



December 18, 2024

SUN SHADOW STUDY

22 MacDonald Ave, Sault Ste. Marie

Project No : 24027

INTRODUCTION

Context

The subject property is located on the north side of MacDonald Avenue, just west of Gladstone Avenue, in Sault Ste. Marie. The lot fronts on to MacDonald Avenue and is situated between Gladstone Avenue and MacDonald Avenue, with residential buildings behind it (to the north).

The project proposes 9 levels of residential units. This will result in a building of approximately 27.0 m in height. MacDonald Avenue contains a mix of uses including residential, commercial and community facilities. Most of the neighbouring buildings sit at a two storeys height, including a Catholic Church located at the corner of Gladstone Avenue and MacDonald Avenue, and a retirement residence situated south of MacDonald Avenue and Fauquier Avenue.

Study Parameters

The selected time intervals are based on established standards for local seasonal variations in sun exposure. Tests were conducted for March 21, September 21, June 21 and December 21 at the recommended 1-hour intervals between 9:18am and 6:18pm. Captured images of the proposed site conditions at these prescribed times can be found in this package.

Analysis

March 21

The shadows produced by the proposed development are minimal. Morning and afternoon shadows are cast onto the subject site, with no impact to the surrounding properties. The shadows produced by the proposed development will cast shadows onto the church property to the east of the subject site between 4:18pm and 6:18pm.

There are no impacts to parks, open spaces, natural areas or other shadow sensitive properties as none fall within the range of the shadow extents.



June 21

The shadows produced by the proposed development are minimal.

Morning and afternoon shadows are cast onto the subject site, with no impact to the surrounding properties. In the evening, the lengthening shadows reach the church property to the east.

September 21

The fall equinox shadows show similar patterns of impact to those of the March Study.

Morning and afternoon shadows are cast onto the subject site, with no impact to the surrounding properties. In the evenings the lengthening shadows reach the church property to the east of the subject site.

There are no impacts to parks, open spaces, natural areas or other shadow sensitive properties as none fall within the range of the shadow extents.

December 21

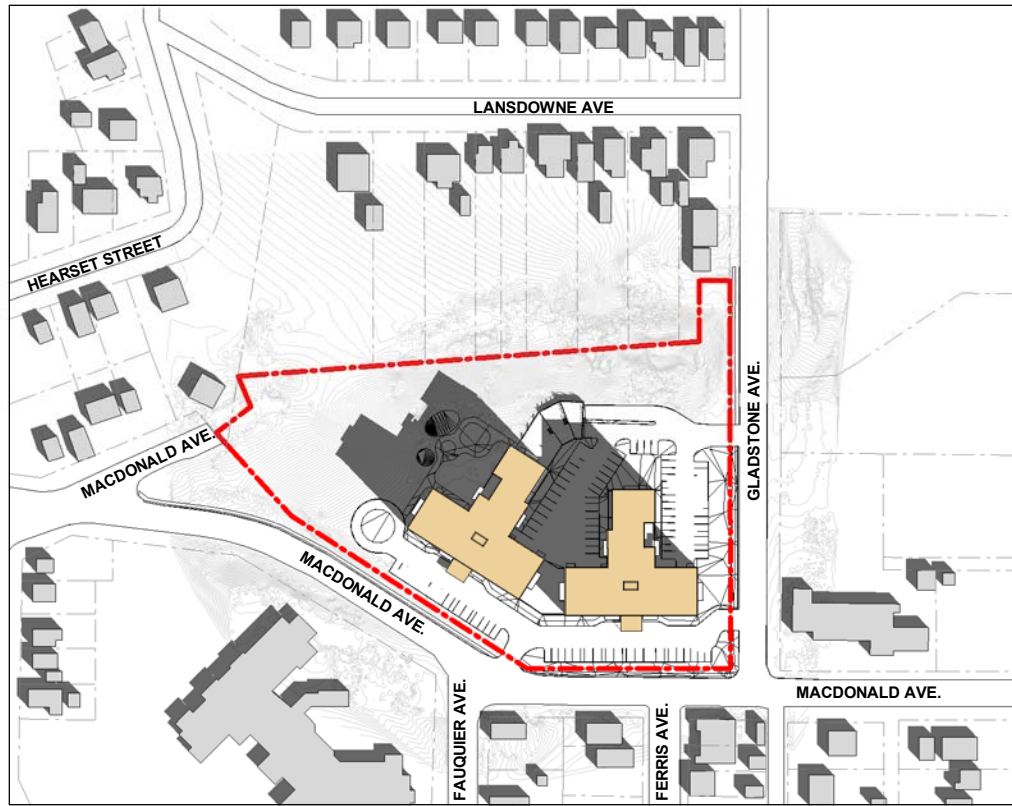
The greatest shadow coverage occurs on the neighboring lots to the north-west and north-east in the morning and evening. During the day there is minimal shadow impact to a portion of the yards to the north.

Summary

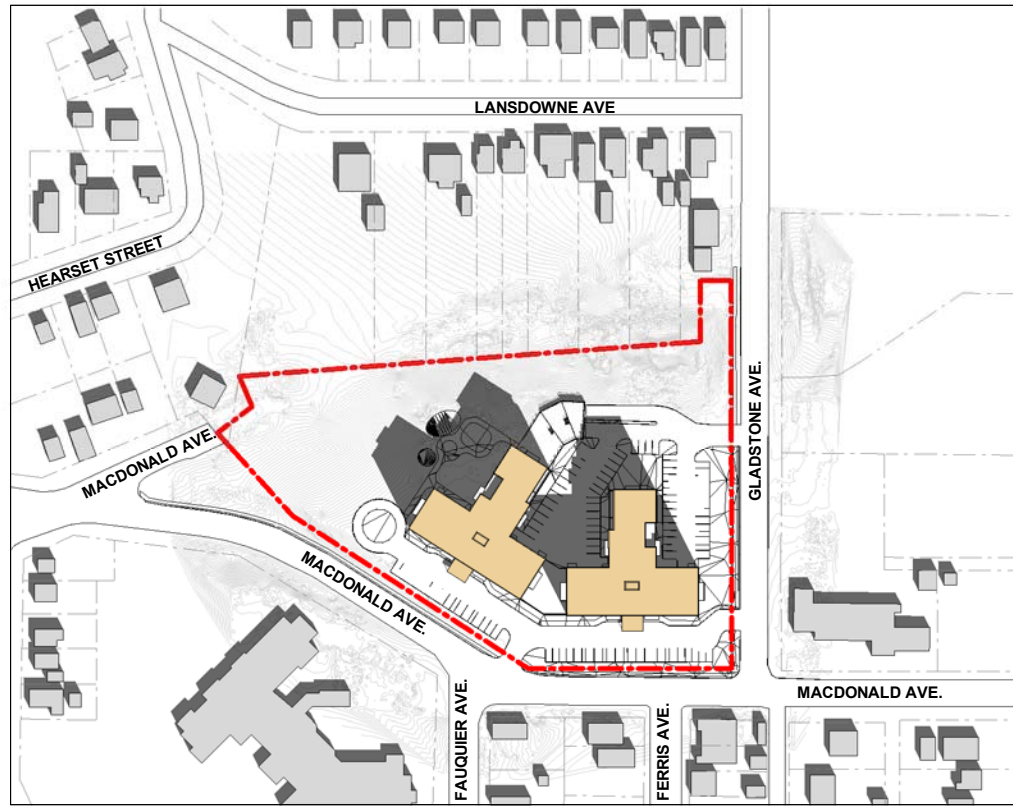
In conclusion, the shadow impact upon the public realm and neighbouring properties are minimal. Although more extensive than the shadows created by the existing conditions, it is evident from the studies that the shadows produced by the proposed development have limited impact on the surrounding context.



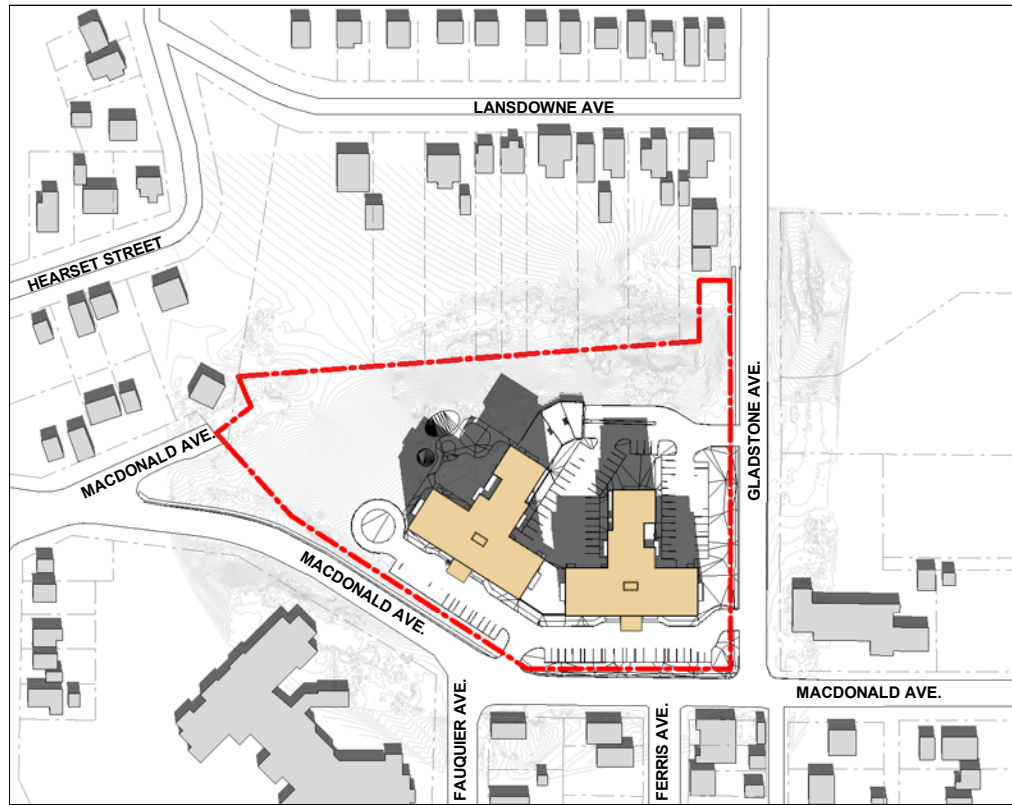
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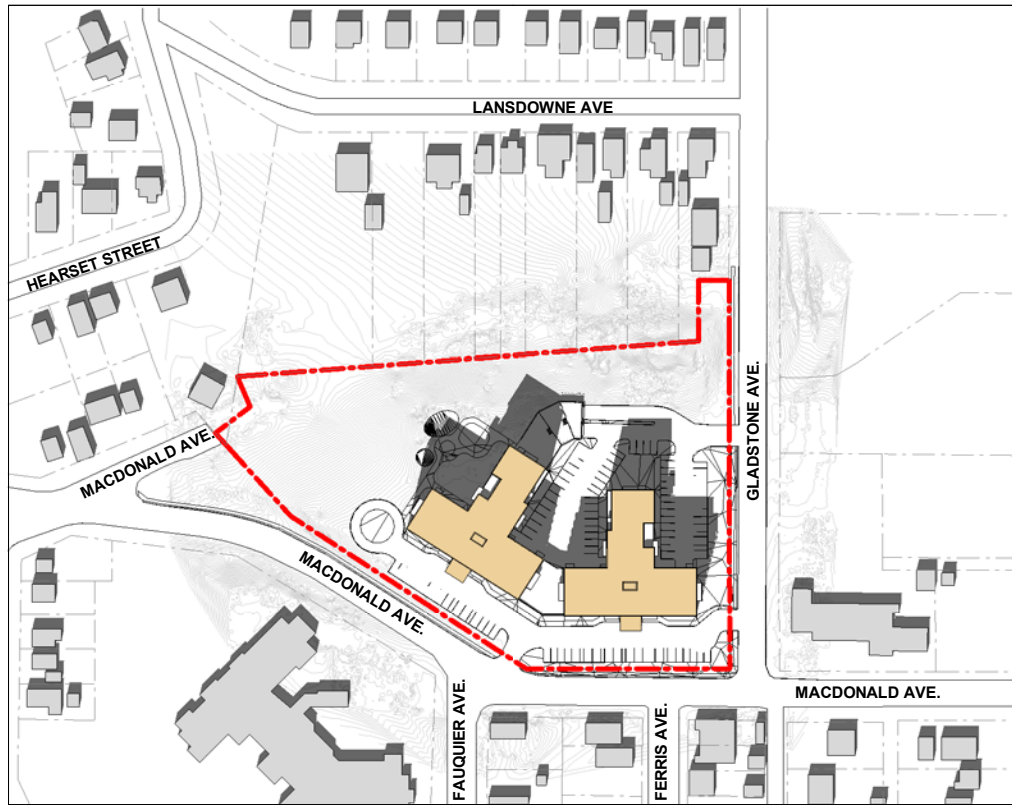
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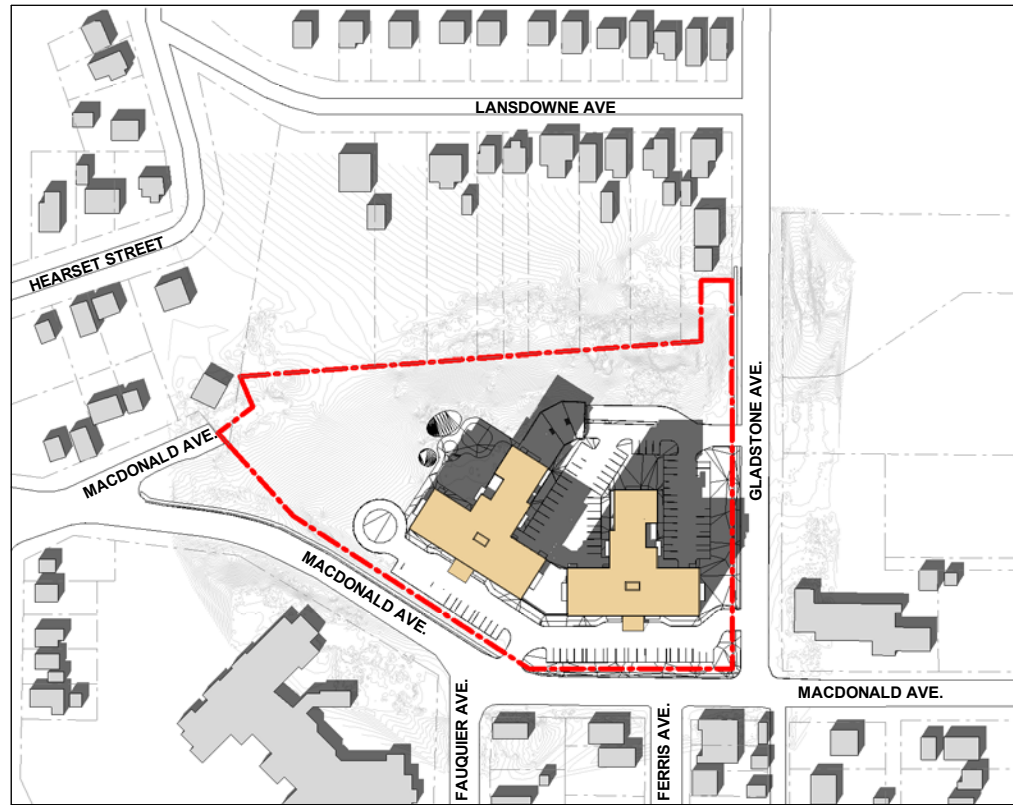
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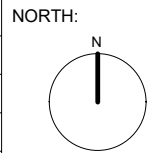


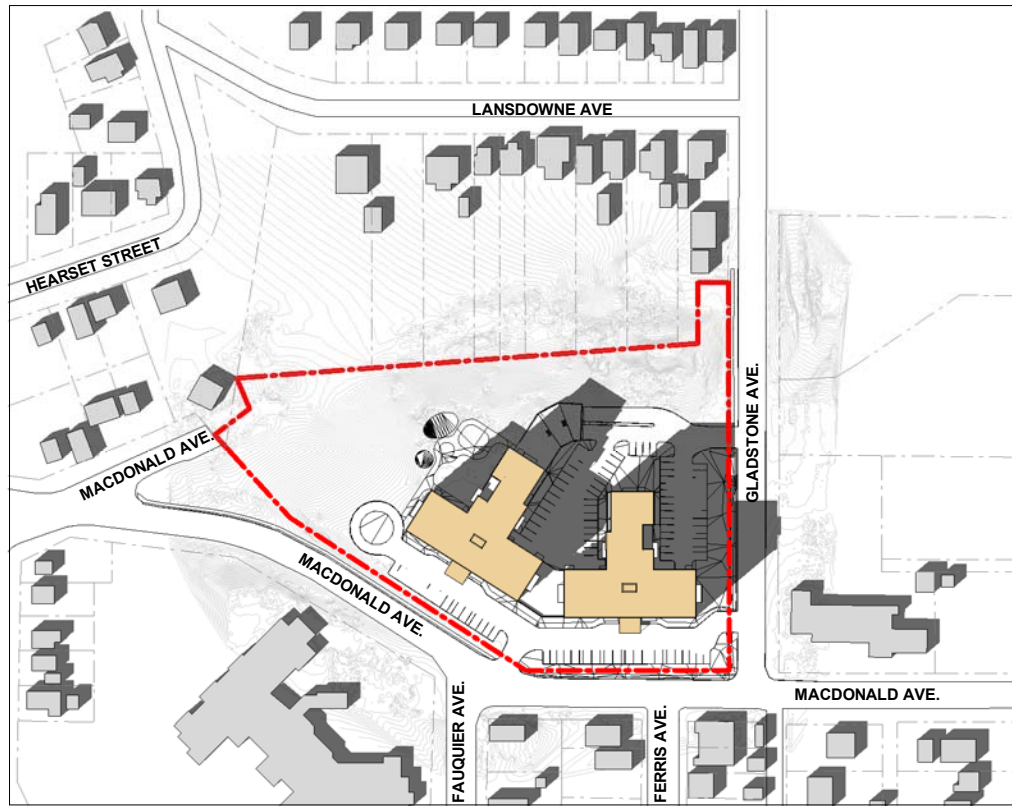
21 MARCH 2:18PM

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SCALE	1 : 3000
PROJECT NO.	24027
DATE	DECEMBER 2024
DRAWN BY	SM
CHECKED BY	MG





21 MARCH 3:18PM



21 MARCH 4:18PM



21 MARCH 5:18PM



21 MARCH 6:18PM

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22 MACDONALD AVE
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DRAWING TITLE
SUN/SHADOW STUDY - MARCH

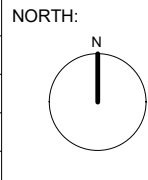
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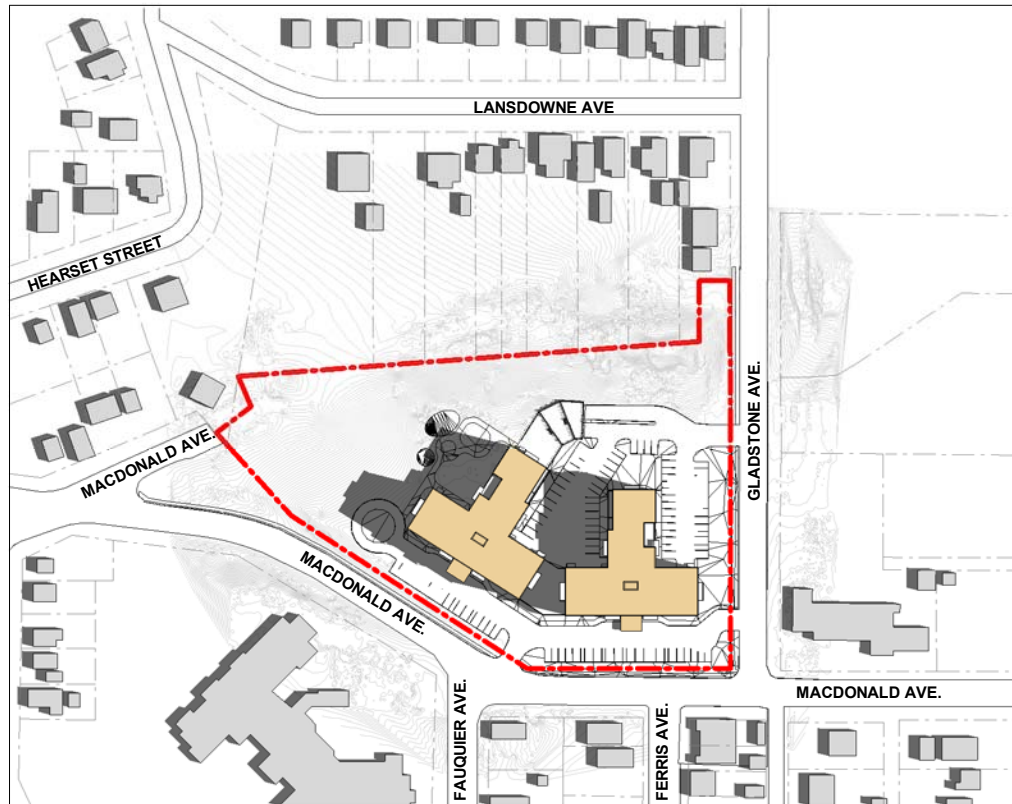
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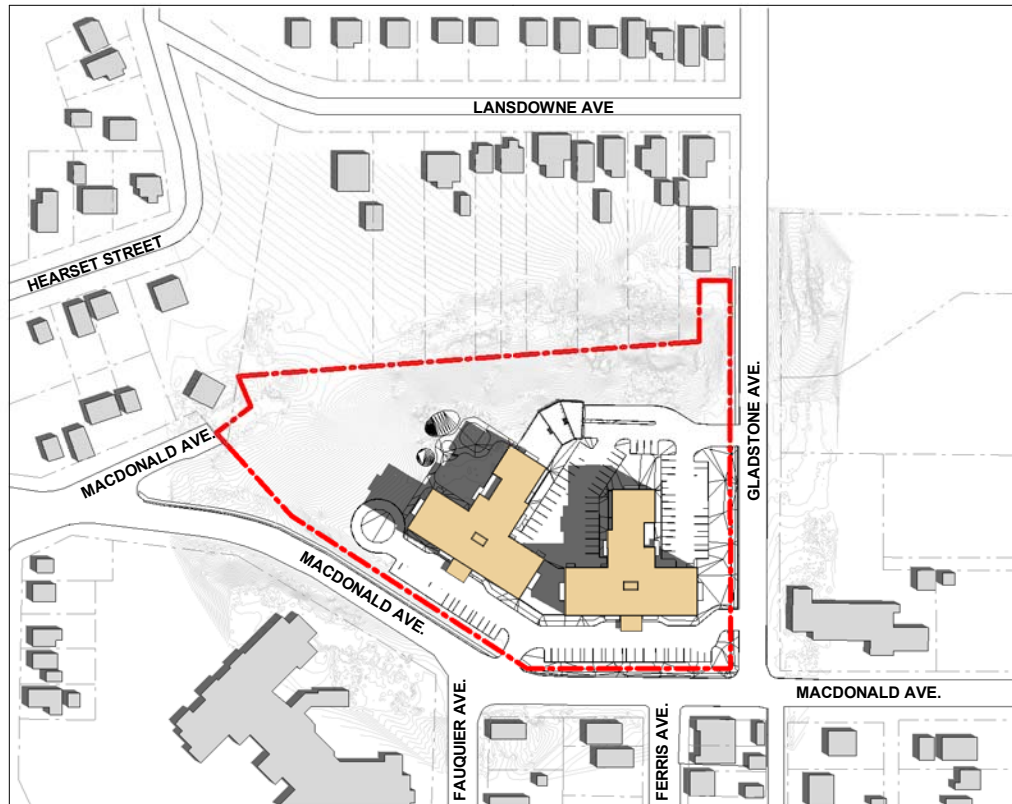
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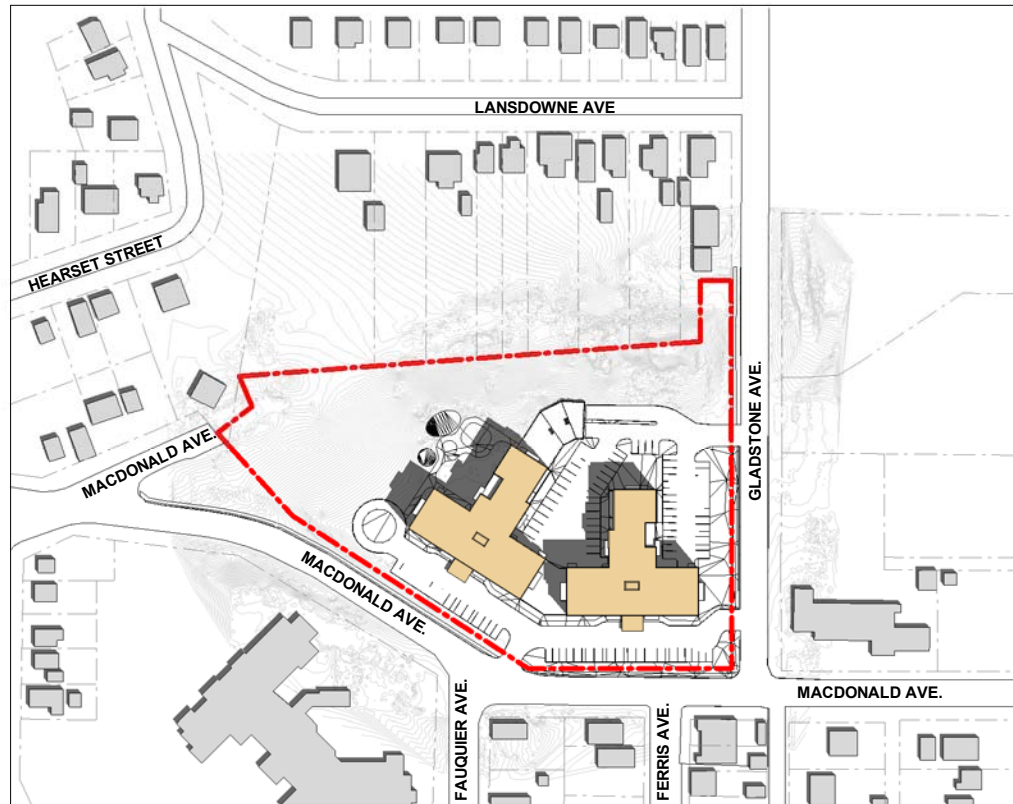
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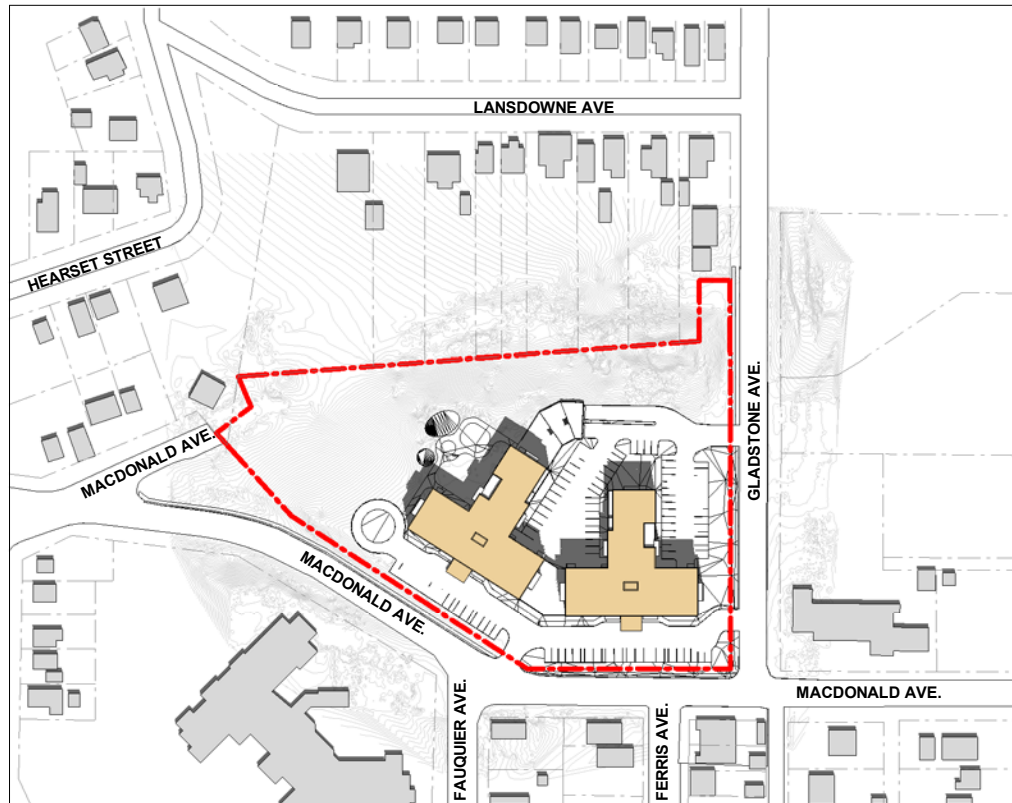
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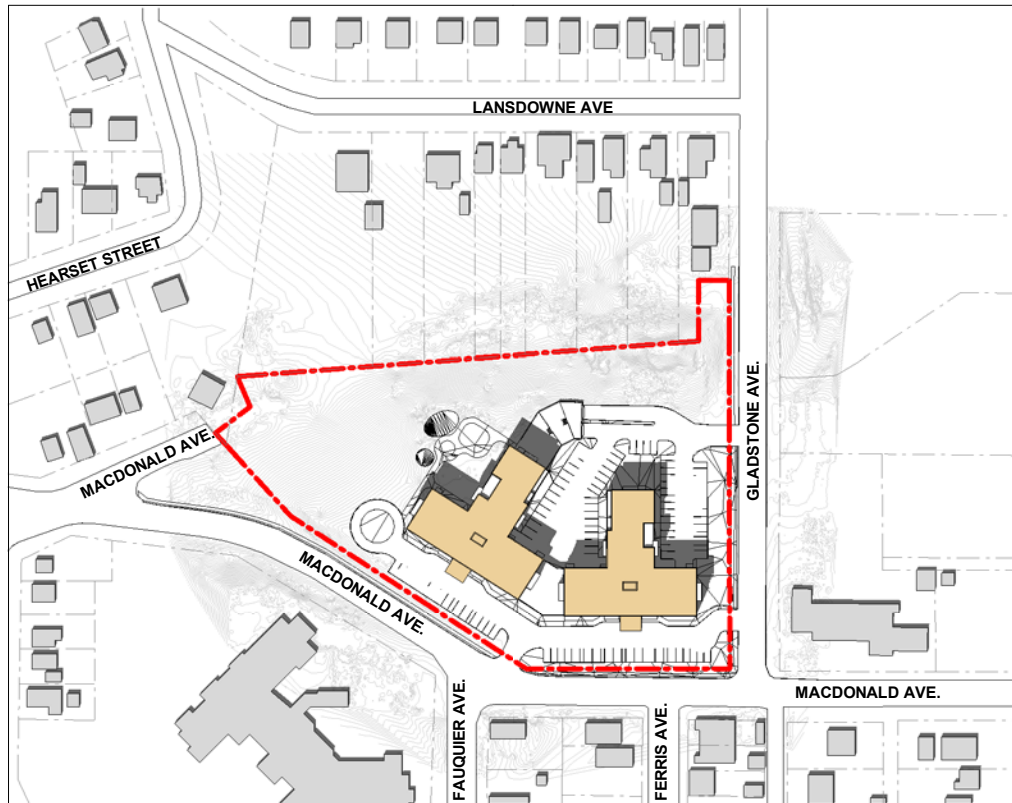
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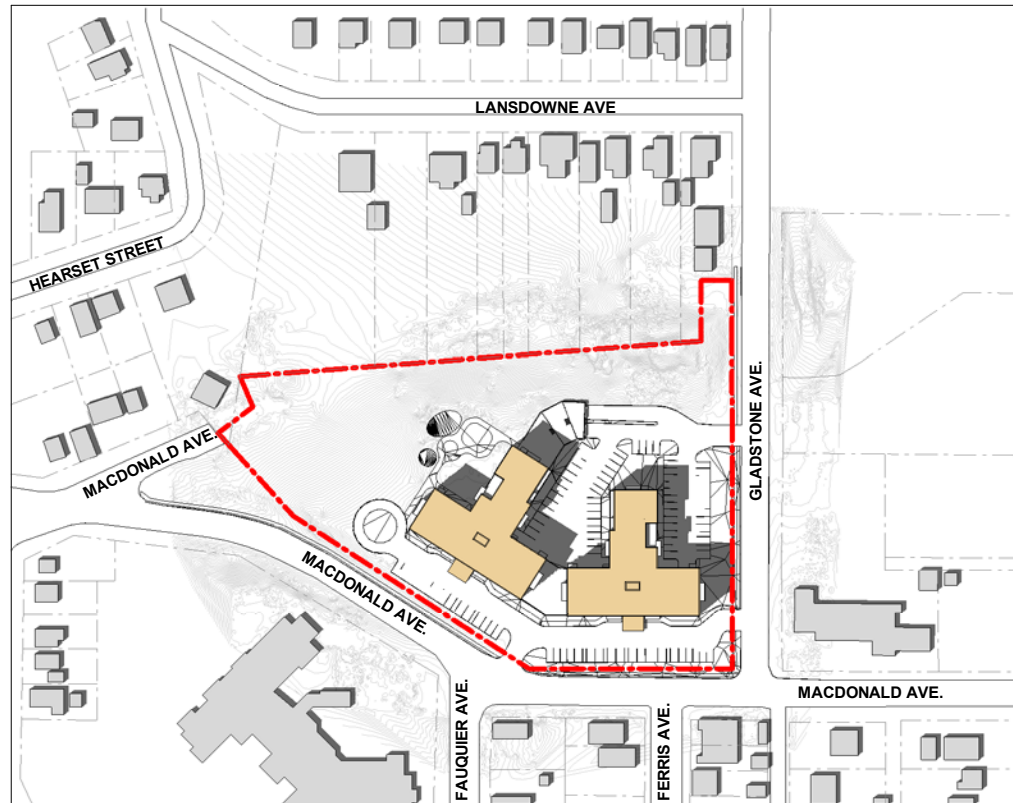
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21 JUNE 12:18PM



21 JUNE 1:18PM



21 JUNE 2:18PM

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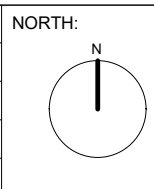
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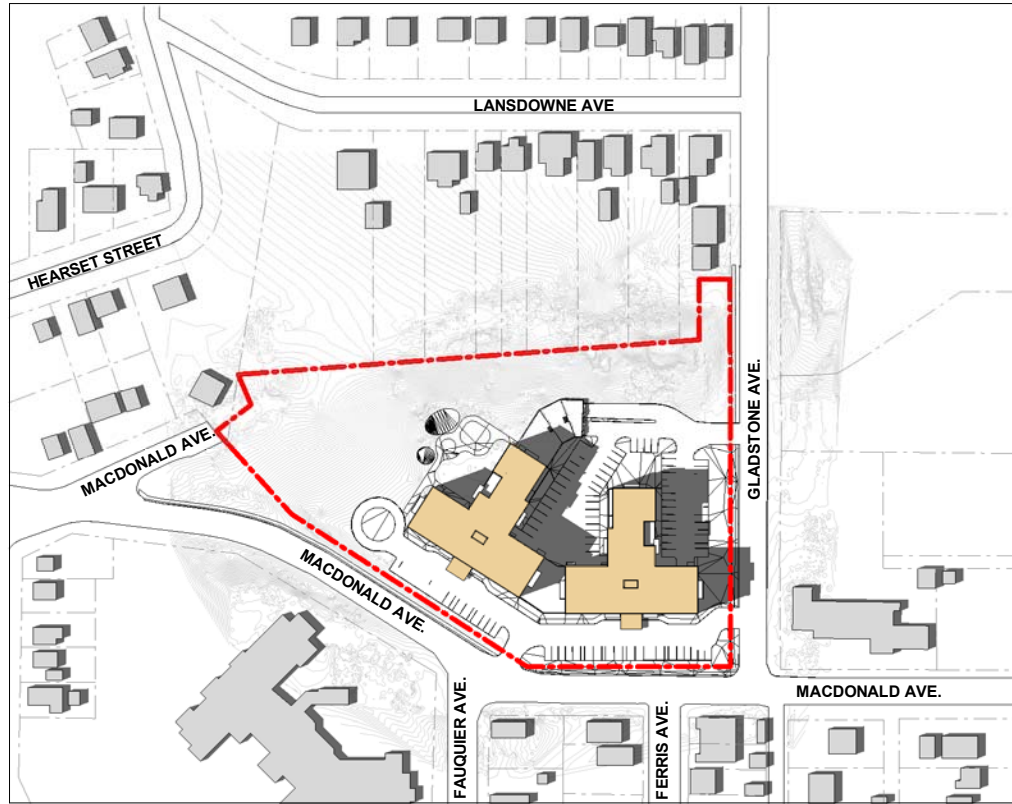
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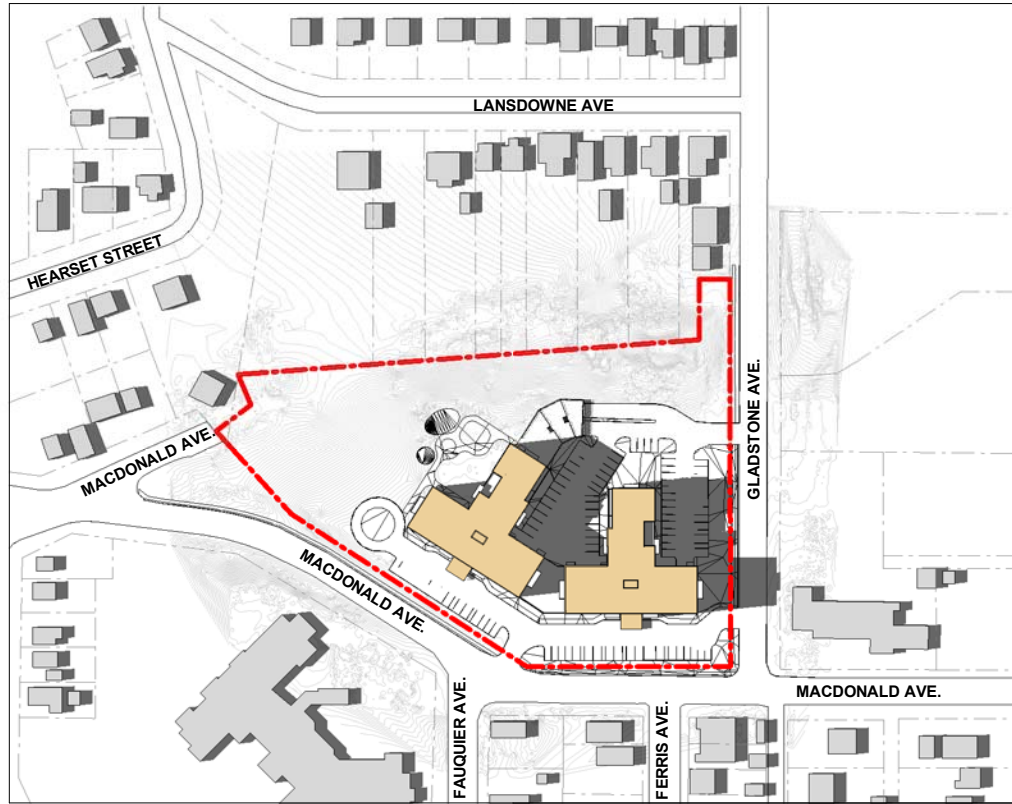
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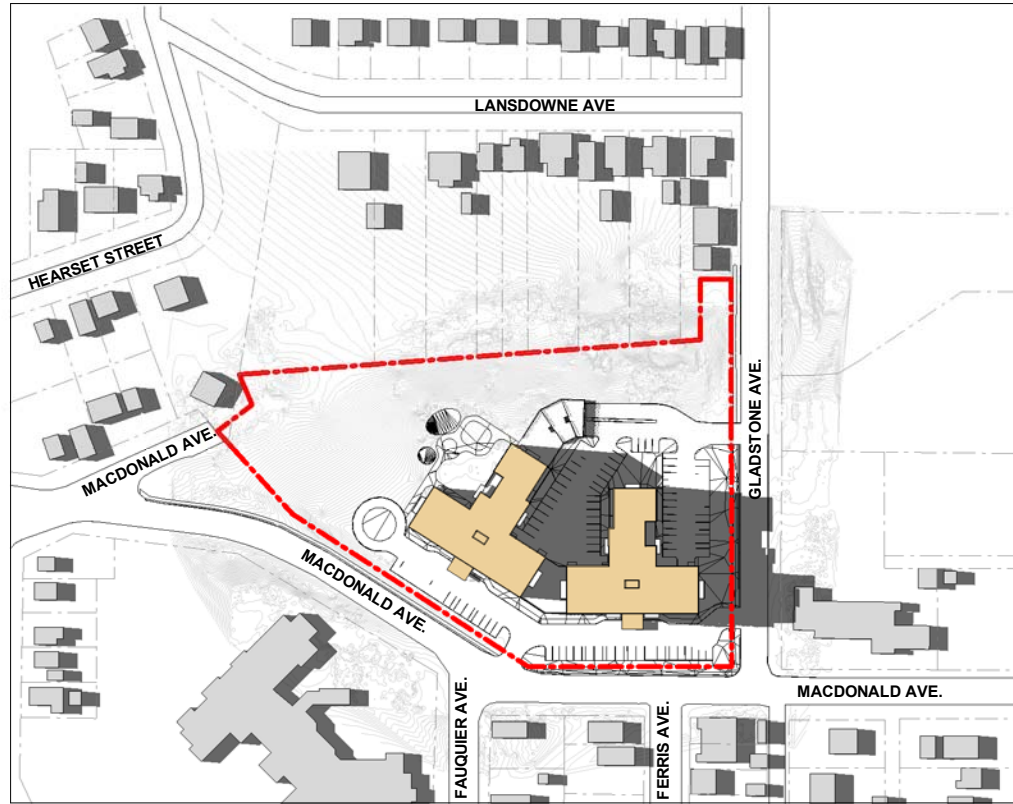
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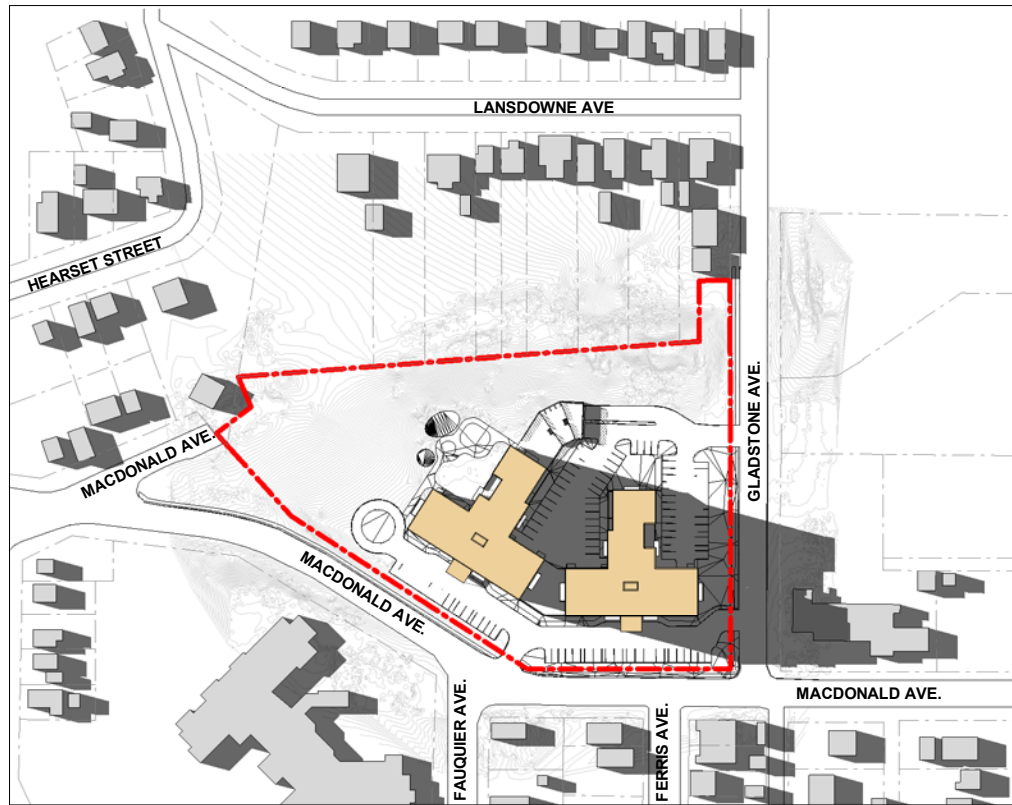
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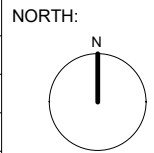
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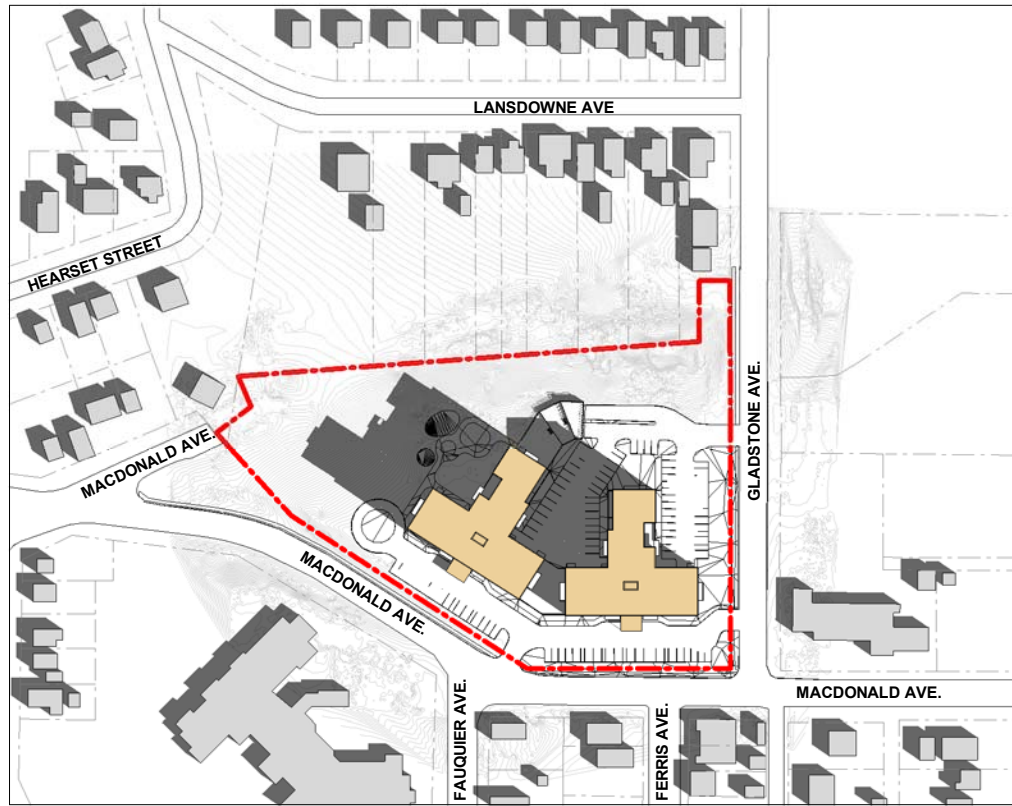
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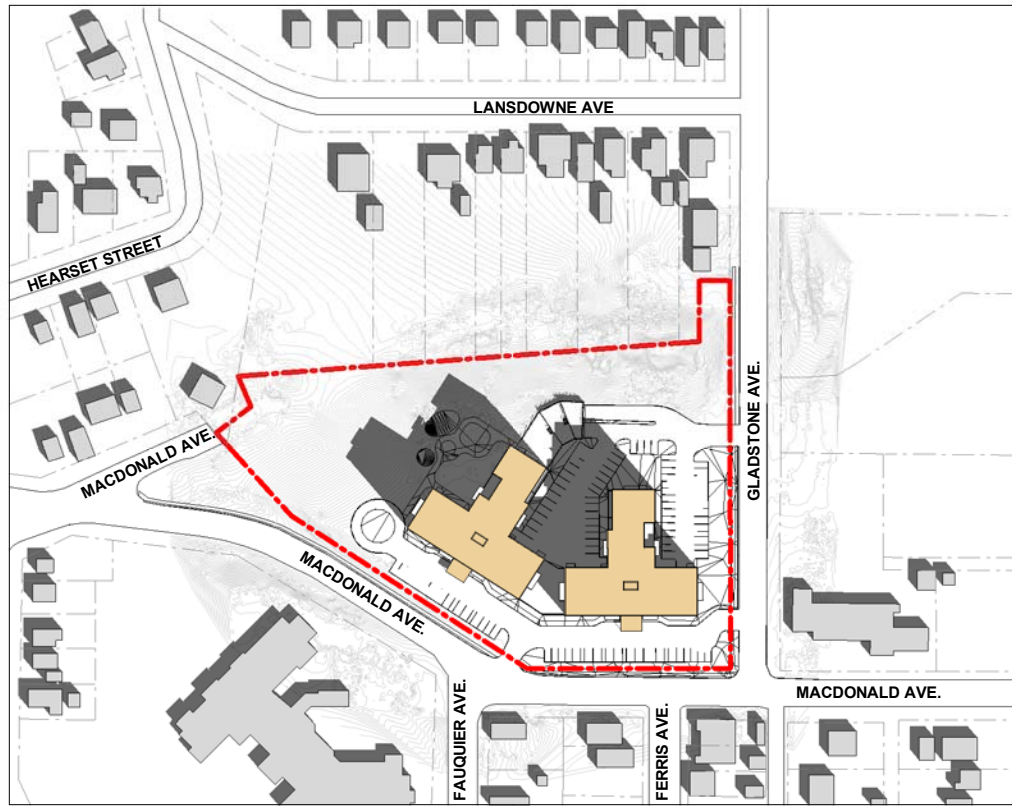


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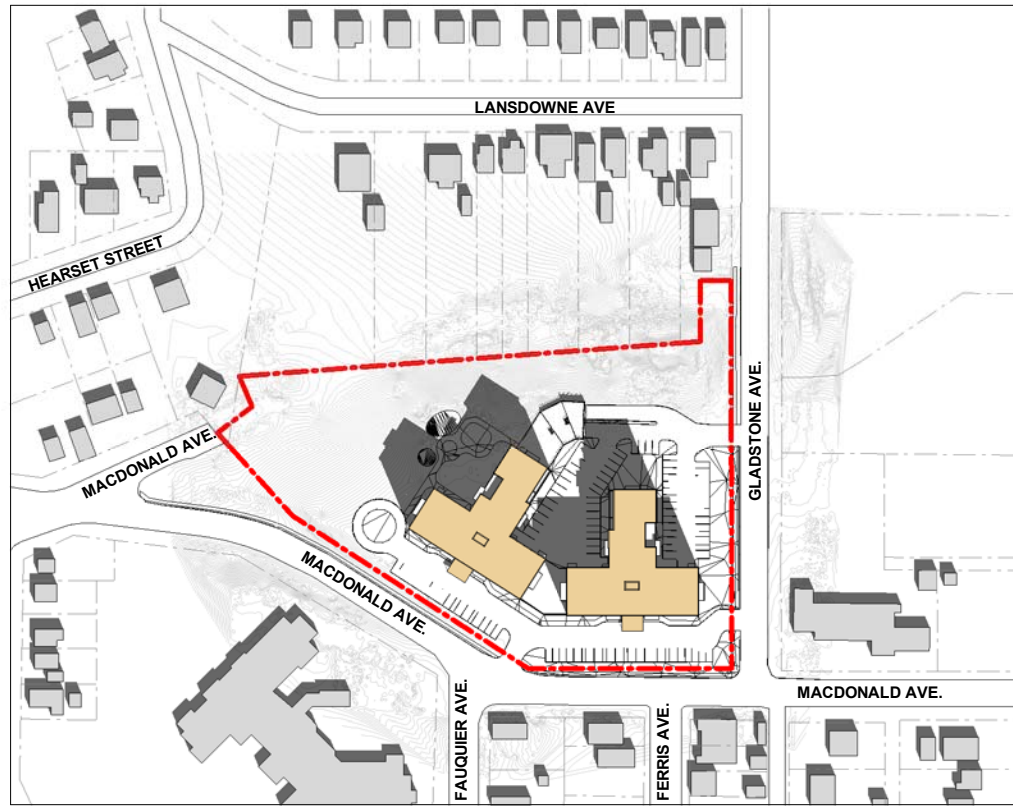
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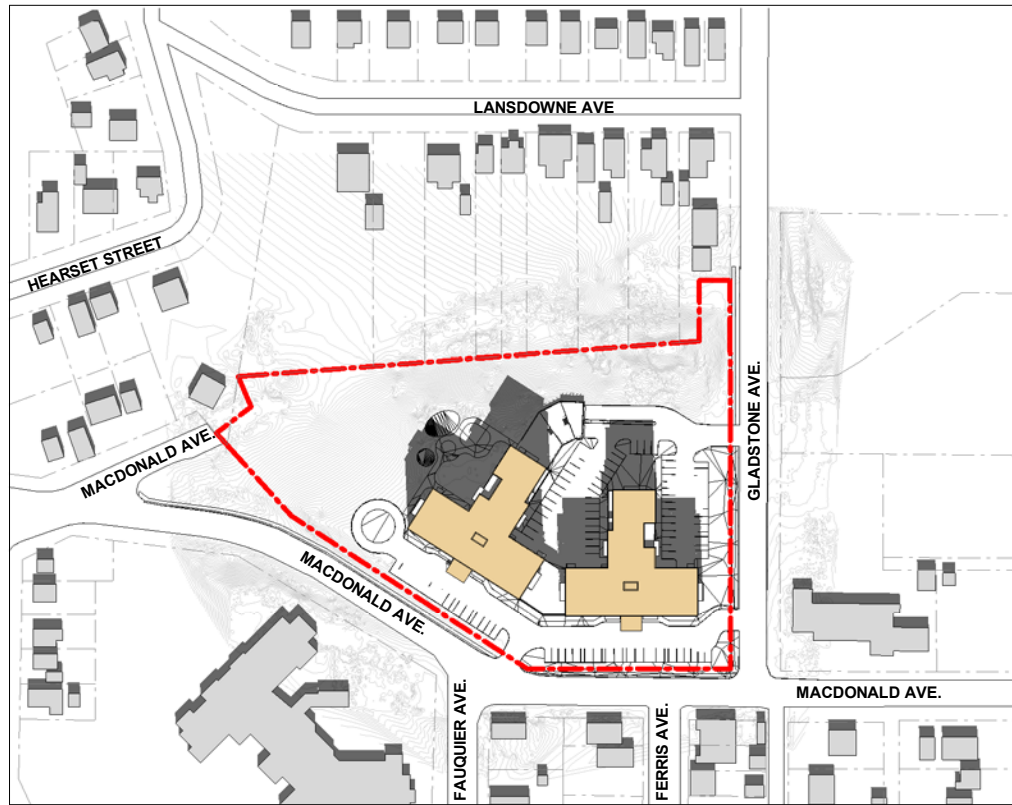
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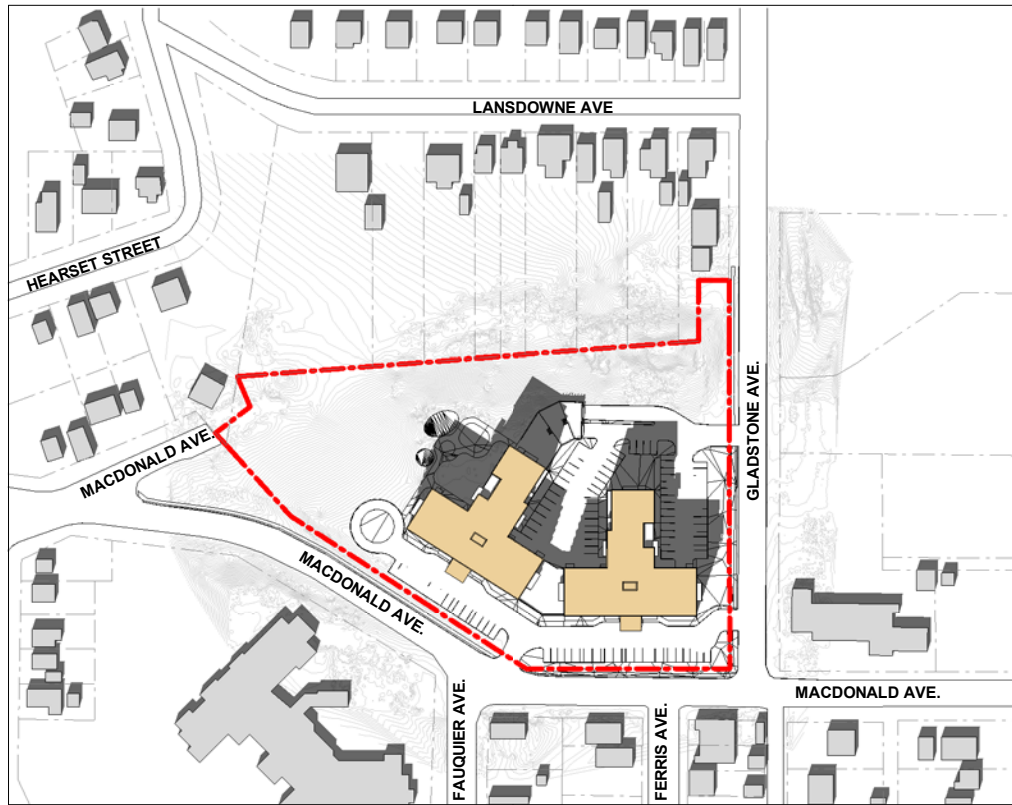
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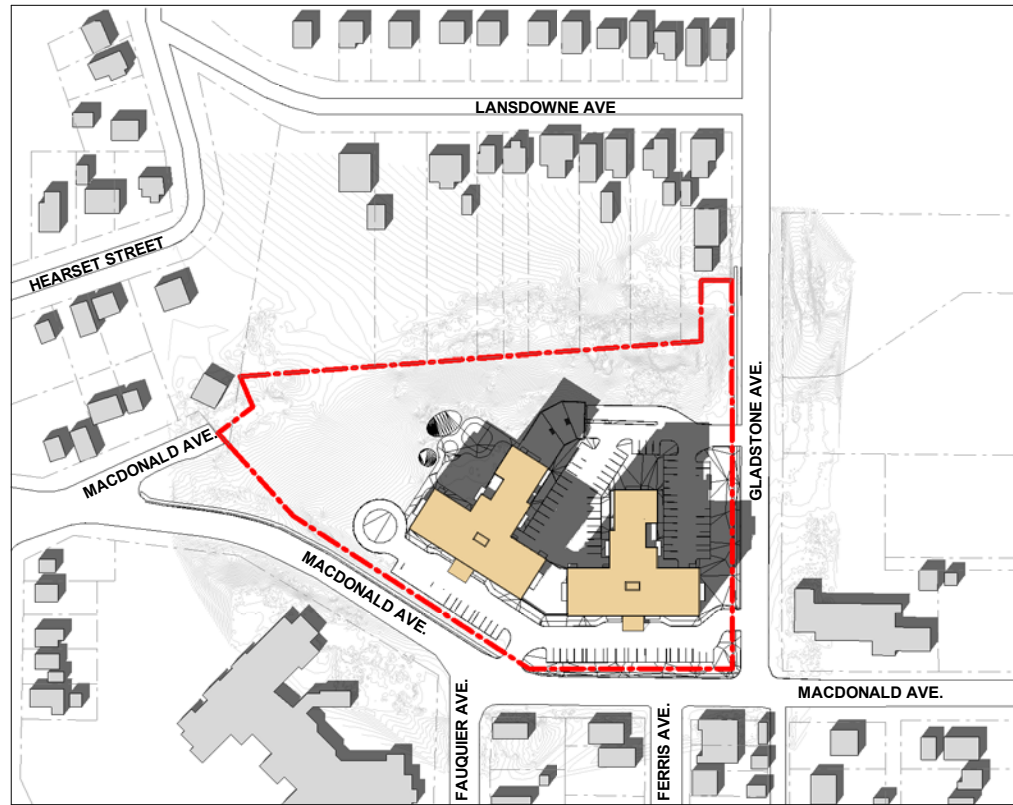
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SUN/SHADOW STUDY - SEPTEMBER

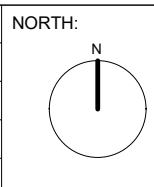
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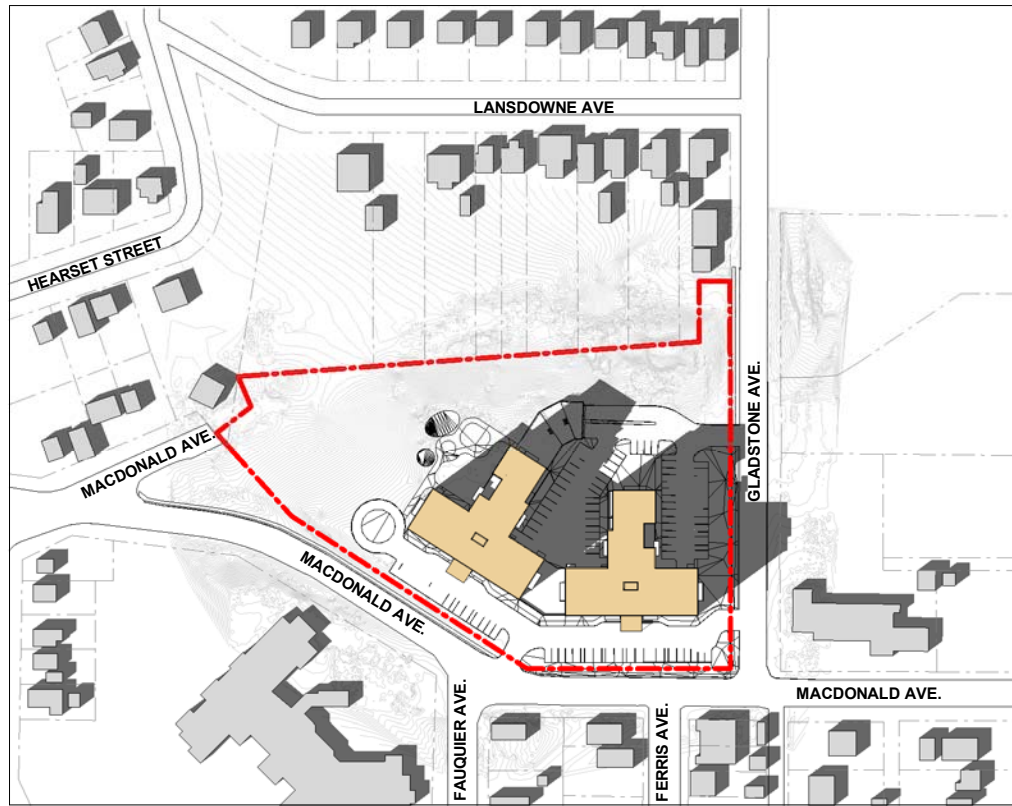
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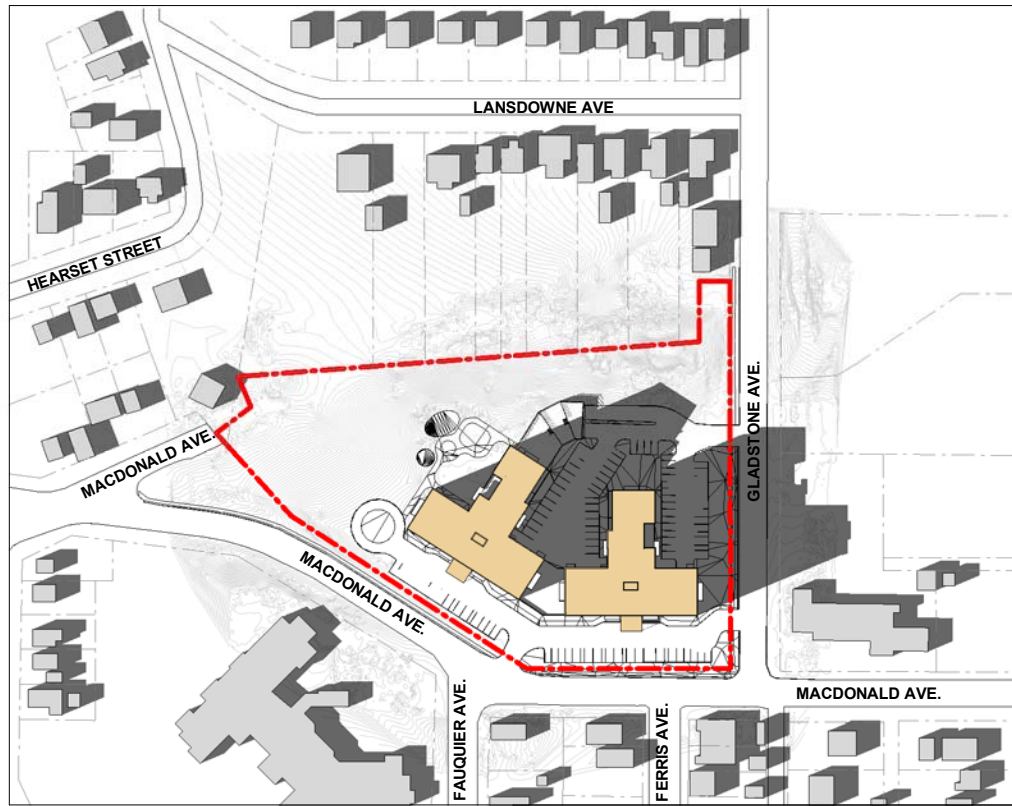
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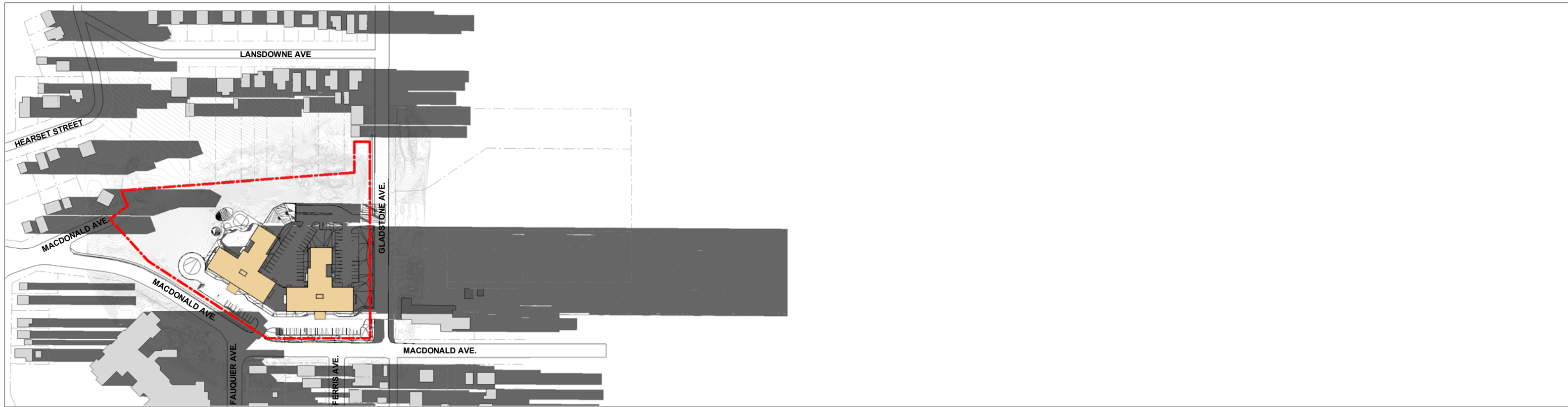
21 SEPTEMBER 3:18PM



21 SEPTEMBER 4:18PM



21 SEPTEMBER 5:18PM



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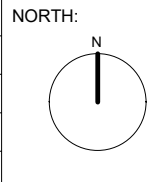
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21 DECEMBER 10:18AM



21 DECEMBER 11:18AM



21 DECEMBER 12:18PM



21 DECEMBER 1:18PM



21 DECEMBER 2:18PM

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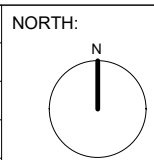
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21 DECEMBER 3:18PM



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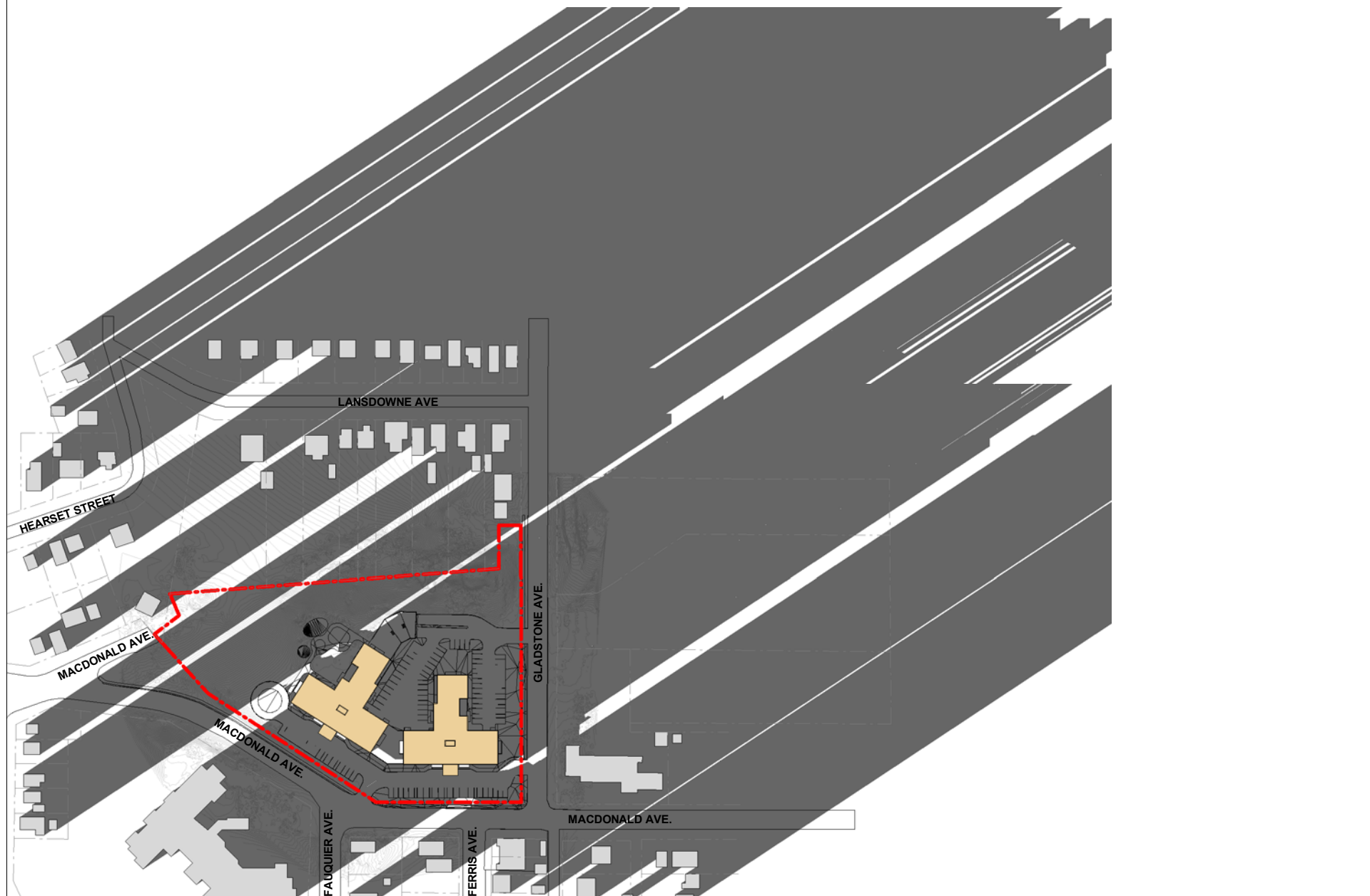
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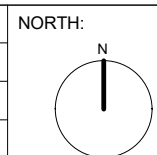
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