SickKids

Monday, March 17, 2025

Addendum #2

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 & ANSWERS, SPECIFICATIONS, DRAWINGS AND DOCUMENTS

a. QUESTIONS & ANSWERS

Q1 - Is there a DSSR available for this Project?
A1 - DSSR from Pinchin attached as part of the addendum.

Q2 - Please clarify if there are any cash allowances for this project.
A2 - Refer to Section 01 00 00 General Requirements, paragraph 6 for Cash Allowances.

Q3 - Specification sections 096500 Resilient Flooring, 099100 Painting, 102623 Protective Wall Coverings & 102800 Washroom Accessories all make mention of referring to spec section 09 06 00 called List of Materials/Finish Schedule that has not been provided. Please provide spec section 09 06 00.
A3 - Refer to Section 09 06 00 Finishes Schedule, included as part of this Addendum.

Q4 - Please clarify the bid validity period as Instructions to Bidders item 10.1 calls for bid bond to be valid for 120 days, yet base bid from item 1.2 notes bids are to be valid for 90 days.
A4 - Bid Validity period shall be 120 days as indicated in Section 00 21 13 Instructions to Bidders. Refer to Section 00 41 13_R1, Bid Form included as part of this addendum.

Q5 - The instruction to bidders notes that bidders are to include a construction schedule with their bid submission. Does SickKids have an anticipated start date or desired completion date bidders should take into account when preparing their schedules?
A5 - It is anticipated that the award will be in the month of April 2025 and completion during the month of August 2025.

Q6 - If existing water closet is being replaced, specifications will be required to bid. No water closet specifications in documents
A6 - Refer to updated specification: 22 43 00.00 - Healthcare Plumbing Fixtures.

Q7 - For those relocation works, such as camera, fire alarm or sprinkler head. Do these works need to be done by base building contractors, if so, please provide names & contacts.
A7 - Cameras supplied by hospital, installed by contractor as noted on drawings. Existing fire alarm system is JCI/Tyco, refer to specifications for contact (contact Ralph Staffieri, Email: raffaele.staffiere@jci.com, cell: 416-629-3842) to provide system work and products. There is no base building sprinkler contractor.

Q8 - What is the validity period of the tender? In the Instruction to Bidder (item 19.1.4) it is 120 days, but on the bid form it is 90 days.

A8 - Bid Validity period shall be 120 days as indicated in Section 00 21 13 Instructions to Bidders. Refer to Section 00 41 13_R1, Bid Form included as part of this addendum.

Q9 - Please provide the list of site visit attendees.

A9 - Refer to LISTING OF INVITED CONTRACOTRS R1 (page 15 of this document).

Q10- Please clarify the height to the underside of deck on 7th floor.

A10- The approximate height to the underside of deck is 3.230m.

Q11- Please clarify access to the 6th floor. Mechanical drawings have a note that in part reads "... access to level 6 is not available", yet electrical plan detail 4/EP 07 AN 01 is a 6th floor plan that note #4 calls for removal & reinstatement of electrical devices for vent work.

A11- Level 6 scope of work included as part of Separate price. Mechanical drawings will be updated to suit as part of Addendum (Drawing MP 07 AT 01, MV 07 AT 01).

Q12- Can a floor plan of Main Floor be provided to show the location/routing of cabling for the new camera in the Main Floor Stairwell?

A12- Approximate routing plan will be added as part of future Addendum E1.

Q13- Please clarify if Family Meeting Room 76ST4 can be used for ante room/stagging.

A13- Family Meeting Room 76ST4 can be used only as an ante room.

Q14- Reno plan 2/AF 07 AN 01 note #3 calls for new HSS columns. Please clarify the size and thickness of HSS.

A14- HSS notation is deleted. No requirement for HSS columns in project.

Q15- Door protection is noted in the comment section for door 7-A27E. Please clarify if the door protection is only the armour plate noted in the hardware schedule or if any additional door protection (e.g. Acrovyn or WhiteRock) is required.

A15- Refer to Hardware Schedule for information pertaining to door protection.

Q16- Plan 2/EP 07 AN 01 appears to show one new security cameras in 7th floor stairwell, one new camera in corridor (along with 2 re & re cameras), new cameras for observation rooms 7A28 & 7A29 and a new camera on 1st floor stairwell. Please clarify if there are existing cameras in 7A28 & 7A29 to be re & re'd. Please also clarify if existing cameras that are to be removed and replaced will use the existing cameras or if new cameras would be required. Please also clarify if there is any base building camera/security vendor we are to carry in our pricing.

A16- Where ER shown install existing camera. Cameras supplied by hospital and installed by contractor refer to electrical drawing notes.

Q17- Please provide specification for the hollow core wood door (HCW) shown on the door schedule.

A17- HWC deleted from door schedule.

Q18- Please provide Section 09 06 00 List of materials. This document is referenced in various finishing sections but has not been provided with the tender documents.
A18- Refer to Section 09 06 00 Finishes Schedule, included as part of this Addendum.

Q19- What is the height to underside of deck?
A19- Refer to Question 10 response.

Q20- Please provide details regarding the structural steel: what is the sizing? How is the steel to be finished? Is a cross-member required, or are these bolted to the structure above? Etc.
A20- Refer to Question 14 response.

Q21- Several sections of the specification refer to Section 09 06 00 Finishes Schedule, but it wasn't included. Please provide?
A21- Refer to Section 09 06 00 Finishes Schedule, included as part of this Addendum.

Q22- Height of wall protection WP-1? Specification for WP-1 and bumper rail?
A22- Refer to Section 09 06 00 Finishes Schedule, included as part of this Addendum for Wall Protection. Bumper rails are not required.

Q23- At the site meeting, there was mention about a magnetic strip where the shower panel will be. Can you clarify the scope of work for this.
A23- Refer to Section 10 00 00 Manufactured Specialties. Magnetic strip is part of the panel construction.

Q24- Confirm this job is being done in 1 phase during normal business hours, electrical shutdowns & work outside the reno area after hours.
A24- Confirmed.

Q25- On drwg EP 07 AN 01 detail #2, confirm the 2 switches for the roller shades should be 1P 2T in order for the shades to go up down, also are the shades 120v, is there a wiring schematic?
A25- Arch to specify, selection and electrical connections will be added as part of upcoming Addendum.

Q26- On the same drwg & detail are the 4 fire dampers 120v, is there a wiring schematic?
A26- Refer to sequence of operation on M&E plans, coordinate with FA (JCI/Tyco).

Q27- On the same drwg & detail can we get a wiring schematic for the water shut off or are we just supplying & installing the 120v feeder?
A27- 120V by electrical, LV by mechanical, refer to M&E drawings, mechanical drawings show wiring schematic.

Q28- On drwg. EP 07 AN 01 detail #1 there are many items being removed & relocated (RR) e.g. smokes, EOL's, switches, speakers, card readers etc. On the same drwg detail #2 these items are in their relocated position (ER) and are now to be tamper resistant (TR). When you indicate

tamper resistant does this just mean we are now affixing the same items with tamper resistant screws, please advise??
A28- Confirmed, contractor to ensure anti ligature of marked devices.

Q29- On drwg EP 07 AN 01 detail #2 there is a monitor & 7 cameras, 5 indicate Nurses Station & 2 Security, can we get a wiring schematic of this?
A29- Clarification will be added as part of Addendum.

Q30 On drwg EP 07 AN 01 detail #2 there are 3 x pull stations with a "K" beside them, what does this represent as I don't see it on drwg EA 07 AN 02 Electrical Legend?
A30- Indicates "Key Operated" pull station, legend will be clarified as part of addendum E1.

Q31- On drwg EP 07 AN 01 detail #2 there are 4 x FSD "AM" in a box c/w a direct connection to an emergency circuit, is this the same item "FSD" as indicated on drwg ED 01 detail #4 Fire Alarm Wiring Diagram, can we get a wiring schematic?
A31- Confirmed, refer to sequence of operation on M&E plans, coordinate with FA (JCI/Tyco).

Q32- On drwg. EP 07 AN 01detail #3 the cable for this new camera on the main floor is to go to the IT rack on the 1st floor, are the cables for the cameras & monitor on the 7th floor supposed to go to the IT rack in room 7704A on the 7th floor?
A32- Clarification will be added as part of Addendum.

Q33- Can we get a model # for the tamper resistant cameras & the mounting requirements?
A33- Model numbers shown on plans, cameras by hospital, installed by contractor. Installation in accordance with manufacturers and tamper resistant requirements.

Q34- Are any of the receptacles considered to be patient care & therefore require testing?
A34- Yes, electrical drawings will be updated to suit in an upcoming addendum.

Q35- Is the new monitor at the Nurses' Station to be hung from the ceiling or does it sit on the desk?
A35- See Answer 37.

Q36- On drwg EL 07 AN 01 detail #4 can we get a spec for the emergency bypass relay?
A36- Basis of design model number will be added as part of Addendum E1.

Q37- On drwg EL 07 AN 01 detail #2 lighting fixture schedule, confirm the 2 light fixtures for the Nurses' station are L1A & the 6 in the corridor are L1B this isn't shown on the drwg?
A37- Confirmed, clarification to tags will be added as part of Addendum E1.

Q38- On drwg EL 07 AN 01 detail #3, confirm the dimmers are line voltage 120v for local control, there isn't any low voltage control?
A38- Low voltage (0-10V dimming) required. Detail will be added as part of Addendum E1.

Q39- On the same drawing detail #3, confirm we're to connect the new exit to the existing exit & both A/C & D/C voltages are there?

A39- Connect to existing exit sign circuit, confirm voltage on site. Provide universal voltage exit sign as specified.

Q40- On drwg ED 07 AT 01 detail #4 can the new fire alarm devices be connected to the existing Fire Alarm circuit in the area as indicated?

A40- Confirmed, coordinate with JCI/Tyco.

Q41- On drwg ED 07 AT 01 detail #3, there's a conduit going back from the pull station to the FACP, is this for a new fire alarm circuit for the doors with maglocks?

A41- Rough in detail is diagrammatic. There are already existing maglocks on these doors that are being replaced.

Q42- On drwg EP 07 AN 01 we have 5 Nurse Call items we have to re & re, just wondering if the work shown on drwg ED 07 AT 01 detail #1 is required & if so where are all these items located?

A42- Refer to floor plans for device quantities, The detail "TACERA NURSE CALL TYPICAL SYSTEM RISER" is a typical detail for reference only.

Q43- On drwg ED 07 AT 01 details #5 & #6 note #4, is JCI the contact that's missing?

A43- Answer: Access control:

Ralph Staffieri, email: raffaele.staffiere@jci.com, cell: 416-629-3842

Fire Alarm: Calogero Cavarretta, email: calogero.cavarretta@jci.com, cell: 416-200-5796

Q44- Please clarify if sink is to be removed & replaced to facilitate drywall installation for 2HR fire rating along South wall.

A44- Refer to revised Drawings issued as part of Addendum 2.

Q45- Refer to ARCH DWGs, Page 5. There seems to be glass shown on Door Types, but on the Door & Frame Schedule, no door requires a glass, please confirm.

A45- Refer to Revised Door Schedule and Details issued as part of Addendum 2.

Q46- Please provide the list of site visit attendees. Arash- the revised list will be posted via next addendum.

A46- Site visit attendees – see attached to Addendum.

Q47- There are 2 demolition tagged notes on plan 1/AF 07 AN 01 that appear out of place. Just below room tag Corridor 76ST3 is note 4- calls for demo of flooring, yet new finish plan calls for existing floor to remain in that area. Also, note #5 demo partition is noted at the door to the

washroom. Please clarify if we are to remove any flooring in the corridor or any walls at or near the washroom door.

A47- Refer to revised Drawings issued as part of Addendum 2.

Q48- Where is security glazing required?

A48- Security gazing is noted on Revised drawings issued as part of Addendum 2.

Q49- Reno Floor finish plan 6/AF 07 AN 01 calls for RF-1 floor patching at 4 locations. From the site visit it was noted the flooring at North & South end of corridor 76ST3 is the same grey as flooring in Nurse Station 7A27A, but the flooring in Observation rom 7A28 was noted as being a different beige colour. Please clarify if all new floor patching is to be 1 colour or if we are to match existing flooring colour. If available, please provide the existing flooring manufacturer and colour selection.

A49- Refer to revised Drawings & List of Materials issued as part of Addendum 2.

Q50- The door and frame schedule on drawing AF MN AN 02 lists 2 doors that are not noted on any of the floor plans. Please clarify if doors 7-A27M & 7-A27N are to be included in pricing, and if so, please identify location of doors.

A50- Refer to revised door schedule issued as part of Addendum 2.

Q51- The demolition plan shows flooring being removed in the corridor and nurse station, but on the floor finish plan, these areas are indicated EF (existing flooring to remain). Please clarify what is happening with the floor finishes in these areas and also confirm that the floor finish in the observation rooms is not being replaced.

A51- Refer to revised Drawings issued as part of Addendum 2.

Q52- With reference to the door schedule: why is there "none" indicated in some places for the material, glass type and finish?

A52- Refer to revised Drawings issued as part of Addendum 2.

Q53- With reference to the details shown on the door schedule drawings – Windows S1, S2 and S3 are shown on elevation, and part of Window S3 is indicated as being glazed HM security door and HM frame in new frame. These doors are not on the door schedule and also not referenced on the floor plan. Please clarify and provide specification for what is required at the S1, S2 and S3 locations.

A53- Refer to revised Drawings issued as part of Addendum 2.

Q54- Is the metal cladding at Windows S1, S2, S3 to be painted?

A54- Refer to revised Drawings issued as part of Addendum 2.

Q55- Where is security glazing required?

A55- Refer to revised Drawings issued as part of Addendum 2.

Q56- Please clarify exactly what work in the washroom is to be part of base bid price and what items are to be priced as Separate Price #1 as the contract documents have many contradictions.

The bid form notes that flooring removal is to be part of the separate price. The bid form and architectural drawings call for all shower fittings to be re-used. Mechanical drawings call for a new shower head.

If removal and installation of new flooring for washroom is to be a separate price, does this mean base bid should include for flooring base & 150mm flooring removal to accommodate revising existing South washroom wall to 2 HR fire rating?

Also, Mechanical drawings have a note that reads "...refer to architectural drawings for shower spec and schedule, but none are provided. There is only a generic note about providing a roll-in shower.

A56- Refer to revised Drawings issued as part of Addendum 2, for separate price all work related to the removal of the Bath Tub & flooring is included.

Q57- Specification section 08 88 53 Security Glazing lists 3 different types of security glazing. Drawings do not indicate which of the 3 types of Security Glazing is required for any glazing on the project. Please clarify.

A57- Refer to revised Drawings issued as part of Addendum 2.

Q58- Please provide specifications, including manufacturer & model number/basis of design and/or hardware specs for screens/security doors S1, S2 & S3.

A58- Refer to revised Drawings issued as part of Addendum 2.

Q59- Please clarify if all three S2 screens are to be operable or if the 2 outer S2 screens are to be fixed as per elevation detail 6/AFMNAN02. Please also clarify if operable panel of screen S1 is to be on the left side (as per elevation) or right side (as per plan).

A59- Refer to revised Drawings issued as part of Addendum 2, all protective screens will be operable.

Q60- Finish plan legend on 6/AF07AN01 calls for WP-1 protective partition covering with bumper rail to be matched with existing. Due to presence of staff and patients in the corridor area during the site visit, no photos of the corridor area or bumper rails where taken. Can a specification for new bumper rails be provided and clarify if bumper rails are to be anti- ligature.

A60- Refer to revised Drawings issued as part of Addendum 2, bumper rail requirement removed.

Q61- Door and Frame Schedule: What is the frame and glass material for the doorways?

A61- Refer to revised Drawings issued as part of Addendum 2.

Q62- Door and Frame Schedule: Why are doorways 7-A27M & N on the schedule? Where are these on the drawing?

A62- Refer to revised Drawings issued as part of Addendum 2.

Q63- What is the glazing type for Windows S1 – S3?

A63- Refer to revised Drawings issued as part of Addendum 2.

Q64- Windows S1-S3: please provide more information, such as hardware, door specifications, details of how the security doors open/operate, is there a manufacture of these doors?

A64- Refer to revised Drawings issued as part of Addendum 2.

Q65- What is the height to underside of deck?

A65- see answer to question 10 of addendum.

Q66- Please provide details regarding the structural steel: what is the sizing? How is the steel to be finished? Is a cross-member required, or are these bolted to the structure above? Etc.

A66- No structural steel required in project.

Q67- The structural steel looks as big as the wall we're installing and the floor plan does not show room between the steel and the adjacent window. Where does the card reader get installed? On the steel?

A67- see Question 66.

Q68- Please provide a specification for General Finishing Note 4: Water Stopping Strip.

A68- Refer to revised Drawings issued as part of Addendum 2.

Q69- Height of wall protection WP-1? Specification for WP-1 and bumper rail?

A69- Refer to response to Question 60.

Q70- Please confirm HWP is full height? Specification?

A70- Yes full height to underside of finish ceiling.

Q71- Please clarify the shower itself. 2/AF 07 AN 01 Note 6 indicates a roll-in shower. 2/MP07AT01 A note indicates that architectural drawings contain shower specification sand schedule. 6/AF 07 AN 01 indicates resilient flooring and HWP. Please clarify what is required here and if a shower unit is required, please provide specifications.

A71- Refer to revised Drawings issued as part of Addendum 2.

Q72- Furniture & Equipment Plan Notes shows shower panel by SickKids, however a specification for an anti-ligature safe door is provided. That being said, please clarify elevation 7/AF MN AN 02. There appears to be 2 panels on hinges. Are both SK-06. Is SickKids supplying both panels? Is there a third panel in between? From the floor plan, there appears to be 1.6m of space (5'3"), however the anti-ligature safe doors are 36" each plus 2" for the hinges, so one door alone will be just under 1m, not leaving enough space for 2. Please clarify the intent here and who is responsible for the supply.

A72- The magnetic strip is part of the shower door panel system. The panels themselves are attached with the fastening hinge provided by the product.

Q73- At the site meeting, there was mention about a magnetic strip where the shower panel will be. Can you clarify the scope of work for this.

A73- Refer to response to Question 72.

Q74- Confirm this job is being done in 1 phase during normal business hours, electrical shutdowns & work outside the reno area after hours.

A74- Project being done in one Phase. Electrical shutdowns to be done after hours. Ath

Q75- Please provide specification/model number for new toilet & sink.

A75- Refer to updated specifications 22 43 00.00 - Healthcare Plumbing Fixture.

Q76- Please clarify if sink is to be removed & replaced to facilitate drywall installation for 2HR fire rating along South wall.

A76- Refer to revised Drawings issued as part of Addendum 2.

Q77- Confirm that Beldon is the only acceptable cable approved for the Access Control System devices?

A77- Coordinate with JCI for alternates.

Q78- On drwg. EP 07 AN 01 detail #4 sheet keynote #4 separate price #1, should we account for doing this work after hours or on weekends?

A78- Yes.

Q79- After the site visit it was established that panel EP-7EA does not have any spaces for the 2 new breakers that are required, please advise?

A79- EP-7EA-EAST will be used for the two new emergency circuits. Drawings updated to suit as part of Addendum E1.

Q80- On drwg EP 07 AN 01 detail #2 room 7A26 we have to re & re some ceiling devices to accommodate some mechanical work, should we account for this being done after hours or on weekends?

A80- Yes.

Q81- Further to my original question #18 (Drawing ED 07 AT 01 detail #3), does this conduit have to go to the F/A transponder in electrical room 8A36B?

A81- EP-7EA-EAST will be used for the two new emergency circuits. Drawings updated to suit as part of Addendum E1.

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_R1, Table of Contents.

.2 Section No. 00 21 13_01_R1, List of Invited Contractors

.3 Section No. 00 41 13_R1, Base Bid Form.

.4 Section No. 08 88 53_R1, Security Glazing.

.5 Section No. 09 91 00_R1, Painting.

.6 Section No. 10 00 00_R1, Manufactured Specialties.

.7 Section No. 12 24 15_R1, Roller Shades

1.2 **NEW SPECIFICATIONS**

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

.1 Section No. 08 11 16, Aluminum Screens.

.2 Section No. 08 31 00, Access Doors and Panels.

.3 Section No. 09 06 00, Finishes Schedule.

.4 Section No. 09 67 23, Resinous Flooring.

.5 Appendix A3, Hazardous Building Materials Reassessment (Pre Construction)

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 07 AN 02. KEY PLANS & LIFE SAFETY PLANS

.1 Detail 1: Revision to 2 HR Fire separation line & note added

.2 Drawing AF 07 AN 01. LEVEL 7 – FLOOR PLANS - DEMOLITION

.1 Detail 1. Revisions to plan & demolition notes

.2 Detail 2. Revisions to RCP & RCP demolition notes.

.3 Drawing AF 07 AN 02. LEVEL 7 – FLOOR PLANS - RENO

.1 Detail 1. Revisions to location of upgrade of exist wall to 2HR, notes, partition types and tagging.

.2 Detail 2. Revisions to RCP & RCP notes.

.3 Detail 3. Revisions to Equipment layout SD & PTD.

.4 Detail 4. Revisions to WP and Flooring Types.

.5 Details 5, 6 & 7 Added to drawing

.4 Drawing AF 07 MN 02. DOOR SCHEDULE & DETAILS

.1 Details 2, 3 & 4. Revised to show new Protection screens.

.2 Detail 5. Revised

.3 Detail 6. Added section through Corridor Window

.4 Details 7 & 8. Height of Base revised

.5 Detail 9. Added to drawings.

.6 Revisions to Door schedule & Dimensions added to door types.

d. DOCUMENTS

1.4 **NEW DOCUMENTS**

.1 The following documents prepared by Engineering disciplines are issued with Addendum No. 2.

.1 Mechanical Addendum No. M-1.

.2 Electrical Addendum No. E1.

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

End of Table of Contents

1.1 PRE-QUALIFIED, INVITED GENERAL CONTRACTORS (Prime)

Furcon
Chart Construction
~~Harbridge & Cross~~
M.J. Dixon
NewGen Construction
H N Construction
Dineen Construction

1.2 PRE-QUALIFIED, INVITED MECHANICAL CONTRACTORS

Battaglia
Modern Niagara
Nutemp Mechanical
~~Plan Group~~

1.3 PRE-QUALIFIED, INVITED ELECTRICAL CONTRACTORS

Ainsworth
Danik
~~Plan Group~~
Modern Niagara

PART 1 - GENERAL

1.1 BIDDER

.1 From (Name of Bidder): _____

.2 Street Address: _____

.3 City, Prov, Postal Code: _____

.4 Telephone #: _____

.5 E Mail: _____

1.2 BASE BID PRICE

.1 I/We the undersigned, having carefully examined the Bid Documents issued for

The Hospital for Sick Children (SickKids)
Fluoroscopy Renovation
and having received, carefully examined and incorporated

Addenda No._____to No._____

inclusive, having visited and investigated the *Place of the Work*, and having examined all conditions, circumstances and limitations affecting the *Work*, offer to enter into a *Contract* with the *Owner* to perform the *Work* required by the Bid Documents for the price of

$_____.
(numeric)

The price offered excludes the Harmonized Sales Tax (HST) but includes all other eligible taxes.

The Bid Price shall remain valid for a period of ~~ninety~~ **one hundred twenty** (~~90~~**120**) days from the day after the date of bid submission.

1.3 CASH ALLOWANCES

.1 I/We hereby state the Base Bid Price stated herein includes Cash Allowance amount identified in the General Requirements which will be expended under the terms and conditions of the *Contract*.

1.4 LIST OF SUBCONTRACTORS

.1 Name and Bid Price, (HST excluded), of Mechanical *Subcontractor* included in Base Bid Price for the *Work is:*

.1 Mechanical *Subcontractor:* _____

$ _____
(numeric)

.2 Name and Bid Price, (HST excluded), of Electrical *Subcontractor* included in Base Bid Price for the *Work is:*

.1 Electrical *Subcontractor:* _____

$ _____
(numeric)

1.5 SCHEDULE

.1 I/We the undersigned declare that:

.1 I/We agree to perform the *Work*, inclusive of mobilization time, in compliance with the *Contract Documents* and attain *Substantial Performance* of the *Work* within _____ weeks after award of the *Contract;*

.2 I/We agree to complete the Work not later than _____ weeks after the date of Substantial Performance of the Work.

1.6 DECLARATIONS

.1 no person, firm or corporation other than the undersigned has any interest in this bid or in the proposed *Contract* for which this bid is made; and

.2 this bid is irrevocable and is open for acceptance by the Owner for the period specified in the Instructions to Bidders from the date of submission

1.7 ADDRESS, LEGAL STATUS AND SIGNATURE OF BIDDER

.1 We hereby designate the address, given below as the legal address to which all notices, directions or other communications may be served or mailed:

Street _____

City / Prov / Postal Code _____

E Mail _____

.2 We hereby declare that the Bidder has legal status stated below:

Individual_____Partnership_____

Corporation incorporated under the laws of

_____Date_____

.3 This Base Bid Form is submitted in the name:

_____
(Company Name - Typed)

By_____
(Signature)

Name _____
(Typed)

Title_____

Signed this_____day of_____, 20__.

END OF DOCUMENT

PART - 1 GENERAL

1.1 SUMMARY

.1 Section Includes: Labour, Products, equipment, and services necessary to complete the work of this Section for aluminum screens.

.2 Related Requirements

.1 Refer to Section 08 88 53, Security Glazing.

1.2 REFERENCES

.1 ASTM B209/B209M-21a: Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

.2 ASTM B221M-21: Specification for Aluminum-Alloy Extruded Bars, Rods, Profiles and Tubes (Metric).

.3 ASTM B308/B308M-20: Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles.

.4 ASTM B429/B429M-20: Standard Specification for Aluminum-Alloy Extruded Strucutral Pipe and Tube.

.5 CSA-G40.20-13/G40.21-13 (R2018): General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.

1.3 SUBMITTALS

.1 Product Data: Submit product data including construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of product indicated.

.2 Shop drawings:

.1 Indicate materials and profiles and provide full-size, scaled details of components. Indicate:

.1 Core thicknesses of components.

.2 Type and location of exposed finishes.

.3 Size of openings and tolerances.

.4 Glazing.

.5 Flashing and drainage.

.6 Arrangement of hardware and required clearances.

.2 Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.

.3 Include catalogue details for each type illustrating profiles, dimensions, and methods of assembly.

.3 Samples:

.1 Submit duplicate 300 x 300 mm sample sections showing prefinished aluminum surface, finish, colour, and texture, and including frame corner details.

.2 Submit duplicate 300 x 300 mm sample sections of glass unit showing glazing materials and edge and corner details

.4 Operation and Maintenance data: Submit manufacturer's written instructions for cleaning of aluminum finishes and maintenance of operational hardware; include name of original installer and contact information.

1.4 **ADMINISTRATIVE REQUIREMENTS**

.1 Co-ordination: Co-ordinate work of this Section with work of other trades for proper time and sequence to avoid construction delays.

.2 Pre-installation Meeting: Convene pre-installation meeting after Award of Contract and one week prior to commencing work of this Section to verify project requirements, substrate conditions and coordination with other building sub-trades, and to review manufacturer=s written installation instructions.

1.5 **QUALITY ASSURANCE**

.1 Qualifications: Having previous experience satisfactory to Consultant in the successful manufacture and installation of work of the type and quality shown and specified.

1.6 **DELIVERY, STORAGE AND HANDLING**

.1 Provide adequate protection to entrances to prevent damage to frames and glass during delivery, storage and handling.

.2 Storage and Handling Requirements: Store materials off ground and protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

1.7 **PROTECTION**

.1 Provide suitable means of protection to finished aluminum surfaces to prevent damage by mortar, plaster, jointing compound or similar deleterious substances and to prevent physical damage to finished surfaces.

1.8 **WARRANTY**

.1 Warrant work of this Section against defects and deficiencies for period of five (5) years. Promptly make good defects and deficiencies which become apparent within warranty period to satisfaction of and at no expense to Owner. Defects shall include, but not be limited to, deformation of members, breakage of glass caused by frame distortions and discolouration of finishes.

PART - 2 PRODUCTS

2.1 **MANUFACTURER**

.1 Basis of Design: Work of this Section is based on Products by Explore One, except where specifically specified otherwise.

.1 Contact:

.1 Attention: Michael Byrne

Email: mbyrne@e-one.ca

.2 Products of the same materials, construction and finishes, and similar in function, design and appearance by other acceptable manufacturer will be considered, in accordance with the requirements of the Contract Documents for proposing substitutions

2.2 **MATERIALS**

.1 Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.

.1 Sheet and Plate: ASTM B209/B209M.

.2 Extruded Bars, Rods, Profiles, and Tubes: ASTM B221M.

.3 Extruded Structural Pipe and Tubes: ASTM B429/B429M.

.4 Structural Profiles: ASTM B308/B308M.

.2 Design aluminum components to CAN/CSA S157.

.3 Steel Reinforcements: CSA-G40.20/G40.21, Grade 300 W.

.4 Screws, Bolts, Nuts, Washers and Other Fastening Devices: Stainless steel with not less than 12% chromium content to prevent galvanic action, and of sufficient strength for the purpose. Exposed screws or pop rivets are not acceptable.

.5 Hardware: Supply of finish hardware as listed in Hardware Schedule is provided under Finish Hardware Section 08 71 00 and the receiving, fitting, installation and leaving in good working condition under this Section.

2.3 **FABRICATION**

.1 Take field measurements prior to fabrication.

.2 Shop fabricate screens and frames of extruded aluminum sections, to profiles and sizes shown. Design sections to accommodate expansion and contraction. Form accurate extrusions with clean, straight, sharply defined profiles free from any defects.

.3 Welding:

.1 Do aluminum welding to CAN/CSA W59.2.

.2 Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

.4 Fabricate members with wall thicknesses to provide for design loads and allowable deflections.

.5 Accurately form corners and intersections to flush hairline joints. Mechanically join framing joints. Reinforce joints and corners with aluminum angles or brackets.

.6 Make allowances for the deflection of the structure.

.7 Provide supplemental steel reinforcement in the frame to suit design loads.

.8 Include anchors, dowels and fastenings shown or specified or necessary to anchor the work together or to the work of the other Sections. Supply items and inserts required to be built into the work of respective Sections. Provide instructions for proper location.

.9 Nuts, bolts, screws, clips and other means of fastening shall be concealed in the finished work except where exposed screws are shown or specified.

.10 Means of anchoring shall have sufficient adjustment to permit correct and accurate alignment.

.11 No manufacturer's names, plates, labels or any other means of identification will be permitted on any of the finished units or hardware.

.12 Aluminum Frames and Screens

.1 Frames and Screens: Extruded aluminum sections having a minimum wall thickness of 2.4mm suitably reinforced to ensure proper rigidity. Cross-section dimensions of frames for screens shall be as detailed on Drawings, but a minimum of 44.4mm x 114.3mm.

.2 Drill, tap, weld, hole, or slot members for proper installation and fixing of all components and accessories, and supplied complete with all necessary anchors, clips, bolts, screws, etc.

.3 Make members with sharply defined profiles, straight, square, and true with surfaces in proper planes and exposed finished surfaces and edges smooth and free from defects.

.4 Frame, brace, reinforce and anchor work to safely sustain and withstand strains and stresses to which they will be subjected.

.5 Make provision for proper expansion and contraction.

.6 Joints and intersections accurately formed and tightly fitted; units water and weathertight.

.7 Bolts tight and threads nicked to prevent loosening of nuts; bolting made as inconspicuous as possible.

.8 Prepare for glazing as required.

2.4 **ALUMINUM FINISHES**

.1 Clear Anodic Finish: Finish exposed to view aluminum surfaces in clear, colourless anodized finish, to AA-M12C22A31 Class II architectural coating of minimum 0.010 mm (0.4 mils) thick.

PART - 3 EXECUTION

3.1 **INSTALLATION**

.1 Prior to installation, apply heavy coat of isolation coating to concealed surfaces of aluminum in direct contact with structural steel, concrete or masonry.

.2 Provide structural steel framing and supports required to support work of this Section unless indicated to be supplied under other Sections.

.3 Install framing in accordance with manufacturer's written instructions using materials free from damage and having tightly fitting joints to produce hairline joints free of burrs and distortion, rigidly secured to prevent movement within joints.

.4 Set work of this Section plumb, square, level at correct elevation and in alignment with adjacent work. Anchor securely. Brace work rigidly for building-in.

.5 Accurately fit frames and provide clearances required due to expansion, contraction and deflection of building structure and frames.

.6 Provide packing insulation in voids between framing members and adjacent constructions where detailed.

.7 After adjustment the anchorage devices shall be rivetted, welded or positively locked to prevent movement once alignment is achieved.

.8 Assume all responsibility for the design of the assembly, reinforcing and anchoring to suit each specific condition complying with the requirements specified herein and as shown on the reviewed shop drawings.

3.2 **INSTALLATION - SEALANT**

.1 Seal all joints between work of this Section and adjacent surfaces, with sealant to provide a completely airtight enclosure. Apply joint backing to achieve correct joint depth and shape in accordance with manufacturer's instructions.

.2 Mix, apply and cure sealant in strict accordance with manufacturer's instructions. Apply sealant to clean, dry, grease and oil free surfaces.

.3 Apply sealant in continuous full beads, using gun with proper size nozzle and sufficient pressure to fill voids and joints solid.

.4 Form surfaces smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.

.5 Tool exposed surfaces to slightly concave shape.

.6 Remove excess compound promptly as work progresses and upon completion.

3.3 **ADJUST AND CLEAN**

.1 Use soap and water, or water and approved solvents not injurious to aluminum, glass, glazing and sealant compounds. Do not use abrasive.

.2 Adjust all operating devices and leave in perfect working order.

END OF SECTION

1 GENERAL

1.1 SUMMARY

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

.1 Access doors and frames for walls and ceilings.

1.2 SUBMITTALS

.1 Product Data: Include construction details, fire ratings**,** materials, individual components and profiles, and finishes.

.2 Shop drawings:

.1 Include plans, elevations, sections, details, and attachments to other work.

.2 Detail fabrication and installation of access doors and frames for each type of substrate

.3 Product Schedule: Provide complete access door and frame schedule, including types, locations, sizes, latching or locking provisions, and other data pertinent to installation.

.4 Samples: For each door face material, minimum 75 mm x 125 mm (3” x 5”) in size, in specified finish.

2 PRODUCTS

2.1 ACCESS DOORS

.1 Anti-Ligature, Non-Fire Rated Door and Frame Unit: Formed galvanized steel:

.1 In Gypsum Board on Steel Studs: Recessed access door, non-insulated door, fabricated of 14 ga. door and 14 ga. frame, with concealed hinge, with perforated taping bead flanges, tamper proof Torx head latch locking; Model AL-9500 manufactured by Acudor Access Doors.

2.2 FABRICATION

.1 Provide access door and frame assemblies manufactured as integral units ready for installation.

.2 Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

.3 Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure access doors to types of supports indicated.

.1 For concealed flanges with drywall bead, provide edge trim for gypsum board securely attached to perimeter of frames.

.2 Provide mounting holes in frames for attachment of units to metal framing.

.3 Provide mounting holes in frame for attachment of masonry anchors.

.4 Hardware:

.1 Hinge: 175 degree steel continuous hinge, non-fire rated doors; concealed door with concealed constant force closure spring.

.2 Lock: Allen key cam lock; or cylinder lock with latch, two keys for each unit for fire rated doors, as specified.

2.3 **FINISH**

.1 Factory Prime: Apply manufacturer's standard, fast-curing, lead- and chromate-free, universal primer immediately after surface preparation and pre-treatment.

.2 Factory Finish: Immediately after cleaning and pre-treating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat, with a minimum dry-film thickness of 1 mil (0.025 mm) for topcoat. Colour to match adjacent wall or ceiling.

.3 Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

.4 Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

3 **EXECUTION**

3.1 **EXAMINATION**

.1 Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

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

3.2 **INSTALLATION**

.1 Comply with manufacturer's written instructions for installing access doors and frames.

.2 Install doors flush with adjacent finish surfaces or recessed to receive finish material.

3.3 **ADJUSTING**

.1 Adjust doors and hardware, after installation, for proper operation.

.2 Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

3.4 **SCHEDULE**

.1 Coordinate size, number required and location of access panels with mechanical and/or electrical contractor. Minimum size to be 300 mm x 300 mm.

.2 Refer to mechanical and electrical drawings.

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 for security glazing and related accessories in areas accessible to patients.

1.2 RELATED REQUIREMENTS

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

1.3 DEFINITIONS

.1 Glass: The term “glass” used throughout this specification section refers to the glass and glazing material types specified and scheduled.

1.4 SUBMITTALS

.1 Product Data: Submit manufacturer's product specifications. Include documentation of compliance with specified requirements, referenced tests, and compatibility of all products in contact with glazing.

.1 Provide Installer signed letter listing all products to be used, with signed letters from each glass, sealant, glazing tape, and blocking manufacturer certifying their compatibility.

.2 Provide a sample warranty and instructions for handling, storing, installing, cleaning and protecting each type of glass and glazing material.

.2 Shop drawings: Submit shop drawings indicating manufacturing and installation details.

.3 Samples: Submit one sample of each type of glass and glazing material required.

.1 Submit 100 mm square glass samples.

.2 Glazing Accessories: Submit 300 mm lengths of glazing accessory materials.

.3 Ensure samples are clearly labelled with manufacturer's name and glass type.

.4 Glazing Channel Designs: Submit glazing channel designs for each glass type. If deviations from indicated dimensions are proposed provide manufacturers' recommendations on clearances and glass stop placement including expansion allowance for glass, sealant and glazing tape depth and width, etc.

.5 Operations and Maintenance Manual: Information on cleaning, maintenance and replacement of all types of glass or glazing products shall be included in the Operations and Maintenance Manual.

1.5 QUALITY ASSURANCE

.1 Installer Qualifications: Glazier shall have minimum five (5) years experience in the successful installation of security glazing products similar to those specified for this Project. Submit references for projects completed within the past three years.

.2 Glazing Installation Standard: Comply with recommendations of the GANA (Glass Association of North America), "Glazing Manual" and "Glazing Sealing Systems Manual" except where more stringent requirements are called for by manufacturers or these specifications. Refer to GANA for definitions of glass and glazing terms not otherwise defined.

.3 Safety Glazing Standard: Where safety glass is indicated or required by authorities having jurisdiction, provide type of products indicated which comply with OBC, ANSI Z97.1, and requirements of CPSC 16 CFR Part 1201 for category II materials.

.4 Fire Resistance Rated Laminated Glass: Provide laminated ceramic glazing products that are identical to those tested per NFPA 257 (UL 9) and are labelled and listed by UL, ULC or other testing and inspecting agency acceptable to authorities having jurisdiction.

.5 Security Glazing Standards: Glazing materials shall be identical to those passing specified testing requirements for forced entry resistance performance as indicated below.

.1 Force Entry Resistance: Meeting requirements of referenced HPW test procedures or WMFL test method as applicable for products specified. Ratings or results shall be comparable to those specified for types and thickness glazing materials as scheduled.

.6 Single Source Responsibility: Provide materials obtained from one source for each type of glass and glazing product indicated, and for visually related areas.

.7 Mock-Ups: Glaze a typical interior security window mock-up. Obtain approval from Consultant prior proceeding.

.8 Pre-installation Conference: at least 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.

.9 Manufacturer’s site inspection: 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 correctly installed. Submit manufacturer’s inspection reports and verification that the work of this Section is correctly installed.

1.6 **COORDINATION, DELIVERY, STORAGE AND HANDLING**

.1 Provide early complete information on the glazing channel designs for incorporation by hollow metal manufacturer into door and frame shop drawings prior to their submittal.

.2 Provide material sized to field measurements of openings to receive glass.

.3 Deliver products to the site in unopened containers, labeled plainly with manufacturers' name and glass type. Store glass and glazing materials in safe, dry locations until needed for installation.

.4 Protect glass and glazing materials during delivery, storage and handling, to comply with manufacturer's directions and as required to prevent edge damage to glass, and damage to glass and glazing materials from effects of moisture including condensation, temperature changes, direct exposure to sun, and from other causes.

1.7 **WARRANTY**

.1 Special product warranty for laminated glass products:

.1 Provide written 5 year warranty from date of manufacture for laminated glass. Warranty shall cover deterioration due to normal conditions of use and not to handling, installing, and cleaning practices contrary to the glass manufacturer’s published instructions. Warranty shall be manufacturer's standard form in which laminated-glass manufacturer agrees to replace laminated-glass units.

.2 Special product warranty for tempered glass products:

.1 Provide a written 5 year warranty from date of manufacture for fully tempered glass. Warrant that tempered glass will not break spontaneously as a result of Nickel Sulfide (NiS) inclusions for a period of five years from the date of manufacture. Warranty shall be manufacturer's standard form in which tempered-glass manufacturer agrees to replace tempered-glass units.

PART - 2 PRODUCTS

2.1 GENERAL

.1 Glass: Each glass type shall bear manufacturer's label indicating quality and thickness.

.1 Thickness of glass: Glass thicknesses indicated or scheduled in the Contract Documents are minimums required. Exact thickness of glass to be engineered to account for size of glass and application, to satisfy building code requirements and requirements of authorities having jurisdiction.

~~.2 Refer to Section 00 01 30, List of Materials, for complete list of glazing products, designations, manufacturers, and other requirements.~~

2.2 MATERIALS

.1 Tempered Safety Glass:

.1 ASTM C1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent glass, flat), Class 1 (clear), Quality q3 (glazing select), and meeting requirements of ANSI Z97.1, tong and roller marks free, minimum thickness 6 mm.

.2 Ensure surface compression is equal to or greater than 68.9 MPa (10 000 psi)

.3 Tempered glass material to come from one tempering furnace and be tempered to minimize distortion variance.

.1 Roller-wave distortion not to exceed 0.127 mm (0.005") from peak to valley.

.2 Maximum peak to valley roller-wave 0.8 mm (0.003”) in the central area and 0.20 mm (0.008”) within 267 mm (10.5”) of the leading and trailing edge.

.3 Maximum bow and warp 0.79 mm per lineal 305 mm (1/32” per lineal foot).

.2 Laminated Glass - Tempered Laminated Glass (GL-30):

.1 Clear transparent laminated tempered glass conforming to ASTM C1172, Kind LT and meeting requirements of ANSI Z97.1, with two or more lites of flat glass, all of which are tempered safety glass as specified above, and bonded by an interlayer material.

.2 Fabricate laminated glass products free of foreign substances and air or glass pockets, in autoclave with heat plus pressure

.3 Laminate glass with interlayer to comply with interlayer manufacturer's written recommendations. Use materials that have a proven record of no tendency to bubble, discolour, or lose physical and mechanical properties after fabrication and installation

.4 Protect laminated glass interlayer from damage or discolouration resulting from contact with deleterious and incompatible sealants, substances, and materials. Comply with manufacturer’s recommended installation instructions.

.5 Interlayer Type: Ionoplast interlayer, product DuPont SentryGlas® ionoplast or approved equivalent.

.3 Fire Protection Rated Glass

.1 (GL-31) - Laminated ceramic glazing, non-wired:

.1 Fire-rated and impact safety-rated, clear laminated ceramic glazing material, and listed for use in doors, sidelites, transoms, and borrowed lites.

.2 Fire-ratings: as indicated or scheduled, from 20 minutes to 90 minutes, 3 hours in doors where applicable, with hose stream test.

.3 Impact Safety Resistance: ANSI Z97.1-2009 and CPSC 16 CFR 1201 (Cat. I and II).

.4 Surface finish: Premium Grade, clear glass, polished for superior optical clarity.

.5 Acceptable Product:

.1 Firelite Plus by Technical Glass Products

.4 Fire Rated Glazing Sealant: Type as recommended by glazing manufacturer and fire tested with glazing assemblies to achieve specified rating. Sealant shall be as stated in manufacturer's published fire testing data.

.5 Miscellaneous Glazing Materials: Provide materials with proven record of compatibility with surfaces contacted in installation.

.1 Cleaners, Primers and Sealers: Provide type recommended for compatibility by sealant and glass manufacturers.

.2 Blocking: Provide neoprene, EPDM or silicone blocks as required for compatibility with all glazing components. Size 100 mm long with width 1.5 to 3 mm greater than glass thickness and with blocking thickness as specified.

.1 Acceptable Products; subject to compliance with specified requirements:

.1 Advance Elastomer Systems, L.P.; Santoprene®.

.2 Tremco, Inc.; Dense Elastomeric Silicone Rubber Extrusions.

.2 Setting Blocks: 80 to 90 Shore A durometer hardness; 6 mm thick, unless otherwise indicated.

.3 Edge Blocks: 60 to 70 Shore A durometer hardness; 3 mm thick, unless otherwise indicated.

.3 Glazing Tape: Provide preformed glazing tape, size as indicated unless noted otherwise; manufacturer's special shimless formulation resistant to long term squeeze out except provide preshimmed where required by manufacturer for exterior exposure or large lights.

.1 Shimless Tape, 3 mm thickness, 13 mm width:

.1 Acceptable Products; subject to compliance with specified requirements:

.1 H.B. Fuller Company; PTI 303 Glazing Tape.

.2 Tremco, Inc.; 440 Tape.

.2 Characteristics: Preformed, cross-linked butyl tape, 100% solids.

.2 Preshimmed Tape, 3 mm thickness ,10 mm width:

.1 Acceptable Products; subject to compliance with requirements provide one of the following:

.1 H.B. Fuller Company; PTI 303 Spacer Rod Tape.

.2 Tremco, Inc.; Polyshim II Tape.

.2 Characteristics: Preformed, cross-linked butyl or polyisobutylene tape with integral continuous encased shim, 100% solids.

.6 Cover plate: Half-Round swing-away cover plate equipped with a tamper-resistant snap lock and retaining pin for security, constructed of extruded aluminum, satin anodized finish, service opening size: 165 x 83 mm, unless otherwise indicated on the drawings, thickness to suit the glass, product CRL Semicircular Design Opening Ticket Window.

~~.7 Film: translucent, flexible polyester material with acrylic, pressure sensitive, permanent adhesive. Refer to Section 00 01 30 List of Materials.~~

.7 Polycarbonate Panel: UV stable, transparent polycarbonate sheet with high impact resistance.

.1 Product: TUFFAK GP by Plaskolite or approved equivalent.

.1 Thickness: 12.7 mm.

2.3 **FABRICATION**

.1 Accurately size glass to fit openings allowing clearances recommended by the Flat Glass Marketing Association. Cut glass clean and free of nicks and damaged edges. Grind smooth and polish exposed glass edges. Do not cut or abrade tempered, heat treated, or coated glass.

PART - 3 EXECUTION

3.1 **EXAMINATION**

.1 Verify dimensions at the site before proceeding with fabrication or glazing units.

.2 Ensure that openings are free from distortion, and that surfaces are free from protrusions that will obstruct face and edge clearances.

.3 Ensure that wood is sealed; ferrous metals are painted or zinc coated; and that surfaces are suitable for adhesion of the glazing materials.

.4 Ensure that movable units to be glazed are adjusted for proper operation.

.5 Ensure that ambient and surface temperatures are above 5 degree C.

3.2 **PREPARATION**

.1 Inspect hollow metal and other glass framing for compliance with manufacturing and installation tolerances, including those for size, squareness, offsets at corners, existence of minimum required face or edge clearances, and effective sealing of joinery.

.2 Provide written report listing conditions detrimental to performance of glazing work.

.3 Do no glazing work prior to correction of unsatisfactory conditions. Commencement of installation indicates Installer's acceptance of substrate.

.4 Ensure rabbets, stops and glass edges are free of dust, dirt, moisture, oil and other foreign matter detrimental to, or, obstructing the glazing material.

.5 Clean contact surfaces with solvent and apply primers to surfaces to receive tapes and sealants in accordance with the manufacturer's instructions. Ensure surfaces are free of moisture and frost.

.6 Clean glazing channels and other framing members to receive glass, immediately before glazing.

.1 Remove coatings which are not firmly bonded to substrates.

.2 Promptly complete glazing both sides of a lite once started, to prevent re-entry of dust and dirt in glazing channels.

3.3 **INSTALLATION**

.1 Comply with GANA recommendations for Wet Glazing with Preformed Tape and Cap Bead of Gunnable Elastomeric Sealant except where more stringent requirements are called for by technical reports of the manufacturer of the glass or glazing products and these specifications.

.2 Verify glazing channel dimensions. Provide 25 mm, plus or minus 1.5 mm, bite on glass, unless otherwise indicated. Provide edge and face clearances, and glazing tape and sealant dimensions indicated.

.3 Protect glass from damage during handling and installation; use a rolling block as required in rotating glass units to prevent damage to glass corners. Do not impact glass with metal framing. Use suction cups as required to shift glass units within openings; do not raise or drift glass with a pry bar. Rotate glass with flares or bevels as required along one horizontal edge which would occur in vicinity of setting blocks so that these are located at top of opening. Remove from project and dispose of glass units with edge damage or other imperfections of kind that, when installed, weaken glass and impair performance and appearance.

.4 Install blocking in glazing channels, located one quarter of glass width from each corner, but no closer than 150 mm, unless otherwise indicated. Set blocks in thin course of sealant acceptable for heel bead use. Provide setting blocks at sills. Provide edge blocks at jambs and heads, unless otherwise indicated.

.5 Set units of glass in each series with uniformity of pattern, draw, bow and similar characteristics.

.6 Provide continuous glazing tape around the entire perimeter on both sides of the glass. Set glazing tape down 6 mm from top of stop as backer for cap bead sealant. Remove and reinstall any glass closer than 3 mm to frame or stops.

.7 Provide 6 mm deep cap bead sealant at all locations, unless otherwise indicated. Apply primers to joint surfaces where required for adhesion of sealant, as determined by sealant substrate testing. Force sealant into channel to eliminate voids and to ensure complete "wetting" or bond of sealant to glass and channel surfaces. Tool exposed surfaces of sealant to provide a substantial "wash" away from glass.

.8 Install fire-rated glazing materials in accord with manufacturer’s product data complying with specified fire testing standard. Use specified fire-rated glazing sealant for installation of fire tested glass materials.

.9 Remove non-permanent labels promptly after installation and promptly clean adhesive and other residue from both surfaces of all glass.

.10 Installation – Translucent Film

.1 Do not proceed with installation until finishing work has been completed in and around work area.

.2 Comply with manufacturer’s installation instructions.

.3 Install film using permanent adhesive. Follow manufacturer's recommendations to prevent formation of air bubbles, wrinkles, blisters and other defects.

.4 Remove air bubbles, wrinkles and blisters.

3.4 **POST INSTALLATION PROTECTION AND CLEANING**

.1 Protect glass from contact with contaminating substances resulting from construction operations or cleaning of adjacent materials.

.2 Remove and replace glass which is broken, chipped, cracked, abraded, scratched or damaged in other ways during the construction period, including natural causes, accidents and vandalism.

.3 Clean glass on both faces not more than 4 days prior to date scheduled for inspections intended to establish date of Substantial Performance in each area of project. Clean glass by method recommended by glass manufacturer.

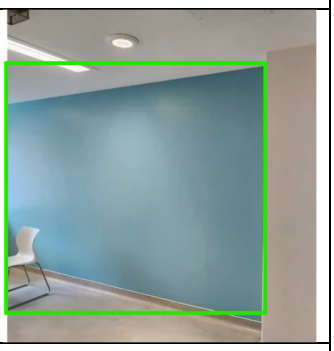
.4 Upon completion of the work, remove all debris, equipment and excess material resulting from the work of this Section from the site.

3.5 **MAINTENANCE INSTRUCTION**

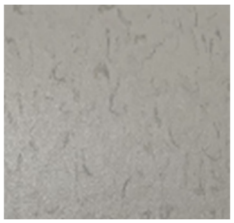
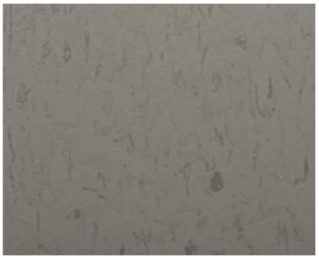
.1 Contractor shall schedule an Owner's maintenance seminar to occur within three weeks of Substantial Performance. The glass manufacturer or supplier shall provide a factory representative to train Owner's personnel in the cleaning and replacement of all glass and glass related products.

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 09 – FINISHES			
PT-1	Paint	Manufacturer: Benjamin Moore to match Pittsburgh Paint Product: Eco Spec Colour: Match Pittsburgh Paint Commercial White PPG1025-1 - **R:** 237 **G:** 236 **B:** 230 **LRV:** 84.073 Finish: Pearl Location: Walls	
PT-2	Accent Paint	Manufacturer: Benjamin Moore to match Pittsburgh Paint Product: Eco Spec Colour: to be finalized (to match existing accent colour) Finish: Pearl Location: Walls	
PT-3	Ceiling Paint	Manufacturer: Benjamin Moore to match Pittsburgh Paint Product: Eco Spec Colour: to be finalized Finish: Flat Location: Ceiling	
PT-4	Epoxy Ceiling Paint	Manufacturer: Benjamin Moore to match Pittsburgh Paint Product: Epoxy Colour: to be finalized Finish: Flat Location: Ceiling	

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
EP-1	Epoxy Resin flooring	Manufacturer: Sika Product: Sikafloor Quartznite HBD w/ Sikalastic 390 Membrane Color: to be selected from manufacturers full range Base: integral cove base, 6” Location: Refer to finishes plan Provide hardener + Aggregate and applicable items	
Rf-E1	Resilient sheet flooring, existing	Manufacturer: Forbo Product: Marmoleum, piano Color: Frosty grey, 3629 Base: Flash Cove with Stainless Steel Cove Cap (height to match existing) Location: Refer to finishes plan	
Rf-E2	Resilient sheet flooring, existing	Manufacturer: Forbo Product: Marmoleum, concrete Color: Liquid Clay, 3702 Base: Flash Cove with Stainless Steel Cove Cap (height to match existing) Location: Refer to finishes plan	
PLAM-1	Plastic Laminate	Manufacturer: Wilsonart or approved equivalent Product: New Age Oak Colour: 7938 (To be verified) Finish: Fine Velvet finish (to be verified) Location: Refer to Finish Plan	

DIVISION 10 - SPECIALTIES

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
HWP-1	Protection Wall Covering	Manufacturer: Altro Product: White Rock Chamelon, Matte Colour: White Finish: Matte Height: Full Height with thermoformed corners	
SD-1	Soap dispenser Anti Ligature	Manufacturer: Kingsway Group Product: Ligature Resistant Manual Soap Dispenser GOJO Compatible (KG08) Surface mount	
PTD-1	Paper Towel Dispenser, Anti ligature	Manufacturer: Kingsway Group Product: Ligature Resistant Paper Towel Dispenser, KG02 Surface Mount	

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.

.2 Related Requirements

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

1.2 SUBMITTALS

.1 Submit a letter of certification written by the manufacturer that states the installer is a current “approved applicator” fully trained in the installation of the specified materials.

.2 Product data: Submit manufacturer's technical data, installation instructions and general recommendations for each type of flooring material required.

.3 Samples: Submit 300 mm x 300 mm sample of flooring for approval. Submit additional samples until approval is obtained. Make changes in aggregate mix as required to secure correct colour and texture.

.4 Maintenance data: Submit maintenance data, include specific instructions for maintenance, preservation and cleaning. Provide adequate warning of maintenance materials or practices which may be detrimental to flooring.

1.3 QUALITY ASSURANCE

.1 Installer: having a minimum ten (10) 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.

.1 The Installer must be an “Approved Applicator” of the material manufacturer.

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

.3 Pre-installation meeting: 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 and test substrates to receive the work of this Section. Advise the Consultant of the date and time of the meeting.

.4 Manufacturer’s site inspection: 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 correctly installed. When requested, submit manufacturer’s inspection reports and verification that the work of this Section is correctly installed.

.5 Testing of concrete floors: Test floors that have been cured for minimum 28 days, and after preparation for Product installation is complete and patching or levelling compound is fully cured. Conduct testing simultaneously on floors free of sealer, curing compounds, oil, grease and other agents detrimental to the test and Product performance. Locate test sites to cover representative installation areas. Do not proceed with work when the test results do not conform to the specified allowable.

.1 Tensile Bond: Minimum 1.5 MPa in accordance with ASTM C1583. Do one test for every 100 sq.m. or fraction thereof.

.2 Moisture vapour transmission: To ASTM D4263 plastic sheet method, no visible condensation or vapour allowed. Do one test for every 50 sq.m. or fraction thereof.

.3 Surface moisture content: Maximum 4%, tested by moisture meter. Do one test for every 50 sq.m. or fraction thereof.

.4 Surface temperature: Minimum 3 degree C above the measured Dew Point.

.6 Sample Installation: Provide site sample floor area of 1 sq.m for each type of flooring, including waterproofing membrane, primer and necessary number of coats to obtain specified finish, showing colour range, bond and quality of work. Erect additional sample, if required, to obtain approval. Approved samples shall become standard of comparison for flooring work on Site and shall not be destroyed or moved until authorized by Consultant.

1.4 **TOLERANCES**

.1 Finish seamless flooring surfaces to produce plumb and level floor, or straight where sloped to drains, within tolerance of 3 mm in 3 m

1.5 **DELIVERY, STORAGE AND HANDLING**

.1 Deliver materials to Site in original, unopened containers with manufacturer’s labels and seals intact. Labels shall identify manufacturer's name, brand name of product, grade and type, application directions and shelf life and/or expiry date of product.

.2 Handle and store materials indoors at a temperature range of 15°C to 21°C in a dry location in accordance with manufacturer's printed directions.

.3 Store flammable materials in safe, approved containers to eliminate fire hazards and remove from Site at end of each work shift.

.4 Do not use materials that have been stored for period of time exceeding maximum recommended shelf life of materials.

1.6 **PROJECT CONDITIONS**

.1 Maintain minimum air and surface temperatures at 20 degree C for 48 hours before, during, and for 48 hours following application, or until cured.

.2 Maintain well-lit and well-ventilated area.

.3 Comply with flooring manufacturer's directions for maintenance of substrate temperatures, ventilation and other conditions required to execute and protect work.

.1 At the time of application ensure the minimum substrate temperature is above 7 degree C and the substrate temperature is 3 degree C above the measured dew point.

.4 Protect adjacent surfaces from damage resulting from work of this Section. If necessary, cover or mask adjacent surfaces to those receiving flooring including fixtures and equipment.

.5 Materials soiled by coatings during application and storage, and from which soil cannot be completely removed, shall be replaced by this Section at no extra cost.

.6 Erect barriers to prevent entry and presence of workers not performing work of this Section during application of flooring and for 48 hours following completion of application.

.7 Post "No Smoking" signs while work is in progress and curing. Ensure that spark-proof electrical equipment is used in areas where inflammable materials are being applied. Prevent use of open flames or equipment that may cause sparks during this phase of work.

PART - 2 PRODUCTS

2.1 MATERIALS

.1 General: Materials used in application of each flooring system shall be of same manufacturer and same supplier.

.2 Basis of Design – Epoxy Flooring (EPF): Refer to Section 09 06 00, Finishes Schedule, for complete list of products, designations, manufacturers, sizes, thickness, finishes and colours.

.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.

.3 Waterproofing membrane: two-component, solvent free, chemically cured, elastomeric, polyurethane waterproofing membrane; Sikalastic Duochem 390 Membrane by Sika Canada Inc., or acceptable equivalent.

.4 One-Component, Polymer-Modified, Fast-Setting, Cementitious Repair Material: Packaged dry mix for repair of concrete, and containing a latex additive as either a dry powder or a separate liquid added during mixing; . Mapecem 102 by MAPEI Inc., or other approved equivalent.

.5 Additional materials: Fill all joints, cracks, depressions or any other surface irregularities using additional materials recommended by the manufacturer of the specified product.

.6 Divider strips: L shape to required floor thickness, white alloy zinc.

.7 Cove strips: type recommended by flooring manufacturer.

.8 Joint backing: Preformed, compressible strips of closed cell polyethylene or urethane foam, rubber tubing or non-migrating plasticized vinyl with shore 'A' hardness of 20 and tensile strength between 140 kPa and 200 kPa. Sizes and shapes to suit various conditions, diameter 25% greater than joint width. Compatible with sealant, primer, epoxy flooring and substrate.

.9 Joint sealant: CAN/CGSB-19.24-M, Type 1, Class B, multicomponent modified urethane base, chemical curing; material compatible with floor finish and as recommended by flooring manufacturer.

PART - 3 EXECUTION

3.1 EXAMINATION

.1 Ensure that concrete slab has been properly cured and dry for minimum of 28 days.

.2 Ensure that no curing and sealing compounds, hardeners or other chemical additives have been used on concrete.

.3 Verify that specified environmental conditions are maintained before commencing work. Be familiar with manufacturer's product literature and Material Safety Data Sheets and comply with precautions, handling procedures and equipment requirements.

.4 Report concrete floor test results to Consultant and obtain manufacturer's representative's approval before proceeding.

.5 Monitor the Dew Point during application and initial cure. The surface must be at least 3°C above the measured Dew Point at all times during application and cure.

.6 Do not start work until unsatisfactory conditions have been corrected. Commencement of work indicates acceptance of all surfaces and conditions.

3.2 PREPARATION

.1 Clean subfloor free of laitance, oil, grease and other foreign matter detrimental to flooring application.

.2 Prepare concrete floors with shot blasting or other method recommended by manufacturer. Remove uneven joints, rough areas, foreign and projection off surfaces. Surface to be hard, sound, and roughened to irregular surface with weak concrete removed and surface holes and voids exposed. Equip blasting machine with vacuum to minimize dust.

.3 Repair cracks, holes or other deficiencies in accordance with manufacturer's recommendations.

.4 Blow clean control joints, sawcuts and cracks with compressed air and grout with material compatible with floor coating materials.

.5 Ensure that backing surfaces for cove bases are free of voids and irregularities. Fill recessed joints with recommended material.

.6 All edges that do not terminate at a wall or curb shall be keyed to avoid featheredges. All through floor penetrations such as drains and trenches require a keyed edge that maintains a uniform 6 mm thickness.

.7 Obtain flooring manufacturer's approval of prepared substrate before commencement of work.

.8 Procedures to follow in dealing with exposed synthetic fibres after shot blasting is performed.

.1 Remove the visible fibres with a Tiger Torch, running the flame across the floor.

.2 Sweep and vacuum remnants

.3 Apply primer coat of system specified

.4 Let primer set over night

.5 Next day, sand floor to remove any remaining fibres

.6 Sweep and vacuum

.7 Proceed with installation of epoxy system.

.9 Slopes in holding cells: Provide slopes in holding cells as indicated with the cementitious repair material. Prepare substrates and apply material in accordance with manufacturer's recommendations.

3.3 **INSTALLATION**

.1 Prime concrete substrates to prevent the possibility of blisters, debonding, and pinholes. Apply primer over prepared substrate at manufacturer's recommended spreading rate with timing of application coordinated with subsequent application of topping mix to ensure optimum adhesion between flooring materials and substrate.

.2 Prepare, mix materials and apply each component of flooring system in strict accordance with CGSB 81-GP-10M and manufacturer's printed directions to produce uniform monolithic wearing surface of thickness indicated for each system, with integral cove bases, uninterrupted except at divider strips, sawn joints or other types of joints required.

.3 Apply work to ensure that no laps, pin holes, voids, crawls, skips or other marks or irregularities are visible, and to provide uniform appearance.

.4 Apply work into corners and other restricted areas, up and over equipment bases, and into recesses in floors to ensure full coverage.

.5 Make clean true junctions with no visible overlap between adjoining applications of flooring.

.6 Match approved sample for colour, sheen, texture and slip resistance.

.7 For large areas, stop each day's production at metal dividing strip at lines approved by Consultant.

.8 Waterproofing Membrane

.1 Apply waterproofing minimum 30 dry mils thick to entire floor surface, over coating properly prepared cracks, and joint. Allow overnight cure (16 hour minimum), or as recommended by manufacturer

.9 Primer: Apply primer over prepared substrate, at manufacturer's recommended spreading rate with timing of application coordinated with subsequent application of topping mix to ensure optimum adhesion between flooring materials and substrate.

.10 Epoxy matrix: Combine aggregate to blended resin to form trowellable mortar. Place mortar over tacky primer and spread in number of coats and at spreading rates required to produce minimum thickness specified. Take care to spread newly mixed materials across the transition of previous applied mixes before the surface begins to set. Allow mortar to stand for a few minutes to permit entrapped air to escape. Allow matrix to harden minimum time recommended by manufacturer before applying finish coats.

.11 When trowelled epoxy matrix has hardened, remove imperfections by lightly abrading surface and vacuum clean. Apply finish coats at spreading rate and following method recommended by manufacturer to achieve minimum thickness and to obtain non-slip finish to match approved samples. Allow minimum recommended drying time between coats.

.12 Cove base: Provide 150 mm high cove base struck straight to provide line for wall finish. Cap with manufacturer's recommended cove strip. Seal floor-wall interface with the Sikaflex 1a, CFIA acceptance.

.13 Thresholds:

.1 Where flooring terminates at doorways, and difference in height occurs between seamless flooring and other floor finishes, cut back slab for 32 mm width to allow full thickness of seamless flooring to be flush with adjacent floor finish (chasing).

.2 Where flooring terminates at doorways, and floor finishes are of same thickness, provide metal divider strips flush with surfaces.

.14 Floor drains: Slope flooring to drains minimum of 1:100 from furthest surface point. Grind concrete around perimeter to provide 6 mm thickness of flooring material which is flush with top of drain and slopes as indicated on Drawings.

.15 Control joints: Where substrate is interrupted by isolation, control or expansion joints, provide saw-cut joint in flooring after floor installation, install backer rod and fill with manufacturer's recommended epoxy or urethane sealant.

3.4 **ADJUSTMENT AND CLEANING**

.1 Touch up and refinish minor defects in work. Refinish entire coated surface areas where finish is damaged or otherwise unacceptable.

.2 Remove promptly as work progresses spilled or splattered coating materials from adjacent surfaces. Clean floors on completion of Work. Do not mar surfaces while removing splatters.

.3 Protect completed work from contact with water, chemical exposure, and traffic by suitable means for at least 7 days to allow proper curing of floor finish.

.4 Protect work from any trades using area after completion of installation.

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 which includes surface preparation and the application of paint systems on exterior and interior substrates.

.2 Related Requirements

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

1.2 SUBMITTALS

.1 Product Data:

.1 For each type of product, confirming compliance with the specified or named product or material.

.2 Prior to ordering products or 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 Samples: Provide duplicate minimum 300 mm square samples of surfaces or acceptable facsimiles requested painted with specified paint or coating in colours, gloss, sheen, and textures required to MPI Painting Manual standards for review. When approved, samples become acceptable standard of quality for appropriate on-site surface with one of each sample retained on-site.

.3 List of painting materials: If requested by Consultant submit duplicate copy of list of painting materials for review prior to ordering materials. If requested, provide an invoice list of all paint materials ordered for project work indicating manufacturer, types and quantities for verification and compliance with specification and design requirements.

.4 Material Safety Data Sheets (MSDS): Submit duplicate copies prior to commencement of work for review and for posting at job site as required.

.5 Project Data Manual: At project completion provide an itemized list complete with manufacturers' application instructions, paint type and colour coding for all colours used for Owner's later use in maintenance.

1.3 QUALITY ASSURANCE

.1 Applicator experience: Having minimum of five years proven satisfactory experience. When requested, provide a list of the last three comparable projects including, name and location, consultant, start and completion dates, and value of the painting work.

.2 Applicator qualification: Qualified journeypersons, painters, as defined by local jurisdiction shall be engaged in painting and decorating work. Apprentices may be employed provided they work under the direct supervision of a qualified journeyperson in accordance with trade regulations.

.3 Materials, preparation, and quality of work: In conformance with requirements of the latest edition of the Architectural Painting Specification Manual by the Master Painters Institute, referred to as the MPI Painting Manual in this Section, issued by the local MPI Accredited Quality Assurance Association having jurisdiction.

.4 Manufacturers and products: Listed under the Approved Product List section of the MPI Painting Manual.

.5 The best practices specified or recommended in CAN/CGSB-85.100 shall govern for painting materials, methods, and procedures.

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

.7 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.

.8 Manufacturer's site inspection: 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 correctly installed. When requested, submit manufacturer's inspection reports and verification that the work of this Section is correctly installed.

.9 Ensure written confirmation is received from steel fabricators of the specific surface preparation procedures and primers used for steel work to ascertain appropriate and compatible finish materials.

1.4 **SAMPLES AND MOCK-UPS**

.1 Samples: Provide duplicate minimum 300 mm square samples of surfaces or acceptable facsimiles requested painted with specified paint or coating in colours, gloss, sheen, and textures required to MPI Painting Manual standards for review. When approved, samples become acceptable standard of quality for appropriate on-site surface with one of each sample retained on-site.

.2 Sample installations: When requested by the Consultant prepare and paint designated surface, area, room, or item in each colour scheme to requirements specified, with specified paint or coating showing selected colours, gloss, sheen, textures, and quality of work to MPI Painting Manual standards for review and approval. When approved, surface, area, room, and items become acceptable standard of finish quality and workmanship for similar on-site work.

1.5 **PRODUCT DELIVERY, STORAGE AND HANDLING**

.1 Deliver all painting materials in sealed, original labelled containers bearing manufacturer's name, brand name, type of paint or coating and colour designation, standard compliance, materials content as well as mixing and/or reducing and application requirements.

.2 Store all paint materials in original labelled containers in a lockable, dry, heated and well ventilated single designated area meeting the minimum requirements of both paint manufacturer and authorities having jurisdiction and at a minimum ambient temperature of 7°C. Only material for use on this project is to be stored on site.

.3 Where toxic, volatile, explosive, flammable materials are being used, provide adequate fireproof storage lockers, and take all necessary precautions and post adequate warnings such as no smoking signs as required.

.4 Take necessary precautionary and safety measures to prevent fire hazards and spontaneous combustion and to protect the environment from hazard spills. Store materials that constitute a fire hazard in suitable closed and rated containers and removed from the site on a daily basis.

.5 Comply with requirements of authorities having jurisdiction, in regard to the use, handling, storage and disposal of hazardous materials.

1.6 **SCHEDULING**

.1 Schedule painting operations to prevent disruption of and by other Sections.

.2 Schedule painting operations in occupied facilities to prevent disruption of occupants in and about the building. Perform painting after facility working hours or on weekends in accordance with Owner's operating requirements. Schedule work such that painted surfaces will have dried before occupants are affected. Obtain written authorization from Consultant for changes in work schedule.

1.7 **PROJECT CONDITIONS**

.1 Unless specifically pre-approved by the Consultant, and the product manufacturer, do not perform work when the ambient air and substrate temperatures are below 10°C for both interior and exterior work.

.2 Do not perform exterior work unless environmental conditions are within MPI and manufacturer's requirements or until adequate weather protection is provided. Where required, provide suitable weatherproof covering and sufficient heating facilities to maintain minimum ambient air and substrate temperatures for 24 hours before, during and after work is completed.

.3 Do not perform interior work unless adequate continuous ventilation and sufficient heating facilities are in place to maintain ambient air and substrate temperatures above minimum requirements for 24 hours before, during and 48 hours after work is complete, unless required otherwise by manufacturer's instructions. Provide supplemental ventilating and heating equipment if ventilation and heating from existing system is inadequate to meet minimum requirements.

.4 Do not perform work when the relative humidity is above 85% or when the substrate temperature is less than 3°C above the measured dew point.

.5 Do not perform work when the maximum moisture content of the substrate exceeds:

.1 12 % for concrete and masonry.

.2 15% for wood.

.3 12 % for plaster and gypsum board.

.6 Conduct all moisture tests using a properly calibrated electronic Moisture Meter, except test concrete floors for moisture using a simple cover patch test.

.7 Test concrete, masonry and plaster surfaces for alkalinity as required.

.8 Apply work only to dry, clean, properly cured and adequately prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not affect the quality of finished surfaces.

.9 Do not perform work unless a minimum lighting level of 323 Lux () is provided on surfaces to be painted or decorated.

1.8 **EXTRA STOCK**

.1 At project completion provide 6 litres of each type and colour of paint from same production run used in unopened cans, properly labelled, and identified for Owner's later use in maintenance. Store where directed.

1.9 **WASTE MANAGEMENT AND DISPOSAL**

.1 Paint, stain and wood preservative finishes and related materials such as thinners, solvents are regarded as hazardous products and are subject to regulations for disposal. Obtain information on these controls from applicable authorities having jurisdiction.

.2 Separate and recycle waste materials. Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility. Materials that cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.

.3 Place materials defined as hazardous or toxic waste, including used sealant and adhesive tubes and containers, in containers or areas designated for hazardous waste.

.4 Strictly adhere to the following procedures to reduce the amount of contaminants entering waterways, sanitary and storm drain systems or into the ground:

.1 Retain cleaning water for water-based materials to allow sediments to be filtered out. In no case shall equipment be cleaned using free draining water.

.2 Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal.

.3 Return solvent and oil-soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering.

.4 Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations.

.5 Empty paint cans are to be dry prior to disposal or recycling (where available).

.6 Close and seal tightly partly used cans of materials including sealant and adhesive containers and store protected in well ventilated fire-safe area at moderate temperature.

.5 Set aside and protect surplus and uncontaminated finish materials not required by the Owner and deliver or arrange collection for verifiable re-use or re-manufacturing.

PART - 2 PRODUCTS

2.1 **MATERIALS**

.1 Only materials listed in the latest edition of the MPI Approved Product List (APL) are acceptable for use on this project. Provide material from a single manufacturer for each system used.

.2 Other materials not listed in the APL shall be the highest quality product of an MPI listed manufacturer and shall be compatible with paint materials being used as required.

.3 All materials used shall be lead and mercury free and shall have low VOC content where possible.

.4 Where required, use only materials having a minimum MPI Environmentally Friendly E1, E2 E3 rating based on VOC (EPA Method 24) content levels.

.5 Where indoor air quality is an issue, use only MPI listed materials having a minimum E2 E3 rating.

.6 Provide materials having good flowing and brushing properties and capable to dry or cure free of blemishes, sags, air entrapment.

.7 Where required, paints and coatings shall meet flame spread and smoke developed ratings to code requirements and authorities having jurisdiction.

.8 Glass Reflective Beads for Pavement Marking: Suitable for application to a wet paint surface for light reflectance. Apply beads at a minimum rate of 0.5 kg/l to an MPI listed white or yellow latex or alkyd zone/traffic marking paint.

.9 Slip Resistant Aggregate: Rubber, clean/washed silica sand or ground walnut chips, as required to provide slip resistance. Where aggregate is site mixed into paint, mix constantly to keep additive in suspension.

.10 Metallic Paste Filler: non-rusting repair paste, reinforced with aluminium, of metallic appearance, quick drying; Bondo Metal Reinforced Filler by 3M.

2.2 **EQUIPMENT**

.1 Painting and Decorating Equipment: to best trade standards for type of product and application.

.2 Spray Painting Equipment: of ample capacity, suited to the type and consistency of paint or coating being applied and kept clean and in good working order at all times.

2.3 **MIXING AND TINTING**

.1 Unless otherwise specified or pre-approved, provide materials ready-mixed and pre-tinted. Re-mix materials in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour and gloss uniformity.

.2 Mix paste, powder, or catalyzed materials in strict accordance with manufacturer's written instructions.

.3 Do not exceed amount of thinner beyond manufacturer's recommendations. Do not use kerosene or organic solvents to thin water-based materials.

.4 If required, thin paint for spraying according in strict accordance with paint manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Consultant.

2.4 **FINISH AND COLOURS**

.1 Refer to Drawings and Section 09 06 00 Finishes Schedule for identification and location of colours.

.2 Where required by authorities having jurisdiction, finish exit and vestibule doors in contrasting colour to walls and a different colour than any other door in the same area.

.3 Access doors, prime coated butts and other prime painted hardware, registers, radiators and covers, exposed piping and electrical panels: To match adjacent surfaces, unless otherwise noted or where pre-finished.

.4 Low headroom areas: Minimum 100 mm wide yellow band on leading edge marked CAUTION - LOW CLEARANCE in 50 mm high black letters at suitable intervals and in accordance with requirements of authorities having jurisdiction.

.5 Where other applied finishes and nosing are not specified at stairs, ramps and landings providing access and exit for persons with visual impairment, provide colour contrast slip resistant finish and warning strips at treads and landings.

2.5 **GLOSS AND SHEEN RATINGS**

.1 Paint gloss shall be defined as the sheen rating of applied paint, in accordance with the following MPI values:

Gloss Level	Description	Units@ 60 degrees	Units@ 85 degrees
G1	Matte or Flat finish	Max. 5	Max. 10
G2	Velvet finish	Max. 10	10 to 35
G3	Eggshell finish	10 to 25	10 to 35
G4	Satin finish	20 to 35	Main. 35
G5	Semi-Gloss finish	35 to 70	
G6	Gloss finish	70 to 85	
G7	High-Gloss finish	More than 85	

PART - 3 EXECUTION

3.1 **CONDITION OF SURFACES**

.1 Prior to commencement of work thoroughly examine and test as required conditions and surfaces scheduled to be painted. Do not commence work until adverse conditions and defects have been corrected and surfaces and conditions are acceptable.

3.2 **SURFACE PREPARATION**

.1 Prepare all surfaces in accordance with MPI requirements.

.2 Sand, clean, dry, etch, neutralize, and test surfaces under adequate illumination, ventilation and temperature requirements.

.3 Remove and securely store miscellaneous hardware, surface fittings and fastenings such as electrical plates, mechanical louvers, door and window hardware, hinges, knobs, locks, trim, frame stops, removable rating/hazard/instruction labels, washroom accessories, light fixture trim, from wall and ceiling surfaces, doors and frames, prior to commencement of work. Carefully clean and replace items upon completion of work in each area. Do not use solvent or reactive cleaning agents on items that will mar or remove finishes. Remove doors to finish bottom and top edges and re-hang doors when work is complete.

.4 Protect all adjacent interior surfaces and areas, including rating/hazard/instruction labels on doors, frames, equipment, piping, from painting operations and damage using drop cloths, shields, masking, templates, or other suitable protective means and make good damages caused by failure to provide such protection.

.5 Make good substrate defects and sand ready for finishing particularly after the first coat is applied. Start of finishing on defective surfaces indicates acceptance of substrate and any costs of making good defects shall be borne by this Section including re-painting of entire defective surface.

.6 Confirm preparation and primer used with fabricator of steel items.

.7 Prepare dented or damaged metal plates or surfaces prior to priming and painting with metallic paste filler in accordance with manufacturer's recommendations.

3.3 **APPLICATION**

.1 Do not perform work unless substrates are acceptable and until heating, ventilation, lighting, and completion of work of other Sections are acceptable for applications of products.

.2 Apply materials in accordance with MPI Painting Manual Premium Grade finish and manufacturers' requirements.

.3 Work specified is intended to cover surfaces satisfactorily when applied at proper consistency and in accordance with manufacturer's recommendations.

.4 Tint each coat of finish progressively lighter to enable confirmation of number of coats.

.5 Unless otherwise approved by the Consultant, apply a minimum of four coats of paint where deep or bright colours are used to achieve satisfactory results.

.6 Sand between each coat to provide an anchor for next coat and to remove defects visible from a distance up to 1000 mm.

.7 Do not apply finishes on surfaces that are not sufficiently dry. Unless manufacturer's directions state otherwise, each coat shall be sufficiently dry and hard before a following coat is applied.

.8 Prime coat of stain or varnish finishes may be reduced in accordance with manufacturer's directions.

.9 Paint finish shall continue through behind all wall-mounted items.

3.4 **INTERIOR FINISHING SYSTEMS**

.1 Finish interior surfaces in accordance with MPI Painting Manual requirements:

.2 Concrete Horizontal Surfaces:

.1 INT 3.2A: Latex floor enamel finish; semi-gloss finish (floor and stairs).

.2 INT 3.2H: Latex zone / traffic marking finish.

.3 Structural Steel and Metal Fabrications:

.1 INT 5.1A: Quick dry enamel semi-gloss finish.

.4 Steel, High Heat: Boilers, furnaces, heat exchangers, breeching, pipes, flues, stacks, with temperature range as noted.

.1 INT 5.2A: Heat resistant enamel finish, maximum 400° F (205° C).

.2 INT 5.2B: Heat resistant aluminum paint finish, maximum 800° F (427° C).

.3 INT 5.2C: Inorganic zinc rich coating, maximum 750° F (400° C).

.4 INT 5.2D: High heat resistant coating, maximum 1100° F (593° C).

.5 Galvanized Metal: Doors, frames, railings, misc. steel, pipes, overhead decking, ducts.

.1 INT 5.3A: Latex.

.6 Dressed Lumber: Doors, door and window frames, casings, molding.

.1 INT 6.3A: High performance architectural latex.

.7 Plaster and Gypsum Board:

.1 INT 9.2B: High performance architectural latex.

~~.1~~**.2** **INT 9.2F: Waterborne epoxy (tile-like) finish.**

.8 Canvas and Cotton Coverings:

.1 INT 10.1A: Latex.

3.5 MECHANICAL, ELECTRICAL EQUIPMENT AND RELATED SURFACES

.1 Unless otherwise specified or noted, finish all unfinished conduits, piping, hangers, ductwork, and other mechanical and electrical equipment with colour and texture to match adjacent surfaces, in the following areas:

.1 Where exposed-to-view in exterior and interior areas.

.2 In interior high humidity interior areas.

.3 In boiler room, mechanical and electrical rooms.

.2 In unfinished areas leave exposed conduits, piping, hangers, ductwork, and other mechanical and electrical equipment in original finish and touch up scratches and marks.

.3 Touch up scratches and marks on factory finished equipment with products compatible with factory finish.

.4 Do not paint over nameplates.

.5 Paint the inside of all ductwork where visible behind louvers, grilles and diffusers for a minimum of 450 mm or beyond sight line, whichever is greater, with primer and one coat of flat black paint.

.6 Paint the inside of light valances gloss white.

.7 Paint disconnect switches for fire alarm system and exit light systems in red enamel.

.8 Paint or band all fire protection piping and sprinkler lines in accordance with mechanical specification requirements. Keep sprinkler heads free of paint.

.9 Paint or band all natural gas piping in accordance with mechanical specification requirements.

.10 Back prime and paint face and edges of plywood service panels for telephone and electrical equipment before installation to match adjacent wall surface. Leave equipment in original finish except for touch-up as required, and paint conduits, mounting accessories and other unfinished items.

.11 Paint exterior steel electrical light standards. Do not paint outdoor transformers and substation equipment.

3.6 FIELD QUALITY CONTROL AND STANDARD OF ACCEPTANCE

.1 Manufacturer's site inspection: 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 correctly installed. When requested, submit manufacturer's inspection reports and verification that the work of this Section is correctly installed.

.2 Painted exterior and interior surfaces will be considered to lack uniformity and soundness if any of the following defects are apparent:

.1 Brush and roller marks, streaks, laps, runs, sags, drips, heavy stippling, hiding or shadowing by inefficient application methods, skipped or missed areas, and foreign materials in paint coatings.

.2 Evidence of poor coverage at rivet heads, plate edges, lap joints, crevices, pockets, corners, and re-entrant angles.

.3 Damage due to touching before paint is sufficiently dry or any other contributory cause.

.4 Damage due to application on moist surfaces or caused by inadequate protection from the weather.

.5 Damage and/or contamination of paint due to blown contaminants (dust, spray paint, etc.).

.3 Painted surfaces will be considered unacceptable if any of the following are evident under natural lighting source for exterior surfaces and final lighting source (including daylight) for interior surfaces:

.1 Visible defects are evident on vertical and horizontal surfaces when viewed at normal viewing angles from a distance of not less than 1000 mm.

.2 Visible defects are evident on ceiling, soffit and other overhead surfaces when viewed at normal viewing angles.

.3 When the final coat on any surface exhibits a lack of uniformity of colour, sheen, texture, and hiding across full surface area.

.4 Make good painted surfaces rejected by the inspector to approval of Consultant and at the no extra cost to the Owner. Touch up small affected areas. Repaint large affected areas or areas without sufficient material dry film thickness. Remove runs, sags of damaged paint by scraper or by sanding prior to application of paint.

3.7 **PROTECTION**

.1 Protect exterior surfaces and areas, including landscaping, walks, drives, adjacent building surfaces, equipment and any labels and signage from painting operations and damage by drop cloths, shields, masking, templates, or other suitable protective means and make good any damage caused by failure to provide such protection.

.2 Protect interior surfaces and areas, equipment and any labels and signage from painting operations and damage by drop cloths, shields, masking, templates, or other suitable protective means and make good any damage caused by failure to provide such protection.

.3 Erect barriers or screens and post signs to warn of or limit or direct traffic away or around work area as required.

3.8 **CLEAN-UP**

.1 Remove paint where spilled, splashed, splattered, or sprayed as work progresses using means and materials that are not detrimental to affected surfaces.

.2 Keep work area free from an unnecessary accumulation of tools, equipment, surplus materials and debris.

.3 Remove combustible rubbish materials and empty paint cans each day and safely dispose of same in accordance with requirements of authorities having jurisdiction.

.4 Clean equipment and dispose of wash water / solvents as well as all other cleaning and protective materials (e.g. rags, drop cloths, masking papers, etc.), paints, thinners, paint removers / strippers in accordance with the safety requirements of authorities having jurisdiction.

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.

1.2 SHOP DRAWINGS

.1 Shop Drawings

.1 Provide shop drawings showing the finished appearance, construction details, bracing materials, finishes, connections and fastenings of each item.

.2 Underline, ring or otherwise point out any deviation from the specification or drawings.

.3 Provide manufacturer's product data sheets.

.2 Samples: When requested by the Consultant submit samples of materials, colour and finish, and if required include the complete item.

.3 Maintenance Data: Provide operation and maintenance data for incorporation into Project Record Manual.

1.3 SAMPLES

.1 When requested by the Consultant submit samples of materials, colour and finish, and if required include the complete item.

1.4 SCHEDULES AND DRAWINGS

.1 Refer to finish and door schedules and the drawings for the location and details of the various items of manufactured specialties.

1.5 WARRANTY

.1 Provide a 5 year warranty for work of this section against faulty materials or workmanship. Defects include but are not limited to delamination of flooring from substrates, bubbling of flooring and seam separations.

.2 Promptly repair or replace the defective work upon written notification from the Owner.

PART - 2 PRODUCTS

2.1 SHOWER DOOR

.1 Anti-ligature, vinyl wrapped, polyurethane foam door complete with magnetic hinges that collapse when force is applied.

.1 Basis of Design: Anti-Ligature ~~Safe Door~~**Kennon Door 2.0** by ~~Norix~~ **Kennon Products** or approved equivalent.

.1 Fire Rating: Class A

~~.1~~**.2** Colour: to be determined.

~~.2 Model: SD5836.~~

.2 Door Seal: Translucent silicone bulb seal with pre-applied tape, capable of sealing gaps of 1.6 mm to 5 mm.

.1 Product: PART # BH-270 by Reflect Window & Door or equivalent.

PART - 3 EXECUTION

3.1 FABRICATION

.1 Fabricate the work true to dimensions, square, plumb and level. Fit joints and intersecting members accurately with adequate fastenings.

.2 Finished work shall be free from distortion and defects detrimental to appearance and performance.

.3 Welding shall comply with CSA W59-1982 and be done by a fabricator fully approved by the Canadian Welding Bureau under the requirements of CSA W47.1-1983 and W47.2-1967. File or grind exposed welds smooth and flush. Do not leave grinding marks.

.4 Unless otherwise specified, noted or approved, weld all connections.

.5 Where not possible bolt or secure connections in an approved manner. Countersink exposed fastenings, cut off bolts, flush with nuts, and make as inconspicuous as possible. Exposed fastenings where approved shall be neatly executed and shall be of the same material, colour and finish as the base metal on which they occur.

.6 Use shop and field connections as detailed. Where not detailed connections shall be as shown on reviewed shop drawings.

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.

1.2 DESCRIPTION

.1 Operation system: Combination motorized and manual operating shade system, utilizing linear motors enclosed in the shade tube, and complete with control system.

.2 In static mode the shades shall stop at any position, and in the dynamic mode the shades shall stop at predetermined positions only.

.3 There shall be upper and lower stop limits to prevent overwinding and unrolling to ensure alignment and air clearance at sill.

1.3 SUBMITTALS

.1 Shop drawings: Show shade arrangements, layout, location within window framing, controls, fixing devices, wring diagrams and method of installation.

.2 Sample: 300 mm x 300 mm samples of each type of fabric.

PART - 2 PRODUCTS

2.1 MANUFACTURERS

.1 Basis of Design Manufacturer: Legrand LLC, or Equivalent product that meets or exceeds system performance.

.1 Source Limitations:

.1 Furnish products produced by a single manufacturer and obtained from a single supplier.

~~2.1~~2.2 MATERIALS

.1 Window shade system: 120V, 1 amp, Integrated motorized roller shade system, ~~ElectroShade by SunProject Canada, or~~**Spec Series** Motorized Shade System by ~~Solarfective Products Ltd~~**Legrand LLC**., or other acceptable equivalents, complete with fabrics, tracks, operators, fabric support rollers, perimeter black out sections and capable of holding fabric flat in the closed position. Provide endless chain for manual operation.

.2 Bracket operating assembly: 3 mm steel bracket and injection moulded delrin components assembled on 11 mm diameter welded steel shaft, reversible for left-hand or right-hand operation and capable to support continuous fascia with concealed mounting. Wall, jamb or ceiling mounted, complete with centre brackets as required.

.3 Shade roller: Extruded 6063 T6 aluminum tube, sized to suit operating system with asymmetrically shaped mounting channels to which a matching snap-in vinyl spline can be mounted.

.4 Shade spline: Extruded vinyl with asymmetrical insertion locking channels and embossed shade guide.

.5 Shade and spline assembly: Removable and replaceable without disassembling the hardware.

.6 Tube and plug-and-pin assembly: Tapered to assure alignment and shade edge protection. Pin shall be laterally adjustable plus/minus 8 mm.

.7 Intermediate flexible brackets: Capable of connecting 4 shades to 1 motor in an angled orientation, complete with self lubricated universal joint, bearing, drive shaft and idler end cap.

.8 Fascia: 1.6 mm extruded aluminum fascia with a clear anodized finish, designed to snap on to shade mounting bracket assembly with concealed fastening devices. Provide removable fascia filler to bridge window mullions where indicated.

.9 Operators: Asynchronous, reversible, thermally protected, automatic shut off, totally enclosed and concealed in the shade roller. Provide maintenance free locking disconnect plug assembly with each operator. Provide tension motors to draw shade into closed position.

.10 Brake: Solenoid activated disc brake mechanism stops and holds in any position, automatically disengage when operator is running.

.11 Gear box: Planetary type gears.

.12 Controls: Remote key switch station connected to motor logic control.

.13 Fabric support roller: 38 mm diameter extruded roller at 900 mm o.c., designed to retract when shades is in open position.

.14 Tracks: Extruded aluminum, formed to accommodate mounting and unobstructed movements of carriers. Tracks shall restrain lateral and torsional movements of carriers.

.15 Carriers: Aluminum body with fitted wheels and attachment device for fabric. Minimum 100 lb. working capacity.

.16 Blackout channels: Extruded aluminum blackout channels complete with black out seals.

~~2.2~~2.3 SWITCHING AND CONTROL SYSTEM

.1 Adjustable internal limit switch to allow for exact travel of shade. Include micro switch to provide circuit braking at end of run.

.2 Double pole, double throw manual switch and electronic relays suitable for operating number of shades indicated. Provide control to position shades at any position.

~~2.3~~2.4 SHADES

.1 Black out fabric: One piece, dimensional stable,12 oz. weight, laminated 4 ply fibreglass vinyl opaque window shade, ends and seams heat sealed, set in hem bar and blackout channels, fabric retainer at 200 mm centers, colour #1 White by SunProject.

.2 Sun control fabric: Heat seal, non-ravelling, 0.030” single thickness vinyl fabric woven from 0.018” diameter extruded vinyl yarn of 21% polyester and 79% reinforced vinyl, 1%-3% open, colour 1010 Light Grey by SunProject.

.3 Fabrication: Square with shade spline for fastening directly to shade roller. Seal single length mill finished aluminum flat hembar within hem. Reinforce fabric with heat sealed spring tempered stainless steel batten stiffeners at 900 mm centers.

~~2.4~~**2.5** **FINISHES**

.1 Exposed to view aluminum: Clear anodized finish.

.2 Exposed to view steel: Nickel plated, satin finish, or bonderized prior to painting with baked enamel finish. Colour as selected by Consultant.

PART - 3 EXECUTION

3.1 INSTALLATION

.1 Install shades, secure, accurately aligned and free of sag.

.2 Set shade control system such that each group of shade travels at exact timing and distance.

3.2 ADJUSTMENT

.1 On completion and just prior to handing over the building to the Owner, clean and adjust all shades and leave them in proper working order. Replace defective shade and/or shade components.

END OF SECTION

March 5, 2025

The Hospital for Sick Children
555 University Avenue
Toronto, Ontario, M5G 1X8

Re: Hazardous Building Materials Assessment (Preconstruction)
7A Schedule, 1 Beds Refresh, Atrium, 555 University Avenue, Toronto, Ontario
Pinchin File: 353452.000

The Hospital for Sick Children (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment in Atrium located at 555 University Avenue, Toronto, Ontario.

Pinchin performed the assessment on February 21, 2025. The assessor was accompanied by a representative from The Hospital for Sick Children during the assessment. The assessed area was occupied at the time of the assessment.

The objective of the assessment was to document the locations of specified hazardous building materials in preparation for building renovation. The renovation scope includes interior architectural alterations and reworking electrical and mechanical services as detailed in the drawings emailed to Pinchin from the Client on January 22, 2025 entitled “SickKids 7C Schedule – 1 Beds Refresh Issued for 95% CD – 16.01.2025”, prepared by NORR.

The results of this assessment are intended for use with a properly developed scope of work or performance specification.

The **assessed area** is limited to the portion(s) of the building to be renovated, as described by the Client, and identified in the drawings in Appendix I.

1.0 SUMMARY OF FINDINGS

The following is a summary of the hazardous materials identified.

- No asbestos-containing materials were identified.
- No lead-containing paints were identified.
- Crystalline silica is present in concrete and other materials such as ceramic tiles and grout.
- No mercury-containing items were identified.
- No PCB-containing items were identified.
- No mould or water damage was identified.

2.0 RECOMMENDATIONS

2.1 General

If suspected hazardous building materials are discovered during the planned work, which are not identified in this report, do not disturb, and arrange for further testing and evaluation.

Provide this report to the contractor prior to bidding or commencing work.

2.2 Remedial Work

Remedial work is not required.

2.3 Project Work

The following recommendations are made regarding renovation involving the hazardous materials identified.

2.3.1 Lead

Exposure from construction disturbance of paints containing lead less than 0.009% (90 mg/kg) is assumed to be insignificant.

2.3.2 Silica

Construction disturbance of silica-containing products may result in excessive exposures to airborne silica, especially if performed indoors and dry. Cutting, grinding, drilling or demolition of materials containing silica should be completed only with proper respiratory protection and other worker safety precautions that comply with applicable regulations and guidelines.

3.0 BACKGROUND INFORMATION

3.1 Assessed Area Description Summary

Description Item	Details
Building Use	Hospital
Floors Above Grade	11. The assessed area is located on the 7th Floor.
Floors Below Grade	5
Total Area (square feet)	The assessed area is approximately 495 square feet.
Year of Construction	1993
Structure	Structural steel, concrete
Exterior Cladding	Not in scope
HVAC	Rooftop AC, Forced Air Heating
Roof	Not in scope

Description Item	Details
Flooring	Vinyl sheet flooring
Wall and Ceiling Finishes	Drywall, laminate ceramic tile, acoustic ceiling tile

3.2 Existing Reports

3.2.1 Review of Previous Reports

Pinchin reviewed the following report and included relevant results as appropriate:

- "Hazardous Building Materials Reassessment (Management), Slaight Atrium, 555 University Avenue, Toronto, ON" dated January 31, 2024, Pinchin File 0333749.000.

4.0 FINDINGS

Any quantities listed in this report or data tables are estimated based on visual approximations only and are subject to variation.

4.1 Asbestos

The following table summarizes the materials evaluated for asbestos in the assessed area. For details on approximate quantities, condition, friability, accessibility, and locations of hazardous building materials; refer to the Hazardous Material Summary / Sample Log and All Data Report in Appendices V and VI.

Sample Number	Material Description	Type of Asbestos	Confirmed Hazard	Total Quantity Present	Material Specific Notes
V0016	Floor | Mastic	None Detected	No	495 SF	-
V0028	Wall | Ceramic Tiles | Thinset	None Detected	No	50 SF	-
V0029	Other | Black butyl caulking	None Detected	No	145 LF	At window glazing
V0000	Ceiling | Ceiling Tiles (lay-in) | 24x48 pinholes	None	No	100 SF	-
V0000	Ceiling | Drywall and joint compound	None	No	395 SF	-
V0000	Duct | Fibreglass	None	No	-	-
V0000	Duct | Not Insulated	None	No	-	-
V0000	Floor | Vinyl Sheet Flooring	None	No	-	-

Sample Number	Material Description	Type of Asbestos	Confirmed Hazard	Total Quantity Present	Material Specific Notes
V0000	Mechanical Equipment | Not Insulated | Induction unit	None	No	2 EA	-
V0000	Piping | Fibreglass	None	No	-	-
V0000	Piping | Not Insulated	None	No	-	-
V0000	Structure | Concrete (poured)	None	No	-	-
V0000	Wall | Drywall and joint compound	None	No	1850 SF	-
V0000	Wall | Laminate	None	No	-	-

General Notes:

Materials identified as Sample Number V0000 were determined to be non-asbestos based on the manufacture date and known end of use of asbestos in these products.

4.1.1 Excluded Asbestos Materials

The following is a list of materials which may contain asbestos and were excluded from the assessment. These materials are presumed to contain asbestos until otherwise proven to be non-asbestos by sampling and analysis:

- Electrical components
- Sealants on pipe threads

4.2 Lead

Refer to the Hazardous Material Summary / Sample Log and All Data Report in Appendices V and VI for details on locations, condition and approximate quantities on paints sampled and their locations.

The following table summarizes the analytical results of paints sampled.

Sample Number	Material Description	Concentration	Confirmed Hazard	Total Quantity Present	Material Specific Notes
V0022	Wall | Drywall and joint compound | White paint on drywall wall	0.00056%	No	1450 SF	-
V0025	Wall | Drywall and joint compound | Light blue paint on drywall wall	0.00028%	No	300 SF	-

General Notes:

Paints containing lead less than 0.009% (90 mg/kg) are assumed to be insignificant relating to potential exposure from construction disturbance.

4.2.1 Excluded Lead Materials

Lead may be present in a number of materials which were not assessed and/or sampled. The following materials, where found, should be considered to contain lead.

- Electrical components, including wiring connectors, grounding conductors, and solder
- Glazing on ceramic tiles

4.3 Silica

Crystalline silica is a presumed component of the following materials:

- Poured and pre-cast concrete
- Ceramic tiles and grout

4.4 Mercury

Refer to the Hazardous Material Summary / Sample Log and All Data Report in Appendices V and VI for details on mercury-containing products including their locations and quantities.

Sample Number	Material Description	Confirmed Hazard	Total Quantity Present	Material Specific Notes
V0000	Light Fixture	No	-	-

General Notes:

Items identified as Sample Number V0000 are items that historically may have contained mercury; however, have been visually identified as non-mercury types (e.g., LED lamps, digital or electric thermostats).

4.5 Polychlorinated Biphenyls

PCBs were banned in 1980 and are not expected to be present in the assessed area based on the Atrium being constructed in 1993.

4.6 Mould and Water Damage

Visible mould growth and water damage was not found during the assessment.

5.0 METHODOLOGY

For the purpose of the assessment and this report, hazardous building materials are defined as follows:

- Asbestos
- Lead
- Silica
- Mercury
- Polychlorinated Biphenyls (PCBs)
- Mould

Arsenic, acrylonitrile, benzene, coke oven emissions, ethylene oxide, isocyanates and vinyl chloride monomer are not typically found in building materials in a composition/state that is hazardous and were not included in this assessment.

Pinchin conducted a room-by-room assessment to identify the hazardous building materials as defined in the scope.

The assessment was performed to establish the type of specified hazardous building materials, locations and approximate quantities incorporated in the structure(s) and its finishes.

The assessment included limited demolition of wall and ceiling finishes (drywall) to view concealed conditions at representative areas as permitted by the current building use. Limited destructive testing of flooring was conducted where possible (under ceramic tiles, carpets, or multiple layers of flooring). Demolition of exterior building finishes, masonry walls (chases, shafts etc.), and structural surrounds was not conducted.

For further details on the methodology including test methods and evaluation criteria, refer to Appendix III.

6.0 REFERENCES

The following legislation and documents were referenced in completing the assessment and this report:

1. Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
2. Designated Substances, Ontario Regulation 490/09.
3. Lead on Construction Projects, Ministry of Labour Guidance Document.
4. The Environmental Abatement Council of Canada (EACC) Lead Guideline for Construction, Renovation, Maintenance or Repair.
5. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.

6. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 362 as amended.
7. Silica on Construction Projects, Ministry of Labour Guidance Document.
8. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.
9. PCB Regulations, SOR/2008-273, Canadian Environmental Protection Act.
10. Surface Coating Materials Regulations, SOR/2016-193, Canada Consumer Product Safety Act.
11. Consolidated Transportation of Dangerous Goods Regulations, including Amendment SOR/2019-101, Transportation of Dangerous Goods Act.
12. Mould Guidelines for the Canadian Construction Industry, Standard Construction Document CCA 82 – 2004 (Revised 2018), Canadian Construction Association.

7.0 LIMITATIONS

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.

8.0 CLOSURE

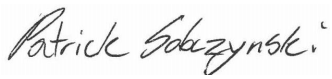
The data presented in the appendices is prepared by Pinchin's Hazardous Materials Inventory System (HMIS). The information contained within this report was current at the time of this report issue, and is provided as a summary; however, HMIS should be accessed for the most current data.

Contact the Project Manager, Dave Newton, at 416.704.6708 or dnewton@pinchin.com should you have any questions.

Sincerely,

Pinchin Ltd.

Prepared by:



Patrick Sobczynski, MES
Project Coordinator

Project Managed and Reviewed by:

Dave Newton, BES, Hons., EP
Senior Project Manager

Encl:

APPENDIX I	Drawings
APPENDIX II-A	Asbestos Analytical Certificates
APPENDIX II-B	Lead Analytical Certificates
APPENDIX III	Methodology
APPENDIX IV	Location Summary Report
APPENDIX V	Hazardous Materials Summary Report / Sample Log
APPENDIX VI	All Data Report
APPENDIX VII	Photographs

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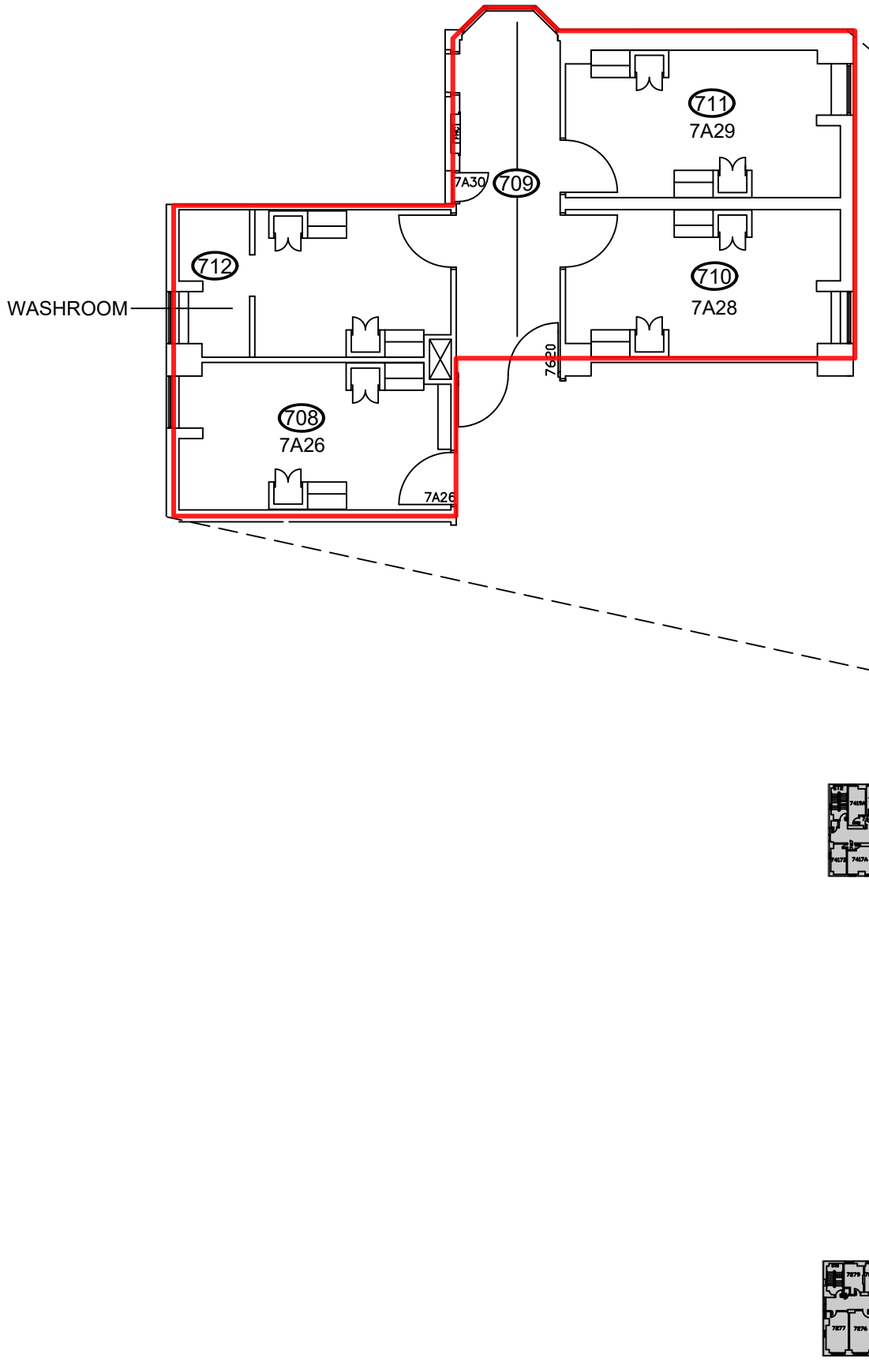
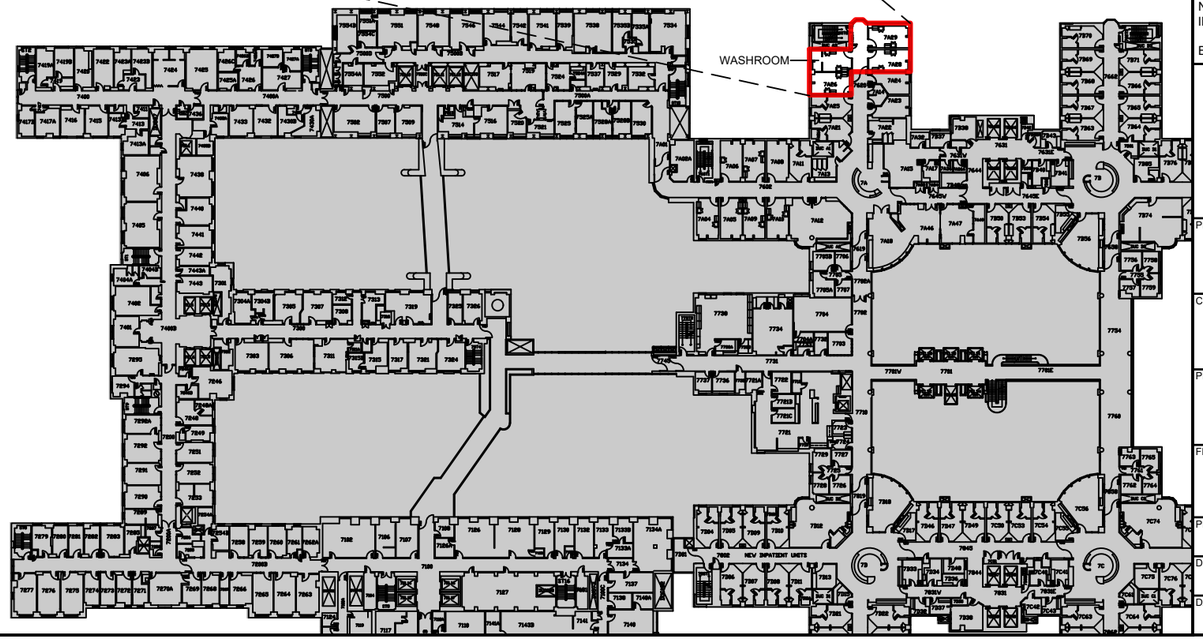
Template: Master Template HBMA PreConstruction, HMIS, HAZ, August 15, 2024

APPENDIX I
Drawings





N

LEGEND

(X) PINCHIN LOCATION NUMBER

SURVEY BOUNDARY/ASSESSED AREA

OUTSIDE ASSESSMENT SCOPE

NOT ALL KNOWN OR SUSPECTED HAZARDOUS BUILDING MATERIALS MAY BE DEPICTED ON THE DRAWING. REFER TO THE HAZARDOUS BUILDING MATERIALS ASSESSMENT REPORT FOR A COMPLETE LIST OF KNOWN AND SUSPECTED HAZARDOUS BUILDING MATERIALS.

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

BASE PLAN PROVIDED BY CLIENT.

PINCHIN

PROJECT NAME:
HAZARDOUS BUILDING MATERIALS ASSESSMENT (PRE-CONSTRUCTION)

CLIENT NAME:
HOSPITAL FOR SICK CHILDREN

PROJECT LOCATION:
ATRIUM
555 UNIVERSITY AVENUE
TORONTO, ONTARIO

FIGURE NAME:
7TH FLOOR

PROJECT NUMBER:	SCALE:
353452.000	NOT TO SCALE
DRAWN BY:	REVIEWED BY:
DP	PS
DATE:	FIGURE NUMBER:
MARCH 2025	1 OF 1

APPENDIX II-A
Asbestos Analytical Certificates

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name:	**Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON**		
Project No.:	**0325718.000**		
Prepared For:	**Chris Richardson**		
Lab Reference No.:	**b298448**		
Analyst(s):	**A. Williams**		
Date Received:	**August 9, 2023**	**Samples Submitted:**	**51**
Date Analyzed:	**August 24, 2023**	**Phases Analyzed:**	**65**

The Pinchin Ltd. Mississauga asbestos laboratory is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2017. The Pinchin asbestos laboratory uses the aforementioned methods of analysis.

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

This report relates only to the items tested.

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0001A Mortar in masonry block joints, P1 Parking Garage (Location 1).	Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
S0001B Mortar in masonry block joints, P1 Parking Garage (Location 1).	Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
S0001C Mortar in masonry block joints, P1 Parking Garage (Location 1).	Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
S0002A Grey firestopping (caulking), P1 Parking Garage (Location 1).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0002B Grey firestopping (caulking), P1 Parking Garage (Location 1).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
Comments:	Man-made vitreous fibres are present on the surface of this sample.		
S0002C Grey firestopping (caulking), P1 Parking Garage (Location 1).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
Comments:	Man-made vitreous fibres are present on the surface of this sample.		
S0003A Black mastic on drain pipe in P1 Level Storage Room (Location 2).	Homogeneous, black, tar material.	None Detected	Tar and other Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0003B Black mastic on drain pipe in P1 Level Storage Room (Location 2).	Homogeneous, black, tar material.	None Detected	Tar and other Non-Fibrous Material > 75%
S0003C Black mastic on drain pipe in P1 Level Storage Room (Location 2).	Homogeneous, black, tar material.	None Detected	Tar and other Non-Fibrous Material > 75%
S0004A Grey caulking on doors in P1 Parking Garage (Location 1).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0004B Grey caulking on doors in P1 Parking Garage (Location 1).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0004C Grey caulking on doors in P1 Parking Garage (Location 1).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0005A Green caulking on doors in P1 Parking Garage (Location 1).	Homogeneous, green, caulking material.	None Detected	Non-Fibrous Material > 75%
S0005B Green caulking on doors in P1 Parking Garage (Location 1).	Homogeneous, green, caulking material.	None Detected	Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0005C Green caulking on doors in P1 Parking Garage (Location 1).	Homogeneous, green, caulking material.	None Detected	Non-Fibrous Material > 75%
S0006A Parging cement on fittings of high pressure steam pipes, P1 Level Mechanical Room (Location 4).	2 Phases: a) Homogeneous, grey, soft, parging cement.	None Detected	Man-Made Vitreous Fibres 50-75% Non-Fibrous Material 25-50%
	b) Homogeneous, beige, chalky material with fibres.	None Detected	Synthetic Fibres 10-25% Man-Made Vitreous Fibres 0.5-5% Mica < 0.5% Other Non-Fibrous > 75%
S0006B Parging cement on fittings of high pressure steam pipes, P1 Level Mechanical Room (Location 4).	2 Phases: a) Homogeneous, grey, soft, parging cement.	None Detected	Man-Made Vitreous Fibres 50-75% Non-Fibrous Material 25-50%
	b) Homogeneous, beige, chalky material with fibres.	None Detected	Synthetic Fibres 10-25% Man-Made Vitreous Fibres 0.5-5% Mica < 0.5% Other Non-Fibrous > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0006C Parging cement on fittings of high pressure steam pipes, P1 Level Mechanical Room (Location 4).	2 Phases: a) Homogeneous, grey, soft, parging cement.	None Detected	Man-Made Vitreous Fibres 50-75% Non-Fibrous Material 25-50%
	b) Homogeneous, beige, chalky material with fibres.	None Detected	Synthetic Fibres 10-25% Man-Made Vitreous Fibres 0.5-5% Mica < 0.5% Other Non-Fibrous > 75%
S0007A Grey caulking on seams of air handling units, P1 Level Mechanical Room (Location 4).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0007B Grey caulking on seams of air handling units, P1 Level Mechanical Room (Location 4).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0007C Grey caulking on seams of air handling units, P1 Level Mechanical Room (Location 4).	Homogeneous, grey, caulking material.	None Detected	Non-Fibrous Material > 75%
S0008A Grey mastic on ducts in Mechanical Room, P1 Level (Location 11).	Homogeneous, grey, mastic material.	None Detected	Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0008B Grey mastic on ducts in Mechanical Room, P1 Level (Location 11).	Homogeneous, grey, mastic material.	None Detected	Non-Fibrous Material > 75%
S0008C Grey mastic on ducts in Mechanical Room, P1 Level (Location 11).	Homogeneous, grey, mastic material.	None Detected	Non-Fibrous Material > 75%
S0009A Grey mastic on ducts in Mechanical Room, 1st Floor (Location 103).			Not Analyzed
Comments:	This sample was not submitted.		
S0009B Grey mastic on ducts in Mechanical Room, 1st Floor (Location 103).	Homogeneous, grey, mastic material.	None Detected	Non-Fibrous Material > 75%
S0009C Grey mastic on ducts in Mechanical Room, 1st Floor (Location 103).	Homogeneous, grey, mastic material.	None Detected	Non-Fibrous Material > 75%
S0010A Masonry mortar in brick joints, 1st Floor Mechanical Room (Location 104).	Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
S0010B Masonry mortar in brick joints, 1st Floor Mechanical Room (Location 104).	Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

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Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0010C Masonry mortar in brick joints, 1st Floor Mechanical Room (Location 104).	Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
S0011A Adhesive on rubber waterproofing membrane, 1st Floor Mechanical Room (Location 104).	2 Phases: a) Homogeneous, yellow, adhesive material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, tar material.	None Detected	Tar and other Non-Fibrous Material > 75%
S0011B Adhesive on rubber waterproofing membrane, 1st Floor Mechanical Room (Location 104).	2 Phases: a) Homogeneous, yellow, adhesive material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, tar material.	None Detected	Tar and other Non-Fibrous Material > 75%
S0011C Adhesive on rubber waterproofing membrane, 1st Floor Mechanical Room (Location 104).	2 Phases: a) Homogeneous, yellow, adhesive material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, tar material.	None Detected	Tar and other Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0012A Red firestopping (mastic), 1st Floor Mechanical Room (Location 106). Only test red mastic	Homogeneous, red, mastic material.	None Detected	Man-Made Vitreous Fibres 5-10% Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed, as requested. Man-made vitreous fibres are present on the surface of this sample.		
S0012B Red firestopping (mastic), 1st Floor Mechanical Room (Location 106). Only test red mastic	Homogeneous, red, mastic material.	None Detected	Man-Made Vitreous Fibres 5-10% Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed, as requested. Man-made vitreous fibres are present on the surface of this sample.		
S0012C Red firestopping (mastic), 1st Floor Mechanical Room (Location 106). Only test red mastic	Homogeneous, red, mastic material.	None Detected	Man-Made Vitreous Fibres 5-10% Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed, as requested. Man-made vitreous fibres are present on the surface of this sample.		
S0013A Brown mastic on ducts, 1st Floor Mechanical Room (Location 106).	Homogeneous, brown, mastic material.	None Detected	Man-Made Vitreous Fibres 0.5-5% Wollastonite 0.5-5% Non-Fibrous Material > 75%
S0013B Brown mastic on ducts, 1st Floor Mechanical Room (Location 106).	Homogeneous, brown, mastic material.	None Detected	Man-Made Vitreous Fibres 0.5-5% Wollastonite 0.5-5% Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
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Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
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Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0013C Brown mastic on ducts, 1st Floor Mechanical Room (Location 106).	Homogeneous, brown, mastic material.	None Detected	Man-Made Vitreous Fibres 0.5-5% Wollastonite 0.5-5% Non-Fibrous Material > 75%
S0014A Thermal insulation on duct, 1st Floor Mechanical Room (Location 109).	2 Phases: a) Homogeneous, grey, soft, parging cement.	None Detected	Man-Made Vitreous Fibres 50-75% Non-Fibrous Material 25-50%
	b) Homogeneous, beige, chalky material with fibres.	None Detected	Synthetic Fibres 10-25% Man-Made Vitreous Fibres 0.5-5% Mica < 0.5% Other Non-Fibrous > 75%
S0014B Thermal insulation on duct, 1st Floor Mechanical Room (Location 109).	2 Phases: a) Homogeneous, grey, soft, parging cement.	None Detected	Man-Made Vitreous Fibres 50-75% Non-Fibrous Material 25-50%
	b) Homogeneous, beige, chalky material with fibres.	None Detected	Synthetic Fibres 10-25% Man-Made Vitreous Fibres 0.5-5% Mica < 0.5% Other Non-Fibrous > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: **Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON**
Project No.: **0325718.000**
Prepared For: **Chris Richardson**

Lab Reference No.: **b298448**
Date Analyzed: **August 24, 2023**

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0014C Thermal insulation on duct, 1st Floor Mechanical Room (Location 109).	2 Phases: a) Homogeneous, grey, soft, parging cement.	None Detected	Man-Made Vitreous Fibres 50-75% Non-Fibrous Material 25-50%
	b) Homogeneous, beige, chalky material with fibres.	None Detected	Synthetic Fibres 10-25% Man-Made Vitreous Fibres 0.5-5% Mica < 0.5% Other Non-Fibrous > 75%
S0015A Black mastic on concrete floor below raised floor supports, 1st Floor Data Centre (Location 101).	Homogeneous, black, mastic material.	None Detected	Non-Fibrous Material > 75%
S0015B Black mastic on concrete floor below raised floor supports, 1st Floor Data Centre (Location 101).	Homogeneous, black, mastic material.	None Detected	Non-Fibrous Material > 75%
S0015C Black mastic on concrete floor below raised floor supports, 1st Floor Data Centre (Location 101).	Homogeneous, black, mastic material.	None Detected	Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: **Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON**
Project No.: **0325718.000**
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Lab Reference No.: **b298448**
Date Analyzed: **August 24, 2023**

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0016A Sheet flooring backing and adhesive, 1st Floor Data Room (Room 1815), (Location 101). Do not test vinyl or leveller.	2 Phases: a) Homogeneous, beige, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Synthetic Fibres 0.5-5% Man-Made Vitreous Fibres 0.5-5% Wollastonite 0.5-5% Non-Fibrous Material 25-50%
	b) Homogeneous, yellow, adhesive material on the back of vinyl sheet flooring.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed, as requested.		
S0016B Sheet flooring backing and adhesive, 1st Floor Data Room (Room 1815), (Location 101). Do not test vinyl or leveller.	2 Phases: a) Homogeneous, beige, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Synthetic Fibres 0.5-5% Man-Made Vitreous Fibres 0.5-5% Wollastonite 0.5-5% Non-Fibrous Material 25-50%
	b) Homogeneous, yellow, adhesive material on the back of vinyl sheet flooring.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed, as requested.		

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0016C Sheet flooring backing and adhesive, 1st Floor Data Room (Room 1815), (Location 101). Do not test vinyl or leveller.	2 Phases: a) Homogeneous, beige, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Synthetic Fibres 0.5-5% Man-Made Vitreous Fibres 0.5-5% Wollastonite 0.5-5% Non-Fibrous Material 25-50%
	b) Homogeneous, yellow, adhesive material on the back of vinyl sheet flooring.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed, as requested.		
S0017A Sheet flooring backing and adhesive, 3rd Pharmacy Area (Room 3126), (Location 301). Do not test vinyl or leveller.	2 Phases: a) Homogeneous, beige, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Man-Made Vitreous Fibres 0.5-5% Non-Fibrous Material 25-50%
	b) Homogeneous, yellow, adhesive material on the back of vinyl sheet flooring.	None Detected	Non-Fibrous Material > 75%
S0017B Sheet flooring backing and adhesive, 3rd Pharmacy Area (Room 3126), (Location 301). Do not test vinyl or leveller.	2 Phases: a) Homogeneous, beige, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Man-Made Vitreous Fibres 0.5-5% Non-Fibrous Material 25-50%
	b) Homogeneous, yellow, adhesive material on the back of vinyl sheet flooring.	None Detected	Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for Sick Children, Atrium - Project Horizon, 555 University Avenue, Toronto, ON
Project No.: 0325718.000
Prepared For: Chris Richardson

Lab Reference No.: b298448
Date Analyzed: August 24, 2023

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0017C Sheet flooring backing and adhesive, 3rd Pharmacy Area (Room 3126), (Location 301). Do not test vinyl or leveller.	2 Phases: a) Homogeneous, yellow, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Man-Made Vitreous Fibres 0.5-5% Non-Fibrous Material 25-50%
	b) Homogeneous, yellow, adhesive material on the back of vinyl sheet flooring.	None Detected	Non-Fibrous Material > 75%

Reviewed by:

Digitally signed by Elizabeth DeCurtis
Date: 2023.08.24 11:50:22-04'00'

Reporting Analyst:

Digitally signed by Elizabeth DeCurtis
Date: 2023.08.24 11:50:03-04'00'

PINCHIN

MEMBER OF PG THE PINCHIN GROUP

Analyzed by: AZW

Reviewed by: NB

Report Sent by: 28

NOT ACTIVE: Aug 9/23

Pinchin Ltd. - Asbestos Laboratory
Internal Asbestos Bulk Sample Chain of Custody

Client Name:	Hospital for Sick Children			**Project Address:**	555 University Avenue, Toronto, ON	
Portfolio/Building No:	Atrium - Project Horizon			**Pinchin File:**	325718	
Submitted by:	Chris Richardson			**Email:**	crichardson@pinchin.com	
CC Results to:				**CC Email:**		
Invoice to:				**Invoice Email:**		
Date Submitted:	Month	Day	2021	**Required by:**	Month	Day	2021
# of Samples:	51			**Priority:**	Rush Turnaround		
Year of Building Construction (*Mandatory Field*):				1993			
Do NOT Stop on Positive (Sample Numbers):							
Pinchin Group Company (*Mandatory Field*):				Pinchin			

To be Completed by Lab Personnel Only:			
Lab Reference #:	b298448 AUG 0 8 2023	**Time:**	24 hour clock
Received by:		**Date:**	Month Day 2021
Name(s) of Analyst(s):	AZW Aug 24/23		

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)	
S	0001	A	Mortar in masonry block joints, P1 Parking Garage (Location 1).	ND
S	0001	B	Mortar in masonry block joints, P1 Parking Garage (Location 1).	ND
S	0001	C	Mortar in masonry block joints, P1 Parking Garage (Location 1).	ND
S	0002	A	Grey firestopping (caulking), P1 Parking Garage (Location 1).	ND
S	0002	B	Grey firestopping (caulking), P1 Parking Garage (Location 1).	ND
S	0002	C	Grey firestopping (caulking), P1 Parking Garage (Location 1).	ND
S	0003	A	Black mastic on drain pipe in P1 Level Storage Room (Location 2).	ND

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
S	0003	B	Black mastic on drain pipe in P1 Level Storage Room (Location 2). ND
S	0003	C	Black mastic on drain pipe in P1 Level Storage Room (Location 2). ND
S	0004	A	Grey caulking on doors in P1 Parking Garage (Location 1). ND
S	0004	B	Grey caulking on doors in P1 Parking Garage (Location 1). ND
S	0004	C	Grey caulking on doors in P1 Parking Garage (Location 1). ND
S	0005	A	Green caulking on doors in P1 Parking Garage (Location 1). ND
S	0005	B	Green caulking on doors in P1 Parking Garage (Location 1). ND
S	0005	C	Green caulking on doors in P1 Parking Garage (Location 1). ND
S	0006	A	Parging cement on fittings of high pressure steam pipes, P1 Level Mechanical Room (Location 4). a) ND b) ND
S	0006	B	Parging cement on fittings of high pressure steam pipes, P1 Level Mechanical Room (Location 4). a) ND b) ND
S	0006	C	Parging cement on fittings of high pressure steam pipes, P1 Level Mechanical Room (Location 4). a) ND b) ND
S	0007	A	Grey caulking on seams of air handling units, P1 Level Mechanical Room (Location 4). ND
S	0007	B	Grey caulking on seams of air handling units, P1 Level Mechanical Room (Location 4). ND
S	0007	C	Grey caulking on seams of air handling units, P1 Level Mechanical Room (Location 4). ND
S	0008	A	Grey mastic on ducts in Mechanical Room, P1 Level (Location 11). ND

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
S	0008	B	Grey mastic on ducts in Mechanical Room, P1 Level (Location 11). ND
S	0008	C	Grey mastic on ducts in Mechanical Room, P1 Level (Location 11). ND
S	0009	A	Grey mastic on ducts in Mechanical Room, 1st Floor (Location 103). (not submitted) NA
S	0009	B	Grey mastic on ducts in Mechanical Room, 1st Floor (Location 103). ND
S	0009	C	Grey mastic on ducts in Mechanical Room, 1st Floor (Location 103). ND
S	0010	A	Masonry mortar in brick joints, 1st Floor Mechanical Room (Location 104). ND
S	0010	B	Masonry mortar in brick joints, 1st Floor Mechanical Room (Location 104). ND
S	0010	C	Masonry mortar in brick joints, 1st Floor Mechanical Room (Location 104). ND
S	0011	A	Adhesive on rubber waterproofing membrane, 1st Floor Mechanical Room (Location 104). a) ND b) ND
S	0011	B	Adhesive on rubber waterproofing membrane, 1st Floor Mechanical Room (Location 104). a) ND b) ND
S	0011	C	Adhesive on rubber waterproofing membrane, 1st Floor Mechanical Room (Location 104). a) ND b) ND
S	0012	A	Red firestopping (mastic), 1st Floor Mechanical Room (Location 106). **Only test red mastic** ND
S	0012	B	Red firestopping (mastic), 1st Floor Mechanical Room (Location 106). **Only test red mastic** ND
S	0012	C	Red firestopping (mastic), 1st Floor Mechanical Room (Location 106). **Only test red mastic** ND
S	0013	A	Brown mastic on ducts, 1st Floor Mechanical Room (Location 106). ND

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
S	0013	B	Brown mastic on ducts, 1st Floor Mechanical Room (Location 106). ND
S	0013	C	Brown mastic on ducts, 1st Floor Mechanical Room (Location 106). ND
S	0014	A	Thermal insulation on duct, 1st Floor Mechanical Room (Location 109). a)ND b)ND
S	0014	B	Thermal insulation on duct, 1st Floor Mechanical Room (Location 109). a)ND b)ND
S	0014	C	Thermal insulation on duct, 1st Floor Mechanical Room (Location 109). a)ND b)ND
S	0015	A	Black mastic on concrete floor below raised floor supports, 1st Floor Data Centre (Location 101). ND
S	0015	B	Black mastic on concrete floor below raised floor supports, 1st Floor Data Centre (Location 101). ND
S	0015	C	Black mastic on concrete floor below raised floor supports, 1st Floor Data Centre (Location 101). ND
S	0016	A	Sheet flooring backing and adhesive, 1st Floor Data Room (Room 1815), (Location 101). **Do not test vinyl or leveller.** a)ND b)ND
S	0016	B	Sheet flooring backing and adhesive, 1st Floor Data Room (Room 1815), (Location 101). **Do not test vinyl or leveller.** a)ND b)ND
S	0016	C	Sheet flooring backing and adhesive, 1st Floor Data Room (Room 1815), (Location 101). **Do not test vinyl or leveller.** a)ND b)ND
S	0017	A	Sheet flooring backing and adhesive, 3rd Pharmacy Area (Room 3126), (Location 301). **Do not test vinyl or leveller.** a)ND b) ND
S	0017	B	Sheet flooring backing and adhesive, 3rd Pharmacy Area (Room 3126), (Location 301). **Do not test vinyl or leveller.** a)ND b) ND
S	0017	C	Sheet flooring backing and adhesive, 3rd Pharmacy Area (Room 3126), (Location 301). **Do not test vinyl or leveller.** a)ND b) ND

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name:	**Hospital for sick children, TP1, Atrium Wing- 555 University Ave**		
Project No.:	**0325718.000**		
Prepared For:	**P. Sobczynski / D. Newton**		
Lab Reference No.:	**b306135 Revision 1**		
Analyst(s):	**E. Cianni / K. Cockburn**		
Date Received:	**December 21, 2023**	**Samples Submitted:**	**15**
Date Analyzed:	**January 3, 2024**	**Phases Analyzed:**	**21**

The Pinchin Ltd. Mississauga asbestos laboratory is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2017. The Pinchin asbestos laboratory uses the aforementioned methods of analysis.

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

This report relates only to the items tested.

Revision History:

Revision 1 (2024-01-08)	Revised sample locations (S0026A, S0027A, S0028A).

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for sick children, TP1, Atrium Wing- 555 University Ave
Project No.: 0325718.000
Prepared For: P. Sobczynski / D. Newton

Lab Reference No.: b306135 Revision 1
Date Analyzed: January 3, 2024

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE) ASBESTOS	OTHER
S0025A Wall, Ceramic Tile Thinset, Loc:29, P2 East Parking Area	2 Phases: a) Homogeneous, light grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, dark grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
Comments:	Ceramic tile and cellulose are present on the surface of this sample.		
S0025B Wall, Ceramic Tile Thinset, Loc:29, P2 East Parking Area	2 Phases: a) Homogeneous, light grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, dark grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
Comments:	Ceramic tile and cellulose are present on the surface of this sample.		
S0025C Wall, Ceramic Tile Thinset, Loc:29, P2 East Parking Area	Homogeneous, light grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but there was insufficient material submitted to analyze. Ceramic tile and cellulose are present on the surface of this sample.		
S0026A Yellow Mastic Behind Rubber Baseboard, Loc: 101, Data Centre Area and Corridor	Homogeneous, brown, adhesive material.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for sick children, TP1, Atrium Wing- 555 University Ave
Project No.: 0325718.000
Prepared For: P. Sobczynski / D. Newton

Lab Reference No.: b306135 Revision 1
Date Analyzed: January 3, 2024

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0026B Yellow Mastic Behind Rubber Baseboard, Loc:312, Department of Pediatric Labratory Medicine Offices	Homogeneous, brown, adhesive material.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
S0026C Yellow Mastic Behind Rubber Baseboard, Loc:400, Room 4722 And Corridor	Homogeneous, brown, adhesive material.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
S0027A Floor, Mastic under carpet, Loc: 108, Office Area and Corridor	Non-homogeneous, yellow, adhesive material.	None Detected	Non-Fibrous Material > 75%
Comments:	Synthetic fibres are present on the surface of this sample.		
S0027B Floor, Mastic under carpet, Loc:400, Room 4722 And Corridor	Non-homogeneous, yellow, adhesive material.	None Detected	Non-Fibrous Material > 75%
Comments:	Synthetic fibres are present on the surface of this sample.		
S0027C Floor, Mastic under carpet, Loc:502, 5755- Unit Offices	Non-homogeneous, yellow, adhesive material.	None Detected	Non-Fibrous Material > 75%
Comments:	Synthetic fibres are present on the surface of this sample.		

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for sick children, TP1, Atrium Wing- 555 University Ave
Project No.: 0325718.000
Prepared For: P. Sobczynski / D. Newton

Lab Reference No.: b306135 Revision 1
Date Analyzed: January 3, 2024

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0028A Floor, Ceramic Tiles, Thinset, Loc: 107, Office Area	3 Phases: a) Homogeneous, light grey, smooth, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, light grey, layered, rocky, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
	c) Homogeneous, grey, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
S0028B Floor, Ceramic Tiles, Thinset, Loc:30, Elevator Vestibule	2 Phases: a) Homogeneous, light grey, smooth, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, light grey, layered, rocky, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but there was insufficient material submitted to analyze.		
S0028C Floor, Ceramic Tiles, Thinset, Loc:30, Elevator Vestibule	2 Phases: a) Homogeneous, light grey, smooth, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, light grey, layered, rocky, hard, cementitious material.	None Detected	Non-Fibrous Material > 75%

Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Hospital for sick children, TP1, Atrium Wing- 555 University Ave
Project No.: 0325718.000
Prepared For: P. Sobczynski / D. Newton

Lab Reference No.: b306135 Revision 1
Date Analyzed: January 3, 2024

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
S0029A Caulking, Black Butyl Caulking, Loc:317, East Corridor	Homogeneous, black, soft, sticky material.	None Detected	Non-Fibrous Material > 75%
S0029B Caulking, Black Butyl Caulking, Loc:317, East Corridor	Homogeneous, black, soft, sticky material.	None Detected	Non-Fibrous Material > 75%
S0029C Caulking, Black Butyl Caulking, Loc:317, East Corridor	Homogeneous, black, soft, sticky material.	None Detected	Non-Fibrous Material > 75%

Reviewed by:

Digitally signed by John Raisch-Berkoff
Date: 2024.01.08 11:39:06-05'00'

Reporting Analyst:

Digitally signed by John Raisch-Berkoff
Date: 2024.01.08 11:38:48-05'00'

Analyzed by: EC
Reviewed by: KC
Report Sent by: JRB

Pinchin Ltd. - Asbestos Laboratory
Internal Asbestos Bulk Sample Chain of Custody

Client Name:	Hospital for sick children	**Project Address:**	Atrium Wing- 555 University Ave
Portfolio/Building No:	TP1	**Pinchin File:**	325718
Submitted by:	Patrick Sobczynski	**Email:**	psobczynski@hotmail.com
CC Results to:	David Newton	**CC Email:**	dnewton@pinchin.com
Date Submitted:	December 21 2023	**Required by:**	December 29 2023
# of Samples:	15	**Priority:**	5 Day Turnaround
Year of Building Construction (*Mandatory, Years ONLY*):		1993	
Do NOT Stop on Positive (Sample Numbers):			
Pinchin Group Company (*Mandatory Field*):		Pinchin	
HMIS2 Building Reference #:		128102/2023111312082532	

To be Completed by Lab Personnel Only:

Lab Reference #:	D306135 KP	**Time:**	24 hour clock		
Received by:	DEC 21 2023	**Date:** Jan 3, 2024	Month	Day	Year
Name(s) of Analyst(s):	EC / K.C				

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
S	0025	A	Wall,Ceramic Tile Thinset,Loc:29,P2 East Parking Area a) ND b) ND
S	0025	B	Wall,Ceramic Tile Thinset,Loc:29,P2 East Parking Area a) ND b) ND
S	0025	C	Wall,Ceramic Tile Thinset,Loc:29,P2 East Parking Area ND
S	0026	A	Yellow Mastic Behind Rubber Baseboard,Loc:110,Date Centre Area And Corridor ND
S	0026	B	Yellow Mastic Behind Rubber Baseboard,Loc:312,Department of Pediatric Labratory Medicine Offices ND
S	0026	C	Yellow Mastic Behind Rubber Baseboard,Loc:400,Room 4722 And Corridor ND
S	0027	A	Floor, Mastic under carpet,Loc:111,Corridor ND
S	0027	B	Floor,Mastic under carpet,Loc:400,Room 4722 And Corridor ND

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
S	0027	C	Floor,Mastic under carpet,Loc:502,5755- Unit Offices ND
S	0028	A	Floor,Ceramic Tiles,Thinset,Loc:115,Washrooms a) ND b) ND c) ND
S	0028	B	Floor,Ceramic Tiles,Thinset,Loc:30,Elevator Vestibule a) ND b) ND
S	0028	C	Floor,Ceramic Tiles,Thinset,Loc:30,Elevator Vestibule a) ND b) ND
S	0029	A	Caulking,Black Butyl Caulking,Loc:317,East Corridor ND
S	0029	B	Caulking,Black Butyl Caulking,Loc:317,East Corridor ND
S	0029	C	Caulking,Black Butyl Caulking,Loc:317,East Corridor ND

APPENDIX II-B
Lead Analytical Certificates

Your Project #: 325718
Site#: TP1
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Your C.O.C. #: N/A

Attention: David Newton

Pinchin Ltd
2360 Meadowpine Blvd
Unit # 2
Mississauga, ON
CANADA L5N 6S2

Report Date: 2024/01/08
Report #: R7981083
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB#: C3BR880
Received: 2023/12/27, 09:30

Sample Matrix: Solid
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Metals in Paint	8	2024/01/02	2024/01/03	CAM SOP-00408	EPA 6010D m
Metals in Paint	1	2023/12/29	2023/12/30	CAM SOP-00408	EPA 6010D m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

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Your Project #: 325718
Site#: TP1
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Your C.O.C. #: N/A

Attention: David Newton

Pinchin Ltd
2360 Meadowpine Blvd
Unit # 2
Mississauga, ON
CANADA L5N 6S2

Report Date: 2024/01/08
Report #: R7981083
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB#: C3BR880
Received: 2023/12/27, 09:30

Encryption Key

Nilushi Mahathantila
Project Manager
08 Jan 2024 09:12:32

Please direct all questions regarding this Certificate of Analysis to:
Nilushi Mahathantila, Project Manager
Email: Nilushi.Mahathantila@bureauveritas.com
Phone# (905) 817-5700

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOLID)

Bureau Veritas ID		XZF344			XZF345		
Sampling Date							
COC Number		N/A			N/A		
	UNITS	L0019, DARK YELLOW PAINT ON CONCRETE COLUMN, LOC:29, P2 EAST PARKING AREA	RDL	QC Batch	L0020, GREEN PAINT ON METAL, LOC:30, ELEVATOR VESTIBULE	RDL	QC Batch
Metals							
Lead (Pb)	%	6.6	0.023	9138894	0.015	0.00094	9137124

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		XZF346		XZF347		XZF348		
Sampling Date								
COC Number		N/A		N/A		N/A		
	UNITS	L0021, PINK PAINT ON METAL DOOR, LOC:101, DATE CENTRE AREA AND CORRIDOR	RDL	L0022, WHITE PAINT ON DRYWALL WALL, LOC:108, OFFICE AREA AND CORRIDOR	RDL	L0023, BLUE PAINT ON DRYWALL WALL, LOC:108, OFFICE AREA AND CORRIDOR	RDL	QC Batch
Metals								
Lead (Pb)	%	0.00078	0.00052	0.00056	0.00018	0.00040	0.00019	9138894

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		XZF349		XZF350		XZF351		
Sampling Date								
COC Number		N/A		N/A		N/A		
	UNITS	L0024, BLACK PAINT ON DRYWALL WALL, LOC:107, OFFICE AREA	RDL	L0025, LIGHT BLUE PAINT ON DRYWALL WALL, LOC:312, DEPARTMENT OF PEDIATRIC LAB	RDL	L0026, LIGHT YELLOW PAINT ON DRYWALL WALL, LOC:312, DEPARTMENT OF PEDIATRIC LAB	RDL	QC Batch
Metals								
Lead (Pb)	%	0.00040	0.00015	0.00028	0.00025	0.00029	0.00027	9138894

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOLID)

Bureau Veritas ID		XZF352		
Sampling Date				
COC Number		N/A		
	UNITS	**L0027, PURPLE PAINT ON DRYWALL WALL, LOC:316, ROOM 3656**	**RDL**	**QC Batch**
Metals				
Lead (Pb)	%	<0.00035	0.00035	9138894

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

TEST SUMMARY

Bureau Veritas ID: XZF344 **Collected:**
Sample ID: L0019, DARK YELLOW PAINT ON CONCRETE COLUMN, LOC:29, P2 EAST PARKING AREA **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

Bureau Veritas ID: XZF345 **Collected:**
Sample ID: L0020, GREEN PAINT ON METAL, LOC:30, ELEVATOR VESTIBULE **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9137124	2023/12/29	2023/12/30	Medhat Nasr

Bureau Veritas ID: XZF346 **Collected:**
Sample ID: L0021, PINK PAINT ON METAL DOOR, LOC:101, DATE CENTRE AREA AND CORRIDOR **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

Bureau Veritas ID: XZF347 **Collected:**
Sample ID: L0022, WHITE PAINT ON DRYWALL WALL, LOC:108, OFFICE AREA AND CORRIDOR **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

Bureau Veritas ID: XZF348 **Collected:**
Sample ID: L0023, BLUE PAINT ON DRYWALL WALL, LOC:108, OFFICE AREA AND CORRIDOR **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

Bureau Veritas ID: XZF349 **Collected:**
Sample ID: L0024, BLACK PAINT ON DRYWALL WALL, LOC:107, OFFICE AREA **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

Bureau Veritas ID: XZF350 **Collected:**
Sample ID: L0025, LIGHT BLUE PAINT ON DRYWALL WALL, LOC:312, DEPARTMENT OF PEDIATRIC LAB **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

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Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

TEST SUMMARY

Bureau Veritas ID: XZF351 **Collected:**
Sample ID: L0026, LIGHT YELLOW PAINT ON DRYWALL WALL, LOC:312, DEPARTMENT OF PEDIATRIC LA **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

Bureau Veritas ID: XZF352 **Collected:**
Sample ID: L0027, PURPLE PAINT ON DRYWALL WALL, LOC:316, ROOM 3656 **Shipped:**
Matrix: Solid **Received:** 2023/12/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Paint	ICP	9138894	2024/01/02	2024/01/03	Medhat Nasr

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Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

GENERAL COMMENTS

Metals Analysis: Due to limited amount of sample available for analysis, a smaller than usual portion of the sample was used. Detection limits were adjusted accordingly.

Revised Report (2024/01/08): Client sample IDs have been amended.

Sample XZF344 [L0019, DARK YELLOW PAINT ON CONCRETE COLUMN, LOC:29, P2 EAST PARKING AREA] : Metal analysis: Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample XZF345 [L0020, GREEN PAINT ON METAL, LOC:30, ELEVATOR VESTIBULE] : Metals Analysis: Due to limited amount of sample available for analysis, a smaller than usual portion of the sample was used. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

QUALITY ASSURANCE REPORT

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

			Matrix Spike		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9137124	Lead (Pb)	2023/12/30	NC	75 - 125	<0.00010	%	3.2	35	100	75 - 125
9138894	Lead (Pb)	2024/01/03	102	75 - 125	<0.00010	%	6.6	35	98	75 - 125

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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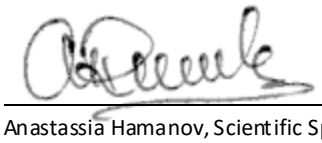
Bureau Veritas Job #: C3BR880
Report Date: 2024/01/08

Pinchin Ltd
Client Project #: 325718
Site Location: ATRIUM WING-555 UNIVERSITY AVE, TORONTO, ON
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist

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TIONT-2023-12-1955

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FED-01191/A

CHAIN OF CUSTODY RECORD

Page ____ of ____

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Pinchin Ltd.	Company Name:	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name: Patrick Sobczynski / David Newton	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Address:	Project #: 320718	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location: Atrium Villig 555 University Ave, Toronto, ON	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: psobczynski@pinchin.com / dnewton@pinchin.com	Email:	Site #: TP1	Date Required:
		Site Location Province: _____ ON	Rush Confirmation #:
		Sampled By: Patrick Sobczynski	

Regulation 153	Other Regulations	Analysis Requested	LABORATORY USE ONLY
[ ] Table 1 [ ] Res/Park [ ] Med/ Fine	[ ] CCME [ ] Sanitary Sewer Bylaw		CUSTODY SEAL Y / N
[ ] Table 2 [ ] Ind/Comm [ ] Coarse	[ ] MISA [ ] Storm Sewer Bylaw		COOLER TEMPERATURES
[ ] Table 3 [ ] Agri/ Other	[ ] PWQO Region		Present / Intact
[ ] Table _____	[ ] Other (Specify)		
FOR BSC (PLEASE CIRCLE) Y / N	[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)		
	[ ] REG 406 Table _____		
Include Criteria on Certificate of Analysis: Y / N			COOLING MEDIA PRESENT: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	Analysis Requested	COMMENTS
L0018, Dark Yellow Paint On Concrete column,Loc:29,P2 East Parking Area			BULK	X	
L0020, Green Paint On Metal,Loc:30,Elevator Vestibule			BULK	X	
L0021, Pink Paint On Metal Door,Loc:110,Data Centre Area And Corridor			BULK	X	
L0022, White Paint On Drywall Wall,Loc:112,Room 1703			BULK	X	
L0023, Blue Paint On Drywall Wall,Loc:112,Room 1703			BULK	X	
L0024, Black Paint On Drywall Wall,Loc:116,Room 1707			BULK	X	
L0025, Light Blue Paint On Drywall Wall,Loc:112,Department of Pediatric Lab			BULK	X	
L0026, Light Yellow Paint On Drywall Wall,Loc:212,Department of Pediatric L			BULK	X	
L0027, Purple Paint On Drywall Wall,Loc:116,Room 1656			BULK	X	

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	BV JOB #
Patrick Sobczynski	2023.12.21	3:00pm		2023/12/27	09:30	

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APPENDIX III
Methodology

1.0 GENERAL

An investigation was conducted to identify the type of Hazardous Building Materials incorporated in the structure and its finishes.

Information regarding the location and condition of hazardous building materials encountered and visually estimated quantities were recorded. The locations of any samples collected were recorded on small-scale plans. As-built drawings and previous reports were referenced where provided.

Sample collection was conducted in accordance with our Standard Operating Procedures.

1.1 Asbestos

The investigation for asbestos included friable and non-friable asbestos-containing materials (ACM). A friable material is a material that when dry can be crumbled, pulverized or powdered by hand pressure, or a material that has already become crushed, pulverized, or powdered.

A separate set of samples was collected of each type of homogenous material suspected to contain asbestos. A homogenous material is defined by the US EPA as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogeneous materials were determined by visual examination and available information on the phases of construction and prior renovations.

Samples were collected at a rate that is in compliance with the requirements of local regulations and guidelines. The sampling strategy was also based on known ban dates and phase out dates of the use of asbestos; sampling of certain building materials is not conducted after specific construction dates. In addition, to be conservative, several years past these dates are added to account for some uncertainty in the exact start / finish date of construction and associated usage of ACM. In some cases, manufactured products such as asbestos cement pipe were visually identified without sample confirmation.

The asbestos analysis of select materials was completed using a stop-positive approach. Only one result meeting the regulated criteria was required to determine that a material is asbestos containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos. The laboratory stopped analyzing samples from a homogeneous material once a result equal to or greater than the regulated criteria is detected in any of the samples of that material. All samples of a homogeneous material were analyzed if no asbestos is detected. In some cases, all samples were analyzed in the sample set regardless of result.

The analysis was performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

Analytical results were compared to the following criteria:

Jurisdiction	Friable	Non-Friable
Ontario	0.5%	0.5%

Where building materials are described in the report as “non-asbestos” or “does not contain asbestos”, this means that either no asbestos was detected by the analytical method utilized in any of the multiple samples or, if detected, it is below the lower limit of an asbestos-containing material in the applicable regulation. Additionally, these terms are used for materials which historically are known to not include asbestos in their manufacturing.

Asbestos materials were evaluated in order to make recommendations regarding any remedial work. The priority for remedial action was based on several factors:

- Friability (friable or non-friable)
- Condition (good, fair, poor, debris)
- Accessibility (ranking from accessible to all building users to inaccessible)
- Visibility (whether the material is obscured by other building components)
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition)

For a complete description of the Evaluation Criteria and Basis of Recommendations, refer to Annex A.

1.2 Lead

Samples of distinctive paint finishes, and surface coatings present in more than a limited application, where removal of the paint is possible were collected. The samples were collected by scraping the painted finish to include base and covering applications.

Analysis for lead in paints or surface coatings was performed in accordance with EPA Method No. 3050B/EPA SW-846-6020B0B, inductively coupled plasma – mass spectrometry.

Analytical results were compared to the following criteria.

Jurisdiction	Units (%)	Units (ppm) / (mg/kg)
Ontario	0.009	90

Other lead building products (e.g. batteries, lead sheeting, flashing) were identified by visual observation only.

1.3 Silica

Building materials known to contain crystalline silica (e.g. concrete, cement, tile, brick, masonry, mortar) were identified by visual inspection only. Pinchin did not perform sampling of these materials for laboratory analysis of crystalline silica content.

1.4 Mercury

Building materials, products or equipment (e.g. thermostats, barometers, pressure gauges, lamp tubes), suspected to contain mercury were identified by visual inspection only. Dismantling of equipment suspected of containing mercury was not performed. Sampling of these materials for laboratory analysis of mercury content was not performed.

1.5 Polychlorinated Biphenyls

The potential for light ballast and oil filled transformers to contain PCBs was based on the age of the building, a review of maintenance records, and examination of labels or nameplates on equipment, where present and accessible. The information was compared to known ban dates of PCBs and Environment Canada publications.

Dry type transformers were presumed to be free of dielectric fluids and hence non-PCB.

Fluids (mineral oil, hydraulic, Aroclor or Askarel) in transformers or other equipment were not sampled for PCB content.

Sample results are compared to the criteria of 50 mg/kg for solids as stated in the PCB Regulation, SOR/2008-273.

1.6 Visible Mould

The presence of mould or water damage was determined by visual inspection of exposed building surfaces. If any mould growth or water damage was concealed within building cavities it was not addressed in this assessment.

Template: Methodology for Hazardous Building Materials Assessment, HAZ, November 13 2024

APPENDIX IV
Location Summary Report

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

LOCATIONS LIST

PINCHIN
1.855.PINCHIN www.pinchin.com

Client:The Hospital For Sick Children **Site: 555 University Avenue, Toronto, ON**
Building Name: Atrium
Survey Date: 2023-08-03 **Last Re-Assessment:**
Building Phases: A:

Location No.	Name or Description	Area ft²	Floor No.	Bldg. Phase	Notes
708	Room 7A26	100	7	A	
709	Corridor and Reception Area	150	7	A	
710	Room 7A28	100	7	A	
711	Room 7A29	100	7	A	
712	Washroom	45	7	A	

APPENDIX V
Hazardous Materials Summary Report / Sample Log

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

HAZARDOUS MATERIALS SUMMARY / SAMPLE LOG

PINCHIN
1.855.PINCHIN www.pinchin.com

Client:The Hospital For Sick Children **Site: 555 University Avenue, Toronto, ON** **Building Name: Atrium** **Survey Date: 2023-08-03**

HAZMAT	Sample No	System/Component/Material/Sample Description	Locations	Bldg. Phase	LF	SF	EA	%	Type	Positive	Friability
Asbestos	V0016	Floor | | Mastic |	708,709,710,711,712	A	0	495	0	0	None Detected	No	
Asbestos	V0028	Wall | | Ceramic Tiles | Thinset	712	A	0	50	0	0	None Detected	No	
Asbestos	V0029	Other | Window Frame | Caulking | Black Butyl Caulking	708,709,710,711,712	A	145	0	0	0	None Detected	No	
Asbestos	V0000	Ceiling | | Ceiling Tiles (lay-in) | 24x48 Pinholes	709	A	0	100	0	0	Non Asbestos	No	
Asbestos	V0000	Ceiling | | Drywall And Joint Compound |	708,709,710,711,712	A	0	395	0	0	Non Asbestos	No	
Asbestos	V0000	Duct | | Fibreglass |	708,709,710,711,712	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Duct | | Not Insulated |	708	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Floor | | Vinyl Sheet Flooring |	708,709,710,711,712	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Mechanical Equipment | Fan Unit | Not Insulated | Induction Unit	708,709	A	0	0	2	0	Non Asbestos	No	
Asbestos	V0000	Piping | | Fibreglass |	708,709,710,711,712	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Piping | | Not Insulated |	708,709,710,711,712	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Structure | Beam, Deck | Concrete (poured) |	708,709,710,711,712	A	0	0	0	0	Non Asbestos	No	
Asbestos	V0000	Wall | All | Drywall And Joint Compound |	708,709,710,711,712	A	0	1850	0	0	Non Asbestos	No	
Asbestos	V0000	Wall | All | Laminate |	709	A	0	0	0	0	Non Asbestos	No	
Paint	V0022	Wall | Drywall And Joint Compound | White Paint On Drywall Wall	708,709,710,711,712	A	0	1450	0	0		No	-
Paint	V0025	Wall | Drywall And Joint Compound | Light Blue Paint On Drywall Wall	708,710,711	A	0	300	0	0		No	-
Hg	V0000	Light Fixture	708,709,710,711,712	A	0	0	0	0	-	No	-

Legend:

Sample number	
S####	Asbestos sample collected
L####	Paint sample collected
P####	PCB sample collected
M####	Mould sample collected
V####	Material visually similar to numbered sample collected
V0000	Known non Hazardous Material
V9000	Material is visually identified as Hazardous Material
V9500	Material is presumed to be Hazardous Material
[Loc. No.]	Abated Material

Units	
SF	Square feet
LF	Linear feet
EA	Each
%	Percentage

NF	Non Friable material.
F	Friable material
PF	Potentially Friable material

APPENDIX VI
All Data Report

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

ALL DATA REPORT

PINCHIN
1.855.PINCHIN www.pinchin.com

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #708 : Room 7A26 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

ASBESTOS																
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Ceiling		Drywall and joint compound			C	Y		100			SF	V0000	Non-Asbestos		None	
Duct		Fibreglass		Foil Face	C	N						V0000	Non-Asbestos		None	
Duct		Not Insulated			C	N						V0000	Non-Asbestos		None	
Floor		Vinyl Sheet Flooring			B	Y						V0000	Non-Asbestos		None	
Floor		Mastic		Vinyl Sheet Flooring	D	N		100			SF	V0016	None Detected	N.D.	None	
Mechanical Equipment	Fan Unit	Not Insulated, Induction unit			B	Y		1			EA	V0000	Non-Asbestos		None	
Other	Window Frame	Caulking, Black butyl caulking			B	Y		20			LF	V0029	None Detected	N.D.	None	
Piping		Fibreglass		Paper	C	N						V0000	Non-Asbestos		None	
Piping		Not Insulated			C	N						V0000	Non-Asbestos		None	
Structure	Beam, Deck	Concrete (poured)			C	N						V0000	Non-Asbestos		None	
Wall	All	Drywall and joint compound			B	Y		400			SF	V0000	Non-Asbestos		None	

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #708 : Room 7A26 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

PAINT								
System	Item	Good	Poor	Unit	Sample	Sample Description	Amount	Hazard
Wall	Drywall and joint compound	300		SF	V0022	White paint on drywall wall	Pb: 0.00056 %	No
Wall	Drywall and joint compound	100		SF	V0025	Light blue paint on drywall wall	Pb: 0.00028 %	No

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #708 : Room 7A26 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

MERCURY				
Component	Quantity	Unit	Sample	Hazard
Light Fixture[1]			V0000	

1 - Led

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #709 : Corridor and Reception Area **Floor: 7** **Room #:** **Area (sqft): 150**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

ASBESTOS

System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Ceiling		Drywall and joint compound			C	Y		50			SF	V0000	Non-Asbestos		None	
Ceiling		Ceiling Tiles (lay-in), 24x48 pinholes			C	Y		100			SF	V0000	Non-Asbestos		None	
Duct		Fibreglass		Foil Face	C	N						V0000	Non-Asbestos		None	
Floor		Vinyl Sheet Flooring			B	Y						V0000	Non-Asbestos		None	
Floor		Mastic		Vinyl Sheet Flooring	D	N		150			SF	V0016	None Detected	N.D.	None	
Mechanical Equipment	Fan Unit	Not Insulated, Induction unit			B	Y		1			EA	V0000	Non-Asbestos		None	
Other	Window Frame	Caulking, Black butyl caulking			B	Y		50			LF	V0029	None Detected	N.D.	None	
Piping		Fibreglass		Paper	C	N						V0000	Non-Asbestos		None	
Piping		Not Insulated			C	N						V0000	Non-Asbestos		None	
Piping		Not Insulated			C	N						V0000	Non-Asbestos		None	
Structure	Beam, Deck	Concrete (poured)			C	N						V0000	Non-Asbestos		None	
Wall	All	Drywall and joint compound			B	Y		250			SF	V0000	Non-Asbestos		None	
Wall[1]	All	Laminate		Drywall and joint compound	A	Y						V0000	Non-Asbestos		None	

1 - Covers portion on drywall

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #709 : Corridor and Reception Area **Floor: 7** **Room #:** **Area (sqft): 150**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

PAINT

System	Item	Good	Poor	Unit	Sample	Sample Description	Amount	Hazard
Wall	Drywall and joint compound	250		SF	V0022	White paint on drywall wall	Pb: 0.00056 %	No

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #709 : Corridor and Reception Area **Floor: 7** **Room #:** **Area (sqft): 150**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

MERCURY

Component	Quantity	Unit	Sample	Hazard
Light Fixture[1]			V0000	

1 - Led

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #710 : Room 7A28 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

ASBESTOS																
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Ceiling		Drywall and joint compound			C	Y		100			SF	V0000	Non-Asbestos		None	
Duct		Fibreglass		Foil Face	C	N						V0000	Non-Asbestos		None	
Floor		Vinyl Sheet Flooring			B	Y						V0000	Non-Asbestos		None	
Floor		Mastic		Vinyl Sheet Flooring	D	N		100			SF	V0016	None Detected	N.D.	None	
Mechanical Equipment		None Found														
Other	Window Frame	Caulking, Black butyl caulking			B	Y		25			LF	V0029	None Detected	N.D.	None	
Piping		Fibreglass		Paper	C	N						V0000	Non-Asbestos		None	
Piping		Not Insulated			C	N						V0000	Non-Asbestos		None	
Structure	Beam, Deck	Concrete (poured)			C	N						V0000	Non-Asbestos		None	
Wall	All	Drywall and joint compound			B	Y		400			SF	V0000	Non-Asbestos		None	

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #710 : Room 7A28 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

PAINT								
System	Item	Good	Poor	Unit	Sample	Sample Description	Amount	Hazard
Wall	Drywall and joint compound	300		SF	V0022	White paint on drywall wall	Pb: 0.00056 %	No
Wall	Drywall and joint compound	100		SF	V0025	Light blue paint on drywall wall	Pb: 0.00028 %	No

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #710 : Room 7A28 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

MERCURY				
Component	Quantity	Unit	Sample	Hazard
Light Fixture[1]			V0000	

1 - Led

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #711 : Room 7A29 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

ASBESTOS																
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Ceiling		Drywall and joint compound			C	Y		100			SF	V0000	Non-Asbestos		None	
Duct		Fibreglass		Foil Face	C	N						V0000	Non-Asbestos		None	
Floor		Vinyl Sheet Flooring			B	Y						V0000	Non-Asbestos		None	
Floor		Mastic		Vinyl Sheet Flooring	D	N		100			SF	V0016	None Detected	N.D.	None	
Mechanical Equipment		None Found														
Other	Window Frame	Caulking, Black butyl caulking			B	Y		25			LF	V0029	None Detected	N.D.	None	
Piping		Fibreglass		Paper	C	N						V0000	Non-Asbestos		None	
Piping		Not Insulated			C	N						V0000	Non-Asbestos		None	
Structure	Beam, Deck	Concrete (poured)			C	N						V0000	Non-Asbestos		None	
Wall	All	Drywall and joint compound			B	Y		400			SF	V0000	Non-Asbestos		None	

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #711 : Room 7A29 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

PAINT								
System	Item	Good	Poor	Unit	Sample	Sample Description	Amount	Hazard
Wall	Drywall and joint compound	300		SF	V0022	White paint on drywall wall	Pb: 0.00056 %	No
Wall	Drywall and joint compound	100		SF	V0025	Light blue paint on drywall wall	Pb: 0.00028 %	No

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #711 : Room 7A29 **Floor: 7** **Room #:** **Area (sqft): 100**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

MERCURY				
Component	Quantity	Unit	Sample	Hazard
Light Fixture[1]			V0000	

1 - Led

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #712 : Washroom **Floor: 7** **Room #:** **Area (sqft): 45**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

ASBESTOS																
System	Component	Material	Item	Covering	A*	V*	AP*	Good	Fair	Poor	Unit	Sample	Asbestos Type	Amount	Hazard	Friable
Ceiling		Drywall and joint compound			C	Y		45			SF	V0000	Non-Asbestos		None	
Duct		Fibreglass		Foil Face	C	N						V0000	Non-Asbestos		None	
Floor		Vinyl Sheet Flooring			B	Y						V0000	Non-Asbestos		None	
Floor		Mastic		Vinyl Sheet Flooring	D	N		45			SF	V0016	None Detected	N.D.	None	
Mechanical Equipment		None Found														
Other	Window Frame	Caulking, Black butyl caulking			B	Y		25			LF	V0029	None Detected	N.D.	None	
Piping		Fibreglass		Paper	C	N						V0000	Non-Asbestos		None	
Piping		Not Insulated			C	N						V0000	Non-Asbestos		None	
Structure	Beam, Deck	Concrete (poured)			C	N						V0000	Non-Asbestos		None	
Wall		Ceramic Tiles, Thinset under ceramic tiles		Thin-set	A	N		50			SF	V0028	None Detected	N.D.	None	
Wall	All	Drywall and joint compound			B	Y		400			SF	V0000	Non-Asbestos		None	

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #712 : Washroom **Floor: 7** **Room #:** **Area (sqft): 45**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

PAINT								
System	Item	Good	Poor	Unit	Sample	Sample Description	Amount	Hazard
Wall	Drywall and joint compound	300		SF	V0022	White paint on drywall wall	Pb: 0.00056 %	No

Client: The Hospital For Sick Children **Site: Buildings** **Building Name: Atrium**
Location: #712 : Washroom **Floor: 7** **Room #:** **Area (sqft): 45**
Survey Date: 2023-08-03 **Last Re-Assessment: 0000-00-00**

MERCURY				
Component	Quantity	Unit	Sample	Hazard
Light Fixture[1]			V0000	

1 - Led

Legend:

Sample number	
S####	Asbestos sample collected
L####	Paint sample collected
P####	PCB sample collected
M####	Mould sample collected
V####	Material is visually identified to be identical to S####
V0000	Known non hazardous material
V9000	Material visually identified as a Hazardous Material
V9500	Material is presumed to be a hazardous material

Units	
SF	Square feet
LF	Linear feet
EA	Each
%	Percentage
LF	Linear feet

Other	
A	Access
V	Visible
AP	Air Plenum
F	Friable material
NF	Non Friable material
PF	Potentially Friable material
Pb	Lead
Hg	Mercury
As	Arsenic
Cr	Chromium

Access	
A	Accessible to all building occupants
B	Accessible to maintenance and operations staff without a ladder
C	Accessible to maintenance and operations staff with a ladder. Also rarely entered, locked areas
D	Not normally accessible

Condition	
Good	No visible damage or deterioration
Fair	Minor, repairable damage, cracking, delamination or deterioration
Poor	Irreparable damage or deterioration with exposed and missing material

Visible	
Y	The material is visible when standing on the floor of the room, without the removal or opening of other building components (e.g. ceiling tiles or access panels).
N	The material is not visible to view when standing on the floor of the room and requires the removal of a building component (e.g. ceilings tiles or access panels) to view and access. Includes rarely entered crawlspaces, attic spaces, etc. Observations will be limited to the extent visible from the access points.
L	The material is partially visible to view when standing on the floor of the room and requires the removal of a building component (e.g. ceiling system or access panels) to view completely and access. Includes partially viewed access points to crawlspaces, attic spaces, etc. without entering. Observations are limited to the extent visible from the access points.

Air Plenum	
Yes or No	The material is in a return air plenum or in a direct airstream or there is evidence of air erosion (e.g. duct for heating or cooling blowing directly on or across an ACM). This field is only completed where Air Plenum consideration is required by regulation.

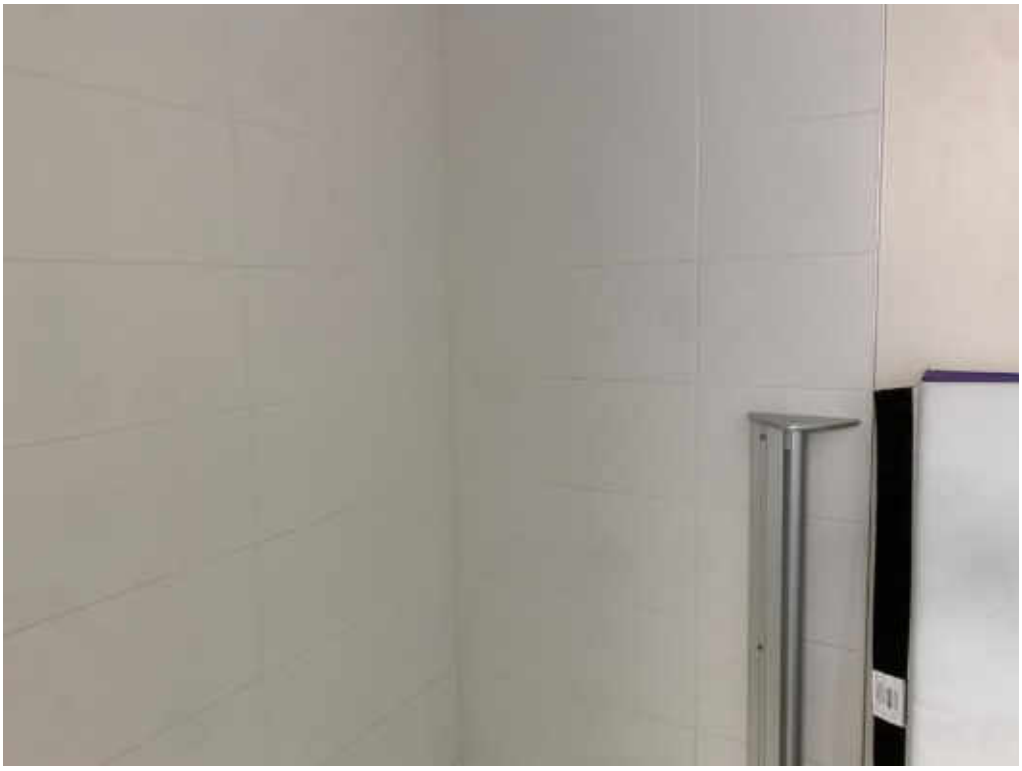
Colour Coding	
	The material is a hazardous material, either by analytical results or by visible identification.
	The material is presumed to be a hazardous material, based on visual appearance, and was not sampled due to limited access or the non-destructive nature of sampling.

Action					
(1)	Clean up of ACM Debris	(2)	Precautions for Access Which may Disturb ACM Debris	(3)	ACM removal
(4)	Precautions for Work Which may Disturb ACM in Poor Condition	(5)	Proactive ACM removal (Minimum repair required for fair condition)	(6)	ACM repair

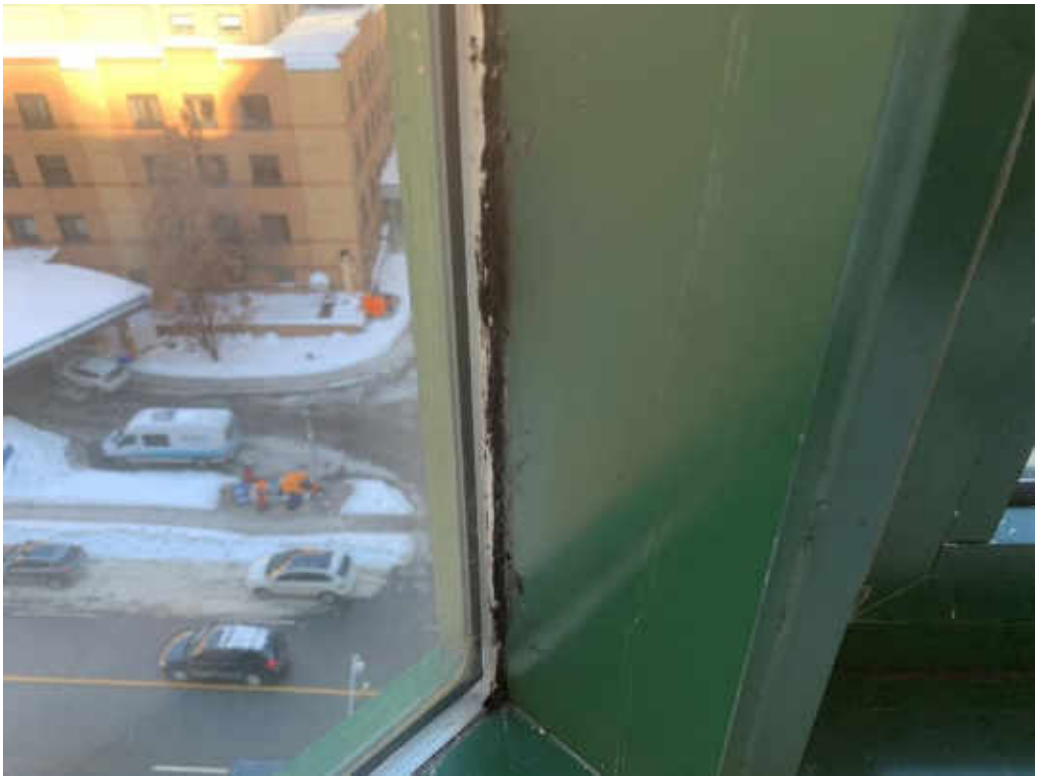
(7) Management program and surveillance

APPENDIX VII
Photographs

V0016 Floor, Mastic underneath vinyl sheet flooring, Room 7A29 (Location #: 710)



V0028, Wall, Thinset underneath ceramic tiles, Washroom (Location #: 712)



V0029, Other, Black butyl caulking, Corridor and Reception Area (Location #: 709)

V0000, (None), Ceiling, 24”x48” acoustic ceiling tiles with pinholes, Corridor and Reception Area (Location #: 709)

V0000, (None) Ceiling, Drywall joint compound on drywall ceiling, Washroom (Location #: 712)

V0000, (None) Duct, Fibreglass insulated duct jacketed with foil, Corridor and Reception Area (Location #: 709)

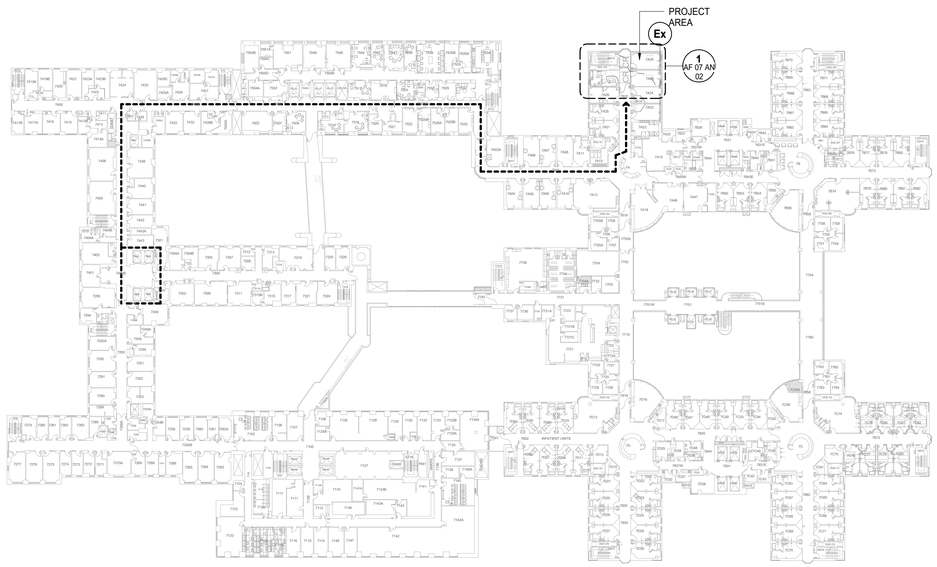
V0000, (None), Mechanical, Uninsulated Fan Unit, Room 7A26 (Location #: 708).

V0000 (None), Piping, Fibreglass insulated pipe jacketed with paper, Corridor and Reception Area (Location #: 709)

V0000 (None), Piping, Uninsulated pipes, Corridor and Reception Area (Location #: 709)

V0022, (Lead, None), White paint on drywall wall, Room 7A29 (Location #: 710)

V0022, (Lead, None), Light blue paint on drywall wall, Room 7A29 (Location #: 710)



3 AB 07 AN 02 CONTRACTOR ROUTE AND LOCATION PLAN - LEVEL 7
SCALE: 1 : 500

CONSTRUCTION CONTROL NOTES / LEGEND:

CONTRACTOR ROUTE

1 ACCESS TO SITE FOR MATERIALS & EQUIPMENT & DISPOSAL ROUTE

THIS SHALL BE THE ROUTE USED FOR THE DELIVERY OF MATERIALS AND SUPPLIES AND THE ROUTE OF REMOVAL OF DEBRIS FROM THE SITE AND DESIGNATED WORK AREAS. CONTRACTOR AND HIS FORCES SHALL BE SUITED UP PRIOR TO ACCESSING LEVEL 7.

2 ACCESS TO SITE BY CONTRACTOR & HIS FORCES.

THIS SHALL BE THE ROUTE USED BY THE CONTRACTOR AND HIS FORCES TO ACCESS THE SITE AND DESIGNATED WORK AREAS. CONTRACTOR AND HIS FORCES SHALL BE SUITED UP PRIOR TO ACCESSING LEVEL 7.

3 SERVICE ELEVATOR TO P1 LEVEL

THE EXISTING SERVICE ELEVATOR WILL BE USED FOR THE VERTICAL TRANSPORTATION OF CONSTRUCTION MATERIALS.

4 EXTENT OF WORK AREA

LIMIT OF DESIGNATED WORK AREA.

5 LOADING DOCKS

LOCATION AVAILABLE TO THE CONTRACTOR FOR THE DELIVERY OF CONSTRUCTION MATERIALS WHICH MUST BE PICKED UP IMMEDIATELY FOLLOWING DELIVERY. THERE WILL BE NO STORAGE OF MATERIALS AT THE LOADING DOCKS.

	ONTARIO BUILDING CODE DATA MATRIX PART 3 - 2025	O.B.C. REFERENCE PART 11	PART 3
1	**PROJECT DESCRIPTION** MINOR INTERIOR RENOVATION OF SECONDFLOOR OFFICES AND CORRIDOR TO CREATE NEW CT ROOMS [ ] NEW [ ] ADDITION [X] 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: 185 m² TOTAL: 185 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		3.2.2.20-.83
8	**SPRINKLER SYSTEM PROPOSED** [X] 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** [X] YES (EXISTING TO REMAIN) [ ] NO		3.2.9
10	**FIRE ALARM REQUIRED** [X] YES (EXISTING TO REMAIN) [ ] NO		3.2.2.17
11	**WATER SUPPLY / SUPPLY IS ADEQUATE** [X] YES (EXISTING TO REMAIN) [ ] NO		3.2.5.7
12	**HIGH BUILDING** [X] YES [ ] NO		3.2.6
13	**PERMITTED CONSTRUCTION** [ ] COMBUSTIBLE [X] NON-COMBUSTIBLE [ ] BOTH **ACTUAL CONSTRUCTION** [ ] COMBUSTIBLE [X] 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 [X] DESIGN OF BUILDING		3.1.17
16	**BARRIER-FREE DESIGN** [X] YES [ ] NO (EXPLAIN)		3.8
17	**HAZARDOUS SUBSTANCES** [ ] YES [X] 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	-
MEZZANINE:	1	HOURS	-
ROOF:	0	HOURS	-

3.2.2.29, 3.2.1.4

SUPPORTING MEMBERS FRR (HOURS)			LISTED DESIGN NO. OR DESCRIPTION (SG-2)
WALLS/COLUMNS:	2	HOURS	-
MEZZANINE:	1	HOURS	-
ROOF:	0	HOURS	-

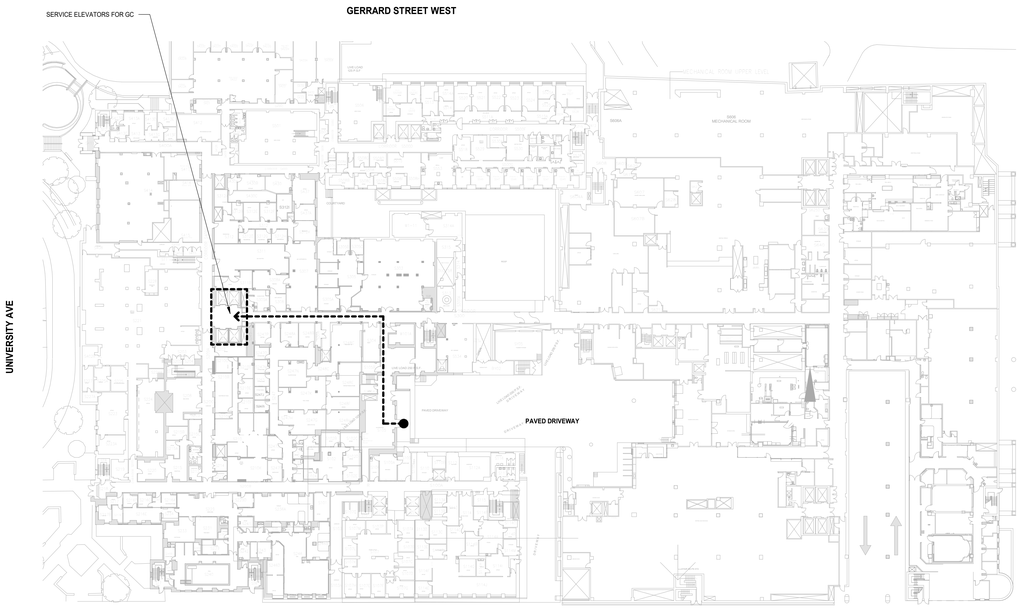
3.2.2.17

19 **SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS**

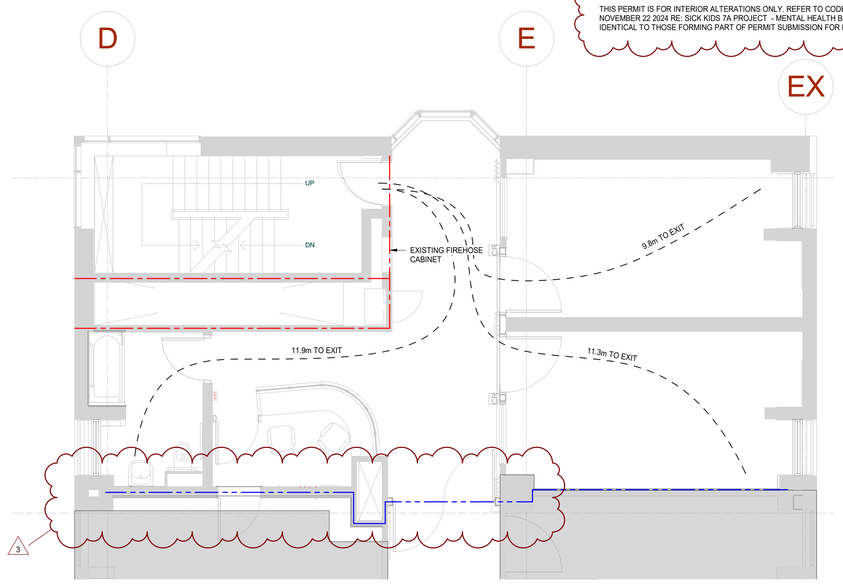
WALL	AREA OF EBF (m²)	LIMITING DISTANCE (m)	L/H OR H/L	PERMITTED MAX. % OF OPENINGS	PROPOSED % OF OPENINGS
NORTH	-	-	-	-	-
EAST	-	-	-	-	-
SOUTH	-	-	-	-	-
WEST	-	-	-	-	-

	ONTARIO BUILDING CODE DATA MATRIX PART 11		O.B.C. REFERENCE
11.1	**EXISTING BUILDING CLASSIFICATION**	DESCRIBE EXISTING USE: - CONSTRUCTION INDEX: - HAZARD INDEX: - [X] NOT APPLICABLE (NO CHANGE OF MAJOR OCCUPANCY)	11.2.1, 11.2.1.1A, 11.2.1.1J
11.2	**ALTERATION TO EXISTING BUILDINGS** [X] BASIC RENOVATION [ ] EXTENSIVE RENOVATION		11.3.3.1, 11.3.3.2
11.3	**REDUCTION IN PERFORMANCE LEVEL**	STRUCTURAL: [X] NO [ ] YES BY INCREASE IN OCCUPANT LOAD: [X] NO [ ] YES BY CHANGE IN MAJOR OCCUPANCY: [X] NO [ ] YES PLUMBING: [X] NO [ ] YES SEWAGE SYSTEM: [X] 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: [X] NO [ ] YES (EXPLAIN) BY INCREASE IN OCCUPANT LOAD: [X] NO [ ] YES (EXPLAIN) BY CHANGE IN MAJOR OCCUPANCY: [X] NO [ ] YES (EXPLAIN) PLUMBING: [X] NO [ ] YES (EXPLAIN) SEWAGE SYSTEM: [X] 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:** [X] NO [ ] YES (GIVE NUMBERS)		11.5.1
11.6	**ALTERATION TO EXISTING BUILDINGS:** [X] NO [ ] YES (EXPLAIN)		11.5.2

3
NOTE:
THIS PERMIT IS FOR INTERIOR ALTERATIONS ONLY. REFER TO CODE LETTER FROM NADINE CONSULTING ENGINEERS DATED NOVEMBER 22 2024 RE: SICK KIDS 7A PROJECT - MENTAL HEALTH BEDS. DRAWINGS CONTAINED IN THIS LETTER ARE ASSUMED IDENTICAL TO THOSE FORMING PART OF PERMIT SUBMISSION FOR REVIEW. APPLICANT RESPONSIBLE FOR VERIFICATION.



2 AB 07 AN 02 CONTRACT ROUTE AND LOCATION PLAN - SERVICE LEVEL
SCALE: 1 : 500



LIFE SAFETY LEGEND

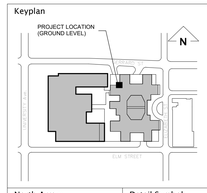
SYMBOL	DESCRIPTION
	EXISTING 1 HOUR FIRE SEPARATION
	NEW 2 HOUR FIRE SEPARATION
	EGRESS PATH
FHC	EXISTING FIREHOSE CABINET

1 AB 07 AN 02 PARTIAL 7TH FLOOR FIRE SEPARATION PLAN
SCALE: 1 : 50

DATE	ISSUED FOR	REV
2025-01-16	ISSUED FOR 95% CD	1
2025-02-20	PERMIT & TENDER	2
2025-03-17	ADDENDUM 2	3

CROSS LINE OF PAPER ROLL

Keyplan



North Arrow

Detail Symbol
Detail No.
Sheet No.

Consultants
Civil:
Landscape & Planning:
Architecture:
Structural:
Mechanical:
Electrical:
Survey:
Branding:

Seal(s)
ONTARIO ASSOCIATION OF ARCHITECTS
FRANK R. PANICI
LICENCE
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Project Manager Checker	Drawn Author
Project Leader	Checked Checker

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

Project
SICKKIDS - 7A SCHEDULE - 1BEDS REFRESH
ATRIUM (SLAIGHT) WING, 170 ELIZABETH STREET, TORONTO, ON , M5G 1E8

Drawing Title
KEY PLANS & LIFE SAFETY PLANS

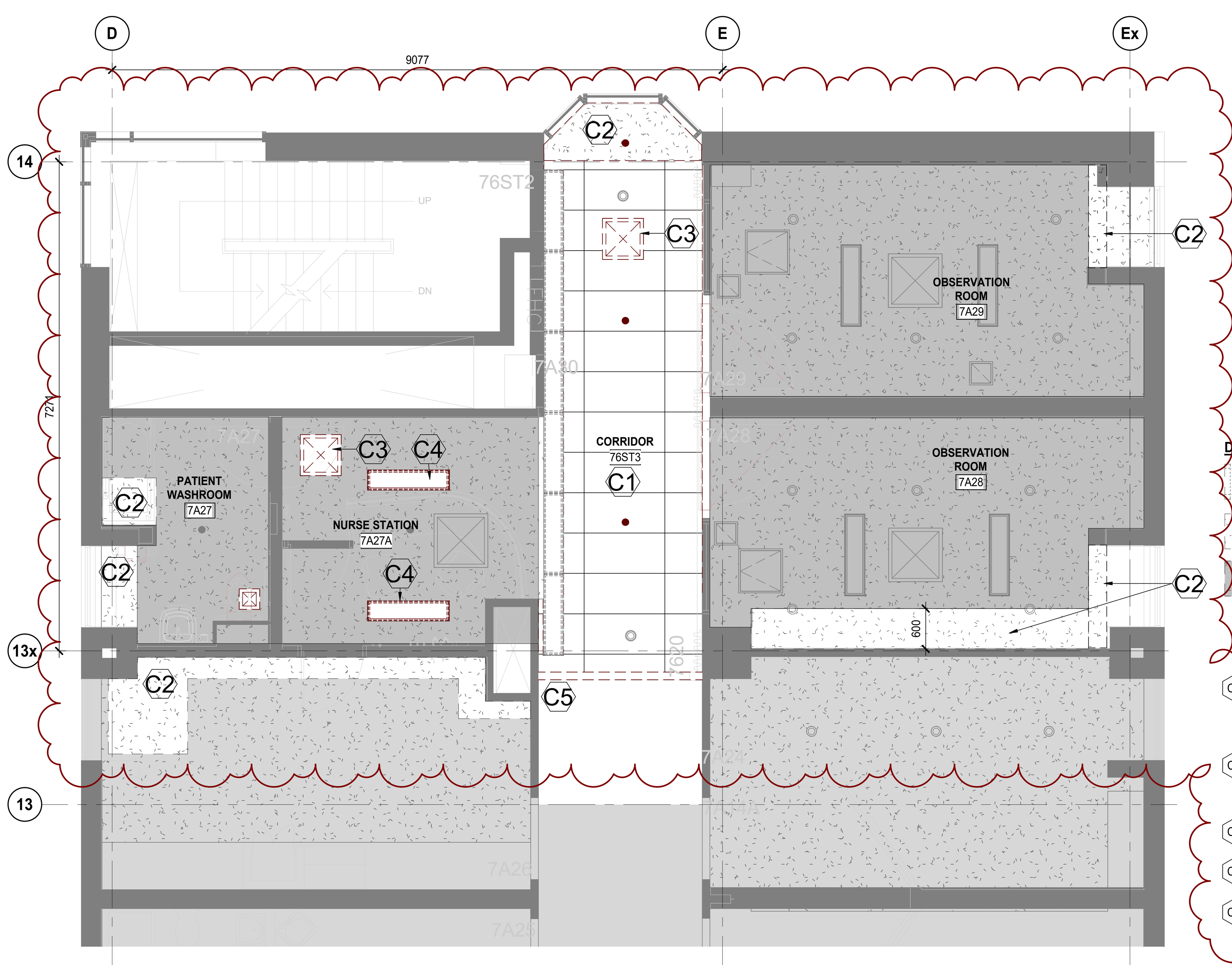
Check Scale (may be photo reduced)
0 1inch 0 10mm

Project No.
HS 1024-0176

Drawing No.
AB 07 AN 02

SK Atrium TB - 864 x 1232

DATE	ISSUED FOR	REV
2025-01-16	ISSUED FOR 95% CD	1
2025-02-20	PERMIT & TENDER	2
2025-03-17	ADDENDUM 2	3



2 AF 07 AN 01 — DEMOLITION REFLECTED CEILING PLAN - LEVEL 7
SCALE: 1 : 50

DEMO LEGEND/ NOTES

- EXISTING ACOUSTIC CEILING TILE TO BE REMOVED
- EXISTING GYPSUM BOARD CEILING TO BE REMOVED
- EXISTING GYPSUM BOARD CEILING TO REMAIN

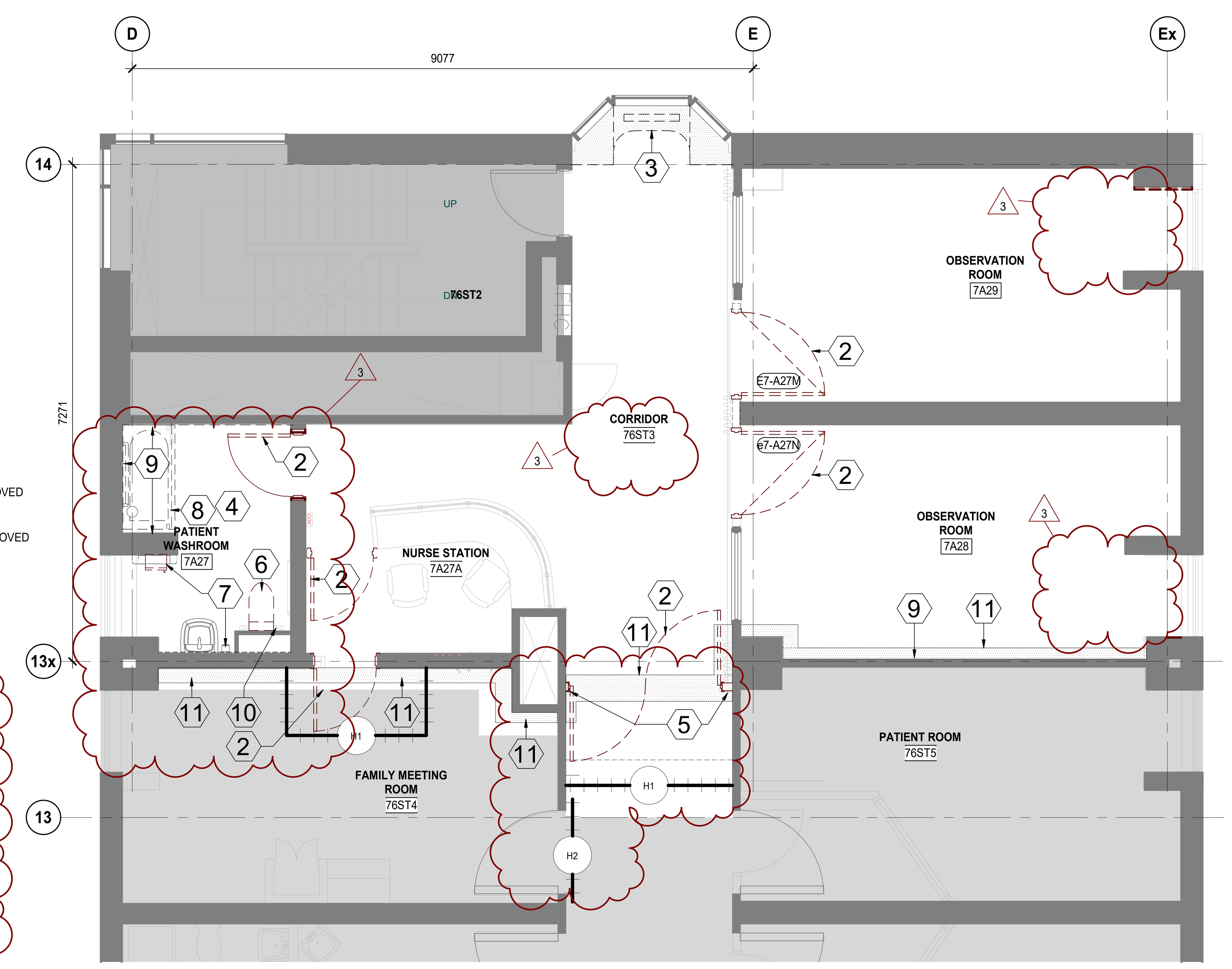
C1 REMOVE AND DISPOSE OF EXIST. ACOUSTICAL CEILING SYSTEM ENTIRELY, INCLUDING TILES, GRIDS, SUSPENSION SYSTEM, ACCESSORIES, LIGHT FIXTURES, DIFFUSERS, EXIT LIGHTS, PATCH REPAIR AND MAKE GOOD EXISTING PARTITION SURFACES.

C2 REMOVE EXISTING GYPSUM CEILING AS REQUIRED TO COMPLETE PARTITION/SCREEN WORK AS NOTED. REFER TO MECH & ELEC DWGS FOR SCOPE OF WORK.

C3 DEMOLISH EXISTING DIFFUSER. REFER TO MECH DWGS FOR FURTHER INFO.

C4 DEMOLISH EXISTING LIGHTING FIXTURE. REFER TO ELEC DWGS FOR FURTHER INFO.

C5 REMOVE AND REINSTATE ACT GRID AND PANELS TO ACCOMODATE PARTITION WORK AS REQUIRED.



1 AF 07 AN 01 — DEMOLITION PLAN - LEVEL 7
SCALE: 1 : 50

DEMOLITION PLAN LEGEND / NOTES

- DENOTES EXISTING AREA OUT OF SCOPE
- EXISTING PARTITIONS TO REMAIN
- DEMOLITION ITEMS
- H1 HARD HOARDING
- H2 SOFT HOARDING
- DOOR AND FRAME TO BE REMOVED
- EXTENT OF FLOORING TO BE REMOVED

GENERAL NOTES:

1. CONTRACTOR TO PROVIDE INFECTION CONTROL HOARDING AND PREVENTIVE MEASURES AT WORK AREA BEFORE COMMENCEMENT OF DEMOLITION WORK.
2. 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.
3. ALL LIFE SAFETY SYSTEMS INCLUDING THE FIRE ALARM SYSTEM OF THE BUILDING SHALL REMAIN OPERATIONAL AT ALL TIMES THROUGHOUT THE COURSE OF THE RENOVATIONS & TO BE REPAIRED IF DAMAGED AS A RESULT OF DEMOLITION/CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER.
4. 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.
5. PATCH & MAKE GOOD ALL AREAS DAMAGED AS RESULT OF THE DEMOLITION WORK AT WALLS, CEILINGS, FLOOR & PREPARE SUBSTRATE TO RECEIVE NEW FINISHES (TYPICAL THROUGHOUT).
6. CONTRACTOR TO VERIFY SITE CONDITIONS & INFORM THE ARCHITECT BEFORE COMMENCEMENT OF THE DEMOLITION WORK.

(1) RESERVED

(2) REMOVE EXISTING DOOR & FRAME ENTIRELY, REMOVE HARDWARE & RETURN TO OWNER IN GOOG CONDITION. PATCH AND MAKE GOOD AREAS FOR INSTALLATION OF NEW DOOR.

(3) REMOVE EXISTING MILLWORK WINDOW LEDGE INCLUDING ASSOCIATED SUPPORT, MECH RADIATOR AND GRILL (PROTECT WINDOWS AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION)

(4) REMOVE EXISTING EPOXY FLOORING & BASE, REPAIR AND CLEAN SUBSTRATE AS REQUIRED TO RECEIVE NEW FINISH. REMOVE ALL EVIDENCE OF EXISTING ADHESIVES, GREASE, OIL, GLUE RESIDUES AND OTHER ENCRUSTATION OF FOREIGN MATERIAL BY WASHING< SCRAPING AND GRINDING AS NECESSARY. FILL CRACKS, SURFACE IRREGULARITIES AND DEPRESSIONS WITH SUITABLE CONCRETE FILLER AND FINISH SMOOTH.

(5) REMOVE EXISTING FULL HEIGHT GYPSUM BOARD PARTITION ENTIRELY AS SHOWN. LEVEL, PATCH & REPAIR FLOOR AS NEEDED, MAKE GOOD.

(6) REMOVE AND DISPOSE OF EXISTING PLUMBING FIXTURE, FLUSHING MECHANISIM, ASSOCIATED PIPING TO MAIN, CAP AND MAKE SAFE SERVICES AS REQUIRED COORDINATE WITH MECH. CONTRACTOR PRIOR TO REMOVAL.

(7) REMOVE EXISTING WASHROOM ACCESSORIES (SOAP DISPENSER AND PAPER TOWEL DISPENSER) AND RETURN TO OWNER IN GOOD CONDITION.

(8) REMOVE AND DISPOSE OF EXISTING BATH TUB & SHOWER HEAD, INCLUDING ASSOCIATED PIPING, CAP AND MAKE SAFE SERVICES AS REQUIRED COORDINATE WITH MECH. CONTRACTOR PRIOR TO REMOVAL. CAREFULLY REMOVE EXISTING SHOWER HEAD, MIXER & GRAB BARS (STORE FOR REINSTALLATION).

(9) REMOVE AND DISPOSE OF EXISTING WALL TILES WITHIN BATH TUB ENCLOSURE INCLUDING BACKER BOARD AND PREPARE SUBSTRATE TO RECIEVE NEW FINISHES.

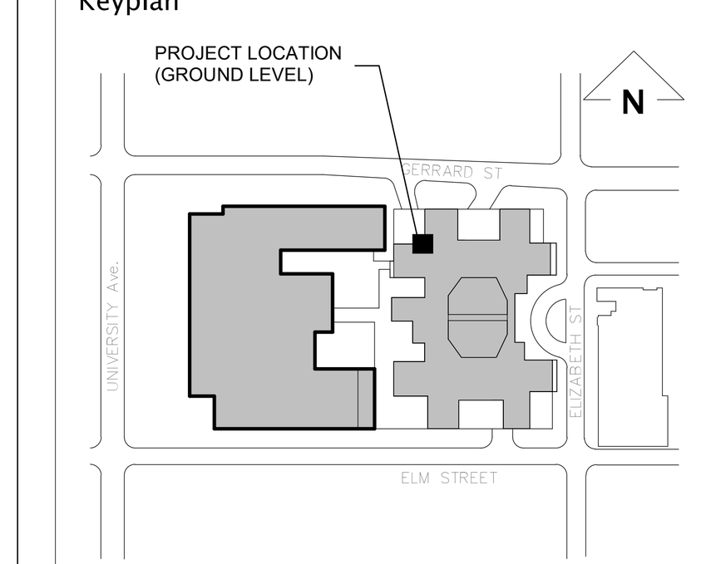
(10) PARTIALLY REMOVE AREAS OF DRYWALL PARTITION TO ALLOW ACCESS FOR NEW PLUMBING FIXTURE INSTALLATION, REMOVE EXISTING GRAB BAR BEHIND TOILET BOWL AND RETURN TO OWNER IN GOOD CONDITION.

(11) REMOVE BASE AND EXTENT OF FLOOR TO CLOSEST SEAMLINE TO COMPLETE PARTITION WORK. REMOVE AND MAKE GOOD AS PER FINISHES PLAN

HOARDING NOTES:

- HOARDING H1: THIS HOARDING INDICATES THE EXTENT OF REQUIRED HOARDING FOR THE ENTIRE DURATION OF THE 7A CONSTRUCTION. IT IS TO BE INSTALLED AND REMAIN IN PLACE UNTIL THE COMPLETION OF THE ENTIRE CONSTRUCTION PROCESS.

Keyplan



North Arrow | Detail Symbol: Detail No. / Sheet No.

Consultants
Civil:
Landscape & Planning:
Architecture:
Structural:
Mechanical:
Electrical:
Survey:
Branding:

Seal(s): ONTARIO ASSOCIATION OF ARCHITECTS — FRANK R. PANICI — LICENCE 6290

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Project Manager: Checker	Drawn: Author
Project Leader	Checked: Checker

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

Project
SICKKIDS - 7A SCHEDULE - 1BEDS REFRESH
ATRIUM (SLAIGHT) WING, 170 ELIZABETH STREET, TORONTO, ON , M5G 1E8

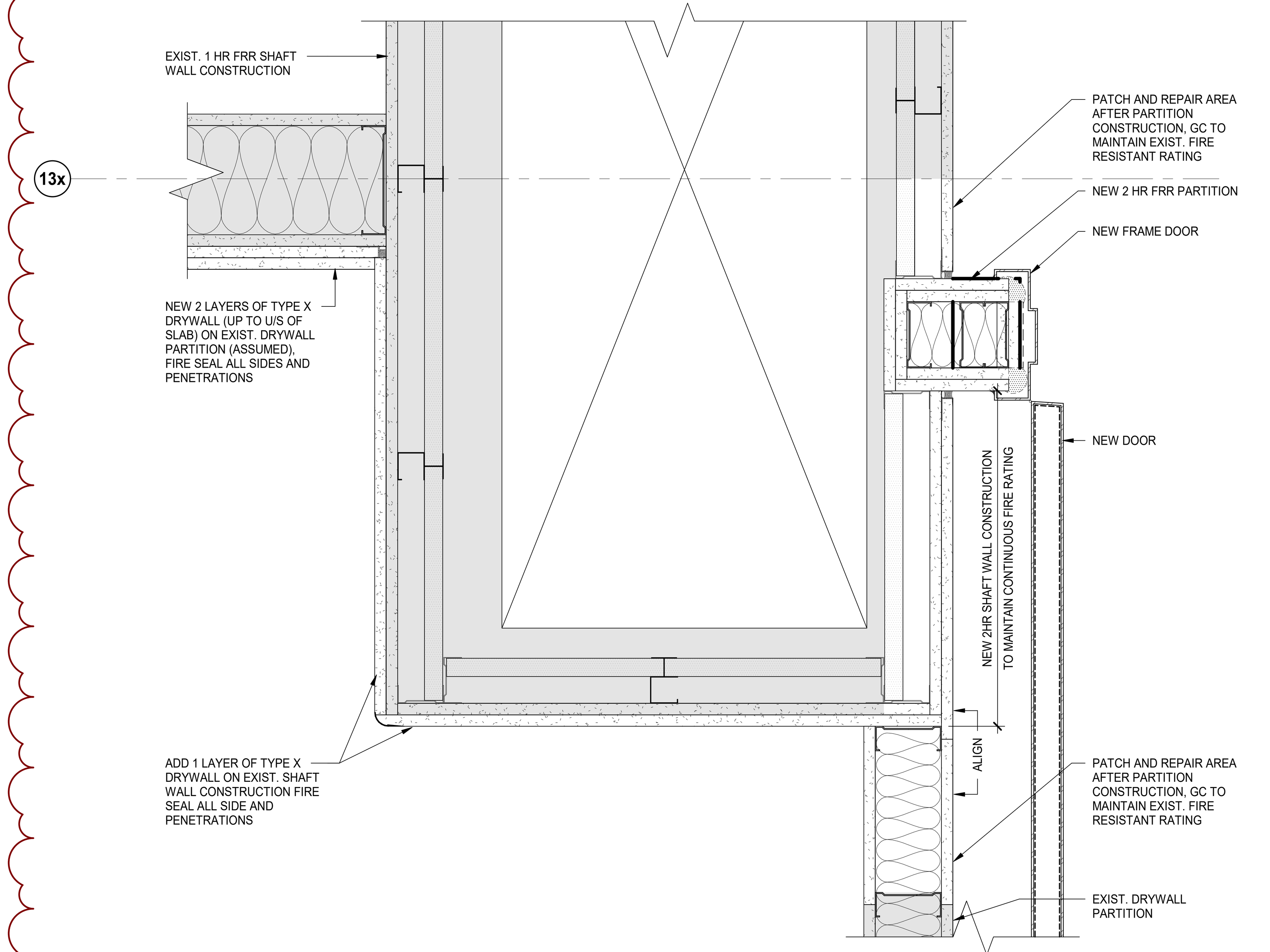
Drawing Title
LEVEL 7 - FLOOR PLANS-DEMOLITION

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

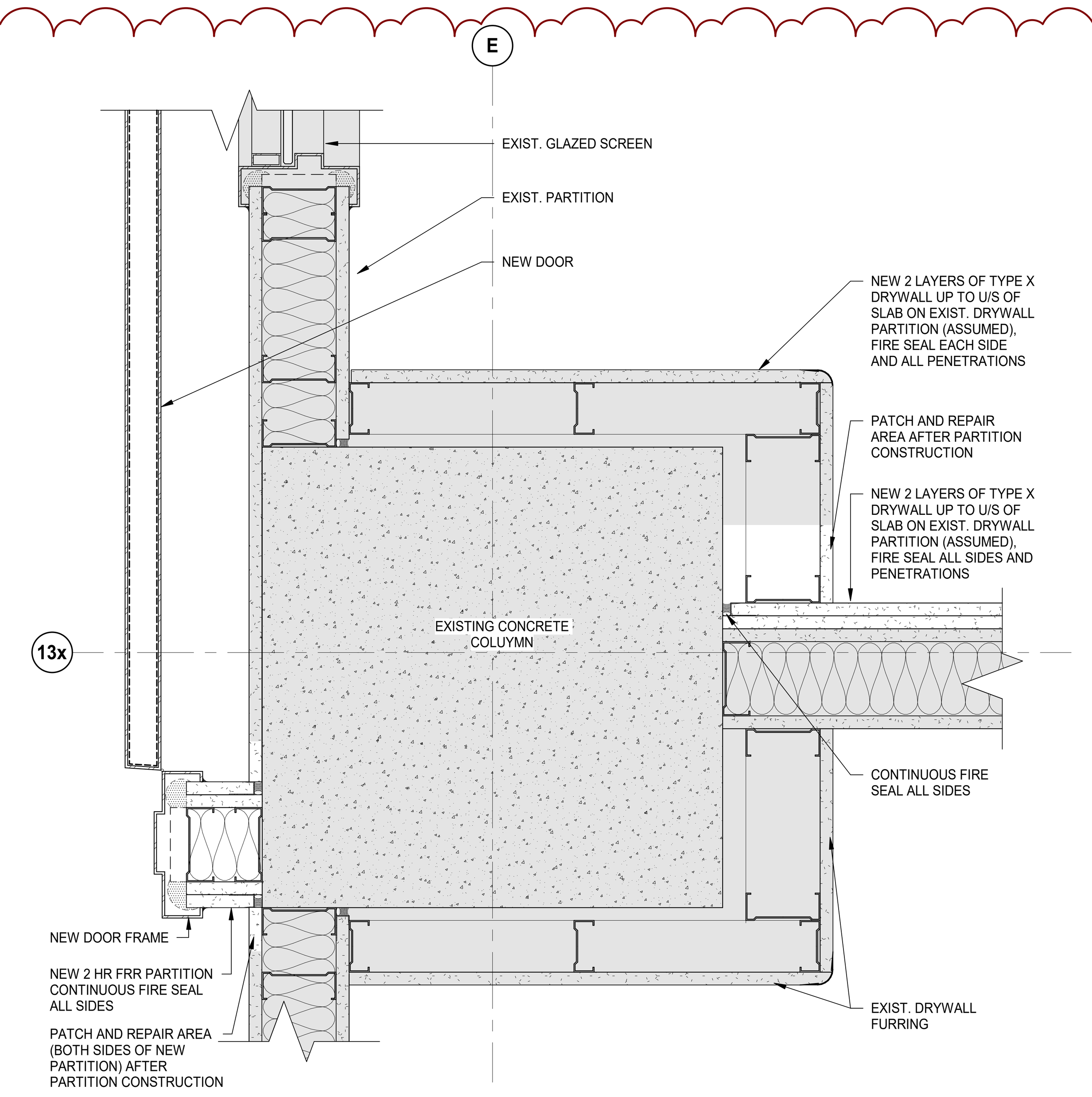
Project No.
HS 1024-0176

Drawing No.
AF 07 AN 01

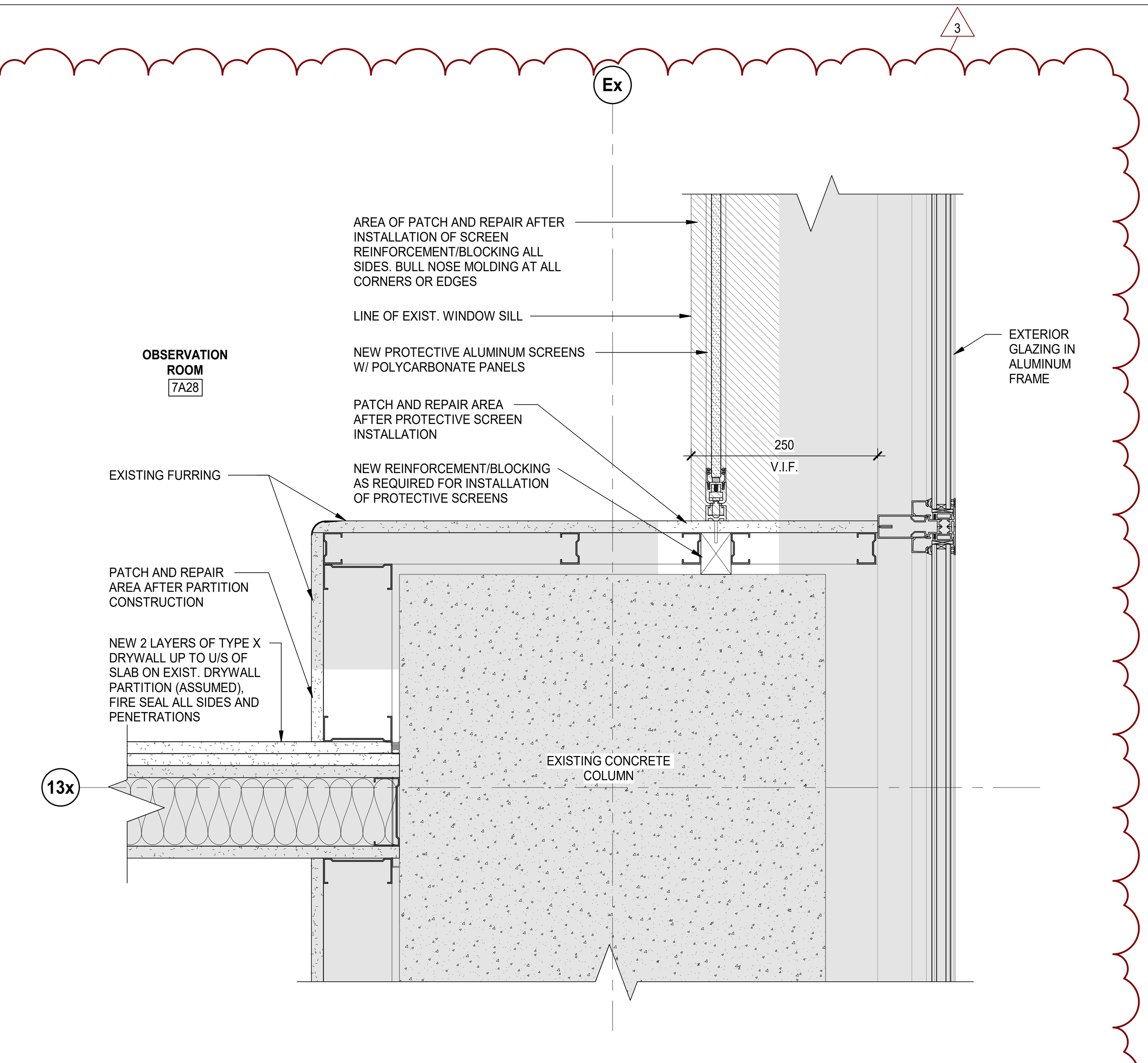
SK Atrium TB - 864 x 1232



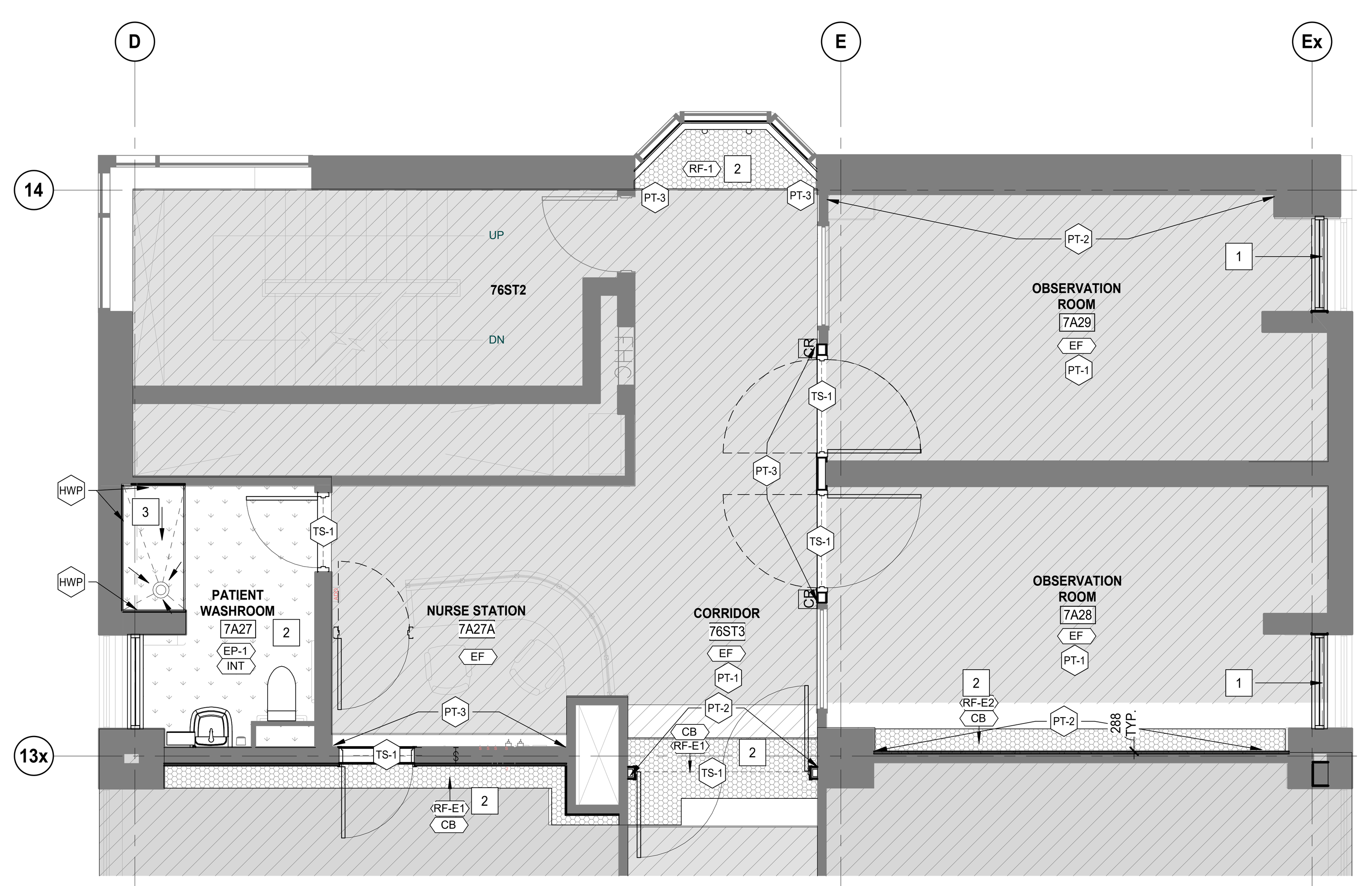
7 AF 07 AN 02 — PLAN DETAIL AT SHAFT
SCALE: 1 : 5



6 AF 07 AN 02 — PLAN DETAIL AT PATIENT ROOM
SCALE: 1 : 5



5 AF 07 AN 02 — PLAN DETAIL OF PROTECTIVE SCREEN AT OBSERVATION ROOM 7A28
SCALE: 1 : 5



4 AF 07 AN 02 — RENO FLOOR FINISH PLAN - LEVEL 7
SCALE: 1 : 50

FINISHES PLAN LEGEND

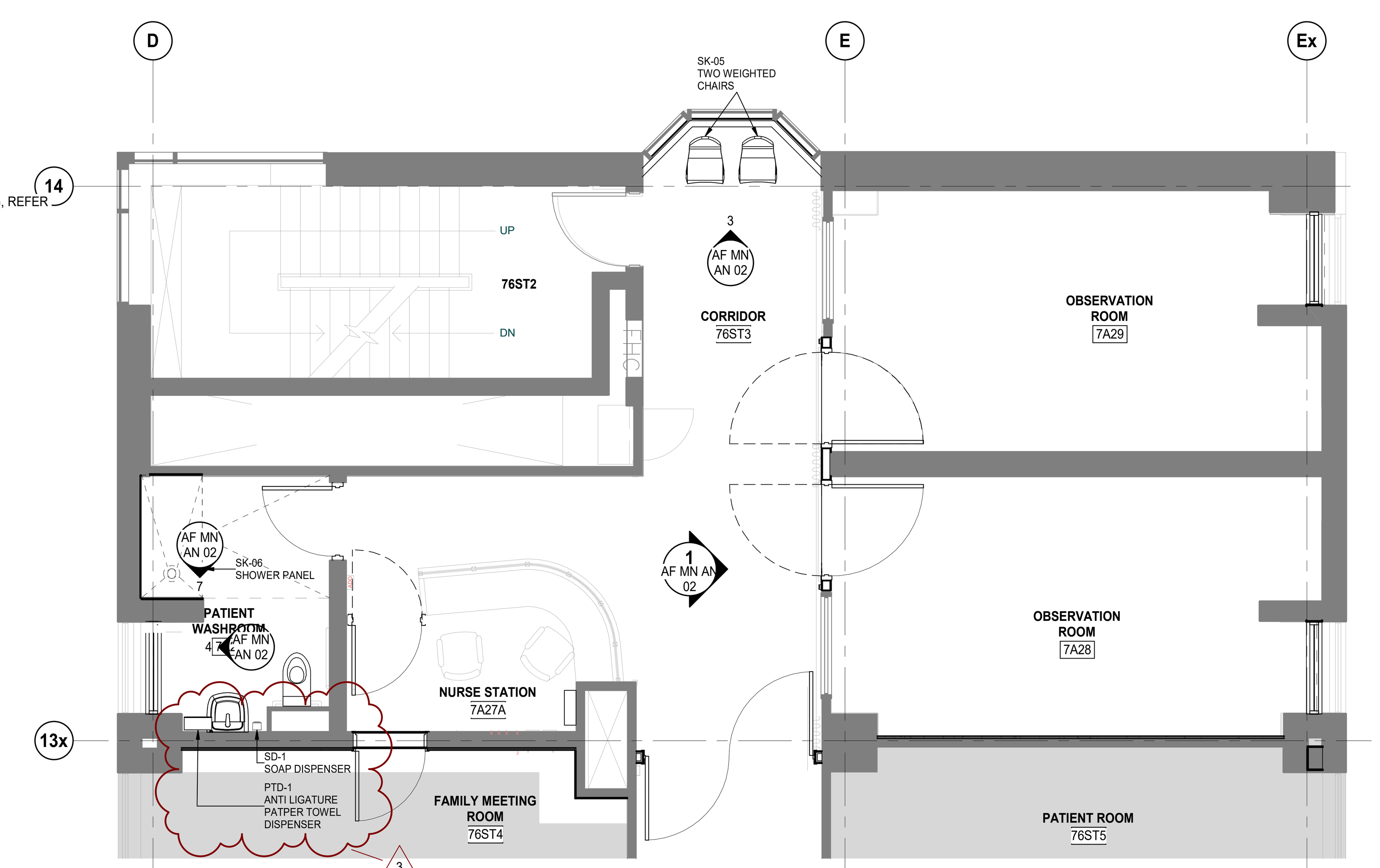
- DENOTES EXISTING AREA OUT OF SCOPE
- EXISTING PARTITIONS TO REMAIN
- EP-1 / INT — EPOXY RESIN FLOOR WITH INTEGRAL BASE AS SPECIFIED / EXISTING PARTITIONS TO REMAIN
- RF-Ex / INT — NEW RESILIENT SHEET FLOORING TO MATCH EXISTING, REFER TO SPEC COVE BASE
- EF — EXISTING FLOOR TO REMAIN
- PT-1 — FIELD PAINT
- PT-2 — ACCENT PAINT
- PT-3 — RESERVED
- HWP — WHITE ROCK HYGIENIC WALL PANELING
- TS-1 — PROOF HEAT WELD AT TRANSITIONS.

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 THICKNESS UNLESS NOTED OTHERWISE.
3. FOR AREAS TO RECEIVE NEW FLOOR FINISHES SEAL, FILL CRACKS, SUBSTRATE SURFACE IRREGULARITIES AND DEPRESSIONS WITH SUITABLE CONCRETE FILLER AND FINISH SMOOTH BEFORE APPLYING FINISHES.
4. COVER AND PROTECT EXISTING FLOOR FINISH DURING CONSTRUCTION AS REQUIRED.
5. ALL WALLS TO RECEIVE PT-1, UNLESS OTHERWISE NOTED.

FINISH KEYNOTES :

1. NEW MOTORIZED SOLAR CONTROL BLIND. OPERATED BY TAMPER PROOF SWITCH IN PATIENT ROOM. OVERRIDE SWITCH AT NURSING STATION
2. PATCH AND REPAIR FLOORING WHERE REMOVED FROM PARITION WORK. ALIGN AND MATCH ADJACENT FLOORING. PROVIDE COVE FLOORING WITH COVE FILLET AND PICK PROOF CAULKING AS SPEC'D
3. FLOOR FILLER/LEVELLER REQUIIRED FOR FLOOR TO SLOPE TO EXISTING DRAIN LOCATION AS SHOWN.
4. RESERVED



3 AF 07 AN 02 — RENO FURNITURE AND EQUIPMENT PLAN - LEVEL 7
SCALE: 1 : 50

FURNITURE & EQUIPMENT PLAN NOTES

1. ALL ACCESSORIES TO BE VANDAL-PROOF MODEL.

EQUIPMENT AND FURNITURE SCHEDULE

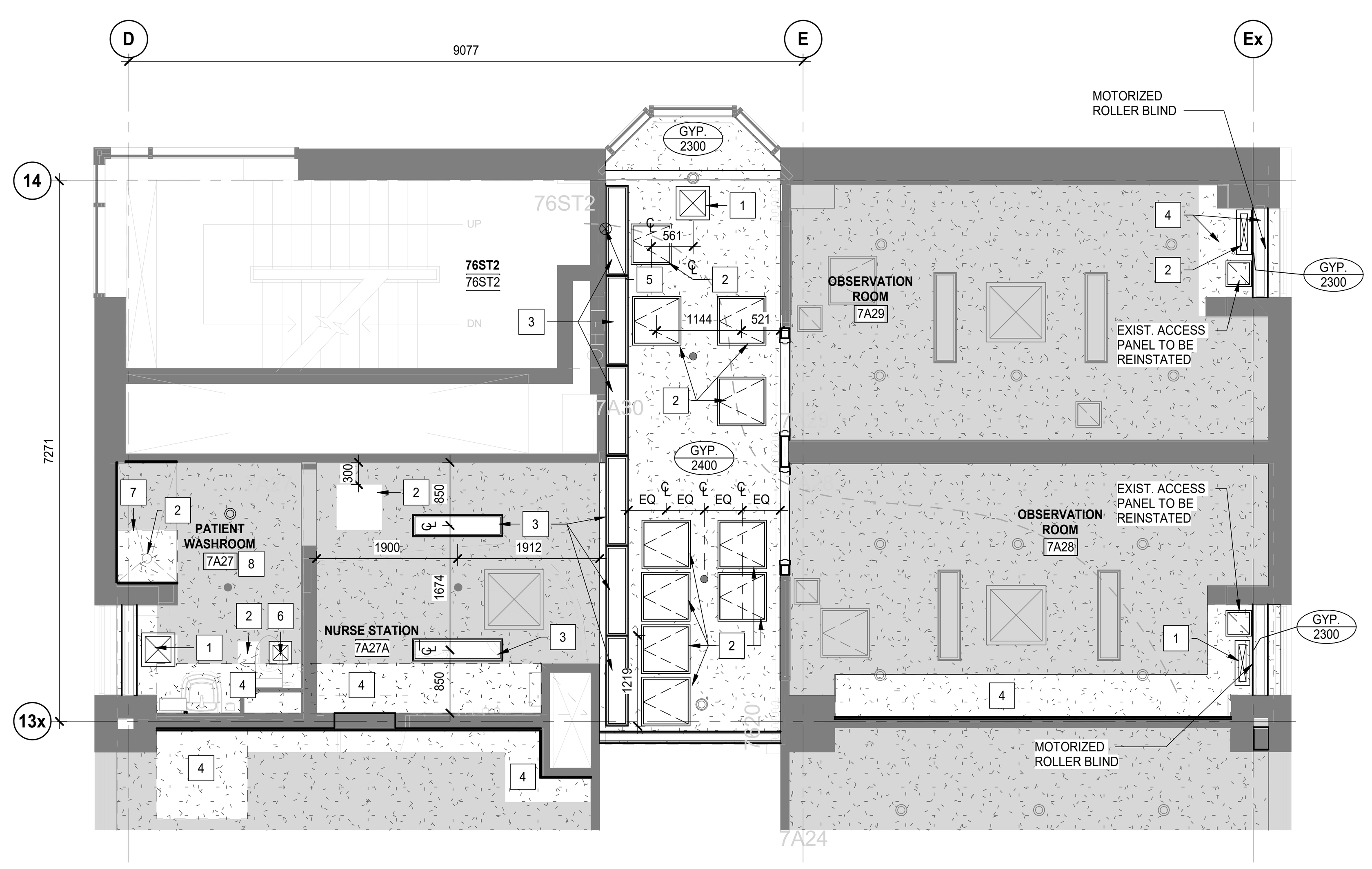
TAG	ITEM	SUPPLY		INSTALL	
		Sick Kids	GC	Sick Kids	GC
SK-01	HAND SANITIZER	☒			☒
SK-02	SOAP DISPENSER	☒			☒
SK-03	PAPER TOWEL DISPENSER	☒			☒
SK-04	WASTE BIN	☒		☒	
SK-05	TWO WEIGHTED CHAIRS	☒		☒	
SK-06	SHOWER PANEL	☒			☒
GC-01	NURSE CALL & PANIC BUTTON		☒		☒

FLOOR PLAN LEGEND / NOTES

GENERAL NOTE:
1. ALL SPACES IN 7A POD TO BE ANTI-LIGATURE AND TAMPER PROOF HARDWARE.
2. REPLACE ALL FIRE DAMPERS / STOPPING AT NEW 2HR RATED LOCATIONS TO BE 2HR. REFER TO FIRE SEPARATION PLAN.

- DENOTES EXISTING AREA OUT OF SCOPE
- EXISTING PARTITIONS TO REMAIN
- EXISTING FLOOR TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. REFER TO MECHANICAL AND ELECTRICAL FOR FULL EXTENT.

1. NEW WINDOW SILL.
2. PATCH AND REPAIR FLOORING.
3. RESERVED
4. NEW SECURITY CAMERAS. REFER TO ELEC DWGS FOR LOCATIONS.
5. NEW PLUMBING FIXTURES TO BE ANTI-LIGATURE, TAMPER PROOF REFER TO MECH DWGS FOR EXTENT OF WORK.
6. NEW ROLL-IN SHOWER AND SHOWER PANEL. EXISTING DRAIN LOCATION TO BE UTILIZED FOR NEW SHOWER. PROVIDE BLOCKING PER MANUFACTURERS RECOMMENDATION. REINSTALL EXISTING GRAB BARS, SHOWER HEAD AND FAUCET. (SEPARATE PRICING).
7. NEW FLOOR AND COVE BASE TO MATCH EXISTING FINISH AND COLOR. ALL SEAMS TO BE WELDED.



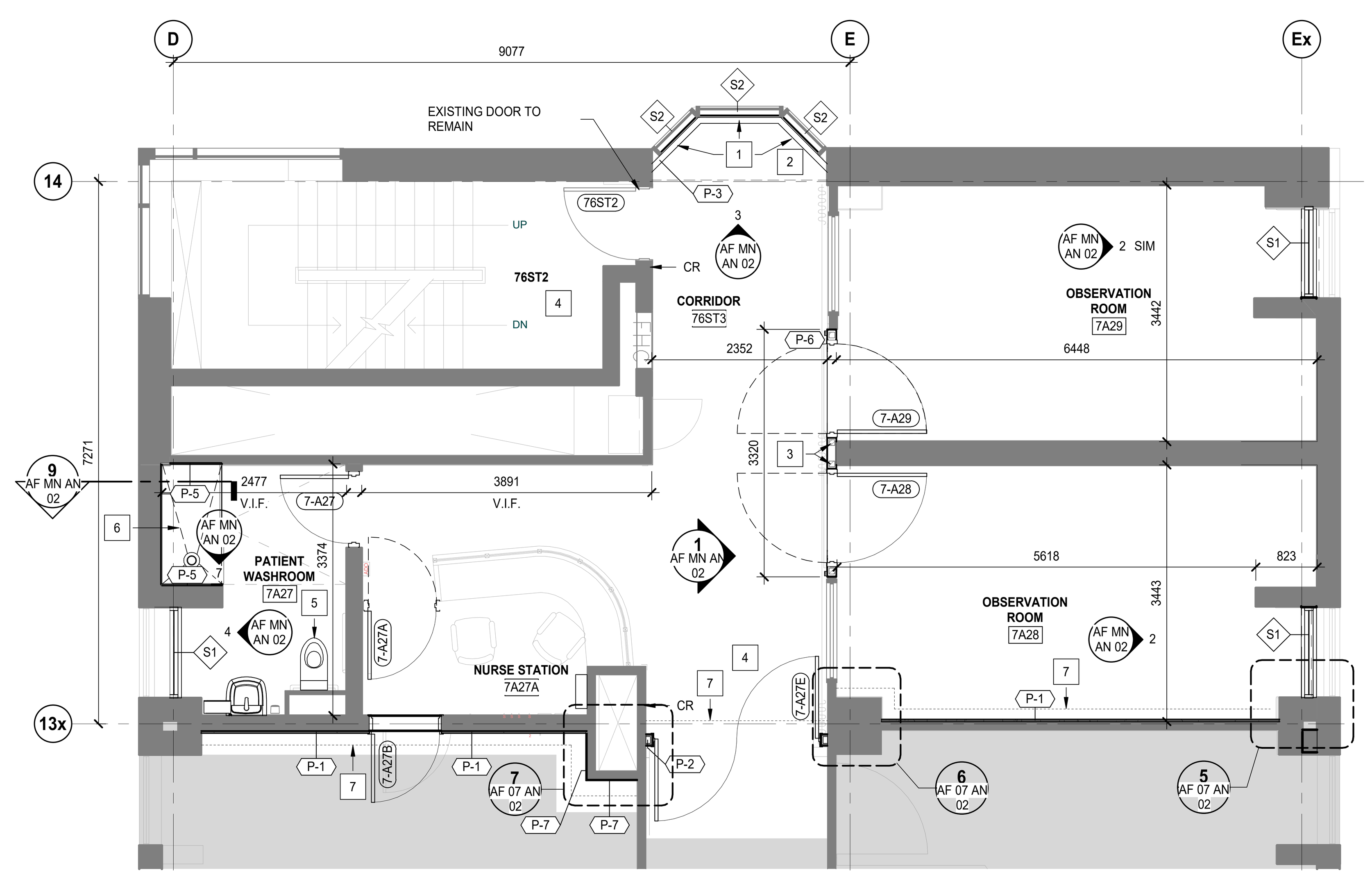
2 AF 07 AN 02 — RENO REFLECTED CEILING PLAN - LEVEL 7
SCALE: 1 : 50

REFLECTED CEILING LEGEND / SYMBOLS

- EXISTING TO REMAIN. AREA NOT INCLUDED IN PROJECT SCOPE
- EXISTING PARTITIONS TO REMAIN
- LIGHT FIXTURE
- ACOUSTIC CEILING TILE
- GYPSUM BOARD
- RETURN AIR GRILLE
- SUPPLY AIR DIFFUSER
- ANTI LIGATURE ACCESS PANEL 2X2 (LOCATION TO BE VERIFIED)
- CAMERA

GENERAL NOTES:
1. ALL SPACES IN 7A POD TO BE ANTI-LIGATURE AND TAMPER PROOF HARDWARE.
2. PATCH AND REPAIR CEILING AS REQUIRED.

1. NEW DIFFUSER. REFER TO MECH DWGS FOR EXTENT OF WORK.
2. NEW ACCESS PANEL. REFER TO MECH DWGS FOR EXTENT OF WORK.
3. NEW LIGHTING FIXTURES. REFER TO ELEC DWGS FOR EXTENT OF WORK.
4. GYPSUM BOARD CEILING TO BE PATCHED AND REPAIRED TO ACCOMODATE NEW SCREEN AND MECH WORK.
5. NEW ANTI-LIGATURE EXIT SIGN. REFER TO ELEC DWGS FOR EXTENT OF WORK.
6. NEW EXHAUST GRILLE. REFER TO MECH DWGS FOR EXTENT OF WORK.
7. RESERVED
8. ENTIRE ROOM CEILING TO BE REPAINTED WITH PT-4



1 AF 07 AN 02 — RENO FLOOR PLAN - LEVEL 7
SCALE: 1 : 50

INTERIOR PARTITION TYPES

- P-1
  - ADD 2 X 16 GYPSUM BOARD (TYPE X) TO EXIST. PARTITION
  - 2 HR RATED
  - FROM FLOOR TO U/S OF STRUCTURE
- P-2
  - 2 X 16 GYPSUM BOARD (TYPE X)
  - 92mm STEEL STUD @406 O/C, FILLED WITH BATT INSULATION
  - 2 X 16 GYPSUM BOARD (TYPE X)
  - 2HR RATED
  - FROM FLOOR TO U/S OF STRUCTURE
- P-3
  - 1 X 16 GYPSUM BOARD
  - 64mm STEEL STUD @406 O/C
- P-4
  - 1 X 16 GYPSUM BOARD
  - 64mm STEEL STUD @406 O/C
  - 1 X 16 GYPSUM BOARD
- P-5
  - 1 X 16 MOISTURE RESISTANT GYPSUM BOARD

DATE	ISSUED FOR	REV
2025-01-16	ISSUED FOR 95% CD	1
2025-02-20	PERMIT & TENDER	2
2025-03-17	ADDENDUM 2	3

Keyplan
PROJECT LOCATION (GROUND LEVEL)

North Arrow | Detail Symbol: Detail No. / Sheet No.

Consultants
Civil:
Landscape & Planning:
Architecture:
Structural:
Mechanical:
Electrical:
Survey:
Branding:

Seal(s)
ONTARIO ASSOCIATION OF ARCHITECTS — FRANK R. PANICI — LICENCE 5290

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Project Manager: Checker | Drawn: Author
Project Leader | Checked: Checker

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

Project
SICKKIDS - 7A SCHEDULE - 1BEDS REFRESH
ATRIUM (SLAIGHT) WING, 170 ELIZABETH STREET, TORONTO, ON , M5G 1E8

Drawing Title
LEVEL 7 - FLOOR PLANS- RENO

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

Project No.
HS 1024-0176

Drawing No.
AF 07 AN 02

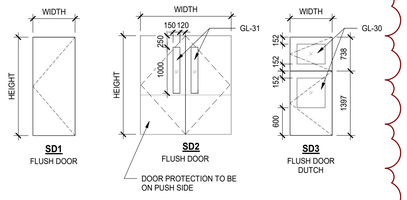
SK Atrium TB - 864 x 1232

3/17/2025 3:39:57 PM

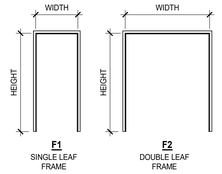
DOOR & FRAME SCHEDULE

DOOR NO.	DOOR PARAMETERS: TYPE	DIMENSIONS: WIDTH	HEIGHT	THK	MATL	GLASS TYPE	FINISH	FRAME PARAMETERS: FRAME TYPE	MATL	GLASS TYPE	FINISH	FIRE RATING	COMMENTS
7-A27	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	PTD	EXIST.	EXIST.	EXIST.	PTD		
7-A27A	SD3	915	2150	45	HM	GL-30	PTD	F1	PS	(none)	PTD		
7-A27B	SD1	915	2135	45	HM	(none)	PTD	F1	PS	(none)	PTD	90 MIN	
7-A27E	SD2	1100+1100	2150	45	HM	GL-31	PTD	F2	PS	(none)	PTD	90 MIN	DOUBLE DOOR- 1100 EACH, DOOR PROTECTION ON PUSH SIDE
7-A28	PD1	1200	2150	45	-	GL-30	-	-	-	-	-		SPECIALTY DOOR SYSTEM, REFER TO ELEVATION
7-A29	PD1	1200	2150	45	-	GL-30	-	-	-	-	-		SPECIALTY DOOR SYSTEM, REFER TO ELEVATION

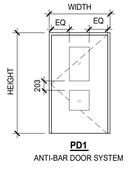
SINGLE SWING DOOR TYPES



FRAME TYPES



PACKAGED DOOR TYPES



DOOR / FRAME LEGENDS & ABBREVIATIONS

LEGEND / ABBREVIATIONS

ALUM	ALUMINUM
ANOD	ANODIZED
CLR	CLEAR
DCRON	DURACRON
DNAR	DURANAR
EXT	EXTERIOR
F	FRAME
G ( )	GLASS (type)
GA	GLAZED ALUMINUM
GALV	GALVANIZED
GWG	GEORGIAN WIRE GLASS
HCW	HOLLOW CORE WOOD
HM	HOLLOW METAL
HR	HOUR
INSUL	INSULATED
MIN	MINUTE
N/A	NOT APPLICABLE
NF	NO FRAME (FRAMELESS)
PC	POWDER COAT
PS	PRESSED STEEL
PTD	PAINTED
SCW	SOLID CORE WOOD
SS	STAINLESS STEEL
STL	STEEL
TSG	TEMPERED SAFETY GLASS
WD	WOOD
WV	WOOD VENEER

DOOR TYPES LEGEND

BF	BIFOLD DOOR
CD	COILING DOOR
CS	COUNTER SHUTTER
DD	DOUBLE SWING DOOR
GA	GLAZED ALUMINUM DOOR
GL	GLASS DOOR
HD	HANGAR DOOR
ID	IMPACT DOOR
OH	OVERHEAD DOOR
RE	REVOLVING DOOR
RO	ROLLING DOOR
RR	RAPID ROLL DOOR
SD	SINGLE SWING DOOR
SL	SLIDING DOOR
SP	SPECIAL DOOR (define and detail)

CORE LEGEND

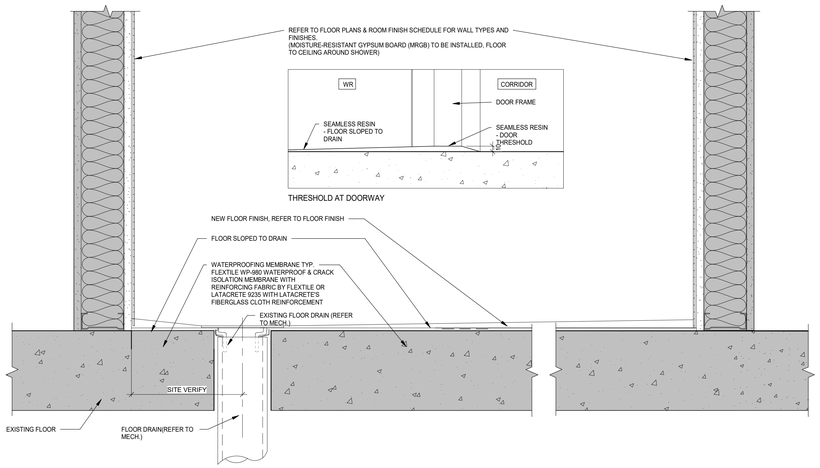
GYP	GYPSUM
HC	HOLLOW CORE
HO	HONEY-COMB
ISO	POLYISOCYANURATE
MF	MINERAL FIBRE
PO	POLYSTYRENE
SC	SOLID CORE
UR	POLYURETHANE

DUTY LEGEND

MED	MEDIUM
STD	STANDARD
HVY	HEAVY
X-HVY	EXTRA HEAVY

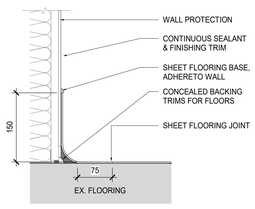
DOOR AND FRAME GENERAL NOTES

1. REFER TO SPECIFICATIONS OR FINISH IDENTIFICATION SCHEDULE FOR DESCRIPTION OF FINISHES AND COLOURS

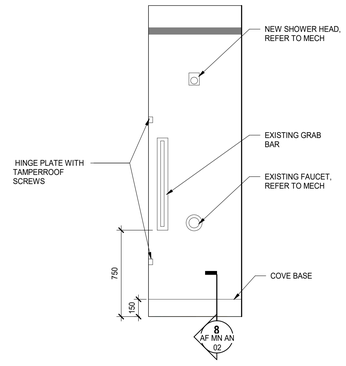


NOTE:
FLOOR DEPRESSION TO FOLLOW EXTENT OF WASHROOM DEMISING WALLS (TYP.).

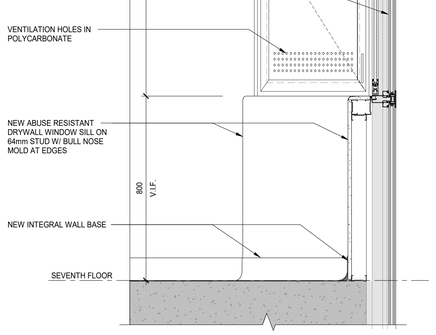
9 AF MN AN 02 TYPICAL BARRIER FREE SHOWER DETAIL
SCALE: 1 : 5



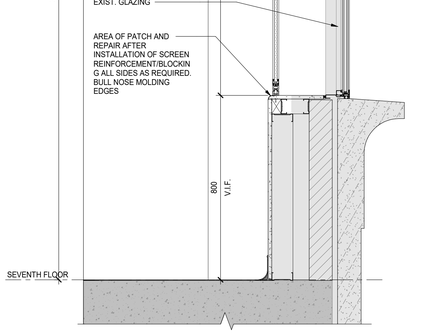
8 AF MN AN 02 TYPICAL COVE BASE
SCALE: 1 : 5



7 AF MN AN 02 SHOWER -PATIENT WASHROOM ELEVATION
SCALE: 1 : 20

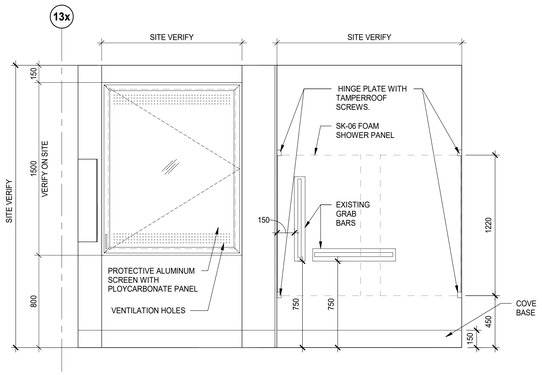


6 AF MN AN 02 TYPICAL WINDOW S2 SECTION DETAIL AT CORRIDOR WINDOW
SCALE: 1 : 10

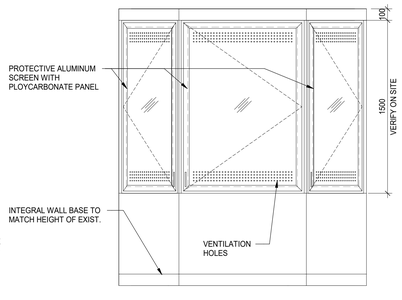


5 AF MN AN 02 TYPICAL WINDOW S1 SECTION DETAIL
SCALE: 1 : 10

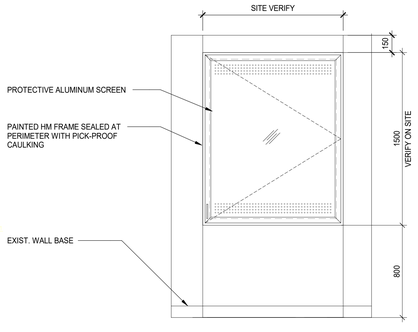
13x



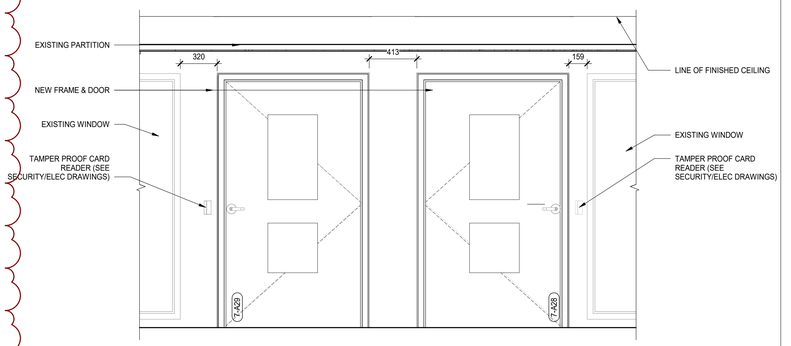
4 AF MN AN 02 WINDOW S1 & SHOWER -PATIENT WASHROOM ELEVATION
SCALE: 1 : 20



3 AF MN AN 02 WINDOW S2 - CORRIDOR ELEVATION
SCALE: 1 : 20



2 AF MN AN 02 WINDOW S1 - PATIENT ROOMS ELEVATION
SCALE: 1 : 20

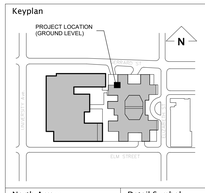


1 AF MN AN 02 INTERIOR ELEVATION - CORRIDOR
SCALE: 1 : 20

DATE	ISSUED FOR	REV
2025-01-16	ISSUED FOR 95% CD	1
2025-02-20	PERMIT & TENDER	2
2025-03-17	ADDENDUM 2	3

CREASE LINE 24" FROM EDGE

Keyplan



North Arrow

Detail Symbol

Detail No.
Sheet No.

CREASE LINE 24" FROM EDGE

Consultants

Civil:
Landscape & Planning:
Architecture:
Structural:
Mechanical:
Electrical:
Survey:
Branding:

Seal(s)

ONTARIO ASSOCIATION OF ARCHITECTS
FRANK R. PANICI
LICENCE
5290

NORR

NORR Architects & Engineers Limited

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

CREASE LINE 24" FROM EDGE

Project Manager Checker	Drawn F.Emre
Project Leader	Checked Checker

Client

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

Project

SICKKIDS - 7A SCHEDULE - 1BEDS REFRESH
ATRIUM (SLAIGHT) WING, 170 ELIZABETH STREET, TORONTO, ON , M5G 1E8

Drawing Title

DOOR SCHEDULE & DETAILS

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

Project No.
HS 1024-0176

Drawing No.
AF MN AN 02

SK Atrium TB - 864 x 1232

Autodesk Docs://Sick Kids - 7A Schedule - 1 beds refresh/NORR_CHBS-2-Ch10_ARCH_Sick-Kids_7A-Schedule-1Beds-Refresh_R24.rvt

IProject Name:	SickKids 7A Schedule 1 Beds Refresh	**Date Issued:**	March 17, 2025
Quasar Project #:	HC-23-106		
Client Project #:	-		

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Addendum #: M-1
Revision #: 00

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.

This addendum includes modifications to the drawings as summarized below. Unless otherwise noted, all drawings listed below are attached herewith.

Changes to Specifications:

1. **Refer to attached Specification 22 43 00.00 - Healthcare Plumbing Fixtures**
    1. Added 2.2.2 WC-1 and associated accessories. Specific changes are highlighted in the attached updated spec section.

Changes to Drawings:

2. **Refer to attached Drawing MA 00 AT 02 "MECHANICAL DRAWING LIST, SCHEDULE, LEGEND AND KEY PLAN" and note revisions, including but not limited to the following:**
    1. Revisions to MECHANICAL GRILLE & DIFFUSER SCHEDULE as indicated.
3. **Refer to attached Drawing MP 07 AT 01 "PARTIAL SEVENTH FLOOR PLAN – PLUMBING & FIRE PROTECTION" and note revisions, including but not limited to the following:**
    1. Addition of level 6 demolition and new work drawings as indicated.
4. **Refer to attached Drawing MV 07 AT 01 "PARTIAL SEVENTH FLOOR PLAN -VENTILATION" and note revisions, including but not limited to the following:**
    1. Addition of level 6 demolition and new work drawings as indicated.
    2. Revision to ductwork arrangements as at windows to accommodate new barrier design as shown.
5. **Refer to attached Drawing MC 00 AT 01 "MECHANICAL DETAILS" and note revisions, including but not limited to the following:**
    1. Delete detail 9 "BARRIER INTAKE / EXHAUST GRILLE DETAIL"

Quasar Consulting Group

Michael Martins

PART 1 - GENERAL

1.1 SECTION INCLUDES

.1 Plumbing fixtures and related components.

1.2 SUBMITTALS

.1 Submit product data sheets (fixture cuts) for all plumbing fixtures and fittings, including accessories.

.2 Product Data: Include selected fixture and trim, fittings, accessories, appliances, appurtenances, equipment, and supports and indicate materials and finishes, dimensions, construction details, and flow-control rates for each type of fixture indicated.

.3 Wiring Diagrams: Power, signal, and control wiring.

.4 Submit fixture manufacturer's standard colour charts for all fixtures where colours are available but a particular colour is not specified.

1.3 CLOSEOUT SUBMITTALS

.1 Operation and maintenance data.

PART 2 - PRODUCTS

2.1 GENERAL RE: PLUMBING FIXTURES AND FITTINGS

.1 Fixtures and fittings, where applicable, are to be in accordance with requirements of CAN/CSA-B45 Series, General Requirements for Plumbing Fixtures, including supplements, ASME A112.1.18.1/CSA B125.1, Plumbing Supply Fittings, and CAN/CSA-B125.3, Plumbing Fittings.

.2 Barrier-free fixtures and fittings are to be in accordance with governing Code requirements.

.3 Unless otherwise specified, vitreous china, porcelain enamelled, and acrylic finished fixtures are to be white.

.4 Unless otherwise specified, toilet seats are to be constructed with an anti-microbial compound to inhibit growth of bacteria on seat surface.

.5 Unless otherwise specified, fittings and piping exposed to view are to be brass, chrome plated and polished.

.6 Fittings located in areas other than private washrooms are to be vandal-resistant.

.7 Fixture carriers are to be suitable in all respects for the fixture they support and construction in which they are located.

.8 Floor flanges for floor mounted water closets are to be cast iron or brass, secured to floor to prevent movement and complete with a wax seal and brass or stainless steel bolts, nuts, and washers. Plastic floor flanges will not be acceptable.

.9 Proper seal to mate with fixture carrier flange and produce a water-tight installation.

.10 Exposed traps for fixtures not equipped with integral traps, such as lavatories, are to be adjustable chrome plated cast brass "P" traps with cleanouts, minimum #17 gauge chrome plated tubular extensions, and chrome plated escutcheons, all to suit fixture type and drain connection.

.11 Concealed traps for fixtures not equipped with integral traps, such as counter sinks, are to adjustable cast brass with cleanout plugs, all to suit fixture type and drain connection.

.12 Exposed supplies for fixtures which do not have supply trim/fittings with integral stops, i.e. lavatories, are to be solid chrome plated brass angle vales with screwdriver stops for public areas, wheel handle stops for private areas, flexible stainless steel risers, and stainless steel or chrome plated steel escutcheons, all arranged and sized to suit fixture.

.13 Water piping as specified, complete with ball type shut-off valves as specified with water piping or Dahl Bros. Canada Ltd. ¼ turn Mini Ball Valves.

2.2 PLUMBING FIXTURES AND FITTINGS

.1 Plumbing fixtures and fittings are to be in accordance with following:

.2 WC-1 – WALL-HUNG LIGATURE RESISTANT TOILET

.1 WHRC2142ADA-W-2-EGE10 Whitehall Best-Care™ Ligature Resistant ADA 2010 Compliant Replacement Toilet Wall Outlet, Wall Supply, Replacement ADA Toilet for Existing In-Wall Mounting Carrier intended for use with existing In-Wall Mounting Carrier Support with (4) Bolt Pattern. Fixture shall be fabricated from 16 gauge type 304 stainless steel. On-floor units can withstand load rating of 5000 lbs. without permanent damage. Construction shall be seamless welded and outside surfaces are powder coated white. Housing to include side access panels to facilitate installation. Toilet shall be concealed siphon jet type with an elongated bowl and self-draining flushing rim. Toilet shall be ASME A112.19.3, CSA B45.4 and 2010 ADA compliant. Toilet requires a minimum of 25 PSI flow pressure and uses a minimum water consumption of 1.28 GPF. Toilet trap shall have a minimum 3-1/2” seal and shall pass a 2-1/8” diameter ball and is fully enclosed.

.2 WH-LRSC-GRAY Ligature Resistant ABS Toilet Seat Cover.

.3 WHD2898-1.28 Dignity Ligature SuiteTM Resistant Recessed Hydraulic Flush Valve Cover Assembly Ligature Resistant Flush Valve Cover With 1.6 GPF Hydraulic Operated Flush Valve (EG10 Snow White)

.4 WHD2898 ADA Whitehall Ligature Resistant Hydraulic Flush Valve Access Panel For Use With Ligature Resistant Grab Bar Model WHD2898 Provide and install Whitehall WHD2898 ADA compliant Hydraulic Operated Flush Valve Access Panel. Upper and lower removable Access Panels to be fabricated of 14 gauge type 304 stainless steel and include 1/4” vandal resistant stainless steel fasteners. The Access Panels are to secure to an in-wall mounting frame fabricated of 16 gauge type 304 stainless steel. All exposed surfaces shall include Snow White (EG10) Enviro-glaze™ color powder coated finish. Provided complete concealed Hydraulic Operated Flush Valve with ligature resistant Pushbutton. The Flush Valve shall be 1.28 GPF

2.3 MANUFACTURERS

.1 Subject to compliance with requirements, manufacturers that may be incorporated into the Work include, but are not limited to, following:

.1 Flush Valves:

.1 Sloan;

.2 Delta Commercial;

.3 Zurn Industries.

.2 Plumbing Brass:

.1 Sloan;

.2 Acorn Engineering;

.3 American Standard;

.4 Delta Commercial;

.5 Chicago Faucet.

.3 Drain Fittings, Angle Supplies, and Traps:

.1 McGuire;

.2 American Standard;

.3 Delta Commercial;

.4 Zurn Industries.

.4 Fixture Carriers:

.1 Watts Industries;

.2 Jay R. Smith;

.3 Zurn Industries.

2.4 CAULKING

.1 General Electric Series SCS-1200 Silicone Construction Sealant or Dow Corning 780 silicone rubber sealant with primers as recommended by sealant manufacturer. Caulking colour(s) for coloured fixtures other than white, if any, will be selected by Consultant from sealant manufacturer's standard colour range.

.2 Caulking in Mental Health areas shall be pick proof.

PART 3 - EXECUTION

3.1 DEMOLITION

.1 Refer to demolition requirements specified in Section 20 05 05 – Selective Demolition for Mechanical.

3.2 INSTALLATION OF PLUMBING FIXTURES AND FITTINGS

.1 Provide required plumbing fixtures and fittings.

.2 Where new fixtures and fittings are to be connected to existing piping, include for required piping revisions.

.3 Connect plumbing fixtures and fittings with piping sized in accordance with drawing schedule. Refer to manufacturer's published connection (rough-in) requirements. Where manufacturer requires piping connection larger than shown below, provide piping accordingly:

Fixture and/or Fitting	Drain Size mm (in)	Vent Size mm (in)	DHW size mm (in)	DCW size mm (in)	Temp Water Size mm (in)
Water Closets Flush Valve Type	100 (4)	38 (1-½)	-	25 (1)	-
Urinals	75 (3)	38 (1-½)	-	25 (1)	-
Lavatories	32 (1-¼)	32 (1-¼)	12 (½)	12 (½)	-
Lavatories (Electronic Faucet)	32 (1-¼)	32 (1-¼)	12 (½)	12 (½)	12 (½)
Counter Sinks	38 (1-½)	32 (1-¼)	12 (½)	12 (½)	-
Shower Valves and Heads	-	-	12 (½)	12 (½)	12 (½)
Shower Stalls	50 (2)	38 (1-½)	12 (½)	12 (½)	12 (½)
Prefab. Mop Sinks with Drain	75 (3)	38 (1-½)	20 (¾)	20 (¾)	-
Surgeon Scrub Sinks	38 (1-½)	32 (1-¼)	20 (¾)	20 (¾)	-
Emergency Eye Wash	-	-	-	-	12 (½)
Emergency Showers	-	-	-	-	25 (1)
Clinic Service Sinks	100 (4)	38 (1-½)	12 (½)	1 @ 25 (1) 1@ 12 (½)	-

.4 Confirm exact location of plumbing fixtures and trim prior to roughing-in. Refer to architectural plan and elevation drawings.

.5 When installation is complete, check and test operation of each fixture and fitting. Adjust or repair as required.

.6 For barrier-free fixtures, comply with mounting height and other requirements of governing Code(s).

.7 For barrier-free water closets utilizing manual flush controls, controls to be installed so that it is operable from the transfer side of the fixture.

.8 Supply templates for counter mounted fixtures and trim and hand to trades who will cut the counter. Ensure openings in counter are properly located.

.9 Locate control panels for electronic faucets under lavatories and recessed into wall. Coordinate panel installations with electrical trade who will provide 115 volt power wiring to panels. Install flexible conduit (supplied with box) and extend cord from faucet through the flexible conduit to control box. Connect hot and cold water piping to mixing valve in each box, and tempered water piping from each mixing valve to faucet. Set mixing valve maximum temperature limit stops to 43°C (110°F) after domestic water systems (hot and cold) are complete. Ensure each programmable controller is properly programmed and water off after deactivation is set for 3 seconds.

.10 Protect baths from damage during construction and finishing work. Unless otherwise specified, pack concealed voids under baths with batt type glass fibre insulation as baths are installed.

.11 Protect shower bases from damage during construction and finishing work.

.12 Confirm exact mixing valve and shower head locations prior to roughing-in.

.13 Install refrigerated drinking fountains in accordance with manufacturer's instructions. Plug into a wall receptacle provided as part of electrical work. Coordinate receptacle installation with electrical trade on site.

.14 For emergency showers, install so bottom of shower head is approximately 2 m (82") above floor, and approximately 400 mm (16") out from wall. Wall mount mixing valve approximately 1.5 m (5') above floor and adjacent shower head. Set valve temperature limit stop to 35°C (95°F). Ensure valve is open, and exposed piping is chrome plated or stainless steel.

.15 Install eye wash fixtures in accordance with manufacturer's instructions. Ensure exposed piping is painted.

.16 Wall mount mixing valves for emergency fixtures approximately 1.5 m (5') above floor and secure in place. Check and confirm valve operation and temperature of tempered water supply. Provide cabinets where shown. Identify each cabinet and hand 3 identified cabinet keys to Consultant prior to Substantial Performance of the Work.

.17 Set mop service basins on floor over drain piping and connect to roughed-in service. Install wall supply trim and any accessories specified.

3.3 CAULKING AT PLUMBING FIXTURES AND FITTINGS

.1 Caulk around plumbing fixtures and fittings where they contact walls, floors, and any other building surface.

.2 Clean areas/surfaces to be caulked and prime in accordance with sealant manufacturer's instructions. Where damage to a building surface may occur, mask surface to prevent damage and ensure a clean exact edge to caulking bead.

.3 Apply caulking using a gun with proper size and shape of nozzle and force sealant into joints to ensure good surface contact and a smooth and even finished bead of sealant.

.4 If joints have been masked sealant may be tooled in a continuous stroke to obtain complete void filling. Remove masking tape immediately after tooling and before sealant begins to skin.

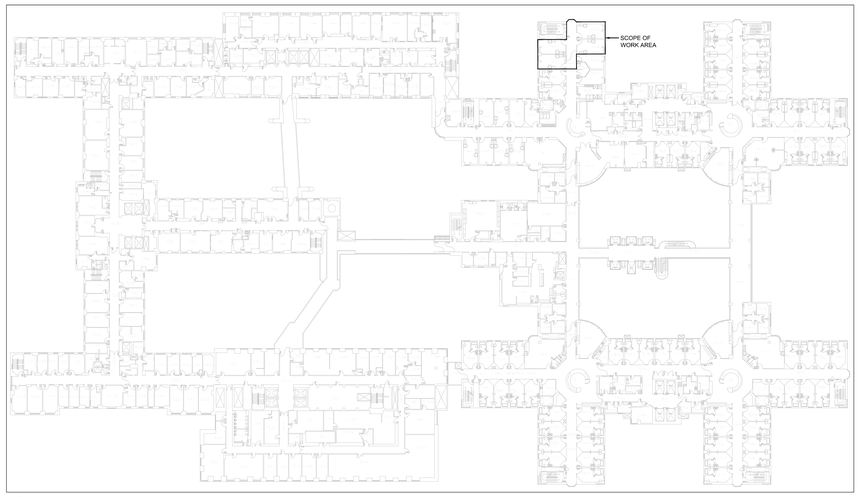
END OF SECTION

GRILLE & DIFFUSER SCHEDULE

UNIT TAG	BASIS OF DESIGN		TYPE	VOLUME CONTROL	DIMENSION (mm x mm)	MATERIAL		REMARKS
	MANUFACTURER	MODEL						
A1	EH PRICE	MSRRCD-SUPPLY	MAXIMUM SECURITY RISK RESISTANT CEILING DIFFUSER - 2-WAY	NO	375 x 375	STEEL		1,2,3,4,5,7,10
A2	EH PRICE	MSRRCD-RETURN	MAXIMUM SECURITY RISK RESISTANT CEILING GRILLE - 1 WAY	NO	300 x 300	STEEL		1,2,3,4,5,7,10
A3	EH PRICE	MSRRCD-EXHAUST	MAXIMUM SECURITY RISK RESISTANT CEILING GRILLE - 1 WAY	NO	300 x 300	STEEL		1,2,3,4,5,7,10
B	EH PRICE	MSPG	MAXIMUM SECURITY EXHAUST GRILLE	NO	AS NOTED	STEEL		1,2,3,4,5,7,8
D	EH PRICE	LBP	LINEAR BAR GRILLE	NO	AS NOTED	ALUMINUM		1,3,4,5,9

NOTES:

1. ALL DIFFUSER AND GRILLE FRAMES SHALL SUIT CEILING CONSTRUCTION.
2. BACKPAN SHALL BE OF THE SAME MATERIAL AS THE DIFFUSER OR GRILLE.
3. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING CONSTRUCTION
4. DIFFUSERS IN DRYWALL CEILING TO BE CJW ADAPTOR FRAME TO ACCOMMODATE INSTALLATION. DIFFUSER ADAPTOR FRAME SHALL BE OF THE SAME MATERIAL AS THE DIFFUSER.
5. GRILLE AND DIFFUSER COLOUR TO SUIT ARCHITECTURAL DIRECTION.
6. NOT USED.
7. SECURITY GRILLES AND DIFFUSERS SHALL BE WITH COUNTERSUNK SECURITY FASTENERS.
8. P5 1/8" HOLES ON 3/16 60° STAGGERED CENTERS, FP12-12GA STEEL FACE PLATE, MF1 ANGLE FRAME FASTENING OR CS12-TORX-SS, PROVIDE COMPLETE ASSEMBLY DRAWINGS OF BARRIER AND DIFFUSER INSTALLATION DURING SHOP DRAWING REVIEW.
9. 1/8 - 3/32" BARS WITH 1/2" SPACING, BOTH ENDS MITRED, 750 - 3/4" FRAME, H - STRAIGHT FASTENING HOLE
10. GRILLE / DIFFUSER TO BE FASTENED TO CONCRETE SLAB USING FACTORY SUPPLIED MOUNTING ANGLES / FRAMES. (MIN 1/8" STEEL FRAME CONSTRUCTION SUPPORTED ON 4 SIDES). FASTENERS BETWEEN SLAB & FRAME AND FASTENERS BETWEEN FRAME AND GRILLE / DIFFUSER BY CONTRACTOR. INDICATE FRAME SIZE AND SLEEVE LENGTH DURING SHOP DRAWING REVIEW.



1 SEVENTH FLOOR KEYPLAN
SCALE: 1:500

PRESSURE INDEPENDENT CONTROL VALVES

TAG	MANUFACTURER	MODEL	SIZE	LOCATION	SERVICE	FLUID	REMARKS
CV-HWT-1	BRAY	SIMPLE SET	3/4"-S	CORRIDOR	BOOSTER COIL	WATER	1, 2
CV-HWT-2	BRAY	SIMPLE SET	3/4"-S	CORRIDOR	BOOSTER COIL	WATER	1, 2

NOTES:
1. CONTROL VALVE BASED ON BRAY SIMPLE SET 24V MODULATING - FAIL SAFE, MODEL SHOWN IS CV SIZE IN (IN)
2. CORRESPONDING CARTRIDGE TYPE S MEANING STANDARD FLOW, L MEANING LOW FLOW

HEATING & COOLING PIPING

SYMBOL	DESCRIPTION
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HGR	HEATING GLYCOL RETURN
HGS	HEATING GLYCOL SUPPLY
HTWR	HIGH TEMPERATURE HEATING WATER RETURN
HTWS	HIGH TEMPERATURE HEATING WATER SUPPLY
HTGR	HIGH TEMPERATURE HEATING GLYCOL RETURN
HTGS	HIGH TEMPERATURE 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
PC	PUMPED CONDENSATE
REFR	REFRIGERANT GAS
REFS	REFRIGERANT LIQUID
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
V	VENT
ST-V	STEAM VENT
GEOS	GEO-EXCHANGE SUPPLY
GEOR	GEO-EXCHANGE RETURN
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
FOC	FUEL OIL OVERFLOW
	UNION
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	EXPANSION COMPENSATOR
	EXPANSION LOOP
	PIPE ANCHOR
	PIPE GUIDE
	PIPE SLEEVE
	FLOAT & THERMOSTATIC TRAP
	INVERTED BUCKET TRAP
BBH-#	BASEBOARD HEATER
RP-#-XXX	RADIANT PANEL TYPE - HEAT OUTPUT
CUH	CABINET UNIT HEATER
UH	UNIT HEATER

FIRE PROTECTION

SYMBOL	DESCRIPTION
SP	SPRINKLER LINE
FM	FIRE MAIN
F	STANDPIPE
WFA	WATER FLOW ALARM
SV	SUPERVISED VALVE
PS	PRESSURE SWITCH
	TEST CONNECTION
	SPRINKLER FIRE DEPARTMENT CONNECTION
	PENDENT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	CONCEALED SPRINKLER HEAD
	CONCEALED INSTITUTIONAL TYPE SPRINKLER HEAD
	FIRE SUPPRESSION (CLEAN AGENT) HEAD
	SIDEWALL SPRINKLER HEAD
PIV	POST-INDICATOR VALVE
SVA	SPRINKLER VALVE CABINET
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
	FIRE EXTINGUISHER C/W WALL BRACKET
	FIRE HYDRANT C/W SHUT-OFF VALVE
	PRESSURE SWITCH WATER FLOW ALARM EXCESS PRESSURE PUMP WET ALARM CHECK VALVE TEST & DRAIN VALVE
	WATER FLOW ALARM PRESSURE SWITCH DRY ALARM CHECK VALVE TEST & DRAIN VALVE
	AIR COMPRESSOR

VENTILATION

SYMBOL	DESCRIPTION
FD	FUSIBLE LINK FIRE DAMPER (DOUBLE LINE)
FD	FUSIBLE LINK FIRE DAMPER (SINGLE LINE)
SD	SMOKE DAMPER (DOUBLE LINE)
SD	SMOKE DAMPER (SINGLE LINE)
SFD	COMBINATION SMOKE/FIRE DAMPER (DOUBLE LINE)
SFD	COMBINATION SMOKE/FIRE DAMPER (SINGLE LINE)
BDD	BACK DRAFT DAMPER (DOUBLE LINE)
BDD	BACK DRAFT DAMPER (SINGLE LINE)
BD	BALANCING DAMPER (DOUBLE LINE)
BD	BALANCING DAMPER (SINGLE LINE)
M	MOTORIZED DAMPER (DOUBLE LINE)
M	MOTORIZED DAMPER (SINGLE LINE)
600x300	RECTANGULAR DUCTWORK - DIMENSION AS SHOWN
600Ø	ROUND DUCTWORK - DIMENSION AS SHOWN
600x300	DUCTWORK (SINGLE LINE) - 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)
	DUCT RISE (SINGLE LINE)
	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
	BRANCH TAKE-OFF WITH ADJUSTABLE SPLITTER DAMPER IN SUPPLY DUCT (DOUBLE LINE)
	BRANCH TAKE-OFF WITH ADJUSTABLE SPLITTER DAMPER IN SUPPLY DUCT (SINGLE LINE)
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)
	ACOUSTICALLY LINED DUCTWORK (SINGLE 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)
	DUCT MOUNTED HEATING COIL (SINGLE 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
	SINGLE LINE DUCT BREAK
	TRANSFER AIR DUCT
	SUPPLY AIR LIGHT TROFFER
U/C	75mm (3/4") DOOR UNDERCUT

Sheet List Table

Sheet Number	Sheet Title
MA00AT01	MECHANICAL COVER SHEET
MA00AT02	MECHANICAL DRAWING LIST, SCHEDULE, LEGEND AND KEY PLAN
MP07AT01	PARTIAL SEVENTH FLOOR PLAN - PLUMBING & FIRE PROTECTION
MV07AT01	PARTIAL SEVENTH FLOOR PLAN - VENTILATION
MC00AT01	MECHANICAL DETAILS

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
	AIRFLOW / PIPE FLOW DIRECTION
	PIPE TURNING DOWN
	PIPE TURNING UP
	PRESSURE REDUCING VALVE
	ROOM THERMOSTAT
	HIGH SECURITY FLAT PLATE THERMISTER RECOMMENDED BY NYS-OMH GUIDELINES FOR HIGH RISK AREAS
	ROOM HUMIDISTAT
	PUMP
	CONTROL VALVE - TWO WAY
	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
	PRESSURE GAUGE
	TEMPERATURE GAUGE
CAP	CAP
	SOLENOID VALVE
	FUSIBLE LINK VALVE
	ELECTRIC HEAT TRACING

PLUMBING

SYMBOL	DESCRIPTION
SAN	SANITARY DRAINAGE - ABOVE GROUND
SAN	SANITARY DRAINAGE - UNDERGROUND
SAN(AR)	SANITARY DRAINAGE (ACID RESISTANT) - ABOVE GROUND
SAN(AR)	SANITARY DRAINAGE (ACID RESISTANT) - UNDERGROUND
STM	STORM DRAINAGE - ABOVE GROUND
STM	STORM DRAINAGE - UNDERGROUND
PD	PUMPED DISCHARGE
	DOMESTIC COLD WATER SUPPLY
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC HOT WATER RECIRC.
TW	TEMPERED WATER
AWV	ACID RESISTANT VENT
V	VENT
G	GAS
RO	REVERSE OSMOSIS PIPING
ISO	RADIOISOTOPE DRAIN
CA	COMPRESSED AIR
	RUNNING TRAP
	P-TRAP
ES	EMERGENCY SHOWER
EW	EYE WASH
	CLEANOUT IN FLOOR/BELOW GRADE
	CLEANOUT IN CEILING
HB	HOSE BIBB
NFHB	NON FREEZE HOSE BIBB
G	SINGLE GAS OUTLET
G	DOUBLE GAS OUTLET
CA	COMPRESSED AIR OUTLET
RD	ROOF DRAIN
CFRD	CONTROL FLOW ROOF DRAIN
VTR	VENT THROUGH ROOF
RWL	RAIN WATER LEADER
TSP	TRAP SEAL PRIMER
	SCUPPER DRAIN
MH	MANHOLE
CB	CATCH BASIN
TD	TRENCH GRATE & FRAME
AD	AREA DRAIN
FFD	FUNNEL FLOOR DRAIN
FD	FLOOR DRAIN
HD	HUB DRAIN
FS	FLOOR SINK
FRD	FLOOR DRAIN - FLUSHING RIM
WM	WATER METER ASSEMBLY
GM	GAS METER
	BACK WATER VALVE
BFP	BACKFLOW PREVENTER
"WC-1"	DENOTES FIXTURE TYPE PER SPECIFICATION

REVISIONS

NO.	ITEM	DATE	BY
1.	-	-	-

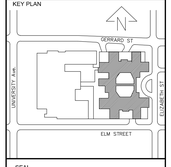
NO.	ISSUED TO	DATE
2.	ISSUED FOR ADDENDUM M1	2025-03-17
1.	ISSUED FOR PERMIT & TENDER	2025-02-20

ISSUED

GENERAL NOTES

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS ON THE JOB.

KEY PLAN



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TEL: 905-507-0800
WEB: WWW.QUASARCG.COM

SickKids

THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE.
TORONTO ONTARIO M5G 1X8

PROJECT NAME

7A SCHEDULE
1 BEDS REFRESH

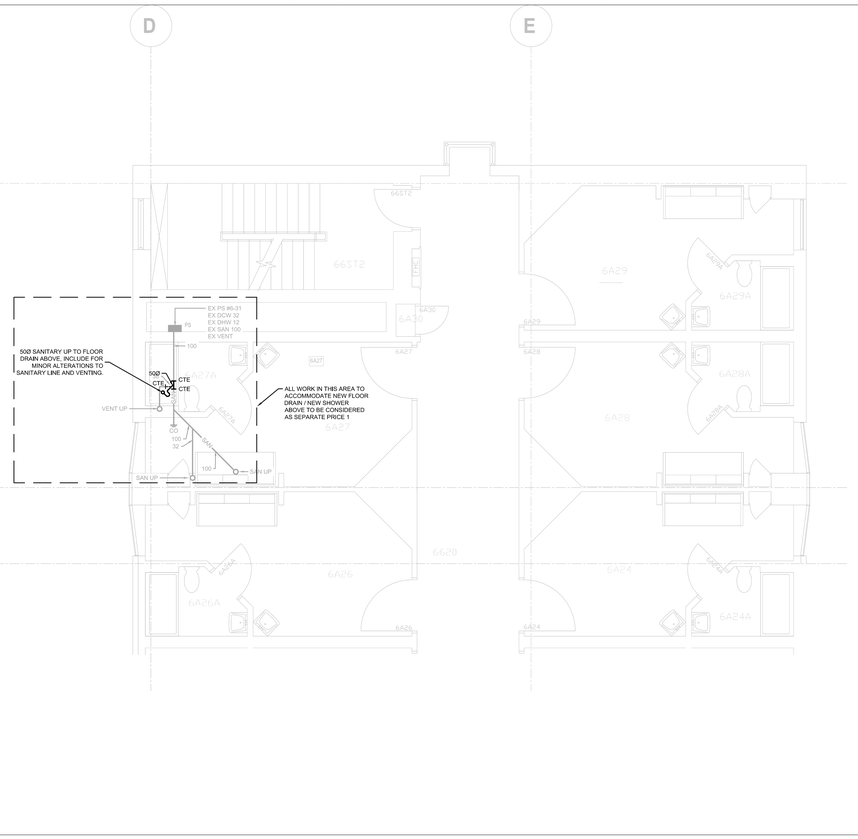
SHEET TITLE

MECHANICAL DRAWING LIST, SCHEDULE, LEGEND AND KEY PLAN

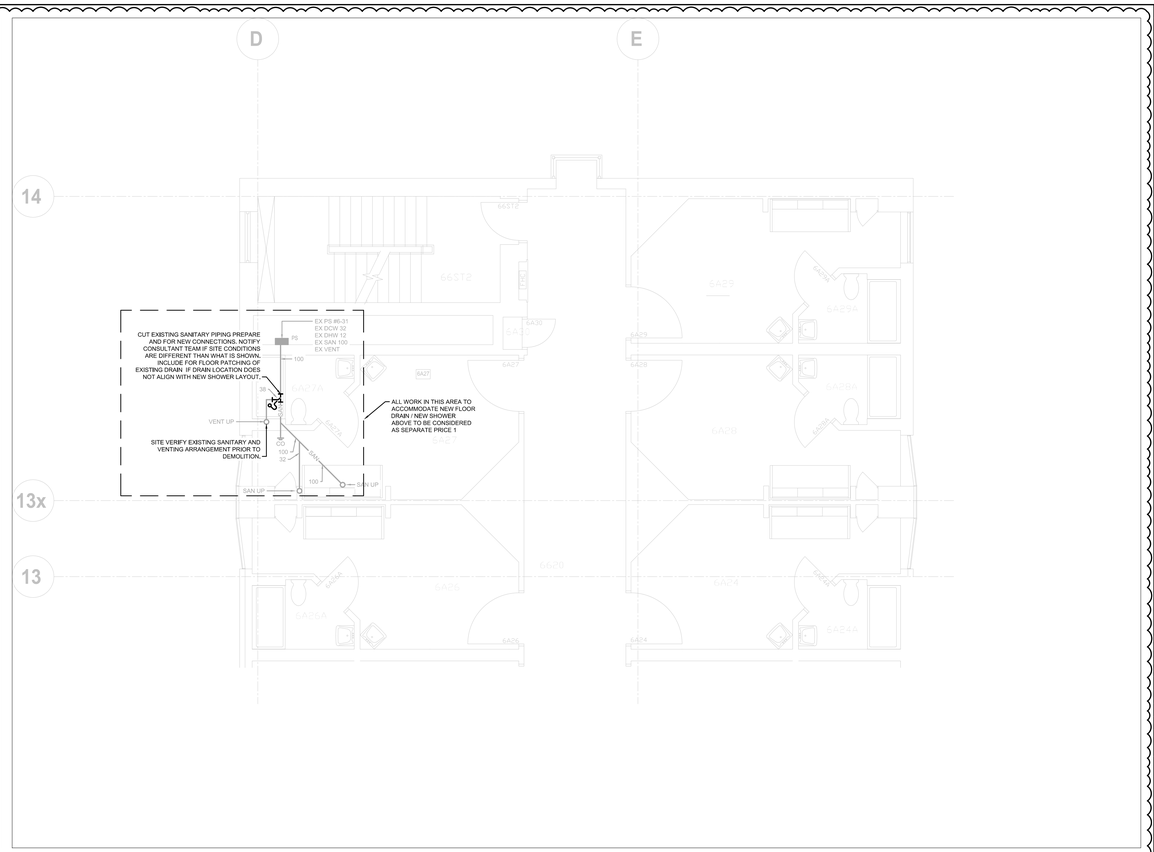
SCALE 1:50	DATE 2025-02-20
DRAWN BY MAM	CHECKED BY PC
PROJECT NO. HC-23-106	RFQ#
SICKKIDS AR NO.	

DRAWING NO.

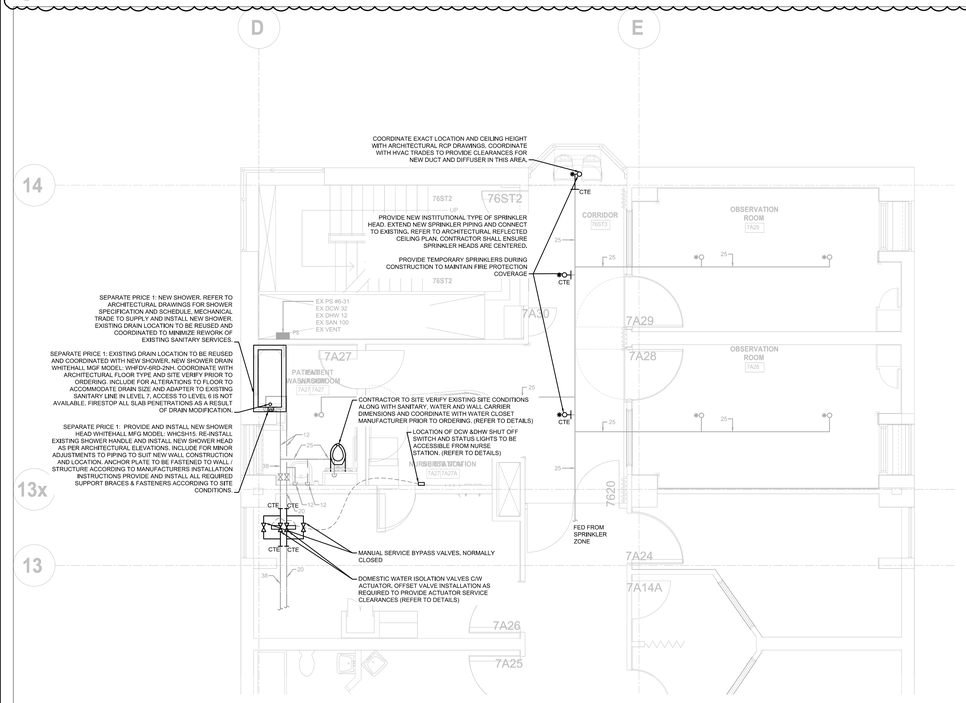
MA00AT02



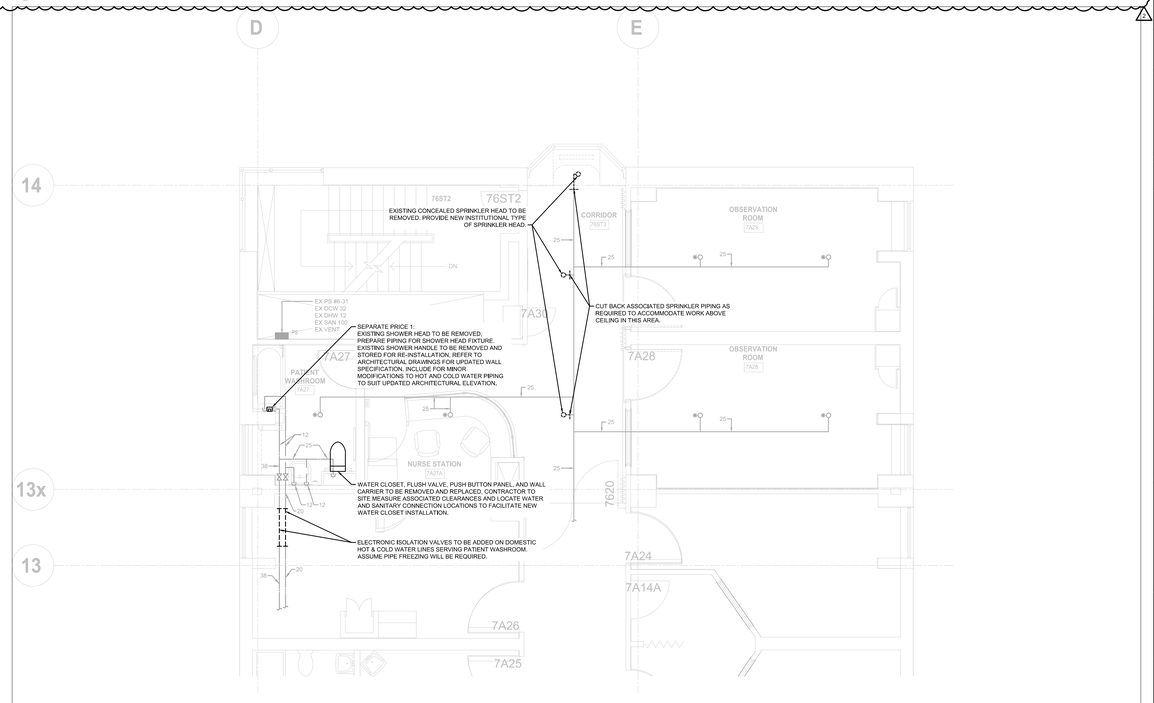
4 PLUMBING - 6TH FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



2 PLUMBING - 6TH FLOOR PARTIAL PLAN - DEMOLITION
SCALE: 1:50



3 PLUMBING & FIRE PROTECTION - 7TH FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



1 PLUMBING & FIRE PROTECTION - 7TH FLOOR PARTIAL PLAN - DEMOLITION
SCALE: 1:50

REVISIONS

NO.	ITEM	DATE	BY
1.	-	-	-

2.	ISSUED FOR ADDENDUM M1	2025-03-17
1.	ISSUED FOR PERMIT & TENDER	2025-02-20
NO.	ISSUED TO	DATE

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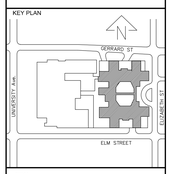
KEY PLAN



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SickKids

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TORONTO ONTARIO M5G 1X8

PROJECT NAME

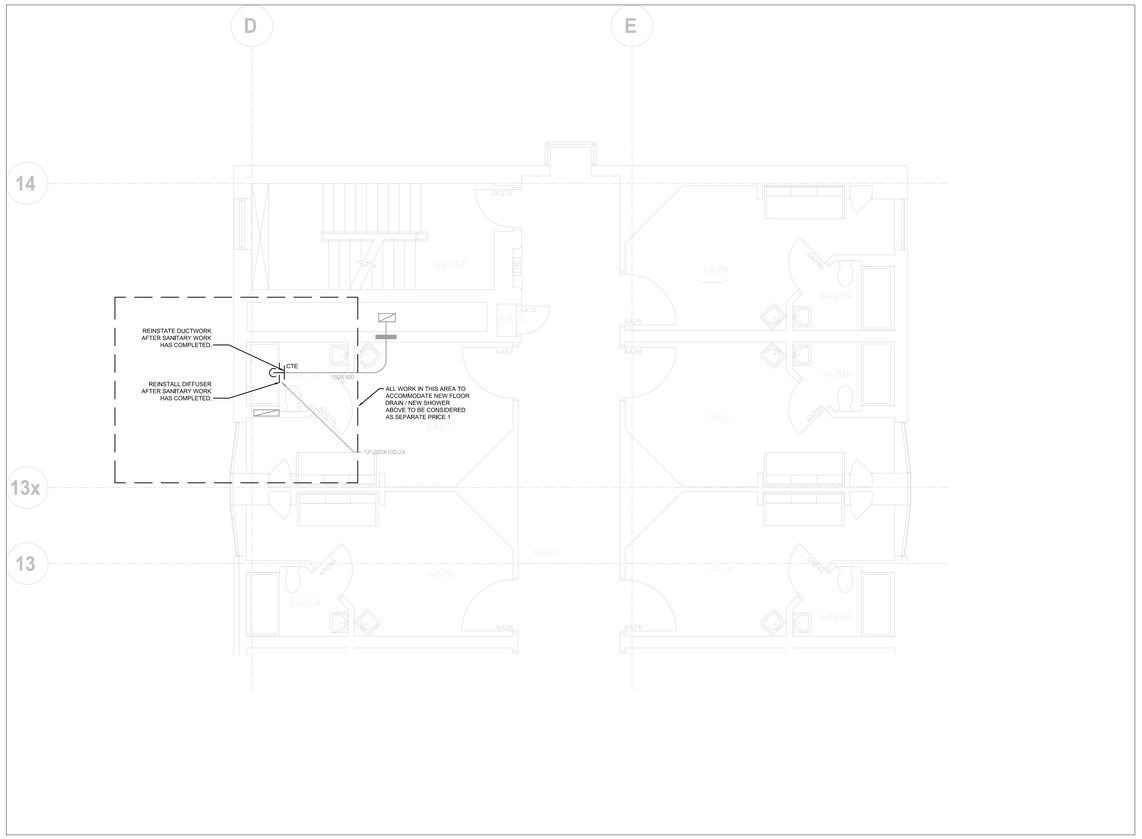
7A SCHEDULE
1 BEDS REFRESH

SHEET TITLE

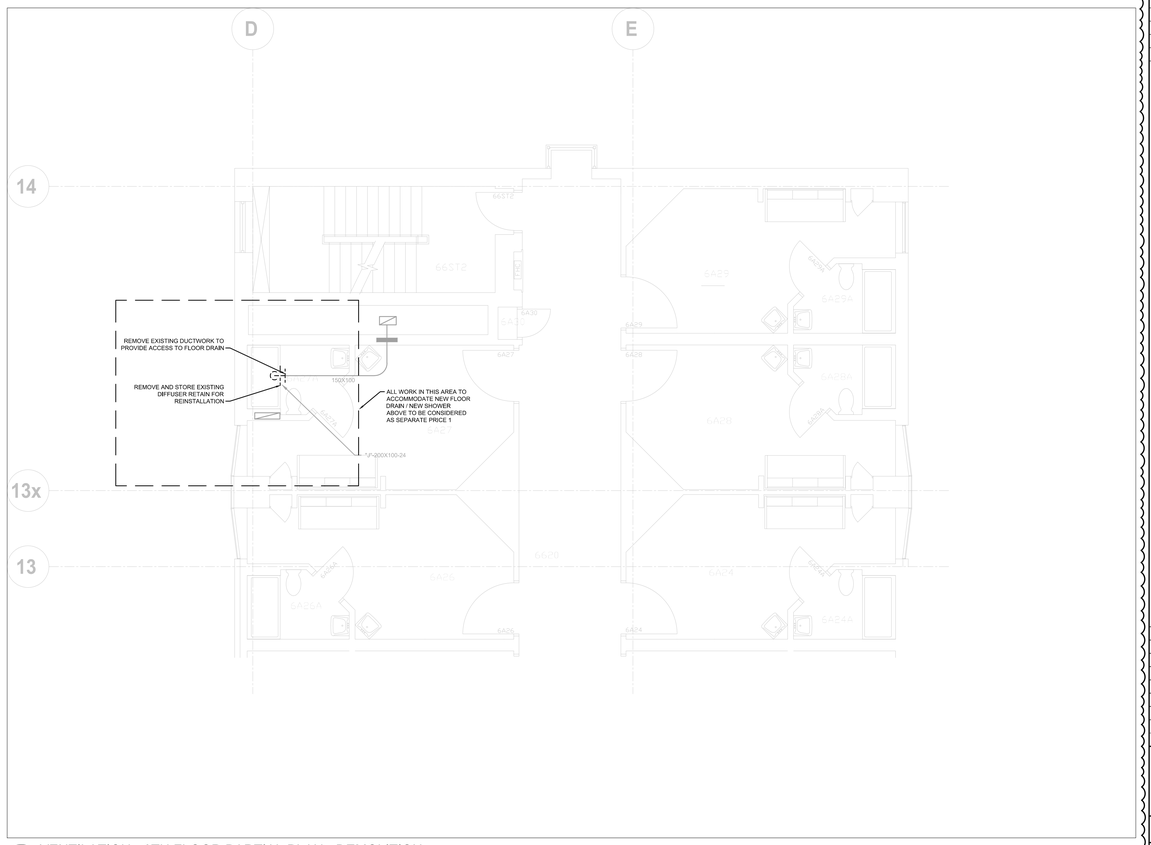
PARTIAL SEVENTH FLOOR PLAN - PLUMBING & FIRE PROTECTION

SCALE: 1:50	DATE: 2025-02-20
DRAWN BY: MAM	CHECKED BY: PC
PROJECT NO.: HC-23-106	RFQ#:
SICKKIDS AR NO.:	

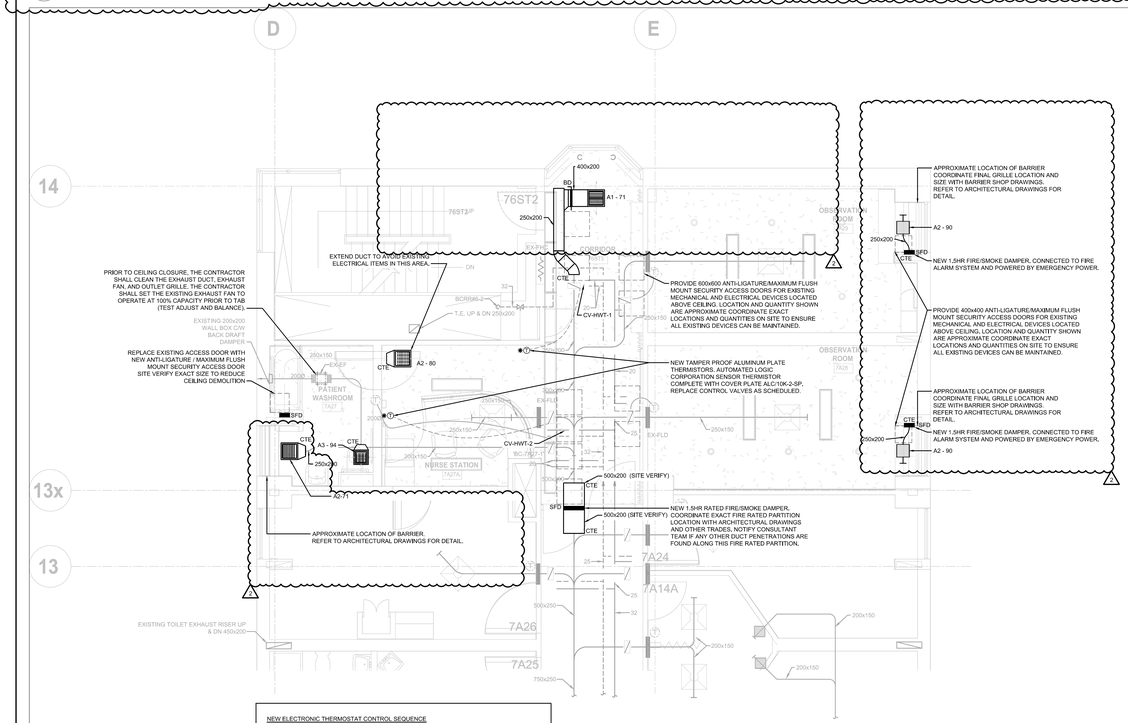
DRAWING NO.
MP07AT01



4 VENTILATION - 6TH FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



2 VENTILATION - 6TH FLOOR PARTIAL PLAN - DEMOLITION
SCALE: 1:50



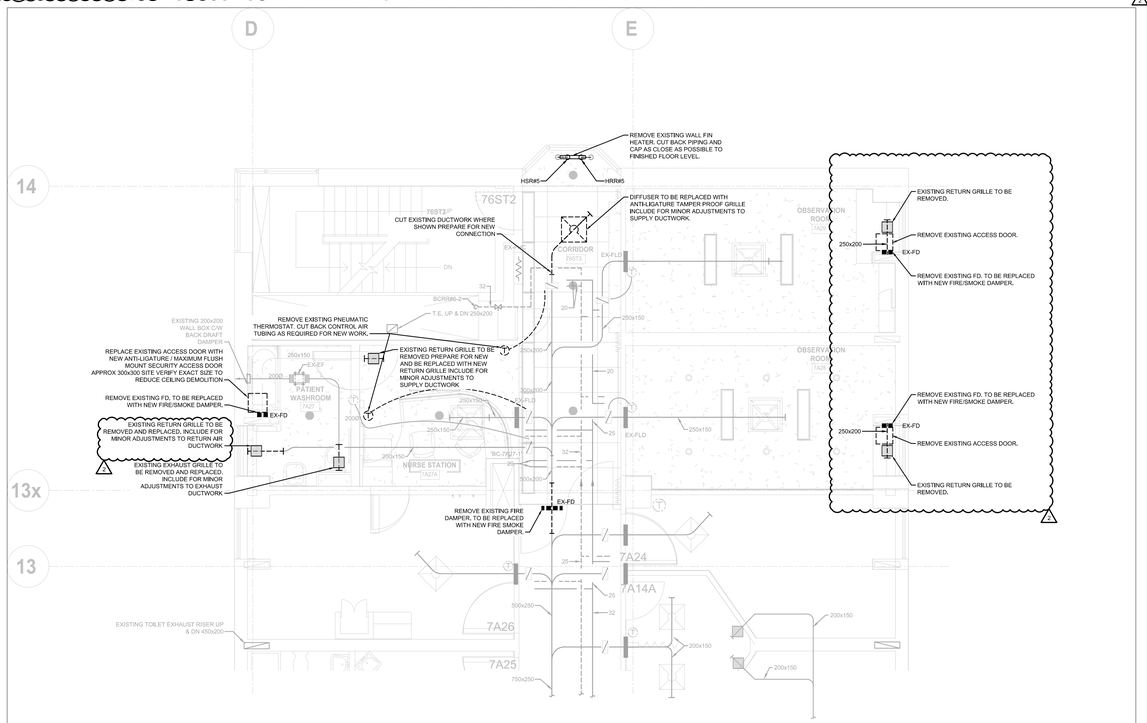
NEW ELECTRONIC THERMOSTAT CONTROL SEQUENCE

NORMAL OPERATION
CONTROL SEQUENCE SHALL INDICATE MODULATION TO MAINTAIN TEMPERATURE SET POINT.
REMOTE ADJUSTMENT OF TEMPERATURE SET POINT.

SYSTEM MONITORING
REMOTE MONITORING OF SET POINT,

ALARMS:
ALARM AT BAS WHEN TEMP DOES NOT MATCH SET POINT AFTER 10 MINUTES.

3 VENTILATION - 7TH FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



1 VENTILATION - 7TH FLOOR PARTIAL PLAN - DEMOLITION
SCALE: 1:50

REVISIONS			
NO.	ITEM	DATE	BY
1.	-	-	-

2.	ISSUED FOR ADDENDUM M1	2025-03-17
1.	ISSUED FOR PERMIT & TENDER	2025-02-20
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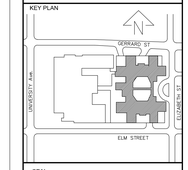
KEY PLAN



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SickKids

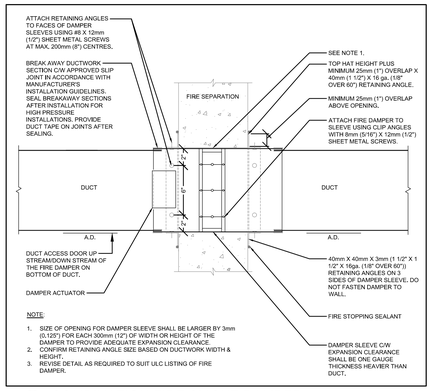
THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE.
TORONTO ONTARIO M5G 1X8

PROJECT NAME
7A SCHEDULE
1 BEDS REFRESH

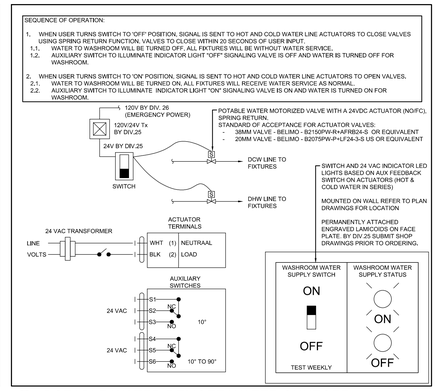
SHEET TITLE
PARTIAL SEVENTH FLOOR PLAN - VENTILATION

SCALE 1:50		DATE 2025-02-20
DRAWN BY MAM		CHECKED BY PC
PROJECT NO. HC-23-106	RFQ#	SICKKIDS AR NO.

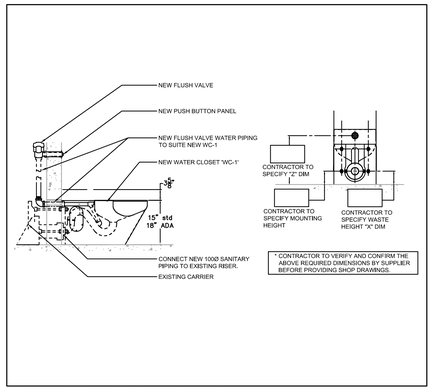
DRAWING NO.
MV07AT01



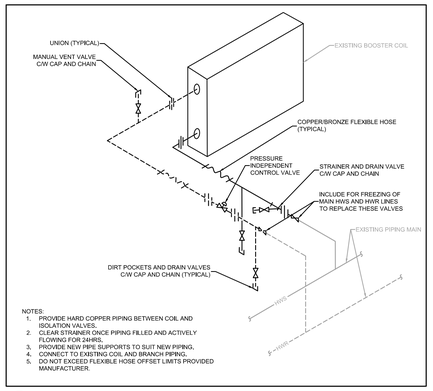
12 COMBINATION FIRE SMOKE DAMPER
SCALE: N.T.S



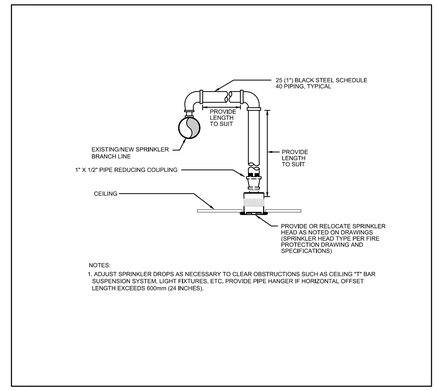
8 POTABLE WATER REMOTE WATER SHUTOFF
SCALE: N.T.S



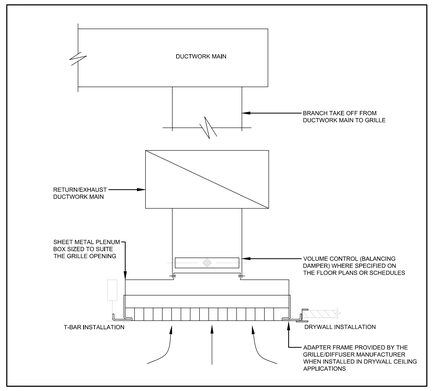
4 WATER CLOSET INSTALLATION
SCALE: N.T.S



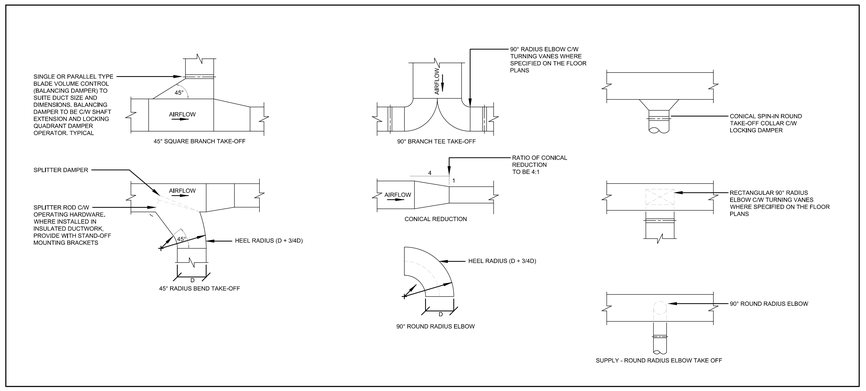
11 EXISTING BOOSTER COIL PIPING ARRANGEMENT
SCALE: N.T.S



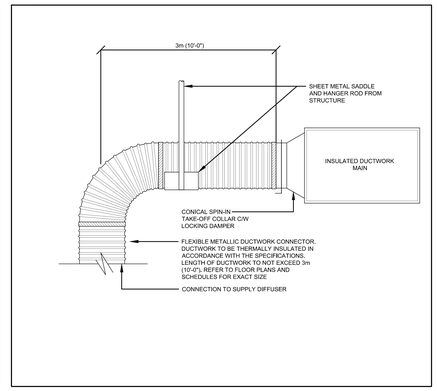
7 TYPICAL NEW SPRINKLER HEAD DROP
SCALE: N.T.S



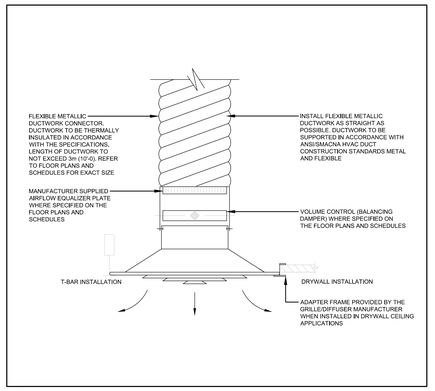
3 CEILING MOUNTED GRILLE DETAIL
SCALE: N.T.S



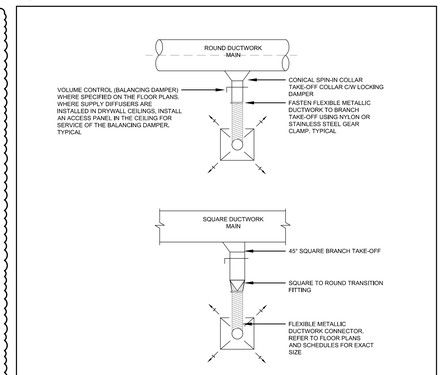
10 DUCTWORK FITTINGS & TAKE-OFF'S
SCALE: N.T.S



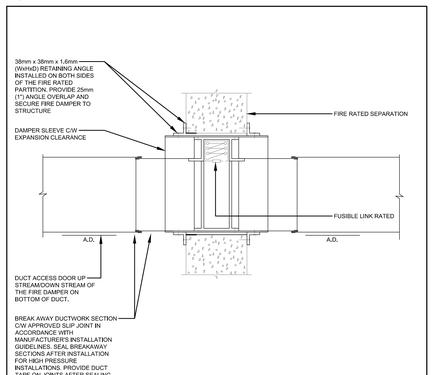
6 FLEXIBLE METALLIC DUCTWORK
SCALE: N.T.S



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



5 FLEXIBLE METALLIC DUCTWORK CONNECTION
SCALE: N.T.S



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

REVISIONS

NO.	ITEM	DATE	BY
1.	-	-	-

NO.	ISSUED TO	DATE
2.	ISSUED FOR ADDENDUM M1	2025-03-17
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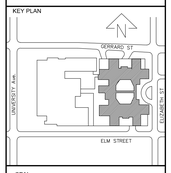
KEY PLAN



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SickKids

THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE
TORONTO ONTARIO M5G 1X8

PROJECT NAME
7A SCHEDULE
1 BEDS REFRESH

SHEET TITLE
MECHANICAL DETAILS

SCALE 1:50	DATE 2025-02-20
DRAWN BY MAM	CHECKED BY PC
PROJECT NO. HC-23-106	RFQ#
SICKKIDS AR NO.	

DRAWING NO.
MC00AT01

Project Name:	SickKids 7A Schedule 1 Beds Refresh	**Date Issued:**	March 17, 2025
Quasar Project #:	HC-23-106		
Client Project #:	-		

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Quasar Consulting Group	Michael Martins	michael.martins@quasarcg.com

Addendum #: E-1
Revision #: 00

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.

This addendum includes modifications to the drawings as summarized below. Unless otherwise noted, all drawings listed below are attached herewith.

Changes to Drawings:

1. **Refer to attached Drawing EA 07 AN 02 "ELECTRICAL DRAWING LIST, LEGEND AND KEYPLAN" and note revisions, including but not limited to the following:**
    1. Revisions to ELECTRICAL LEGEND as indicated.
    2. Revisions as indicated.
2. **Refer to attached Drawing EP 07 AN 01 "PARTIAL SEVENTH FLOOR PLAN - POWER & SYSTEMS" and note revisions, including but not limited to the following:**
    1. Revisions as indicated.
    2. Revision to Keynote as indicated.
    3. Revision to general notes as indicated.
    4. Addition of drawing detail no 5 "POWER & SYSTEMS PLAN - LEVEL 1 PARTIAL FLOOR PLAN - NEW WORK" as indicated.
3. **Refer to attached Drawing EL 07 AN 01 "PARTIAL SEVENTH FLOOR PLAN - LIGHTING" and note revisions, including but not limited to the following:**
    1. Revisions as indicated.
    2. Revision to general notes as indicated.
4. **Refer to attached Drawing ED 07 AT 01 "ELECTRICAL DETAILS I" and note revisions, including but not limited to the following:**
    1. Revisions as indicated.
    2. Addition of drawing detail no 8 "LUTRON LIGHTING DETAIL (FOR REFERENCE)" as indicated.
5. **Refer to attached Drawing ED 07 AT 02 "ELECTRICAL DETAILS II" and note revisions, including but not limited to the following:**
    1. Revisions to panel schedule as indicated.

Quasar Consulting Group

Jesse McAlister

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	LINETYPES
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	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
R1	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
*	ADJACENT TO DEVICE, CONNECTION, OR LUMINAIRE, INDICATES FED FROM EMERGENCY POWER.
	ABBREVIATIONS - CODES AND STANDARDS
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
	ANNOTATIONS
CL	CLOSET
WR	WASHROOM
	PLUMBING
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS)
	HVAC
	THERMOSTAT OR TEMPERATURE SENSOR
T	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.
	CLOCK.
	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
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR
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.
	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.

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
	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).
	MANUALLY CONTROLLED SPLIT RECEPTACLE
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	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
	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
X	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
X	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/CIRCUITING 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.
RM	DENOTES 'RUNNING MAN' STYLE PICTOGRAM EXIT SIGNS
SL	DENOTES 'SELF-LUMINOUS' EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.
	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE AND TWO 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).
	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	WIRELESS ACCESS POINT (WIFI)
	PUBLIC ADDRESS SPEAKER, CEILING MOUNTED.
	PUBLIC ADDRESS SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS SPEAKER, WALL MOUNTED HORN SPEAKER.
VOL	PUBLIC ADDRESS SPEAKER VOLUME CONTROL SWITCH.
	INTERCOM
IDC	INSULATION DISPLACEMENT CONNECTION
	ACCESS CONTROL AND DOOR HARDWARE
CR	CARD READER
CRL	CARD READER LOCK - C/W CARD READER, DOOR POSITION SWITCH, REQUEST TO EXIT
DA	DOOR ALARM SOUNDER
DC	DOOR CONTACT
EL	ELECTRIC LATCH
ES	ELECTRIC STRIKE
EH	ELECTRIC HINGE
EPD	ELECTRIC POWER TRANSFER CABLE
EPH	POWER TRANSFER HINGE
KS	KEY SWITCH
ML	ELECTROMAGNETIC LOCK
MLR	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
RED	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR 'REQUEST TO EXIT' MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
WD	TOUCHLESS "WAVE SWITCH" FOR DOOR OPERATOR CONTROL

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ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
DC	DOOR BELL C/W SOUNDER AND STROBE
D	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
	FIRE DETECTION AND ALARM - GENERAL
CACF	CENTRAL ALARM AND CONTROL FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNICIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING 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 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.
AUX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES MANUAL PULL STATION C/W AUXILIARY CONTACT
	PHOTOELECTRIC SMOKE DETECTOR
	SAME AS ABOVE, WALL MOUNTED
A	ADJACENT TO SMOKE DETECTOR, INDICATES C/W AUXILIARY RELAY
SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM, 120 VOLT. FOR AREAS AS INDICATED ON PLANS BY "CO". PROVIDE INTEGRAL CARBON MONOXIDE DETECTION. COMPLETE WITH STROBE.
	SAME AS ABOVE, WALL MOUNTED
DSD	DUCT MOUNTED SMOKE DETECTOR
	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
EOL	END OF LINE (EOL) DEVICE ON ZONE INITIATION OR SIGNAL CIRCUITS.
	HEAT DETECTOR - FIXED TEMPERATURE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES "HIGH TEMPERATURE"
	HEAT DETECTOR - 94 DEGREES C (200 DEGREES F) FIXED TEMPERATURE
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE
DH	DUCT PROBE
K	ADJACENT TO PULL STATION, INDICATES KEY OPERATED
	FIRE DETECTION AND ALARM - SUPERVISORY DEVICES
LL	LOW TANK LEVEL
LP	LOSS OF POWER
LT	LOW TEMPERATURE
PS	PRESSURE SWITCH
SV	SUPERVISED VALVE
	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.
	FIRE ALARM EVACUATION SPEAKER, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, COMPLETE WITH STROBE LIGHT, CEILING MOUNTED
	FIRE ALARM EVACUATION SPEAKER, WALL MOUNTED
	FIRE ALARM EVACUATION SPEAKER COMPLETE WITH STROBE LIGHT, WALL MOUNTED
SI	SILENCE SWITCH
	FIRE ALARM WALL MOUNTED STROBE LIGHT
	FIRE DETECTION AND ALARM - VOICE COMMUNICATION DEVICES
EF	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
MD	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	FIRE SUPPRESSION ABORT STATION
	SINGLE LINE DIAGRAM
	AIR CIRCUIT BREAKER
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	FUSE
M	METERING CABINET
	BUS DUCT
	TRANSFORMER
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
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
	DETAIL REFERENCES
1	SHEET KEYNOTE
1	REVISION NUMBER

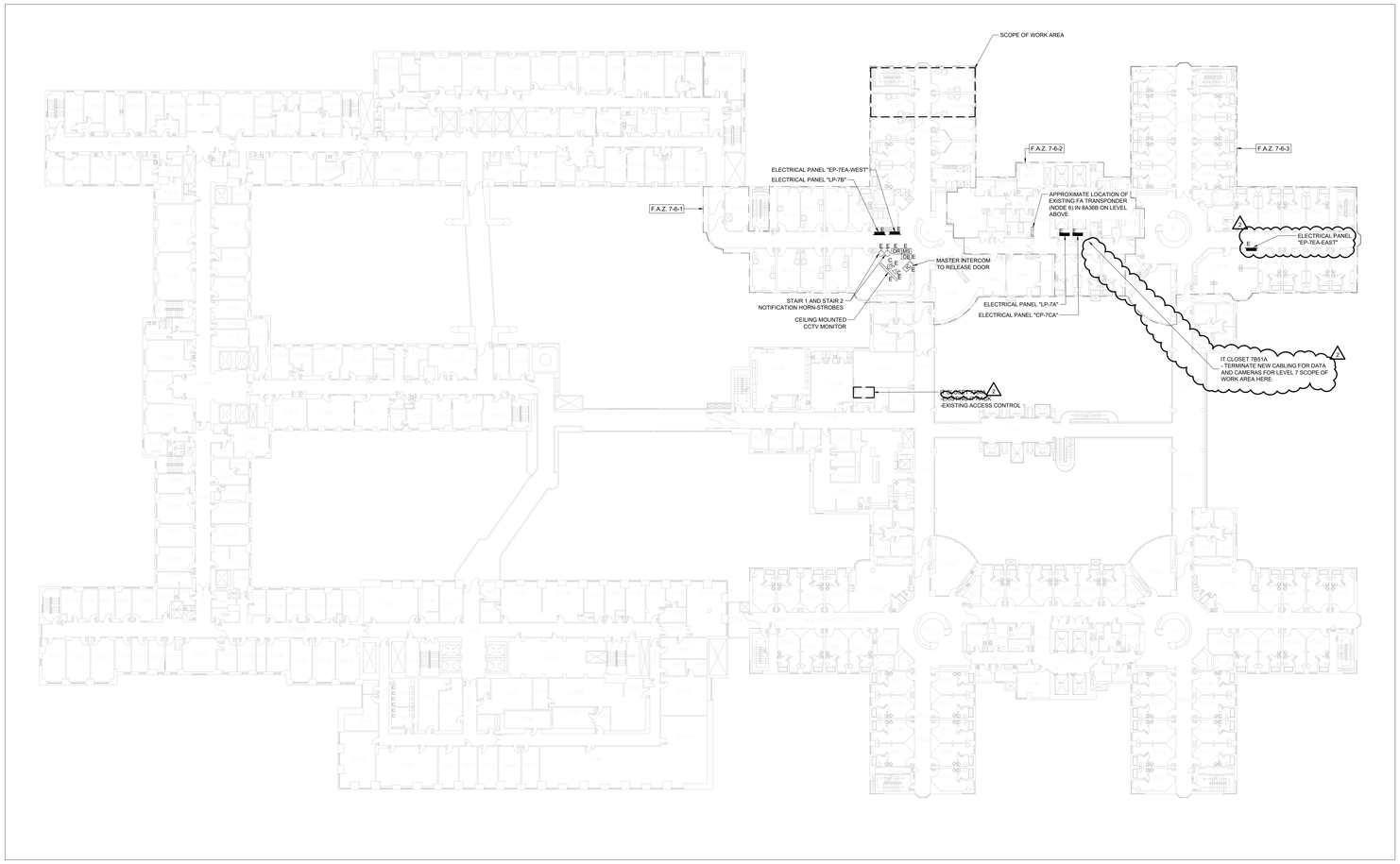
THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND

SYMBOL		DISCRIPTION
		NURSE CALL DEVICES
S		STAFF PRESENCE STATION
IR		INFRARED DETECTOR
	ZL	NURSE CALL DOME LIGHT 'ZL': WHERE SHOWN DENOTES CORRIDOR ZONE LIGHT. 'ZLC': WHERE SHOWN DENOTES CORRIDOR ZONE LIGHT C/W CHIME
SC1		SINGLE BED NURSE CALL BED STATION
SC2		DUAL BED NURSE CALL STATION
EC1		NURSE CALL PATIENT WASHROOM EMERGENCY STATION - PULL CORD TYPE
EC2		NURSE CALL EMERGENCY STATION - PULL CORD TYPE
EC3		NURSE CALL EMERGENCY STATION - WATERPROOF PULL CORD TYPE
EC4		NURSE CALL EMERGENCY STATION - PUSH BUTTON TYPE
EC5		NURSE CALL EMERGENCY STATION - WATERPROOF PUSH BUTTON TYPE
EC6		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
ZTS		NURSE CALL ZONE TONE SOUNDER
VSB		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
NCS		NARCOTICS CABINET ALARM ANNUNCIATOR '2S', 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

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

Sheet List Table



1 SEVENTH FLOOR KEYPLAN
SCALE: 1:300

REVISIONS

NO.	ITEM	DATE	BY
1.	-	-	-

NO.	ISSUED TO	DATE
2.	ISSUED FOR ADDENDUM E1	2025-03-17
1.	ISSUED FOR PERMIT & TENDER	2025-02-20

ISSUED

GENERAL NOTES

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS ON THE JOB.

KEY PLAN

SEAL

CONSULTANT

QUASAR CONSULTING GROUP
250 ROWNTREE DAIRY RD, WOODBRIDGE, ON
TEL: 905-507-0800
WEB: WWW.QUASARCG.COM

SickKids

THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE
TORONTO ONTARIO M5G 1X8

PROJECT NAME

7A SCHEDULE
1 BEDS REFRESH

SHEET TITLE

ELECTRICAL DRAWING LIST, LEGEND AND KEYPLAN

SCALE	DATE
DRAWN BY: S.P.	CHECKED BY: J.M.
PROJECT NO.: HC-23-106	RFQ#:
SICKKIDS AR NO.:	

DRAWING NO.

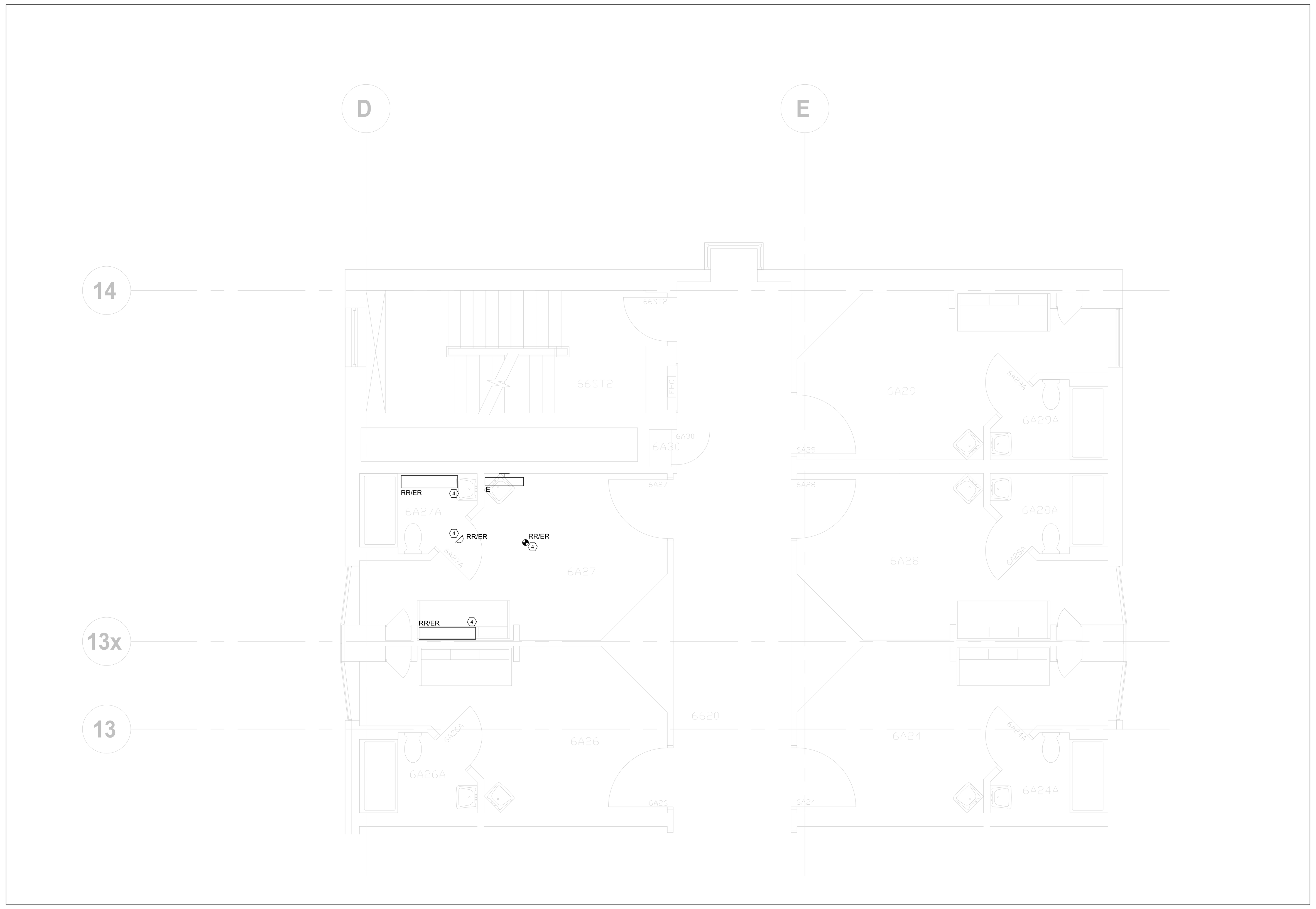
EA 07 AN 02

SHEET KEYNOTES

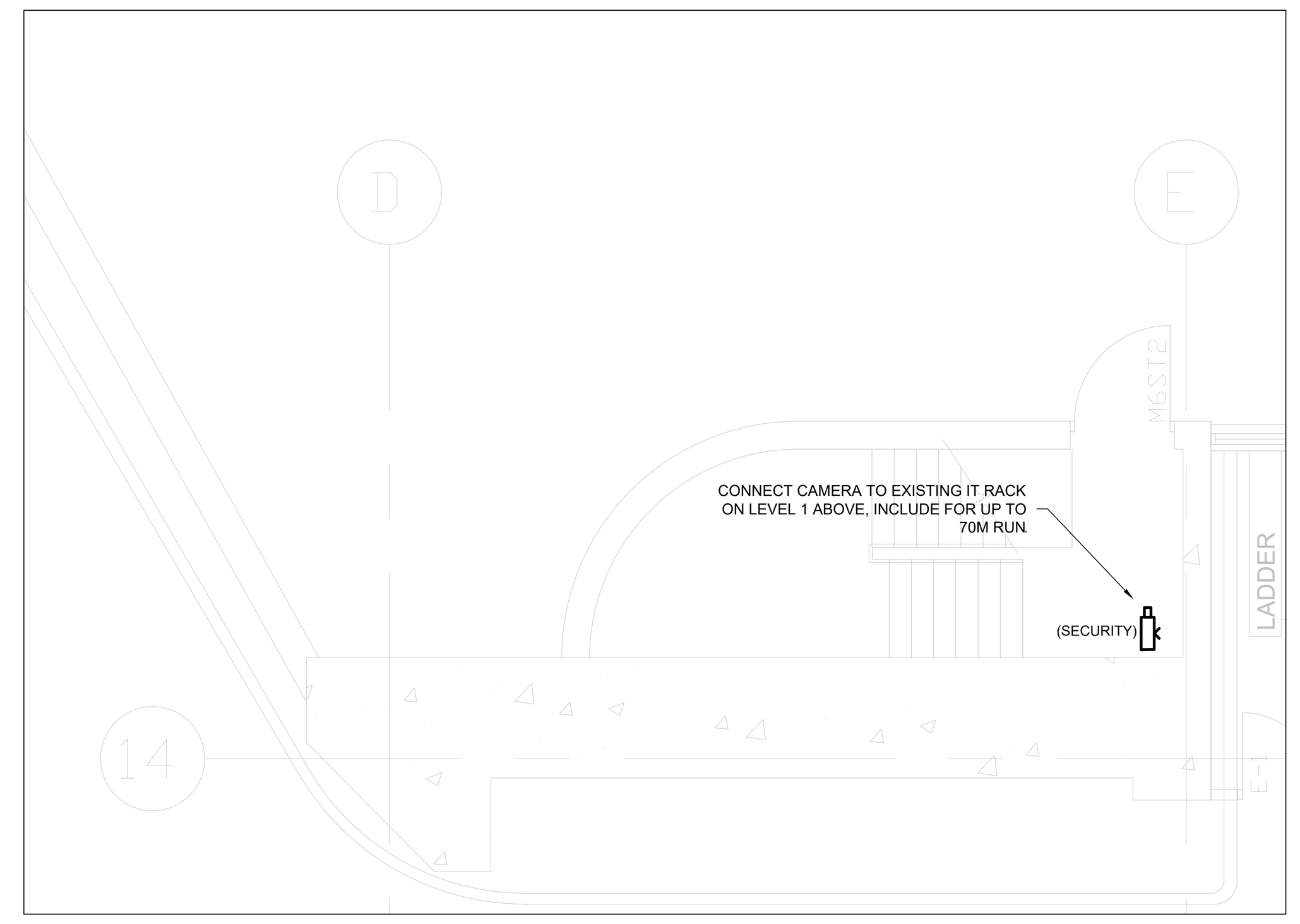
1.	AUSTCO TO SECURE ALL DEVICE SURROUNDS FOR NURSE CALL DEVICES WITH TAMPER RESISTANT SECURITY SCREW(S) AND VERIFY/TEST ALTERED DEVICES WORK ACCORDINGLY. THE INTENT IS TO MAKE THE EXISTING DEVICES TAMPER PROOF.
2.	WATER SHUTOFF, CONNECT TO NOTED 120V EMERGENCY POWER CIRCUIT. COORDINATE LOCATION WITH MECHANICAL.
3	DESIGN INTENT FOR RECEPTACLE IS TO REPLACE EXISTING WITH NEW TAMPER ~~PROOF RECEPTACLE. EXISTING CIRCUIT, WIRING AND CONDUIT TO BE REUSED.~~ PATIENT CARE RECEPTACLE, INSTALL AND TEST AS SPECIFIED.
4.	ELECTRICAL SEPARATE PRICE #1 : INCLUDE FOR REMOVAL AND REINSTATEMENT OF ELECTRICAL FIXTURES TO FACILITATE VENTING WORK REQUIRED. COORDINATE WITH MECHANICAL. RE-VERIFICATION OF THE FIRE ALARM SYSTEM INCLUDING 3RD PARTY TESTING IS REQUIRED FOR ALL AFFECTED FIRE ALARM DEVICES.
5	DESIGN INTENT FOR ELECTRONIC FAUCETS AND TOILETS IS TO REPLACE EXISTING WITH NEW TAMPER PROOF. EXISTING CIRCUIT, WIRING AND CONDUIT TO BE REUSED.
6	DESIGN INTENT FOR DOORS IS TO REPLACE EXISTING WITH NEW TAMPER PROOF. EXISTING CIRCUIT TO BE REUSED WHERE POSSIBLE.

GENERAL NOTES

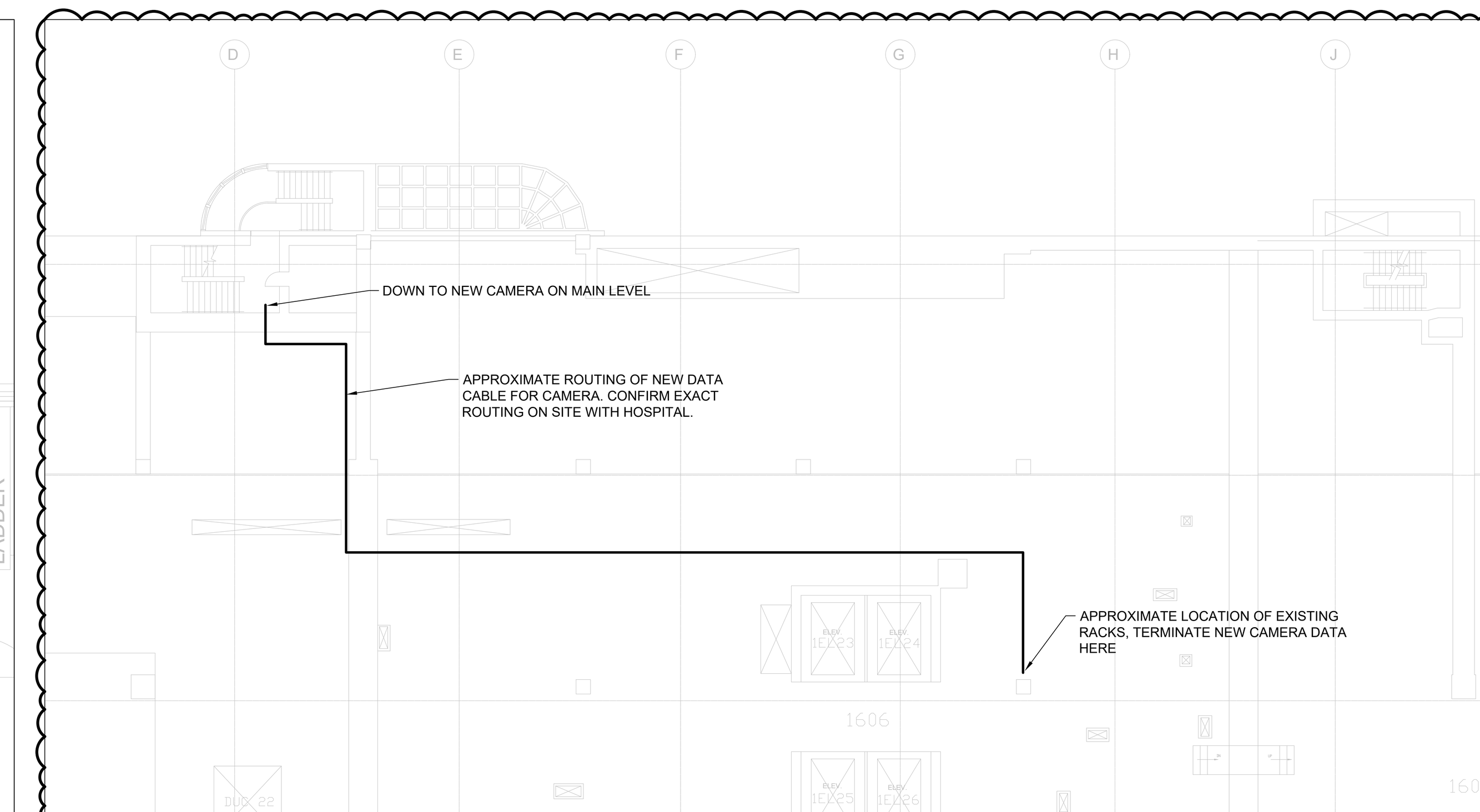
1	VISIT THE SITE, EXAMINE EXISTING CONDITIONS AND BECOME FAMILIAR WITH THE EXTENT OF THE NECESSARY REMOVAL, RELOCATION, RECONNECTING, AND REROUTING OF ELECTRICAL EQUIPMENT AND WIRING AS NECESSARY FOR THE COMPLETION OF THE PROJECT. COORDINATE WITH ARCHITECTURE, GENERAL CONTRACTOR AND CLIENT FOR THE FULL EXTENT OF DEMOLITION.
2	ITEMS DESIGNATED FOR RELOCATION OR REINSTALLATION SHALL BE REMOVED CAREFULLY TO AVOID MATERIAL DAMAGE. ITEMS DAMAGED BY METHODS OF REMOVAL OR STORAGE SHALL BE REPLACED AT NO EXTRA COST TO THE CLIENT.
3	EXISTING FIRE ALARM DEVICES NOTED TO BE RELOCATED MUST BE KEPT OPERATIONAL CONTINUOUSLY DURING DEMOLITION AND CONSTRUCTION UNTIL THE TIME AT WHICH THEY ARE RELOCATED.
4	REROUTE AND REWORK AS REQUIRED TO MAINTAIN CONTINUITY FOR ALL SYSTEM TO REMAIN WHICH ARE AFFECTED BY THE ALTERATION OR DEMOLITION.
5	CAMERAS SUPPLIED BY HOSPITAL AND INSTALLED BY CONTRACTOR. NEW CAMERAS WILL BE AXIS P3265-V. CONTRACTOR TO CHECK CAMERAS FIELD OF VIEW FOR OPTIMAL LOCATION FOR NO BLIND SPOTS.
6	RECEPTACLES AND DIRECT CONNECTIONS BEING REMOVED AND REINSTALLED, OR REPLACED WITH NEW TAMPER RESISTANT TO BE CONNECTED TO THEIR EXISTING RESPECTIVE CIRCUITS.
7	ALL DEVICES AND FIXTURES IN ROOMS 7A29, 7A28, 7A27A AND 7A27 (I.E. ANY IN SCOPE AREAS WHERE PATIENTS MAY BE, "MENTAL HEALTH AREAS" AS SPECIFIED) SHALL BE TAMPER RESISTANT, AND ANTI-LIGATURE. SUBMIT SHOP DRAWINGS FOR CONSULTANT REVIEW PRIOR TO PLACING ANY ORDER. FOR DEVICES TO BE REUSED, PROVIDE ALL NECESSARY ~~SCREWS, COVERS, ETC TO ENSURE ANTI LIGATURE AND TAMPER RESISTANT.~~ ALL WALL DEVICES SHALL BE FLUSH MOUNTED.
8	INCLUDE FOR THE REMOVAL AND REINSTALLATION OF ALL CEILING ELECTRICAL DEVICES ON LEVEL 6 BELOW THE BATHROOM TO ACCOMMODATE MECHANICAL WORK.
9	NEW MACKLOCKS BASIS OF DESIGN: SECURITRON M680E SERIES MAGNALOCK.
10	SMOKE FIRE DAMPERS (SFD) TO BE INTERCONNECTED TO THE FIRE ALARM SYSTEM, SUCH THAT THE SYSTEM ALARMS IN THE EVENT THE SFD SMOKE DETECTOR DETECTS SMOKE, AND THE SFD IS CLOSED. COORDINATE WITH MECHANICAL TRADE.
11	ELECTRIC ROLLER SHADES BASIS OF DESIGN: LEGRAND SPEC SERIES FASCIA SHADE SYSTEM. ROLLER SHADES SWITCH BASIS OF DESIGN: LEGRAND LMSH-SW10X.



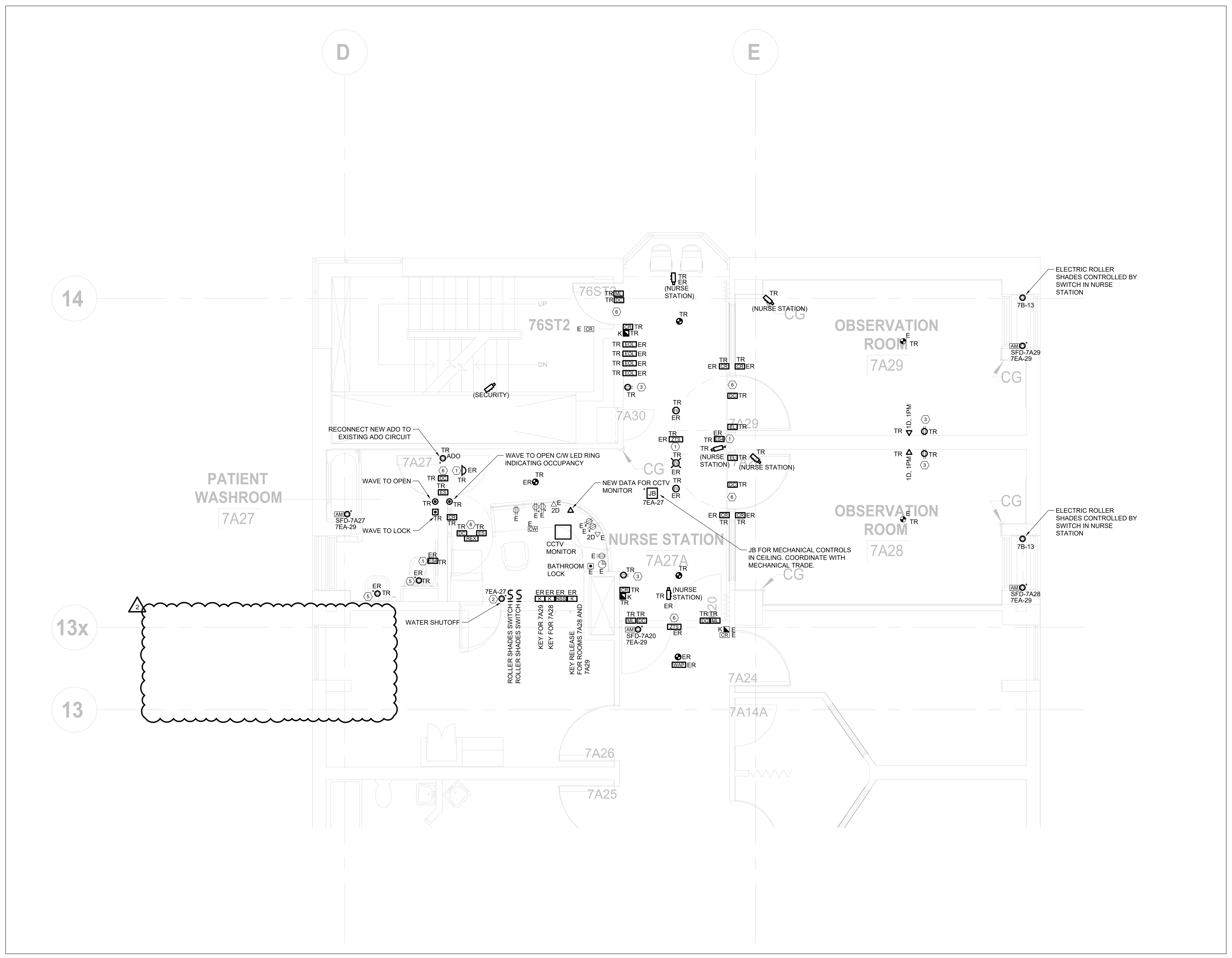
4 6TH FLOOR PARTIAL PLAN
SCALE: 1:50



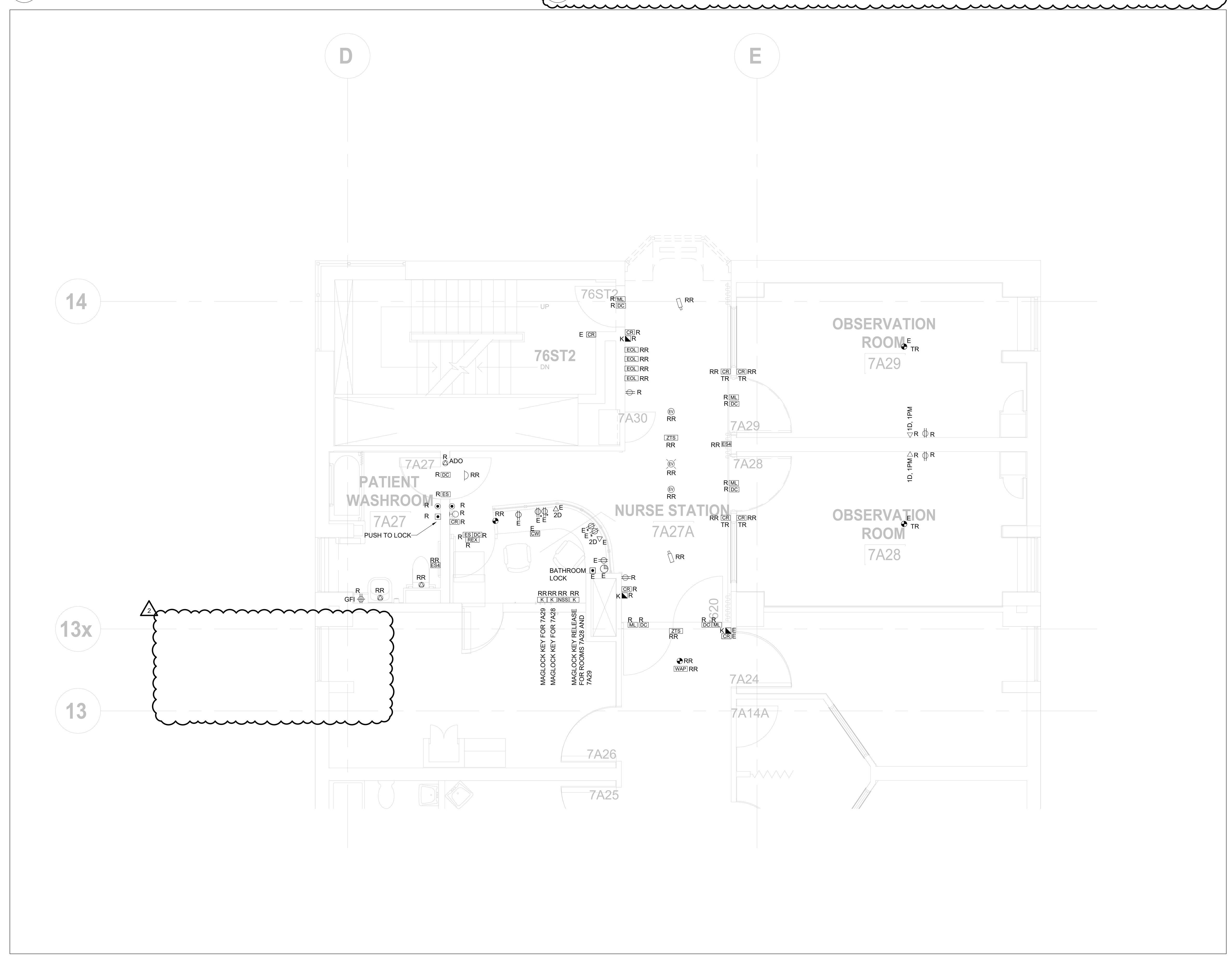
3 POWER & SYSTEMS - MAIN FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



5 POWER & SYSTEMS PLAN - LEVEL 1 PARTIAL FLOOR PLAN - NEW WORK
SCALE: 1:200



2 POWER & SYSTEMS - 7TH FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



1 POWER & SYSTEMS - 7TH FLOOR PARTIAL PLAN - DEMOLITION
SCALE: 1:50

REVISIONS

NO.	ITEM	DATE	BY
1.	-	-	-

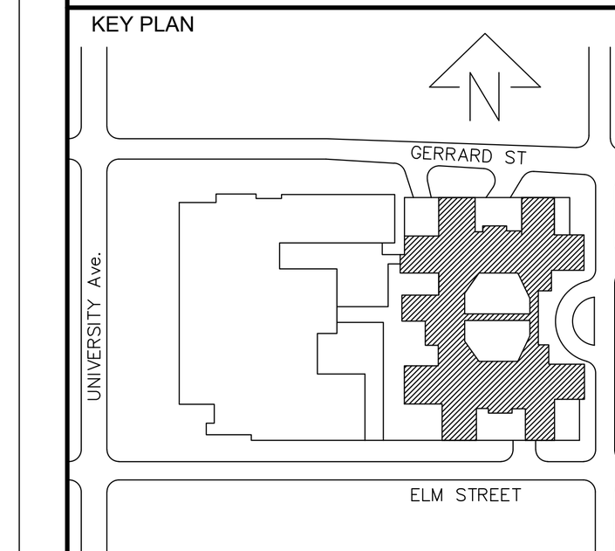
NO.	ISSUED TO	DATE
2.	ISSUED FOR ADDENDUM E1	2025-03-17
1.	ISSUED FOR PERMIT & TENDER	2025-02-20

ISSUED

GENERAL NOTES

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS ON THE JOB.

KEY PLAN



SEAL

CONSULTANT

QUASAR CONSULTING GROUP

250 ROWNTREE DAIRY RD, WOODBRIDGE, ON
TEL: 905-507-0800
WEB: WWW.QUASARCG.COM

SickKids
THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE
TORONTO ONTARIO M5G 1X8

PROJECT NAME
7A SCHEDULE
1 BEDS REFRESH

SHEET TITLE
PARTIAL SEVENTH FLOOR PLAN - POWER & SYSTEMS

SCALE 1:50		DATE
DRAWN BY S.P.		CHECKED BY J.M.
PROJECT NO. HC-23-106	RFQ#	SICKKIDS AR NO.

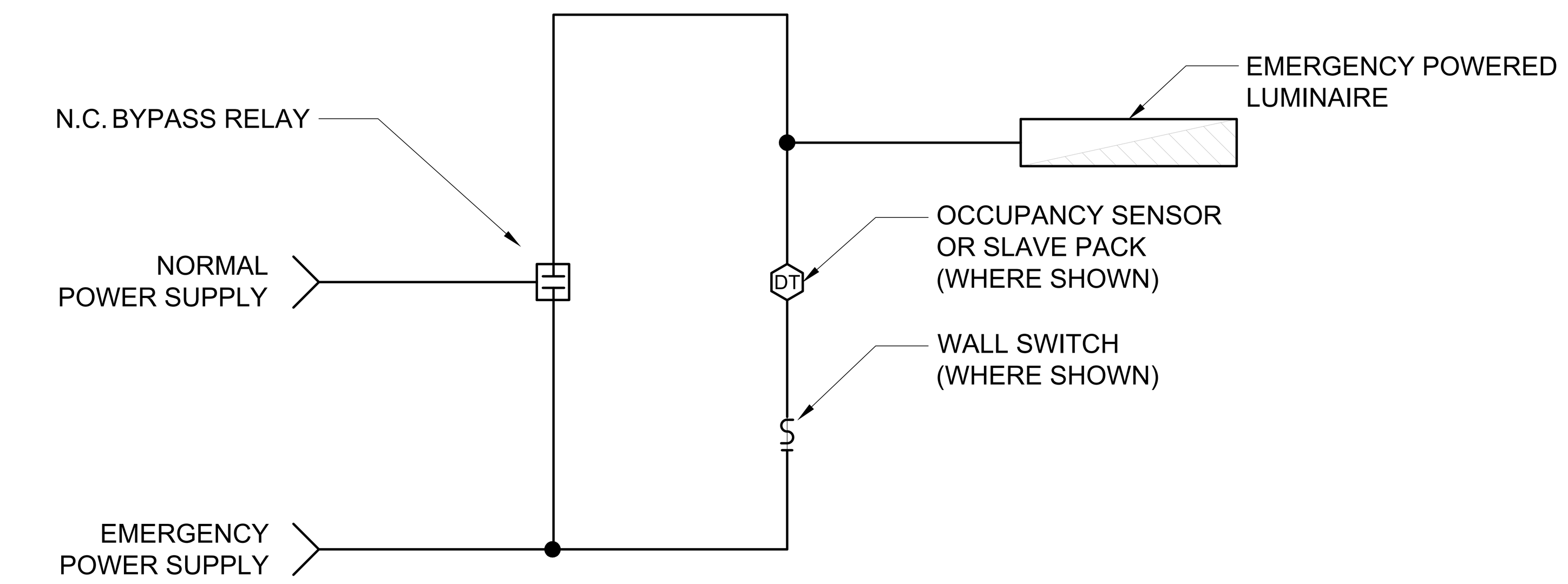
DRAWING NO.
EP 07 AN 01

SHEET KEYNOTES

1	POSITION RELOCATED OCCUPANCY SENSOR TO AVOID NUISSANCE ACTIVATION FROM MOVEMENT OUTSIDE OF WASHROOM. TEST COMPLETE.
2	

GENERAL NOTES

1	VISIT THE SITE, EXAMINE EXISTING CONDITIONS AND BECOME FAMILIAR WITH THE EXTENT OF THE NECESSARY REMOVAL, RELOCATION, RECONNECTING, AND REROUTING OF ELECTRICAL EQUIPMENT AND WIRING AS NECESSARY FOR THE COMPLETION OF THE PROJECT. COORDINATE WITH ARCHITECTURE, GENERAL CONTRACTOR AND CLIENT FOR THE FULL EXTENT OF DEMOLITION.
2	ITEMS DESIGNATED FOR RELOCATION OR REINSTALLATION SHALL BE REMOVED CAREFULLY TO AVOID MATERIAL DAMAGE. ITEMS DAMAGED BY METHODS OF REMOVAL OR STORAGE SHALL BE REPLACED AT NO EXTRA COST TO THE CLIENT.
3	EXISTING FIRE ALARM DEVICES NOTED TO BE RELOCATED MUST BE KEPT OPERATIONAL CONTINUOUSLY DURING DEMOLITION AND CONSTRUCTION UNTIL THE TIME AT WHICH THEY ARE RELOCATED.
4	REROUTE AND REWORK AS REQUIRED TO MAINTAIN CONTINUITY FOR ALL SYSTEM TO REMAIN WHICH ARE AFFECTED BY THE ALTERATION OR DEMOLITION.
5	NEW LIGHTING TO BE CONNECTED TO NEARBY EXISTING NORMAL AND EMERGENCY LIGHTING CIRCUITS RESPECTIVELY.
6	CONTRACTOR TO ENSURE NEW DIMMER SWITCHES ARE COMPATIBLE WITH RESPECTIVE EXISTING LIGHTING FIXTURES THAT ARE TO REMAIN THAT THE NEW SWITCHES WILL CONTROL.
7	PROVIDE LAMACOID LABELLING FOR NEW SWITCHES IN NURSE POD. COORDINATE VERBIAGE WITH HOSPITAL.
8	ALL DEVICES AND FIXTURES IN ROOMS 7A29, 7A28, 7A27A AND 7A27 (I.E. ANY IN SCOPE AREAS WHERE PATIENTS MAY BE) SHALL BE TAMPER RESISTANT, AND ANTI-LIGATURE. ALL WALL DEVICES SHALL BE FLUSH MOUNTED. (2)



NOTES:

1. UNLESS OTHERWISE NOTED ELSEWHERE ON FLOOR PLANS, BY-PASS RELAY SHALL BE PROVIDED FOR ALL SWITCHED, EMERGENCY POWERED LUMINAIRES.
2. UPON FAILURE OF NORMAL POWER, BY-PASS RELAY SHALL AUTOMATICALLY CLOSE, BY-PASSING ALL LIGHTING CONTROLS AND AUTOMATICALLY PROVIDING POWER TO EMERGENCY LUMINAIRE.
3. PROVIDE NAMEPLATE ON SWITCH AND BALLAST COVER TO READ AS FOLLOWS: 'SWITCH FOR LUMINAIRE CAN BE BY-PASSED DURING NORMAL POWER FAILURE AND FIXTURE CAN BE ENERGIZED. ENSURE BREAKER SERVING LUMINAIRE IS TURNED OFF PRIOR TO SERVICING'
4. BASIS OF DESIGN: LVS LUT-SHUNT. (2)

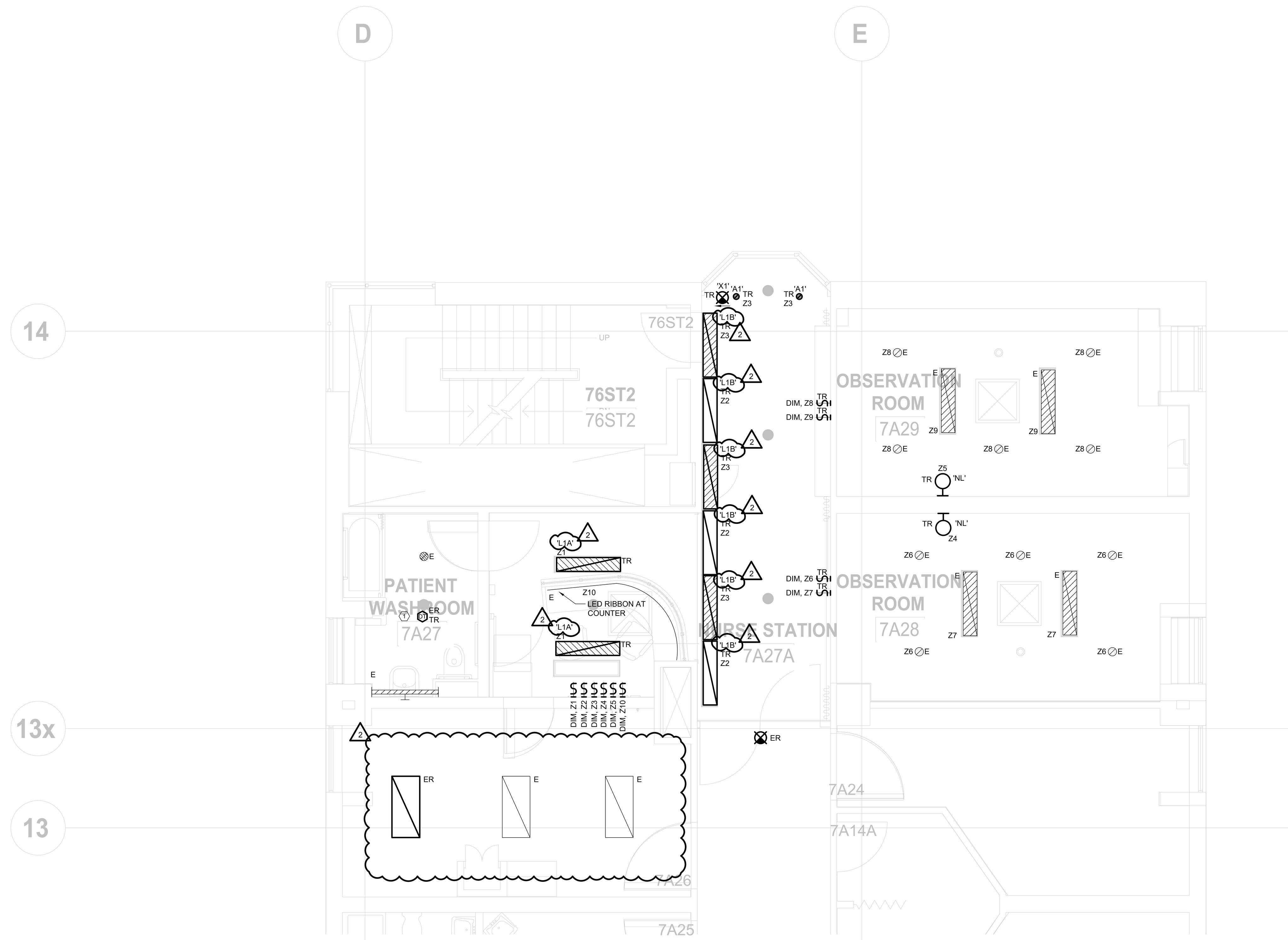
4 TYPICAL EMERGENCY LIGHTING SWITCH ARRANGEMENT
SCALE: N.T.S.

LIGHTING FIXTURE SCHEDULE

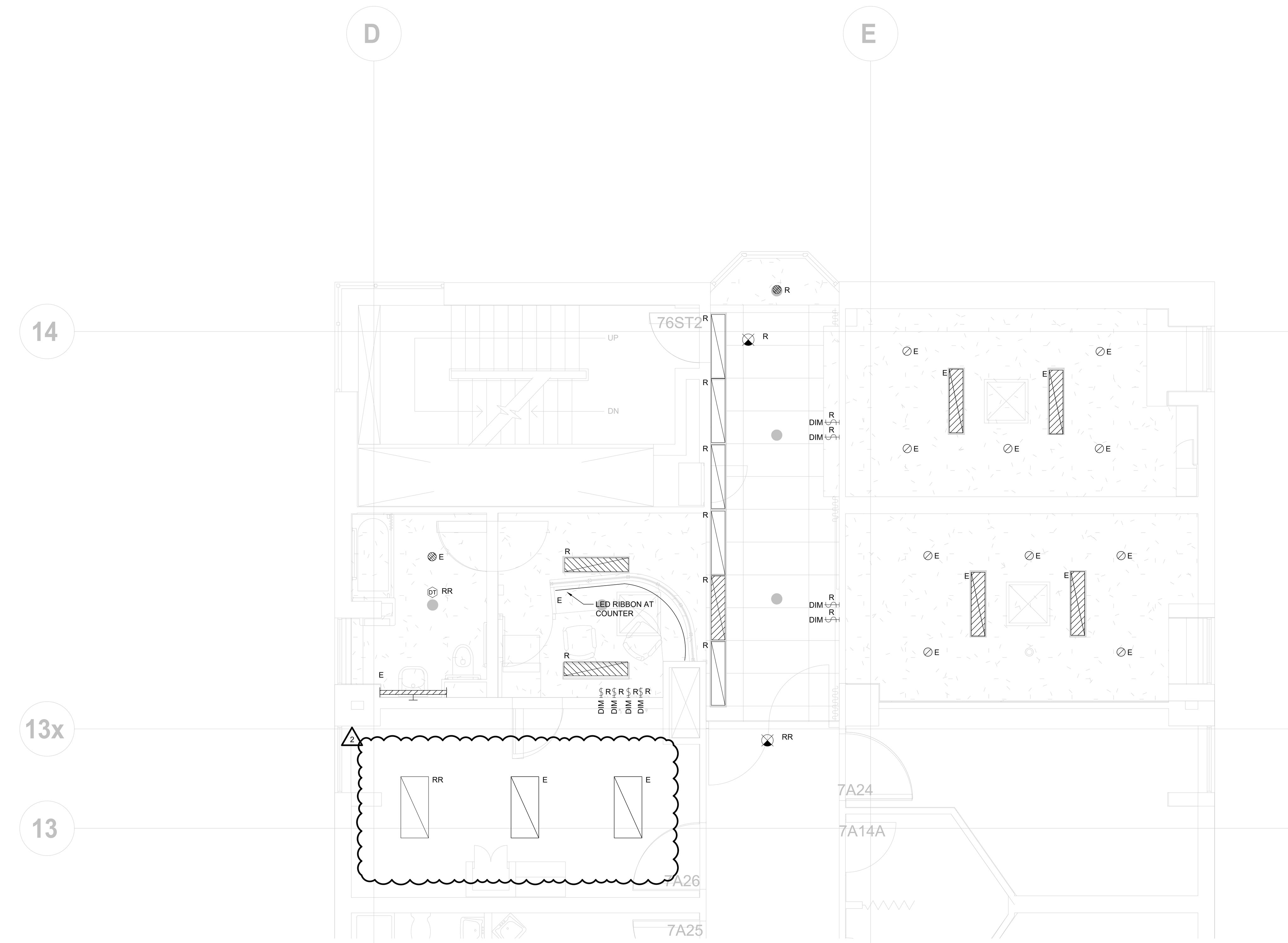
SYMBOL	TYPE	DESCRIPTION	BASIS OF DESIGN MANUFACTURER AND CAT NO. SEE NOTE 1	VOLTAGE/ INPUT WATTS	LUMEN PACKAGE (3500 K CCT UNLESS NOTED OTHERWISE) MINIMUM 80 CRI	MOUNTING	REFERENCE	REMARKS	LOCATIONS
	L1A	TAMPER RESISTANT RECESSED LED TROFFER, 1'X4' NOMINAL, WHITE FINISH, DRYWALL FLANGE, DIFFUSE POLYCARBONATE (.220) LENS, SAFETY SECURED DOOR FRAME. DOOR AND HOUSING TO BE 18 AND 20 GA COLD ROLLED STEEL.	LIFESHIELD BY CURRENT: OBX-V-14-DW-O-S-PCH-PCD-DP2-1C-8-35K-L040-ED1-U	120V 33 W	4296 LM	RECESSED IN GYPSUM BOARD CEILING		TAMPER RESISTANT	NURSE CALL STATION.
	L1B	TAMPER RESISTANT RECESSED LED TROFFER, 1'X4' NOMINAL, WHITE FINISH, DRYWALL FLANGE, DIFFUSE POLYCARBONATE (.220) LENS, SAFETY SECURED DOOR FRAME. DOOR AND HOUSING TO BE 18 AND 20 GA COLD ROLLED STEEL.	LIFESHIELD BY CURRENT: OBX-V-14-DW-O-S-PCH-PCD-DP2-1C-8-35K-L020-ED1-U	120V 17 W	2031 LM	RECESSED IN GYPSUM BOARD CEILING		TAMPER RESISTANT	CORRIDOR.
	NL	TAMPER RESISTANT WALL MOUNTED AMBER NIGHT-LIGHT, LOUVERED W/ CLEAR POLYCARBONATE LENS. GLOSS WHITE FINISH.	AMICO LUNAR SERIES: L-LUN-120-AMB-01-VR	120V 3 W	LOW LUMEN	RECESSED IN WALL		TAMPER RESISTANT	OBSERVATION ROOMS
	A1	TAMPER RESISTANT, 4" NOMINAL, WHITE FINISH, DRYWALL FLANGE.	LIFESHIELD BY CURRENT: LTR-4RD-H-SL06L-DM1_LTR-4RD-T-SL35K8XWSS_LTR-4RD-CEVR-WT-B6	120V 8 W	500 LM	RECESSED IN GYPSUM BOARD CEILING		TAMPER RESISTANT	CORRIDOR
	X1	TAMPER RESISTANT, POLYCARBONATE PICTOGRAM EXIT SIGN, UNIVERSAL MOUNTING, FACTORY WHITE FINISH TO MATCH EXISTING.	EMERGILITE : EN SERIES	SEE NOTE 4	3W LED	CEILING OR WALL, SURFACE		CONTRACTOR TO CONFIRM FINISH BEFORE SUBMITING FINAL SHOP DRAWING REVIEW.	CORRIDOR

LIGHTING FIXTURE SCHEDULE NOTES:
1. ACCEPTED ALTERNATE LIGHTING MANUFACTURES AND SUPPLIERS: COOPER, KENNAL, PHILIPS & ACUITY.
2. WHERE AN INCOMPLETE MODEL/CAT NO. IS LISTED, MANUFACTURERS/SUPPLIERS MUST CONFIRM THE PROPOSED FIXTURE WITH THE CONSULTANT A MINIMUM OF ONE WEEK PRIOR TO TENDER CLOSE.
3. SUBMIT SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO PLACING ANY ORDER.
4. EXIT SIGNS SHALL BE CAPABLE OF UNIVERSAL 120/347V AC AND 6 TO 48V DC INPUT. FOR EXIT SIGNS, REFER TO ARROWS AND NUMBER OF SHADED FACES AS DIRECTED ON LIGHTING LAYOUT. WHERE ARROWS INDICATE TWO DIRECTIONS, PROVIDE TWO PICTOGRAM STYLE EXIT SIGNS.
5. ACCEPTABLE EXIT LIGHTING MANUFACTURERS: AIMLITE, BEGHELLI, LUMACELL, STANPRO.

2 LIGHTING FIXTURE SCHEDULE
SCALE: N.T.S.



3 LIGHTING - 7TH FLOOR PARTIAL PLAN - NEW WORK
SCALE: 1:50



1 LIGHTING - 7TH FLOOR PARTIAL PLAN - DEMOLITION
SCALE: 1:50

REVISIONS

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1.	-	-	-

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1.	ISSUED FOR PERMIT & TENDER	2025-02-20

ISSUED

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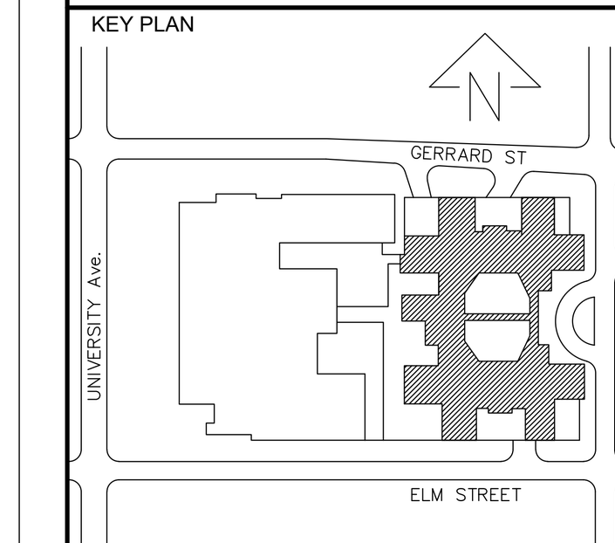
KEY PLAN



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SickKids

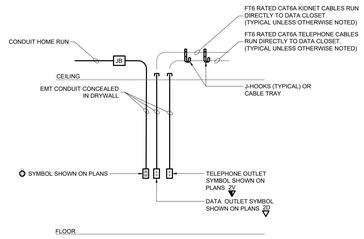
THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE
TORONTO ONTARIO M5G 1X8

PROJECT NAME
7A SCHEDULE 1 BEDS REFRESH

SHEET TITLE
PARTIAL SEVENTH FLOOR PLAN - LIGHTING

SCALE 1:50	DATE	
DRAWN BY S.P.	CHECKED BY J.M.	
PROJECT NO. HC-23-106	RFQ#	SICKKIDS AR NO.

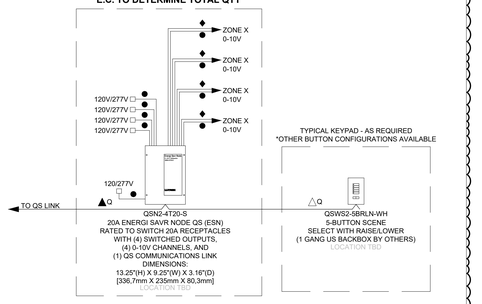
DRAWING NO.
EL 07 AN 01



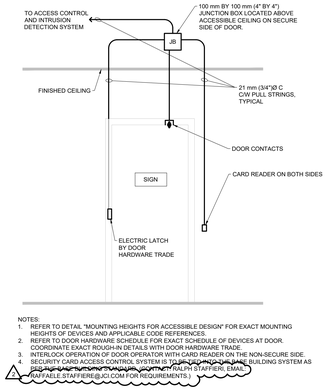
NOTES:

1. CONFIRM EXACT MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS.

7 SICKKIDS - KIDNET DETAIL
SCALE: N.T.S.



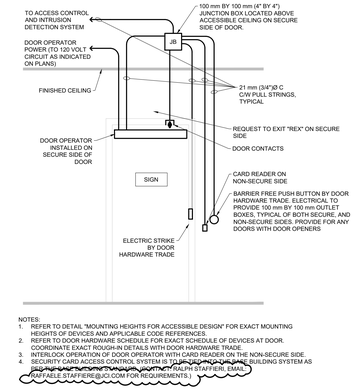
8 LUTRON LIGHTING DETAIL (FOR REFERENCE)
SCALE: N.T.S.



NOTES:

1. REFER TO DETAIL "MOUNTING HEIGHTS FOR ACCESSIBLE DESIGN" FOR EXACT MOUNTING HEIGHTS OF DEVICES AND APPLICABLE CODE REFERENCES.
2. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
3. INTERLOCK OPERATION OF DOOR OPERATOR WITH CARD READER ON THE NON-SECURE SIDE.
4. SECURITY CARD ACCESS CONTROL SYSTEM IS TO BE TIED TO ON-SITE BASE BUILDING SYSTEM AS REQUIRED BY SICKKIDS. (CONTACT RALPH STAFFIERI, EMAIL: RAFFAELE.STAFFIERE@JCI.COM FOR REQUIREMENTS.)

6 ACCESS CONTROL ROUGH-IN - KINGSWAY DOORS
SCALE: N.T.S



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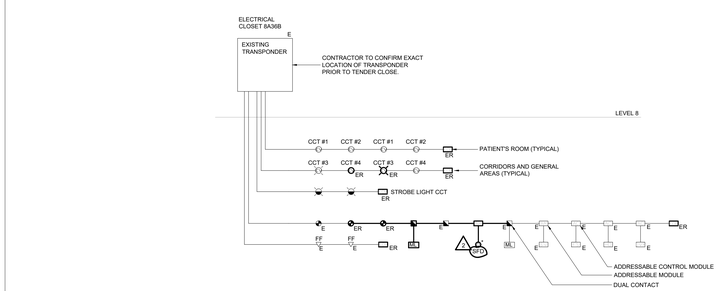
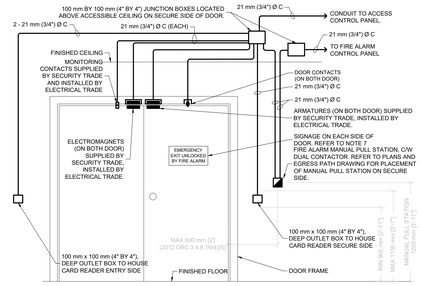
5 ACCESS CONTROL ROUGH-IN
SCALE: N.T.S.



4 FIRE ALARM WIRING DIAGRAM PROVISIONS - TYPICAL
SCALE: N.T.S.



DETAIL NOTES:

1. ALL CONDUITS MINIMUM 21 mm (3/4") UNLESS NOTED OTHERWISE. PROVIDE PULL STRINGS IN ALL CONDUITS FOR SECURITY CONTRACTOR.
2. CONFIRM EXACT REQUIREMENTS WITH SECURITY CONTRACTOR PRIOR TO START OF ROUGH-IN INSTALLATION.
3. OUTLET BOXES AND CONDUIT ROUGH-INS FOR ACCESS CONTROL DEVICES TO BE PROVIDED BY ELECTRICAL TRADE.
4. ALL EXPOSED DEVICES OR WIRES TO BE MOUNTED INSIDE SECURE AREA.
5. PROVIDE EMERGENCY LIGHTS ON BOTH SIDES OF DOOR WITH ELECTROMAGNETIC LOCKS (REF 2012 OBC 3.4.6.16(4)(k)).
6. METRIC DIMENSIONS GOVERN.
7. PROVIDE A LEGIBLE SIGN PERMANENTLY MOUNTED ON EACH SIDE OF DOOR HAVING THE WORDS "EMERGENCY EXIT UNLOCKED BY FIRE ALARM". (2012 OBC 3.4.6.16(4)(g)).

MAGLOCK DEVICE EMERGENCY SEQUENCE OF OPERATION:

REF 2012 OBC 3.4.6.16(4)

b. MAGLOCKS TO RELEASE IMMEDIATELY UPON ACTIVATION OF THE ALARM SIGNAL FROM THE FIRE ALARM SYSTEM.
c. THE LOCKING DEVICE RELEASES IMMEDIATELY UPON LOSS OF POWER TO THE FIRE ALARM CONTROL PANEL, OR LOSS OF POWER CONTROLLING THE ELECTROMAGNETIC LOCKING MECHANISM AND ITS AUXILIARY CONTROLS
d. THE LOCKING DEVICE RELEASES IMMEDIATELY UPON ACTUATION OF A MANUALLY OPERATED SWITCH EASILY ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL AND LOCATED NEAR THE MAIN ENTRANCE OF THE BUILDING.
e. THE LOCKING DEVICE RELEASES IMMEDIATELY UPON A FAULT BEING DETECTED IN THE ELECTRICAL CIRCUIT BETWEEN THE FIRE ALARM CONTROL PANEL AND THE CONTROLLER OF THE LOCKING DEVICE.
f. THE LOCKING DEVICE RELEASES IMMEDIATELY UPON THE OPERATION OF A MANUAL PULL STATION FOR THE FIRE ALARM SYSTEM LOCATED ON THE WALL NOT MORE THAN 600 MM FROM THE DOOR.
i. UPON RELEASE, THE LOCKING DEVICE MUST BE RESET MANUALLY BY THE ACTUATION OF THE MANUALLY OPERATED SWITCH.
j. THE OPERATION OF ANY BYPASS SWITCH, WHERE PROVIDED FOR TESTING OF THE FIRE ALARM SYSTEM, CAUSES AN AUDIBLE SIGNAL AND A VISUAL SIGNAL TO BE INDICATED AT THE FIRE ALARM ANNUNCIATOR PANEL AND AT THE MONITORING STATION.

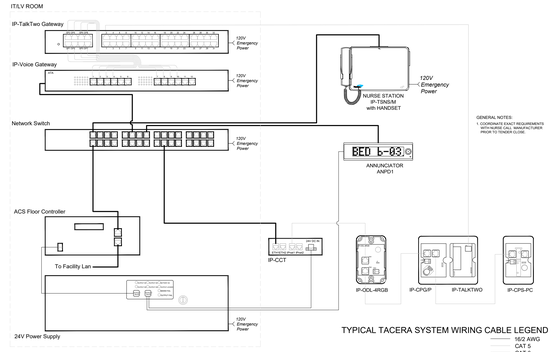
3 DOUBLE DOOR MAGLOCK ACCESS CONTROL ROUGH-IN
SCALE: N.T.S.

MAXIMUM BRANCH WIRING DISTANCE FOR 120 V SYSTEM AT 3% VOLTAGE DROP

WIRE SIZE	BREAKER SIZE (AMPERES)	15	20	30	40	50	60	70	80	100
	MAX. LOAD AT 80% (AMPERES)	12	16	24	32	40	48	56	68	80
NO. 12	-	24.4	18.3	-	-	-	-	-	-	-
NO. 10	-	38.1	29.0	19.1	-	-	-	-	-	-
NO. 8	-	59.4	44.2	30.5	22.9	-	-	-	-	-
NO. 6	-	91.4	70.1	47.2	35.1	28.2	23.6	-	-	-
NO. 4	-	-	109.7	73.2	54.9	42.7	38.1	32.0	27.4	-
NO. 2	-	-	-	114.3	85.3	68.6	57.9	50.3	41.1	35.0
NO. 1	-	-	-	-	103.6	85.3	73.2	61.0	54.9	43.4
NO. 1/0	-	-	-	-	128.0	102.9	85.3	73.2	64.0	48.8
NO. 2/0	-	-	-	-	-	121.9	100.6	86.9	74.7	60.9
NO. 3/0	-	-	-	-	-	-	118.1	102.1	88.4	70.1
NO. 4/0	-	-	-	-	-	-	-	120.4	102.9	83.8
250 MCM	-	-	-	-	-	-	-	-	114.3	91.4
300 MCM	-	-	-	-	-	-	-	-	-	103.6

NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

2 MAX BRANCH WIRING DISTANCE FOR 120 V SYSTEM AT 3 PER CENT VOLTAGE DROP
SCALE: N.T.S.



1 TACERA NURSE CALL TYPICAL SYSTEM RISER
SCALE: N.T.S.

REVISIONS

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1.	-	-	-

NO.	ISSUED TO	DATE
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ISSUED

GENERAL NOTES

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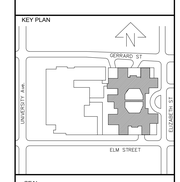
CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS ON THE JOB.

KEY PLAN



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SickKids

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TORONTO ONTARIO M5G 1X8

PROJECT NAME

7A SCHEDULE
1 BEDS REFRESH

SHEET TITLE

ELECTRICAL DETAILS I

SCALE	DATE
DRAWN BY S.P.	CHECKED BY J.M.
PROJECT NO. HC-23-106	RFQ#
SICKKIDS A/R NO.	

DRAWING NO.

ED 07 AT 01

26 06 20.16 - ELECTRICAL PANELBOARD SCHEDULE

EXISTING PANEL ID: EP-7EA-EAST	VOLTS: 120/208V	LOCATION: AS SHOWN
MAIN BUS: EXISTING	PHASE: 3	FED FROM: DP-EM5
MAIN BREAKER: EXISTING	WIRE: 4	FEEDER ENTRY AT: EXISTING
TYPE: FEDERAL PIONEER	MOUNTING: RECESSED	FEEDER: EXISTING
INTERRUPTING CAPACITY: EXISTING	ENCLOSURE RATING: EXISTING	REMARKS:

CIR NO.	DESCRIPTION	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	BRKR	Ø	BRK R	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	DESCRIPTION	CIR NO.
73	EXISTING	0	-	-		A		0	-	-	EXISTING	74
75	EXISTING	-	0	-		B		-	0	-	EXISTING	76
77	EXISTING	-	-	0		C		-	-	0	EXISTING	78
79	EXISTING	0	-	-		A		0	-	-	EXISTING	80
81	EXISTING	-	0	-		B		-	0	-	EXISTING	82
83	EXISTING	-	-	0		C		-	-	0	EXISTING	84
85	MECH CONTROLS & WATER SHUTOFF	0	-	-	15A-1P (N)	A		0	-	-	SPACE	86
87	FSDS IN RM. 7A28, 7A29, 7A20 & 7A27	-	0	-	15A-1P (N)	B		-	0	-	SPACE	88
89	SPACE	-	-	0		C		-	-	0	SPACE	90
91	SPACE	0	-	-		A		0	-	-	SPACE	92
93	EXISTING	-	0	-		B		-	0	-	SPACE	94
95	EXISTING	-	-	0		C		-	-	0	SPACE	96
97	EXISTING	0	-	-		A		0	-	-	SPACE	98
99	EXISTING	-	0	-		B		-	0	-	SPACE	100
101	EXISTING	-	-	0		C		-	-	0	SPACE	102

TOTAL ØA: ____W , TOTAL ØB: ____W , TOTAL ØC: ____W

NOTES:

* - PROVIDE LOCKABLE BREAKER
** - PROVIDE GFI TYPE BREAKER
*** - COORDINATE EXACT BREAKER SIZE WITH EQUIPMENT SHOP DRAWINGS
R - RECEPTACLE
L - LIGHTING
N - NEW BREAKER

CIRCUIT NUMBERS ARE GIVEN FOR GROUPING ONLY. SITE VERIFY AVAILABLE CIRCUIT BREAKER SPACES IN PANELS DURING TENDER WALKTHROUGH.

26 06 20.16 - ELECTRICAL PANELBOARD SCHEDULE

EXISTING PANEL ID: LP-7B	VOLTS: 120/208V	LOCATION: AS SHOWN
MAIN BUS: EXISTING	PHASE: 3	FED FROM: DP-4A
MAIN BREAKER: EXISTING	WIRE: 4	FEEDER ENTRY AT: EXISTING
TYPE: FEDERAL PIONEER	MOUNTING: RECESSED	FEEDER: EXISTING
INTERRUPTING CAPACITY: EXISTING	ENCLOSURE RATING: EXISTING	REMARKS:

CIR NO.	DESCRIPTION	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	BRKR	Ø	BRK R	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	DESCRIPTION	CIR NO.
1	EXISTING	0	-	-		A		0	-	-	EXISTING	2
3	EXISTING	-	0	-		B		-	0	-	EXISTING	4
5	EXISTING	-	-	0		C		-	-	0	EXISTING	6
7	EXISTING	0	-	-		A		0	-	-	EXISTING	8
9	EXISTING	-	0	-		B		-	0	-	EXISTING	10
11	EXISTING	-	-	0		C		-	-	0	EXISTING	12
13	ELECTRICAL ROLLER RM 7A28 & 7A29	0	-	-	15A-1P (N)	A		0	-	-	EXISTING	14
15	EXISTING	-	0	-		B		-	0	-	EXISTING	16
17	EXISTING	-	-	0		C		-	-	0	EXISTING	18
19	EXISTING	0	-	-		A		0	-	-	EXISTING	20
21	EXISTING	-	0	-		B		-	0	-	EXISTING	22
23	EXISTING	-	-	0		C		-	-	0	EXISTING	24
25	EXISTING	0	-	-		A		0	-	-	EXISTING	26
27	EXISTING	-	0	-		B		-	0	-	EXISTING	28
29	EXISTING	-	-	0		C		-	-	0	EXISTING	30
31	EXISTING	0	-	-		A		0	-	-	EXISTING	32
33	EXISTING	-	0	-		B		-	0	-	EXISTING	34
35	EXISTING	-	-	0		C		-	-	0	EXISTING	36
37	EXISTING	0	-	-		A		0	-	-	EXISTING	38
39	SPACE	-	0	-		B		-	0	-	EXISTING	40
41	SPACE	-	-	0		C		-	-	0	SPACE	42

TOTAL ØA: ____W , TOTAL ØB: ____W , TOTAL ØC: ____W

NOTES:

* - PROVIDE LOCKABLE BREAKER
** - PROVIDE GFI TYPE BREAKER
*** - COORDINATE EXACT BREAKER SIZE WITH EQUIPMENT SHOP DRAWINGS
R - RECEPTACLE
L - LIGHTING
N - NEW BREAKER

CIRCUIT NUMBERS ARE GIVEN FOR GROUPING ONLY. SITE VERIFY AVAILABLE CIRCUIT BREAKER SPACES IN PANELS DURING TENDER WALKTHROUGH.

26 06 20.16 - ELECTRICAL PANELBOARD SCHEDULE

EXISTING PANEL ID: LP-7B	VOLTS: 120/208V	LOCATION: AS SHOWN
MAIN BUS: EXISTING	PHASE: 3	FED FROM: DP-4A
MAIN BREAKER: EXISTING	WIRE: 4	FEEDER ENTRY AT: EXISTING
TYPE: FEDERAL PIONEER	MOUNTING: RECESSED	FEEDER: EXISTING
INTERRUPTING CAPACITY: EXISTING	ENCLOSURE RATING: EXISTING	REMARKS:

CIR NO.	DESCRIPTION	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	BRK R	Ø	BRK R	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	DESCRIPTION	CIR NO.
43	EXISTING	0	-	-		A		0	-	-	EXISTING	44
45	EXISTING	-	0	-		B		-	0	-	EXISTING	46
47	EXISTING	-	-	0		C		-	-	0	EXISTING	48
49	EXISTING	0	-	-		A		0	-	-	EXISTING	50
51	SPACE	-	0	-		B		-	0	-	EXISTING	52
53	SPACE	-	-	0		C		-	-	0	EXISTING	54
55	SPACE	0	-	-		A		0	-	-	EXISTING	56
57	SPACE	-	0	-		B		-	0	-	EXISTING	58
59	EXISTING	-	-	0		C		-	-	0	EXISTING	60
61	EXISTING	0	-	-		A		0	-	-	EXISTING	62
63	EXISTING	-	0	-		B		-	0	-	SPACE	64
65	EXISTING	-	-	0		C		-	-	0	SPACE	66
67	EXISTING	0	-	-		A		0	-	-	SPACE	68
69	EXISTING	-	0	-		B		-	0	-	SPACE	70
71	EXISTING	-	-	0		C		-	-	0	SPACE	72
73	SPACE	0	-	-		A		0	-	-	SPACE	74
75	SPACE	-	0	-		B		-	0	-	SPACE	76
77	EXISTING	-	-	0		C		-	-	0	SPACE	78
79	EXISTING	0	-	-		A		0	-	-	EXISTING	80
81	EXISTING	-	0	-		B		-	0	-	EXISTING	82
83	EXISTING	-	-	0		C		-	-	0	EXISTING	84

TOTAL ØA: ____W , TOTAL ØB: ____W , TOTAL ØC: ____W

NOTES:

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*** - COORDINATE EXACT BREAKER SIZE WITH EQUIPMENT SHOP DRAWINGS
R - RECEPTACLE
L - LIGHTING
N - NEW BREAKER

CIRCUIT NUMBERS ARE GIVEN FOR GROUPING ONLY. SITE VERIFY AVAILABLE CIRCUIT BREAKER SPACES IN PANELS DURING TENDER WALKTHROUGH.

1 PANELBOARD SCHEDULE
SCALE: N.T.S.

REVISIONS

NO.	ITEM	DATE	BY
1.	-	-	-

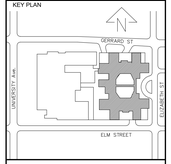
NO.	ISSUED TO	DATE
2.	ISSUED FOR ADDENDUM E1	2025-03-17
1.	ISSUED FOR PERMIT & TENDER	2025-02-20

ISSUED

GENERAL NOTES

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS ON THE JOB.

KEY PLAN



SEAL

CONSULTANT

QUASAR CONSULTING GROUP
250 ROWNTREE DAIRY RD., WOODBRIDGE, ON
TEL: 905-507-0800
WEB: WWW.QUASARCG.COM

SickKids

THE HOSPITAL FOR SICK CHILDREN
555 UNIVERSITY AVE
TORONTO ONTARIO M5G 1X8

PROJECT NAME

7A SCHEDULE
1 BEDS REFRESH

SHEET TITLE

ELECTRICAL DETAILS II AND PANELBOARD SCHEDULE

SCALE: 1:50	DATE:
DRAWN BY: MAM S.P.	CHECKED BY: PC J.M.
PROJECT NO.: HC-23-106	RFQ#: SICKKIDS AR NO.:

DRAWING NO.

ED 07 AT 02