# SOUTH RIVER TRAIN STATION BUILDING RESTORATION - PHASE 1

OTTAWA AVENUE, SOUTH RIVER, ONTARIO

## ISSUED FOR PERMIT & TENDER

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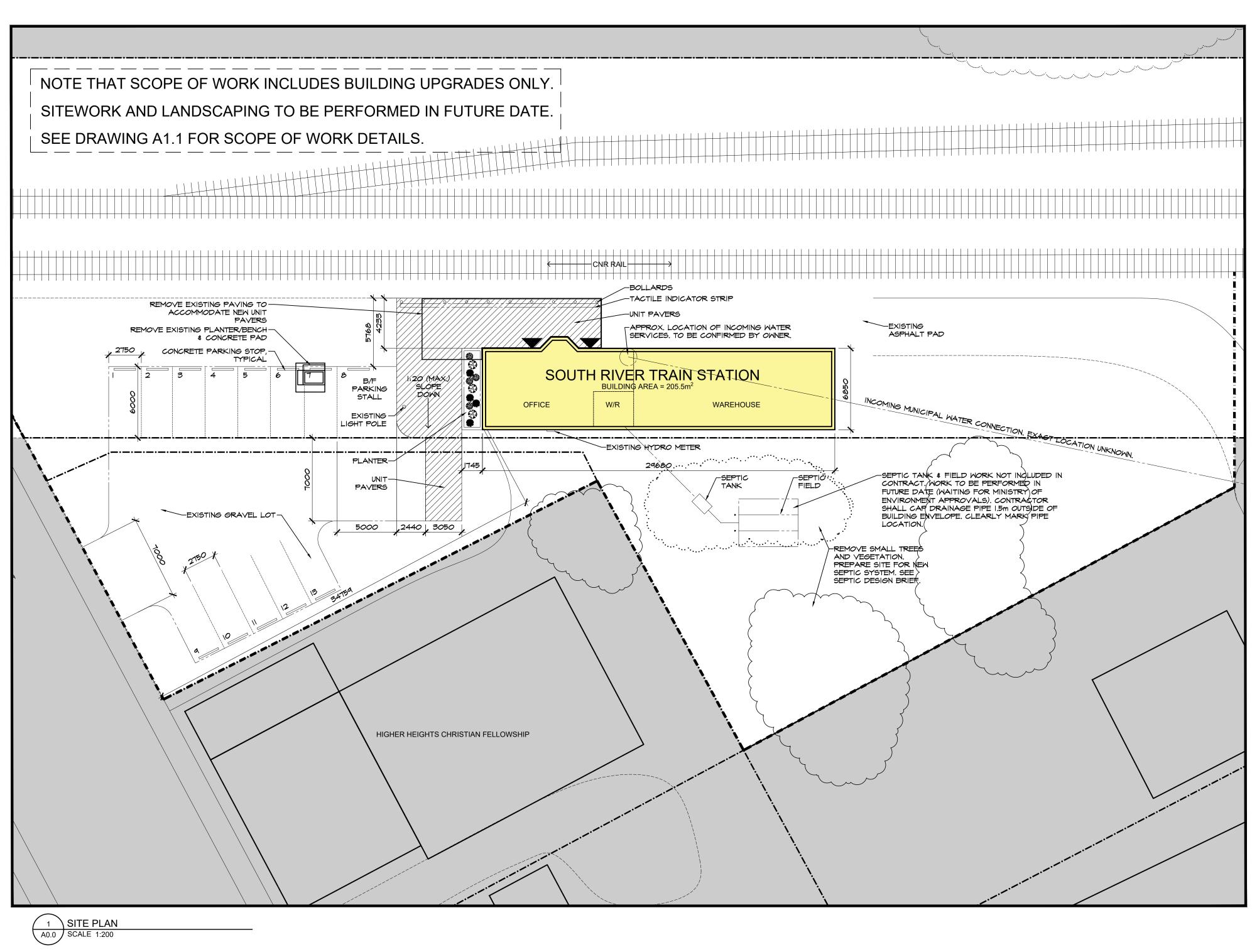
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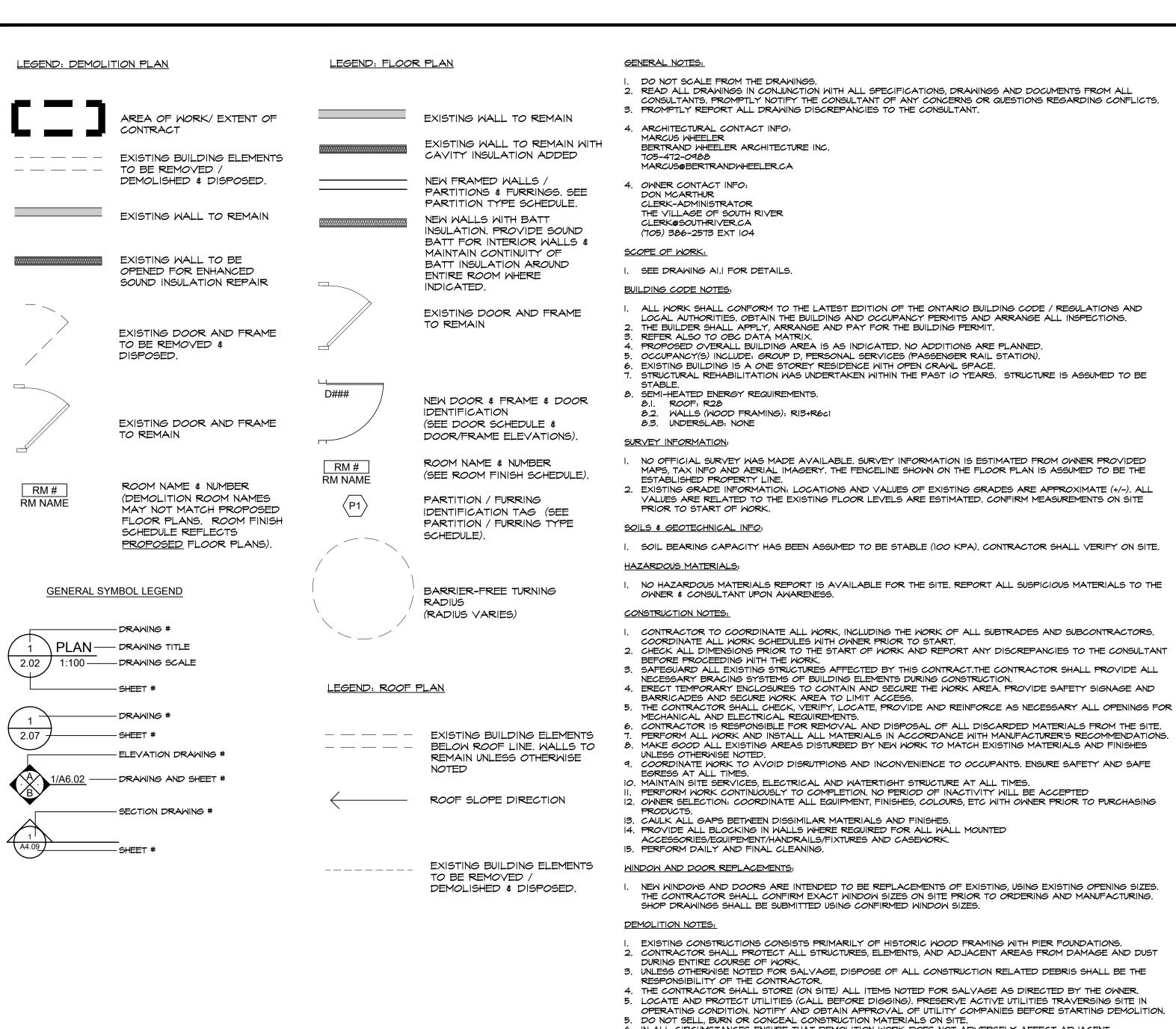
## Bertrand Wheeler architecture inc.

528 Cassells Street, North Bay, ON P1B 4S5 tel: 705-472-0988 fax: 705-472-2486 www.bertrandwheeler.ca





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6. IN ALL CIRCUMSTANCES ENSURE THAT DEMOLITION WORK DOES NOT ADVERSELY AFFECT ADJACENT WATERCOURSES, GROUNDWATER AND WILDLIFE, OR CONTRIBUTE TO EXCESS AIR AND NOISE POLLUTION.CLEANUP: UPON COMPLETION OF WORK, REMOVE DEBRIS, AND LEAVE WORK SITE CLEAN.

OF MARCUS B. WHEELER LICENCE 5768

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SOUTH RIVER TRAIN STATIC BUILDING RESTORATION - F OTTAWA AVENUE SOUTH RIVER, ONTARIO

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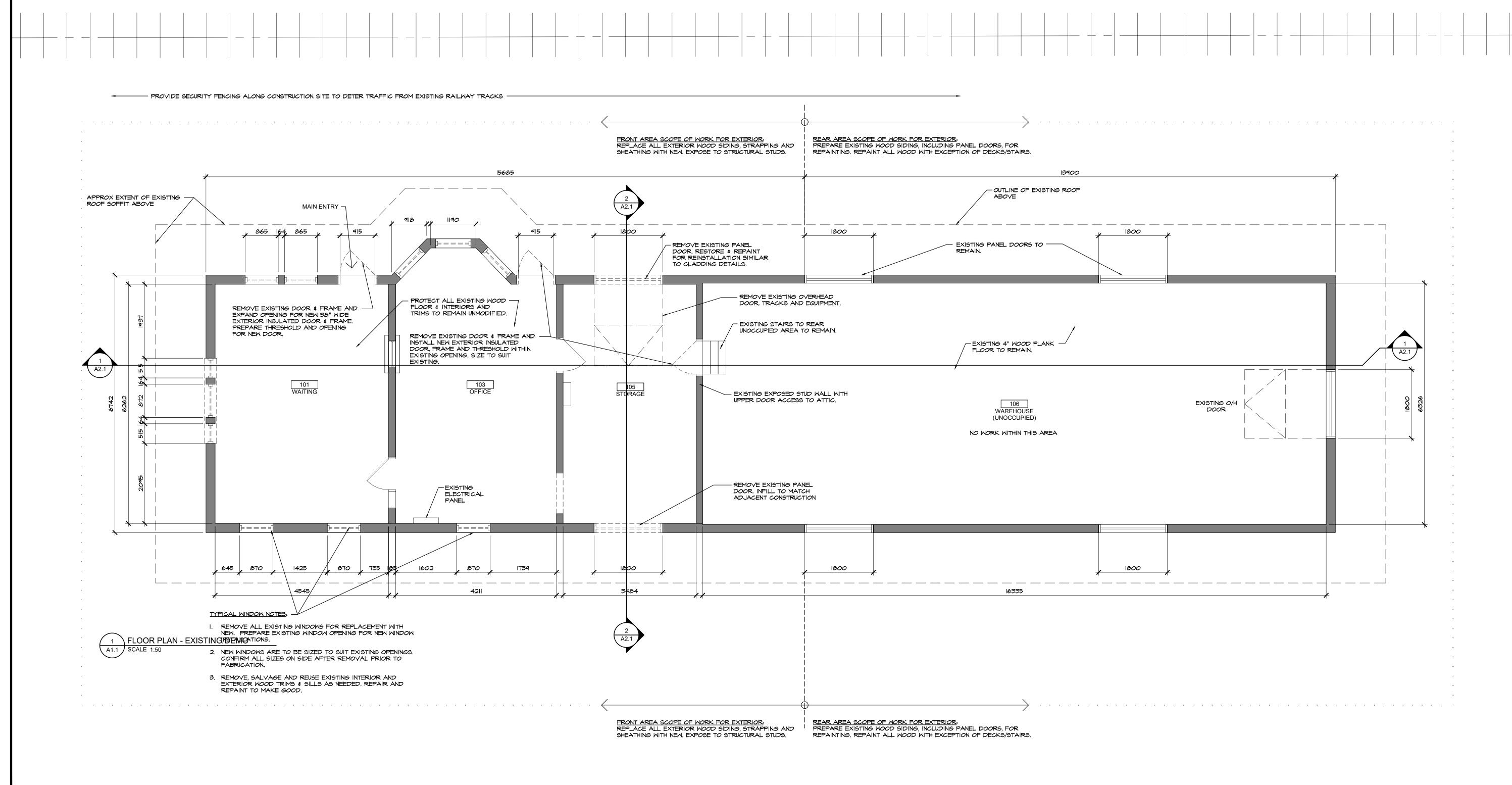
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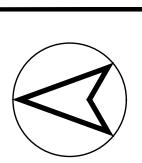
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## ABBREVIATED EXPLANATION OF SCOPE OF WORK FOR PHASE 1. FOLLOW DETAILS IN DRAWINGS UNLESS OTHERWISE INDICATED.

- 1. INCLUDES EXTERIOR WALL, BUILDING ENVELOPE, ATTIC AND INSULATION UPGRADES.
- 2. INLCUDES ALL ROOFING REPLACEMENT.
- INCLUDES ALL DOOR AND WINDOW REPLACEMENT. PROVIDE ELECTRICAL AND CONTROLS FOR POWER DOOR OPERATORS.
- 4. INCLUDES ELECTRICAL (RE)DISTRIBUTION WITH EXTERIOR ELECTRICAL INCLUDED. PROVIDE CIRCUITRY FOR ANTICIPATED FUTURE WORK AS DIRECTED BY ELECTRICAL CONSULTANT. FUTURE WORK INCLUDES BASEBOARD HEATING, CEILING LIGHTING, INTERIOR POWER RECEPTACLES AND MECHANICAL HRV, HOT WATER TANK, AND POWER DOOR OPERATORS FOR FUTURE UNIVERSAL WASHROOM HARDWARE.
- 5. EXCLUDES INTERIOR CONSTRUCTION AND FINISHING WORK TO BE PERFORMED AT LATER DATE. PROTECT ALL INTERIOR FINISHES. SALVAGE AND ORGANIZE ALL DISTURBED WOOD TRIMS FOR FUTURE REINSTALLATION.
- 6. EXCLUDES ELECTRICAL FINISHING, PLUMBING, AND HVAC TO BE PERFORMED.
- EXCLUDES SITEWORK AND LANDSCAPING. EXCEPTION: SOME EXCAVATION AND BACKFILL IS REQUIRED FOR PHASE 1 FOR ENVELOPE UPGRADES.
- SEPTIC FIELD TO BE PERFORMED IN FUTURE DATE.







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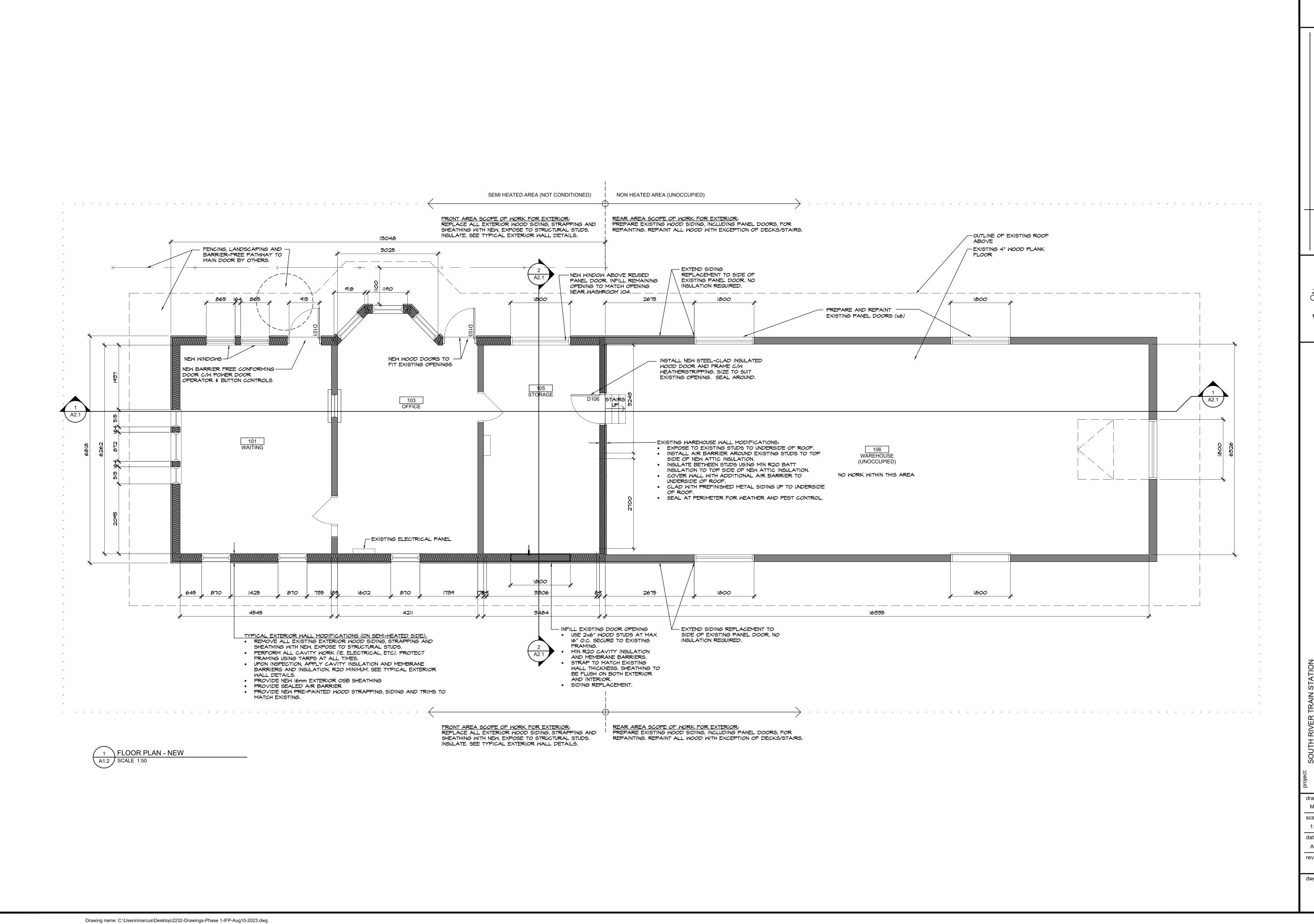
SOUTH RIVER TRAIN STATIC BUILDING RESTORATION - F OTTAWA AVENUE

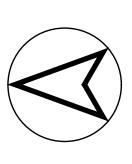
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SOUTH RIVER TRAIN STATION
BUILDING RESTORATION - PHASE 1
OTTAWA AVENUE
SOUTH RIVER, ONTARIO
FLOOR PLAN - NEW

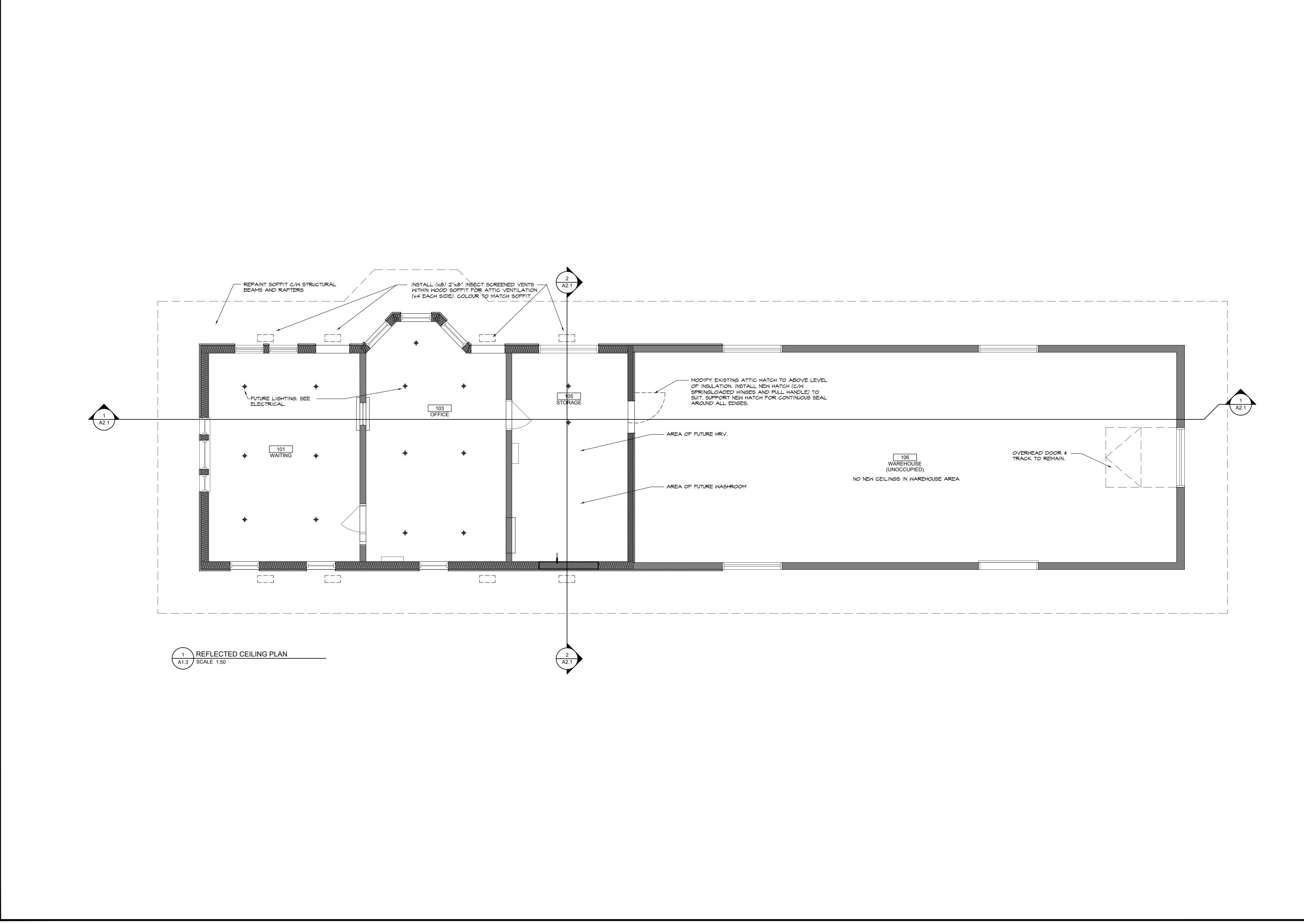
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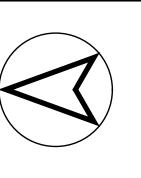
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SOUTH RIVER TRAIN STATION
BUILDING RESTORATION - PHASE 1
OTTAWA AVENUE
SOUTH RIVER, ONTARIO
REFLECTED CEILING PLAN

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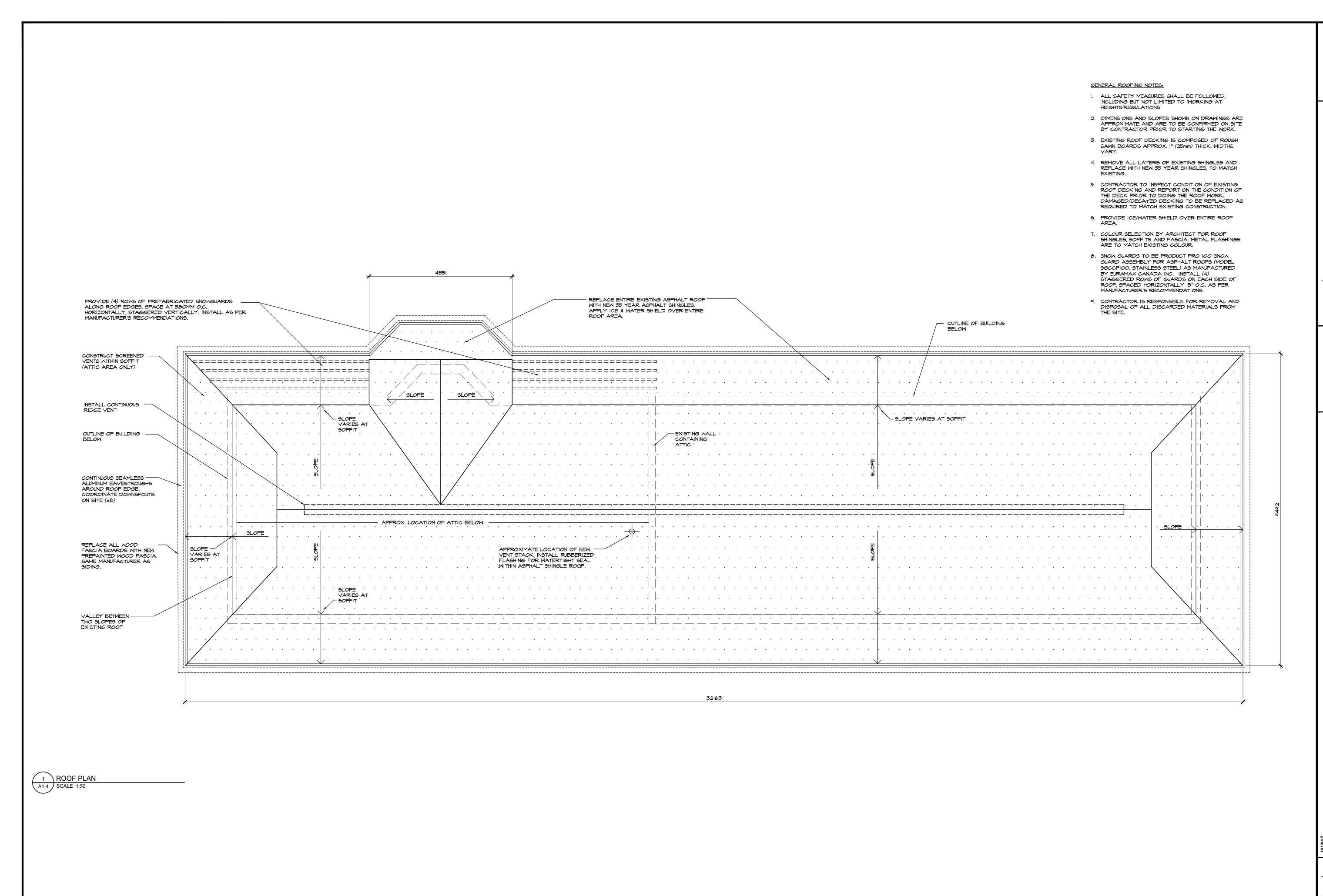
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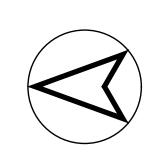
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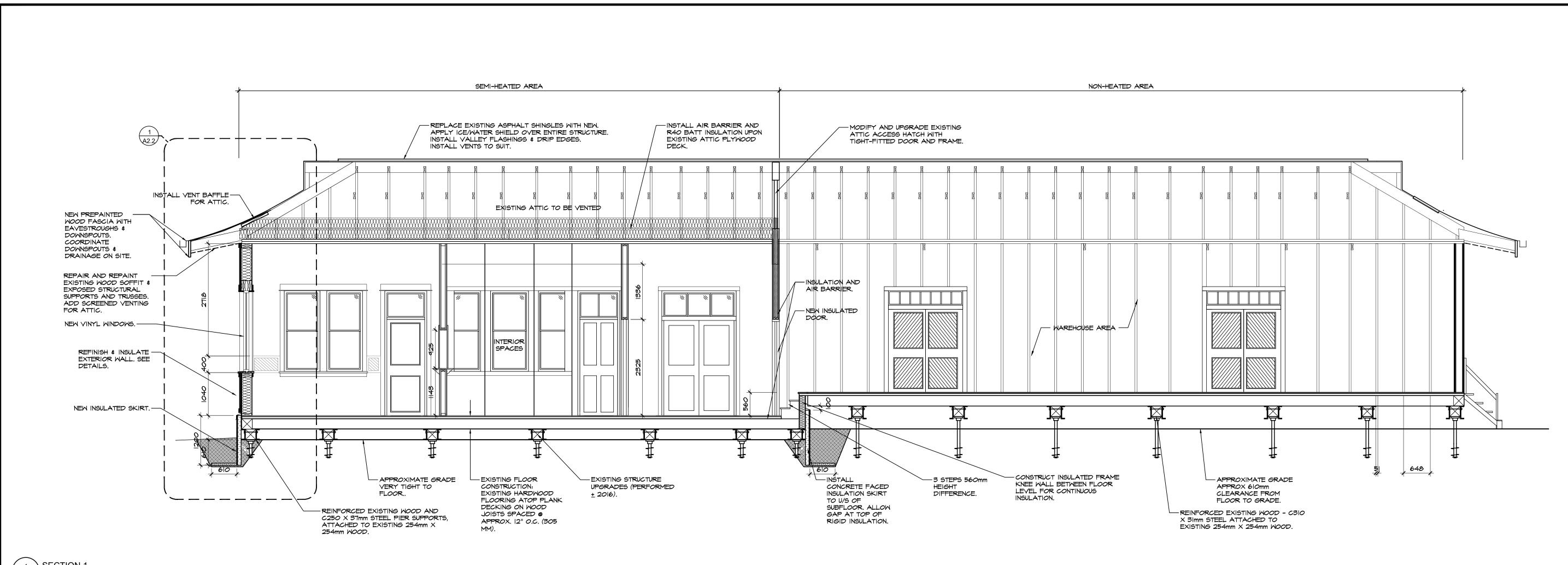
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SOUTH RIVERING SOUTH

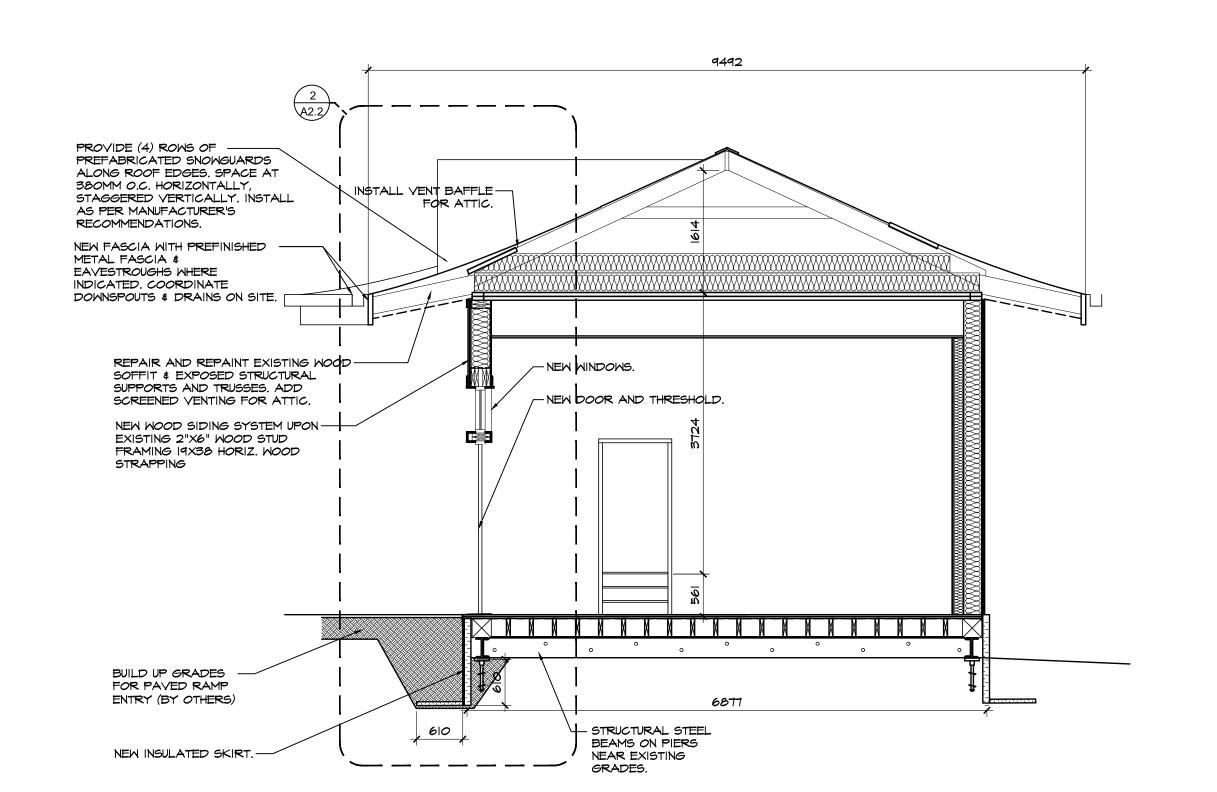
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A2.1 SCALE 1:50



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BUILDING RESTORATION - PHAS
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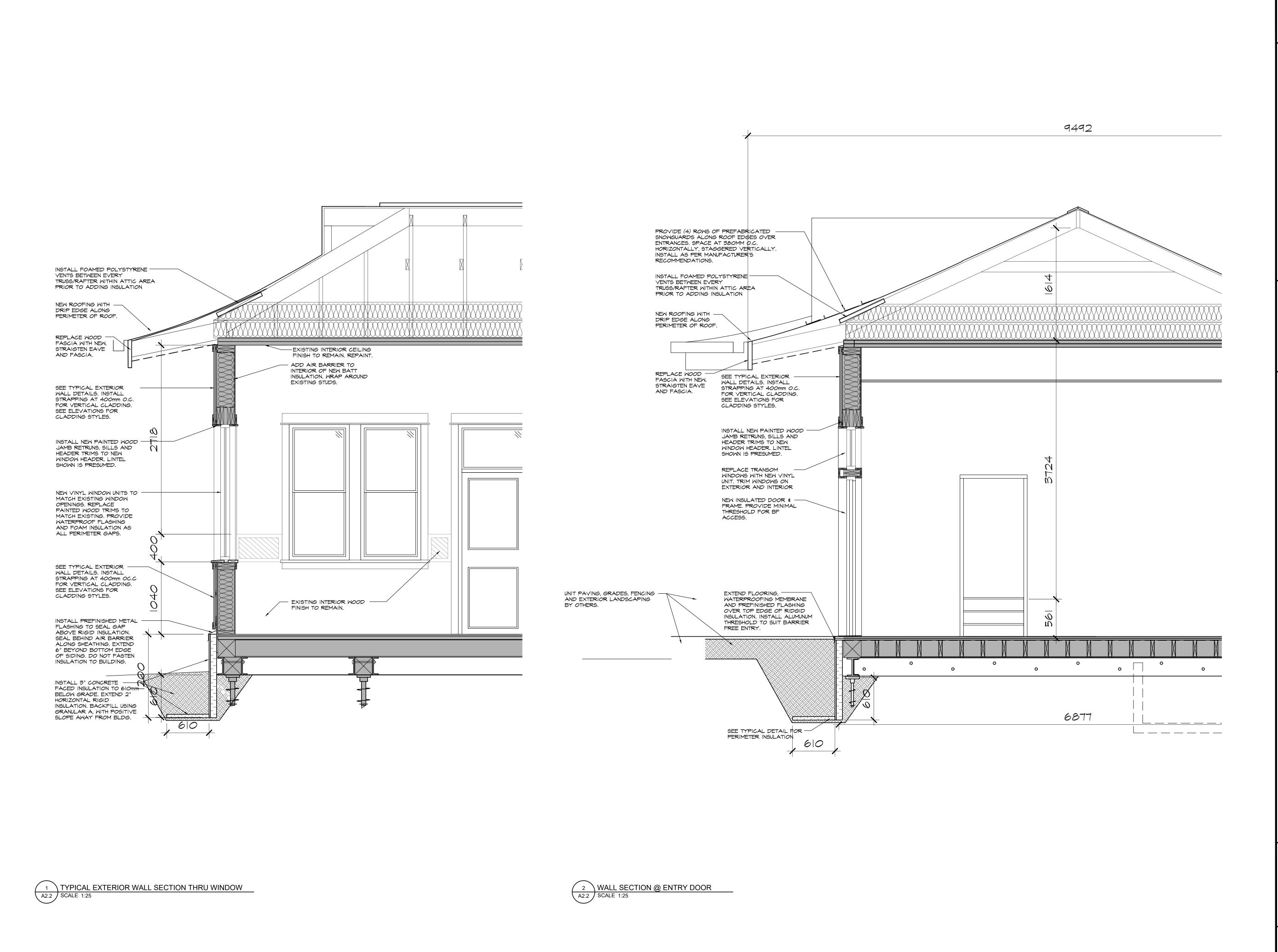
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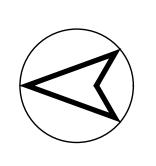
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SOUTH RIVER TRAIN STATION

BUILDING RESTORATION - PHASE 1

OTTAWA AVENUE
SOUTH RIVER, ONTARIO

Title:

TYPICAL DETAILS

EXTERIOR WALL & INTERIOR DETAILS

GROUPH RIVER TRAIN STATION

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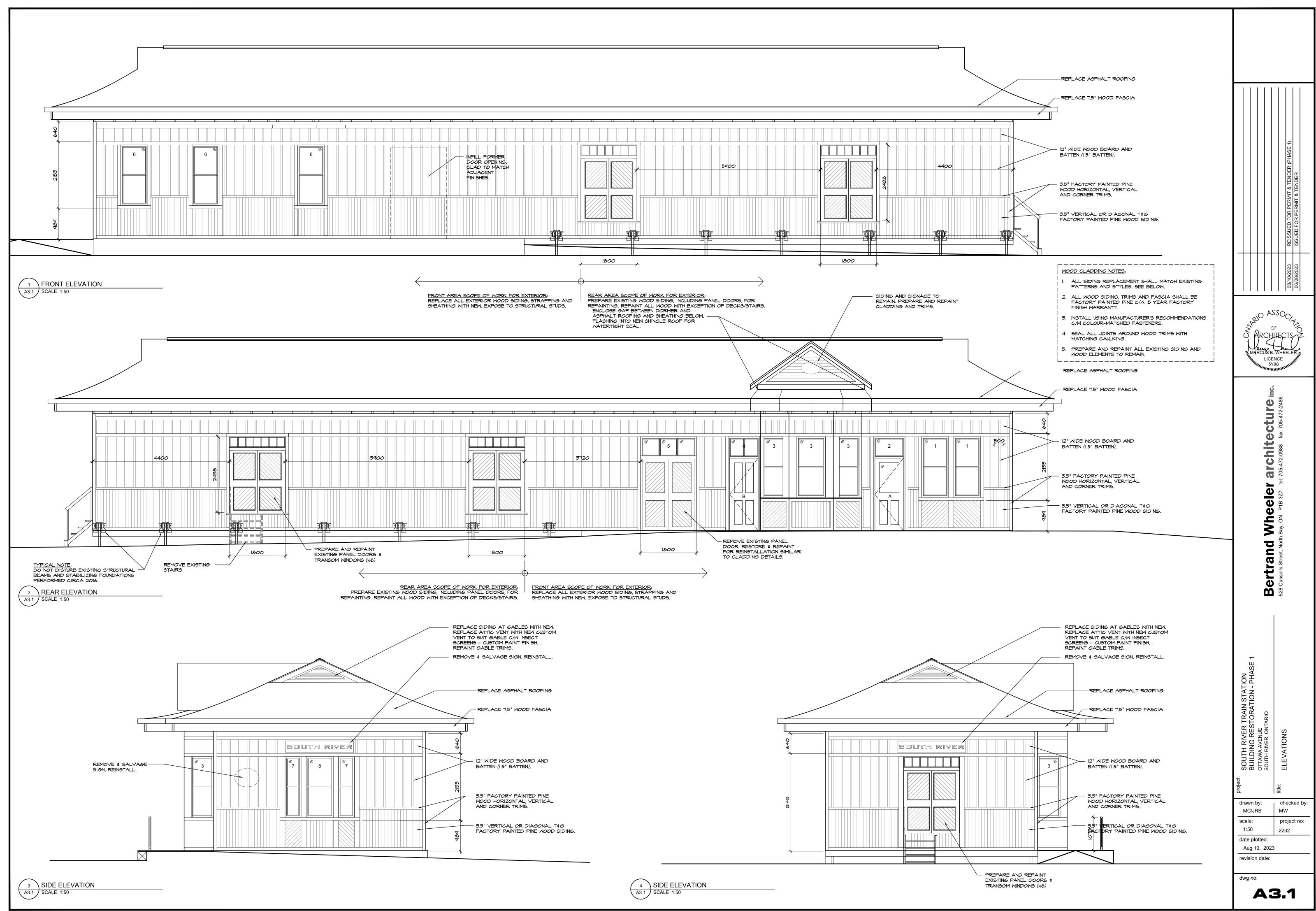
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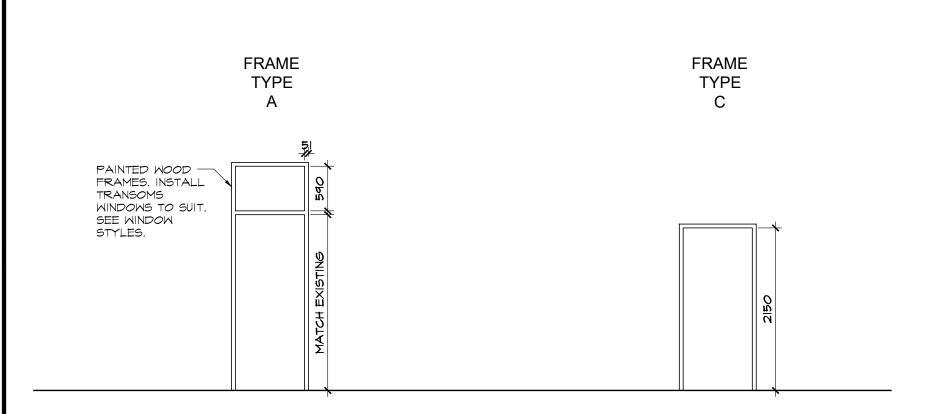
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**A2.2** 





## DOOR & WINDOW GENERAL NOTES:

- WINDOW & DOOR SUPPLIER TO COORDINATE AND CONFIRM ALL ROUGH OPENINGS WITH GENERAL CONTRACTOR PRIOR TO MANUFACTURE OF UNITS.
- 2. INSTALLERS TO PROVIDE ALL REQUIRED
  SHIMS/BLOCKING/NAILERS REQUIRED AND TO MAKE GOOD
  EXISTING OPENINGS. FLASHING USING WATERPROOF
  MEMBRANE AROUND FRAMED OPENINGS. FILL ALL GAPS
  AROUND FRAMES WITH LOW EXPANSION SPRAY FOAM
  INGULATION INSULATION.
- 3. SHOP DRAWINGS ARE REQUIRED FOR REVIEWAPPROVAL.
  MANUFACTURER IS NOT TO PROCEED WITHOUT REVIEWED
  SHOP DRAWINGS FROM CONSULTANT AND GENERAL CONTRACTOR.
- ALL EXTERIOR WINDOW AND DOOR GLAZING TO BE THERMAL UNITS, LOW-E ARGON FILLED.

1 FRAME ELEVATIONS
A3.2 SCALE 1:50

CONFIRM MAXIMUM WIDTH FOR DOOR OPENING. UTILIZED OFFSET HINGES TO	DOOR TYPE A	DOOR TYPE B		
ALLOW WIDER OPENING FOR DOOR TO SUIT BARRIER FREE DESIGN  INSERT DOUBLE GLAZED THERMAL WINDOW UNIT FOR ALL EXTERIOR	915	SEE SCHEDULE		
DOORS. TEMPERED GLASS ONLY.	A RAIS PANE		С	

PAINTED FINISH ON ALL DOORS.

1 DOOR / ELEVATIONS
A3.2 SCALE 1:50

	DOOR AND FRAME SCHEDULE													
DOOR							FRAME	/ SCREE	N			111.0	LIDW/D	DEMARKO
NO.	ROOM	TYPE	MAT	FIN	WIDTH	HEIGHT	TYPE	MAT	FIN	WIDTH	HEIGHT	ULC HDWR	HDWK	REMARKS
D101	WAITING	А	STEEL CLAD WOOD	PT	965	MATCH EXIST'G	А	WD	PT	-	-	N/A	DEADBOLT, LEVER LOCKSET, PDO	MODIFY OPENING TO SUIT WIDTH FOR BF ACCESS
D103	OFFICE	В	STEEL CLAD WOOD	PT		MATCH EXIST'G	А	WD	PT	-	-	N/A	DEADBOLT, LEVER LOCKSET, CLOSER	
D106	WAREHOUSE	В	STEEL CLAD WOOD	PT		MATCH EXIST'G	С	WD	PT	-	-	N/A	DEADBOLT, LEVER LOCKSET, CLOSER	

WINDOW	WINDOW	WINDOW	WINDOW	WINDOW	WINDOW	WINDOW	WINDOW
TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE
1	2	3	4	5	6	7	8
05P	100	920 09b	1017	1800	0450	515 9 09b	872 09b



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SOUTH RIVER TRAIN STATION
BUILDING RESTORATION - PHASE 1
OTTAWA AVENUE
SOUTH RIVER, ONTARIO
WINDOW / DOOR / FRAME ELVATIONS
SCHEDULES

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THE FOLLOWING PRODUCTS AND SPECIFICATIONS ARE MINIMUM SPECIFICATIONS ONLY. ALL PRODUCTS AND MATERIALS TO BE SUPPLIED AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND QUALITY CONSTRUCTION STANDARDS.

## OWNER SELECTION:

- 1. REVIEW ALL MATERIALS AND PRODUCTS WITH OWNER PRIOR TO ORDERING.
- 2. FOR THE FOLLOWING SPECIALTY ITEMS, OFFER AN ALLOWANCE FOR SELECTION WITHIN THE PRICE. THE BUILDER SHALL INCLUDE ALL COSTS FOR DELIVERIES AND INSTALLATION WITHIN BASE
- 2.1. SUPPLY MAIN ENTRY EXTERIOR DOOR
- 3. OFFER THE OWNER A FULL CHOICE OF COLORS, FINISHES AND VARIATIONS PRIOR TO ORDERING. COORDINATE ADEQUATE TIME FOR REVIEW AND RESPONSE. ADVISE OF ANY COST VARIATIONS.
- 4. PROVIDE OWNER WITH COLOURS AND OPTIONS IN A SINGLE PACKAGE, TO ALLOW FOR COORDINATION OF MATERIALS AND FINISHES.

## **EXCAVATION, SOILS & BACKFILL**

- 1. EXCAVATE TO LINES GRADES, ELEVATIONS AND DIMENSIONS AS INDICATED. REMOVE CONCRETE, MASONRY, PAVEMENTS, RUBBLE, LARGE ROCKS AND OTHER OBSTRUCTIONS ENCOUNTERED
- 2. BACKFILL: USE ONLY APPROVED GRANULAR 'A' AND GRANULAR 'B' TYPE '1', IN ACCORDANCE WITH OPSS 1010. BACKFILL AROUND INSTALLATIONS UNIFORMLY SUCH THAT NO STRESSES ARE INDUCED TO THE STRUCTURE
- 3. CLEAR (CRUSHED) STONE: 19mm CLEAR STONE IN ACCORDANCE WITH OPSS 1010.

## WOOD FRAMING NOTES:

- 1. ALL STRUCTURAL WOOD FRAMING TIMBER SHALL CONFORM TO CSA STANDARD 086-M80 SPF NO.2 SPRUCE OR BETTER UNLESS NOTED OTHERWISE.
- 2. TIMBER IN CONTACT WITH CONCRETE OR SOIL SHALL BE PRESSURE TREATED.

## AIR BARRIER, VAPOUR BARRIERS & MEMBRANE FLASHINGS:

- 1. INSTALL NEW AIR BARRIER (BUILDING WRAP) AROUND ENTIRE EXTERIOR. SHEET AIR BARRIER FOR FRAMED WALLS:
- 1.1. TYVEK BY DUPONT CANADA, TYPAR BY REMMAY OR EQUAL.
- 1.2. SEAL SEAMS WITH 3M SHEATHING TAPE VAPOUR BARRIER ON WALLS:
- 2.1. 6 MIL THICK POLYETHYLENE
- 2.2. SEAL ALL SEAMS. INSTALL PURPOSE MADE BARRIERS AROUND RECEPTACLES AND
- 2.3. DO NOT CONCEAL WORK UNTIL INSPECTED.

## BATT INSULATION:

- INSTALL THERMAL BATT INSULATION TO SUIT FULL WALL CAVITY
- ACCEPTABLE THERMAL PRODUCTS:
- 2.1. OWENS CORNING: ECOTOUCH THERMAL INSULATION 2.2. ROXUL: COMFORTBATT THERMAL INSULATION
- 2.3. OR APPROVED EQUALS. 3. FIT INSULATION CLOSELY AROUND ELECTRICAL BOXES, PIPES, DUCTS, FRAMES AND OTHER
- OBJECTS IN OR PASSING THROUGH INSULATION. 4. DO NOT COMPRESS INSULATION TO FIT INTO SPACES.
- 5. KEEP INSULATION MINIMUM 3" (75mm) FROM HEAT EMITTING DEVICES SUCH AS RECESSED LIGHT
- 6. DO NOT ENCLOSE INSULATION UNTIL IT HAS BEEN INSPECTED AND APPROVED BY CONSULTANT

## RIGID INSULATION:

- INSTALL TO THICKNESS AS INDICATED ON DRAWINGS
- 2. TAPE & SEAL ALL EDGES UNLESS OTHERWISE NOTED.
- 3. CONCRETE FACED RIGID INSULATION WITH GROOVED SEAMS. PROTECT FROM EXPOSURE TO
- 4. BELOW GRADE APPLICATIONS: STYROFOAM SM (TYPE 4) BY DOW CHEMICALS CANADA INC. OR APPROVED EQUAL.

## FOAM IN PLACE INSULATION:

1. LOW-EXPANSION SPRAY FOAM INSULATION AROUND DOOR AND WINDOW FRAMES FOR WEATHERTIGHT SEAL.

- HORIZONTAL, PROFILES TO MATCH EXISTING
- PRODUCT TO BE EQUAL TO FRASER WOOD SIDING, FACTORY PAINTED WOOD CLADDING AND
- 3. UP TO (x4) CUSTOM SOLID COLOURS WITH 15 YEAR WARRANTY, OR APPROVED EQUAL. 4. PROVIDE ALL TRIM PIECES AND COLOUR MATCHED FASTENERS, INCLUDING OUTSIDE CORNERS, INSIDE CORNERS, JSTARTER STRIP, UNDERSILL TRIMS, WINDOW AND DOOR SURROUNDS, VENTS,

## ASPHALT SHINGLE ROOFING:

- 1. REMOVE ALL LAYERS OF EXISTING SHINGLES AND REPLACE WITH NEW 35 YEAR SHINGLES, TO
- 1.1. ACCEPTABLE SHINGLE PRODUCT: EVEREST ASPHALT SHINGLES, AS MANUFACTURED BY BP, OR APPROVED EQUAL.
- 1.2. INSTALL ROLL ROOFING, SHEATHING PAPER, ROOFING FELT BELOW SHINGLES. 2. PROVIDE ICE/WATER SHIELD OVER EDGES OF THE ROOF AS INDICATED.
- 2.1. APPLY ICE SHIELD OVER ENTIRE ROOF.
- 3. CONTRACTOR TO INSPECT CONDITION OF EXISTING ROOF DECK AND REPORT TO THE ARCHITECT THE CONDITION OF THE DECK, PRIOR TO DOING THE WORK. DAMAGED/DECAYED DECKING TO BE REPLACED AS REQUIRED TO MATCH EXISTING CONSTRUCTION. 4. PROVIDE ROOF VENTS AS INDICATED.
- 4.1. SHINGLED OVER RIDGE VENTS: COBRA SNOW COUNTRY ADVANCED BY GAF, COMPATIBLE
- WITH 12" WIDE RIDGE CAP SHINGLES. 18 SQ.INCHES OF VENTILATION PER LINEAR FOOT. 5. INSTALL PREFINISHED METAL DRIP EDGE. COLOUR TO MATCH FASCIA.

## PREFINISHED METALS FLASHINGS:

- 1. METAL FLASHINGS: FORM FLASHINGS, COPINGS AND FASCIAS TO MATCH EXISTING PROFILES OF 0.56MM (26 GAUGE) THICK PRE-FINISHED SHEET STEEL.
- 2. INSTALL NEW PREFINISHED ALUMINUM FLASHINGS AROUND EXTERIOR OF NEW WINDOWS AND DOORS. SEAL TO EDGES OF SIDING.
- 3. INSTALL DRIP EDGE UNDER FRONT EDGE OF ROOFING COORDINATE COLOUR WITH FASCIA.

## **EAVESTROUGH AND DOWNSPOUTS**:

1. INSTALL SEAMLESS ALUMINUM EAVESTROUGHS INSTALLED WITH MATCHING DOWNSPOUTS.

4. COORDINATE COLOURS WITH OWNER. INSTALL WITH MATCH FASTENERS.

- 2. UTILIZE PREMANUFACTURED BENDS, GOOSENECKS, OUTLETS, STRAINER BASKETS AND NECESSARY FASTENINGS AROUND SOFFITS AND PROJECTIONS.
- 3. COORDINATE LOCATIONS OF DOWNSPOUTS WITH SURFACE DRAINS AND/OR OWNER.
- 4. PROVIDE PRECAST CONCRETE SPLASH PANS WHERE SPOUTS DRAIN DIRECTLY ONTO GRADE. 5. COORDINATE COLOURS WITH OWNER. INSTALL WITH MATCH FASTENERS.

## SEALANTS:

- EXTERIOR LOCATIONS: SEAL AROUND ALL OPENINGS WITH EPOXIDIZED POLYURETHANE.
- 2. INTERIOR LOCATIONS: PAINTABLE, SILICONE BASE 3. APPLY SEALANT AROUND OTHER EQUIPMENT & FIXTURES AS PER MANUFACTURERS
- RECOMMENDATIONS. 4. COLOUR(S) TO MATCH ADJACENT FINISHES.

- 1. INSTALL PRE-HUNG 1-3/4" HEAVY-DUTY GALVANIZED STEEL DOORS WITH PREFINISHED WHITE
- 2. SIZES & STYLES TO SUIT EXISTING OPENINGS AND AS INDICATED. 3. ALL EXTERIOR DOORS AND FRAMES TO BE INSULATED AND THERMALLY BROKEN.
- 4. FRAME INSTALLATION
- 4.1. SET FRAMES PLUMB, SQUARE, LEVEL AND AT CORRECT ELEVATION. SECURE ANCHORAGES AND CONNECTIONS TO ADJACENT CONSTRUCTION.
- 4.3. MAKE ALLOWANCES FOR DEFLECTION OF STRUCTURE TO ENSURE STRUCTURAL LOADS ARE NOT TRANSMITTED TO FRAMES.
- 4.4. CAULK PERIMETER OF FRAMES BETWEEN FRAME AND ADJACENT MATERIAL. 4.5. MAINTAIN CONTINUITY OF AIR AND VAPOUR BARRIER.
- DOOR INSTALLATION 5.1. INSTALL DOORS AND HARDWARE IN ACCORDANCE WITH HARDWARE TEMPLATES AND
- MANUFACTURER'S INSTRUCTIONS. 5.2. PROVIDE EVEN MARGINS BETWEEN DOORS AND JAMBS AND DOORS AND ADJACENT FLOOR FINISHES INCLUDING DECK SURFACES.
- 6. PREPARE AND INSTALL HARDWARE. 16. WHERE BARRIER-FREE ACCESS IS REQUIRED, DOOR SILLS TO BE MAXIMUM 13MM (1/2") HIGH FOR BARRIER-FREE ACCESS.

- 1. COMBINATION OF RESIDENTIAL & COMMERCIAL GRADE DOOR HARDWARE TO BE PROVIDED INCLUDING HINGES, CLOSURES, LOCKSETS, DEADBOLTS, SMOKE SEALS, DOOR STOPS, PULLS,
- THRESHOLDS SHALL BE USED AT NEW DOOR OPENINGS.
- 2. HEAVY DUTY HARDWARE SHALL BE USED AT ALL ALUMINUM ENTRY DOOR LOCATIONS INCLUDING BALL BEARING HINGES AND CONTINUOUS PIANO STYLE HINGES.
- 4. PROVIDE CYLINDRICAL LOCKSETS WITH LEVER HANDLES. PROVIDE ADDITIONAL DEADBOLTS ON ALL EXTERIOR DOORS.
- 5. PROVIDE POWER DOOR OPERATORS AT MAIN ENTRY, ALL BARRIER-FREE WASHROOMS, AND ALL UNIVERSAL WASHROOMS. PROVIDE UNIVERSAL WASHROOM HARDWARE KIT IN ALL UNIVERSAL
- WASHROOMS AS PER OBC. COORDINATE WITH ELECTRICAL. 6. COORDINATE KEYING OF ALL LOCKS WITH OWNER. MATCH KEYING OF ALL LOCKS ON A SINGLE DOOR. PROVIDE 4 KEYS SHALL BE PROVIDED PER LOCK. CAREFULLY CONTROL KEY ACCESS AND HAND OVER ALL KEYS TO OWNER PRIOR TO FINISH OF WORK.

## VINYL WINDOWS:

- 1. VINYL UNITS WITH OPERABLE UNIT, LOCKABLE, TILT-OUT CLEANABLE. COORDINATE ALL OPERABLE PARTS WITH OWNER PRIOR TO ORDERING.
- 2. DOUBLE GLAZED; LOW-E THERMAL UNITS.
- 3. PROVIDE INTEGRAL CHANNEL AT PERIMETER OF INTERIOR FRAME FOR TIGHT INSERTION OF JAMB/HEADER/SILL MATERIAL.
- REMOVABLE INSECT SCREENS.
- GLAZING TO BE 6MM TEMPERED GLASS UNLESS OTHERWISE NOTED.
- 6. FOR ADDED WATER CONTROL USE A SELF ADHERING MEMBRANE FLASHING AROUND ENTIRE EXISTING WINDOW FRAMING OPENING. INSULATE ALL VOIDS AROUND FRAMES USING LOW-EXPANSION FOAM FOR SEAL AND AIR BARRIER.
- 8. COMPLETELY SEAL ON BOTH INTERIOR AND EXTERIOR SIDES. CAULKING COLOUR TO MATCH SURROUNDING FINISHES.

## FINISHING NOTES:

- 1. ALL MATERIALS AND COLOURS TO BE LATER SELECTED BY OWNER. REFER ALSO TO ROOM FINISH SCHEDULE, WHERE PROVIDED.
- 2. PROTECT ALL FLOORING TO REMAIN.
- 3. USE SUITABLE THRESHOLDS FOR ALL FLOORING CHANGES BETWEEN DISSIMILAR FLOOR FINISHES. NO THRESHOLD SHALL BE GREATER THAN 10mm IN HEIGHT.

## PAINTING:

- 1. PRIME & PAINT ALL NEW AND EXISTING AREAS AFFECTED BY THE WORK, INCLUDING FINISHES, DOORS, TRIMS AND FRAMES. REFER ALSO TO ROOM FINISH SCHEDULE, WHERE PROVIDED. 2. COLOURS TO BE SELECTED BY OWNER AS PROJECT PROCEEDS.
- **ELECTRICAL NOTES**:

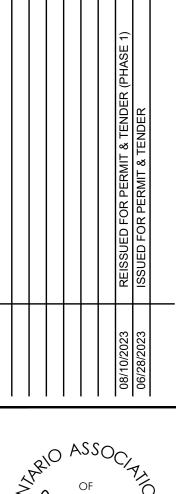
1. PERFORM ALL ELECTRICAL WORK USING APPROVED & LICENSED TRADEPERSONS. PERFORM ALL

6. COORDINATE LOCATIONS AND WIRING REQUIRMENTS FOR ALL MECHANICAL EQUIPMENT AND

- WORK IN STRICT ACCORDANCE WITH ELECTRICAL AUTHORITIES. PROTECT EXISTING ELECTRICAL SYSTEM. MAINTAIN POWER THROUGH BUILD.
- REMOVE ALL ABANDONED WIRING & FIXTURES. REFASTEN ALL TEMPORARILY REMOVED WIRES.

POWER DOOR HARDWARE.

5. REVIEW ALL NEW FIXTURES AND SWITCHING WITH OWNER PRIOR TO ORDERING AND



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SOUTH RIVER TRAIN STATIC BUILDING RESTORATION - F OTTAWA AVENUE SOUTH RIVER, ONTARIO

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Jun 28, 2023

**A4.1** 

## Part 1 MECHANICAL GENERAL CONDITIONS

- EQUIPMENT, ETC. REQUIRED TO COMPLETE ALL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. THE WORK SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF ALL
- AUTHORITIES HAVING JURISDICTION OVER THE WORK.

THE MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOUR, MATERIALS, TOOLS,

- THE CONTRACTOR SHALL PROVIDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY CALLED FOR BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION.
- ONLY COMMERCIAL GRADE EQUIPMENT AND MATERIALS SHALL BE INSTALLED. THE ENGINEER RESERVES THE RIGHT TO APPROVE THE QUALITY OF MATERIAL AND WORKMANSHIP. AND TO CALL FOR ANY TEST WHICH HE/SHE DEEMS NECESSARY DURING THE PROCESS OF THE WORK AND A COMPLETE TEST OF EACH SYSTEM AT COMPLETION OF THE WORK. THE COSTS OF SUCH TESTS SHALL BE INCLUDED IN THE TENDER PRICE.

## Part 2 PERMITS AND INSPECTION

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, CERTIFICATES, ETC. REQUIRED BY ALL AUTHORITIES HAVING
- JURISDICTION OVER THIS WORK AND SHALL PAY FOR SAME. COSTS FOR PERMITS, INSPECTIONS, ETC. SHALL BE INCLUDED IN THE TENDER PRICE. ALL PERMITS SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE AS SOON AS THEY BECOME AVAILABLE.

## Part 3 SCOPE OF WORK

.1 THE WORK SHALL CONSIST OF BUT NOT LIMITED TO PLUMBING AND VENTILATION MODIFICATIONS IN CONJUNCTION WITH THE MINOR INTERIOR RENOVATION.

## Part 4 AS-BUILT DRAWINGS

1 CONTRACTOR SHALL KEEP A SEPARATE SET OF REDLINE DRAWINGS ON SITE AND NOTE ALL CHANGE AND DEVIATIONS FROM THE ORIGINAL DESIGN.

TWO SETS OF THESE PLANS SHOWING ALL AS BUILT CONDITIONS SHALL BE FORWARDED

TO THIS CONTRACT.

- TO THE OWNER AT THE COMPLETION OF THE CONTRACT AND BEFORE APPLYING FOR
- Part 5 SHOP DRAWINGS

## SUBMIT ELECTRONIC COPIES OF MANUFACTURER'S SHOP DRAWINGS FOR REVIEW BY THE ENGINEER PRIOR TO PLACING ORDER FOR ALL EQUIPMENT AND MATERIAL RELATED

- SHOP DRAWINGS TO INCLUDE PRODUCT CHARACTERISTICS, PERFORMANCE CRITERIA, PHYSICAL SIZE, FINISH, AND LIMITATIONS
- Part 6 EXAMINATION OF THE SITE . THE CONTRACTOR SHALL VISIT THE SITE OF THE PROJECT AND FAMILIARIZE THEMSELVES

ANY DEVIATION AND/OR CONFLICTS ON SITE SHALL BE REPORTED TO THE ENGINEER

PRIOR TO SUBMITTING THE TENDER. ALL DIMENSIONS, CONFIGURATIONS, EQUIPMENT LOCATIONS, ETC. TO BE CHECKED AND

## Part 7 CONSTRUCTION SCHEDULE

WITH THE SCOPE OF WORK

- MECHANICAL CONTRACTOR SHALL SCHEDULE AND PERFORM HIS/HER WORK TO MEET THE COMPLETION SCHEDULE AS SET OUT BY THE OWNERS. ANY OVERTIME WORK SHALL
- BE INCLUDED IN HIS TENDER.

CONTRACTOR SHALL ADVISE OF ANY SHUTDOWNS OR DISRUPTIONS OF SERVICES WITH A

## MINIMUM OF 48 HOURS NOTICE

Part 8 CHANGE CONTROL

NO ADDITIONAL MONEY OVER THE CONTRACT PRICE SHALL BE PAID UNLESS AN

APPROVED CHANGE ORDER HAS BEEN ISSUED BY THE ENGINEER. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES, ETC.

CONTRACTOR SHALL BE RESPONSIBLE TO PERIODICALLY REMOVE ALL DEBRIS AND TO KEEP THIS AREA CLEAN AT ALL TIMES.

## Part 10 EQUIPMENT AND MATERIAL

- .1 ALL MATERIALS USED ON THIS PROJECT SHALL BE NEW AND WITHOUT BLEMISH OR
- ALL MATERIAL AND EQUIPMENT SHALL BE OF THE TYPE SUBJECT TO FACTORY MUTUAL. UNDERWRITER'S LABORATORIES OF CANADA OR CANADIAN STANDARDS ASSOCIATION. INSPECTION AND APPROVAL AND SHALL BEAR ULC OR CSA LABELS.

PERFORM TESTS ON EACH SYSTEM TO THE SATISFACTION OF THE ENGINEER AND SLIBMIT TEST RESULTS FOR APPROVAL PRIOR TO THE FINAL ACCEPTANCE OF WORK AND IN CONFORMANCE WITH THE AUTHORITY HAVING LOCAL JURISDICTION.

## Part 12 DEMONSTRATION OF SYSTEM

CONTRACTOR TO DEMONSTRATE THE FUNCTION AND OPERATION OF EACH SYSTEM TO THE MAINTENANCE STAFF OR THE OWNER'S REPRESENTATIVE.

## Part 13 IDENTIFICATION

- ALL PIPING AND DUCTWORK TO BE LABELED AND PAINTED IN CONFORMANCE WITH
- CGSB 24-GP-3A. ALL LABELING TO BE INSTALLED ON LONG STRAIGHT RUNS CLEARLY VISIBLE AND UNOBSTRUCTED.

## Part 14 COORDINATION

CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF EQUIPMENT, DUCTWORK, PIPING, DIFFUSERS, GRILLES, ETC. WITH ALL OTHER TRADES PRIOR TO ROUGH-IN AND INSTALLATION.

## Part 15 ACCESSIBILITY

- .1 ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION,
- MAINTENANCE AND REPAIRS. MANUFACTURERS INSTALLATION REQUIREMENTS TO BE REVIEWED - PROVIDE ALL REQUIRED SERVICE SPACE ALLOCATIONS FOR ALL EQUIPMENT INSTALLED UNDER THIS

## Part 16 RESPONSIBILITY

THIS TRADE SHALL BE RESPONSIBLE FOR HIS/HER WORK UNTIL COMPLETION AND FINAL ACCEPTANCE, AND FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ANY ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

CONTRACTOR SHALL WARRANT ALL WORK AND APPARATUS INSTALLED UNDER THIS CONTRACT AGAINST DEFECTS OR WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE ENGINEER AND THE OWNER.

## Part 18 FIREPROOFING

- . ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED WITH APPROVED FIRE STOP SYSTEM TO SUIT FIRE RATED ASSEMBLY.
- INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. SUBMIT FIRE STOP SYSTEM SHOP DRAWINGS FOR REVIEW BY ENGINEER PRIOR TO

## Part 19 CUTTING, PATCHING, AND PAINTING

- .1 ALL CUTTING, PATCHING, AND PAINTING FOR MECHANICAL WORK SHALL BE DONE BY THE MECHANICAL CONTRACTOR.
- OBTAIN ANY/ALL APPROVALS PRIOR TO CUTTING STRUCTURAL MEMBERS. UPON REMOVAL OF PIPING, DUCTWORK, THERMOSTATS, CONTROL WIRING, ETC. PATCH
- ALL HOLES CREATED FROM REMOVALS AND MATCH EXISTING FINISHES. PROVIDE STEEL PIPE SLEEVES WHERE PIPING PASSES THROUGH MASONRY OR CONCRETE. PROVIDE FIRE STOP SYSTEM CAULKING AS PER MANUFACTURER'S RECOMMENDATIONS FOR ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- ALL PENETRATIONS THROUGH EXTERIOR WALL ASSEMBLIES TO BE INSULATED AND SEALED TO MAKE WEATHER TIGHT. SEAL WITH NON-HARDENING MASTIC.

## Part 20 ACCESS DOORS

- PROVIDE ACCESS DOORS FOR ALL CONCEALED VALVES, EQUIPMENT, CONTROLS, ETC. LOCATE ACCESS DOORS TO ALLOW FOR PROPER OPERATION, INSPECTION, ADJUSTMENT
- AND SERVICING. ACCESS DOORS TO BE FLUSH MOUNTED. PROVIDE MINIMUM 24"X24" WHERE FULL BODY ACCESS IS REQUIRED, AND MINIMUM 12"X12" WHERE HAND ENTRY IS REQUIRED.

COORDINATE FINISH WITH ENGINEER. PRIMED AND PAINTABLE STEEL ACCESS DOORS TO

## BE PROVIDED IN ALL AREAS. Part 21 OPERATIONAL AND MAINTENANCE MANUALS

MECHANICAL CONTRACTOR SHALL PROVIDE TO THE OWNER THREE (3) COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT SUPPLIED UNDER THIS CONTRACT

Part 22 INSULATION AND JACKETING INSULATION AND LACKETING TO HAVE MAXIMUM FLAME SPREAD RATING OF 25 AND

MAXIMUM SMOKE DEVELOPMENT RATING OF 50 WHEN TESTED IN ACCORDANCE WITH

- CAN/ULC S102. INSULATE PIPING WITH RIGID MINERAL FIBRE SLEEVING WITH FOILCRAFT LAMINATE PACKET WITH OPEN MESH FIBRE SCRIM REINFORCING. INSULATION THICKNESS AS PER ASHRAE 90.1-2013 TABLES 6.8.3-1 AND 6.8.3-2.
- EXPOSED PIPING TO BE PVC JACKETED AND LABELED. FRESH AIR INTAKES, FIRST 10' OF EXHAUST DUCTWORK, AND HRV INTAKE AND EXHAUST (FULL LENGTH) TO BE INSULATED WITH 1" THICK THERMAL INSULATION AND ALUMINUM FOIL JACKET -INSULATION TO BE FLEXIBLE FOR ROUND DUCTWORK, RIGID FOR
- EXPOSED DUCTWORK IN MECHANICAL ROOMS TO BE CANVAS WRAPPED.

## Part 23 METAL DUCTS - LOW PRESSURE TO 500 PA

- GALVANIZED INDOOR AIR QUALITY AS PER ASHRAE STANDARDS. LOCK FORMING QUALITY: TO ASTM A 653/A653M, Z90 ZINC COATING.
- THICKNESS, FABRICATION AND REINFORCEMENT: TO ASHRAE AND SMACNA. JOINTS: TO ASHRAE AND SMACNA OR PROPRIETARY MANUFACTURED DUCT JOINT PROPRIETARY MANUFACTURED FLANGED DUCT JOINT TO BE CONSIDERED TO BE A CLASS
- .5 HANGERS: GALVANIZED STEEL ANGLE WITH GALVANIZED STEEL RODS TO ASHRAE AND

- LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEPHOLES, AND STANDARD HEAVY DUTY 5" DIAMETER, POLISHED STAINLESS STEEL STRAINER. **EQUAL TO MIFAB SERIES F1000-5-3** FOR MEMBRANE FLOORS - EQUAL TO MIFAB F1000-C-5-3.

EQUAL TO MIFAB SERIES F1100-FC7-3

**EQUAL TO MIFAB SERIES F1100-EG** 

FOUAL TO MIFAB SERIES F1100-FF

EQUAL TO MIFAB C1100-XR-4

EQUAL TO MIFAB SERIES C1100-RFC7-3-34

LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEPHOLES, AND STANDARD HEAVY DUTY SQUARE POLISHED STAINLESS STEEL STRAINER. EQUAL TO MIFAB SERIES F1100-S (\*)-3 (\* STRAINER SIZE) FOR MEMBRANE FLOORS - EQUAL TO F1100-S (\*)-3-C (\* STRAINER SIZE)

- .3 NON-FINISHED AREAS: LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEPHOLES, AND STANDARD HEAVY DUTY 5" DIAMETER, DUCTILE IRON STRAINER. **EOUAL TO MIFAB SERIES F1100-5-4**
- FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-5-4 .4 FLOOR DRAIN WITH SURFACE MEMBRANE CLAMP: LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEPHOLES, AND FC" 7" DIAMETER HEAVY DUTY POLISHED STAINLESS STEEL STRAINER WITH SURFACE MEMBRANE CLAMP
- FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-FC7-3
- .5 FLOOR DRAIN WITH FUNNEL: LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEPHOLES, AND STANDARD 4" X 9" (102 X 229) OVAL SATIN FINISHED NICKEL BRONZE OPEN THROAT FUNNEL.

FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-EF SERIES

FOR NON MEMBRANE FLOORS EQUAL TO MIFAB F1320 SERIES

- FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-EG SERIES LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, WEEPHOLES AND STANDARD 4" (102) ROUND SATIN FINISHED NICKEL BRONZE FUNNEL ASSEMBLY.
- UNFINISHED AREA FLOOR DRAIN WITH 9" ROUND ADJUSTABLE TRACTOR GRATE LACOUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE CAST IRON CLAMP RING WITH PRIMARY AND SECONDARY WEEPHOLES FOR WATERPROOFING MEMBRANE, AND STANDARD 1" (25) THICK, 9" (225) DIAMETER, DUCTILE IRON TRACTOR GRATE. EQUAL TO MIFAB SERIES F1320-C-4

## Part 25 CLEANOUTS

## .1 FLOOR CLEANOUTS:

- CLEANOUTS SHALL HAVE LACQUERED CAST IRON BODIES WITH ANCHOR FLANGE, SECONDARY "O" RING TEST SEAL AND ADJUSTABLE COMBINED ACCESS COVER AND PLUG TOP ASSEMBLY WITH PRIMARY GASKET SEAL.
- .2 CLEANOUTS IN FINISHED FLOOR TO BE ROUND TOP OR C1000-S-3 SQUARE TOP WITH HEAVY DUTY POLISHED STAINLESS STEEL FINISH AND MAXIMUM LOAD RATING OF 7,499 LBS. EQUAL TO MIFAB C1000-R-3
- .3 CLEANOUTS IN UNFINISHED AREAS TO BE ROUND TOP WITH DUCTILE IRON COVER WITH MAXIMUM LOAD RATING OF 7,499 LBS.
- CLEANOUTS IN LINOTILE AREAS TO BE (ROUND TOP) OR C1100-TS-3 (SQUARE TOP) WITH A HEAVY DUTY LOAD RATED POLISHED STAINLESS STEEL TOP. EOUAL TO MIFAB C1100-T-3
- CLEANOUTS IN CARPETED AREAS TO BE WITH A HEAVY DUTY LOAD RATED POLISHED STAINLESS STEEL TOP AND STAINLESS STEEL CARPET MARKER. EQUAL TO MIFAB C1100-RC-3
- SURFACE MEMBRANE CLAMP FOR PLENAM FLOORS TO BE LACQUERED CAST IRON CLEANOUT WITH ANCHOR FLANGE, WEEPHOLES, AND "RFC" 7" DIAMETER REINFORCED COMBINED STAINLESS STEEL COVER WITH PLUG AND SURFACE MEMBRANE CLAMP.

## WALL CLEANOUTS:

- CAST IRON LINE CLEANOUT TO BE LACQUERED CAST IRON CLEANOUT FERRULE WITH 1/2" (13) THICK DUCTILE IRON COMBINED COVER AND PLUG. EQUAL TO MIFAB SERIES C1450
- CAST IRON STACK CLEANOUT TO BE LACQUERED CAST IRON CLEANOUT WITH LARGE ACCESS AREA AND THREADED PLUG. EQUAL TO MIFAB SERIES C1460
- .3 EXPANDABLE LINE CLEANOUT TO BE CLEANOUT PLUG WITH EXPANDABLE CLEANOUT. LINE CLEANOUT TO BE SUPPLIED IN CONJUNCTION WITH THE APPROPRIATE SIZE STAINLESS STEEL COVER AND VANDAL PROOF SCREW. EQUAL TO MIFAB SERIES C1440-RD

- Part 26 DRAINAGE WASTE AND VENT PIPING PLASTIC, CAST IRON AND COPPER DRAINAGE AND VENT LINES INSIDE BUILDING TO BE CAST IRON OR COPPER BELOW 2".
- PVC PIPING MAY BE USED IN LIEU OF CAST OR COPPER. B ALL PIPING IN PLENUM SPACES TO BE RATED FOR SUCH DUTY - PLASTIC PIPING IN
- PLENUM SPACES TO BE SYSTEM XFR PVC. Part 27 DOMESTIC WATER PIPING - COPPER
- ABOVE GROUND: COPPER TUBE, HARD DRAWN, TYPE L: TO ASTM B 88M. BURIED OR EMBEDDED: COPPER TUBE, SOFT ANNEALED, TYPE K: TO ASTM B 88M, IN LONG LENGTHS AND WITH NO BURIED JOINTS.
- 1 NPS 2 AND UNDER, SOLDERED:
- TO ANSI/ASME B16.18, CLASS 150. BRONZE BODY, CHROME PLATED BRASS BALL, PTFE ADJUSTABLE PACKING, BRASS GLAND AND PTFE SEAT, STEEL LEVER HANDLE, WITH NPT TO COPPER ADAPTORS AS SPECIFIED SECTION 23 05 23.01 - VALVES - BRONZE.

.1 PLUMBING FIXTURES TO BE SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR.

## WC#1 - FLOOR MOUNTED TOILET - VITREOUS CHINA - TANK TYPE

- ZURN #Z5555-K HIGH PERFORMANCE TWO PIECE WATER CLOSET, VITREOUS CHINA, AT 425 MM (16 23/32 IN) HEIGHT, ELONGATED BOWL, SIPHON JET ACTION, 76 MM (3 IN) FLUSH VALVE. 51 MM (2 IN) COMPLETELY GLAZED TRAPWAY. CHROME FINISH METAL HANDLE, BOLT CAPS, 4.8 L (1.28 US GAL) PER FLUSH, WATER PRESSURE RANGE 20 TO 80 PSI. ZH8824CRLKQ-8870-12-PC EXTRA HEAVY DUTY QUARTER TURN STOPS DN 1/2 IN COMPRESSION, LOOSE KEY, VERTICAL FLEXIBLE STAINLESS BRAIDED HOSE OF 10 X 300 MM (3/8 X 12 IN), FLANGE, CHROME PLATED FINISH. Z5957SS-EL HEAVY DUTY SOLID PLASTIC ELONGATED SEAT, OPEN FRONT, WITH COVER, MOLDED BUMPER GUARD, STAINLESS STEEL CHECK HINGES. (WHITE).
- U#1 WALL MOUNTED URINAL VITREOUS CHINA
  - 7URN #75765 FCOVANTAGE URINAL 0.125 GPF (0.5 LPF) TO 1.9 GPF (3.8 LPF) VITREOUS CHINA. WALL HUNG. INTEGRAL TRAP. WASHDOWN URINAL COMPLETE WITH 3/4" BACK SPUD CONNECTION. CONCEALED UNIVERSAL RETROFIT WALL BRACKET, 2" OUTLET CONNECTION AND VANDAL RESISTANT OUTLET STRAINER. ZEMS6195AV-WS1 - CONCEALED HARDWIRED SENSOR OPERATED URINAL FLUSH VALVE FOR 1.0 GPF (3.8 LPF)

## L#3 - WALL HUNG LAVATORY -BARRIER FREE - VITREOUS CHINA

Z5324 VITREOUS CHINA WALL HUNG LAVATORY FOR BARRIER-FREE APPLICATION, 581 X 514 MM (22 7/8 X 20 1/4 IN), BACKSPLASH, FRONT OVERFLOW, PRE-DRILLED FOR CONCEALED ARMS, DRILLED 3 HOLES AT 102 MM (4 IN) SPACING. Z81104-XL-3M POLISHED CHROME-PLATED LOW LEAD CAST BRASS FAUCET WITH INTEGRAL SHANKS 102 MM (4 IN) CENTER, QUARTER TURN CERAMIC DISC CARTRIDGES, 102 MM (4 IN) VANDAL-RESISTANT COLOR-CODED METAL WRIST BLADE HANDLES, WITH 1.9 L/MIN (0.5 USGPM) PRESSURE COMPENSATING AERATOR. ZH8824XL-LRLKQ-PC (2) EXTRA HEAVY DUTY QUARTER TURN STOPS, LOW LEAD, DN 1/2 PO COMPRESSION, LOOSE KEY, VERTICAL FLEXIBLE HOSES OF 10 X 300 MM (3/8 X 12 PO), FLANGES CHROME PLATED FINISH, Z8746-PC STRAINER OFFSET DRAIN ASSEMBLY, CAST BRASS BODY, 32 MM (1 1/4 IN), POLISHED CHROME FINISH, Z8700-8-PC-BD CAST BRASS ADJUSTABLE P-TRAP, 32 MM (1 1/4 IN) WITH DEEP WALL FLANGE AND CLEANOUT, CHROME PLATE FINISH. Z1231 BACK TO BACK CONCEALED WALL HUNG CARRIER, STEEL UPRIGHTS WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, CONCEALED ARMS, ALIGNMENT TRUSS AND MOUNTING FASTENERS. Z8946-3-NT ANTIMICROBIAL PROTECTORS, RESISTS THERMAL TRANSFERS FOR P-TRAP, OFFSET DRAIN ASSEMBLY, STOP AND SUPPLY.

## Part 30 TESTING, ADJUSTING, AND BALANCING FOR HVAC SYSTEMS

.1 CONTRACTOR TO CARRY SERVICES OF AIR BALANCING SUBCONTRACTOR IN TENDER PRICE FOR WORK OUTLINED IN CONTRACT DOCUMENTS. .2 SUBMIT AIR BALANCING REPORT TO ENGINEER FOR REVIEW AND ACCEPTANCE UPON COMPLETION OF BALANCING.

COLD WATER PIPE | HOT WATER PIPE ACCESSORIES FIXTURE NAME ANITARY PIPE SIZE VENT PIPE SIZE WATER CLOSET FLUSH TANK 1 1/2" URINAL 1 1/4" 1/2" LAVATORY 1/2" 1 1/4" 1 1/4" FLOOR DRAIN 1 1/2"

PLUMBING FIXTURE SCHEDULE

MINIMAL PIPE INSULATION - METALLIC PIPE								
TEMP °F	DOMESTIC C.W.	DOMESTIC H.W.						
IPE SIZE	40-60 °F	141-200 °F						
½" TO ¾"	1"	1-1/2"						
1" TO 1-1/4"	1"	1-1/2"						
1-½" TO 3-½"	1"	2"						
4" TO 8"	1"	2"						
8" AND ABOVE	1"	2"						

Accessories

3: Disconnect switch

C: 20/40/60 min. high speed override pushbutton

D: Provide programmable wall control with default Normal Speed/High Speed option to be only modes available.

E: Electric reheat coil 1.5 kW c/w discharge air temperature sensor, SCR controller, thermal cut out switch, fan relay, airflow sensor, etc.

MINIMAL PIPE INSULATION - PEX PIPE						
TEMP °F	DOMESTIC C.W.	DOMESTIC H.W.				
PIPE SIZE	40-60 °F	141-200 °F				
½" TO ¾"	1"	1-1/2"				
1" TO 1-1/4"	1"	1-1/2"				
1-½" TO 3-½"	1"	1-1/2"				
4" TO 8"	1"	1-1/2"				
8" AND ABOVE	1"	2"				

	DIFFUSER AND GRILLE SCHEDULE							
TAG	MANUFACTURER	DESCRIPTION	MODEL	OVERALL SIZE	NECK SIZE	NOTES	ACCESSORIES	
1	NAILOR	ALUMINUM DOUBLE DEFLECTION SUPPLY AIR GRILLE	51DH	8"x4" 6"x6", 10"x4"	6"Ø	1	А	
2	NAILOR	ALUMINUM FIXED 45° SINGLE DEFLECTION RETURN AIR GRILLE	5145H	8"x6" 10"x5", 12"x4"		1	А	
otes:								
Coordi	Coordinate connection to duct trunks on site. Confirm and coordinate all requirements.							
ccessori	essories:							
Onnos	ed blade damner							

	HEAT RECOVERY VENTILATOR SCHEDULE							
TAG MANUFACTURER MODEL E.S.P. SUPPLY AIRFLOW (CFM) RETURN AIRFLOW (CFM) MOTOR /POWER REQUIREMENTS NOTES ACCESSORII							ACCESSORIES	
HRV#1	HRV#1 LIFEBREATH ERV120D 0.3 130 130 610W 120V SP 1,2 A,B,C,D,E							A,B,C,D,E
Notes:	Notes:							
1. Fresh a	ir and exhaust air ductwork to	be insulated to unit.						

1. Fresh air and exhaust air ductwork to be insulated to unit.
2. Wall mounted as per manufacturers recommended installation instructions.
Accessories:
A: Back draft damper on exhaust port

## PLUMBING GENERAL NOTES:

- INSTALLATION SHALL BE IN ACCORDANCE TO THE ONTARIO BUILDING CODE, AWWA STANDARDS/GUIDELINES AND ALL AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL VERIFY ALL TIE IN POINTS TO EXISTING PLUMBING, SANITARY AND VENT LINES PRIOR TO
- CONTRACTOR TO PROVIDE ALL FITTINGS, ACCESSORIES, AND MATERIALS REQUIRED TO FACILITATE THE COMPLETION OF THE WORK INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
- REMOVE AND DISPOSE OF ALL UNUSED FIXTURES, EQUIPMENT, PIPING, VALVES, HANGERS/SUPPORTS ETC. UNLESS
- ALL PIPING SHALL BE ROUTED ABOVE CEILING SPACE UNLESS OTHERWISE NOTED. ALL PIPING EXPOSED TO VIEW SHALL
- BE ROUTED AS HIGH AS POSSIBLE, TIGHT TO THE UNDERSIDE OF THE STRUCTURE AND WRAPPED IN PVC JACKET.
- ALL PIPING SHALL BE CONCEALED IN WALL SPACE AND BEHIND FIXED FURNISHINGS (MILLWORK) UNLESS OTHERWISE
- SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS ETC. AS REQUIRED FOR PIPING. VERIFY LOCATION OF ANY AND ALL STRUCTURAL BEAMS, JOISTS, ETC. PRIOR TO COMMENCEMENT OF DRILLING. CONFIRM AND COORDINATE ALL
- CONTRACTOR TO PROVIDE TEST PLUGS IN ALL PLUMBING AND SANITARY/VENT PIPING DURING CONSTRUCTION TO PREVENT ANY DEBRIS FROM ENTERING SYSTEM UNTIL FINAL PRODUCT IS INSTALLED.
- WHEREVER FOUNDATIONS, EXTERIOR WALLS OR ROOFING SYSTEMS ARE PENETRATED FOR INSTALLATION OF SYSTEMS, THEY SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION AND SEALED WEATHER TIGHT.
- 10. ACCESS PANELS TO BE PROVIDED WHERE VALVES, CONTROL DEVICES, ETC. ARE CONCEALED WITHIN WALLS OR CEILING ASSEMBLIES. ALL DEVICES REQUIRING ACCESS FOR MAINTENANCE OR ADJUSTMENT SHALL BE MADE ACCESSIBLE.
- 11. ALL CONNECTIONS BETWEEN FERROUS AND NONFERROUS PIPING SHALL BE PROTECTED WITH AN ISOLATION, DIFFECTRIC UNION/COUPLING.
- 12. FIRE-STOP ALL PENETRATIONS THROUGH RATED ASSEMBLIES WITH APPROVED FIRE STOPPING SYSTEM/MATERIALS. 13. PROVIDE A METHOD OF ISOLATION IE. BALL VALVES, FOR ALL DOMESTIC HOT AND COLD WATER BRANCHES OFF THE
- 14. ALL PIPING, INSULATIONS, SANITARY AND VENT LINES RUN IN A PLENUM SPACE SHALL BE RATED FOR SUCH DUTY.

15. ALL FIXTURES AND DEVICES ASSOCIATED WITH DOMESTIC HOT AND COLD WATER TO MEET NSF/ANSI STANDARD 61

16. PRIME ALL FLOOR DRAINS TO NEAREST COLD WATER LINE COMPLETE WITH LEAD FREE TRAP PRIMER VALVE.

MAIN, ENSURE ADEQUATE ACCESS PROVIDED FOR ISOLATION DEVICES AS INDICATED ABOVE.

## **VENTILATION GENERAL NOTES:**

- ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO
- BUILDING CODE, AND ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. 2. ALL EQUIPMENT TO BEAR THE CSA AND ULC LABELS.
- REMOVE AND LEGALLY DISPOSE OF ALL UNUSED EQUIPMENT, DUCTWORK, PIPING, VALVES, DIFFUSERS/GRILLES. HANGERS/SUPPORTS, CONTROL WIRING ETC. UNLESS OTHERWISE NOTED. ALL OPENINGS CREATED BY THE REMOVAL PROCESS TO BE PROPERLY SEALED AND MATCH ALL EXISTING RATINGS.
- PRIOR TO PURCHASING ANY MATERIALS OR STARTING ANY WORK, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, VERIFY ALL LOCATIONS, ROUTING, PENETRATIONS AND SIZES FOR DUCT, PIPE, EQUIPMENT ETC. SHOWN ON THE DRAWINGS OR AFFECTING THIS WORK AND SHALL REPORT ANY DEVIATIONS TO THE CONSULTANT.
- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS AND SHALL FURNISH FOUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN.
- EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND ELECTRICAL DRAWINGS. DISCONNECT SWITCH TO BE SUPPLIED BY MECHANICAL DIVISION. INSTALLED AND WIRED BY ELECTRICAL DIVISION.
- ALL REQUIRED CONTROL WIRING NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. ALL CONTROL WIRING TO BE FT6 PLENUM RATED WHERE RUNNING IN RETURN AIR PLENUMS.
- FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- 10. DUCT CONSTRUCTION INCLUDING GAUGES, THICKNESS, BRACING, REQUIREMENTS, ETC., SHALL BE IN ACCORDANCE
- 11. UNLESS OTHERWISE NOTED PROVIDE AIR TURNING VANES IN ALL 90 DEGREE RECTANGULAR DUCT

- 14. LOCATE ERV CONTROLS, THERMOSTATS AT 47" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE
- 15. ALL EQUIPMENT, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED. AS SPECIFIED AND AS PER SMACNA GUIDELINES. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- 17. ACCESS PANELS IN DUCTWORK AND CEILING SHALL BE PROVIDED WHERE REQUIRED FOR OPERATIONS, BALANCING
- 18. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY, PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS,
- FITTINGS FTC TO ALLOW SMOOTH FLOWS
- 20. PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTWORK CONNECTION TO EACH FAN, HRV, AIR HANDLING UNITS, AND FAN COIL UNITS AND ANY OTHER EQUIPMENT CAPABLE OF TRANSFERRING VIBRATIONS CONNECTED WITH
- WRITTFN CONSENT OF THE OWNER'S REPRESENTATIVE AND PROPER COORDINATION WITH OTHER TRADES, PRE-WORK SHALL BE PERFORMED TO MAKE THE SHUTDOWN PERIOD AS BRIEF AS POSSIBLE 22. FIRE STOP ALL PENETRATIONS THROUGH RATED ASSEMBLIES WITH FIRE STOP SYSTEM MATCHING WALL/FLOOR

- 25. INSULATE ALL AIR INTAKE DUCTWORK AND ALL EXHAUST DUCTWORKS A MINIMUM OF 10' FROM EXHAUST LOUVRE. 26. PROVIDE BALANCING DAMPERS FOR ALL NEW DUCTWORK THAT HAS BRANCH CONNECTIONS, ENSURE ADEQUATE
- ACCESS AVAILABLE IF NOT THEN ACCESS TO BE PROVIDED AS PART OF THE SCOPE OF WORK. 27. PROVIDE VIBRATION ISOLATION FOR ALL SUSPENDED EQUIPMENT

- - DOMESTIC COLD WATER DOMESTIC HOT WATER

--v--v--

MECHANICAL LEGEND

BALL VALVE

PIPE DROP

PIPE RISE

- SANITARY ABOVE GRADE SANITARY BELOW GRADE
- VENT ABOVE GRADE
  - ITE CONDITIONS BEFORE PROCEEDING WITH THE WORI ALL DIMENSIONS SHOWN ON THESE DRAWINGS MUST B CHECKED AGAINST ALL OTHER PROJECT DRAWINGS. ALL
- THERMOSTATIC MIXING VALVE DISCREPANCIES MIJST BE REPORTED TO THE CONSULT/ BEFORE PROCEEDING WITH THE WORK. FOR CONSTRUCTION PURPOSES, USE ONLY THE LATEST APPROVED DRAWINGS.
- PLUMBING VENT RISER
- DRAIN CONNECTION BACKFLOW PREVENTOR
- WATER METER
- P-TRAP UNION
- FLOOR DRAIN FD⊜ SANITARY CLEANOUT (IN FLOOR)
- FIRE EXTINGUISHER **EXISTING TO REMAIN**
- DUCT WITH DIMENSIONS, FIRST DIMENSION 12"x12" IS SIDE SHOWN
- **DUCT SECTION DOWN**

В

- ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH A METHOD OF DISCONNECTION AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH
- UNLESS OTHERWISE NOTED, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE
- 9. CONNECTIONS TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS, TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
- WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARD AND ASHRAE GUIDELINES.
- 12. DUCT SIZES AND ALL OPENINGS THROUGH BUILDING CONSTRUCTION SHALL SUIT EQUIPMENT FURNISHED. PROVIDE LINTELS AS REQUIRED AND CARRY ALL COSTS.
- 13. COORDINATE ALL DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND
- LOCATIONS WITH OTHER EQUIPMENT, FURNITURE, AND DOOR SWINGS.
- 16. REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
- OR MAINTENANCE OF MECHANICAL EQUIPMENT. NOTE THAT WHERE REMOVABLE CEILING PANELS EXISTS, ACCESS DOORS/PANELS ARE NOT REQUIRED.
- 19. VERIFY ALL FINISHES AND COLOURS WITH ARCHITECT PRIOR TO PURCHASING ANY/ALL DIFFUSERS, GRILLES,
- 21. INTERRUPTIONS TO EXISTING SERVICES SHALL BE SCHEDULED FOR TIMES OTHER THAN NORMAL OPERATING HOURS (SUCH AS NIGHTS AND WEEKENDS). SUCH INTERRUPTIONS TO SERVICES SHALL NOT BE MADE WITHOUT THE PRIOR
- ASSEMBLY'S FIRE RATING. CONFIRM WITH ARCHITECTURAL DRAWINGS FOR EXACT RATINGS AND LOCATIONS. 23. LOCATE ALL OUTSIDE AIR INTAKES A MINIMUM OF 10'-0" FROM ANY/ALL PLUMBING VENTS AND EXHAUSTS AIR
- 24. SLEEVE AND SEAL ALL PIPING PENETRATIONS THROUGH BUILDING PARTITIONS.

PROJECT NORTH

TRUE NORTH

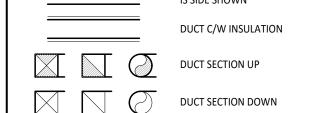
THESE DRAWINGS MUST BE CHECKED BY THE CUSTOMER OR CONTRACTOR. ANY ERRORS OR OMISSIONS MUST B REPORTED IN WRITING TO SUPPA ENGINEERING PRIOR COMMENCEMENT OF CONSTRUCTION. OWNER OR CONTRACTOR MUST CHECK AND VERIFY AI

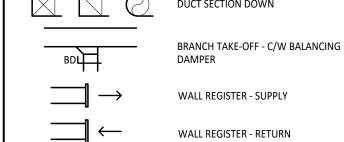
. DO NOT SCALE THE DRAWINGS.

REVISION SCHEDULE

ISSUED FOR PERMIT JUN. 28, 2023 AND TENDER

SANITARY CLEANOUT (IN WALL/CEILING)







PUSH BUTTON AS NOTED

A = TYPE (EX = EXISTING), B = AIR FLOW AIR TEMPERATURE SENSOR AND TENDER ERV CONTROLLER

Jun 28, 2023

Project Status:

SUPPA ENGINEERING

592 Cassells Street North Bay, ON P1B 3Z7 Tel: 705-707-2121 www.suppaengineering.ca

SOUTH RIVER

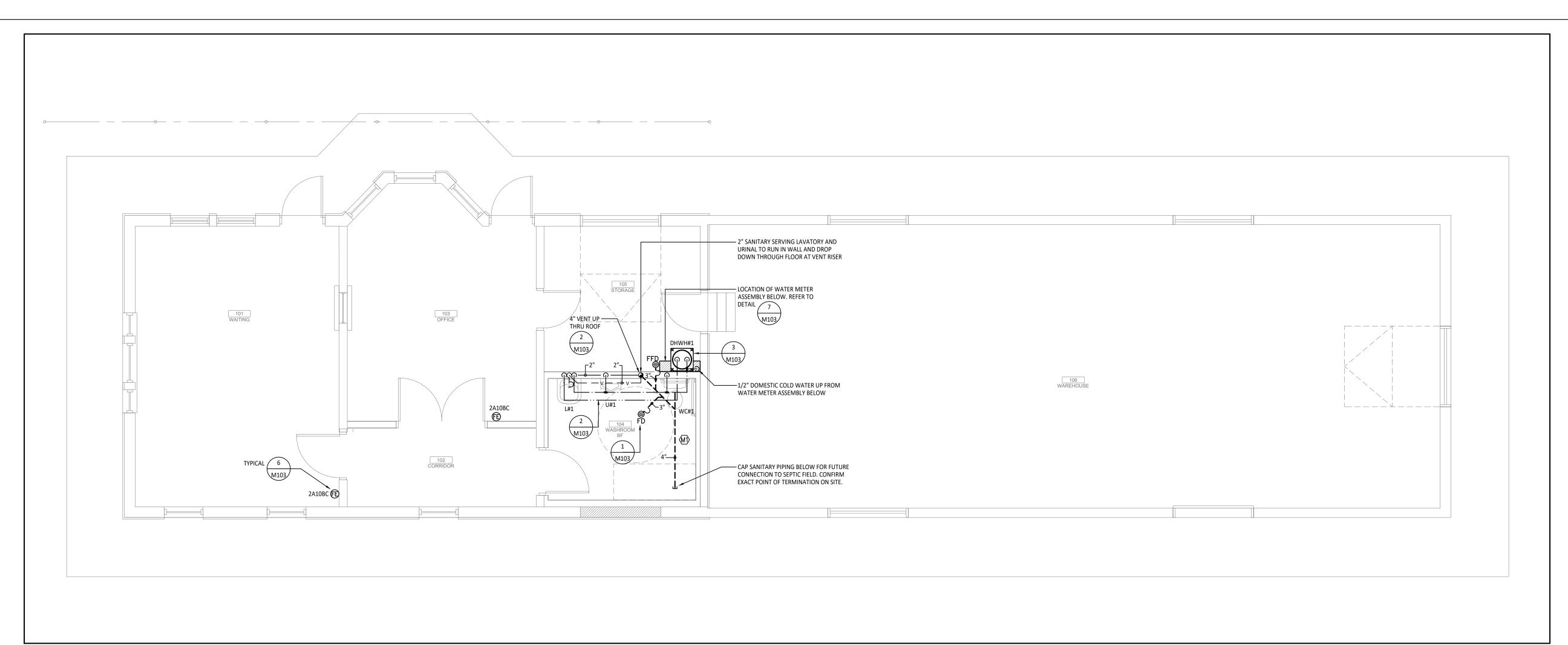
Suppa Engineering

South River, Ontario

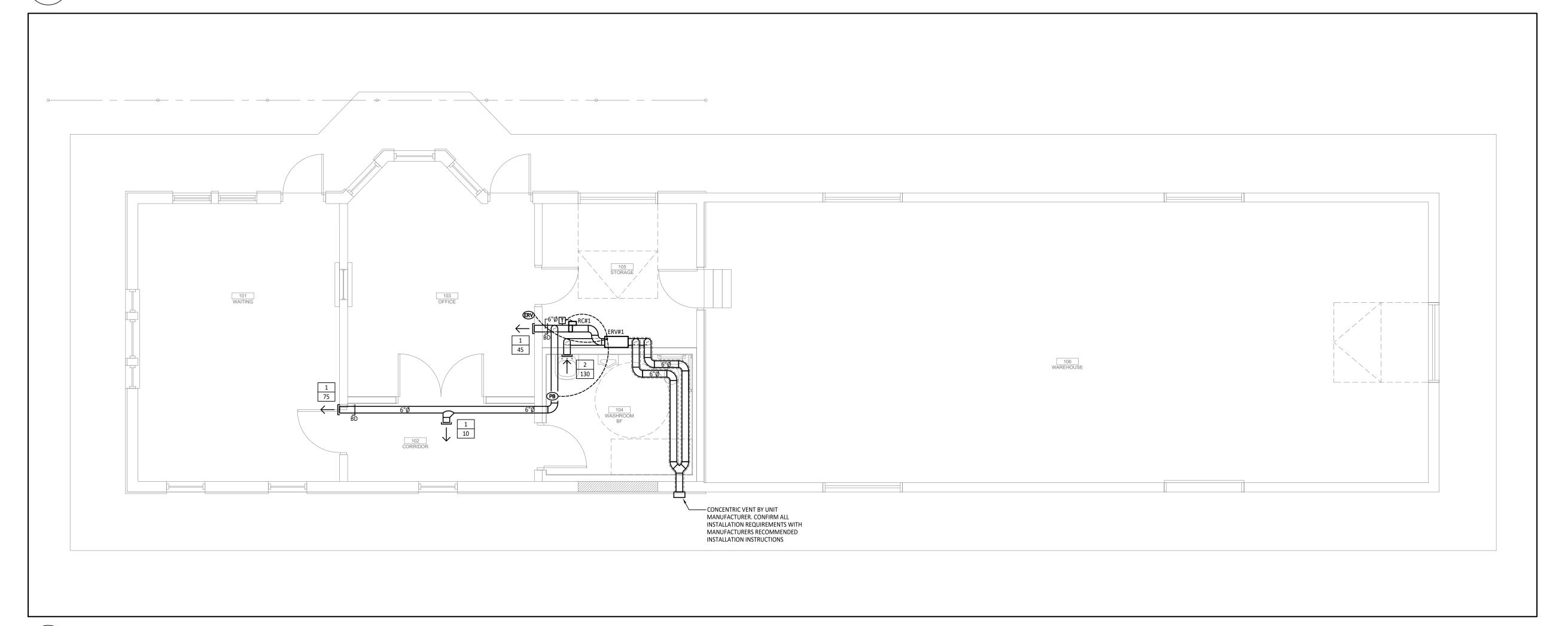
Drawing Title: MECHANICAL PLUMBING & VENTILATION LEGEND, NOTES, SCHEDULES

AND SPECIFICATION

Drawn By: MBM Date: Jun. 29, 23 Checked By: BW | Scale: AS NOTED



## PLUMBING FLOOR PLAN SCALE: 1:50



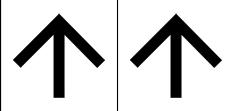
## MECHANICAL DRAWING NOTES:

ALL SANITARY AND VENT PIPING IN OPENING BELOW THE FLOOR ASSEMBLY TO BE INSULATED AS FOLLOWS:

1. PROVIDE MINIMUM 2" FOIL BACK INSULATION WITH WEATHERPROOF

JACKETING TO ALL PIPING. ALL PIPING TO BE HEAT TRACED PRIOR TO INSULATING TO ALE PIPING. ALE PIPING TO BE HEAT MACED PRIOR TO INSULATING. COORDINATE WORK WITH ELECTRICAL CONTRACTOR.

2. SEAL ALL INSULATION AT PIPE PENETRATIONS TO UNDERSIDE OF FLOOR WEATHER TIGHT. PROVIDE ESCUTCHEON PLATE AS REQUIRED.



TRUE NORTH PROJECT NORTH

GENERAL NOTES:

1. THESE DRAWINGS MUST BE CHECKED BY THE CUSTOMER OR CONTRACTOR. ANY ERRORS OR OMISSIONS MUST BE REPORTED IN WRITING TO SUPPA ENGINEERING PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. OWNER OR CONTRACTOR MUST CHECK AND VERIFY ALL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK.

3. ALL DIMENSIONS SHOWN ON THESE DRAWINGS MUST BE CHECKED AGAINST ALL OTHER PROJECT DRAWINGS. ALL DISCREPANCIES MUST BE REPORTED TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.

4. FOR CONSTRUCTION PURPOSES, USE ONLY THE LATEST APPROVED DRAWINGS.

5. DO NOT SCALE THE DRAWINGS.

REVISION SCHEDULE

No. DESCRIPTION DATE

O ISSUED FOR PERMIT JUN. 28, 2023

AND TENDER

Project Status:

**ISSUED FOR PERMIT** AND TENDER



SUPPA

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SOUTH RIVER TRAIN STATION

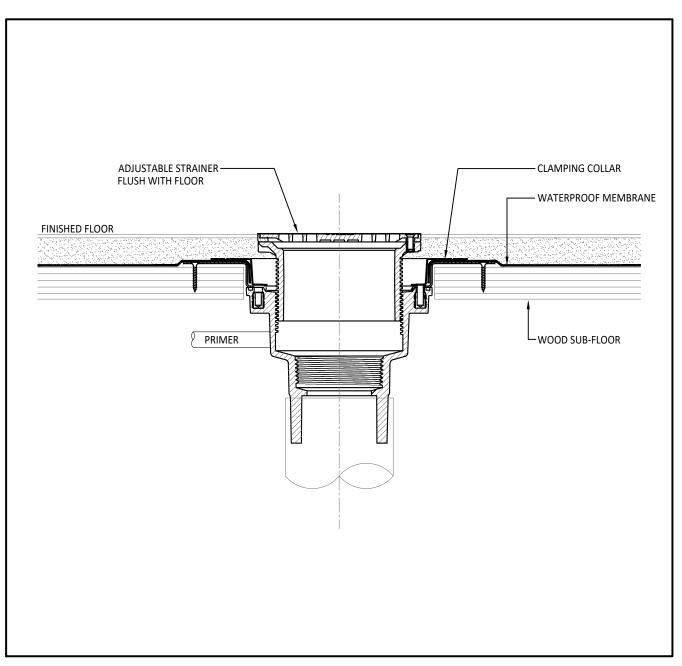
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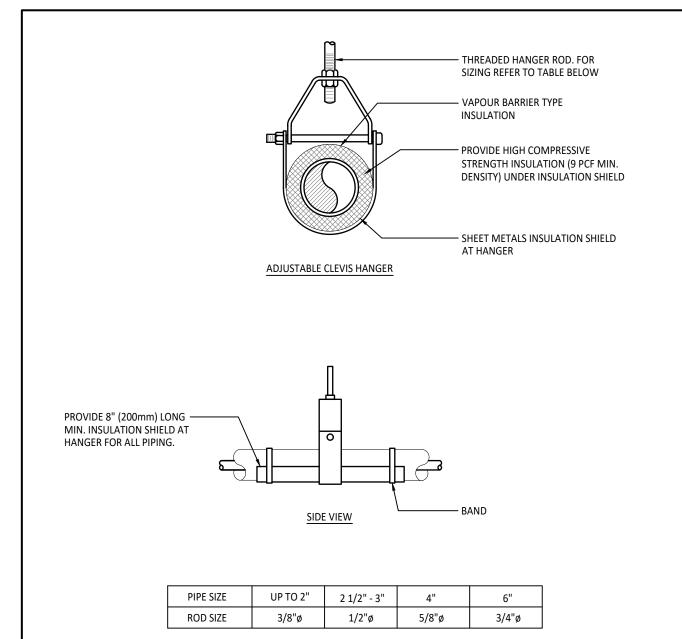
MECHANICAL PLUMBING & VENTILATION FLOOR PLANS

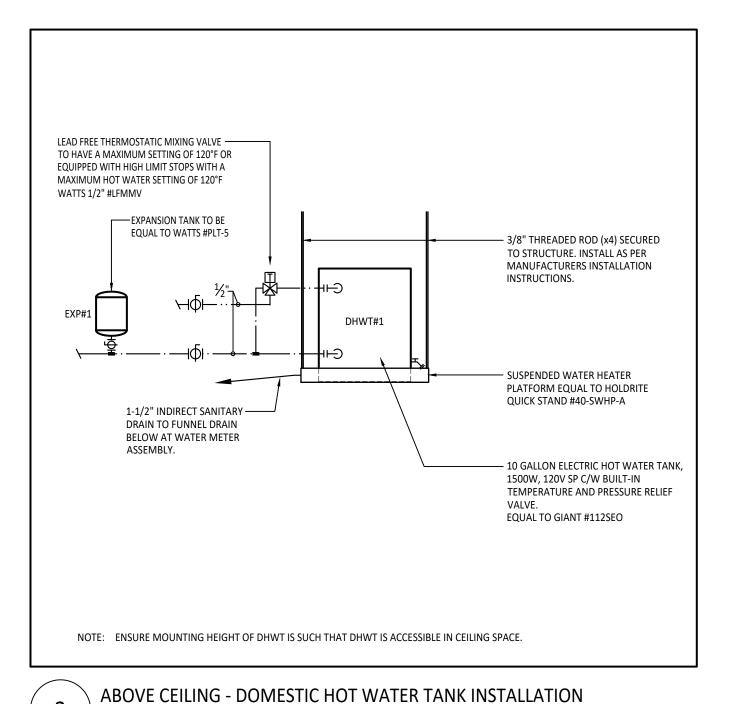
22-052

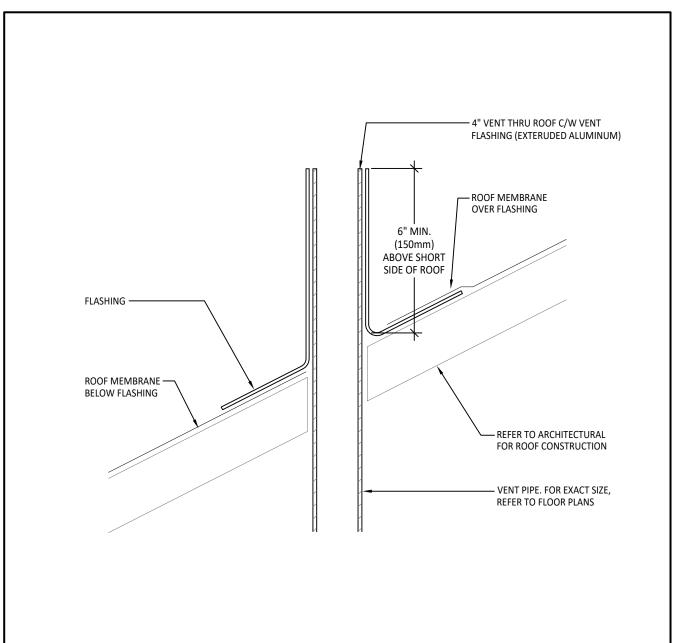
Drawn By: MBM Date: Jun. 29, 23 Checked By: BW Scale: AS NOTED

M102

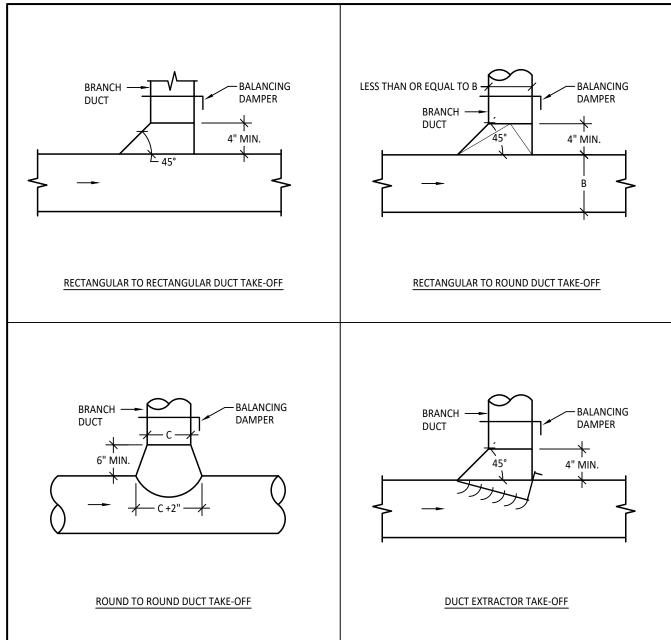








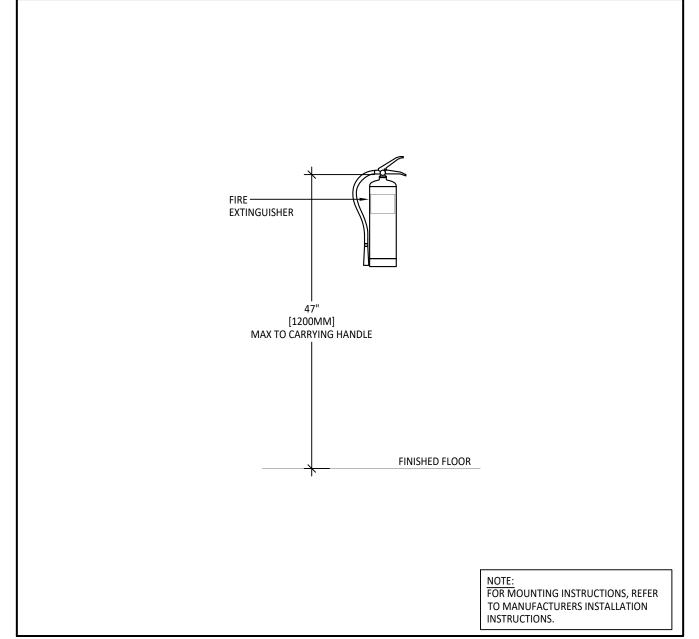
VENT THRU SLOPED ROOF INSTALLATION DETAIL



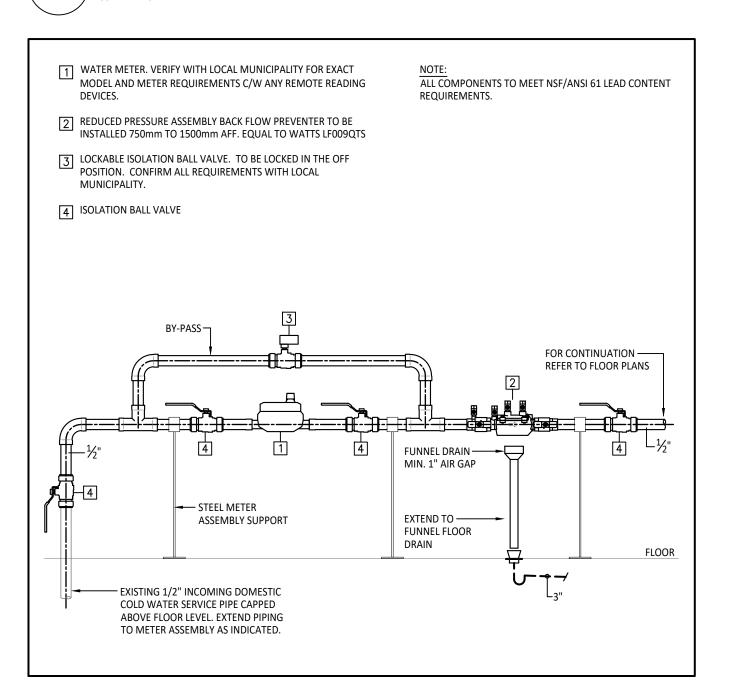
DUCT TAKE-OFF INSTALLATION DETAIL

SCALE: N.T.S.





WALL MOUNTED FIRE EXTINGUISHER DETAIL SCALE: N.T.S. SCALE: N.T.S.





PROJECT NORTH

TRUE NORTH

. THESE DRAWINGS MUST BE CHECKED BY THE CUSTOMER

OR CONTRACTOR. ANY ERRORS OR OMISSIONS MUST BE

REPORTED IN WRITING TO SUPPA ENGINEERING PRIOR TO

OWNER OR CONTRACTOR MUST CHECK AND VERIFY ALL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK.

ALL DIMENSIONS SHOWN ON THESE DRAWINGS MUST BE CHECKED AGAINST ALL OTHER PROJECT DRAWINGS. ALL

DISCREPANCIES MUST BE REPORTED TO THE CONSULTAN BEFORE PROCEEDING WITH THE WORK.

FOR CONSTRUCTION PURPOSES, USE ONLY THE LATEST APPROVED DRAWINGS.

REVISION SCHEDULE

No. DESCRIPTION DATE

O ISSUED FOR PERMIT JUN. 28, 2023

AND TENDER

COMMENCEMENT OF CONSTRUCTION.

5. DO NOT SCALE THE DRAWINGS.

Suppa Engineering 592 Cassells Street North Bay, ON P1B 3Z7 Tel: 705-707-2121 www.suppaengineering.ca

SOUTH RIVER TRAIN STATION

Address: South River, Ontario

Project Status:

**ISSUED FOR PERMIT** 

AND TENDER

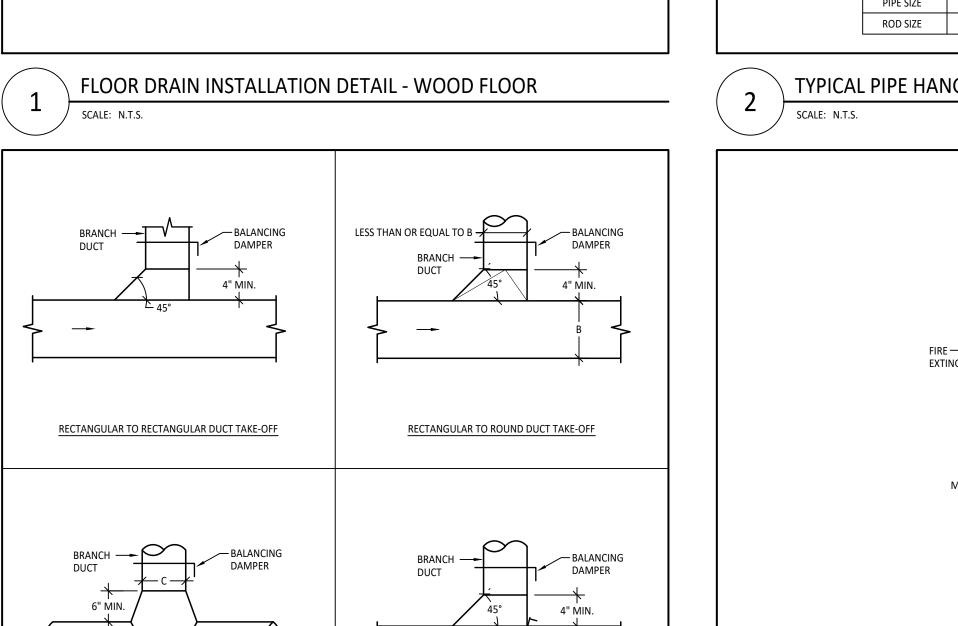
23-300 Jun 28, 2023 B. R. WENDOVER 100149707

Drawing Title: MECHANICAL PLUMBING & VENTILATION **DETAILS** 

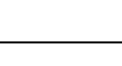
Project No: 22-052

Drawn By: MBM Date: Jun. 29, 23 Checked By: BW Scale: AS NOTED

M103







WATER METER ASSEMBLY DETAIL

## **ELECTRICAL SPECIFICATIONS**

## GENERAL CONDITIONS

## THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL LABOUR,

- A. ELECTRICAL MATERIAL, TOOLS, EQUIPMENT ETC., REQUIRED TO COMPLETE ALL WORK SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. THE WORK SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF ALL AUTHORITIES HAVING LEGAL JURISDICTION OVER THE WORK. THIS CONTRACTOR SHALL PROVIDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY CALLED FOR BUT REQUIRED TO
- COMPLETE THE INTENDED INSTALLATION. THE ENGINEER RESERVES THE RIGHT TO APPROVE THE QUALITY OF MATERIAL AND WORKMANSHIP, ALSO TO CALL FOR ANY TEST WHICH HE/SHE DEEMS NECESSARY DURING THE PROGRESS OF THE WORK AND A COMPLETE TEST OF EACH SYSTEM AT THE
- COMPLETION OF THE WORK. THE COST OF SUCH TESTS ARE NOT TO BE CONSIDERED AS EXTRAS. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE

LATEST EDITION OF THE ONTARIO BUILDING CODE AND THE

## SCOPE OF WORK

## THE WORK SHALL CONSIST OF, BUT NOT BE LIMITED TO THE

ONTARIO ELECTRICAL SAFETY CODE.

- FOLLOWING: A. SUPPLY AND INSTALLATION OF LIGHTING FIXTURES, SWITCHES, EXIT
- AND EMERGENCY BATTERY LIGHT UNITS, AND RECEPTACLES. ALL NECESSARY CONDUIT WIRING AND CONNECTIONS FOR A
- COMPLETE INSTALLATION. CODES, PERMIT AND INSPECTION THIS CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL OBTAIN

AUTHORITIES HAVING JURISDICTION OVER THIS WORK AND SHALL

PAY FOR THE AFOREMENTIONED. THESE COSTS SHALL BE INCLUDED

IN THE TENDER PRICE. ALL PERMITS SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE AS SOON AS THEY BECOME AVAILABLE.

ALL PERMITS, INSPECTIONS, ETC. AS REQUIRED BY ALL

- A. CONTRACTOR SHALL KEEP A SEPARATE SET OF REDLINE DRAWINGS ON SITE AND NOTE ALL CHANGE AND DEVIATIONS FROM THE ORIGINAL DESIGN.
- TWO SETS OF THESE PLANS SHOWING ALL AS BUILT CONDITIONS SHALL BE FORWARDED TO THE OWNER AT THE COMPLETION OF THE CONTRACT AND BEFORE APPLYING FOR FINAL PAYMENT.

## SHOP DRAWINGS

A. SUBMIT ELECTRONIC COPIES OF MANUFACTURER'S SHOP DRAWINGS FOR REVIEW BY THE ENGINEER OF RECORD. THESE SHOP DRAWINGS SHALL CONSIST OF DISTRIBUTION EQUIPMENT, LIGHTING FIXTURES, EMERGENCY BATTERY UNITS AND OTHER SPECIAL EQUIPMENT.

## **EXAMINATION OF SITE**

- A. THIS CONTRACTOR SHALL VISIT THE SITE OF THE PROJECT AND
- FAMILIARIZE HIM/HERSELF. B. ANY DEVIATION AND/OR CONFLICTS ON SITE ESPECIALLY CONCERNING THE DISTRIBUTION DIAGRAM(S) AS SHOWN ON THE PLANS, SHALL BE REPORTED TO THE ENGINEER PRIOR TO
- SUBMITTING TENDER. ALL DIMENSIONS MUST BE CHECKED AND VERIFIED ON SITE.

## CONSTRUCTION SCHEDULE

REVISIONS AND EXTRAS

- A. THIS CONTRACTOR SHALL SCHEDULE AND PERFORM HIS WORK TO MEET THE COMPLETION SCHEDULE AS SET OUT BY THE OWNERS'. ANY OVERTIME WORK SHALL BE INCLUDED IN HIS TENDER. CONTRACTOR SHALL ADVISE OF ANY SHUTDOWNS OR
- DISRUPTIONS OF SERVICE WITH A MINIMUM OF 10 WORKING DAYS

A. NO ADDITIONAL MONEY OVER THE CONTRACT PRICE SHALL BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED BY THE ENGINEER. CLAIMS FOR EXTRAS SHALL BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES,

A. THIS CONTRACTOR SHALL BE RESPONSIBLE TO PERIODICALLY REMOVE ALL DEBRIS AND TO KEEP THIS AREA CLEAN AT ALL TIMES.

## **EQUIPMENT AND MATERIAL**

A. ALL EQUIPMENT AND MATERIAL UNLESS SPECIFICALLY NOTED OTHERWISE. SHALL BE NEW AND WITHOUT BLEMISH OR DEFECT. ALL MATERIAL AND EQUIPMENT SHALL BE OF THE TYPE SUBJECT TO FACTORY MUTUAL, UNDERWRITER'S LABORATORIES OF CANADA OR CANADIAN STANDARDS ASSOCIATION INSPECTION AND APPROVAL AND SHALL BEAR U.L.C. OR C.S.A. LABELS.

- A. PERFORM TEST ON EACH SYSTEM TO THE SATISFACTION OF THE ENGINEER AND SUBMIT TEST RESULTS FOR APPROVAL PRIOR TO THE FINAL ACCEPTANCE OF THE WORK
- PANELS SHALL BE BALANCED TO WITHIN 5% OF LOAD PER PHASE. GROUNDING SHALL BE AS REQUIRED BY ELECTRICAL CODE. TEST ALL SYSTEM GROUNDING CONDUCTORS FOR PHASE TO GROUND LOADS, METERS SHALL READ LESS THAN ONE AMPERE. SUBMIT TESTS PRIOR TO COMPLETION.

## DEMONSTRATION OF THE SYSTEM

A. DEMONSTRATE THE FUNCTION AND OPERATION OF EACH SYSTEM TO THE MAINTENANCE STAFF OR THE OWNER'S REPRESENTATIVE.

## IDENTIFICATION

- A. PROVIDE LAMACOID IDENTIFICATION NAMEPLATES ON ALL ELECTRICAL EQUIPMENT. THESE SHALL BE WHITE WITH BLACK ENGRAVED LETTERS AND SHALL BE INSTALLED WITH SCREWS,
- LAMACOID TO IDENTIFY EQUIPMENT NAME AND LOAD SERVED. EACH ELECTRICAL PANEL SHALL HAVE A TYPEWRITTEN DIRECTORY SHOWING LIGHTS OR EQUIPMENT CONNECTED TO EACH CIRCUIT. DIRECTORIES SHALL BE MOUNTED ON THE INSIDE OF THE PANEL DOOR WITH A TRANSPARENT PLASTIC COVER.
- COORDINATION
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE INSTALLATION OF EQUIPMENT, CONDUIT WORKS, LIGHTING

## FIXTURES, ETC. WITH OTHER TRADES PRIOR TO THE ACTUAL INSTALLATION.

## ACCESSIBILITY

- A. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIRS. A MINIMUM WORKING SPACE OF 1 METER WITH SECURE FOOTING
- SHALL BE PROVIDED AND MAINTAINED ABOUT ELECTRICAL EQUIPMENT. THE MINIMUM HEAD ROOM OF WORKING SPACES SHALL BE 2.2 METERS.

## A. THIS TRADE SHALL BE RESPONSIBLE FOR HIS/HER WORK UNTIL THE

COMPLETION AND FINAL ACCEPTANCE, FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

A. THIS CONTRACTOR SHALL WARRANT ANY WORK AND APPARATUS INSTALLED UNDER THIS CONTRACT AGAINST ALL DEFECTS OR WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY THE OWNER.

## OPERATIONAL AND MAINTENANCE MANUALS

A. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TO OWNER 3 COPIES OF OPERATING MANUALS AND MAINTENANCE INSTRUCTIONS FOR ALL ELECTRICAL EQUIPMENT INCLUDING GUARANTEES.

## FIRE PROOFING

A. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES ARE TO BE FIRE STOPPED WITH AN APPROVED FIRE RATING SYSTEM TO SUIT THE FIRE RATED ASSEMBLY, INSTALL AS PER MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS, PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO COMPLETING WORK.

## CUTTING, PATCHING, AND PAINT

A. ALL CUTTING, PATCHING AND PAINTING FOR ELECTRICAL WORK SHALL BE DONE BY THE GENERAL CONTRACTOR. OBTAIN APPROVAL PRIOR TO CUTTING STRUCTURAL MEMBERS, AND UPON REMOVAL OF CONDUITS, WIRING EQUIPMENT, LIGHTING, OR WIRING DEVICES. PATCH ALL HOLES AND MATCH EXISTING FINISHES.

B. ALL CEILING TILES DAMAGED DURING CONSTRUCTION TO BE

## REPLACED WITH MATCHING TILES.

CONDUIT AND WIRING

- A. CONDUIT SIZES SHALL BE AS INDICATED ON THE PLANS AND SHALL NOT BE REDUCED IN SIZE WITHOUT AUTHORIZATION, CONDUIT IN FINISHED AREAS SHALL BE CONCEALED, ALL CONDUIT SHALL BE INSTALLED PARALLEL TO BUILDING LINES.
- B. UNLESS OTHERWISE NOTED, CONDUIT FOR PANELS AND BRANCH CIRCUIT WIRING SHALL BE THIN WALL EMT.
- CONDUITS SHALL BE INSTALLED AT MINIMUM OF 6" (150mm) FROM UN-INSULATED HEATING PIPES. ALL WIRING TO BE COPPER RW90 UNLESS NOTED OTHERWISE. BRANCH WIRING SHALL BE NO.12 AWG UP TO 70 FT. (21.4M) AND NO.10 AWG FROM 71 FT. (21.4M) TO 120FT. (36.6M). FOR
- CALCULATED AT 3%. INSTALL ALL WIRING CONCEALED IN CONDUIT, USE BX CABLE IN PARTITION WALLS AND IN CEILING SPACE. BX MAY BE USED IN EXPOSED AREAS FOR MAX 3FT LENGTH AND ONLY TO DEAD END FEED SUSPENDED LIGHTING FIXTURES CABLE TIED OFF TO HANGER

DISTANCES LONGER THAN 120 FT, THE VOLTAGE DROP SHALL BE

- NO CONDUITS SHALL BE RUN IN FLOOR SLAB UNLESS NOTED OTHERWISE. UNDER SLAB RACEWAYS SHALL BE RUN ABOVE
- PLUMBING BUT MIN. 150mm BELOW UNDERSIDE OF CONCRETE SLAB C/W SAFETY RIBBON FULL LENGTH. CONDUIT INSTALLED OUTDOORS OR IN DAMP LOCATIONS SHALL BE RIGID PVC AND SHALL BE PROVIDED WITH SEALING FITTING WHERE
- PROVIDE GROUND WIRE, SIZED IN ACCORDANCE WITH OESC TABLE 16. METALLIC RACEWAY AS A MEANS OF GROUNDING/BONDING WILL NOT BE ACCEPTED

CONDUIT PASSES THROUGH OUTSIDE WALL AND/OR ROOF.

- A. INSTALL CONDUITS OR SLEEVES PRIOR TO POURING CONCRETE. PROVIDE PIPE SLEEVES WHERE CONDUITS PASS THROUGH
- MASONRY OR CONCRETE. PROVIDE STEEL PIPE SLEEVES FOR PENETRATIONS THROUGH FOUNDATION WALLS AND FIRE RATED ASSEMBLIES.
- ALL OTHER SLEEVES TO BE A MINIMUM OF 20 GA. GALVANIZED PROVIDE FIRE CAULKING, AS PER MANUFACTURERS
- RECOMMENDATIONS FOR ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION. CAULK ALL OTHER SLEEVES WITH WATER-PROOF, FIRE RETARDANT,
- NON-HARDENING MASTIC. G. TEMPORARILY PLUG ALL OPENINGS DURING CONSTRUCTION.

- A. SAFETY SWITCHES: SHALL BE HEAVY DUTY, FUSIBLE, QUICK MAKE, QUICK BREAK, VOIDABLE COVER INTERLOCK, LOCKABLE IN "OFF"
- POSITION WITH NEUTRAL BAR WHERE REQUIRED. B. FUSE HOLDERS SHALL BE AS REQUIRED TO SUIT RATING AND TYPE FUSES SPECIFIED.
- SHALL WITHSTAND RATINGS SIX TIMES CONTINUOUS CURRENT BREAK AT RATED VOLTAGE.
- ENCLOSURE SHALL BE NEMA 1 EXCEPT WHERE WEATHER- PROOF SWITCHES ARE REQUIRED. THESE SHALL BE NEMA 3R. ALL SWITCHES SHALL BE OF THE SAME MANUFACTURER AND SHALL

## BE EATON, SQUARE "D", OR SIEMENS.

- MECHANICAL EQUIPMENT A. FOR MECHANICAL EQUIPMENT PROVIDED BY THE MECHANICAL TRADE, THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING UNLESS OTHERWISE SHOWN ON PLAN:
- 1. THE NECESSARY POWER DISTRIBUTION EQUIPMENT AT THE
- 2. THE NECESSARY CONDUIT AND WIRE TO THE MECHANICAL EQUIPMENT LOCATION.
- A TERMINATING DISCONNECT SWITCH. 4. ANY MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THE
- WORK AS SHOWN ON THE DRAWINGS. 5. TO COORDINATE EXACT LOCATIONS WITH THE MECHANICAL
- TRADE AND RELATED DRAWINGS. 6. ALL CONDUIT, WIRING, AND LABOUR FROM THE TERMINATING DISCONNECT SWITCH TO THE MECHANICAL EQUIPMENT INCLUDING STARTERS AND LOW VOLTAGE CONTROLS SHALL BE
- 7. UNLESS OTHERWISE INDICATED, ALL SPECIFIED ELECTRICAL HEATING EQUIPMENT TOGETHER WITH THE CONTROL THERMOSTATS, CONDUIT, WIRE, ETC. SHALL BE PROVIDED BY THE ELECTRICAL TRADE.

PROVIDED BY THE MECHANICAL TRADE.

8. THE ELECTRICAL TRADE SHALL VERIFY ALL MOTOR CONNECTIONS FOR PROPER PHASE ROTATION, WHERE APPLICABLE.

## WIRING DEVICES

- A. DUPLEX RECEPTACLES SHALL BE WHITE, GROUNDING TYPE RATED FOR 15A,120V PASS AND SEYMOUR MODEL /CR15- W1 UNLESS OTHERWISE SPECIFIED ON PLANS, THESE SHALL HAVE BREAK-OFF LINE TO ALLOW FOR SPLIT WIRING OR 2 CIRCUITS, EQUIVALENT MANUFACTURER OF RECEPTACLES ARE AS FOLLOWS: ARROW HART
- SPECIFICATION GRADE HUBBELL SPECIFICATION GRADE. SINGLE RECEPTACLES SHALL BE OF THE SPECIFICATION GRADE TYPE. LIGHT SWITCHES S.P. 3-WAY, AND 4-WAY SHALL BE SPECIFICATION GRADE EQUAL TO PASS AND SEYMOUR MODEL 663SWG. **EQUIVALENT MANUFACTURER OF SWITCHES ARE AS FOLLOWS:**
- ARROW HART SPECIFICATION GRADE. HUBBELL SPECIFICATION COVER PLATES IN FINISHED AREAS SHALL BE PASS AND SEYMOUR MODEL #. SL1 AND SL8 STAINLESS STEEL. NUMBER OF GANG AS
- THE OWNER OR ENGINEER HAS THE RIGHT TO RELOCATE OUTLETS UP TO 10 FT.(3.3M) IN ANY DIRECTION PRIOR TO INSTALLATION
- DO NOT INSTALL WIRING DEVICES BACK-TO-BACK IN WALL. PROVIDE A MINIMUM OF 150mm HORIZONTAL CLEARANCE BETWEEN BACK OF BOXES.
- H. LOCATE LIGHT SWITCHES ON LATCH SIDE OF DOOR. PROVIDE T-BAR GRID SUPPORT BRACKETS FOR ALL DEVICES

INSTALLED IN T-BAR CEILINGS

- A. FUSE SIZES AND TYPES SHALL BE AS INDICATED ON THE PLANS AND DESCRIBED IN THIS SECTION. EQUIPMENT HOLDING THE FUSES SHALL BE AS SPECIFIED, OTHERWISE ANY CHANGES NEEDED TO CONVERT THE EQUIPMENT TO HOLD THE SPECIFIED FUSES SHALL BE AT THE CONTRACTORS EXPENSE. EQUIPMENT SHALL BE
- PROVIDED TO HOLD THE SPECIFIED FUSES. B. FUSES SHALL BE C.S.A. APPROVED HCR. TYPE. VOLTAGE AS REQUIRED, FORM 1 CLASS "J" NON-RENEWABLE, DUAL ELEMENT AEROFLEX, 2 SPARES OF EACH TYPE TO BE SUPPLIED.

## LIGHTING FIXTURES AND LAMPS

- PROVIDE FIXTURES AND LAMPS AS INDICATED ON THE FIXTURE SCHEDULE AND/OR AS SPECIFIED UNDER THIS SECTION. THESE MUST AND SHALL BE COMPLETE WITH ALL NECESSARY HANGERS, LAMPS, SUPPORTS, ETC.
- CONTRACTOR SHALL INCLUDE IN HIS/HER TENDER THE FIXTURE(S) THAT ARE BEING SPECIFIED. IF AN ALTERNATE MANUFACTURER IS NAMED, IT IS MANDATORY THAT THE FIXTURE BE EQUIVALENT IN ALL RESPECTS, I.E. SAME LENS, EQUIVALENT FRAME. PERFORMANCE, FINISH, CONSTRUCTION QUALITY, ETC. ALTERNATE MANUFACTURES OF ALTERNATE FIXTURE TYPES MUST BE OFFERED AS AN ALTERNATE ONLY TO THE BASE BID, WITH SEPARATE PRICE STATED IN TENDER. LOW BIDDER WILL BE DETERMINED ON THE BASIS OF THE SPECIFIED ITEM NOT ON "ALTERNATED SAVINGS".

COORDINATE THE MOUNTING AND LOCATION OF LUMINAIRES

WITH OTHER TRADES TO AVOID CONFLICTS.

- EQUIPMENT AND CONNECTIONS. B. LOCATE ACCESS DOORS TO ALLOW FOR PROPER OPERATION,
- A. PROVIDE ACCESS DOOR FOR ALL CONCEALED ELECTRICAL
- INSPECTION, ADJUSTMENT, AND SERVICING.
- ACCESS DOORS TO BE FLUSH MOUNTED. PROVIDE MINIMUM 600mmX600mm WHERE BODY ENTRY IS REQUIRED. PROVIDE MINIMUM 300mmX300mm WHERE HAND ENTRY IS REQUIRED.
- D. COORDINATE FINISH WITH ENGINEER. PRIMED AND PAINTABLE STEEL ACCESS DOORS TO BE PROVIDED IN ALL AREAS. E. ALL ACCESS DOORS SHALL BE OF SAME MANUFACTURER AND SHALL BE NAILOR OR APPROVED EQUIVALENT.

## EMERGENCY LIGHTING AND EXIT SIGNS

A. MINIMUM WIRE SIZE FROM BATTERY UNIT TO DC REMOTE HEAD (S) SHALL BE NO.10 AWG.

## MOUNTING HEIGHTS

- A. MOUNTING HEIGHT OF EQUIPMENT IS FROM FINISHED FLOOR TO CENTRELINE OF EQUIPMENT UNLESS SPECIFIED OR INDICATED
- OTHERWISE. INSTALL ELECTRICAL AT THE FOLLOWING HEIGHTS UNLESS INDICATED OTHERWISE. 1. LOCAL SWITCHES: 1050mm
- 2. WALL RECEPTACLES: GENERAL: 450mm - ABOVE TOP OF CONTINUOUS BASEBOARD HEATER: 200mm - ABOVE TOP OF COUNTERS OR COUNTER SPLASH BACKS: 150mm 3. EXIT LIGHTS: 2400mm 4. EMERGENCY LIGHT HEADS: 2400mm

## VOLTAGE: 120/240V K.A.I.C. RATINGS: TYPE: GFI - GROUND FAULT PROTECTED

B: C/W control relay and low voltage remote thermostat

MOUNTING: SURFACE

AFI - ARC FAULT PROTECTED

WIRE SIZE

2#12-16mmC

2#12-16mmC

2#12-16mmC

2#12-16mmC

2#12-16mmC

2#12-16mmC

EMERGENCY LIGHTING AND EXIT SIGN SCHEDULE								
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	CONNECTED LOAD			
8	12V LED SINGLE HEAD DECORATIVE REMOTE EMERGENCY LIGHT. COLOUR - WHITE	STANPRO	M-1-12-5W-LA-WH	5W	N/A			
<b>₩</b>	12V LED DOUBLE HEAD DECORATIVE REMOTE EMERGENCY LIGHT. COLOUR - WHITE	STANPRO	M-2-12-5W-LA-WH	10W	N/A			
EBP#1	12V STEEL COMBINATION EXIT SIGN / EMERGENCY BATTERY PACK C/W 2 LED HEADS. TO BE NBC2010 COMPLIANT. COLOUR - WHITE	STANPRO	PRMS-1272-1-2M-5LA-AT	72W @ 30min.	32 WATTS			
×	SINGLE FACE EXTRUDED ALUMINUM LED RUNNING MAN EXIT SIGN. REFER TO FLOOR PLANS FOR DIRECTIONAL ARROWS. TO BE NBC2010 COMPLIANT. COLOUR - WHITE	STANPRO	RMXL-1-WH-UDC	1W	N/A			

			ELECTRIC HEAT	TING SCHEDULE			
TAG	MANUFACTURER	MODEL	OUTPUT WATTS	VOLTAGE	LENGTH	NOTES	ACCESSORIES
BB#1	OUELLET	ODLU01500	1500	240V	68"	1,2	В
BB#2	OUELLET	ODLU01500	1500	240V	68"	1,2	В
BB#3	OUELLET	ODLU01000	1000	240V	49-13/16"	1,2	В
BB#4	OUELLET	ODLU01000	1000	240V	49-13/16"	1,2	В
BB#5	OUELLET	ODLU01000	1000	240V	49-13/16"	1,2	В
FFH#1	OUELLET	OAC02000-T	2000	240V	16-1/8"W x 22-1/16"H	1,2	Α
FFH#2	OUELLET	OAC01500-T	1500	240V	16-1/8"W x 22-1/16"H	1,2	Α
Notes:							
1. Colour - Wh	ite						
2. Confirm and	coordinate installation with manu	facturer's installation instructions					
Accessories:							
A: C/W built in	thermostat						

	LIGHT FIXTURE SCHEDULE								
FIXTURE TYPE	DESCRIPTION	NOTES							
J1	4" LED DOWNLIGHT								
G1	LED 4' - STRIP LIGHT	4000	LITHONIA	CSS-L48-ALO3-MVOLT-SWW3-80CRI					
K1	LED VANITY LIGHT								
N1	16" DARK BROWN COPPER PENDANT C/W TEA STAIN GLASS AND 3x A19 LED LAMPS		GALAXY	806203DBC					

# WIRE SIZE 2#12-16mmC 2#12-16mm0

NOTE: CIRCUITING SHEET TO BE UPDATED AT JOB COMPLETION. EXISTING UNUSED BREAKERS TO BE LABELED AS SPARE.

20A

15A

20A

15A

TOTAL LOAD

PANEL NAME: EXISTING PANEL 'A'

CIRCUIT DESCRIPTION

DOMESTIC HOT WATER HEATER #:

HRV #1

HEAT TRACING

RECEPTACLES

W/R RECEPTACLE

SPARE

BASEBOARD HEATER #2/#4/#5

FAN FORCED HEATER FF#1

SPARE

SPARE

	EMERGENCY LIGHTING AND EXIT SIGN SCHEDULE								
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	CONNECTED LOAD				
8	12V LED SINGLE HEAD DECORATIVE REMOTE EMERGENCY LIGHT. COLOUR - WHITE	STANPRO	M-1-12-5W-LA-WH	5W	N/A				
22	12V LED DOUBLE HEAD DECORATIVE REMOTE EMERGENCY LIGHT. COLOUR - WHITE	STANPRO	M-2-12-5W-LA-WH	10W	N/A				
EBP#1	12V STEEL COMBINATION EXIT SIGN / EMERGENCY BATTERY PACK C/W 2 LED HEADS. TO BE NBC2010 COMPLIANT. COLOUR - WHITE	STANPRO	PRMS-1272-1-2M-5LA-AT	72W @ 30min.	32 WATTS				
Ø	SINGLE FACE EXTRUDED ALUMINUM LED RUNNING MAN EXIT SIGN. REFER TO FLOOR PLANS FOR DIRECTIONAL ARROWS. TO BE NBC2010 COMPLIANT. COLOUR - WHITE	STANPRO	RMXL-1-WH-UDC	1W	N/A				

TYPE BREAKER LOAD CIRCUIT# PHASE CIRCUIT# LOAD BREAKER TYPE

В

B 8

A 10

1 B 1

3 A 14

15 B 16

17 A 18

9 B 20

21 A 22

23 B 24

5 A 2

7 B

15A

TOTAL LOAD

MIN. MAINS RATING: 100A

CIRCUIT DESCRIPTION

INTERIOR LIGHTING

REHEAT COIL #1

EXISTING RECEPTACLES EXISTING RECEPTACLES

EXISTING RECEPTACLES EXISTING RECEPTACLES

EXISTING SPLIT RECEPTACLES

EXISTING RECEPTACLES
EXISTING RECEPTACLES

EXISTING BASEBOARD HEATING

EXISTING EXIT LIGHTING

FAN FORCED HEATER FF#2

EXTERIOR LIGHTING

Ф	15A, 120V, 1PH, 3W GROUNDED DUPLEX RECEPTACLE	
<del>- 1</del>	15A, 120V, 1PH, 3W GROUNDED DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER	
<del>**</del>	15A, 120V, 1PH, 3W - UNLESS OTHERWISE NOTED, GROUNDED GFI DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER	
Ή̈́	HYDRO METER	1
<b>\times</b>	1 PHASE DIRECT CONNECTION	Ì
ď	DISCONNECT SWITCH	
JB	JUNCTION BOX	Ì
PP	ROUGH IN FOR BARRIER FREE PUSH PLATE. PROVIDE 21mm CONDUIT, PULL STRING AND BACK BOX.	
EA	UNIVERSAL WASHROOM EMERGENCY ASSIST BUTTON AS NOTED	
<b>M</b>	UNIVERSAL WASHROOM AUDIBLE/VISUAL ALARM AS NOTED	
WP	DENOTES WEATHERPROOF. WEATHERPROOF RECEPTACLE TO BE EQUIPPED WITH WHILE IN USE COVER	
\$	LIGHT SWITCH	l
<sup>0S–1</sup> \$	STANDARD OCC SENSOR (DUAL) SENSOR SWITCH #WSX-PDT-WH	
	NEW LIGHTING FIXTURE - TYPE AS NOTED	l
¤	DOWN LIGHT FIXTURE - TYPE AS NOTED	l
×	DOWN LIGHT FIXTURE - UNSWITCHED - TYPE AS NOTED	l
Ħ	SCONCE - TYPE AS NOTED	
마	EXTERIOR WALL PACK - TYPE AS NOTED	
<b>≧</b> P	EMERGENCY BATTERY PACK C/W DUAL LIGHTING HEAD EBP#1 INDICATES EMERGENCY BATTERY PACK #1	
8	EMERGENCY LIGHT C/W SINGLE REMOTE HEAD. EBP#1 INDICATES CONNECTION TO EMERGENCY BATTERY PACK #1	
<b>₹</b>	EMERGENCY LIGHT C/W DUAL REMOTE HEAD. EBP#1 INDICATES CONNECTION TO EMERGENCY BATTERY PACK #1	
ô	CEILING MOUNTED EMERGENCY LIGHT C/W SINGLE REMOTE HEAD. EBP#1 INDICATES CONNECTION TO EMERGENCY BATTERY PACK #1	
₩	CEILING MOUNTED EMERGENCY LIGHT C/W DUAL REMOTE HEAD. EBP#1 INDICATES CONNECTION TO EMERGENCY BATTERY PACK #1	
SINGLE DUAL FACE	EXIT SIGN - CEILING MOUNTED RUNNING MAN MOUNTED ON 4"x4" BACK BOX	
SINGLE DUAL FACE	EXIT SIGN - WALL MOUNTED RUNNING MAN MOUNTED ON 4"x4" BACK BOX	
	EXIT SIGN C/W BATTERY PACK AND LIGHTS - WALL MOUNTED RUNNING MAN MOUNTED ON 4"x4" BACK BOX	
E	EXISTING TO REMAIN	

EXISTING TO BE REMOVED

EXISTING TO BE REPLACED

SEQUENCE OF OPERATION:

ALL BUILDING FACADE AND LANDSCAPE

CONTROLLED BY 7 DAY PROGRAMMABLE

LIGHTING SHALL BE AUTOMATICALLY

TIMER TO HAVE THE ABILITY TO SHUT

OFF BETWEEN MIDNIGHT OR BUSINESS

WHICHEVER COMES FIRST, OR BETWEEN

TIMES ESTABLISHED BY THE BUILDING

CLOSING, WHICHEVER IS LATER, AND

6AM OR BUSINESS OPENING,

PROVIDE ASTRONOMIC

ELECTRONIC TIMER TO

CONTROL ALL BUILDING

MOUNTED LIGHTING

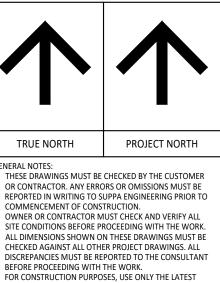
LIGHTING CONTROL DETAIL

→ TO ALL BUILDING

MOUNTED LIGHTING

**ELECTRICAL LEGEND** 

EXISTING ELECTRICAL PANEL AS NOTED



TRUE NORTH THESE DRAWINGS MUST BE CHECKED BY THE CUSTOMER OR CONTRACTOR. ANY ERRORS OR OMISSIONS MUST BE REPORTED IN WRITING TO SUPPA ENGINEERING PRIOR T COMMENCEMENT OF CONSTRUCTION. OWNER OR CONTRACTOR MUST CHECK AND VERIFY ALI SITE CONDITIONS BEFORE PROCEEDING WITH THE WORI ALL DIMENSIONS SHOWN ON THESE DRAWINGS MUST B

REVISION SCHEDULE

APPROVED DRAWINGS. . DO NOT SCALE THE DRAWINGS.

ISSUED FOR PERMIT JUN. 28, 2023 AND TENDER

Project Status:

**ISSUED FOR PERMIT** AND TENDER





Suppa Engineering 592 Cassells Street North Bay, ON P1B 3Z7 Tel: 705-707-2121 www.suppaengineering.ca

SOUTH RIVER TRAIN STATION

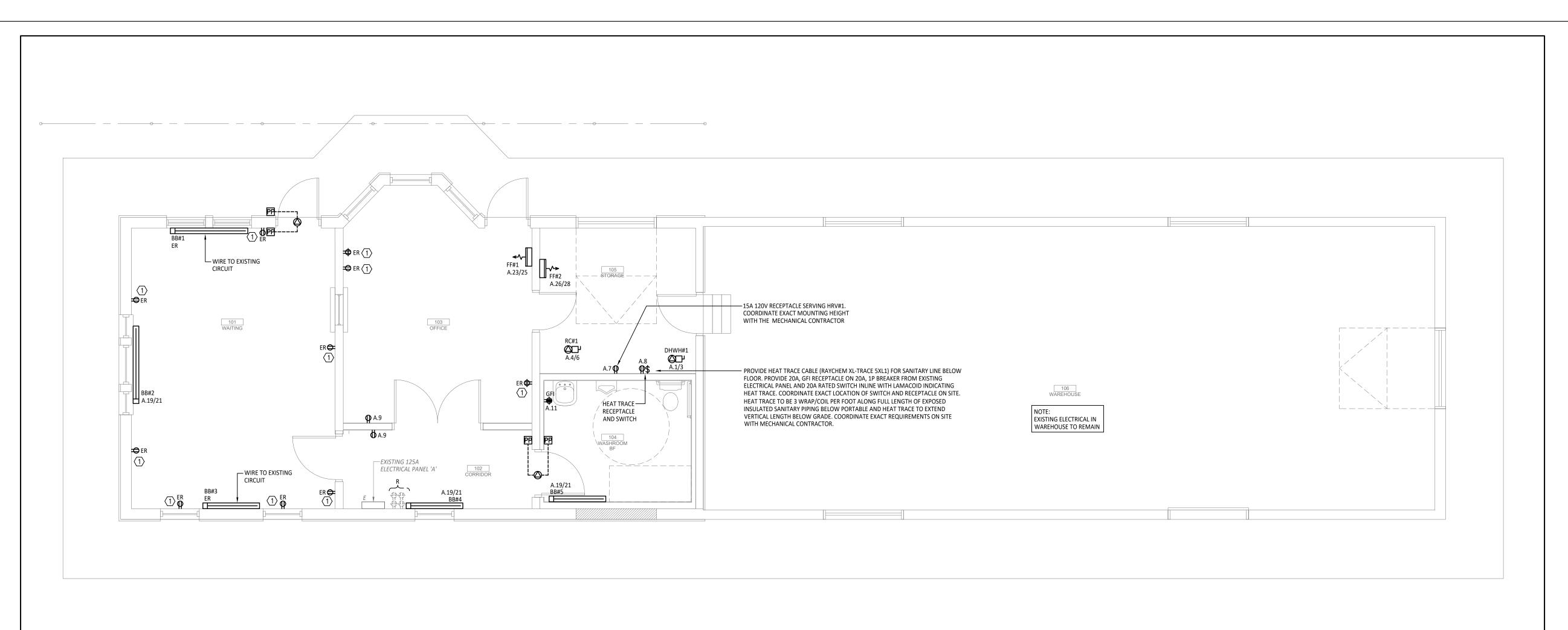
| Address: South River, Ontario Drawing Title:

ELECTRICAL LEGEND, NOTES, SCHEDULES AND SPECIFICATION

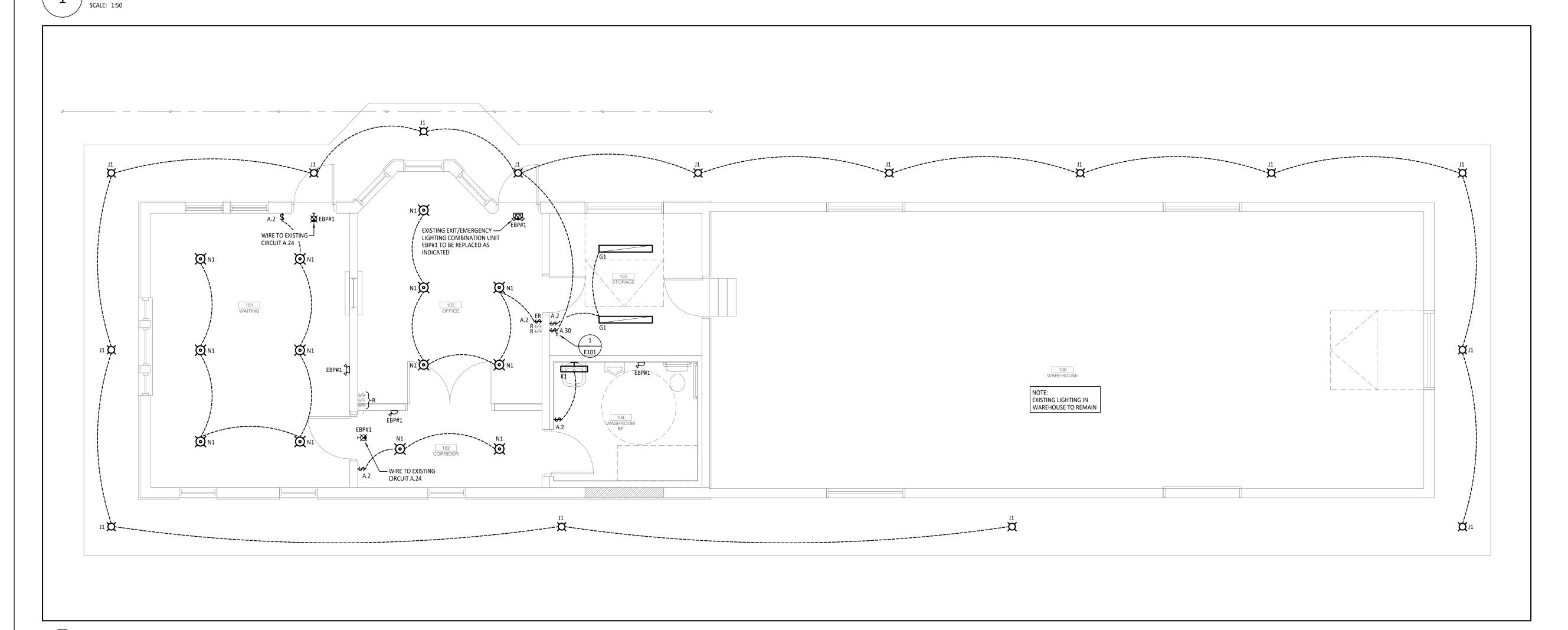
Project No:

22-052 Drawn By: MBM Date: Jun. 29. 23

Checked By: RS | Scale: AS NOTED

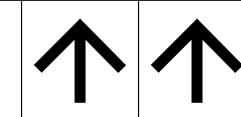


## POWER FLOOR PLAN



## **ELECTRICAL DRAWING NOTES:**

EXISTING RECEPTACLES TO BE REPLACED WITH NEW C/W STAINLESS STEEL COVER PLATE. EXISTING WIRING AND CIRCUIT TO REMAIN. REFER TO SPECIFICATION FOR MORE DETAILS.



PROJECT NORTH TRUE NORTH

GENERAL NOTES:

1. THESE DRAWINGS MUST BE CHECKED BY THE CUSTOMER OR CONTRACTOR. ANY ERRORS OR OMISSIONS MUST BE REPORTED IN WRITING TO SUPPA ENGINEERING PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. OWNER OR CONTRACTOR MUST CHECK AND VERIFY ALL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK.

3. ALL DIMENSIONS SHOWN ON THESE DRAWINGS MUST BE CHECKED AGAINST ALL OTHER PROJECT DRAWINGS. ALL DISCREPANCIES MUST BE REPORTED TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.

4. FOR CONSTRUCTION PURPOSES, USE ONLY THE LATEST APPROVED DRAWINGS.

5. DO NOT SCALE THE DRAWINGS.

**REVISION SCHEDULE** 

No.	DESCRIPTION	DATE
0	ISSUED FOR PERMIT AND TENDER	JUN. 28, 2023

Project Status:

**ISSUED FOR PERMIT** AND TENDER





Suppa Engineering 592 Cassells Street North Bay, ON P1B 3Z7 Tel: 705-707-2121 www.suppaengineering.ca

SOUTH RIVER TRAIN STATION

Drawing Title:

ELECTRICAL POWER AND LIGHTING FLOOR PLANS

Project No:

22-052

Drawn By: MBM Date: Jun. 29, 23 Checked By: RS Scale: AS NOTED

E102

LIGHTING FLOOR PLAN SCALE: 1:50