# SOUTH RIVER TRAIN STATION BUILDING UPGRADES OTTAWA AVENUE, SOUTH RIVER, ONTARIO

# DRAWING INDEX

# ARCHITECTURAL

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- GENERAL INFO & OBC MATRIX
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- REFLECTED CEILING PLAN
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- A2.2 TYPICAL DETAILS
- ELEVATIONS
- WINDOW, DOOR, FRAME ELEVATIONS, SCHEDULES
- SPECIFICATIONS A4.1

# **CIVIL & LANDSCAPING** NOT INCLUDED

STRUCTURAL NOT INCLUDED

**MECHANICAL & ELECTRICAL - SUPPA ENGINEERING** 

M101 MECHANICAL - PLUMBING & VENTILATION - LEGEND, NOTES, SCHEDULES AND SPECS

M102 MECHANICAL - PLUMBING & VENTILATION - FLOOR PLANS

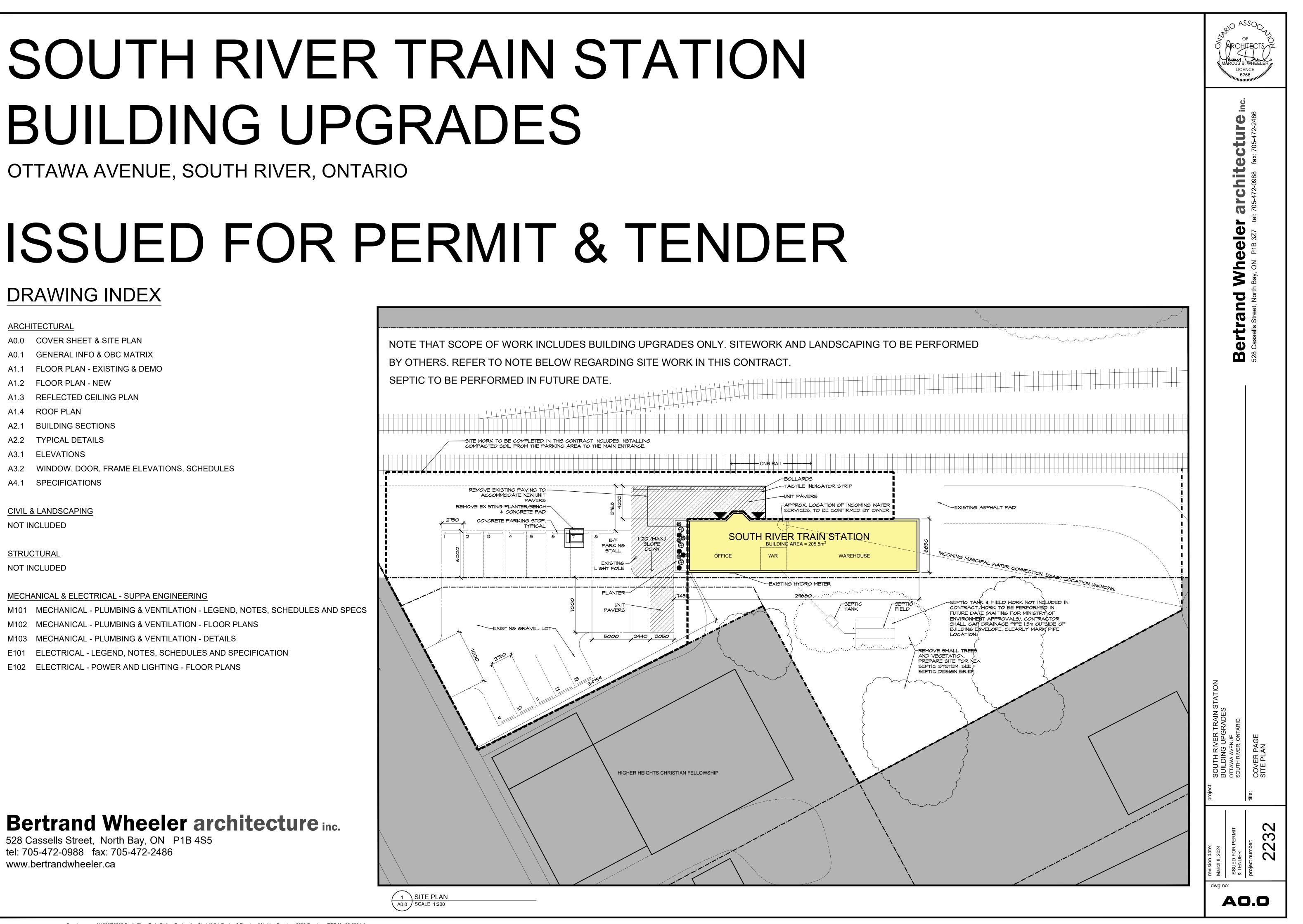
M103 MECHANICAL - PLUMBING & VENTILATION - DETAILS

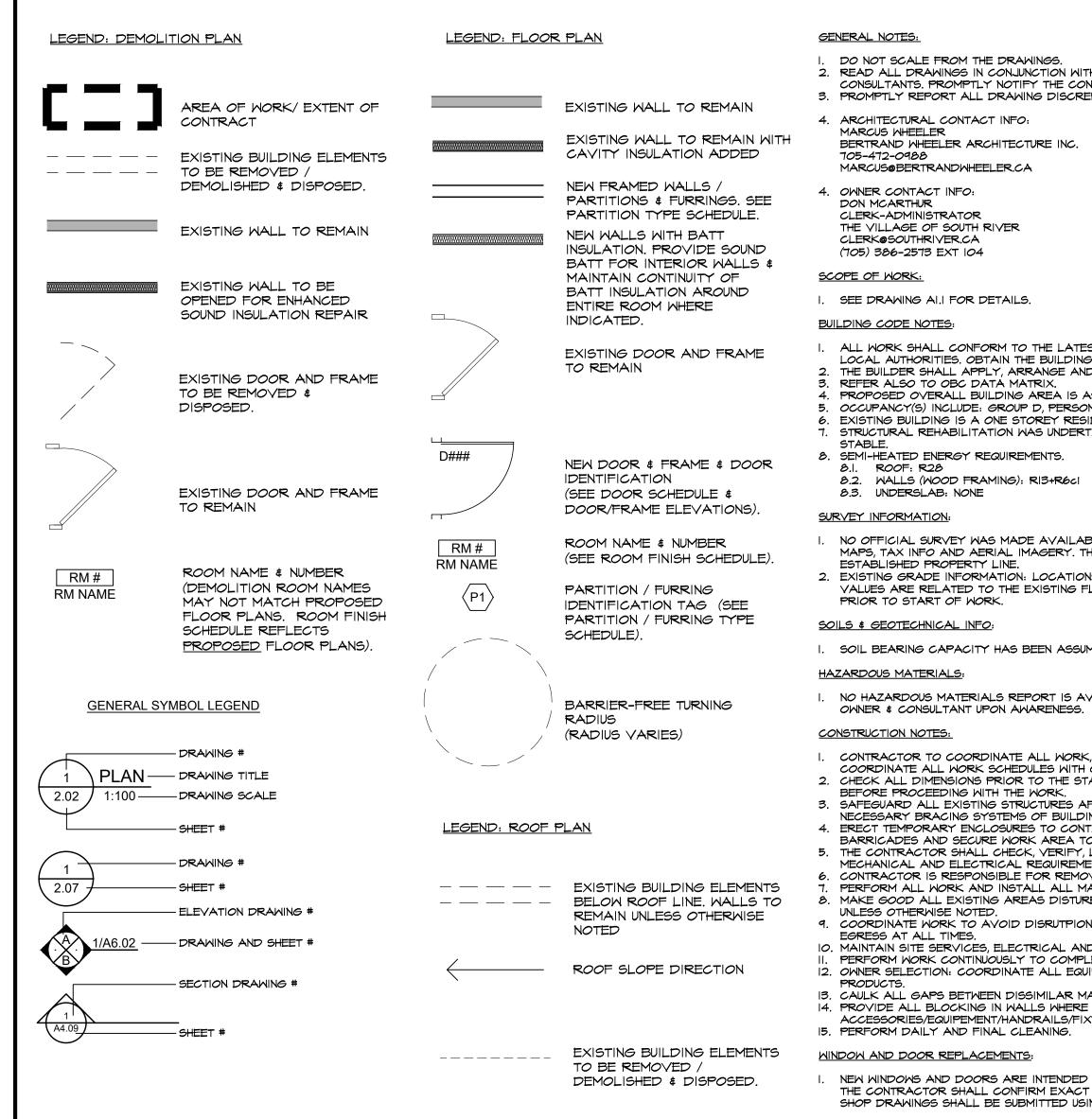
ELECTRICAL - LEGEND, NOTES, SCHEDULES AND SPECIFICATION E101

E102 ELECTRICAL - POWER AND LIGHTING - FLOOR PLANS

# **Bertrand Wheeler architecture** inc.

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





#### DEMOLITION NOTES:

- DURING ENTIRE COURSE OF WORK.
- RESPONSIBILITY OF THE CONTRACTOR.

2. READ ALL DRAWINGS IN CONJUNCTION WITH ALL SPECIFICATIONS, DRAWINGS AND DOCUMENTS FROM ALL CONSULTANTS. PROMPTLY NOTIFY THE CONSULTANT OF ANY CONCERNS OR QUESTIONS REGARDING CONFLICTS. 3. PROMPTLY REPORT ALL DRAWING DISCREPANCIES TO THE CONSULTANT.

#### I. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE ONTARIO BUILDING CODE / REGULATIONS AND LOCAL AUTHORITIES. OBTAIN THE BUILDING AND OCCUPANCY PERMITS AND ARRANGE ALL INSPECTIONS. 2. THE BUILDER SHALL APPLY, ARRANGE AND PAY FOR THE BUILDING PERMIT.

#### 4. PROPOSED OVERALL BUILDING AREA IS AS INDICATED. NO ADDITIONS ARE PLANNED. 5. OCCUPANCY(S) INCLUDE: GROUP D, PERSONAL SERVICES (PASSENGER RAIL STATION).

EXISTING BUILDING IS A ONE STOREY RESIDENCE WITH OPEN CRAWL SPACE. 7. STRUCTURAL REHABILITATION WAS UNDERTAKEN WITHIN THE PAST IO YEARS. STRUCTURE IS ASSUMED TO BE

#### I. NO OFFICIAL SURVEY WAS MADE AVAILABLE. SURVEY INFORMATION IS ESTIMATED FROM OWNER PROVIDED MAPS, TAX INFO AND AERIAL IMAGERY. THE FENCELINE SHOWN ON THE FLOOR PLAN IS ASSUMED TO BE THE 2. EXISTING GRADE INFORMATION: LOCATIONS AND VALUES OF EXISTING GRADES ARE APPROXIMATE (+/-). ALL VALUES ARE RELATED TO THE EXISTING FLOOR LEVELS ARE ESTIMATED. CONFIRM MEASUREMENTS ON SITE

I. SOIL BEARING CAPACITY HAS BEEN ASSUMED TO BE STABLE (100 KPA). CONTRACTOR SHALL VERIFY ON SITE.

# I. NO HAZARDOUS MATERIALS REPORT IS AVAILABLE FOR THE SITE. REPORT ALL SUSPICIOUS MATERIALS TO THE

I. CONTRACTOR TO COORDINATE ALL WORK, INCLUDING THE WORK OF ALL SUBTRADES AND SUBCONTRACTORS. COORDINATE ALL WORK SCHEDULES WITH OWNER PRIOR TO START. 2. CHECK ALL DIMENSIONS PRIOR TO THE START OF WORK AND REPORT ANY DISCREPANCIES TO THE CONSULTANT 3. SAFEGUARD ALL EXISTING STRUCTURES AFFECTED BY THIS CONTRACT.THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING SYSTEMS OF BUILDING ELEMENTS DURING CONSTRUCTION. 4. ERECT TEMPORARY ENCLOSURES TO CONTAIN AND SECURE THE WORK AREA. PROVIDE SAFETY SIGNAGE AND BARRICADES AND SECURE WORK AREA TO LIMIT ACCESS. 5. THE CONTRACTOR SHALL CHECK, VERIFY, LOCATE, PROVIDE AND REINFORCE AS NECESSARY ALL OPENINGS FOR MECHANICAL AND ELECTRICAL REQUIREMENTS. 6. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DISCARDED MATERIALS FROM THE SITE. PERFORM ALL WORK AND INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 8. MAKE GOOD ALL EXISTING AREAS DISTURBED BY NEW WORK TO MATCH EXISTING MATERIALS AND FINISHES 9. COORDINATE WORK TO AVOID DISRUTPIONS AND INCONVENIENCE TO OCCUPANTS. ENSURE SAFETY AND SAFE IO. MAINTAIN SITE SERVICES, ELECTRICAL AND WATERTIGHT STRUCTURE AT ALL TIMES. PERFORM WORK CONTINUOUSLY TO COMPLETION. NO PERIOD OF INACTIVITY WILL BE ACCEPTED 12. OWNER SELECTION: COORDINATE ALL EQUIPMENT, FINISHES, COLOURS, ETC WITH OWNER PRIOR TO PURCHASING

#### 13. CAULK ALL GAPS BETWEEN DISSIMILAR MATERIALS AND FINISHES. 14. PROVIDE ALL BLOCKING IN WALLS WHERE REQUIRED FOR ALL WALL MOUNTED ACCESSORIES/EQUIPEMENT/HANDRAILS/FIXTURES AND CASEWORK.

NEW WINDOWS AND DOORS ARE INTENDED TO BE REPLACEMENTS OF EXISTING, USING EXISTING OPENING SIZES. THE CONTRACTOR SHALL CONFIRM EXACT WINDOW SIZES ON SITE PRIOR TO ORDERING AND MANUFACTURING. SHOP DRAWINGS SHALL BE SUBMITTED USING CONFIRMED WINDOW SIZES.

#### EXISTING CONSTRUCTIONS CONSISTS PRIMARILY OF HISTORIC WOOD FRAMING WITH PIER FOUNDATIONS. CONTRACTOR SHALL PROTECT ALL STRUCTURES, ELEMENTS, AND ADJACENT AREAS FROM DAMAGE AND DUST 3. UNLESS OTHERWISE NOTED FOR SALVAGE, DISPOSE OF ALL CONSTRUCTION RELATED DEBRIS SHALL BE THE 4. THE CONTRACTOR SHALL STORE (ON SITE) ALL ITEMS NOTED FOR SALVAGE AS DIRECTED BY THE OWNER. 5. LOCATE AND PROTECT UTILITIES (CALL BEFORE DIGGING). PRESERVE ACTIVE UTILITIES TRAVERSING SITE IN OPERATING CONDITION. NOTIFY AND OBTAIN APPROVAL OF UTILITY COMPANIES BEFORE STARTING DEMOLITION.

5. DO NOT SELL, BURN OR CONCEAL CONSTRUCTION MATERIALS ON SITE. 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.

Construction Index:	South Ri Building Ottawa <i>I</i>	of Project: iver Train Station Upgrades Avenue, South River, ON oject No. 2232	I		
Unit         Unit         Control         Control           11.0         Maining Cose         O. Reg. 20072         List American mining and american memory in the second memory i		23			
Line Constraints         Reference <sup>1</sup> 11.00         During Cole         0.389,320/2         Last Avendment         0.489,301/4           11.00         Project Type:         0.489,320/2         Last Avendment         0.489,301/4           11.00         Project Type:         0.489,320/2         Last Avendment         0.489,301/4           11.00         Project Type:         0.489,320/2         Last Avendment         0.489,301/4           11.00         Project Cole         Description:         0.480,201/14         1.441,000           11.00         Major Cole         Consequence         222.7.0         222.7.0           11.00         Building Aves (m)         Description:         Existing Projection:         222.7.0           11.00         Building See         Rescription:         222.7.0         223.7.0           11.00         Building See         Rescription:         222.7.0         122.7.1 <t< th=""><th></th><th></th><th></th><th></th><th></th></t<>					
Writesic         Organization         Addition and monomian         All 12           11.01         Proved Type:         Charge of use         Descriptor:         Bygonde of existing bins factor building to public use.         Mill 12           11.02         More Occupancy         Cocrete/or         Use and cocrete/or use of the instance of the instan	11.00	1			
Image: Second	11.01	Version:	□ Addition ⊠ Renovation □ Addition and renovation	[A] 1.1.2.	
100       Comparing       Opcingency       Use       Sile 110       Sile 110         103       Superfrage       B No □ Yee       Sile 110       Sile 110       Sile 110         104       Building Ama (m <sup>2</sup> )       B No □ Yee       Sile 110       Sile 110       Sile 110         104       Building Ama (m <sup>2</sup> )       Description:       Existing New Total       (H1412)         105       Building Height       _1			Description: Upgrades of existing train station building for public use.		
1.03       Super recorded Major Comparison       14 No       L1 Yes       3227       3227         1.04       Building Area (m)       Description: 	1.02		Occupancy Use	3.1.2.1.(1)	
Main Flor       205.6m2	1.03			3.2.2.7.	
1.05       Building Height       1       Storey's above grade       N114:12.6         1.05       Building Height       1       Storey's above grade       N114:12.6         1.06       Number of Streets'       1       street(s)       322:10.6       822.6         1.07       Building Sco       2       Small       Medium       Large       112:11.8-N         1.08       Exating Building       Change in Major Occupancy: U'Ves       Ves C Mot Applicable (no change)       112:11.8-N         1.08       Exating Building       Change in Major Occupancy: U'Ves       North Applicable (no change)       112:11.8-N         1.09       Renovation type:       Basic Renovation       Eastel On       Occupant Load       112:15.N         1.09       Renovation type:       Basic Renovation       Eastel On       Occupant Load       27.4         1.10       Occupant Load       Eloc LovalArea       Cocupant On/M       27.4       Son roth blow.         1.11       Parthiop Fallow       Ratio:       MBF = 1/1 Except as otherwise notice       Son roth blow.       11.32.2         1.11       Parthiop Fallow       Ratio:       MBF = 1/1 Except as otherwise notice       Son roth blow.       11.42.2       Son roth blow.         1.12       Bartier-free Deagin: <td>1.04</td> <td>Building Area (m<sup>2</sup>)</td> <td>Description: Existing New Total</td> <td>[A] 1.4.1.2.</td> <td></td>	1.04	Building Area (m <sup>2</sup> )	Description: Existing New Total	[A] 1.4.1.2.	
1.06       Number of Streetst Prodephar access Prodephar access Prodephar access Prodephar access Prodephar access Prodephar access Prodephar access Production Index Production Index Prod			<u>Main Floor</u> <u>205.5m2</u> <u>0m2</u> <u>205.5m2</u>		
1.06       Number of Streets Productor access       1street(a)       32210.8325         1.07       Building Street       Small       Medium       Large       T11211.8-N         1.08       Existing Building Classification       Change in Major Occupancy: [] Yes 13 Not Applicable (no change)       T1211.8       T1211.8         1.09       Existing Building Classification       Change in Major Occupancy: [] Yes 13 Not Applicable (no change)       T1211.8       T1211.8         1.09       Renovation type: []       Basic Renovation 23 Extensive Renovation       T1332.2       T1332.2       T1332.2         1.09       Renovation type: []       Basic Renovation 23 Extensive Renovation       31.7.       T1332.2       T1332.2       T1332.2         1.10       Occupant Load       Ploar Level/Area Load       Occupant Q       Basic Renovation 20.2       T1       See note below.         1.11       Ploar Level/Area Load       Occupant Q       Basic Renovation 20.2       T       See note below.       T14.2.1         1.11       Ploar Level/Area Load       Occupant Q       T4.3.3       See note below.       T14.2.1         1.11       Ploar Level/Area Load       Occupant Q       T4.3.3       T14.2.1       T14.2.1         1.12       Barrier free Design: Construction:       No       Yes </td <td>1.05</td> <td>Building Height</td> <td>0 Storeys below grade</td> <td></td> <td></td>	1.05	Building Height	0 Storeys below grade		
Importance Category:       Low       Structural:       T112.1.14       T112.1.18 Is N         1.09       Renovation type:       Basic Renovation       Structural:       Post-disaster       S22.1.63         1.09       Renovation type:       Basic Renovation       Structural:       Occupant Category:       Design       30         1.10       Occupant Load       Floor Lavel/Area       Occupant Occup	1.06			3.2.2.10. & 3.2.5.	-224
Importance Category:       Low       Importance Category:       Low       Importance Category:       <		-			ASSOC
1.09       Renovation type: <ul> <li>Basic Renovation</li> <li>Main Floor</li> <li>Main Fl</li></ul>	1.06		Construction Index:	T 11.2.1.1A T 11.2.1.1B to N	
1.10       Occupant Load       Floor Level/Area       Occupant Quark Indexed       State       State<	1.09	Renovation type:		5.2.2.1.(2)	
Init       Main Floor       Waiting Area(Design303037.4.       37.4.         Init       Plumbing Fixtures Requirements       Ratio:       MF = 1/1 Except as otherwise noted       37.4.         Init       Plumbing Fixtures Requirements       Ratio:       M/F = 1/1 Except as otherwise noted       37.4.         Init       Plumbing Fixtures Main Floor       30       37.4.3       2       1*       See note below.         Init       Ploor Lovel/Area       Occupant Oils       OBC       Fixtures Required       Fixtures Provided       11.3.3.2 (2)         Init       Barrier-free Design:       © Yees       Explanation: Main Floor Only mezzanine area - minor changes only - not mezzanine area - minor changes only	1.10	Occupant Load			<b>e</b> inc.
Floor Level/Area       Occupant       OBC       Extures       Extures<					<b>U L</b>
1.12       Barrier-free Design:          Xes       Explanation: Main Floor Only mezzanine area – minor changes only - not required to be upgraded as per OBC 11.3.3.2 (2)          11.3.2.(2)         1.13       Reduction in Performance Level:       Structural:       No       Yes       11.42.1.         By Increase in occupant load:       No       Yes       11.42.2.       By Increase in occupant load:       No       Yes       11.42.4.         Sewage-systems:       Swo       Yes       11.42.4.       Sewage-systems:       Integration       11.42.6.       Integration       11.42.6.         1.14       Compensating Construction:       No       Yes       11.42.6.       Integration       Integrating and integrating and integration	1.11			3.7.4.	fax: 70
1.12       Barrier-free Design:          Xes       Explanation: Main Floor Only mezzanine area – minor changes only - not required to be upgraded as per OBC 11.3.3.2 (2)          11.3.2.(2)         1.13       Reduction in Performance Level:       Structural:       No       Yes       11.42.1.         By Increase in occupant load:       No       Yes       11.42.2.       By Increase in occupant load:       No       Yes       11.42.4.         Sewage-systems:       Swo       Yes       11.42.4.       Sewage-systems:       Integration       11.42.6.       Integration       11.42.6.         1.14       Compensating Construction:       No       Yes       11.42.6.       Integration       Integrating and integrating and integration			Load Reference Required Provided	See note below.	<b>Chit</b> 72-0988
Image: Interpretent and the areal - minor changes only - not required to be upgraded as process (2)       Image: Ima	1.12	Barrier-free Design:	☑ Yes     Explanation: Main Floor Only		<b>ar</b> (
Performance Level:       By Increase in occupant load:       No       Yes       11.42.2.         By change of major occupancy:       No       Yes       11.42.3.         Plumbing:       No*       Yes       11.42.4.         Sewage-systems:       No*       Yes       11.42.5.         Extension of combustible construction:       No       Yes       11.42.6.         1.14       Compensating Construction:       No       Yes       11.43.1,         Structural:       No       Yes       11.43.3,         Increase in occupant load:       No       Yes       11.43.4,         Plumbing:       No       Yes       11.43.4,         Increase in occupant load:       No       Yes       11.43.4,         Plumbing:       No       Yes       11.43.4,         Plumbing:       No       Yes       11.43.5,         Sewage systems:       No       Yes       11.43.6,         Extension of combustible construction:       No       Yes       11.43.7.         1.15       Compliance Alternatives Proposed:       No       Yes       11.51.         Note:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.51.			□ No required to be upgraded as per OBC 11.3.3.2 (2)		
By change of major occupancy:       No       Yes       11.42.3.         Plumbing:       No*       Yes       11.42.4.         Sewage-systems:       No*       Yes       11.42.4.         Sewage-systems:       No*       Yes       11.42.5.         1.14       Compensating Construction:       No       Yes       11.42.6.         1.14       Compensating Construction:       No       Yes       11.43.1.         I.14       Compensating Construction:       No       Yes       11.43.2.         Increase in occupant load:       No       Yes       11.43.3.         Increase in occupant load:       No       Yes       11.43.6.         Extension of combustible construction:       No       Yes       11.43.6.         Intrease in occupant load:       No       Yes       11.43.6.         Extension of combustible construction:       No       Yes       11.43.6.         I.15       Compliance Alternatives Proposed:       No       Yes       115.1.         Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 37.2.2(7).       115.1.         OBC Classification: Building would be classified as Group A2 Occupancy. One Storeys, as per OBC 32.2.2.2.8. Combustible allowed.       115	1.13				P1B
Change of major occupancy:       No       Yes       (Describe)       11.4.3.4,         Plumbing:       No       Yes       (Describe)       11.4.3.5,         Sewage systems:       No       Yes       (Describe)       11.4.3.6,         Extension of combustible construction:       No       Yes       (Describe)       11.4.3.7.         1.15       Compliance Alternatives Proposed:       No       Yes       (Describe)       11.5.1.         1.16       Notes:       Noteregarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       11.5.1.       Notes:       MOL Pressification: Building would be classified as Group A2 Occupancy, One Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Notestore the classified as Group A2 Occupancy of the Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Notestore the classified as Group A2 Occupancy of the Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Notestore the classified as Group A2 Occupancy of the Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Notestore the classified as Group A2 Occupancy of the Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Notestore the classified as Group A2 Occupancy of the Grou				11.4.2.3.	Š No.
Change of major occupancy:       No       Yes       (Describe)       11.4.3.4,         Plumbing:       No       Yes       (Describe)       11.4.3.5,         Sewage systems:       No       Yes       (Describe)       11.4.3.6,         Extension of combustible construction:       No       Yes       (Describe)       11.4.3.7.         1.15       Compliance Alternatives Proposed:       Mo       Yes       (Describe)       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       MOL Yes (DESCRIPTION OF CONTRACTOR OF COUNT: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Note Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.					Bay
Change of major occupancy:       No       Yes       (Describe)       11.4.3.4,         Plumbing:       No       Yes       (Describe)       11.4.3.5,         Sewage systems:       No       Yes       (Describe)       11.4.3.6,         Extension of combustible construction:       No       Yes       (Describe)       11.4.3.7.         1.15       Compliance Alternatives Proposed:       Mo       Yes       (Describe)       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       MOL Yes (DESCRIPTION OF CONTRACTOR OF COUNT: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       Note Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.			Extension of combustible		at, North
Change of major occupancy:       No       Yes       (Describe)       11.4.3.4,         Plumbing:       No       Yes       (Describe)       11.4.3.5,         Sewage systems:       No       Yes       (Describe)       11.4.3.6,         Extension of combustible construction:       No       Yes       (Describe)       11.4.3.7.         1.15       Compliance Alternatives Proposed:       Mo       Yes       (Describe)       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       Mole classified as Group A2 Occupancy, One Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       MOLE VESTION       MOLE VESTION	1.14	Compensating		11.4.3.1.	Stree
Change of major occupancy:       No       Yes       (Describe)       11.4.3.4,         Plumbing:       No       Yes       (Describe)       11.4.3.5,         Sewage systems:       No       Yes       (Describe)       11.4.3.6,         Extension of combustible construction:       No       Yes       (Describe)       11.4.3.7.         1.15       Compliance Alternatives Proposed:       Mo       Yes       (Describe)       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       Mole classified as Group A2 Occupancy, One Storeys, as per OBC 3.2.2.2.8. Combustible allowed.       11.5.1.       MOLE VESTION       MOLE VESTION					
Plumbing:       No       Yes       (Describe)       11.4.3.5,         Sewage systems:       No       Yes       (Describe)       11.4.3.6,         Extension of combustible construction:       No       Yes       (Describe)       11.4.3.6,         1.15       Compliance Alternatives Proposed:       No       Yes       (Describe)       11.4.3.7.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       Sevage systems: OBC 3.2.2.28. Combustible allowed.       11.5.1.       Note Storeys, as per OBC 3.2.2.28. Combustible allowed.       11.5.1.       Note Storeys, as per OBC 3.2.2.28. Combustible allowed.       11.5.1.       Note Storeys, as per OBC 3.2.2.28. Combustible allowed.       No       Yes       Yes       Yes       Yes					
1.15       Compliance Alternatives Proposed:       No       Yes       (Describe)       11.4.3.6,         1.15       Compliance Alternatives Proposed:       No       Yes       (Describe)       11.4.3.7.         1.16       Notes:       No       Yes       (Describe)       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       International per OBC 3.7.4.2(7).       International per OBC 3.7.4.2(7).       No       Proposed.       International per OBC 3.7.4.2(7).			Change of major occupancy:  No  Yes (Describe)		
Extension of combustible construction:       No       Yes       11.4.3.7.         1.15       Compliance Alternatives Proposed:       Mo       Yes       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       NOTE Classification: Building would be classified as Group A2 Occupancy, One Storeys, as per OBC 3.2.2.28. Combustible allowed.       11.5.1.       NOTE Storeys, as per OBC 3.2.2.28. Combustible allowed.       Note Storeys, as per OBC 3.2.2.2.28. Combustible allowed.       Note S					
1.15       Compliance Alternatives Proposed:       ⊠ No       □ Yes none       11.5.1.         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       11.5.1.         OBC Classification: Building would be classified as Group A2 Occupancy, One Storeys, as per OBC 3.2.2.28. Combustible allowed.       11.5.1.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       11.5.1.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       Intervention of the fixture requiremen			Extension of combustible		
Alternatives Proposed:       none         1.16       Notes:       Note regarding washroom count: Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7).       11.5.1.       If you washed to the fixture requirements for both genders as per OBC 3.7.4.2(7).       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.28. Combustible allowed.       If you washed to the fixture requirements for both genders as per OBC 3.2.2.2.28. Combustible allowed.       If you	1.15				TRIX
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Building would be classified as Group A2 Occupancy, One Storeys, as per       Iso O I So	11.10	Notes.	Universal washroom is applied to the fixture requirements for both genders as per OBC 3.7.4.2(7). <u>OBC Classification:</u>	11.0.1.	ATION N - PHAS
All references are to Division B of the OPC unless preceded by [1] for Division $A$ and [C] for Division $C$			Building would be classified as Group A2 Occupancy, One Storeys, as per OBC 3.2.2.28. Combustible allowed.		
All references are to Division B of the OBC unless preceded by [A] for Division A and [C] for Division C.					

drawn by: KD

AS NOTED

date plotted: Mar 08, 2024

revision date: Mar 08, 2024

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scale:

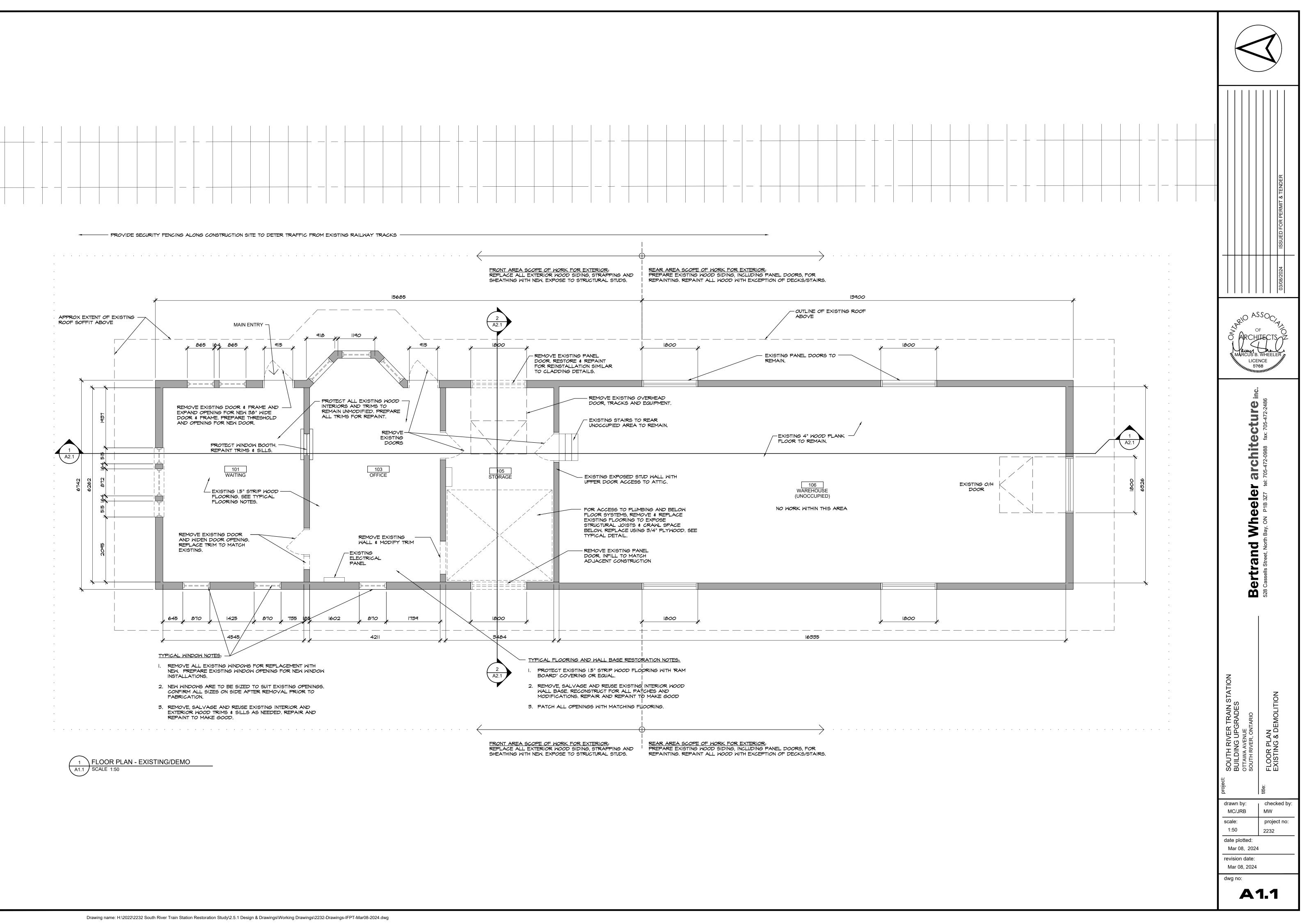
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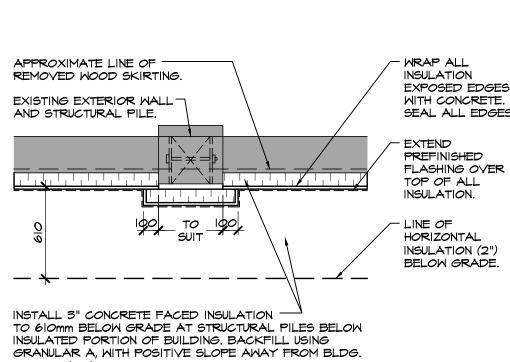
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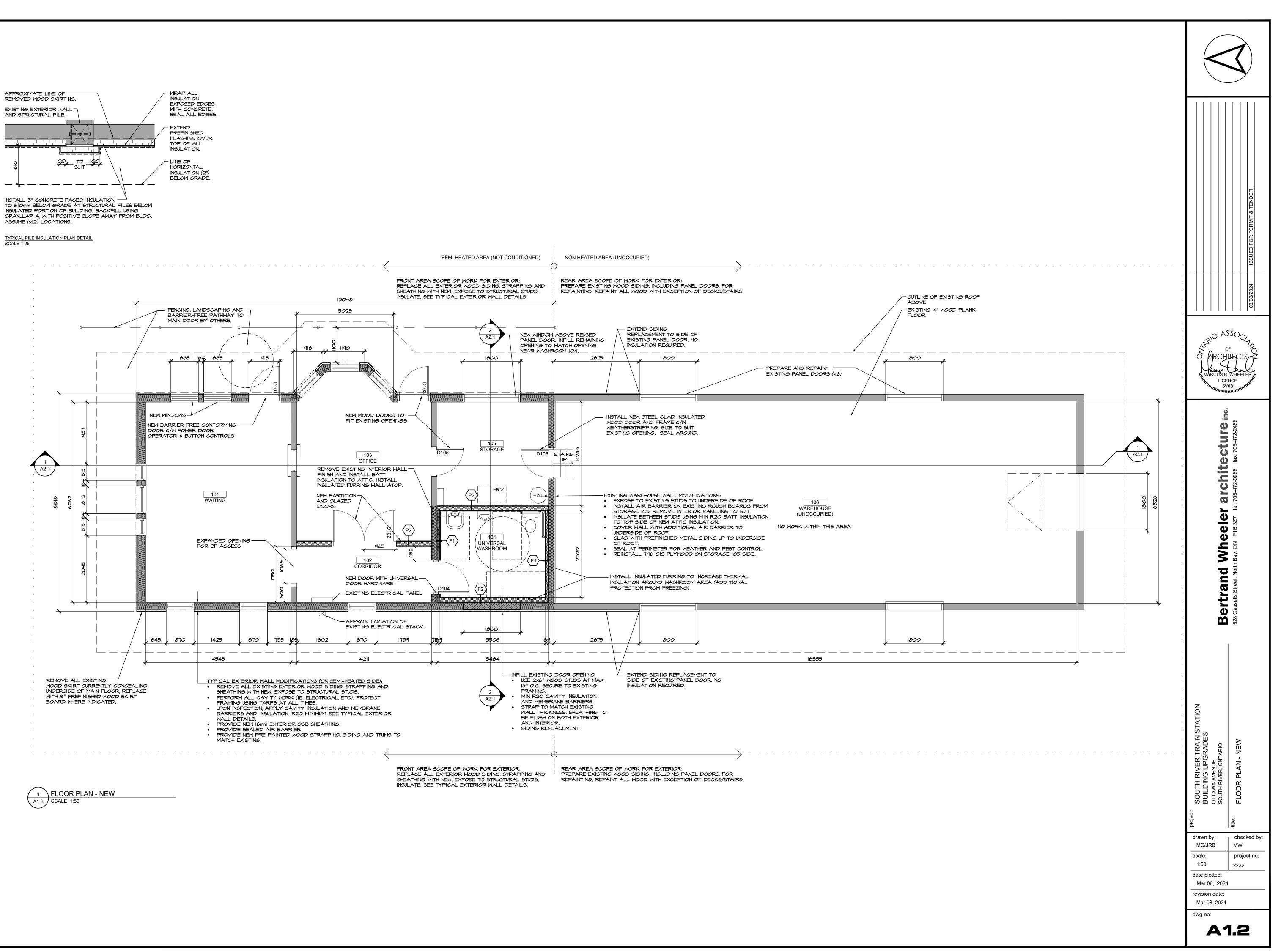
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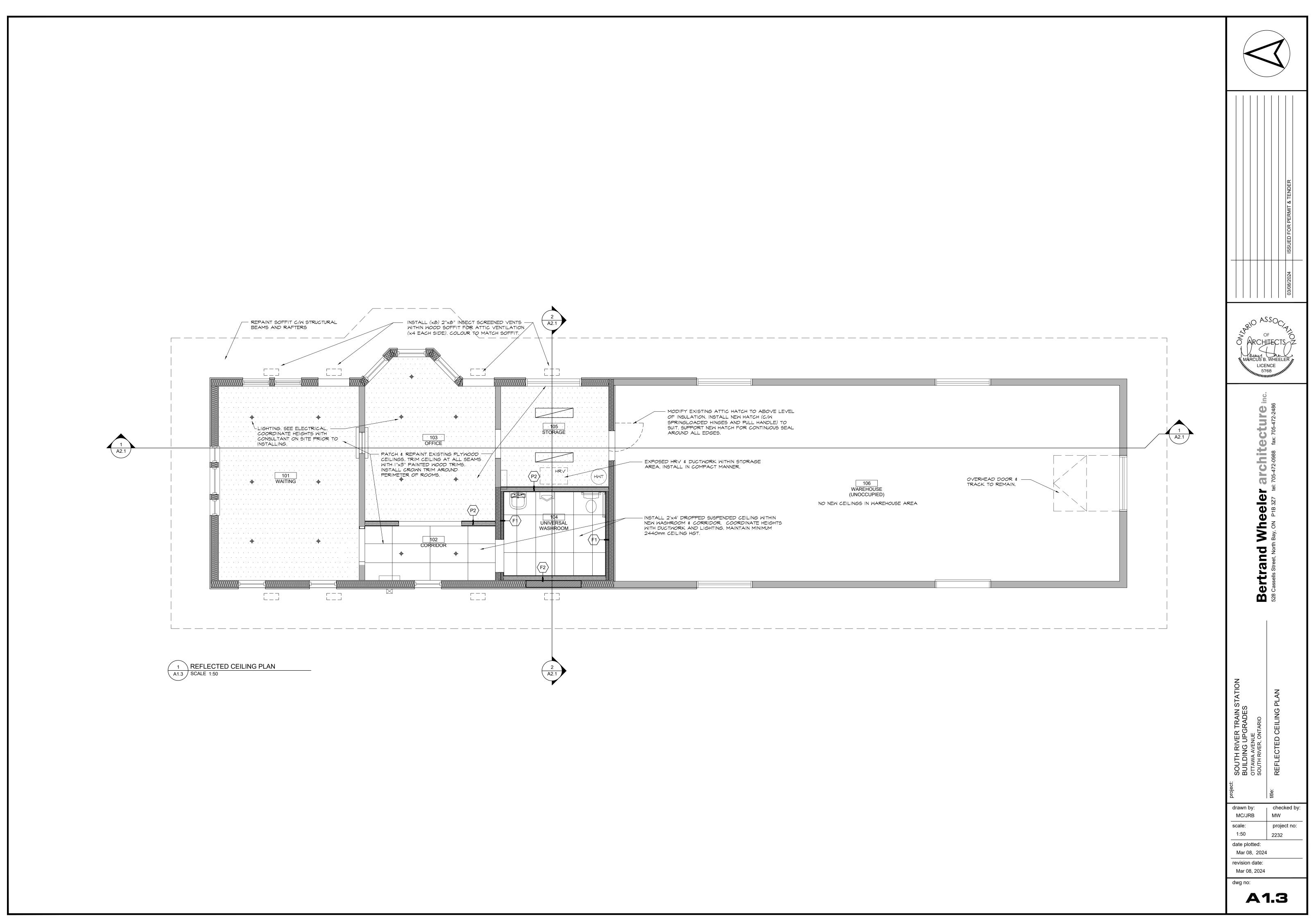
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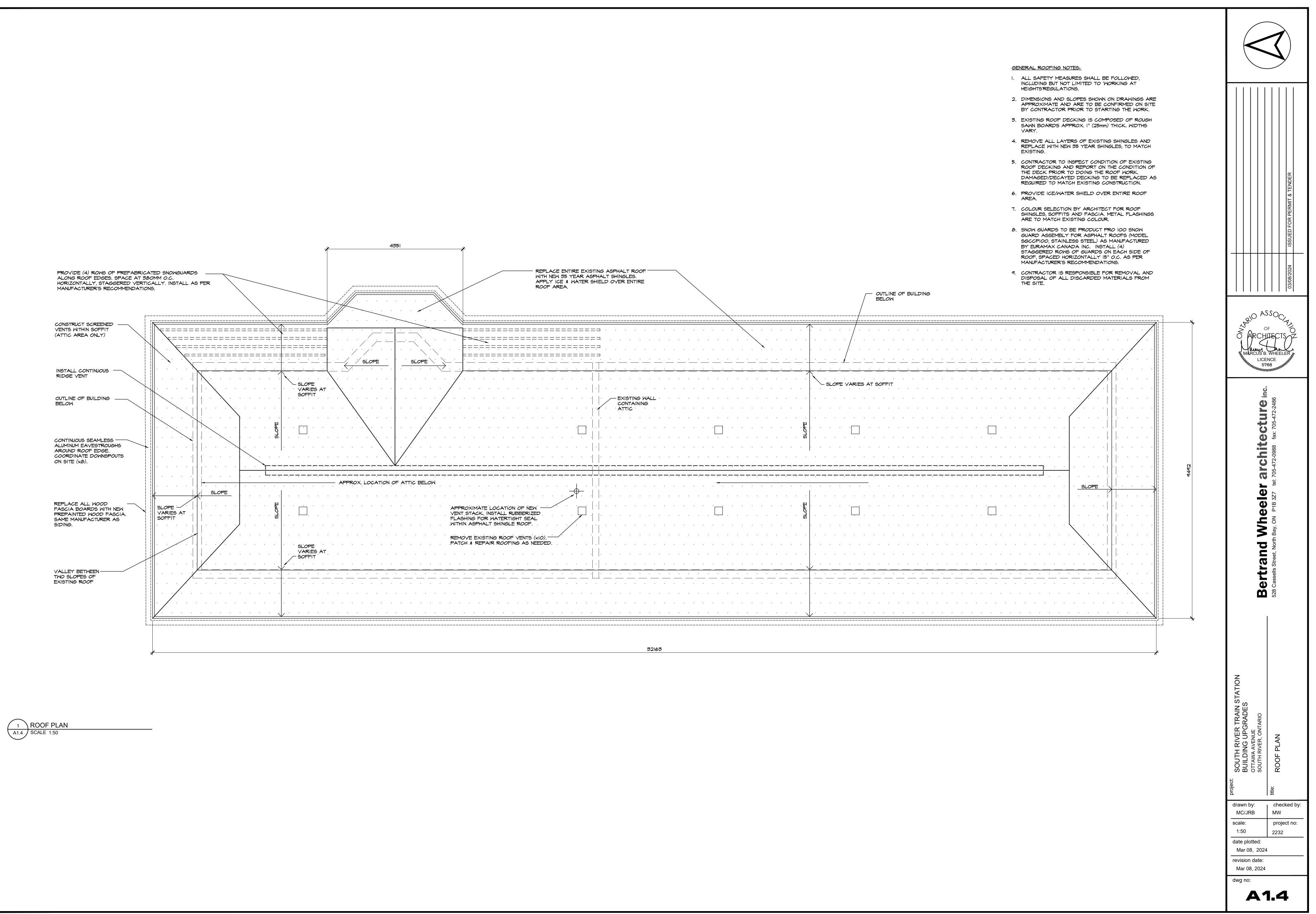


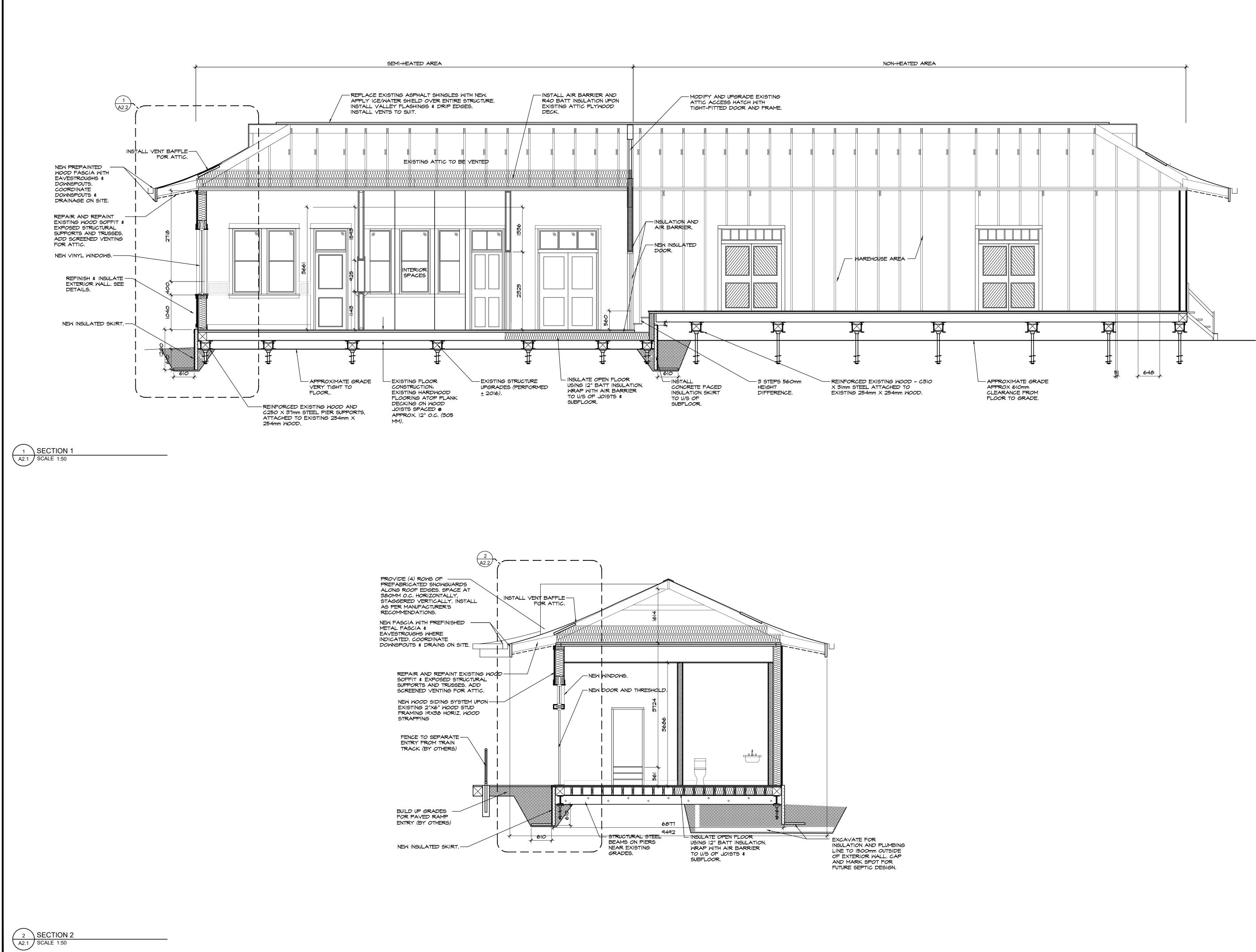




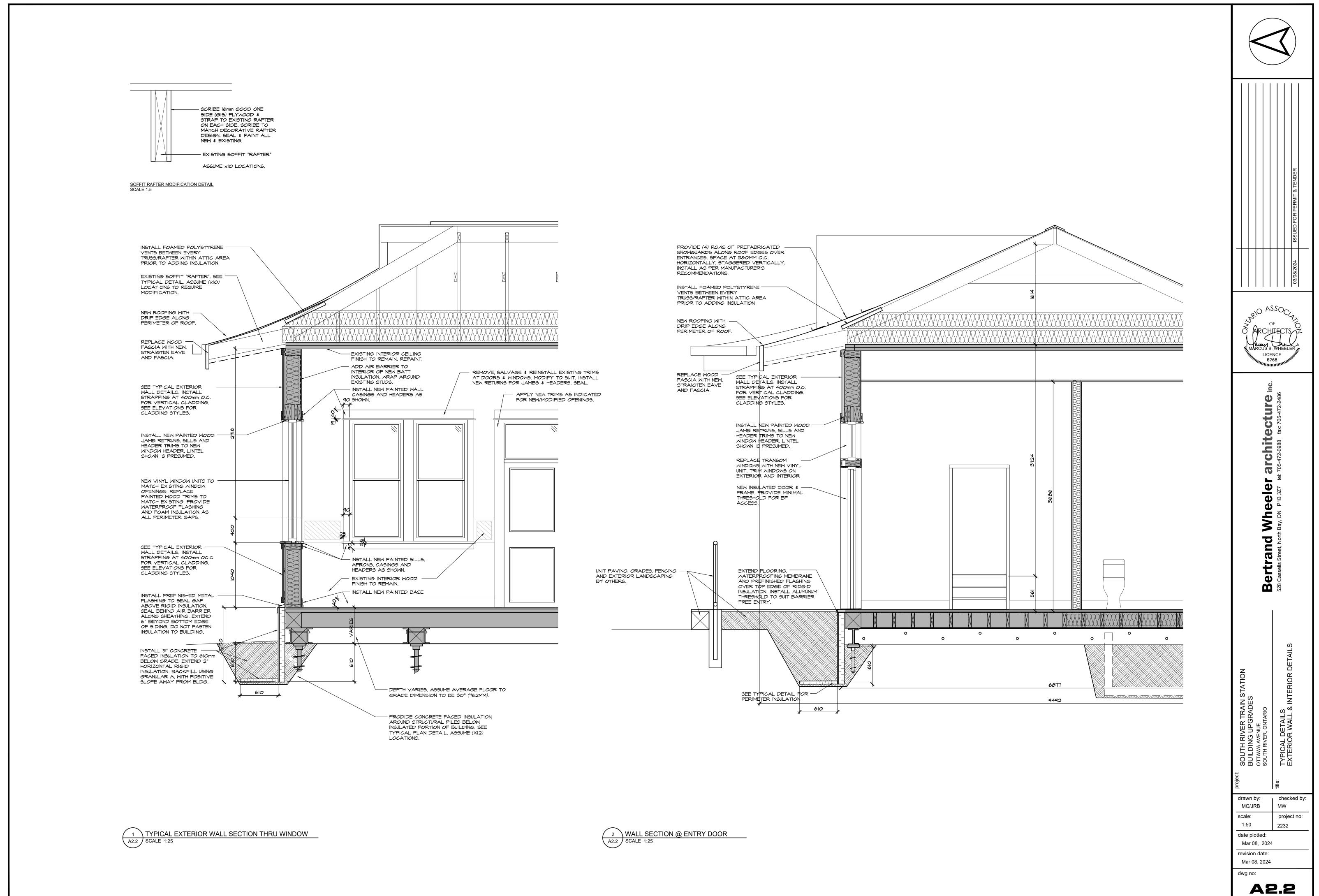
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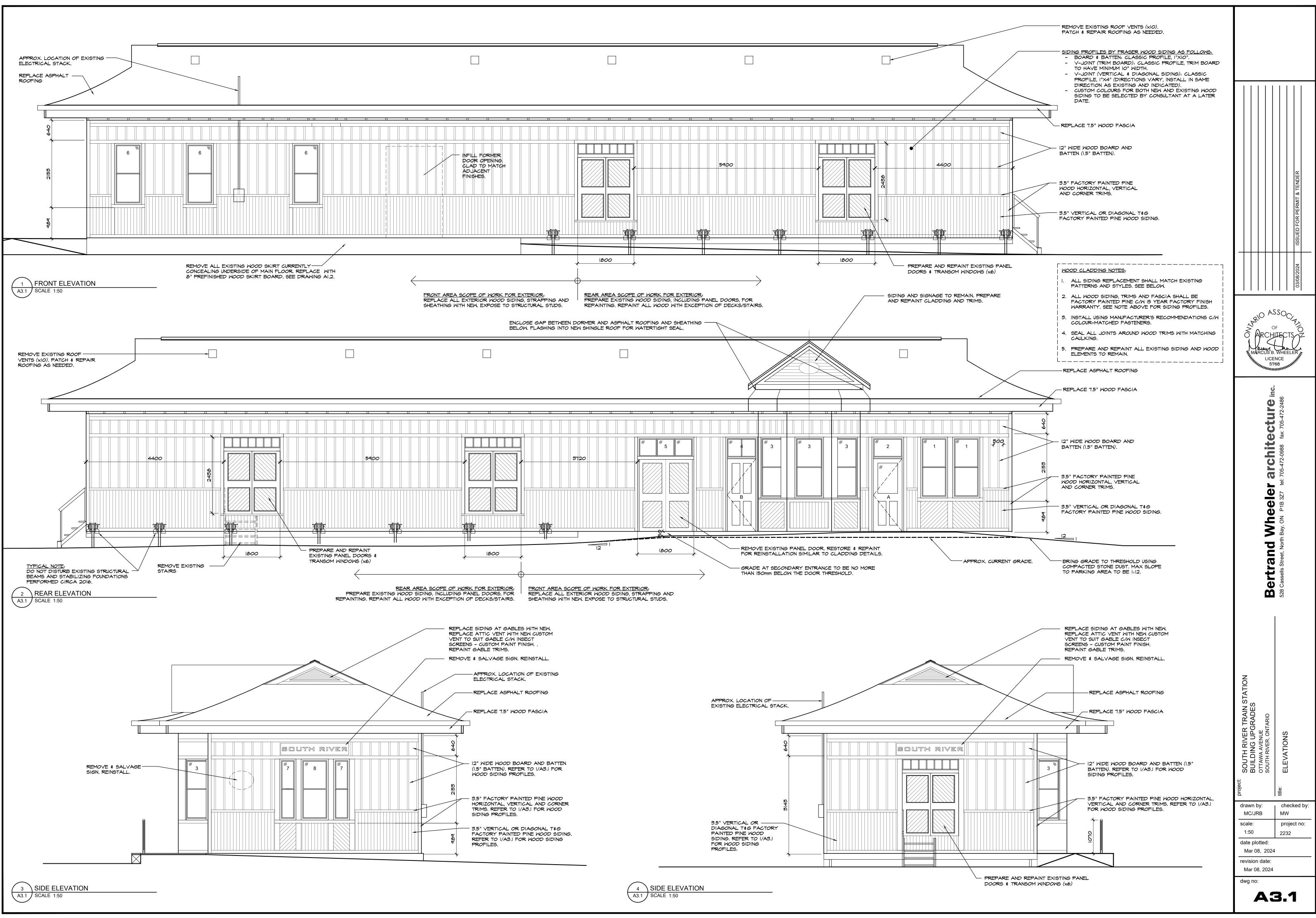




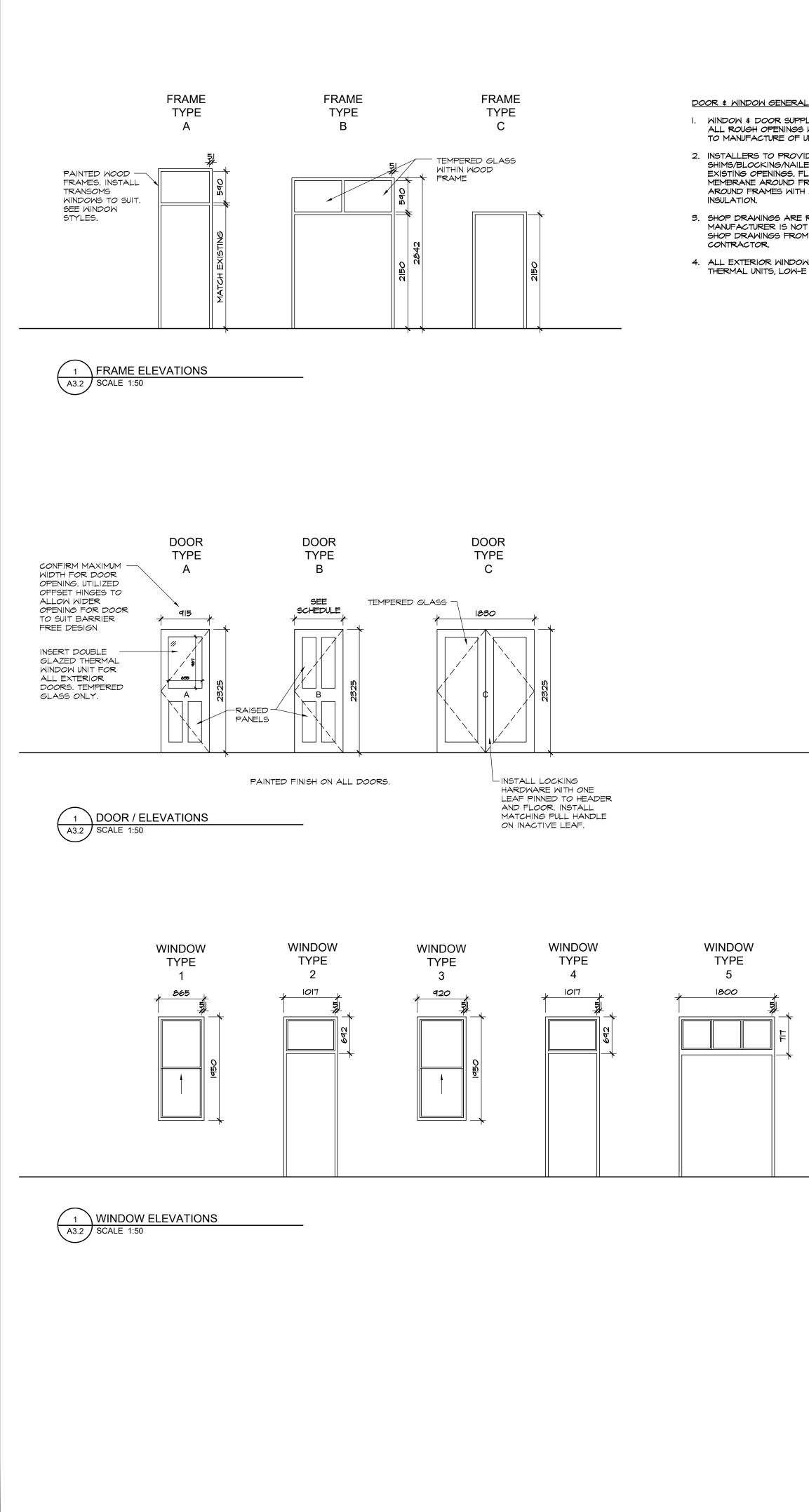




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Drawing name: H:\2022\2232 South River Train Station Restoration Study\2.5.1 Design & Drawings\Working Drawings\2232-Drawings-IFPT-Mar08-2024.dwg



DR & WINDOW GENERAL NOTES:
WINDOW & DOOR SUPPLIER TO COORDINATE AND CONFIRM

ALL ROUGH OPENINGS WITH GENERAL CONTRACTOR PRIOR TO MANUFACTURE OF UNITS.

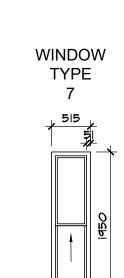
2. INSTALLERS TO PROVIDE ALL REQUIRED SHIMS/BLOCKING/NAILERS REQUIRED AND TO MAKE GOOD EXISTING OPENINGS. FLASHING USING WATERPROOF MEMBRANE AROUND FRAMED OPENINGS. FILL ALL GAPS AROUND FRAMES WITH LOW EXPANSION SPRAY FOAM INSULATION.

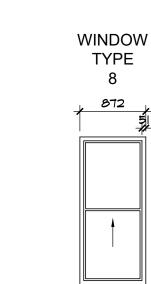
 SHOP DRAWINGS ARE REQUIRED FOR REVIEW/APPROVAL. MANUFACTURER IS NOT TO PROCEED WITHOUT REVIEWED SHOP DRAWINGS FROM CONSULTANT AND GENERAL CONTRACTOR.

4. ALL EXTERIOR WINDOW AND DOOR GLAZING TO BE THERMAL UNITS, LOW-E ARGON FILLED.

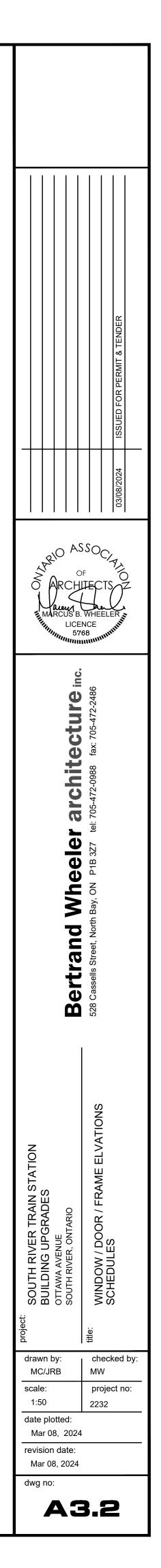
						ROOM	FINISH SCI	HEDULE						
ROOM		FLC	OR				W	ALL					CEILING	
NO.	NAME	MAT'L	BASE	NORTH		SOL	JTH	EA	ST	WEST		– MAT'L	FINISH	HEIGHT
NO.	NAME		DAGE	MAT'L	FIN	MAT'L	FIN	MAT'L	FIN	MAT'L	FIN		ГІЛІЗП	пеюнт
A101	WAITING	EXIST'G WOOD	WOOD	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXISTING PLYWOOD	REPAINT	+/- 3600
A102	CORRIDOR	EXIST'G WOOD	WOOD	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	GWB	PT	ACT	-	3000
A103	OFFICE	EXIST'G WOOD	WOOD	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXISTING PLYWOOD	REPAINT	+/- 3600
A104	WASHROOM	TILE	TILE	TILE	-	TILE	-	TILE	-	TILE	-	ACT	-	3000
A105	STORAGE	EXIST'G WOOD	WOOD	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXIST'G WOOD	STAIN	EXISTING PLYWOOD	REPAINT	+/- 3600
A106	WAREHOUSE	EXIST'G WOOD	WOOD	EXIST'G WOOD	PT	EXIST'G WOOD	PT	EXIST'G WOOD	PT	GWB	PT	EXISTING	-	VARIES

						C	OOR AN	D FRAME	SCHEDU	JLE				
DOOR							FRAME / SCREEN						HDWR	DEMARKS
NO.	ROOM	TYPE	MAT	FIN	WIDTH	HEIGHT	TYPE	MAT	FIN	WIDTH	HEIGHT	ULC		REMARKS
D101	WAITING	1	STEEL CLAD WOOD	PT	915	MATCH EXIST'G	A	WD	РТ	-	-	N/A	DEADBOLT, LEVER LOCKSET, PDO	MODIFY OPENING TO SUIT WIDTH FOR BF ACCESS
D102	OFFICE	3	WOOD	PT	(x2)915	2150	В	WD	PT	-	-	N/A	LEVER LOCKSET, PINS	SEE NOTES ON DRAWINGS.
D103	OFFICE	2	STEEL CLAD WOOD	PT	MATCH EXIST'G	MATCH EXIST'G	A	WD	PT	-	-	N/A	DEADBOLT, LEVER LOCKSET, CLOSER	
D104	UNIVERSAL WASHROOM	2	WOOD	PT	965	2150	С	WD	РТ	-	-	N/A	UNIVERSAL HARDWARE KIT	
D105	STORAGE	2	WOOD	PT		MATCH EXIST'G	A	WD	РТ	-	-	N/A	LEVER LOCKSET	
D106	WAREHOUSE	2	STEEL CLAD WOOD	PT		MATCH EXIST'G	A	WD	РТ	-	-	N/A	DEADBOLT, LEVER LOCKSET, CLOSER	





## ROOM FINISH SCHEDULE





## INSTALL SEAMLESS ALUMINUM EAVESTROUGHS INSTALLED WITH MATCHING DOWNSPOUTS. 2. UTILIZE PREMANUFACTURED BENDS, GOOSENECKS, OUTLETS, STRAINER BASKETS AND 3. COORDINATE LOCATIONS OF DOWNSPOUTS WITH SURFACE DRAINS AND/OR OWNER.

PROVIDE PRECAST CONCRETE SPLASH PANS WHERE SPOUTS DRAIN DIRECTLY ONTO GRADE. 5. COORDINATE COLOURS WITH OWNER. INSTALL WITH MATCH FASTENERS.

EXTERIOR LOCATIONS: SEAL AROUND ALL OPENINGS WITH EPOXIDIZED POLYURETHANE. 3. APPLY SEALANT AROUND OTHER EQUIPMENT & FIXTURES AS PER MANUFACTURERS

I. INSTALL PRE-HUNG 1-3/4" HEAVY-DUTY GALVANIZED STEEL DOORS WITH PREFINISHED WHITE

3. ALL EXTERIOR DOORS AND FRAMES TO BE INSULATED AND THERMALLY BROKEN.

SECURE ANCHORAGES AND CONNECTIONS TO ADJACENT CONSTRUCTION. MAKE ALLOWANCES FOR DEFLECTION OF STRUCTURE TO ENSURE STRUCTURAL LOADS CAULK PERIMETER OF FRAMES BETWEEN FRAME AND ADJACENT MATERIAL.

INSTALL DOORS AND HARDWARE IN ACCORDANCE WITH HARDWARE TEMPLATES AND PROVIDE EVEN MARGINS BETWEEN DOORS AND JAMBS AND DOORS AND ADJACENT

16. WHERE BARRIER-FREE ACCESS IS REQUIRED, DOOR SILLS TO BE MAXIMUM 13MM (1/2") HIGH

CAULK PERIMETER OF FRAMES BETWEEN FRAME AND ADJACENT MATERIAL

4.1. INSTALL DOORS AND HARDWARE IN ACCORDANCE WITH HARDWARE TEMPLATES AND MANUFACTURER'S INSTRUCTIONS. 4.2. PROVIDE EVEN MARGINS BETWEEN DOORS AND JAMBS AND DOORS AND ADJACENT

#### I. COMBINATION OF RESIDENTIAL & COMMERCIAL GRADE DOOR HARDWARE TO BE PROVIDED INCLUDING HINGES, CLOSURES, LOCKSETS, DEADBOLTS, SMOKE SEALS, DOOR STOPS, PULLS,

INCLUDING BALL BEARING HINGES AND CONTINUOUS PIANO STYLE HINGES. 4. PROVIDE CYLINDRICAL LOCKSETS WITH LEVER HANDLES. PROVIDE ADDITIONAL DEADBOLTS 5. PROVIDE POWER DOOR OPERATORS AT MAIN ENTRY, ALL BARRIER-FREE WASHROOMS, AND ALL UNIVERSAL WASHROOMS. PROVIDE UNIVERSAL WASHROOM HARDWARE KIT IN ALL

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.

I. VINYL UNITS WITH OPERABLE UNIT, LOCKABLE, TILT-OUT CLEANABLE. COORDINATE ALL

3. PROVIDE INTEGRAL CHANNEL AT PERIMETER OF INTERIOR FRAME FOR TIGHT INSERTION OF

FOR ADDED WATER CONTROL USE A SELF ADHERING MEMBRANE FLASHING AROUND ENTIRE INSULATE ALL VOIDS AROUND FRAMES USING LOW-EXPANSION FOAM FOR SEAL AND AIR 8. COMPLETELY SEAL ON BOTH INTERIOR AND EXTERIOR SIDES. CAULKING COLOUR TO MATCH

ALL MATERIALS AND COLOURS TO BE LATER SELECTED BY OWNER. REFER ALSO TO ROOM 2. UNLESS OTHERWISE INDICATED, THE INTERIOR FINISHES OF ALL PARTITIONS, CEILINGS #

5. USE SUITABLE THRESHOLDS FOR ALL FLOORING CHANGES BETWEEN DISSIMILAR FLOOR FINISHES. NO THRESHOLD SHALL BE GREATER THAN IOMM IN HEIGHT.

#### I. PRIME & PAINT ALL NEW AND EXISTING ROOMS AFFECTED BY THE WORK, INLCUDING FINISHES, DOORS, TRIMS AND FRAMES. REFER ALSO TO ROOM FINISH SCHEDULE, WHERE

2. PLYWOOD, PLASTER AND GYPSUM BOARD SURFACES: ONE COAT PRIMER-SEALER, WITH TWO 3. WOOD DOORS, TRIM ETC. : ONE COAT ENAMEL UNDERCOAT, WITH TWO COATS SEMI-GLOSS 4. FOR GALVANIZED AND ZINC COATED METAL: ONE COAT VINYL WASH PRIMER, WITH ONE COAT ENAMEL UNDERCOAT, WITH TWO COATS SEMI-GLOSS ENAMEL 5. DO NOT PAINT OVER FIRE RATINGS ON DOORS, FRAMES AND CLOSURES.

## MASHROOM ACCESSORIES:

- OWNER TO SELECT ALL PRODUCTS.
   INSTALL THE FOLLOWING EQUIPMENT WITHIN EACH NEW AND RENOVATED WASHROOM.
   2.1. XI TOILET TISSUES DISPENSERS 2.2. x2 - GRAB BARS (ACCESSIBLE WASHROOMS)
- 2.3. XI MIRRORS (HEIGHT TO BE 1000mm AFF).
- 2.4. x2 COAT HOOKS 3. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS 4. PROVIDE SOLID WOOD BLOCKING FOR ADULT SIZED CHANGE TABLE.

MECHANICAL NOTES:

I. PERFORM ALL MECHANICAL WORK USING APPROVED & LICENSED TRADEPERSONS. PERFORM ALL WORK IN STRICT ACCORDANCE WITH AUTHORITIES. 2. TEST AND DEMONSTRATE ALL EQUIPMENT PRIOR TO HAND-OVER.

PLUMBING NOTES:

- PERFORM ALL PLUMBING WORK USING APPROVED & LICENSED TRADEPERSONS. PERFORM ALL WORK IN STRICT ACCORDANCE WITH AUTHORITIES.
- 2. HOSE-BIBS: FROST FREE WITH INTERIOR SHUT-OFF BALL VALVE. 3. TEST AND DEMONSTRATE ALL FIXTURES PRIOR TO HAND-OVER.
- ELECTRICAL NOTES:
- PERFORM ALL ELECTRICAL WORK USING APPROVED & LICENSED TRADEPERSONS. PERFORM ALL WORK IN STRICT ACCORDANCE WITH ELECTRICAL AUTHORITIES.
- PROTECT EXISTING ELECTRICAL SYSTEM. MAINTAIN POWER THROUGH BUILD. 3. REMOVE ALL ABANDONED WIRING & FIXTURES.
- REFASTEN ALL TEMPORARILY REMOVED WIRES. 5. REVIEW ALL NEW FIXTURES AND SWITCHING WITH OWNER PRIOR TO ORDERING AND INSTALLATION.

	03/08/2024 ISSUED FOR PERMIT & TENDER
ARCH MARCUS B. LICE 57	F TECTS WHEELER
Bertrand Wheeler architecture inc.	m <sup>i</sup>
project: SOUTH RIVER TRAIN STATION BUILDING UPGRADES OTTAWA AVENUE SOUTH RIVER, ONTARIO	title: SPECIFICATIONS
drawn by: KD scale: 1:50 date plotted: Mar 08, 2024 revision date: Mar 08, 2024 dwg no:	checked by: MW project no: 2232
A	4.1

#### Part 1 MECHANICAL GENERAL CONDITIONS

- THE MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOUR MATERIALS TOOLS 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 CONTRACTOR SHALL PROVIDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY
- CALLED FOR BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION. ONLY COMMERCIAL GRADE FOUIPMENT 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

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. 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
- TO THIS CONTRACT. 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 WITH THE SCOPE OF WORK.
- 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

#### VERIFIED ON SITE. Part 7 CONSTRUCTION SCHEDULE

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.

#### Part 9 CLEAN-UP

- 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 DFFFCT. 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.

### Part 11 TESTING

PERFORM TESTS ON EACH SYSTEM TO THE SATISFACTION OF THE ENGINEER AND SUBMIT 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

#### CONTRACT.

- 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.

#### Part 17 WARRANTY

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

COMPLETING WORK.

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
- RECTANGULAR DUCTWORK EXPOSED DUCTWORK IN MECHANICAL ROOMS TO BE CANVAS WRAPPED.

Part 23 METAL DUCTS - LOW PRESSURE TO 500 PA

GALVANIZED INDOOR AIR OUALITY AS PER ASHRAE STANDARDS. 2 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 A SEAL .5 HANGERS: GALVANIZED STEEL ANGLE WITH GALVANIZED STEEL RODS TO ASHRAE AND

#### Part 24 FLOOR DRAINS

SMACNA.

- .1 FINISHED AREAS 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.
- .2 TILED AREAS 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. EQUAL 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. EQUAL TO MIFAB SERIES F1100-FC7-3

#### FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-FC7-3

- .5 FLOOR DRAIN WITH FUNNEL: .1 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. FOUAL TO MIFAB SERIES F1100-FG
  - FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-EG SERIES LACOUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE. WEEPHOLES AND STANDARD 4" (102) ROUND SATIN FINISHED NICKEL BRONZE FUNNEL ASSEMBLY.
  - FOUAL TO MIFAB SERIES F1100-FF FOR MEMBRANE FLOORS EQUAL TO MIFAB F1100-C-EF SERIES
- 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
- FOR NON MEMBRANE FLOORS EQUAL TO MIFAB F1320 SERIES

#### 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. EQUAL TO MIFAB C1100-XR-4
- .4 CLEANOUTS IN LINOTILE AREAS TO BE (ROUND TOP) OR C1100-TS-3 (SQUARE TOP) WITH A HEAVY DUTY LOAD RATED POLISHED STAINLESS STEEL TOP. EQUAL 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. EQUAL TO MIFAB SERIES C1100-RFC7-3-34

#### .2 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.
- .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. FOUAL 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. 3 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

FOUAL TO MIFAB SERIES C1460

ABOVE GROUND: COPPER TUBE, HARD DRAWN, TYPE L: TO ASTM B 88M. 2 BURIED OR EMBEDDED: COPPER TUBE, SOFT ANNEALED, TYPE K: TO ASTM B 88M, IN LONG LENGTHS AND WITH NO BURIED JOINTS.

BRONZE BODY, CHROME PLATED BRASS BALL, PTFE ADJUSTABLE PACKING, BRASS GLAND

ZURN #Z5555-K HIGH PERFORMANCE TWO PIECE WATER CLOSET, VITREOUS CHINA,

IN) FLUSH VALVE, 51 MM (2 IN) COMPLETELY GLAZED TRAPWAY, CHROME FINISH

AT 425 MM (16 23/32 IN) HEIGHT, ELONGATED BOWL, SIPHON JET ACTION, 76 MM (3

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

ZURN #Z5765 ECOVANTAGE 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

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

POLISHED CHROME-PLATED LOW LEAD CAST BRASS FAUCET WITH INTEGRAL SHANKS.

102 MM (4 IN) CENTER, OUARTER 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

PLATED FINISH. Z8746-PC STRAINER OFFSET DRAIN ASSEMBLY. CAST BRASS BODY. 32

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

PROTECTORS, RESISTS THERMAL TRANSFERS FOR P-TRAP, OFFSET DRAIN ASSEMBLY,

MM (1 1/4 IN). POLISHED CHROME FINISH. Z8700-8-PC-BD CAST BRASS ADJUSTABLE

WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, CONCEALED ARMS, ALIGNMENT TRUSS AND MOUNTING FASTENERS. Z8946-3-NT ANTIMICROBIAL

.1 CONTRACTOR TO CARRY SERVICES OF AIR BALANCING SUBCONTRACTOR IN TENDER PRICE

.2 SUBMIT AIR BALANCING REPORT TO ENGINEER FOR REVIEW AND ACCEPTANCE UPON

KEY, VERTICAL FLEXIBLE HOSES OF 10 X 300 MM (3/8 X 12 PO), FLANGES CHROME

CONCEALED ARMS, DRILLED 3 HOLES AT 102 MM (4 IN) SPACING. Z81104-XL-3M

BUMPER GUARD, STAINLESS STEEL CHECK HINGES. (WHITE).

AND PTFE SEAT, STEEL LEVER HANDLE, WITH NPT TO COPPER ADAPTORS AS SPECIFIED

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

#### Part 28 BALL VALVES

.1 NPS 2 AND UNDER, SOLDERED:

Part 29 PLUMBING FIXTURES

TO ANSI/ASME B16.18, CLASS 150.

SECTION 23 05 23.01 - VALVES - BRONZE.

U#1 - WALL MOUNTED URINAL - VITREOUS CHINA

VALVE FOR 1.0 GPF (3.8 LPF)

STOP AND SUPPLY.

COMPLETION OF BALANCING.

L#1 - WALL HUNG LAVATORY -BARRIER FREE - VITREOUS CHINA

Part 30 TESTING, ADJUSTING, AND BALANCING FOR HVAC SYSTEMS

FOR WORK OUTLINED IN CONTRACT DOCUMENTS.

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

		PLUM	BING FIXTURE S	SCHEDULE			
TAG	FIXTURE NAME	COLD WATER PIPE SIZE	HOT WATER PIPE SIZE	SANITARY PIPE SIZE	VENT PIPE SIZE	NOTES	ACCESSORIES
WC	WATER CLOSET FLUSH TANK	1/2"	-	4"	1 1/2"		
U	URINAL	1"	-	2"	1 1/4"		
L	LAVATORY	1/2"	1/2"	1 1/4"	1 1/4"		
FD	FLOOR DRAIN	-	-	3"	1 1/2"		
Notes:					•		

Accessories:

MINIMAL PIF	PE INSULATION -	METALLIC PIPE	MINIMAL	PIPE INSULATIO	N - PEX PIPE
TEMP °F	DOMESTIC C.W.	DOMESTIC H.W.	TEMP °F	DOMESTIC C.W.	DOMESTIC H.W.
PIPE SIZE	40-60 °F	141-200 °F	PIPE SIZE	40-60 °F	141-200 °F
½" TO ¾"	1"	1-1⁄2"	½" to ¾"	1"	1-½"
1" TO 1-1⁄4"	1"	1-1⁄2"	1" TO 1-1⁄4"	1"	1-1⁄2"
1-½" TO 3-½"	1"	2"	1-½" TO 3-½"	1"	1-1⁄2"
4" TO 8"	1"	2"	4" TO 8"	1"	1-1⁄2"
8" AND ABOVE	1"	2"	8" AND ABOVE	1"	2"

		DIFFUSER	AND GRILLE S	CHEDULE							
TAG	MANUFACTURER	DESCRIPTION	MODEL	OVERALL SIZE	NECK SIZE	NOTES	ACCESSORIES				
1	1     NAILOR     ALUMINUM DOUBLE DEFLECTION SUPPLY AIR GRILLE     51DH     8"x4" 6"x6", 10"x4"     6"Ø     1     A										
2	NAILOR	ALUMINUM FIXED 45° SINGLE DEFLECTION RETURN AIR GRILLE	5145H	8"x6" 10"x5", 12"x4"		1	A				
Notes:											
1. Coordi	nate connection to duct true	nks on site. Confirm and coordinate all req	uirements.								
Accessori	es:										

A: Opposed blade damper

		HEAT	RECOVERY VE	NTILATOR	SCHEDULE			
TAG	MANUFACTURER	MODEL	E.S.P. in W.C.	SUPPLY AIRFLOW (CFM)	RETURN AIRFLOW (CFM)	MOTOR /POWER REQUIREMENTS	NOTES	ACCESSORIES
HRV#1	LIFEBREATH	ERV120D	0.3	130	130	610W 120V SP	1,2	A,B,C,D,E
Notes:			1	1				
1. Fresh a	ir and exhaust air ductwork to	be insulated to unit.						
2. Wall m	ounted as per manufacturers	recommended installation ins	tructions.					
Accessori	es:							
A: Back di	aft damper on exhaust port							
B: Discon	nect switch							
C: 20/40/	60 min. high speed override p	ushbutton						
D: Provide	e programmable wall control v	with default Normal Speed/Hi	gh Speed option to	be only modes	s available.			
E: Electric	reheat coil 1.5 kW c/w discha	arge air temperature sensor, S	CR controller, ther	mal cut out swi	itch, fan relay,	airflow sensor, etc.		

PL	UMBING GENERAL NOTES:
1.	INSTALLATION SHALL BE IN ACCORDANCE TO THE ONTA AUTHORITIES HAVING JURISDICTION.
2.	CONTRACTOR SHALL VERIFY ALL TIE IN POINTS TO EXIST STARTING WORK.
3.	CONTRACTOR TO PROVIDE ALL FITTINGS, ACCESSORIES, OF THE WORK INDICATED ON THE DRAWINGS AND SPEC
4.	REMOVE AND DISPOSE OF ALL UNUSED FIXTURES, EQUI OTHERWISE NOTED.
5.	ALL PIPING SHALL BE ROUTED ABOVE CEILING SPACE UN BE ROUTED AS HIGH AS POSSIBLE, TIGHT TO THE UNDER
6.	ALL PIPING SHALL BE CONCEALED IN WALL SPACE AND E NOTED.
7.	SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS ETC. AS RE STRUCTURAL BEAMS, JOISTS, ETC. PRIOR TO COMMENC REQUIREMENTS AND CARRY ALL COSTS.
8.	CONTRACTOR TO PROVIDE TEST PLUGS IN ALL PLUMBIN PREVENT ANY DEBRIS FROM ENTERING SYSTEM UNTIL F
9.	WHEREVER FOUNDATIONS, EXTERIOR WALLS OR ROOFI SYSTEMS, THEY SHALL BE PATCHED TO MATCH EXISTING
10.	ACCESS PANELS TO BE PROVIDED WHERE VALVES, CONT ASSEMBLIES. ALL DEVICES REQUIRING ACCESS FOR MAIL
11.	ALL CONNECTIONS BETWEEN FERROUS AND NONFERRO DIELECTRIC UNION/COUPLING.
12.	FIRE-STOP ALL PENETRATIONS THROUGH RATED ASSEM
13.	PROVIDE A METHOD OF ISOLATION IE. BALL VALVES, FO MAIN. ENSURE ADEQUATE ACCESS PROVIDED FOR ISOLA
14.	ALL PIPING, INSULATIONS, SANITARY AND VENT LINES R
15.	ALL FIXTURES AND DEVICES ASSOCIATED WITH DOMEST FOR LEAD CONTENT.
16.	PRIME ALL FLOOR DRAINS TO NEAREST COLD WATER LIN

## VENTILATION GENERAL NOTES:

- BUILDING CODE, AND ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. 2. ALL EQUIPMENT TO BEAR THE CSA AND ULC LABELS.
- PROCESS TO BE PROPERLY SEALED AND MATCH ALL EXISTING RATINGS.
- ON THE DRAWINGS OR AFFECTING THIS WORK AND SHALL REPORT ANY DEVIATIONS TO THE CONSULTANT.
- SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN.
- ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH A METHOD OF SWITCH TO BE SUPPLIED BY MECHANICAL DIVISION, INSTALLED AND WIRED BY ELECTRICAL DIVISION.
- UNLESS OTHERWISE NOTED, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
- 11. UNLESS OTHERWISE NOTED PROVIDE AIR TURNING VANES IN ALL 90 DEGREE RECTANGULAR DUCT.
- LINTELS AS REQUIRED AND CARRY ALL COSTS.
- EQUIPMENT OF ALL TRADES.
- 16. REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
- DOORS/PANELS ARE NOT REQUIRED.
- FITTINGS ETC. TO ALLOW SMOOTH FLOWS.
- REGISTERS, LOUVERS AND DISTRIBUTION DEVICES.
- DUCTWORK.
- PRE-WORK SHALL BE PERFORMED TO MAKE THE SHUTDOWN PERIOD AS BRIEF AS POSSIBLE
- DISCHARGE LOCATIONS.
- 24. SLEEVE AND SEAL ALL PIPING PENETRATIONS THROUGH BUILDING PARTITIONS.
- ACCESS AVAILABLE IF NOT THEN ACCESS TO BE PROVIDED AS PART OF THE SCOPE OF WORK. 27. PROVIDE VIBRATION ISOLATION FOR ALL SUSPENDED EQUIPMENT

# ARIO BUILDING CODE, AWWA STANDARDS/GUIDELINES AND ALL

TING PLUMBING, SANITARY AND VENT LINES PRIOR TO

, AND MATERIALS REQUIRED TO FACILITATE THE COMPLETION CIFICATIONS.

IIPMENT, PIPING, VALVES, HANGERS/SUPPORTS ETC. UNLESS

NLESS OTHERWISE NOTED. ALL PIPING EXPOSED TO VIEW SHALL RSIDE OF THE STRUCTURE AND WRAPPED IN PVC JACKET. BEHIND FIXED FURNISHINGS (MILLWORK) UNLESS OTHERWISE

EQUIRED FOR PIPING. VERIFY LOCATION OF ANY AND ALL CEMENT OF DRILLING. CONFIRM AND COORDINATE ALL

ING AND SANITARY/VENT PIPING DURING CONSTRUCTION TO INAL PRODUCT IS INSTALLED.

ING SYSTEMS ARE PENETRATED FOR INSTALLATION OF G CONSTRUCTION AND SEALED WEATHER TIGHT. ITROL DEVICES, ETC. ARE CONCEALED WITHIN WALLS OR CEILING AINTENANCE OR ADJUSTMENT SHALL BE MADE ACCESSIBLE.

ROUS PIPING SHALL BE PROTECTED WITH AN ISOLATION, MBLIES WITH APPROVED FIRE STOPPING SYSTEM/MATERIALS.

OR ALL DOMESTIC HOT AND COLD WATER BRANCHES OFF THE LATION DEVICES AS INDICATED ABOVE. RUN IN A PLENUM SPACE SHALL BE RATED FOR SUCH DUTY.

STIC HOT AND COLD WATER TO MEET NSF/ANSI STANDARD 61 LINE COMPLETE WITH LEAD FREE TRAP PRIMER VALVE.

ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO

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

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

CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS AND

DISCONNECTION AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND ELECTRICAL DRAWINGS. DISCONNECT

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.

9. CONNECTIONS TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS, TRANSITIONS TO

10. DUCT CONSTRUCTION INCLUDING GAUGES, THICKNESS, BRACING, REQUIREMENTS, ETC., SHALL BE IN ACCORDANCE 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

13. COORDINATE ALL DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND

14. LOCATE ERV CONTROLS, THERMOSTATS AT 47" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE LOCATIONS WITH OTHER EQUIPMENT, FURNITURE, AND DOOR SWINGS.

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 OR MAINTENANCE OF MECHANICAL EQUIPMENT. NOTE THAT WHERE REMOVABLE CEILING PANELS EXISTS, ACCESS

18. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS,

19. VERIFY ALL FINISHES AND COLOURS WITH ARCHITECT PRIOR TO PURCHASING ANY/ALL DIFFUSERS, GRILLES,

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

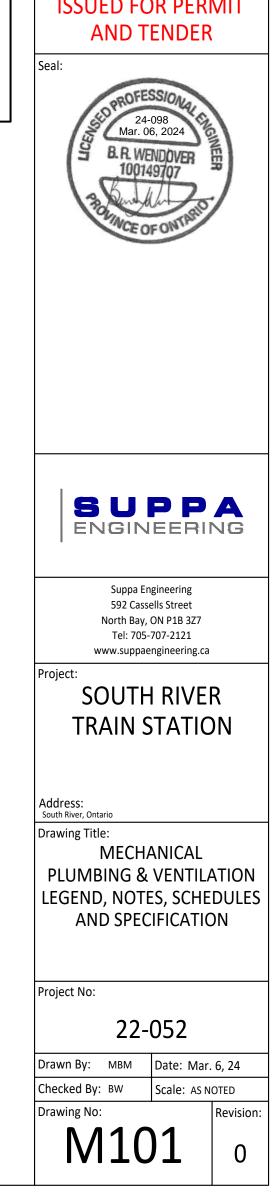
21. INTERRUPTIONS TO EXISTING SERVICES SHALL BE SCHEDULED FOR TIMES OTHER THAN NORMAL OPERATING HOURS (SUCH AS NIGHTS AND WEEKENDS). SUCH INTERRUPTIONS TO SERVICES SHALL NOT BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE AND PROPER COORDINATION WITH OTHER TRADES,

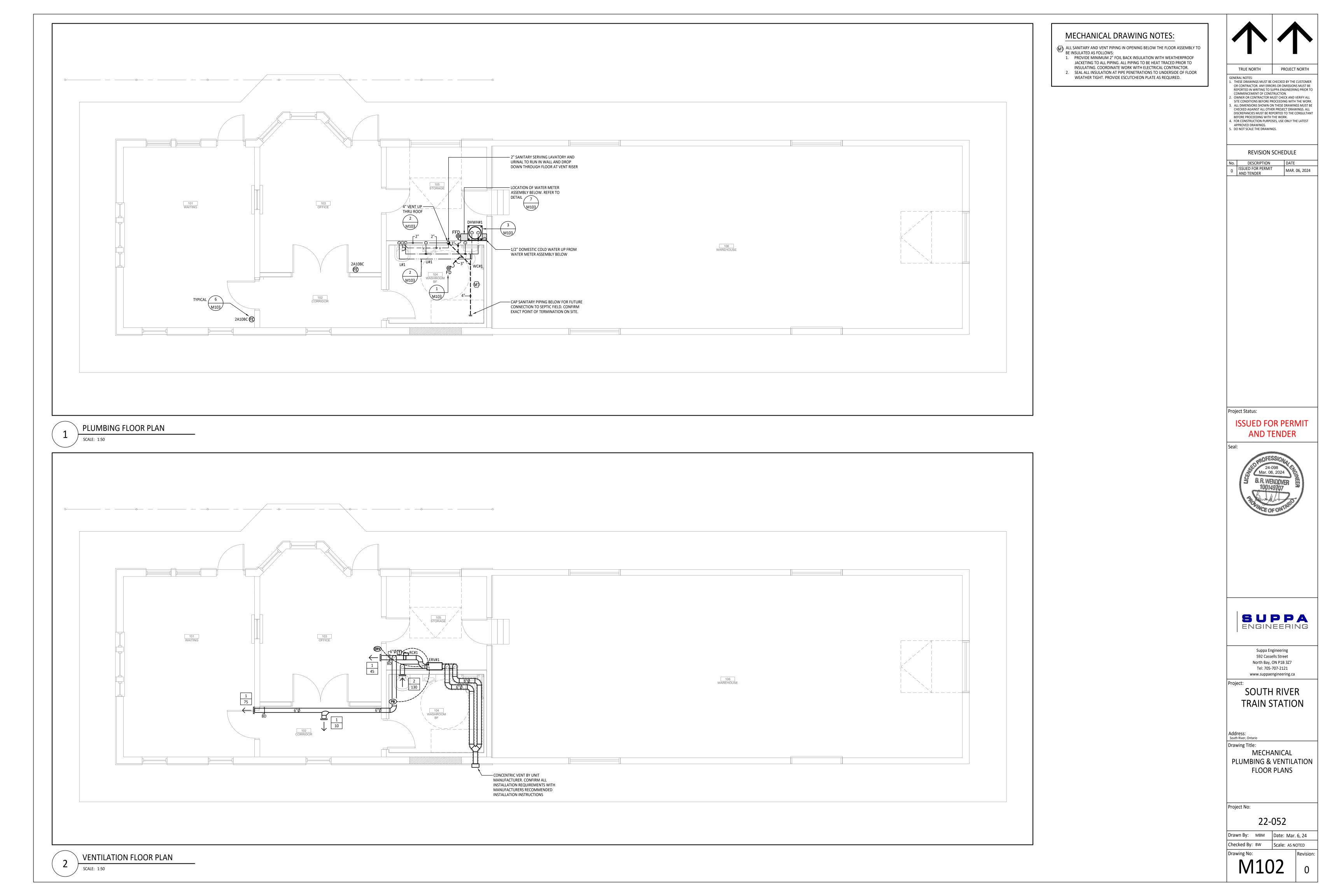
22. FIRE STOP ALL PENETRATIONS THROUGH RATED ASSEMBLIES WITH FIRE STOP SYSTEM MATCHING WALL/FLOOR ASSEMBLY'S FIRE RATING. CONFIRM WITH ARCHITECTURAL DRAWINGS FOR EXACT RATINGS AND LOCATIONS.

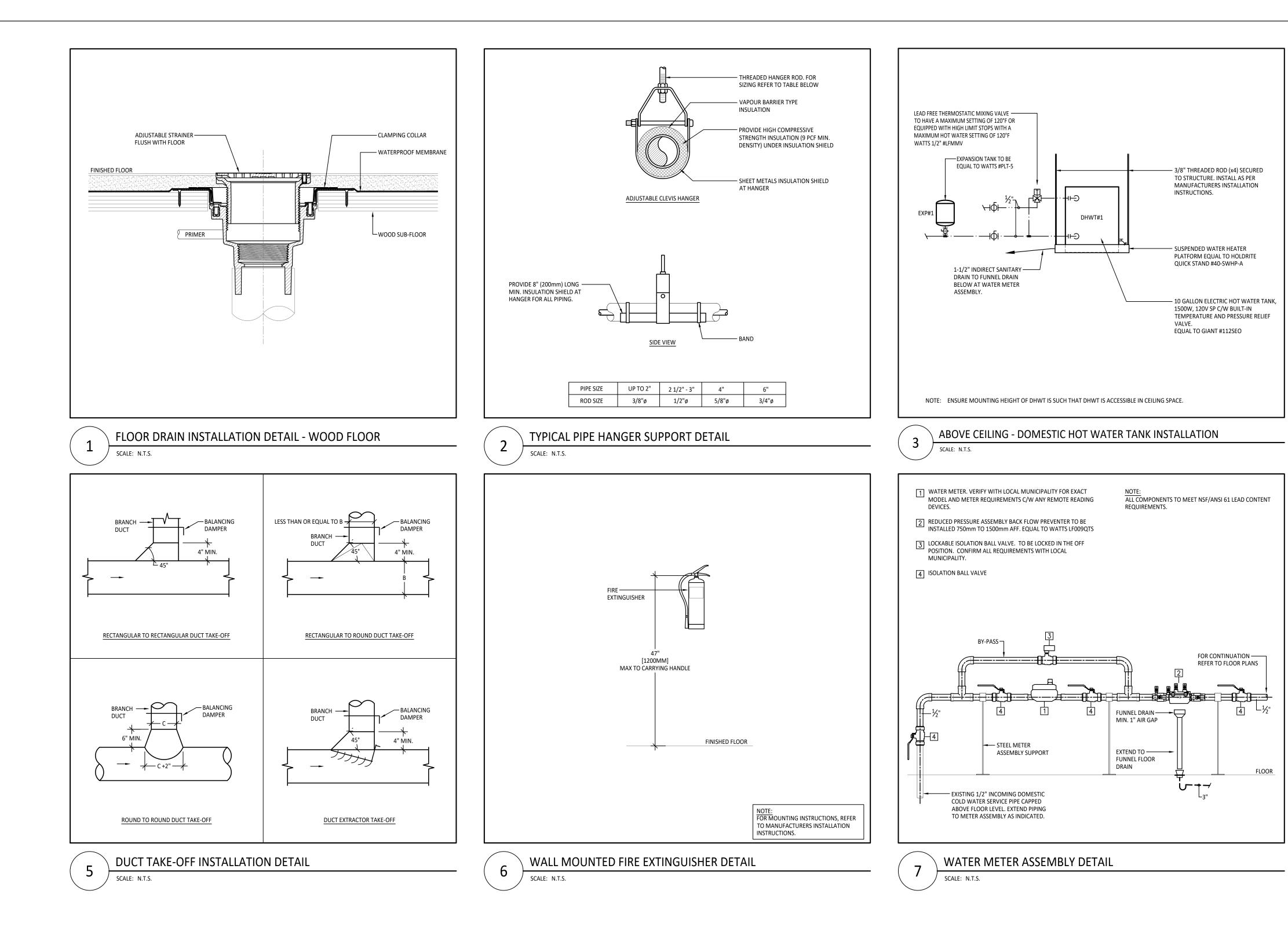
23. LOCATE ALL OUTSIDE AIR INTAKES A MINIMUM OF 10'-0" FROM ANY/ALL PLUMBING VENTS AND EXHAUSTS AIR

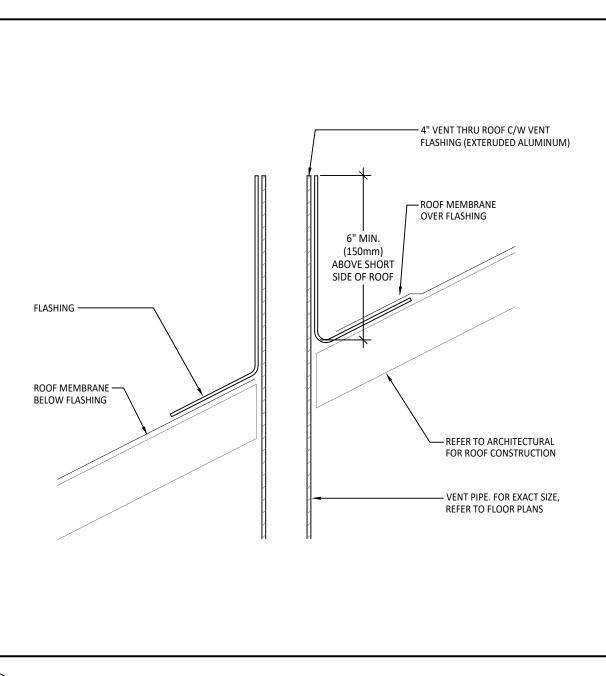
25. INSULATE ALL AIR INTAKE DUCTWORK AND ALL EXHAUST DUCTWORKS A MINIMUM OF 10' FROM EXHAUST LOUVRE. 26. PROVIDE BALANCING DAMPERS FOR ALL NEW DUCTWORK THAT HAS BRANCH CONNECTIONS, ENSURE ADEQUATE

				•
MECHAN	NICAL LEGEND			
	DOMESTIC COLD WATER			
	DOMESTIC HOT WATER			
	SANITARY ABOVE GRADE		TRUE NORTH	PROJECT NORTH
	SANITARY BELOW GRADE		ERAL NOTES:	
vv	VENT ABOVE GRADE	0	HESE DRAWINGS MUST BE CH R CONTRACTOR. ANY ERROR! EPORTED IN WRITING TO SUP	S OR OMISSIONS MUST BE
ıфı	BALL VALVE	2. 0	OMMENCEMENT OF CONSTR WNER OR CONTRACTOR MUS TE CONDITIONS BEFORE PRO	ST CHECK AND VERIFY ALL
	THERMOSTATIC MIXING VALVE	C	LL DIMENSIONS SHOWN ON T HECKED AGAINST ALL OTHER ISCREPANCIES MUST BE REPO	PROJECT DRAWINGS. ALL
C	PIPE DROP	4. F0	EFORE PROCEEDING WITH TH DR CONSTRUCTION PURPOSE PPROVED DRAWINGS.	
Ø	PIPE RISE		O NOT SCALE THE DRAWINGS	5.
9	PLUMBING VENT RISER			
¥r₀	DRAIN CONNECTION		<b>REVISION S</b>	CHEDULE
		No.	DESCRIPTION ISSUED FOR PERMIT	DATE
	BACKFLOW PREVENTOR	0	AND TENDER	MAR. 06, 2024
Ŵ	WATER METER			
U	P-TRAP			
II	UNION			
FD	FLOOR DRAIN			
coO—	SANITARY CLEANOUT (IN FLOOR)			
co	SANITARY CLEANOUT (IN WALL/CEILING)			
Ē	FIRE EXTINGUISHER			
E	EXISTING TO REMAIN			
12"x12"	DUCT WITH DIMENSIONS, FIRST DIMENSION IS SIDE SHOWN			
	DUCT C/W INSULATION			
	DUCT SECTION UP			
	DUCT SECTION DOWN			
BD	BRANCH TAKE-OFF - C/W BALANCING DAMPER			
$\square \rightarrow$	WALL REGISTER - SUPPLY			
$\rightarrow$	WALL REGISTER - RETURN			
	MANUAL BALANCING DAMPER			
	IN DUCT HEATING COIL			
A B	DIFFUSER / GRILLE TYPE AND AIRFLOW A = TYPE (EX = EXISTING), B = AIR FLOW	_	ect Status:	R PERMIT
Ţ	AIR TEMPERATURE SENSOR		AND TE	
ERV	ERV CONTROLLER	Seal	:	
PB	PUSH BUTTON AS NOTED		OPROFESS	SIONAL
			24-09 Mar. 06, B.R. WFN	2024



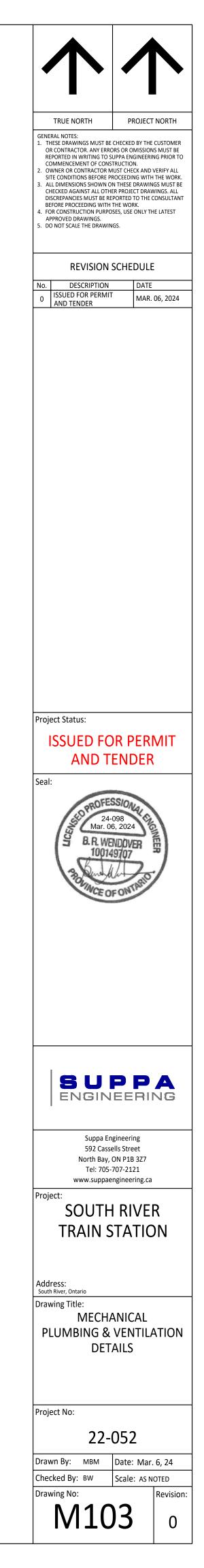






# VENT THRU SLOPED ROOF INSTALLATION DETAIL

SCALE: N.T.S.



#### 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 ONTARIO ELECTRICAL SAFETY CODE.

#### SCOPE OF WORK

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

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

- A. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL OBTAIN ALL PERMITS, INSPECTIONS, ETC. AS REQUIRED BY ALL 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.

#### AS-BUILT DRAWINGS

- 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

- 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 NOTICE.

#### REVISIONS AND EXTRAS

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, ETC.

#### CLEAN UP

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.

#### TESTING

- 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.

#### RESPONSIBILITY

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.

#### WARRANTY

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.

ACCESS DOORS

A. PROVIDE ACCESS DOOR FOR ALL CONCEALED ELECTRICAL

INSPECTION, ADJUSTMENT, AND SERVICING.

SHALL BE NAILOR OR APPROVED EQUIVALENT.

B. LOCATE ACCESS DOORS TO ALLOW FOR PROPER OPERATION,

ACCESS DOORS TO BE FLUSH MOUNTED. PROVIDE MINIMUM

D. COORDINATE FINISH WITH ENGINEER. PRIMED AND PAINTABLE

A. MINIMUM WIRE SIZE FROM BATTERY UNIT TO DC REMOTE HEAD

A. MOUNTING HEIGHT OF EQUIPMENT IS FROM FINISHED FLOOR TO

. INSTALL ELECTRICAL AT THE FOLLOWING HEIGHTS UNLESS

2. WALL RECEPTACLES: - GENERAL: 450mm

4. EMERGENCY LIGHT HEADS: 2400mm

CENTRELINE OF EQUIPMENT UNLESS SPECIFIED OR INDICATED

- ABOVE TOP OF CONTINUOUS BASEBOARD HEATER: 200mm

- ABOVE TOP OF COUNTERS OR COUNTER SPLASH BACKS: 150mm

STEEL ACCESS DOORS TO BE PROVIDED IN ALL AREAS.

E. ALL ACCESS DOORS SHALL BE OF SAME MANUFACTURER AND

600mmX600mm WHERE BODY ENTRY IS REQUIRED. PROVIDE

MINIMUM 300mmX300mm WHERE HAND ENTRY IS REQUIRED.

EQUIPMENT AND CONNECTIONS.

EMERGENCY LIGHTING AND EXIT SIGNS

(S) SHALL BE NO.10 AWG.

INDICATED OTHERWISE.

3. EXIT LIGHTS: 2400mm

1. LOCAL SWITCHES: 1050mm

MOUNTING HEIGHTS

OTHERWISE.

#### 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.
- D. 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 DISTANCES LONGER THAN 120 FT, THE VOLTAGE DROP SHALL BE 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
- 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.
- G. CONDUIT INSTALLED OUTDOORS OR IN DAMP LOCATIONS SHALL BE RIGID PVC AND SHALL BE PROVIDED WITH SEALING FITTING WHERE CONDUIT PASSES THROUGH OUTSIDE WALL AND/OR ROOF.
- PROVIDE GROUND WIRE, SIZED IN ACCORDANCE WITH OESC TABLE 16. METALLIC RACEWAY AS A MEANS OF GROUNDING/BONDING WILL NOT BE ACCEPTED

#### SLEEVES

- 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
- SHEET STEEL 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.

#### SAFETY SWITCHES

- 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 D.
- SWITCHES ARE REOUIRED. 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 FOUIPMENT 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 ELECTRICAL ROOM.
- 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
- PROVIDED BY THE MECHANICAL TRADE. 7. UNLESS OTHERWISE INDICATED, ALL SPECIFIED ELECTRICAL HEATING EQUIPMENT TOGETHER WITH THE CONTROL
- THERMOSTATS, CONDUIT, WIRE, ETC. SHALL BE PROVIDED BY THE ELECTRICAL TRADE. 8. THE ELECTRICAL TRADE SHALL VERIFY ALL MOTOR CONNECTIONS FOR PROPER PHASE ROTATION, WHERE

#### WIRING DEVICES

APPLICABLE.

- 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 REOUIRED.
- THE OWNER OR ENGINEER HAS THE RIGHT TO RELOCATE OUTLETS UP TO 10 FT. (3.3M) IN ANY DIRECTION PRIOR TO INSTALLATION WITHOUT EXTRA CHARGE. 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

#### LOW VOLTAGE

- 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
- Δ 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, FTC, 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.

		PANEL NAME: EXISTING	G PANEL 'A'										
WIRE SIZE		CIRCUIT DESCRIPTION	TYPE	BREAKER SIZE	LOAD	CIRCUIT #	PHASE	CIRCUIT #	LOAD	BREAKER SIZE	TYPE	CIRCUIT DESCRIPTION	WIRE SIZE
2//12/16/00				204	4500	1	A	2		15A		INTERIOR LIGHTING	2#12-16mmC
2#12-16mmC	DO	MESTIC HOT WATER HEATER #1		20A	1500	3	В	4					
2#12-16mmC		HRV #1		15A	154	5	A	6	1500	20A		REHEAT COIL #1	2#12-16mmC
2#12-16mmC		HEAT TRACING		20A	-	7	В	8		15A 15A		EXISTING RECEPTACLES EXISTING RECEPTACLES	
2#12-16mmC		RECEPTACLES		15A	300	9	A	10		15A 15A		EXISTING RECEPTACLES EXISTING RECEPTACLES	
2#12-16mmC		W/R RECEPTACLE		15A	150	11	В	12					
		SPARE		20A		13	A	14		15A		EXISTING SPLIT RECEPTACLES	
		EXISTING RECEPTACLES EXISTING RECEPTACLES		15A 15A		15	В	16		15A 15A		EXISTING RECEPTACLES EXISTING RECEPTACLES	
		EXISTING RECEPTACLES EXISTING RECEPTACLES		15A 15A		17	A	18		15A 15A		EXISTING RECEPTACLES EXISTING RECEPTACLES	
2//12/16/00				204	2500	19	В	20		204			
2#12-16mmC	В	ASEBOARD HEATER #2/#4/#5		20A	3500	21	A	22		20A		EXISTING BASEBOARD HEATING	
2#12.16mmC				15A	2000	23	В	24		15A		EXISTING EXIT LIGHTING	
2#12-16mmC		FAN FORCED HEATER FF#1		156		25	A	26	1500				2#12.1(
		SPARE		15A		27	В	28	1500	20A		FAN FORCED HEATER FF#2	2#12-16mm(
		SPARE		15A		29	A	30		15A		EXTERIOR LIGHTING	2#12-16mm(
			TOTA	LLOAD						TOTAL	LOAD		•
	LOCATION:	CORRIDOR	PHASE:		1PH					MAINS TYPE:		BREAKER	
	MOUNTING:	SURFACE	WIRES:		3					MIN. MAINS F	ATING:	100A	
	VOLTAGE:	120/240V	K.A.I.C. RATI	NGS:	10					MCB RATING:		125A	
TYPE:	GFI -	GROUND FAULT PROTECTED											
	AFI -	ARC FAULT PROTECTED											

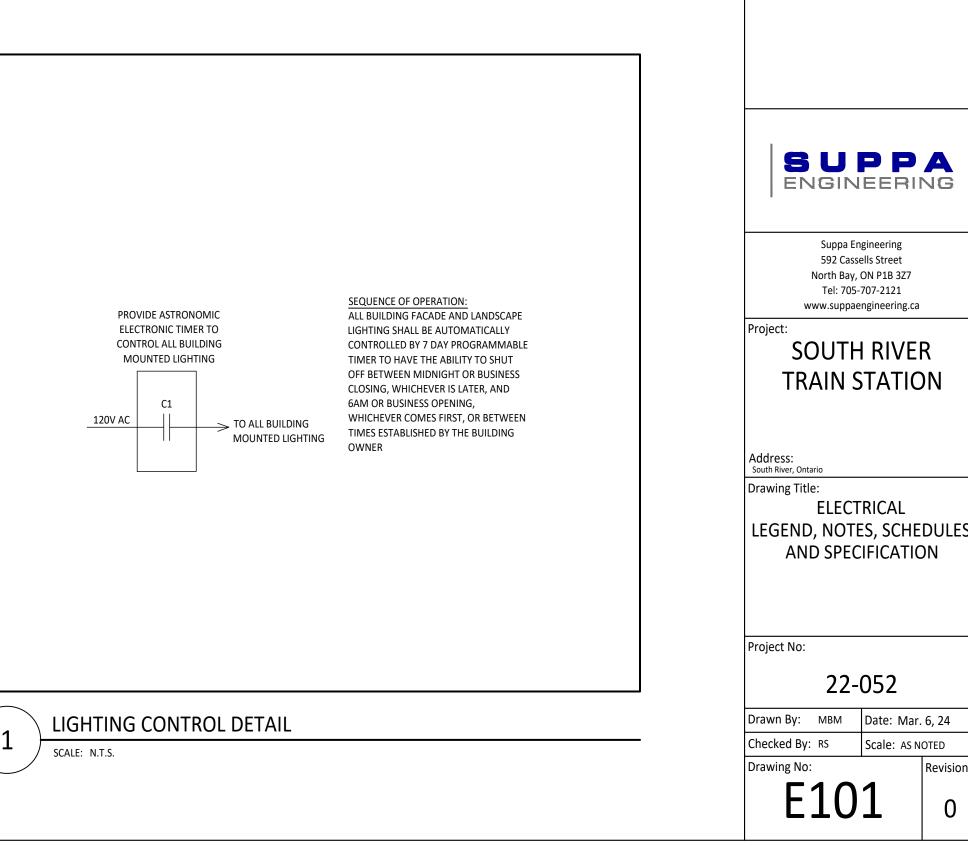
NOTE: CIRCUITING SHEET TO BE UPDATED AT JOB COMPLETION. EXISTING UNUSED BREAKERS TO BE LABELED AS SPARE.

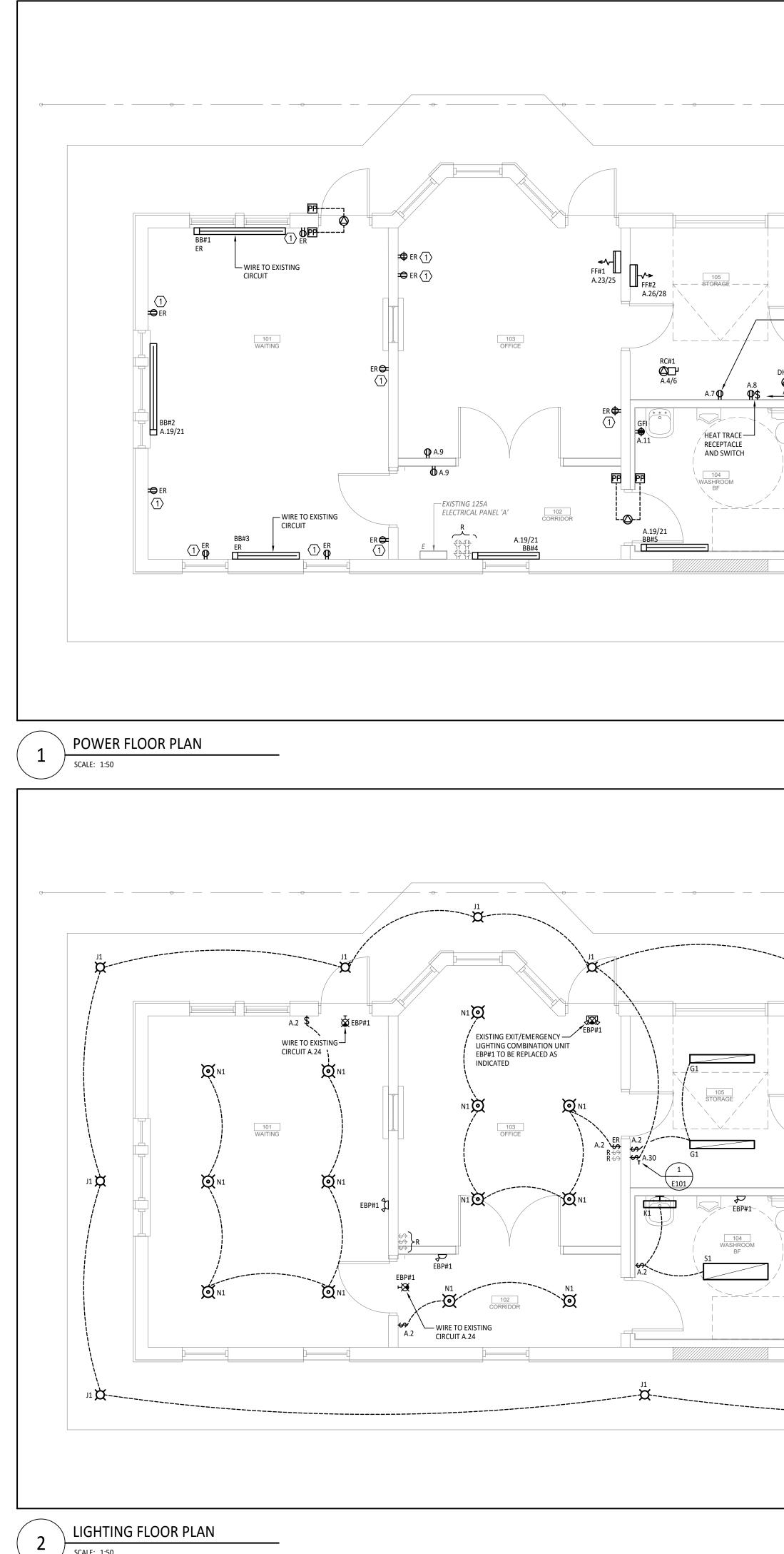
EMERGENCY LIGHTING AND EXIT SIGN SCHEDULE								
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	CONNECTED LOAD			
ප	12V LED SINGLE HEAD DECORATIVE REMOTE EMERGENCY LIGHT. COLOUR - WHITE STA		M-1-12-5W-LA-WH	5W	N/A			
ŝ	12V LED DOUBLE HEAD DECORATIVE REMOTE EMERGENCY LIGHT. COLOUR - WHITE	STANPRO	M-2-12-5W-LA-WH	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 HEATING 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				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	A	
FFH#2	OUELLET	OAC01500-T	1500	240V	16-1/8"W x 22-1/16"H	1,2	A	
Notes:								
1. Colour - Whit	e							
2. Confirm and o	coordinate installation with manu	facturer's installation instructio	ns					
Accessories:								
A: C/W built in t	hermostat							
B: C/W control r	relay and low voltage remote ther	mostat						

	LIGHT FIXTURE SCHEDULE							
FIXTURE TYPE	DESCRIPTION	COLOUR TEMPERATURE	MANUFACTURER	MODEL	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				
S1	LED 4' - SURFACE LINEAR	4000	LITHONIA	STL4-30L-MVOLT-LP840				

	ELECTRICAL LEGEND					
	EXISTING ELECTRICAL PANEL AS NOTED					
φ	15A, 120V, 1PH, 3W GROUNDED DUPLEX RECEPTACLE		-			
 ₽	15A, 120V, 1PH, 3W GROUNDED DUPLEX RECEPTACLE		TRUE NORTH	PROJECT NORTH		
" ₱	MOUNTED ABOVE COUNTER 15A, 120V, 1PH, 3W - UNLESS OTHERWISE NOTED, GROUNDED GFI DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER	<ul> <li>GENERAL NOTES:</li> <li>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.</li> <li>2. OWNER OR CONTRACTOR MUST CHECK AND VERIFY ALL</li> </ul>				
Ħ	HYDRO METER	3. A CI DI	LL DIMENSIONS SHOWN O HECKED AGAINST ALL OTH ISCREPANCIES MUST BE RE	ROCEEDING WITH THE WORK. N THESE DRAWINGS MUST BE ER PROJECT DRAWINGS. ALL PORTED TO THE CONSULTANT		
۵	1 PHASE DIRECT CONNECTION	4. FC A	EFORE PROCEEDING WITH DR CONSTRUCTION PURPC PPROVED DRAWINGS. O NOT SCALE THE DRAWIN	SES, USE ONLY THE LATEST		
C	DISCONNECT SWITCH					
JB	JUNCTION BOX	REVISION SCHEDULE				
PP	ROUGH IN FOR BARRIER FREE PUSH PLATE. PROVIDE 21mm CONDUIT, PULL STRING AND BACK BOX.	No.	DESCRIPTION	DATE		
EA	UNIVERSAL WASHROOM EMERGENCY ASSIST BUTTON AS NOTED	0	AND TENDER	MAR. 06, 2024		
<i>"</i>	UNIVERSAL WASHROOM AUDIBLE/VISUAL ALARM AS NOTED					
WP	DENOTES WEATHERPROOF. WEATHERPROOF RECEPTACLE TO BE EQUIPPED WITH WHILE IN USE COVER					
\$	LIGHT SWITCH					
<sup>os–1</sup> \$	STANDARD OCC SENSOR (DUAL) SENSOR SWITCH #WSX-PDT-WH					
	NEW LIGHTING FIXTURE - TYPE AS NOTED					
¤	DOWN LIGHT FIXTURE - TYPE AS NOTED					
×	DOWN LIGHT FIXTURE - UNSWITCHED - TYPE AS NOTED					
æ	SCONCE - TYPE AS NOTED					
마	EXTERIOR WALL PACK - TYPE AS NOTED					
<b>₽</b>	EMERGENCY BATTERY PACK C/W DUAL LIGHTING HEAD EBP#1 INDICATES EMERGENCY BATTERY PACK #1					
Å	EMERGENCY LIGHT C/W SINGLE REMOTE HEAD. EBP#1 INDICATES CONNECTION TO EMERGENCY BATTERY PACK #1					
22	EMERGENCY LIGHT C/W DUAL REMOTE HEAD. EBP#1 INDICATES CONNECTION TO EMERGENCY BATTERY PACK #1					
S	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 FACE	EXIT SIGN - CEILING MOUNTED RUNNING MAN MOUNTED ON 4"x4" BACK BOX	Proj	ect Status:			
SINGLE DUAL FACE	EXIT SIGN - WALL MOUNTED RUNNING MAN MOUNTED ON 4"x4" BACK BOX			R PERMIT ENDER		
	EXIT SIGN C/W BATTERY PACK AND LIGHTS - WALL MOUNTED RUNNING MAN MOUNTED ON 4"x4" BACK BOX	Seal				
E	EXISTING TO REMAIN		PROFES	SIONAL		
R	EXISTING TO BE REMOVED		2	NOPPA MAL		
ER	EXISTING TO BE REPLACED		24-	099		
			ROYINCE	OF ONTANO		





SCALE: 1:50

0					
		1		1	
	15A 120V RECEPTACLE SERVING HRV#1. COORDINATE EXACT MOUNTING HEIGHT				
DHWH#1 A.1/3	WITH THE MECHANICAL CONTRACTOR				
A.1/3	PROVIDE HEAT TRACE CABLE (RAYCHEM XL-TRACE FLOOR. PROVIDE 20A, GFI RECEPTACLE ON 20A, 1F ELECTRICAL PANEL AND 20A RATED SWITCH INLIN HEAT TRACE. COORDINATE EXACT LOCATION OF S HEAT TRACE TO BE 3 WRAP/COIL PER FOOT ALONG INSULATED SANITARY PIPING BELOW PORTABLE A	E WITH LAMACOID INDICATING WITCH AND RECEPTACLE ON SITE. G FULL LENGTH OF EXPOSED ND HEAT TRACE TO EXTEND	U106 WAREHOUSE		
\ Ц   /	VERTICAL LENGTH BELOW GRADE. COORDINATE E WITH MECHANICAL CONTRACTOR.	XACT REQUIREMENTS ON SITE	EXISTING ELECTRICAL IN WAREHOUSE TO REMAIN		
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			U106 WAREHOUSE NOTE: EXISTING LIGHTING IN		
			WAREHOUSE TO REMAIN		
		1		 ]	
			X	 	

