

# Cafeteria Wing Siporex Roof Replacement

## Courtice Secondary School

1717 Nash Road  
Courtice, Ontario

Kawartha Pine Ridge District School Board

## LIST OF DRAWINGS

### ARCHITECTURAL

- A000 COVER PAGE
- A101 GENERAL NOTES AND OVERALL ROOF PLAN
- A201 ROOF & RCP DEMO PLANS
- A202 ROOF & RCP PLANS
- A203 DRAINAGE PLAN
- A501 SECTIONS
- A502 SECTIONS

### STRUCTURAL

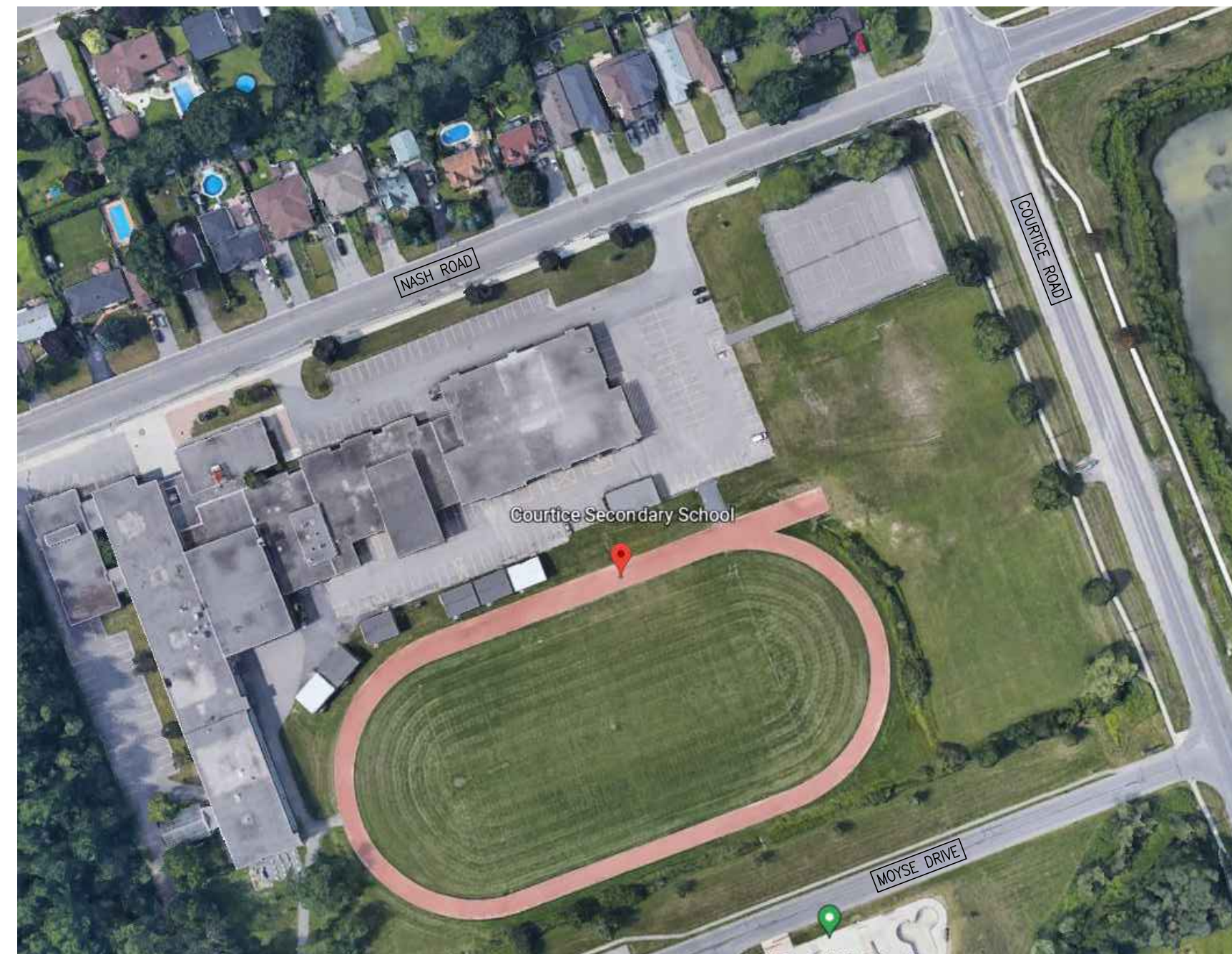
- S101 GENERAL NOTES AND OVERALL ROOF PLAN
- S201 ROOF DEMOLITION PLANS
- S202 ROOF FRAMING PLANS
- S501 SECTIONS

### MECHANICAL

- M-0 TITLE SHEET
- M-1.1 MECHANICAL LEGEND & SPECIFICATIONS I
- M-1.2 MECHANICAL SPECIFICATIONS II AND DETAILS
- M-2.1 ROOF, GROUND AND PENTHOUSE PLAN - MECHANICAL DEMOLITION
- M-2.2 ROOF, GROUND AND PENTHOUSE PLAN - MECHANICAL NEW

### ELECTRICAL

- E-1 ELECTRICAL SPEC; LEGEND, DRAWING LIST, AND DETAILS
- E-2 GROUND FLOOR VICINITY PLAN ELECTRICAL
- E-3 PART GROUND FLOOR DEMOLITION PLAN ELECTRICAL
- E-4 PART GROUND FLOOR PROPOSED PLAN ELECTRICAL



LOCATION PLAN  
N.T.S.

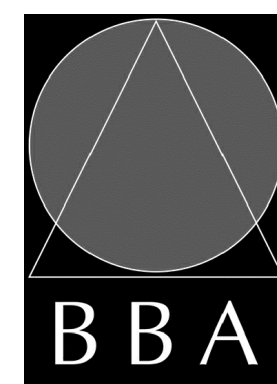


<b>NAME OF PROJECT :</b> BARRY BRYAN ASSOCIATES <b>CERTIFICATE OF PRACTICE NUMBER :</b> 5192 250 WATER STREET, SUITE 201 WHITBY, ONTARIO, CANADA L1N 0G5 TEL: (905) 666-5252 (Toronto) (905) 427-4495 FAX: (905) 666-5256																		
<b>NAME OF PROJECT :</b> COURTYCE SECONDARY SCHOOL CAFETERIA AREA SIPOREX ROOF DECK REPLACEMENT																		
<b>LOCATION OF PROJECT :</b> 1717 NASH ROAD, COURTICE, ONTARIO																		
<b>DATE :</b> DECEMBER 2, 2024																		
<b>Ontario Building Code Data Matrix</b> Part 11 - Renovation of Existing Building		OBC Reference																
11.00 Building Code Version: O. Reg. 332/12	Last Amendment: O. Reg. 191/14																	
11.01 Project Type:	<input type="checkbox"/> Addition <input type="checkbox"/> Change of use <input checked="" type="checkbox"/> Renovation <input type="checkbox"/> Addition and Renovation	[A] 1.1.2.																
Description: PART ROOF DECK, ROOF AND CEILING REPLACEMENT																		
11.02 Major Occupancy Classification:	Occupancy Group A, Division 2 Use PUBLIC SCHOOL 3.2.2.23	3.1.2.1.(1)																
11.03 Superimposed Major Occupancies:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.2.2.7																
11.04 Building Area (m <sup>2</sup> ):	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Description</th> <th>Existing</th> <th>New</th> <th>Total</th> </tr> <tr> <td>BUILDING FOOTPRINT</td> <td>7984.90 m<sup>2</sup></td> <td>-</td> <td>7984.90 m<sup>2</sup></td> </tr> <tr> <td>AREA OF WORK</td> <td>715 m<sup>2</sup></td> <td>-</td> <td>-</td> </tr> <tr> <td><b>Total=</b></td> <td><b>-</b></td> <td><b>-</b></td> <td><b>-</b></td> </tr> </table>	Description	Existing	New	Total	BUILDING FOOTPRINT	7984.90 m <sup>2</sup>	-	7984.90 m <sup>2</sup>	AREA OF WORK	715 m <sup>2</sup>	-	-	<b>Total=</b>	<b>-</b>	<b>-</b>	<b>-</b>	[A] 1.4.1.2.
Description	Existing	New	Total															
BUILDING FOOTPRINT	7984.90 m <sup>2</sup>	-	7984.90 m <sup>2</sup>															
AREA OF WORK	715 m <sup>2</sup>	-	-															
<b>Total=</b>	<b>-</b>	<b>-</b>	<b>-</b>															
11.05 Building Height:	2 Stores above grade 0 Stores below grade -8 (m) Above grade	[A] 1.4.1.2 & 3.2.1.1																
11.06 Number of streets/ fire fighter access:	1 street(s)	3.2.2.10 & 3.2.5																
11.07 Building Size:	<input type="checkbox"/> Small <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Large <input type="checkbox"/> > Large	T.11.2.1.1.B.-N.																
11.08 Existing Building Classification:	Change in Major Occupancy: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Applicable (no change of major occupancy) Construction Index: 6 Hazard Index: 6 Importance Category: <input checked="" type="checkbox"/> Low <input type="checkbox"/> Normal <input type="checkbox"/> High <input type="checkbox"/> Post-disaster	11.2.1.1A 11.2.1.1B to N. 4.1.2.1(3) & 5.2.2.1.(2)																
11.09 Renovation Type:	<input checked="" type="checkbox"/> Basic Renovation <input type="checkbox"/> Extensive Renovation	11.3.3.1 & 11.3.3.2																
11.10 Occupant Load:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Floor Level/ Area</th> <th>Occupant Load</th> <th>Occupancy Type</th> <th>Based On</th> <th>Occup. Load</th> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>	Floor Level/ Area	Occupant Load	Occupancy Type	Based On	Occup. Load	-	-	-	-	-	3.1.17						
Floor Level/ Area	Occupant Load	Occupancy Type	Based On	Occup. Load														
-	-	-	-	-														
11.11 Plumbing Fixture Requirements:	Rate: Male/Female = 50:50 Except as noted otherwise <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Floor level/ Area</th> <th>Occupant Load</th> <th>OBC Reference</th> <th>Fixtures Required</th> <th>Fixtures Provided</th> </tr> <tr> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>	Floor level/ Area	Occupant Load	OBC Reference	Fixtures Required	Fixtures Provided	-	-	-	-	-	3.7.4						
Floor level/ Area	Occupant Load	OBC Reference	Fixtures Required	Fixtures Provided														
-	-	-	-	-														
11.12 Barrier-free Design:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11.3.3.2.(2)																
11.13 Reduction in Performance Level:	Structural: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage - system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5																
11.14 Compensating Construction:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Structural: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage - system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Extension of Combustible Construction: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7																
11.15 Compliance Alternatives Proposed:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.5.1.																
11.16 Notes:	-REMOVAL AND REPLACEMENT OF EXISTING SIPOREX ROOF STRUCTURE WITH STEEL DECK -NOTE: EXISTING BUILDING IS NOT SPRINKLERED AND IS A PART 11 LEGAL NON CONFORMING USE.																	

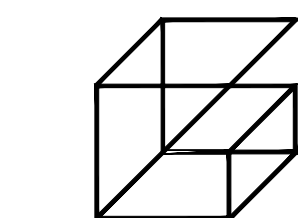
ARCHITECTURAL & STRUCTURAL:

MECHANICAL:

ELECTRICAL:



**BARRY BRYAN ASSOCIATES**  
Architects, Engineers, Project Managers  
201-250 Water Street  
Whitby, Ontario L1N 0G5  
Tel: (905) 666-5252  
Fax: (905) 666-5256  
e-mail: bba@bba-archeng.com



**Giallonardo Engineering Inc.**  
228-4558 Highway 7  
Woodbridge, ON L4L 4Y7  
(905) 265-1052  
info@giallonardoeng.com  
www.giallonardoeng.com

DYNAMIC DESIGNS AND ENGINEERING INC.

111 Hodgson Ave. Kettleby, Ontario L7B 0C7  
Tel. (905) 841-7278  
dyneng@rogers.com



**Cafeteria Wing Siporex Roof Replacement**  
 Courtice Secondary School  
 1717 Nash Road  
 Courtice, Ontario



PROJECT NO. 24192

**A000**

Kawartha Pine Ridge District School Board





**ROOF TYPES SCHEDULE**

- (R1) FLOOD COAT AND AGGREGATE (WHITE CALCOT)
- 3 PLY ROOF MEMBRANE
- 3" FIBREGLASS TAPERED INSULATION
- 2 LAYERS OF 2" THICK POLYISOCYANURATE INSULATION (STAGGERED)
- 2 PLY VAPOUR RETARDER
- PRIMER
- 1/2" SUBSTRATE BOARD
- STEEL ROOF DECK

**CEILING TYPE SCHEDULE**

- (C1) ACOUSTIC CEILING TILE
- STEEL T-BAR CEILING GRID SYSTEM
- 2'x4' ACOUSTIC CEILING TILE
- HOLD DOWN CLIPS/ ACCESS CLIPS (AS REQ'D)
- (C2) GYPSUM BOARD CEILING
- 1/2" GYPSUM BOARD
- SUSPENDED METAL FRAMING

**ROOF/ CEILING LEGEND**

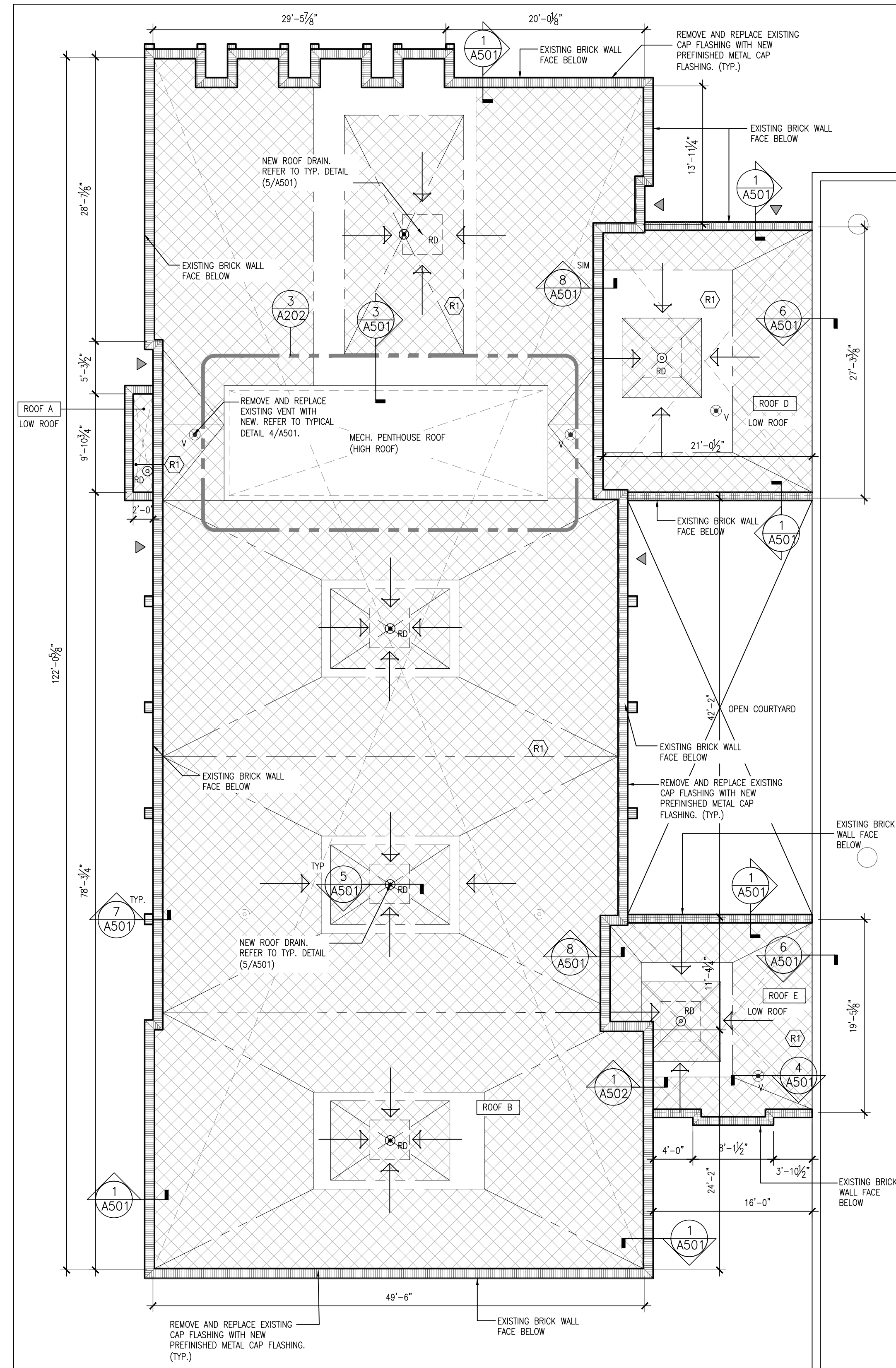
- EXISTING EQUIPMENT CURB
- EXISTING ROOF DRAIN
- EXISTING ROOF VENT
- EXISTING ROOF HATCH
- EXISTING SCUPPER
- (R1) ROOF TYPE (REFER TO ROOF PLAN)
- ROOF DATUM (T.O. EXIST SIPOREX) (ZZ-1/12)
- INDICATE DIRECTION OF ROOF DRAINAGE
- INDICATES AREA OF ROOF WITH TAPERED INSULATION
- INDICATES AREA OF FLAT ROOF
- RD ROOF DRAIN
- NEW METAL PARAPET FLASHING
- SD SCUPPER DRAIN
- HP HIGH POINT
- X DEMOLITION TAGS
- LOCATION OF EXISTING CEILING MOUNT PROJECTOR
- BUILDING ENTRANCE/ EXIT NOTE: DO NOT BLOCK ENTRANCES/ EXITS
- E FIRE ALARM HEAT DETECTOR. SEE ELECTRICAL.
- E FIRE ALARM HEAT DETECTOR. SEE ELECTRICAL.
- E EMERGENCY REMOTE HEADS. SEE ELECTRICAL.
- EOL FIRE ALARM END OF LINE RESISTER. SEE ELECTRICAL.
- E AUDIO VISUAL SPEAKER/ PAGING SPEAKER. SEE ELECTRICAL.
- M MECHANICAL VENT. SEE MECHANICAL.

**FLOOR PLAN LEGEND**

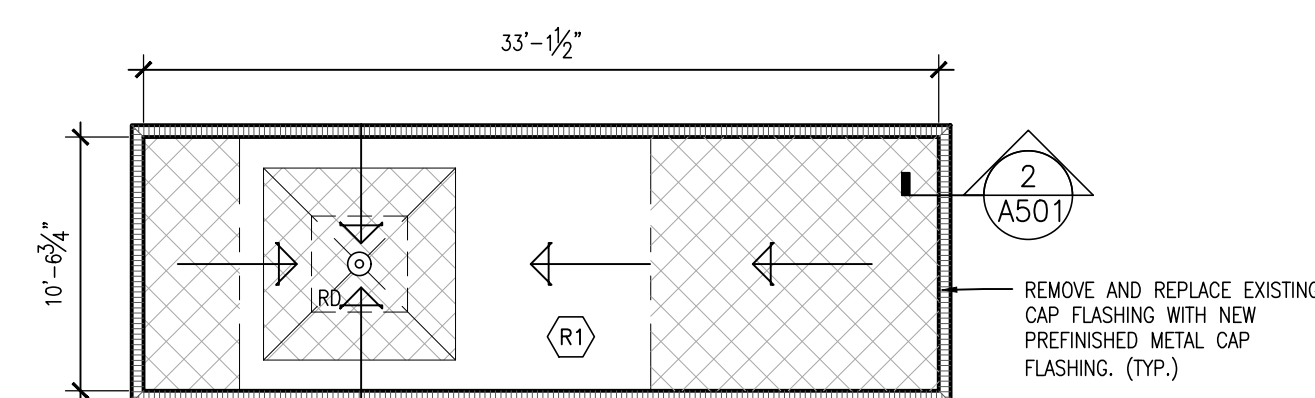
- CORRIDOR
- CA ROOM NAME & NUMBER
- 1 A202 WALL SECTION REFERENCE

NOTE:  
NO DESTRUCTIVE TESTING WAS COMPLETED IN THE DEVELOPMENT OF THESE PLANS. REVIEW ALL EXISTING CONDITIONS WHERE AFFECTED BY THE WORK. CAREFULLY EXAMINE UNDERSIDE OF SIPOREX DECK FOR INTERFERENCES INCLUDING BUT NOT LIMITED TO SPRINKLERS, CONDUIT, HVAC SYSTEMS, DUCTWORK, LIGHTING, FIRE ALARM DEVICES, AND PLUMBING, AND DISCONNECT AND COORDINATE SHUTDOWN IN COORDINATION WITH THE BOARD AND ALL REGULATORY AUTHORITIES. REINSTALL ALL DEVICES AFTER INSTALLATION OF NEW ROOF DECK. DO NOT SUSPEND FROM STEEL DECK. SEE STRUCTURAL.

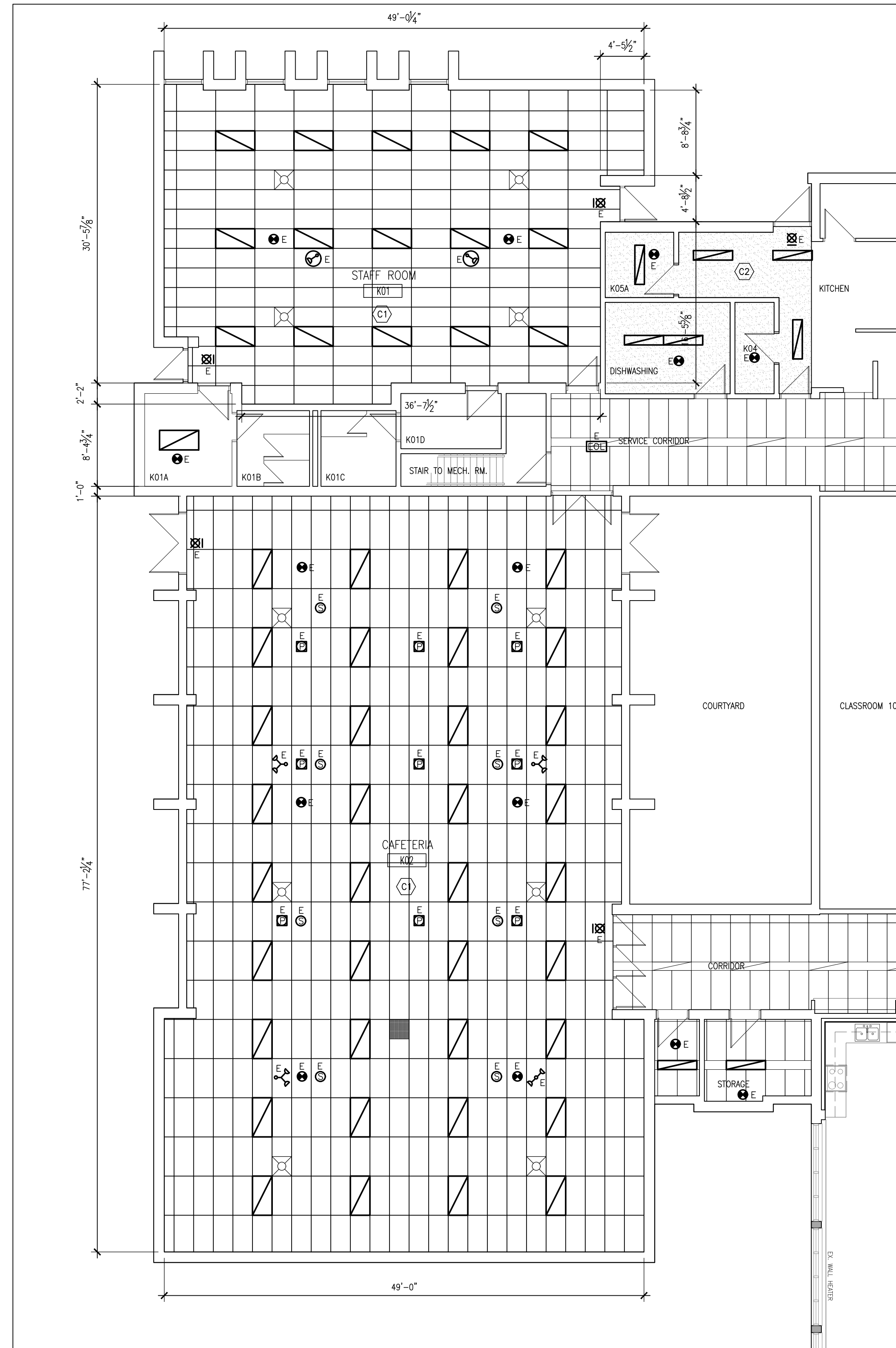
MAINTAIN ALL EXISTING FIRE RATINGS AND FIRE RATED ASSEMBLIES. ENCLOSE AND FIRESTOP ALL OPENINGS AS REQUIRED TO MAINTAIN EXISTING FIRE RATINGS. (TYP.)



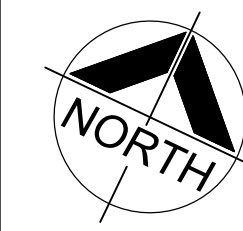
**1 ROOF PLAN**  
1/8"=1'-0"



**3 MECH. PENTHOUSE ROOF**  
1/8"=1'-0"



**2 RCP PLAN**  
1/8"=1'-0"



DO NOT SCALE THE DRAWINGS  
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR 90% REVIEW	NOV. 8, 2024	BBA
2	ISSUED FOR PERMIT/ TENDER	NOV. 29, 2024	BBA

NO.	REVISIONS	DATE	BY

PROJECT:  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**  
COURTICE SECONDARY SCHOOL  
1717 NASH ROAD  
COURTICE, ONTARIO

KPRDSB

DRAWING:  
**ROOF & RCP PLANS**

**B B A**

**BARRY BRYAN ASSOCIATES**

Architects  
Engineers  
Project Managers

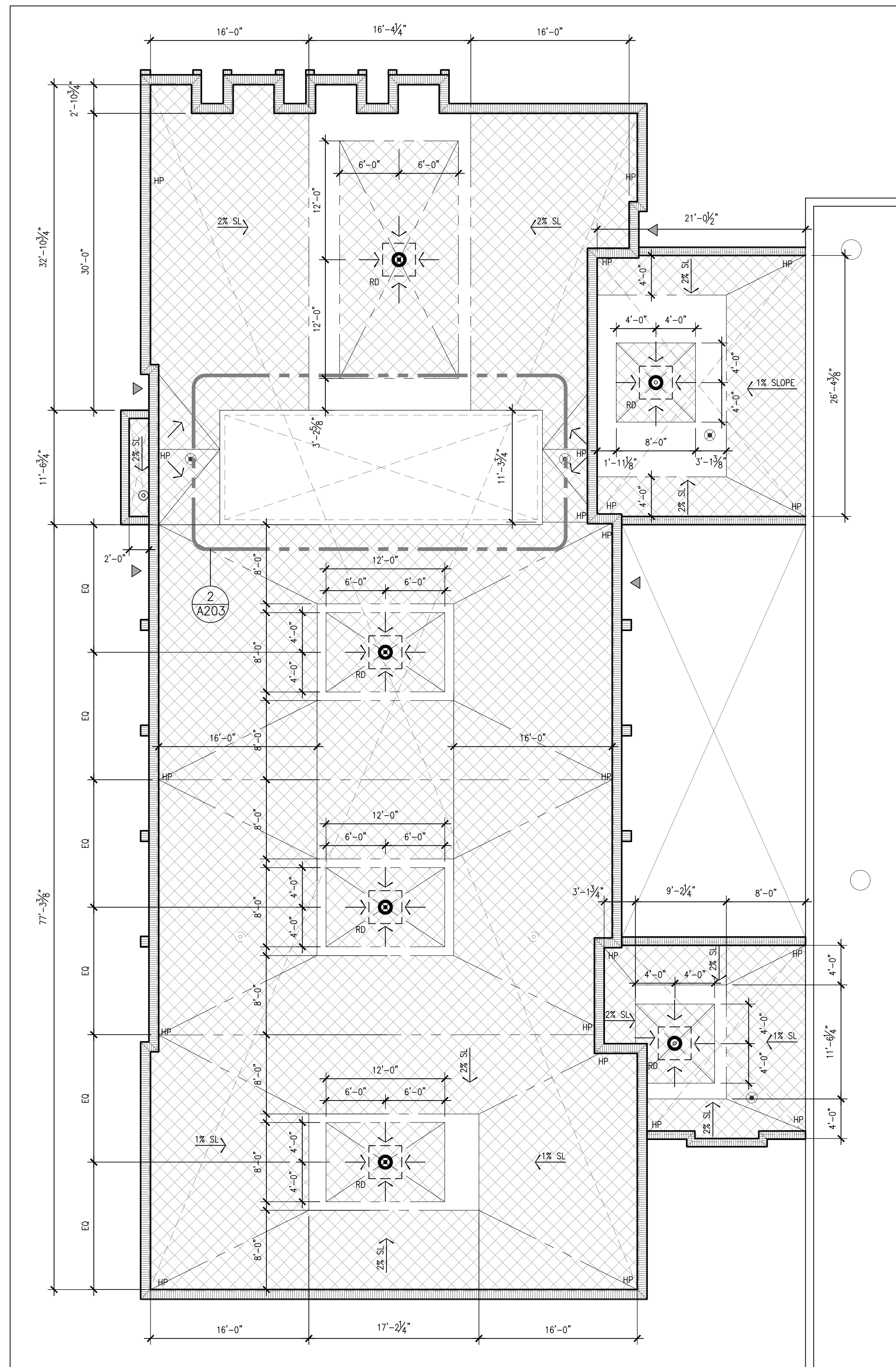
250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5

Tel: (905) 666-5252  
Fax: (905) 666-5250  
e-mail: bba@bba-archeng.com

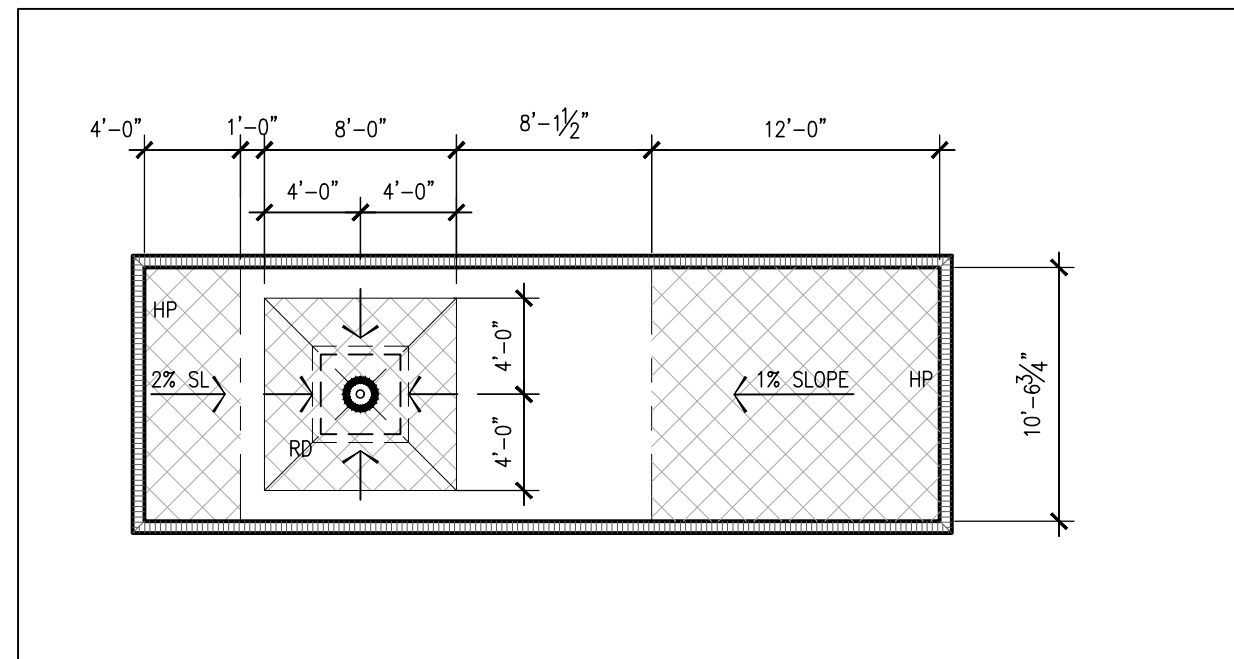
2024-11-29  
**D. P. MC LAUGHLIN**  
100181883  
PROVINCE OF ONTARIO

DESIGN BY:	DOC. CONTROL:
DRAWN BY:	% COMPLETE:
CHECKED BY:	INITIAL:
DATE:	
OCTOBER 2024	
SCALE:	
1/8"=1'-0"	
FILE:	

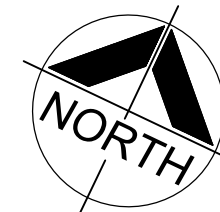
PROJECT NO: **24192**      DRAWING NO: **A202**



**1**  
**A203**  
DRAINAGE PLAN  
1/8"=1'-0"



**2**  
**A203**  
ENLARGED DRAINAGE PLAN  
1/8"=1'-0"



**ROOF TYPES SCHEDULE**

- (R1) FLOOD COAT AND AGGREGATE (WHITE CALCITE)
- 3 PLY ROOF MEMBRANE
- 1/2" FIBREBOARD
- TAPERED INSULATION
- 2 LAYERS OF 2" THICK POLYISOCYANURATE INSULATION (STAGGERED)
- 2 PLY VAPOUR RETARDER
- PRIMER
- 1/2" SUBSTRATE BOARD
- STEEL ROOF DECK

**ROOF NOTATION LEGEND**

- (R1) ROOF TYPE (REFER TO ROOF PLAN)
- ROOF DATUM (I.O. EXIST SIPOREX)
- INDICATE DIRECTION OF ROOF DRAINAGE
- INDICATES AREA OF ROOF WITH TAPERED INSULATION
- INDICATES AREA OF FLAT ROOF
- ROOF DRAIN
- NEW METAL PARAPET FLASHING
- SCUPPER DRAIN
- HIGH POINT
- BUILDING ENTRANCE/ EXIT  
NOTE: DO NOT BLOCK ENTRANCES/ EXITS

**FLOOR PLAN NOTATION LEGEND**

- CORRIDOR
- ROOM NAME & NUMBER
- WALL SECTION REFERENCE

DO NOT SCALE THE DRAWINGS  
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



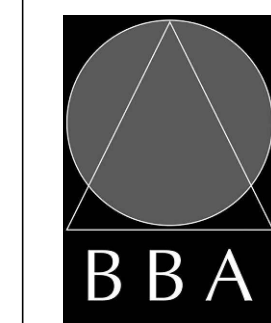
NO.	ISSUES	DATE	BY
1	ISSUED FOR 90% REVIEW	NOV. 8, 2024	BBA
2	ISSUED FOR PERMIT/ TENDER	NOV. 29, 2024	BBA

NO.	REVISIONS	DATE	BY

PROJECT:  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**  
COURTICE SECONDARY SCHOOL  
1717 NASH ROAD  
COURTICE, ONTARIO

KPRDSB

DRAWING:  
**DRAINAGE PLAN**



**BARRY BRYAN ASSOCIATES**

Architects  
Engineers  
Project Managers  
250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5  
Tel: (905) 666-5252  
Fax: (905) 666-5256  
e-mail: bba@bba-archeng.com



DESIGN BY: SA	DOC. CONTROL: DATE:
DRAWN BY: SA	% COMPLETE:
CHECKED BY: CM	INITIAL:
DATE: OCTOBER 2024	
SCALE: 1/8"=1'-0"	
FILE:	

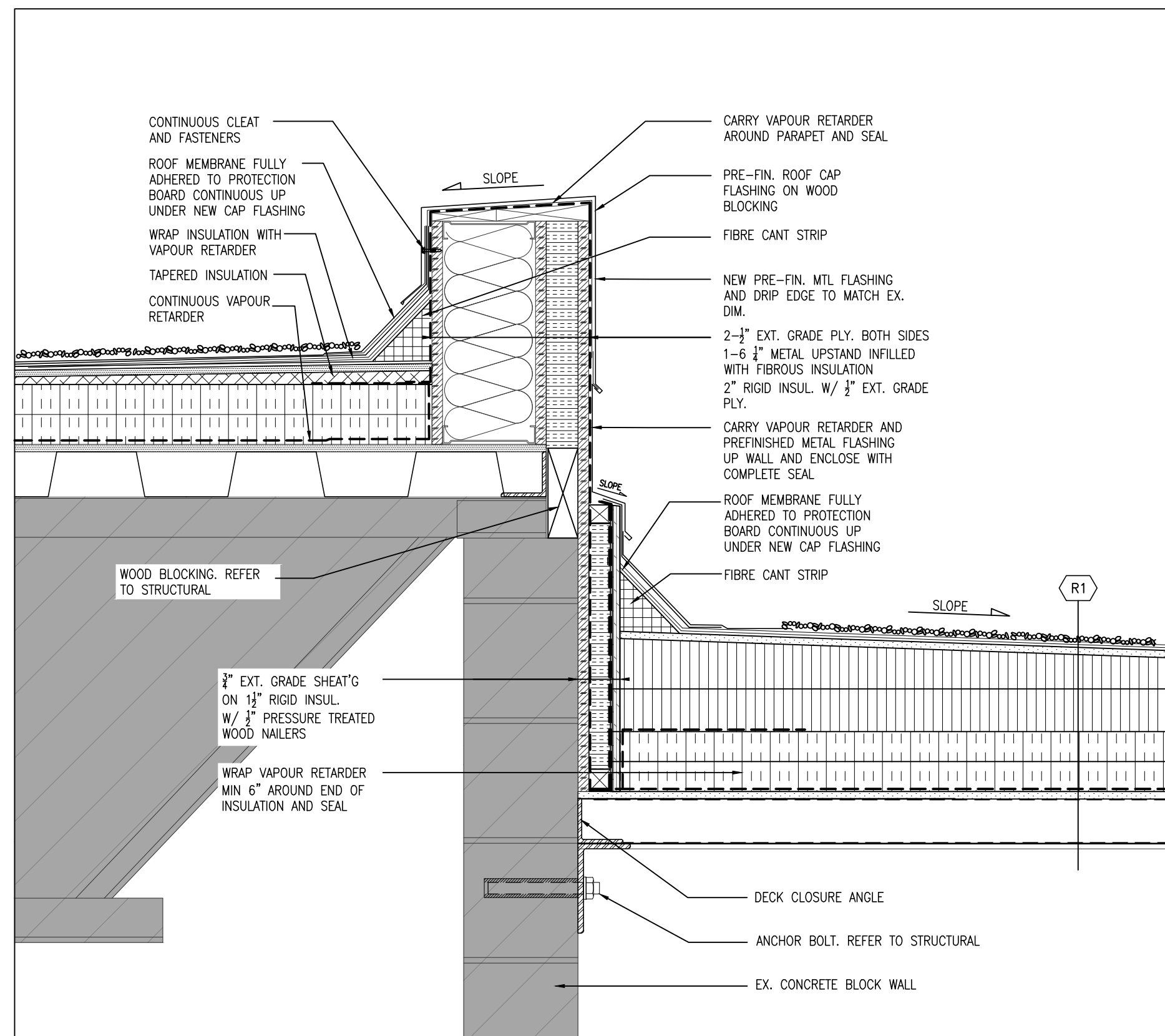
PROJECT NO:

**24192**

DRAWING NO:

**A203**





**1** DETAIL  
**A502**  
 1 1/2" = 1'-0"

DO NOT SCALE THE DRAWINGS  
 CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
 ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE  
 COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED  
 UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE  
 WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
 DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED  
 AND SEALED BY THE CONSULTANT.




NO.	ISSUES	DATE	BY
1	ISSUED FOR 90% REVIEW	NOV. 8, 2024	BBA
2	ISSUED FOR PERMIT/ TENDER	NOV. 29, 2024	BBA

NO.	REVISIONS	DATE	BY

PROJECT:  
**CAFETERIA WING SIPOREX  
 ROOF REPLACEMENT**  
 COURTYCE SECONDARY SCHOOL  
 1717 NASH ROAD  
 COURTYCE, ONTARIO  
 KPRDSB

DRAWING:  
**SECTIONS**



**BARRY BRYAN  
 ASSOCIATES**  
 Architects  
 Engineers  
 Project Managers  
 250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 666-5252  
 Fax: (905) 666-5256  
 e-mail: bba@bba-archeng.com



DESIGN BY:  
BBA  
 DATE:  
 DRAWN BY:  
SA  
 % COMPLETE:  
 CHECKED BY:  
 INITIAL:  
 DATE:  
OCTOBER 2024  
 SCALE:  
AS NOTED  
 FILE:

PROJECT NO: **24192** DRAWING NO: **A502**

## GENERAL

- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, LATEST EDITION.
- CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
- SITE VERIFY ALL DIMENSIONS AND LEVELS.
- KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.
- THE LATEST EDITION OF ALL CODES AND STANDARDS SHALL BE USED.
- ALL FRAMING PLANS AND DETAILS WERE OBTAINED FROM REFERENCE DRAWINGS PREPARED BY CARRUHERS & WALLACE LIMITED PROVIDED BY KPRDSB DATED JUNE 1985.

## TEMPORARY WORKS

- THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORK.
- IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING ON THE ROOF, FLOOR SLABS AND CEILING.
- ACCESS OF ANY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE ROOF IS NOT PERMITTED.
- COSTS OF ALL TEMPORARY WORKS ARE DEEMED TO HAVE BEEN INCLUDED IN THE CONTRACT PRICE INCLUDING REMOVAL AND REINSTALLATION OF MECHANICAL UNITS TO ACCOMMODATE THE ROOFING AND DECK REPLACEMENT.
- SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE FABRICATION COMMENCES. SHOP DRAWINGS FOR TEMPORARY WORKS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.
- ANY CONSTRUCTION SEQUENCES SHOWN ON THE DRAWINGS SHALL BE A PART OF TEMPORARY WORKS AND ARE FOR THE CONTRACTOR'S CONSIDERATION ONLY. THE CONTRACTOR IS AT LIBERTY TO USE ANY OTHER SEQUENCE AS HE DEEMS APPROPRIATE, BUT AT NO TIME SHALL THE SAFETY AND INTEGRITY OF THE WORKS BE COMPROMISED IF THE CONTRACTOR ADMITS THE SUGGESTED SEQUENCE. SUCH SEQUENCE SHALL BE DEEMED AS THE CONTRACTOR'S OWN SELECTION OF METHOD AND THE CONTRACTOR SHALL ASSUME FULL AND SOLE RESPONSIBILITY FOR IT.
- THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING PROVIDING AND ERECTING ANY REQUIRED TEMPORARY LATERAL SUPPORT I.E. BRACING AS REQUIRED TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE BUILDING.

## STRUCTURAL STEEL

- STRUCTURAL STEEL W SECTIONS TO BE C40.21M-350W. ALL OTHERS TO BE C40.21M-300W.
- DESIGN FORCES INDICED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE UN-FACTORED FORCES UNLESS NOTED OTHERWISE.
- BOLTS SHALL BE A325 20mm(3/4") DIAMETER MINIMUM U.S.O.
- TOP FLANGES OF JOISTS TO BE FREE OF ALL PAINT, DIRT HEAVY RUST, MILL SCALE, SAND AND OTHER MATERIALS WHICH WILL INTERFERE WITH WELDING STEEL DECK TO BEAMS.
- FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1
- ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47
- ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SPOT PRIME ALL WELDED AREAS.
- REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS REQUIRED.
- ALL CONNECTIONS SHALL BE WELDED, USING E490XX ELECTRODES OR BOLTED USING ASTM A325 HIGH STRENGTH BOLTS.
- DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
- WHERE A STRUCTURAL STEEL SHAPE SHOWN ON THE DRAWINGS IS UNAVAILABLE, A SHAPE OF EQUAL OR GREATER SECTION PROPERTIES AND STRUCTURAL CAPACITY SHALL BE SUBSTITUTED, UPON APPROVAL BY OWNER AND CONSULTANT AT NO EXTRA COST.
- ALL COLDFORMED STEEL STUDS/SILL/FRAMING SHALL CONFORM TO CAN/CSA-S136-01, CAN/CSA-S304, 1-04 & CAN/CSA-A370-04 AND ARE BASED UPON MEMBERS PRODUCED BY BAILEY METAL PRODUCTS OR APPROVED EQUIVALENT.
- STEEL SHALL MEET THE REQUIREMENTS OF ASTM A653 STANDARD SPECIFICATION FOR SHEET METAL, ZINC COATED (GALVANIZED) BY THE HOT-DIP PROCESS. STRUCTURAL (PHYSICAL) QUALITY, MINIMUM GRADES ARE:
  - GRADE A228 MPa MINIMUM YIELD FOR 1.146mm MATERIAL AND THINNER
  - GRADE D345 MPa MINIMUM YIELD FOR 1.438mm MATERIAL AND THICKER
  - SECTION PROPERTIES SHALL BE COMPUTED ON THE BASIS OF THE BLACK METAL THICKNESS SHOWN. THE UNDER-RUN IN THICKNESS PERMITTED BY ASTM A653 IS NOT ACCOUNTED FOR IN THE DESIGN CALCULATIONS.

## STEEL DECK

- STEEL SHEET TO CSSB1-10M GRADE A STRUCTURAL QUALITY ( $f_y=230$  MPa). SEE PLAN FOR PROFILE AND GAUGE.
- DO NOT SUPPORT CEILING, LIGHTS, DUCTS OR PIPE FROM STEEL DECK.
- STEEL DECK SHALL BE SPOT WELDED TO SUPPORT STRUCTURAL STEEL WITH 19mm DIA. PUDDLE WELDS IN A 36/7 SUPPORT PATTERN. THE SIDE-LAP FASTENING WILL BE BUTTON PUNCHED AT 610mm C/C. ALTERNATIVELY, PROVIDE HILTI HSN-24 FASTENER AT 12" C/C MAX. AND ON ENDS (TYP.).
- THE CONTRACTOR SHALL SUBMIT SHOP AND ERECTION DRAWINGS WHICH CLEARLY DETAIL DESIGN LOADS, THICKNESS AND GRADE OF STEEL DECK, FRAMING SUPPORTS, MINIMUM BEARING, ANCHORAGES, SIZES AND SPACING OF FASTENING, DETAILS OF CONSTRUCTION ETC. THE SHOP DRAWS SUBMITTED SHALL BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO FOR THE DECK DESIGN.

## DEMOLITION NOTES/PROCEDURE

- COMPLETE ANY SERVICE AND/OR DISCONNECTS OF UTILITIES PRIOR TO PROCEEDING WITH DEMOLITION OF THE ROOF AND EXISTING DECKING.
- ENSURE AREAS INSIDE THE BUILDING BELOW THE WORK AREAS HAVE BEEN RESTRICTED FROM PEDESTRIAN ACCESS WHILE THE DEMOLITION AND RE-ROOFING WORK IS COMPLETED.
- PROTECT ALL EXISTING HVAC, PIPING AND ELECTRICAL SERVICES TO REMAIN DURING DEMOLITION.
- PROTECT ALL EXISTING BUILDING STRUCTURAL AND FINISHES TO REMAIN FOR THE DURATION OF THE PROJECT. MAKE GOOD ANY DAMAGES TO THE EXISTING BUILDING AT NO ADDITIONAL COST TO THE OWNER.
- INSTALL TEMPORARY SCAFFOLD AS NECESSARY BELOW THE SECTIONS OF SIPOREX ROOF DECK WHERE REQUIRED TO PROVIDE A SAFE WORK PLATFORM AND PROTECTION OF THE EXISTING SERVICES BELOW TO REMAIN. THE SCAFFOLD DESIGN WILL BE COMPLETED BY THE TEMPORARY WORKS ENGINEER. THE SCAFFOLD MUST BE DESIGNED TO SUPPORT THE FOLLOWING MINIMUM LOADING.

MINIMUM SCAFFOLD DESIGN LOAD  
 DEAD = 1.60 kPa  
 LIVE = 1.90 kPa

- REMOVE EXISTING ROOFING OVER THE GENERAL EXTENTS OF SIPOREX ROOF DECK AS SHOWN ON THE PLAN. THE ROOF DEMOLITION SHALL INCLUDE ALL ASSOCIATED ROOFING, FLASHING, SEALANTS, INSULATION, AND PROTECTION BOARDS.
- REMOVE THE EXISTING SIPOREX ROOF DECK INCLUDING ALL ASSOCIATED STEEL DOWELS AND CLAMPS ANCHORED TO THE SUPPORTING MASONRY WALLS OVER THE EXTENTS SHOWN ON THE PLAN. THE WORK SHALL BE COMPLETED UTILIZING FALL ARREST PROCEDURES IDENTIFIED BY THE OCCUPATIONAL HEALTH AND SAFETY ACT ALONG WITH ANY APPLICABLE STANDARDS. THE GENERAL CONTRACTOR IS REQUIRED TO DEVELOP SAFE WORK PROCEDURES FOR THE ROOF DECK REMOVAL.
- PROTECT THE OPENING ROOF FROM EXPOSURE TO THE ELEMENTS, TEMPORARY CURB AND COVERING.
- CLEAN ANY LOOSE DEBRIS AND/OR MATERIALS AND PREP THE EXISTING OWSJ FOR NEW STEEL DECK.

## CONSTRUCTION NOTES

- THE GENERAL CONTRACTOR SHALL EXECUTE ALL WORK TO COMPLETE THE REQUIRED CONSTRUCTION, INCLUDING SIPOREX ROOF DECK REPAIRS AND/OR REPLACEMENT TO MOL STANDARDS AND REQUIREMENTS. CONTRACTOR MUST REVIEW THE EXISTING CONDITIONS AND IMPLEMENT TEMPORARY WORKS SUITABLE FOR THE ANTICIPATED APPLIED CONSTRUCTION LOADING AS WELL AS THE STANDARD EXTERIOR LOADS AS DESCRIBED WITHIN THE CURRENT ONTARIO BUILDING CODE AS REQUIRED TO SAFELY PERFORM THE WORK. THIS INCLUDES ALL AREAS OF PERSONNEL LOAD, STACKING OF MATERIALS, RIGGING AND SUPPORT OF PERSONAL PROTECTIVE EQUIPMENT (PPE).
- REFER TO EXISTING CONDITION REPORTS AND DRAWINGS, TO BE REQUESTED AND OBTAINED BY THE CONTRACTOR. REVIEW THESE REPORTS IN CONJUNCTION WITH THESE DOCUMENTS AND TO VERIFY THE SAFE WORK PROGRAM. THE DOCUMENTS WILL NOTE PREVIOUS REVIEWS OUTLINING AREAS OF LOCALIZED DETEIORATION OBSERVED ALONG THE UNDERSIDE OF THE SIPOREX ROOF DECK MADE DURING A VISUAL SURVEY OF ACCESSIBLE AREAS AND THROUGH CAMERA PHOTOGRAPHS OF LOCATIONS OF FIXED CEILING. PLEASE NOTE THESE AREAS MAY HAVE CHANGED SINCE TIME OF REVIEW, AND THE REVIEW WOULD BE LIMITED TO THE AREAS EXPOSED TO VIEW AT THE TIME OF THE VISUAL SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CONDITIONS AND CONFIRMING THE WORK CAN BE SAFELY PERFORMED. THE EXPECTATION OF THE CONTRACTOR WILL BE TO INSTALL TEMPORARY WORKS AS REQUIRED TO ENSURE THE SAFETY FOR BOTH THE WORKERS AND ANY OCCUPANTS OF THE BUILDING (IF APPLICABLE).
- SHOULD THERE BE ANY CONCERN IN REGARDS TO CONDITIONS, OR SAFELY PERFORMING THE WORK, KPRDSB AND BBA SHALL BE NOTIFIED IMMEDIATELY SUCH THAT DIRECTION CAN BE PROVIDED.
- THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NOTING THE CURRENT CONDITIONS OF THE EXPOSED AREAS OF THE STRUCTURE AT THE ONSET OF THE WORK. A COMPARISON SHALL BE MADE OF ANY REMAINING STRUCTURE AT THE COMPLETION OF THE WORK TO CONFIRM THAT THE CONDITIONS OF THE FRAMING HAVE NOT DIMINISHED. ANY DISCREPANCIES BETWEEN THE BUILDING CONDITION AT THE START AND COMPLETION OF THE WORK SHALL BE PROVIDED TO KPRDSB AND BBA.

## NOTE:

THE NEW ROOF DECK HAS BEEN DESIGNED TO SUPPORT THE ORIGINAL ROOF DESIGN LIVE LOAD. THERE HAS BEEN NO REDUCTION IN THE NEW ROOF DECK FROM THE ORIGINAL ROOF DESIGN LIVE LOAD IDENTIFIED ON THE DRAWINGS.

## STRUCTURAL DRAWING LIST

S101 GENERAL NOTES & OVERALL ROOF PLAN  
 S201 ROOF DEMOLITION PLANS  
 S202 ROOF FRAMING PLANS  
 S501 SECTIONS

### ROOF DESIGN LOADS: (UNFACTORED)

### ROOF SECTIONS

#### DEAD

BUILT UP ROOFING (EXISTING) 12 PSF  
 3" SIPOREX (EXISTING) 7.75 PSF  
 BUILT UP ROOFING (NEW) 12.17 PSF  
 3" STEEL ROOF DECK 4.65 PSF

BASIC SNOW LOAD = 36.51 PSF  
 SEE PLAN FOR SNOW ACCUMULATION


IMPORTANCE FACTOR: (HIGH)

LIVE : 40 PSF

#### NOTE:

NO CHANGE IN ROOF LOADING

## LEGEND:

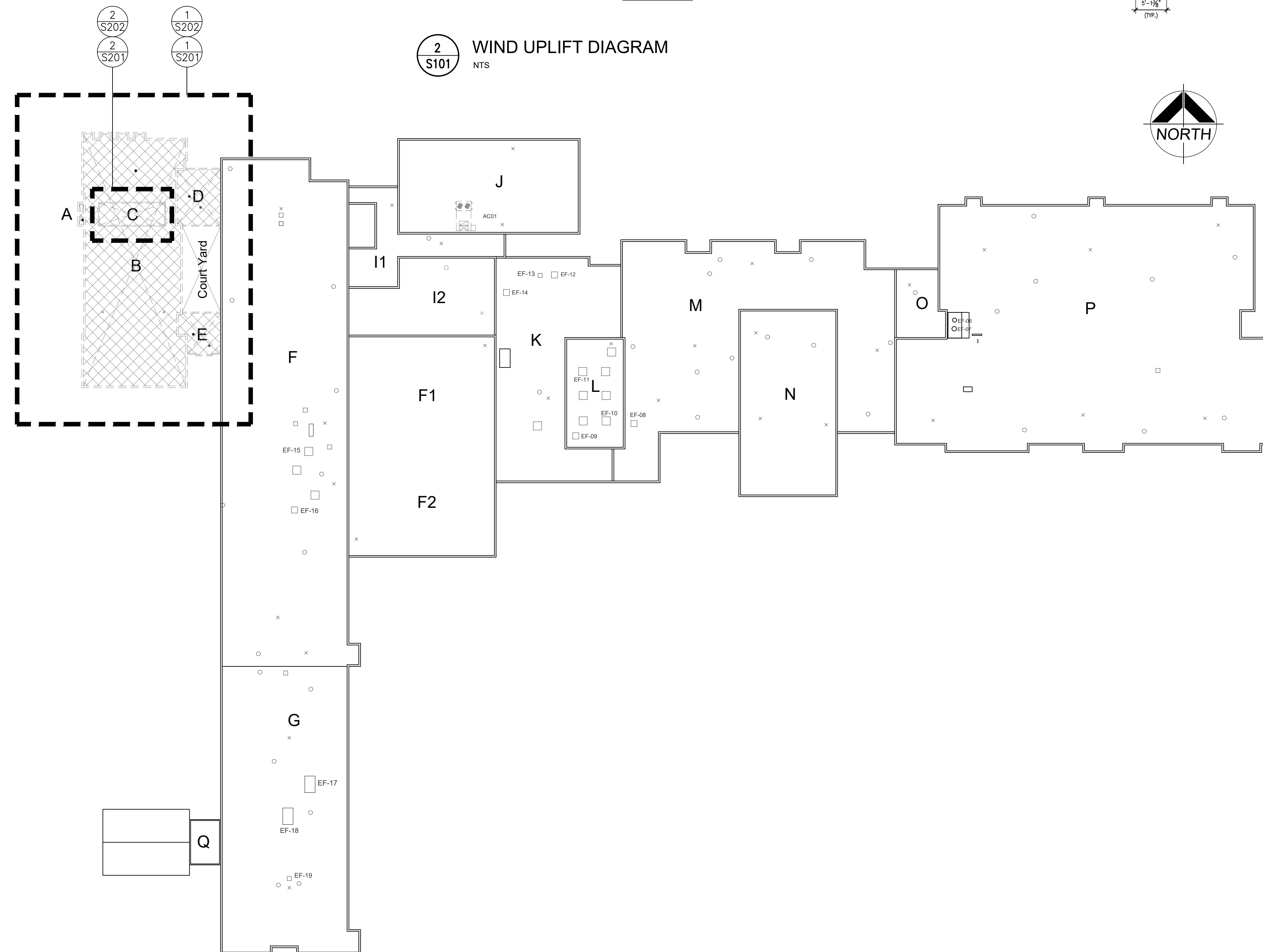
 DENOTES EXTENTS OF EX. SIPOREX ROOF DECK TO BE REMOVED AND REPLACED WITH NEW STEEL DECK

NOTE: THE SEQUENCING OF THE WORK SHALL BE COMPLETED TO MAINTAIN THE ROOF DIAPHRAGM ACTION. SHOULD FULL REMOVAL OF THE SIPOREX ROOF DECK BE COMPLETED TEMPORARY SHORING OF THE EXTERIOR WALL SHALL BE DESIGNED AND INSTALLED BY THE GENERAL CONTRACTOR.

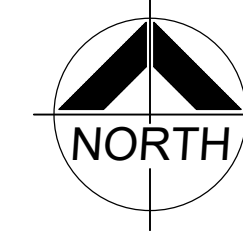
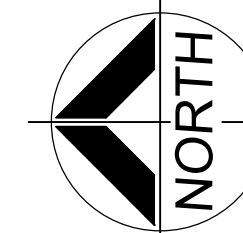
$w = 1.15$  (HG)  
 $q(\%) = 0.48$  kPa

WIND UPLIFT AREA	P(psf)
(c)	52.00
(d)	27.15
(e)	27.15
(f)	21.93

2 WIND UPLIFT DIAGRAM  
 S101 NTS



1 OVERALL ROOF PLAN  
 S101 1/32" = 1'-0"



DO NOT SCALE THE DRAWINGS  
 CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
 ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
 DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



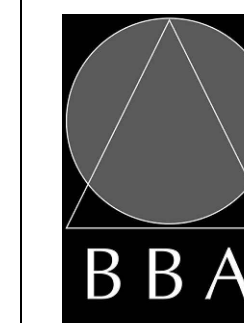
NO.	ISSUES	DATE	BY
1	ISSUED FOR 90% REVIEW	NOV. 8, 2024	BBA
2	ISSUED FOR PERMIT/ TENDER	NOV. 29, 2024	BBA

NO.	REVISIONS	DATE	BY

PROJECT:  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**  
 COURTYCE SECONDARY SCHOOL  
 1717 NASH ROAD  
 COURTYCE, ONTARIO

KPRDSB

DRAWING:  
**GENERAL NOTES AND OVERALL ROOF PLAN**



BARRY BRYAN ASSOCIATES  
 Architects  
 Engineers  
 Project Managers

250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 666-5252  
 Fax: (905) 666-5256  
 e-mail: bba@bba-archeng.com



DESIGN BY: BBA	DOC CONTROL: DATE:
DRAWN BY: LS/SA	% COMPLETE:
CHECKED BY:	INITIAL:


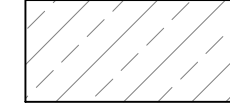
DATE: OCTOBER 2024
SCALE: AS NOTED
FILE:

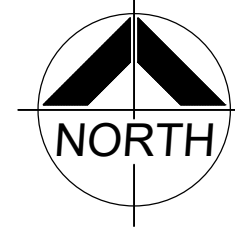
PROJECT NO:  
**24192**

DRAWING NO:  
**S101**



**LEGEND**

-  SHADED AREA DENOTES EXISTING CONC. SLAB/ STEEL DECK TO REMAIN (N.I.C.)
-  DENOTES EXTENTS OF EX. 3" SIPOREX TO BE REMOVED AND DISPOSED OF.



DO NOT SCALE THE DRAWINGS  
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR 90% REVIEW	NOV. 8, 2024	BBA
2	ISSUED FOR PERMIT/ TENDER	NOV. 29, 2024	BBA

NO.	REVISIONS	DATE	BY

PROJECT:  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**  
COURTICE SECONDARY SCHOOL  
1717 NASH ROAD  
COURTICE, ONTARIO

KPRDSB

DRAWING:  
**ROOF DEMOLITION PLANS**



**BARRY BRYAN ASSOCIATES**

Architects  
Engineers  
Project Managers  
250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5  
Tel: (905) 666-5252  
Fax: (905) 666-5256  
e-mail: bba@bba-archeng.com



DESIGN BY:  
BBA

DRAWN BY:  
LS/SA

CHECKED BY:

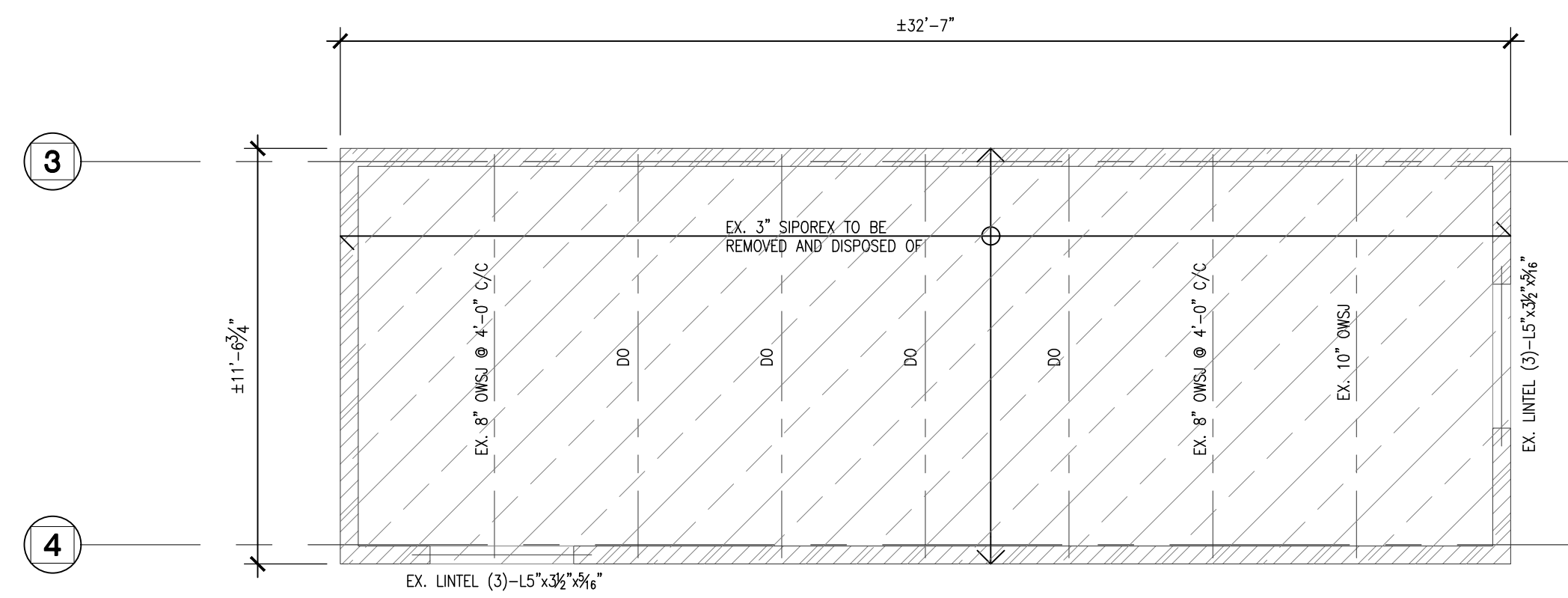
DATE:  
OCTOBER 2024

SCALE:  
AS NOTED

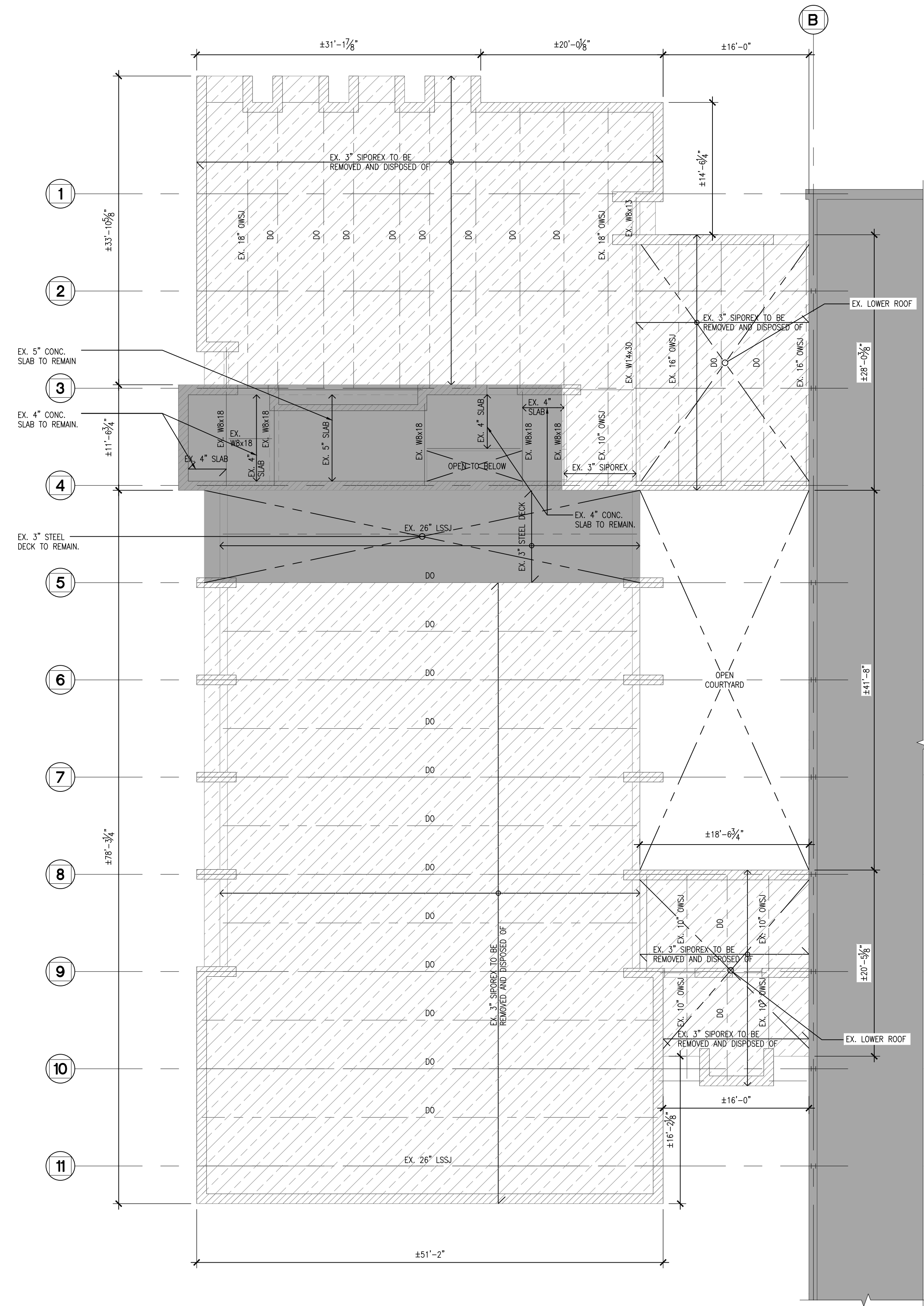
FILE:

PROJECT NO:  
**24192**

DRAWING NO:  
**S201**


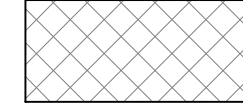


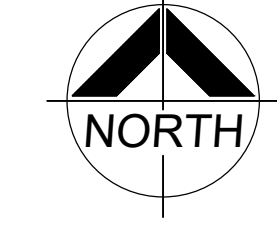
**2**  
**S201** HIGH ROOF ROOF FRAMING PLAN - DEMOLITION  
1/8" = 1'-0"



**1**  
**S201** CAFETERIA ROOF FRAMING PLAN - DEMOLITION  
1/8" = 1'-0"

**LEGEND**

-  SHADED AREA DENOTES EXISTING CONC. SLAB/ STEEL DECK TO REMAIN (N.I.C.)
-  DENOTES EXTENTS OF NEW 3" x 20 Ga. STEEL DECK.



DO NOT SCALE THE DRAWINGS  
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE  
COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED  
UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE  
WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED  
AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR PERMITS/RENDER	NOV. 29, 2024	BBA
2	ISSUED FOR PERMIT/ TENDER	NOV. 29, 2024	BBA

NO.	REVISIONS	DATE	BY

PROJECT:  
**CAFETERIA WING SIPOREX  
ROOF REPLACEMENT**  
COURTICE SECONDARY SCHOOL  
1717 NASH ROAD  
COURTICE, ONTARIO

KPRDSB

DRAWING:  
**ROOF FRAMING PLANS**



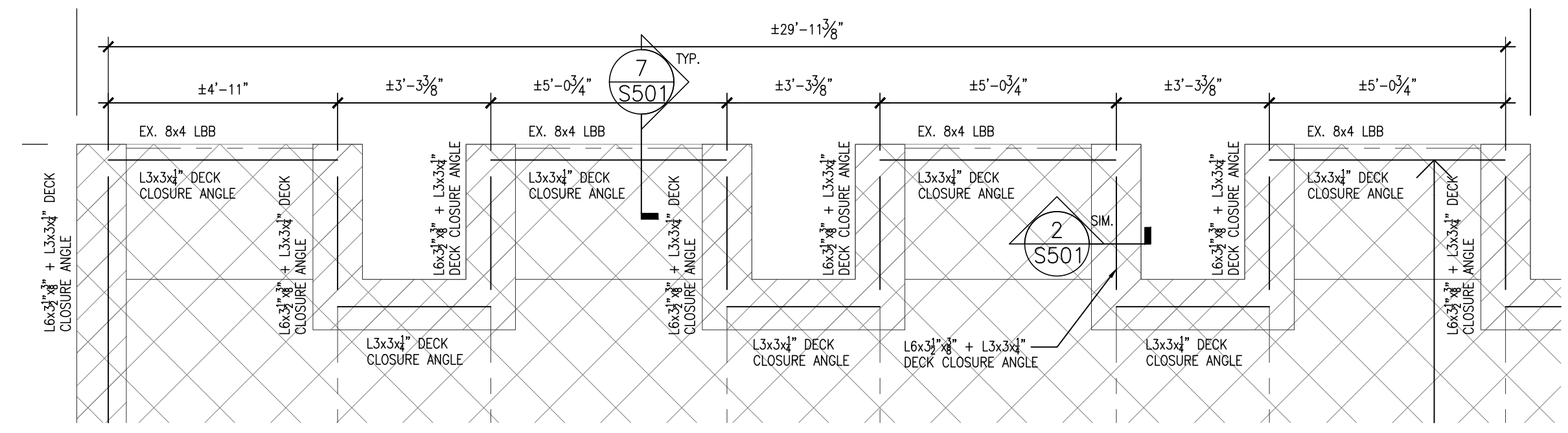
**BBA**  
BARRY BRYAN  
ASSOCIATES



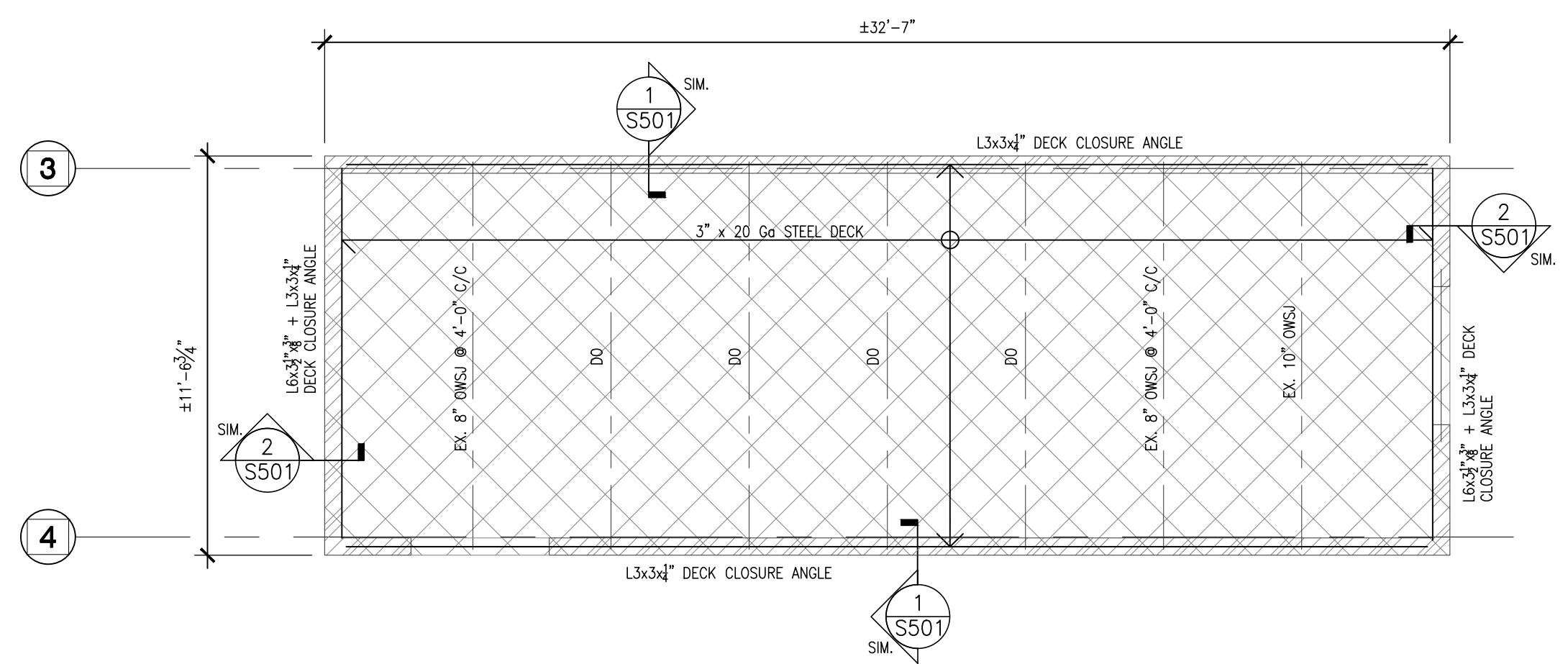
LICENSED PROFESSIONAL ENGINEER  
D.P. MC LAUGHLIN  
100181883  
PROVINCE OF ONTARIO

DESIGN BY: BBA	DOC. CONTROL: DATE:
DRAWN BY: LS/SA	% COMPLETE:
CHECKED BY:	INITIAL:
DATE: OCTOBER 2024	
SCALE: AS NOTED	
FILE:	

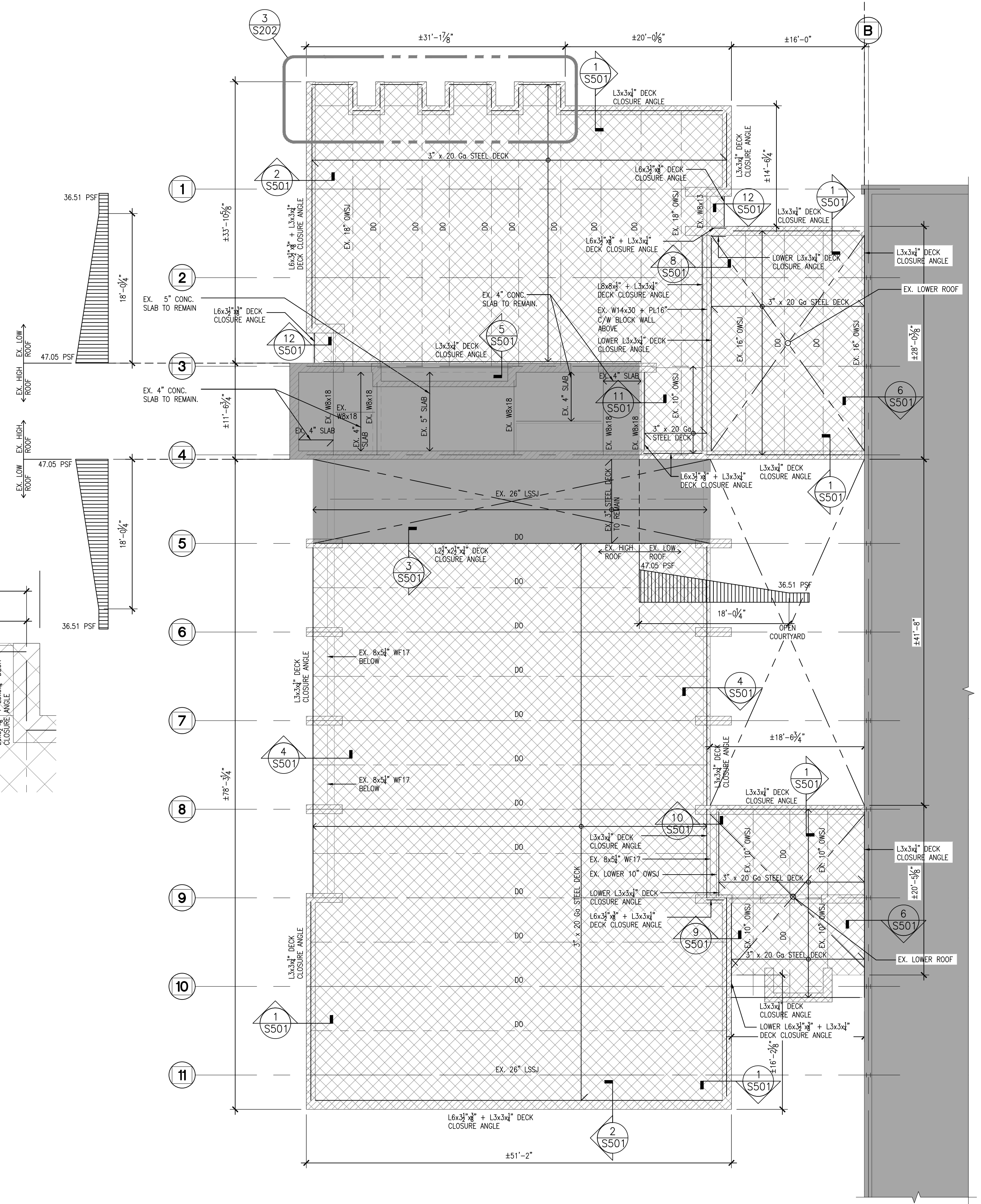
PROJECT NO: <b>24192</b>	DRAWING NO: <b>S202</b>
-----------------------------	----------------------------



**3 PART ROOF FRAMING PLAN**  
3/8" = 1'-0"



**2 HIGH ROOF ROOF FRAMING PLAN**  
1/4" = 1'-0"



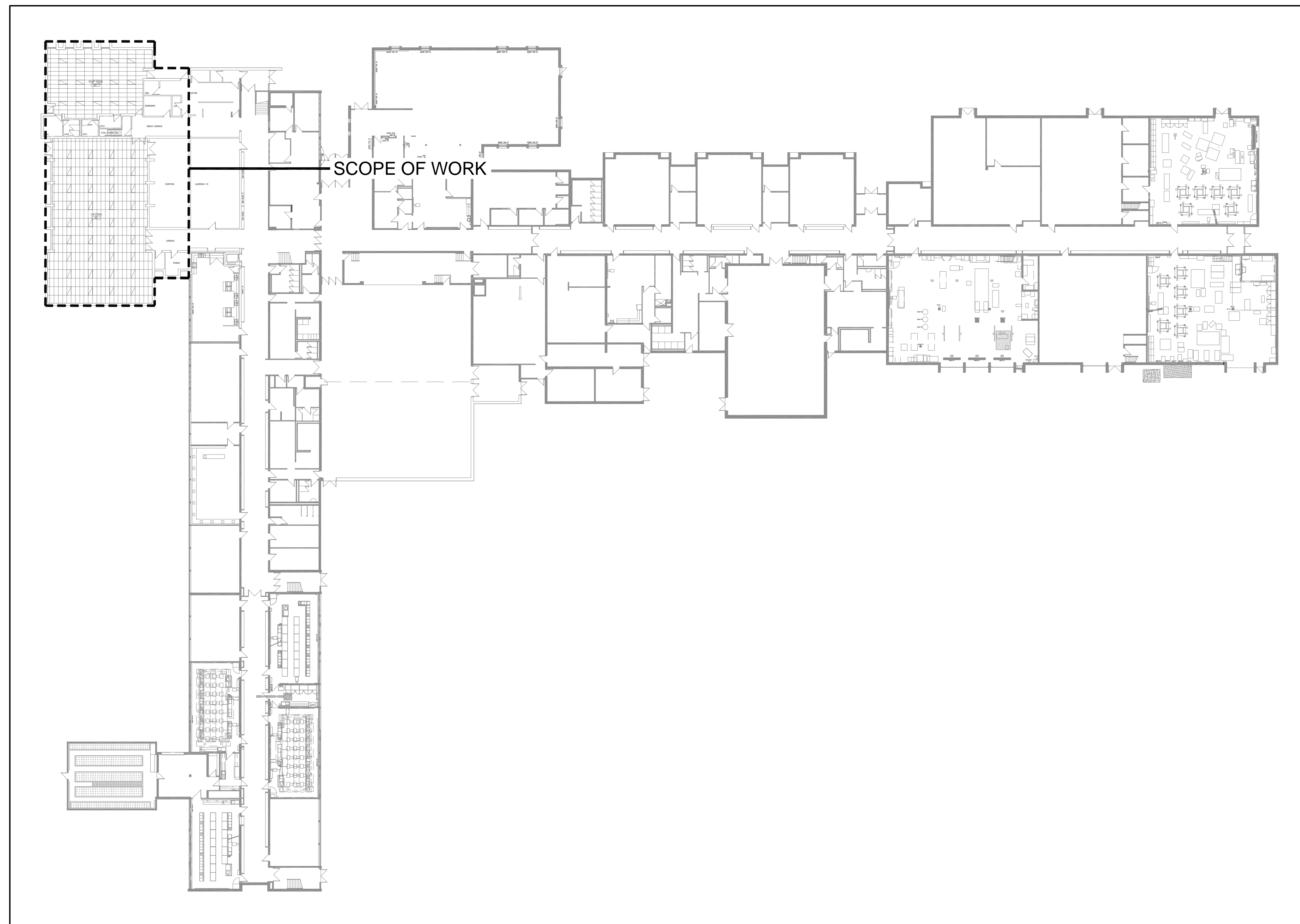
**1 CAFETERIA ROOF FRAMING PLAN**  
1/8" = 1'-0"



# COURTICE SECONDARY SCHOOL CAFETERIA WING SIPOREX ROOF REPLACEMENT

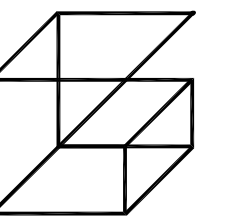
1717 NASH ROAD  
COURTICE, ON L1E 2L8

## MECHANICAL DRAWINGS



DRAWING LIST	
DWG. NO.	DRAWING NAME
M-0	TITLE SHEET
M-1.1	MECHANICAL LEGEND AND SPECIFICATIONS I
M-1.2	MECHANICAL SPECIFICATIONS II AND DETAILS
M-2.1	ROOF, GROUND AND PENTHOUSE PLAN - MECHANICAL DEMOLITION
M-2.2	ROOF, GROUND AND PENTHOUSE PLAN - MECHANICAL NEW

1 KEYPLAN  
M-0 NTS



Giallonardo Engineering Inc.  
228-4558 Highway 7  
Woodbridge, ON  
L4L 4Y7  
(905) 265-1052  
info@gi.alonardoeng.com  
www.gi.alonardoeng.com

**DISCLAIMER**  
This drawing is the property of GIALONARDO ENGINEERING INC.  
This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale the drawings.  
The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALONARDO ENGINEERING INC. of any variations from the drawings.

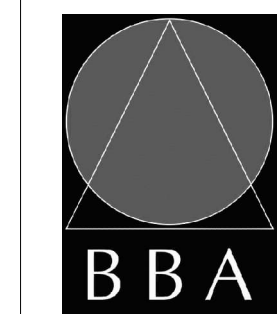
NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	OCT. 30, 2024	GG
2	ISSUED FOR 90% REVIEW	NOV. 08, 2024	GG
3	ISSUED FOR TENDER	NOV. 29, 2024	GG

NO.	REVISIONS	DATE	BY

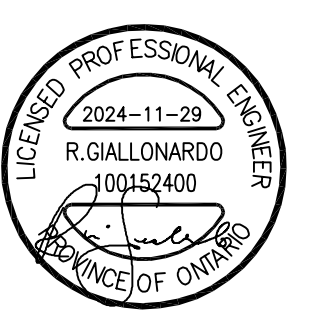
**PROJECT:**  
CAFETERIA WING SIPOREX  
ROOF REPLACEMENT

COURTICE SECONDARY SCHOOL  
1717 NASH ROAD  
COURTICE, ONTARIO  
KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
TITLE SHEET



BARRY BRYAN ASSOCIATES  
Architects  
Engineers  
Project Managers  
250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5  
Tel: (905) 866-6252  
Fax: (905) 866-6256  
e-mail: bba@bba-archeng.com



DESIGN BY: JH	DOC CONTROL: DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY:	INITIAL:
DATE: OCTOBER 2024	
SCALE: AS SHOWN	
FILE:	

PROJECT NO: **24-175** DRAWING NO: **M-0**


HVAC LEGEND	
	EXISTING DUCTWORK/EQUIPMENT
	EXISTING DUCTWORK/EQUIPMENT TO BE REMOVED
	NEW RIGID DUCTWORK
	EXISTING FLEXIBLE DUCTWORK
	NEW FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK UP
	SUPPLY AIR DUCTWORK DOWN
	RETURN AIR DUCTWORK UP
	RETURN AIR DUCTWORK DOWN
S/A	'SUPPLY AIR'
R/A	'RETURN AIR'
F/D	'FIRE DAMPER'
BD	'BALANCING DAMPER'
BDD	'BACKDRAFT DAMPER'
M/D	'MOTORIZED DAMPER'
	SQUARE SUPPLY AIR DIFFUSER
	SUPPLY AIR GRILLE
	RETURN AIR GRILLE
	SLOT DIFFUSER
	THERMOSTAT
	HUMIDISTAT
	CARBON DIOXIDE SENSOR
	CARBON MONOXIDE DETECTOR
	ZONE SENSOR
	WALL SWITCH
A-6" 150CFM	DIFF TYPE/SIZE AIR CAPACITY
TP.	'TYPICAL'
X-XX	EQUIPMENT TAG
CTE	'CONNECT TO EXISTING'
	FAN-POWERED TERMINAL UNIT
	VAV TERMINAL UNIT
	CABINET EXHAUST FAN
	INLINE EXHAUST FAN
	ELECTRIC DUCT HEATER
	CIRCULAR EXHAUST FAN
	BASEBOARD HEATER
	FORCE FLOW HEATER
	UNIT HEATER
	DUCTWORK WITH ACOUSTIC OR THERMAL INSULATION (SEE SPECS.)
	DUCTWORK WITH ACOUSTIC INSULATION
	DUCTWORK WITH THERMAL INSULATION
	CONTINUATION OF DUCTWORK/PIPING
	EXISTING CONTROL WIRING
	NEW CONTROL WIRING
	SPIN-ON DUCT CONNECTION WITH BALANCING DAMPER
	DRAWING NOTE
	ROUND SUPPLY AIR DIFFUSER
	LOUVERED FACE SUPPLY/RETURN GRILLE
CAP	CAP ON DUCTWORK
	BRANCH ON DUCTWORK

PLUMBING LEGEND	
EX.SAN	EXISTING ABOVE GROUND SANITARY DRAINAGE PIPING
EX.SAN	EXISTING UNDERGROUND SANITARY DRAINAGE PIPING
SAN	ABOVE GROUND SANITARY DRAINAGE PIPING
SAN	UNDERGROUND SANITARY DRAINAGE PIPING
EX.STM	EXISTING ABOVE GROUND STORM DRAINAGE PIPING
EX.STM	EXISTING UNDERGROUND STORM DRAINAGE PIPING
STM	ABOVE GROUND STORM DRAINAGE PIPING
STM	UNDERGROUND STORM DRAINAGE PIPING
EX.V	EXISTING ABOVE GROUND VENT PIPING
EX.V	EXISTING UNDERGROUND VENT PIPING
V	ABOVE GROUND VENT PIPING
V	UNDERGROUND VENT PIPING
EX.CD	EXISTING CONDENSATE DRAINAGE PIPING
CD	CONDENSATE DRAINAGE PIPING
	EXISTING DOMESTIC COLD WATER PIPING
	DOMESTIC COLD WATER PIPING
	EXISTING DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER PIPING
	EXISTING DOMESTIC HOT WATER RETURN PIPING
	DOMESTIC HOT WATER RETURN PIPING
EX.G	EXISTING GAS PIPING
G	LOW PRESSURE GAS PIPING
HG	HIGH PRESSURE GAS PIPING
	EXISTING PIPING/EQUIPMENT TO BE REMOVED
SSSS	HEAT TRACING ON PIPE
	CONTINUATION OF DUCTWORK/PIPING
	GAS COCK VALVE
FD	FLOOR DRAIN/FUNNEL FLOOR DRAIN
HD	HUB DRAIN
AD	AREA DRAIN
RD	ROOF DRAIN
CB	CATCH BASIN
CO	BURIED CLEANOUT
CO	EXPOSED CLEANOUT
	SANITARY 'P' TRAP
	PIPE UP
	PIPE DOWN
VTR	VENT THROUGH ROOF
CAP	CAP ON PIPING
	DRAWING NOTE
	ISOLATION VALVE
	PIPING DROPDOWN
	WATER METER

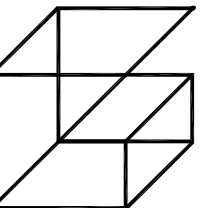
GENERAL SPECIFICATIONS	
1. GENERAL	
1.1.	ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE ONTARIO BUILDING CODE, CSA, ASHRAE, NFPA, ETC. WHERE CODES/STANDARD ARE PRESENT FROM MULTIPLE SOURCES, THE MOST STRINGENT SHALL BE UTILIZED.
1.2.	THE FOLLOWING SPECIFICATIONS FORM AN ESSENTIAL PART OF THE CONTRACT DOCUMENTS. REFER AND COORDINATE WITH ALL OTHER DIVISIONS, SECTIONS AND SPECIFICATIONS TO PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION.
1.3.	FOR THE PURPOSE OF THESE SPECIFICATIONS, DRAWINGS AND CONTRACT DOCUMENTS, THE WORD 'PROVIDE' REFERS TO THE SUPPLY, INSTALLATION AND TESTING OF THE RESPECTIVE EQUIPMENT/COMPONENTS.
1.4.	CONTRACTOR IS TO REPORT ALL APPARENT DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS OF ALL DIVISIONS PRIOR TO TENDER SUBMISSION. NO EXCEPTIONS WILL BE GIVEN TO CONTRACTORS WHO DO NOT COMPLETELY UNDERSTAND THE SCOPE OF WORK.
1.5.	ALL DIV.23 WORK SHALL BE COORDINATED AND SCHEDULED WITH ALL OTHER DIVISIONS.
1.6.	THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION, AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.
1.7.	PROVIDE NEW MATERIALS AND EQUIPMENT OF ACCEPTABLE QUALITY THAT ARE MANUFACTURED IN CANADA OR THE UNITED STATES AND BEAR THE APPROVAL OF RECOGNIZED NORTH AMERICAN STANDARD ASSOCIATIONS SUCH AS CSA, ASME, ETC. THE CONTRACTOR SHALL MAXIMIZE THE UTILIZATION OF CANADIAN EQUIPMENT, MATERIALS, ETC.
1.8.	ALL EQUIPMENT, MATERIALS, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
1.9.	THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
1.10.	THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
1.11.	IN NO CASE SHALL THESE DRAWINGS BE SCALED. ALL ROUGH-IN'S SHALL BE COORDINATED WITH OTHER DIVISIONS.
1.12.	DO NOT PROCEED WITH WORK OUTSIDE THE SCOPE OF THE DESIGN DRAWINGS AND SPECIFICATIONS WITHOUT WRITTEN CONSENT FROM THE OWNER. THIS APPLIES TO ALL DIV.23 CHANGE NOTICES AS ISSUED BY THE CONSULTANT.
1.13.	IN REGARDS TO DIV.23 CHANGE NOTICES, CONTRACTOR SHALL PROVIDE A BREAKDOWN INCLUDING, BUT NOT LIMITED TO, MATERIALS, LABOUR, MARK-UP, ETC. QUOTATIONS SHALL BE BASED ON ALLPRISER FOR EQUIPMENT AND THE MECHANICAL CONTRACTORS OF AMERICA, SMCNA, AND NATIONAL ELECTRICAL CONTRACTORS FOR LABOUR RATES.
1.14.	WHERE EQUIPMENT HAS BEEN PRE-PURCHASED, DIV.23 SHALL ACCEPT ALL RESPONSIBILITY FOR EQUIPMENT DELIVERY, INSTALLATION, TESTING AND WARRANTY, SIMILAR TO AS IF THE EQUIPMENT WAS PURCHASED BY DIV.23.
1.15.	THE CONTRACTOR SHALL WARRANTY ALL MATERIALS, EQUIPMENT, INSTALLATION AND QUALITY OF WORKMANSHIP FOR A MINIMUM OF ONE (1) YEAR UNLESS OTHERWISE NOTED.
1.16.	IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PAY FOR ALL CHARGES AND DAMAGES ASSOCIATED WITH EQUIPMENT THAT IS NOT PROVIDED AS SPECIFIED AND INCLUDES NOT MEETING THE MANUFACTURER'S RATINGS, PUBLISHED DATA AND/OR THE APPLICABLE GOVERNING STANDARDS.
1.17.	THE CONTRACTOR MAY SUBMIT FOR ALTERNATE MATERIALS AND EQUIPMENT ONLY WHEN THE SPECIFIED ARE NOT AVAILABLE OR WILL ADVERSELY IMPACT THE COMPLETION SCHEDULE. THE CONTRACTOR SHALL COMPENSATE THE CONSULTANT FOR THEIR TIME REQUIRED TO REVIEW THE ALTERNATE SUBMITTALS.
2. SUBMITTALS	
2.1.	THE CONTRACTOR SHALL SUBMIT THREE (3) HARD COPIES OF MECHANICAL SHOP DRAWINGS TO THE CONSULTANTS FOR REVIEW. ELECTRONIC SUBMISSION OF SHOP DRAWINGS SHALL BE DEEMED ACCEPTABLE UPON APPROVAL FROM CONSULTANT. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THE DOCUMENT SUBMITTAL PROCESS.
2.2.	ALL SHOP DRAWINGS SUBMITTED FOR REVIEW MUST BEAR THE REVIEW STAMP OF THE MECHANICAL CONTRACTOR. SHOP DRAWINGS THAT DO NOT BEAR THE CONTRACTOR'S STAMP WILL, WITHOUT QUESTION, BE REJECTED BY THE CONSULTANT.
2.3.	SHOP DRAWINGS SHALL INCLUDE ALL INFORMATION REQUIRED FOR THE CONSULTANT TO PERFORM A REASONABLE REVIEW OF THE SUBMITTALS AS THEY PERTAIN TO THE MECHANICAL DESIGN DRAWINGS AND SPECIFICATIONS.
2.4.	SHOP DRAWINGS SHALL HAVE THE SAME IDENTIFYING NUMBER AS NOTED IN THE MECHANICAL DRAWINGS.
2.5.	PROVIDE SHOP DRAWINGS WITH TECHNICAL SUBMITTALS ON ALL TYPES OF INSULATION TO BE INSTALLED.
2.6.	THE CONTRACTOR SHALL MAINTAIN ON SITE ONE (1) RECORD OF MECHANICAL DRAWINGS THAT SHALL INDICATE WITH RED LINES ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS AND ANY OTHER CHANGES OR DEVIATIONS WHICH MAY VARY FROM THE ORIGINAL CONTRACT DOCUMENTS AND DRAWINGS. IN ADDITION, THIS SET SHALL INCLUDE REVISIONS AS A RESULT OF ALL ADDENDAS, CHANGE NOTICES, SITE INSTRUCTIONS, ETC. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER ONE (1) COPY EACH OF A HARDCOPY AND ELECTRONIC COPY (PDF) FOR REVIEW. ONE (1) SET OF BOTH COPIES SHALL ALSO BE INCLUDED IN THE CLOSEOUT DOCUMENT PACKAGE.
2.7.	TWO (2) COPIES OF OPERATION AND MAINTENANCE MANUALS SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW UPON PROJECT COMPLETION. THE MANUALS SHALL CONTAIN THE FOLLOWING WHERE APPLICABLE: <ul style="list-style-type: none"> <li>DESCRIPTION OF EACH SYSTEM</li> <li>DESCRIPTION OF EACH MAJOR COMPONENT OF SYSTEM</li> <li>ALL SHOP DRAWINGS WITH APPROVAL STAMPS</li> <li>EQUIPMENT MANUFACTURER'S INSTALLATION AND OPERATION MANUALS AND SPARE PARTS LIST</li> <li>WIRING DIAGRAMS</li> <li>LUBRICATION SCHEDULE</li> <li>EQUIPMENT IDENTIFICATION LIST WITH SERIAL NUMBERS</li> <li>VALVE TAG SCHEDULES AND FLOW DIAGRAMS</li> <li>FINAL AND REVIEWED BALANCING REPORTS (AIR AND WATER)</li> <li>WATER TREATMENT PROCEDURE AND TESTS</li> <li>CONTROL DRAWINGS AND SEQUENCES OF OPERATION</li> <li>AS-BUILT DRAWINGS (HARDCOPY AND ELECTRONIC)</li> <li>WARRANTY DOCUMENTATION</li> </ul>
3. EXECUTION	
3.1.	PERIODIC INSPECTIONS OF THE WORK WILL BE CONDUCTED OVER THE COURSE OF THE PROJECT. ALL REPORTED DEFICIENCIES SHALL BE RECTIFIED BY THE CONTRACTOR IN A TIMELY FASHION. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR NOT MEETING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3.2.	IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL INSPECTIONS WITH CITY AND/OR MUNICIPAL OFFICIALS AND ALL OTHER

GENERAL SPECIFICATIONS	
	AUTHORITIES HAVING JURISDICTION.
3.3.	IN REGARDS TO TEMPORARY SERVICES, PROVIDE, AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, TEMPORARY FIRE PROTECTION SYSTEMS. REFRAIN FROM USING INSTALLED SYSTEMS FROM THE CONTRACT DOCUMENTS AS A TEMPORARY SERVICES. THIS SHALL APPLY TO ALL MECHANICAL SYSTEMS INCLUDING HVAC, PLUMBING AND DRAINAGE, ETC.
3.4.	THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND RESTORATION WHERE REQUESTED, THE CONTRACTOR SHALL CONTRACT THE SERVICES OF THE BASE BUILDING TRADES AT DIV.23 EXPENSE.
3.5.	PROVISIONS SHALL BE MADE FOR THE PROTECTION OF DIV.23 WORK UNTIL THE COMPLETION OF THE PROJECT. THIS MAY INCLUDE, BUT NOT LIMITED TO, COVERING OF EQUIPMENT OPENINGS AND DUCTWORK, PLUMBING FIXTURES, FLOOR DRAINS, ETC.
3.6.	UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL MAKE ALL FINAL ADJUSTMENTS TO EQUIPMENT AS WELL AS REMOVE ALL PROTECTION. ALL INSTALLATIONS SHALL BE CLEANED THOROUGHLY AND TESTED FOR PROPER OPERATION. CHANGE ALL AIR AND WATER FILTERS AS REQUIRED.
3.7.	IN REGARDS TO INTERRUPTION OF SERVICES, THE CONTRACTOR SHALL CARRY OUT THEIR WORK IN A MANNER THAT CAUSES THE LEAST DISTURBANCE TO THE OWNER. PROVIDE NOTIFICATION TO THE OWNER IN WRITING WITH AT LEAST 72 HOURS OF THE SCHEDULED INTERRUPTION.
3.8.	ARRANGE AND PAY FOR THE SAFE DISPOSAL OF REMOVED ITEMS AS SPECIFIED. PROVIDE PROOF OF SAFE DISPOSAL FOR ITEMS SUCH AS HVAC REFRIGERANT. COORDINATE THE TIME AND METHOD OF DISPOSAL WITH THE OWNER. FOR EXAMPLE, CLEARLY INDICATE THE ROUTE THAT WILL BE TAKEN FROM THE INSIDE OF THE BUILDING TO THE OUTDOORS, AS WELL AS THE STORAGE LOCATION OUTDOORS IF APPLICABLE.
3.9.	WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
3.10.	PERFORM WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL INSTALLATION SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.
3.11.	WHERE CUTTING OR CORE DRILLING OF THE EXISTING CONCRETE STRUCTURE IS REQUIRED, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF AN EXPERIENCED AND REPUTABLE COMPANY TO CARRY OUT X-RAYING. THE RESULTS SHALL BE SUBMITTED TO THE BASE BUILDING STRUCTURAL ENGINEER AND NOT CUTTING OR CORING SHALL TAKE PLACE UNTIL WRITTEN APPROVAL IS RECEIVED. THE CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST TO PERFORM X-RAYING WITH AT LEAST 72 HOURS IN ADVANCE.
4. IDENTIFICATION OF MECHANICAL SERVICES	
4.1.	PROVIDE SMS WRAP-MARK ON ALL PIPE COVERINGS WITH FLOW ARROW AND ALTERNATING WORDING. COVERING COLOURS SHALL MATCH BASE BUILDING. IN THE CASE WHERE THERE IS NO EXISTING STANDARD, INDUSTRY STANDARDS SHALL BE FOLLOWED.
4.2.	USE STENCILS AND STENCIL PAINT ON DUCTWORK AND DUCTWORK INSULATION WITH BLACK CAPITALIZED LETTERS 2" (50 MM) HIGH AND SOLID BLACK FLOW ARROWS.
4.3.	IDENTIFICATION OF PIPING AND DUCTWORK SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS: <ul style="list-style-type: none"> <li>AT LEAST ONCE IN EACH ROOM</li> <li>AT EACH PIECE OF EQUIPMENT</li> <li>AT EACH BRANCH CLOSE TO THE CONNECTION POINT AT MAIN</li> <li>AT NOT GREATER INTERVALS OF 50 FT. (15 M) ON STRAIGHT RUNS OF EXPOSED PIPING AND DUCTWORK.</li> <li>AT ENTRY AND LEAVING POINT TO PIPE AND DUCT CHASES, OR OTHER CONCEALED SPACES</li> <li>BOTH SIDES WHERE PIPING AND DUCTWORK PASSES THROUGH WALL, PARTITIONS AND FLOORS</li> <li>ON VERTICAL PIPES AND DUCTS APPROXIMATELY 6 FT. (1800 MM) A.F.F.</li> <li>BEHIND EACH ACCESS DOOR AND PANEL</li> </ul>
4.4.	PROVIDE IDENTIFICATION FOR PIPING CONTAINING ELECTRICAL HEAT TRACING.
4.5.	TAG ALL VALVES, EXCEPT SMALL VALVES ISOLATING EQUIPMENT, WITH BRASS TAGS AND HIGH DIE-STAMPED BLACK LETTERS ATTACHED TO VALVES WITH 4" BRASS CHAINS.
4.6.	PROVIDE IDENTIFICATION FOR ALL NEW EQUIPMENT, STARTERS AND REMOTE CONTROL DEVICES WITH LAMACODI LABELS ENGRAVED WITH WHITE LETTERING AND A BLACK BACKGROUND. THE MINIMUM LETTERING SIZE SHALL BE 3/8" (10 MM).
5. ACCESS DOORS AND PANELS	
5.1.	PROVIDE ADEQUATE ACCESS TO CONCEALED EQUIPMENT AND COMPONENTS THAT REQUIRE ACCESS FOR MAINTENANCE, ADJUSTMENT AND INSPECTION. PROVIDE MARKING TO THE OWNER'S SATISFACTION THE LOCATIONS WHERE CONCEALED EQUIPMENT IS LOCATED.
5.2.	ENSURE THAT THE SIZE OF THE DOOR COMPLIES WITH THE MANUFACTURER'S SUGGESTED ACCESS REQUIREMENTS.
5.3.	COORDINATE ALL ACCESS DOOR AND PANEL SIZES AND LOCATIONS WITH ARCHITECT/INTERIOR DESIGNER.
6. FLASHING, CURBS AND CONCRETE	
6.1.	FLASHING SHALL BE CARRIED OUT AS SHOWN ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS AT THE EXPENSE OF DIV.23.
6.2.	ALL CURBS REQUIRED FOR MECHANICAL EQUIPMENT SHALL BE CARRIED OUT AS SHOWN ON ARCHITECTURAL AND/OR MECHANICAL DRAWINGS AT THE EXPENSE OF DIV.23. CURBS SHALL BE INSTALLED AT LEAST 14" ABOVE THE ROOF LEVEL.
6.3.	PREMANUFACTURED EQUIPMENT CURBS SHALL BE SUPPLIED BY THE EQUIPMENT MANUFACTURER.
6.4.	PROVIDE 4" (100 MM) THICK CONCRETE HOUSEKEEPING PADS WHERE INDICATED ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.
7. FIRESTOPPING	
7.1.	PROVIDE FIRE STOPPING SYSTEMS AND PRODUCTS FOR ALL DUCTS, PIPING, ETC. PENETRATING FIRE SEPARATIONS THAT ARE ULC LISTED AND COMPLY WITH CAN4-S115S AND THE AUTHORITIES HAVING JURISDICTION.
7.2.	MAINTAIN ALL FLOOR AND WALL FIRE RATINGS TO COMPLY WITH BASE BUILDING STANDARDS AND THE AUTHORITIES HAVING JURISDICTION.
8. PIPE, DUCT AND EQUIPMENT INSTALLATION	
8.1.	INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT TO PROVIDE ADEQUATE CLEARANCES FOR SERVICING AS WELL AS MAXIMUM USABLE SPACE FOR ALL OTHER DIVISIONS.
8.2.	INSTALL PIPING AND DUCTWORK STRAIGHT, IN A NEAT AND CLEAN FASHION AND TIGHT TO STRUCTURES ABOVE (UNLESS OTHERWISE NOTED).
8.3.	TAKE MEASURES TO PROTECT COPPER PIPING CORROSION FROM CONTACT WITH DISSIMILAR METALS.
9. HANGERS AND SUPPORTS	

GENERAL SPECIFICATIONS	
9.1.	PROVIDE HANGER SYSTEMS FOR ALL DUCTWORK, PIPING AND EQUIPMENT TO RENDER A SAFE AND FUNCTIONAL INSTALLATION. HANGER RODS SHALL BE ATTACHED DIRECTLY TO THE STRUCTURE AND IN NO WAY SHALL BE ATTACHED TO OTHER MECHANICAL COMPONENTS OR CEILING SYSTEMS. WHERE COMPONENTS ARE TO BE SUSPENDED BETWEEN JOISTS OR BEAMS, PROVIDE AUXILIARY STEEL CHANNELS TO SUIT.
9.2.	FOR GENERAL CONDITIONS, PROVIDE ROUND STEEL THREADED RODS CONFORMING TO ASTM A-36. WHERE SPECIAL CONDITIONS EXIST, SUCH AS HIGH HUMIDITY OR EXPOSURE TO ELEMENTS, PROVIDE HANGER COMPONENTS TO SUIT.
9.3.	IN REGARDS TO ALL PIPING, PROVIDE SUPPORTS AT CONNECTION (SUCH AS HUB) AND AT EVERY CHANGE IN DIRECTION.
10. STRUCTURAL AND SEISMIC	
10.1.	WHERE THERE IS NO STRUCTURAL DIVISION AS PART OF THE PROJECT, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE STRUCTURAL REINFORCING FOR ALL DIV.23 INSTALLATIONS. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER WHO IS TO PROVIDE A DESIGN BEARING THEIR PROFESSIONAL SEAL. THE CONTRACTOR SHALL APPLY FOR BUILDING PERMIT AND ASSUME ALL RESPONSIBILITY AND COST FOR THE PERMIT PROCESS. UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT A LETTER FROM THE STRUCTURAL ENGINEER COMPLETE WITH PROFESSIONAL SEAL TO INDICATE THAT THE WORK HAS BEEN COMPLETED TO THE ONTARIO BUILDING CODE, ALL OTHER RELEVANT CODES AND STANDARDS AND TO THE AUTHORITIES HAVING JURISDICTION.
10.2.	IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE REQUIREMENTS FOR SEISMIC BRACING AND SUPPORTS WITH STRUCTURAL DRAWINGS. DIV.23 SHALL CONTRACT THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER TO DESIGN SUPPORTS AND BRACING IN ACCORDANCE WITH ALL CURRENT CODES AND THAT MATCHES THE REQUIREMENT OF THE LOCATION IN WHICH THE SYSTEMS ARE BEING INSTALLED. UPON COMPLETION OF THE PROJECT, SEISMIC ENGINEER SHALL PROVIDE A LETTER BEARING THEIR PROFESSIONAL SEAL INDICATING THAT THE INSTALLATION MEETS THE SEISMIC DESIGN DOCUMENT AND CONFORMS TO THE BUILDING CODE AND THE AUTHORITIES HAVING JURISDICTION.
11. ELECTRICAL	
11.1.	ALL ELECTRICAL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES FOR DIV.23 WORK SHALL BE PROVIDED BY DIV.23.
11.2.	DIV.26 SHALL BE RESPONSIBLE FOR POWERING LOAD SIDE OF STARTERS AND CONTACTORS. POWER FOR ELECTRICAL HEAT TRACING AND CONTROLS, LINE SIDE POWER TO LOOSE STARTERS AND DISCONNECTS.
11.3.	ALL LOW VOLTAGE WIRING AND CONNECTION IS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR.
11.4.	WHERE THERE IS NO DIV.26 (ELECTRICIAN) AS PART OF THE PROJECT, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF A LICENSED ELECTRICAL CONTRACTOR AND OBTAIN THE APPROPRIATE INSPECTIONS AND APPROVALS FOR THE INSTALLATION OF ALL ELECTRICAL WORK REQUIRED FOR MECHANICAL SYSTEMS.
12. PROJECT CLOSEOUT	
12.1.	PRIOR TO THE ISSUING OF A PROJECT COMPLETION NOTICE OR A SIGN-OFF LETTER, THE FOLLOWING DOCUMENTS, AT A MINIMUM, MUST BE PROVIDED TO THE ENGINEER FOR REVIEW: <ul style="list-style-type: none"> <li>AIR BALANCING REPORT</li> <li>NFPA-13 LETTER</li> <li>APPLICABLE SYSTEM/EQUIPMENT TESTING REPORT</li> </ul>



KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD



**Giallonardo Engineering Inc.**  
 228-4558 Highway 7  
 Woodbridge, ON L4L 4Y7  
 (905) 265-1052  
 info@gei.ca | onardoeng.com  
 www.giallonardoeng.com

DISCLAIMER  
**This drawing is the property of GIALLONARDO ENGINEERING INC.**  
 This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale the drawings.  
 The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any variations from the drawings.

NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	OCT. 30, 2024	GG
2	ISSUED FOR 90% REVIEW	NOV. 08, 2024	GG
3	ISSUED FOR TENDER	NOV. 29, 2024	GG


NO.	REVISIONS	DATE	BY

**PROJECT:**  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**

COURTICE SECONDARY SCHOOL  
 1717 NASH ROAD

COURTICE, ONTARIO  
 KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
**MECHANICAL LEGEND AND SPECIFICATIONS I**



**B B A**

**BARRY BRYAN ASSOCIATES**  
 Architects  
 Engineers  
 Project Managers

250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 696-6262  
 Fax: (905) 696-6268  
 e-mail: bba@bba-eng.com

DESIGN BY: <b>JH</b>	DOC CONTROL DATE:
DRAWN BY: <b>RC</b>	% COMPLETE:
CHECKED BY:	INITIAL:

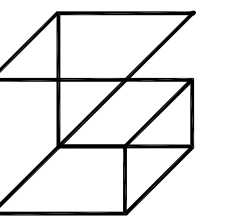
DATE:  
**OCTOBER 2024**

SCALE:  
**AS SHOWN**

FILE:

PROJECT NO:  
**24-175**

DRAWING NO:  
**M-1.1**



**Giallonardo Engineering Inc.**  
 229-4550 Highway 7  
 Woodbridge, ON  
 L4L 4Y7  
 (905) 265-1052  
 info@gi.al | onardoeng.com  
 www.giallonardoeng.com

**DISCLAIMER**  
 This drawing is the property of GIALLONARDO ENGINEERING INC.  
 This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale the drawings.  
 The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any variations from the drawings.


NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	OCT. 30, 2024	GG
2	ISSUED FOR 90% REVIEW	NOV. 08, 2024	GG
3	ISSUED FOR TENDER	NOV. 29, 2024	GG

NO.	REVISIONS	DATE	BY

**PROJECT:**  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**


COURTICE SECONDARY SCHOOL  
 1717 NASH ROAD  
 COURTICE, ONTARIO  
 KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
**MECHANICAL SPECIFICATIONS II AND DETAILS**



**BARRY BRYAN ASSOCIATES**  
 Architects  
 Engineers  
 Project Managers

250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 666-6252  
 Fax: (905) 666-6256  
 e-mail: bba@bbe-archeng.com



DESIGN BY: **JH**      DOC CONTROL:   
 DATE:

DRAWN BY: **RC**      % COMPLETE:   
 CHECKED BY:       INITIAL:

DATE: **OCTOBER 2024**  
 SCALE: **AS SHOWN**  
 FILE:

PROJECT NO: **24-175**      DRAWING NO: **M-1.2**

### PLUMBING SPECIFICATIONS

- PROVIDE PLUMBING SYSTEMS AS PER DRAWINGS, SPECIFICATIONS, THE LATEST EDITION OF THE ONTARIO BUILDING CODE, MUNICIPAL BY-LAWS AND THE AUTHORITY HAVING JURISDICTION. THE TERM "SYSTEMS" REFERS TO ALL PIPING, FITTINGS, SUPPORTS, CURBS, ACCESSORIES, ETC.
- ALL ITEMS REQUIRED FOR PLUMBING SYSTEMS SHALL BE CSA APPROVED UNLESS OTHERWISE NOTED.
- CLEANING, FLUSHING AND DISINFECTING OF DOMESTIC WATER PIPING**
  - FOLLOW PROCEDURES AS OUTLINED IN THE LATEST EDITION OF STANDARD AWWA C651. ENSURE THAT THE METHODS COMPLY WITH LOCAL BY-LAWS.
  - PREVENT CONTAMINATING MATERIAL FROM ENTERING THE SYSTEM DURING STORAGE, CONSTRUCTION AND REPAIR.
  - REMOVE AND FLUSH ALL FOREIGN MATTER THAT HAS ENTERED THE PIPING.
  - PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE AND DISINFECTION PROCEDURES.
  - CHLORINATE RESIDUAL CONTAMINATION THAT MAY REMAIN AND FLUSH THE CHLORINATED WATER WHEN COMPLETE. FOLLOWING THIS, DETERMINE THE BACTERIOLOGICAL QUALITY OF THE WATER BY LABORATORY TESTING. CONNECT THE WATER SYSTEM ONLY WHEN TEST RESULTS INDICATE AN APPROVED AND DISINFECTED SYSTEM.
- PIPING INSULATION**
  - PROVIDE PIPING INSULATION FOR PLUMBING SYSTEMS AS FOLLOWS:
    - DCW: TYPE 'A', FOR ALL PIPE SIZES 1" THICK
    - DHW(R): TYPE 'A', UP TO 2" - 1" THICK, 2-1/2" AND UP - 1-1/2" THICK
    - CD (HORIZONTAL): TYPE 'A', 1/2" THROUGHOUT
    - STM: TYPE 'A', FOR ALL PIPE SIZES 1" THICK
  - TYPE 'A': JOHNS MANVILLE MICRO-LOK FIBER GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH BUTT STRIPS SUPPLIED BY THE INSULATION MANUFACTURER.
  - FOR NEW EXPOSED PIPING INSTALLED INDOORS AND/OR IN MECHANICAL ROOMS, RECOVER INSULATION WITH HEAVY GAUGE PVC FITTINGS, COVER AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON 300 SERIES.
  - PROVIDE INSULATION ON PIPES GOING THROUGH FIRE RATED FLOORS AND WALLS AND FIT TIGHT TO THE FIRE STOP MATERIAL.
  - HEATING WATER PIPING SHALL HAVE GLASS FIBRE PIPE INSULATION.
  - MAKE ALL PIPING AND ELECTRICAL CONNECTION TO PUMPS AND MOTOR ASSEMBLIES AS SPECIFIED. REFER TO PUMP SCHEDULE (WHERE APPLICABLE).
- PIPING MATERIALS (SEE BELOW FOR MATERIALS SPECIFICATIONS)**
  - DCW AND DHW(R)**
    - ABOVE GROUND: TYPE 1
    - UNDERGROUND: TYPE 2
  - SANITARY & STORM DRAINAGE PIPING**
    - ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 (WHERE PERMITTED)
    - UNDERGROUND: TYPE 4 (2" MIN.), TYPE 5, TYPE 7
  - VENT PIPING**
    - ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 (WHERE PERMITTED)
    - UNDERGROUND: TYPE 4, TYPE 5, TYPE 7

TYPE 1: TYPE L HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND LEAD-FREE SOLDER, CONTAINING LESS THAN .02 PERCENT LEAD, CONFORMING TO ASTM B32.

TYPE 2: TYPE K SOFT ANNEALED COPPER TUBING WITH NO JOINTS.

TYPE 3: TYPE DW COPPER TUBE AND FITTINGS WITH 95:5 TIN/ANTIMONY SOLDER JOINTS.

TYPE 4: CAST IRON PIPING AND FITTINGS COMPLYING WITH CAN/CSA-B70. FOR MECHANICAL JOINTS ABOVE GRADE, USE NEOPRENE OR BUTYL RUBBER COMPRESSION GASKETS TO CAN/CSA-B70 WITH STAINLESS STEEL CLAMPS. FOR MECHANICAL JOINTS BELOW GRADE, USE MESSON HEAVYWEIGHT COUPLINGS FOR HUB AND SPIGOT CONNECTIONS. PROVIDE NEOPRENE GASKET TO CAN/CSA-B70 AND COLD CAULKING COMPOUNDS. DO NOT USE HUB AND SPIGOT FOR ABOVE GROUND APPLICATIONS.

TYPE 5: IPEX RING-TITE PVC SDR 35 SEWER PIPE IN COMPLIANCE WITH CSA B182.2 AND CSA B182.7. LATERALS WILL BE IPEX RING-TITE PVC SDR 28 IN COMPLIANCE WITH CSA B182.2.

TYPE 6: IPEX XFR PIPING AND FITTINGS COMPLYING WITH CSA B181.2, SCHEDULE 40 WITH A FLAME SPREAD RATING OF NOT GREATER THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION OF LESS THAN 50.

TYPE 7: ROYAL ABS-DWV PIPING AND FITTINGS CERTIFIED TO CSA B181.1.
- VALVES**
  - PROVIDE ASTM DOMESTIC WATER VALVES TO THE FOLLOWING KITZ FIGURE NUMBERS:
    - GATE VALVES**
      - 2" AND SMALLER: SOLDERED, 1400 kPa [200psi] W.O.G. FIG. 44
      - 2-1/2" AND LARGER: FLANGED, 1400 kPa [200psi] W.O.G. FIG. 44
    - GLOBE VALVES**
      - 2" AND SMALLER: SOLDERED, 2070 kPa [300 psi], W.O.G. FIG. 10 WITH SUITABLE COMPOSITION DISC.
      - 2-1/2" AND LARGER: FLANGED, 1400 kPa [200 psi], W.O.G. FIG. 76
    - STANDARD CHECK VALVES**
      - 2" AND SMALLER: SOLDERED, 2070 kPa [300 psi], W.O.G. FIG. 23
      - 2-1/2" AND LARGER: FLANGED, 1400 kPa [200 psi], W.O.G. FIG. 78
    - BALL VALVES**
      - 2" AND SMALLER: BALL VALVES MAY BE PROVIDED AS A SUBSTITUTE FOR GATE AND GLOBE VALVES. PROVIDE BALL VALVES WITH BRASS OR BRONZE BODY, CHROME PLATED SOLID BALL, PTFE SEATS AND SEALS AND FULL PORT, KITZ FIG. 59
  - PROVIDE ISOLATION VALVES FOR DOMESTIC HOT AND COLD WATER SYSTEMS AT MAIN PIPING, BRANCH PIPING AND AT FIXTURES AND EQUIPMENT.
  - VERIFY ALL SITE CONDITIONS AFTER CONTRACT AWARD TO ENSURE THAT PIPING INVERTS ARE SUFFICIENT FOR THE RUNS SHOWN ON MECHANICAL DRAWINGS. REPORT DISCREPANCIES TO ENGINEER IMMEDIATELY.
  - CARRY OUT TESTING ON ALL SYSTEMS INCLUDING SANITARY DRAINAGE SYSTEMS, STORM DRAINAGE SYSTEMS AND DOMESTIC WATER SYSTEMS AS PER PART 7.3.6 OF THE ONTARIO BUILDING CODE AND THE AUTHORITIES HAVING JURISDICTION. TESTS MAY INCLUDE, BUT ARE NOT LIMITED TO, A WATER TEST, BACKFLOW TEST, PRESSURE TEST, BALL TEST AND FINAL TEST.
  - MAKE PROVISIONS FOR MAINTAINING THE SEAL OF ALL HUB DRAINS, FLOOR DRAINS, ETC. IN ACCORDANCE WITH THE ONTARIO BUILDING CODE. WHERE MECHANICAL OR ELECTRICAL DEVICES ARE USED, THE MINIMUM TUBING SIZE SHALL BE 3/8".
  - PROVIDE FIRESTOPPING AT ALL FIRE-RATED WALL AND FLOOR ASSEMBLIES AS PER THE "GENERAL SPECIFICATIONS".
  - COORDINATE EXACT LOCATIONS OF ALL PLUMBING FIXTURES WITH ALL TRADES AND ARCHITECTURAL/INTERIOR DESIGN DRAWINGS. DO NOT SCALE MECHANICAL DRAWINGS.
  - WHERE PLUMBING FIXTURES ARE SPECIFIED, THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES AND APPURTENANCES TO PROVIDE A FULL AND COMPLETE INSTALLATION OF THE RESPECTIVE FIXTURE. THIS MAY INCLUDE, BUT IS NOT LIMITED TO, STOP VALVES, RISER PIPING, ESCUTCHEON PLATES, ETC.
  - PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.

### HVAC SPECIFICATIONS

- PROVIDE ALL LABOUR AND MATERIALS TO SUPPLY AND INSTALL THE DUCTWORK AND SHEET METAL SYSTEMS AS INDICATED ON MECHANICAL DRAWINGS. THIS INCLUDES INSTALLING THE DUCTWORK, ACCESSORIES, ASSOCIATED ITEMS AND ALL NECESSARY CONNECTIONS TO OUTLETS, INLETS AND EQUIPMENT TO PROVIDE A COMPLETE SYSTEM.
- UNLESS OTHERWISE NOTED, FABRICATE ALL DUCTWORK SYSTEMS, INCLUDING DUCTWORK, HOUSINGS, DAMPERS AND ACCESS DOORS, WITH GALVANIZED STEEL SHEET METAL MEETING ASTM A653 AND A924. CONSTRUCTION OF THE DUCTWORK SYSTEMS SHALL BE IN STRICT ACCORDANCE WITH SMACNA. SMACNA DUCT CLEANLINESS AND ASHRAE. ALL DUCTWORK SHALL BE SMOOTH ON THE INSIDE AND SHALL BE FREE FROM RATTLING OR VIBRATION. DUCTWORK NOT MEETING THESE STANDARDS WILL BE REPLACED AT NO EXTRA CHARGE TO THE OWNER.
- CONSTRUCT DUCTWORK AND SEAL ACCORDING TO THE APPROPRIATE SMACNA STANDARDS. LOW PRESSURE DUCTWORK SHALL BE CONSTRUCTED WITH THE ONE (1) INCH PRESSURE CLASSIFICATION AND ALL OTHER DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE THREE (3) INCH CLASSIFICATION. DUCT PRESSURES SHALL BE CLASSIFIED AS FOLLOWS:
  - LOW: DUCT PRESSURES (LOW) OF 1/2" TO 2" W.C. AND NOT EXCEEDING AN AIR VELOCITY OF 2000 FPM.
  - MEDIUM: DUCT PRESSURES EXCEEDING 2" W.C. OR AND AIR VELOCITY OF 2000 FPM.
  - THREE INCH: ALL VARIABLE AIR VOLUME (VAV) SUPPLY AIR DUCT SYSTEMS AND AIR DUCTWORK SYSTEMS EXPOSED TO THE OUTDOORS.
- FLEXIBLE DUCTWORK
  - PROVIDE, WHERE INDICATED ON MECHANICAL DRAWINGS, FLEXIBLE DUCTWORK EQUAL TO FLEXMASTER TRIPLE LOCK ALUMINUM DUCTWORK. THE PRESSURE RATING OF THE DUCTWORK SHALL MATCH THE DUCTWORK SYSTEM TO WHICH IT IS ATTACHED. MATCH THE DUCTWORK SIZE TO THE CONNECTION OUTLET OF THE AIR TERMINAL.
  - SECURE FLEXIBLE DUCTWORK USING GEAR CLAMPS WITH AN ADJUSTING WORM DRIVE TYPE SPOKE. SEAL AROUND CONNECTION WITH DUCT TAPE TO OBTAIN THE APPROPRIATE SMACNA SEAL CLASS.
  - MAXIMUM LENGTH OF FLEXIBLE DUCTWORK PERMITTED IN LOW PRESSURE SYSTEMS IS 10'-0" AND 4'-0" IN ALL OTHER HIGHER PRESSURE SYSTEMS.
- ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR TO TAKE INTO ACCOUNT DUCT LINERS, ETC. WHEN PERFORMING TAKE-OFFS.
- MAKE ALL DUCT CONNECTIONS, CONCENTRIC AND ECCENTRIC TRANSITIONS, ETC. IN ACCORDANCE WITH SMACNA.
- PROVIDE DUCT ACCESS DOORS AT LOCATIONS AS SHOWN ON DRAWINGS, AS WELL AS AT THE LINKAGE SIDE OF AUTOMATIC DAMPERS, FIRE DAMPERS AND ANY OTHER SERVICE. BALANCE OR CONTROL DEVICE REQUIRING PERIODIC MAINTENANCE. THE DOORS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA AND SHALL MATCH THE PRESSURE RATING OF THE DUCTWORK SYSTEM TO WHICH IT IS BEING INSTALLED.
- PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET CONNECTION FOR EACH FAN BETWEEN DUCTWORK AND INLET AND OUTLET COLLARS. FLEXIBLE CONNECTIONS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE NEOPRENE COATED FIBERGLASS FABRIC. FOR OUTDOOR CONNECTIONS, PROVIDE A CONNECTOR THAT IS SUITABLE FOR EXPOSURE TO SUNLIGHT AND THE ELEMENTS.
- PROVIDE FIRE DAMPERS WHERE INDICATED ON MECHANICAL DRAWINGS. ALL DAMPERS SHALL BE SELECTED TO SUIT THE RATING OF THE FLOOR OR WALL ASSEMBLY IN WHICH IT WILL BE INSTALLED. FIRE DAMPERS SHALL BE ULC LISTED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, NFPA 90A AND THE AUTHORITIES HAVING JURISDICTION. TYPE A FIRE DAMPERS ARE PERMITTED FOR NON-DUCTED TRANSFER DUCTWORK. TYPE B FIRE DAMPERS SHALL BE USED IN ALL OTHER CASES UNLESS OTHERWISE NOTED.
  - REMOVABLE DUCT SECTIONS FOR FIRE AND SMOKE DAMPER ACCESS; WHERE A MINIMUM 12"x12" ACCESS PANEL CAN NOT BE INSTALLED ON DUCTWORK, A REMOVABLE DUCTWORK SECTION FOR DAMPER INSPECTION AND MAINTENANCE SHALL BE PROVIDED. REMOVABLE DUCTWORK SECTION TO FUNCTION WITHOUT THE USE OF TOOLS AND SHALL NOT BE MORE THAN 4" AWAY FROM THE FIRE DAMPER SLEEVE BREAK AWAY CONNECTION.
- MANUAL BALANCING DAMPERS** INSTALLED IN DUCTWORK NOT EXCEEDING 12" ON THE LONGEST SIDE SHALL BE CONSTRUCTED AS PER SMACNA. PROVIDE OPPOSED BLADE DAMPERS WHERE THE DIMENSION OF THE LONGEST SIDE OF THE DUCTWORK EXCEEDS 12". OPPOSED BLADE DAMPERS SHALL BE OF GALVANIZED STEEL CONSTRUCTION WITH LOCK SCREWS AT OPPOSITE ENDS. PROVIDE BALANCING DAMPERS WHERE SHOWN ON DRAWING AS WELL AS ON BRANCHES OFF OF MAIN DUCTWORK WITH ADEQUATE ACCESS.
- PROVIDE ALL DIFFUSERS, REGISTERS, GRILLES, ETC. OF TYPE AND SIZE AS INDICATED ON MECHANICAL DRAWINGS. CONFIRM ALL AIR TERMINAL COLOURS WITH ARCHITECT/INTERIOR DESIGNER. REGARDLESS OF SPECIFICATION ON MECHANICAL DRAWINGS, MECHANICAL CONTRACTOR IS TO COORDINATE INSTALLATION OF DOOR GRILLES WITH ARCHITECTURAL DRAWINGS AND GENERAL CONTRACTOR.
- PROVIDE DUCTWORK INSULATION AND LINERS WHERE NOTED ON MECHANICAL DRAWINGS, AS PER THE FOLLOWING:
  - ACOUSTIC LINING:
    - DUCT LINING SHALL COMPLY WITH NFPA 90A AND DUCT LINER MATERIALS STANDARD OF THE THERMAL INSULATION MANUFACTURER'S ASSOCIATION.
    - RECTANGULAR DUCTWORK: PROVIDE ONE INCH (1") THICK ACOUSTIC LINING EQUAL TO JOHNS MANVILLE LINACOUSTIC RC COMPLETE WITH PERMACOTE ACRYLIC ANTI-MICROBIAL COATING.
    - SPIRAL DUCTWORK: PROVIDE ONE INCH (1") THICK ACOUSTIC LINING EQUAL TO JOHNS MANVILLE SPINACOUSTIC PLUS ROUND DUCT LINER SYSTEM COMPLETE WITH PERMACOTE ANTI-MICROBIAL COATING.
    - PROVIDE ACOUSTIC LINING AS SPECIFIED ON ALL SUPPLY, RETURN AND EXHAUST FAN EQUIPMENT FOR 10'-0" (3.0 M) FROM THE INLET/OUTLET.
  - THERMAL INSULATION
    - PROVIDE THERMAL INSULATION WHERE NOTED ON MECHANICAL DRAWINGS. INSULATE ALL DUCTWORK LEAVING OR ENTERING THE BUILDING FOR THE FIRST 6 FT. FROM THE BUILDING PENETRATION WITH 2" OF THERMAL INSULATION.
    - RECTANGULAR DUCTWORK: PROVIDE ONE INCH (1") JOHNS MANVILLE SERIES 814 SPIN-GLAS FIBER GLASS DUCT BOARD INSULATION WITH FSK FACING. IMPALE ON MECHANICALLY FASTENED PINS LOCATED AT NOT MORE THAN 12" ON CENTRE, AND SECURE WITH SPEED WASHERS.
    - RIGID ROUND (SPIRAL) DUCTWORK: PROVIDE ONE INCH (1") JOHNS MANVILLE MICROLITE EQ FSK FIBER GLASS DUCT WRAP INSULATION WHERE INDICATED ON DRAWINGS. ADHERE INSULATION TO DUCT SURFACE AND LAP ALL EDGES AT LEAST 2". SEAL JOINTS WITH 4" WIDE ALUMINUM FOIL TAPE.
    - FLEXIBLE DUCTWORK: PROVIDE ONE INCH (1.25") JOHNS MANVILLE FLEX-GLAS EQ FLEXIBLE DUCTWORK INSULATION WITH FSK FACING. LAP JOINTS AND SEAL WITH 4" WIDE ALUMINUM FOIL TAPE.
    - WHERE DUCTWORK IS INSTALLED OUTSIDE THE BUILDING OR EXPOSED TO THE ELEMENTS, PROVIDE TWO INCHES (2") OF THERMAL INSULATION, BUTT JOINTS TIGHTLY TOGETHER AND SEAL WASHERS, BREAKS AND JOINTS WITH SELF-ADHERING FOUR INCHES (4") WIDE PLAIN ALUMINUM TAPE. OR ADHERE FOIL WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE.
- JACKETING
  - RECOVER ALL DUCTWORK OUTSIDE THE BUILDING OR EXPOSED TO THE ELEMENTS WITH ALUMINUM JACKETING TO ASTM B209 WITH MOISTURE BARRIER, THICKNESS 0.50MM SHEET, STUCCO EMBOSSED FINISH. JACKET BANDING AND MECHANICAL SEALS 12MM WIDE AND 0.5MM THICK STAINLESS

### HVAC SPECIFICATIONS

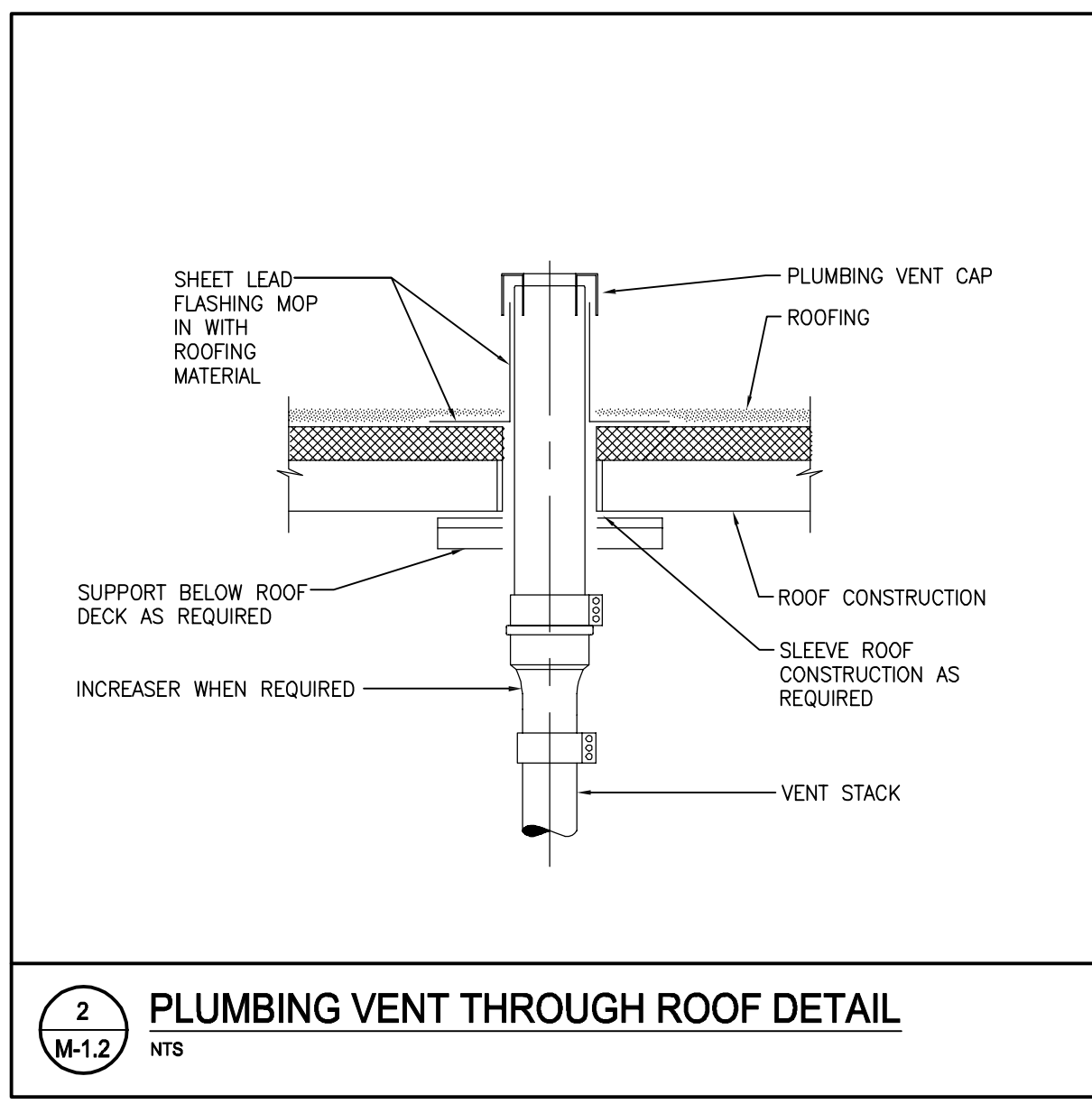
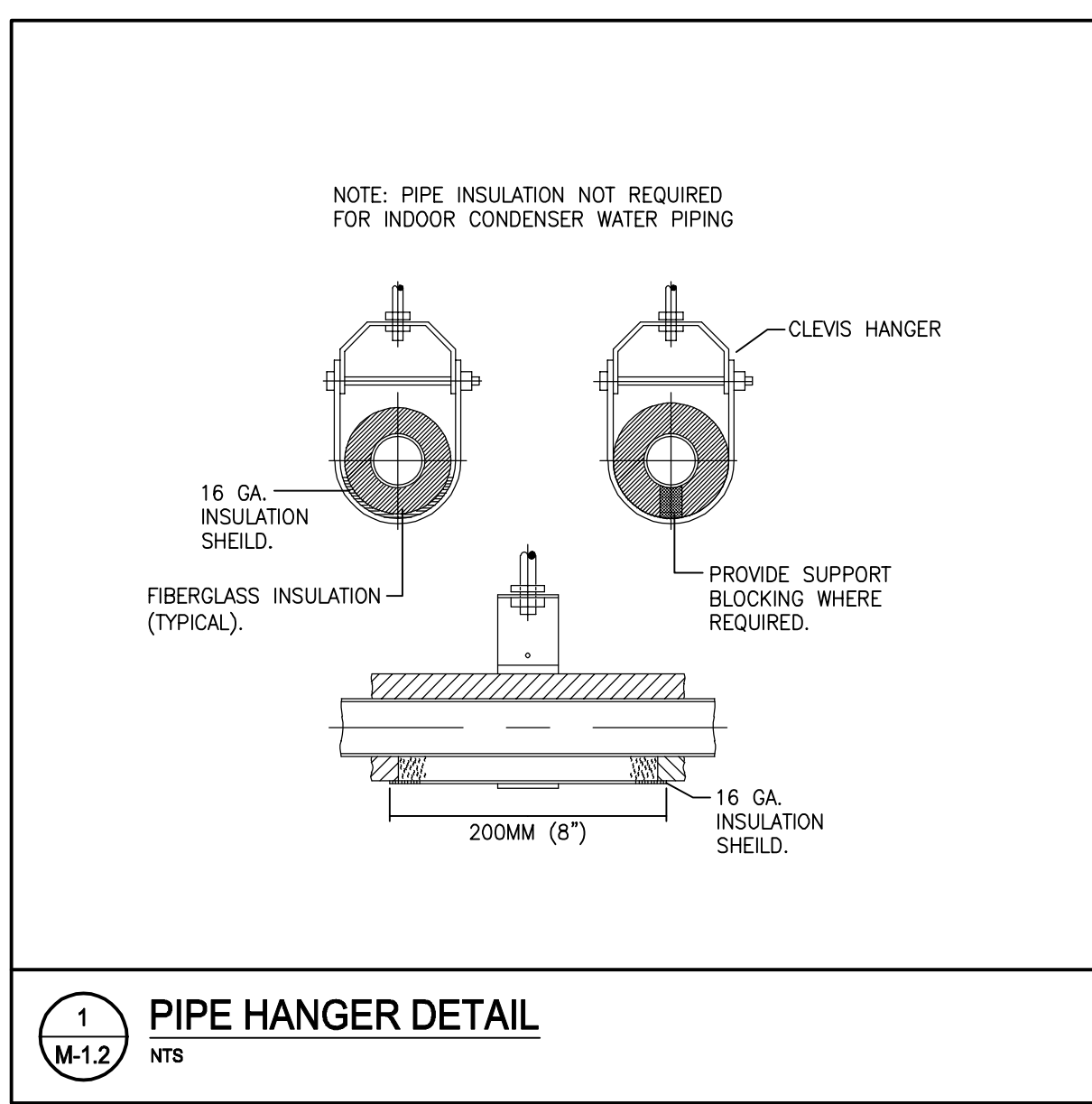
STEEL.

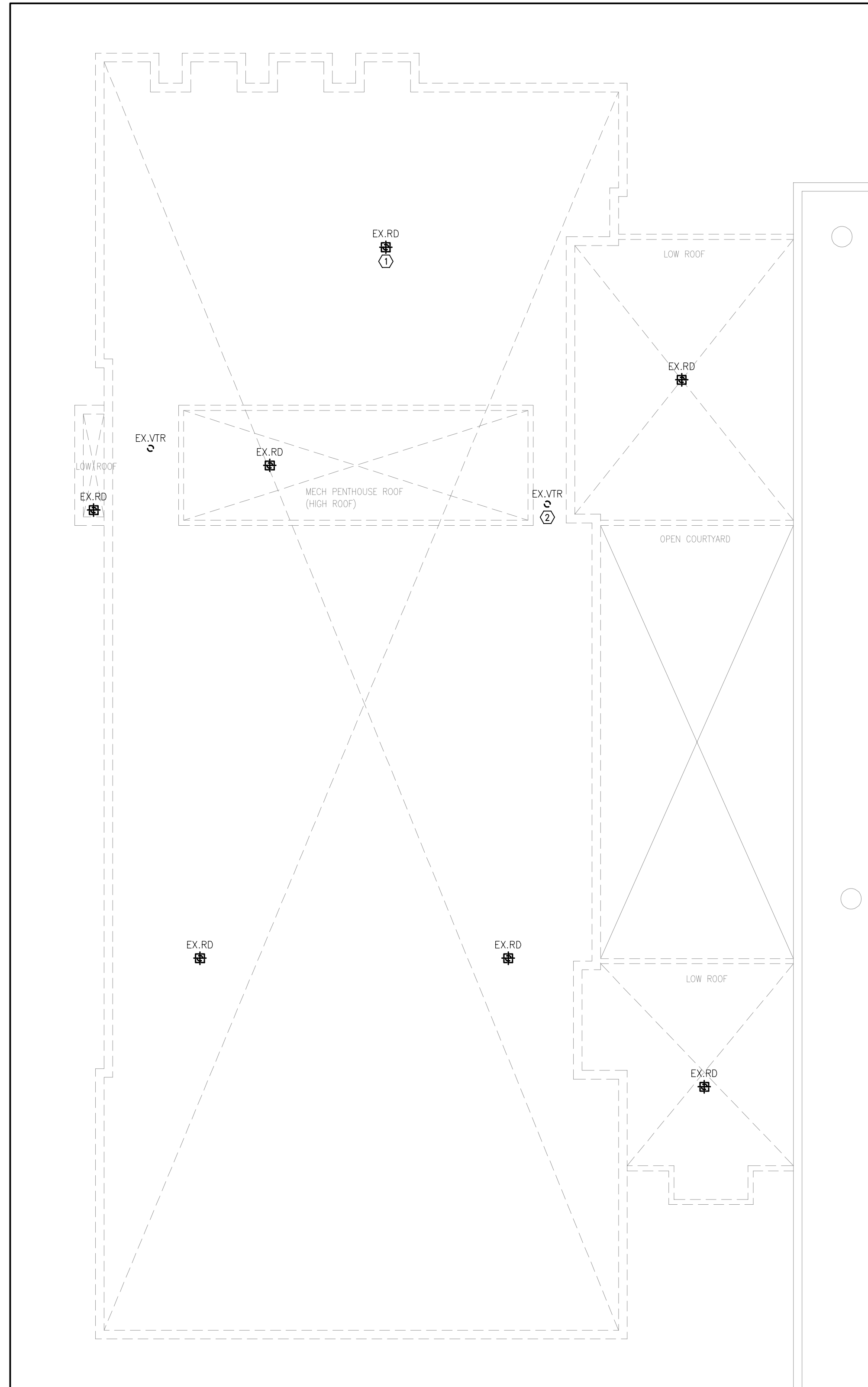
- HVAC BALANCING
  - PROVIDE BALANCING OF ALL AIR AND WATER SYSTEMS AS INDICATED ON MECHANICAL DRAWINGS. THE BALANCING CONTRACTOR SHALL HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE AND BE NEBB CERTIFIED. ALL BALANCING, TESTING ADJUSTING AND REPORTING SHALL BE CARRIED OUT IN ACCORDANCE WITH NEBB. PROCEDURAL STANDARDS FOR TESTING, ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS. WHERE APPLICABLE, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF THE BASE BUILDING APPROVED TAB CONTRACTOR.
  - PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM ACCORDING TO THE CURRENT EDITION OF THE NEBB STANDARDS. MARK EQUIPMENT AND BALANCING DEVICE SETTING WITH PAINT OR OTHER SUITABLE PERMANENT IDENTIFICATION MATERIAL TO SHOW FINAL SETTINGS.
  - BALANCE AIRFLOW AND HYDRONIC FLOW QUANTITIES WITHIN +/- 10% OF THE DESIGN CRITERIA. IN THE EVENT THAT A CONDITION OR DEFICIENCY IS PREVENTING THE ACCEPTANCE RANGE FROM BEING ACHIEVED, IT SHALL BE NOTED WITH DESCRIPTION ON THE TAB REPORT. UPON COMPLETION, SUBMIT A FINAL TAB REPORT TO THE CONSULTANT FOR REVIEW.
- CONTROLS
  - PROVIDE ALL CONTROLS, WIRING, CONDUIT, ACCESSORIES, ETC. AND INTERLOCK WITH EQUIPMENT/STARTERS AS INDICATED ON DRAWINGS.
  - WHEN INSTALLED IN CEILING PLENUMS, CABLE MAY BE FREE-AIR, UNLESS OTHERWISE NOTED, PROVIDING THE WIRING IS FT-6 PLENUM RATED.
  - WHEN INSTALLED IN OPEN AREAS, PROVIDE EMT CONDUIT, FITTINGS, MOUNTING ACCESSORIES, ETC. TO DELIVER A NEAT AND CLEAN INSTALLATION.
  - MOUNTING HEIGHTS:
    - OCCUPANT ADJUSTABLE: MOUNT AT 3'-11" (1200 MM) A.F.F.
    - NON-ADJUSTABLE (SENSOR ONLY): MOUNT AT 5'-0" (1500 MM) A.F.F.
  - \*\*CONFIRM MOUNTING HEIGHTS WITH CONSULTANT PRIOR TO INSTALLATION.
  - COORDINATE INSTALLATION OF ALL CONTROL DEVICES/SENSORS WITH ARCHITECTURAL DRAWINGS.
  - INSTALL CONTROL DEVICES/SENSORS CLEAR OF DIMMERS SO AS TO AVOID INTERFERENCE.
  - THE MECHANICAL CONTRACTOR SHALL TEST ALL CONTROLS/INTERLOCKS FOR GOOD OPERATION PRIOR TO PROJECT CLOSE-OUT. PROVIDE A REPORT FOR REVIEW TO THE ENGINEER INDICATING DEFICIENCIES.
  - WIRE ALL DEVICES TO THEIR RESPECTIVE MAGNETIC STARTERS AND PROVIDE POWER TO DIV.23 CONTROL PANELS FROM NEAREST AND MOST SUITABLE ELECTRICAL PANEL.
  - CONTRACT THE SERVICES OF THE BASE BUILDING APPROVED CONTROLS CONTRACTOR WHERE APPLICABLE.
  - PNEUMATIC CONTROLS
    - PROVIDE TYPE M SEAMLESS COPPER TUBING THAT COMPLIES WITH ASTM B280, WROUGHT COPPER FITTINGS THAT COMPLY WITH ANSI/ASME B16.22, AND JOINTS THAT COMPLY WITH ANSI/ASTM B32.
    - CONCEAL TUBING, UNLESS LOCATED IN MECHANICAL ROOMS, AND MECHANICALLY FASTEN TO SUPPORTING STRUCTURES. PURGE TUBING WITH OIL-FREE COMPRESSED AIR BEFORE CONNECTING TO CONTROL INSTRUMENTS.

### PLUMBING FIXTURE SCHEDULE

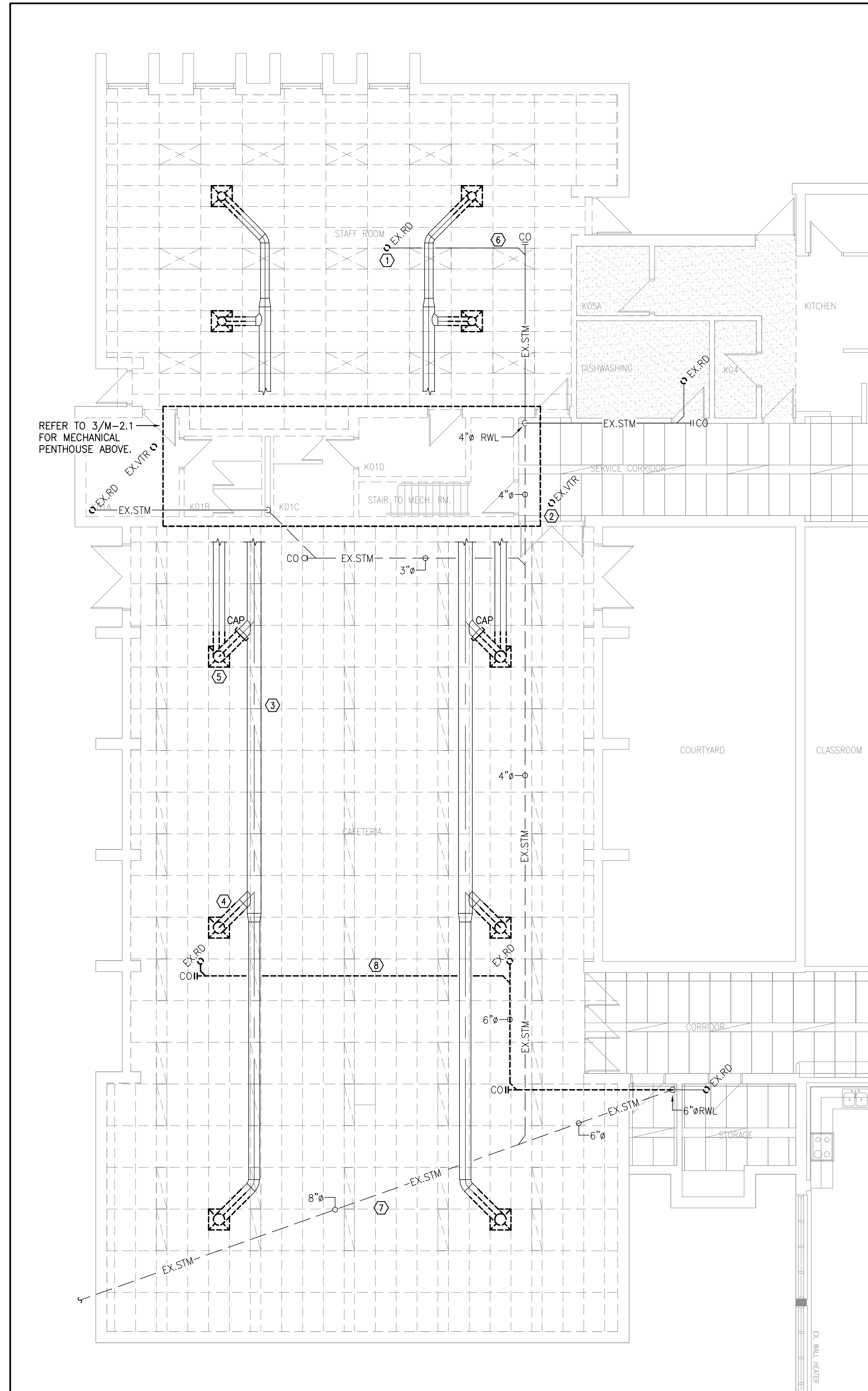
TAG	FIXTURES SPECIFICATION	PIPE CONNECTION				
		TRAP	COLD WATER	HOT WATER	DRAIN	VENT
RD	ROOF DRAIN - CONVENTIONAL  CAST IRON ROOF DRAIN WITH 305 MM (12") DIAM. BODY INCLUDING 241 MM (9-1/2") DIAM. BOWL, ALUMINUM DOME, COMBINATION FLASHING CLAMP COLLAR/GRAVEL GUARD, PROLONGED RIM PROVIDING ADDITIONAL SUPPORT, DECK PLATE, SOLID EXTENSION WITH NEOPRENE GASKET AND STAINLESS STEEL PERFORATED GRAVEL GUARD AROUND DOME.	-	-	-	REFER TO DRAWINGS	-

**NOTES:**  
 1. CONTRACTOR TO CONFIRM SIZE OF EXISTING DRAINS AND PROVIDE NEW ROOF DRAIN TO SUIT.

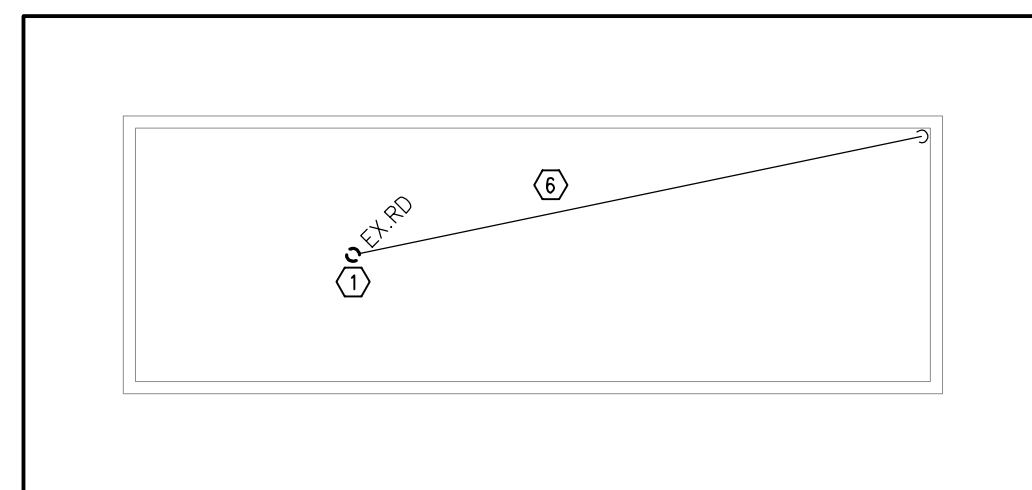




**1 PART ROOF PLAN - MECHANICAL DEMOLITION**  
1/8" = 1'-0"



**2 PART GROUND FLOOR PLAN - MECHANICAL DEMOLITION**  
1/8" = 1'-0"



**3 PENTHOUSE PLAN - MECHANICAL DEMOLITION**  
1/8" = 1'-0"

**DEMOLITION DRAWING NOTES**

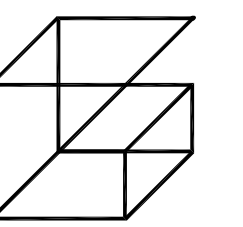
- ① EXISTING ROOF DRAIN TO BE REMOVED AND DISPOSED OF. REMOVE STORM DRAINAGE PIPING TO BELOW ROOF STRUCTURE. PREPARE EXISTING STORM DRAINAGE PIPING TO ACCEPT NEW ROOF DRAIN. SUPPORT EXISTING PIPING AS REQUIRED DURING ROOF REPLACEMENT (TYPICAL).
- ② EXISTING VENT THROUGH ROOF TO BE REMOVED BACK TO BELOW ROOF STRUCTURE. PREPARE EXISTING VENT PIPING TO ACCEPT NEW VTR. PROVIDE SUPPORTS AS REQUIRED TO FACILITATE ROOF REPLACEMENT. PIPING SHALL BE SUPPORTED FROM STRUCTURAL STEEL AND/OR OWSJ (TYPICAL).
- ③ EXISTING S/A DUCTWORK TO REMAIN (TYPICAL).
- ④ EXISTING S/A DUCTWORK TO BE REMOVED AND DISPOSED OF BACK TO WHERE SHOWN. CAP S/A DUCTWORK WHERE INDICATED (TYPICAL).
- ⑤ EXISTING S/A SQUARE CONE DIFFUSER TO BE REMOVED AND RETAINED FOR REINSTALLATION WHERE SHOWN ON NEW PLANS. CLEAN DIFFUSER PRIOR TO REINSTALLATION (TYPICAL).
- ⑥ EXISTING ABOVE GROUND STORM DRAINAGE PIPING TO REMAIN (TYPICAL).
- ⑦ EXISTING BURIED STORM DRAINAGE PIPING TO REMAIN (TYPICAL).
- ⑧ EXISTING STORM DRAINAGE PIPING IN CEILING SPACE TO BE REMOVED BACK TO TOP OF 6" RWL WHERE SHOWN. EXISTING RWL TO REMAIN (TYPICAL).

**GENERAL NOTES**

1. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
2. PERFORM DEMOLITION WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS. AFFECT BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL DEMOLITION SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.
3. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
4. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
5. THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.
6. WHERE EXISTING EQUIPMENT IS TO BE REINSTALLED, CONTRACTOR TO SITE MEASURE ALL EXISTING CURBS PRIOR TO DEMOLITION.

**CONTROLS NOTES**

1. WHERE APPLICABLE, ALL LINE VOLTAGE AND LOW VOLTAGE CONTROLS TO BE DISCONNECTED FOR DEMOLITION AND RECONNECTED UPON REINSTATEMENT OF EQUIPMENT. CONTRACTOR TO TEST GOOD OPERATION OF CONTROLS PRIOR TO PROJECT COMPLETION. PROVIDE REPORT INDICATING THE OUTCOME OF TESTING TO ENGINEER FOR REVIEW.



**Giallonardo Engineering Inc.**  
228-4558 Highway 7  
Woodbridge, ON  
L4L 4Y7  
(905) 265-1052  
info@gi.altonardoeng.com  
www.gialtonardoeng.com

**DISCLAIMER**

This drawing is the property of **GIALLONARDO ENGINEERING INC.**

This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale the drawings.

The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify **GIALLONARDO ENGINEERING INC.** of any variations from the drawings.

NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	OCT. 30, 2024	GG
2	ISSUED FOR 90% REVIEW	NOV. 08, 2024	GG
3	ISSUED FOR TENDER	NOV. 29, 2024	GG

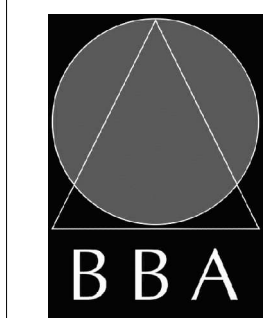
NO.	REVISIONS	DATE	BY

**PROJECT:**  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**

COURTICE SECONDARY SCHOOL  
1717 NASH ROAD

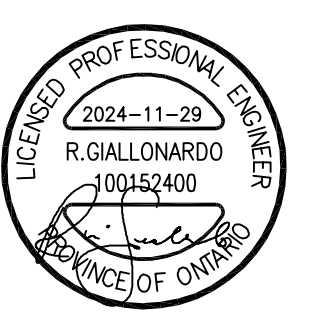
COURTICE, ONTARIO  
KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
**ROOF, GROUND AND PENTHOUSE PLAN - MECHANICAL DEMOLITION**



**BARRY BRYAN ASSOCIATES**  
Architects  
Engineers  
Project Managers

250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5  
Tel: (905) 866-6252  
Fax: (905) 866-6256  
e-mail: bba@bba-archeng.com

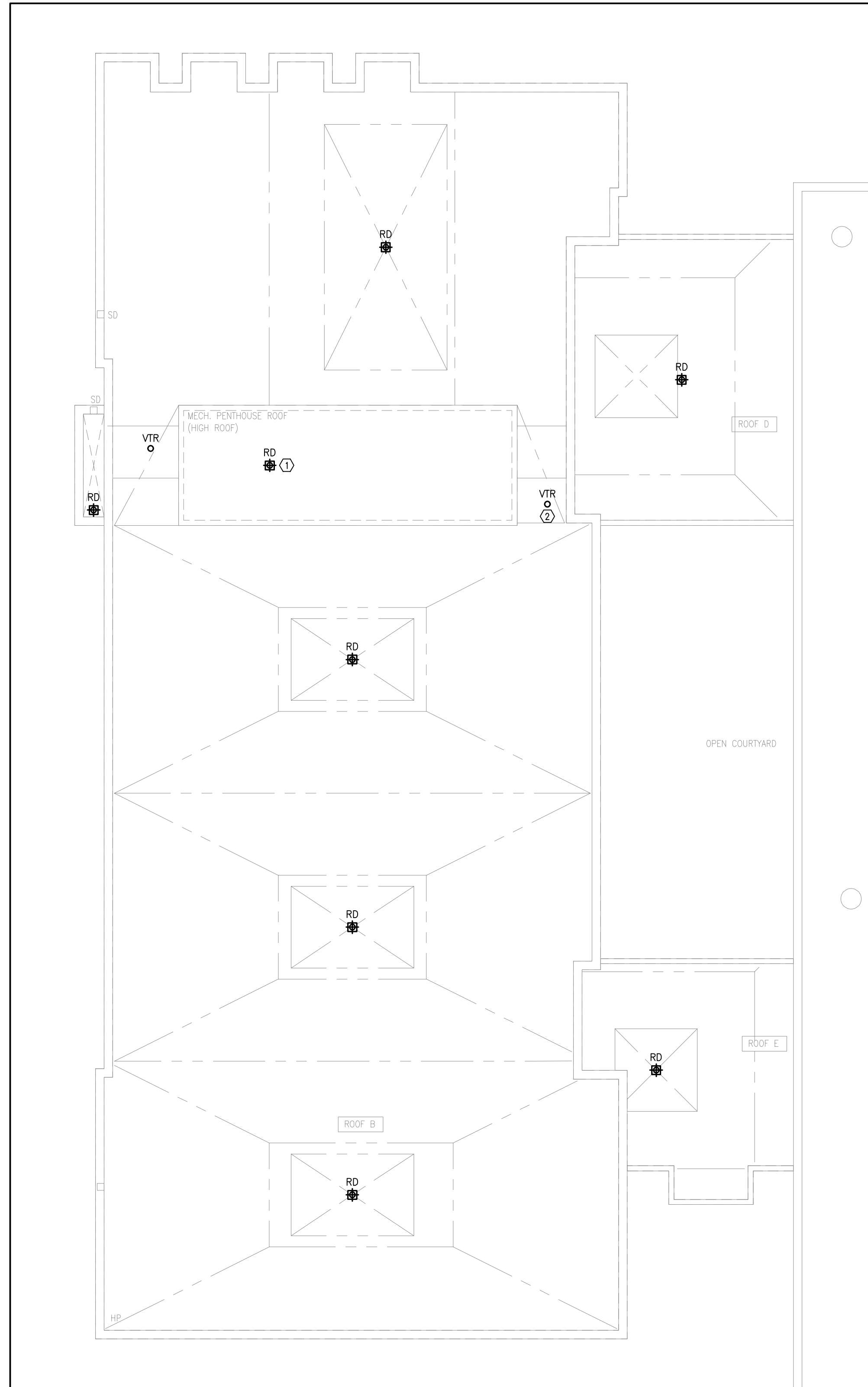


DESIGN BY: JH	DOC CONTROL DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY:	INITIAL:

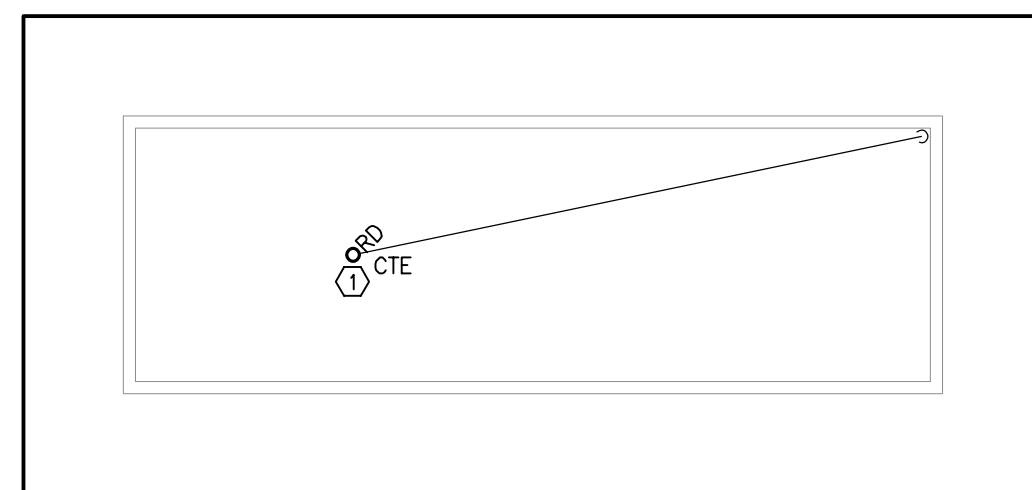
DATE: OCTOBER 2024
SCALE: AS SHOWN
FILE:

PROJECT NO:  
**24-175**

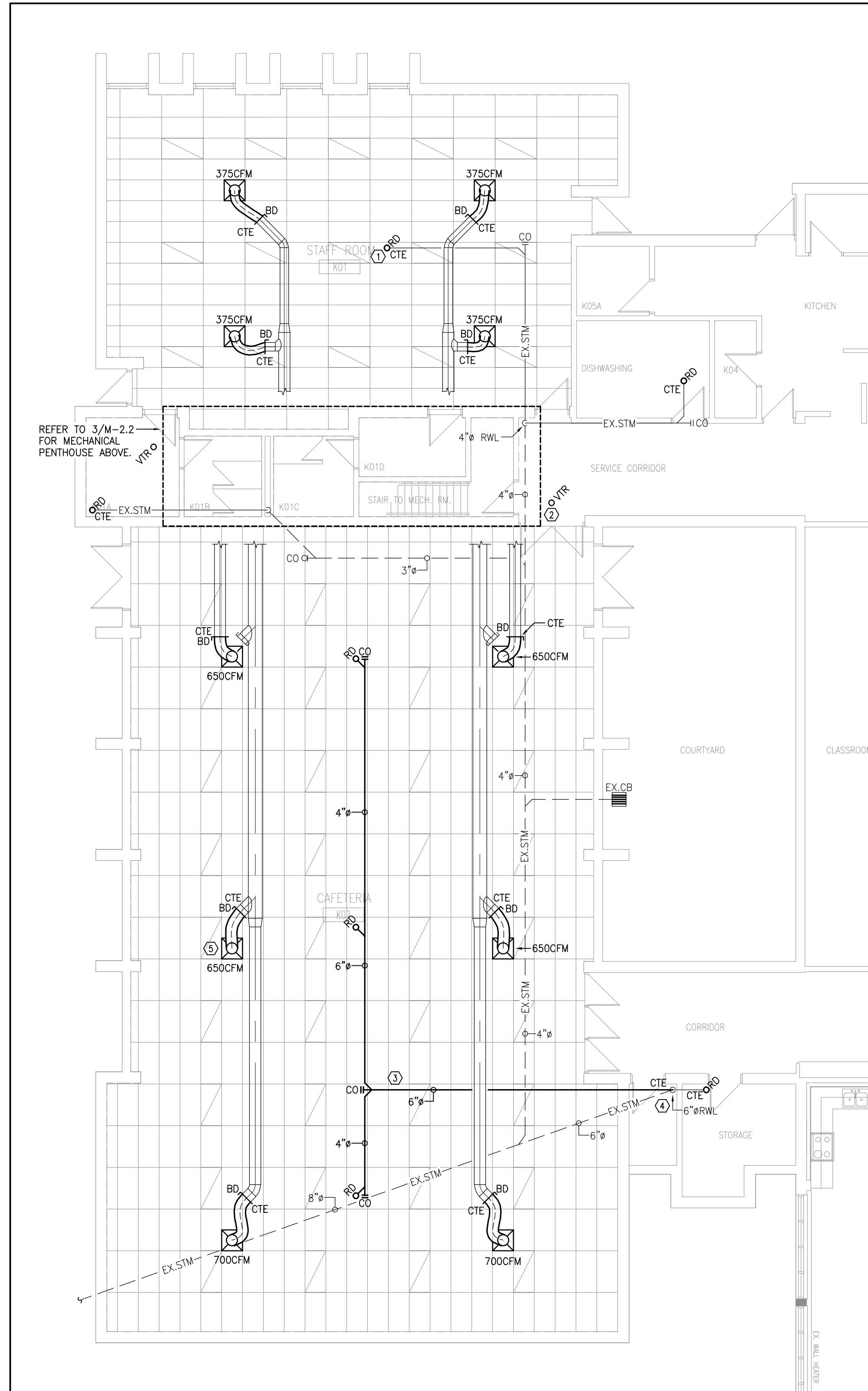
DRAWING NO:  
**M-2.1**



**1** PART ROOF PLAN - MECHANICAL NEW  
1/8" = 1'-0"



**3** PENTHOUSE PLAN - MECHANICAL NEW  
1/8" = 1'-0"



**2** PART GROUND FLOOR PLAN - MECHANICAL NEW  
1/8" = 1'-0"

**DRAWING NOTES**

- ① PROVIDE NEW ROOF DRAIN AS SPECIFIED. CONNECT TO EXISTING STORM DRAINAGE PIPING BELOW. SIZE ROOF DRAIN TO MATCH EXISTING/NEW PIPE SIZE (TYPICAL).
- ② PROVIDE NEW VENT THROUGH ROOF SIZED TO MATCH EXISTING. CONNECT TO EXISTING VENT PIPING BELOW. REFER TO DETAILS (TYPICAL).
- ③ PROVIDE NEW STORM DRAINAGE PIPING SERVING NEW ROOF DRAINS. INSTALL PIPING THROUGH JOIST ANGLES WHERE APPLICABLE. INSULATE PIPING AS PER MECHANICAL SPECIFICATIONS (TYPICAL).
- ④ CONNECT NEW STORM DRAINAGE PIPING TO EXISTING RWL. MODIFY HEIGHT OF EXISTING RWL AS REQUIRED TO SUIT NEW CONNECTION.
- ⑤ REINSTALL EXISTING SQUARE CONE S/A DIFFUSER NEW FLEXIBLE DUCTWORK AND BALANCING DAMPER. CONNECT TO EXISTING DUCTWORK WHERE SHOWN. BALANCE AS INDICATED (TYPICAL).

**GENERAL NOTES**

1. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
2. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
3. THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.

**CONTROLS NOTES**

1. WHERE APPLICABLE, ALL LINE VOLTAGE AND LOW VOLTAGE CONTROLS TO BE DISCONNECTED FOR DEMOLITION AND RECONNECTED UPON REINSTATEMENT OF EQUIPMENT. CONTRACTOR TO TEST GOOD OPERATION OF CONTROLS PRIOR TO PROJECT COMPLETION. PROVIDE REPORT INDICATING THE OUTCOME OF TESTING TO ENGINEER FOR REVIEW.

**Giallonardo Engineering Inc.**  
228-4558 Highway 7  
Woodbridge, ON  
L4L 4Y7  
(905) 265-1052  
info@gi.alonardoeng.com  
www.giallonardoeng.com

**DISCLAIMER**  
This drawing is the property of GIALLONARDO ENGINEERING INC.  
This drawing shall be read in conjunction with the architectural, structural, electrical and all other consultant's drawings prior to proceeding with the work. Do not scale the drawings.  
The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any variations from the drawings.

NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	OCT. 30, 2024	GG
2	ISSUED FOR 90% REVIEW	NOV. 08, 2024	GG
3	ISSUED FOR TENDER	NOV. 29, 2024	GG

NO.	REVISIONS	DATE	BY

**PROJECT:**  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**  
  
COURTICE SECONDARY SCHOOL  
1717 NASH ROAD  
  
COURTICE, ONTARIO  
KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
**ROOF, GROUND AND PENTHOUSE PLAN - MECHANICAL NEW**

**BARRY BRYAN ASSOCIATES**  
Architects  
Engineers  
Project Managers  
250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5  
Tel: (905) 866-6252  
Fax: (905) 866-6256  
e-mail: bba@bba-archeng.com

DESIGN BY: JH	DOC CONTROL: DATE:
DRAWN BY: RC	% COMPLETE:
CHECKED BY:	INITIAL:
DATE: OCTOBER 2024	
SCALE: AS SHOWN	
FILE:	

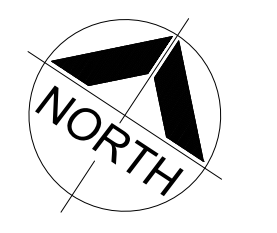
PROJECT NO: **24-175** DRAWING NO: **M-2.2**



CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
 ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
 DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	NOV 01 2024	
2	ISSUED FOR FINAL REVIEW	NOV 08 2024	
3	ISSUED FOR PERMIT AND TENDER	NOV 21 2024	



NO.	REVISIONS	DATE	BY

DYNAMIC DESIGNS AND ENGINEERING INC.  
 ♦♦♦  
 111 Hodgson Ave. Kettleby, Ontario L7B 0C7  
 Tel. (905) 841-7278  
 dyneng@rogers.com

**PROJECT:**  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**

COURTICE SECONDARY SCHOOL  
 1717 NASH ROAD

COURTICE, ONTARIO  
 KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
**ELECTRICAL SPEC; LEGEND, DRAWING LIST, AND DETAILS**

**B B A**

**BARRY BRYAN ASSOCIATES**

Architects  
Engineers  
Project Managers

250 Water Street  
Suite 201  
Whitby, Ontario  
L1N 0G5

Tel: (905) 666-5252  
Fax: (905) 666-5250  
e-mail: bba@bba-archeng.com

24 045

DESIGN BY: TM	DOC CONTROL: DATE:
DRAWN BY: STAFF	% COMPLETE:
CHECKED BY: TM	INITIAL:
DATE: OCTOBER 2024	
SCALE: N.T.S.	
FILE:	

PROJECT NO: **24045** DRAWING NO: **E-1**

DRAWING LIST	
DWG. No.	DESCRIPTION
E-1	ELECTRICAL SPEC., LEGEND, DRAWING LIST, AND DETAILS
E-2	GROUND FLOOR VICINITY PLAN ELECTRICAL
E-3	PART GROUND FLOOR DEMOLITION PLAN ELECTRICAL
E-4	PART GROUND FLOOR PROPOSED PLAN ELECTRICAL

**3 DRAWING LIST**  
 E-1 SCALE: N.T.S.

LEGEND	
SYMBOL	DESCRIPTION
	NEW LUMINAIRE. TYPE AS NOTED.
	EXISTING LUMINAIRE TO BE REMOVED.
	TRACK LIGHTING C/W NUMBER OF FIXTURES INDICATED. FLUORESCENT STRIP LIGHT.
	CEILING MOUNTED (RECESSED OR SURFACE) LUMINAIRE.
	WALL MOUNTED LUMINAIRE.
	COMBINATION CEILING MOUNTED EXIT SIGN C/W FACES, ARROWS AND ADJUSTABLE EMERGENCY HEADS.
	WALL MOUNTED EXIT SIGN C/W FACES AND ARROWS AS INDICATED.
	SINGLE POLE LINE VOLTAGE SWITCH.
	3 WAY LIGHT LINE VOLTAGE SWITCH.
	EXHAUST FAN SWITCH C/W PILOT LIGHT.
	LIGHTING OCCUPANCY SENSOR. PASSIVE INFRARED C/W OVERRIDE SWITCH. WALL MOUNTED.
	LIGHTING OCCUPANCY SENSOR. PASSIVE INFRARED C/W OVERRIDE SWITCH. CEILING OR WALL MOUNTED AS SHOWN ON PLAN.
	DIMMER SWITCH. (RATING AND TYPE TO SUIT LOAD). N LIGHT OR EQUAL.
	WALL MOUNTED DUPLEX RECEPTACLE.
	WALL MOUNTED SPLIT RECEPTACLE.
	WALL MOUNTED DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER.
	WALL MOUNTED SINGLE RECEPTACLE VOLTAGE AND AMP AS INDICATED.
	WALL MOUNTED QUAD RECEPTACLE.
	WALL MOUNTED CABLE T.V OUTLET. PROVIDE CABLE T.V JACK, AND COAXIAL CABLE BACK TO I.T. SERVER ROOM.
	WALL MOUNTED TELEPHONE OUTLET.
	FURNITURE MOUNTED DATA OUTLET.
	WALL MOUNTED DATA OUTLET.
	WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET.
	CEILING MOUNTED WI-FI UNIT.
	POWER POLE WITH DEVICES AS SHOWN.
	DIRECT CONNECTION TO EQUIPMENT AS INDICATED.
	MOTOR CONNECTION.
	UNFUSED DISCONNECT SWITCH.
	PANEL (RECESSED OR SURFACE).
	TRANSFORMER.
	FIRE ALARM SMOKE DETECTOR.
	FIRE ALARM HEAT DETECTOR.
	FIRE ALARM PULL STATION.
	SURFACE FIRE ALARM HORN.
	SURFACE FIRE ALARM HORN/STROBE.
	FIRE ALARM END OF LINE RESISTOR.
	SURFACE EMERGENCY LIGHTING BATTERY UNIT C/W LUMINAIRE(S).
	EMERGENCY LIGHTING REMOTE HEADS DOUBLE, AND SINGLE AS NOTED.
	RECESSED EMERGENCY LIGHTING REMOTE HEAD-ADJUSTABLE.
	RECESSED PAGING SPEAKER.
	RECESSED AUDIO/VISUAL SPEAKER.
	SECURITY KEYPAD.
	SECURITY KEY SWITCH.
	SECURITY MOTION SENSOR.
	SECURITY CARD READER.
	SECURITY DOOR CONTACT.
	SECURITY ELECTRIC STRIKE.
	SECURITY MOTION SENSOR
	SECURITY CAMERA.
	PUSH BUTTON DOOR RELEASE.
	DENOTES REFER TO NOTE N-1.
	DENOTES OVER COUNTER
	DENOTES EXISTING TO REMAIN.
	DENOTES REFER TO DETAIL#6 ON DRAWING #E-1.

**2 ELECTRICAL LEGEND**  
 E-1 SCALE: N.T.S.

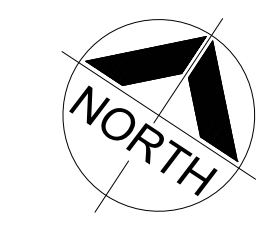
ELECTRICAL SPECIFICATION	
1.	EXAMINE THE EXISTING SITE CONDITION TOGETHER WITH THE PROPOSED WORK AND THE WORK OF ALL OTHER TRADES TO DETERMINE THE COMPLETE EXTENT OF RENOVATIONS TO THE EXISTING BUILDING. INCLUDE IN THE TENDER PRICE FOR THE TOTAL SCOPE OF WORK INCLUDING BUT NOT LIMITED TO CUTTING, PATCHING, REMOVING, REROUTING OF ALL EXISTING ELECTRICAL EQUIPMENT AND WIRING TO SUCCESSFULLY EXECUTE ALL WORK DESCRIBED.
2.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE 2012 ONTARIO BUILDING CODE, PROVINCIAL ELECTRICAL SAFETY CODE, C.S.A. STANDARD, U.L.C., N.F.P.A., O.S.H.A., AND ALL OTHER APPLICABLE CODES AS REQUIRED.
3.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH BASE BUILDING STANDARDS.
4.	OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS. ALL REQUIRED PERMITS SHALL BE SUBMITTED TO THE LANDLORD PRIOR TO COMMENCING THE WORK.
5.	ALL WORK SHALL BE INSTALLED IN A CO-ORDINATED MANNER WITH ALL TRADES.
6.	DRAWINGS SHALL NOT BE SCALED FOR MEASUREMENTS.
7.	ALL INTERRUPTIONS OF SERVICES TO ANY PART OF THE BUILDING SHALL BE EXECUTED ONLY WITH PRIOR APPROVAL AND ARRANGEMENTS WITH THE BUILDING OWNER OR REPRESENTATIVE. MINIMUM 48HRS. NOTICE REQUIRED. INCLUDE FOR ALL PREMIUM TIME REQUIRED FOR INTERRUPTIONS OF SERVICES, AND REQUIRED TIE-INS TO EXISTING SERVICES.
8.	PROVIDE ALL MATERIALS, EQUIPMENT AND LABOUR NECESSARY TO PERFORM THE COMPLETE WORK AS INDICATED.
9.	DAMAGE TO ANY SYSTEM OCCURRING DURING EXECUTION OF THE WORK SHALL BE RECTIFIED AT THE CONTRACTORS EXPENSE.
10.	ALL NEW EQUIPMENT SHALL BE IDENTIFIED WITH LAMACOID PLATES. BLACK BACKGROUND WITH WHITE LETTERING. WORDING ON ALL LAMACOID PLATES SHALL BE APPROVED BY THE CONSULTANT AND THE BUILDING OWNER PRIOR TO ENGRAVING.
11.	PROVIDE A FULLY ITEMIZED BREAKDOWN OF ALL MATERIALS, EQUIPMENT AND LABOUR FOR SUBMISSIONS OF ALL CHANGES TO THE CONTRACT. CONTRACTOR SHALL UTILIZE NECA 1 LABOUR RATES, AND TRADE PRICES. WORK ASSOCIATED WITH ANY CHANGES TO THE CONTRACT SHALL NOT PROCEED WITH-OUT WRITTEN APPROVAL.
12.	PRIOR TO INSTALLATION OF ANY DEVICES, THE CONSULTANT AND OR INTERIOR CONSULTANT SHALL HAVE THE RIGHT TO CHANGE LOCATIONS OF OUTLETS WITHIN 3 METERS ( 10 FEET ) WITH-OUT ANY EXTRA COST TO THE OWNER.
13.	PERFORM ALL WORK REQUIRED TO THE FIRE ALARM SYSTEM AS INDICATED. RETAIN THE FORCES OF THE LANDLORD TO PERFORM FINAL CONNECTIONS, TESTING AND VERIFICATION OF ALL WORK. DEVICES SHALL MATCH THE EXISTING SYSTEM IN CHARACTERISTICS AND TYPES. VERIFY IN ACCORDANCE WITH ULC 524 AND LOCAL AUTHORITIES HAVING JURISDICTION VERIFY F/A BELL CIRCUITS TO ENSURE PROPER OPERATION & COVERAGE.
14.	SUBMIT SHOP DRAWINGS, FIVE ( 5 ) COPIES FOR ALL MAJOR EQUIPMENT. SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED FOR ACCEPTANCE BY THE APPROPRIATE TRADE PRIOR TO STAMPED "REVIEWED" BY THE CONSULTANT.
15.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION SCHEDULE.
16.	LOCATIONS OF ALL FLOOR PENETRATIONS, INCLUDING CORE DRILLING AND SAW CUTTING SHALL BE APPROVED ON SITE BY THE INTERIOR DESIGNER, BUILDING OWNER/LANDLORD, AND STRUCTURAL ENGINEER. OBTAIN ALL NECESSARY APPROVALS PRIOR TO BATT-SCAN AND DRILLING. SUBMIT BATT-SCAN RESULTS FOR LANDLORDS APPROVAL AND OBTAIN 48HRS PRIOR PERMISSION TO COMMENCE CORE DRILLING. INCLUDE FOR ALL COSTS.
17.	PROVIDE THE LANDLORD AND TENANT WITH A 1-YEAR WRITTEN WARRANTY FOR ALL LABOUR, MATERIALS AND EQUIPMENT SUPPLIED IN THIS CONTRACT. WARRANTY SHALL COMMENCE AT SUCH TIME THAT THE CONSULTANT DEEMS THE WORK IS ACCEPTABLE.
18.	ALL POWER WIRING AND SUPPLY OF STARTERS FOR MECHANICAL EQUIPMENT SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. ALL CONTROL WIRING AND CONTROL DEVICES SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. CONFIRM AND CO-ORDINATE ALL POWER CHARACTERISTICS WITH MECHANICAL CONTRACTOR PRIOR TO PROCESSING SHOP DRAWINGS AND EQUIPMENT ORDERING.
19.	PROVIDE ALL ACCESS DOORS WHERE REQUIRED TO SERVICE ALL NEW AND EXISTING EQUIPMENT. ACCESS PANELS SHALL BE EQUAL TO LEHAGE AND SHALL BE COMPATIBLE WITH CEILING/WALL TYPE AND FINISH. ACCESS DOORS SHALL BE RECESSED TYPE WITH A DRYWALL INFILL. ELECTRICAL SERVICES ARE TO BE CO-ORDINATE TO MINIMIZE THE NUMBER OF ACCESS LOCATIONS. CO-ORDINATE LOCATION AND SIZES WITH CONSULTANT. SUBMIT DRAWING(S) TO THE CONSULTANT FOR REVIEW INDICATING SIZE AND LOCATION OF ALL ACCESS LOCATIONS PRIOR TO PROCEEDING WITH THE INSTALLATION.
20.	ALL LUMINAIRES SHALL BE CLEANED AT THE COMPLETION OF THE PROJECT.
21.	OBTAIN AND PAY FOR A CAD DISK DRAWING FILES AND ONE SET OF WHITE PRINTS. MARK WHITE PRINTS TO CLEARLY INDICATE THE INSTALLED WORK. AFTER THE WHITE PRINTS HAVE BEEN REVIEWED BY THE CONSULTANT, TRANSFER ALL INFORMATION, COMMENTS AND REVISIONS ONTO THE AS-BUILT CAD FILES. SUBMIT THE COMPLETED RECORD DRAWINGS AND THE CAD FILES TO THE CONSULTANT, WITH ONE SET OF PRINTS TO THE LANDLORD.
22.	UPON COMPLETION OF THE WORK, PROVIDE A COPY OF THE LOCAL HYDRO CERTIFICATE, AND FIRE ALARM VERIFICATION. SUBMIT RECORDS TO GENERAL CONTRACTOR AND LANDLORD.
23.	PROVIDE TYPE WRITTEN PANELBOARD DIRECTORIES FOR ALL NEW PANELS AND ALL EXISTING PANELS AFFECTED BY THIS RENOVATION.
24.	ALL EQUIPMENT AND MATERIALS SHALL BE NEW, UN-USED AND C.S.A. APPROVED.
25.	ALL WIRING SHALL BE INSTALLED IN CONDUIT. ARMoured "BX" CABLE MAY BE USED TO A MAXIMUM OF 3 METERS ( 10 FEET ) FOR FLEXIBLE LIGHTING, SWITCHED LEGS, EMERGENCY REMOTE HEADS AND EXIT SIGNS.
26.	ALL WIRING SHALL BE COPPER, MINIMUM # 12 AWG RW90.
27.	MINIMUM SIZE OF CONDUIT SHALL BE 20# ( 3/4" ) EMT UNLESS OTHERWISE NOTED. INSTALLATION OF CONDUITS SHALL BE PARALLEL TO BUILDING STRUCTURE. RUN CONDUITS CONCEALED IN ALL FINISHED AREAS.
28.	PROVIDE COPPER GROUND WIRE IN ALL CONDUIT FOR BRANCH AND FEEDER CIRCUITS.
29.	PROVIDE NYLON PULLSTRINGS IN ALL EMPTY CONDUIT.
30.	PROVIDE FLEXIBLE METAL CONDUIT FOR ALL CONNECTIONS TO MOTORS, TRANSFORMERS AND GENERATORS.
31.	INDEPENDENTLY SUPPORT FROM BUILDING STRUCTURE WITH APPROVED CHAINS ALL NEW SURFACE AND RECESSED LUMINAIRES.
32.	PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH CIRCUIT DO NOT SHARE NEUTRALS.
33.	ALL PENETRATIONS THROUGH FLOORS AND FIRE RATED WALLS SHALL BE PACKED AND SEALED WITH APPROVED FIRE MATERIAL AND SILICON SEALANT.
34.	WHERE A MANUFACTURER IS NOT SPECIFIED, THE PRODUCTS SHALL BE OF SAME MANUFACTURER AS BASE BUILDING.
35.	PROVIDE DIMMERS AS INDICATED, DIMMERS SHALL SUIT THE TYPE AND SIZE OF LOAD. PROVIDE DE-BUZZING COILS FOR ALL NEW DIMMERS.
36.	DIMMERS SHALL BE " LUTRON NOVA T " SERIES UNLESS OTHERWISE NOTED.
37.	ALL DEVICES AND COVERPLATES SHALL BE PASS & SEYMOUR MODULAR DECORA TYPE. SPECIFICATION GRADE COLOUR TO INTERIOR CONSULTANTS SELECTION. SUBMIT COLOUR SAMPLES.
38.	ALL SURFACE FLOOR OUTLETS SHALL BE CANADIAN ELECTRICAL RACEWAYS INC. SERIES 4000 OR WELLMARK EQUAL. COLOUR SHALL BE BLACK.
39.	WHERE SWITCHES, DIMMERS, AND RECEPTACLES ARE SHOWN SIDE BY SIDE, PROVIDE GANGED COVERPLATES. GANGED DIMMERS SHALL BE DE-RATED AND INSTALLED AS PER MANUFACTURES INSTRUCTIONS.
40.	ENSURE THAT ALL NEUTRALS OF ALL TRANSFORMERS ARE GROUNDED TO THE BUILDING GROUND SYSTEM IN ACCORDANCE WITH TABLE 16A/16B OF THE O.H.E.S.C.
41.	ALL TRANSFORMERS, DISTRIBUTION PANELS, AND PANELBOARDS SHALL BE COMPLETE WITH COPPER BUS ( OR WINDINGS ), AND 200 % RATED NEUTRALS.
42.	ALL FUSES SHALL BE HRC TYPE " J " WITH TIME DELAY.
43.	CIRCUITING SHOWN FOR GROUPING PURPOSES ONLY. VERIFY EXACT CIRCUITS AVAILABLE AND PROVIDE NEW CIRCUITS AND BREAKERS AS REQUIRED. BALANCE LOADS WITH-IN 10% ACROSS PHASES. SUBMIT TEST REPORT FOR REVIEW BY THE CONSULTANT.
44.	CO-ORDINATE ALL EQUIPMENT SUPPLIED BY OTHER TRADES TO ENSURE VOLTAGE AND AMPERAGE COMPATIBILITY WITH DESIGN DOCUMENTS PRIOR TO EQUIPMENT BEING ORDERED.
45.	PROVIDE TEMPORARY ELECTRICAL POWER AND LIGHTING AS REQUIRED BY THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER. CO-ORDINATE REQUIREMENTS FOR PHASING OF WORK.

**1 ELECTRICAL SPECIFICATION**  
 E-1 SCALE: N.T.S.

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
 ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
 DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	NOV 01 2024	
2	ISSUED FOR FINAL REVIEW	NOV 08 2024	
3	ISSUED FOR PERMIT AND TENDER	NOV 21 2024	



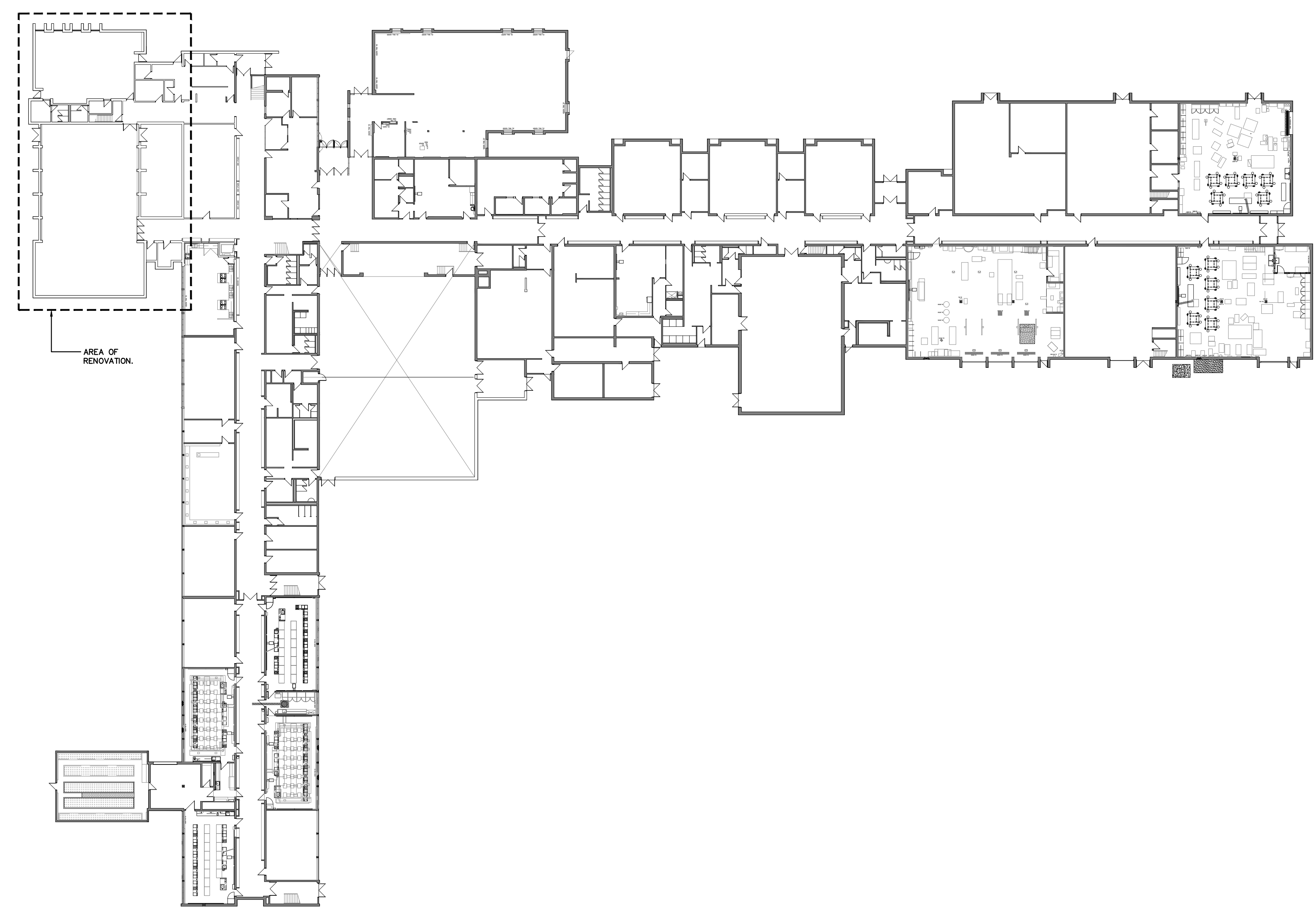
NO.	REVISIONS	DATE	BY


DYNAMIC DESIGNS AND ENGINEERING INC.  
 ♦♦♦  
 111 Hodgson Ave. Kettleby, Ontario L7B 0C7  
 Tel. (905) 841-7278  
 dyneng@rogers.com

PROJECT:  
**CAFETERIA WING SIPOREX ROOF REPLACEMENT**


COURTICE SECONDARY SCHOOL  
 1717 NASH ROAD  
 COURTICE, ONTARIO  
 KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

DRAWING:  
**GROUND FLOOR VICINITY PLAN ELECTRICAL**





**BARRY BRYAN ASSOCIATES**  
 Architects  
 Engineers  
 Project Managers  
 250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 666-5252  
 Fax: (905) 666-5250  
 e-mail: bba@bba-archeng.com



24 045

DESIGN BY: TM	DOC. CONTROL: DATE:
DRAWN BY: STAFF	% COMPLETE:
CHECKED BY: TM	INITIAL:
DATE: OCTOBER 2024	
SCALE: N.T.S.	
FILE:	

PROJECT NO: **24045**      DRAWING NO: **E-2**

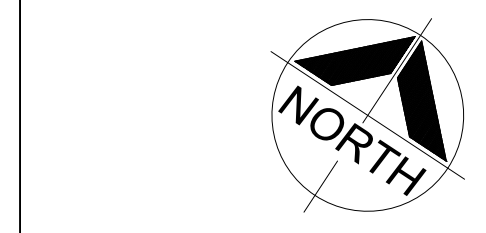
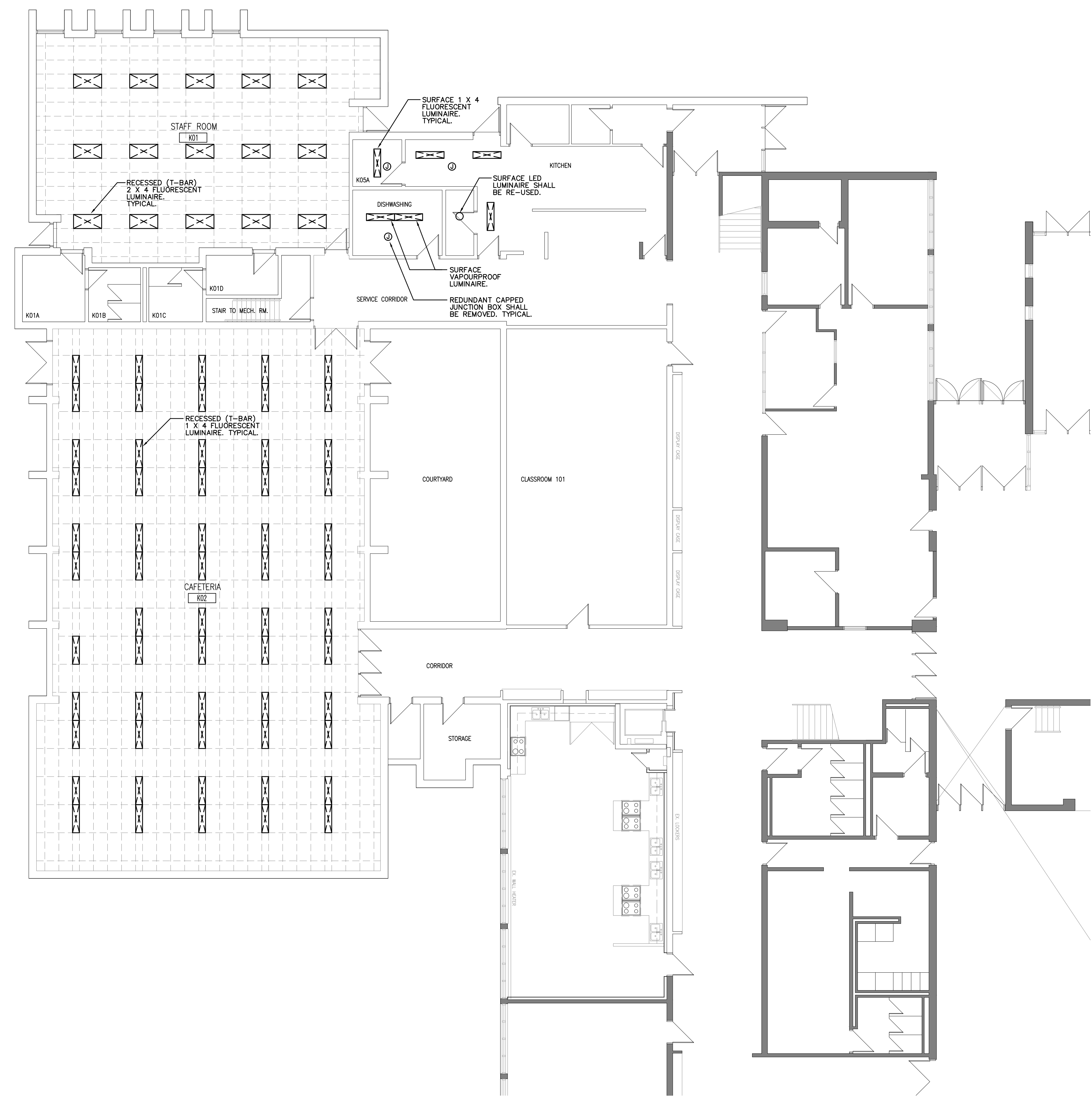
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
 ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
 DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	NOV 01 2024	
2	ISSUED FOR FINAL REVIEW	NOV 08 2024	
3	ISSUED FOR PERMIT AND TENDER	NOV 21 2024	

**NOTES:**

- N-1 COMPLETE EXTENT OF DEMOLITION IS NOT SHOWN. TENDERERS SHALL REVIEW THE SITE TOGETHER WITH THE DOCUMENTS OF ALL OTHER TRADES TO DETERMINE THE COMPLETE EXTENT OF DEMOLITION. MAKE ALLOWANCES FOR ANY NEW OR EXISTING SERVICES, DEVICES, OR EQUIPMENT RELOCATIONS NECESSARY TO COMPLETE THE WORK. ALLOW FOR ALL COSTS.
- N-2 EXISTING DEVICES BEING REMOVED SHALL BE REMOVED C/W ALL ASSOCIATED BACKBOXES, WIRING AND CONDUIT BACK TO ASSOCIATED PANELBOARD/CEILING MOUNTED JUNCTION BOX.
- N-3 ALL DEMOLISHED MATERIALS AND EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED ENTIRELY FROM THE SITE UNLESS OTHERWISE NOTED.
- N-4 ELECTRICAL CONTRACTOR SHALL REMOVE ALL REDUNDANT COMMUNICATIONS WIRING WITH-IN CEILING SPACE OF RENOVATION AREA. ALL WIRING SHALL BE REMOVED BACK TO EXISTING COMMUNICATIONS RACK, AND TELEPHONE BACKBOARD.



NO.	REVISIONS	DATE	BY

DYNAMIC DESIGNS AND ENGINEERING INC.  
 ♦♦♦  
 111 Hodgson Ave. Kettleby, Ontario L7B 0C7  
 Tel. (905) 841-7278  
 dyneng@rogers.com

**PROJECT:**  
**CAFETERIA WING SIPEOREX  
 ROOF REPLACEMENT**

COURTICE SECONDARY SCHOOL  
 1717 NASH ROAD

COURTICE, ONTARIO  
 KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
**PART GROUND FLOOR  
 DEMOLITION PLAN  
 ELECTRICAL**

**B B A**

**BARRY BRYAN  
 ASSOCIATES**  
 Architects  
 Engineers  
 Project Managers  
 250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 666-5252  
 Fax: (905) 666-5250  
 e-mail: bba@bba-archeng.com

24 045

DESIGN BY: TM	DOC. CONTROL: DATE:
DRAWN BY: STAFF	% COMPLETE:
CHECKED BY: TM	INITIAL:
DATE: OCTOBER 2024	
SCALE: 1/8" = 1'-0"	
FILE:	

PROJECT NO: **24045** DRAWING NO: **E-3**

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.  
 ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.  
 DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.



NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	NOV 01 2024	
2	ISSUED FOR FINAL REVIEW	NOV 08 2024	
3	ISSUED FOR PERMIT AND TENDER	NOV 21 2024	

**NOTES:**

- N-1 EXISTING FIRE ALARM HEAT DETECTOR SHALL BE REMOVED, AND RE-INSTALLED TO NEW CEILING ELEMENT. PROVIDE DEVICE RE-VERIFICATION. CO-ORDINATE ALL WORK WITH BASEBUILDING FIRE ALARM SYSTEM VERIFYING AGENT. ELECTRICAL CONTRACTOR SHALL CARRY THE COSTS OF THE BASEBUILDING FIRE ALARM SYSTEM VERIFYING AGENT. SUBMIT FIRE ALARM VERIFICATION AT COMPLETION OF WORK.
- N-2 EXISTING EXIT LIGHT SHALL BE REPLACED WITH NEW RUNNING MAN-PICTOGRAM TYPE. WALL/CEILING MOUNTED AS SHOWN. FACES, AND DIRECTIONS AS NOTED. PROVIDE AMLIGHT #RPSC-BAT1 (SELF-POWERED/120 MIN).
- N-3 ELECTRICAL CONTRACTOR SHALL ALLOW FOR CHAIN SUPPORTS OF ALL NEW & RELOCATED LUMINAIRES THROUGH-OUT THIS RENOVATION. FASTEN 2-POINTS AT BUILDING STRUCTURE, AND 4-POINTS OF LUMINAIRE. SUSPEND/SUPPORT FROM BUILDING STRUCTURE (ROOF JOISTS) AS NOTED UTILIZING TENSO CHAIN.
- N-4 EXISTING EMERGENCY REMOTE HEADS SHALL BE REMOVED, AND RE-INSTALLED TO NEW CEILING ELEMENT.
- N-5 EXISTING SURFACE MOUNTED CONDUIT (SIZE AS NOTED) SHALL BE TEMPORALLY SUPPORTED TO ALLOW FOR CEILING REPLACEMENT. RE-INSTALL, AND RE-SUPPORT TO NEW DRYWALL CEILING.
- N-6 EXISTING FIRE ALARM END OF LINE RESISTOR IN CEILING SPACE CURRENTLY SUPPORTED FROM SIPOREX ROOFING BEING REMOVED SHALL BE RE-SUPPORTED FROM BUILDING STRUCTURE (ROOF JOISTS).
- N-7 EXISTING RECESSED AUDIO/VISUAL SPEAKER SHALL BE REMOVED, AND RE-INSTALLED TO NEW CEILING ELEMENT. REPLACE EXISTING SPEAKER WIRING BACK TO EXISTING A/V RACK. WIRING, AND ZONING TO MATCH EXISTING. NEW WIRING SHALL MATCH EXISTING (F76 PLENUM RATED).
- N-8 EXISTING RECESSED PAGING SPEAKER SHALL BE REPLACED WITH NEW McBRIDE LOUD SPEAKER WITH NEW McBRIDE LOUD SPEAKER SOURCE LTD #BLSBZZ-19. PROVIDE NEW WIRING (CAT 6, F76 PLENUM RATED-WHITE OUTER SHEATH), REPLACE WIRING FROM WHERE IT ENTERS THE CAFETERIA SPACE. CAFETERIA AREA IS CONSIDERED A SINGLE ZONE. PERFORATED SPEAKER COVER SHALL BE PAINTED WHITE, AND RE-USED WITH NEW SPEAKER.

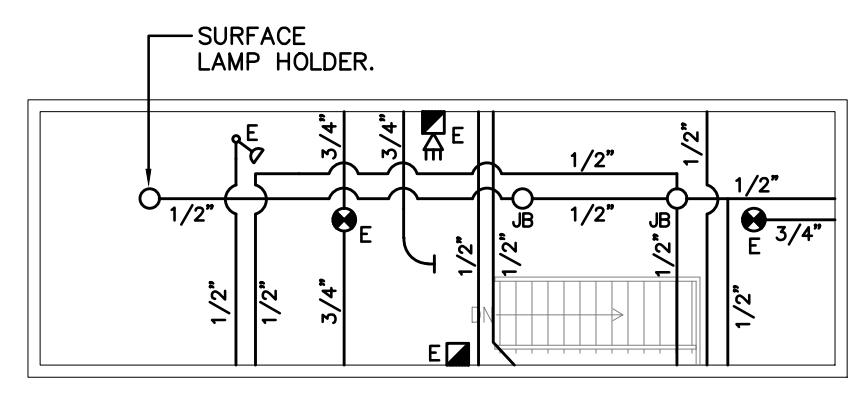
UTILIZE EXISTING LIGHTING CONTROLS, AND CIRCUITS TO FEED & CONTROL NEW LUMINAIRES IN SAME MANNER AS EXISTING. RE-WORK/EXTEND/PROVIDE NEW WIRING AS REQUIRED.

LUMINAIRE SCHEDULE		
TYPE	LAMP	DESCRIPTION
'A'	TBC	SURFACE LED DOWNLIGHT. RE-USE FROM DEMOLITION.
'B'	36.7W LED 4000K	RECESSED (T-BAR) 2 X 4 LED FLAT PANEL. 120V.
'C'	36.9W LED 4000K	SURFACE MOUNTED (DRYWALL) 1 X 4 LED FLAT PANEL. 120V, AND SURFACE MOUNT KIT.
'D'	37.0W LED 4000K	SURFACE 4'-0" LINEAR LED VAPOUR PROOF LUMINAIRE. 120V.

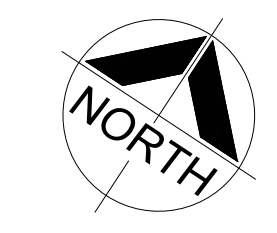
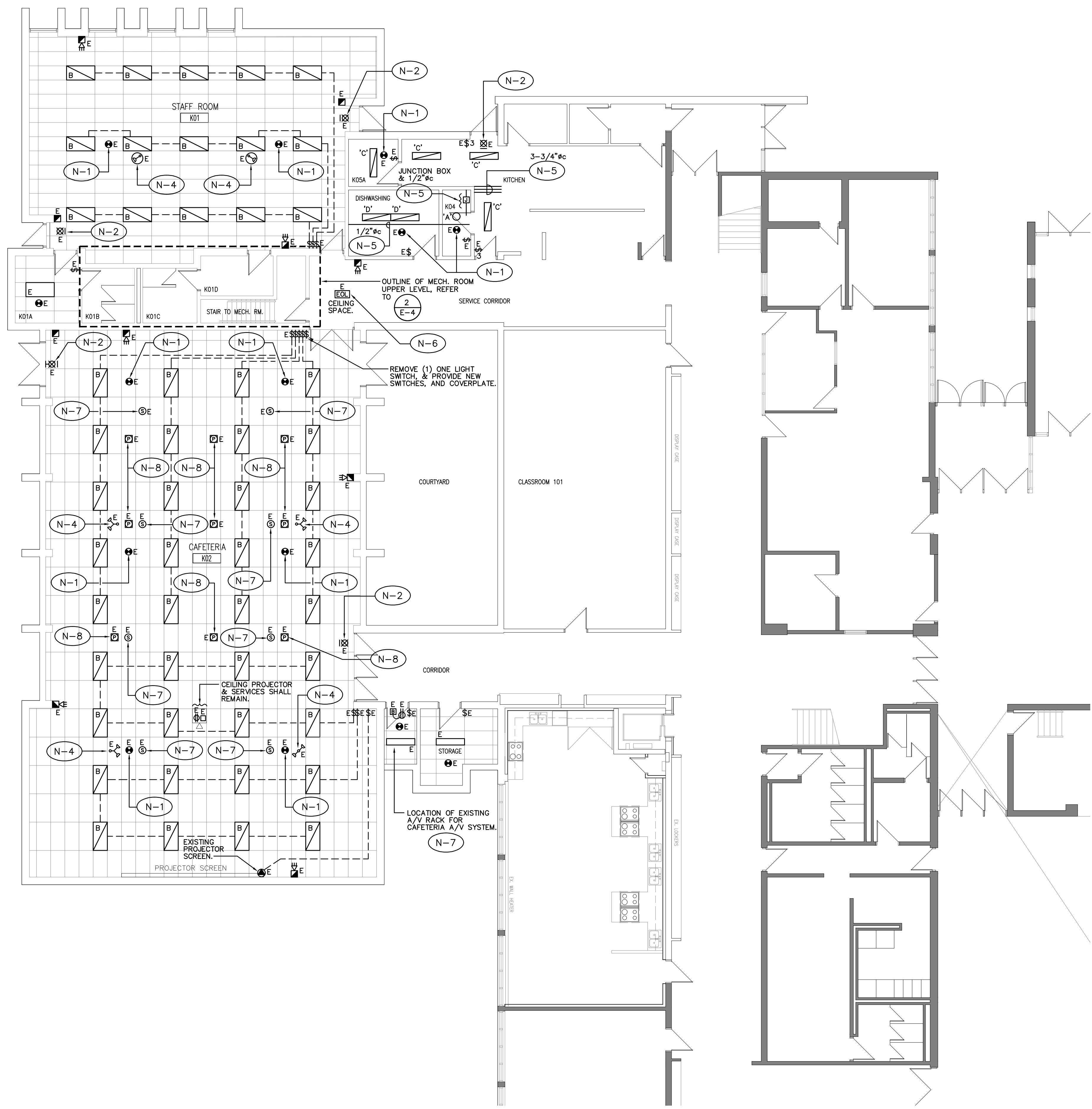
1 LUMINAIRE SCHEDULE  
 E-4 SCALE: N.T.S.

**NOTES:**

- N-1 ALL CONDUIT, JUNCTION BOXES, FIRE ALARM SMOKE DETECTORS, SURFACE LAMP HOLDER, AND EMERGENCY REMOTE HEAD AS SHOWN IS CURRENTLY SUPPORTED, AND FASTENED TO EXISTING SIPOREX ROOFING BEING REMOVED. ELECTRICAL CONTRACTOR SHALL UN-FASTEN ALL CONDUIT, AND DEVICES NOTED TO PERMIT REMOVAL, AND INSTALLATION OF NEW ROOF DECKING. ALLOW FOR TEMPORARY SUPPORTS, AND RE-FASTEN ALL CONDUIT, AND DEVICES TO EXISTING ROOF JOIST. ALLOW FOR ALL UNISTRUT SUPPORTS, AND RE-WORK OF EXISTING CONDUITS, AND DEVICES AS REQUIRED. DO NOT FASTEN TO NEW ROOF DECKING.



2 UPPER LEVEL MECHANICAL ROOM  
 E-4 SCALE: 1/8"=1'-0"



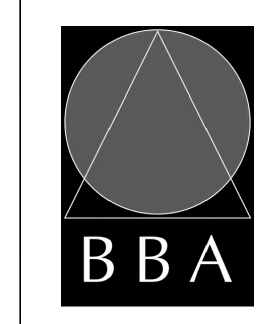
NO.	REVISIONS	DATE	BY

DYNAMIC DESIGNS AND ENGINEERING INC.  
 111 Hodgson Ave. Kettleby, Ontario L7B 0C7  
 Tel. (905) 841-7278  
 dyneng@rogers.com

**PROJECT:**  
 CAFETERIA WING SIPOREX  
 ROOF REPLACEMENT

COURTICE SECONDARY SCHOOL  
 1717 NASH ROAD  
 COURTICE, ONTARIO  
 KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

**DRAWING:**  
 PART GROUND FLOOR  
 PROPOSED PLAN  
 ELECTRICAL



**BARRY BRYAN ASSOCIATES**  
 Architects  
 Engineers  
 Project Managers  
 250 Water Street  
 Suite 201  
 Whitby, Ontario  
 L1N 0G5  
 Tel: (905) 666-5252  
 Fax: (905) 666-5250  
 e-mail: bba@bba-archeng.com



DESIGN BY: TM	DOC. CONTROL: DATE:
DRAWN BY: STAFF	% COMPLETE:
CHECKED BY: TM	INITIAL:
DATE: OCTOBER 2024	
SCALE: 1/8"=1'-0"	
FILE:	

PROJECT NO: **24045**      DRAWING NO: **E-4**