



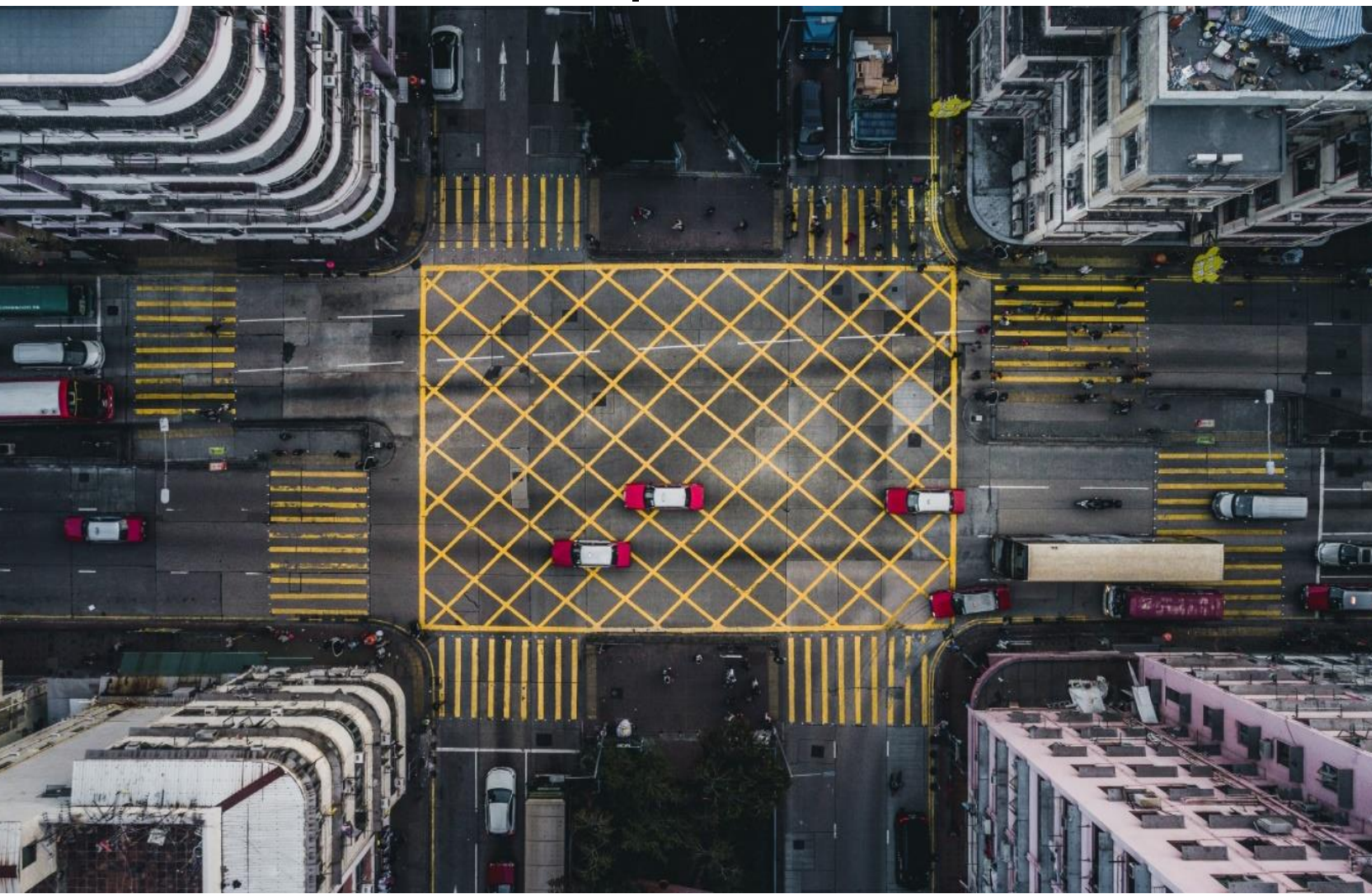
Transit Facilities Plan

Green Ginger Phase 2

Green Ginger Developments Inc. & Clear Day Investments Ltd.

04 April 2022

→ The Power of Commitment



Executive summary

GHD Limited was retained by Green Ginger Developments Inc. & Clear Day Investments Ltd. to prepare a Transit Facilities Plan in support of the Draft Plan of Subdivision and Zoning By-Law Amendment for the proposed residential development located west of Trafalgar Road in the North Oakville East Secondary Plan in the Town of Oakville.

Access to the proposed subdivision from the regional arterial roads is proposed via Threshing Mill Boulevard, Wheat Boom Drive and Ernest Appelbe Boulevard, which have been identified as Avenues/Transit Corridors under the North Oakville East Secondary Plan.

This report evaluates the criteria set by the Town of Oakville's North Oakville Secondary Plan Transit Plan Developer's Toolkit (DT) to determine the recommended transit stop amenities at their respective stop locations. The evaluation evaluates each transit stop based on the following characteristics:

- High Boarding / Transfer Location (based on the road type)
- Mobility Needs Location (nearby senior group homes, hospital, shopping malls, etc.)
- Activity Location (apartment, secondary and post-secondary schools)
- Exposure to Elements (a stop with high speed traffic (60 km/h or more) or a road with more than two lanes)
- Wait Time (Headways of 20 minutes or more between buses)
- Request from the public

GHD has identified three possible locations for transit stops: eastbound at Threshing Mill Boulevard and Trafalgar Road, eastbound at Wheat Boom Drive and Trafalgar Road, and westbound at Threshing Mill Boulevard and Ernest Appelbe Boulevard

Under the Town of Oakville's Transit Plan, the implementation of Stop 'A' is warranted at the three proposed transit stops within the proposed subdivision.

The amenity at these transit stops include a sign and post, benches, route designation, route schedules, route maps, shelter pads, lighting, power pedestal and shelters.

We trust that this satisfies your requirements, but do not hesitate to contact the undersigned if you have any questions.

Sincerely,

GHD



William Maria, P. Eng.

Transportation Planning Lead

Contents

1.	Introduction	1
1.1	Retainer and Objective	1
1.2	Study Team	2
2.	Site Characteristics	2
2.1	Study Area	2
2.2	Proposed Development Content	2
3.	Existing Conditions	4
3.1	Existing Road Network	4
3.2	Pedestrian and Bicycle Routes	4
3.3	Transit Services	4
4.	Transit Facilities Plan Site Plan Review	5
4.1	Planned Transit Services	5
5.	Transit Facilities Design Criteria and Plan	5
5.1	Cross-Section Design	5
5.1.1	Avenue/Transit Corridor – Cross-Section Design	5
5.2	Transit Stops	6
5.2.1	Transit Stop Classification	6
5.2.2	Transit Stop Location	8
6.	Conclusion	10

Table index

Table 1	Cross Section Design Criteria	5
Table 2	Warrants for Bus Stop Levels of Amenities – Wheat Boom Drive at Trafalgar Road	6
Table 3	Warrants for Bus Stop Levels of Amenities – Threshing Mill Boulevard at Trafalgar Road	7
Table 4	Warrants for Bus Stop Levels of Amenities – Threshing Mill at Ernest Appelbe Boulevard	7

Figure index

Figure 1	Site Location	1
Figure 2	Draft Plan of Subdivision	3
Figure 3	Stop 'A' Info	8
Figure 4	Transit Facilities Plan	9

1. Introduction

1.1 Retainer and Objective

GHD Limited was retained by Green Ginger Developments Inc. & Clear Day Investments Ltd. to prepare a Transit Facilities Plan in support of the Draft Plan of Subdivision and Zoning By-Law Amendment of a proposed subdivision located on part of Lots 13 and 14, Concession 1 within the North Oakville Secondary Plan Area in the Town of Oakville.

The site location is illustrated in **Figure 1**.

The objective of the Transit Facilities Plan (TFP) is to:

- Identify the location and design of transit streets, transit stops and related passenger amenities for each bus stop, and transit-priority treatments at intersections where applicable;
- Demonstrate that roadway design will appropriately and adequately accommodate anticipated transit services to the satisfaction of the Town; and
- Identify any associated property requirements.

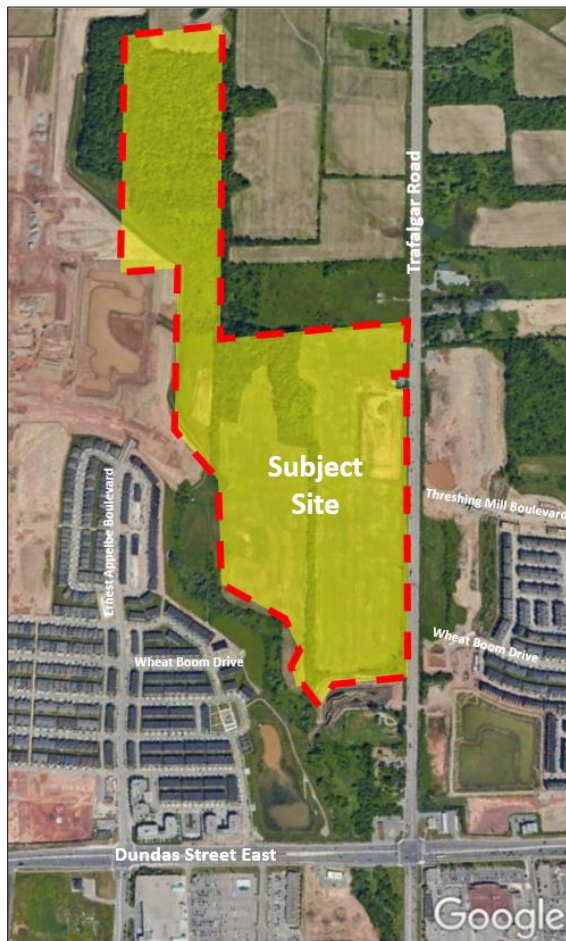


Figure 1 **Site Location**

1.2 Study Team

The GHD team involved in the preparation of the study are:

- William Maria, P. Eng., Transportation Planning Lead
- Rafael Andrenacci, B.Eng., Transportation Planner

2. Site Characteristics

2.1 Study Area

Based on the approved Terms of Reference for the Traffic Impact Study also completed by GHD, the following intersections were included in the study area:

- Trafalgar Road and Dundas Street East
- Trafalgar Road and Wheat Boom Drive
- Trafalgar Road and Threshing Mill Boulevard
- Dundas Street East and Ernest Appelbe Boulevard
- Wheat Boom Drive and Ernest Appelbe Boulevard
- Threshing Mill Boulevard and Ernest Appelbe Boulevard

GHD has identified three possible locations for transit stops: eastbound at Threshing Mill Boulevard and Trafalgar Road, eastbound at Wheat Boom Drive and Trafalgar Road, and westbound at Threshing Mill Boulevard and Ernest Appelbe Boulevard

2.2 Proposed Development Content

A draft plan of subdivision was prepared by Malone Given Parsons, dated January 2022 and is shown in **Figure 2**. The proposed subdivision consists of the following characteristics:

- 539 townhouse units
- 8 mid-rise buildings with a total of 1,732 residential units
- 5 high-rise buildings with a total of 2,578 residential units and 55,145 square feet of retail GFA

Access to the proposed subdivision from the surrounding regional arterial roads is proposed via Threshing Mill Boulevard, Wheat Boom Drive and Ernest Appelbe Boulevard.

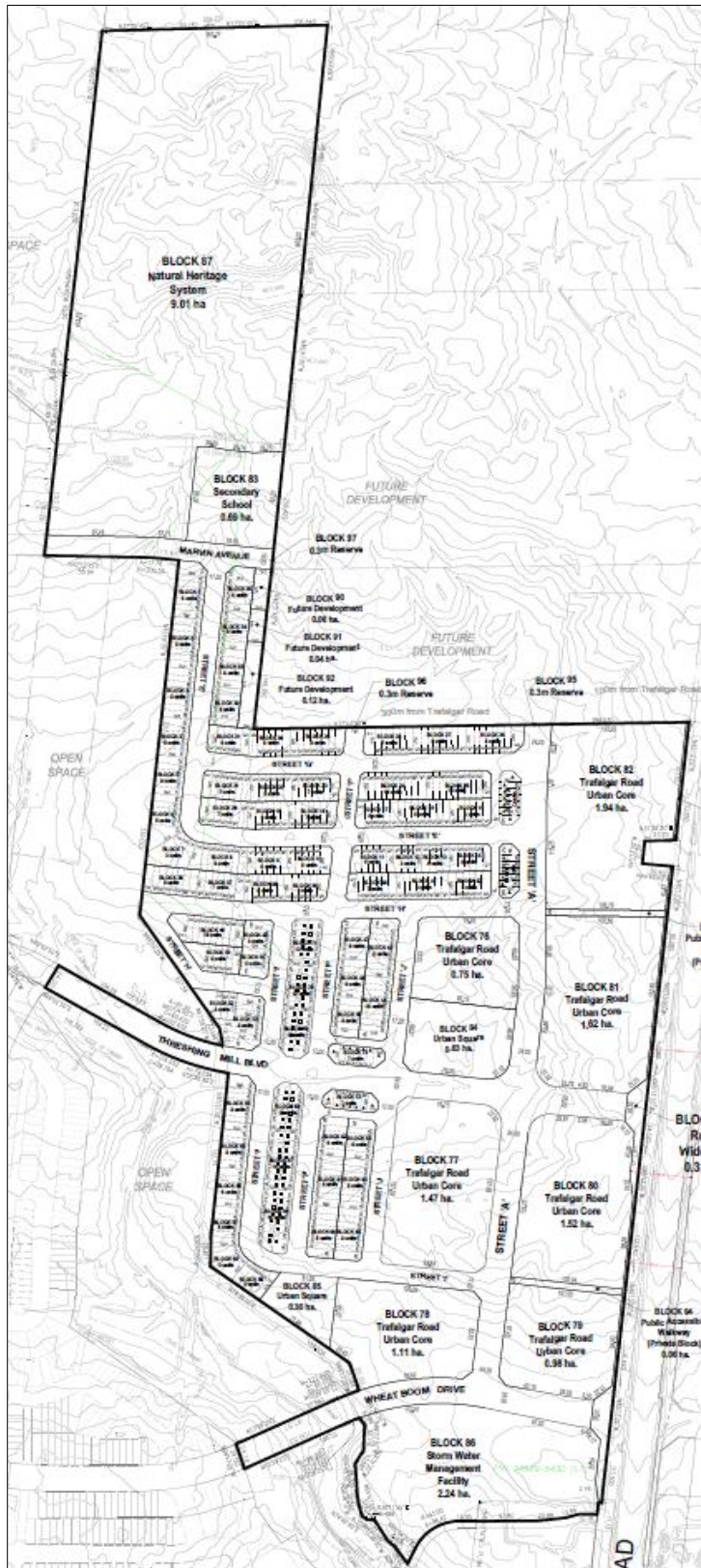


Figure 2 Draft Plan of Subdivision

3. Existing Conditions

3.1 Existing Road Network

Dundas Street East is an east-west major arterial road under the jurisdiction of the Region of Halton. In the study area it has a six-lane urban cross section. The intersection of Dundas Street East and Trafalgar Road is signalized, with an auxiliary right-turn lane in both the eastbound and westbound direction, one auxiliary left-turn lane in the westbound direction, and dual auxiliary left-turn lanes in the eastbound direction. The intersection of Dundas Street East and Ernest Appelbe Boulevard is also signalized, with an auxiliary left-turn and an auxiliary right-turn lane in both the eastbound and westbound directions. The posted speed limit on Dundas Street East is 70 km/h.

Trafalgar Road is a north-south major arterial road under the jurisdiction of the Region of Halton. In the study area it has a four-lane urban cross section. The intersections of Trafalgar Road and Threshing Mill Boulevard and Trafalgar Road and Wheat Boom Drive are both signalized, with no auxiliary turning lanes under the existing configuration. The posted speed limit on Trafalgar Road is 60 km/h.

Threshing Mill Boulevard is an east-west connector road under the jurisdiction of the Town of Oakville. Within the study area, it is only constructed east of Trafalgar Road and continues again west of Ernest Appelbe Boulevard. The intersection of Threshing Mill Boulevard and Trafalgar Road is signalized, while the intersection of Threshing Mill Boulevard and Ernest Appelbe Boulevard is unsignalized. The assumed posted speed limit on Threshing Mill Boulevard is 50 km/h.

Wheat Boom Drive is an east-west avenue road under the jurisdiction of the Town of Oakville. Within the study area, it is only constructed east of Trafalgar Road and continues once again just east of Ernest Appelbe Boulevard. The intersection of Wheat Boom Drive and Trafalgar Road is signalized, while the intersection of Wheat Boom Drive and Ernest Appelbe Boulevard is unsignalized. The assumed posted speed limit on Wheat Boom Drive is 50 km/h.

Ernest Appelbe Boulevard is a north-south avenue road under the jurisdiction of the Town of Oakville. Within the study area, it has a four-lane urban cross section. The intersection of Ernest Appelbe Boulevard and Dundas Street East is signalized, with an auxiliary left-turn lane in both the northbound and southbound directions. The intersections of Ernest Appelbe Boulevard at Wheat Boom Drive and Ernest Appelbe Boulevard at Threshing Mill Boulevard are both unsignalized. The assumed posted speed limit on Ernest Appelbe Boulevard is 50 km/h.

3.2 Pedestrian and Bicycle Routes

Pedestrian sidewalks are available on both sides of all roads within the existing roads throughout the study area with the exception of Trafalgar Road.

Within the study area, Wheat Boom Drive has been designated as a Signed Bike Route under the Town of Oakville's Trails and Cycleways Map. East of the study area, Threshing Mill Boulevard and Wheat Boom Drive are also designated as Signed Bike Routes. South of the study area, Dundas Street East has a multi-use trail on the south side of the road, between Ernest Appelbe Boulevard and Ninth Line.

3.3 Transit Services

Oakville Transit currently offers the following routes within or near the study area:

Route 1 (Trafalgar) operates in the north/south direction along Trafalgar Road between the Oakville Go Station and the Trafalgar/407 GO Carpool Lot. It currently operates with an hour headway, and the nearest transit stop to the study area is located at Trafalgar Road and Dundas Street East.

Route 5 (Dundas) generally operates in the east/west direction along Dundas Street and in the north/south direction along Trafalgar Road, between Oakville GO Station and the Dundas/407 GO Carpool Lot. **Route 5A** follows a similar route, however it operates in the east/west direction along Sixteen Mile Drive/Wheat Boom Drive between Neyagawa Boulevard and Ernest Appelbe Boulevard. Both routes 5 and 5A operate with 30 minute headways, with 15 minute headways between each other. The nearest bus stop to the study area is located at Ernest Appelbe Boulevard and Wheat Boom Drive, serviced by bus route 5A only

4. Transit Facilities Plan Site Plan Review

4.1 Planned Transit Services

Trafalgar Road has been classified as a Primary Transit Corridor under North Oakville Secondary Plan's Transit Plan. The Region of Halton has completed an environmental study report for Trafalgar Road from Cornwall Road to Highway 407. The report identified and assessed various alternatives to address the transportation needs and opportunities within the proposed study area and recommended the addition of a Bus Rapid Transit (BRT) lane within the proposed widening of Trafalgar Road

5. Transit Facilities Design Criteria and Plan

5.1 Cross-Section Design

5.1.1 Avenue/Transit Corridor – Cross-Section Design

Table 1 Cross Section Design Criteria

Design Criteria	Wheat Boom Drive and Threshing Mill Boulevard
Road Type	Avenue/Transit Corridor
Type of Urban Area	Urban Core
Lane Pattern	3.75m travel/off-peak parking lane 3.5m travel lane 3.5m travel lane 3.75m travel/off-peak parking lane
Face-of-Curb to Face-of-Curb Width	14.5m
Right-of-Way Width	24.0m
Boulevard Width	4.75m each side
Sidewalk Provisions	Both Sides
Cycling Facilities	n/a
Transit Facility Location	Boulevards

5.2 Transit Stops

5.2.1 Transit Stop Classification

As per Exhibit 21 of the Town of Oakville's North Oakville Secondary Plan Transit Plan, Avenue/Transit Corridors in urban centre areas can have either a Stop 'A', 'B', 'C' or 'D' transit stop.

As per Exhibit 22 of the Town of Oakville's North Oakville Secondary Plan Transit Plan Developer's Toolkit (DT), **Table 2, Table 3 and Table 4** present the Town's warrant for determining the recommended bus stop amenities at their respective bus stop location.

As per Exhibit 3 of the DT, Local/Community Service corridors along roads such as Threshing Mill Boulevard are recommended to have a service frequency of 15-30 minutes. Secondary Transit Corridors, such as Wheat Boom Drive, are recommended to have a service frequency of 10-15 minutes. The low end of that range was used for calculating the warrant.

Table 2 Warrants for Bus Stop Levels of Amenities – Wheat Boom Drive at Trafalgar Road

Activity	Justification	Point Value	Points Awarded
High Boarding / Transfer Location	Local Road	1	10
	Connector	2	
	Arterial / Avenue	10	
Mobility Needs Location	Seniors group home, medical clinics, libraries, hospital, shopping malls	7	0
Activity Location	Apartment, secondary and post-secondary schools	3	3
Exposure to Elements	A stop with high speed traffic (60 km/h or more) or on a road with more than two lanes	3	3
Wait Time	Headways of 20 minutes (or more) between buses	2	0
Request	Request from Public	2	0
Total Points Awarded			16pts

The transit stop at Wheat Boom Drive and Trafalgar Road has been awarded 16 points. As per the Town's Transit Plan, the implementation of Stop 'A' – Sheltered Info is warranted (as shown in **Figure 3**).

Table 3 **Warrants for Bus Stop Levels of Amenities – Threshing Mill Boulevard at Trafalgar Road**

Activity	Justification	Point Value	Points Awarded
High Boarding / Transfer Location	Local Road	1	10
	Connector	2	
	Arterial / Avenue	10	
Mobility Needs Location	Seniors group home, medical clinics, libraries, hospital, shopping malls	7	0
Activity Location	Apartment, secondary and post-secondary schools	3	3
Exposure to Elements	A stop with high speed traffic (60 km/h or more) or on a road with more than two lanes	3	3
Wait Time	Headways of 20 minutes (or more) between buses	2	2
Request	Request from Public	2	0
Total Points Awarded			18pts

The transit stop at Threshing Mill Boulevard and Trafalgar Road has been awarded 18 points. As per the Town's Transit Plan, the implementation of Stop 'A' – Sheltered Info is warranted (as shown in **Figure 3**).

Table 4 **Warrants for Bus Stop Levels of Amenities – Threshing Mill at Ernest Appelbe Boulevard**

Activity	Justification	Point Value	Points Awarded
High Boarding / Transfer Location	Local Road	1	10
	Connector	2	
	Arterial / Avenue	10	
Mobility Needs Location	Seniors group home, medical clinics, libraries, hospital, shopping malls	7	0
Activity Location	Apartment, secondary and post-secondary schools	3	0
Exposure to Elements	A stop with high speed traffic (60 km/h or more) or on a road with more than two lanes	3	3
Wait Time	Headways of 20 minutes (or more) between buses	2	2
Request	Request from Public	2	0
Total Points Awarded			15pts

The transit stop at Threshing Mill Boulevard at Ernest Appelbe Boulevard has been awarded 15 points. As per the Town's Transit Plan, the implementation of Stop 'A' – Sheltered Info is warranted (as shown in **Figure 3**).

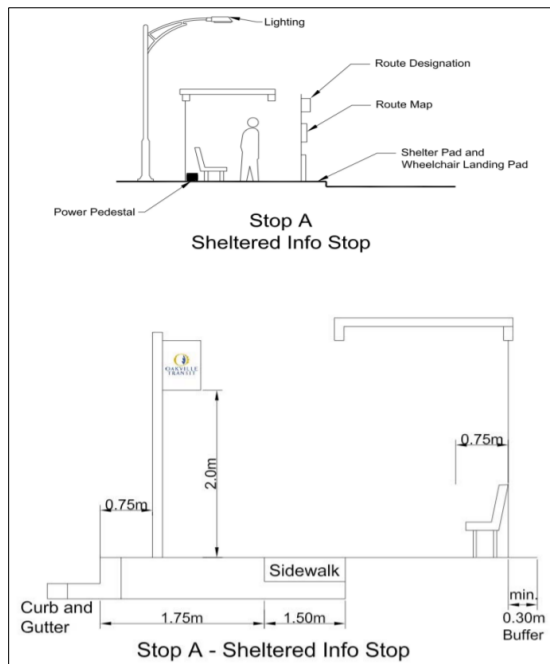


Figure 3 Stop 'A' Info

As per Exhibit 23 of the DT, the proposed passenger amenities at Stop 'A' are as follows:

- Sign and post;
- Benches;
- Route designation;
- Route schedules;
- Route maps;
- Shelter pads;
- Lighting;
- Power Pedestal; and
- Shelters

5.2.2 Transit Stop Location

The following Stop 'A' transit stops are recommended in the Draft Plan of Submission and are illustrated in **Figure 4** below:

- An eastbound nearside transit stop on Wheat Boom Drive at Trafalgar Road (Stop 'A')
- An eastbound nearside transit stop on Threshing Mill at Trafalgar Road (Stop 'A'); and

- A westbound nearside transit stop on Threshing Mill Boulevard at Ernest Appelbe Boulevard (Stop 'A');

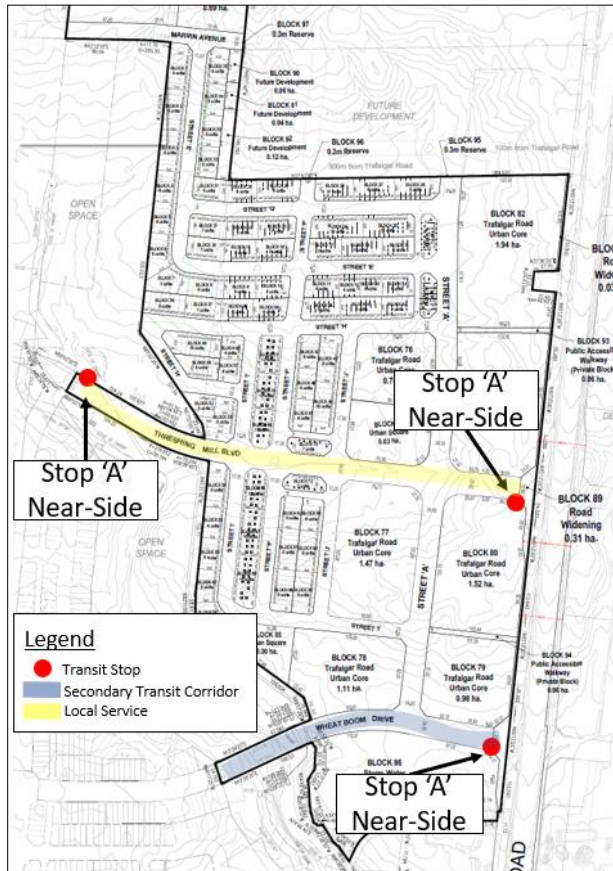


Figure 4 **Transit Facilities Plan**

6. Conclusion

The Transit Facilities Plan has identified three potential locations for transit stops within the study area. The three proposed transit stops are located at Wheat Boom Drive and Trafalgar Road, Threshing Mill Boulevard and Trafalgar Road, as well as at Threshing Mill Boulevard and Ernest Appelbe Boulevard.

Under the Town of Oakville's Transit Plan, the implementation of Stop 'A' is warranted at the three proposed transit stops within the proposed subdivision.

The amenity at these transit stops include a sign and post, benches, route designation, route schedules, route maps, shelter pads, lighting, power pedestal and shelters.

