



Shadow Study

**Oakville Transit
Oriented Community**

Prepared For
Distrikt Developments

October 2024



Job Number
24162

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1 Summary of Shadow Impacts

This Shadow Study was prepared by Bousfields Inc. to assess any potential impacts from the built form on the surrounding context, both existing and planned. The study follows the Town's Development Application Guidelines for Shadow Impact Analysis and responds to the existing and emerging policy context for the area. The following test dates and times were prepared as part of this study:

- Test Dates: April 21st, June 21st, September 21st and December 21st.
- Test Times: Hourly intervals starting 1.5 hours after sunrise and ending 1.5 hours before sunset for each Test Date.

The Shadow Study incorporates existing buildings and property lines within the immediate context of the TOC Lands, as well as buildings that are approved but not yet built and current applications. Parks and open spaces have also been identified. Accordingly, the Shadow Study distinguishes between those shadows that are existing and proposed.

The findings of the Shadow Study demonstrate that the TOC Proposal conforms to and maintains the general intent of the policy direction set out in the Livable Oakville Plan, and in particular to Policy 6.9.15 in terms of ensuring adequate sunlight and avoiding excessive shadows. The TOC Proposal also addresses the emerging policy framework for Midtown Oakville contained in the draft OPA for the Midtown Oakville Urban Growth Centre (the "OPA"). In that regard, the proposals address policy 20.11.3c(iv) by designing and siting buildings to mitigate shadowing on adjacent streets, parks and open spaces. Further, the Shadow Study demonstrates that the development generally meets the criteria established by the Town with respect to any potential outdoor amenity areas, public realm and wall surfaces and roofs used for solar gain.

As noted above, the TOC Lands is situated in the Midtown Oakville Urban Growth Centre which is planned for intensification associated with public transit infrastructure. The vision set out in the draft OPA contemplates a complete community with a range of building forms including high rises. Schedule 7 – Midtown Oakville Maximum Heights illustrates tower heights in the range of 35 to 40 storeys for the TOC Lands which is going to transform the area into a more dense urban environment. With respect to the existing in-force policy, building heights identified in Schedule L2 of the Livable Oakville Plan permit heights of up to 20 storeys on the TOC lands (which are also eligible for bonusing). Based on the foregoing, the general character of shadow and sunlight conditions is going to change in the Midtown area.

The following provides an overview of the criteria established in the Town's Development Application Guidelines for Shadow Impact Analysis.

Criterion 1

The shadow impact analysis must demonstrate that adequate sunlight is available for residential amenity spaces to maximize their use during spring, summer and fall afternoons and evenings. Shadow impacts from proposed development should not exceed two consecutive hourly test times after 12:00pm on April 21, June 21 and September 21 (or where the adjacent site is undeveloped, on at least 60% of that site).

The TOC Proposal meets Criterion 1. The resulting shadows do not exceed two consecutive hourly test times after 12pm on April, June and September 21st. TOC Lands is situated on the south side of the QEW, a significant distance from existing low scale residential neighbourhoods. The shadows move off the residential neighbourhood by noon on the applicable dates ensuring that the private yards continue to receive sunlight in the afternoons and evenings.

In the fullness of time common outdoor amenity areas associated with the redevelopment sites in the Oakville Midtown area may be further impacted as development fills in the remaining sites with mid and high-rise form buildings. Some of the rooftop amenity space on Site 4 would receive shadowing for more than two consecutive time intervals during the April and September period. The shadowing is from the proposed towers on the site. However, the location of the amenity space on the north side of the site allows for direct sunlight on the POPS spaces which are situated on the south portion of the site.

Criterion 2

The shadow impact analysis must demonstrate that public sidewalks, public plazas, public parks, and school yards receive at least 5 hours of continuous sunlight per day on April 21st, June 21st and September 21st.

None of the existing public parks or school yards in the area surrounding the TOC Lands would be affected by the shadows produced by the proposals beyond the 5 hour window of sunlight. In terms of sidewalks, including new sidewalks within the Midtown area satisfying the criterion of 5 consecutive hours is contrary to other objectives set out for Midtown Oakville Urban Growth Centre as a dense urban environment with numerous towers irrespective of height or siting.

Criterion 3

The shadow impact analysis must demonstrate that proposed development allows adequate sunlight on building faces and roofs for the possibility of using solar energy. Shadow impacts from proposed development should not exceed two consecutive hourly test times on December 21.

December 21st shadows are limited to a time frame between 9:18 a.m. and 3:15 p.m. December 21st is the shortest day of the year in terms of daylight when the sun is low above the horizon resulting in longer shadows. The Shadow Study demonstrates that the majority of the residential properties to the north would not be impacted for more than two consecutive hourly times. Furthermore, the application of as of right building envelopes would produce comparable impacts.

1

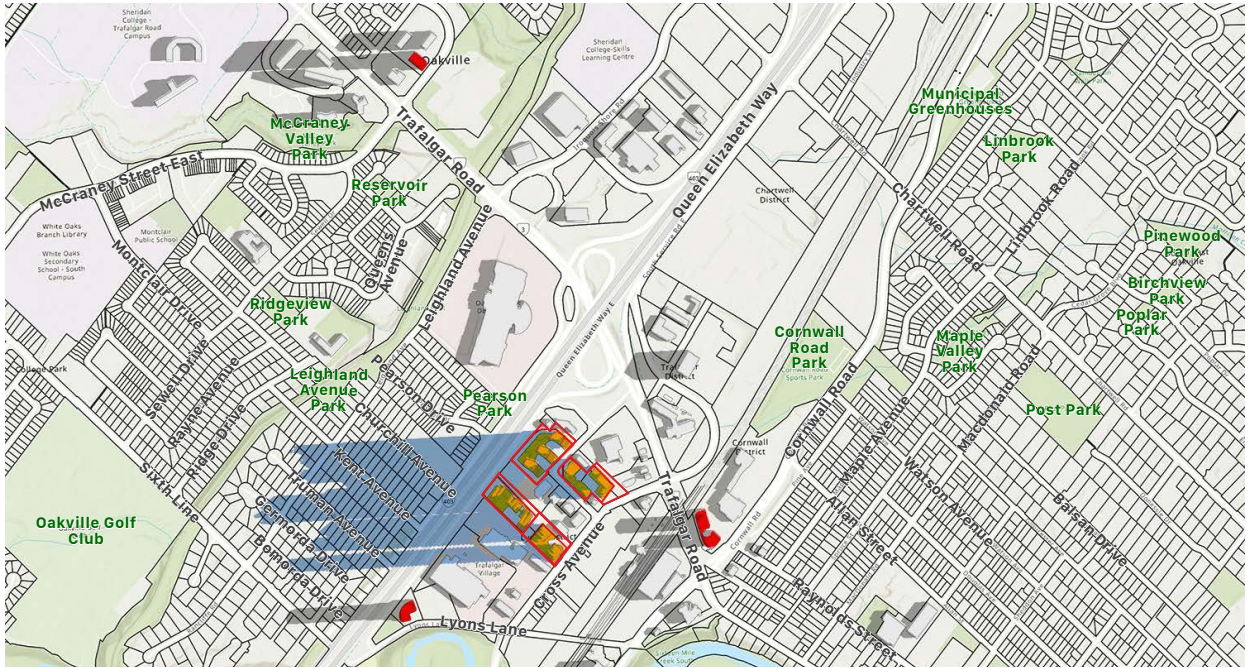
Shadow Analysis

April 21st

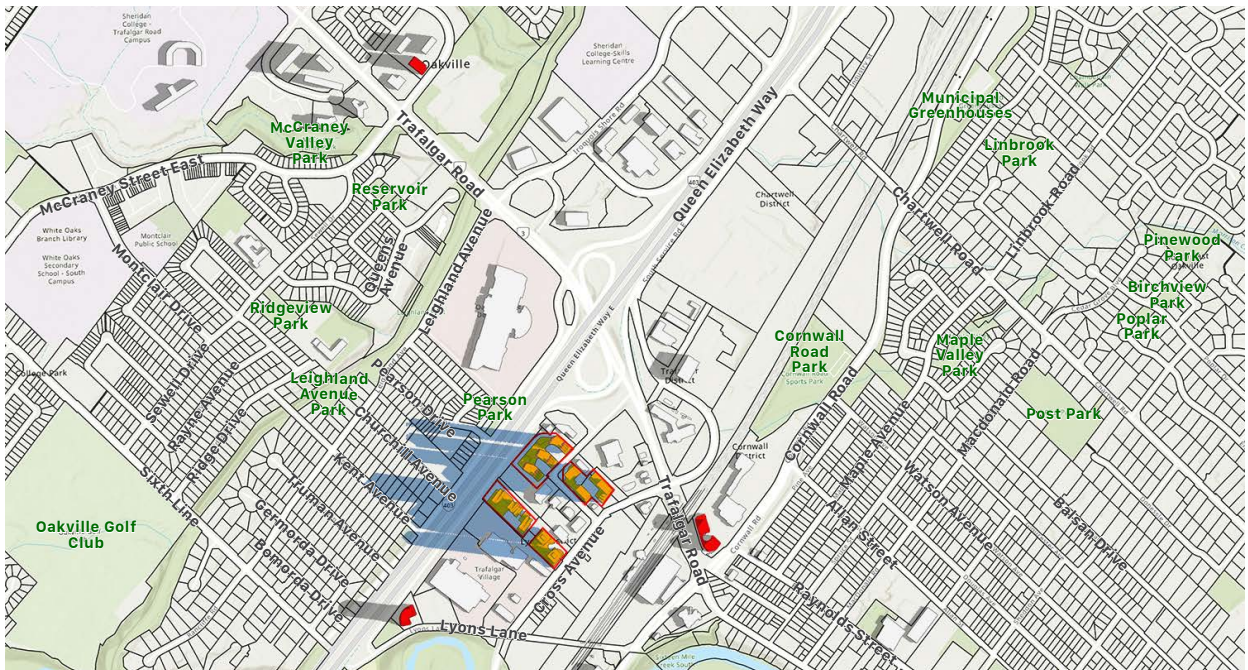
3

Shadow Study
Bousfields Inc.

April 21st



7:56am



8:56am

Legend

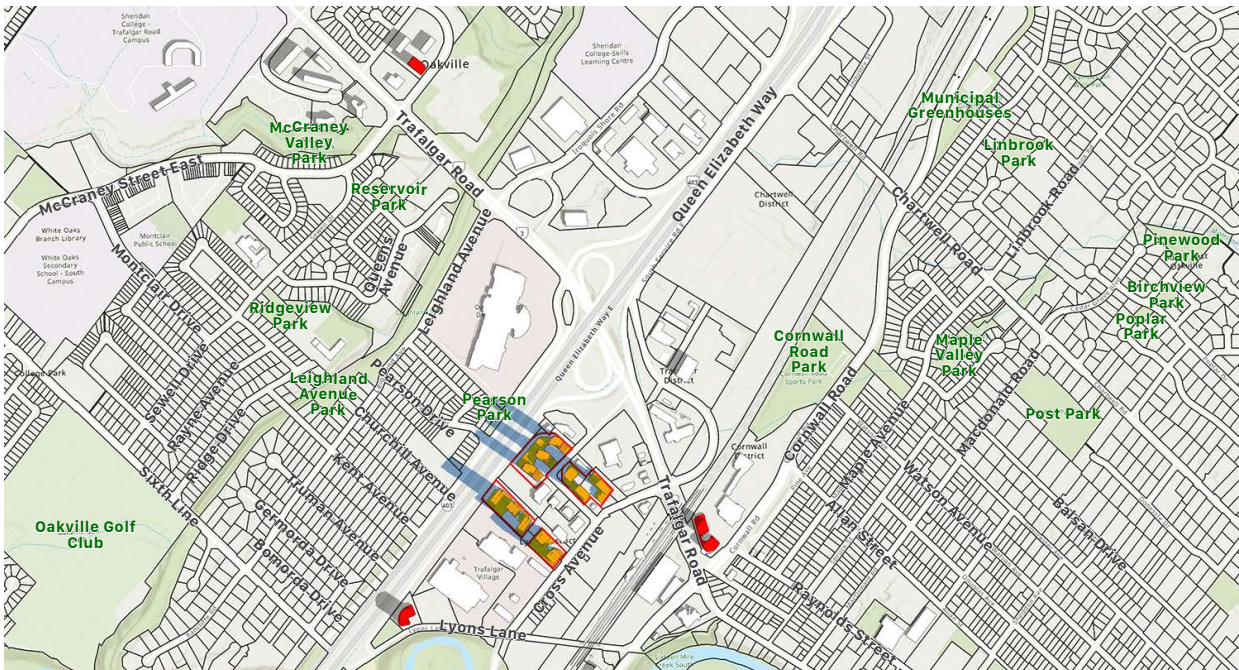
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



April 21st



9:56am



10:56am

Legend

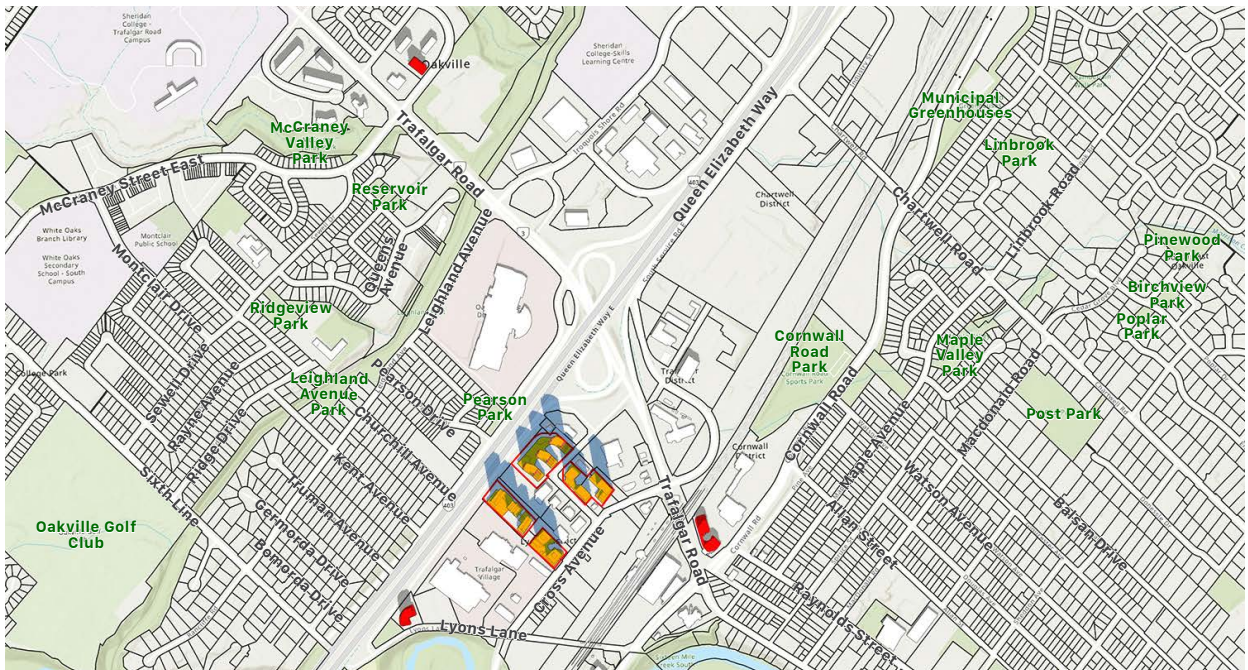
- TOC Lands
- Shadow Cast by Proposed Development
- TOC Proposal
- Approved Development
- Park / Open Space



April 21st



11:56am



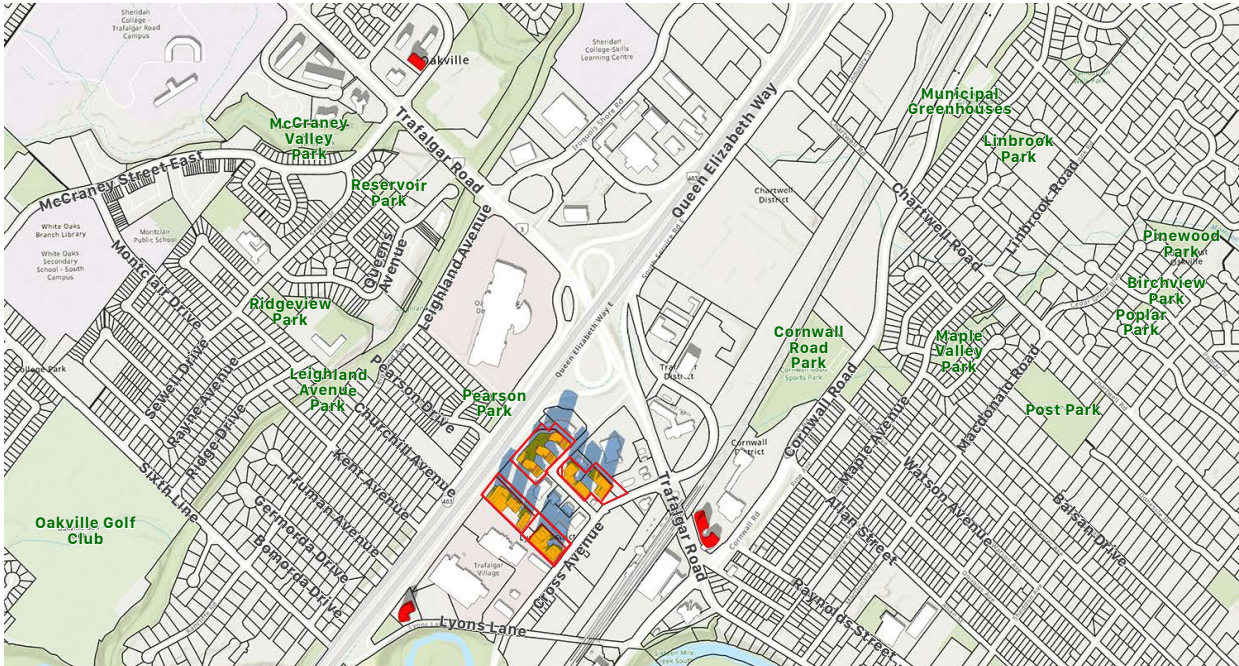
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Legend

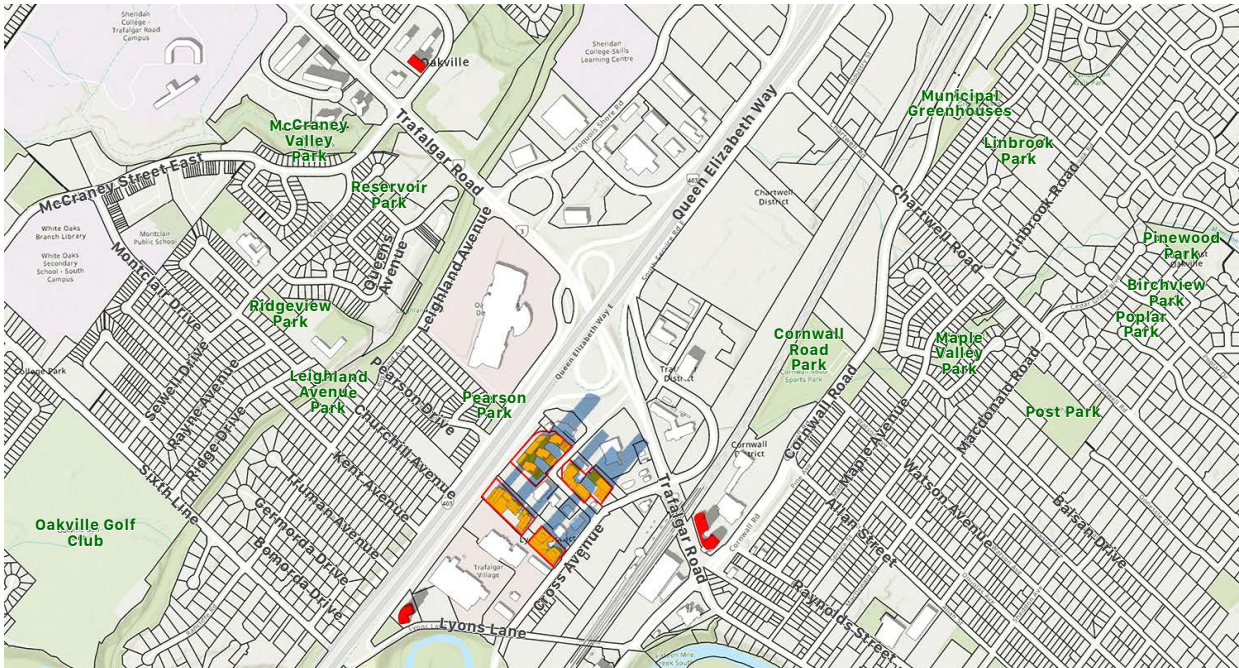
- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



April 21st



1:56pm



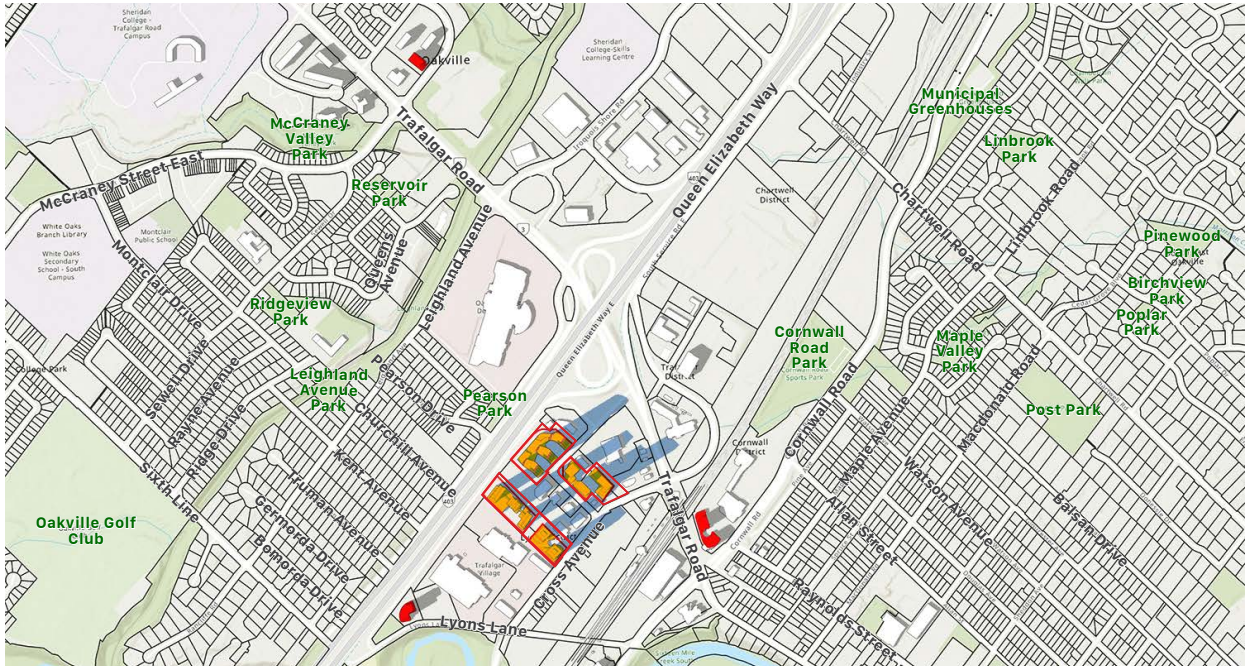
2:56pm

Legend

- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



April 21st



3:56pm



4:56pm

Legend

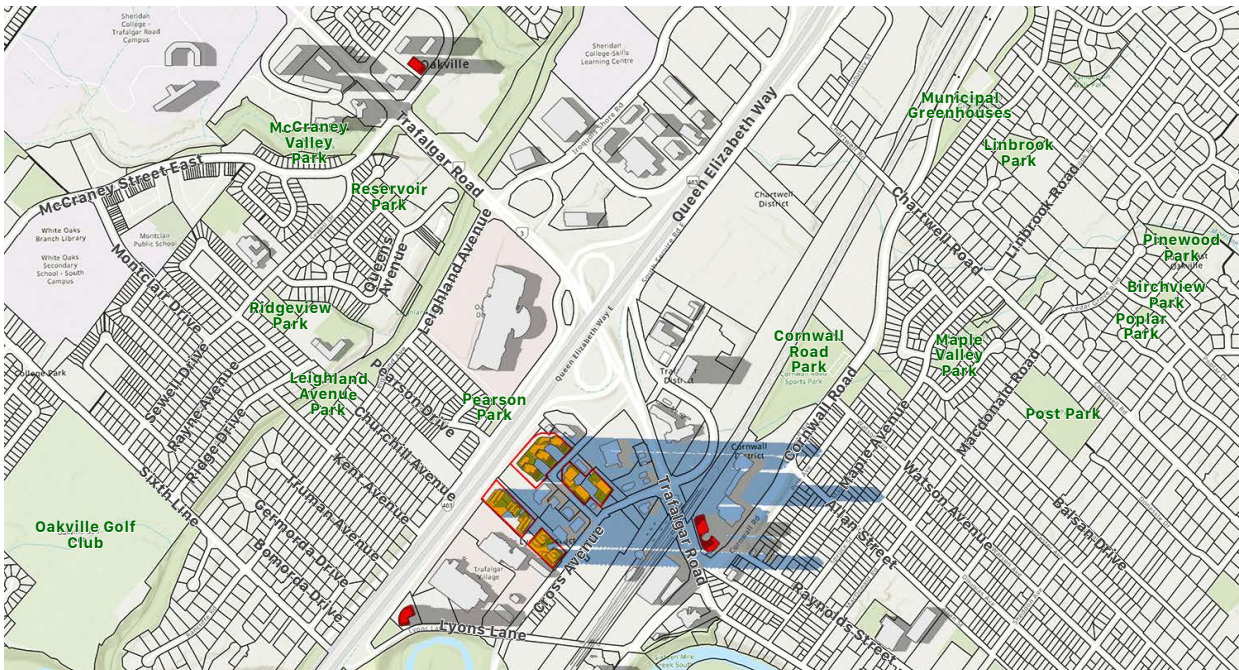
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



April 21st



5:56pm



6:39pm

Legend

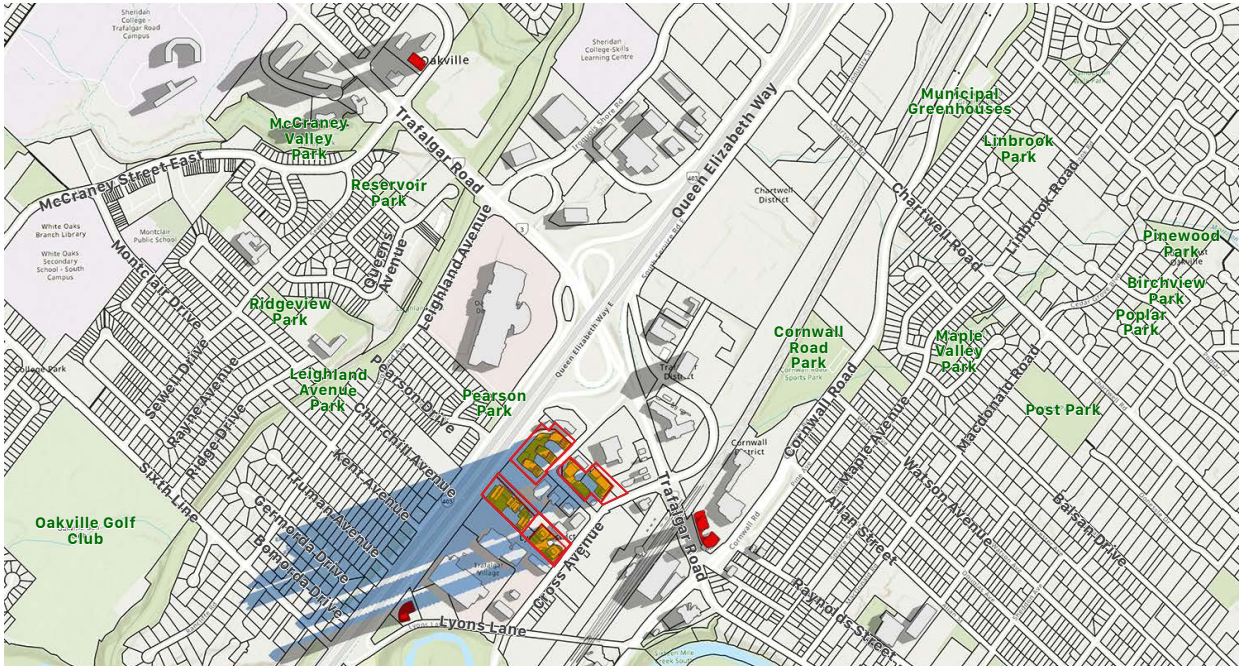
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



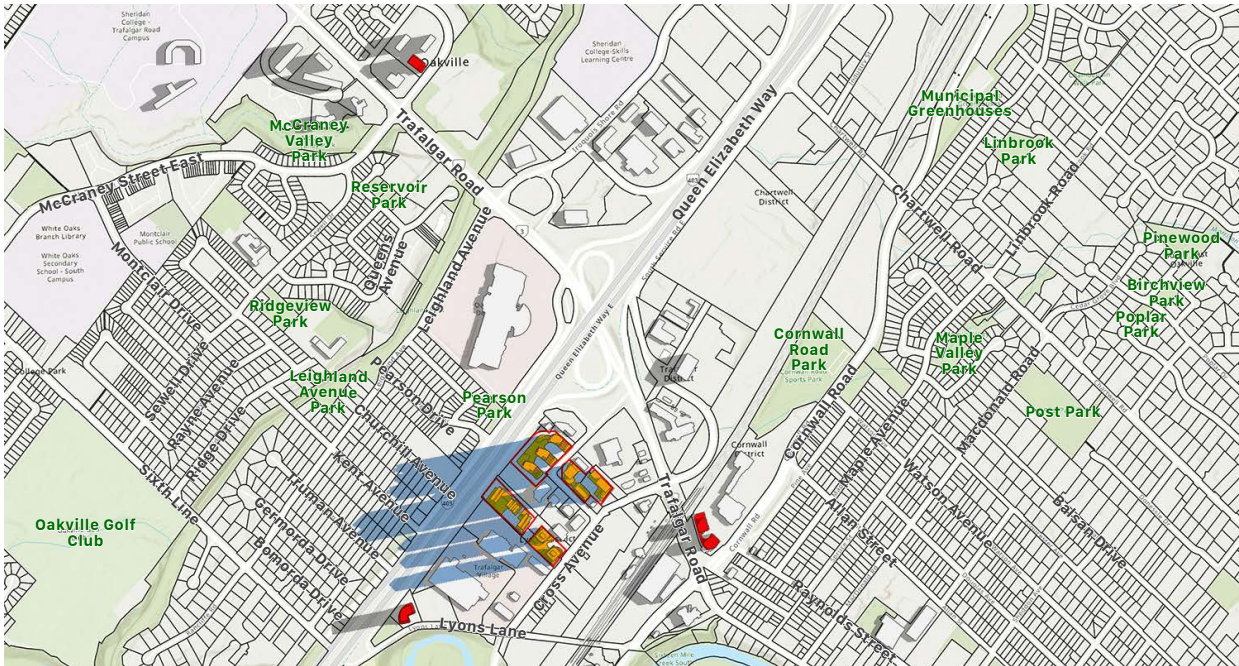
2

Shadow Analysis June 21st

June 21st



7:08am



8:08am

Legend

- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



June 21st



9:08am



10:08am

Legend

- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



June 21st



11:08am



12:08pm

Legend

- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



June 21st



1:08pm



2:08pm

Legend

- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



June 21st



3:08pm



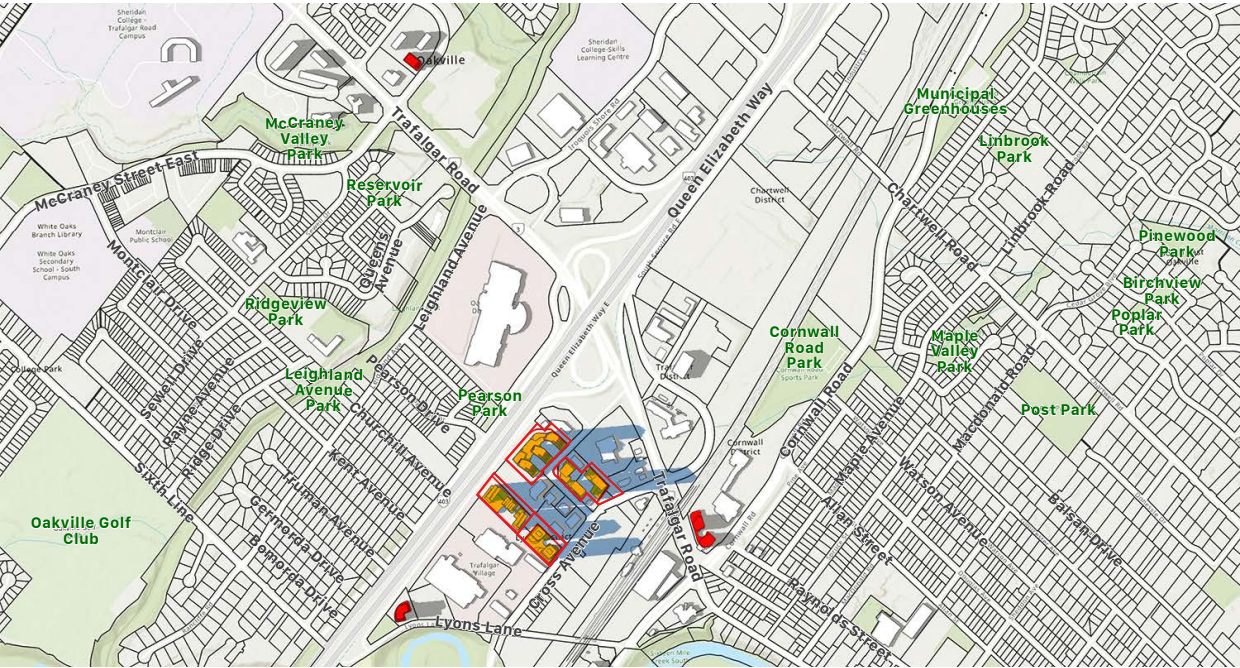
4:08pm

Legend

- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



June 21st



5:08pm



6:08pm

Legend

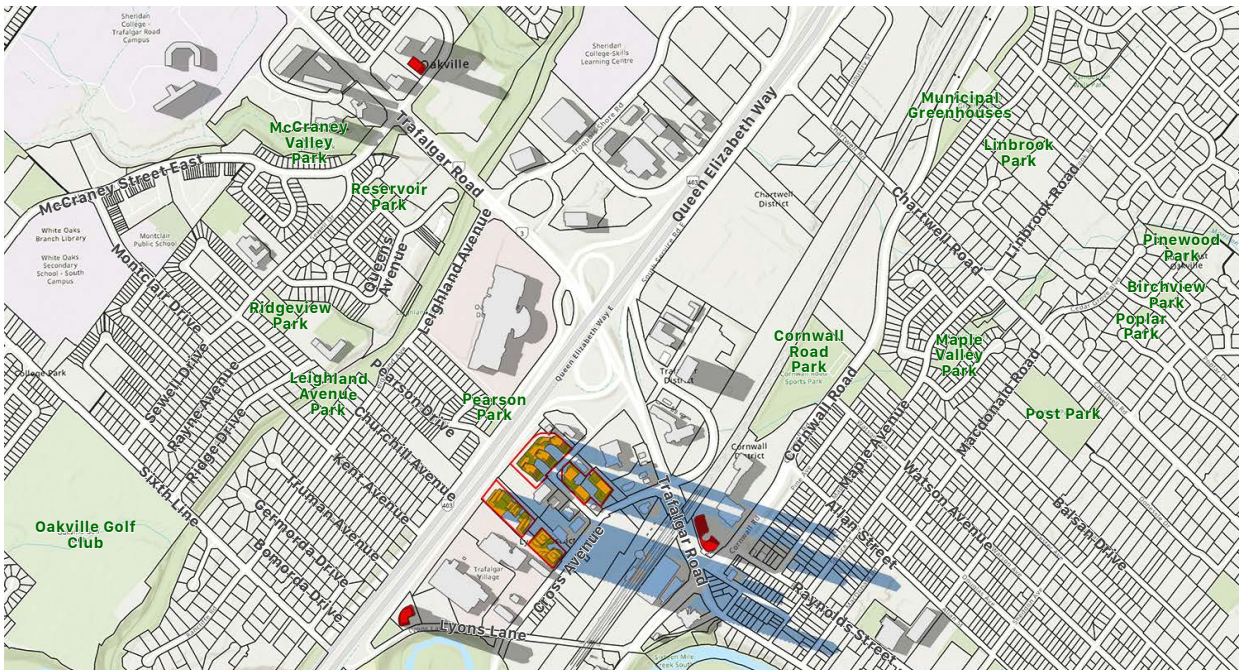
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



June 21st



7:08pm



7:33pm

Legend

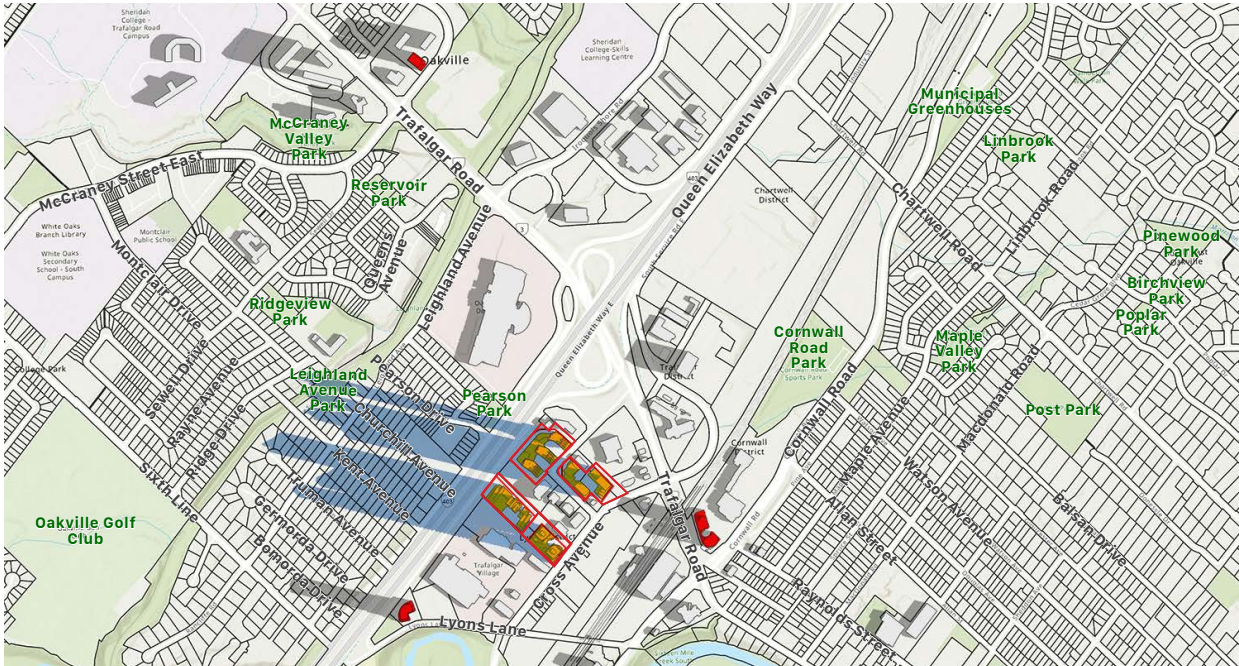
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



3

Shadow Analysis September 21st

September 21st



8:36am



9:36am

Legend

- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



September 21st



10:36am



11:36am

Legend

- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



September 21st



12:36pm



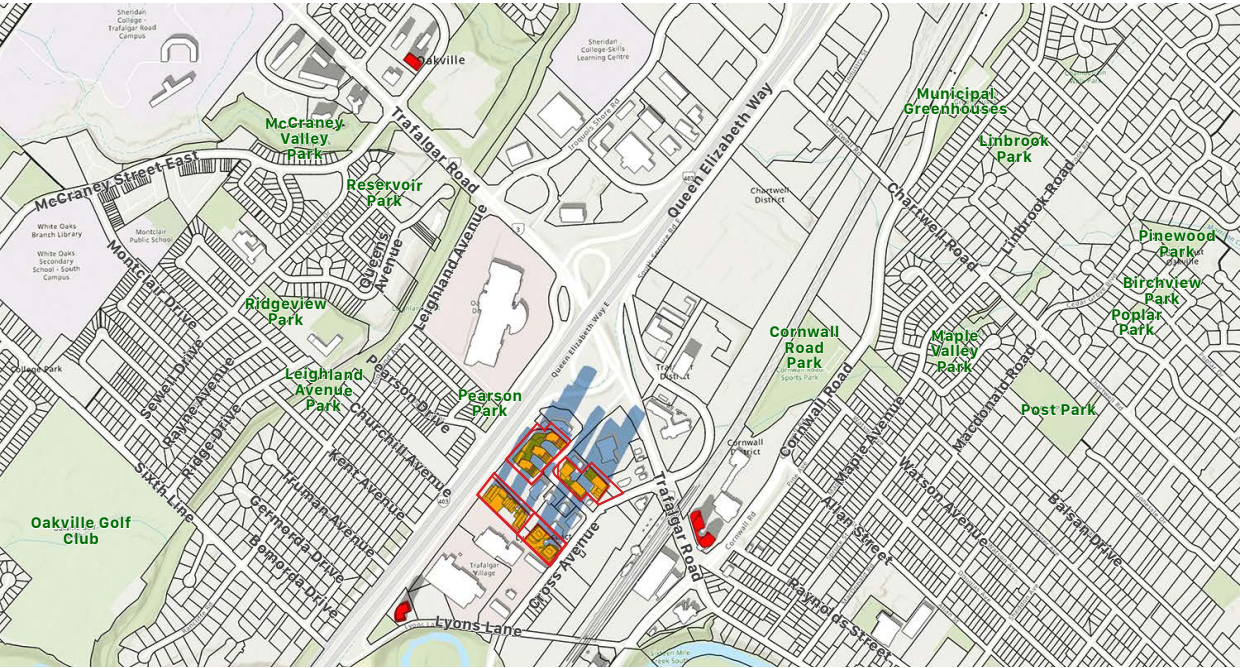
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Legend

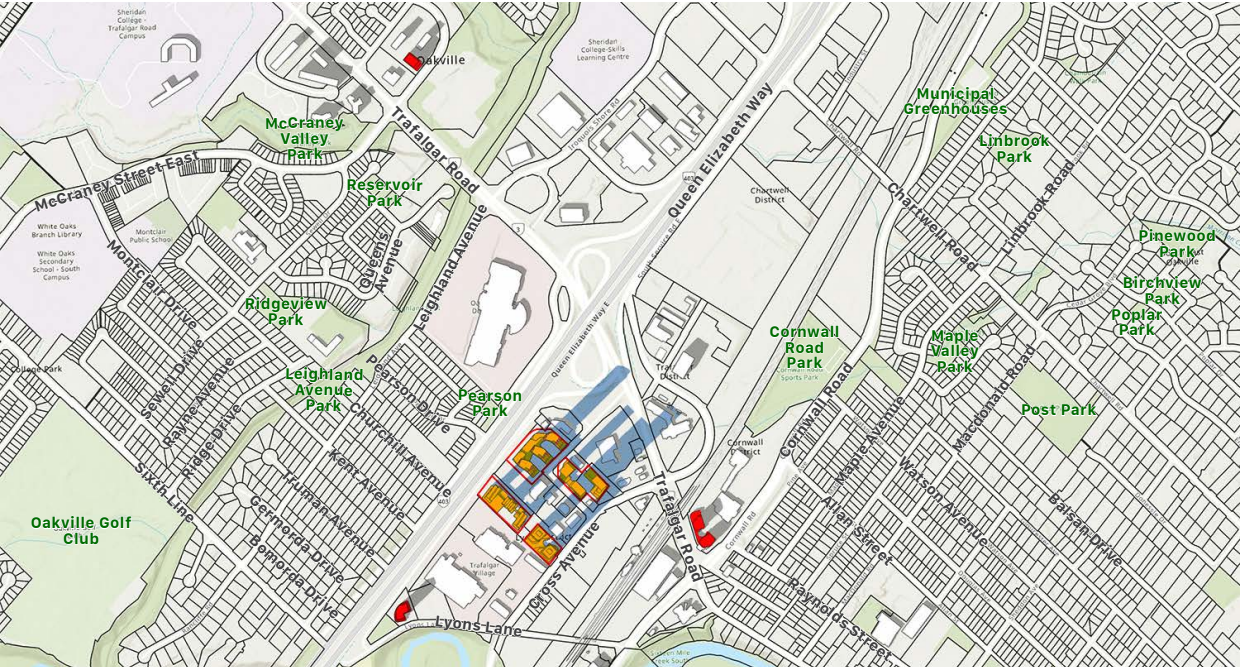
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



September 21st



2:36pm



3:36pm

Legend

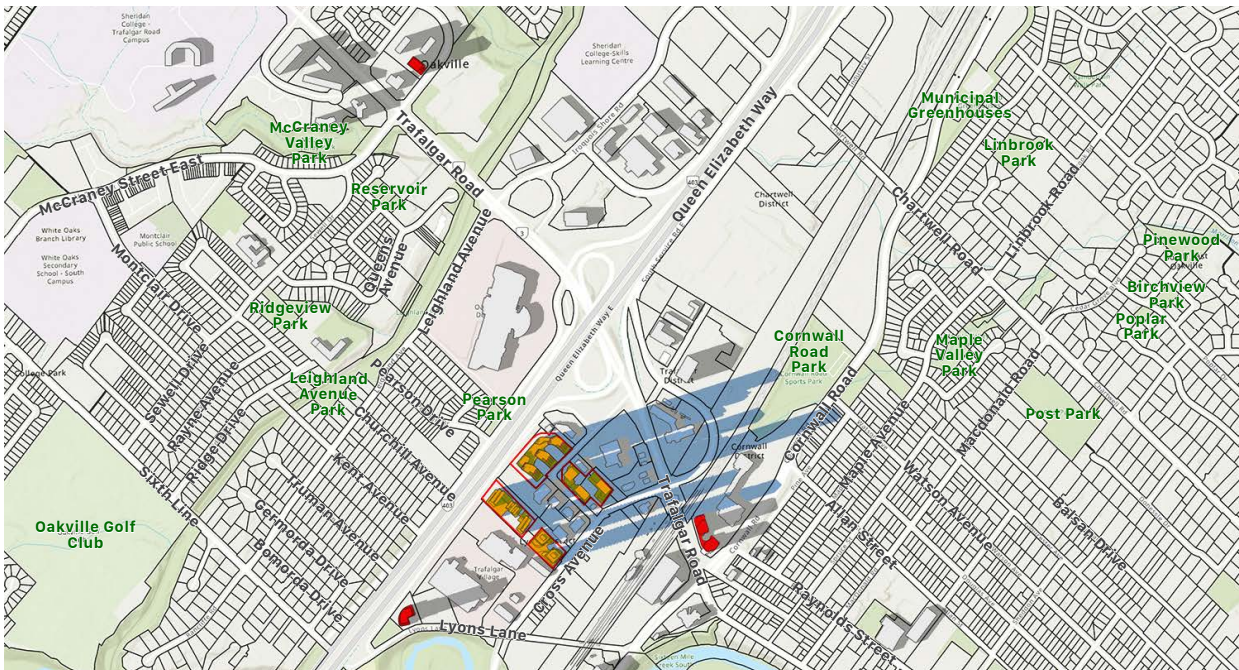
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



September 21st



4:36pm



5:36pm

Legend

- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



September 21st



5:47pm

Legend

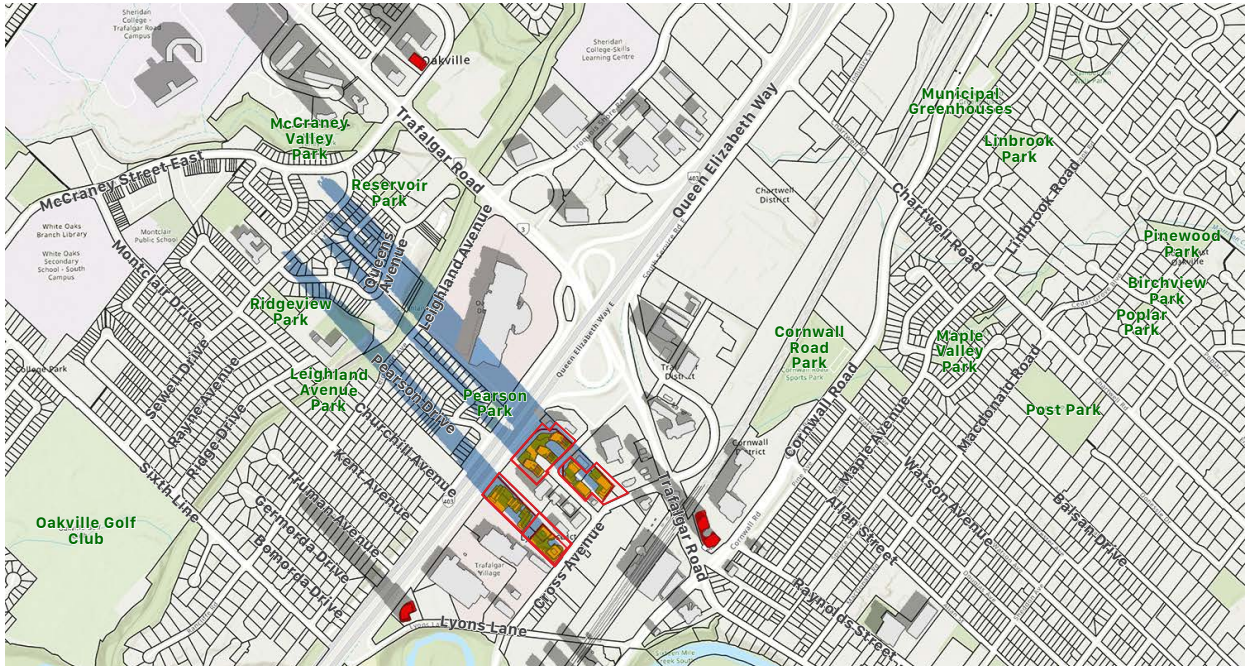
- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



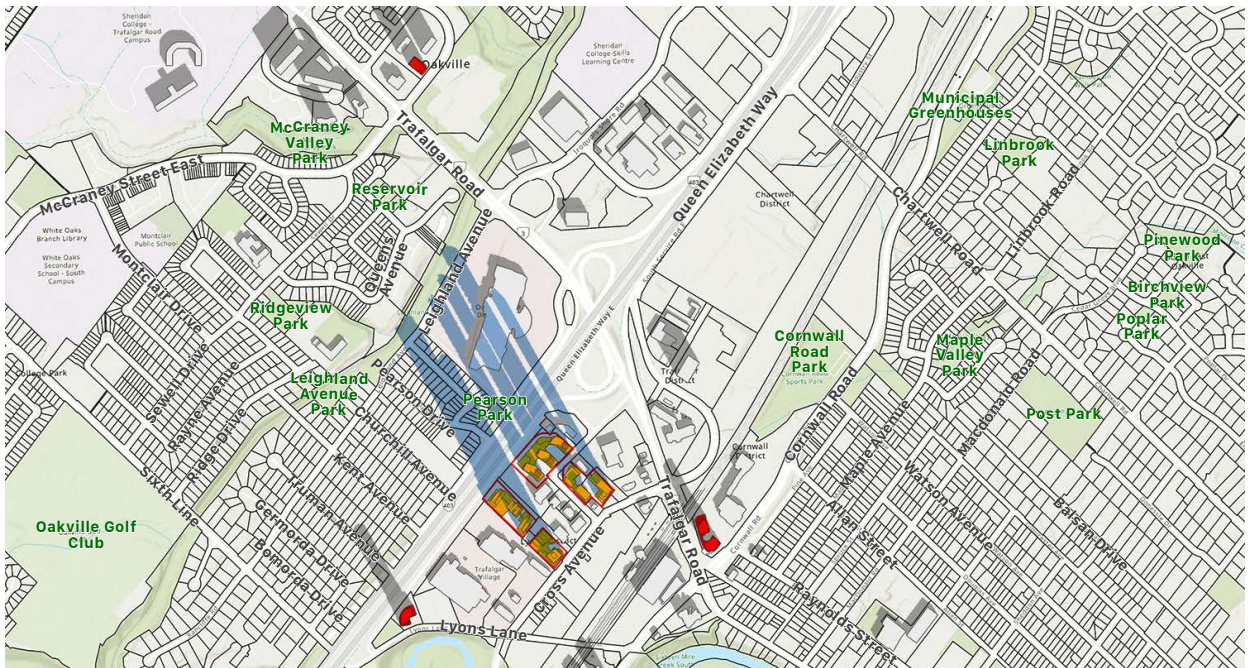
4

Shadow Analysis December 21st

December 21st



9:19am



10:19am

Legend

TOC Lands

TOC Proposal

Shadow Cast by Proposed Development

Approved Development

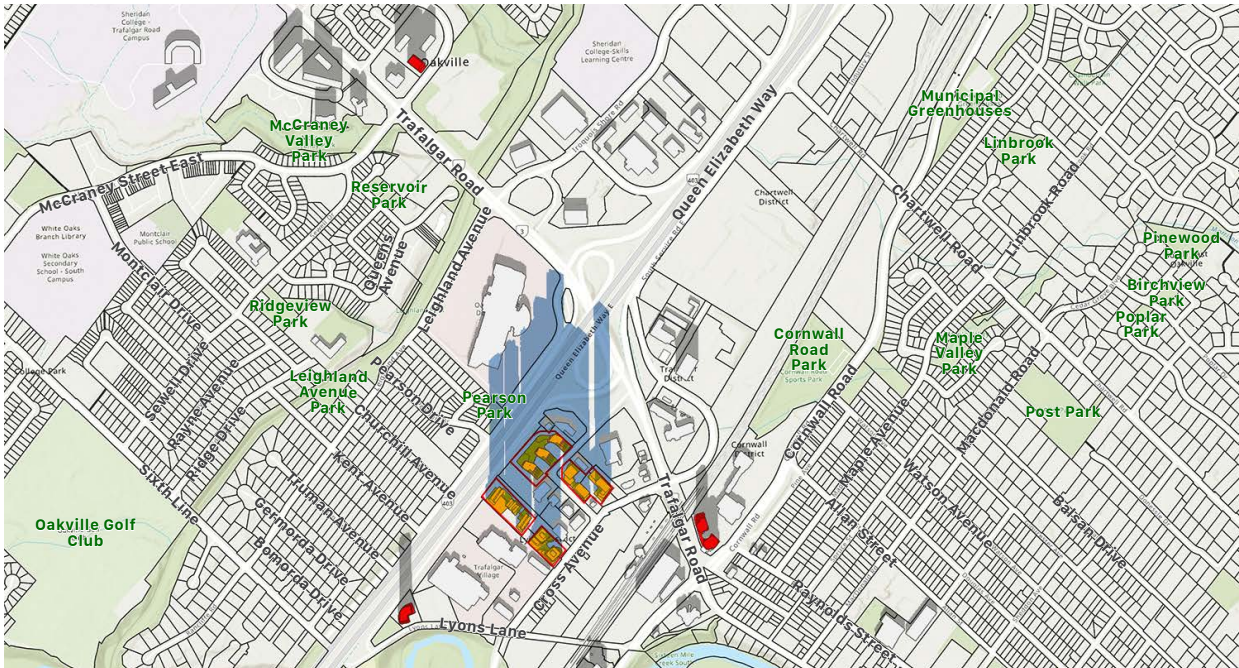
Park / Open Space



December 21st



11:19am



12:19pm

Legend

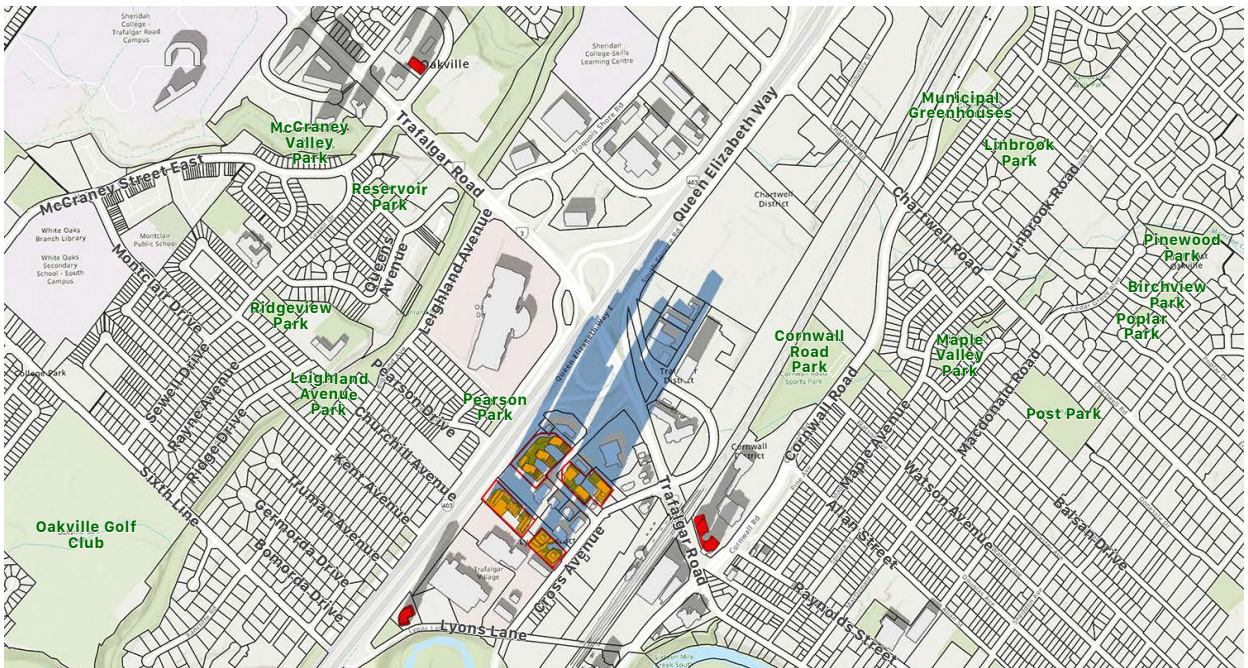
- TOC Lands
- Shadow Cast by Proposed Development
- Park / Open Space
- TOC Proposal
- Approved Development



December 21st



1:19pm



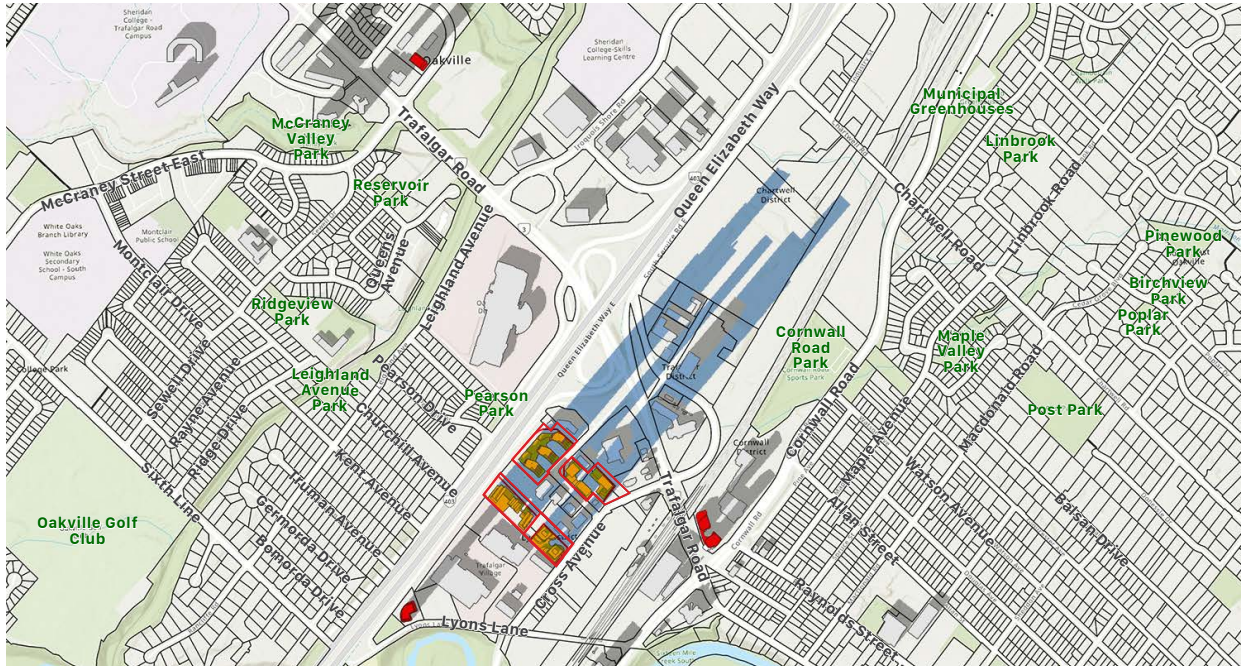
2:19pm

Legend

- TOC Lands
- TOC Proposal
- Shadow Cast by Proposed Development
- Approved Development
- Park / Open Space



December 21st



3:16pm

Legend

- TOC Lands
 - TOC Proposal
- Shadow Cast by Proposed Development
 - Approved Development
- Park / Open Space





