SickKids

Thursday, November 27, 2025

Addendum #7

CONSIDER IN YOUR RESPONSE/BID THE FOLLOWING ITEMS OF ADDITION, DELETION OR CLARIFICATION. INDICATE IN THE SPACE PROVIDED ON THE RESPONSE/BID FORM THAT YOU HAVE RECEIVED AND INCLUDED FOR THE REQUIREMENTS OF THIS ADDENDUM. SICKKIDS MAY, IN ITS SOLE DISCRETION ANSWER SIMILAR QUESTIONS FROM VARIOUS RESPONDENTS ONLY ONCE.

RE: QUESTIONS AND ANSWERS, SPECIFICATIONS, DRAWINGS AND DOCUMENTS

a. QUESTIONS AND ANSWERS

Q1-	**Regarding the Glazing Film, Please clarify the finishes for FLM-1 should be Frosted, Dusted, Matte, Arpa, Linen, Milky or Fine Crystal.**	
	A1-	**FLM-1 refer to Schedule of Finishes this addendum. Frosted is the finish.**
Q2-	**On Drawing AU-02-BW-05, Detail 10 or 11 does not specify if interior p/lam is Plam1 or Plam2. There is no indication in finish schedule about the type.**	
	A2-	**All interiors are to be as per specifications section 06 20 00 Finish Carpentry.**
Q3-	**On Drawing AU-02-BW-05, Detail 7 does not state if plywood substrate below counter is to have underside covered in laminate or backer sheet. Please clarify.**	
	A3 -	**Finishing is to be completed as per specifications section 06 20 00 Finish Carpentry**
Q4-	**Section 2 on drawing AU-02-BW-01 shows end gable (refer to detail 7 on AU-02- BW-05 with p/lam finish). Please advise it should be Plam1 or Plam 2**	
	A4-	**PLAM1, detail to be updated in IFC.**
Q5-	**Regarding the schedule for delivery & installation of the CT, please advise the estimated schedule.**	
	A5-	**The estimated schedule is 18 weeks for the supply of the CT and an estimated period of 4 weeks for the installation.**
Q6-	**What's the warranty period for this project?**	
	A6-	**One year**
Q7-	**Can the service elevator be used by contractors during regular hours?**	
	A7-	**The service elevator should not be planned to be used by contactors to move materials, refuse or others materials during regular hours.**
Q8-	**Please confirm lead thickness required for doors and frames**	
	A8-	**Refer to attached Lead Shielding Information and Drawing.**
Q9-	**Could you please confirm Lead Lined Thickness for the SICKKIDS SPECT CT project? Can we assume 1/16"?**	
	A9-	**Refer to attached Lead Shielding Information and Drawing.**
Q10-	**With regards to the Lead Lining please clarify the following, Thickness of lead lining required for these openings.**	
	A10-	**Refer to attached Lead Shielding Information and Drawing.**

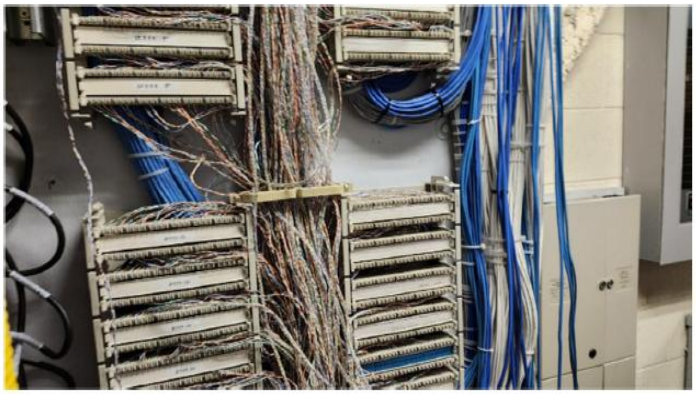
Q11 -	With regards to the Lead Lining please clarify the following, Supplier has indicated that they cannot fire rate the Acoustic lead lined wood openings as pairs. How do you wish to proceed?	
	A11 -	Doors are revised as per door schedule.
Q12 -	Can you please confirm that the new slabs are designed for minimum reinforcement only (shrinkage and temperature), and are not intended to carry any bending moment? If you are intended to carry any bending moment, we would like to have the information on the existing slab (concrete strength & reinforcement)	
	A12-	New housekeeping pad reinforcement is designed for min. reinf. only. Assumption is correct.
Q13 -	The supplier has informed us that the two colors specified for RSF-1 and RSF-2 are not offered in the ED color range for Harmoni. The three colors offered in the SD range for Harmoni are HG493, HG494, and HG487	
	A13-	Refer to updated Finishes Schedule – part of this addendum.
Q14 -	Can we get the contract drawings updated complete with the GE conduit & wiring layouts, please advise.	
	A14-	conduit details are under drawing ED 02 EW 02.
Q15 -	I'm being advised by JCI (Fire Alarm) that this is the Annex & they don't do the work in there, please advise? Our understanding is this project is in the Annex and it's not our fire alarm system in there.	
	A15-	Spec Section 28 01 80.71 will be updated to contain this information and will be updated in the next addendum The Siemens contact information is: Gerry Thibeault Fire Solutions Sales Executive Tel: 416-617-3786 gerry.thibeault@siemens.com
Q16-	Is this job being done in 1 phase during normal business hours & any work outside the reno area & electrical shutdowns is after hours as arranged with the Hospital?	
	A16-	The project is not necessarily multiphased. The contractor is to review the scope of work and create a schedule / sequence of work accordingly. Noting that there is a fair amount of abatement work required. All shutdowns should be coordinate with us.
Q17-	Confirm all the conduit/outlet boxes installed in the Spec Ct Rm.#2140 can be ferrous?	
	A17-	Conduit and box to be steel, refer to section 26 05 33.13 (Conduit For Electrical System), refer to section 26 05 33.16 (Boxes For Electrical Systems)
Q18-	On drawing EA 02 EW 02 is the squiggly line that ends in closet #2161 where this AGS Pump is located in the sub-basement?	
	A18-	The New AGS pump is located in the new mechanical room 2138, this pump requires to be monitored hence why a new data cable is required to be pulled from the monitoring station in basement B117.
Q19-	On drawing ED 03 EW 03 in the power & mechanical schedule it mentions the AGS Pump is located on the 2nd floor in room #2138, please advise.	
	A19-	this is correct.

Q20-	**On drawing EA 02 EW 02 it mentions to extend the feeder for the new AGS Pump, where are we to extend this feeder from as I don't see it on the drawings?**	
	A20-	**The New AGS pump is located in the new mechanical room 2138, this pump requires to be monitored hence why a new data cable is required to be pulled from the monitoring station in basement B117 to 2161 on level 2 and be extended to the pump.**
Q21-	**On drawing EA 02 EW 02 General Note #1, is this 5% apply to the demo only?**	
	A21-	**in Area's where we may not have access to during our preliminary site visit or area's that are highly crowded, electrical and lighting fixtures may not have been captured. Allow for some room to include this fixture for any demolition or remove/re-install situations.**
Q22-	**Also on drawing EA 02 EW 02 in room #E2111 it's noted that a new network switch is required, what is this network switch for & is it supplied & installed by the Hospital?**	
	A22-	**A new network switch is required is required for the data in the room. This network switch is supplied and installed by SickKids. Electrical contractor to terminate all data cabling to the patch panel at the rack, if existing rack has insufficient patch panels, electrical contractor to include in base bid the additional procurement of the patch panel as well as the installation.**
Q23-	**On drawing EP 02 EW 01 detail #1, can we get a spec, location & detail of the wall mounted ground bar?**	
	A23-	**spec and drawing detail for the ground bar will be provided.**
Q24-	**On the same drawing can we get all the new electrical equipment on the SLD fed from DP-2-1-2EE laid out in the new Mechanical & Spec CT Rooms?**	
	A24-	**The main components are laid on already in EP 02 EW 01.**
Q25-	**On the same drawing in Mechanical Room #2138 confirm that AC-2831-1 is actually fed from a disconnect mounted on the splitter that is not identified not DP-2-1-2EE?**	
	A25-	**the splitter location will be shown in room 2138**
Q26-	**On the same drawing in Mechanical Room #2138 can we get the 3 VFD's identified as to what they are feeding?**	
	A26-	**AHU (AC-2831-1), Exhaust Fan (2100D-01), AGS PUMP (P-2138001.**
Q27-	**On the same drawing in the Spec CT room #2140 there are 2 cameras, I don't see specs for these & is JCI (Security) the vendor of record?**	
	A27-	**these are the monitoring Cameras included with the Spec CT. which is monitored in the control room**
Q28-	**On the same drawing in the Control Rm. #2141 there is a clock, can we get the specs as well as the VoR & a contact? (email, phone #).**	
	A28-	**the clock is not a networked clock (master clock) provide clock similar to what is currently used in other sickkids spec CT control rooms**
Q29-	**On the same drawing in room #2140 there are 2 audio/visual speakers, can we get a wiring drawing as well as the VoR c/w contact (email, phone #).**	
	A29-	**Included as part of the Spect CT, wiring size per installation guide on architectural appendix A3 and A4, installed by electrical contractor.**

Q30-	**On the same drawing (top of page) can we get the conduit & wiring connections between the various numbered boxes?**	
	A30-	**Detail 1 on ED 02 EW 02 show this but on previous response the GE installation guide will be included as part of the electrical addendum as an Appendix.**
Q31-	**On drawing ED 02 EW 01 lighting schedule, the X1 exits have both 120v & 6-48v DC, I don't see any DC voltage indicated for the exits on drawing EL 02 EW 01?**	
	A31-	**this is the compatibility of the exit lights to be able to work on 120V or 6-48VDC if connected to battery backup.**
Q32-	**On the same drawing detail #1 CCTV, what is the "IC" symbol & is the network switch in room #E2111?**	
	A32-	**The existing network switch and rack is in E2111. Refer to updated CCTV detail. The IC symbol and cabling has been removed to avoid confusion.**
Q33-	**On the same drawing detail #6, is the access control also terminated in room #E2111?**	
	A33-	**Room E2111 location for access control to be terminated.**
Q34-	**On drawing ED 02 EW 02 detail #2, what are the interconnections from the PDU being connected to (the unidentified square in dotted lines) & where is this located?**	
	A34-	**This detail shows the interconnection between the PDU and the warning light and door interlock. The inter connection symbols within the dotted square shows the PDU is interconnecting with the following items: Fuse and Control power transformer, Relay coil and contact, which intern controls the door switch and x-ray light on.**
Q35-	**What is the finish oConfirm the (1) is 2c #14, also in the square dotted box are we to do all the internal wiring (----cable supplied by customer)n the S/Ceil throughout the space?**	
	A35-	**in any instance where the GE details calls to be supplied by customer, it is the responsibility of the electrical contractor to procure and install, coordinate all necessary cable and conduit required.**
Q36-	**On drawing ED 02 EW 02 detail #3 there are a lot of interconnections, what are these, are they installed in the ceiling & can we get them plotted on our drawings c/w with conduit & cabling?**	
	A36-	**Refer to architectural specifications Appendix A3 and A4 sections E2- Electrical Layout, E3- Electrical Elevations, E-4 Power Requirements E5 – Details – Interconnections.**
Q37-	**On the same drawing detail #1, are these the only interconnections that need to be run under the floor, also what is under this floor & are there any concerns with coring holes & doing this installation?**	
	A37-	**In Accordance with the manufacturer installation these are the only feeder and conduit to be installed under current floor. Refer to EA 01 EW 01 for level 1 affected areas.**
Q38-	**On the same drawing detail #1 & Electrical Layout Item List, is note #5 a box that's to be mounted in the wall behind the PDU or is it the PDU & we run the conduits directly into it?**	
	A38-	**This is the PDU and wiring/conduit can be ran directly to the PDU**
Q39-	**Note #6, there are 2 x 3-1/2" & 1 x 2-1/2" conduits turned up, is this a floor box or are the ends of the conduits to end up flush with the finished floor?**	

	A39-	Note 6 or Item 6 this is listed on the GE drawing as (Suitable Bushing/lock nuts PDU). With that said this seems to be the floor box for control wiring from the control room to the Spec CT.
Q40-	Note #8, here again are the conduits supposed to terminate in the operators console or flush with the floor, there are supposed to be an "A" & "B" view of what's going on but I can't find it?	
	A40-	Refer to detail ED 02 EW 02. The GE installation guide can be seen on architectural specification package as Appendix A3 and A4
Q41-	Note #4, there are 2 x 4" square boxes mounted in the wall, what are they & where are they to be connected & with what?	
	A41-	These are the junction boxes for the interconnection of the MDP and PDU to the UPS.
Q42-	Is there any qualification requirement on Mech & Elec Contractors	
	A42-	No specific qualification requirements outlined for Mechanical and Electrical contractors. All bidders are expected to comply with applicable codes, standards, and project specifications. ** Electrical Contractors to be Panduit certified.
Q43-	Fire alarm specifications have it as a JCI system with a contact, however drawings state it to be a Chubb system. Looking for clarification?	
	A43-	The Siemens contact information is: Gerry Thibeault Fire Solutions Sales Executive Tel: 416-617-3786 gerry.thibeault@siemens.com
Q44-	Who is the Preferred communication provider?	
	A44-	Panduit CAT 6A series. Contractor must have the appropriate Panduit installation certification.
Q45-	Is there a Panel schedule for RP-2-1-E3A?	
	A45-	There is a typo on the panel schedule RP2-2-3EA is RP-2-1-E3A
Q46-	Can you note on a drawing the location of the GE panel's.	
	A46-	For further clarification and information, GE equipment has been shown on the floor plan for this addendum.
Q47-	Does the hospital have a preliminary Schedule, start and end date	
	A47-	We are targeting a start as soon as possible in the new year 2026 with a reasonable schedule based on scope of work.

Q48- - Question: Does the cabling terminate onto BIX or patch panels? From the attached provided picture, this is an old CAT5 system and NOT compatible with CAT6/A



	A48-	Answer: The data cabling will terminate at the patch panels
Q49-	**See attached (Equals Request Sheet)**	

PRODUCT	TAG	SPEC SECTION	BASIS OF DESIGN	EXISTING EQUALS	REQUESTED TO BE ADDED
GRILLES, REGISTERS, & DIFFUSERS		23 30 00	EH PRICE	NAILOR	METALAIRE
FIRE DAMPERS, FIRE SMOKE DAMPERS, & SMOKE DAMPERS		23 30 00	-	NAILOR	POTTORFF
MOTORIZED DAMPERS		23 30 00	-	NAILOR	ALUMAVENT
BACKDRAFT DAMPERS		23 30 00	-	NAILOR	ALUMAVENT

	A49-	**Mechanical equals are acceptable.**
Q50-	**Can we use the eleNote #1, this is the MDP why does it not have any feeders (line & load) detailed on the layout?vator to bring the new water cooled chiller Unit in Level 7U or it needs to be lifted by crane? If by crane is it during regular working hour/ after-hour?**	
	A50-	**Single Line Diagram on (ER 02 EW 01) has been updated for this final addendum**
Q51-	**Can we get the GE drawings with all their conduit/outlet boxes (sizes) c/w cabling indicating whether it's to be installed above the ceiling or below on the floor below so we can compare it to the contract drawings. Also can we get a list of all the devices & various cables that are supplied & installed by GE?**	
	A51-	**These information is already available in ED 02 EW 02, refer to architectural specifications Appendix A3 and A4**
Q52-	**Can we get a detail of all the conduits, pull boxes, & cables c/w maximum distances as well as what is supplied & installed either by us or by GE.**	
	A52-	**These information is already available in ED 02 EW 02, the GE installation guide can be found on Architectural specification A3 and A4**
Q53-	**I don't see any cable tray on the drawings nor do I see a spec, please advise?**	
	A53-	**provide J-hook.**
Q54-	**Who is the Preferred communication provider?**	
	A54-	**Panduit CAT 6A series.**
Q55-	**Is there a Panel schedule for RP-2-1-E3A?**	
	A55-	**There is a typo on the panel schedule RP2-2-3EA is RP-2-1-E3A**
Q56-	**Can you note on a drawing the location of the GE panel's.**	
	A56-	**For further clarification and information, GE equipment has been shown on the floor plan.**
Q57-	**See attached (Equals Request Sheet)**	
	A57-	**Refer to A49.**
Q58-	**On drawing. EL 02 EW 01 detail #1 there's an XR fixture that we need a spec for?**	
	A58-	**included with the Spec CT equipment order.**
Q59-	**On drawing. EP 02 EW 01 the 2nd set of Sheet Notes 1, where do we find The Star Guide – Pre-Installation Manual and Final Star Guide Study?**	
	A59-	**Refer to Architectural Specification Appendix A3 and A4.**

Q60-	**On drawing. ED 02 EW 01 detail #6, confirm that the existing UPS, Access Control DGP, & Camera Network Switch are all located in room #2111 on drawing. EA 02 EW 02?**	
	A60-	**confirmed room 2111**
Q61-	**On drawing. EA 02 EW 02 there's a note about Fire Alarm concerning a new Remote Annunciator, where is this to be located?**	
	A61-	**This is for the New AGS pump is located in the new mechanical room 2138, this pump requires to be monitored hence why a new data cable is required to be pulled from the monitoring station in basement B117. A new key plan will be added in the next addendum.**
Q62-	**On drawing ER 02 EW 01 DP-2-1-2EE I find the single line drawing coming from the 60a disconnect confusing, from the secondary of TX-2-1-2TE you feed panel RP-2-1-2EE but you mention a 130A MCB 200A frame that should be 208V 3P 4W, is this an enclosed breaker that's to be mounted on a wall as I don't see this plotted on the floor plans on drawing EP 02 EW 01?**	
	A62-	**Updated Single line will show this as an enclosed 55A Breaker feeding the primary enf of the 30kVA transformer (will be shown on next addendum on floor plan). RP-2-1-3EA tag will be revise to show 120/208V, 3PH,4W**
Q63-	**Confirm that DP-2-1-2EE is located in room #2184A on drawing EA 02 EW 02?**	
	A63-	**Confirmed 2184A**
Q64-	**Is the work on level #1 on drawing EA 01 EW 01 to be done during normal business hours in the same phase as level #2?**	
	A64-	**This is to be completed alongside mechanical work, ensure to coordinate with all trades involve to ensure that a proper schedule for work to take place is documented.**
Q65-	**Usually there is a very extensive grounding layout but this time I don't see one, please advise?**	
	A65-	**note that any new ground bar to be inter connected to the main ground of the electrical room.**
Q66-	**Is there a required completion date for the project?**	
	A66-	**See Answer Question 16**
Q67-	**According to the structural drawing, there are new steel beams being installed to carry the weight of the CT and AHU equipment and there is reference made to re-instating the fireproofing and the connections. There does not appear to be any specification for the fireproofing and also it is not said specifically that the new beams must be fireproofing (on the structural general notes they just refer you back to the architectural drawings and specifications). Should we assume the new steel beams must also receive fireproofing? Please provide specification**	
	A67-	**Yes fireproofing is required for all new beams. See specification for fireproofing.**
Q68-	**Please provide specification for new louvres shown on drawing AB-02-BW-06.**	
	A68-	**Please see specification per this addendum**
Q69-	**With reference to the handrails in Section 10 26 23 Protective wall covering – where are these required and what is the specification?**	
	A69-	**no handrails required on the project.**

Q70-	**How many coat hooks are required?**	
	A70-	**Please see equipment plan of this addendum for location Two are to be provided.**
Q71-	**A toilet paper holder (TPH) is specified, but should this be a paper towel holder? There is no toilet on this project.**	
	A71-	**there is no toilet paper holder. Clarification Paper Towel Holder is provided and installed by SickKids. Contractor to provide backing in location.**

b. SPECIFICATIONS

1.1 **REVISED SPECIFICATIONS**

.1 The following revised specifications issued with this addendum supersede previously issued specifications of the same title and number

.1 Section No. 00 01 10_R3, Table of Contents

.2 Section No. 09 06 00_R1, Finishes Schedule

.3 Section No. 10 26 23_R1, Protective Wall Covering

.4 Section No. 10 28 00_R1, Washroom Accessories

1.2 **NEW SPECIFICATIONS**

.1 Add the following new specifications issued with this Addendum.

.1 Section No. 07 81 00, Applied Fireproofing

.2 Appendix A6 - Lead Shielding Information and Drawing

c. DRAWINGS

1.3 **REVISED DRAWINGS**

.1 The following Drawings are revised and re-issued with this addendum. Revisions are shown in bubbled areas on drawings. The following descriptions of revisions are for convenience only and do not define or limit the extent of actual revisions indicated on drawings:

.1 Drawing AB-02-BW-03 FIRE AND LIFE SAFETY, PLAN, OBC MATRIX,DOOR TYPES &SCHEDULE

Door Schedule revision.

.2 Drawing AF-02-B2-01 DEMOLITION AND SPECT CT ROOM RENOVATION FLOOR PLAN

Removed Valve Box and new location of Valve Box

.3 Drawing AB-02-BW-02 FINISH PLAN,FURNITURE AND EQUIPMENT PLAN

Added coat hooks location and med gases valve box

.4 Drawing AU-02-BW-01 ENLARGED SECTIONS

Removed Valve Box

.5 Drawing AB-02-BW-02 ENLARGED ELEVATIONS

Removed Valve Box and new location of Valve Box

.6 Drawing AU-02-BW-05 PLAN,SECTION AND MILLWORK DETAILS

Updated information on Plam.

.7 Drawing AB-02-BW-06 TYPICAL DETAILS

Louvres identified

.8 Drawing S02-01 TYPICAL DETAILS

Steel Dowel Clarification

.9 Drawing S22-02 LEVEL 2 ENLARGED FLOOR FRAMING PLAN

Various updates on Neoprene pads for the housekeeping pads.

.10 Drawing S51-01 DETAILS

Update on neoprene pads

d. DOCUMENTS

1.4 **NEW DOCUMENTS**

.1 The following Addenda, prepared by engineering disciplines, are issued with Addendum No. 7:

.1 Mechanical Addendum No M-1

.2 Electrical Addendum No. E-1.

We look forward to your diligent participation to ensure the success of this project.

Arash Hojabri, ***MBA***
(Pronouns: he/him)
Senior Procurement Specialist
The Hospital for Sick Children
Phone: 416.813.7654 Ext. 401788
Cell: 416.834.4857
e-mail: arash.hojabri@sickkids.ca
SickKids public tenders landing page on Biddingo.com: www.biddingo.com/sickkids .

END OF ADDENDUM

Number	Title	Date	Pages
	Project Manual For The Hospital for Sick Children Spect CT Room Renovation		
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PART - 1 GENERAL

1.1 SUMMARY

.1 Section Includes:

.1 Labour, Products, equipment and services necessary for the complete and proper installation of Spray-Applied Fire Resistive Material assemblies (SFRMs).

.2 Related Requirements:

.1 Comply with Conditions of the Contract and Division 01 - General Requirements.

1.2 REFERENCES

.1 American Society for Testing and Materials (ASTM):

.1 ASTM E605, Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members.

.2 ASTM E736, Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members.

.2 Association of the Wall and Ceiling Industry (AWCI):

.1 AWCI 12-A: Technical Manual 12-A, Standard Practice for the Testing and Inspection of Field Applied Sprayed Fire-Resistive Materials; an Annotated Guide

.3 Intertek Testing Services/Warnock Hersey International Inc. (ITS/WH):

.1 Intertek Online Directory of Listed Products bearing the WH-ETL mark and tested to CAN/ULC S101.

.4 National Fireproofing Contractors Association (NFCA)

.1 NFCA 100, Standard Practice for the Application of Spray-Applied Fire Resistive Materials (SFRMs).

.2 NFCA 200, Quality Assurance Procedures for Application of Spray-Applied Fire Resistive Materials.

.5 Underwriters Laboratories Inc. (ULI):

.1 UL 263, Standard for Fire Tests of Building Construction and Materials

.2 UL Online Certifications Directory: Fire Resistance Rating - ANSI/UL 263

.3 UL Online Certifications Directory: Fire Resistance Ratings – CAN/ULC-S101 Certified for Canada

.6 Underwriters' Laboratories of Canada (ULC):

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

.2 CAN/ULC-S102, Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

.3 ULC Online Certification Directory Guide No. 40 U18, Fire Resistance Ratings.

1.3 **DEFINITIONS**

.1 Applied fireproofing: spray-applied fire resistive material assemblies (SFRMs), including auxiliary materials, applied according to requirements of fire-resistance designs that comply with the fire ratings of building elements as required by code.

.1 Wet-mix SFRMs: consist of a factory-mixed, dry formulation of gypsum or Portland cement binders and lightweight mineral or synthetic aggregates mixed with water to form a slurry for conveyance and application.

.2 Dry-mix SFRMs: consist of a factory mixed, dry formulation of Portland cement, inorganic binders combined with mineral wool. It is conveyed in a dry state by pneumatic equipment and mixed with water at the nozzle, forming a slurry which is then applied to the substrate.

1.4 **ACTION SUBMITTALS**

.1 Product Data: Prior to ordering materials, submit manufacturer's printed product datasheets for each type of product. Include product characteristics, performance criteria, physical size, finish and limitations for products listed in selected designs.

.2 Fire Test Design Selection:

.1 Submit tested designs which apply to the project construction assemblies or details. Make sure the selected designs has been tested and certified in accordance with CAN/ULC-S101.

.2 Respect the design selection priority, as follows:

.1 Direct reference: Use only tested designs which come from the ULC/ULI or ITS/WH Online Fire Resistance Directories, bearing the testing agencies mark certifying the design for use in Canada.

.3 Shop Drawings: Submit framing plans, sections, elevations and perspective drawings as necessary to depict system configuration, design considerations and application procedures. Indicate the following:

.1 Extent of fireproofing for each construction assembly and fire-resistance rating.

.2 Applicable fire-resistance design designations of a qualified testing and inspecting agency acceptable to authorities having jurisdiction.

.3 Minimum fireproofing thicknesses needed to achieve required fire-resistance rating of each structural component and assembly.

.4 Protection of applied fireproofing during the curing stage.

.4 Samples: Submit duplicate 300 x 300 mm (12” x 12”) size sample of each exposed fireproofing product for approval of texture and colour.

.5 Application Schedule:

.1 Provide Application Schedule indicating material to be used, structural elements to be protected with spray applied fireproofing, hourly rating and material thickness.

1.5 **INFORMATIONAL SUBMITTALS**

.1 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.

.2 Test and Evaluation Reports: Submit in duplicate the following:

.1 Submit applicator's certification signed by the fireproofing material manufacturer certifying that spray fireproofing has been applied in accordance with manufacturer's design and acceptable to the authorities having jurisdiction.

.2 Submit test results in accordance with CAN/ULC-S101 for fire endurance and CAN/ULC-S102-M for surface burning characteristics.

.3 Submit certified copies of test reports verifying fireproofing materials applied to substrate as constructed on project will meet or exceed requirements of this specification.

1.6 **ADMINISTRATIVE REQUIREMENTS**

.1 Pre-installation meeting:

.1 Two (2) weeks prior to commencing work of this Section, arrange for manufacturer's technical representative to visit the site and review with installer preparatory and installation procedures to be followed, conditions under which the work will be done, and inspect the surfaces to receive the work of this Section.

.2 Establish a procedure to maintain optimum working conditions and to coordinate this work with related and adjacent work.

.3 Review products, design ratings, restrained and unrestrained conditions, densities, thicknesses, bond strengths, and other performance requirements.

.4 Advise the Consultant of the date and time of the meeting.

1.7 **QUALITY ASSURANCE**

.1 Fire Resistance Rating: Provide applied fireproofing to structural members where indicated on drawings and in thicknesses as required to provide ratings noted on drawings.

.2 Source Limitations: Obtain fireproofing for each fire-resistance design from single source.

.3 Regulatory Requirements:

.1 Provide products that have proper test certification from a recognized, third party-approved fire test laboratory based on CAN/ULC-S101 standard for fire endurance and CAN/ULC-S102-M for surface burning characteristics.

.2 Be responsible for securing approval of materials and installation of proposed fireproofing from authorities having jurisdiction.

.4 Installer Qualifications:

.1 Provide work of this Section executed by competent installers with minimum five (5) years' experience and with sufficient trained staff to install spayed fireproofing.

.2 Provide written certificate that the installer is licensed, or otherwise qualified by manufacturer to purchase and install manufacturer's products for spayed fireproofing.

.5 Manufacturer's site inspection:

.1 Have the manufacturer's technical representative inspect the Work at suitable intervals during application and at conclusion of the work of this Section, to ensure the Work is installed in accordance with the manufacturer's application procedures and tested designs.

.2 Within 3 days of review submit to Consultant written manufacturer's inspection report and verification that the work of this Section is correctly installed.

.6 Preconstruction Testing: Test for compliance with requirements for specified performance and test methods.

.1 Bond Strength: Test for cohesive and adhesive strength according to ASTM E736. Provide bond strength indicated in referenced fire-resistance design, but not less than minimum specified in Part 2.

.2 Density: Test for density according to ASTM E605. Provide density indicated in referenced fire-resistance design, but not less than minimum specified in Part 2.

.3 Verify that manufacturer, through its own laboratory testing or field experience, attests that primers or coatings are compatible with fireproofing.

.4 Schedule sufficient time for testing and analyzing results to prevent delaying the Work.

.5 For materials failing tests, obtain applied-fireproofing manufacturer's written instructions for corrective measures including the use of specially formulated bonding agents or primers

1.8 DELIVERY, STORAGE AND HANDLING

.1 Deliver applied fireproofing materials in original, sealed, undamaged containers bearing manufacturer's name, brand of product, and ULC/cUL or WH-ETL certification labels for fire hazard and fire resistance classifications.

.2 Use materials with a shelf life within that period. Remove materials that have gone beyond their shelf life from the job site and replace with new materials, unless manufacturer provides a written documentation that the material is still usable for its intended purpose.

.3 Store materials in dry, protected area, off ground in original undamaged, sealed containers. Discard bags or containers that has been exposed to water before use.

1.9 PROJECT / SITE CONDITIONS

.1 Do not apply fireproofing when ambient or substrate temperature is 4ºC or lower unless temporary protection and heat are provided to maintain temperature at or above this level for 24 hours before, during, and a minimum of 24 hours after product application. Provide heated enclosures to maintain temperatures.

.2 Provide adequate air circulation and exhaust to outdoors to achieve 4 air exchange per hour continuously during and for 3 days after application of fireproofing and until material is substantially dry.

1.10 SEQUENCING AND SCHEDULING

.1 Sequence and coordinate application of fireproofing with Work in other sections which would interfere with efficient fireproofing application.

.2 Make sure clips, hangers, supports, sleeves and other attachments to the substrates to receive fire protection are in place prior to the application of SFRMs.

.3 Do not commence Work related to the installation of piping, ducts, conduit or other suspended equipment until the application of the fireproofing material is complete in that area.

.4 Do not apply SFRMs to steel floor decks prior to the completion of concrete work on that deck.

.5 To help prevent SFRMs delamination and the resulting consequences, do not commence the application of fireproofing to the underside of roof deck until the roofing is completely installed and watertight, penthouses are complete, mechanical equipment has have been placed, and after construction roof traffic has ceased.

.1 Construction roof traffic: refers to the activity of walking, installing or working with equipment on the roof of a building.

PART - 2 PRODUCTS

2.1 MANUFACTURERS

.1 Subject to compliance with the requirements outlined in this Section, products of the following manufacturers may be incorporated into the Work:

.1 A/D Fire Protection Systems, part of the Carboline Group of Companies.

.2 CAFCO Industries Limited / Isolatek International Inc.

.3 Grace Construction Products.

2.2 MATERIALS – STANDARD DENSITY

.1 Materials listed below are intended for interior environment, either concealed applications or exposed but out of reach to occupants.

.1 Applied fireproofing - wet-mix SFRMs: ULC, cUL or WH-ETL certified, standard density, 15 to 18 pcf, gypsum-based, cementitious fireproofing, meeting applicable Fire Test Designs, containing factory added mold inhibitors to prevent growth of organisms and fungi, acceptable to authorities having jurisdiction, providing required fire rating noted on drawings.

.1 A/D-Southwest Type 5GP by A/D Fire Protection Systems

.2 CAFCO 300 Series by Isolatek International

.3 Monokote MK-6 by Grace Construction Products

.2 Applied fireproofing - dry-mix SFRMs: ULC, cUL or WH-ETL certified, standard density, 13-18 pcf, Portland cement-based, cementitious fireproofing, asbestos free, containing factory added mold inhibitors to prevent growth of organisms and fungi; acceptable to authorities having jurisdiction, providing fire rating specified.

.1 A/D Type FP by A/D Fire Protection Systems Inc.

.2 CAFCO Blaze-Shield II by Isolatek International

2.3 MATERIALS – MEDIUM DENSITY

.1 Materials listed below are intended for interior environment, exposed applications within reach of occupants, where limited physical abuse or traffic may be anticipated.

.1 Applied fireproofing - wet-mix SFRMs: ULC, cUL or WH-ETL certified, medium density, 22 to 30 pcf, Portland cement based, asbestos free, cementitious fireproofing, meeting applicable Fire Test Designs, containing factory added mold inhibitors to prevent growth of organisms and fungi, acceptable to authorities having jurisdiction, providing required fire rating noted on drawings.

.1 A/D-Southwest Type 5MD by A/D Fire Protection Systems

.2 Pyrocrete 239 by Carboline Company / A/D Fire Protection Systems

.3 CAFCO Type 400 Series by Isolatek International

.4 Monokote Z-106 by Grace Construction Products

2.4 **AUXILIARY MATERIALS**

.1 General: Provide auxiliary materials that are compatible with fireproofing and substrates and are approved by the testing and inspecting agency acceptable to authorities having jurisdiction for use in applicable fire-resistance designs.

.2 Provide auxiliary materials as recommended by the manufacturer for each condition and substrate.

.3 Primers: recommended steel primers as being listed on ULC's Directory, within the fire tested design or primer for which adhesion/cohesion capabilities of the sprayed fire resistive material has been verified by the fireproofing manufacturer in writing.

.4 Adhesives and Bonding Agents: Provide as necessary to comply with fireproofing manufacturer's and fire test design requirements. Apply to manufacturer's recommended coverage and application rate.

.5 Lath: Expanded metal lath fabricated from material of weight, configuration, and finish required to comply with ULC/UL requirements, for application to primer or painted steel, according to fire-resistance designs and fireproofing manufacturer's written recommendations.

.6 Provide clips, metal lath accessories, corner beads and other anchorage devices required to attach metal lath to substrates and to receive spray applied fire resistive materials.

.7 Reinforcing Fabric: Glass or carbon fiber fabric of type, weight, and form required to comply with ULC/UL requirements, according to fire-resistance designs; approved and provided by fireproofing manufacturer.

.8 Reinforcing Mesh: Metallic mesh reinforcement of type, weight, and form required to comply with ULC/UL requirements, according to fire-resistance design; approved and provided by fireproofing manufacturer. Include pins and attachment.

.9 Water: Clean, potable and free of deleterious substances harmful to fireproofing material.

.10 Sealers and Topcoats: Type recommended in writing by fireproofing manufacturer for each fire-resistance design, as required. Apply to manufacturer's recommended coverage and application rate.

2.5 **MIXES**

.1 Mix applied fireproofing materials as recommended by manufacturer.

.2 Use mixers with the ability to vary the water ratios for the type of fireproofing being sprayed. Make sure to use correct mixer type as recommended by the fireproofing manufacturer to prevent potentially lower than expected densities.

.3 Do not use partially set, frozen, caked or lumpy materials. Mix each batch separately in mechanical mixer and clean mixer free of particles before mixing new batch.

PART - 3 EXECUTION

3.1 EXAMINATION

.1 Examine surfaces to receive applied fireproofing and report to Consultant the defects. Commencement of work implies acceptance of surfaces and conditions.

.2 Ensure that ducts, piping, conduit, metal stud framing, concrete masonry walls and other items which would interfere with application of applied fireproofing, have not been installed until sprayed fireproofing work is completed.

.3 Do not apply fireproofing until all clips, hangers, inserts, sleeves and similar items have been installed in areas to receive work of this Section.

.4 Where surfaces to receive applied fireproofing are primed or painted, ensure compatibility with fireproofing materials and bond requirements. Contact the fireproofing material manufacturer for recommendations on how to treat primed or painted steel prior to application of fireproofing.

.5 Do not commence application of fireproofing prior to completion of concrete work on steel decking.

.6 Do not commence application of fireproofing prior to completion of roofing application. Do not allow traffic on the roof until the fireproofing has fully cured.

3.2 PREPARATION

.1 Provide temporary enclosure (partitions or tarps) for interior applications to prevent deterioration of applied materials exposed to unfavourable environmental conditions.

.2 Erect appropriate barriers to prevent entry by non-fireproofing workers into the fireproofing spray and mixing areas.

.3 Provide temporary enclosures and masking to prevent spray from contaminating adjacent areas and surfaces.

.4 Protect adjacent surfaces and equipment from damage by overspray, fall-out, and dusting of sprayed fireproofing materials.

.5 Prepare surfaces to ensure proper bonding of applied fireproofing. Ensure surfaces to be sprayed are dry.

.6 Clean surfaces of steel members to SSPC-SP3, and ensure steel members are free of dust, dirt, oil, grease, loose paint, mill scale, rust and other foreign matter which would interfere with bond of fireproofing.

.7 Conduct tests according to fireproofing manufacturer's written recommendations to verify that substrates are free of substances capable of interfering with bond.

.8 To comply with ULC/UL requirements for application to primer or painted steel, when bond strengths is not sufficient, adhesion to substrate is questionable or the primer is unknown and cannot be field tested, obtain mechanical bond by completely wrapping the structural member with metal lath following the contour of the steel member, or as required by the fire test design.

.9 Prepare written report, listing conditions detrimental to performance of the Work.

.10 Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 **APPLICATION**

.1 Construct fireproofing assemblies in accordance with NFCA 100 and manufacturer's printed instructions, using spray equipment approved by manufacturer of fireproofing.

.2 Comply with fireproofing manufacturer's written instructions for mixing materials, application procedures, and types of equipment used to mix, convey, and apply fireproofing; as applicable to particular conditions of installation, including high humidity conditions, and as required to achieve fire-resistance ratings indicated.

.3 Apply fireproofing materials to required thickness per approved fire test design information as required to provide ratings noted on drawings. Thicker applications may require multiple passes, allowing each coat to set prior to application of subsequent coats.

.4 Provide a uniform surface matching design requirements. Apply product at the minimum density required by the fire test design, in conformance with AWCI Technical Manual 12 – A.

.5 Where dry mix fireproofing is used:

.1 Water tamp fibrous fireproofing after application to provide dense, medium smooth surfaces.

.2 Apply sealer or curing compound to surface of fibrous sprayed fireproofing, as required by manufacturer.

.6 Cure fireproofing to prevent premature drying if such site conditions apply.

.7 Protect from freezing until cured.

.8 Where installed material is found not to meet performance criteria, remove material and replace with new material to meet specified criteria at no additional cost to the Contract.

3.4 **PATCHING**

.1 Cut, patch and repair damage to fireproofing caused by testing or by other Sections before final inspection.

.2 Patching of damaged fireproofing can only be carried out by an installer licensed, or otherwise qualified, by fireproofing material manufacturer.

.3 Costs for repair work to be borne by the party responsible for the damage.

.4 Method of Patching or Repair

.1 For areas less than 2 sq.ft, mix material with a paddle mixer and applied by hand.

.2 For areas greater than 2 sq.ft, spray-apply materials to the same method as the original application.

.5 Do all repairs before fireproofing concealed, or if exposed, before final inspection.

3.5 **FIELD QUALITY CONTROL**

.1 Follow quality control procedures and the frequency of the procedures as per NFCA 200.

.2 Engage and pay for the services of a qualified independent testing laboratory:

.1 Test the spray-applied fire resistive material for thickness and density in accordance with one of the following procedures:

.1 ASTM E605 – Standard Test Method of Sprayed Fire-Resistive Materials Applied to Structural Members;

.2 AWCI Publication: Technical Manual 12-A Standard Practice for the Testing and Inspection of Field Applied Sprayed Fire-Resistive Materials; an Annotated Guide.

.2 Provide test results to all parties at the completion of each area

3.6 **INSPECTION AND TESTING**

.1 Owner may engage services of a Third Party Inspection and Testing Company to carry out periodic inspection and testing of materials and application for quality control.

3.7 **CLEANING AND PROTECTION**

.1 Cleaning:

.1 Immediately after completing spraying operations in each containable area of Project, remove material overspray and fallout from surfaces of other construction and clean exposed surfaces to remove evidence of soiling.

.2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment

.2 Protection:

.1 Protect fireproofing, according to advice of manufacturer and installer, from damage resulting from construction operations or other causes, so fireproofing will be without damage or deterioration at time of Substantial Performance.

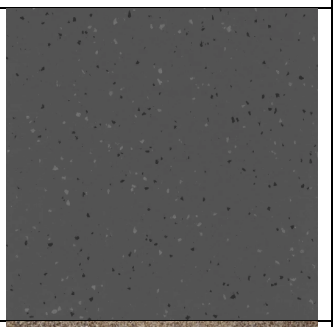
.2 If damage or deterioration occurs despite such protection, cut out and remove damaged or deteriorated systems immediately and install new materials to produce systems complying with specified requirements.

END OF SECTION

NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional material types.

CODE	ITEM	DESCRIPTION	IMAGE
DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES			
PLAM-1	Plastic Laminate	Manufacturer: Wilsonart or approved equivalent Product: New Age Oak Colour: 7938 Finish: Fine Velvet finish Location: Refer to Finish Plan	
PLAM-2	Plastic Laminate	Manufacturer: Formica or approved equivalent Product: Colour Core 2 Colour: New White, 7223 Finish: Natural Grain 9NG) Location: Refer to Finish Plan	
SSF-1	Solid Polymer Surface	Manufacturer: Wilsonart or approved equivalent Product: Corian Colour: New White, 7223, 12mm Finish: Natural Grain 9NG) Location: Countertop	
SSF-2	Solid Polymer Surface, wall	Manufacturer: Wilsonart or approved equivalent Product: Corian Colour: New White, 7223, 6mm Finish: Natural Grain 9NG) Location: backsplash	
MDP-1	Hardware door Pull	Manufacturer: Richilieu Product: Functional Steel Pull - 26 Product # BP263174 Finish: Brushed Nickel	

NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional material types.

CODE	ITEM	DESCRIPTION	IMAGE
DIVISION 08 - OPENINGS			
FLM-1	Film	Manufacturerer: 3m Film Product: Crystal Finish: Frosted	
DIVISION 09 – FINISHES			
RSF-1	Resilient Sheet Flooring	Manufacturer: Mondo Product: Harmoni, SD Color: HG493 Sand *colour to be verified before install* Base: Flash Cove with Stainless Steel Cove Cap Location: Refer to finishes plan Adhesive: EP-55	
RSF-2	Resilient Sheet Flooring	Manufacturer: Mondo Product: Harmoni, SD Color: HG494 Weimaraner *colour to be verified before install* Base: Flash Cove with Stainless Steel Cove Cap Location: Refer to finishes plan Adhesive: EP-55	
TEF-1	Troweled Epoxy Flooring	Manufacturer: Sika Quartzite Troweled System, 3mm product Provide grit sample	
RB-1	Rubber Base	Manufactuter: Roppe Product: 700 series Colour: to match existing area	

NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional material types.

CODE	ITEM	DESCRIPTION	IMAGE
TS-1	Transition Strip	Manufacturer: Schluter Systems or approved equivalent Refer to drawings Location: Between Terrazzo and Rubber floor	
PT-14	Paint	Manufacturer: Benjamin Moore to match Pittsburgh Paint Product: Eco Spec Colour: Match existing Green colour PT-14 for SickKids Standards (Pittsburgh Paints Sentimental Lady) Y3 1x 4.5000 S1 1x 14.1250 G1 ox 13.9375 Finish: Pearl Location: to be confirmed based off graphic layout	
PT-16	Paint	Manufacturer: Benjamin Moore to match Pittsburgh Paint Colour: Match Pittsburgh Heavenly Blue) S1 0x 28.75 M1 0x 6.75 B1 1x2.0 Finish: Pearl Location: to be confirmed based off graphic location	
WP-1	Wall Graphic	All walls to be painted with PT-1 in preparation for Wall Graphic (WG-1) as supplied and installed by others.	

NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional material types.

CODE	ITEM	DESCRIPTION	IMAGE
DIVISION 10 - SPECIALTIES			
CG-1	Corner Guard	Manufacturer: Construction Specialties Product: Acrovyn Corner Guards Model: SM-20N Colour: Mission white Shape: 90 degree corner Height: full height Size: 3″ wing Location: Refer to Floor Finish Plan	
CG-2	Corner Guard, Stainless steel	Manufacturer: Construction Specialties Product: Stainless Steel corner guard Model: CO-8 Colour: Silver Shape: 90 degree corner , 16 gauge Height: full height Size: to match existing leg lenth Location: Refer to Floor Finish Plan	
WP-2	Protective Wall Covering	Manufacturer: Construction Specialties Product: Rigid Acrovyn Sheet 4000 Colour: 933 Mission White Finish: Suede Texture Thickness: 0.040″ Height: 1200mm AFF (unless otherwise noted on drawings)	

NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional material types.

CODE	ITEM	DESCRIPTION	IMAGE
WP-4	Protective Wall Covering	Manufacturer: Construction Specialties Product: Rigid Acrovyn Sheet 4000 Colour: 933 Mission White Finish: Suede Texture Thickness: 0.040″ Height: 2200mm AFF (unless otherwise noted on drawings) *PTE-1 above	
BH-1	Transfer board hook	Manufacturer: Medicus Health or equivlient Product: Patient Transfer board universal mounting hanger Material : stainless steel	
LVR-1	LOUVRE	Manufacturer: Construction Specialiaties Product: A1477 Finish: Aluminum, clear anodized Size: as per drawing	

End of Section

PART - 1 GENERAL

1.1 SUMMARY

.1 Section Includes:

.1 Labour, Products, equipment and services necessary to complete the work of this Section, including but not limited to:

.1 Wall coverings (WP)

.2 Corner guards (CG)

~~.3 Handrail~~

1.2 QUALITY ASSURANCE

.1 Installer: Trained and approved by the manufacturer and having a minimum three years experience in the installation of the work described in this Section and can show evidence of satisfactory completion of projects of similar size, scope and type. If requested, provide letter of certification from manufacturer stating that installer is certified applicator of its products, and is familiar with proper procedures and installation requirements required by the manufacturer.

.2 Maintenance seminars: Provide, to the Owner, training seminars and recommendations on Product maintenance procedures.

.3 Pre-installation meeting: Two weeks prior to commencing work of this Section, arrange for manufacturer's technical representative to visit the site and review preparatory and installation procedures to be followed, conditions under which the work will be done, and inspect the surfaces to receive the work of this Section. Advise the Consultant of the date and time of the meeting.

.4 Source limitations: Obtain each type of product from a single manufacturer.

.5 Products: Provide like Products from same production run. Install Products in sequence from sequentially numbered dye lots.

1.3 SUBMITTALS

.1 Samples: Three 300 mm x 300 mm samples of each wall covering material and three 300 mm long samples of handrail and chair rail.

.2 Maintenance data: Printed manufacturer's maintenance instructions giving specific warnings of maintenance practices of substances, which may stain or otherwise damage the wall coverings or handrails.

1.4 SAMPLE INSTALLATION

.1 Apply each type of covering to a sample area on the project and obtain the approval of the Consultant of such applications before proceeding. Locations of sample areas shall be as directed by the Consultant.

.2 Sample areas of wall covering shall be full height, as indicated on Drawings, and include one outside corner and one covering material joint.

.3 Sample areas of rail shall be full length, and include one outside corner, and one end cap.

.4 Promptly revise or replace coverings on sample areas at no additional cost to the Owner until approval of the Consultant is obtained. The approved sample area installations shall be the standard for acceptance of the remaining work.

1.5 **STORAGE**

.1 Store materials with manufacturer's seals and labels intact. Store materials flat in clean, dry storage area at temperatures over 10 deg C and normal humidity.

1.6 **PROJECT CONDITIONS**

.1 Environmental Limitations: Do not commence work until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

.2 Lighting: Do not commence work until a lighting level of not less than 160 lux is provided on the surfaces to receive wall covering.

.3 Ventilation: Provide continuous ventilation during installation and for not less than the time recommended by wall covering manufacturer for full drying or curing.

1.7 **EXTRA STOCK**

.1 Provide minimum 5% of each type and colour of wall covering and handrail material in unopened packages, and accessories installed. Store the extra materials at locations as directed by the Owner. Extra stock shall be of same production run as installed materials.

PART - 2 PRODUCTS

2.1 **MATERIALS**

.1 Basis of Design: Refer to Section 00 01 30 List of Materials, for complete list of corner guards and protective wall covering products, designations, manufacturers, sizes, finishes and colours.

.2 Aluminum Retainers: Extruded aluminum retainers 6063-T6 alloy, nominal 0.62” thick. Minimum strength and durability properties as per ASTM B221. Supplied by manufacturer.

.3 Fasteners: non corrosive and compatible with aluminium retainers supplied by manufacturer.

.4 Adhesive: Mildew resistant, nonstaining, strippable adhesive, for use with specific wall covering and substrate application, as recommended in writing by wall covering manufacturer.

.5 Primer/Sealer: Mildew resistant primer/sealer, and recommended in writing by wall covering manufacturer for intended substrate.

.6 Sealant: antimicrobial, 100% silicone sealant.

2.2 **ACCESSORIES**

.1 Wall covering and rails manufacture to supply a packaged system, containing all materials needed to complete wall covering and crash rails design.

.2 Supply all primers and adhesive required to install wall coverings, as per manufacturer’s recommendations.

PART - 3 EXECUTION

3.1 INSPECTION

.1 Examine areas, which are to receive the work of this Section and proceed only if conditions are satisfactory. Verify adequacy of support at substrate. Report unsuitable substrates. Commencement of work shall imply acceptance of conditions.

.2 Substrates shall be smooth, dry, free of dust and dirt.

3.2 PREPARATION

.1 Remove materials from packaging and acclimatize materials in the installation areas not less than 24 hours before installation.

.2 Test surfaces for moisture and alkali content prior to application of materials. Moisture content shall be less than 4%. Neutralize and seal surfaces in accordance with manufacturer's directions.

.3 Where substrate has been painted, apply a thin coat of adhesive over substrate and allow drying for one hour.

.4 Comply with manufacturer's written instructions for surface preparation.

.5 Clean substrates of substances that could impair wall covering's bond, including mold, mildew, oil, grease, incompatible primers, dirt, and dust.

.6 Prepare substrates to achieve a smooth, dry, clean, structurally sound surface free of flaking, unsound coatings, cracks, and defects.

.7 Remove hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

3.3 INSTALLATION – WALL COVERINGS

.1 Apply materials in strict accordance with manufacturer's instructions and as specified; report discrepancies immediately to Consultant.

.2 Install materials free from tears, ripples or air pockets. Horizontal joints in wall covering are not permitted except upon specific, written approval of the Consultant.

.3 Take special care to prevent plaster particles, grit, dirt, or other extraneous matter from being imbedded beneath the wall covering.

.4 Spread adhesive in a uniform coat to back of material and apply material to wall within time recommended by adhesive manufacturer. Thoroughly wash excessive adhesive off material and adjacent surfaces as application progresses.

.5 On gypsum board construction, avoid scoring gypsum board face by using a metal strip cutting base.

.6 Neatly and carefully trim around fixtures, door frames and the like, as indicated on Drawings.

.7 Match adjacent panels for colour, pattern, texture and direction of nap where applicable. All panels shall be uniform in colour and texture. Remove material, which fails to match when applied, and replace with matching material.

.8 Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.

~~3.4 **INSTALLATION – HAND RAILS**~~

~~.1 Apply materials in accordance with manufacturer's instructions.~~

~~.2 Install aluminum crash rail retainer to platform bracket base with fasteners, supplied by the manufacturer.~~

~~.3 Snap on crash rail cover overtop of retainer.~~

~~.4 Install end caps and corners where required, and as shown on Drawings.~~

~~.5 All covers shall be uniform in colour and texture. Remove material, which fails to match when applied, and replace with matching material.~~

~~.6 Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items, if removed to install handrail.~~

~~3.5~~3.4 **INSTALLATION – CORNER GUARDS**

.1 Install work in accordance with manufacturer’s written installation instructions and as shown on drawings.

~~3.6~~3.5 **PATCHING**

.1 Perform cutting, fitting and patching of wall covering material as required to accommodate fixtures, railing brackets and other appurtenances occurring in surfaces to receive coverings. Maintain covering pattern regardless of position of appurtenances.

~~3.7~~3.6 **CLEANING**

.1 Immediately upon completion of installation, clean wall covering and accessories in accordance with manufacturers recommended cleaning method.

.2 Remove surplus materials, and debris upon completion or work.

END OF SECTION

PART - 1 PRODUCTS

1.1 SUMMARY

.1 Section Includes:

.1 Labour, Products, equipment and services necessary to complete the work of this Section in accordance with the Contract Documents. The work of this Section includes but is not limited to:

.1 Washroom accessories

1.2 QUALITY ASSURANCE

.1 Source Limitations: Provide like products of same manufacturer unless otherwise approved by Consultant.

1.3 SUBMITTALS

.1 Shop Drawings: Indicate materials, products and finishes and showing in large scale detail the construction, reinforcing, anchorage and, where permitted, the location of exposed fastenings.

.1 Submit engineered shop drawings

.2 Maintenance data: Three copies of a list of the accessories requiring supplies together with names and addresses of local distributors of the supplies.

.3 Samples for Verification: Full size, for each accessory item to verify design, operation, and finish requirements. Approved full-size Samples will be returned and may be used in the Work.

.4 Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.

.1 Identify locations using room designations indicated on Drawings.

.2 Identify products using designations indicated on Drawings.

1.4 CLOSEOUT SUBMITTALS

.1 Operation and Maintenance Data: Provide maintenance data for toilet and bath accessories for incorporation into manual.

1.5 MAINTENANCE MATERIAL SUBMITTALS

.1 Tools

.1 Provide special tools required for assembly, disassembly or removal for toilet and bath accessories.

.2 Deliver special tools to Contracting Authority.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Carefully wrap accessories ensuring protection during shipping and storage.

.2 Store accessories inside the building in the location directed, and so that their identification is readily visible, and in the general order in which they will be required for installation.

1.7 **COORDINATION**

.1 Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

.2 Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

PART - 2 PRODUCTS

2.1 **ACCEPTABLE MANUFACTURERS**

.1 Basis of Design: Accessories specified are based on Products by Bobrick Washroom Equipment of Canada, except where specifically specified otherwise.

.1 Products by other manufacturers similar in function, design, performance, and construction complying with requirements of this Section may be incorporated into the Work subject to Consultant's acceptance, in accordance with Section 01 25 13, Product Substitution Procedures.

.2 Provide accessories for the Work from one manufacturer unless specified otherwise.

2.2 **MATERIALS**

.1 Sheet steel: To ASTM A653/A653M-11 with ZF001 designation zinc coating.

.2 Stainless steel: ASTM A167-99 (2009), type 304, with BA finish.

.3 Stainless Steel Tubing: Type 304, commercial grade, seamless welded, 1.2 mm wall thickness.

.4 Supply for installation under other Sections, mounting devices and reinforcement required to be built-in for support of grab bars and imposed loads. Be responsible for giving proper notice to other Sections and supplying such reinforcement when required by other Sections for building in.

.5 Concealed screws and bolts hot dip galvanized, exposed fasteners to match face of unit. Expansion shields fibre, lead or rubber as recommended by accessory manufacturer for component and its intended use.

.6 For mental health areas use tamper resistant fasteners, hexalobular conforming to ISO 10664 or other tamper resistant fastener design as accepted by Consultant.

2.3 **FABRICATION**

.1 Fabricate accessories true, square, rigid, free from distortion and from defects detrimental to appearance and performance.

.2 Butt visible joints straight and accurate. Mitre corner joints.

.3 Except as otherwise specified, fabricate accessories for concealed mounting by non-corrosive metal, expansion type, toggle type or other approved type of positive, mechanical anchors to suit the construction to which the accessory is to be mounted.

.4 Exposed fasteners, where permitted, shall be finished to match the adjacent accessory surface, and shall be countersunk. Where accessories are to be mounted to sheet metal, provide a 3 mm thick minimum full-size metal back-up plate drilled and tapped to receive machine screws and finished to match the adjacent sheet metal surface.

.5 Where specified as frameless, provide accessories in one piece fronts with 90 degree formed returns at their edges and openings. Continuously weld returns and ground smooth at the corners.

.6 Where accessory fronts are framed, frame edges, both inside and outside, shall have 90 degree formed returns continuously welded and ground smooth at the corners. Doors shall also have 90 degree formed returns as specified.

.7 Provide full length concealed stainless steel piano hinges. Hinged elements shall have concealed, mechanically-retained, rubber bumpers for silent closing, and shall close flush with faces of fronts or frames.

.8 Unless otherwise specified, portions of sheet metal accessory interiors which are visible in the completed work shall be stainless steel. Changes in plane shall be formed or continuously welded and ground smooth.

.9 Sheet metal accessory parts concealed in the finished installation shall be galvanized sheet steel.

.10 Hem edges of sheet metal accessible by users or maintenance personnel.

.11 Accessories for flange-type mounting shall have forged brass, full flanges drilled and countersunk for three mounting fasteners. Fix flanges to tubes using solid silver soldering.

.12 Back paint components where contact is made with building finishes to prevent electrolysis.

.13 Shop assemble components and package complete with anchors and fittings.

.14 Deliver inserts and rough-in frames to job site at appropriate time for building-in. Provide templates, details and instructions for building in anchors and inserts.

.15 Provide steel anchor plates and components for installation on studding and building framing.

.16 Engrave lettering on accessories to a depth of minimum 0.254 mm. Size, location and type face of lettering to selection by Consultant. Maintain engraving edges straight and sharp.

2.4 **ACCESSORIES**

.1 Refer to Section 00 01 30 List of Materials for additional manufacturer and product information.

.2 Soap Dispenser (SD): **Other products are provided by SickKids as per the drawing.**~~Counter-mounted plastic valve equipped with stainless steel spring to dispense liquid and lotion soaps, and synthetic detergents, complete with stainless steel piston and spout assembly, escutcheon locks to body with concealed locking mechanism with special key to open, B-822 by Bobrick~~,.

.3 Coat hook (CH): surface mount, double robe hook, stainless steel, B-76727 by Bobrick,. Provide one per barrier-free stall and all barrier-free washrooms on back of door.

.4 Toilet paper holder (PTD): **Other products are provided by SickKids as per the drawing.**~~surface-mount, two rolls, second roll to automatically drop in place, theft-resistant, heavy duty spindles, stainless steel, B-2860 by Bobrick,.~~

.5 Waste Receptacle (WR): recessed 18-8S, type 304 stainless steel with satin finish, minimum 102 mm required deep recess, consisting of cabinet, flange and waste receptacle. One piece seamless flange construction. Waste receptacle exposed edges hemmed for safe handling. secured to cabinet with tumbler lock keyed to match other washroom accessories. Capacity of minimum 454 litres. B-3644 by Bobrick.

2.5 **FINISHES**

.1 Where steel is specified as having a chrome plated finish, pretreat including mechanical removal of imperfections and buffing, degreasing, removal of degreaser, electrolytic cleaning, intermediate treatments of acid washes and cold water rinses in preparation for and to suit plating, nickel plating pretreatment, nickel plating, hard chromium plating with a final hot water rinse.

.2 Finish stainless steel to a standard No. 4 mechanical finish. Where possible, arrange sheet stainless steel so that the grain of the finish runs vertically in the finished installation.

.3 Manufacturer's or brand names on face of units not acceptable.

PART - 3 EXECUTION

3.1 **INSTALLATION**

.1 Install and secure accessories rigidly in place.

.2 Stud walls: Provide steel back-plate to stud prior to gypsum board finish. Provide plate with threaded studs or plugs.

.3 Hollow masonry units or existing gypsum board: Use toggle bolts drilled into cell/wall cavity.

.4 Install grab bars on built-in anchors provided by manufacturer.

.5 Fill units full with necessary supplies shortly before Substantial Performance.

END OF SECTION

Update: November 4, 2025

Radiation shielding requirements for the SPECT/CT (RM 2140) at the Hospital for Sick Children are provided in this document, listing the lead (or lead equivalent) thickness for walls, control windows, and doors. No additional shielding is required in the ceiling or floor, as the existing concrete slab is sufficient.

Note: as of the date specified above, the Ministry of Health is reviewing this design for compliance with R.R.O. 1990, Reg. 543: X-RAY SAFETY CODE as part of the Healing Arts Radiation Protection Act, R.S.O. 1990, c. H.2. As such, this shielding design is subject to change.

General design requirements:

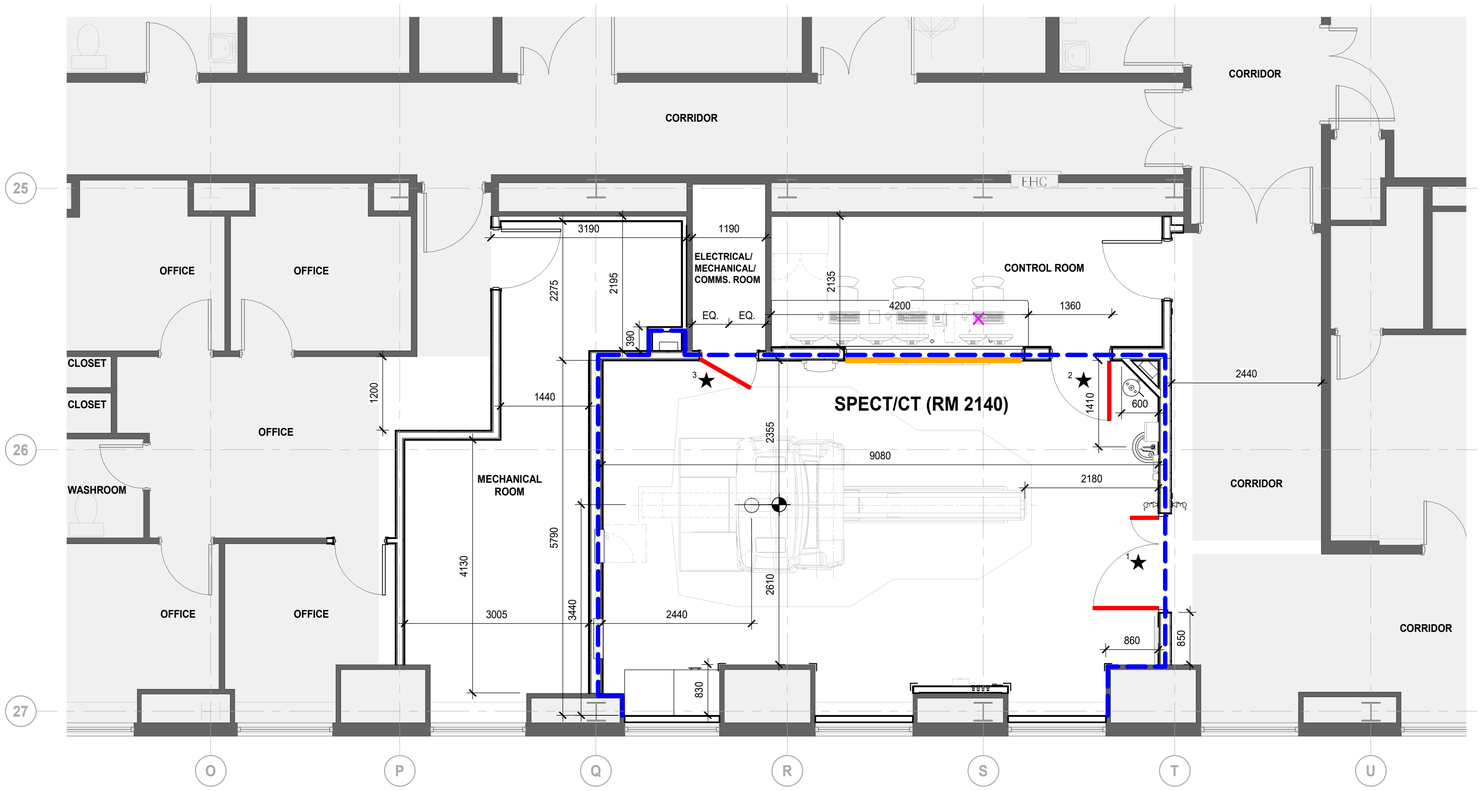
- Unless otherwise noted, lead shielding must extend from the floor to a minimum height of 2.1m
- Penetrations through shielded barriers (i.e., electrical, air, plumbing, etc.) shall have the prescribed thickness of lead/concrete backing or baffling exposed areas to provide requisite protection
- Abutting panels of leaded drywall or lead roll shall either be overlapped or have a leaded strip covering the joint to maintain shielding integrity
- For doors that require lead, the inside of the frame shall be lined with a single lead sheet and worked into the contour of the frame to provide an effective overlap with the adjoining barrier
- All doors leading directly into an x-ray room shall be fitted with a self-closing device

Any deviation from the planned usage of areas adjacent, above, or below the room where the equipment is located or changes from what was provided may invalidate this report and require re-evaluation of these recommendations.

Nicholas Shkumat
Medical Physicist | Department of Diagnostic and Interventional Radiology
The Hospital for Sick Children
nicholas.shkumat@sickkids.ca
416.813.6814

Registration Number: 319-1
Corporate Name: Hospital for Sick Children
Address: 555 University Ave
Toronto, Ontario M5G 1X8
CEO: Ronald Cohn
Name of room: SPECT/CT (RM 2140)
Date: September 17, 2025

- Walls shielded with 0.8 mm lead
- Doors shielded with 0.8 mm lead
- Control window shielded with 0.8 mm lead equivalent
- Door with self-closing mechanism
- Exposure switch
- Radiation isocenter (CT)



1 DD-A20-01 LEVEL 2 - SPECT/CT ROOM
SCALE: 1 : 50

DATE	ISSUED FOR	REV

Project Manager	Drawn
Project Leader	Checked
Client	

Project
SICKKIDS - SPECT/CT
555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
SPECT/CT - LAYOUT

Scale
1 : 50

Project No.
HS1024-0175

Drawing No.
DD-A20-01

	ONTARIO BUILDING CODE DATA MATRIX PART 3	O.B.C. REFERENCE PART 11	O.B.C. REFERENCE PART 3
1	**PROJECT DESCRIPTION** INTERIOR RENOVATION OF SECOND FLOOR OFFICES AREA TO CREATE NEW CT ROOM WITH CONTROL ROOM & NEW MECHANICAL AHU ROOM ☐ NEW ☐ ADDITION ☒ ALTERATION ☐ CHANGE OF USE	11.1 TO 11.4	1.1.2.[A]
2	**MAJOR OCCUPANCY(S)** GROUP B, DIVISION 2 - CARE AND TREATMENT OCCUPANCIES		3.1.2.1.(1)
3	**BUILDING AREA (m²)** EXISTING: UNCHANGED NEW: 0 TOTAL: UNCHANGED		1.4.1.2.[A]
4	**GROSS AREA PER FLOOR (m²)** EXISTING: UNCHANGED RENOVATED: 93.4 m² TOTAL: 93.4 m²		1.4.1.2.[A]
5	**NUMBER OF STOREYS** ABOVE GRADE: 14 BELOW GRADE: 4		1.4.1.2.[A] & 3.2.1.1
6	**NUMBER OF STREETS / FIRE FIGHTER ACCESS** 4		3.2.2.10 & 3.2.5.
7	**BUILDING CLASSIFICATION** 3.2.2.38. GROUP B, DIVISION 2, ANY HEIGHT, ANY AREA, NON SPRINKLERED		3.2.2.20-.83
8	**SPRINKLER SYSTEM PROPOSED** ☐ ENTIRE BUILDING (EXISTING TO REMAIN) ☒ SELECTED COMPARTMENTS ☐ BASEMENT ONLY ☐ IN LIEU OF ROOF RATING ☐ NOT REQUIRED		3.2.2.52 (2)(a), 3.2.2.17, 3.2.4.15, INDEX
9	**STANDPIPE REQUIRED** ☒ YES (EXISTING TO REMAIN) ☐ NO		3.2.9
10	**FIRE ALARM REQUIRED** ☒ YES (EXISTING TO REMAIN) ☐ NO		3.2.2.17
11	**WATER SUPPLY / SUPPLY IS ADEQUATE** ☒ YES (EXISTING TO REMAIN) ☐ NO		3.2.5.7
12	**HIGH BUILDING** ☒ YES ☐ NO		3.2.6
13	**PERMITTED CONSTRUCTION** ☐ COMBUSTIBLE ☒ NON-COMBUSTIBLE ☐ BOTH **ACTUAL CONSTRUCTION** ☐ COMBUSTIBLE ☒ NON-COMBUSTIBLE ☐ BOTH		3.2.2.20-.83
14	**MEZZANINE(S) AREA (m²)** -		3.2.1.1.(3)-(8)
15	**OCCUPANT LOAD BASE ON** ☐ m2/PERSON ☐ DESIGN OF BUILDING ☒ NO CHANGE IN OCCUPANT LOAD		3.1.17
16	**BARRIER-FREE DESIGN** ☒ YES ☐ NO (EXPLAIN)		3.8
17	**HAZARDOUS SUBSTANCES** ☐ YES ☒ NO		3.3.1.2. & 3.3.1.19

18	REQUIRED FIRE RESISTANCE RATING (FRR)	HORIZONTAL ASSEMBLIES FRR (HOURS)		LISTED DESIGN NO. OR DESCRIPTION (SG-2)	
		FLOOR:	2 HOURS	-	3.2.2.29, 3.2.1.4
		MEZZANINE:	1 HOURS	-	
		ROOF:	0 HOURS	-	
		SUPPORTING MEMBERS FRR (HOURS)		**LISTED DESIGN NO. OR DESCRIPTION (SG-2)**	
		WALLS/COLUMNS:	2 HOURS	-	3.2.2.17
		MEZZANINE:	1 HOURS	-	
		ROOF:	0 HOURS	-	

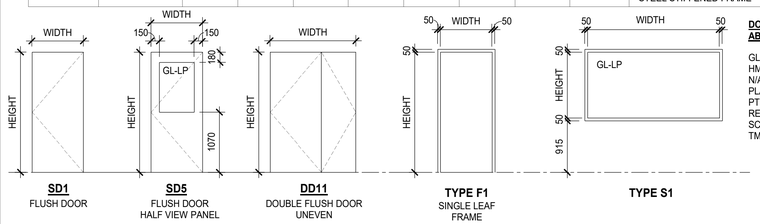
19	SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS	WALL	AREA OF EBF (m²)	LIMITING DISTANCE (m)	L/H OR H/L	PERMITTED MAX. % OF OPENINGS	PROPOSED % OF OPENINGS
		NORTH	-	-	-	-	-
		EAST	-	-	-	-	-
		SOUTH	-	-	-	-	-
		WEST	-	-	-	-	-

	ONTARIO BUILDING CODE DATA MATRIX PART 11		O.B.C. REFERENCE
11.1	**EXISTING BUILDING CLASSIFICATION**	DESCRIBE EXISTING USE: - CONSTRUCTION INDEX: - HAZARD INDEX: - ☒ NOT APPLICABLE (NO CHANGE OF MAJOR OCCUPANCY)	11.2.1, 11.2.1.1A, 11.2.1.1J
11.2	**ALTERATION TO EXISTING BUILDINGS**	☒ BASIC RENOVATION ☐ EXTENSIVE RENOVATION	11.3.3.1, 11.3.3.2
11.3	**REDUCTION IN PERFORMANCE LEVEL**	STRUCTURAL: ☒ NO ☐ YES BY INCREASE IN OCCUPANT LOAD: ☒ NO ☐ YES BY CHANGE IN MAJOR OCCUPANCY: ☒ NO ☐ YES PLUMBING: ☒ NO ☐ YES SEWAGE SYSTEM: ☒ NO ☐ YES	11.4.2, 11.4.2.1, 11.4.2.2, 11.4.2.3, 11.4.2.4, 11.4.2.5
11.4	**COMPENSATING CONSTRUCTION**	STRUCTURAL: ☒ NO ☐ YES (EXPLAIN) BY INCREASE IN OCCUPANT LOAD: ☒ NO ☐ YES (EXPLAIN) BY CHANGE IN MAJOR OCCUPANCY: ☒ NO ☐ YES (EXPLAIN) PLUMBING: ☒ NO ☐ YES (EXPLAIN) SEWAGE SYSTEM: ☒ NO ☐ YES (EXPLAIN)	11.4.3, 11.4.3.2, 11.4.3.3, 11.4.3.4, 11.4.3.5, 11.4.3.6
11.5	**COMPLIANCE ALTERNATIVES PROPOSED:**	☒ NO ☐ YES (GIVE NUMBERS)	11.5.1
11.6	**ALTERATION TO EXISTING BUILDINGS:**	☒ NO ☐ YES (EXPLAIN)	11.5.2

DOOR & FRAME SCHEDULE

DOOR NO.	FROM	TYPE	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	DIMENSIONS THK	MATL	FINISH	FRAME TYPE	FRAME MATL	FRAME FINISH	FRAME COLOR	OPENING FRR	ACOUSTIC RATING	COMMENTS
D2136	2136		823	2135	45	-			-	PTD	TME			EXISTING DOOR AND FRAME TO BE CAREFULLY REMOVED AND REINSTATED, EXISTING HARDWARE TO BE REUSED
D2138	2107C	SD5	965	2135	45	HM	PTD	F1	PS	PTD	PT-3	3/4HR	55	DOOR PANEL TO BE 6" RAISED FROM THE FLOOR FOR THE CURB.
D2139	2139	SD1	915	2135	45	HM	PTD	F1	PS	PTD	PT-3			LEAD LINED DOOR
D2140a	2140	DD1	1524	2135	45	HM	PTD	F1	PS	PTD	PT-3	1.5HR	50	LEAD LINED DOOR & FRAME S/S ARMOR PLATE, INTERCOM, CR, PDO (BOTH SIDE)
D2140b	2141	SD5	965	2135	45	HM	PTD	F1	PS	PTD	PT-3		50	LEAD LINED DOOR & FRAME S/S ARMOR PLATE, INTERCOM
D2141	2141	SD1	965	2135	45	HM	PTD	F1	PS	PTD	PT-3	1.5HR	50	S/S ARMOR PLATE, INTERCOM, CR, MAGLOCK, PUSH TO LOCK BUTTON ON PROCEDURE ROOM SIDE

SCREEN NO.	ROOM	SCREEN WIDTH	SCREEN HEIGHT	SCREEN TYPE	SCREEN GLASS TYPE	FRAME TYPE	FRAME MTRL	FRAME FINISH	FIRE RATING	REMARKS
SC2140	SPECT CT ROOM	2900	1220	A	GL-LP	S1	HM	PT-3		LEAD LINED OBSERVATION WINDOW SCREEN & FRAME, STEEL STIFFENED FRAME



SD1 FLUSH DOOR

SD5 FLUSH DOOR HALF VIEW PANEL

DD11 DOUBLE FLUSH DOOR UNEVEN

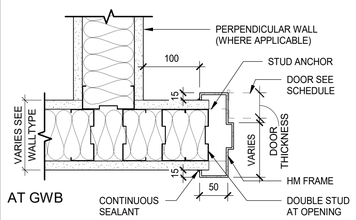
TYPE F1 SINGLE LEAF FRAME

TYPE S1

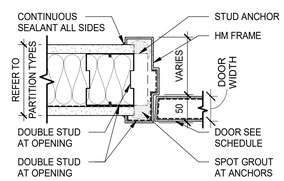
DOOR TYPES **FRAME TYPES** **SCREEN TYPES**

DOOR / FRAME LEGENDS & ABBREVIATIONS

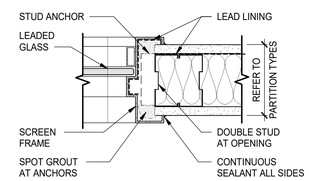
GL-LP	LEAD LINED GLASS
HM	HOLLOW METAL
N/A	NOT APPLICABLE
PLAM	PLASTIC LAMINATE
PT	PAINT
REQD	REQUIRED
SCW	SOLID CORE WOOD
TME	PAINT TO MATCH EXISTING



AT GWB

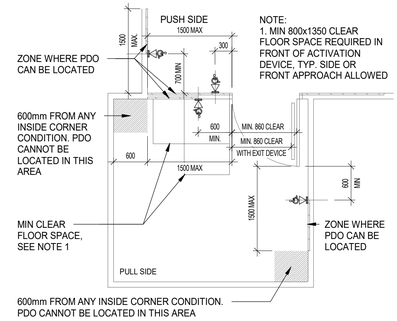


LEAD LINED DOOR JAMB (HEAD SIM.) AT HM FRAME IN DRYWALL PARTITION



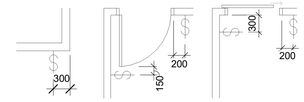
LEAD LINED WINDOW JAMB (HEAD SIM.) AT HM FRAME IN DRYWALL PARTITION

PLAN VIEW - DOOR OPERATOR LOCATION



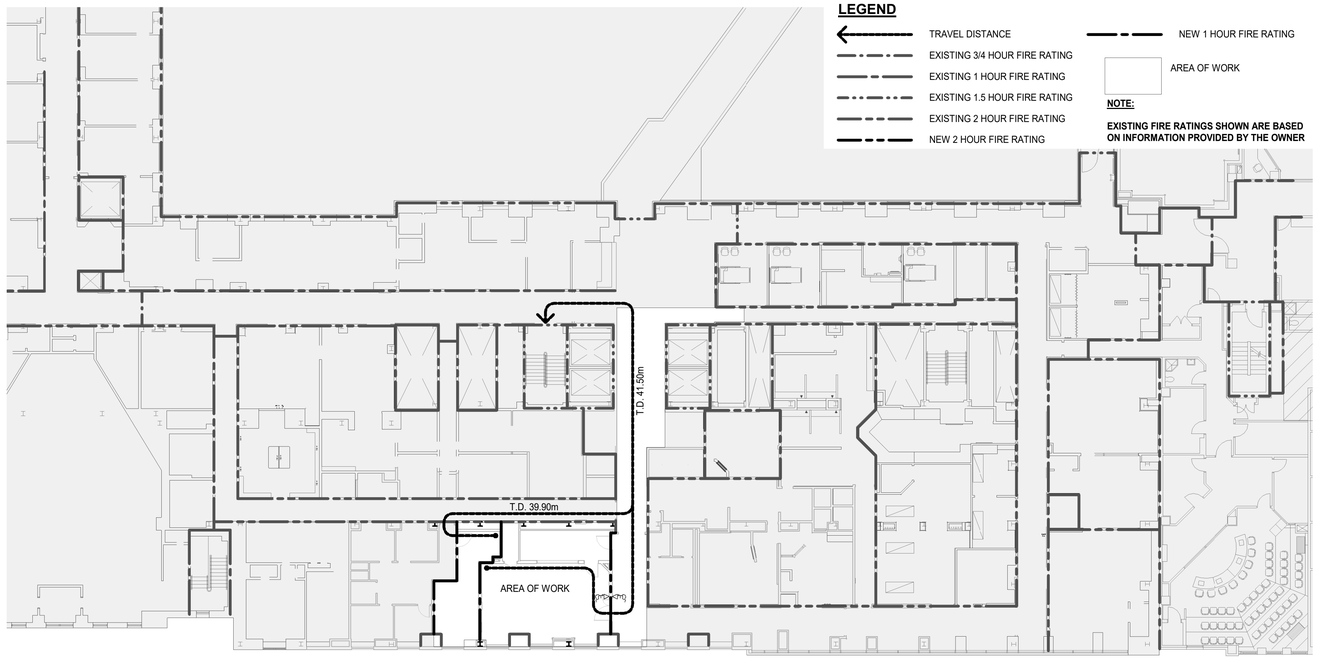
NOTE:
1. MIN 800x1350 CLEAR FLOOR SPACE REQUIRED IN FRONT OF ACTIVATION DEVICE, TYP. SIDE OR FRONT APPROACH ALLOWED

PLAN VIEW - SWITCH/DEVICE LOCATION



CORNER SWING DOOR SLIDING DOOR

NOTES:
- WALL MOUNTED SWITCHES TO BE LOCATED 1.) 200 FROM LATCH SIDE OR 2.) 150MM FROM THE EDGE OF THE SWING DOOR IN OPEN POSITION
- WALL MOUNTED SWITCHES OR DEVICES TO BE LOCATED 1.) 200 FROM LATCH SIDE OR 2.) 300MM FROM THE ADJACENT WALL AT SLIDING DOOR



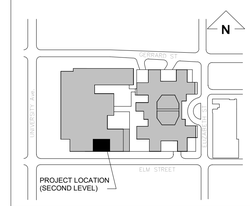
1 AB-02-BW-03 FIRE AND LIFE SAFETY PLAN - LEVEL 2
SCALE: 1 : 200

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-08-28	ISSUED FOR 95% CD	B
2025-10-01	TENDER-PERMIT	C
2025-11-24	ISSUED FOR ADD 7	D

This drawing has been prepared solely for the use of SickKids and there are no representations of any kind made by NORR limited architects and engineers to any party with whom NORR limited architects and engineers has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer.

Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited
175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G. Milani
Project Leader	**Checked**
M. Al-Nuaimi	M. Al-Nuaimi

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPECT CT ROOM
555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
FIRE AND LIFE SAFETY PLAN, OBC MATRIX, DOOR TYPES & SCHEDULE

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS1024-0175

Drawing No.
AB-02-BW-03

SK Atrium TB - 864 x 1232

11/25/2025 11:39:41 AM
Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONBL21-0252_ARCH_Sick-Kids_Spect-CT-Room_R24.rvt

GENERAL DEMOLITION NOTES

1. BEFORE COMMENCEMENT OF THE DEMOLITION WORK, ARRANGE WITH APPROPRIATE TRADE CONCERNED FOR THE DISCONNECTION OF ALL UTILITY SERVICES, AFFECTING THE WORK, PRESERVE IN OPERATING CONDITION ALL ACTIVE UTILITIES TO REMAIN.
2. ALL LIFE SAFETY SYSTEMS INCLUDING THE FIRE ALARM SYSTEM OF THE BUILDING SHALL REMAIN OPERATIONAL AT ALL TIMES THROUGHOUT THE COURSE OF THE RENOVATIONS AND TO BE REPAIRED IF DAMAGED AS A RESULT OF DEMOLITION/CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER.
3. REMOVE ELECTRICAL RECEPTACLES, SWITCHES, BACK BOXES COMPLETE WITHIN PARTITIONS THAT ARE DESIGNATED FOR DEMOLITION (TYP). COORDINATE WITH ELECTRICAL CONTRACTOR TO MAKE SAFE PRIOR TO DISCONNECTIONS. REFER TO ELECTRICAL DEMOLITION DRAWINGS.
4. PATCH AND MAKE GOOD ALL AREAS DAMAGED AS RESULT OF THE DEMOLITION WORK AT WALLS, CEILINGS AND FLOOR AND PREPARE SUBSTRATE TO RECEIVE NEW FINISHES (TYPICAL THROUGHOUT).
6. CONTRACTOR TO VERIFY SITE CONDITIONS AND INFORM THE ARCHITECT BEFORE COMMENCEMENT OF THE DEMOLITION WORK.
7. NEW AND EXISTING OPENINGS (REMAINED FROM REMOVAL OF CABLES, DUCTS, ETC.) IN WALLS SHOWN FOR ILLUSTRATION ONLY & HAVE TO BE VERIFIED AND COORDINATED WITH MECH. & ELECTR. DRAWINGS. IN CASE OF CONFLICT CONTRACTOR TO NOTIFY THE ARCHITECT PRIOR TO PROVIDE ANY WORK.

DEMOLITION NOTES

1. COORDINATE WITH OWNER FOR DECANTING OF REMAINING OFFICE FURNITURE, CHAIRS, TABLES DESK CHAIRS, WALL MOUNTED SHELVING UNIT, SHELVING UNITS, STORAGE CABINETS, COMPUTERS, MONITORS, KEYBOARDS & PRINTERS ETC. & RETURN TO OWNER IN GOOD CONDITION.
2. COORDINATE WITH OWNER FOR DECANTING OF ALL EXISTING ACCESSORIES, SUCH AS GLOVE BOX HOLDER, HAND SANITIZER DISPENSER, COAT HOOKS, CORKBOARDS, WHITEBOARDS, GARBAGE BIN, ETC. & RETURN TO OWNER IN GOOD CONDITION.
3. REMOVE AND DISPOSE OF EXISTING INTERIOR GWB PARTITIONS AS SHOWN, INCLUDING WALL BASE, RECEPTACLE, WIRING AND ASSOCIATED CONDUIT WITHIN EXISTING PARTITIONS (REFER TO ELECTR DEMO DWG'S. CUT BACK FEED TO SOURCE AND MAKE SAFE. PATCH & REPAIR FLOOR AS NEEDED, MAKE GOOD.
4. REMOVE AND DISPOSE OF EXISTING INTERIOR PARTITION (ASSUMED TO BE CMU WITH GWB) AS SHOWN, INCLUDING WALL BASE, RECEPTACLE, WIRING AND ASSOCIATED CONDUIT WITHIN EXISTING PARTITIONS (REFER TO ELECTR DEMO DWG'S. CUT BACK FEED TO SOURCE AND MAKE SAFE. PATCH & REPAIR FLOOR AS NEEDED, MAKE GOOD.
5. CORE DRILL EXISTING FLOOR SLAB TO ACCOMMODATE NEW ELECTRICAL CABLES. SEE EQUIPMENT VENDOR & ELECTR DWG'S.
6. REMOVE AND DISPOSE OF EXISTING SCW DOORS & HM FRAME ENTIRELY, INCLUDING DOORS W/ GLAZED VISION PANEL, REMOVE HARDWARE AND RETURN TO OWNER IN GOOD CONDITION.
7. GRIND, PATCH AND REPAIR EXISTING FLOORING BY FILLING CRACKS, IRREGULARITIES AND DEPPRESIONS WITH SUITABLE FILLER AND FINISH SMOOTH AS RECOMMENDED BY THE MANUFACTURER TO RECIEVE NEW FLOORING FINISHES. FINISHED FLOOR LEVEL TO MATCH EXISTING ADJACENT AREAS.
8. AREA OF EXISTING FLOORING TO BE PATCHED AND REPAIRED AFTER DEMOLITION OF EXISTING PARTITION, WITH TERRAZZO FINISH TO MATCH EXISTING.
9. REMOVE AND DISPOSE OF EXISTING HM DOOR FRAME, WALL NIB AND LINTEL ABOVE (ASSUMED TO BE CMU GWB), PATCH AND REPAIR WALLS AND PREPARE SUBSTARTE TO RECIEVE NEW PAINT FINISH TO MATCH ADJACENT WALLS. WORK WOULD NEED TO BE COMPLETE AFTER HOSPITAL WORKING HOURS OR WEEKENDS
10. REMOVE AND DISPOSE OF EXISTING RADIATORS BELOW WINDOWS. PATCH & REPAIR ADJACENT SURFACES AS REQUIRED TO RECIEVE NEW FINISHES. SEE MECHANICAL DRAWINGS. FILL REMIANING OPENINGS FROM REMOVED PIPES IN WALLS & FLOORS, MAINTAIN EXISTING FIRE RATING
11. REMOVE EXISTING DOOR & FRAME ENTIRELY, CONTRACTOR TO STORE DURING CONSTRUCTION & TO REINSTALL IN NEW LOCATION, CONTRACTOR TO REPAIR ANY DAMAGE TO THE DOOR &/OR FRAME DURING REMOVAL, AT NO EXTRA COST TO THE OWNER.
12. DEMOLISH EXISTING SHAFT WALL TO GAIN ACCESS TO EXISTING SERVICE WITHIN SHAFT AREA FOR NEW MECH. CONNECTIONS, GC TO CONSTRUCT NEW SHAFT WALL CONSTRUCTION IN THE SAME PLACE & MAINTAIN THE INTEGRATY OF THE FIRE RATED ENCLOSURE.
13. REMOVE EXISTING OPERABLE GLAZING PANELS ONLY (EXISTING WINDOW FRAME TO REMIAN)
14. GC TO REMOVE ONE EXISTING OPERABLE GLAZING PANEL AND MODIFY AND CUT EXISTING GLAZING AND ADD NEW ALUMINUM DIVIDER TO ACCOMMODATE NEW LOUVRE FOR NEW MECH. EXHAUST (REFER TO MECH. DWGS AND DETAILS FOR FURTHER INFO.) AND TO REINSTATE PANEL.
15. GC TO REMOVE AND DISPOSE OF EXISTING TERRAZZO FLOORING (ASSUMED 50mm THICK), EXISTING TOPPING AND INSULATION (ASSUMED 100mm THICK) COMPLETELY AND PREPARE AREA TO RECIEVE NEW CONCRETE PAD FOR SPECT CT EQUIPMENT, AHU AND PUMP (REFER TO STRUC. DWG'S FOR MORE INFORMATION).

DEMOLITION LEGEND

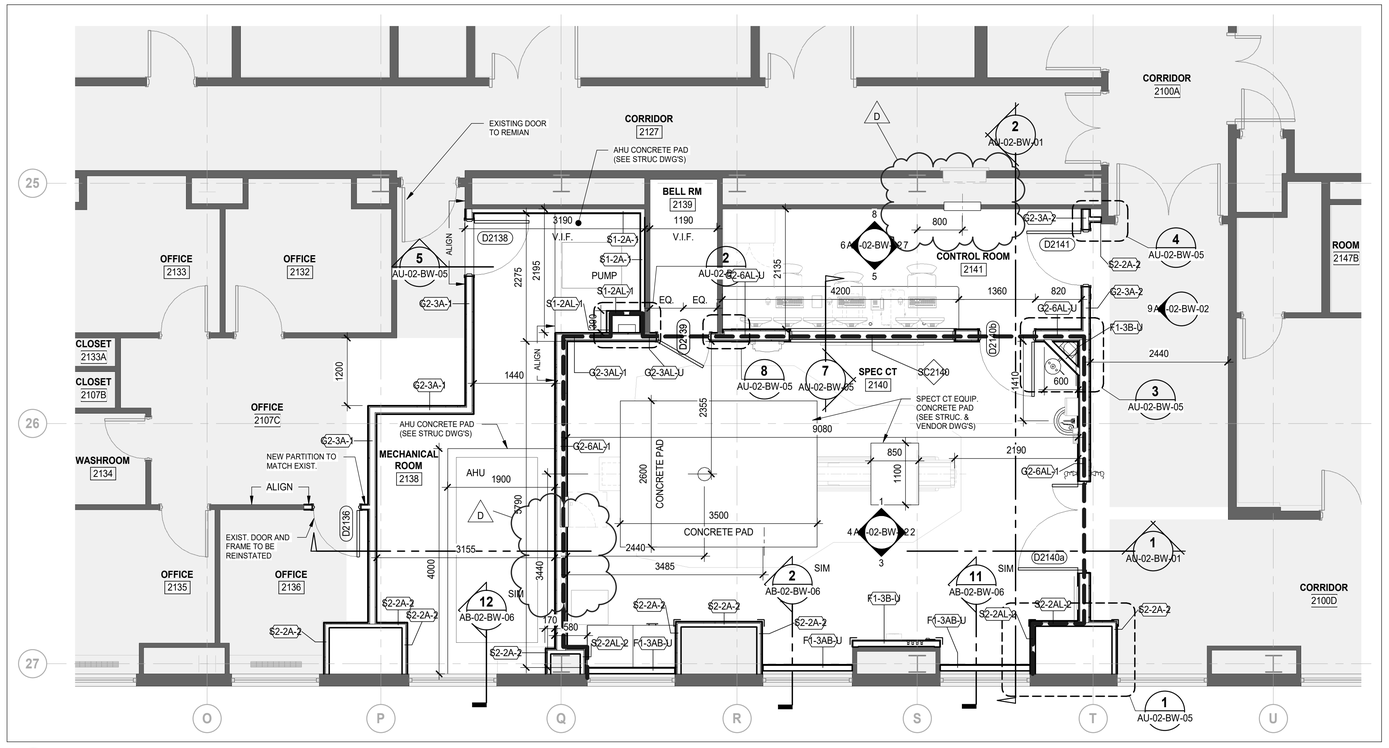
- INTERIOR WALLS TO BE DEMOLISHED
- DENOATES AREA NOT INCLUDED IN PROJECT SCOPE
- EXISTING WALLS TO REMAIN
- AREA OF EXISTING FLOORING TO BE PATCHED AND REPAIRED AFTER DEMOLITION OF EXISTING PARTITION, WITH TERRAZZO FINISH TO MATCH EXISTING.
- 15 — AREA OF EXISTING TERRAZZO FLOORING INCLUDING TOPPING AND INSULATION BELOW TO EXISTING SLAB, PATCH AND REPAIR EXISTING SLAB FILL CRACKS, SUBSTRATE SURFACE IRREGULARITIES AND DEPRESSIONS WITH SUITABLE CONCRETE FILLER AND FINISH SMOOTH. PREPARE SURFACE TO RECIEVE NEW CONCRETE PAD.

PLAN LEGEND

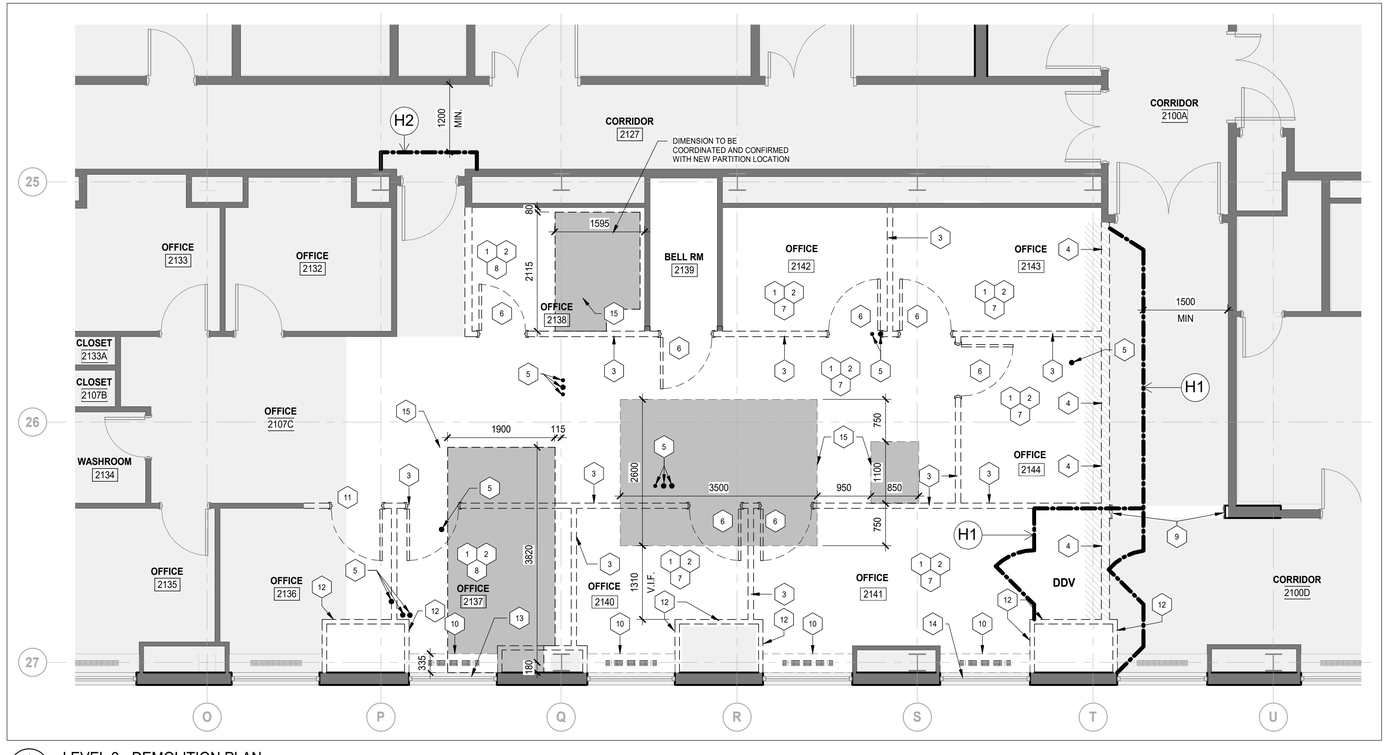
- AREA NOT IN CONTRACT (N.I.C)
- EXISTING WALLS TO REMAIN
- ROOM NAME 2W/E-XXX — ROOM NAME AND NUMBER
- XX — NEW PARTITION. REFER TO PARTITION SCHEDULE FOR PARTITION TYPES.
- EXXX — EXISTING DOOR AND FRAME TO REMAIN, PATCH AND PREP DOOR AS REQUIRED TO RECEIVE NEW FINISH AS SPECIFIED. REFER TO DOOR SCHEDULE SERIES A03 FOR HARDWARE MODIFICATIONS
- DXXX — NEW DOOR & FRAME, REFER TO DOOR SCHEDULE SERIES A03
- NOTES EXTENT OF SHIELDING. REFER TO SHIELDING REPORT FOR DETAIL

HOARDING LEGEND

- DDV — DUST DOWN VESTIBULE
- H1 — HARD HARDING: THIS HOARDING INDICATES THE EXTENT OF REQUIRED HOARDING FOR THE ENTIRE DURATION OF THE NEW FLUOROSCOPY ROOM CONSTRUCTION. IT IS TO BE INSTALLED AND REMAIN IN PLACE UNTIL THE COMPLETION OF THE ENTIRE CONSTRUCTION PROCESS.
- H2 — SOFT HOARDING: THIS HOARDING INDICATES THE EXTENT OF HOARDING REQUIRED FOR A SPECIFIC PERIOD AND WILL BE REMOVED WHEN CONSTRUCTION IN THAT AREA IS COMPLETED.



2 AF-02-BW-01 LEVEL 2 - SPECT CT ROOM RENOVATION FLOOR PLAN
SCALE: 1 : 50



1 AF-02-BW-01 LEVEL 2 - DEMOLITION PLAN
SCALE: 1 : 50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-08-28	ISSUED FOR 95% CD	B
2025-10-01	TENDER-PERMIT	C
2025-11-24	ISSUED FOR ADD 7	D

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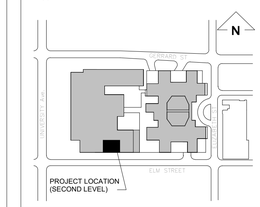
Keyplan



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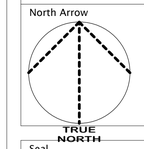

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited
175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G.Milani
Project Leader	Checked
M. Al-Nuaimi	M. Al-Nuaimi

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPECT CT ROOM
555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
DEMOLITION AND SPECT CT ROOM RENOVATION FLOOR PLANS

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS1024-0175

Drawing No.
AF-02-BW-01

SK Atrium TB - 864 x 1232

11/25/2025 2:19:44 PM
Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONBL21-0202_ARCH_Sick-Kids_Spect-CT-Room_R24.rvt

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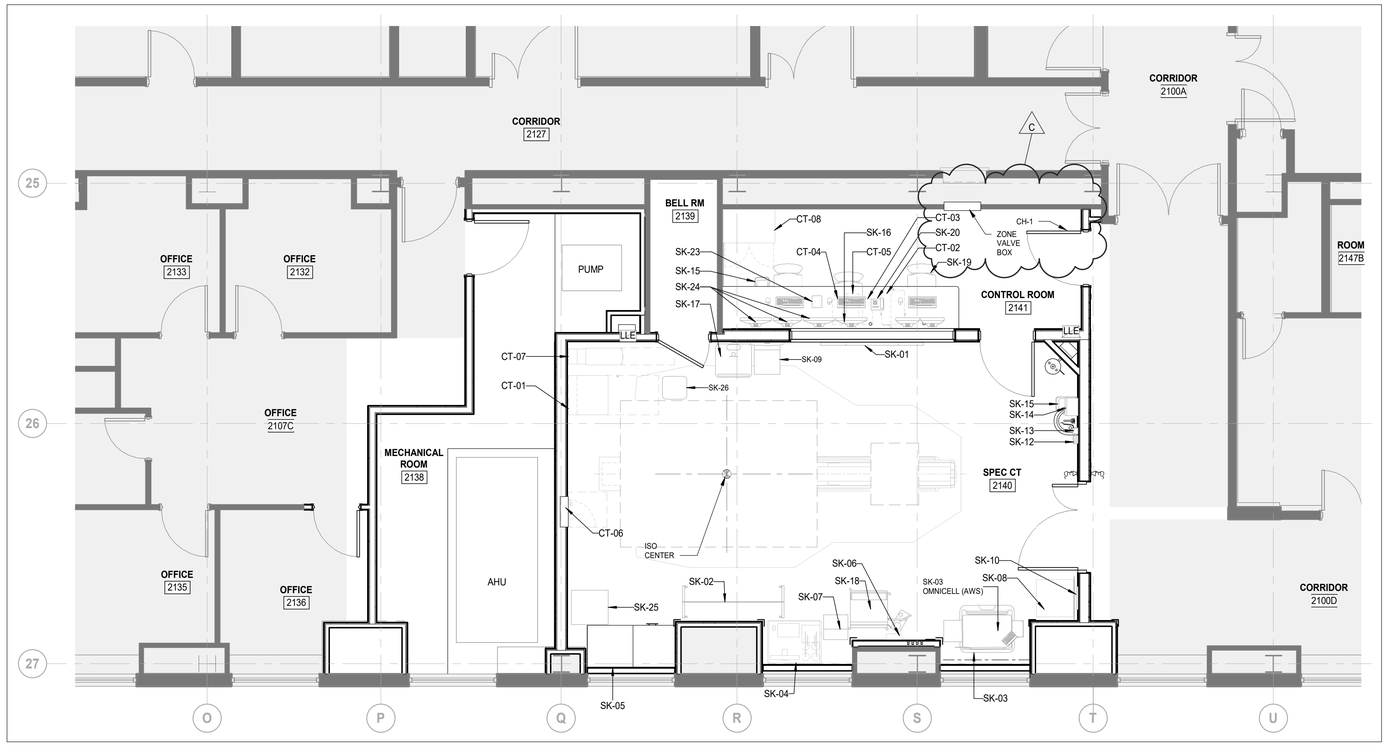
EQUIPMENT AND FURNITURE SCHEDULE								
TAG	ITEM	SUPPLY			INSTALL			COMMENT
		SickKids	Spect Room Vendor	GC	SickKids	Spect Room Vendor	GC	
CT-01	POWER DISTRIBUTION UNIT		☒			☒		Equipment installation design and coordination by Contractor's engineer
CT-02	OPERATORS CONSOLE		☒			☒		Equipment installation design and coordination by Contractor's engineer
CT-03	NM ACQUISITION STATION		☒			☒		Equipment installation design and coordination by Contractor's...
CT-04	SMART CONSOLE		☒			☒		Equipment installation design and coordination by Contractor's engineer
CT-05	IMAGE GENERATOR CONSOLE		☒			☒		Equipment installation design and coordination by Contractor's engineer
CT-06	MAIN DISCONNECT PANEL		☒			☒		Equipment installation design and coordination by Contractor's engineer
CT-07	PARTIAL UPS (14kVA)		☒			☒		Equipment installation design and coordination by Contractor's engineer
CT-08	SERVICE CABINET (INCLUDING TOOLS)		☒			☒		Equipment installation design and coordination by Contractor's engineer
SK-01	TRANSFER BOARD	☒			☒			
SK-02	MOBILE RADIATION SHEILDING	☒			☒			
SK-03	OMNICELL (AWS)	☒			☒			
SK-04	ANESTHESIA MACHINE	☒			☒			
SK-05	BLANKET WARMER	☒			☒			
SK-06	SHARPS BIN	☒			☒			
SK-07	STEPPING STOOL	☒			☒			
SK-08	LINEN CART (SOILED)	☒			☒			
SK-09	STACKABL CHAIR	☒			☒			
SK-10	LEAD APRON RACK	☒			☒			
SK-12	HAND SANITIZER	☒			☒			
SK-13	SOAP DISPENSER	☒			☒			Provide 18 GA. Sheet metal backing.
SK-14	PAPER TOWEL DISPENSER	☒			☒			Provide 18 GA. Sheet metal backing.
SK-15	WASTE BIN	☒			☒			
SK-16	SCREEN FOR CAMERA			☒			☒	
SK-17	COMPUTER ON WHEELS (EPIC)	☒			☒			
SK-18	INJECTION TABLE	☒			☒			
SK-19	CHAIR	☒			☒			
SK-20	PHONE	☒			☒			
SK-21	NEURON 3	☒			☒			
SK-23	EPIC LABEL PRINTER	☒			☒			
SK-24	MONITORS (CONTROLLER)	☒			☒			
SK-25	RX DISPOSAL BIN, ON WHEELS	☒			☒			
SK-26	STOOL, TREATMENT	☒			☒			
GC-01	NURSE CALL / EMERGENCY BUTTONS			☒			☒	
CH-1	COAT HOOK			☒			☒	



2 AF-02-BW-01 LEVEL 2 - FURNITURE AND EQUIPMENT PLAN

SCALE: 1 : 50

FINISHES PLAN LEGEND

	AREA NOT IN SCOPE		CONCRETE PAD EXTENT, REFER TO STRUCTURAL/ MECHANICAL
RSF-1 INT	DENOTES RESILIENT SHEET FLOORING AND 6" COVE BASE		
RSF-2 INT	DENOTES RESILIENT SHEET FLOORING AND 6" COVE BASE		
EXIST.FLR.	EXISTING FLOOR TO REMAIN		
CG-1	CORNER GUARD	PT-EX	PAINT TO MATCH EXISTING, INSTALL RUBBER BASE (RB-1)
FLM-1	PRIVACY GLAZING FILM	TS-	TRANSITION STRIP
PT-	PAINT FINISH	WP-1	WALL PAINTED PT-1 PREPARED FOR GRAPHIC
TEF-1	TROWELED EPOXY FLOORING	WP-4	WALL PROTECTION, REFER TO LIST OF MATERIAL
RB-1	RUBBER BASE, 4" TO MATCH EXISTING		

GENERAL FINISHES NOTES :

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE LIST OF MATERIALS AND SPECIFICATIONS

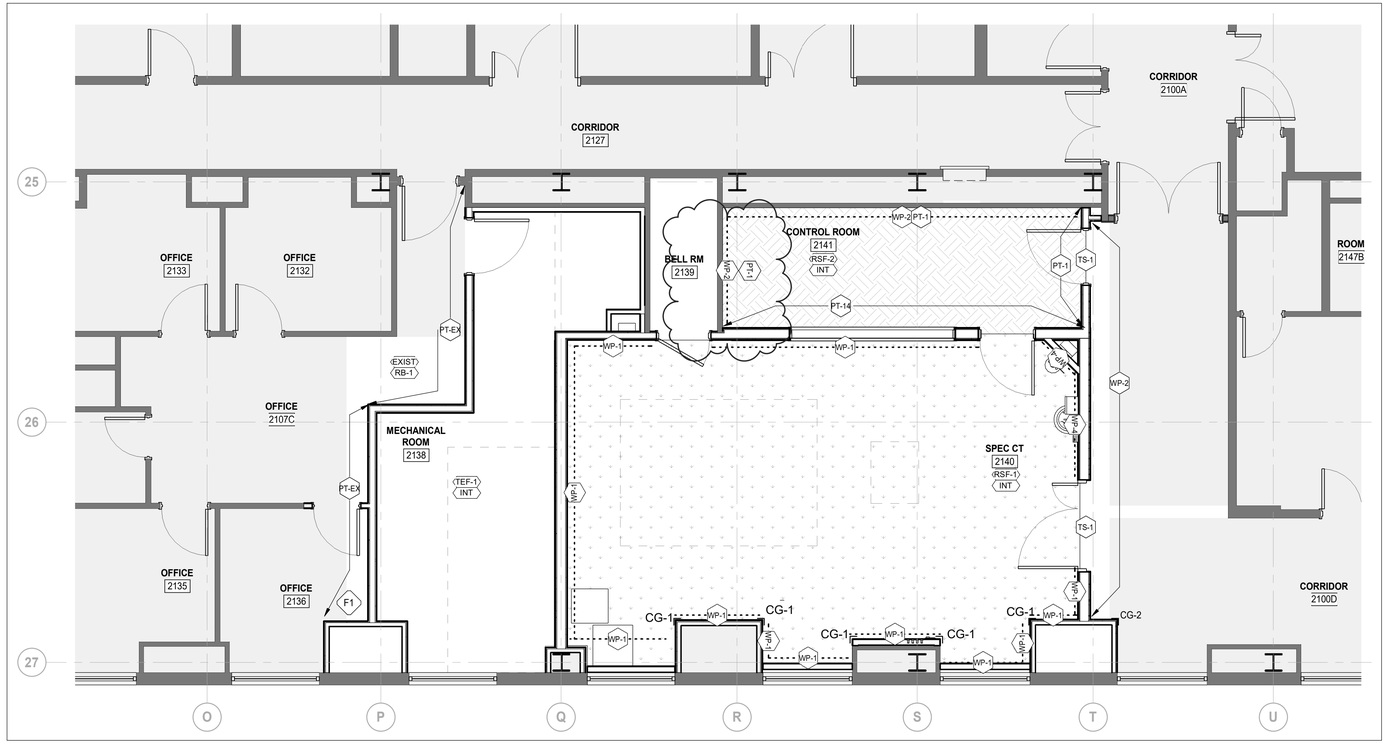
2. CHANGES IN FLOOR FINISH TO OCCUR UNDER CENTER LINE OF DOOR UNLESS NOTED OTHERWISE

3. WHERE INDICATED, PROVIDE GLAZED FILM ON INTERIOR FACE OF EXISTING GLAZING.

4. ALL WALLS TO BE PAINTED PT-1 UNLESS OTHERWISE NOTED

FINISH KEY NOTES

F1 MATCH EXISTING PAINT COLOUR AND PATCH AND REPAIR WHERE REQUIRED



1 AF-02-BW-02 LEVEL 2 - FINISH PLAN

SCALE: 1 : 50

DATE	ISSUED FOR	REV
2025-08-28	ISSUED FOR 95% CD	A
2025-10-01	TENDER-PERMIT	B
2025-11-24	ISSUED FOR ADD 7	C

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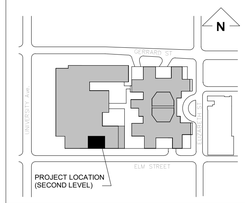
Keyplan



North Arrow

TRUE NORTH

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G. Milani
Project Leader	Checked
M. Al-Nuaimi	M. Al-Nuaimi

Client

SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project

SICKKIDS - SPECT CT ROOM

555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title

FINISH PLAN, FURNITURE AND EQUIPMENT PLAN

Check Scale (may be photo reduced)
0 1 inch 0 10mm

Project No.
HS1024-0175

Drawing No.
AF-02-BW-02

SK Atrium TB - 864 x 1232

Autodesk Docs://Sick Kids - Spect CT Room/NORR_DMBL21-0252_ARCH_Sick-Kids_Spect-CT-Room_R24.rvt

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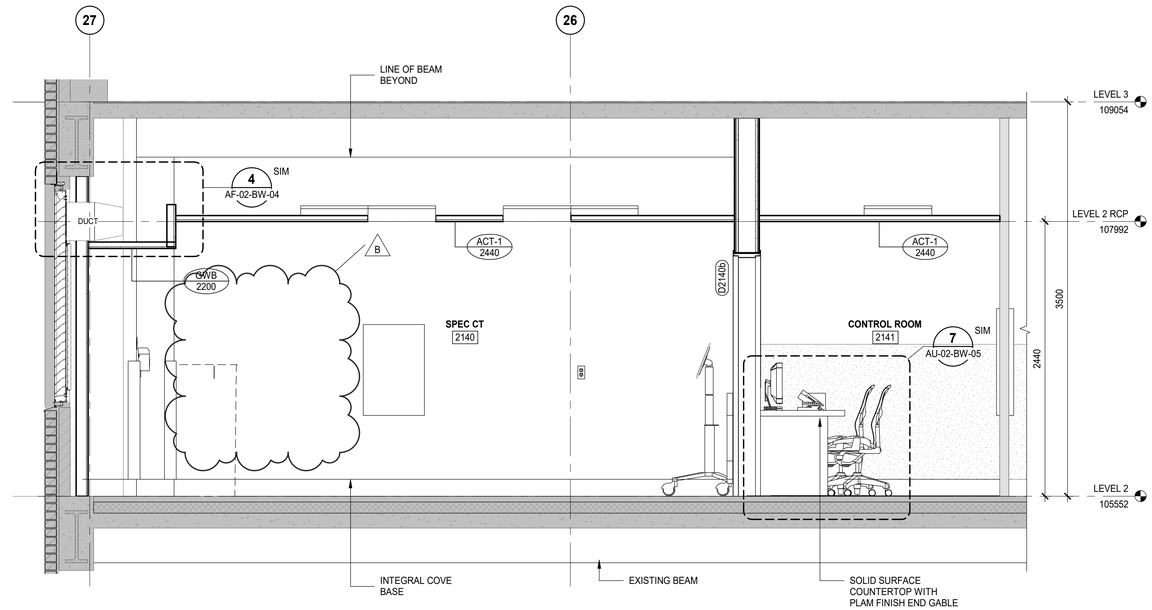
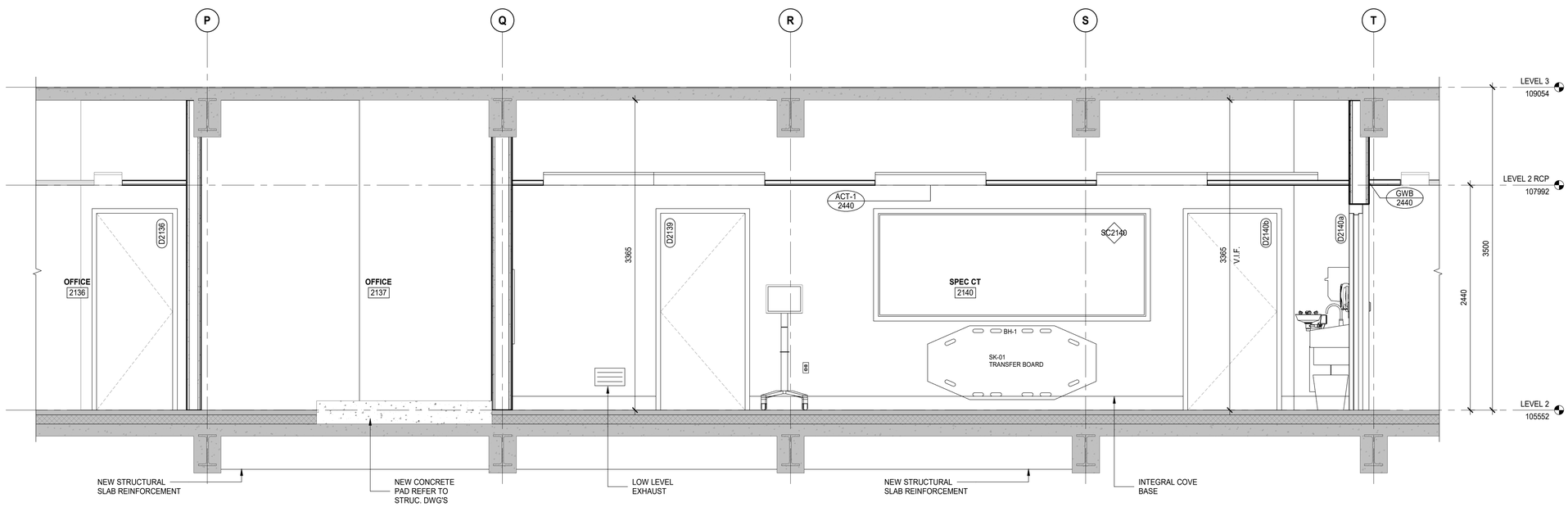


2 AU-02-BW-01 SECTION 2
SCALE: 1 : 25



1 AU-02-BW-01 SECTION 1
SCALE: 1 : 25

DATE	ISSUED FOR	REV
2025-10-01	TENDER-PERMIT	A
2025-11-24	ISSUED FOR ADD 7	B

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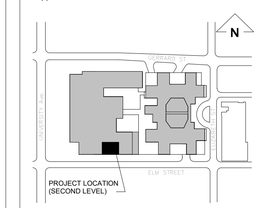


North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G. Milani
Project Leader	**Checked**
M. Al-Nuaimi	M. Al-Nuaimi

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPECT CT ROOM

555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
ENLARGED SECTIONS

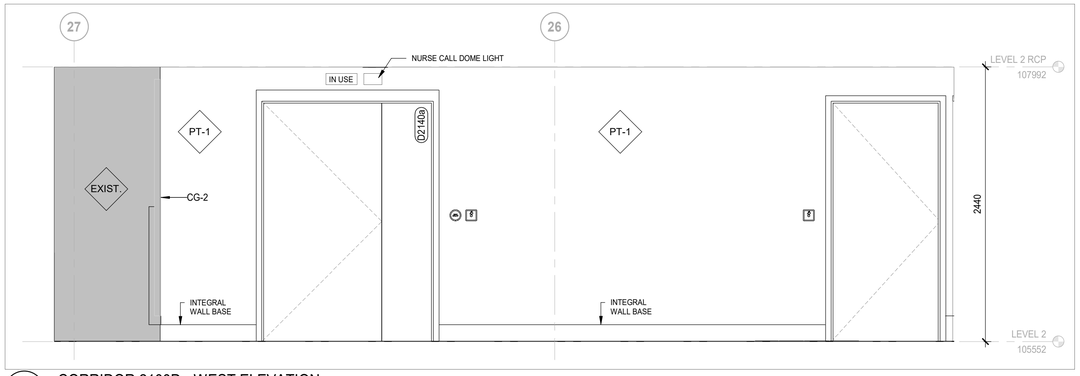
Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS1024-0175

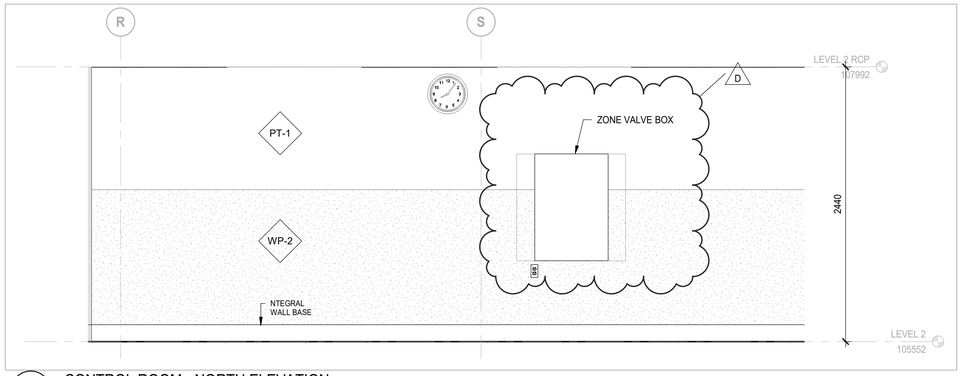
Drawing No.
AU-02-BW-01

Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONB121-0252_ARCH_Sick-Kids_Spect-CT-Room_R24.rvt

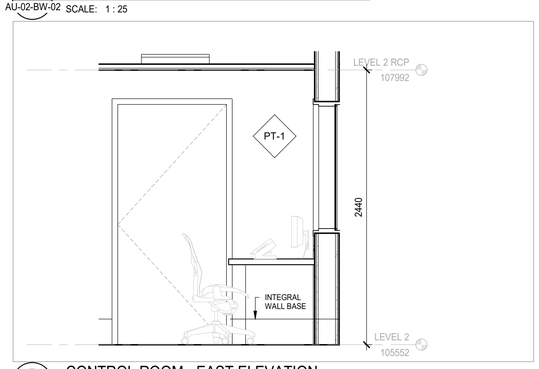
SK Atrium TB - 864 x 1232



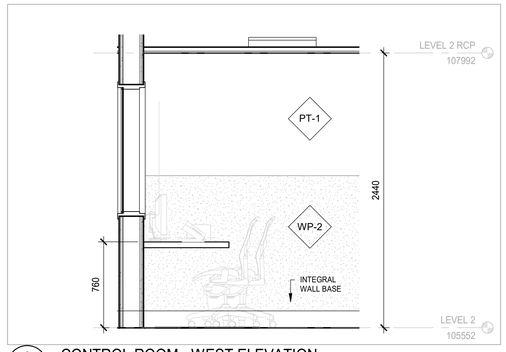
9 AU-02-BW-02 CORRIDOR 2100D - WEST ELEVATION
SCALE: 1 : 25



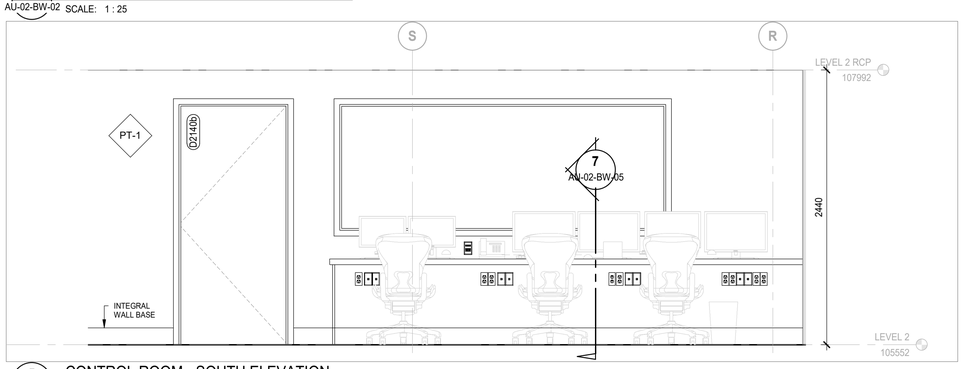
8 AU-02-BW-02 CONTROL ROOM - NORTH ELEVATION
SCALE: 1 : 25



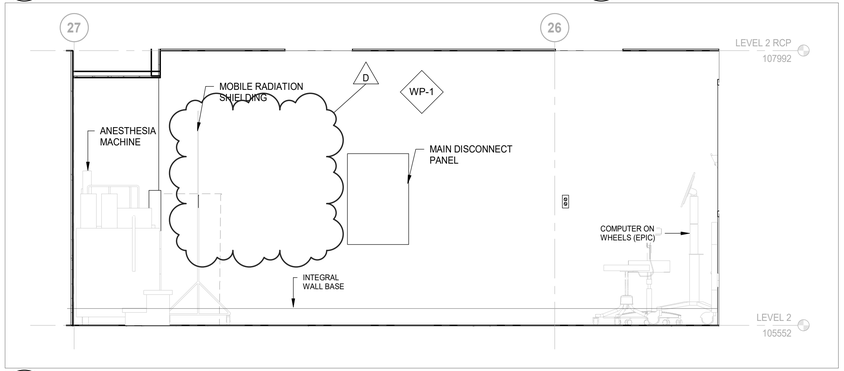
7 AU-02-BW-02 CONTROL ROOM - EAST ELEVATION
SCALE: 1 : 25



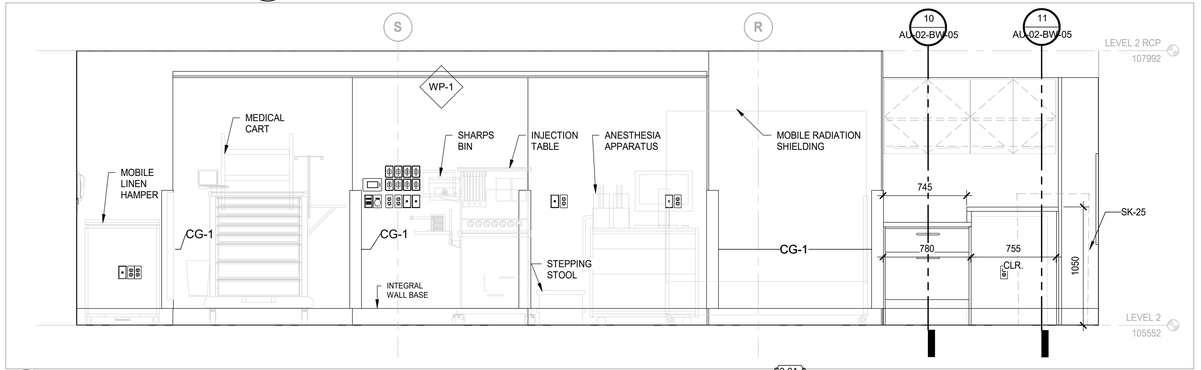
6 AU-02-BW-02 CONTROL ROOM - WEST ELEVATION
SCALE: 1 : 25



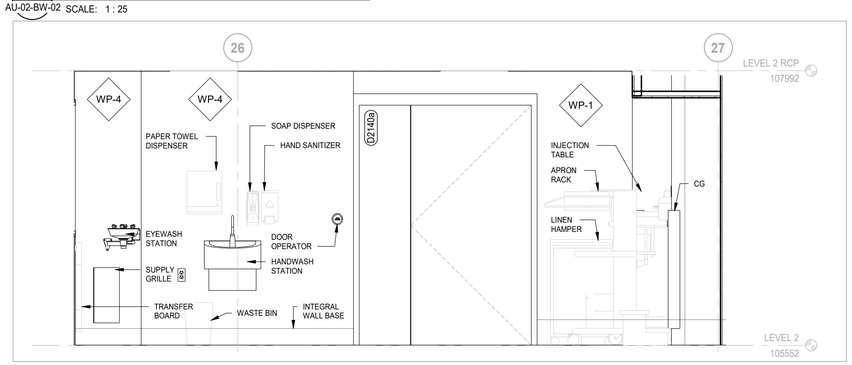
5 AU-02-BW-02 CONTROL ROOM - SOUTH ELEVATION
SCALE: 1 : 25



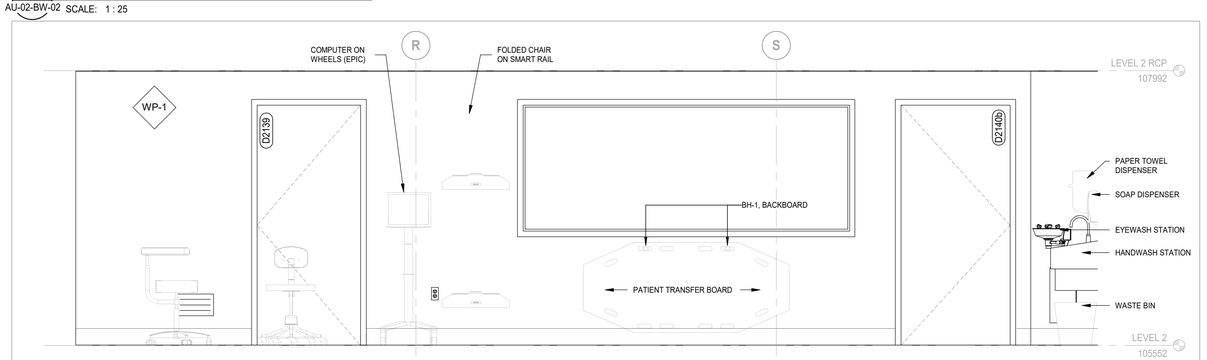
4 AU-02-BW-02 CT SCAN ROOM - WEST ELEVATION
SCALE: 1 : 25



3 AU-02-BW-02 CT SCAN ROOM - SOUTH ELEVATION
SCALE: 1 : 25



2 AU-02-BW-02 CT SCAN ROOM - EAST ELEVATION
SCALE: 1 : 25



1 AU-02-BW-02 CT SCAN ROOM- NORTH ELEVATION
SCALE: 1 : 25

DATE	ISSUED FOR	REV
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2025-08-28	ISSUED FOR 95% CD	B
2025-10-01	TENDER-PERMIT	C
2025-11-24	ISSUED FOR ADD 7	D

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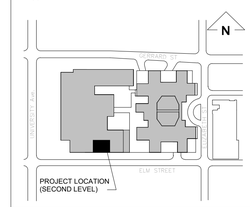

North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G. Milani
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M. Al-Nuaimi	M. Al-Nuaimi

Client
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Project
SICKKIDS - SPECT CT ROOM

555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
ENLARGED ELEVATIONS

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS1024-0175

Drawing No.
AU-02-BW-02

SK Atrium TB - 864 x 1232

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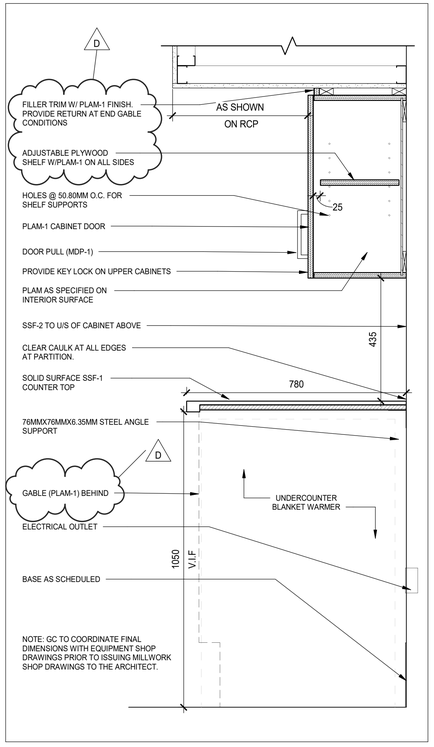

11 AU-02-BW-05 UNDERCOUNTER BLANKET WARMER SECTION DETAIL
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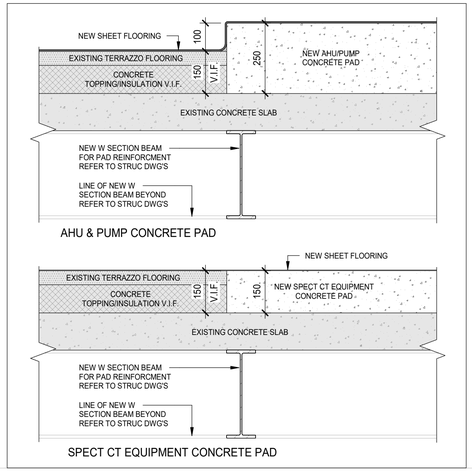

9 AU-02-BW-05 SECTION DETAILS - EQUIPMENT CONCRETE PADS
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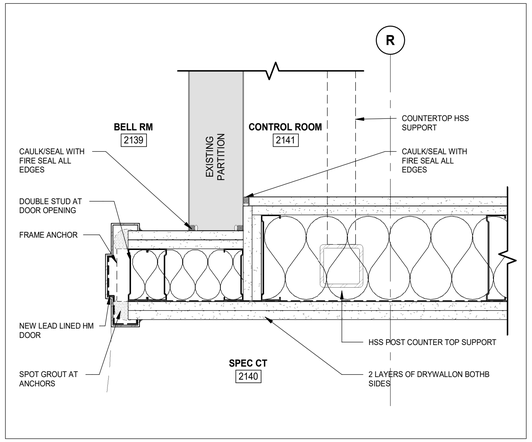
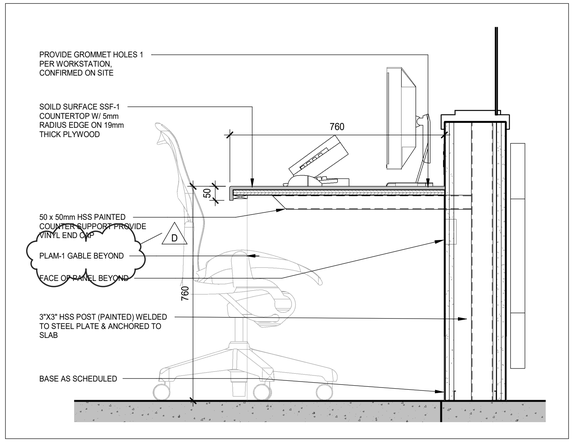


8 AU-02-BW-05 PLAN DETAIL AT BELL ROOM DOOR
SCALE: 1 : 5



7 AU-02-BW-05 CONTROL ROOM COUNTERTOP DETAIL
SCALE: 1 : 10

6 AU-02-BW-05 CTRL. RM. COUNTER HSS PLAN DETAIL
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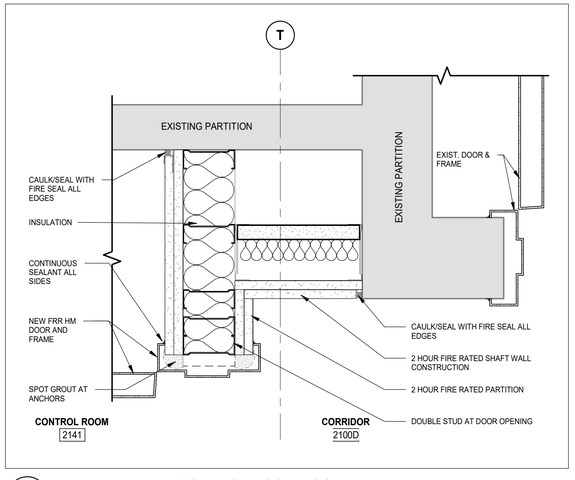

4 AU-02-BW-05 PLAN DETAIL AT CONTROL ROOM DOOR
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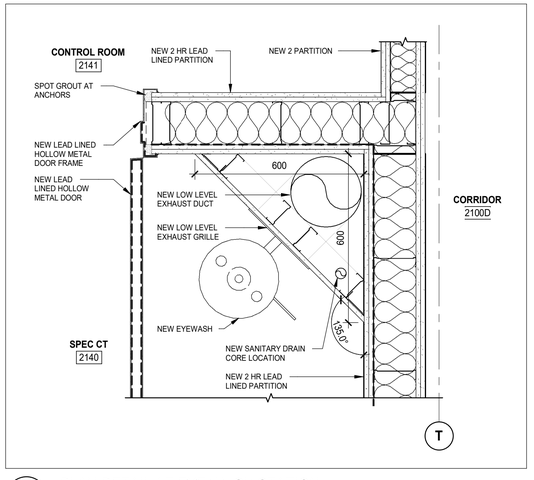

3 AU-02-BW-05 PLAN DETAIL AT EYE WASH STATION
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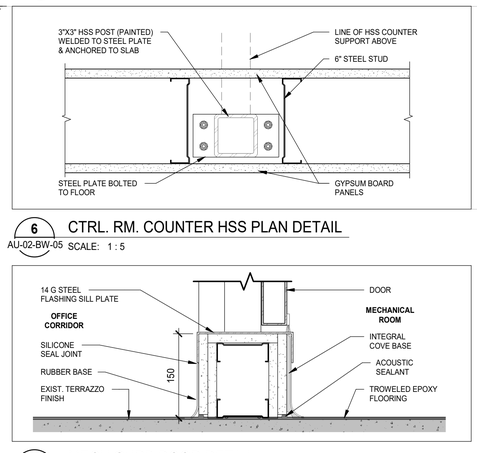

5 AU-02-BW-05 MECH CURB DOOR DETAIL
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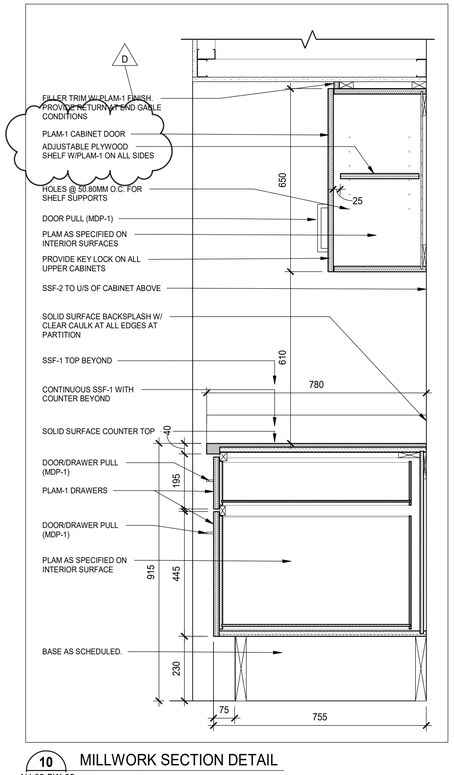

10 AU-02-BW-05 MILLWORK SECTION DETAIL
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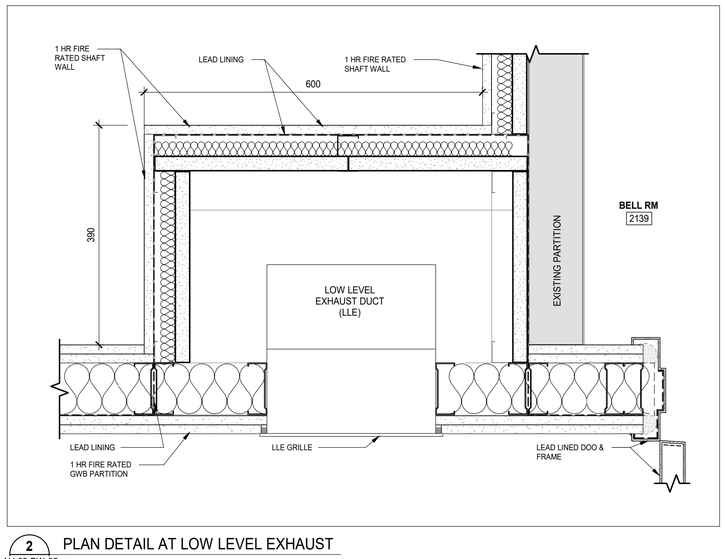

2 AU-02-BW-05 PLAN DETAIL AT LOW LEVEL EXHAUST
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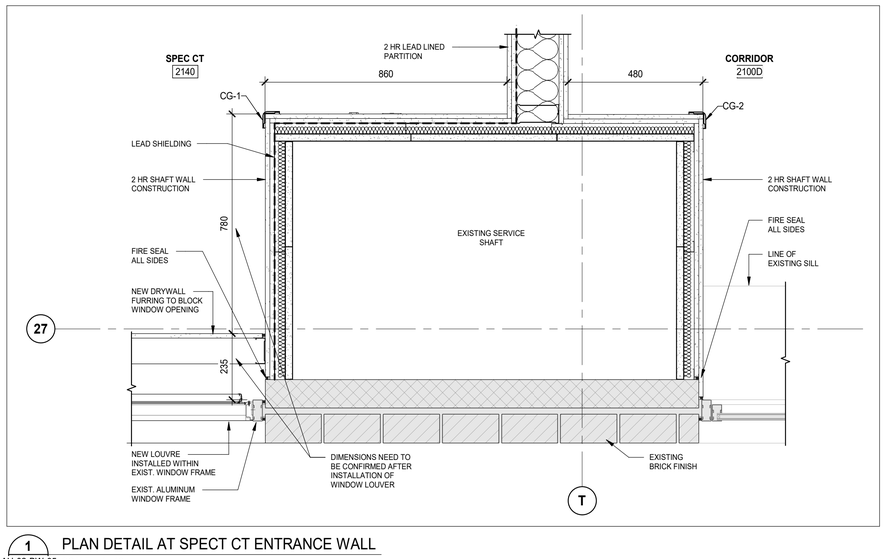

1 AU-02-BW-05 PLAN DETAIL AT SPECT CT ENTRANCE WALL
SCALE: 1 : 10

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-08-28	ISSUED FOR 95% CD	B
2025-10-01	TENDER-PERMIT	C
2025-11-24	ISSUED FOR ADD 7	D

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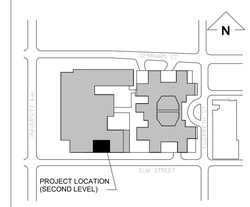
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G. Milani
Project Leader	Checked
M. Al-Nuaimi	M. Al-Nuaimi

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPECT CT ROOM

555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
PLAN, SECTION AND MILLWORK DETAILS

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS1024-0175

Drawing No.
AU-02-BW-05

SK Atrium TB - 864 x 1232

11/25/2025 11:39:56 AM
Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONBL21-0252_ARCH_Sick-Kids_Spect-CT-Room_R24.rvt

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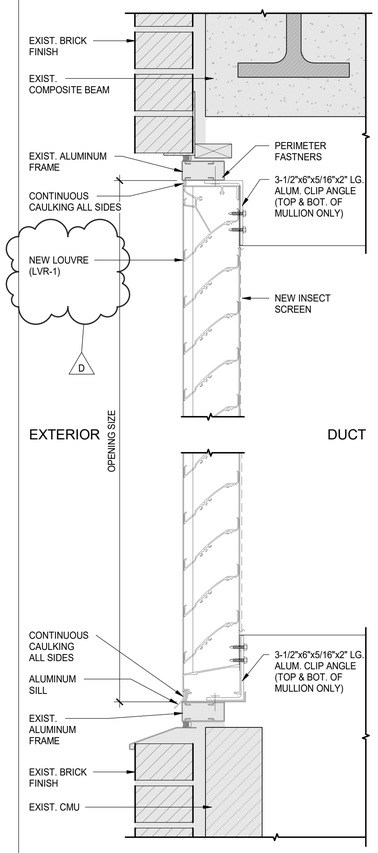

12 AB-02-BW-06 DETAIL - MECH. ROOM INTAKE LOUVER
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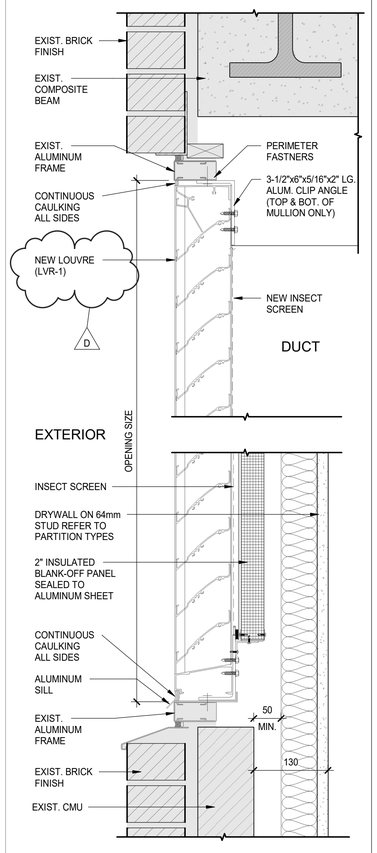

11 AB-02-BW-06 DETAIL - LLE LOUVRE AT EXT. WINDOW
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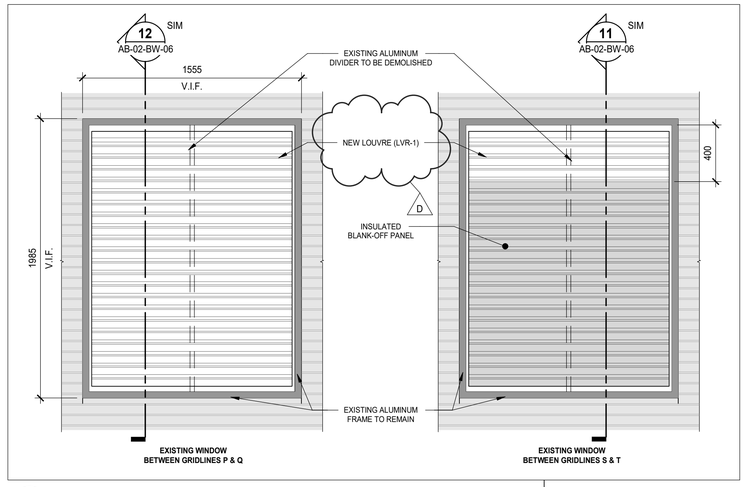

8 AB-02-BW-06 EXTERIOR WINDOW ELEVATIONS
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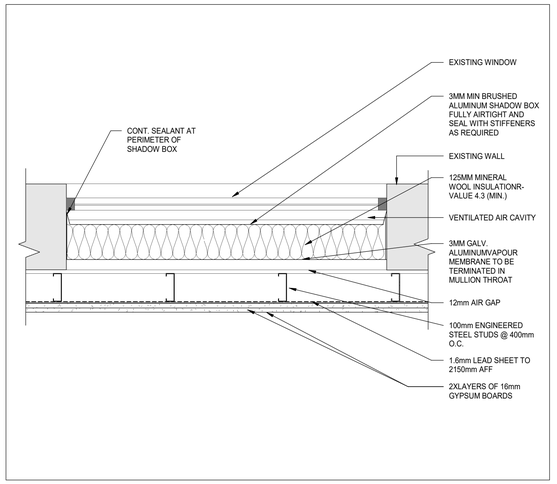
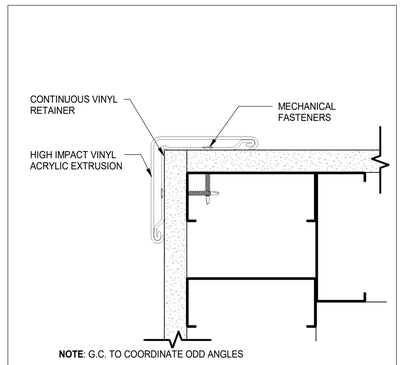


3 AB-02-BW-06 FURRING AT WINDOW DETAIL
SCALE: 1 : 10



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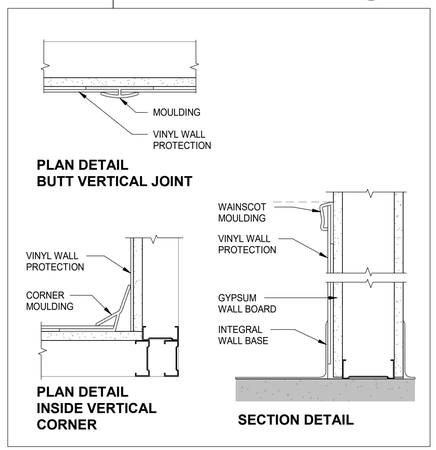

5 AB-02-BW-06 WALL PROTECTION DETAILS
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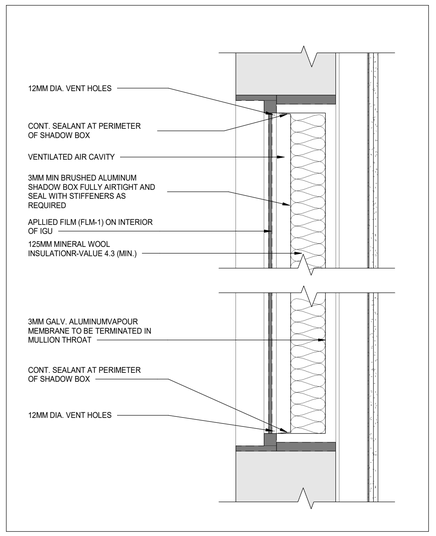

2 AB-02-BW-06 SECTION - FURRING AT WINDOW DETAIL
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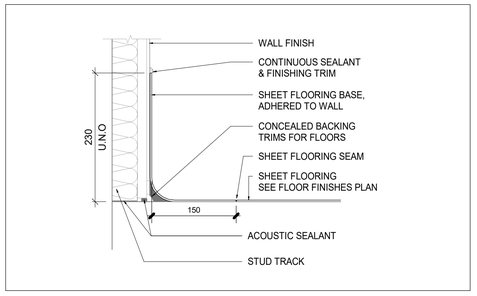

10 AB-02-BW-06 TYPICAL SECTION DETAIL - COVED BASE
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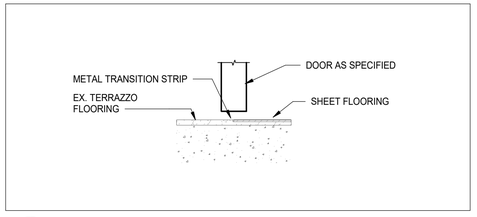

9 AB-02-BW-06 TYPICAL SECTION DETAIL - TRANSITION STRIP
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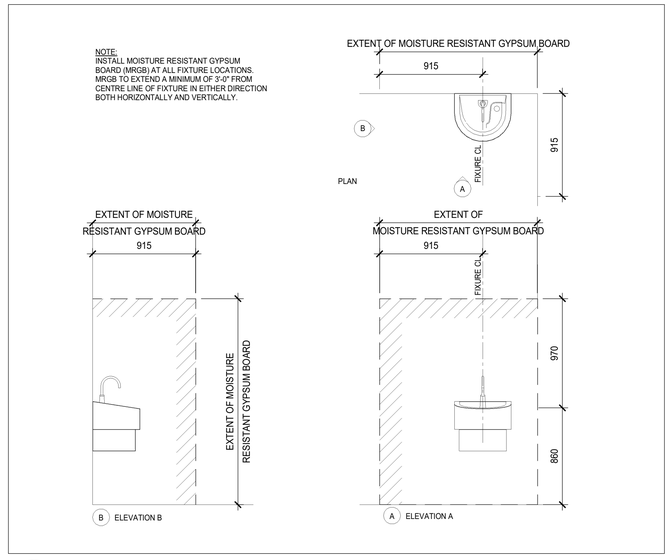

6 AB-02-BW-06 TYP. INSTALLATION OF MRGB AT FIXTURE LOCATIONS
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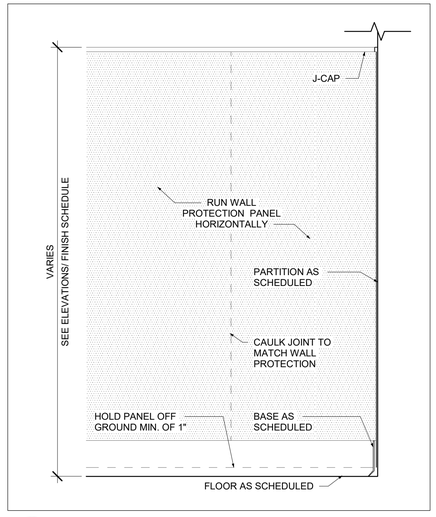

4 AB-02-BW-06 WPA-1 - SHEET WITH J CAP
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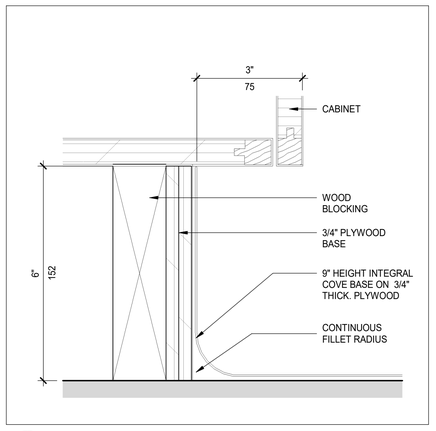

1 AB-02-BW-06 TYPICAL DETAILS - COVE BASE
SCALE: 1 : 2

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2024-12-19	50% CD	A
2025-08-28	ISSUED FOR 95% CD	B
2025-10-01	TENDER-PERMIT	C
2025-11-24	ISSUED FOR ADD 7	D

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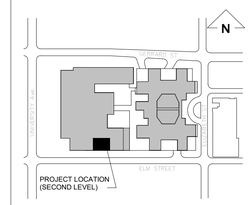
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited
175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	G. Milani
Project Leader	Checked
M. Al-Nuaimi	M. Al-Nuaimi

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPECT CT ROOM
555 UNIVERSITY AVENUE, LEVEL 2, TORONTO, ON M5G1X8

Drawing Title
TYPICAL DETAILS

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS1024-0175

Drawing No.
AB-02-BW-06

Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONBL21-0202_ARCH_Sick-Kids_Spect-CT-Room_R24.rvt

SK Atrium TB - 864 x 1232

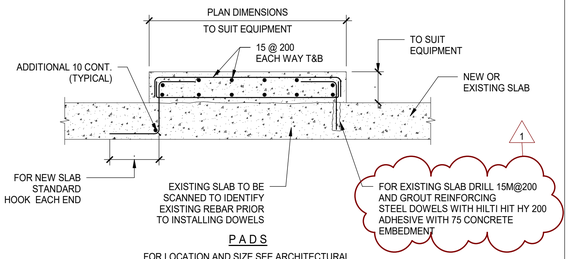
STRUCTURAL ABBREVIATIONS — TD-1

A	UNFACTORED AXIAL LOAD
ADJ	ADJUSTABLE
ADD'L	ADDITIONAL
AEC	ARCHITECTURALLY EXPOSED CONCRETE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
Af	FACTORED AXIAL LOAD
AIFB	ASPHALT IMPREGNATED FIBREBOARD
ALT	ALTERNATE
APPROX	APPROXIMATELY
AR	ANCHOR ROD
ARCH	ARCHITECTURAL OR ARCHITECT
B, BOT	BOTTOM
B/	BOTTOM OF
BAL	BALANCE
B/B	BACK TO BACK
BC	BOT OF CAISSON ELEV
BCH	BOTTOM CHORD
BET, B/W	BETWEEN
BEW	BOTTOM EACH WAY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLL	BOTTOM LOWER LAYER
BM	BEAM
BMB	BENDING MOMENT BAR
BOF	BOTTOM OF FOOTING ELEVATION
BPL	BEARING/BASE PLATE
BRDG	BRIDGING
BRG	BEARING
BSMT	BASEMENT
BUL	BOTTOM UPPER LAYER
C	CHANNEL
C	UNFACTORED COMPRESSION
C/C	CENTRE TO CENTRE
C/W	COMPLETE WITH
CA	COLUMN ABOVE
CAM	CAMBER
CANT	CANTILEVER
CB	COLUMN BELOW
CDL	COMPRESSION DEVELOPMENT LENGTH
CF	CONCRETE FIREPROOFED
CIP	CAST-IN-PLACE
Cf	FACTORED COMPRESSION
CJ	CONSTRUCTION JOINT
CLR	CLEAR
℄, CL	CENTRE LINE
CLJ	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
COMP	COMPOSITE
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
DCA	DRILLED CONCRETE ANCHOR
DEMO	DEMOLITION
DEG	DEGREE
DET, DTL	DETAIL
D FIR	DOUGLAS FIR
DIA	DIAMETER
DIM	DIMENSION
DIAG	DIAGONAL
DL	DEAD LOAD
DO.*	DITTO
DP	DEEP
DWG	DRAWING
DWL	DOWEL
DN	DOWN
EA	EACH
EC	EPOXY COATED
ECC	ECCENTRICITY
EE	EACH END
EF	EACH FACE
EJ, EXP JT	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
EMBED	EMBEDMENT
ENG	ENGINEER
EOA	EDGE OF ANGLE
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
ES	EACH SIDE
EQ	EQUAL
EW	EACH WAY
EX, EXIST	EXISTING
EXT	EXTERIOR
f'c	COMPRESSIVE STRENGTH OF CONC
FD	FLOOR DRAIN
FF	FAR FACE
F/F	FACE TO FACE
FP	FIREPROOF(ING)
FS	FAR SIDE
FFE	FINISHED FLOOR ELEVATION
FFL	FINISHED FLOOR LEVEL
FIN	FINISHED
FLR	FLOOR
FTG	FOOTING
FMC	FULL MOMENT CONNECTION
FND	FOUNDATION
fy	YIELD STRENGTH
GALV	GALVANIZED
GA	GAUGE
GB	GRADE BEAM
GL	GRIDLINE
GEN	GENERAL
GRD, GR	GROUND, GRADE

(H), HI	HIGH
HDG	HOT DIP GALVANIZED
HEE	HOOK EACH END
HEF	HORIZONTAL EACH FACE
HH	HOOK-HOOK (HOOK EACH END)
HIC	HORIZONTAL IN CENTER
HIF	HORIZONTAL INSIDE FACE
HK	HOOK
HOF	HORIZONTAL OUTSIDE FACE
H, HORIZ	HORIZONTAL
HP	H PILE
HPT	HIGH POINT
HSC	HORIZONTAL SLOTTED CONNECTION
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
INT	INTERIOR
JST(S)	JOISTS
JT	JOINT
k	KILO
kN	KILONEWTON
kPa	KILOPASCAL
(L), LO	LOW
L	SINGLE ANGLE
L$_1$, 2L	DOUBLE ANGLES
Ld	TENSION DEVELOPMENT LENGTH
LE	LEFT END
LG	LONG/LENGTH
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LP	LOW POINT
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LW	LIGHT WEIGHT
LWC	LIGHT WEIGHT CONCRETE
m	METRE
m^2, sq. m	SQUARE METRE
M	UNFACTORED MOMENT
MATL	MATERIAL
MAX	MAXIMUM
MC	MOMENT CONNECTION
MCS	MECHANICAL COMPRESSION SPLICE
MECH	MECHANICAL
MEZZ	MEZZANINE
Mf	FACTORED MOMENT
MF	MOMENT FRAME
MFR	MANUFACTURER
MID	MIDDLE
MISC	MISCELLANEOUS
MIN	MINIMUM
ML	MIDDLE LAYER
mm	MILLIMETRE
mm^2, sq. mm	SQUARE MILLIMETRE
MPa	MEGAPASCAL
MTS	MECHANICAL TENSION SPLICE
NBC, NBCC	NATIONAL BUILDING CODE OF CANADA
NCB	NO COLUMN BELOW
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NON-SHRINK
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
NWC	NORMAL WEIGHT CONCRETE
O/C	ON CENTRE
O/O	OUT TO OUT
OBC	ONTARIO BUILDING CODE
OD	OUTSIDE DIAMETER
O/F	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOIST
P	UNFACTORED POINT LOAD
P/C, PC, PRCST	PRECAST
PERP	PERPENDICULAR
Pf	FACTORED POINT LOAD
PG	PLATE GIRDER
PL	PLATE
PRLL	PARALLEL
PROJ	PROJECTION
P/T	POST TENSIONED
PT	POINT
PVC	POLYVINYL CHLORIDE
R, RAD	RADIUS
RA	ROOF ANCHOR
C	REINFORCED CONCRETE
RD	ROOF DRAIN
RE	RIGHT END
REF	REFERENCE
REINF	REINFORCEMENT, REINFORCE
REM	REMAINDER
REQ'D	REQUIRED
REV	REVISION

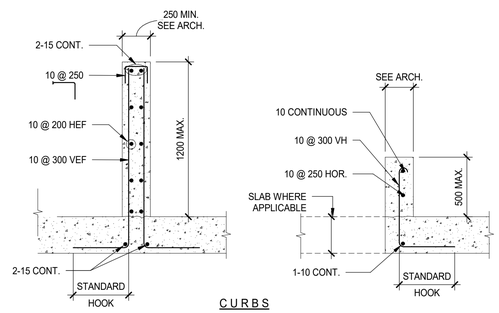
S	STANDARD SECTION
SAFRM	SPRAY-APPLIED FIRE RESISTIVE MATERIAL
SDF	STEP DOWN FOOTING
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD
SIM	SIMILAR
SL	SLAB
SLS	SERVICEABILITY LIMIT STATE
SOG	SLAB ON GRADE
SP	SPANDREL, SPRUCE, SETTING OUT POINT
SPEC	SPECIFICATION
S-P-F	SPRUCE PINE FIR
STD	STANDARD
STRUCT	STRUCTURAL
STL	STEEL
STIFF	STIFFENER
SQ	SQUARE
SS	STAINLESS STEEL
ST, STR	STRAIGHT
STIR	STIRRUP
SWT	SELF WEIGHT
SYM	SYMMETRICAL
t	THICKNESS
T	UNFACTORED TENSION
T	TOP
T&B	TOP AND BOTTOM
TC	TOP OF CAISSON ELEVATION
TDL	TENSION DEVELOPMENT LENGTH
TEMP	TEMPORARY, TEMPERATURE
TEW	TOP EACH WAY
Tf	FACTORED TENSION
T&G	TONGUE AND GROOVE
THK	THICK
TJ	TIE JOIST
TLE	TOP LEFT END
TLL	TOP LOWER LAYER
T/O	TOP OF
TOS	TOP OF SLAB
TRE	TOP RIGHT END
T/STL	TOP OF STEEL
TSA	TENSION SPLICE CLASS A
TSB	TENSION SPLICE CLASS B
TUL	TOP UPPER LAYER
TYP	TYPICAL
USF	UNDERSIDE OF FOOTING
U/S	UNDERSIDE
U/N	UNLESS NOTED
U/ON	UNLESS OTHERWISE NOTED
UL	UPPER LAYER
ULS	ULTIMATE LIMIT STATE
UPT	UPTURNED
ULC	UNDERWRITERS LABORATORIES OF CANADA
V	UNFACTORED SHEAR
VERT	VERTICAL
VBF	VERTICAL BRACED FRAME
VEF	VERTICAL EACH FACE
Vf	FACTORED SHEAR
V/OF	VERTICAL OUTSIDE FACE
V/C	VERTICAL IN CENTRE
V/IF	VERTICAL INSIDE FACE, VERIFY IN FIELD
VSC	VERTICALLY SLOTTED CONNECTION
W	WIDE FLANGE SECTION
WC	WIND COLUMN
W/D	WOOD
W/O	WITHOUT
WP	WALL PLATE OR WORKING POINT
WPFG	WATERPROOFING
WS	WATERSTOP
WT	STRUCTURAL TEE
WWF	WELDED WIRE FABRIC
WWF	WELDED WIDE FLANGE
WWR	WELDED WIDE REINFORCEMENT
ZRP	ZINC RICH PAINT
Ø	DIAMETER

PAD AND CURB DETAILS — TDC-18



PADS

FOR LOCATION AND SIZE SEE ARCHITECTURAL, MECHANICAL AND/OR ELECTRICAL DRAWINGS

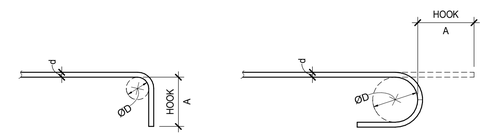


CURBS

FOR LOCATION AND SIZE SEE ARCHITECTURAL, MECHANICAL AND/OR ELECTRICAL DRAWINGS

REINFORCING STEEL BAR AND STANDARD HOOK DIMENSIONS FOR DEFORMED BARS WITH Fy = 400 MPa — TDC-39

BAR SIZE	MASS kg/m	DIA. d	AREA mm2	STANDARD HOOK BEND D	STANDARD HOOK A 90°	STANDARD HOOK A 180°	STIRRUP AND TIE HOOKS (90°) D	STIRRUP AND TIE HOOKS (90°) A
10M	0.785	11.3	100	70	180	150	40	100
15M	1.57	16.0	200	100	260	180	60	140
20M	2.355	19.5	300	120	340	220	-	-
25M	3.925	25.2	500	150	420	280	-	-
30M	5.495	29.9	700	250	560	400	-	-
35M	7.85	35.7	1000	300	660	480	-	-
45M	11.775	43.7	1500	450	900	-	-	-
55M	19.625	56.4	2500	600	1140	-	-	-



STANDARD 90° HOOK

STANDARD 180° HOOK

TENSION DEVELOPMENT LENGTH AND TENSION LAP SPLICES (Fy = 400 MPa) — TDC-36

CONCRETE / SPLICE / BAR	25 MPa CLASS A, Ld	25 MPa CLASS B	30 MPa CLASS A, Ld	30 MPa CLASS B	35 MPa CLASS A, Ld	35 MPa CLASS B	40 MPa CLASS A, Ld	40 MPa CLASS B	45 MPa CLASS A, Ld	45 MPa CLASS B	50 MPa CLASS A, Ld	50 MPa CLASS B	CONCRETE / SPLICE / BAR
	TABLE 1: UNCOATED, OTHER THAN TOP BARS												
10	300	380	300	350	300	320	300	300	300	280	300	300	10
15	440	570	400	520	370	480	350	450	330	420	310	400	15
20	580	750	530	690	490	640	460	600	430	560	410	530	20
25	900	1170	830	1070	760	990	720	930	670	880	640	830	25
30	1080	1410	990	1290	920	1190	860	1110	810	1050	770	1000	30
35	1260	1640	1150	1500	1070	1390	1000	1300	940	1220	890	1160	35
	TABLE 2: UNCOATED, TOP BARS												
10	380	490	350	450	320	420	300	390	280	370	300	350	10
15	570	730	520	670	480	620	450	580	420	550	400	520	15
20	750	980	690	890	640	830	600	770	560	730	530	690	20
25	1170	1530	1070	1390	990	1290	930	1210	880	1140	830	1080	25
30	1410	1830	1290	1670	1190	1550	1110	1450	1050	1360	1000	1290	30
35	1640	2130	1500	1950	1390	1800	1300	1690	1220	1590	1160	1510	35
	TABLE 3: EPOXY-COATED BARS, OTHER THAN TOP BARS												
10	440	570	400	520	370	480	350	450	330	420	310	400	10
15	650	850	600	770	550	720	520	670	490	630	460	600	15
20	870	1130	790	1030	730	950	690	890	650	840	610	800	20
25	1350	1760	1240	1610	1140	1490	1070	1390	1010	1310	960	1240	25
30	1620	2110	1480	1930	1370	1780	1280	1670	1210	1570	1150	1490	30
35	1890	2460	1730	2250	1600	2080	1500	1950	1410	1840	1340	1740	35
	TABLE 4: EPOXY-COATED TOP BARS												
10	490	640	450	590	420	540	390	510	370	480	350	450	10
15	740	960	670	880	620	810	580	760	550	720	520	680	15
20	980	1280	900	1170	830	1080	780	1010	730	950	700	900	20
25	1530	1990	1400	1820	1300	1690	1210	1580	1140	1490	1090	1410	25
30	1840	2390	1680	2180	1560	2020	1460	1890	1370	1780	1300	1690	30
35	2150	2790	1960	2550	1810	2360	1700	2210	1600	2080	1520	1970	35

NOTES:

1. USE FOLLOWING TENSION LAP SPLICE LENGTHS UNLESS NOTED OTHERWISE ON DRAWINGS.
2. TENSION DEVELOPMENT LENGTHS, Ld, DENOTED AS TENSION LAP SPLICE CLASS A.
3. FOR COLUMNS, USE COLUMN TENSION SPLICE TYPICAL DETAIL.
4. TOP BARS ARE BARS WITH MORE THAN 300 OF CONCRETE CAST BELOW SPLICE.
5. CLEAR COVER NOT LESS THAN d_b, CLEAR SPACING NOT LESS THAN $2d_b$.
6. FOR STRUCTURAL LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 30%.
7. FOR STRUCTURAL SEMI-LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 20%.

DATE	ISSUED FOR	REV
2025-08-28	95% CD	A
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM 07	1

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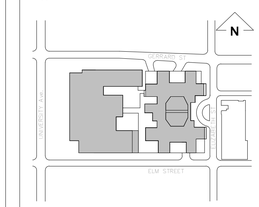
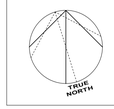
Keyplan



North Arrow



Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager J. Dignazio	Drawn Author
Project Leader M.Cohen	Checked Checker

Client

SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project

THE HOSPITAL FOR SICK CHILDREN

Toronto, ON, Canada

Drawing Title

TYPICAL DETAILS

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
ONBL21-0252

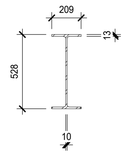
Drawing No.
S02-01

SK Atrium TB - 864 x 1232

2025-11-24 1:53:46 PM
Autodesk Docs://Sick Kids - Spect CT Rooms/NORR_ONBL21-0252_STRC_Sick-Kids_Spect-CT-Room_R24.rvt

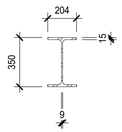
NOTES:

1. INFORMATION SHOWN ON THIS DRAWING HAS BEEN TAKEN FROM DRAWING PREPARED BY GOVAN KAMINKER LANGLEYSIDE MELICK DEVONSHIRE WILSON ARCHITECTS DATED JUNE 1968.
2. STRUCTURAL SIZES OF EXISTING BEAM SHOWN IN DETAIL 1 & DETAIL 2 ARE TAKEN FROM EXISTING REFERENCED DRAWINGS IN NOTE #1.
3. CONTRACTOR TO VERIFY SPAN LENGTH AND BEAMS SIZES BEFORE COMMENCING THE WORK.



EX 20¾ x 8¼ WF 55

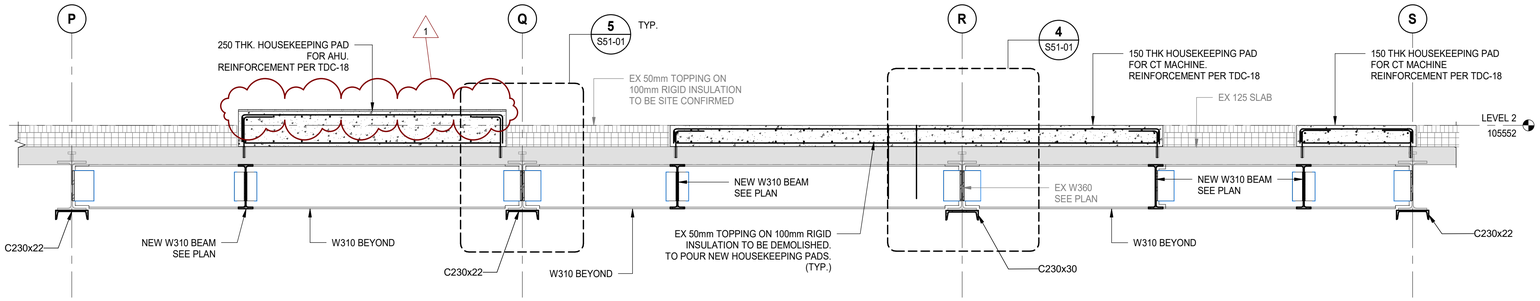
DETAIL 1



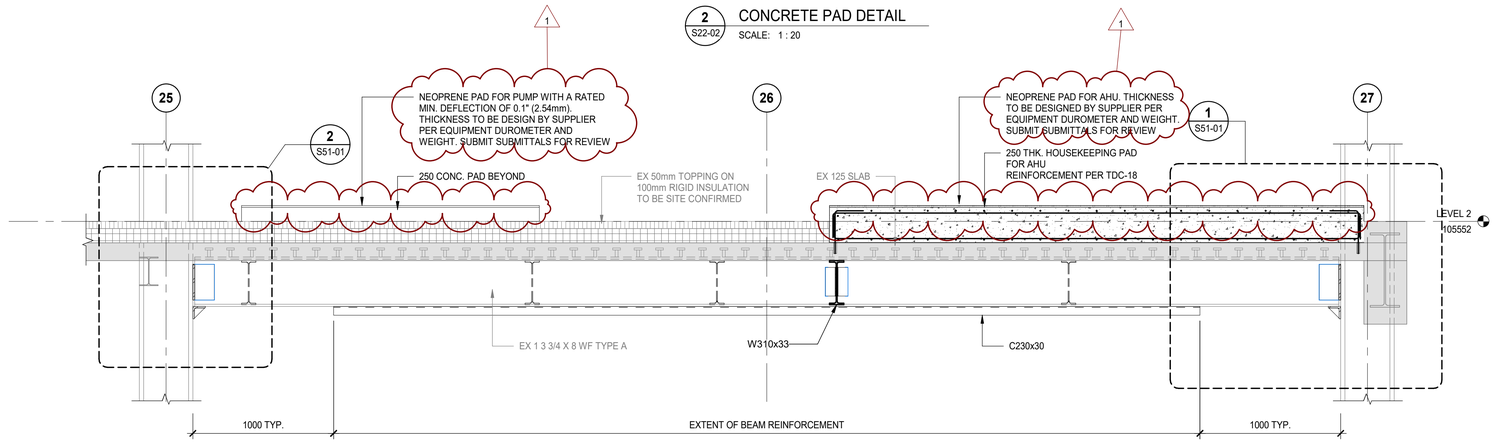
EX 1 3¾ x 8 WF 48

DETAIL 2

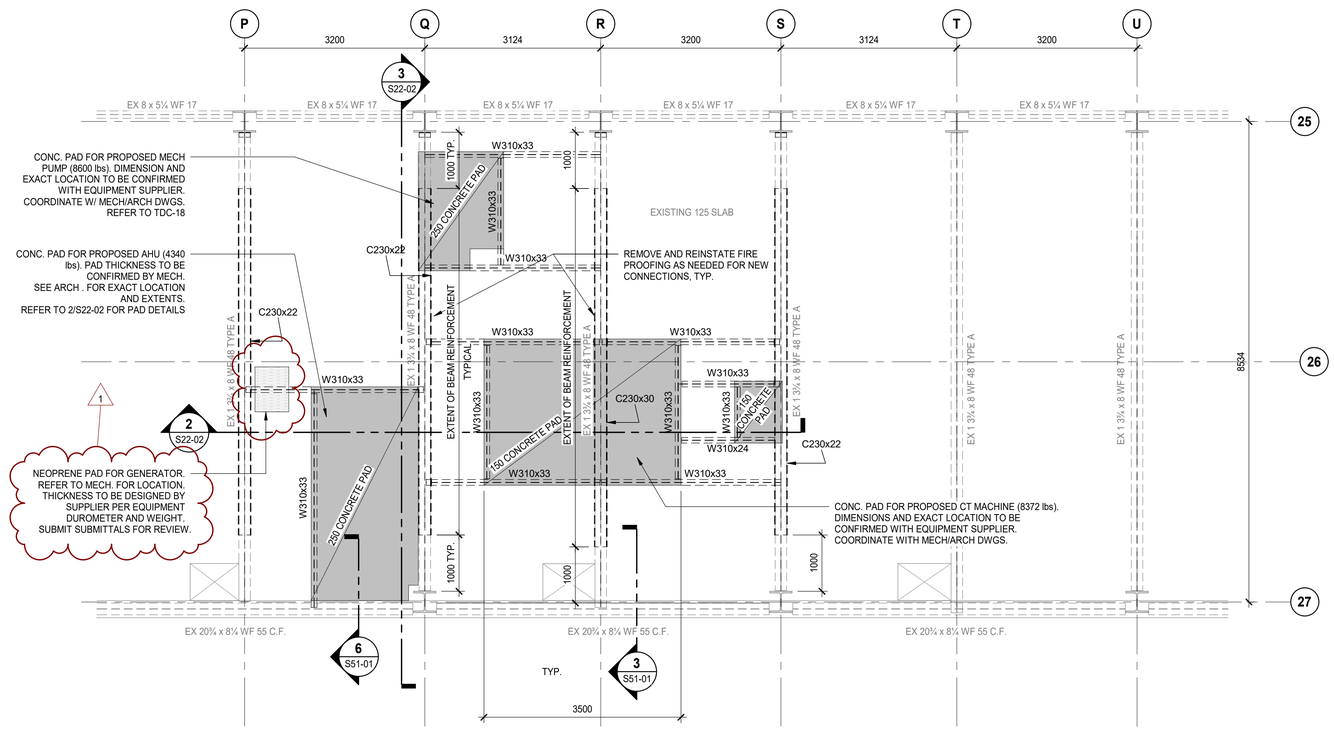
4. USE A CONCRETE MIX WITH THE SPECIFIED COMPRESSIVE STRENGTH, SLUMP, AND AGGREGATE SIZE AS PER THE PROJECT SPECIFICATIONS.
5. CURE CONCRETE AS PER MANUFACTURER RECOMMENDATIONS.
6. BEFORE DRILLING HOLES IN REINFORCED CONCRETE SLAB TO INSTALL DOWELS OR ANCHORS, SCAN THE DESIGNATED AREA FOR REBARS AND STEEL STUDS. AVOID CUTTING ANY REBAR AND ANY STEEL STUDS WITHIN SLAB, AND ADJUST THE SPACING OF THE DOWELS OR ANCHORS AS NEEDED.
7. BEFORE CORING INTO CONCRETE SLAB FOR DRAINS, ETC, SCAN THE SLAB SURFACE TO IDENTIFY ALL EMBEDMENTS, INCLUDING REBARS, STEEL STUDS, CONDUITS AND ADJUST LOCATION OF CORE TO MISS SUCH EMBEDMENTS. NOTIFY EOR FOR REVIEW PRIOR TO CORING.
8. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF CORES INTO SLAB.
9. CONNECT ALL STEEL ELEMENTS FOR FORCES SHOWN ON PLAN OR CONNECTION DETAILS PROVIDED. WHERE FORCES ARE NOT SHOWN, CONNECTION NEEDS TO BE DESIGNED TO MEET SECTION CAPACITIES.
10. A VIBRATION ASSESMENT FOR THE IMPACT OF CT MACHINE AND AHU ON EXISTING STRUCTURE IS PENDING. FINAL DESIGN AND DETAILING OF STRUCTURAL SCOPE SHOWN ON THESE DRAWINGS MAY BE REVISED BASED ON VIBRATION CONSULTANT'S RECOMMENDATIONS. CONTRACTOR TO ALLOW FOR POTENTIAL ADJUSTMENTS IN SCOPE, LAYOUT AND DETAILING FOLLOWING COMPLETION OF THE ASSESMENT.
11. CLEAN THE EXISTING CONCRETE SLAB THOROUGHLY TO REMOVE DIRT, OIL, GREASE, LAITANCE AND ANY LOOSE OR DETERIORATED MATERIAL. ROUGHEN THE SURFACE TO PROVIDE ADEQUATE BONDING USE MECHANICAL METHODS SUCH AS SANDBLASTING, SCARIFYING OR SHOT BLASTING FOR SURFACE.
12. APPLY AN APPROPRIATE BONDING AGENT SUCH AS SIKADUR 32 OR EQUIVALENT TO THE PREPARED SURFACE TO ENSURE PROPER ADHESION BETWEEN THE EXISTING SLAB AND THE NEW HOUSEKEEPING PADS.



2 S22-02 CONCRETE PAD DETAIL
SCALE: 1 : 20



3 S22-02 Section 3
SCALE: 1 : 20



1 S22-02 LEVEL 2 PARTIAL FRAMING PLAN
SCALE: 1 : 50

DATE	ISSUED FOR	REV
2024-05-29	50% CD	A
2025-08-28	95% CD	B
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM 07	1

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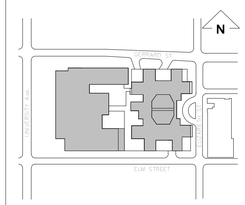
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
NORR Architects & Engineers Limited

175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	R. ENDAYA
Project Leader	Checked
M.Cohen	F. JAHANGIR

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
THE HOSPITAL FOR SICK CHILDREN
Toronto, ON, Canada

Drawing Title
LEVEL 2 ENLARGED FLOOR FRAMING PLAN

Check Scale (may be photo reduced)
0 1inch 0 10mm

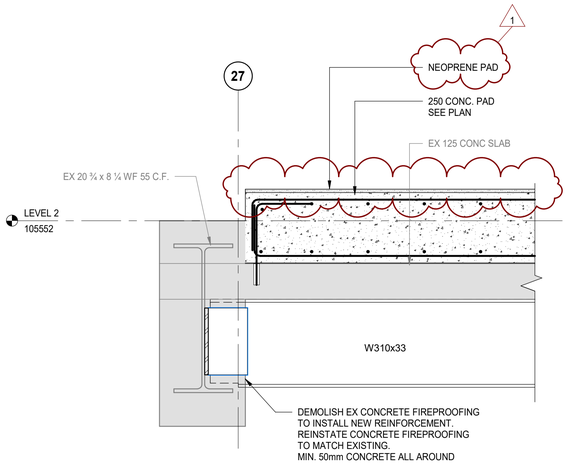
Project No.
ONBL21-0252

Drawing No.
S22-02

SK Atrium TB - 864 x 1232

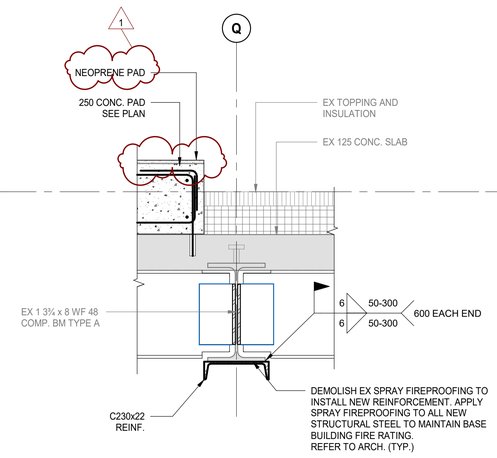
2025-11-24 1:53:47 PM
Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONBL21-0252_STRC_SickKids_Spect-CT-Room_R24.rvt

2025-11-24 1:53:47 PM



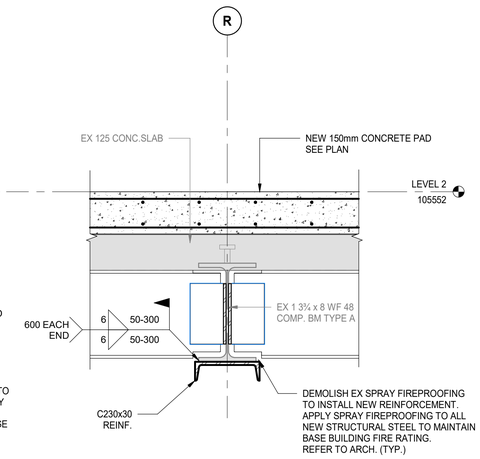
6 S51-01 DETAIL - BEAM CONNECTION AT GIRDER LOCATION

SCALE: 1 : 10



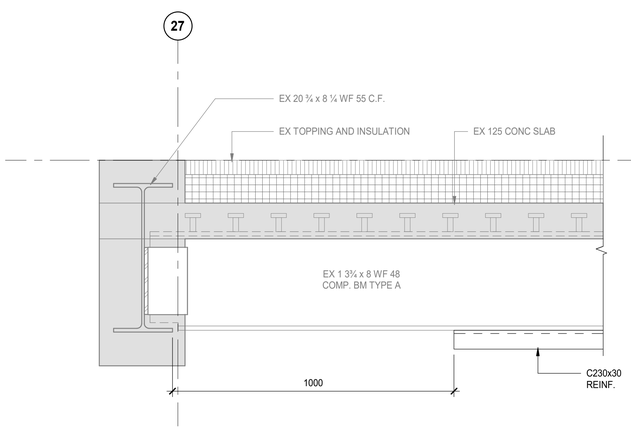
5 S51-01 DETAIL - BEAM REINFORCEMENT

SCALE: 1 : 10



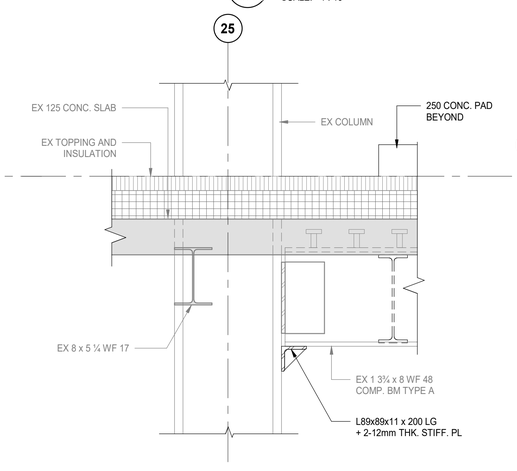
4 S51-01 DETAIL - BEAM REINFORCEMENT

SCALE: 1 : 10



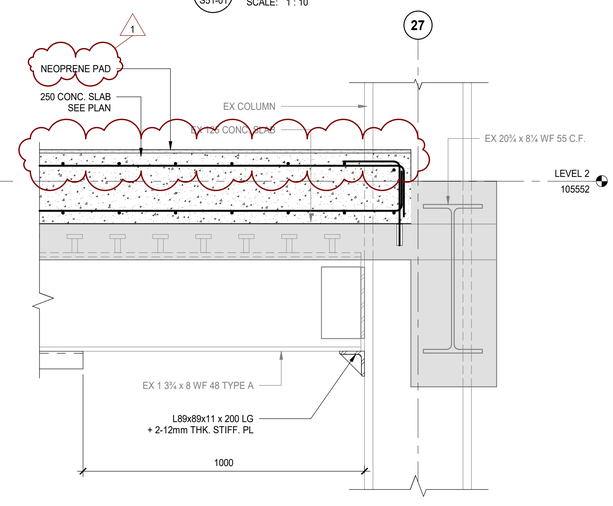
3 S51-01 DETAIL - EXISTING BEAM REINFORCEMENT

SCALE: 1 : 10



2 S51-01 DETAIL - TYPICAL BEAM CONNECTION REINFORCEMENT AT COLUMN ALONG GRID 25

SCALE: 1 : 10



1 S51-01 DETAIL - TYPICAL BEAM CONNECTION REINFORCEMENT AT COLUMN ALONG GRID 27

SCALE: 1 : 10

DATE	ISSUED FOR	REV
2025-08-28	95% CD	A
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM 07	1

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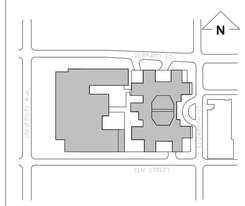
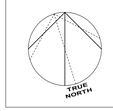
Keyplan



North Arrow



Detail Symbol

Detail No.
Sheet No.

Seal

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175 Bloor Street East
North Tower, 15th Floor
Toronto, ON, Canada M4W 3R8
norr.com

Project Manager	Drawn
J. Dignazio	R. ENDAYA
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M.Cohen	F. JAHANGIR

Client

SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project

THE HOSPITAL FOR SICK CHILDREN

Toronto, ON, Canada

Drawing Title

DETAILS

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
ONBL21-0252

Drawing No.
S51-01

SK Atrium TB - 864 x 1232

Autodesk Docs://Sick Kids - Spect CT Room/NORR_ONBL21-0252_STRC_SickKids_Spect-CT-Room_R24.rvt

Project Name:	SickKids Nuclear Medicine Spect CT	**Date Issued:**	November 24, 2025
Quasar Project #:	HC-21-129		

Distribution

Norr Architecture	John Dignazio	john.dignazio@norr.com
Norr Architecture	Zachary Shepherd	Zachary.Shepherd@norr.com
Quasar Consulting Group	Alexandra Blagojevic	alexandra.blagojevic@quasarcg.com
Quasar Consulting Group	Jerry Guidarelli	jerry.guidarelli@quasarcg.com
Quasar Consulting Group	Jomuel Estranero	jomuel.estranero@quasarcg.com
Quasar Consulting Group	Manda Bobinac	manda.bobinac@quasarcg.com

Addendum #:	M-1
Revision #:	0

This Addendum forms part of the Contract Specifications and Drawings, and modifies the Bidding Documents, with Amendments and Additions noted below. This Addendum shall be added to the front of the specifications as issued. Bidders shall acknowledge receipt of this Addendum in the space provided in the Bid Form and include in bid amount.

Changes to Drawings:

1. **Drawing MA 02 EW 01 – MECHANICAL DRAWING LIST, SYMBOL LIST AND KEYPLAN.**
   - Revisions to drawing list.
2. **Drawing MP 01 EW 01 – LEVEL 1 PART PLANS – PLUMBING – DEMOLITION AND NEW WORK.**
   - Revisions to domestic water pipe size.
3. **Drawing MP 02 EW 01 – LEVEL 2 PART PLANS – PLUMBING – DEMOLITION AND NEW WORK.**
   - Revisions to drawing sheet keynotes.
   - Revisions to new work plans.
4. **Drawing MG 02 EW 01 – LEVEL 2 PART PLANS – MEDICAL GAS – DEMOLITION AND NEW WORK.**
   - Revisions to ZVB/AP location and associated piping.
5. **Drawing MG PL EW 01 – PLENUM LEVEL 2 PART PLANS – MEDICAL GAS – DEMOLITION AND NEW WORK.**
   - Revisions to drawing sheet keynotes.
6. **Drawing MV 01 EW 01 – LEVEL 1 PART PLANS – HVAC – DEMOLITION AND NEW WORK.**
   - New sheet to capture HVAC work on Level 1.
7. **Drawing MV 02 EW 01 – LEVEL 2 PART PLANS – HVAC – DEMOLITION.**
   - Revisions to drawing notes.
8. **Drawing MV 02 EW 02 – LEVEL 2 PART PLANS – HVAC – NEW WORK.**
   - Revisions to drawing notes.
   - Revisions to heating piping within mechanical room.
   - Revision to low level exhaust grille size.
   - Addition of new exhaust fan silencer.
9. **Drawing MW 02 EW 01 – LEVEL 2 PART PLANS – FIRE PROTECTION.**

- New sheet to capture sprinkler piping work on Level 2.

10. **Drawing MF CW EW 01 – CHILLED WATER AND AGS FLOW DIAGRAM – NEW WORK.**
    - Revisions to valve locations.
11. **Drawing MD 00 EW 01 – MECHANICAL DETAILS I.**
    - New Air handling unit Steam Humidifier Coil detail added.
    - Revisions to AHU coil details.
    - Revisions to low level exhaust detail.
12. **Drawing MC 00 EW 01 – MECHANICAL CONTROL SEQUENCES I.**
    - Revisions to chilled water control sequence.
    - Revisions to medical gas pump control sequence.
    - Revisions to VAV control sequence.
13. **Drawing MC 00 EW 02 – MECHANICAL CONTROL SEQUENCES II.**
    - Revisions to air handling unit control sequence.
14. **Drawing MS 00 EW 01 – MECHANICAL SCHEDULES I.**
    - Revisions to “CONTROL VALVE SCHEDULE”.
    - Revisions to “CAV BOX SCHEDULE”.
    - Revisions to “SILENCER SCHEDULE”.
    - Revisions to “GRILLE AND DIFFUSER SCHEDULE”.
    - Revisions to “EXHAUST FAN SCHEDULE”.
15. **Drawing MS 00 EW 02 – MECHANICAL SCHEDULES II.**
    - Revisions to “AIR HANDLING UNIT” schedules.
    - Revisions to “AGS PUMP SCHEDULE”, as indicated.

Quasar Consulting Group
Manda Bobinac
Team Lead; Mechanical Engineering

MECHANICAL SYMBOLS

GENERAL

SYMBOL	DESCRIPTION
	EXISTING TO REMAIN
	EXISTING TO BE DEMOLISHED
R	EXISTING TO BE REMOVED FOR RELOCATION
R	EXISTING RELOCATED IN NEW WORK
	NEW WORK
CTE	CONNECT TO EXISTING
	PIPE TURNING DOWN
	PIPE TURNING UP
	PRESSURE REDUCING VALVE
T	THERMOSTAT
H	HUMIDISTAT
	PUMP
	AUTOMATIC CONTROL VALVE - TWO WAY
	AUTOMATIC CONTROL VALVE - THREE WAY
	ISOLATION VALVE
	BALANCING VALVE
	CHECK VALVE
	STRAINER - OVER 50MM WITH VALVED FLUSHING DRAIN
	PIPE BRANCH OFF TOP
	PIPE BRANCH OFF BOTTOM
	RELIEF VALVE (PIPE TO DRAIN)
	PRESSURE GUAGE
	THERMOMETER

PLUMBING

SYMBOL	DESCRIPTION
SAN	SANITARY DRAINAGE - ABOVE GROUND
SAN	SANITARY DRAINAGE - UNDERGROUND
PD	PUMPED DISCHARGE
	DOMESTIC COLD WATER SUPPLY
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC HOT WATER RECIRC.
TW	TEMPERED WATER
V	VENT
	HEAT TRACING
	RUNNING TRAP
	P-TRAP
BFP	BACKFLOW PREVENTER
"WC-1"	DENOTES FIXTURE TYPE PER SPECIFICATION
CO	CLEANOUT IN FLOOR
CO	CLEANOUT IN CEILING
FFD	FUNNEL FLOOR DRAIN
FD	FLOOR DRAIN
HD	HUB DRAIN

FIRE PROTECTION

SYMBOL	DESCRIPTION
SP	SPRINKLER LINE
FM	FIRE MAIN
	STANDPIPE
SV	SUPERVISED VALVE
SVC	SPRINKLER VALVE CABINET
	SEMI-RECESSED PENDENT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	CONCEALED SPRINKLER HEAD
	SIDEWALL SPRINKLER HEAD
FSP	FIRE STANDPIPE RISER
FHC	FIRE HOSE CABINET
F	FIRE EXTINGUISHER C/W WALL BRACKET
FEC	FIRE EXTINGUISHER CABINET
PIV	POST-INDICATOR VALVE

HEATING & COOLING

SYMBOL	DESCRIPTION
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HGR	HEATING GLYCOL RETURN
HGS	HEATING GLYCOL SUPPLY
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CHGR	CHILLED GLYCOL RETURN
CHGS	CHILLED GLYCOL SUPPLY
CNDR	CONDENSATE DRAIN
REFR	REFRIGERANT GAS
REFS	REFRIGERANT LIQUID
	UNION
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	FLOAT & THERMOSTATIC TRAP
	INVERTED BUCKET TRAP

VENTILATION

SYMBOL	DESCRIPTION
	SUPPLY GRILLE - DIMENSIONS AS SHOWN ON SCHEDULE
	EXHAUST/RETURN GRILLE - DIMENSIONS AS SHOWN ON SCHEDULE
	CEILING SUPPLY AIR DIFFUSER - DIMENSIONS AS SHOWN ON SCHEDULE
	LINEAR SLOT DIFFUSER - DIMENSIONS AS SHOWN ON SCHEDULE
	CEILING EXHAUST/RETURN GRILLE - DIMENSIONS AS SHOWN ON SCHEDULE
	SUPPLY AIR ROUND DIFFUSER
O.E.D.	OPEN ENDED DUCT WITH BALANCING DAMPER AND BELLMOUTH. DIRECTION AS SHOWN (DOUBLE LINE)
O.E.D.	OPEN ENDED DUCT WITH BALANCING DAMPER AND BELLMOUTH. DIRECTION AS SHOWN (SINGLE LINE)
	FLEXIBLE DUCT CONNECTION
	ACOUSTICALLY LINED DUCTWORK (DOUBLE LINE)
	DUCT SILENCER
	FLEXIBLE DUCT (DOUBLE LINE)
	FLEXIBLE DUCT (SINGLE LINE)
	FLEXIBLE DUCT CONNECTION WITH BALANCING DAMPER ON TAKE-OFF
	DUCT MOUNTED HEATING COIL (DOUBLE LINE)
	SUPPLY AIR TERMINAL BOX C/W REHEAT COIL AND ATTENUATOR.
	SUPPLY AIR TERMINAL BOX C/W ATTENUATOR.
	RETURN / EXHAUST AIR TERMINAL BOX ATTENUATOR.
	FIRE RATED DUCTWORK (DOUBLE LINE)
	DUCT TRANSITION FROM RECTANGULAR TO ROUND
	RECTANGULAR DUCT BREAK
	ROUND DUCT BREAK
	TRANSFER AIR DUCT
	SUPPLY AIR LIGHT TROFFER
U/C	75mm (3/4") DOOR UNDERCUT
FD	FUSIBLE LINK FIRE DAMPER (DOUBLE LINE)
SD	SMOKE DAMPER (DOUBLE LINE)
SFD	COMBINATION SMOKE/FIRE DAMPER (DOUBLE LINE)
BDD	BACK DRAFT DAMPER (DOUBLE LINE)
BD	BALANCING DAMPER (DOUBLE LINE)
M	MOTORIZED DAMPER (DOUBLE LINE)
600x300	RECTANGULAR DUCTWORK - DIMENSION AS SHOWN
600Ø	ROUND DUCTWORK - DIMENSION AS SHOWN
	RECTANGULAR SUPPLY/OUTDOOR AIR DUCT UP
	RECTANGULAR EXHAUST/RETURN AIR DUCT UP
	CIRCULAR SUPPLY/OUTDOOR AIR DUCT UP
	CIRCULAR EXHAUST/RETURN AIR DUCT UP
	RECTANGULAR SUPPLY/OUTDOOR AIR DUCT DOWN
	RECTANGULAR EXHAUST/RETURN AIR DUCT DOWN
	CIRCULAR SUPPLY/OUTDOOR AIR DUCT DOWN
	CIRCULAR EXHAUST/RETURN AIR DUCT DOWN
	MITRED ELBOW WITH TURNING VANES
	DUCT RISE (DOUBLE LINE)

MEDICAL GAS SYSTEM

SYMBOL	DESCRIPTION
MA	MEDICAL AIR
MV	MEDICAL VACUUM
O	OXYGEN
N	NITROGEN
NO	NITROUS OXIDE
CO2	CARBON DIOXIDE
AGS	ANAESTHETIC GAS SCAVENGING SYSTEM
MA	MEDICAL AIR OUTLET
V	VACUUM OUTLET
O	OXYGEN OUTLET
N	NITROGEN OUTLET
NO	NITROUS OXIDE OUTLET
CO_2	CARBON DIOXIDE OUTLET
AGS	ANAESTHETIC GAS SCAVENGING
	ALARM POINT
ZVB	ZONE VALVE BOX
	ALARM SENSOR WITH D.I.S.S CONNECTION
CP	CONTROL PANEL
MAP	MASTER ALARM PANEL
AP	LOCAL EMERGENCY ALARM PANEL
	COMPRESSED GAS CYLINDER
O	OXYGEN SENSOR
GDP	GAS DETECTION SYSTEM CONTROL PANEL
	VISUAL INDICATOR ALARM
	AUDIBLE INDICATOR ALARM

CONTROLS

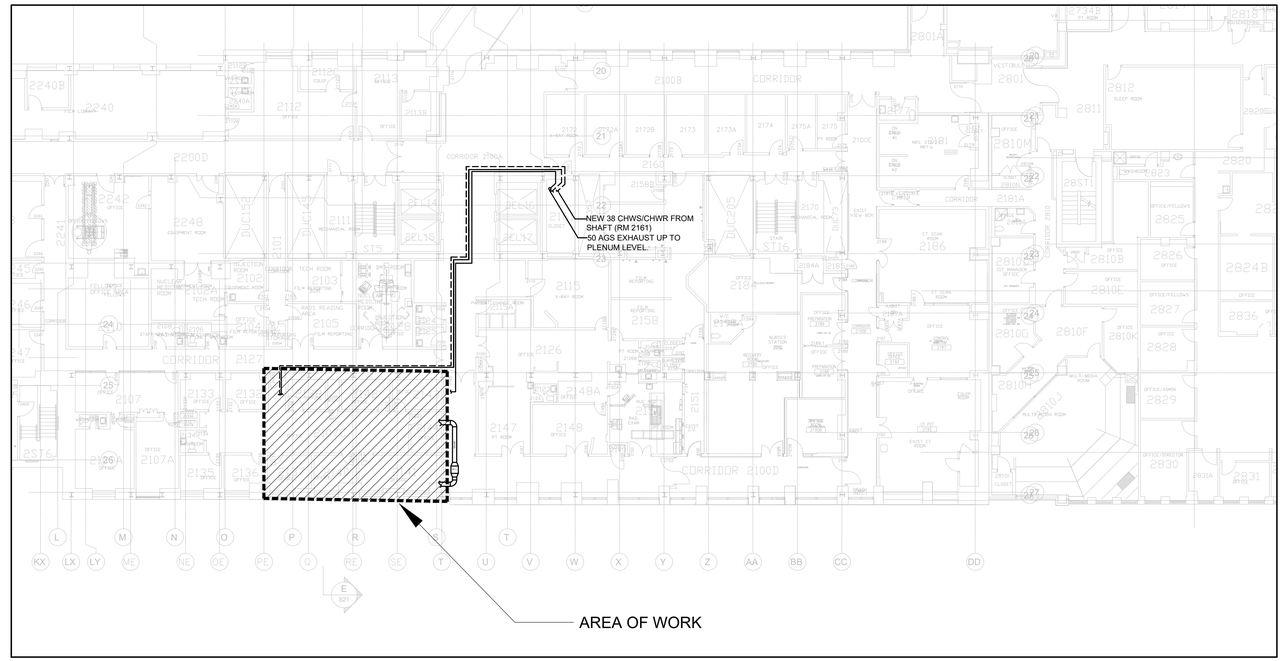
SYMBOL	DESCRIPTION
SF	SUPPLY FAN
RF	RETURN EXHAUST FAN
EF	EXHAUST FAN
H/C	HEATING COIL
C/C	COOLING COIL
P/C	PRE-HEAT COIL
	FILTERS
SA	SUPPLY AIR
EA	EXHAUST AIR
OA	OUTDOOR AIR
RA	RETURN AIR
MD	MOTORIZED DAMPER
MSP	MOTOR STARTER PANEL
MCC	MOTOR CONTROL CENTER
	HUMIDIFIER
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
VFD	VARIABLE FREQUENCY DRIVE
	ACTUATOR CLOSED END SWITCH
	ACTUATOR OPEN END SWITCH
FS	FLOW SWITCH
LS	LEVEL SWITCH
PS	PRESSURE SWITCH

CONTROLS

SYMBOL	DESCRIPTION
NC	ACTUATOR NORMALLY CLOSED DE-ENERGIZED POSITION
NO	ACTUATOR NORMALLY OPEN DE-ENERGIZED POSITION
	ACTUATOR FAIL OPEN POSITION
	ACTUATOR FAIL CLOSED POSITION
FL	ACTUATOR FAIL LAST POSITION
	TWO-POSITION ACTUATOR
	MODULATING ACTUATOR
P	PRESSURE SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
VS	VELOCITY SENSOR
H	HUMIDITY SENSOR
T	TEMPERATURE SENSOR
OS	OCCUPANCY SENSOR
CO	CARBON MONOXIDE SENSOR
NO	NOX SENSOR
O_2	OXYGEN SENSOR
GDP	GAS DETECTION SYSTEM CONTROL PANEL
	VISUAL INDICATOR ALARM
	AUDIBLE INDICATOR ALARM
BAS	BUILDING AUTOMATION SYSTEM
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
GP	BAS GRAPHICS POINT
AP	BAS ADJUSTABLE SET POINT
BV	BACNET BINARY VARIABLE
HOA	HAND-OFF-AUTO
	CONTROL WIRING

GENERAL NOTES

1. WORK OUTSIDE OF AREAS OF WORK IDENTIFIED IN THE MECHANICAL KEYPLAN WILL BE OCCUPIED FOR THE ENTIRE DURATION OF THE PROJECT. CEILING INVESTIGATIONS ARE TO BE COMPLETED AFTER HOURS BY THE MECHANICAL CONTRACTOR IN ACCORDANCE WITH SICKKIDS FACILITY PROCEDURES. CONSTRUCTION WORK OUTSIDE OF AREAS OF WORK IS TO BE COORDINATED AND COMPLETED AFTER HOURS OR SUCH THAT SICKKIDS OPERATIONS CAN CONTINUE NORMALLY THROUGH SPACES WITHOUT SHUTTING DOWN ANY SPACES. REFER TO DIVISION 1 SPECIFICATIONS FOR AFTER HOUR WORK PERIODS AND SPECIFICATION APPENDIX FOR HAZMAT REPORT.



1 2ND FLOOR KEYPLAN
SCALE: 1:200

Sheet Number	Sheet Title
MA 02 EW 01	MECHANICAL DRAWING LIST,SYMBOL LIST AND KEYPLAN
MP 01 EW 01	LEVEL 1 PART PLANS - PLUMBING - DEMOLITION AND NEW WORK
MP 02 EW 01	LEVEL 2 PART PLANS - PLUMBING - DEMOLITION AND NEW WORK
MG 02 EW 01	LEVEL 2 PART PLANS - MEDICAL GAS - DEMOLITION AND NEW WORK
~~MG 04 EW 01~~	~~PLUMBING PART PLANS - MEDICAL GAS - NEW WORK~~
MV 01 EW 01	LEVEL 1 PART PLANS - HVAC - DEMOLITION
~~MV 02 EW 01~~	~~LEVEL 2 PART PLANS - HVAC - DEMOLITION~~
MV 02 EW 02	LEVEL 2 PART PLANS - HVAC - NEW WORK
MW 02 EW 01	LEVEL 2 PART PLANS - SPRINKLER - NEW WORK
~~MC 00 EW 01~~	~~CHILLED WATER AND HOT FLOW DIAGRAM~~
MD 00 EW 01	MECHANICAL DETAILS I
MD 00 EW 02	MECHANICAL DETAILS II
MD 00 EW 03	MECHANICAL DETAILS III
MC 00 EW 01	MECHANICAL CONTROL SEQUENCE I
MC 00 EW 02	MECHANICAL CONTROL SEQUENCE II
MS 02 EW 01	MECHANICAL SCHEDULES I
MS 02 EW 02	MECHANICAL SCHEDULES II

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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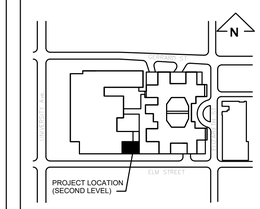
Keyplan



North Arrow

Detail Symbol
Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

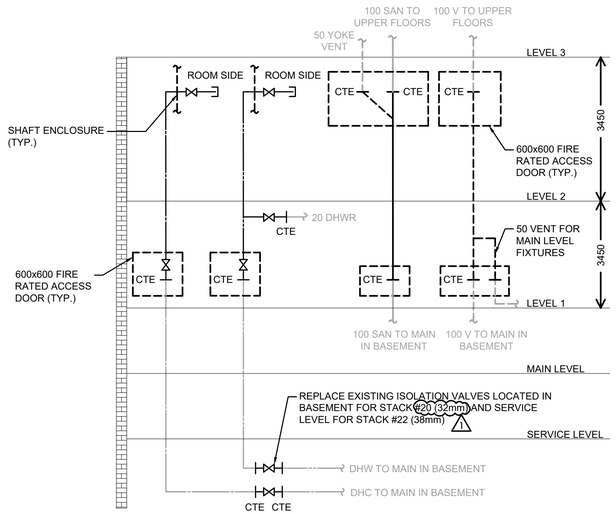
Drawing Title
MECHANICAL DRAWING LIST,SYMBOL LIST AND KEYPLAN

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HC 21-129

Drawing No.
MA 02 EW 01

SK Atrium TB - 864 x 1232



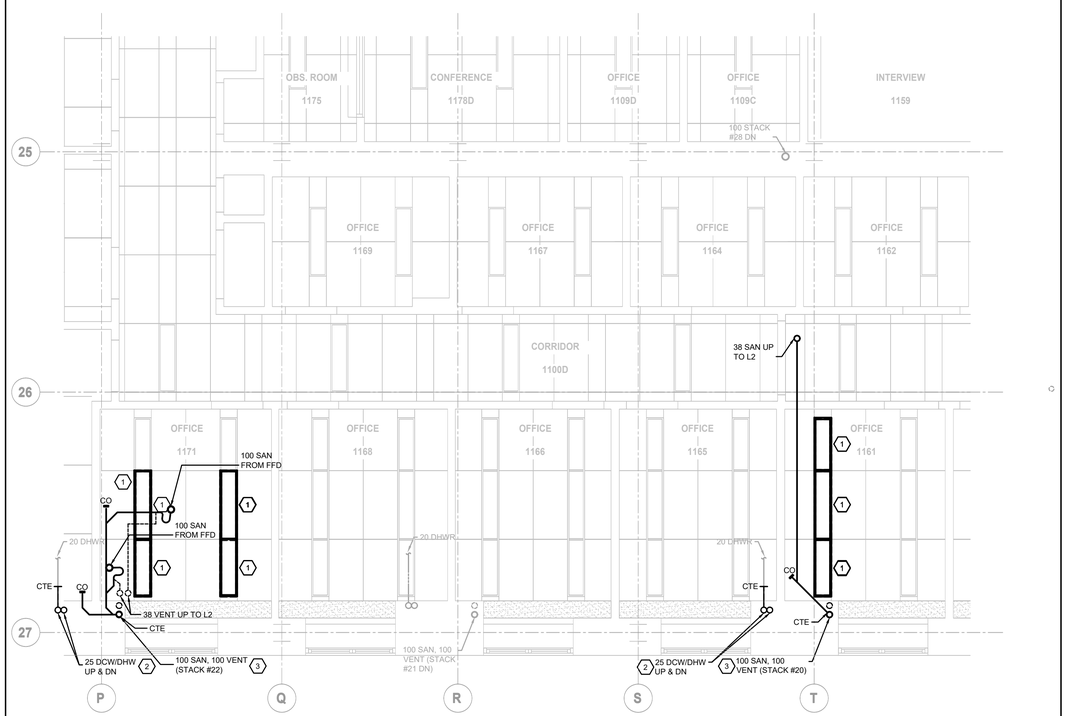
DETAIL NOTES:

1. EXTEND DCW AND DHW OUTSIDE OF ENCLOSURE C/W ISOLATION VALVES AND CAPS.
2. CAPPED DCW AND DHW SHALL BE ABOVE FINISH CEILING C/W ACCESS DOOR.
3. REFER TO DWG MP 02 EW 01 FOR STACK #21 REPLACEMENT.
4. LEAVE 600mm BETWEEN JOINT OF EXISTING DCW AND DHW PIPING AND NEW ISOLATION VALVE FOR FUTURE REPLACEMENT OF PIPING, WITHOUT COMPROMISING JOINT AT ISOLATION VALVE.
5. FREEZE PIPING AS REQUIRED TO ALLOW FOR REPLACEMENT OF DOMESTIC WATER RISERS AND ISOLATION VALVES.
6. PROVIDE FIRE RATED ACCESS DOORS FOR ALL SHAFTS. REFER TO ARCHITECTURAL DRAWINGS FOR SHAFT WALL FIRE RESISTANCE RATING.
7. ACCESS DOORS SHOWN ARE INTENDED TO BE BELOW FINISHED CEILINGS OR ABOVE FINISHED FLOORS.
8. SANITARY AND VENT STACKS SHALL BE REPLACED AS CLOSE TO LEVELS AS POSSIBLE, WHILE LEAVING ACCESS TO JOINT FOR FUTURE REPLACEMENT ON LEVELS ABOVE AND BELOW.

3 DETAIL OF STACK #20 AND 22 REPLACEMENT
SCALE: N.T.S

SHEET KEYNOTES	
1	INCLUDE FOR REMOVAL AND REINSTATEMENT OF LIGHT TROFFER DIFFUSERS TO FACILITATE PLUMBING SCOPE OF WORK, INCLUDING DISCONNECTING AND RECONNECTING 150mm FLEX DUCT CONNECTIONS AS REQUIRED - TYPICAL. PRIOR TO ANY DEMOLITION WORK, MEASURE AIRFLOW AT ALL DIFFUSERS INDICTED IN BOLD AND SUBMIT FOR CONSULTANT/OWNER REVIEW. UPON REINSTATEMENT, REBALANCE AIRFLOWS TO VALUES MEASURED PRIOR TO DEMOLITION.
2	REMOVE AND REPLACE EXISTING DCW AND DHW PLUMBING RISERS LOCATED IN EXISTING SHAFT. CUT BACK DHWR AS REQUIRED TO ALLOW FOR NEW WORK. PROVIDE NEW DCW, DHW AND DHWR PIPING. REFER TO FLOOR PLANS FOR SIZING. REFER TO DETAIL 3 FOR STACK #20 AND 22 RISER REPLACEMENT DETAIL. FREEZE ALL DCW, DHW, AND DHWR PIPING TO ALLOW FOR DEMOLITION AND NEW WORK. CONTRACTOR TO COORDINATE SHUT DOWN OF EXISTING RISERS WITH FACILITY.
3	REMOVE AND REPLACE EXISTING 100 SAN AND 100 VENT STACKS LOCATED IN EXISTING SHAFT. PROVIDE NEW 100 SAN AND 100 VENT PIPING, C/W ACCESS DOORS AT TOP AND BOTTOM FOR FUTURE ACCESS TO JOINTS. REFER TO DETAIL 3 FOR STACK #20 AND 22 RISER REPLACEMENT DETAIL. CONTRACTOR TO COORDINATE SHUT DOWN OF EXISTING RISERS WITH FACILITY.

GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 AND TYPE 3 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING PLUMBING. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL CONNECTIONS, PIPE SIZES AND LOCATIONS ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
3	CONTRACTOR RESPONSIBLE FOR CONFIRMING EXISTING AND NEW INVERTS ON SITE. PROVIDE ALL REQUIRED OFFSETS TO ROUTE AROUND EXISTING SERVICES.



2 LEVEL 1 PART PLAN - PLUMBING - NEW WORK
SCALE: 1:50

---- MP-01-D-PH1
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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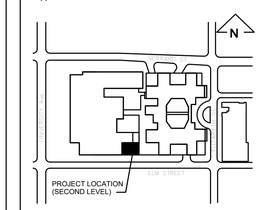
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
LEVEL 1 PART PLANS - PLUMBING - DEMOLITION AND NEW WORK

Check Scale (may be photo reduced)
0 1inch 0 10mm

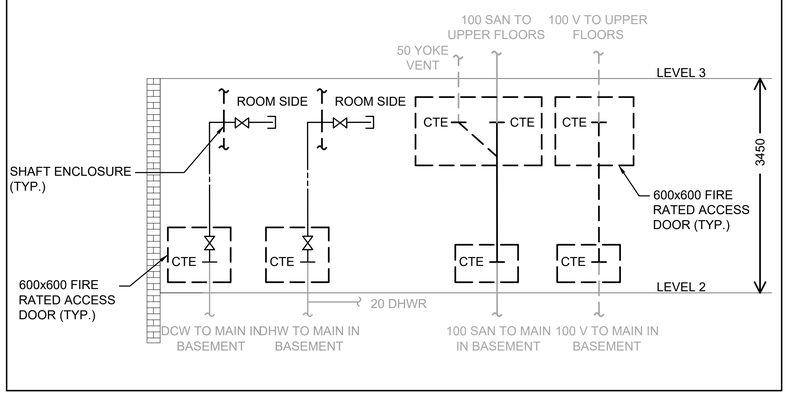
Project No.
HC 21-129

Drawing No.
MP 01 EW 01

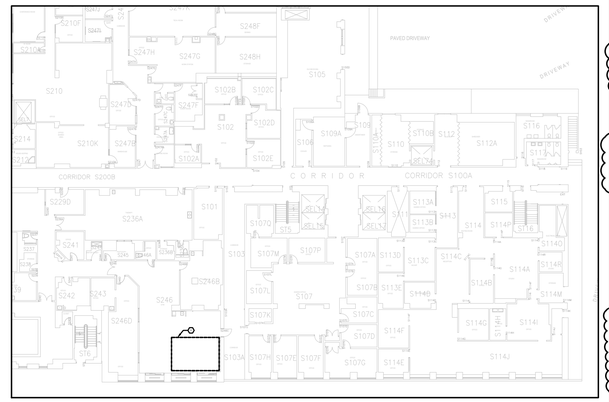
SK Atrium TB - 864 x 1232

DETAIL NOTES:

1. EXTEND DCW AND DHW OUTSIDE OF ENCLOSURE C/W ISOLATION VALVES AND CAPS.
2. CAPPED DCW AND DHW SHALL BE ABOVE FINISH CEILING C/W ACCESS DOOR.
3. REFER TO DWG MP 01 EW 01 FOR STACK #20 AND 22 REPLACEMENTS.
4. LEAVE 600mm BETWEEN JOINT OF EXISTING DCW AND DHW PIPING AND NEW ISOLATION VALVE FOR FUTURE REPLACEMENT OF PIPING, WITHOUT COMPROMISING JOINT AT ISOLATION VALVE.
5. FREEZE PIPING AS REQUIRED TO ALLOW FOR REPLACEMENT OF DOMESTIC WATER RISERS AND ISOLATION VALVES.
6. PROVIDE FIRE RATED ACCESS DOORS FOR ALL SHAFTS. REFER TO ARCHITECTURAL DRAWINGS FOR SHAFT WALL FIRE RESISTANCE RATING.
7. ACCESS DOORS SHOWN ARE INTENDED TO BE BELOW FINISHED CEILINGS OR ABOVE FINISHED FLOORS.
8. SANITARY AND VENT STACKS SHALL BE REPLACED AS CLOSE TO LEVELS AS POSSIBLE, WHILE LEAVING ACCESS TO JOINT FOR FUTURE REPLACEMENT ON LEVELS ABOVE AND BELOW.



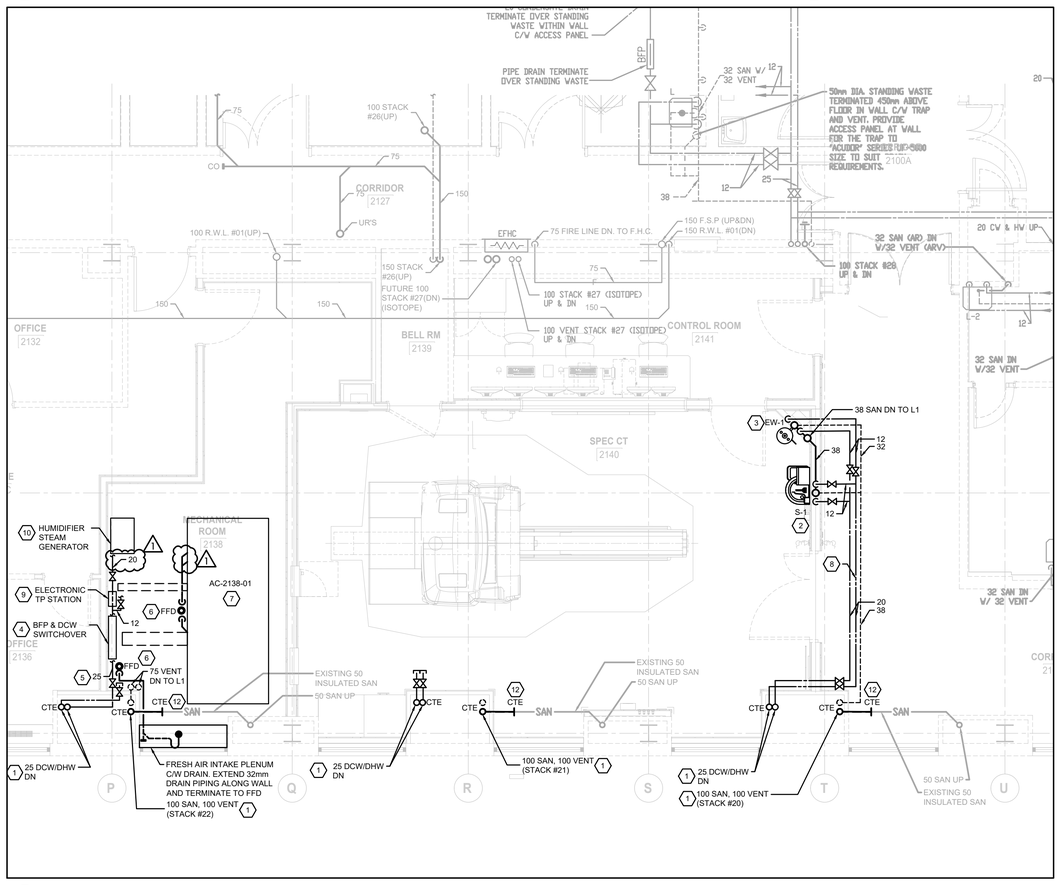
4 DETAIL OF STACK #21 REPLACEMENT
SCALE: N.T.S.



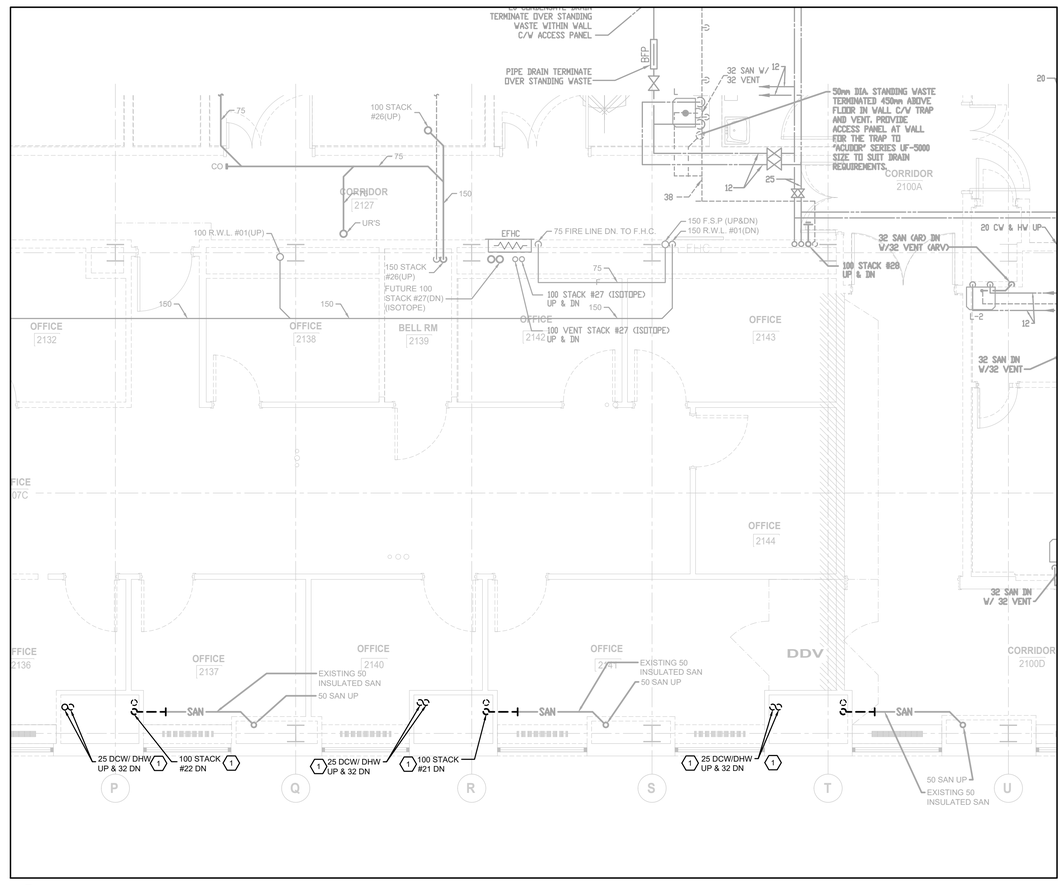
3 SERVICE LEVEL PART PLANS - DEMOLITION & NEW WORK
SCALE: NTS

SHEET KEYNOTES	
1	REMOVE AND REPLACE EXISTING DCW AND DHW PLUMBING RISERS AS WELL AS SANITARY AND VENT STACKS. REFER TO DWG MP 02 EW 01 DETAIL 4 FOR EXTENTS OF STACK #21 REPLACEMENT, AND MP 01 EW 01 DETAIL 3 FOR STACK #20 AND 22 REPLACEMENTS. CONTRACTOR TO COORDINATE SHUT DOWN OF EXISTING RISERS WITH FACILITY.
2	PROVIDE NEW HAND HYGIENE SINK 'S-1', COMPLETE WITH FAUCET, P-TRAP AND ACCESSORIES. EXTEND NEW 12mm DCW AND 12mm DHW FROM EXISTING DOMESTIC PIPING TO 'S-1' C/W ISOLATION VALVES. EXTEND NEW 32mm VENT FROM EXISTING VENT PIPING AND CONNECT TO 'S-1'. AS INDICATED. EXTEND 38mm SAN FROM 'S-1' DN TO LEVEL BELOW, AS INDICATED. REFER TO DWG MP 01 EW 01 FOR CONTINUATION.
3	PROVIDE NEW EYEWASH 'EW-1'. COMPLETE WITH P-TRAP, ACCESSORIES, AND TMV (THERMOSTATIC MIXING VALVE). TMV TO BE LOCATED IN ACCESSIBLE LOCATION WITHIN CEILING SPACE OF CORRIDOR. EXTEND NEW 12mm DCW AND 12mm DHW FROM EXISTING DOMESTIC WATER RISERS TO TMV LOCATED IN CEILING SPACE. EXTEND TEMPERED WATER FROM TMV TO 'EW-1'. EXTEND NEW 32mm VENT FROM EXISTING VENT PIPING TO 'EW-1'. EXTEND 32mm SAN FROM 'EW-1' WITHIN WALL, AND DOWN TO LEVEL BELOW, AS INDICATED. REFER TO DWG MP 01 EW 01 FOR CONTINUATION.
4	PROVIDE 25mm REDUCED PRESSURE ZONE BACKFLOW PREVENTOR EQUAL TO WATTS LF009 C/W FLOOD DETECTION SENSOR SYSTEM WITH BAS MONITORING, AIR GAP AND ELBOW. MOUNT AT FLOOR LEVEL WITH UNISTRUT STAND. EXTEND 50mm DRAIN AND TERMINATE INDIRECTLY INTO NEW FFD. PROVIDE CHECK VALVE ON DOWNSTREAM SIDE. PROVIDE EXPANSION TANK EQUAL TO AMTROL "ST-12C-DD" CONNECTED DOWNSTREAM OF CHECK VALVE. REFER TO DWG MD 00 EW 01 FOR INSTALLATION DETAIL REQUIREMENTS.
5	EXTEND NEW 25mm DCW FROM EXISTING DCW RISER TO NEW BFP AND DCW SWITCHOVER ASSEMBLY. REFER TO DWG MC 00 AT 01 FOR SWITCHOVER CONTROL SEQUENCE, INTERCONNECTION WITH CHILLED WATER, AND VALVING ARRANGEMENT. REFER TO DETAIL 3 FOR DOMESTIC WATER VALVE REPLACEMENT SCOPE FOR RISER 22 ON SERVICE LEVEL.
6	PROVIDE NEW FFD AND EXTEND 100 SAN TO LEVEL BELOW. EXTEND NEW 38 VENT PIPING SERVING FFD TRAP FROM LEVEL BELOW UP TO LEVEL 2, AND CONNECT TO EXISTING STACK #22 AT LOW LEVEL, AS INDICATED. REFER TO DWG MP 01 EW 01 FOR CONTINUATION.
7	EXTEND 32mm CONDENSATE DRAIN PIPING FROM AHU DRIP PANS, COOLING COIL, AND HUMIDIFIER AND TERMINATE INDIRECTLY TO NEW FFD LOCATED IN MECHANICAL ROOM.
8	PROVIDE NEW HEAT TRACING FOR NEW DHW PIPING SERVING PLUMBING FIXTURES 'S-1' AND 'EW-1'. PRODUCT TO BE EQUAL TO NVENT HWAT-SELF REGULATING CABLE. THERMOSTAT IS TO BE PROVIDED AND TEMPERATURE FOR DHW SHALL BE MAINTAINED AT 120F. CONTRACTORS TO COORDINATE WITH ELECTRICAL TRADE TO PROVIDE NORMAL POWER PROVISIONS FOR HEAT TRACING. HEAT TRACING CABLE SHALL BE INSTALLED ON DHW PIPING FROM LEVEL 2 TO MIXING VALVE OF FURTHEST FIXTURE (EW-1).
9	PROVIDE NEW ELECTRONIC TRAP PRIMING STATION TO SERVE NEW MECHANICAL TRAPS. ELECTRONIC TRAP PRIMER IS TO BE SURFACE MOUNTED IN MECHANICAL ROOM, AS INDICATED. EXTEND 12 DCW C/W ISOLATION VALVE FROM 25 DCW DOWNSTREAM OF BFP. EXTEND TRAP PRIMING TUBING TO NEW FFD TRAPS, INTAKE PLENUM TRAP, AND ALL AHU TRAPS.
10	PROVIDE NEW HUMIDIFIER STEAM GENERATOR AND UNISTRUT AND INSTALL TO SUIT MANUFACTURER CLEARANCE REQUIREMENTS. EXTEND 20mm DCW PIPING C/W ISOLATION VALVE, STRAINER AND WATER HAMMER ARRESTOR FROM 25mm DCW DOWNSTREAM OF BFP.
11	REPLACE EXISTING 32mm ISOLATION VALVES SERVING ASSOCIATED RISERS ON SERVICE LEVEL SERVING EXISTING DCW AND DHW RISERS (STACK #20 AND 22) LOCATED IN GYM RM (RM S246). CONTRACTOR TO INCLUDE FOR PIPE FREEZING. REFER TO DETAIL 3 ON DWG MP 01 EW 01 FOR SCHEMATIC DETAIL.
12	REPLACE SECTION OF EXISTING 50mm SANITARY PIPING TO ACCOMMODATE STACK REPLACEMENT WORK. CUT BACK INSULATION AS REQUIRED AND PATCH TO MATCH EXISTING.

GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING PLUMBING. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL CONNECTIONS, PIPE SIZES AND LOCATIONS ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
3	CONTRACTOR RESPONSIBLE FOR CONFIRMING EXISTING AND NEW INVERTS ON SITE. PROVIDE ALL REQUIRED OFFSETS TO ROUTE AROUND EXISTING SERVICES.



2 LEVEL 2 PART PLAN - PLUMBING - NEW WORK
SCALE: 1:50



1 LEVEL 2 PART PLAN - PLUMBING - DEMOLITION
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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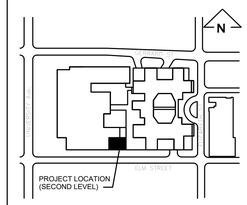
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
LEVEL 2 PART PLANS - PLUMBING - DEMOLITION AND NEW WORK

Check Scale (may be photo reduced)
0 1inch 0 10mm

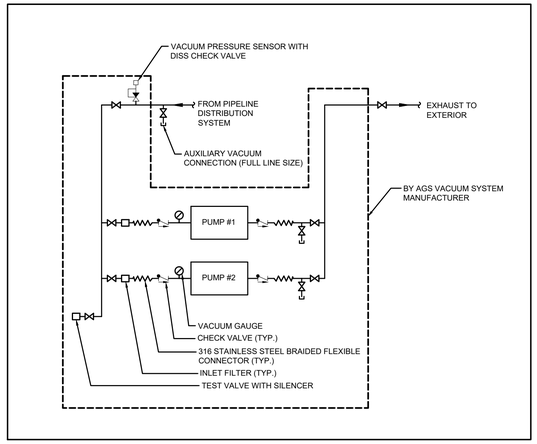
Project No.
HC 21-129

Drawing No.
MP 02 EW 01

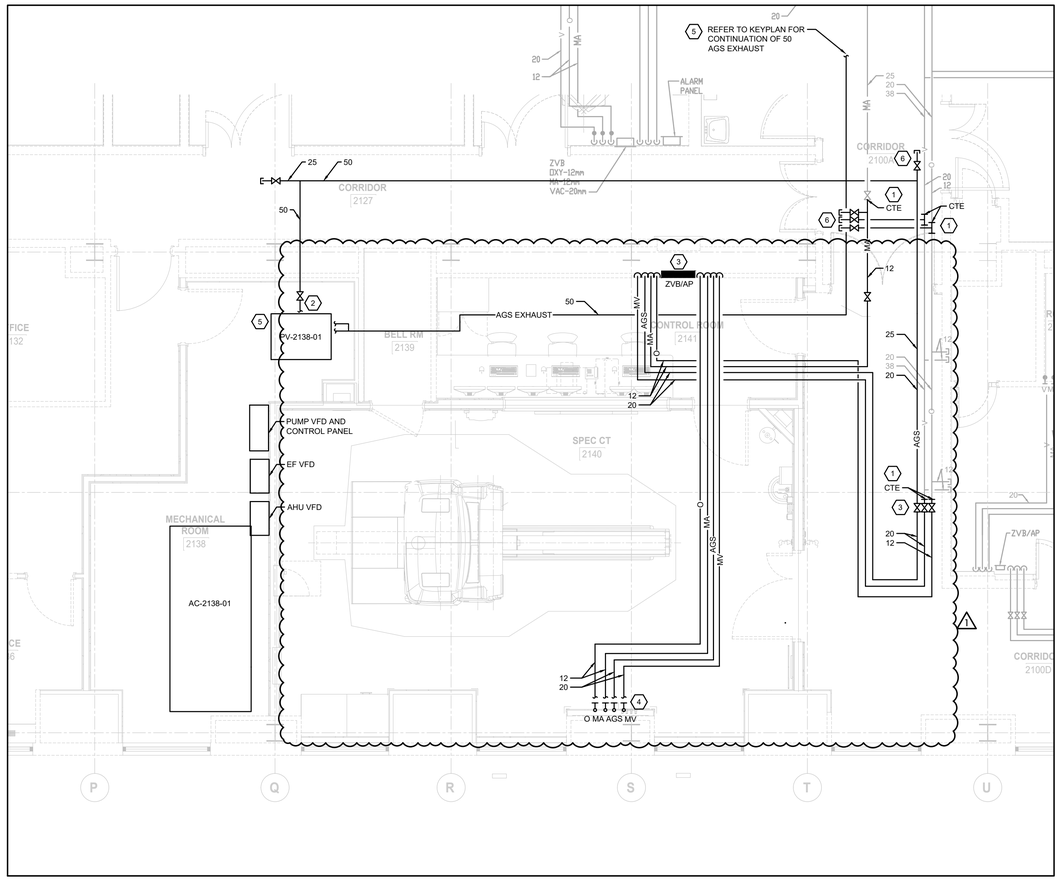
SK Atrium TB - 864 x 1232

SHEET KEYNOTES	
1	DEMOLISH EXISTING MEDICAL GAS PIPING AND REPLACE EXISTING VALVES. EXTEND NEW MEDICAL GAS PIPING, AS INDICATED.
2	EXTEND NEW AGS PIPING FROM NEW PUMP 'PV-2138-01' COMPLETE WITH SERVICE ISOLATION VALVES, AS INDICATED.
3	PROVIDE NEW COMBINATION ZONE VALVE BOX/ALARM PANEL AND EXTEND AND CONNECT EXISTING MEDICAL GAS PIPING TO ZVB/AP, AS INDICATED. PROVIDE SERVICE ISOLATION VALVES UPSTREAM OF ZVB/AP, AS INDICATED. EXTEND NEW PIPING TO NEW MEDICAL GAS OUTLETS, AS INDICATED. REFER TO MD 00 EW 01 FOR ZVB/AP DETAIL AND FLOW DIAGRAM.
4	PROVIDE NEW MEDICAL GAS OUTLETS (2 x MA, 3 x O, 2 x MV, 1 x AGS) FOR NEW SPECT CT ROOM. EXTEND MEDICAL GAS PIPING DOWN THROUGH WALL AND CONNECT TO MEDICAL GAS OUTLETS. COMPLETE WITH ISOLATION VALVES. ALL NEW MEDICAL GAS OUTLETS SHALL BE D.I.S.S. TYPE. REFER TO ARCHITECTURAL ELEVATIONS FOR ORIENTATION OF OUTLETS.
5	PROVIDE NEW AGS PUMP & SKID 'PV-2138-01' IN MECHANICAL ROOM (RM 2138) ON NEW 4" HSKP PAD. PUMP TO BE EQUAL TO MODEL OLC200-SX2VSD, 2HP DUPLEX OILLESS CLAW MEDICAL AGSS), COMPLIANT WITH CSA Z3796.1 AND COMPLETE WITH ALL ASSOCIATED PIPING AND ACCESSORIES. PROVIDE CLEARANCE AS PER MANUFACTURER REQUIREMENTS. PUMP VFD AND CONTROL PANEL TO BE LOCATED IN NEW MECHANICAL ROOM (RM 2138), AS INDICATED. REFER TO DWG MD 00 EW 02 FOR VFD DETAIL. EXTEND 50mm EXHAUST VENT PIPING FROM NEW 'PV-2138-01' TO SHAFT (RM 2161) AND UP TO PLENUM LEVEL. TERMINATE EXHAUST PIPING INSIDE PLENUM COMPLETE WITH INSECT SCREEN. REFER TO DWG MF CW EW 01 FOR AGS PIPING UP TO PLENUM. REFER TO DWG MG PL EW 01 FOR CONTINUATION OF PIPING ONTO PLENUM LEVEL. CONTRACTOR TO EXTEND ULC LISTED COMMUNICATIONS WIRING FROM NEW CONTROL PANEL IN ROOM (RM 2138) TO SHAFT (RM 2161). EXTEND WIRING FROM LEVEL 2, DOWN TO SUB-BASEMENT MECHANICAL ROOM (SB108). REFER TO ELECTRICAL DRAWINGS FOR WIRING ROUTING AND WIRING SPECIFICATIONS. PUMP IS TO BE MONITORED AT EXISTING ALARM PANELS LOCATED IN THE ANNEX CONTROL ROOM (BASEMENT LEVEL, RM B117) AS WELL AS LOCATING ROOM (SERVICE LEVEL, RM S413). COORDINATE WORK WITH ELECTRICAL SUBTRADE.
6	PROVIDE NEW CAPPED MEDICAL GAS PROVISIONS, FOR FUTURE CONNECTIONS, AS INDICATED.

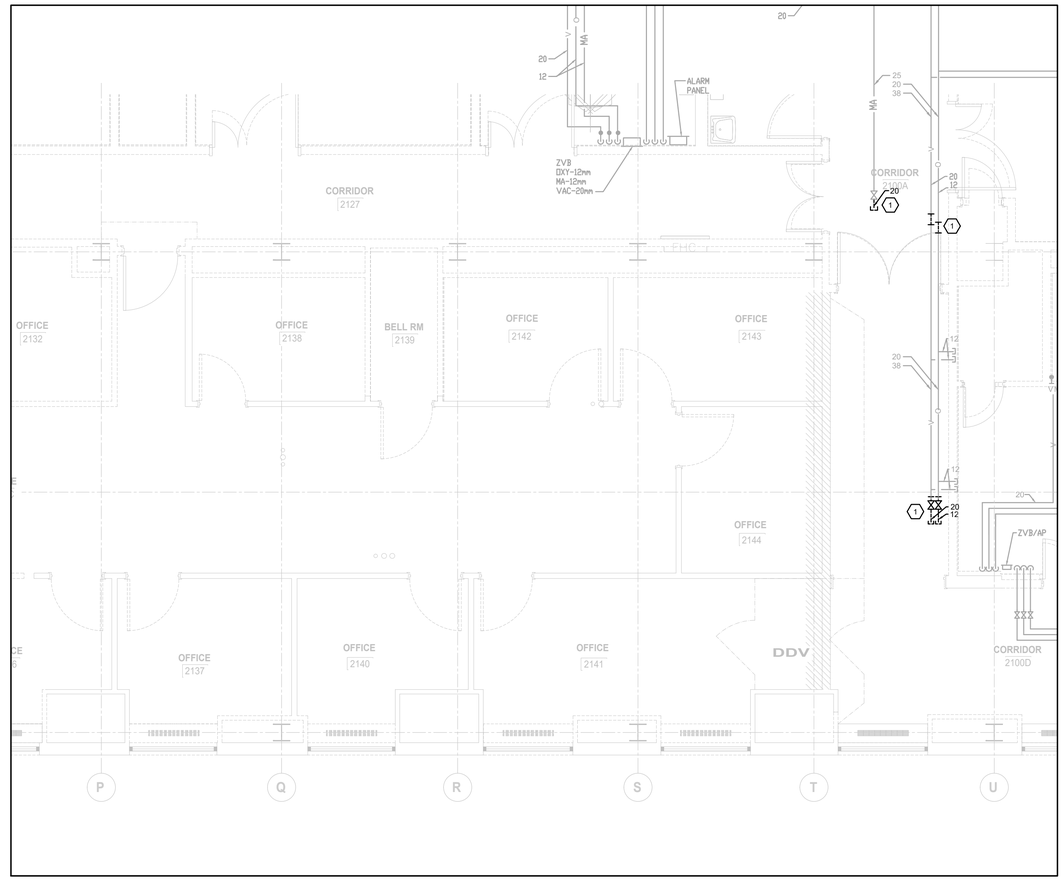
GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING MEDICAL GAS PIPING. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL CONNECTIONS, PIPE SIZES AND LOCATIONS ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
3	PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL COORDINATE WITH THE HOSPITAL THE DATE AND PERIOD OF TIME REQUIRED FOR DISCONNECTING AND MAKING NEW CONNECTION OF MEDICAL GAS PIPING, IN ORDER TO KEEP INTERRUPTIONS OF THE HOSPITAL DAILY OPERATIONS AS MINIMAL AS POSSIBLE.



3 TYPICAL SCHEMATIC DETAIL OF AGS VACUUM PUMP SYSTEM
SCALE: N.T.S



2 LEVEL 2 PART PLAN - MEDICAL GAS - NEW WORK
SCALE: 1:50



1 LEVEL 2 PART PLAN - MEDICAL GAS - DEMOLITION
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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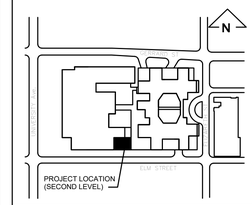
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
LEVEL 2 PART PLANS - MEDICAL GAS - DEMOLITION AND NEW WORK

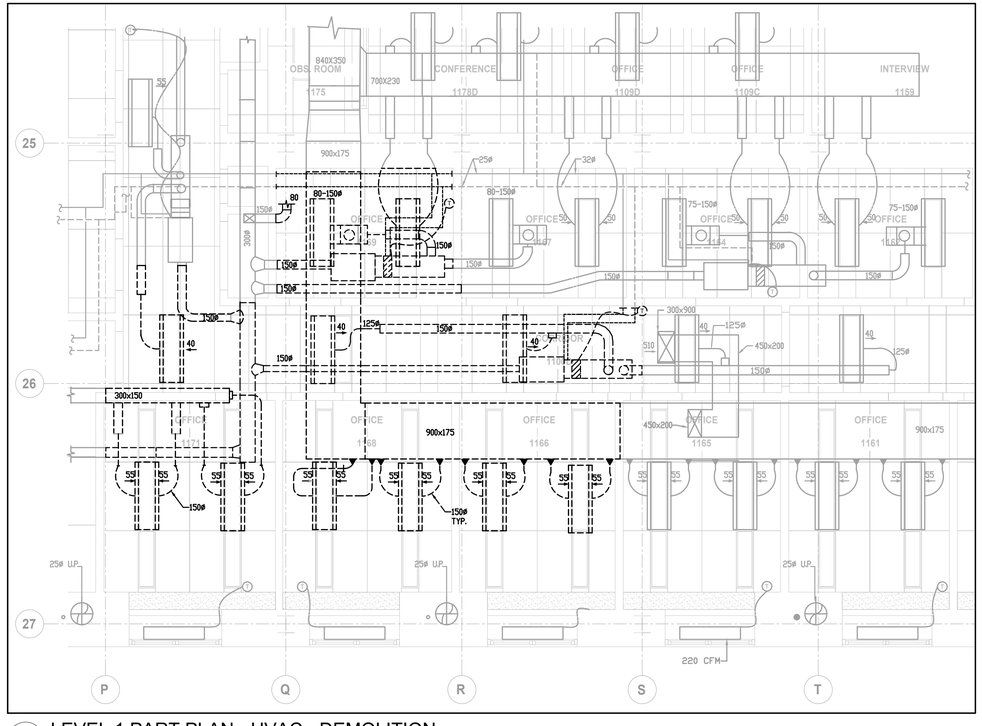
Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HC 21-129

Drawing No.
MG 02 EW 01

SK Atrium TB - 864 x 1232

GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 AND TYPE 3 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING HVAC PIPING AND DUCTWORK. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL DUCT AND PIPE SIZES ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
3	PRIOR TO DEMOLITION, MEASURE AIRFLOW AT ALL EXISTING DIFFUSERS AND GRILLES AS INDICATED IN BOLD. SUBMIT TO CONSULTANT FOR REVIEW AND RECORD. UPON COMPLETION OF CONSTRUCTION, DIFFUSERS AND GRILLES ARE TO BE REBALANCED TO AIRFLOW VALUES INDICATED IN BOLD. SUBMIT FINDINGS TO CONSULTANT FOR REVIEW AND RECORD.
4	REMOVE AND RE-INSTALL EXISTING DIFFUSERS AND ASSOCIATED DUCTWORK TO ACCOMODATE NEW STRUCTURAL AND MECHANICAL SERVICES, AS INDICATED IN BOLD.



1 LEVEL 1 PART PLAN - HVAC - DEMOLITION
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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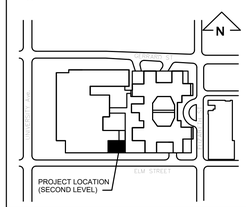
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

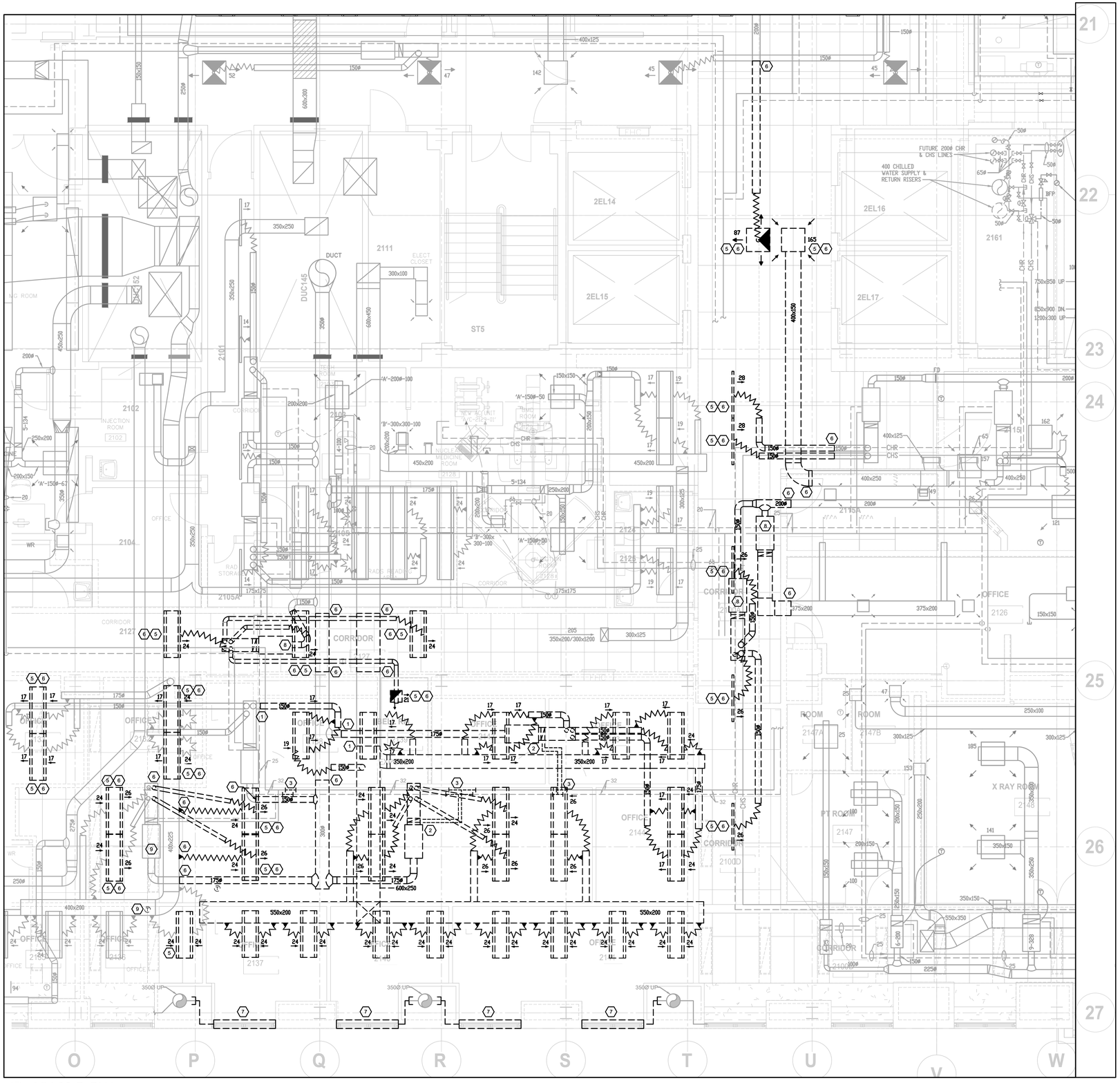
Drawing Title
LEVEL 1 PART PLANS - HVAC - DEMOLITION

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HC 21-129

Drawing No.
MV 01 EW 01

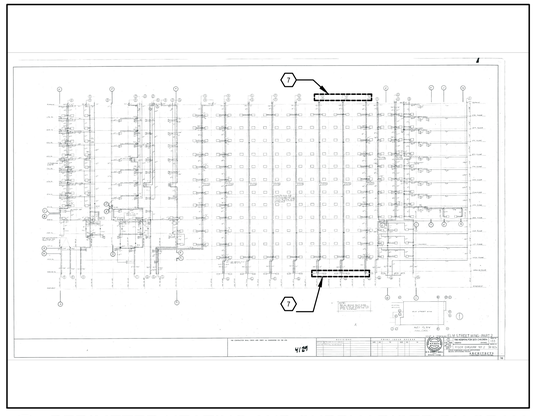
SK Atrium TB - 864 x 1232



MV-02-D-PH1
SCALE: 1:50

GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 AND TYPE 3 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING HVAC PIPING AND DUCTWORK. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL DUCT AND PIPE SIZES ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
3	PRIOR TO DEMOLITION, MEASURE AIRFLOW AT ALL EXISTING DIFFUSERS AND GRILLES AS INDICATED IN BOLD. SUBMIT TO CONSULTANT FOR REVIEW AND RECORD. UPON COMPLETION OF CONSTRUCTION, DIFFUSERS AND GRILLES ARE TO BE REBALANCED TO AIRFLOW VALUES INDICATED IN BOLD. SUBMIT FINDINGS TO CONSULTANT FOR REVIEW AND RECORD.
4	PROVIDE NEW DIFFUSERS AND GRILLES AS INDICATED IN BOLD AND BALANCE TO AIRFLOWS LISTED - TYPICAL. CONTRACTOR SHALL COORDINATE ALL NEW DIFFUSER AND GRILLE LOCATIONS WITH NEW CEILING AND DEVICES, AND PROVIDE DUCT OFFSETS AS REQUIRED.
5	MECHANICAL AND BALANCING CONTRACTORS SHALL PROVIDE ALL REQUIRED BALANCING DAMPERS ON NEW OR EXISTING DUCT BRANCHES TO ENSURE SYSTEM CAN BE BALANCED TO THE AIR VOLUMES INDICATED.
6	CONTRACTOR TO INCLUDE FOR RE AND RE OF ALL CEILING DEVICES AS REQUIRED TO COMPLETE SCOPE OF WORK IN CORRIDOR.

SHEET KEYNOTES	
1	REMOVE EXISTING DIFFUSER/GRILLE AND CUT BACK EXISTING DUCTWORK, AS INDICATED.
2	REMOVE EXISTING CAV COMPLETE WITH COIL, ASSOCIATED PNEUMATIC THERMOSTATS, CONTROL PIPING/WIRING, AND VALVING ARRANGEMENT. CUT BACK HEATING WATER BRANCH PIPING SERVING CAV, INCLUDING ALL VALVES AND ACCESSORIES. CUT BACK AND CAP DUCTWORK, AS INDICATED.
3	CUT BACK EXISTING HEATING WATER PIPING AS INDICATED TO ACCOMODATE NEW WORK. CONTRACTOR TO INCLUDE FOR PIPE FREEZING OR HOT TAPPING, AS REQUIRED.
4	REMOVE EXISTING THERMOSTAT COMPLETE WITH PNEUMATIC CONTROL PIPING. CUT BACK CONTROL PIPING TO FURTHEST EXTENT POSSIBLE.
5	PRIOR TO CONSTRUCTION, BALANCER SHALL MEASURE AIRFLOWS AT ALL EXISTING DIFFUSERS AND GRILLES INDICATED, AND SUBMIT TO CONSULTANT FOR REVIEW AND RECORD.
6	REMOVE AND RE-INSTALL EXISTING DIFFUSERS, GRILLES AND ASSOCIATED DUCTWORK TO ACCOMODATE NEW MECHANICAL SERVICES.
7	CUT BACK AND CAP EXISTING DUCTWORK (250mm) AND HEATING PIPING (20mm) SERVING PERIMETER AIR UNITS WITHIN NEW SHAFTS. CONTRACTOR TO INCLUDE FOR PIPE FREEZING ON PLENUM LEVEL AND BASEMENT LEVEL FOR HEATING WATER PIPING DEMOLITION SCOPE. REFER TO DETAIL 2 FOR PERIMETER HEATING AND RISER SCHEMATIC, INDICATING LOCATIONS FOR FREEZING. REPLACE AND PROVIDE NEW 20mm BYPASS VALVE AT BASE OF RISER AND AT TOP OF RISER. REPLACE PROVIDE NEW 50mm ISOLATION VALVE AT BASE OF RISER AND TOP OF RISER. REMOVE AND REPLACE INSULATION AS REQUIRED TO ACCOMMODATE WORK. REMOVE THERMOSTATS CONNECTED TO PERIMETER UNITS AND CUT BACK ASSOCIATED CONTROL AIR TUBING TO FURTHEST POINT POSSIBLE.
8	REMOVE AND RE-INSTALL EXISTING CAV TO ACCOMMODATE NEW MECHANICAL SERVICES. BALANCER SHALL MEASURE AIRFLOWS AT CAV PRIOR TO REMOVAL AND SUBMIT TO CONSULTANT FOR REVIEW AND RECORD.
9	REMOVE AND RE-INSTALL EXISTING THERMOSTAT.



2 PERIMETER HEATING AND SUPPLY RISER DIAGRAM
SCALE: NTS

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
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2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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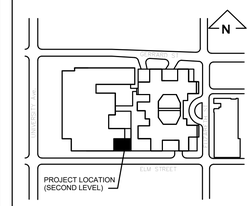
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

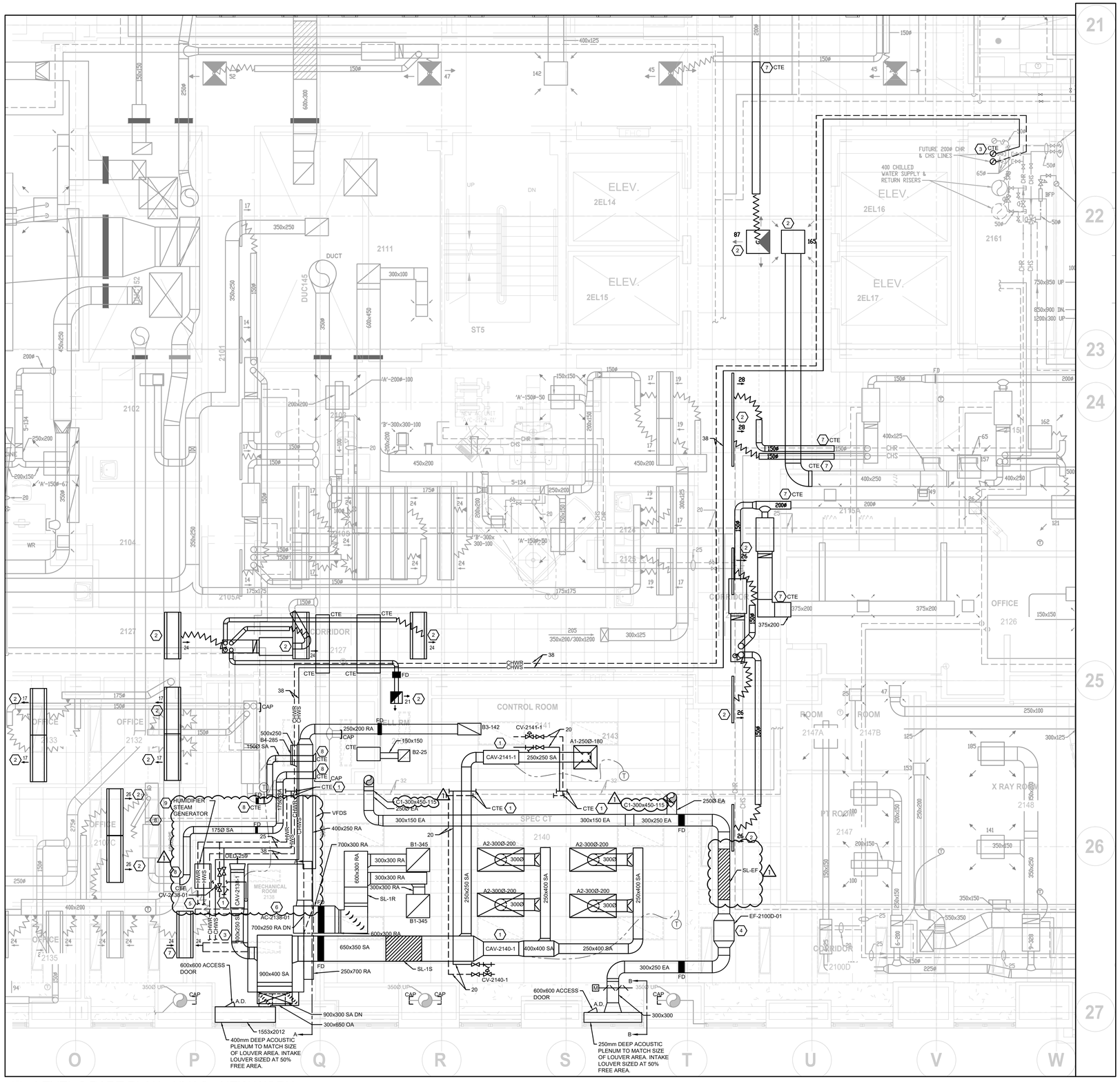
Drawing Title
LEVEL 2 PART PLANS - HVAC - DEMOLITION

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HC 21-129

Drawing No.
MV 02 EW 01

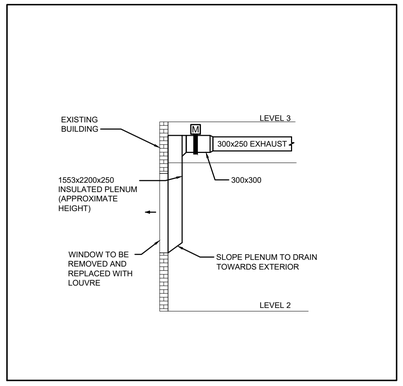
SK Atrium TB - 864 x 1232



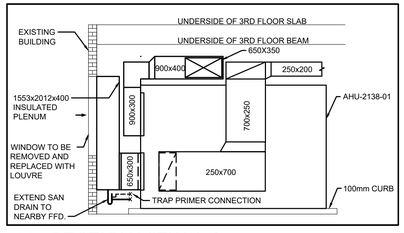
1 LEVEL 2 PART PLAN - HVAC - NEW WORK
SCALE: 1:50

GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 AND TYPE 3 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING HVAC PIPING AND DUCTWORK. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL DUCT AND PIPE SIZES ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
3	PRIOR TO DEMOLITION, MEASURE AIRFLOW AT ALL EXISTING DIFFUSERS AND GRILLES AS INDICATED IN BOLD. SUBMIT TO CONSULTANT FOR REVIEW AND RECORD. UPON COMPLETION OF CONSTRUCTION, DIFFUSERS AND GRILLES ARE TO BE REBALANCED TO AIRFLOW VALUES INDICATED IN BOLD. SUBMIT FINDINGS TO CONSULTANT FOR REVIEW AND RECORD.
4	PROVIDE NEW DIFFUSERS AND GRILLES AS INDICATED IN BOLD AND BALANCE TO AIRFLOWS LISTED - TYPICAL. CONTRACTOR SHALL COORDINATE ALL NEW DIFFUSER AND GRILLE LOCATIONS WITH NEW CEILING AND DEVICES, AND PROVIDE DUCT OFFSETS AS REQUIRED.
5	MECHANICAL AND BALANCING CONTRACTORS SHALL PROVIDE ALL REQUIRED BALANCING DAMPERS ON NEW OR EXISTING DUCT BRANCHES TO ENSURE SYSTEM CAN BE BALANCED TO THE AIR VOLUMES INDICATED.
6	CONTRACTOR TO INCLUDE FOR RE AND RE OF ALL CEILING DEVICES AS REQUIRED TO COMPLETE SCOPE OF WORK IN CORRIDOR.

SHEET KEYNOTES	
1	PROVIDE NEW HIGH PRESSURE CAV COMPLETE WITH ATTENUATOR, AND DUCT MOUNTED REHEAT COIL COMPLETE WITH NEW THERMOSTAT (EQUAL TO JOHNSON CONTROLS MODEL NS8000), CONTROL WIRING, AND VALVING ARRANGEMENT AS INDICATED ON DRAWING MD 00 EW 01 - TYPICAL. EXTEND NEW HEATING WATER PIPING TO BOOSTER COIL LOCATION, AS INDICATED. CONTRACTOR TO INCLUDE FOR PIPE FREEZING OR HOT TAPPING FOR CONNECTION TO EXISTING HEATING WATER PIPING, AS REQUIRED. REFER TO MD 00 EW 01 FOR HEATING VALVING ARRANGEMENT. REFER TO MC 00 EW 01 FOR CAV CONTROL SEQUENCE. REFER TO MS 02 EW 01 FOR CAV SCHEDULING INFORMATION.
2	REBALANCE EXISTING DIFFUSERS TO AIRFLOW LISTED IN BOLD.
3	EXTEND NEW 38mm CHILLED WATER PIPING FROM EXISTING SHAFT 2161 TO NEW AC-2138-01 LOCATION, AS INDICATED. REFER TO KEYPLAN FOR CONTINUATION TO SHAFT. CONTRACTOR TO INCLUDE FOR HOT TAPPING FOR NEW CONNECTIONS TO EXISTING CHILLED WATER RISERS. REFER TO MC 00 EW 01 FOR AC-2138-01 CONTROL SEQUENCE AND DRAWING MF CW EW 01 FOR COOLING SCHEMATIC.
4	PROVIDE NEW EXHAUST FAN 'EF-2100D-01' AND EXTEND NEW EXHAUST DUCTWORK TO LOW LEVEL EXHAUST LOCATIONS, AS INDICATED. EXHAUST FAN TO BE COMPLETE WITH LOOSE VFD AND SINE WAVE FILTER, LOCATED IN NEW MECH ROOM FOR FACILITY ACCESS AND MAINTENANCE. REFER TO DWG MG 00 EW 01 FOR VFD LOCATIONS AND DWG MD 00 EW 02 FOR VFD DETAIL. REFER TO MC 00 EW 02 FOR AHU AND EXHAUST FAN CONTROL SEQUENCE.
5	EXTEND NEW 25mm HEATING WATER PIPING FROM EXISTING HEATING PIPING TO NEW 'AC-2138-01', AS INDICATED. CONTRACTOR TO INCLUDE FOR PIPE FREEZING OR HOT TAPPING FOR NEW CONNECTIONS TO EXISTING HEATING WATER PIPING, AS REQUIRED. REFER TO MC 00 EW 01 FOR AC-2138-01 CONTROL SEQUENCE.
6	PROVIDE NEW AIR HANDLING UNIT 'AC-2138-01', MOUNTED ON 4" HOUSEKEEPING PAD. REFER TO MS 02 EW 02 FOR 'AC-2138-01' SCHEDULING INFORMATION AND DRAWING MC 00 EW 02 FOR AHU AND EXHAUST FAN CONTROL SEQUENCE. PROVIDE NEW SILENCERS RATED FOR 25 NC DOWNSTREAM OF SUPPLY AND RETURN DUCTWORK, AS INDICATED. REFER TO DWG MG 00 EW 01 FOR VFD LOCATIONS AND DWG MD 00 EW 02 FOR VFD DETAIL.
7	REINSTATE EXISTING ONCE NEW WORK SCOPE IS COMPLETE AND REBALANCE TO AIRFLOW VALUES INDICATED IN BOLD.
8	EXTEND NEW SUPPLY DUCTWORK FROM EXISTING VAVS TO DIFFUSERS AND REBALANCE TO AIRFLOW VALUES INDICATED IN BOLD.
9	PROVIDE NEW 38mm STAINLESS STEEL PIPING BETWEEN STEAM GENERATOR AND HUMIDIFIER DISTRIBUTION PANEL IN AHU. INSULATE TUBING WITH 50mm OF MINERAL FIBRE INSULATION AND COVER WITH PVC JACKETING.



3 SECTION VIEW B-B
SCALE: 1:50



2 SECTION VIEW A-A
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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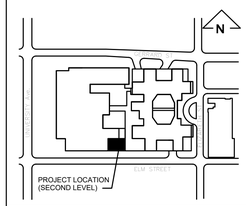
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
LEVEL 2 PART PLANS - HVAC - NEW WORK

Check Scale (may be photo reduced)
0 1inch 0 10mm

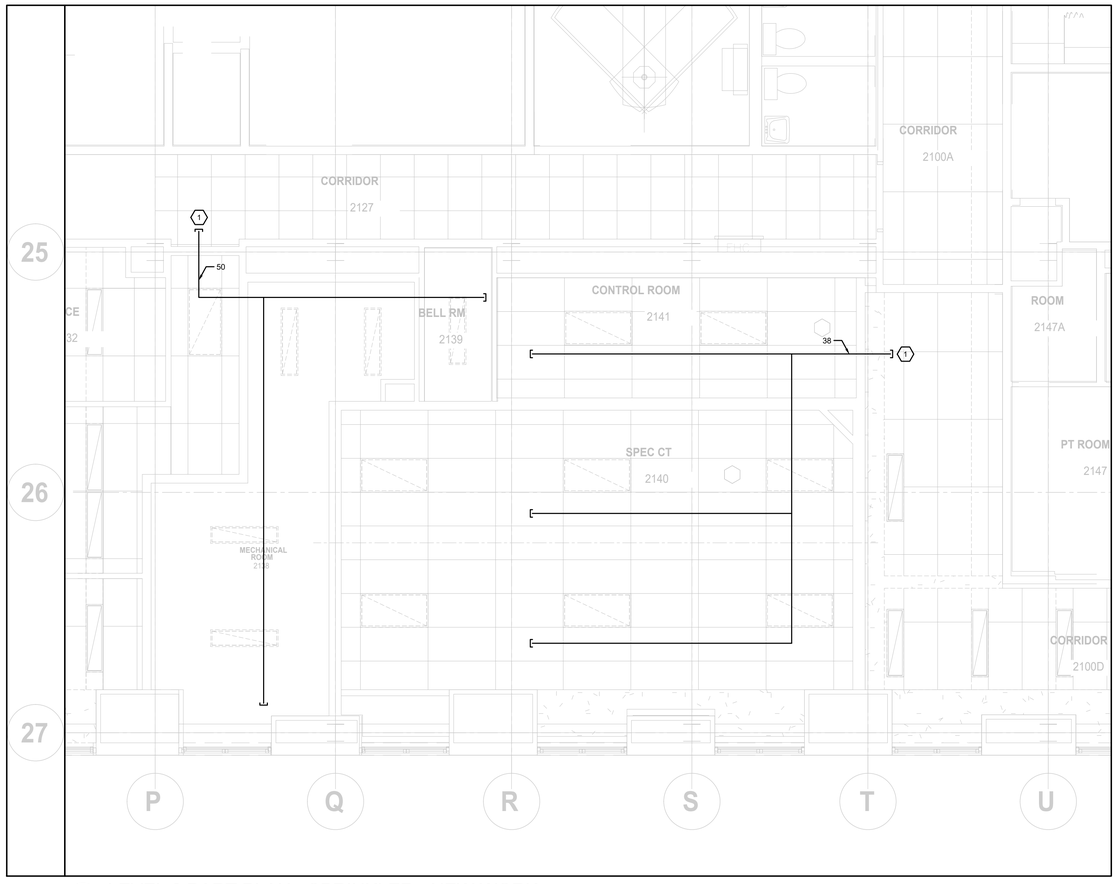
Project No.
HC 21-129

Drawing No.
MV 02 EW 02

SK Atrium TB - 864 x 1232

SHEET NOTES	
1	CONTRACTOR SHALL PROVIDE FULL SPRINKLER LAYOUT AND PIPING DESIGN IN COORDINATION WITH ALL NEW MECHANICAL AND ELECTRICAL SERVICES. INSTALL MAIN PIPING AND BRANCHES TO SPRINKLER HEADS, BUT DO NOT PROVIDE SPRINKLER HEADS IN SPACES. FILL SPRINKLER PIPING WITH DRY NITROGEN AND PROVIDE ISOLATION VALVE AND PRESSURE GAUGE IN CORRIDOR. SPRINKLER PIPING SHALL BE ACCESSIBLE IN FUTURE FOR INSTALLATION OF SPRINKLERS ON ENTIRE FLOOR.

GENERAL NOTES	
1	ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING PLUMBING. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
2	CONTRACTOR RESPONSIBLE FOR CONFIRMING EXISTING AND NEW INVERTS ON SITE. PROVIDE ALL REQUIRED OFFSETS TO ROUTE AROUND EXISTING SERVICES.



1 LEVEL 2 PART PLAN - SPRINKLER - NEW WORK
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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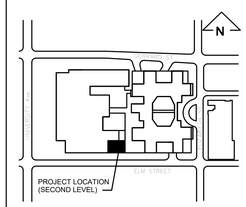


North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
LEVEL 2 PART PLANS - SPRINKLER - NEW WORK

Check Scale (may be photo reduced)
0 1inch 0 10mm

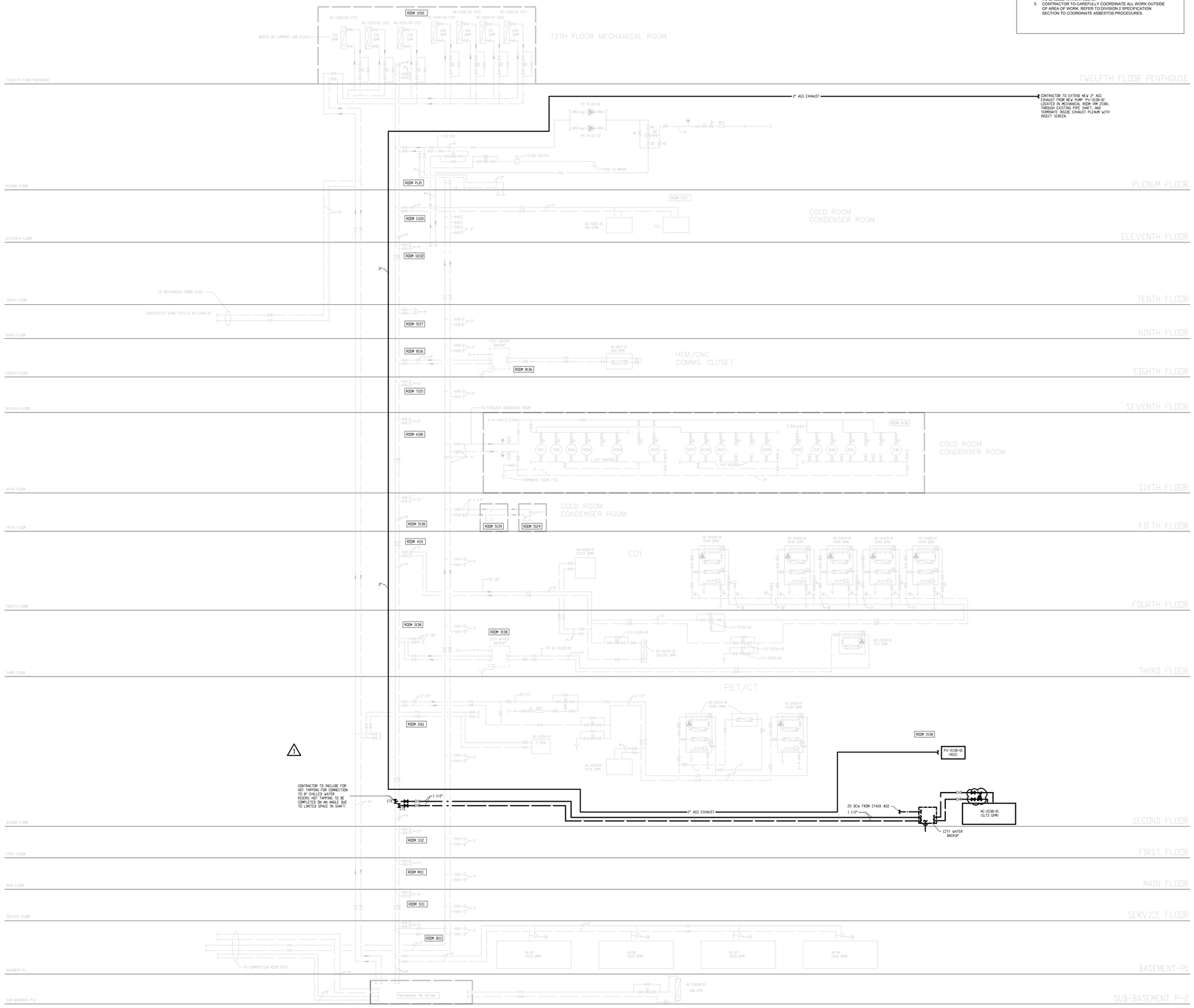
Project No.
HC 21-129

Drawing No.
MW 02 EW 01

SK Atrium TB - 864 x 1232

GENERAL NOTES:

1. ALL WORK SHOWN IN BOLD IDENTIFIES NEW WORK.
2. ALL PRESSURE GAUGES SHALL BE C/W ISOLATION VALVES.
3. BFP TO COME COMPLETE WITH LEAK DETECTION SYSTEM ON DRAIN TO FFD AND IS TO BE MONITORED AT THE BAS. BFP TO BE CONNECTED TO BAS.
4. CONTRACTOR TO INCLUDE FOR HOT TAPPING FOR CONNECTION TO CHILLED WATER RISERS.
5. CONTRACTOR TO CAREFULLY COORDINATE ALL WORK OUTSIDE OF AREA OF WORK. REFER TO DIVISION 2 SPECIFICATION SECTION TO COORDINATE ASBESTOS PROCEDURES.



DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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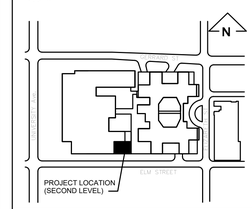
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR

QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client

SickKids®

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Project

SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title

CHILLED WATER AND AGS FLOW DIAGRAM

Check Scale (may be photo reduced)

0 1inch 0 10mm

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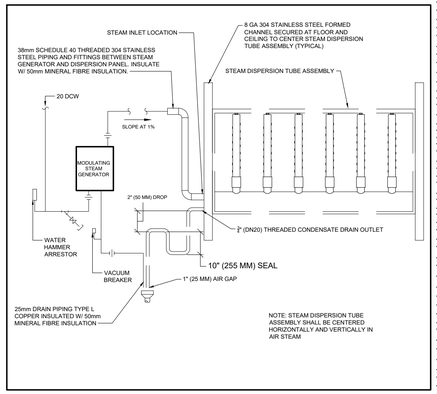
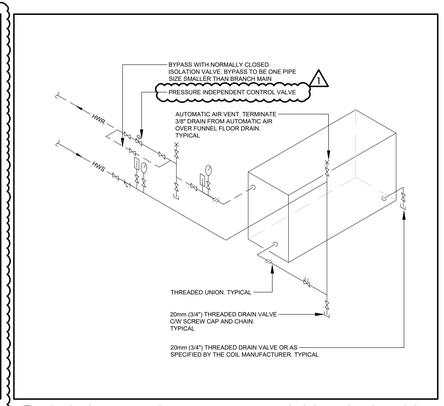
MF CW EW 01

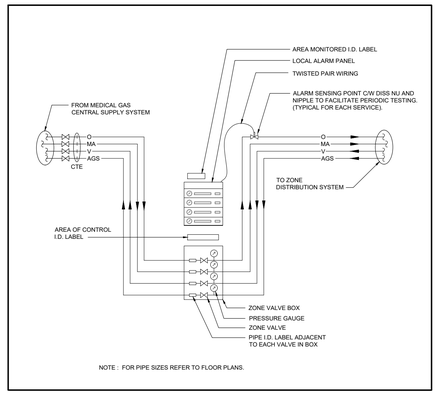
SK Atrium TB - 864 x 1232



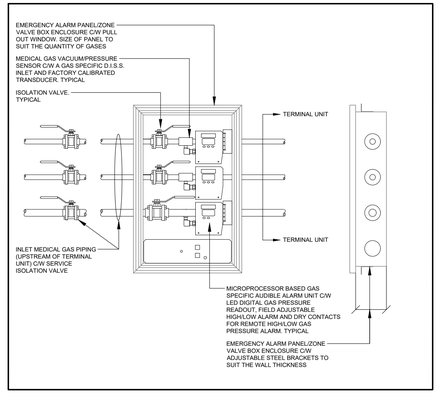
11 23 84 00.01 AIR HANDLING UNIT STEAM HUMIDIFIER COIL
SCALE: N.T.S



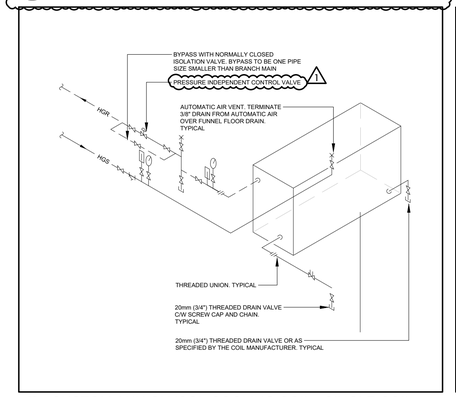
11 CUSTOM AHU HOT WATER HEATING COIL - SINGLE COIL
SCALE: N.T.S



10 MED GAS ALARM PANEL/ZONE VALVE FLOW DIAGRAM
SCALE: N.T.S

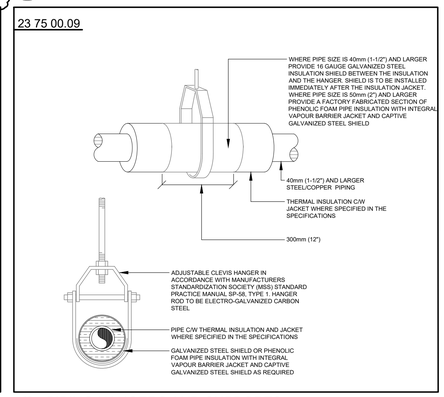


9 MEDICAL GAS ALARM PANEL/ZONE VALVE BOX DETAIL
SCALE: N.T.S

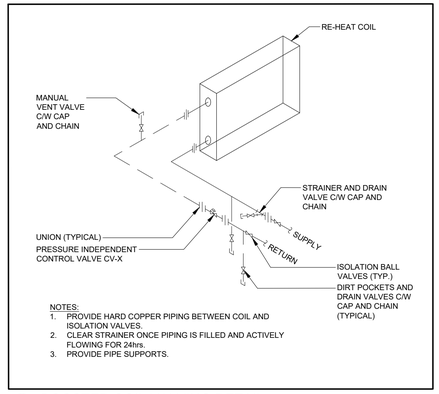


8 CUSTOM AHU GLYCOL COOLING COIL - SINGLE COIL
SCALE: N.T.S

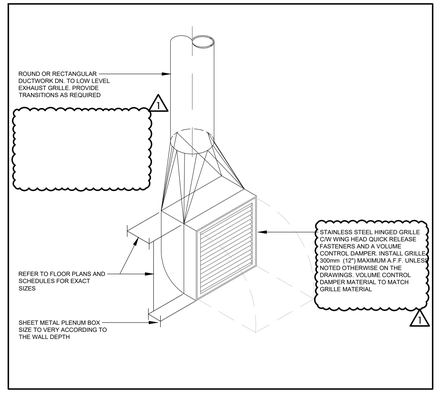
23 75 00.09



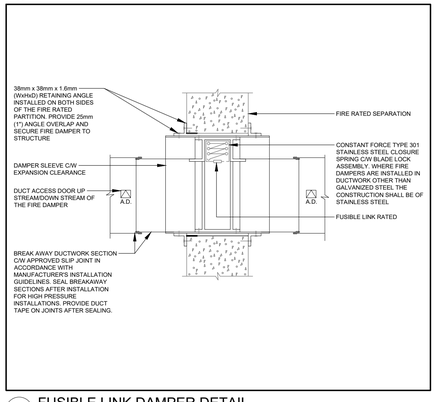
7 PIPING HANGERS AND SUPPORTS
SCALE: N.T.S.



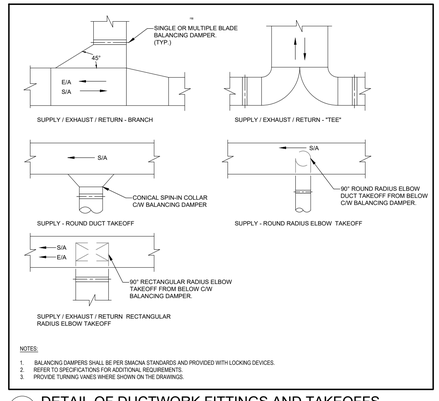
6 BOOSTER COIL VALVING DETAIL
SCALE: N.T.S



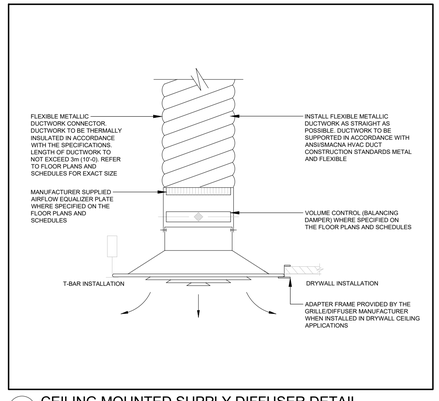
5 23 30 42.03 LOW LEVEL GRILLE
SCALE: N.T.S



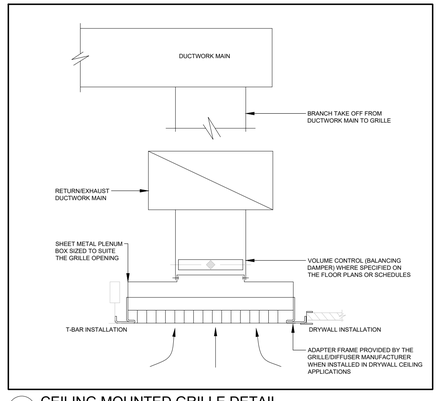
4 FUSIBLE LINK DAMPER DETAIL
SCALE: N.T.S



3 DETAIL OF DUCTWORK FITTINGS AND TAKEOFFS
SCALE: N.T.S



2 CEILING MOUNTED SUPPLY DIFFUSER DETAIL
SCALE: N.T.S



1 CEILING MOUNTED GRILLE DETAIL
SCALE: N.T.S

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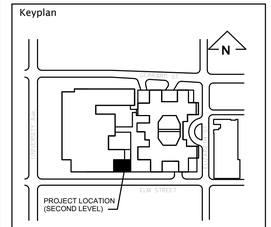

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Drawing Title
MECHANICAL DETAILS I

Check Scale (may be photo reduced)
0 1inch 0 10mm

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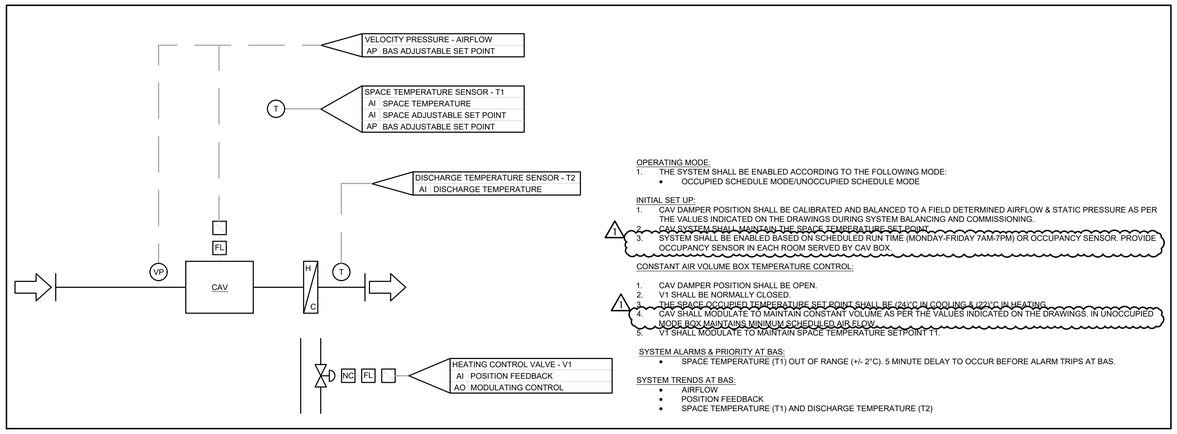
HC 21-129

Drawing No.
MD 00 EW 01

SK Atrium TB - 864 x 1232



OPERATING MODE:
1. THE SYSTEM SHALL BE ENABLED ACCORDING TO THE FOLLOWING MODE:
   - OCCUPIED SCHEDULE MODE/UNOCCUPIED SCHEDULE MODE

INITIAL SET UP:
1. CAV DAMPER POSITION SHALL BE CALIBRATED AND BALANCED TO A FIELD DETERMINED AIRFLOW & STATIC PRESSURE AS PER THE VALUES INDICATED ON THE DRAWINGS DURING SYSTEM BALANCING AND COMMISSIONING.
2. CAV SYSTEM SHALL MONITOR THE SPACE TEMPERATURE SET POINT.
3. SYSTEM SHALL BE ENABLED BASED ON SCHEDULED RUN TIME (MONDAY-FRIDAY 7AM-7PM) OR OCCUPANCY SENSOR. PROVIDE OCCUPANCY SENSOR IN EACH ROOM SERVED BY CAV BOX.

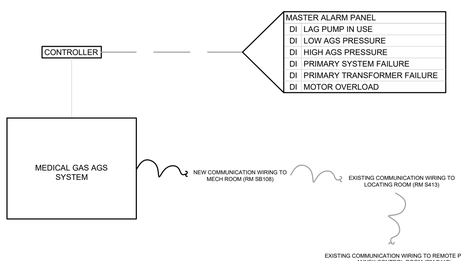
CONSTANT AIR VOLUME BOX TEMPERATURE CONTROL:

1. CAV DAMPER POSITION SHALL BE OPEN.
2. V1 SHALL BE NORMALLY CLOSED.
3. THE SPACE OCCUPIED TEMPERATURE SET POINT SHALL BE (24)°C IN COOLING & (22)°C IN HEATING.
4. CAV SHALL MODULATE TO MAINTAIN CONSTANT VOLUME AS PER THE VALUES INDICATED ON THE DRAWINGS. IN UNOCCUPIED MODE BOX MAINTAINS MINIMUM SCHEDULED AIR FLOW.
5. V1 SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT T1.

SYSTEM ALARMS & PRIORITY AT BAS:
- SPACE TEMPERATURE (T1) OUT OF RANGE (+/- 2°C). 5 MINUTE DELAY TO OCCUR BEFORE ALARM TRIPS AT BAS.

SYSTEM TRENDS AT BAS:
- AIRFLOW
- POSITION FEEDBACK
- SPACE TEMPERATURE (T1) AND DISCHARGE TEMPERATURE (T2)

3 VENTILATION - CONSTANT AIR VOLUME BOX WITH RE-HEAT
SCALE: N.T.S



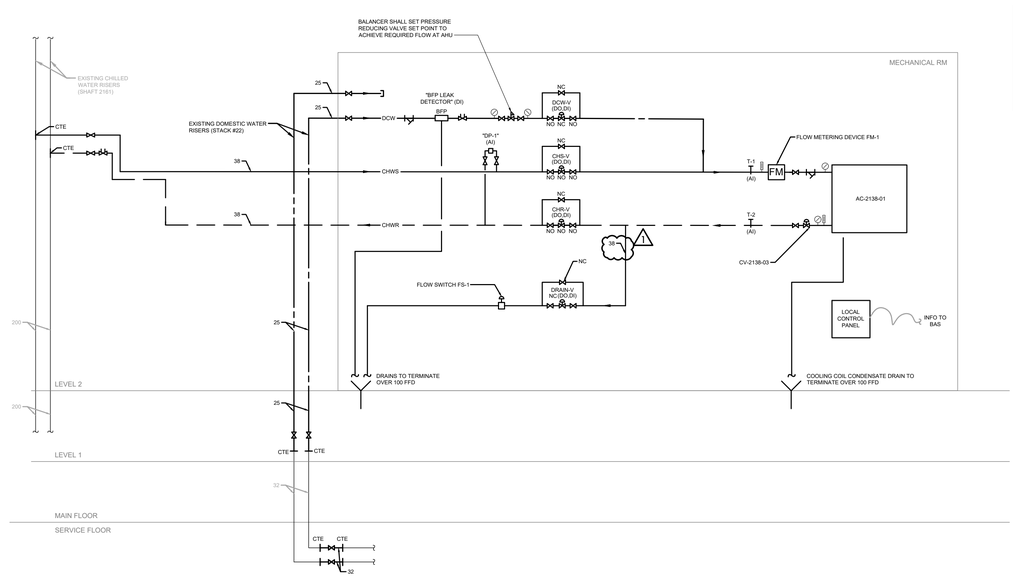
CONTROL SEQUENCE:

1. PROVIDE STAND ALONE PACKAGE MEDICAL ANESTHETIC GAS SCAVENGING (AGS) PUMP AND CONTROL PANEL.
2. CONTROL PANEL SHALL OPERATE ALL PUMPS IN A LEAD/LAG CONFIGURATION TO MAIN THE AGS PRESSURE OF(-20 HG ADJUSTABLE).
3. THE CONTROL PANEL SHALL AUTOMATICALLY ENABLE THE NEXT LAG PUMP WITH THE FEWEST TOTAL OPERATING HOURS TO ENSURE EQUAL EQUIPMENT RUN TIME.

SYSTEM ALARMS & PRIORITY AT EXISTING MED GAS ALARM SYSTEMS:

1. LAG PUMP IN USE.
2. LOW ANESTHETIC GAS SCAVENGING (AGS) PRESSURE (AI) - (-12 IN HG ADJUSTABLE).
3. HIGH ANESTHETIC GAS SCAVENGING (AGS) PRESSURE (AI) - (-25 IN HG ADJUSTABLE).
4. PRIMARY SYSTEM FAILURE.
5. PRIMARY TRANSFORMER FAILURE.
6. MOTOR OVERLOAD.

1 MEDICAL GAS AGS PUMP SYSTEM
SCALE: N.T.S



GENERAL NOTES:

1. ALL WORK SHOWN IN BOLD IDENTIFIES NEW WORK.
2. ALL PRESSURE GAUGES SHALL BE C/W ISOLATION VALVES.
3. BFP TO COME COMPLETE WITH LEAK DETECTION SYSTEM ON DRAIN TO FFD AND IS TO BE MONITORED AT THE BAS. BFP TO BE CONNECTED TO BAS.
4. CONTRACTOR TO INCLUDE FOR HOT TAPPING FOR CONNECTION TO EXISTING DOMESTIC WATER.
5. CONTRACTOR TO INCLUDE FOR FREEZING FOR ISOLATION VALVE REPLACEMENT ON SERVICE LEVEL.
6. CONTRACTOR TO CAREFULLY COORDINATE ALL WORK OUTSIDE OF AREA OF WORK. REFER TO DIVISION 1 SPECIFICATION SECTION TO COORDINATE ABBESTOS PROCEDURES.

INITIAL SET UP:

1. SYSTEM SHALL BE SET TO NORMAL OPERATION MODE.
2. "DP-1" SETPOINT SHALL BE FIELD DETERMINED DURING FINAL SYSTEM BALANCING.

NORMAL MODE:

1. UPON COMMAND FROM BAS, SEQUENCE SHALL BE SET TO NORMAL OPERATION MODE.
2. "DCW-V" AND "DRAIN-V" CONTROL SHALL BE CLOSED. "CHS-V" AND "CHR-V" SHALL BE OPEN.

FAILURE MODE:

1. IF TEMPERATURE AT "T1-1" IS ABOVE 10°C (ADJUSTABLE) FOR LONGER THAN 5 MINUTES OR DIFFERENTIAL PRESSURE AT "DP-1" IS NOT BELOW SET POINT FOR LONGER THAN 5 MINUTES, OPEN "DCW-V", ONCE CONFIRMED OPEN, OPEN "DRAIN-V" AND SIMULTANEOUSLY CLOSE "CHS-V" AND "CHR-V".
2. PROVIDE MANUAL RESET TO NORMAL MODE AT OPERATOR GRAPHICS. ALARM BUILDING OPERATOR IF SYSTEM IS RUNNING IN FAILURE MODE FOR MORE THAN 24 HOURS.

SYSTEM ALARMS & PRIORITY AT BAS:
- LOW PRESSURE ALARM WHEN "DP-1" IS BELOW SETPOINT (TO BE FIELD DETERMINED UPON FINAL SYSTEM BALANCING WITH VENDOR)
- HIGH TEMPERATURE ALARM WHEN "T1-1" IS ABOVE SETPOINT
- "CHS-V" CONTROL VALVE FAILURE
- "CHR-V" CONTROL VALVE FAILURE
- "DCW-V" CONTROL VALVE FAILURE
- "DRAIN-V" CONTROL VALVE FAILURE
- RUNNING IN FAILURE MODE
- RUNNING IN FAILURE MODE FOR MORE THAN 24 HOURS
- BACKFLOW LEAK DETECTION STATUS

SYSTEM TRENDS AT BAS:
- CONTROL VALVE POSITIONS
- "T-1" & "T-2" TEMPERATURE
- "DP-1" DIFFERENTIAL PRESSURE
- "FM-1" FLOW RATE
- BACKFLOW LEAK DETECTION STATUS

1 AHU CHILLED WATER AND CITY WATER PIPING SCHEMATIC & CONTROL SEQUENCE
SCALE: N.T.S

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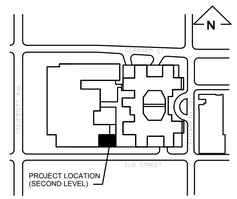

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Drawing Title
MECHANICAL CONTROL SEQUENCE I

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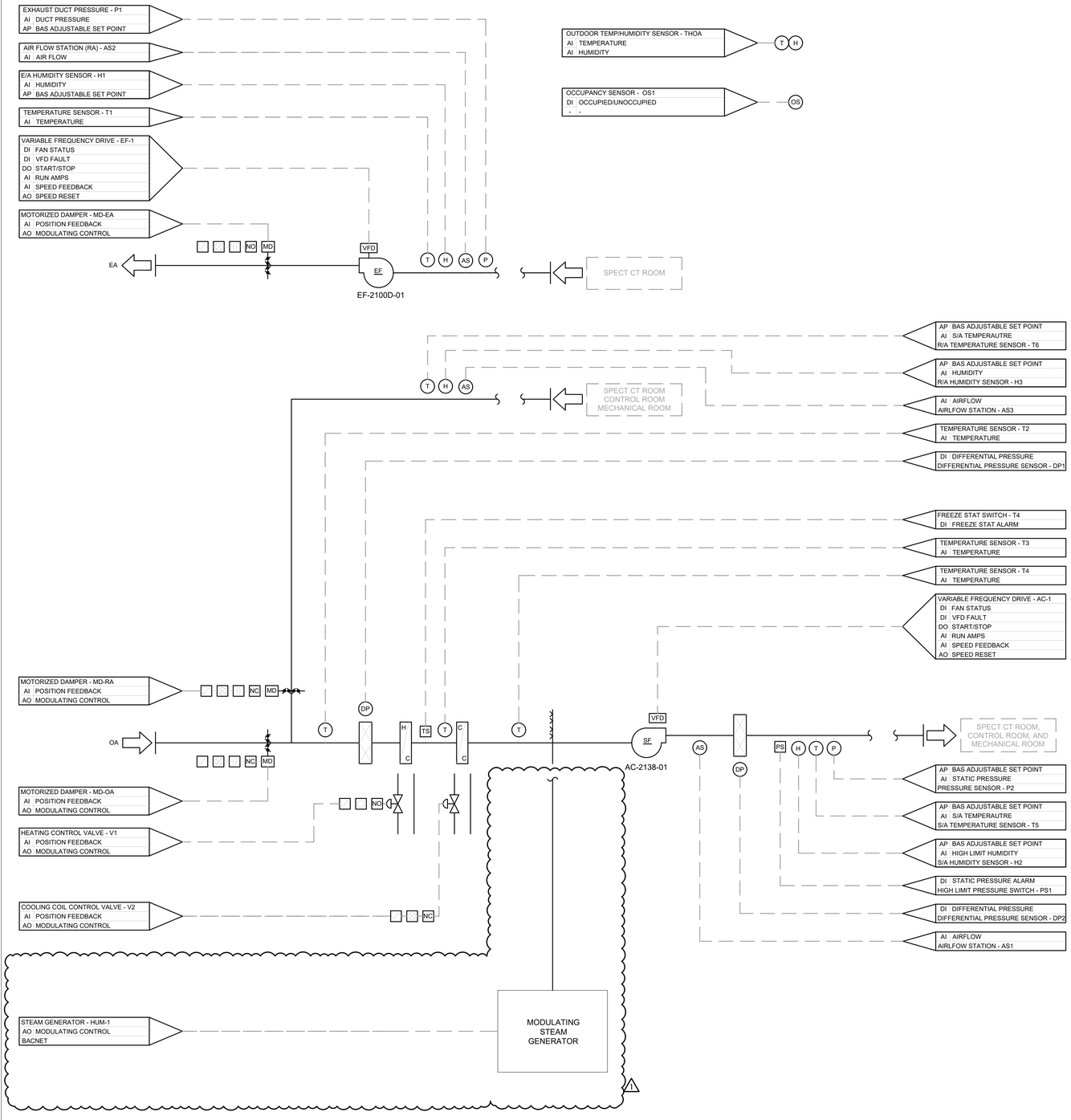

APPLICATION:
1. AC-2138-01 RECIRCULATING AIR HANDLING UNIT (SERVING SPECT CT ROOM (RM 2140), CONTROL ROOM (RM 2141), AND MECHANICAL ROOM (RM 2138).

OPERATING MODE:
1. THE SYSTEM SHALL BE ENABLED ACCORDING TO THE FOLLOWING MODE:
   - SCHEDULED RUN TIME
   - OCCUPANCY SENSOR

INITIAL SET UP:
1. THE SYSTEM SHALL BE A NORMALLY 12% OUTDOOR AIR SYSTEM.
2. SUPPLY AND EXHAUST FANS SHALL BE BALANCED TO A FIELD DETERMINED STATIC PRESSURE SET POINT TO ACHIEVE THE DESIGN AIR FLOWS AS PER THE VALUES INDICATED ON THE DRAWING SCHEDULE DURING SYSTEM BALANCING AND COMMISSIONING. BALANCER SHALL PROVIDE SET POINTS TO BAS CONTRACTOR.
3. BALANCER SHALL CALIBRATE AIR FLOW SENSORS.
4. AIR HANDLING UNIT SHALL BE INTERLOCKED WITH ASSOCIATED EXHAUST FAN EF-2100D-01.
5. INTERLOCK SHALL BE SET UP SUCH THAT THE EXHAUST IS THE LEAD FAN AND THE AHU IS THE LAG FAN.
6. VFD SPEED SHALL NOT OPERATE BELOW 30% SPEED.
7. SYSTEM SHALL BE ENABLED BASED ON AN ADJUSTABLE SCHEDULED RUN TIME (7 DAY). INITIAL SCHEDULE MONDAY TO SUNDAY 6:00AM TO 7:00 PM SYSTEM RUNS AT FULL DESIGN FLOW, OTHERWISE FANS RUN AT 50% OF DESIGN FLOW (ADJUSTABLE) BASED ON FLOW AT 'AS1' AND 'AS2'. OUTDOOR AIR 'OA' SET POINT SHALL ALSO BE ADJUSTABLE IN UNOCCUPIED MODE (UNOCCUPIED SET POINT: 50% OF NORMAL SET POINT).
8. IF OCCUPANCY SENSOR 'OS1' DETECTS OCCUPANCY DURING UNOCCUPIED MODE, SYSTEM CHANGES TO OCCUPIED MODE. PROVIDE 15 MINUTE DELAY TO UNOCCUPIED MODE WHEN OCCUPANCY IS NOT DETECTED.
9. FANS SHALL BE ENABLED/DISABLED LOCALLY AT THE VFD OR REMOTELY THROUGH THE BAS.
10. 'T3' MODULATES 'V1' TO MAINTAIN 20°C WHEN FAN IS DISABLED.

FAN CONTROL:
1. ON COMMAND TO START 'MD-EA' AND 'MD-RA' FULLY OPEN, ONCE CONFIRMED OPEN EXHAUST FAN SHALL START AND RAMP UP TO 30%, WHEN EXHAUST FAN IS CONFIRMED STARTED SUPPLY FAN SHALL START AND RAMP UP TO 30%.
2. ONCE ALL FANS ARE AT 30%, FANS MODULATE TO MAINTAIN RESPECTIVE AIR FLOW SET POINTS.
3. SUPPLY FAN SHALL MODULATE TO MAINTAIN SET POINT AT 'AS1'. EXHAUST FAN SHALL MODULATE TO MAINTAIN SET POINT AT 'AS2'. SET POINTS FOR 'AS1' AND 'AS2' SHALL BE AS PER SCHEDULED VALUES.
4. IF ANY AIR FLOW SENSOR FAILS, SUPPLY FAN SHALL MODULATE TO MAINTAIN SET POINT AT 'P2' AND AND EXHAUST FAN SHALL MODULATE TO MAINTAIN SET POINT AT 'P1'. 'P1' AND 'P2' SHALL BE DETERMINED BY BALANCER.

DISCHARGE AIR TEMPERATURE CONTROL :
1. SET POINT AT 'T5' SHALL BE 13°C (ADJUSTABLE).
2. 'T6' SHALL MODULATE 'V1' OR 'V2' TO MAINTAIN SET POINT. 'V1' AND 'V2' SHALL NEVER RUN SIMULTANEOUSLY.

OUTDOOR AIR DAMPER CONTROL:
1. OUTDOOR AIR 'OA' SET POINT SHALL BE 139 L/S.
2. 'OA' SHALL BE DETERMINED BY DIFFERENCE BETWEEN 'AS1' AND 'AS3'
3. 'MD-OA' MODULATES TO MAINTAIN SET POINT FOR 'OA'.

1 HUMIDITY CONTROL:
1. 'HUM-1' IS ENABLED WHEN AHU IS ENABLED AND DEW POINT AT 'THOA' IS VALUE CALCULATED IN SENTENCE 2 +1°C OR LESS.
2. 'H3' SHALL MODULATE 'HUM-1' TO MAINTAIN SET POINT OF 30% (ADJUSTABLE). CALCULATE DEW POINT BASED ON SET POINT AT 'H3' AND 23°C.
3. 'H2' TAKES OVER CONTROL OF 'HUM-1' IF DEW POINT AT H2 IS AT VALUE CALCULATED IN SENTENCE 2 + 0.5°C.
4. 'HUM-1' IS ENABLED REGARDLESS IF 'V1' OR 'V2' IS OPEN.

FIRE ALARM MODE:
1. NOT REQUIRED.

FAN FAILURE:
1. UPON SUPPLY FAN OR EXHAUST FAN FAILURE, THE FOLLOW SHALL OCCUR:
   - IF EXHAUST FAN FAILS, 'MD-OA' CLOSES, ALARM AT BAS AND SUPPLY FAN CONTINUES TO RUN.
   - IF SUPPLY FAN FAILS, EXHAUST FAN MODULATES TO MAINTAIN 118 L/S AT 'AS2'. RECORD PRESSURE AT 'P1' DURING THIS FLOW AND USE AS A BACK UP TO CONTROL FAN IS 'AS2' FAILS.

SAFETY SHUT DOWN:
1. HIGH LIMIT DUCT STATIC PRESSURE SENSOR PS1 AT THE SUPPLY AIR MAIN SHALL BE HARDWIRED INTERLOCKED WITH THE SUPPLY FAN AND DISABLE THE FAN WHEN PS1 EXCEEDS 3 IN/WC.
2. FREEZE STAT T4 SHALL BE HARD WIRED INTERLOCKED WITH THE SUPPLY FAN AND THE RETURN FAN. FANS SHALL BE DISABLED WHEN T4 DROPS BELOW 4°C. FANS MUST BE MANUALLY RESET PRIOR TO RESTARTING. CLOSE ALL DAMPERS.

FILTER ALARMS:
1. PRE FILTER ALARM WHEN VALUE AT 'DP1' REACHES:
   1.1. DP1 = (FLOW 'AS1')/(SCHEDULED DESIGN FLOW)*SPPF
2. FINAL FILTER ALARM WHEN VALUE AT 'DP2' REACHES:
   2.1. DP2= (FLOW 'AS1')/(SCHEDULED DESIGN FLOW)*SPFF
3. SET POINTS SPPF AND SPFF SHALL BE 1 AND 0.62 RESPECTIVELY (ADJUSTABLE)

SYSTEM ALARMS & PRIORITY AT BAS:
- FAN FAILURE : COMMANDED ON/STATUS OFF
- FAN IN HAND: COMMANDED OFF/STATUS ON
- VFD FAILURE: FAULT CONTACT
- DAMPER FAILURE: COMMANDED ON/CLOSED FEEDBACK
- DAMPER IN HAND: COMMANDED OFF/OPEN FEEDBACK
- HIGH SUPPLY AIR TEMPERATURE: T5 IS GREATER THAN SET POINT PLUS 1.5°C FOR MORE THAN 15 MINUTES.
- LOW SUPPLY AIR TEMPERATURE: T5 IS LOWER THAN SET POINT MINUS 1.5°C FOR MORE THAN 15 MINUTES
- FREEZE STAT: T4 IS EQUAL TO OR LOWER THAN 4°C
- HIGH RETURN AIR HUMIDITY: H3 IS GREATER THAN 60% R.H. FOR MORE THAN 15 MINUTES.
- LOW RETURN AIR HUMIDITY: H3 IS LOWER THAN 30% R.H. FOR MORE THAN 15 MINUTES
- HIGH DUCT STATIC PRESSURE TRIPPED
- 1 PROVIDE SEPARATE GRAPHICS PAGE WITH ALL AVAILABLE ALARMS FROM BACNET CARD FOR 'HUM-1'. PROVIDE GENERAL ALARM AT MAIN AHU GRAPHICS PAGE FOR HUM-1, WITH ABILITY FOR OPERATOR TO GET DETAILED ALARM ON SEPARATE GRAPHICS PAGE.

SYSTEM TRENDS AT BAS:
- FAN STATUS
- RUN AMPS
- VFD SPEED
- STATIC PRESSURE
- DIFFERENTIAL PRESSURE
- POSITION FEEDBACK
- TEMPERATURE SET POINT
- ALL TEMPERATURE SENSORS
- ALL HUMIDITY SENSORS

GENERAL CONTROLS NOTES:
1. PROVIDE ALL MOTORIZED DAMPERS INDICATED ON THIS CONTROL SEQUENCE. FOR 'MD-OA' SIZE OF DAMPER SHALL BE 200x200 TAMCO 9000. BLANK OF REMAINDER OF OA OPENING IN AHU TO SUIT.
2. 1 PROVIDE ALL CONTROLS AND COMMUNICATION WIRING BETWEEN HUMIDIFIER STEAM GENERATOR AND BAS CONTROLS. PROVIDE ALL NECESSARY LIMIT CONTROLS WIRING REQUIRED BY STEAM GENERATOR.

1 AIR HANDLING UNIT AND EXHAUST FAN CONTROL SEQUENCE - NEW WORK

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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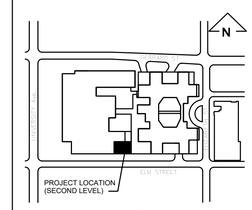
Keyplan



North Arrow

Detail Symbol
Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title
MECHANICAL CONTROL
SEQUENCE II

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HC 21-129

Drawing No.
MC 00 EW 02

SK Atrium TB - 864 x 1232

● INDICATES REQUIRED

CONTROL VALVE SCHEDULE

TAG	LOCATION	PERFORMANCE DATA					CONSTRUCTION DATA					ACTUATOR			REMARKS
		FLUID	FLUID USGPM	STEAM lb/h	MODULATING	2-POSITION	BODY TYPE	2-WAY	3-WAY	CONTROL FAILURE N.O.	CONTROL FAILURE N.C.	PNEUMATIC	ELECT.	MANUAL OVERRIDE	
CV-2140-01	SPECT CT (RM 2140)	HEATING WATER	3.69	-	●	-	CAST BRASS, NPS 3/4"	●	-	-	●	-	●	-	BRAY SIMPLE SET PICV, FAIL-SAFE, INTERNAL THREAD, AC/DC 24V, ACTUATOR CONTROLLED BY BAS WITH FEEDBACK
CV-2141-01	CONTROL RM (RM 2141)	HEATING WATER	0.83	-	●	-	CAST BRASS, NPS 1/2"	●	-	-	●	-	●	-	BRAY SIMPLE SET PICV, FAIL-SAFE, INTERNAL THREAD, AC/DC 24V, ACTUATOR CONTROLLED BY BAS WITH FEEDBACK
CV-2138-01	MECH RM (RM 2138)	HEATING WATER	1.19	-	●	-	CAST BRASS, NPS 1/2"	●	-	-	●	-	●	-	BRAY SIMPLE SET PICV, FAIL-SAFE, INTERNAL THREAD, AC/DC 24V, ACTUATOR CONTROLLED BY BAS WITH FEEDBACK
CV-2138-02	MECH RM (RM 2138)	HEATING WATER	4.91	-	●	-	CAST BRASS, NPS 1"	●	-	-	●	-	●	-	BRAY SIMPLE SET PICV, FAIL-SAFE, INTERNAL THREAD, AC/DC 24V, ACTUATOR CONTROLLED BY BAS WITH FEEDBACK
CV-2138-03	MECH RM (RM 2138)	CHILLED WATER	11.73	-	●	-	CAST BRASS, NPS 1-1/4"	●	-	-	●	-	●	-	BRAY SIMPLE SET PICV, FAIL-SAFE, INTERNAL THREAD, AC/DC 24V, ACTUATOR CONTROLLED BY BAS WITH FEEDBACK
DCW-V	MECH RM (RM 2138)	DOMESTIC WATER	11.73	-	●	-	FULL PORT, NPS 1"	●	-	●	-	-	●	-	BRAY BV SERIES WITH FAIL SAFE FAST ACTING ACTUATOR WITH FEEDBACK
DRAIN-V	MECH RM (RM 2138)	CHILLED WATER	11.73	-	●	-	FULL PORT, NPS 1-1/2"	●	-	●	-	-	●	-	BRAY BV SERIES WITH FAIL SAFE FAST ACTING ACTUATOR WITH FEEDBACK
CHS-V, CHR-V	MECH RM (RM 2138)	CHILLED WATER	11.73	-	●	-	FULL PORT, NPS 1-1/2"	●	-	-	●	-	●	-	BRAY BV SERIES WITH FAIL SAFE FAST ACTING ACTUATOR WITH FEEDBACK

CAV BOX SCHEDULE

VALVE NO.	SERVING AREA/ROOM	LOCATION	MODEL	UNIT SIZE	MIN. AIRFLOW CFM	MAX. AIRFLOW CFM	MAX. APD inWG	REHEAT COIL CAPACITY MBH	EAT °F	LAT °F	EWT °F	LWT °F	FLOW GPM	WPD ft/WG	FLUID TYPE	REMARKS
CAV-2140-1	SPECT CT (RM 2140)	RM 2140	EH PRICE - SDV	16	1698	3000	0.63	58.70	55	73	140	95.7	2.69	1.14	WATER	1, 2, 3, 4, 5
CAV-2141-1	CONTROL RM (RM 2141)	RM 2141	EH PRICE - SDV	10	381	1350	0.72	26.40	55	73	140	99.6	1.33	0.55	WATER	1, 2, 3, 4, 5
CAV-2138-1	MECH RM (RM 2138)	RM 2138	EH PRICE - SDV	10	550	1100	0.51	21.60	55	73	140	95.8	0.99	0.33	WATER	1, 2, 3, 4, 5

NOTE:
1. MAX NC 25 NOISE LEVEL CRITERIA.
2. ALL CAV EQUIPPED WITH 3 FOOT LONG INTEGRAL ATTENUATORS AND FIBER FREE FOAM.
3. CAV BOX SHALL BE BALANCED TO AIR FLOW RATE INDICATED ON THE DRAWINGS.
4. CAV BOX SHALL BE BY BASE BUILDING CONTROLS CONTRACTOR (JCI). CONTROLLER HANDING ARRANGEMENT SHALL BE CONFIRMED ON SITE BY THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
5. CAV BOX DAMPER SHALL REMAIN IN LAST POSITION ON LOSS OF POWER.

SILENCER SCHEDULE

TAG	MANUFACTURER	MODEL	LOCATION	CONFIGURATION	HEIGHT (mm)	WIDTH (mm)	LENGTH (mm)	AIRFLOW (L/s)	MAX P.D (Pa)	VELOCITY (m/s)	SILENCER DYNAMIC INSERTION LOSS (dB) 63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	REMARKS
SL-1S	VIBRO-ACOUSTIC	RFL-MHV-AY33265	RM 2140	RFL	350	650	3000	980	48	+ 4	8	20	24	24	23	18	14	10	2, 3, 4, 5
SL-1R	VIBRO-ACOUSTIC	REFL-MHV-AY33265	RM 2140	REFL	300	600	1500	690	50	- 4	6	6	9	14	23	26	22	16	2, 3, 4, 5
SL-EF	VIBRO-ACOUSTIC	RFL	RM 2100D	RFL	250	300	900	283	50										1, 2, 3, 4, 5, 6

NOTES:
1. TYPE: R - RECTANGULAR, D - DISSIPATIVE, RE - RECTANGULAR ELBOW, FL - FILM LINED.
2. VIBAR FILM LINER MEDIA PROTECTION.
3. NON-BASIS OF DESIGN SILENCER MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED ACOUSTICAL CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO DEMONSTRATE THAT THE RESULTANT DUCTBORNE FAN SOUND LEVELS, INCLUDING AIRBORNE AND BREAKOUT NOISE, MEET THE REQUIRED CRITERIA.
4. NON-BASIS OF DESIGN SILENCER MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED PRESSURE DROP CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO DEMONSTRATE THAT THE RESULTANT INSTALLED PRESSURE DROP WITH SYSTEM EFFECTS DOES NOT EXCEED SCHEDULED VALUES.
5. FOR NON-BASIS OF DESIGN PRODUCT SUPPLIED, CONTRACTOR IS FINANCIALLY RESPONSIBLE TO ENSURE NOISE CONTROL SOLUTION IS DELIVERED TO ACHIEVE SPECIFIED NC LEVEL IN SPACES.
6. SILENCER SHALL MEET THE SCHEDULED PERFORMANCE AND ACHIEVE MAX NC 25 IN SPACE. FINAL LENGTH AND SILENCER SELECTION BY SILENCER MANUFACTURER.

GRILLE & DIFFUSER SCHEDULE

UNIT TAG	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	TYPE	VOLUME CONTROL	DIMENSION (mm x mm)	MATERIAL	FINISH	REMARKS
A1	EH PRICE	SPD	SQUARE PLAQUE DIFFUSER	YES	600 x 600	ALUMINUM	B12	1,2,3,4,7
A2	EH PRICE	LFD	LAMINAR FLOW DIFFUSER	YES	600 x 1200	STAINLESS STEEL	B12	1,2,3,4,7
B1	EH PRICE	735	LOUVERED RETURN GRILLE	YES	600 x 600	STAINLESS STEEL	2B	1,2,3,7
B2	EH PRICE	735	LOUVERED RETURN GRILLE	YES	300 x 300	STAINLESS STEEL	2B	1,2,3,7
B3	EH PRICE	735	LOUVERED RETURN GRILLE	YES	600 x 300	STAINLESS STEEL	2B	1,2,3,7
B4	EH PRICE	735	LOUVERED RETURN GRILLE	YES	500 x 250	STAINLESS STEEL	2B	1,2,3,7
C1	EH PRICE	730H	LOW LEVEL LOUVERED GRILLE	YES	AS INDICATED	STAINLESS STEEL	2B	1,2,3,7

NOTES:

1. REFER TO FLOOR PLAN FOR INLET SIZE.
2. CONFIRM DIMENSION OF CEILING GRID PRIOR TO ORDERING.
3. GRILLE AND DIFFUSER SHALL SUIT CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS.
4. AIRFLOW PATTERN SHALL BE HORIZONTAL.
5. 0.5" THICK ALUMINUM FOIL-BACKED FIBREGLASS EXTERNAL INSULATION.
6. BLADES ARE TO BE PARALLEL WITH SHORT DIMENSION.
7. DIFFUSERS AND GRILLES TO BE COMPLETE WITH BALANCING DAMPER.

EXHAUST FAN SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	QTY	AIRFLOW (L/s)	E.S.P. (IN.W.C.)	FAN (RPM)	FAN (BHP)	ACOUSTIC PERFORMANCE SOUND POWER LEVEL (dB) (INLET/OUTLET) 63Hz	128Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	MA	SOUND POWER (LWA) (INLET/OUTLET)	SOUND PRESSURE (DBA) (INLET/OUTLET)	ELECTRICAL FLA (A)	MOTOR (HP)	MOTOR (RPM)	V/PH/HZ	VFD RATED	EMERGENCY POWER	REMARKS
EF-2100D-01	PENNBARRY	SQX135 -0541SC	SECOND FLOOR (CORRIDOR 2100D)	CT ROOM EXHAUST	1	283	1	1511	0.24	74/68	70/69	65/72	65/67	65/65	66/63	61/61	59/58	71/71	59.5/59.5	3.5	0.75	1800	208/3/60	YES	YES	1,2,3

NOTES:
1. FAN MOTOR TO BE COMPLETE WITH LOOSE VFD AND SINE WAVE FILTER.
2. FAN MOTOR TO BE NEMA PREMIUM EFFICIENCY TOTALLY ENCLOSED FAN COOLED TYPE (TEFC).
3. EXHAUST FAN IS TO BE COMPLETE WITH FOUR (4) SPRING ISOLATORS SIZED FOR 50mm DEFLECTION, SUITABLE FOR INSTALLATION ON BASE MOUNTED UNISTRUT. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION AND COORDINATE PROVISIONS WITH MECHANICAL CONTRACTOR.

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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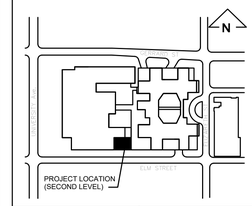
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR

QUASAR CONSULTING GROUP

Project Manager: MB
Drawn: AS
Project Leader:
Checked: PC

Client: SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
MECHANICAL SCHEDULES I

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No. HC 21-129

Drawing No. MS 02 EW 01

SK Atrium TB - 864 x 1232

AIR HANDLING UNIT

UNIT TAG	BASIS OF DESIGN		AIRFLOW		FANS		FILTERS					COILS			ENTHALPY WHEEL	HUMIDIFIER	SOUND POWER LEVEL (dB)									INPUT POWER					NOTES
	MANUFACTURER	MODEL NO.	OUTDOOR (%)	RETURN (%)	SUPPLY	EXHAUST	PRE-FILTER (FILTER #1)	FILTER #2	FILTER #3	FILTER #4	EXHAUST FILTER	PRE-HEATING COIL	HEATING COIL	COOLING COIL			-	63	125	250	500	1000	2000	4000	8000	SERVICE	MCA (AMPS)	MOP (AMPS)	POWER (V/Ph/Hz)	EMERGENCY POWER	
AC-2138-01	HAAKON	-	12	78	AC-2138-SF-1	N/A	2" (MERV-8) FARR 30/30 x1 @ 24"x24"	12" (MERV-14) FARR Durafil 4V ES Merv 14 x2 @ 24"x24"	N/A	N/A	N/A	N/A	AC-2138-HC-1	AC-2138-CC-1	N/A	AC-2138-HUM	RETURN AIR	68	63	73	71	69	65	59	53	AC-2138-01			416/1/60	YES	1,2,3,4,5,6
																	SUPPLY AIR	79	76	83	80	78	74	68	62						
																	EXHAUST AIR														
																	DUCTED OA	68	63	73	71	69	65	59	53						

NOTES:
1. AIR HANDLING UNIT TO BE C/W HEATING COIL
2. AIR HANDLING UNIT TO BE C/W CHILLED WATER COOLING COIL
3. AIR HANDLING UNIT TO BE C/W MANUFACTURER SUPPLIED OUTDOOR AND RECIRCULATION AIR DAMPERS. OUTDOOR AIR DAMPERS TO BE OPPOSED BLADE T.A. MORRISON 9000. RECIRCULATION AIR DAMPER TO BE PARALLEL BLADE T.A. MORRISON 1000.
4. AIR HANDLING UNIT TO BE C/W 304 STAINLESS STEEL COOLING COIL & HUMIDIFIER CABINET SECTIONS.
5. AIR HANDLING UNIT TO BE C/W OUTDOOR AIR INTAKE PLENUM, AS INDICATED ON PLAN.
6. AIR HANDLING UNIT TO BE DOUBLE WALL CONSTRUCTION WITH NO PERFORATIONS.

FANS

UNIT TAG	BASIS OF DESIGN			FAN				SOUND POWER LEVEL (dB)																	
	MANUFACTURER	MODEL NO.	QTY.	AIRFLOW (L/s)	FAN (RPM)	E.S.P. (Pa)	T.S.P. (Pa)	INLET/OUTLET	63	125	250	500	1000	2000	4000	8000	SILENCER	FLA (AMPS)	BREAK (KW)	MOTOR (KW)	MOTOR (RPM)	POWER (V/Ph/Hz)	VFD (YES/NO)	EMERGENCY POWER	NOTES
AC-2138-SF-1	HAAKON	18TCEPQ	1	1,231	1,841	498	921	INLET	74	78	86	81	72	69	66	63	REFER TO FLOOR PLAN	3.9		2.2	1750	416/3/60	YES	YES	1,2,3,4
								OUTLET	80	80	86	83	80	76	70	64									

NOTES:
1. FAN TO BE PLENUM TYPE AND DIRECT DRIVEN.
2. FAN IS TO BE COMPLETE WITH PRE-WIRED DISCONNECT WITH NEMA 3R OUTDOOR RATED ENCLOSURE.
3. FAN ENCLOSURE TO BE TOTALLY ENCLOSED FAN COOLED.
4. FAN TO BE C/W VIBRATION ISOLATION SPRINGS INTERNALLY MOUNTED WITHIN THE AIR HANDLING UNIT CABINET.

AIR HANDLING UNIT HYDRONIC COILS

UNIT TAG	BASIS OF DESIGN		CAPACITY								AIRFLOW						FLUID					NOTES
	MANUFACTURER	MODEL NO.	TOTAL (KW)	SENSIBLE (KW)	FINS/INCH	ROWS	FIN HEIGHT (MM)	FIN LENGTH (MM)	FACE AREA (SQ.M)	FACE VELOCITY (MPS)	AIRFLOW (L/s)	A.P.D. (PA)	E.A.T. DB (°C)	E.A.T. WB (°C)	L.A.T. DB (°C)	L.A.T. WB (°C)	TYPE	FLUID FLOW (L/s)	PRESSURE DROP (KPA)	E.F.T. (°C)	L.F.T. (°C)	
AC-2138-HC-1	HAAKON	5W0130.00636.02	14.2	-	6	1	762	914		1.77	1,231	7	12.8	-	22.2	-	WATER	0.31	0.8	60.0	48.9	1
AC-2138-CC-1	HAAKON	5W0630.01036.06	27.6	20.6	10	6	762	914		1.77	1,231	144	24.9	18.1	11.3	11.2	WATER	0.74	1.5	6.7	15.6	1
AC-2138-CC-1	HAAKON	5W0630.01036.06	21.1	17.8	10	6	762	914		1.77	1,231	144	24.9	18.1	13.1	13.0	WATER	0.74	0.2	10	16.8	1,2

NOTES:
1. COOLING COIL CASING AND DRAIN PAN TO BE STAINLESS STEEL.
2. SECONDARY OPERATING POINT.

AIR HANDLING UNIT HUMIDIFIER

UNIT TAG	SERVICE	BASIS OF DESIGN		STEAM			AIR		SPACE TEMPERATURE SETPOINT (°C)	RELATIVE HUMIDITY SETPOINT (%RH)	ABSORPTION DISTANCE (MM)	NOTES
		MANUFACTURER	MODEL NO.	STEAM PRESSURE (PSI)	CONDENSATE LOAD (LB/HR)	TUBE QTY.	TOTAL AIRFLOW (L/s)	% OUTDOOR AIR				
AC-2138-HUM	AC-2138	DRISTEEM			12	2	1,231	12	22	30	304.8	1,2,3

NOTES:
1. HUMIDIFIER PERFORMANCE BASED ON -10F OUTDOOR AIR TEMPERATURE.
2. HUMIFIDIER TO BE STAINLESS STEEL TUBE, HEADER AND ENCLOSURE.
3. HUMIDIFIER TO BE C/W INSULATED TUBE HOOD.
4. HUMIDIFIER TO BE C/W MECHANICAL TEMPERING DEVICE TO ENSURE WATER TO DRAIN DOES NOT EXCEED 60DEG.
5. REFER TO PRODUCT INSTALLATION MANUAL FOR EQUIPMENT CLEARANCES, AND GENERAL MANUFACTURER RECOMMENDATIONS.
6. STEAM GENERATOR SHALL BE RATED FOR 12 LBS/HR, 208V/1PH/ 19.2A FLA, 4KW, C/W BACNET CARD, AND MODULATING INPUT FOR CONNECTION TO BAS.

AGS PUMP SYSTEM SCHEDULE

UNIT TAG	SYSTEM	LOCATION	BASIS OF DESIGN		SYSTEM		PUMP					VFD	EMERGENCY POWER	NOTES
			MANUFACTURER	MODEL	TOTAL INPUT POWER		CAPACTY PER PUMP AT 20" Hg (SCFM)	MAX PRESSURE (Inches Hg)	MOTOR					
					AMPS	POWER (V/Ph/Hz)			HP	SPEED (RPM)	POWER (V/Ph/Hz)			
PV-2138-01	2HP DUPLEX OILLESS CLAW MEDICAL AGS	MECHANICAL ROOM (2138)	CLASS 1 INC.	OLC200-SX 2VSD	13	208/3/60	6-12	20	2	-	208/3/60	YES	YES	1,2, 3

NOTES:
1. MEDICAL ANESTHETIC GAS SCAVENGING SYSTEM SHALL BE C/W TWO PUMPS, SIZED FOR N+1 REDUNDANCY.
2. MEDICAL ANESTHETIC GAS SCAVENGING SYSTEM SHALL BE C/W INTEGRAL MEDICAL AGS MONITORING SYSTEM.
3. MEDICAL ANESTHETIC GAS SCAVENGING SYSTEM TO BE MOUNTED ON MANUFACTURER SUPPLIED SUPPORT FRAME (NO STANDARD CONFIGURATION).
4. CONTRACTOR TO PROVIDE A QTY OF (4) NEOPRENE PAD ISOLATORS FOR PUMP SKID CORNERS. EQUAL TO MASON INDUSTRIES NEOPRENE WAFFLE PAD.

REFER TO SPECIFICATION SECTION 23 75 00 AND ALL ASSOCIATED AIR HANDLING UNIT DRAWINGS AND SPECIFICATIONS FOR COORDINATION AND REQUIREMENTS OF MECHANICAL AND CONTROLS CONTRACTOR.

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ADDENDUM M-1	1

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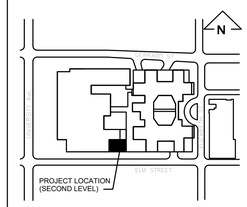
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
MB	AS
Project Leader	Checked
	PC

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
MECHANICAL SCHEDULES II

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No. HC 21-129

Drawing No. MS 02 EW 02

SK Atrium TB - 864 x 1232

Project Name:	SickKids Nuclear Medicine Spect CT	**Date Issued:**	November 24, 2025
Quasar Project #:	HC-21-129		

Distribution

Norr Architecture	John Dignazio	john.dignazio@norr.com
Norr Architecture	Zachary Shepherd	Zachary.Shepherd@norr.com
Quasar Consulting Group	Alexandra Blagojevic	alexandra.blagojevic@quasarcg.com
Quasar Consulting Group	Jerry Guidarelli	jerry.guidarelli@quasarcg.com
Quasar Consulting Group	Jomuel Estranero	jomuel.estranero@quasarcg.com
Quasar Consulting Group	Manda Bobinac	manda.bobinac@quasarcg.com

Addendum #:	E-1 (Architectural Addendum 7)
Revision #:	0

This Addendum forms part of the Contract Specifications and Drawings, and modifies the Bidding Documents, with Amendments and Additions noted below. This Addendum shall be added to the front of the specifications as issued. Bidders shall acknowledge receipt of this Addendum in the space provided in the Bid Form and include in bid amount.

Changes to Specifications:

1. **Refer to Specifications section 28 01 80.71 - Revisions and Upgrades of Fire Detection and Alarm**

   a. In article 2.1 titled "Existing System" updated sentences .1 and .2 as shown below:

2.1 EXISTING SYSTEMS

.1 The existing Siemens fire alarm system serving the building to be retrofitted to serve renovated areas. Additional devices to be 100% compatible with and of same manufacture as per existing system. Work shall include provision of all necessary control panel and annunciator work of existing system to accommodate integration of additional system.

The Siemens contact information is:
Gerry Thibeault
Fire Solutions Sales Executive
Tel: 416-617-3786
gerry.thibeault@siemens.com

.2 Include for and engage Owner's existing Siemens fire alarm system vendors authorized technicians to provide and perform required system products and work. Vendor must be Siemens authorized

<u>These specifications now form as part of the contract documents.</u>

Changes to Drawings:

1. **Drawing EA 02 EW 01**
   - Modified drawing list and added note two (2) to general notes
2. **Drawing EA 02 EW 02**
   - Modification drawing name
3. **Drawing EA SB EW 04**
   - Added sub-basement key plan
4. **Drawing EA BM EW 05**
   - Added basement key plan

5. **Drawing EA SL EW 06**

   - Added Service Level key plan

6. **Drawing EX 02 EW 02**

   - Re- Tagging demo devices

7. **Drawing ED 02 EW 01**

   - Re- Tagging of lighting fixture

8. **Drawing ED 02 EW 01**

   - Modification to light fixture selection as shown and cctv detail.

9. **Drawing ED EW 03**

   - Modification to mechanical schedule as shown, to provide additional details.

10. **Drawing ER 02 EW 01**

    - Modification to sld as shown, to provide additional details with regards to feeder size and other additional information.

11. **Drawing EP 02 EW 01**

    - Modification to drawing to show location of splitter and mechanical enclosed breakers. Relocated power for zone valve box and shown GE equipment. Added notes to electrical sheet notes.

12. **Drawing ES 02 EW 02**

    - Modification to panel schedule RP-2-1-3EA (typo)

Quasar Consulting Group

Jomuel Estranero, P.Eng.
Electrical Engineer (Team Lead)

.1 Submit complete operating and maintenance manuals listing the manufacturer's name(s) including technical data sheets (with model numbers to be used indicated).

.2 Wiring diagrams indicating terminals and the interconnections between the items of equipment.

.3 Provide a clear and concise description of operation which gives, in detail, the information required to properly operate the equipment.

1.5 QUALITY ASSURANCE

.1 Approvals

.1 The system shall have proper listing and/or approval from the following nationally recognized agencies:

.1 FM Factory Mutual.

.2 UL Underwriters Laboratories Inc.

.3 ULC Underwriters Laboratories Canada.

.2 The fire alarm control, panel shall meet the modular listing requirements of ULC. Each subassembly of the FACP, including all printed circuit boards, shall include the appropriate ULC modular label.

.2 Fire alarm shall conform to the Building Code, Ontario Regulations 925/75 and as amended subsequently.

.3 Fire alarm system installation shall conform to ULC Standard S524-M, latest edition.

.4 All devices/components shall be suitable for the locations, environment, temperatures in which they are to be installed.

.5 The fire alarm system shall be manufactured by an ISO 9001 certified company and meet the requirements of BS EN9001: ANSI/ASQC Q9001-1994.

.6 The FACP and peripheral devices shall be manufactured 100% by a single manufacturer (or division thereof).

1.6 WARRANTY

.1 All work performed and all material and equipment furnished under this contract shall be free from defects and shall remain so for a period of at least one (1) year from the date of acceptance.

PART 2 - PRODUCTS

2.1 EXISTING SYSTEMS

.1 The existing Siemens fire alarm system serving the building to be retrofitted to serve renovated areas. Additional devices to be 100% compatible with and of same manufacture as per existing system. Work shall include provision of all necessary control panel and annunciator work of existing system to accommodate integration of additional system.

The Siemens contact information is:
Gerry Thibeault
Fire Solutions Sales Executive
Tel: 416-617-3786
gerry.thibeault@siemens.com

.2 Include for and engage Owner's existing Siemens fire alarm system vendors authorized technicians to provide and perform required system products and work. Vendor must be Siemens authorized

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
LINETYPES	
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	FUTURE WORK (NOT IN SCOPE)
	EXTENTS OF FIRE ALARM ZONE, WET LOCATION, OR OTHER AREA AS NOTED ON PLANS
ABBREVIATIONS	
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
ER	EXISTING IN RELOCATED POSITION
RR	REMOVE AND RELOCATE
C	CEILING MOUNTED CONNECTION
W	WALL MOUNTED CONNECTION
F	FLOOR MOUNTED CONNECTION
℄	CENTRE LINE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C	UNDER CABINET
U/F	UNDER RAISED FLOOR
CCT	CIRCUIT
CTE	CONNECT TO EXISTING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
TL	TWIST LOCK
TR	TAMPER RESISTANT
WG	WIRE GUARD
WP	WEATHER PROOF
EX	EXPLOSION PROOF
HZ	HAZARDOUS LOCATION
R/I	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
ABBREVIATIONS - CODES AND STANDARDS	
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OFC	ONTARIO FIRE CODE
ABBREVIATIONS - CEILING TYPES	
ACT	ACOUSTIC CEILING TILE (T-BAR)
EXP	EXPOSED CEILING
GB	GYPSUM BOARD CEILING
OWSJ	OPEN WEB STEEL JOISTS
PCC	PAINTED OR POPCORN CEILING ON EXPOSED CONCRETE
WD	WOOD CEILING
ANNOTATIONS	
CL	CLOSET
WR	WASHROOM
PLUMBING	
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS)
HVAC	
	THERMOSTAT OR TEMPERATURE SENSOR
	TIMER CONTROL
BBH	ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV	ENERGY RECOVERY VENTILATOR
HRU	HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
CONDUIT AND BOXES	
	CONDUIT WITH END BUSHING
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT CONTINUES
JB	JUNCTION BOX
PB	PULL BOX
HH	HAND HOLE
CONNECTIONS TO EQUIPMENT	
DW	DISHWASHER
FR	FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	SYSTEM FURNITURE WALL FEED FOR POWER AND TELECOMMUNICATIONS UNLESS NOTED OTHERWISE.. 'C' ADJACENT TO SYMBOL DENOTES CEILING FEED, 'F' ADJACENT TO SYMBOL DENOTES FLOOR FEED.
W	ADJACENT TO 3-PHASE DIRECT CONNECTION, DENOTES WALL SYSTEM FURNITURE FEED FOR POWER AND COMMUNICATIONS.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
LIGHTING CONTROLS REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS	
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
3W	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
K	ADJACENT TO SWITCH, DENOTES KEY SWITCH.
T	ADJACENT TO SWITCH, DENOTES COUNTDOWN TIMER SWITCH
AT	ADJACENT TO SWITCH, DENOTES ASTRONOMICAL TIMER SWITCH
DS	ADJACENT TO SWITCH, DENOTES DOOR SWITCH
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
OS	SENSOR (TYPE UNKNOWN)
M	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.
	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
SC	SCENE CONTROLLER.
P	PHOTOCELL SENSOR.
PC	PHOTOCELL SENSOR. 'PC' DENOTES CLOSED LOOP PHOTOCELL CONTROL, 'PO' DENOTES OPEN LOOP PHOTOCELL CONTROL
DT	CEILING MOUNTED OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY'. 'OS' DENOTES UNKNOWN TECHNOLOGY.
DT	WALL MOUNTED OCCUPANCY SENSOR.
DISTRIBUTION EQUIPMENT	
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
C	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
POWER RECEPTACLES AND BOXES	
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND DUPLEX RECEPTACLE - HALF OF RECEPTACLE AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	SPLIT RECEPTACLE. IF MANUALLY CONTROLLED, SHOWN CONNECTED TO SWITCH.
	SPLIT RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30R RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED.
	14-50R RECEPTACLE FOR ELECTRIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT. MOUNT AT 130 mm AFF.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	FLOOR RECEPTACLE OR RECEPTACLE IN FLOOR BOX (POWER ONLY)
	SERVICE POLE. PROVIDE POWER TO JUNCTION BOX IN CEILING SPACE ABOVE. DEVICES ON POLE AS NOTED ON PLANS.
FB1	ADJACENT TO FLOOR RECEPTACLE, DENOTES FLOOR BOX TYPE
*	ADJACENT TO RECEPTACLE, DENOTES DEVICE CONNECTED TO EMERGENCY POWER
LIGHTING FIXTURES SYMBOLS IN ACCORDANCE WITH IES DG-3-00 AND IES HB-10-11 WHERE NOT DETAILED OTHERWISE HERE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTURE REQUIREMENTS.	
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, RECESSED IN CEILING
	LINEAR LUMINAIRE, SUSPENDED: PENDANT, CHAIN, STEM, OR AIRCRAFT CABLE HUNG TO SUIT APPLICATION, OR AS NOTED IN SCHEDULE. "X", WHEN USED DENOTES POWER FEED LOCATION.
	LINEAR LUMINAIRE, WALL MOUNTED
	AS ABOVE, CONNECTED TO EMERGENCY OR NIGHT LIGHTING CIRCUIT AS INDICATED.
	ROUND OR SQUARE DOWNLIGHT, RECESSED
	RECESSED DOWNLIGHTS, CONNECTED TO EMERGENCY OR NIGHT LIGHT CIRCUIT
	ROUND SUSPENDED LUMINAIRE
	WALL SCONCE OR OTHER WALL MOUNTED LUMINAIRES.
EM	CONNECTED TO EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
CE	CONNECTED TO EMERGENCY CIRCUIT. PROVIDE CUL 924 LISTED SHUNT TRIP RELAY OR EQUAL TO PERMIT CONTROL OF LUMINAIRE WITH ZONING BASED ON LOCAL LIGHTING CONTROLS.
NL	LUMINAIRE CONNECTED TO NON-EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
A, B, Z1, Z2, ETC.	DENOTES ZONING/CIRCUTING ASSIGNMENTS FOR LUMINAIRES AND CONTROLS IN THE SAME SPACE.
EMERGENCY LIGHTING REFER TO EMERGENCY LIGHTING FIXTURE SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.	
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
SL	DENOTES 'SELF-LUMINOUS' EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	ONE, TWO, AND THREE HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE, TWO, AND THREE HEAD CEILING MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	RECESSED EMERGENCY REMOTE HEAD.
EM	DENOTES "EMERGENCY"
CCT	CORRELATED COLOUR TEMPERATURE
CRI	COLOUR RENDERING INDEX
EXTERIOR LIGHTING	
	ARM MOUNTED LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	POST TOP LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	LIGHTING BOLLARD. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	GROUND MOUNTED FLOOD LIGHT
TELECOMMUNICATIONS	
	SYSTEM FURNITURE FEED.
W	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES WALL SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
F	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES FLOOR SYSTEM FURNITURE FEED FOR COMMUNICATIONS.
C	ADJACENT TO SYSTEM FURNITURE FEED, DENOTES CEILING SYSTEM FURNITURE FEED FOR COMMUNICATIONS (SERVICE POLE OR DROP CORD AS NOTED).
	CABLE TRAY (LADDER TYPE)
	CABLE TRAY (BASKET TYPE)
	WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLESS NOTED OTHERWISE.
	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED TELEVISION OUTLET.
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE, MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
B	ADJACENT TO COMMUNICATIONS OUTLET, INDICATES BLANK-OFF PLATE.
HDMI	HDMI OUTLET.
AV	AUDIO VIDEO GANG, AS NOTED.
WAP	CEILING MOUNTED WIRELESS ACCESS POINT (WIFI)
S	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
S	AUDIO/VISUAL SYSTEM SPEAKER, WALL MOUNTED.
PA	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
PA	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS HORN SPEAKER WALL MOUNTED.
HS	PUBLIC ADDRESS SYSTEM HANDSET
ACC	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE
VOL	PUBLIC ADDRESS SPEAKER VOLUME CONTROL SWITCH.
	INTERCOM
IDS	VIDEO INTERCOM SYSTEM DOOR CALL STATION
IMS	VIDEO INTERCOM SYSTEM MASTER STATION
IDC	INSULATION DISPLACEMENT CONNECTION
	CLOCK.
MTX	GPS CLOCK SYSTEM MASTER TRANSMITTER
RX	GPS CLOCK SYSTEM GPS RECEIVER
RTX	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (REPEATER)
SRX	GPS CLOCK SYSTEM RECEIVER SWITCH
ACCESS CONTROL AND DOOR HARDWARE	
CR	CARD READER
DA	DOOR ALARM SOUNDER
DC	DOOR CONTACT
ODC	OVERHEAD DOOR CONTACT
EL	ELECTRIC LATCH
ES	ELECTRIC STRIKE
PTC	ELECTRIC POWER TRANSFER CABLE
PTH	POWER TRANSFER HINGE
KS	KEY SWITCH
ML	ELECTROMAGNETIC LOCK
MLR	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
REX	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR 'REQUEST TO EXIT' MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED
DR	DOOR RELEASE ADJACENT TO THE ABOVE, PUSHBUTTON INTEGRATED WITH ELECTRIFIED DOOR HARDWARE DEVICE.
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
WS	TOUCHLESS "WAVE SWITCH" FOR DOOR OPERATOR CONTROL
	DOOR BELL C/W SOUNDER AND STROBE
	DOOR BELL (SOUNDER ONLY)
INTRUSION DETECTION	
	GLASS BREAK (GB)
MD	MOTION DETECTOR (MD)
KP	KEYPAD (KP)
VIDEO SURVEILLANCE	
	CCTV CAMERA
C/P	CCTV CAMERA, CEILING OR POLE MOUNTED
	CCTV CAMERA, WALL MOUNTED
PTZ	PAN-TILT-ZOOM
DURESS SYSTEM	
DB	DURESS BUTTON (MOUNTED ON UNDERSIDE OF TABLETOP)
DB-W	WALL MOUNTED DURESS BUTTON WITH POLYCARBONATE ANTI-TAMPER COVER
DB	DURESS SYSTEM STROBE LIGHT
FIRE DETECTION AND ALARM - GENERAL	
CACF	CENTRAL ALARM AND CONTROL FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING PANEL

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
FAMP	FIRE ALARM ULC MONITORING PANEL
FAZ	FIRE ALARM ZONE
FSZ	FIRE ALARM SUPERVISORY ZONE
FDSPCP	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL
FDSCP	FIRE DETECTION AND SUPPRESSION CONTROL PANEL
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS.
FIRE DETECTION - INITIATION DEVICES	
	MANUAL PULL STATION (MPS)
LX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W POLYCARBONATE (LEXAN) COVER.
WG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W WIRE GUARD COVER.
A	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS OR DETECTOR, DENOTES DEVICE C/W AUXILIARY CONTACT.
	PHOTOELECTRIC SMOKE DETECTOR
	SAME AS ABOVE, WALL MOUNTED
SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM, 120 VOLT, COMPLETE WITH STROBE AND INTEGRAL CARBON MONOXIDE DETECTION.
	SAME AS ABOVE, WALL MOUNTED
	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
VESDA	VERY EARLY SMOKE DETECTING APPARATUS
BSDT	BEAM SMOKE DETECTOR TRANSMITTER
BSDR	BEAM SMOKE DETECTOR RECEIVER (OR REFLECTOR)
ASD	ASPIRATING SMOKE DETECTOR
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE, RESTORABLE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES "HIGH TEMPERATURE", 94 DEGREES C (200 DEGREES F) OR AS NOTED ON PLANS.
LHD	ADJACENT TO HEAT DETECTOR SYMBOL, DENOTES "LINEAR HEAT DETECTION CABLE".
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE, NON-RESTORABLE
	HEAT DETECTOR - 94 DEGREES C (200 DEGREES F) FIXED TEMPERATURE, NON-RESTORABLE
	LINEAR HEAT DETECTION CABLE
FS	FLOW SWITCH
FIRE DETECTION AND ALARM - SUPERVISORY DEVICES	
LL	LOW TANK LEVEL
LP	LOSS OF POWER
LT	LOW TEMPERATURE
PS	PRESSURE SWITCH
SV	SUPERVISED VALVE
MON	FIRE ALARM MONITORING POINT, REFER TO FLOOR PLANS FOR DETAILS.
FIRE DETECTION AND ALARM - SIGNALLING DEVICES	
	FIRE ALARM BELL, WALL MOUNTED.
C	ADJACENT TO BELL OR HORN, DENOTES CEILING MOUNTED.
	FIRE ALARM HORN
M	ADJACENT TO FIRE ALARM HORN, DENOTES 'MINI' HORN
	FIRE ALARM HORN/STROBE, WALL MOUNTED.
EV	FIRE ALARM EVACUATION SPEAKER, CEILING MOUNTED
EV	FIRE ALARM EVACUATION SPEAKER, COMPLETE WITH STROBE LIGHT, CEILING MOUNTED
EV	FIRE ALARM EVACUATION SPEAKER, WALL MOUNTED
EV	FIRE ALARM EVACUATION SPEAKER COMPLETE WITH STROBE LIGHT, WALL MOUNTED
SS	SILENCE SWITCH
	FIRE ALARM WALL MOUNTED STROBE LIGHT
	FIRE ALARM CEILING MOUNTED STROBE LIGHT
FIRE DETECTION AND ALARM - VOICE COMMUNICATION DEVICES	
FF	EMERGENCY TELEPHONE FOR FIREFIGHTER'S USE
FIRE DETECTION AND ALARM - OTHER DEVICES	
EOL	END OF LINE DEVICE
WG	WIRE GUARD
DNE	"DO NOT ENTER" SIGN
KS	KEY SWITCH FOR FIREFIGHTER CONTROL OF ELEVATOR RECALL, OR AS NOTED
IM	ISOLATOR MODULE
R	OUTPUT RELAY, FUNCTION AS INDICATED
CM	CONTROL MODULE
MM	MONITOR MODULE
HO	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	FIRE SUPPRESSION RELEASING STATION
	FIRE SUPPRESSION ABORT STATION
SINGLE LINE DIAGRAM	
	AIR CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	DISCONNECT (FUSED)
	FUSE
	METERING CABINET
	BUS DUCT
	TRANSFORMER
	AUTOMATIC TRANSFER SWITCH
	AUTOMATIC TRANSFER SWITCH C/W SINGLE SIDED BYPASS ISOLATION
	AUTOMATIC TRANSFER SWITCH C/W DOUBLE SIDED BYPASS ISOLATION

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ELECTRICAL LEGEND

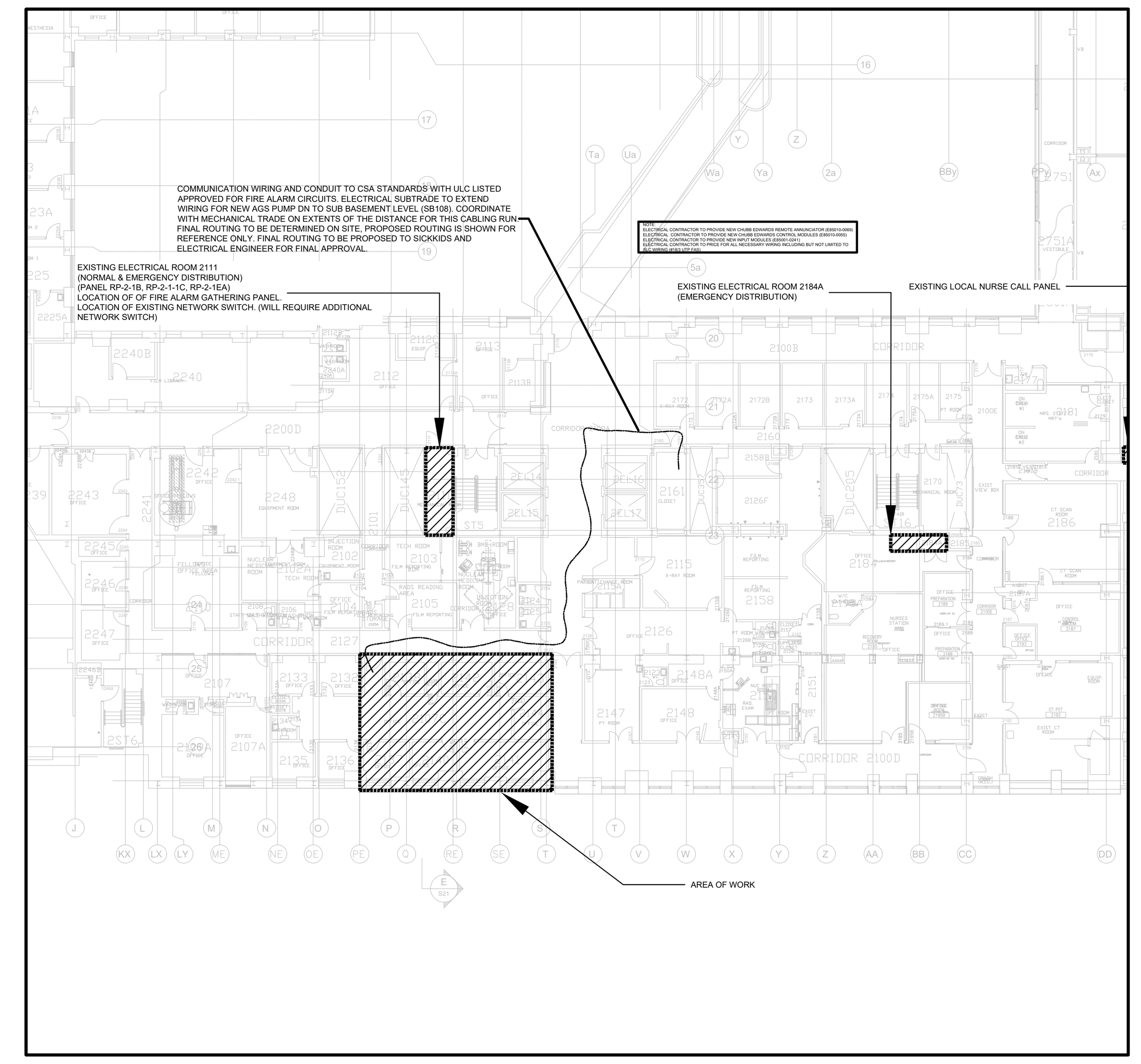
SYMBOL	DESCRIPTION
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
FTL	FEED THROUGH LUGS
LP	LIGHTING PANELBOARD
MCB	MOBILE CONNECTION BOX
MCC	MOTOR CONTROL CENTRE
MTS	MANUAL TRANSFER SWITCH
RP	RECEPTACLE PANELBOARD
SPD	SURGE PROTECTIVE DEVICE
STS	STATIC TRANSFER SWITCH
SWBD	SWITCHBOARD
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
HEALTHCARE POWER	
A	CEILING COLUMN TYPE ISOLATED POWER CENTRE WITH MECHANICAL AND ELECTRICAL SERVICES. 'A' DENOTES TYPE AS SCHEDULED ON DRAWINGS OR SPECIFICATIONS.
LIM	LINE ISOLATION MONITORING FOR ISOLATED POWER CENTRES.
SM	SLAVE MODULE FOR ISOLATED POWER CENTRES, TYPES AS SCHEDULED ON DRAWINGS.
RAP	REMOTE ALARM PANEL FOR ADJACENT ISOLATED POWER CENTRE.
RAS	CENTRALLY LOCATED REMOTE ALARM STATION FOR ISOLATED POWER CENTRES, SEE SCHEDULE.
G	GROUND JACK TO FOR ISOLATED POWER SYSTEM
GG	DOUBLE GROUND JACK FOR ISOLATED POWER SYSTEM
MGA	MEDICAL GAS ALARM PANEL
MGC	MEDICAL GAS CONTROL PANEL
MSC A	MEDICAL SERVICE COLUMN FOR PATIENT BEDHEAD ARRANGEMENT. 'A' DENOTES TYPE AS SCHEDULED ON THE DRAWINGS OR SPECIFICATIONS.
XR	POWER CONNECTION TO X-RAY VIEW BOXES
MTX	GPS CLOCK SYSTEM MASTER TRANSMITTER
RX	GPS CLOCK SYSTEM GPS RECEIVER
RTX	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (REPEATER)
SRX	GPS CLOCK SYSTEM RECEIVER SWITCH
	MONITOR
DA	DOCTOR'S DICTATION OUTLET
HEALTHCARE LIGHTING	
ORL	POWER CONNECTION TO OPERATING ROOM LIGHT
EL	POWER CONNECTION TO EXAMINATION LIGHT
ORL	POWER OPERATING ROOM LIGHT CONTROL
NURSE CALL DEVICES	
S	STAFF PRESENCE STATION
ID	INFRARED DETECTOR
ZL	NURSE CALL DOME LIGHT 'ZL', WHERE SHOWN DENOTES CORRIDOR ZONE LIGHT 'ZLC', WHERE SHOWN DENOTES CORRIDOR ZONE LIGHT C/W CHIME
NC1	SINGLE BED NURSE CALL BED STATION
NC2	DUAL BED NURSE CALL STATION
ES1	NURSE CALL PATIENT WASHROOM EMERGENCY STATION - PULL CORD TYPE
ES2	NURSE CALL EMERGENCY STATION - PULL CORD TYPE
ES3	NURSE CALL EMERGENCY STATION - WATERPROOF PULL CORD TYPE
ES4	NURSE CALL EMERGENCY STATION - PUSH BUTTON TYPE
ES5	NURSE CALL EMERGENCY STATION - WATERPROOF PUSH BUTTON TYPE
ES6	NURSE CALL EMERGENCY STATION - PULL CORD TYPE WITH PRIORITY CALL
NMS	NURSE CALL MASTER STATION
NSMS	NURSE CALL SUB-MASTER STATION
NDS	NURSE CALL DUTY STATION
NSS	NURSE CALL STAFF STATION
NSR	NURSE CALL STAFF REGISTER
NEQ	NURSE CALL EQUIPMENT AND AREA CONTROL UNITS
CB	NURSE CALL CODE BLUE STATION
CW	NURSE CALL CODE WHITE STATION
CP	NURSE CALL CODE PINK STATION
CW	NURSE CALL VIOLENT SITUATION WIRELESS (CODE WHITE) INFRARED RECEIVED, CEILING MOUNTED. 'RX', WHERE SHOWN DENOTES RADIO FREQUENCY RECEIVER.
PW	PATIENT WANDERING
IP	INFANT PROTECTION
TA	TELEMETRY ANTENNA
NA	NARCOTICS ALARM LIGHT
NCA	NARCOTICS CABINET ALARM ANNUNCIATOR 'DS', WHERE SHOWN INDICATES DOOR SWITCH
L	"LASER IN USE" LIGHTING FIXTURE - WALL MOUNTED
L	"LASER IN USE" LIGHTING FIXTURE - CEILING MOUNTED
XR	"X-RAY IN USE" LIGHTING FIXTURE - WALL MOUNTED
XR	"X-RAY IN USE" LIGHTING FIXTURE - WALL MOUNTED
DETAIL REFERENCES	
1	SHEET KEYNOTE
1 / E101	REFER TO DETAIL. EXAMPLE SHOWN INDICATES REFERENCE TO DETAIL 1 ON DRAWING E101
1	REVISION NUMBER

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

GENERAL NOTES

1. 18. ALL PREPARATORY WORK SHALL BE PERFORMED DURING NORMAL BUSINESS HOURS WHICH ARE MONDAY TO FRIDAY 7:00AM TO 3:00PM. CONTRACTOR TO COORDINATE FINAL SCHEDULE WITH THE HOSPITAL. MINIMIZE AND COORDINATE ALL RELATED SHUTDOWNS AS PART OF ANY MODIFICATION TO EXISTING SYSTEM. ANY SHUTDOWNS TO BE DONE AFTER HOURS. MONDAY TO FRIDAY 10:00PM TO 5:00AM. WORK OUTSIDE OF AREA OF WORK IDENTIFIED IN THE ELECTRICAL KEY OR PARTS PLAN WILL BE OCCUPIED FOR THE ENTIRE DURATION OF THE PROJECT. CEILING INVESTIGATIONS ARE TO BE COMPLETED AFTER HOURS BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH SICKKIDS FACILITY PROCEDURES. CONSTRUCTION WORK OUTSIDE THE AREA OF WORK TO BE COORDINATED AND COMPLETED AFTER HOUR OR SUCH THAT SICKKIDS OPERATIONS CAN CONTINUE NORMALLY THROUGH SPACES WITHOUT SHUTTING DOWN ANY SPACE. REFER TO DIVISION 1 SPECIFICATIONS FOR AFTER HOURS WORK PERIODS AND SPECIFICATION FOR HAZMAT REPORT.
2. ELECTRICAL CONTRACTOR TO RETAIN CHUBB/EDWARDS FOR ALL NECESSARY WORK TO UPGRADE THE EXISTING MEDICAL GAS MASTER ALARM SYSTEM AND UPDATE THE PROGRAMING TO ACCOMMODATE THE NEW ALARMS LISTED IN THE MECHANICAL DRAWINGS

1



1 **2ND FLOOR KEYPLAN**
SCALE: 1:200

ELECTRICAL DRAWING LIST

SHEET NUMBER	SHEET NAME
EA 02 EW 01	ELECTRICAL DRAWING LIST, SYMBOL LIST, AND KEYPLAN
EA 01 EW 02	1ST FLOOR ENLARGED PARTS PLAN
EA 02 EW 03	2ND FLOOR ENLARGED KEY PLAN
EA SB EW 04	SUB BASEMENT FLOOR ENLARGED KEY PLAN
EA BM EW 05	BASEMENT FLOOR ENLARGED KEY PLAN
EA SL EW 06	SERVICE LEVEL FLOOR ENLARGED KEY PLAN
EX 02 EW 01	LIGHTING - DEMO WORK
EL 02 EW 01	LIGHITNG - NEW WORKING
EX 02 EW 02	POWER - DEMO WORK
EP 02 EW 01	POWER - NEW WORKING
ED 02 EW 01	ELECTRICAL DETAILS 1 OF 2
ED 02 EW 02	ELECTRICAL DETAILS 2 OF 2
ED 02 EW 03	POWER FOR MECHANICAL SCHEDULE
ER 02 EW 01	ELECTRICAL SINGLE LINE DIAGRAM
ES 02 EW 01	ELECTRICAL PANEL SCHEDULE - 1 OF 2
ES 02 EW 02	ELECTRICAL PANEL SCHEDULE - 2 OF 2

1

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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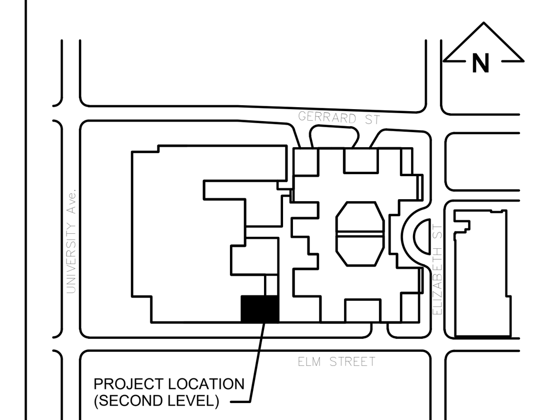
Keyplan



North Arrow

Detail Symbol
Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager JE	Drawn JE/JS
Project Leader JG	Checked JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
ELECTRICAL DRAWING LIST, SYMBOL LIST, AND KEY PLAN

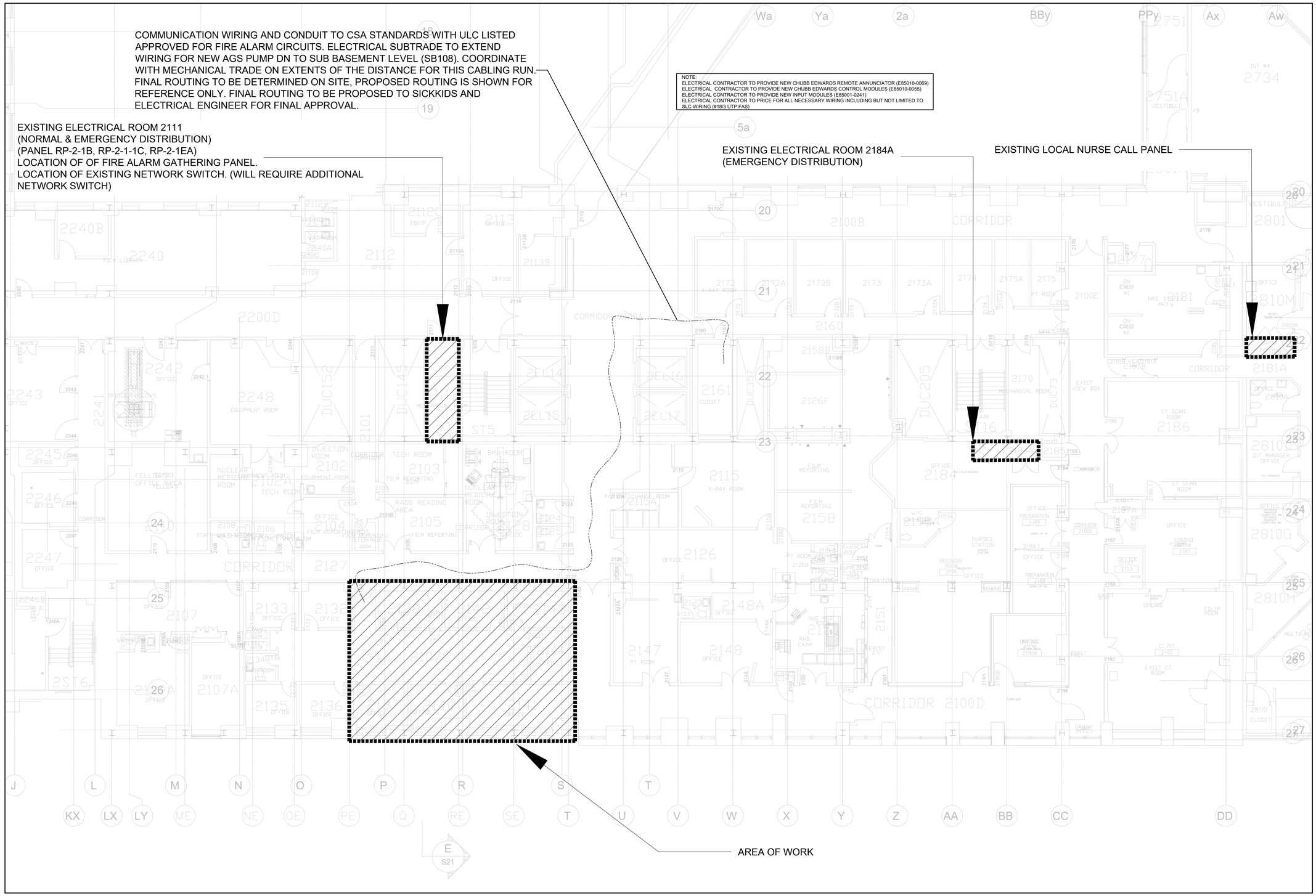
Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. EA 02 EW 01

SK Atrium TB - 864 x 1232

GENERAL NOTES	
1.	ELECTRICAL CONTRACTOR TO PRICE UP TO 5% FOR ADDITIONAL DEVICES THAT MAY NOT BE CAPTURED IN PLAN DUE TO EXISTING SITE CONDITIONS.
2.	ANY ELECTRICAL ITEM, FIRE ALARM OR LIGHTING DISCONNECTED AND RECONNECTED SHALL BE IN RE-INSTALLED AND VERIFIED TO BE IN PROPER WORKING CONDITION.



1 2ND FLOOR KEYPLAN
SCALE: 1:100

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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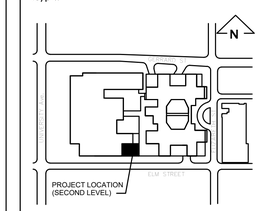
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
2ND FLOOR ENLARGED KEY PLAN

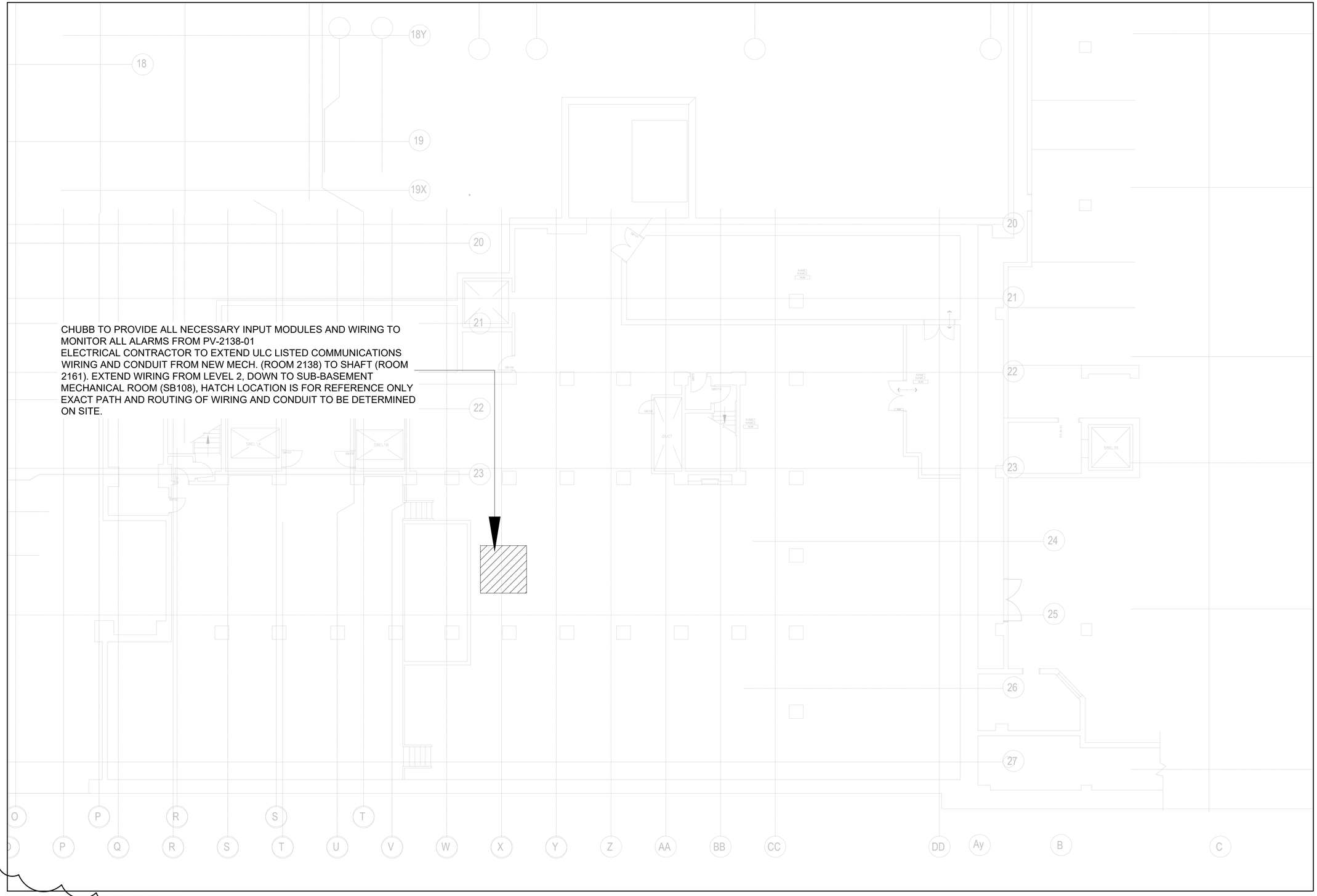
Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. EA 02 EW 03

SK Arch TB - 864 x 1232

GENERAL NOTES	
1.	ELECTRICAL CONTRACTOR TO PRICE UP TO 5% FOR ADDITIONAL DEVICES THAT MAY NOT BE CAPTURED IN PLAN DUE TO EXISTING SITE CONDITIONS.
2.	ANY ELECTRICAL ITEM, FIRE ALARM OR LIGHTING DISCONNECTED AND RECONNECTED SHALL BE IN RE-INSTALLED AND VERIFIED TO BE IN PROPER WORKING CONDITION.



1 SUB BASEMENT KEYPLAN
SCALE: 1:100

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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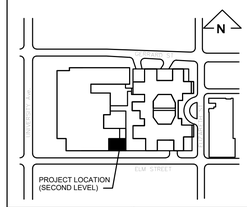
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client

SickKids®

555 University Ave., Toronto, ON M5G 1X8

Project

SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title

SUB BASEMENT ENLARGED KEY PLAN

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

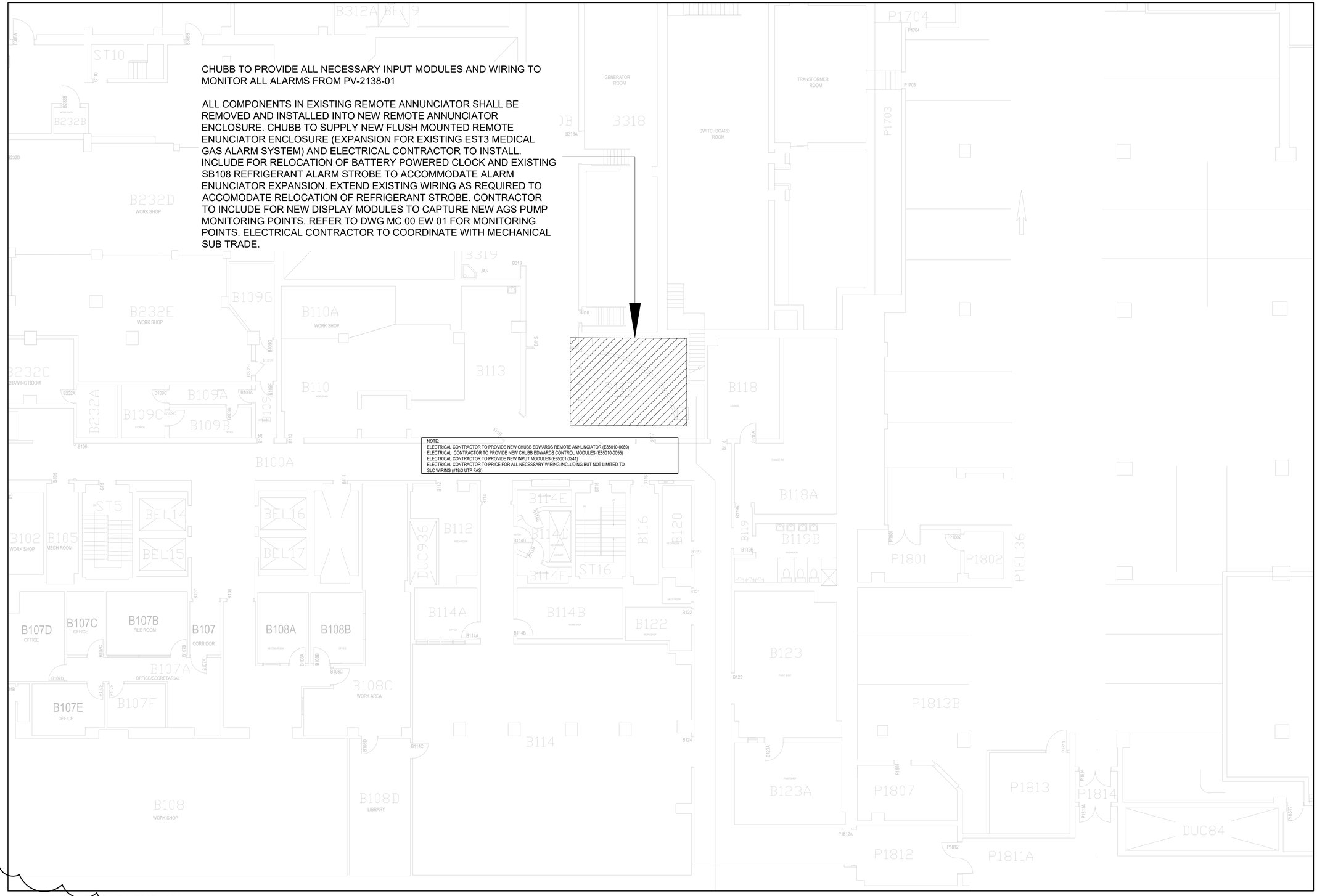
Drawing No. EA SB EW 04

SK A1 Arch TB - 864 x 1224

GENERAL NOTES	
1.	ELECTRICAL CONTRACTOR TO PRICE UP TO 5% FOR ADDITIONAL DEVICES THAT MAY NOT BE CAPTURED IN PLAN DUE TO EXISTING SITE CONDITIONS.
2.	ANY ELECTRICAL ITEM, FIRE ALARM OR LIGHTING DISCONNECTED AND RECONNECTED SHALL BE IN RE-INSTALLED AND VERIFIED TO BE IN PROPER WORKING CONDITION.

CHUBB TO PROVIDE ALL NECESSARY INPUT MODULES AND WIRING TO MONITOR ALL ALARMS FROM PV-2138-01

ALL COMPONENTS IN EXISTING REMOTE ANNUNCIATOR SHALL BE REMOVED AND INSTALLED INTO NEW REMOTE ANNUNCIATOR ENCLOSURE. CHUBB TO SUPPLY NEW FLUSH MOUNTED REMOTE ENUNCIATOR ENCLOSURE (EXPANSION FOR EXISTING EST3 MEDICAL GAS ALARM SYSTEM) AND ELECTRICAL CONTRACTOR TO INSTALL. INCLUDE FOR RELOCATION OF BATTERY POWERED CLOCK AND EXISTING SB108 REFRIGERANT ALARM STROBE TO ACCOMMODATE ALARM ENUNCIATOR EXPANSION. EXTEND EXISTING WIRING AS REQUIRED TO ACCOMODATE RELOCATION OF REFRIGERANT STROBE. CONTRACTOR TO INCLUDE FOR NEW DISPLAY MODULES TO CAPTURE NEW AGS PUMP MONITORING POINTS. REFER TO DWG MC 00 EW 01 FOR MONITORING POINTS. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL SUB TRADE.



NOTE:
ELECTRICAL CONTRACTOR TO PROVIDE NEW CHUBB EDWARDS REMOTE ANNUNCIATOR (E85010-0069)
ELECTRICAL CONTRACTOR TO PROVIDE NEW CHUBB EDWARDS CONTROL MODULES (E85010-0055)
ELECTRICAL CONTRACTOR TO PROVIDE NEW INPUT MODULES (E85001-0241)
ELECTRICAL CONTRACTOR TO PRICE FOR ALL NECESSARY WIRING INCLUDING BUT NOT LIMITED TO SLC WIRING (#18/3 UTP FAS)

1 SUB BASEMENT KEYPLAN
SCALE: 1:100

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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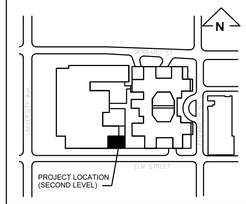
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title
BASMENT ENLARGED KEY PLAN

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. EA BM EW 05

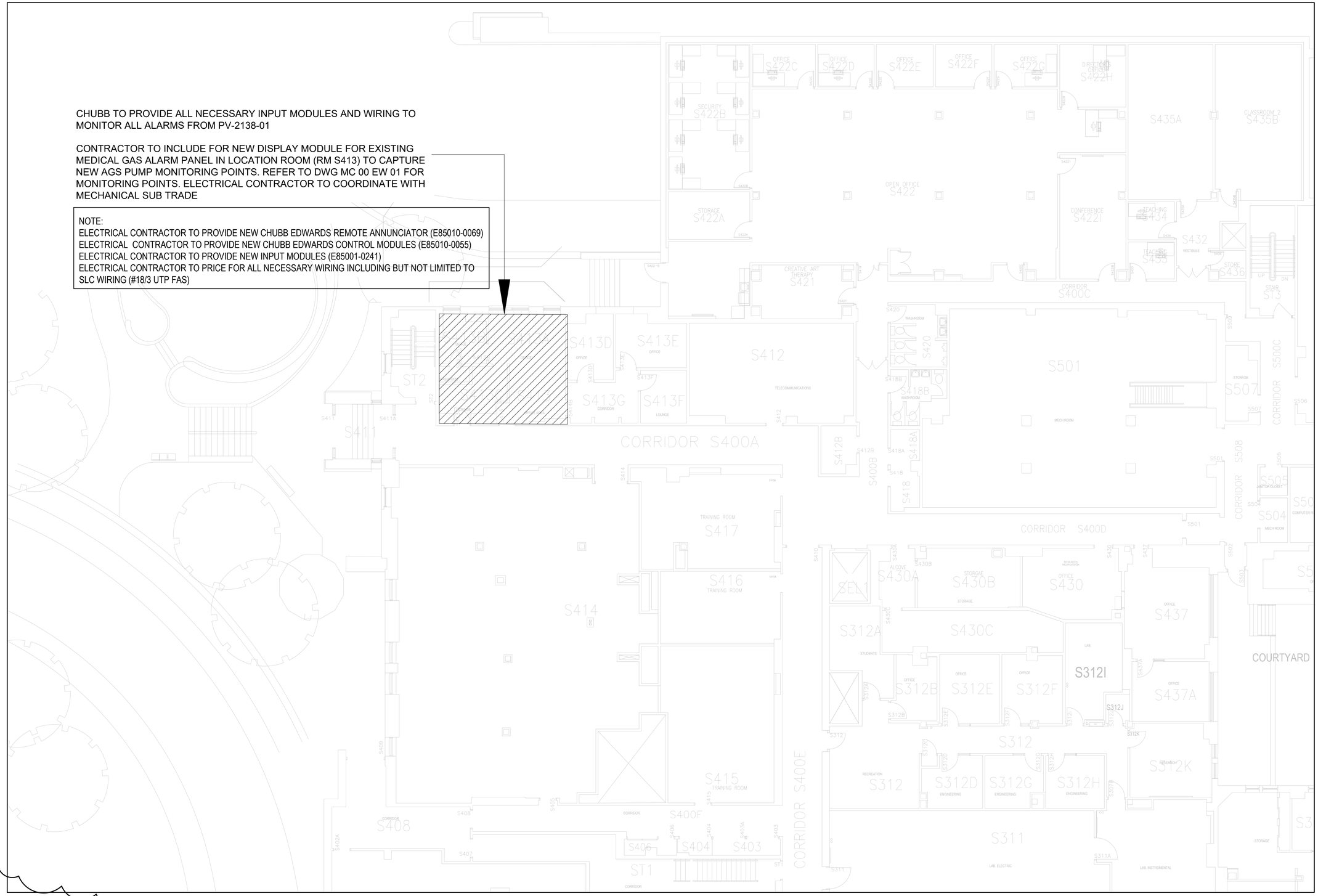
SK 24 x 36 TB - 864 x 1219

GENERAL NOTES	
1.	ELECTRICAL CONTRACTOR TO PRICE UP TO 5% FOR ADDITIONAL DEVICES THAT MAY NOT BE CAPTURED IN PLAN DUE TO EXISTING SITE CONDITIONS.
2.	ANY ELECTRICAL ITEM, FIRE ALARM OR LIGHTING DISCONNECTED AND RECONNECTED SHALL BE IN RE-INSTALLED AND VERIFIED TO BE IN PROPER WORKING CONDITION.

CHUBB TO PROVIDE ALL NECESSARY INPUT MODULES AND WIRING TO MONITOR ALL ALARMS FROM PV-2138-01

CONTRACTOR TO INCLUDE FOR NEW DISPLAY MODULE FOR EXISTING MEDICAL GAS ALARM PANEL IN LOCATION ROOM (RM S413) TO CAPTURE NEW AGS PUMP MONITORING POINTS. REFER TO DWG MC 00 EW 01 FOR MONITORING POINTS. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL SUB TRADE

NOTE:
ELECTRICAL CONTRACTOR TO PROVIDE NEW CHUBB EDWARDS REMOTE ANNUNCIATOR (E85010-0069)
ELECTRICAL CONTRACTOR TO PROVIDE NEW CHUBB EDWARDS CONTROL MODULES (E85010-0055)
ELECTRICAL CONTRACTOR TO PROVIDE NEW INPUT MODULES (E85001-0241)
ELECTRICAL CONTRACTOR TO PRICE FOR ALL NECESSARY WIRING INCLUDING BUT NOT LIMITED TO SLC WIRING (#18/3 UTP FAS)



1 SERVICE LEVEL KEY PLAN
SCALE: 1:100

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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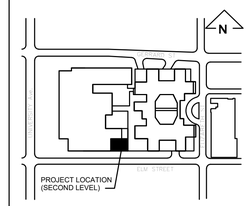
Keyplan



North Arrow

Detail Symbol
Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

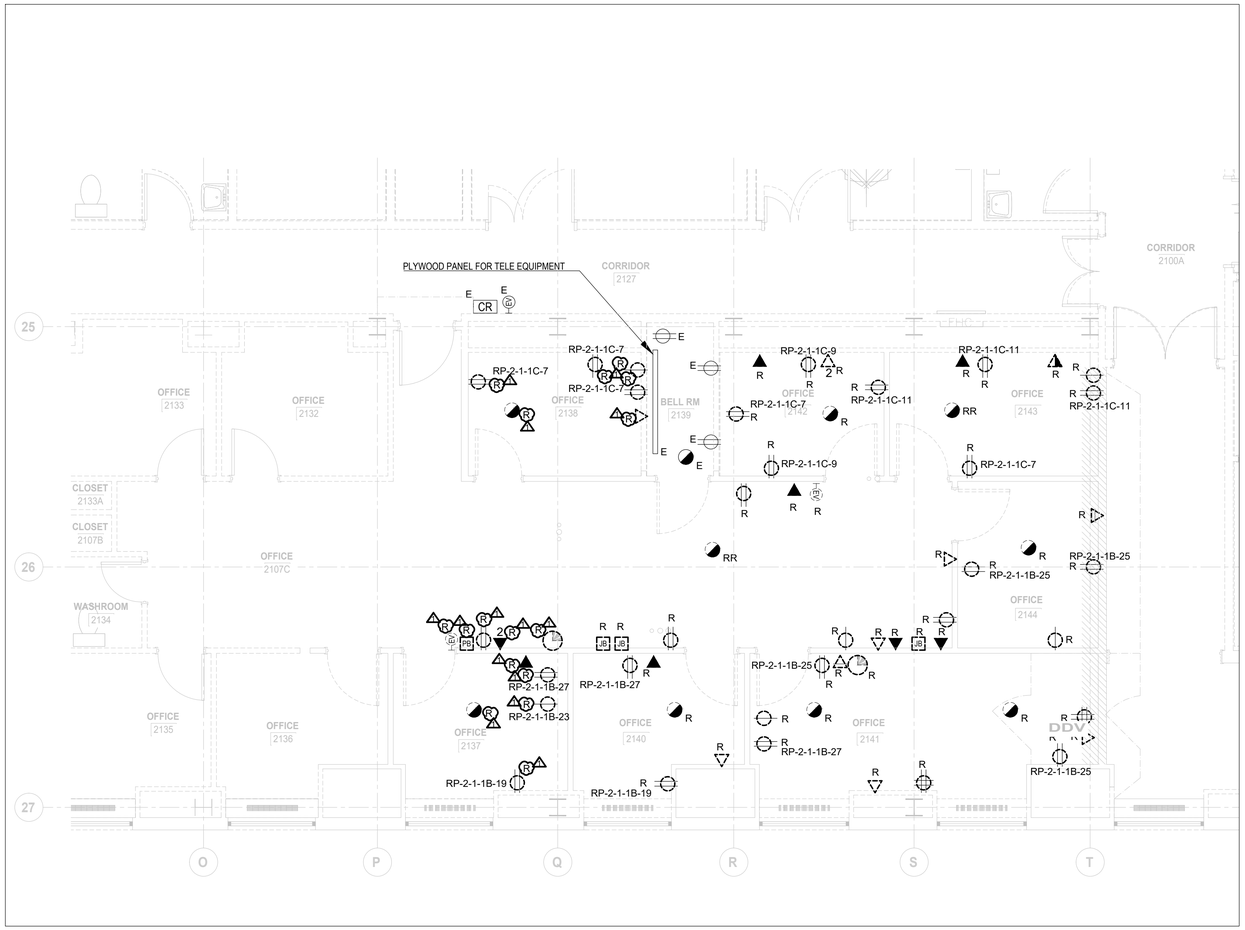
555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title
SERVICE LEVEL ENLARGED KEY PLAN

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. EA SL EW 06



1 LEVEL 2 PART PLAN - POWER DEMO WORK

SCALE: 1:50

GENERAL SHEET NOTES

1. IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATION OR ON DRAWING THAT EQUIPMENT AND MATERIALS BE REMOVED FROM EXISTING LOCATIONS AND RE-INSTALLED, EITHER IN WHOLE OR IN PART IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFORE BEING RE-INSTALLED IN THE NEW LOCATION. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS.
2. ALL OPENINGS IN BUILDING RISER, IF APPLICABLE, SHALL BE SEALED WITH APPROVED FIRE STOP MATERIAL. ANY FIREPROOFING MATERIAL REMOVED WILL BE REPLACED WITH A SUITABLE AND APPROVED FIREPROOFING MATERIAL AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS TO APPLICABLE BUILDING AND FIRE CODES.
3. CONTRACTOR TO CONDUCT OWN SURVEY AND VERIFY EXISTING CONDITIONS.
4. COORDINATE WITH THE CLIENT TO CONFIRM EQUIPMENT OR SYSTEMS/DEVICES TO REMAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REFINISHING OF DAMAGED BUILDING AREAS AND FINISHES AFFECTED BY THE WORK AS OUTLINED UNDER SCOPE OF WORK OF THIS PROJECT.
6. ALL INSTALLATIONS WITHIN EXISTING AREAS SHALL BE COORDINATED WITH OWNER AND BASE BUILDING MANAGEMENT. INSTALLATION MUST BE PERFORMED IN A MANNER TO ELIMINATE ANY INTERFERENCES TO STAFF AND NORMAL OPERATION OF THE FACILITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND DISTRIBUTION OF TEMPORARY POWER AND LIGHTING WITHIN THE PREMISES DURING THE CONSTRUCTION PERIOD. EXPOSED ELECTRICAL CORDS OUTSIDE THE AREA OF WORK SHALL NOT BE PERMITTED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL THE WORK WITH ALL OTHER TRADES, CONSULTANTS, AND THE OWNER. ALL WORK SHALL BE SCHEDULED AND CARRIED OUT BY THE CONTRACTOR IN A MANNER TO ENSURE CONTINUED AND NON-INTERRUPTED OPERATION OF EXISTING FACILITY.
9. CONTRACTOR SHALL IDENTIFY AND LABEL CLEARLY ALL CIRCUITS, WIRING, SERVICES, JUNCTION BOXES, PULLBOXES, DEVICES AND EQUIPMENT INSTALLED AND CONNECTED UNDER SCOPE OF WORK OF THIS PROJECT. IDENTIFICATION SHALL BE AS PER OWNER'S REQUIREMENTS AND ALL MARKINGS SHALL BE OF NON-ERASABLE LAMACOID TYPE. COORDINATE ALL LABELING WITH THE OWNER AND CONSULTANT.
10. CONTRACTOR TO ENSURE ANY DAMAGE TO EXISTING ELECTRICAL CONDUIT AND CONNECTION TO BE REPLACED OR FIXED PRIOR TO RE-INSTALLATION.
11. CONTRACTOR TO NOTIFY OWNER OF ANY EXISTING DAMAGES PRIOR TO COMMENCING OF WORK. ALL EXISTING EQUIPMENT AND FIXTURES INSIDE THE PATIENT ROOM AND WASHROOM TO BE THOROUGHLY INSPECTED, ANY COMPROMISE TO THE INTEGRITY SHOULD BE MADE KNOWN TO THE OWNER.
12. WHERE POSSIBLE, OUTLINE ALL EXISTING AND NEW FIXTURES WITHIN THE PATIENT ROOM WITH ANTI PICK CAULKING.
13. CONTRACTOR TO TRACK AND CONFIRM LOCATION OF FEEDER AND BREAKER TO SOURCE PRIOR TO DISCONNECTION, AND ENSURE BREAKER IS SECURELY TURNED OFF AND LOCKED.
14. WHEREVER POSSIBLE, REUSE EXISTING CIRCUITS MADE AVAILABLE DURING DEMOLITION PHASE. WHERE NEEDED PROVIDE AND INSTALL NEW COMPATIBLE BREAKERS AND WIRING. CONTRACTOR TO VERIFY AVAILABLE CIRCUITS ON SITE, AS PANEL BOARD SCHEDULES MAY NOT BE UP TO DATE
15. CONTRACTOR TO ENSURE THAT ALL RECEPTACLES WITHIN SCOPE OF WORK IS HOSPITAL GRADE OUTLETS. REPLACE EXISTING IF NECESSARY.

DEMOLITION SHEET NOTES

1. COORDINATE ALL DEMOLITION WORK WITH GENERAL CONTRACTOR. REFER TO CONSTRUCTION PHASING SCHEDULE.
2. VISIT THE SITE DURING THE TENDERING PERIOD TO DETERMINE THE EXACT SCOPE OF DEMOLITION WORK AND TO BECOME THOROUGHLY FAMILIAR WITH ALL CONDITIONS TO MEET IN CARRYING OUT SAME. REQUEST FOR EXTRAS WILL NOT BE CONSIDERED FOR FAILURE TO PROPERLY EVALUATE CONDITIONS WHICH AFFECT THE SCOPE OF DEMOLITION WORK.
3. IN SOME CASES, GENERAL LOCATIONS AND TYPES OF SOME ELECTRICAL EQUIPMENT ARE INDICATED IN ORDER TO ASSIST IN EVALUATING SCOPE OF DEMOLITION WORK.
4. REFER TO ARCHITECTURAL DRAWINGS ROOM FINISH SCHEDULES FOR ADDITIONAL DEMOLITION NOTES.
5. ELECTRICAL CONTRACTOR TO PRICE FOR UP TO 5% FOR ADDITIONAL DEVICES THAT MAY NOT BE CAPTURED IN PLAN DUE TO EXISTING SITE CONDITIONS.

SHEET KEYNOTES

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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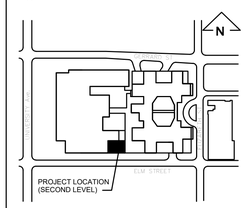
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR

QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client

SickKids

555 University Ave., Toronto, ON M5G 1X8

Project

SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title

POWER DEMO WORK

Check Scale (may be photo reduced)

0 1inch 0 10mm

Project No.

Drawing No. EX 02 EW 02

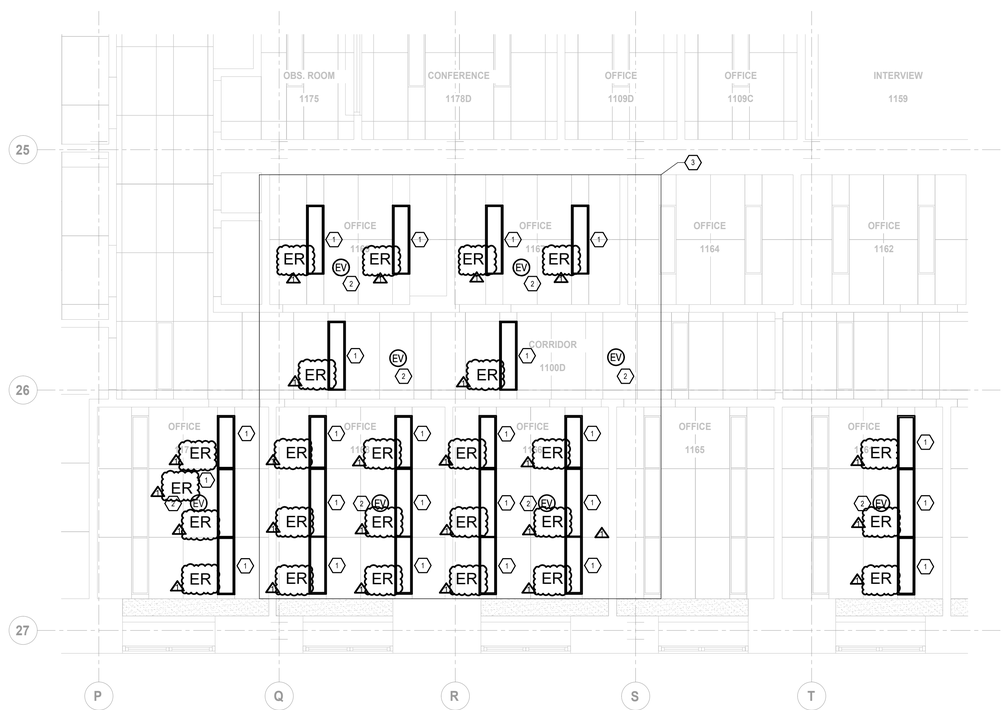
SK Atrium TB - 864 x 1232

SHEET KEYNOTES

1. LIGHTING FIXTURE SHOWN FOR REFERENCE ONLY, ELECTRICAL CONTRACTOR TO ENSURE ALL NORMAL AND EMERGENCY LIGHTING REMOVED FOR ELECTRICAL AND MECHANICAL WORK TO TAKE PLACE IS FULLY FUNCTIONAL AND TESTED UPON REINSTALLATION.
2. FIRE ALARM DEVICE SHOWN FOR REFERENCE ONLY, ELECTRICAL CONTRACTOR TO ENSURE ANY FIRE ALARM REMOVED FOR ELECTRICAL AND MECHANICAL WORK TO TAKE PLACE SHALL BE RE-INSTALLED AND RE-VERIFIED TO BE IN PROPER WORKING CONDITION UPON COMPLETION OF RE-INSTALLATION.
3. COORDINATE ALL CONDUIT AND FEEDER RUNS FOR SPEC CT AND CONTROL ROOM WITH SPEC CT MANUFACTURER, PRIOR TO ROUGH-IN AND CORING
4. WORK OUTSIDE THE AREAS OF WORK IDENTIFIED IN THE ELECTRICAL PART PLAN

GENERAL SHEET NOTES

1. IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATION OR ON DRAWING THAT EQUIPMENT AND MATERIALS BE REMOVED FROM EXISTING LOCATIONS AND RE-INSTALLED, EITHER IN WHOLE OR IN PART IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFORE BEING RE-INSTALLED IN THE NEW LOCATION. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS.
2. ALL OPENINGS IN BUILDING RISER, IF APPLICABLE, SHALL BE SEALED WITH APPROVED FIRE STOP MATERIAL. ANY FIREPROOFING MATERIAL REMOVED WILL BE REPLACED WITH A SUITABLE AND APPROVED FIREPROOFING MATERIAL AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS TO APPLICABLE BUILDING AND FIRE CODES.
3. CONTRACTOR TO CONDUCT OWN SURVEY AND VERIFY EXISTING CONDITIONS.
4. COORDINATE WITH THE CLIENT TO CONFIRM EQUIPMENT OR SYSTEMS/DEVICES TO REMAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REFINISHING OF DAMAGED BUILDING AREAS AND FINISHES AFFECTED BY THE WORK AS OUTLINED UNDER SCOPE OF WORK OF THIS PROJECT.
6. ALL INSTALLATIONS WITHIN EXISTING AREAS SHALL BE COORDINATED WITH OWNER AND BASE BUILDING MANAGEMENT. INSTALLATION MUST BE PERFORMED IN A MANNER TO ELIMINATE ANY INTERFERENCES TO STAFF AND NORMAL OPERATION OF THE FACILITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND DISTRIBUTION OF TEMPORARY POWER AND LIGHTING WITHIN THE PREMISES DURING THE CONSTRUCTION PERIOD. EXPOSED ELECTRICAL CORDS OUTSIDE THE AREA OF WORK SHALL NOT BE PERMITTED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL THE WORK WITH ALL OTHER TRADES, CONSULTANTS, AND THE OWNER. ALL WORK SHALL BE SCHEDULED AND CARRIED OUT BY THE CONTRACTOR IN A MANNER TO ENSURE CONTINUED AND NON-INTERRUPTED OPERATION OF EXISTING FACILITY.
9. CONTRACTOR SHALL IDENTIFY AND LABEL CLEARLY ALL CIRCUITS, WIRING, SERVICES, JUNCTION BOXES, PULLBOXES, DEVICES AND EQUIPMENT INSTALLED AND CONNECTED UNDER SCOPE OF WORK OF THIS PROJECT. IDENTIFICATION SHALL BE AS PER OWNER'S REQUIREMENTS AND ALL MARKINGS SHALL BE OF NON-ERASABLE LAMACOID TYPE. COORDINATE ALL LABELING WITH THE OWNER AND CONSULTANT.
10. CONTRACTOR TO ENSURE ANY DAMAGE TO EXISTING ELECTRICAL CONDUIT AND CONNECTION TO BE REPLACED OR FIXED PRIOR TO RE-INSTALLATION.
11. CONTRACTOR TO NOTIFY OWNER OF ANY EXISTING DAMAGES PRIOR TO COMMENCING OF WORK. ALL EXISTING EQUIPMENT AND FIXTURES INSIDE THE PATIENT ROOM AND WASHROOM TO BE THOROUGHLY INSPECTED, ANY COMPROMISE TO THE INTEGRITY SHOULD BE MADE KNOWN TO THE OWNER.
12. WHERE POSSIBLE, OUTLINE ALL EXISTING AND NEW FIXTURES WITHIN THE PATIENT ROOM WITH ANTI PICK CAULKING.
13. CONTRACTOR TO TRACK AND CONFIRM LOCATION OF FEEDER AND BREAKER TO SOURCE PRIOR TO DISCONNECTION, AND ENSURE BREAKER IS SECURELY TURNED OFF AND LOCKED.
14. WHEREVER POSSIBLE, REUSE EXISTING CIRCUITS MADE AVAILABLE DURING DEMOLITION PHASE. WHERE NEEDED PROVIDE AND INSTALL NEW COMPATIBLE BREAKERS AND WIRING. CONTRACTOR TO VERIFY AVAILABLE CIRCUITS ON SITE, AS PANEL BOARD SCHEDULES MAY NOT BE UP TO DATE
15. CONTRACTOR TO ENSURE THAT ALL RECEPTACLES WITHIN SCOPE OF WORK IS HOSPITAL GRADE OUTLETS. REPLACE EXISTING IF NECESSARY.
16. ASBESTOS CONTAINING FIREPROOFING IS PRESENT IN THE CEILING SPACE. TYPE 2 AND TYPE 3 ASBESTOS PROCEDURES ARE TO BE FOLLOWED WHEN WORKING IN THE CEILING SPACE AND IMPACTING PLUMBING. REFER TO HAZMAT REPORT IN DIVISION 2 SPECIFICATION SECTION, AS REQUIRED.
17. ALL EXISTING SERVICES SHOWN ARE APPROXIMATE AND BASED ON SITE SURVEY AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL ELECTRICAL, LIGHTING AND FIRE ALARM DEVICES AND FIXTURE LOCATIONS ON SITE AND REPORT ANY DISCREPANCY TO THE CONSULTANT.
18. ALL PREPARATORY WORK SHALL BE PERFORMED DURING NORMAL BUSINESS HOURS WHICH ARE MONDAY TO FRIDAY 7:00AM TO 3:00PM. CONTRACTOR TO COORDINATE FINAL SCHEDULE WITH THE HOSPITAL. MINIMIZE AND COORDINATE ALL RELATED SHUTDOWNS AS PART OF ANY MODIFICATION TO EXISTING SYSTEM. ANY SHUTDOWNS TO BE DONE AFTER HOURS. MONDAY TO FRIDAY 10:00PM TO 5:00AM. WORK OUTSIDE OF AREA OF WORK IDENTIFIED IN THE ELECTRICAL KEY OR PARTS PLAN WILL BE OCCUPIED FOR THE ENTIRE DURATION OF THE PROJECT. CEILING INVESTIGATIONS ARE TO BE COMPLETED AFTER HOURS BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH SICKKIDS FACILITY PROCEDURES. CONSTRUCTION WORK OUTSIDE THE AREA OF WORK TO BE COORDINATED AND COMPLETED AFTER HOUR OR SUCH THAT SICKKIDS OPERATIONS CAN CONTINUE NORMALLY THROUGH SPACES WITHOUT SHUTTING DOWN ANY SPACE. REFER TO DIVISION 1 SPECIFICATIONS FOR AFTER HOURS WORK PERIODS AND SPECIFICATION FOR HAZMAT REPORT.



1 LEVEL 1 PART PLAN - ELECTRICAL & LIGHTING - NEW
SCALE: 1:100

SHEET KEYNOTES

1. LIGHTING FIXTURE SHOWN FOR REFERENCE ONLY, ELECTRICAL CONTRACTOR TO ENSURE ALL NORMAL AND EMERGENCY LIGHTING IS FULLY FUNCTIONAL AND TESTED UPON REINSTALLATION.
2. FIRE ALARM DEVICE SHOWN FOR REFERENCE ONLY, ELECTRICAL CONTRACTOR TO ENSURE ANY FIRE ALARM REMOVED FOR MECHANICAL WORK TO TAKE PLACE SHALL BE RE-INSTALLED AND RE-VERIFIED TO BE IN PROPER WORKING CONDITION UPON COMPLETION OF RE-INSTALLATION.

DEMOLITION SHEET NOTES

1. COORDINATE ALL DEMOLITION WORK WITH GENERAL CONTRACTOR. REFER TO CONSTRUCTION PHASING SCHEDULE.
2. VISIT THE SITE DURING THE TENDERING PERIOD TO DETERMINE THE EXACT SCOPE OF DEMOLITION WORK AND TO BECOME THOROUGHLY FAMILIAR WITH ALL CONDITIONS TO MEET IN CARRYING OUT SAME. REQUEST FOR EXTRAS WILL NOT BE CONSIDERED FOR FAILURE TO PROPERLY EVALUATE CONDITIONS WHICH AFFECT THE SCOPE OF DEMOLITION WORK.
3. IN SOME CASES, GENERAL LOCATIONS AND TYPES OF SOME ELECTRICAL EQUIPMENT ARE INDICATED IN ORDER TO ASSIST IN EVALUATING SCOPE OF DEMOLITION WORK.
4. REFER TO ARCHITECTURAL DRAWINGS ROOM FINISH SCHEDULES FOR ADDITIONAL DEMOLITION NOTES.
5. ELECTRICAL CONTRACTOR TO PRICE UP TO 5% FOR ADDITIONAL DEVICES THAT MAY NOT BE CAPTURED IN PARTS PLAN DUE TO EXISTING SITE CONDITIONS.

GENERAL SHEET NOTES

1. IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATION OR ON DRAWING THAT EQUIPMENT AND MATERIALS BE REMOVED FROM EXISTING LOCATIONS AND RE-INSTALLED, EITHER IN WHOLE OR IN PART IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFORE BEING RE-INSTALLED IN THE NEW LOCATION. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS.
2. ALL OPENINGS IN BUILDING RISER, IF APPLICABLE, SHALL BE SEALED WITH APPROVED FIRE STOP MATERIAL. ANY FIREPROOFING MATERIAL REMOVED WILL BE REPLACED WITH A SUITABLE AND APPROVED FIREPROOFING MATERIAL AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS TO APPLICABLE BUILDING AND FIRE CODES.
3. CONTRACTOR TO CONDUCT OWN SURVEY AND VERIFY EXISTING CONDITIONS.
4. COORDINATE WITH THE CLIENT TO CONFIRM EQUIPMENT OR SYSTEMS/DEVICES TO REMAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REFINISHING OF DAMAGED BUILDING AREAS AND FINISHES AFFECTED BY THE WORK AS OUTLINED UNDER SCOPE OF WORK OF THIS PROJECT.
6. ALL INSTALLATIONS WITHIN EXISTING AREAS SHALL BE COORDINATED WITH OWNER AND BASE BUILDING MANAGEMENT. INSTALLATION MUST BE PERFORMED IN A MANNER TO ELIMINATE ANY INTERFERENCES TO STAFF AND NORMAL OPERATION OF THE FACILITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND DISTRIBUTION OF TEMPORARY POWER AND LIGHTING WITHIN THE PREMISES DURING THE CONSTRUCTION PERIOD. EXPOSED ELECTRICAL CORDS OUTSIDE THE AREA OF WORK SHALL NOT BE PERMITTED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL THE WORK WITH ALL OTHER TRADES, CONSULTANTS, AND THE OWNER. ALL WORK SHALL BE SCHEDULED AND CARRIED OUT BY THE CONTRACTOR IN A MANNER TO ENSURE CONTINUED AND NON-INTERRUPTED OPERATION OF EXISTING FACILITY.
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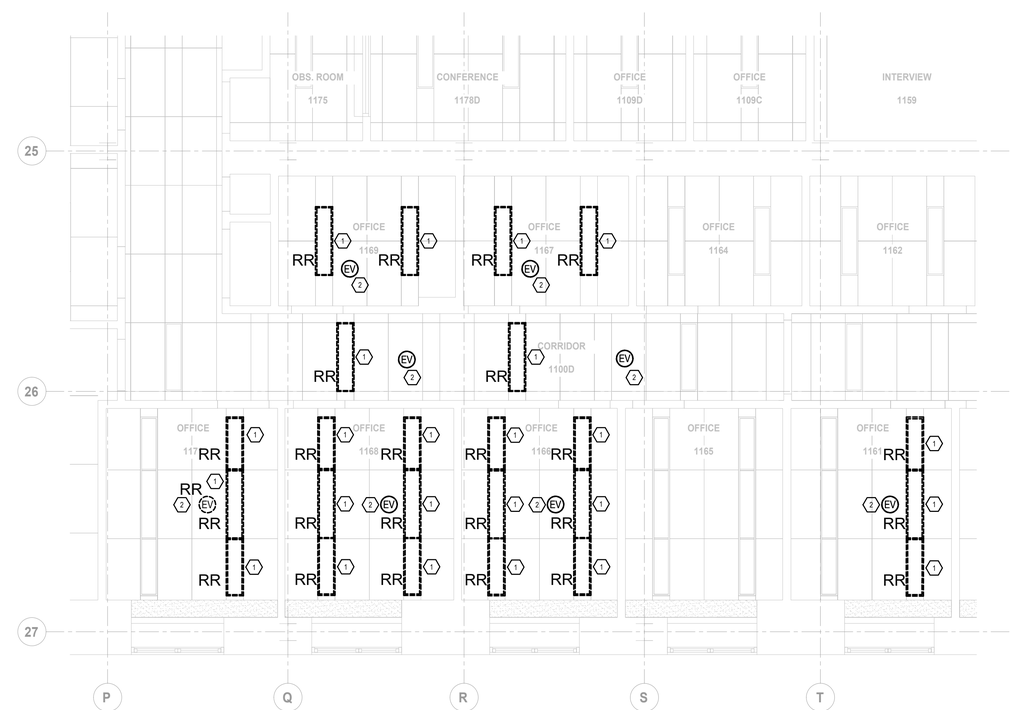

1 LEVEL 1 PART PLAN - ELECTRICAL & LIGHTING - DEMO
SCALE: 1:100

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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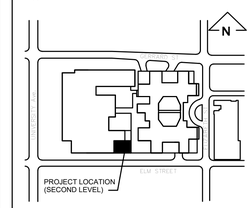
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title
1ST FLOOR ENLARGED
PARTS PLAN

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. EA 01 EW 01

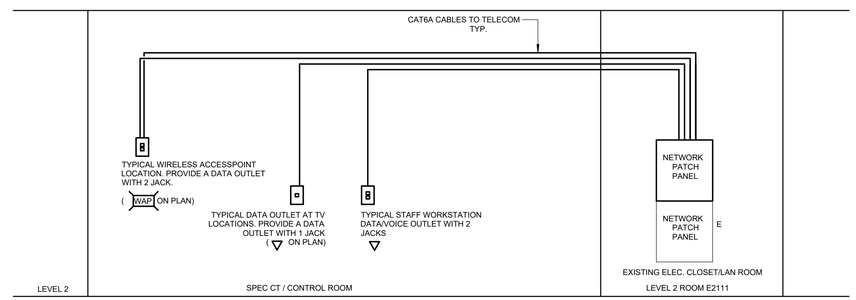
SK Atrium TB - 864 x 1232

LIGHTING SCHEDULE

TYPE	DESCIPTION	MANUFACTURER (BASIS OF DESIGN)	VOLTAGE/INPUT WATTS	LUMEN PACKAGE	MOUNTING	REMARKS	LOCATION
L1	RECESSED 2'X4' LED LUMINAIRE, WHITE FINISH, SUITABLE FOR ACT CEILING. FLAT FROSTED ACRYLIC LENS, 0-10V DIMMING. 1	LACH-24G-40-35K-FA	240V 28W (SELECTABLE WATTAGE 30W, 40W AND 50W)	4180LM 80+ CRI 3500K	RECESSED	FOR ACT CEILING	CT ROOM & OBSERVATION ROOM
L2	4' LONG LED SUSPENDED LUMINAIRE WITH POLYCARBONATE LENS 1	COLUMBIA LIGHTING MPS-4-35-XL-CP-W-ED-U	240V 66.5W	8045 LUMENS 3500K 80+ CRI	RECESSED	SUSPENDED	MECH. ROOM

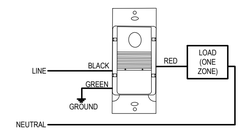
EXIT LIGHT SCHEDULE

TYPE	DESCIPTION	MANUFACTURER (BASIS OF DESIGN)	VOLTAGE/INPUT WATTS	LUMEN PACKAGE	MOUNTING	REMARKS	LOCATION
X1	[PLASTIC PICTOGRAM] EXIT SIGN, UNIVERSAL MOUNTING, FACTORY WHITE FINISH	-LUMACELL LP SERIES -STANPRO RMPN SERIES	120V AND CABLE OF 6 - 48V DC INPUT	3W LED	WALL/ CEILING	FOR ACT CEILING	CT ROOM & OBSERVATION ROOM



COMMUNICATIONS SYSTEM DIAGRAM

7 - COMMUNICATIONS SYSTEM - TYPICAL (FOR REFERENCE)
N.T.S.



WIRING DIAGRAM:
LINE VOLTAGE OCCUPANCY SENSOR SWITCH (NON-DIMMING)

TYPICAL APPLICABLE SPACES:
1. ELECTRICAL/MECHANICAL ROOMS.
2. SMALL RESTROOMS
3. SMALL STORAGE ROOMS
4. SPACES WITH ONLY ONE LUMINAIRE WITH RATED INPUT POWER LESS THAN 100 W.

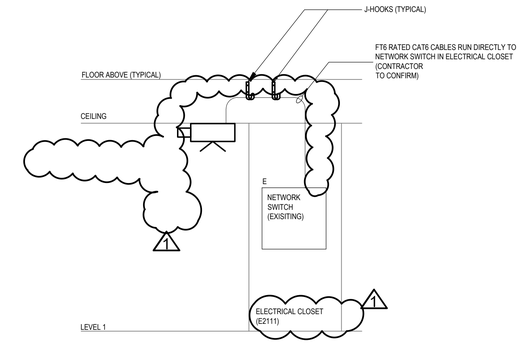
SEQUENCE OF OPERATION:
1. MANUAL ON (VACANCY MODE).
2. AUTO OFF AFTER 15 MINUTES OF NO DETECTION OF OCCUPANCY AND OPTION FOR MANUAL OFF BY USER.

INSTALLATION NOTES:
1. CONFIRM WITH ARCHITECTURAL DRAWINGS/ GENERAL CONTRACTOR FOR APPLICABLE LOCATIONS PRIOR TO ROUGH-IN.

CODE REFERENCE NOTES:
1. ASHRAE 90.1-2013, 9.4.1.2 - OCCUPANT SENSOR [...] TURNS LIGHTING OFF WITHIN 20 MINUTES OF ALL OCCUPANTS LEAVING A SPACE IN [LISTED SPACES].

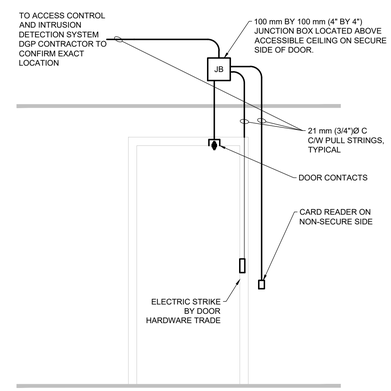
SYMBOL ON PLAN

3 - TYPICAL WIRING DETAILS (FOR REFERENCE ONLY)
N.T.S.



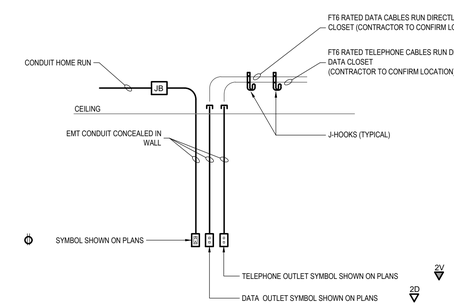
NOTES:
1. REFER TO FLOOR PLAN FOR LOCATION AND QUANTITY OF DEVICES.
2. CONFIRM EXACT MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS.

1 - CCTV - DETAIL (FOR REFERENCE ONLY)
N.T.S.



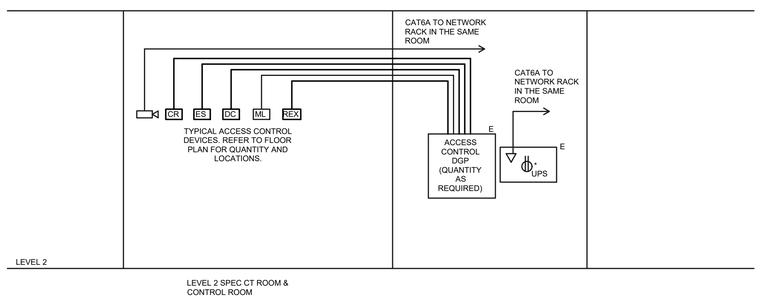
NOTES:
1. REFER TO CAMH EXISTING DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
2. INTERLOCK OPERATION OF DOOR OPERATOR WITH CARD READER ON THE NON-SECURE SIDE.
3. SECURITY CARD ACCESS CONTROL SYSTEM IS TO BE TIED INTO THE BASE BUILDING SYSTEM AS PER THE BASE BUILDING STANDARD. (CONTACT: [ ] FOR REQUIREMENTS.)

4 - ACCESS CONTROL ROUGH-IN - TYPICAL (FOR REFERENCE)
N.T.S.



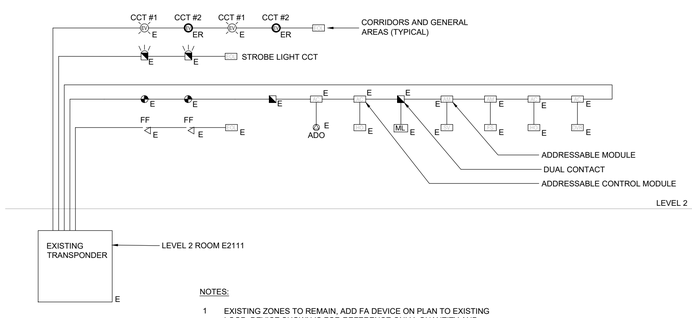
NOTES:
1. CONFIRM EXACT MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS.

2 - TYPICAL WIRING DETAILS (FOR REFERENCE ONLY)
N.T.S.



LEVEL 2 - ACCESS CONTROL SYSTEM DIAGRAM

6 - ACCESS CONTROL - TYPICAL (FOR REFERENCE)
N.T.S.



NOTES:
1 EXISTING ZONES TO REMAIN, ADD FA DEVICE ON PLAN TO EXISTING LOOP. DEVICE SHOWN IS FOR REFERENCE ONLY. QUANTITY AND TYPE OF FIRE ALARM DEVICE TO BE READ IN CONJUNCTION WITH DRAWING EP 02 EW 01.

LEVEL 2 - FA SYSTEM DIAGRAM (FOR REFERENCE)

5 - FIRE ALARM RISE - TYPICAL (FOR REFERENCE)
N.T.S.

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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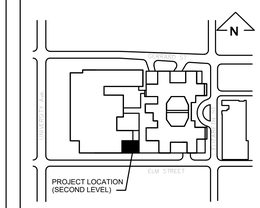
Keyplan



North Arrow

Detail Symbol
Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR, TORONTO, ON M5G1X8

Drawing Title
ELECTRICAL DETAILS
1 OF 2

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. ED 02 EW 01

SK Atrium TB - 864 x 1232

AIR HANDLING UNITS

MOTOR							FEEDER		PROTECTION		STARTER		
TAG NO.	LOCATION	FLA (A)	PHASE	VOLTAGE (V)	POWER (kW)	HORSE POWER	FEEDER SIZE	FED FROM	TIME DELAY FUSE (A)	CIRCUIT BREAKER (A)	VFD BY DIV. 20	NON FUSED DISCONNECT BY DIV.26	REMARKS
AC-2138-01 1	LEVEL 2 ROOM (2138) 1	4.8	3	416		3	3#12AWG + #12AWG BND IN 21mmC	DP-2-1-2EE		15, 3P	YES 1	YES 1	

EXHAUST FANS

MOTOR							FEEDER		PROTECTION		STARTER		
TAG NO.	LOCATION/DESCIPTION	FLA (A)	PHASE	VOLTAGE (V)	POWER (kW)	HORSE POWER	FEEDER SIZE	FED FROM	TIME DELAY FUSE (A)	CIRCUIT BREAKER (A)	VFD BY DIV. 20	NON FUSED DISCONNECT BY DIV.26	REMARKS
EF-2100D-01	LEVEL 2 ROOM (2138) 1	3.5	3	208		3/4	3#12AWG + #12AWG BND IN 21mmC	RP-2-3EA		15A,3P 1	YES	YES	

AGS PUMP SYSTEM SCHEDULE

MOTOR							FEEDER		PROTECTION		STARTER		
TAG NO.	LOCATION	FLA (A)	PHASE	VOLTAGE (V)	POWER (kW)	HORSE POWER	FEEDER SIZE	FED FROM	TIME DELAY FUSE (A)	CIRCUIT BREAKER (A)	VFD BY DIV. 20	NON FUSED DISCONNECT BY DIV.26	REMARKS
PV-2138-01 1	LEVEL 2 ROOM (2138) 1	2	3	208		2	3#12AWG + #12AWG BND IN 21mmC	RP-2-3EA		15A,3P 1	YES	YES	

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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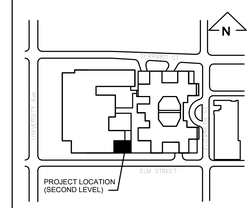
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR

QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	**Checked**
JG	JE

Client

SickKids®

555 University Ave., Toronto, ON M5G 1X8

Project

SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title

POWER FOR MECHANICAL SCHEDULE

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. ED 02 EW 03

SK Atrium TB - 864 x 1232

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

GENERAL NOTES

1.	NOT IN USE.

NOTES:

1. RE-USE EXISTING CIRCUIT THAT WAS DEMOLISHED FROM PANEL TO SERVE NEW LOADS, IN NEWLY RENOVATED SPEC CT ROOM.
2. PROVIDE NEW FUSED DISCONNECT 200AF/150AT TO SERVE GE SUPPLIED MAIN DISCONNECT PANEL.

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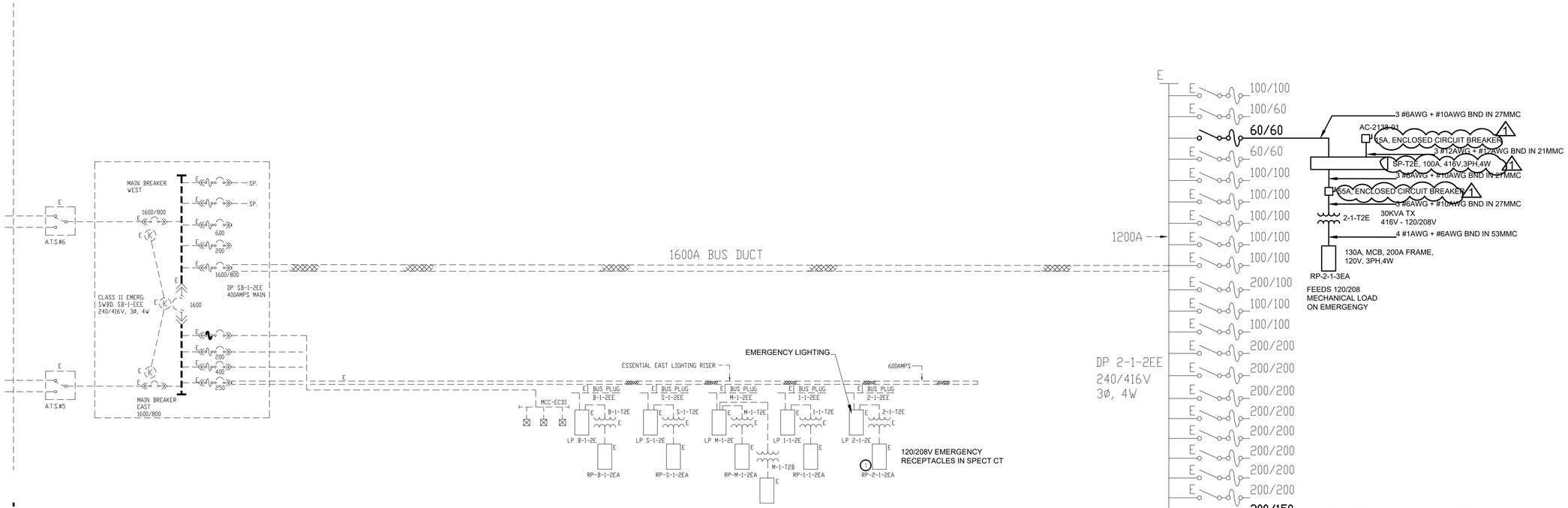
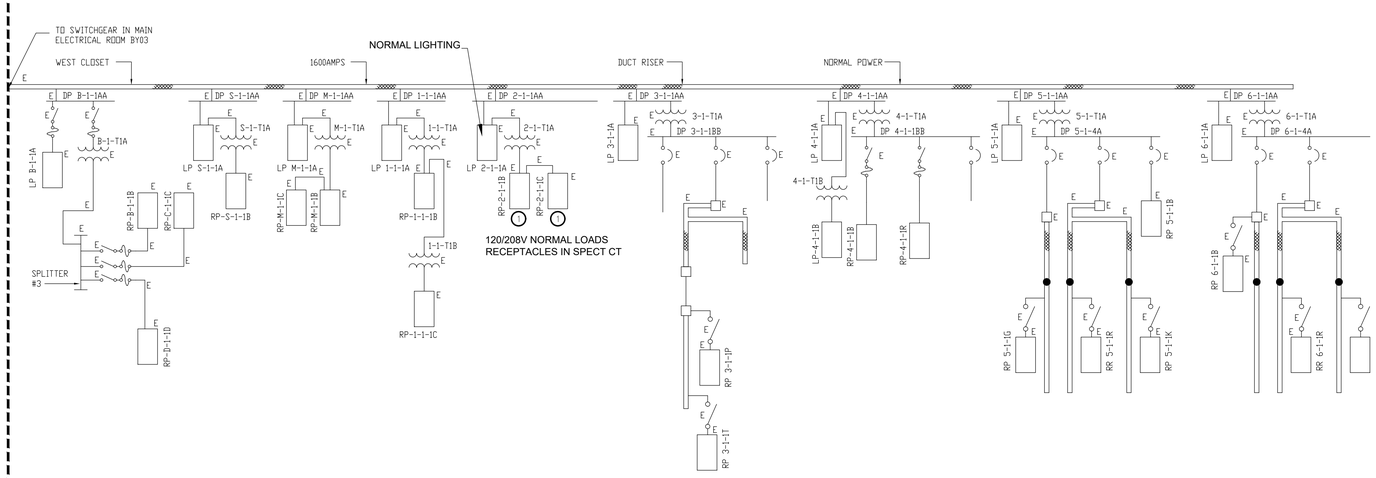
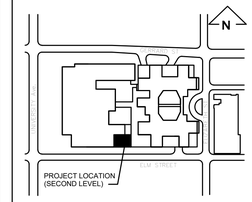
DISTRIBUTION DIAGRAM UNIVERSITY BUILDING - DWG. No. ER00EW01 (E4)



FOR CONTINUATION SEE MAIN SWITCHBOARDS SINGLE LINE
DISTRIBUTION DIAGRAM UNIVERSITY BUILDING - DWG. No. E-2



Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids®
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

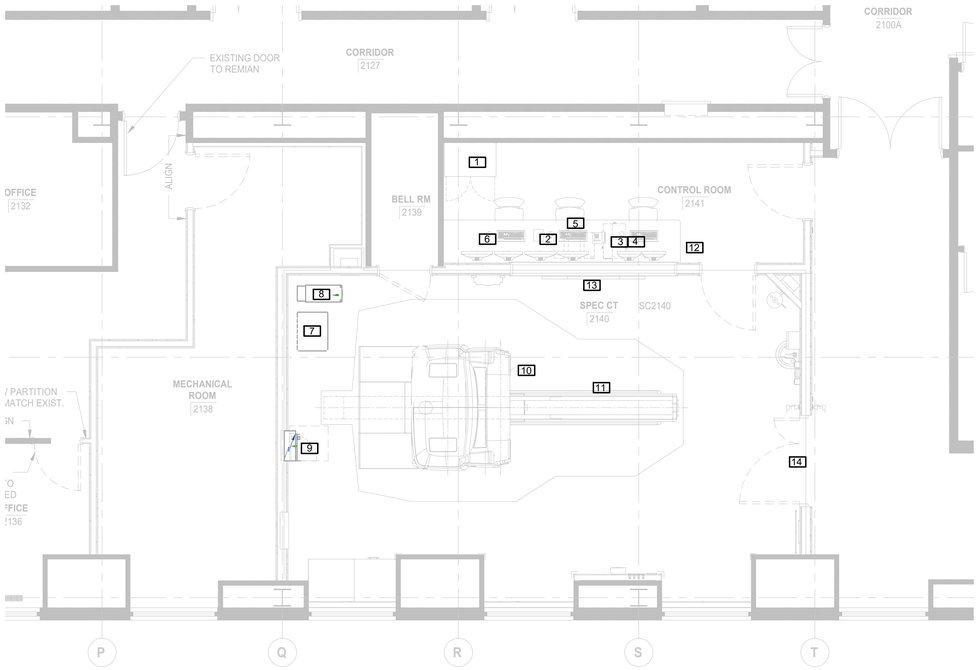
Drawing Title
ELECTRICAL SINGLE LINE
DIAGRAM

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. ER 02 EW 01

SK Atrium TB - 864 x 1232



LEGEND			
A	GE SUPPLIED	D	AVAILABLE FOR GE
B	GE SUPPLIED/CONTRACTOR INSTALLED	E	EQUIPMENT EXISTING IN ROOM
C	CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED	*	ITEM TO BE REINSTALLED FROM ANOTHER SITE

BY	ITEM	DESCRIPTION	MAX HEAT OUTPUT (BTU/h)	WEIGHT (lbs)	MAX HEAT OUTPUT (W)	WEIGHT (kg)
A	1	STORAGE CABINET	-	90	-	41
A	2	OPERATOR CONSOLE	3200	144	938	65.1
A	3	NM ACQUISITION STATION	256	25	75	11.3
A	4	IMAGE GENERATOR CONSOLE	512	49	150	22.4
A	5	OPERATOR'S CHAIR	-	-	-	-
A	6	XELERIS V WORKSTATION	273	35	80	16
A	7	POWER DISTRIBUTION UNIT (PDU)	3398	816	996	370
A	8	PARTIAL UPS 14.4 KVA	5122	609	1501.1	276
A	9	MAIN DISCONNECT PANEL (MDP)	-	115	-	52.2
A	10	GANTRY	17138	7144	5023	3240
A	11	PATIENT TABLE	682	682	200	557
C	12	COUNTER TOP FOR EQUIPMENT - PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE CABLES				
C	13	LEAD GLASS WINDOW				
C	14	MINIMUM OPENING FOR EQUIPMENT DELIVERY IS 1219 mm x 2032 mm [40 in x 80 in] CONTIGENT ON A 2438 mm [96 in] CORRIDOR WIDTH				

GENERAL SHEET NOTES

1. IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATION OR ON DRAWING THAT EQUIPMENT AND MATERIALS BE REMOVED FROM EXISTING LOCATIONS AND RE-INSTALLED, EITHER IN WHOLE OR IN PART IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFORE BEING RE-INSTALLED IN THE NEW LOCATION. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS.
2. ALL OPENINGS IN BUILDING RISER, IF APPLICABLE, SHALL BE SEALED WITH APPROVED FIRE STOP MATERIAL. ANY FIREPROOFING MATERIAL REMOVED WILL BE REPLACED WITH A SUITABLE AND APPROVED FIREPROOFING MATERIAL AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS TO APPLICABLE BUILDING AND FIRE CODES.
3. CONTRACTOR TO CONDUCT OWN SURVEY AND VERIFY EXISTING CONDITIONS.
4. COORDINATE WITH THE CLIENT TO CONFIRM EQUIPMENT OR SYSTEMS/DEVICES TO REMAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REFINISHING OF DAMAGED BUILDING AREAS AND FINISHES AFFECTED BY THE WORK AS OUTLINED UNDER SCOPE OF WORK OF THIS PROJECT.
6. ALL INSTALLATIONS WITHIN EXISTING AREAS SHALL BE COORDINATED WITH OWNER AND BASE BUILDING MANAGEMENT. INSTALLATION MUST BE PERFORMED IN A MANNER TO ELIMINATE ANY INTERFERENCES TO STAFF AND NORMAL OPERATION OF THE FACILITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND DISTRIBUTION OF TEMPORARY POWER AND LIGHTING WITHIN THE PREMISES DURING THE CONSTRUCTION PERIOD. EXPOSED ELECTRICAL CORDS OUTSIDE THE AREA OF WORK SHALL NOT BE PERMITTED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL THE WORK WITH ALL OTHER TRADES, CONSULTANTS, AND THE OWNER. ALL WORK SHALL BE SCHEDULED AND CARRIED OUT BY THE CONTRACTOR IN A MANNER TO ENSURE CONTINUED AND NON-INTERRUPTED OPERATION OF EXISTING FACILITY.
9. CONTRACTOR SHALL IDENTIFY AND LABEL CLEARLY ALL CIRCUITS, WIRING, SERVICES, JUNCTION BOXES, PULLBOXES, DEVICES AND EQUIPMENT INSTALLED AND CONNECTED UNDER SCOPE OF WORK OF THIS PROJECT. IDENTIFICATION SHALL BE AS PER OWNER'S REQUIREMENTS AND ALL MARKINGS SHALL BE OF NON-ERASABLE LAMACOID TYPE. COORDINATE ALL LABELING WITH THE OWNER AND CONSULTANT.
10. CONTRACTOR TO ENSURE ANY DAMAGE TO EXISTING ELECTRICAL CONDUIT AND CONNECTION TO BE REPLACED OR FIXED PRIOR TO RE-INSTALLATION.
11. CONTRACTOR TO NOTIFY OWNER OF ANY EXISTING DAMAGES PRIOR TO COMMENCING OF WORK. ALL EXISTING EQUIPMENT AND FIXTURES INSIDE THE PATIENT ROOM AND WASHROOM TO BE THOROUGHLY INSPECTED, ANY COMPROMISE TO THE INTEGRITY SHOULD BE MADE KNOWN TO THE OWNER.
12. WHERE POSSIBLE, OUTLINE ALL EXISTING AND NEW FIXTURES WITHIN THE PATIENT ROOM WITH ANTI PICK CAULKING.
13. CONTRACTOR TO TRACK AND CONFIRM LOCATION OF FEEDER AND BREAKER TO SOURCE PRIOR TO DISCONNECTION, AND ENSURE BREAKER IS SECURELY TURNED OFF AND LOCKED.
14. WHEREVER POSSIBLE, REUSE EXISTING CIRCUITS MADE AVAILABLE DURING DEMOLITION PHASE. WHERE NEEDED PROVIDE AND INSTALL NEW COMPATIBLE BREAKERS AND WIRING. CONTRACTOR TO VERIFY AVAILABLE CIRCUITS ON SITE, AS PANEL BOARD SCHEDULES MAY NOT BE UP TO DATE
15. CONTRACTOR TO ENSURE THAT ALL RECEPTACLES WITHIN SCOPE OF WORK IS HOSPITAL GRADE OUTLETS. REPLACE EXISTING IF NECESSARY.

SHEET KEYNOTES

1. PROVIDE CAT6 LINE FOR PATIENT MONITORING, FROM SPEC CT ROOM TO OBSERVATION ROOM.
2. NEW 30KVA TRANSFORMER SHALL BE HIGH MOUNTED, ELECTRICAL CONTRACTOR TO INCLUDE FOR ALL NECESSARY HARDWARE.
3. DOOR INTERLOCK WITH WARNING LIGHT

SHEET NOTES

1. IT IS IMPORTANT THAT THE ELECTRICAL CONTRACTOR IS FAMILIAR WITH STAR GUIDE - PRE INSTALLATION MANUAL AND FINAL STAR GUIDE STUDY. IN ORDER TO ACCURATELY PRICE THE PROJECT AND TO ACCURATELY UNDERSTAND THE INTERCONNECTIONS AND INTERFACE OF EACH EQUIPMENT. PRIOR TO BID IF ANY QUESTION REGARDING FEEDER, CONDUIT, INTERCONNECTION OR APPLICATIONS WILL NEED TO BE ASKED PRIOR TO TENDER CLOSE.

ELECTRICAL SHEET NOTES

1. ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES.

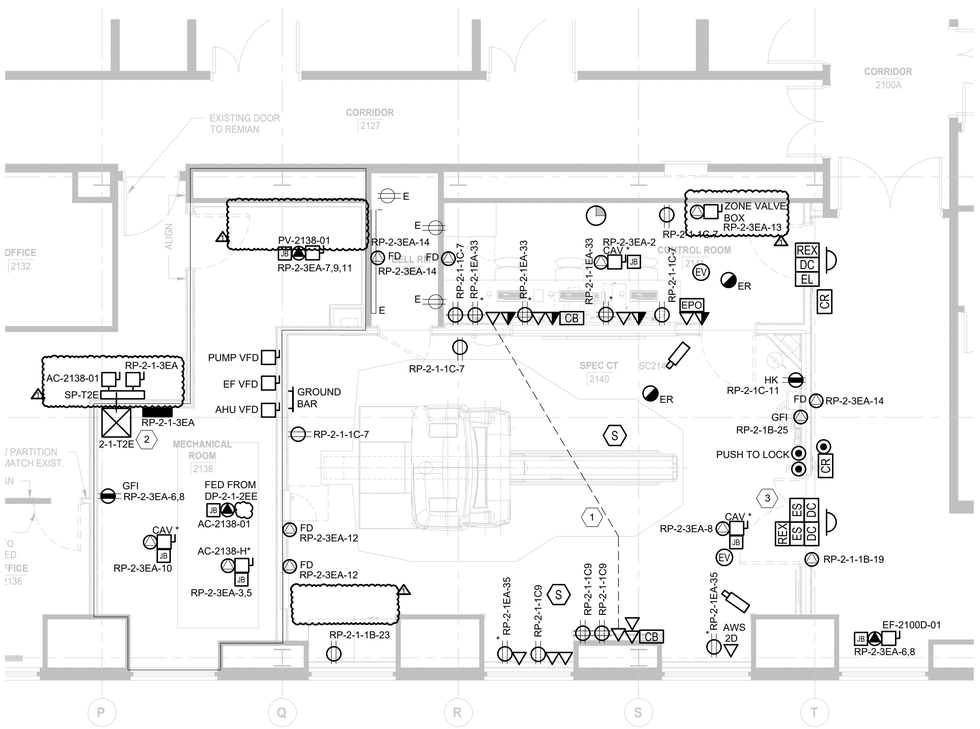
1.1. ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.

2. WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
3. IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
4. CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
5. CONVENIENCE OUTLETS ARE NOT ILLUSTRATED. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY OTHERS. LOCATE AT LEAST ONE CONVENIENCE OUTLET CLOSE TO THE SYSTEM CONTROL, THE POWER DISTRITBUTION UNIT AND ONE ON EACH WALL OF THE PROCEDURE ROOM. USE HOSPITAL APPROVED OUTLET OR EQUIVALENT.
6. GENERAL ROOM ILLUMINATION IS NOT ILLUSTRATED. CAUTION SHOULD BE TAKEN TO AVOID EXCESSIVE HEAT FROM OVERHEAD SPOTLIGHTS. DAMAGE CAN OCCUR TO CEILING MOUNTING COMPONENTS AND WIRING IF HIGH WATTAGE BULBS ARE USED. RECOMMEND LOW WATTAGE BULBS NO HIGHER THAN 75 WATTS AND USE DIMMER CONTROLS (EXCEPT MR). DO NOT MOUNT LIGHTS DIRECTLY ABOVE AREAS WHERE CEILING MOUNTED ACCESSORIES WILL BE PARKED.
7. ROUTING OF CABLE DUCTWORK, CONDUITS, ETC., MUST RUN DIRECT AS POSSIBLE OTHERWISE MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT O POINT).

T

8. CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
9. A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL PROCEDURE ROOMS BY SOME NATIONAL AND LOCAL CODES. IT IS RECOMMENDED IN AREAS WHERE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE, OR EMERGENCY CONDITIONS. CONSULT THE GOVERNING ELECTRICAL CODE AND CONFER WITH APPROPRIATE CUSTOMER ADMINISTRATIVE PERSONNEL TO DETERMINE THE AREAS REQUIRING THIS TYPE OF GROUNDING SYSTEM.
10. THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
11. PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.
12. GEHC CONDUCTS POWER AUDITS TO VERIFY QUALITY OF POWER BEING DELIVERED TO THE SYSTEM. THE CUSTOMER'S ELECTRICAL CONTRACTOR IS REQUIRED TO BE AVAILABLE TO SUPPORT THIS ACTIVITY.

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, CABLE TRAY, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS.
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
  1.DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
  2.DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
  3.DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
  4.PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN RACEWAY AND ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. ENSURE PROPER GROUNDING IS ACCOUNTED FOR AND IN COMPLIANCE WITH OESC AND Z32 STANDARDS.
- EXISTING CIRCUITS HAS BEEN RE-USED ENSURE THE PANEL SCHEDULE REFLECT THE CHANGES UPON COMPLETETION OF RENOVATION. ENSURE ALL RECEPTACLES ARE HOSPITAL GRADE, INSTALLED AND TESTED PER OESC AND Z32 REQUIREMENTS.



1 LEVEL 2 PART PLAN - POWER NEW WORK
SCALE: 1:50

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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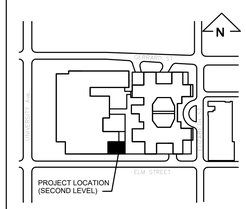
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	Checked
JG	JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title
POWER - NEW WORK

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. EP 02 EW 01

SK Atrium TB - 864 x 1232

Branch Panel: RP-2-1-3EA (NEW)

Location: MECH. 2138 1
Supply From: 2-1-T2E
Mounting: SURFACE
Enclosure: 1

Volts: 120/208V
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating: 200A
MCB Rating: 130A 1

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	SPARE	15	1				1	15	CAV - 2141-1	2
3	HUMIDIFIER	35	2				2	15	EF-2100D-01	4
5										6
7	PV-2138-01	15	3				1	15	CAV - 2140-1	8
9							1	15	CAV - 2138-1	10
11							1	15	FD	12
13	ZONE VALVE BOX	15	1				1	15	FD	14
15	SPARE	15	1				1	15	SPARE	16
17	SPARE	15	1				1	15	SPARE	18
19	SPARE	15	1				1	15	SPARE	20
21	SPARE	15	1				1	15	SPARE	22
23	SPARE	15	1				1	15	SPARE	24
25	SPARE	15	1				1	15	SPARE	26
27	SPARE	15	1				1	15	SPARE	28
29	SPARE	15	1				1	15	SPARE	30
31	SPARE	15	1				1	15	SPARE	32
33	SPARE	15	1				1	15	SPARE	34
35	SPARE	15	1				1	15	SPARE	36
			Total Load:							
			Total Amps:							

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting - Dwelling Unit					
Receptacle				**Total Conn. Load:**	
				Total Est. Demand:	
				Total Conn.:	
				Total Est. Demand:	

Notes:
EMERGENCY 120/ 208 MECHANICAL LOADS

Branch Panel: RP-2-1B (EXISTING)

Location:
Supply From:
Mounting:
Enclosure:

Volts: 120/208V
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating:
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EXISTING	40	3				1	15	CORR. PLUGS 2101, 2114	2
3							1	20	2136	4
5							1	15	PLUGS 2I48A&B	6
7	2112K I.B.M FLOOR PLUG	15	1				1	15	RECEPTACLES RM. 2147	8
9	SPARE	15	1				1	15	PLUGS RM. 2126: MIXER	10
11	2102A	30	1				1	15	VIEW BOX 2121	12
13	2112	15	1				1	15	PLUGS 2147	14
15	LOBBY PLUG	15	1				1	15	REC. 2150	16
17	V. BOX OFFICE R2102	15	1				1	15	PLUGS 2115	18
19	RECEPTACLE 2135, 2136, 2137, 2140	15	1				1	15	VIEW BOX	20
21	V. BOX OFFICE	15	1				1	15	SOUTH WEST PLUGS	22
23	PLUG 2008, 2137, 2136, 2135	15	1				1	15	PLUGS RM. 2103	24
25	200I, 2144, 2002, 2141	15	1				1	15	PLUGS 2105	26
27	2137, 2140, 2141, 200I, 6, 7	15	1				1	15	PLUGS 2101, 2103, 2105	28
29	FLOOR PLUGS 2147	15	1				1	15	PLUGS	30
31	EXISTING	15	1				1	15	ROOM 2113 COUNTER REC.	32
33	EXISTING	15	1				1	15	EXISTING	34
35	2113 B REC.	15	1				1	20	COPIER RM. 2122	36
			Total Load:							
			Total Amps:							

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting - Dwelling Unit					
Receptacle				**Total Conn. Load:**	
				Total Est. Demand:	
				Total Conn.:	
				Total Est. Demand:	

Notes:
EXISTING LOADS ARE FOR REFERENCE ONLY
REFER TO FLOOR PLANS FOR CIRCUITING, PROVIDE 15A FOR GENERAL
RECEPTACLES, AND MINIMUM 20A FOR LIGHTING.

Branch Panel: RP-2-1C (EXISTING)

Location:
Supply From:
Mounting:
Enclosure:

Volts: 120/208V
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating:
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	FLOOR PLUGS 2143	15	1				1	15	PLUGS	2
3	PLUGS 2I33	15	1				1	15	2I03	4
5	2I32	15	1				1	15	EXISTING	6
7	V2I38 2143	15	1				1	15	EXISTING	8
9	2I38 2843	20	1				1	15	LIGHTS RM. 2147, 2148	10
11	2I43	15	1				1	15	REC.	12
13	REC. RM. 2108	15	1				1	20	PLUG GAMMA CAMERA	14
15	REC. RM. 2103	15	1				1	15	BMQ 2103 OUTLET	16
17	EXISTING	15	1				1	15	GAMMA PLUG CAMERA 2105	18
19	FRIDGE RM. 2102A	15	1				1	15	2102 SOUTH WALL	20
21	REC. RM. 2102A	15	1				1	15	2104 - A COUNTER REC.	22
23	POT.LTS, RM. 2128	15	1				1	15	2104 - NORTH WALL	24
25	2104 SOUTH WALL COUNTER	15	1				1	15	2112C SWITCHED PLUG	26
27	2104 WEST WALL COUNTER	15	1				1	15	2112C SWITCHED PLUG	28
29	2104 SOUTH WALL FLOOR REC.	15	1				1	15	2112C SOUTH WALL PLUG	30
31	2112C MATE	30	2				1	15	2112C N + SW WALL PLUG	32
33							1	15	REC.	34
35	2112C COMPUTER BUS	30	1				1	15	EXISTING	36
			Total Load:							
			Total Amps:							

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting - Dwelling Unit					
Receptacle				**Total Conn. Load:**	
				Total Est. Demand:	
				Total Conn.:	
				Total Est. Demand:	

Notes:
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REFER TO FLOOR PLANS FOR CIRCUITING, PROVIDE 15A FOR GENERAL
RECEPTACLES, AND MINIMUM 20A FOR LIGHTING.

Branch Panel: RP-2-1EA (EXISTING)

Location:
Supply From:
Mounting:
Enclosure:

Volts: 120/208V
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating:
MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EXIT LTG	15	1				1	15	RECP ELEC RM. 2111	2
3	RECP 2139	15	1				1	15	SAFE 2115	4
5	RECP 2139	15	1				1	15	EXIT LTG 2126, 2144	6
7	RECP 2105	15	1				1	15	EXIT LTG 2126, 2113	8
9	EXISTING	20	2				1	15	EXIT LTG 2148, 2147	10
11							1	15	MED GAS ALARM	12
13	EXISTING	15	1				1	15	RECP 2162	14
15	CARD READER PHONE	15	1				1	15	RECP 2162	16
17	RECP LEFT SIDE COMPUTER CABINET	15	1				1	15	EXISTING	18
19	RECP 2126 2I33	15	1				1	15	MED GAS ALARM	20
21	PROCESSOR 2126	20	2				1	15	EXISTING	22
23							1	15	EXISTING	24
25	PROCESSOR 2126	15	1				1	15	EXISTING	26
27	EXISTING	15	1				1	20	EXISTING	28
29	EXISTING	15	1				1	20	EXISTING	30
31	EXISTING	15	1				1	20	EXISTING	32
33	EXISTING	15	1				--	--	SPARE	34
35	EXISTING	15	1				--	--	SPARE	36
			Total Load:							
			Total Amps:							

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting - Dwelling Unit					
Receptacle				**Total Conn. Load:**	
				Total Est. Demand:	
				Total Conn.:	
				Total Est. Demand:	

Notes:
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RECEPTACLES, AND MINIMUM 20A FOR LIGHTING.

DATE	ISSUED FOR	REV
2024-12-19	50% CD	A
2025-02-21	90% CD	B
2025-06-13	COSTING	C
2025-08-28	95% CD	D
2025-10-01	TENDER - PERMIT	0
2025-11-24	ELECTRICAL ADDENDUM E1	1

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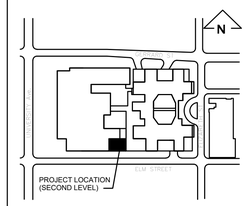
Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

Seal

NORR
QUASAR CONSULTING GROUP

Project Manager	Drawn
JE	JE/JS
Project Leader	**Checked**
JG	JE

Client
SickKids
555 University Ave., Toronto, ON M5G 1X8

Project
SICKKIDS - SPEC CT ROOM

555 UNIVERSITY AVENUE, MAIN FLOOR,
TORONTO, ON M5G1X8

Drawing Title
ELECTRICAL PANEL
SCHEDULE
2 OF 2

Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.

Drawing No. ES 02 EW 01

SK Atrium TB - 864 x 1232