

**SUN/SHADOW STUDY FOR
PROPOSED MIXED-USE DEVELOPMENT
875 KINGSTON ROAD,
PICKERING, ONTARIO**

MAY 23, 2023

The logo for ICON ARCHITECTS is located in the bottom right corner. It consists of a dark red square containing the word "ICON" in a large, white, sans-serif font, with the word "ARCHITECTS" in a smaller, white, sans-serif font directly below it.

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ICON Architects Inc.

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Date: May 23, 2023

Project: 875 Kingston Road, Pickering

File Ref: 21124

Prepared By: Kimberly Auksi

PARAMETERS

Sun Angles used in this study are based on the following latitude and longitude of the proposed development at 875 Kingston Road, Pickering, Ontario.

Latitude: 43° 49' 21" N

Longitude: 79° 6' 27" W

The base plan was drawn from a combination of the site survey (July 25, 2022 by IBW Surveyors), Interactive Map from the City of Pickering website and Google Earth images in AutoCAD. This drawing was then imported into SketchUp Pro and developed into a 3D mapping model. The images for this study were produced using SketchUp Pro's Shadow Engine. Astronomic north was never altered from the original site survey used for the base plan, and the parameters of the AutoCAD drawing were kept when imported into SketchUp Pro, thus determining astronomic north. All images in this document are illustrated in colour and scaled at 1:4000.

The first page is the key plan showing the areas surrounding the proposed development that were included in the shadow study. The remaining pages, 2-34, show the proposed and existing shadow images for the proposed development on March 21, June 21 and September 21.

Pages 2-12 illustrate shadows on March 21 at the following times: 9:18 am, 10:18 am, 11:18 am, 12:18 pm, 1:18 pm, 2:18 pm, 3:18 pm, 4:18 pm, 5:18 pm, 6:18 pm and 7:18 pm. Pages 13-23 illustrate shadows on June 21 at the following times: 9:18 am, 10:18 am, 11:18 am, 12:18 pm, 1:18 pm, 2:18 pm, 3:18 pm, 4:18 pm, 5:18 pm, 6:18 pm and 7:18 pm. Pages 24-34 illustrate shadows on September 21 at the following times: 9:18 am, 10:18 am, 11:18 am, 12:18 pm, 1:18 pm, 2:18 pm, 3:18 pm, 4:18 pm, 5:18 pm and 6:18 pm.

Study images on all days for the proposed development were analysed for shadow impacts on neighbouring streets, parks, open spaces, natural areas, public squares and other shadow sensitive properties.

ANALYSIS

In review of the images, we have determined that the shadows of the proposed development impacted a total of two properties, both on Kingston Road. 882 Kingston Road is a church and there is no existing building on 870 Kingston Road.

Shadow Sensitive Properties – Church

882 Kingston Road, a church, was impacted by the shadows of the proposed development only in the early morning, at 09:18 am to 11:18 am on both March 21 and September 21. There were no impacts caused by the proposed development on June 21.

Kingston Road

Kingston Road

870 Kingston Road was only impacted in the early morning for a single hourly test time, at 9:18 pm, on March 21. There were no impacts caused by the proposed development on June 21 or September 21.

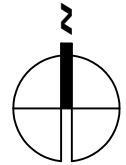
Neighbouring Streets

A portion of the sidewalk and boulevard on both side of Kingston Road, directly adjacent the site, was impacted by the shadows of the proposed development from 9:18 am to 1:18 pm, on March 21 and September 21. The South side of Kingston Road adjacent to the site was impacted by the shadows of the proposed development from 2:18 am to 4:18 pm on March 21 and September 21 and from 9:18 am to 12:18 pm on June 21.

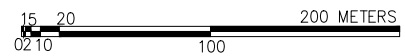
In review of the illustrations provided, it is our opinion that the shadow impacts caused by the proposed development are acceptable as minimal impacts can be seen on neighbouring streets, shadow sensitive properties.

Included in this document:

- 2 page written analysis of sun/shadow study
- 1 page key plan
- 33 pages of colour illustrations showing proposed and existing shadows



KEY PLAN



Project:

875 KINGSTON ROAD
PICKERING, ONTARIO

SHADOW STUDY

KEY PLAN

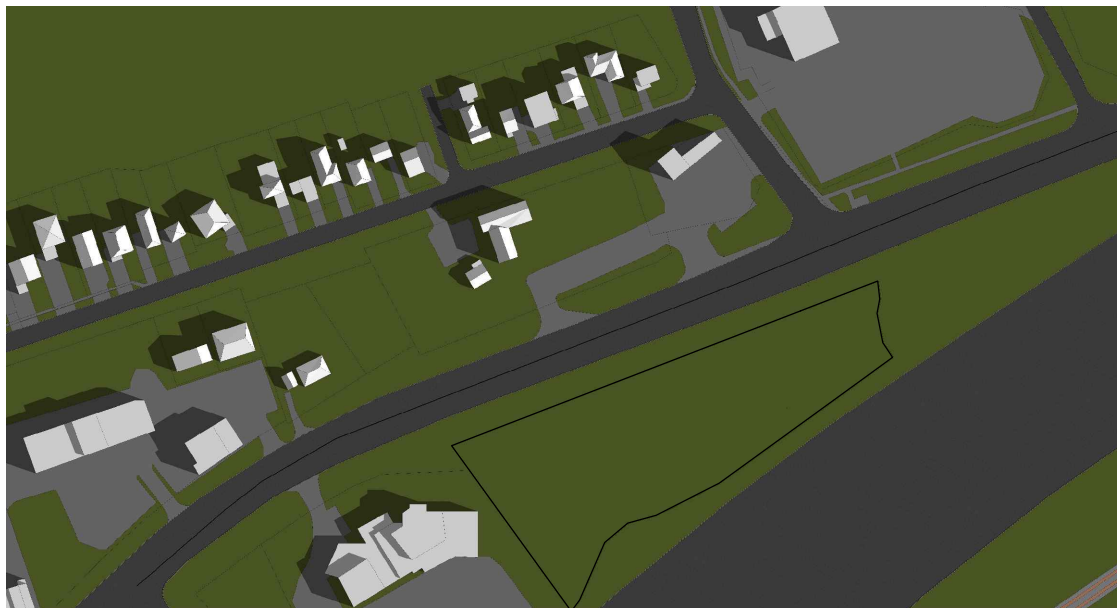
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MARCH 21
9:18 AM

Scale:
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Date:
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Project No.

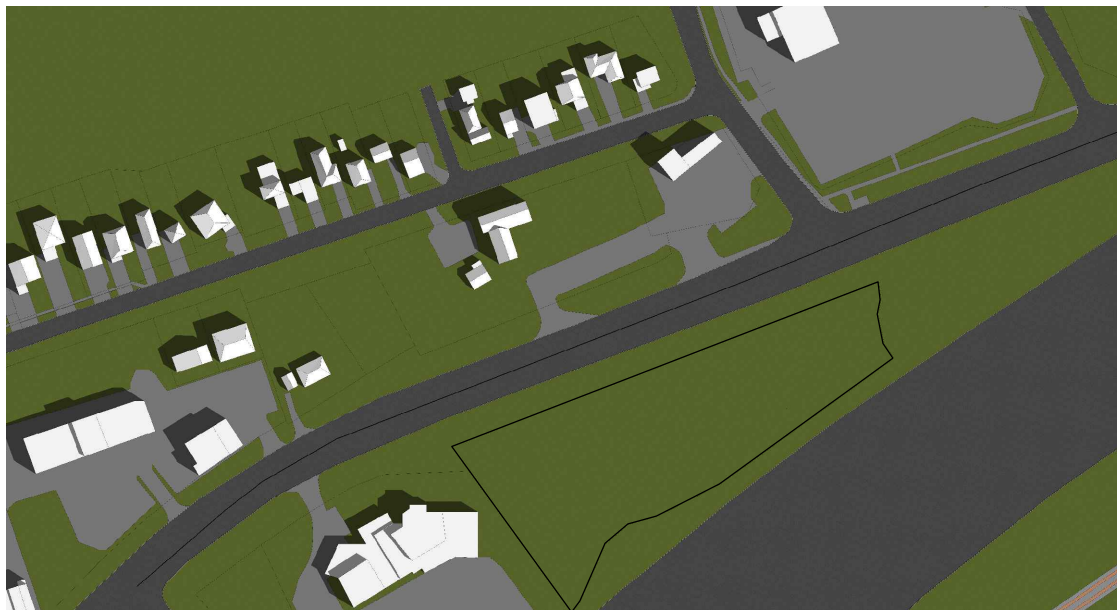
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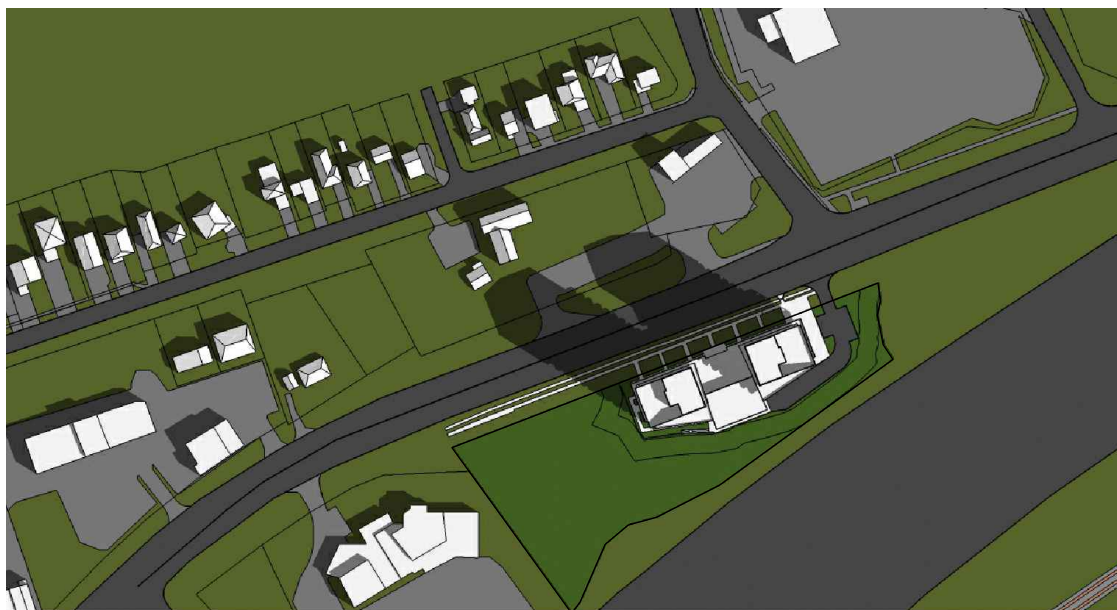
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MARCH 21
10:18 AM

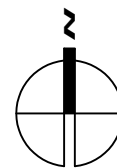
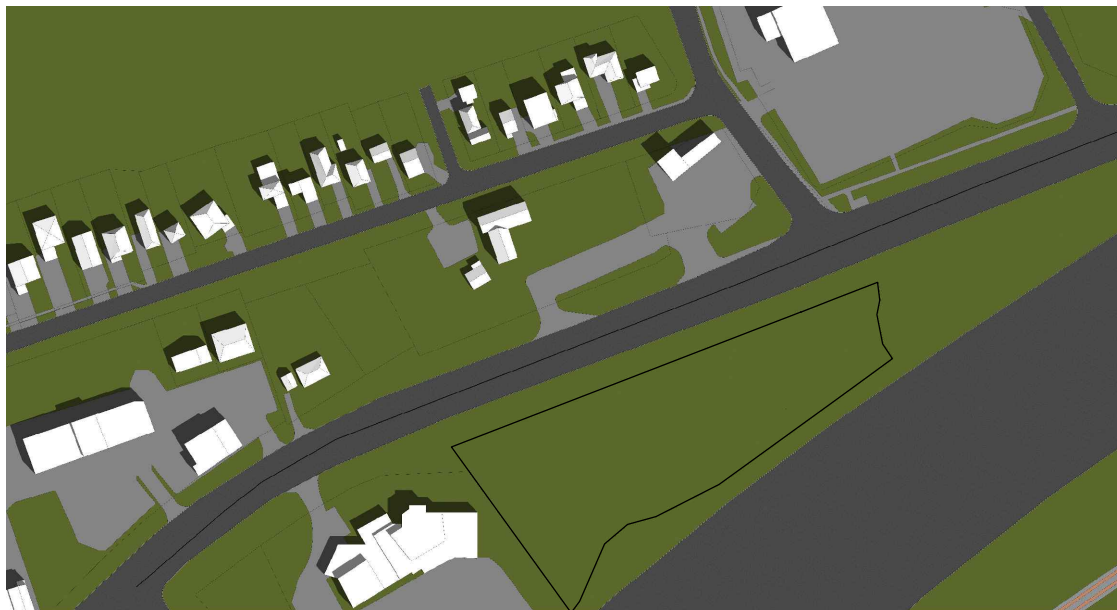
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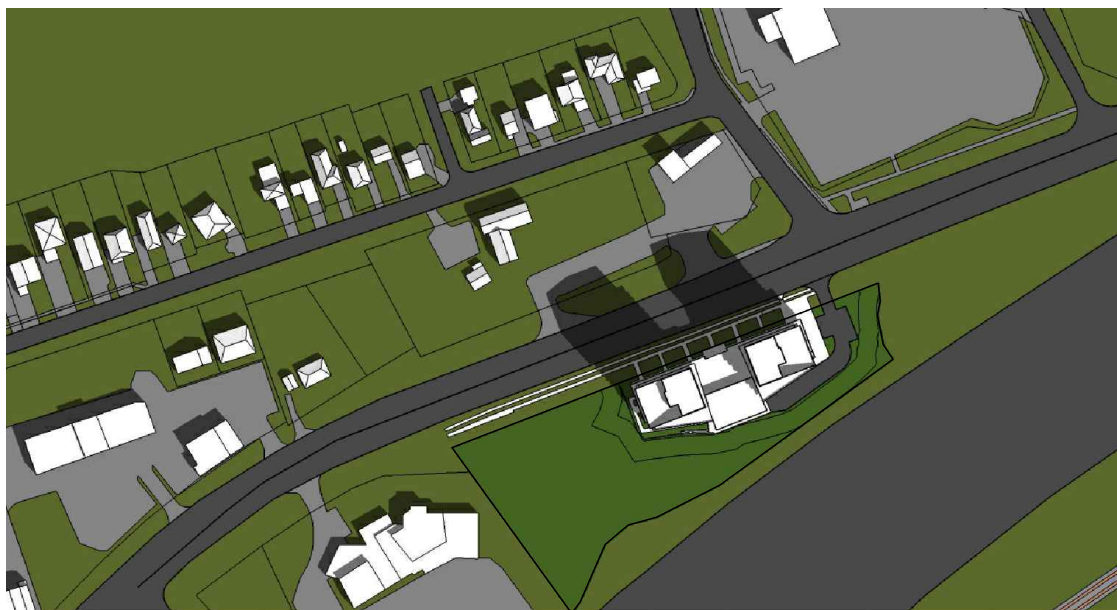
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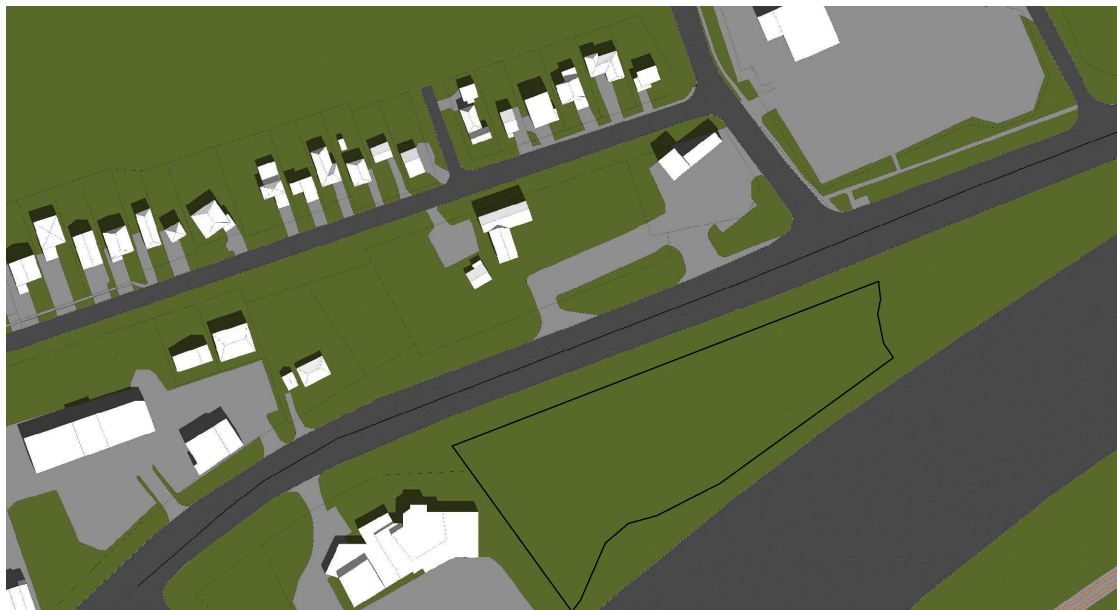
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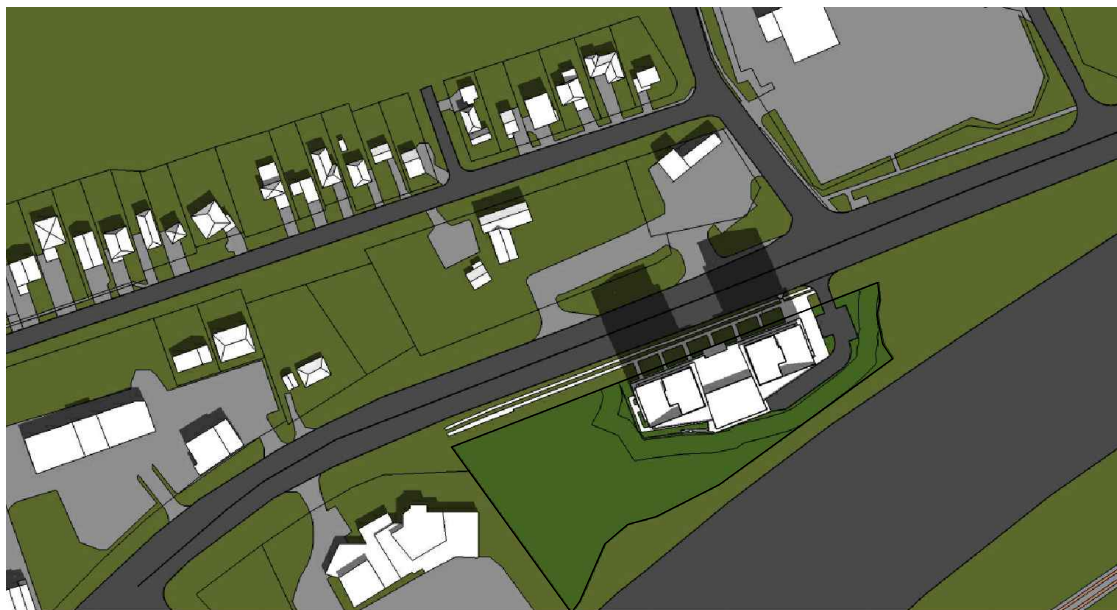
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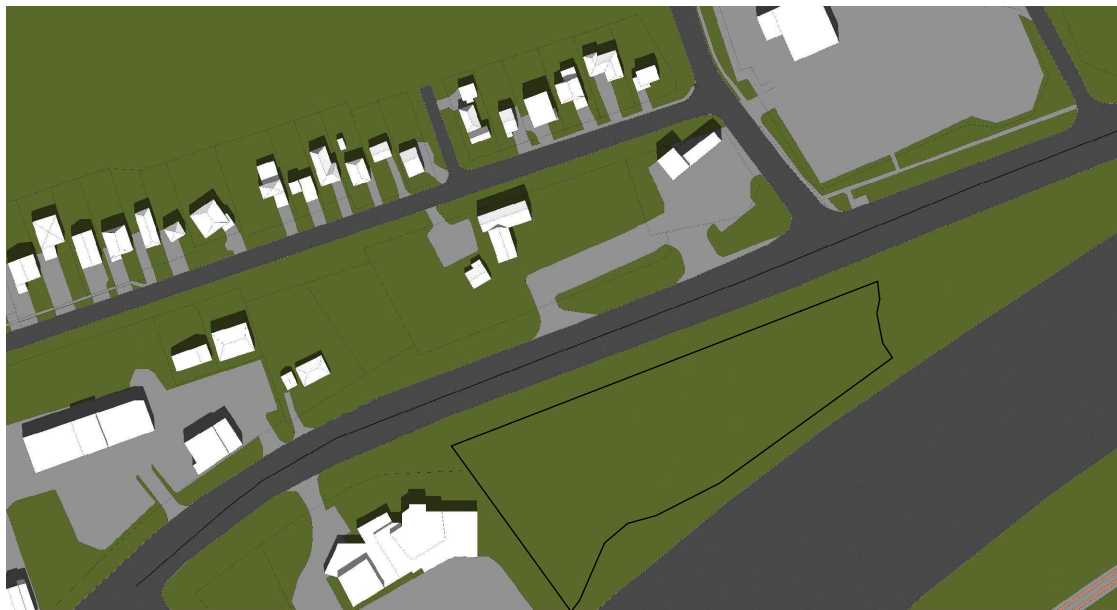
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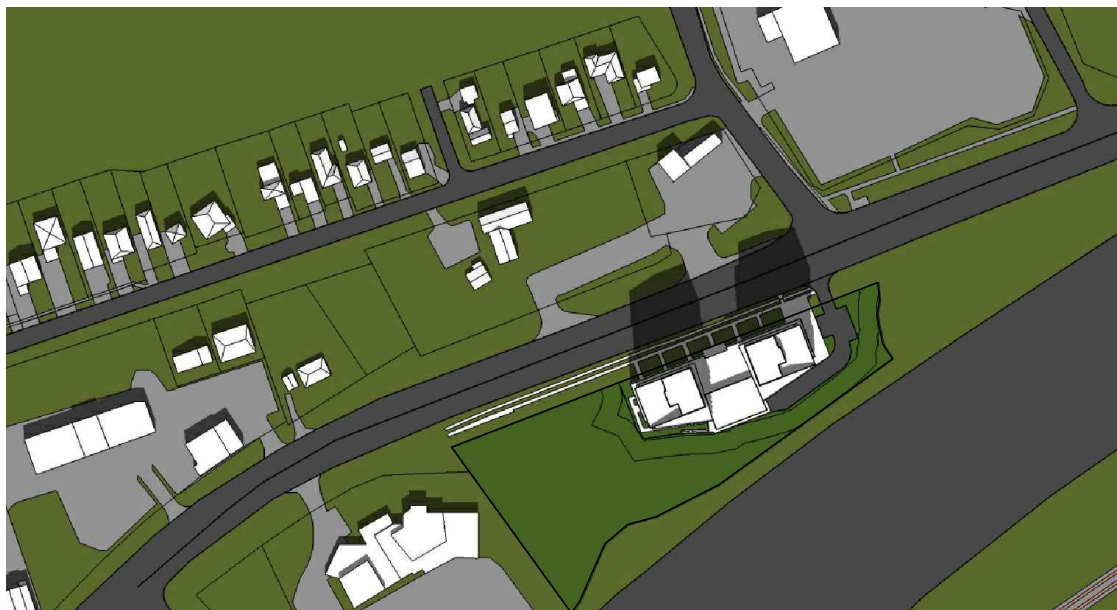
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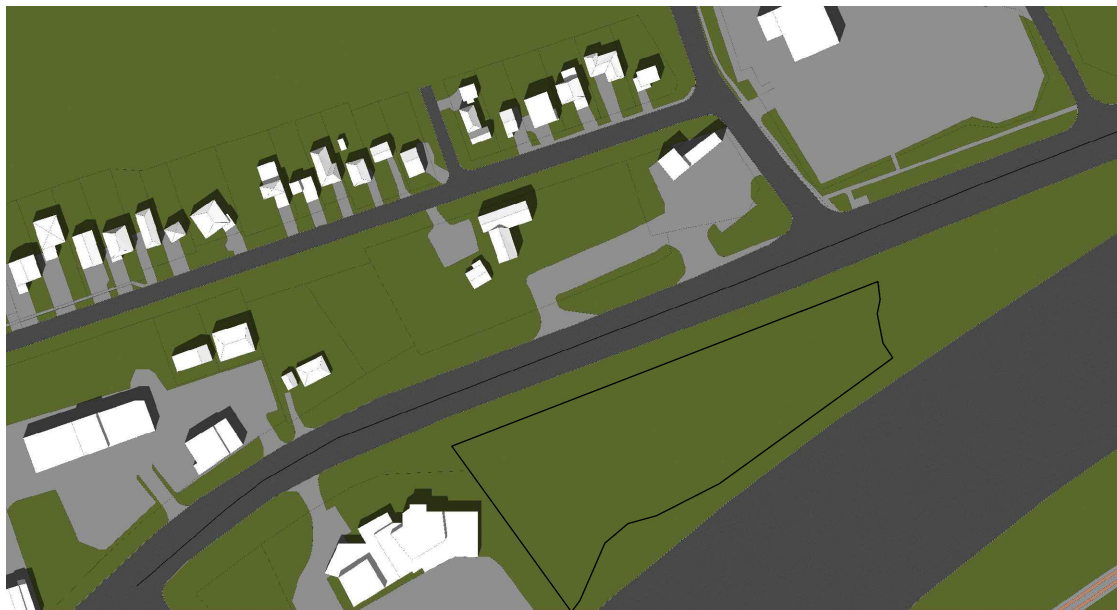
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MARCH 21
02:18 PM

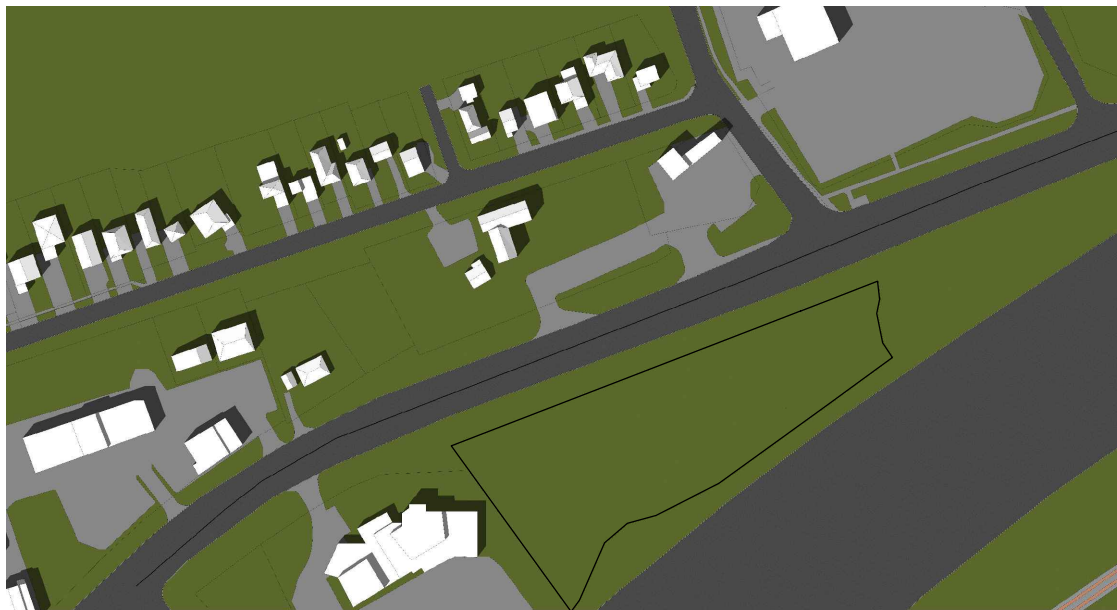
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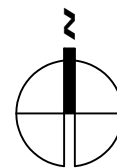
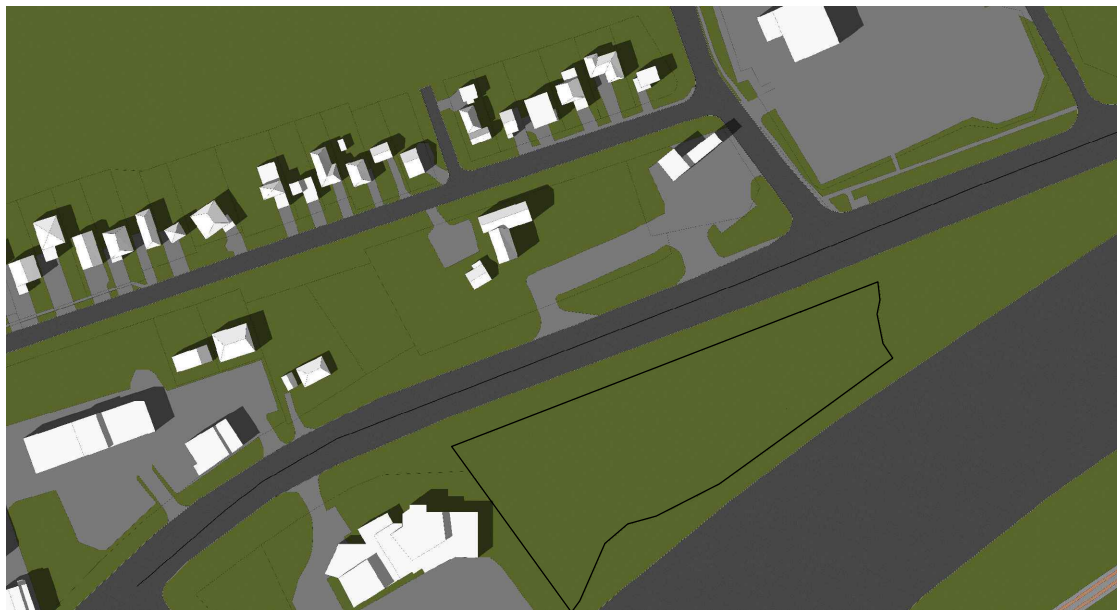
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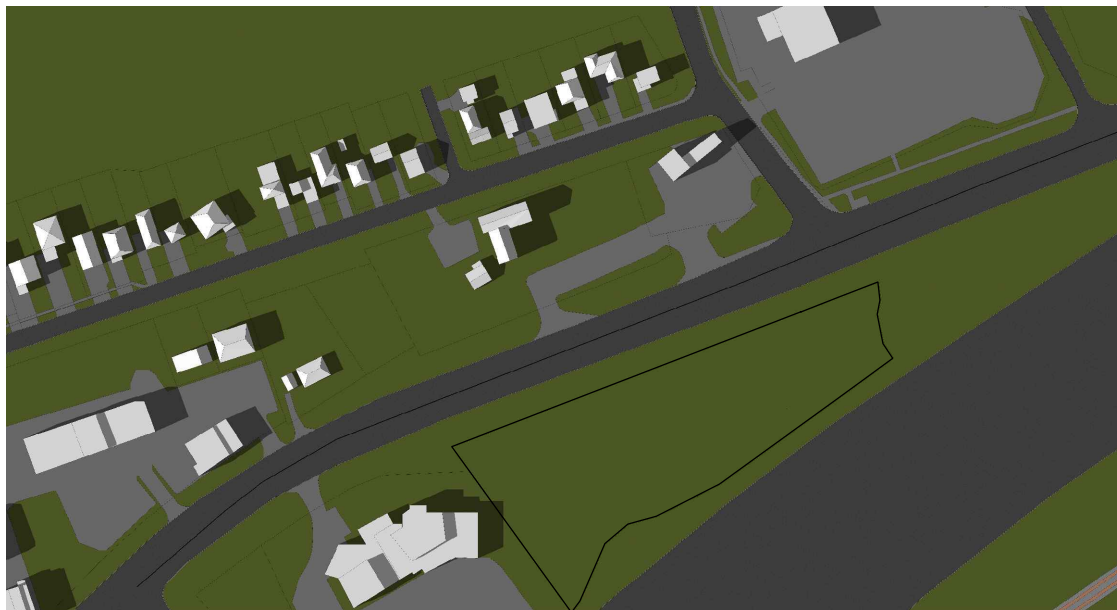
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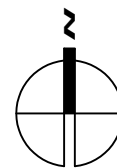
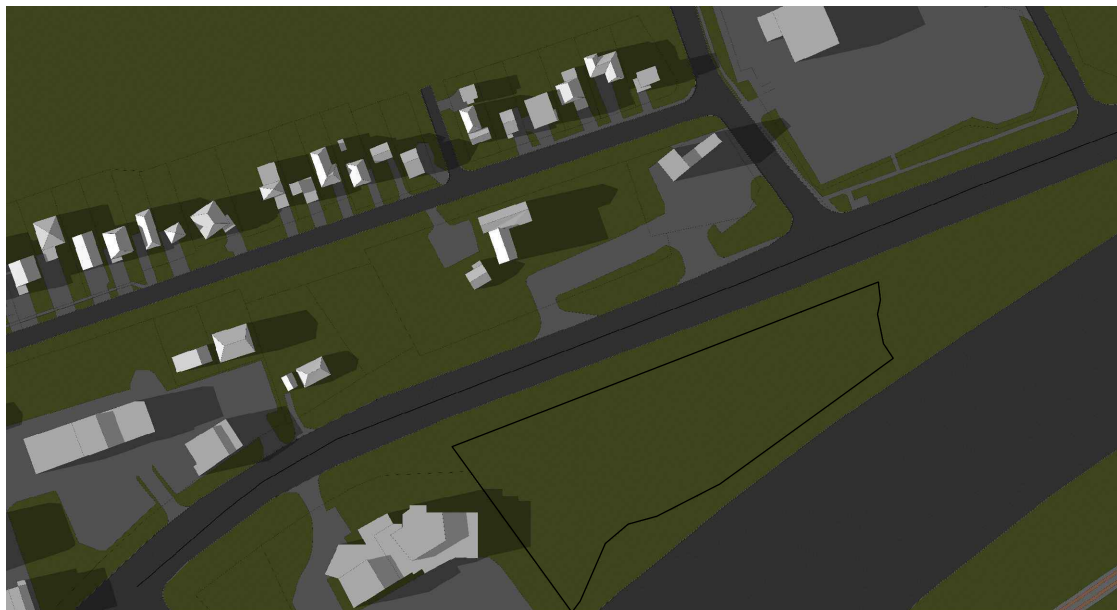
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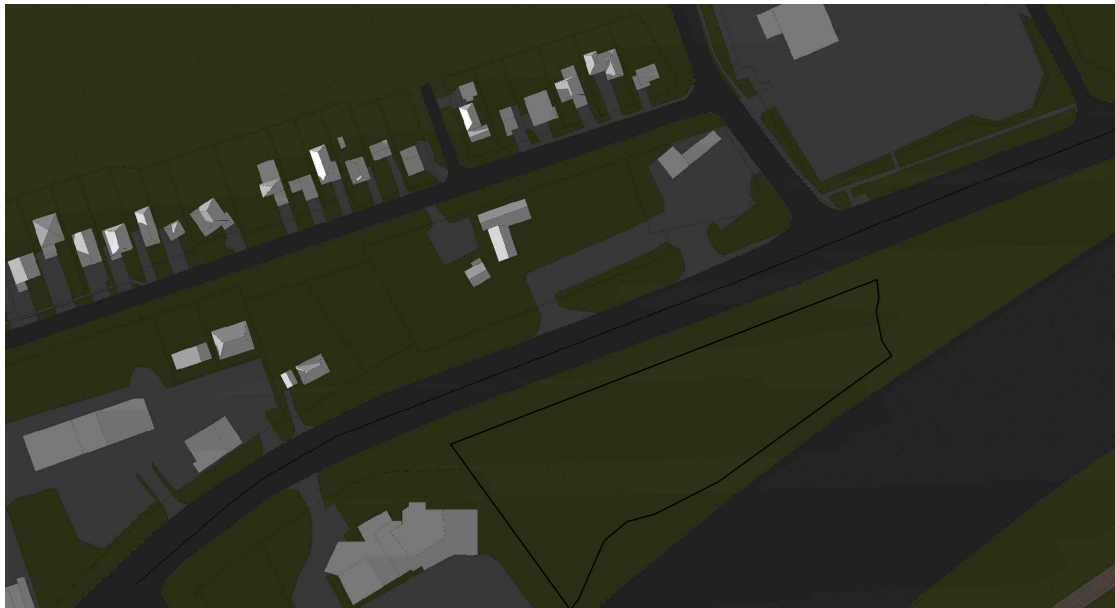
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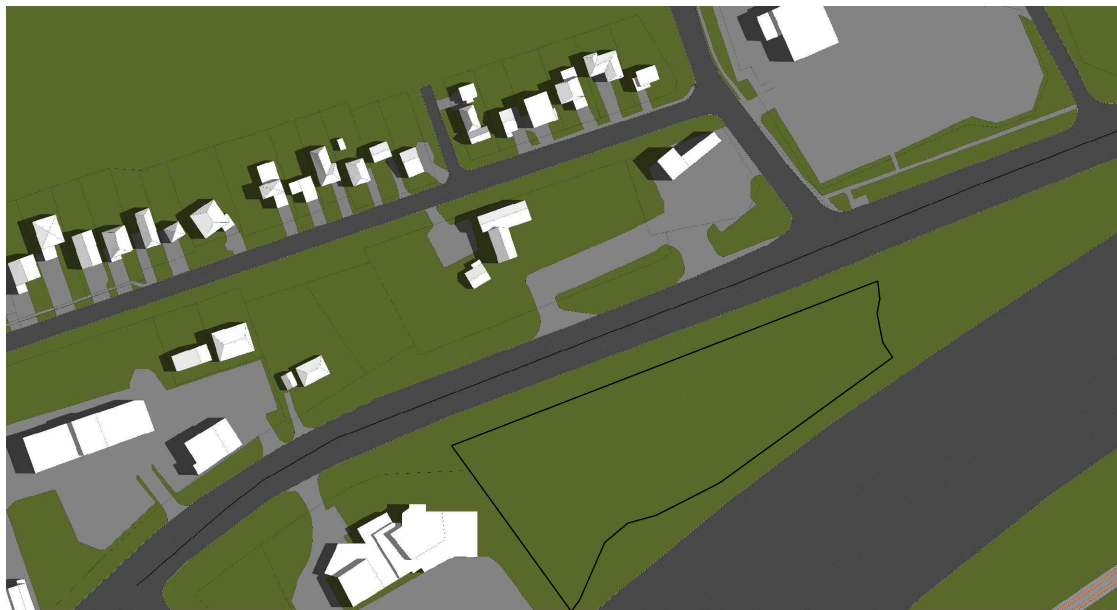
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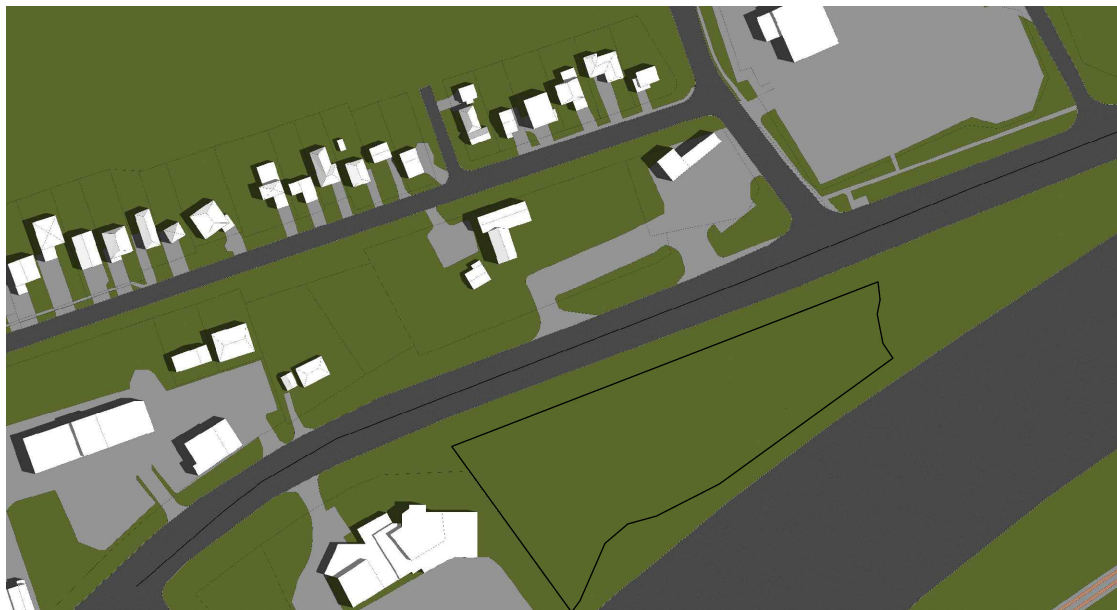
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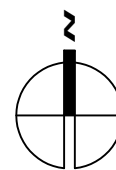
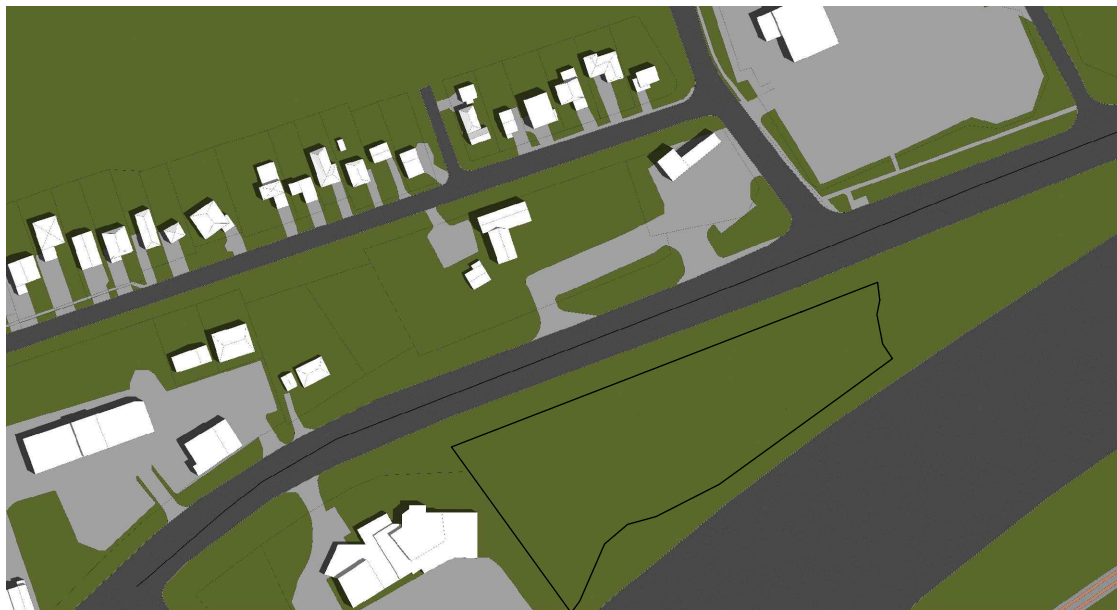
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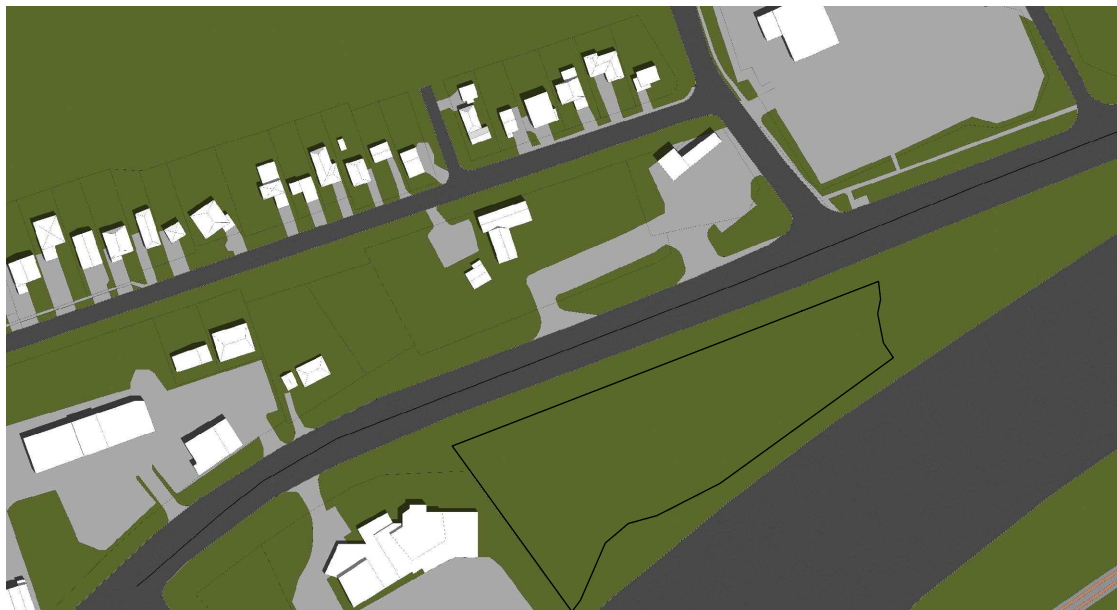
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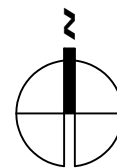
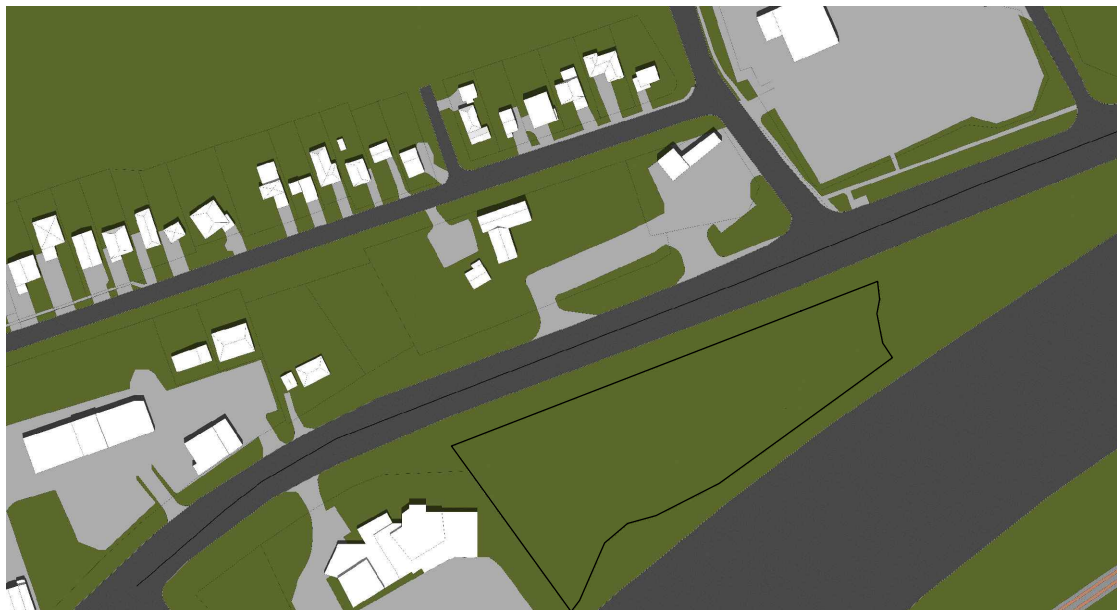
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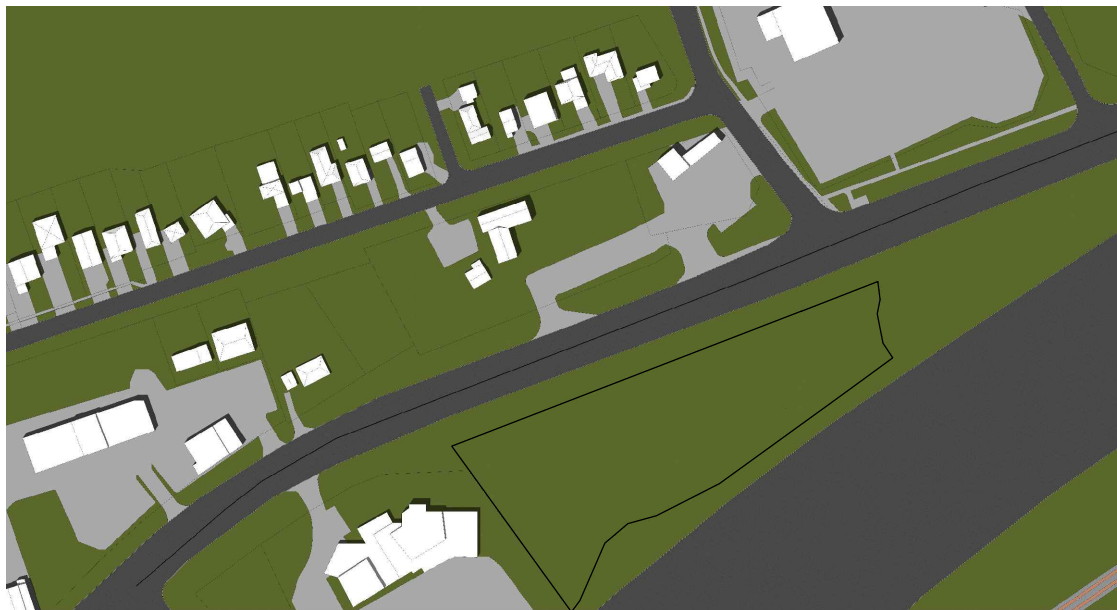
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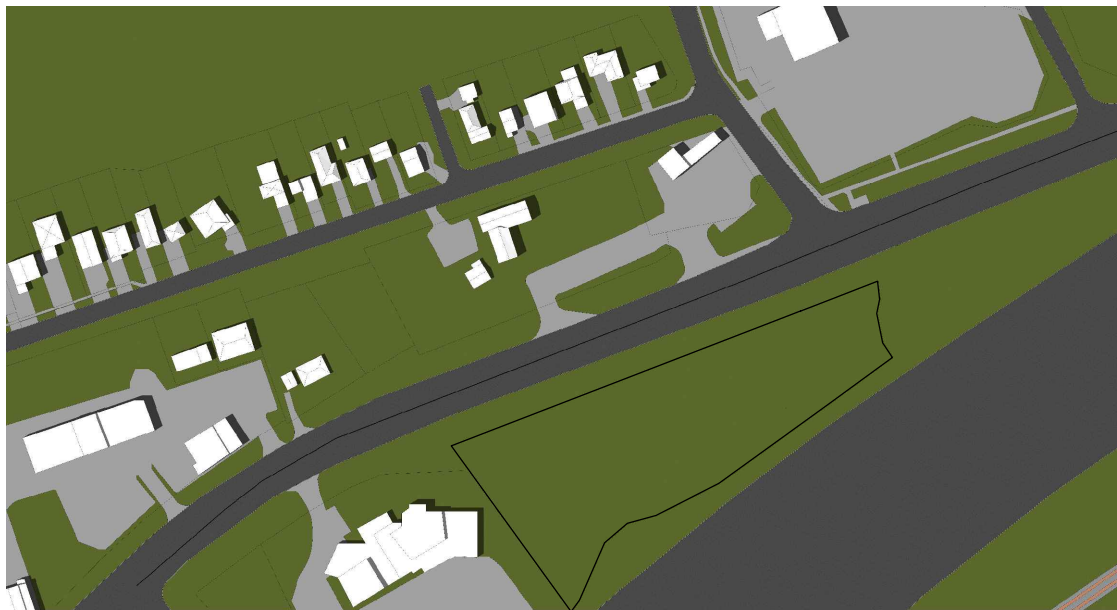
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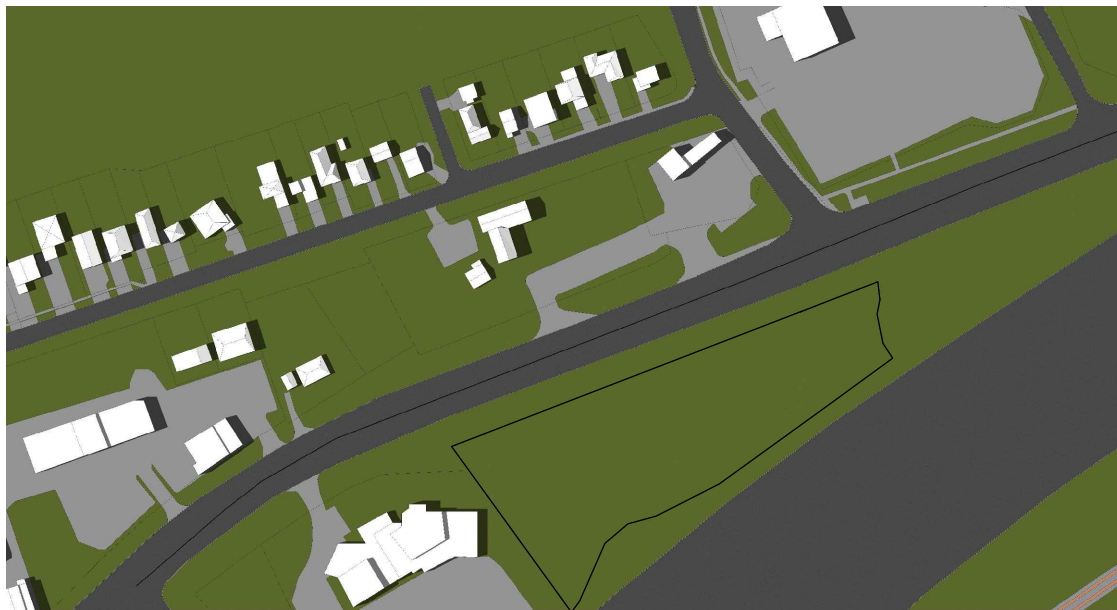
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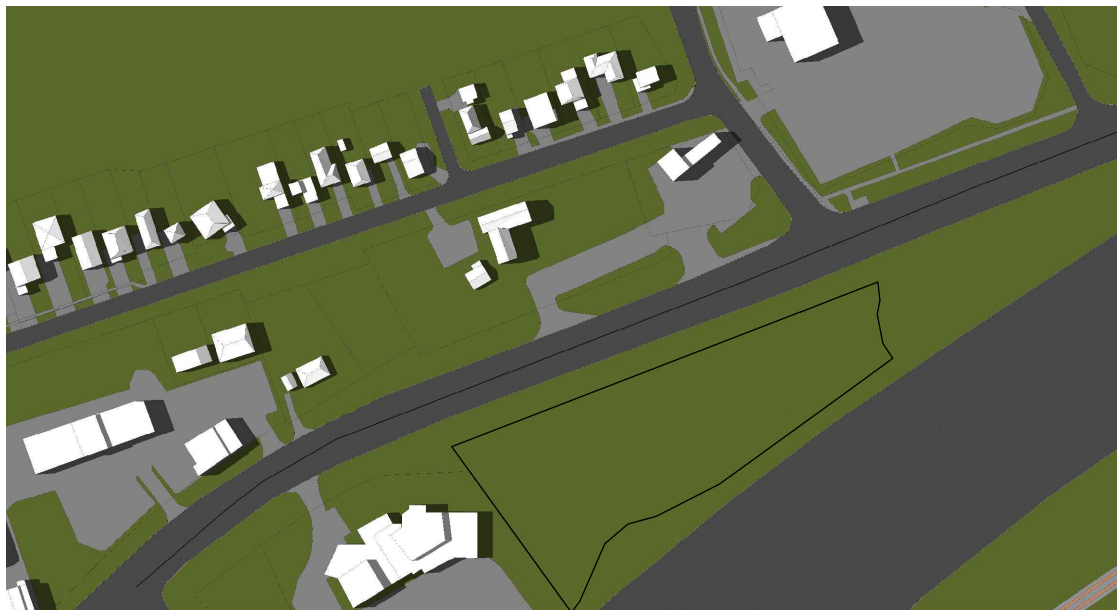
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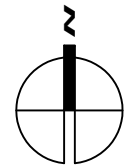
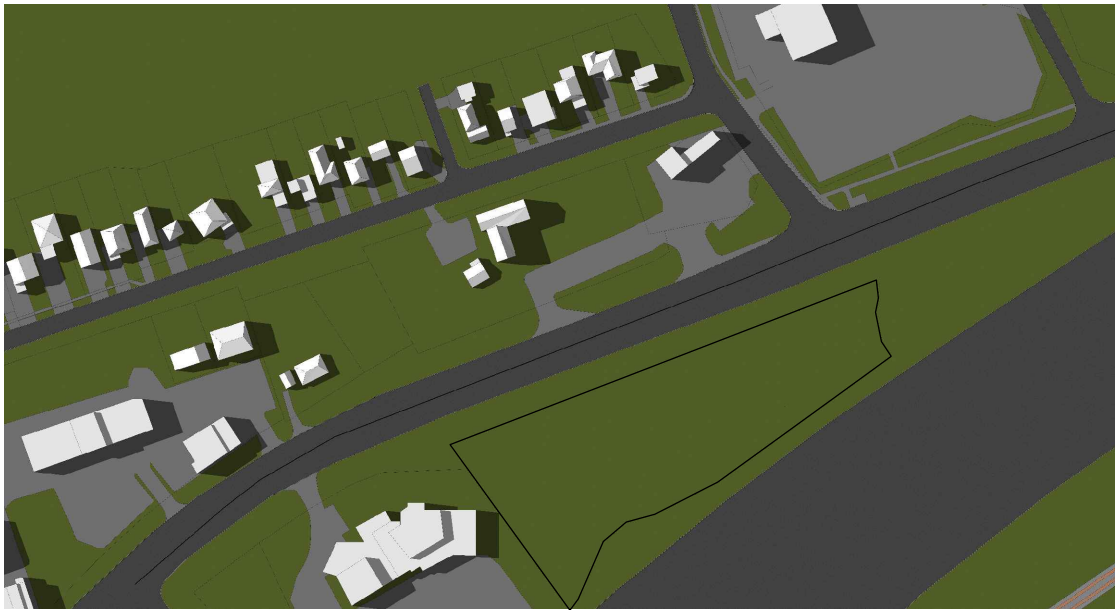
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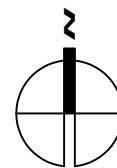
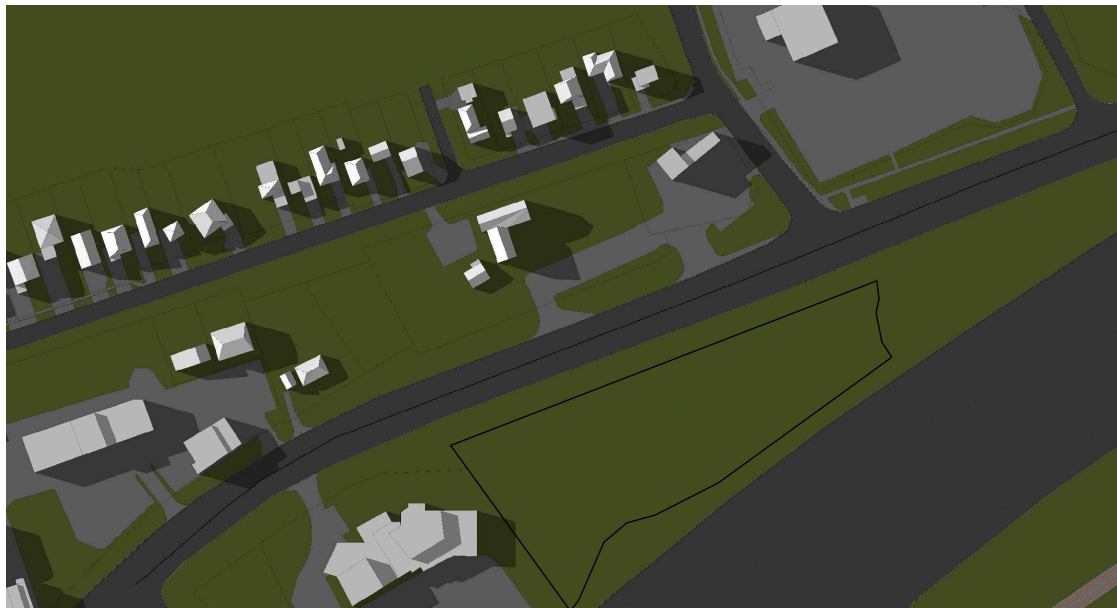
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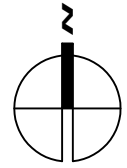
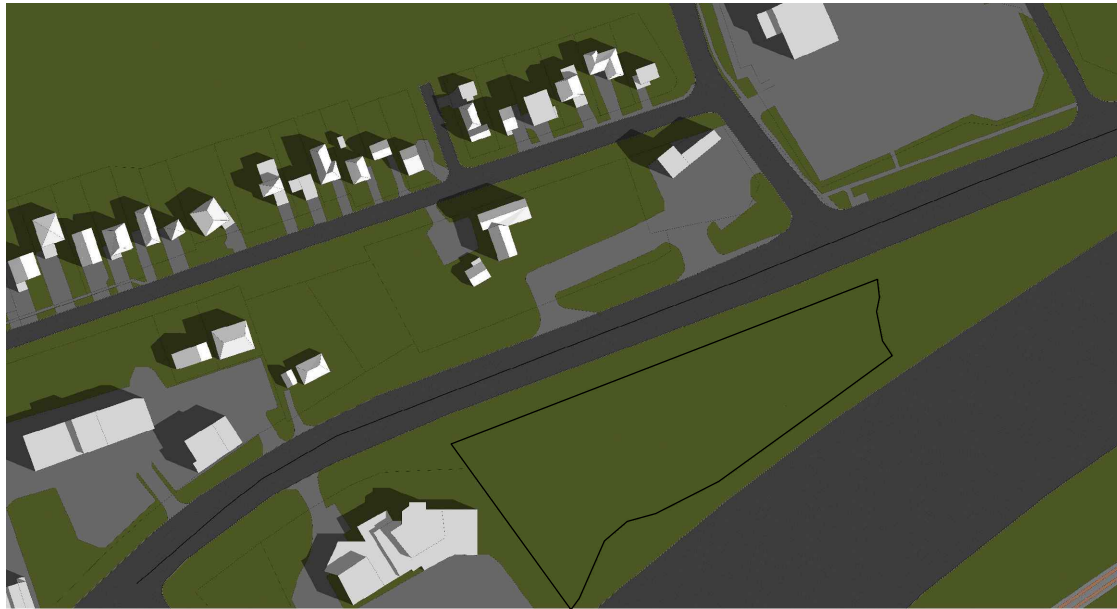
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H.Ghandehari
Drawing No.

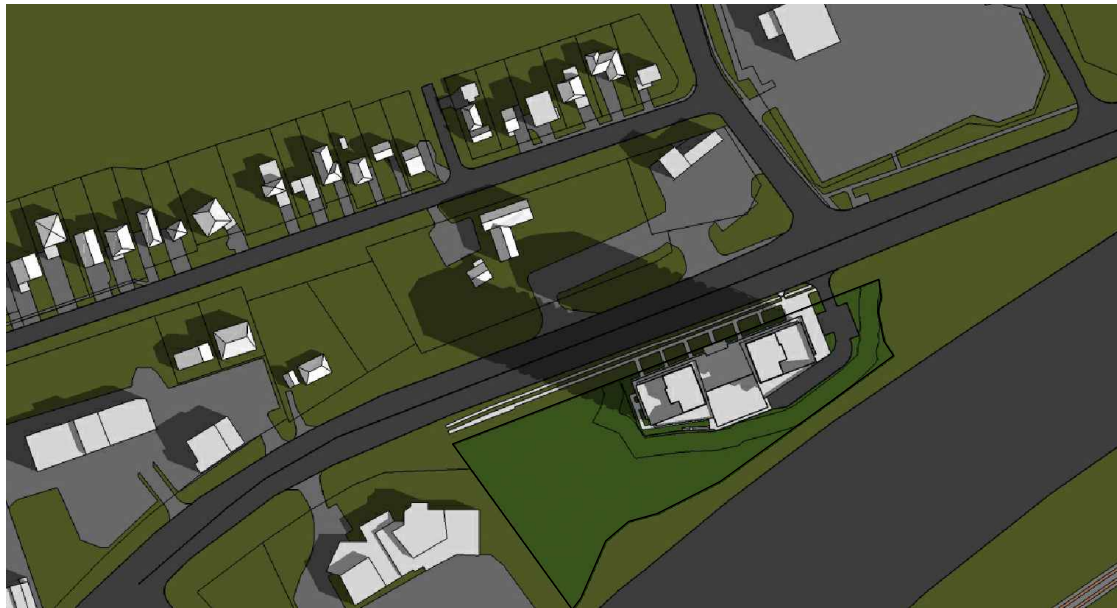
23

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Project:

875 KINGSTON ROAD
PICKERING, ONTARIO

SHADOW STUDY

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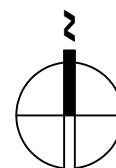
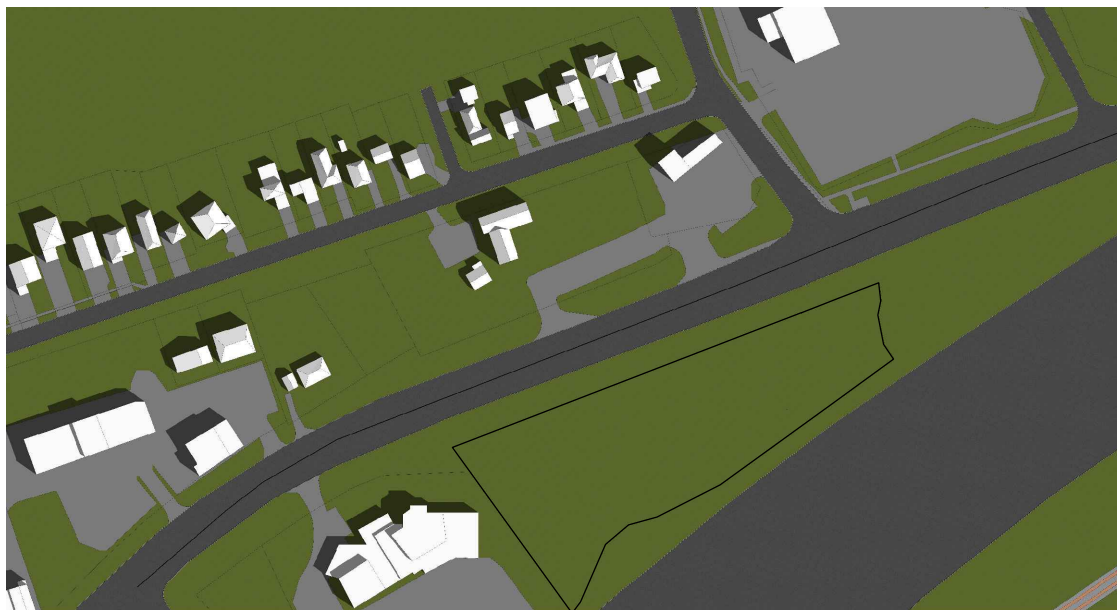
Date:
SEP 08, 2022
Project No.

Drawn by:
K.Auksi
Checked by:
H.Ghandehari
Drawing No.

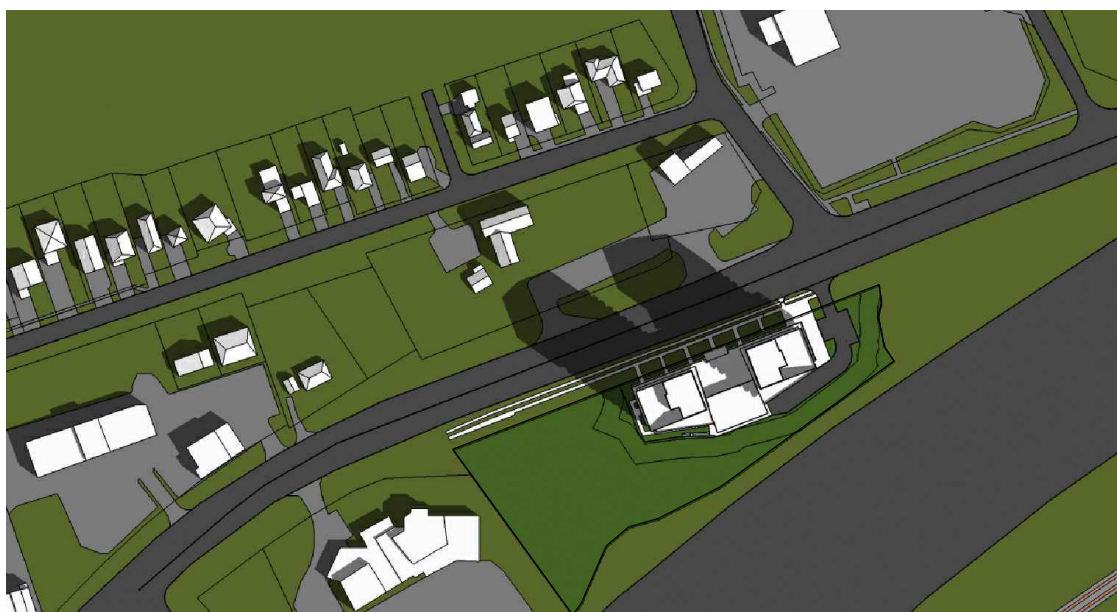
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PICKERING, ONTARIO

SHADOW STUDY

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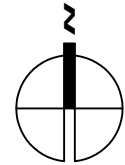
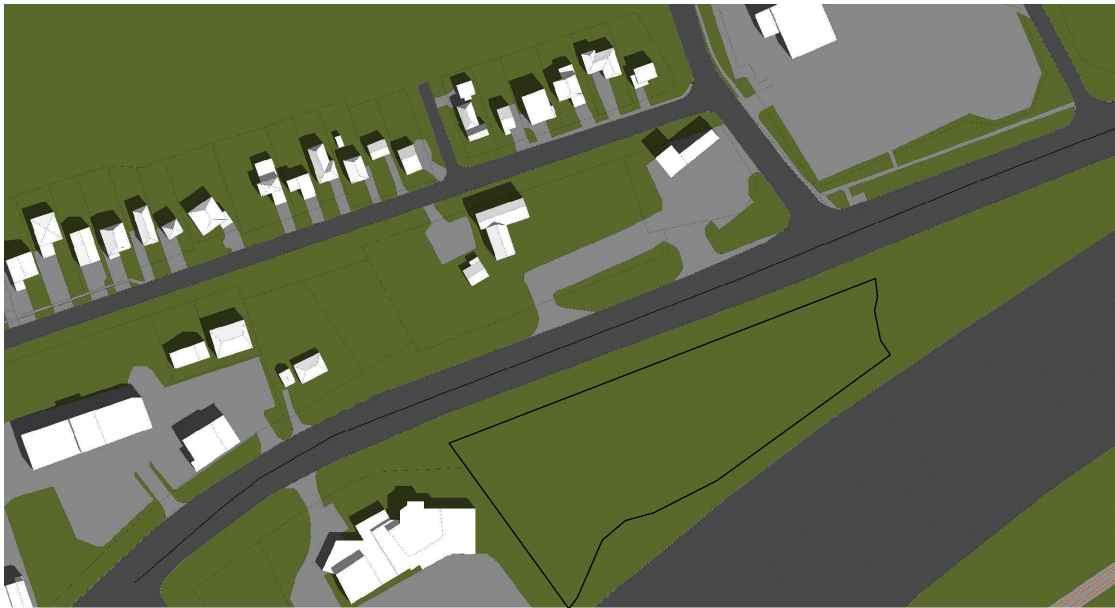
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K.Auksi
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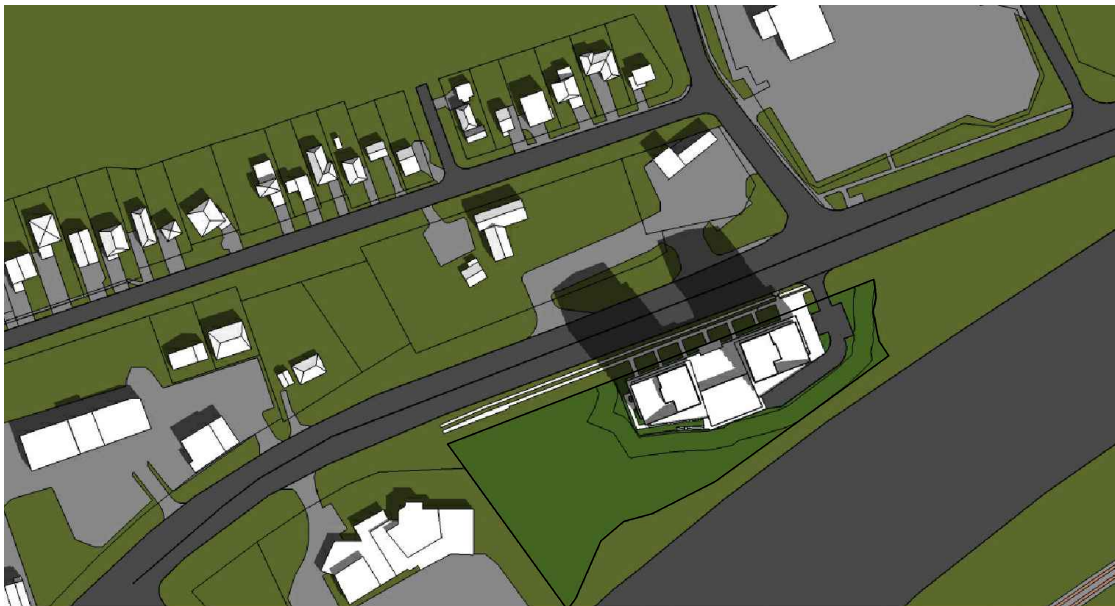
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Project:

875 KINGSTON ROAD
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SHADOW STUDY

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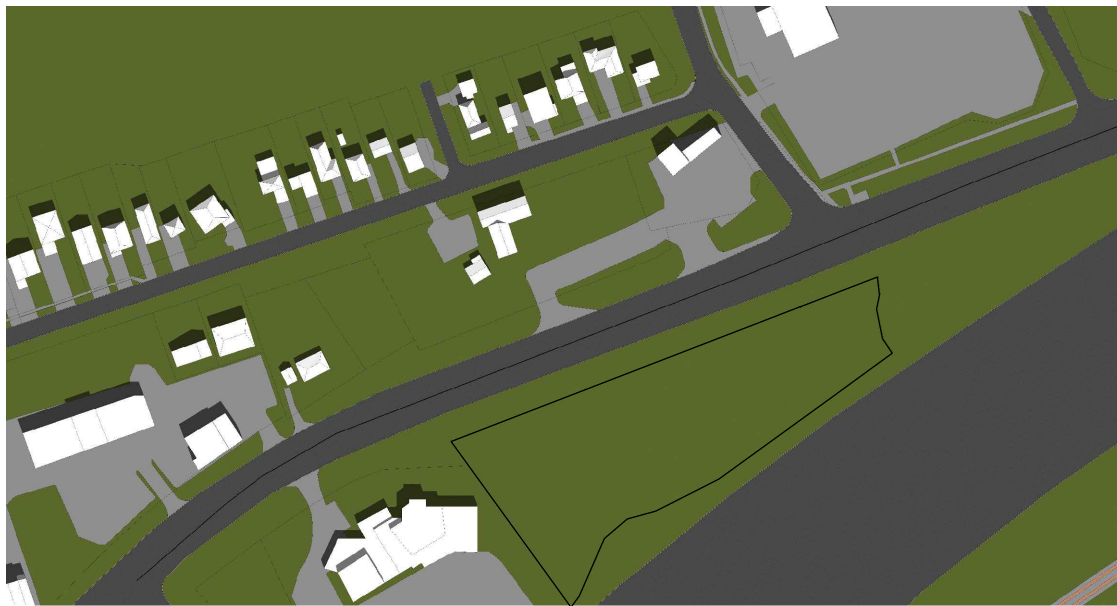
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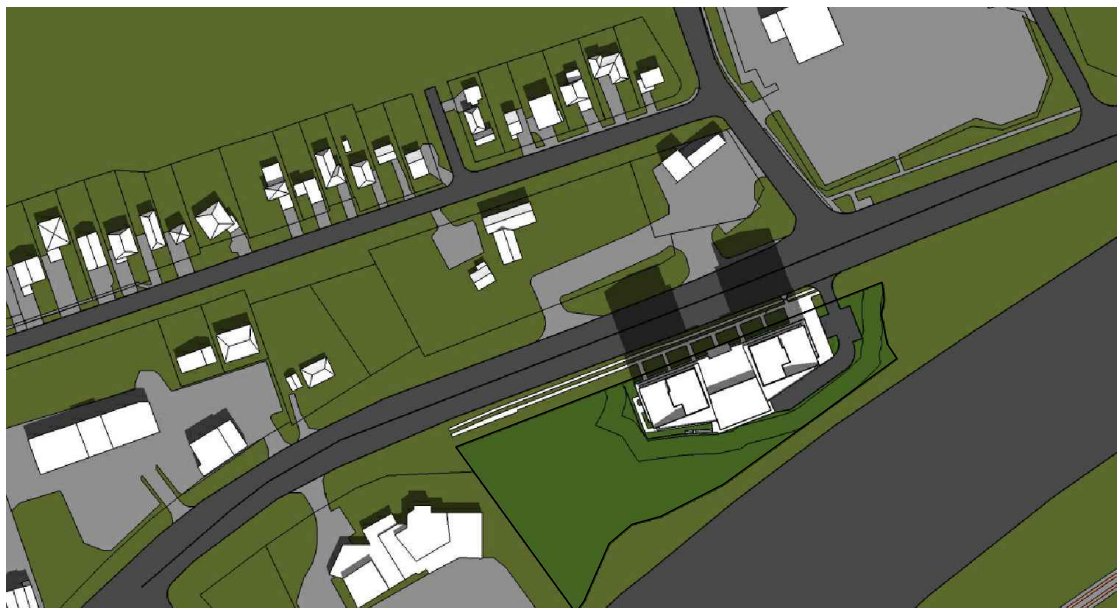
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SHADOW STUDY

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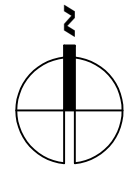
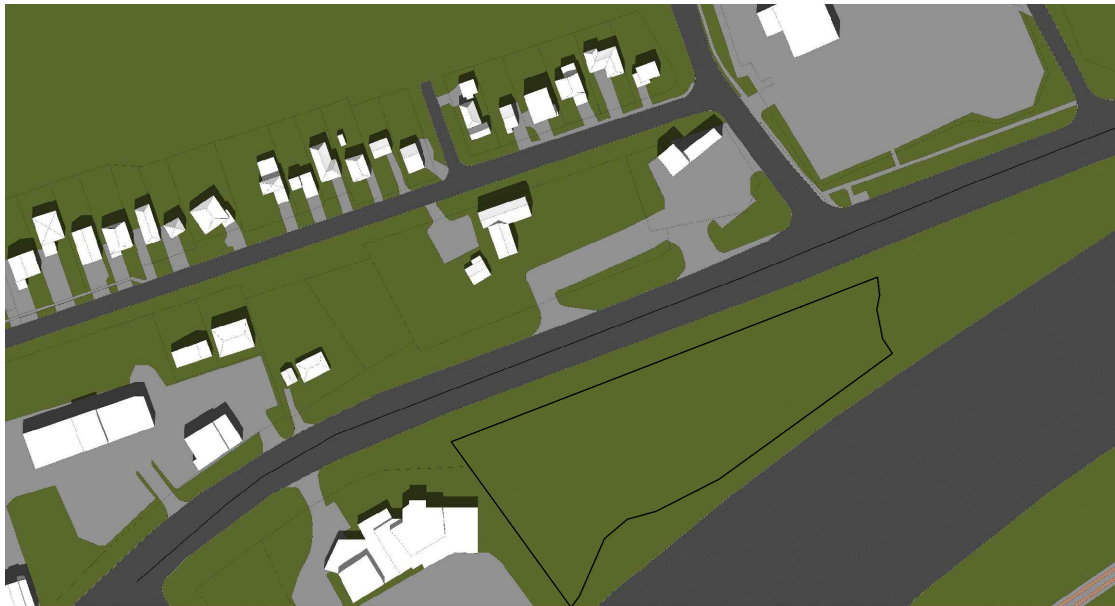
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Project:

875 KINGSTON ROAD
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SHADOW STUDY

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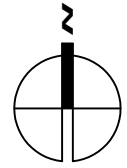
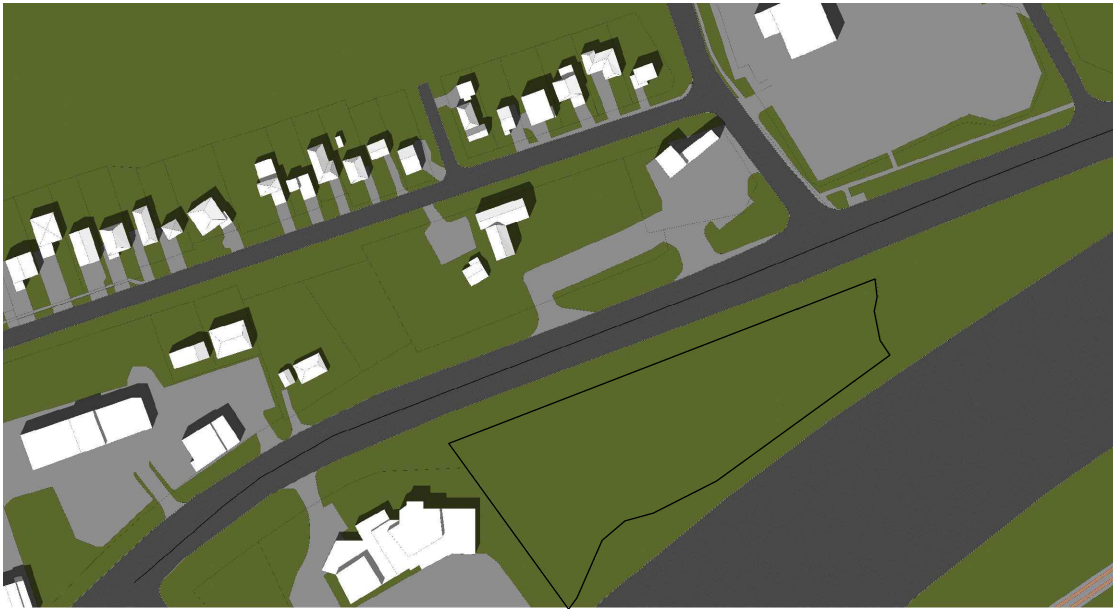
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SEP 08, 2022
Project No.

Drawn by:
K.Auksi
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H.Ghandehari
Drawing No.

21124 28



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875 KINGSTON ROAD
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SHADOW STUDY

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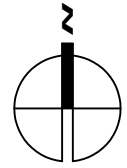
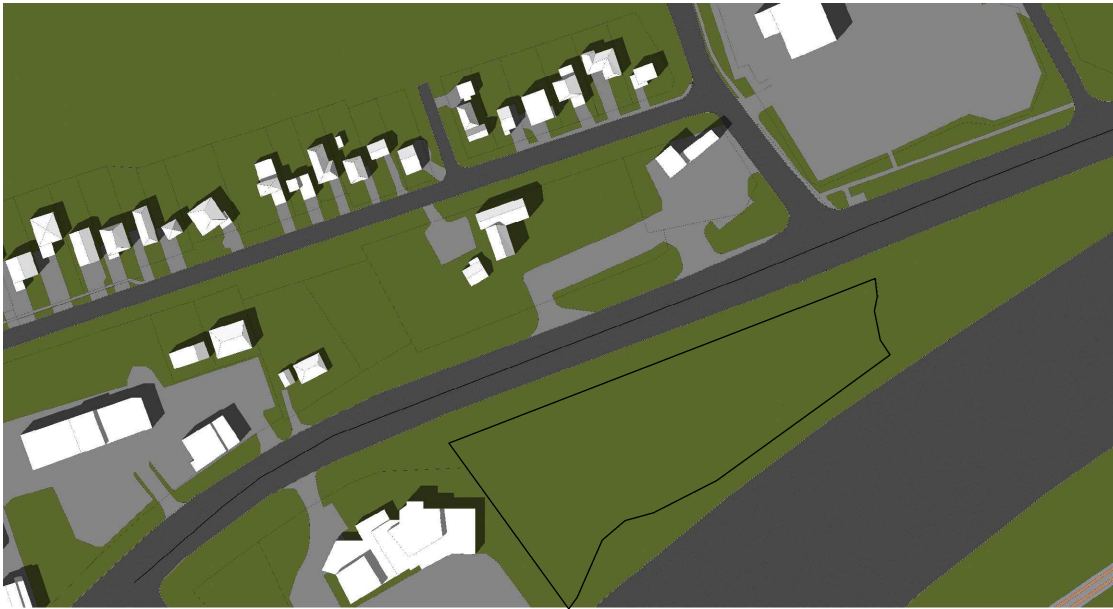
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K.Auksi
Checked by:
H.Ghandehari
Drawing No.

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SHADOW STUDY

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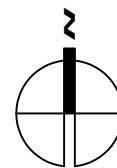
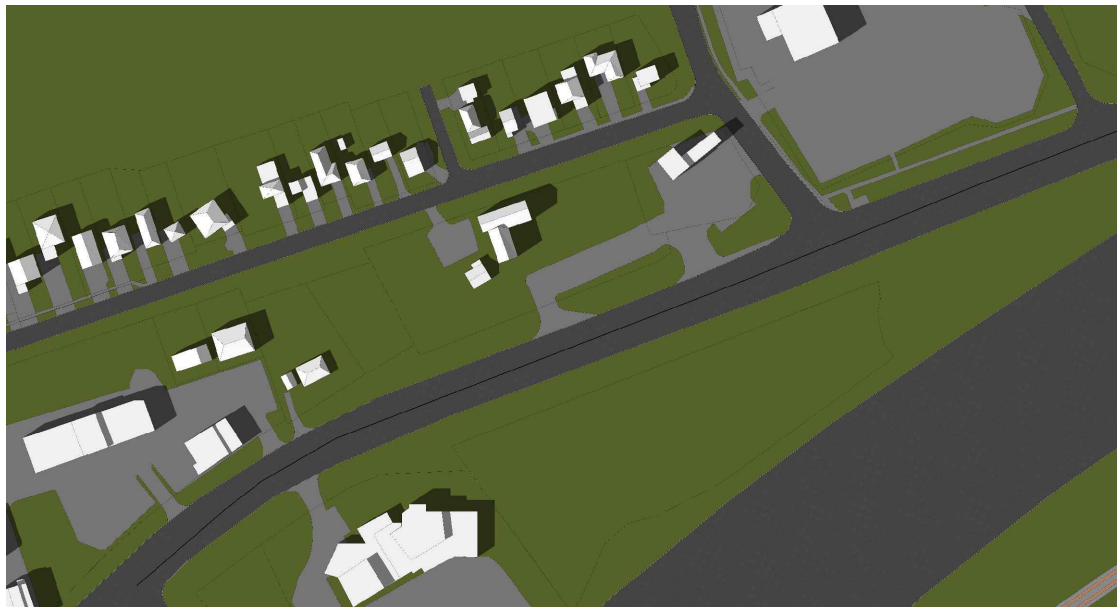
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SEP 08, 2022
Project No.

Drawn by:
K.Auksi
Checked by:
H.Ghandehari
Drawing No.

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PICKERING, ONTARIO

SHADOW STUDY

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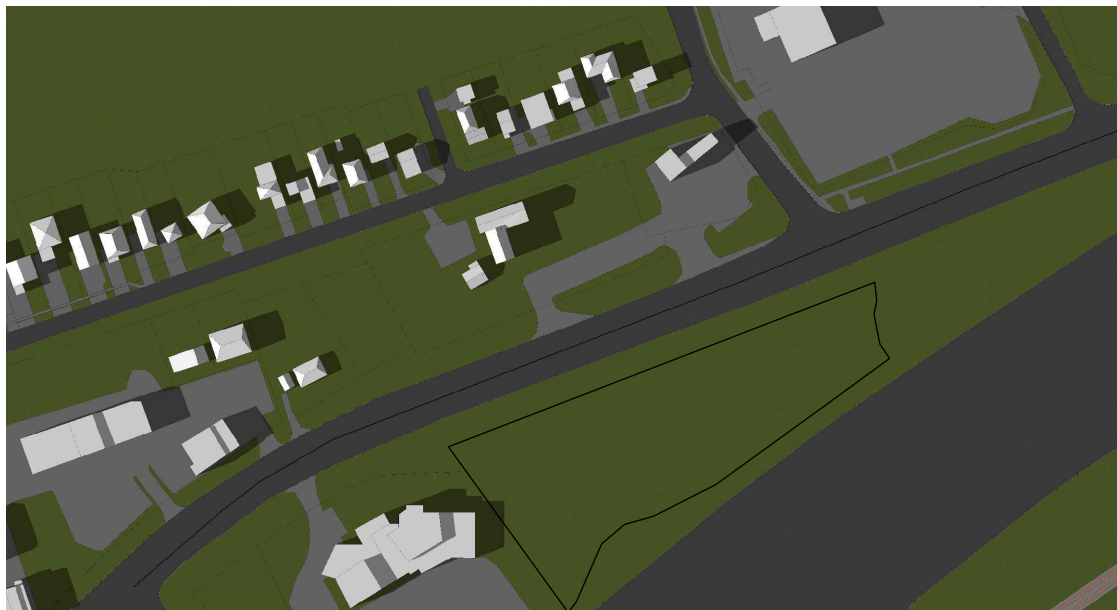
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H.Ghandehari
Drawing No.

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PICKERING, ONTARIO

SHADOW STUDY

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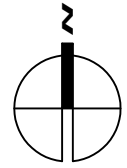
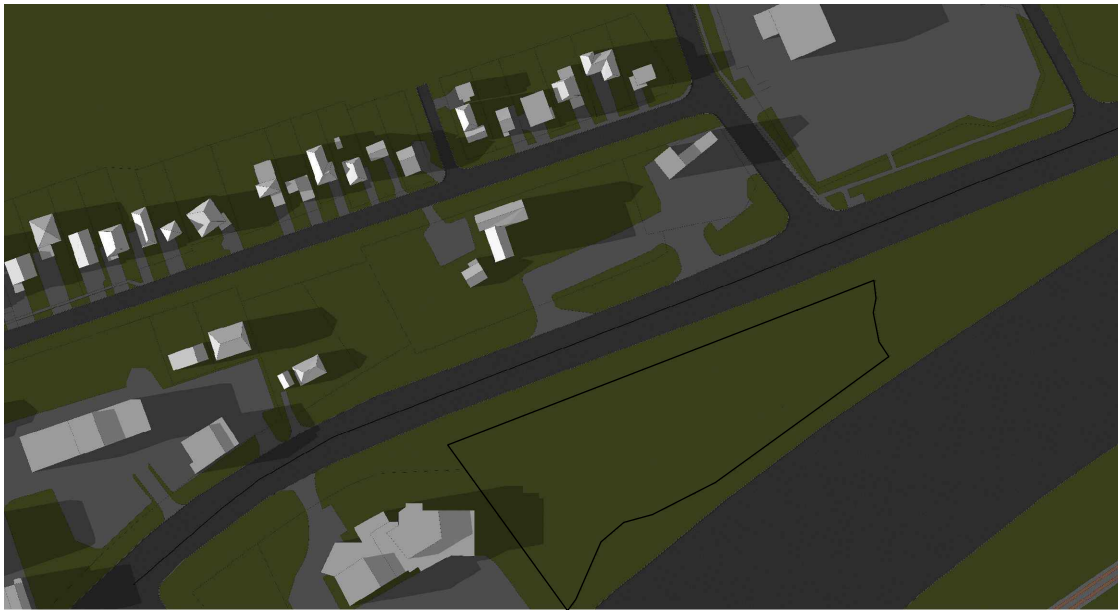
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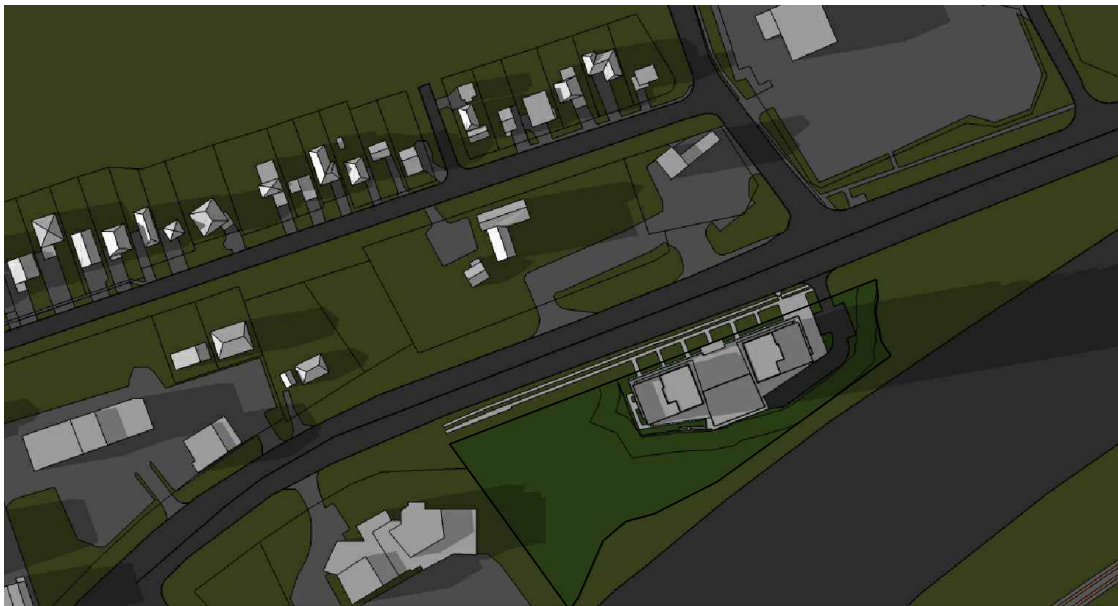
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SHADOW STUDY

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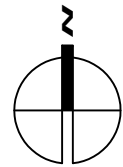
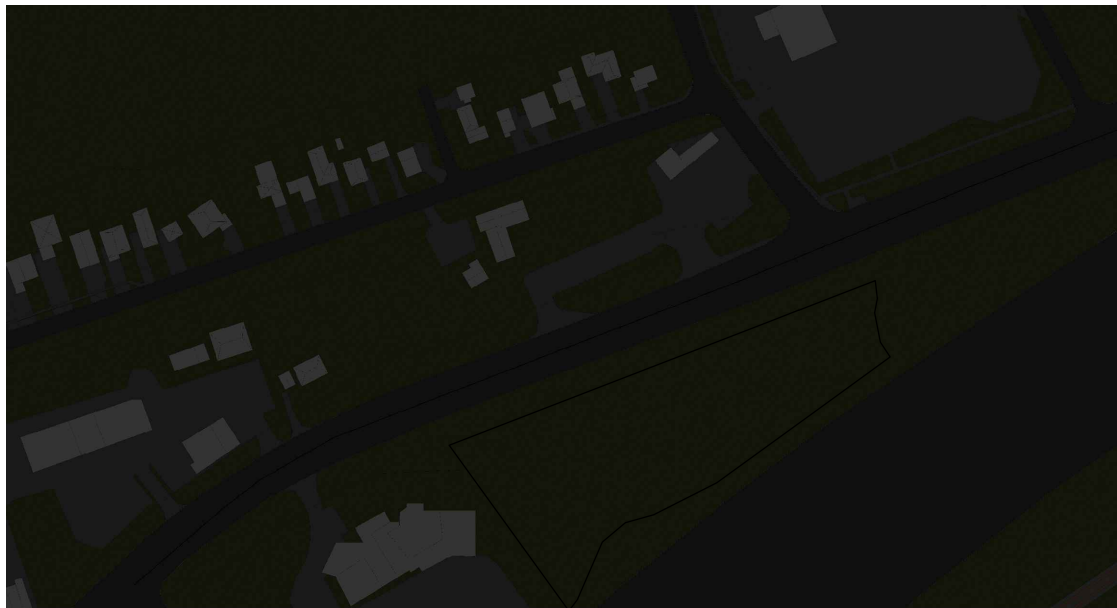
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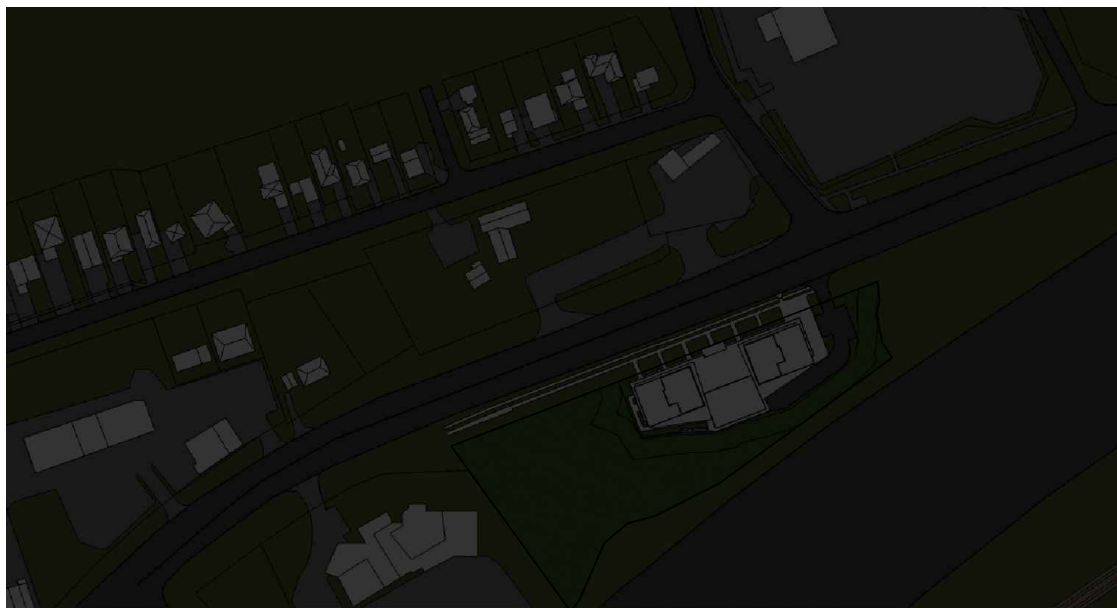
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Project No.

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Checked by:
H.Ghandehari
Drawing No.

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