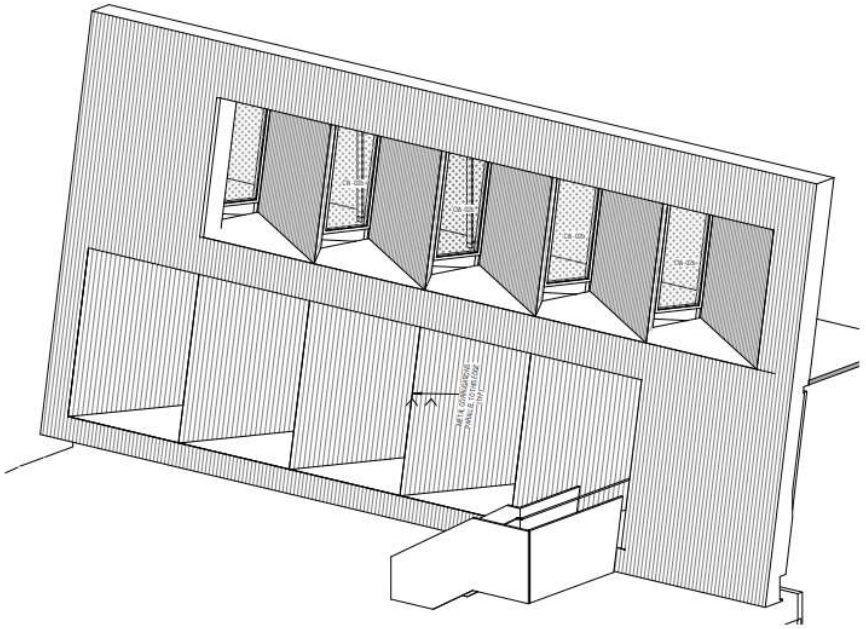
Multi Function EMS Station

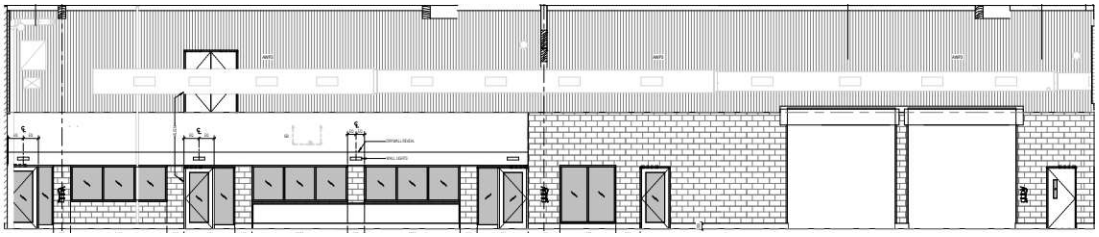
- **Building envelope**
    - The building envelope is highly insulated on all sides with thick, continuous insulation.
    - Areas of glazing, which are sources of heat loss, are limited, balanced with the need for views and daylight. High performance fiberglass curtainwall with triple glazing is specified for all vision glazing.
    - Careful attention has been paid to air barrier detailing, and the continuity of the air barrier is shown on the exterior details in red. Whole building air-tightness testing, QA-QC, and commissioning are part of the specifications for the project.



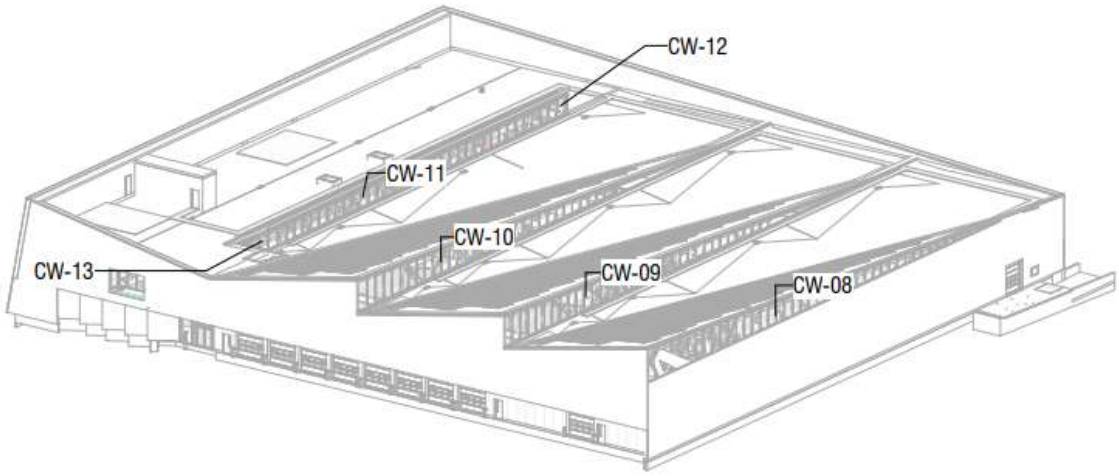
- **Embodied carbon consideration**

    - Low embodied carbon products and material are selected where possible. In particular, the mass timber structure is chosen in large part for it's lower embodied carbon in comparison to a steel superstructure. The cladding and curtainwall are relatively low embodied carbon (fiberglass curtainwall is lower embodied carbon than tradition aluminum curtain wall, and corrugated steel cladding is also relatively low compared to most cladding types). Foam insulations are specified with low global warming potential GWP blowing agents (XPS insulation and sprayfoam insulation).
    - Low embodied carbon concrete block
    - Carbon neutral/negative carpet tiles (carpet can have a big impact depending on selection)

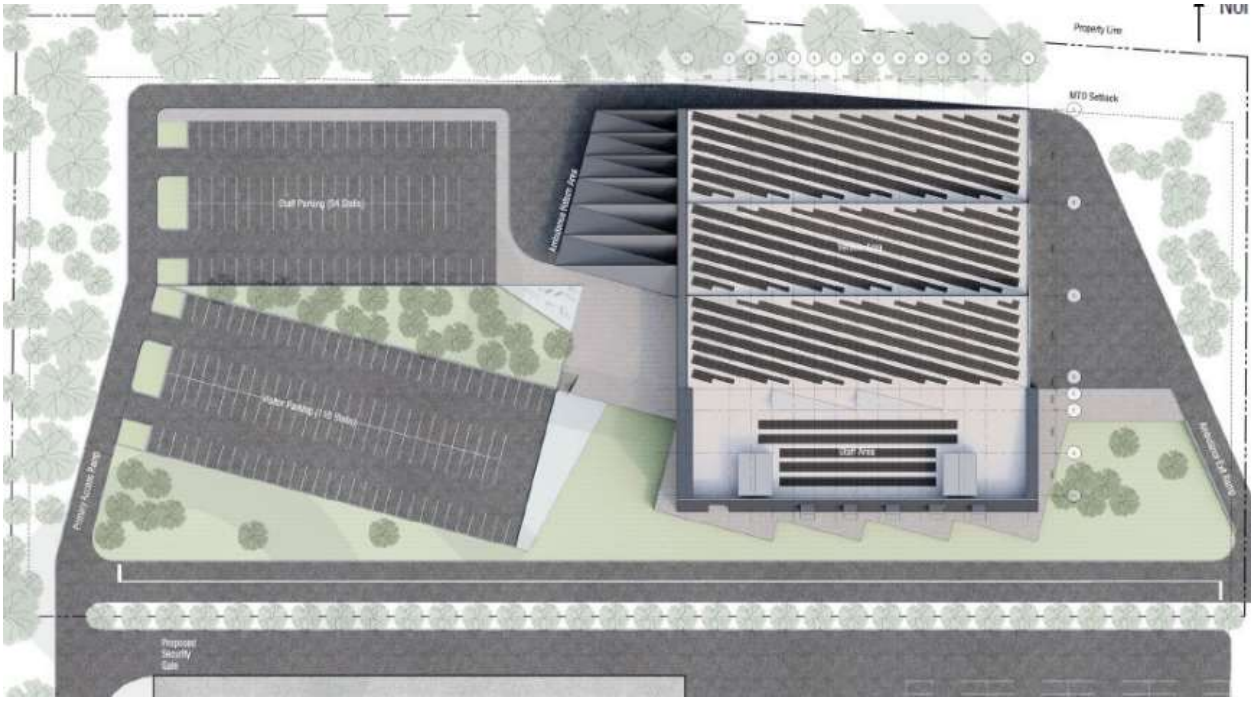
- Demand reduction solutions
    - Highly insulated and airtight building
    - Vestibules layout for vehicle doors to limit heat loss

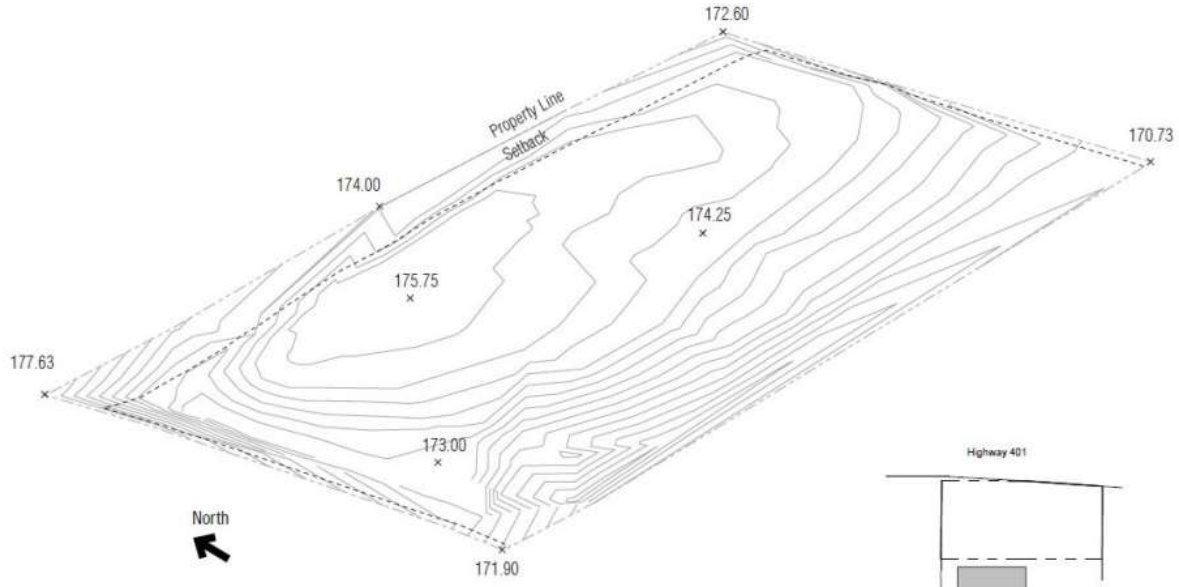


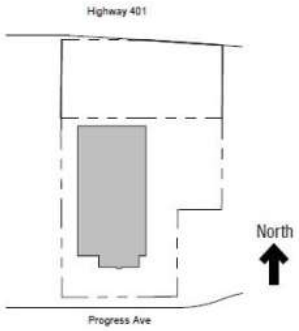
- Heating and cooling systems
    - Ground source heat pump primary heating and cooling.
    - Solarwall air pre-heating system on south façade
    - Radiant in-floor heating and low-velocity displacement air distribution.
    - Energy recovery ventilators



- Transit features – electric charging, bike parking and change facilities, etc.
    - Rough ins for future electric charging in LEV public/staff parking
    - Rough ins for future EV ambulance charging.
    - Electrical site servicing sized for future EV charging demand
    - Exterior and interior bike parking
    - Numerous change facilities
- Resiliency features – renewable energy, storage of energy, water management, backup power.
    - Lithium battery energy storage system
    - Large rooftop and canopy solar arrays (>1MW capacity) proposed
    - On site stormwater retention in rain garden and below grade storage tanks
    - Highly insulated thermal envelope – building retains heat for longer duration in event of power outage.


Property Line
MTO Setback
Staff Parking (54 Stalls)
Visitor Parking (118 Stalls)
Proposed Security Gate
Staff Area


172.60
Property Line
Setback
170.73
174.00
174.25
175.75
177.63
173.00
171.90
North


Highway 401
North
Progress Ave