

**GENERAL NOTES**

1. ANY DEVIATION FROM THE CONDITIONS SHOWN ON THESE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
2. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWING, TITLED "265 CENTRUM BOULEVARD SITE PLAN AGREEMENT" DATED FEBRUARY 13, 2023, PREPARED BY B+H ARCHITECTS, AND THE GEOTECHNICAL REPORT TITLED "SUBSURFACE INVESTIGATION REPORT 265 CENTRUM BOULEVARD, OTTAWA, ON, K2S 1V4" DATED MAY 07, 2022, PREPARED BY YURI MENDEZ ENGINEERING.
3. THESE DRAWINGS ARE FOR INFORMATION PURPOSES ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES. THESE DRAWINGS HAVE BEEN COMPLETED WITH RESPECT TO STRUCTURAL REQUIREMENTS ONLY.
4. THESE DRAWINGS SHOW:
  - 4.1. THE PRELIMINARY STRUCTURAL DESIGN OF THE PODIUM SLAB AND SUPPORTING COLUMNS OF THE P1 LEVEL PARKING GARAGE OUTSIDE THE FOOTPRINT OF TOWERS A, B, & C. THE STRUCTURAL DESIGN OF THESE ELEMENTS WAS COMPLETED IN CONFORMANCE WITH THE 2012 ONTARIO BUILDING CODE [2022 AMD.].
  - 4.2. THE PRELIMINARY STRUCTURAL DESIGN OF THE FOUNDATION WALLS COMPLETED IN ACCORDANCE WITH THE CANADIAN FOUNDATION ENGINEER MANUAL, 4TH EDITION.

**DESIGN LOADS**

1. DESIGN LOADS ARE IN ACCORDANCE WITH PART 4 OF THE 2012 ONTARIO BUILDING CODE (OBC) [2020 AMD.] AND THE CANADIAN FOUNDATION ENGINEER MANUAL, 4TH EDITION.
2. **GRAVITY LOADS:**
  - PARKING GARAGE P1 ROOF:**
    - DEAD LOAD: 4.8 kPa (ROOF ASSEMBLY OF P1 PARKING GARAGE - TBD); 10.7 kPa (PODIUM SLAB); 0.50 kPa (M&E ALLOWANCE); 16.0 kPa
    - SNOW LOAD: 2.08 kPa; (+ DRIFT TO BE SHOWN ON PLANS)
    - LIVE LOAD: 12.0 kPa (TRAFFIC);
3. **SNOW LOADS:**
  - CLIMATIC DATA LOCATION - ORLEANS, ONTARIO;
  - IMPORTANCE FACTOR - NORMAL: Is (ULS) = 1.0; Is (SLS) = 0.9;
  - 1-IN-50 YEAR GROUND SNOW LOAD: Sg = 2.4 kPa;
  - 1-IN-50 YEAR ASSOCIATED RAIN LOAD: Sr = 0.4 kPa;
  - BASIC ROOF SNOW LOAD FACTOR: Cb = 0.8;
  - WIND EXPOSURE FACTOR: Cw = 1.0;
  - ROOF SLOPE FACTOR: Cs = 1.0;
  - ACCUMULATION FACTOR: Ca = 1.0;
  - BASIC SNOW LOAD: 2.32 kPa (ULS); 2.08 kPa (SLS);
4. **LATERAL EARTH PRESSURE:**
  - UNIT WEIGHT OF SOIL  $\gamma = 22 \text{ kN/m}^3$ ;
  - UNIT WEIGHT OF WATER  $\gamma = 9.81 \text{ kN/m}^3$ ;
  - INTERNAL FRICTION ANGLE  $\phi = 30^\circ$ ;
  - WALL FRICTION  $\delta = \frac{1}{2}\phi$ ;
  - ACTIVE LATERAL EARTH PRESSURE COEFFICIENT (COULOMB'S METHOD)  $K_a = 0.30$ ;
  - STATIC LATERAL EARTH PRESSURE COEFFICIENT  $K_0 = 0.50$ ;
  - SEISMIC (MONONOBE-OKABE METHOD) - ( $k_h = \text{PGA} = 0.304, k_v = 0, k_{ae} = 0.577$ ).

**CONCRETE**

1. **GENERAL:**
  - 1.1. CONCRETE DESIGN COMPLETED IN ACCORDANCE WITH CSA A23.3 "DESIGN OF CONCRETE STRUCTURES".
  - 1.2. CONCRETE MATERIALS AND PLACEMENT PROCEDURES ARE TO BE COMPLETED IN ACCORDANCE WITH CSA A23.1 "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION".
  - 1.3. CONCRETE TESTING IS TO BE COMPLETED IN ACCORDANCE WITH CSA A23.2 "TEST METHODS AND STANDARD PRACTICES FOR CONCRETE".
  - 1.4. SUBMIT REINFORCING STEEL SHOP DRAWINGS TO AEI FOR REVIEW AND APPROVAL. SHOP DRAWINGS SHALL BE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO PRIOR TO FABRICATION. SHOP DRAWING REVIEWS WILL BE CONDUCTED FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS ONLY.
2. **MATERIALS:**
  - 2.1. **CONCRETE PROPERTIES:**
    - 2.1.1. IN ACCORDANCE WITH CSA A23.1/A23.2/A23.3.
    - 2.1.2. MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 20mm.
    - 2.1.3. CONCRETE MIX DESIGN SHALL CONFORM THE THE FOLLOWING REQUIREMENTS:

ELEMENT	MINIMUM 28 DAY COMPRESSIVE STRENGTH	EXPOSURE CLASS	NOTES
FOUNDATION WALLS	30 MPa	F-2	
EXTERIOR SLABS ON GRADE	32 MPa	C-2	

    - 2.1.4. THE CONTRACTOR AND CONCRETE SUPPLIER SHALL ENSURE THAT THE PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING AND OBTAINING THE SPECIFIED PERFORMANCE LEVELS.
    - 2.1.5. THE CONCRETE SUPPLIER SHALL BE CERTIFIED BY THE READY MIXED CONCRETE ASSOCIATION OF ONTARIO.
    - 2.1.6. ALL CONCRETE SHALL BE NORMAL DENSITY (2300 kg/m<sup>3</sup>) UNLESS NOTED OTHERWISE.

**REINFORCING STEEL**

1. REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS:
  - 1.1. DEFORMED BARS - CSA G30.18, GRADE 400W
  - 1.2. WELDED WIRE MESH (WWM) SHALL CONFORM TO ASTM A1064/A1064M WITH A MINIMUM YIELD STRENGTH OF 450 MPa.
2. THE MINIMUM CLEAR COVER TO REINFORCING STEEL SHALL BE AS FOLLOWS:

ELEMENT	CLEAR COVER (mm)
FOOTINGS	CAST AGAINST EARTH: 75 ± 25 OTHERWISE: 50 ± 15
FOUNDATION WALL	CAST AGAINST EARTH: 75 ± 25 OTHERWISE: 50 ± 15
EXTERIOR PODIUM SLAB	50 ± 15

FOUNDATION WALL SCHEDULE	
MARK	SIZE (mm)
FW1	400 mm THICK

COLUMN SCHEDULE	
MARK	SIZE (mm)
C1	900x300
C2	900x600

PODIUM SLAB SCHEDULE	
MARK	SIZE (mm)
S1	350 THICK
S2	350 THICK w/ 100 DEEP DROP PANELS OR 450 THICK



1 SA-1 1:250  
**1 PARKING GARAGE P1 ROOF PLAN**

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client  
**BAYVIEW ORLEANS INC.**

project  
**CENTRUM  
SITE PLAN ARRANGEMENT  
265 CENTRUM BOULEVARD  
ORLEANS, ON**



A detail no. de detail  
B location drawing no. sur dessin no.

scale 1:250

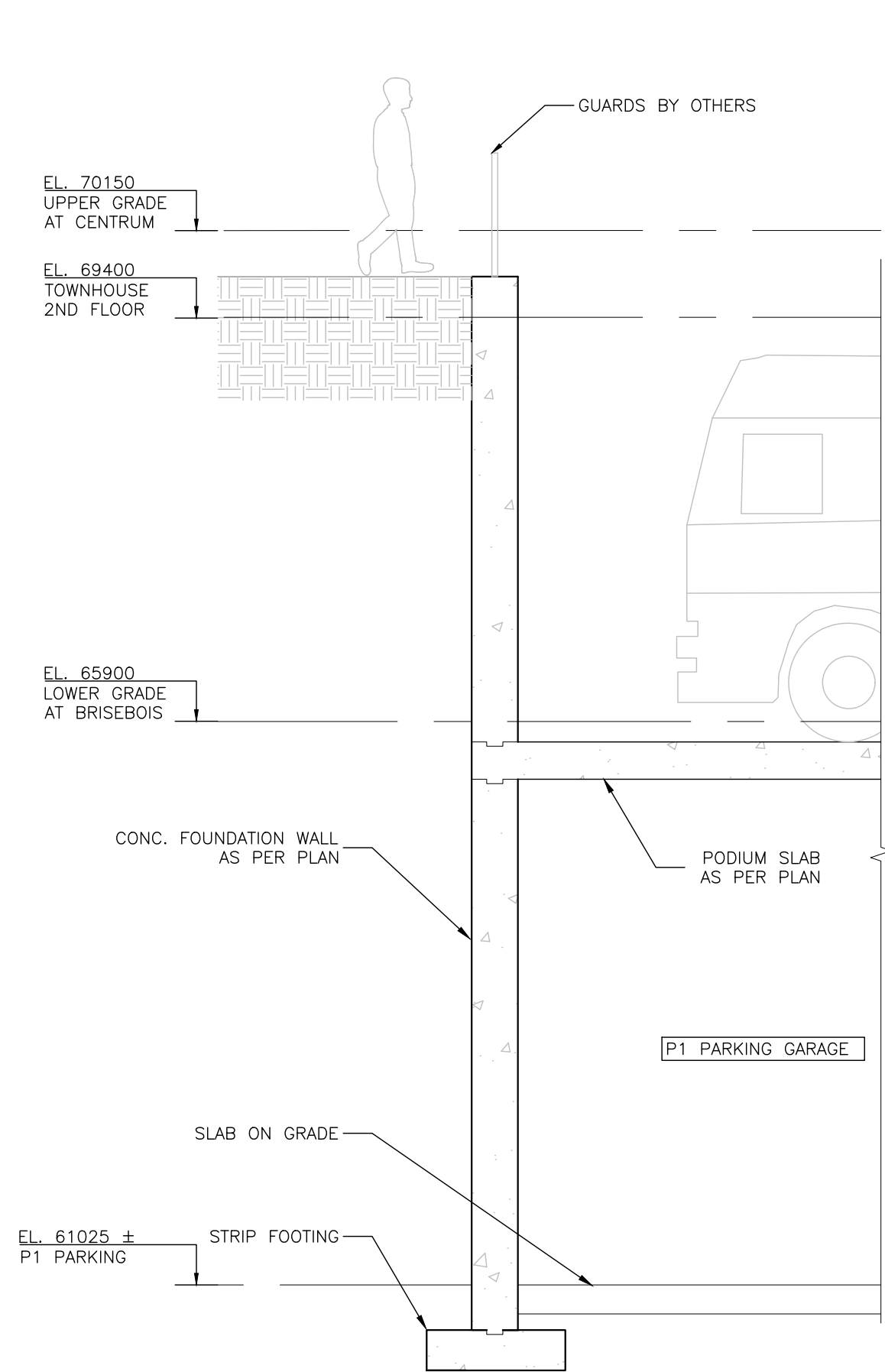
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GENERAL NOTES  
&  
P1 PARKING GARAGE  
ROOF PLAN

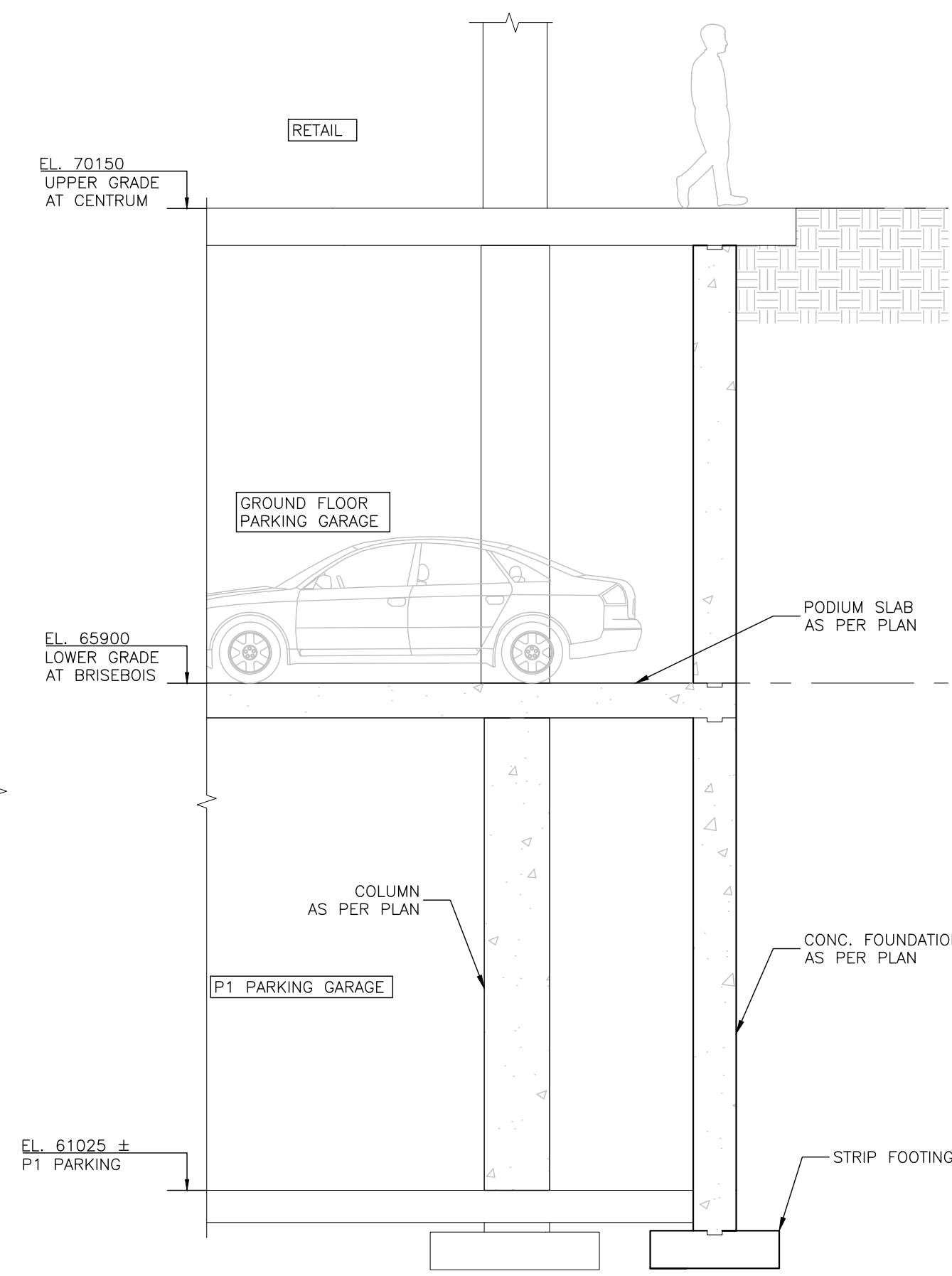
PRELIMINARY  
FOR INFORMATION PURPOSES  
ONLY

designed	drawn	reviewed	approved
N.V./Y.M.	N.V./Y.M.	H.M.	H.M.
date	project number	drawing number	
March 24, 2023	6550	SA-1	

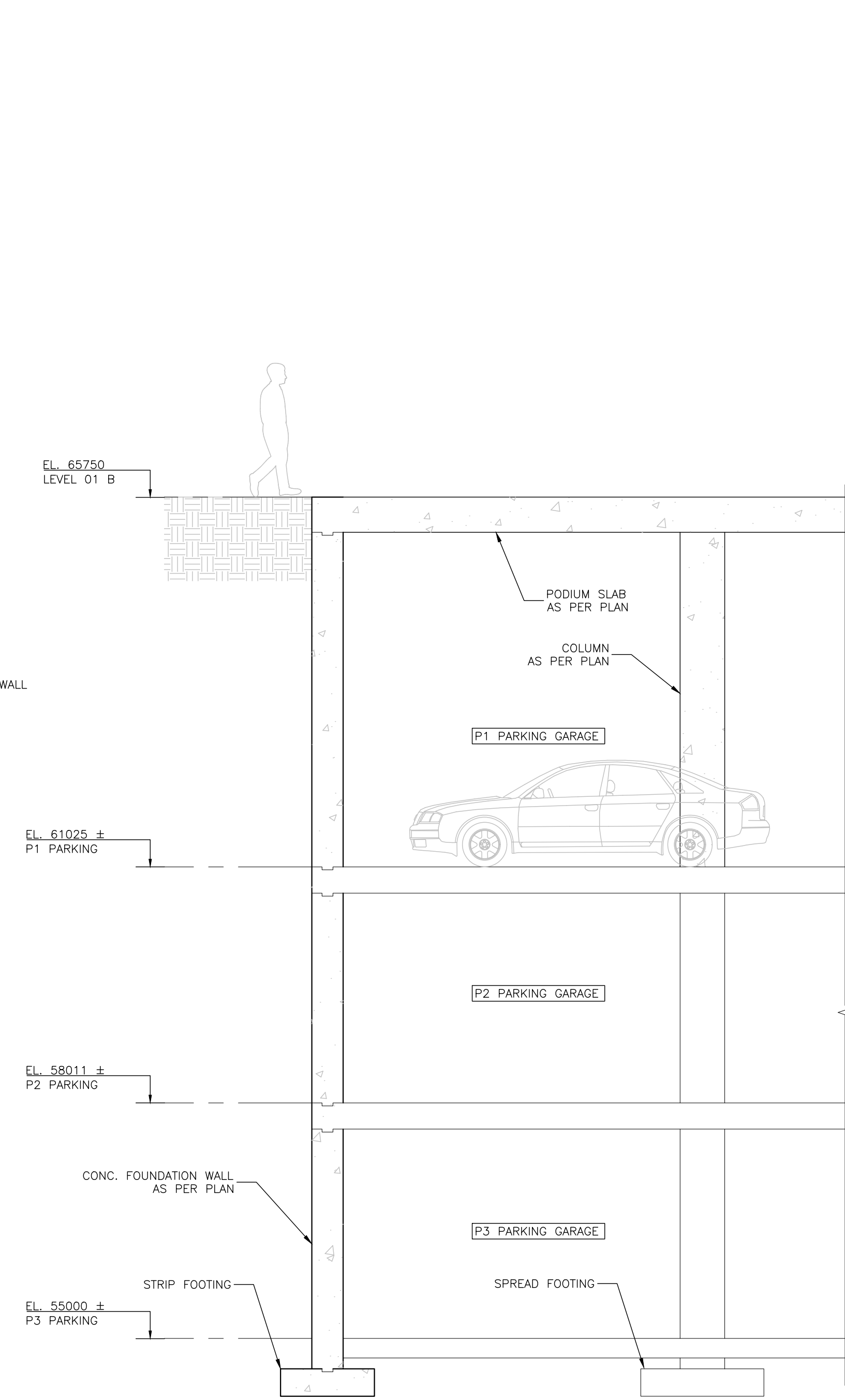
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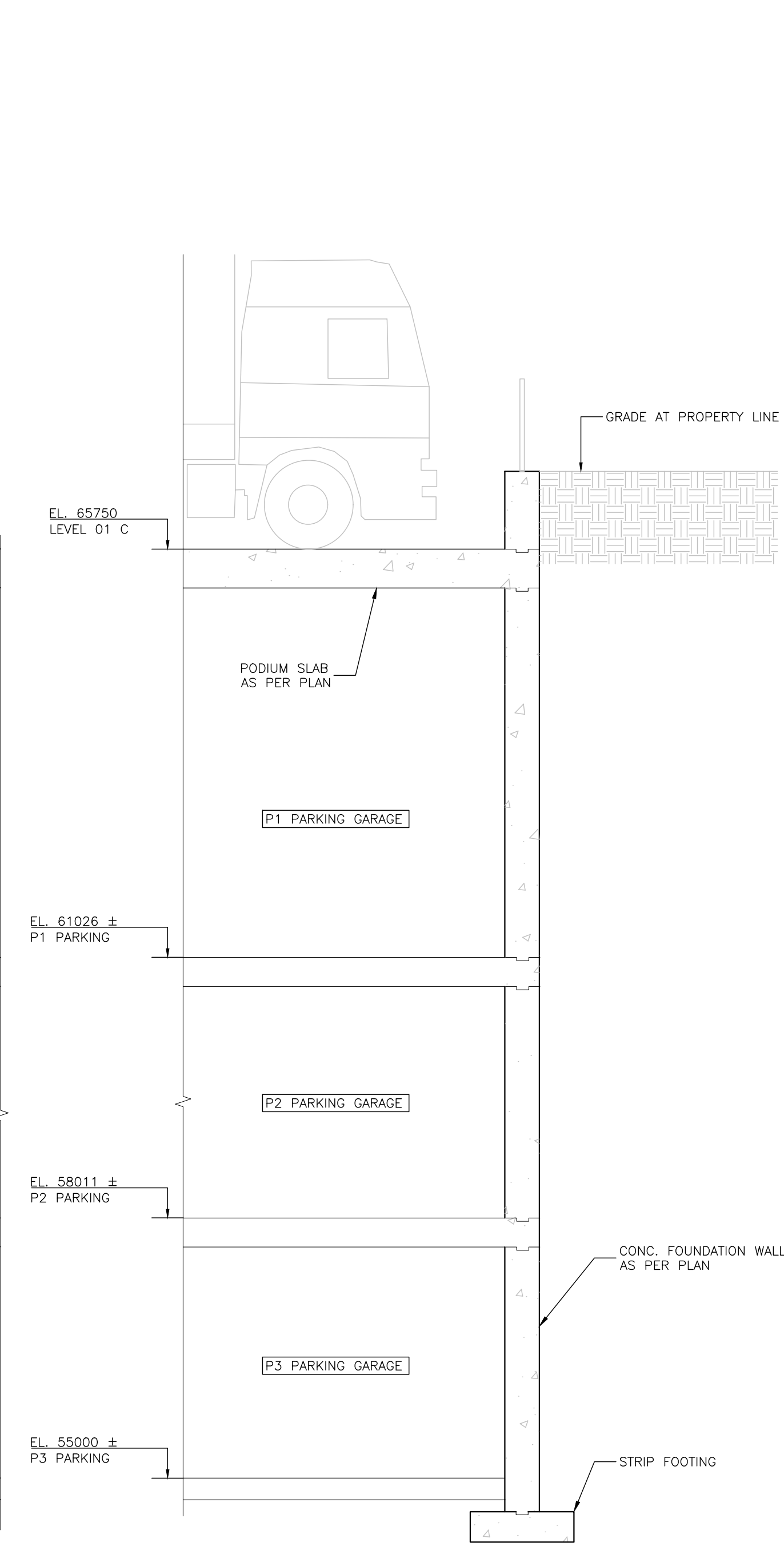
1 FOUNDATION WALL SECTION (1)  
SA-2 1:50



2 FOUNDATION WALL SECTION (2)  
SA-2 1:50



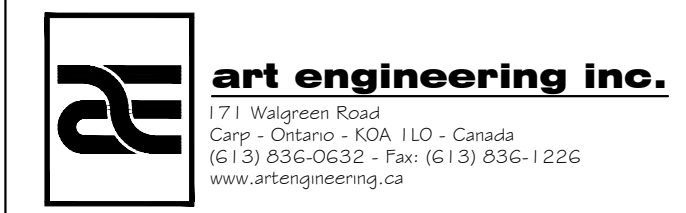
3 FOUNDATION WALL SECTION (3)  
SA-2 1:50



4 FOUNDATION WALL SECTION (4)  
SA-2 1:50

client  
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265 CENTRUM BOULEVARD  
ORLEANS, ON**



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scale	AS NOTED	
revisions	FOR SPA SUBMISSION	24-03-2023
drawing		date

FOUNDATION WALL SECTIONS

stamp  
**PRELIMINARY  
FOR INFORMATION PURPOSES  
ONLY**

designed	drawn	reviewed	approved
N.V./Y.M.	N.V./Y.M.	H.M.	H.M.
date	project number	drawing number	
March 24, 2023	6550	SA-2	