ADDENDUM No._1 (ONE)__

PROJECT NAME: PCA Marten Street
DATE: July 31, 2019
PROJECT NUMBER: 16-3841 **PAGE : _1__ of_40**

ADDENDUM NUMBER #1 (ONE)

This Addendum forms part of the Contract Documents and amends the original Drawings and Specifications dated July 19, 2019 and it is to be read, interpreted and coordinated with all other parts. The cost of all contained herein is to be included in the contract sum. The following revisions supersede the information contained in the original drawings and specifications issued for the above-named project to the extent referenced and shall become part thereof.

This Addendum consists of 40 pages.

GENERAL

Ensure that all parties submitting bids are aware of all items included in this Addendum.

A1 ARCHITECTURAL

1. DRAWINGS

A0.01 Symbol Legend, Abbreviations, Construction Assemblies, Code Review – Refer to clouded changes

A2.01 PARKADE LEVEL 01 AND SLAB PLAN – concrete curbs have been shown on this drawing for clarification

A3.00, A3.01 EXTERIOR ELEVATIONS– Elevation Material legend has been updated for further clarification. Please refer to clouded changes

A6.01 PLAN DETAILS–Please refer to clouded changes for further clarification

A7.10 SECTION DETAILS–Please refer to clouded changes for further clarification

A7.11 SECTION DETAILS–Please refer to clouded changes for further clarification

A7.14 SECTION DETAILS–Please refer to clouded changes for further clarification

2. SPECIFICATIONS

Section 03 48 00 - Precast Concrete Specialties

Revise item 1.1.1 to read:

.1 Materials and installation for precast concrete window sills, caps over stone bases at exterior walls, caps over concrete retaining walls with or without stone veneer and caps at columns.

Revise item 2.2 to read:

2.2 SILL, CAP, AND BASE

.1 Precast Concrete: meeting requirements of CSA A165 and as follows:

- .1 Compressive Strength: 25 MPa
- .2 Minimum (MPa): 25 MPa
- .3 Absorption: maximum 8%
- .4 Profile: as indicated on Drawings or as directed by Consultant
- .5 Colour and Finish: as indicated on Drawings.

Revise item 3.1.1 to read:

.1 Install units as indicated on drawings.

Section 04 40 00 – Stone Veneer

Delete Section and related references

Section 04 42 00 – Exterior Stone Cladding

ADD New Section, attached to and forming part of this addendum

Section 07 27 19 – Sheet Membrane Air and Vapour Barrier

Revise item 2.2.1 to read:

.1 Plastic Sheet Vapour Retarder (Ceilings) 6 mil polyethylene sheet meeting requirements of CAN/CGSB-51.34.

Revise item 3.4.2 to read:

.2 Install sheet vapour retarder on warm side of ceiling assemblies prior to installation of gypsum board to form continuous retarder in accordance with manufacturers written instructions.

Section 07 31 13 – Asphalt Shingles

Replace item 3.2.1 as follows:

.1 Install self adhering air and vapour barrier to full roof surface in accordance with manufacturers recommendations.

Section 07 52 00 – Modified Bituminous Roofing

Delete item 1.10.1 and renumber remaining items.

Revise item 2.6.1 to read:

Primary Flat and Sloped Insulation: Closed-cell polyisocyanurate foam core laminated to heavy non-asphaltic glass fibre reinforced facers; thickness as indicated of largest panels practical, having square edges, minimum LTTR RSI 1.04/25 mm; conforming to ULC S704, Type 3, Class 2, to a tolerance not exceeding 3 mm from nominal size in any dimension, and as follows:

Delete Item 2.7 and renumber remaining items.

Section 07 84 00 – Fire Stopping and Smokeseals

Revise item 1.6.1.1 to read:

.1 Installer: company or person specializing in fire stopping installations and approved by manufacturer with 5 years documented experience. Installer to be a member of FCIA in good standing, possess a current Certificate of Training from ULC and be in good standing with ULC, possess a Certificate of Training from the firestop manufacturer.

Revise item 3.5.1.1 to read:

.1 Cut tests may be made at random by the Inspector Frequency of cut tests shall be determined by the Inspector, but will not be more than 1% of total length of firestopping and smokeseals.

Section 08 41 23 – Fire Rated Frames

Replace Section 08 41 23 with attached section (with new title)

Section 08 63 00 – Metal Framed Skylight

Add new section, attached to and forming part of this addendum.

Section 08 80 50 - Glazing

Add item 1.1.7 and renumber remaining items.

.7 Section 08 63 00 – Metal Framed Skylights

Add item 2.3.4 to read:

.4 Laminated Tempered Glass: transparent, heat-soaked laminated tempered glass, glazing quality having minimal inclusions exceeding the requirements of CAN/CGSB-12.1-M90, and as follows:

.1 Edges: Grounds with no chips cracks or flaws. Sharp corners and edges eased and polished.

.2 Total Thickness: 7.2 mm

.3 Laminating Film:

.1 Material: SentryGuard Plus (SGP)

.2 Minimum film thickness: 1.52 mm

.3 Colour: frosted as indicated on Drawings, confirm exact colour prior to ordering.

Add item 3.10.7 and renumber remaining items

.7 Sloped glazing:

.1 Insulating glass units, 6 mm clear tempered safety exterior light; 6 mm clear laminated heat strengthened interior light.

Section 09 30 13 – Tiling

Add item 2.1.5

.5 Tile Suppliers:

.1 Olympia Tile

.2 Daltile

.3 Ames

.4 Julian Tile

.5 Stone Tile

.6 Tierra Sol Ceramic Tile

.7 Icon Tiles

A2 STRUCTURAL

1. DRAWINGS

S203 MAINFLOOR PLAN, SECOND FLOOR FRAMING OVER–Please refer to clouded changes for further clarification

S204 SECOND FLOOR PLAN, ATTIC FRAMING OVER–Please refer to clouded changes for further clarification

S205 SECOND FLOOR PLAN, ROOF FRAMING OVER –Please refer to clouded changes for further clarification

A3 RESPONSE TO BIDDERS' QUESTIONS

1. Ref. Drawing S201
   There is a concrete wall with a note stating 'retaining wall & footing' and cross section 5/S121
   There is a conflict between these 2 information. The note states it is a retaining wall with footing, but the cross section reference shows landscaping wall.
   The wall/footing size cannot be determined as information provided is conflicting. Please clarify.

Answer: *The wall size is noted as W7 on sheet 2/A2.02.*
For the structural footing, structural retaining walls are indicated as detail 6/S121 on S212.1 for these locations - Footings and wall reinforcing are provided in this detail.

2. Wall tile is not clear who the supplier is. Can you please clarify. The drawings is too vague to figure out.

Answer*: Added item 2.1.5*

.5 Tile Suppliers:
- *.1 Olympia Tile*
- *.2 Daltile*
- *.3 Ames*
- *.4 Julian Tile*
- *.5 Stone Tile*
- *.6 Tierra Sol Ceramic Tile*
- *.7 Icon Tiles*

3. Ref. our RFI #1, question #1
   If this is the case, I figure the wall height is over 4.0m high. Based on this information, the footing width must be 13'-6"
   If this is correct, the footing will be interfering with the SF1, since this retaining wall footing needs to be beyond SF1. Can you please clarify how to proceed.

Answer: *There is +/-13' between ramp walls which should allow for both retaining wall footings to overlap in a combined footing.*

4. Ref. Drawing S203
   There are several B2 noted on the drawings with out size. Can you please clarify.

Answer: *Please see updated drawing*

5. Ref: Drawing S203
   Near the east steel stair, the wall type is missing. Can you please clarify.

Answer: *As shown on S203, the wall type is W4. (for all wall assembly please refer to architectural drawings)*

6. Ref: Drawing S204
   Similar to above. Near east stair. Wall type is missing

Answer: *As shown on S203, the wall type is W4. (for all wall assembly please refer to architectural drawings)*

7. Ref: Drawing S204
   South corner wall near the living room is missing a wall tag. Can you please clarify

Answer: *Please see updated drawing.*

8. Ref: S205
   Is there a roof truss design already put in place? If priced as per this drawings it would increase the price quite a bit since it is all stick framed, which is labour intensive and requires further time for my subtrades to do take-off.

Answer: *Roof truss design typically is provided by a specialty truss fabricator/designer. Price as per drawings.*

End of Addendum #1

GENERAL NOTES

1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NATIONAL BUILDING CODE 2015, THE NATIONAL FIRE CODE 2015, THE OCCUPATIONAL HEALTH & SAFETY ACT, AND ANY OTHER AUTHORITIES HAVING JURISDICTION.

2. THESE DRAWINGS & SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH THE NOTES ON THE DRAWINGS. ARCHITECTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH DRAWINGS BY ELECTRICAL, MECHANICAL, STRUCTURAL, CIVIL, LANDSCAPE ENGINEERING CONSULTANTS.

3. REPORT ALL DISCREPANCIES BETWEEN MECHANICAL, ELECTRICAL, STRUCTURAL, CIVIL, LANDSCAPE AND THE ARCHITECTS DRAWINGS TO THE OWNER PRIOR TO PROCEEDING WITH WORK.

4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, EXISTING AND NEW CONDITIONS AND REPORT ALL NON - CONFORMANCE TO THE OWNER, PRIOR TO CONSTRUCTION.

5. ALL SUBCONTRACTORS MUST FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING THEIR QUOTATION, AND OTHERWISE OBTAIN FOR THEMSELVES ANY INFORMATION REQUIRED TO SUBMIT A FIRM QUOTATION.

6. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE TO REGULATE AND ENFORCE LOCAL FIRE CODES AND BUILDING CODES AS SET FORTH BY LOCAL JURISDICTIONS FOR THE DURATION OF CONSTRUCTION.

7. ALL ARCHITECTURAL COMPONENTS WILL BE ENGINEERED AND INSTALLED BY THE RESPECTIVE SUPPLIERS & TRADES SO AS TO CONFORM WITH REQUIRED ANCHORAGE AND SEISMIC RESTRAINT AS PER ALL LOCAL CODES.

8. VERTICAL FACE OF HOUSEKEEPING PAD TO BE PAINTED YELLOW.

9. ALL DIMENSIONS TO FACE OF STUD UNLESS NOTED OTHERWISE.

10. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

11. MAINTAIN DISTANCE OF 150mm FROM DOOR R.O. TO THE WALL PERPENDICULAR TO DOOR OPENING FOR ALL INTERIOR DOORS.

12.ALL ITEMS INDICATED ON DRAWINGS ARE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND WHEREBY 'OTHERS' IS INDICATED IMPLIES THE GENERAL CONTRACTOR IS REQUIRED TO ENGAGE AND MANAGE THE RELEVANT TRADE.

13.CONSTRUCTION NOT TO ENCROACH INTO ADJACENT PROPERTIES. ALL DISTURBANCE ENCOUNTERED DURING EXCAVATION SHOULD BE RETURNED TO ITS ORIGINAL CONDITION.

WALL ASSEMBLY

P1		DEMISING WALL 1 HR F.R.R. ULC DESIGN # W313 CONFIGURATION C, STC 57 NBCC 2015 APPENDIX 'A' TABLE 9.10.3.1.A, WALL ASSEMBLY W13a -16 mm TYPE 'X' GYPSUM BOARD -38X 89 mm WOOD STUD @ 400 mm O.C -ACOUSTIC BATT INSULATION IN CAVITY -25 mm AIR SPACE - ACOUSTIC BATT INSULATION IN CAVITY -38X89 mm WOOD STUD @ 400MM O.C -16 mm TYPE 'X' GYPSUM BOARD -REFER TO STRUCTURAL FOR SHEAR WALL
P1a		DEMISING WALL 1 HR F.R.R. ULC DESIGN # W313 CONFIGURATION C, STC 57 NBCC 2015 APPENDIX 'A' TABLE 9.10.3.1.A, WALL ASSEMBLY W13a -16 mm TYPE X GLASS MATT FACED SHEATHING -ROOF TRUSS -FILL VOID SPACES BETWEEN TRUSS SUB-MEMBERS W/ MINERAL FIBER BATT INSULATION IN CAVITY 600 mm HIGH -ROOF TRUSS -16 mm TYPE X GLASS MATT FACED SHEATHING
P2		PARTITION WALL -13 mm GYPSUM BOARD -38X89 mm WOOD STUDS @ 400 mm O.C. -13 mm GYPSUM BOARD
P3		PLUMBING WALL -13 mm GYPSUM BOARD -38X140 mm WOOD STUDS @ 400 mm O.C. -13 mm AQUA BOARD @ TILING HT. ONLY
P4		CONCRETE WALL 1.5 HR F.R.R. ULC DESIGN # U913 -190 mm CONCRETE FILLED BLOCK
P5		PARTITION WALL -13 mm GYPSUM BOARD -POLY VAPOUR BARRIER -38X140 mm WOOD STUDS @ 400 mm O.C. - FILL CAVITY W/ BATT INSULATION -16 mm GLASS MAT FACED GYPSUM BOARD
P6		CHAIN LINK -CHAIN LINK – SECURE TOP AND BOTTOM OF CHAIN LINK POSTS TO CONCRETE CEILING AND TO CONCRETE SLAB FLOOR
P7		CONCRETE WALL -200 mm CAST IN PLACE CONCRETE WALL REFER TO STRUCTURAL
P8		CONCRETE WALL -EIFS – COLOUR TO MATCH ADJACENT CONCRETE WALL -75 mm RIGID INSULATION -AIR/VAPOUR BARRIER -200 mm CAST IN PLACE CONCRETE WALL REFER TO STRUCTURAL
P9		CONCRETE WALL -150 mm THICK CAST IN PLACE CONCRETE WALL REFER TO STRUCTURAL
P10		38x140 PARTITION WALL -13 mm GYPSUM BOARD -38X140 mm WOOD STUDS @ 400 mm O.C. -13 mm GYPSUM BOARD
W1		FOUNDATION WALL 1.5 HR F.R.R. NBCC 2015 APPENDIX 'D', TABLE D-2.1.1. -75 mm CONCRETE FACED INSULATED PERIMETER WALL PANEL TO BE EXTENDED 150 mm BELOW FINISH GRADE -75 mm RIGID INSULATION EXTEND TO TOP OF FOOTING -DRAINAGE BOARD -WATERPROOF MEMBRANE -200 mm CAST IN PLACE CONCRETE WALL – REFER TO STRUCTURAL
W1a		DOGHOUSE WALL -75 mm CONCRETE FACED INSULATED PERIMETER WALL PANELS TO BE EXTENDED 150 mm BELOW GRADE -75 mm RIGID INSULATION TO COMPLETE DEPTH OF DOGHOUSE -DRAINAGE BOARD -WATERPROOF MEMBRANE -150 mm CAST IN PLACE CONCRETE WALL – REFER TO STRUCTURAL

WALL ASSEMBLY

W2a		EXTERIOR WALL 1 HR F.R.R. NBBC 2015 TABLE 9.10.3.1.A, WALL ASSEMBLY EW1A (SIMILAR) -EXTERIOR FINISHES- HORIZONTAL CEMENTITIOUS BOARD, REFER TO ELEVATION FOR MATERIALS AND COLOUR -100 mm DEEP Z GIRTS @ 800 mm O.C. -100 mm SEMI-RIGID MINERAL FIBRE INSULATION -SBS VAPOUR BARRIER MEMBRANE -INTUMESCENT COATING -13 mm PLYWOOD SHEATHING -38X140 mm WOOD STUDS – REFER TO STRUCTURAL -16 mm TYPE 'X' GYPSUM BOARD
W2b		EXTERIOR WALL 1 HR F.R.R. NBBC 2015 TABLE 9.10.3.1.A, WALL ASSEMBLY EW1A (SIMILAR) -EXTERIOR FINISHES- VERTICAL CEMENTITIOUS BOARD, REFER TO ELEVATION FOR MATERIALS AND COLOUR -100 mm DEEP Z GIRTS @ 800 mm O.C. -100 mm SEMI-RIGID MINERAL FIBRE INSULATION -SBS VAPOUR BARRIER MEMBRANE -INTUMESCENT COATING -13 mm PLYWOOD SHEATHING -38X140 mm WOOD STUDS – REFER TO STRUCTURAL -16 mm TYPE 'X' GYPSUM BOARD
W3		EXTERIOR WALL 1 HR F.R.R. NBBC 2015 TABLE 9.10.3.1.A, WALL ASSEMBLY EW1A (SIMILAR) -EXTERIOR FINISHES- FULL BED STONE (NATURAL), REFER TO ELEVATION -25 mm AIR SPACE -100 mm SEMI-RIGID MINERAL FIBRE INSULATION -SBS VAPOUR BARRIER MEMBRANE -INTUMESCENT COATING -13 mm PLYWOOD SHEATHING -38X140 mm WOOD STUDS – REFER TO STRUCTURAL -16 mm TYPE 'X' GYPSUM BOARD
W4		FOUNDATION WALL- CEMENTITIOUS FINISH 1.5 HR F.R.R. NBCC 2015 APPENDIX 'D', TABLE D-2.1.1. -CEMENTITIOUS SIDING -75 mm RIGID INSULATION EXTEND TO TOP OF FOOTING -DRAINAGE MAT WATERPROOF MEMBRANE -200 mm CAST IN PLACE CONCRETE WALL – REFER TO STRUCTURAL
W5		UNIT 1 - PARAPET- CEMENTITIOUS SIDING 1.5 HR F.R.R. NBCC 2015 APPENDIX 'D', TABLE D-2.1.1. -CEMENTITIOUS SIDING -VERTICAL STRAPPING -75 mm SEMI RIGID MINERAL FIBER INSULATION W/ ADJUSTABLE Z GIRTS @ 800 mm O.C. -SBS PEEL & STICK AIR BARRIER MEMBRANE -13 mm TYPE X GLASS MATT FACED SHEATHING -38X140 mm WOOD STUD– REFER TO STRUCTURAL -FILL VOID WITH MINERAL FIBER BATT INSULATION -13 mm EXTERIOR GRADE PLYWOOD SHEATHING - 2PLY SBS ROOF FLASHING
W5a		UNIT 1 - PARAPET- CEMENTITIOUS SIDING 1.5 HR F.R.R. NBCC 2015 APPENDIX 'D', TABLE D-2.1.1. -CEMENTITIOUS SIDING -VERTICAL STRAPPING -75 mm SEMI RIGID MINERAL FIBER INSULATION W/ ADJUSTABLE Z GIRTS @ 800 mm O.C. -SBS PEEL & STICK AIR BARRIER MEMBRANE -13 mm TYPE X GLASS MATT FACED SHEATHING -38X140 mm WOOD STUD– REFER TO STRUCTURAL -FILL VOID WITH MINERAL FIBER BATT INSULATION -13 mm EXTERIOR GRADE PLYWOOD SHEATHING - 2PLY SBS ROOF FLASHING
W6		UNIT 1 - ABOVE THE GARAGE DOOR - CONCRETE WALL-CEMENTITIOUS SIDING 1.5 HR F.R.R. NBCC 2015 APPENDIX 'D', TABLE D-2.1.1. -CEMENTITIOUS SIDING -150 mm HORIZONTAL Z-GIRTS @ 600 mm O.C. -75 mm RIGID INSULATION -SBS VAPOUR BARRIER MEMBRANE -200 mm CAST IN PLACE CONCRETE WALL – REFER TO STRUCTURAL
W6a		UNIT 1 – ABOVE THE GARAGE DOOR - CONCRETE WALL-CEMENTITIOUS SIDING -150 mm HORIZONTAL Z-GIRTS @ 600 mm O.C. -75 mm RIGID INSULATION -SBS VAPOUR BARRIER MEMBRANE -200 mm CAST IN PLACE CONCRETE WALL – REFER TO STRUCTURAL
W7		CONCRETE WALL- NATURAL STONE - EXTERIOR FINISHES- FULL BED STONE (NATURAL), REFER TO ELEVATION -200 mm CONCRETE WALL, REFER TO STRUCT. DWGS. - EXTERIOR FINISHES- FULL BED STONE (NATURAL), REFER TO ELEVATION
W8		FOUNDATION WALL- GYPSUM FINISH 2 HR F.R.R. NBCC 2015 APPENDEX 'D', TABLE D-2.1.1. -INTERIOR FINISH -12.7 mm GYPSUM WALL BOARD -22 mm METAL HAT FURRING CHANNEL @ 600 mm O.C. HORIZONTAL -150 mm CAST IN PLACE CONCRETE WALL – REFER TO STRUCTURAL -FINISH AS REQUIRED
W9		EXIT RAMP - CONCRETE WALL -200 mm CAST IN PLACE CONCRETE WALL REFER TO STRUCTURAL
W9a		EXIT RAMP - CONCRETE WALL- CEMENTITIOUS FINISH -FINISH AS REQUIRED -13 mm CEMENT BOARD -80 mm ADJUSTABLE Z-GIRTS @ 600mm O.C. HORIZONTAL -200 mm CAST IN PLACE CONCRETE WALL -REFER TO STRUCTURAL
F1		SLAB ON GRADE -TRAFFIC COATING -100 mm STRUCTURAL CONCRETE SLAB ON GRADE- REFER TO STRUCTURAL -UNDER SLAB 10MIL POLY VAPOUR BARRIER -MIN 150 mm COMPACT GRANULAR SUB BASE – REFER TO PER STRUCTURAL) (SLOPE SLAB TOP TO TRENCHES / FLOOR DRAINS WHERE REQUIRED / INDICATED ALL FLOOR DRAIN COVERS TO FINISH SMOOTH TO ADJACENT FLOOR FINISHES)

FLOOR ASSEMBLY

F2		MAIN FLOOR CONCRETE SLAB 1.5 HR F.R.R. NBCC 2015 APPENDIX D TABLE D.2.1.1 -FLOOR FINISH -STRUCTURAL CONCRETE SLAB - REFER TO STRUCTURAL
F3		WOOD FLOOR ASSEMBLY 1 HR F.R.R.-DESIGN WNR_WIJ 60-02, STC 67 NBCC 2015 APPENDIX 'A' TABLE A-9.10.3.1.B, FLOOR ASSEMBLY F21C. -50 mm CONCRETE TOPPING -19 mm T&G OSB SUB FLOOR – IN-FLOOR HEATING, SEE MECH. DWGS. -302 mm TJI JOISTS REFER TO STRUCTURAL -ACOUSTIC BATT INSULATION TO FILL JOISTS CAVITY -22 mm METAL RESILIENT CHANNELS SPACED @ 400 mm O.C. -2 LAYERS 16 mm GYPSUM BOARD
F4		BALCONY DECK ASSEMBLY -TONGUE AND GROOVE GEO-DECK -38X89 mm WOOD BLOCKING, SHAVE TOP TO FORM SLOPE -SBS CAP AND BASE SHEET -19 mm PLYWOOD SHEATHING- SLOPE OUTWARD. -SLEEPERS AS REQUIRED -38X184 mm SPF JOIST - REFER TO STRUCTURAL - T&G WOOD SOFFIT
F5		MAIN FLOOR SLAB/PARKADE ROOF 1.5 HR F.R.R. NBCC 2015 APPENDIX D TABLE D.2.1.1 -POURED IN-PLACE CONC. SLAB -SAND -150 mm RIGID INSULATION -WATER PROOFING -CONC. SLAB PARKADE ROOF
F6		CONCRETE RAMP LEADING TO PARKADE -CONC. RAMP REFER TO STRUCTURAL DWGS. IN-FLOOR HEATHING SEE MECH DWGS. -6 MIL POLY VAPOUR BARRIER -150 mm THICK WELL COMPACTED GRAVEL
F7		MAIN FLOOR SLAB WITH PEDESTALS/PARKADE ROOF 1.5 HR F.R.R. NBCC 2015 APPENDIX D TABLE D.2.1.1 -PAVER SLAB ON ADJUSTABLE PEDESTALS -150 mm RIGID INSULATION -WATER PROOFING -CONC. SLAB PARKADE ROOF

ROOF ASSEMBLY

R1		RUBBER SHINGLE ROOF -RUBBER SHINGLE ROOF - SBS HIGH TEMP ROOF MEMBRANE -13 mm PLYWOOD ROOF SHEATHING -PRE-MANUFACTURED ROOF TRUSSES, @ 600 mm O.C. -R-40 MINERAL WOOL BATT INSULATION -6 MIL POLY V.B. -FOR CEILING, REFER TO C2a
R2		ROOF ABOVE OVERHEAD DOOR 1.5 HR F.R.R. NBCC 2015 APPENDEX 'D', TABLE D-2.1.1. -2 PLY SBS ROOF MEMBRANE -13 mm THICK GLASS MAT FACED SHEATHING -150 mm THICK MIN. POLYISO INSULATION SLOPED INSULATION PACKAGE (TWO LAYERS – JOINTS STAGGERED) -SBS VAPOUR RETARDER MEMBRANE -CONCRETE SLAB PARKADE ROOF, REFER TO STRUCTURAL. DWGS. -FINISH WITH PAINT
R3		CANOPY ROOF SBS CAP MEMBRANE SBS BASE MEMBRANE 19 mm EXTERIOR GRADE PLYWOOD SHEATHING SHIMS 19 mm EXTERIOR GRADE PLYWOOD SHEATHING 38 X 184 mm CANOPY WOOD FRAMING @ 400 mm O.C. 19 X 140 mm FIRE RETARDANT TREATED WOOD SOFFIT, WITH 8 mm DIA. WEEP HOLES @ 100 mm O.C.

CEILING ASSEMBLY

C1		EXPOSED CONCRETE 1.5 HR F.R.R. NBCC 2015 APPENDIX D TABLE D.2.1.1 -STRUCTURAL CONCRETE SLAB - REFER TO STRUCTURAL
C2a		UNIT - TYPICAL CEILING -13 mm RESILIENT CHANNELS -16 mm TYPE 'X' GWB
C2b		UNIT - DROP CEILING -13 mm GYPSUM BOARD -38X89 mm WOOD FRAMING @ 600 mm O.C. -38X89 mm WOOD VERTICAL FRAMING SUPPORT
C3		UNIT - STORAGE CEILING -6 MIL POLY V.B. -R40 MINERAL FIBER BATT INSULATION

DRAWING SYMBOLS LEGEND:

SECTION SYMBOL: DETAIL NO. / SHEET NO. (1 / A101, Ref)
ELEVATION SYMBOL: DETAIL NO. / SHEET NO. (1, Ref)
DETAIL SYMBOL: DETAIL NO. / SHEET NO. (1 / A101)
ROOF TYPE SYMBOL: ROOF TYPE (R1)
CEILING TYPE SYMBOL: CEILING TYPE / CEILING HEIGHT (C8 / 2750)
WALL TYPE SYMBOL: WALL TYPE (W1)
PARTITION TYPE SYMBOL: PARTITION TYPE (P1)
WINDOW TYPE SYMBOL: WINDOW TYPE (1t)
TITLES SYMBOL: DETAIL NO. / SHEET NO. (1 / A101)
STRUCTURAL GRID SYMBOL: GRID NO. (0)
ROOM NAME / ROOM NO. (Room name / 101 / 150 m2)
DOOR & FRAME DOOR NO. (101)
FLOOR TYPE SYMBOL: FLOOR TYPE (F1)
MATERIAL/FINISHES SYMBOL: FINISH TYPE (PT1)
KEYNOTE SYMBOL: KEYNOTE NO. (?)
REVISIONS SYMBOL: REVISION NO. (1)
ACCESSORY SYMBOL: ACCESSORY TYPE (AB3)

2015 NATIONAL BUILDING CODE OVERVIEW

GENERAL DESCRIPTION & REQUIREMENTS (9.10.2.1)	
MAJOR OCCUPANCIES	GROUP C (PART 9)
OCCUPANCY CLASSIFICATIONS	RESIDENTIAL
BUILDING AREA	APPROXIMATE: 531.3m²
NUMBER OF STOREYS	2 STOREYS
BASEMENT	ONE LEVEL (PARKADE)
GENERAL CONSTRUCTION REQUIREMENTS (TABLE 9.10.8.1)	
CONSTRUCTION TYPE	COMBUSTIBLE OR NONCOMBUSTIBLE PERMITTED. CONSTRUCTION WILL BE COMBUSTIBLE
SPRINKLER SYSTEM	NO
STANDPIPE SYSTEM	NOT REQUIRED
FIRE ALARM SYSTEM	NOT REQUIRED (9.10.18.2.5)
RESIDENTIAL FLOOR ASSEMBLIES	FIRE SEPARATIONS WITH 45 MIN FIRE-RESISTANCE RATINGS
FLOOR ASSEMBLY ABOVE PARKADE	FIRE SEPARATION WITH 1.5 HOUR FIRE-RESISTANCE RATING
ROOF	NO RATING REQUIRED
LOADBEARING WALLS & COLUMNS	EQUAL TO SUPPORTED ASSEMBLY
EGRESS AND EXITING	
NUMBER OF EXITS	EACH SUITE IS PERMITTED TO BE SERVED BY ONE EXIT (9.9.8.2.2)
TRAVEL DISTANCE	MAXIMUM TRAVEL DISTANCE IS 15 m TO NEAREST EXIT (TABLE 9.9.7.4)
PROTECTION OF OPENINGS	ALL OPENINGS ON THE NORTH WALL WILL HAVE A FIRE RATING OF 45 MIN (9.9.4.4)
MINIMUM WIDTHS	STAIRS: 860 mm (9.8.2.1.2) DOORS: 810 mm (9.6.6.3.2)
TREADS AND RISERS	STEPS REQUIRE A MINIMUM RISE OF 125 mm AND MAXIMUM RISE OF 200 mm. (TABLE 9.8.4.1) STEPS REQUIRE A MINIMUM RUN OF 255 mm AND MAXIMUM RUN OF 355 mm. (TABLE 9.8.4.2)
LANDINGS	THE WIDTH AND LENGTH OF A LANDING IS REQUIRED TO BE AT LEAST AS WIDE AS AND AS LONG AS THE WIDTH AS THE STAIR. (9.8.6.3.1)
OCCUPANT LOAD (9.9.1.3.2)	
MAIN FLOOR	4 PEOPLE PER UNIT - TOTAL 12
2ND FLOOR	4 PEOPLE PER UNIT - TOTAL 12
TOTAL OCCUPANT LOAD	24
SPATIAL SEPERATION AND EXPOSURE - (Table 9.10.14.5-A, 9.10.14.4-A)	
NORTH	LIMITING DISTANCE: 3.65 m EXPOSING BUILDING FACE: 27.65 m² (PER SUITE) PERMITTED UNPROTECTED OPENINGS: 39 % (10.7 m²) (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 0% (ALL OPENINGS ARE 45 MIN FIRE RATED) EXTERIOR WALL CONSTRUCTION: 1 HOUR FIRE RATING COMBUSTIBLE OR NON-COMBUSTIBLE CONSTRUCTION PERMITTED.CLADDING IS REQUIRED TO BE NONCOMBUSTIBLE
SOUTH	MAIN FLOOR LIMITING DISTANCE: 2 m EXPOSING BUILDING FACE: 15.5 m² (PER SUITE) PERMITTED UNPROTECTED OPENINGS: 12% (1.86 m²) (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 11 % (1.71 m²) (PER SUITE) LIMITING DISTANCE: 4 m EXPOSED RECESSED BUILDING FACE 11.6 m² (PER SUITE) PERMITTED UNPROTECTED OPENINGS FOR RECESSED AREA: 39% (4.52 m²) (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 30.17% (3.5 m²) (PER SUITE) EXTERIOR WALL CONSTRUCTION: 45 MINS FIRE RATING - 1 HR PROVIDED COMBUSTIBLE OR NON-COMBUSTIBLE CONSTRUCTION PERMITTED.CLADDING IS REQUIRED TO BE NONCOMBUSTIBLE SECOND FLOOR LIMITING DISTANCE: 2 m EXPOSING BUILDING FACE: 14.5 m² (PER SUITE) PERMITTED UNPROTECTED OPENINGS: 12% (1.74 m²) (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 11.79 % (1.71 m²) (PER SUITE) LIMITING DISTANCE: 4 m EXPOSED RECESSED BUILDING FACE 10.5 m² (PER SUITE) PERMITTED UNPROTECTED OPENINGS FOR RECESSED AREA: 39% (4.10 m²) (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 33.3% (3.5 m²) (PER SUITE) EXTERIOR WALL CONSTRUCTION: 45 MINS FIRE RATING - 1 HR PROVIDED COMBUSTIBLE OR NON-COMBUSTIBLE CONSTRUCTION PERMITTED.CLADDING IS REQUIRED TO BE NONCOMBUSTIBLE
EAST	LIMITING DISTANCE: 9 m EXPOSING BUILDING FACE: 32.52 m²(PER SUITE) PERMITTED UNPROTECTED OPENINGS: 100% (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 17% (5.52 m²) (PER SUITE) EXTERIOR WALL CONSTRUCTION: 45 MINS FIRE RATING - 1 HR PROVIDED COMBUSTIBLE OR NON-COMBUSTIBLE CONSTRUCTION PERMITTED.CLADDING IS REQUIRED TO BE NONCOMBUSTIBLE
WEST	LIMITING DISTANCE: 5.8 m EXPOSING BUILDING FACE: 32.52 m²(PER SUITE) PERMITTED UNPROTECTED OPENINGS: 69% (22.43 m²) (PER SUITE) ACTUAL UNPROTECTED OPENINGS: 11% (3.6 m²) (PER SUITE) EXTERIOR WALL CONSTRUCTION: 45 MINS FIRE RATING - 1 HR PROVIDED COMBUSTIBLE OR NON-COMBUSTIBLE CONSTRUCTION PERMITTED.CLADDING IS REQUIRED TO BE NONCOMBUSTIBLE

INTERIOR FIRE SEPARATIONS (9.10.9, 9.10.10, 9.10.9.13, 9.10.9.16, 9.10.10.3, 9.10.10.4)

ROOM/ SPACE	FIRE-RESISTANCE RATING OF FIRE SEPARATION	FIRE-PROTECTION RATING OF CLOSURE
ROOMS CONTAINING FUEL-FIRED APPLIANCES (9.10.10.4)	1 HR	45 MIN
ELECTRICAL ROOMS (9.10.10.3)	1 HR	45 MIN
RESIDENTIAL SUITES (FROM ADJACENT SUITES/ SPACES) (9.10.9.13)	45 MIN	N/A
PARKADE (BETWEEN PARKADE AND REMAINDER OF BUILDING) (9.10.9.16)	1.5 HR	1 HR
TENANT STORAGE ROOM (IN PARKADE) (9.10.9.16)	1 HR	45 MIN

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3	99% IFC DRAWING	18/03/16
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1	DETAILED DESIGN	17/12/11
Revision / Revision	Description / Description	Date / Date

Client / client

Parks Canada / Parcs Canada

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Banff National Park
Banff, Alberta

PCA - STAFF HOUSING
329 MARTEN STREET

Approved by/Approuve par
AMINA OYAKHILOME

Designed by/Concept par
PETER SCHULZ

Drawn by/Dessine par
BENNY MANCE/ MARAL SAFARZADEH/ SOPHIE SHOU

Project Manager/Administrateur de Projets
LAURIE MACDONALD

Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie

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Drawing title / Titre du dessin

SYMBOL LEGEND, ABBREVIATIONS, CONSTRUCTION ASSEMBLIES, CODE REVIEW

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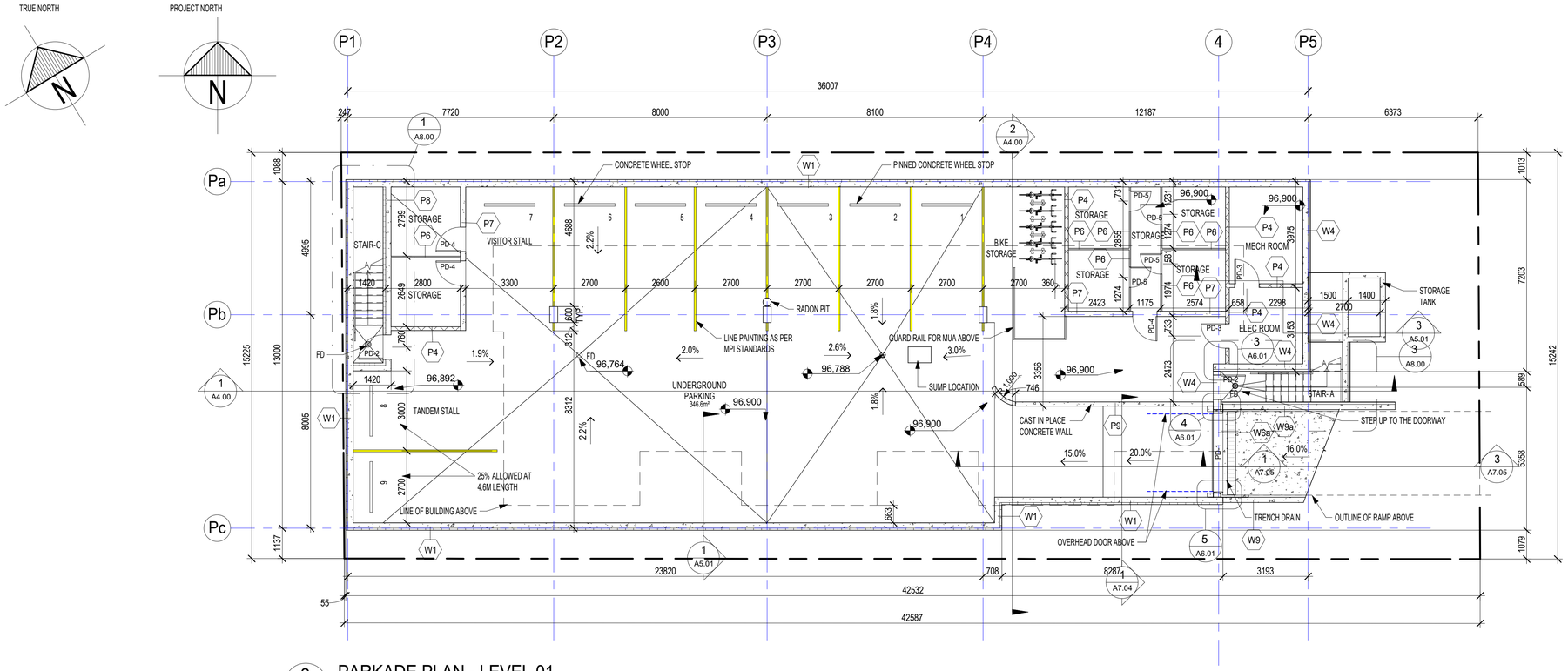
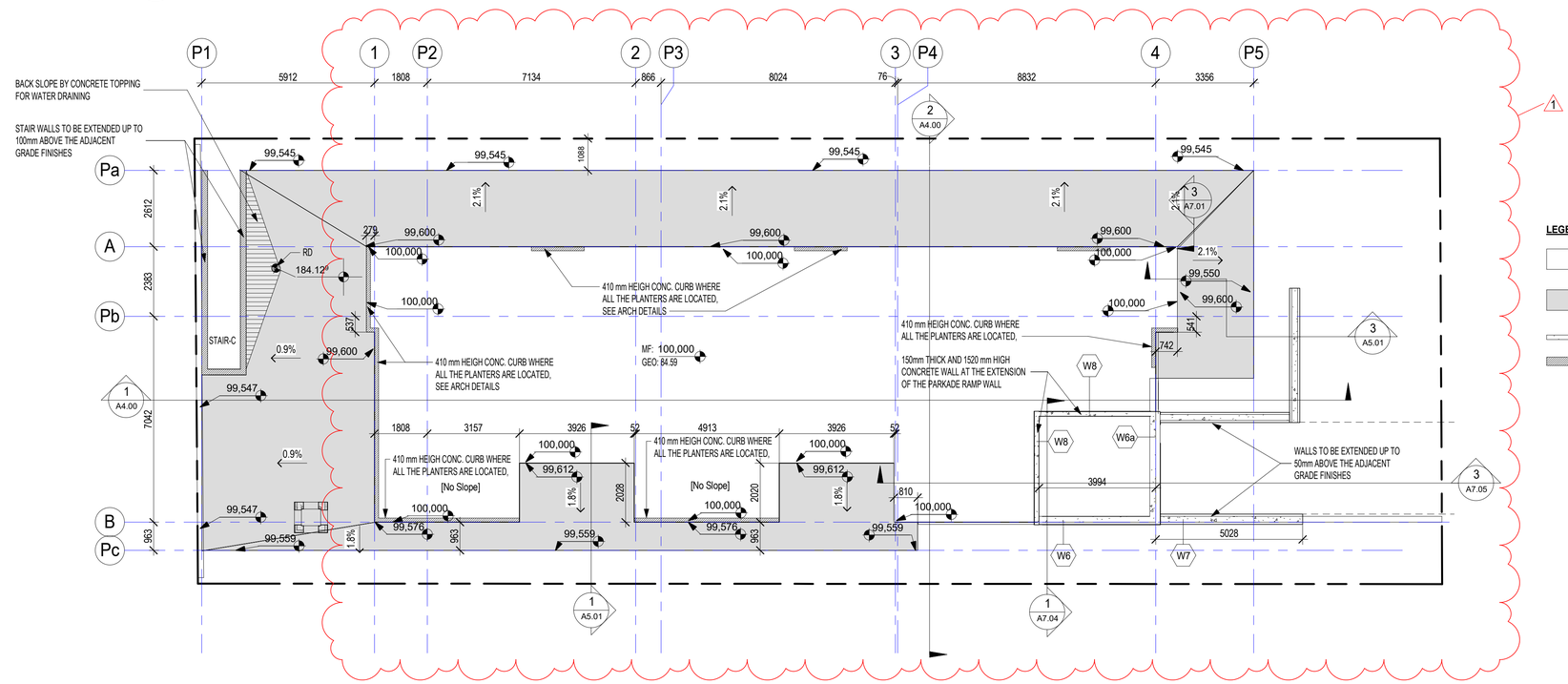


2 A2.01 PARKADE PLAN - LEVEL 01

SCALE: 1 : 100



1 A2.01 MAIN FLOOR SLAB & SURFACES TRANSITION PLAN

SCALE: 1 : 100

LEGEND:

- CONCRETE SLAB ELEVATION AS NOTED
- DROPPED CONCRETE SLAB ELEVATION AS NOTED
- CONCRETE WALL
- CONCRETE CURB

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0 10 20 30 40 50 60 70 80 90 100mm

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PARKADE LEVEL 01 AND SLAB PLAN

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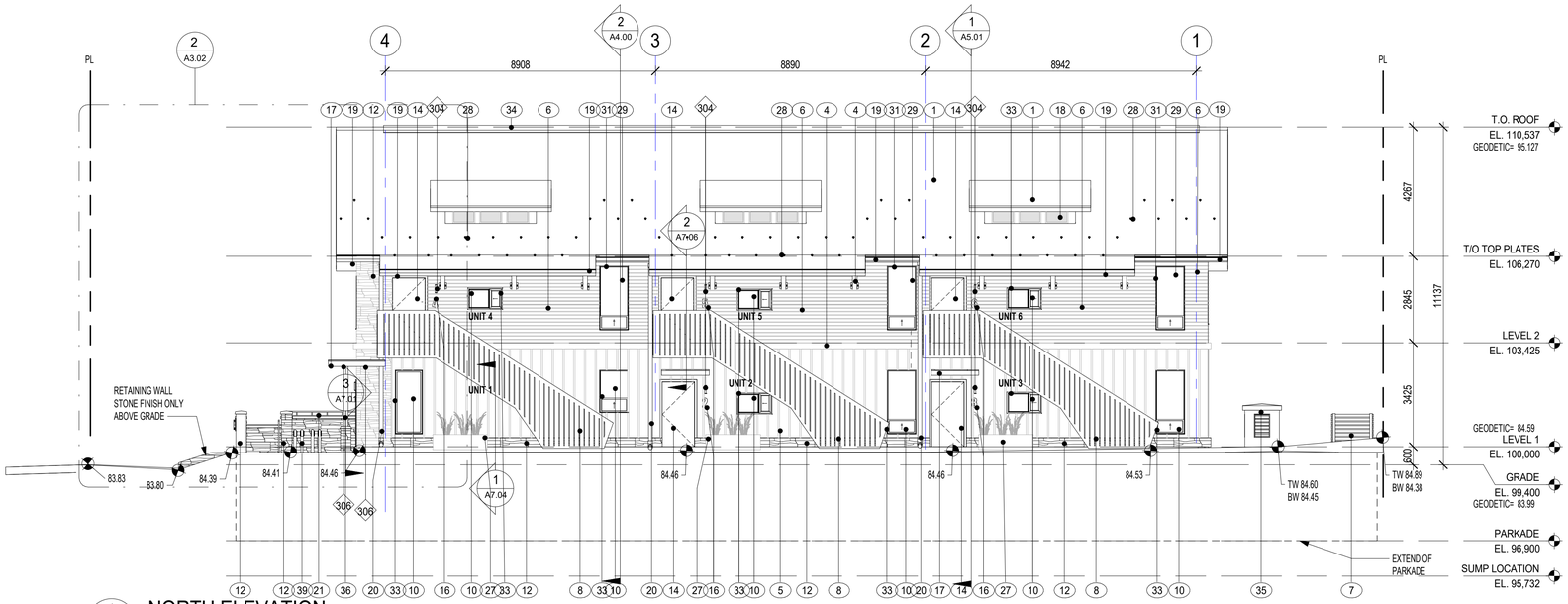
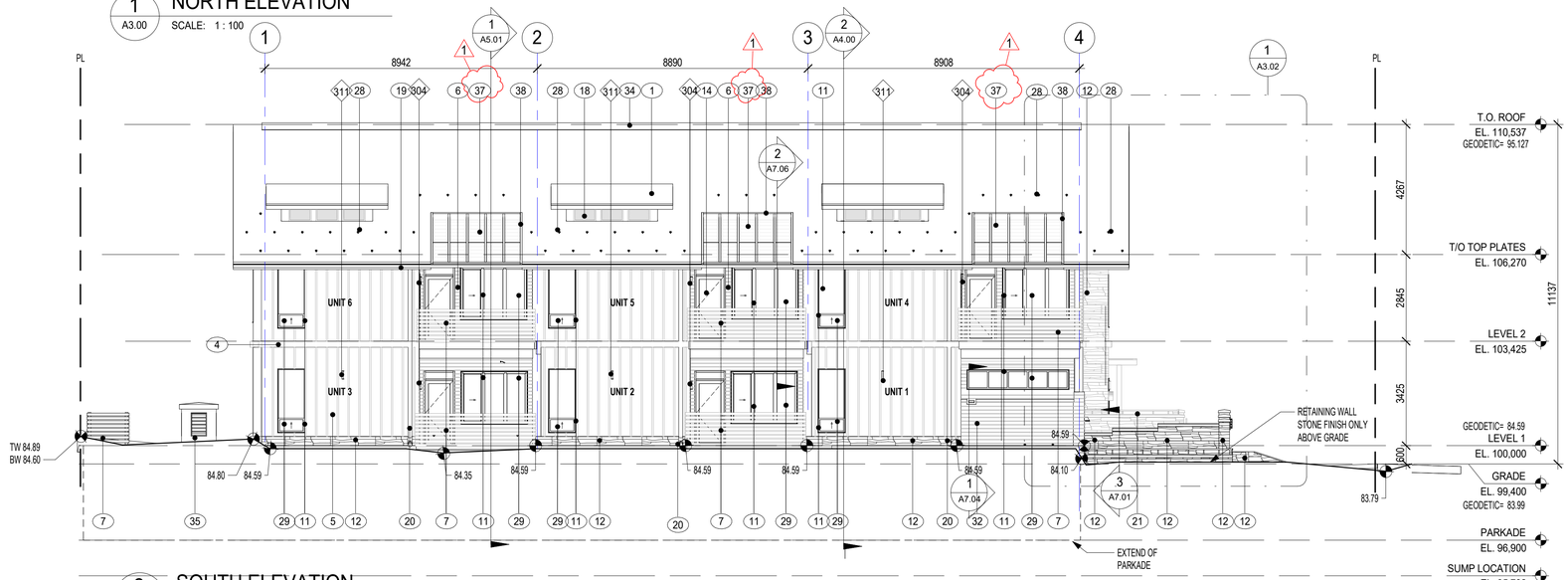
	A2.01	5



1 A3.00 NORTH ELEVATION

SCALE: 1 : 100



2 A3.00 SOUTH ELEVATION

SCALE: 1 : 100

ELEVATION MATERIALS LEGEND

1. RUBBER RECYCLED ENVIRONMENTALLY SAFE ROOF SHINGLES
   COLOUR: LIGHT GREY
2. FIR WOOD BOARD - THERMALLY MODIFIED WOOD FASCIA
   COLOUR: HEMLOCK STAIN
3. FIR WOOD BOARD - THERMALLY MODIFIED WOOD SOFFIT
   COLOUR: HEMLOCK STAIN
4. EXPOSED TIMBER ELEMENTS
   (AS PER STRUCTURAL)
   COLOUR: HEMLOCK STAIN
5. CEMENTITIOUS VERTICAL SIDING (BOARD AND BATTEN)
   SMOOTH WIDE HARDIPLANK
   COLOUR: BONE WHITE
6. CEMENTITIOUS HORIZONTAL SIDING
   (SMOOTH, WIDE BOARD)
   COLOUR: BONE WHITE
7. HORIZONTAL - FIR WOOD BOARD - THERMALLY MODIFIED WOOD
   COLOUR: HEMLOCK STAIN
8. VERTICAL FIRE RETARDANT TREATED WOOD - FIR COLOUR: HEMLOCK STAIN
9. THEMALLY BROKEN INSULATED STEEL OVERHEAD DOOR
   SOUND PROOF - WOOD GRAIN
   COLOUR: HEMLOCK STAIN
10. 45MIN FIRE RATED CERAMIC GLAZING
    DOUBLE GLAZED SEALED UNIT
    LOW-E-COATING
11. ALUMINIUM WOOD WINDOW FRAMES
    COLOUR: BROWN
12. RUNDLE STONE - FULL BED STONE (NATURAL)
    LEDGERSTACK
    COLOUR: BLACK, LIGHT GREY TO GREY / PATTERNED
13. SANDBLASTED EXPOSED AGGREGATE POURED CONCRETE STEPS
    COLOUR: LIGHT GREY
14. 45MIN FIRE RATED INSULATED HOLLOW METAL DOOR
    COLOUR: PAINTED WHITE
15. EXPOSED - SMOOTH CONCRETE
    COLOUR: LIGHT GREY
16. MOUNTED LETTERING - BRUSHED ALUMINIUM
    COLOUR: WHITE
17. METAL COMPOSITE PANEL FASCIA
    COLOUR: LIGHT GREY
    NOTE: (CANOPIES THERMALLY DISCONNECTED)
18. METAL LOUVER WITH A SCREEN BEHIND IT
    COLOUR: DARK GREY / WOOD FRAME
19. PREFINISHED METAL EAVESTROUGH
    COLOUR: LIGHT GREY
20. PREFINISHED METAL DOWNSPOUT WITH INSECT SCREEN
    COLOUR: LIGHT GREY
21. STAINLESS STEEL GUARD RAIL
22. EXPOSED TIMBER RAFTERS
    COLOUR: HEMLOCK STAIN
23. GALVANIZED STEEL STAIR METAL GRATE THREADS
24. ILLUMINATED HAND RAIL
    STAINLESS STEEL (SEE REFERENCE PLAN)
25. POWDERCOATED STEEL BRACKET
    (IRON MICA)
26. RAKED CONCRETE RAMP
    COLOUR: LIGHT GREY
27. CAST IN PLACE CONCRETE PLANTER BOXES
    COLOUR: LIGHT GREY / SMOOTH
28. SNOW GUARD
    NOTE: SNOW GUARD LOCATION AND SPACING TO BE CONFIRMED WITH THE SUPPLIER
29. DOUBLE GLAZED SEALED UNIT
    LOW-E-COATING
30. HAND RAIL
    STAINLESS STEEL (SEE REFERENCE PLAN)
31. CURTAIN WALL WINDOW FRAMES
32. CLAPBOARD HORIZONTAL SIDING
    (SMOOTH, WIDE BOARD)
    COLOUR: HEMLOCK STAIN
33. FIRE RATED STEEL CURTAIN WALL WINDOW FRAMES
    COLOUR: BROWN
34. CONTINUOUS RIDGE VENT
35. DOG HOUSE - CONCRETE LIGHT GREY
36. 152 X 152 mm ROUGH SAWN DOUGLAS FIR TIMBER COLUMN
37. DOUBLE GLAZED SEALED UNIT
    FROSTED GLASS
38. ALUMINIUM WITH WOOD FINISH IMITATION SKYLIGHT
39. GOOSENECK EXHAUST AND AIR INTAKE
40. WOOD CLAD ALUMINIUM

NOTE ALL COLORS TO BE DETERMINED BY DEPARTMENTAL REPRESENTATIVE

LIGHTING LEGEND

301	PARKADE ENTRANCE LIGHT WALL MOUNT	306	EXTERIOR DOWNLIGHT RECESSED
303	BOLLARD LIGHT	307	ILLUMINATED HANDRAIL
304	EXTERIOR WALLWASH	311	EXTERIOR WALLWASH
305	STROBE LIGHT PEDESTAL		

0 10 20 30 40 50 60 70 80 90 100mm

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Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
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Région de l'ouest

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EXTERIOR ELEVATIONS

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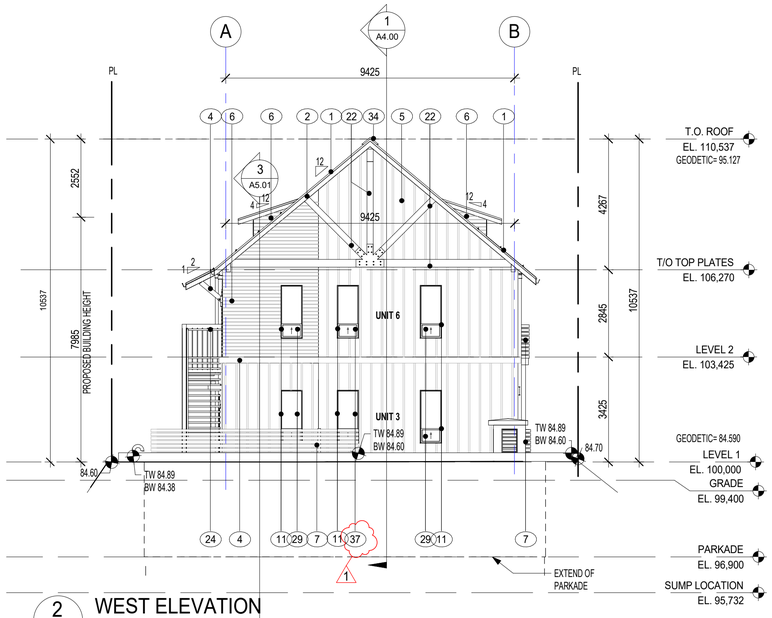
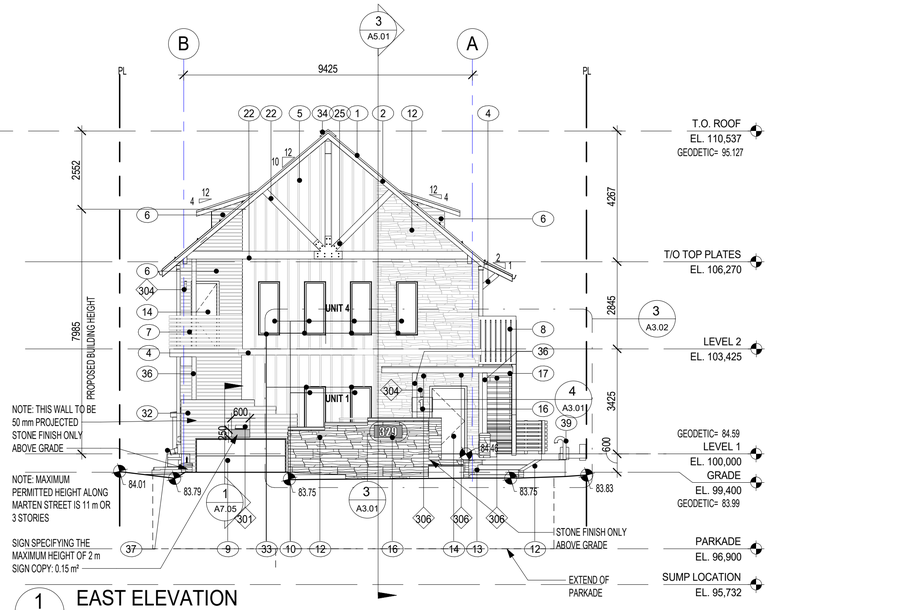
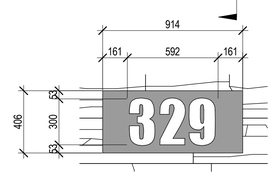
	A3.00	5



2 A3.01 **WEST ELEVATION**
SCALE: 1 : 100



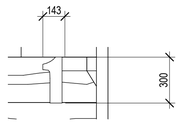
1 A3.01 **EAST ELEVATION**
SCALE: 1 : 100



SIGN COPY AREA: 0.18 m²

50 mm MOUNTED LETTERING - BRUSHED ALUMINIUM
ON DARK GREY ANODIZED ALUMINIUM PLATE 0.125" THICK
TEXT STYLE: IMPACT
FONT SIZE: 300 mm
MATERIAL: BRUSHED ALUMINIUM
COLOR: WHITE

3 A3.01 **SIGNAGE**
SCALE: 1 : 20



SIGN COPY AREA: 0.04 m²

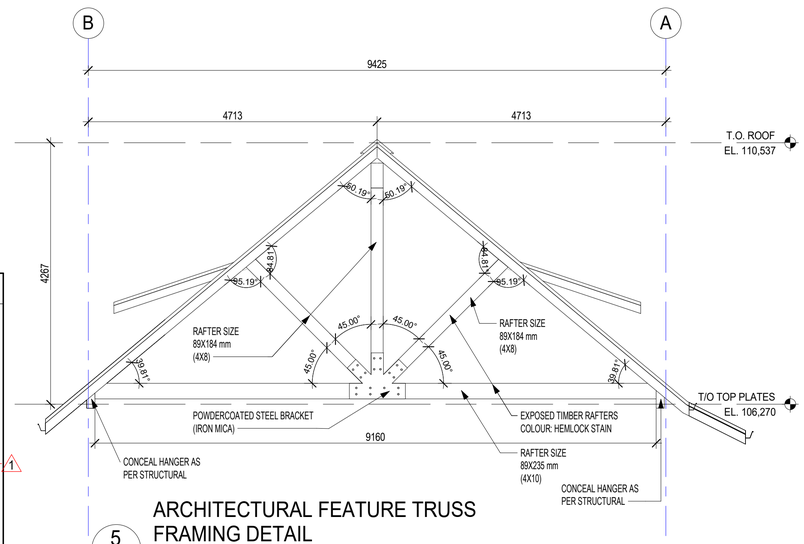
FASCIA SIGN LETTER THICKNESS: 50 mm PINNED
AND MOUNTED DIRECTLY TO THE BUILDING
TEXT STYLE: IMPACT
FONT SIZE: 300 mm
MATERIAL: BRUSHED ALUMINIUM
COLOR: WHITE

4 A3.01 **UNIT NUMBER**
SCALE: 1 : 20

ELEVATION MATERIALS LEGEND

1. RUBBER RECYCLED ENVIRONMENTALLY SAFE ROOF SHINGLES
COLOUR: LIGHT GREY
2. FIR WOOD BOARD - THERMALLY MODIFIED WOOD FASCIA
COLOUR: HEMLOCK STAIN
3. FIR WOOD BOARD - THERMALLY MODIFIED WOOD SOFFIT
COLOUR: HEMLOCK STAIN
4. EXPOSED TIMBER ELEMENTS
(AS PER STRUCTURAL)
COLOUR: HEMLOCK STAIN
5. CEMENTITIOUS VERTICAL SIDING (BOARD AND BATTEN)
SMOOTH WIDE HARDIPLANK
COLOUR: BONE WHITE
6. CEMENTITIOUS HORIZONTAL SIDING
(SMOOTH, WIDE BOARD)
COLOUR: BONE WHITE
7. HORIZONTAL - FIR WOOD BOARD - THERMALLY MODIFIED WOOD
COLOUR: HEMLOCK STAIN
8. VERTICAL FIRE RETARDANT TREATED WOOD - FIR COLOUR:
HEMLOCK STAIN
9. THEMALLY BROKEN INSULATED STEEL OVERHEAD DOOR
SOUND PROOF - WOOD GRAIN
COLOUR: HEMLOCK STAIN
10. 45MIN FIRE RATED CERAMIC GLAZING
DOUBLE GLAZED SEALED UNIT
LOW-E-COATING
11. ALUMINUM WOOD WINDOW FRAMES
COLOUR: BROWN
12. RUNDLE STONE - FULL BED STONE (NATURAL)
LEDGERSTACK
COLOUR: BLACK, LIGHT GREY TO GREY / PATTERNED
13. SANDBLASTED EXPOSED AGGREGATE POURED CONCRETE
STEPS
COLOUR: LIGHT GREY
14. 45MIN FIRE RATED INSULATED HOLLOW METAL DOOR
COLOUR: PAINTED WHITE
15. EXPOSED - SMOOTH CONCRETE
COLOUR: LIGHT GREY
16. MOUNTED LETTERING - BRUSHED ALUMINIUM
COLOUR: WHITE
17. METAL COMPOSITE PANEL FASCIA
COLOUR: LIGHT GREY
NOTE: (CANOPIES THERMALLY DISCONNECTED)
18. METAL LOUVER WITH A SCREEN BEHIND IT
COLOUR: DARK GREY / WOOD FRAME
19. PREFINISHED METAL EAVESTROUGH
COLOUR: LIGHT GREY
20. PREFINISHED METAL DOWNSPOUT WITH INSECT SCREEN
COLOUR: LIGHT GREY
21. STAINLESS STEEL GUARD RAIL
22. EXPOSED TIMBER RAFTERS
COLOUR: HEMLOCK STAIN
23. GALVANIZED STEEL STAIR METAL GRATE THREADS
24. ILLUMINATED HAND RAIL
STAINLESS STEEL (SEE REFERENCE PLAN)
25. POWDERCOATED STEEL BRACKET
(IRON MICA)
26. RAKED CONCRETE RAMP
COLOUR: LIGHT GREY
27. CAST IN PLACE CONCRETE PLANTER BOXES
COLOUR: LIGHT GREY / SMOOTH
28. SNOW GUARD
NOTE: SNOW GUARD LOCATION AND SPACING TO BE
CONFIRMED WITH THE SUPPLIER
29. DOUBLE GLAZED SEALED UNIT
LOW-E-COATING
30. HAND RAIL
STAINLESS STEEL (SEE REFERENCE PLAN)
31. CURTAIN WALL WINDOW FRAMES
32. CAPBOARD HORIZONTAL SIDING
(SMOOTH, WIDE BOARD)
COLOUR: HEMLOCK STAIN
33. FIRE RATED STEEL CURTAIN WALL WINDOW FRAMES
COLOUR: BROWN
34. CONTINUOUS RIDGE VENT
35. DOG HOUSE - CONCRETE LIGHT GREY
36. 152 X 152 mm ROUGH SAWN DOUGLAS FIR TIMBER COLUMN
37. DOUBLE GLAZED SEALED UNIT
FROSTED GLASS
38. ALUMINIUM WITH WOOD FINISH IMITATION SKYLIGHT
39. GOOSENECK EXHAUST AND AIR INTAKE
40. WOOD CLAD ALUMINIUM

NOTE ALL COLORS TO BE DETERMINED BY DEPARTMENTAL
REPRESENTATIVE



5 A3.01 **ARCHITECTURAL FEATURE TRUSS FRAMING DETAIL**
SCALE: 1 : 50

LIGHTING LEGEND

301	PARKADE ENTRANCE LIGHT WALL MOUNT	306	EXTERIOR DOWNLIGHT RECESSED
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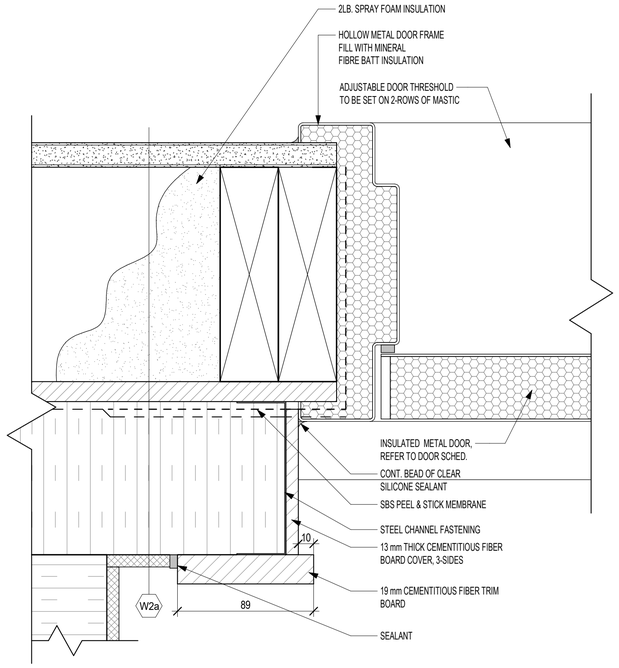
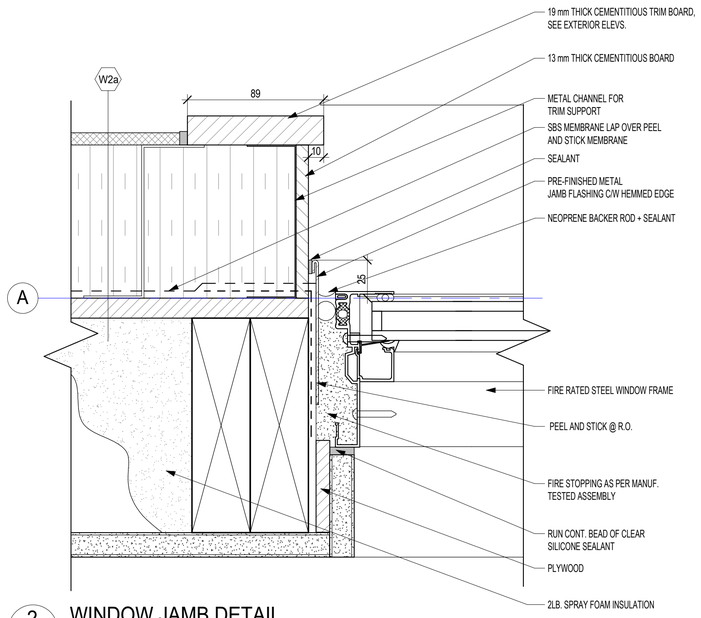


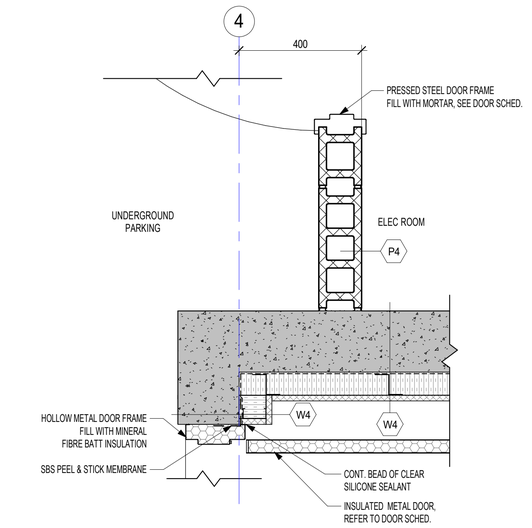
1 A6.01 **DOOR JAMB DETAIL**

SCALE: 1 : 2



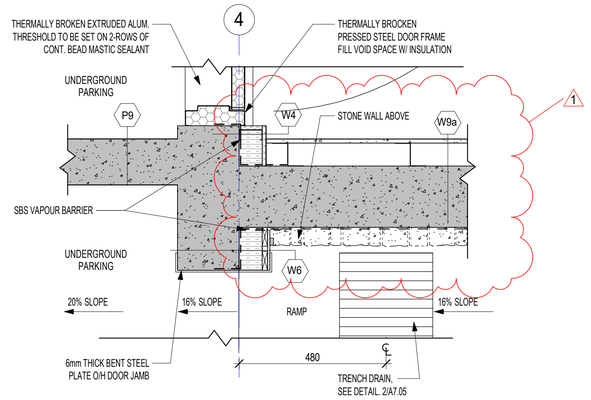
2 A6.01 **WINDOW JAMB DETAIL**

SCALE: 1 : 2



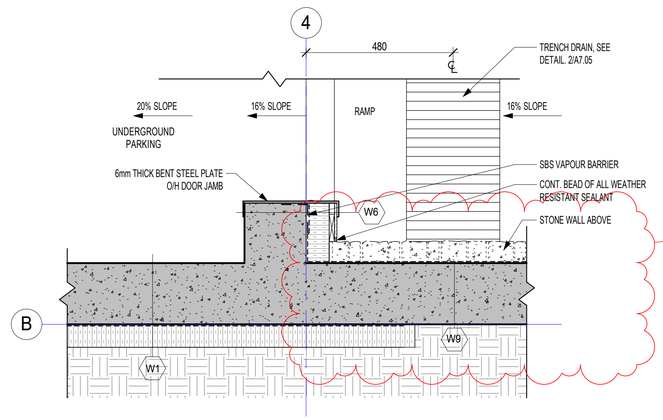
3 A6.01 **STAIR-a PLAN DETAIL**

SCALE: 1 : 10



4 A6.01 **STAIR-a / EXIT DOOR JAMB DETAIL**

SCALE: 1 : 10



5 A6.01 **OVERHEAD DOOR JAMB DETAIL**

SCALE: 1 : 10

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Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie

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	A6.01	1

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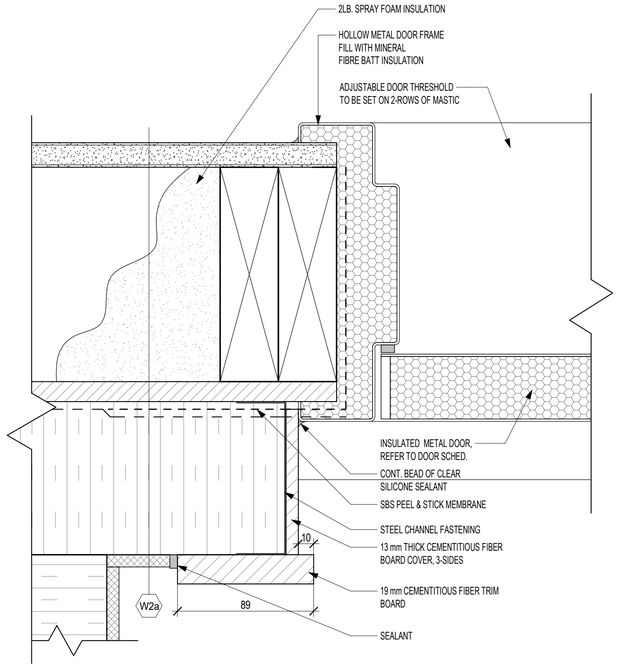
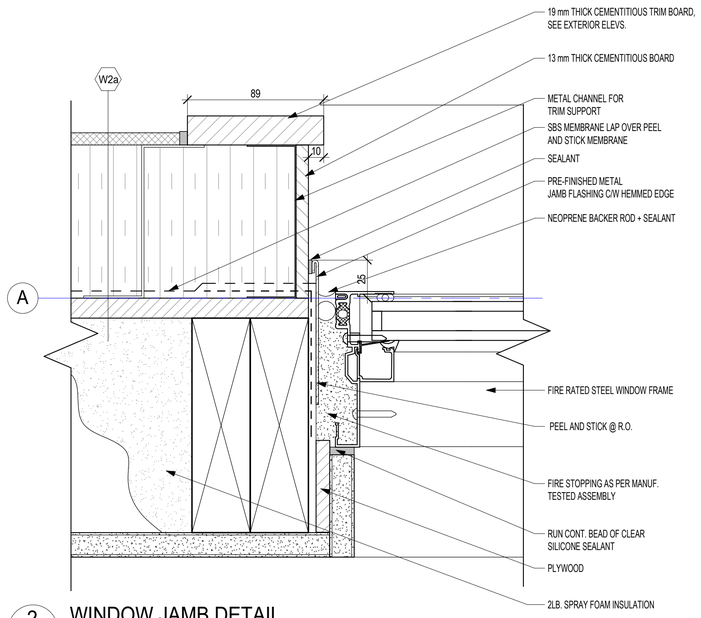


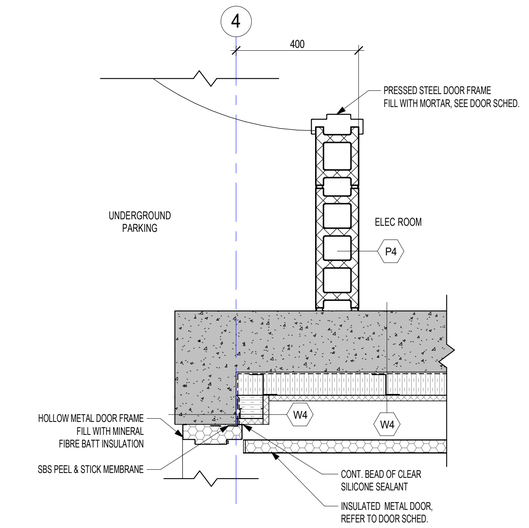
1 A6.01 **DOOR JAMB DETAIL**

SCALE: 1 : 2



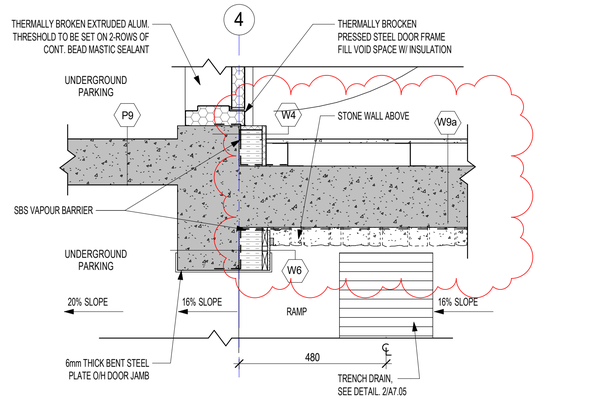
2 A6.01 **WINDOW JAMB DETAIL**

SCALE: 1 : 2



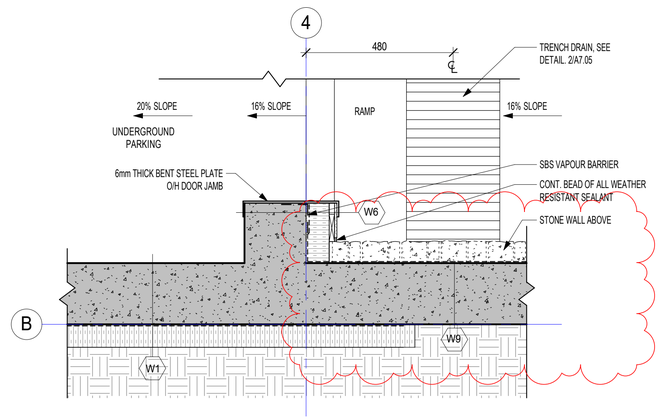
3 A6.01 **STAIR-a PLAN DETAIL**

SCALE: 1 : 10



4 A6.01 **STAIR-a / EXIT DOOR JAMB DETAIL**

SCALE: 1 : 10



5 A6.01 **OVERHEAD DOOR JAMB DETAIL**

SCALE: 1 : 10

PWGSC - A1 - 841 X 594

0 10 20 30 40 50 60 70 80 90 100mm

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Revision / Revision	Description / Description	Date / Date
1	ISSUED FOR TENDER / BP	19/07/19

Client / client

Parks Canada / Parcs Canada

Project title/Titre du projet

Banff National Park
Banff, Alberta

PCA - STAFF HOUSING
329 MARTEN STREET

Approved by/Approuve par
AMINA OYAKHILOME

Designed by/Concept par
PETER SCHULZ

Drawn by/Dessine par
BENNY MANCE/ MARAL SAFARZADEH/ SOPHIE SHOU

Project Manager/Administrateur de Projets
LAURIE MACDONALD

Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie

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PLAN DETAILS

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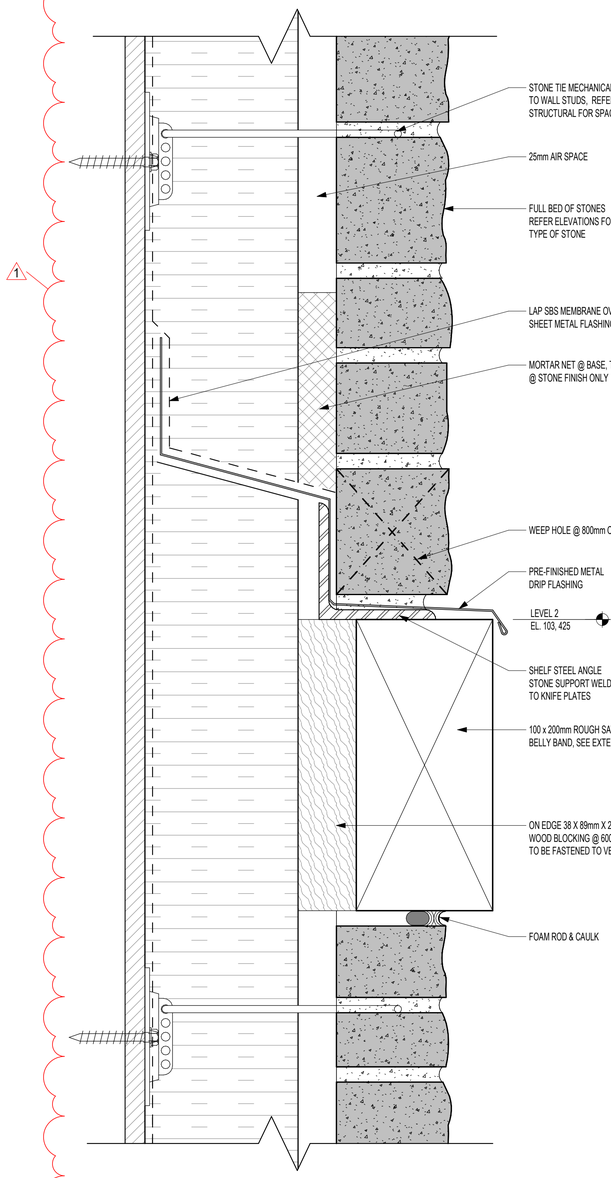
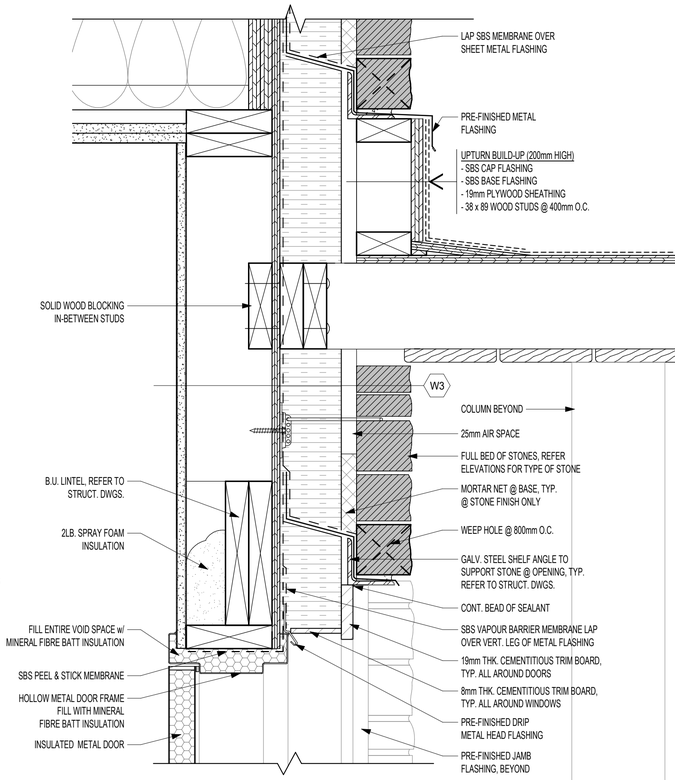


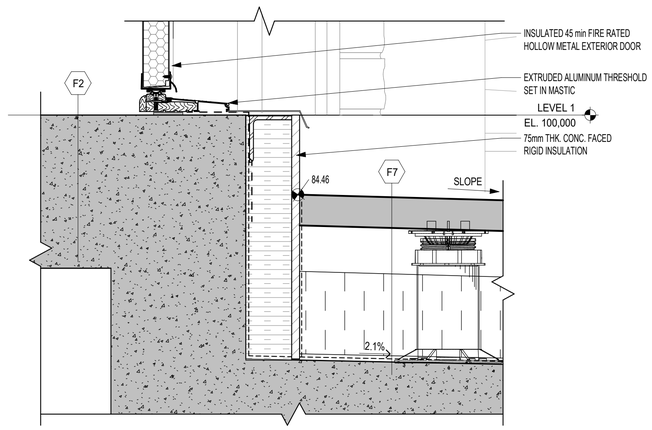
5 A7.10 BELLY BAND SECTION DETAIL @ STONE

SCALE: 1 : 2



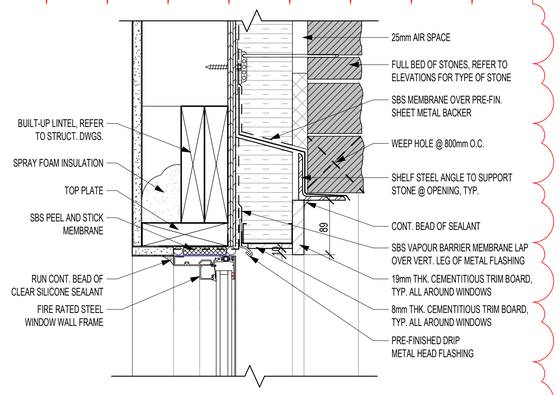
3 A7.10 45 MIN FIRE RATED HOLLOW METAL DOOR HEAD

SCALE: 1 : 5



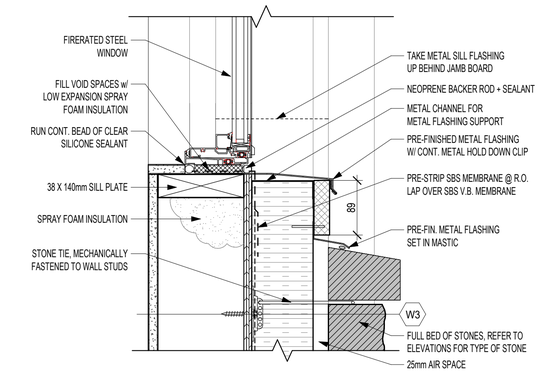
4 A7.10 45 MIN FIRE RATED HOLLOW METAL DOOR SILL

SCALE: 1 : 5



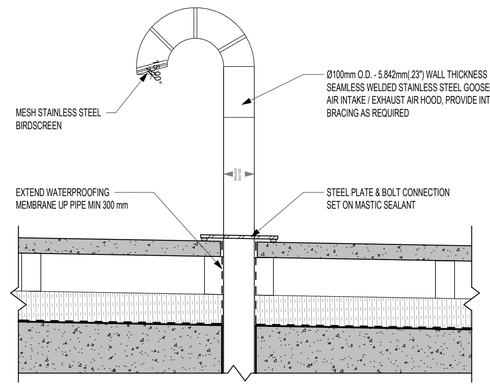
1 A7.10 FIRE RATED WINDOW @ HEAD

SCALE: 1 : 5



2 A7.10 FIRE RATED WINDOW @ SILL

SCALE: 1 : 5



6 A7.10 GOOSENECK DETAIL

SCALE: 1 : 10

0 10 20 30 40 50 60 70 80 90 100mm

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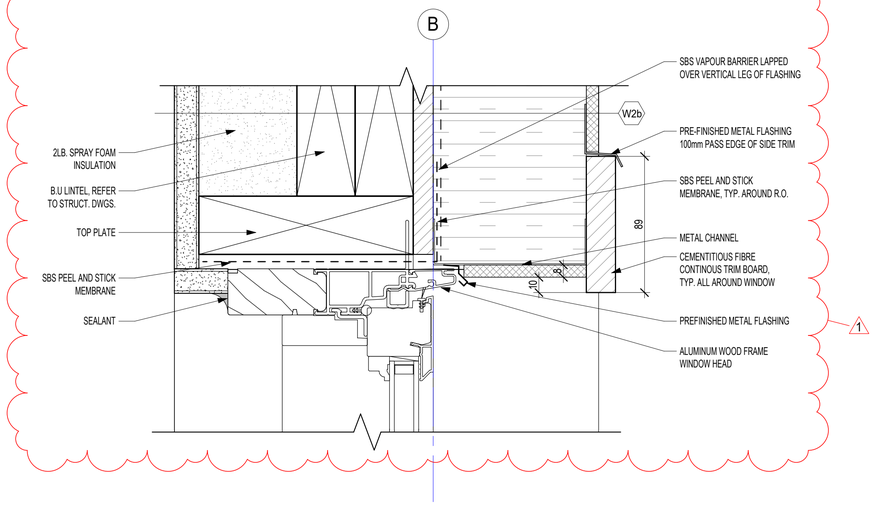
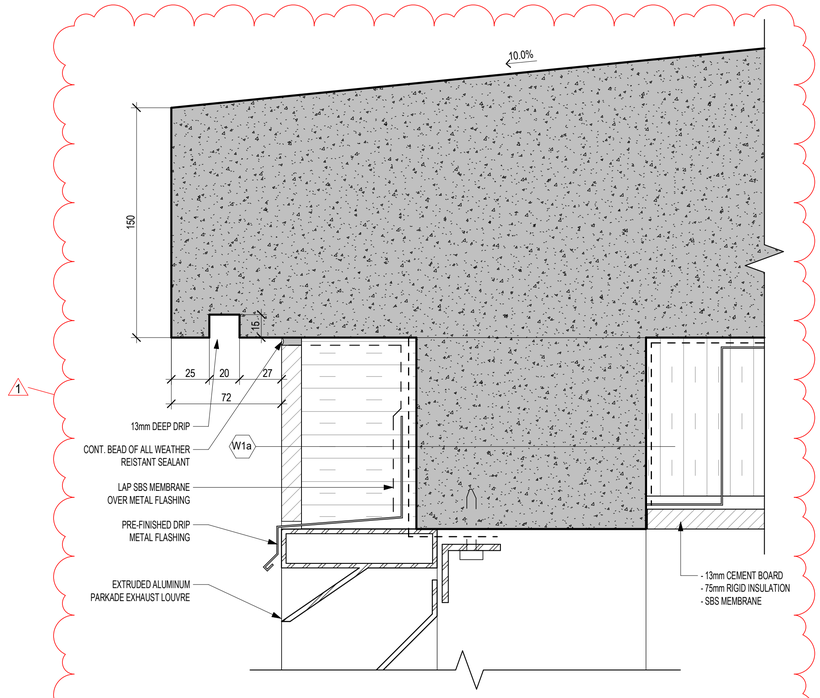


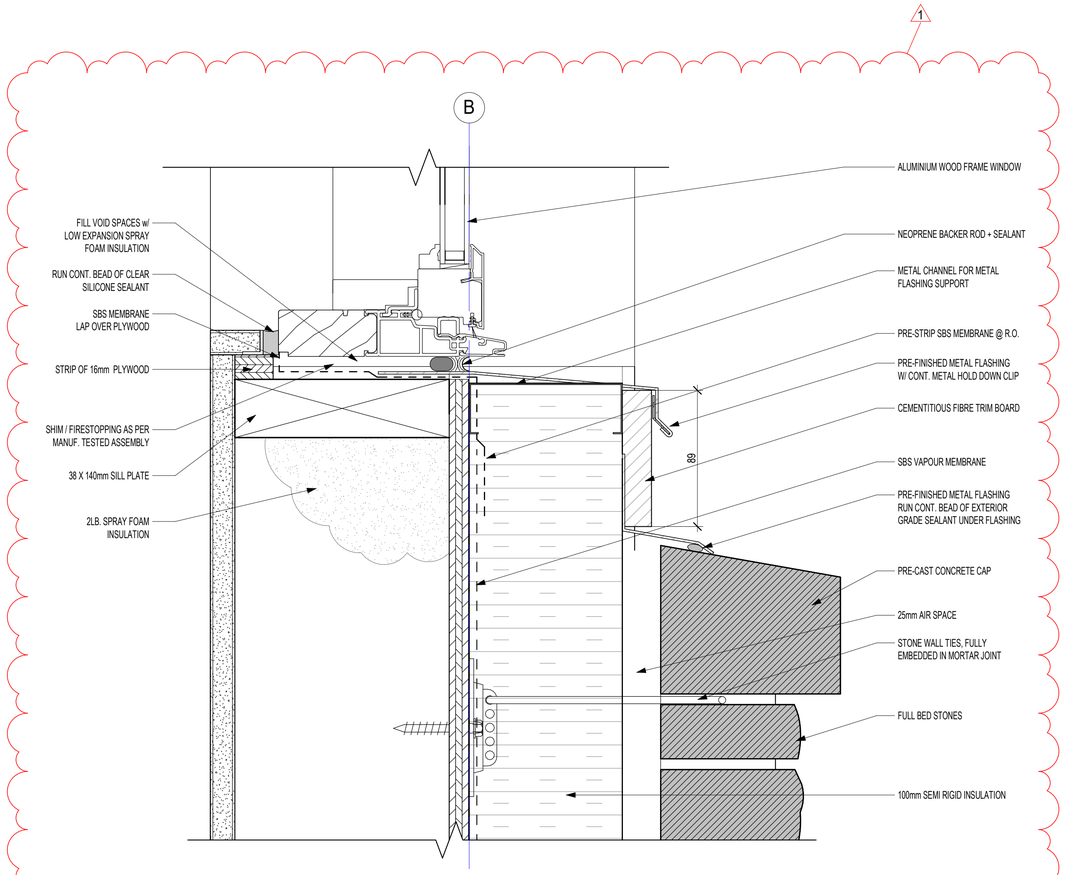
2 A7.11 — ALUMINIUM WOOD FRAME WINDOW HEAD

SCALE: 1 : 2



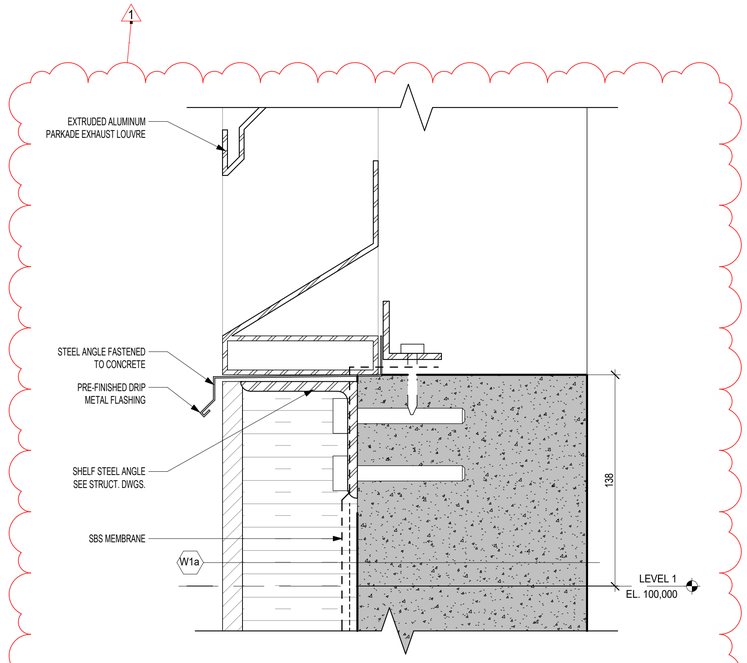
3 A7.11 — SECTION DETAIL @ LOUVER HEAD @ DOGHOUSE

SCALE: 1 : 2



1 A7.11 — ALUMINIUM WOOD FRAME WINDOW SILL

SCALE: 1 : 2



4 A7.11 — SECTION DETAIL @ LOUVER SILL @ DOGHOUSE

SCALE: 1 : 2

0 10 20 30 40 50 60 70 80 90 100mm

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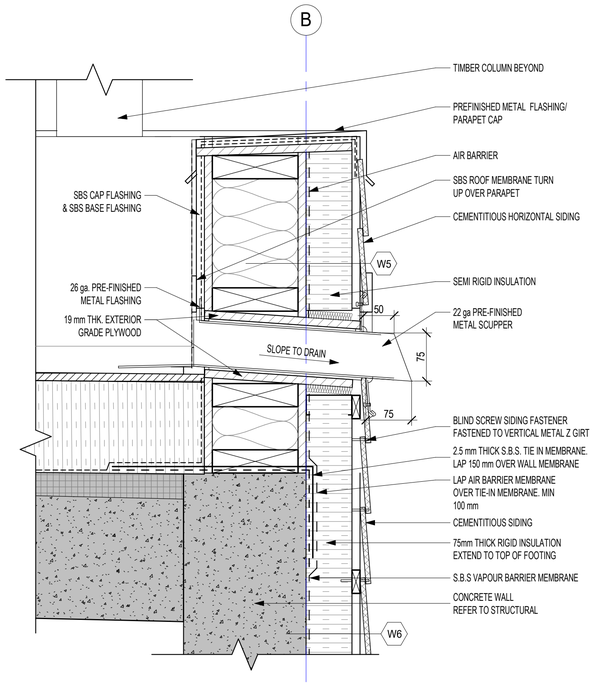
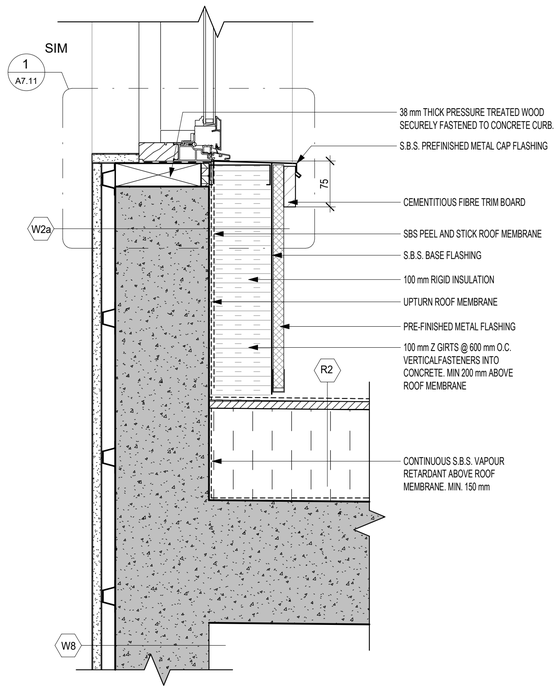


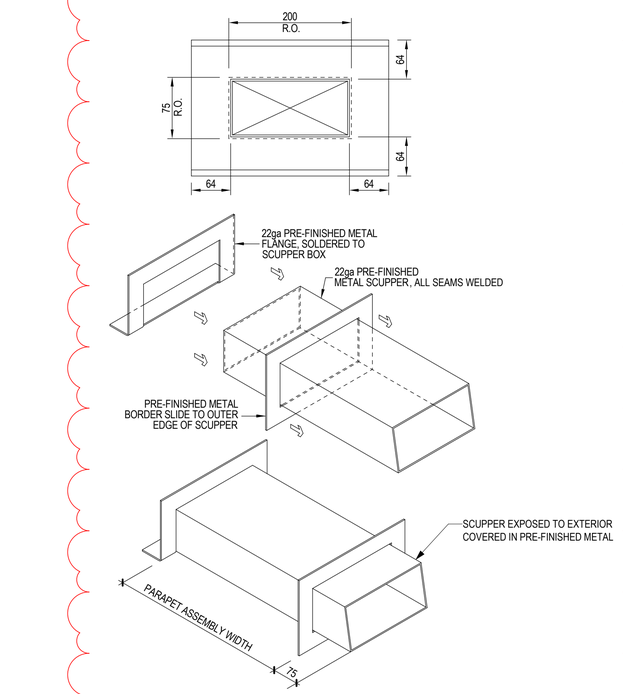
3 A7.14 SECTION DETAIL @ UNIT 01, PARAPET OVER THE PARKADE'S ROOF

SCALE: 1 : 5



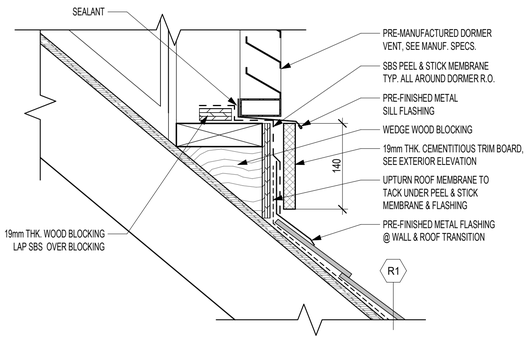
4 A7.14 SECTION DETAIL @ UNIT 01, W2a WALL OVER MAIN FLOOR SLAB & PARKADE'S ROOF

SCALE: 1 : 5



1 A7.14 SCUPPER DETAIL

SCALE: 1 : 5



2 A7.14 LOUVER SILL DETAIL @ DORMER

SCALE: 1 : 5

PWGSC - A1 - 841 X 594

0 10 20 30 40 50 60 70 80 90 100mm

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Part 1 General

1.1 SUMMARY

.1 This Section includes requirements for supply and installation of rundle stone masonry and accessories.

1.2 RELATED SECTIONS

.1 Section 04 22 00 - Unit Masonry

.2 Section 05 50 00 - Metal Fabrications

1.3 REFERENCES

.1 Canadian Standards Association

.1 CSA A165 Series – 14, CSA Standards on Concrete Masonry Units

.2 CSA A179-14, Mortar and Grout for Unit Masonry

.3 CSA-A370-14 (R2018), Connectors for Masonry

.4 CSA-A371-14 (R2019), Masonry Construction for Buildings.

.2 American Society of Testing and Materials

.1 ASTM C170/C170M-17, Standard Test Method for Compressive Strength of Dimension Stone.

.2 ASTM C99/C99M-18, Standard Test Method for Modulus of Rupture of Dimension Stone.

.3 ASTM C97/C97M-18, Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.

1.4 QUALITY ASSURANCE

.1 Fabricate stone, detail and fabricate supports, and do masonry work in accordance with CSA A371 except where specified otherwise.

.2 Do masonry reinforcing and tying in accordance with CSA A370 unless specified otherwise.

.3 Make and use mortar in accordance with CSA A179 unless specified otherwise.

1.5 JOB MOCK-UP

.1 Construct mock-up panel of masonry/tile wall construction 1200 x 1800 mm showing masonry colours and textures, ties and anchors, jointing, mortar and workmanship.

1.6 SUBMITTALS

.1 Submit laboratory test reports certifying compliance of mortar ingredients with specification requirements as applicable.

.2 Submit complete cutting and setting drawings (singed and sealed by a Professional Engineered registered in the Province of the work) for all stone/tile work that is to be done on vertical substrates in public areas over 2440 mm (96”) high for review prior to starting the work. Show in detail the sizes, sections and dimensions of stone/tile, the arrangement of joints and bonding, anchoring and other necessary details. Indicate an identifying number or mark for each

stone/tile. Clearly indicate anchoring, doweling, and cramping of work and detail all connections to the structure.

.3 Submit test reports covering conformance of stone to ASTM Standards.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

.1 Deliver materials to job site in dry condition.

.2 Keep materials dry until use.

.3 Store materials under waterproof cover on pallets or plank platforms held off ground.

1.8 PROTECTION

.1 Keep masonry dry using coverings that extend over walls and down sides sufficiently to protect walls from wind driven rain, until masonry work is completed and protected by flashings or other permanent construction.

.2 Protect masonry and other work from marking and other damage. Protect completed work from mortar droppings. Use non-staining coverings.

Part 2 Products

2.1 Materials

.1 Rundlestone: From local (Alberta) quarry, black no veins colour range; jumpers any shape; random lengths of 300 mm - 375 mm long units, average thickness 100 mm, multi height, 5 point split face.

.2 Pattern as indicated on Drawings.

2.2 MORTAR

.1 Cement: Non-staining cement approved by the stone supplier and conforming to ASTM C-91.

.2 Sand: to CSA A179, white, 100% passing a #16 sieve.

.3 Use same brands of materials and source of aggregate for entire project. Ensure that all materials are free of salts or other soluble matter injurious to stone.

.4 Mortar colour: metallic oxide pigment manufactured by Northern Pigments, in colour or blend of colour required to match mortar to stone.

.5 Mortar, non-staining, for setting: 1 part cement, 1 part lime, six parts sand.

2.3 ACCESSORY MATERIALS

.1 All metal connectors and anchors: to CSA-A370 and A371, galvanized, or stainless steel, except as specified. Refer to Section 04 81 00 - Unit Masonry Accessories.

.2 Sealer: Type as recommended by stone manufacturer.

2.4 FABRICATION

.1 Cut projecting stones/tiles, sills, steps, and copings for setting on natural bed.

.2 Cut stone/tile accurately to size, shapes, and details indicated on reviewed setting drawings. Except where slopes, angles or curves are required cut all stone square, with exposed faces true, and with beds and joints dressed straight and at right angles to faces.

.3 Back check stone/tile as required for structural work indicated. Cut holes as required for anchors, cramps, dowels, etc. Cut and drill stone/tile as required for the installation of built-in work (e.g. electrical, mechanical).

.4 Provide Lewis pin or clamp holes as required to permit handling at the site.

.5 Identify each stone/tile on an unexposed surface with the number used to identify it in the setting drawings.

Part 3 Execution

3.1 INSTALLATION

.1 Clean stone/tile by washing with water before laying.

.2 Set stone/tile in accordance with approved setting drawings, with anchors, dowels, cramps, clips, etc. as indicated. Review any modifications required to accommodate field tolerances or unexpected conditions with the Consultant before proceeding.

.3 Fill joints, anchor holes and Lewis holes with mortar.

.4 Build stone/tile plumb, level, and true to line.

.5 Lay stone/tile after mortar in courses below has hardened sufficiently to support weight.

.6 Prop and anchor projecting stones and shore masonry over openings until wall above is set.

.7 Fill all voids between stones and at the back solidly with mortar.

.8 If mortar is not sufficiently stiff to support them set large stones on water soaked softwood wedges or with lead pads to support them in proper alignment until mortar has set. Remove wedges when dry, do not break off.

.9 Unless otherwise indicated on Drawings, all joints to be butt joints.

.10 Match the appearance of the approved mock-up and produce masonry of uniform appearance throughout.

3.2 BUILDING-IN

.1 Build in items required to be built into masonry.

.2 Prevent displacement of built-in items during construction. Check plumb, location and alignment frequently, as work progresses.

3.3 CLEANING & PROTECTION

.1 After mortar has completely set brush stone/tile work with stiff brush using minimal amounts of water if needed. Do not use wire brushes or water-soluble cleaning compounds.

.2 Seal clean stone/tile surfaces with recommended sealer.

.3 Cover projections and exposed corners with boards until other work is sufficiently completed to minimize risk of damage.

END OF SECTION

Part 1 General

1.1 INTENT

.1 Section includes fire rated operable glazing and framing systems for installation as indicated on Drawings.

1.2 RELATED SECTIONS

.1 Section 05 50 00 – Metal Fabrications

.2 Section 07 62 00 – Sheet Metal Flashing and Trim

.3 Section 07 84 00 – Firestopping and Smokeseals

.4 Section 08 11 13 – Steel Doors and Frames

.5 Section 08 44 13 – Glazed Aluminum Curtain Walls

.6 Section 08 80 50 – Glazing

.7 Section 08 71 00 – Door Hardware

1.3 REFERENCES

~~.1 Aluminum Association (AA)~~

~~.1 DAF 45-2003 (R2009), Designation System for Aluminum Finishes.~~

~~.2 American Architectural Manufacturers Association (AAMA)~~

~~.1 AAMA 609-15, Cleaning and Maintenance Guide for Architecturally Finished Aluminum.~~

~~.2 AAMA 611-14, Voluntary Specification for Anodized Architectural Aluminum.~~

~~.3 AAMA 2603-17a, Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.~~

~~.4 AAMA 2604-17a, Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.~~

~~.5 AAMA 2605-17a, Voluntary Specification, Performance requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.~~

.3 American National Standards Institute (ANSI).

.1 ANSI Z97.1-2015, Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test

.4 American Society for Testing and Materials International, (ASTM)

.1 ASTM E119-18 ce1, Standard Methods for Fire Tests of Building Construction and Materials.

.2 ASTM A1008/A1008M-18, Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability, Solution Hardened and Bake Hardened.

.3 ASTM A1011/A1011M-18a, Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability and Ultra-High Strength.

.5 Builders Hardware Manufacturers Association (BHMA)

.1 ANSI/BHMA A156, Series of Standards.

.6 Canadian Standards Association (CSA International)

.1 CAN4-S106-M80(R1985), Standard Method for Fire Tests of Window and Glass Block Assemblies

.7 Consumer Product Safety Commission Publications (CPSC)/Code of Federal Regulations (CFR)

.1 CPSC, 16 CFR 1201, Safety Standard for Architectural Glazing Materials

.2 CPSC, 16 CFR 1201 CAT II.

.8 National Fire Protection Agency (NFPA)

.1 NFPA 80-2019, Standard for Fire Doors and Other Opening Protectives.

.2 NFPA 251, Standard Methods of Tests of Fire Endurance of Building Construction and Materials, 2006 Edition.

.3 NFPA 252, Fire Tests of Door Assemblies, 2017 Edition.

.4 NFPA 257, Fire Test for Window and Glass Block Assemblies, 2017 Edition.

.9 Underwriter's Laboratories (UL)

.1 UL 9, Fire Tests of Door Assemblies

.2 UL 10 B, Fire Tests of Door Assemblies

.3 UL 10 C, Positive Pressure Fire Tests of Window & Door Assemblies

.4 UL 263, Fire tests of Building Construction and Materials

.5 UL-752, Ratings of Bullet-Resistant Materials

.10 Underwriter's Laboratories of Canada (ULC)

.1 CAN/ULC S101-14, Standard Methods of Fire Endurance Tests of Building Construction and Materials.

.2 CAN/ULC S104-15, Standard Method for Fire Tests of Door Assemblies.

1.4 ADMINISTRATIVE REQUIREMENTS

.1 Pre-installation Meetings: Convene pre-installation meeting one week prior to beginning work of this Section, with Contractor, Departmental Representative, installer, manufacturer’s representative in accordance with Division 01 to:

.1 Verify project requirements, substrate conditions, manufacturer's installation instructions, and manufacturer's warranty requirements;

.2 Co-ordination with other building subtrades;

.3 Review location and alignment of vertical and horizontal elements as they relate to the aesthetic criteria indicated on the Drawings, and the technical requirements indicated on the shop drawings.

1.5 SUBMITTALS

.1 Submit product data in accordance with Section 01 33 00.

.1 Submit manufacturer's printed product literature, specifications, technical data sheet and ULC listings.

.2 Submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures.

.2 Submit shop drawings in accordance with Section 01 33 00:

.1 Include plans, elevations and details of product showing component dimensions; framing opening requirements, dimensions, tolerances, and attachment to structure.

.2 Provide templates for the location of embeds and anchor locations required for any adjoining work.

.3 Submit samples in accordance with Section 01 33 00:

.1 Submit two 300 mm x 300 mm samples for glass.

.2 Submit sample of frame.

.3 Submit verification of sample of selected finish.

.4 Information Submittals: Provide the following:

.1 Submit design data in accordance with Section 01 33 00.

.1 Provide structural calculations sealed by a licensed professional engineer in the Province in which the project is located; prepared in compliance with referenced documents and these specifications.

.2 Submit certificates of compliance from glass and glazing materials manufacturers attesting that glass and glazing materials furnished for project comply with requirements.

.5 Closeout Submittals: Provide operation and maintenance data for incorporation into manual specified in Division 01 and as follows:

.1 Submit data for cleaning of finishes and maintenance of hardware;

.2 Instruction for replacement of glass units.

1.6 QUALITY ASSURANCE

.1 Qualifications: The firm producing and executing the Work of this Section shall have a minimum of 5 years successful experience in the fabrication and erection of systems of similar sizes, shapes and finishes to the units required for this project and shall have ample facilities to produce, furnish and supply the units as required for installation without delay to the Work.

.2 Installer Qualifications: An experienced installer who has completed glazing similar in material, design, and extent to that indicated for this Project; whose work has resulted in glass installations with a record of successful in-service performance.

.3 Source Limitations for Glazing Accessories: Obtain glazing accessories from one source for each product and installation method indicated.

.4 Delegated Design Professional: Retain a Professional Engineer, registered in the Province of the Work, to design fabrication and erection of the Work of this Section in accordance with applicable Building Code and Contract Documents requirements including, but not limited to, the following:

.1 Seal and signature to shop drawings and design submittals.

.2 Site review of installed components.

.5 Provide fire labelled frame products for those openings requiring fire protection ratings, as scheduled:

.1 List by nationally recognized agency having factory inspection service and construct as detailed in Follow-up Service Procedures/Factory Inspection Manuals issued by listing agency to individual manufacturers.

.2 Fire-Rated Window Assemblies: Assemblies complying with NFPA 80 that are classified and labeled by UL, for fire ratings indicated, based on testing according to NFPA 257, ASTM E119.

.3 Fabricate all rated doors, frames and screens to labelling authority standard.

1.7 DELIVERY, STORAGE, AND HANDLING

.1 Deliver, handle and store units in accordance with manufacturer's directions and as follows:

.1 Inspect containers for damage at delivery.

.2 Examine glass and frame units for damage.

.3 List all damage to containers on the shipping company’s Bill of Lading.

.4 Report damage to manufacturer immediately.

.5 Store glazing materials and frame units in original packing containers.

.6 Do not expose glazing material of frame units to sunlight and weather.

.7 Do not store horizontally.

.8 Place glass and frames upright, no less than 6 degrees from vertical.

.9 Store all materials in dry conditions, off the ground.

.10 Protect from construction activities.

.11 Fully support glass units along entire length.

.12 Glass and frame units must be separated by non-abrasive pads such as cloth or cork.

.13 Do not stack containers.

1.8 WASTE MANAGEMENT AND DISPOSAL

.1 Separate and recycle waste materials in accordance with Division 01.

1.9 SITE CONDITIONS

.1 Site Measurements: Verify dimensions of other construction by site measurements before fabrication and indicate measurements on shop drawings where curtain wall systems are indicated to fit to other construction.

.2 Established Dimensions: Establish dimensions and proceed with fabricating curtain wall without site measurements where site measurements cannot be made without delaying the Work, coordinated with other construction to ensure that actual dimensions correspond to established dimensions.

.3 Ambient Conditions: Confirm installation requirements for ambient and surface temperatures of sealants with manufacturer and apply sealants when

temperatures are greater than manufacturer's stated minimum from time of application until sealants have cured.

1.10 WARRANTY

.1 Provide manufacturers standard ten ~~five~~ year warranty for finishes and one year warranty for parts for glazing and frames.

Part 2 Products

2.1 MANUFACTURERS

.1 Manufacturer Glazing Material: Pilkington Pyrostop fire-rated glazing as manufactured by the Pilkington Group and distributed by Technical Glass Products.

~~.2~~ Manufacturer Frame System: FR7600 TSS Series, Optimum Window ~~Fireframes Designer and Fireframes Aluminum Series fire-rated frame system as manufactured and supplied by Technical Glass Products.~~

2.2 PERFORMANCE/DESIGN CRITERIA

.1 System Description:

.1 Steel fire-rated glazed wall and/or window system, ~~dual aluminum cover cap format~~.

.1 Face widths: as indicated on Drawings.

.2 Fire Rating Duration: as indicated on Drawings.

.2 Retain a professional engineer registered in province of Work, experienced in structural design in glass and fire rated frames, connections to door units and connections to building, to ensure the adequacy of the structural aspects of the design, manufacture, and installation of complete assembly.

.3 Design Requirements:

.1 Design and size the system to withstand structural forces placed upon it without damage or permanent set when tested in accordance with ASTM E330 using load 1.5 times the design wind loads and of 10 seconds in duration at +/- 10 PSF.

.2 Limit mullion deflection to L/175; with full recovery of glazing materials.

.3 Size glass units and glass dimensions to limits established in CAN/CGSB-12.20.

2.3 MATERIALS: GLASS

.1 Fire Rated Glazing: Composed of multiple sheets of Pilkington Optiwhite™ high visible light transmission glass laminated with an intumescent interlayer.

.2 Impact Safety Resistance: ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II).

.3 Properties Interior Glazing:

.1 Fire Rating: as indicated on Drawings.

.2 Glazing Tape: single

.3 Nominal Thickness: 23 mm

.4 Daylight Transmission: 88%

.5 Sound Transmission Coefficient: minimum 41 dB

.4 Logo: Each piece of fire-rated glazing shall be labeled with a permanent logo including name of product, manufacture, testing laboratory (UL), fire rating period, safety glazing standards, and date of manufacture.

.5 Glazing Accessories: Manufacturer's standard compression gaskets, standoff, spacers, setting blocks and other accessories necessary for a complete installation.

2.4 MATERIALS: STEEL ~~ALUMINUM~~ FRAMES

.1 ~~Aluminum~~ Framing System: to meet fire ratings as indicated on Drawings and as follows:

~~.1 Steel Frame: steel framing members are constructed of two halves, nominal 48.3 mm wide with a nominal minimum depth of 35 mm with lengths cut according to glazing size.~~

~~.2 Aluminum Trim: supplied with the steel framing members. Nominal 50.8 mm wide with a nominal depth of 39 mm with lengths cut according to glazing size.~~

~~.3 Stainless Steel Standoffs: supplied with the steel framing members. Nominal 8 mm diameter with a nominal minimum depth of 28 mm with depth adjusted to match Pilkington Pyrostop panel thickness.~~

~~.4 Stainless Steel Moment and Connecting Braces: supplied with the steel framing members. Nominal 10 mm thick with a nominal minimum depth of 28 mm with depth adjusted to match Pilkington Pyrostop Panel thickness.~~

~~.5 Framing Member Fasteners: supplied with the steel framing members. Screws are M6 x16mm Button Head Socket Cap Screws for frame assembly and #6 x 1" Pan Head Sheet Metal Screws for door installation.~~

.6 Steel Frame: coped and mechanically assembled cold rolled hot dipped galvanized steel 108 mm deep frame.

.7 Certification: Listed and labeled by Underwriters Laboratories of Canada (ULC) in accordance with ASTM E283, ASTM E331, and ASTM E330.

.8 Weather stripping: EPDM and silicone pile

.9 Glazing Beads: mechanically fastened steel

.10 Glazing: factory glazed and as indicated in Section 08 80 50.

.11 Sweep: sweep lock at centre of sash up to 915 mm, two sweep locks for larger.

.12 Handle: self latching

.13 Trim: steel break metal trim

.14 Screens: fibreglass insect screen

.15 Glazing Gasket: supplied with the steel framing members. Nominal 19 mm by 4.5 mm black applied to the steel framing members to cushion and seal the glazing material when installed.

2.5 ACCESSORIES

.1 Bituminous Paint: Cold-applied, asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos; formulated for 0.762 mm thickness per coat.

2.6 FABRICATION

.1 Obtain reviewed shop drawings prior to fabrication.

.2 Fabrication Dimensions: Fabricate fire-rated assembly to field dimensions.

.3 Factory prepared, fire-rated steel door assemblies by manufacturer to be prehung, prefinished with hardware preinstalled for field mounting.

.4 Field glaze door and frame assemblies.

2.7 FINISHES

.1 Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

.2 Finish frames after assembly.

.3 Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable. Noticeable variations in the same piece are not acceptable.

~~.4 Anodized Finishes:~~

~~.1 Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.~~

~~.2 Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.~~

Part 3 Execution

3.1 EXAMINATION

.1 Site Verification of Conditions: Examine substrates and members to which the work of this section attaches or adjoins prior to frame installation are acceptable for product installation in accordance with manufacturer’s instructions. Provide openings plumb, square and within allowable tolerances. The manufacturer recommends 9.5 mm shim space at all walls.

.2 Notify Departmental Representative of any conditions which jeopardize the integrity of the proposed fire wall and door system.

.3 Do not proceed until such conditions are corrected.

3.2 INSTALLATION

.1 Install curtain wall system in accordance with manufacturer's instructions.

.2 General: Install frame system plumb, level, and true to line, without warp or rack of frames with manufacturer’s prescribed tolerances and installation instructions. Provide support and anchor in place.

.3 Install fire walls and doors by a specialty contractor with appropriate experience qualifications; and in strict accordance with the approved shop drawings. Employ experienced mechanics familiar with this type of specialized work. Firmly pack perimeter of framing system to rough opening with mineral wool fire stop insulation or appropriately rated intumescent sealant.

.4 Install glazing in strict accordance with fire resistant glazing material manufacturer's specifications. Field cutting or tampering is not permissible.

.5 Do not install damaged frames or chipped glazing units.

.6 Install plumb and true. Limit out of plumb or true to 3.2 mm in 3048 mm in any dimension.

3.3 MANUFACTURER'S FIELD SERVICES

.1 Product manufacturers to provide field surveillance of installation of their Products.

.2 Monitor and report installation procedures, unacceptable conditions.

3.4 REPAIRS AND TOUCH-UPS

~~.1 Anodized Finishes:~~

~~.1 Protect the anodized finish from harsh chemicals such as concrete/mortar or muriatic acid/brick wash. If reasonable care is taken during handling and high and low pH chemicals can be avoided, repair and/or touch-up of an anodize finish will not be needed.~~

~~.2 Some rub marks on an anodized surface can be removed with a mild abrasive pad such as a Scotch-Brite pad prior to touch up painting.~~

~~.3 Touch-up paint should be used even more sparingly over anodize. Only the visible raw aluminum in the scratch or gouge should be touched up with a matching paint.~~

.2 Touch up damaged galvanized finish with zinc rich primer.

.3 Remove and replace glass that is broken, chipped, cracked, abraded, or damaged.

3.5 PROTECTION AND CLEANING

.1 Protect glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.

.1 Do not clean with astringent cleaners. Use a clean grit free cloth and a small amount of mild soap and water or mild detergent.

.2 Do not use any of the following:

.1 Steam jets.

.2 Abrasives.

.3 Strong acidic or alkaline detergents, or surface-reactive agents.

.4 Detergents not recommended in writing by the manufacturer.

.5 Do not use any detergent above 25 degrees C.

.6 Organic solvents including but not limited to those containing ester, ketones, alcohols, aromatic compounds, glycol ether, or halogenated hydrocarbons.

.7 Metal or hard parts of cleaning equipment must not touch the glass surface.

.2 Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter. If contaminating substances do come into contact with glass, remove them immediately as recommended by glass manufacturer.

.3 Wash glass on both exposed surfaces in each area of Work not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

.1 Section 06 10 00 - Rough Carpentry

.2 Section 07 21 19 - Foam-In-Place Insulation

.3 Section 07 27 13 – Modified Bituminous Air and Vapour Barriers

.4 Section 07 92 00 - Sealants

.5 Section 08 80 50 - Glazing

.6 Section 09 21 16 - Gypsum Board Assemblies

1.2 REFERENCES

.1 Aluminum Association (AA)

.1 AA DAF-45, Designation System For Aluminum Finishes.

.2 American Architectural Manufacturers Association (AAMA).

.1 AAMA CW-DG-1-96, Aluminum Curtain Wall Design Guide Manual.

.2 AAMA CW-10-04, Care and Handling of Architectural Aluminum From Shop to Site.

.3 AAMA CW-11-85, Design Wind Loads for Buildings and Boundary Layer Wind Tunnel Testing.

.4 AAMA T1R-A1-04, Sound Control for Fenestration Products.

.5 AAMA 503-14, Voluntary Specification for Field Testing of Metal Storefronts, Curtain Wall and Sloped Glazing Systems.

.6 AAMA 611-14, Voluntary Specifications for Anodized Finishes Architectural Aluminum.

.7 AAMA 612-17a, Voluntary Specifications, Performance Requirements, and Test Procedures for Combined Coatings of Anode Oxide and Transparent Organic Coatings on Architectural Aluminum.

.8 AAMA 2603-17a, Voluntary Specification Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.

.9 AAMA 2604-17a, Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.

.3 American Society for Testing and Materials International, (ASTM).

.1 ASTM A36/A36M-14, Standard Specification for Carbon Structural Steel.

.2 ASTM A123/A123M-17, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

.3 ASTM A167-99 (2009), Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

.4 ASTM A653/A653M-17, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.5 ASTM B209-14, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

.6 ASTM B221-14, Standard Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

.7 ASTM E283-04(2012), Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

.8 ASTM E330/E330M-14, Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls, by Uniform Static Air Pressure Difference.

.9 ASTM E331-00 (2016), Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform Static Air Pressure Difference.

.10 ASTM E413-16, Classification for Rating Sound Insulation.

.11 ASTM E547-00(2016), Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference

.12 ASTM E783-02(2010), Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors

.13 ASTM E1105-15, Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference.

.4 Canadian Standards Association (CSA Group).

.1 CSA A440H-14, NAFS - North American Fenestration Standard for Windows, Doors, and Skylights.

.2 CSA A440S1-17, Canadian Supplement to AAMA/WDMA/CSA 101/1.S.2/A440, NAFS - North American Fenestration Standard for Windows, Doors, and Skylights.

.3 CSA-G40.20-13/G40.21-13(R2018), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steels Includes Update No.1 (2014).

.4 CAN/CSA-G164-18, Hot Dip Galvanizing of Irregularly Shaped Articles.

.5 CSA-S136-12, North American Specification for the Design of Cold-Formed Steel Structural Members including updates.

.6 CSA-S157-17/S157.1-17, Strength Design in Aluminum / Commentary on CSA S157-17, Strength Design in Aluminum.

.7 CSA W59.2-M1991(R2018), Welded Aluminum Construction.

.5 Environmental Choice Program (ECP).

.1 CCD-45, Sealants and Caulking Compounds.

.2 CCD-47, Architectural Surface Coatings.

.3 CCD-48, Surface Coatings - Recycled Water-Borne.

.6 Society for Protective Coatings (SSPC).

.1 SSPC - Paint 20 Zinc Rich Coating.

.2 SSPC - Paint 25 Alkyd, Zinc Oxide Linseed Oil and Primer for Use Over Hand Cleaned Steel Type 1 and Type 2.

1.3 ACTION SUBMITTALS / INFORMATIONAL SUBMITTALS

.1 Submit shop drawings signed and sealed by the Manufacturer's Engineer clearly detailing profiles, construction, assembly, finishes, installation for all conditions, also flashing, caulking, sealing, provision for thermal movement and glazing, attachment to building structure and method of adjustment.

.2 Test and Evaluation Reports:

.1 Submit test reports from approved independent testing laboratories, certifying compliance with specifications.

.2 All test reports that reference the NAFS must include, on the first page, a summary of the results including, at minimum:

.1 The product manufacturer.

.2 The type of product.

.3 The model number/series number.

.4 The primary product designation.

.5 The secondary product designation.

.1 Positive design pressure.

.2 Negative design pressure.

.3 Water penetration resistance test pressure.

.4 Canadian air infiltration and exfiltration levels.

.6 The test completion date.

.3 The report will also contain the following information:

.1 Test dates.

.2 Report preparation dates.

.3 Test information retention period.

.4 Location of testing facilities.

.5 Full description of test samples, including:

.1 Anodized finish, weathering characteristics

.2 Condensation resistance.

.3 Safety drop - vertical sliding windows only.

.4 Block operation - sliding windows only.

.5 Sash strength and stiffness - [operable casement] [projecting].

.6 Sash pull-off - vinyl windows.

.7 Forced entry resistance.

.8 Mullion deflection - combination and composite windows.

.6 Complete description of amendments, as applicable.

.7 Conclusion.

.8 Drawings signed by the testing laboratory, if provided.

1.4 QUALITY ASSURANCE

.1 Window fabricator shall have a minimum of 5 years successful experience in the fabrication and erection of metal windows of similar sizes, shapes and finishes to the units required for this project and shall have ample facilities to produce, furnish and supply the units as required for installation without delay to the Work.

.2 Retain a professional engineer registered in the Province of the Work experienced in structural design in glass and aluminum window units, connections to door units and connections to building, to ensure the adequacy of the structural aspects of the design, manufacture, and installation of complete assembly. This Engineer is called the "Manufacturer's Engineer" elsewhere in this Section.

.3 Only fabricators approved by Manufacture shall fabricate and install products of this Section.

1.5 DELIVERY, STORAGE AND HANDLING

.1 Deliver, handle and store units in accordance with manufacturer's directions.

.2 Store units at site on raised wood pallets protected from the elements and corrosive materials. Do not remove from crates or other protective covering until ready for installation.

.3 Store all glass units vertically on end with solid bearing full thickness of insulating units.

.4 Store pre-fabricated frame assemblies blocked off the ground to prevent warping, twisting, undo strain on assembly or physical abuse and damage.

1.6 SITE CONDITIONS

.1 Protect aluminum finishes and glazing during erection against disfiguration, contamination or damage by abuse of harmful materials. Install protective cover where exposure to damage is critical.

.2 Co-ordinate installation of windows with Work specified in other Sections to ensure proper placement and installation of vapour barrier, insulation and flashing in order that air/vapour/thermal barrier of building is intact and moisture will be diverted to the exterior.

1.7 WARRANTY

.1 Provide manufacturers written guarantee, signed and issued in the name of Departmental Representative, to replace the following items for defective material and workmanship for the time stated from date of Substantial Performance:

.1 Framing, panels and glazing: failure of performance requirements specified in Contract Documents; 2 years.

.2 Sealed glass units: misting, dusting and seal failure; 2 years.

.3 Sealants, caulking: failure to maintain seal; 2 years.

.4 Aluminum brake shapes: oil-canning and delaminations; 2 years.

.2 Provide Warranty for aluminum windows to include in maintenance manuals as specified in Section 01 78 00 – Closeout Submittals.

Part 2 Products

2.1 MANUFACTURERS

.1 Acceptable Manufacturers: Subject to compliance with requirements specified in this section and as established by the Basis of Design Materials, manufacturers offering other products that may be incorporated into the Work include, but are not limited to the following:

.1 A & D Prevost Inc.
.2 Alumicor Limited
.3 Columbia Skylights
.4 Ferguson Glass Western Ltd. (Engineered Aluminum Products Inc.)
.5 Kawneer Canada Ltd.

2.2 PERFORMANCE / DESIGN CRITERIA

.1 Wind loads: Provide Skylight system; include anchorage, capable of withstanding wind load design pressures based on the Alberta Building Code; 2014 Edition

.2 Air Infiltration: The test specimen shall be tested in accordance with ASTM E283. Air infiltration rate shall not exceed 0.06 cfm/ft2 (.0003 m3/s-m2) at a static air pressure differential of 6.24 PSF (300 Pa).

.3 Water Resistance (static): The test specimen shall be tested in accordance with ASTM E547. There shall be no leakage at static air pressure differentials of 10 PSF (479 Pa), 12 PSF (575 Pa) and 15 PSF (718 Pa).

.4 Uniform Load: A static air design load of 30 PSF (1437 Pa) shall be applied in the positive and negative direction in accordance with ASTM E330. There shall be no deflection in excess of L/175 of the span of any framing member at design load. At structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.

2.3 MATERIALS

.1 Basis of Design Materials:

.1 2000 Series Skylight, Kawneer Canada Ltd.

.2 Sheet aluminum: Alloy 1100, F temper, 1.5 mm (3/16”) or 3 mm (1/8”) minimum thickness, exposed sheet finished to match frames as specified above.

.3 Glass: Clear, as indicated in window schedule, sealed glass units as specified under Section 08 80 50 – Glass and Glazing.

.4 Fasteners: To ASTM A167, stainless steel, type 316 selected to prevent galvanic action with the components fastened, of suitable size to sustain imposed loads.

.5 Gaskets: Neoprene or EPDM with dimensional tolerances and durometer hardness and of suitable size and shape to meet the requirements of the specifications and their specific application. Gaskets shall be virgin material as manufactured by Tremco Ltd., Tremco Ltd. Gaskets shall conform to Tremco Information Bulletins:

.1 For EPDM - TDB-460-1

.2 For Neoprene - TDB-270-1

.6 Supporting angles, plates, bars, rods, and other steel accessories: Mild steel CAN3-G40.20/G40.21, shop painted with zinc chromate primer, thickness as required to sustain imposed loads and in no case less than 5 mm thick.

.7 Sealant: Including primer, joint filler, as specified in Section 07 92 00.

.8 Dielectric separator: Bituminous paint CAN/CGSB-1.108.

.9 Thermal separator: Polyvinylchloride, 50 Shore A durometer hardness +5.

.10 Glazing Tape: Refer to Section 08 80 50.

.11 Anchors: Three way adjustable anchors that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.

.12 Concealed Flashing: Manufacturer's standard corrosion resistant, non-staining, non-bleeding flashing compatible with adjacent materials.

.13 Metal air seal/vapour barrier (by window supplier) to be bonded to window frame and extend behind mounting frame. Seal all corners to maintain air sea/vapour retarder. Install flexible flashing with continuous metal retaining strip to lap to interior wall assembly.

2.4 FABRICATION

.1 Fit and assemble all Work in the shop insofar as practical.

.2 Carefully fit and match all Work for continuity of line and design, using rigidly secured joints with hairline contact, unless otherwise shown.

.3 Reinforce members and joints with steel plates, bars, rods or angles for rigidity and strength as needed to fulfill performance requirements. Use concealed stainless steel fasteners for jointing which cannot be welded.

.4 Separate unlike metals or alloys with a heavy coating of bituminous paint, separator gaskets or slip gaskets as required to prevent galvanic action.

.5 Provide weepholes in the glazing recess and an air seal at the interior glass line.

.6 Provide curbing as indicated on Drawings with negligible deflection under design loads.

.7 Provide bi-level drainage systems with no interruptions to rafter or purlin drainage plane are permitted.

2.5 FABRICATION - GLASS

.1 Glass fabrication specified under Section 08 80 50.

2.6 FINISHES

.1 Finish exposed surfaces of aluminum components in accordance with Aluminum Association Designation System for Aluminum Finishes.

.1 Anodized: Exposed aluminum surfaces shall be Aluminum Association (AA) Architectural Class II, AA-M12C22A31, clear anodized.

.2 Wood Finish: imitation wood finish, species look selected by Consultant

.3 Unexposed aluminum: Mill finish.

.2 Isolation Coating

.1 Isolate aluminum from following components, by means of isolation coating:

.1 Dissimilar metals except stainless steel, zinc, or white bronze of small area.

.2 Concrete, mortar and masonry.

.3 Wood.

.3 Non-exposed surfaces may be left natural.

Part 3 Execution

3.1 EXAMINATION

.1 Inspect Work and conditions affecting the Work of this Section. Proceed only after deficiencies have been corrected.

.2 Ensure that all flashings built-in or provided by others integrate with system to divert moisture to exterior.

.3 Ensure that all anchor blocks or inserts required to receive system are correctly located and installed.

.4 Ensure that all anchors and setting or installing components provided by this Section for installation are properly located and installed.

.5 Ensure that building air and vapour retarding membranes can be sealed to window units to maintain system integrity. Coordinate with materials installation specified in Section 07 21 19 – Foam-In-Place Insulation and Section 07 27 13 – Modified Bituminous Air and Vapour Barrier.

3.2 PREPARATION

.1 Obtain all dimensions from the job site.

.2 Provide data, dimensions and components, anchors and assemblies to be installed by others in proper time for installation.

3.3 ERECTION

.1 Erect Work in strict accordance with manufacturer's written instructions.

.2 Conceal all anchors and fitments. Exposed heads of fasteners not permitted. Joints in exposed work to be flush hairline butt joints.

.3 Install units level and plumb, securely anchored, and without distortion.

.4 Use anchors that will permit sufficient adjustment for accurate alignment. Make allowance for deflection of building structure.

.5 Build in and provide any supplementary reinforcing and bracing required by assembly loads and deflections.

.6 Secure Work adequately to structure in a manner not restricting thermal and wind movement.

.7 Correctly locate and install flashings, deflectors and weep holes to ensure proper drainage of moisture to exterior.

.8 Maintain alignment with adjacent Work.

.9 Isolate aluminum surfaces from adjacent dissimilar materials and metals with coatings of bituminous paint.

.10 Fill shim spaces at perimeter of assembly to maintain continuity of thermal barrier with foam-in-place insulation and seal with materials specified in Section 07 92 00 – Sealants.

3.4 GLAZING

.1 Ensure all stops, gaskets, splines, seals etc., are perfectly aligned and ready to receive glazing and insulated panels as specified herein.

.2 Install glazing to approved details and instruction, using material specified in accordance with manufacturer's instructions.

.3 Glazing stops, snap covers shall be of a continuous length from corner to corner, and be fitted at corners.

.4 All preformed tapes or gaskets shall be of a continuous length corner to corner and shall be cut over length to prevent stretching. Joints, splices and corners shall be mitred and sealed.

.5 Clean all contact surfaces of glazing with solvent and wipe dry. Ensure all glazing channels are clean, true to line, and free of dirt or debris and that weep and drainage vents are open.

.6 Rest glazing on setting blocks at 1/4 points.

.7 Install shims at sides to align glass units.

.8 Apply a full heel bead of non-drying non-skinning sealant to the interior perimeter of each glass unit to provide positive air/vapour seal to warm light of glass.

3.5 SEALANT

.1 Caulk and seal full perimeter of windows to building air/vapour retarder to provide and maintain the designed air/vapour/thermal barrier integrity and weather tightness.

.2 Install sealants and back-up materials in strict accordance with manufacturer's written instruction.

3.6 FIELD QUALITY CONTROL

.1 Field Tests: Consultant shall select skylight units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer’s representative present. Tests not meeting specified performance requirements and units having deficiencies shall be corrected as part of the contract amount.

.1 Testing: Testing shall be performed per AAMA 503 by a qualified independent testing agency. Refer to Testing Section for payment of testing and testing requirements.

.1 Air Infiltration Tests: Conduct tests in accordance with ASTM E783. Allowable air infiltration shall not exceed 1.5 times the amount indicated in the performance requirements or 0.09 cfm/ft2, which ever is greater.

.2 Water Infiltration Tests: Conduct tests in accordance with ASTM E1105. No uncontrolled water leakage is permitted when tested at a static test pressure of two-thirds the specified water penetration pressure but not less than 8 PSF (383 Pa).

.2 Manufacturer’s Field Services: Upon Departmental Representative’s written request, provide periodic site visit by manufacturer’s field service representative.

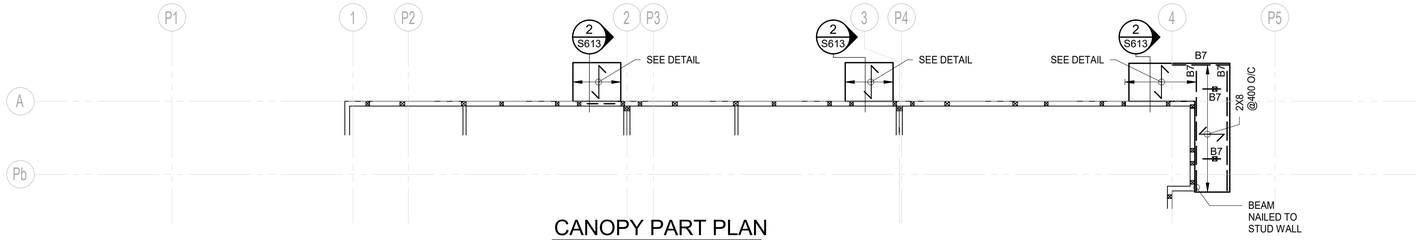
3.7 CLEANING

.1 At completion and continuously as Work proceeds, remove all surplus materials, debris and scrap.

.2 At completion of Work, remove all protective surface covering film and wrappings. Clean all glass, panels and frames using mild soap or other cleaning agent approved by manufacturer.

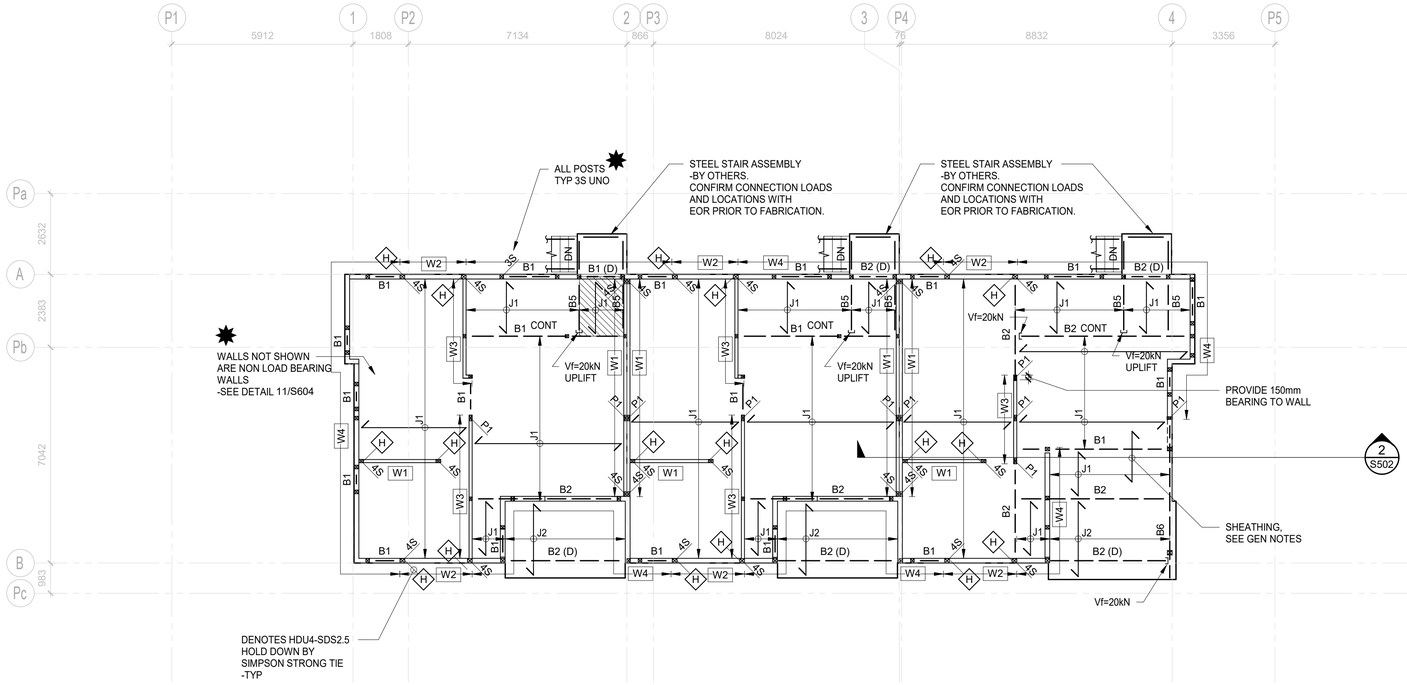
.3 Remove all excess glazing or joint sealing materials from exposed surfaces. Clean and polish glass.

END OF SECTION



CANOPY PART PLAN

1 : 100
NAM/LCB



MAIN FLOOR PLAN, SECOND FLOOR FRAMING OVER

1 : 100
NAM/LCB

WOOD POST SCHEDULE

Type Mark	Description
P1	3 1/4"x7" 2.2E PSL

JOIST SCHEDULE

TYPE MARK	DESCRIPTION
J1	11 7/8" DP TJI 230 @400 o/c OPTION: SPF 2x12 @ 300/400 o/c
J2	SPF 2x10 @ 400 o/c
J3	SPF 2x12 @ 300 o/c

WOOD BEAM SCHEDULE

Type Mark	Description
B1	2 PLY SPF 2x12
B2	5 1/4" x 11 7/8" 2.0E PSL
B3	5 1/4" x 16" 2.0E PSL
B4	5 1/4" x 11 7/8" 2.0E PSL
B5	7" x 7" 2.0E PSL
B6	5 1/4" x 9 1/2" 2.2E PSL
B7	2 PLY SPF 2x8

10 (D) DENOTES DROPPED BEAM

LEGEND:

SEE DRAWING S111 FOR LEGEND

FLOOR FRAMING NOTES (UNO):

1. POSTS UNDER BUILT-UP BEAMS TO HAVE STUD LAMINATIONS EQUAL TO NUMBER OF BEAM LAMINATIONS.
2. FOR SIZE AND SPACING OF WALL STUDS, SEE WALL SCHEDULE.
3. PROVIDE TOP MOUNTED HANGERS FOR ALL FLUSH CONNECTIONS BETWEEN PARALLAM BEAMS.
4. PROVIDE STANDARD METAL COLUMN CAPS AND BASES FOR ALL EXTERIOR WOOD POSTS OR STAND ALONE POSTS.
5. ALL METAL CONNECTORS TO BE MANUFACTURED BY MGA CONNECTORS, SIMPSON STRONG TIE OR APPROVED EQUAL.
6. ALL METAL CONNECTORS, BOLTS, NAILS, AND OTHER METAL PRODUCTS IN POTENTIALLY MOIST CONDITIONS OR IN CONTACT WITH ANY PRESERVATIVE TREATED WOOD MUST AS A MINIMUM BE EITHER G185 GALVANIZED, HOT DIP GALVANIZED, OR STAINLESS STEEL.

GSW-NTS1A-7

SEE DWG S121 FOR DIMENSION CONVERSIONS

PWGSC - A1 - 841 X 594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

Glotman · Simpson
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www.glotmansimpson.com

No:	Description:	Date:
10	Tender Addendum	2019-07-31
9	Issued for Tender/BP	2019-07-19
8	Issued for Tender	2019-04-03
7	Issued for 99%IFT	2019-03-27
6	Issued for 99%IFC	2018-12-13
5	Issued for 99%IFC	2018-04-12
4	Issued for 99%IFC	2018-03-08
3	Issued for 60%CD	2018-02-08
2	Detailed Design	2017-12-13
1	Issued for 50% DD	2017-11-09

Revisions

Revision / Revision | Description / Description | Date / Date
Client / client

Parks Canada Parcs Canada

Project title/Titre du projet

Banff National Park
Banff, Alberta

PCA - STAFF HOUSING
329 MARTEN STREET

Approved by/Approuve par
Approver

Designed by/Concept par
Designer

Drawn by/Dessine par
Author

Project Manager/Administrateur de Projets

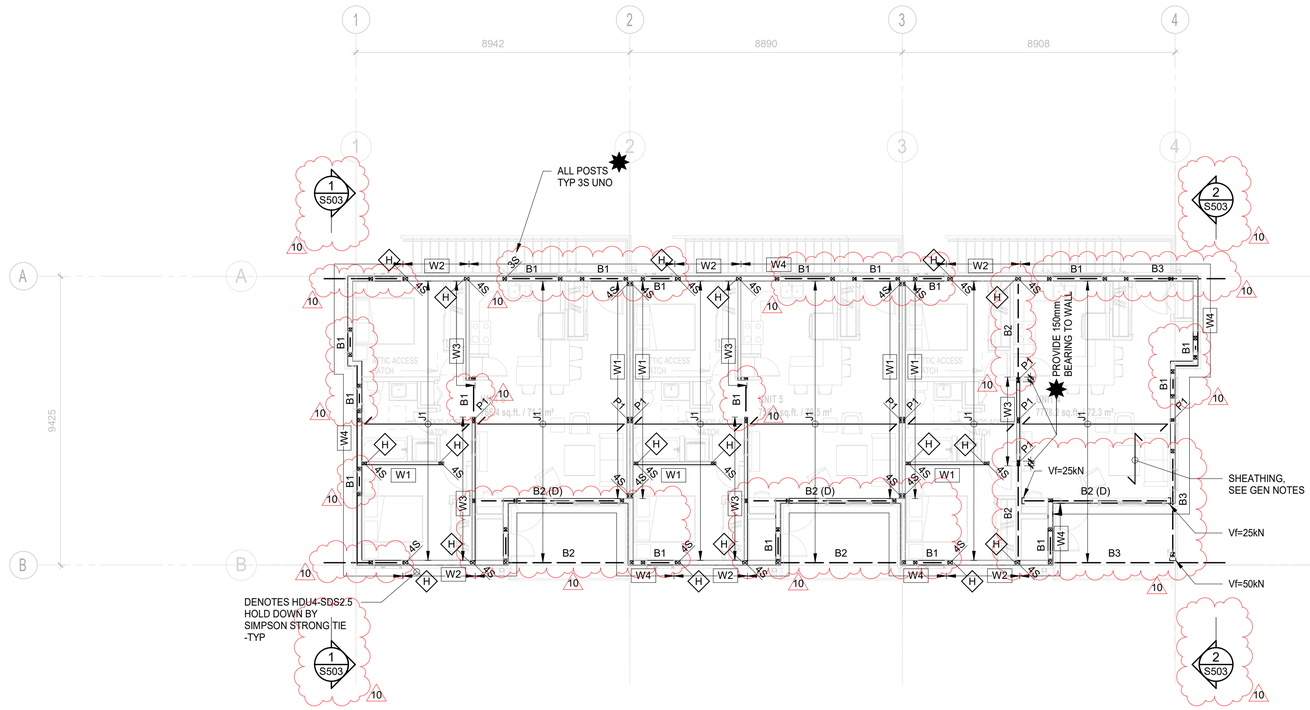
Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie

Client / client
Parks Canada

Drawing title / Titre du dessin

MAIN FLOOR PLAN, SECOND FLOOR FRAMING OVER

Project No. / No. du project	Sheet / Feuille	Revision no. / La Révision no.
	S203	9



SECOND FLOOR PLAN, ATTIC FRAMING OVER

1 : 100
NAM/LCB

NOTE: STICK FRAMED ATTIC AND ROOF FRAMING MAY BE SUBSTITUTED FOR PREFABRICATED WOOD TRUSS FRAMING DESIGNED BY OTHERS. TRUSS DESIGNER TO ENSURE LOAD BEARING ELEMENTS UTILIZE ONLY EXTERIOR WALLS AND CENTERLINE BUILDING RIDGE BEAM. PROVIDE EOR WITH SHOP DRAWINGS TO REVIEW PRIOR TO FABRICATION.

WOOD POST SCHEDULE

Type Mark	Description
P1	3 1/4"x7" 2.2E PSL

JOIST SCHEDULE

TYPE MARK	DESCRIPTION
J1	11 7/8" DP TJI 230 @400 o/c OPTION: SPF 2x12 @ 300/400 o/c
J2	SPF 2x10 @ 400 o/c
J3	SPF 2x12 @ 300 o/c

WOOD BEAM SCHEDULE

Type Mark	Description
B1	2 PLY SPF 2x12
B2	5 1/4" x 11 7/8" 2.0E PSL
B3	5 1/4" x 16" 2.0E PSL
B4	5 1/4" x 11 7/8" 2.0E PSL
B5	7" x 7" 2.0E PSL
B6	5 1/4" x 9 1/2" 2.2E PSL
B7	2 PLY SPF 2x8

10 (D) DENOTES DROPPED BEAM

LEGEND:

SEE DRAWING S111 FOR LEGEND

FLOOR FRAMING NOTES (UNO):

1. POSTS UNDER BUILT-UP BEAMS TO HAVE STUD LAMINATIONS EQUAL TO NUMBER OF BEAM LAMINATIONS.
2. FOR SIZE AND SPACING OF WALL STUDS, SEE WALL SCHEDULE.
3. PROVIDE TOP MOUNTED HANGERS FOR ALL FLUSH CONNECTIONS BETWEEN PARALLAM BEAMS.
4. PROVIDE STANDARD METAL COLUMN CAPS AND BASES FOR ALL EXTERIOR WOOD POSTS OR STAND ALONE POSTS.
5. ALL METAL CONNECTORS TO BE MANUFACTURED BY MGA CONNECTORS, SIMPSON STRONG TIE OR APPROVED EQUAL.
6. ALL METAL CONNECTORS, BOLTS, NAILS, AND OTHER METAL PRODUCTS IN POTENTIALLY MOIST CONDITIONS OR IN CONTACT WITH ANY PRESERVATIVE TREATED WOOD MUST AS A MINIMUM BE EITHER G185 GALVANIZED, HOT DIP GALVANIZED, OR STAINLESS STEEL.

GSW-NTS1A-7

SEE DWG S121 FOR DIMENSION CONVERSIONS

PWGSC - A1 - 841 X 594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada
Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

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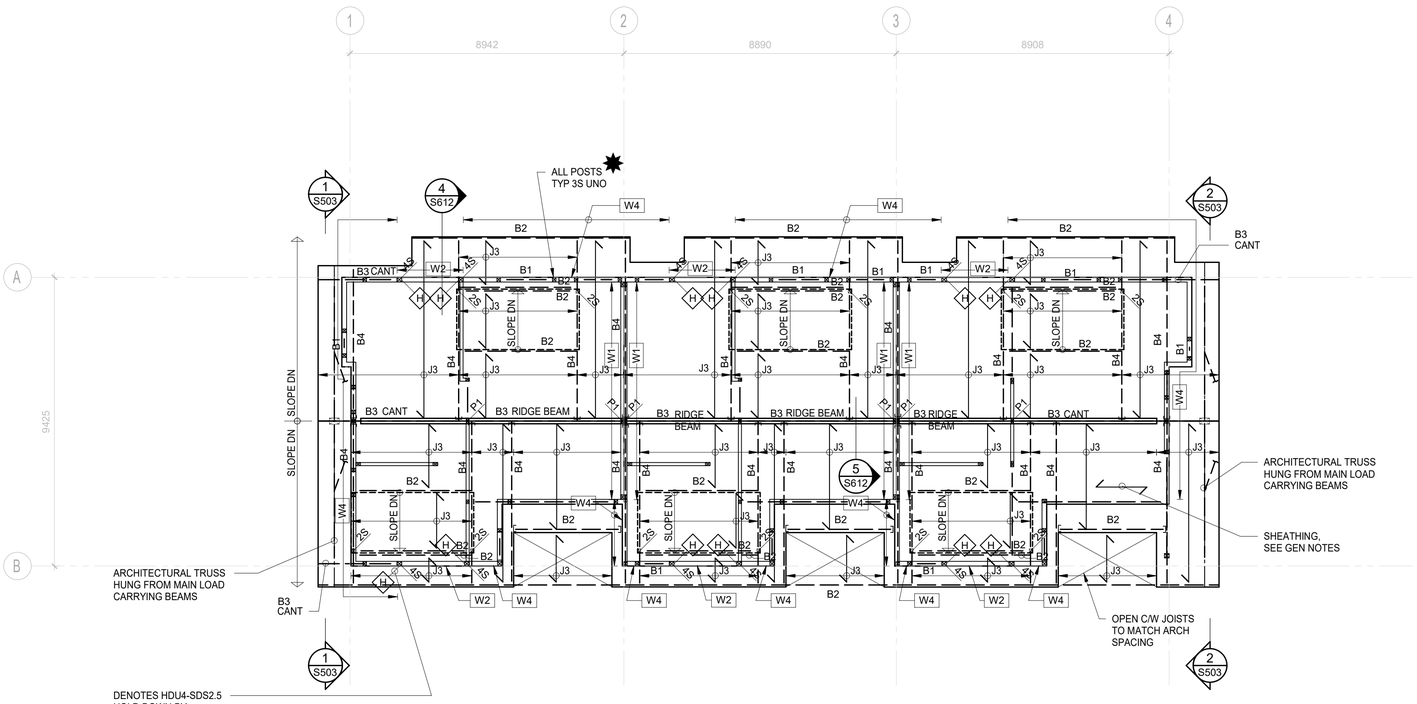
SECOND FLOOR PLAN, ATTIC FRAMING OVER

Project No. / No. du project	Sheet / Feuille	Revision no. / La Révision no.
	S204	9



SECOND FLOOR PLAN, ROOF FRAMING OVER

1 : 100
NAM/LCB

NOTE: STICK FRAMED ATTIC AND ROOF FRAMING MAY BE SUBSTITUTED FOR PREFABRICATED WOOD TRUSS FRAMING DESIGNED BY OTHERS. TRUSS DESIGNER TO ENSURE LOAD BEARING ELEMENTS UTILIZE ONLY EXTERIOR WALLS AND CENTERLINE BUILDING RIDGE BEAM. PROVIDE EOR WITH SHOP DRAWINGS TO REVIEW PRIOR TO FABRICATION.

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TYPE MARK	DESCRIPTION
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B6	5 1/4" x 9 1/2" 2.2E PSL
B7	2 PLY SPF 2x8

10 (D) DENOTES DROPPED BEAM

LEGEND:

SEE DRAWING S111 FOR LEGEND

ROOF FRAMING NOTES (UNO):

1. POSTS UNDER BUILT-UP BEAMS TO HAVE STUD LAMINATIONS EQUAL TO NUMBER OF BEAM LAMINATIONS.
2. FOR SIZE AND SPACING OF WALL STUDS, SEE STUD WALL SCHEDULE ON DWG.
3. ALL METAL CONNECTORS, BOLTS, NAILS, AND OTHER METAL PRODUCTS IN POTENTIALLY MOIST CONDITIONS OR IN CONTACT WITH ANY PRESERVATIVE TREATED WOOD MUST AS A MINIMUM BE EITHER G185 GALVANIZED, HOT DIP GALVANIZED, OR STAINLESS STEEL.

GSW-NTS1B-8

SEE DWG S121 FOR DIMENSION CONVERSIONS

PWGSC - A1 - 841 X 594

0 10 20 30 40 50 60 70 80 90 100mm

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SECOND FLOOR PLAN, ROOF FRAMING OVER

Project No. / No. du project	Sheet / Feuille	Revision no. / La Révision no.
	S205	9