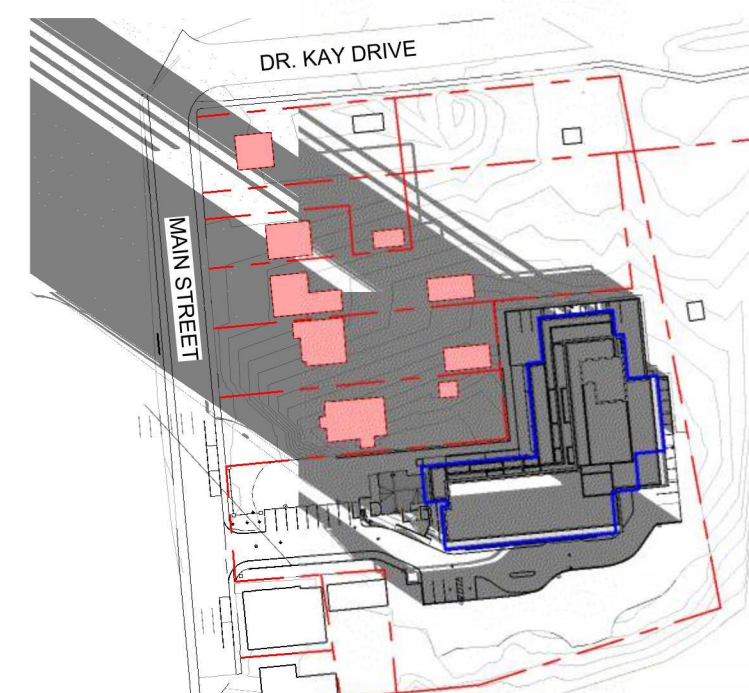
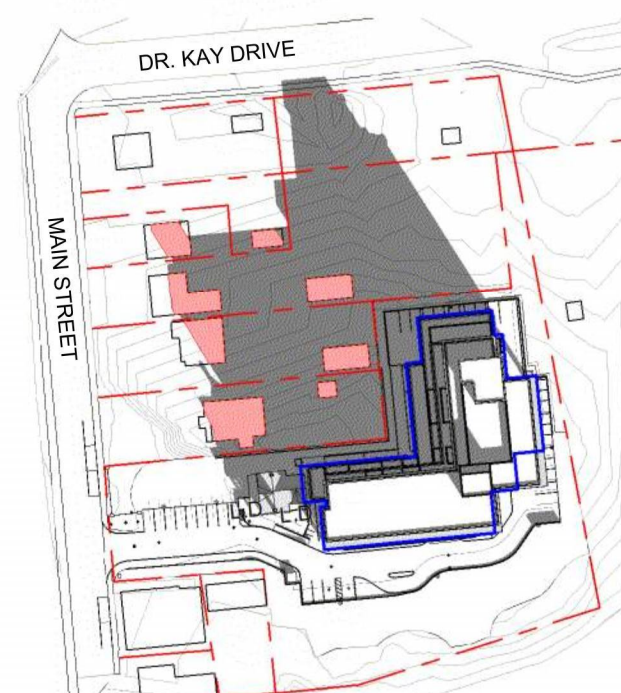


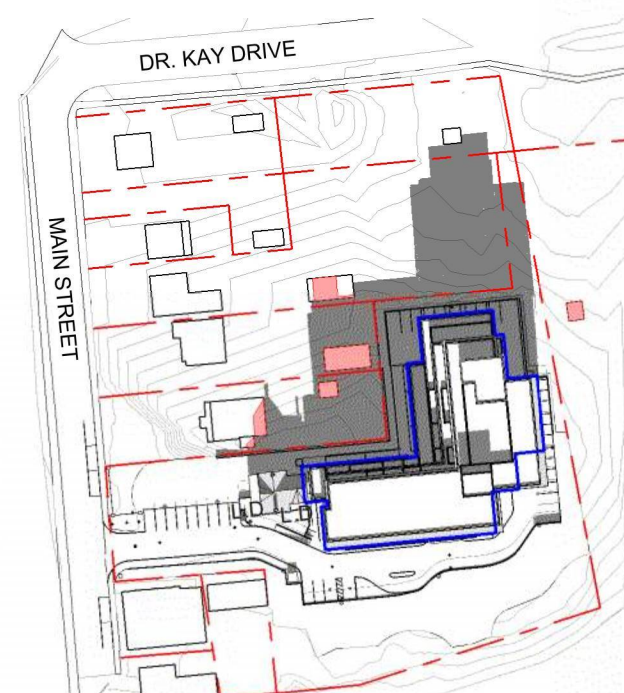
Do not scale drawings. Contractors must check and verify all dimensions and report any discrepancies to the Architect before proceeding with the work. All documents remain the property of the Architect. Unauthorized use, modification, and/or reproduction of these documents is prohibited without written permission. The Contract Documents were prepared by the Consultant for the account of the Owner. The material contained herein reflects the Consultant's best judgment in light of the information available to him at the time of preparation. Any use which a third party makes of the Contract Documents, or any reliance on or decisions to be made based on them are the responsibility of such third parties. The Consultant accepts no responsibility for damages, injury, suffered by any third party as a result of decisions made or actions based on the Contract Documents.



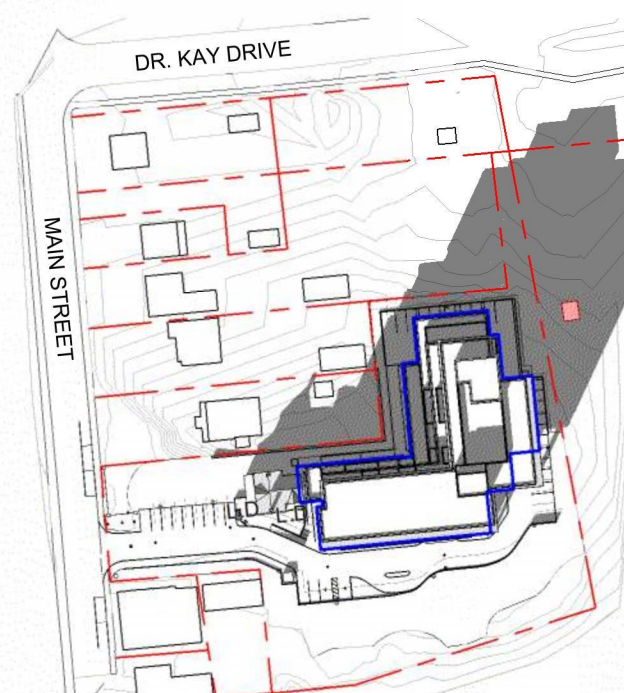
**23 SUN SHADOW - Winter Solstice 9AM**  
1:2000



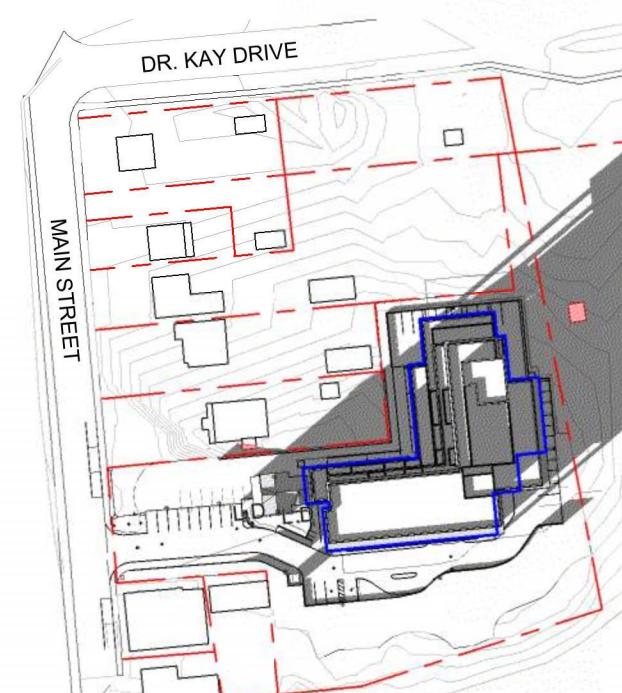
**22 SUN SHADOW - Winter Solstice 11AM**  
1:2000



**21 SUN SHADOW - Winter Solstice 1PM**  
1:2000

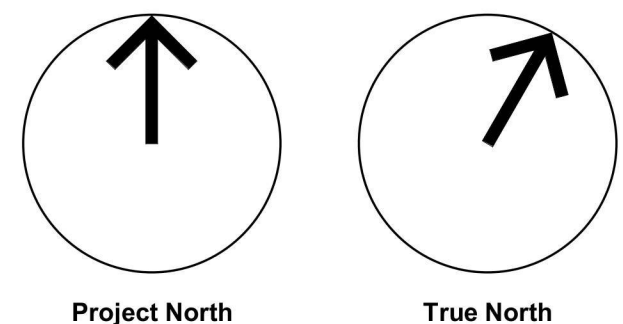


**20 SUN SHADOW - Winter Solstice 3PM**  
1:2000



**19 SUN SHADOW - Winter Solstice 5PM**  
1:2000

**KEY PLAN (NOT TO SCALE)**

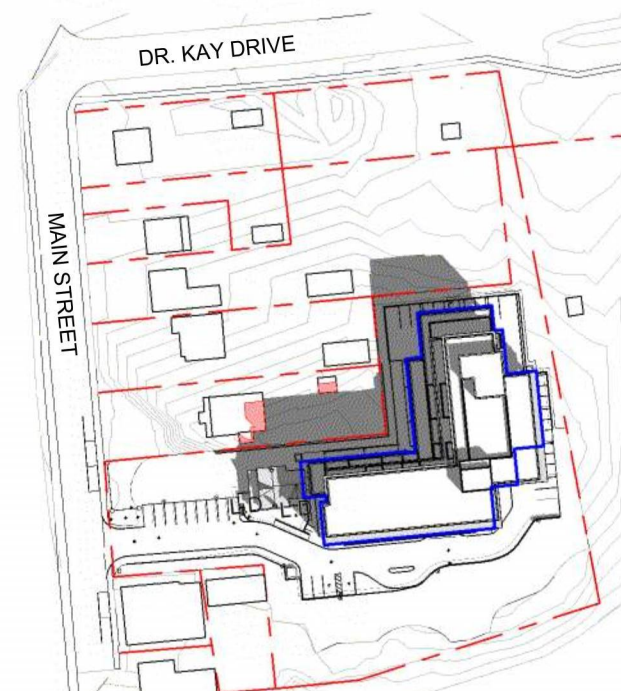


**GENERAL NOTES**

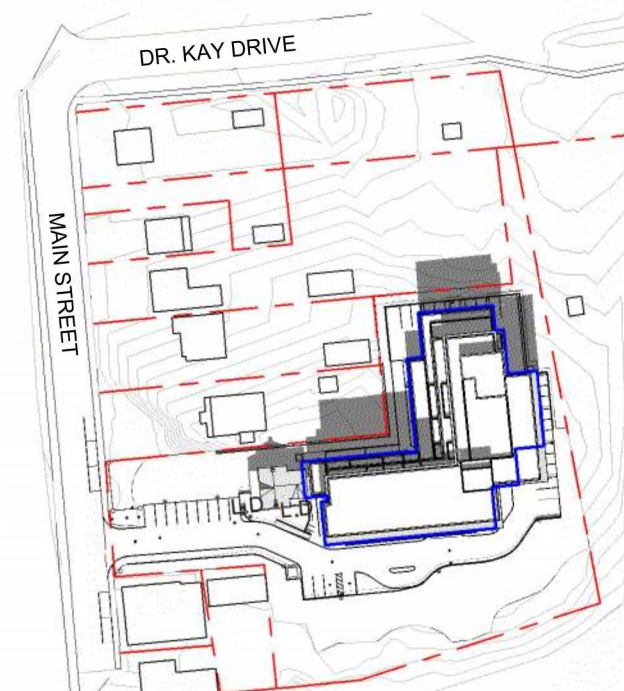
1. Do not scale drawings. Written dimensions shall have precedence over scaled dimensions.
2. All work shall comply with the 2012 Ontario Building Code and amendments.
3. Contractors must check and verify all dimensions and specifications and report any discrepancies to the architect before proceeding with the work.
4. All contractors and sub-contractors shall have a set of approved construction documents on site at all times.
5. All documents remain the property of the architect. Unauthorized use, modification, and/or reproduction of these documents is prohibited without written permission. The contract documents were prepared by the consultant for the account of the owner.
6. The material contained herein reflects the consultant's best judgment in light of the information available to him at the time of preparation. Any use which a third party makes of the contract documents, or any reliance on or decisions to be made based on them are the responsibility of such third parties.
7. The consultant accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on the contract documents.



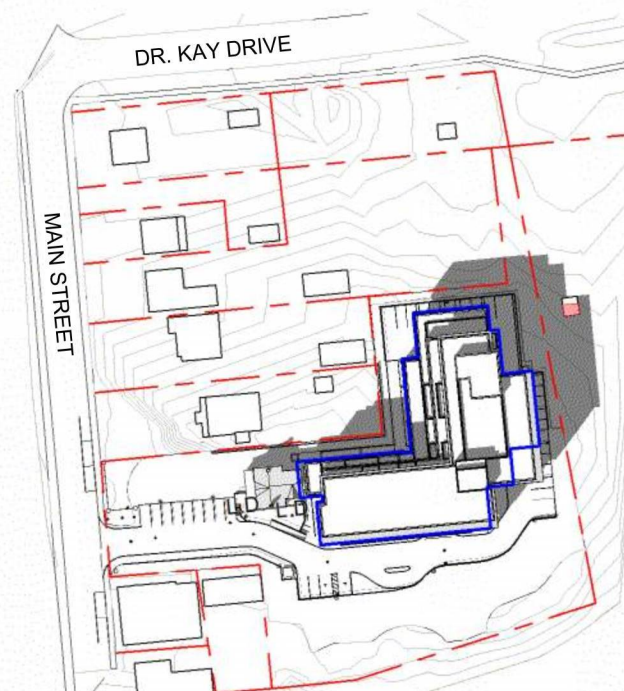
**18 SUN SHADOW - Fall Equinox 9AM**  
1:2000



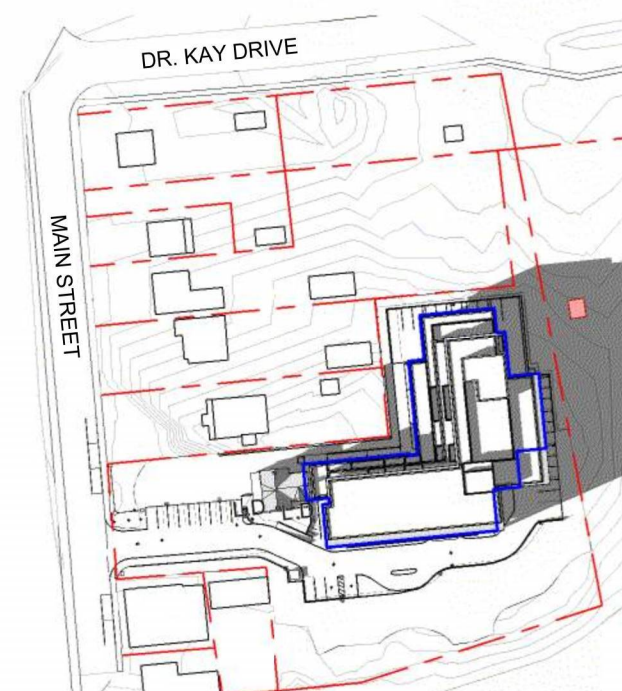
**17 SUN SHADOW - Fall Equinox 11AM**  
1:2000



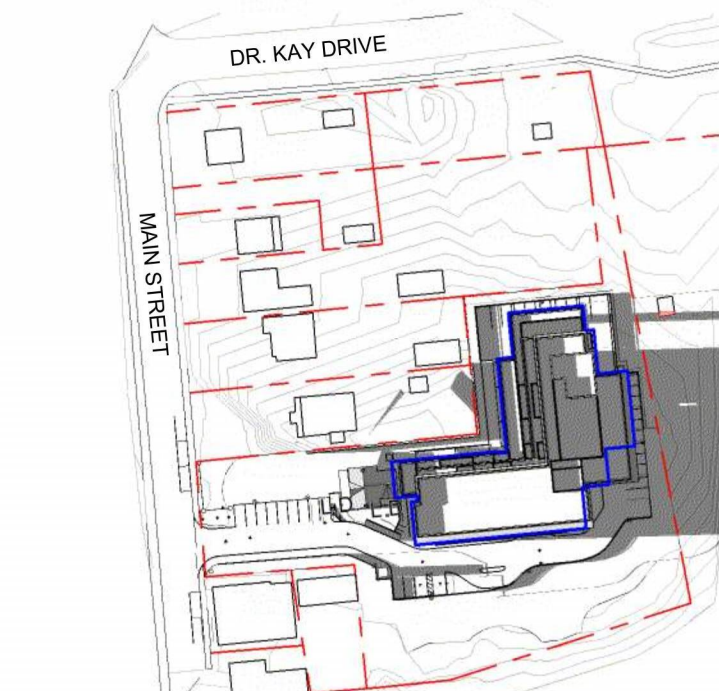
**16 SUN SHADOW - Fall Equinox 1PM**  
1:2000



**15 SUN SHADOW - Fall Equinox 3PM**  
1:2000



**14 SUN SHADOW - Fall Equinox 5PM**  
1:2000



**13 SUN SHADOW - Fall Equinox 7PM**  
1:2000

**SHADOW LEGEND**

- NEW BLDG FOOTPRINT (Blue outline)
- SHADOW EXTENTS (Grey fill)
- IMPACTED EXISTING BUILDING (Red outline)

**SCALE**

5 15 25 50

**SHADOW STUDY**

The following shadow studies demonstrate the shade impact of the proposed development during the SPRING/FALL EQUINOXES & SUMMER/WINTER SOLSTICES to gain an understanding of the impact in the different time of year that the shadows will have an effect on the surrounding context. The proposed site currently has one building comprised of a 2 storey dwelling. The proposed development is a 6 storey residential building consisting of 66 units with commercial/retail option for the existing heritage 2-storey building already on site. The development will consist of 1,288m<sup>2</sup> of public amenity areas.

LOT AREA:	8152 m <sup>2</sup>
BUILDING FOOTPRINT AREA:	1270 m <sup>2</sup>
GROSS FLOOR AREA:	8316 m <sup>2</sup>
BUILDING HEIGHT:	25.5 m

December 21 Sunrise	7:50:36 AM
December 21 Sunset	4:44:04 PM

March 21st Sunrise	7:17:45 AM
March 21st Sunset	7:33:17 PM

June 20 Sunrise	5:35:54 AM
June 20 Sunset	9:05:08 PM

September 22 Sunrise	7:07:11 AM
September 22 Sunset	7:14:50 PM

The shadow impact study takes place from 9am to 7pm during the Fall, Spring & Summer. It runs from 9am to 5pm on the Winter at 2hr intervals taken. Location shown for study is:

Latitude: 44° 0' 13.83" N  
Longitude: 79° 41' 0.03" W

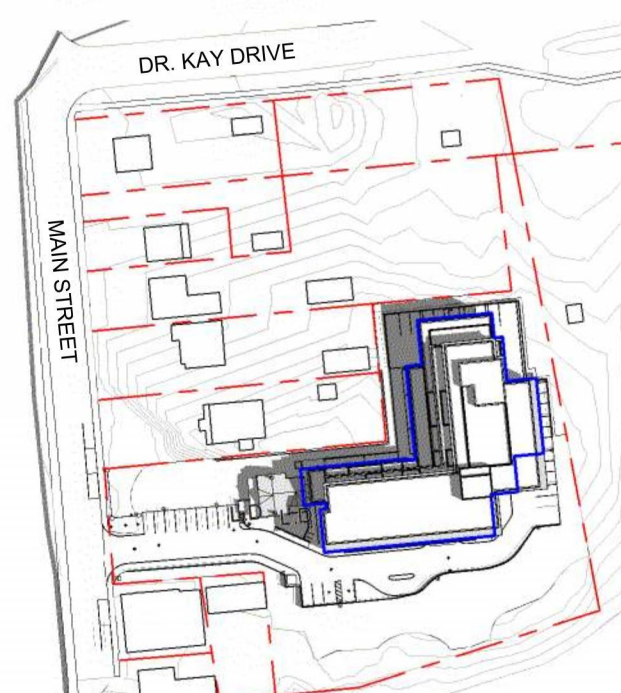
- Mitigation measures include:
- Recessed balconies where possible.
  - Step back at Levels 3, 5 & 6 at west and north facing facades.
  - Minimizing penthouse/mechanical structure.
  - Entry/Drop off colonade rather than larger extruded canopy.

**FINDINGS**

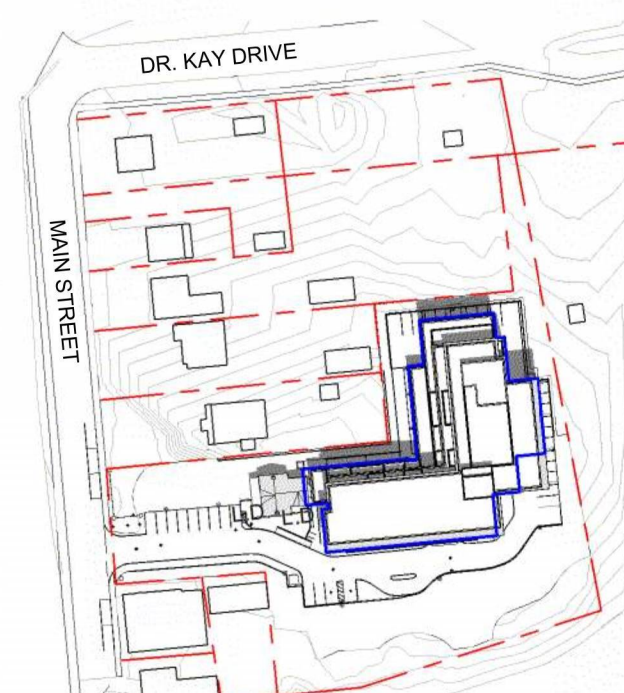
- The proposed development has been found to have:
- **SPRING / FALL EQUINOX:**
    - i) Shadows from the proposed development are not cast on more than 50% of neighbouring amenity area.
    - ii) The adjacent property to the north-west of the proposed development will experience the greatest shadow impact, however, from 1pm to sunset (Approx. 6 hrs) this property will experience near full sunlight. Those areas at the eastern edge of the adjacent site currently reside in shadow due to existing tree canopies.
  - **SUMMER SOLSTICE**
    - i) Shadows from the proposed development are not cast on more than 50% of neighbouring amenity area.
    - ii) The adjacent property to the north-west of the proposed development will experience the greatest shadow impact, however, from 11am to sunset (Approx. 8 hrs) this property will experience full sunlight.
  - **WINTER SOLSTICE**
    - Provided for reference purposes.
  - NO IMPACT to buildings south of the site throughout the year.



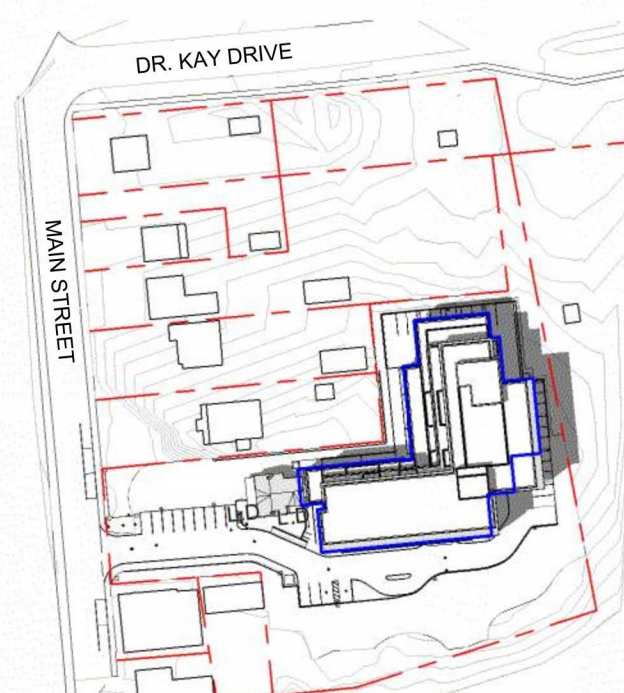
**12 SUN SHADOW - Summer Solstice 9AM**  
1:2000



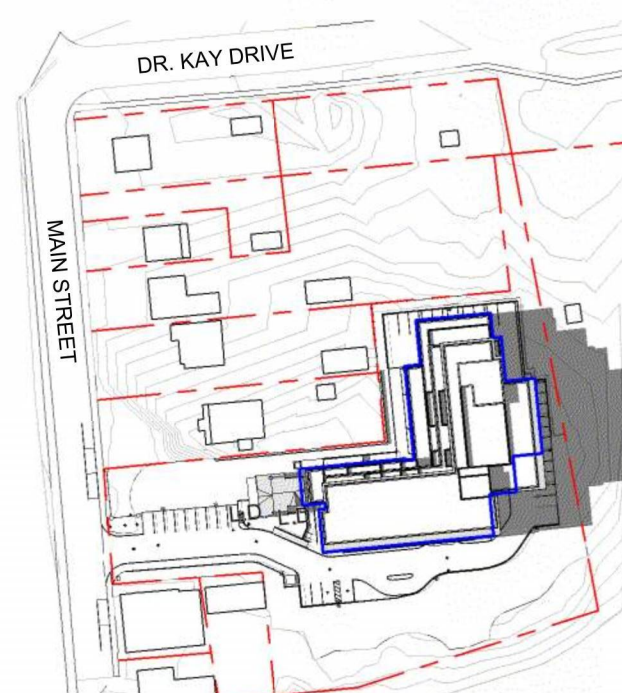
**11 SUN SHADOW - Summer Solstice 11AM**  
1:2000



**10 SUN SHADOW - Summer Solstice 1PM**  
1:2000



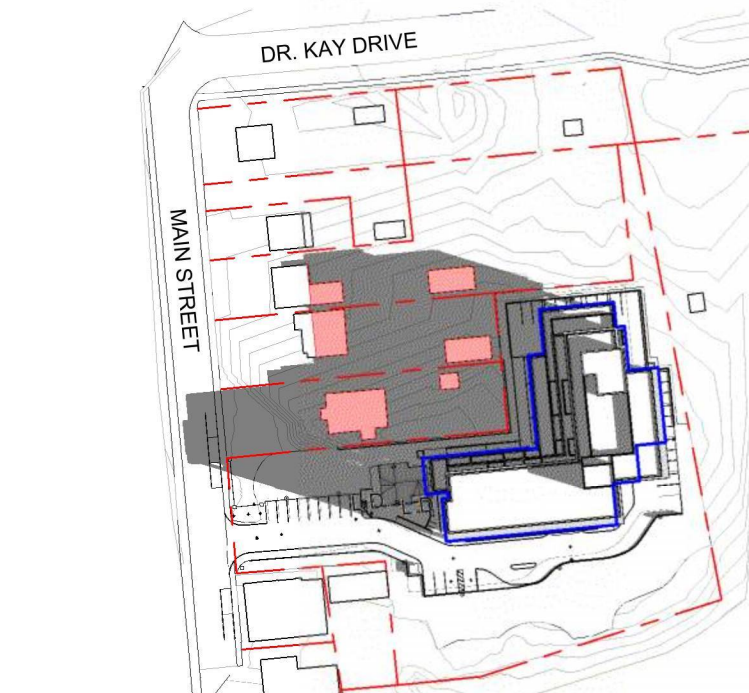
**9 SUN SHADOW - Summer Solstice 3PM**  
1:2000



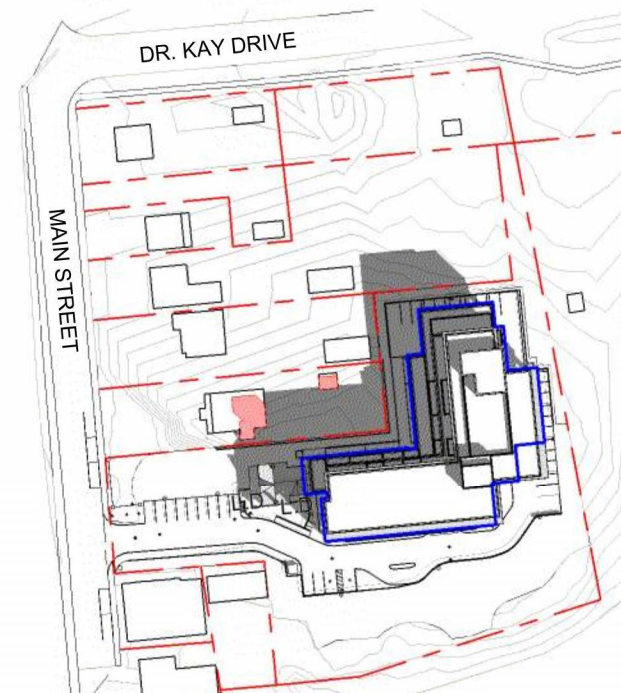
**8 SUN SHADOW - Summer Solstice 5PM**  
1:2000



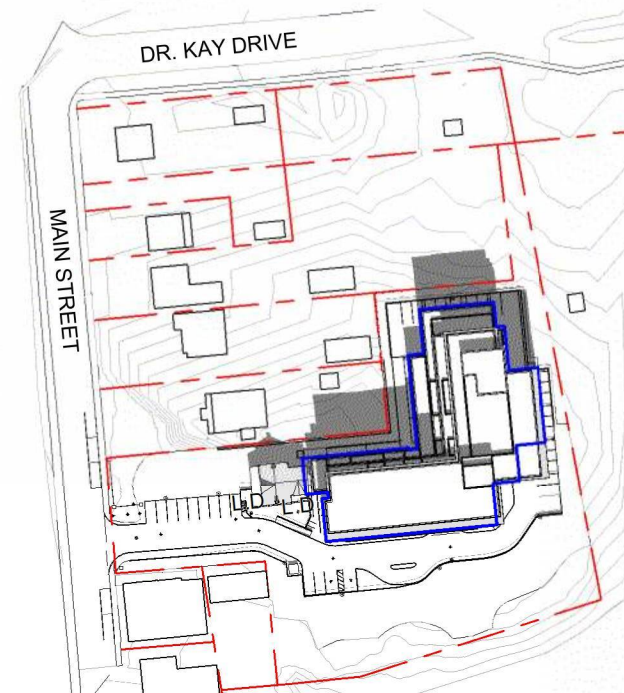
**7 SUN SHADOW - Summer Solstice 7PM**  
1:2000



**6 SUN SHADOW - Spring Equinox 9AM**  
1:2000



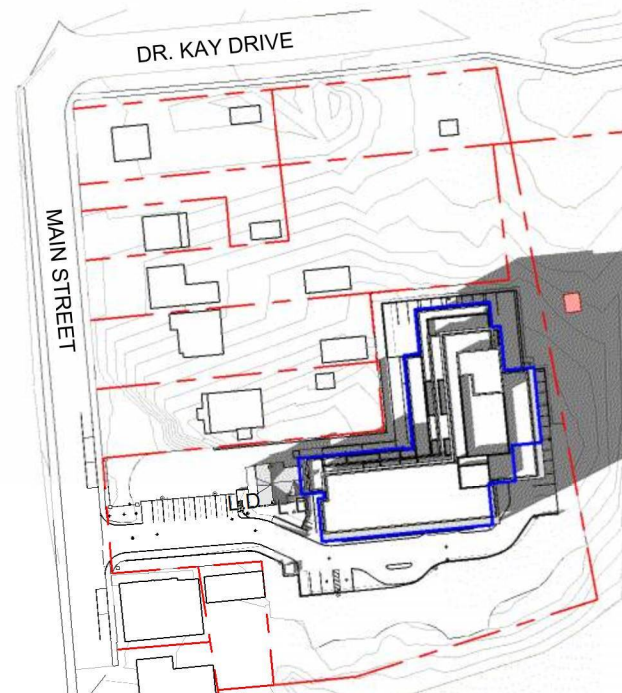
**5 SUN SHADOW - Spring Equinox 11AM**  
1:2000



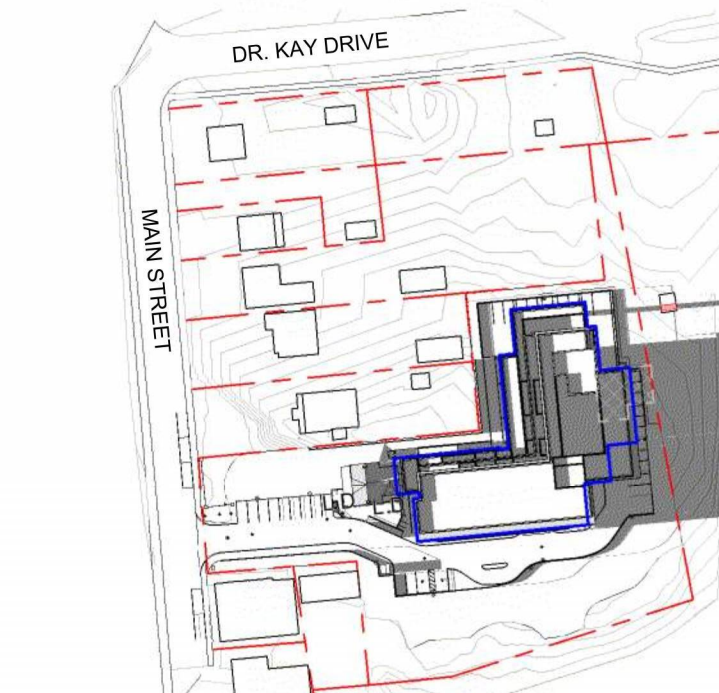
**4 SUN SHADOW - Spring Equinox 1PM**  
1:2000



**3 SUN SHADOW - Spring Equinox 3PM**  
1:2000



**2 SUN SHADOW - Spring Equinox 5PM**  
1:2000



**1 SUN SHADOW - Spring Equinox 7PM**  
1:2000

5	2024-05-27	RE-ISSUED FOR SPA
4	2023-11-02	ISSUED FOR SPA
3	2023-04-26	ISSUED FOR SPA
2	2023-04-20	ISSUED FOR COORDINATION
1	2021-12-22	ISSUED FOR ZBA

Client:

Project Name / Address:

**MARCOR REALTY LTD**  
**326 MAIN STREET,**  
**TOWNSHIP OF KING**

**SRM** architects+urban+designers

Project No: 21064  
Drawing Date: 12/09/21  
Drawn by: LGJ  
Checked by: RPH  
Office Location: KITCHENER  
Plot Date / Time: 2024-05-27 2:00:25 PM

**SHADOW STUDY**

Ontario Association of Architects  
OF ARCHITECTS  
EDWARD THOMAS LICENCE 5572

Drawing Scale: As indicated  
Status:  
Revision No: r5  
Drawing No: D1.6