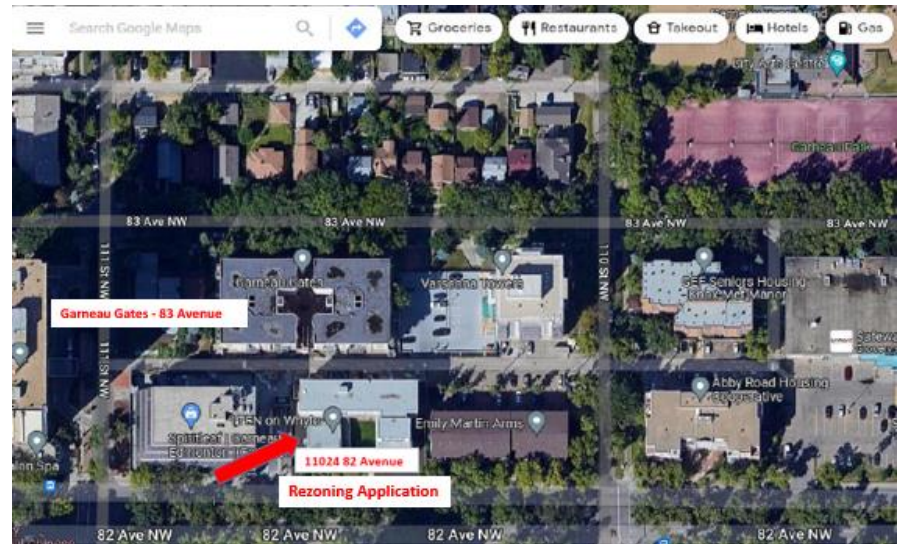
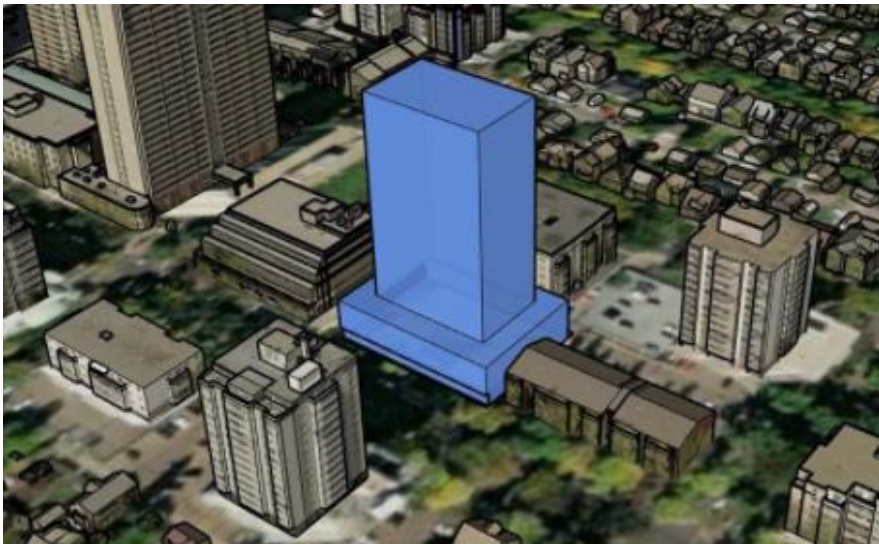


Recommendation for NO Approval

Charter Bylaw 20040 – Change of Zoning Bylaw 20039 – Amendments to Garneau Area Redevelopment Plan



Presented by Don Wood, volunteer, Board of Directors, Garneau Gates Condominium

April 5, 2022

Summary Reasons for No Approval



- 1) **Bylaw Change of Zoning disregards fundamental design criteria, and the overall intent, expressed by Edmonton's WINTER DESIGN GUIDELINES**
- 2) **Sun Shadow Study is grossly inadequate through its omission of any written analysis, thereby failing to describe how the height and design of the tower with its massive shadow will affect adjacent properties, homeowners' yards, public spaces, parks and trees.**

Edmonton's Winter Design Guidelines - Superb Planning Document

Project Co-Chairs

Councillor Ben Henderson, Ward 8, City of Edmonton

Simon O'Byrne, Vice President, Stantec Inc.

Project Co-Sponsors

Lyall Brenneis, Branch Manager, Community Inclusion and Investment Branch, Citizen Services Dept., City of Edmonton

Peter Ohm, Branch Manager, City Planning Branch, Sustainable Development Dept., City of Edmonton

Core Project Team

David Holdsworth, Senior Urban Designer, City Planning Branch, Sustainable Development Dept.

Isla Tanaka, WinterCity Office Planner, Citizen Services Dept.

Jane Taylor, Principal Urban Designer, City Planning Branch, Sustainable Development Dept.

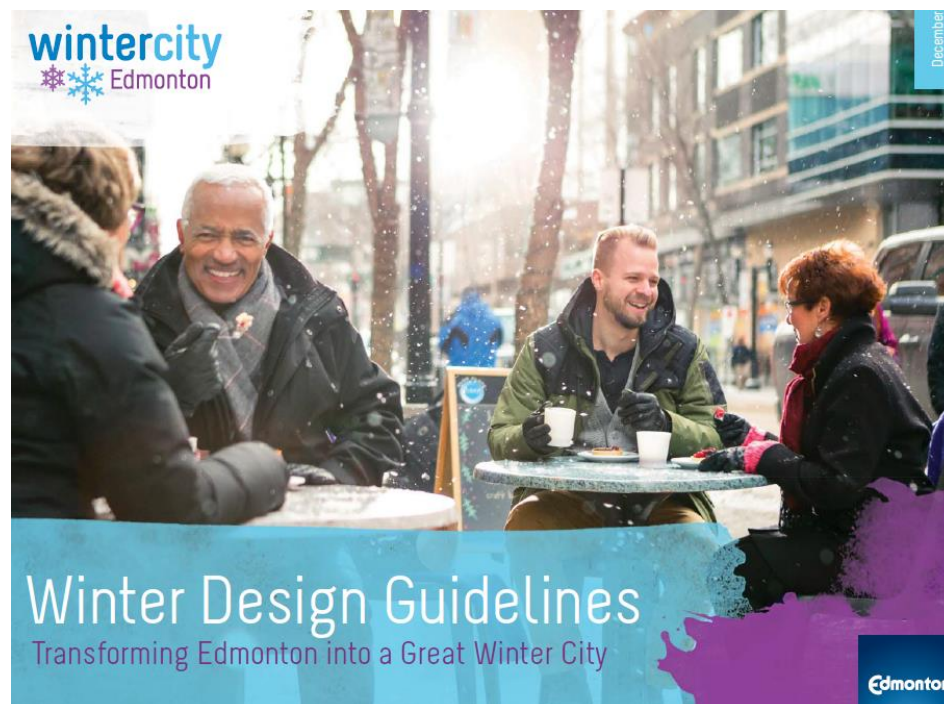
Jessica Lui, former Co-op Student, Current Planning Branch, Sustainable Development Dept.

Kim Petrin, former Senior Planner, Special Projects, Current Planning Branch, Sustainable Development Dept., - now with Stantec Inc.

Nola Kilmartin, former Principal Planner, Special Projects, Current Planning Branch, Sustainable Development Dept., - now with Kennedy

Sauna Young, Facilitator, IBIS Communications

Susan Holdsworth, WinterCity Office Coordinator, Citizen Services Dept.





WINTER IN EDMONTON, NORTH AMERICA'S NORTHERNMOST LARGE CITY

Our winter, or cold season, typically lasts from November to March, though it varies greatly in length and severity. Most Edmontonians consider the months of October and April to be part of the shoulder seasons. Winters in Edmonton are less severe than in many other Canadian cities, with low humidity and less snow. Although the winter temperature can dip to -40°C, the cold spells last only a few days. But we have lots of sunshine! We see an average of 325 sun-filled days a year, with 121 of them falling between November and March. Year-round, Edmonton is actually the second sunniest city in Canada!

Winter Design in a Nutshell

The Winter Design Guidelines are comprehensive. For the sake of simplicity, however, the five main principles of winter city design are:

1. Incorporate design strategies to block wind, particularly prevailing winds and downdrafts.
2. Maximize exposure to sunshine through orientation and design.
3. Use colour to enliven the winterscape.
4. Create visual interest with light, while being mindful of intensity, spread, contrast and colour.
5. Design and provide infrastructure that supports desired winter life and improves comfort and access in cold weather.

The five main principles are applied in all contexts throughout these guidelines. Multiple examples are provided for how to apply the principles in all scales, from building to site to neighbourhood. The following image demonstrates how all five principles can be used in one space.

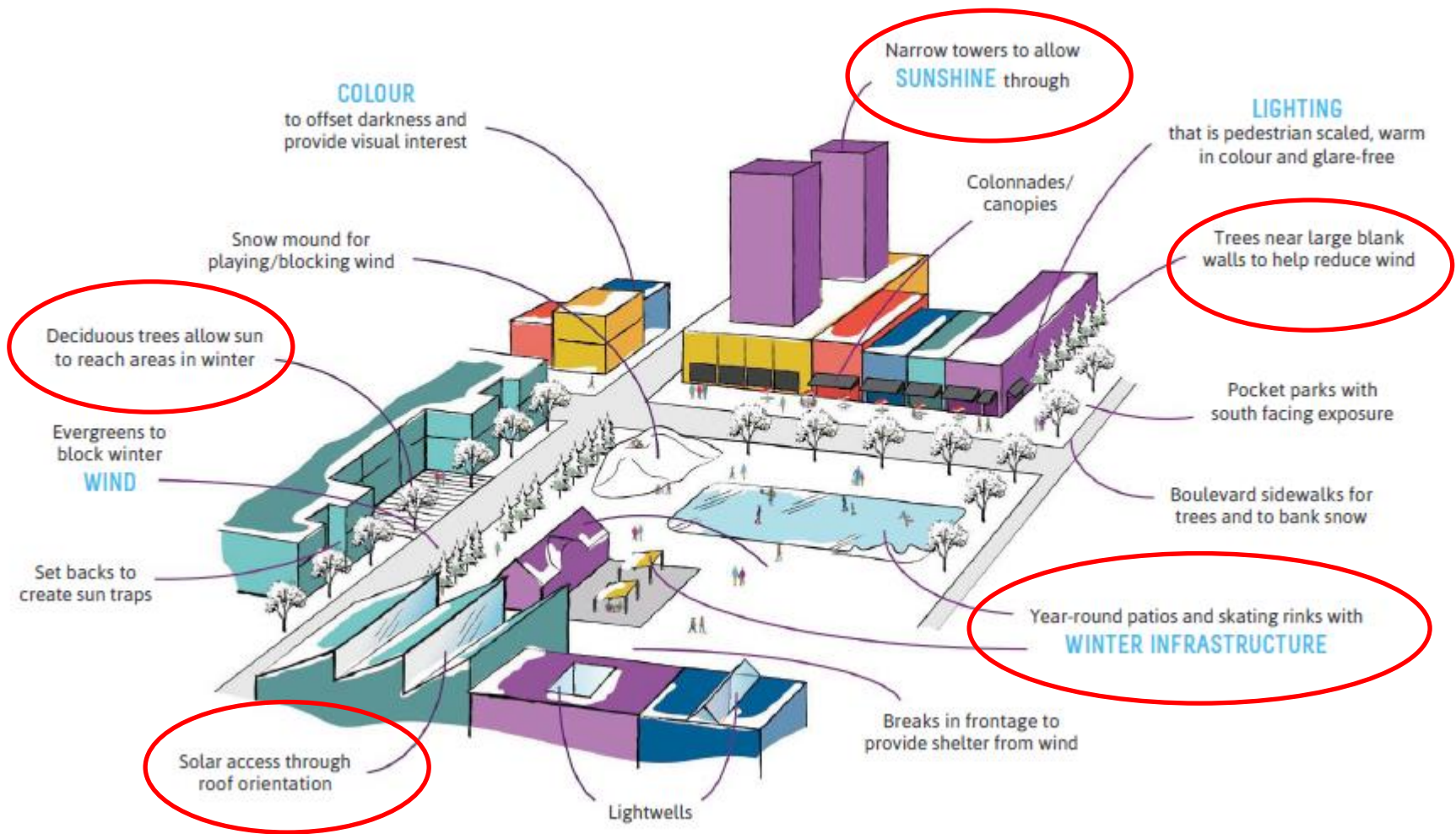
Rezoning Application – Substandard Winter Design Considerations

5. To improve architectural interest of the principal structure and create a pedestrian-friendly environment for all seasons, design techniques including but not limited to entrance features, varied roof design, outdoor seating areas, canopies, or Landscaping shall be incorporated.
6. Winter design elements such as the use of colour and functional and decorative lighting to enhance the appearance of the building while minimizing light pollution during the winter months shall be incorporated.
7. All exposed building Façades shall have complementary exterior finishing materials. On Corner Lots, the Façade treatment shall wrap around the side of the building to provide a consistent profile facing both public roadways.

The Applicant has considered only 2 of the 5 principle design elements - i.e. a “failing grade for effort”

Garneau Gates Condo incorporates these recommended designs. Not Applicant's.

PRINCIPLES OF WINTER DESIGN

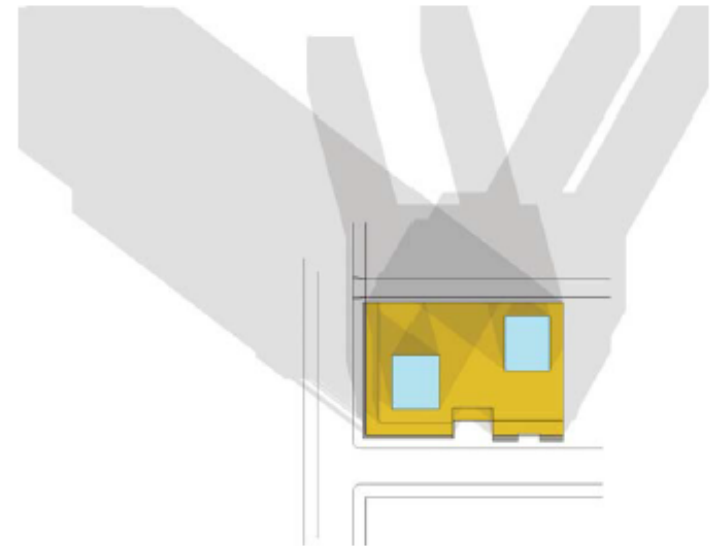


Detailed Sun Shadow Studies are important. Learnings improve design.

SUN/SHADOW STUDIES ILLUSTRATE HOW A DEVELOPMENT IMPACTS THE AMOUNT OF DAYLIGHT THAT REACHES ITS SURROUNDINGS

In winter, shadows are long and reduce the opportunity for sunny public spaces. A number of simulation tools and programs are available to help visualize, or quantify, how a building affects sunshine and shadows on its own site and on neighbouring properties over a period of time. This is commonly referred to as a butterfly, or shadow diagram. Typically, sun and shadow studies that are submitted for review in Edmonton reflect conditions at 0900, 1200 and 1500 hours Mountain Standard Time (MST) on March 21st, June 21st, September 21st and December 21st.

3-D modelling software tools are also available, and can produce a more detailed picture of how a building's shadows affect its surroundings. For example, a 3-D model may reveal an area that does not receive any sunshine at a given time of year.



▲ Shadow Diagram: Winter Solstice 0900, 1200 and 1500 hours MST

Rezoning Application – The Sun Shadow Study is grossly deficient

SUN/SHADOW STUDY - 11024 82 AVENUE NW

March/September 21



8 AM



10 AM



12 PM



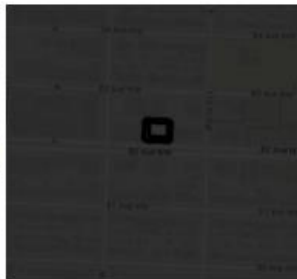
2 PM



4 PM



6 PM



8 PM

No written analysis. Study is overall grossly deficient in many relevant aspects..

“Regional Scale” used is too small to interpret. Off by a factor of 10.

No scale provided. Guessing that scale is on the order of 1:10,000

Block Plan maps typically 1:1000 to 1:2500. Focused analysis requires 1:500 or 1:250 or better.

Sun Shadow Analysis – Free Internet Tool: <http://suncalc.org>

Computation path of the sun for:

St John S Institute, 11024 82 Ave NW, Edmor

01.Apr.2022 13:03 UTC-6 >|<

Solar data for the selected location

Dawn: 06:31:21
Sunrise: 07:06:31
Culmination: 13:37:50
Sunset: 20:10:18
Dusk: 20:45:38
Daylight duration: 13h3m47s
Distance [km]: 149.500.529
Altitude: 40.74°
Azimuth: 168.51°
Shadow length [m]: 87.08
at an object level [m]: 75

Geodata for the selected location

Height: 675m Set Lat/Lon
Lat: N 53°31'6.3" 53.51842°
Lng: W 113°30'58.94" -113.51637°
UTM: 12U 333171 5932889
TZ: America/Edmonton DST MDT

More solar data

Print

Contact

Help & API

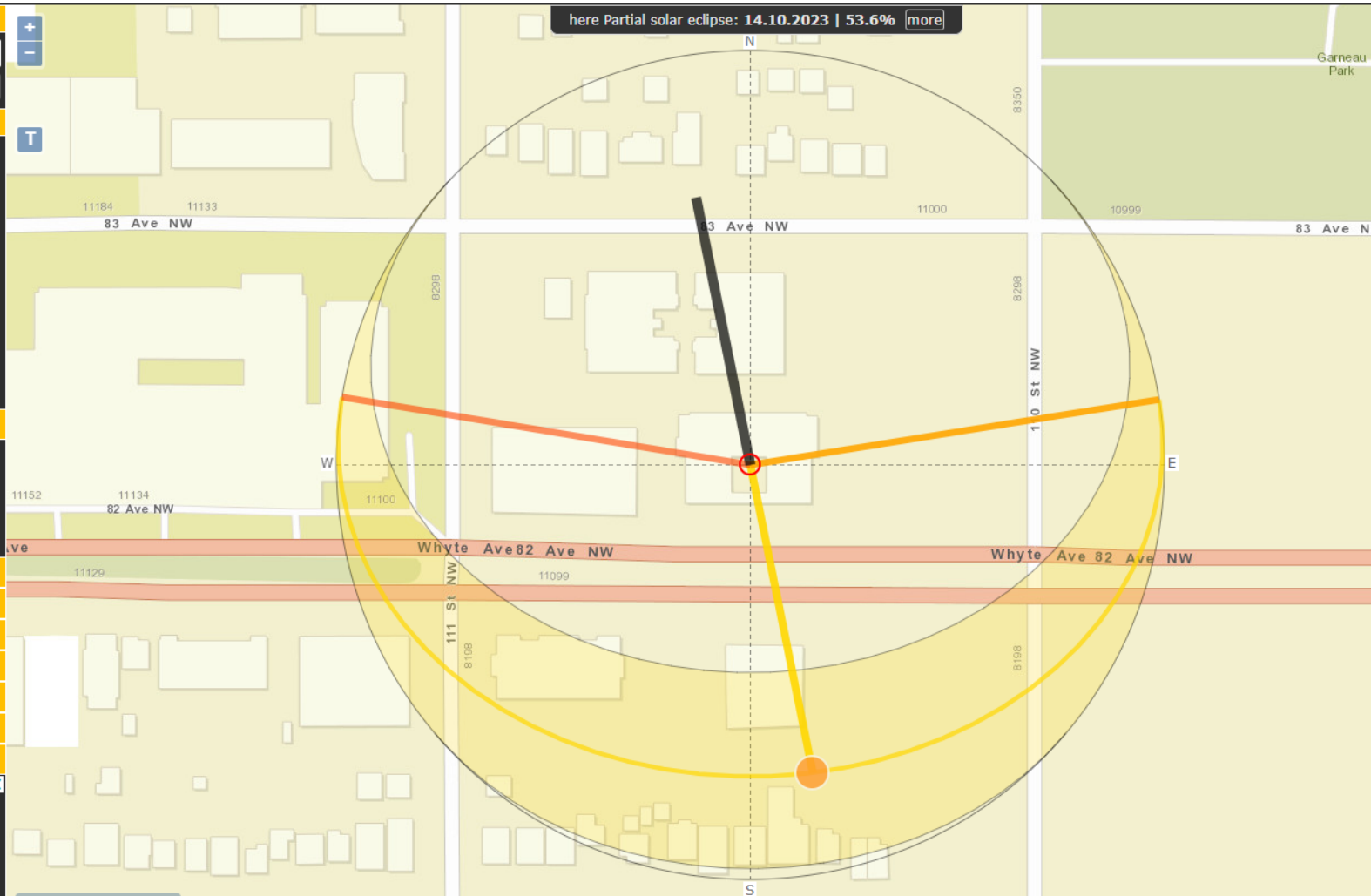
More for Moon|Planets|Satellites

Donate

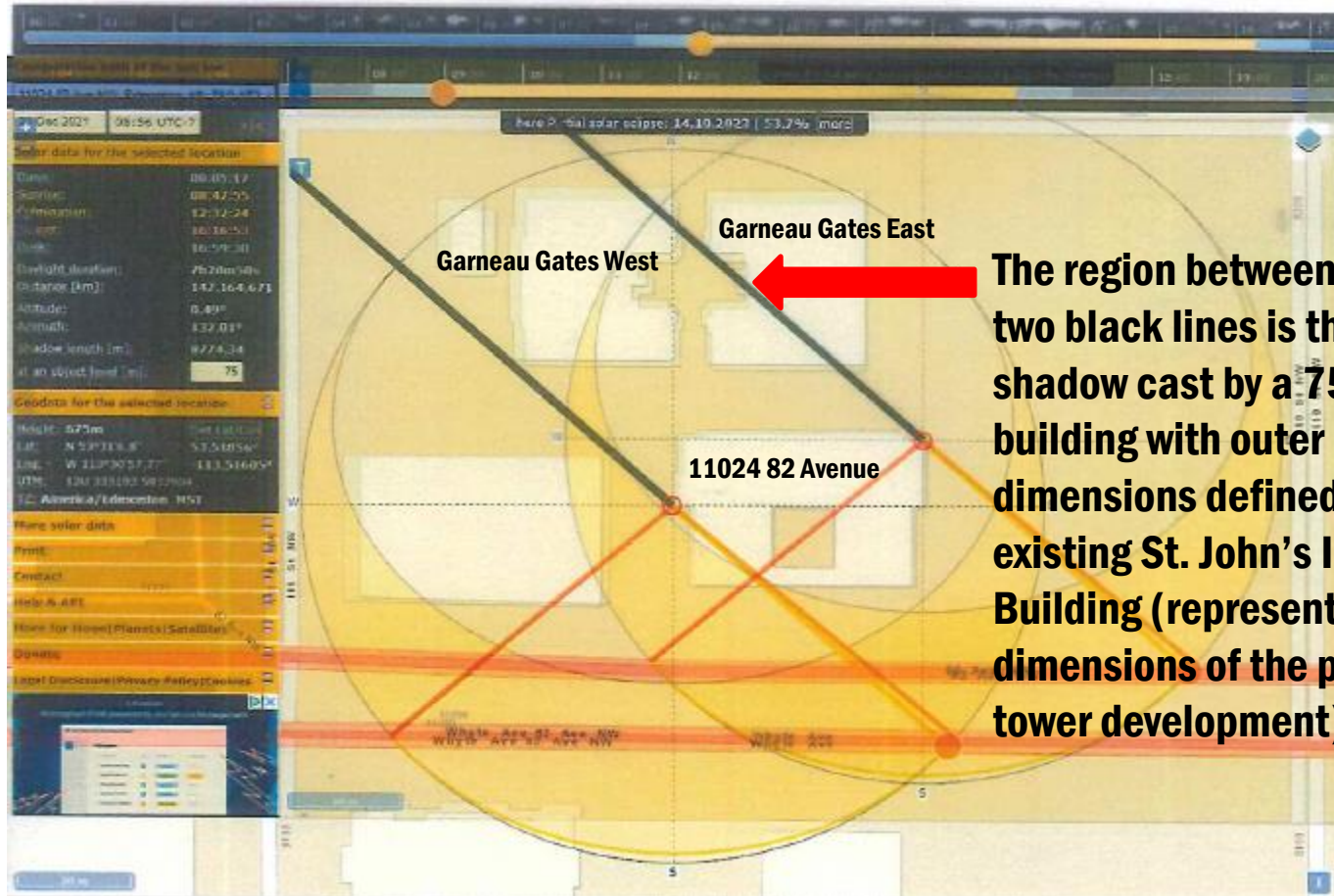
Legal Disclosure|Privacy Policy|Cookies

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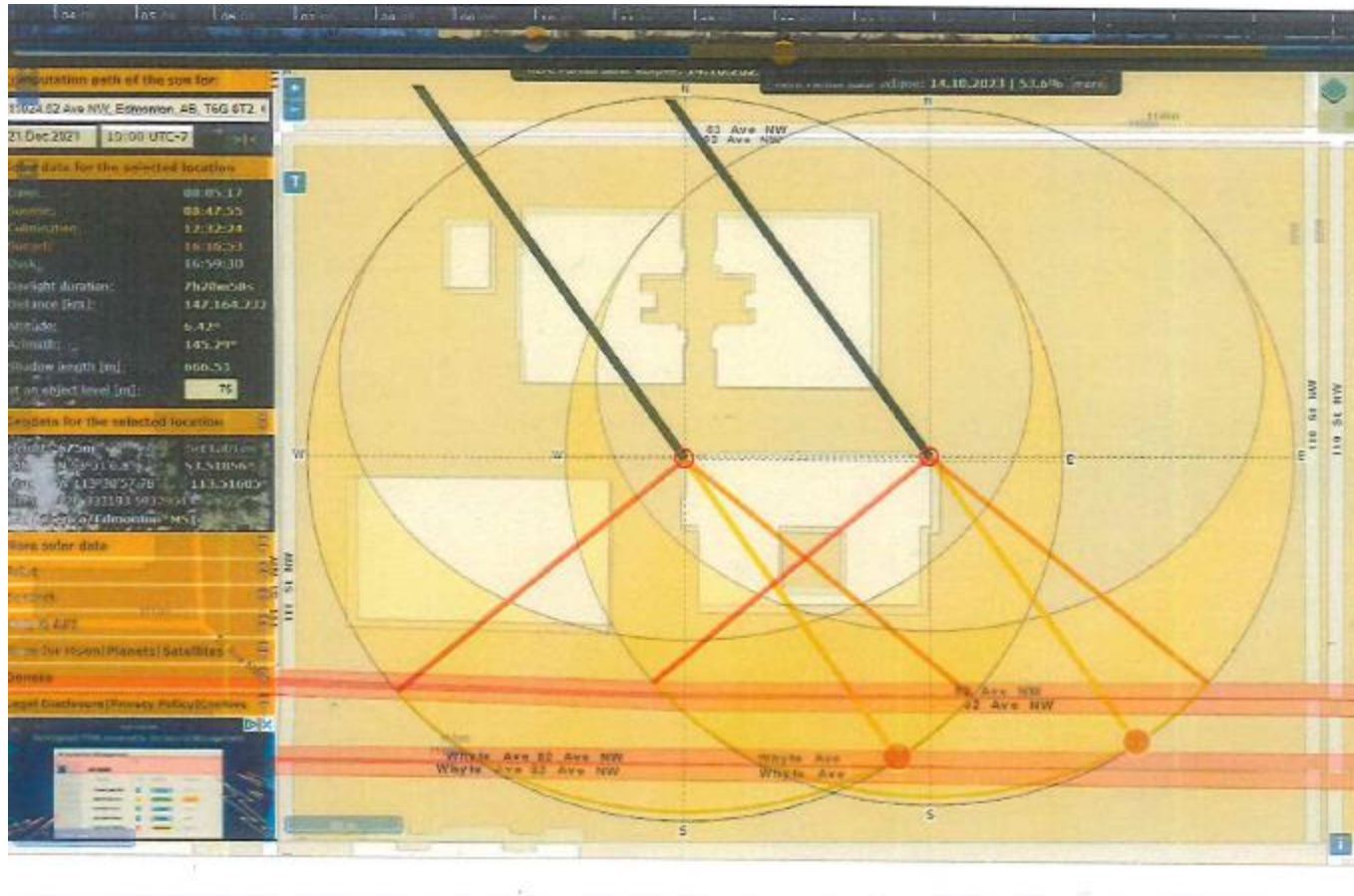
Risk



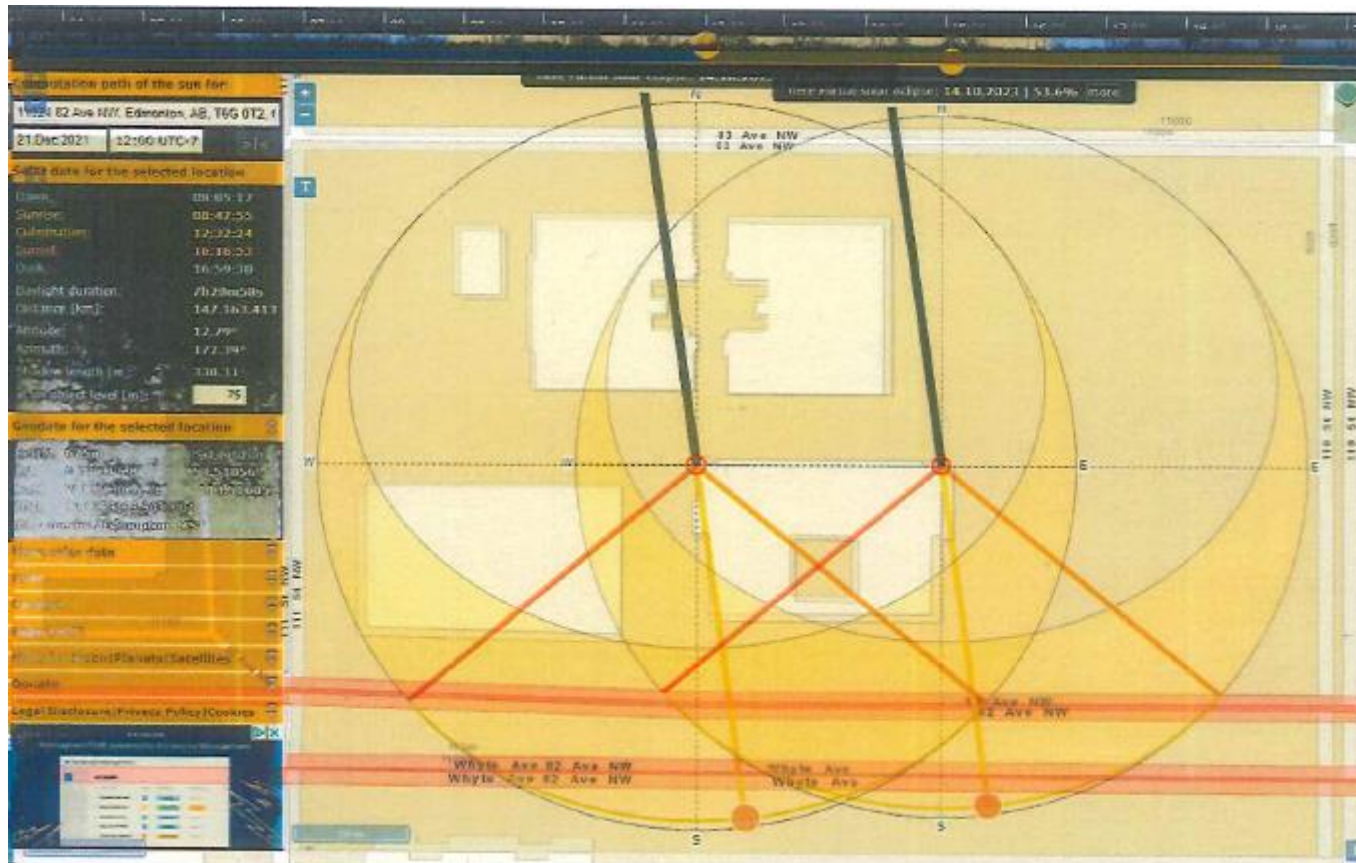
Sun Shadow Analysis (Garneau Gates): #1 of 5 – Sunrise



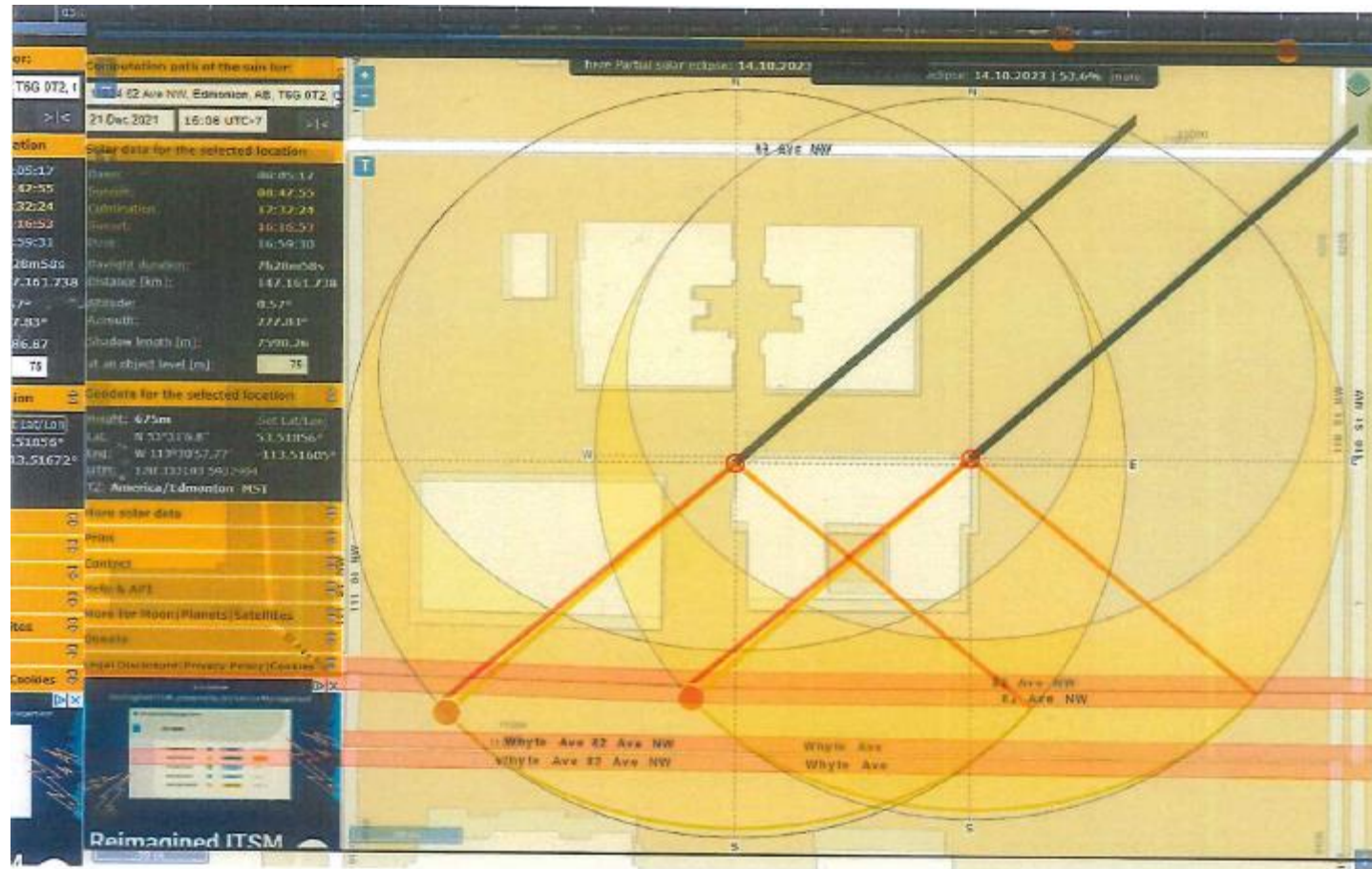
Sun Shadow Analysis (Garneau Gates): #2 of 5 – 10:00 am



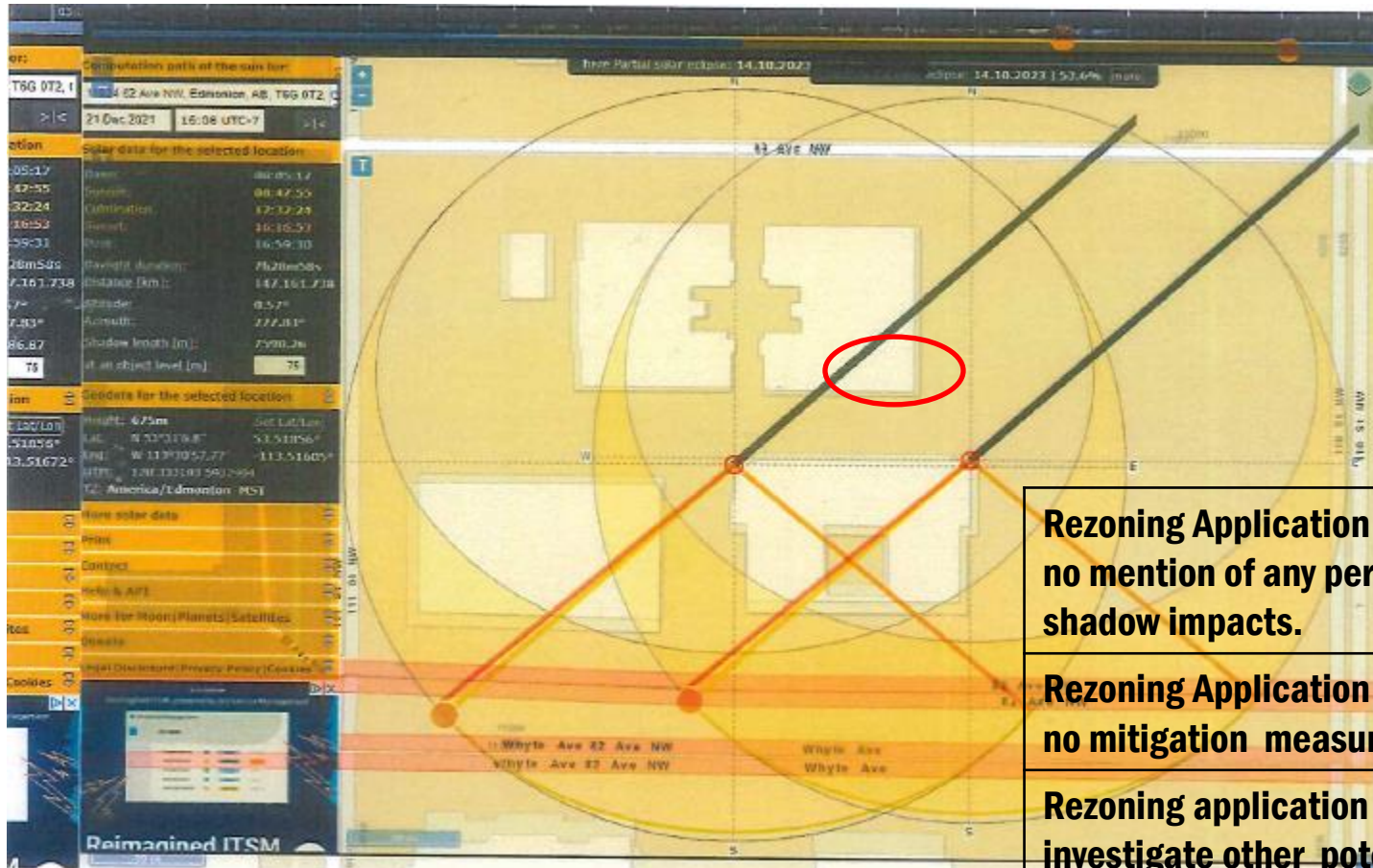
Sun Shadow Analysis (Garneau Gates): #3 of 5 - 12:00 Noon



Sun Shadow Analysis (Garneau Gates): #5 of 5 - Sunset



Permanent shadow cast over southeast wall of Garneau Gates Condominium

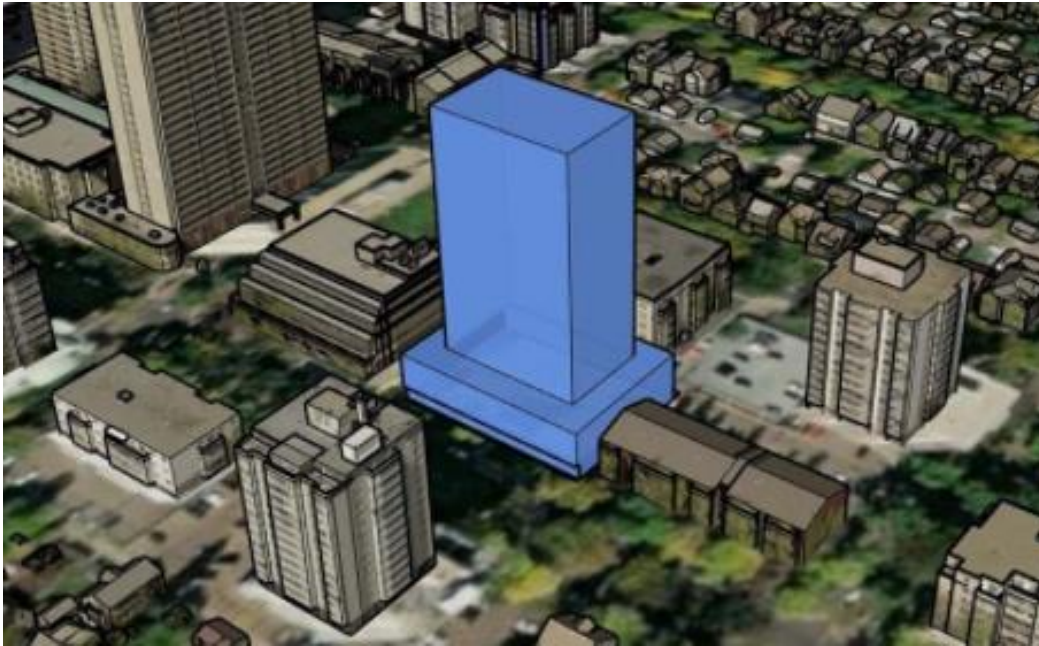


Rezoning Application contains no mention of any permanent shadow impacts.

Rezoning Application presents no mitigation measures

Rezoning application does not investigate other potential negative shade impacts on other properties.

In Summary: Urging No Approval of this Rezoning Application



The Rezoning Application Ignores planning and design criteria sponsored by and put forward by City of Edmonton.

The Sun Shadow Study presented within the Rezoning Application is grossly deficient. It omits all forms of detailed and written analysis thereby obstructing the reasonable determination of a proper decision.

The proposed 22 story tower with height of 75 metres is too large to superficialize potential negative impacts on neighbouring properties and public spaces caused by the applicant's deficiencies.