

CENTRE FOR AQUACULTURE & ENVIRONMENTAL RESEARCH NEW LABS

DRAWING LIST

ARCHITECTURAL

| | |
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| A0.00 | COVER SHEET, LIST OF DRAWINGS LEGEND, ASSEMBLIES, ABBREVIATIONS, NOTES |
| A1.01 | LOCAL SITE PLAN |
| A1.02 | OVERALL SITE PLAN |
| A2.01 | FLOOR PLANS FOUNDATION & FRAMING PLAN |
| A3.01 | FEED LAB EXTERIOR ELEVATIONS |
| A3.02 | ACOUSTICS LAB EXTERIOR ELEVATIONS |
| A4.01 | SECTIONS |
| A6.01 | DETAILS |
| A6.02 | DETAILS |
| A6.03 | DETAILS |
| A6.04 | DETAILS |
| A6.05 | ACOUSTIC LABS STAIR DETAIL |
| A6.06 | FEED LAB RAMP DETAIL |
| A7.01 | INTERIOR ELEVATIONS |
| A7.02 | MILLWORK DETAILS |
| A8.01 | DOOR, WINDOW, & FINISH SCHEDULES, EQUIPMENT TO BE RELOCATED |

STRUCTURAL

| | |
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| S1.01 | STRUCTURAL NOTES |
| S2.01 | FOUNDATION PLAN, SECTIONS AND DETAILS |
| S2.02 | FLOOR FRAMING PLAN, DETAILS AND SECTIONS |

STRUCTURAL (ALUMINUM FRAME ASSEMBLY)

| | |
|------|---|
| SH1 | STRUCTURAL ALUMINUM FRAME, 3D GENERAL ARRANGEMENT, GENERAL NOTES, DRAWING INDEX AND LEGEND |
| SH2 | STRUCTURAL ALUMINUM FRAME, ROOF FRAMING PLAN AND ROOF FRAMING DETAIL |
| SH3 | STRUCTURAL ALUMINUM FRAME, FLOOR FRAMING PLAN AND ROOF FRAMING PLAN |
| SH4 | STRUCTURAL ALUMINUM FRAME, COLUMN PLAN AND DETAILS |
| SH5 | STRUCTURAL ALUMINUM FRAME, COLUMN BASES PLAN AND CABLE BRACING GUSSET PLATE PLAN, SECTIONS AND DETAILS |
| SH6 | STRUCTURAL ALUMINUM FRAME, HALF CROSS SECTIONS |
| SH7 | STRUCTURAL ALUMINUM FRAME, KNEE BRACING AND ROOF BEAM CONNECTION DETAILS, SHEET 1 OF 2 |
| SH8 | STRUCTURAL ALUMINUM FRAME, KNEE BRACING AND ROOF BEAM CONNECTION DETAILS, SHEET 2 OF 2 |
| SH9 | STRUCTURAL ALUMINUM FRAME, ROOF FRAMING AND FLOOR FLOOR FRAMING, SECTIONS AND DETAILS |
| SH10 | STRUCTURAL ALUMINUM FRAME, COLUMN BASE MK-C81, SECTIONS AND DETAILS |
| SH11 | STRUCTURAL ALUMINUM FRAME, COLUMN BASE MK-C82 AND COLUMN BASE MK-C83, SECTIONS AND DETAILS |

MECHANICAL

| | |
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| M1.01 | ACOUSTIC LAB & FEED LAB - MECHANICAL AND PLUMBING PLANS |
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ELECTRICAL

| | |
|------|--|
| E1.0 | SITE PLAN, LEGEND AND SCHEDULES |
| E2.0 | LAB POWER AND LIGHTING LAYOUTS AND DETAILS |

CIVIL

| | |
|------|-------------------------|
| C1.0 | SITE PLAN AND SERVICING |
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GENERAL NOTES:

- DO NOT SCALE DRAWING.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DATUMS, AND LEVELS PRIOR TO COMMENCEMENT OF WORK. ALL ERRORS AND OMISSIONS TO BE REPORTED TO THE DEPARTMENTAL REPRESENTATIVE BEFORE PROCEEDING.
- VARIATIONS AND MODIFICATIONS TO WORK SHOWN ON THESE DRAWINGS SHALL NOT BE CARRIED OUT WITHOUT WRITTEN PERMISSION OF DEPARTMENTAL REPRESENTATIVE.
- ALL DIMENSIONS ARE TO GRIDLINES, FACE OF CONCRETE, FACE OF STUDS OR CENTERLINE OF COLUMNS UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE METRIC (mm) UNLESS NOTED OTHERWISE.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH AND COORDINATED WITH THE SPECIFICATIONS AND THE DOCUMENTS OF THE OTHER DISCIPLINES THAT FORM THE FULL CONTRACT DOCUMENT PACKAGE. WHERE CONFLICT EXISTS BETWEEN DOCUMENTS, THESE ARE TO BE REPORTED TO THE DEPARTMENTAL REPRESENTATIVE BEFORE PROCEEDING.
- ENSURE COMPATIBILITY OF METAL FASTENERS, SHEET METALS AND OTHER METAL ITEMS WITH EACH OTHER AND WITH PRESSURE TREATED WOOD. PROVIDE ISOLATION WHERE REQUIRED. ALWAYS ISOLATE P.T. WOOD FROM METALS.

WALL ASSEMBLIES

W1 TYPICAL EXTERIOR WALL ASSEMBLY
PREFAB EPS WALL PANEL
METAL SKIN (PREFINISHED)
R24 RIGID INSULATION 152mm THICK PANEL
METAL SKIN (PREFINISHED)
ALUMINIUM FRAME

W2 TYPICAL EXTERIOR WALL ASSEMBLY
(FRR 45 MINUTE)
PREFAB EPS WALL PANEL
METAL SKIN (PREFINISHED)
R24 RIGID INSULATION 152mm THICK PANEL
METAL SKIN (PREFINISHED)
12mm AIR SPACE
92mm STEEL STUD @400 O.C.
16mm TYPE X GWB

P1 INTERIOR COOLER WALL
PREFAB EPS WALL PANEL
METAL SKIN (PREFINISHED)
R24 RIGID INSULATION 152mm THICK PANEL
METAL SKIN (PREFINISHED)

P2 TYPICAL INTERIOR PARTITION
16mm GYPSUM WALL BOARD
92mm STEEL STUD @400 O.C.
16mm GYPSUM WALL BOARD

P3 INSULATED INTERIOR PARTITION
16mm GYPSUM WALL BOARD
92mm STEEL STUD @400 O.C.
SOUND BATT INSULATION TO FILL CAVITY
16mm GYPSUM WALL BOARD

P4 COOLER WALL AT SHELVES
PREFAB EPS WALL PANEL
METAL SKIN (PREFINISHED)
R24 RIGID INSULATION 152mm THICK PANEL
METAL SKIN (PREFINISHED)
92mm STEEL STUD @400 O.C.
16mm TYPE X GWB
LAB SIDE

P5 INTERIOR PARTITION
16mm GYPSUM WALL BOARD
140mm STEEL STUD @400 O.C.
16mm GYPSUM WALL BOARD

ROOF ASSEMBLIES

R1 TYPICAL ROOF ASSEMBLY
EPS ROOF PANEL: PREFIN. METAL SKIN, EPS INSULATION (R32 203mm),
METAL SKIN

FLOOR ASSEMBLIES

F1 TYPICAL FLOOR ASSEMBLY
FLOORING - SEE SCHEDULE
8mm PLYWOOD FINISHED FLOOR UNDERLAYMENT
19mm EXTERIOR GRADE PLYWOOD OVERLAY
R32 (203mm) INSULATED FLOOR PANEL
GALVANIZED STEEL DECKING
PEEL AND STICK ISOLATION MEMBRANE
ALUMINIUM FRAME - SEE STRUCT.

LEGEND:

| | |
|------------------|---|
| # | DETAIL NUMBER |
| A.XX | SHEET NUMBER |
| ◇ | ASSEMBLY TYPE R-ROOF, F-FLOOR W-WALL, P-PARTITION |
| # | GRID MARKER |
| 000 | DOOR NUMBER |
| 00 | WINDOW NUMBER |
| ➤ | SECTION CUT DIRECTION MARKER |
| ROOM NAME 000 | ROOM NAME ROOM NUMBER |
| ACT 2438 | FINISH TYPE HEIGHT ABOVE FINISHED FLOOR |
| 7 | MILLWORK ELEVATIONS |

ABBREVIATIONS:

| | | | |
|----------|------------------------------|---------|-------------------------------|
| AB | AIR BARRIER | (N) | NEW |
| ACM | ASBESTOS CONTAINING MATERIAL | N.I.C. | NOT IN CONTRACT |
| ACT | ACOUSTIC CEILING TILE | N.T.S. | NOT TO SCALE |
| ALT. | ALTERNATE | O.C. | ON CENTER |
| ALUM. | ALUMINIUM | OP. | OPERABLE |
| ANOD. | ANODIZED | PT | PAINT |
| A.F.F. | ABOVE FINISH FLOOR | P.O. | POWER OPERATOR |
| BLDG. | BUILDING | P.T. | PRESSURE TREATED |
| CARP. | CARPET | RB | RUBBER BASE |
| CARP. T. | CARPET TILE | RCP | REFLECTED CEILING PLAN |
| C.C. | CENTER TO CENTER | RE & RE | REMOVE & RELOCATE / REINSTATE |
| C.O. | CLEAN OUT | RM. | ROOM |
| C.J. | CONTROL JOINT | SAM | SELF ADHESIVE MEMBRANE |
| C/W | COMPLETE WITH | SAN | SANITARY |
| CONC. | CONCRETE | SEP | SEPARATION |
| D.G. | DOUBLE GLAZED | SG | SHEET GOODS FLOORING |
| (E) | EXISTING | SIM. | SIMILAR |
| ELECT. | ELECTRICAL | SQ. | SQUARE |
| F.E. | FIRE EXTINGUISHER | S.S. | STAINLESS STEEL |
| F.E.C. | FIRE EXTINGUISHER CABINET | ST | STEEL |
| FIN. | FINISH | STRUCT. | STRUCTURAL |
| FNDT. | FOUNDATION | SV | SHEET VINYL |
| FRR | FIRE RESISTANCE RATING | TBD | TO BE DETERMINED |
| FTG | FOOTING | T.G. | TRIPPLE GLAZED |
| FTG | GYPSUM WALL BOARD | THLD. | THRESHOLD |
| GA | GAUGE | T.O. | TOP OF |
| G.I. | GALVANIZED | TYP. | TYPICAL |
| H.M. | HOLLOW METAL | U.G. | UNDER GROUND |
| HDWR | HARDWARE | U.N.O. | UNLESS NOTED OTHERWISE |
| HORIZ. | HORIZONTAL | US | UNDERSIDE |
| INSUL. | INSULATION | VB | VAPOUR BARRIER |
| MATL. | MATERIAL | VERT. | VERTICAL |
| MECH. | MECHANICAL | VCT | VINYL COMPOSITE TILE |
| MEMB | MEMBRANE | W/ | WITH |
| MB | MOISTURE BARRIER | WD. | WOOD |
| MIN. | MINIMUM OR MINUTES | W/O | WITH OUT |

| | | | | | |
|---|--|--|--------------|----------------------------------|-------------|
| Name of Project: Building 109 Location: 19 Wing Comox, Lazo BC | | Part 3 | | NBC 2010 Reference | |
| Item | 2010 National Building Code Data Matrix | | | | |
| 1 | Project Description: - <input type="checkbox"/> New <input type="checkbox"/> Addition <input checked="" type="checkbox"/> Renovation 2 New Modular Buildings - Aluminium frame with metal faced rigid insulation panels. | | | | |
| 2 | Building Area (m ²): 58.2 sq.m. | | | 1.4.1.2[A] | |
| 3 | Number of Storeys: 1 | | | 1.4.1.2[A], 3.2.1.1 | |
| 4 | Separation of Occupancies: N/A | | | 3.1.3.1 | |
| 5 | Number of Streets/Access Routes: 1 | | | 3.2.2.10 | |
| 6 | Major Occupancy(s): Acoustics Lab: Group D- Offices Feed Lab Group F - Division 3 | | | 3.2.2.62 3.2.2.85 | |
| | Required Fire Resistance Rating (FRR) | Fire Resistance Ratings (Hours) | | Listed Design No. or Description | |
| | Roof | N/A - 0 Hrs. | | See Assemblies | |
| | Floors | N/A - 0 Hrs. | | | |
| | Supporting Walls | N/A - 0 Hrs. | | | |
| 7 | Sprinkler System Proposed: <input type="checkbox"/> Entire Building <input checked="" type="checkbox"/> No | | | - | |
| 8 | Standpipe Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | 3.2.5.8 | |
| 9 | Fire Alarm Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | 3.2.4 | |
| 10 | Water Service/Supply is Adequate: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | 3.2.5.7 | |
| 13 | High Building: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | 3.2.6 | |
| 14 | Permitted Construction: <input type="checkbox"/> Combustible <input checked="" type="checkbox"/> Non-Combustible <input checked="" type="checkbox"/> Both Actual Construction: <input checked="" type="checkbox"/> Combustible <input type="checkbox"/> Non-Combustible <input type="checkbox"/> Both | | | 3.2.2.20-83 | |
| 15 | Spatial Separation - South Exterior Wall - Acoustics Lab only: | | | 3.2.3.1-B 3.2.3.7 | |
| | Area of Wall (m ²) | L.D. (m ²) | L.H. or H.L. | Permitted % of Openings | FRR (hours) |
| | 21.5 sq.m | 1.8m | N/A | 10% | .75 Hours |
| 16 | Occupant Load Based On: <input checked="" type="checkbox"/> m ² /person <input type="checkbox"/> Design of Building | | | 3.1.1.7 | |
| | Acoustics Lab | 58.2 sq.m. / 9.3 sq.m/person = | 6 persons | | |
| | Feed Lab | 34.2 sq.m. manufacture / 4.6 sq.m/person = | 7 | | |
| | | 18 sq.m. storage / 28 sq.m/person = | 1 | | |
| | | Total | 8 Persons | | |
| 17 | Barrier-Free Design: <input checked="" type="checkbox"/> Yes (Feed Lab) <input checked="" type="checkbox"/> No (Acoustics Lab) -Barrier free accommodated in adjacent building | | | 3.8 | |

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MODULAR LABS

4160 Marine Dr, West Vancouver

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RH

Drawn by/Dessiné par

CM

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COVER SHEET, LIST OF DRAWINGS, LEGEND, ASSEMBLIES, ABBREVIATIONS, NOTES

Project No./No. du projet

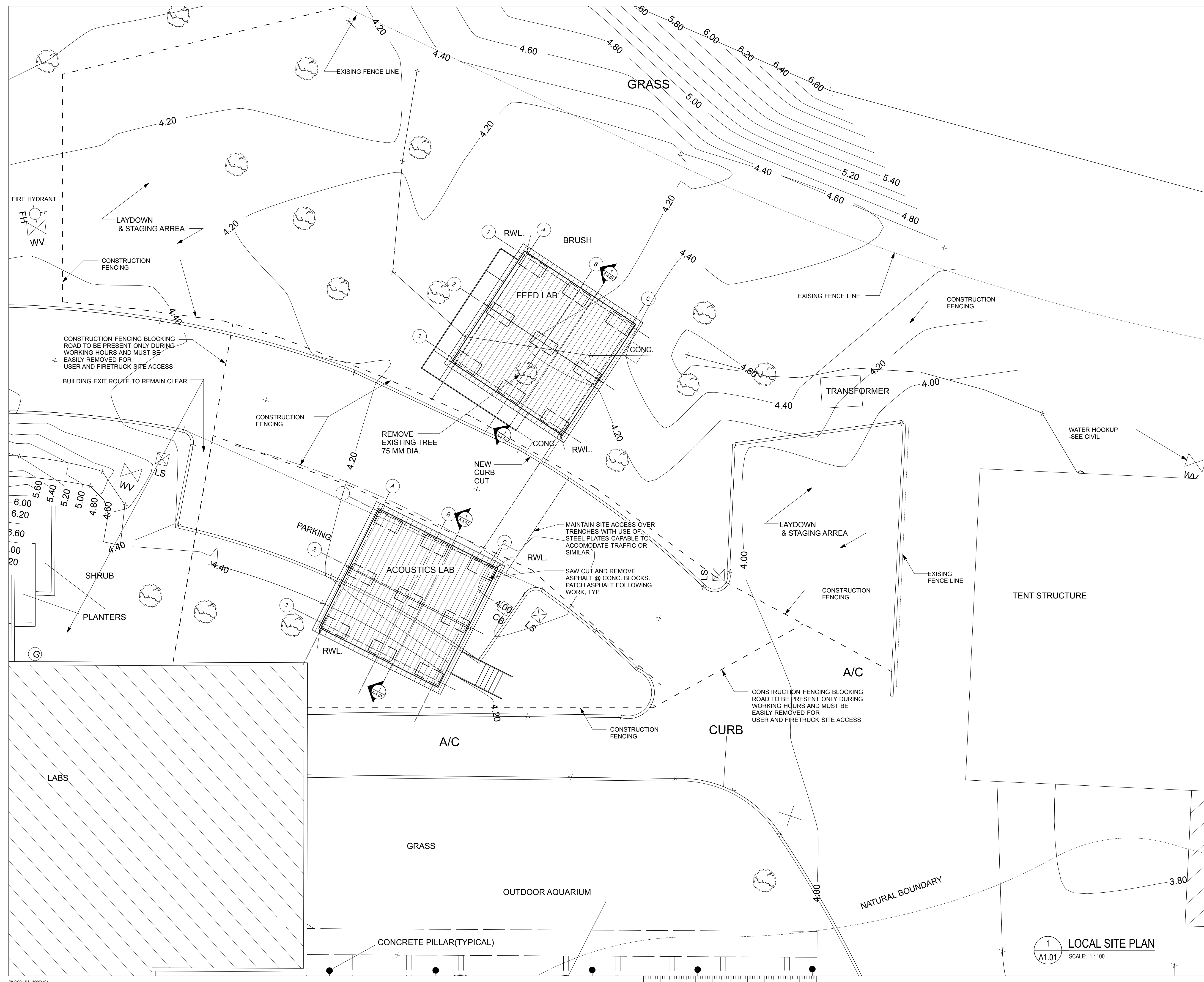
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Revision no./
La Révision no.

2



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| 2 | 100% REVIEW | 2017-11-30 |
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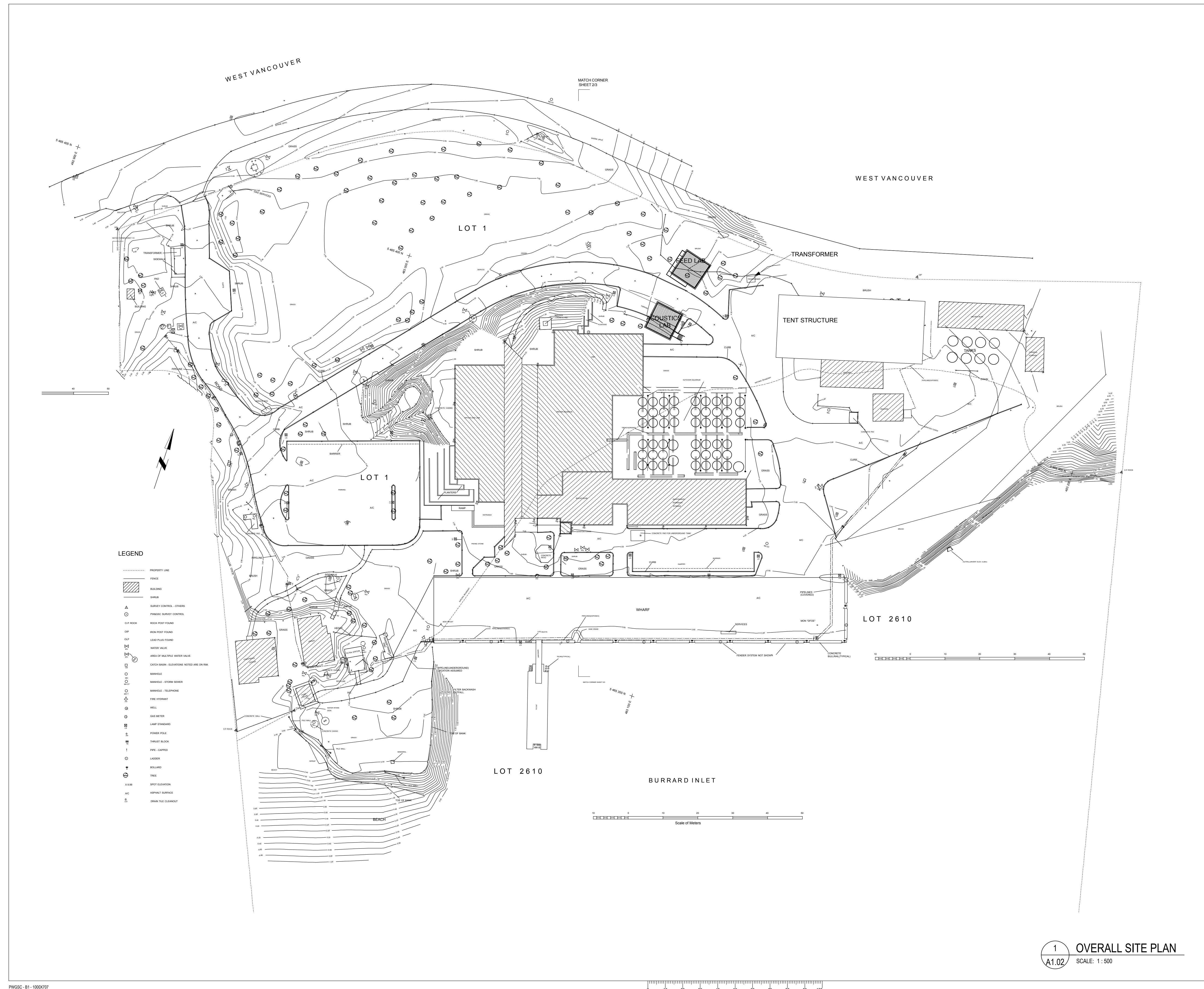
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LOCAL SITE PLAN

| | | |
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| - | A1.01 | 2 |

1 LOCAL SITE PLAN
 SCALE: 1:100





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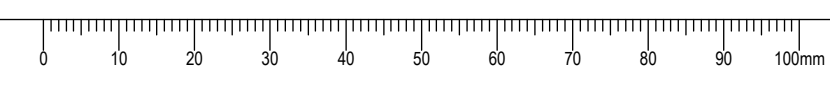
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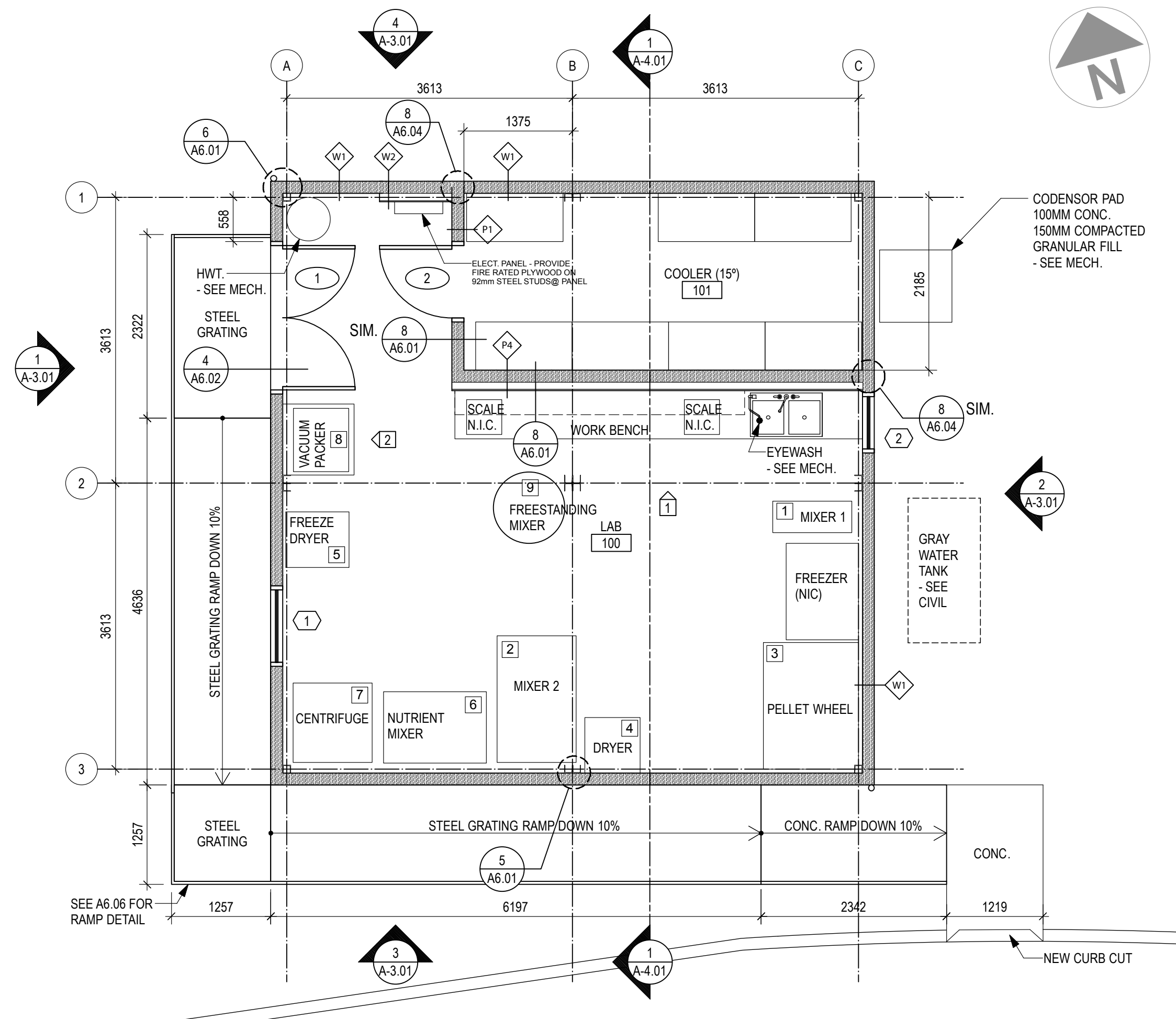
OVERALL SITE PLAN

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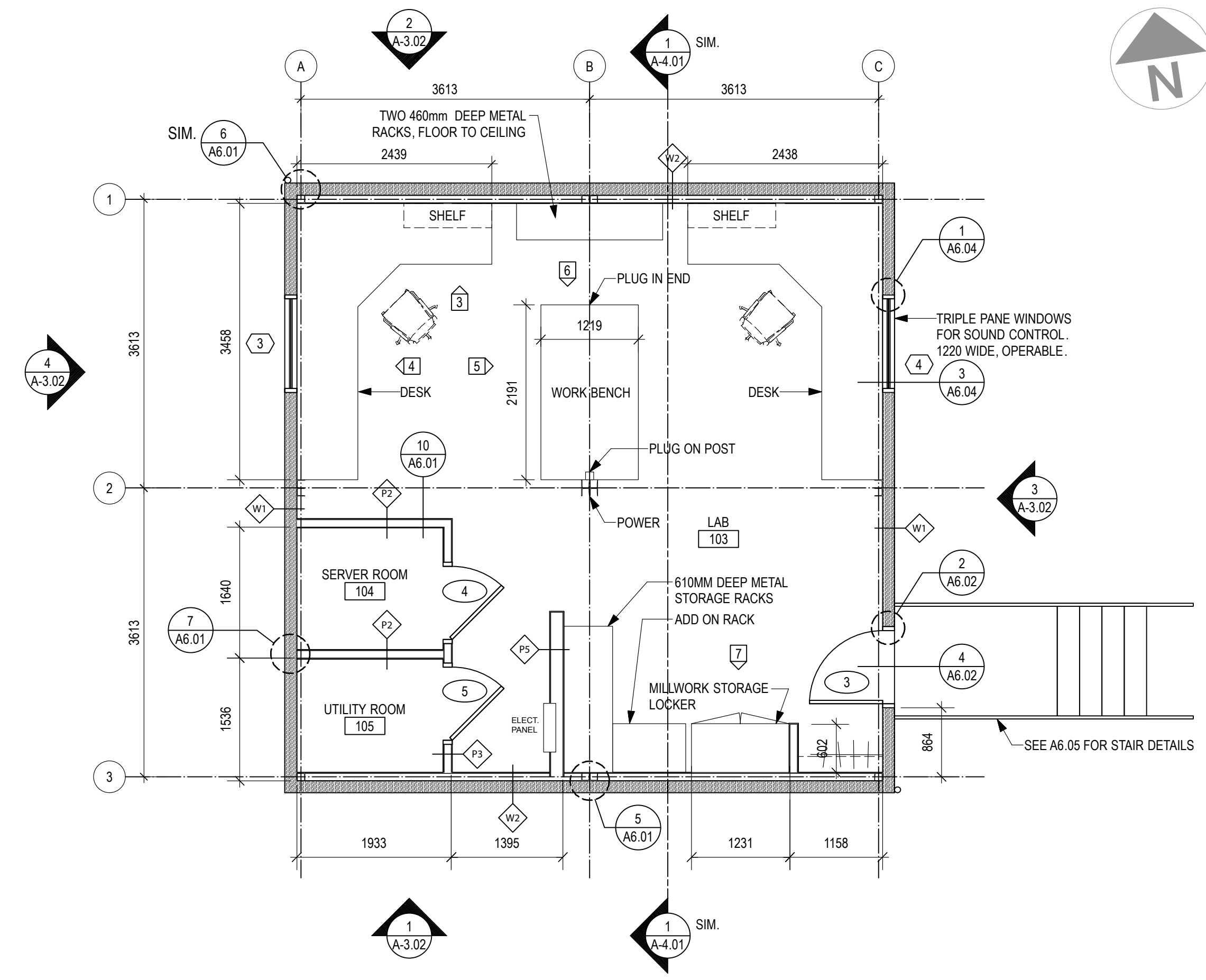
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A1.02



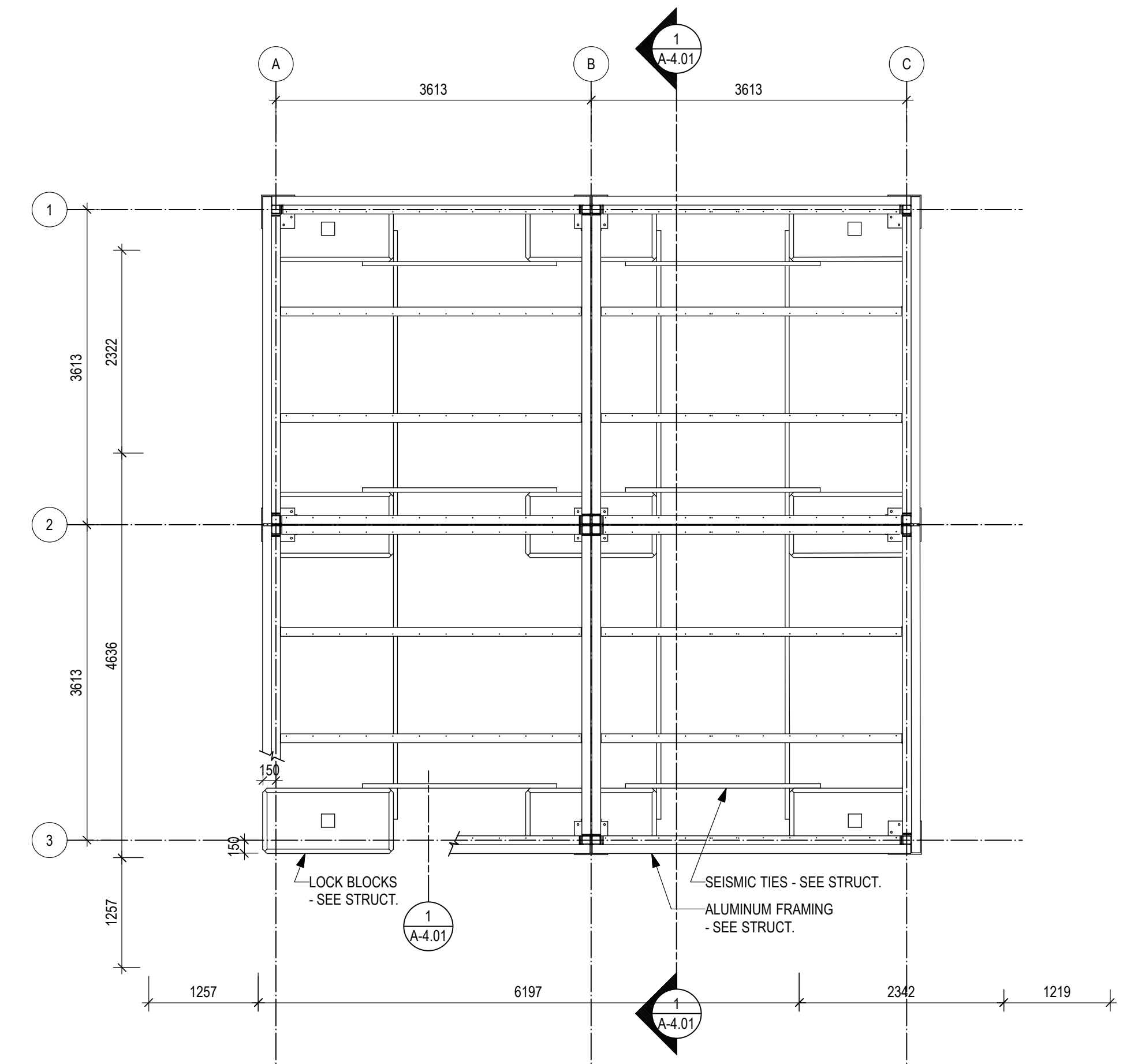
7 SEE A7.01 FOR ELEVATIONS



1 FLOOR PLAN - FEED LAB
 A2.01 SCALE: 1 : 50



2 FLOOR PLAN - ACOUSTICS LAB
 A2.01 SCALE: 1 : 50



3 FOUNDATION & FRAMING PLAN
 A2.01 SCALE: 1 : 50

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| 1 | INSULATED PANEL LAYOUT | 2017-11-17 |
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FLOOR PLANS
FOUNDATION &
FRAMING PLAN

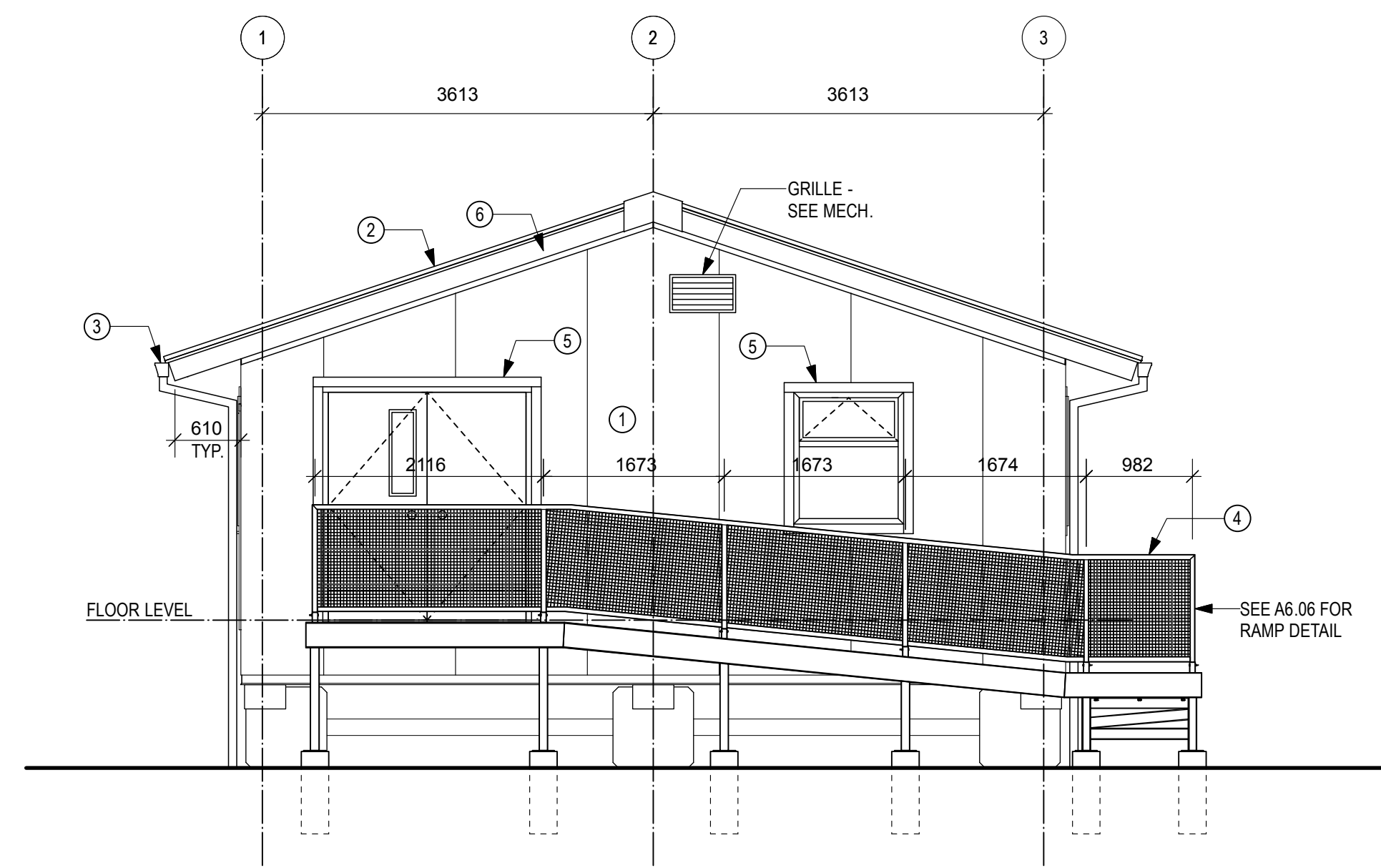
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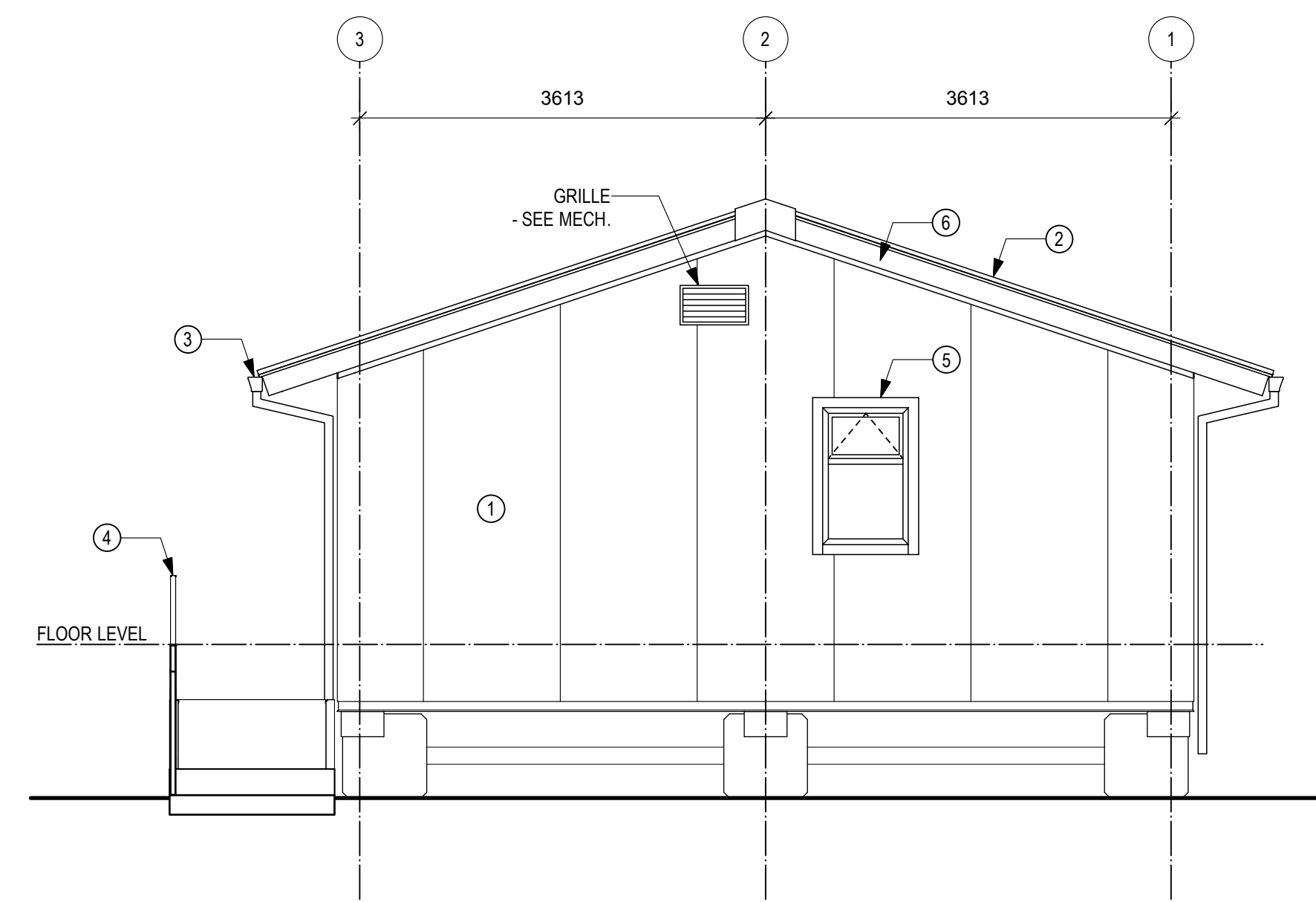


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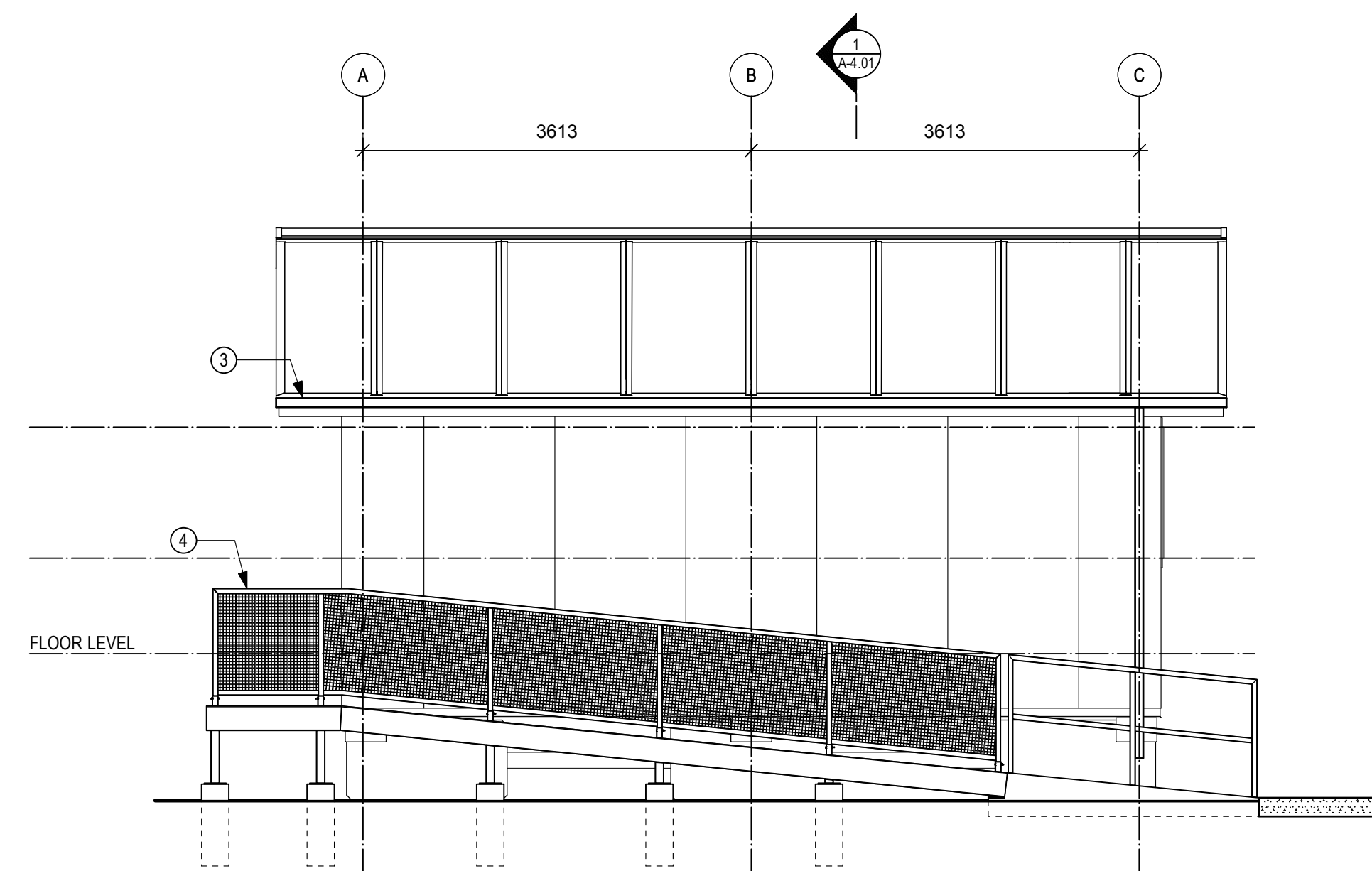
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- ② METAL ROOF
- ③ ALUMINUM GUTTER & DOWN SPOUT
- ④ STEEL STAIRS, RAMP & RAILINGS
- ⑤ PREFINISHED GALVANIZED STEEL BATTEN FRAME, CONSULTANTS TO SELECT COLOUR FROM STANDARD RANGE
- ⑥ ALUM. FLASHING



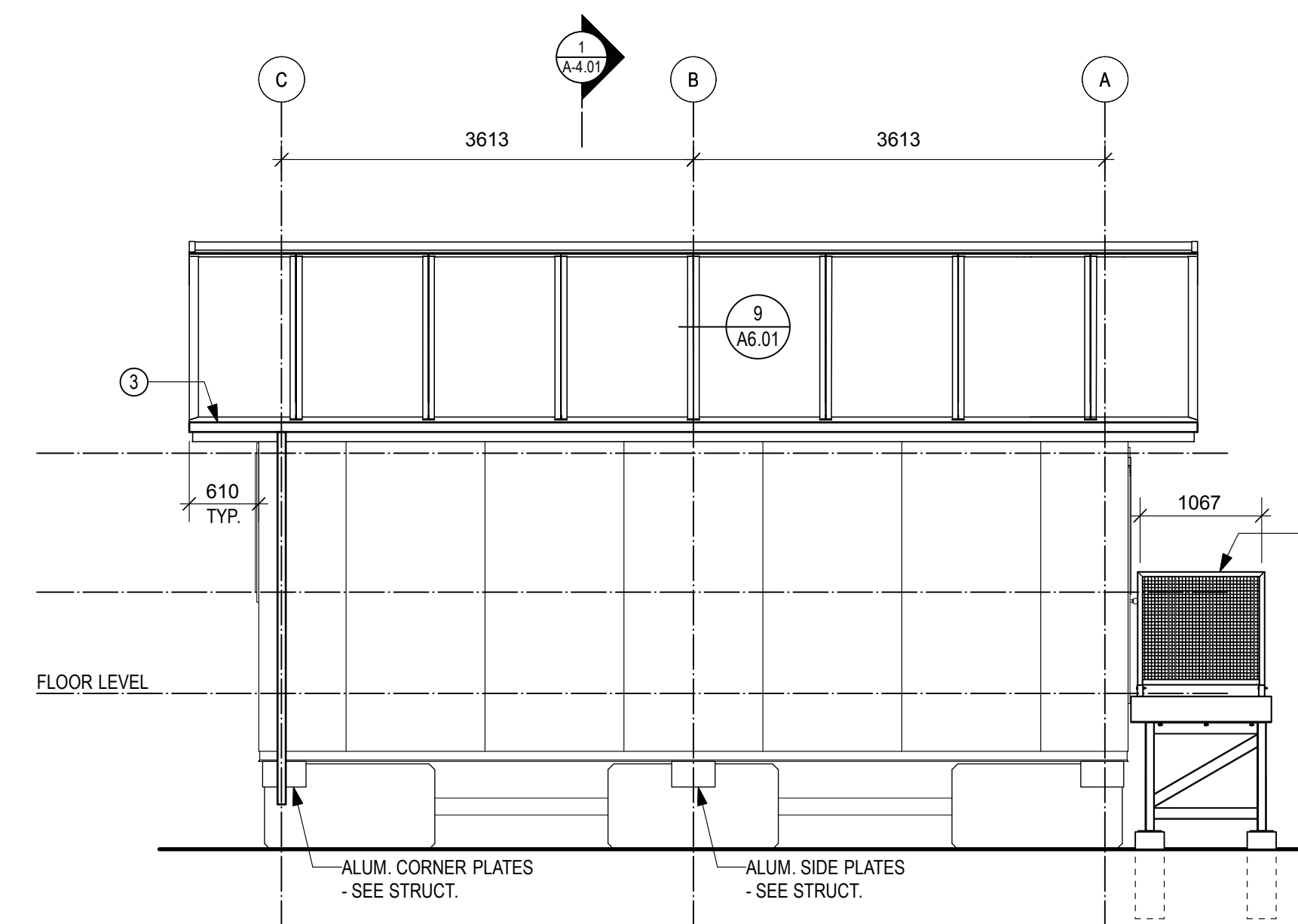
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2 ELEVATION
A3.01 SCALE: 1:50



3 ELEVATION
A3.01 SCALE: 1:50



4 ELEVATION
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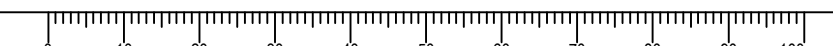
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FEED LAB
EXTERIOR ELEVATIONS

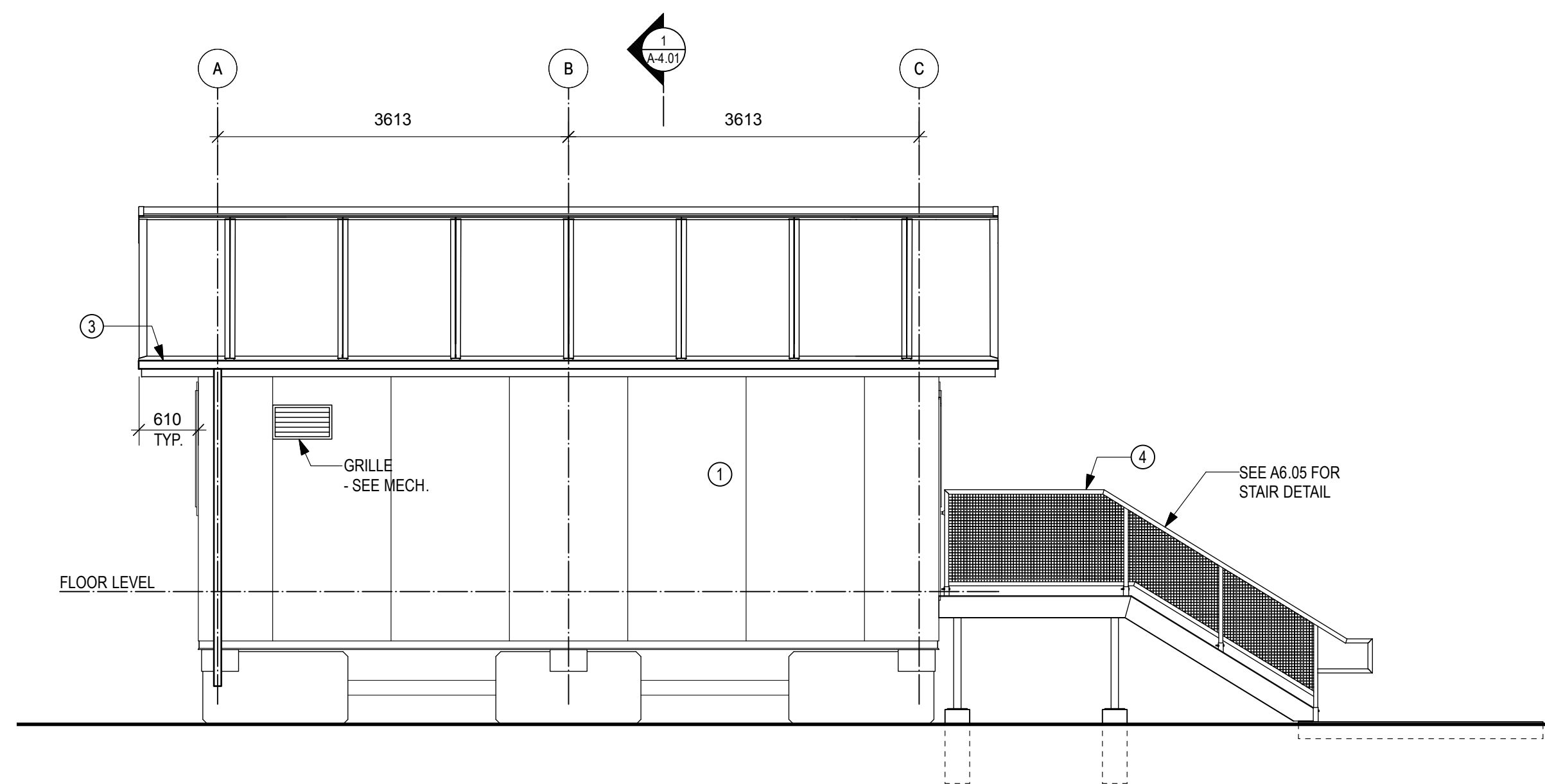
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| - | A3.01 | 2 |

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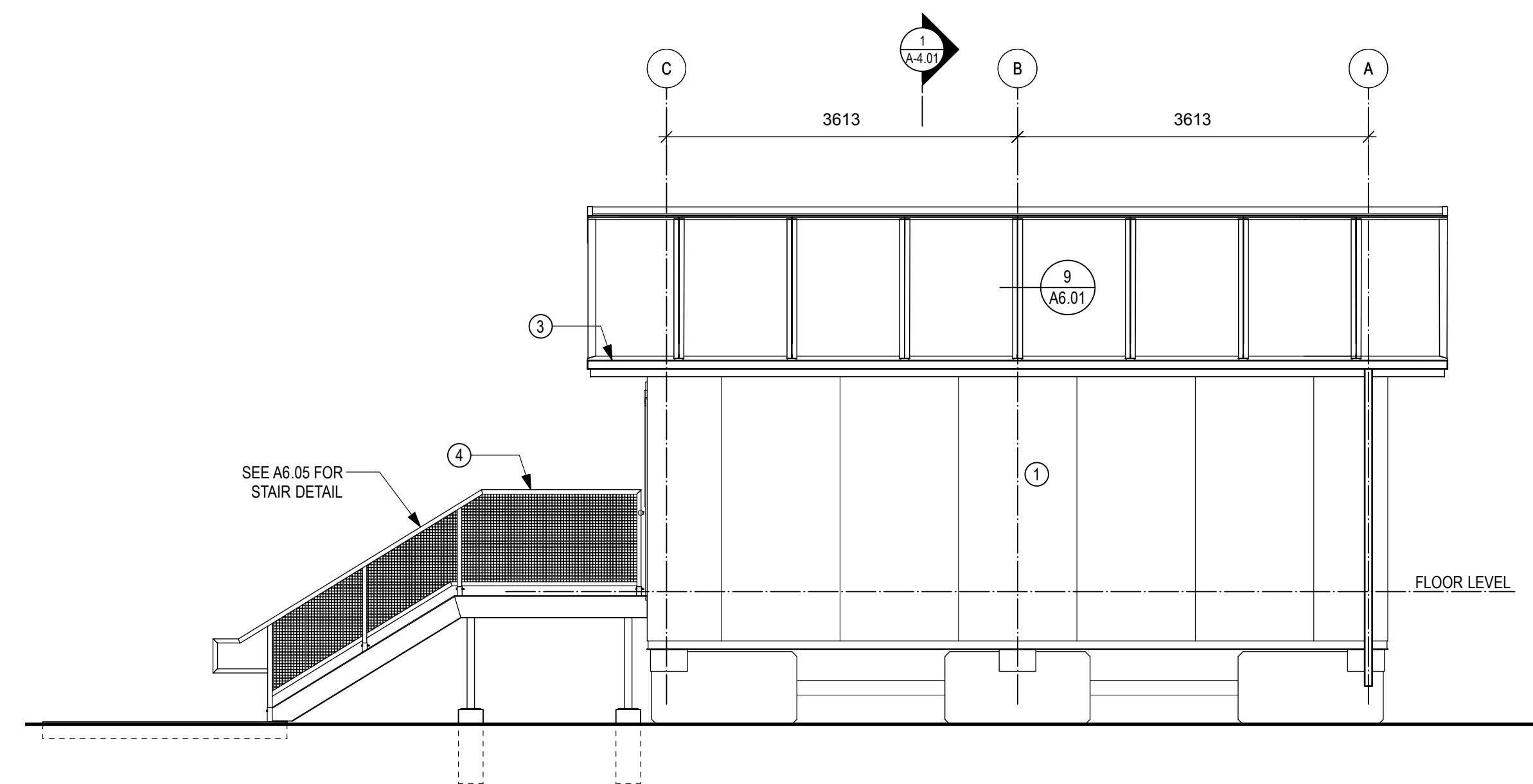


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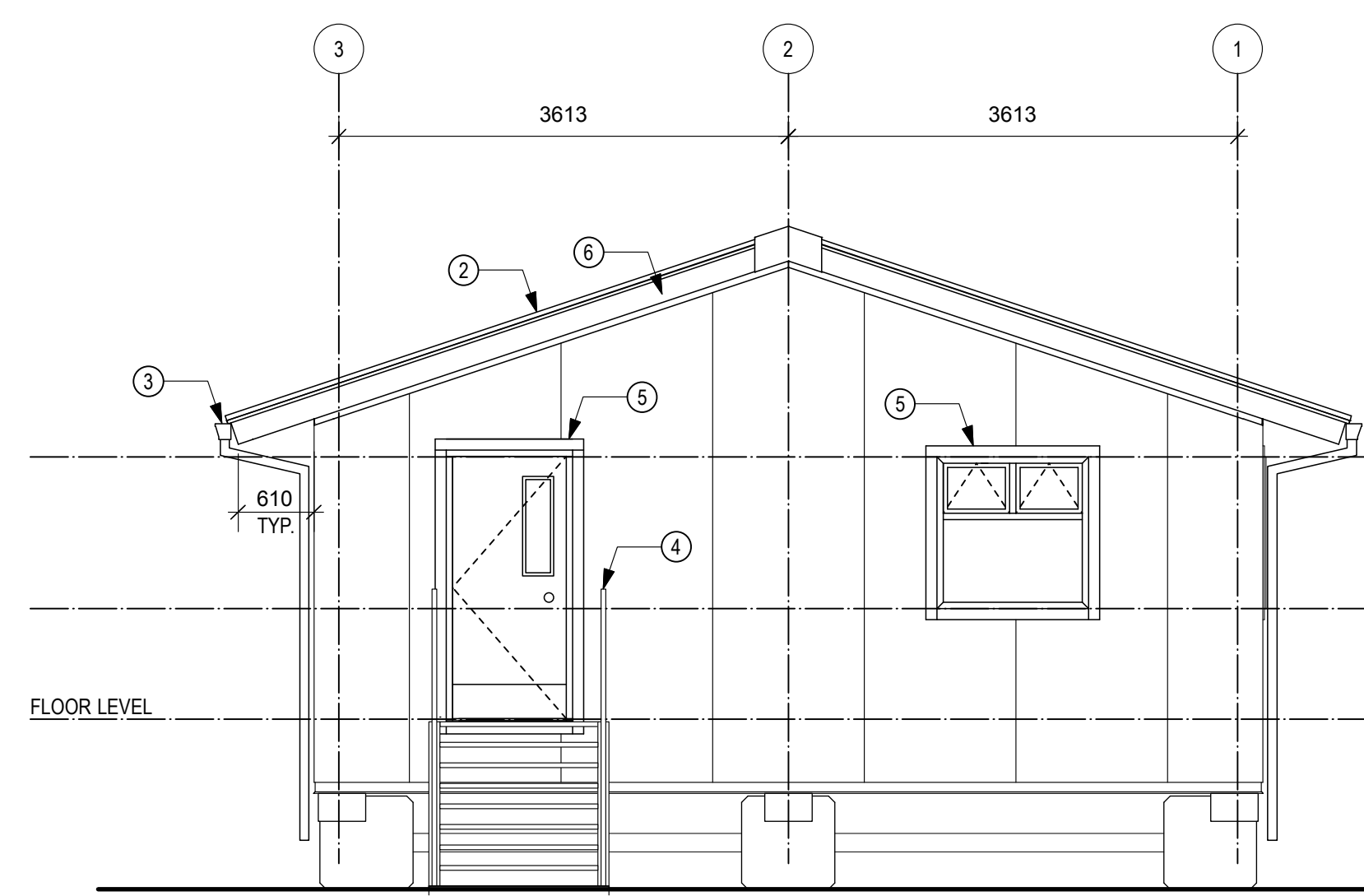
- ① EPS WALL PANEL
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- ⑥ ALUM. FLASHING



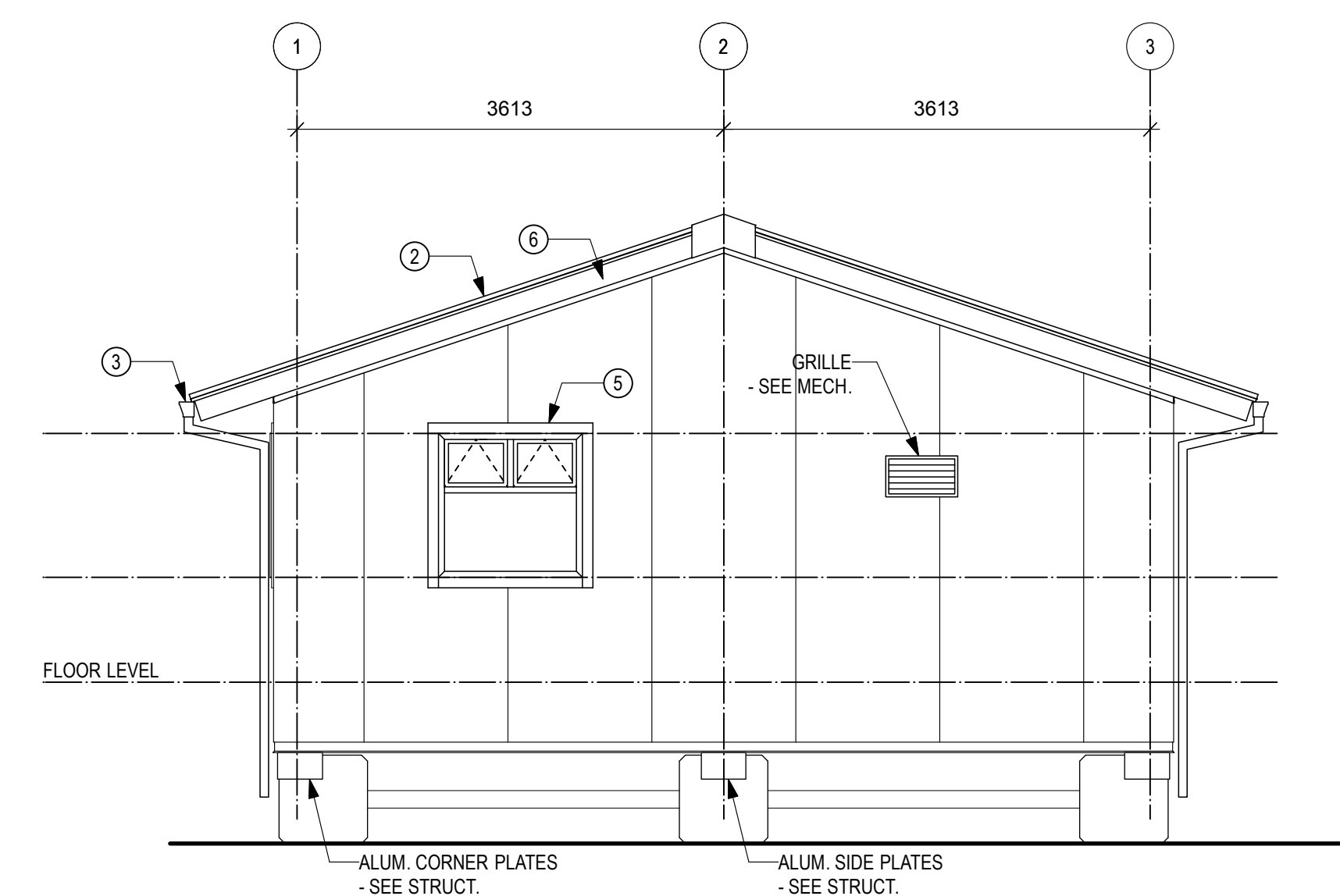
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2 ELEVATION
A3.02 SCALE: 1:50



3 ELEVATION
A3.02 SCALE: 1:50



4 ELEVATION
A3.02 SCALE: 1:50

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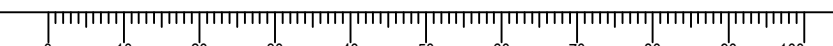
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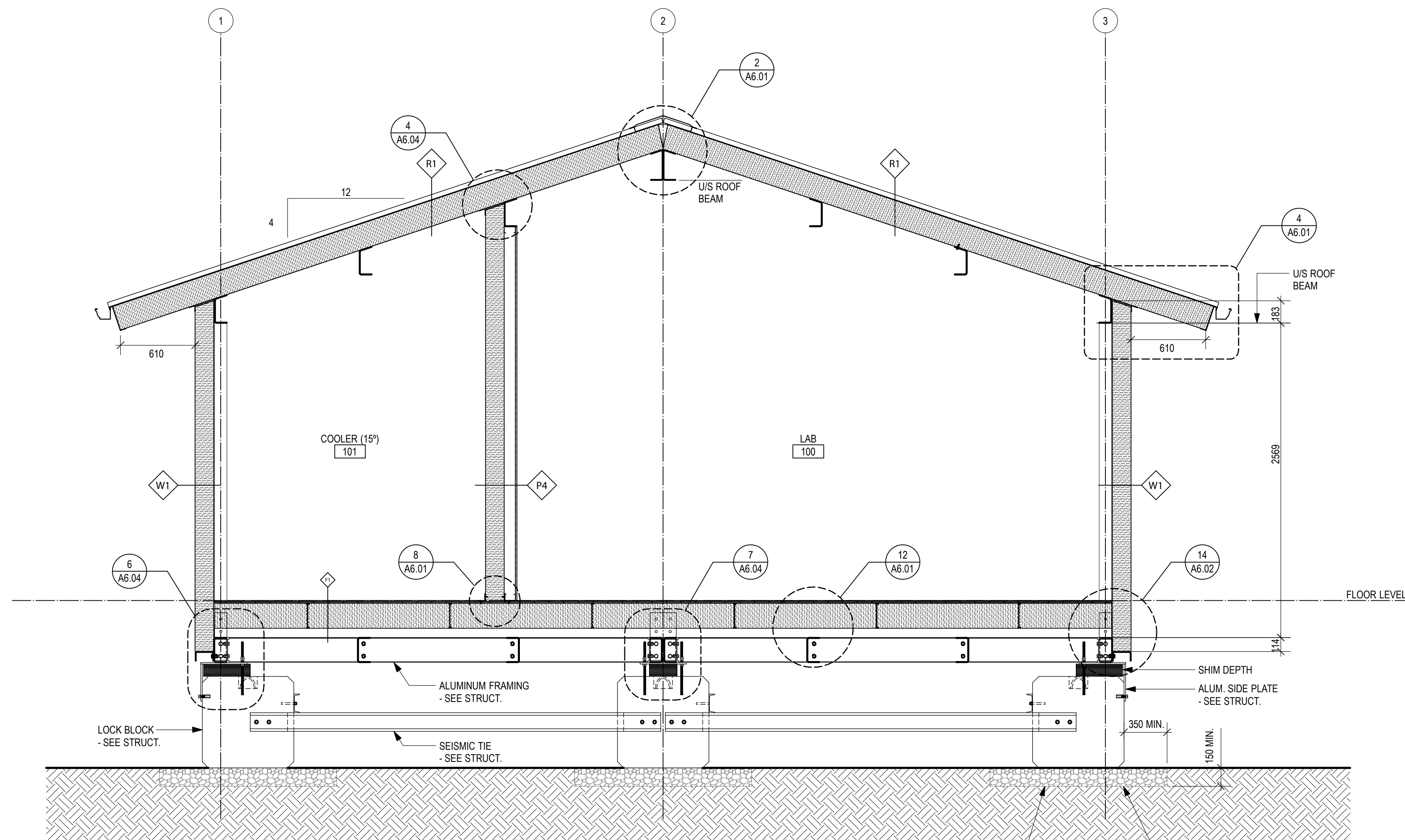
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EXTERIOR ELEVATIONS

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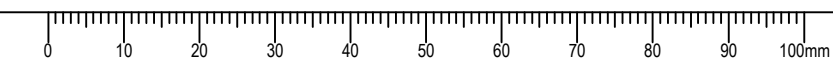
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Drawing title/Titre du dessin
SECTIONS

| | | |
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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| - | A4.01 | 2 |

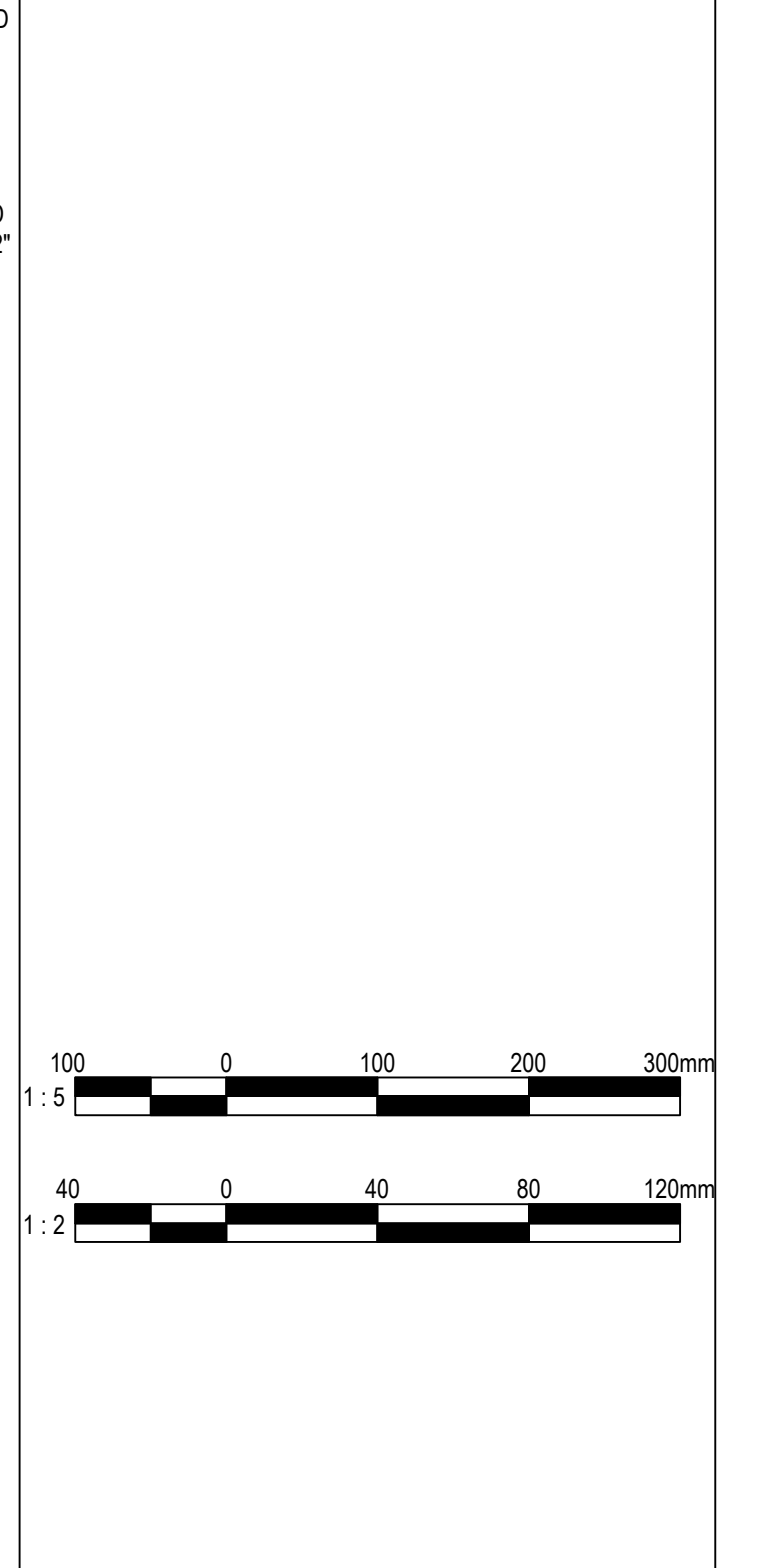
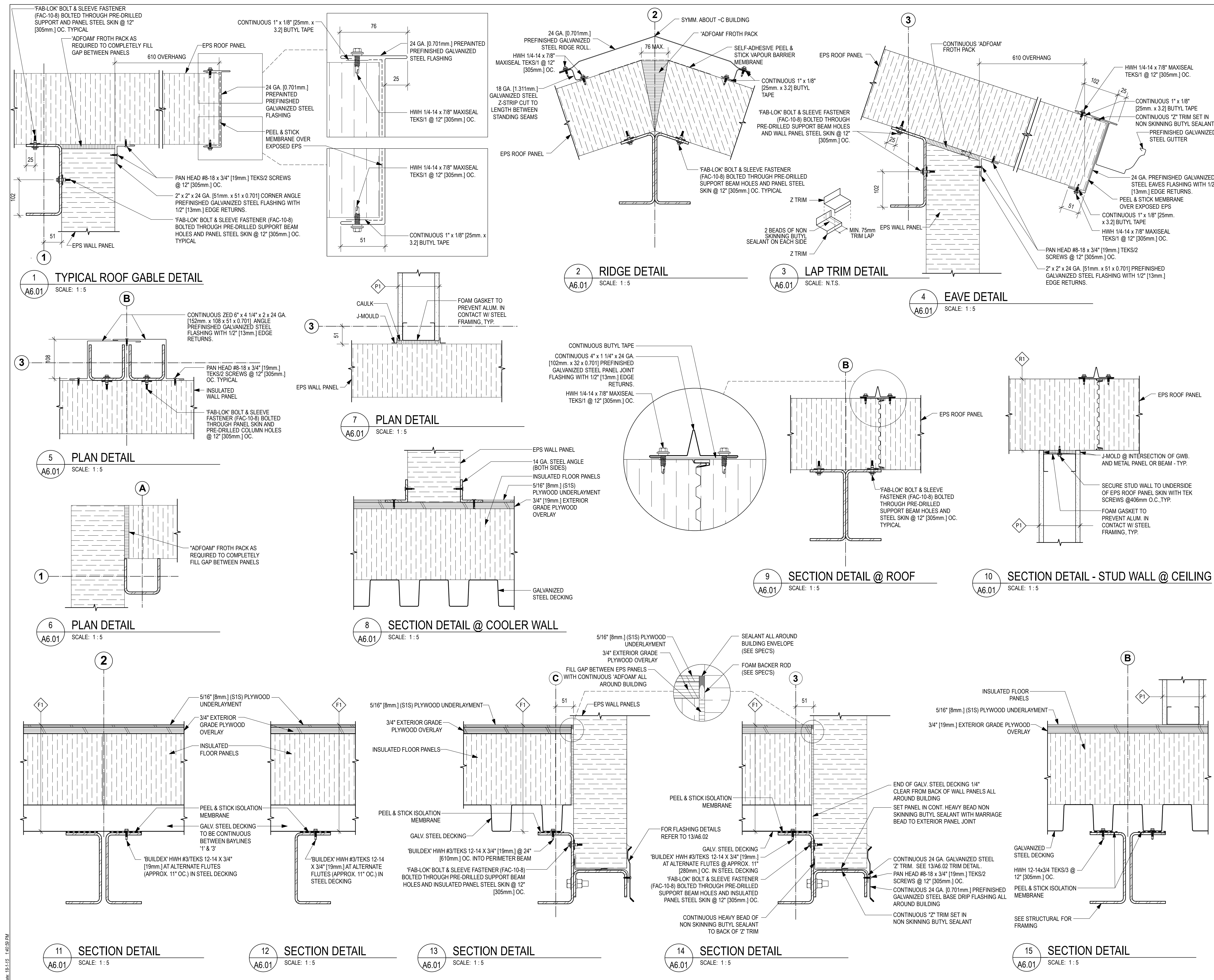
1 SECTIONS
 A4.01 SCALE: 1:25

PROVIDE MINIMUM 150MM THICK LAYER OF WELL GRADED 19MM SAND AND GRAVEL ON SUBGRADE. COMPACTED TO 100% STANDARD PROCTOR DENSITY.
 REMOVE EXISTING GRASS, ALL ORGANICS, AND DELIRIOUS MATERIAL BENEATH CONC. BLOCKS AND WITHIN 350MM BEYOND THE EDGE OF THE BLOCK



DWG: 18.11.17 7:38:17 PM

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| Revision/ | Description/Description | Date/Date |
|-----------|-------------------------|------------|
| 2 | 100% REVIEW | 2017-11-30 |

FISHERIES AND OCEANS, REAL PROPERTY, SAFETY AND SECURITY

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CENTER FOR AQUACULTURE & ENVIRONMENTAL RESEARCH
MODULAR LABS
4160 Marine Dr. West Vancouver

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Designed by/Concept par
RH

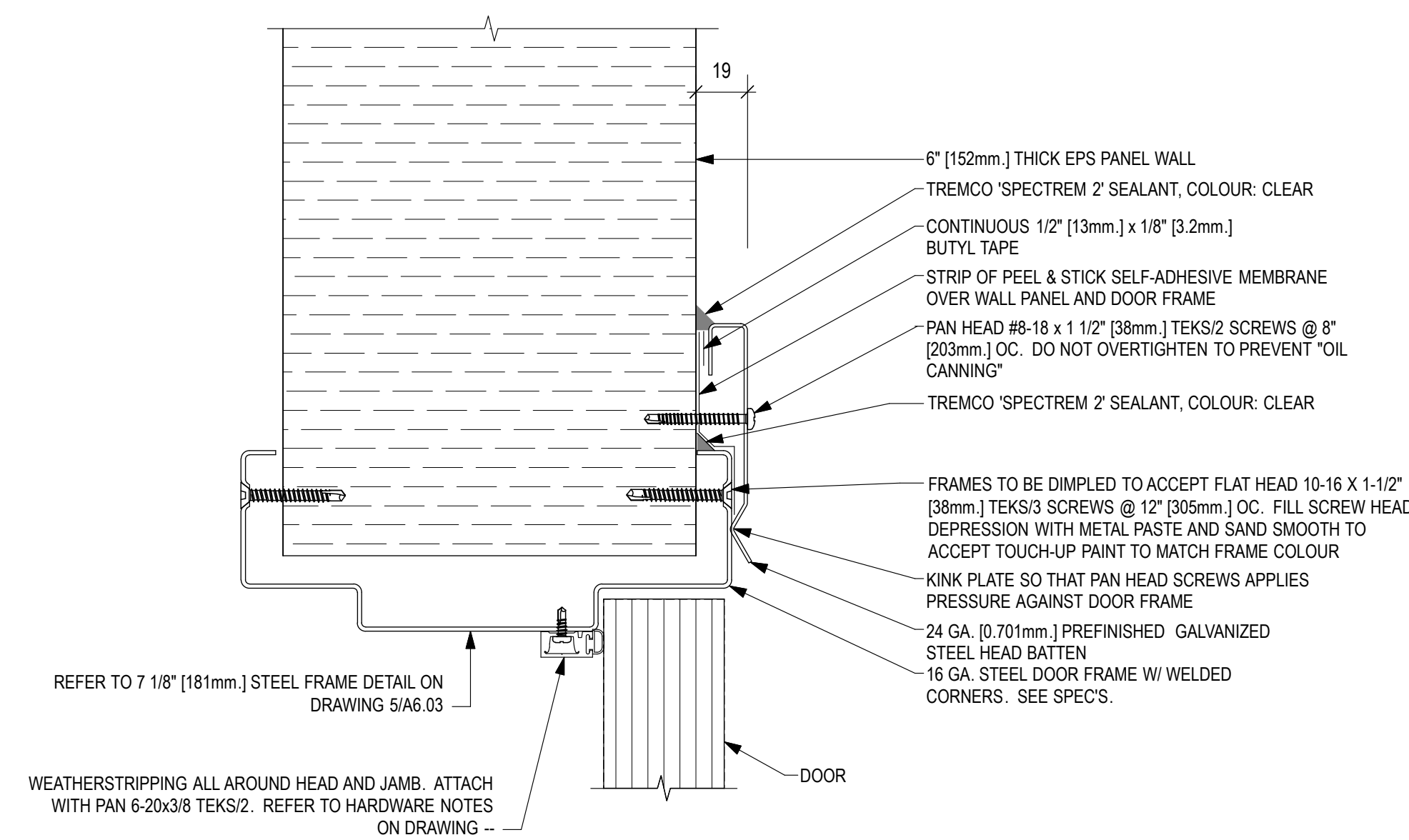
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PWGSC Project Manager/Administrateur de Projets TPSGC

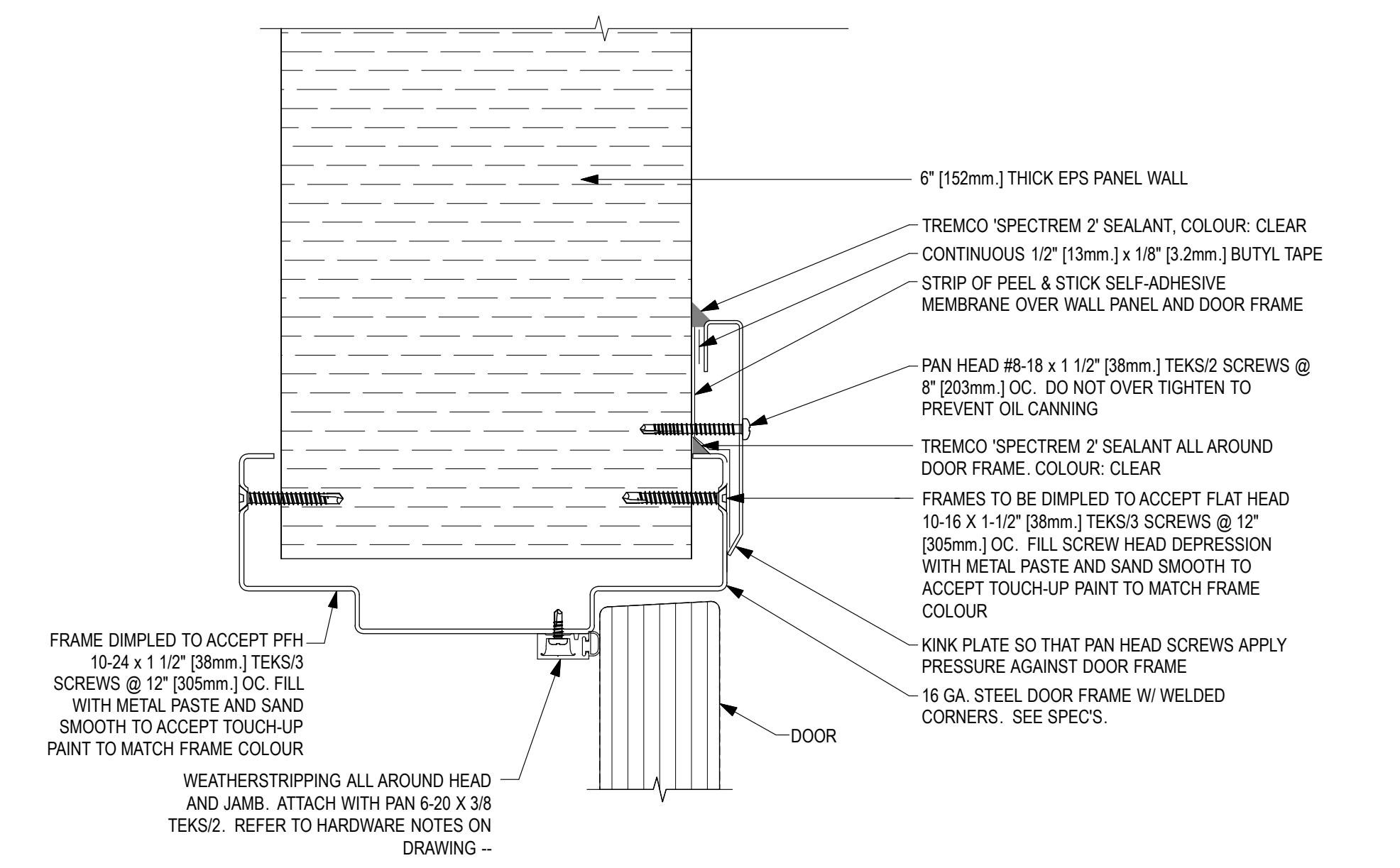
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Drawing title/Titre du dessin
DETAILS

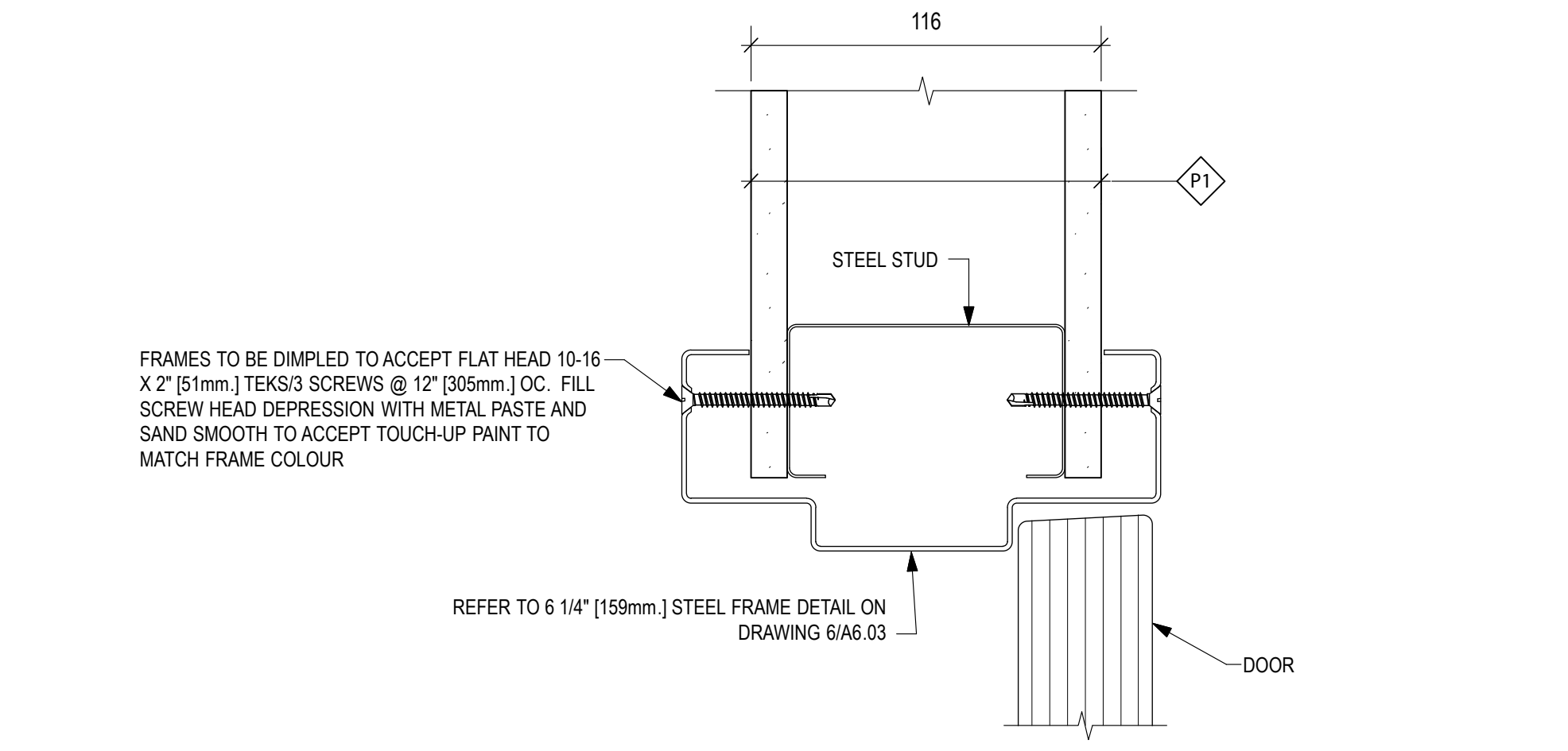
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| | A6.01 | 2 |



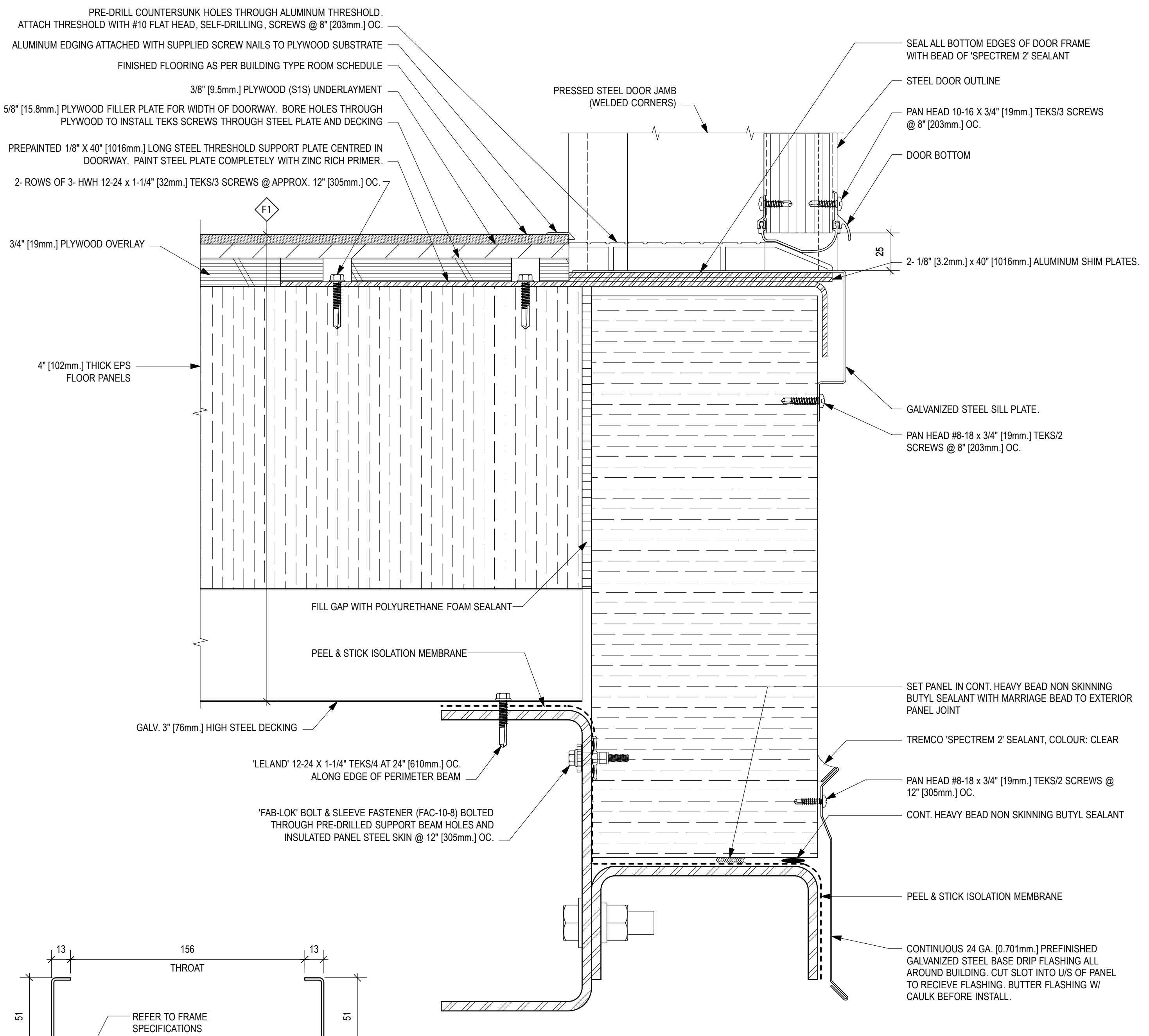
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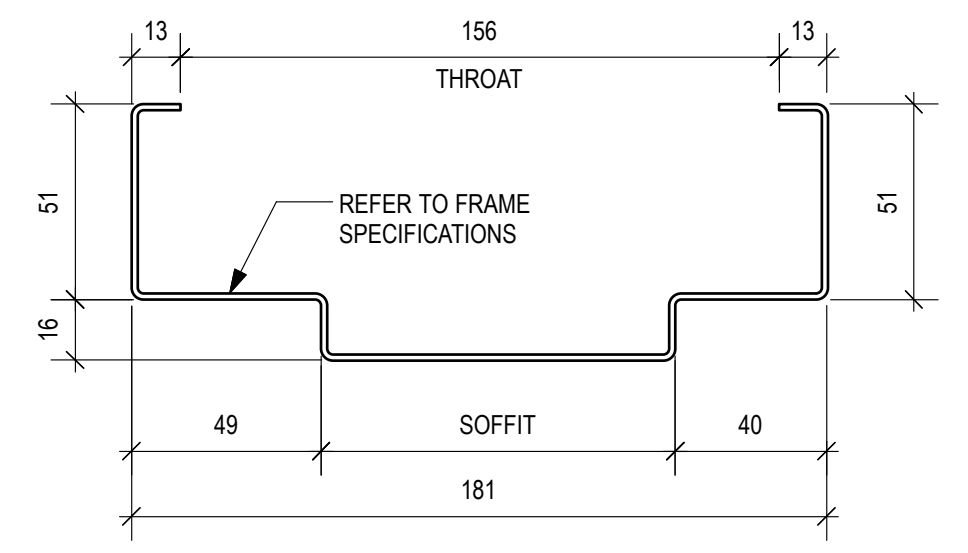
2 EXTERIOR DOOR JAMB DETAIL
 A6.02 SCALE: 1:2



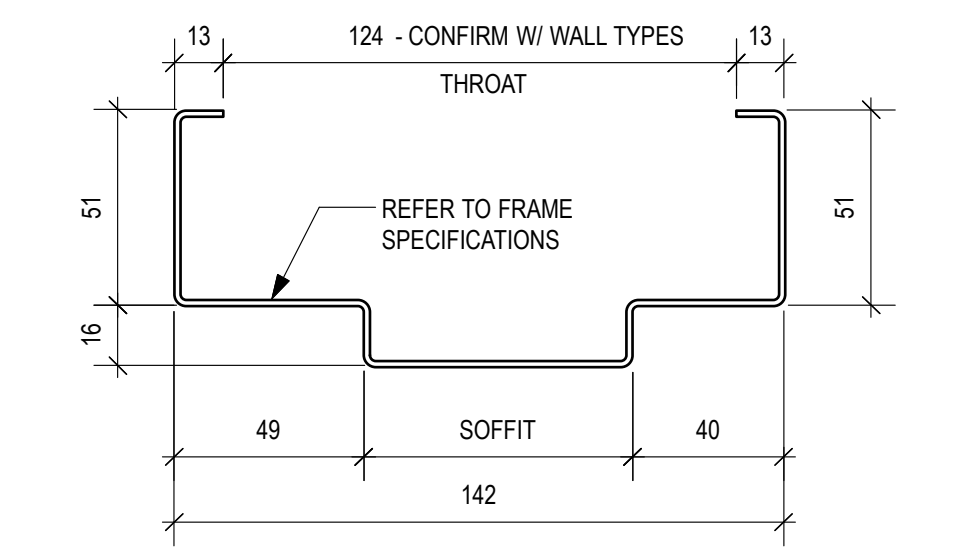
3 INTERIOR DOOR HEAD & JAMB DETAIL
 A6.02 SCALE: 1:2



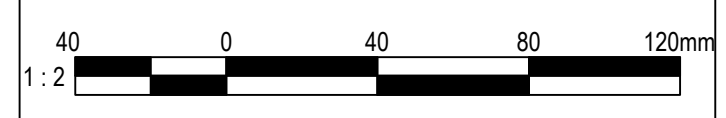
4 EXTERIOR DOOR THRESHOLD DETAIL
 A6.02 SCALE: 1:2



5 EXTERIOR DOOR FRAME
 A6.02 SCALE: 1:2



6 INTERIOR DOOR FRAME
 A6.02 SCALE: 1:2



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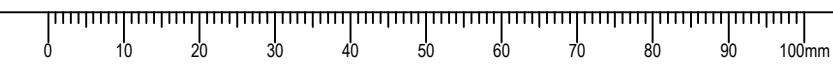
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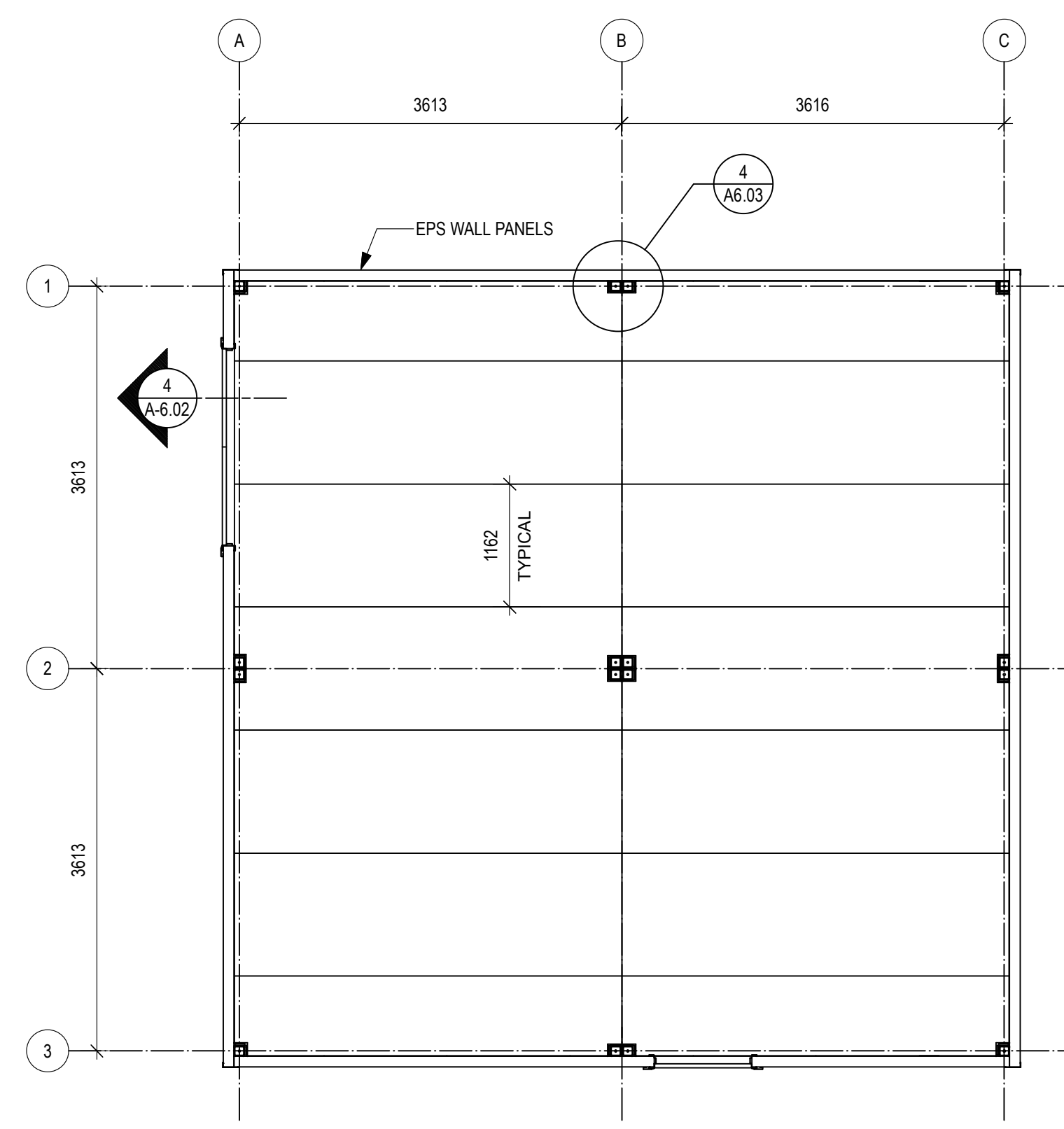
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PREETIPAL PAUL
 Drawing title/Titre du dessin

DETAILS

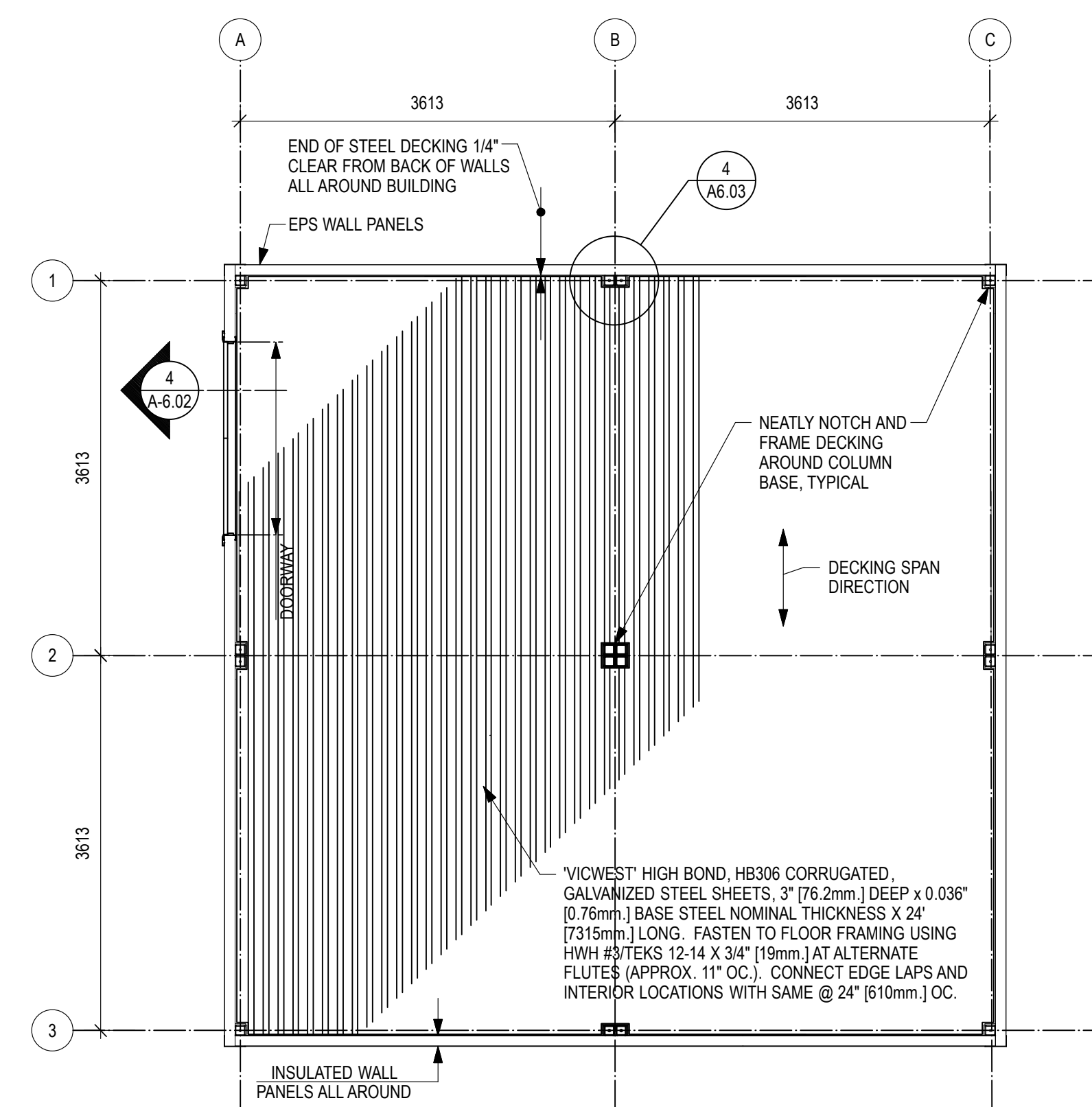
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| | A6.02 | 2 |

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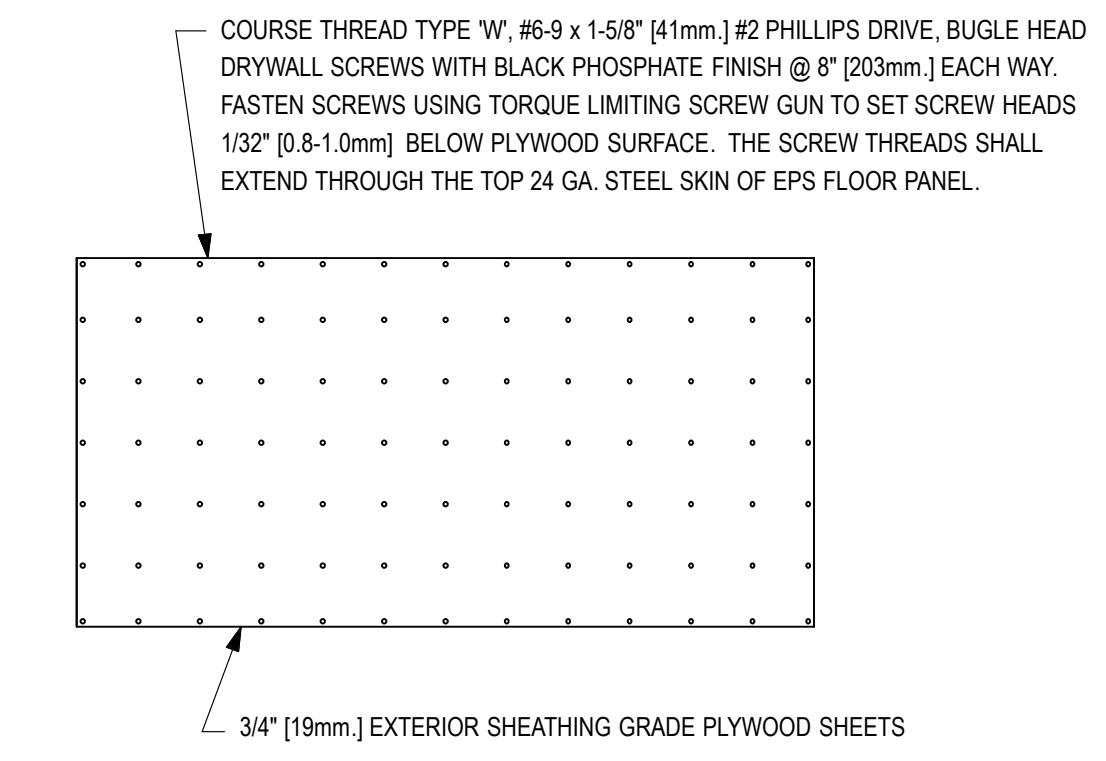




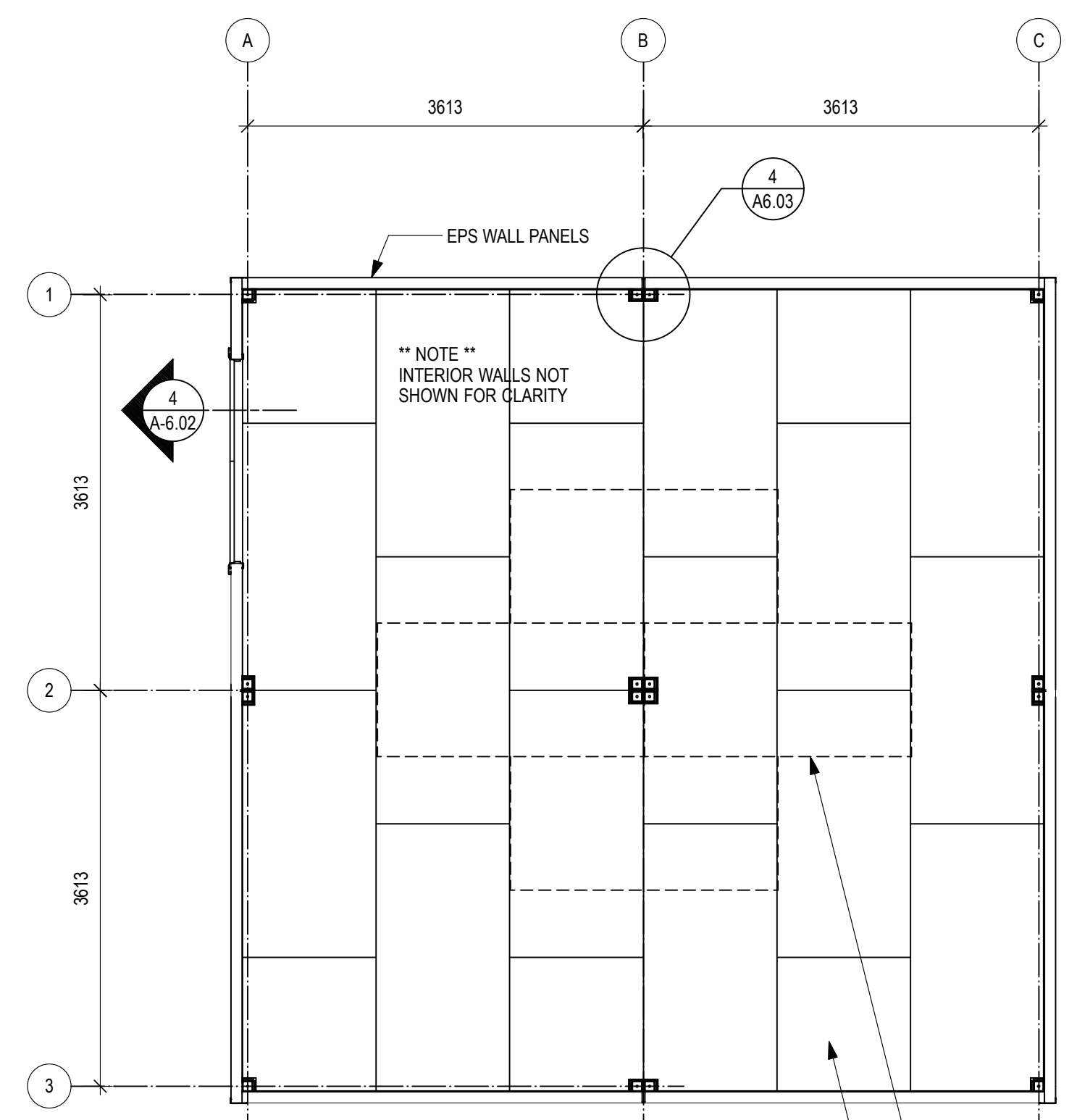
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 A6.03 SCALE: 1:50



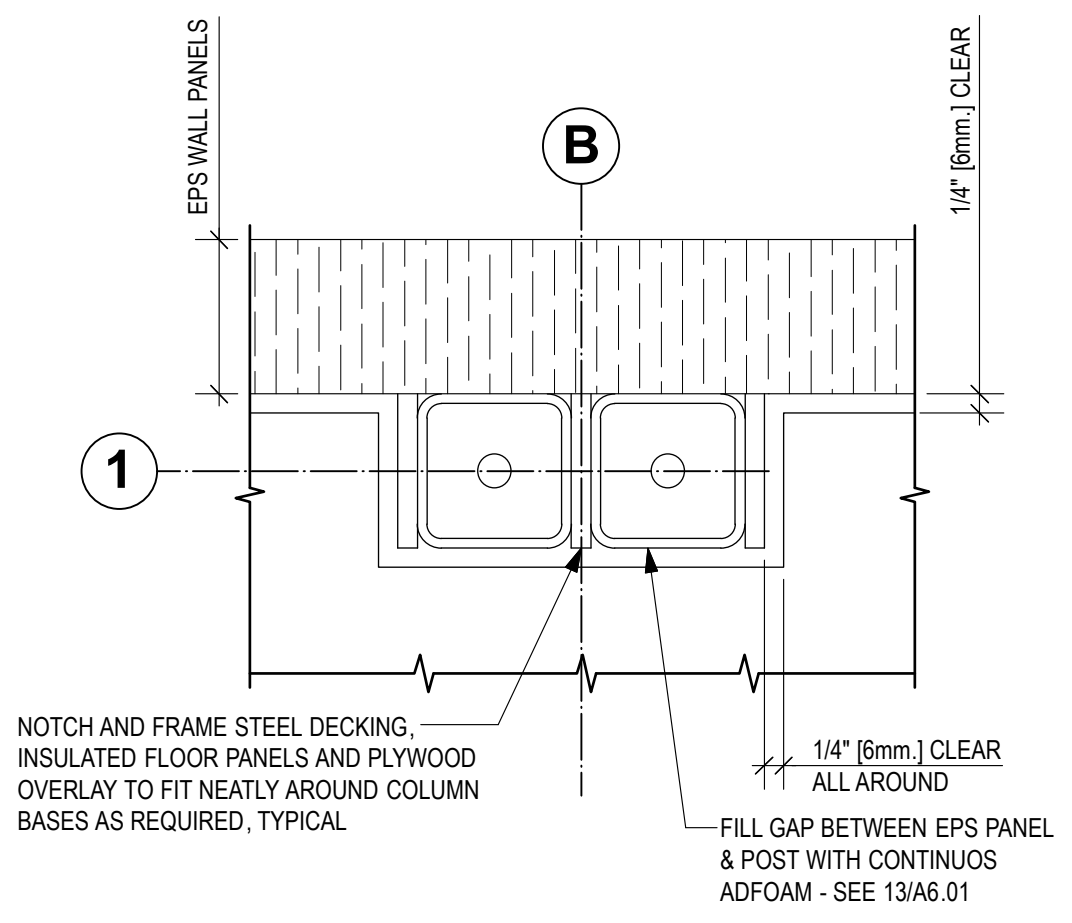
2 CORRUGATED STEEL DECKING PLAN
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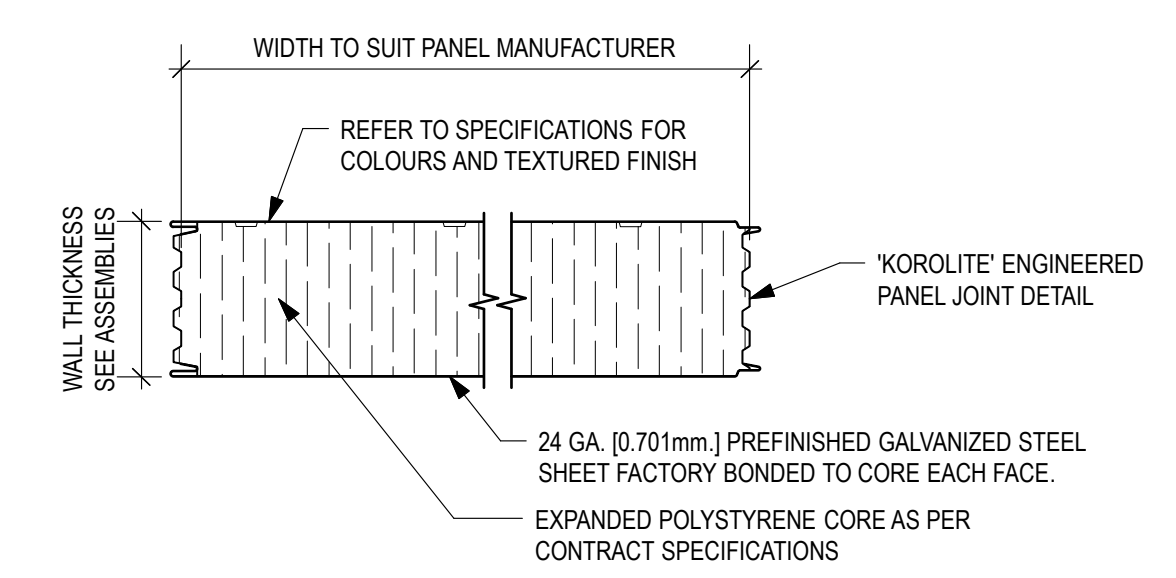
5 TYPICAL PLYWOOD PANEL FASTENING
 A6.03 SCALE: 1:25



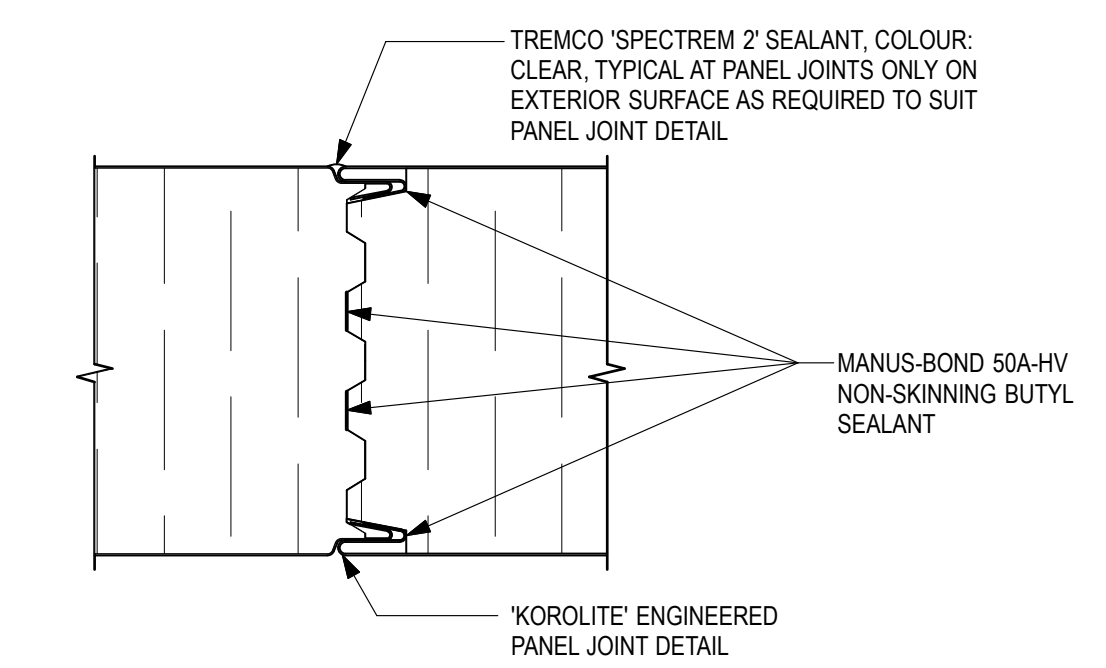
3 PLYWOOD OVERLAY PLAN
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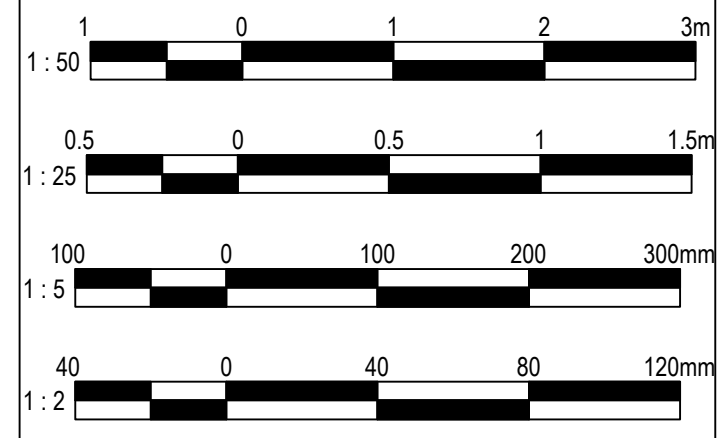
4 DETAIL
 A6.03 SCALE: 1:5



6 TYPICAL INSULATED EXTERIOR AND INTERIOR WALL PANEL
 A6.03 SCALE: 1:5



7 WALL PANEL JOINT DETAIL
 A6.03 SCALE: 1:2



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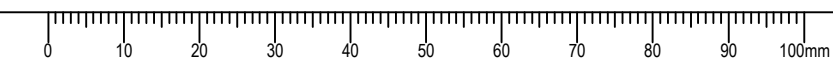
Consultant Signature Box Only
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PREETIPAL PAUL
 Drawing title/Titre du dessin

DETAILS

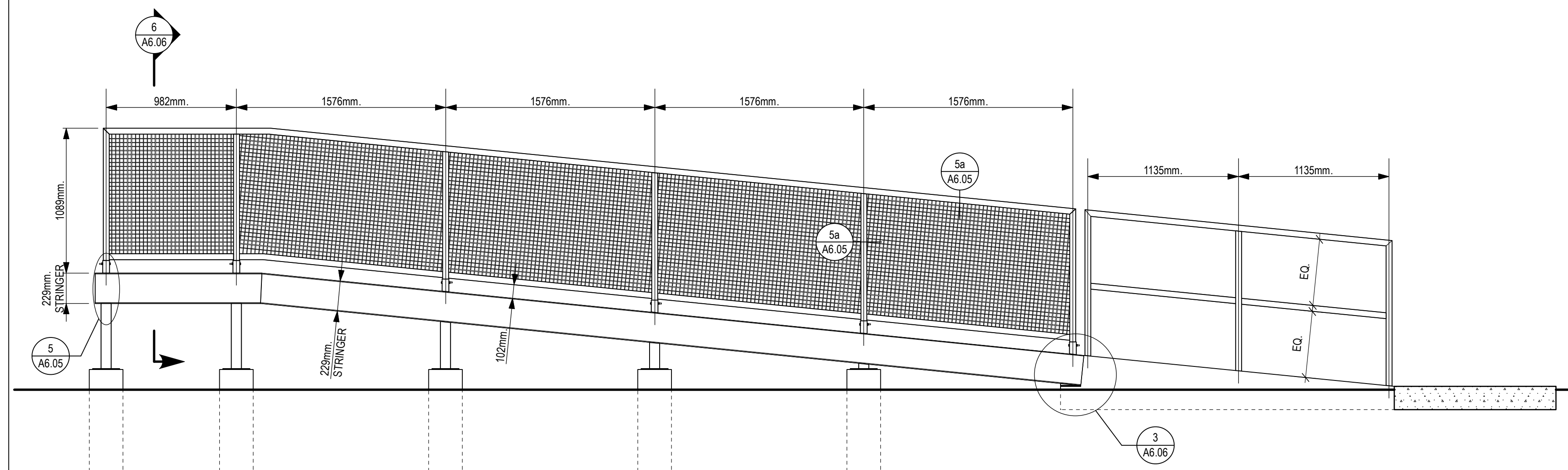
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| | A6.03 | 2 |

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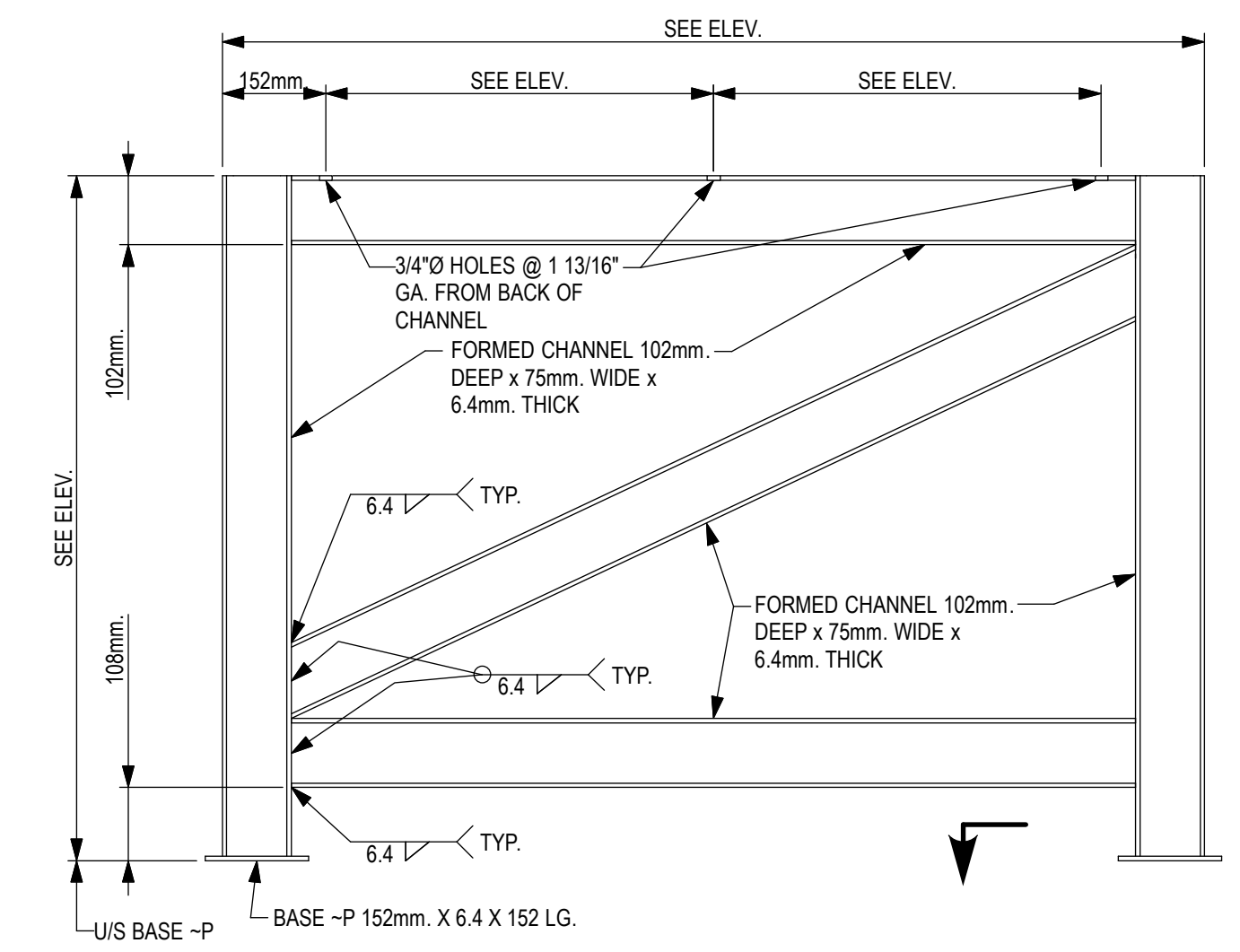
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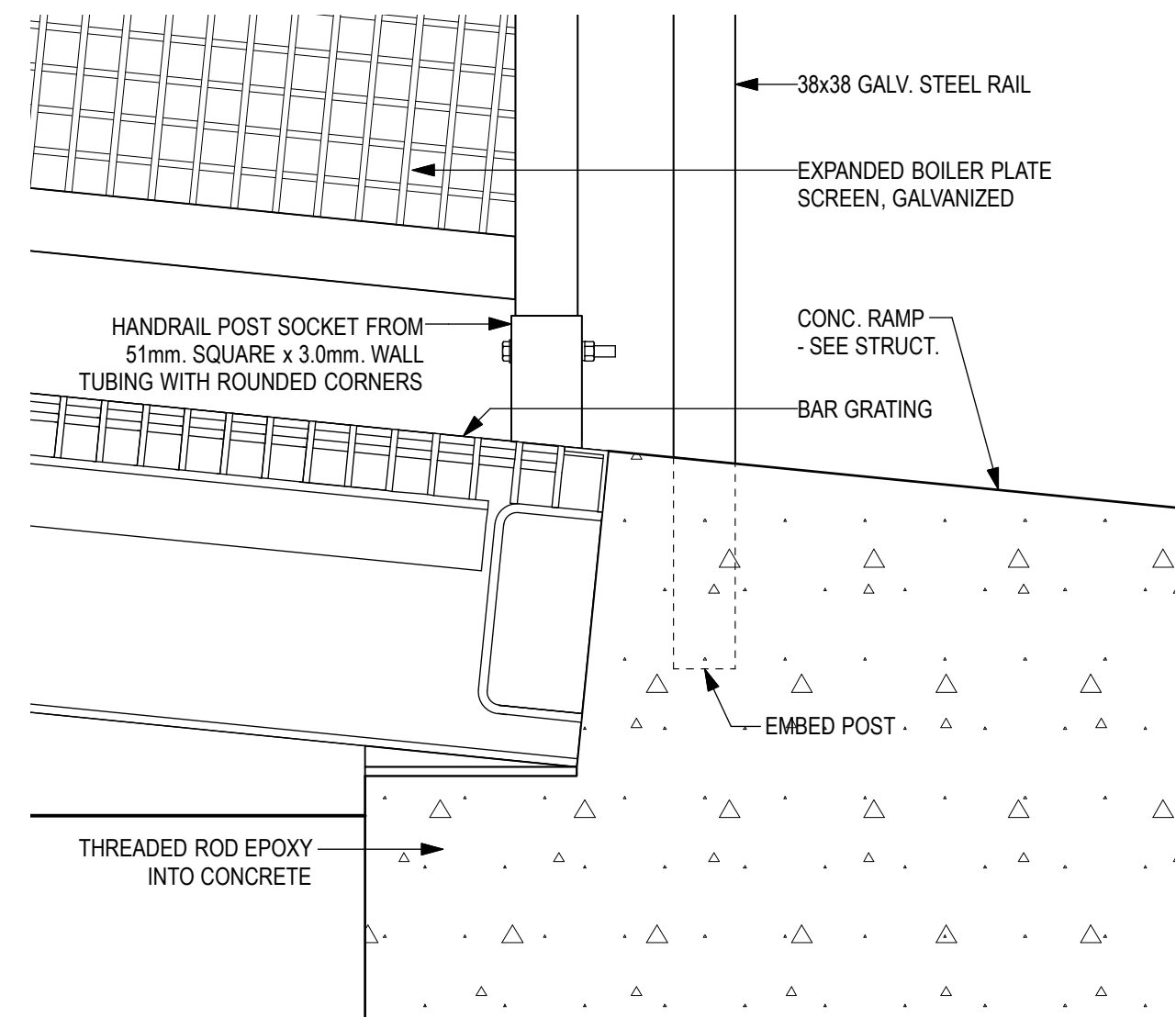
NOTE:
 RAMP AND STAIR COMPONENTS
 TO BE CONSTRUCTED OF
 POWDER COATED STEEL.



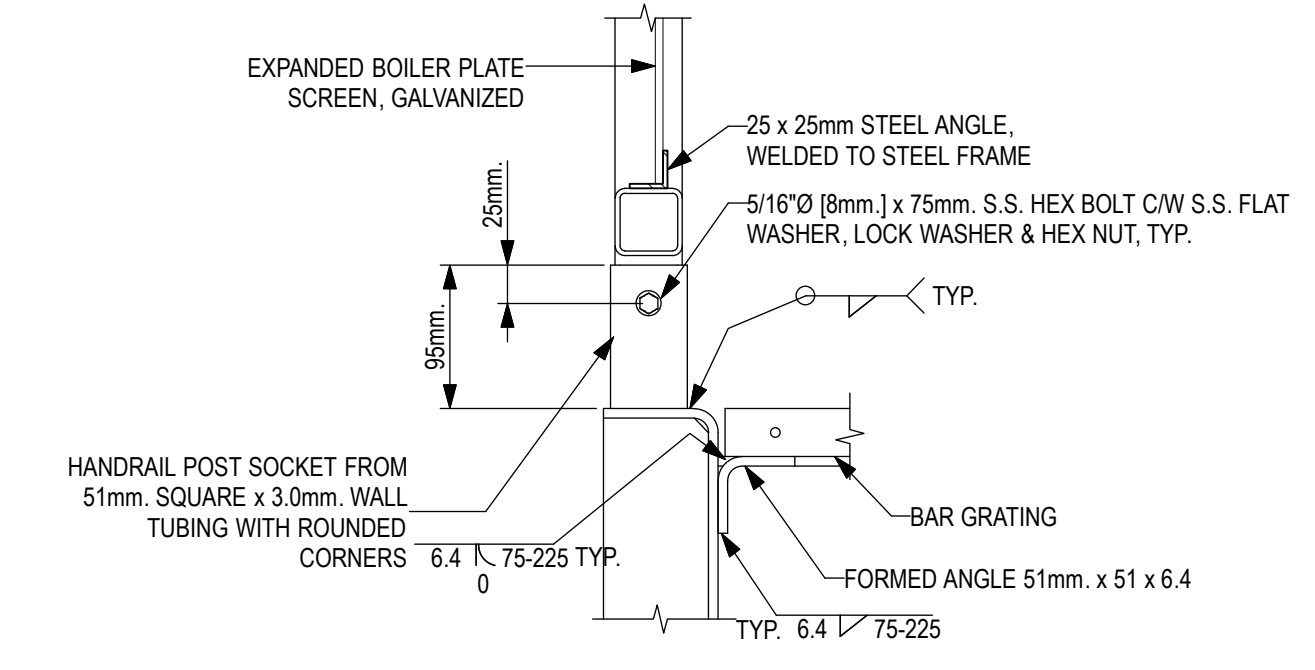
1 RAMP ELEVATION
 SCALE: 1:25



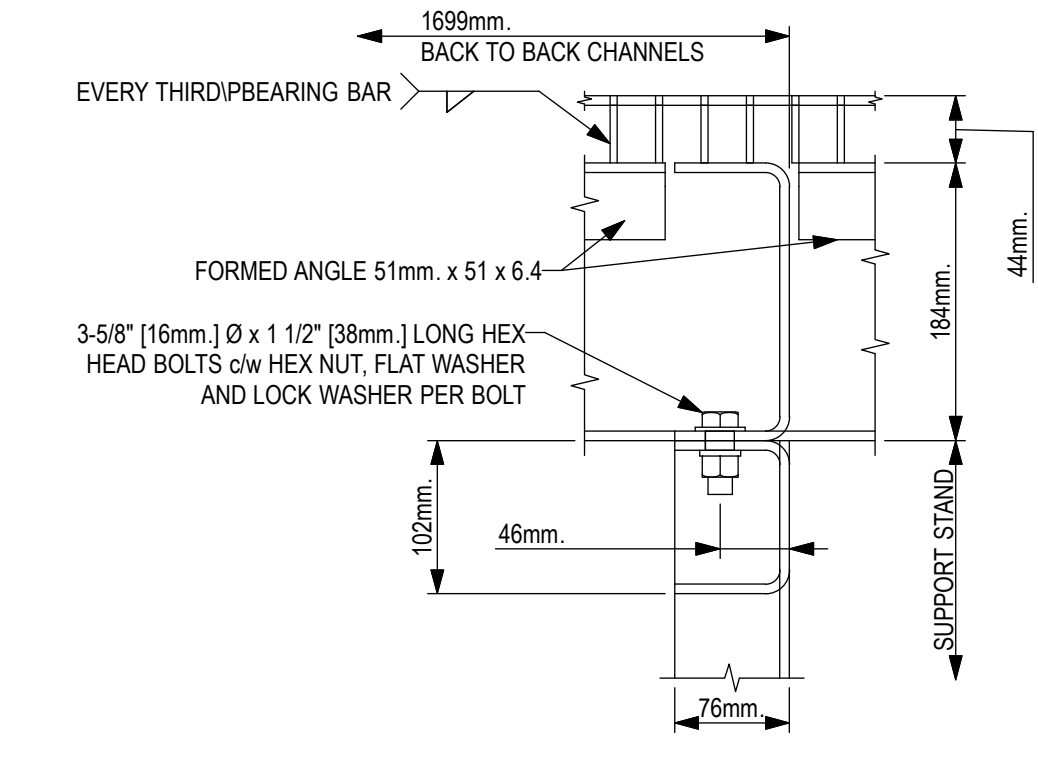
2 SUPPORT STAND ELEVATION
 SCALE: 1:10



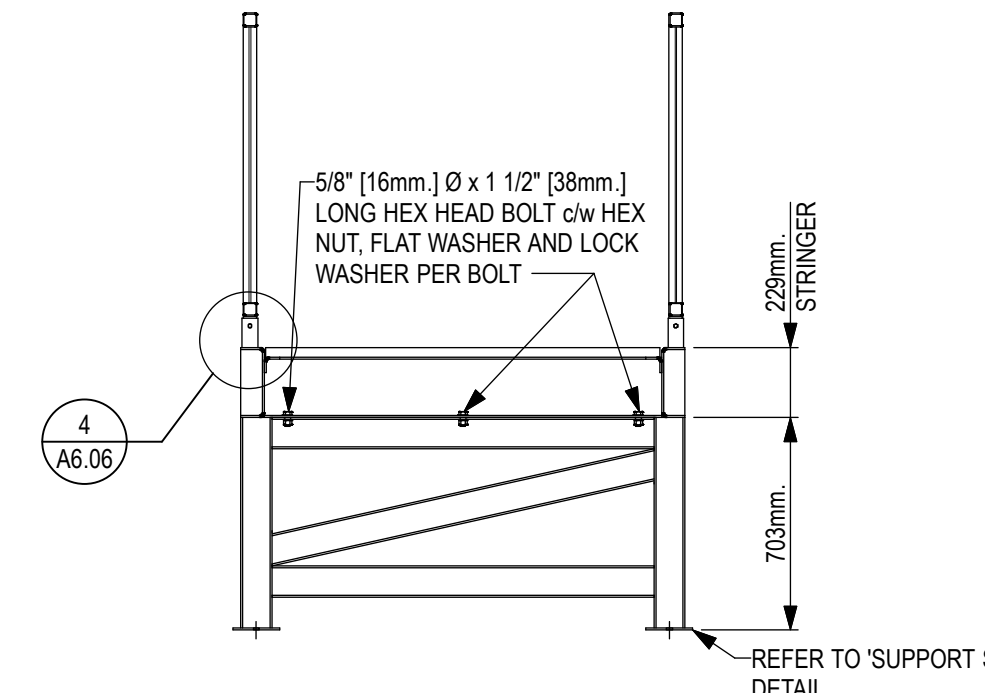
3 DETAIL
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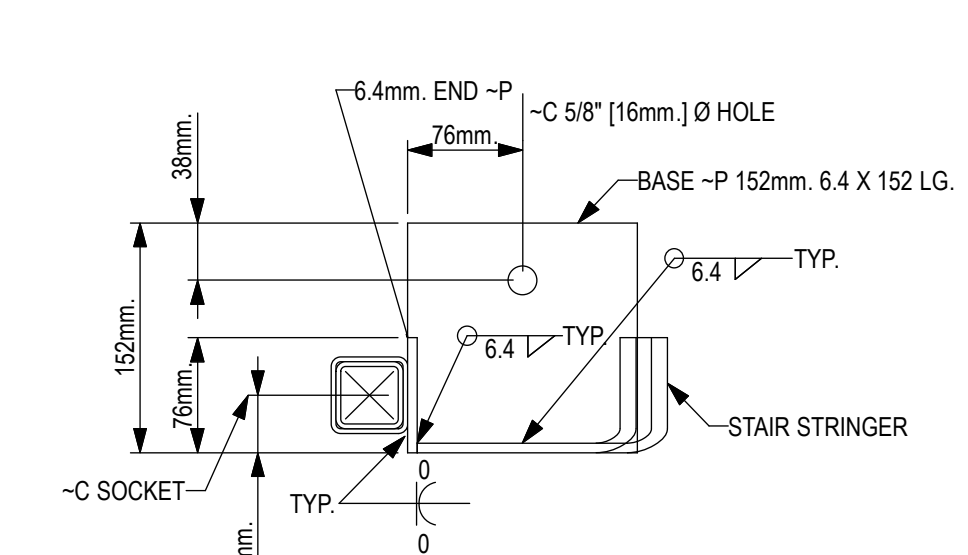
4 DETAIL
 SCALE: 1:5



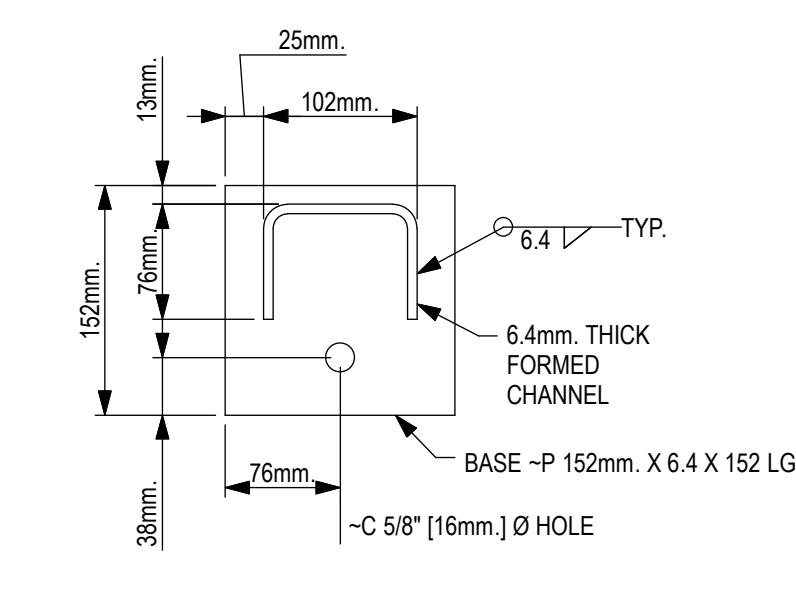
5 DETAIL
 SCALE: 1:5



6 RAMP SECTION
 SCALE: 1:25



7 DETAIL
 SCALE: 1:5



8 DETAIL
 SCALE: 1:5

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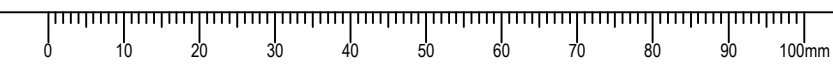
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PREETIPAL PAUL

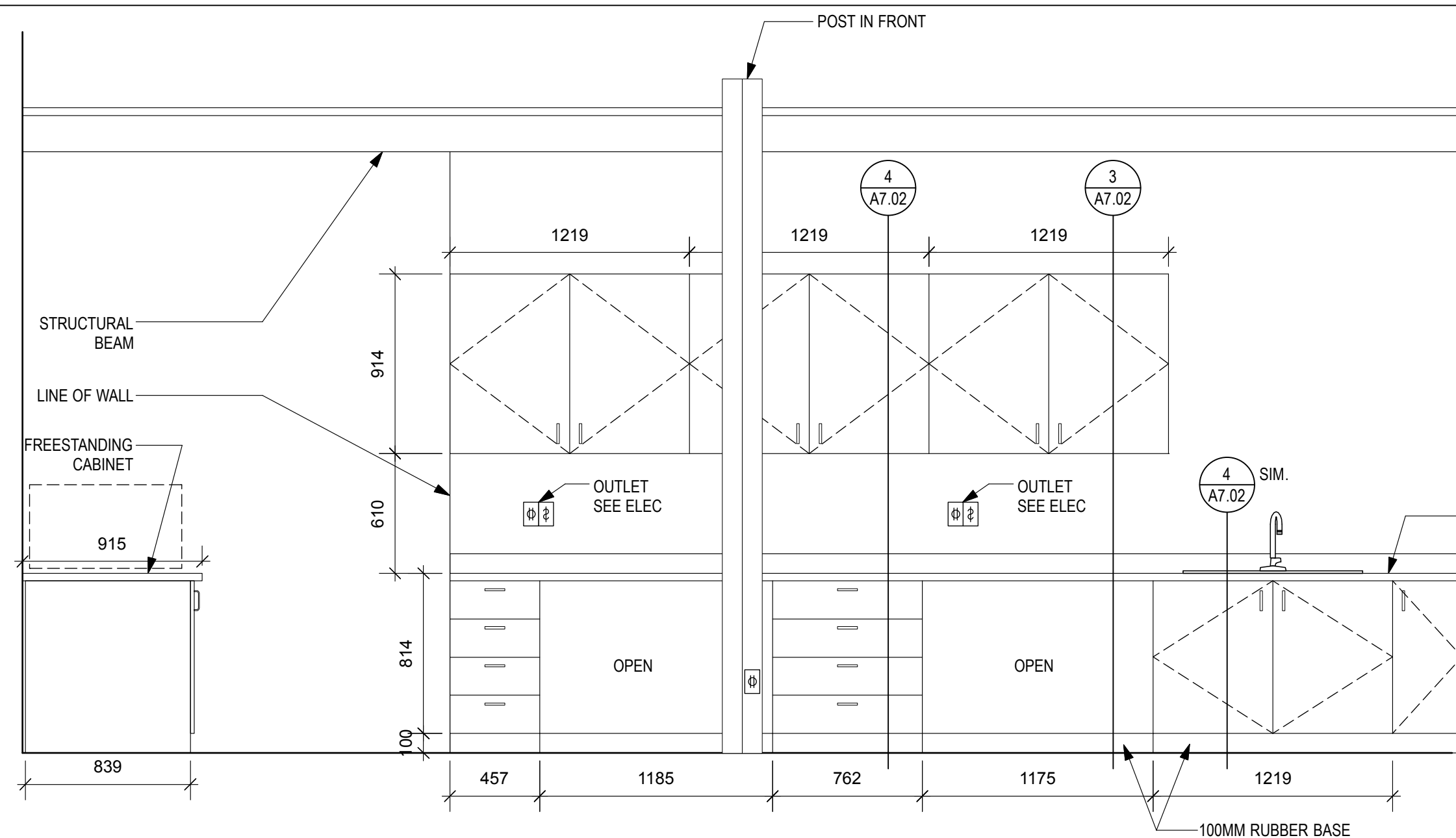
Drawing title/Titre du dessin
FEED LAB RAMP DETAIL

| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
|---------------------------|----------------|-------------------------------|
| | A6.06 | 2 |

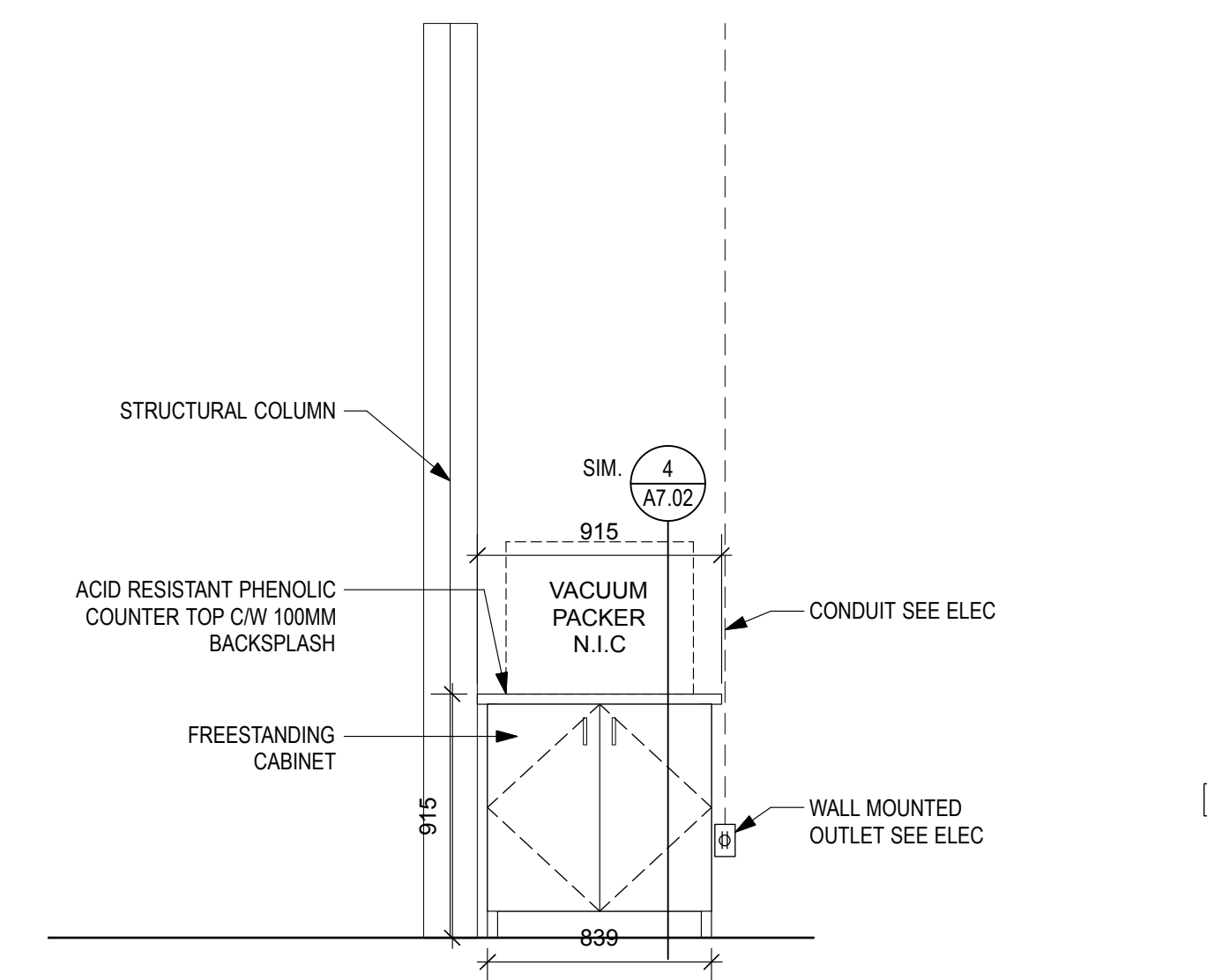
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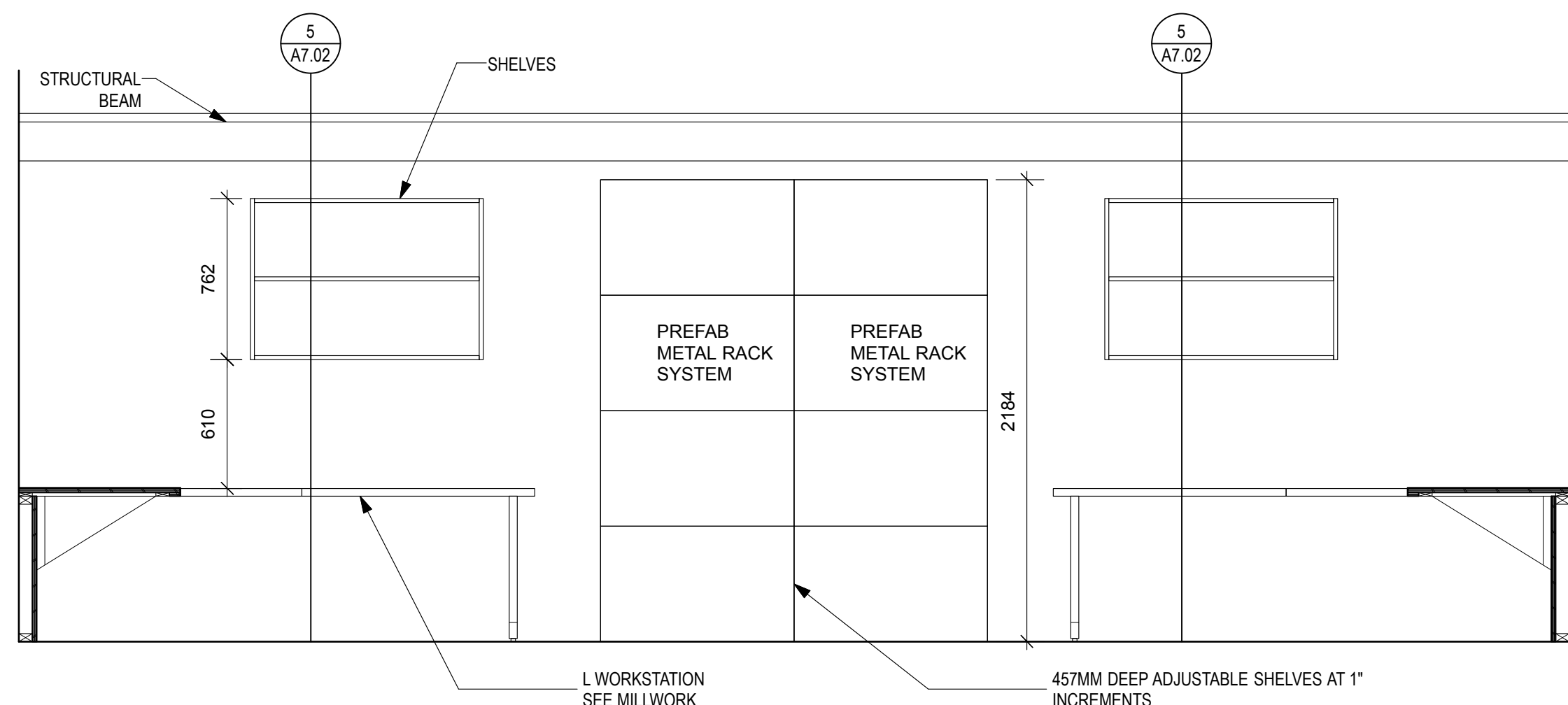




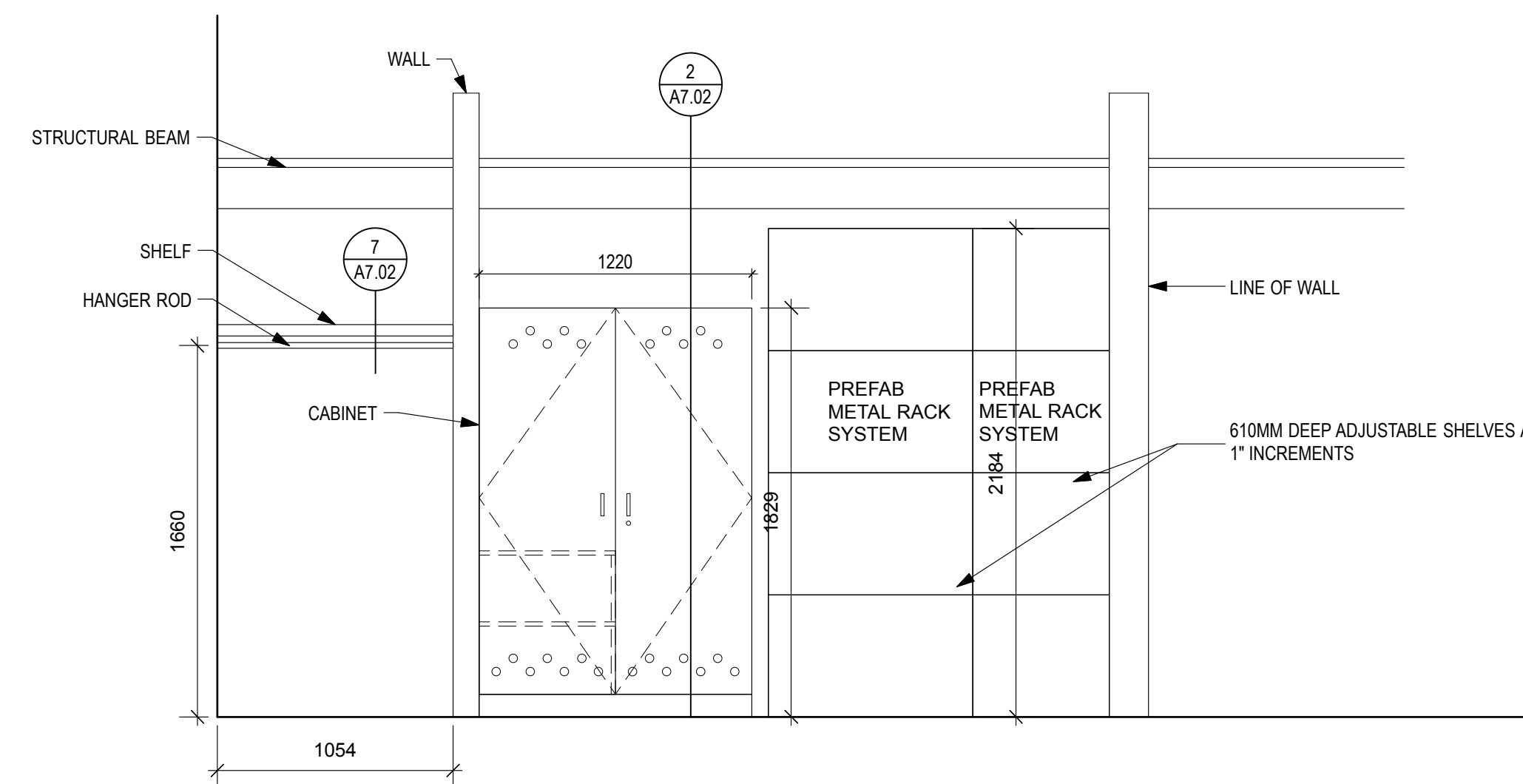
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 SCALE: 1:50



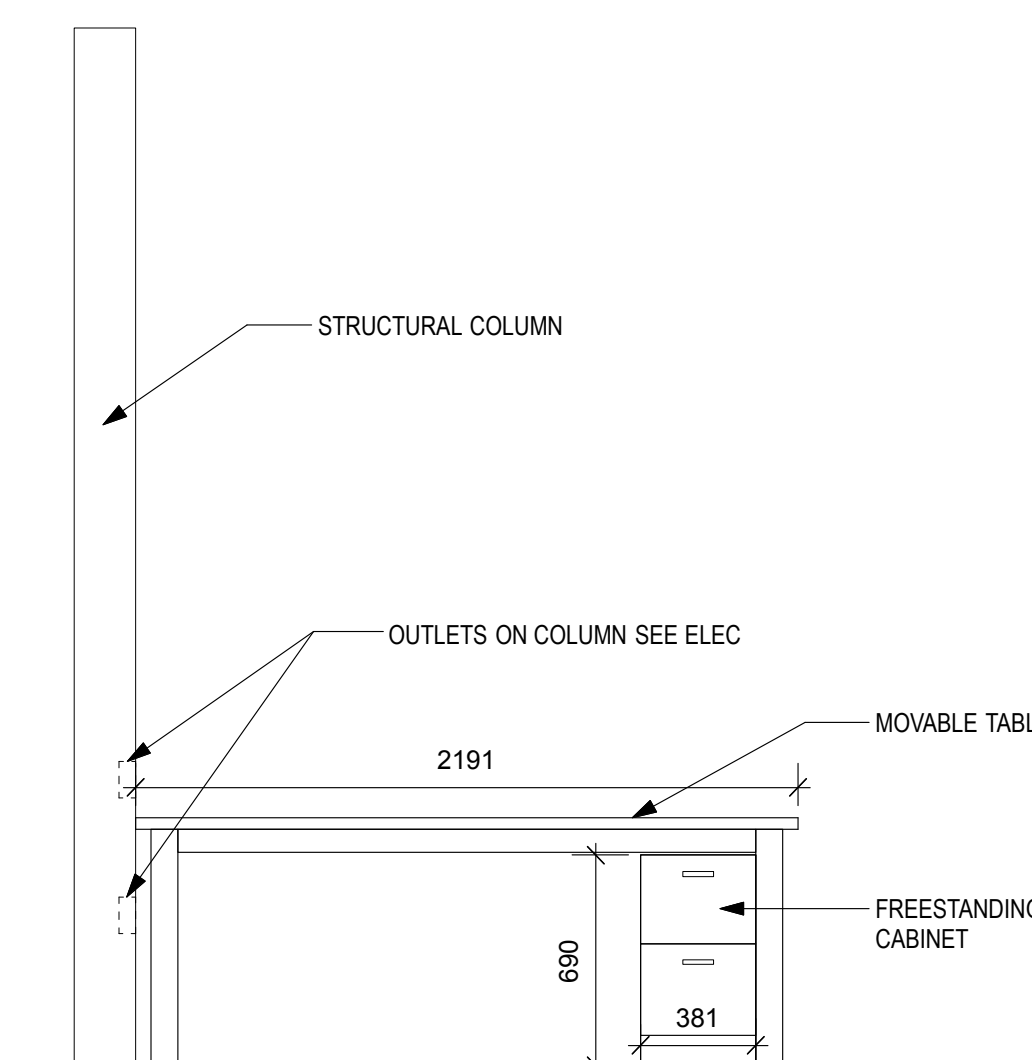
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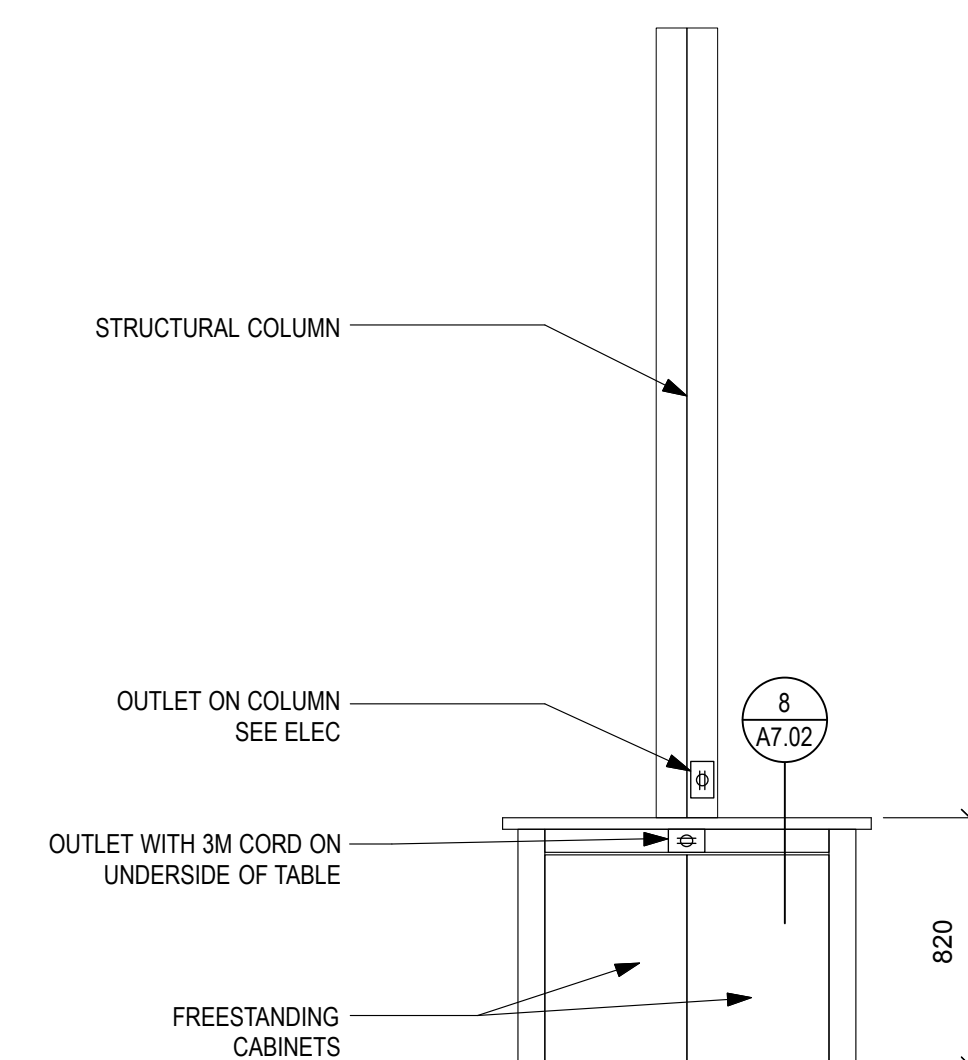
3 DESK - ACOUSTICS LAB (103)
 SCALE: 1:50



4 ENTRY - ACOUSTICS LAB (103)
 SCALE: 1:50



5 WORKBENCH - ACOUSTICS LAB (103)
 SCALE: 1:50



6 WORKBENCH - ACOUSTICS LAB (103)
 SCALE: 1:50



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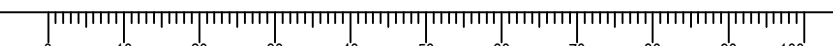
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PREETIPAL PAUL

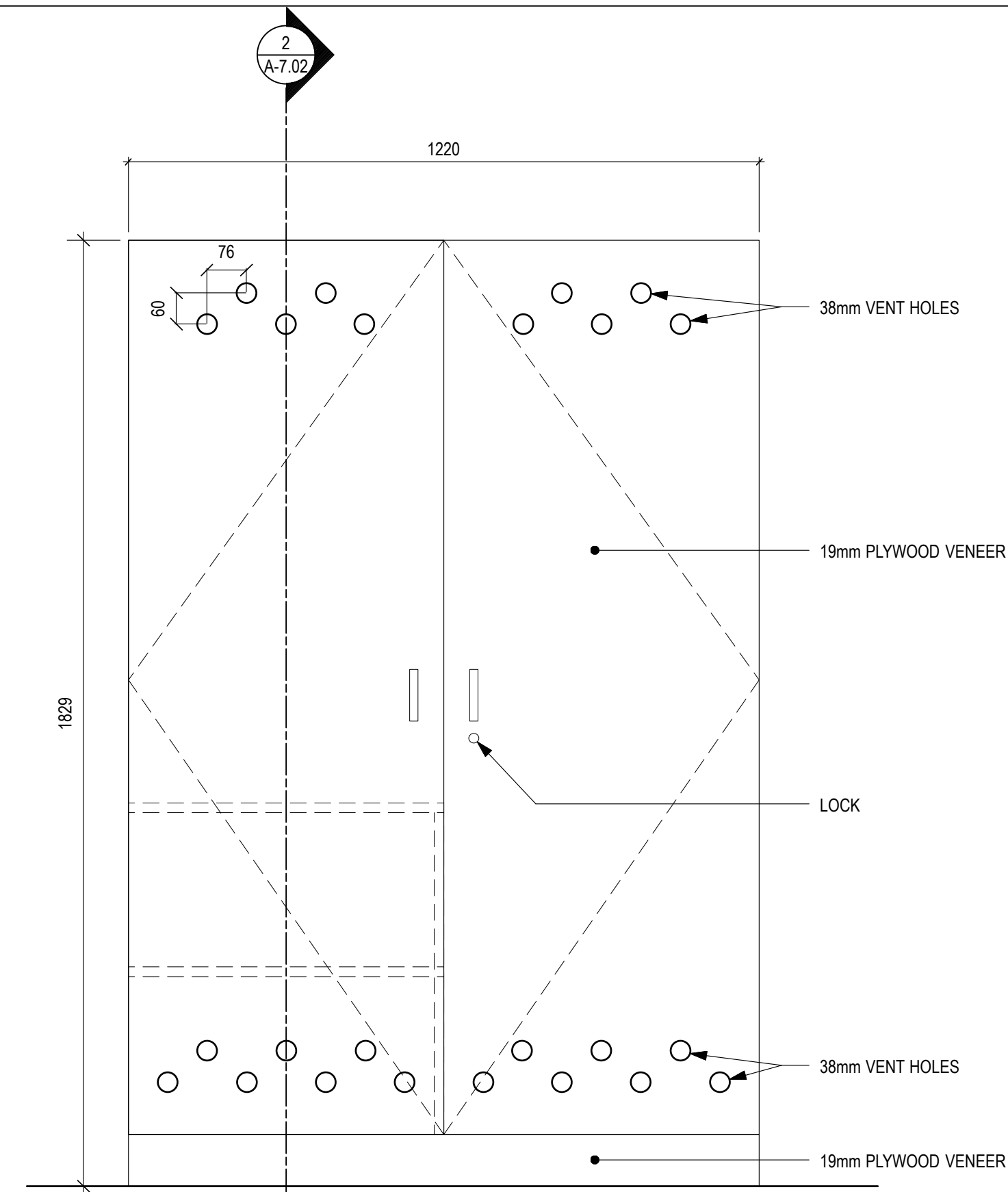
Drawing title/Titre du dessin
INTERIOR ELEVATIONS

| | | |
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| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| - | A7.01 | 2 |

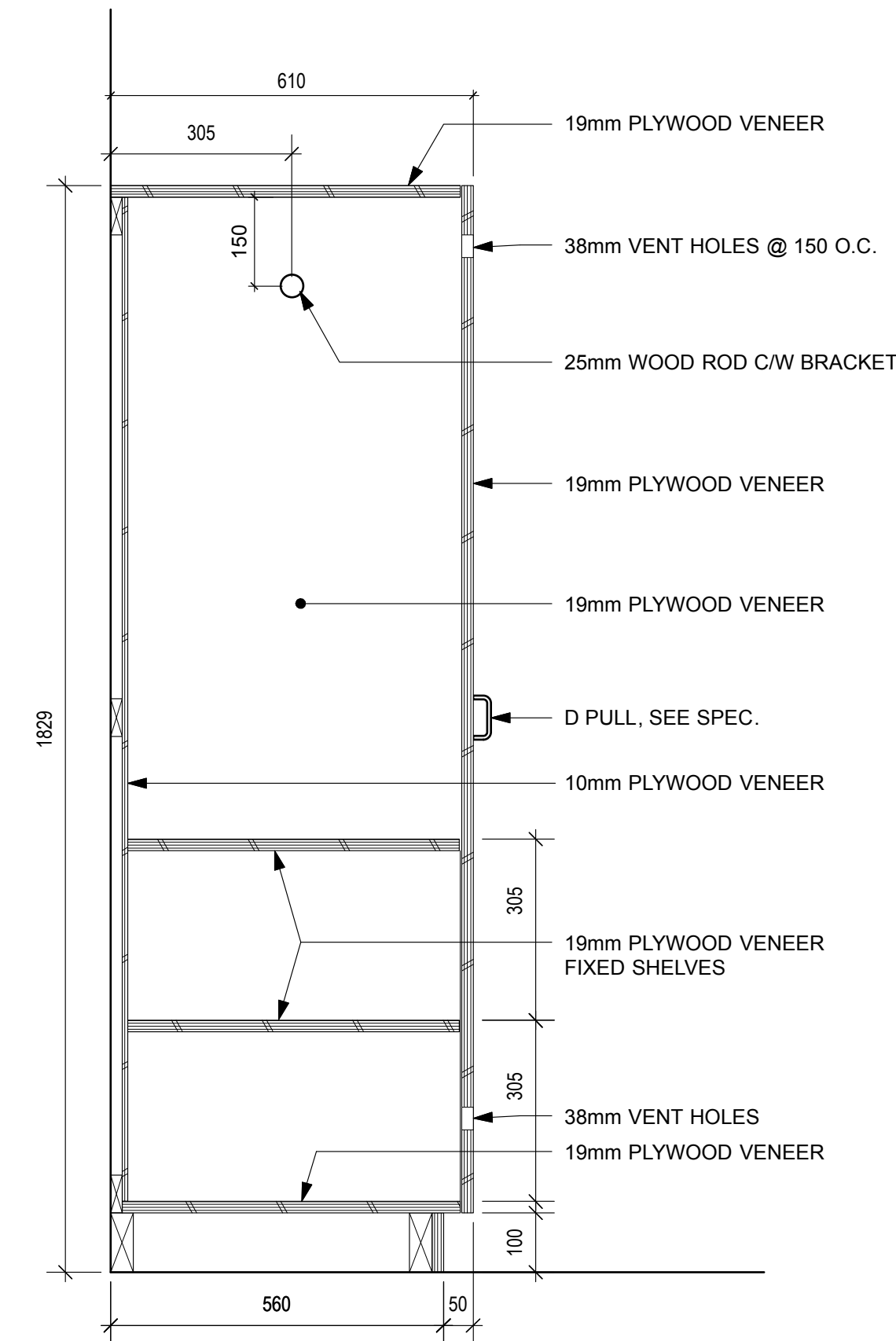
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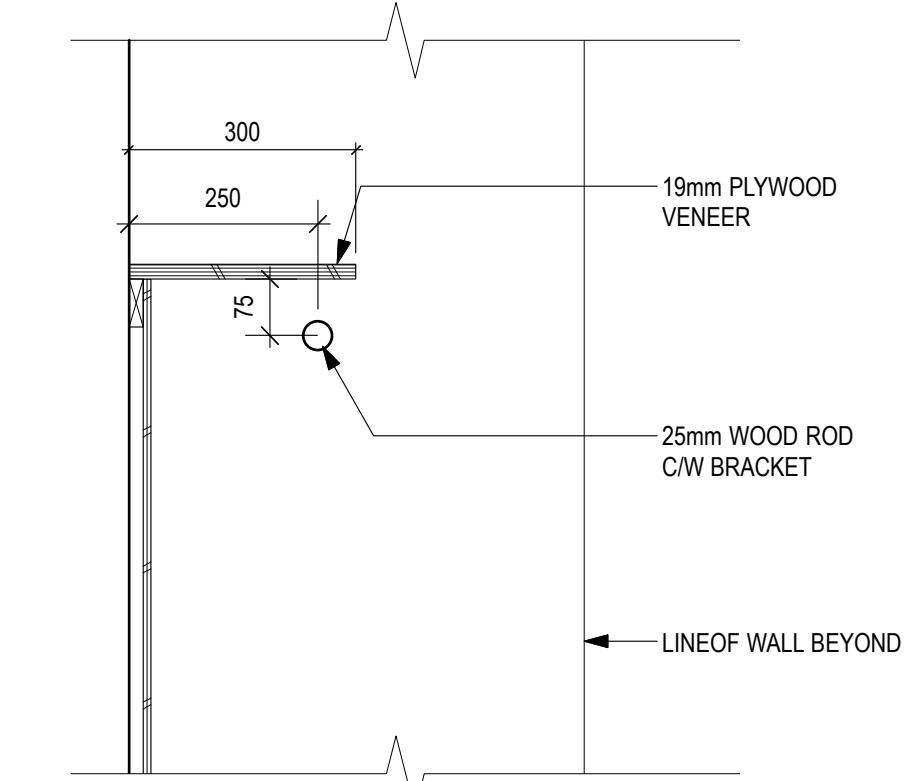




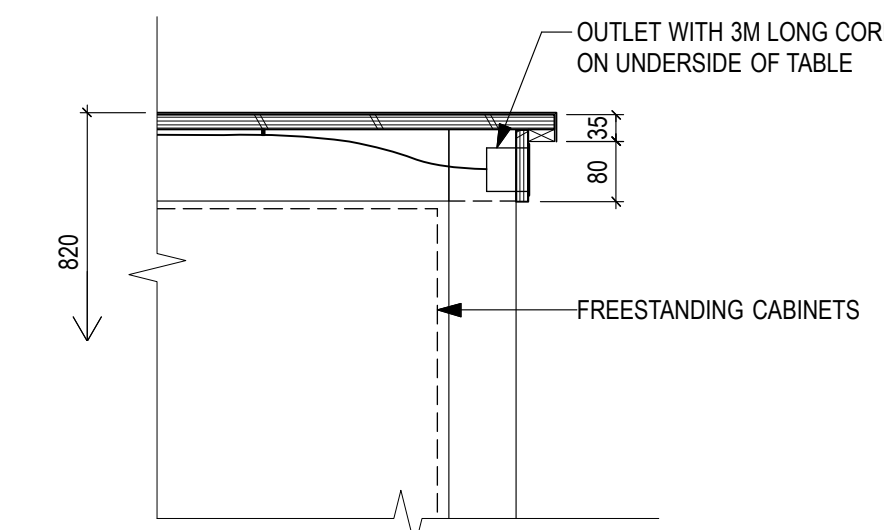
1 LOCKER ELEVATION
A7.02 SCALE: 1:10



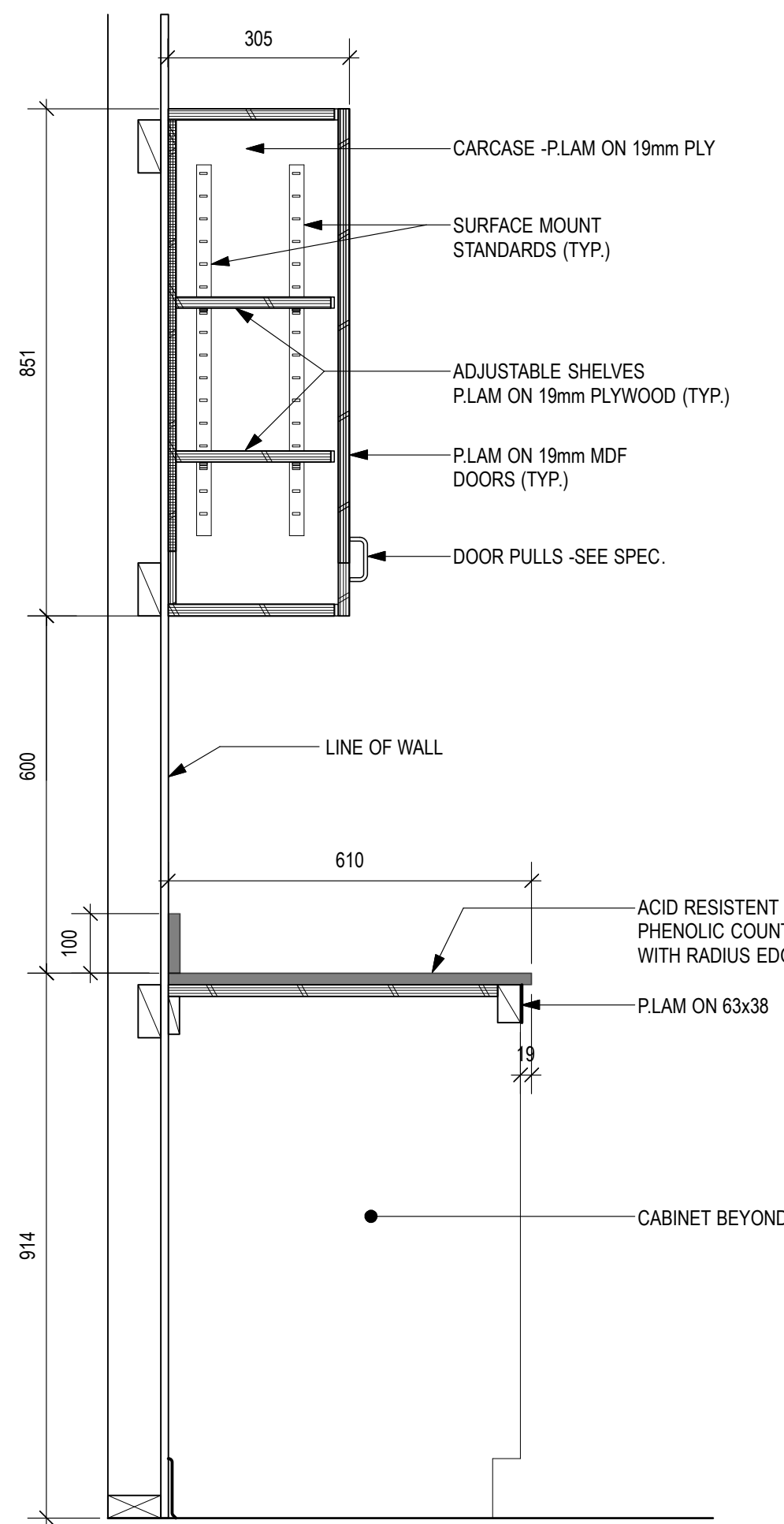
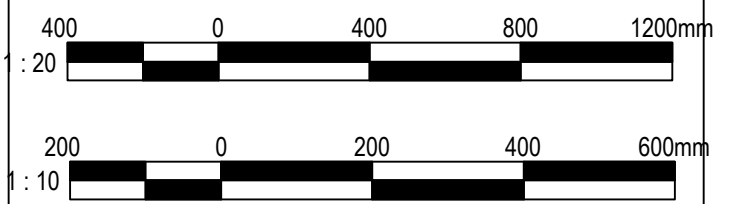
2 LOCKER DETAIL
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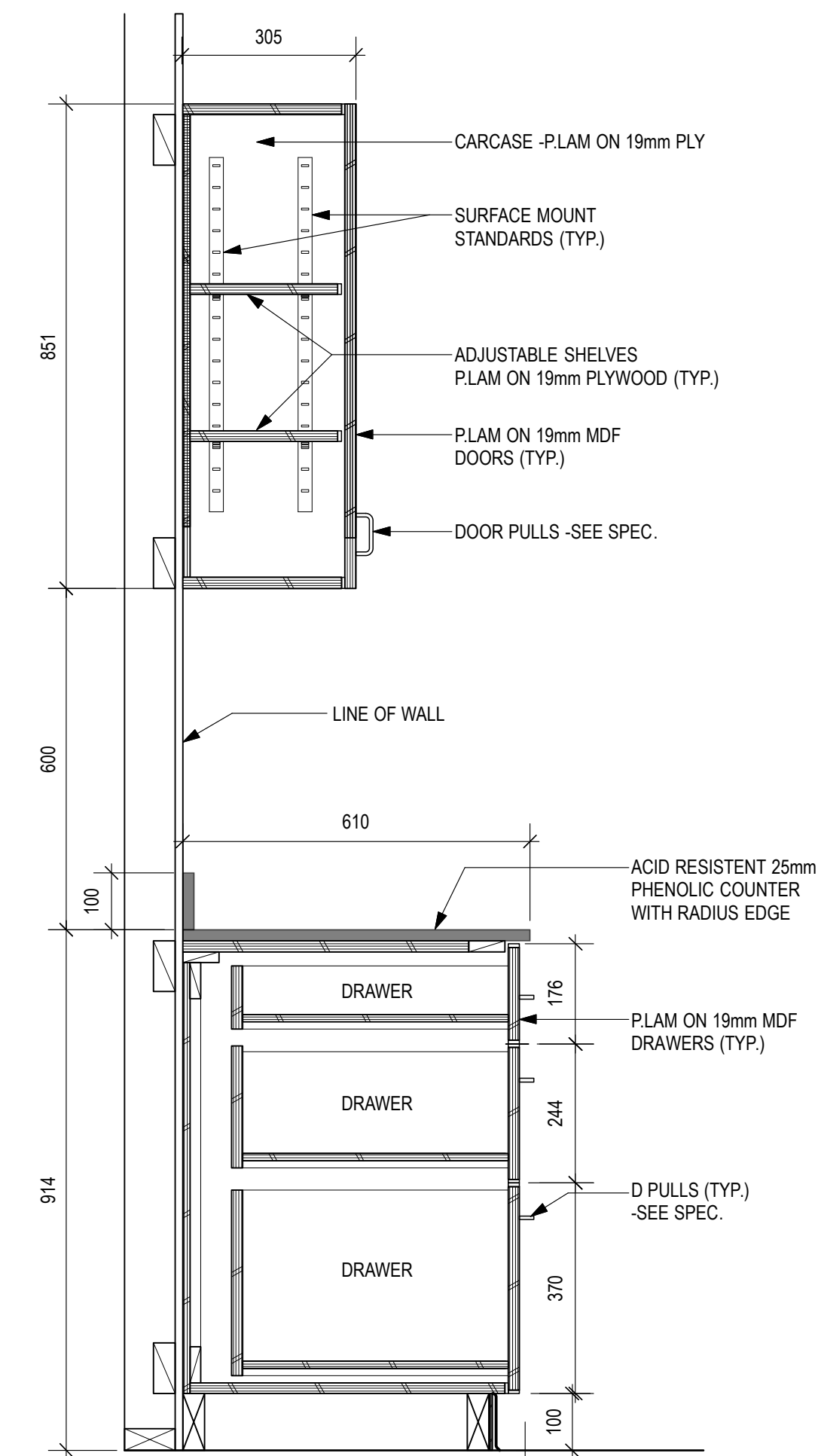
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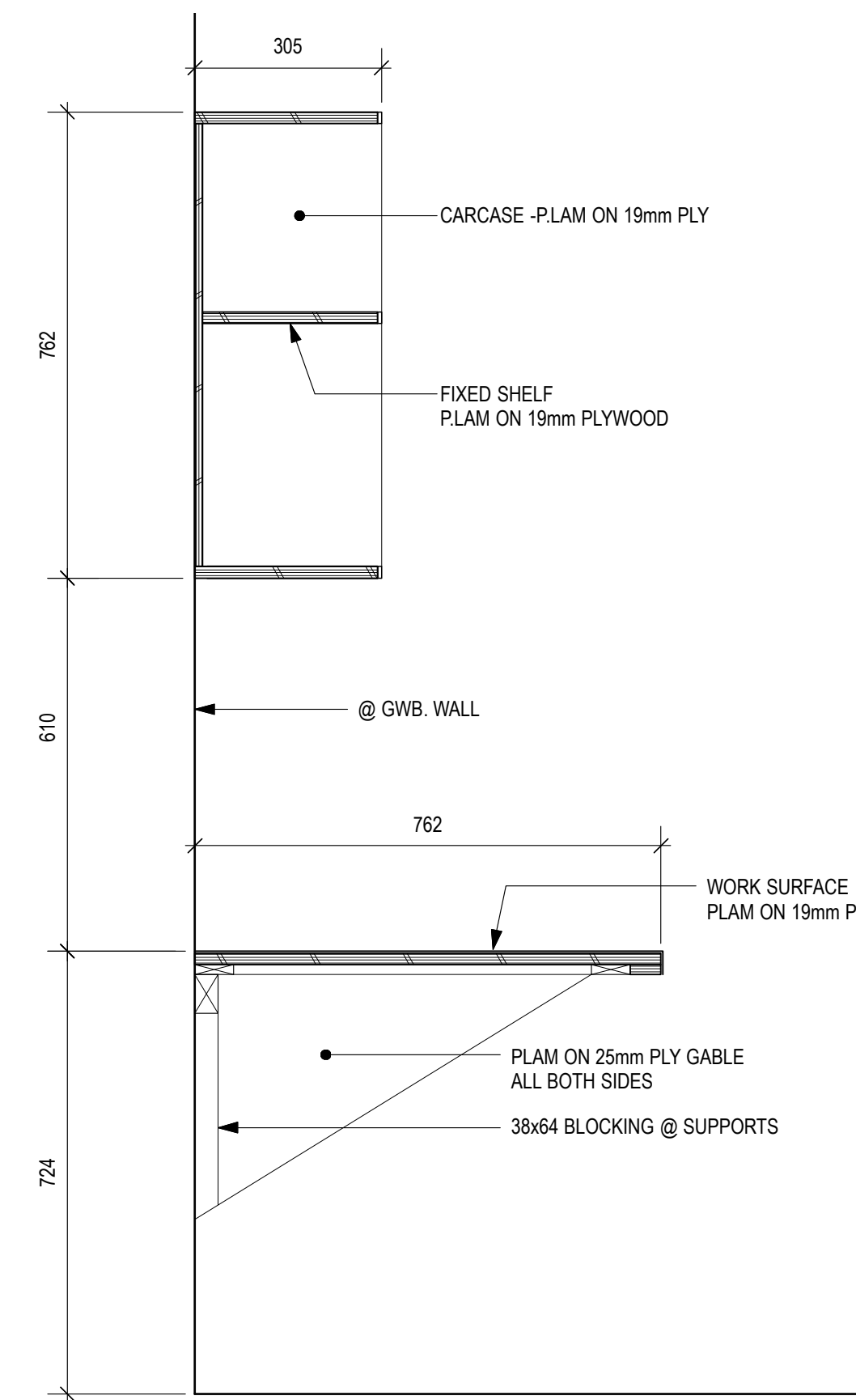
8 WORKBENCH DETAIL
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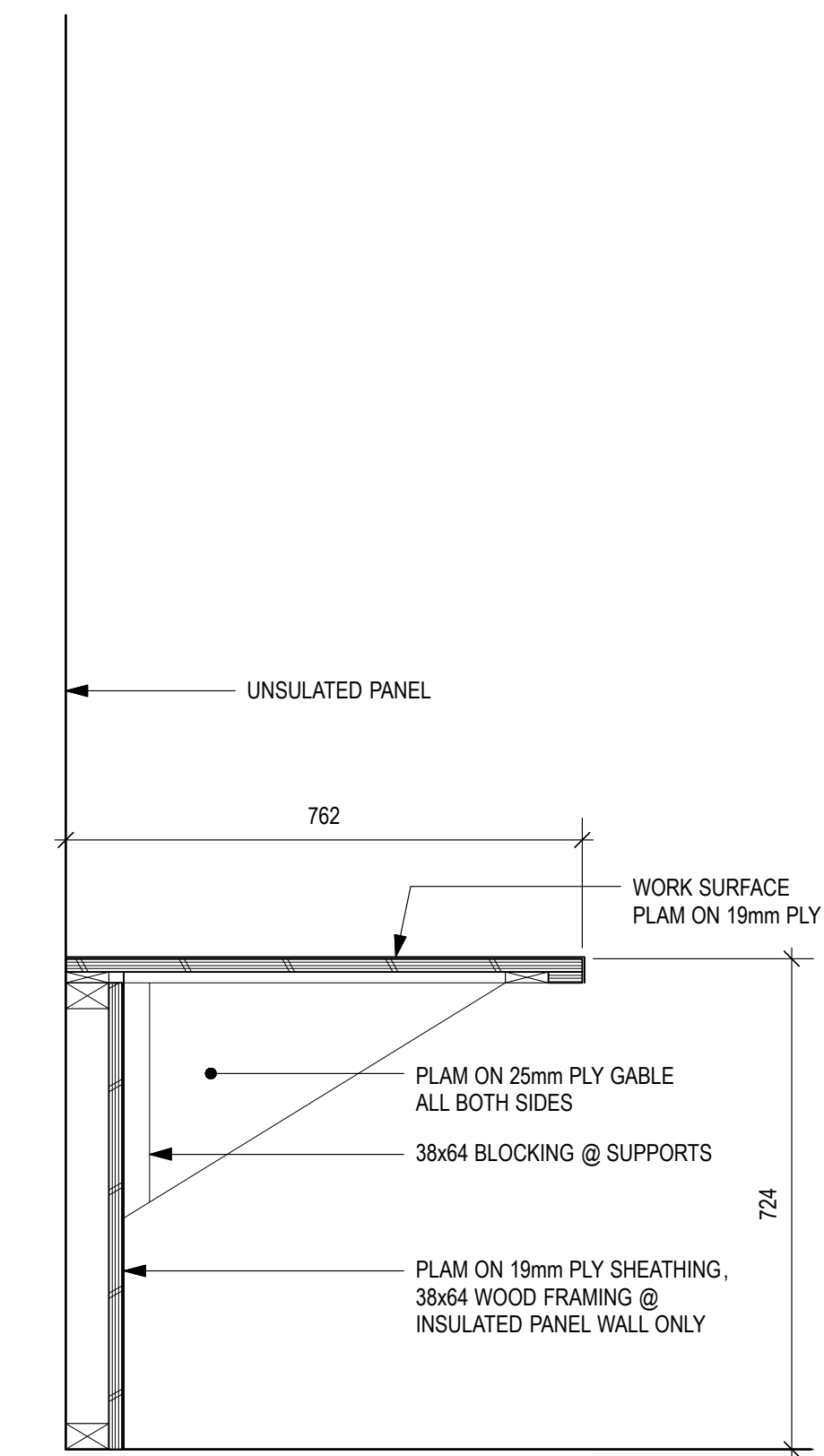
3 FEED LAB (100) WORK BENCH
A7.02 SCALE: 1:10



4 FEED LAB (100) WORK BENCH
A7.02 SCALE: 1:10



5 ACOUSTICS LAB (103) WORK DESK
A7.02 SCALE: 1:10



6 ACOUSTICS LAB (103) WORK DESK
A7.02 SCALE: 1:10

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PREETIPAL PAUL

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MILLWORK DETAILS

| | | |
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| | A7.02 | 2 |



| DOOR SCHEDULE | | | | | | | | | | | | | | | | |
|-------------------|----------------------|-----------|-----|------|------|------|-------|--------|-------|------------|------|------|--------|-------|-------|--|
| FEED LAB BUILDING | | | | | | | | | | | | | | | | |
| OPENING | | DOOR | | | | | | | FRAME | | | | | | | |
| NUM. | SIZE (W x H x THICK) | ROOM NAME | FRR | HDWR | TYPE | MATL | CORE | FINISH | COLOR | GLAZ. | MATL | TYPE | FINISH | COLOR | GLAZ. | REMARKS |
| 1 | 1828 x 2032 x 45 | FEED LAB | - | 1 | D | MTL | INSU. | PT | | D.G. TEMP. | H.M. | B | PT | | | LOCK; CLOSER; KICK PLATE; THRESHOLD; WEATHER STRIPPING; SWEEP |
| 2 | 914 x 2032 x 102 | COOLER | - | 2 | C | MTL | INSU. | P.F. | | | H.M. | A | P.F. | | | GASKET; SELF RISING HINGES; SAFETY RELEASE FASTENER - COOLER TYPE DOOR |

| ACOUSTIC LAB BUILDING | | | | | | | | | | | | | | | | |
|-----------------------|----------------------|--------------|-----|------|------|------|-------|--------|-------|------------|------|------|--------|-------|-------|---|
| OPENING | | DOOR | | | | | | | FRAME | | | | | | | |
| NUM. | SIZE (W x H x THICK) | FROM | FRR | HDWR | TYPE | MATL | CORE | FINISH | COLOR | GLAZ. | MATL | TYPE | FINISH | COLOR | GLAZ. | REMARKS |
| 3 | 914 x 2032 x 45 | OPEN OFFICE | - | 3 | B | MTL | INSU. | PT | | D.G. TEMP. | H.M. | A | PT | | | LOCK; CLOSER; KICK PLATE; THRESHOLD; WEATHER STRIPPING; SWEEP |
| 4 | 914 x 2032 x 45 | SERVER ROOM | - | 4 | A | MTL | INSU. | PT | | | H.M. | A | PT | | | PASSAGE SET; KICK PLATE |
| 5 | 914 x 2032 x 45 | UTILITY ROOM | - | 5 | A | MTL | INSU. | PT | | | H.M. | A | PT | | | PASSAGE SET; KICK PLATE; WEATHER STRIPPING |

SCHEDULE ABBREVIATIONS:

| | | | | | |
|-------|------------------------|--------|--------------------|-------|------------------|
| ALUM. | ALUMINUM | INSUL. | INSULATED | P.F. | PRE-FINISHED |
| ARG. | ARGON FILL | MATL. | MATERIAL | PT. | PAINT |
| D.G. | DOUBLE GLAZED | MIN. | MINUTES or MINIMUM | T.B. | THERMALLY BROKEN |
| FRR | FIRE RESISTANCE RATING | MTL. | METAL | T.G. | TRIPLE GLAZED |
| GLAZ. | GLAZING (OR GLAZED) | NAT. | NATURAL | TEMP. | TEMPERED |
| H.M. | HOLLOW METAL | OBS. | OBSCURED | WD. | WOOD |
| HDWR | HARDWARE | | | | |

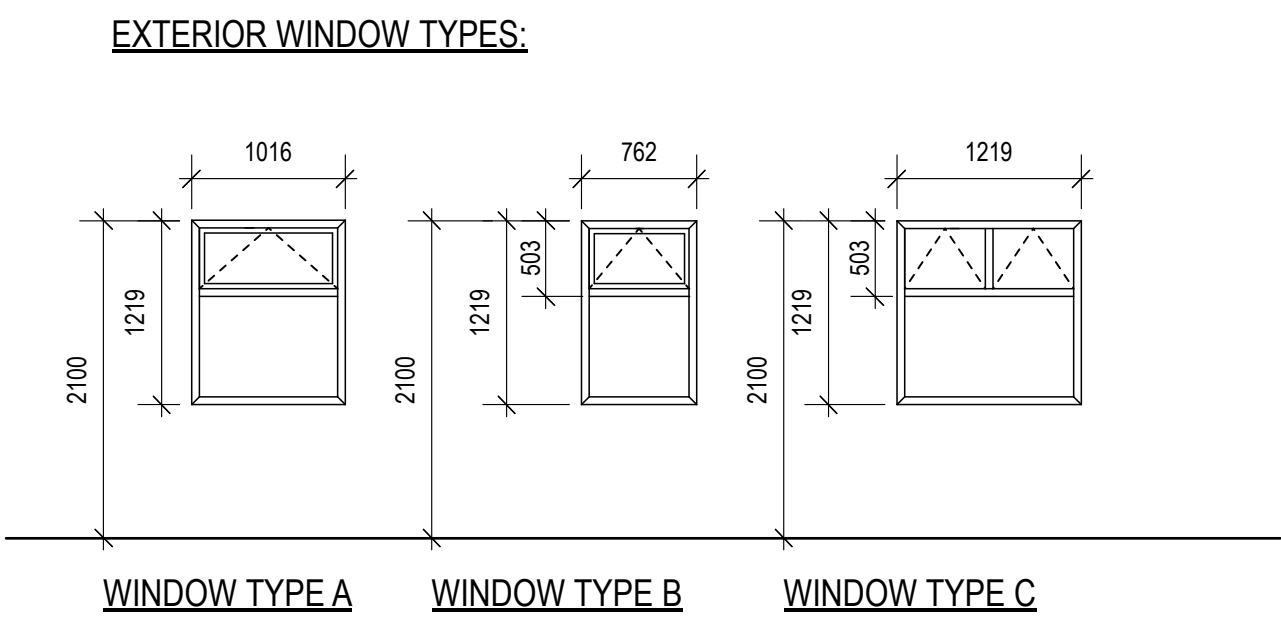
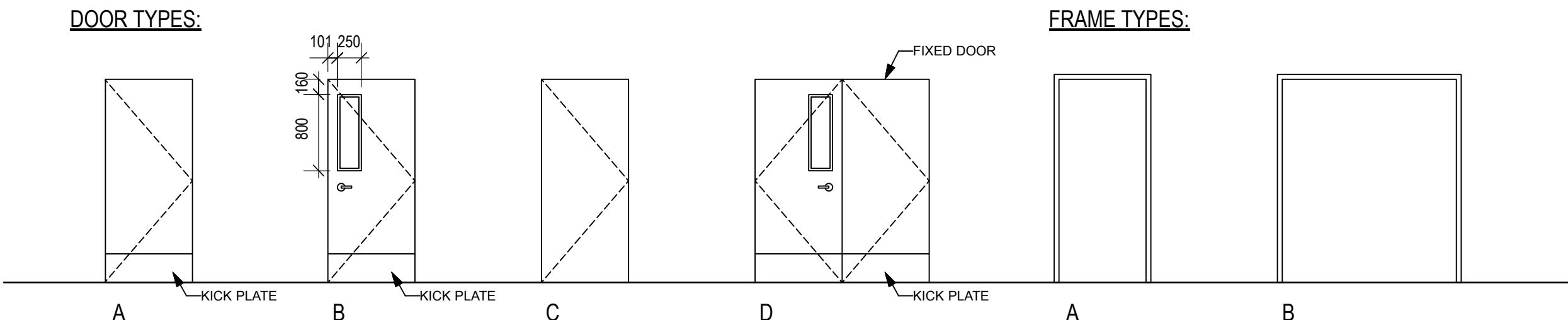
WINDOW SCHEDULE

| FEED LAB BUILDING | | | | | | | |
|-------------------|-------------------|------|------------|---------|--------|--------|---------|
| NUM. | R.O. SIZE (W x H) | TYPE | FRAME MATL | GLAZING | FINISH | COLOUR | REMARKS |
| 1 | 1016x1219 mm | A | VINYL | D.G. | | WHITE | |
| 2 | 762x1219 mm | B | VINYL | D.G. | | WHITE | |

| ACOUSTIC LAB BUILDING | | | | | | | |
|-----------------------|-------------------|------|------------|---------|--------|--------|---------|
| NUM. | R.O. SIZE (W x H) | TYPE | FRAME MATL | GLAZING | FINISH | COLOUR | REMARKS |
| 3 | 1219x1219 mm | C | VINYL | T.G. | | WHITE | |
| 4 | 1219x1219 mm | C | VINYL | T.G. | | WHITE | |

FINISH SCHEDULE ABBREVIATIONS:

| | | | | | |
|-------|-----------------------|------|--------------------------------------|---------|------------------------------|
| ACT | ACOUSTIC CEILING TILE | F.R. | NON-CONDUCTIVE, FIRE RETARDANT PAINT | SL. | SEALED TO BE DETERMINED |
| AS. | ANTI-STATIC | OP | OPERABLE | T.B.D. | TILE CERAMIC TILE |
| CARP. | CARPET TILE | S.R. | SHEET RUBBER | VCT | VINYL COMPOSITE TILE |
| CONC. | CONCRETE | PT. | PAINTED | W. COV. | WALL COVERING |
| GWB | GYPSUM WALL BOARD | S.V. | SHEET VINYL | M.P. | POLISHED METAL PANEL - WHITE |



FINISH SCHEDULE

| FEED LAB BUILDING | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|-----------|--------|--------|----------|-------|---------|----------|--------------|------------|----------|--------------|-----------|----------|--------------|------------|----------|--------------|-----------|----------|--------------|---------|--------|
| NUM. | ROOM NAME | FLOOR | | BASE | | CEILING | | | NORTH WALL | | | EAST WALL | | | SOUTH WALL | | | WEST WALL | | | REMARKS | |
| | | FINISH | COLOUR | MATERIAL | SIZE | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | | COLOUR |
| 100 | LAB | S.R. | | RUBBER | 100mm | | M.P. | PRE-FINISHED | WHITE | GWB. | PAINT | | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | |
| 101 | COOLER | S.R. | | RUBBER | 100mm | | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | |

| ACOUSTIC LAB BUILDING | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--------------|--------|--------|----------|-------|---------|----------|--------------|------------|----------|--------|-----------|----------|--------------|------------|----------|--------------|-----------|----------|--------------|---------|--------|
| NUM. | ROOM NAME | FLOOR | | BASE | | CEILING | | | NORTH WALL | | | EAST WALL | | | SOUTH WALL | | | WEST WALL | | | REMARKS | |
| | | FINISH | COLOUR | MATERIAL | SIZE | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | COLOUR | MATERIAL | FINISH | | COLOUR |
| 103 | LAB | S.R. | | RUBBER | 100mm | | M.P. | PRE-FINISHED | WHITE | GWB. | PAINT | | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | |
| 104 | SERVER ROOM | S.R. | | RUBBER | 100mm | | M.P. | PRE-FINISHED | WHITE | GWB. | PAINT | | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | |
| 105 | UTILITY ROOM | S.R. | | RUBBER | 100mm | | M.P. | PRE-FINISHED | WHITE | GWB. | PAINT | | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | M.P. | PRE-FINISHED | WHITE | |

| | | |
|---|--------------------------------|---|
| 2 | 100% REVIEW | 2017-11-30 |
| Revision/Revision | Description/Description | Date/Date |
| Client/client | | |
| FISHERIES AND OCEANS, REAL PROPERTY, SAFETY AND SECURITY | | |
| VANCOUVER, BC 200-401 BURRARD ST. | | |
| Project title/Titre du projet CENTER FOR AQUACULTURE & ENVIRONMENTAL RESEARCH | | |
| MODULAR LABS 4160 Marine Dr. West Vancouver | | |
| Consultant Signature Box Only | | |
| Designed by/Concept par RH | | |
| Drawn by/Dessiné par CM | | |
| PWGSC Project Manager/Administrateur de Projets TPSGC --- | | |
| PWGSC Regional Manager, Architectural and Engineering Services/ Gestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL | | |
| Drawing title/Titre du dessin DOOR, WINDOW, & FINISH SCHEDULES, EQUIPMENT TO BE RELOCATED | | |
| Project No./No. du projet - | Sheet/ Feuille A8.01 | Revision no./ La Révision no. 2 |

GENERAL

- THIS IS A METRIC PROJECT. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN MILLIMETERS AND ALL FORCES ARE IN METRIC UNITS.
- "WSP-S" REFERS TO WSP CANADA STRUCTURAL CONSULTANT.
- PRIOR TO CONSTRUCTION, REVIEW STRUCTURAL DRAWINGS IN CONJUNCTION WITH DRAWINGS PROVIDED BY ALL OTHER CONSULTANTS.
- REPORT ANY DISCREPANCIES OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
- DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION FROM WSP-S.
- EXISTING STRUCTURAL INFORMATION IS BASED UPON SEALED PREFABRICATED BUILDING MODEL 24X72-S1 STRUCTURAL ALUMINUM FRAME DRAWINGS PREPARED ON MAY 11, 2015.
- VERIFY EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO CONSTRUCTION.
- USE THESE DRAWINGS ONLY FOR THE PURPOSE IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION".
- DO NOT USE INFORMATION ON THESE DRAWINGS FOR ANY OTHER PROJECT OR WORKS.
- DO NOT SCALE THESE DRAWINGS.
- ALL SECTIONS, DETAILS AND STATEMENTS NOTED AS "TYPICAL" APPLY TO LIKE / SIMILAR CONDITIONS IN THE STRUCTURE.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR WATERPROOFING, SEALERS, ETC.
- REFER TO GEOTECHNICAL LETTER AND ARCHITECTURAL / CIVIL DRAWINGS AND SPECIFICATIONS FOR ALL SOIL WORKS.
- DRAWINGS SHOW COMPLETED FOUNDATION STRUCTURE ONLY. THEY DO NOT SHOW TEMPORARY WORKS FOR WHICH THE CONTRACTOR IS RESPONSIBLE AND WHICH MAY BE REQUIRED FOR EXECUTION OF THE PROJECT, INCLUDING TEMPORARY SHORING, BRACING, GUYS AND TIE DOWNS. THE CONTRACTOR TO ESTABLISH CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE WHOLE STRUCTURE AND ALL ITS COMPONENTS DURING ERECTION.
- EXTENT OF ALL TEMPORARY SHORING FOR EXCAVATION WHICH MAY BE REQUIRED IS NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS, CONTRACTOR TO DETERMINE.
- DESIGN AND CONSTRUCTION REVIEW OF ALL TEMPORARY WORKS TO BE CARRIED OUT BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED.
- ANCHOR BOLTS AND OTHER EMBEDDED ITEMS ARE DESIGNED FOR LOADS ACTING ON THE COMPLETED STRUCTURE ONLY AND ARE NOT TO BE USED OR RELIED UPON FOR TEMPORARY SUPPORT OR BRACING DURING ERECTION UNLESS REVIEWED AND APPROVED BY THE CONTRACTOR'S ENGINEER RESPONSIBLE FOR THE ERECTION PROCEDURES.
- CONSTRUCTION LOADS ON COMPLETED STRUCTURE NOT TO EXCEED DESIGN LOADS INDICATED ON DRAWINGS.
- UNLESS SHOWN ON STRUCTURAL DRAWINGS, DESIGN OF NON STRUCTURAL AND SECONDARY STRUCTURAL ELEMENTS AND THEIR CONNECTIONS TO THE PRIMARY BUILDING STRUCTURE ARE NOT WITHIN THE SCOPE OF SERVICES PROVIDED BY WSP-S. SUCH ELEMENTS INCLUDE (BUT ARE NOT LIMITED TO) THE FOLLOWING:

- MISCELLANEOUS STEEL ELEMENTS: STAIRS, RAILINGS, GUARDRAILS.
- PARTITIONS: MASONRY, GLASS, WOOD AND STEEL STUDS, PREFABRICATED PANELS
- ARCHITECTURAL PRECAST, PRECAST STAIRS.
- EXTERIOR CLADDING: PRECAST PANELS, METAL WALL SYSTEMS, CURTAIN WALLS AND WINDOWS.
- ROOF ANCHORS.
- SUPPORTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT: HANGERS, BRACES, POSTS, RACKS, SLEEPERS, SEISMIC RESTRAINTS, SUPPORT PLATFORMS AND PADS, SERVICE PLATFORMS.
- SUPPORTS AND SEISMIC RESTRAINTS FOR OTHER EQUIPMENT, SUCH AS MEDICAL AND SPORTS EQUIPMENT.
- STORAGE RACKS.
- LANDSCAPING ELEMENTS: WALLS, CURBS, BENCHES, PLANTERS, WATER FEATURES.
- LIGHT POLES, FLAG POLES, SIGNS AND THEIR FOUNDATIONS.

WSP-S WILL NOT REVIEW DESIGN, DETAILING AND INSTALLATION OF THESE ELEMENTS, FOR WHICH SUPPLIERS AND / OR SPECIALTY PROFESSIONAL ENGINEERS ARE RESPONSIBLE. THE ONLY REVIEW PROVIDED (WHERE APPLICABLE) WILL BE FOR IMPACT ON THE BASE BUILDING STRUCTURE.

- MAINTAIN A QUALITY CONTROL PLAN FOR STRUCTURAL WORK, AND MAKE IT AVAILABLE TO THE CONSULTANT UPON REQUEST. AT A MINIMUM, THE PLAN TO INCLUDE:
 - NAMES OF PERSONNEL RESPONSIBLE FOR EXECUTION OF THE PLAN.
 - MEANS AND METHODS FOR CONFIRMING MATERIAL COMPLIANCE WITH SPECIFICATIONS AND ASSOCIATED DOCUMENTATION PROCEDURES.
 - PROGRAM FOR CONFIRMING AND DOCUMENTING COMPLIANCE WITH REQUIRED SUB-TRADE QUALIFICATIONS AND QUALIFICATIONS OF THEIR INDIVIDUAL EMPLOYEES AND SUB-CONTRACTORS.
 - PROCEDURES FOR REVIEWING FIELD COMPLIANCE WITH CONSTRUCTION DOCUMENTS, INCLUDING DOCUMENTATION OF LOCATIONS REVIEWED, PHOTOGRAPHS TAKEN AND TIMING OF REVIEW. THE CONTRACTOR'S REVIEW TO BE COMPLETED PRIOR TO REVIEW BY THE CONSULTANT.
 - PROCEDURES FOR RECTIFYING DEFICIENCIES NOTED BY THE CONTRACTOR, SUB-CONTRACTORS, CONSULTANTS AND INDEPENDENT INSPECTION AGENCIES.
- FOR INSPECTION AND TESTING REQUIREMENTS, REFER TO SPECIFICATIONS.
- IN CASE OF DISCREPANCY BETWEEN GENERAL NOTES, DRAWINGS AND SPECIFICATIONS, COMPLY WITH THE MOST STRINGENT REQUIREMENTS.

DESIGN DATA

- STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2015 NATIONAL BUILDING CODE (NBC), SUPPLEMENTED BY THE USER'S GUIDE - NBC 2015 STRUCTURAL COMMENTARIES.
- STEEL ELEMENTS ARE DESIGNED PER CSA S16-09 - LIMIT STATE DESIGN OF STEEL STRUCTURES.
- THE VALUES FOR CLIMATIC DATA USED IN THE DETERMINATION OF DESIGN LOADS HAVE BEEN OBTAINED FROM THE 2015 NBC FOR THE SPECIFIC LOCATION OF WEST VANCOUVER.
- BASED ON THE USE AND OCCUPANCY, THE BUILDING IS DESIGNED TO THE REQUIREMENTS OF A NORMAL IMPORTANCE CATEGORY.
- SELF WEIGHT (SWT) IS DUE TO THE WEIGHT OF THE STRUCTURE ITSELF. IT VARIES WITH THE STRUCTURAL SYSTEM.
- SUPERIMPOSED DEAD LOADS (SDL) ARE NON-STRUCTURAL DEAD LOADS DUE TO NON-STRUCTURAL TOPPING, FINISHES, PARTITIONS, ROOFING MATERIALS, SUSPENDED EQUIPMENT, PAVERS, SOIL, ETC.
- DEAD LOAD (DL) IS THE SELF WEIGHT OF THE STRUCTURE PLUS THE SUPERIMPOSED DEAD LOAD.
- LIVE LOAD (LL) REDUCTION HAS NOT BEEN USED.
- UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN ON DRAWINGS ARE SPECIFIED (UNFACTORED) LOADS, TO BE USED FOR ULS DESIGN. FOR SLS DESIGN, THESE LOADS CAN BE REDUCED BY MULTIPLYING WITH THE RATIO OF APPROPRIATE IMPORTANCE FACTORS $k_1(SLS) / k_1(ULS)$ GIVEN BELOW.

- IF ONLY ONE VALUE IS GIVEN FOR A LOAD, CONSIDER IT LIVE LOAD.
- SNOW:
 $S_s = 2.4 \text{ kPa}$ $S_r = 0.2 \text{ kPa}$ $I_s \text{ (ULS)} = 1.0$ $I_s \text{ (SLS)} = 0.9$
 MINIMUM UNFACTORED SNOW LOAD = $2.1 \text{ kPa} \times I_s$
- LATERAL LOADS ON THE FOUNDATION ARE DETERMINED BASED ON THE WIND AND SEISMIC DATA BELOW.
 - WIND:
 $q_{50} = 0.48 \text{ kPa}$ $I_w \text{ (ULS)} = 1.0$ $I_w \text{ (SLS)} = 0.75$
 BUILDING IS: LOW RISE
 TERRAIN TYPE: OPEN
 $C_e = 0.9$
 INTERNAL PRESSURE CATEGORY: 2
 WIND LOAD AT GRADE LEVEL FOR DESIGN OF OVERALL BUILDING LATERAL LOAD RESISTING SYSTEM:
 1.2 kPa
 FACTORED BASE SHEARS & OVERTURNING MOMENTS:
 $V(NS) = 45 \text{ kN}$
 $M(NS) = 239 \text{ kNm}$
 $V(EW) = 45 \text{ kN}$
 $M(EW) = 239 \text{ kNm}$
 - $S_a(0.2) = 0.818$ $PGA = 0.356$ $I_e F_a S_a(0.2) = 0.79$
 $S_a(0.5) = 0.721$ $R_d = 1.0$
 $S_a(1.0) = 0.41$ $R_o = 1.0$ SITE CLASSIFICATION = D
 $S_a(2.0) = 0.25$ $I_e = 1.0$
 SEISMIC FORCE RESISTING SYSTEM (SFRS): ALUMINUM MOMENT FRAMES (ASSUMED)
 FACTORED BASE SHEARS & OVERTURNING MOMENTS:
 $V(NS) = 133 \text{ kN}$
 $M(NS) = 615 \text{ kNm}$
 $V(EW) = 133 \text{ kN}$
 $M(EW) = 615 \text{ kNm}$

SHOP DRAWINGS

- REFER TO SPECIFICATIONS FOR SHOP DRAWINGS WHICH NEED TO BE SUBMITTED FOR REVIEW.
- REVIEW OF SHOP DRAWINGS BY WSP-S IS ON A SAMPLING BASIS. FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS, IT IS NOT A DETAILED CHECK AND MUST NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO MAKE THE WORK ACCURATE AND IN CONFORMITY WITH ALL THE CONTRACT DOCUMENTS. TO REVIEW SHOP DRAWINGS AND TO COORDINATE WORK OF INTERFACING TRADES AND MANUFACTURE OF INTERFACING PRODUCTS.
- REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS.
- ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS IN WSP-S OFFICE. ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED. SUBMIT IN GENERAL CONFORMITY WITH THE SEQUENCE OF CONSTRUCTION INTENDED.
- AFTER REVIEW, THE DRAWINGS WILL BE STAMPED AND RETURNED. DO NOT COMMENCE FABRICATION UNTIL RETURNED SHOP DRAWINGS HAVE BEEN EXAMINED.
- SHOP DRAWINGS MARKED "REVIEWED" CAN BE USED FOR FABRICATION. DO NOT MAKE ANY CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE CONSULTANT.
- SHOP DRAWINGS MARKED "REVIEWED AS NOTED" CAN BE USED FOR FABRICATION AFTER THE REVISIONS NOTED ARE IMPLEMENTED. DO NOT MAKE ANY FURTHER CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING THE CONSULTANT.
- SHOP DRAWINGS MARKED "REVISE AND RESUBMIT" REQUIRE SUBSTANTIAL REVISIONS AND MUST BE RESUBMITTED FOR ADDITIONAL REVIEW PRIOR TO FABRICATION. ALL CHANGES AND ADDITIONS TO THE PREVIOUS SUBMISSION TO BE CLEARLY IDENTIFIED ON THE RESUBMITTED DRAWINGS.
- SHOP DRAWINGS MARKED "REVIEWED FOR IMPACT ON BASE STRUCTURE ONLY" SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES BUT AFFECT BEHAVIOUR OF THE BASE STRUCTURE. WSP-S WILL NOT REVIEW DESIGN OF THESE WORKS AND ASSUMES THAT THE INDICATED WEIGHTS AND ALL OTHER LOADS IMPOSED ON THE BASE STRUCTURE ARE CORRECTLY IDENTIFIED BY THE DESIGNER / SUPPLIER OF THESE ELEMENTS.
- DRAWINGS MARKED "NOT REVIEWED" SHOW WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES AND DO NOT IMPACT THE BASE BUILDING STRUCTURE.
- EXCEPT FOR EXCAVATION SHORING (WHICH WILL BE REVIEWED FOR IMPACT ON THE BASE STRUCTURE ONLY), WSP-S WILL NOT REVIEW DESIGN AND IMPLEMENTATION OF ANY TEMPORARY WORKS, NOR ASSESS IMPACT OF THESE WORKS ON THE BASE STRUCTURE. THE CONTRACTOR AND / OR THE PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR MUST ENSURE THAT THE BASE STRUCTURE IS NOT ADVERSELY AFFECTED BY THE TEMPORARY WORKS AND CONSTRUCTION PROCESS AND THAT TEMPORARY LOADS DO NOT EXCEED THE DESIGN LOADS INDICATED ON STRUCTURAL DRAWINGS.
- DO NOT USE SHOP DRAWINGS AS A MEANS TO PROPOSE SUBSTITUTIONS OR ALTERNATIVES TO THE MATERIALS, PRODUCTS OR DETAILS INDICATED IN CONTRACT DOCUMENTS. SUCH SHOP DRAWINGS WILL BE MARKED "REVISE AND RESUBMIT".
- PROVIDE FINAL RECORD DRAWINGS AFTER ALL CORRECTIONS ARE MADE.

FIELD REVIEW

- WSP-S WILL PROVIDE PERIODIC FIELD REVIEW OF A REPRESENTATIVE SAMPLE OF THE STRUCTURAL WORKS DETAILED ON THESE DRAWINGS FOR GENERAL CONFORMANCE WITH CONTRACT DOCUMENTS. THESE REVIEWS DO NOT REPLACE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND MAINTAIN A QUALITY CONTROL PROGRAM, AND DO NOT MAKE WSP-S A GUARANTOR OF THE CONTRACTOR'S WORK.
- CONSTRUCTION REVIEW REPORTS WILL OUTLINE ANY DEFICIENCIES FOUND.
- ASSIST WSP-S DURING FIELD REVIEW, AND PROVIDE SAFE ACCESS TO WORK AREAS AS REQUIRED.
- CHECK THE WORK PRIOR TO FIELD REVIEW TO CONFIRM IT IS COMPLETED AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- BRING TO THE ATTENTION OF WSP-S ANY DEFICIENCIES FOUND IN THE WORK TOGETHER WITH A PROPOSAL FOR REMEDY. WSP-S WILL DECIDE WHAT CORRECTIVE ACTION MAY BE TAKEN AND ISSUE THE NECESSARY INSTRUCTIONS.
- PROVIDE REASONABLE NOTICE (NOT LESS THAN 24 HOURS) TO ALLOW FOR THE FIELD REVIEW OF THE FOLLOWING:
 - STRUCTURAL STEEL BEFORE COVERING UP OR PLACING ALUMINUM BUILDING
- SCHEDULE REVIEW WORK TO OCCUR DURING NORMAL BUSINESS HOURS.
- ORGANIZE FOR FIELD REVIEW OF ALL PROPRIETARY PRODUCTS AND OTHER STRUCTURAL WORKS DESIGNED BY SPECIALTY ENGINEERS. THE REVIEW TO BE BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN OR BY OTHER ENGINEERS DESIGNATED BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN AND LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED. SUBMIT CONSTRUCTION REVIEW REPORTS FOR CONSULTANT'S RECORD.

FOUNDATIONS

- STRUCTURAL DESIGN IS BASED ON THE GEOTECHNICAL LETTER PREPARED BY: THURBER ENGINEERING LTD. DATED: DECEMBER 11, 2017.
- REFER TO THE GEOTECHNICAL LETTER FOR DETAILED INFORMATION ON GEOTECHNICAL CONDITIONS, FOUNDATION RECOMMENDATIONS, AND FOR ALL EARTH-WORK INCLUDING SUBGRADE PREPARATION.
- ASSUMED FOOTING BEARING RESISTANCE:
 70 kPa AT ULS (ULTIMATE LIMIT STATES DESIGN)
 50 kPa AT SLS (SERVICEABILITY LIMIT STATES DESIGN)
- CONSTRUCT ALL FOOTINGS ON STRATA CAPABLE TO PROVIDE THE BEARING RESISTANCE NOTED, BUT NOT ABOVE THE ELEVATIONS INDICATED ON DRAWINGS.
- STRUCTURAL DRAWINGS SHOW FOOTINGS AT ELEVATIONS WHERE THE REQUIRED BEARING RESISTANCE IS ANTICIPATED. GEOTECHNICAL CONSULTANT TO REVIEW AND APPROVE IN WRITING ALL BEARING SURFACES PRIOR TO CONSTRUCTING FOOTINGS.
- IF THE ASSUMED BEARING RESISTANCE IS NOT OBTAINED AT THE UNDERSIDE OF FOOTING ELEVATION INDICATED ON DRAWINGS, EXTEND EXCAVATION UNTIL COMPETENT SOIL IS REACHED, AND PROVIDE LEAN CONCRETE FILL TO UNDERSIDE OF FOOTING.
- PROVIDE MIN. 50 (2") DEEP MUD SLAB AS REQUIRED TO PROTECT BOTTOM OF EXCAVATION, AND IN ALL CASES WHERE RECOMMENDED IN GEOTECHNICAL REPORT OR SHOWN ON DRAWINGS.
- UNLESS OTHERWISE NOTED, THE LONGER DIMENSION OF BLOCK FOOTINGS TO BE PARALLEL TO THE LONGER COLUMN DIMENSION.
- UNLESS OTHERWISE NOTED, CENTRE FOOTINGS UNDER CENTROID OF COLUMNS.
- LOCATE ALL EXISTING UNDERGROUND SERVICES PRIOR TO EXCAVATION.
- KEEP EXCAVATION (IF REQUIRED) DRAINED AND FREE OF WATER AT ALL TIMES.
- PROTECT FOOTINGS AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.

CAST-IN-PLACE CONCRETE

- CONCRETE IS SPECIFIED PER ALTERNATIVE 1 - PERFORMANCE SPECIFICATION, AS OUTLINED IN CSA A23.1. THE CONTRACTOR AND THE CONCRETE SUPPLIER TO MEET ALL CERTIFICATION, DOCUMENTATION, AND QUALITY CONTROL REQUIREMENTS.
- CONTRACTOR AND CONCRETE SUPPLIER TO ENSURE THAT PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING AND THE SPECIFIED PERFORMANCE REQUIREMENTS.
- CEMENT TO BE PORTLAND CEMENT TYPE GU UNLESS NOTED OTHERWISE OR REQUIRED BY EXPOSURE CLASS.
- CONCRETE TO BE NORMAL DENSITY (MIN. 2300 kg/m³) UNLESS NOTED OTHERWISE.
- NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE TO BE 20 (3/4") UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, CONCRETE TO BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

| ELEMENT | COMPRESSIVE STRENGTH (MPa) AT 28 DAYS (SEE NOTE #3 BELOW) | EXPOSURE CLASS | SPECIAL REQUIREMENTS & REMARKS |
|-------------------------|---|----------------|---------------------------------|
| LOCK BLOCK FOOTINGS | 20 MPa | F-2 | DESIGNED AND SUPPLIED BY OTHERS |
| LEAN CONCRETE, MUDSLABS | 10 | N | |
| UNSHRINKABLE FILL | 0.4 MAX. | | |

- REFER TO CSA A23.1 FOR THE MAXIMUM WATER/CEMENT RATIO, MINIMUM COMPRESSIVE STRENGTH, AIR CONTENT, CURING REQUIREMENTS, CHLORIDE ION PENETRABILITY AND ALTERNATE CEMENT TYPES TO MEET THE REQUIREMENTS FOR THE NOTED EXPOSURE CLASS.
- WHERE REQUIRED BY SPECIFICATIONS, PROVIDE MINIMUM AMOUNT OF SUPPLEMENTAL CEMENTING MATERIALS SPECIFIED FOR THE OVERALL PROJECT.
- DO NOT ADD WATER TO CONCRETE ON SITE.
- CONVEY CONCRETE FROM TRUCK TO FINAL LOCATION BY METHODS WHICH WILL PREVENT SEPARATION OR LOSS OF MATERIAL. MAXIMUM FREE FALL NOT TO EXCEED 1.5m (5'-0"). CONSOLIDATE CONCRETE USING MECHANICAL VIBRATORS.
- PLACE CONCRETE AS CLOSE AS POSSIBLE TO FINAL LOCATION TO AVOID SEGREGATION. VIBRATE ALL CONCRETE.
- PROTECT CONCRETE FROM FREEZING. DO NOT PLACE CONCRETE AGAINST FROZEN GROUND. USE COLD WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.
- PROTECT CONCRETE FROM EXCESSIVE HEAT AND DRYING. USE HOT WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.

POST-INSTALLED ANCHORS AND DOWELS

- ANCHORAGE TO CONCRETE TO BE AS NOTED ON DRAWINGS.
- ANCHORS LOCATED OUTSIDE THE BUILDING ENVELOPE'S VAPOUR BARRIER TO BE STAINLESS STEEL.
- CONCRETE TO BE MINIMUM 28 DAYS OLD AT THE TIME OF ANCHOR INSTALLATION.
- USE DRILLING AND INSTALLATION TOOLS AND PROCEDURES PER MANUFACTURER'S RECOMMENDATIONS. DO NOT CORE DRILL UNLESS SPECIFICALLY NOTED ON DRAWINGS. HOLE DIAMETERS NOT TO EXCEED THOSE REQUIRED BY MANUFACTURER.
- WHERE CORE DRILLING IS SPECIFIED, CLEAN AND ROUGHEN HOLES PER MANUFACTURER'S RECOMMENDATION.
- ARRANGE FOR THE ANCHOR MANUFACTURER TO CONDUCT ON SITE TRAINING FOR INSTALLATION OF ALL THE PRODUCTS SPECIFIED, AND FOR ALL CONDITIONS ENCOUNTERED.
- ARRANGE FOR A MANUFACTURER'S TECHNICAL REPRESENTATIVE TO BE PRESENT DURING INSTALLATION OF FIRST FEW ANCHORS. SUBMIT SITE REPORTS INDICATING ANCHOR TYPES AND SIZES INSTALLED, LOCATIONS AND INSTALLERS' NAMES.
- ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND THEIR PROXIMITY TO CONCRETE EDGES; THEREFORE, ALL ANCHORS MUST BE INSTALLED WITH CLEARANCES AND EDGE DISTANCES INDICATED ON DRAWINGS
- WHEN OBSTRUCTIONS PREVENT DRILLING HOLES IN SPECIFIED LOCATIONS TO THE REQUIRED DEPTH, RELOCATE AT NO EXTRA COST TO THE CONTRACT. OBTAIN WSP-S APPROVAL OF NEW LOCATIONS BEFORE DRILLING; MODIFICATIONS TO CONNECTED MEMBERS AND ADDITIONAL ANCHORS / DOWELS MAY BE REQUIRED. FILL ABANDONED HOLES WHICH ARE CLOSER THAN 3 TIMES THE HOLE DIAMETER FROM THE RELOCATED ANCHORS WITH HILTI HY-200 ADHESIVE. DO NOT TIGHTEN ANCHORS UNTIL THE ADHESIVE HAS FULLY CURED.
- DO NOT BEND POST INSTALLED DOWELS AND RODS AFTER INSTALLATION.
- DO NOT WELD TO PLATES FASTENED WITH ADHESIVE ANCHORS AFTER THE ADHESIVE IS PLACED.

STRUCTURAL STEEL

- CONFORM TO CSA S16.
- MATERIALS: TO CSA G40.21 UNLESS OTHERWISE NOTED, WITH THE FOLLOWING GRADES:

- CHANNELS: 350W
- PLATES, BARS: 300W
- ANCHOR RODS: STAINLESS STEEL TO ASTM F993 GROUP 1 MIN 206 MPA YIELD STRENGTH
MPA YIELD STRENGTH
STAINLESS STEEL
- DETAILS ON STRUCTURAL DRAWINGS SHOW DESIGN INTENT. REFER TO SPECIFICATIONS FOR DETAILING, FABRICATION, AND ERECTION REQUIREMENTS.
 - DO NOT CUT HOLES OR OTHERWISE MODIFY STRUCTURAL MEMBERS ON SITE.
 - IF STRUCTURAL STEEL IS IN DIRECT CONTACT WITH GROUND, PROTECT WITH EPOXY PAINT.
 - PROVIDE ALL ERECTION BRACING REQUIRED TO KEEP THE STRUCTURE STABLE AND IN ALIGNMENT DURING CONSTRUCTION.
 - DO NOT APPLY LATERAL LOADS TO MEMBERS UNLESS APPROVED BY THE CONSULTANT.

| ABBREVIATIONS | |
|---------------|-----------------------------|
| AB | - ANCHOR BOLT |
| ALT | - ALTERNATE |
| APPROX | - APPROXIMATELY |
| ARCH | - ARCHITECT |
| BOT | - BOTTOM |
| BP | - BASE PL |
| BS | - BOTH SIDES |
| CP | - COMPLETE PENETRATION WELD |
| CW | - COMPLETE WITH |
| DWG | - DRAWING |
| (E) | - EXISTING |
| EF | - EACH FACE |
| EL | - ELEVATION |
| EW | - EACH WAY |
| FS | - FAR SIDE |
| GALV | - GALVANIZED |
| HORIZ | - HORIZONTAL |
| LG | - LONG |
| MAX | - MAXIMUM |
| MIN | - MINIMUM |
| NS | - NEAR SIDE |
| NTS | - NOT TO SCALE |
| OC | - ON CENTER |
| SS | - STAINLESS STEEL |
| STD | - STANDARD |
| TYP | - TYPICAL |
| UN | - UNLESS NOTED |
| US | - UNDERSIDE |
| VERT | - VERTICAL |



JOB No. 171-17110-00

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| 0 | TENDER | 2017.12.18 |

| Revision/ | Description/Description | Date/Date |
|-----------|-------------------------|-----------|
|-----------|-------------------------|-----------|

Client/client

**FISHERIES AND OCEANS,
REAL PROPERTY,
SAFETY AND SECURITY**

VANCOUVER, BC
200-401 BURRARD ST.

Project title/Titre du projet
4160 Marine Dr., West Vancouver

MODULAR LABS
**CENTER FOR
AQUACULTURE &
ENVIRONMENTAL
RESEARCH**

Consultant Signature Only

Designed by/Concept par
CP

Drawn by/Dessiné par
RCM/2017.12.08

PWGSC Project Manager/Administrateur de Projets TPSGC
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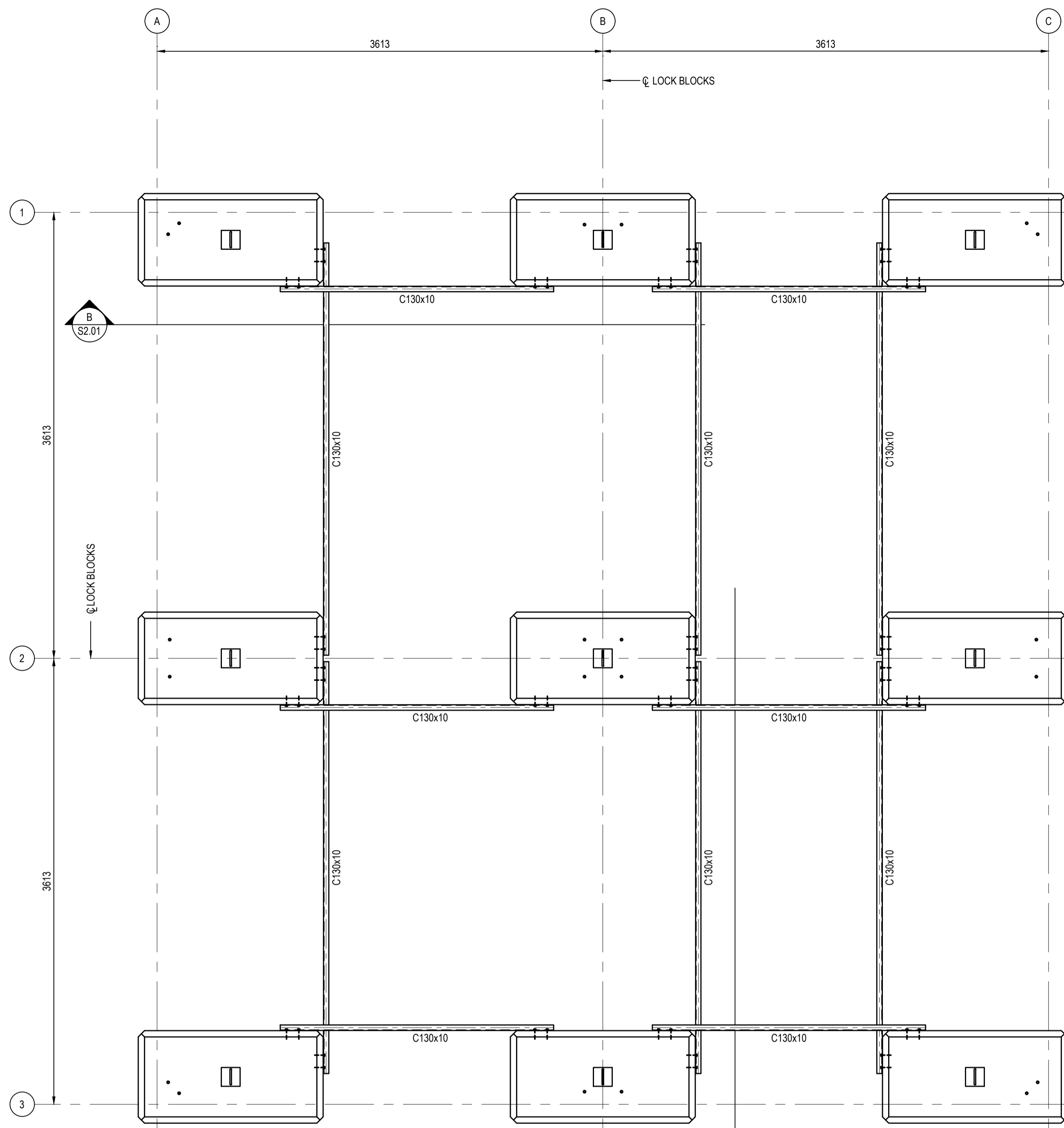
Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

STRUCTURAL NOTES

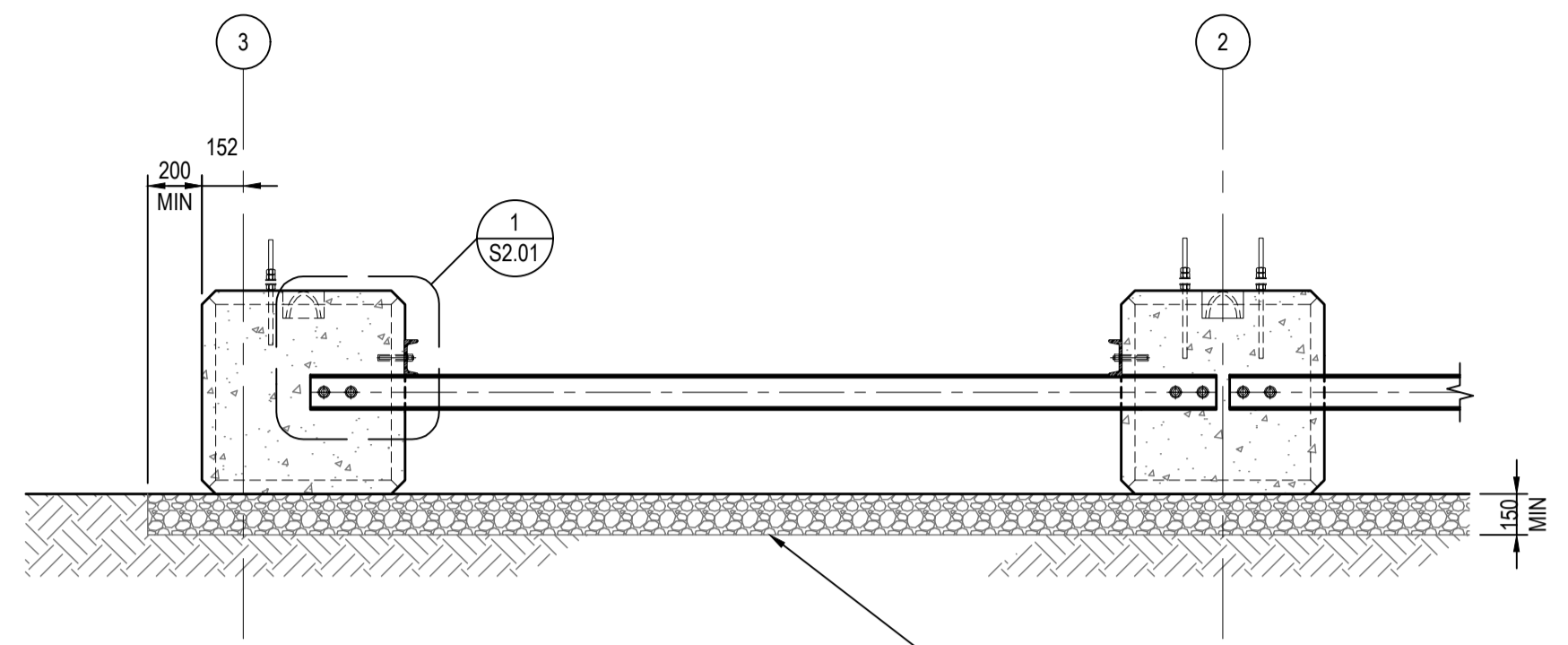
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| Project No./No. du projet PROJECT_NO | Sheet/Feuille S1.01 OF XX | Revision no./ No. de Révision 0 |
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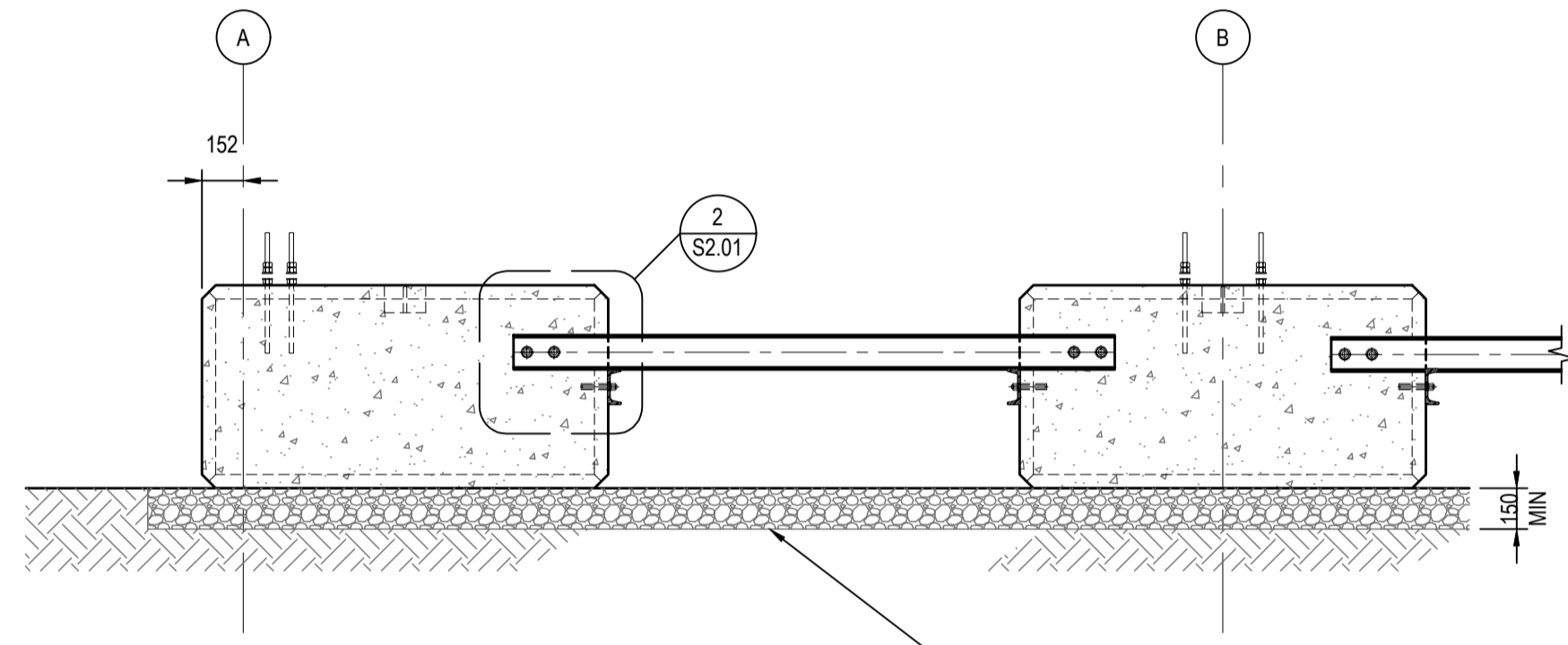
FOUNDATION PLAN
SCALE: 1:25

NOTE:
ALUMINUM FRAMING DESIGN BY OTHERS.
THE SEISMIC TIES SHALL BE INSTALLED AFTER THE STRUCTURAL ALUMINUM FLOOR FRAMING HAS BEEN INSTALLED.



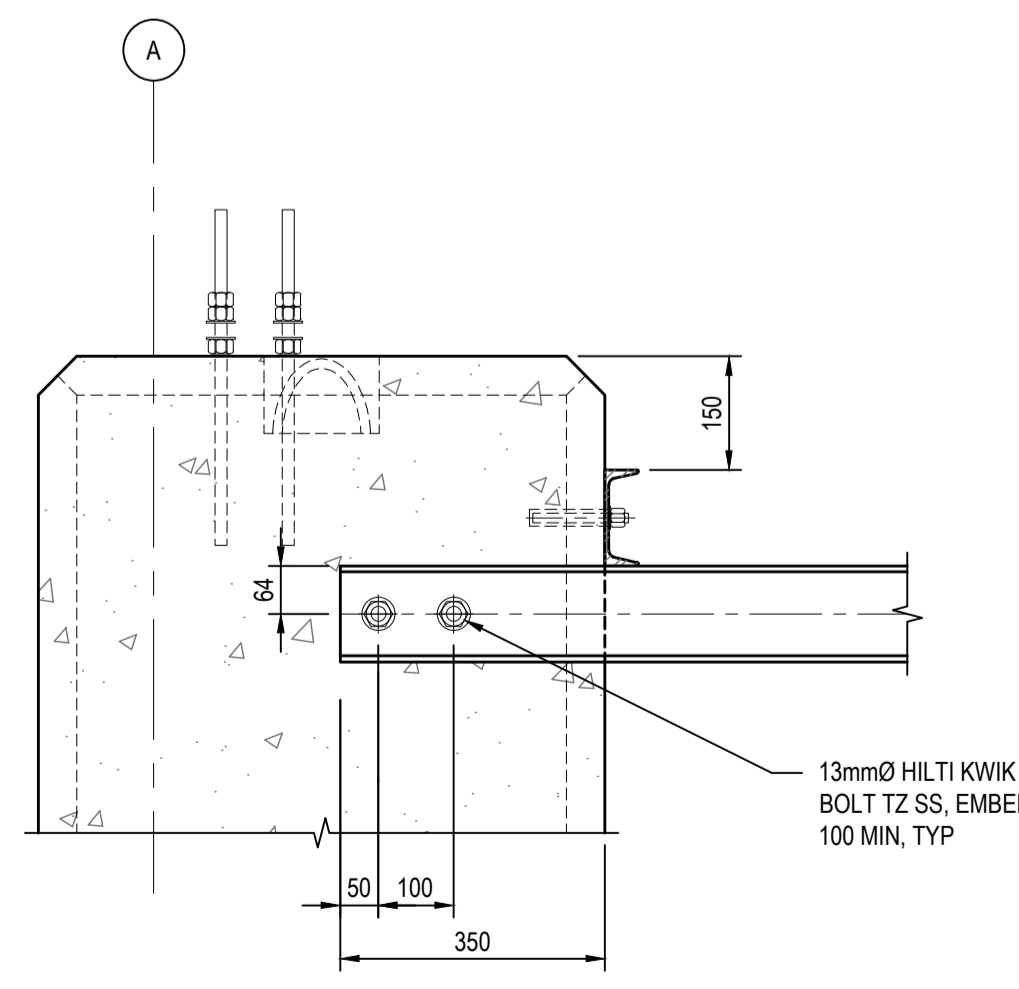
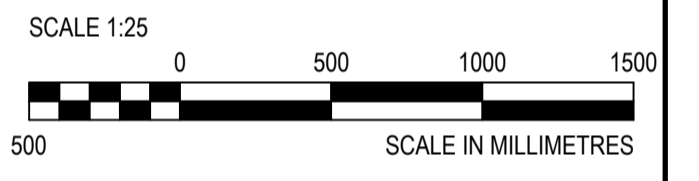
A SECTION
SCALE: 1:25

REMOVE ALL ORGANICS, LOOSE, WET OR ANY DELETERIOUS MATERIALS. PROVIDE 150mm LAYER OF WELL-GRADED 19mm CRUSHED SAND OR GRAVEL COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY. SEE GEOTECHNICAL LETTER.

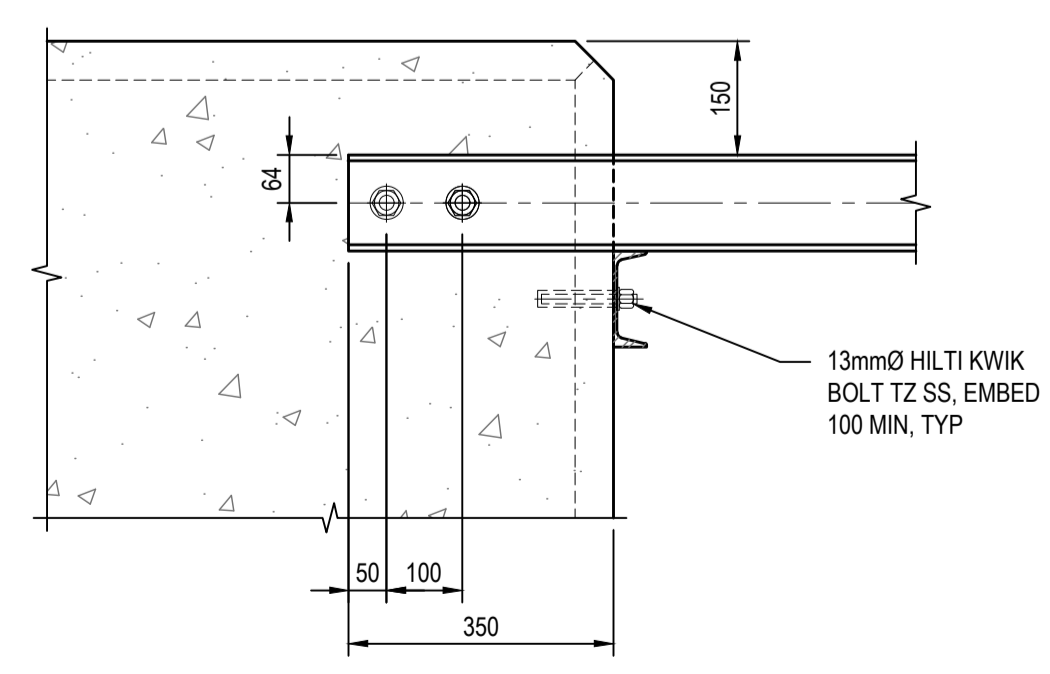


B SECTION
SCALE: 1:25

REMOVE ALL ORGANICS, LOOSE, WET OR ANY DELETERIOUS MATERIALS. PROVIDE 150mm LAYER OF WELL-GRADED 19mm CRUSHED SAND OR GRAVEL COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY. SEE GEOTECHNICAL LETTER.



1 DETAIL
SCALE: 1:10



2 DETAIL
SCALE: 1:10

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| 0 | TENDER | 2017.12.18 |
| Revision/ | Description/Description | Date/Date |

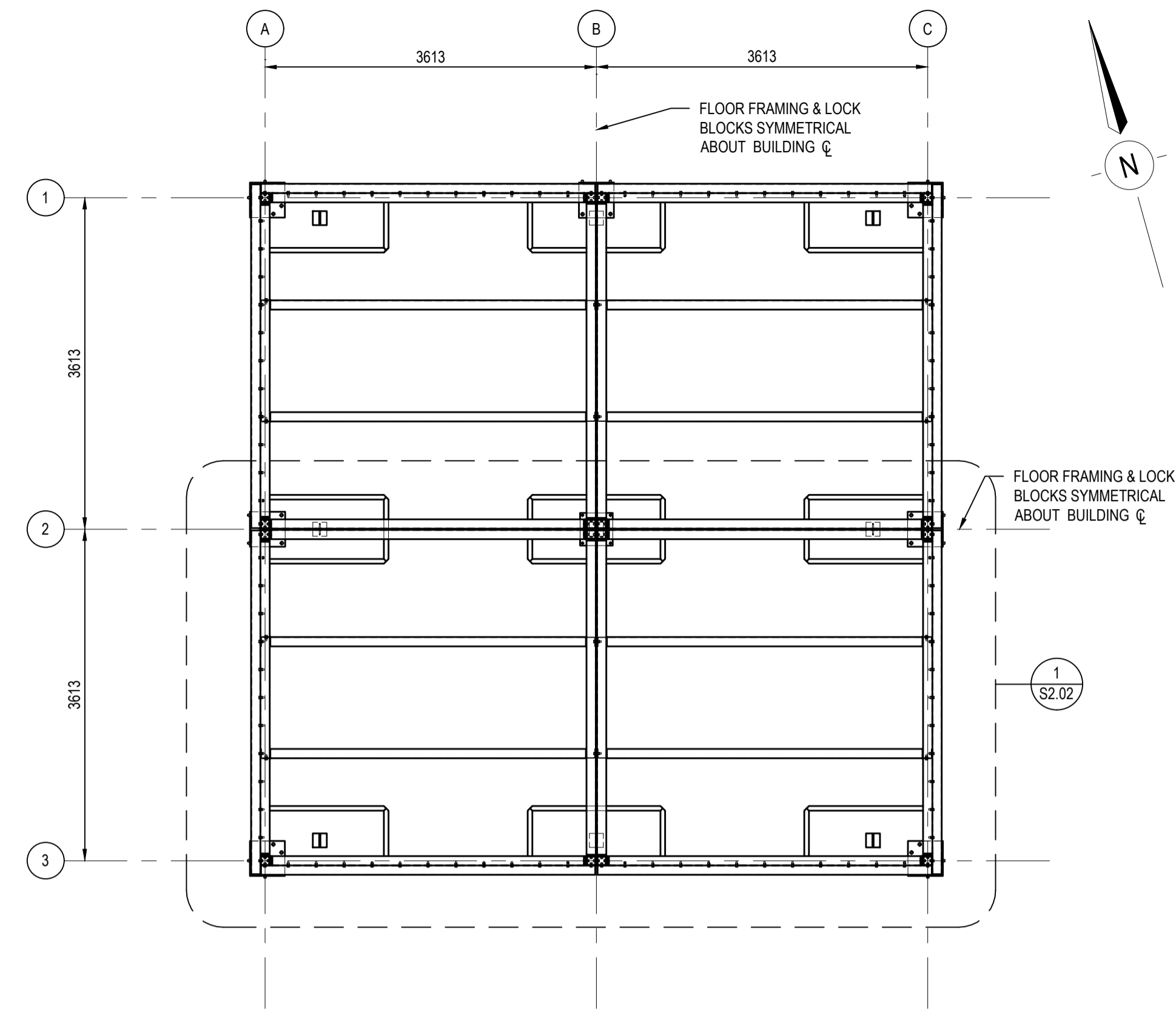
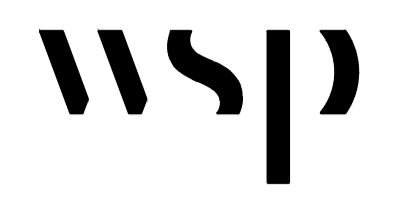
Client/client
FISHERIES AND OCEANS, REAL PROPERTY, SAFETY AND SECURITY
VANCOUVER, BC
200-401 BURRARD ST.

Project title/Titre du projet
4160 Marine Dr., West Vancouver
MODULAR LABS
CENTER FOR AQUACULTURE & ENVIRONMENTAL RESEARCH

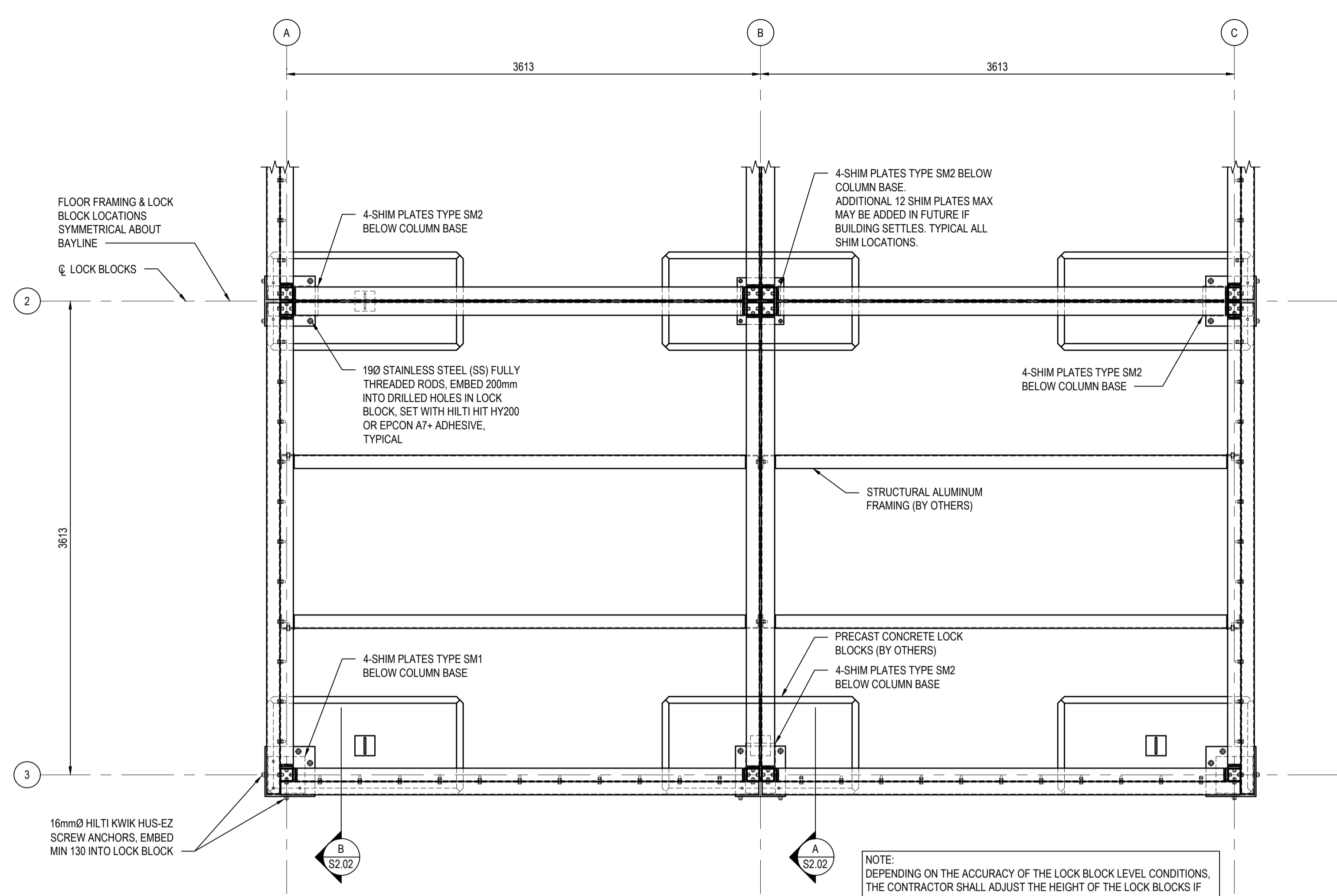
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RCM/2017.12.08
PWGSC Project Manager/Administrateur de Projets TPSGC
Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
PREETIPAL FAUL

Drawing title/Titre du dessin
FOUNDATION PLAN
SECTIONS AND DETAILS

| | | |
|-------------|--|---------------------------------------|
| PROJECT NO. | SHEET/Feuille S2.01 OF XX | Revision no./ Révision 0 |
|-------------|--|---------------------------------------|

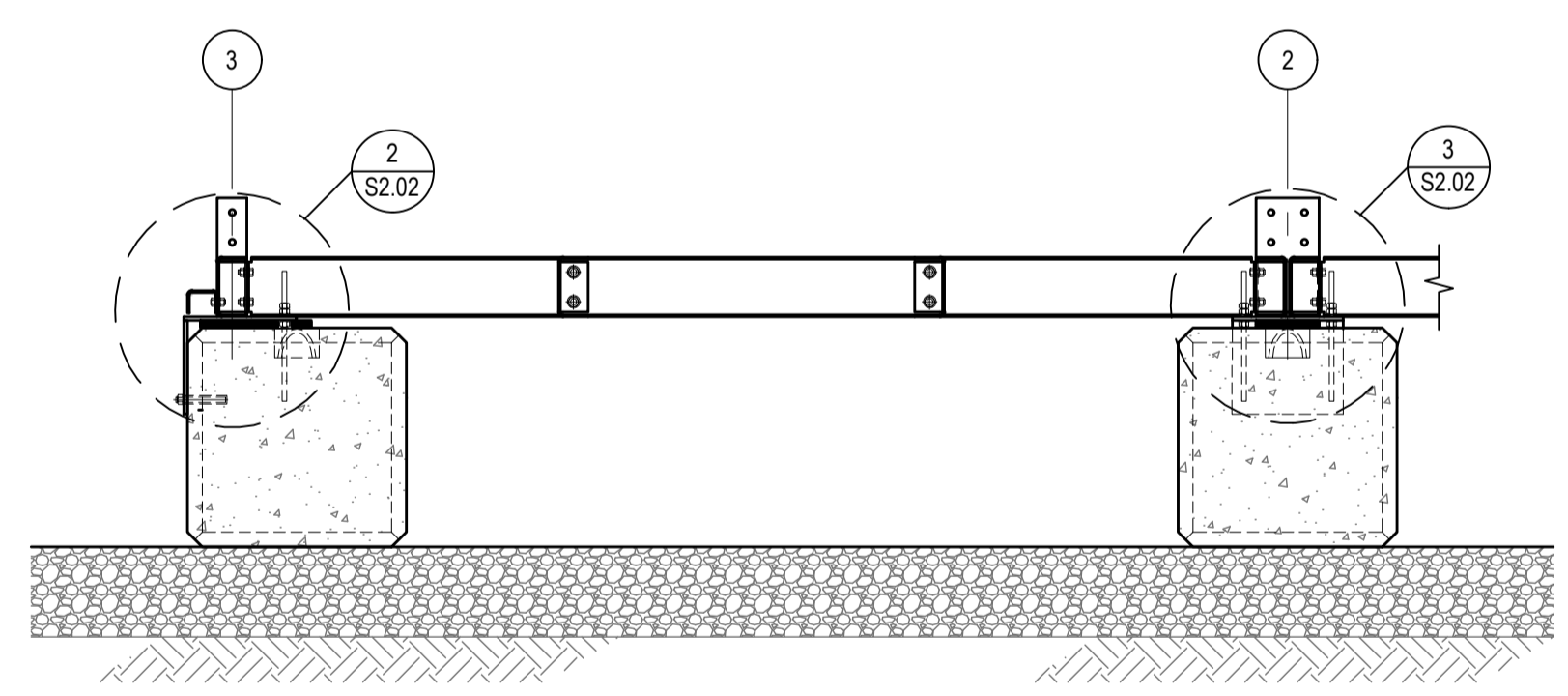
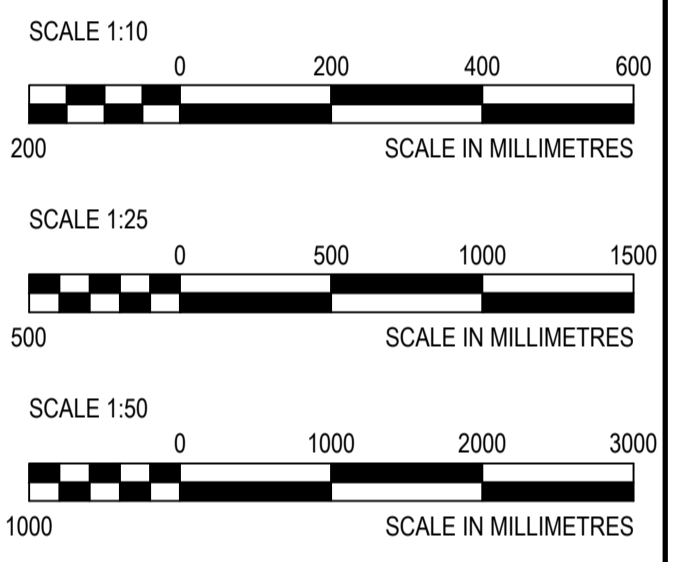


FOUNDATION & FLOOR FRAMING PLAN
SCALE: 1:50

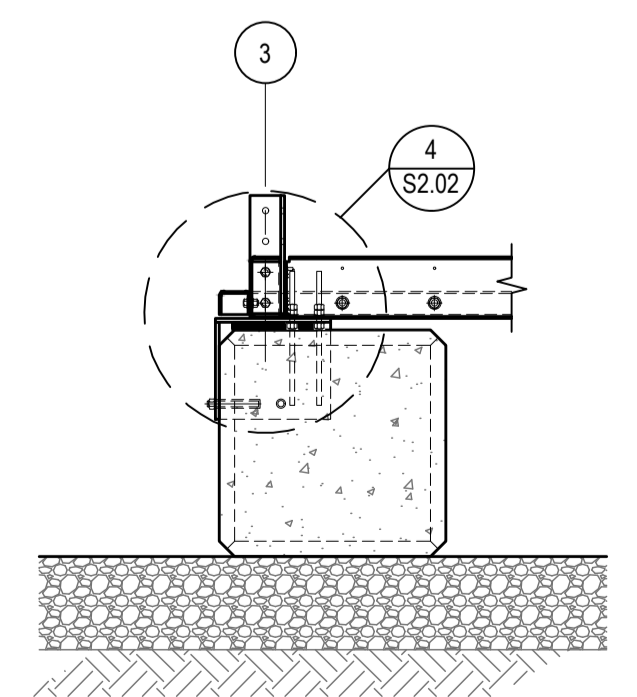


1 DETAIL
SCALE: 1:25

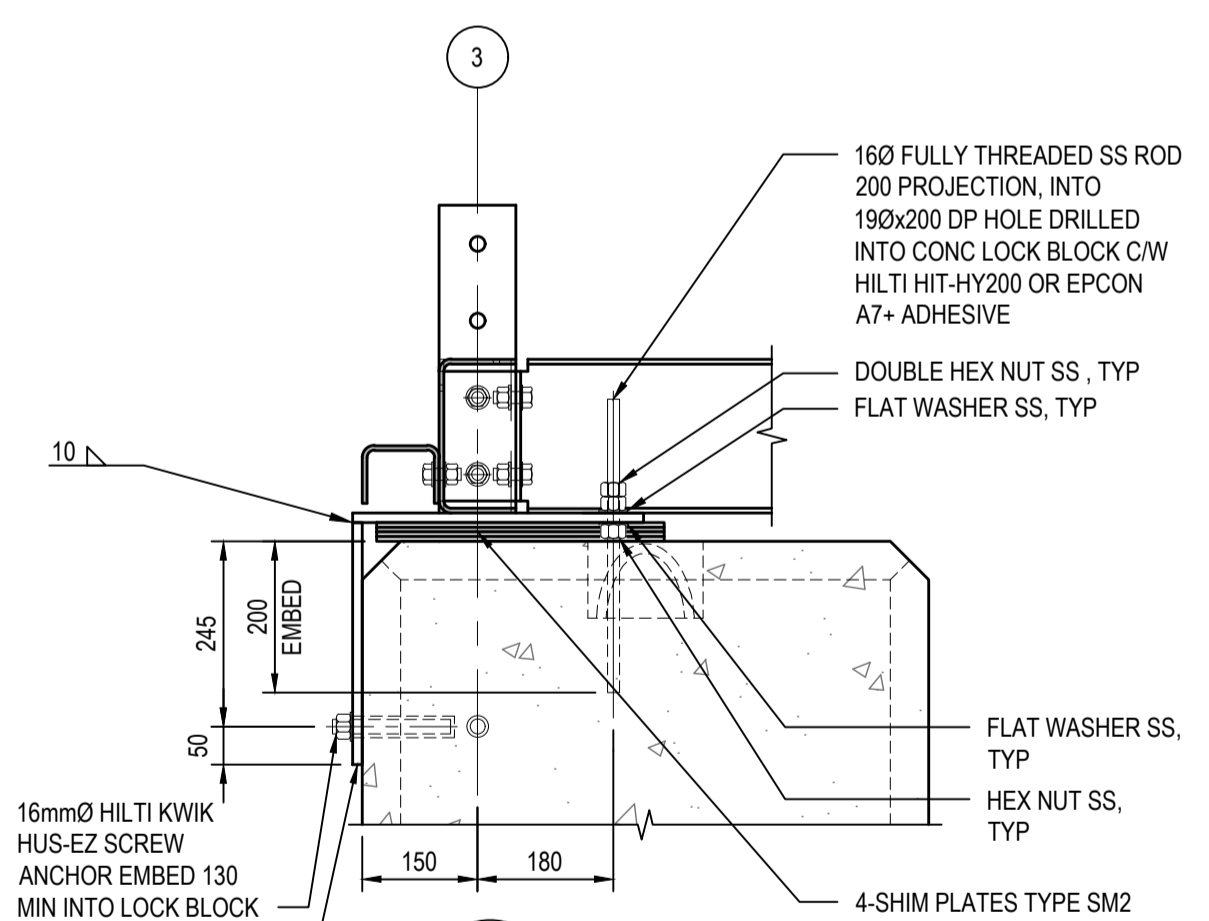
NOTE:
DEPENDING ON THE ACCURACY OF THE LOCK BLOCK LEVEL CONDITIONS, THE CONTRACTOR SHALL ADJUST THE HEIGHT OF THE LOCK BLOCKS IF NECESSARY BY CONSOLIDATING EXTRA GRAVEL FILL BELOW THE BLOCKS AS REQUIRED AND PREPARE THE NON-SHRINK GROUT USED BELOW EACH COLUMN BASE TO MAINTAIN FLOOR LEVEL. THE CONTRACTOR SHALL ALSO FINE ADJUST THE HORIZONTAL POSITION OF THE LOCK BLOCKS AS REQUIRED TO ACCURATELY INSTALL THE STRUCTURAL FLOOR FRAMING.



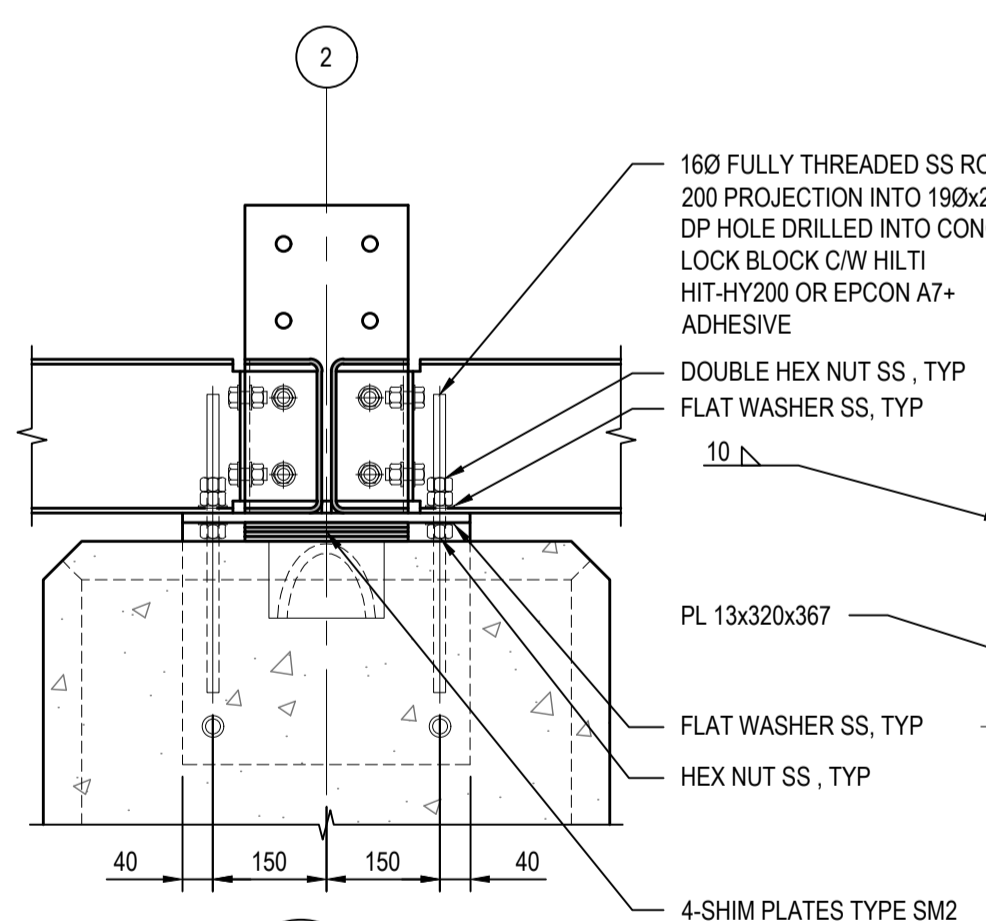
A SECTION
SCALE: 1:25



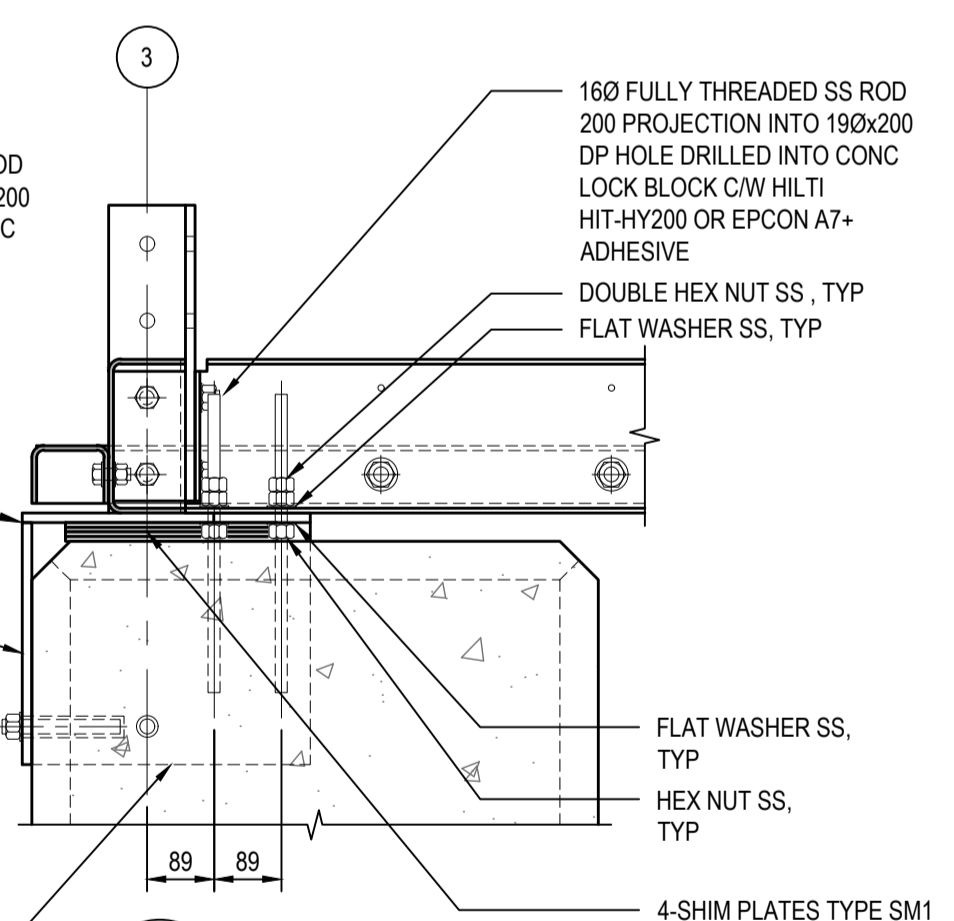
B SECTION
SCALE: 1:25



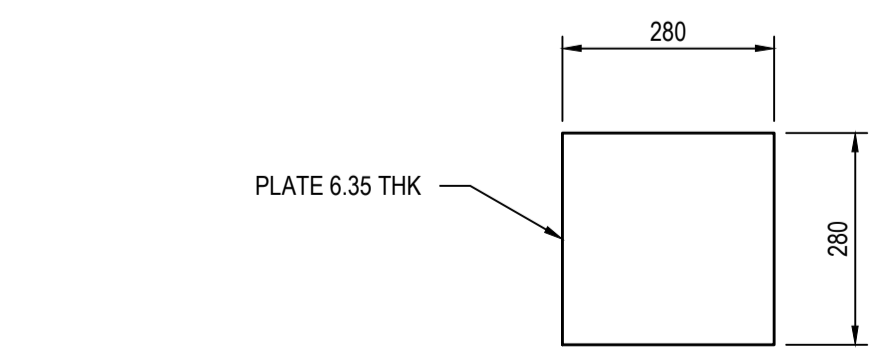
2 DETAIL
SCALE: 1:10



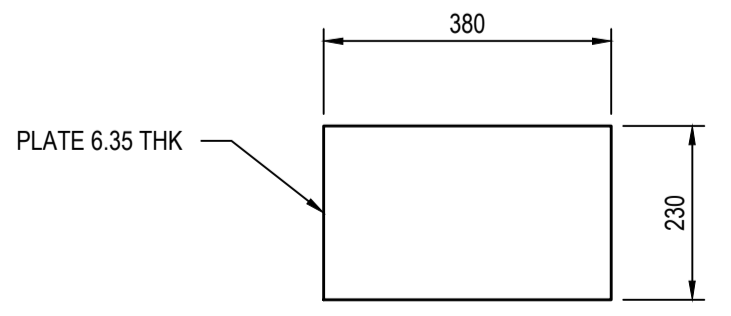
3 DETAIL
SCALE: 1:10



4 DETAIL
SCALE: 1:10



5 SHIM PLATE TYPE SM1
SCALE: 1:10



6 SHIM PLATE TYPE SM2
SCALE: 1:10

| | | |
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| 0 | TENDER | 2017.12.18 |

Revision/Description/Date

Client/client
FISHERIES AND OCEANS, REAL PROPERTY, SAFETY AND SECURITY
VANCOUVER, BC
200-401 BURRARD ST.

Project title/Titre du projet
4160 Marine Dr., West Vancouver
MODULAR LABS CENTER FOR AQUACULTURE & ENVIRONMENTAL RESEARCH

Consultant Signature Only

Designed by/Concept par
CP

Drawn by/Dessiné par
RCM/2017.12.08

PWGSC Project Manager/Administrateur de Projets TPSGC

Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

FLOOR FRAMING PLAN DETAILS AND SECTIONS

| | | |
|---------------------------|---------------|------------------------------|
| Project No./No. du projet | Sheet/Feuille | Revision no./No. de Révision |
| PROJECT_NO | S2.02 | 0 |
| | OF XX | |

| TAG | LOCATION | SERVICE | AIR FLOW l/s / cfm | EXT. STATIC PRESS. Pa / in | SONES | EFFICIENCY | | | | ELECT DATA | | | NOTES | | |
|---------|-------------------------|----------------------------|-----------------------|----------------------------------|-------|--------------------|--------------------|--------------------|-------------|------------|-------------|-------|-------|-------|---|
| | | | | | | O/A EAT °C / °F | E/A EAT °C / °F | S/A LAT °C / °F | SENSIBLE | TOTAL | MOTOR HP | VOLTS | | PHASE | |
| HRV-100 | FEED LAB CEILING | OUTDOOR AIR EXHAUST AIR | 155 / 330 | 80 / 0.33 | 1.5 | WINTER | -6.7 / 20 | 22.2 / 72 | 14.7 / 58.5 | 70.0% | 74.0% | 330 W | 208 | 1 | 1 |
| HRV-103 | ACOUSTIC LAB CEILING | OUTDOOR AIR EXHAUST AIR | 150 / 315 | 80 / 0.33 | 1.5 | WINTER | -6.7 / 20 | 22.2 / 72 | 14.7 / 58.5 | 70.0% | 74.0% | 330 W | 208 | 1 | 1 |

NOTE:
1. INTERNAL UNIT COMPLETE WITH VIBRATION ISOLATION, FLEXIBLE CONNECTIONS, FILTERS, CROSSFLOW CORE, MOTORIZED DAMPERS INCLUDING BYPASS DAMPERS FOR FREE COOLING.

| TAG | SERVICE | EVAPORATOR (INDOOR) UNIT | | | | CONDENSER (OUTDOOR) UNIT | | | | NOTES | | | |
|-----------------|--------------------|--------------------------|----------------|-----------------------|----------------|--------------------------|-------|-------|------------|-------|-------------|-------|-------|
| | | SENSIBLE kW / MBH | TYPE | AIR FLOW L/s / cfm | NO. OF FANS | MOTOR HP | VOLTS | PHASE | TYPE | | MOTOR HP | VOLTS | PHASE |
| E-100 CU-100 | FEED LAB COOLER | 1.3 / 4.5 | LOW PROFILE | 450 / 950 | 1 | 1/15 | 120 | 1 | AIR COOLED | 1/2 | 208 | 1 | 1, 2 |

NOTE:
1. R-404a REFRIGERANT (HCFC REFRIGERANTS SHALL NOT BE USED).
2. COOLER UNITS SHALL BE RATED AT:
EVAPORATOR: EVAP TEMP. -4°C [25°F], BOX TEMP. 15°C [59°F].
CONDENSER: EVAP TEMP. -4°C [25°F], AMBIENT TEMP. 32°C [90°F].

| TAG | TYPE | BORDER | MATERIAL | CORE STYLE | LOUVER ORIENT. | VOLUME DAMPER | FASTENING | FINISH |
|-----|----------------------------|--------|----------|------------------------------|-------------------|------------------|-----------|---------------------------|
| SR1 | SUPPLY GRILLE/ REGISTER | NOTE 1 | ALUMINUM | AIRFOIL DOUBLE DEFLECTION | L | YES | SCREW | BAKED ENAMEL, ALUMINUM |

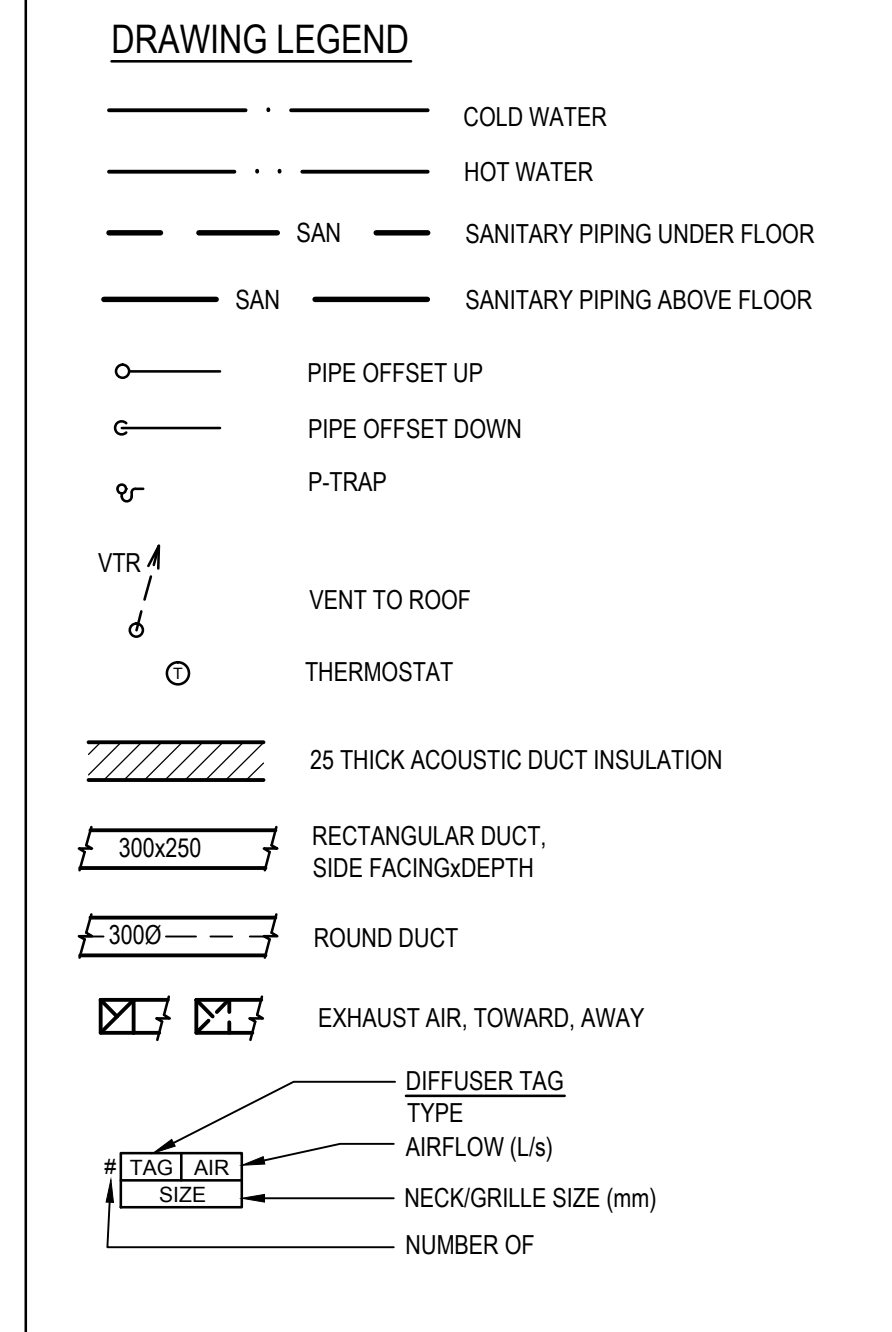
NOTE:
1. BORDER/MOUNTING FRAME: ALUMINUM CURVED FOR SURFACE MOUNT TO SUIT APPLICATION.

| TAG | SERVICE | TYPE | ORIENTATION | VOLUME L / Us gal | RECOVERY LPH / GPH | DIMENSIONS mm | TOP TAPPINGS # - mm | FRONT TAPPINGS # - mm | MAX. WORKING PRESSURE kPa / psi | ELECT DATA kW VOLTS PHASE | NOTES |
|-------|-----------------------------------|----------|---------------------------------|----------------------|-----------------------|-------------------------|------------------------|--|---------------------------------------|------------------------------|---------|
| T-DHW | FEED LAB DOMESTIC HOT WATER | ELECTRIC | VERTICAL, CEILING MOUNTED | 72 / 19 | 42 / 11 | ØL: 600mm DIA: 450mm | 2 - 20 IN, 20 OUT | TOP: T & P MID: NONE BOTTOM: DRAIN | 1035 / 150 | 2.5 120 1 | 1, 2, 3 |

NOTE:
1. TAPPINGS ARE FOR PIPE CONNECTIONS. PROVIDE ADDITIONAL TAPPINGS AS REQUIRED FOR SENSORS AND SAFETY VALVES.
2. RECOVERY AT 50°C [122°F] TEMPERATURE RISE.
3. REFER TO SPECIFICATIONS.

| TAG | BUILDING | TYPE | DUCT SIZE (WxH) mm | AIR FLOW l/s / cfm | ELECT DATA | | | NOTES |
|---------|------------------|-------------------|-----------------------|-----------------------|------------|-------|-------|-------|
| | | | | | kW | VOLTS | PHASE | |
| EHC-100 | FEED LAB | ELEC HEATING COIL | 250x250 | 155 / 330 | 4.5 | 208 | 3 | 1 |
| EHC-103 | ACOUSTICS LAB | ELEC HEATING COIL | 250x250 | 155 / 330 | 4.5 | 208 | 3 | 1 |
| EBB-103 | ACOUSTICS LAB | ELEC BASEBOARD | - | - / - | 1.5 | 120 | 1 | - |
| EBB-104 | ACOUSTICS LAB | ELEC BASEBOARD | - | - / - | 0.5 | 120 | 1 | - |
| EBB-105 | ACOUSTICS LAB | ELEC BASEBOARD | - | - / - | 0.5 | 120 | 1 | - |

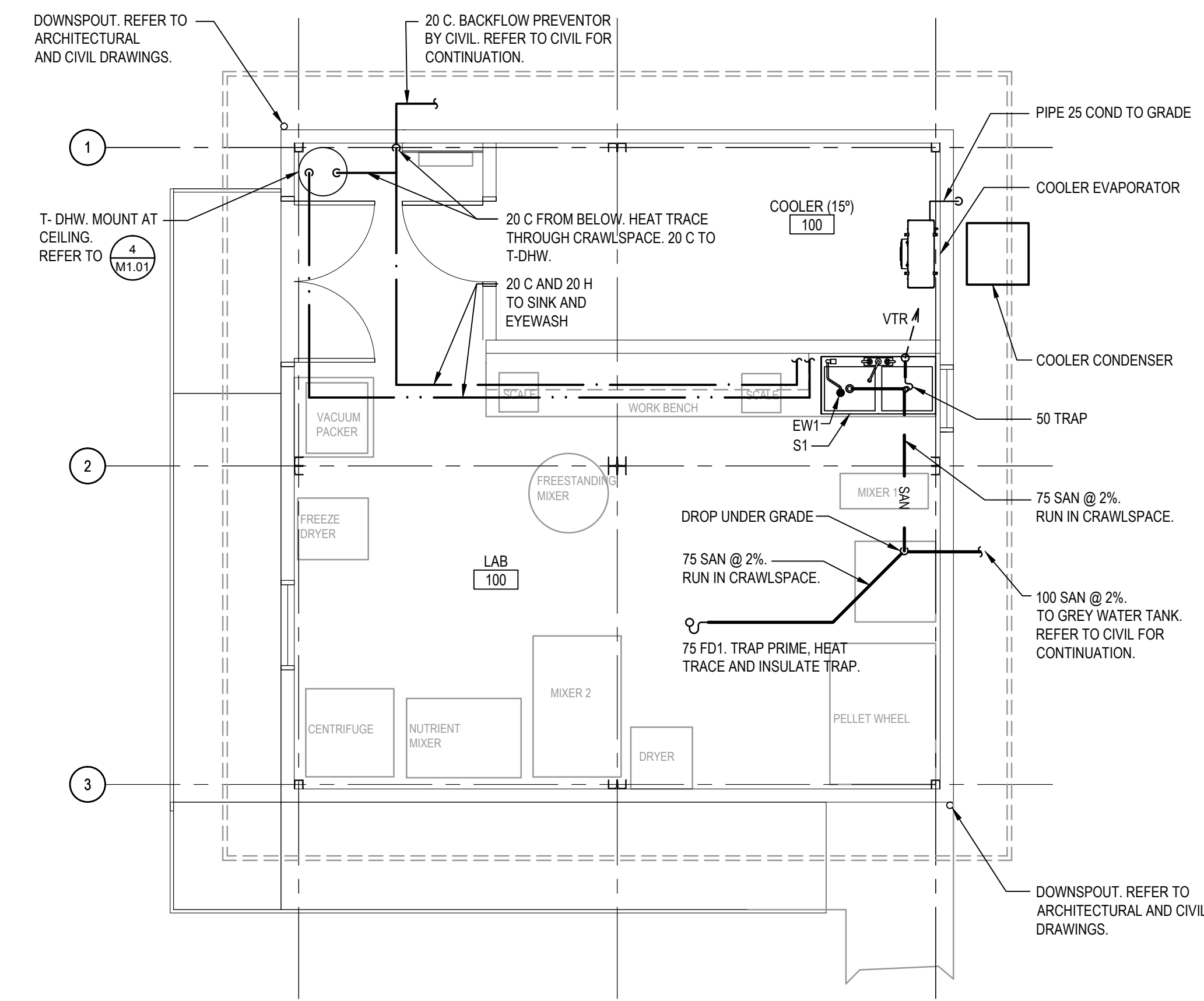
NOTE:
1. COMPLETE WITH AIR PROVING SWITCH, SCR CONTROL, ROOM THERMOSTAT



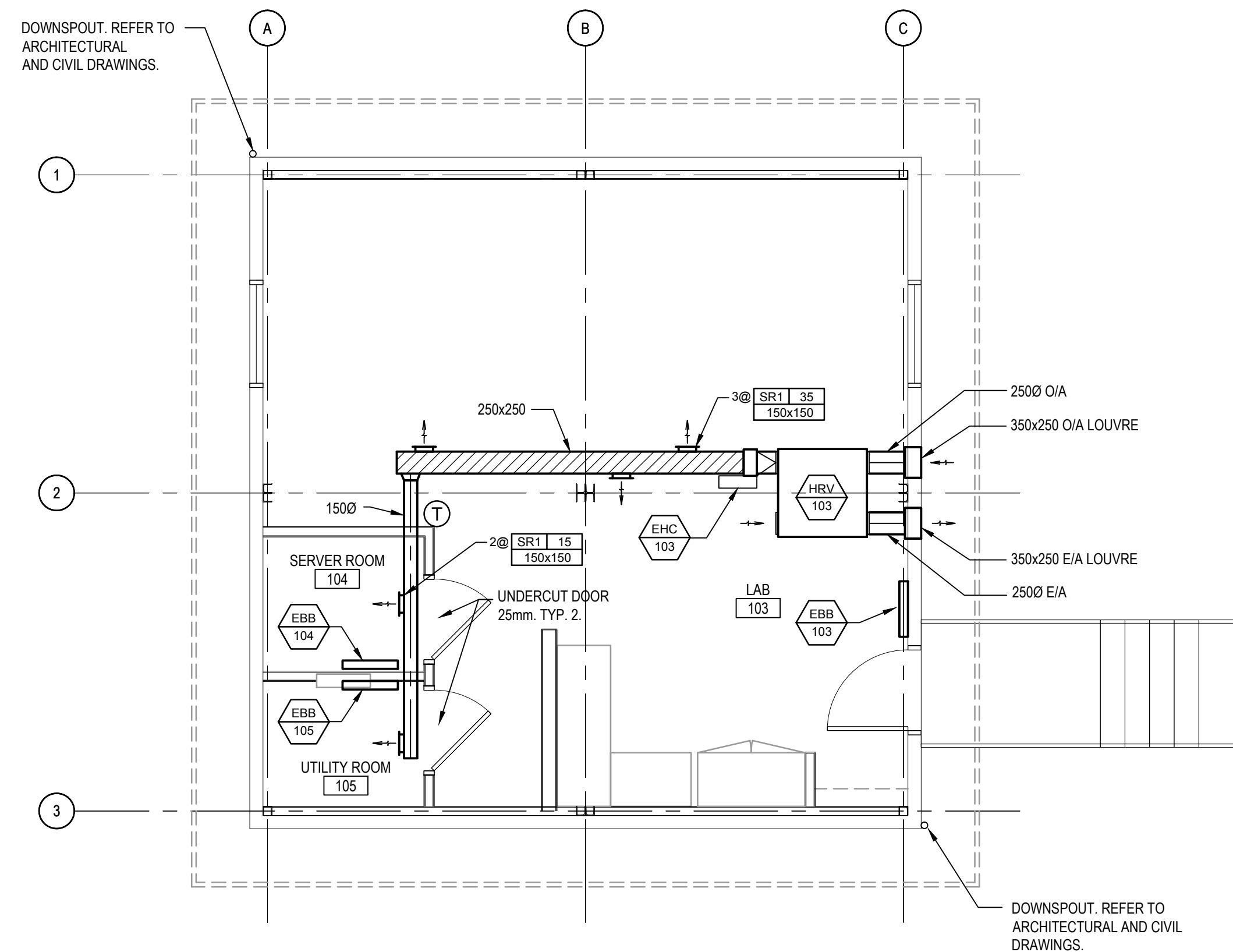
GENERAL ABBREVIATIONS:

| | | | |
|-----|-----------------------|-----|--------------------------|
| C | DOMESTIC COLD WATER | HRV | HEAT RECOVERY VENTILATOR |
| H | DOMESTIC HOT WATER | O/A | OUTDOOR AIR |
| E/A | EXHAUST AIR | SR | SUPPLY REGISTER |
| EBB | ELECTRIC BASEBOARD | EF | EXHAUST FAN |
| EHC | ELECTRIC HEATING COIL | VTR | VENT TO ROOF |

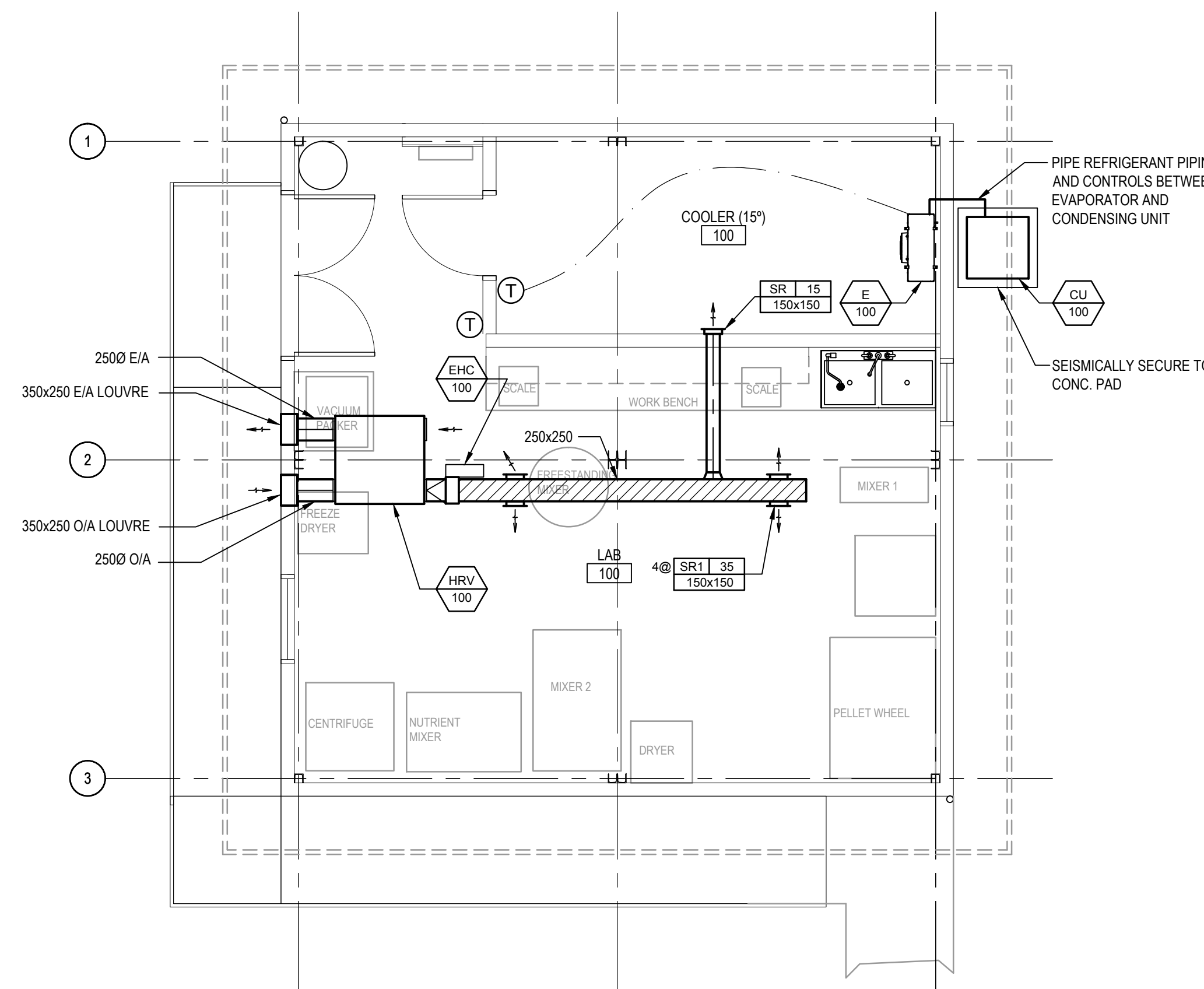
| MECHANICAL DRAWING LIST | | |
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| DRAWING NO. | DRAWING NAME | SCALE |
| M1.01 | ACOUSTIC LAB AND FEED LAB MECHANICAL AND PLUMBING PLANS | AS NOTED |



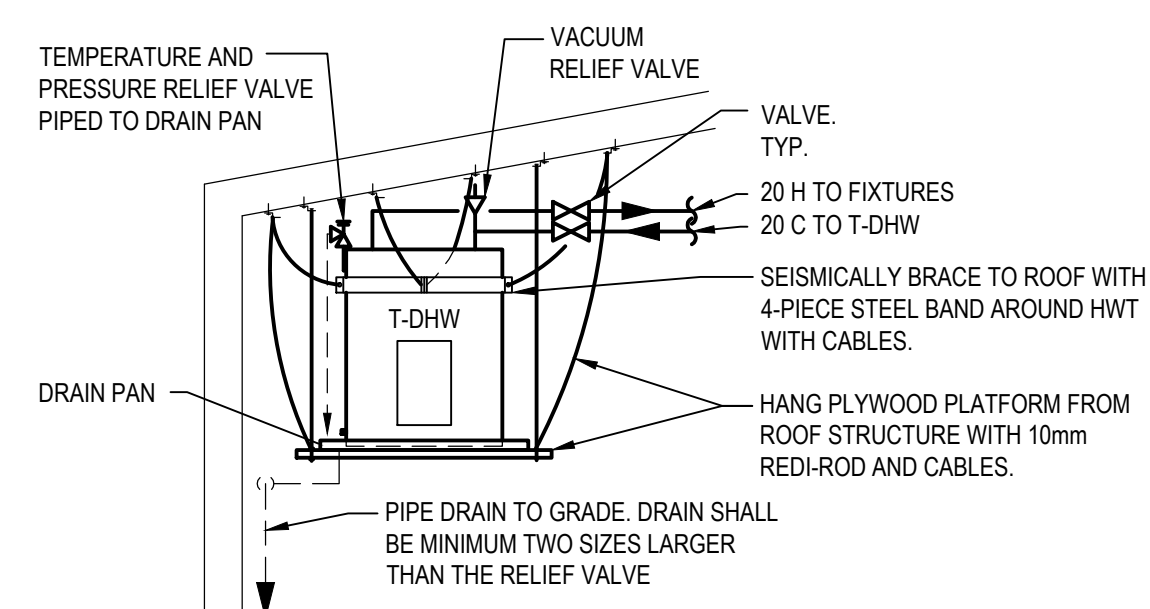
1 FEED LAB - PLUMBING
M1.01 SCALE: 1:50



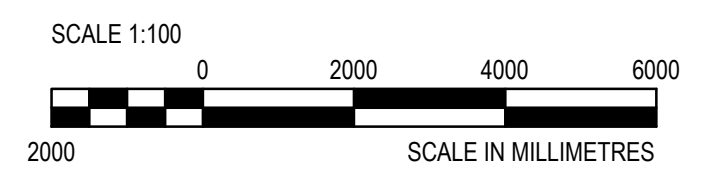
3 ACOUSTIC LAB - MECHANICAL & PLUMBING
M1.01 SCALE: 1:50



2 FEED LAB - MECHANICAL
M1.01 SCALE: 1:50



4 T-DHW SCHEMATIC
M1.01 SCALE: N.T.S.



| 1. ISSUED FOR TENDER | 2017.11.30 |
|----------------------|------------|
| Revision/ | Date/Date |
| | |

Client/Client
**FISHERIES AND OCEANS,
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VANCOUVER, BC
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MODULAR LABS
4160 Marine Dr, West Vancouver

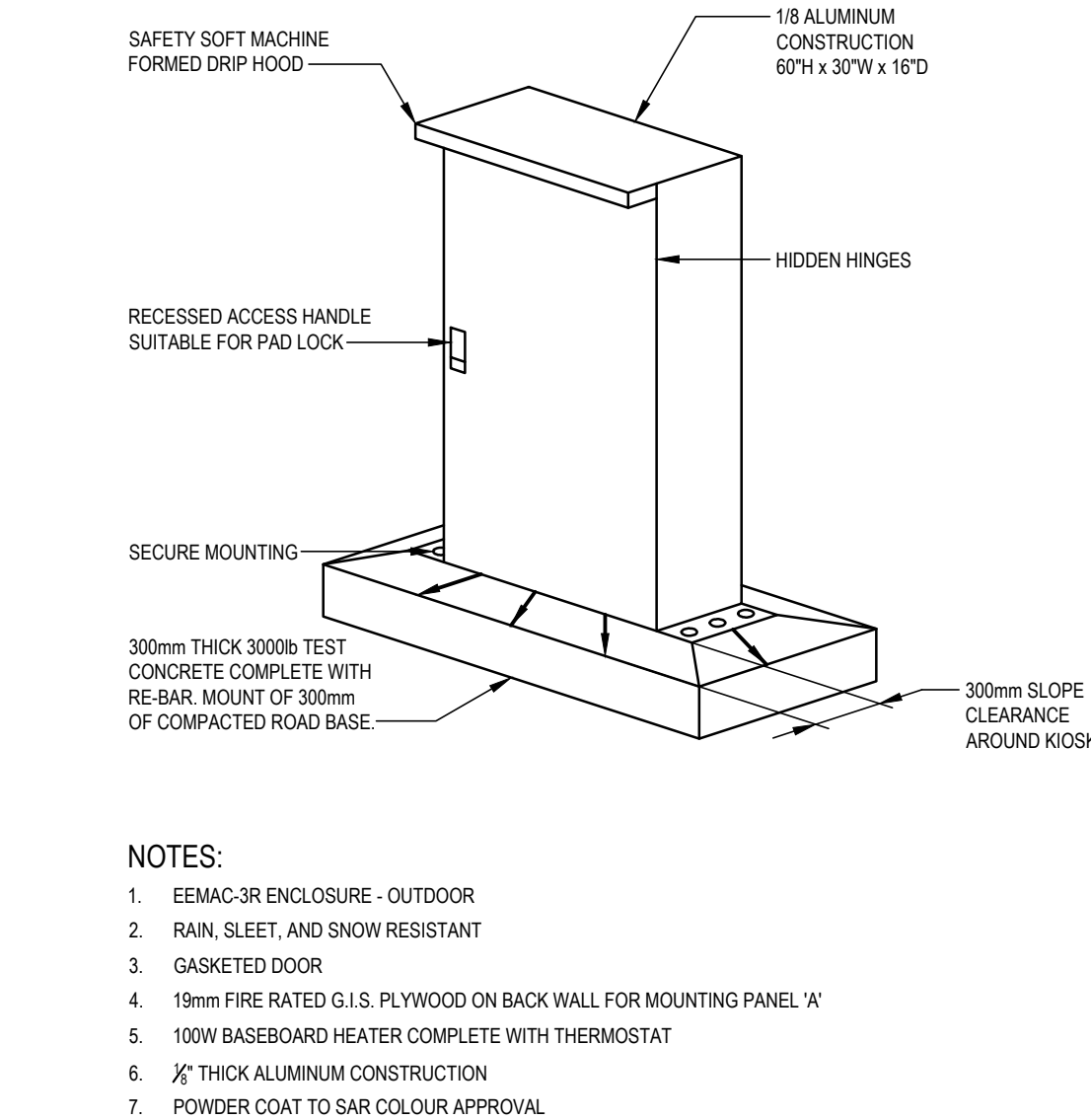
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Gestionnaire Régionale, Services d'architecture et de gén. TPSGC

Drawing title/Titre du dessin
**ACOUSTIC LAB & FEED LAB
MECHANICAL AND
PLUMBING PLANS**

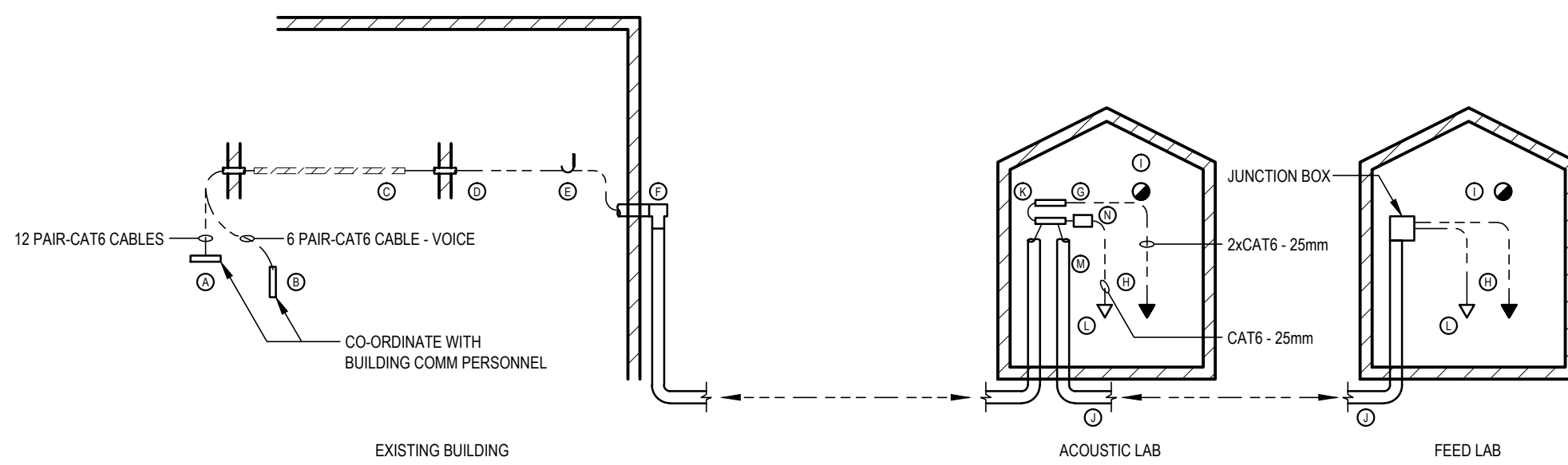
| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
|---------------------------|----------------|----------------------------------|
| - | M1.01 | 1 |

| PANELBOARD SCHEDULE | | | | | | |
|---------------------------------|---------------------------------|------|-----|------|-----|----------------|
| JOB NO./NAME | 1-17-274 - FISHERIES AND OCEANS | | | | | |
| PANEL | A | | | | | |
| SYSTEM | 120/208V | | | | | |
| TYPE | CDP | | | | | |
| LOCATION | EXTERIOR | | | | | |
| MOUNTING | SURFACE | | | | | |
| NO. CIRCUITS | 42 | | | | | |
| BUS SIZE | 600A | | | | | |
| SYM. FAULT RATING | 22k | | | | | |
| DESCRIPTION | BRK | POLE | CCT | POLE | BRK | DESCRIPTION |
| TENT STRUCTURE | 200 | 3 | 01 | 02 | 3 | MODULAR LAB |
| | | | 03 | 04 | | |
| | | | 05 | 06 | | |
| ACOUSTICS LAB | 100 | 3 | 07 | 08 | 1 | 100W BASEBOARD |
| | | | 09 | 10 | 1 | RECEPTACLE |
| | | | 11 | 12 | | |
| | | | 13 | 14 | | |
| | | | 15 | 16 | | |
| | | | 17 | 18 | | |
| | | | 19 | 20 | | |
| | | | 21 | 22 | | |
| | | | 23 | 24 | | |
| | | | 25 | 26 | | |
| | | | 27 | 28 | | |
| | | | 29 | 30 | | |
| | | | 31 | 32 | | |
| | | | 33 | 34 | | |
| | | | 35 | 36 | | |
| | | | 37 | 38 | | |
| | | | 39 | 40 | | |
| | | | 41 | 42 | | |
| * GFCI Breaker | | | | | | |
| ** Arc Fault Breaker | | | | | | |
| PANEL CW 600A - 3P MAIN BREAKER | | | | | | |

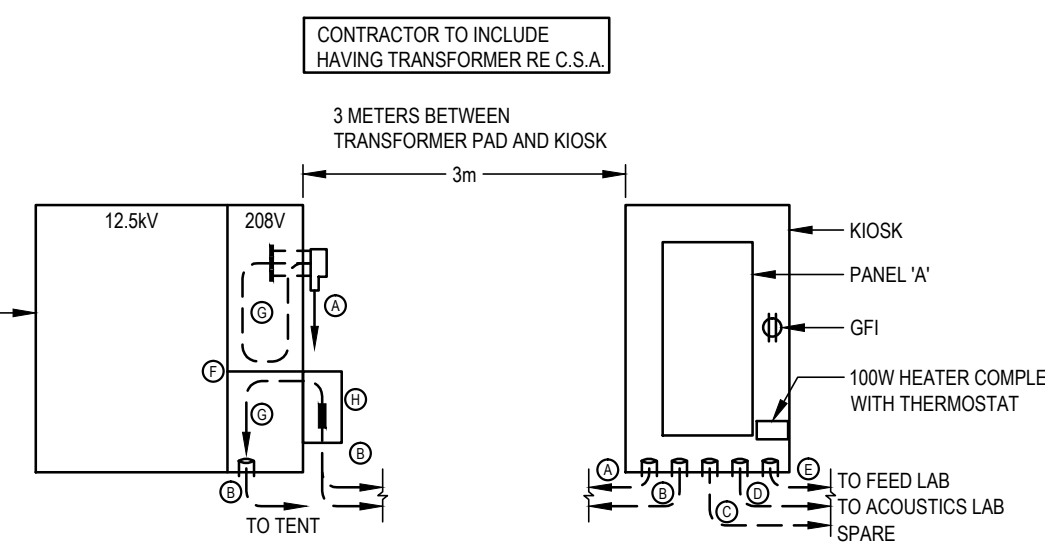
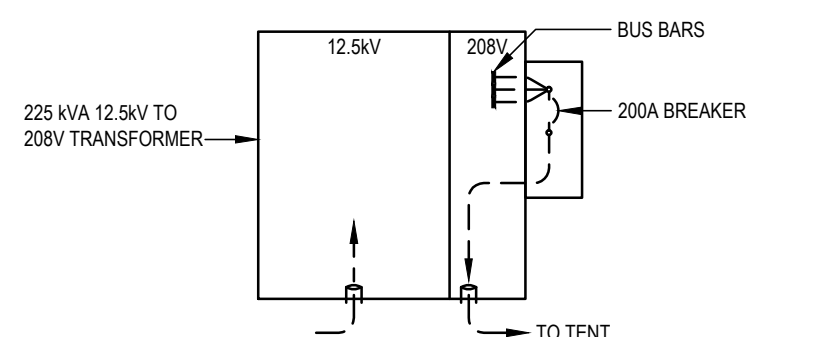
| PANELBOARD SCHEDULE | | | | | | |
|---------------------------------|---|------|-----|------|-----|----------------------|
| JOB NO./NAME | 1-17-274 - FISHERIES AND OCEANS - MODULAR LAB | | | | | |
| PANEL | B | | | | | |
| SYSTEM | 120/208V | | | | | |
| TYPE | LOAD CENTER | | | | | |
| LOCATION | MODULAR LAB | | | | | |
| MOUNTING | SURFACE | | | | | |
| NO. CIRCUITS | 60 | | | | | |
| BUS SIZE | 225A | | | | | |
| SYM. FAULT RATING | 22k | | | | | |
| DESCRIPTION | BRK | POLE | CCT | POLE | BRK | DESCRIPTION |
| MIXER 1 | 15 | 3 | 01 | 02 | 3 | MIXER 2 |
| | | | 03 | 04 | | |
| | | | 05 | 06 | | |
| MIXER | 15 | 2 | 07 | 08 | 2 | CENTRIFUGE |
| | | | 09 | 10 | | |
| VACUUM PACKER | 15 | 1 | 11 | 12 | 3 | NUTRIENT MIXER |
| FREEZE DRYER | 15 | 2 | 13 | 14 | | |
| | | | 15 | 16 | | |
| DRYER | 15 | 1 | 17 | 18 | 3 | PELLET WHEEL |
| EMERGENCY LIGHT/EXIT | 15 | 1 | 19 | 20 | | |
| LIGHT | 15 | 1 | 21 | 22 | | |
| LIGHT | 15 | 1 | 23 | 24 | 1 | GFI 15/20 RECEPTACLE |
| SMOKE DETECTOR | 15 | 1 | 25 | 26 | 1 | GFI 15/20 RECEPTACLE |
| EHC-100 | 20 | 3 | 27 | 28 | 1 | 15/20 RECEPTACLE |
| | | | 29 | 30 | 2 | E-100CU100 |
| | | | 31 | 32 | | |
| TDHW | 30 | 1 | 33 | 34 | 2 | HRV-100 |
| REEL RECEPTACLE | 15 | 1 | 35 | 36 | | |
| PIPE TRACING | 15 | 1 | 37 | 38 | 1 | FREEZER |
| SPARE | 15 | 1 | 39 | 40 | 1 | SPARE |
| SPARE | 15 | 1 | 41 | 42 | 1 | SPARE |
| | | | 43 | 44 | | |
| | | | 45 | 46 | | |
| | | | 47 | 48 | | |
| | | | 49 | 50 | | |
| | | | 51 | 52 | | |
| | | | 53 | 54 | | |
| | | | 55 | 56 | | |
| | | | 57 | 58 | | |
| | | | 59 | 60 | | |
| * GFCI Breaker | | | | | | |
| ** Lock On | | | | | | |
| PANEL CW 200A - 3P MAIN BREAKER | | | | | | |



| PANELBOARD SCHEDULE | | | | | | |
|---------------------------------|---|------|-----|------|-----|--------------------|
| JOB NO./NAME | 1-17-274/FISHERIES AND OCEANS - ACOUSTICS LAB | | | | | |
| PANEL | C | | | | | |
| SYSTEM | 120/208V | | | | | |
| TYPE | LOAD CENTER | | | | | |
| LOCATION | ACOUSTICS LAB | | | | | |
| MOUNTING | RECESSED | | | | | |
| NO. CIRCUITS | 42 | | | | | |
| BUS SIZE | 200A | | | | | |
| SYM. FAULT RATING | 22k | | | | | |
| DESCRIPTION | BRK | POLE | CCT | POLE | BRK | DESCRIPTION |
| LIGHTS | 15 | 1 | 01 | 02 | 1 | EMERGENCY LIGHTING |
| RECEPTACLE | 15 | 1 | 03 | 04 | 1 | RECEPTACLE |
| RECEPTACLE | 15 | 1 | 05 | 06 | 1 | RECEPTACLE |
| RECEPTACLE | 15 | 1 | 07 | 08 | 1 | RECEPTACLE |
| RECEPTACLE | 15 | 1 | 09 | 10 | 1 | RECEPTACLE |
| HRV-103 | 15 | 2 | 11 | 12 | 3 | EHC-103 4 SWW |
| | | | 13 | 14 | | |
| | | | 15 | 16 | | |
| SPARE | 15 | 1 | 15 | 16 | | |
| SPARE | 15 | 1 | 17 | 18 | 1 | EBB-103 |
| SPARE | 15 | 1 | 19 | 20 | 1 | FUTURE FAN |
| | | | 21 | 22 | | |
| | | | 23 | 24 | | |
| | | | 25 | 26 | | |
| | | | 27 | 28 | | |
| | | | 29 | 30 | | |
| * GFCI Breaker | | | | | | |
| ** Arc Fault Breaker | | | | | | |
| PANEL CW 100A - 3P MAIN BREAKER | | | | | | |

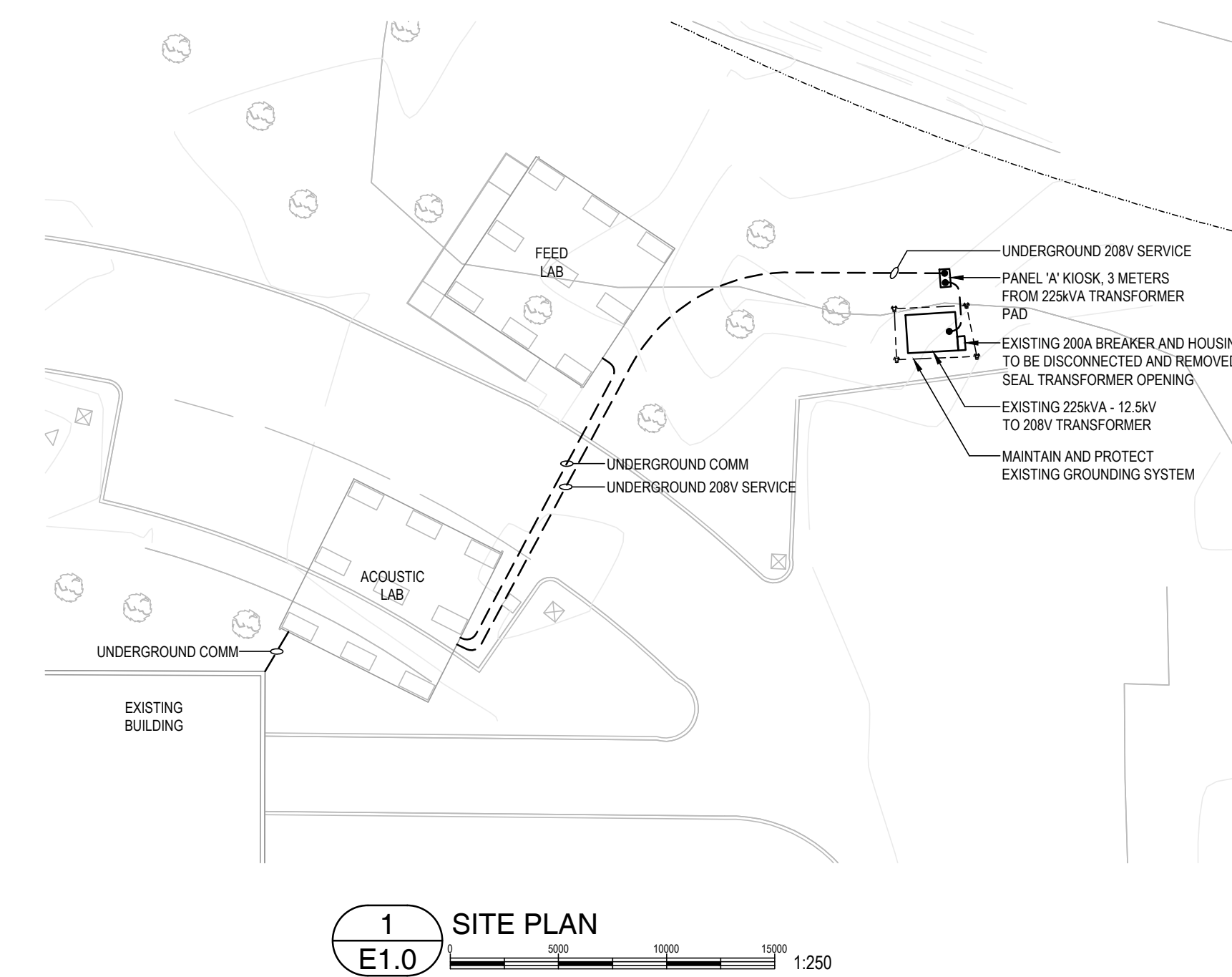


- NOTES:
A. PROVIDE A 24 PORT RACK MOUNTED COPPER PATCH PANEL AND INSTALL IN EXISTING RACK. TERMINATE CAT 6 CABLES. (DATA) PROVIDE PATCH CORDS
B. EXISTING BIX BLOCK (VOICE) PUNCH DOWN CAT 6 CABLES.
C. INSTALL VOICE AND DATA ALONG CORRIDORS. INSTALL WHERE THERE IS EXISTING CABLE TRAY.
D. PROVIDE 2x50mm CONDUIT SLEEVES WHEN PENETRATING FIRE SEPARATIONS. FIRE SEAL CONDUIT TO RATING WALL. SEAL CONDUIT WITH FIRE WOOL.
E. PROVIDE WIDE 'J' HOOKS, ATTACHED TO STRUCTURAL CEILING WHERE THERE IS NO CABLE TRAY.
F. PROVIDE 2x50mm RPVC CONDUITS DOWN EXTERIOR AND OVER TO ACOUSTIC AND LAB.
G. PROVIDE WALL MOUNTING RACK COMPLETE WITH 2x16 PORT COPPER DATA PATCH PANELS (HORIZONTAL AND RISER). PROVIDE GROUND BARR.
H. INSTALL CAT 6 CABLES IN CONDUITS.
I. PROVIDE COMBINATION SMOKE/CARBON MONOXIDE DETECTORS. EXTEND CABLES TO DDC PANEL IN BASE BUILDING COMMUNICATIONS ROOM.
J. 50mm RPVC CONDUITS
K. PROVIDE PATCH CORDS
L. PROVIDE CAT6 CABLE TO EACH OUTLET INSTALL IN CONDUIT (VOICE)
M. SPLICE HORIZON AND RISER CAT6 TOGETHER IN JUNCTION BOX
N. BIX BLOCK FOR VOICE (HORIZONTAL AND RISER)



| MECHANICAL EQUIPMENT SCHEDULE - DFO WEST VAN LABS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------|--------------------|------|-----|----|-------|-------|--------|-------|---------|---------|-------|---------|--------|-------|---------|---------|-------|---------|----------------|---------------|----------------|----------|-----------|------|-----|-------------------|------------|---|
| Q# | DESCRIPTION | EQUIPMENT LOCATION | LOAD | | | VOLTS | PHASE | UNIT | | | STARTER | | | DISC. | | | CONTROL | | | SUPPLY PANEL | | WIRE & CONDUIT | | | NOTE | | | | |
| | | | MCA | KW | HP | | | SUPPLY | MOUNT | CONNECT | SUPPLY | MOUNT | CONNECT | SUPPLY | MOUNT | CONNECT | SUPPLY | MOUNT | CONNECT | PANEL LOCATION | AMPS | P | CCT NO'S | WIRE SIZE | | NO. | CONDUIT SIZE (mm) | TOTAL AMPS | |
| EHC-100 | FEED LAB | CEILING | - | 4.5 | - | 208 | 3 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 20 | 3 | - | 12 | 4 | - | - | - |
| E-100 | ELECTRIC HEAT COIL | CEILING | - | 4.5 | - | 208 | 3 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 20 | 2 | - | 12 | 3 | - | - | - |
| CU-100 | COOLER EVAPORATION | IN COOLER | - | - | - | 208 | 1 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 20 | 2 | - | 12 | 3 | - | - | 1 |
| CU-100 | COOLER CONDENSER | EXTERIOR | - | - | - | 208 | 1 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 20 | 2 | - | 12 | 3 | - | - | 1 |
| HRV-100 | HEAT RECOVERY VENTILATOR | CEILING | - | 0.3 | - | 208 | 1 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 15 | 2 | - | 12 | 3 | - | - | - |
| TDHW | DOMESTIC HOT WATER TANK | - | - | 2.5 | - | - | 1 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 30 | 1 | - | 10 | 2 | - | - | - |
| - | HEAT TRACE | - | - | - | - | 120 | 1 | M | M | E | - | - | - | - | - | - | - | - | - | B | FEED LAB | 15 | 1 | - | 12 | 2 | - | - | 2 |
| ACOUSTICS LAB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EHC-103 | ELECTRIC HEAT COIL | CEILING | - | 4.5 | - | 208 | 3 | M | M | E | - | - | - | - | - | - | - | - | - | C | ACOUSTICS LAB | 20 | 3 | - | 12 | 4 | - | - | - |
| EBB-103 | ELECTRIC BASEBOARD | ENTRANCE | - | 1.5 | - | - | 1 | M | M | E | - | - | - | - | - | - | - | - | - | C | ACOUSTICS LAB | 15 | 1 | - | 12 | 2 | - | - | - |
| - | FUTURE EXHAUST FAN | SERVER ROOM | - | - | - | FHP | - | 1 | M | M | E | M | M | E | - | - | - | - | - | C | ACOUSTICS LAB | 15 | 1 | - | 12 | 2 | - | - | 3 |
| HRV-103 | HEAT RECOVERY VENTILATION | CEILING | - | 0.3 | - | 208 | 1 | M | M | E | - | - | - | - | - | - | - | - | - | C | ACOUSTICS LAB | 15 | 2 | - | 12 | 3 | - | - | - |

| OWNER EQUIPMENT | | | | | | | | | | |
|-----------------|----------------|------------|----|----|----|----------------|---------|-----------|-------------|-----------------------------|
| Q# | DESCRIPTION | ELECTRICAL | | | | CIRCUIT NUMBER | BREAKER | WIRE SIZE | RECEPTACLES | DISCONNECT/CONNECTION |
| | | V | PH | kW | hp | | | | | |
| 1 | MIXER 1 | 208V | 3 | - | - | B1.3.5 | 15A-3P | - | - | 30A DISCONNECT + CONNECTION |
| 2 | MIXER 2 | 208V | 3 | - | - | B2.4.6 | 15A-3P | - | - | 30A DISCONNECT + CONNECTION |
| 3 | MIXER | 208V | 1 | - | - | B7.9 | 15A-2P | - | RECEPTACLE | - |
| 4 | VACUUM PACKER | 120V | 1 | - | - | B11 | 15A-1P | - | RECEPTACLE | - |
| 5 | CENTRIFUGE | 208V | 1 | - | - | B8.10 | 30A-2P | - | TWIST LOCK | - |
| 6 | NUTRIENT MIXER | 208V | 3 | - | - | B12.14.16 | 15A-3P | - | TWIST LOCK | - |
| 7 | FREEZE DRYER | 208V | 1 | - | - | B13.15 | 15A-2P | - | RECEPTACLE | - |
| 8 | DRYER | 120V | 1 | - | - | B17 | 15A-1P | - | RECEPTACLE | - |
| 9 | PELLET WHEEL | 208V | 3 | - | - | B18.20.22 | 15A-3P | - | RECEPTACLE | - |

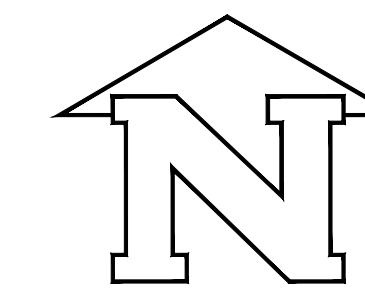


| ELECTRICAL SYMBOL LEGEND | |
|--------------------------|---|
| ABBREVIATIONS | |
| WP | WEATHER PROOF |
| GFI | GROUND FAULT |
| LIGHTING | |
| | SURFACE MOUNTED LED LUMINAIRE |
| | UNDER COUNTER LED LUMINAIRE |
| | SUSPENDED LED LUMINAIRE |
| | WALL MOUNTED DOWN LIGHT |
| | EMERGENCY POWERED RUNNING MAN WITH 2 LED LAMPS |
| | EMERGENCY BATTERY CW 2x6W LED HEADS |
| | VACANCY SWITCH |
| | MOTION SENSOR, CEILING MOUNTED |
| | DIMMER SWITCH |
| POWER | |
| | SPECIAL AMPERE AND VOLTAGE RECEPTACLE |
| | 15A DUPLEX RECEPTACLE |
| | 15/20A RECEPTACLE |
| | WEATHERPROOF RECEPTACLE |
| | GFI RECEPTACLE |
| | QUAD 15/20A RECEPTACLE |
| | DIRECT CONNECTION |
| | MECHANICAL MOTOR CONNECTION |
| | DISCONNECT SWITCH |
| | REEL RECEPTACLE |
| | POWER POLE - 3M CORD |
| COMMUNICATIONS | |
| | 2 CAT6 DATA OUTLETS RJ45 |
| | 1 CAT6 VOICE OUTLET RJ11 |
| FIRE ALARM | |
| | 120V/12V COMBINATION SMOKE/CARBON MONOXIDE DETECTOR |

Contractor must check and verify all dimensions and conditions on site and report any discrepancies to designer and/or engineer prior to proceeding with work

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PROJECT NORTH

PRODUCTION DRAWINGS BY:



1 ISSUED FOR 100% REVIEW 11/30/2017

REV DESCRIPTION DATE

PROJECT NAME:

SAR Vancouver Laboratory Buildings

4160 Marine Dr
West Vancouver, British Columbia

DRAWING TITLE:

SITE PLAN, LEGEND,
AND SCHEDULES

DATE: 11/30/2017

SCALE: AS NOTED

DRAWN BY: TS/DP/JK

CHECKED BY: CT

JOB NUMBER: 1-17-274

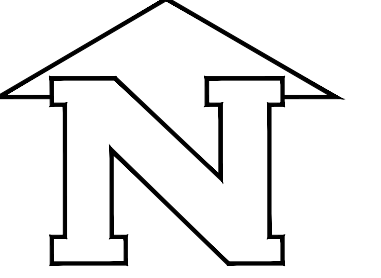
DRAWING NUMBER:

E1.0

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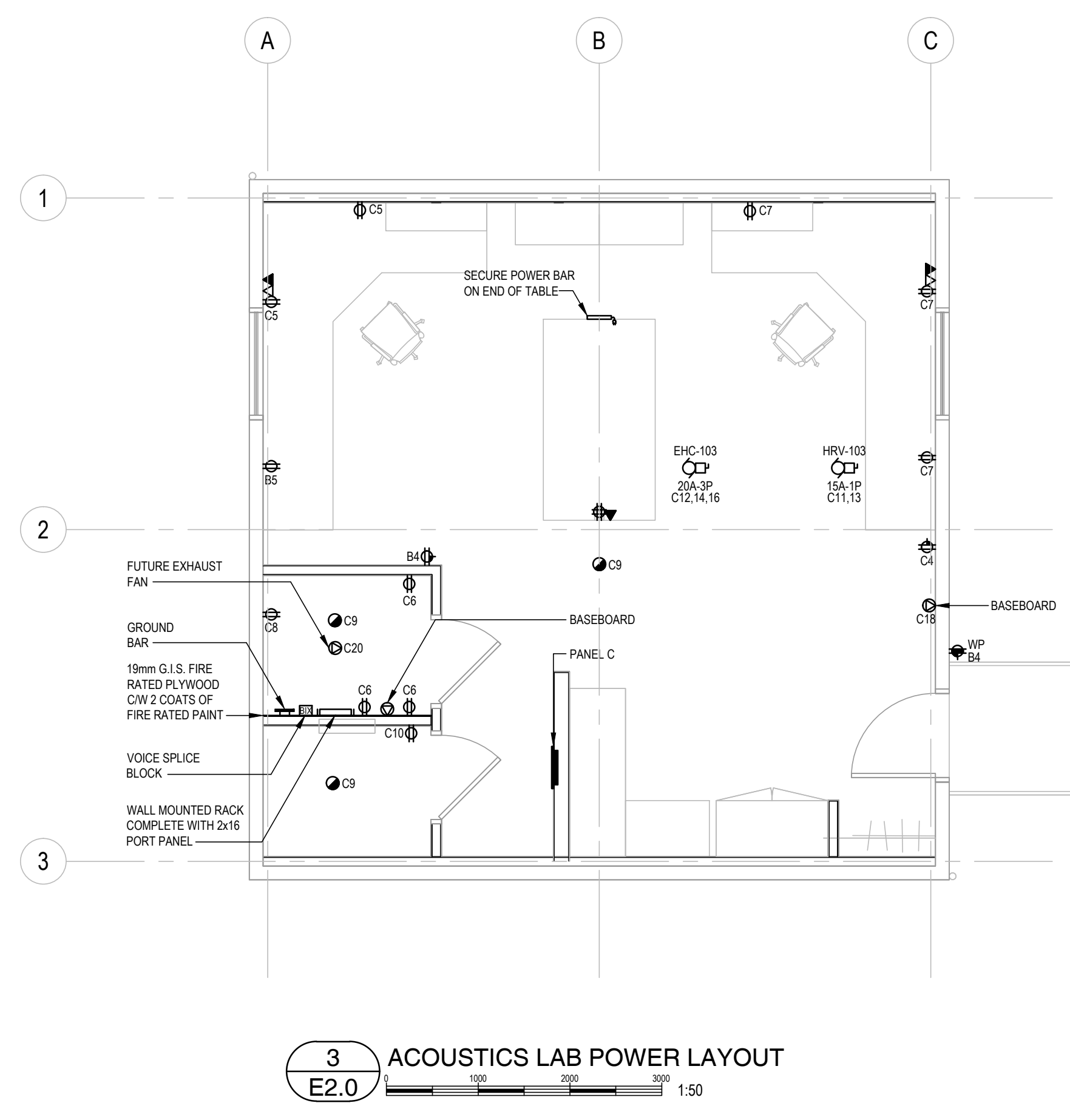
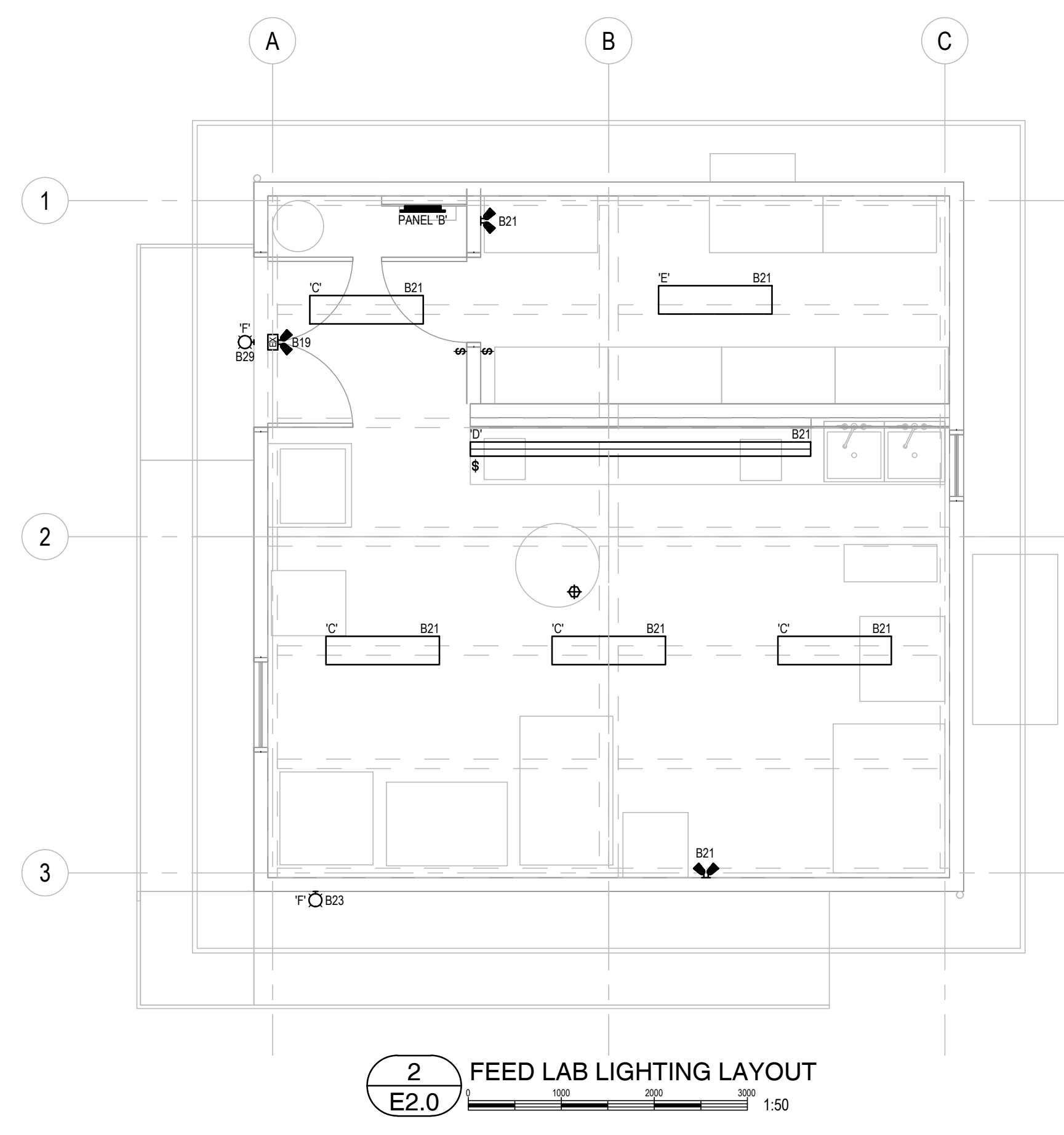
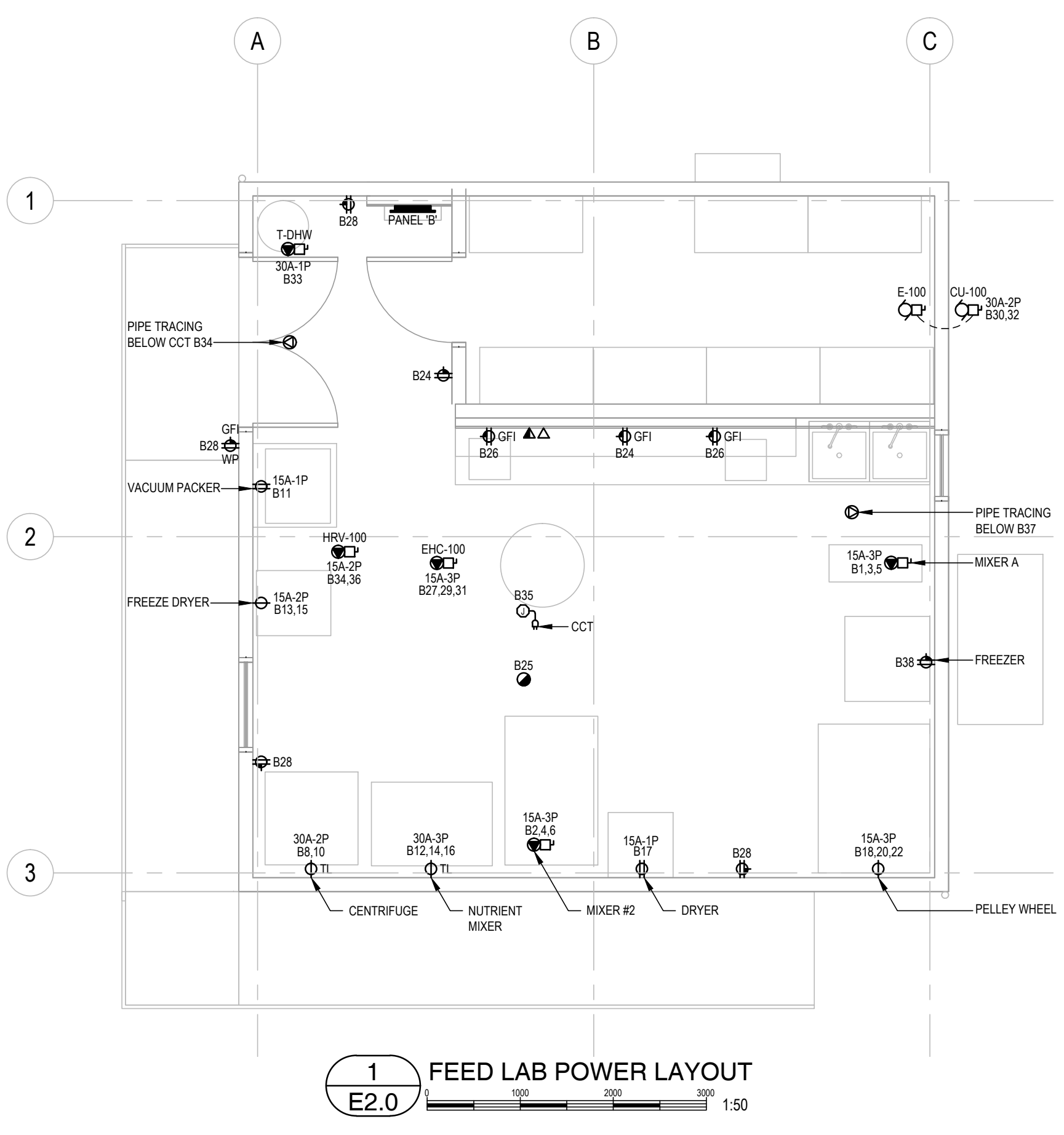
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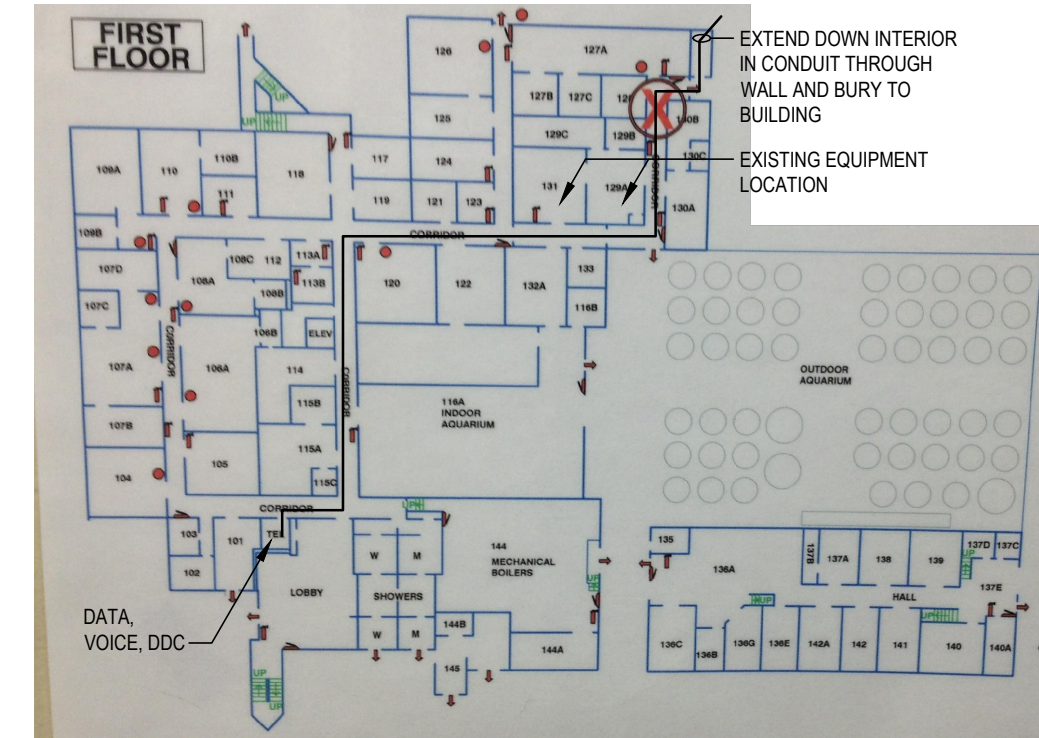


1 FEED LAB POWER LAYOUT E2.0

2 FEED LAB LIGHTING LAYOUT E2.0

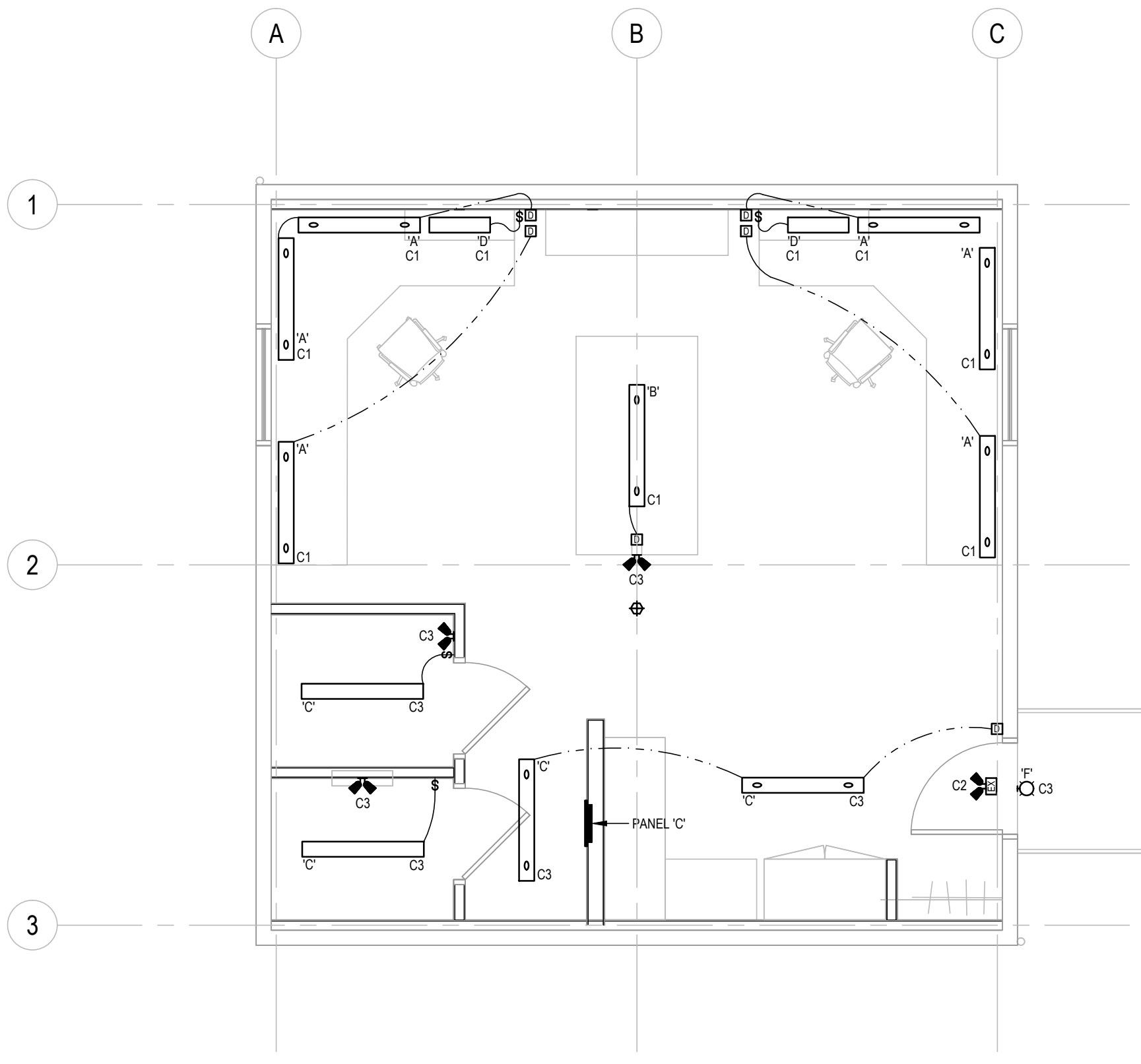
3 ACOUSTICS LAB POWER LAYOUT E2.0

- NOTES:
1. PROVIDE A 15A-2P RECEPTACLE CONNECTED TO A HEAVY DUTY INDUSTRIAL CORD REEL. 25 FEET #12 500W BLACK, NEMA 2, CSA. SUSPEND FROM STRUCTURAL CEILING.
 2. COORDINATE ELECTRICAL POWER TO MECHANICAL PROVIDED PIPE TRACING

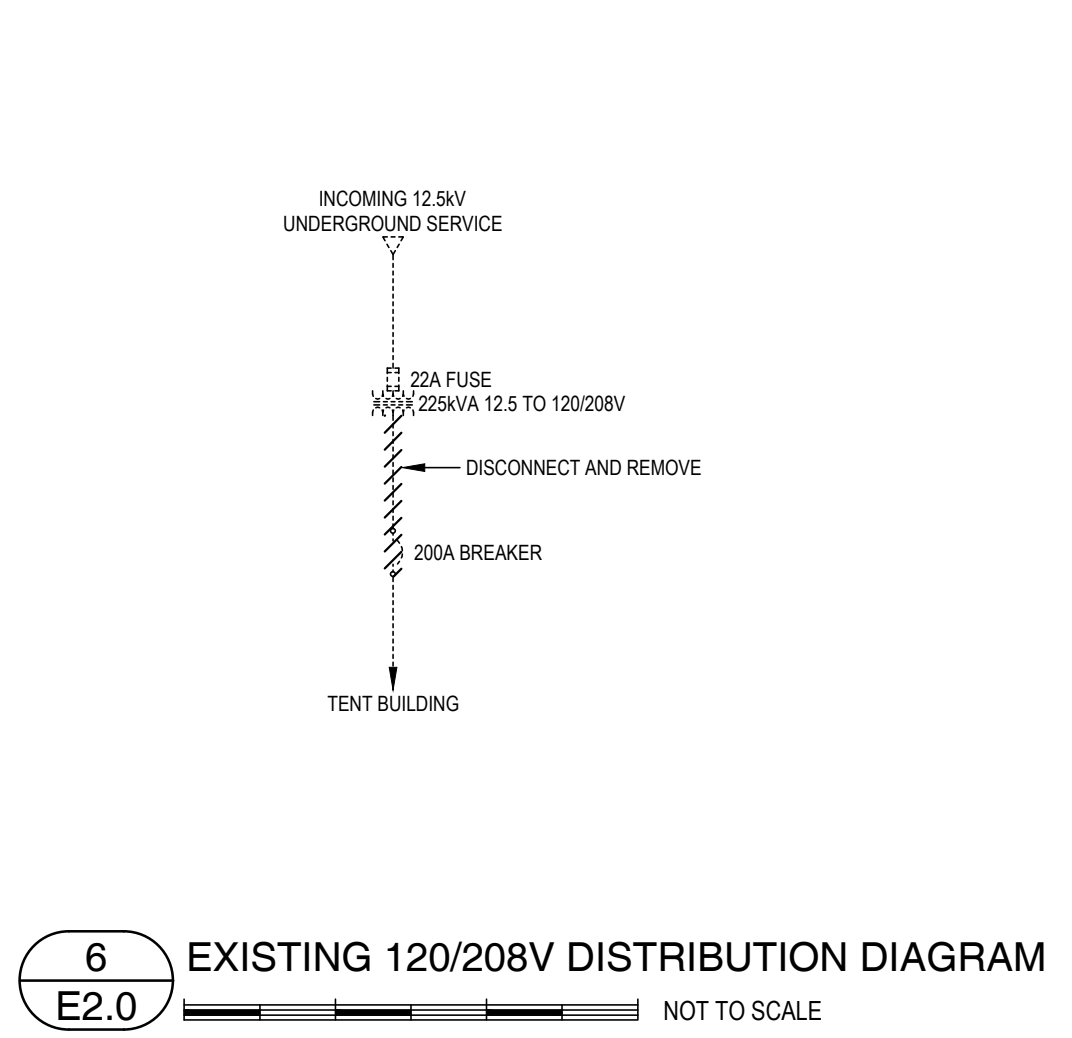


- NOTES:
1. CABLES TO BE INSTALLED IN EXISTING CABLE TRAY WHERE AVAILABLE.
 2. PROVIDE WIDE 'J' HOOKS BEYOND CABLE TRAY. SECURE TO BUILDING STRUCTURE.
 3. FIRE SEAL RATED CORRIDOR WALL SEPARATIONS.

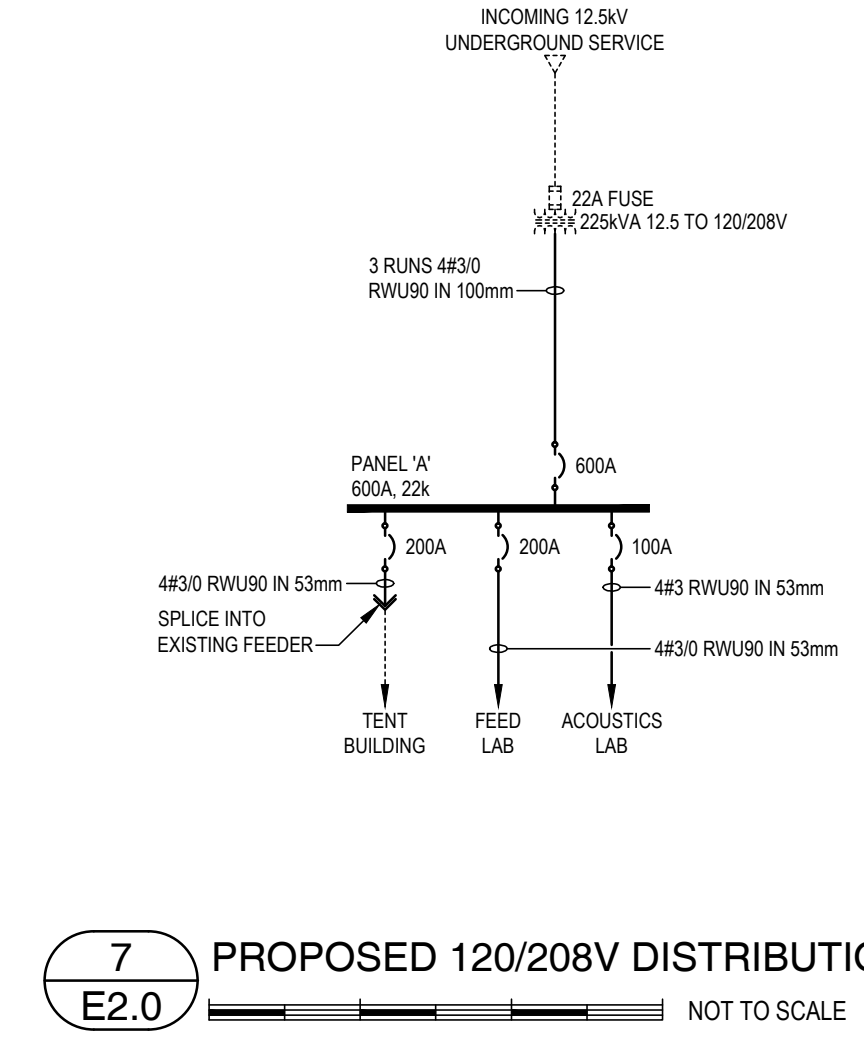
5 ROUTING DIAGRAM E2.0



4 ACOUSTICS LAB LIGHTING LAYOUT E2.0



6 EXISTING 120/208V DISTRIBUTION DIAGRAM E2.0



7 PROPOSED 120/208V DISTRIBUTION REVISION DIAGRAM E2.0

LUMINAIRE SCHEDULE:

- | | |
|--|--|
| | TYPE 'A' WALL MOUNTED LED LINEAR PROFILE UNIT. LUMINAIRE CAN BE ROTATED 350°, FROSTED WHITE ACRYLIC LENS, DIMMING DRIVER, BLACK, 700mm LONG, 1680 LUMENS 3000K |
| | TYPE 'B' SUSPENDED 1219mm LONG LED LUMINAIRE COMPLETE WITH SYMMETRICAL LENS, 3200 LUMENS, 30K, 120V, 0-10V DIMMING. |
| | TYPE 'C' SURFACE AND SUSPENDED 1200mm LONG LED LUMINAIRE COMPLETE WITH FROSTED LENS, 4000 LUMENS, 30K, 120V, 0-10V DIMMING. |
| | TYPE 'D' UNDER CABINET LUMINAIRE C/W ALUMINUM BODY WHITE FINISH, ACRYLIC LENS, 2700K, 90 CRI, REMOTE SWITCH CONTROL. |
| | TYPE 'E' IP65 RATED 4000K, 5000L, RUST PROOF, POLYCARBONATE ENCLOSURE AND LENS |
| | TYPE 'F' MINI WALL PACK, 1000L, 4000K, 120V, PHOTO CELL AND BRONZE FINISH |
| | EXIT GREEN PICTOGRAM STYLE (RUNNING MAN) WITH WITH 2x6V LED LAMPS AND EMERGENCY BATTERY BACK-UP |
| | EMERG LED EMERGENCY LUMINAIRE COMPLETE WITH 2x6W-12V LAMPS AND LONG LIFE MAINTENANCE FREE SEALED LED ACID BATTERY |

| | | |
|---|------------------------|------------|
| 1 | ISSUED FOR 100% REVIEW | 11/30/2017 |
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| REV | DESCRIPTION | DATE |
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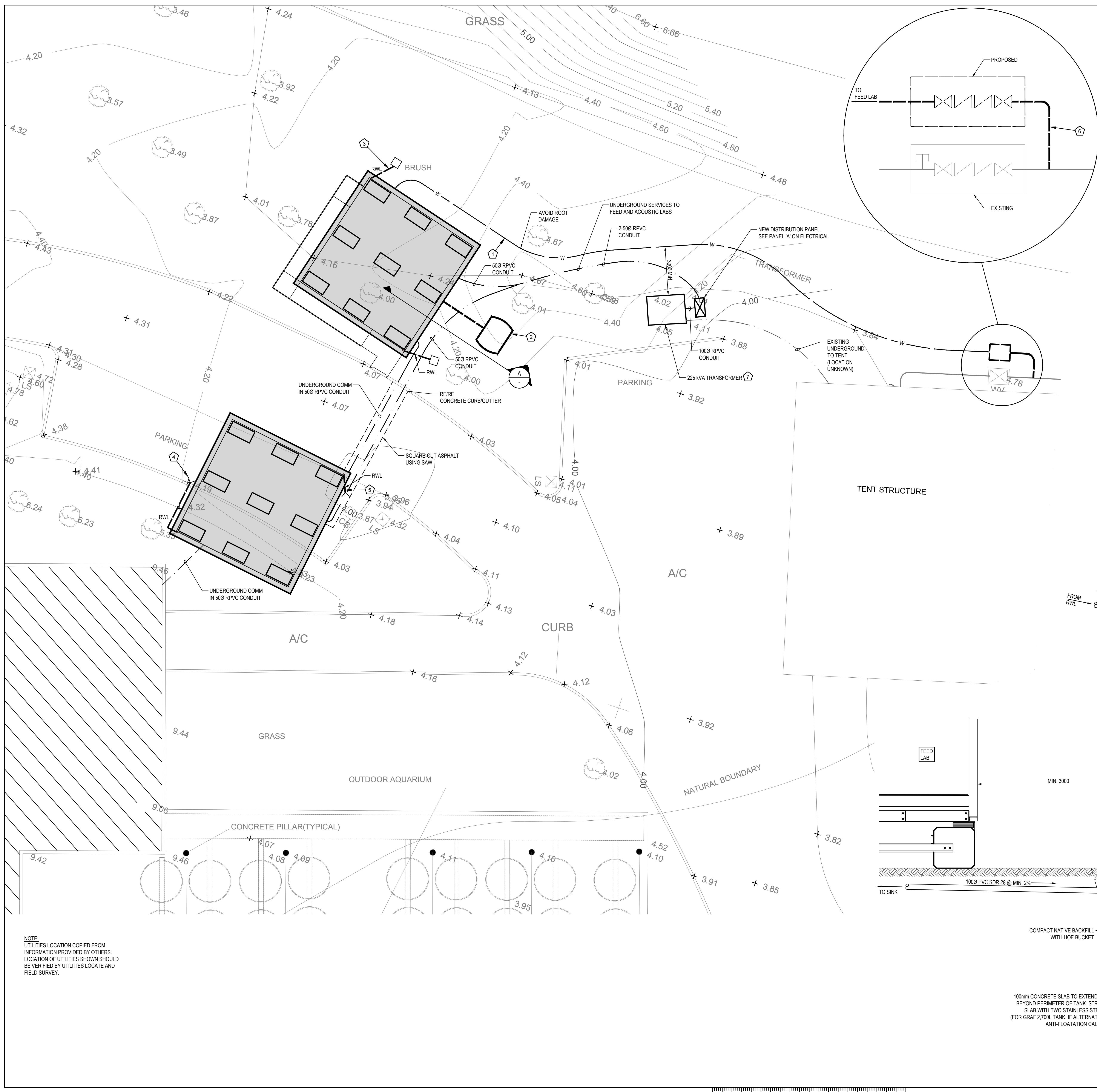
PROJECT NAME:
SAR Vancouver Laboratory Buildings
4160 Marine Dr
West Vancouver, British Columbia

DRAWING TITLE:
LAB POWER AND LIGHTING LAYOUTS, AND DETAILS

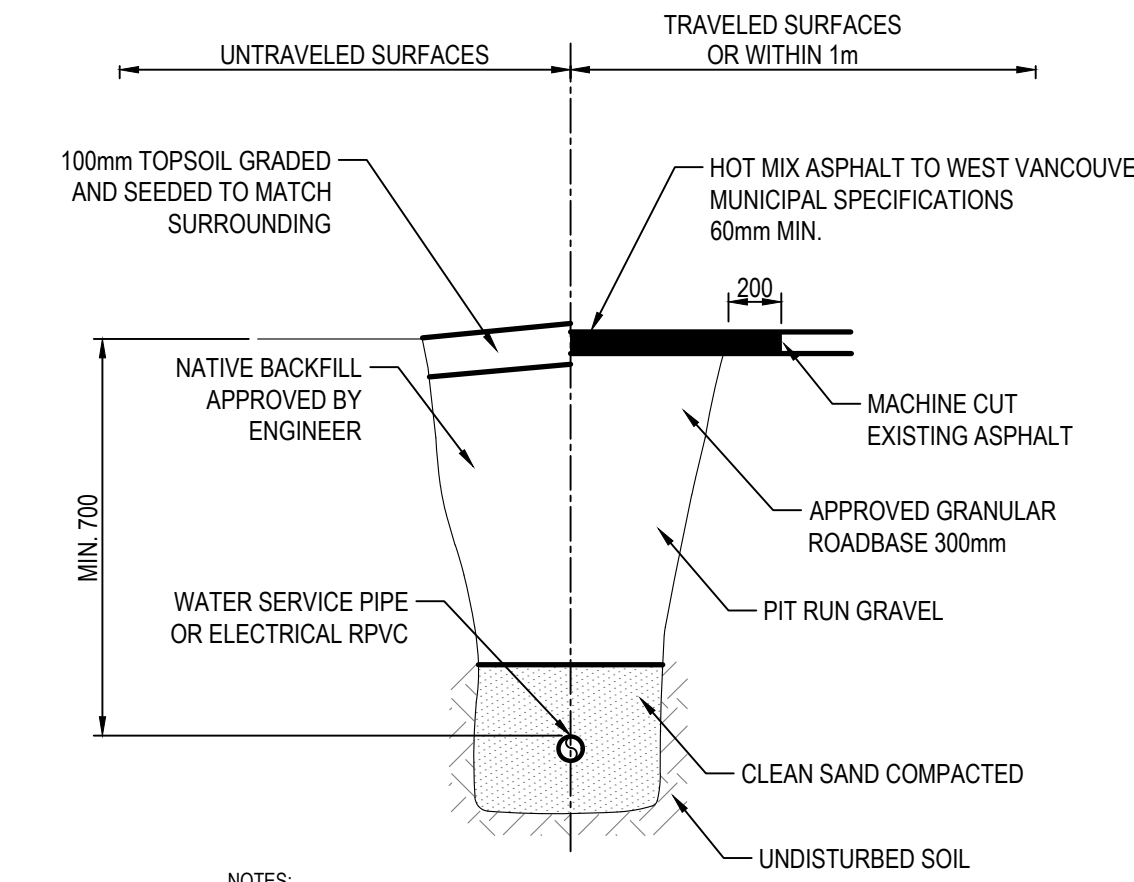
| | |
|-------------|------------|
| DATE: | 11/30/2017 |
| SCALE: | AS NOTED |
| DRAWN BY: | TS/DPIJK |
| CHECKED BY: | CT |
| JOB NUMBER: | 1-17-274 |

DRAWING NUMBER:

E2.0

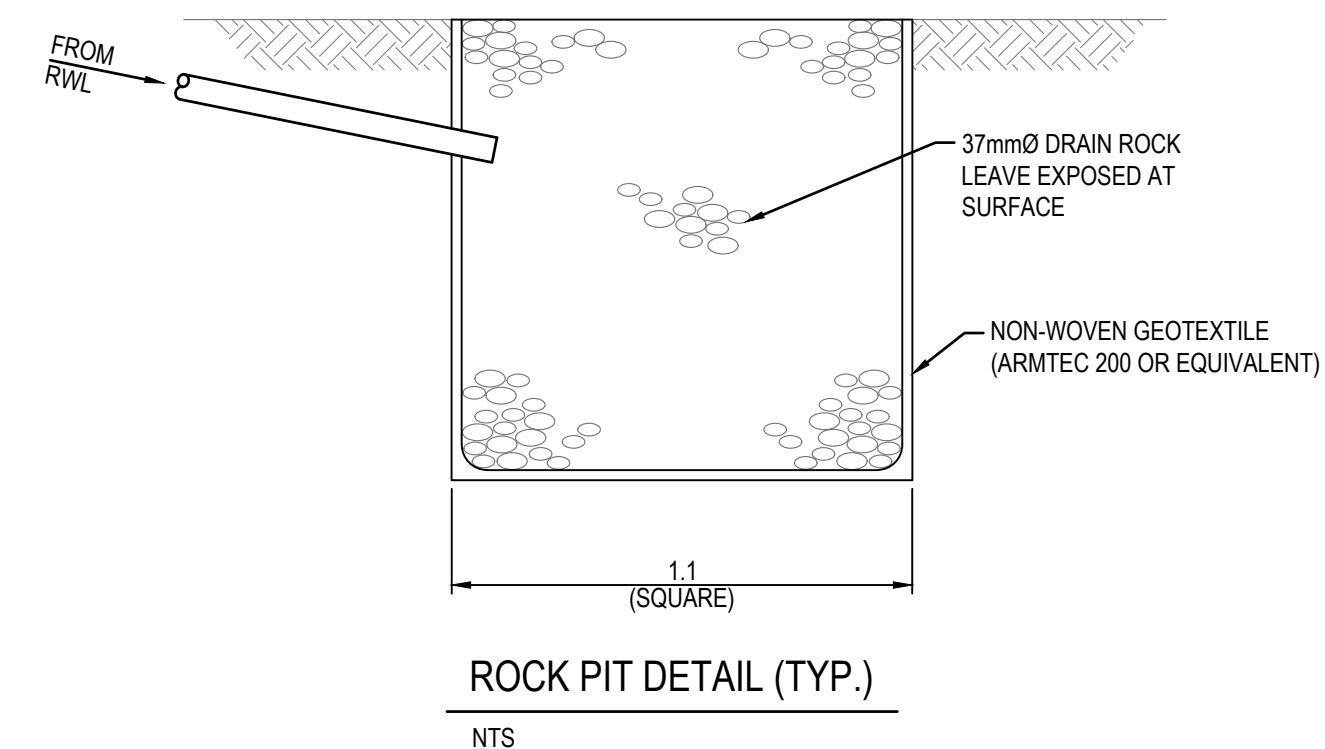


- KEYNOTES:**
- 1. EXTEND 19mm PN10 PE SERVICE TO EXISTING 50mm PVC WATERMAIN. MAINTAIN MINIMUM 3.0m CLEARANCE FROM TRANSFORMER COUNTERPOISE. INSULATE AND HEAT-TRACE EXPOSED PIPE BELOW NEW FEED LAB (SEE ELECTRICAL AND MECHANICAL).
 - 2. GREY WATER STORAGE TANK c/w ACCESS HATCH. ACCEPTABLE PRODUCT "GRAF CARAT S 2700L". TANK TO BE EQUIPPED WITH WIRELESS LEVEL MONITOR WITH ALARM PANEL MOUNTED IN FEED LAB.
 - 3. APPROVED PRODUCT "AQUATEL D110". FINAL LOCATION TO BE DETERMINED IN FIELD.
 - 4. RAIN WATER LEADER: CONNECT TO ROCK-PIT. SEE DETAIL ON THIS SHEET. (TYPICAL FOR 2)
 - 5. DIRECT RAIN WATER LEADER DISCHARGE TO GUTTERLINE. DO NOT BLOCK GUTTERLINE TO ALLOW ROAD DRAINAGE TO CATCH BASIN.
 - 6. DISCHARGE RAIN WATER LEADER OVER PAVEMENT TO CATCH BASIN.
 - 7. MAKE CONNECTION TO EXISTING PVC MAINLINE UPSTREAM OF EXISTING DCV. INSTALL NEW DVC IN VALVE BOX. ACCEPTABLE PRODUCT = WATTS 007. DVC TO INCLUDE 2 BALL VALVES AND TEST COCKS. VALVE BOX TO BE INSULATED. ALL JOINTS TO BE WELDED OR MECHANICALLY RESTRAINED.
 - 8. CONTRACTOR TO LOCATE EXISTING ELECTRICAL SERVICES TO FROOM TRANSFORMER PRIOR TO CONSTRUCTION.
 - 9. EXISTING SERVICES SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY AND CANNOT BE GUARANTEED FOR ACCURACY. CONTRACTOR TO CONFIRM LOCATION OF ALL EXISTING SERVICES IN THE FIELD PRIOR TO CONSTRUCTION.
 - 10. CONTACT BC-1 (1-800-474-6886), BC HYDRO, SHAW CABLE, AND FORTIS GAS FOR UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

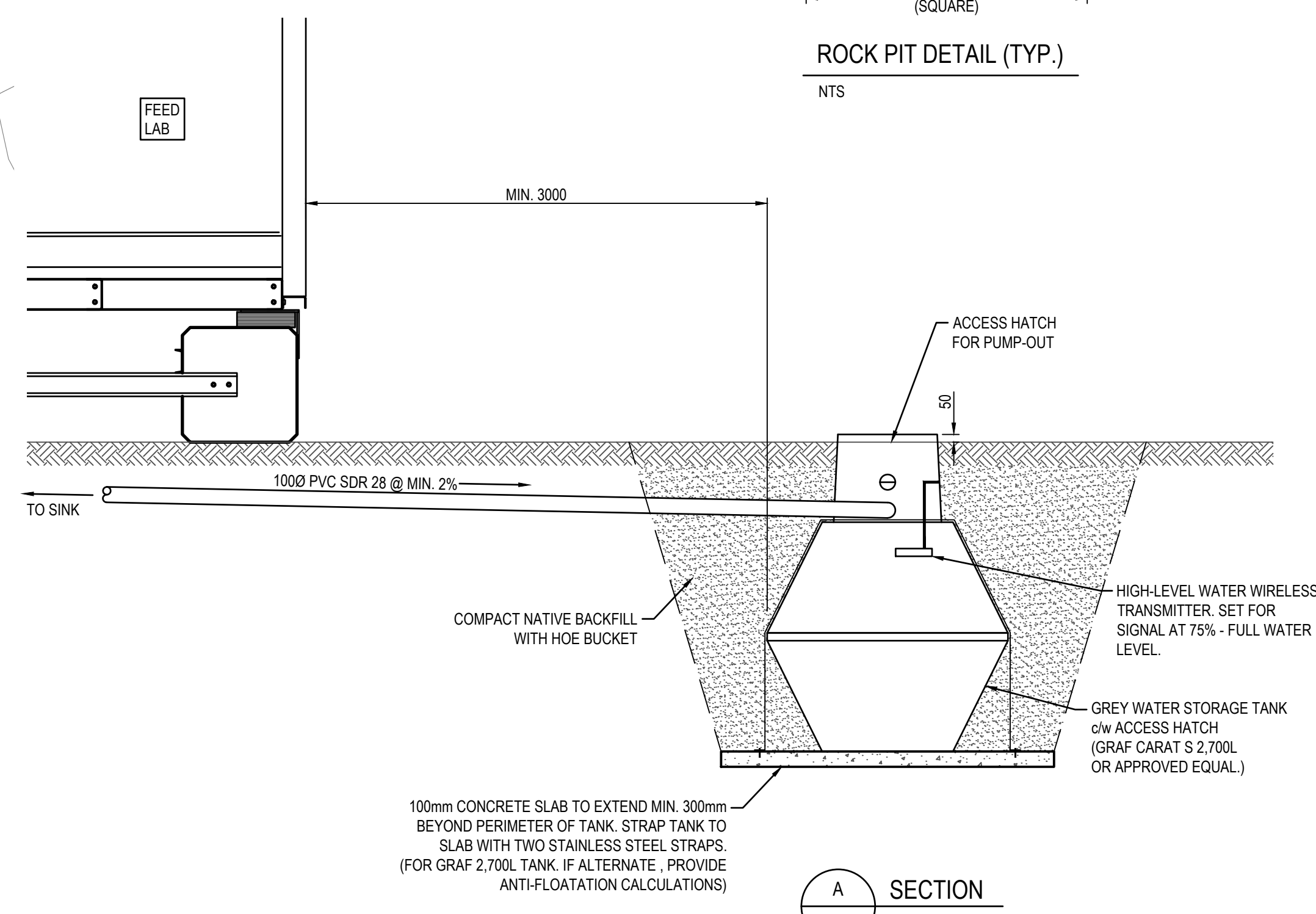


- NOTES:**
1. UNDER ROADS AND WALKWAYS, BACKFILL SHALL BE PITRUN GRAVEL COMPACTED TO 95% SPD.
 2. ALL TRENCHES AND EXCAVATIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND REGULATIONS OF THE WORKERS COMPENSATION BOARD.

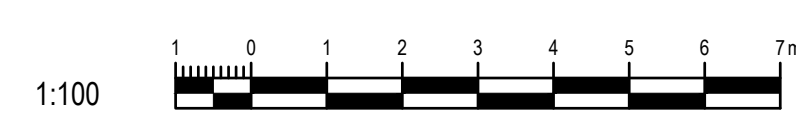
TYPICAL TRENCH
NTS



ROCK PIT DETAIL (TYP.)
NTS



SECTION
C1.0 NTS



NOTE:
UTILITIES LOCATION COPIED FROM INFORMATION PROVIDED BY OTHERS. LOCATION OF UTILITIES SHOWN SHOULD BE VERIFIED BY UTILITIES LOCATE AND FIELD SURVEY.

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REAL PROPERTY SERVICES
Pacific Region
SERVICES IMMOBILIERS
Région de Pacifique

numberTEN architectural group **number 10**

wsp

301-3600 UPTOWN BOULEVARD
VICTORIA (BRITISH COLUMBIA) CANADA V8Z 0B9
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JOB NO. 171-16763-00

| 2 | 100% REVIEW | 2017/11/30 |
|-------------------|-------------------------|------------|
| 1 | INSULATED PANEL ORDER | |
| Revision/Revision | Description/Description | Date/Date |
| Client/Client | | |

FISHERIES AND OCEANS, REAL PROPERTY, SAFETY AND SECURITY

VANCOUVER, BC
200-401 BARRARD ST.

Project title/Titre du projet
CENTER FOR AQUACULTURE & ENVIRONMENTAL RESEARCH

NEW LABS
4160 Marine Dr, West Vancouver

Consultant Signature Box Only

Designed by/Concept par
HV

Drawn by/Dessiné par
SG

PWGSC Project Manager/Administrateur de Projets TPSGC
--

PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

SITE PLAN AND SERVICING

| | | |
|---------------------------|----------------|-------------------------------|
| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| - | C1.0 | 2 |
| | OF | |

