





ARCHITECTURAL

A01 FIRE SEPARATIONS, OBC MATRIX & KEYPLAN A02 DEMOLITION FLOOR PLANS & RCP

A04 INTERIOR ELEVATIONS, ENLARGED

A03 PROPOSED PLANS, RCP, INTERIOR **ELEVATIONS & DETAILS**

STRUCTURAL

MECHANICAL

S01 GENERAL NOTES & TYPICAL DETAILS

WASHROOM PLANS & FLOOR PATTERN

HILLSIDE PUBLIC SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

S02 FRAMING PLANS & DEMOLITION PLANS

M101 NOTES, LEGEND, SHCEDULES & AREA OF **WORK PLAN**

M102 GROUND FLOOR PART PLANS - BELOW GRADE DRAINAGE

M202 GROUND FLOOR PART PLANS - ABOVE GRADE PLUMBING & DRAINAGE

M301 MECHANICAL DETAILS AND SPECIFICATIONS

M203 GROUND FLOOR PART PLANS - HVAC

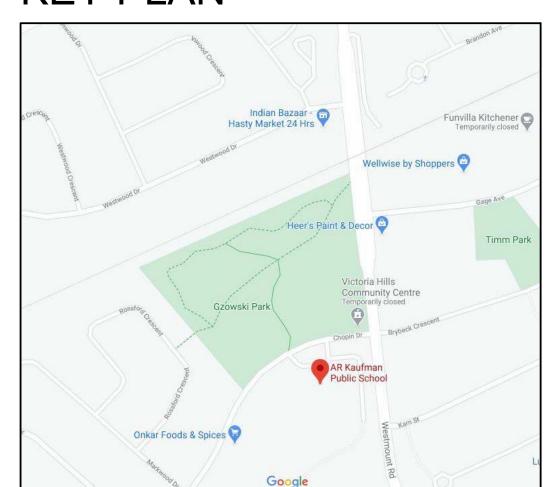
ELECTRICAL

E101 AREA OF WORK, LEGEND AND DETAILS E201 GROUND FLOOR DEMOLITION AND

RENOVATION - LIGHTING E202 GROUND FLOOR DEMOLITION AND RENOVATION - POWER AND SYSTEMS



KEY PLAN

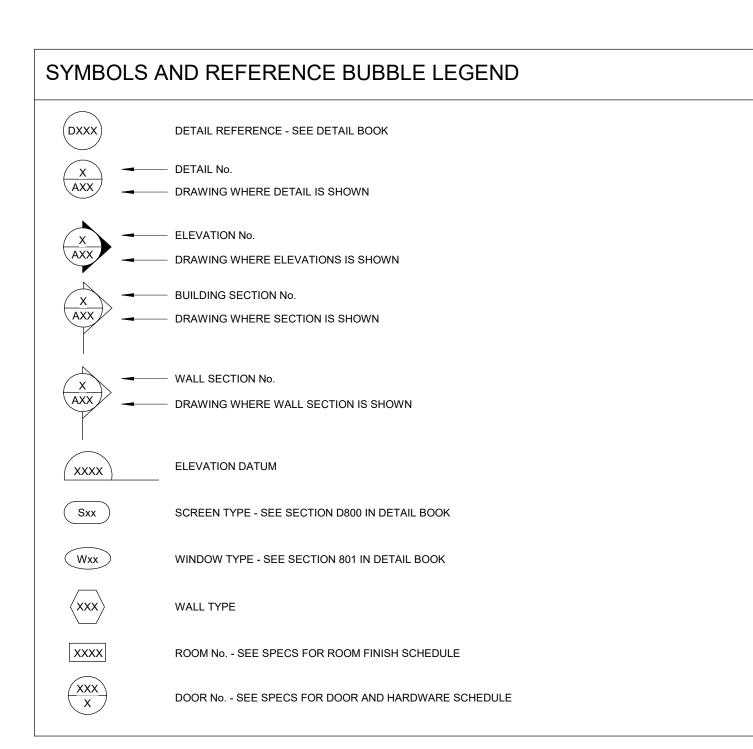


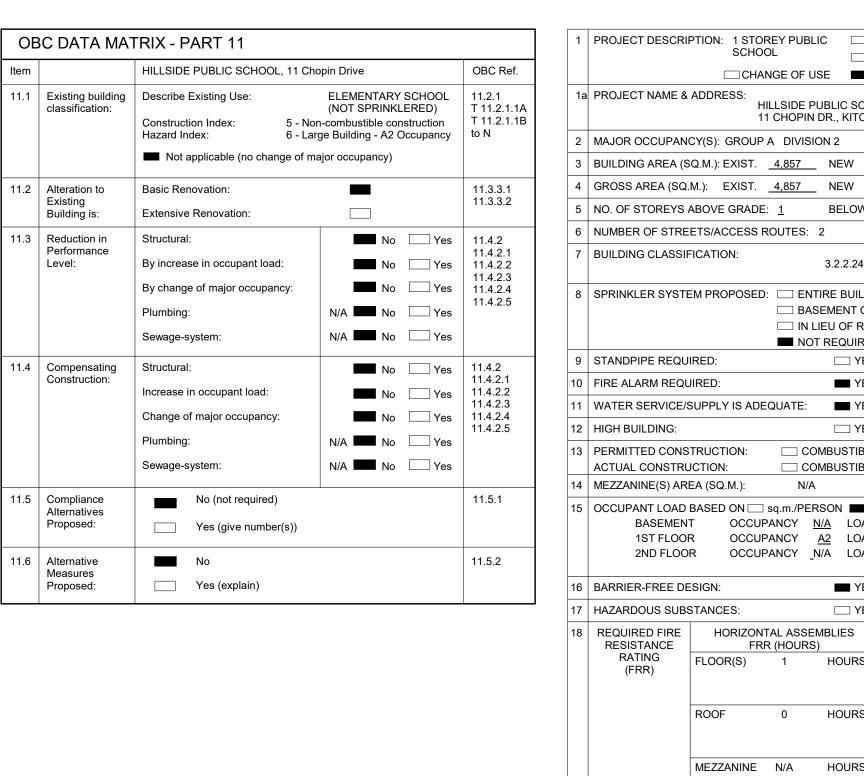


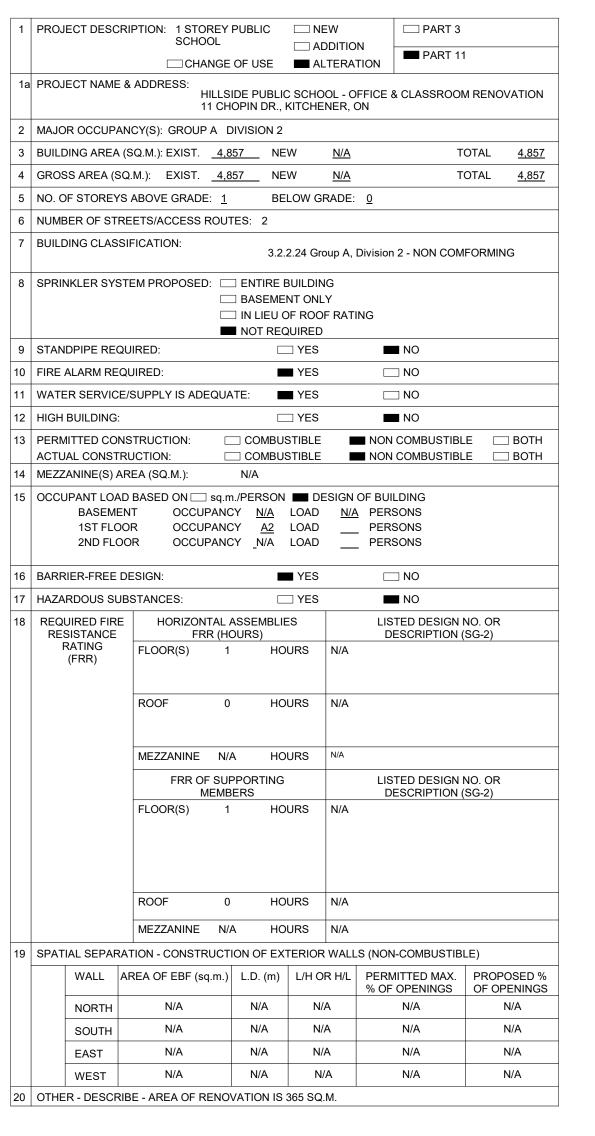
Tender No. 25-7729-RFT HILLSIDE PUBLIC SCHOOL: OFFICE AND STAFF ROOM RENOVATION

11 Chopin Dr. Kitchener, ON 25 03 21

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EXISTING 45 MIN FIRE SEPARATION

EXISTING 1 HOUR FIRE SEPARATION

TABLE B - FIRE RESISTANCE RATINGS FOR REINFORCED PRESTRESSED CONCRETE FLOORS AND ROOF SLABS (PER OBC 2006 SB-2 -TABLE 2.2.1.A) ACTUAL EQUIVALENT THICKNESS (mm)

SLAB DEPTH (mm)

TYPE 'N' CONC

FIRE RESIST. RATING 136 250mm 87 1 HR

.,	E A - FIRE I	NCRE	ETE E		
PARTITIONS (PER OBC 2012 SB-2 -TABLE 2.1.1)					
ACTUAL EQUIVALENT THICKNESS	CONCRETE BLOCK OPTIONS		EQ.T.	FIRE RESIST. RATING	
(mm)	01 110140	LWC	NWC	IVATINO	
106	190mm HOLLOW NORM. WEIGHT	66	73	1 HR	
81	140mm HOLLOW NORM. WEIGHT				
66	90mm HOLLOW LIGHT WEIGHT				
74	90mm 75% SOLID NORM. WEIGHT				

ISSUED FOR TENDER & BP DESCRIPTION AWINGS ARE NOT TO BE SCALED. CONTRACTOR MUS

THE PROJECT; AND MUST REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE

ORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE CONSULTANTS.

PRISCILLA LADOUCEUR

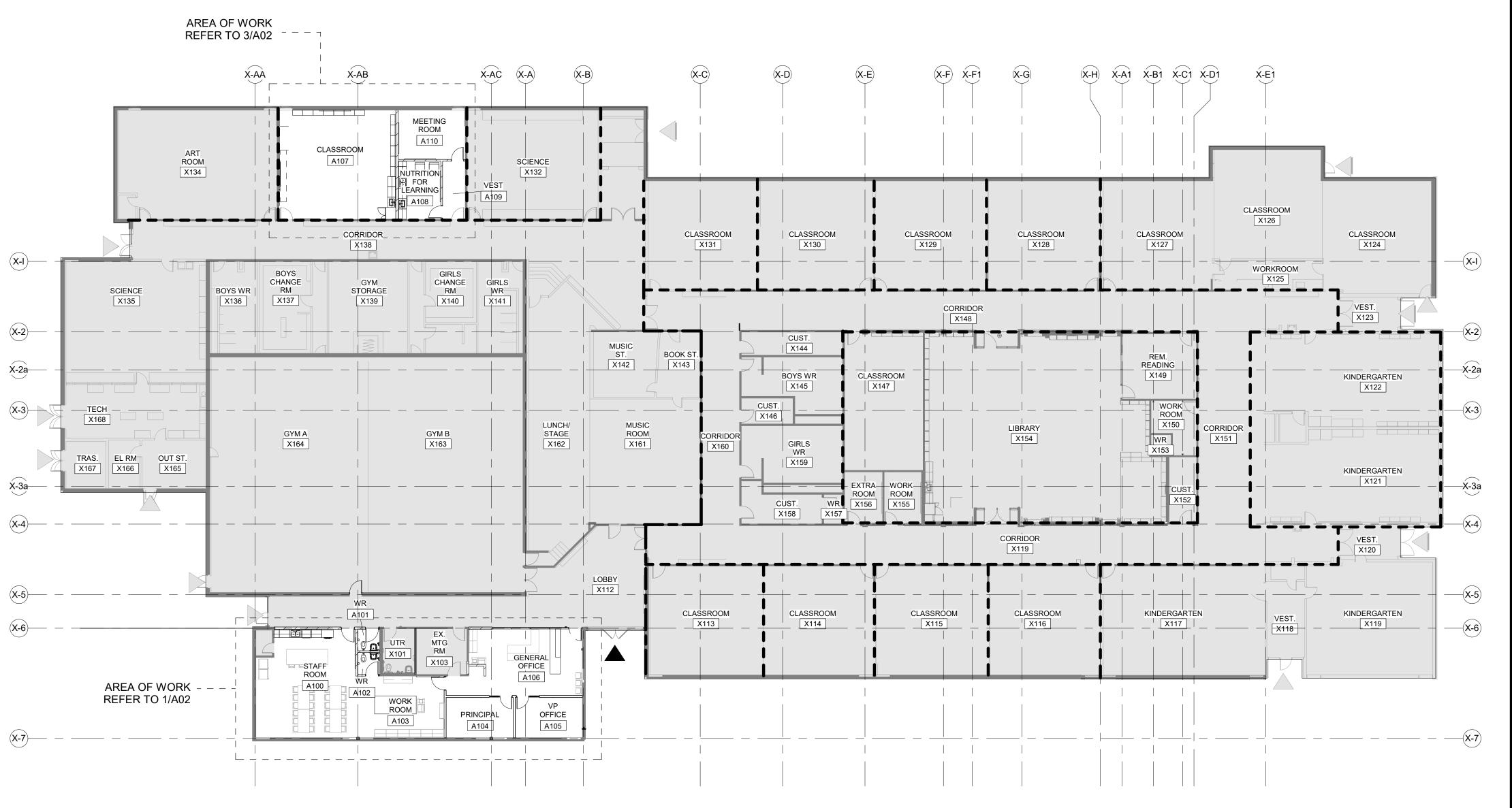
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SCHOOL MAIN OFFICE 8

CLASSROOM RENOVATION

11 CHOPIN DRIVE

KITCHENER, ON





FIRE SEPARATION,

OBC MATRIX & KEY

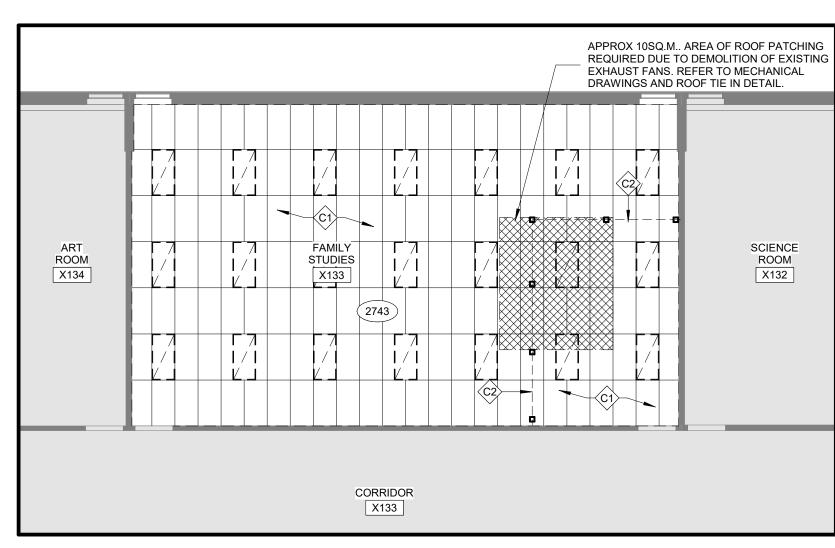
PLAN

HOSSACK ARCHITECTURE

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1 GROUND FLOOR KEY PLAN
A01 SCALE: 1:200



4 PARTIAL DEMOLITION REFLECTED CEILING PLAN -FAMILY STUDIES

SCALE: 1:100

ART ROOM X134 FAMILY STUDIES X133 FAMILY STUDIES X133 FAMILY STUDIES X133 FAMILY STUDIES X133 FAMILY STUDIES X133

3 PARTIAL FLOOR PLAN DEMOLITION - FAMILY STUDIES
A02 SCALE: 1:100

GENERAL DEMOLITION NOTES

for Demolition Floor Plans and Reflected Ceiling Plans

- REMOVE ANY LEFTOVER EXISTING MOUNTING HARDWARE, FITTINGS ETC. ON WALLS INCLUDING, BUT NOT LIMITED TO, BRACKETS, SHELVING AND WINDOW COVERINGS BEING REMOVED AND NOT NOTED FOR RE-INSTALLATION IN AREA OF WORK. PATCH AND MAKE GOOD HOLES IN WALL FROM FITMENT REMOVAL AS REQUIRED FOR NEW FINISHES.
- PATCH AND MAKE GOOD ANY MINOR HOLES DUE TO HARDWARE IN EXISTING WALLS TO PREPARE FOR NEW FINISHES.
- 3. OWNER TO REMOVE ALL LOOSE FURNITURE, PLAQUES, MIRRORS AND ARTWORK PRIOR TO DEMOLITION, PATCH AND MAKE GOOD ANY MINOR HOLES FROM REMOVALS IN EXISTING WALLS TO PREPARE FOR NEW FINISHES.
- 4. ALL PERIMETER WALLS IN AREA OF WORK TO REMAIN SHALL RECEIVE NEW PAINT FINISH. REFER TO ROOM FINISH SCHEDULE.
- 5. FOLLOWING REMOVALS OF FLOORING, ENSURE PREPARATION FOR NEW SURFACES INCLUDING REQUIRED, GRINDING, PATCHING AND LEVELING TO SUIT NEW FLOORING DEPTHS AND FLUSH TRANSITIONS. REFER TO SPECIFICATION AND FINISH SCHEDULE.
- AND LEVELING TO SUIT NEW FLOORING DEPTHS AND FLUSH TRANSITIONS. REFER TO SPECIFICATION AND FINISH SCHEDULE.

 6. WHERE APPLICABLE LEVEL ALL EXISTING FLOORS AND CONNECTIONS BETWEEN NEW AND EXISTING FLOORS
- AS REQUIRED TO RECEIVE NEW FLOOR FINISHES. FEATHER NEW CONCRETE SLABS FOR TRANSITION AT EXISTING WITH REQUIRED FINISHES. INSTALL REQUIRED TRANSITION PIECES BETWEEN VARIOUS FLOOR FINISHES SUITABLE FOR CONDITIONS AND ACCEPTABLE TO THE OWNER. MATCH EXISTING WHERE NOTED. REFER TO ROOM FINISH SCHEDULE FOR REQUIRED FLOOR FINISHES AND LOCATIONS.
- 7. COORDINATE AND PREPARE FOR NEW WORK INCLUDING REMOVALS, CUTTING, PREPARATION ETC. WHETHER ITEMS ARE SHOWN ON DEMOLITION PLAN OR NOT. INCLUDE ALL REQUIREMENTS FOR DEMOLITION AND PREPARATION TO SUIT PROPOSED FLOOR PLANS. ALL NECESSARY DISCONNECTS AND ALTERATIONS TO EXISTING MECH. AND ELECTRICAL SYSTEMS SHALL BE INCLUDED. PATCH AND MAKE GOOD ALL EXISTING FINISHES TO REMAIN. REFER TO SCHEDULES AND SPECIFICATIONS FOR OTHER NECESSARY REQUIREMENTS.
- 8. REFER TO STRUCT. DWGS. FOR TYPICAL FLOOR INFILL DETAILS
- 9. PATCH AND MAKE GOOD ANY EXISTING HOLES DUE TO MECHANICAL / STRUCTURAL / ELECTRICAL PENETRATIONS INCLUDING MATCHING NON-RATED FIRE SEPARATIONS AT ALL REQUIRED WALLS AND BETWEEN FLOORS.
- 10. RENOVATED AREAS TO BE THOROUGHLY CLEANED TO OWNER SATISFACTION, ALL OF CONSTRUCTION DUST, DEBRIS AND
- 11. ALL DIMENSIONS IN AREA OF WORK TO BE FIELD VERIFIED BY G.C. PRIOR TO START OF CONSTRUCTION.
- 12. WHERE PATCH AND MAKE GOOD OCCURS, ENTIRE WALL PLANE SHALL BE PAINTED, INCLUDING WHERE DEFICIENCY CORRECTIONS OCCUR.
- 13. WHERE BLOCK IS PATCHED, CONTRACTOR SHALL USE A SAND-BASED GROUT. DRYWALL COMPOUND WILL NOT BE ACCEPTED.

DEMOLITION NOTES- REFLECTED CEILING PLAN

- REMOVE EXISTING ACOUSTIC CEILING TILES, GRIDS, DIFFUSERS, LIGHTING, RETURNS, ETC. IN ENTIRE ROOM. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR LIGHTING AND HVAC REMOVALS AND RELOCATIONS AND REQUIRED SPRINKLER HEAD / PIPING MODIFICATIONS NOT SHOWN ON THIS DRAWING. PATCH AND MAKE GOOD EXISTING WALLS TO REMAIN AS REQUIRED FOR NEW CEILING.
- REMOVE EXISTING UPPER CABINET SUSPENDED STRUCTURE IN ITS ENTIRETY.
- CAREFULLY REMOVE PORTION OF EXISTING CEILING TILES, GRIDS, DIFUSERS, LIGHTING, RETURNS, ETC. EXTEND SHOWN, AS REQUIRED FOR NEW BLOCK WALL. SAFELY STORE ON SITE EXISTING TILES FOR RE-INSTALLATION. REFER TO MECH. & ELEC. DWGS. G.C. TO REPLACE ANY DAMAGED TILES.

DEMOLITION NOTES

REFER TO FINISH SCHEDULE.

- REMOVE EXISTING FLOORING (INCLUDING CARPET, VINYL AND PORCELAIN TILE), BASE, AND ANY UNDER PAD/NAILING STRIPS. PATCH AND MAKE GOOD EXISTING SUBFLOOR TO ACCEPT NEW FLOORING TO SATISFACTION OF FLOORING SUBTRADE. PATCH AND MAKE GOOD EXISTING WALLS TO REMAIN FOR NEW FINISHES.
- 2 REMOVE ALL EXISTING MILLWORK INCLUDING BUT NOT LIMITED TO UPPER AND LOWER CABINET, BOOKSHELVES, STORAGE CABINETS, ETC.
- REMOVE DOOR AND HARDWARE, FRAME TO REMAIN. REMOVE EXISTING LOOSE PAINT/FINISH ON EXISTING HOLLOW METAL FRAME. CONTRACTOR TO GRIND,
- SAND AS REQUIRED. FILL ANY HÔLES IN FRAME AS REQUIRED FOR NEW COAT OF PAINT. REFER TO ROOM FINISH SCHEDULE AND DOOR SCHEDULE.

 CONTRACTOR TO DISCONNECT EXISTING SINK AND TOILET WHERE APPLICABLE (AND REMOVE ALL PLUMBING AS REQUIRED). REMOVE ACCESSORIES INCLUDING
- 5 CONTRACTOR TO REMOVE EXISTING HOLLOW METAL FRAME AND DOOR IN ITS ENTIRETY. PATCH AND MAKE GOOD FOR NEW DOOR INSTALLATION.
- CONTRACTORS TO CAREFULLY REMOVE EXISTING WOOD DOORS IN AREA OF WORK AND STORE ON SITE FOR REINSTALLATION UPON PROJECT COMPLETION.

 REMOVE EXISTING LOOSE PAINT/FINISH ON EXISTING HOLLOW METAL FRAME. CONTRACTOR TO GRIND, SAND AS REQUIRED. FILL ANY HOLES IN FRAME AS
- REMOVE EXISTING LOOSE PAINT/FINISH ON EXISTING HOLLOW METAL FRAME. CONTRACTOR TO GRIND, SAND AS R REQUIRED FOR NEW COAT OF PAINT. REFER TO ROOM FINISH SCHEDULE AND DOOR SCHEDULE.

PAPER TOILET DISPENSER, SOAP DISPENSER. PATCH AND MAKE GOOD FLOOR AND WALL AS REQUIRED FOR NEW FINISHES.

- REMOVE APPLICANCES INCLUDING FRIDGE, STOVE, ETC. WHERE APPLICABLE.

 REMOVE EXISTING FLOORING (NCLUDING CARPET, VINYL AND PORCELAIN TILE), BASE AND ANY UNDER PAD/NAILING STRIPS. SAWCUT REINFORCED CONCRETE
- REMOVE EXISTING LOOSE PAINT/FINISH ON EXISTING HOLLOW METAL FRAME. CONTRACTOR TO GRIND, SAND AS REQUIRED TO REMOVE ALL SURFACE RUST. FILL

PLUMBING LINE/CONNECTIONS WITH MECH. SERVICES AND ELEC DWGS. PREPARE SURFACE FOR NEW FINISHES. REFER TO ROOM FINISH SCHEDULE.

(8) SLAB INCLUDING SUB-BASE AS REQUIRED FOR NEW PLUMBING LINE, CONNECTIONS & CONDUITS, COORDINATE EXACT SLAB REMOVAL LOCATIONS WITH NEW

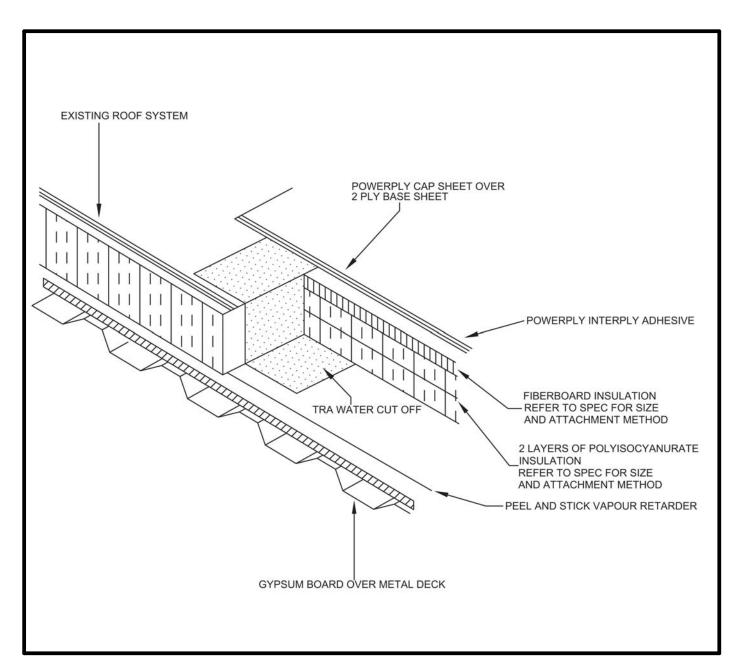
- ANY HOLES IN FRAME AS REQUIRED FOR NEW FINISH.

 REMOVE EXISTING WALL AND BASE (INCLUDING DOOR ASSEMBLY, FRAMES, GLAZING AND FINISHES WHERE APPLICABLE) FROM FINISHED FLOOR TO TOP OF
- WALL TO EXTENT SHOWN. PATCH AND MAKE GOOD FLOOR AS REQUIRED FOR NEW FINISHES. PATCH AND MAKE GOOD ÁDJACENT WALLS TO REMAIN WHERE APPLICABLE FOR NEW FINISHES.

 REMOVE EXISTING TACKBOARDS/WHITEBOARDS. GRIND SMOOTH WALL WHERE ADHESIVE REMAINS FROM REMOVAL. PATCH AND MAKE GOOD WALLS AS
- REQUIRED TO ACCEPT NEW FINISH TO SATISFACTION OF SUBTRADE. REFER TO ROOM FINISH SCHEDULE.

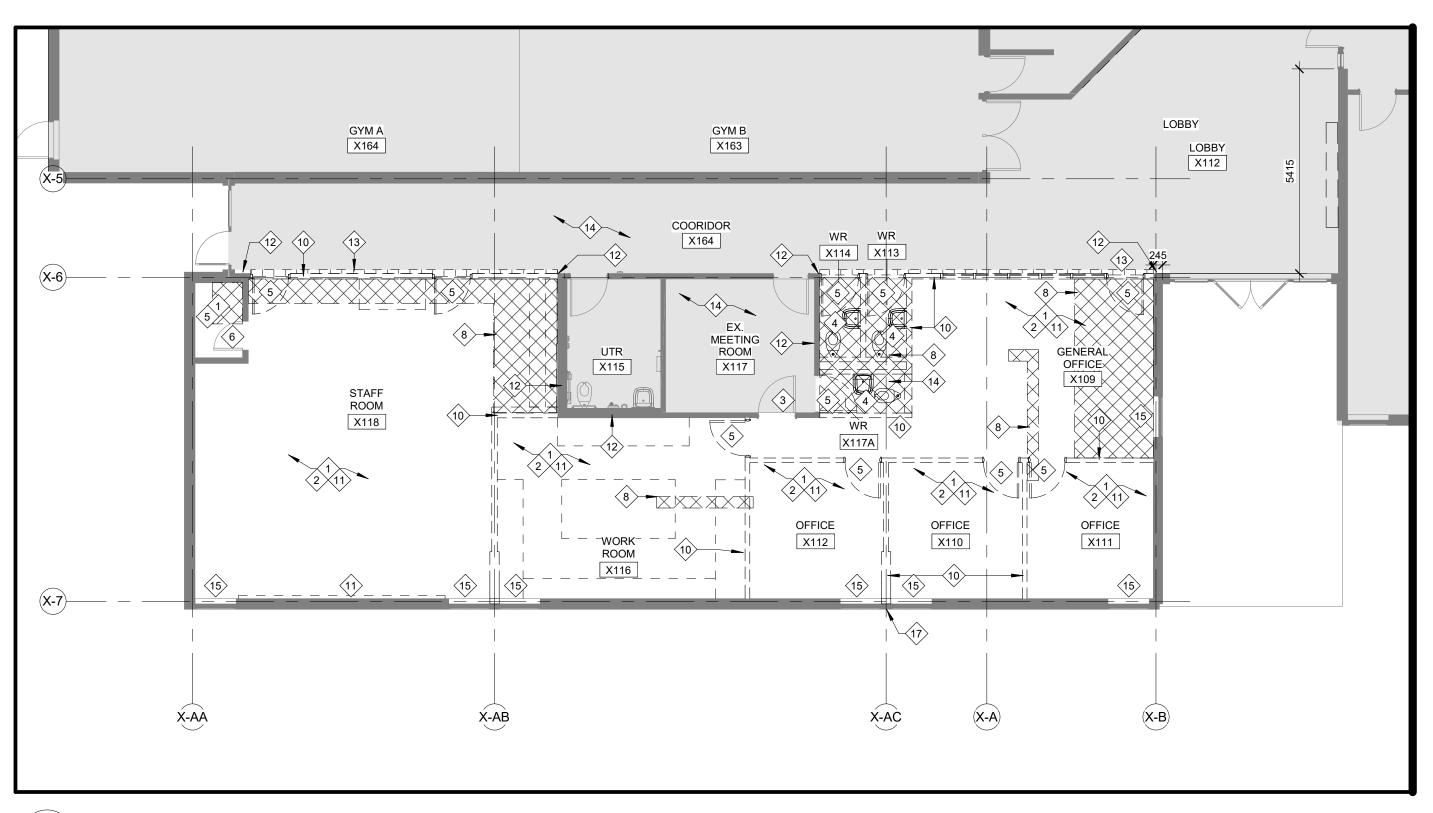
 CONTRACTOR TO PROTECT EXISTING BLOCK WALL TO REMAIN, IN AREA OF WORK. GRIND, PATCH & PARGE WALL AT LOCATIONS OF ADJACENT DEMOLISHED
- WALLS. PREPARE FOR NEW FINISH AND BASE AS REQUIRED.
- SAWCUT AND REMOVE EXISTING TERRAZZO FLOORING INCLUDING SUB-BASE TO EXISTING SLAB AND PREPARE EXISTING DEPRESSED SLAB FOR NEW TERRAZZO FLOOR TO MATCH ELEVATION OF EXISTING.
- CONTRACTOR TO PROTECT FLOORING IN AREAS OF WORK WHERE EXISTING FLOOR FINISH TO REMAIN.
- CONTRACTOR TO REMOVE AND EXISTING BLINDS AND PATCH HOLES IN BLOCK WALL. PREPARE FOR NEW FINISH.

 EXISTING GYPSUM WALL TO REMAIN. PATCH AND MAKE GOOD AS REQUIRED DUE TO REMOVALS FOR NEW FINISH.
- REMOVE AND DISPOSE OF EXISTING HOSE BIB. INFILL OPENING WITH SPRAYFOAM INSULATION AND COVER WITH SECURED PAINTED METAL PLATE

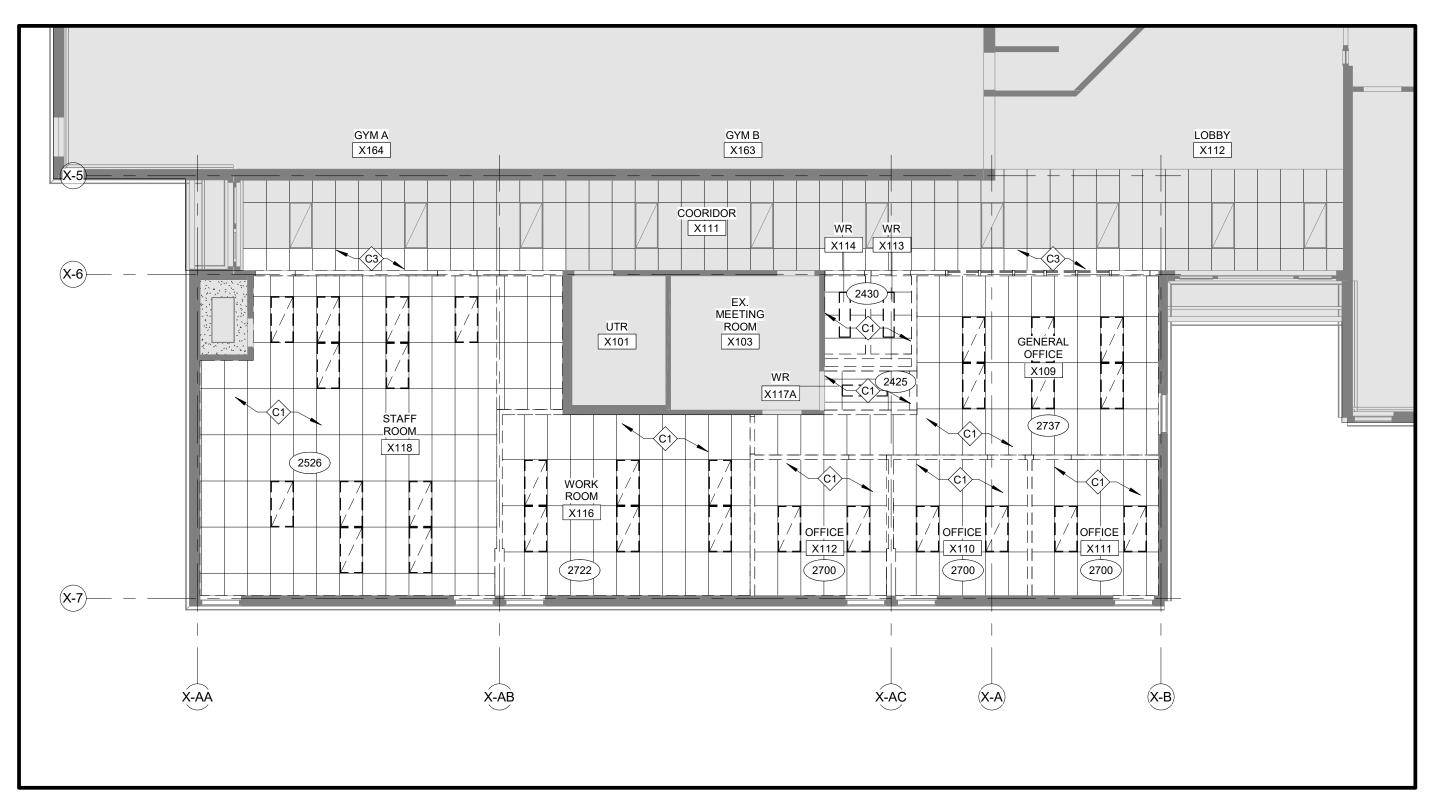


5 ROOF TIE IN DETAIL TYP.

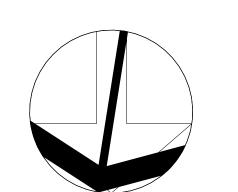
A02 SCALE: 1:10



1 PARTIAL FLOOR PLAN DEMOLITION - OFFICE
A02 SCALE: 1:100



2 PARTIAL DEMOLITION REFLECTED CEILING PLAN - OFFICE
A02 SCALE: 1:100



WALL & FLOOR HATCH LEGEND

EXISTING PORTIONS OF BUILDING
NOT PART OF THIS RENOVATION

EXISTING WALLS TO REMAIN

EXISTING WALLS TO BE DEMOLISHED
REFER TO DEMOLITION PLANS AND

EXISTING WALLS TO BE DEMOLISHE REFER TO DEMOLITION PLANS AND NOTES

EXISTING CONCRETE SLAB ON

GRADE AND SUB-BASE TO BE

REMOVED. REF. DEMOLITION PLANS & NOTES

EXISTING TERRAZZO TO BE REMOVED. REF. DEMOLITION PLANS

& NOTES

NEW TERRAZZO INFILL. REFER TO
NOTES AND ROOM FINISH SCHEDULE

NEW CONCRETE SLAB INFILL C/W SUB-BASE AND NEW FLOOR FINISH. REF. STRUCT. DWGS. AND ROOM FINISH SCHEDULE

1 ISSUED FOR TENDER & BP 25032
NO. DESCRIPTION DATE

DRAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUS
CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS O
THE PROJECT; AND MUST REPORT ANY DISCREPANCIES
TO THE CONSULTANTS BEFORE PROCEEDING WITH THE

VORK. THE USE OF THIS DRAWING OR PART THEREOF I ORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE



SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

11 CHOPIN DRIVE KITCHENER, ON



DEMOLITION FLOOR PLAN & RCP



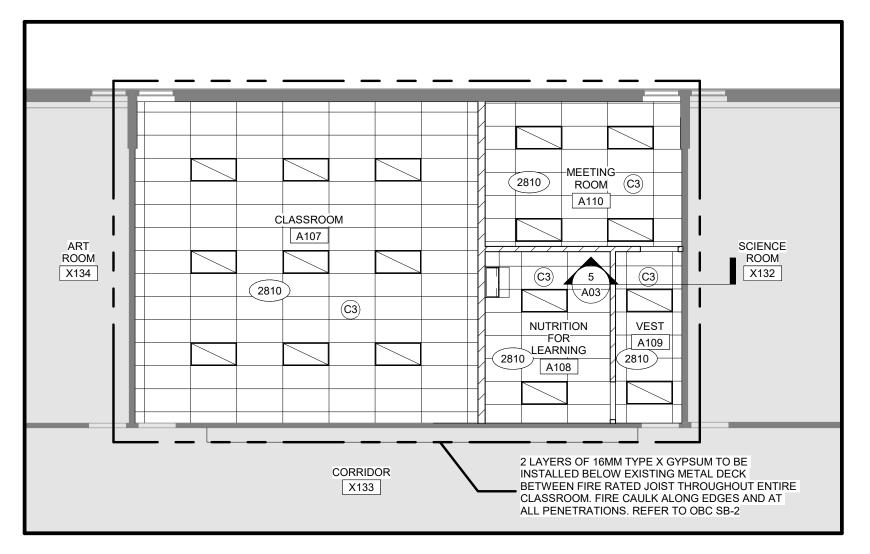
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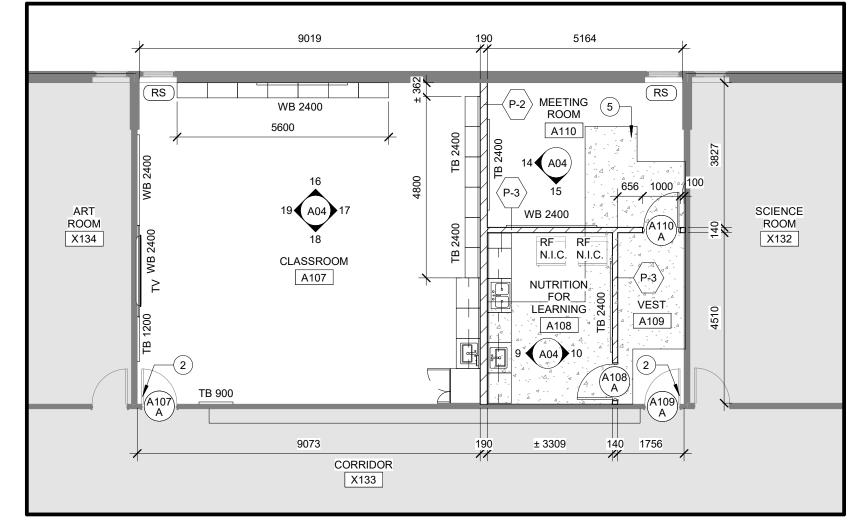
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- 1. GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO CONSTRUCTION.
- ALL REMOVAL/DEMOLITIONS TO BE COORDINATED WITH STRUCT., MECH., ELEC. DWGS. PRIOR TO DEMOLITION. FOR ADDITIONAL DEMOLITION DOCUMENTS AND DETAILS SEE DWGS. AND SPEC.
- OWNER WILL MOVE AND RELOCATE ALL EXISTING FURNITURE AND TEACHING TOOLS WITHIN SCOPE OF WORK PRIOR TO
- GENERAL CONTRACTOR TO X-RAY ALL EXISTING CONCRETE FLOOR SLABS AS REQUIRED PRIOR TO ANY DEMOLITION. IF EXISTING WIRES, CONDUIT, ETC. ARE CUT DURING SLAB DEMOLITION, CONTRACTOR IS RESPONSIBLE TO RESTORE ALL DEVICES. SEE SPEC.
- CONTRACTOR TO REPAIR AND MAKE GOOD ALL EXISTING WALLS AND PAINT WITHIN CONSTRUCTION AREA (INCLUDING CORRIDORS AFFECTED BY RENOVATION) SEE SPEC.
- 6. ALL NOTED DIMENSIONS TO EXISTING WALL ASSEMBLIES ARE +/- AND MAY VARY. CONTRACTOR TO FIELD VERIFY AS REQUIRED.
- ALL AREAS OF WORK TO BE THOROUGHLY CLEANED TO OWNER SATISFACTION PER SPECIFICATIONS.

CONSTRUCTION NOTES

CONSTRUCTION.

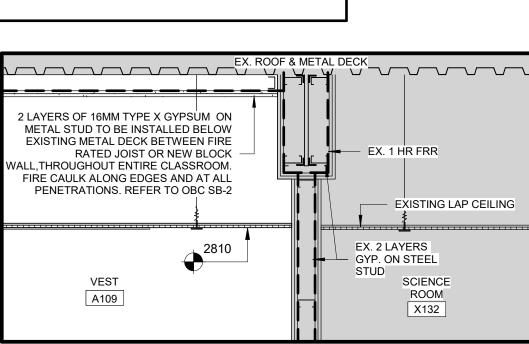
DRAWINGS TO READ IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ABD ELECTRICAL DRAWINGS. CONTRUCTION NOTES TO BE READ IN CONJUNCTION WITH PROPOSED ELEVATIONS.

CONTRATOR TO COORDINATE OVERALL DOOR OPENINGS SHOWN ON THIS PLAN WITH REQUIRED DOOR LEAF WIDTH AND JAMB DETAIL AS DESCRIBED IN DOORS SCHEDULE.

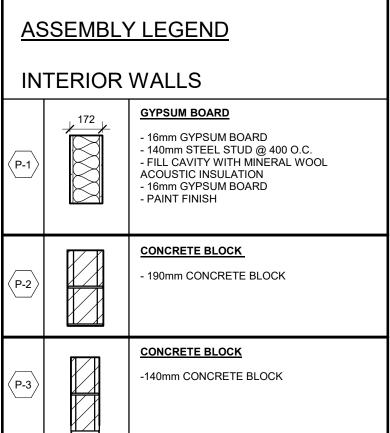
- (1) SUPPLY AND INSTALL NEW DOOR TO EXISTING FRAME. REFER TO DEMOLITION PLAN & DOOR SCEDULE.
- ig(2ig) SUPPLY AND INSTALL NEW HOLLOW METAL DOOR & FRAME. REFER TO DEMOLITION PLAN & DOOR SCHEDULE.
- NEW TERRAZZO INFILL. REFER TO ROOM FINISH SCHEDULE FOR FLOOR FINISH. SLAB TO BE DEPRESSED IN LOCATIONS OF TERRAZZO AND PORCELAIN TILE FLOORING TO ENSURE FINISH FLOOR IS FLUSH WITH ADJACENT.
- 4 PAINT EX. HOLLOW METAL FRAME & DOOR. REFER TO DOOR SCHEDULE.
- NEW REINFORCED CONCRETE SLAB & COMPACTED SUB-BASE INFILL AND FLOOR FINISH. REFER TO ROOM FINISH SCHEDULE FOR FLOOR FINISH. SLAB TO BE DEPRESSED IN LOCATIONS OF TERRAZZO AND PORCELAIN TILE FLOORING TO ENSURE FINISH FLOOR IS FLUSH WITH ADJACENT.
- CONTRACTOR TO GRIND AND PARGE SMOOTH EDGES OF EXPOSED BLOCK ADJACENT NEW COLUMN INSTALLATION. PREPARE FOR 6 NEW FINISH. REFER TO ROOM FINISH SCHEDULE.

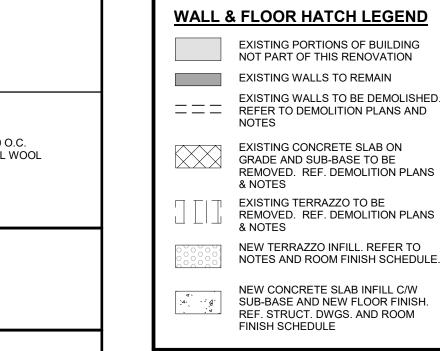
CONSTRUCTION NOTES - REFLECTED CEILING PLAN EXISTING CEILING TILES, GRID, LIGHTS & DEVICES TO BE CAREFULLY REMOVED AND REINSTALLED AS REQUIRED FOR NEW

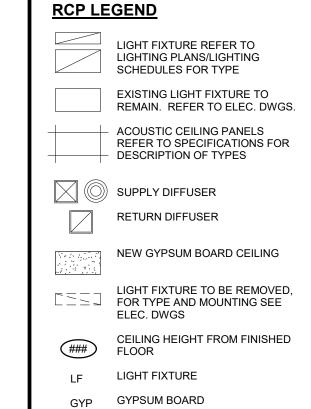
- CORRIDOR WALL. (C2) NEW CEILING TILE & GRID INFILL AROUND NEW GYP. BULKHEAD.
- NEW GRID AND CEILING TILES. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR LIGHT FIXTURES, ELECTRICAL AND MECHANICAL DEVICES.



5 FIRE RATING AT U/S OF DECK
A03 SCALE: 1:20







EXISTING PORTIONS OF BUILDING NOT PART OF THIS RENOVATION

EXISTING WALLS TO BE DEMOLISHED.

REMOVED. REF. DEMOLITION PLANS

REMOVED. REF. DEMOLITION PLANS

NEW TERRAZZO INFILL. REFER TO NOTES AND ROOM FINISH SCHEDULE.

NEW CONCRETE SLAB INFILL C/W SUB-BASE AND NEW FLOOR FINISH. REF. STRUCT. DWGS. AND ROOM

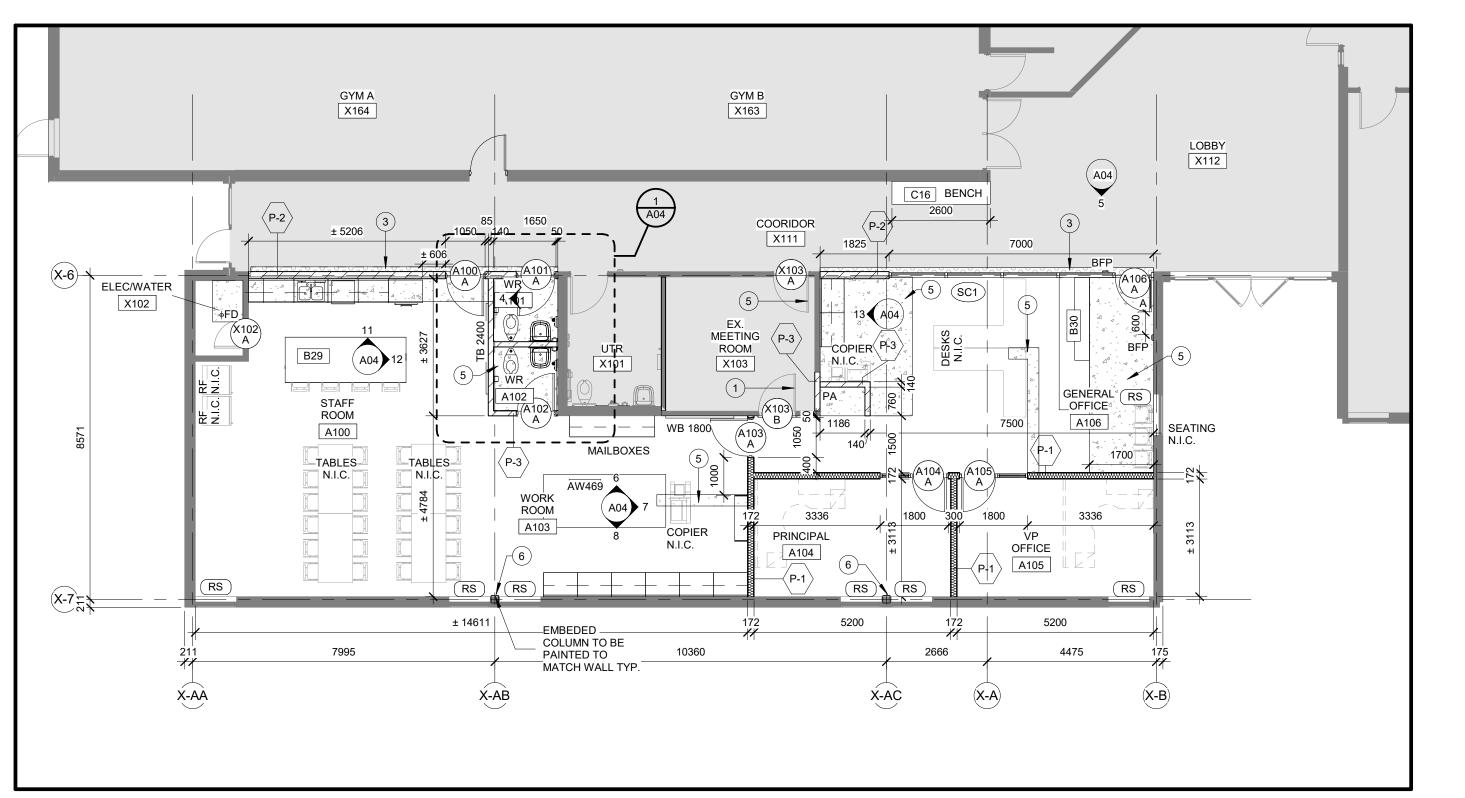
EXISTING CONCRETE SLAB ON GRADE AND SUB-BASE TO BE

EXISTING TERRAZZO TO BE

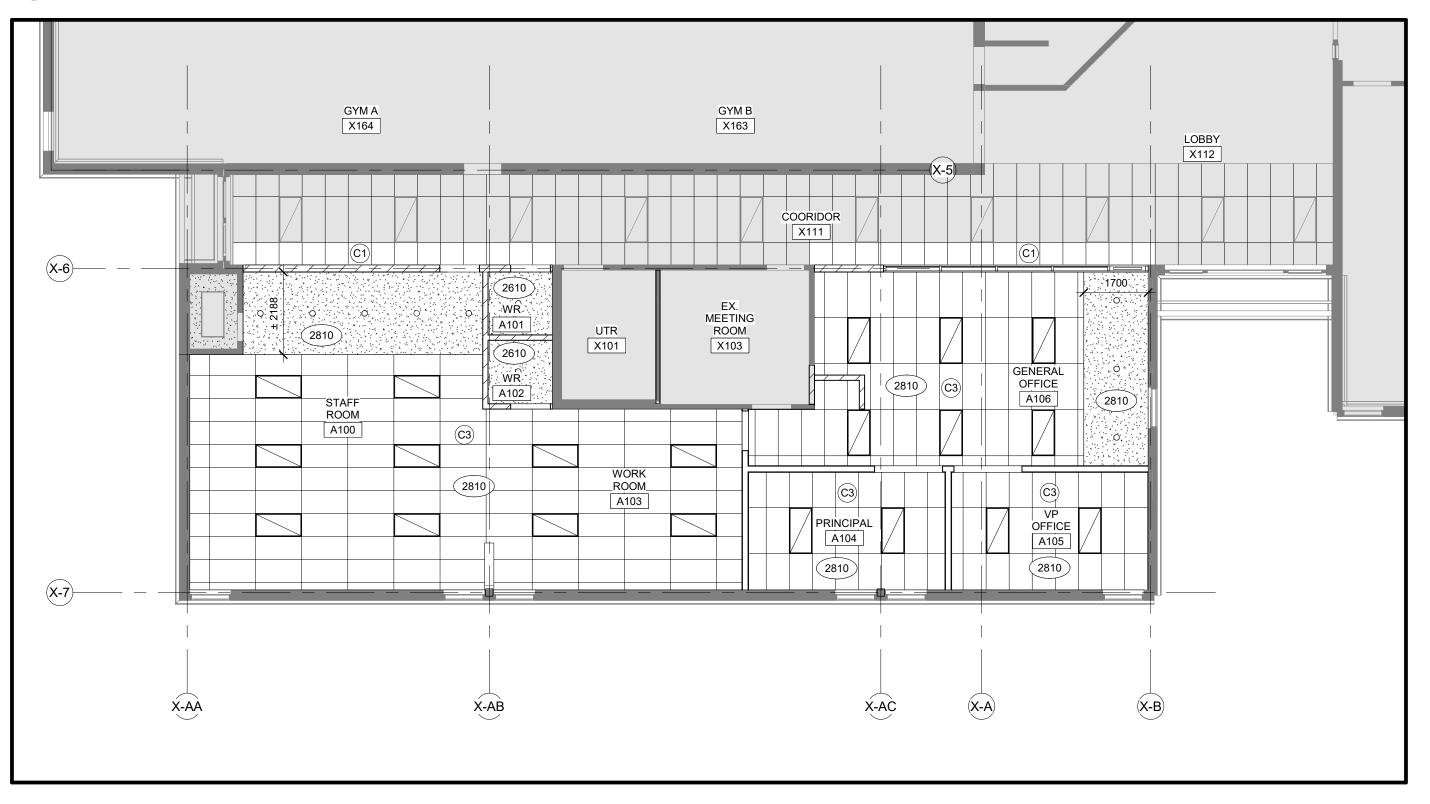
& NOTES

& NOTES

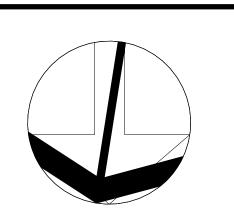
FINISH SCHEDULE



3 PARTIAL PARTIAL PROPOSED FLOOR PLAN - UTR A03 SCALE: 1:100



4 PARTIAL PROPOSED REFLECTED CEILING PLAN - OFFICE
A03 SCALE: 1:100



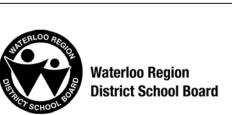
ACTIVE LEAF BARRIER FREE BARRIER FREE PUSH BUTTON BARRIER FREE OPERATOR CONTROL JOINT CONC. CONCRETE
CONT. CONTINUOUS
CWT CERAMIC WALL CERAMIC WALL TILE DOWN DWGS. DRAWINGS FLOOR DRAIN GYPSUM BOARD HAND DRYER LIGHT FIXTURE NOT IN CONTRACT PAPER TOWEL DISPENSER ROLLER SHADES. REFER TO SPECS SOAP DISPENSER TACKBOARD TOILET PAPER DISPENSER TILT MIRROR WHITEBOARD WASHROOM

ISSUED FOR TENDER & BP DESCRIPTION RAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUS THE PROJECT: AND MUST REPORT ANY DISCREPANCIES O THE CONSULTANTS BEFORE PROCEEDING WITH THE FORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE CONSULTANTS.



SCHOOL MAIN OFFICE 8 CLASSROOM RENOVATION

> 11 CHOPIN DRIVE KITCHENER, ON

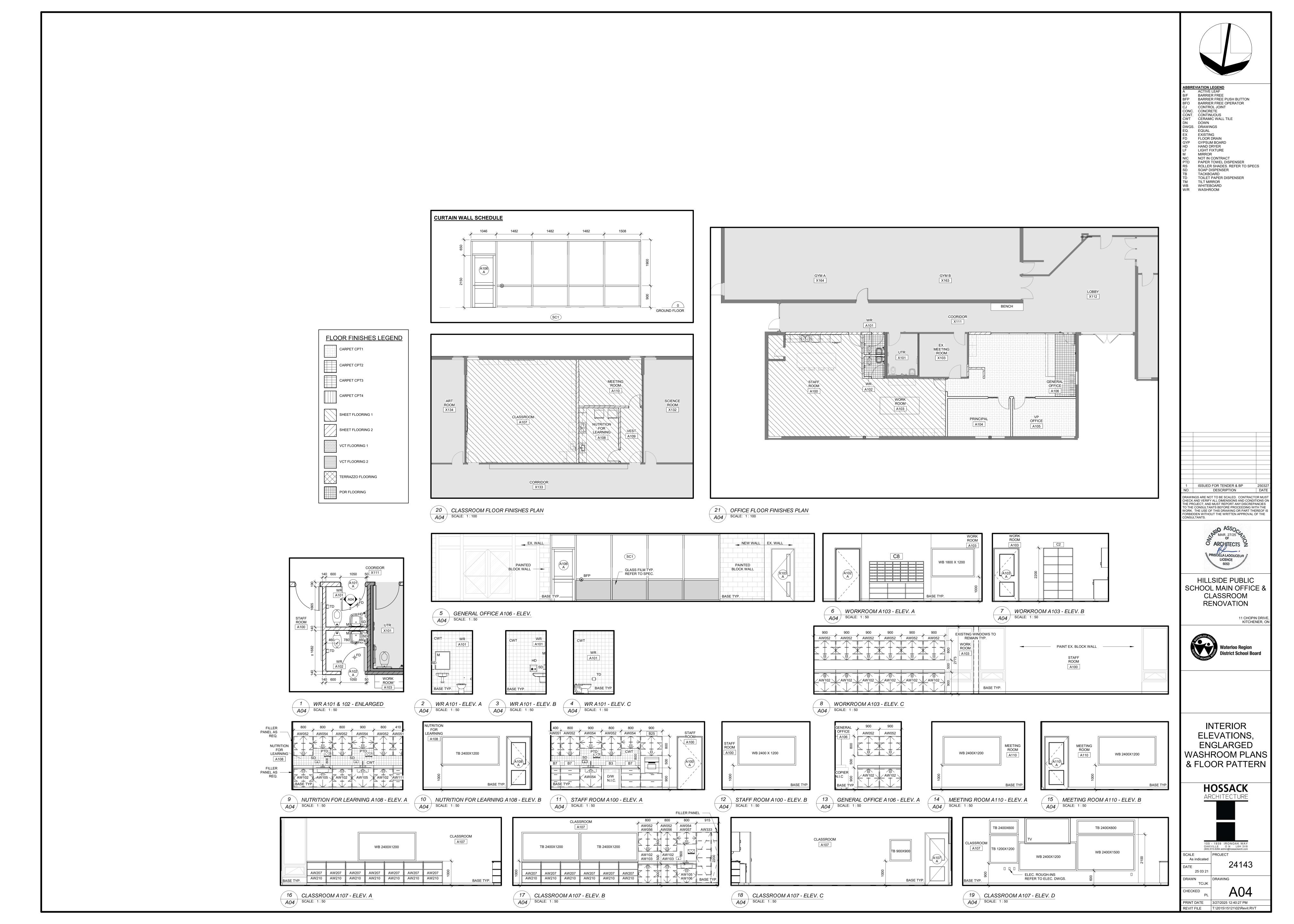


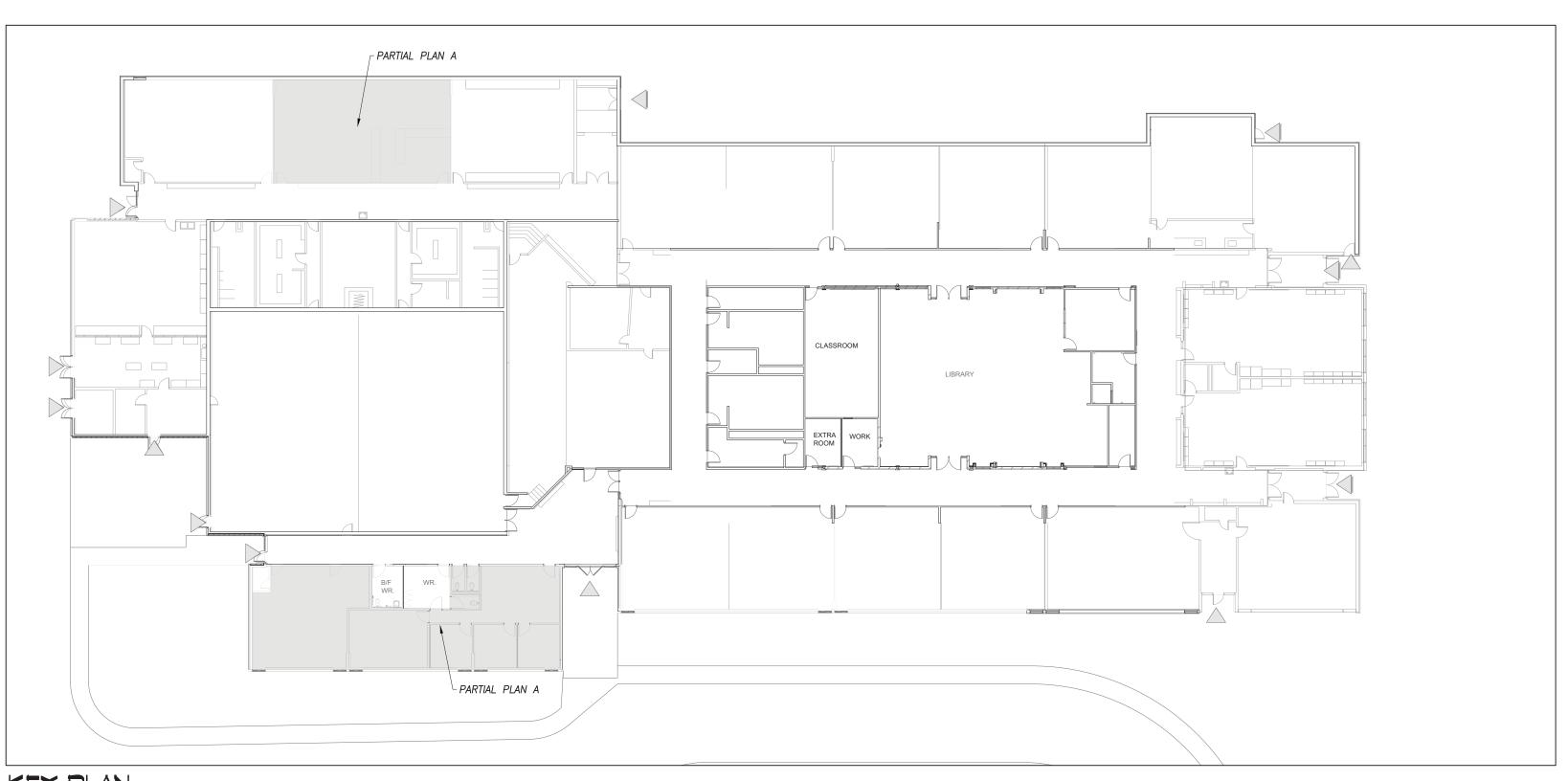
PROPOSED FLOOR PLANS & RCP



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KEY PLAN

LOADING SUMMARY

- DESIGN STANDARDS ONTARIO BUILDING CODE, 2012, PART 4: STRUCTURAL DESIGN
 CAN/CSA-A23.3-04, DESIGN OF CONCRETE STRUCTURES
- CAN/CSA-A23.4-09. DESIGN OF PRECAST CONCRETE STRUCTURES CAN/CSA-S304.1-04, MASONRY DESIGN FOR BUILDINGS
- CAN/CSA-S16-09, LÍMIT STATES DESIGN OF STEEL STRUCTURES CAN/CSA-S136-12, DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS CAN/CSA-086-09, ENGINEERING DESIGN IN WOOD
- SNOW, ICE AND RAIN LOADS APPLIED PER OBC, PART 4, SECTION 4.1.6
- IMPORTANCE FACTOR, Is GROUND SNOW LOAD, Ss
- ASSOCIATED RAIN LOAD, Sr, - WIND EXPOSURE FACTOR, Cw,
- ROOF SNOW LOAD, S. DRIFT LOADS PER CLAUSE 4 1 6 2
- SLOPE FACTORS PER CLAUSE 4.1.6.2.(5) TO (7)
- ROOF LOADS DEAD LOAD: SNOW LOAD:
- 0.8 kPa 2.3 kPa + SPU

0.9 (SLS) 1.15 (ULS) 2.0 kPa (41.77 PSF)

0.4 kPa `(8.35 PSÉ)

2.3 kPa (48.04 PSF)

GENERAL NOTES

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

- 1. SUBMIT FOR REVIEW BY THE CONSULTANT, DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL WORK INCLUDING, BUT NOT LIMITED TO: STRUCTURAL STEEL, AND TEMPORARY SHORING.
- 2. THE SCALE OF THE DRAWINGS SHALL BE SUCH THAT THE DETAILS OF THE STRUCTURAL WORK ARE CLEARLY SHOWN, AND IN NO CASE SMALLER THAN $\frac{1}{4}$ "=1'-0" (1:50).
- 3. THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, FOR USE AS SHOP DRAWINGS.
- 4. EACH DRAWING SUBMITTED FOR STRUCTURAL STEEL AND TEMPORARY SHORING SHALL BEAR THE SEAL AND SIGNATURE OF A QUALIFIED
- PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. 5. CONTRACTOR SHALL ALLOW FOR A 5 WORKING DAY TURN AROUND TIME FOR STRUCTURAL CONSULTANT TO REVIEW THE SHOP DRAWINGS.

LIGHT GAUGE STEEL FRAMING NOTES GENERAL

- 1. THESE NOTES APPLY TO THE STEEL STUD FRAMING COMPONENT OF THE
- 2. THE DESIGN WIND LOADING IS 1.20kN/m² (25 PSF) DETERMINED BY O.B.C. REQUIREMENTS AND CAN-S136. DEFLECTION IS LIMITED TO L/360.
- 3. THE DESIGN OF FRAMING SYSTEM IS BASED ON PUBLISHED STUD SECTION PROPERTIES BY BAILEY METAL PRODUCTS LIMITED.

- 1. THE MINIMUM BASE METAL THICKNESS FOR ALL METAL WALL COMPONENTS, EXCLUDING COATINGS ARE NOTED ON THE DRAWINGS.
- 2. STEEL MEETS THE REQUIREMENTS OF A.S.T.M. A653/A653M SS GRADE 33 (230) FOR 1.22mm MATERIAL AND THINNER, AND SS GRADE 50 (340) CLASS 1 FOR 1.52mm MATERIAL AND THICKER.

EXECUTION 1. METHOD OF CONSTRUCTION SHALL BE BY

-STICK BUILDING ON SITE. 2. CONNECTIONS SHALL BE ACCOMPLISHED BY SELF DRILLING SCREWS AND OTHER FASTENERS AS SHOWN ON THESE DRAWINGS. PENETRATION BEYOND JOINED MATERIALS SHALL BE NOT LESS THAN THREE EXPOSED THREADS. ALL CONNECTORS USED IN ASSEMBLIES SHALL BE OF CORROSION RESISTANT MATERIAL COMPATIBLE WITH GALVANIZED COATINGS WITH A MINIMUM COATING THICKNESS OF 0.039mm ZINC OF CADMIUM PLATES. NO BLACK CONNECTORS

WILL BE ACCEPTED. SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.

- 3. SCREWS COVERED BY SHEATHING MATERIALS SHALL HAVE LOW PROFILE HEADS.
- 4. WIRE TYING IS NOT PERMITTED IN STRUCTURAL APPLICATIONS. 5. CUTTING OF STEEL FRAMING MEMBERS SHALL BE BY SAW OR SHEAR. NO TORCH OR MANUAL CUTTING IS PERMITTED.
- 6. SPLICING OF STUDS OR TRACK IS NOT PERMITTED EXCEPT AS NOTED ON
- 7. BRIDGING SHALL BE OF SIZE, SPACING AND TYPE SHOWN ON THE DRAWINGS AND SHALL BE INSTALLED SO AS TO PROVIDE RESISTANCE TO MINOR AXIS BENDING AND ROTATION OF STUDS. PROVIDE BRIDGING AT 1200mm c/c
- 8. TEMPORARY BRACING SHALL BE PROVIDED AND LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.
- 9. STUDS SHALL SEAT INTO TOP AND BOTTOM TRACKS WITH THE GAP BETWEEN THE END OF THE STUD AND WEB OF THE TRACK NOT TO EXCEED 3mm. 10. VERTICAL ALIGNMENT (PLUMBNESS) OF STUDS SHALL BE WITHIN 1/1000 OF
- 11. HORIZONTAL ALIGNMENT (LEVELNESS) OF WALLS SHALL BE WITHIN 1/1000 OF
- 12. SPACING OF STUDS SHALL BE WITHIN 3mm FROM DESIGN SPACING PROVIDED THAT CUMULATIVE ERROR DOES NOT EXCEED THE REQUIREMENTS OF THE

MASONRY NOTES

THEIR RESPECTIVE LENGTHS.

- 1. ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD S304.1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD A371. ALL MASONRY CONNECTORS, REINFORCING AND TYING SHALL BE IN ACCORDANCE WITH CSA A370. ALL MORTAR AND GROUT SHALL BE IN ACCORDANCE WITH A179.
- 2. ALL CONCRETE BLOCKS SHALL BE NORMAL WEIGHT TYPE H/15/A/M UNLESS OTHERWISE NOTED. MORTAR SHALL BE TYPE S FOR LOADBEARING AND TYPE N FOR NON-LOADBEARING.
- 3. TRIM ALL OPENINGS WITH 2-15M BARS.
- 4. GROUT SHALL CONSIST OF ON ONE PART PORTLAND CEMENT, THREE PARTS SAND (MAXIMUM AGGREGATE SIZE SHALL BE 3/4") WITH WATER TO PROVIDE A MINIMUM 10MPa COMPRESSIVE STRENGTH AT 28 DAYS. SLUMP SHALL BE 8" TO 10".
- 5. ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID. TWO BLOCK COURSES BELOW BEARING PLATES SHALL BE GROUTED SOLID. 6. THE MASONRY SHALL BE CONSTRUCTED EVENLY WITH MAXIMUM LIFTS OF
- 1200 PER DAY. DO NOT TOOTH AND BOND OR STACK BOND MASONRY. RAKE BACK ENDS OF UNFINISHED WALLS. 7. ALL MORTAR JOINTS SHALL BE TOOLED (CONCAVE). A MINIMUM BED
- JOINT OF 1/4" IS REQUIRED FOR THE STARTING COURSE TO A MAXIMUM OF $\frac{3}{4}$ ". THE BED JOINTS SHALL BE $\frac{3}{8}$ ". 8. PROVIDE HORIZONTAL REINFORCING AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 8" CONCRETE BLOCK HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY SECOND COURSE. TRUSS TYPE HORIZONTAL REINFORCING EVERY SECOND COURSE.10. THE HORIZONTAL REINFORCING AT EXTERIOR WALLS SHALL BE GALVANIZED. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS UNLESS OTHERWISE NOTED.
- 9. PROVIDE A STEEL LINTEL OVER ALL OPENINGS OR RECESSES INCLUDING OPENINGS FOR MECHANICAL AND ELECTRICAL COMPONENTS. ALL EXTERIOR LINTELS TO BE HOT DIP GALVANIZED.
- 10. BUILD THE MASONRY SOLID AROUND ALL BEAM, LINTEL AND JOIST POCKETS. INSTALL BEARING PLATES AT THE SPECIFIED ELEVATION AND GROUT THE PLATE INTO THE WALL A MINIMUM OF 16".
- 11. PROVIDE TEMPORARY BRACING AS REQUIRED TO SUPPORT THE MASONRY WALLS IN CONSTRUCTION. PROTECT THE MASONRY WALLS FROM THE

ELEMENTS AT ALL TIMES EXCEPT DURING CONSTRUCTION PROGRESS.

STRUCTURAL STEEL NOTES

- 1. ALL STRUCTURAL STEEL ELEMENTS, INCLUDING DESIGN OF ELEMENTS
- AND CONNECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA S16. ALL STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21 (300W) EXCEPT W SECTIONS AND PLATES G40.21 (350W), HSS MEMBERS G40.21 (350W) CLASS C OR ASTM A500 GRADE C, ANCHOR BOLTS ASTM A307, COLD FORM SECTIONS ASTM A570M GRADE 350W. UNLESS OTHERWISE NOTED, ALL SECTIONS SHALL BE PRIME PAINTED WITH THE SURFACE PREPARATION AND PAINTING PROCEDURES IN ACCORDANCE WITH CAN/CGSB 85.10.
- 3. ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS BY THE CANADIAN WELDING BUREAU IN CONFORMANCE WITH CAN/CSA W47.1.
- 4. DESIGN ALL MOMENT AND SHEAR CONNECTIONS FOR THE FULL CAPACITY OF THE SMALLER MEMBER IN THE CONNECTION UNLESS OTHERWISE
- 5. PROVIDE MINIMUM BEARING LENGTH OF STEEL MEMBERS AS FOLLOWS: - ON MASONRY - 6" – ON STEEL – 4"
- 6. THE BASE PLATE AND BEARING PLATE GROUT SHALL BE OF THE CEMENTITIOUS NON-SHRINK TYPE.
- 7. FULLY WELD THE BASE PLATE TO THE COLUMN TO DEVELOP THE ANCHOR BOLTS. PROVIDE CAP PLATES ON ALL COLUMNS. PROVIDE 1/4"
- CAP PLATES ON ALL COLUMNS. 8. DECK SHALL BE EITHER 38mm DEEP IN ACCORDANCE WITH CSA S136 AND SHALL BE FABRICATED FROM ASTM A653 SS GRADE 230 GALVANIZED STEEL WITH A ZF75 GALVANNEAL OR Z275 GALVANIZED ZINC COATING. THE MINIMUM NOMINAL STEEL CORE THICKNESS SHALL BE 0.76mm. STEEL DECK SHALL BE FASTENED TO THE SUPPORT STRUCTURE WITH 20mm SPOT WELDS AT NOT MORE THAN 300mm c/c (150mm AT PERIMETER). CLINCH SIDELAPS AT 600mm c/c. ALL WELDS TO BE TOUCHED UP WITH PRIMER. MECHANICAL FASTENERS MAY ONLY BE USED WITH THE PERMISSION OF THE ENGINEER.
- 9. PROVIDE MINIMUM 7"x3/8"x7" BEARING PLATES FOR ALL STRUCTURAL
- STEEL c/w 2-5%"Ø ANCHORS UNLESS OTHERWISE NOTED. 10. ALL BOLTS SHALL BE TIGHTENED WITH A SUITABLE TORQUE WRENCH IN
- ACCORDANCE WITH CSA S16. 11. ALL STEEL EXPOSED TO THE EXTERIOR TO BE HOT DIP GALVANIZED.
- 12. ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CSA S16 AND IN CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.

150 MIN. CLEAR SPAN 150 MIN. CLEAR SPAN 140 WALL

20 MPa CONCRETE -

190 BOND BEAM -

BEARING PLATI

TYPICAL OPENING

UP to 1200 <u>H</u> 2∠s 75x65x8 <u>H</u> 2∠s 90x90x8 1200 to 1800 <u>H</u> 2\(\alpha\)s 90x65x8 <u>H</u> 2\(\alpha\)s 125x90x8 1800 to 2100 <u>H</u> 2∠s 90x65x10 <u>H</u> 2∠s 150x90x8 CLEAR SPAN 240 WALL

_____STEEL_LINTEL_____

TYPICAL OPENING

LESS THAN 450

USE 6mm PLATE, MINIMUN 100 BEARING, WALL WIDTH -25mm

450 - 2100

REFER TO LINTEL SCHEDULE

REFER TO LINTEL S.L. 1

LINTEL PLATE TERMINATES 10mm SHY OF OPENING STEEL LINTEL (PLATE CONTINUOUS)

BEARING PLATE

TYPICAL OPENING

GREATER THAN 2100

UP to 1200 <u>H</u> 2/s 100x100x8 <u>H</u>L 3/s 90x90x8 1200 to 1800 <u>H</u> 2∠s 150x100x8 <u>H</u>L 3∠s 125x90x8 1800 to 2100 <u>H</u> 2/s 150x100x8 <u>H</u>L 3/s 150x90x8 PROVIDE LOOSE LINTELS FOR BRICK VENEER AS REQUIRED FOR LINTELS IN 90 VENEER, USE 1 ANGLE OF THAT NOTED FOR 190 WALL ON SIMILAR SPAN.

DOUBLE ANGLES TO BE STITCH WELDED BACK TO BACK.

LINTELS TO HAVE A BOLTED CONNECTION TO COLUMNS.

TERMINATE LINTEL PLATES 10mm SHY OF OPENING

TYPICAL STEEL LINTEL DETAIL

1-20M CONT.

BOND BEAM ON

SLAB ON GRADE

EXISTING CONCRETE SLAB ON GRADE -

DRILL INTO EX. SLAB (TYP.)

TYP. SLAB CONNECTION DETAIL

12mm SMOOTH DOWELS @300 x400 LONG,

125 CONCRETE SLAB ON GRADE -

SEE PLAN FOR

∠51x51x6.4x100 LONG

ON EACH SIDE OF

BLOCK WALL

WELDED TO EACH JOIST

UNIT SIZES

SLAB ON GRADE

NEW 150 CLEAR STONE

L102x76x7.9 LLV

∠51x51x6.4x100 LONG

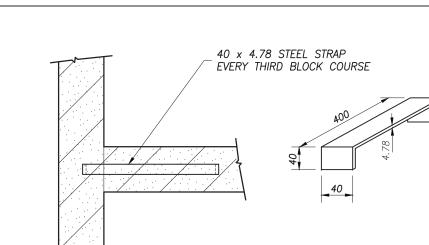
BRIDGING WHERE OTHER BRIDGING EXCEED

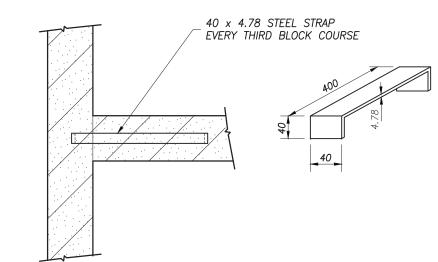
WELDED TO BRIDGING

EACH SIDE OF WALL

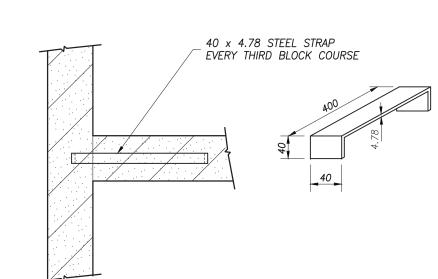
└ ADD ∠51x51x6.4

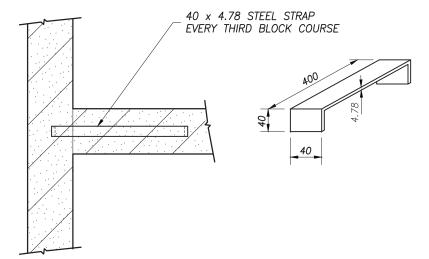
LINTELS LARGER THAN 2100 TO HAVE BEARING PLATE TYPE A





TYPICAL INTERSECTION OF CONCRETE BLOCK WALLS





TYPICAL LINTEL SECTION

150 MIN. CLEAR SPAN 150 MIN.

1400 TO 2000mm 2-150 x 16 ga (1.52mm)

2000 TO 2800mm 2-200 x 14 ga (1.91mm)

TYPICAL STEEL STUD

LINTEL DETAIL

HEADER SIZE

2-90 x 16 ga (1.52mm)

2-100 x 16 ga (1.52mm)

∕TOP TRACK

─BOTTOM TRACK

TOP AND BOTTOM TRACK

PROVIDE FOUR STUDS AT EACH END OF LINTEL (TOE TO TOE)

CLEAR SPAN

1200 TO 1400mm

NOT TO SCALE



ONSULTANTS

HAMILTON, ONTARIO 905-333-9119 HILLSIDE PUBLIC SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

ISSUED FOR PERMIT/TENDER

ISSUED FOR COORDINATION

RAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUST

HECK AND VERIFY ALL DIMENSIONS AND CONDITIONS C

THE PROJECT: AND MUST REPORT ANY DISCREPANCIES

TO THE CONSULTANTS BEFORE PROCEEDING WITH THI WORK. THE USE OF THIS DRAWING OR PART THEREOF IS

ORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE

DESCRIPTION

KITCHENER, OI

11 CHOPIN DRIVE



51 ALDERT AVE KITCHENER, ON

GENERAL NOTES + TYPICAL DETAILS

> HOSSACK & ASSOCIATES ARCHITECTS MISSISSAUGA, ONTARIO L5L 5M8 Tel (905) 607-8284 Fax (905) 607-829

AS NOTED FEB 2025

March 21, 2025

25019-Hossack-WRDSB-HillsidePS PP.dwg

1800 c/c PROVIDE BRACING WALLS SPANNING MORE THAN 3600 HORIZONTALLY, FOR 140 WALLS SPANNING MORE THAN 15400 HORIZONTALLY, AND FOR 190 WALLS SPANNING MORE THAN 7200 HORIZONTALLY. TYPICAL PARTITION WALL BRACING AT UNDERSIDE OF STEEL JOIST

WITH MECH'L

TYPICAL REINFORCING

AT DUCT ROOF OPENING

(REFER TO MECHANICAL FOR LOCATIONS)

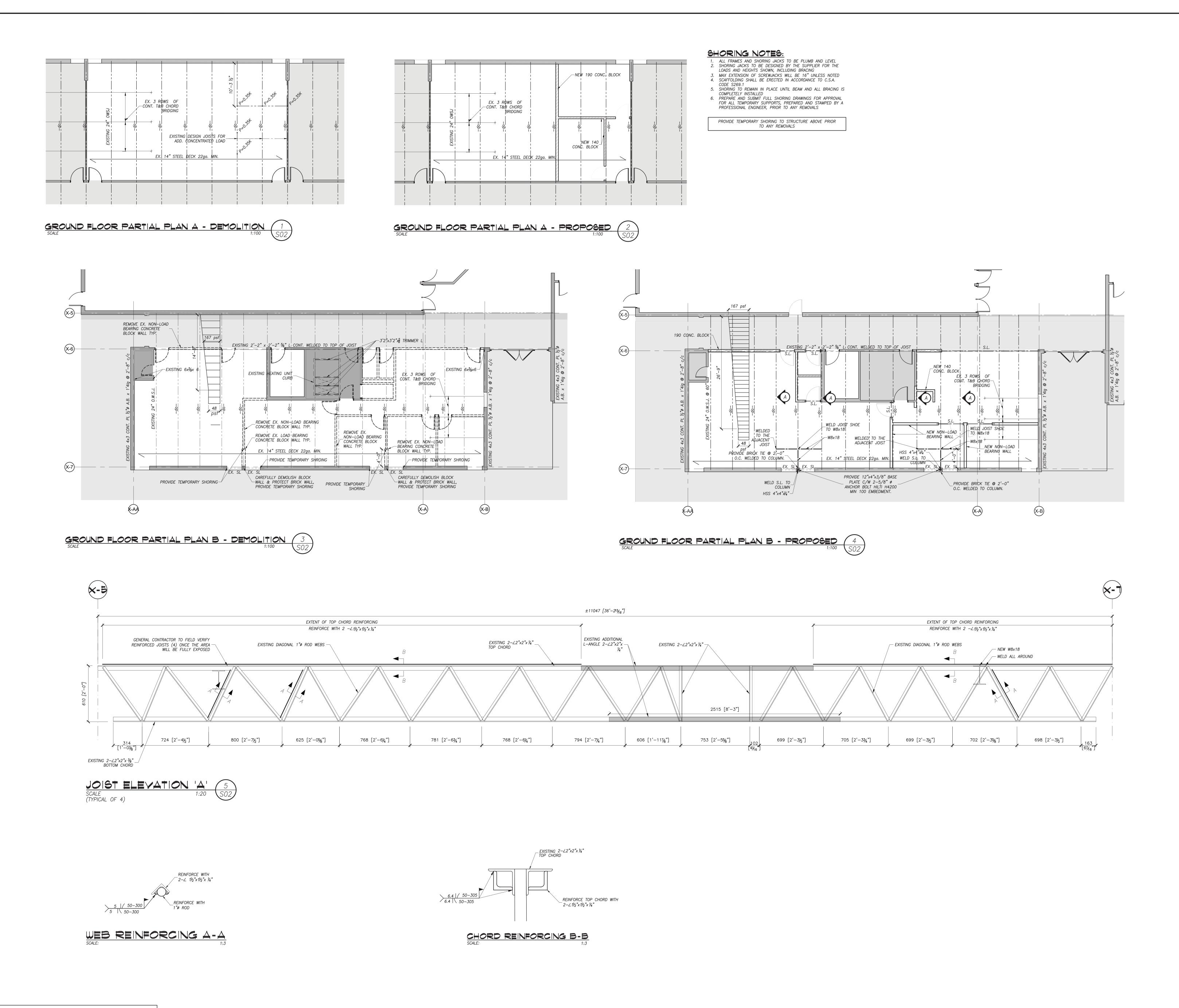
- WALL BETWEEN JOISTS -

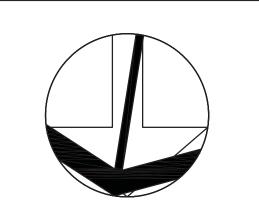
25 COMPRESSIVE

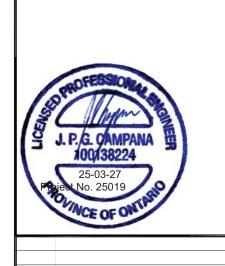
3. GALVANIZING TO BE HOT-DIP PROCESS, G90 (Z275).

NOTE:

. INFORMATION FROM EXISTING DRAWINGS PREPARED BY DRAWINGS CREATED BY MARK/MUSSELMAN/McINTYRE STRUCTURAL DRAWINGS. PROJECT NO. 7081. DATED DECEMBER 1971 MARK/MUSSELMAN/McINTYRE STRUCTURAL DRAWINGS. PROJECT NO. 7214. DATED JULY 1975







2 ISSUED FOR PERMIT/TENDER 2025
1 ISSUED FOR COORDINATION 2025
NO. DESCRIPTION DATE OF THE PROPERTY AND VERIEV ALL DIMENSIONS AND CONDITIONS OF THE PROPERTY ALL DIMENSIONS OF

NO. DESCRIPTION DATE

DRAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUST
CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS O
THE PROJECT; AND MUST REPORT ANY DISCREPANCIES
TO THE CONSULTANTS BEFORE PROCEEDING WITH THE
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CONSULTANTS.



PROJECT #24021 300 YORK BOULEVARD L8R 3K6

HILLSIDE PUBLIC
SCHOOL MAIN OFFICE
& CLASSROOM
RENOVATION

11 CHOPIN DRIVE KITCHENER, ON



51 ALDERT AVE KITCHENER, ON

FRAMING PLANS, DEMOLITION PLANS, & SECTION

HOSSACK
& ASSOCIATES
ARCHITECTS

4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO 501.5 M8
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MISSISSAUGA, ONTARIO LSL 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE
AS NOTED

DATE
EB 2025

DATE
FEB 2025

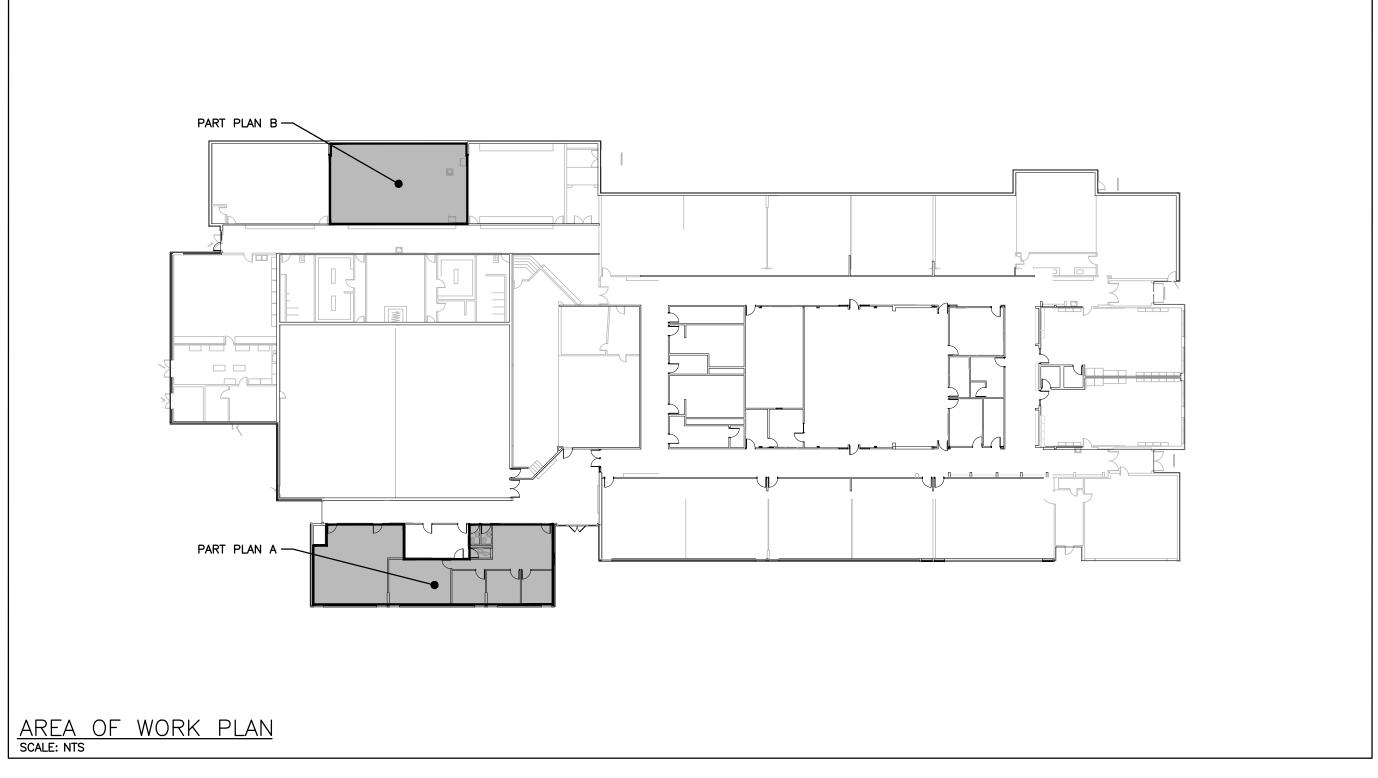
DRAWN
FS

CHECKED
RH/JPC

DRAWING
S02

March 21, 2025

25019-Hossack-WRDSB-HillsidePS PP.dwg



		, ,			ACCESSORIES AND ADDITIONAL INFORMAT
ltem	Туре	Equalizing Grid	Volume Damper	Acceptable Manufacturer	Description
D1	SQUARE CEILING DIFFUSER	YES	NONE	EH PRICE SCDA	MULTICONE, FULLY ADJUSTABLE, 24x24, STEEL CEILING DIFFUSER W/ROUND NECK. SUITABLE FOR LAY-IN T-BAR CEILING, OR DRYWALL CEILING WHEN C/W FRAME.
LD1	LINEAR CEILING DIFFUSER	NO	NONE	EH PRICE SDS-100, SDAI	3 SLOT (1" WIDE) LINEAR DIFFUSER, EXTRUDED ALUMINUM CONSTRUCTION, 180° AIR PATTERN ADJUSTMENT, SUITABLE FOR STANDARD LAY-IN T-BAR CEILING W/MITRED END FLANGES, & INSULATED PLENUM. LENGTH AS INDICATED.
E1	EXHAUST GRILLE (DUCTED)	NO	NONE	EH PRICE 80-FA	1/2x1/2x1/2 ALUMINUM EGGCRATE CORE, C/W 1 1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING.
R1	CEILING RETURN GRILLE (NON-DUCTED)	NO	NONE	EH PRICE 80-CH	1/2×1/2×1/2 ALUMINUM EGGCRATE CORE, C/W CHANNEL BORDER FOR LAY—IN T—BAR CEILING.

Item	Description	ltem	Description	Item	Description
	ITEM TO BE REMOVED		TEE CONNECTION	GФ	THERMOSTAT (WITH GUARD WHERE INDICATED)
	CUT EXISTING & CONNECT NEW PIPING	c —	PIPE DOWN	^G S	TEMPERATURE SENSOR (WITH GUARD WHERE INDICATED)
	FLOW DIRECTION	•—	PIPE UP	^G ©	CO2 SENSOR (WITH GUARD WHERE INDICATED)
	POTABLE COLD WATER		REDUCER/INCREASER		SUPPLY AIR DUCT
	POTABLE HOT WATER		CHECK VALVE		RETURN/EXHAUST AIR DUCT
	POTABLE HOT WATER RECIRC.		- UNION	-	ACOUSTIC DUCT LINING
SAN-EX	EXISTING SAN ABOVE FLOOR		STRAINER		THERMAL INSULATION
SAN-EX	EXISTING SAN BELOW FLOOR		SCREWED OR WELDED PIPE CAP		BRANCH LINE SPIN-IN COLLAR C/W BALANCING DAMPER
— — SAN — —	SANITARY ABOVE FLOOR	NO	NORMALLY OPEN		TRUNK MAIN BRANCH COLLAR C/W BALANCING DAMPER
— — SAN — —	SANITARY BELOW FLOOR	NC	NORMALLY CLOSED	— BD	BALANCING DAMPER
STM-EX	EXISTING STM ABOVE FLOOR	——₩	- PLUG VALVE	M	MOTORIZED DAMPER
<u>STM</u> _EX	EXISTING STM BELOW FLOOR	<u>⊦ō</u> ⊦	- BALL VALVE	FD	FIRE DAMPER
—STM— — · —	STORM ABOVE FLOOR	4 C	VALVE ON RISER	-	RECTANGULAR DUCTWORK
—STM— — · —	STORM BELOW FLOOR	FEC	RECESSED CABINET MOUNTED FIRE EXTINGUISHER		RIGID ROUND DUCT
G	NATURAL GAS	▼ FE	WALL MOUNTED FIRE EXTINGUISHER		FLEXIBLE ROUND DUCT
——HPG ——	HIGH PRESSURE NATURAL GAS	o ^{co}	- FLOOR CLEANOUT	Type Size Capacity	DIFFUSER/GRILLE SIZE (imp), TYPE & CAPACITY (cfm)
FD %	FLOOR DRAIN	——I co	LINE CLEANOUT	AFF	ABOVE FINISHED FLOOR
O-P-	TRAP PRIMER	PRV	PRESSURE REDUCING VALVE	EX	EXISTING DUCT (SIZE AS INDICATED)
					TRANSFER DUCT (SIZE AS INDICATED)

GENERAL NOTES

- A. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PREPARED SPECIFICATION.
- B. THIS CONTRACTOR SHALL TRACK REVISIONS ON SITE AND SUBMIT AS-BUILTS TO CONSULTANT TO DIGITIZE.
- C. SANITARY VENT PIPING IS NOT SHOWN. PROVIDE ALL NECESSARY VENT PIPING FROM ALL FIXTURES FOR A COMPLETE SYSTEM TO ALL LOCAL PLUMBING CODE & LOCAL AUTHORITY REQUIREMENTS, CONNECTED TO EXISTING VENTS OR NEW VENTS AS REQUIRED. CO—ORDINATE VENT LOCATION(S) WITH GENERAL CONTRACTOR. MAINTAIN MIN 14'—0" FROM ANY AIR INLET. INSTALL VENT PIPING HIGH IN JOIST SPACE.
- D. WHERE DUCTWORK PENETRATES CORRIDOR WALL, CENTER DUCT(S) BETWEEN OWSJ.
- E. CO-ORDINATE WITH THE GENERAL CONTRACTOR ANY OWSJ BRIDGING/CROSS BRACING RELOCATION OR REMOVAL/REPLACEMENT REQUIRED FOR INSTALLATION OF DUCTWORK.
- F. CONTRACTOR TO LOCATE ISOLATION VALVES / FREEZE PIPING / OR OTHERWISE DRAIN SYSTEMS TO ALLOW PROPOSED WORK TO
- PROCEED. REFILL SYSTEMS AS INDICATED.

 G. UPON COMPLETION OF THE PROJECT OR UPON COMPLETION OF EACH INDIVIDUAL PHASE OF THE PROJECT THE CONTRACTORS SHALL PROVIDE THE FOLLOWING CERTIFICATES BEFORE CONFORMANCE LETTERS ARE ISSUED BY THE CONSULTANT:

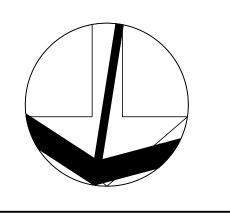
 POTABLE WATER TEST

 WRDSB PROJECT ASSET AND WARRANTY CARD FOR ALL ASSETS REPLACED, NEWLY INSTALLED AND REMOVED.
 - ALL CERTIFICATES ARE TO BE SUBMITTED TOGETHER IN A SINGLE PACKAGE.

	T	Connection Sizes		Fixture		Trim		Accessories
ltem	Туре	HW CW TW Drain Vent	Acceptable Manufacturer	Fixture Description	Acceptable Manufacturer	Trim Description	Acceptable Manufacturer	Accessory Description
FD-1	FLOOR DRAIN	NOTED 1 1/2	ZURN ZN415B MIFAB F1100-C CONTOUR C2000-R6 WATTS FD-100-C-A	GENERAL DUTY CAST IRON BODY, ADJUSTABLE HEAD, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR. USE SQUARE STRAINER IN TILED AREAS AND ROUND STRAINER ELSEWHERE. C/W TRAP PRIMER				
L-1	B.F. WALL MOUNTED LAV ELECTRONIC FAUCET	1/2 1/2 1 1/4 1 1/4	AMERICAN STANDARD MURRO 0954 004EC & 0059.020EC KOHLER BRENHAM K-1997 ZURN Z5344	WALL-HUNG SINK, VITREOUS CHINA, WITH SPLASH LIP, SUPPLY OPENINGS ON 100mm (4") CENTRES, OVERFLOW. SIZE: 557mm X 502mm (21-15/16" x 19-3/4"). C/W SHROUD/KNEE CONTACT GUARD.	DELTA 591T1258 MOEN COMMERCIAL 8301 ZURN Z6915-HW6-XL	HARDWIRED ELECTRONIC FAUCET. CAST BRASS ONE PIECE BODY WITH INTEGRAL WATER PROOF INFRA—RED SENSOR AND CONNECTOR. ADJUSTABLE SENSING RANGE 76MM TO 381MM (3" TO 15") AND TIME OUT 15 TO 75 SECONDS CHROME FINISH. VANDAL RESISTANT NON—AERATING SPRAY OUTLET HAVING INTEGRAL FLOW CONTROL FOR 0.5GPM (1.9 L/MIN) @ 413 KPA (60 PSI) MAX. UNDER COUNTER PLASTIC SURFACE MOUNTED HOUSING FOR SOLENOID AND CONTROLLER. SENSOR ACTIVATES IN PRESENCE OF PERSON'S HANDS IN LAVATORY. HARDWIRED OPERATED POWER CONVERTER.	MCGUIRE PROWRAP PWV8902 TRUEBRO LAV GUARD	INSULATION: INSULATE WASTE AND SUPPLIES WITH UL LISTED PREFORMED INSULATION SYSTEM COMPLETE WITH SEAMLESS JACKET. WASTE FITTING: NPS 32 MM (1¼") OFFSET WASTE WITH OPEN GRID STRAINER. PROVIDE FLOOR MOUNTED WALL CARRIER THERMOSTATIC MIXING VALVE MOUNTED UNDER LAV IN STAINLESS STEEL RECESSED HOUSING. DELTA R3070-MIXLF, POWERS LM490 OR EQUAL.
WC-1	BARRIER FREE WATER CLOSET FLUSH VALVE, 16" HIGH, HANDS FREE (HARDWIRED)	1 3 1 1/3	AMERICAN STANDARD MADERA 3461.001 KOHLER MANSFIELD ZURN	BARRIER FREE, 16" TALL TO RIM, VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE, BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.6 gal) PER FLUSH.	DELTA 81T201-48-WMSHWA ZURN SLOAN	EXPOSED, POLISHED CHROME PLATTED, DIAPHRAGM TYPE FLUSH VALVE WITH 25mm (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, AUTOMATIC 24 HR COURTESY FLUSH FACTORY SET TO ON (WEEKEND / HOLIDAY OPERATION), RECESSED WALL MOUNTED SENSOR BOX, FLUSH CONNECTION & COUPLING FOR 40mm (1 1/2") TOP SPUD, WALL AND SPUD ESCUTCHEINS. HARDWIRED OPERATED POWER CONVERTOR, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 4.8 LITRES (1.27 GAL) PER FLUSH.	BFMIS 1950	SEAT: BLACK, ELONGATED, OPEN FRONT WITH COVER, MOLDED SOLID PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST.
DS-1	STAINLESS STEEL DOUBLE SINK	1/2 1/2 1 1/2 1 1/4	KINDRED LBD6408-1/3 NOVANNI 2007I	SINK: DOUBLE COMPARTMENT, LEDGE-BACK. FROM 1.0 mm (20 GAUGE) THICK TYPE 302 POLISHED STAINLESS STEEL, SELF-RIMMING, UNDERCOATED, CLAMPS. OVERALL SIZES: 790 mm X 520 mm X 200 mm (31½" X 20 3/4" X 8").	DELTA 100 ZURN Z82300-CP8 MOEN COMMERCIAL 8701	FAUCET: CHROME PLATED BRASS, WITH SWING SPOUT, AERATOR, SINGLE LEVER HANDLE, WASHERLESS CONTROLS, ACCESSORIES TO LIMIT MAXIMUM FLOW RATE TO 8.35 I/min (2.2 gpm) AT 413 kPa (60 psi).		WASTE FITTING: INTEGRAL STAINLESS STEEL BASKET STRAINER/STOPPER, TAILPIECE, CAST BRASS P-TRAP WITH CLEANOUT.
NFHB-1	NON-FREEZE WALL HYDRANT	3/4	ZURN Z-1300 MIFAB MHY-20 ANCON HY-725	RECESSED, ENCASED, ALL BRONZE CONSTRUCTION, ANTI-SYPHON, NON FREEZE WALL HYDRANT WITH NON-TURNING OPERATING ROD, FREE FLOATING COMPRESSION VALVE, INTEGRAL VACUUM BREAKER, SELF DRAINING, REPLACEABLE SEAT AND SEAT WASHER. NICKEL BRONZE BOX AND HINGED COVER WITH OPERATING KEY LOCK. NPS 20 MM (3/4") HOSE OUTLET.				

				Capacit	y (cfm)				
ltem	Туре	Design	Min.	Heating		Cod	oling	Size	Remarks
		Design	Vent	Min	Max	Min	Max		
WT-1.1	DAMPER	1300	780	780	1040	390	1690	600×250	
WT-1.2	DAMPER	70	40	40	55	20	90	150ø	
WT-1.3	DAMPER	220	130	130	175	65	285	250×200	
WT-1.4	DAMPER	250	150	150	200	75	325	250×200	
WT-1.5	DAMPER	360	215	215	290	110	470	250×200	
WT-1.6		1600	_	_	_	_	_	700×300	BYPASS DAMPER
WT-2.1	DAMPER	200	120	120	160	60	260	250ø	
WT-2.2	DAMPER	200	120	120	160	60	260	250ø	

3. PAINT INTERIOR OF DUCTWORK BEHIND GRILLE MATT BLACK (WHERE VISIBLE THRU GRILLE).





Consulting Engineers

MECHANICAL | ELECTRICAL | AQUATIC

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Phone: 519-725-3555 Website: deiassociates.ca Project Number: 25026

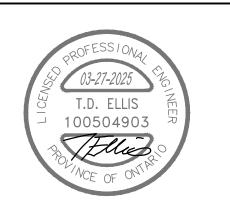
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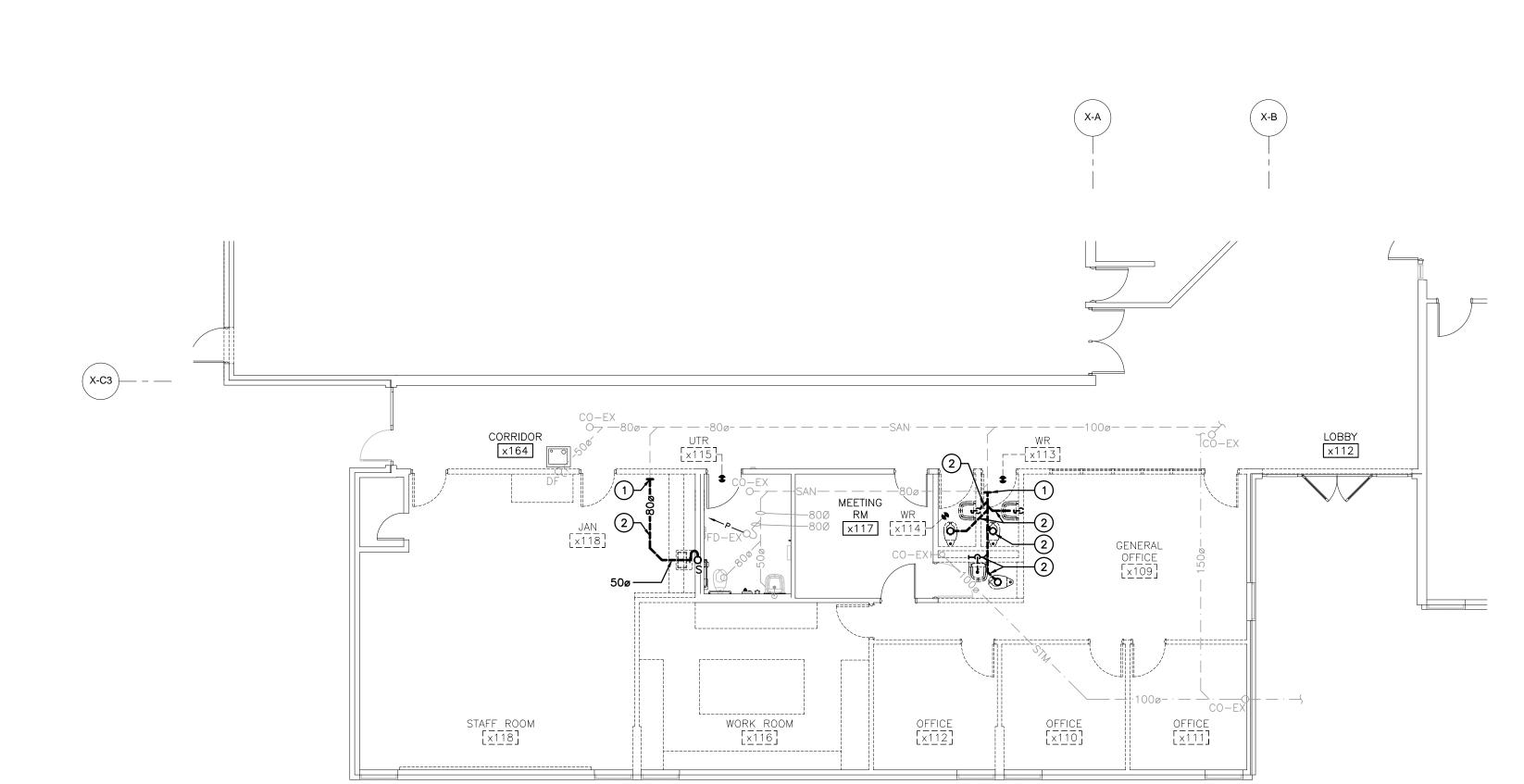
NOTES, LEGEND, SCHEDULES & AREA OF WORK PLAN



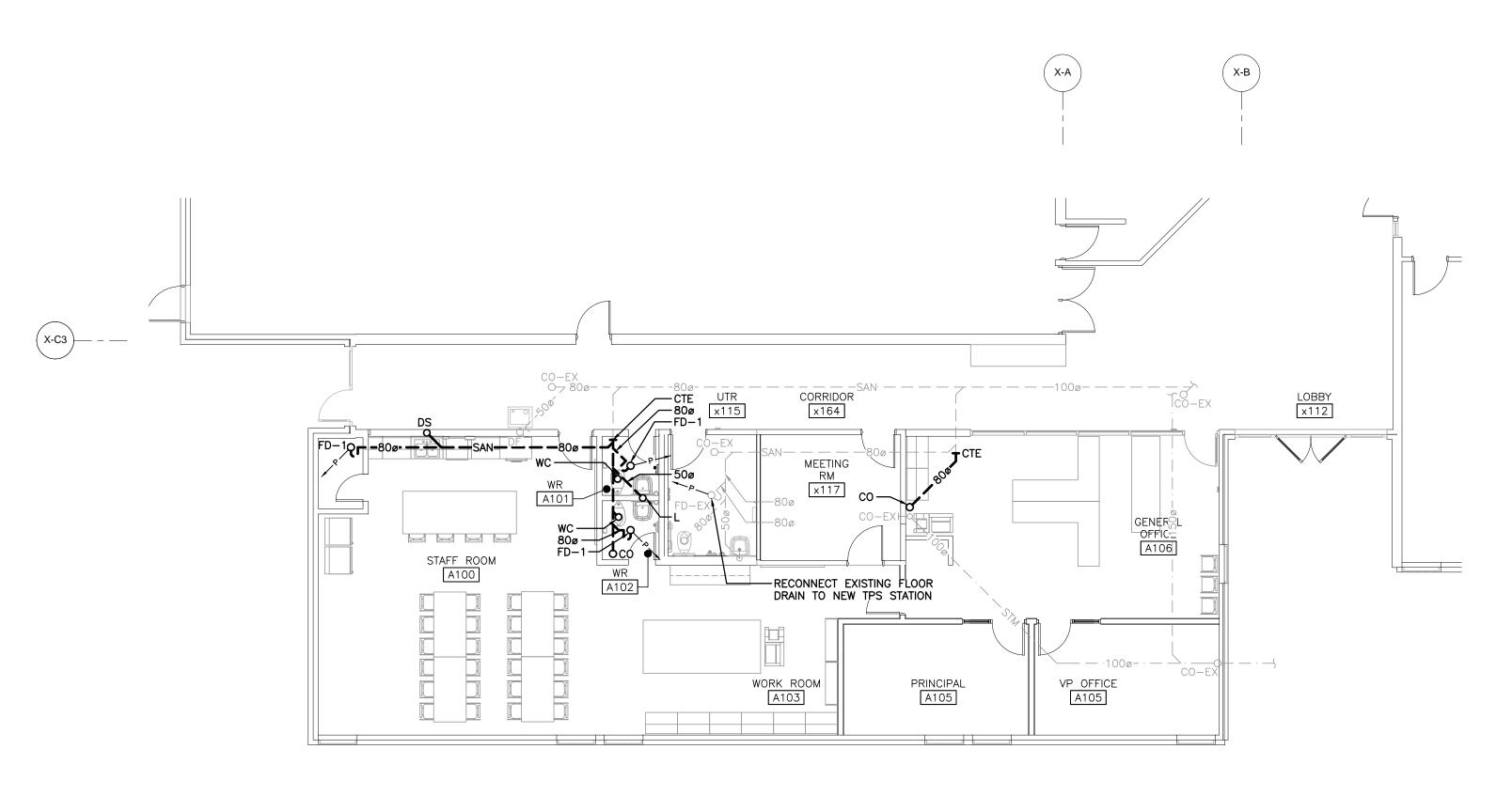
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GROUND FLOOR PART PLAN A — RENOVATION SCALE: 1:100

GENERAL DEMOLITION NOTES

- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- B. EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED
 AS BEING REMOVED OR RENOVATED SHALL REMAIN AS
- PRESENTLY INSTALLED AND OPERATING.

 C. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.
- D. ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
- E. PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED.
 REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING
 INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
 F. REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS
 INCLUDES REMOVAL OF ALL HANGERS, INSULATION,
 FITTINGS, ETC.
- G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- H. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
 I. THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS

AS REQUIRED FOR REMOVAL/REPLACEMENT OF SERVICES.

SPECIFIC DEMOLITION NOTES

- CUT EXISTING SANITARY PIPING AND REMOVE BEYOND COMPLETE. PREPARE FOR NEW CONNECTION.
- 2. CUT EXISTING SANITARY AND REMOVE BEYOND COMPLETE.



The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

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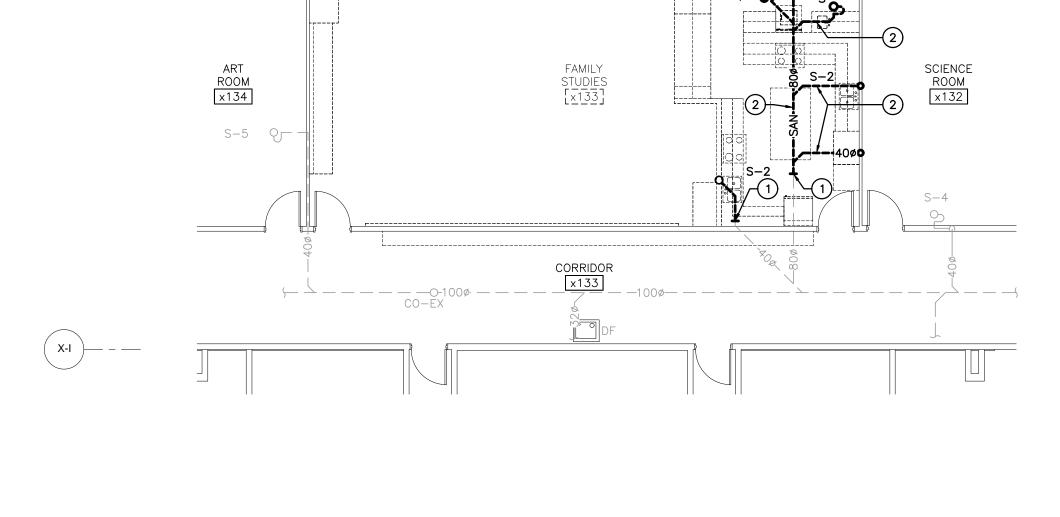
GROUND FLOOR PART PLANS -BELOW GRADE DRAINAGE



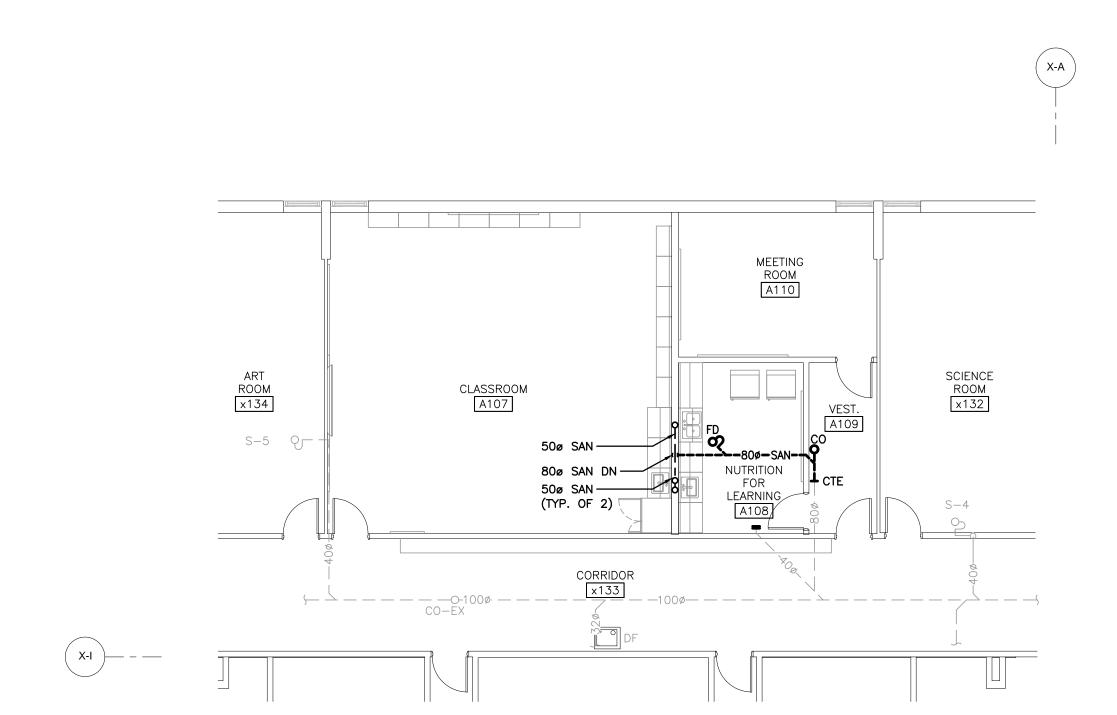
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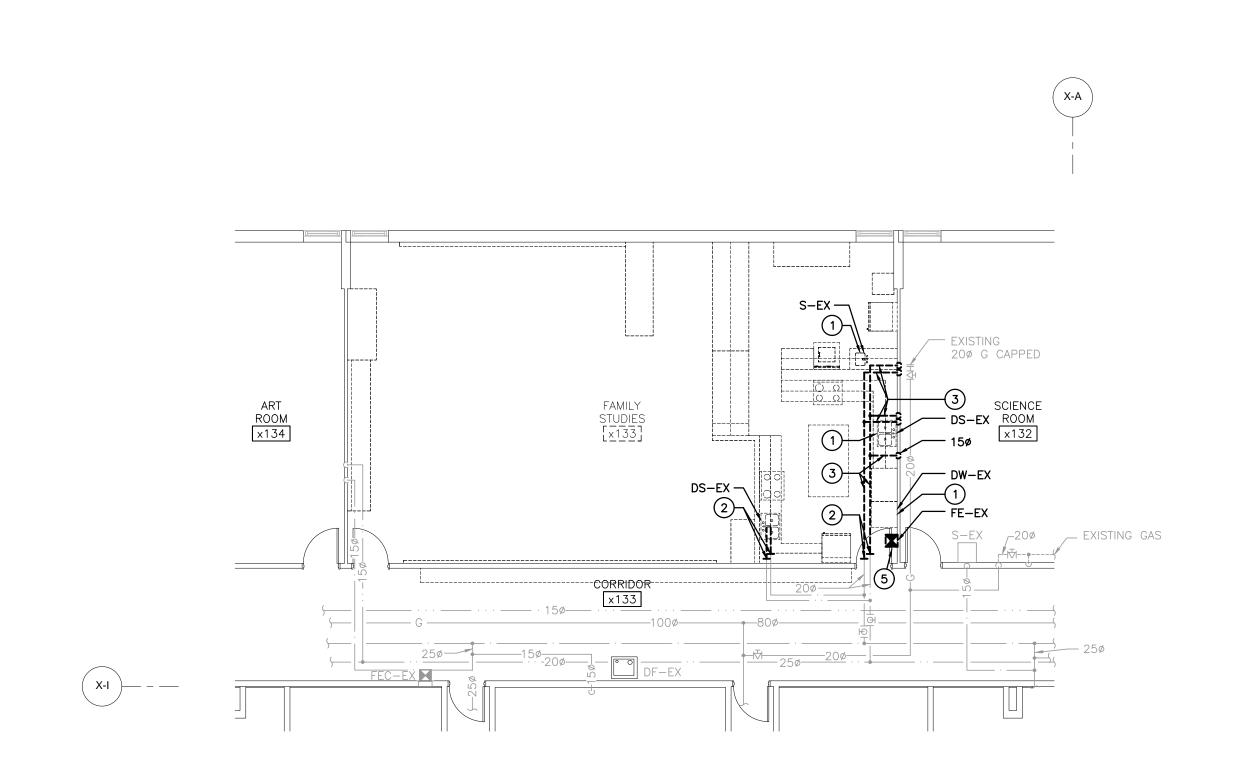
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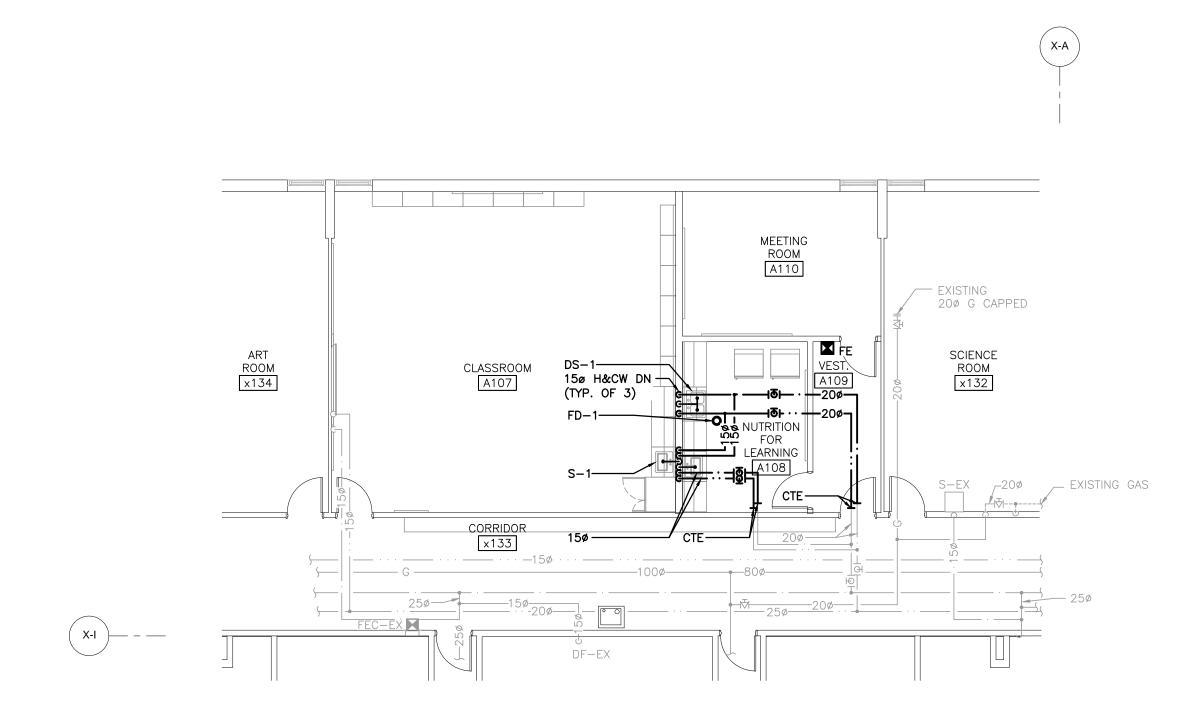
GROUND FLOOR PART PLAN B — DEMOLITION SCALE: 1:100



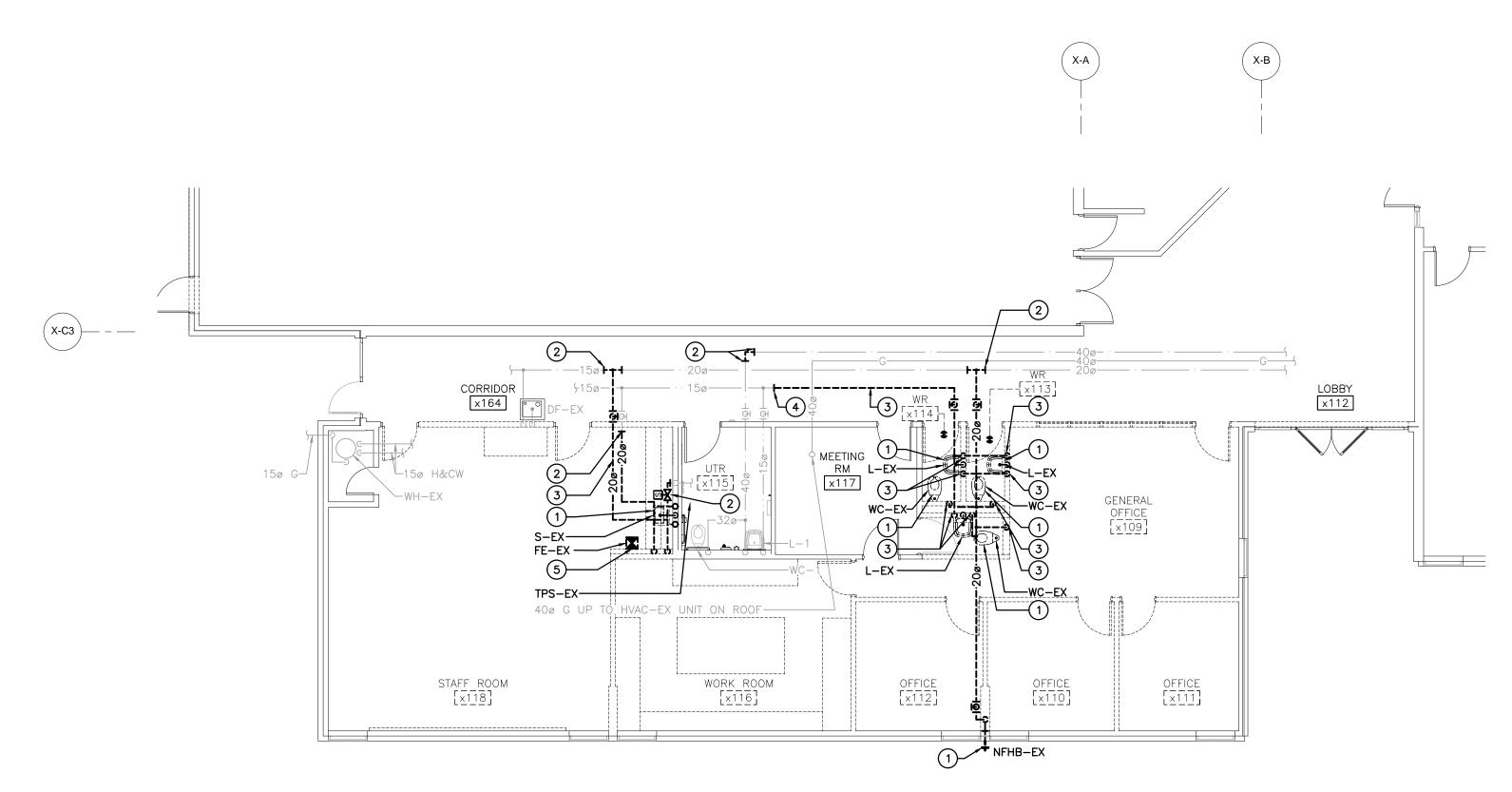
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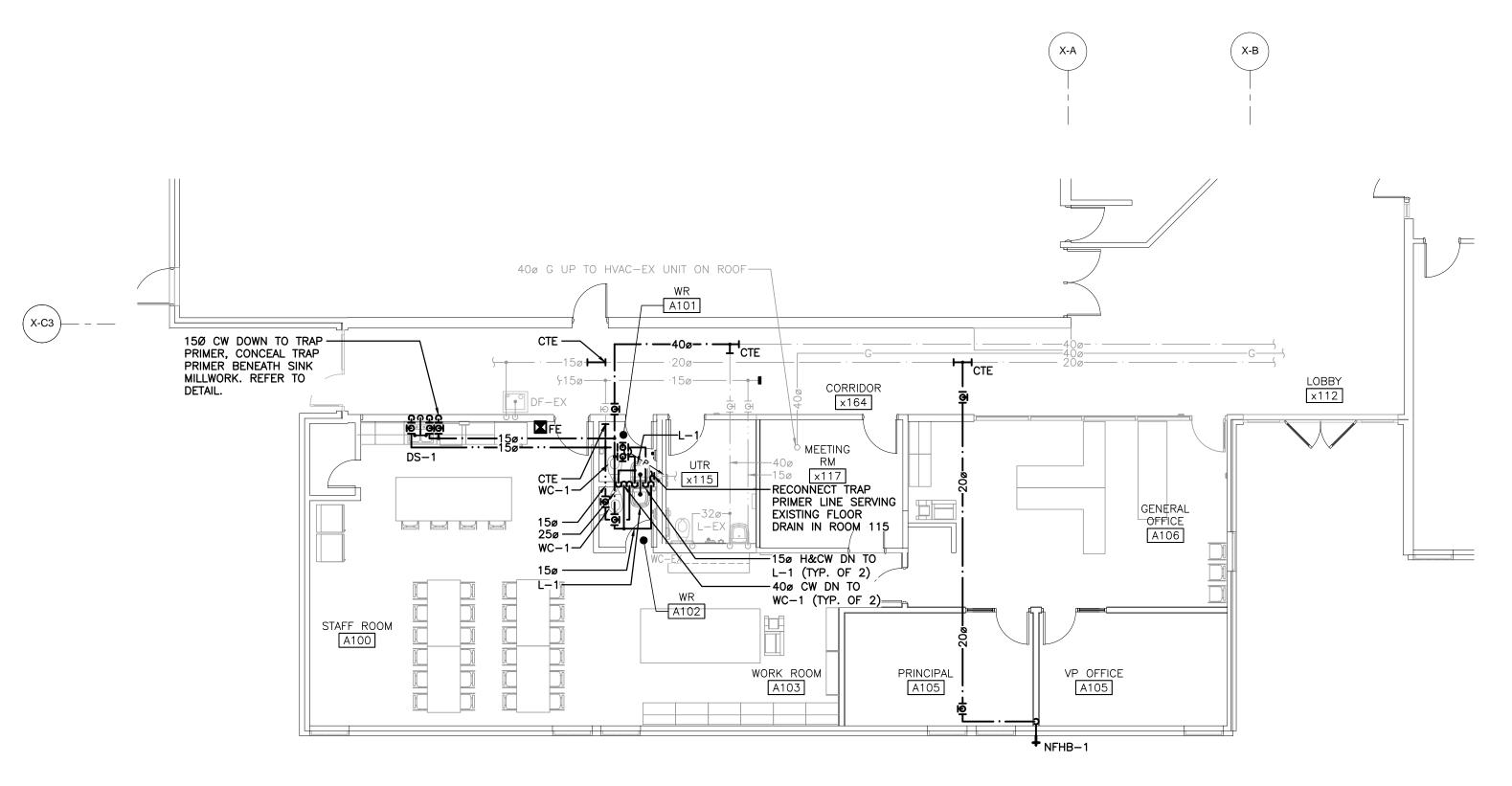
<u>GROUND FLOOR PART PLAN B — DEMOLITION</u> scale: 1:100



GROUND FLOOR PART PLAN B — RENOVATION SCALE: 1:100



<u>GROUND FLOOR PART PLAN A — DEMOLITION</u> SCALE: 1:100



GROUND FLOOR PART PLAN A — RENOVATION SCALE: 1:100

GENERAL DEMOLITION NOTES

- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- B. EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
- C. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.
 D. ALL OPENINGS THAT RESULT FROM THE REMOVAL OF
- EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.

 E. PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING
- REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.

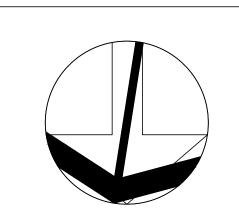
 F. REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
- G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- H. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
 I. THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF

SPECIFIC DEMOLITION NOTES

- EXISTING PLUMBING FIXTURE TO BE REMOVED COMPLETE. CAP SERVICES CONCEALED IN WALL/FLOOR/CEILING AND REMOVE BEYOND COMPLETE. PATCH AND MAKE GOOD ALL SURFACES.
- 2. CUT EXISTING WATER PIPING AND REMOVE BEYOND COMPLETE.PREPARE FOR NEW CONNECTION.
- 3. CUT EXISTING WATER PIPING AND REMOVE BEYOND COMPLETE.4. CUT & CAP EXISTING WATER PIPING AND REMOVE
- BEYOND COMPLETE.

 5. EXISTING FIRE EXTINGUISHER TO BE REMOVED

COMPLETE AND TURNED OVER TO OWNER.





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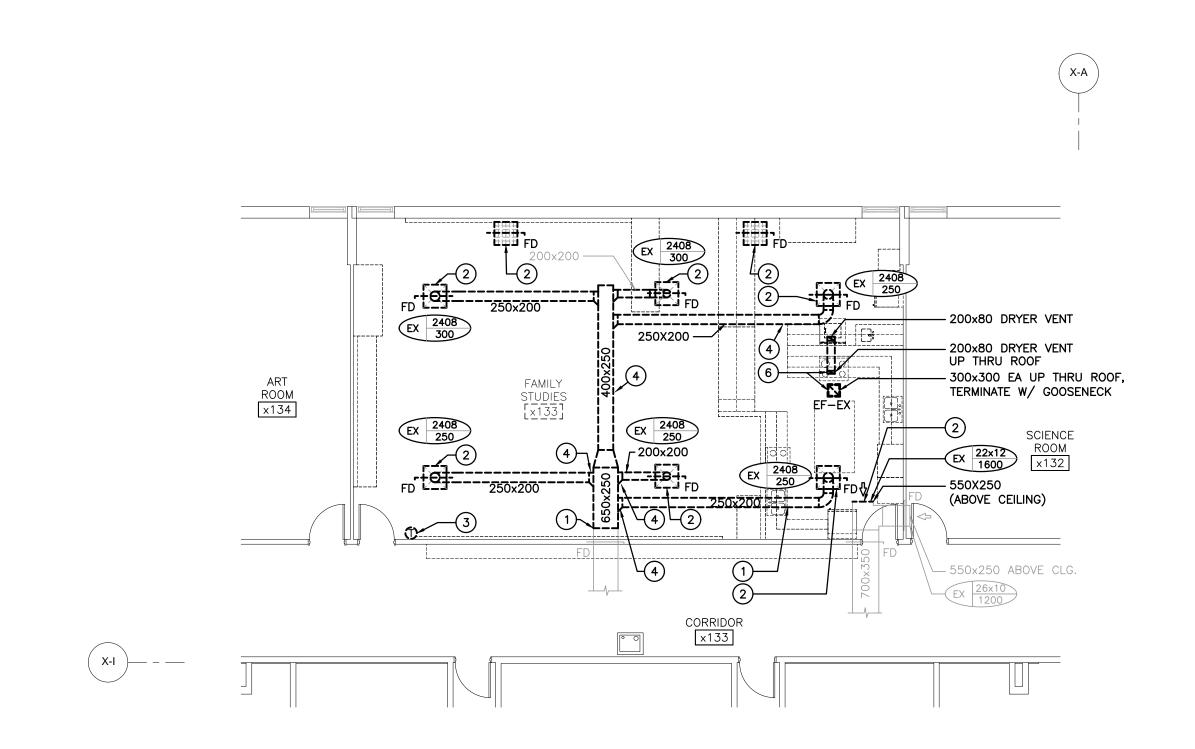
GROUND FLOOR PART PLANS -ABOVE GRADE PLUMBING & DRAINAGE



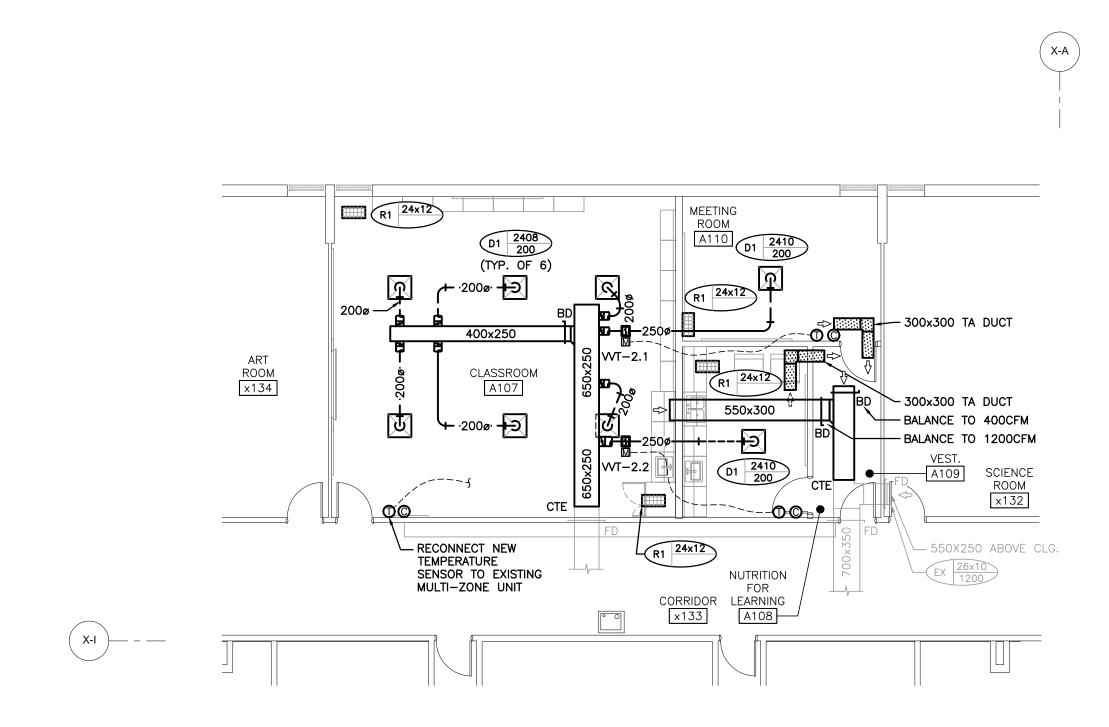
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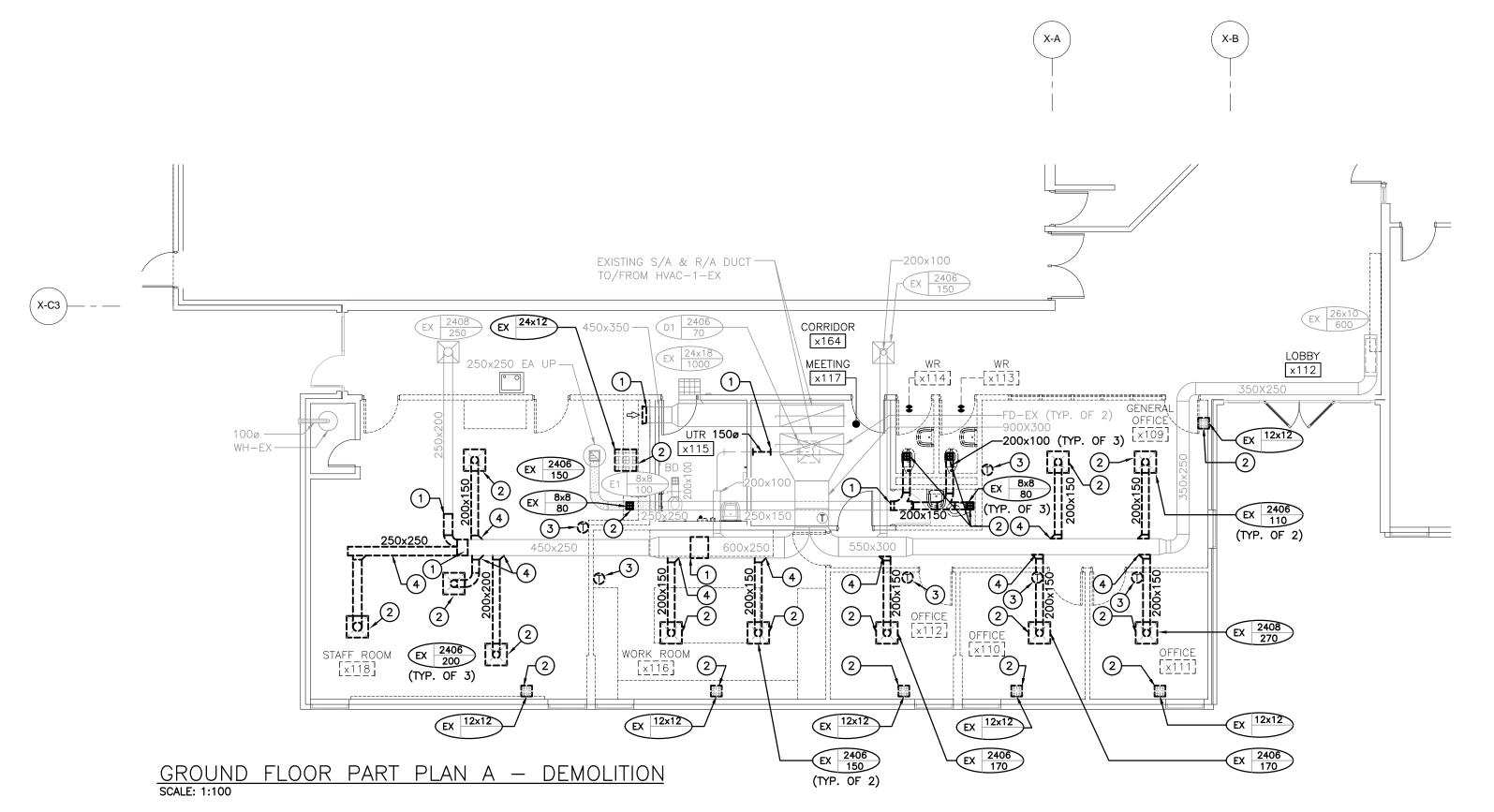
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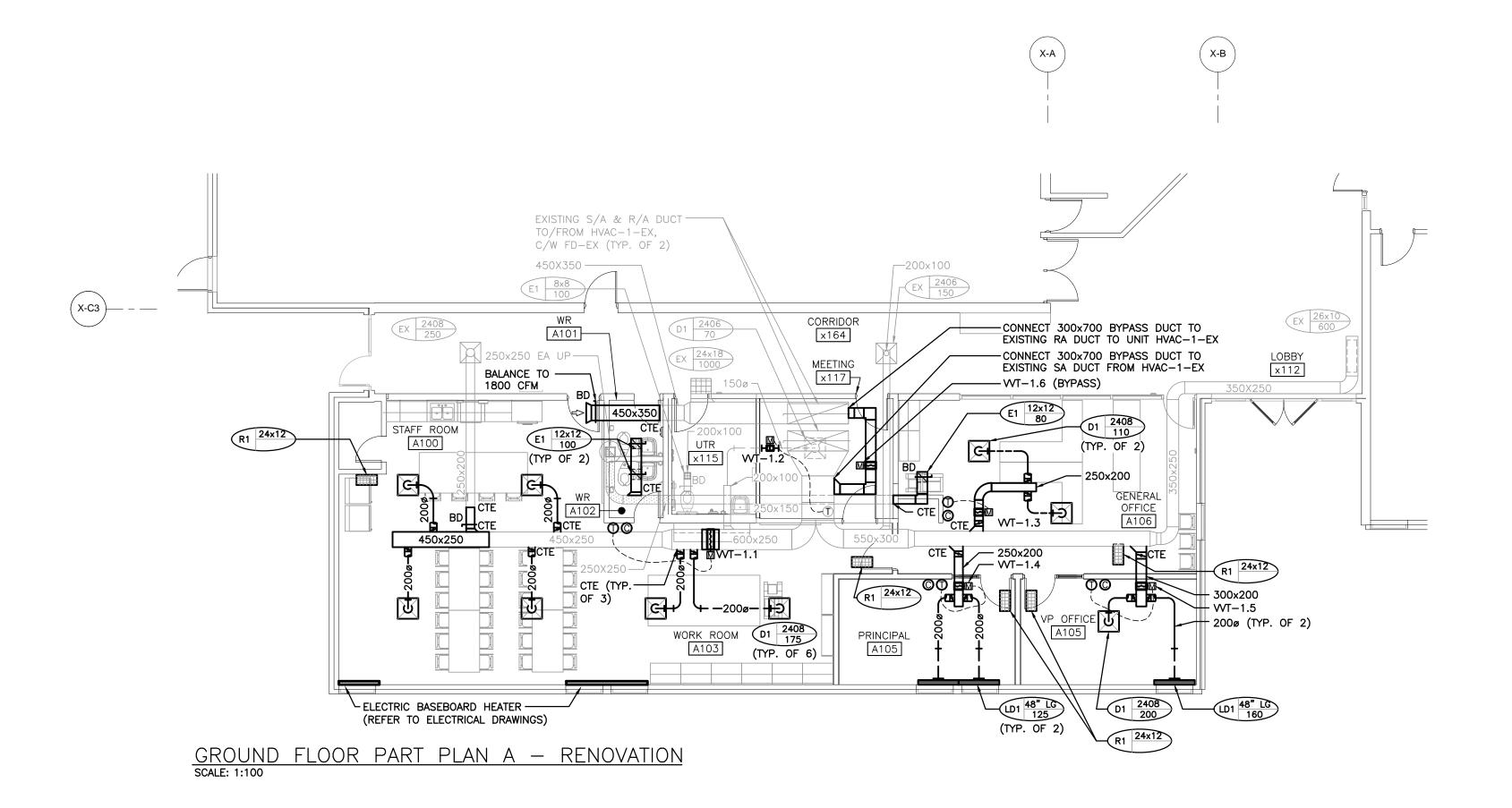


GROUND FLOOR PART PLAN B — DEMOLITION SCALE: 1:100



GROUND FLOOR PART PLAN B — RENOVATION SCALE: 1:100





GENERAL DEMOLITION NOTES

- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
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 PRESENTLY INSTALLED AND OPERATING.

 C. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR
- VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.

 D. ALL OPENINGS THAT RESULT FROM THE REMOVAL OF

EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING

E. PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED.
 REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
 F. REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.

CONSTRUCTION.

- G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- H. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.

 I. THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS

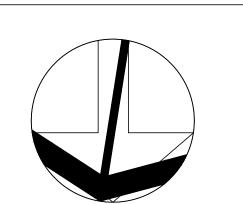
SPECIFIC DEMOLITION NOTES

AS REQUIRED FOR REMOVAL/REPLACEMENT OF

1. CUT EXISTING DUCTWORK AND REMOVE BEYOND COMPLETE. PREPARE FOR NEW CONNECTION.

COMPLETE.

- EXISTING DIFFUSER/GRILLE TO BE REMOVED COMPLETE.
 EXISTING ROOM TEMPERATURE SENSOR TO REMOVED
- 4. CUT EXISTING DUCTWORK AND REMOVE BEYOND COMPLETE.
- 5. EXISTING EXHAUST FAN TO BE DISCONNECTED AND REMOVED COMPLETE.
- 6. EXISTING DUCTWORK THRU ROOF TO BE REMOVED COMPLETE. PATCH AND MAKE GOOD ALL SURFACES.





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GROUND FLOOR PART PLANS -HVAC



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MECHANICAL SPECIFICATION

PART A GENERAL NOTES

- 1. PROVIDE LABOUR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO OWNER AND CONSULTANT.
- 2. OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN ALL NECESSARY APPROVALS, CERTIFICATES. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT. COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF FIRE UNDERWRITERS, THE CANADIAN GAS ASSOCIATION, THE LOCAL BUILDING CODE. AND ALL REQUIREMENTS OF THE LOCAL UTILITY COMPANY AND BY-LAWS. POST BUILDING
- PERMIT AT SITE IN ACCORDANCE WITH O.B.C. REQUIREMENTS 3. VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL
- 4. COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH ALL OTHER TRADES. ENSURE SYSTEMS ARE SERVICEABLE.

SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER

- 5. CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRED TO INSTALL THE SERVICE.
- LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS. 7. PROVIDE TWO MARKED COPIES OF "RECORD DRAWINGS" SHOWING THE SYSTEM AS INSTALLED. PROVIDE UPDATED DIGITAL CAD FILES IN ADDITION TO THE MARKED COPIES. THE DIGITAL AND HARD COPY RECORD DRAWINGS SHALL BE

6. THE DRAWINGS ARE DIAGRAMMATIC. THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS

- 8. THE MECHANICAL SYSTEMS OF THIS BUILDING MUST ACHIEVE THE ENERGY EFFICIENCY LEVELS BY CONFORMING TO ANSI/ASHRAE/IESNA 90.1 "ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS" AND CHAPTER 2 OF DIVISION 3 OF SB-10 PRESCRIPTIVE METHOD FROM THE ONTARIO BUILDING CODE.
- 9. ALL EQUIPMENT AND MATERIAL SHALL BE NEW. REPLACE ALL DAMAGED EQUIPMENT.

PROVIDED TO THE OWNER AS PART OF THE MAINTENANCE MANUALS.

- 10. MATERIAL AND EQUIPMENT ARE NAMED IN THE SPECIFICATION TO ESTABLISH AN ACCEPTABLE STANDARD OF MATERIALS AND THE QUALITY OF WORKMANSHIP BY WHICH TO ADHERE.
- 11. SUBMIT SHOP DRAWINGS ELECTRONICALLY FOR ALL EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY. SUBMIT ONE COMPLETE SUBMISSION INDEXED AND LABELED
- 12. PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN PIPES, DUCTS AND
- EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE. 13. MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKERS COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE
- WITH THE MINISTRY OF LABOUR REQUIREMENTS. 14. EXCAVATION AND BACK FILLING SHALL BE BY THE TRADE INSTALLING THE SERVICE. PROVIDE COMPACTED 'A' GRAVEL
- FOR BEDDING AND BACKFILLING AS INDICATED. REMOVE SURPLUS MATERIAL FROM SITE. 15. PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
- 16. INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
- 17. SUBMIT THREE (3) COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A 3 RING BINDER LABELED FOR THE
- 18. REMOVE ALL PROTECTIVE COVERINGS, CLEAN AND POLISH ALL EQUIPMENT, FREE ALL OBSTRUCTIONS, CLEAN AND REPLACE ALL FILTERS WITH NEW, AND LEAVE ALL KEYS AND WRENCHES WITH THE OWNER. 19. ALL SURPLUS AND WASTE MATERIALS SHALL BE PROMPTLY REMOVED FROM THE PREMISES.
- 20. ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS NOTED
- 21. THE OWNER WILL DECIDE WHICH ITEMS OR EQUIPMENT SLATED FOR REMOVAL THAT THEY WISH TO RETAIN AS THEIR
- PROPERTY AND THIS CONTRACTOR SHALL REMOVE ALL OTHER MATERIALS FROM THE PREMISES. 22. PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED
- 23. ALL ELECTRICAL LINE AND LOW VOLTAGE WIRING WHICH IS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR AS SPECIFIED ELSEWHERE HEREIN SHALL BE RUN IN EMT CONDUIT TO STANDARDS OF THE ELECTRICAL DIVISION.
- 24. WARRANTY ALL MATERIAL AND EQUIPMENT FOR A PERIOD OF TWO (2) YEARS AFTER FINAL ACCEPTANCE OF SYSTEM. PROVIDE WRDSB PROJECT ASSET AND WARRANTY CARD FOR ALL ASSETS REPLACED, NEWLY INSTALLED, AND
- 25. VIDEO RECORDING OF NEW & EXISTING UNDERGROUND SERVICES PRIOR TO FINAL ACCEPTANCE OF THE NEW UNDERGROUND PLUMBING SYSTEM AND PRIOR TO POURING THE FLOOR THIS CONTRACTOR SHALL RETAIN A QUALIFIED CONTRACTOR TO VIDEO TAPE THE NEW, EXISTING AND REVISED SANITARY AND STORM DRAINAGE PIPING AND BRANCH PIPING. TRANSFER ALL VIDEOTAPE INFORMATION TO DVD. THIS CONTRACTOR SHALL FLUSH THE NEW AND EXISTING STORM AND SANITARY SYSTEM TO REMOVE ALL DEBRIS PRIOR TO FINAL VIDEO TAPING OF SYSTEMS. PROVIDE 3 COPIES OF DIGITAL RECORDING ON MEMORY STICK. IDENTIFY VIDEO ROUTING ON RECORD DRAWINGS.
- 26. LOCATION OF EXISTING UNDERGROUND SERVICES THIS CONTRACTOR SHALL LOCATE EXISTING SERVICES PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA. THIS CONTRACTOR SHALL USE A VIDEO CAMERA FOR THE EXISTING STORM AND/OR SANITARY DRAINAGE AT THE INDICATED CONNECTION POINT TO CONFIRM LOCATION, SIZE AND INVERT OF THE EXISTING PIPING.
- 27. EXISTING CONCRETE SLAB X-RAY/SCANNING THIS CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED COMPANY TO PROVIDE AND X-RAY AND/OR SCAN OF THE EXISTING BURIED SERVICES IN WALL AND/OR FLOORS PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA. FAILURE TO LOCATE EXISTING PIPING, CONDUIT REBAR ETC., SHALL NOT RELIEVE THIS CONTRACTOR OF REPAIR $\,$ 1 OF SAME PRIOR TO INSTALLING HIS SERVICE. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF EXISTING SERVICES CAUSED BY CUTTING THE EXISTING CONCRETE SLABS AND/OR WALLS.
- 28. EXCAVATING AND BACKFILLING PROVIDE ALL EXCAVATING AND BACKFILLING INSIDE AND OUTSIDE THE BUILDING FOR PLUMBING PIPES. DRAINS AND EQUIPMENT. ALL BACKFILLING SHALL BE NEW CLEAN GRANULAR 'A' FILL BROUGHT IN SPECIFICALLY FOR THE PURPOSE OF BACKFILLING TO THE UNDERSIDE OF FLOOR SLAB. ALL BACKFILLING SHALL BE COMPACTED AT INTERVALS NOT MORE THAN 150 MM (6") LAYER TO THE SATISFACTION OF THE CONSULTANT. PROVIDE EXCAVATING AND BACKFILLING OUTSIDE THE BUILDING WITH GRANULAR A BROUGHT IN SPECIFICALLY FOR BACKFILLING TO A MINIMUM OF 450 MM (18") OVER THE PIPE. BACKFILLING OUTSIDE BUILDING OVER AND ABOVE THE 450 MM (18") BACKFILL AS PREVIOUSLY SPECIFIED HEREIN SHALL BE BY THE MECHANICAL CONTRACTOR AS SPECIFIED UNDER DIVISION 2. WHERE BACKFILLING OUTSIDE THE BUILDING IS NOT SPECIFIED UNDER DIVISION 2 THE MECHANICAL CONTRACTOR SHALL PROVIDE NEW CLEAN GRANULAR 'A' FILL TO GRADE LEVEL. BOTTOMS OF TRENCHES SHALL BE
- EXCAVATED SO THAT THE PIPE WILL BE SUPPORTED ON A 150 MM (6") COMPACTED BED OF CLEAN GRANULAR 'A' FILL. PROVIDE ALL NECESSARY PUMPING TO MAINTAIN EXCAVATION FREE OF WATER. SHOULD WATER BE ENCOUNTERED DURING EXCAVATION, THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL LABOUR AND MATERIAL, INCLUDING ALL EQUIPMENT REQUIRED FOR DEWATERING THE EXCAVATION. AFTER THE WATER HAS BEEN REMOVED, THIS CONTRACTOR SHALL INSTALL A 300 MM (12") BASE OF COMPACTED 50 MM (2") CLEAR STONE COVERED WITH FILTER CLOTH BEFORE INSTALLING BACKFILL AS DETAILED AND/OR AS SPECIFIED. BE RESPONSIBLE FOR ALL WEATHER PROTECTION REQUIRED TO INSTALL PIPING AND/OR EQUIPMENT TO THE SATISFACTION OF THE CONSULTANT. BE RESPONSIBLE FOR PROVIDING ALL CLEAR STONE OR GRANULAR 'A' MATERIAL SUITABLE FOR APPLICATION TO REPLACE EXISTING SOIL NOT SUITABLE FOR BACKFILLING ABOVE THE 450 MM (18") BEDDING MATERIAL.
- PROVIDE SCHEDULE 40 STEEL PIPE SLEEVES AT POINTS WHERE PIPES PASS THROUGH MASONRY, CONCRETE OR FIRE RATED ASSEMBLIES AND AS INDICATED. GROUT SLEEVES IN PLACE. MINIMUM 6 MM (1/4") CLEARANCE ALL AROUND, BETWEEN SLEEVE AND UNINSULATED PIPE OR BETWEEN SLEEVE AND INSULATION. CAULK BETWEEN SLEEVE AND PIPE IN FOUNDATION WALLS AND BELOW GRADE FLOORS WITH WATERPROOF FIRE RETARDANT NON-HARDENING MASTIC. WHERE SLEEVES PASS THROUGH WALLS OR FLOORS, PROVIDE SPACE FOR FIRESTOPPING. WHERE PIPES PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY. ENSURE NO CONTACT BETWEEN COPPER TUBE OR PIPE AND FERROUS SLEEVE. FILL FUTURE-USE SLEEVES WITH LIME PLASTER OR OTHER 8. FLEXIBLE DUCTWORK EASILY REMOVABLE FILLER. COAT EXPOSED EXTERIOR SURFACES OF FERROUS SLEEVES WITH HEAVY APPLICATION OF ZINC RICH PAINT TO CGSB 1-GP-181M+AMDT-MAR-78.
- PROVIDE MINIMUM 20 GAUGE DUCT SLEEVES WHERE DUCTS PASS THROUGH MASONRY. CONCRETE OR FIRE RATED ASSEMBLIES. MAINTAIN MINIMUM 25 MM CLEARANCE ALL AROUND OR TO THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. SEAL AT WALL AS INDICATED. WHERE DUCTS PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY. PART B DEMOLITION NOTES
- 1. THIS PROJECT IS ONE OF A RETROFIT NATURE IN PART, AND WHICH WILL REQUIRE SOME DEMOLITION. ALLOW FOR ALL REMEDIAL WORK IN AREAS INDICATED ON THE DRAWINGS AND AS GENERALLY DEFINED IN THE RELEVANT SECTIONS OF THE SPECIFICATIONS.
- 2. THE SCOPE OF WORK IS ESSENTIALLY THE SELECTED DISCONNECTION AND/OR REMOVAL OF SERVICES AND/OR EQUIPMENT, PIPING, DUCTWORK ETC. AS INDICATED OR REQUIRED TO COMPLETE THE WORK.
- 3. THIS DIVISION IS TO LIAISE WITH THE OWNERS OR CONSULTANT FOR EQUIPMENT BEING REMOVED THAT MAY BE SUITABLE FOR REUSE TO THAT SPECIFIED OR HANDED OVER TO THE OWNER.
- 4. THIS DIVISION TO TAKE FULL RESPONSIBILITY FOR ANY SPECIAL TOOLS OR EQUIPMENT REQUIRED TO DISASSEMBLE OR REMOVE MATERIAL FROM BUILDING.
- 5. THE GENERAL EXECUTION OF THE DEMOLITION IS TO BE CARRIED OUT IN A CLEAN AND EFFICIENT MANNER. 6. DEMOLITION OF EXISTING CEILING, WALLS ETC., TO FACILITATE REMOVAL OF EXISTING SERVICES OR EQUIPMENT OR
- INSTALLATION OF NEW TO BE KEPT TO A MINIMUM AND THEN RESTORED TO MATCH EXISTING. 7. ALL OPENINGS OR HOLES CREATED BY REMOVAL OF EXISTING MECHANICAL SYSTEMS WHICH ARE NOT BEING REUSED
- ARE TO BE PATCHED WITH THE SAME MATERIAL SURROUNDING SURFACES.
- 8. PROTECT ALL EXISTING FURNISHINGS MATERIALS AND EQUIPMENT. ANY DAMAGE OCCURRING AS A RESULT OF THE WORK OF THIS DIVISION SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THIS DIVISION.

DIRECTED BY THE OWNERS IN AN EXPEDIENT MANNER WITH MINIMUM DISRUPTION TO THE FACILITY AND SYSTEMS

9. WHERE WORK INVOLVES BREAKING INTO OR CONNECTING TO EXISTING SERVICES, CARRY OUT WORK AT TIMES

- 10. WHERE UNKNOWN SERVICES ARE ENCOUNTERED, IMMEDIATELY ADVISE CONSULTANT AND CONFIRM FINDINGS IN
- 11. WHERE THE LOCATION OF ANY SERVICES HAS BEEN SHOWN ON THE PLANS, SUCH INFORMATION IS NOT GUARANTEED. IT IS THIS DIVISION'S RESPONSIBILITY TO VERIFY LOCATIONS, INVERT ELEVATIONS, ETC., IMMEDIATELY AFTER MOVING ON SITE. SHOULD FOR ANY REASON THE INFORMATION OBTAINED NECESSITATES CHANGES IN PROCEDURE OR DESIGN, ADVISE THE CONSULTANT AT ONCE. IF VERIFICATION OF EXISTING CONDITIONS IS NOT DONE AT THE OUTSET AND ANY
- PROBLEMS ARISE, THE RESPONSIBILITY FOR SAME IS ENTIRELY THIS DIVISION'S. 12. DISCONNECT AND/OR REMOVE EQUIPMENT PIPING, DUCTWORK, ETC. AS INDICATED.
- 13. CAP AND CONCEAL ALL REDUNDANT AND OBSOLETE CONNECTIONS.
- 14. PROVIDE A LIST OF EQUIPMENT TO BE REMOVED TO THE OWNER, FOR HIS ACCEPTANCE OF SAME. REMOVE ALL EQUIPMENT FROM SITE WHICH THE OWNER DOES NOT RETAIN.

15. MAINTAIN EQUIPMENT TO BE RETAINED BY OWNER ON SITE WHERE DIRECTED BY CONSULTANT.

THESE AREAS MUST BE KEPT TO THE MINIMUM REQUIRED TO COMPLETE THE WORK.

- 16. DEMOLITION OF ALL PARTS OF THE WORK MUST BE COMPLETED WITHIN THE CONFINES OF THE WORK AREA AND IN
- SUCH A WAY AS THE DUST PRODUCED AND RISK TO INJURY OF WILL NOT ADVERSELY AFFECT THE BUILDING USERS. 17. DEMOLISHED AREAS OF THE EXISTING BUILDING WILL REMAIN IN THEIR CURRENT USE IN SOME CASES, DEMOLITION IN
- 18. DEMOLITION SHALL TAKE PLACE WITHIN AREAS ISOLATED FROM ALL OTHER AREAS WITH APPROPRIATE HOARDING. SCAFFOLDING. NETTING. FENCING OR OTHER MEANS OF SECURITY BETWEEN BUILDING USERS AND THE WORK.
- 19. CO-ORDINATE MAKING SAFE ELECTRICAL DEVICES, CAPPING PLUMBING AND REMOVAL OF FIXTURES PRIOR TO COMMENCEMENT OF DEMOLITION.
- 20. ALL PIPING AND EQUIPMENT TO BE REMOVED AND/OR ABANDONED SHALL BE DRAINED PRIOR TO CAPPING AND/OR ABANDONING. DISPOSAL OF ALL LIQUIDS SHALL BE TO THE APPROVAL OF AUTHORITY OF HAVING JURISDICTION AND/OR PROVINCIAL REGULATIONS.
- 21. DRAIN ALL EXISTING PIPING AND DRAINAGE SYSTEMS INCLUDING ALL RELATED EQUIPMENT AS REQUIRED TO FACILITATE SYSTEM RENOVATIONS.

- 22. DISPOSAL OF EXISTING SYSTEM SHALL BE TO THE REQUIREMENTS OF THE LOCAL AND/OR PROVINCIAL REGULATIONS.
- PART C PLUMBING NOTES
- CONTRACTOR TO PROVIDE POTABLE WATER CERTIFICATE FOR E. COLI AND COLIFORM FROM A RECOGNIZED TESTING LABORATORY UPON COMPLETION OF THE PROJECT. WATER IS TO BE TAKEN FROM A NEW FIXTURE TO TEST THE NEW PIPING INSTALLED.
- CONNECT TO EXISTING SERVICES WHERE SHOWN ON DRAWINGS.
- CODES AND REGULATIONS SANITARY, SOIL WASTE, VENT, AND ALL WATER PIPING SHALL CONFORM AND BE INSTALLED TO THE ONTARIO PLUMBING CODE AND THE CANADIAN PLUMBING CODE, LATEST EDITION. ALL GAS PIPING SHALL CONFORM TO THE CANADIAN GAS CODE AND THE LOCAL GAS DISTRIBUTORS REQUIREMENTS.
- SANITARY PIPING: ALL SANITARY PIPING SHALL BE TESTED WITH WATER UNDER THE GUIDANCE OF THE LOCAL PLUMBING INSPECTOR. SMOKE TESTS OR ANY OTHER TEST REQUIRED BY THE PLUMBING INSPECTOR SHALL ALSO BE MADE. WATER PIPING: ALL WATER PIPING SHALL BE TESTED TO 150 PSI. PRESSURE FOR NOT LESS THAN FOUR HOURS WITHOUT A LOSS IN PRESSURE.
- MAINTAIN TESTABLE RP BACKFLOW PREVENTOR BETWEEN MUNICIPAL WATER AND NEW PLUMBING SYSTEM. ENSURE A MINIMUM OF 90% OF PLUMBING FIXTURES ARE INSTALLED. FLUSH WATER MAINS THROUGH AVAILABLE OUTLETS WITH A SUFFICIENT FLOW OF POTABLE WATER TO PRODUCE A VELOCITY OF 1.5 M/S, WITHIN PIPE FOR 10 MIN, OR UNTIL FOREIGN MATERIALS HAVE BEEN REMOVED AND FLUSHED WATER IS CLEAR WITH BACKFLOW PROTECTION. PROVIDE CONNECTIONS AND PUMPS FOR FLUSHING AS REQUIRED. OPEN AND CLOSE VALVES, AND OPERATE FIXTURES TO ENSURE THOROUGH FLUSHING. TAKE WATER SAMPLES AT REMOTE FIXTURES AND SERVICE CONNECTIONS.
- 5. PIPE AND FITTINGS STORM, SANITARY AND VENT DRAINS: (ABOVE GRADE), MEDIUM WEIGHT CAST IRON WITH MECHANICAL RUBBER JOINTS, TYPE DWV COPPER PIPE, OR PVC-XFR DRAIN WASTE AND VENT PIPE TO CAN/CSA-B181.2. STORM, SANITARY AND VENT PIPING: (BELOW GRADE) PVC DRAINAGE PIPE TO SDR 35 WITH SOLVENT WELDED JOINTS. ABS DRAINAGE PIPE WITH SOLVENT WELDED JOINTS. WATER PIPING: TYPE L COPPER WITH LEAD FREE SOLDER JOINTS.
- ISOLATION VALVES: HOT AND COLD WATER BRONZE BODY, CLASS 150, STAINLESS STEEL BALL, FULL PORT, PTFE SEAT AND PACKING, STEEL LEVER HANDLE. MILWAUKEE BA-455, CRANE, TOYO CHECK VALVES: HOT AND COLD WATER SIZES 1/2" DIAMETER TO 2" DIAMETER CRANE FIG. 1342, OR EQUAL JENKINS, BRONZE SWING CHECK, SOLDER ENDS. CRANE FIG. 29 OR EQUAL JENKINS VERTICAL LIFT CHECK VALVE, SCREWED ENDS ON VERTICAL
- CLEAN OUTS: PROVIDE AND SET CLEAN OUT PLUGS IN ALL DRAINS AND SOIL PIPE LINES WHERE OBSTRUCTIONS MAY BE FOUND, AT CHANGES OF DIRECTION, AT THE BASE OF ALL SANITARY STACKS AND AT INTERVALS. LENGTHS TO THE ONTARIO PLUMBING CODE. CLEAN OUTS SHALL BE FULL SIZES OF PIPES UP TO 4" DIAMETER AND NOT LESS THAN 4" DIAMETER FOR LARGER PIPES. ANCON CO-100-R OR EQUAL.
- TRAP PRIMERS: ALL TRAPS WHERE REQUIRED BY THE CODE TO BE PRIMED OR WHERE SHOWN ON THE DRAWINGS SHALL HAVE MIFAB-MR-ENC-AG OR EQUAL PRESSURE DROP ACTIVATED TRAP SEAL PRIMER INSTALLED IN THE NEAREST COLD WATER LINE TO THE TRAP. TRAP PRIMER SHALL BE CONCEALED, PROVIDED WITH ENCLOSURE FOR INSTALLTION IN WALL AND HAVE INTEGRAL AIR GAP FOR BACKFLOW PREVENTION, PROVIDE ACCESS DOOR.
- 9. AIR CHAMBERS AIR CHAMBERS: SHALL BE ONE PIPE SIZE LARGER THAN THE BRANCH PIPE END AND AT LEAST 2'-0" HIGH.
- DRIP COCKS: SUPPLY AND INSTALL 1/2" DIAMETER MUELLER OR EQUAL DRAIN VALVES AT ALL LOW POINTS IN THE WATER SYSTEMS TO COMPLETELY DRAIN THE SYSTEMS. ALL DRIP COCKS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS.
- FIXTURES AS LISTED ON THE DRAWINGS. ALL FIXTURES MUST BE NEW AND CLEAN WHEN THE WORK IS TAKEN OVER BY THE OWNER. ALL PLUMBING FIXTURES SHALL BE EQUIPPED WITH SUPPLY VALVES, FAUCETS, TRAPS, SUPPORTS, WATER CONNECTIONS, ESCUTCHEONS, HANGERS, BOLTS. ETC. FIXTURES SHALL BE CRANE OR EQUAL AMERICAN STANDARD, KOHLER. TRAPS: 2" DIAMETER AND SMALLER, SHALL BE CAST BRASS AND CHROME PLATED IN EXPOSED AREAS. ALL SINK TRAPS SHALL BE TWO PIECE CONSTRUCTION. ALL TRIM MUST BE CAMBRIDGE BRASS OR EQUAL. ON COMPLETION ALL FIXTURES, ACCESSORIES AND EXPOSED PIPING SHALL BE THOROUGHLY CLEANED AND LEFT READY FOR USE. AFTER FINAL INSPECTION BY THE PLUMBING INSPECTOR CAULK AROUND BASE OF ALL FIXTURES TO THE WALL OR FLOOR WITH SILICONE CAULKING.
- 12. FIRE EXTINGUISHERS SUPPLY AND INSTALL WHERE SHOWN ON DRAWINGS NATIONAL OR EQUAL UL LABELED 5 LB. MULTIPURPOSE DRY CHEMICAL FIRE EXTINGUISHERS WITH HOSE SHUTOFF NOZZLE AND WALL MOUNTING BRACKETS. PROVIDE RECESSED WALL CABINET WHERE NOTED. EXPANSION COMPENSATION
- PIPING SUBJECTED TO THERMAL EXPANSION SHALL BE INSTALLED USING PIPE LOOPS AND/OR EXPANSION COMPENSATORS TO PERMIT FREE EXPANSION AND CONTRACTION WITHOUT CAUSING DAMAGÉ TO OR STRESSES AT JOINTS AND HANGER AND TO REDUCE STRAIN ON CONNECTED EQUIPMENT TO A MINIMUM.
- INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING AND STORM PIPING ABOVE GRADE. WITH 1" (FOR PIPING UNDER 1 1/2" DIAMETER) OR 1 1/2" (FOR PIPING 1 1/2" DIAMETER AND HIGHER) FIBERGLASS INSULATION WITH VAPOUR BARRIER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. RECOVER EXPOSED PIPING WITH 6 OZ. CANVAS JACKET AND TWO COATS LAGGING ADHESIVE.

PART D HEATING, AIR CONDITIONING, AND VENTILATION NOTES

- . DUCTWORK TO BE CONSTRUCTED TO SMACNA STANDARDS, MEDIUM STATIC PRESSURE WITH LEAKAGE RATE OF 5% MAXIMUM. FABRICATED IN ACCORDANCE WITH RECOMMENDATIONS OF SMACNA AND ASHRAE. SEAL ALL TRANSVERSE AND LONGITUDINAL JOINTS WITH DUCT SEALER.
- 2. ROUND AND OVAL DUCTS: FACTORY FABRICATED, SPIRAL WOUND, WITH MATCHING FITTINGS AND SPECIALS TO SMACNA. TRANSVERSE JOINTS UP TO 900 MM (36"): SLIP TYPE WITH TAPE AND SEALANTS.
- 3. SQUARE AND RECTANGULAR DUCTS:TO SMACNA. TRANSVERSE JOINTS, LONGEST SIDE UP TO AND INCLUDING 750 MM (30"): SMACNA PROPRIETARY DUCT JOINTS.
- ALL DAMPERS TO TO SMACNA RECOMMENDATIONS AS MINIMUM ACCEPTABLE STANDARD, SINGLE BLADE BALANCING ROUND AND RECTANGULAR. MAXIMUM 100MM (4") HIGH, OR SAME MATERIAL AS DUCT BUT ONE SHEET METAL THICKNESS HEAVIER (MINIMUM 16 GAUGE), V-GROOVE STIFFENED WITH LOCKING QUADRANT. MANUFACTURED ADJUSTABLE EXTRACTORS TO BE WITH ADJUSTMENT ROD. ACCEPTABLE PRODUCTS: TITUS, NAILOR OR EQUAL.
- AT ALL DUCT CONNECTIONS TO FANS AND AIR HANDLING UNITS. NEOPRENE COATED GLASS FABRIC, NOT MORE THAN 6" LONG BETWEEN METAL PARTS INSTALLED SUFFICIENT SLACK TO PREVENT VIBRATION TRANSMISSION. ALLOW MOVEMENT (2") TO LOW PRESSURE FANS.
- 6. TURNING VANES SMALL ARC AIRFOIL HOLLOW VANES IN SUPPLY DUCT ELBOW WHERE CENTERLINE RADIUS IS LESS THAN 1 1/4 TIMES TURNING DIMENSION OF DUCT.
- GRILLES, REGISTERS AND DIFFUSERS SHALL BE THE SAME MANUFACTURER. TYPE AS SHOWN ON THE DRAWING. ACCEPTABLE MATERIALS: E.H. PRICE, TITUS, NAILOR, KRUEGER, TUTTLE & BAILEY, METALAIR.
- METALLIC ALUMINUM FLEXIBLE DUCTWORK MANUFACTURED BY FLEXMASTER LTD., OR EQUAL BETWEEN BRANCH DUCTS AND GRILLES, REGISTERS AND DIFFUSERS. MAXIMUM LENGTH SHALL BE 6'-0".
- RIGID DUCT LINER 1" THICK 36 KG/M WITH NEOPRENE LINER GLUED AND PINNED TO INSIDE SURFACE OF DUCTWORK. MINIMUM 3.0M (10') FROM ALL AIR HANDLERS AND WHERE SHOWN ON DRAWINGS. SEAL ALL EXPOSED EDGES. DUCT SIZING REPRESENTS CLEAR INSIDE DIMENSIONS.
- 10. DUCTWORK INSULATION ON THE LAST 5'-0" OF ALL EXHAUST DUCTS, INCLUDING PLENUM AND ALL AIR INTAKE DUCTWORK. FIBERGLASS FOIL
- FACED RIGID DUCT INSULATION 1" THICK TYPE PF-335-3/4 LB. DENSITY WITH RFFRK FACING. GLUE AND PIN AS PER MANUFACTURERS RECOMMENDATIONS.
- 11. CONTROLS NOTES 11.1. PROVIDE A DDC CONTROL SYSTEM AS AN EXPANSION OF THE EXISTING BUILDING AUTOMATION CONTROLS. THE
- EXISTING CONTROLS ARE PROVIDED BY ENERGY CONTROLS, OR APPROVED ALTERNATE. 11.2. MANUFACTURER AND INSTALLING CONTRACTOR THE TEMPERATURE CONTROL MANUFACTURER SHALL BE DISTECH CONTROLS. THE LOCAL CONTRACTOR IS AVAILABLE AT PHONE (519) 893-2638. ANY NEW BUILDING MUST BE A SEAMLESS EXTENSION OF THE CURRENT ENERGY MANAGEMENT AND BUILDING CONTROL SYSTEM. THE EXISTING NIAGARA SOFTWARE IS, AND SHALL CONTINUE TO BE, THE ONLY HEAD-END BAS SERVER FOR THE ENTIRE SCHOOL BOARD. THE HEAD-END SERVER CONTAINS THE SECURE ENERGY MANAGEMENT SETTINGS (I.E. MASTER SETPOINTS & SCHEDULES) THAT ARE SENT TO ALL SCHOOLS IN REAL-TIME. THE CONTROL SYSTEM MUST BE AN EXTENSION OF THE HEAD-END SERVER AND BE ABLE TO BE MANAGED EXCLUSIVELY THROUGH THE NIAGARA HEAD-END SERVER. MONITORING OF ALL SCHOOL BOARD CONTROL SYSTEMS ARE DONE IN REAL-TIME AND MUST BE PRESENTED AT THE EXCLUSIVE NIAGARA HEAD-END SERVER AS FIRST-PRIORITY DATA. THE NIAGARA HEAD-END SERVER HAS ALL THE REQUIRED CONTROLLER DATABASES AND SOFTWARE TO BE ABLE TO CENTRALLY MAINTAIN AND MODIFY NETWORK CONFIGURATION AND CONTROLLER SOFTWARE FOR THE ENTIRE SCHOOL BOARD. THE NIAGARA HEAD-END SERVER IS THE ONLY SYSTEM THAT CAN ACCESS THE PROGRAMMING VARIABLES INSIDE THE CONTROLLERS FOR REAL-TIME CONFIGURATION OF SETPOINT AND TIME SCHEDULING PARAMETERS. THE GRAPHICS AND CONTROLLER DATABASE MUST BE PRESENTED INSIDE THE NIAGARA HEAD-END SERVER IN ITS NATIVE FORMAT IN ORDER TO
- 11.3. TEMPERATURE SENSORS TEMPERATURE SENSORS SHALL BE RESISTANCE TEMPERATURE DEVICE (RTD) OR THERMISTOR, DUCT SENSORS SHALL BE SINGLE POINT OR AVERAGING AS SHOWN. AVERAGING SENSORS SHALL BE A MINIMUM OF 1.5M (5FT) IN LENGTH PER 1 M²(10 FT²)OF DUCT CROSS SECTION. IMMERSION SENSORS SHALL BE PROVIDED WITH A SEPARABLE STAINLESS STEEL WELL. PRESSURE RATING OF WELL IS TO BE CONSISTENT WITH THE SYSTEM PRESSURE IN WHICH IT IS TO BE INSTALLED. THE WELL MUST WITHSTAND THE FLOW VELOCITIES IN THE PIPE. SPACE SENSORS SHALL BE EQUIPPED WITH SET POINT ADJUSTMENT, OVERRIDE SWITCH. PROVIDE MATCHED TEMPERATURE SENSORS FOR DIFFERENTIAL TEMPERATURE MEASUREMENT.

PRESERVE THE REAL-TIME SPEED, INTEGRITY AND MULTI-SITE ADMINISTRATION OF THE ENTIRE SYSTEM.

TEĆHNICAL PERFORMANCE - INFRARED CO2 MONITOR C/W 4-20MA OR 0-5 VDC OUTPUT, ACCURACY OF +/-40 PPM +3% READING.

2. CONTROLS SEQUENCES 12.1. <u>VVT HVAC ROOFTOP UNIT SEQUENCE OF OPERATIONS:</u>

12.1.1. UNOCCUPIED MODE:

- MODE IS ACTIVE USUALLY BETWEEN 11:00 P.M. TO 7:00 A.M. MONDAY TO FRIDAY AND 24 HOURS SATURDAY AND SUNDAY, THE SYSTEM WILL BE IN UNOCCUPIED MODE WHEN NOT IN MORNING WARMUP, OCCUPIED OR STANDBY MODES. THE SYSTEM WILL CYCLE BETWEEN IDLE STATE. HEATING STATE OR PUSHBUTTON OVERRIDE STATES TO MEET THE DEMANDS FROM EACH STATE AND RETURN TO THE IDLE STATE WHEN THE DEMANDS ARE SATISFIED. 12.1.2. IDLE STATE:
- THE SUPPLY FAN IS OFF, THE RETURN FAN IS OFF (WHERE APPLICABLE), THE GLOBAL VENTILATION SCHEDULE IS DISABLED, THE OUTDOOR AIR MIXING DAMPERS ARE IN THE 0 % OUTDOOR AIR POSITION, HEATING IS DISABLED AND COOLING IS DISABLED. THE BYPASS DAMPER IS IN THE 100 % OPEN POSITION. THE ZONE DAMPERS ARE IN THE 50 % OPEN POSITION. 12.1.3. HEATING STATE:
- SYSTEM CYCLES ON A CALL FOR UNOCCUPIED HEATING. A FULL CALL FOR (ALL STAGES OR FULL HEAT MODULATION WHERE APPLICABLE) HEATING UNTIL SETPOINT IS REACHED. THE VVT HVAC UNIT SUPPLY AIR STATIC PRESSURE SETPOINT IS INCREASED BY 20 %. BYPASS DAMPER(S) AND ASSOCIATED ZONE DAMPER(S) MODULATE TO OBTAIN SETPOINT. UNOCCUPIED HEATING TEMPERATURE NOMÍNALLY 16.0 °C SPACE TEMPERATURE SETPOINT WITH AN INCREASED SPACE TEMPERATURE SETPOINT TO 17.0 °C AT -10.0 °C OUTDOOR AIR TEMPERATURE OR LOWER AND 18.0 °C AT -20.0 °C OUTDOOR AIR TEMPERATURE OR LOWER (EACH ADJUSTABLE). MECHANICAL COOLING: DISABLED. FREE COOLING: DISABLED. GLOBAL VENTILATION SCHEDULE: DISABLED.
- 12.1.4. MORNING WARMUP MODE: AN OPTIMIZED START, BASED ON THE TIME OF DAY SCHEDULE, OUTDOOR AIR TEMPERATURE AND THE LOWEST INDOOR ZONE TEMPERATURE IS PROVIDED FOR HEATING. THE GLOBAL VENTILATION SCHEDULE IS DISABLED. THE SUPPLY FAN IS ON, THE RETURN FAN IS ON (WHERE APPLICABLE), THE OUTDOOR AIR MIXING DAMPERS ARE IN THE O % OUTDOOR AIR POSITION, HEATING IS ENABLED AT FULL CAPACITY AND THE COOLING IS DISABLED. THE VVT BYPASS DAMPER(S) STARTS IN THE 100 % OPEN POSITION. THE ZONE DAMPERS START IN THE 50 % OPEN

- POSITION. THE OPTIMIZED START PROGRAM IS TO BEGIN UP TO 105 MINUTES (ADJUSTABLE) BEFORE TH OCCUPANCY SCHEDULE TO ALLOW FOR MORNING WARM UP TO BRING THE LOWEST ZONE TEMPERATURE UP TO OCCUPANCY SETPOINT. FREE COOLING: DISABLED. MECHANICAL COOLING: DISABLED. GLOBAL VENTILATION SCHEDULE: DISABLED, THE SYSTEM EXITS MORNING WARMUP MODE AND CONTINUES INTO OCCUPIED MODE WHEN THE LOWEST INDOOR ZONE TEMPERATURE IS WARMED UP TO DEFAULT ROOM TEMPERATURE SETPOINT.
- 12.1.5. OCCUPIED MODE: TIME OF DAY SCHEDULE, WHICH STARTS THE HVAC UNIT(S) ALONG WITH AN OPTIMUM START PROGRAM USUALLY BETWEEN 7:00 A.M. AND 4:00P.M. MONDAY TO FRIDAY, WHEN NOT OVERRIDDEN BY A HOLIDAY SCHEDULE, STANDBY OCCUPANCY MODE OR UNOCCUPIED MODE. GLOBAL VENTILATION SCHEDULE IS ENABLED. HVAC UNIT FAN STATUS CONFIRMED BY CURRENT SENSING DEVICE(S) OR VFD FEEDBACK. FAN OPERATION: THE SUPPLY FAN AND RETURN FAN (WHERE APPLICABLE) RUN CONTINUOUSLY. ROOM HEATING TEMPERATURE SETPOINT NOMINAL: 21.5 °C +/- 1.0 °C (ADJUSTABLE). ROOM FREE COOLING ENABLED TEMPERATURE SETPOINT NOMINAL 22.5 °C +/-1.0 °C. ROOM MECHANICAL COOLING TEMPERATURE SETPOINT NOMINAL 24.5 °C +/- 1.0 °C (ADJUSTABLE). GLOBAL VENTILATION SCHEDULE: ENABLED.
- TIME OF DAY SCHEDULE STARTS THE HVAC UNIT(S) USUALLY BETWEEN 4:00 P.M. AND 11:00 P.M. MONDAY TO FRIDAY. MINIMUM OUTDOOR AIR IS SET TO ZERO WHEN THE GLOBAL VENTILATION SCHEDULE IS OFF. FAN OPERATION: SUPPLY FAN AND RETURN FAN (WHERE APPLICABLE) RUNS ONLY ON A CALL FROM HEATING OR COOLING. VENTILATION NORMALLY SET TO ZERO (WITH A FUTURE PROVISION TO ADJUST). ROOM HEATING TEMPERATURE SETPOINT NOMINAL: 21.5 °C +/- 1.0 °C (ADJUSTABLE). ROOM MECHANICAL COOLING TEMPERATURE SETPOINT NOMINAL 24.5 °C +/- 1.0 °C (ADJUSTABLE). FREE COOLING: DISABLED. GLOBAL VENTILATION SCHEDULE: DISABLED.
- 12.1.7. ZONE DAMPER: THE ROOM SENSOR MODULATES THE ZONE DAMPER BETWEEN MINIMUM AND MAXIMUM SETTINGS TO MAINTAIN (OCCUPIED, STANDBY, OR UNOCCUPIED) MODE TEMPERATURES. THE SETPOINT IS ADJUSTABLE AT THE SENSOR. THE CONTROL IS REVERSE ACTING WHÉN THE SUPPLY TEMPERATURE IS MORE THAN 1 °C ABOVE ROOM TEMPERATURE AND DIRECT ACTING WHEN THE SUPPLY AIR TEMPERATURE IS MORE THAN 1 °C BELOW ROOM TEMPERATURE. IF THE SYSTEM MODE IS DIFFERENT FROM THE ZONE MODE (E.G. SYSTEM IS IN HEATING MODE BUT ZONE REQUIRES COOLING), THE ZONE DAMPER CLOSES TO A REDUCED MINIMUM POSITION TO MINIMIZE OVERHEATING/OVERCOOLING. A MINIMUM OF 5 MINUTES TO CHANGEOVER BETWEEN HEATING TO COOLING MODES
- 12.1.8. BYPASS OPERATION: THE SUPPLY AIR STATIC PRESSURE SENSOR MODULATES THE BYPASS DAMPER BETWEEN MINIMUM AND MAXIMUM SETTINGS TO MAINTAIN SUPPLY STATIC PRESSURE SETPOINT. REDUCE THE SUPPLY AIR STATIC PRESSURE SETPOINT DURING BOTH DEFAULT AND FORCED VENTILATION MODES, TYPICALLY 10 PA FOR ACOUSTIC NOISE REDUCTION. DURING UNOCCUPIED MODE SETBACK, INCREASE SUPPLY AIR STATIC PRESSURE SETPOINT, TYPICALLY
- 12.1.9. VENTILATION SEQUENCE: THE SYSTEM OPERATES IN VENTILATION MODE (NO HEATING OR COOLING) UNDER THE FOLLOWING CONDITIONS: NO ZONES ARE CALLING FOR HEATING OR COOLING. SYSTEM IS SWITCHING BETWEEN HEATING AND COOLING (THE SYSTEM OPERATES IN VENTILATION MODE FOR 5 MINUTES).ONE OR MORE ZONES HAVE BEEN OPERATING AT A REDUCED MINIMUM POSITION FOR MORE THAN 20 MINUTES (SYSTEM OPERATES IN FORCED VENTILATION MODE FOR 5 MINUTES).

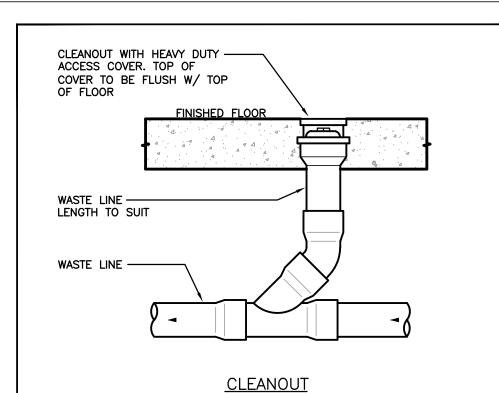
12.2. WT DAMPER ROOFTOP MULTI-ZONE SEQUENCE OF OPERATION 12.2.1. ALL SEQUENCES SHALL BE AS PER WRDSB STANDARDS.

12.1.6. STANDBY OCCUPANCY MODE:

- 12.2.2. ZONE DAMPER: THE ROOM SENSOR MODULATES THE ZONE DAMPER BETWEEN MINIMUM AND MAXIMUM SETTINGS TO MAINTAIN (OCCUPIED, STANDBY, OR UNOCCUPIED) MODE TEMPERATURES. THE SETPOINT IS ADJUSTABLE AT THE SENSOR. HE CONTROL IS REVERSE ACTING WHEN THE SUPPLY TEMPERATURE IS MORE THAN 1 °C ABOVE ROOM TEMPERATURE AND DIRECT ACTING WHEN THE SUPPLY AIR TEMPERATURE IS MORE THAN 1 °C BELOW ROOM TEMPERATURE. IF THE SYSTEM MODE IS DIFFERENT FROM THE ZONE MODE (E.G. SYSTEM IS IN HEATING MODE BUT ZONE REQUIRES COOLING), THE ZONE DAMPER CLOSES TO A REDUCED MINIMUM POSITION TO MINIMIZE OVERHEATING/OVERCOOLING. A MINIMUM OF 5 MINUTES TO CHANGEOVER BETWEEN HEATING TO COOLING MODES
- 12.3. SEQUENCES SHALL BE AS PER WRDSB MASTER SEQUENCES. REFER TO DOCUMENTATION FROM WRDSB. THIS IS AVAILABLE UPON REQUEST.
- BALANCE AIR SYSTEMS USING NEBB CERTIFIED FIRM AND AS PER NEBB REQUIREMENTS TO WITHIN 5% OF TOTAL SYSTEM CAPACITY. PROVIDE 3 COPIES OF BALANCING REPORTS C/W SYSTEM SCHEMATICS.
- HEATERS SHALL BE STANDARD WATTAGE DENSITY WITH CONNECTION BOX AT ONE END. ELEMENT THROUGH-TYPE FITTED WITH ALUMINUM CONVECTOR VANES AND RESISTOR WIRE ENCLOSED IN MINERAL INSULATION IN COPPER COATED STEEL SHEATH. ELEMENT LOCKED TO CABINET AND SUPPORTED AT ADDITIONAL POINTS THROUGHOUT LENGTH TO ALLOW FOR LINEAR EXPANSION WITH NON METALLIC SUPPORTS. CABINETS SHALL BE BOTTOM INLET/OUTLET FRONT PANEL 1.6 MM THICK, FINISHED IN BAKED ENAMEL (COLOUR TO SUIT ARCHITECT). INTEGRAL AIR DIFFUSION REFLECTOR WITH WIREWAY AT BOTTOM. BLANK CABINET SECTIONS WHERE SPECIFIED SHALL BE COMPLETE WITH WIREWAY IN ALL SECTIONS INCLUDING SPLICE PLATES, TO MATCH HEATER CABINETS IN ALL RESPECTS FOR CONTINUOUS BASEBOARD EFFECT AS INDICATED. CONTROLS SHALL BE INTEGRAL 2 POLE THERMOSTATS TO CONTROL LOAD OF HEATER SPECIFIED.
- 15. ALTERNATES AND SUBSTITUTES SHOULD ELECTRICAL CHARACTERISTICS FOR "ALTERNATE" OR "EQUAL" EQUIPMENT DIFFER FROM EQUIPMENT SPECIFIED

ACCEPTABLE MANUFACTURERS: OUELLET, STELPRO, WESTCAN.

IT SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT MANUFACTURER TO PAY ALL COSTS ASSOCIATED WITH THE REVISIONS TO THE ELECTRICAL CONTRACT.



CLEVIS HANGER

—HIGH DENSITY INSULATION

-FINISHED ROOF

INSULATED ROOF

ISOLATION VALVE -

FLECTRONICALLY

ACTIVATED TRAP

PRIMER VALVE

TRAP PRIMER

C/W 1" AIR GAP

DISTRIBUTION UNIT

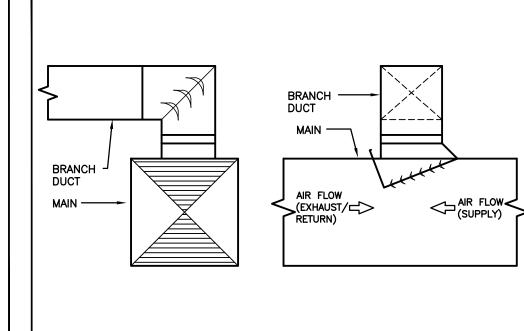
(MAX. 4 OUTLETS)

NOTE:
PROVIDE TRAP PRIMER

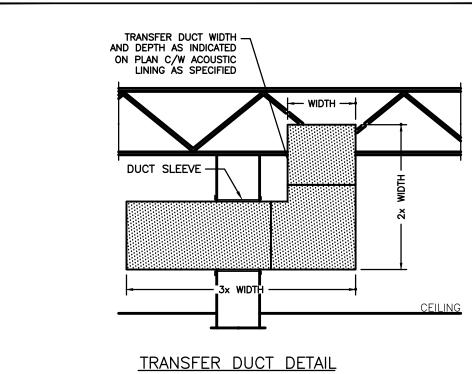
AS SHOWN TO ALL

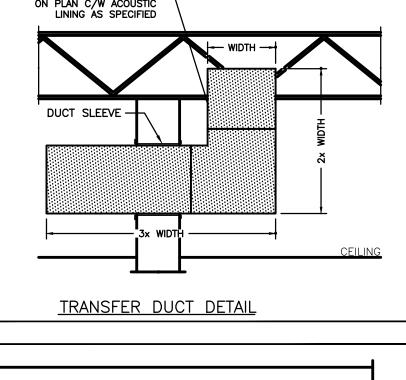
FLOOR DRAINS

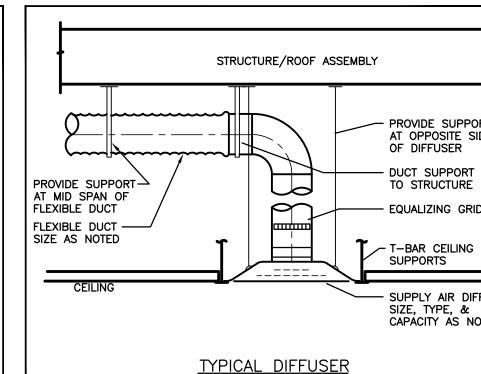
PENETRATION CONE.

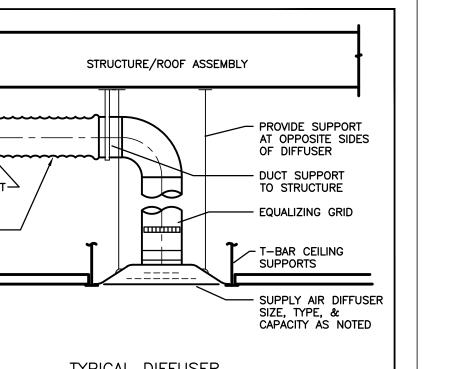


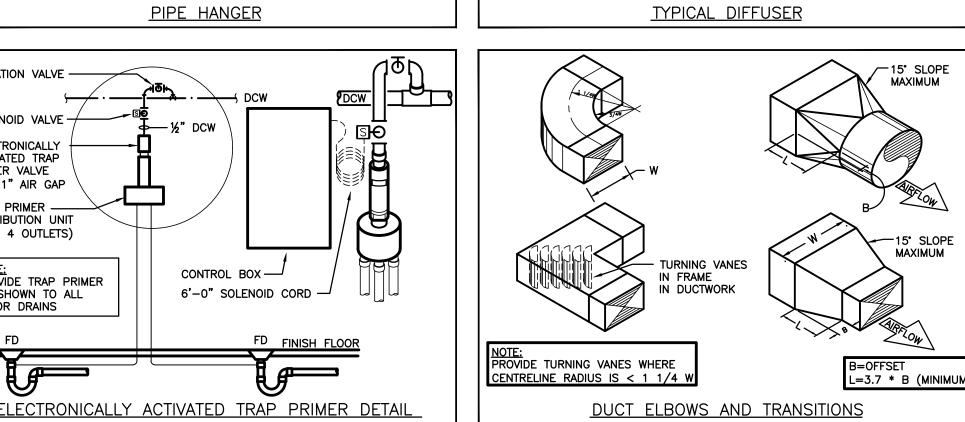
BRANCH OFF TOP OF MAIN

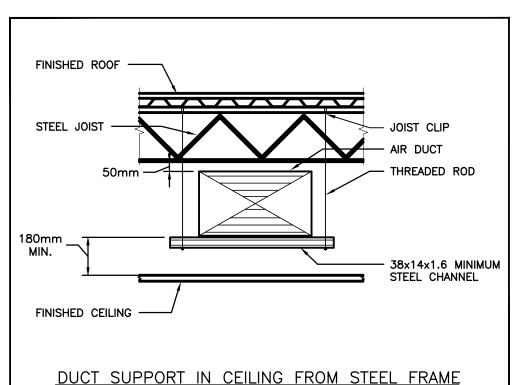


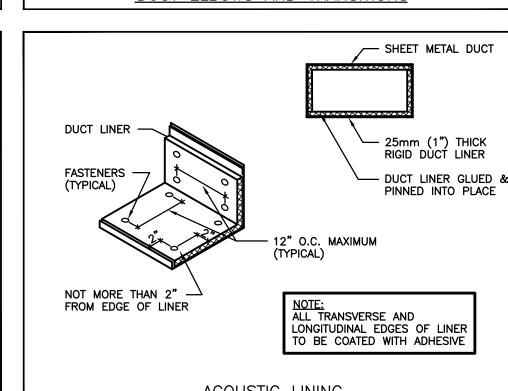


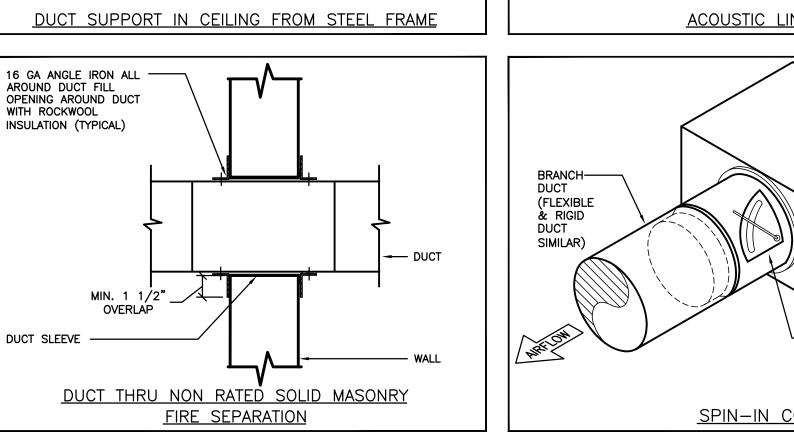


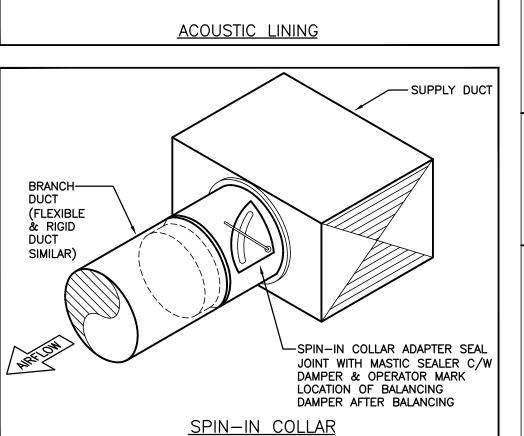


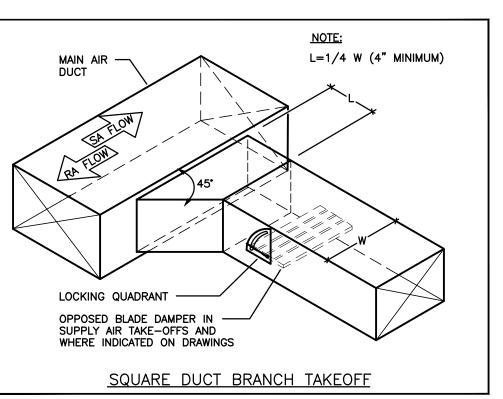














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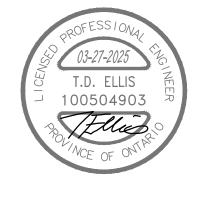
Phone: 519-725-3555

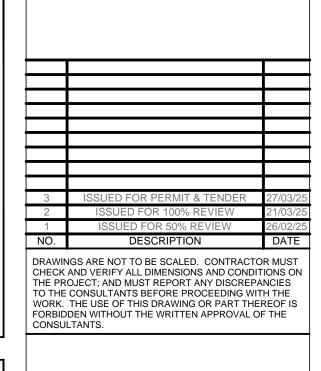
Website: deiassociates.ca

Project Number: 25026

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval fo relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the Drawings and specifications, etc., prepared and issued by the Consultant are the property of the Consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing.

2025 DEI Consulting Engineers Inc.





HILLSIDE PUBLIC SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

KITCHENER, ON **Waterloo Region**

> **MECHANICAL DETAILS AND**

SPECIFICATION

HOSSACK & ASSOCIATES ARCHITECTS

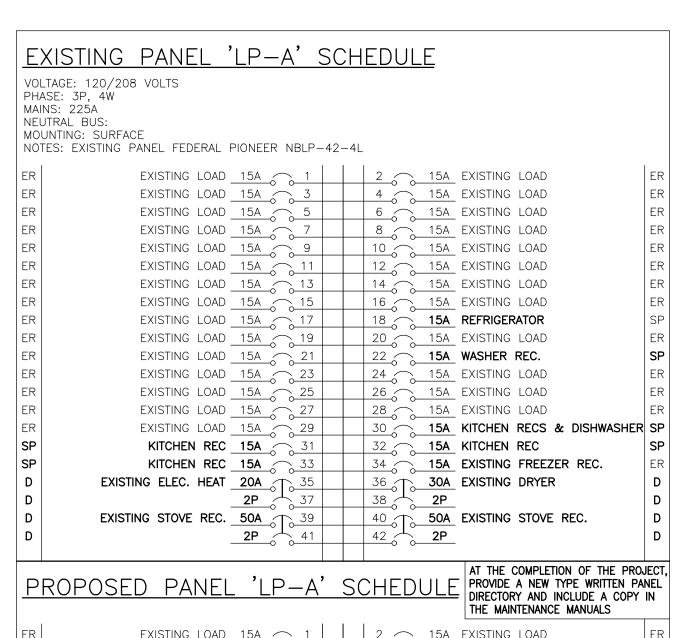
MISSISSAUGA, ONTARIO L5L 5M8 Tel (905) 607-8284 Fax (905) 607-8290 PROJECT SDS CHECKED

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PRINT DATE 3/27/2025 10:29:43 AM

REVIT FILE

As indicated DATE 25 02 27 DRAWN



EXISTING LOAD 15A 0 1 2 15A EXISTING LOAD EXISTING LOAD 15A 3 4 15A EXISTING LOAD EXISTING LOAD 15A 5 6 15A EXISTING LOAD EXISTING LOAD 15A 7 8 15A EXISTING LOAD EXISTING LOAD 15A 9 10 15A EXISTING LOAD EXISTING LOAD 15A 11 12 15A EXISTING LOAD EXISTING LOAD 15A 15 16 15A EXISTING LOAD EXISTING LOAD 15A 15 16 15A EXISTING LOAD EXISTING LOAD 15A 17 18 15A REFRIGERATOR EXISTING LOAD 15A 15A REFRIGERATOR EXISTING LOAD 15A 0 19 20 15A EXISTING LOAD EXISTING LOAD 15A 21 22 15A WASHER REC. EXISTING LOAD 15A 23 24 15A EXISTING LOAD EXISTING LOAD 15A 25 26 15A EXISTING LOAD EXISTING LOAD 15A 27 28 15A EXISTING LOAD EXISTING LOAD 15A 29 30 15A KITCHEN RECS & DISHWASHER ER KITCHEN REC 15A 31 32 15A KITCHEN REC ER KITCHEN REC 15A 33 34 15A EXISTING FREEZER REC. ER CLASSROOM A107 RECS. 15A 35 36 15A KITCHEN T-SLOT REC. CLASSROOM A107 RECS. 15A 37 38 15A KITCHEN T-SLOT REC. MEETING RM. REC. 15A 39 40 15A NUTRI. FRIDGE REC. SPARE 15A 41 42 15A NUTRI. FRIDGE REC.

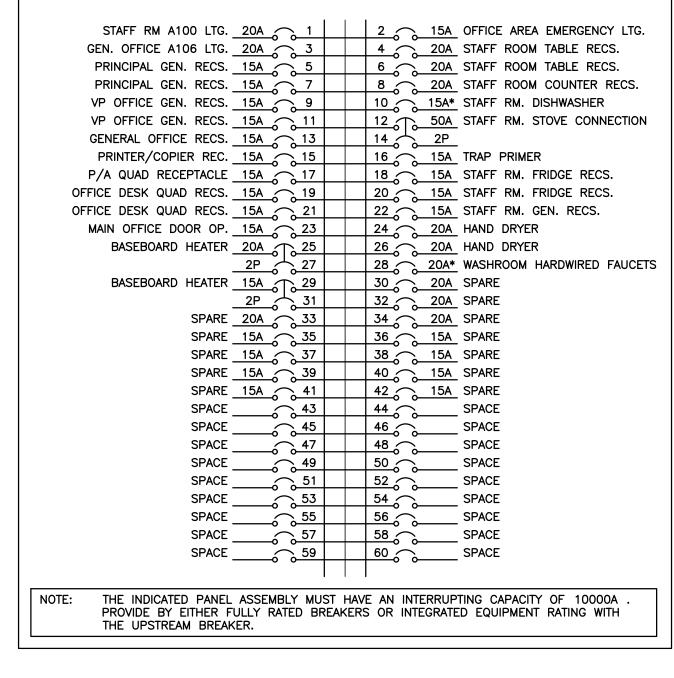
	'ER' INDICATES EXISTING SERVICE AND BREAKER THAT SHOULD REMAIN UNTOUCHED	
	'SP' INDICATES EXISTING BREAKER THAT MAY BECOME SPARE DUE TO DEMOLITION. (CONFIRM ON SITE)	
	'RW' INDICATES EXISTING BREAKER THAT SHOULD BE REWIRED TO SERVICE DEVICES INDICATED ON PLAN	
	'SB' INDICATES SPARE BREAKER TO BE USED FOR NEW SERVICE INDICATED.	
	'NB' INDICATES NEW BREAKER AND WIRING TO SERVICE INDICATED. PROVIDE MOUNTING HARDWARE AS	
	REQUIRED.	
ı	'D' INDICATES EXISTING BREAKER TO BE REMOVED COMPLETE. PROVIDE FILLER PLATES AS REQUIRED.	

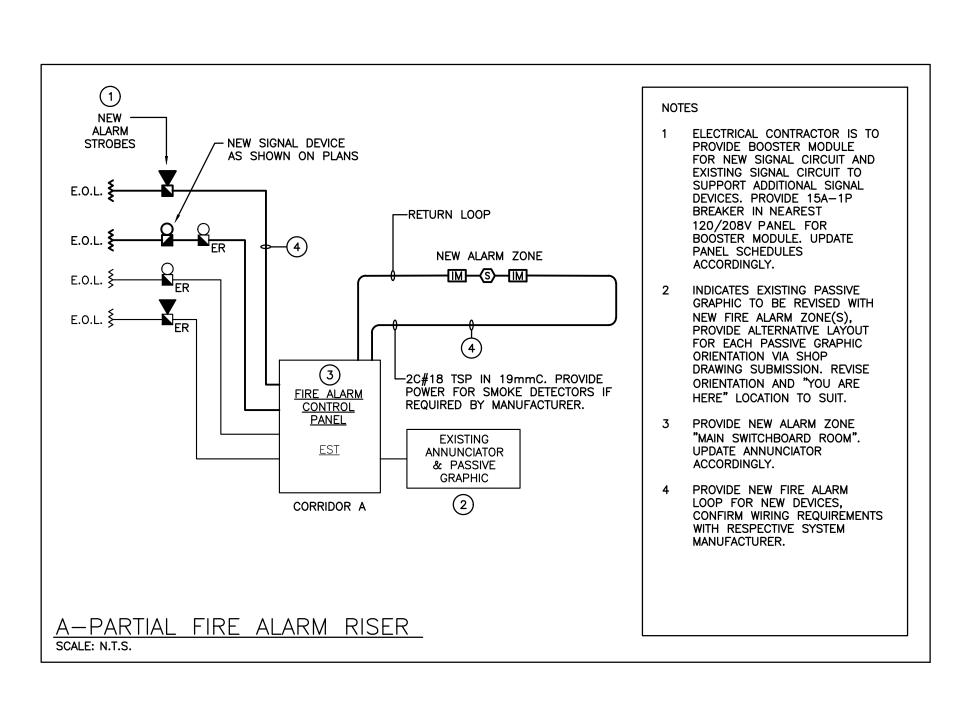
CONTRACTOR IS ALSO TO NOTIFY THE CONSULTANT OF ANY BREAKERS THAT ARE INDICATED TO BE DEMOLISHED OR REUSED, BUT WHICH ARE IN USE BY OTHER DEVICES OR SERVICES.

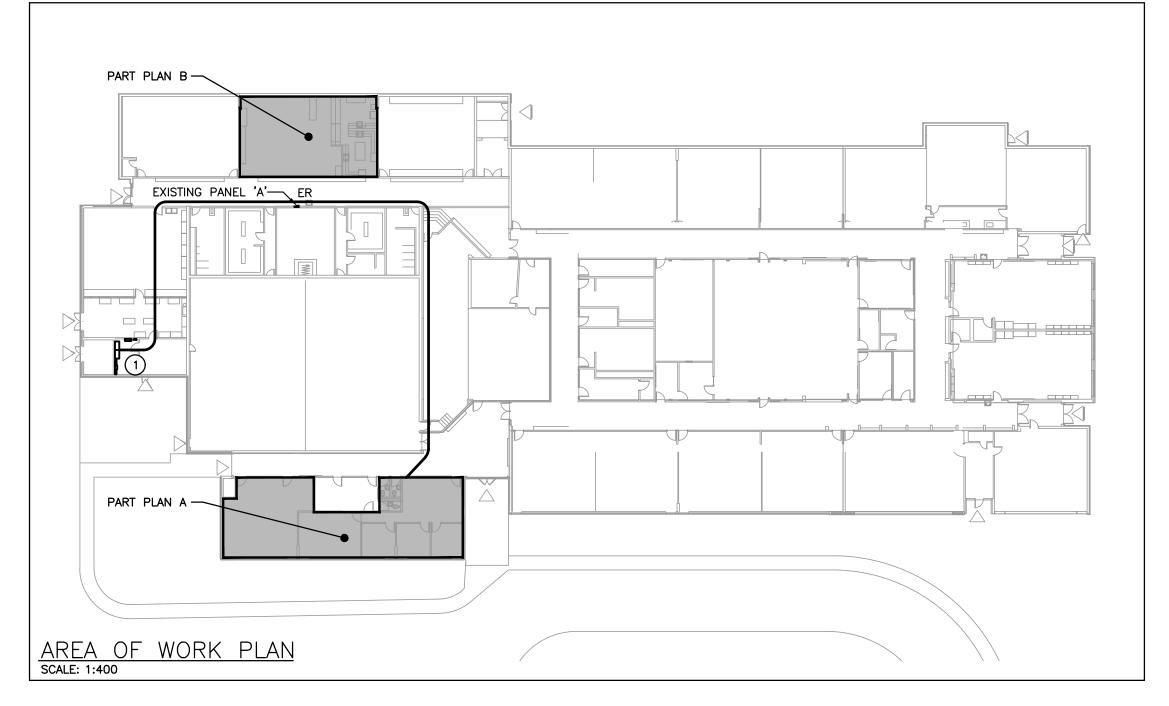
NOTES: THIS CONTRACTOR IS TO INVESTIGATE BREAKERS AND REVISE PANEL SCHEDULES TO SUIT RENOVATION, NOTING ANY BREAKERS THAT BECOME SPARE DUE TO DEMOLITION. THIS

DESIGNATION

DANIEL 'ANA'	* INDICATES 33mA GROUND FAULT STYLE BREAKER
PANEL 'AM'	THE CONTRACTOR IS TO COORDINATE ROOM NAMES
VOLTAGE: 120/208 VOLTS PHASE: 3P, 4W	AND NUMBERS NOTED WITH THE FINAL ROOM INFORMATION ISSUED DURING CONSTRUCTION AND
MAINS: 225A NEUTRAL BUS: FULL	ADJUST DIRECTORIES TO SUIT.
MOUNTING: RECESSED	
NOTES: SINGLE TUB	
STAFF RM A100 LTG. 20A1	2 15A_ OFFICE AREA EMERGENCY LTG.
GEN. OFFICE A106 LTG. 20A 3	4 20A STAFF ROOM TABLE RECS.
PRINCIPAL GEN. RECS. 15A 5	6 20A STAFF ROOM TABLE RECS.
PRINCIPAL GEN. RECS. 15A 7	8 20A STAFF ROOM COUNTER RECS.
VP OFFICE GEN. RECS. 15A 9	10 15A* STAFF RM. DISHWASHER
VP OFFICE GEN. RECS. 15A 11	12 50A STAFF RM. STOVE CONNECTION
GENERAL OFFICE RECS. 15A 13	14 0 2P
PRINTER/COPIER REC. 15A 15	16 15A TRAP PRIMER
P/A QUAD RECEPTACLE 15A 17	18 15A STAFF RM. FRIDGE RECS.
OFFICE DESK QUAD RECS. 15A 19	20 15A STAFF RM. FRIDGE RECS.
OFFICE DESK QUAD RECS. 15A 21	22 15A STAFF RM. GEN. RECS.
MAIN OFFICE DOOR OP. 15A 23	24 20A HAND DRYER
BASEBOARD HEATER 20A 25	26 20A HAND DRYER
2P 27	28 204* WASHROOM HARDWIRED FALICETS







	FOR INFORMATION REGARDING EQUAL MANUFACTURERS REFER TO SPECIFICATI
HE	EATER SCHEDULE
Item	Manufacturer/Catalog Number
Α	1000 WATT 208 VOLT SINGLE PHASE BASEBOARD HEATER C/W INTEGRAL THERMOSTAT AND STANDARD FACTORY FINISH TO SUITARCHITECT. OUELLET CAT. #OFM1008-TB6
В	2000 WATT 208 VOLT SINGLE PHASE HEAVY DUTY BASEBOARD HEATER C/W BUILT-IN TAMPERPROOF THERMOSTAT AND STANDARD FACTORY FINISH TO SUIT ARCHITECT. OUELLET CAT. #OPR2008-T-AV

ltem	Manufacturer/Catalog Number	Voltage	Lamp	Mounting	CRI	Listings	Description
A	COOPER CAT. #24GR-LD5-38-F125-UNV-L840-CD-1 LITHONIA CAT. #2GTL 4 40L A12125 MVOLT GZ1 LP840 VISCOR CAT. #LRTA2X4-LED840K-040L-UNV-P98	120V	LED 3942 LUMENS 4000K 30.6W	RECESSED	80	DLC IC DAMP LOC.	2'X4' (610mmX1220mm) LED TROFFER C/W 0.125' (3.2mm) THICK PATTERN 12 FROSTED LENS, 10% 0-10V DIMMING DRIVER, AND WHITE FINISH.
С	COOPER CAT. #HC610D010-HM612840-61MDHWF LITHONIA CAT. #LDN6 40/10 LO6AR LSS MVOLT GZ1 TRW LIGHTOLIER CAT. #6RN-C6L10840MZ10U-C6RDLXX	120V	LED 948 LUMENS 4000K 10W	RECESSED	80	ENERGY STAR WET LOC.	RECESSED 6" (150mm) DIAMETER LED DOWNLIGHT C/W SELF-FLANGED 60 DEGREE BEAM REFLECTOR, SEMI-SPECULAR CLEAR FINISH, AND 1% 0-10V DIMMING DRIVER. ARCHITECT TO CONFIRM FLANGE FINISH.
C1	COOPER CAT. #HC620D010-HM612840-61MDHWF LITHONIA CAT. #LDN6 40/20 LO6AR LSS MVOLT GZ1 TRW LIGHTOLIER CAT. #6RN-C6L20840MZ10U-C6RDLXX	120V	LED 1895 LUMENS 4000K 20.9W	RECESSED	80	ENERGY STAR WET LOC.	RECESSED 6" (150mm) DIAMETER LED DOWNLIGHT C/W SELF-FLANGED 60 DEGREE BEAM REFLECTOR, SEMI-SPECULAR CLEAR FINISH, AND 1% 0-10V DIMMING DRIVER. ARCHITECT TO CONFIRM FLANGE FINISH.
	AMILITE #EBST12 SERIES: EM-2 #EBST12200-2SM4WLRWHT-ATD STANPRO CAT. #SLX12 SERIES EM-2 #SLA12200-2N4LJ/AT LUMACELL CAT. #RGS SERIES EM-2 #RG12S2002LD7ATN	12V/120V	N/A	SURFACE			LONG LIFE, SEALED RECHARGABLE BATTERY PROVIDIN MINIMUM EMERGENCY WATTAGE AS NOTED BY THE CATALOGUE NUMBER C/W MICRO SIZE 12V 4W (MINIMUM) LED HEADS AND AUTOTEST FEATURE.
LIGHTS	EM-1: AIMLITE CAT. #EWBL SERIES LUMACELL CAT. #LBL SERIES OR APPROVED EQUALS BY STANPRO	12V/120V	N/A	SURFACE			VANDAL RESISTANT, LONG LIFE, SEALED BATTERY, C/W 17W LED MODULES, POLYCARBONATE BODY, AND 90 MINUTE BATTERY DURATION.
EXIT LIGHTS (SELF— POWERED)	AIMLITE CAT. #RPALWUMWHTBATATD STANPRO CAT. #RMXLO-WH-IB-AT	12V/120V	LED 2.5 WATT (MAX.)AC 2 WATT (MAX.)DC	SURFACE			LED EXTRUDED ALUMINUM PICTOGRAM FIXTURE C/W GREEN FACE AND WHITE LEGEND, UNIVERSAL MOUNTING TO SUIT WALL, END OR CEILING, MAXIMUM 2.5" (63mm) THICKNESS AND 12V INTERNAL SEALED RECHARGABLE BATTERY PROVIDING MINIMUM 30 MINUTES OF EMERGENCY POWER, AND AUTOTEST FEATURE. FACES AND CHEVRONS TO SUIT DRAWINGS.

GENERAL NOTES

INDICATES APPROXIMATE LOCATION OF EXISTING MAIN

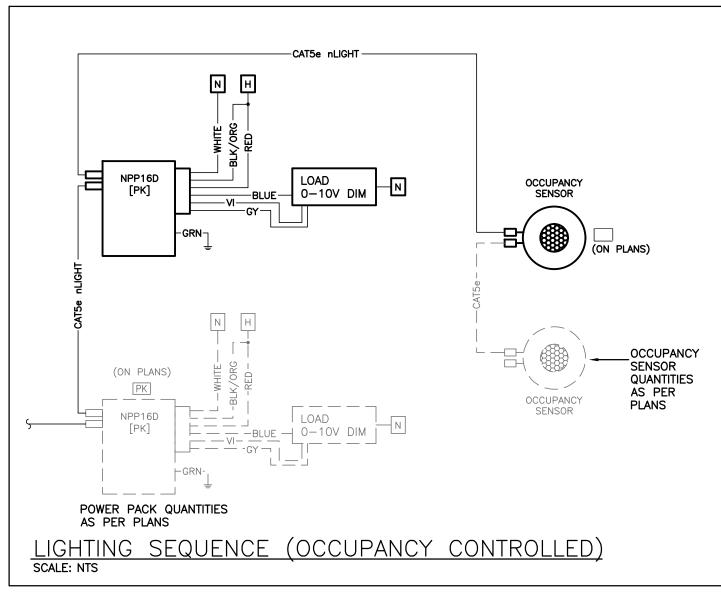
SWITCHBOARD (FEDERAL PACIFIC FPE-CDP) TO FEED

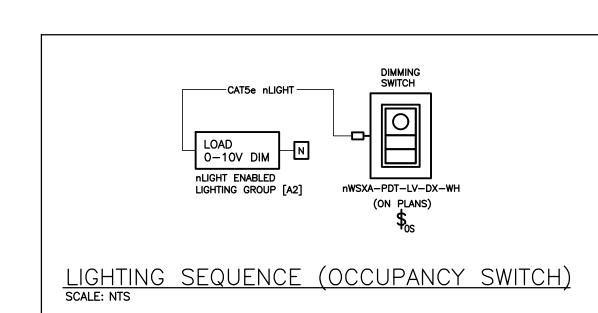
NEW PANEL 'AM' FROM EXISTING SPARE 200A-3P BREAKER. SUPPLY AND INSTALL 4#3/0 T90 CU IN

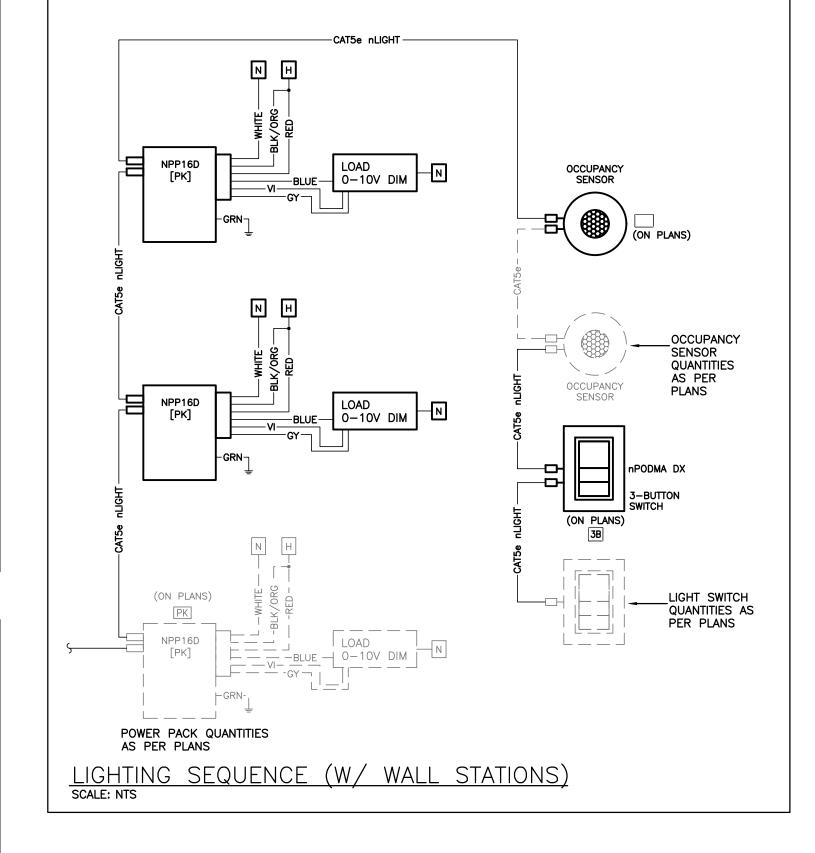
COSTING PURPOSES AND TO AVOID RUN THROUGH GYM. CONTRACTOR MUST HAVE ALTERNATE ROUTING

APPROVED BY CONSULTANT AND SCHOOL BOARD.

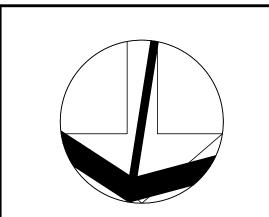
53MMC FROM SWITCHBOARD TO NEW PANEL LOCATION. PROPOSED ROUTING INDICATED FOR







	LIGHTING		POWER		FIRE ALARM
X	LIGHT FIXTURE TYPE AS INDICATED	φ	WALL MOUNTED RECEPTACLE (15A-120V)	B	HEAT DETECTOR (135 DEGREE RAT OF RISE AND FIXED TEMPERATURE
/_X/////	UIGHT FIXTURE (HATCHING DENOTES WALL MOUNTED T—SLOT RECEP		WALL MOUNTED T-SLOT RECEPTACLE (20A-120V)	6	HEAT DETECTOR (135 DEGREE FIX TEMPERATURE)
	COMBINATION EMERGENCY/EXIT TYPE AS INDICATED		T-SLOT RECEPTACLE MTD. ABOVE COUNTER (20A-120V)		HEAT DETECTOR (194 DEGREE FIX TEMPERATURE)
EM-X	(EM-X INDICATES BATTERY UNIT TYPE, DC-X INDICATES DC CIRCUIT, AND X-X INDICATES AC SOURCE	 ₩s	RECEPTACLE MTD. ABOVE COUNTER S=SPLIT (15A-120V)		HEAT DETECTOR (195 DEGREE RAT OF RISE AND FIXED TEMPERATURE
M M	CIRCUIT) CEILING OR WALL MOUNTED LIGHT FIXTURE TYPE AS INDICATED	 Ω _{sτ}	STOVE RECEPTACLE	q	DUCT TYPE SMOKE DETECTOR
~ <u>~</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	POLE MOUNTED LIGHT FIXTURE		DRYER RECEPTACLE	<u> </u>	SMOKE DETECTOR (RL=RELAY BAS
	WALL MOUNTED EXIT LIGHT SHADING	∩ DR	SPECIAL RECEPTACLE	_	SMOKE ALARM C/W BATTERY BAC
 1 ⊛ i	INDICATES FACE CEILING MOUNTED EXIT LIGHT ARROWS DENOTE DIRECTION SHADING	<u>Ω</u>	QUAD RECEPTACLE	₽	UP AND INTEGRAL STROBE LIGHT (CO INDICATES 3 IN 1 CARBON MONOXIDE/STROBE/SMOKE ALARM
	SINGLE OR TWIN EMERGENCY LIGHTING FIXTURE	•• ••••••••••••••••••••••••••••••••••	WALL MOUNTED DUPLEX RECEPTACLE C/W TOP HALF SWITCHED (15A-120 VOLT)	CO	CARBON MONOXIDE DETECTOR C/V
Ø	RECESSED REMOTE EMERGENCY FIXTURES	©	DIRECT CONNECTION		PULLSTATION
EM-X DC-X X-X	BATTERY UNIT WITH INTEGRAL EMERGENCY FIXTURE (EM-X INDICATES BATTERY UNIT TYPE, DC-X INDICATES DC CIRCUIT, AND X-X INDICATES AC SOURCE		FLOOR BOX C/W DEVICES AS NOTED (REFER TO SPECIFICATIONS)	AV	ALARM VALVE
	CIRCUIT) SINGLE POLE SWITCH (3=3 WAY,	JB	JUNCTION BOX	PS	PRESSURE SWITCH
\$ 	4=4 WAY, P=PILOT LIĞHT, K=KÉYED, DM=DIMMER, M=MOTOR RATED)	PB	PULLBOX	SV	SUPERVISED VALVE
\$ ^{OS}	OCCUPANCY SENSOR (PASSIVE) OCCUPANCY SENSOR:	—	PANEL AS INDICATED	FS	FLOW SWITCH
\$	OSD=DUAL TECHNOLOGY OSR=DUAL CIRCUIT/DUAL TECHNOLOGY	ď	FUSED DISCONNECT	8	ALARM BELL
OS	CEILING MOUNTED MOTION SENSOR	ㅁ	UNFUSED DISCONNECT	₹	CEILING FIRE SPEAKER C/W STR
wos	WALL MOUNTED MOTION SENSOR	VFD	VARIABLE FREQUENCY DRIVE	V	WALL FIRE SPEAKER
DR	DIGITAL ROOM CONTROLLER	SPD	SURGE PROTECTION DEVICE. REFER TO SPECIFICATIONS.	₹	CEILING ALARM SPEAKER
PC	PHOTOCELL	DVR	DUAL VOLTAGE RELAY	$\overline{\mathbb{V}}$	WALL ALARM SPEAKER/STROBE
DM	DIGITAL WALL DIMMER STATION	K	TIME CLOCK	¥	ALARM HORN
NB	LIGHTING NETWORK BRIDGE	K	0-15 MINUTE INTERVAL TIMER	Y	ALARM STROBE
EM	EMERGENCY LIGHTING RELAY	S	SPEED CONTROLLER	Y	COMBINATION HORN/STROBE
0	LIGHTING INPUT/OUTPUT RELAY		MANUAL STARTER	EOL	END-OF-LINE RESISTOR
PK	ANALOG POWER PACK		MAGNETIC STARTER	DH	DOOR HOLD OPEN DEVICE
	COMMUNICATIONS	X	COMBINATION MAGNETIC STARTER	FSD	FIRE SMOKE DAMPER
▼ #	SINGLE WALL MOUNTED TELEPHONE OUTLET C/W ½" (13mm) C TO		DESTRATIFICATION FAN	<u> </u>	FIREFIGHTER'S HANDSET
∇	CABLE MANAGEMENT SYSTEM. SINGLE COMPUTER OUTLET C/W ¾" (21mm) C TO CABLE MANAGEMENT		SURFACE RACEWAY C/W DEVICES AS NOTED (REFER TO SPECIFICATIONS)		AFE WELCOME DEVICES
	SYSTEM. COMBINATION SINGLE VOICE/ SINGLE COMPUTER OUTLET UNLESS OTHERWISE	HD	NOTED (REFER TO SPECIFICATIONS) HAND DRYER	M	MONITOR
VOICE VOICE	NOTED C/W 1" (27mm) C TO CABLE MANAGEMENT SYSTEM. # INDICATES THE QUANTITY OF ACTIVE PARTS. LEFT	•	PUSH-BUTTON STATION (QUANTITY	PS	POWER SUPPLY
DATA— WAP	VALUE ALWAYS INDICATES VOICE. WIRELESS ACCESS POINT. PROVIDE 34" (21mm) C TO CABLE		OF BUTTONS AS PER PLANS) CONTACTOR	CSS	CALL SWITCH STATION
	MANAGEMENT SYSTEM CLOCK AS PER SPECIFICATIONS		MOTOR CONNECTION	[633]	
<u>수</u>	TELEVISION OUTLET C/W 1"C	<i>O</i>			ACCESS CONTROL
	(27mm) TO CABLE MANAGEMENT SYSTEM.	PP PA	POWER POLE	ML	MAG LOCK ELECTRIC STRIKE, CONFIRM ROUGH
© 	HANGER SYSTEM (REFER TO DETAILS)	∏[™]	THERMOSTAT (RA=REVERSE ACTING)	<u>ES</u>	WITH DOOR HARDWARE.
Ψ	ADMINISTRATIVE CONTROL CONSOLE	四	SOLENOID VALVE	PTL	"PUSH-TO-LOCK" BUTTON
•	HANDSET (ND = NON-DIAL STYLE)	CS	CURRENT SENSOR	● EM	EMERGENCY PUSH BUTTON STATIO
\$ _{cs}	P.A. CALL SWITCH	\boxtimes	TRANSFORMER		"ASSISTANCE REQUIRED" DOME LIC WITH SOUNDER
₩	WALL MOUNTED SPEAKER (CS=COLUMN SPEAKER)		SECURITY	Á	"ASSISTANCE REQUIRED" INDICATOR LIGHT WITH SOUNDER
\$	WALL MOUNTED SPEAKER C/W CALL-IN SWITCH		SECURITY DETECTOR (SURFACE MOUNTED)	- CR	CARD/FOB READER ROUGH-IN AS A SINGLE GANG BOX AT 1100 AFF C/W 13mmC TO ELECTRIC
\$	CEILING MOUNTED SPEAKER	\$	SECURITY SIREN (INSTALL 2400mm AFF) C/W 19mmC TO NEAREST SECURITY JUNCTION BOX		STRIKÉ IN ADJACENT DOOR FRAME CONFIRM ROUGH-IN WITH DOOR HARDWARE.
	PROGRAM BELL	KP	SECURITY KEYPAD (INSTALL 1100mm AFF) C/W 19mmC TO NEAREST SECURITY JUNCTION BOX		GENERAL
T	HORN SPEAKER	DC	DOOR CONTACT C/W 19mmC TO NEAREST SECURITY JUNCTION BOX (REFER TO DETAIL)	ER	INDICATED EXISTING ITEM TO REMA
M	MICROPHONE OUTLET	Torri	LOW TEMPERATURE SENSOR. ROUGHIN AS A SINGLE GANG BOX	D	INDICATES EXISTING ITEM TO BE DELETED
ď	DOOR BELL	TSEN	MOUNTED HORIZONTALLY AT 150mm BELOW FINISHED CEILING LEVEL.	R	INDICATES EXISTING ITEM TO BE RELOCATED/IN RELOCATED POSITION
(A)	AUXILIARY ROUGH-IN FOR USE AS NOTED.	SJB	SECURITY JUNCTION BOX 150mm (6") SQUARE C/W COVER	WG	WIREGUARD
	ELECTRIC HEAT		CEILING MOUNTED CAMERA	GF	GROUND FAULT
×	BASEBOARD ELECTRIC HEATER (TYPE AS INDICATED)	CPS	CAMERA POWER SUPPLY	WP	WEATHERPROOF
$ \\$	FAN FORCED ELECTRIC HEATER (TYPE AS INDICATED)	MSCP	MAIN SECURITY CONTROL PANEL	IG	ISOLATED GROUND
	UNIT HEATER (TYPE AS INDICATED)	ZEP	ZONE EXPANSION PANEL. REFER TO INSTALLATION DETAIL.	SR	SURGE PROTECTED
	NDARD CIRCUIT LABELING	 	HOLD-UP/PANIC PUSHBUTTON C/W 13mmC TO NEAREST SECURITY	TR	TAMPER RESISTANT
SIA	A-1-1	<u></u>	JUNCTION BOX.		
				CLG	CEILING MOUNTED
CIRCUII	PANEL LABEL//				NOTE WATER
CIRCUII	PANEL LABEL ——/ / /			$\langle x \rangle$	NOTE INDICATOR MECHANICAL ITEM NO.





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Website: deiassociates.ca Project Number: 25026

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the Consultant are the property of the Consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant.

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HILLSIDE PUBLIC SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

KITCHENER, ON



AREA OF WORK, LEGEND AND **DETAILS**



4-2150 DUNWIN DRIVE MISSISSAUGA, ONTARIO L5L 5M8 Tel (905) 607-8284 Fax (905) 607-8290				
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GENERAL DEMOLITION NOTES

- 'ER' DENOTES EXISTING ITEM TO REMAIN.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- 'R' INDICATES EXISTING ITEM TO BE RELOCATED. REFER TO RENOVATION DRAWINGS AND RELOCATE DEVICE AND WIRING TO SUIT. UNLESS OTHERWISE NOTED.
 'D' INDICATES EXISTING ITEM TO BE DELETED. UNLESS OTHERWISE NOTED DISCONNECT
- 'D' INDICATES EXISTING ITEM TO BE DELETED. UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICE AND WIRING BACK TO SOURCE.

 ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.

SPECIFIC DEMOLITION NOTES

NEW DEVICE(S) AS INDICATED RENOVATION PLANS.

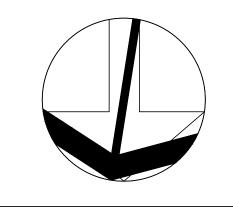
- D1 INDICATES LIGHT FIXTURES AND CONTROLS TO BE REMOVED, EXISTING LIGHTING CIRCUIT TO REMAIN FOR CONNECTION TO NEW FIXTURES AND CONTROLS PER
- D2 INDICATED SWITCH(S) ARE TO BE REMOVED COMPLETE. PULL WIRING TO ACCESSIBLE CEILING SPACE FOR RE-CONNECTION TO NEW CONTROLS. REFER TO RENOVATION PLANS FOR CONTINUATION. EXISTING BACKBOX IS TO REMAIN FOR RE-CONNECTION TO
- D3 CONTRACTOR IS TO REMOVE AND RE—INSTALL ALL DEVICES AND CONDUIT WITHIN INDICATED CORRIDOR AS REQUIRED FOR RENOVATIONS.

GENERAL RENOVATION NOTES

- 'ER' INDICATES EXISTING ITEM TO REMAIN.
- 'R' INDICATES EXISTING ITEM IN RELOCATED POSITION.
- ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.
 EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
 - MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN.
 REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC RENOVATION NOTES

- R1 CONNECT NEW LIGHTING FIXTURES IN THIS AREA TO EXISTING LIGHTING BRANCH CIRCUIT AND NEW CONTROLS AS NOTED. EXTEND CIRCUITS AS REQUIRED.
- R2 INDICATES EMERGENCY FIXTURE TO BE CONNECTED TO UNSWITCHED SIDE OF LOCAL LIGHTING CIRCUIT. PROVIDE ADEQUATE SUPPORT FOR ALL CEILING MOUNTED FIXTURES.
- R3 NEW CONTROL DEVICES ARE TO RE-USE EXISTING BACKBOXES. CONTRACTOR IS TO SUPPLY NEW COVERPLATE TO SUIT THE NEW INSTALLATION.





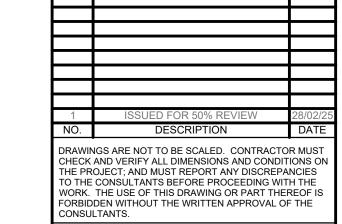
Project Number: 25026

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HILLSIDE PUBLIC SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

> 11 CHOPIN DRIVE, KITCHENER, ON



GROUND FLOOR DEMOLITION AND RENOVATION -LIGHTING



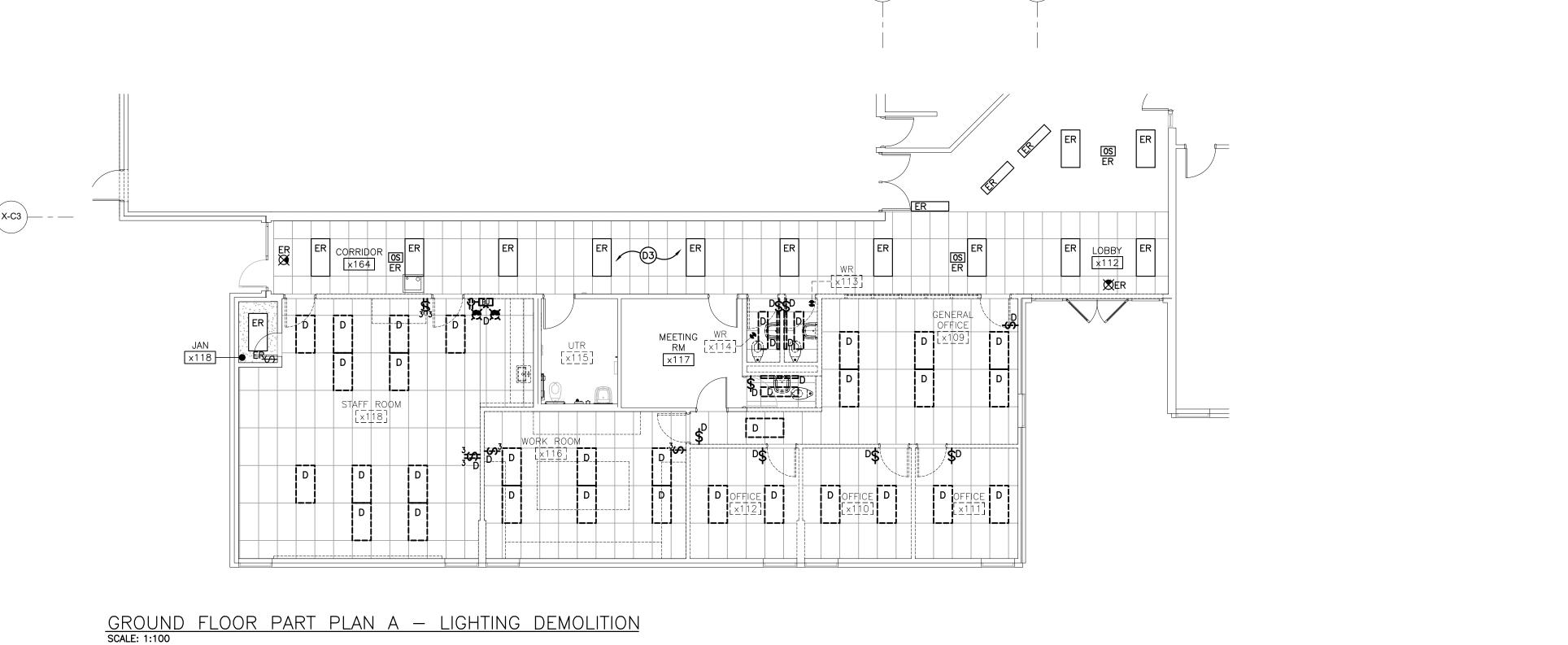
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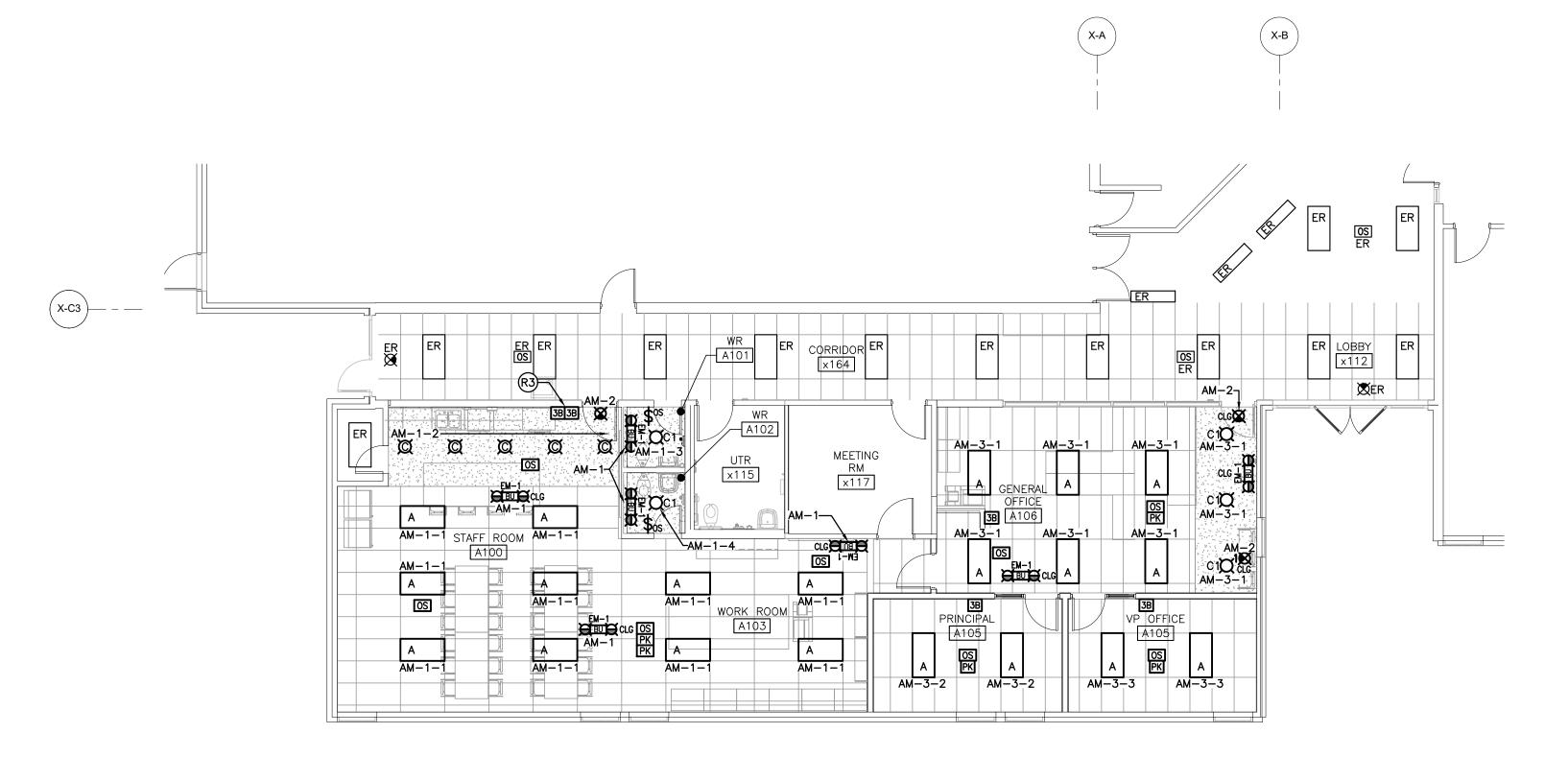
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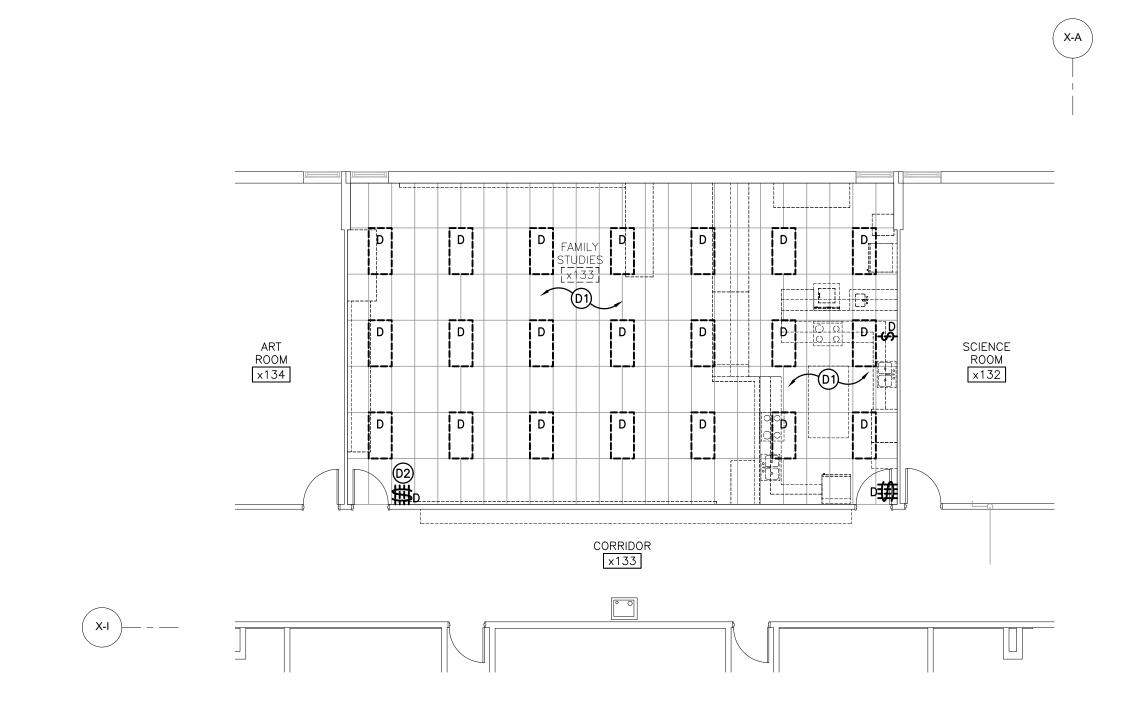
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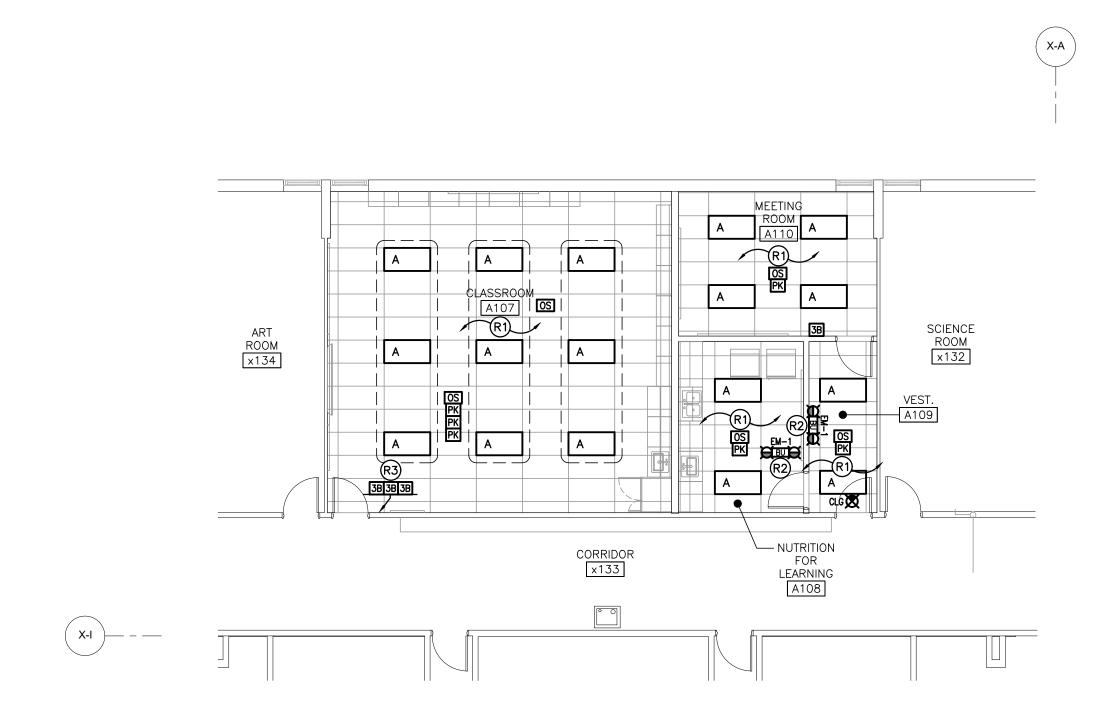




GROUND FLOOR PART PLAN A — LIGHTING RENOVATION SCALE: 1:100



GROUND FLOOR PART PLAN B — LIGHTING DEMOLITION SCALE: 1:100



GROUND FLOOR PART PLAN B — LIGHTING RENOVATION SCALE: 1:100

NOTES RE CIRCUIT LABELS PROVIDE P-TOUCH LABELS INDICATES PANEL AND CIRCUIT LABEL ON ALL LIGHT SWITCHES. LIGHTING CONTROL STATIONS, AND RECEPTACLE DEVICE FACEPLATES. INCLUDE SWITCH LEG

ALL RECEPTACLES ARE TO BE TAMPER RESISTANT TYPE PER OESC

INDICATION FOR LIGHTING CONTROLS AND SWITCHES. REFER TO SPECIFICATION AND DETAILS.

GENERAL DEMOLITION NOTES

- 'ER' DENOTES EXISTING ITEM TO REMAIN.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- 'R' INDICATES EXISTING ITEM TO BE RELOCATED. REFER TO RENOVATION DRAWINGS AND RELOCATE DEVICE AND WIRING TO SUIT. UNLESS OTHERWISE NOTED.
 'D' INDICATES EXISTING ITEM TO BE DELETED. UNLESS OTHERWISE NOTED DISCONNECT
- 'D' INDICATES EXISTING ITEM TO BE DELETED. UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICE AND WIRING BACK TO SOURCE.
 ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.

SPECIFIC DEMOLITION NOTES

D1 EXISTING DEVICE AND WIREMOLD IS TO BE DISCONNECTED AND REMOVED COMPLETE.

- 'ER' INDICATES EXISTING ITEM TO REMAIN.
- 'R' INDICATES EXISTING ITEM IN RELOCATED POSITION.

GENERAL RENOVATION NOTES

- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN.

 REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.

SPECIFIC RENOVATION NOTES

- R1 INDICATES 120V FEED TO 24VDC STEP DOWN TRANSFORMER MOUNTED ABOVE CEILING OR AT A HIGH LEVEL FOR AUTOMATIC PLUMBING FIXTURE(S). COORDINATE WITH MECHANICAL
- R2 INDICATES DEVICES TO BE MOUNTED WITHIN MILLWORK. ELECTRICAL CONTRACTOR TO PROVIDE FEED UNDER FLOOR AND INTO MILLWORK. COORDINATE FEED INSTALLATION WITH MILLWORK SHOP DRAWINGS.
- R3 INDICATES NEW FIRE ALARM STROBE TO BE CONNECTED TO NEW STROBE CIRCUIT.

 R4 INDICATES NEW FIRE ALARM BELL DEVICE TO BE CONNECTED TO EXISTING BELL CIRCUIT.

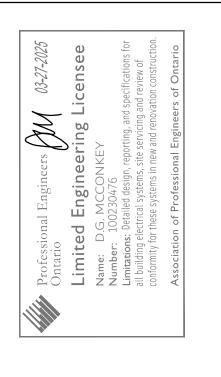


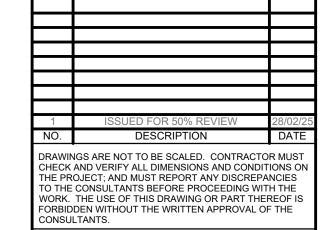
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Project Number: 25026





HILLSIDE PUBLIC SCHOOL MAIN OFFICE & CLASSROOM RENOVATION

> 11 CHOPIN DRIVE, KITCHENER, ON



GROUND FLOOR DEMOLITION AND RENOVATION -POWER AND SYSTEMS

HOSSACK & ASSOCIATES ARCHITECTS

A-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

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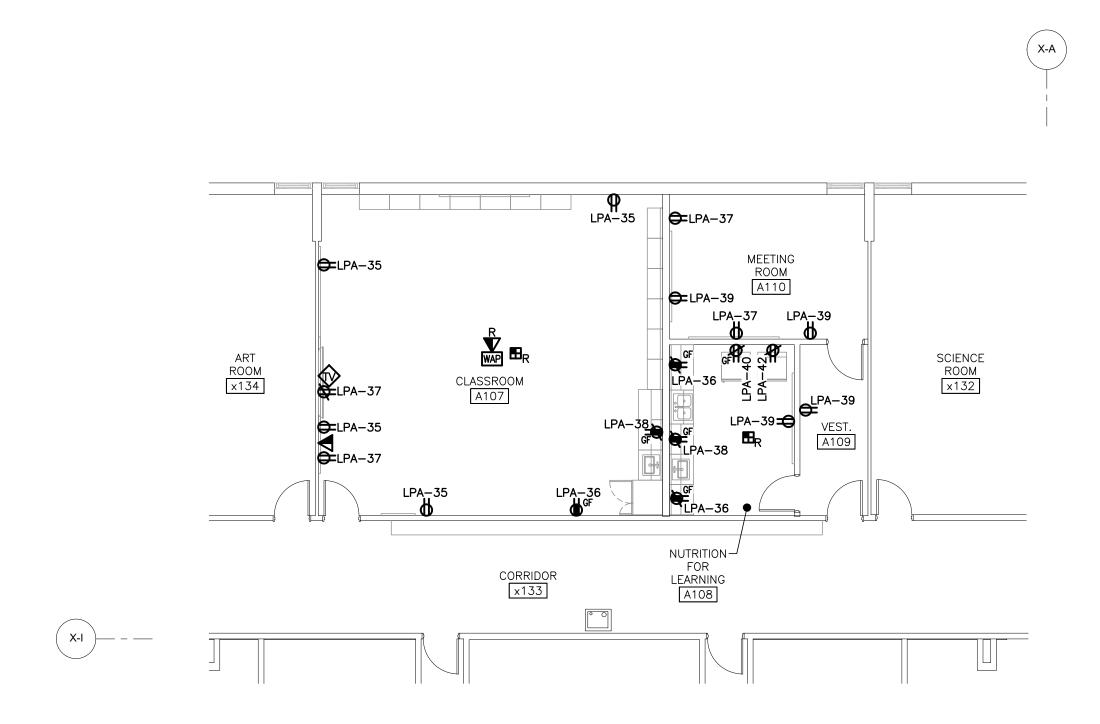
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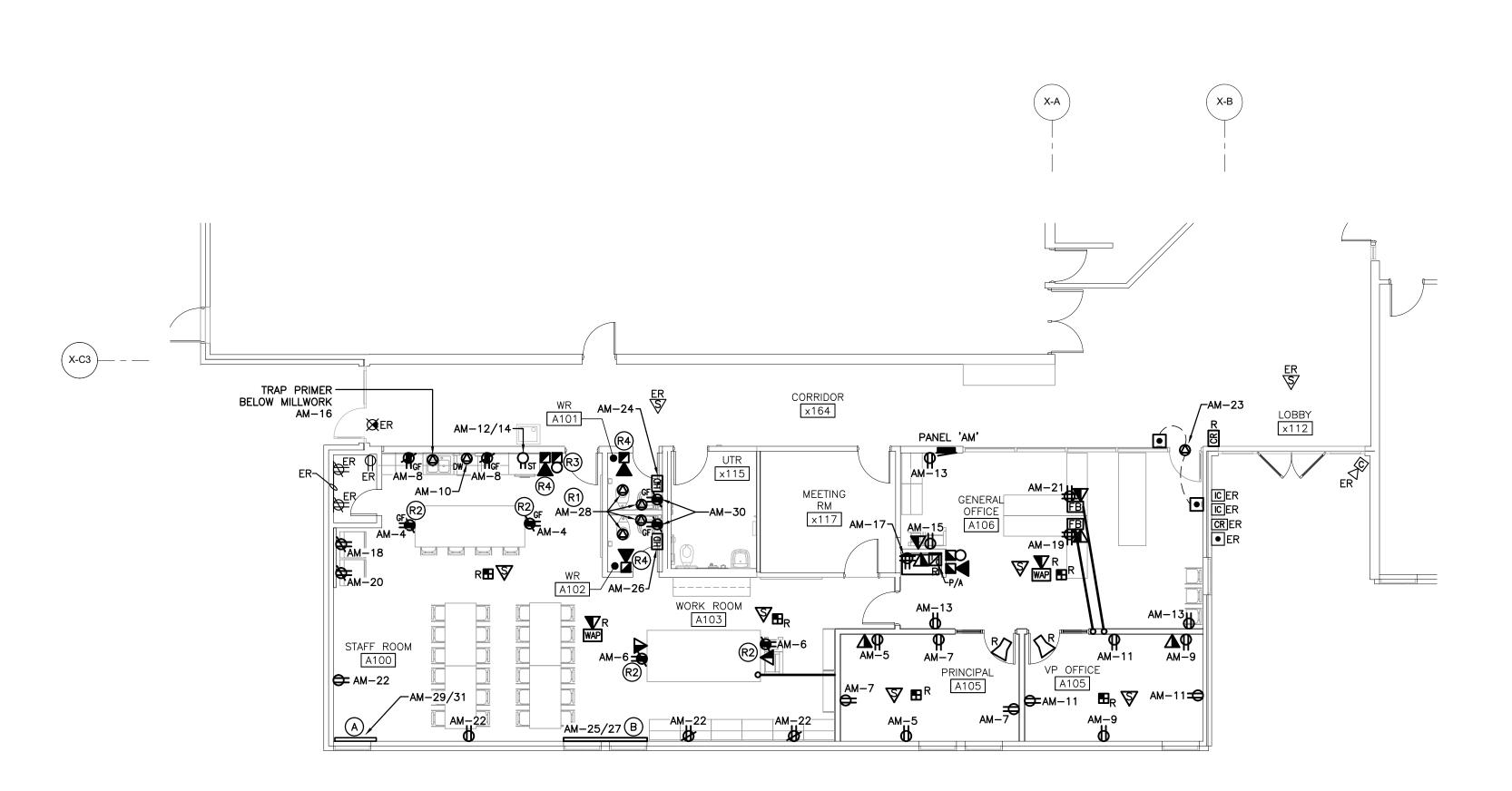
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GROUND FLOOR PART PLAN B — POWER AND SYSTEMS DEMOLITION SCALE: 1:100



GROUND FLOOR PART PLAN B — POWER AND SYSTEMS RENOVATION SCALE: 1:100



GROUND FLOOR PART PLAN A — POWER AND SYSTEMS RENOVATION SCALE: 1:100

GROUND FLOOR PART PLAN A — POWER AND SYSTEMS DEMOLITION SCALE: 1:100