

Church Hill: The Importance of Thinking in Three Dimensions

A critique of the proposed parking facility at 19-21 Main Street

Eric Lund, 31 Faculty Road, March 2022

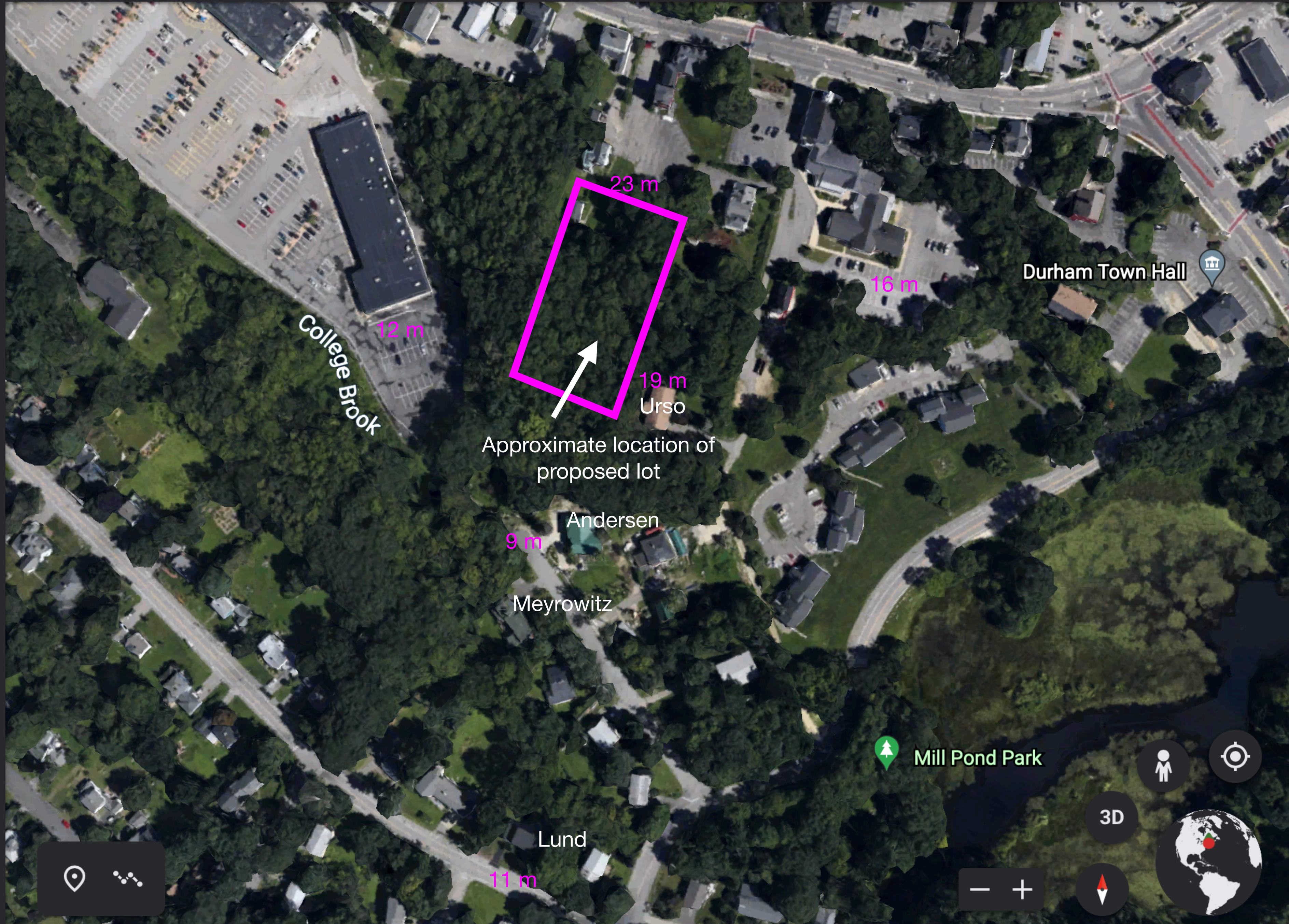
Opinions expressed are my own and not necessarily shared by others on the Town Council

Focus of this presentation

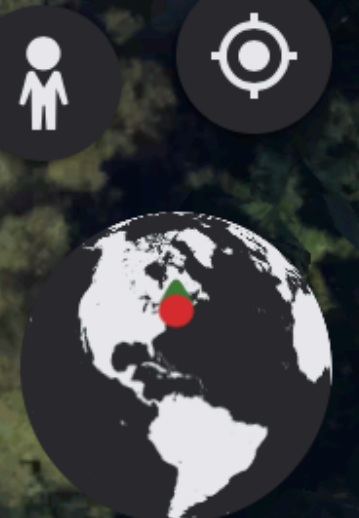
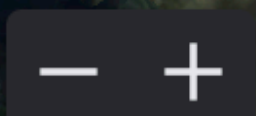
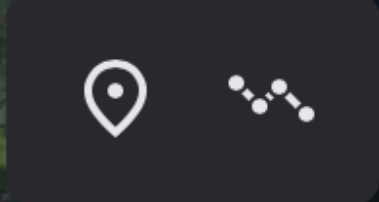
Although I have commented several times regarding other shortcomings of this project, I will focus on two items here:

1. Elevation, and impacts on what can be seen
2. Cone of illumination, and implied impacts

Elevation



source: Google Earth,
17 March 2022



Back of my house, showing approximate locations from which photos on next three slides were taken

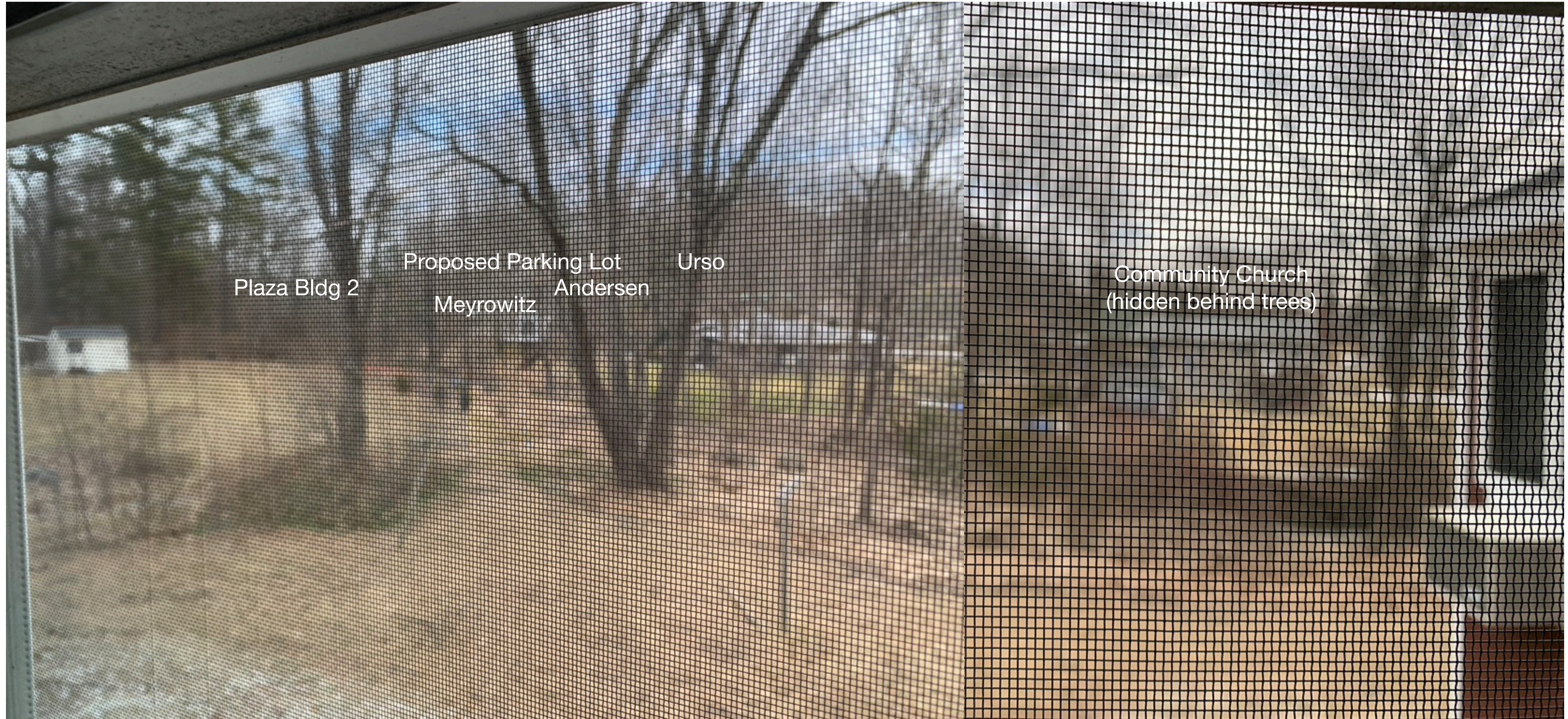


View from my basement

Photos taken 14 March 2022



View from my kitchen



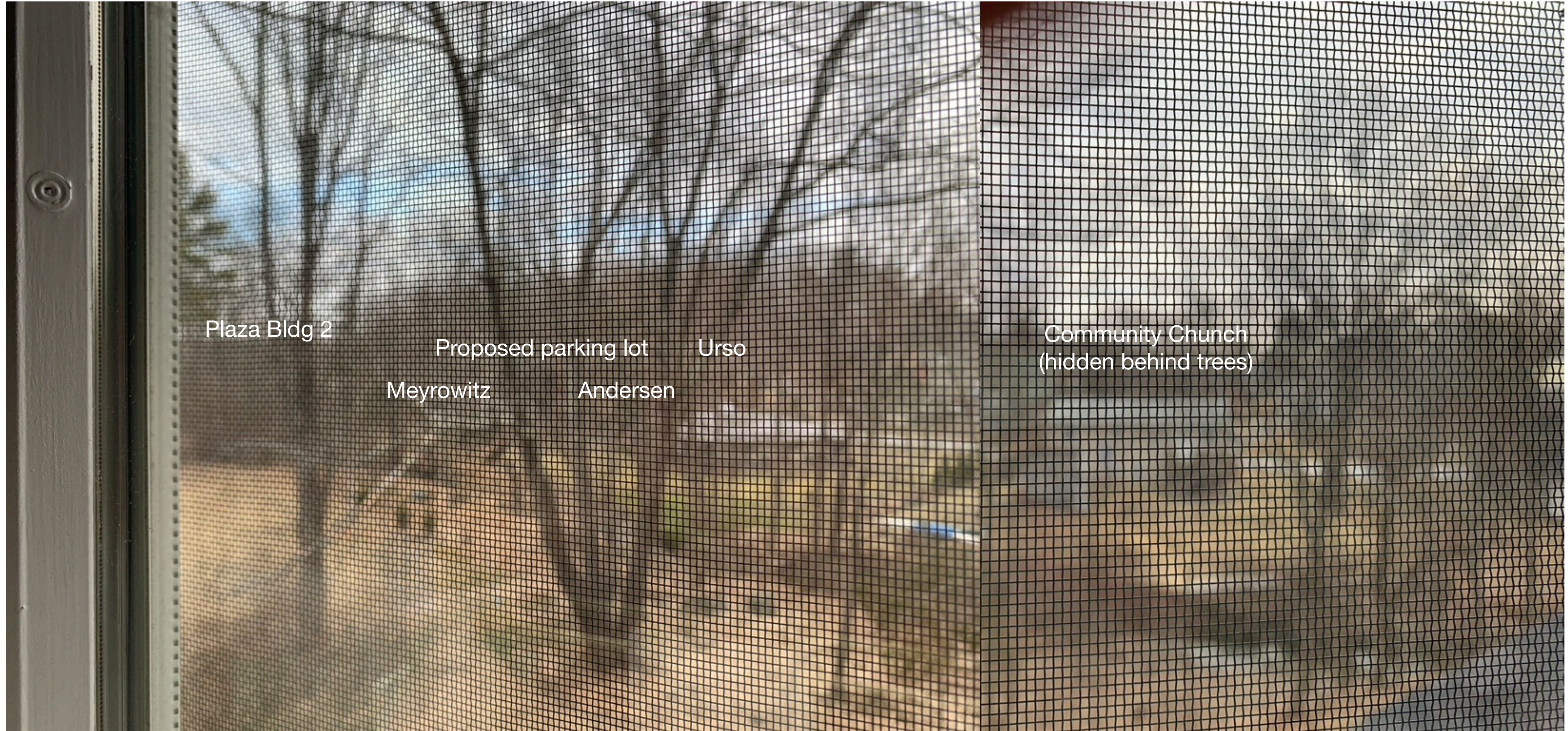
Plaza Bldg 2

Proposed Parking Lot
Meyrowitz Andersen

Urso

Community Church
(hidden behind trees)

View from upstairs

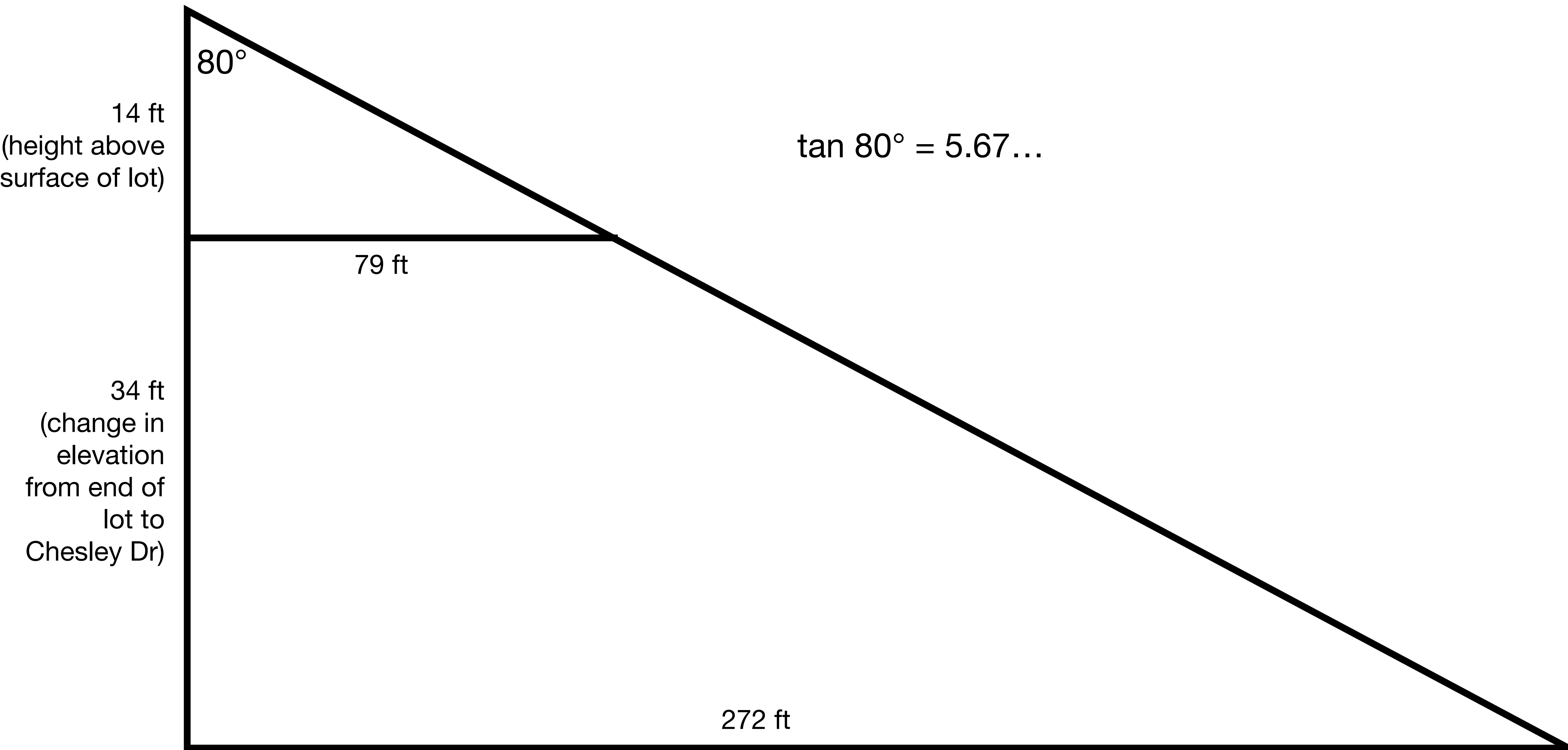


**Summary: Higher elevation,
whether within a house or of the
constructed lot, implies a greater
ability to see and be seen.**

Cone of illumination

Cone of illumination. A regular conical shaped volume situated directly below, and centered upon, a light fixture. The sides of the cone radiate out from the fixture at an angle of *80 degrees from the vertical*. For wall-mounted fixtures, the cone of illumination is a half cone.

(source: Site Regulations, Section 6.2; italics added)



80°

14 ft
(height above
surface of lot)

$$\tan 80^\circ = 5.67\dots$$

79 ft

34 ft
(change in
elevation
from end of
lot to
Chesley Dr)

272 ft

(not to scale)

Impacts in neighborhood

- Cone of illumination from light fixtures placed around periphery of proposed parking lot includes Urso house and parts of Chesley Drive
- Existing vegetation partially shields these neighbors from impacts of Mill Road Plaza and Community Church lots
- Proposed lot is much closer to neighbors, and many trees that would otherwise shield the light will be removed
- Therefore, absent substantial mitigation, the proposed lot is likely to have lighting impacts for Ursos and Chesley Drive beyond existing nearby uses