM and PM peak hour LOS, v/c ratios, and 95<sup>th</sup> percentile queues experienced.

The results indicate that the study area intersections are operating at acceptable levels of service, except for the westbound left-turn movement at the intersection of Wellington Road and Base Line Road, which is operating at LOS E with a v/c ratio of 0.98 and a 95<sup>th</sup> percentile queue length that exceeds the storage of 85 metres during the PM peak hour.

**Appendix C** contains the detailed Synchro 11 reports.



**TABLE 2.2: EXISTING TRAFFIC OPERATIONS**

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	C	>	C	<	B	>	B		
			Delay	<	8	>	0	9	0	>	0	<	19	>	19	<	11	>	11	
			V/C	<	0.00	>	0.01	0.00	>	0	<	0.00	>	0	>	0	>	0.01	>	0
Q	<	0	>	0	0	>	0	<	0	>	0	>	0	>	0	>	0	>	0	
Stor.	<	-	>	30	-	>	30	-	>	-	>	-	>	-	>	-	>	-	>	
Avail.	<	-	>	30	-	>	30	-	>	-	>	-	>	-	>	-	>	-	>	
AM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A	<		>		<	B	>	B		
			Delay	<	8	>	0	0	>	0	<		>		<	13	>	13		
			V/C	<	0.01	>	0.00	0.00	>	0	<		>		<	0.03	>	1	>	1
Q	<	0	>	0	0	>	0	<		>		<	1	>	1	>	1	>	1	
AM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	D	>	D	D	C	D	C	C	>	C	C	C	>	C	C	
			Delay	42	51	>	50	48	30	28	40	21	28	>	27	21	23	>	22	33
			V/C	0.11	0.66	>	0.78	0.24	0.08	0.18	0.39	>	0.48	0.23	>	0.48	0.23	>	0.48	0.23
Q	6	53	>	41	21	6	7	30	>	14	16	>	14	16	>	14	16	>	14	
Stor.	25	-	>	85	-	50	60	-	>	45	-	>	45	-	>	31	-	>	31	
Avail.	19	-	>	44	-	44	53	-	>	31	-	>	31	-	>	31	-	>	31	
PM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	B	>	B	<	C	>	C		
			Delay	<	9	>	0	9	0	>	0	<	14	>	14	<	18	>	18	
			V/C	<	0.00	>	0.01	0.00	>	0	<	0.04	>	0	>	0	>	0.05	>	0
Q	<	0	>	0	0	>	0	<	1	>	0	>	0	>	2	>	0	>	0	
Stor.	<	-	>	30	-	>	-	>	-	>	-	>	-	>	-	>	-	>	-	
Avail.	<	-	>	30	-	>	-	>	-	>	-	>	-	>	-	>	-	>	-	
PM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A	<		>		<	C	>	C		
			Delay	<	9	>	0	0	>	0	<		>		<	23	>	23		
			V/C	<	0.02	>	0.00	0.00	>	0	<		>		<	0.24	>	0.24	>	0.24
Q	<	1	>	0	0	>	0	<		>		<	7	>	7	>	7	>	7	
PM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	D	>	D	E	C	C	D	D	D	>	D	C	D	>	D	D
			Delay	43	51	>	50	64	24	20	41	45	36	>	38	31	42	>	42	42
			V/C	0.27	0.67	>	0.98	0.47	0.24	0.72	0.45	>	0.26	0.60	>	0.26	0.60	>	0.26	0.60
Q	11	54	>	94	45	16	24	37	>	8	52	>	8	52	>	8	52	>	8	
Stor.	25	-	>	85	-	50	60	-	>	45	-	>	45	-	>	37	-	>	37	
Avail.	14	-	>	-9	-	34	36	-	>	37	-	>	37	-	>	37	-	>	37	

MOE - Measure of Effectiveness  
 LOS - Level of Service  
 Delay - Average Delay per Vehicle in Seconds  
 V/C - Volume to Capacity Ratio  
 Q - 95th Percentile Queue Length (m)  
 Stor. - Existing Storage (m)  
 Avail. - Available Storage (m)  
 TCS - Traffic Control Signal  
 TWSC - Two-Way Stop Control  
 </> - Shared with through movement



## 3 Development Concept

### 3.1 Development Description

The subject property is located in the southwest corner of Wellington Road and Base Line Road. The proposed development is anticipated to provide a 23-storey building accommodating 250 apartment units. 118 parking spaces will be provided at four levels underground.

The property is located in proximity to the City's BRT System and station on Wellington Road. There will be no vehicular access on Wellington Road, but a Right-in-Right-Out (RIRO) driveway is proposed on Base Line Road.

The site has frontages of 45 metres along Wellington Road and 60 metres along Base Line Road. The site frontage on Base Line Road is of the same length as the existing eastbound shared through/right-turn lane on Base Line Road. A limited RIRO access on Base Line Road is appropriate given the road frontages of the site.

The development is expected to be completed in 2026.

**Figure 3.1** illustrates the concept development plan.





### 3.2 Development Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation Manual<sup>3</sup> equations were used to estimate the peak hour traffic volumes generated by the subject development based on the ITE Land Use Codes 222, Multifamily Housing (High Rise).

The City advised that a modal share reduction of 20% be applied to the site traffic to account for the Bus Rapid Transit on Wellington Road.

**Table 3.1** summarizes the forecast number of net new trips generated by the proposed development.

**TABLE 3.1: TRIP GENERATION**

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
<b>222: Multifamily Housing (High-Rise)</b>	250 Units	Eq	19	55	<b>74</b>	Eq	55	33	<b>88</b>
<i>Modal Share Reduction</i>		<i>20%</i>	<i>-4</i>	<i>-11</i>	<i>-15</i>	<i>20%</i>	<i>-11</i>	<i>-7</i>	<i>-18</i>
<b>Total Trip Generation</b>			<b>15</b>	<b>44</b>	<b>59</b>		<b>44</b>	<b>26</b>	<b>70</b>

LUC 222 | AM:  $T = 0.22(X) + 18.85$  | PM:  $T = 0.26(X) + 23.12$

### 3.3 Development Trip Distribution and Assignment

The trip distribution was determined based on existing travel patterns at Wellington Road and Base Line Road, and is similar to the distribution used in the other area development TIS, summarized in **Section 4.1.1**. **Table 3.2** displays the breakdown of trip distributions used in this study.

**TABLE 3.2: ESTIMATED TRIP DISTRIBUTION**

Distribution	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
North via Wellington Road	30%	55%	35%	45%
South via Wellington Road	45%	10%	30%	15%
East via Base Line Road	15%	25%	25%	25%
West via Base Line Road	10%	10%	10%	15%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Figure 3.2** illustrates the site-generated traffic volumes for the AM and PM peak hours.

<sup>3</sup> Institute of Transportation Engineers, *Trip Generation Manual*, 11th ed., (Washington, DC: ITE, 2021).

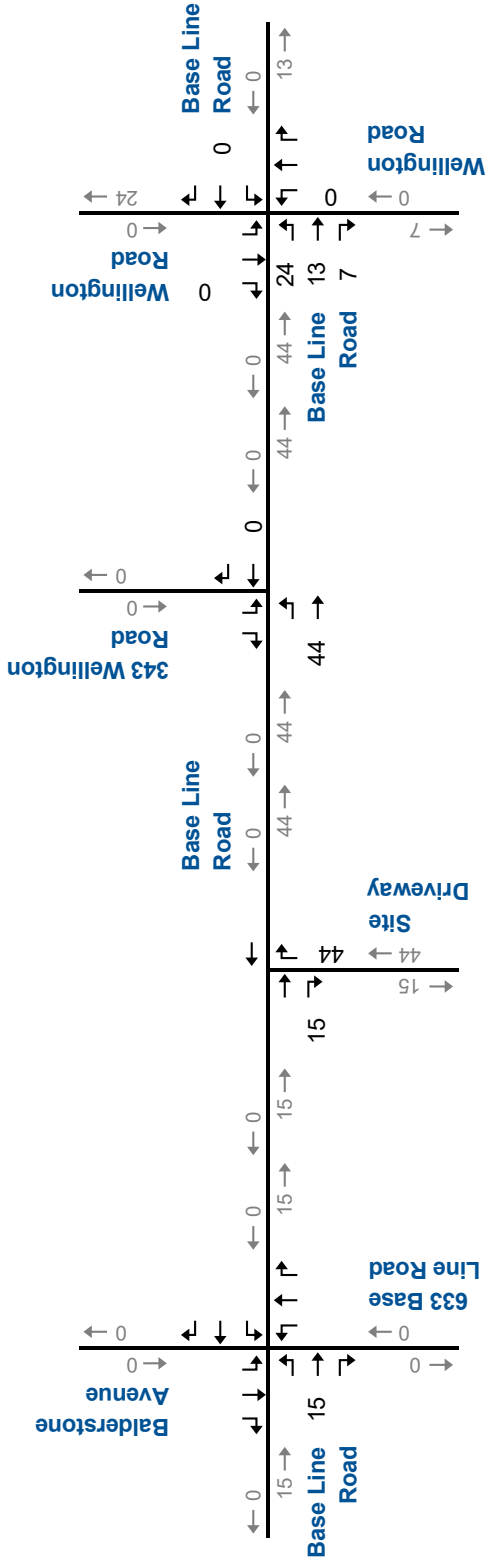


It is noted that with the proposed RIRO access arrangement, inbound development traffic from north, east and south would be able to use the Percy Street/Balderstone Avenue route to enter the site turning right. Similarly, outbound traffic heading west could use the Wellington Road/Commissioners Road route.

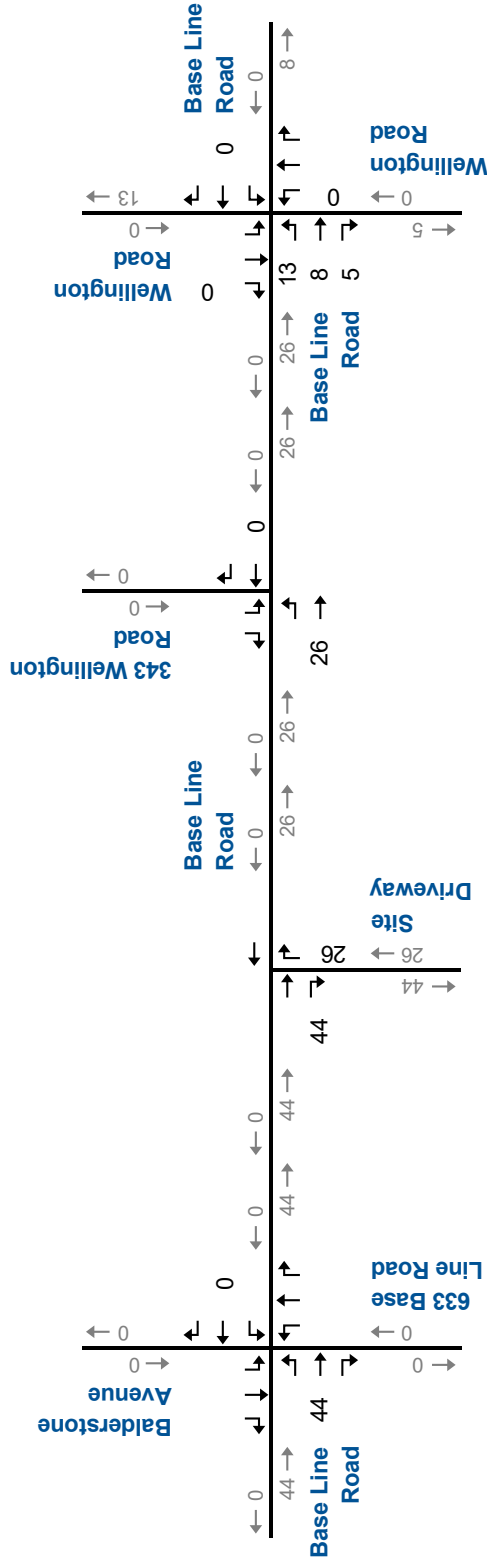




### AM Peak Hour



### PM Peak Hour



## Site Generated Traffic Volumes



## 4 Evaluation of Future Traffic Conditions

The assessment of future traffic conditions contained in this section includes estimates of future background and total traffic volumes, and the analyses for the traffic conditions for the year of development opening (2026) and five years after development opening (2031).

### 4.1 Background Traffic Forecasts

In order to derive the generalized background traffic volumes, a growth rate of 1.5% per annum was applied to the existing roadway traffic volumes. This growth rate was confirmed with City during the pre-study consultation.

#### 4.1.1 Other Area Developments

In consultation with City staff, the following developments have been included in estimating background traffic volumes:

- ▶ Mixed Residential Development at 712 Base Line Road;
- ▶ Commercial Redevelopment at 352 Wellington Road; and
- ▶ Residential Development at 633 Base Line Road.

**Figure 4.1** illustrates the location of the background developments.

**Appendix D** contains the background development traffic volumes.

#### 4.1.2 Network Modifications

Wellington Road is a proposed Bus Rapid Transit Corridor. Construction is currently underway along other sections of Wellington Road and is expected to be completed at Base Line Road by 2026.

The construction will include changes to the Wellington Road and Base Line Road intersection, including the following changes to the intersection lane configuration:

- ▶ Eastbound approach: exclusive left-turn lane, a through lane and a shared through/right-turn lane;
- ▶ Westbound approach: exclusive left-turn lane, a through lane and a right-turn lane;
- ▶ Northbound approach: exclusive left-turn lane, dual through lanes, and a right-turn lane; and
- ▶ Southbound approach: exclusive left-turn lane, a through lane, and a shared through/right-turn lane.

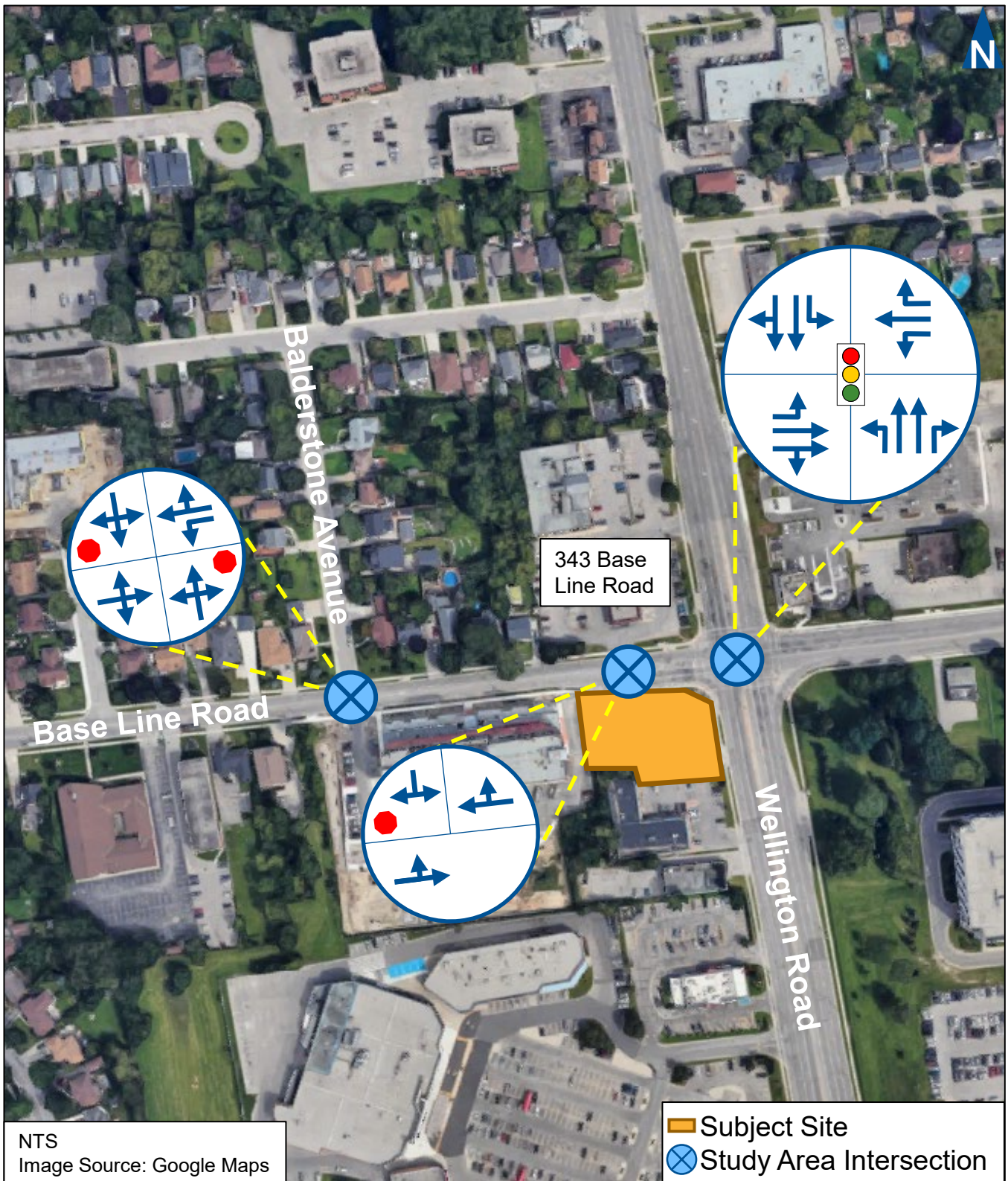


**Figure 4.2** illustrates the future lane configuration at the study area intersections.





## Background Development Locations



## Future Lane Configuration and Traffic Control

## 4.2 2026 Background Traffic Operations

**Figure 4.3** illustrates the 2026 background traffic volumes, including road traffic growth and other area development traffic.

The 2026 background traffic volumes have been analyzed using the same methodology as under existing traffic conditions. Signal timings have been optimized.

**Table 4.1** summarizes the results of the 2026 background traffic operations. The results indicate that the study area intersections are forecast to operate at acceptable levels of service during the AM and PM peak hours, except for the following critical movements at the intersection of Wellington Road and Base Line Road:

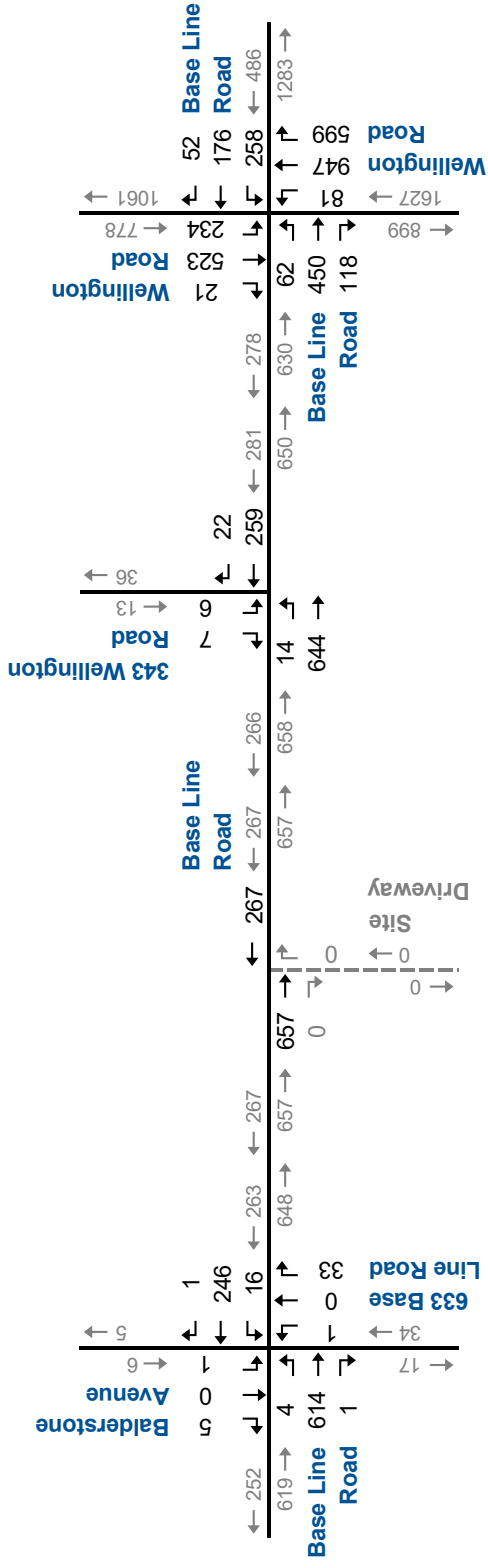
- ▶ The westbound left-turn movement is forecast to operate at LOS F with a v/c ratio of 1.00 during the AM and PM peak hours and a 95<sup>th</sup> percentile queue length exceeding the available storage of 85 metres during the PM peak hour;
- ▶ The northbound left-turn movement is forecast to operate at LOS F with a v/c ratio greater than 1.00 during the PM peak hour;
- ▶ The northbound right-turn movement is forecast to operate at LOS F with a v/c ratio of 0.98 and a 95<sup>th</sup> percentile queue length exceeding the available storage of 85 metres during the AM peak hour;
- ▶ The southbound left-turn movement is forecast to operate at LOS E with a v/c ratio of 0.96 during the AM peak hour; and
- ▶ The southbound through movement is forecast to operate at LOS E with a v/c ratio of 0.93 during the PM peak hour.

**Appendix E** contains the supporting detailed Synchro 11 reports.

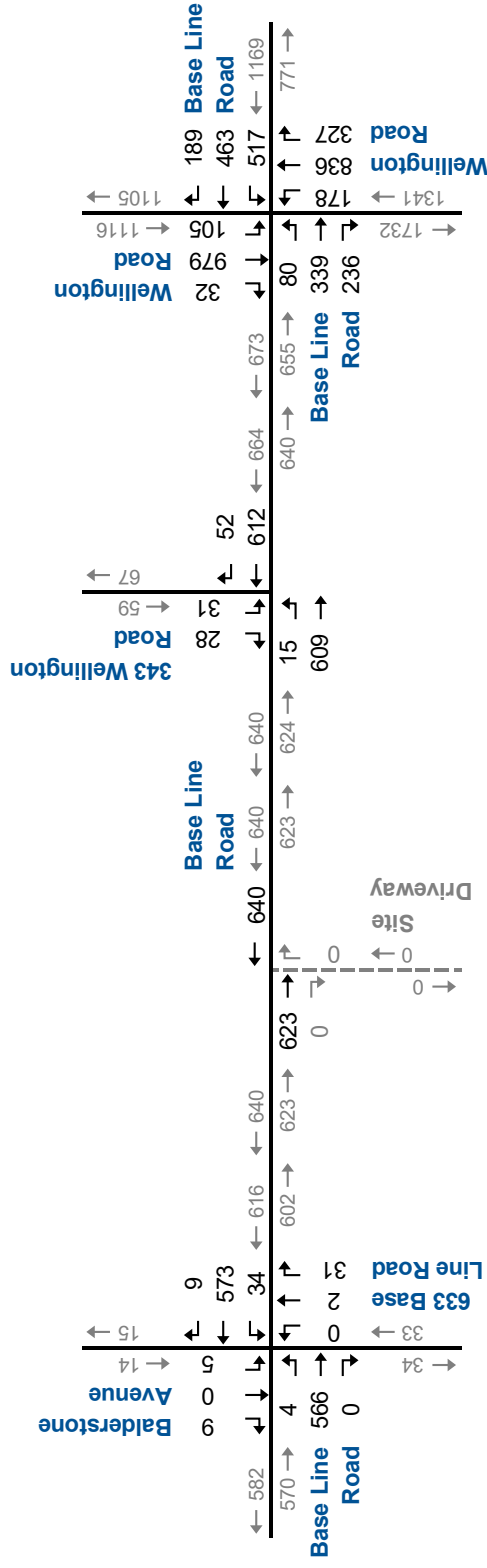




### AM Peak Hour



### PM Peak Hour



# 2026 Background Traffic Volumes

Figure 4.3

**TABLE 4.1: 2026 BACKGROUND TRAFFIC OPERATIONS**

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	B	>	B	<	B	>	B		
			Delay	<	8	>	0	9	0	>	0	<	14	>	14	<	12	>	12	
			V/C	<	0.00	>	0.02	0.00	>	0.09	<	0.09	>		<	0.01	>			
AM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A	<		>		<	B	>	B		
			Delay	<	8	>	0	0	0	>	0	<		>		<	12	>	12	
			V/C	<	0.01	>	0.00	0.00	>		<		>		<	0.03	>			
AM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	D	>	D	F	C	C	E	C	C	E	D	E	C	>	D	D
			Delay	43	53	>	52	104	32	30	70	22	34	70	47	75	24	>	39	49
			V/C	0.21	0.70	>	1.02	0.28	0.10		0.21	0.67	0.98		0.96	0.34	>			
PM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	B	>	B	<	C	>	C		
			Delay	<	9	>	0	9	0	>	0	<	15	>	15	<	23	>	23	
			V/C	<	0.01	>	0.04	0.00	>	0.09	<	0.09	>		<	0.07	>			
PM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A	<		>		<	C	>	C		
			Delay	<	9	>	0	0	0	>	0	<		>		<	22	>	22	
			V/C	<	0.02	>	0.00	0.00	>		<		>		<	0.24	>			
PM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	D	>	D	F	C	C	E	F	D	D	E	D	E	>	E	E
			Delay	45	54	>	54	116	25	21	64	144	46	50	60	42	69	>	66	62
			V/C	0.37	0.73	>	1.13	0.53	0.27		1.12	0.75	0.72		0.64	0.93	>			
			Stor.	<	-	>	30	-	>	-	-	>	-	-	>	-	-	>		
			Avail.	<	-	>	29	-	>	-	-	>	-	-	>	-	-	>		

MOE - Measure of Effectiveness  
 LOS - Level of Service  
 Delay - Average Delay per Vehicle in Seconds  
 V/C - Volume to Capacity Ratio  
 Q - 95th Percentile Queue Length (m)  
 Stor. - Existing Storage (m)  
 Avail. - Available Storage (m)  
 TCS - Traffic Control Signal  
 TWSC - Two-Way Stop Control  
 </> - Shared with through movement

### 4.3 2026 Total Traffic Operations

**Figure 4.4** illustrates the 2026 total traffic volumes, including trips generated by the proposed development.

The 2026 total traffic volumes have been analyzed using the same methodology as under existing and background traffic conditions. Signal timings have been optimized.

**Table 4.2** summarizes the results of the 2026 total traffic operations. The results indicate that the study area intersections are forecast to operate at similar levels of service as under 2026 background traffic conditions.

The site driveway intersection to Base Line Road is noted to operate at satisfactory levels of service (LOS A/B) under 2026 total traffic conditions.

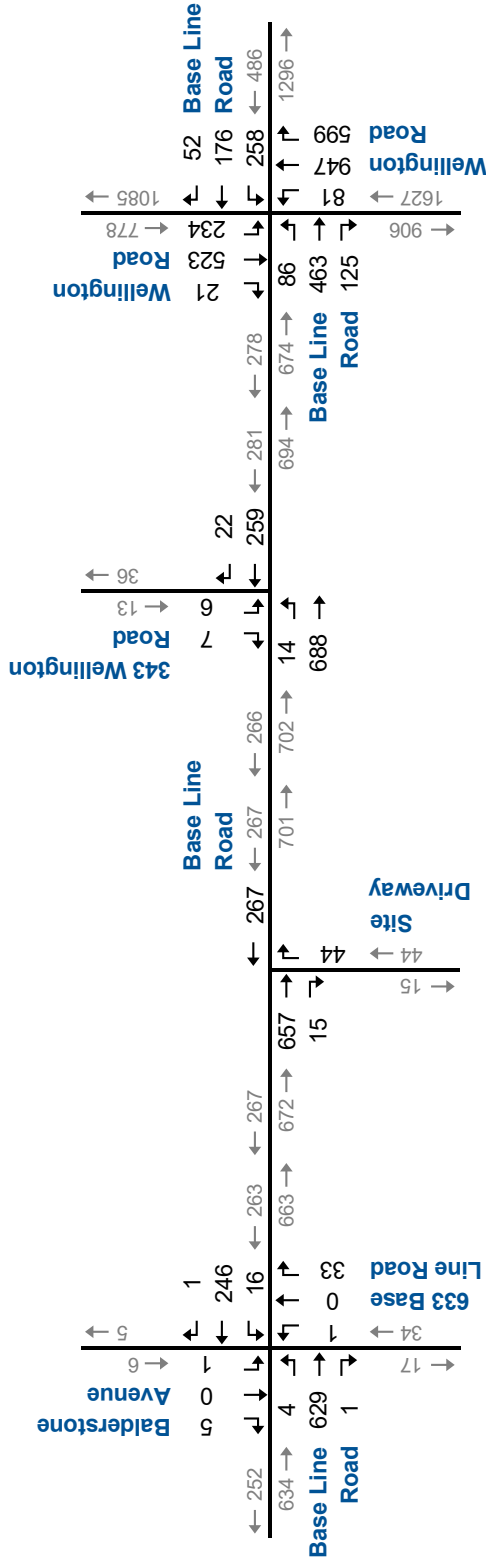
**Appendix F** contains the supporting detailed Synchro 11 reports.



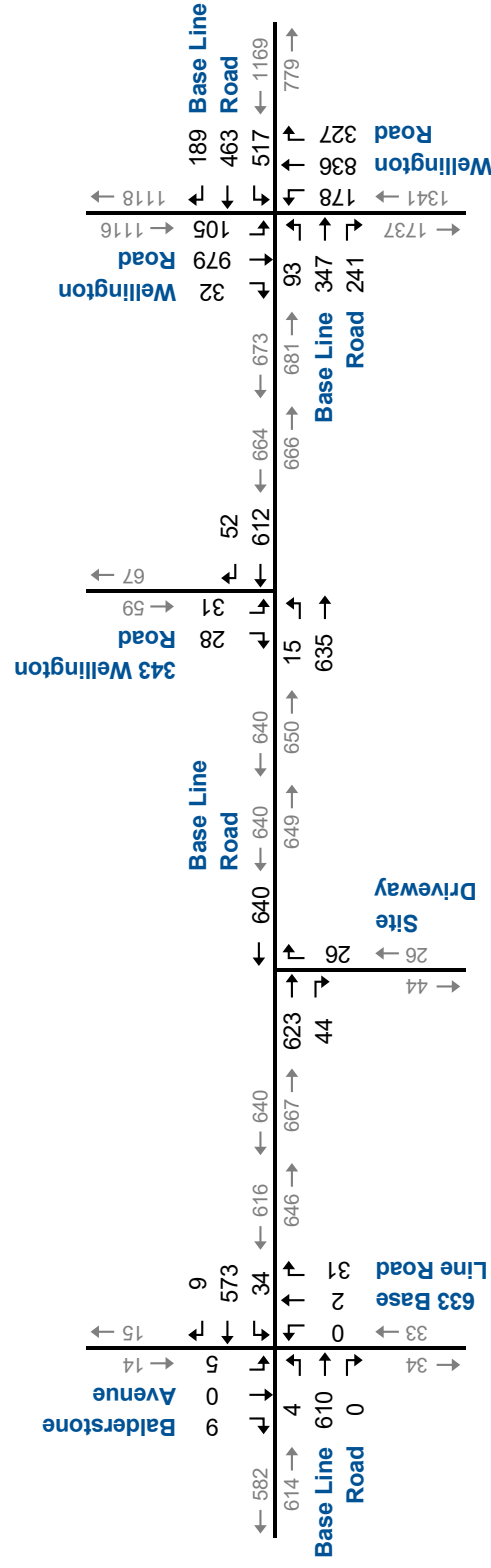




**AM Peak Hour**



**PM Peak Hour**



**2026 Total Traffic Volumes**

**Figure 4.4**



**TABLE 4.2: 2026 TOTAL TRAFFIC OPERATIONS**

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	B	>	B	<	B	>	B		
			Delay	<	8	>	0	9	0	>	1	<	14	>	14	<	12	>	12	
			V/C	<	0.00	>	0.02	0.00	>	<	0.09	>	<	>	>	<	0.01	>	<	
			Q	<	0	>	1	0	>	<	2	>	<	>	>	<	0	>	<	
AM Peak Hour	Site Driveway & Base Line Road	TWSC	LOS		A	>	A		>	A			>	B						
			Delay		0	>	0	0		>	0			>	14					
			V/C		0.00	>	0.00	0		>	0.11			>	3					
			Q		0	>	0	0		>	3			>						
AM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A		A	>	A					B		>	B			
			Delay	<	8		0	0	>	0					12		>	12		
			V/C	<	0.01		0.00	0	>	0					0.03		>			
			Q	<	0		0	0	>	0					1		>			
AM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	D	>	D	E	C	C	D	C	D	F	E	E	C	>	D	E
			Delay	44	54	>	53	58	29	27	44	26	42	115	68	64	27	>	38	55
			V/C	0.29	0.73	>	0.87	0.26	0.09	0.23	0.76	1.11	0.91	0.37	>	41	30	>		
			Q	16	64	>	52	23	7	9	80	183	45	30	>	45	-	>		
PM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	C	>	C	<	C	>	C		
			Delay	<	9	>	0	10	0	>	0	<	16	>	16	<	24	>	24	
			V/C	<	0.01	>	0.04	0.00	>	<	0.10	>	<	>	>	<	0.08	>	<	
			Q	<	0	>	1	0	>	<	2	>	<	>	<	2	>	<		
PM Peak Hour	Site Driveway & Base Line Road	TWSC	LOS		A	>	A		>	A			>	B						
			Delay		0	>	0	0		>	0			>	14					
			V/C		0.00	>	0.00	0		>	0.06			>	2					
			Q		0	>	0	0		>	2			>						
PM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A		A	>	A					C		>	C			
			Delay	<	9		0	0	>	0					23		>	23		
			V/C	<	0.02		0.00	0	>	0					0.24		>			
			Q	<	1		0	0	>	0					7		>			
PM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	D	>	D	F	C	C	E	F	D	D	E	D	E	>	E	E
			Delay	46	55	>	55	120	25	21	66	144	47	51	61	40	69	>	66	63
			V/C	0.43	0.75	>	1.14	0.53	0.27	1.12	0.77	0.74	0.61	0.93	>	15	119	>		
			Q	18	69	>	152	54	19	57	76	64	15	119	>	45	-	>		
PM Peak Hour	Wellington Road & Base Line Road	TCS	Stor.	25	-	>	85	-	50	160	-	70	45	-	45	-	>			
			Avail.	7	-	>	-67	-	31	103	-	6	30	-	30	-	>			

MOE - Measure of Effectiveness  
 LOS - Level of Service  
 Delay - Average Delay per Vehicle in Seconds  
 V/C - Volume to Capacity Ratio  
 Q - 95th Percentile Queue Length (m)  
 Stor. - Existing Storage (m)  
 Avail. - Available Storage (m)  
 TCS - Traffic Control Signal  
 TWSC - Two-Way Stop Control  
 </> - Shared with through movement



## 4.4 2031 Background Traffic Operations

**Figure 4.5** illustrates the 2031 background traffic volumes, including road traffic growth and other area development traffic.

The 2031 background traffic volumes have been analyzed using the same methodology as under existing and 2026 background traffic conditions. Signal timings have been optimized.

**Table 4.3** summarizes the results of the 2031 background traffic operations. The results indicate that the study area intersections are forecast to operate at similar levels of service as under 2026 background traffic conditions, except for the additional critical movement of the northbound right-turn at Wellington Road and Base Line Road, which is projected to operate with a 95<sup>th</sup> percentile queue length exceeding the available storage of 70 metres during the PM peak hour.

**Appendix G** contains the supporting detailed Synchro 11 reports.





**TABLE 4.3: 2031 BACKGROUND TRAFFIC OPERATIONS**

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																Overall			
				Eastbound				Westbound				Northbound				Southbound							
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach				
AM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	B	>	B	<	B	>	B					
			Delay	<	8	>	0	9	0	>	1	<	15	>	15	<	12	>	12				
			V/C	<	0.00	>	0.02	0.00	>	<	0.09	>	<	0.01	>	<	0	>	<				
Q	<	0	>	1	0	>	<	2	>	<	0	>	<	-	>	<							
Stor.	<	-	>	30	-	>	<	-	>	<	-	>	<	-	>	<							
Avail.	<	-	>	29	-	>	<	-	>	<	-	>	<	-	>	<							
AM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A	<		>		<	B	>	B					
			Delay	<	8	>	0	0	>	0	<		>		<	13	>	13					
			V/C	<	0.01	>	0.00	0.00	>	<		>	<	0.03	>	<	1	>	<				
Q	<	0	>	0	0	>	<		>	<	1	>	<		>	<							
AM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	E	>	D	F	C	C	E	C	D	F	F	F	C	>	D	E			
			Delay	43	55	>	54	81	29	27	56	26	47	165	90	87	28	>	46	69			
			V/C	0.22	0.75	>	0.97	0.28	0.10	0.25	0.84	1.24	0.98	0.40	>	0.98	0.40	>					
			Q	11	68	>	68	26	7	10	92	238	59	34	>	59	34	>					
			Stor.	25	-	>	85	-	50	160	-	65	45	-	>	45	-	>					
			Avail.	14	-	>	17	-	43	150	-	-173	-14	-	>	-14	-	>					
PM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	C	>	C	<	D	>	D					
			Delay	<	9	>	0	10	0	>	0	<	16	>	16	<	27	>	27				
			V/C	<	0.01	>	0.05	0.00	>	<	0.10	>	<	0.10	>	<	0.10	>	<				
Q	<	0	>	1	0	>	<	2	>	<	2	>	<	2	>	<							
Stor.	<	-	>	30	-	>	<	-	>	<	-	>	<	-	>	<							
Avail.	<	-	>	29	-	>	<	-	>	<	-	>	<	-	>	<							
PM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A	<		>		<	D	>	D					
			Delay	<	10	>	0	0	>	0	<		>		<	26	>	26					
			V/C	<	0.02	>	0.00	0.00	>	<		>	<	0.29	>	<	0.29	>	<				
			Q	<	1	>	0	0	>	<		>	<	8	>	<	8	>	<				
			PM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	E	>	E	F	C	C	F	F	D	E	E	D	E	>	E	E
						Delay	46	58	>	57	182	26	21	94	210	50	57	73	46	78	>	75	77
V/C	0.40	0.79	>	1.29	0.58	0.29	1.30	0.83	0.81	0.70	0.98	>	0.70	0.98	>								
Q	16	75	>	206	61	20	75	86	75	18	139	>	18	139	>								
Stor.	25	-	>	85	-	50	160	-	70	45	-	>	45	-	>								
Avail.	9	-	>	-121	-	30	85	-	-5	27	-	>	27	-	>								

MOE - Measure of Effectiveness  
 LOS - Level of Service  
 Delay - Average Delay per Vehicle in Seconds  
 V/C - Volume to Capacity Ratio  
 Q - 95th Percentile Queue Length (m)  
 Stor. - Existing Storage (m)  
 Avail. - Available Storage (m)  
 TCS - Traffic Control Signal  
 TWSC - Two-Way Stop Control  
 </> - Shared with through movement



## 4.5 2031 Total Traffic Operations

**Figure 4.6** illustrates the 2031 total traffic volumes, including trips generated by the proposed development.

The 2031 total traffic volumes have been analyzed using the same methodology as under existing and background traffic conditions. Signal timings have been optimized.

**Table 4.4** summarizes the results of the 2031 total traffic operations. The results indicate that the study area intersections are forecast to operate at similar levels of service as under 2026 total traffic conditions.

The site driveway intersection to Base Line Road is noted to operate at acceptable levels of service under 2031 total traffic conditions.

**Appendix H** contains the supporting detailed Synchro 11 reports.

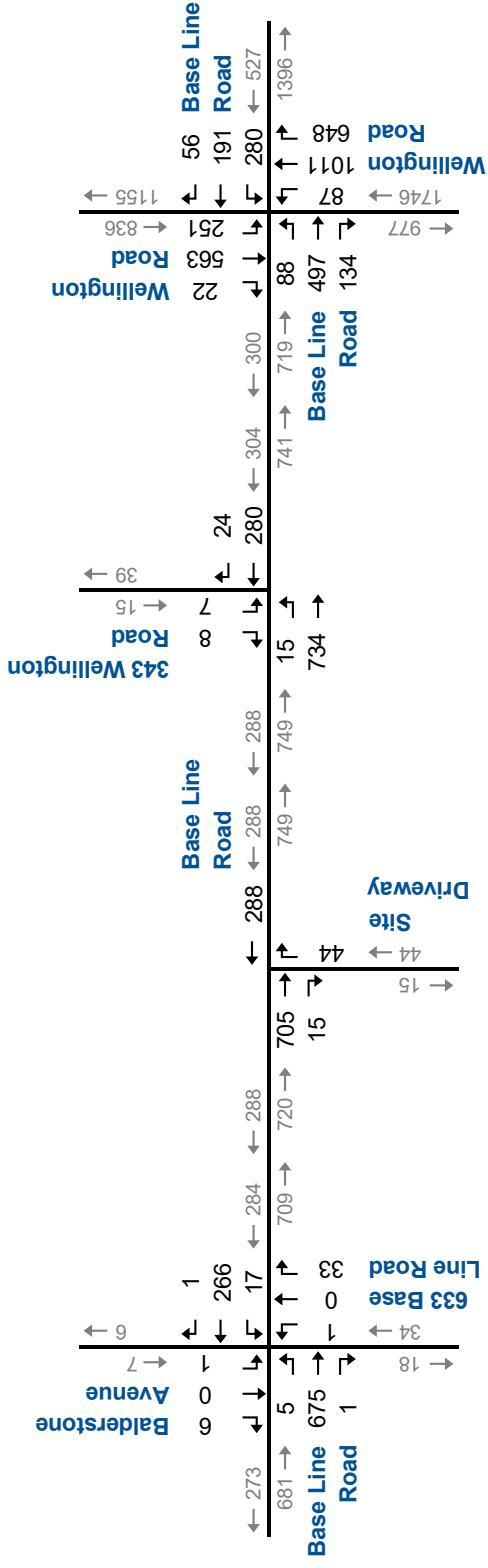
### 4.5.1 SimTraffic Analysis

During pre-study consultation, the City required SimTraffic analysis to be undertaken to address potential operational issues associated with a full access on Base Line Road. However, the access is proposed to be restricted to right-turns only (RIRO), which would eliminate inbound left-turn movements at the site access, and there will be no impact on the westbound traffic on Base Line Road.

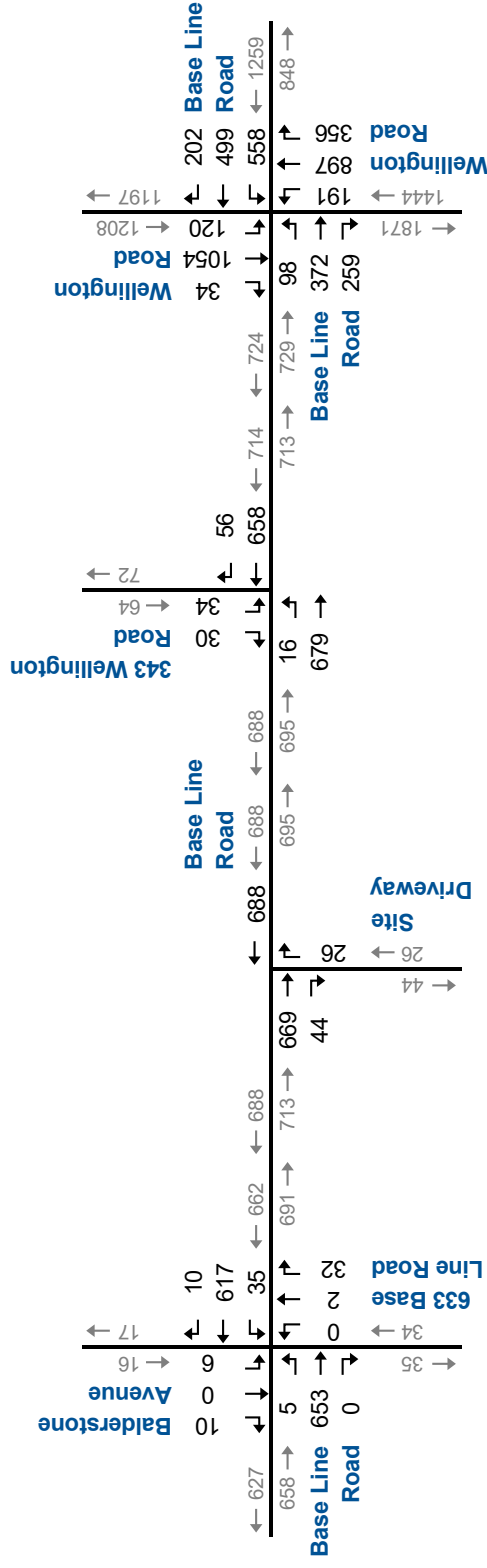




### AM Peak Hour



### PM Peak Hour



## 2031 Total Traffic Volumes

### Figure 4.6



**TABLE 4.4: 2031 TOTAL TRAFFIC OPERATIONS**

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	B	>	B	<	B	>	B		
			Delay	<	8	>	0	9	0	>	1	<	15	>	15	<	12	>	12	
			V/C	<	0.00	>	0.02	0.00	>	<	0.09	>	<	0.01	>	<	0	>	<	0
			Q	<	0	>	1	0	>	2	>	<	-	>	<	-	>	<	-	>
Stor.	<	-	>	30	-	>	<	-	>	<	-	>	<	-	>	<	-	>		
Avail.	<	-	>	29	-	>	<	-	>	<	-	>	<	-	>	<	-	>		
AM Peak Hour	Site Driveway & Base Line Road	TWSC	LOS		A	>	A	A	>	A		C	>	C						
			Delay		0	>	0	0	>	0		15	>	15						
			V/C		0.00	>	0.00	0.00	>	0.12		3	>							
			Q		0	>	0	0	>	3			>							
AM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A			>	B			>	B		
			Delay	<	8	>	0	0	>	0			>	13			>	13		
			V/C	<	0.01	>	0.00	0.00	>	0.03			>	1			>	1		
			Q	<	0	>	0	0	>	1			>			>				
AM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	E	>	E	F	C	C	E	C	D	F	F	C	>	D	E	
			Delay	44	56	>	55	86	29	27	59	26	47	167	90	88	28	>	46	70
			V/C	0.30	0.77	>	0.99	0.28	0.10	0.25	0.84	1.24	0.98	0.40	>	0.98	0.40	>	0.98	0.40
			Q	16	72	>	71	26	7	10	93	240	60	34	>	60	34	>	60	34
Stor.	25	-	>	85	-	50	160	-	65	45	-	>	45	-	>	45	-			
Avail.	9	-	>	14	-	43	150	-	-175	-15	-	>	-15	-	>	-15	-			
PM Peak Hour	633 Base Line Road/Balderstone Avenue & Base Line Road	TWSC	LOS	<	A	>	A	A	>	A	<	C	>	C	<	D	>	D		
			Delay	<	9	>	0	10	0	>	0	<	16	>	16	<	29	>	29	
			V/C	<	0.01	>	0.05	0.00	>	<	0.10	>	<	0.10	>	<	0.10	>	<	0.10
			Q	<	0	>	2	0	>	<	2	>	<	2	>	<	2	>	<	2
Stor.	<	-	>	30	-	>	<	-	>	<	-	>	<	-	>	<	-	>		
Avail.	<	-	>	28	-	>	<	-	>	<	-	>	<	-	>	<	-	>		
PM Peak Hour	Site Driveway & Base Line Road	TWSC	LOS		A	>	A	A	>	A		B	>	B						
			Delay		0	>	0	0	>	0		14	>	14						
			V/C		0.00	>	0.00	0.00	>	0.07		2	>							
			Q		0	>	0	0	>	2			>							
PM Peak Hour	Base Line Road & 343 Wellington Road	TWSC	LOS	<	A	>	A	A	>	A			>	D			>	D		
			Delay	<	10	>	0	0	>	0			>	26			>	26		
			V/C	<	0.02	>	0.00	0.00	>	0.29			>	9			>	9		
			Q	<	1	>	0	0	>	9			>			>	9			
PM Peak Hour	Wellington Road & Base Line Road	TCS	LOS	D	E	>	E	F	C	C	F	F	D	E	E	D	F	>	F	E
			Delay	47	59	>	59	172	26	21	90	228	52	60	77	48	85	>	81	79
			V/C	0.47	0.81	>	1.27	0.57	0.29	1.34	0.85	0.83	0.71	1.00	>	0.71	1.00	>	0.71	1.00
			Q	20	78	>	202	60	20	79	88	78	19	147	>	19	147	>	19	147
Stor.	25	-	>	85	-	50	160	-	70	45	-	>	45	-	>	45	-			
Avail.	5	-	>	-117	-	30	81	-	-8	26	-	>	26	-	>	26	-			

MOE - Measure of Effectiveness  
 LOS - Level of Service  
 Delay - Average Delay per Vehicle in Seconds  
 V/C - Volume to Capacity Ratio  
 Q - 95th Percentile Queue Length (m)  
 Stor. - Existing Storage (m)  
 Avail. - Available Storage (m)  
 TCS - Traffic Control Signal  
 TWSC - Two-Way Stop Control  
 </> - Shared with through movement





## 5 Parking Review

As noted, a parking supply of 118 underground parking spaces is proposed for the development.

It is noted that the site is located in the Open Option Parking zone, shown in Figure 4.19 of the Zoning By-law, and the Record of Site Plan Consultation, dated 08 November 2023, indicates that “359 Wellington is located within the ‘Open Option’ parking area which does not specify a minimum number of vehicle parking spaces.”

The proposed supply of 118 spaces is appropriate for the development considering its proximate location to BRT service and the potential for implementing site specific TDM measures.



## 6 Transportation Demand Management

Transportation Demand Management (TDM) refers to ways of making the capacity of roads more efficient by reducing vehicle demand. TDM approaches consider how people's choices of travel mode are affected by land use patterns, development design, parking availability, parking cost, and the relative cost, convenience, and availability of alternative modes of travel. Various TDM strategies are used to influence those factors so that the alternatives are more competitive with single-occupancy travel and potentially reduce reliance on motor vehicles.

The City of London requires TIA submissions to include a suitable travel demand management plan with reasonable measures to facilitate reduced automobile reliance and promote transit, cycling and walking for trips to and from the site. This requirement is consistent with the goal established by the 2030 Transportation Master Plan to achieve a mode share target of 35% by 2030<sup>4</sup>.

Potential TDM measures appropriate for the proposed development include the following.

### 6.1 Walking

The pedestrian accessibility of a development is essential in helping to ensure that those that can walk, have access to accessible pedestrian connections.

Proper pedestrian connections from the surrounding community to the development should be available to ensure safety and to enhance the experience of those that choose to walk. Sidewalks are currently provided on both sides of Wellington Road and Base Line Road.

The concept Site Plan indicates that connections will be provided from the building to Base Line Road and Wellington Road.

### 6.2 Cycling

Exclusive cycling lanes are not currently provided on Wellington Road or Base Line Road in vicinity of the subject development. To promote cycling to/from the development, the City's Zoning By-Law requires 0.9 long-term and 0.1 short-term bicycle parking spaces per residential unit.

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<sup>4</sup> City of London 2030 Transportation Master Plan: Smart Moves, January 2013.



### 6.3 Transit

As discussed in **Section 2.2**, there are currently four transit routes within a reasonable walking distance of the subject site. Additionally, the Wellington Bus Rapid Transit (BRT) will be provided on Wellington Road adjacent to the subject site with a station at Base Line Road.

The site will provide good connectivity to the bus stops on Wellington Road and Base Line Road.

### 6.4 Parking Management

To further encourage residents of the development to utilize sustainable travel modes, parking spaces could be sold separately from the cost to rent/purchase a unit. This practice of ‘unbundling’ parking from the unit is also more equitable and efficient since occupants are not forced to pay for parking they do not need.

### 6.5 Wayfinding and Travel Planning

Increasing awareness of sustainable transportation opportunities for residents and visitors of the development should be considered.

Providing a welcome package that outlines the available active transportation options can be helpful to encourage new residents to educate themselves on the support for alternative modes near the subject site. Posting real-time transit and active transportation information in common areas can further support this education.



## 7 Conclusions and Recommendations

### 7.1 Conclusions

Based on the investigations carried out, it is concluded that:

- ▶ **Existing Traffic Conditions:** The study area intersections are operating at acceptable levels of service, except for the westbound left-turn movement at the intersection of Wellington Road and Base Line Road, which is operating at LOS E with a v/c ratio of 0.98, and 95<sup>th</sup> percentile queue lengths exceeding the storage of 85 metres during the PM peak hour.
- ▶ **Development Trip Generation:** The development is forecast to generate 59 and 70 trips during the AM and PM peak hours, respectively.
- ▶ **2026 Background Traffic Conditions:** The study area intersections are forecast to operate at acceptable levels of service during the AM and PM peak hours, except for the following critical movements at the intersection of Wellington Road and Base Line Road:
  - The westbound left-turn movement is forecast to operate at LOS F with a v/c ratio of 1.00 during the AM and PM peak hours and a 95<sup>th</sup> percentile queue length exceeding the available storage of 85 metres during the PM peak hour;
  - The northbound left-turn movement is forecast to operate at LOS F with a v/c ratio greater than 1.00 during the PM peak hour;
  - The northbound right-turn movement is forecast to operate at LOS F with a v/c ratio of 0.98 and a 95<sup>th</sup> percentile queue length exceeding the available storage of 85 metres during the AM peak hour;
  - The southbound left-turn movement is forecast to operate at LOS E with a v/c ratio of 0.96 during the AM peak hour; and
  - The southbound through movement is forecast to operate at LOS E with a v/c ratio of 0.93 during the PM peak hour.
- ▶ **2026 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2026 background traffic conditions.

The Site Driveway intersection to Base Line Road is noted to operate at satisfactory levels of service (LOS A/B).



- ▶ **2031 Background Traffic Conditions:** All study area intersections are forecast to operate at similar levels of service as under 2026 background traffic conditions, except for the additional critical movement of the northbound right-turn at Wellington Road and Base Line Road, which is projected to operate with a 95<sup>th</sup> percentile queue length exceeding the available storage of 70 metres during the PM peak hour.
- ▶ **2031 Total Traffic Conditions:** The study area intersections are forecast to operate at similar levels of service as under 2031 background traffic conditions.
- ▶ **Wellington Road & Base Line Road:** This intersection is noted to be experiencing capacity issues and critical movements under existing and future traffic conditions independent of the subject development. Also, subject development traffic does not involve any of the critical movements identified in the operational analysis. Specific to queuing issues at the intersection, they could potentially be addressed by extending storage lengths as part of the BRT reconstruction.
- ▶ **Site Driveway:** The RIRO Site Driveway on Base Line Road is forecast to operate at satisfactory levels of service (LOS A/B) under 2026 and 2031 total traffic conditions.
- ▶ **Parking Review:** The subject site is located in the Open Option Parking area of the City's Zoning By-law No. Z.-1-223046, where a minimum number of parking spaces is not required, and the proposed supply of 118 spaces is appropriate for the development given its proximate location to a BRT Station and the potential for implementing site specific TDM measures.
- ▶ **Transportation Demand Management:** The following TDM measures are appropriate for implementation at the subject development:
  - Internal sidewalks with connections to the adjacent roadway network.
  - Bicycle parking in accordance with the City's Zoning By-Law requirements for residential developments.
  - Access to existing and future transit routes on adjacent roadways.
  - Parking unbundled from the sale/rent of apartment units.
  - Transit, carshare, and active transportation information provided in a welcome package to new residents and/or posted in central locations on-site.



## 7.2 Recommendations

Based on the findings and conclusions of this study, it is recommended that the development be considered for approval as proposed.



# Appendix A

## Pre-Study Consultation



# Appendix B

## Existing Traffic Data





# Appendix C

## Existing Traffic Operations Reports



# Appendix D

## Background Development Traffic Volumes



# Appendix E

## 2026 Background Traffic Operations Reports



# Appendix F

## 2026 Total Traffic Operations Reports



# Appendix G

## 2031 Background Traffic Operations Reports



# Appendix H

## 2031 Total Traffic Operations Reports

