

The bid requirements, contract requirements, specifications, schedules and drawings for  
**TEHN – Michael Garron Hospital  
Outpatient Ophthalmology Clinic**

are amended as follows:

**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. 01 00 00\_R1, General Requirements
- .3 Section No. 09 06 00\_R2, Finishes Schedule.

**1.2 NEW SPECIFICATIONS**

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

- .1 Section No. 12 24 13, Manual Roller Shades.

**1.3 DELETED SPECIFICATIONS**

- .1 Delete the following specifications in their entirety.

- .1 Section No. 01 00 00\_01, TEHN Contractor Procedure Manual.

**DRAWINGS**


**1.4 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 A22-01: Level 2 Finishes Plan

- .1 New Finishes Note F1 added and tagged on the Finishes Floor Plan as shown in clouded areas. New resilient flooring and integral coved base (4" high) shall be adhered around the existing floor mounted slot diffusers (typical)



- .2 Drawing A-30-01: Level 2 Proposed Reflected Ceiling Plan
  - .1 New Surgical Procedure Light added to the Reflected Ceiling Legend as shown clouded. In addition, annotations for existing areas revised as noted.
- .2 The following drawings are revised by reference, but not re-issued:
  - .1 Drawing A20-01: Level 2 Demolition Floor Plan
    - .1 Demolition Notes: Add new Demolition Note tag D5 to read “Within Dirty Utility Room L2-13, cut and cap abandoned medical gas piping (previously decommissioned by the former Tenant) from the floor level below which penetrates the floor slab at Level 2. Infill openings with concrete, repair and make good substrate to receive new flooring finish as specified. Coordinate with Mechanical Contractor for med gas outlet and piping removals.”
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- .2 Drawing A20-02: Level 2 Demolition Reflected Ceiling Plan
  - .1 RCP Demolition Notes: Delete Demolition Ceiling Note tag DC2 in its entirety and replace with new Note tag DC2 to read “Uninstall articulated Surgical Procedure Light within Procedure Room #2 including all overhead structural framing support system anchored to underside of existing structure. Procedure light to be disposed off-site. Where anchors & fasteners are to be removed, repair penetrations to underside of existing metal deck soffit and reinstate sprayed fireproofing assembly to maintain integrity of existing 2-HR continuous fire separation between floor levels.”
  - .2 RCP Demolition Notes: Add new Demolition Ceiling Note DC3 to read “Remove and disconnect abandoned medical gas outlets recessed above the gypsum board ceiling soffit within Minor Procedure #3, complete with all piping services. Where med gas services penetrate the Minor Procedure #3 parent wall, seal openings at removed penetrations to maintain integrity of non-rated fire separation.

- .3 Add new DC3 tag at the south wall of Minor Procedure #3, left of grid line 4 near the furred wall for the exhaust plenum.



## DOCUMENTS

### 1.5 NEW DOCUMENTS

- .1 The following documents are issued with NORR Addendum No. 1.
- .1 Appendices, Appendix A2, Surgical Procedure Light, Type PI-1, manufacturer: Medicana, Product: Flex Lux Exam & Procedure Light, Flex Lux 80 LED.
  - .2 Appendices, Appendix A3, Ceiling Mounting Plate Detail.
  - .3 Appendices, Appendix A4, MGH Network Cabling & Network Closet Standards and Guidelines.
  - .4 Appendices, Appendix A5, NWH Construction Criteria
  - .5 Addendum No. 1 prepared by Zdesign+ Ltd.

End of NORR Addendum No.1

Number	Title	Date	Pages
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**Project Manual  
 For  
 Michael Garron Hospital  
 Outpatient Ophthalmology Clinic**

**SPECIFICATIONS**

**Division 00 – Procurement and Contracting Requirements**

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**Division 01 - General Requirements**

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01 35 33	Infection Control Procedures	05 Nov 2025	2
---	CSA Z313.13 Tables		4

**Division 02 – Existing Conditions**

02 41 19	Selective Demolition	05 Nov 2025	5
02 82 00	Asbestos Abatement – Type 2 Operations		11

**Division 05 - Metals**

05 50 00	Metal Fabrications	05 Nov 2025	8
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**Division 06 – Wood, Plastics and Composites**

06 10 00	Rough Carpentry	05 Nov 2025	3
06 20 00	Finish Carpentry	05 Nov 2025	11

**Division 07 - Thermal and Moisture Protection**

07 84 00	Firestopping And Smoke Seals	05 Nov 2025	5
07 92 00	Joint Sealants	05 Nov 2025	8

**Division 08 - Openings**

08 11 13	Hollow Metal Doors and Frames	05 Nov 2025	7
08 71 00	Hardware	05 Nov 2025	9
08 80 00	Glazing	05 Nov 2025	6

**Division 09 – Finishes**

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09 21 16	Gypsum Board Assemblies	05 Nov 2025	11
09 51 00	Acoustical Ceilings	05 Nov 2025	3
09 65 00	Resilient Flooring	05 Nov 2025	6

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09 91 00	Painting	05 Nov 2025	9
<b>Division 10 – Specialties</b>			
10 26 23	Protective Wall Covering	05 Nov 2025	4
10 28 00	Washroom Accessories	05 Nov 2025	4
<b>Division 12 - Furnishings</b>			
<b>12 24 13</b>	<b>Manual Roller Shades</b>	<b>18 Nov 2025</b>	<b>2</b>
12 35 53	Stainless Steel Laboratory Casework	05 Nov 2025	13
<b>Appendices</b>			
Appendix A1	Designated Substances and Hazardous Materials Survey Report	22 Aug 2025	36
<b>Appendix A2</b>	<b>Medicana Flexelux-80 Exam and Procedure Lights</b>		<b>1</b>
<b>Appendix A3</b>	<b>Dual Ceiling Mounting plate</b>		<b>1</b>
<b>Appendix A4</b>	<b>MGH Network Cabling &amp; Network Closet Standards and Guidelines</b>	<b>Oct 2025</b>	<b>10</b>
<b>Appendix A5</b>	<b>Construction Criteria</b>		<b>4</b>

End of Table of Contents

## 1 SUMMARY OF WORK

### 1.1 Work covered under this Contract

- .1 Work of this Contract includes labour, materials, equipment, services and other related expenses to execute complete construction of facility specified under Contract Documents.
- .2 It is the Contractor's sole responsibility to examine the Construction Documents, Specifications and Drawings issued to establish/determine total scope of work.
- .3 In accepting award of this Contract, Contractor hereby reaffirms that it is fully informed regarding all conditions affecting Work including its company's provincial taxes are in good standing and further accepts to complete Work for purpose intended in accordance with Contract Documents. Contractor hereby reaffirms that it does not and will not have any conflict of interest in executing work of this Contract.

### 1.2 Work Provided By Owner or Performed Under Separate Contracts

- .1 The term "NIC" means that work of this Project which is not being performed or provided by the Contract; the term means "Not In This Contract" or "Not a Part of The Work to be Performed or Provided by The Contractor".
- .2 "NIC" work is specified and/or indicated on the Drawings as an aid to the Contractor in scheduling the amount of time and materials necessary for the completion of the Contract.

### 1.3 ~~Base Building Vendors of Record~~ **MGH Mandatory Vendors**

- .1 **Access Control: A1 Security Systems,**  
**Attention: Robert Young, T. (647) 558-3473**  
**Email: [a1design@rogers.com](mailto:a1design@rogers.com)**
- .2 **CCTV Systems: Chubb Edwards**  
**Attention: Stephen Yates, T. (289) 818-1162**  
**Email: [stephen.yates@chubbfs.com](mailto:stephen.yates@chubbfs.com)**

### 1.4 **Mandatory Base Building Vendors:**

- .1 **Building Controls System**  
**Attention: Matthew Sidon, T. (905) 580-4016,**  
**Email: [msidon@viridianautomation.com](mailto:msidon@viridianautomation.com)**
- .2 **Base Building Service Provider: Naylor Mechanical**  
**Attention: Allan Landry, T. (416) 881-6645**  
**Email: [alandry@naylorbp.com](mailto:alandry@naylorbp.com)**
  - .1 ~~\_\_\_\_\_ FIRE ALARM:~~
  - .2 ~~\_\_\_\_\_ Chubb Fire & Security~~
  - .3 ~~\_\_\_\_\_ Attention: Stephn Yates~~
  - .4 ~~\_\_\_\_\_ Telephone: (289) 818-1162~~
  - .5 ~~\_\_\_\_\_ Cell: (416) 659-1754~~
  - .6 ~~\_\_\_\_\_ Email: [stephen.yates@chubbfs.com](mailto:stephen.yates@chubbfs.com)~~

- .7 — ~~NURSE CALL~~
- .8 — ~~Aatel Communications.~~
- .9 — ~~Attention: Darren Croucher & Laura Graham~~
- .10 — ~~Email: darrenc@aatel.com~~
- .11 — ~~Email: laurag@aatel.com~~
- .12 — ~~RTLS:~~
- .13 — ~~Civica Canada~~
- .14 — ~~Attention: Marshall Sylvestre~~
- .15 — ~~Telephone: (431) 303-5284~~
- .16 — ~~Email: Marshall.Sylvestre@civica.ca~~
- .17 — ~~ACCESS CONTROL:~~
- .18 — ~~A1 Security Systems.~~
- .19 — ~~Attention: Rob~~
- .20 — ~~Telephone: (647) 558-3473~~
- .21 — ~~Email: a1design@rogers.com~~

## 2 SPECIFICATIONS

- 2.1 Specifications are not intended as detailed description of installation methods but serve to indicate particular requirements in completed Work.
- 2.2 Where Contract Documents do not provide sufficient information for complete installation of item, then as supplement, comply with manufacturer's written instructions for quality of work.
- 2.3 Portions of Specifications are written in short form. Therefore, it shall be understood that where item of Work is stated in heading followed by material, equipment, component, or operation, words "shall be", "shall consist of" or similar words or phrases are implied which denote supply, fabricate and supply, install, provide or commission of such materials, equipment or operations for component of Work designated by heading.
- 2.4 Where the Contract Documents refer to the singular, provide as many as required to complete Work. Words used in one gender only shall mean females and as well as males and conversely.
- 2.5 Drawings, Lists or Schedules of Items are intended to show scope and arrangement of work. For location of item described refer to such Drawings, Lists or Schedules unless location stipulated in Specifications.
- 2.6 Wherever words "acceptable", "approved", "reviewed", "satisfactory", "selected", "directed", "designated", "permitted", "inspected", "instructed", "clarification", "required", "report", "submit", "obtain", "consult", "advise", or similar words or phrases are used in

Standards or in Contract Documents, it shall be understood that, unless context provides otherwise words "by/to/with/from the Consultant" shall follow them as applicable.

### 3 DIVISION OF WORK

- 3.1 Work specified in the Specifications is divided into Sections for reference purposes only. Division of work between Contractor and Subcontractors is the Contractor's responsibility. The Owner and Consultant assume no responsibility to act as an arbitrator to establish subcontract limits between Sections or Divisions of the Work.

### 4 REFERENCE STANDARDS

- 4.1 Conform to latest date of issue of referenced standards in effect on date of submission of bids, except where a specific date or issue is specifically noted.

### 5 WORK RESTRICTIONS

#### 5.1 Owner's Policy and Procedural Requirements

- .1 Comply with the Owner's policies and procedural requirements prescribed in ~~"TEHN Contractor Procedure Manual"~~ **NWH Construction Criteria**, included in the appendix to these specifications, including, but not limited to, personal conduct and behaviour, ~~patient~~ **tenant** privacy, facility security, ~~infection prevention and control~~, mechanical/~~electrical~~ system interruptions, and work scheduling.
- .2 Conduct all work in accordance with the most current version of CAN/CSA-Z317.13.
- .3 All building materials and supplies must be in compliance with CSA Z8000 and MIFU, governing IPAC measures incorporated into the design and construction of a health care facility or any part thereof.
- .4 As determined by the Owner's policies, immediately correct all unsafe conditions that are identified within the active facility that are a result of, or related to, the construction work activities.

#### 5.2 Occupancy

- .1 Existing premises outside of the Area of Work will remain occupied **and fully operational throughout construction** during Work. **Contractor to provide a detailed Work Plan to Landlord/Property Manager for review and approval prior to commencing any Work.** Execute ~~the~~ Work to cause minimum interference with **ongoing operations** activities in existing premises and maintain maximum safety to **for all** occupants. ~~Take reasonable measures~~ **Provide necessary precautions and adequate hoardings** to minimize and control noise, dirt and dust during Work.
- .1 Provide a methodology for phasing and staging of the Work, ~~and indicating~~ **including identification of required safety measures** and fire escape **emergency egress** routes for the occupants of the building during construction.
- .2 **Before entering any existing premises to execute the Work, or before obstructing, altering, or taking out of service any area or building systems, request a meeting with the Consultant and Property Management to reach agreement on the timing, duration, and extent of required interruptions.**
- .3 **Contractor access to other suites and public corridors, including occupied Tenant areas on the ground floor (e.g., retail Pharmacy, Eyeglass Store),**



- shall be coordinated through the Landlord (Northwest Healthcare Properties REIT) with a minimum of five (5) days' notice.
- .4 All such Work shall occur after normal business hours, limited to 7:30 p.m. to 6:00 a.m., Monday to Sunday. After-hours Security will be provided by Property Management (paid by MGH) for all Work within occupied Tenant spaces.
  - .5 Contractor to provide and maintain adequate construction hoardings and dust-control measures in accordance with CSA guidelines to safely isolate construction areas from occupied areas at all times. Hoardings shall consist of 6-mil fire-retardant polyethylene barriers extending to the underside of the structure.
  - .6 At the end of each shift, reinstate ceilings, remove temporary hoardings (where required), and leave all areas tidy, free of materials and equipment, and dust-free to allow uninterrupted Tenant operations.
  - .7 The business schedules of other Tenants shall take precedence over Contractor convenience. Delivery times and access windows may be altered at the Tenant's discretion without prior notice to the Contractor.
  - .8 The Building contains only one passenger elevator. All material deliveries shall be coordinated after-hours. A 7:00 a.m. to 8:00 a.m. delivery window may be arranged with the Landlord. Use of the exit stairwell by workers and for materials transport is permitted.
  - .9 Under no circumstances shall the Contractor exceed the elevator's rated load capacity. The Contractor shall supervise all elevator use for construction purposes. Subcontractors shall not use the elevator for material movement without direct oversight by the Contractor's designated site supervisor.
  - .10 The existing passenger elevator shall be fully protected by the Contractor prior to transporting any materials, equipment, or tools. Provide a complete elevator protection hoarding system including, but not limited to: rigid wall protection panels, floor protection rated for rolling loads, overhead protection, and door jamb shielding. Protection materials shall be non-combustible, securely fastened, and shall not reduce required clearances for safe operation of the elevator.
  - .11 Contractor is prohibited from transporting debris or dusty materials in the passenger elevator during normal business hours. All debris must be transported in sealed containers or securely wrapped to prevent dust escape. Remove all waste from the site daily. Stockpiling demolition debris within the building or in public corridors is strictly prohibited.
  - .12 Protect all surfaces along delivery routes, including floor mats, wall guards, corner guards, and elevator pads. Repair damage to Landlord or Tenant property at the Contractor's expense.
  - .13 The Building does not have a loading dock. Provide suitable floor and wall protection for all materials delivered through public corridors, including protection of existing carpet.
  - .14 All disruptive or noisy work (including but not limited to core drilling, cutting, hammering, heavy demolition) shall occur after business hours only, limited to 8:00pm - 6:00am Monday to Sunday. If excessive disruptions occur, the Landlord/Property Manager may direct the Contractor to immediately halt Work at no additional cost to MGH.

- .15 **There are no dedicated Contractor washrooms. The existing barrier-free unisex public washroom on the second floor near the elevator may be used.**
- .16 **Hot Work (welding, soldering, brazing, grinding, etc.) shall only occur under a Hot Work Permit issued by the Landlord/Property Manager. Comply with NFPA 51B and building fire-safety requirements.**
- .17 **Prior to any fire alarm by-pass or impairment, submit an Impairment Plan including duration, isolation points, temporary detection/fire alarm watch/guarding measures, and restoration procedures. Minimum notice period: 10 working days.**
- .18 **Storage of materials or equipment is not permitted in public corridors or common areas at any time. All materials must be delivered just-in-time and stored only within the designated Work Area.**
- .19 **Any proposed penetrations through base building elements (slab, roof, demising walls, structural members) must be submitted to the Landlord for review and written approval prior to execution.**
- .20 **Do not access or modify base building systems (HVAC, controls, electrical distribution) without approval from the Landlord and their base building service provider.**
- .21 **Contractor to ensure all construction personnel are registered with Property Management before commencing the Work. Visitor badges may be administered to workers by the Landlord for security and identification purposes.**
- ~~.2.22~~ **All areas under the Contractor's Site Limits including spaces in Other occupied Tenant suites that are only available for demolition and construction activity after hospital operational hours are to ~~shall~~ be vacuumed and mopped at the end of each work shift construction day for terminal clean by hospital to enable the building tenants hospital to resume regular business operations unimpeded each day without disruption.**

.2 Access:

- .1 Different areas of work within the hospital will be restricted to time frames indicated on Construction Phasing and Hoarding drawings.
- .2 Before entering existing premises outside of the Area of Work to carry out Work or to obstruct or take out of use any area of existing premises, or to cause any other interference, request meeting with Consultant and Owner in order to reach agreement as to time and length of time Contractor may interfere, possess, obstruct or remove from use any such area or services.

5.3 Access to Area of Work

- .1 Work shall be confined to Area of Work limits indicated on Drawings and/or within area defined by property lines.
- .2 Assume responsibility for care, custody and control of Area of Work and perform work to extent covered in Contract Documents. Make good damage to existing Area of Work and existing building due to Work of this Contract.
- .3 Maintain temporary entrances to areas of Work and provide enclosed hoardings as required. Maintain access to existing building service entrance(s) at all times.

- .4 Work on Municipal property shall be carried out under regulations of respective Municipality and authorities having jurisdiction including without any limitations any associated fees, permits, insurance or bonding required.
- .5 Access to the existing buildings, and access to the neighbouring properties, cannot be blocked or otherwise compromised. Provide a minimum of 14 days' notice to Owner and coordinate with Owner for any major disruptions that may impact access to hospital or surrounding community.
- .6 Comply with the time frames/schedule of the hospital loading dock supervisor for all materials delivery to site and ensure loading bays are clear of materials/equipment.
- 5.4 Commencement of Work
  - .1 Make all required submittals, receive all reviewed submittals, and marshal all required materials off-site prior to commencing Work on-site.
  - .2 The first on-site Work shall be the construction of the hoarding.
- 5.5 No Smoking Policy
  - .1 Cooperate, respect and comply with the Owner's no smoking policy requirements.
  - .2 Ensure that Contractor's employees, sub-contractors and suppliers, performing work on Site on Contractor's behalf, are instructed to comply with the Owner's no smoking policy requirements.
  - .3 Comply with local By-Law and regulations or any authorities having jurisdiction.
  - .4 The property is a leased commercial property and any disruptions to other tenants must be coordinated with the landlord.
- 6 **SPECIAL PROJECT PROCEDURES**
  - 6.1 Existing premises will maintain operation during business hours. Work may be performed during these hours. Carry out work in such a manner as to cause a minimum of noise and interference to the use of the existing building. Conform to the requirements of the building management. Be responsible for any overtime work required after business hours.
  - 6.2 Co-ordinate construction activities and use of premises with Owner and building management.
  - 6.3 Maintain operations of building services, data, telephone and alarm. Ensure no interruptions of these services during execution of the Work.
  - 6.4 Provide written notice to the Owner minimum 14 working days before any system shut downs. Major shutdown requires 25 working days' notice. Do not proceed without written approval from Owner.
  - 6.5 Provide adequate protection against dust, water and other damages to Owner's electronic and computer equipment, fittings and furniture. Use covers acceptable to the Owner. Remove protection after each work period.

**7 SCHEDULE OF VALUES (VALUE OF SUBMITTALS)**

- 7.1 Within seven Working Days of Contract award, submit a detailed Schedule of Values providing a breakdown of the cost of the Work in a form acceptable to Consultant.
- .1 Show the cost (value) of the Work broken down by specification section. Identify each line item with number and title of the primary associated specification section, per month, and coincident with approved construction schedule. Identify site mobilization, bonds, insurance, and commissioning. Cost breakdowns when totalled, shall be same as Contract Price.
- .1 Include in each line item, the amount of specified Allowances. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- 7.2 Contractor shall identify general progress and commissioning payment line items for each of the following:
- .1 1% of total Contract value for provision of as-built drawings, O&M manuals and warranties covering all sub-contracts.
- .2 1% of Mechanical value for Commissioning process including completion and submission of testing forms and reports.
- .3 1% of Electrical value for Commissioning process including completion and submission of testing forms and reports.
- .4 Contractor shall submit all completed tests, reports and verification forms. The Consultant will use these documents to calculate a percentage completion.
- .5 Contractor may claim up to 60% of the value for commissioning through monthly progress payment requests leading up to performance testing. The remaining 40% of the value for commissioning shall be paid-out after the performance testing and training have been completed.
- .2 Commissioning 20 08 15 for Mechanical and 26 08 15 for Electrical
- 7.3 Revise schedule to list approved Change Orders with each Application for Payment.
- 7.4 Purpose of the cost breakdown is to assist Consultant with evaluation of progress draws and to assist Owner with cash flow arrangements.
- 7.5 The Owner reserves the right to withhold the amounts allocated for Submittals indicated above pending their submission.

**8 CASH ALLOWANCES**

- 8.1 Cash allowances, unless otherwise specified, cover net cost to Contractor of services, products, construction machinery and equipment, freight, handling, unloading, storage, installation and other authorized expenses incurred in performing the Work.
- 8.2 The Contract Price, and not cash allowance, includes Contractor's overhead and profit in connection with such cash allowance.
- 8.3 The Owner reserves the right to call competitive tenders for portions of the work to be paid for out of any or all cash allowances. The relationship of the Contractor and the trades performing portions of the work to be paid out of cash allowances shall be such as between the Contractor and his Subcontractors.

- 8.4 Make expenditures out of the cash allowance at the sole discretion of the Owner and only on receipt of a Change Order signed by the Owner and Consultant.
- 8.5 Unexpended amounts of cash allowances may be reallocated to other specific cash allowances at the sole discretion of the Owner.
- 8.6 Unexpended amounts of cash allowances shall be deducted from the Contract Price at completion of the Work.
- 8.7 Include in the Contract Price, cash allowances for the following:

Ref #	Description	Amount
1	Signage & Wayfinding: Supply & installation of signage and wayfinding will be coordinated through the cash allowance. MGH will prepare the scope of work including message schedule and the location plan. MGH will solicit the quotation from the approved signage vendor and provide to the Contractor to issue a purchase order. Shop drawing/artwork review will be the responsibility of MGH. Coordination of sign install will be the responsibility of the Contractor.	\$20,000
2	Rectification of existing non-code compliant piping services (e.g. isolation valves, elimination of wet venting, missing piping insulation)	\$25,000
3	Reinstatement of damaged or missing fireproofing protection beneath the metal deck ceiling structure	\$25,000
4	Reinstatement of missing firestopping and/or sealing of existing service penetrations at existing fire separations	\$20,000
5	3 <sup>rd</sup> Party Testing & Inspection	\$15,000
6	Unforeseen Site Conditions related to the removal of hazardous/designated substances including mould and all associated work related to abatement and replacement of removed materials and building components. This Cash Allowance also includes all costs related to testing and inspection. The contractor is responsible to engage and coordinate the testing and inspection company. Refer to the Designated Substances and Hazardous Materials Survey Report prepared by MLE Consulting Inc, dated August 31, 2025.	\$25,000
7	Voice and Data cabling above ceiling not related to the demolished devices identified in the Electrical drawings. These include: <ul style="list-style-type: none"> <li>Verify if service is active or abandoned</li> <li>Remove all abandoned cabling to the head, removal all PEX tubing</li> <li>Tie to the joists all active cabling</li> </ul> Reroute cabling transiting the renovation space through the new partitions	\$25,000
8	Unforeseen site conditions which include but are not limited to the following: <ul style="list-style-type: none"> <li>addressing unforeseen concealed building elements or services uncovered during demolition that are not identified in the Contract Documents. This includes any remediation or modifications required to maintain code compliance, constructability or overall project continuity.</li> </ul>	\$45,000
	<b>TOTAL</b>	<b>\$200,000</b>

9 **CONSTRUCTION SCHEDULE**

- 9.1 Submit a critical path construction schedule indicating milestone dates of major activities of the Work. Provide sufficient details of critical events and their inter-relationship for successful performance within the contract time.
- 9.2 Submit schedule within 15 days after award of Contract.

10 **EXAMINATION OF EXISTING CONDITIONS**

- 10.1 Submission of bid shall be deemed evidence that Contractor has examined the site and is familiar with conditions under which work will be done and obtained all information which may be necessary for proper execution of Contract.
- 10.2 Signing of Contract indicates acceptance by Contractor of conditions under which work will be done.
- 10.3 Extra payments will not be authorized for work that could have been determined by a careful examination of site and existing conditions.

11 **EXAMINATION OF SURFACES DURING CONSTRUCTION**

- 11.1 Before executing work against surfaces prepared by other Sections, examine such surfaces. Do not accept defective surfaces, or do any work to or on them, until the defects are remedied.
- 11.2 Commencement of work shall indicate acceptance of surfaces and responsibility concerning the conditions of same.

12 **EXISTING SERVICES**

- 12.1 Cut off, cap, divert or remove existing water, gas, electric and other services in areas being altered which are affected by the changes as required or as directed by the municipal authorities and the utility company concerned, and the Consultant. Protect and maintain active services to the existing building.
- 12.2 If required by the Consultant, prepare interference and/or installation drawings showing the work of the various Sections as well as the existing installation, and submit these drawings to the Consultant for review before the commencement of work.

13 **LOCATION OF EQUIPMENT AND FIXTURES**

- 13.1 Location of plumbing, heating and electrical fixtures and outlets, ducts, conduits and pipes shown or specified but not dimensioned shall be considered approximate.
- 13.2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space, and in accordance with manufacturer's recommendations for safety, access and maintenance.
- 13.3 Consult with the Consultant to determine the actual location of items not dimensioned as may be required to suit the job conditions.

- 13.4 Obtain Consultant's acceptance for precise locations of fixtures, access panels, outlets, mechanical, electrical and security items. Relocation caused by failure to determine the actual locations shall be executed without charge to the Owner.
- 13.5 Consultant reserves the right to relocate fixtures, access panels, outlets, mechanical, electrical and security items at a later date, but prior to installation, without additional cost, provided that the relocation per outlet or fixture does not exceed 3050 mm (10 feet) from the original location

#### 14 **INTERFERENCE DRAWINGS**

- 14.1 Prepare dimensioned interference drawings indicating relationship of new installations and existing and/or unforeseen conditions prior to commencement of work.
- 14.2 Before commencing installation, prepare interference drawings, based on the actual field measurements, showing relationship of new and existing ductwork, conduit, piping, sprinklers, partitions, ceiling supports and framing, partition framing, communication and specialized equipment located within ceiling and shaft spaces.
- 14.3 Indicate locations of visible items such as air handling outlets, light fixtures, smoke detectors, sprinkler heads, communication grilles, and access panels occurring at these locations.
- 14.4 Drawings shall be initialed by responsible person of each Sub-Contractor involved along with Contractor's signature and submitted to Consultant for review and record purposes

#### 15 **DOCUMENTS ON SITE**

- 15.1 Maintain at job site, one copy each document as follows:
- .1 Permit Drawings and Building Permit Posters.
  - .2 Contract Drawings and Specifications.
  - .3 Addenda.
  - .4 Reviewed Shop Drawings.
  - .5 List of Outstanding Shop Drawings.
  - .6 Change Orders.
  - .7 Other Modifications to Contract.
  - .8 Field Test Reports.
  - .9 Copy of Approved Work Schedule.
  - .10 Site-Specific Health and Safety Plan and Other Safety Related Documents.
  - .11 Fire Watch Log.
- 15.2 Other documents as specified

#### 16 **NOISE LIMITATIONS AND DUST CONTROL**

- 16.1 Keep construction noise to a minimum.



- 16.2 No pneumatic or other noisy equipment will be permitted on the project site.
- 16.3 All vehicles and equipment shall be equipped with efficient muffling devices to minimize noise levels in the project area. In particular, construction equipment such as compressors, gas and diesel driven engines shall be equipped with efficient mufflers.
- 16.4 Undertake dust control measures to prevent dust nuisances resulting from any phase of the construction operation. Contractor to use tack mats, dust containment materials, dedicated cleaners.
- 16.5 Carry out dust control practices at all locations on site.
- 16.6 Provide air scrubbers for equipment, including trucks, to prevent exhaust fumes from entering nearby buildings' air intakes. Provide documentation to the Consultant confirming installation of scrubbers prior to equipment arriving on site.

## 17 **OVERLOADING**

- 17.1 Take precautions to prevent the overloading of any part of the structure, false work, form work or scaffolding during the progress of the Work, and make good, at no expense to the Owner, all damage resulting from such overloading.
- 17.2 No load bearing members shall be cut, drilled or sleeved without the written consent of the Consultant.

## 18 **HOLES THROUGH FLOORS AND WALLS**

- 18.1 Where holes are made in floors for the passage of pipes, ducts and conduit or wires, the holes shall be sealed with cement grout after the pipes, ducts and conduit or wires have been placed.
- 18.2 Where holes are made in walls for the passage of pipes, ducts, conduit or wires, holes shall be filled with a suitable material, cement grout in masonry or concrete walls or plaster in plaster or drywall walls, regardless of whether or not the pipes have escutcheon plates. Grout or plaster around outside of sleeves where holes are sleeved.
- 18.3 In mechanical rooms above grade and in other rooms where faucets occur, the pipes, ducts, conduits or wires or all, which pass through floors, shall be enclosed in a 100 mm high metal sleeve and then grouted around pipes and ducts.
- 18.4 Above requirements shall apply to both exposed and concealed walls and floors.

## 19 **MAKING GOOD**

- 19.1 Make good materials and finishes which are damaged or disturbed during the process of additions and reconstruction under the Contract. in accordance with Z317.13.
- 19.2 Where existing work is to be made good, match new work exactly with the old work in material, form, construction and finish unless otherwise noted or specified.
- 19.3 Protect work in the existing building, such as floors, finishes, trim, etc., as completely as possible to hold the replacing of damaged work to a minimum.
- 19.4 Preparation for new finishes:
  - .1 Remove existing finishes, including painting.



- .2 Fill cracks and depressions with suitable filler and finish smooth, as recommended by the manufacturer of the new finishes.
- .3 Grind protrusions level with substrates and finish smooth.
- .4 Remove all evidences of existing adhesive, grease, oil, soil and other encrustations of foreign material by washing, scraping and grinding if necessary.
- .5 Clean and prepare substrates to receive new work.

## 20 **CUTTING AND PATCHING**

- 20.1 Perform cutting, fitting, and patching to complete the Work. Do not cut, drill or sleeve load-bearing members without obtaining written approval for each condition. Work to be done in accordance with Z317.13 guidelines.
- 20.2 Remove and replace defective and non-conforming work.
- 20.3 Perform work to avoid damage to other work.
- 20.4 Prepare proper surfaces to receive patching and finishing.
- 20.5 Cut rigid materials using power saw or core drill. Pneumatic or impact tools not allowed.
- 20.6 Restore work with new products to match existing in accordance with Contract Documents.
- 20.7 Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- 20.8 At penetration of fire-rated wall, ceiling, or floor construction, completely seal voids with fire-rated material, full thickness of construction element.
- 20.9 Refinish surfaces to match adjacent finishes; for continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.

## 21 **SALVAGE AND DISPOSAL OF MATERIALS**

- 21.1 Cut, disconnect and detach items and materials designated to be removed.
- 21.2 All materials resulting from the demolition work except as otherwise specified or directed shall become the property of the Contractor.
- 21.3 Remove all material and debris from the site as quickly as possible and dispose of legally.
- 21.4 Burning of debris or selling of materials on the site will not be permitted.

## 22 **FIRE SAFETY DURING CONSTRUCTION**

- 22.1 Provide fire prevention and protection measures to existing building as required by all authorities having jurisdiction.
- 22.2 Maintain exits, including stairways and exterior doors to the outside. Provide acceptable alternative exits where an existing exit is blocked off or deleted due to construction activities.

22.3 Where access to an exit through construction area is absolutely necessary, clearly define, protect and separate access from the construction area by a smoke tight fire separation equivalent to minimum 3/4 hour fire resistance rating.

## 23 SAFETY MEASURES

23.1 Comply with the safety regulations of the Occupational Health and Safety Act and authorities having jurisdiction for the safety of the Work.

## 24 PROJECT MEETINGS

24.1 Schedule and administer project progress meetings throughout progress of work.

.1 Project progress meetings shall occur bi-weekly and as required.

24.2 Distribute written notice of each meeting four days in advance of meeting date to Consultant and Owner.

24.3 Provide physical space and make arrangements for meetings.

24.4 Record minutes. Include significant proceedings and decisions. Identify 'action by' parties.

24.5 Reproduce and distribute copies of minutes within three days after each meeting and transmit to meeting participants, affected parties not in attendance, Consultant and Owner.

## 25 SUBMITTALS

25.1 Administrative

.1 Submit to Consultant submittals listed for review. Submit with reasonable promptness and in an orderly sequence so as to not cause delay in the Work. Identify Drawing Number and Specification Section number to which the submittal applies.

.2 Unless otherwise specifically permitted by the Consultant, make submittals in groups containing associated items; the Consultant may reject partial submittals as not complying with the provisions of the Contract Documents.

.3 Make submittals far enough in advance of scheduled dates of installation to provide required time for reviews, for securing necessary reviews, for possible revision and re-submittal, and for placing orders and securing delivery so as to cause no delay in the Work or in the work of other contractors. Costs of delays occasioned by tardiness of submittals shall not be borne by the Owner.

.4 Do not proceed with Work affected by submittal until review is complete.

.5 Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of the Work and Contract Documents.

.6 Verify field measurements and affected adjacent Work is coordinated.

- 25.2 Submittals Processing Time: Allow time for submittal review, including time for re-submittals, as follows:
- .1 Time for review shall commence on Consultant's receipt of submittal. If a shop drawing is received after 12 noon, it will be considered as received the next working day for the purposes of the processing time.
  - .2 For scheduling purposes allow minimum 10 working days following submission and minimum 10 working days following resubmission. Consultant will advise Contractor if additional time is required for technical or co-ordination review.
  - .3 Concurrent Review: When concurrent review of submittals by Consultant's subconsultants, Owner, or other parties is required, allow a minimum of fifteen (15) working days for initial review of each submittal. Direct transmittal to Consultant's subconsultants will not be permitted.
  - .4 If at any time the Contractor submits unusually large number of shop drawings, the Consultant will, within 5 working days of receipt of such drawings, provide the Contractor with an estimate of time necessary for processing such shop drawings.
  - .5 Failure to provide submittals in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension will be allowed.
- 25.3 Shop Drawings and Product Data
- .1 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connection, explanatory notes and other information necessary for completion of Work.
  - .2 Adjustments made on shop drawings by Consultant are not intended to change Contract Price.
  - .3 Make changes in shop drawings as Consultant may require.
  - .4 Submit Shop drawings and Product Data in electronic format as a PDF or DWG file via the project website or other means of electronic file delivery. Scanned drawings will only be accepted if legible. Illegible drawings will be rejected.
  - .5 Product Data catalogue cuts showing all aspects, design, sizes, components and rough-in information for equipment may be submitted where shop drawings will not be prepared due to standardized manufacture of product. Supplement standard information to provide details applicable to project. Generic documents will be rejected.
- 25.4 Samples
- .1 Submit samples for review as requested in respective specification Sections.
  - .2 Deliver samples prepaid to Consultant's business address.
  - .3 Any substitutions of finishes/fixtures must be in compliant with MGH cleaning agents. Samples to be provided to MGH for approval.
- 25.5 Operating Maintenance Manuals
- .1 Two weeks prior to Substantial Performance of the Work, submit to Consultant, three copies of operating and maintenance manuals.

- .2 Manuals to contain operational information on equipment, cleaning and lubrication schedules, filters, overhaul and adjustment schedules and similar maintenance information.
- .3 Bind contents in a three-ring, hard covered, plastic jacketed binder. Organize contents into applicable categories of work, parallel to specifications Sections.

## 26 **AS BUILT AND RECORD DRAWINGS**

- 26.1 After award of Contract, obtain a set of CAD drawings from the Consultant. Make sets of white prints for purpose of maintaining record drawings. Accurately and neatly record deviations from Contract Documents caused by site conditions and changes ordered by Consultant.
- 26.2 Record locations of concealed components of mechanical and electrical services.
- 26.3 Identify drawings as "Project Record Copy". Maintain in new condition and make available for inspection on site by Consultant. On a weekly basis, scan marked-up drawings to Adobe PDF format and provide a copy to Owner and Consultant.
- 26.4 On completion of Work and prior to final inspection, submit record documents to Consultant.
- 26.5 Prior to testing, balancing and adjusting, obtain a current set of CAD files from the Consultant and transfer record drawing information to AutoCad 2016 (CAD) files, to record final as-built condition.
- 26.6 Drawings are to remain set to and follow Consultants AutoCad Standards. Do not alter drawing scales, X-refs, colours, layers or text styles.
- 26.7 The Consultant's CAD files may not reflect all or any construction changes.
- 26.8 Where items have been deleted, moved, renumbered or otherwise changed from contract drawings, revise the CAD files to record these changes. "Bubble" these revisions, and place these annotations on a separate and easily identified drawing layer.
- 26.9 As-built drawings to show the final as-built condition.
- 26.10 Identify each drawing in lower right hand corner in letters at least 12 mm (½") high and as follows:  
  
"AS-BUILT DRAWINGS. This drawing has been revised to show all systems and conditions as installed". [Signature of Contractor] and [Date]
- 26.11 Provide "AS BUILT DRAWINGS" white prints to Consultant for review. Transfer Consultant's comments to the CAD files. Return AutoCad drawings modified to "As Built" condition to Consultants on CD or DVD Rom.
- 26.12 Submit three (3) sets of final "AS BUILT DRAWINGS" white prints with Operating and Maintenance Manuals.
- 26.13 Submit full set of final "AS BUILT DRAWINGS" to Owner in digital format: AutoCAD and PDF files, on CD or DVD Rom, or USB Flash drive, in triplicate.

27 **QUALITY CONTROL**

27.1 Owner's Quality Control

- .1 The Owner may require during progress of the Work, testing and inspection by an independent testing agency as directed by the Consultant, or as required in these Specifications, to determine if materials provided for the Works meet the specified requirements. The cost of these services shall be paid by Cash Allowances.
  - .1 In this case, the Contractor shall pay independent inspection and testing agency charges authorized by the Consultant from the cash allowances included for these services.
- .2 Employment of inspection/testing agencies does not relax Contractor's responsibility to perform Work in accordance with Contract Documents.
- .3 Contractor shall provide equipment required by testing agencies for executing inspection and testing.
- .4 Re-Testing and Re-Inspection:
  - .1 If defects are revealed during inspection and testing, testing agency will request additional inspection and/or testing to ascertain full degree of defect. Re-testing and re-inspection shall be performed by the same testing agency as the initial tests.
    - .1 Contractor shall correct defects and irregularities at no cost to Owner;
    - .2 Contractor shall pay costs for re-testing and re-inspection.
- .5 Microbiological clearance testing shall accompany HVAC and potable water supplies prior to hand over.

27.2 Code Compliance and Contractor's Convenience Testing

- .1 Code Compliance Testing: Inspection and tests required by codes or ordinances, or by an authority having jurisdiction shall be the responsibility of the Contractor and shall be paid for by the Contractor as part of the Contract Price.
- .2 Contractor's Convenience Testing: Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor and paid for by Contractor as part of the Contractor's overhead expenses.
- .3 Engage a qualified testing agency to perform these quality-control services. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
- .4 Submit a certified written report, in triplicate, of each quality-control service.
- .5 Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- .6 Re-testing/Re-inspecting: Provide quality-control services, including re-testing and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents. Pay costs for re-testing and re-inspection..

28 **SITE SIGNS**

- 28.1 Do not exhibit on the site advertisements or signs other than those required by authorities having jurisdiction, unless otherwise approved by the Consultant, in writing.

29 **CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

29.1 Co-ordination

- .1 Co-ordinate with the building management use of temporary controls and facilities not provided under this Contract, including but not necessarily limited to material delivery, unloading and hoisting. Make prior arrangements and schedule use at times acceptable to the building management. Be responsible for payment for use of such facilities.

29.2 Installation/Removal

- .1 Provide construction facilities and temporary controls in order to execute work expeditiously. Remove from site all such work after use.

29.3 Hoisting and Delivery

- .1 Material unloading and hoisting will be restricted to after hours.  
.2 Arrange for delivery and unloading of materials at areas designated by the building management. Do not interfere with vehicular traffic on the streets and pedestrian traffic on the sidewalks.

29.4 Security Provisions

- .1 Maintain and conform to existing security provisions required by the building management. Do not compromise such provisions.

29.5 Hoarding and Barricades

- .1 Erect hoarding and barricades to protect public, workers, public and private property from injury or damage. Provide lockable doors within hoarding for access to site by workers.

29.6 Weather Enclosures

- .1 Provide weathertight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.  
.2 Close off floor areas where walls are not finished; seal off other openings; enclose building interior work area for temporary heat.

29.7 Parking

- .1 Parking will not be provided.

29.8 Dust Tight Screens

- .1 Provide dust tight screens or partitions to localize dust generating activities, and for protection of workers, finished areas of Work and public.  
.2 Maintain and relocate protection until such Work is complete.

- 29.9 Site Storage/Loading
  - .1 Confine the Work and operations of employees to limits indicated by Contract Documents. Do not unreasonably encumber premises with Products.
  - .2 Do not load or permit to be loaded any part of the Work with a weight or force that will endanger the Work.
- 29.10 Sanitary Facilities
  - .1 Existing facilities as designated may be used during construction period.
  - .2 Maintain in clean condition.
- 29.11 Water and Power Supply
  - .1 The Owner will provide and pay for a continuous supply of water, power for construction use as available from the existing facilities. Provide hoses, extensions, connections, and transformers as required for execution of the Work. Provide extra supply if the existing facilities are insufficient or not suitable for construction use.
  - .2 Arrange for connection with appropriate utility company and pay costs for installation, maintenance and removal.
- 29.12 Temporary Lighting
  - .1 Provide temporary lighting required during construction period, including attendance and maintenance.
  - .2 Maintain lighting at levels required by Sections doing the work.
- 29.13 Temporary Heating
  - .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
  - .2 Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders not permitted.
  - .3 Maintain temperatures at levels required by Sections doing the work.
  - .4 Ventilate heated areas and keep building free of exhaust or combustion gases.
- 29.14 Temporary Telephone
  - .1 Provide and pay for temporary telephones necessary for own use and use of Consultant and Owner.
- 29.15 Equipment/Tool/Materials Storage
  - .1 Provide and maintain, in clean and orderly condition, lockable areas for storage of tools, equipment and materials.
  - .2 Locate materials on site in manner to cause least interference with work activities.
- 29.16 Project Cleanliness
  - .1 Maintain the Work in tidy condition, free from accumulation of waste products and debris.

- .2 Remove waste material and debris from site at end of each working day. Do not burn waste materials on site.
- .3 Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.
- .4 Project site and adjacent active areas of the building to be protected from dust and debris from the renovation activity. All infrastructure must be protected in accordance with CSA Z8000; CSA Z317; CSA 317.2; and MOL.

### 30 **MATERIAL AND EQUIPMENT**

#### 30.1 Product and Material Quality

- .1 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of Products provided.
- .2 Whenever Products are specified exclusively by trade name, manufacturer's name or by catalogue reference, use only those items, unless written approval for substitution is obtained from Consultant.
- .3 Defective Products, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective Products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should any dispute arise as to quality or fitness of Products, decision rests strictly with Consultant based upon requirements of Contract Documents.

#### 30.2 Storage, Handling and Protection

- .1 Handle and store Products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled Products in original and undamaged condition with manufacturer's seals and labels intact.

#### 30.3 Manufacturer's Instructions

- .1 Unless otherwise indicated in specifications, install or erect Products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with Products. Obtain written instructions directly from manufacturers.
- .2 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant may establish course of action.
- .3 Improper installation or erection of Products, due to failure in complying with these requirements, authorizes Consultant to require removal and reinstallation at no increase to Contract Price.

#### 30.4 Workmanship

- .1 Workmanship shall be best quality, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.
- .2 Do not employ any unfit person or anyone unskilled in their required duties.



- .3 Decisions as to quality or fitness of workmanship in cases of dispute rest solely with Consultant, whose decision is final.

#### 30.5 Concealment

- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 Before installation, inform Consultant if there is a contradictory situation. Install as directed by Consultant.

### 31 **GENERAL COMMISSIONING REQUIREMENTS**

31.1 The Owner will retain and pay for an Independent Commissioning Agent (CA) who will provide Commissioning Services including witness Testing and Commissioning Services as required.

31.2 The Owner's designated Commissioning Agent will provide the commissioning procedures and checklists for use by the Contractor and his Subcontractors.

#### 31.3 Contractor's Roles and Responsibilities

- .1 Prepare the commissioning schedule in conjunction with construction schedule.
- .2 Lead the coordination and scheduling of commissioning work.
- .3 Schedule and attend commissioning coordination meetings.
- .4 Ensure cooperation and participation of all sub-contractors, major equipment manufacturers, and suppliers.
- .5 Ensure deficiencies are corrected.
- .6 Upon completion of all phases of the commissioning program, provide a final commissioning report.
- .7 Provide testing of integrated life safety and fire protection systems and related equipment in accordance with CAN/ULC S1001 Integrated Systems Testing of Fire Protection and Life Safety Systems and Fire Protection Commissioning.

31.4 For additional requirements, refer to individual technical specifications for each affected Division of the Work, specifically to sections 20 08 11, 20 08 15, and section 26 08 15

31.5 All mechanical systems must be commissioned in accordance with CSA Z8001 and where indicated, supported with NEGATIVE microbiological test results.

### 32 **CONTRACT CLOSEOUT**

#### 32.1 Final Cleaning

- .1 When the Work is Substantially Performed, remove surplus products, tools construction machinery and equipment not required for performance of remaining Work.
- .2 Leave work broom clean before inspection process commences.
- .3 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.

.4 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fittings, walls ceilings.

.5 Vacuum clean and dust building interiors, behind grilles, louvres and screens.

.6 Wax, seal, shampoo or prepare floor finishes, as recommended by manufacturer.

.7 Broom clean and wash exterior walks, steps and surfaces.

.8 Remove dirt and other disfigurations from exterior surfaces.

.9 Location shall receive a construction clean prior to hand over to MGH Prior to occupancy for use, the renovated space shall include 2 terminal cleans spaced 24hrs apart from the end of the first to the start of the second clean.

#### 32.2 Systems Demonstration

.1 Prior to final inspection, demonstrate operation of each system to Owner.

.2 Instruct personnel in operation, adjustment, and maintenance of equipment and systems, using provided operation and maintenance data as basis for instruction.

#### 32.3 Documents

.1 Collect reviewed submittals and assemble documents executed by Subcontractors, suppliers, and manufacturers.

.2 Submit material prior to final application for payment.

.3 Submit three copies of Project Record Manual consisting of operation and maintenance data and one set of record (as-built) drawings white prints.

.4 Provide warranties fully executed and notarized.

.5 Execute transition of Performance Bond to warranty period requirements.

#### 32.4 Inspection/Takeover Procedures

.1 Prior to application for certificate of Substantial Performance, carefully inspect the Work and ensure it is complete, that major and minor construction deficiencies are complete, defects are corrected and building is clean and in condition for occupancy. Notify Consultant in writing, of satisfactory completion of the Work and request an inspection.

.2 During Consultant inspection, a list of deficiencies and defects will be tabulated. Correct same.

.3 When Consultant considers deficiencies and defects have been corrected and it appears requirements of Contract have been performed, make application for certificate of Substantial Performance.



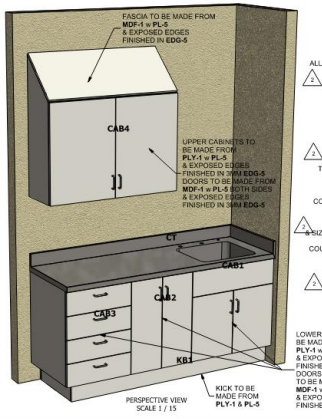
.4 Conform to OAA/OGCA Document No.100 for takeover procedures.

.5 Submit a final statement of accounting giving total adjusted Contract Price, previous payments, and monies remaining due.



.6 Consultant will issue a final change order reflecting approved adjustments to Contract Price not previously made.

End of Section


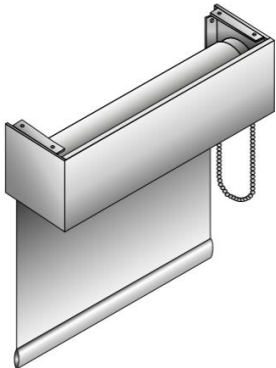
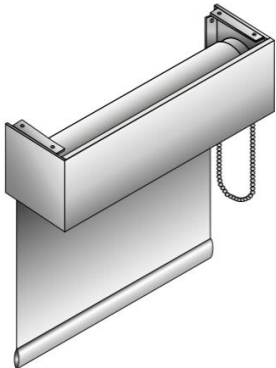
NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional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

CODE	ITEM	DESCRIPTION	APPLICATION / LOCATION	SAMPLE IMAGE
<b>DIVISION 05 – METALS</b>				
<b>ST-12</b>	Custom Wall-mounted Stainless-Steel Counter & Double Sink	16 GA. 304 Brushed Stainless Steel	Soiled Utility Room	
<b>ST-15</b>	Stainless-Steel Counter & Sink	16GA. #4B Brushed Stainless Steel 180 Grit	Medication Room	 
<b>DIVISION 06 – WOOD, PLASTICS AND COMPOSITES</b>				


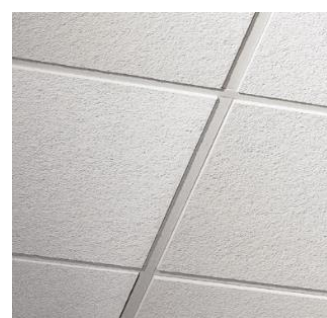
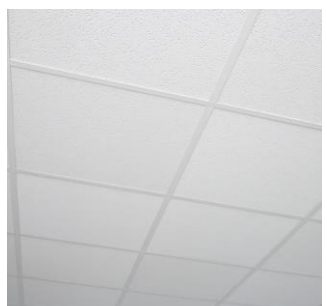
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CODE	ITEM	DESCRIPTION	APPLICATION / LOCATION	SAMPLE IMAGE
<b>SWP-x</b>	Wall Protection	Manufacturer: Construction Specialties Product: 0.060" Acrovyn Wall Covering w/ Acrovyn Trims Colour: 933 Mission White	See Finishes Plan	
<b>PLAM-1</b>	Plastic Laminate	Manufacturer: Wilsonart Code #: D427-60 Colour: Linen	Medication Room, Staff Lounge	
<b>PLAM-2</b>	Plastic Laminate	Manufacturer: Wilsonart Code #: 8251 Colour: Clearwater Oak Finish: Matte Finish	Team Station Change RM Bench	
<b>DIVISION 08- OPENINGS</b>				
<b>HP-1</b>	Cabinet Hardware Pull	Manufacturer: Amerock Product: Wire Pulls 3-3/4 inch (96mm) Center-to-Center Code #: BP76313CS26D Material: Carbon Steel Finish: Brushed Chrome		

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	APPLICATION / LOCATION	SAMPLE IMAGE
FLM-1	Applied Film	Manufacturer: 3M™ Product: Privacy Film, 2 mil (0.05 mm) Code #: ID ID 7100055482 UPC 00051115574764 L: 100' x W: 60"  Finish: Matte	Existing Windows	
<u>RS-1</u>	<u>Roller Shade</u>	<u>Manufacturer: Light Harvesting</u> <u>Product: LHSS 150 -Chain Operated Roller Shade System – Fascia</u> <u>Openness 3%</u> <u>Color: 002002 white</u>	<u>All Windows except Procedure Rooms (Openness 3%)</u>	
<u>RS-2</u>	<u>Roller Shade</u>	<u>Manufacturer: Light Harvesting</u> <u>Product: LHSS 150 -Chain Operated Roller Shade System – Fascia</u> <u>Blackout Fabric 00</u>	<u>Procedure Rooms</u>	
DIVISION 09 - FINISHES				




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	APPLICATION / LOCATION	SAMPLE IMAGE
<b>SSM-1</b>	Solid Surface	Manufacturer: DuPont Product: Corian® Solid Surface Colour: Sand Storm	Staff Lounge Countertop	
<b>ACT-1</b>	Acoustic Ceiling Tile	Manufacturer: USG Ceiling Solutions Product: USG DONN® BRAND DX®/DXL™ Halcyon™ Acoustical Panels Acoustical Suspension System 2'x4' Colour: Coordinating Matte White 3756	See RCP	
<b>ACT-2</b>	Acoustic Ceiling Tile	Manufacturer: USG Ceiling Solutions Product: USG DONN® BRAND DX®/DXL™ Clean Room™ Acoustical Panels Acoustical Suspension System 2'x4' Colour: Coordinating Matte White 3756	See RCP Procedure Rooms	
<b>GWB-1</b>	Gypsum Board Ceiling	Manufacturer: CGC Product: Sheetrock Brand Ultralight Panels 13mm Framing per specification	See RCP	

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	APPLICATION / LOCATION	SAMPLE IMAGE
RSF-1	Resilient Sheet Flooring and Cove Base	Manufacturer: Tarkett Product: IQ OPTIMA Code #: 245 Colour: FOGGY SHORES WG	See Finishes Plan	
RSF-2	Resilient Sheet Flooring and Cove Base	Manufacturer: Tarkett Product: IQ OPTIMA Code #: 260 COLOUR: SHARKTALE WG	See Finishes Plan	
PT-1	Paint	Manufacturer: PPG (Dulux) Product: Paint Code #: PPG1020-1 Colour: Atrium White	All painted walls/ceilings where indicated	
PT-2	Paint	Manufacturer: PPG (Dulux) Product: Paint Code #: PPG1040-4 Colour: How Handsome	Accent Paint Finish, See Finishes Plan	
<b>DIVISION 10 - SPECIALTIES</b>				

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	APPLICATION / LOCATION	SAMPLE IMAGE
CG-1	Corner Guard	Manufacturer: Construction Specialties Product: Acrovyn® Corner Guard. with a 1/4" (6.4mm) radius and 2" (50.8mm) legs. Code #: SSM-25N Colour: 933 Mission White		
CR-1	Crash rail	Manufacturer: Construction Specialties Product: Acrovyn® Solid Crash Rail Code #: SCR-40N Colour: 933 Mission White		
SD-1	Surface Mounted Soap Dispenser	Manufacturer: PURELL Product: ES4 Push-Style 5.51"x3.90"x9.33"	See drawings.	
HSD-1	Hand Sanitizer	Manufacturer: PURELL Product: ES4 Push-Style 5.51"x3.88"x14.12"	See drawings.	



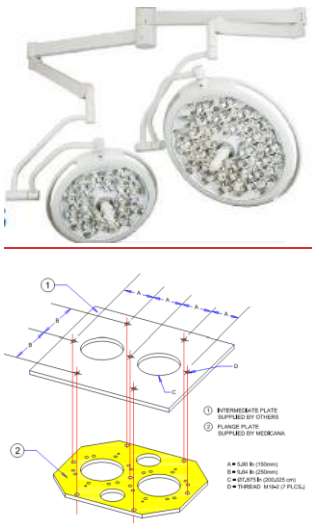
NOTE: The application / location for the materials indicated is not limited to the list below and is to be used in conjunction with and may be supplemented by, the Specifications, Schedules and Drawings. Refer to Specifications, Schedules and Drawings for full extent of material application and additional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

CODE	ITEM	DESCRIPTION	APPLICATION / LOCATION	SAMPLE IMAGE
PTD-1	Surface Mounted Paper Towel dispenser	Manufacturer: Cascades PRO Product: Mechanical No-Touch Roll Towel Dispenser Code #: C345 Colour: White	Washrooms	
TPH-1	Surface Mounted Double-roll Toilet Paper Holder	Manufacturer: Cascades PRO Product: Tandem Jumbo Roll Bath Tissue Dispenser, Double Roll, Code #: C381 Colour: White	Washrooms	
MIR-1	Stainless Steel Channel Frame Mirrors	Manufacturer: American Specialties, Inc. Product: 0620 , Channel Frame Mirror Finish: Stainless Steel Size: Height: 30" Width: 18"	Washrooms	
CH-1	Coat Hook	Manufacturer: American Specialties, Inc. Product: Single Robe Hook Code #: 7340-S Colour and Finish: Satin #4 Stainless Steel	Washrooms	

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	APPLICATION / LOCATION	SAMPLE IMAGE
GRB-1	Grab Bar	Manufacturer: American Specialties, Inc. Product: 1-1/2" diameter [ø38] grab bar with snap-on flange covers Code #: 3800 Peened Option Finish: Stainless Steel Size: Width: 24"	Washrooms	
GRB-3	Grab Bar	Manufacturer: American Specialties, Inc. Product: 1-1/2" diameter [ø38] grab bar with snap-on flange covers Code #: 3800 Peened Option Finish: Stainless Steel Size: Height: 30" Width: 30"	Washrooms	
GRB-5	Grab Bar	Manufacturer: Frost Product: Swing Up Grab Bar Code #: 1055-S Finish: Stainless Steel	Washrooms	
<u>LCKR-1</u>	<u>Lockers</u>	<u>Manufacturer: Hadrian</u> <u>Product: Corridor (Emperor) Lockers</u> <u>Sloping Top</u> <u>Single Tier: W15"xD18"xH60"</u> <u>Code #: 541 Extra White</u>		
<del>CRT-1</del>	<del>Silentia Screens</del>	<del>Manufacturer: Silentia</del> <del>Product: Mobile Single Screens, 15 Panels</del> <del>Colour: White</del> <del>Height: 5'5"</del>	<del>Pre-op Bay,</del> <del>Post-op Bay</del>	

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	APPLICATION / LOCATION	SAMPLE IMAGE
<u>PI-1</u>	<u>Surgical Light &amp; Ceiling Mounting Plate</u>	<u>Manufacturer: Medicana</u> <u>Product: Flex Lux Exam &amp; Procedure Light</u> <u>Flex Lux 80 LED</u> <u>Ceiling Mounting Plate</u>	<u>Procedure Rooms</u>	

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      Manual chain and roller operated system, incorporating an adjustable slip clutch to control rate of fall.
- .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      Upper and lower stop limits to prevent overwinding and unrolling to ensure alignment and air clearance at sill.
- .4      Removable and replaceable shade and spline assembly without disassembling the hardware.
- .5      Mounting shall permit free flow of air over top of shade with a minimum of 12 sq.in./lin.ft.

**1.3            SUBMITTALS**

- .1      Shop drawings: Show shade arrangements, layout, location within window framing, controls, fixing devices and method of installation.
- .2      Sample: One 12" x 12" sample of shade and blackout fabric.

**PART - 2      PRODUCTS**

**2.1            MATERIALS**

- .1      Manual shade system: Chain operated, surface mounting, by Light Harvesting, LHSS 150 or acceptable equivalent.
- .2      Chain: Continuous loop of stainless steel beads, capable of resisting 90 lb. pull.
- .3      Bracket operating assembly: 1/8" steel bracket and injection moulded delrin components assembled on 7/16" diameter welded steel shaft. Provide Wall, jamb or ceiling mounting and centre brackets as required. Reversible for left-hand or right-hand operation.
- .4      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.
- .5      Shade spline: Extruded vinyl with asymmetrical insertion locking channels and embossed shade guide.
- .6      Tube and plug-and-pin assembly shall be tapered to assure alignment and shade edge protection. Pin shall be laterally adjustable 5/16".
- .7      Fascia: 0.060" extruded aluminum in 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.

**2.2 FINISHES**

- .1 All exposed aluminum parts shall have clear anodized finish.
- .2 Steel parts shall be either nickel plated, satin finish, or bonderized prior to painting with baked enamel finish. Colour as selected by Consultant.

**2.3 SHADES**

- .1 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, 3% open bi-directional. Refer to Section 09 06 02, Finish Schedule for all products, manufacturers, finishes and colours.
- .2 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.

**PART - 3 EXECUTION**

**3.1 INSTALLATION**

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

**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.

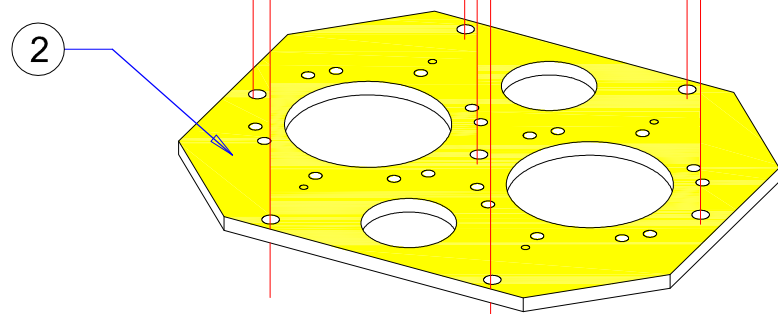
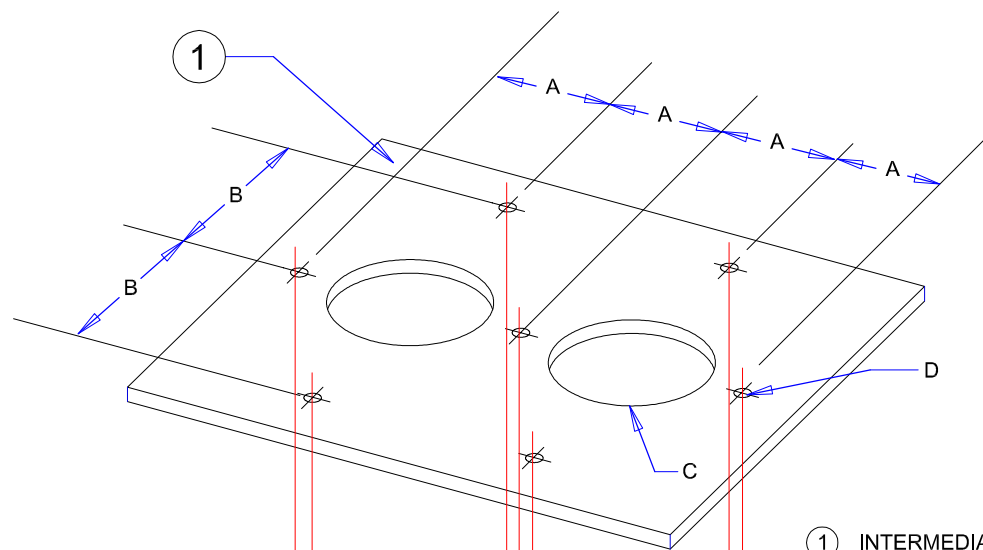
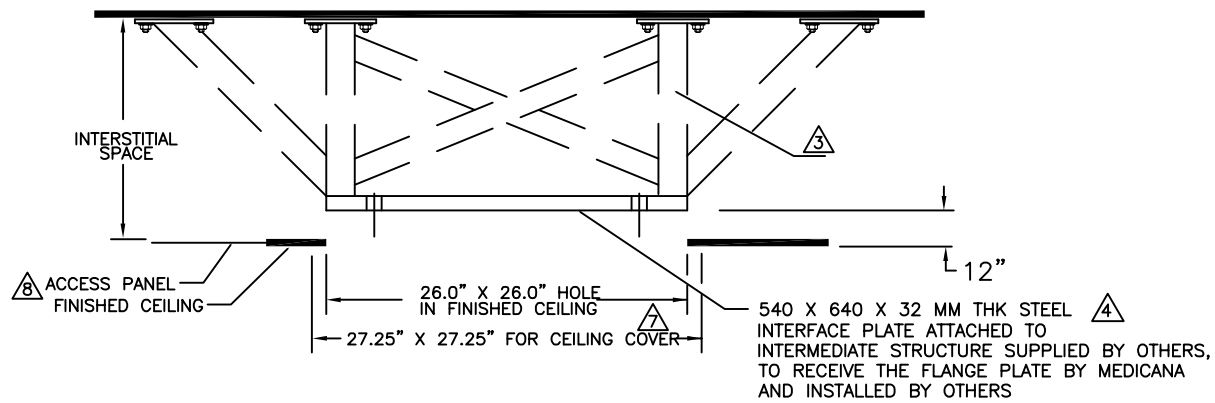
END OF SECTION



## Technical Data: Flex<sup>®</sup>Lux Exam & Procedure Lights

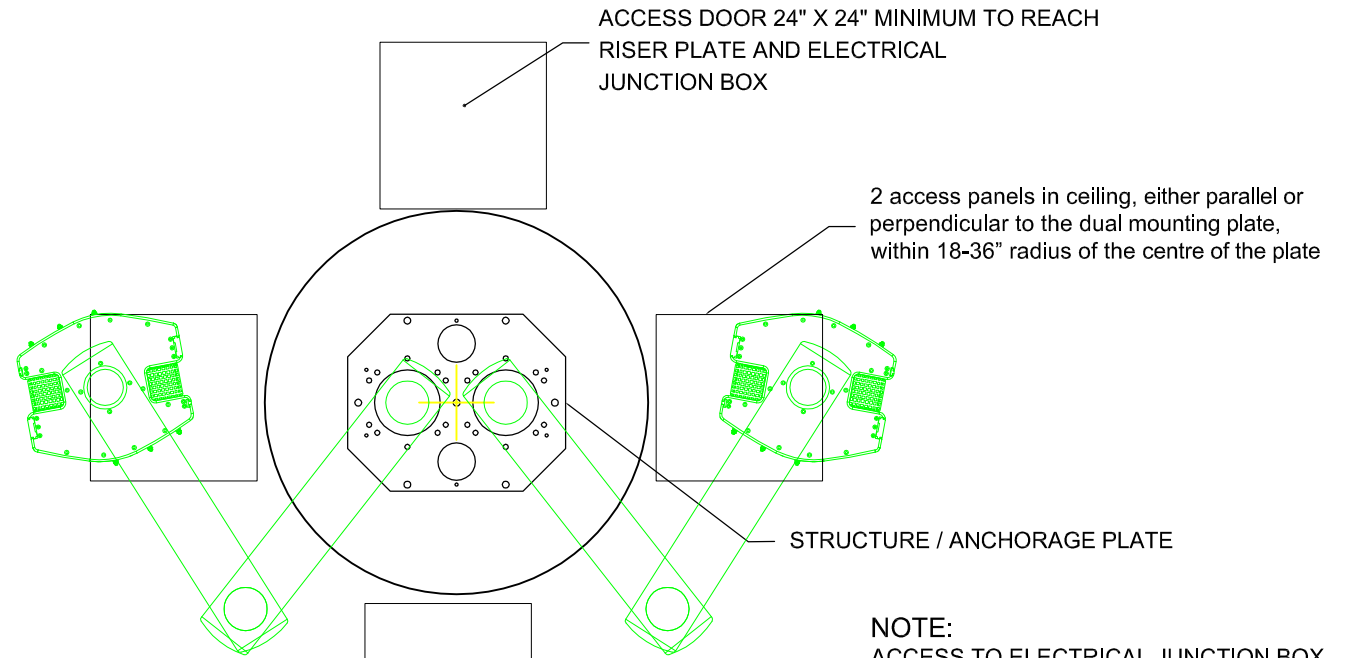
	Units	Flex <sup>®</sup> Lux 50	Flex <sup>®</sup> Lux 80
<b>Photometrical Data:</b>			
Central Illumination Ec (1m)	[lx]	50,000	80,000
Electronic Dimming Range	[lx]	none	32,000-80,000
Light Field Diameter d10 at a Distance of 1m	[mm] <b>(in)</b>	[170] <b>(6.7)</b>	[170] <b>(6.7)</b>
Electronic Field Adjustment		no	yes
Color Temperature	[K]	4,900	4,900
Color Rendering Index	Ra (1-8)	96	96
Red Rendering Index	R9	96	96
Power Consumption with 24 V	[W]	14	14
Life Time of Light Source	[h]	> 50,000	> 50,000
Classification According MDD		I	I
Protection Class According IEC 60601		I	I
Suspension Protection Class	IP	IP 30	IP 30
Light Housing Protection Class	IP	IP 42	IP 42
<b>Mechanical Data:</b>			
Operating Range	[mm] <b>(in)</b>	[1,750] <b>(68.9)</b>	[1,750] <b>(68.9)</b>
Adjustment of the Spring Arm	[mm] (in)	[1,020] (40)	[1,020] (40)
Approx. Weight of the Light Head	[kg] (lbs)	[2.5] (5.5)	[2.5] (5.5)
Thickness of the Light Head	[mm] <b>(in)</b>	[47] <b>(1<sup>7</sup>/<sub>8</sub>)</b>	[47] <b>(1<sup>7</sup>/<sub>8</sub>)</b>
Measurement Light Head	[mm] <b>(in)</b>	[679 x 708] <b>(26 <sup>3</sup>/<sub>4</sub> x 27 <sup>7</sup>/<sub>8</sub>)</b>	[679 x 708] <b>(26 <sup>3</sup>/<sub>4</sub> x 27 <sup>7</sup>/<sub>8</sub>)</b>

Tolerance ±10%



- ① INTERMEDIATE PLATE  
SUPPLIED BY OTHERS
- ② FLANGE PLATE  
SUPPLIED BY MEDICANA

A = 5.90 in (150mm)  
B = 9.84 in (250mm)  
C = Ø7.875 in (200.025 cm)  
D = THREAD M16-2 (7 PLCS.)



## ACCESS DETAIL

### NOTES:

- ALL DESIGN, FABRICATION, TESTING AND MATERIALS EXCEPT WHERE NOTED ARE THE RESPONSIBILITIES OF THE CUSTOMER/CONTRACTOR.
- NO DEFLECTION PERMISSIBLE WHEN STRUCTURE IS SUBJECTED TO LOAD OF 2,250 LBS. (1,020 KG.) AND BENDING MOMENT OF 6200 FT. LBS. (8500 NM). ALTERNATIVELY, L/360 RULE ALSO PERMISSIBLE.
- INTERMEDIATE STRUCTURE SHOWN IS FOR REFERENCE ONLY. ALL STRUCTURES MUST BE DESIGNED AND FABRICATED PER LOAD REQUIREMENTS AS SPECIFIED IN NOTE 2 AND MUST COMPLY WITH ALL APPLICABLE LOADS. STRUCTURE DESIGNS MAY VARY BASED ON DIFFERENT LOAD REQUIREMENTS, INTERSTITIAL SPACE OR OBSTRUCTIONS. FINAL DESIGN MUST CLOSELY RESEMBLE THAT SHOWN. SEE OSHPD R-0566 FOR PRE-APPROVED SEISMIC ANCHORAGE CALCULATIONS AND REQUIREMENTS.
- OWNER SUPPLIED INTERFACE PLATE TO BE WELDED TO SUPPORT STRUCTURE BY THE OWNER/CONTRACTOR AND MUST BE LEVEL WITHIN 1/4". IF WELDING IS NOT POSSIBLE, USE 25 MM HOLES IN CORNERS TO BOLT INTERFACE PLATE TO INTERMEDIATE STRUCTURE AS PER 5 BELOW.
- INDICATED HOLES ARE PROVIDED AS AN ALTERNATE SUPPORT METHOD FOR WHICH HARDWARE IS NOT SUPPLIED. THIS DESIGN ALSO REQUIRES TWO SUPPORT KICKERS PER SIDE AND IS NOT RECOMMENDED FOR LARGE INTERSTITIAL SPACE APPLICATIONS.
- FARSIDE OF INDICATED AREAS ARE NOT TO BE OBSTRUCTED BY SUPPORT STRUCTURE.
- INDICATED DIM REFLECTS REQ'D AREA FOR CEILING COVER AND MUST BE CLEAR OF LIGHTS, DUCTS AND OTHER OBSTRUCTIONS.
- ACCESS PANEL (24"x24") REQUIRED WITHIN 18" OF OPENING IN THE CEILING.

# MOUNTING STRUCTURE / ACCESS PANEL

## APPROVALS

## DATE

ENGR. A. ZAFAR

04-03-13

RELEASED A. ZAFAR

04-03-13

DRAWN T.G.

04-03-13

PROPRETARY INFORMATION  
UNAUTHORIZED DISCLOSURE  
OR USE PROHIBITED

SIZE  
B

CODE IDENT NO.

DRAWING NO.

REV

SCALE: NONE

# MEDICANA

CUSTOMER  
APPROVAL

DATE

# MGH Network Cabling & Network Closet Standards and Guidelines

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# 1. General Standards Reference

All cabling and infrastructure work should comply with:

- **TIA/EIA-568 series** – Commercial Building Telecommunications Cabling Standard
- **TIA-569** – Pathways and Spaces Standard
- **TIA-606** – Administration Standard for Telecommunications Infrastructure (Labeling/Documentation)
- **TIA-607** – Grounding and Bonding Standard
- **ISO/IEC 11801** – Generic cabling for customer premises
- **BICSI guidelines** – Installation practices

## 2. Network Closet (Telecom Room) Standards

### 2.1 Location & Environment

- Locate centrally on the floor to minimize cable lengths.
- One closet per floor (additional if cable runs exceed 90m horizontal).
- Temperature: **18–24°C**, humidity: **30–55%**.
- Dedicated electrical circuits (UPS backed, separate from lighting).
- Proper grounding and bonding per TIA-607.
- Fire suppression system installed (non-water based preferred).
- Room should be **access-controlled** (card or key lock).

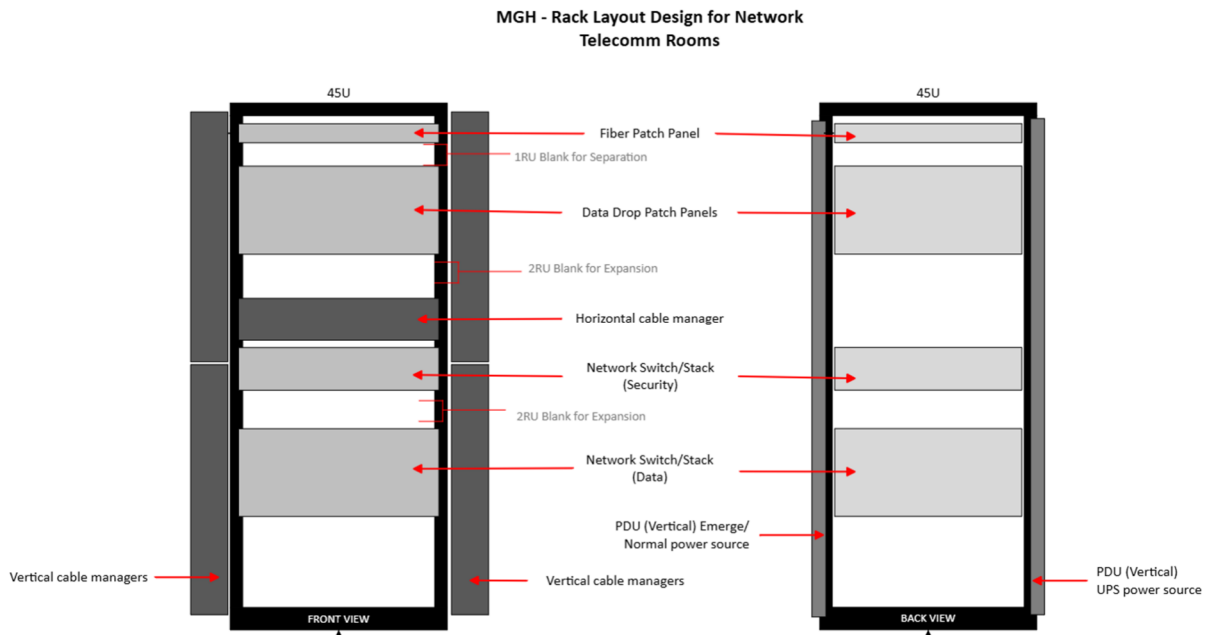
### 2.2 Room Design

- Clearance:
  - 3ft (1m) clearance in front and rear of racks.
  - Minimum ceiling height: 8.5 ft.
- Cable tray or ladder rack above racks for cable routing.
- Adequate lighting: 500 lux at floor level.

### 3. Rack Standards

- Use **19-inch EIA standard racks** or enclosed cabinets (see spec sheets for MGH recommended manufacturers/models)
- Racks should be bolted to the floor for stability.
- **Cable management** (see spec sheets for MGH recommended manufacturers/models):
  - Vertical and horizontal cable managers installed.
  - No cables draped across racks.
- **Power distribution** (see spec sheets for MGH recommended manufacturers/models):
  - PDUs (Power Distribution Units) with surge protection mounted vertically in racks.
- Equipment mounting order (see Diagram 3.1):
  - Patch panels (top)
  - Cable management panels
  - Switches (security, data)
  - Additional equipment (firewalls, appliances)
  - UPS (bottom)

#### 3.1 Typical Rack Layout Diagram



## 4. Cabling Standards

### 4.1 Cable Types

- Minimum: **Category 6 UTP** for data drops.
- **Category 6A** recommended for new installs (10GbE-ready).
- Fiber optic backbone:
  - **OM4 multimode fiber** (for up to 100Gb in data centers).
  - **OS2 singlemode** for long-distance backbone.

### 4.2 Installation Guidelines

- Maximum horizontal cable length: **90m (permanent link)** + 10m patch cords = 100m total.
- Maintain **minimum bend radius**:
  - 4x cable diameter for UTP.
  - 10x diameter for fiber.
- Avoid cable tie pressure — use **Velcro straps** instead of zip ties.
- Separation from electrical cables:
  - 12 inches from power cabling when parallel.
  - Cross power at 90°.
- Use cable trays, basket trays, or ladder racks for routing.

### 4.3 Patch Cords

- Use factory-made, stranded Cat6/Cat6A patch cords.
- Length not exceeding 5m (IDF side) and 5m (workstation side).
- Colour-coded for function (see section 6 for detailed specifications).

## 5. Wireless Access Point (WAP) Standards

- MGH standard WAP models: Aruba AP-535 (indoor); Aruba AP-375 (outdoor)
- Each WAP should have two dedicated Cat6A cable runs.
- Mounting: ceiling-mount preferred, centered in coverage area.
- Avoid placing near HVAC ducts, walls with metal studs, or sources of interference.
- Secure mounting brackets for easy access and replacement.
- Power: use **PoE+ (802.3at)** or **PoE++ (802.3bt)** for Wi-Fi 6/6E/7 devices.
- Minimum 1 Gbps uplink, 10 Gbps recommended in high-density environments.
- See section 6.2.5 for labeling standards

## 6. Labeling Standards

The following section provides a structured and standardized approach to the labeling of copper and fiber network cables in both telecommunication rooms (TR) and data centers (DC) at MGH.

The proper labeling of cables is essential for efficient management, troubleshooting, and maintenance.

### 6.1 General Rules

- Every cable, patch panel port, outlet, and device should be labeled.
- Labels should be **machine-printed, permanent, and legible**.
- **Cable ID:** Each cable should have a unique identifier. A combination of letters and numbers must indicate the cable's origin and destination, and function.
- **Label Location:** Labels should be placed on both ends of the cable, near the connectors, so they are visible without having to disturb the connection.
- **Labeling Scheme:** A structured labeling scheme is to be used based on specifications in section 6.2.

### 6.2 Labeling Schemes

#### 6.2.1 Equipment Labeling

For equipment labeling (i.e. switches, routers, panels, etc.), the following standards are to be followed:

- **Clear and legible** labels for device NAMES to be affixed top-front and back-side (left or right depending on accessibility).

#### 6.2.2 Data Jacks & Keystones

For drop IDs and data jack labeling, the following standards are to be followed:

- **All data jacks are to be clearly labeled** on the front of the communication closet patch panel and on the termination box.

Use format **WF-XXX** (W=Wing, F=Floor, XXX=data jack number).

*Example: J4-035 for data jack 35 in J4 comm. closet.*

- **Data jacks must be labeled based on the communication closet** that the data jack is terminated to, even if the device location is in a different letter wing.
- **New data jacks being installed must sequentially follow** from the last port number used.

*Example: if J4-104 is the last data jack # in comm. closet J4, then next new jack into that closet would be J4-105.*

- **Keystone jack colour coding and patch cable colour coding must follow the standard across both in-wall drops and patching with telecommunications rooms (TRs)** for consistency and identification, unless noted otherwise. See below for colour coding.

### 6.2.3 Labeling Scheme for Data Centers Cables

- Labels should be alphanumeric and include source and destination identifiers, separated by two colons “::”. E.g. [Source]::[Destination]

- Source/Destination identifiers must include rack or cabinet number, device name or patch panel location, and port number:

- Links from/to devices:

**[Rack No.]-[Abbreviated Device Name]-[Port Number]**

- Links from/to patch panels:

**[Rack No.]-[Patch Panel type and unit #]-[Port number]**

- Abbreviations:

- R = Rack/cabinet
- FPP = Fiber Patch Panel
- CPP = Copper Patch Panel
- U## = Rack unit position/number

- Link Identifier Examples:



- (1) Device to patch panel in same space:

**R22-CORE1-3/0/16::R21-FPPU45-06**

*“From cabinet/rack 22, Core switch-1’s cable in line-card 3 port 16 is going to the rack 21 fiber patch panel, which is in unit position 45, into port number 06 of the patch panel.”*

- (2) Device to device in same space:

**R26-AWLC03-e0/0/1(MGH\_GUEST)::R24-CORE-1/2/0/23**

*“From rack 3, the Wireless LAN Controller's cable in ethernet port 1 is going to rack 22 into core switch-1's line-card 7 port 12.”*

- (3) Device to device in same rack/cabinet:

**R01-H2NS6-47::R01-H2DNS1-2/0/48**

*“From rack 1, the H2NS6 access-layer-switch’s cable in port 47 is going to (the same) rack 01 into the H2DNS1 switch-stack, to switch number 2’s port 48.”*

## 6.2.4 Labeling Scheme for TR Patch Cables

- All patch cords should be labeled on both ends- identifying Color of the cable followed by a dash and three-digit number

*i.e. a green cable number 3, labeled as G-003 (on both ends) -- a red cable number 50 – labeled as R-050*

## 6.2.5 Labeling Scheme for WAPs

- All labels are to be affixed to front/visible side of WAP
- Label nomenclature: “ROOM-ID\_WAP#\_TR-ROOM-ID”
  - e.g.
    - ROOM-ID = Wing+Floor Room No. = H701
    - WAP# = AP01 vs. AP02, etc.
    - TR-ROOM-ID = H07\_T01



## 6.3 Colour Coding

### 6.3.1 Patch Cables\*

- **White** = Standard user data connections
- **Orange** = Wireless network / access points
- **Red** = Patient monitoring (e.g., Philips devices)
- **Blue** = Communications-related devices (e.g., phones,
- **Green** = Building systems / engineering devices (e.g., BAS, pneumatic tubing)

*\*Standards only apply to patching cables in TRs (not entire length of data drop run)*

### 6.3.2 Keystones\*\*

- **Yellow** = Standard data connections
- **Orange** = Wireless network / access points

*\*Standards only apply to keystones in TRs (not data jack termination)*

## 7. Documentation Standards

- Provide/maintain up-to-date **as-built drawings** showing cable pathways, rack layouts, and outlet locations.
- Use a database or spreadsheet to track each port, cable ID, device connection.
- Record test results (cable certification reports for Cat6A, fiber OTDR results).

## 8. Testing & Certification

- Copper cables: test with Fluke DSX (Level III or higher), certify Cat6A performance.
- Fiber: test insertion loss (Tier 1) and OTDR (Tier 2).
- Provide certification reports to IT/Facilities.





## CONSTRUCTION CRITERIA

*Unless the context requires otherwise, all capitalized words and expressions used herein shall have the same meaning as in the Landlord's form of Lease.*

### GENERAL

- (1) Waste to be removed from site in accordance with all applicable legislative requirements including but not limited to those under "Occupational Health and Safety" and Ministry of Environment and Energy Regulations. Also in accordance with Building Procedures.
- (2) No parking of vehicles in the loading dock areas.
- (3) All deliveries are to be made at the loading dock, where possible, and delivered to floors by the freight elevator on service **ONLY**. Passenger elevators are **NOT** to be used by construction personnel.
- (4) Scheduling of elevators will be arranged through the Supervisor of Building Operations. **No drywall or insulation deliveries will be made during Normal Building Hours.**
- (5) Any damage caused to the Landlord's property by the Tenant or the Tenant's contractor during construction will be brought to the Tenant's attention, and repaired at Tenant's expense.
- (6) Permit application number and/or permit copy must be sent to the Landlord **before** construction commences. If construction commences before permit is issued, contractor/Tenant takes full responsibility for all changes requested by the Landlord and local officials. Permit application or permit must be posted at job site.
- (7) Landlord's representative will attend site meetings.
- (8) All locksets are to be keyed to building master and submaster as designated by the Supervisor Building Operations. Landlord's locksmith will be used at Tenant's expense.
- (9) All general contractors must take responsibility for protecting the building and to repair damages where required by Landlord, to carpets, wall finishes, stairwell doors, washroom facilities (if provided) etc. during construction of their project floor(s).
- (10) General contractor or Tenant will submit to the Landlord in triplicate architectural, mechanical and electrical drawings for review and approval by Landlord's engineers prior to the commencement of construction. Costs of engineering reviews are at Tenant's expense. It is understood that the Landlord will require the Tenant to retain the services of the Landlord's engineers for all structural, mechanical and electrical requirements. If this is not possible and the Tenant retains the services of their own engineers, then it is understood that the Landlord's engineers must review and approve all drawings at Tenant's expense prior to construction commencing. All mechanical drawings must indicate required quantity of air required for each diffuser. The general contractor will provide the Landlord with a list of sub-contractors for Landlord's prior approval. The Landlord reserves the right to mandate that base building trades (electrical, plumbing, HVAC) are used.
- (11) The Landlord must receive **record drawings** in the form of a CAD disk, AutoCAD release 14 and three (3) copies of white prints (minimum size 24"x36") as well as an inspection reports provided by the electrical and mechanical engineers confirming all is built as per the as built drawings and complies with all approved building and Municipal standards. All mechanical drawings must show required quantity of air required for each diffuser accompanied with an air balance report showing actual air flow values.
- (12) Double-sided tape must be used where Tenant partitions butt to perimeter window mullions, **No screws or bolts allowed to be screwed into the T-bar.** If screws are used then it will be the Tenant's responsibility to replace T-bar upon vacancy. All partitions which butt to the curtainwall must be centred on window mullions. **Blanket acoustic insulation not permitted on top of T-bar ceilings.**
- (13) Tenant to provide the Landlord with Worker's Compensation and Liability Insurance Certificates for the General Contractors and Sub-Contractors along with copies of licenses, **prior** to commencement of construction to amounts as required by the Landlord.
- (14) **Noise Restrictions:** Do not perform work, (drilling, cutting, hammering, etc.) that will produce a loud noise between 8:00 a.m. and 6:00 p.m.
- (15) Tenant to provide the Landlord with a trade schedule for review and approval.

### ELECTRICAL REQUIREMENTS:

- (1) The Landlord reserves the right to request an electrical consumption/demand meter to be installed at Tenant's expense.

- (2) The Landlord reserves the right to request that a subpanel be installed within the Tenant's suite at the Tenant's expense.
- (3) The Tenant is entitled to a minimum of 3 watts per sq. ft. of receptacle power. If the Tenant requirement is in excess of 3 watts per sq. ft., an additional panelboard must be installed at Tenant's expense. The main breaker, panelboard and/or transformer must be sized for the remainder of the vacant floor space, to provide a minimum power of 3 watts per sq. ft. of spare capacity for future Tenant's. All electrical panels to be left with 10% spare capacity.
- (3) All panelboard directories to be updated, typed and placed in pocket panel as well as a copy sent to Property Manager for record keeping.
- (4) All electrical panelboards and disconnect switches must have lamacoid nameplate indicating panel number, voltage, amperage, area of equipment being fed, and source of power feeding same.
- (5) Balance the loading on feeders so that unbalanced load is less than 10% is the Tenant's responsibility.
- (6) All light fixtures removed are to be returned to the Landlord and placed in a designated storage area. This is to be arranged with the Supervisor Building Operations.
- (7) All lighting must be connected to the base building automated lighting systems, if any, provided within building. Each building will have its own lighting control guidelines, which must be obtained through the Property Manager. In facilities where there are no automated lighting systems, light switches must be installed for offices and open areas.
- (8) All new electrical panelboards, disconnect switches, meters, breakers, transformer etc., to be of same manufacturer and rating as base building equipment.
- (9) Ensure all underfloor ducts or handholes remain accessible in a manner approved by the Property Manager. This includes carpeted, terrazzo or tiled floors.
- (10) No cutting or coring allowed during normal business hours. Core drilling through concrete will require X-ray, authorization/scheduling required through Supervisor Building Operations prior to commencement of work. with a minimum 48 hour notice.
- (11) Security arrangements for after hour access will be arranged through Supervisor Building Operations, at the Tenant's expense.
- (12) Verification report required for all fire and life safety equipment, i.e. speakers, pull stations, maglocks etc., from manufacturer representative prior to occupancy.
- (13) All wiring shall be in concealed conduit, unless otherwise approved. Wiring in ceiling space shall be in EMT, BX cable shall be used for lighting fixture drops and drywall partition mounted outlets. Maximum length of BX cable in ceiling space not to exceed 3 meters (10 feet). Bare conductors or combustible conduits are not permitted.

#### **TELEPHONE AND DATA:**

- (1) All telephone switching equipment must be installed in Tenant's space and proper cooling provided. When telephone switching is installed in Tenant space, cables must first run to the Landlord's telephone room. Engineers to verify base building telephone requirements.
- (2) Only nickel cadmium or sealed lead batteries are permitted in the building.
- (3) All floor drilling must be done after normal business hours and floors must be X-rayed prior to drilling, if applicable, with verification sent to Landlord for approval. Adequate notice needs to be provided to the Landlord so access to other suites can be coordinated.
- (4) Telephone and data systems cables must be fire rated and suitable for return air plenum type "FT6". All cables in the ceiling space to be bundled together and supported from the building structure. Cables are not permitted to lay down on the suspended ceiling or light fixtures. All abandoned wiring must be removed back to electrical/telephone room.
- (5) Ensure all underfloor ducts or handholes remain accessible in a manner approved by the Landlord. This includes carpeted, terrazzo or tiled floors.

#### **MECHANICAL REQUIREMENTS:**

- (1) A.B.S. piping is not permitted.
- (2) All controls, diffusers, thermostats, variable air volume boxes, heat pumps and plumbing fixtures must match base building. Aluminum flexible duct length not to exceed 13 feet.

- (4) All domestic cold water lines for water cooled air conditioning units **must** be installed with water meters with remote read-out station located in the Landlord's mechanical/electrical room. The location shall be consistent for the building and clearly labelled with a lamaroid nameplate naming Tenant and area serviced. Secured lamaroid nameplate to the wall **without** adhesives.
- (5) All domestic cold and hot water lines are to be type "L" copper with cast brass or wrought copper fittings and insulated to meet local code and specifications. Provide isolating gate valves on main or branch lines for all equipment served with hot and cold water lines.
- (5) Hot water tanks supplied for Tenant kitchens, etc. must be the same as base building units. (Note: Tenant must supply own hot water tank for kitchens, etc.). Hot water tanks must be installed over a floor drain. If installed in the plenum then a drip pan with a moisture sensor to automatically shut off the water supply will be required. In addition the pan must be connected to a drip line, connected to a drain.
- (6) Exhaust fans are to be located in T-bar ceiling areas, for easy access.
- (7) Smoking lounges are not permitted.
- (8) No cutting or coring permitted during normal business hours. It is understood that the area to be core drilled will be X-rayed prior to drilling with verification sent to the Landlord for approval with a minimum 48 hour notice.
- (9) Security arrangements for after hours access must be arranged through Supervisor Building Operations, at the Tenant's expense.
- (10) All supplementary air conditioners must be inspected by the manufacturer's representative and inspection certificates submitted to Property Manager, to establish that the unit is installed satisfactorily and at this time the one year warranty will commence.
- (11) All supplementary air conditioning units cooled with domestic cold water must have cooling water and condensate drain run into a hub drain. Draining into a slop sink is **not** permitted.
- (12) All pipes to be identified after being insulated as to flow direction and system type, with proper labelling.
- (13) Heating convectors and induction units must stay intact. No fins are allowed to be removed. Perimeter office wall must be installed in such a way as not to disturb fins. All convectors will be sound proofed at wall locations with lead sheeting glued onto fins and convector walls or the cavity insulated to prevent sound migration.
- (14) Landlord requires, prior to occupancy, certificate of water pressure pipe testing.
- (15) Access panels must be provided in walls and ceilings to allow access to service equipment.

#### **FIRE / LIFE SAFETY AND SPRINKLER REQUIREMENTS:**

- (1) All sprinkler heads must match base building and/or current codes, unless specifically approved by Landlord.
- (2) Fire hose cabinets and extinguishers must match base building and are to be labelled as per Landlord's requirement to satisfy fire code.
- (3) Fire hoses must match base building, 100-ft. hoses are not permitted in lieu of 75 ft. unless building is already equipped with 100 ft. hoses. All floor drilling after normal business hours, X-ray required prior to drilling.
- (4) Landlord requires, prior to occupancy, certificate of sprinkler and fire hose piping pressure test.
- (5) No perforated pipe strapping hangers permitted.
- (6) All connections must be welded. No vitalic connections permitted.

#### **AIR BALANCING REQUIREMENTS**

##### **(PART OF MECHANICAL CONTRACTORS WORK)**

- (1) Air balancing contractor must measure the amount of air demand of adjacent space prior to start of construction and after completion of job, area to be re-tested to ensure no robbing of air to feed new area has taken place. This should be done after working hours and **must have** prior Landlord permission for access.

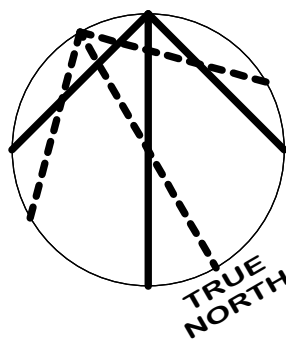
- (2) Air balancing dampers shall be at the take-off at the main duct. All balancing devices will be marked at the balanced position in an approved manner.
- (3) The Landlord must receive three (3) copies of the air balancing reports which will be stamped by the mechanical engineer as approved. These drawings shall have the following:
  - (a) Single line drawing showing all duct work, VAV boxes, louver, diffusers and location of splitter dampers. Boxes and diffusers shall be numbered to enable cross reference to rest of report.
  - (b) Air balancing sheets will include location, designed data, calculated data, testing data, and measured data in F.P.M. and C.F.M.
- (4) Air balancing shall be completed prior to Tenant move in and the reports received one week after Tenant move in.
- (5) Comfort balancing will be provided for one month after Tenant occupancy. Any adjustment required after that date shall be made by the Landlord at the Tenant's expense.

### **CONTRACTOR REQUIREMENTS**

Tenant shall cause each of its contractors ( a “**CONTRACTOR**”) to enter into an agreement with Landlord prior to commencing any work at the Project, which agreement shall include, without limitation, the following provisions:

1. **CONTRACTOR** agrees that it shall purchase at its expense and maintain throughout the term of the maintenance agreement, insurance coverage which shall be not less than the following:
  - (a) Comprehensive General Liability Cover which, without limiting the foregoing, shall:
    - (i) be for a limit of not less than five (5) million (\$5,000,000.00) dollars; and
    - (ii) include NorthWest Healthcare Properties Corporation and Healthcare Properties Holdings Ltd. As General Partner for Healthcare Properties LP as a named insured; and
    - (iii) include a cross liability clause covering each party as if separately insured; and
    - (iv) be primary to all other insurances upon the same risk; and
    - (v) include Environmental Impairment Liability coverage.
  - (b) All policies shall be filed NorthWest Healthcare Properties Corporation's Risk Manager prior to work in the premises and shall be subject to NorthWest Healthcare Properties Corporation's approval as to the adequacy of the protection afforded therein.
  - (c) All policies shall contain a clause providing for a thirty (30) day notice of cancellation or material change in cover to be provided to NorthWest Healthcare Properties Corporation.
  - (d) Limitations or absence of insurance cover, including deductible portions thereof, shall not limit or reduce **CONTRACTOR'S** liabilities or undertakings to NorthWest Healthcare Properties Corporation as required by the Indemnification Clause of this agreement.
  - (e) Failure to provide the required insurance coverage(s) may result in the immediate termination of this agreement without compensation of any kind.
2. **CONTRACTOR** agrees to indemnify and hold harmless NorthWest Healthcare Properties Corporation and Healthcare Properties Holdings Ltd. As General Partner for Healthcare Properties LP NorthWest Healthcare Properties Corporation their employees, servants, invitees or agents, against all suits, actions, claims, costs and demands arising or resulting from any death or personal injury, or any loss or damage to person or property, or thing connected with or arising or resulting from **CONTRACTOR**' work, use, occupation or activity in the demised premises or any part thereof by **CONTRACTOR**, its' officers, employees, agents, contractors, licensees or invitees. Furthermore, **CONTRACTOR** agrees to waive all claims against NorthWest Healthcare Properties Corporation and Healthcare Properties Holdings Ltd., as General Partner for Healthcare Properties LP which may arise or result from the maintenance of the demised premises, or use or occupancy thereof.
3. **CONTRACTOR** agrees to provide NorthWest Healthcare Properties Corporation with a Certificate of Workers' Compensation with respect to their operations at the building.
4. **CONTRACTOR** agrees to abide by all regulations of the WHMIS & Occupational Safety Acts and all other laws, regulations and by-laws now in force or enacted in the future. In addition, the contractor shall supply and maintain a logbook on site incorporating all the MSDS (Material Safety Data Sheets) for all materials being transported to or stored at the building from time to time by the contractor and/or their sub-contractors. A duplicate copy of all MSDS sheets will be transmitted to the building before any such material is brought on site.





**1** LEVEL 2 DEMOLITION REFLECTED CEILING PLAN  
SCALE: 1:50

**DEMOLITION CEILING PLAN GENERAL NOTES**

1. ABOVE CEILING COORDINATION DRAWINGS ARE REQUIRED PRIOR TO COMMENCEMENT OF CEILING INSTALLATION. COORDINATE THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE CLEARANCES FOR FIXTURES, DUCTS, PIPING, CEILING SUSPENSION SYSTEMS, ETC. NECESSARY TO MAINTAIN THE FINISHED CEILING HEIGHTS INDICATED ON ARCHITECT'S DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. FASCIAS OR ANY BREAK IN THE CEILING HEIGHTS CREATED BY THE INSTALLATION AND/OR ALTERATION OF HEATING, VENTING, AIR CONDITIONING, MECHANICAL DUCTS, PIPING, OR OTHER EQUIPMENT SHALL BE FORMED OF GYPSUM WALLBOARD ON FURRING CHANNELS.
3. LIGHT FIXTURES, EXIT SIGNS, SPRINKLERS, AND OTHER CEILING ELEMENTS SHALL BE LOCATED IN THE CENTER OF INDIVIDUAL CEILING TILES, UNO.
4. ALL CEILING TILES SHALL BE INSTALLED IN THE SAME DIRECTION.
5. FURNISH AND INSTALL ALL FIXTURES, ASSOCIATED TRIM, FIXTURE LAMPS, AND SEISMIC BRACING AS REQUIRED.
6. ALL JOINTS IN ACOUSTICAL CEILING TILE FIELD SHALL BE SQUARE, LEVEL, AND ALIGNED WITH EACH OTHER AND THE RECESSED LIGHTING FIXTURES.
7. ALL SOFFITS AND CEILING HEIGHTS ARE DIMENSIONED FROM TOP OF FINISHED FLOOR TO BOTTOM OF FINISHED GYP. BOARD OR CEILING TILE, AND SHALL ALLOW FOR THICKNESS OF ALL FLOOR FINISHES.
8. ARCHITECTURAL DRAWINGS DETERMINE LOCATION OF ALL FIXTURES AND TAKE PRECEDENCE OVER ALL OTHERS, UNO.

**DEMOLITION CEILING PLAN LEGEND**

- EXISTING AREAS OUTSIDE OF RENOVATION BOUNDARY ARE FULLY OCCUPIED AND SHALL REMAIN NOMINALLY FUNCTIONAL.
- ACT-1 ACOUSTIC CEILING TILE 600x1200mm TO BE DEMOLISHED
- GB-1 CEILING GYPSUM BOARD TO BE DEMOLISHED
- CEILING MOUNTED LIGHT FIXTURES, REFER TO ELECTRICAL TO BE DEMOLISHED
- RETURN AIR / SUPPLY AIR TO BE DEMOLISHED
- SPRINKLER
- EXIT SIGN

**RCP DEMOLITION NOTES**

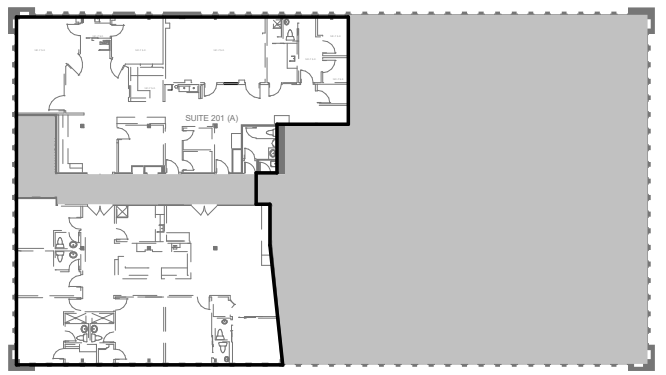
- DC1 EXISTING MED GAS BOXES IN THE CEILING TO BE REMOVED
- DC2 EXISTING SURGICAL LIGHT TO BE REMOVED
- DC3 EXISTING GYPSUM BOARD CEILING TO BE DEMOLISHED

DATE	ISSUED FOR	REV
2025-10-03	75% CD Review	A
2025-10-29	For Client Review	B
2025-11-05	Tender & Permit	0
2025-11-18	Addendum 1	1

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Key Plan



Consultants

Survey: N/A  
Civil: N/A  
Architecture: NORR  
Structural: NORR  
Mechanical: Zdesign+ Ltd.  
Electrical: Zdesign+ Ltd.  
Interiors: NORR  
Landscape: N/A

Seal(s)



**NORR**

NORR OFFICE ADDRESS  
norr.com

Project Manager J. MOORE	Drawn Author
Project Leader G. MILANI	Checked Checker

Client



Project  
**MGH - Outpatient  
Ophthalmology Clinic**

20 Wynford Dr Suite 310, North York, ON M3C 1J4

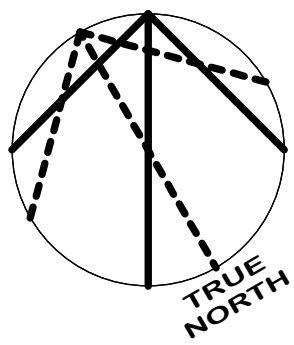
Drawing Title  
**LEVEL 2 DEMOLITION  
REFLECTED CEILING PLAN**

Scale  
As indicated

Project No.  
HS1025-0189

Drawing No.  
**A20-02**





**1** LEVEL 2 OVERALL FLOOR FINISH PLAN  
A22-01 SCALE: 1:50

**FINISH PLAN GENERAL NOTES**

1. ALL WALLS TO RECEIVE BASE ICB-1, UNO
2. ALL WALLS TO RECEIVE PAINT PT-1, UNO
3. GYPSUM WALLBOARD FINISH LEVEL TO BE LEVEL-X, UNO
4. ALL DOOR FRAMES TO BE PAINTED ADJACENT WALL COLOR, SEMI-GLOSS FINISH.
5. EXAMINE ALL AREAS OF CONSTRUCTION AFTER COMPLETION OF WORK BY ALL TRADES (INCLUDING TELEPHONE INSTALLATION, FLOORING ETC.) AND INDICATE ALL NECESSARY TOUCH UP PAINTING AND/OR PATCHING.
6. PROVIDE AND MAINTAIN ADEQUATE PROTECTION FOR ALL FLOORING WORK FOR THE DURATION OF THE PROJECT, AND REMOVE ALL PROTECTION PRIOR TO THE PUNCH LISTING.
7. PROVIDE A FLOOR SEAMING DIAGRAM TO THE DESIGNER FOR APPROVAL PRIOR TO INSTALLATION.
8. ALL TRANSITIONS SHALL BE CENTERED ON DOORS.



**FINISH PLAN LEGEND**

GRAPHIC	CODE	DESCRIPTION
	RSF-1	RESILIENT SHEET FLOORING, REFER TO LIST OF MATERIALS FOR COLOUR
	RSF-2	RESILIENT SHEET FLOORING, REFER TO LIST OF MATERIALS FOR COLOUR

**BASE**

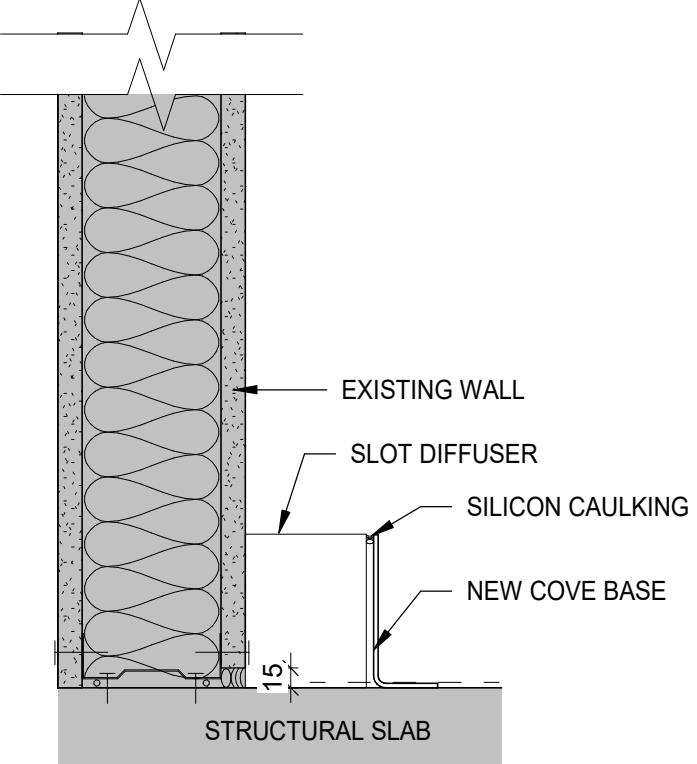
ICB-1	INTEGRATED COVE BASE, 150mm HIGH
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**WALL FINISHES**

	PT-X	PAINT, REFER TO LIST OF MATERIALS FOR COLOUR	
	PTE-X	EPOXY PAINT, REFER TO LIST OF MATERIALS FOR COLOUR	
	SWP-X	ACROVYN WALL PROTECTION, REFER TO LIST OF MATERIALS FOR COLOUR	
	SWP-1	FULL HEIGHT	
	SWP-2	HALF HEIGHT (REFER TO TYPICAL MOUNTING HEIGHT SHEET)	
	SWP-3	BACKSPLASH	
CG-1 	CG-2 	CG-X	ACROVYN CORNER GUARD, REFER TO LIST OF MATERIALS FOR TYPE
	CR-1	CRASH RAIL	

**FINISHES NOTES**

F1 CONTINUE THE FLOOR COVE BASE AROUND THE EXISTING SLOT DIFFUSERS.



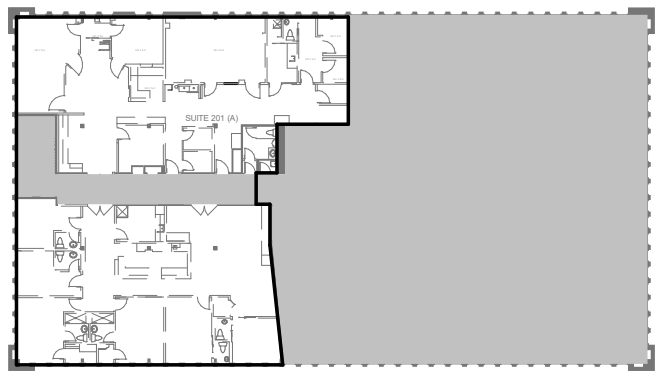
**2** COVE BASE AT SLOT DIFFUSER DETAIL  
A22-01 SCALE: 1:5

DATE	ISSUED FOR	REV
2025-10-03	75% CD Review	A
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Consultants

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Structural: NORR  
Mechanical: Zdesign+ Ltd.  
Electrical: Zdesign+ Ltd.  
Interiors: NORR  
Landscape: N/A

Seal(s)



**NORR**

NORR OFFICE ADDRESS  
norr.com

Project Manager J. MOORE	Drawn G. MILANI
Project Leader G. MILANI	Checked J. MOORE

Client



Project

**MGH - Outpatient  
Ophthalmology Clinic**

20 Wynford Dr Suite 310, North York, ON M3C 1J4

**LEVEL 2 FINISHES PLAN**

Scale

As indicated

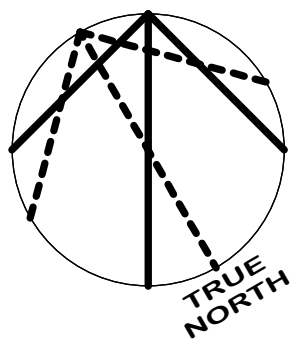
Project No.

HS1025-0189

Drawing No.

**A22-01**





REFLECTED CEILING PLAN GENERAL NOTES

1. ABOVE CEILING COORDINATION DRAWINGS ARE REQUIRED PRIOR TO COMMENCEMENT OF CEILING INSTALLATION. COORDINATE THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE CLEARANCES FOR FIXTURES, DUCTS, PIPING, CEILING SUSPENSION SYSTEMS, ETC. NECESSARY TO MAINTAIN THE FINISHED CEILING HEIGHTS INDICATED ON ARCHITECT'S DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
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REFLECTED CEILING PLAN LEGEND

EXISTING AREAS OUTSIDE OF RENOVATION BOUNDARY ARE FULLY OCCUPIED AND SHALL REMAIN NOMINALLY FUNCTIONAL

ACT-1 ACOUSTIC CEILING TILE 600x1200mm

ACT-2 ACOUSTIC CEILING TILE 600x1200mm SPECIFIC TO PROCEDURE ROOMS

GB-1 CEILING GYPSUM BOARD

CEILING MOUNTED LIGHT FIXTURES, REFER TO ELECTRICAL

WALL MOUNTED LIGHT FIXTURES, REFER TO ELECTRICAL

RETURN AIR / SUPPLY AIR

HEPA FAN-FILTER UNIT

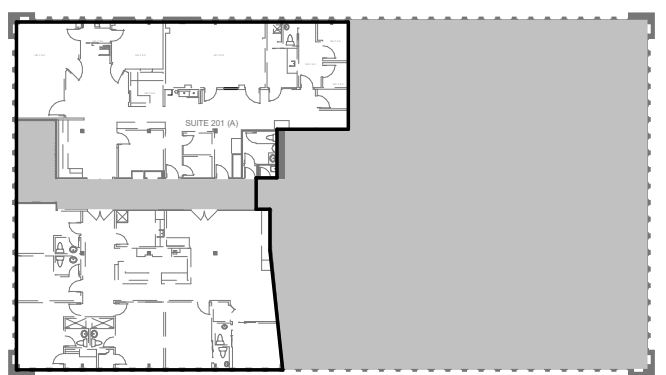
SURGICAL LIGHT  
FIXTURE WILL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR INCLUDING ALL ENGINEERED OVERHEAD FRAMING SUPPORT SYSTEMS, ANCHORED TO THE UNDERSIDE OF EXISTING STRUCTURE.

DATE	ISSUED FOR	REV
2025-10-03	75% CD Review	A
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Key Plan



Consultants

Survey:	N/A
Civil:	N/A
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Structural:	NORR
Mechanical:	Zdesign+ Ltd.
Electrical:	Zdesign+ Ltd.
Interiors:	NORR
Landscape:	N/A

Seal(s)



**NORR**

NORR OFFICE ADDRESS  
norr.com

Project Manager J. MOORE	Drawn G. MILANI
Project Leader G. MILANI	Checked J. MOORE

Client



Project  
**MGH - Outpatient  
Ophthalmology Clinic**

20 Wynford Dr Suite 310, North York, ON M3C 1J4

Drawing Title  
**LEVEL 2 PROPOSED  
REFLECTED CEILING PLAN**

Scale  
1 : 50

Project No.  
HS1025-0189

Drawing No.  
**A30-01**



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**ADDENDUM No. 1**

To: Norr  
Att.: James Moore

---

**DATE**

November 17, 2025

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**PROJECT No. 242519**

20 Winford – eye clinic

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**ISSUED BY**

Zaro Dimitrov  
Zdesign+ Ltd.

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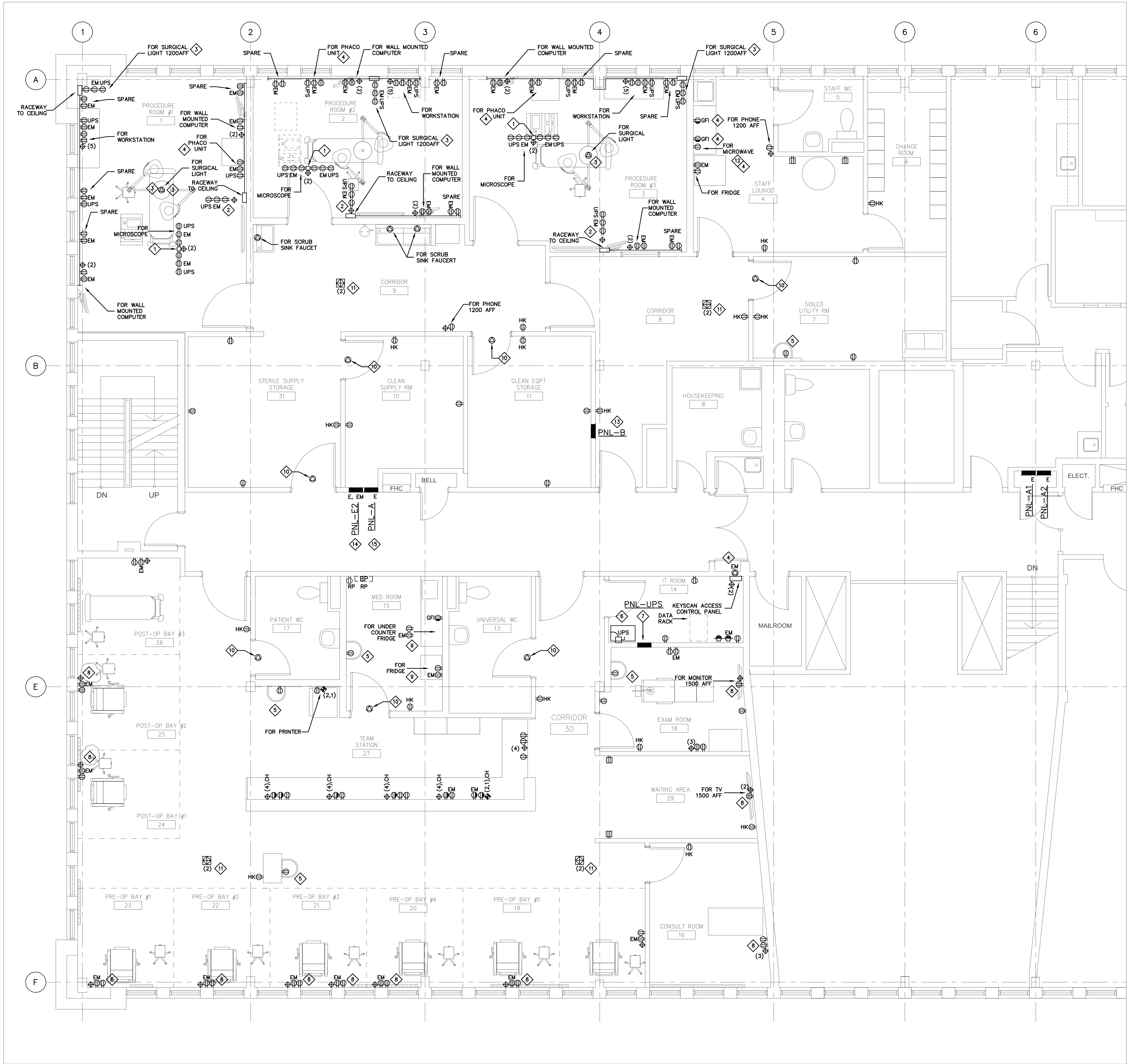
**SUBJECT**

Drawings update

1. Drawing E-301 Power and Data
  - .1 Note 8 added at two more locations as shown in clouded areas; Post-Op Bay #1 and #2.
2. Drawing E-302 Systems
  - .1 Note b related to Data Cabling Specifications, updated for horizontal cable manager.
  - .2 New Note 6 added as shown in clouded areas.



Zaro Dimitrov P.Eng.



NOTES:

- FOR EXACT LOCATION AND ELEVATION RECEPTACLES AND DEVICES SEE ARCHITECTURAL. COORDINATE WITH GC ON SITE DETAILS OF FURNITURE.
  - USE PANELS PNL-A AND PNL-E2 TO FEED NEW RECEPTACLES. ALLOW FOR 3 RECEPTACLES PER CIRCUIT, TYP.
  - USE PANE PNL-A2 TO FEED NEW ELECTRICAL HEATING COILS.
  - FOR HOUSEKEEPING RECEPTACLES PROVIDE LABEL "HOUSEKEEPING".
  - IN PROCEDURE ROOMS 1 TO 3 LABEL ALL RECEPTACLES WITH THE EQUIPMENT THEY ARE DESIGNATED TO SERVE.
- TWO-CHANNEL PACK-POLE: LEGRAND, WIREMOLD TELE-POWER AMDP-4, SATIN FINISH ALUMINUM. CONFIRM EXACT LOCATION ON SITE WITH ARCHITECTURAL. PROVIDE 5FT OF SLACK FOR ALL CABLES TO ALLOW FOR PACK POLE REPOSITIONING.
  - FOR SURGICAL MONITOR. LOCATE OUTLETS AT ELEVATION OF WALL BRACKET, APPROX. 1500AFF. PROVIDE CUSTOM LENGTH VIDEO CABLES - ONE DVI AND ONE HD-SVI FROM MICROSCOPE TO MONITOR. RUN UP THROUGH PACK-POLE, ACROSS THE CEILING AND DOWN THE VERTICAL WIREMOLD RACEWAY.
  - INSTALL VENDOR PROVIDED POWER SUPPLY MODULE AT THE BASE OF THE LIGHT. PROVIDE 5-15P CORD TO THE DESIGNATED RECEPTACLES, RUN THROUGH THE RACEWAY. PROVIDE CUTOUIT WITH A RUBBER GROMMET FOR THE CORD AND ENOUGH SLACK TO PLUG INTO THE DESIGNATED RECEPTACLES.
  - DEDICATED CIRCUIT.
  - POWER SUPPLY UNDER SINK SHROUD FAUCET. COORDINATE EXACT LOCATION WITH MECHANICAL ON SITE.
  - PROVIDE 15KVA ONLINE UPS VERITIV (LIEBERT) ITA-2, 15000VA 3PH, C/W MAINTENANCE BYPASS CABINET, 2-PACK EXTERNAL BATTERY AND A FLOOR STAND. THE UPS SHALL MAINTAIN 80% LOAD FOR MINIMUM OF 30MIN. ALL TERMINATIONS TO THE UPS SHALL BE IN FLEX.
  - PROVIDE 18-CIRCUIT 120/208V PANEL FED FROM THE UPS.
  - INSTALL IN A SURFACE MOUNTED DEVICE BOX. FEED FROM THE CEILING WITH A SURFACE MOUNTED RACEWAY WIREMOLD 2400D.
  - THESE TWO RECEPTACLES, FOR NORMAL AND EP, SHALL BE ON SHARED DEDICATED CIRCUITS.
  - FOR DOOR OPERATOR. PROVIDE DEDICATED 15A CIRCUIT.
  - PATCH WAPS TO DIERENT SWITCHES.
  - MOUNT ABOVE SHELVE, SEE ARCHITECTURAL FOR LOCATION AND ELEVATION.
  - NEW 42-CCT 120/208V PANEL FED FROM NORMAL POWER MAIN SWITCHBOARD IN BASEMENT ELECTRICAL ROOM.
  - FED FROM PANEL E1 IN BASEMENT MECHANICAL ROOM.
  - FED FROM PANEL A1 IN 2FL ELECTRICAL CLOSET.

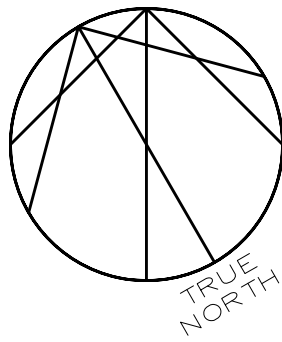
DATE	ISSUED FOR	REV
2025-10-16	Review	A
2025-10-28	Review	B
2025-11-05	Permit and tender	0
2025-11-14	Addendum 1	A

Consultants

Zdesign+ Ltd.

181 Carlaw Avenue, Suite 211  
Toronto, ON M4M 2S1  
(416) 837-2736

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Consultants

Survey:  
Civil:  
Architecture:  
Structural:  
Mechanical:  
Electrical:  
Interiors:  
Landscape:

Seal(s)

**NORR**

NORR Architects & Engineers Limited

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

Project Manager	Drawn	SM
Project Leader	Checked	ZD

Client



Project  
**MGH - Outpatient  
Ophthalmology Clinic**

20 Wynford Dr Suite 310, North York, ON M3C 1J4

Drawing Title

**POWER AND DATA**

Scale

1:50

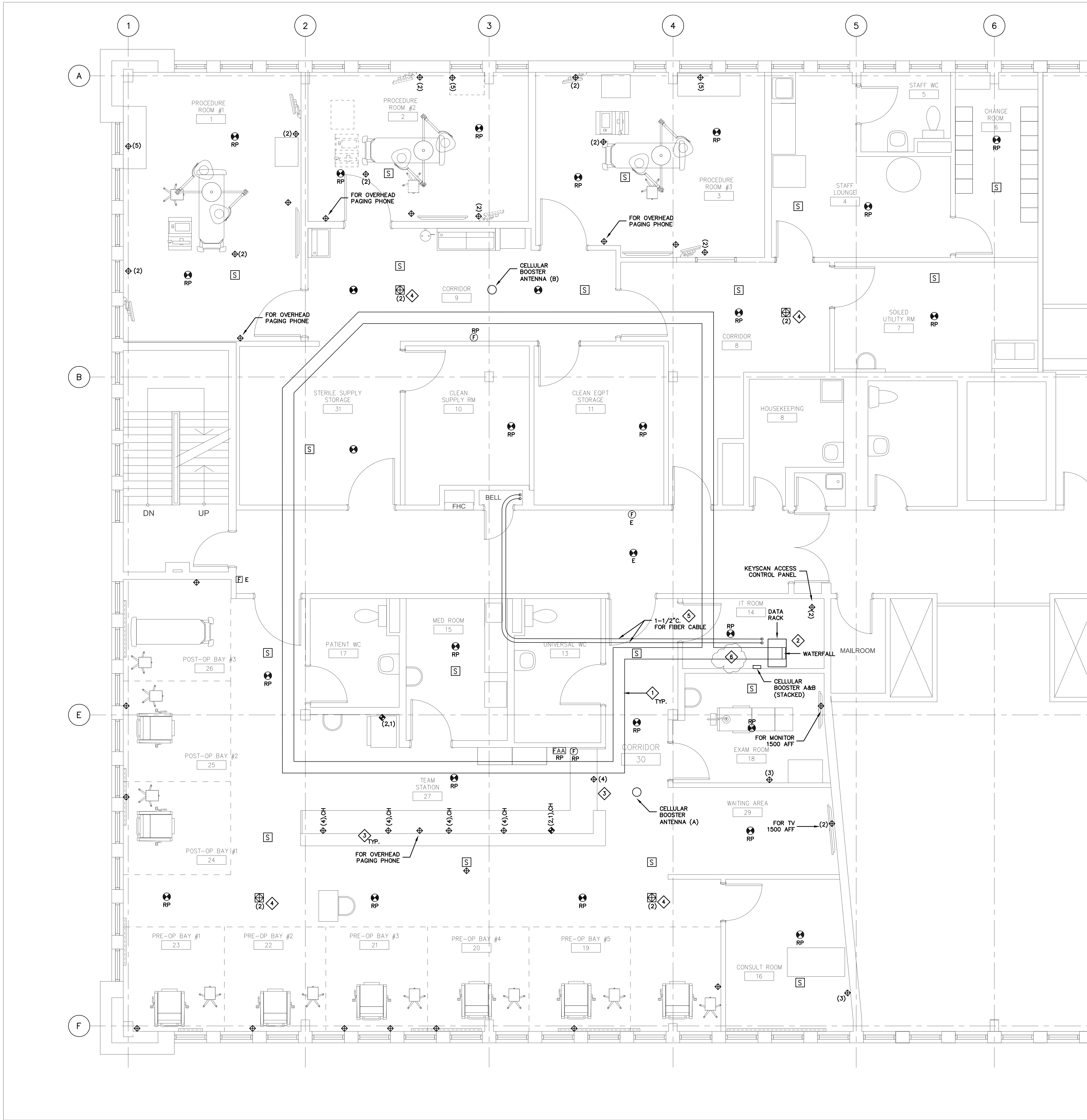
Project No.

242519

Drawing No.

**E-301**

DATE	ISSUED FOR	REV
2025-10-16	Review	A
2025-10-28	Review	B
2025-11-05	Permit and tender	0
2025-11-14	Addendum 1	A



NOTES:

a. FOR EXACT LOCATION AND ELEVATION RECEPTACLES AND DEVICES SEE ARCHITECTURAL. COORDINATE WITH GC ON SITE DETAILS OF FURNITURE.

b. VOICE/DATA CABLING SHALL BE AS PER MGH STANDARD.

DATA CABLING SPECIFICATIONS:

- PROVIDE BELDEN 2-POST DATA RACK WITH SIDE CABLE MANAGERS, XCMFDR4X4.
- PROVIDE TWO (2) BELDEN 1PH/208V 30A POWER DISTRIBUTION UNITS (PDU) AND MOUNT ON THE RACK.
- PROVIDE HORIZONTAL CABLE MANAGER ON RACK - SEE SECTION 3.1 OF THE "MGH NETWORK CABLING & NETWORK CLOSET STANDARDS & GUIDELINES".
- PROVIDE RACK MOUNTED UPS: APC SMART-UPS, LINE INTERACTIVE, 1500VA, 2U, 120V, 6ANEMA 5-15R OUTLETS, SMARTCONNECT PORT, SMARTSLOT, AVR AND LCD.
- PROVIDE TWO(2) BELDEN 1U 48 PORT ID.
- INSTALL OWNER SUPPLIED NETWORK SWITCHES.
- CONNECT ALL DATA OUTLETS TO THE NEW RACK IN IT ROOM 12.
- HORIZONTAL CABLING SHALL BE CAT 6A (SJM), PLENUM-CMP, RATED, 4PR, 23 AWG, COLOR WHITE.
- OVERALL HORIZONTAL PERMANENT LINK LENGTH SHALL NOT EXCEED 90M.
- ALL HORIZONTAL CABLES SHALL TERMINATE ON CAT6A HIGH DENSITY MODULAR RACK MOUNTED PATCH PANELS.
- CABLING CONTRACTOR RESPONSIBLE FOR FURNISHING ALL LABOUR, MATERIALS, SUPPLIES AND PERFORMING ALL OPERATIONS NECESSARY TO COMPLETE THE CATEGORY 6A INSTALLATION.
- JACK TERMINATIONS SHALL BE BELDEN, KEYCONNECT, RJ45 CAT 6A, YELLOW COLOR AS PER MGH STANDARD.
- INSTALL OWNER SUPPLIED WAPs C/W PATCH TO THE RACK.
- CONDUCT WIRELESS SITE SURVEY TO DETERMINE EXACT COUNT AND LOCATION OF WAPs. USE ONE OF THE MGH APPROVED PROVIDERS - RDEL, TOP OR COMWORK.
- SUPPLY 2 PATCH CABLES PER EACH DATA CABLE (1-7FT & 1-10FT.) PATCH CABLES SHALL BE BELDEN, CAT 6A OXS, COLOR - AS PER MGH STANDARD.
- CABLES SHALL BE RUN CONTINUOUSLY WITH NO SPICES.
- CABLES SHALL BE SUPPORTED ON CABLE TRAYS AN J-HOOKS OFF THE JOISTS.
- CONTRACTOR SHALL PATCH CABLES AT THE RACK LOCATION AS PER MGH PATCH SCHEDULE TEMPLATE.
- CABLING CONTRACTOR SHALL LEAVE 5M SERVICE COIL IN CEILING FOR FUTURE CHANGES.
- ALL FACEPLATES SHALL BE BELDEN KEYCONNECT MINIMUM 4-OUTLET PLATE WITH BLANK FILLERS INSTALLED IN ALL NON-USED OUTLETS; PLATE COLOR TO BE AS PER MGH STANDARD.
- ALL LABELLING (PATCH PANELS, DATA DROPS, ETC.) SHALL BE AS PER MGH STANDARDS - REFER TO "MGH NETWORK CABLING & NETWORK CLOSET STANDARDS & GUIDELINES".
- ALL LABELING SHALL BE COMPLETED USING A MECHANICAL LABEL MAKER.
- CABLING CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS AND CERTIFICATION TESTS AT THE COMPLETION OF PROJECT, INCLUDING:
  - PATCH SCHEDULE FOR ALL DATA DROPS
  - WIRELESS SITE SURVEY REPORT
  - WIRED NETWORK CABLE RESULTS (FLUKE TEST)
  - CERTIFICATION (UPS & EMERGENCY COMMISSIONING REPORT) OF POWER SOURCES IN NETWORK CLOSET
- CABLING CONTRACTOR IS RESPONSIBLE FOR FIRE STOPPING AT ALL FULL HEIGHT WALL OR SLAB PENETRATIONS.

c. RETAIN PBX-CANADA TO PROVIDE AN OVERHEAD PAGING SYSTEM C/W ALL HARDWARE, ALL DEVICES AS INDICATED ON THE DRAWINGS, ALL WIRING, PROGRAMING AND COMMISSIONING.

- IP PBX SERVER
- 24-PORT PoE SWITCH FOR 19 INCH RACK MOUNTING.
- VOIP POE CEILING SPEAKERS AND
- 4 IP PHONES COMPATIBLE WITH THE PBX SERVER.

INSTALL SERVER AND SWITCH ON THE DATA RACK.  
INSTALL DEVICES C/W NETWORK CABLING AND PATCH ON THE RACK AS PER MGH STANDARD.

d. PROVIDE TWO (2) COMMERCIAL GRADE CELLULAR BOOSTERS, WEBOOST OFFICE-200 OR EQUAL C/W INDOOR AND OUTDOOR ANTENNAE, CABLES AND LIGHTNING SURGE PROTECTOR.

INSTALL AS PER THE MANUFACTURERS RECOMMENDATIONS. PLUG INTO THE RACK EP PDU.  
INSTALL THE OUTDOOR ANTENNA ON THE ROOF, COORDINATE EXACT LOCATION ON SITE.

e. RETAIN THE BASE BUILDING FIRE ALARM SERVICE PROVIDER TO MAKE MODIFICATIONS OF THE EXISTING FIRE ALARM SYSTEM. C/W ALL HARDWARE, ALL DEVICES AS INDICATED ON THE DRAWINGS, ALL WIRING, FAA DIRECTORY UPDATE, PROGRAMING AND COMMISSIONING.

THE FIRE ALARM SYSTEM IS MIRCOM.

COORDINATE WITH THE FIRE ALARM SERVICE PROVIDER AND INSTALL ALL REQUIRED CONDUIT, DEVICE BOXES AND WIRING.

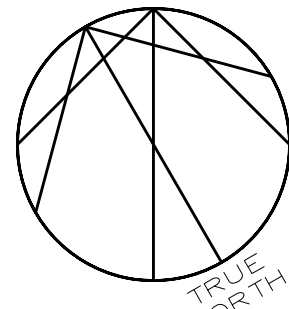
1. PROVIDE 12"Wx4"D WIREMESH CABLE TRAY CABLOFILL CB-105 OR EQUAL.
2. PROVIDE WATERFALLS WHERE TRAY CHANGES ELEVATION - TYP.
3. RUN CABLING TO UNDER DESK IN CONDUIT.
4. PATCH WAPS TO DIFFERENT SWITCHES.
5. FLEX CONDUIT C/W PULL STRING TO BASEMENT BELL ROOM.
6. PROVIDE 1FT OR MORE DISTANCE BETWEEN TOP OF RACK AND TRAY AND TRAY AND T-BAR CEILING. COORDINATE WITH ARCHITECTURAL ON SITE.

Consultants

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



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Interiors:  
Landscape:

Seal(s)

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Client



Project  
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Ophthalmology Clinic**

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Drawing Title

SYSTEMS

Scale

1:50

Project No.

242519

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E-302