

2025-07-23 2:10:28 PM

As per the standard requirements of shadow studies of the City of Mississauga, the analysis was conducted for the dates of June 21, September 21, and December 21 at all required reference times.

SHADOW MODELLING INFORMATION

1. Site latitude and longitude of the subject site at 1225 Dundas St E, Mississauga, ON L4Y 2C5 are as follows:

Latitude: 43° 36' 20" N  
Longitude: 79° 36' 15" W

2. Time Zone: Eastern

Standard Time: UT – 5 hours (December 21st)  
Daylight Time: UT – 4 hours (June 21st and September 21st)

3. Astronomic North was determined based on the North Arrow on Survey plan of Part of lot 7 concession 1 north of Dundas Street prepared by MAURO GROUP INC. dated May 11, 2022.

4. The source of the base plan is a combination of property data obtained from the City of Mississauga and the land survey by MAURO GROUP INC. 1225 Dundas Street E proposed and built massing provided by Turner Fleischer Architects Inc. Other existing surrounding building mass and heights were approximated based on Google Maps.

5. The source of the proposed building model was provided by the architect, Turner Fleischer Architects Inc.

6. Site Orientation:  
The site is bound by :  
Dundix Road on Northwest : N37°41'25"E  
3020 Queen Frederica Drive on Northeast : N47°26'40"W  
Dundas Street E on Southeast : N37°55'15"E  
Dundas Street E and Arena Road on South : N83°28'05"E  
Arena Road on Southwest : N51°00'45"W

7. Shadow Studies are conducted assuming site is flat and is at +120.5M

REVIEW OF SHADOW CRITERIA

Review of Shadow Criteria

Criterion 3.1 - Residential Private Outdoor Amenity Spaces - Jun 21 and Sep 21

Proposed shadows reach no impact zone of private amenity spaces for the properties on southwest on June 21 at 07:07am till 09:20am, and shadowed for more than two consecutive hourly test times.

Proposed shadows reach no impact zone of private amenity spaces for the townhouses on west on September 21 at 08:35am till 11:12am, and shadowed for more than two consecutive hourly test times.

Criterion 3.2 - Communal Outdoor Amenity Areas - Jun 21, Sep 21 and Dec 21

1- Applewood Heights park  
Proposed shadows shadow only a small corner of the east corner of the Applewood Heights park on June 21<sup>st</sup> and September 21<sup>st</sup> at 07:07am and 08:35am. But it still meets the criteria as the sunfactor is more than 0.5. (calculate sun factor, avg. of total area in sunshine at all times / total area of the park).

2- Proposed Outdoor Amenity Space.  
The criterion is met for the proposed Outdoor Amenity Area for June 21 and September 21, but not met for December 21.

Criterion 3.3 - Public Realm - Sep 21

We identify Dundix Road as a low and medium-density residential street. Proposed shadows reach the opposite sidewalk and cover it, therefore doesn't meet the criteria.

We identify Dundas Street and Blundell Road as a high-density residential and commercial streets. Proposed shadows do met criteria.

Criterion 3.4 - Turf and flower gardens in public parks - Sep 21  
N/A.

Criterion 3.5 - Building Faces to allow for the possibility of using solar energy - Sep 21

Proposed shadows reaches the no impact zone of the townhouses on west, at 08:35am till 11:12am on September 21. The criteria is not met as these areas are shadowed for more than two consecutive hourly test times.

Table 1. Summary

Month	Time	Criterion 1 Met/Not Met	Criterion 2 Met/Not Met	Criterion 3 Met/Not Met	Criterion 4 Met/Not Met	Criterion 5 Met/Not Met	Notes/ Explanations
June 21st	7:07 AM	Not Met	Met	n/a for date	n/a for date	n/a for date	Criterion 1 not met as partial part of the impact zone is shadowed by proposal for more than two consecutive hourly test times between 07:07PM to 09:20PM.
	7:20 AM						
	8:20 AM						
	9:20 AM						
	10:20 AM	Met					
	11:20 AM	Met					
	12:20 PM	Met					
	1:20 PM	Met					
	2:20 PM	Met					
	3:20 PM	Met					
	4:20 PM	Met					
	5:20 PM	Met					
	6:20 PM	Met					
	7:20 PM	Met					
	7:33 PM	Met					
Sept 21st	8:35 AM	Not Met	Met	See Table 3	n/a - no turf and flower gardens within Public Parks	Not Met	Criterion 1 and 5 not met as no impact zone is shadowed by proposal for more than two consecutive hourly test times.
	9:12 AM						
	10:12 AM						
	11:12 AM						
	12:12 PM	Met				Met	
	1:12 PM	Met				Met	
	2:12 PM	Met				Met	
	3:12 PM	Met				Met	
	4:12 PM	Met				Met	
	5:12 PM	Met				Met	
	5:48 PM	Met				Met	
Month	Time	Criterion 1 Met/Not Met	Criterion 2 Met/Not Met	Criterion 3 Met/Not Met	Criterion 4 Met/Not Met	Criterion 5 Met/Not Met	Notes/ Explanations
Dec 21st	9:19 AM	n/a for date	Not Met	n/a for date	n/a for date	n/a for date	
	10:17 AM						
	11:17 AM						
	12:17 PM						
	1:17 PM						
	2:17 PM						
	3:15 PM						

Table 2. Criteria 2

Applewood Heights Park Area				Proposed Outdoor Amenity Area		
	Sun Coverage*	Percentage	Date Average	Sun Coverage*	Percentage	Date Average
June 21st	7:07 AM	43,861.51	99.63%	99.98%	942.86	47.96%
	7:20 AM	44,025.88	100.00%		963.20	49.00%
	8:20 AM	44,025.88	100.00%		1,051.00	53.46%
	9:20 AM	44,025.88	100.00%		1,111.44	56.54%
	10:20 AM	44,025.88	100.00%		1,275.54	64.89%
	11:20 AM	44,025.88	100.00%		1,615.14	82.16%
	12:20 PM	44,025.88	100.00%		-35.93	-1.83%
	1:20 PM	44,025.88	100.00%		1,786.88	90.90%
	2:20 PM	44,025.88	100.00%		1,636.25	83.24%
	3:20 PM	44,025.88	100.00%		1,595.90	81.18%
	4:20 PM	44,025.88	100.00%		1,595.66	81.17%
	5:20 PM	44,025.88	100.00%		1,554.36	79.07%
	6:20 PM	44,025.88	100.00%		1,535.47	78.11%
	7:20 PM	44,025.88	100.00%		1,461.90	74.37%
	7:33 PM	44,025.88	100.00%		1,423.16	72.40%
Sept 21st	8:35 AM	43,975.51	99.89%	99.99%	1,137.90	57.89%
	9:12 AM	44,025.88	100.00%		1,162.14	59.12%
	10:12 AM	44,025.88	100.00%		1,204.00	61.25%
	11:12 AM	44,025.88	100.00%		1,184.71	60.27%
	12:12 PM	44,025.88	100.00%		1,304.37	66.35%
	1:12 PM	44,025.88	100.00%		1,349.27	68.64%
	2:12 PM	44,025.88	100.00%		1,057.03	53.77%
	3:12 PM	44,025.88	100.00%		802.01	40.80%
	4:12 PM	44,025.88	100.00%		756.13	38.46%
	5:12 PM	44,025.88	100.00%		804.66	40.93%
	5:48 PM	44,025.88	100.00%		921.83	46.89%
Dec 21st	9:19 AM	44,025.88	100.00%	100.00%	1,193.45	60.71%
	10:17 AM	44,025.88	100.00%		1,139.39	57.96%
	11:17 AM	44,025.88	100.00%		1,082.47	55.06%
	12:17 PM	44,025.88	100.00%		1,006.78	51.21%
	1:17 PM	44,025.88	100.00%		885.76	45.06%
	2:17 PM	44,025.88	100.00%		515.15	26.21%
	3:15 PM	44,025.88	100.00%		145.76	7.41%

\* Sun Coverage calculated by subtracting full extent of shadow impact of proposal from total park area  
\* The criteria is not met for proposed Outdoor Amenity Area for December 21

Table 3. Criteria 3

		Low/ Medi High Density	
Sept 21st	8:35 AM		
	9:12 AM	Not Met	Met
	10:12 AM	Not Met	Met
	11:12 AM	Not Met	Met
	12:12 PM		Met
	1:12 PM		Met
	2:12 PM		Met
	3:12 PM	Met	Met
	4:12 PM	Met	Met
	5:12 PM	Met	Not Met
5:48 PM			
SUMMARY		Not Met	Met

\* The criteria is not met at Dundix Road on the northwest sidewalk but is met at Dundas Street northeast sidewalk.

TURNER  
FLEISCHER

67 Lesmill Road  
Toronto, ON, M5B 2T8  
T 416 425 2222  
turnerfleischer.com

This drawing, as an instrument of service, is provided by and is the property of Turner Fleischer. The contractor must verify and accept responsibility for all dimensions and conditions on site and must notify Turner Fleischer of any variations from the supplied information. This drawing is not to be scaled. The architect is not responsible for the accuracy of survey, structural, mechanical, electrical, etc., information shown on this drawing. Refer to the appropriate consultant's drawings before proceeding with the work. Construction must conform to all applicable codes and requirements of authorities having jurisdiction. The contractor working from drawings not specifically marked "For Construction" must assume full responsibility and bear costs for any corrections or damages resulting from the work.

#

DATE

DESCRIPTION

BY

PROJECT

PROPOSED MIXED-USE  
DEVELOPMENT

1225 Dundas Street E, Mississauga, ON  
(OZ/OPA 22-20 W3)

DRAWINGS

SHADOW STUDIES ANALYSIS

PROJECT NO.  
22.117P01

PROJECT DATE  
2022-08-07

DRAWN BY  
Author

CHECKED BY  
Checker

SCALE

ONTARIO ASSOCIATION  
OF  
ARCHITECTS

M. RAZA MEHDI  
LICENCE  
8462

DRAWING NO.  
A810

REV.