21058 - 1989 APPLEBY

SHADOW STUDY

MAY 31, 2022 | SCALE AS INDICATED

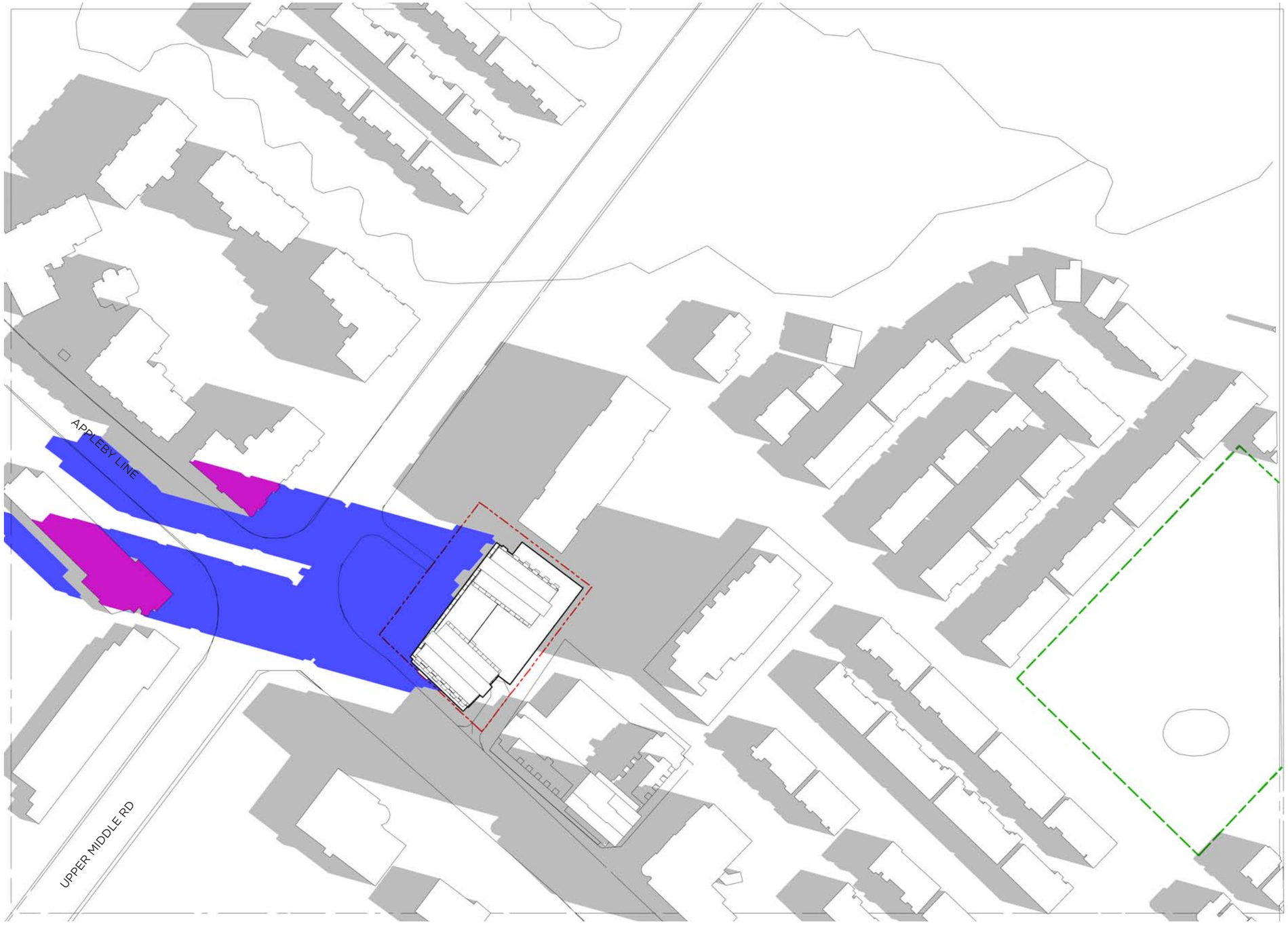
The proposed building at 1989 Appleby, Burlington - and its resultant massing - fits all criteria with reference to the City's Shadow Impact Criteria. The specific points that relate to this site are as follows: Private Outdoor Amenity Spaces, Parks and Open Spaces, and Public Realm and Sidewalks. There are private rear yards and rooftop patios to the South and East of the subject site, a public park further South to the site, and a public sidewalk/boulevard adjacent to Upper Middle Road to the North of the site. The proposed masing results in a calculated SAF of 0.54 and 0.47 for Private Outdoor Amenity Spaces: Rear Yards and Rooftop Patios respectively which are well above the minimum requirement of 0.22. The proposed masing also results in a calculated SAF of 0.99 for Parks and Open Space for the months of: March, September, and December which is well above the minimum requirement of 0.5. Finally, in terms of Public Realm and Sidewalks, the proposed massing exceeds the minimum requirement of 0.5 with a SAF of 0.79.

21058 - 1989 Appleby

SHADOW STUDY

MAY 31, 2022 | SCALE AS INDICATED

MARCH 21
9:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
10:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
11:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21

12:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

MARCH 21
01:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
02:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
03:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
04:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
05:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

MARCH 21
06:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
08:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
09:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
10:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
11:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
12:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
01:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022



JUNE 21
02:00 PM

50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
03:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
04:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022



JUNE 21
05:00 PM

50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
06:00 PM



50 m 100 m

SCALE = 1:2,000

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NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

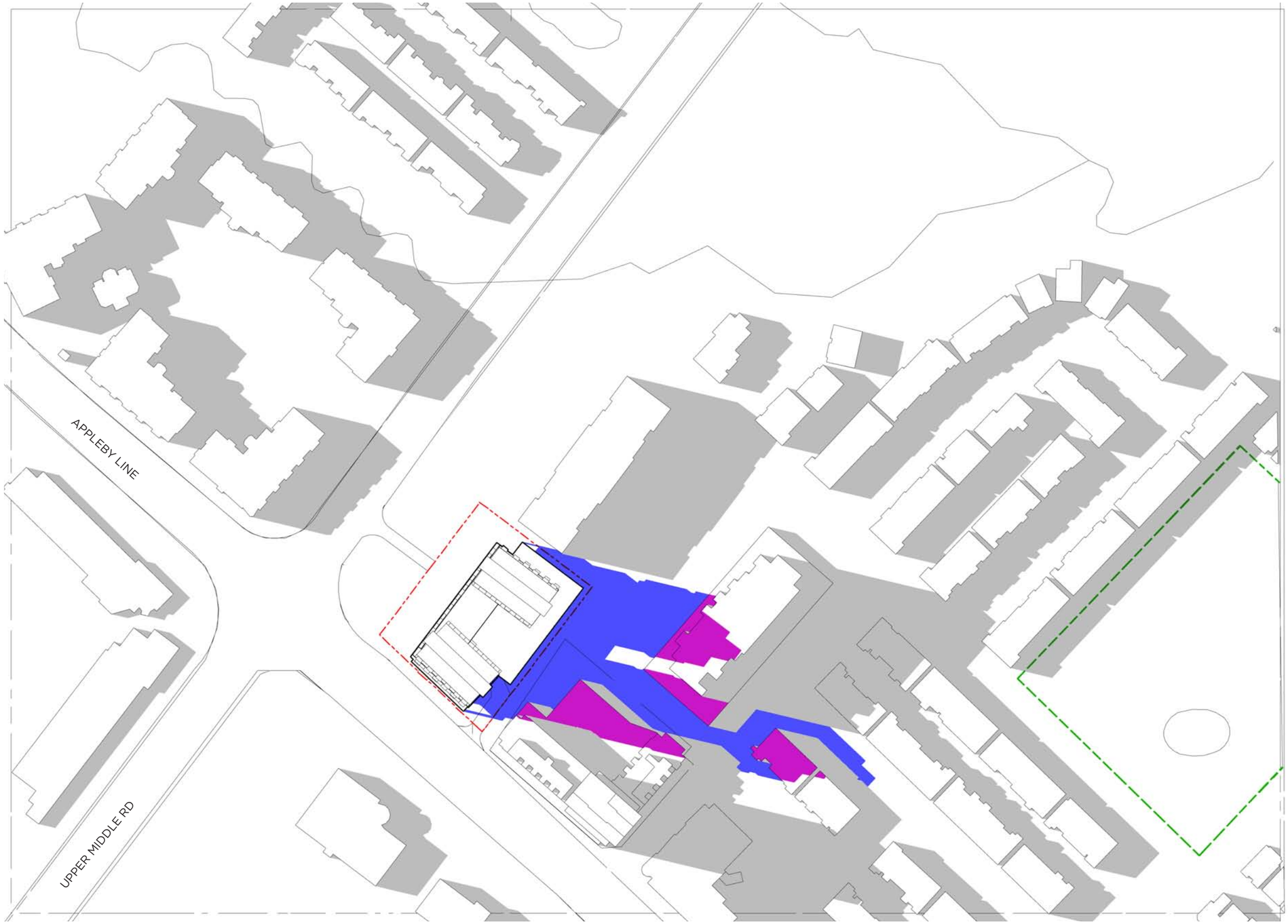
SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

JUNE 21
07:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

SEPTEMBER 21
9:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

SEPTEMBER 21
10:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

SEPTEMBER 21
11:00 AM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY
21058 - 1989 Appleby
MAY 31, 2022

SEPTEMBER 21

12:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

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SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SEPTEMBER 21

01:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SEPTEMBER 21

02:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SEPTEMBER 21

03:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SEPTEMBER 21

04:00 PM



50 m 100 m

SCALE = 1:2,000

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NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SEPTEMBER 21

05:00 PM



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SCALE = 1:2,000

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NET NEW SHADOWS CAST ON ROOF SURFACES

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SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SEPTEMBER 21

06:00 PM



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SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

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SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

DECEMBER 21

11:00 AM



50 m 100 m

SCALE = 1:2,000

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NET NEW SHADOWS CAST ON GROUND SURFACES

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SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

DECEMBER 21

12:00 PM



50 m 100 m

SCALE = 1:2,000

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NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

DECEMBER 21

01:00 PM



50 m 100 m

SCALE = 1:2,000

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SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

DECEMBER 21

02:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

DECEMBER 21

03:00 PM



50 m 100 m

SCALE = 1:2,000

N

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

OPEN SPACE

N

RAW

SHADOW STUDY

21058 - 1989 Appleby

MAY 31, 2022

SUN ACCESS FACTOR CALCULATIONS

MARCH 21

PRIVATE OUTDOOR AMENITY AREA - RESIDENTIAL REAR YARD

1. Total area of adjacent residential amenity (A_T) = 8,642 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$).

09:00 ($AS_{(test-09:00)}$) = 3,452 m^2

10:00 ($AS_{(test-10:00)}$) = 3,602 m^2

11:00 ($AS_{(test-11:00)}$) = 4,962 m^2

12:00 ($AS_{(test-12:00)}$) = 5,602 m^2

13:00 ($AS_{(test-13:00)}$) = 6,507 m^2

14:00 ($AS_{(test-14:00)}$) = 6,905 m^2

15:00 ($AS_{(test-15:00)}$) = 7,077 m^2

16:00 ($AS_{(test-16:00)}$) = 5,457 m^2

17:00 ($AS_{(test-17:00)}$) = 2,093 m^2

18:00 ($AS_{(test-18:00)}$) = 633 m^2

Number of test times = 10

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

09:00-10:00 ($AS_{(interval-09:00-10:00)}$) = (3,452 m^2 + 3,602 m^2) ÷ 2 = 3,527 m^2

10:00-11:00 ($AS_{(interval-10:00-11:00)}$) = (3,602 m^2 + 4,962 m^2) ÷ 2 = 4,282 m^2

11:00-12:00 ($AS_{(interval-11:00-12:00)}$) = (4,962 m^2 + 5,602 m^2) ÷ 2 = 5,282 m^2

12:00-13:00 ($AS_{(interval-12:00-13:00)}$) = (5,602 m^2 + 6,507 m^2) ÷ 2 = 6,054.5 m^2

13:00-14:00 ($AS_{(interval-13:00-14:00)}$) = (6,507 m^2 + 6,905 m^2) ÷ 2 = 6,706 m^2

14:00-15:00 ($AS_{(interval-14:00-15:00)}$) = (6,905 m^2 + 7,077 m^2) ÷ 2 = 6,991 m^2

15:00-16:00 ($AS_{(interval-15:00-16:00)}$) = (7,077 m^2 + 5,457 m^2) ÷ 2 = 6,267 m^2

16:00-17:00 ($AS_{(interval-16:00-17:00)}$) = (5,457 m^2 + 2,093 m^2) ÷ 2 = 1,682 m^2

17:00-18:00 ($AS_{(interval-11:00-12:00)}$) = (2,093 m^2 + 633 m^2) ÷ 2 = 1,363 m^2

Number of test intervals = 9

Sum of ($AS_{(interval)}$) = 42,154.5 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$)] ÷ [# of intervals]

= 42,154.5 m^2 ÷ 9

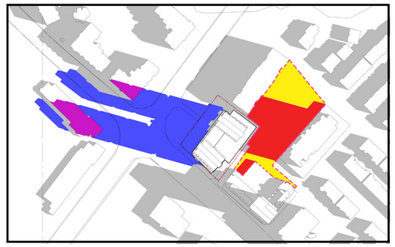
= 4,683.83 m^2

5. SAF = ($AS_{(average)}$) ÷ A_T

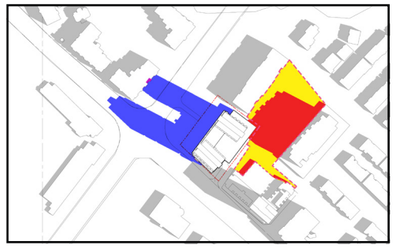
= 4,683.83 m^2 ÷ 8,642 m^2

=0.54 m^2

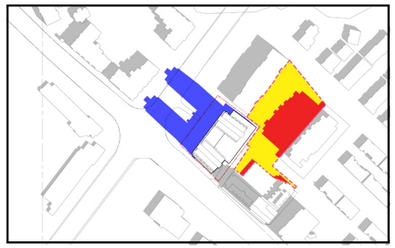
0.54 is greater than 0.22. Therefore, the SAF meets the criteria.



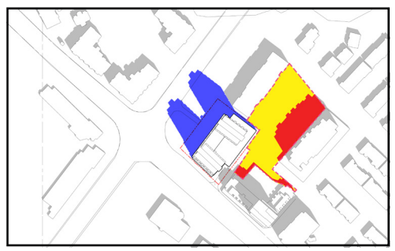
09:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 3,452 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 5,190 m^2



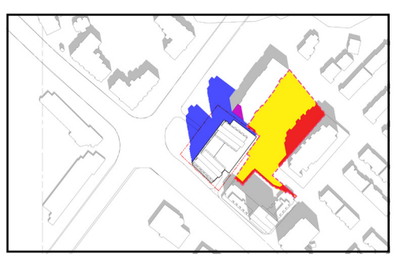
10:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 3,602 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 5,040 m^2



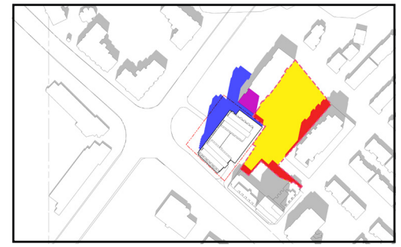
11:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 4,962 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 3,680 m^2



12:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 5,602 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 3,040 m^2



01:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 6,507 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 2,135 m^2



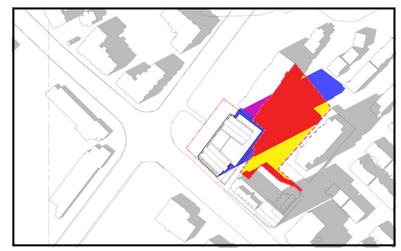
02:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 6,905 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 1,737 m^2



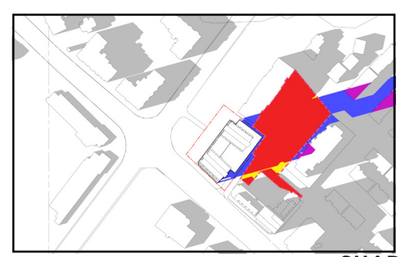
03:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 7,077 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 1,565 m^2



04:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 5,457 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 3,185 m^2



05:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 2,093 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 6,550 m^2



06:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 8,642 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 633 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 8,009 m^2

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

PRIVATE OUTDOOR AMENITY AREA

SHADOW STUDY
21058 - 1989 APPLEBY
BURLINGTON, ON
MAY 31, 2022

SUN ACCESS FACTOR CALCULATIONS

MARCH 21

PRIVATE OUTDOOR AMENITY AREA - ROOFTOP PATIO

1. Total area of adjacent residential amenity (A_T) = 1,075 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$).

09:00 ($AS_{(test-09:00)}$) = 882 m^2

10:00 ($AS_{(test-10:00)}$) = 1,075 m^2

11:00 ($AS_{(test-11:00)}$) = 888 m^2

12:00 ($AS_{(test-12:00)}$) = 443 m^2

13:00 ($AS_{(test-13:00)}$) = 79 m^2

Number of test times = 10

14:00 ($AS_{(test-14:00)}$) = 237 m^2

15:00 ($AS_{(test-15:00)}$) = 474 m^2

16:00 ($AS_{(test-16:00)}$) = 441 m^2

17:00 ($AS_{(test-17:00)}$) = 258 m^2

18:00 ($AS_{(test-18:00)}$) = 90 m^2

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

09:00-10:00 ($AS_{(interval-09:00-10:00)}$) = (882 m^2 + 1,075 m^2) ÷ 2 = 978.5 m^2

10:00-11:00 ($AS_{(interval-10:00-11:00)}$) = (1,075 m^2 + 888 m^2) ÷ 2 = 981.5 m^2

11:00-12:00 ($AS_{(interval-11:00-12:00)}$) = (888 m^2 + 443 m^2) ÷ 2 = 665.5 m^2

12:00-13:00 ($AS_{(interval-12:00-13:00)}$) = (443 m^2 + 79 m^2) ÷ 2 = 261 m^2

13:00-14:00 ($AS_{(interval-13:00-14:00)}$) = (79 m^2 + 237m^2) ÷ 2 = 158 m^2

14:00-15:00 ($AS_{(interval-14:00-15:00)}$) = (237 m^2 + 474 m^2) ÷ 2 = 476 m^2

15:00-16:00 ($AS_{(interval-15:00-16:00)}$) = (474 m^2 + 441 m^2) ÷ 2 = 457.5 m^2

16:00-17:00 ($AS_{(interval-16:00-17:00)}$) = (441 m^2 + 258 m^2) ÷ 2 = 349.5 m^2

17:00-18:00 ($AS_{(interval-11:00-12:00)}$) = (258 m^2 + 90 m^2) ÷ 2 = 174 m^2

Number of test intervals = 9

Sum of ($AS_{(interval)}$) = 4,528.5 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$)] ÷ [# of intervals]

= 4,528.5 m^2 ÷ 9

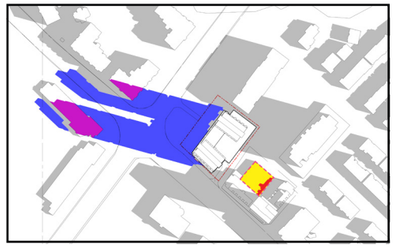
= 503.16 m^2

5. SAF = ($AS_{(average)}$) ÷ A_T

= 503.16 m^2 ÷ 1,075 m^2

=0.47 m^2

0.47 is greater than 0.22. Therefore, the SAF meets the criteria.



09:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 882 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 193 m^2



10:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,075 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



11:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 888 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 187 m^2



12:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 443 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 632 m^2



01:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 79 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 996 m^2



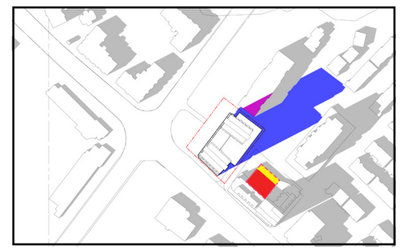
02:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 237 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 838 m^2



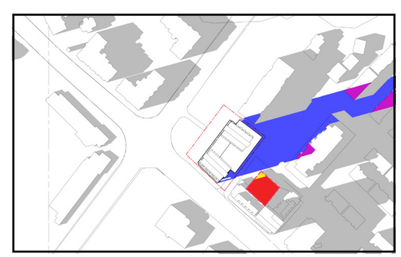
03:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 474 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 601 m^2



04:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 441 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 634 m^2



05:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 258 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 817 m^2



06:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,075 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 90 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 985 m^2

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

PRIVATE OUTDOOR AMENITY AREA

SHADOW STUDY
21058 - 1989 APPLEBY
BURLINGTON, ON
MAY 31, 2022

SUN ACCESS FACTOR CALCULATIONS

PARKS AND OPEN SPACES

1. Total area of adjacent residential amenity (A_T) = 14,494 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$).

09:00 ($AS_{(test-09:00)}$) = 14,460 m^2

10:00 ($AS_{(test-10:00)}$) = 14,494 m^2

11:00 ($AS_{(test-11:00)}$) = 14,494 m^2

12:00 ($AS_{(test-12:00)}$) = 14,494 m^2

13:00 ($AS_{(test-13:00)}$) = 14,494 m^2

Number of test times = 10

14:00 ($AS_{(test-14:00)}$) = 14,494 m^2

15:00 ($AS_{(test-15:00)}$) = 14,494 m^2

16:00 ($AS_{(test-16:00)}$) = 14,494 m^2

17:00 ($AS_{(test-17:00)}$) = 14,494 m^2

18:00 ($AS_{(test-18:00)}$) = 13,544 m^2

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

09:00-10:00 ($AS_{(interval-09:00-10:00)}$) = (14,460 m^2 + 14,494 m^2) ÷ 2 = 14,477 m^2

10:00-11:00 ($AS_{(interval-10:00-11:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

11:00-12:00 ($AS_{(interval-11:00-12:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

12:00-13:00 ($AS_{(interval-12:00-13:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

13:00-14:00 ($AS_{(interval-13:00-14:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

14:00-15:00 ($AS_{(interval-14:00-15:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

15:00-16:00 ($AS_{(interval-15:00-16:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

16:00-17:00 ($AS_{(interval-16:00-17:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

17:00-18:00 ($AS_{(interval-11:00-12:00)}$) = (14,494 m^2 + 13,544 m^2) ÷ 2 = 14,019 m^2

Number of test intervals = 9

Sum of ($AS_{(interval)}$) = 129,954 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$)] ÷ [# of intervals]

= 129,954 m^2 ÷ 9

= 14,439.33 m^2

5. SAF = ($AS_{(average)}$) ÷ A_T

= 14,439.33 m^2 ÷ 14,494 m^2

=0.99 m^2

0.99 is greater than 0.5. Therefore, the SAF meets the criteria.

NET NEW SHADOWS CAST ON ROOF SURFACES

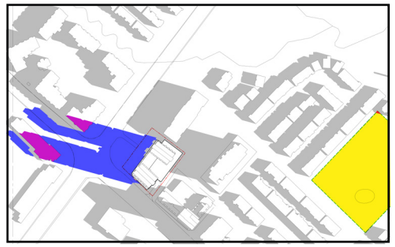
NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

PARKS AND OPEN SPACE

MARCH 21



09:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,460m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 34 m^2



10:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



11:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



12:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



01:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



02:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



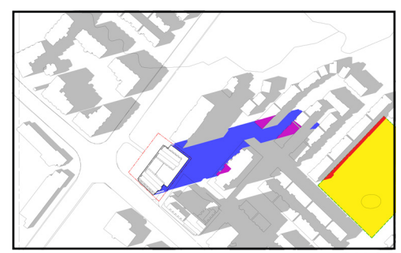
03:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



04:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



05:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



06:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 13,544 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 949 m^2

RAW

SHADOW STUDY
21058 - 1989 APPLEBY
BURLINGTON, ON
MAY 31, 2022

SUN ACCESS FACTOR CALCULATIONS

PARKS AND OPEN SPACES

1. Total area of adjacent residential amenity (A_T) = 14,494 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$).

09:00 ($AS_{(test-09:00)}$) = 14,469 m^2

10:00 ($AS_{(test-10:00)}$) = 14,494 m^2

11:00 ($AS_{(test-11:00)}$) = 14,494 m^2

12:00 ($AS_{(test-12:00)}$) = 14,494 m^2

13:00 ($AS_{(test-13:00)}$) = 14,494 m^2

Number of test times = 10

14:00 ($AS_{(test-14:00)}$) = 14,494 m^2

15:00 ($AS_{(test-15:00)}$) = 14,494 m^2

16:00 ($AS_{(test-16:00)}$) = 14,494 m^2

17:00 ($AS_{(test-17:00)}$) = 14,494 m^2

18:00 ($AS_{(test-18:00)}$) = 12,515 m^2

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

09:00-10:00 ($AS_{(interval-09:00-10:00)}$) = (14,469 m^2 + 14,494 m^2) ÷ 2 = 14,481.5 m^2

10:00-11:00 ($AS_{(interval-10:00-11:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

11:00-12:00 ($AS_{(interval-11:00-12:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

12:00-13:00 ($AS_{(interval-12:00-13:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

13:00-14:00 ($AS_{(interval-13:00-14:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

14:00-15:00 ($AS_{(interval-14:00-15:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

15:00-16:00 ($AS_{(interval-15:00-16:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

16:00-17:00 ($AS_{(interval-16:00-17:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

17:00-18:00 ($AS_{(interval-11:00-12:00)}$) = (14,494 m^2 + 12,515 m^2) ÷ 2 = 13,504.5 m^2

Number of test intervals = 9

Sum of ($AS_{(interval)}$) = 129,444 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$)] ÷ [# of intervals]

= 129,444 m^2 ÷ 9

= 14,382.67 m^2

5. SAF = ($AS_{(average)}$) ÷ A_T

= 14,382.67 m^2 ÷ 14,494 m^2

=0.99 m^2

0.99 is greater than 0.5. Therefore, the SAF meets the criteria.

NET NEW SHADOWS CAST ON ROOF SURFACES

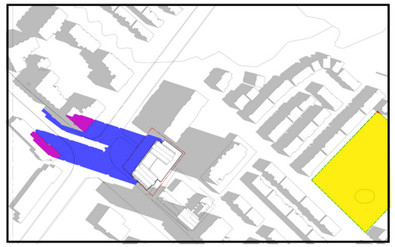
NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

PARS AND OPEN SPACE

SEPTEMBER 21



09:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,469m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 25 m^2



10:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



11:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



12:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



01:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



02:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



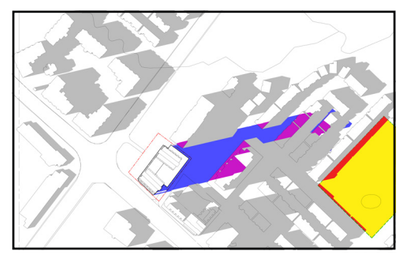
03:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



04:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



05:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



06:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 12,515 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 1,978 m^2

RAW

SHADOW STUDY
21058 - 1989 APPLEBY
BURLINGTON, ON
MAY 31, 2022

SUN ACCESS FACTOR CALCULATIONS

DECEMBER 21

PARKS AND OPEN SPACES

1. Total area of adjacent residential amenity (A_T) = 14,494 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$).

   11:00 ($AS_{(test-11:00)}$) = 14,494 m^2

   12:00 ($AS_{(test-12:00)}$) = 14,494 m^2

   13:00 ($AS_{(test-13:00)}$) = 14,494 m^2

   14:00 ($AS_{(test-14:00)}$) = 14,494 m^2

   15:00 ($AS_{(test-15:00)}$) = 12,516 m^2

   Number of test times = 5

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

   11:00-12:00 ($AS_{(interval-11:00-12:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

   12:00-13:00 ($AS_{(interval-12:00-13:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

   13:00-14:00 ($AS_{(interval-13:00-14:00)}$) = (14,494 m^2 + 14,494 m^2) ÷ 2 = 14,494 m^2

   14:00-15:00 ($AS_{(interval-14:00-15:00)}$) = (14,494 m^2 + 12,516 m^2) ÷ 2 = 13,505 m^2

   Number of test intervals = 4

   Sum of ($AS_{(interval)}$) = 56,987 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$)] ÷ [# of intervals]

   = 56,987 m^2 ÷ 4

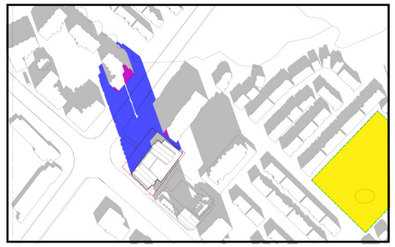
   = 14,246.75 m^2

5. SAF = ($AS_{(average)}$) ÷ A_T

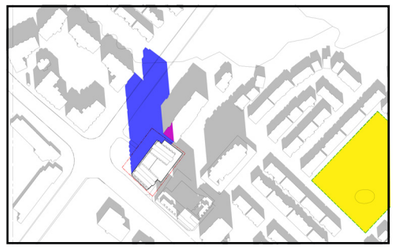
   = 14,246.75 m^2 ÷ 14,494 m^2

   =0.98 m^2

0.99 is greater than 0.5. Therefore, the SAF meets the criteria.



11:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



12:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



01:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



02:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 14,494 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



03:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 14,494 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 13,505 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 698 m^2

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

PARS AND OPEN SPACE

SHADOW STUDY
21058 - 1989 APPLEBY
BURLINGTON, ON
MAY 31, 2022

SUN ACCESS FACTOR CALCULATIONS

MARCH 21

PUBLIC REALMS AND SIDEWALKS

1. Total area of adjacent residential amenity (A_T) = 1,549 m^2

2. Areas exposed to sunshine at each hourly test time ($AS_{(test)}$).

09:00 ($AS_{(test-09:00)}$) = 857 m^2

10:00 ($AS_{(test-10:00)}$) = 696 m^2

11:00 ($AS_{(test-11:00)}$) = 1,079 m^2

12:00 ($AS_{(test-12:00)}$) = 1,549 m^2

13:00 ($AS_{(test-13:00)}$) = 1,549 m^2

Number of test times = 10

14:00 ($AS_{(test-14:00)}$) = 1,549 m^2

15:00 ($AS_{(test-15:00)}$) = 1,549 m^2

16:00 ($AS_{(test-16:00)}$) = 1,549 m^2

17:00 ($AS_{(test-17:00)}$) = 919 m^2

18:00 ($AS_{(test-18:00)}$) = 413 m^2

3. The averages for the nine one-hour intervals ($AS_{(interval)}$):

09:00-10:00 ($AS_{(interval-09:00-10:00)}$) = (857 m^2 + 696 m^2) ÷ 2 = 776.5 m^2

10:00-11:00 ($AS_{(interval-10:00-11:00)}$) = (696 m^2 + 1,079 m^2) ÷ 2 = 887.5 m^2

11:00-12:00 ($AS_{(interval-11:00-12:00)}$) = (1,079 m^2 + 1,549 m^2) ÷ 2 = 1,314 m^2

12:00-13:00 ($AS_{(interval-12:00-13:00)}$) = (1,549 m^2 + 1,549 m^2) ÷ 2 = 1,549 m^2

13:00-14:00 ($AS_{(interval-13:00-14:00)}$) = (1,549 m^2 + 1,549 m^2) ÷ 2 = 1,549 m^2

14:00-15:00 ($AS_{(interval-14:00-15:00)}$) = (1,549 m^2 + 1,549 m^2) ÷ 2 = 1,549 m^2

15:00-16:00 ($AS_{(interval-15:00-16:00)}$) = (1,549 m^2 + 1,549 m^2) ÷ 2 = 1,549 m^2

16:00-17:00 ($AS_{(interval-16:00-17:00)}$) = (1,549 m^2 + 919 m^2) ÷ 2 = 1,234 m^2

17:00-18:00 ($AS_{(interval-11:00-12:00)}$) = (919 m^2 + 413 m^2) ÷ 2 = 666 m^2

Number of test intervals = 9

Sum of ($AS_{(interval)}$) = 11,074 m^2

4. The overall average area in sunshine ($AS_{(average)}$) = [sum of ($AS_{(interval)}$)] ÷ [# of intervals]

= 11,074 m^2 ÷ 9

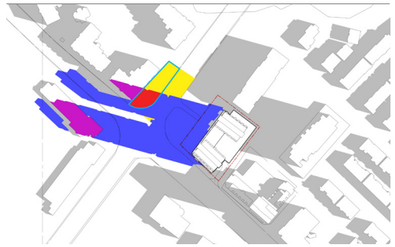
= 1,230.44 m^2

5. SAF = ($AS_{(average)}$) ÷ A_T

= 1,230.44 m^2 ÷ 1,549 m^2

=0.79 m^2

0.79 is greater than 0.5. Therefore, the SAF meets the criteria.



09:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 857 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 692 m^2



10:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 696 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 853 m^2



11:00 AM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,079 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 470 m^2



12:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,549 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



01:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,549 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



02:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,549 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



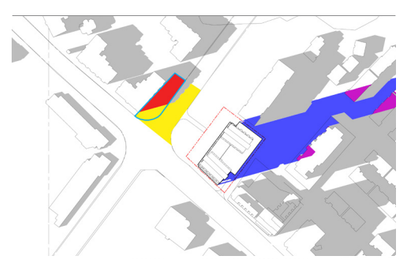
03:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,549 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



04:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 1,549 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 0 m^2



05:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 919m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 630 m^2



06:00 PM
ADJACENT RESIDENTIAL AMENITY SPACE
TOTAL AREA: 1,549 m^2
AREA EXPOSED TO SUNSHINE
($AS_{(test)}$): 413 m^2
AREA IN SHADOW (INCLUDING EXISTING AND PROPOSED SHADOWS): 1,136 m^2

NET NEW SHADOWS CAST ON ROOF SURFACES

NET NEW SHADOWS CAST ON GROUND SURFACES

SHADOWS CAST BY EXISTING BUILDINGS ON ALL SURFACES

SITE BOUNDARY

PARS AND OPEN SPACE

SHADOW STUDY
21058 - 1989 APPLEBY
BURLINGTON, ON
MAY 31, 2022