

DC2 concerns

Roni Kraut

+50 emails!

Basement Units

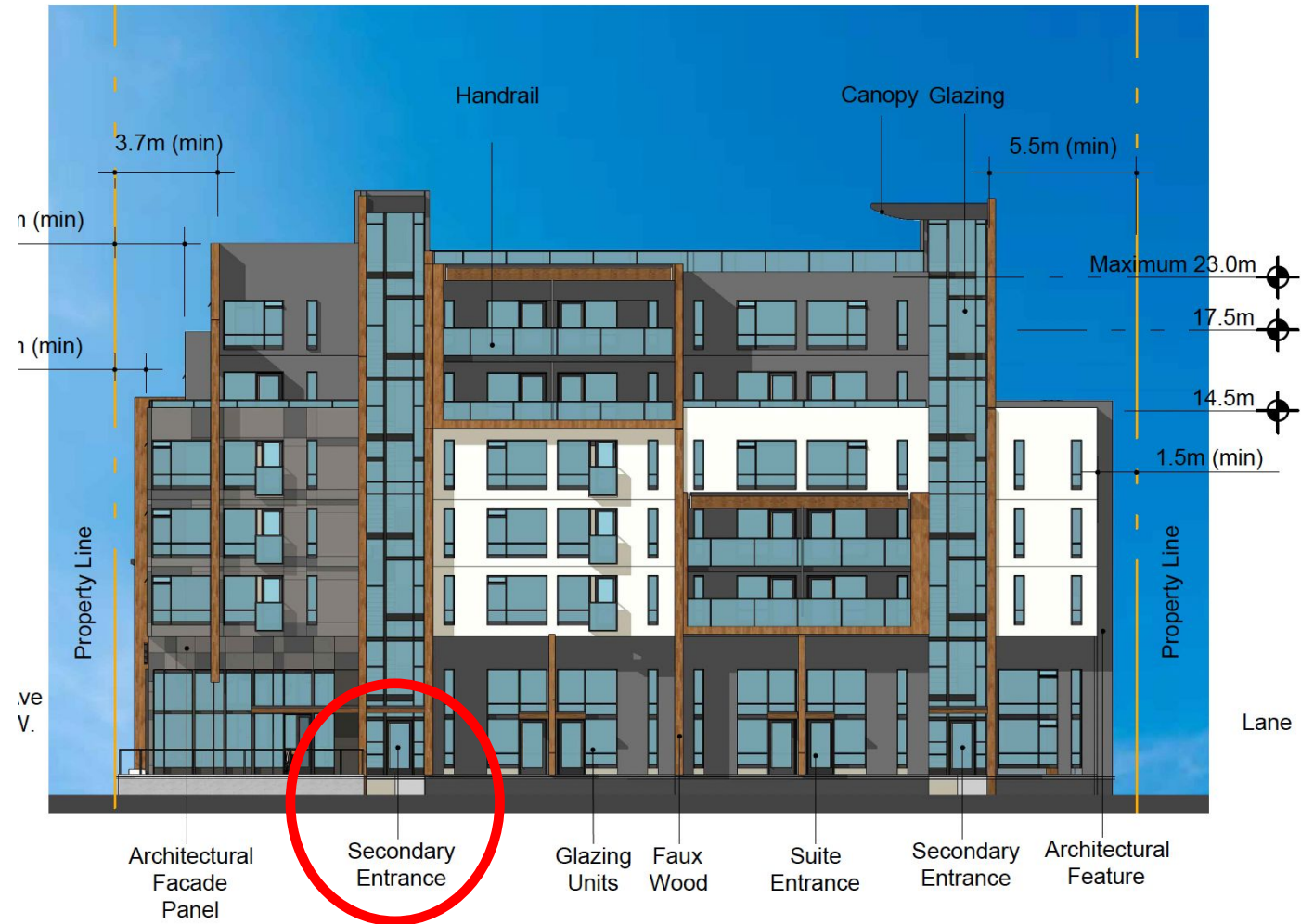
- c. The maximum Floor Area Ratio shall be 4.0.
 - i. A maximum of 600 m² of Basement area used for residential development shall not be included in the total Floor Area for the calculation of Floor Area Ratio.

Questions:

- Is the 600 m² of basement units for both Metro78 buildings or will each have 600 m² of basement space?
- How many basement units are intended?
- Why is basement residential space not included in the FAR?
- Is this basement included in the elevations in the final DC2?
- How will the basement impact the height of the other levels?

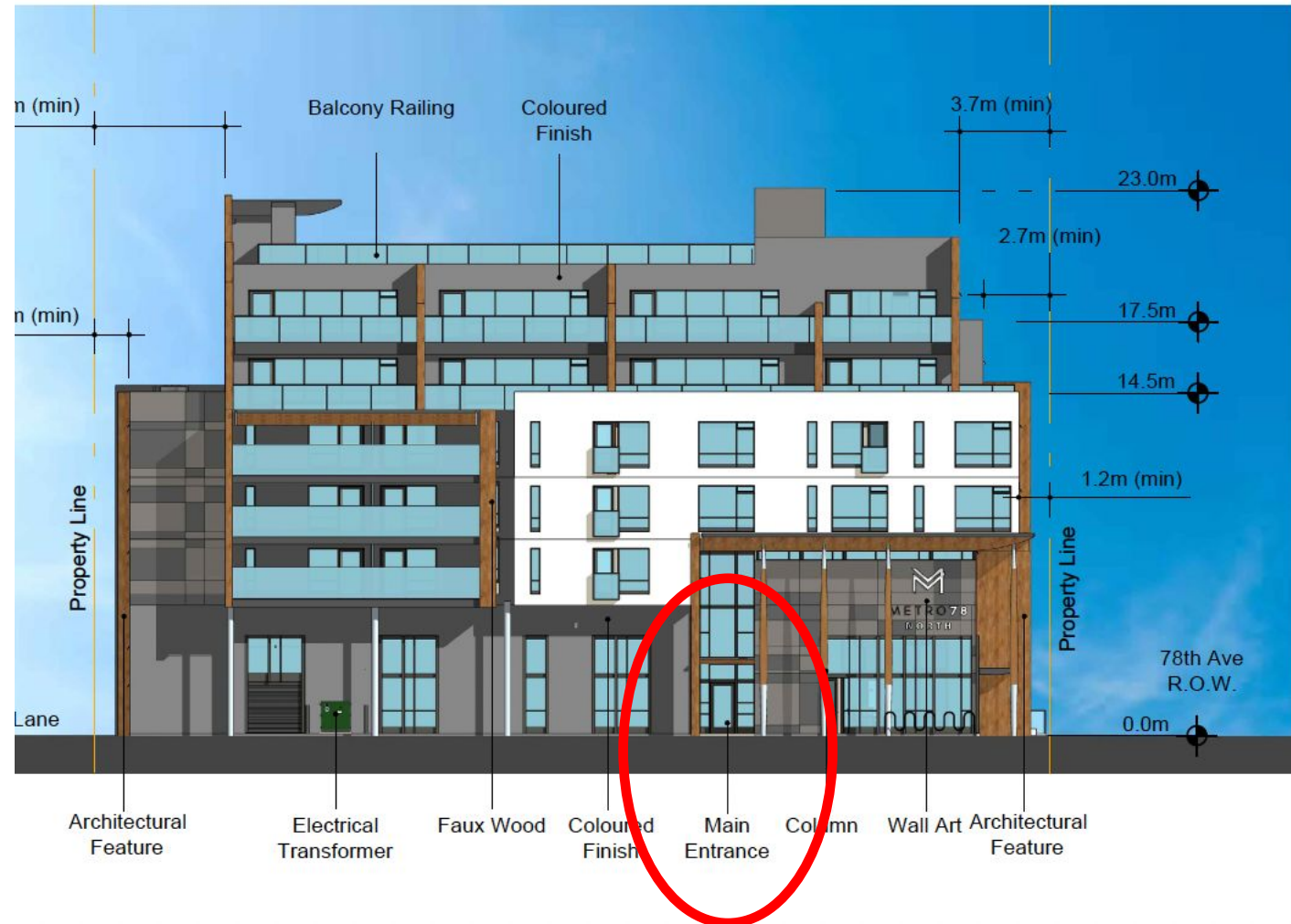
Main entrance:

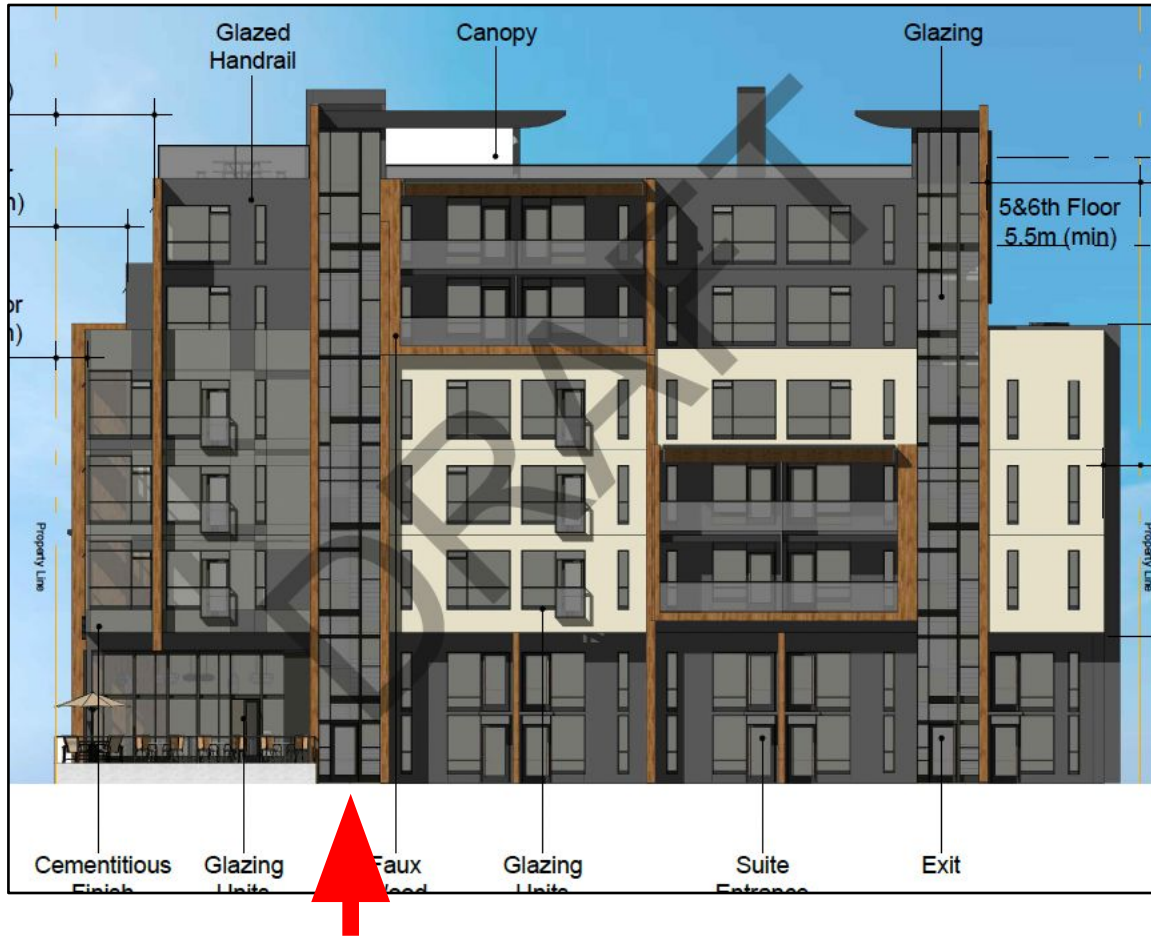
Facing green spine/
114 street (east)



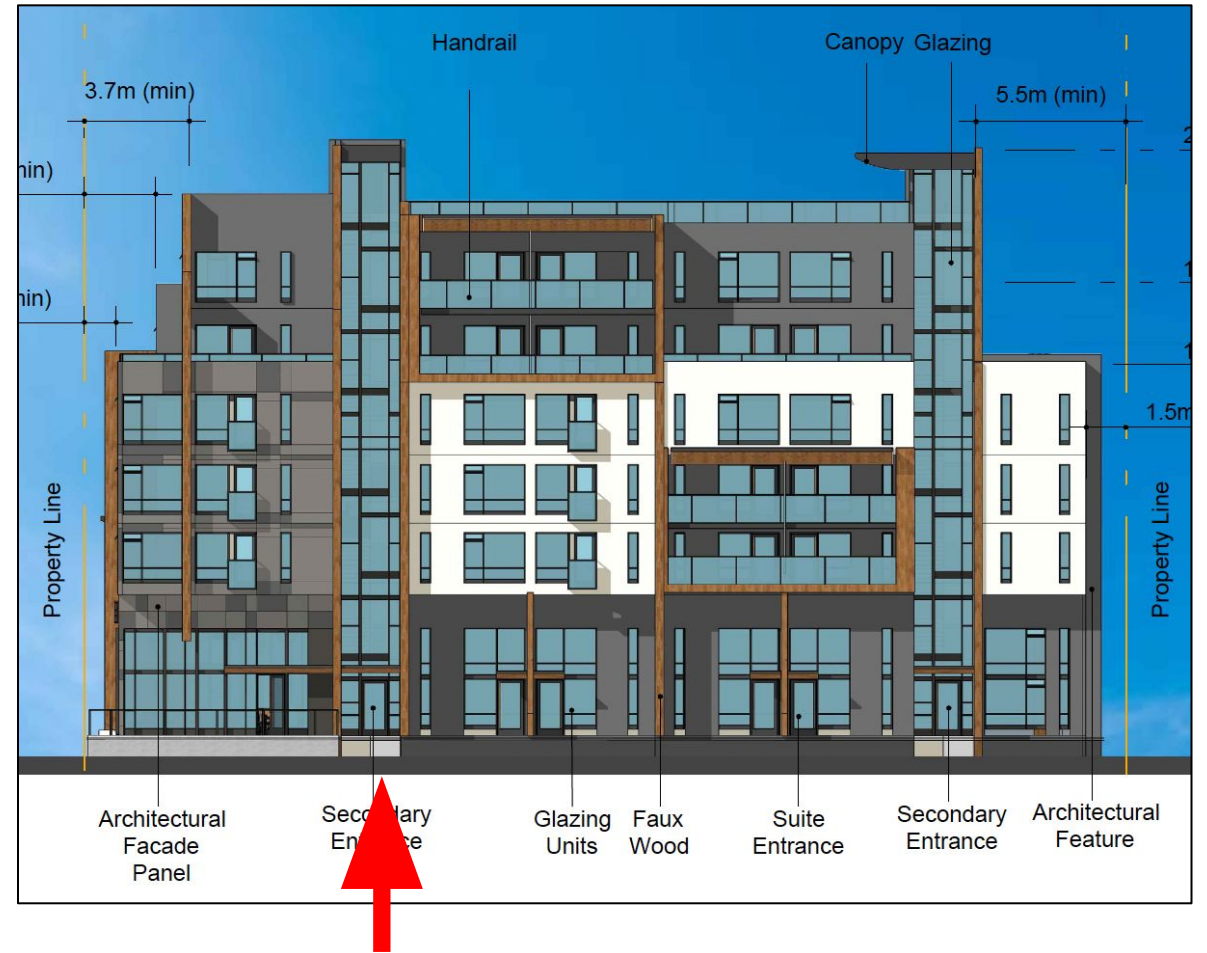
Main entrance:

Facing
community/west side





August 2021




July 2022

Wind Impact Statement



REPORT
METRO 78
EDMONTON, ALBERTA
WIND IMPACT STATEMENT
PROJECT #: 2100276
APRIL 20, 2022



SUBMITTED TO

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1. INTRODUCTION



Rowan Williams Davies & Irwin Inc. (RWDI) was retained by Precision Engineering Inc. to prepare a Wind Impact Statement for the proposed development at 78 Avenue NW and 114 Street NW in Edmonton, Alberta as required by the City of Edmonton as per Zoning Bylaw 12800, Section 14.2. The site is located immediately west of 114 Street NW on both sides of 78 Avenue NW (see **Image 1**). This assessment is based on the following:

- a review of regional long-term meteorological data;
- previous wind studies undertaken by RWDI in the Edmonton area;
- design drawings received by RWDI on August 27 and 31, 2020; and,
- our engineering judgement and knowledge of wind flows around buildings¹⁻³.

The current wind assessment is qualitative in nature. Conceptual wind mitigation measures are recommended, where necessary.

Should a detailed Wind Impact Study be required later in the design, **CFD analysis or** wind tunnel tests could be conducted to quantify the pedestrian wind conditions presented herein, and to develop any required wind mitigation.

Issues associated with ice / snow, wind-induced cladding and structural loads, door operability, air quality and noise / vibration are outside of the current scope.



Image 1: Aerial view of the site and surroundings (Credit: Google™ Earth)

1. H. Wu and F. Kriksic (2012). "Designing for Pedestrian Comfort in Response to Local Climate", Journal of Wind Engineering and Industrial Aerodynamics, vol.104-106, pp.397-407.
2. H. Wu, C.J. Williams, H.A. Baker and W.F. Waechter (2004), "Knowledge-based Desk-Top Analysis of Pedestrian Wind Conditions", ASCE Structure Congress 2004, Nashville, Tennessee.
3. C.J. Williams, H. Wu, W.F. Waechter and H.A. Baker (1999), "Experience with Remedial Solutions to Control Pedestrian Wind Problems", 10th International Conference on Wind Engineering, Copenhagen, Denmark.

8. APPLICABILITY OF RESULTS



The assessment discussed in this report is based on the drawings of the proposed development received on August 27 and 31, 2020. In the event of any significant changes to the design, construction or operation of the building or addition of surroundings in the future, RWDI could provide an assessment of their impact on the pedestrian wind conditions discussed in this report. It is the responsibility of others to contact RWDI to initiate this process.

Is it possible for the consultant to indicate this in writing on their updated wind impact assessment? Otherwise a reader of the wind impact assessment may be confused how the updated assessment is applicable to the current version of Metro78, given it appears identical to the September 2020 wind impact assessment except for a date change from September 11, 2020 to April 20, 2022. I'll try to get this clarified for you.

DC2s listed on city website not accurate

 **Proposed DC2 Provision and Appendices (November 2020)**

 **Proposed DC2 Provision and Appendices (August 2021)**

 **Proposed DC2 Provision and Appendices (June 2022)**

DC2 on website not accurate

Winter 2020

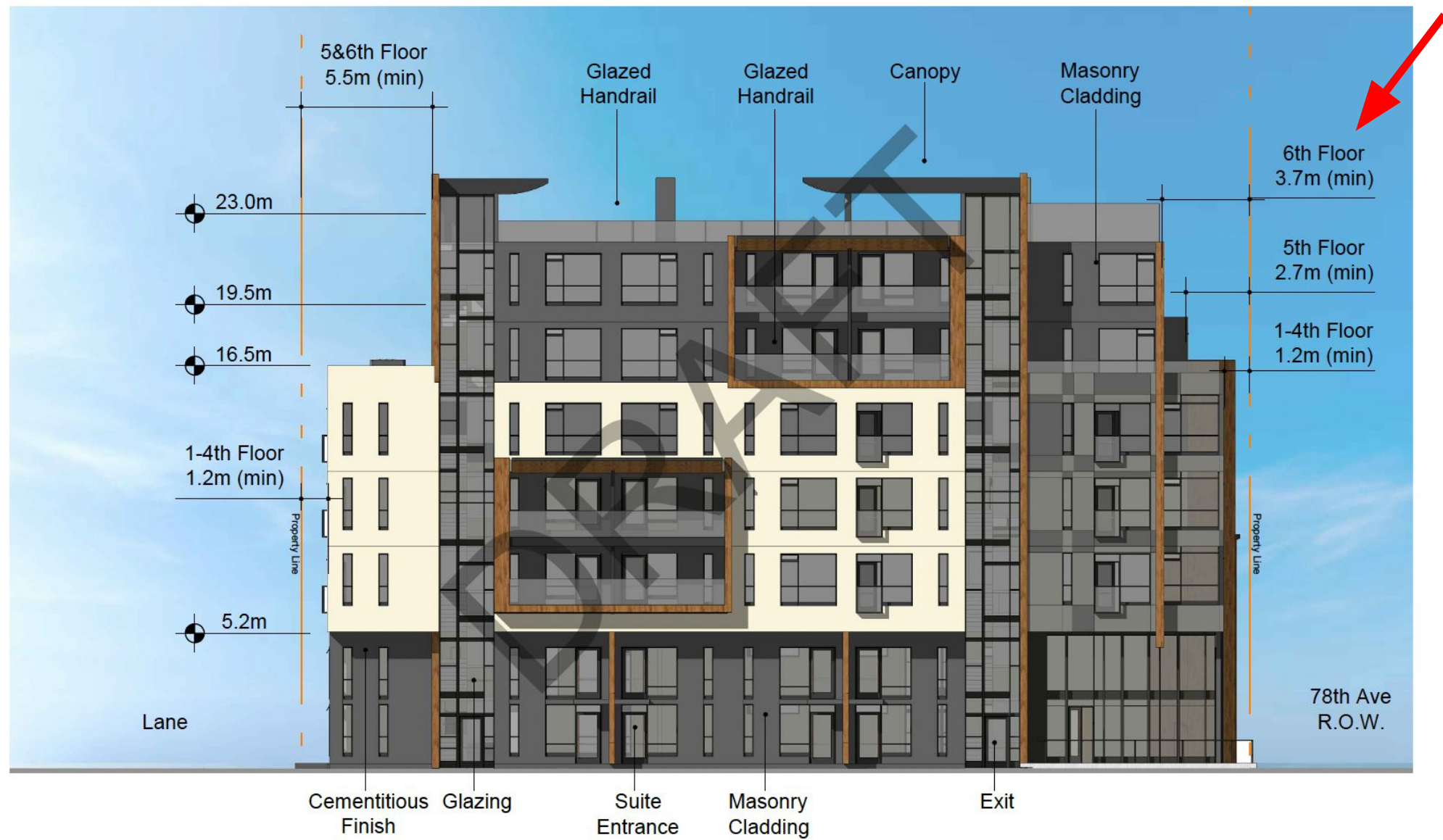
 Proposed DC2 Provision and Appendices (November 2020)

 Proposed DC2 Provision and Appendices (August 2021)

 Proposed DC2 Provision and Appendices (June 2022)

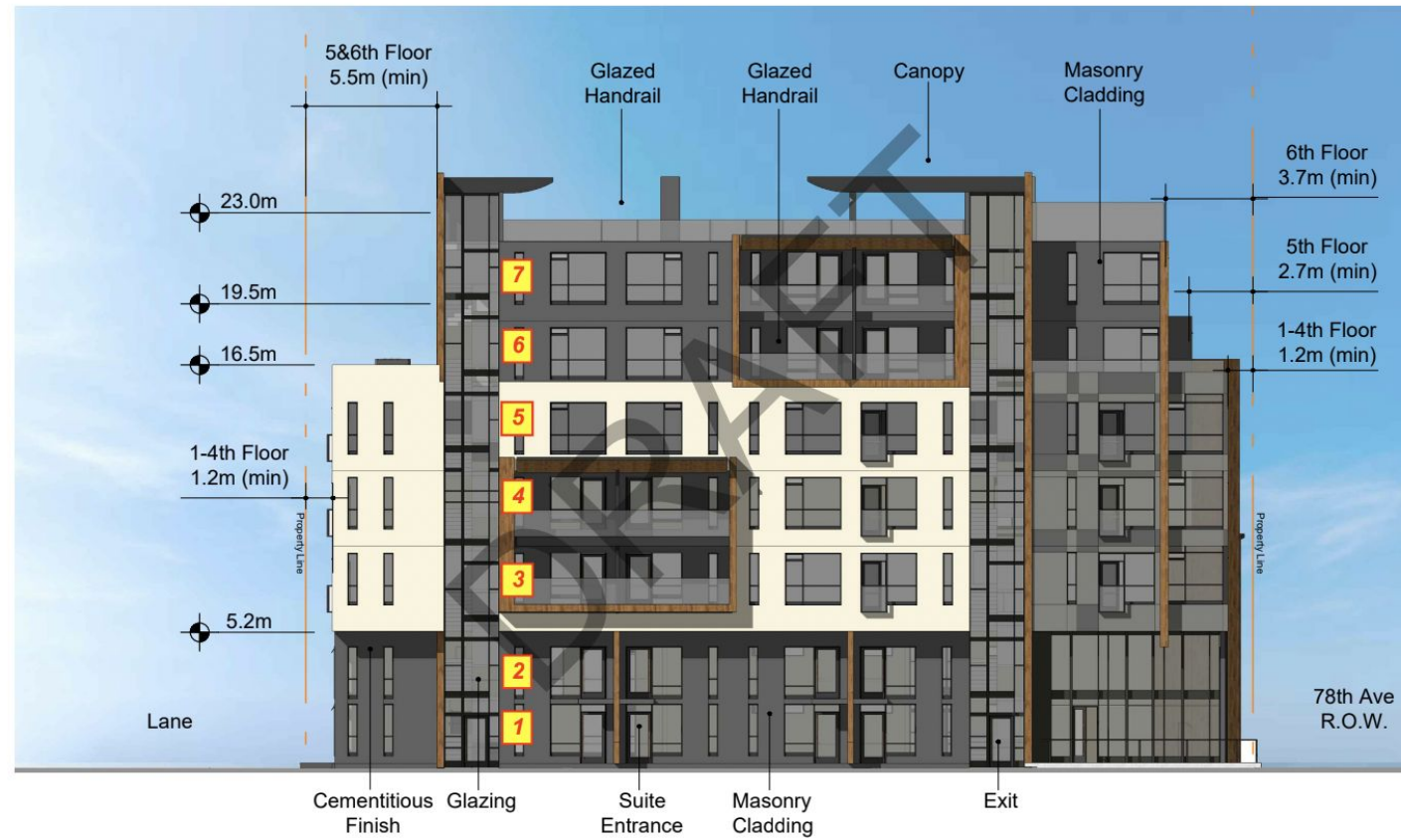
July 2022

November 2020



-The height of a building is based on the roof type of the structure, for flat roofs the height is taken to the midpoint of the parapet wall. There are certain height features exempt from the vertical distance and include the staircase/elevator enclosures, privacy screens and stacks. I'll double check with our Development Officers if canopies are exempt from this calculation. In total, the proposal still remains at 6 storeys.

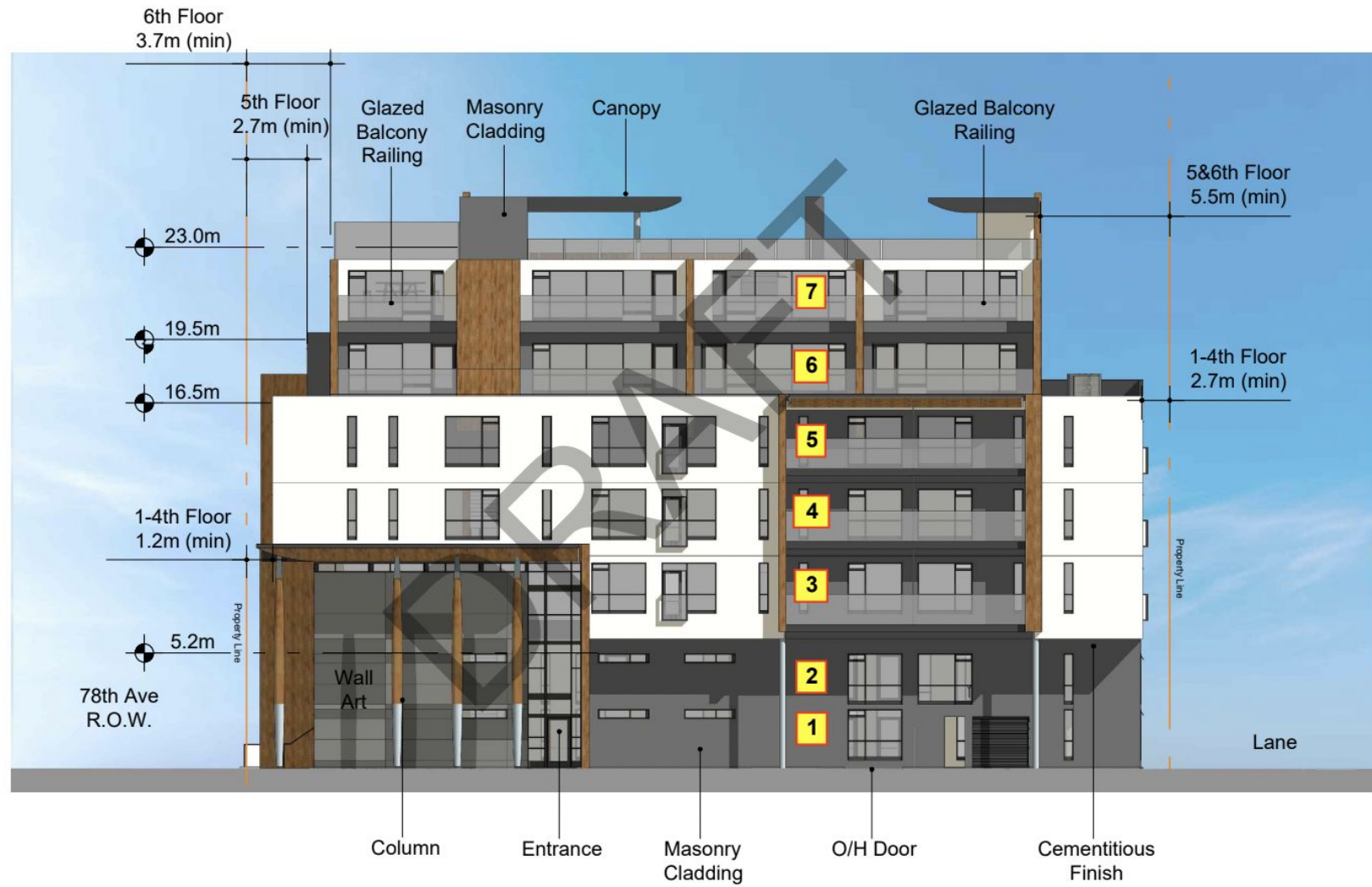
Sep 1, 2021



APPENDIX 8a (South Building)
 - EAST ELEVATION

Regarding your question on the number of storeys, I received clarification from the applicants that there was an increase of storeys from six to seven. Along the eastern edge of the buildings, the dwelling units designed for families are proposed with two storeys. This translates to higher ceiling heights for the commercial space (proposed at 1-storey) and floor areas at the western half of the building (also proposed at 1-storey). Based on this information, the building is considered up to 7-storeys but 6 storeys facing west. The applicants have indicated to maintain the proposed maximum height at 23 m.

Sep 28, 2021



APPENDIX 8b (South Building)
- WEST ELEVATION

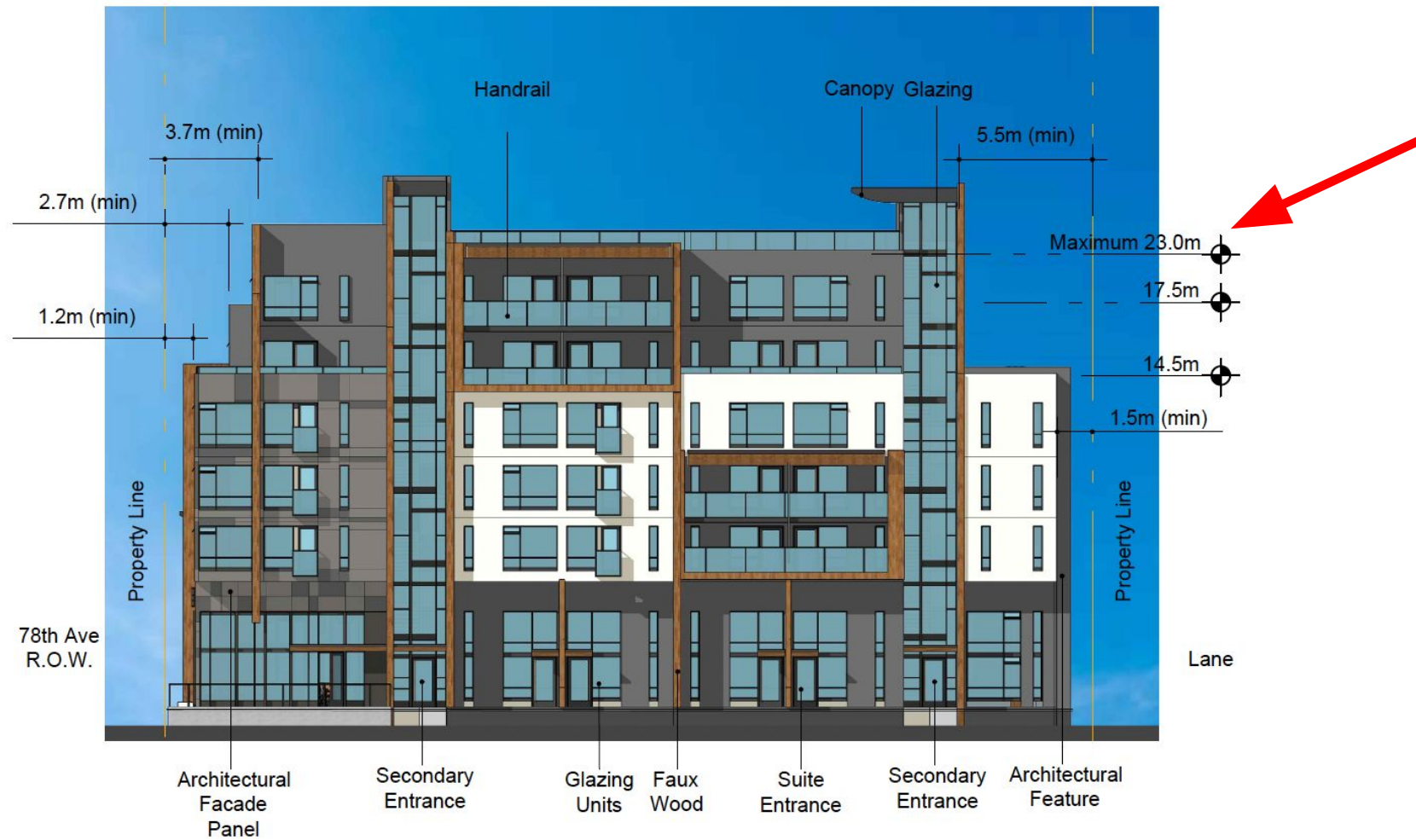
Number of storeys

I received clarification from the applicants that all residential units on the main floor will have a second floor in order to meet the requirements to qualify these units designed for families. Based on this, the proposed buildings on all sides are in fact 7-storey structures.

Oct 6, 2021



APPENDIX 7a (North Building)
- EAST ELEVATION



APPENDIX 7a (North Building)
- EAST ELEVATION

Is this acceptable?