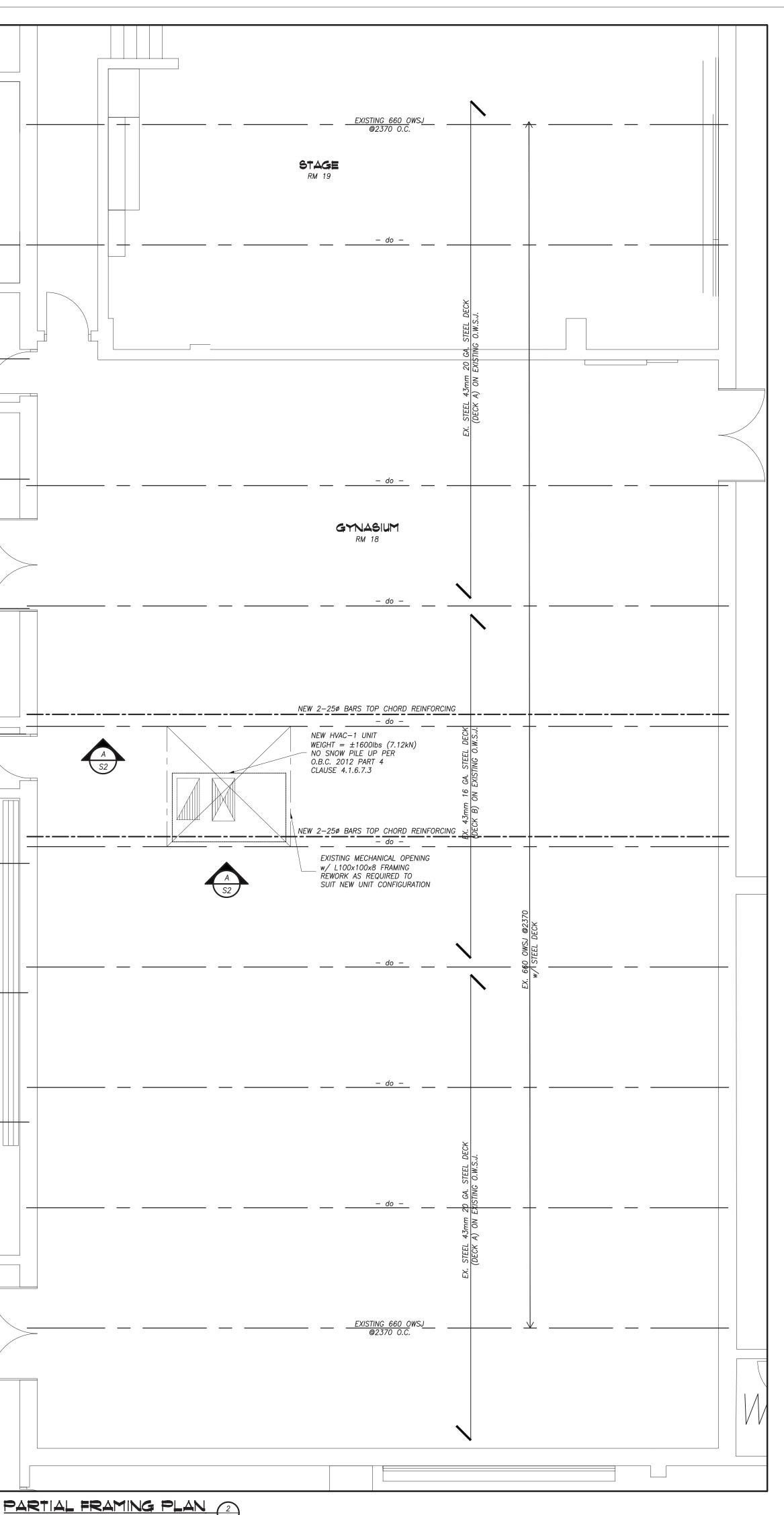
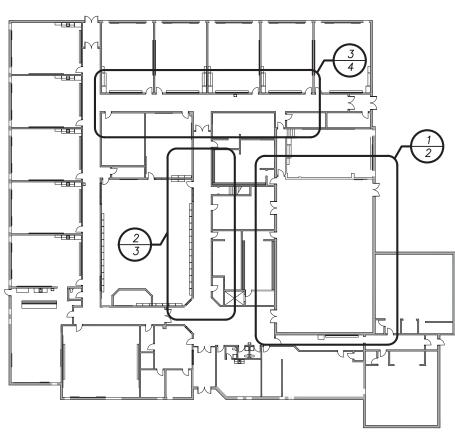


MECHCANICAL ROOM PLAN (1





KEY PLAN-GROUND FLOOR

KEY PLAN-ROOF

LOADING SUMMARY

DESIGN STANDARDS

- ONTARIO BUILDING CODE, 2012, PART 4: STRUCTURAL DESIGN · CAN/CSA-A23.3-14. DESIGN OF CONCRETE STRUCTURES
- CAN/CSA-A23.4-16, DESIGN OF PRECAST CONCRETE STRUCTURES - CAN/CSA-S304.1-14, MASONRY DESIGN FOR BUILDINGS
- CAN/CSA-S16-14, LIMIT STATES DESIGN OF STEEL STRUCTURES · CAN/CSA-S136-16, DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
- SNOW, ICE AND RAIN LOADS
- APPLIED PER OBC, PART 4, SECTION 4.1.6 0.9 (SLS) 1.15 (ULS) - IMPORTANCE FACTOR, Is – GROUND SNOW LOAD. Ss
- 1.1 kPa (23.0 PSÉ) - ASSOCIATED RAIN LOAD, S 0.4 kPa (8.40 PSF) - WIND EXPOSURE FACTOR, Cw,
- 1.47 kPa (30.7 PSF) ROOF SNOW LOAD, S. - DRIFT LOADS PER CLAUSE 4.1.6.2.8
- wind loads

APPLIED PER OBC, PART 4, SECTION 4.1.7

- IMPORTANCE FACTOR, Iw - REFERENCE VELOCITY PRESSURE FOR STRUCTURAL MEMBÉRS
- 0.47 kPa 1/50 YEAR PROBABILITY - REFERENCE VELOCITY PRESSURE FOR CLADDING & NON-STRUCTURAL MEMBERS 0.36 kPa 1/10 YEAR PROBABILITY (7.5 PSF)
- GUST FACTORS Cg: 2.0 FOR WHOLE & MAIN STRUCTURAL MEMBERS
 2.5 FOR SMALL ELEMENTS INCLUDING CLADDING

- SLOPE FACTORS PER CLAUSE 4.1.6.2.(5) TO (7)

- 2.0 FOR INTERNAL PRESSURES
- BUILDING INTERNAL PRESSURE CATEGORY <u>2</u> PER NBC 2010 STRUCTURAL COMMENTARY (PART B), COMMENTARY B.

SEISMIC LOADS APPLIED PER OBC, PART 4, SECTION 4.1.8 - IMPORTANCE FACTOR, IE 1.3 (ULS) Sa (0.2) 0.260 Sa (0.5) 0.129

Sa(10.0) 0.0027 0.167 0.101 SOIL CLASS C (ASSUMED)

SEISMIC SWAY BRACING

ARTICLE 4.1.8.18(2) OF THE ONTARIO BUILDING CODE NOTES THAT IF THE PRODUCT OF IE * Fa * Sa(0.2) IS LESS THAN 0.35, THE REQUIREMENTS NOTED ABOVE NEED NOT APPLY. THESE VALUES ARE EXPLORED BELOW. THIS EXEMPTION IS NOT APPLICABLE TO POST-DISASTER BUILDINGS.

BASED ON THE ABOVE NOTED VALUES, THE PRODUCT OF le * Fa * Sa(0.2) = 1.3 *1.0 * 0.260 = 0.338. GIVEN THIS IS LESS THAN THE THRESHOLD OF 0.35, THE APPLICATION OF THE LATERAL FORCE (Vp) TO ALL ELEMENTS AND COMPONENTS AND SWAY BRACING IS NOT REQUIRED.

<u>Design Loads</u>

ROOF LOADS (BASED ON EXISTING DRAWINGS):

ROOFING STEEL DECK - STRUCTURAL STEEL CEILING MISC.

SNOW:

0.24 kPa (5.01 psf) <u>0.24 kPa</u> (5.01 psf) TOTAL 1.20 kPa (25.07 psf) USED 1.20 kPa (25.07 psf)

0.35 kPa (7.31 psf)

0.10 kPa (2.09 psf)

0.24 kPa (5.01 psf)

LL = 1.47 kPa + SPU

GENERAL NOTES

- 1. CHECK ALL DIMENSIONS ON THESE DRAWINGS WITH ALL OTHER DRAWINGS, INCLUDING BUT NOT LIMITED TO DRAWINGS PREPARED ARCHITECTURAL. MECHANICAL OR ELECTRICAL CONSULTANTS. REPORT ANY INCONSISTENCIES TO THE ARCHITECT OR ENGINEER PRIOR TO COMMENCING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
- 2. THE DESIGN LIVE LOADS ARE INDICATED ON THE DRAWINGS. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
- 3. THE COMPLETED STRUCTURE IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING AND ANY OTHER TEMPORARY OR PERMANENT MEASURES AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT OF EXISTING OR ADJACENT STRUCTURES AS REQUIRED. ALL BRACING AND SHORING IS THE RESPONSIBILITY OF THE
- 4. CONSTRUCTION FEATURES NOT FULLY SHOWN ARE COMPARABLE TO SIMILAR CONDITION DETAILS.
- 5. REFER TO OTHER CONSULTANTS DRAWINGS FOR DETAILS OF OPENINGS, PITS, CHAMFERS, DEPRESSIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- 6. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ONTARIO BUILDING CODE, LATEST APPLICABLE REGULATIONS, AND GOOD CONSTRUCTION PRACTICES.
- 7. THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
- 8. CLARIFY ANY QUERIES WITH THE ENGINEER REGARDING THE INTERPRETATION OF THE DRAWINGS, PRIOR TO THE COMMENCEMENT OF ANY WORK.
- 9. INFORMATION FROM EXISTING STRUCTURAL DRAWINGS BY MICHAEL J. TORSNEY ARCHITECT, DATED OCTOBER 30, 1980.

STRUCTURAL STEEL NOTES

1. ALL STRUCTURAL STEEL ELEMENTS, INCLUDING DESIGN OF ELEMENTS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA S16.

2. ALL STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21 (300W) EXCEPT W SECTIONS AND PLATES G40.21 (350W), HSS MEMBERS G40.21 (350W) CLASS C OR ASTM A500 GRADE C, ANCHOR BOLTS ASTM A307, COLD FORMED SECTIONS ASTM A570M GRADE 350W. UNLESS OTHERWISE NOTED, ALL SECTIONS SHALL BE PRIME

- PAINTED WITH THE SURFACE PREPARATION AND PAINTING PROCEDURES IN ACCORDANCE WITH CAN/CGSB 85.10. 3. ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS BY THE
- CANADIAN WELDING BUREAU IN CONFORMANCE WITH CAN/CSA W47.1. 4. DESIGN ALL MOMENT AND SHEAR CONNECTIONS FOR THE FULL CAPACITY OF THE
- SMALLER MEMBER IN THE CONNECTION UNLESS OTHERWISE NOTED. 5. PROVIDE MINIMUM BEARING LENGTH OF STEEL MEMBERS AS FOLLOWS:
- ON MASONRY 150mm
- ON STEEL 90mm
- 6. PROVIDE MINIMUM 175x10x175 BEARING PLATES FOR ALL STRUCTURAL STEEL c/w 2-15Ø ANCHORS UNLESS OTHERWISE NOTED.
- 7. ALL BOLTS SHALL BE TIGHTENED WITH A SUITABLE TORQUE WRENCH IN ACCORDANCE WITH CSA S16.
- 8. ALL STEEL EXPOSED TO THE EXTERIOR TO BE HOT DIP GALVANIZED.
- 9. ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CSA S16 AND IN CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.

1. SUBMIT FOR REVIEW BY THE CONSULTANT, DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL WORK INCLUDING, BUT NOT LIMITED TO STRUCTURAL STEEL AND TEMPORARY SHORING.

- THE SCALE OF THE DRAWINGS SHALL BE SUCH THAT THE DETAILS OF THE STRUCTURAL WORK ARE CLEARLY SHOWN, AND IN NO CASE SMALLER THAN 1:50
- 3. THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, FOR USE AS SHOP DRAWINGS.
- 4. EACH DRAWING SUBMITTED FOR STRUCTURAL STEEL AND TEMPORARY SHORING SHALL BEAR THE SEAL AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- 5. CONTRACTOR SHALL ALLOW FOR A 5 WORKING DAY TURN AROUND TIME FOR STRUCTURAL CONSULTANT TO REVIEW THE SHOP DRAWINGS.

1. INFILL EXISTING BLOCK AT ABANDONED DUCT OPENINGS.

- 2. PROVIDE SHORING AND BREAK OPEN EXISTING WALL, AND PROVIDE STEEL LINTEL AS PER TYPICAL LINTEL SCHEDULE AT ALL NEW DUCT OPENINGS. MAKE GOOD EXISTING BLOCK AS REQUIRED. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS AND QUANTITIES.
- 3. PROVIDE SHORING AND BREAK OPEN EXISTING WALL, AND PROVIDE BEARING PLATE SIZED TO SUIT NEW BEAM AND CHANNELS AS REQUIRED. MAKE GOOD EXISTING BLOCK AS REQUIRED. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS AND QUANTITIES.
- 4. INFILL EXISTING OPENINGS IN ROOF DECK AS REQUIRED, AS PER MECHANICAL DETAIL. NOT ALL LOCATIONS SHOWN ON PLAN.
- 5. PROVIDE FRAMING FOR ALL FLOOR & ROOF OPENINGS AS PER TYP. DETAIL. REFER TO MECHANICAL FOR LOCATIONS.
- 6. SHORING SHALL BE, BUT MAY NOT BE LIMITED TO, NEEDLE SHORING. CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQUIRED TO SUIT
- PROPOSED SCOPE OF WORK. 7. REMOVE/MODIFY OWSJ BRIDGING TO SUIT
- 8. ALL DUCT PENETRATIONS TO BE BOND BEAM, OPENING TO BE 400 BELOW

ALL REMOVALS/DEMOLITIONS TO BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL DRAWINGS PRIOR TO DEMOLITION START. FOR ADDITIONAL DEMOLITION. DOCUMENTS AND DETAILS SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. AREA OF RENOVATION WILL NOT BE OCCUPIED DURING RENOVATION WORK. STRUCTURE TO BE RENOVATED OR ADJACENT STRUCTURES WILL NOT BE COMPROMISED. SHORING IS NOT REQUIRED GEOTECHNICAL REPORT/LETTER IS NOT REQUIRED AS THERE IS NO FOUNDATION WORK.

EXISTING STRUCTURAL INFORMATION FROM DRAWINGS PREPARED BY: GROUP EIGHT ENGINEERING LIMITED AND MICJ J. TORSNEY ARCHITECT DATED OCTOBER 30, 1980

DISTRICT SCHOOL BOARD

Architects

HOLY FAMILY SCHOOL

Snyder Architects Inc. 100 Broadview Ave., Suite 301, Toronto, ON M4M 3H3

T. 416.966.5444

www.snyderarchitects.ca Consultants Mechanical and Electrical Consultants

DEI & Associates Inc. 40 Durward Place Waterloo, Ontario, N2L 4E4 Tel: 519-725-3555 Structural Consultants

Kalos Engineering Inc.

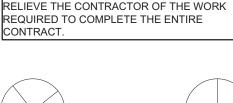
300 York Boulevard Hamilton, ON L8R3K6

Tel: 905-333-9119 Abatement Consultant Maple Environmental Inc. 428 South Service Road. East - Suite 116

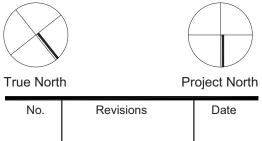
CONSTRUCTED IN PHASES. REFER TO PHASING THE DRAWINGS WITH RESPECT TO THE EXTEN

Oakville, ON L6J-2X6

Tel: 905-257-4408



OF THE PHASING OF THE WORK SHALL NOT



SSUED FOR PERMIT AND 2024-03-26

General Contractor shall check and verify all dimensions and report all errors and omissions to the Architect. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Architect for construction.

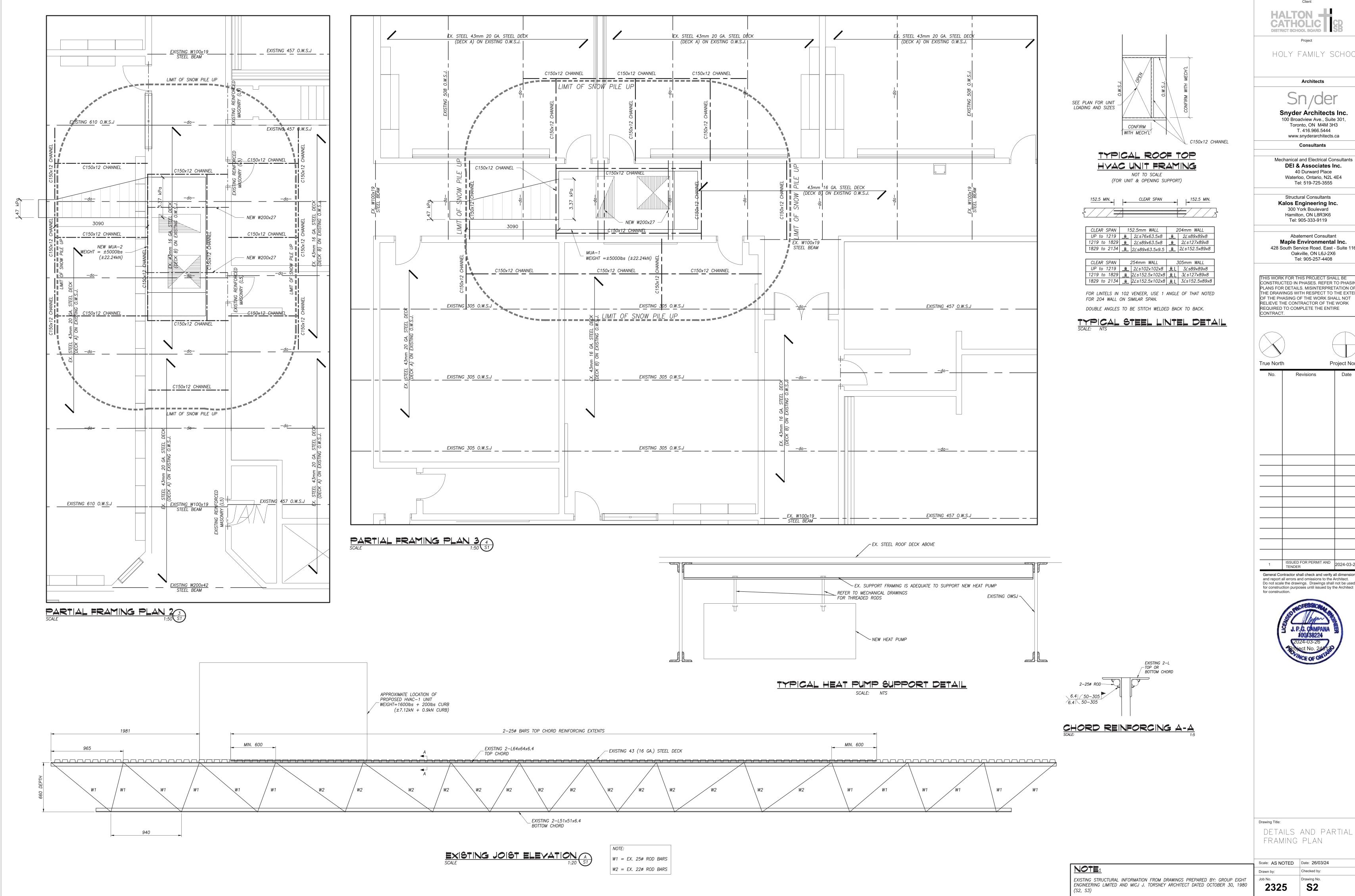


Drawing Title:

GENERAL NOTES AND PARTIAL FRAMING PLAN

Scale: AS NOTED Date: 26/03/24 Checked by:

Drawing No. **S1**



DISTRICT SCHOOL BOARD HOLY FAMILY SCHOOL Architects

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Abatement Consultant Maple Environmental Inc. 428 South Service Road. East - Suite 116 Oakville, ON L6J-2X6 Tel: 905-257-4408

THIS WORK FOR THIS PROJECT SHALL BE CONSTRUCTED IN PHASES. REFER TO PHASING PLANS FOR DETAILS. MISINTERPRETATION OF THE DRAWINGS WITH RESPECT TO THE EXTEN OF THE PHASING OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF THE WORK

Project North Date Revisions

TENDER

General Contractor shall check and verify all dimensions and report all errors and omissions to the Architect. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Architect



FRAMING PLAN

Scale: AS NOTED Date: 26/03/24 Checked by: Drawing No.

S2