



PHYSICAL RESOURCES

TENDER

General Contracting Services
for

Building #046 Renovations
For
College of Social and Applied Human Sciences
Project No. 504034

ADDENDUM 5

December 12, 2018

Part 1 - GENERAL

- A5.1** The following is provided to bidders as additional information and/or clarification and/or in response to questions.
- A5.2** ***This Addendum shall form an integral part of the Contract Documents and amends the original Specifications and Drawings and shall be read in conjunction with the Tender as issued by the University of Guelph on November 15, 2018, dated November 2, 2018. This Addendum shall take precedence over all requirements to the aforementioned Tender with which it may prove to be at variance.***
- A5.3** Receipt of this Addendum shall be acknowledged on form Appendix C as a part of your submission. Failure to do so may subject the Proponent to disqualification.
- A5.4** Ensure that all affected parties are aware of the items noted and include any and all cost impacts in the Tender submission.
- A5.5** This Addendum contains:
- .1 Part 1 – GENERAL
 - .2 Part 2 – CLARIFICATIONS
 - Questions/Answers
 - Specifications
 - Drawings

Part 2 – CLARIFICATIONS

QUESTIONS / ANSWERS

- A5.6 Q1:** Please clarify who is to include for final cleaning for the following specifications: Specification Section 01 74 11 (Cleaning) or Specification Section 08 11 16 (Aluminum Doors and Frames) per Article 3.4 (Cleaning) and Section 08 44 13 (Glazed Aluminum Curtain Walls) per Article 3.5 (Cleaning).
- A1:** Contractor to coordinate the scope of work as outlined in the Contract Documents.
- A5.7 Q2:** Regarding drawing A80, can you please specify the make-up of each glazing type noted in the door schedule?
- F.INS – Frosted Insulated Glass
 - INS – Insulated Glass
 - R.INS – Reflective Insulated Glass
- A2:** Where glazing is shown in an STC rated door and frame assembly, glazing to be supplied by door manufacture as part of the packaged and prepped door and frame assembled unit.
- In addition to STC rating requirements, frosted film, as specified in specification Section 08 80 50 – Glazing, is to be applied to all doors indicated to have ‘F.INS’ glazing.
- In addition to STC rating requirements, one-way mirrored glass, as specified in specification Section 08 80 50 – Glazing, is to be used as part of the door and frame assembly at all doors indicated to have ‘R.INS’ glazing.

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- A5.8 Q3:** Regarding drawing A80, do you required the glazing type for LAM to be tempered or just 6mm clear laminated as per specification Section 08 80 50 – Glazing, Article 2.1.4.2?
- A3:** Locations with laminated glazing are not required to be tempered. Glazing indicated to be laminated (LAM) is required to be meet standard CAN/CGSB-12.1-M “Tempered or Laminated Safety Glass”.
- A5.9 Q4:** Regarding specification Section 08 80 50 – Glazing, Article 2.1.4.2, should the laminated interlayer of this glass type be 0.76mm or 5/64” these are two different thicknesses?
- A4:** Thickness of interlayer to be 0.76 mm.
- A5.10 Q5:** Regarding specification Section 08 80 50 – Glazing, Article 2.1.6, please clarify where one-way mirrored glass is required.
- A5:** One-way mirrored glass is required at all location indicated to have “reflective laminated glass”. Refer to architectural drawings A80, A81, and A82.
- A5.11 Q6:** Regarding specification Section 08 80 50 – Glazing, Article 2.1.8, please clarify what type of low-e is required for the exterior sealed units. This is a very generic unit type and doesn’t relate to the glazing units noted on drawing A80 thru A82. Please clarify each unit type required and whether it has annealed lites, tempered lites or laminated lites and what type of reflective glazing is required.
- A6:** Refer to the specification clarifications section of this addendum.
- A5.12 Q7:** Regarding specification Section 08 44 13 – Glazed Aluminum Curtain Walls, Article 2.3.7.3, where are these decorative caps and plates required on this job?
- A7:** Refer to the specification clarifications section of this addendum.
- A5.13 Q8:** Is there environmental abatement work in the above existing ceiling for Wing B & C? If there is, what are the designated substances to be remediated and what is the extent? DSS Report is showing only one sample location. Please confirm.
- A8:** There is potential for abatement work in ceiling spaces within Wing B and C. Contractor to price scope of work as outlined in Division 02 of the specifications.
- A5.14 Q9:** If proper DSS Report cannot be provided for question above, is it possible to put this item in a cash allowance so that all bidders will carry the same cost?
- A9:** No cash allowance will be established at this time.
- A5.15 Q10:** In the absence of chemical analysis of soil, we assume that the disposal of excess excavated material shall be considered as non-contaminated and non-hazardous. Please confirm if this is acceptable.
- A10:** For the purposes of establishing a bid price, soils are to be considered as non-contaminated and non-hazardous. However, contractor is to include for cost and time associated with sampling and testing of all soil removals.
- A5.16 Q11:** There are many types of sputter coat low-e coatings. Please indicate which one the glazing subcontractors are to carry in their prices.
- A11:** Refer to the specification clarifications section of this addendum.

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- A5.17 Q12:** Curtain wall sealed units need further clarification. On drawing A82 under the curtain wall types there is a notation indicating 6mm clear laminated glass sealed units. In Section 08 80 50, Article 2.1.8, insulating glass unit description, there is no mention of lamination. It does state the sealed units to have safety glass both lites. Section 08 80 50, Article 2.1.4 lists Type 1 and Type 2 safety glass. Do the sealed units for the curtain wall require Type 1 or Type 2 safety glass?
- A12:** References to 'laminated glass' on architectural drawings refers to Type 2 Safety Glass as defined specification Section 08 80 50 – Glazing. Contractor to provide laminated glass in all locations indicated on drawings and specifications.
- A5.18 Q13:** Detail 10/A27 at soffit shows breaking lines. Please indicate the depth of the composite wood veneer panels.
- A13:** Size and dimension of wood veneer panels can be found on drawings A27, A28, A57, and A58.
- A5.19 Q14:** The AA6600 Kawneer fixed window framing is drawn backwards. This system is glazed from the interior.
- A14:** Refer to the drawing clarifications section of this addendum.
- A5.20 Q15:** Insulated spandrel back panels are not recommended with this fixed window system. Please advise how to proceed.
- A15:** Insulated spandrel panels are to be as shown on architectural drawings and specifications.
- A5.21 Q16:** Specifications do not list what ceiling tile ACT3 is but the RCP for Wing C includes an AC3. Please advise what product this is.
- A16:** Refer to the specification clarifications section of this addendum.
- A5.22 Q17:** Per DSS report written by Pinchin and Specification Section 02 82 13 (Paragraph 1.3.5.) it is understood that the Contractor is only to provide pricing for the removal of the fireproofing within the corridor Ceiling space. Has there been previous abatement work completed on the Office side of the corridor partitions? Are we therefore to presume that there is no asbestos fire spray outside of the corridor ceiling spaces?
- A17:** Refer to the entirety of Paragraph 1.3.5 of specification Section 02 82 13, which states that there may be ACM debris/overspray present in concealed areas that will have to be reviewed. It is not limited it to the ceiling space.
- A5.23 Q18:** Please confirm the size of the brick for this project. Spec does not clarify.
- A18:** 4" clay brick.
- A5.24 Q19:** Specs call for Banana peel type cable. Is this a new standard or a mistype?
- A19:** Banana Peel style cable refers to cables wrapped into one larger cable. This is a technical term.

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- A5.25 Q20:** Drawings call for splice boxes at door – from past UofG project experience this is not allowed. All cable must be pulled from head to end to devices with no splice points.
- A20:** The drawings do not call for splice boxes at doors. The junction boxes are required as meeting points from hardware from door up into the ceiling. Terminations from the door are to be done in this box. Power and access control wire are to be home run to power supply access control room on first floor. There are NO splices allowed; these are required terminations.
- A5.26 Q11:** 152mm metal studs at exterior wall furring, wall type W1. This furring appears to be supporting the windows, do these studs have to be structural load bearing studs? If yes, please provide a specification, Section 09 22 16 is for non-structural metal framing. Please provide required gauge for framing at 400mm O.C.
- A11:** Specification Section for structural load bearing metal studs to be issued in upcoming Addenda.
- A5.27 Q21:** On communication drawings, there are AV elevations show. Could you please advise if AV is part of the bid?
- A21:** Yes. Refer to drawings T108 to T110 for clarification of scope. Also note, per Specification Section 01 11 00, Paragraph 1.12.4, the contractor is responsible for coordination of the installation of the VCAP systems, which will be procured under a separate contract by the owner.

SPECIFICATIONS

A5.28 SECTION 01 14 03 – SPECIAL PROJECT SCHEDULING REQUIREMENTS

- .1 **ADD:** Sub-paragraph 1.1.9.4 as follows:
 - “.4 Cabling infrastructure and blocking to be complete and ready for VCAP system installation no later than March 2, 2020.”

A5.29 SECTION 07 42 43 – COMPOSITE WALL PANELS

- .1 **DELETE:** Paragraph 2.1.1 in entirety.
- .2 **ADD:** Paragraph 2.1.1 as follows:
 - “.1 Dry-joint shop fabricated ACM system.
 - .1 Acceptable manufacturer: Citadel Architectural products, or Alpolic ACM.”
- .3 **DELETE:** Paragraph 2.1.2 in entirety
- .4 **ADD:** Paragraph 2.1.2 as follows:
 - “.2 Thickness: 4mm.”
- .5 **DELETE** Reference to ‘0.236” ‘ from sub-paragraph 2.2.3.1.
- .6 **DELETE:** Paragraph 2.3.1 and all sub-paragraphs in entirety.
- .7 **DELETE:** Paragraph 2.3.2 and all sub-paragraphs in entirety.
- .8 **DELETE:** Paragraph 2.3.3 and all sub-paragraphs in entirety.
- .9 **DELETE:** Paragraph 2.3.4 and all sub-paragraphs in entirety.
- .10 **ADD:** Paragraph 2.3.1 as follows:
 - “.1 Interior wood veneer panels: laminated wood panel, single-face surfacing, outer ply to match exterior panels wood coated with phenolic resins, inner core paper fibers treated with thermo-hardened resins.
 - .1 Acceptable product: ‘Neptuno’ by Prodema, as supplied by Sound Solutions.
 - .2 Thickness: 10 mm.
 - .3 Panel size: as indicated on drawing.
 - .4 Fire rating: CAN/ULC S102 – Flame spread rating not more than 25.
 - .5 Colour: not more than one (1) colour to later select by consultant from manufacturers complete colour range.
 - .2 Exterior wood veneer panels: laminated wood panel, single-face surfacing, outer ply Okume veneer coated with phenolic resins, inner core paper fibers treated with thermo-hardened resins.
 - .1 Acceptable product: ‘Prodex IGN’ by Prodema, as supplied by Sound Solutions.
 - .2 Thickness: 10 mm.
 - .3 Panel size: as indicated on drawing.
 - .4 Fire rating: Class A CAN/ULC S134 and as required by O.B.C 3.1.5.5.

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- .3 Colour: not more than one (1) colour to later select by consultant from manufacturers complete colour range.”
- .11 **ADD:** Paragraph 2.3.2 as follows:
 - “.2 Panel Fixation System:
 - .1 Concealed fasteners system with matching caps: at all locations unless otherwise noted
 - .2 Fully adhered: where indicated on drawings. “

A5.30 SECTION 08 11 00 – METAL DOORS AND FRAMES

- .1 **ADD:** Sub-paragraph 2.1.2.3 to Article 2.1 – Materials, as follows:
 - “.3 Glazing in doors and frames to be supplied from door manufacturer to meet or exceed specified door STC rating.“
- .2 **ADD:** Paragraph 2.6.9 to Article 2.6 – Accessories, as follows:
 - “.9 Door to be complete with perimeter sound seals, retracting bottom seals and aluminum threshold. Aluminum threshold to extend the full width of door and frame assembly. Contractor to provide threshold to suit flooring material transitions.”

A5.31 SECTION 08 44 13 – GLAZED ALUMINUM CURTAIN WALLS

- .1 **DELETE:** Sub-paragraph 2.3.7.3 in entirety.

A5.32 SECTION 08 71 00 – DOOR HARDWARE – APPENDIX A FINISH HARDWARE SCHEDULE

- .1 **REPLACE:** Reference to Door ‘D104WR’ with ‘D104b’ in hardware Set 34.0.
- .2 **ADD:** One (1) card reader, model ‘HID multiclass SE RP40’ to the following door hardware sets:
 - .1 Set 55.0
 - .2 Set 56.0
- .3 **ADD:** Two (2) door contacts, model number ‘1076-D’ to the following door hardware sets:
 - .1 Set 27.0
 - .2 Set 28.0
 - .3 Set 29.0
 - .4 Set 30.0
 - .5 Set 33.0
 - .6 Set 42.0
 - .7 Set 55.0
 - .8 Set 56.0

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- .4 **ADD:** One (1) door contact, model number '1076-D' to the following door hardware sets:
- .1 Set 8.0
 - .2 Set 8.1
 - .3 Set 11.0
 - .4 Set 12.0
 - .5 Set 13.0
 - .6 Set 14.0
 - .7 Set 16.0
 - .8 Set 18.0
 - .9 Set 19.0
 - .10 Set 20.0
 - .11 Set 24.0
 - .12 Set 25.0
 - .13 Set 26.0
 - .14 Set 31.0
 - .15 Set 43.0
 - .16 Set 44.0
 - .17 Set 44.1
 - .18 Set 48.0
 - .19 Set 52.0
 - .20 Set 52.1
 - .21 Set 57.0

A5.33 SECTION 08 80 50 – GLAZING

- .1 **DELETE:** Reference to ' 5/64" ' in sub-paragraph 2.1.4.2.
- .2 **ADD:** Subparagraph 2.1.8.1.6 as follows:
- ".6 Additional Performance Requirements:
- .1 Max Solar Heat Gain Co-Efficient (SHGC): 0.4
 - .2 Minimum Visible Light Transmittance (VT)/SHGC: 1.10
 - .3 Visible Light Transmittance:64% min.
 - .4 Maximum Assembly U-Value: 0.38
 - .2 Winter nighttime U-Factor: 1.24 (W/m²x°C) maximum.
 - .3 Summer daytime U-Factor: 1.24 (W/m²x°C) maximum.
 - .4 Shading Coefficient: 0.57 maximum.
 - .6 Outdoor visible light reflectance: 12% maximum."

A5.34 SECTION 09 51 13 – ACOUSTICAL PANEL CEILINGS

- .1 **DELETE:** Article 2.1 in entirety.
- .2 **ADD:** New Article 2.1 as follows:
- "**2.1 MATERIALS**
- .1 Acoustic units for suspended ceiling system, Type 1 (ACT 1): to CAN/CGSB-92.1, non-fire rated, wet-formed mineral fibre acoustic ceiling panels with factory applied vinyl latex paint:
 - .1 Type Square tegular.
 - .2 Class A.

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- .3 Pattern as noted on drawings, Class A.
 - .4 Textures: smooth.
 - .5 Flame spread rating of 25 or less in accordance with CAN/ULC-S102.
 - .6 Smoke developed 50 or less in accordance with CAN/ULC-S102.
 - .7 Minimum Ceiling Attenuation Class (CAC) rating 35, in accordance with ASTM E 1264.
 - .8 Minimum Sound Absorption NRC rating 0.7.
 - .9 Light Reflectance (LR) range of 0.90.
 - .10 Edge type: 9/16 square tegular.
 - .11 Colour: white.
 - .12 Size: 24" x 24" x 1" thick.
 - .13 Acceptable material: 'Calla' by Armstrong.
- .2 Acoustic units for suspended ceiling system, Type 2 (ACT 2): to CAN/CGSB-92.1, non-fire rated, wet-formed mineral fibre acoustic ceiling panels with factory applied vinyl latex paint:
- .1 Type Square tegular.
 - .2 Class A.
 - .3 Pattern as noted on drawings, Class A.
 - .4 Textures: smooth.
 - .5 Flame spread rating of 25 or less in accordance with CAN/ULC-S102.
 - .6 Smoke developed 50 or less in accordance with CAN/ULC-S102.
 - .7 Minimum Ceiling Attenuation Class (CAC) rating 35, in accordance with ASTM E 126.4
 - .8 Minimum Sound Absorption NRC rating 0.7.
 - .9 Light Reflectance (LR) range of 0.90.
 - .10 Edge type: 9/16 square tegular.
 - .11 Colour: white.
 - .12 Size: 48" x 48" x 1" thick.
 - .13 Acceptable material: 'Lyra with Plant-based Binder High CAC' by Armstrong.
- .3 Acoustic units for suspended ceiling system, Type 3 (ACT 3): to CAN/CGSB-92.1, non-fire rated, wet-formed mineral fibre acoustic ceiling panels with factory applied vinyl latex paint:
- .1 Type Square Lay-In.
 - .2 Class A.
 - .3 Pattern as noted on drawings, Class A.
 - .4 Textures: smooth.
 - .5 Flame spread rating of 25 or less in accordance with CAN/ULC-S102.
 - .6 Smoke developed 50 or less in accordance with CAN/ULC-S102.
 - .7 Minimum Ceiling Attenuation Class (CAC) rating 35, in accordance with ASTM E 1264.
 - .8 Minimum Sound Absorption NRC rating 0.7.
 - .9 Light Reflectance (LR) range of 0.90.
 - .10 Edge type: 9/16 square tegular.
 - .11 Colour: white.

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- .12 Size: 48" x 24" x 1" thick.
- .13 Acceptable material: 'Calla' by Armstrong.
- .4 Adhesive: low VOC type recommended by acoustic unit manufacturer."

A5.35 SECTION 09 53 00 – ACOUSTICAL SUSPENSION

- .1 **DELETE:** Paragraph 2.2.7 in entirety.
- .2 **ADD:** Paragraph 2.2.7 as follows:
 - “.7 Suspension systems:
 - .1 For ACT 1 and ACT 2:
 - .1 Acceptable Material: 9/16 dimensional T system: 'Interlude XL HRC' by Armstrong or approved alternate.
 - .2 Surface Finish: prefinished baked polyester, or enamel.
 - .2 For ACT 3:
 - .1 Acceptable Material: Acceptable Material: 'Prelude XL' 24 mm / 15/16" exposed tee system by Armstrong, surface
 - .2 Finish: prefinished baked polyester, or enamel."

A5.36 SECTION 23 21 13 – HYDRONIC PIPING

- .1 **DELETE:** Tour & Anderson as an acceptable manufacturer from Article 2.17.
- .2 **DELETE:** Sub-paragraph 2.17.2.10 in entirety.
- .3 **ADD:** Sub-paragraph 2.17.2.10 as follows:
 - “.10 Pressure Independent Control Valves Siemens”
- .4 **ADD:** The paragraph 3.9.8 as follows:
 - “.8 Flushing and Cleaning shall be performed by Suez (Sole Sourced)”

A5.37 SECTION 23 22 00 – STEAM AND CONDENSATE PIPING AND PUMPS

- .1 **DELETE:** Sub-paragraph 2.3.1.1 in entirety.
- .2 **ADD:** Sub-paragraph 2.3.1.1 as follows:
 - “.1 Screwed fittings: malleable iron, Class 150. Note: High pressure steam and high pressure condensate shall utilize 300# screwed fittings.”
- .3 **DELETE:** Sub-paragraph 2.3.3.1 in entirety.
- .4 **ADD:** Sub-paragraph 2.3.3.1 as follows:

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- “.1 Forged Steel, Butt Weld Welding Neck Flanges Class 150. Fittings shall be factory manufactured carbon steel, with raised serrated face and pre drilled to American Steel Flange Standard B16.5. Note: High pressure steam and high pressure condensate shall utilize 300# flange fittings”
- .5 **ADD:** The following paragraph to Article 2.6 (Valves):
 - “.6 All valves utilized for high pressure steam service, shall be class 300 WSP”
- .6 **ADD:** The following paragraph to Article 2.7 (Check Valves):
 - “.3 All check valves utilized for high pressure steam service, shall be class 300 WSP”
- .7 **ADD:** The following Paragraph to Article 2.8 (Strainers):
 - “.5 All strainers utilized for high pressure steam service, shall be class 300 WSP”
- .8 **ADD:** Sub-Paragraph 2.19.1.3 as follows:
 - “.1 Pilot Operated Pressure Reducing Valve Armstrong/Leslie”

A5.38 SECTION 23 57 00 – HEAT EXCHANGERS

- .1 **REVISE:** Article 2.1. Siemens will not be accepted as a VFD on the skid package
- DELETE:** Sub-paragraph 2.7.2.3 in entirety.
- ADD:** Sub-paragraph 2.7.2.3 as follows:
 - “.3 Variable Speed Drivers Danfoss, ABB”

A5.39 SECTION 27 15 13 – COMMUNICATIONS COPPER HORIZONTAL CABLING

- .1 **DELETE:** Article 2.1 in entirety.
- .2 **ADD:** New Article 2.1 as follows:
 - “2.1 CATEGORY 6A FOUR-PAIR 100 OHM BALANCED PLENUM TWISTED PAIR CABLE**
 - .1 As per University Standard:
 - .1 CommScope Part No. UN884031014/10 | CS44R BLU C6A 4/23 U/UTP CPK 1KFT.
 - .2 CommScope Part No. UN874035114/10 | CS44P BLU C6A 4/23 U/UTP CPK 1KFT.
 - .3 Hubbell NextSpeed Part No. C6ASRB.
 - .4 Hubbell NextSpeed Part No. C6ASPB.”
- .3 **DELETE:** Article 2.2 in entirety.

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- .4 **ADD:** New Article 2.2 as follows:
- “2.2 CATEGORY 6A 48 PORT PATCH PANEL**
- .1 As per University Standard:
- .1 CommScope Part No. 760162818 | UNP-6A-DM-2U-48.
 - .2 CommScope Part No. 760162800 | UNP-6A-DM-1U-24.
 - .3 Hubbell NextSpeed Part No. HP6A48.
 - .4 Hubbell NextSpeed Part No. HP6A24.”
- .5 **DELETE:** Article 2.3 in entirety.
- .6 **ADD:** New Article 2.3 as follows:
- “2.2 RJ45 MODULE**
- .1 As per University Standard:
- .1 CommScope Part No. 760150011 | UNJ10G-BL.
 - .2 Hubbell NextSpeed Part No. HJ6AB.”
- .7 **DELETE:** Article 2.9. in entirety.
- .8 **ADD:** New Article 2.9 as follows:
- “2.2 CAT 6A PATCH CORDS**
- .1 As per University Standard:
- .1 CommScope Part No. UC1AAA2 | UNC10G U/UTP.
 - .2 CommScope Part No. UC1BBB2-0ZF010.
 - .3 Hubbell NextSpeed Part No. C6ASRB.
 - .4 Hubbell NextSpeed Part No. C6ASPB.”
- .9 **DELETE:** Paragraph 3.1.4 in entirety.
- .10 **ADD:** New Paragraph 3.1.4 as follows:
- “CAT 6A cable, 4 pair, 100 ohm, 23/24 AWG, thermoplastic insulated, solid copper conductor unshielded twisted pair (UTP), formed into four individually twisted pairs and enclosed by a thermoplastic jacket, sheath colour, CSA certified as CMP (FT6) shall be installed for all voice and data requirements. At a minimum, two (2) CAT 6A UTP cables must be installed at each workstation outlet. (Refer to drawings for quantities and locations).”

A5.40 SECTION 27 51 13 – OVERHEAD PAGING SYSTEM

- .1 **DELETE:** Paragraph 3.1.2 in entirety.
- .2 **ADD:** New Paragraph 3.1.2 as follows:
- “The horizontal paging cabling shall be white, Cat6A 4 pair CMP cable.”

DRAWINGS

A5.41 ARCHITECTURAL DRAWING CLARIFICATION

- .1 All window mullions in the following architectural details to be mirrored. Drawings to be revised for 'Issued for Construction' drawing set:
 - .1 Drawing A40, Details 1 to 12.
 - .2 Drawing A41, Details 1 to 5 and 7 to 11.
 - .3 Drawing A42, Details 3, 4, 6, and 7.
 - .4 Drawing A43, Details 2, 5, and 6.
 - .5 Drawing A45, Details 1-4, 6, 8, and 11.
 - .6 Drawing A56, Details 7 to 9.
 - .7 Drawing A75, Detail 2.

A5.42 ARCHITECTURAL SIGNAGE PACKAGE

- .1 **ADD:** To the contract documents, the attached signage package containing the following drawings dated December 07, 2018:
 - ID10 Architectural Signage Plan Wing B Level 1
 - ID11 Architectural Signage Plan Wing B Level 2
 - ID12 Architectural Signage Plan Legend and Detail

A5.43 DRAWING 00 – COVER AND DRAWING LIST

- .1 **REVISE:** Cover page by adding the following:
 - "SIGNAGE
 - ID10 Architectural Signage Plan Wing B Level 1
 - ID11 Architectural Signage Plan Wing B Level 2
 - ID12 Architectural Signage Plan Legend and Detail"

A5.44 DRAWING A80 – ARCHITECTURAL DOOR AND FRAME SCHEDULE, DOOR AND FRAME TYPES

- .1 **REVISE:** Glazing type of D127b to R.INS in Door and Frame Schedule.
- .2 **REVISE:** Glazing type of D128 to F.INS in Door and Frame Schedule.

A5.45 DRAWING A91 – ARCHITECTURAL MILLWORK PLANS, ELEVATIONS AND DETAILS

- .1 **DELETE:** 'N.I.C' from note "Key Lock Box (N.I.C)" in detail 8.

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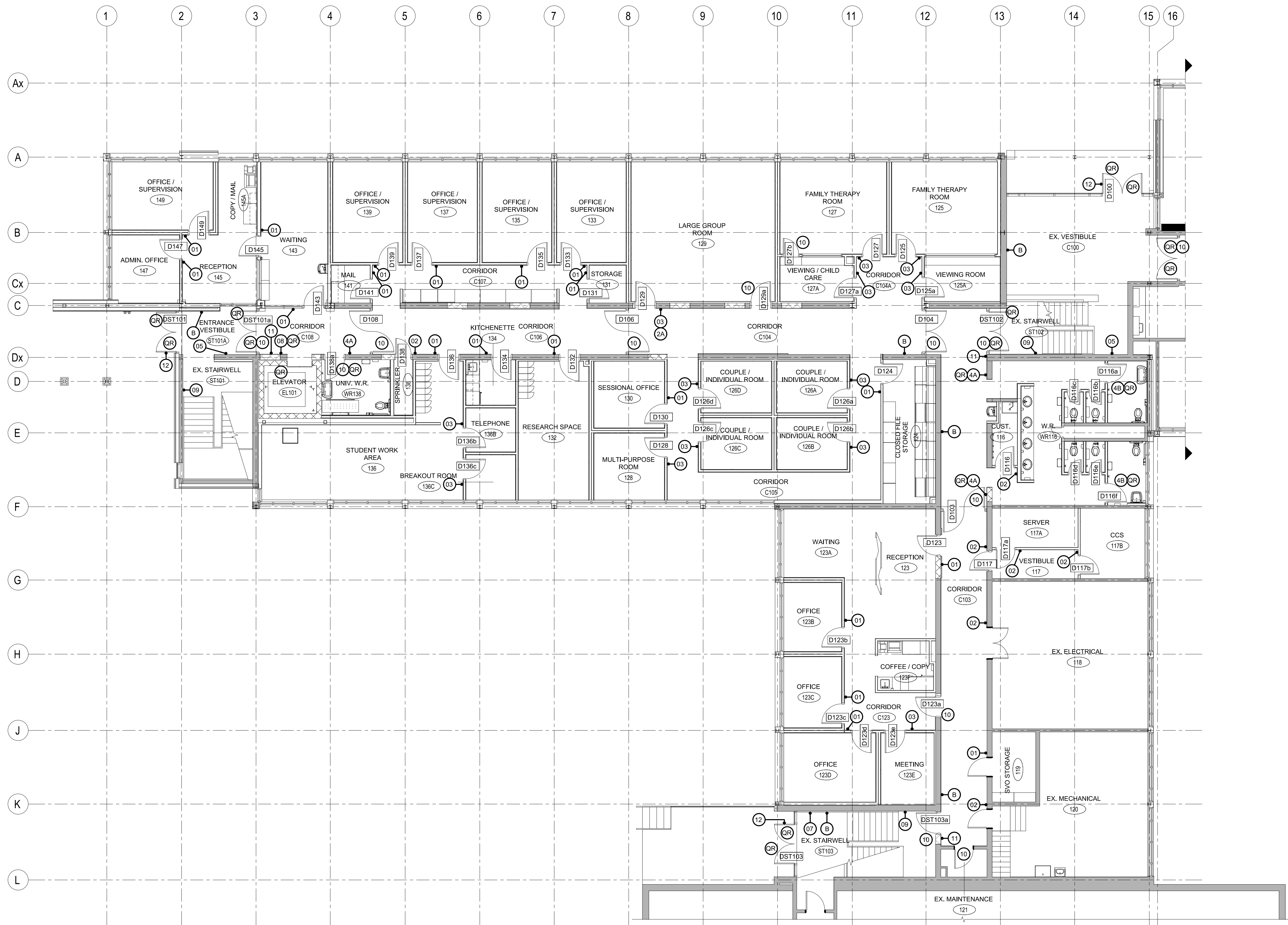
A5.46 COMMUNICATIONS DRAWINGS

- .1 **REPLACE:** The following six (6) communications drawings with the attached revised drawings dated December 07, 2018.
 - .1 T100 – Title Page
 - .2 T101 – Schematics
 - .3 T102 – B-Wing Floor 1 Layout
 - .4 T104 – Pathways Details
 - .5 T105 – Installations Details
 - .6 T107 – Rack Elevations

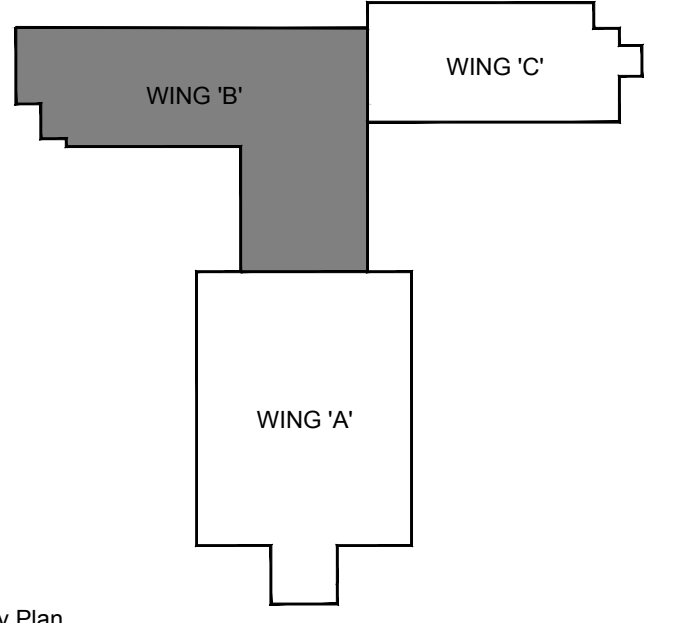
A5.47 ELECTRICAL DRAWINGS

- .1 **REPLACE:** The following two (2) electrical drawings with the attached revised drawings dated December 07, 2018.
 - .1 E21 – Electrical Fire Alarm Layout Wing B Level1
 - .2 E27 – Power and Fire Alarm Layout Wing

END OF ADDENDUM NO. 5



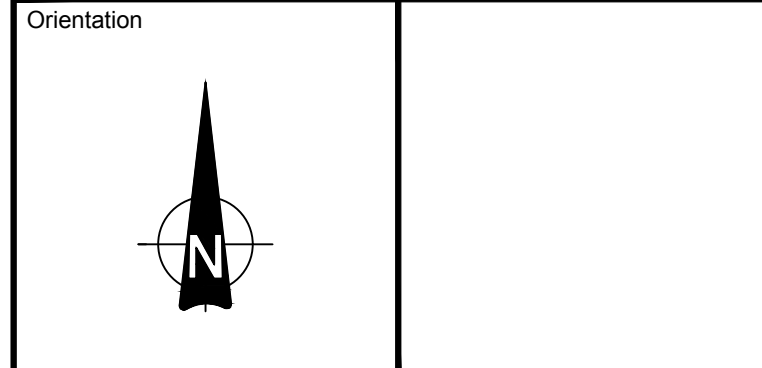
1 SIGNAGE PLAN - WING 'B' LEVEL 1
ID10 SCALE: 1:100



Key Plan
DO NOT SCALE DRAWINGS:
Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work.
UNEXPECTED DISCOVERY OF ASBESTOS:
Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.

A = Detail number
B = Drawing number where detailed

NO.	ISSUED FOR ADDENDUM NO.	BY	DATE
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Seal Seal

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Physical Resources
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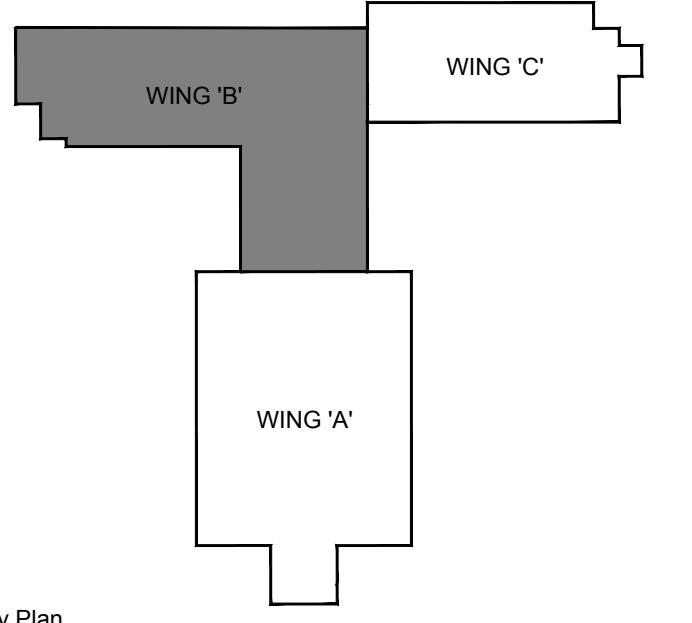
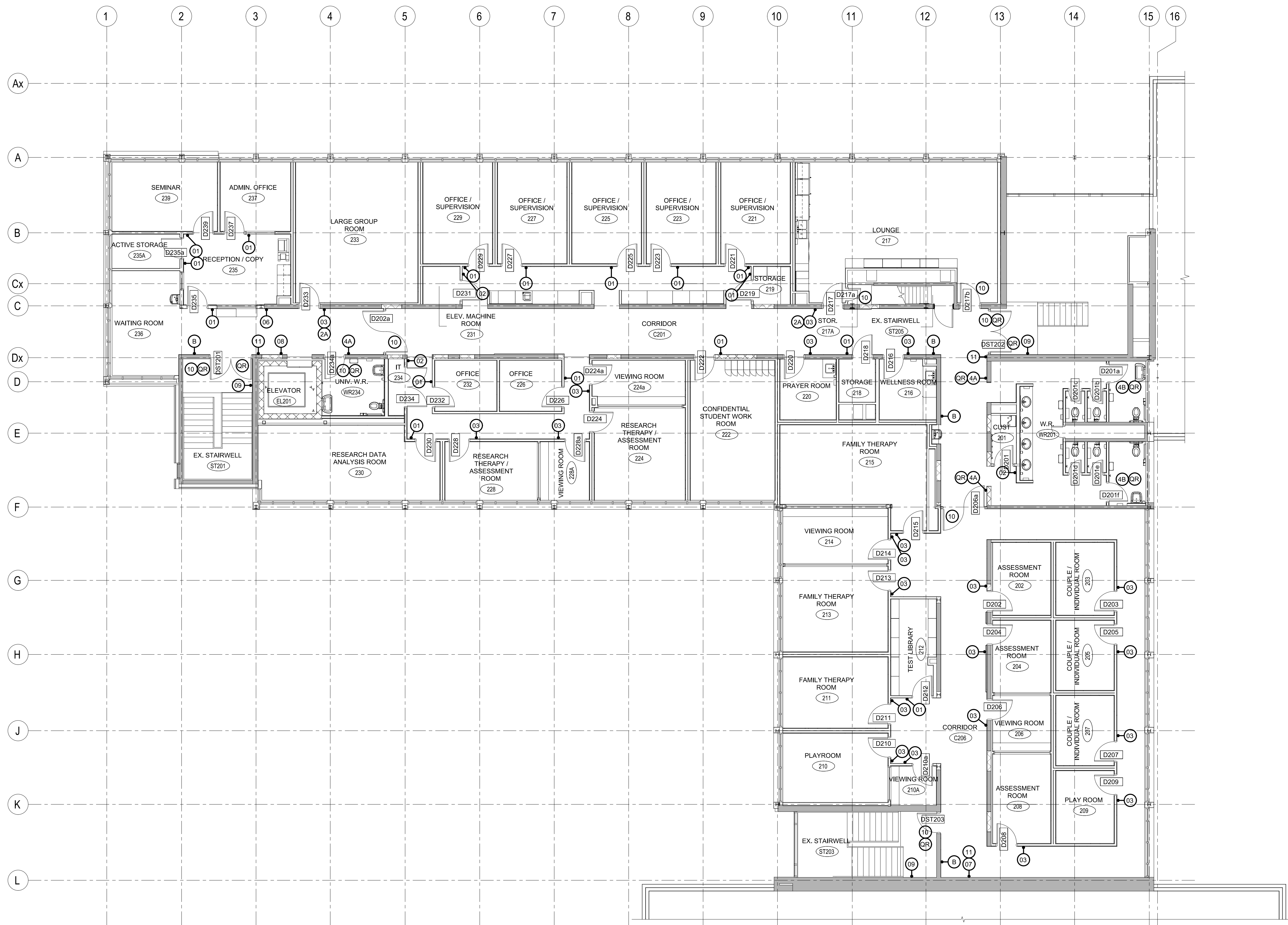
Consultant www.jrichards.ca



Project
BUILDING #046 RENOVATIONS
Drawing Title
ARCHITECTURAL SIGNAGE PLAN WING B LEVEL 1
Project No.
504034

Location
UNIVERSITY OF GUELPH BUILDING #046

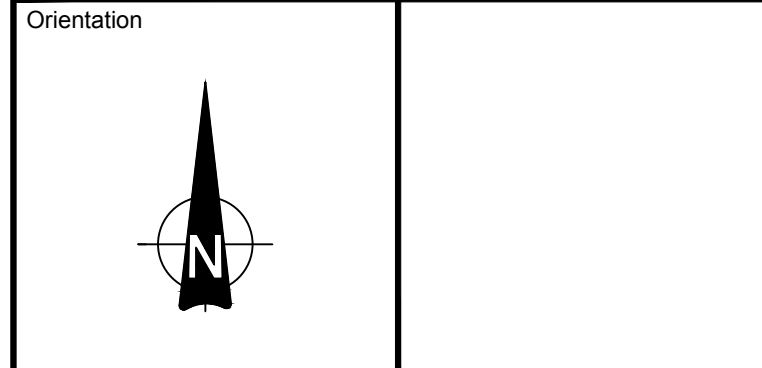
Scale AS INDICATED	Date DEC 7, 2018
Drawn by RM	Drawing No.
Checked By TA	ID10
Approved By RPC	
JLR # 27915	of 173
Cad File No. ----	



Key Plan
DO NOT SCALE DRAWINGS:
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A = Detail number
 B = Drawing number where detailed

0	ISSUED FOR ADDENDUM NO. 5	TA	DEC 7, 2018
NO.	ISSUED	BY	DATE



Seal

UNIVERSITY OF GUELPH
 Design, Engineering & Construction
 Physical Resources
 Guelph, Ontario, N1G 2W1

Consultant www.jrichards.ca
J.R. J.L. Richards
 ENGINEERS-ARCHITECTS-PLANNERS

Project
**BUILDING #046
 RENOVATIONS**
 Drawing Title
**ARCHITECTURAL
 SIGNAGE PLAN
 WING B LEVEL 2**
 Project No.
504034

Location
**UNIVERSITY OF GUELPH
 BUILDING #046**

Scale AS INDICATED	Date DEC 7, 2018
Drawn by RM	Drawing No.
Checked By TA	ID11
Approved By RPC	
JLR # 27915	
Cad File No. ----	of 173

2 SIGNAGE PLAN - WING 'B' LEVEL 2
 ID11 SCALE: 1:100

SIGN TYPE LEGEND				
SYMBOL	TYPE	IMAGE	DESCRIPTION	SPECIFICATION
01	TYPE 1		TYPICAL ROOM SIGNAGE	<ol style="list-style-type: none"> ACCEPTABLE PRODUCT: VISTA WFP157, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN UPPER PORTION: <ol style="list-style-type: none"> PRINTED PAPER INSERT: 216MM W X 143MM H COVER: CLEAR NON-GLARE PLEXI - 216MM X 144 MM H FONT: ALDINE 401BT LOGO LOCATION: TOP LEFT CORNER SEPARATOR STRIP: <ol style="list-style-type: none"> RED GRAVOGRAPH - 216MM W X 4.8MM H SIGN LOWER PORTION: <ol style="list-style-type: none"> SIZE: 216 MM X 66.5MM H COLOUR/MATERIAL: 29900 SILVERY/GRAY GRAVOGRAPH BLACK TACTILE ROOM NUMBER WITH CLEAR BRAILLE ROOM NUMBER BELOW FONT: HELEVETICA NARROW BOLD MOUNTING: MECHANICALLY FASTENED
02	TYPE 2		AUXILIARY ROOM LABELS	TACTILE ROOM LABEL: <ol style="list-style-type: none"> LETTERING/SYMBOLS: BLACK TACTILE WITH CLEAR BRAILLE MATERIAL: 29900 SILVE/GRAY GRAVOGRAPH FONT: HELVETICA NARROW BOLD SIZE: 75MM H X WIDTH TO SUIT TEXT MOUNTING: DS TAP ON SIGN BACK TO FACE OF DOORS.
2A	TYPE 2A		MEETING SCHEDULE/EVENT LISTING HOLDER	SHEET HOLDER: <ol style="list-style-type: none"> SIZE: TO FIT 216MM X 279 MM SHEET OF PAPER MATERIAL: CLEAR PLEXI COMPLETE WITH THUMB NOTCH AT TOP EDGE AND 1.5 MM SPACES ON SIDES AND 6 MM SPACE AT BOTTOM SPACER COLOUR: BLACK OR GRAY PVC MOUNTING: ADHESIVE TAPE WITH
03	TYPE 3		MEETING ROOM SIGNAGE	<ol style="list-style-type: none"> ACCEPTABLE PRODUCT: VISTA WFP157, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN UPPER PORTION: <ol style="list-style-type: none"> LETTER/SYMBOLS: BLACK TACTILE "ROOM TITLE" SIZE: 216MM W X 144 MM H SLIDER: "OCCUPIED/VACANT" FONT "ROOM TITLE": HELVETICA CONDENSED BOLD FONT "OCCUPIED/VACANT": HELVETICA NORMAL CAPS MATERIAL: WHITE GRAVOGRAPH SEPARATOR STRIP: <ol style="list-style-type: none"> RED GRAVOGRAPH - 216MM W X 4.8MM H SIGN LOWER PORTION: <ol style="list-style-type: none"> SIZE: 216 MM X 66.5MM H COLOUR/MATERIAL: 29900 SILVERY/GRAY GRAVOGRAPH BLACK TACTILE ROOM NUMBER WITH CLEAR BRAILLE ROOM NUMBER BELOW FONT: HELEVETICA NARROW BOLD MOUNTING: MECHANICALLY FASTENED
04	TYPE 4		WASHROOM SIGNAGE	<ol style="list-style-type: none"> ACCEPTABLE PRODUCT: VISTA WFP157, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN UPPER PORTION: <ol style="list-style-type: none"> LETTER/SYMBOLS: BLACK TACTILE "CUSTOM ICONS" SIZE: 216MM W X 144 MM H MATERIAL: WHITE GRAVOGRAPH SEPARATOR STRIP: <ol style="list-style-type: none"> RED GRAVOGRAPH - 216MM W X 4.8MM H SIGN LOWER PORTION: <ol style="list-style-type: none"> SIZE: 216 MM X 66.5MM H COLOUR/MATERIAL: 29900 SILVERY/GRAY GRAVOGRAPH BLACK TACTILE ROOM NUMBER WITH CLEAR BRAILLE ROOM NUMBER BELOW FONT: HELEVETICA NARROW BOLD MOUNTING: MECHANICALLY FASTENED
4A	TYPE 4A		ACCESSIBLE WASHROOM SIGNAGE	<ol style="list-style-type: none"> ACCEPTABLE PRODUCT: VISTA WFP157, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN UPPER PORTION: <ol style="list-style-type: none"> LETTER/SYMBOLS: BLACK TACTILE "CUSTOM ICONS" SIZE: 216MM W X 144 MM H MATERIAL: WHITE GRAVOGRAPH SEPARATOR STRIP: <ol style="list-style-type: none"> RED GRAVOGRAPH - 216MM W X 4.8MM H SIGN LOWER PORTION: <ol style="list-style-type: none"> SIZE: 216 MM X 66.5MM H COLOUR/MATERIAL: 29900 SILVERY/GRAY GRAVOGRAPH BLACK TACTILE ROOM NUMBER WITH CLEAR BRAILLE ROOM NUMBER BELOW FONT: HELEVETICA NARROW BOLD MOUNTING: MECHANICALLY FASTENED
4B	TYPE 4B		ACCESSIBLE WASHROOM SIGNAGE	ENGRAVED SIGNAGE: <ol style="list-style-type: none"> SYMBOLS: BLACK ENGRAVED MATERIAL: BRUSHED SILVER PLASTIC/LAMACOID WITH BEVELLED EDGES SIZE: 200MM W X 200MM H MOUNTING: DS TAP ON SIGN BACK TO DOOR SURFACE.
05	TYPE 5		DIRECTORY WITH LIFE SAFETY PLANS	<ol style="list-style-type: none"> ACCEPTABLE PRODUCT: VISTA WFP145, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN FORMAT: <ol style="list-style-type: none"> FULL COLOUR PRINTED PAPER INSERT: 600MM W X 600MM H PRINTED ON HEAVY POSTER STOCK COVER: CLEAR NON-GLARE PLEXI - SIZED TO SUIT BACKGROUND OF BOTTOM TEXT SECTION TO MATCH 29900 SILVERY/GRAY GRAVOGRAPH PRINTED INSERT: REFER TO LIFE SAFETY PLAN GUIDELINES MOUNTING: MECHANICALLY FASTENED CONSULTANT TO PREPARE LIFE SAFETY PLANS AND SUBMIT TO CONTRACTOR FOR INCLUSION IN THE SHOP DRAWING PACKAGE.
06	TYPE 6		SUB-DIRECTORY WITH LIFE SAFETY PLANS	<ol style="list-style-type: none"> ACCEPTABLE MANUFACTURER: VISTA WFP142, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN FORMAT: <ol style="list-style-type: none"> FULL COLOUR PRINTED PAPER INSERT: 600MM W X 460MM H PRINTED ON HEAVY POSTER STOCK COVER: CLEAR NON-GLARE PLEXI - SIZED TO SUIT BACKGROUND OF BOTTOM TEXT SECTION TO MATCH 29900 SILVERY/GRAY GRAVOGRAPH PRINTED INSERT: REFER TO LIFE SAFETY PLAN GUIDELINES MOUNTING: MECHANICALLY FASTENED CONSULTANT TO PREPARE LIFE SAFETY PLANS AND SUBMIT TO CONTRACTOR FOR INCLUSION IN THE SHOP DRAWING PACKAGE.

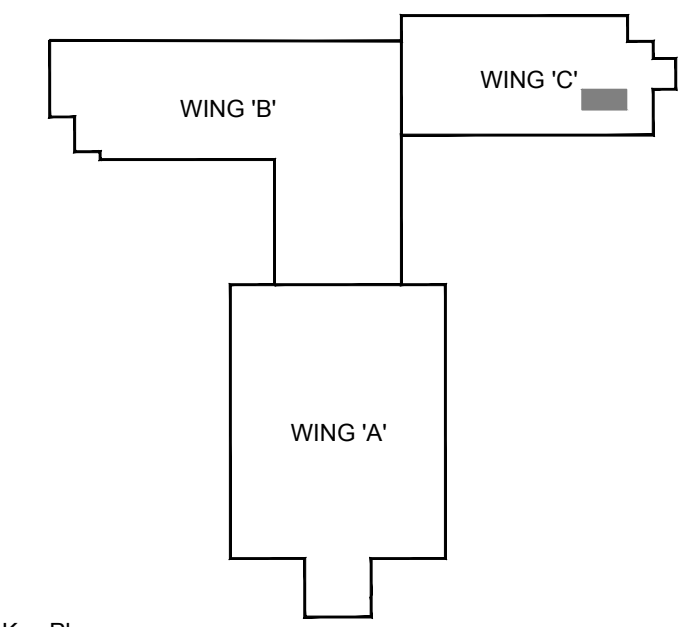
SIGN TYPE LEGEND				
SYMBOL	TYPE	IMAGE	DESCRIPTION	SPECIFICATION
07	TYPE 7		LIFE SAFETY PLANS	<ol style="list-style-type: none"> ACCEPTABLE MANUFACTURER: VISTA WFP142, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN FORMAT: <ol style="list-style-type: none"> FULL COLOUR PRINTED PAPER INSERT: 600MM W X 460MM H PRINTED ON HEAVY POSTER STOCK COVER: CLEAR NON-GLARE PLEXI - SIZED TO SUIT PRINTED INSERT: REFER TO LIFE SAFETY PLAN GUIDELINES MOUNTING: MECHANICALLY FASTENED CONSULTANT TO PREPARE LIFE SAFETY PLANS AND SUBMIT TO CONTRACTOR FOR INCLUSION IN THE SHOP DRAWING PACKAGE.
08	TYPE 8		ELEVATOR SIGNAGE	<ol style="list-style-type: none"> ACCEPTABLE MANUFACTURER: VISTA WFP111, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM 2X SINGLE SIDED CONVEX SIGNS MOUNTED BACK TO BACK ON BLACK METAL CORRIDOR BRACKET. SIGN FORMAT: <ol style="list-style-type: none"> LETTER/SYMBOLS: BLACK VINYL "CUSTOM ICONS" SIZE: 150MM W X 225 MM H MATERIAL: 29900 SILVERY/GRAY GRAVOGRAPH MOUNTING: MECHANICALLY FASTENED
09	TYPE 9		STAIR SIGNAGE	<ol style="list-style-type: none"> ACCEPTABLE PRODUCT: VISTA WFP157, OR EQUIVALENT ALUMINIUM ENDCAP: TOP/BOTTOM SIGN INSERT: <ol style="list-style-type: none"> LETTER/SYMBOLS: BLACK TACTILE "CUSTOM GRAPHICS" MATERIAL: 29900 SILVERY/GRAY GRAVOGRAPH ARROW DIRECTION MUST BE COORDINATED WITH PLACEMENT OF SIGN AND SPECIFIC LOCATION
10	TYPE 10		DOOR TAGS	ENGRAVED SIGNAGE: <ol style="list-style-type: none"> LETTERING/SYMBOLS: BLACK ENGRAVED MATERIAL: BRUSHED SILVER PLASTIC/LAMACOID WITH BEVELLED EDGES FONT: HELVETICA NARROW BOLD MOUNTING: DS TAP ON SIGN BACK TO TOP RIGHT CORNER OF DOOR FRAME. DOOR NUMBER TO BE AS LABELLED ON SIGNAGE PLANS.
11	TYPE 11		EMERGENCY PROCEDURES	PRINTED SIGNAGE: <ol style="list-style-type: none"> LETTERING/SYMBOLS: DIGITAL PRINT WITH MATTE UV LAMINATE SIZE: 150MM W X 230MM H MATERIAL: 3MM ALUPANEL WITH ROUNDED CORNERS FONT AND TEXT: TO BE PROVIDED BY OWNER PRIOR TO SUBMISSION OF SHOP DRAWINGS. MOUNTING: DS TAP ON SIGN BACK
12	TYPE 12		NO SMOKING SIGNAGE	PRINTED VINYL: <ol style="list-style-type: none"> LETTERING/SYMBOLS: DIGITAL PRINT WITH MATTE UV STABLE INK SIZE: 150MM W X 230MM H MATERIAL: ADHESIVE BACK VINYL DECAL FOR APPLICATION TO GLAZING INTERIOR FONT AND TEXT: TO BE PROVIDED BY OWNER PRIOR TO SUBMISSION OF SHOP DRAWINGS.
B	BEACON		LOCATION BEACONS	<ol style="list-style-type: none"> OWNER SUPPLIED, CONTRACTOR INSTALLED. MOUNTING: MECHANICALLY FASTENED AS PER MANUFACTURER'S INSTRUCTIONS.
QR	QR BLAZE		LOCATION QR CODES	<ol style="list-style-type: none"> OWNER SUPPLIED AND INSTALLED (N.I.C.) MOUNTING: SELF ADHESIVE STICKERS TO DOOR/WALL SURFACE.

GENERAL NOTES:

- ALL SIGNS TO BE CONVEX STYLE UNLESS OTHERWISE NOTED.
- ALL SIGNS ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. SIGNAGE TO BE SUPPLIED COMPLETE WITH ALL MOUNTING HARDWARE AS REQUIRED FOR EACH SUBSTRATE AND AS RECOMMENDED FOR THE SUBSTRATE BY MANUFACTURER.
- ALL SIGNAGE TO BE SINGLE SIDED UNLESS OTHERWISE NOTED.
- ALL MOUNTED HARDWARE TO BE CONCEALED UNLESS OTHERWISE NOTED.
- ALL SIGNAGE TO BE MOUNTED ON LATCH SIDE OF THE DOOR UNLESS OTHERWISE NOTED. NOTIFY CONSULTANT OF ALL SPACE AND/OR MOUNTING ISSUES PRIOR TO INSTALLATION.
- CONTRACTOR TO SUBMIT SHOP DRAWING PACKAGE IN ACCORDANCE WITH SPECIFICATIONS AND IS TO INCLUDE:
 - SIGNAGE SCHEDULE INDICATING SIZE, TYPE, MOUNTING, PRINT INSERTS, SYMBOLS AND GRAPHICS OF ALL SIGNS.
 - SIGNAGE PLAN INDICATING MOUNTING LOCATIONS OF ALL SIGNS.
 - SIGNAGE ELEVATIONS INDICATING MOUNTING LOCATIONS OF ALL SIGNS.
 - ONE (1) SAMPLE COMPLETE WITH PRINTED INSERT FOR APPROVAL OF COLOUR, TYPE, BRAILLE AND GRAPHICS OF SIGNAGE.
- ALL SIGNAGE NAMES AND GRAPHICS TO BE COORDINATED WITH THE UNIVERSITY PRIOR TO SUBMITTAL OF SHOP DRAWINGS. CONTRACTOR TO INCLUDE FOR CUSTOM NAMES AND GRAPHICS FOR ALL SIGNAGE.
- CONSULTANT TO PREPARE LIFE SAFETY PLANS AND SUBMIT TO CONTRACTOR FOR INCLUSION IN THE SHOP DRAWING PACKAGE.
- ALL SIGNAGE BRAILLE TO BE GRADE 2.
- TEXT VISIBILITY TO FOLLOW THE FOLLOWING CHART UNLESS OTHERWISE NOTED.

TEXT VISIBILITY CHART		
MAXIMUM READABLE DISTANCE (M)	READABLE DISTANCE FOR MAXIMUM IMPACT (M)	LETTER HEIGHT (MM)
30.5	9.1	75
45.7	12.2	100
60.9	18.3	150
106.7	24.4	200
121.9	27.4	225
137.2	30.5	250

- UNIVERSITY STANDARD COLOURS ARE AS FOLLOWS:
- PANTONE COATED PAPER: BLACK, RED (200C); GOLD (123C OR 873C METALLIC); BLUE (549C)
- PANTONE (UNCOATED PAPER - BLACK; RED (192U); GOLD (115U); BLUE (549U)
- PROCESS - BLACK (0C, 0M, 0Y, 100K); RED (0C, 100M, 65Y, 15K); GOLD (0C, 30M, 95Y, 0K); BLUE (52C, 6M, 0Y, 25K)
- RGB COLOURS - BLACK (0,0,0); RED (153,0,0); GOLD (255,204,0); BLUE (102,153,204,0)
- HEXADECIMAL COLOURS - BLACK (#000000); RED (#900000); GOLD (#FFCC00); BLUE (#6699CC)
- UNIVERSITY LOGOS TO BE PROVIDED TO THE CONTRACTOR BY THE OWNER PRIOR TO SUBMISSION OF SHOP DRAWINGS FOR USE IN SIGNAGE.
- ALL SIGNAGE MUST FOLLOW UNIVERSITY LINE TYPE AND DESIGN STANDARDS.
- QR BLAZES AND BEACONS TO BE SUPPLIED AND INSTALLED BY THE UNIVERSITY BY BLINDSQUARE. CONTACT AS FOLLOWS:
 - ROB NEWIN
 - U-R-ABLE
 - ROB@U-R-ABLE.COM



Key Plan

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- A = Detail number
B = Drawing number where detailed

0	ISSUED FOR ADDENDUM NO. 5	TA	DEC 7, 2018
NO.	ISSUED	BY	DATE

Orientation



Seal

Seal

UNIVERSITY OF GUELPH
Design, Engineering & Construction
Physical Resources
Guelph, Ontario, N1G 2W1

Consultant www.jrichards.ca



Project
**BUILDING #046
RENOVATIONS**

Drawing Title
**ARCHITECTURAL
SIGNAGE PLAN, LEGEND
AND DETAIL**

Project No.
504034

Location
**UNIVERSITY OF GUELPH
BUILDING #046**

Scale
AS NOTED

Date
DEC 7, 2018

Drawn by
DCJ

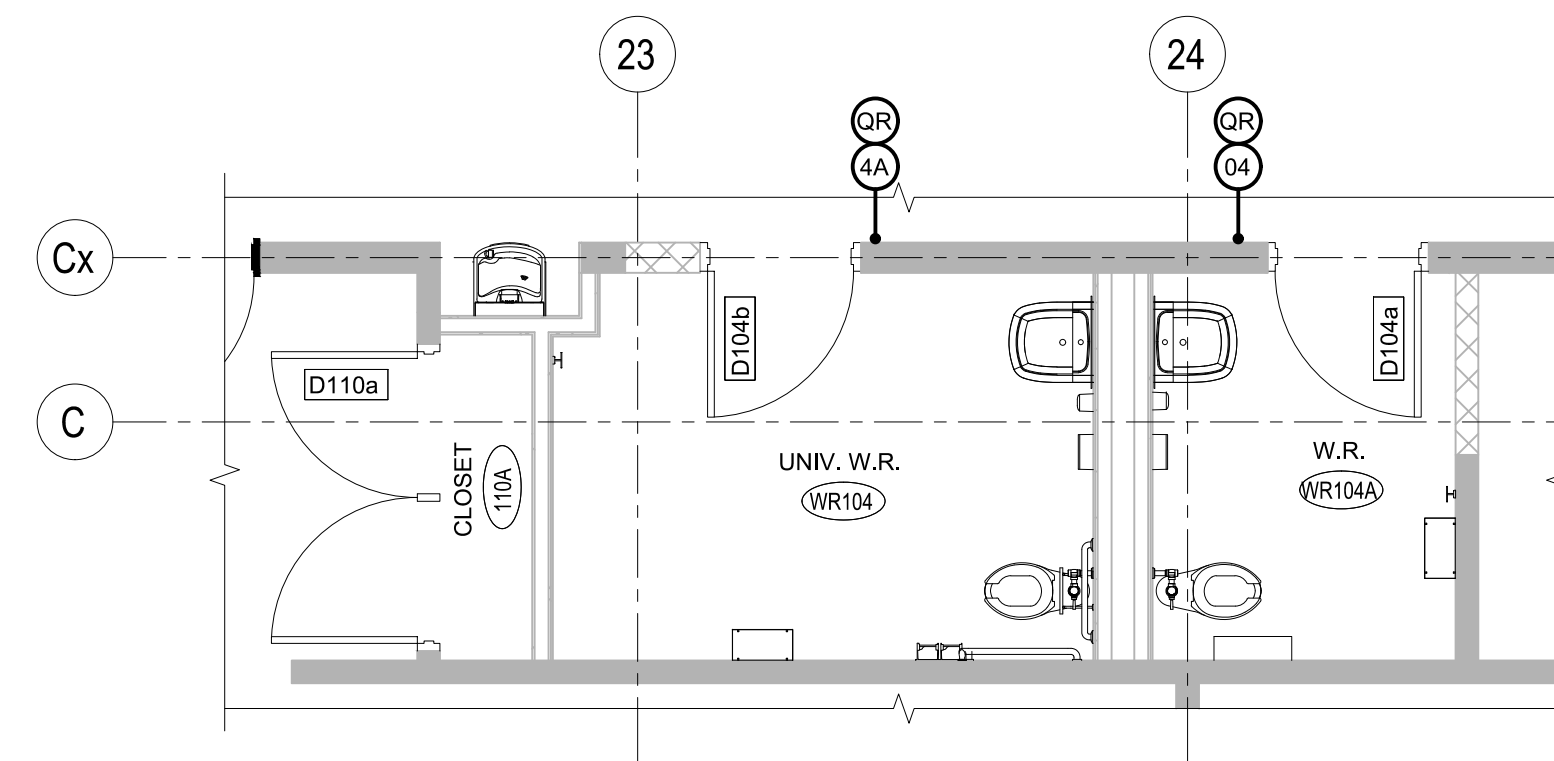
Checked By
TA

Approved By
RPC

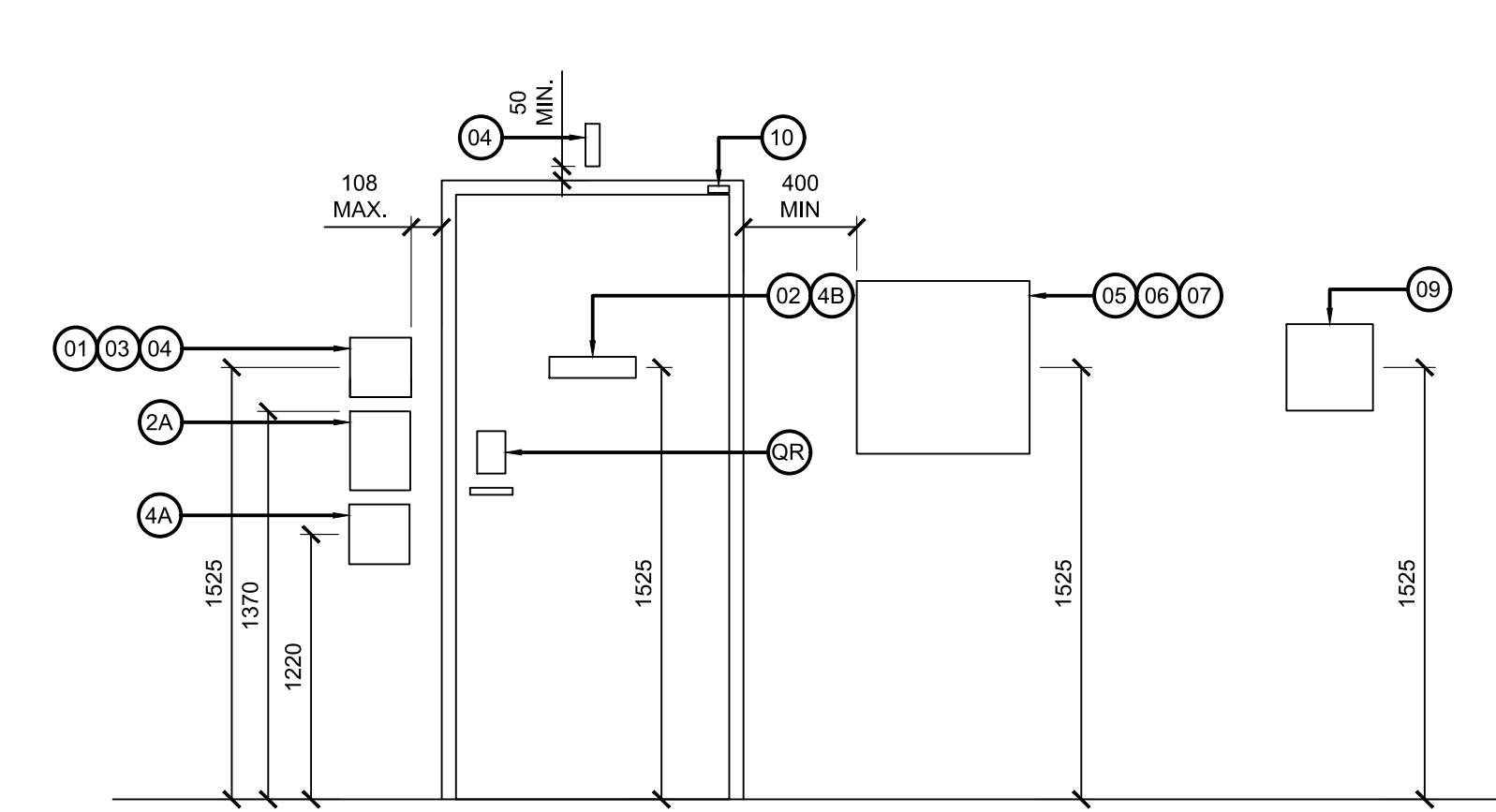
JLR #
27915

Cad File No. ----

ID12



1 PARTIAL SIGNAGE PLAN - WING C
SCALE: 1:25



2 TYPICAL SIGNAGE ELEVATIONS
SCALE: 1:25

GENERAL NOTES:

A. REFER TO DRAWING E32 FOR FIRE ALARM RISER DETAILS.

B. CONTRACTOR TO PROVIDE ASSISTANCE IN COMMISSIONING OF MAG LOCK CONTROLS.

DRAWING NOTES:

1 PROVIDE NEW FIRE ALARM PULL STATION TIED INTO EXISTING ADDRESSABLE SYSTEM WIRING.

2 PROVIDE NEW SMOKE DETECTOR WITH AUXILIARY CONTACTS TIED TO ELEVATOR CONTROLLER. TIE SMOKE ALARM INTO EXISTING ADDRESSABLE SYSTEM WIRING.

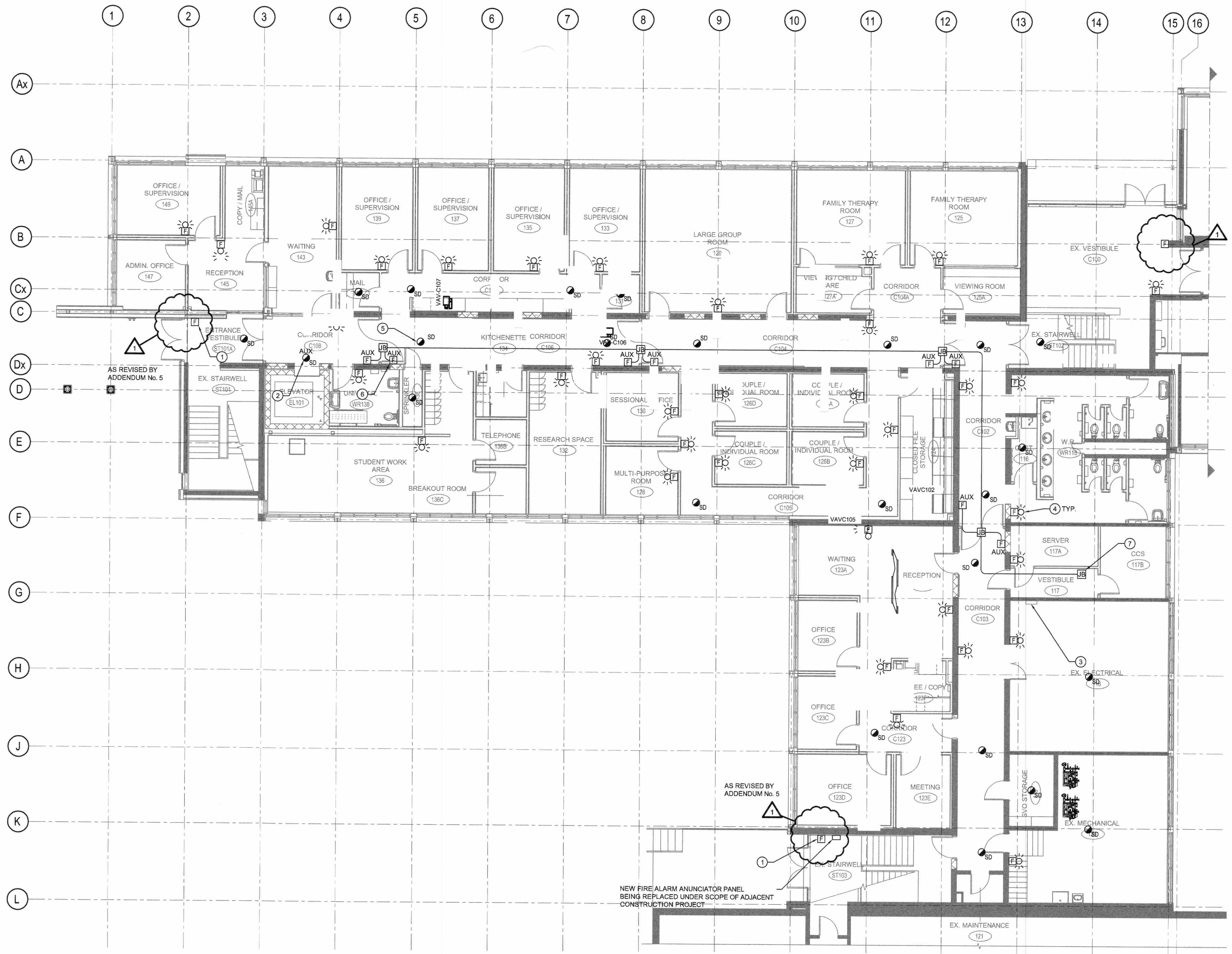
3 EXISTING FIRE ALARM CONTROL PANEL. PROVIDE KEY SWITCH AT EXISTING PANEL TO RESET MAG LOCK CONTROLLER. PROVIDE 21MM EMT CONDUIT FROM KEY SWITCH TO MAG LOCK POWER SUPPLIES c/w 2 x #18 AWG.

4 PROVIDE NEW BELL STROBE TIED INTO EXISTING MAIN FIRE ALARM CONTROL PANEL.

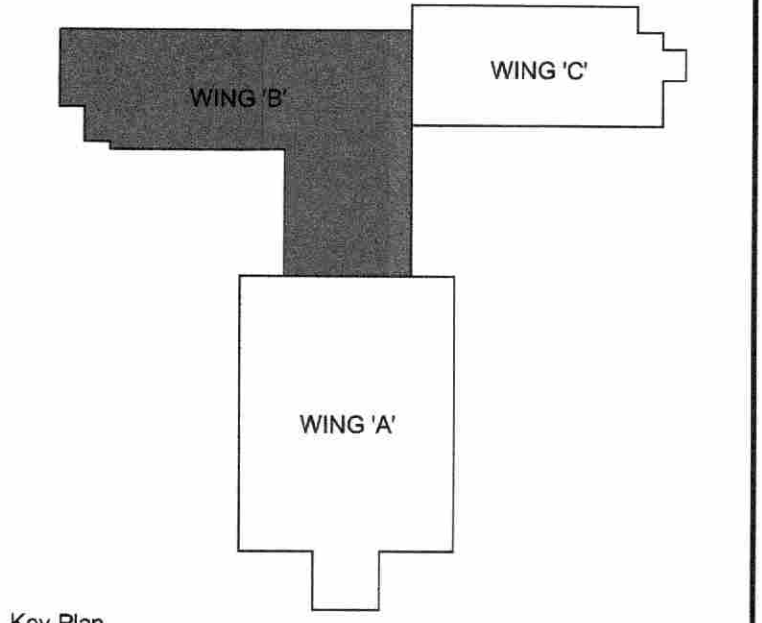
5 PROVIDE NEW SMOKE DETECTOR, CEILING MOUNTED WHERE SHOWN. (TYPICAL)

6 PROVIDE NEW FIRE ALARM PULL STATION c/w AUXILIARY CONTACTS TIED INTO MAG LOCK POWER SUPPLY LOCATED IN VESTIBULE 117. PROVIDE 2c x #18 AWG IN 21mm EMT CONDUIT FROM PULL STATION TO MAG LOCK POWER SUPPLY. MAG LOCK TO RELEASE UNDER ANY FIRE ALARM CONDITION. (TYPICAL)

7 TERMINATE AT MAG LOCK POWER SUPPLIES. COORDINATE WITH I.T. CONTRACTOR.



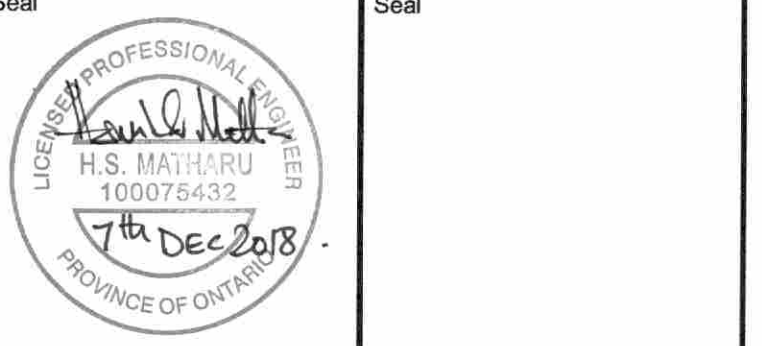
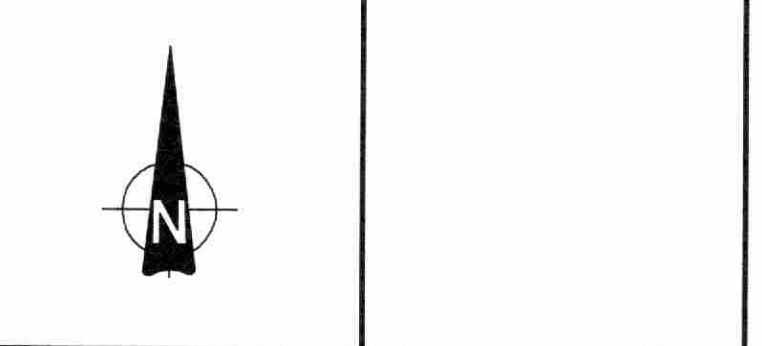
1 FIRE ALARM LAYOUT WING B LEVEL 1
E21
0 1 2 4 6 8m



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A = Detail number
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1	REISSUED FOR PERMIT AND ADDENDUM 5	TA	DEC 7, 2018
0	ISSUED FOR PERMIT & TENDER	TA	NOV 2, 2018
NO.	ISSUED	BY	DATE



UNIVERSITY OF GUELPH
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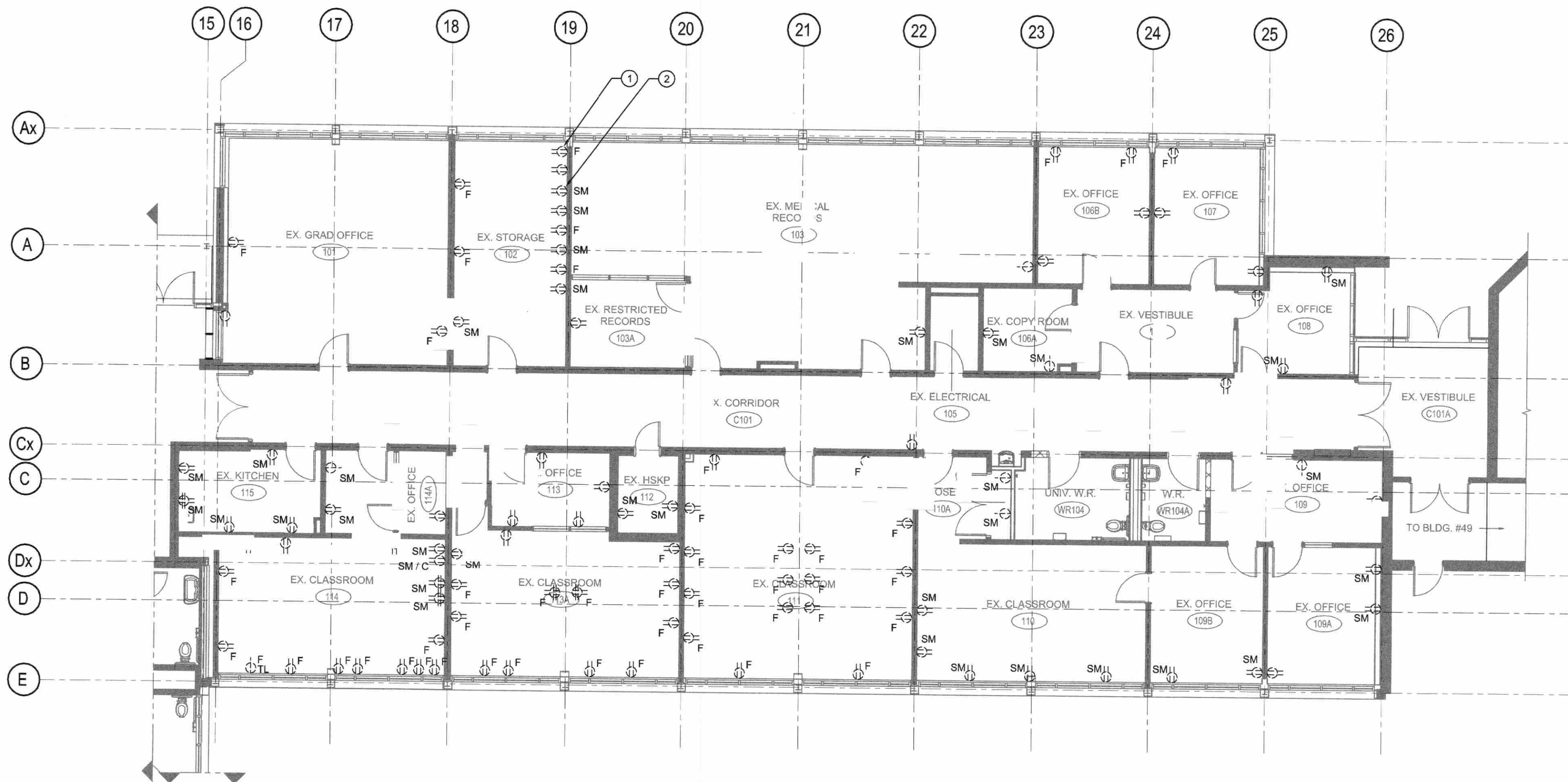
Consultant www.jrichards.ca
J.L. Richards
ENGINEERS - ARCHITECTS - PLANNERS

Project
BUILDING #046 RENOVATIONS

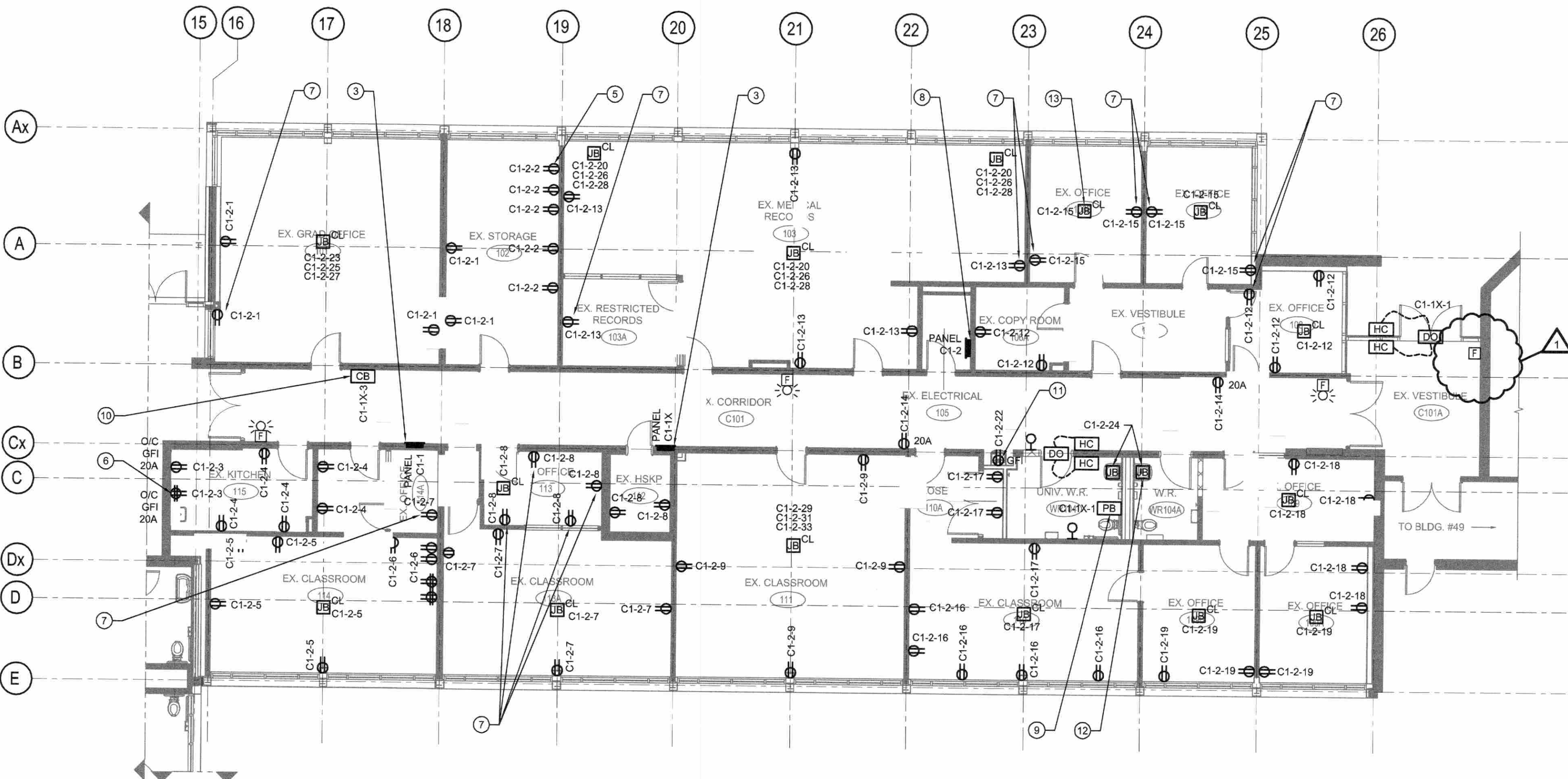
Drawing Title
ELECTRICAL FIRE ALARM LAYOUT WING B LEVEL 1
Project No.
504034

Location
UNIVERSITY OF GUELPH BUILDING #046

Scale AS INDICATED	Date NOV 2, 2018
Drawn by AM	Drawing No. E21
Checked By HM	
Approved By HM	
JLR # 27915	of 173
Cad File No. ----	



1 POWER DEMOLITION LAYOUT WING C
E27
0 1 2 4 6 8m



2 NEW POWER LAYOUT WING C
E27
0 1 2 4 6 8m

GENERAL NOTES

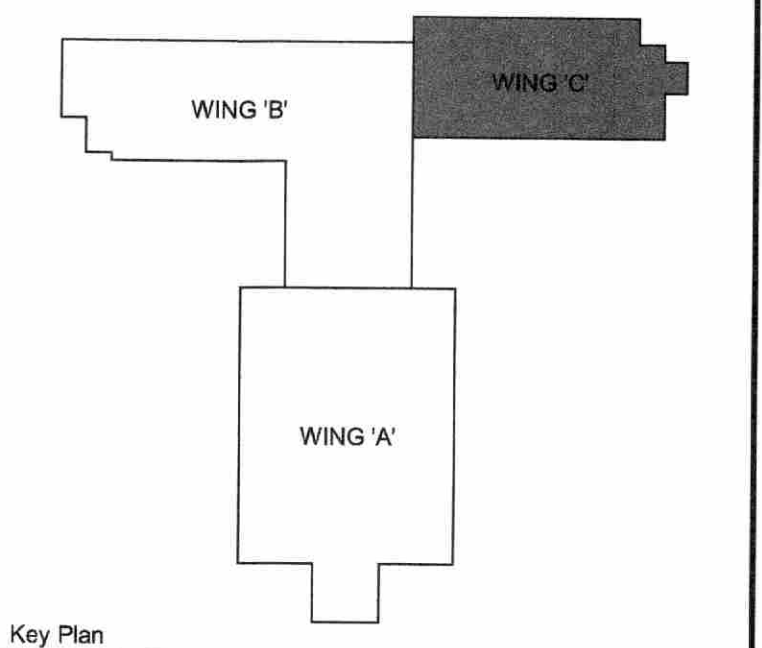
A. ALL EXISTING RECEPTACLES MAY NOT BE CAPTURED DUE TO EXISTING FURNITURE IN THE SPACE.

DRAWING NOTES

- 1 DEMOLISH ALL FURNITURE MOUNTED RECEPTACLES BACK TO SOURCE. REFER TO DRAWING DE12. (TYPICAL)
- 2 ALL SURFACE MOUNTED RECEPTACLES TO BE REMOVED AND REPLACED. DEMOLISH EXISTING CONDUIT AND REMOVE WIRING BACK TO SOURCE. REFEED RECEPTACLES WITH ALL NEW CONDUIT AND WIRING. NEW RECEPTACLES TO BE INSTALLED IN ROOM PERIMETER WIREMOLD. REFER TO DE12. (TYPICAL)
- 3 NEW ELECTRICAL PANEL TO BE INSTALLED RECESSED IN WALL WHERE LOCATION / CUT OUT OF PREVIOUSLY DEMOLISHED PANEL EXISTS. EXTEND / PATCH EXISTING WALL CUT OUT AS NECESSARY TO ACCOMMODATE NEW PANEL DIMENSIONS AND NEW CONDUIT RUNS IN WALL TO CEILING SPACE. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.
- 4 REPLACE EXISTING FIRE ALARM BELLS WITH BELL STROBES TO BE TIED IN TO EXISTING MAIN FIRE ALARM CONTROL PANEL IN WING B MAIN ELECTRICAL ROOM. (TYPICAL)
- 5 PROVIDE NEW WIREMOLD AL3300 SERIES RACEWAY c/w ALL HARDWARE AND FACEPLATES. SURFACE MOUNTED ON WALL. INSTALL RACEWAY SO THAT RECEPTACLES WITHIN RACEWAY ARE LOCATED 400mm ABOVE FINISHED FLOOR. PROVIDE 120V RECEPTACLES AS INDICATED WITHIN RACEWAY c/w ASSOCIATED COVER PLATES. REFER TO FANCOM DRAWINGS FOR ADDITIONAL DEVICES WITHIN RACEWAY.
- 6 PROVIDE 120V RECEPTACLES AS INDICATED. OVER COUNTER RECEPTACLES INSTALLED IN KITCHEN TO BE SURFACE MOUNTED c/w BACKBOX, CONDUIT, AND WIRING. (TYPICAL)
- 7 PROVIDE NEW 120V DUPLEX RECEPTACLE RECESSED IN WALL. REUSE EXISTING LOCATION / CUTOUT. PROVIDE ALL NEW BACKBOXES, CONDUIT AND WIRING AS NEEDED.
- 8 NEW PANEL TO BE INSTALLED SURFACE WALL MOUNTED IN SAME LOCATION AS PREVIOUSLY DEMOLISHED PANEL.
- 9 PROVIDE CONDUITS AND PULL STRINGS FOR EMERGENCY CALL SYSTEM / DOOR OPERATOR c/w PUSH BUTTONS, 2 x REMOTE ANNUNCIATORS, AND LOW VOLTAGE TRANSFORMER. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHT AND LOCATION OF PUSH BUTTONS. CALL SYSTEM TO BE INTEGRATED WITH DOOR OPERATOR. REFER TO HARDWARE SPECIFICATIONS. REFER TO 3/E30 FOR DETAILS. (TYPICAL)
- 10 PROVIDE 120VAC / 24VAC TRANSFORMER MOUNTED IN JUNCTION BOX, SIZED TO SUIT. IN CEILING SPACE FOR CODE BLUE EMERGENCY CALL STATION. PROVIDE CONDUIT AND WIRING FROM TRANSFORMER TO CODE BLUE BOX. REFER TO FANCOM DRAWINGS FOR COMMUNICATIONS REQUIREMENTS. (TYPICAL)
- 11 PROVIDE 120V GFCI DUPLEX RECEPTACLE FOR WATER FOUNTAIN. COORDINATE WITH SHOP DRAWING AND ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHT FOR POINT OF CONNECTION. (TYPICAL)
- 12 PROVIDE 120V, 15A CIRCUIT TERMINATED IN JUNCTION BOX FOR AUTOMATIC SINKS. LOW VOLTAGE TRANSFORMER TO BE SUPPLIED BY MECHANICAL CONTRACTOR. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF JUNCTION BOX / CIRCUIT. (TYPICAL OF 2)
- 13 PROVIDE JUNCTION BOX, SIZED TO SUIT, INSTALLED IN CEILING SPACE. TERMINATE INDICATED CIRCUITS IN CEILING JUNCTION BOX AND MAKE SAFE FOR FUTURE USE. (TYPICAL)

LINETYPE LEGEND

NEW	—————
TO BE DEMOLISHED	- - - - -



DO NOT SCALE DRAWINGS.

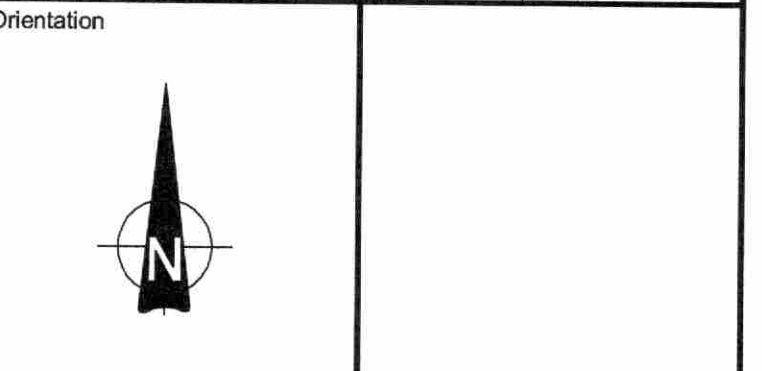
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NO.	ISSUED	BY	DATE
1	REISSUED FOR PERMIT AND ADDENDUM 5	TA	DEC 7, 2018
0	ISSUED FOR PERMIT & TENDER	TA	NOV 2, 2018



Seal

 Seal

UNIVERSITY OF GUELPH
 Design, Engineering & Construction
 Physical Resources
 Guelph, Ontario, N1G 2W1

Consultant www.jrichards.ca

 ENGINEERS - ARCHITECTS - PLANNERS

Project
BUILDING #046 RENOVATIONS

Drawing Title
POWER AND FIRE ALARM LAYOUT WING C
 Project No.
504034

Location
UNIVERSITY OF GUELPH BUILDING #046

Scale AS INDICATED	Date NOV 2, 2018
Drawn by SD	Drawing No. E27
Checked By HM	
Approved By HM	
JLR # 27915	cf 173
Cad File No. ----	

- LEGEND**
- T100 - COMMUNICATIONS, IT AND ACCESS CONTROL TITLE PAGE
 - T101 - COMMUNICATIONS, IT AND ACCESS CONTROL SCHEMATICS
 - T102 - B-WING FLOOR 1 COMMUNICATIONS AND SECURITY LAYOUT
 - T103 - B-WING FLOOR 2 COMMUNICATIONS AND SECURITY LAYOUT
 - T104 - COMMUNICATIONS PATHWAYS DETAILS
 - T105 - COMMUNICATIONS INSTALLATION DETAILS
 - T106 - COMMUNICATIONS GROUNDING AND BONDING DETAILS
 - T107 - RACK ELEVATIONS DETAIL
 - T108 - AV ELEVATIONS WING B LEVEL 1
 - T109 - AV LAYOUT DRAWINGS
 - T110 AV ELEVATIONS WING B LEVEL 2

GENERAL CONSTRUCTION NOTES:

1. REFER TO EACH T DRAWINGS FOR SYMBOLS AND ABBREVIATIONS.
2. CONFIRM ALL OUTLET MOUNTING HEIGHTS PRIOR TO INSTALLATION AS PER DRAWINGS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND TO INFORM ANY AFFECTED SERVICES SUCH AS BUT NOT LIMITED TO BUILDING MANAGEMENT, OR SECURITY OF ANY FORESEEN NETWORK OUTAGES.
4. DRAWINGS ARE DIAGRAMMATIC IN NATURE CONTRACTORS TO VERIFY DIMENSIONS PRIOR TO INSTALLATION
5. THESE DRAWINGS ARE TO BE READ WITH THE DIVISION 27 SPECIFICATIONS

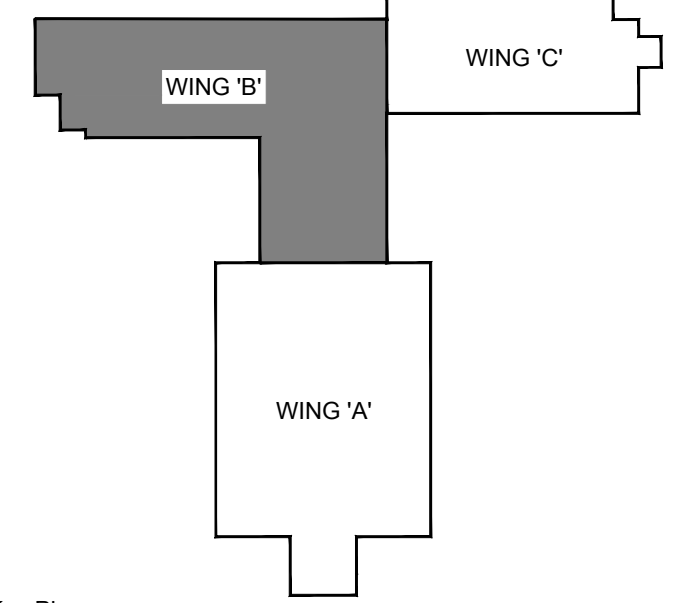
DIVISION 26 NOTES:

1. COORDINATE ALL LOCATIONS WITH DIV. 27.
2. ALL CONDUITS SHALL MEET THE FILL CAPACITY AS SHOWN ON DRAWING IN THE CHART BELOW. WHERE CONDUIT OR BASKET TRAY IS UNDERSIZED, THE CONTRACTOR SHALL INFORM THE CLIENT BEFORE PROCEEDING.
3. ALL DATA DROPS TO HAVE MINIMUM 1% CONDUIT HOMERUN TO WIRE BASKET TRAY.
4. ALL CONDUITS TO HAVE PULL STRINGS.
5. CONTRACTOR TO FIELD VERIFY AND OBTAIN WRITTEN APPROVAL FOR FINAL LOCATIONS PRIOR TO INSTALLATION OF PATHWAYS
6. DO NOT USE CONDUIT SIZES 13mm (1/2")
7. IF CONDUIT HAS INTERNAL DIAMETER OF 50MM (2") OR LESS, THE BEND RADIUS MUST BE AT LEAST 6 TIMES THE INTERNAL CONDUIT DIAMETER.
8. IF THE CONDUIT HAS AN INTERNAL DIAMETER OF MORE THEN 50MM (2"), THE BEND RADIUS MUST BE AT LEAST 10 TIMES THE INTERNAL CONDUIT DIAMETER.
9. ALL CONDUIT SIZES SHOWN REPRESENT NOMINAL TRADE DIMENSIONS AND MAY DIFFER FROM ACTUAL DIMENSIONS.
10. CONTRACTOR TO ENSURE ALL PULL BOXES FOR DIVISION 27 WORK ARE SIZED AS SHOWN IN TABLE.
11. WHERE PULL BOXES ARE NOT READILY AVAILABLE IN THE SIZES INDICATED IN THE TABLES, "OFF-THE-SHELF" SMALLER PULL BOXES MAY BE USED WHEN APPROVED BY THE CONSULTANT.
12. ALL PENETRATIONS OF FIRE RATED WALLS ARE TO BE FIRST FIRE STOPPED BACK TO ORIGINAL WALL RATING. CHECK ARCHITECTURAL DRAWINGS FOR WALL RATINGS
13. PLEASE SEE DRAWINGS T102, T103, T104, T105, T108, T109 AND T110 AS A MINIMUM FOR DIVISION 26 DETAILS
14. PLEASE READ SPECIFICATION SECTIONS 27 00 03 AND 27 05 128 AS A MINIMUM FOR DIVISION 26 DETAILS



DIVISION 27 NOTES:

1. COORDINATE ALL LOCATIONS WITH DIV. 26.
2. DATA CABLING FROM JACKS TO BE CONTINUOUS (NO SPLICING)
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH EXTERNAL SERVICE PROVIDERS SUCH AS BELL, COGECO, OR OTHERS FOR ANY EQUIPMENT WHICH MAY NEED TO BE MOVED OR INSTALLED DURING THE UPGRADE. THE CONTRACTOR SHALL PROVIDE ALTERNATIVE SERVICES TO INSURE NO DOWN TIME IS EXPERIENCED DURING THE UPGRADE.
4. CONTRACTOR TO VERIFY AND ENSURE CONDUIT PATHWAYS DO NOT EXCEED FILL CAPACITY AS PER THE TABLE BELOW



Key Plan

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1	ISSUED FOR 65% REVIEW	TA	JULY 12, 2018
NO.	ISSUED	BY	DATE

Orientation

Seal

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 Guelph, Ontario, N1G 2W1

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JR J.L.Richards
 ENGINEERS-ARCHITECTS-PLANNERS

Project
BUILDING #046 RENOVATIONS

Drawing Title
TITLE PAGE

Project No.
504034

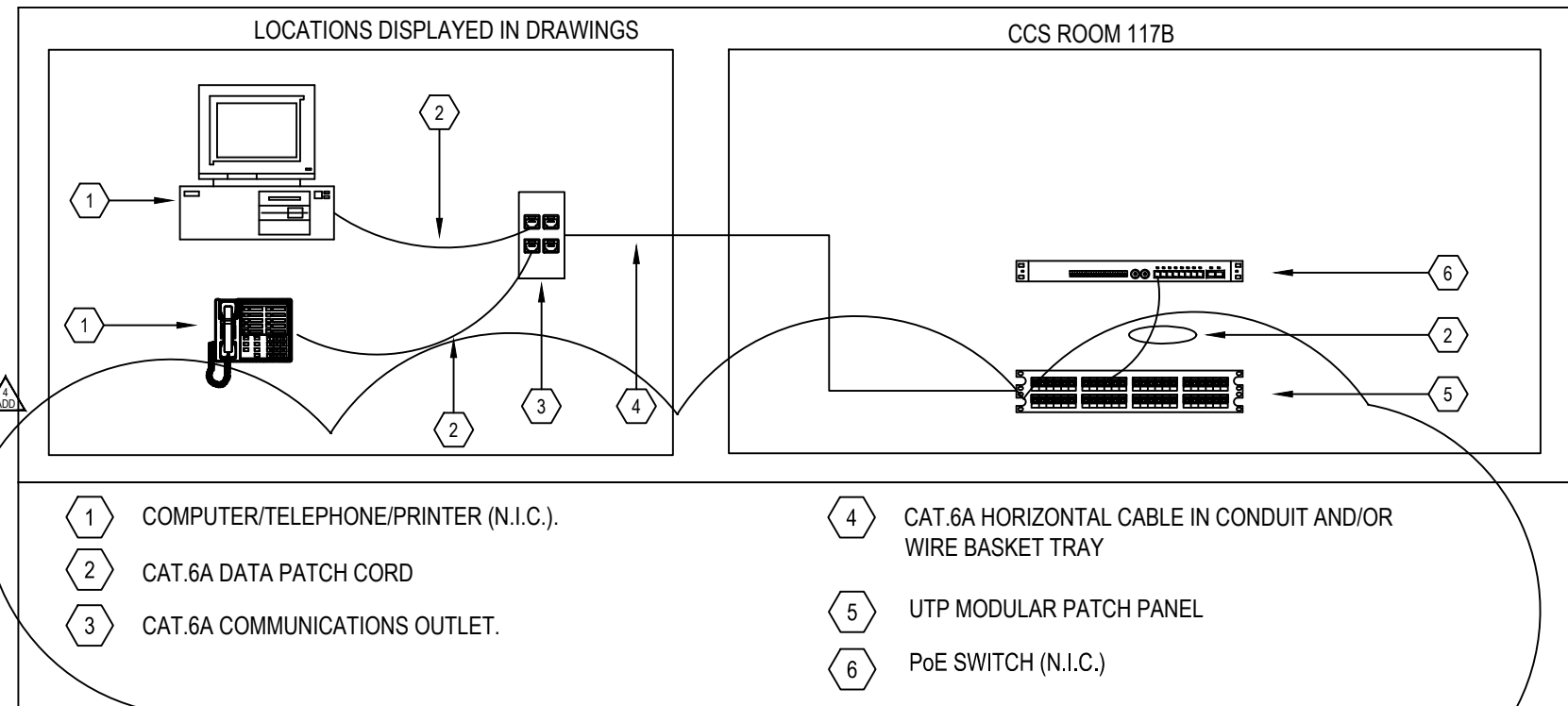
Location
UNIVERSITY OF GUELPH BUILDING #046

Scale AS SHOWN	Date NOV 2, 2018
Drawn by K.C.	Drawing No. T100
Checked By D.C.	
Approved By B.W.	
JLR #	

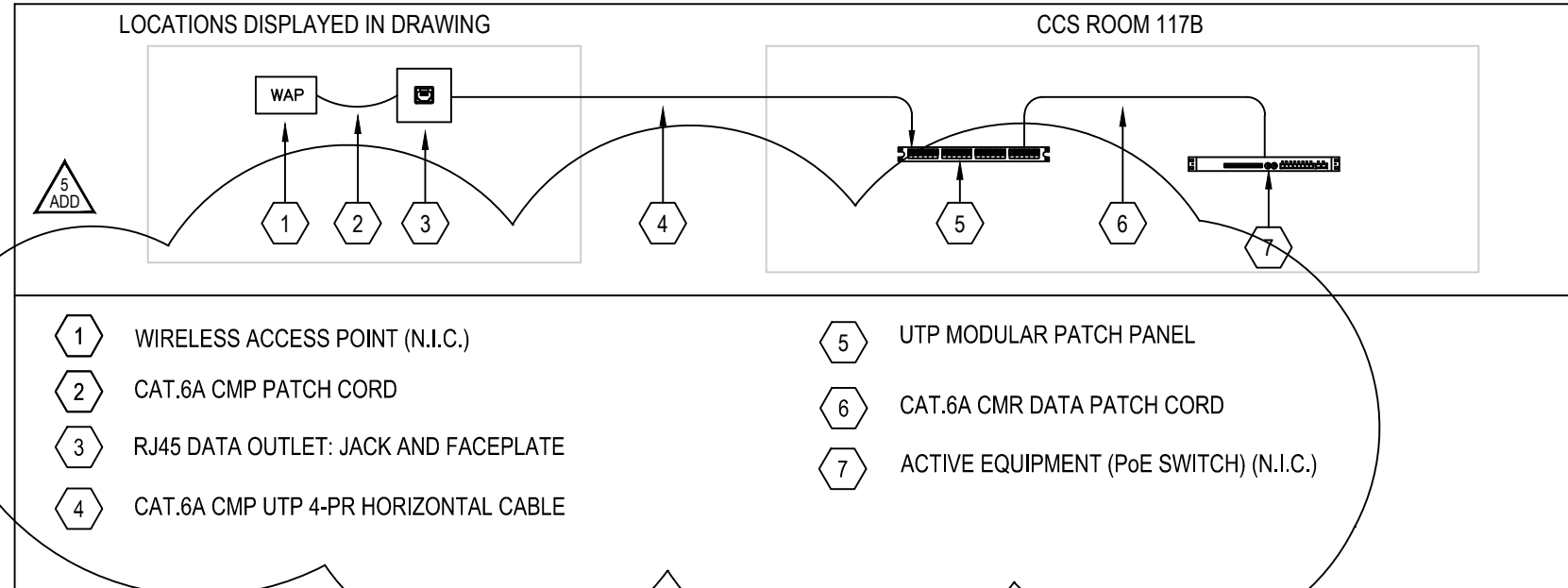
Cad File No. _____ of _____

CONDUIT INSIDE DIAMETER mm (in)	TRADE SIZE	NUMBER OF CABLES AT 40% FILL RATIO					
		4 (0.15)	5 (0.19)	6 (0.23)	7 (0.27)	8 (0.31)	9 (0.35)
21 (0.82)	19.05mm	11	7	5	3	3	2
27 (1.04)	25.4mm	18	11	8	6	4	3
35 (1.38)	31.75mm	30	19	13	10	8	6
41 (1.61)	38.1mm	41	26	18	13	10	8
50 (2.06)	50.8mm	68	43	30	22	17	13
63 (2.46)	63.5mm	96	62	43	31	24	19
75 (3.06)	76.2mm	149	95	66	49	37	29
91 (3.54)	88.9mm	199	127	88	65	50	39
100 (4.02)	101.6mm	255	163	113	83	64	50

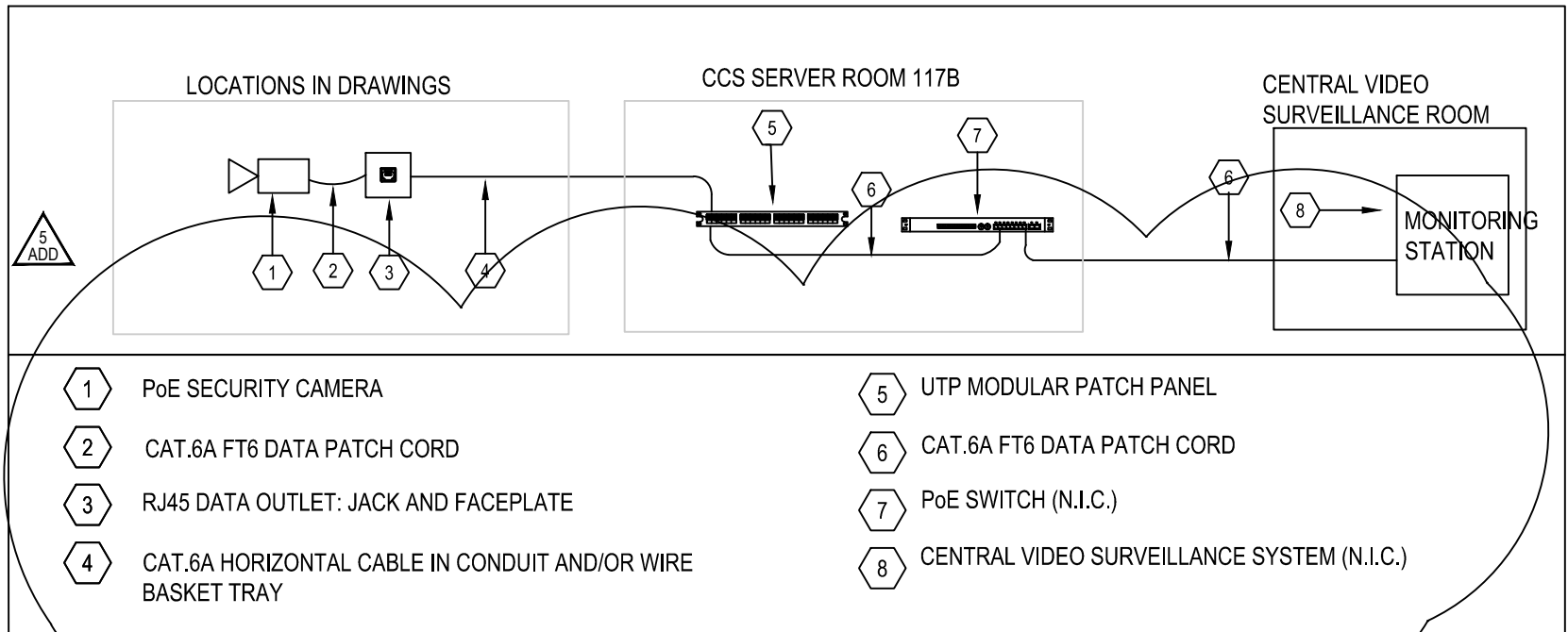
MAXIMUM SIZE OF CONDUIT IN MILLIMETERS	SIZE OF BOX IN MILLIMETERS			FOR EACH ADDITIONAL CONDUIT INCREASE WIDTH
	WIDTH	LENGTH	DEPTH	
19.05	101.6	304.8	76.2	50.8MM
25.4	101.6	406.4	76.2	50.8MM
31.75	152.4	508	76.2	76.2MM
38.1	203.2	685.8	101.6	101.6MM
50.8	203.2	914.4	101.6	127MM
63.5	254	1066.8	127	152.4MM
76.2	304.8	1219.2	127	152.4MM
88.9	304.8	1371.6	152.4	152.4MM
101.6	381	1524	203.2	203.2MM



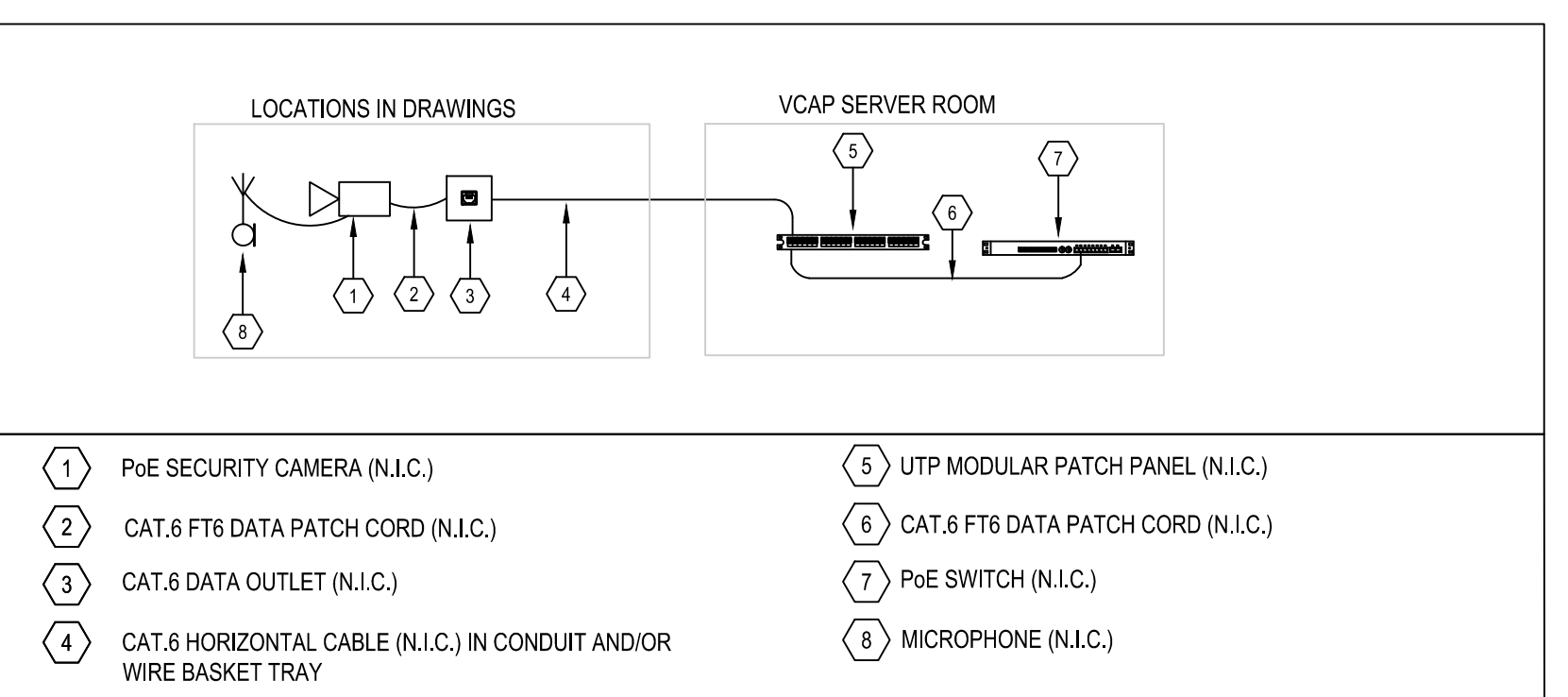
1 DATA/VOICE COPPER CONNECTIVITY SCHEMATIC
T101 SCALE: N.T.S.



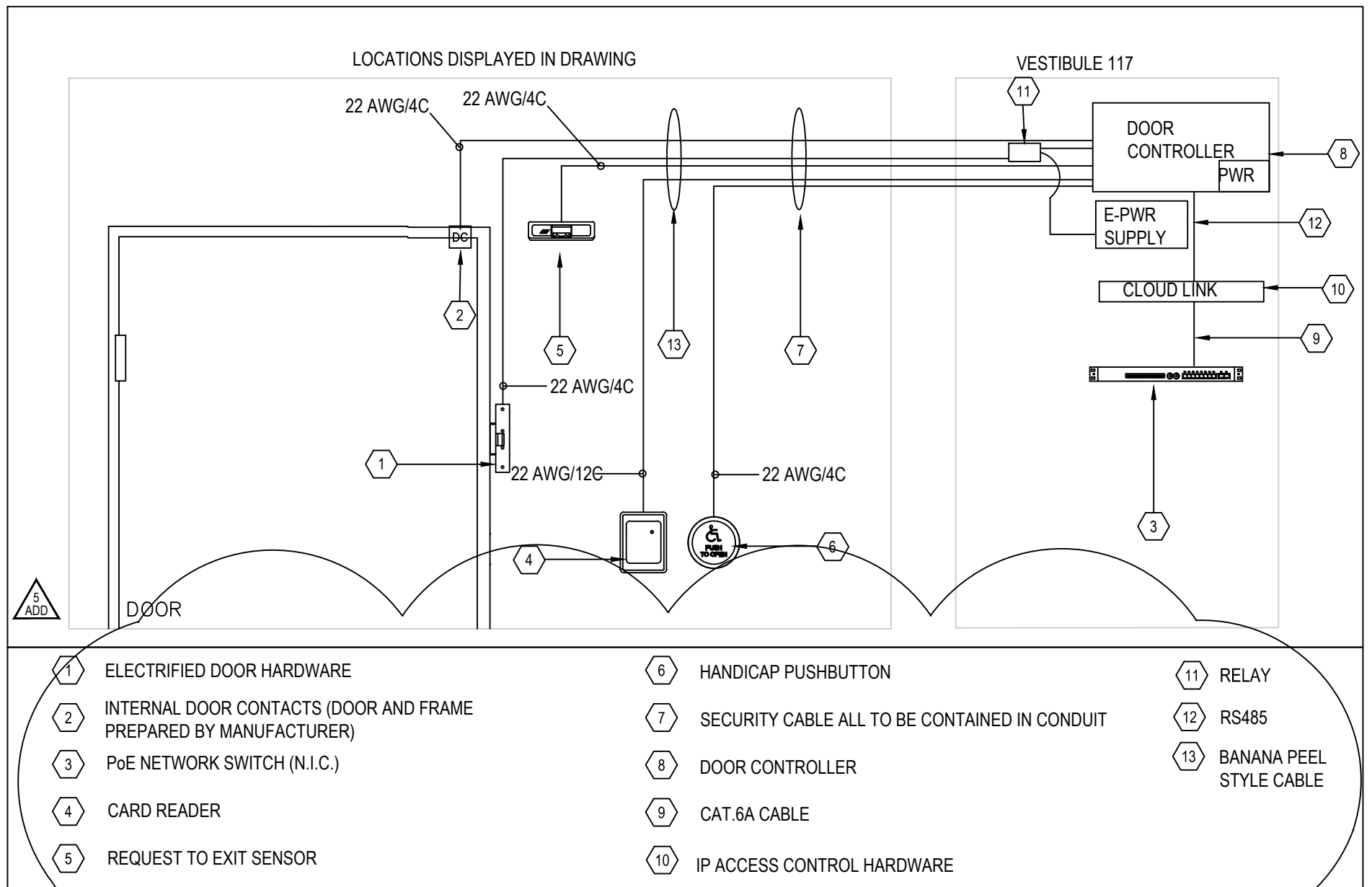
2 WIRELESS ACCESS POINT CONNECTIVITY SCHEMATIC
T101 SCALE: N.T.S.



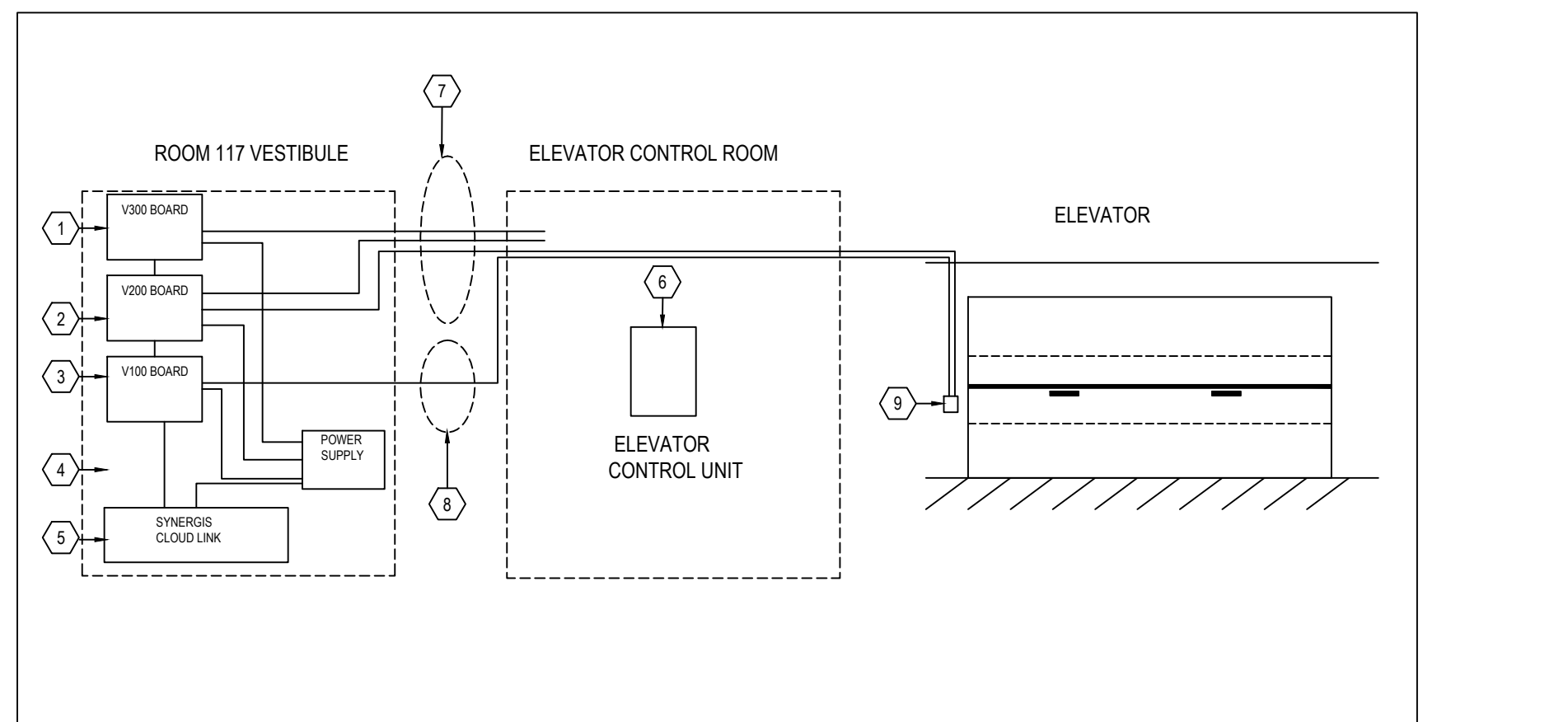
3 SECURITY CAMERA CONNECTIVITY SCHEMATIC
T101 SCALE: N.T.S.



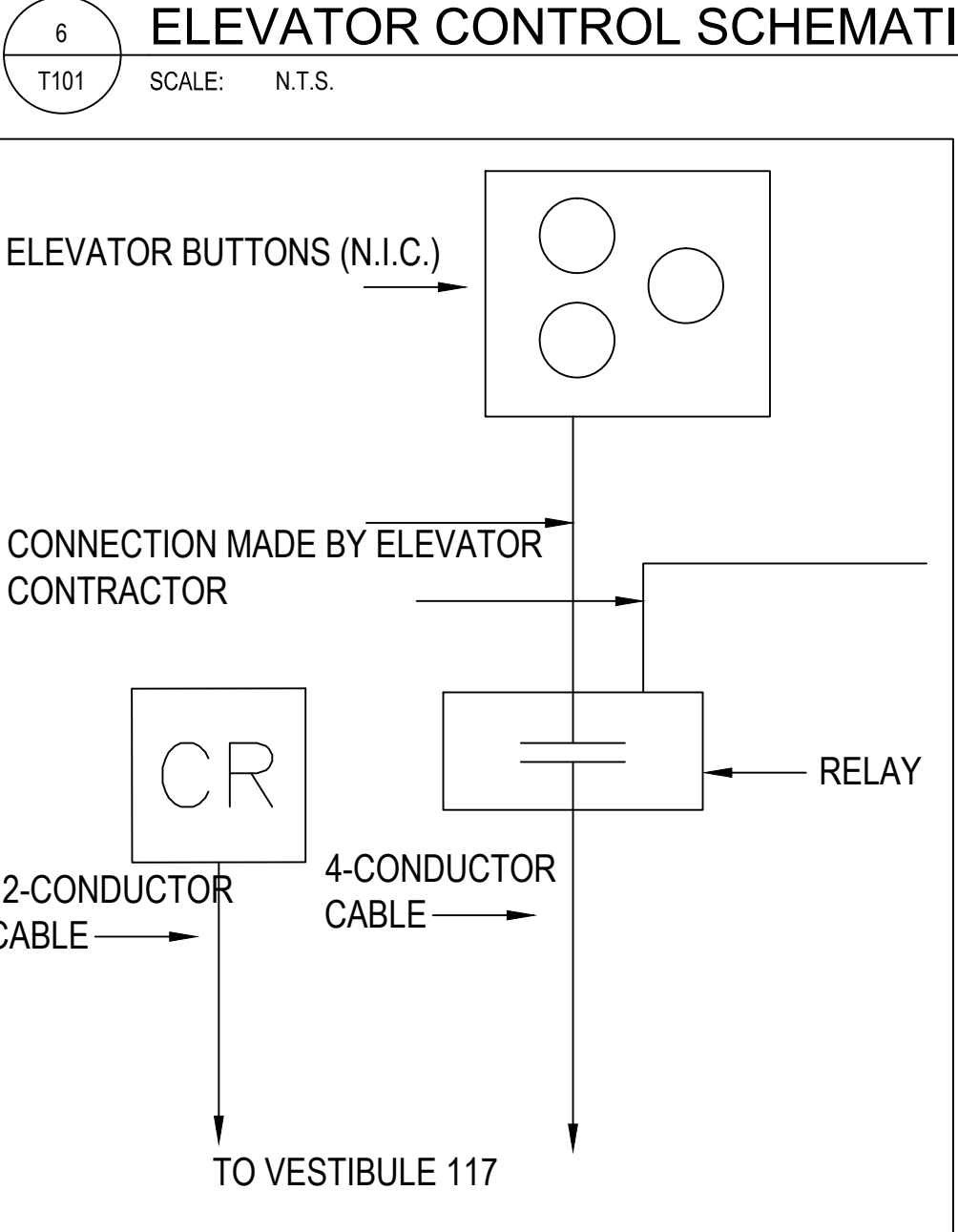
4 VIDEO CAPTURE CONNECTIVITY SCHEMATIC
T101 SCALE: N.T.S.



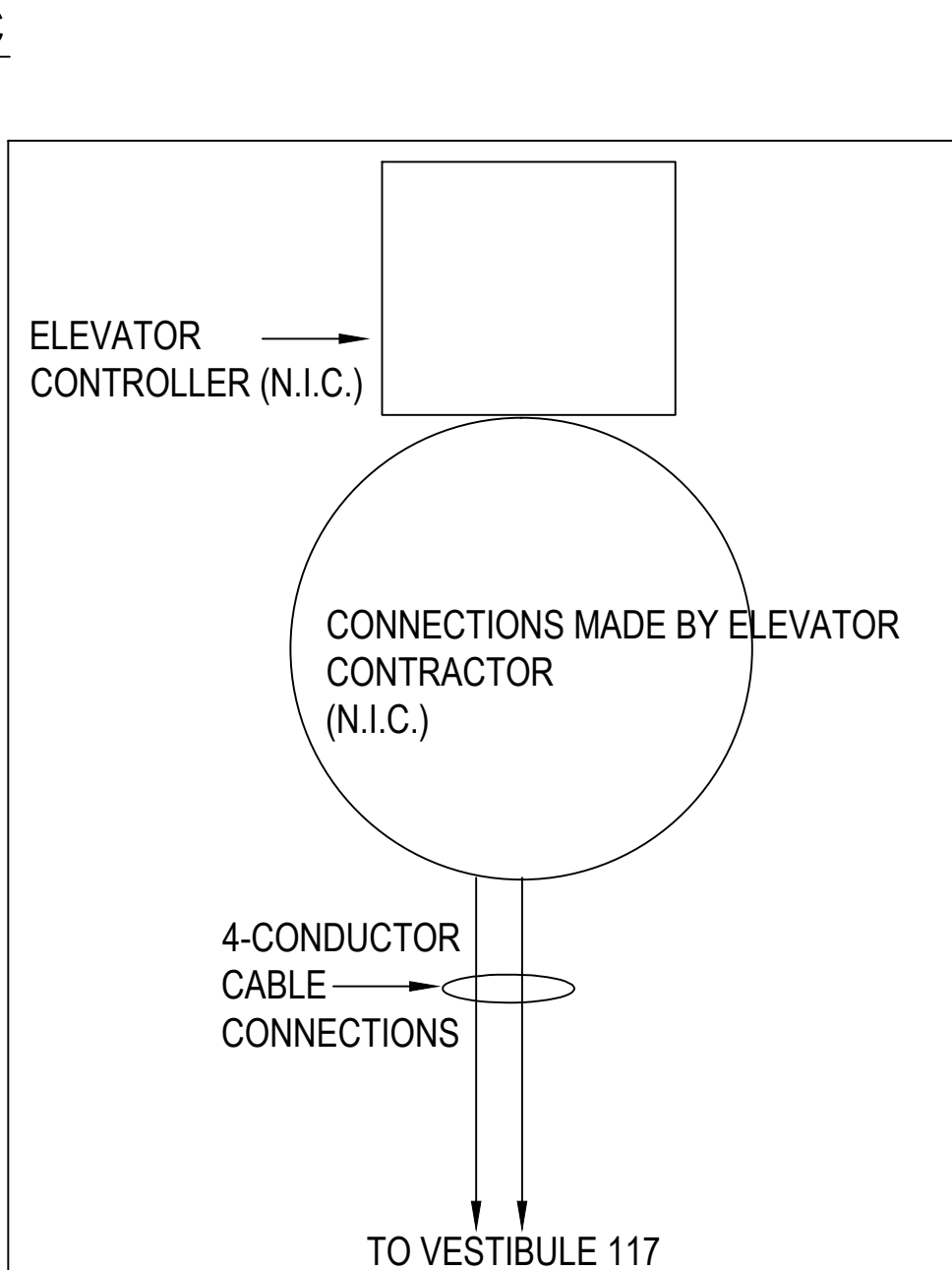
5 ACCESS CONTROL SYSTEM SCHEMATIC
T101 SCALE: N.T.S.



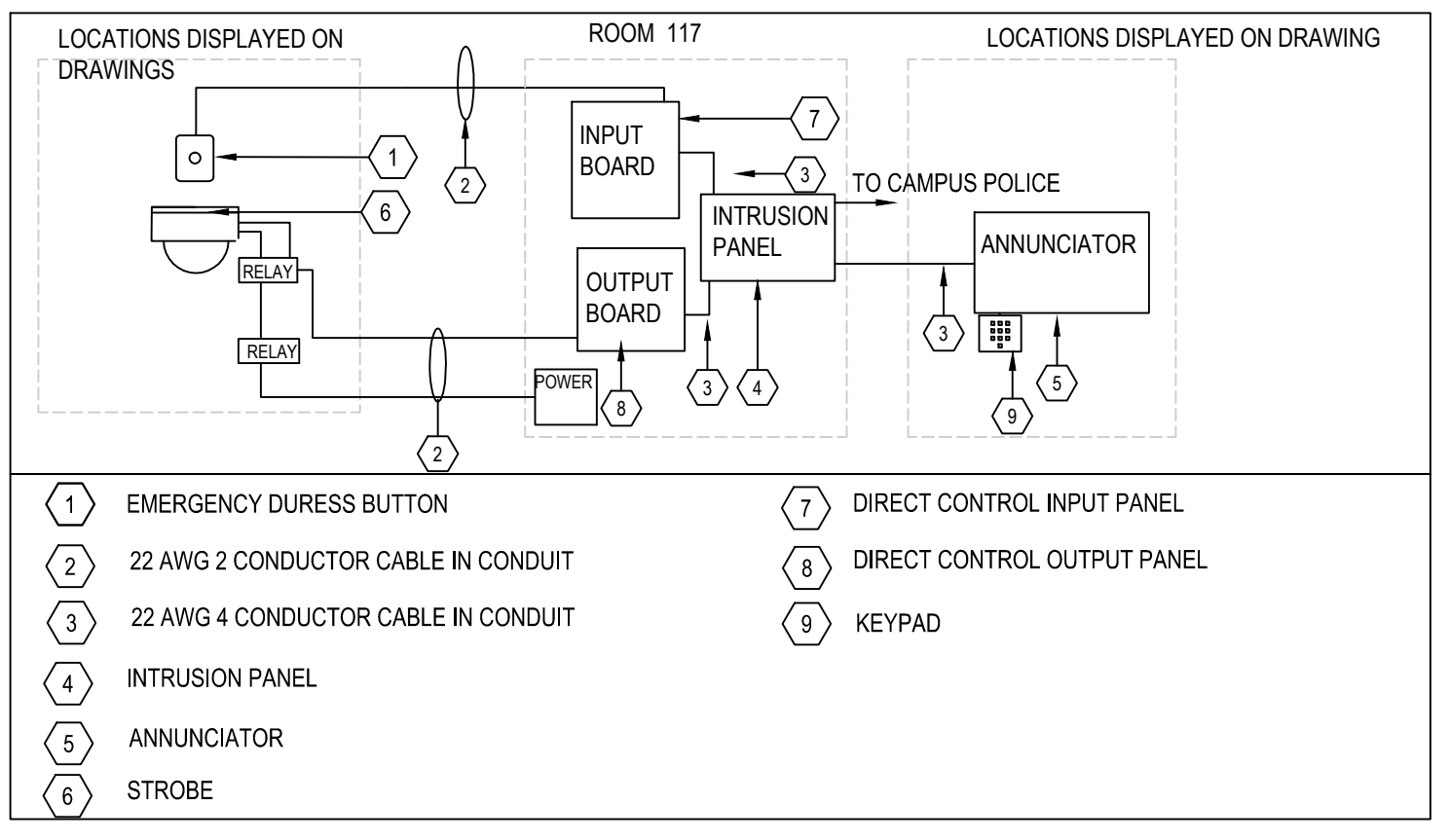
6 ELEVATOR CONTROL SCHEMATIC
T101 SCALE: N.T.S.



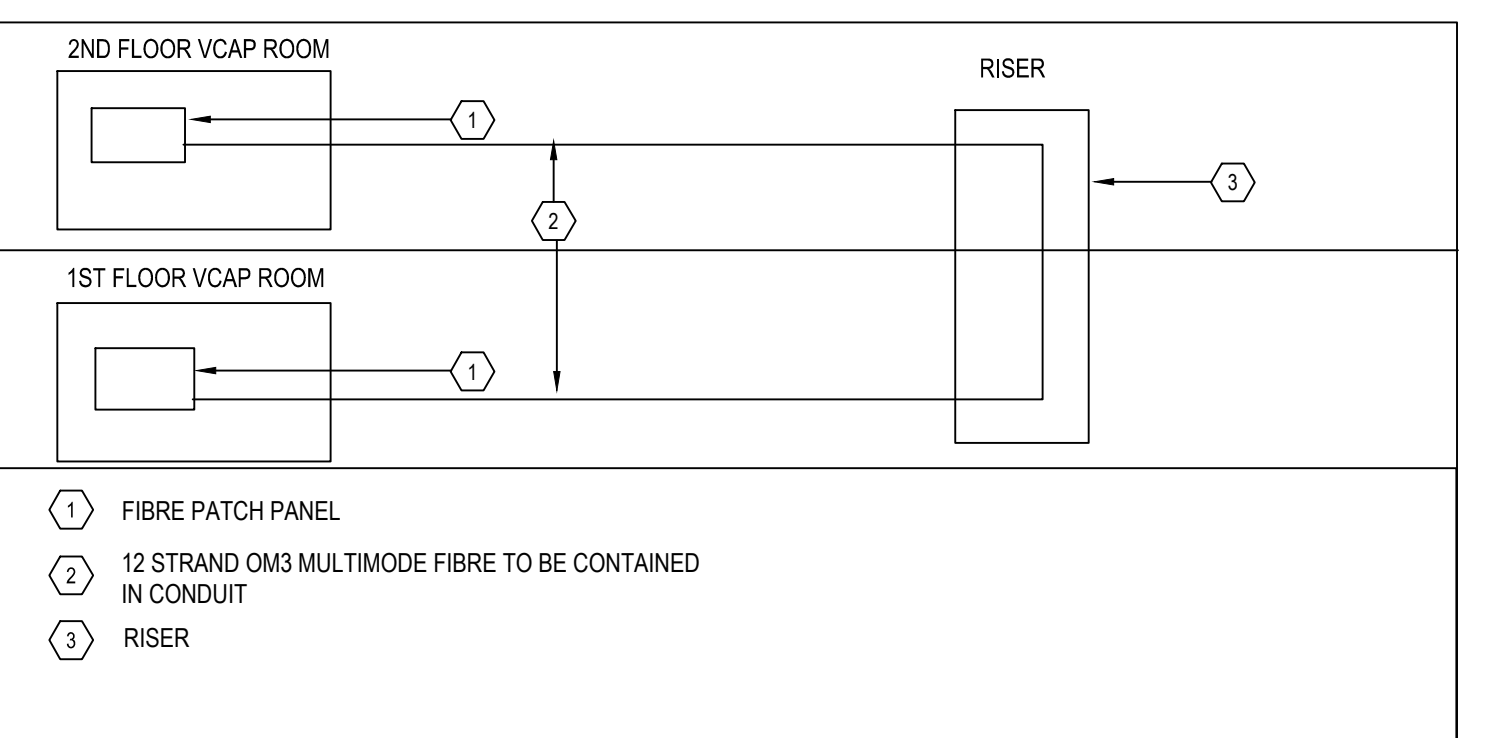
7 ELEVATOR CALL BUTTON
T101 SCALE: N.T.S.



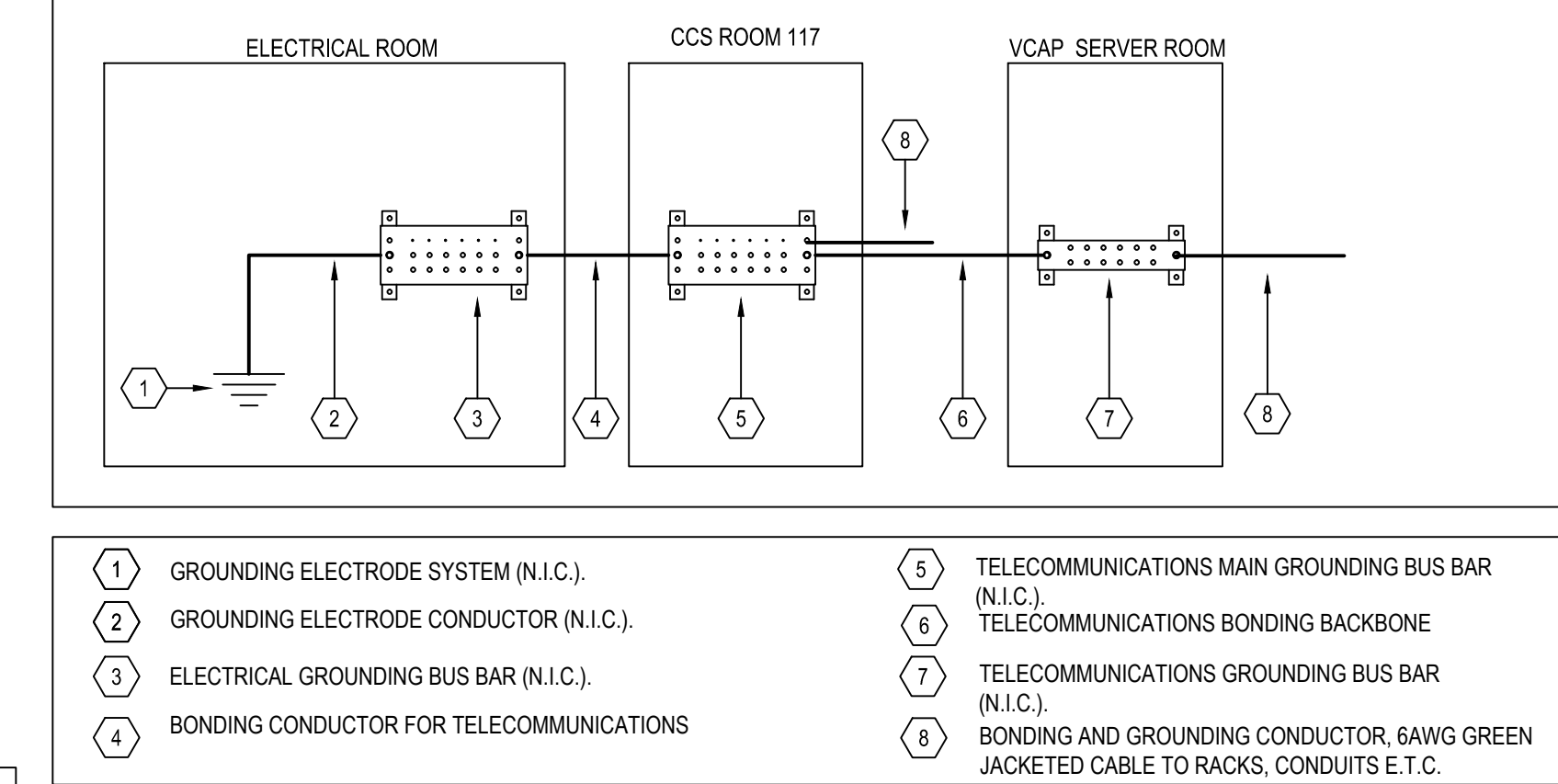
8 ELEVATOR CONTROL ROOM
T101 SCALE: N.T.S.



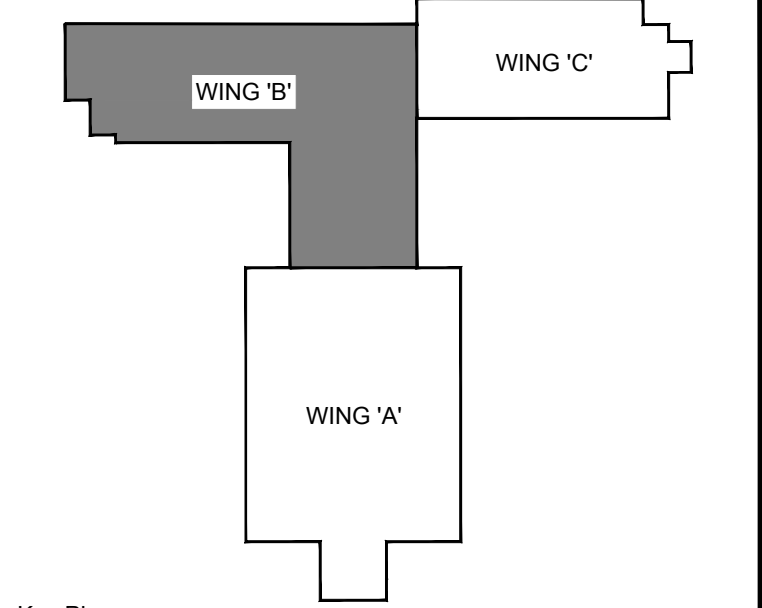
9 CAMPUS EMERGENCY ASSISTANCE/DURESS BUTTONS
T101 SCALE: N.T.S.



10 VCAP FIBRE CONNECTIVITY RISER SCHEMATIC
T101 SCALE: N.T.S.



11 GROUNDING AND BONDING SCHEMATIC
T101 SCALE: N.T.S.

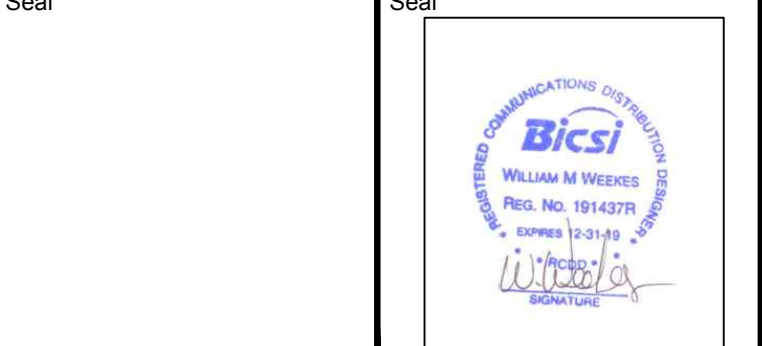


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Orientation



UNIVERSITY OF GUELPH
Design, Engineering & Construction
Physical Resources
Guelph, Ontario, N1G 2W1

Consultant
J.R. Richards
ENGINEERS-ARCHITECTS-PLANNERS

Project
BUILDING #046 RENOVATIONS
Drawing Title
SCHEMATICS

Project No.
504034

Location
UNIVERSITY OF GUELPH BUILDING #046

Scale
AS SHOWN

Date
NOV 2, 2018

Drawn by
K.C.

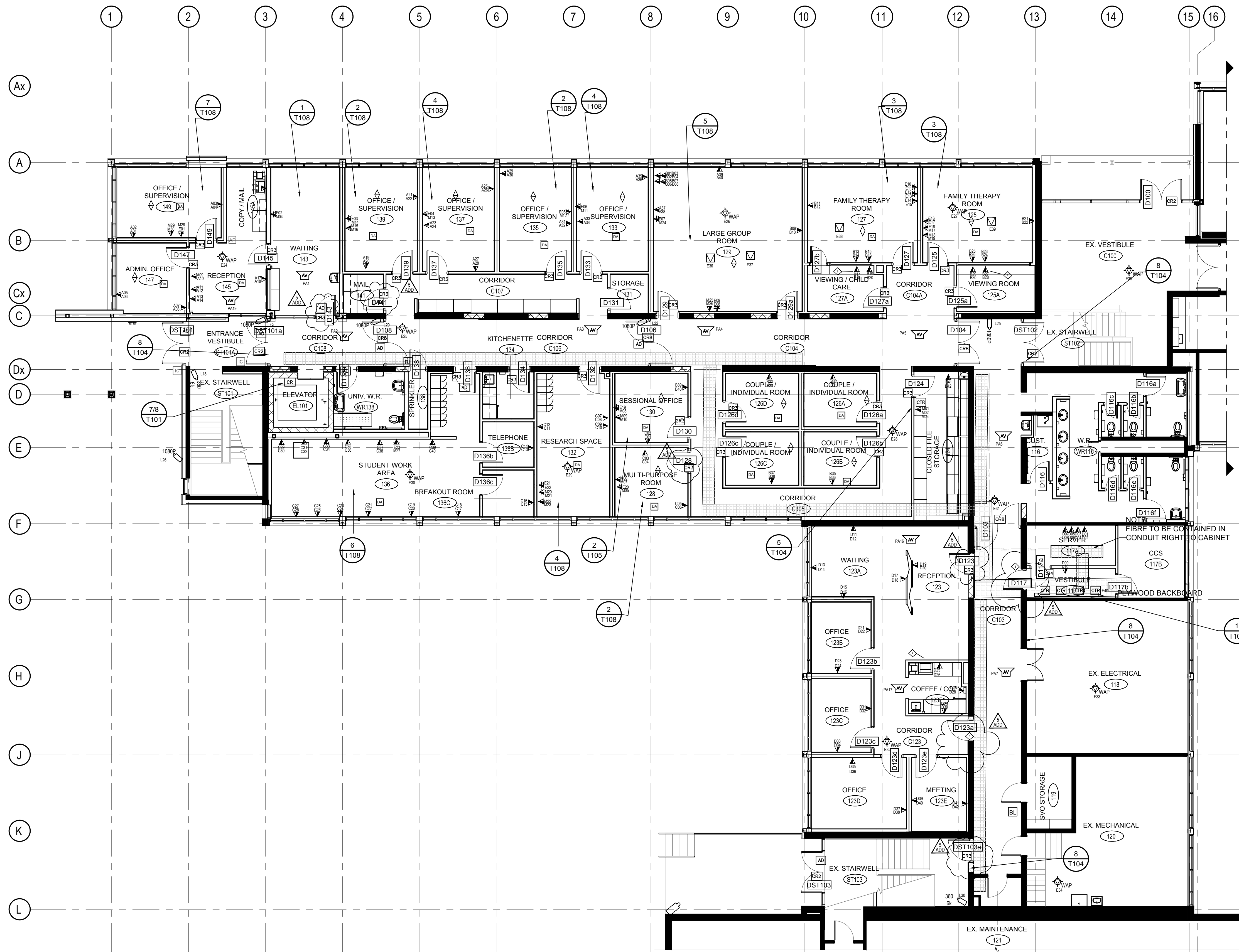
Checked By
D.C.

Approved By
B.W.

Drawing No.
T101

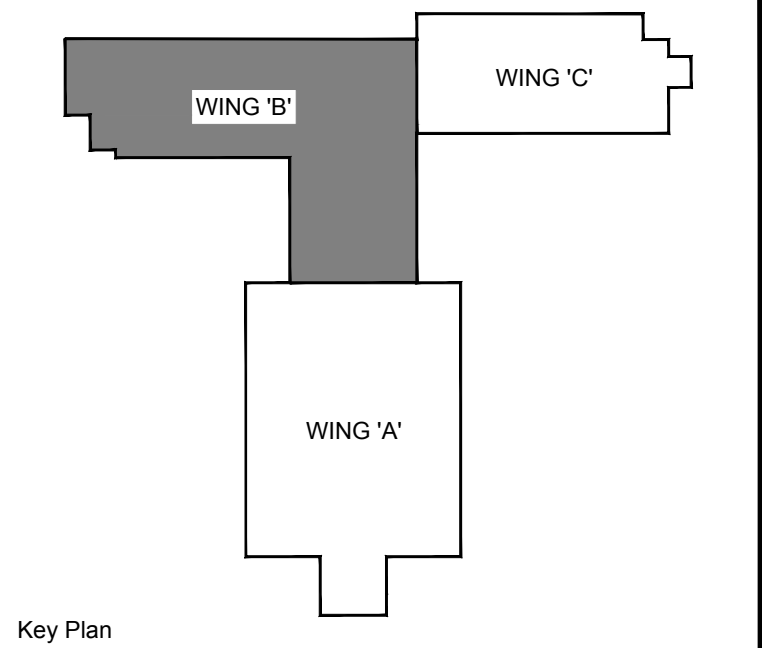
JLR #

Cad File No.



1 B-WING FLOOR 1 LAYOUT
T108 SCALE: 1:100

- LEGEND**
- VCAP PATHWAY LOCATION FROM CLOSEST WIRE BASKET TRAY POINT(2" CONDUIT REQUIRED) BY DIVISION 26
 - AUTOMATIC DOOR OPERATOR
 - SECURITY SYSTEM ROUGH IN CONDUIT AND CAMERA DROP REQUIRED.
 - SECURITY SYSTEM CAMERA DROP WITH RESOLUTION REQUIRED
 - ACCESS CONTROL DOOR WITH DETAIL X / T105
 - INTERCOM CONNECTED TO RECEPTION
 -
 -
 -
 - WAP
 -
 -
 -
 -
 -
 -
 -
 -
- NOTES:**
- ALL CABLING TO END POINTS, TO BE CONTAINED IN CONDUIT AND HOME RUN TO THE WIRE BASKET TRAY. SEE T100 FOR CONDUIT SIZING AND JUNCTION BOX SIZING
 - EXACT PLACEMENT OF DURESS BUTTON IS TO BE COORDINATED WITH THE CLIENT PRIOR TO GYPSUM INSTALLATION.
 - ALLOW FOR SECURITY CAMERAS TO HAVE 17- 25M OF MOVEMENT
 - COMMUNICATIONS CONTRACTOR TO COORDINATE WITH DIVISION 26 FOR SIZING OF FLOOR BOX AND FILLER PLATES FOR DATA AND AV JACKS
 - DOORS D101, D103a AND D104WR IN WING C ARE TO ALSO RECEIVE CR3
- CONSTRUCTION NOTES:**
- DATA DROP TO BE ABOVE MILLWORK OR EASILY ACCESSIBLE THROUGH MILLWORK. EXACT LOCATION TO BE DETERMINED ON SITE
 -
 -



Key Plan

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NO.	ISSUED	BY	DATE

Orientation	
Seal	

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Physical Resources
Guelph, Ontario, N1G 2W1

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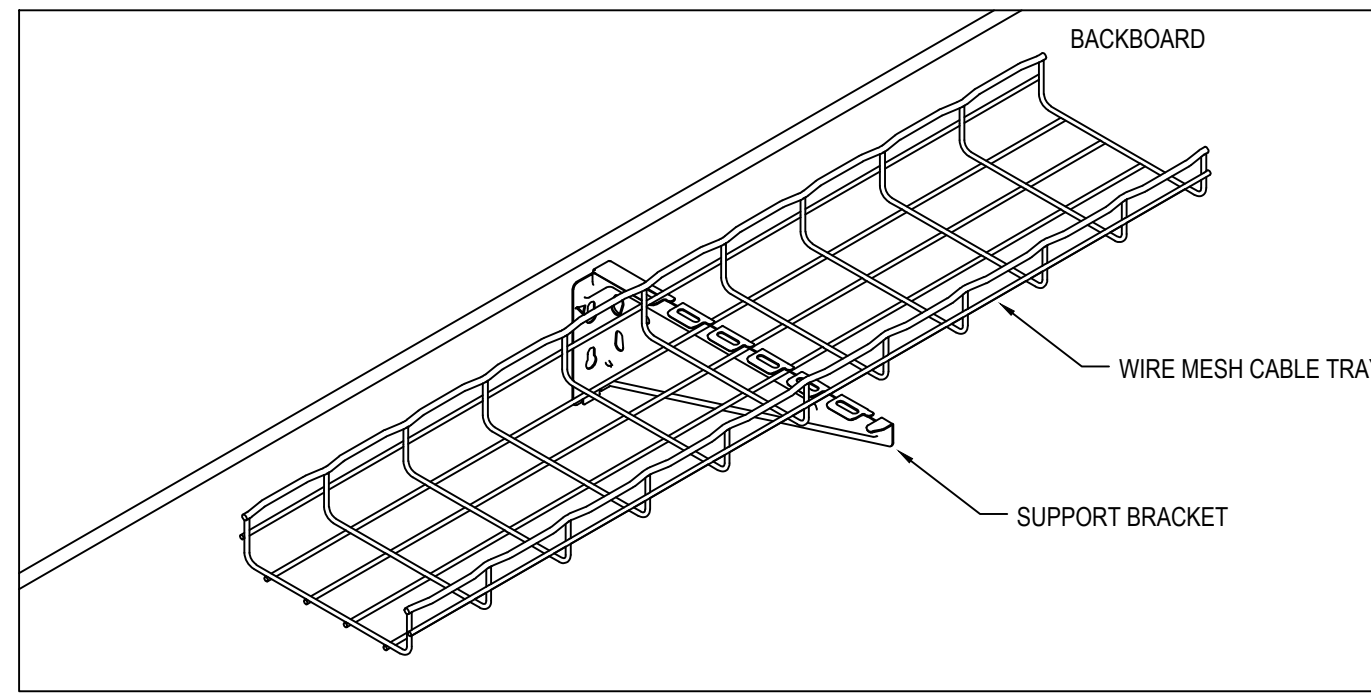
Project
BUILDING #046 RENOVATIONS

Drawing Title
B-WING FLOOR 1 LAYOUT

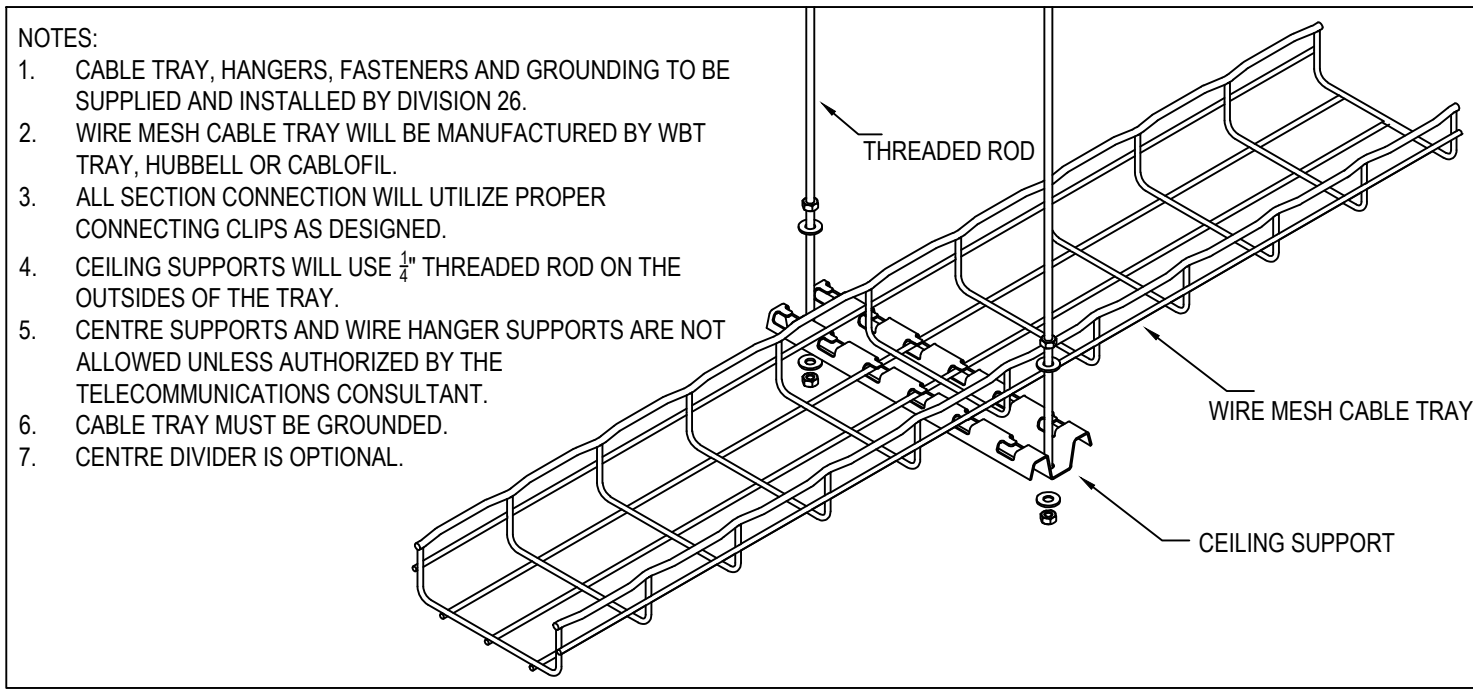
Project No.
504034

Location
UNIVERSITY OF GUELPH BUILDING #046

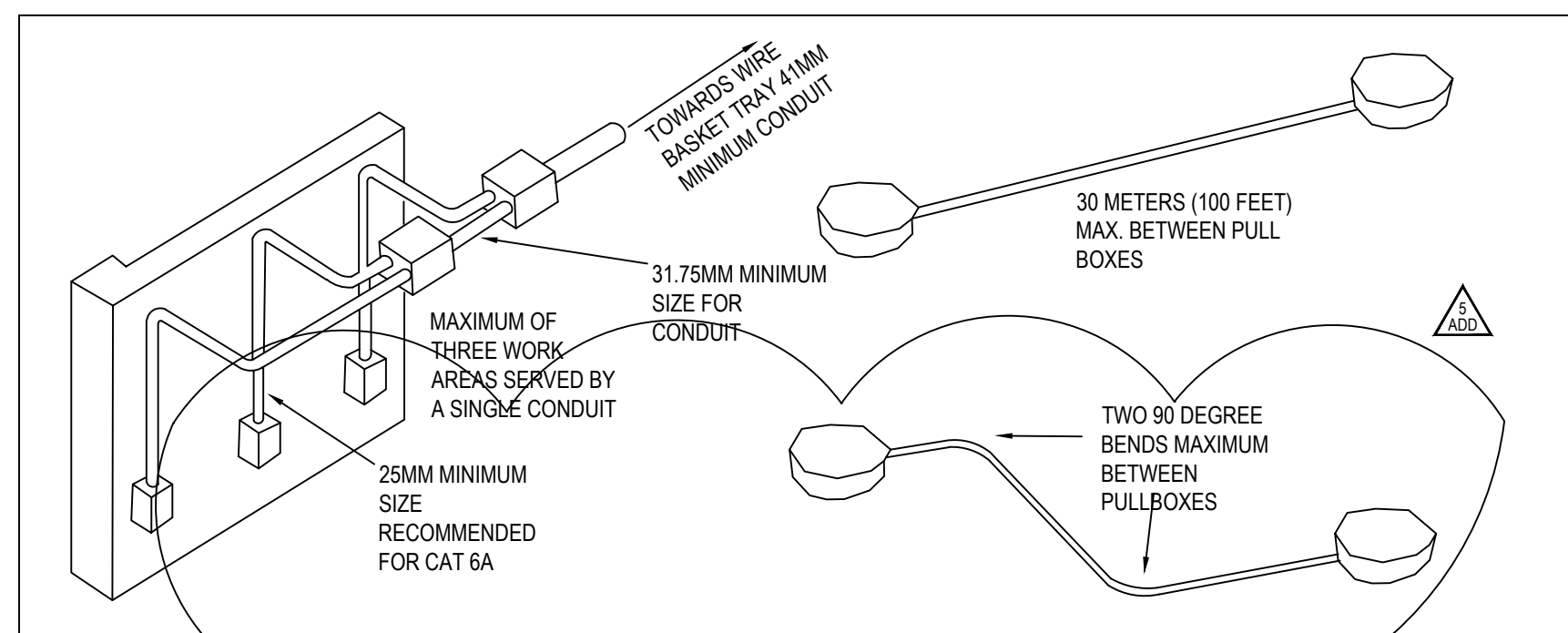
Scale AS SHOWN	Date NOV 2, 2018
Drawn by K.C.	Drawing No.
Checked By D.C.	T102
Approved By B.W.	
JLR #	of
Cad File No.	



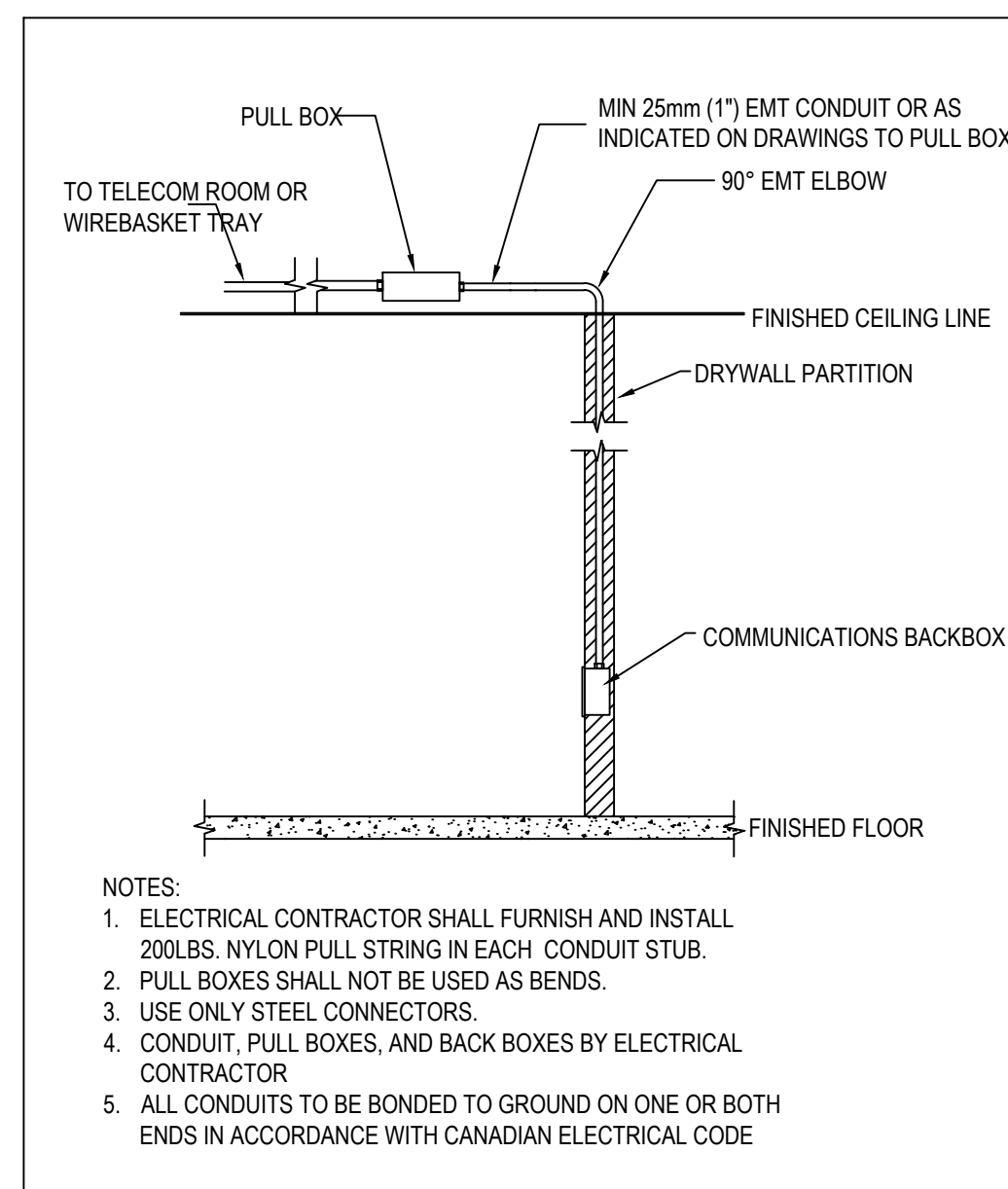
1 CABLE TRAY SUPPORT
T104 SCALE: N.T.S.



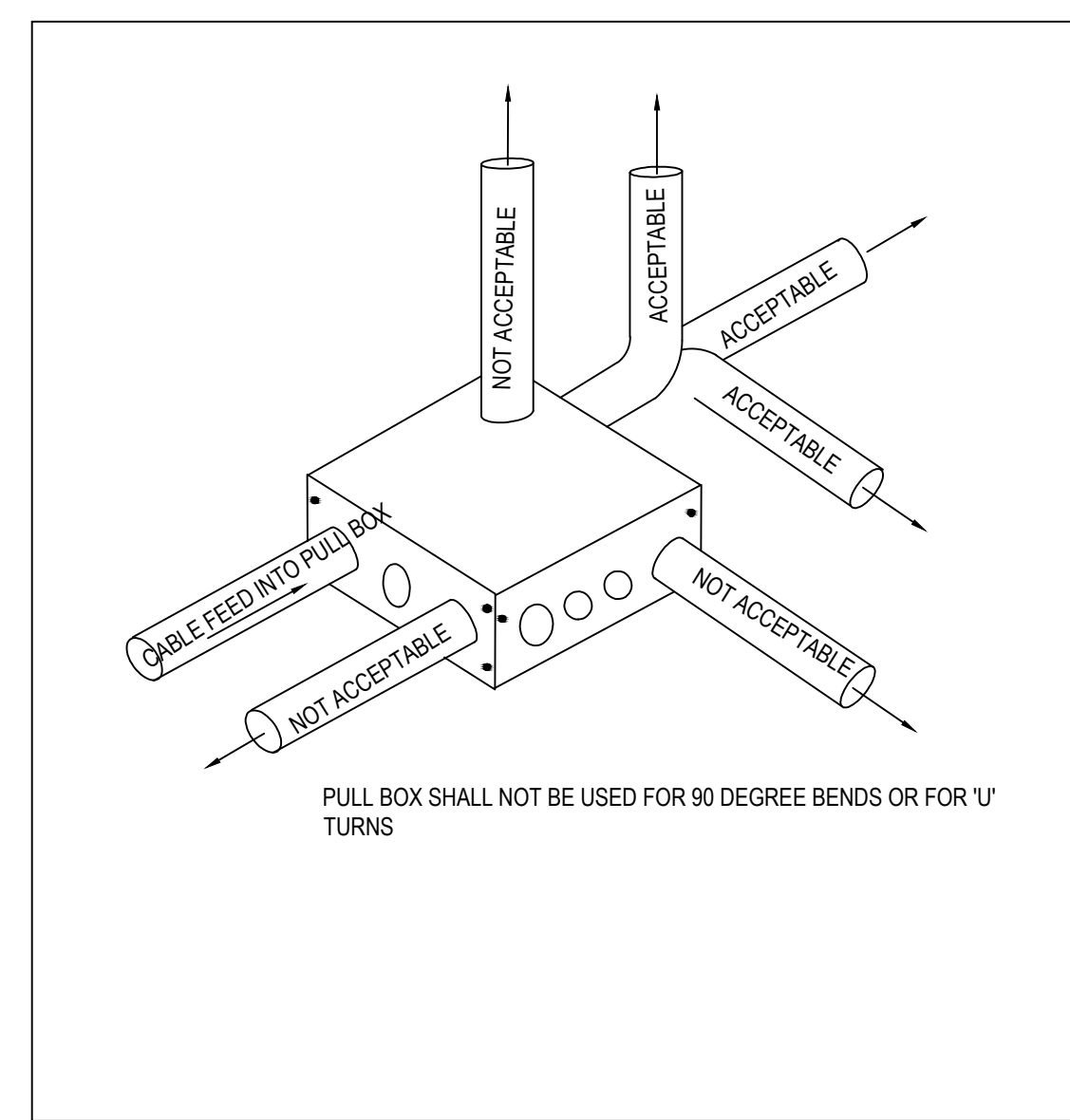
2 CABLE TRAY DETAIL
T104 SCALE: N.T.S.



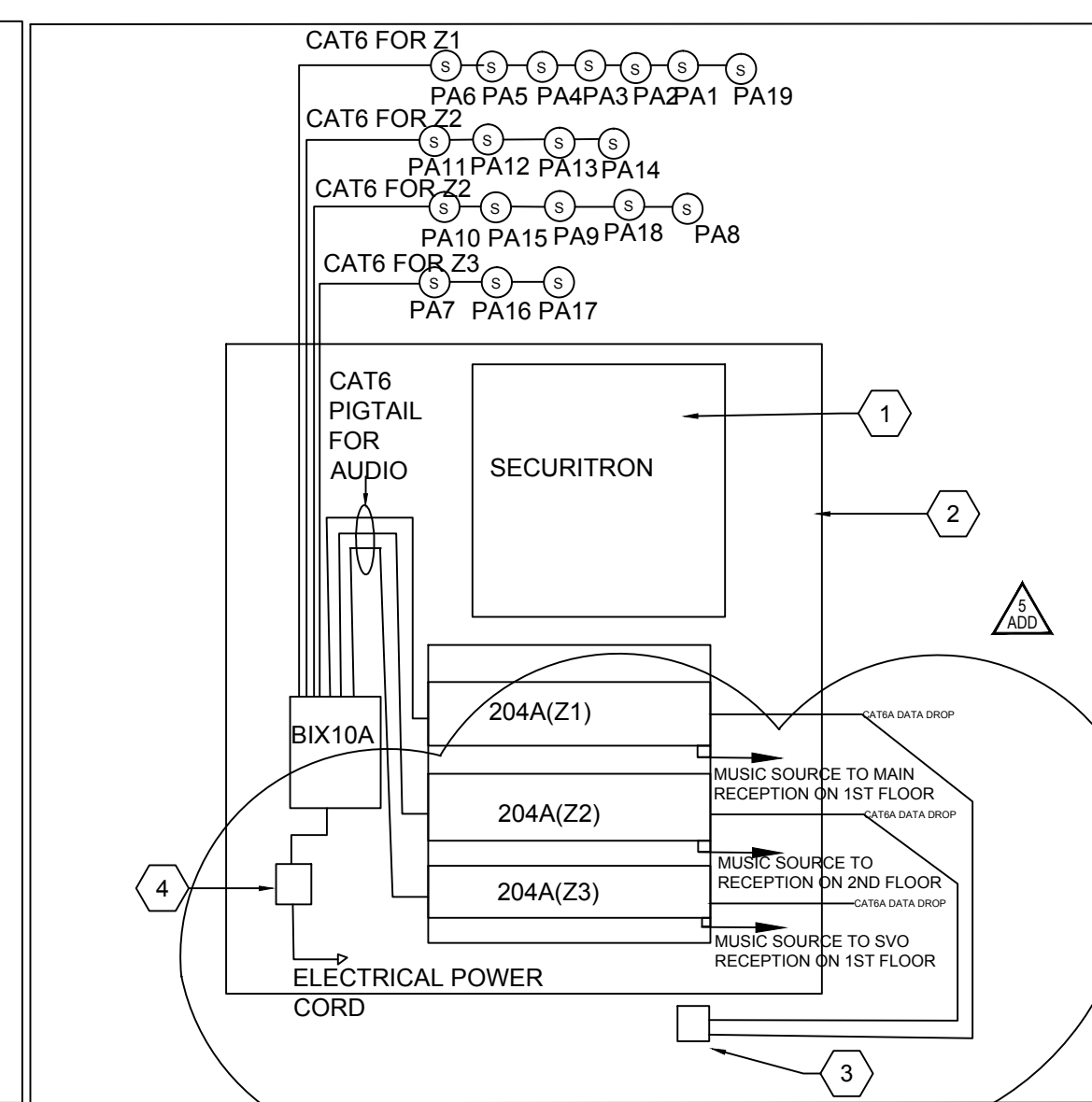
6 COMMUNICATIONS CONDUIT AND PULLBOX INSTRUCTIONS
T104 SCALE: N.T.S.



3 FLUSHED-MOUNT OUTLET DETAILS
T104 SCALE: N.T.S.



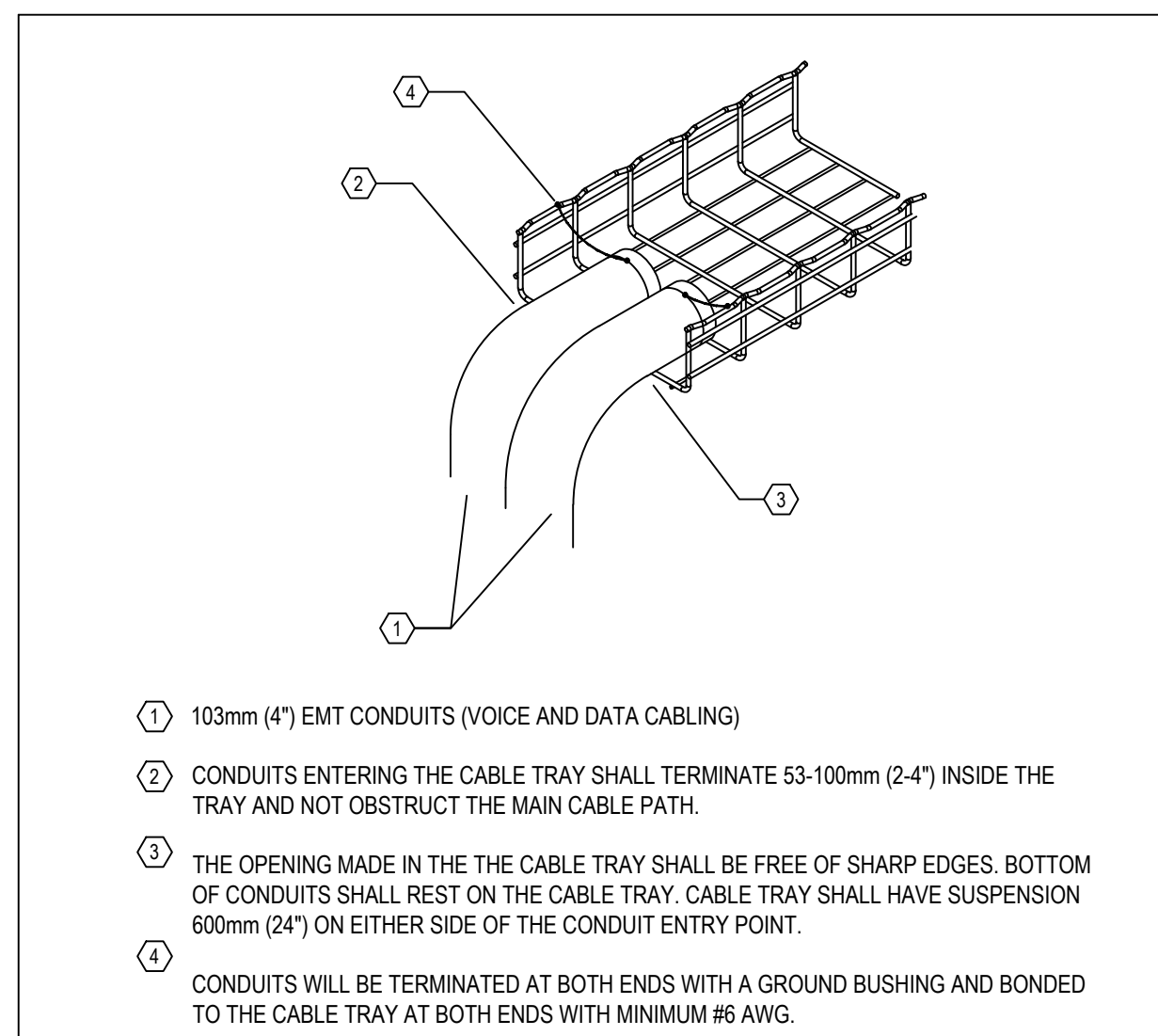
4 PULLBOX DETAILS
T104 SCALE: N.T.S.



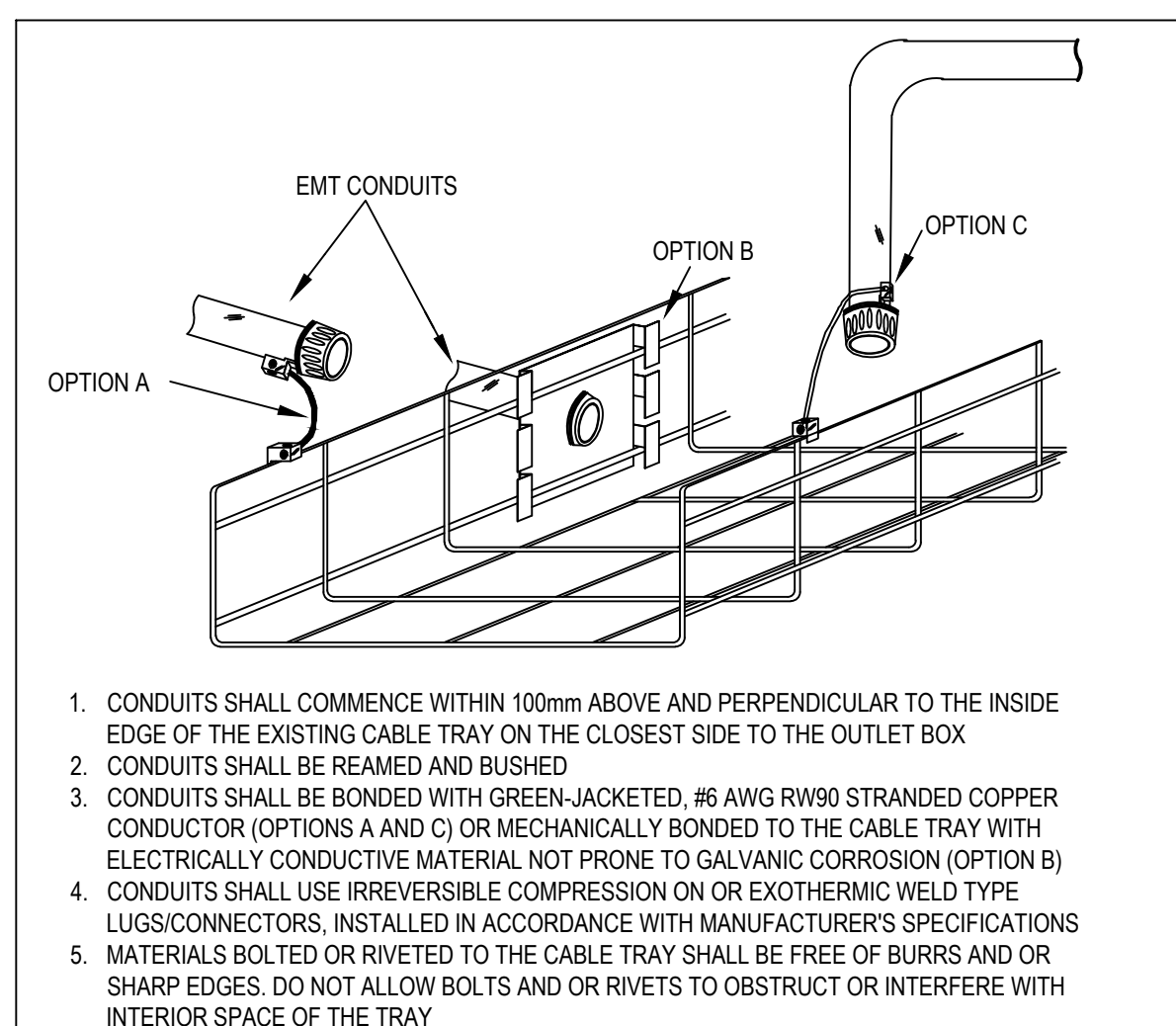
5 PA SPEAKERS ELEVATION
T104 SCALE: N.T.S.

- 1 SECURITON BOX 355MM(14")H X355MM(14"W) X120MM(4.75")D
- 2 FIRE RATED PLYWOOD BACKBOARD 838MM(33")W X914MM(36")H X19MM(3/4")D
- 3 4 PORT 3 DATA OUTLET SEE T102 FOR MORE DETAIL
- 4 VP - 1124D POWER SUPPLY

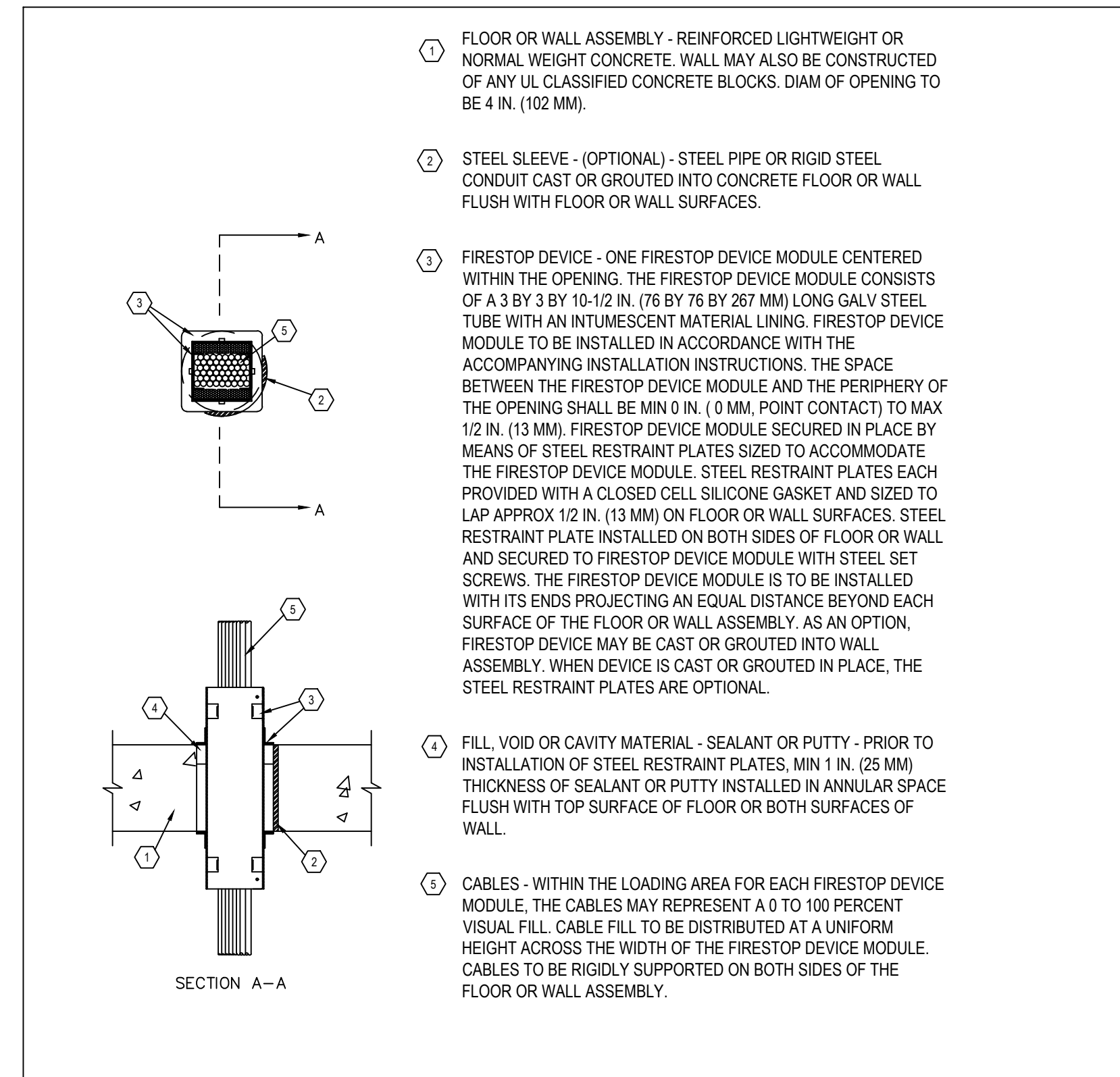
NOTES:
1. MUSIC SOURCE CABLE IS RCA TO IPOD, IPAD OR OTHER TYPE OF MUSIC SOURCE CONNECTION
2. 204A(Z3) MAY BE RELOCATED. TBD AT LATER DATE.



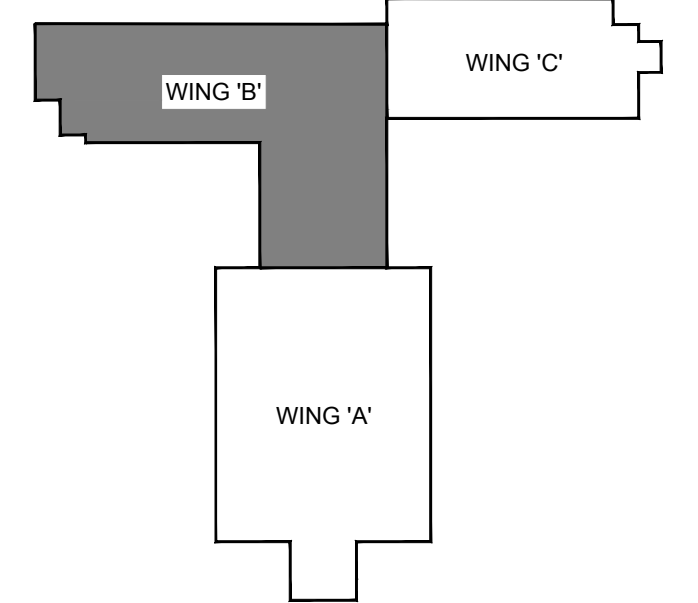
7 CONDUIT ENTRY INTO CABLE TRAY 1
T104 SCALE: N.T.S.



9 CONDUIT ENTRY INTO CABLE TRAY 2
T104 SCALE: N.T.S.



8 CONDUIT FIRESTOPPING DETAILS
T104 SCALE: N.T.S.



Key Plan

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NO.	ISSUED	BY	DATE
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Orientation	
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Seal	Seal
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Consultant www.jrichards.ca

J.R. Richards
ENGINEERS-ARCHITECTS-PLANNERS

Project
BUILDING #046 RENOVATIONS

Drawing Title
PATHWAYS DETAILS

Project No.
504034

Location
UNIVERSITY OF GUELPH BUILDING #046

Scale **AS SHOWN** Date **NOV 2, 2018**

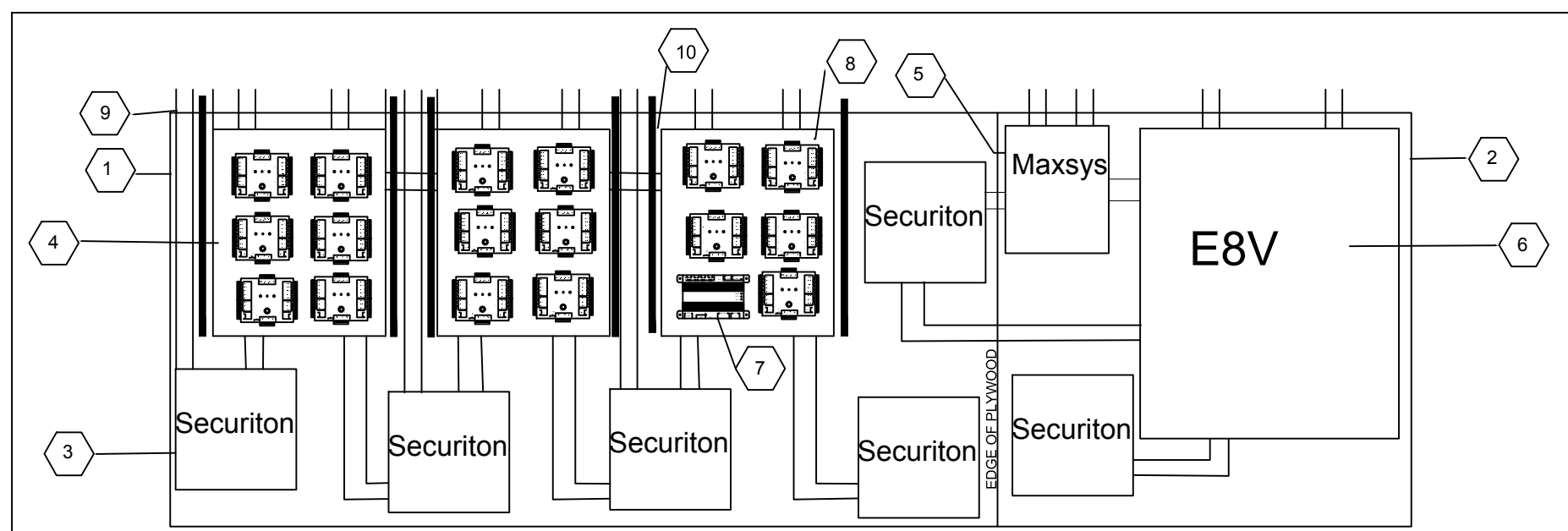
Drawn by **K.C.** Drawing No.

Checked By **D.C.**

Approved By **B.W.** **T104**

JLR # of

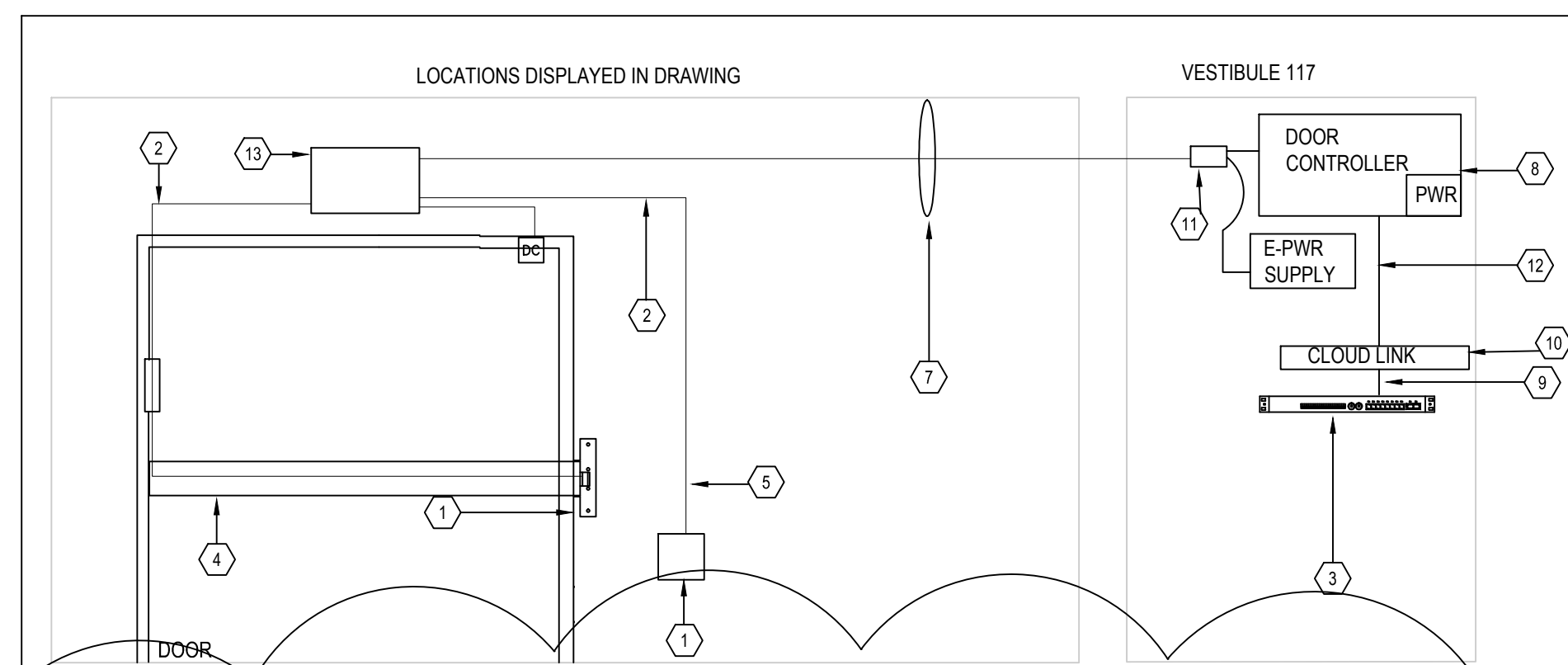
Cad File No.



- 1 1219MM X 2438MM X 19MM (48"X96"X3/4") FIRE PROOF PLYWOOD BACKBOARD
- 2 1219MM X 1219MM X 19MM (48"X48"X3/4") FIRE PROOF PLYWOOD BACKBOARD
- 3 355.6MM X 355.6MM X 120.65MM (14"X14"X4.75") SECURITRON POWER ENCLOSURES
- 4 605.6MM X 508MM X 114.3MM (24"X20"X4.5") LIFE SAFETY ACCESS CONTROL ENCLOSURE
- 5 376MM X 305MM X 129MM (14.8"X12"X4.9") MAXSYS DURESS SYSTEM PANEL
- 6 910MM X 760MM X 14MM (36"X30"X4.5") E8V EXPANSION BOARD ENCLOSURES
- 7 SYNERGIS CLOUD LINK
- 8 ACCESS CONTROL / INTRUSION MODULE
- 9 41MM (1.5") CONDUITS TO COS ROOM OR MAIN DISTRIBUTION PATH
- 10 CABLE TROUGH 63.5MM H X 63.5MM W (H 2.5" X W 2.5")

NOTES:
 1. CUSTOM KNOCK OUTS MAY BE NEEDED TO CONNECT TROUGHS TO LIFE SAFETY ENCLOSURES
 2. APPROPRIATE PROTECTION FOR THE CABLES ON THE EDGES OF THE CUSTOM KNOCKOUTS MUST BE APPLIED
 3. 12 VOLTAGE POWER SUPPLY TO BE CONTAINED IN FIRST SECURITRON ENCLOSURE AND MAXSYS SECURITRON ENCLOSURE
 4. LIFESAFETY ENCLOSURES CONTAIN DEVICES IN DOOR AND IN ENCLOSURE

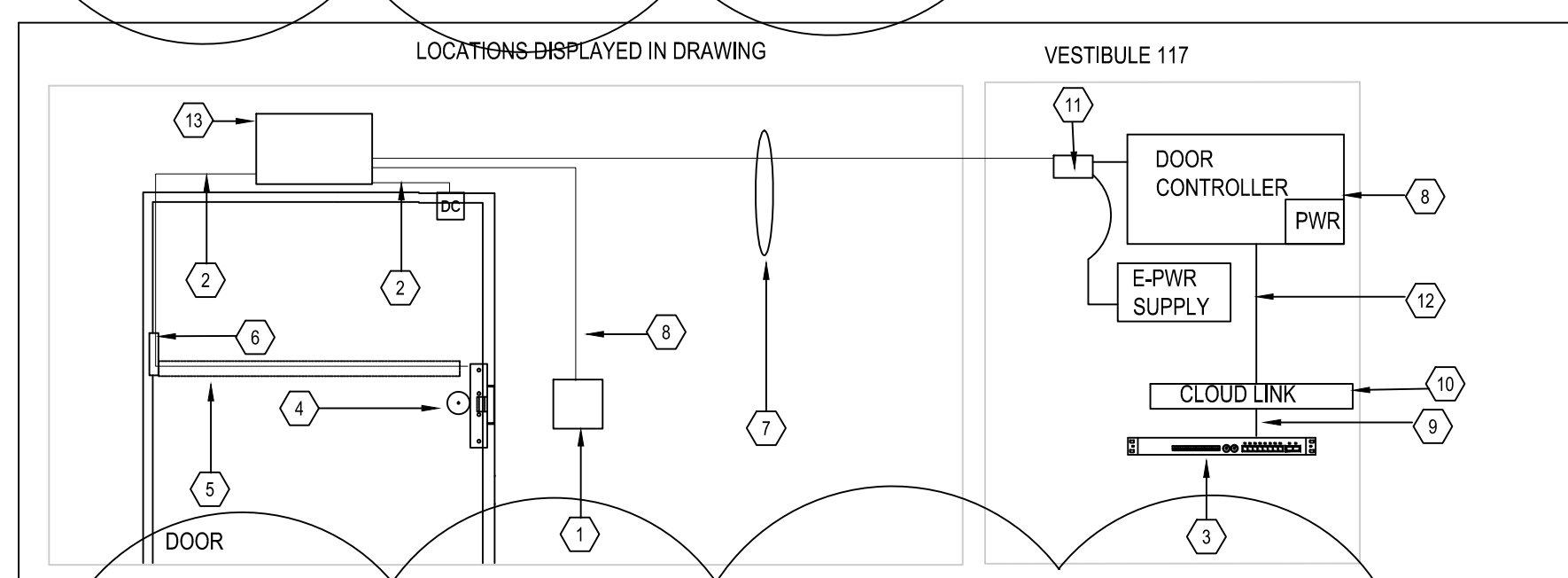
1 ACCESS CONTROL AND SECURITY ELECTRICAL ROOM ELEVATION
 T105 SCALE: N.T.S.



- 1 CARD READER (EXTERNAL)
- 2 4 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 3 PoE NETWORK SWITCH (N.I.C.)
- 4 SARGENT 080
- 5 12 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 6 PoE DATA HINGE
- 7 SECURITY BANANA PEEL TYPE CABLE TO BE CONTAINED IN CONDUIT AND/OR WIRE BASKET TRAY
- 8 DOOR CONTROLLER
- 9 CAT.6A CABLE
- 10 IP ACCESS CONTROL HARDWARE
- 11 RELAY
- 12 RS485
- 13 JUNCTION BOX

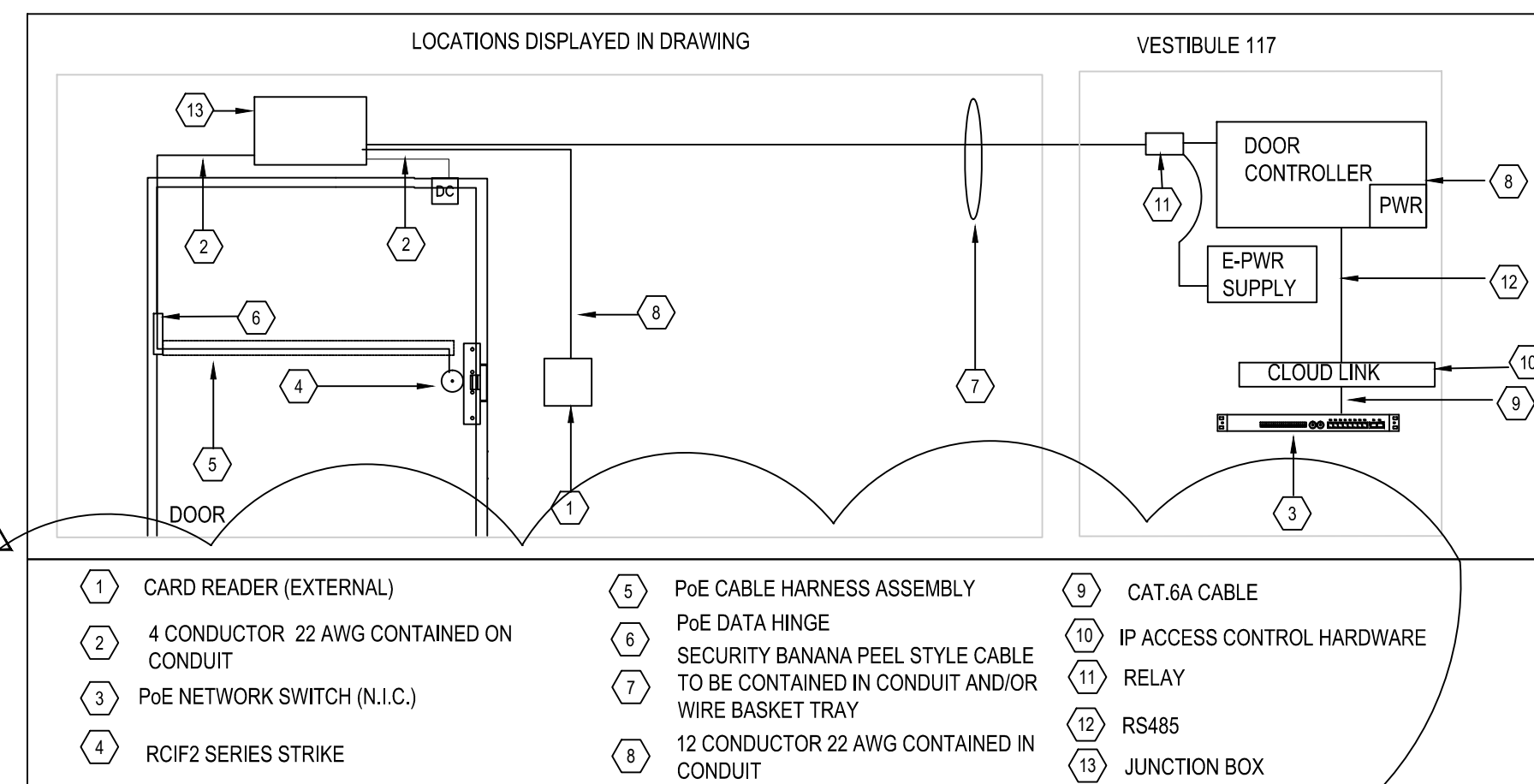
NOTES:
 SEE ARCHITECTURAL DRAWINGS AND HARDWARE SPECIFICATIONS FOR MORE DETAILS

2 ACCESS CONTROL SARGENT 080
 T105 SCALE: N.T.S.



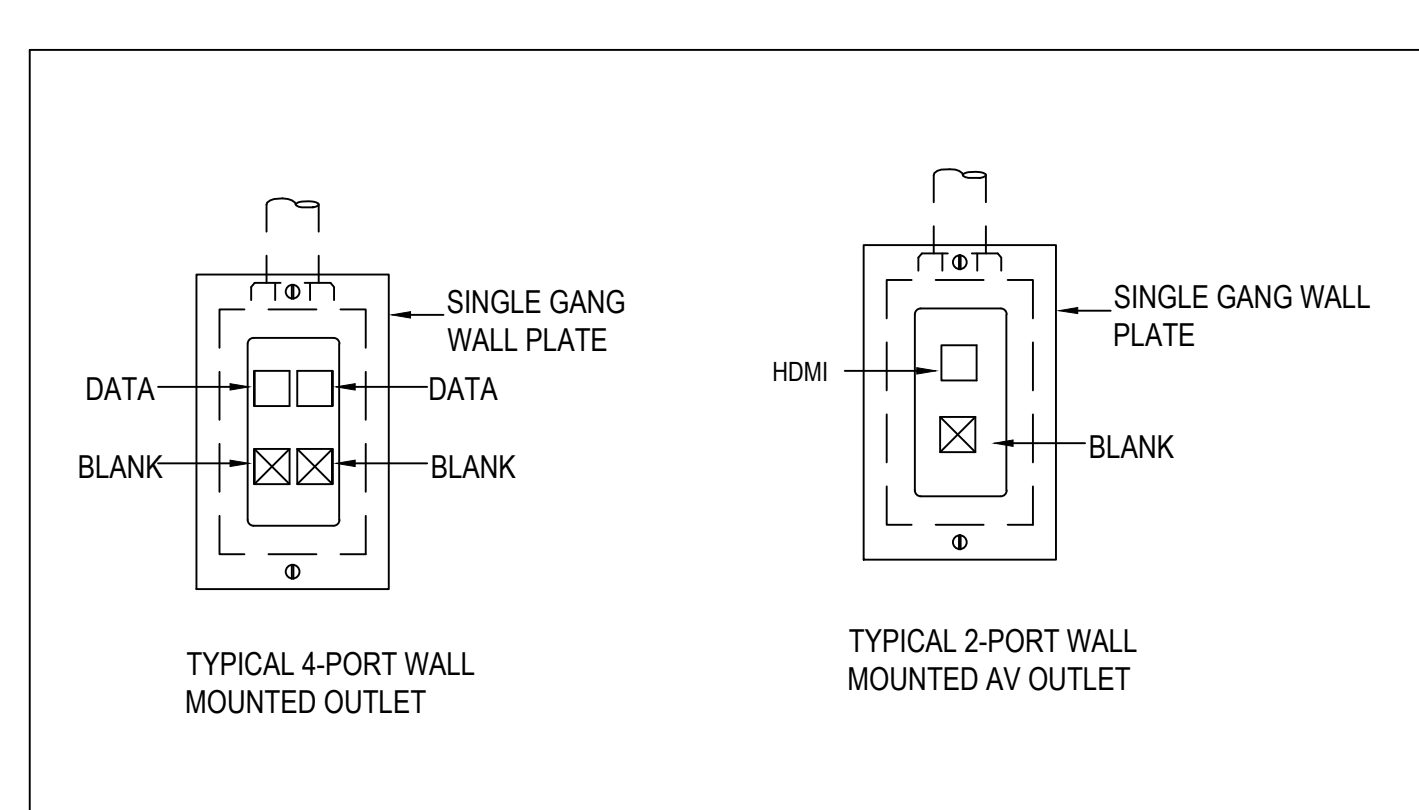
- 1 CARD READER (EXTERNAL)
- 2 4 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 3 PoE NETWORK SWITCH (N.I.C.)
- 4 CORBIN ML20900 ECL XM92
- 5 PoE CABLE HARNESS ASSEMBLY
- 6 PoE DATA HINGE
- 7 SECURITY BANANA PEEL TYPE CABLE TO BE CONTAINED IN CONDUIT AND/OR WIRE BASKET TRAY
- 8 12 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 9 CAT.6A CABLE
- 10 IP ACCESS CONTROL HARDWARE
- 11 RELAY
- 12 RS485
- 13 JUNCTION BOX

3 ACCESS CONTROL CORBIN ML20900
 T105 SCALE: N.T.S.

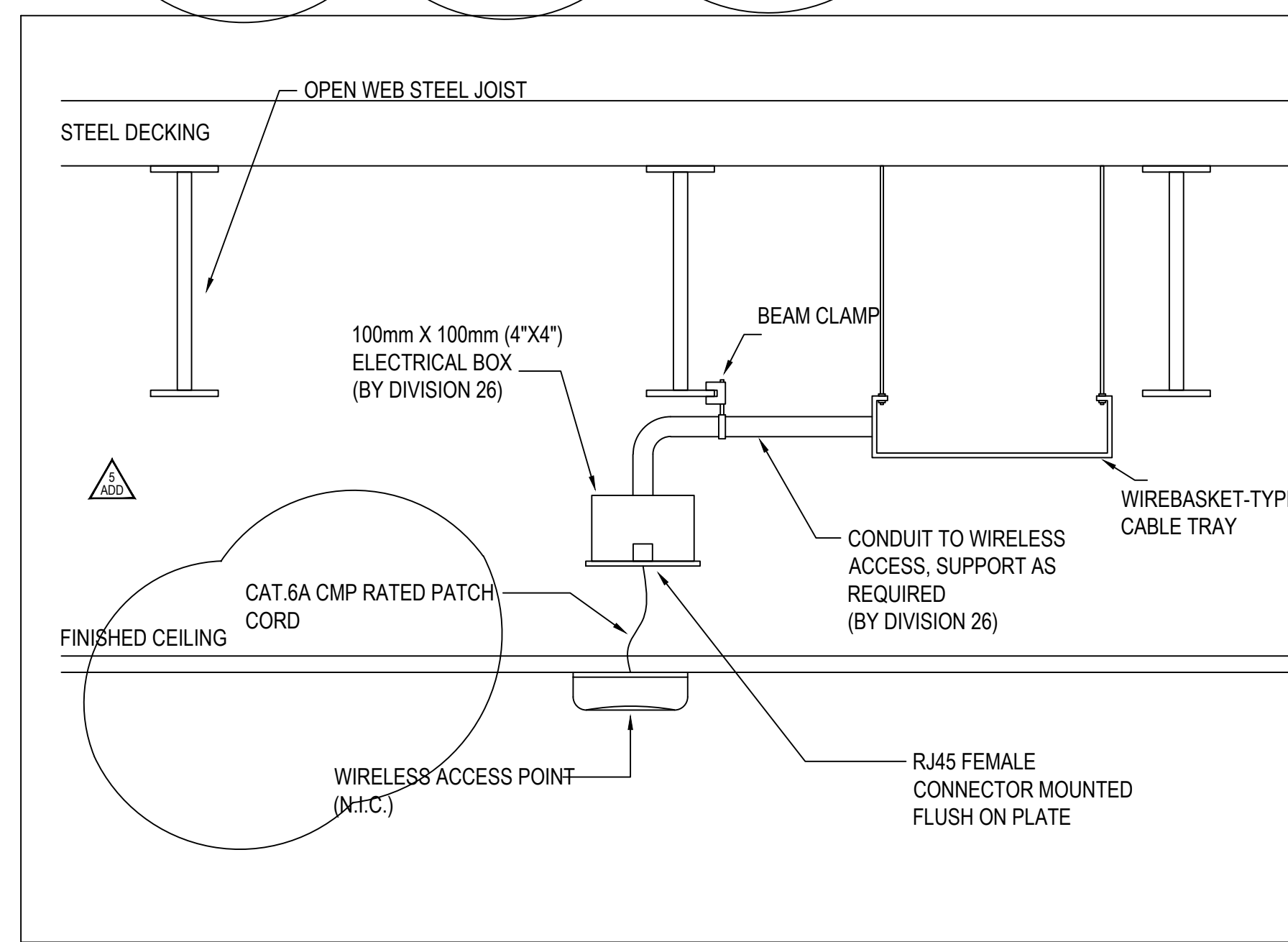


- 1 CARD READER (EXTERNAL)
- 2 4 CONDUCTOR 22 AWG CONTAINED ON CONDUIT
- 3 PoE NETWORK SWITCH (N.I.C.)
- 4 RCIF2 SERIES STRIKE
- 5 PoE CABLE HARNESS ASSEMBLY
- 6 PoE DATA HINGE
- 7 SECURITY BANANA PEEL STYLE CABLE TO BE CONTAINED IN CONDUIT AND/OR WIRE BASKET TRAY
- 8 12 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 9 CAT.6A CABLE
- 10 IP ACCESS CONTROL HARDWARE
- 11 RELAY
- 12 RS485
- 13 JUNCTION BOX

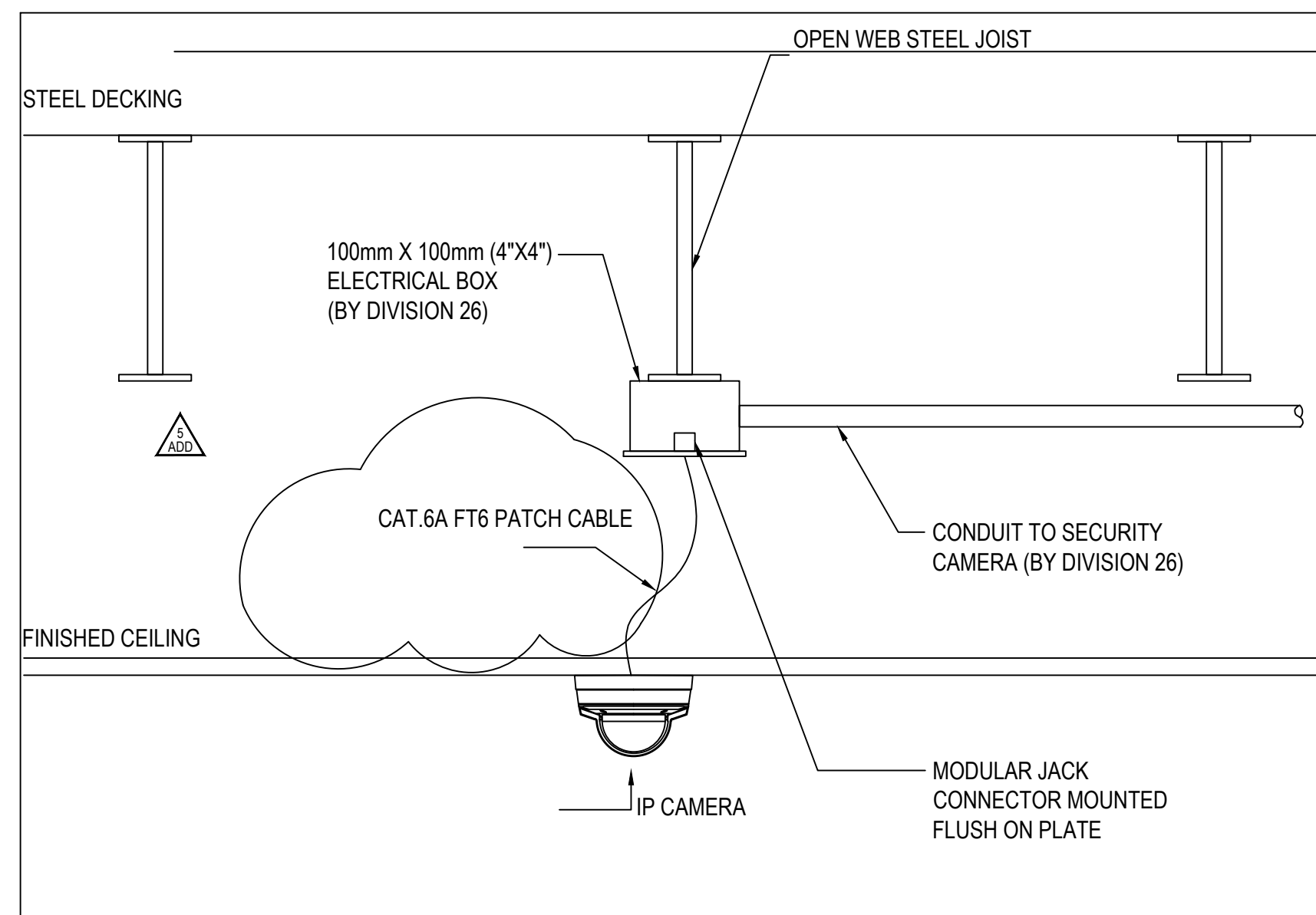
4 STANDARD DOOR CONFIGURATION
 T105 SCALE: N.T.S.



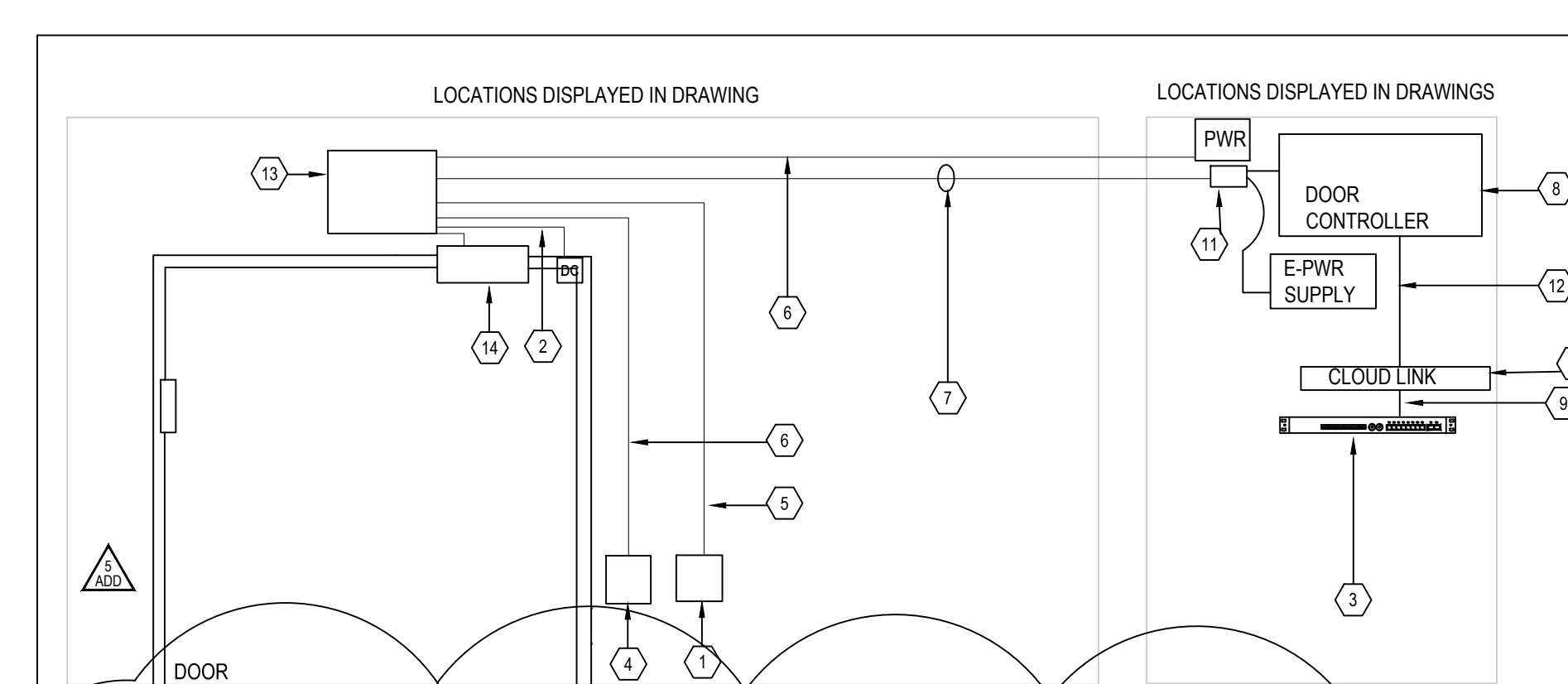
7 OUTLET DETAILS
 T105 SCALE: N.T.S.



5 WIRELESS ACCESS POINT INSTALLATION
 T105 SCALE: N.T.S.



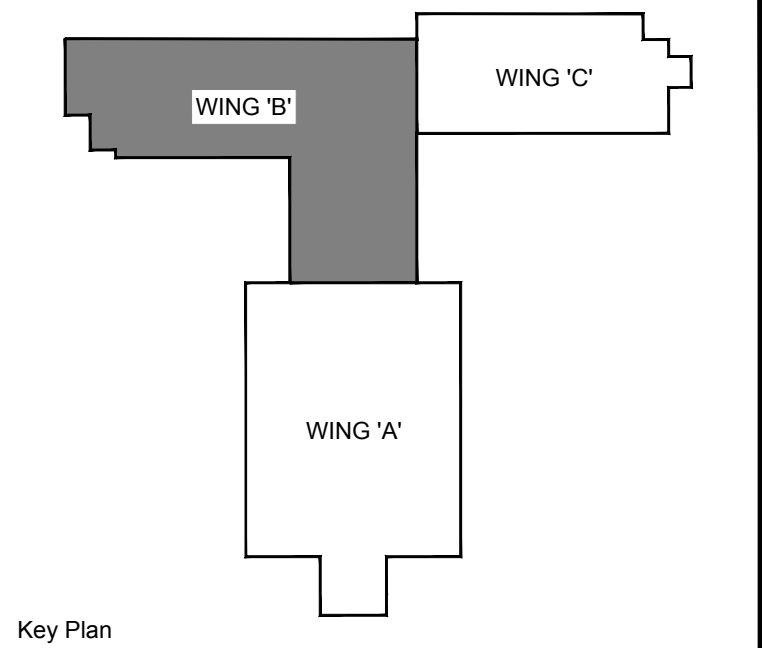
6 ROOF CAMERA OUTLET
 T105 SCALE: N.T.S.



- 1 CARD READER (EXTERNAL)
- 2 4 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 3 PoE NETWORK SWITCH (N.I.C.)
- 4 MAG LOCK RELEASE ON BOTH SIDES (N.I.C.)
- 5 12 CONDUCTOR 22 AWG CONTAINED IN CONDUIT
- 6 2 CONDUCTOR 18 AWG CONTAINED IN CONDUIT AND/OR WIRE BASKET TRAY
- 7 SECURITY BANANA PEEL TYPE CABLE TO BE CONTAINED IN CONDUIT AND/OR WIRE BASKET TRAY
- 8 DOOR CONTROLLER
- 9 CAT.6A CABLE
- 10 IP ACCESS CONTROL HARDWARE
- 11 RELAY
- 12 RS485
- 13 JUNCTION BOX
- 14 MAG LOCK

NOTES:
 SEE ARCHITECTURAL DRAWINGS AND HARDWARE SPECIFICATIONS FOR MORE DETAILS

8 ACCESS CONTROL SARGENT 080 WITH MAG LOCK
 T105 SCALE: N.T.S.



Key Plan
 DO NOT SCALE DRAWINGS:
 Contractors must check and verify all site conditions. Notify the Owner's Representative in writing before proceeding with the work if discrepancies are evident between the drawings and the site condition. No extras to the contract will be allowed if discrepancies were evident prior to start of work.
 UNEXPECTED DISCOVERY OF ASBESTOS:
 Where a friable material is discovered during construction, renovations and/or demolition, and it is suspected to contain asbestos, the Contractor must stop all work that may disturb the material. The Contractor shall advise the Owner of the discovery and await instructions from the owner.

A = Detail number
 B = Drawing number where detailed

5	ADDENDUM 5	DC	DEC 7, 2018
4	ISSUED FOR PERMIT - TENDER	DC	NOV 2, 2018
3	ISSUED FOR 95 - REVIEW	DC	OCT 05, 2018
2	ISSUED FOR 95 - REVIEW	DC	SEPT 14, 2018
1	ISSUED FOR 95 - REVIEW	TA	JULY 12, 2018
NO.	ISSUED	BY	DATE

Orientation

Seal

UNIVERSITY OF GUELPH
 Design, Engineering & Construction
 Physical Resources
 Guelph, Ontario, N1G 2W1

Consultant

Project

BUILDING #046 RENOVATIONS

Drawing Title

INSTALLATIONS DETAILS

Project No.

504034

Location

UNIVERSITY OF GUELPH BUILDING #046

Scale

AS SHOWN

Date

NOV 2, 2018

Drawn by

K.C.

Checked By

D.C.

Approved By

B.W.

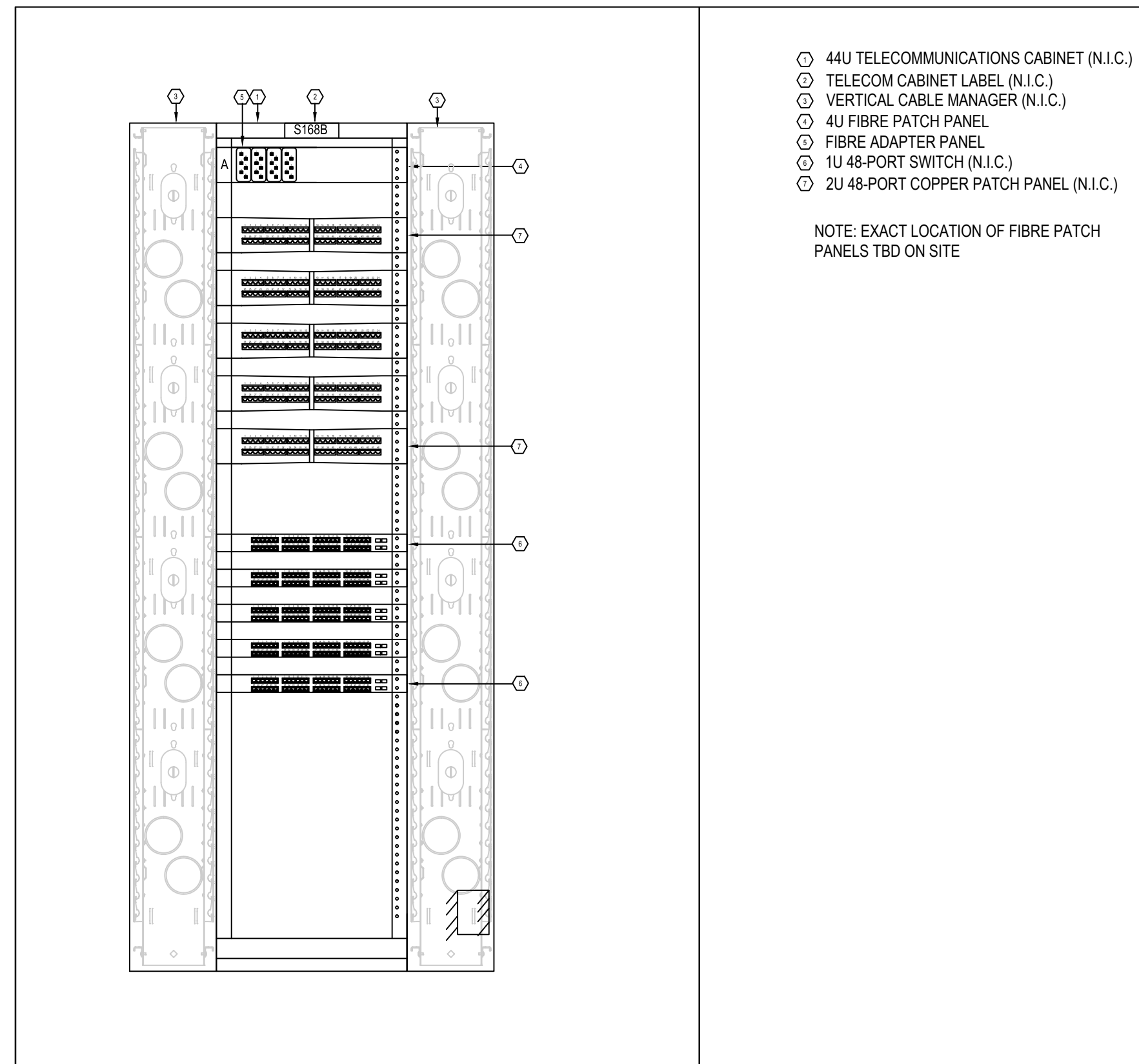
JLR #

T105

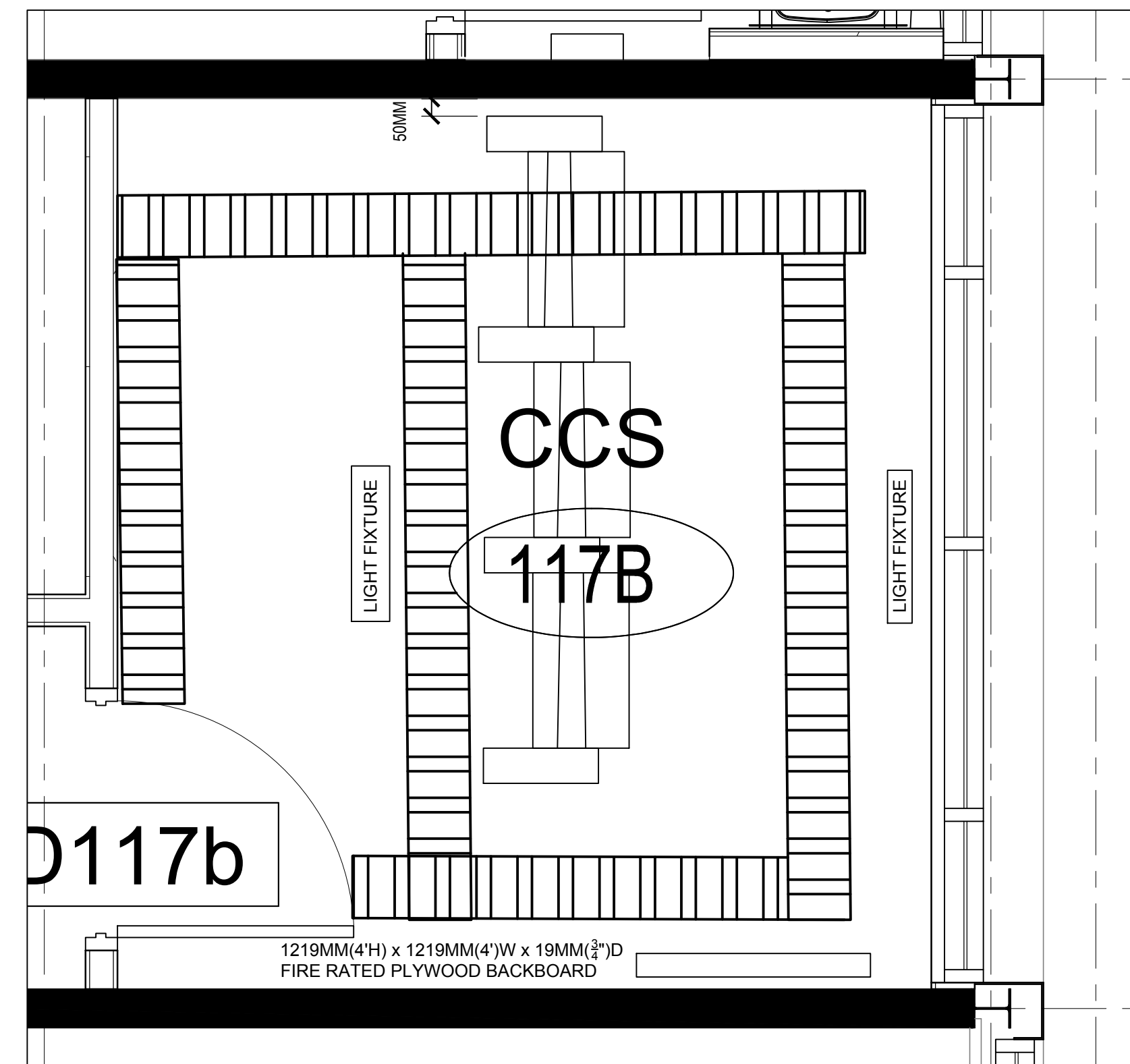
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of

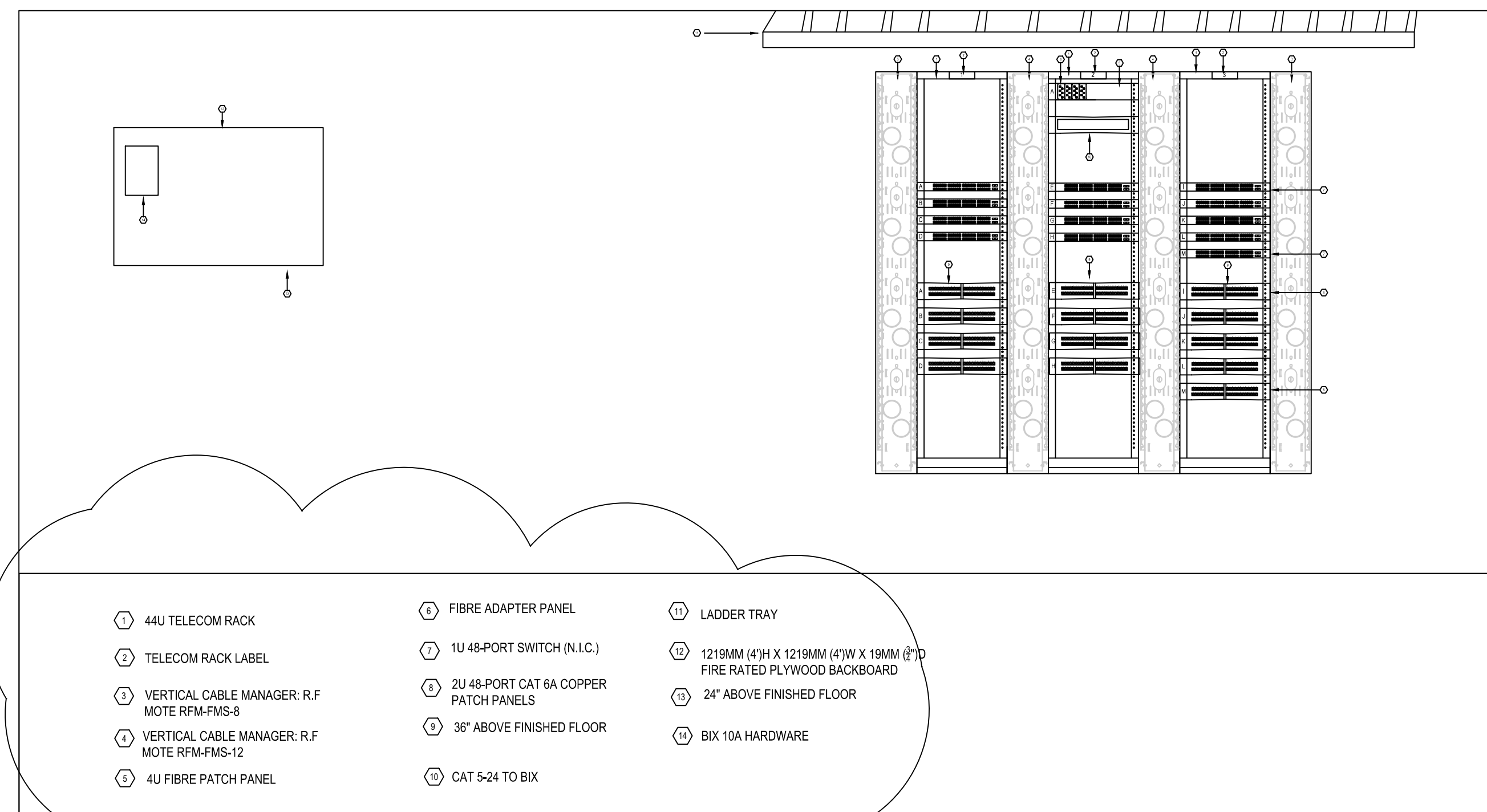
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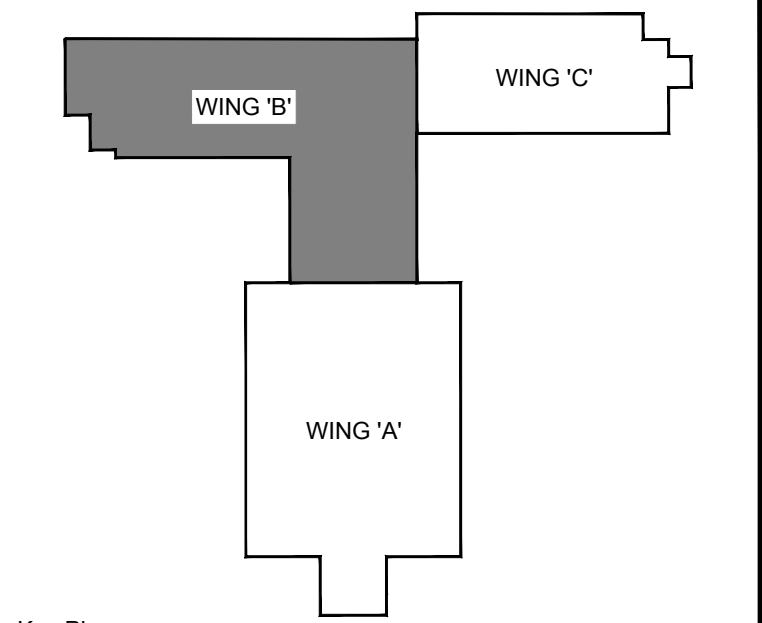
1 VCAP TELECOMMUNICATIONS CABINET
T107 SCALE: N.T.S.



2 CCS ROOM LAYOUT DRAWING
T107 SCALE: N.T.S.



3 CCS TELECOMMUNICATIONS CABINET
T107 SCALE: N.T.S.



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A = Detail number
 B = Drawing number where detailed

NO.	ISSUED	BY	DATE
5	ADDENDUM 5	DC	DEC 7, 2018
4	ISSUED FOR PERMIT - TENDER	DC	NOV 2, 2018
3	ISSUED FOR 95% REVIEW	DC	OCT 05, 2018
2	ISSUED FOR 95% REVIEW	DC	SEPT 14, 2018
1	ISSUED FOR 65% REVIEW	TA	JULY 12, 2018

Orientation

Seal

UNIVERSITY OF GUELPH

Design, Engineering & Construction
Physical Resources
Guelph, Ontario. N1G 2W1

www.jrichards.ca

Consultant

J.R. J.L. Richards
ENGINEERS-ARCHITECTS-PLANNERS

Project

BUILDING #046 RENOVATIONS

Drawing Title

RACK ELEVATIONS

Project No.

504034

Location

UNIVERSITY OF GUELPH BUILDING #046

Scale

AS SHOWN

Date

NOV 2, 2018

Drawn by

K.C.

Drawing No.

T107

Checked By

D.C.

Approved By

B.W.

JLR #

of

Cad File No.