

51, 57 TANNERY STREET & 208 EMBY DRIVE  
CITY OF MISSISSAUGA

# SHADOW STUDY ANALYSIS



FILE #8059

MAY 2019  
PREPARED FOR NYX TANNERY LTD.

 WESTON  
CONSULTING



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# 1. INTRODUCTION

The accompanying shadow study has been prepared by Weston Consulting to illustrate the shadow impacts of the proposed residential development. The development is to be located in the City of Mississauga in the Region of Peel, with frontages onto Tannery Street.

The proposed development consists of 155 stacked back to back townhouse units within 7 development blocks. There is a centralized amenity area. The proposed development blocks are 3 storeys in height with rooftop amenity areas for the upper level units. These amenity areas are screened by sloped parapets.

The proposed development includes an extension of Emby Drive which will feature a 15 meter right of way, intersecting with Tannery Street approximately 30 meters south west of the Canadian Pacific Railway [CPR] property line running north of the proposed development.

Mullet Creek runs to the west and south of the property, forming a buffer between the proposed development and the neighbouring commercial buildings to the south. The

Streetsville Secondary School lies within the shadow study area to the south west of the proposed development. The neighbouring site at 170, 180 and 190 Rutledge Street has been approved for the development of a 4 storey apartment building. This site was not included in the study model as the project had not been constructed at the time this report was prepared.

The Credit River Retirement Residence lies to the west of the proposed development at 7 storeys high and casts relatively significant shadows. Generally, other buildings surrounding the site are low rise.

The shadow study is based on the Terms of References provided by the City of Mississauga. The shadow study encompasses dates and times shown in Tables 2, 3 and 4 of the Urban Design Terms of Reference, from 1.5 hours after sunrise to 1.5 hours before sunset. The base mapping shows an area exceeding 4.0 times the height of the development north, east and west and exceeding 1.5 times the building height south.

The shadow drawings within this document have been prepared by Holly Templeton under the direction and review of Shane Morgan, Design Manager.

The following sections are a summary of the shadow impacts.

## 2. ANALYSIS

### 2.1 September 21

The morning shadows of the fall equinoxes project partially onto Tannery Street between 8:35 and 11:12 but for no longer than 4 hours in total during the day which is considered to be acceptable impact on the public realm.

The shadows cast by the proposed development during the remainder of the early afternoon have limited extents and have no impacts on neighbouring properties. From 17:48 to sunset, the railway track to the north is in partial shadow for no more than 2 consecutive hours.

There are no discernible shadow impacts on adjacent residential or communal outdoor space during the times shown for September 21.

### 2.3 December 21

Shadows during the winter solstice are longer than other seasons. Morning shadows can be seen to have the most significant impact on neighbouring properties. From 9:19 to 10:17, partial shadowing can be seen on the communal outdoor amenity area at the east side of the Credit River Retirement Residence property. This shadowing does not exceed 2 hours in duration.

The early afternoon shadows cast partially onto Tannery Street between 12:17 and 14:17, not exceeding 2 hours. Late afternoon shadows are elongated and overshadow the railway tracks to the north of the property until sundown, showing minor impacts on the mainly residential properties at 180 and 200 Broadway Street for less than two hours until sundown.

### 2.2 June 21

In general, the shadows during the summer solstice on June 21 are comparatively shorter. Early morning shadows show a minor impact onto the neighbouring residential property at 61 Tannery Street between 7:07 and 9:20, by which time they have receded to within the boundaries of the proposed development. These impacts are cumulative and add to shadowing from existing properties on the site, with no shadow impacts seen after 11:20.

The afternoon shadows of the proposed development show no impacts on neighbouring buildings. From 18:20 to sundown there are incremental shadows onto the edge of the commercial property at 100 Emby drive, with minimal impact on Emby Drive itself.

There are no discernible shadow impacts on communal outdoor space during the times shown for September 21.



### 3. SUMMARY

In summary, it can be concluded that shadow impacts upon residential, communal outdoor amenity and the public realm are not of significant coverage and duration. The shadows have a reasonably acceptable impact on neighbouring areas for the following reasons:

- Shadowing on residential amenity neighbouring the site does not, or does not significantly exceed 2 consecutive hours during the times shown;
- The shadow impacts on the community outdoor area of the Credit River Retirement Residence do not exceed 2 hours in duration and allow for full sunlight over 50% of the time;
- The sidewalk of Tannery Street fronting the proposed development to the west maintains access to sunlight for at least 4 hours within the times shown for the dates of June, September and December 21.

#### References:

Base Plan Source: Mississauga Parcel & 3D Mapping Open Data 2016

Longitude/Latitude taken at the intersection of Broadway Street and Tannery Street:  
43.580811, -79.715600

Astronomic or True North determined using GPS Google Map Data 2019



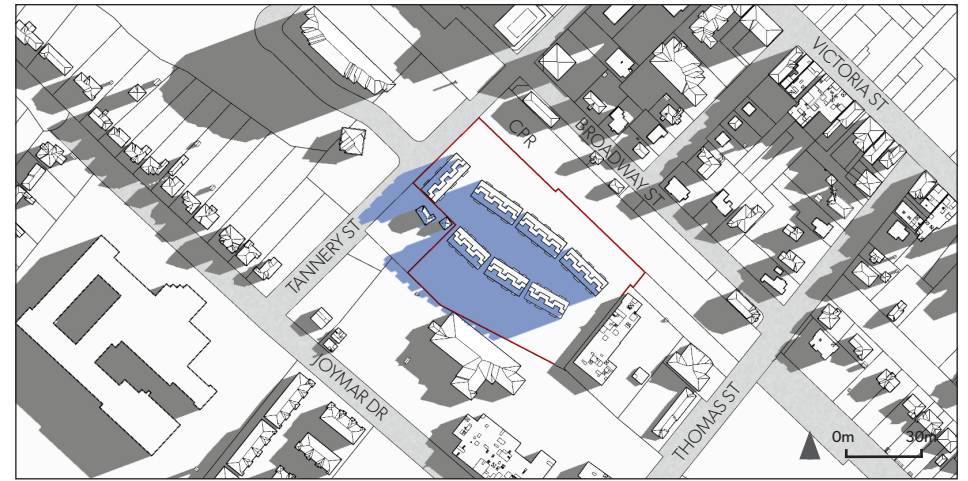
## 4. SHADOW DRAWINGS



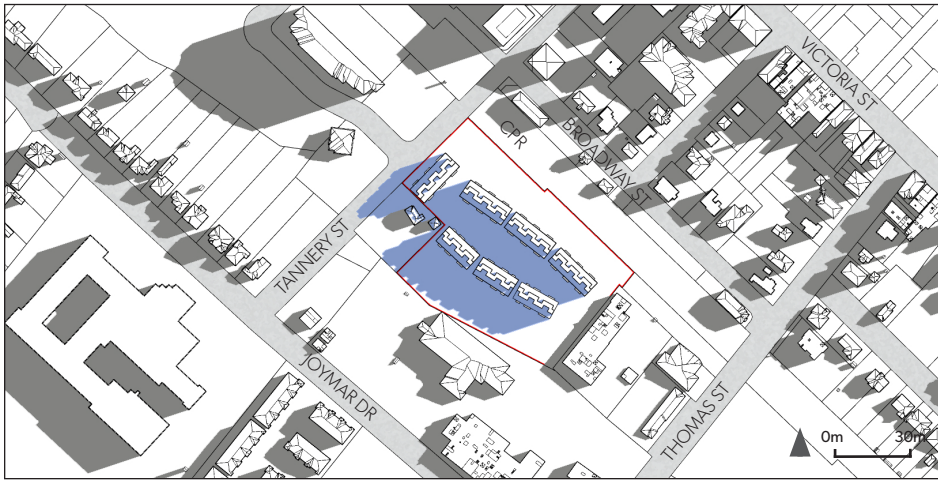




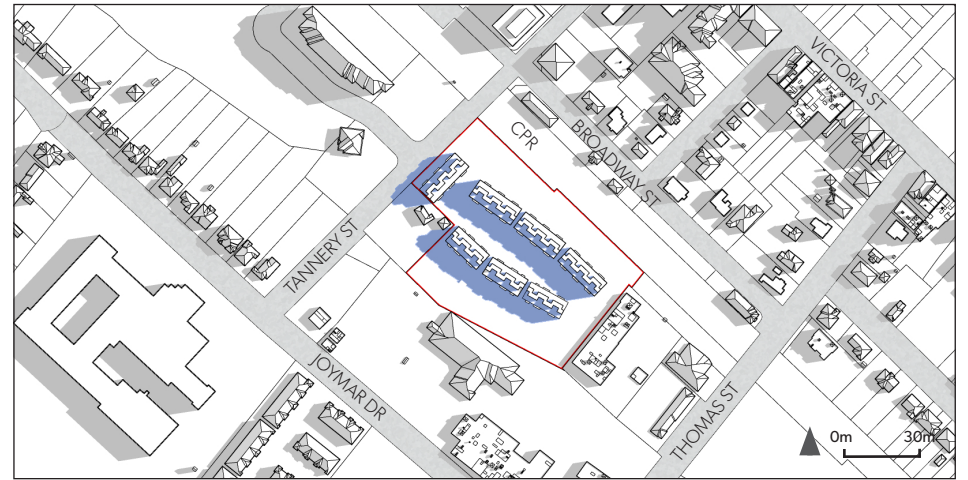
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June 21 7:07



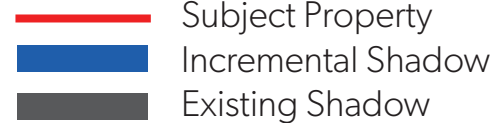
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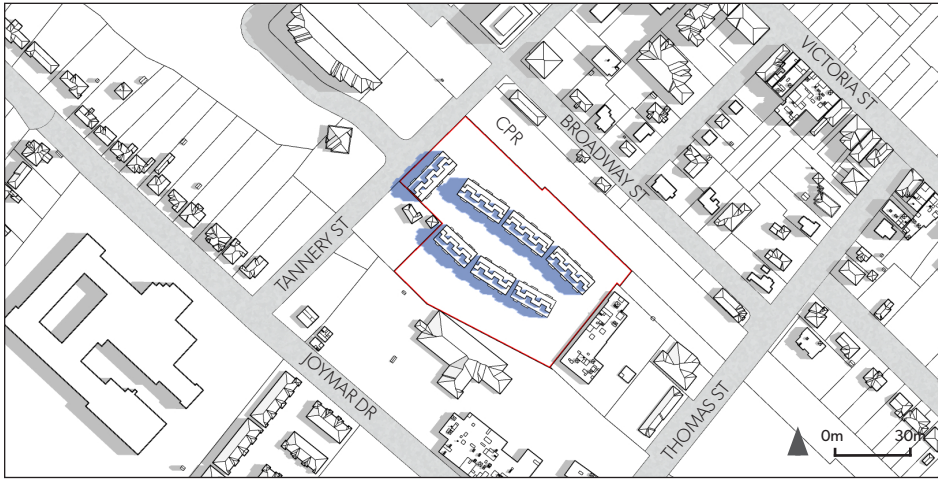
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## SHADOW STUDY

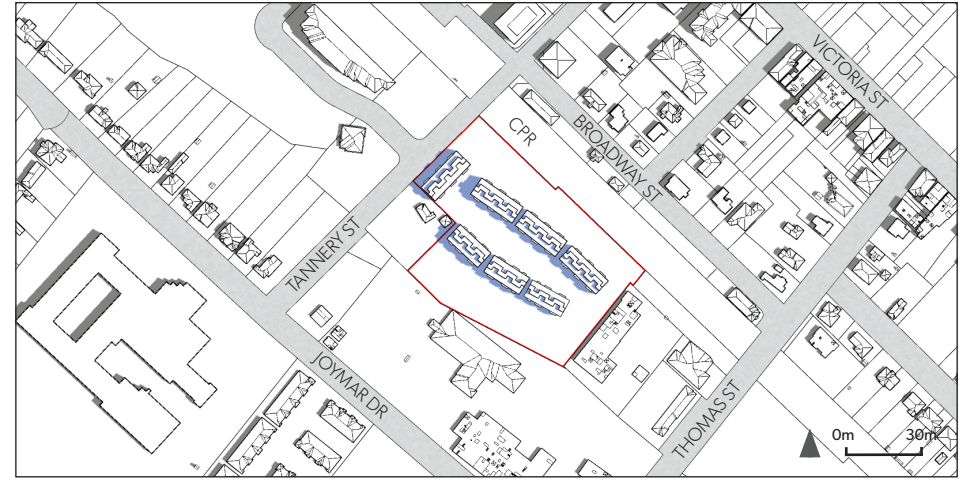
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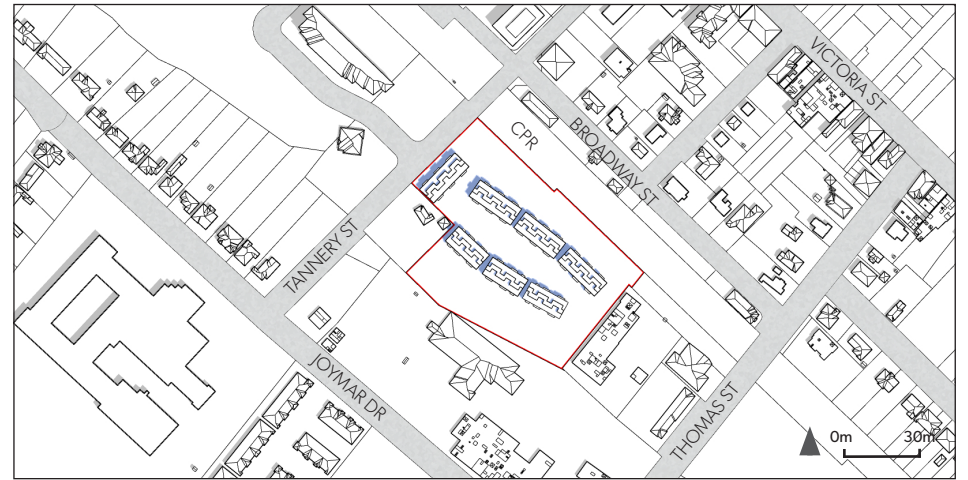
June 21 9:20



June 21 10:20



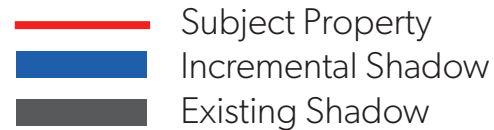
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June 21 12:20

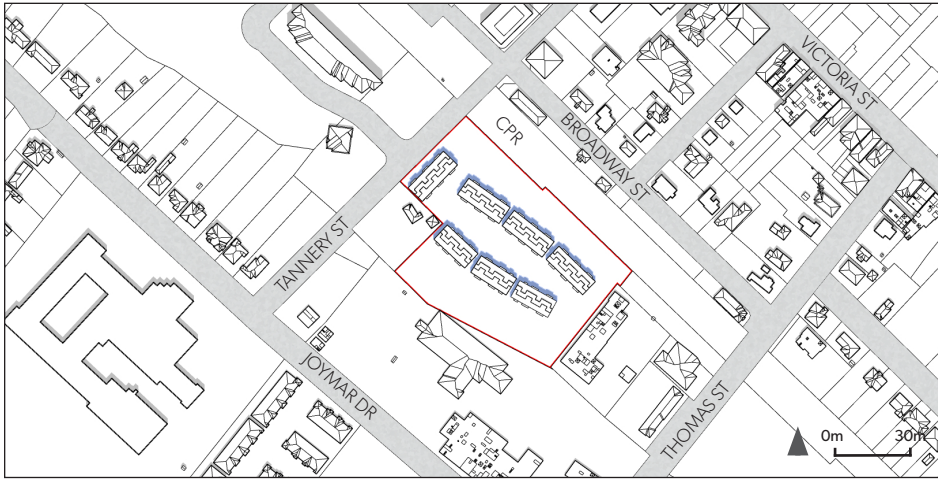
## SHADOW STUDY

51, 57 Tannery Street & 208 Emby Drive  
City of Mississauga

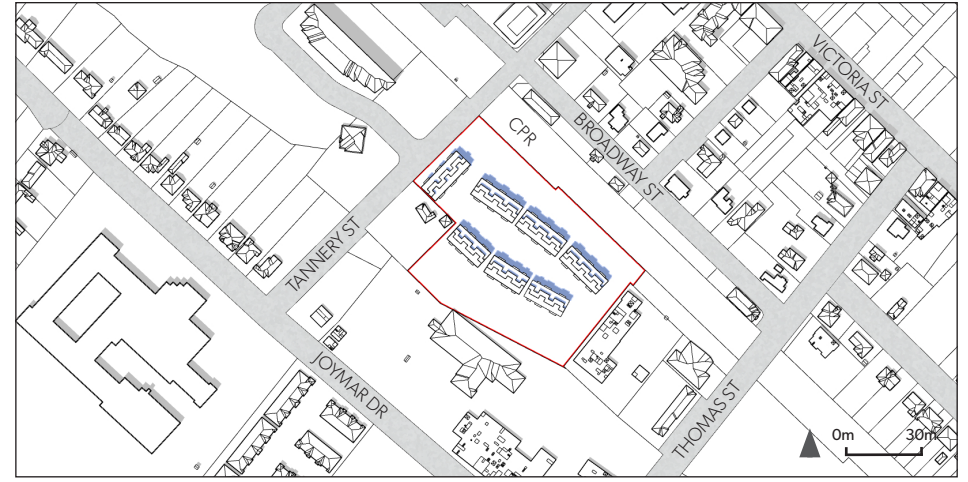


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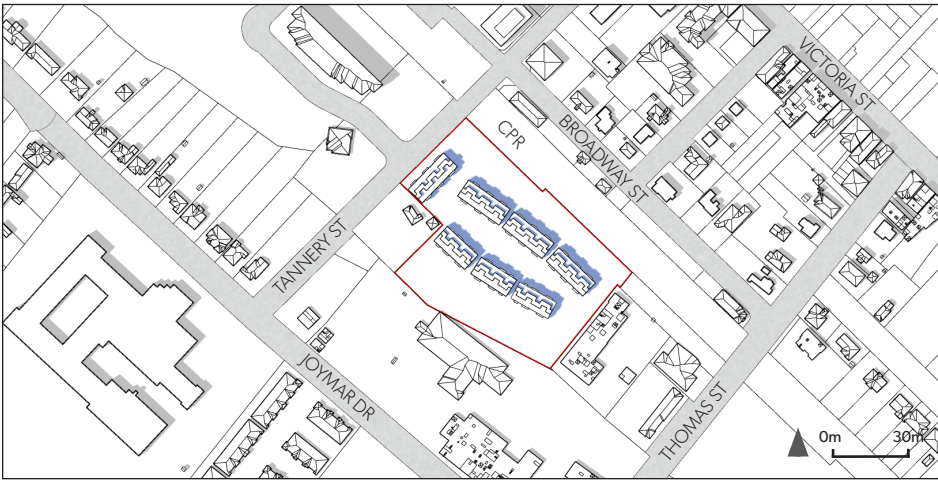




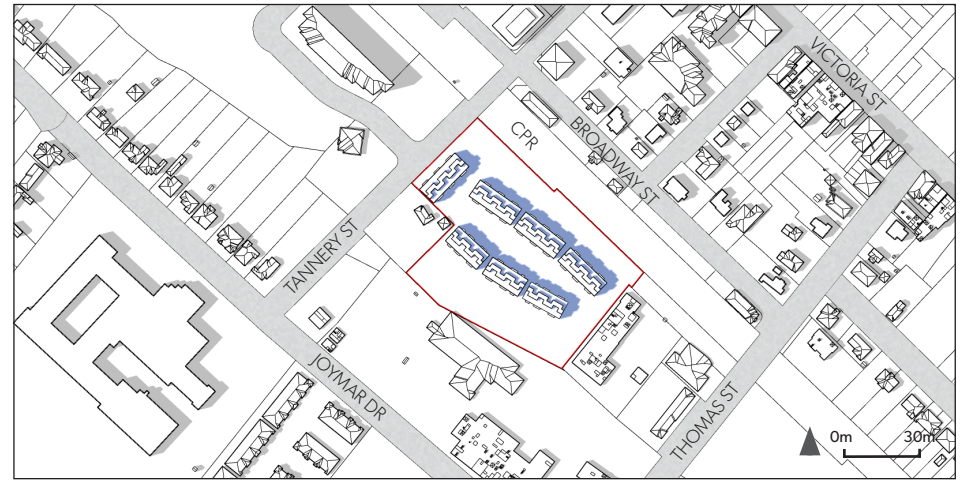
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June 21 14:20



June 21 15:20



June 21 16:20

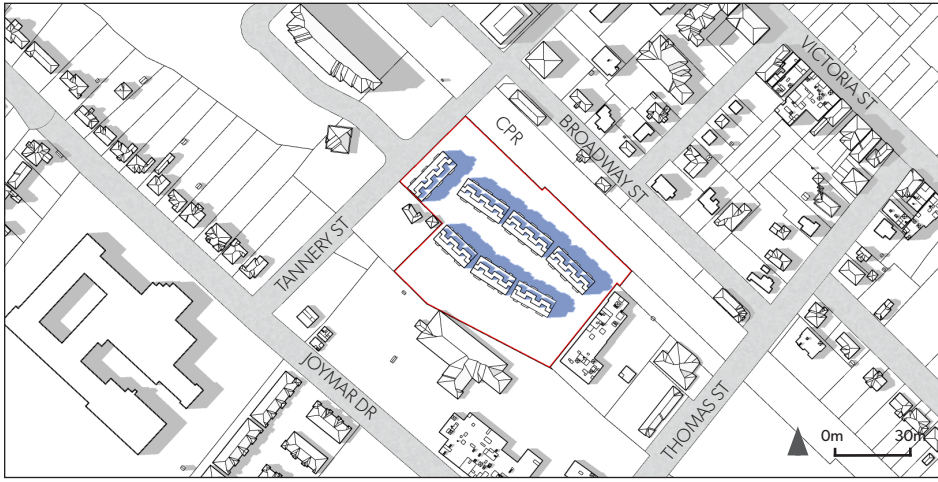
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51, 57 Tannery Street & 208 Emby Drive  
City of Mississauga

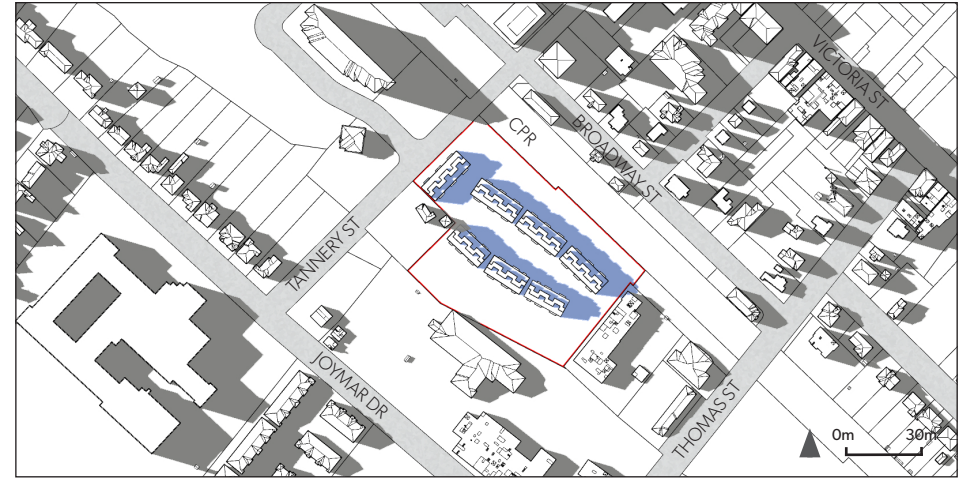
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- Incremental Shadow
- Existing Shadow



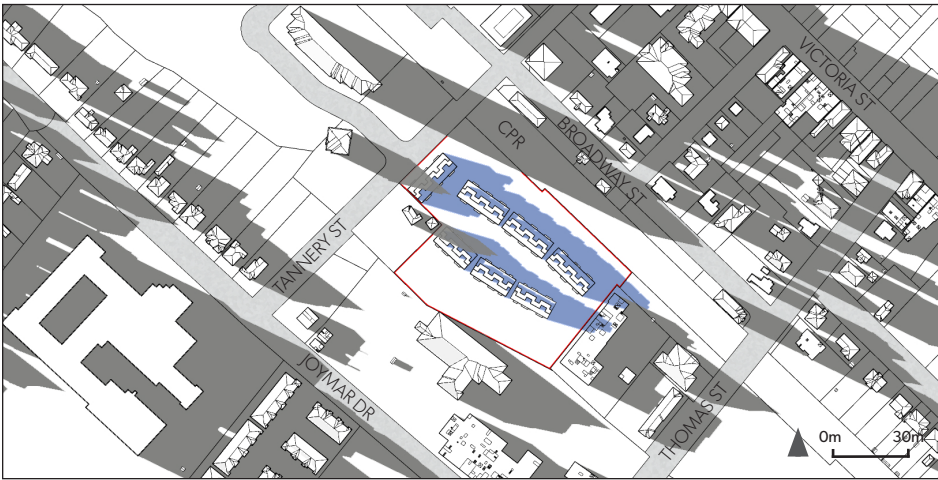
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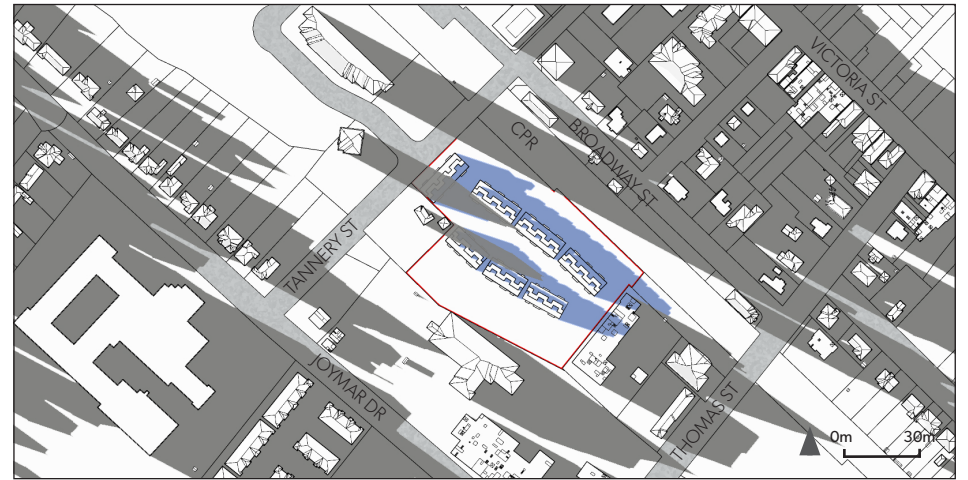
June 21 17:20



June 21 18:20



June 21 19:20



June 21 19:33

## SHADOW STUDY

51, 57 Tannery Street & 208 Emby Drive  
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- Subject Property
- Incremental Shadow
- Existing Shadow



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June 21 21:03

## SHADOW STUDY

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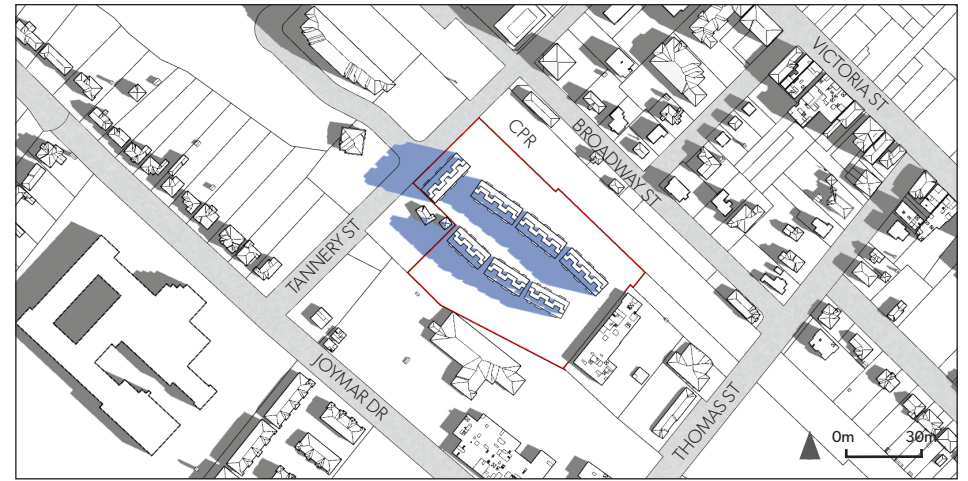
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Existing Shadow



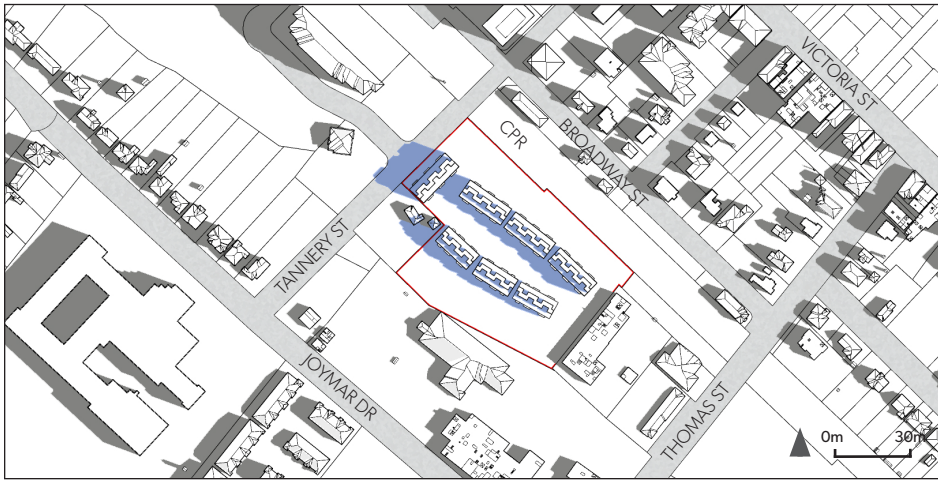
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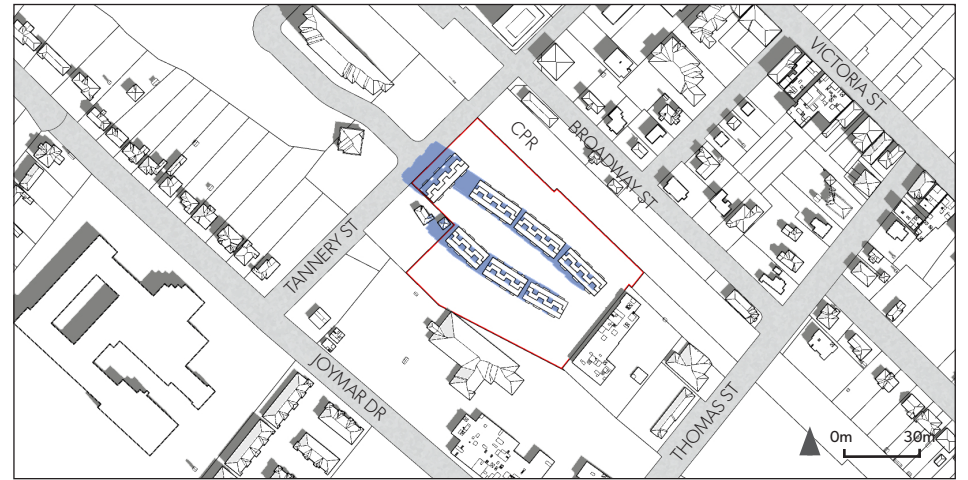
September 21 7:05



September 21 8:35



September 21 9:12



September 21 10:12

## SHADOW STUDY

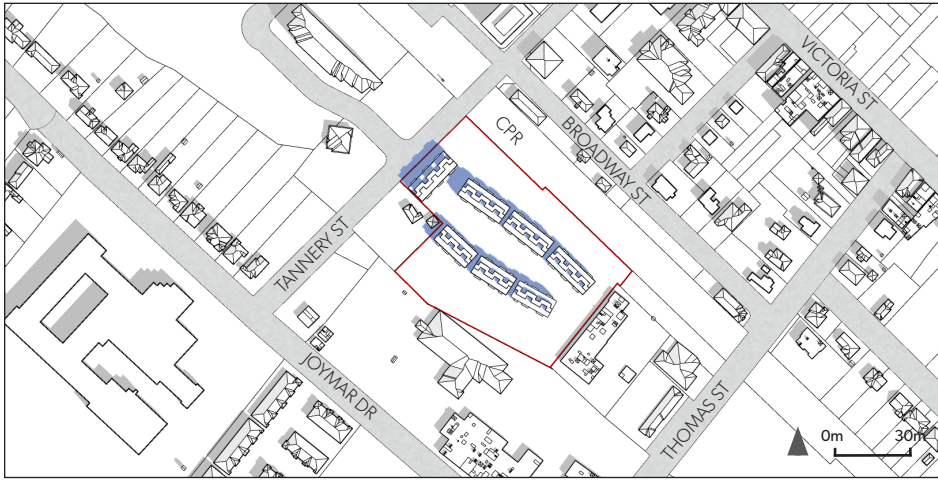
51, 57 Tannery Street & 208 Emby Drive  
City of Mississauga

- Subject Property
- Incremental Shadow
- Existing Shadow

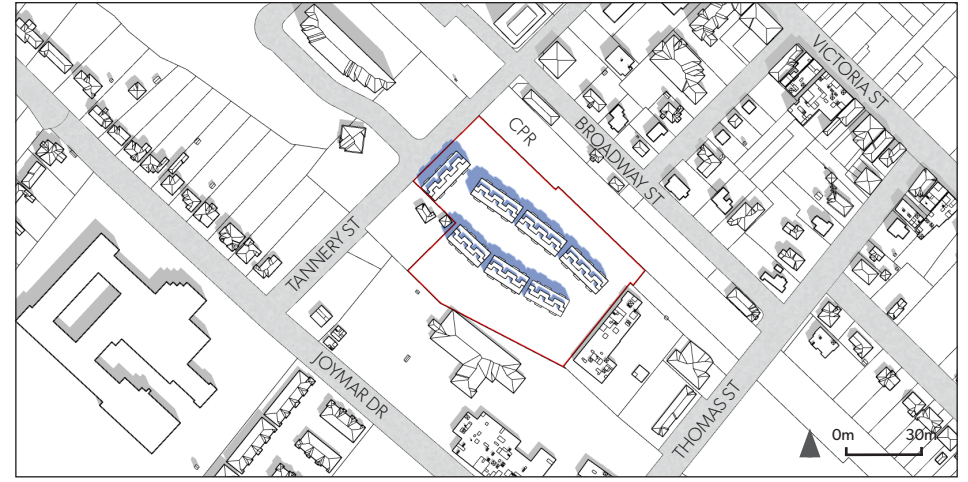


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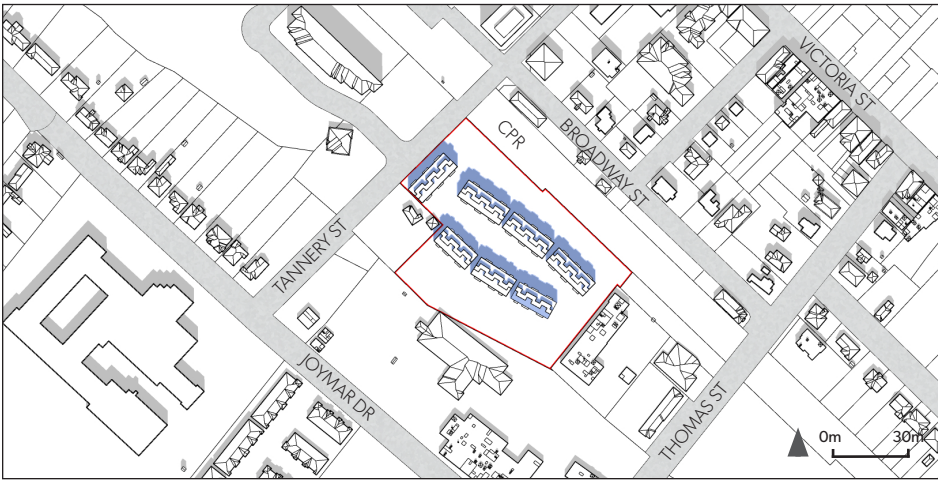




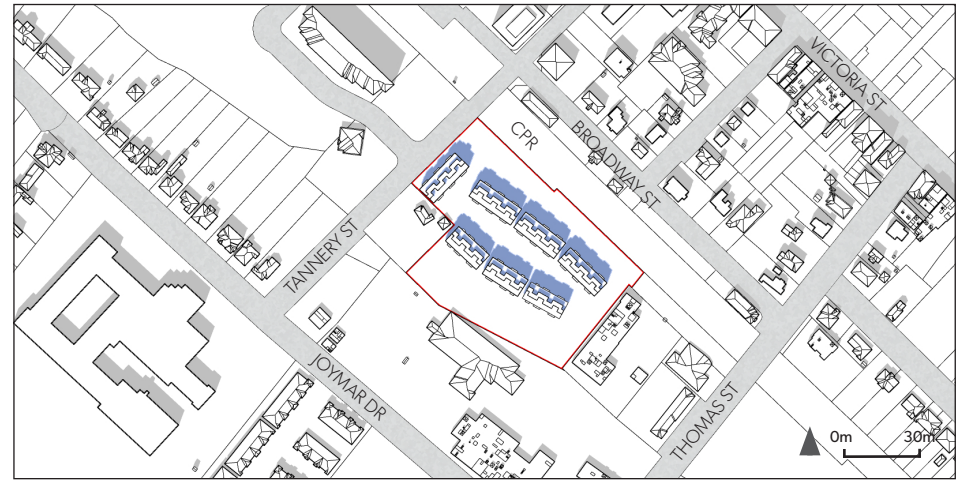
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September 21 12:12



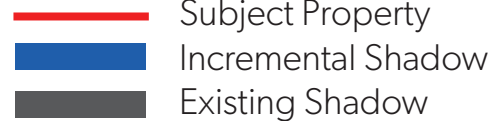
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September 21 14:12

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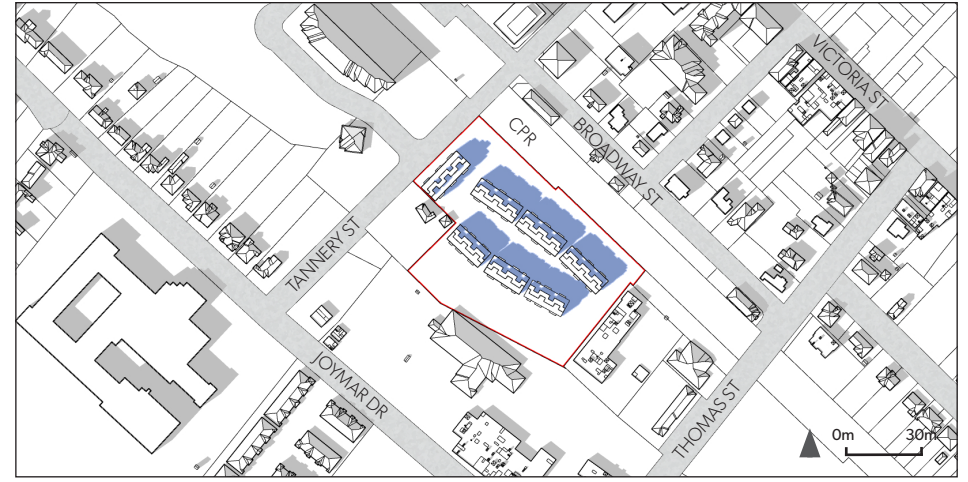
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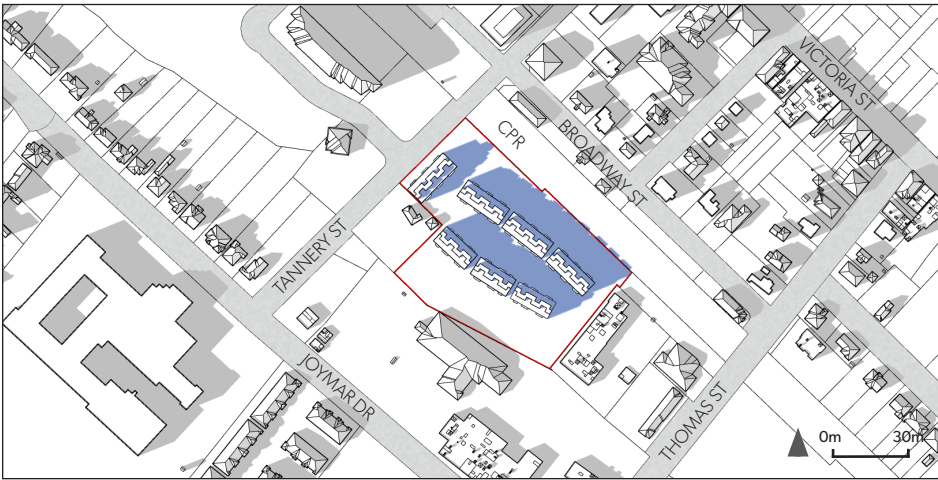
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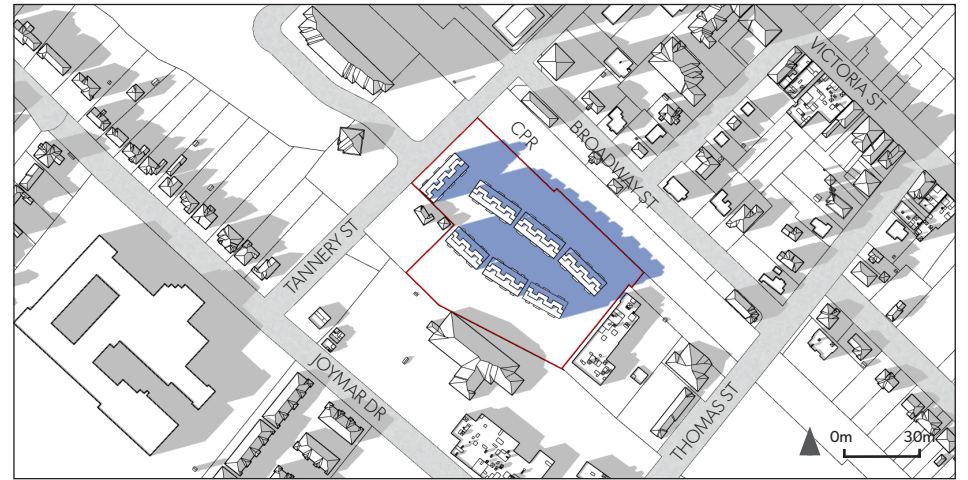
September 21 15:12



September 21 16:12



September 21 17:12



September 21 17:48

## SHADOW STUDY

51, 57 Tannery Street & 208 Emby Drive  
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- Subject Property
- Incremental Shadow
- Existing Shadow



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September 21 19:18

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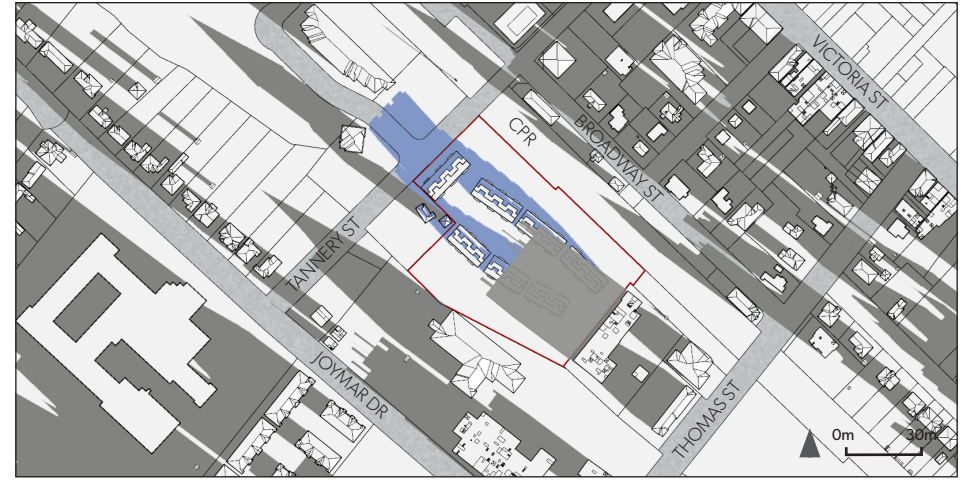
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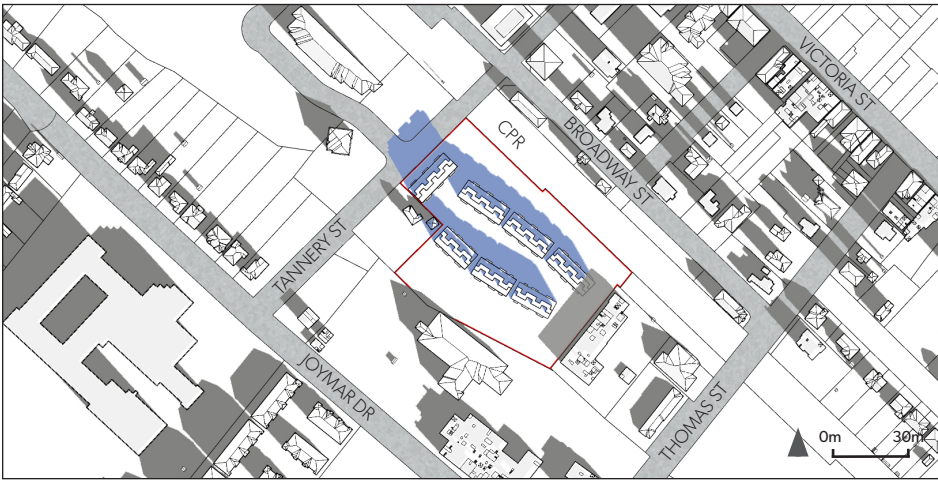
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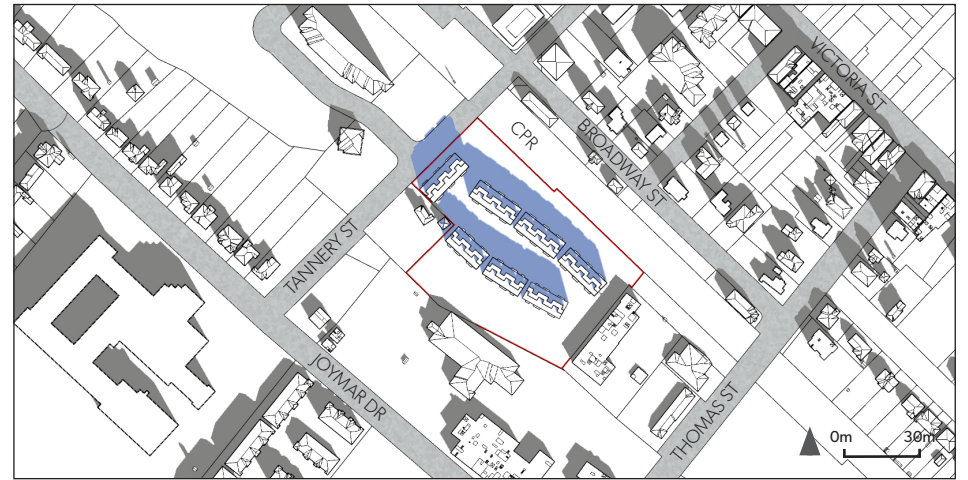
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December 21 9:19



December 21 10:17



December 21 11:17

## SHADOW STUDY

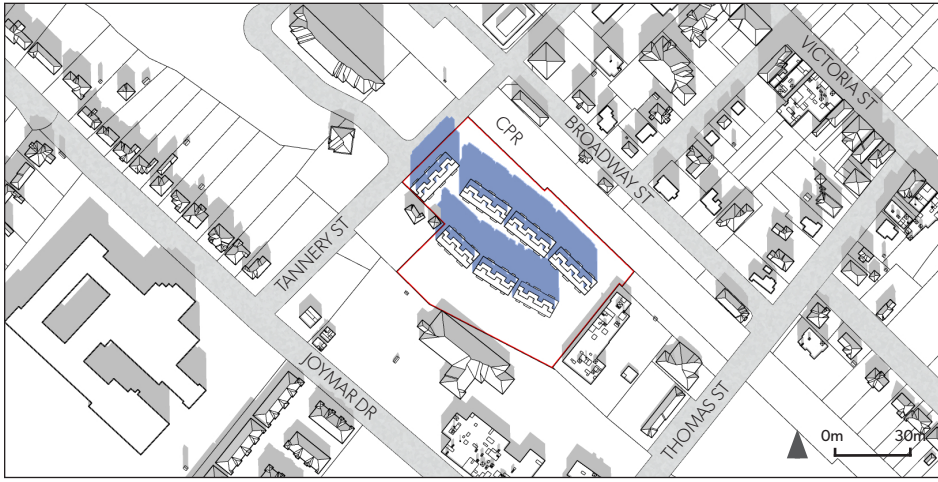
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- Subject Property
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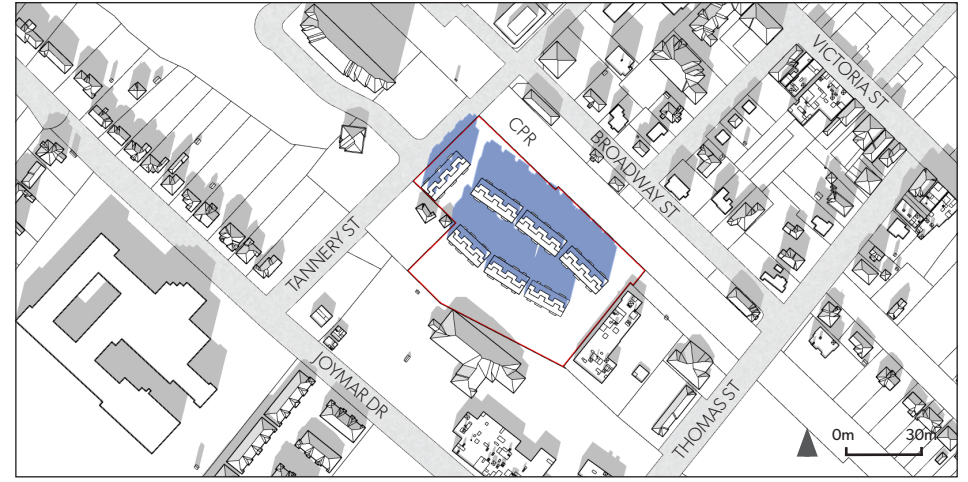


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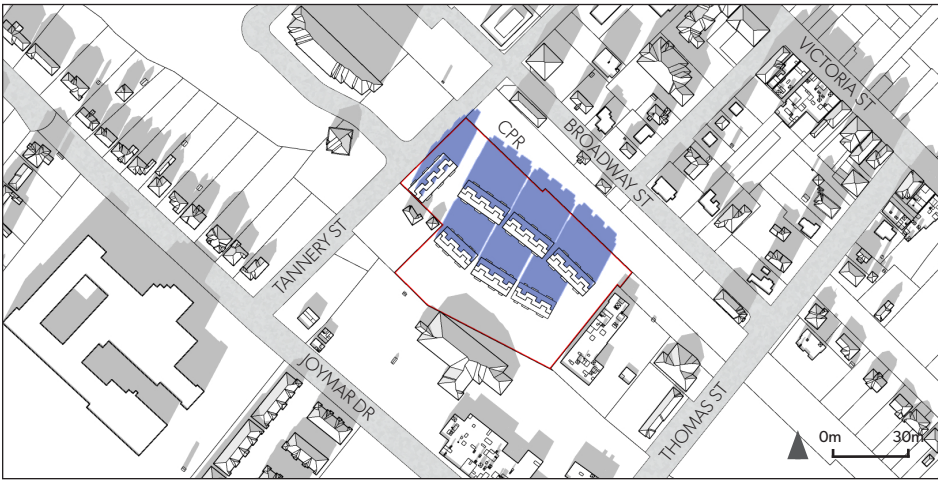




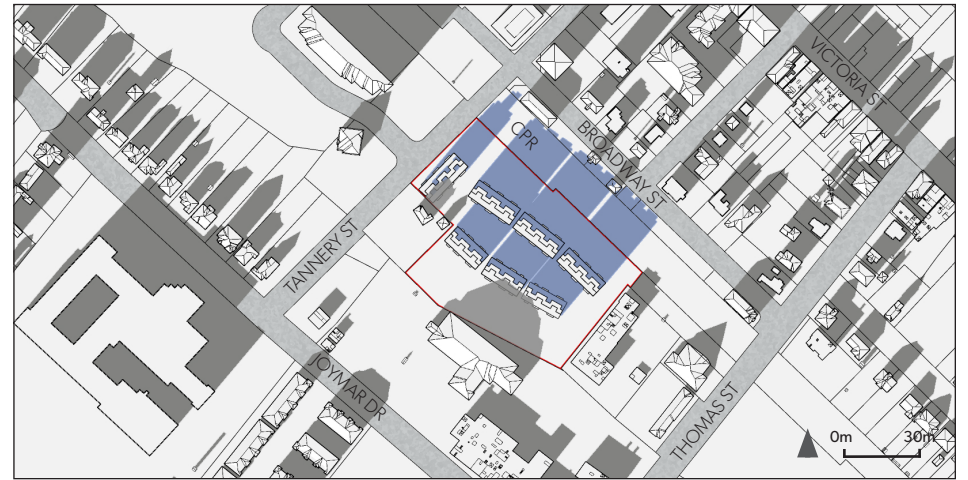
December 21 12:17



December 21 13:17



December 21 14:17



December 21 15:15

## SHADOW STUDY

51, 57 Tannery Street & 208 Emby Drive  
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- Subject Property
- Incremental Shadow
- Existing Shadow



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December 21 16:45

## SHADOW STUDY

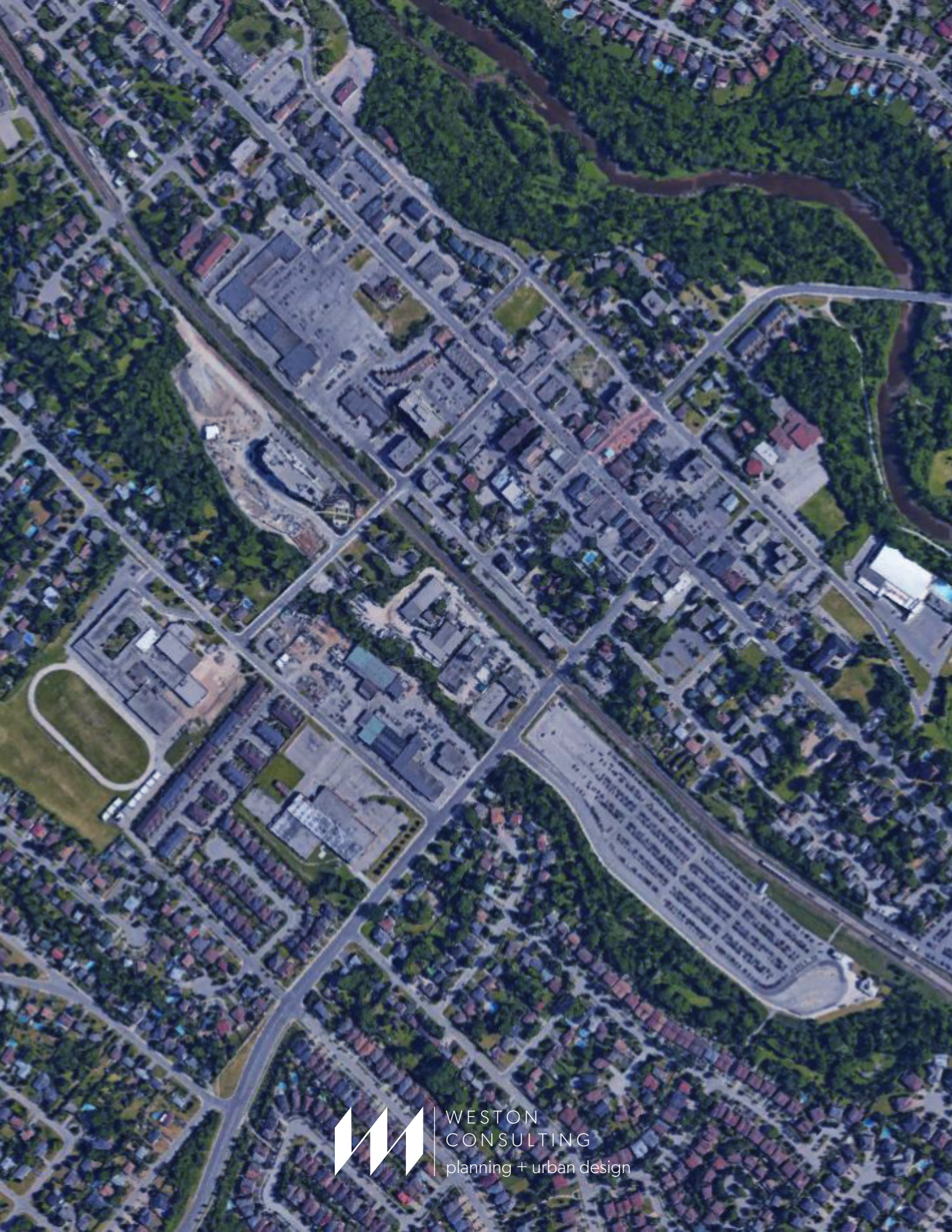
51, 57 Tannery Street & 208 Emby Drive  
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