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Appendix I.2

Design Criteria

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City of Toronto – Golden Mile Environmental Assessment

Draft Design Criteria

July 2024

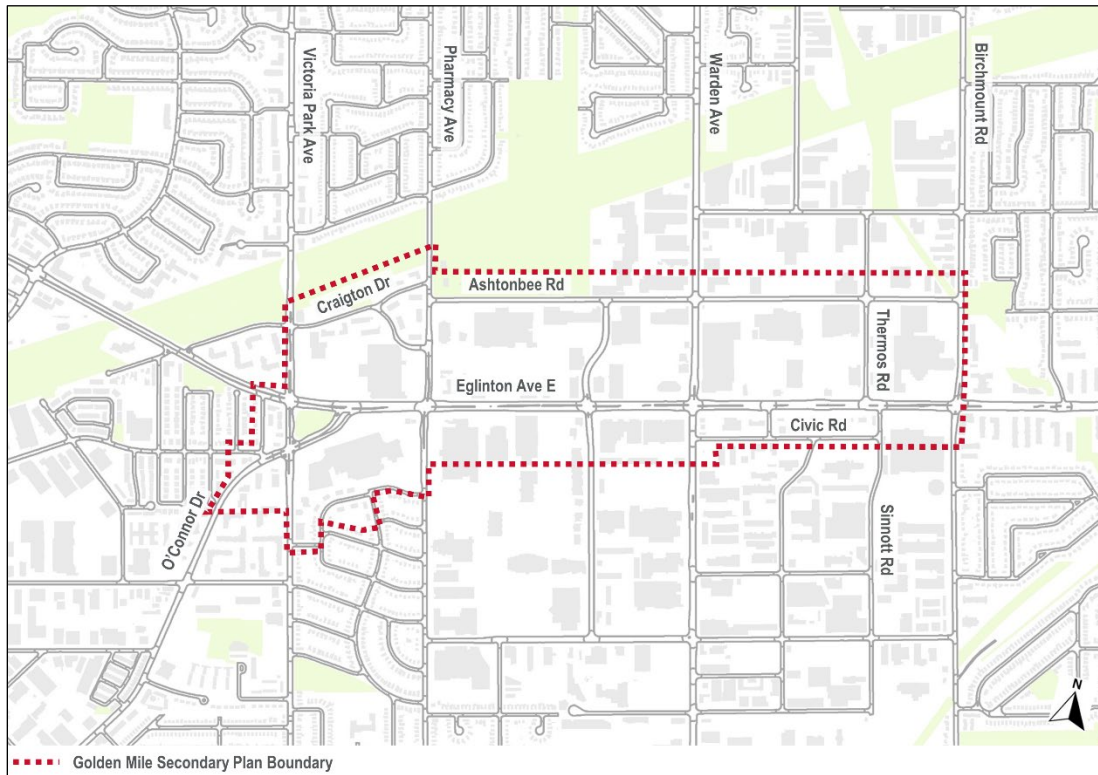
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Introduction

The purpose of this design criteria is to confirm and document key design parameters with respect to the proposed design standards for the Golden Mile Environmental Assessment (EA). The table below is a summary of key improvements for the Golden Mile EA Study.



Segment	Length	Corridor Characteristics
O'Connor Drive (Existing O'Connor Dr to Victoria Park Ave)	0.55 km	From Warner Ave to Victoria Park Ave, O'Connor Dr is an existing urbanized street that terminates at the intersection with Eglinton Ave E
Civic Road (Warden Ave to Sinnott Rd)	0.58 km	From Warden Ave to Sinnott Rd, Civic Rd is an existing urbanized corridor that consists of commercial and industrial properties. The existing configuration of Civic Rd is a two-lane road with one lane in each direction and no sidewalks on either side of the road.
Golden Mile Boulevard (Victoria Park Ave to Birchmount Rd)	2.10 km	From Victoria Park Ave to Birchmount Rd, Golden Mile Blvd is a new urbanized road that will run parallel to Eglinton Ave, between Ashtonbee Rd and Eglinton Ave. The proposed road will consist of two lanes, with one lane in each direction and parking on one side of the road.

Segment	Length	Corridor Characteristics
Ashtonbee Road <i>(Pharmacy Ave to Birchmount Rd)</i>	1.65 km	From Pharmacy Ave to Birchmount Rd, Ashtonbee Rd is an urbanized road that consists of mostly commercial properties on the south side of the street, with Ashtonbee Reservoir Park, Centennial College and several industrial properties on the north side of the street. The existing Ashtonbee Rd configuration consists of one lane in each direction and a centre left-turn lane to provide access to adjacent commercial and industrial properties.
Craigton Drive <i>(Victoria Park Ave to Pharmacy Ave)</i>	0.44 km	From Victoria Park Ave to Pharmacy Ave, Craigton Dr is an urban road that consists mostly of residential properties with low-rise apartment buildings, as well as some commercial properties at Victoria Park Ave.
Sinnott Road <i>(Civic Rd to Eglinton Ave E)</i>	0.10 km	From Eglinton Ave E to Civic Rd, Sinnott Rd is an urban road that consists of privately owned businesses on both the east and west side of the road. The existing configuration consists of two lanes, with one lane in each direction and a sidewalk on the west side of the road.
Thermos Road <i>(Ashtonbee Rd to Eglinton Ave E)</i>	0.32 km	From Ashtonbee Rd to Eglinton Ave East, Thermos Rd is an urbanized road that consists of privately owned businesses on both the east and west side of the road. The existing configuration of Thermos Rd consist of two lanes, with one lane in each direction and sidewalks on both sides of the road.

Design Standards and Guidelines

The proposed roadway design shall be based on City of Toronto standards, guidelines, and plans (where possible), followed by Ontario Traffic Manual (OTM Books), TAC Geometric Design Guidelines (June 2017), and Ontario Provincial Standards (OPS). Below is a list of standards, guidelines, and plans used in the development of the design criteria for the Golden Mile EA.

City of Toronto:

- Complete Streets Guidelines

- On-Street Bikeway Design Guidelines (2022)

- CafeTO Café Guidelines (2021)

- Streetscape Manual User Guide (2019)

- Multi-Use Trail Design Guidelines (2015)

- Vision Zero Road Safety Plan: Safety Initiative – Speed Limit Reductions

- Construction Specifications and Drawings for Road Works

- Road Engineering Design Guidelines

- Construction Drawings for Road Works – T2

- Golden Mile Secondary Plan – Urban Design Guidelines (2019 & 2020)

- Golden Mile Transportation Master Plan (2019)

- Green Streets Technical Guidelines – Tree Planting in Hard Surfaces (2016)

- O'Connor Drive Urban Design Guidelines (2012)

- Ontario Traffic Council – Protected Intersection Guide

- Ontario Traffic Manual (OTM Books)

- TAC Geometric Design Guidelines (June 2017)

- Ontario Provincial Standards (OPS)

Other

- Federal Highway Administration Self-Enforcing Roadways (January 2018)

Existing Road

Existing Classification, ROW, and Posted Speed

Segment	Existing Classifications	ROW Width	Posted Speed
O'Connor Drive (Existing O'Connor Dr to Victoria Park Ave)	Major Arterial	26 m	50 km/h
Civic Road (Warden Ave to Sinnott Rd)	Collector	20 m	40 km/h
Ashtonbee Road (Pharmacy Ave to Birchmount Rd)	Collector	23 m	50 km/h
Craigton Drive (Victoria Park Ave to Pharmacy Ave)	Collector	20 m	40 km/h
Sinnott Road/Thermos Road (Ashtonbee Rd to Eglinton Ave E)	Collector	20 m	40 km/h
Data Source			
City of Toronto – Existing CADD Base Plan Files received on June 24, 2022 Google Streetview			

Existing Road Geometry

	O'Connor Drive	Civic Road	Craigton Drive	Ashtonbee Road	Sinnott Road	Thermos Road
Pavement Widths	15 m	9.6 m – 10 m	8.3 m - 12 m	12.8 m - 13 m	9.8 m	9.8 m – 10 m
Right Turn Lane Width	3.5 m	4.7 m	4.3 m – 5.0 m	3.5 m – 7.1 m	N/A	5.0 m – 5.8 m
Right Turn Storage Length	15 m (min)	N/A	N/A	N/A	N/A	N/A
Right Turn Taper	10:1	N/A	N/A	N/A	N/A	N/A
Right Turn Parallel Lane Length	30 m storage + decel.	N/A	N/A	N/A	N/A	N/A
Left Turn Lane Width	3.0 m	4.7 m	3.2 m	3.0 m	N/A	3.0 m – 3.2 m
Left Turn Storage Length	15 m (min)	N/A	15 m (min)	15 m (min)	N/A	15 m (min)
Left Turn Taper	26:1	N/A	6:1	10:1	N/A	21:1
Left Turn Parallel Lane Length	80 m Storage + decel.	N/A	37 m storage + decel.	43 m storage + decel.	N/A	63 m Storage + decel.
Curb and Gutter Width	0.5 m	0.5 m	0.5 m	0.5 m	0.5 m	0.5 m
Median Width	1.5 m (Concrete)	N/A	N/A	3.5 m (Flush)	N/A	N/A
Dedicated Parking Lane Width	N/A	N/A	2.3 m	2.0 m	N/A	N/A
Intersection Curb Radius	9.0 m	9.0 m - 10.5 m	7.0 m	13 m	6 m - 15 m	14.5 m
Property Line Buffer / Rounding Width	Varies	Varies	Varies	Varies	Varies	Varies
Clear Zone Width	N/A	N/A	N/A	N/A	N/A	N/A
Lateral Clearance	N/A	N/A	N/A	N/A	N/A	N/A

Existing Profile and Alignments

	O'Connor Drive	Civic Road	Craigton Drive	Ashtonbee Road	Sinnott Road	Thermos Road
Minimum Stopping Sight Distance	N/A	N/A	N/A	N/A	N/A	N/A
Equivalent Minimum 'K' Factor	31 (Crest) 12 (Sag)	*No Crest present* 99 (Sag)	8.3 (Crest) 11.4 (Sag)	6.0 (Crest) 5.8 (Sag)	48 (Crest) 22 (Sag)	7 (Crest) 3.5 (Sag)
Grades Maximum	5.17%	0.59%	3.0%	2.22%	1.1%	2.93%
Maximum Grade through an intersection	1.23%	0.57%	2.38%	0.93%	1.1%	2.65%
Intersection Skew Angle	65 – 66 degrees	70 degrees	90 degrees	90 degrees	90 degrees	90 degrees
Minimum Length Of Tangent At Intersection Approach	60 m	N/A	24 m	N/A	N/A	N/A
Radius Minimum	120 m	N/A	40 m	N/A	N/A	N/A
Maximum Grade Breaks at intersection	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Rate Of Superelevation (4% Max)	N/A	N/A	N/A	N/A	N/A	N/A

Existing Boulevard, Cycling, and Pedestrian Condition

	O'Connor Drive	Civic Road	Craigton Drive	Ashtonbee Road	Sinnott Road	Thermos Road
Boulevard Width	1.2 m	N/A	0.6 m – 2.8 m	2.5 m	5.2 m	4.2 m
Multi-Use Path Width	N/A	N/A	N/A	N/A	N/A	N/A
Cycling Facility Type And Width	N/A	N/A	N/A	N/A	N/A	N/A
Sidewalk Width	1.5 m – 3.3 m	N/A	1.1 m – 1.4 m	1.5 m – 1.7 m	1.5 m	1.5 m
Existing Accessible Pedestrian Signal (APS)	None	None	None	• Pharmacy Ave • Hakimi Ave	None	None
Leading Pedestrian Interval (LPI) Present	None	None	• Pharmacy Ave	• Pharmacy Ave • Hakimi Ave	None	None

Existing Tactile Warning Strips Indicators at Intersections	•Eglinton Ave	•Sinnott Rd	•Victoria Park Ave •Pharmacy Ave	•Pharmacy Ave	•Civic Rd •Eglinton Ave	•Eglinton Ave
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Existing Transit Condition

	O'Connor Drive	Civic Road	Craigton Drive	Ashtonbee Road	Sinnott Road	Thermos Road
Bus Shelter Pad and Platform (Width x Length)	4 m x 1.4 m	N/A	1.6 m x 9.4 m	N/A	N/A	N/A
Concrete Bus Stop Platform Width	N/A	N/A	N/A	N/A	N/A	N/A

Existing Entrance Design Parameters

	O'Connor Drive	Civic Road	Craigton Drive	Ashtonbee Road	Sinnott Road	Thermos Road
Minimum Entrance Width	7 – 15 m	9 – 90 m	8.2 m – 30.1 m	10 m – 38 m	12m – 23m	12m – 23m
Minimum Entrance Radius	9 m	9 – 10.5 m	7 m	13 m	6 – 15 m	14.5 – 17 m
Maximum Grade	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Algebraic Grade Change	N/A	N/A	N/A	N/A	N/A	N/A

Proposed Road

Proposed ROW

Segment	Proposed Classifications	Existing ROW Width	Proposed ROW Width
O'Connor Drive (Victoria Park Ave to Birchmount Rd)	Collector	26 m	27 m
Golden Mile Boulevard (Victoria Park Ave to West Park)	Collector	N/A	20 m
Golden Mile Boulevard (West Park to Birchmount Rd)	Collector	N/A	27 m
Craigton Drive/Ashtonbee Road (Victoria Park Ave to Birchmount Rd)	Collector	20 m / 23 m	23 m
Sinnott Road/Thermos Road (Ashtonbee Rd to Eglinton Ave E)	Local	20 m	23 m
Data Source			
City of Toronto – Golden Mile Transportation Master Plan (TMP) Pg. 194 & 211 https://www.toronto.ca/wp-content/uploads/2019/11/97a2-CityPlanning_GoldenMile_TMPDraft_Part3.pdf			

Proposed Design and Posted Speed

Segment	Design Speed	Posted Speed
O'Connor Drive (Victoria Park Ave to Birchmount Rd)	40 km/h	40 km/h
Golden Mile Boulevard (Victoria Park Ave to Birchmount Rd)	40 km/h	40 km/h
Craigton Drive/Ashtonbee Road (Victoria Park Ave to Birchmount Rd)	40 km/h	40 km/h
Sinnott Road/Thermos Road (Ashtonbee Rd to Eglinton Ave E)	30 km/h	30 km/h
Data Source		
Vision Zero Road Safety Plan Speed Limit Reduction https://www.toronto.ca/services-payments/streets-parking-transportation/road-safety/vision-zero/safety-initiatives/speed-limit-reductions/		
Toronto Complete Streets Guideline https://www.toronto.ca/wp-content/uploads/2017/11/98a2-Chapter-8.pdf		

Proposed Maximum Number of Vehicular Lanes

Segment	Proposed Maximum Number of Vehicular Lanes
O'Connor Drive (Victoria Park Ave to Birchmount Rd)	2 Lanes
O'Connor Drive (West of Victoria Park to Study Boundary)	2 Lanes
Golden Mile Boulevard (Victoria Park Ave to Birchmount Rd)	2 Lanes
Craigton Drive/Ashtonbee Road (Victoria Park Ave to Birchmount Rd)	2 Lanes
Sinnott Road/Thermos Road (Ashtonbee Rd to Eglinton Ave E)	2 Lanes
Data Source	
City of Toronto – Golden Mile Transportation Master Plan (TMP) https://www.toronto.ca/wp-content/uploads/2019/11/97a2-CityPlanning_GoldenMile_TMPDraft_Part3.pdf	
City of Toronto – Golden Mile Secondary Plan (SP) Urban Design Guidelines https://www.toronto.ca/wp-content/uploads/2019/12/8ba4-CityPlanning_GMSP_UDGL.pdf	

Proposed Road Geometry (All Road Segments)

Design Standard	Proposed Standard	Source	
Lane Widths	Through Lane = 3.0 m Curb Lane = 3.0 m (min) TTC Bus Route Curb Lane = 3.3 m (min) Through Lane = 3.0 m	Curb Lane = 3.3m Through Lane = 3.0m Per City guidance, “A curb lane is the vehicular travel lane closest to the curb on the right side that is not a right turn lane.” All streets are being designed with one lane in each direction – all other lanes are designed as Curb Lanes.	CoT – Lane Width Guidelines (June 2017)
Right Turn Lane Width	3.0 m (min)	3.0m	CoT – Lane Width Guidelines (June 2017)
Right Turn Storage Length	From Traffic Analysis	From Traffic Analysis	Traffic Analysis
Right Turn Taper	11:1 – 17:1	11:1 – 17:1	TAC – Table 9.14.2 pg 101
Right Turn Deceleration Length	50 m (min.)	50 m (min.)	TAC – Table 2.5.2 pg 38
Left Turn Lane Width	3.0 m (min)	3.0m	CoT – Lane Width Guidelines (June 2017)
Left Turn Storage Length	From Traffic Analysis	From Traffic Analysis	Traffic Analysis
Left Turn Taper	8:1 – 30:1	8:1 – 30:1	TAC – Table 9.14.2 pg 101
Left Turn Deceleration Length	50 m (min.)	50 m (min.)	TAC – Table 2.5.2 pg 38
Curb and Gutter Width	0.5 m (0.2m curb + 0.3m gutter)	0.5 m (0.2m curb + 0.3m gutter)	CoT Drawing T-600.05-1 Concrete Curb and Gutter
Median Width	1.8 m – 3.0 m	N/A	CoT – Streetscape Manual User Guide (April 2019) Section 3.3
Dedicated Parking Lane Width	2.0 m	2.0m	CoT – Lane Width Guidelines (June 2017)
Intersection Curb Radius	4 m – 15 m	4 m – 15 m	CoT – Curb Radii Guideline (Version 1.1.1, May 2018) Section 6.4.1 pg. 18
Property Line Buffer / Rounding Width	Min Buffer: 0.3 m Min Rounding: 0.5 m	Min Buffer: 0.3 m Min Rounding: 0.5 m	OPSD 216.010 (2017)

Clear Zone Width	TAC Standards Fill = 2.0 – 5.5 m Cut = 2.0 – 5.0 m	N/A for urban condition	TAC – Table 7.3.1 pg 12
Lateral Clearance	Min. Lateral Clearance = 0.5 m from face-of-curb to face-of-pole	Min. Lateral Clearance = 0.5 m from face-of-curb to face-of-pole	TAC – Section 7.7.2 pg 77

Proposed Profile and Alignments (All Road Segments)

Design Standard			Proposed Standard		Source
Design Speed	30 km/h	40 km/h	30 km/h	40 km/h	
Minimum Stopping Sight Distance	35 m	50 m	35 m	50 m	TAC – Table 2.5.2 pg 38
Equivalent Minimum 'K' Factor	2 (Crest) 2 (Sag) (comfort control)	4 (Crest) 4 (Sag) (comfort control)	2 (Crest) 2 (Sag) (comfort control)	4 (Crest) 4 (Sag) (comfort control)	TAC – Table 3.3.2 pg 59 TAC – Table 3.3.5 pg 63
Grades Maximum	6 %	6 %	6 %	6 %	TAC – Table 3.3.1 pg 55
Maximum Grade through an intersection	1.0% - 3.0%	1.0% - 3.0%	1.0% - 3.0%	1.0% - 3.0%	TAC – Section 9.7.3.4 pg 49 TAC – Section 3.3.5.4, 5 pg 68
Minimum Intersection Angle	70 - 110 degrees	70 - 110 degrees	70 - 110 degrees	70 - 110 degrees	TAC – Section 3.2.6.1, 18 pg 46
Minimum Length Of Tangent At Intersection Approach	20 m on minor road	20 m on minor road	20 m on minor road	20 m on minor road	TAC – Figure 9.7.2 pg 43
Radius Minimum	<u>Urban Superelevation</u> Rate = 4.0% NC: 420 m RC: 30 m	<u>Urban Superelevation</u> Rate = 4.0% NC: 660 m RC: 65 m	<u>Urban Superelevation</u> Rate = 4.0% NC: 420 m RC: 30 m	<u>Urban Superelevation</u> Rate = 4.0% NC: 660 m RC: 65 m	TAC – Table 3.2.8 pg 23
Maximum Grade Breaks at intersection	0.5% - 3.0%	0.5% - 3.0%	0.5% - 3.0%	0.5% - 3.0%	TAC – Section 9.7.3.3 pg. 49
Maximum Rate Of Superelevation (4% Max)	Urban: 0.04 m/m	Urban: 0.04 m/m	Urban: 0.04 m/m	Urban: 0.04 m/m	TAC – Section 3.2.2.4 pg 8

Corridor Specific Standards

Craigton Drive

	Design Standard	Proposed Standard	Source
Right Turn Storage Lengths	N/A	None recommended*	From Traffic Analysis of 95 th Percentile Queue Lengths during AM/PM Peak from Future 2041 Traffic Forecasts. *Traffic analysis indicated a desired WBR lane of 40m at Pharmacy Ave,
Left Turn Storage Lengths	N/A	WB at Victoria Park: 40m WB at Pharmacy: 25m EB at Pharmacy: 60m	From Traffic Analysis of 95 th Percentile Queue Lengths during AM/PM Peak from Future 2041 Traffic Forecasts.
At-grade land uses	N/A	Apartment Residential and park space	Golden Mile Secondary Plan
Dedicated Parking Lane Width	None	None	CoT – Lane Width Guidelines (June 2017)
Pedestrian Clearway	<u>Major Arterial/Minor Arterial/Collector</u> 2.1 m (min)	2.1m	CoT – Drawing T-310.010-10 (Pedestrian Clearway Widths on Sidewalks)
Planting Zone (adjacent to property line)	<u>1.2m (constrained)</u>	1.5m, at-grade grated planting zone	City of Toronto Green Streets – Tree Planting in Hard Surfaces T-CIP Series Golden Mile Secondary Plan Urban Design Guidelines
Planting zone / furnishing zone (between Cycle Track and Pedestrian Clearway)	N/A	2.0m – raised open planters	Consultation with CoT and TAC
Cycle Tracks Physically Separated Facility Width	<u>Default</u> Mod – Low Volume = 2.1 m <u>Upper Limit</u> Mod – Low Volume = 2.6 m	Mod – Low Volume - 2.1m No shy distance required from Planting Strip – vertical elements such as curbed planters should remain under 0.2m high	City of Toronto On-Street Bikeway Design Guidelines (2022) Table 3.1 City of Toronto On-Street Bikeway

	<u>Lower Limit</u> Mod – Low Volume = 1.5 m + 0.3 m clearway 0.6 m Tactile Strip + 0.2m flush concrete curb or angle bracket	0.6m tactile strip plus 0.2m flush concrete curb where planting zone / furnishing zone is absent	Design Guidelines (2022) Pg 22 CoT – Drawing T-603-049 (Raised Cycle Track and Boulevard Without Trench Drain)
Cycle Track Buffer	0.3m buffer + 0.2m curb	0.3m buffer + 0.2m curb	City of Toronto On-Street Bikeway Design Guidelines (2022) Table 3.3 City of Toronto On-Street Bikeway Design Guidelines (2022) Pg 20
Signalized Intersection Crossing Width Including Tactile Walking Surface	<u>Asymmetrical Separated Crossride</u> Cycling = 2.5 – 3.0 m Pedestrian = 2.5 m (min) <u>Combined Crossride</u> 5.0 m (min)	<u>Asymmetrical Separated Crossride</u> Cycling = 2.5 – 3.0 m Pedestrian = 2.5 m (min) <u>Combined Crossride</u> 5.0 m (min)	City of Toronto Multi-Use Trail Design Guidelines Page 41 to 48 Fig 5.08 Fig 5.10
Controlled Pedestrian Crossing	> 200 m from another traffic control device & Connectivity considerations / pedestrian desire lines	Controlled crossings at signalized intersections.	OTM – Book 15 Figure 2 pg 26
Protected Intersection	<u>Setback Crossing w/ Multistage Pedestrian Crossing</u> 5 m setback (min) Match cycle track width 1:6 taper preferred, 1:3 taper in constrained conditions for cycle track	5m setback crossing 2.1m crossride 2.5m crosswalk (min) 1:6 taper unless space constraints require sharper taper angle	OTM – Book 18 2021 Figure 6.33 Figure 6.34 OTC Protected Intersection Guide
Raised Intersection	As per City of Toronto Road Engineering Design Guidelines	As per City of Toronto Road Engineering Design Guidelines	CoT – Drawing T-310.010-13 (Raised Intersection)
Raised Crosswalk and Crossride	As per City of Toronto Road Engineering Design Guidelines	As per City of Toronto Road Engineering Design Guidelines	CoT – Drawing T-310.030-17 (Raised Crosswalk and Crossride)

Golden Mile Boulevard

	Design Standard	Proposed Standard	Source
Right Turn Storage Lengths	N/A	WB at Victoria Park: 15m* EB at Hakimi: 55m EB at Birchmount: 50m	From Traffic Analysis of 95 th Percentile Queue Lengths during AM/PM Peak from Future 2041 Traffic Forecasts. *WBR at Victoria Park suggested at 45m
Left Turn Storage Lengths	N/A	WB at Victoria Park: 15m* WB at Pharmacy: 95m WB at Hakimi: 45m WB at Warden: 30m EB at Pharmacy: 55m EB at Hakimi: 15m EB at Warden: 55m EB at Birchmount: 50m	From Traffic Analysis of 95 th Percentile Queue Lengths during AM/PM Peak from Future 2041 Traffic Forecasts. *WBL at Victoria Park suggested at 95m
At-grade land use	N/A	Mixed use – retail, residential, employment, office, community centre and parking garage	Golden Mile Secondary Plan
Dedicated Parking Lane Width	2.0 m	2.0 m	CoT – Lane Width Guidelines (June 2017)
Pedestrian Clearway	<u>Major Arterial/Minor Arterial/Collector</u> 2.1 m (min)	2.1m, (constrained) 2.5m (preferred)	CoT – Drawing T-310.010-10 (Pedestrian Clearway Widths on Sidewalks)
Planting Zone (adjacent to property line)	<u>1.2m (constrained)</u>	1.75m at-grade grated planting zone	City of Toronto Green Streets – Tree Planting in Hard Surfaces T-CIP Series Golden Mile Secondary Plan Urban Design Guidelines
Planting zone / furnishing zone (between Cycle Track and Pedestrian Clearway)	N/A	2.1m raised open planters	Consultation with CoT and TAC
Cycle Tracks Physically Separated Facility Width	<u>Default</u> Mod – Low Volume = 2.1 m <u>Upper Limit</u> Mod – Low Volume = 2.6 m	Mod – Low Volume - 2.1m No shy distance required from Planting Strip – vertical elements such as curbed planters should remain under 0.2m high	City of Toronto On-Street Bikeway Design Guidelines (2022) Table 3.1 City of Toronto On-Street Bikeway

	<u>Lower Limit</u> Mod – Low Volume = 1.5 m + 0.3 m clearway 0.6 m Tactile Strip + 0.2m flush concrete curb or angle bracket	0.6m tactile strip plus 0.2m flush concrete curb where planting zone / furnishing zone is absent	Design Guidelines (2022) Pg 22 CoT – Drawing T-603-049 (Raised Cycle Track and Boulevard Without Trench Drain)
Cycle Track Buffer	0.3m buffer + 0.2m curb Minimum 0.6m buffer, default 1.0m buffer from parked cars (0.8m buffer, 0.2m curb)	0.3m buffer + 0.2m curb on sections without parking 0.8m + 0.2m curb on sections adjacent to parking	City of Toronto On-Street Bikeway Design Guidelines (2022) Table 3.3 City of Toronto On-Street Bikeway Design Guidelines (2022) Pg 20
Signalized Intersection Crossing Width Including Tactile Walking Surface	<u>Asymmetrical Separated Crossride</u> Cycling = 2.5 – 3.0 m Pedestrian = 2.5 m (min) <u>Combined Crossride</u> 5.0 m (min)	<u>Asymmetrical Separated Crossride</u> Cycling = 2.5 – 3.0 m Pedestrian = 2.5 m (min) <u>Combined Crossride</u> 5.0 m (min)	City of Toronto Multi-Use Trail Design Guidelines Page 41 to 48 Fig 5.08 Fig 5.10
Controlled Pedestrian Crossing	> 200 m from another traffic control device & Connectivity considerations / pedestrian desire lines	Controlled crossings at signalized intersections.	OTM – Book 15 Figure 2 pg 26
Protected Intersection	<u>Setback Crossing w/ Multistage Pedestrian Crossing</u> 5 m setback (min) Match cycle track width 1:6 taper preferred, 1:3 taper in constrained conditions for cycle track	5m setback crossing 2.1m crossride 2.5m crosswalk (min) 1:6 taper unless space constraints require sharper taper angle	OTM – Book 18 2021 Figure 6.33 Figure 6.34 OTC Protected Intersection Guide
Raised Intersection	As per City of Toronto Road Engineering Design Guidelines	As per City of Toronto Road Engineering Design Guidelines	CoT – Drawing T-310.010-13 (Raised Intersection)
Raised Crosswalk and Crossride	As per City of Toronto Road Engineering Design Guidelines	As per City of Toronto Road Engineering Design Guidelines	CoT – Drawing T-310.030-17 (Raised Crosswalk and Crossride)

O'Connor Drive

	Design Standard	Proposed Standard	Source
Right Turn Storage Lengths	N/A	WB at Victoria Park: 15m* WB at Pharmacy: 40m WB at Lebovic: 30m** WB at Warden: 60m*** EB at Lebovic: 25m EB at Birchmount: 50m	From Traffic Analysis of 95 th Percentile Queue Lengths during AM/PM Peak from Future 2041 Traffic Forecasts. *WBR at Victoria Park suggested at 15m – not currently shown in plans **WBR at Lebovic suggested at 25m ***WBR at Warden suggested at 55m
Left Turn Storage Lengths	N/A	WB at Victoria Park: 15m* WB at Pharmacy: 50m WB at Lebovic: 30m WB at Warden: 60m WB at Sinnott: 15m EB at Victoria Park: 121m* EB at Pharmacy: 55m EB at Lebovic: 35m EB at Warden: 55m EB at Sinnott: 55m	From Traffic Analysis of 95 th Percentile Queue Lengths during AM/PM Peak from Future 2041 Traffic Forecasts. *EBL at Victoria Park suggested at 155m, WBL at 25m
At-Grade Uses	N/A	Retail (west of Victoria Park), Mixed use of residential, community centre, retail and parks between Victoria Park and Pharmacy, Primarily Employment from Pharmacy to Birchmount	Golden Mile Secondary Plan
Dedicated Parking Lane Width	None	None	<u>CoT – Lane Width Guidelines (June 2017)</u>
Pedestrian Clearway	<u>Major Arterial/Minor Arterial/Collector</u> 2.1 m (min)	3.0m	CoT – Drawing T-310.010-10 (Pedestrian Clearway Widths on Sidewalks) Golden Mile Secondary Plan Urban Design Guidelines
Planting Zone (adjacent to property line)	<u>1.2m (constrained)</u>	1.5m at-grade grated planting zone	<u>City of Toronto Green Streets – Tree Planting in Hard Surfaces T-CIP Series</u>

			Golden Mile Secondary Plan Urban Design Guidelines
Planting zone / furnishing zone (between Cycle Track and Pedestrian Clearway)	N/A	2.6m raised open planters	Consultation with CoT and TAC
Cycle Tracks Physically Separated Facility Width	<u>Default</u> Mod – Low Volume = 2.1 m <u>Upper Limit</u> Mod – Low Volume = 2.6 m <u>Lower Limit</u> Mod – Low Volume = 1.5 m + 0.3 m clearway 0.6 m Tactile Strip + 0.2m flush concrete curb or angle bracket	Mod – Low Volume - 2.6m No shy distance required from Planting Strip – vertical elements such as curbed planters should remain under 0.2m high 0.6m tactile strip plus 0.2m flush concrete curb where planting zone / furnishing zone is absent	City of Toronto On-Street Bikeway Design Guidelines (2022) Table 3.1 City of Toronto On-Street Bikeway Design Guidelines (2022) Pg 22 CoT – Drawing T-603-049 (Raised Cycle Track and Boulevard Without Trench Drain)
Cycle Track Buffer	0.3m buffer + 0.2m curb	0.3m buffer + 0.2m curb	City of Toronto On-Street Bikeway Design Guidelines (2022) Table 3.3 City of Toronto On-Street Bikeway Design Guidelines (2022) Pg 20
Signalized Intersection Crossing Width Including Tactile Walking Surface	<u>Asymmetrical Separated Crossride</u> Cycling = 2.5 – 3.0 m Pedestrian = 2.5 m (min) <u>Combined Crossride</u> 5.0 m (min)	<u>Asymmetrical Separated Crossride</u> Cycling = 2.5 – 3.0 m Pedestrian = 2.5 m (min) <u>Combined Crossride</u> 5.0 m (min)	City of Toronto Multi-Use Trail Design Guidelines Page 41 to 48 Fig 5.08 Fig 5.10
Controlled Pedestrian Crossing	> 200 m from another traffic control device & Connectivity considerations / pedestrian desire lines	Controlled crossings at signalized intersections.	OTM – Book 15 Figure 2 pg 26
Protected Intersection	<u>Setback Crossing w/ Multistage Pedestrian Crossing</u> 5 m setback (min) Match cycle track width 1:6 taper preferred, 1:3 taper in constrained conditions for cycle track	5m setback crossing 2.6m crossride 2.5m crosswalk (min) 1:6 taper unless space constraints require sharper taper angle	OTM – Book 18 2021 Figure 6.33 Figure 6.34 OTC Protected Intersection Guide

Raised Intersection	As per City of Toronto Road Engineering Design Guidelines	As per City of Toronto Road Engineering Design Guidelines	CoT – Drawing T-310.010-13 (Raised Intersection)
Raised Crosswalk and Crossride	As per City of Toronto Road Engineering Design Guidelines	As per City of Toronto Road Engineering Design Guidelines	CoT – Drawing T-310.030-17 (Raised Crosswalk and Crossride)

Proposed Boulevard Elements (All Road Segments)

	Design Standard	Proposed Standard	Source
Minimum Building Setbacks	Victoria Park to West Park = 1.5 m Others = 3.0 m Measured from ROW to face of building.	Golden Mile Blvd West of Pharmacy: 1.5m minimum All other Segments: 3.0m minimum	Golden Mile Secondary Plan Urban Design Guidelines
Minimum Edge Zone	0.46 m	0.46m	City of Toronto Streetscape Manual User Guide
Minimum Furnishing Zone	1.0 m (no trees)	2.1m	City of Toronto Streetscape Manual User Guide
Minimum clearance between cycle tracks and pedestrian clearway	0.2m (bevel curb, intermediate height cycle track) 0.6m (tactile strip + flush curb, sidewalk level cycle track)	0.6m min, assuming sidewalk-level cycle tracks throughout	City of Toronto On-Street Bikeway Design Guidelines (2022)
Bike Share Toronto Station	N/A	N/A	N/A

Proposed Transit Design Parameters (All Road Segments)

	Design Standard	Proposed Standard	Source
Bus Shelter Pad and Platform	<u>Type C:</u> Min 3 m x 1 m Min 1.7 m from curb w/ 2% - 4% slope	To be determined during detail design	CoT – Drawing T-310.010-8 (Bus Stop Landing for Standard and Articulated Buses)
Concrete Bus Stop Platform	<u>Between intersections:</u> Min 3 m x 15 m w/ 25 m taper on each side <u>Corner:</u> Min 3 m x 15 m w/ 25 m taper	To be determined during detail design	CoT – Drawing T-501.01 (Concrete Bus Pad)

Proposed Private Entrance Design Parameters (All Road Segments)

	Design Standard	Proposed Standard	Source
Minimum Width	Light Industrial: 7.2 m Heavy Industrial: 7.8 m Heavy Industrial w/ left turn: 10.8 m	To be determined during detail design	CoT Drawing – T-350.01 (Urban Entrances)
Minimum Radius	<u>Light Industrial, Commercial, Apartment Entrances on 2 Lane Roads:</u> R = 5.0 m <u>Heavy Industrial, Commercial, Apartment Entrances on 4 Lane Roads</u> R = 8.0 m	To be determined during detail design	CoT Drawing – T-350.01 (Urban Entrances)
Maximum Grade	8%	To be determined during detail design	TAC – Figure 8.9.4 pg 58
Maximum Algebraic Grade Change	2%	To be determined during detail design	TAC – Figure 8.9.4 pg 58