



PLANNING
URBAN DESIGN
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ARCHITECTURE

March 22, 2024

Sylvia Rafalski-Misch, MCIP, RPP
Manager of Development Planning
City of Cambridge
50 Dickson St, Cambridge ON

Dear Sylvia:

**RE: Official Plan and Zoning Bylaw Amendment for 777 Laurel Street – Shadow Impacts
OUR FILE 16222N**

On behalf of E Squared Developments Corp., and in response to City staff's request for additional analysis regarding the shadow impacts of the revised plans, MHBC Planning has reviewed the Shadow Images prepared by ABA Architects. We note that typical shadow impact guidelines require that, to be considered acceptable, a Shadow Study must demonstrate, for potentially impacted residential properties, that:

- At least 50% or more of the residential property should not be shaded for more than two interval times (a 4-hour period); or
- At least 50% of the residential property should be in full sun for at least two interval periods (a 4-hour equivalency)

March 21st

Shadows fall the northeast in the morning, across the adjacent commercial property (micro brewery) and four properties fronting on Laurel Street. However, by 12pm, the shadows have moved further to the north, such that only the rear of the commercial property and the rear of the closest two properties (625 and 635 Laurel Street). The dwellings, their front yards and their immediate rear yards are not impacted.

Shadows continue to move to the west in the afternoon. By 2pm, there are no shadows on the residential properties – shadows are almost entirely contained within the development, or they fall across the railway and onto industrial properties. This remains the case for the rest of the afternoon until the sun is setting (6 pm), when the shadows are longer and fall further to the west.

In summary, the adjacent residential properties along Laurel Street have either partial or full sun for the entire afternoon (more than a 4-hour equivalency), which exceeds typical standards that measure appropriate shadow impacts.

June 21st

Shadow impacts in June are less – the sun is higher in the sky and the shadows cast are shorter. As a result, the adjacent residential properties are not impacted, while the micro brewery property has minor impacts at non and no impacts for the remainder of the afternoon. The brewery is only open during the afternoon and as such, would not be affected by morning shadows.

In summary, in the summer, the adjacent residential properties have full sun (or very close to full sun) for the entire day, which exceeds the above noted criteria.

September 21st

Similar to the spring shadows (March 21st), the shadows impact the adjacent properties along Laurel Street in the morning, but not in the afternoon. The closest residential property, 635 Laurel Street has shadows on the rear portion of their lot at noon, but no shadow impact for the balance of the afternoon, as the shadows move to the east.

As the surrounding residential properties have either full or partial sun for the entire afternoon, the shadow impacts of the development are considered appropriate in the context of the above noted criteria.

December 21st

Shadows are longest in the winter, when the sun is lowest in the sky. Notwithstanding this, the shadows still move away from the residential properties along Laurel in the afternoon, with only minor impacts on the very rear portions of the two closest lots (625 and 635 Laurel Street) – both properties have 50% or more of their properties in full sun from noon onwards.

Summary

In consideration of typical criteria used to evaluate shadow impacts, and due to the placement of the buildings and the significant setbacks, the shadow impacts achieve or exceed the criteria.

Yours truly,

MHBC



Trevor Hawkins, M.PL, MCIP, RPP
Partner

cc. *E Squared Developments Corp.*