THE CITY OF OSHAWA

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S. OSHAWA, ONTARIO.

DESIGN TEAM:

ARCHITECTURAL:

J.R. FREETHY ARCHITECT 325 LAKE ROAD, SUITE 202 BOWMANVILLE, ON L1C 4P8 TEL: (905) 623-7476

STRUCTURAL:

STIEMER ENGINEERING INC. 25 SAUNDERS RD., UNIT 1 BARRIE, ON L4N 9A7 TEL: (705) 797-0042

MECHANICAL:

ROMAR ENGINEERING INC. 4828 LIVINGSTON ST. CLAREMONT, ON L17 1A5 TEL: (647) 406-8602

ELECTRICAL:

SIMNA ENGINEERING 20 AMBER STREET, UNIT 6 MARKHAM, ON L3R 95P4 TEL: (416) 824-5822

DRAWING LIST DWG# TITLE REVISION # DATE ISSUED ARCHITECTURAL: A001 COVER SHEET - DRAWING LIST JANUARY 14, 2025 OBC MATRIX, KEY PLANS, TRAVEL DISTANCE PLAN JANUARY 14, 2025 SEPTEMBER 20, 2024 DEMOLITION FLOOR PLAN SEPTEMBER 20, 2024 NEW CONSTRUCTION FLOOR PLAN SEPTEMBER 20, 2024 DEMOLITION CEILING PLAN SEPTEMBER 20, 2024 NEW CONSTRUCTION REFLECTED CEILING PLAN SEPTEMBER 20, 2024 A206 FURNITURE PLAN SEPTEMBER 20, 2024 A300 NEW CONSTRUCTION INTERIOR ELEVATIONS SEPTEMBER 20, 2024 WASHROOM PLAN DETAILS AND WALL SECTION DETAILS JANURARY 14, 2025 JANURARY 14, 2025 WALL SECTION AND STRUCTURAL SLAB DETAILS SEPTEMBER 20, 2024 DOOR AND ROOM FINISH SCHEDULE SEPTEMBER 20, 2024 SCREEN SECTION DETAILS A700 MILLWORK DETAILS SEPTEMBER 20, 2024 A70I 3D MODEL VIEWS SEPTEMBER 20, 2024 A702 3D MODEL VIEWS 2 SEPTEMBER 20, 2024 A703 3D MODEL VIEWS 3 SEPTEMBER 20, 2024 A704 3D MODEL VIEWS 4 SEPTEMBER 20, 2024 MECHANICAL: M-100 MECHANICAL LEGENDS & SCHEDULES SEPTEMBER 20, 2024 M-200 GROUND FLOOR PD SEPTEMBER 20, 2024 M-300 HVAC - DEMO/NEW SEPTEMBER 20, 2024 **ELECTRICAL:** E-01 | ELECTRICAL LEGEND AND GENERAL NOTES SEPTEMBER 20, 2024 E-02 ELECTRICAL SPECIFICATIONS SEPTEMBER 20, 2024 SEPTEMBER 20, 2024 E-03 ELECTRICAL SPECIFICATIONS ELECTRICAL SPECIFICATIONS SEPTEMBER 20, 2024 ELECTRICAL LIGHTING DEMOLITION PLAN SEPTEMBER 20, 2024 SEPTEMBER 20, 2024 ELECTRICAL LIGHTING PLAN SEPTEMBER 20, 2024 ELECTRICAL POWER AND SYSTEM PLAN SEPTEMBER 20, 2024 E-09 ELECTRICAL DETAILS SEPTEMBER 20, 2024 -10 ELECTRICAL DETAILS SEPTEMBER 20, 202

J.R. FREETHY ARCHITECT

GENERAL NOTES



CONTRACTOR SHALL PROVIDE AND MAINTAIN DUST PROTECTION AT ACTIVE WORK ZONES THROUGHOUT THE DURATION OF CONSTRUCTION.



FINANCE DEPARTMENT OFFICE AREA IS NOT IN THIS CONTRACT. CONTRACTOR'S FORCES ARE NOT PERMITTED IN THIS AREA.

EXISTING BUILDING FIRE ALARM SYSTEM MUST BE MAINTAINED OPERATIONAL THROUGHOUT CONSTRUCTION



DISPOSAL BINS SHALL BE LOCATED IN THE DESIGNATED LOCATION WITH MIN. 10'-0" DISTANCE FROM THE BLDG. DISPOSAL BINS SHALL BE WITHIN AN 8'-0" HT TEMPORARY IOMEGA OR FAST FENCE ENCLOSURE.



THE EXISTING PARTITIONS ARE CONSTRUCTED OF 5/8" GYPSUM BOARD ON 3 1 / 2 "STEEL STUDS @ 16" ON CENTRE ANCHORED TO THE EXISTING MAIN TEES OF THE SUSPENDED ACOUSTIC CEILING SYSTEM. CONTRACTOR SHALL EXERCISE CAUTION TO NOT DAMAGE THE CEILING GRID DURING SELECTIVE DEMOLTION AND NEW CONSTRUCTION OPERATIONS. REPAIR ANY RESULTANT DAMAGE TO MATCH EXISTING CONSTRUCTION.



(NOTE.6 THE EXISTING BUILDING STRUCTURE IS CAST CONCRETE. STRUCTURE PROVIDES THE FIRE RESISTANCE RATING.



REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS FOR THE RESPECTIVE DIVISIONS ALTERATIONS TO EXISTING MECHANICIAL AND ELECTRICAL SYSTEMS. THE ARCHITECTURAL DRAWINGS OUTLINE THE MODIFICATIONS TO THE EXISTING PA SPEAKER RELOCATES AND NEW SPEAKER LOCATIONS.



THE OWNER'S FORCES ARE RESPONSIBLE FOR THE DISMOUNTING AND RELOCATION OF THE EXISTING WORKSTATION FURNITURE, COMPUTERS, LATERAL FILES BOOKS, PHOTOCOPIER, SCANNER, MICROFICHE EQUIPMENT, TELEPHONES.



THE NEW WORKSTATIONS IN THE ZONING EXAMINERS AREA ARE NOT IN CONTRACT. SUPPLIED BY OWNER.



CONTRACTOR'S FORCES WILL BE SUPPLIED WITH A SECURITY ID BADGE. CONTRACTOR SHALL MAINTAIN A WRITTEN SIGN IN LOG FOR ALL PERSONNEL ACCESSING THE WORK ZONE.



ALTERATIONS TO THE PLUMBING FOR THE NEW WATER CLOSET SHALL OCCUR OFF HOURS TO MITIGATE INTERFERENCE WITH THE OPERATIONS OF THE OFFICE TOWER.



THE EXISTING GLAZED SCREENS ARE PC350 ELITE SERIES CLEAR ANODIZED ALUMINUM FINISH. NEW SCREENS SHALL BE THE SAME MANF AND PROFILES. ALL GLAZING SHALL BE LAMINATED SAFETY GLASS 10 MM THK.



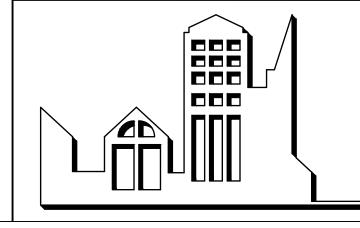
CONSTRUCTION DEBRIS MUST BE REMOVED FROM THE ALTERATION AREAS ON A DAILY BASIS TO THE DISPOSAL BINS. DISPOSAL BINS SHALL BE EMPTIED ON A WEEKLY BASIS.



CONTRACTOR SHALL MAINTAIN FULL TIME SITE SUPERVISION THROUGHOUT THE DURATION OF CONSTRUCTION

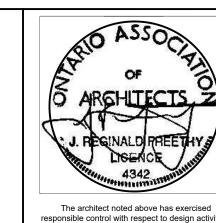


ALL OPERATIONS SHALL COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT LATEST EDITION. CONTRACTOR SHALL OBTAIN AND POST THE MINISTRY OF LABOUR NOTICE OF PROJECT.



I.R.FREETHY ARCHITECT

Certificate of Practice Number: 1928 325 LAKE ROAD, BOWMANVILLE ONTARIO, L1C 4P8 (905) 623-7476 reg@jrfreethy.com



COVER SHEET

PROJECT No.:

DATE: JANUARY 14, 2025

DWG. No.:

Name of Practice: J.R. Freethy Architect 325 Lake Rd. Suite 202, Bowmanville, ON. L1C 4P8 Name of Project: Oshawa Building Dept. Office and Washroom Alterations Ground Floor Rundle Tower Location:

50 Centre Street South, Oshawa, ON.

September 20, 2024

'						
Ontario Building Code Data Matrix Part 11 – Renovation					Building Code Reference	
11.00	Building Code Version:	O. Reg. 332/12 Last Ame	ndment	O. Reg.	89/23	-
11.01	Project Type:	☐ Addition☐ Change of use☐ Description: Interior Office and Was		ition and re	novation	[A] 1.1.2.6.
11.02	Major Occupancy Classification:	Occupancy Use Group D Municipal Bldg Dept Office OBC 925/75 3.2.2.32(1) Any Height, Nonsprinklered on areas above grade, FHC standpipe system Bldg was retro- communication system and fire alarm s	Any Area, Non parking garage iitted in 2009 w	e sprinklered		3.1.2.1.(1), and 11.2.1.
11.03	Superimposed Major Occupancies:	No □ Yes Description:				11.2 and 3.2.2.5. to 3.2.2.8.
11.04	Building Area (m2)	Description: Rundle Tower 1st Floor	Existing 800	New 0	Total _800	[A] 1.4.1.2., 11.2 and 11.3
						.

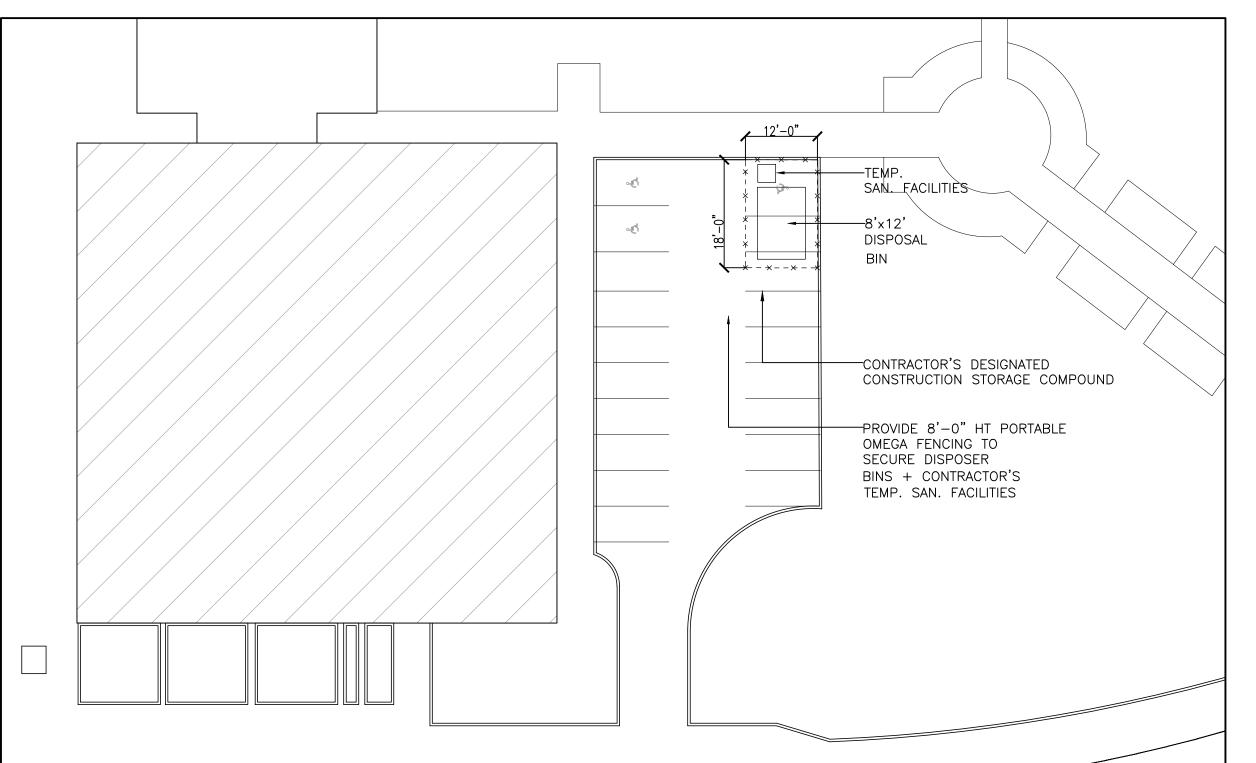
			_
	Insert additional lines as needed		-
		Total 800	
11.05	Building Height	10 Storeys above grade 42.6 (m) Above grade	[A] 1.4.1.2. & 3.2.1.1., and 11.3
		1 Storeys below grade	
11.06	Number of Streets/ Firefighter access	2 street(s)	3.2.2.10., 3.2.5., and 11.3
11.07	Building Size	□ Small □ Medium □ Large □ > Large	T.11.2.1.1.B-N.
11.08	Existing Building Classification:	Change in Major Occupancy: ☐ Yes ☒ Not Applicable (no change of major occupancy)	11.2.1.1.
	Building Construction 1968 Concrete	Construction Index: Not applicable	T 11.2.1.1.A
		Hazard Index: Not applicable	T 11.2.1.1.B to N
	superstructure	Importance Category : □ Low □ Normal □ Post-disaster	4.2.1.(3), and 5.2.2.1.(2)
11.09	Renovation type:		11.3.3.1. 11.3.3.2.
11.10	Occupant Load	Floor Level/Area Occupancy Based On Occupant Load Type (Persons)	3.1.17., 11.4.2.2
	1st floor Rundle Tower		

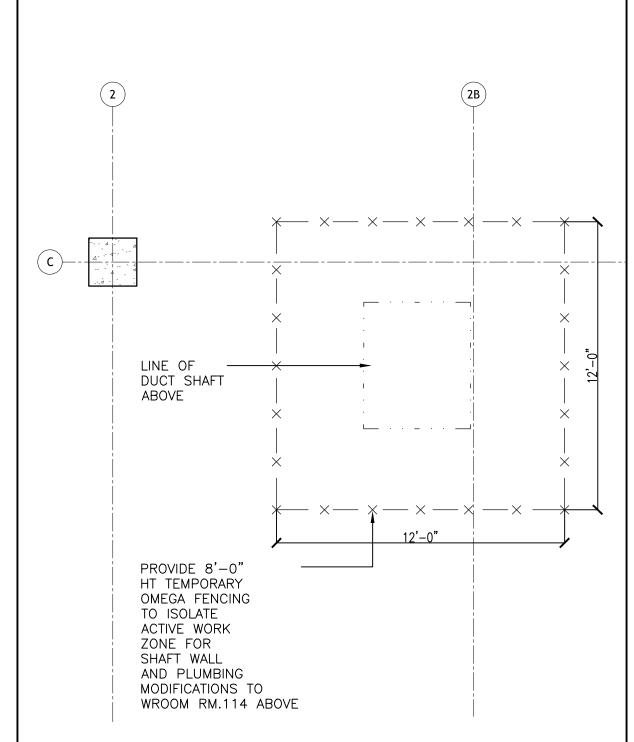
	necucu
\bigcirc 1	OBC MATRIX
A104	SCALE: N.T.S.

Insert additional lines as

11.11 a	Plumbing Fixture Requirements	Ratio: M:F =60/40	3.7.4., 11.3.4., 11.3.5., 11.4.2.4 and 11.4.2.5.
		Floor Level/Area Occupant OBC WCs WCs Load Reference Required Provide	<u>d</u>
	Adding 1 water closet to exist. Male washroom.	Ground Floor Suite 25M Table 3.7.4.7.(1) 3 4	_
	Insert additional lines as needed		_
77.7%	Plumbing Fixture Requirements continued:	Floor Level/Area (repeated)Barrier-free WCs RequiredBarrier-free WCs ProvidedUniversal Washrooms RequiredUniversal Washrooms Required	Tables 3.8.2.3. <i>I</i> and 3.8.2.3.B
	Existing main lobby and service area has universal wshrm and bf facilities.	1 N/A Existing 1ex Existing lobby	
	Insert additional lines as needed		
1.12	Barrier-free Design:	X Yes No	11.3.3.2.(2)
	Barrier-free Entrances:	Number 1 Existing Suite entrance from Elev Lobby	_
1.13	Reduction in Performance Level:	Structural: No Yes By Increase in occupant load: No Yes	11.4.2.1.
		Py change of major accurancy:	11.4.2.3.
		Plumbing:	11.4.2.4.
		⊠ No ☐ Yes Sewage-systems:	11.4.2.5.
		Extension of buildings of combustible construction:	11.4.2.6.
1.14	Compensating Construction:	⊠ No □ Yes	11.4.3.1,
		Structural:	11.4.3.2,
		Increase in occupant load: ⊠ No □ Yes	11.4.3.3,
		Change of major occupancy: ⊠ No ☐ Yes	11.4.3.4,
		Plumbing: No Yes	11.4.3.5,
		Sewage systems: No Yes	11.4.3.6,
		Extension of buildings of combustible construction:	11.4.3.7.
1.15	Compliance Alternatives Proposed:	No □ Yes	11.5.1.
11.16	Notes:	ls an alternative solution used? ☐ Yes X No	11.5.1.

All references are to Division B of the OBC, unless preceded by [A] for Division A and [C] for Division C.



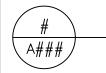


4 PARKING LEVEL P.1 TEMPORARY BARRIER
A104 SCALE: 1/4"=1'-0"

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER
SHEET WHERE DETAILED



TRAVEL DISTANCE: 33.02m

NEW DCBO OFFICE #3 118 196 SQFT

3.4.2.5.(1)(b) 40m IN BUSINESS AND PERSONAL SERVICES OCCUPANCY

ADDITIONAL BUILDING INSPECTOR WORK AREA

DENOTES 2 HOUR FIRE SEPARATION

--- DENOTES 1 HOUR FIRE SEPARATION

2 TRAVEL DISTANCE PLAN
A104 SCALE: 1/8"=1'-0"

---- DENOTES 30 MINUTE FIRE SEPARATION

EXAMINERS OFFICE

TRAVEL DISTANCE

O.REG. 89/23

SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN.

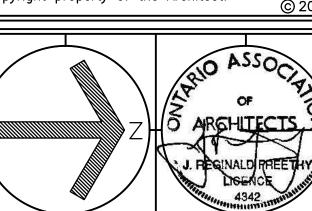
INDICATES 5'-4" BARRIER FREE TURNING

NOT IN THE CONTRACT (N.I.C.) INDICATES SUPPLY AND INSTALL.

PERMIT RESUBMISSION C.C. 15/01/2025 C.C. 18/09/2024 PRELIMINARY C.N. 01/08/2024

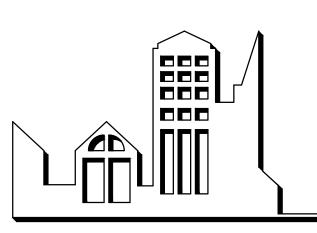
No. DESCRIPTION Do not scale drawings. Work to dimensions only

Contractor shall verify all measurements and report any discrepancies to the architect prior to proceeding with the work. These documents shall not be used for construction, unless signed and sealed by the Consultant. All drawings are the copyright property of the Architect.





J.R. FREETHY ARCHITECT



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BUILDING DEPARTMENT OFFICE ALTERATIONS

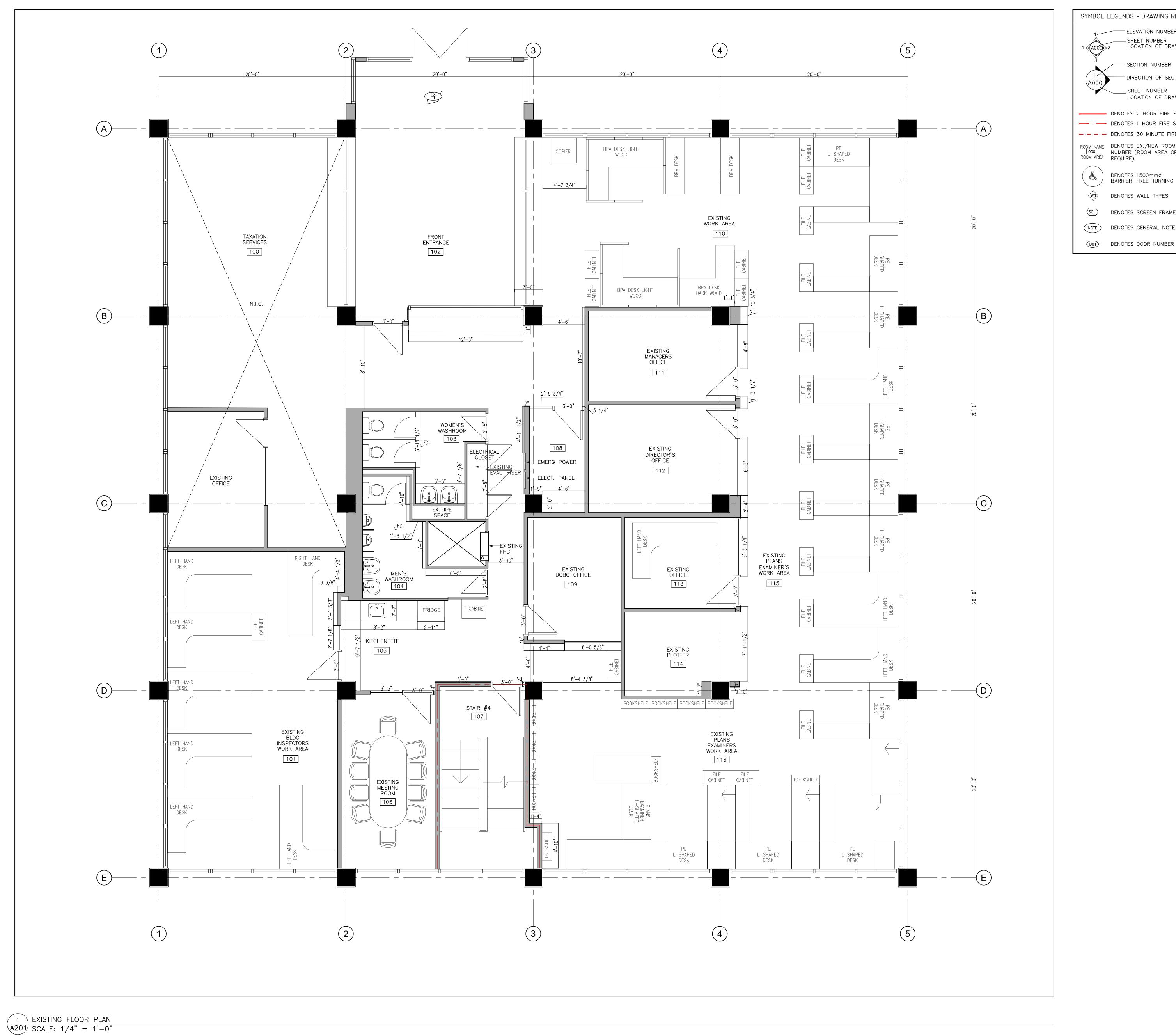
50 CENTRE ST. S, OSHAWA, ON

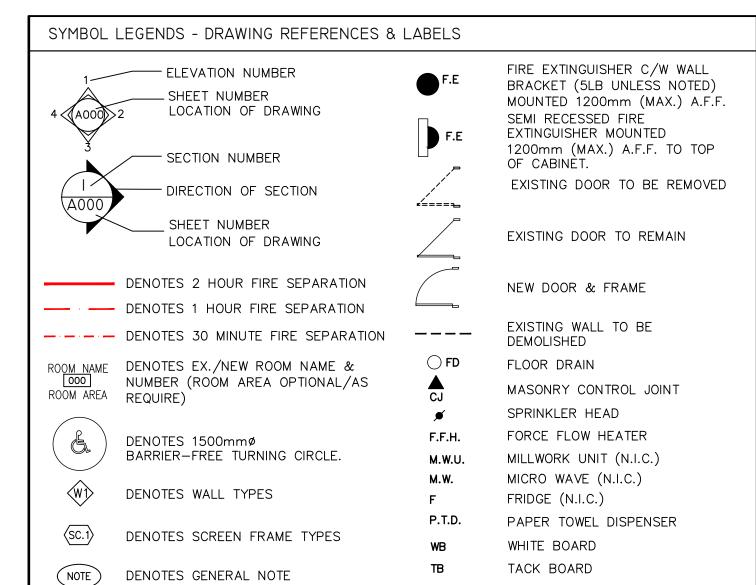
SCALE: AS NOTED DWG. BY: C.C. CHECKED BY: J.R.F. STATUS: PERMIT RESUBMISSION PLOT FACTOR: 1:1

> OBC MATRIX, KEY PLANS, TRAVEL DISTANCE PLAN

PROJECT No.: 2024-15 DATE: JAN14, 2025

A104





GYPSUM WALL BOARD

N.I.C. NOT IN CONTRACT

CLIENT: THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:

DETAIL NUMBER SHEET WHERE DETAILED

SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-0"

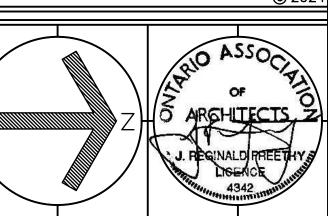
BARRIER FREE TURNING DIAMETER.

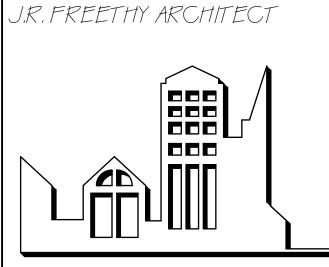
NOT IN THE CONTRACT (N.I.C.) INDICATES SUPPLY AND INSTALL.

	IFTP	C.C.	20/09/2024
	CLIENT REVIEW	c.c.	18/09/2024
	PRELIMINARY	C.C.	17/09/2024
	PRELIMINARY	c.c.	10/09/2024
	PRELIMINARY	C.N.	16/08/2024
	PRELIMINARY	C.N.	01/08/2024
э.	DESCRIPTION	BY.	DATE.

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REVISIONS





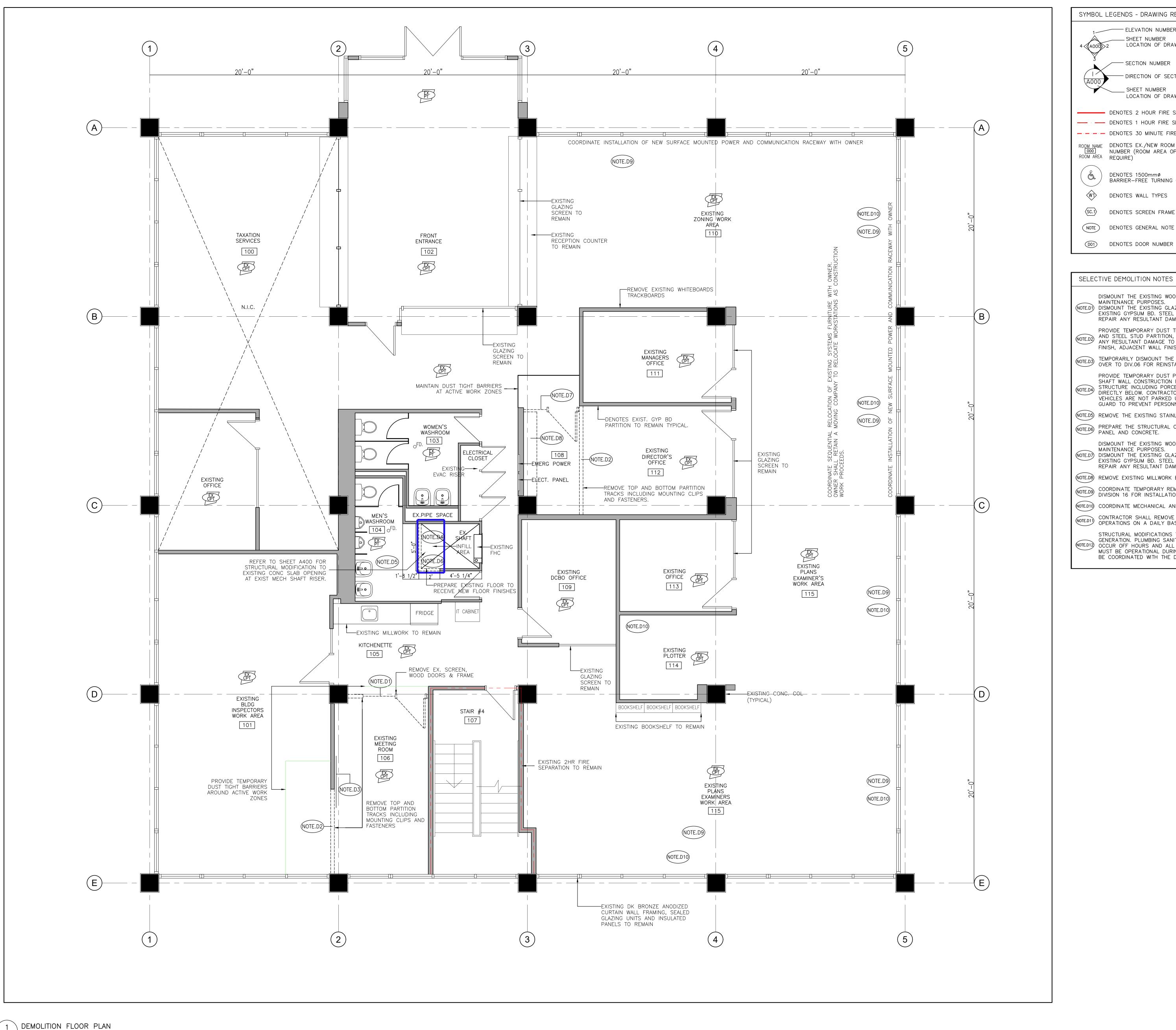
325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 1EL. (905) 623 7476

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

EXISTING FLOOR PLAN



A202 SCALE: 1/4" = 1'-0"

SYMBOL LEGENDS - DRAWING REFERENCES & LABELS

— ELEVATION NUMBER ____ SHEET NUMBER LOCATION OF DRAWING SECTION NUMBER — DIRECTION OF SECTION SHEET NUMBER

MOUNTED 1200mm (MAX.) A.F.F. SEMI RECESSED FIRE EXTINGUISHER MOUNTED 1200mm (MAX.) A.F.F. TO TOP OF CABINET. EXISTING DOOR TO BE REMOVED

EXISTING DOOR TO REMAIN

FIRE EXTINGUISHER C/W WALL

BRACKET (5LB UNLESS NOTED)

GYPSUM WALL BOARD

N.I.C. NOT IN CONTRACT

DENOTES 2 HOUR FIRE SEPARATION NEW DOOR & FRAME — DENOTES 1 HOUR FIRE SEPARATION

--- DENOTES 30 MINUTE FIRE SEPARATION ----ROOM NAME DENOTES EX./NEW ROOM NAME & NUMBER (ROOM AREA OPTIONAL/AS ROOM AREA REQUIRE) DENOTES 1500mmø BARRIER-FREE TURNING CIRCLE.

LOCATION OF DRAWING

(W1) DENOTES WALL TYPES

(SC.1) DENOTES SCREEN FRAME TYPES

DO1 DENOTES DOOR NUMBER

EXISTING WALL TO BE DEMOLISHED FLOOR DRAIN MASONRY CONTROL JOINT SPRINKLER HEAD FORCE FLOW HEATER MILLWORK UNIT (N.I.C.) MICRO WAVE (N.I.C.) FRIDGE (N.I.C.) P.T.D. PAPER TOWEL DISPENSER WHITE BOARD TACK BOARD

SELECTIVE DEMOLITION NOTES

DISMOUNT THE EXISTING WOOD DOOR AND HARDWARE. TURN OVER TO OWNER FOR MAINTENANCE PURPOSES. NOTE.D1) DISMOUNT THE EXISTING GLAZED WALL PANELS AND PC350 FRAMING COMPONENTS. CUT BACK EXISTING GYPSUM BD. STEEL STUD PARTITION AS REQUIRED TO SUIT NEW CONSTRUCTION.

PROVIDE TEMPORARY DUST TIGHT BARRIERS. REMOVE SECTION OF EXISTING GYPSUM BOARD AND STEEL STUD PARTITION, RUBBER COVE BASE AND CONCEALED ANCHOR CLIPS. REPAIR ANY RESULTANT DAMAGE TO EXISTING ACOUSTIC CEILING ASSEMBLY, CARPET TILE FLOOR FINISH, ADJACENT WALL FINISHES.

REPAIR ANY RESULTANT DAMAGE TO EXISTING ADJACENT FLOOR, WALL AND CEILING FINISHES.

NOTE.D3) TEMPORARILY DISMOUNT THE EXISTING LED WALL MONITOR AND MOUNTING BRACKET. TURN OVER TO DIV.06 FOR REINSTALLATION.

PROVIDE TEMPORARY DUST PROTECTION. REMOVE SECTION OF THE EXISTING FIRE RATED SHAFT WALL CONSTRUCTION FROM FINISH FLOOR TO THE UNDERSIDE OF THE 2ND FLOOR STRUCTURE INCLUDING PORCELAIN TILE FLOOR BASE. NOTE THAT THE PARKING GARAGE IS DIRECTLY BELOW. CONTRACTOR SHALL FENCE OFF THE AREA UNDER THE SHAFT TO ENSURE VEHICLES ARE NOT PARKED UNDER THE ACTIVE CONSTRUCTION ZONE. MAINTAIN SAFETY

GUARD TO PREVENT PERSONNEL FROM FALLING THRU THE EXPOSED SHAFT AREA. (NOTE.D5) REMOVE THE EXISTING STAINLESS STEEL PAPER TOWER WASTE DISPOSAL UNIT.

(NOTE.D6) PREPARE THE STRUCTURAL CONCRETE SLAB EDGE FOR THE SCHEDULED STRUCTURAL INFILL PANEL AND CONCRETE.

DISMOUNT THE EXISTING WOOD DOOR AND HARDWARE. TURN OVER TO OWNER FOR MAINTENANCE PURPOSES. (NOTE.D7) DISMOUNT THE EXISTING GLAZED WALL PANELS AND PC350 FRAMING COMPONENTS. CUT BACK EXISTING GYPSUM BD. STEEL STUD PARTITION AS REQUIRED TO SUIT NEW CONSTRUCTION.

(NOTE.D8) REMOVE EXISTING MILLWORK BASE CABINET AND RELATED ANCHORS.

NOTE.D9 COORDINATE TEMPORARY REMOVAL OF EASTING WOLLDS.

DIVISION 16 FOR INSTALLATION OF NEW POWER, DATA SYSTEMS. COORDINATE TEMPORARY REMOVAL OF EXISTING WORKSTATIONS WITH FACILITY SERVICES AND

REPAIR ANY RESULTANT DAMAGE TO EXISTING ADJACENT FLOOR, WALL AND CEILING FINISHES.

(NOTE.D10) COORDINATE MECHANICAL AND ELECTRICAL SERVICE MODIFICATIONS WITH DIVISION 15 AND 16. NOTE.DI) CONTRACTOR SHALL REMOVE ALL RESULTANT DEBKIS FROM SELECTIVE DE OPERATIONS ON A DAILY BASIS FROM THE INTERIOR ALTERATION AREA. CONTRACTOR SHALL REMOVE ALL RESULTANT DEBRIS FROM SELECTIVE DEMOLITION

STRUCTURAL MODIFICATIONS TO THE WASHROOM SHALL OCCUR OFF HOURS DUE TO NOISE GENERATION. PLUMBING SANITARY AND WATER MODIFICATIONS WITHIN THE WASHROOM SHALL (NOTE.D12) OCCUR OFF HOURS AND ALL PLUMBING SERVICES FOR WASHROOMS ABOVE AND ADJACENT MUST BE OPERATIONAL DURING CITY STAFF NORMAL WORKING HOURS. ALL SHUT DOWNS TO

BE COORDINATED WITH THE DESIGNATED PROJECT MANAGER, CITY OF OSHAWA.

KEY TO DETAIL NUMBER:

DETAIL NUMBER

(N.I.C.)

CLIENT:

SHEET WHERE DETAILED

THE CITY OF OSHAWA

SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-0" BARRIER FREE TURNING

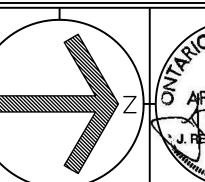
DIAMETER.

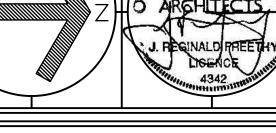
NOT IN THE CONTRACT INDICATES SUPPLY AND INSTALL.

C.C. 20/09/2024 3 | CLIENT REVIEW C.C. 18/09/2024 PRELIMINARY C.C. 10/09/2024 C.N. 01/08/2024 No. DESCRIPTION BY. DATE.

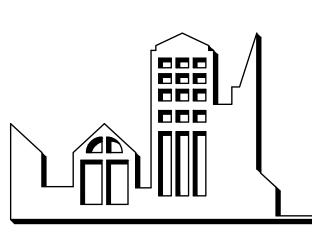
REVISIONS

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PROJECT:

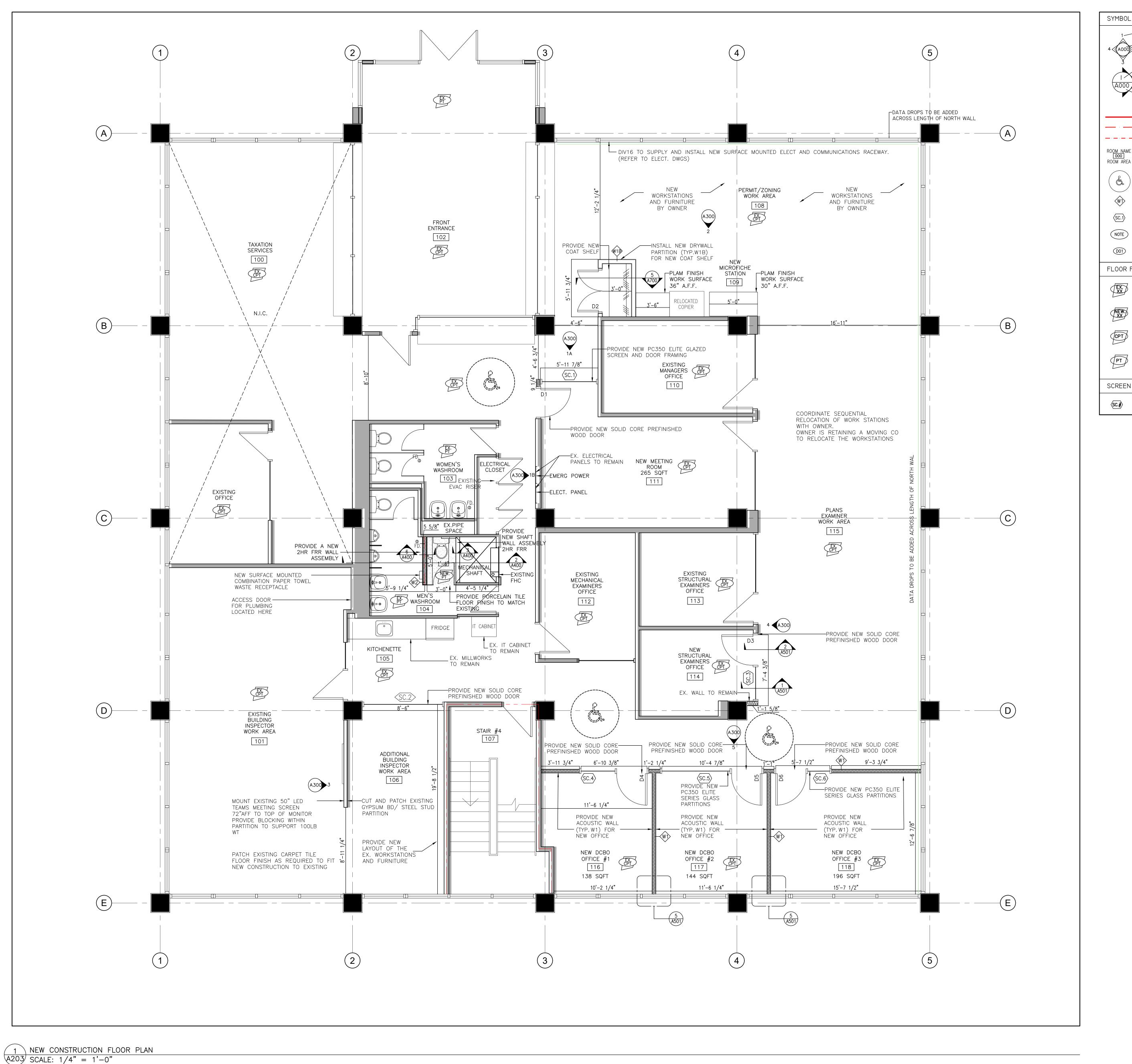
BUILDING DEPARTMENT OFFICE ALTERATIONS

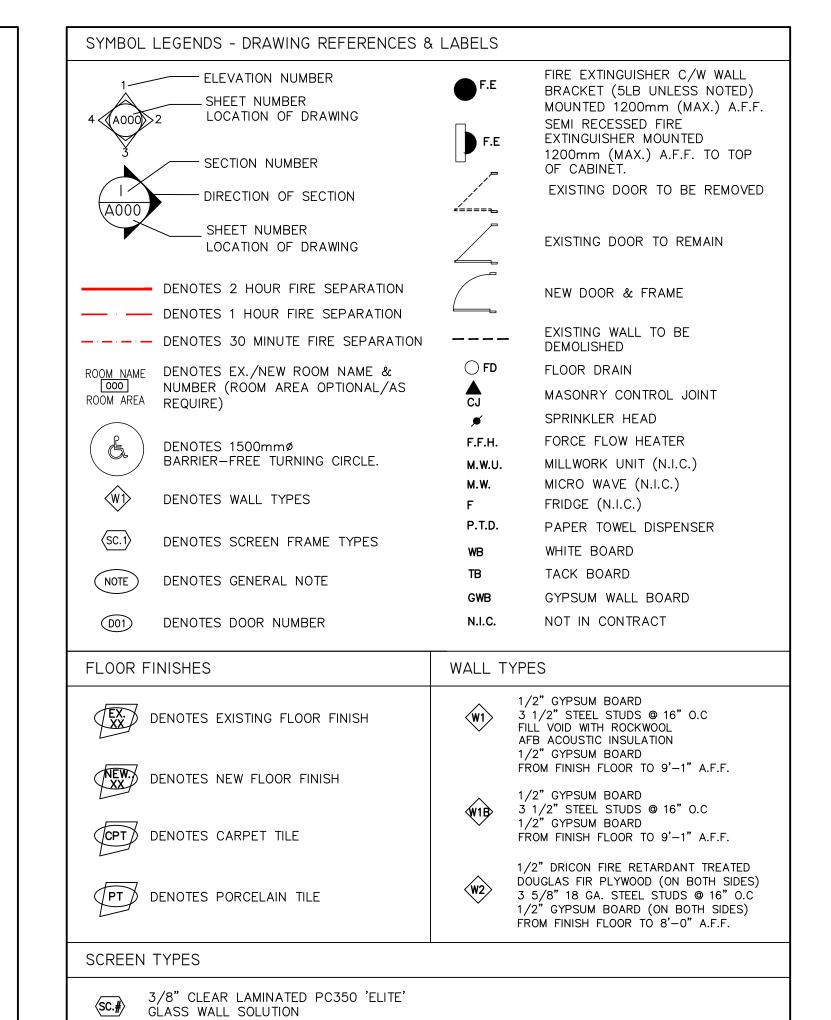
50 CENTRE ST. S, OSHAWA, ON

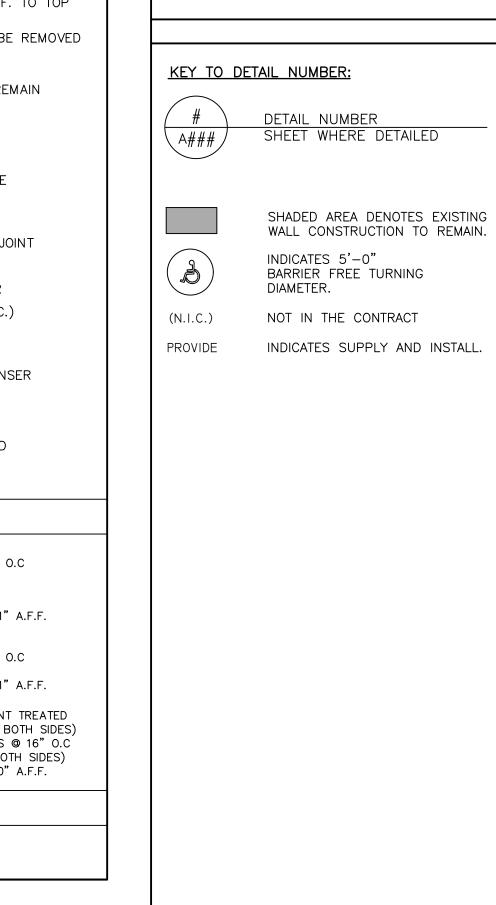
SCALE: AS NOTED DWG. BY: C.C. CHECKED BY: J.R.F. STATUS: TENDER & PERMIT PLOT FACTOR: 1:1

DEMOLITION FLOOR PLAN

PROJECT No.: DATE: SEPTEMBER 20, 2024





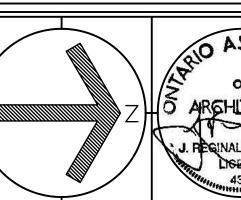


CLIENT:

THE CITY OF OSHAWA

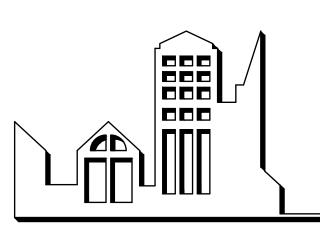
7	IFTP	c.c.	20/09/2024
6	CLIENT REVIEW	C.C.	18/09/2024
5	PRELIMINARY	c.c.	17/09/2024
4	PRELIMINARY	C.N.	16/08/2024
3	PRELIMINARY	C.N.	01/08/2024
2	PRELIMINARY	C.N.	10/07/2024
1	PRELIMINARY	C.N.	05/07/2024
No.	DESCRIPTION	BY.	DATE.
RE	VISIONS		

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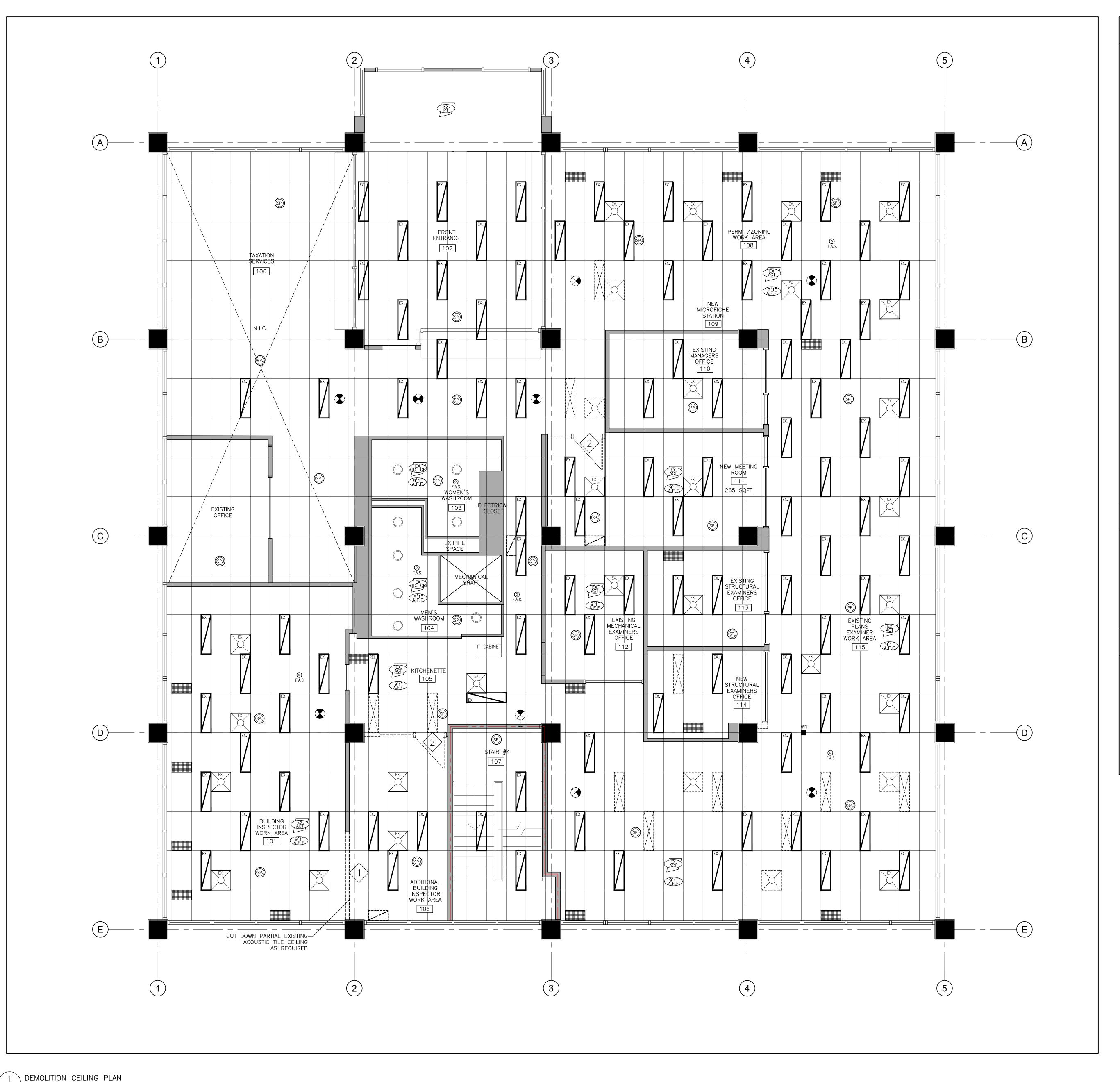
PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

NEW CONSTRUCTION FLOOR PLAN



A204 SCALE: 1/4" = 1'-0"

DEMOLITION CEILING PLAN LEGEND

EXISTING 1x4 LED LIGHT FIXTURE

TO BE REMOVED

EX.

EXISTING 1x4 LED LIGHT FIXTURE RECESSED MOUNT



EXISTING 1x4 LED LIGHT FIXTURE

RECESSED MOUNT TO BE RELOCATED

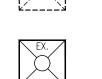


NEW.

NEW 1x4 LED LIGHT FIXTURE RECESSED MOUNT TO BE ADDED

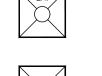


EXISTING 2X2 SUPPLY AIR DIFFUSER RECESSED MOUNTED TO BE REMOVED



EXISTING 2X2 SUPPLY AIR

DIFFUSER RECESSED MOUNTED



EXISTING 2X2 SUPPLY AIR DIFFUSER RECESSED MOUNTED TO BE RELOCATED



EXISTING RETURN AIR GRILLE RECESSED MOUNTED



EXISTING RETURN AIR GRILLE RECESSED MOUNTED TO BE RELOCATED



EXISTING POTLIGHT

EXISTING OVERHEAD P.A. SPEAKER

 \otimes $\leftarrow \otimes$ EXISTING FIRE EXIT SIGN

EXISTING FIRE ALARM STROBE LIGHT

EXISTING WASHROOM LED POTLIGHTS

EXISTING SANITARY EXHAUST

EXISTING WIFI ROUTER

CEILING FINISHES



DENOTES EXISTING ACOUSTIC CEILING FINISH



DENOTES EXISTING DRYWALL CEILING

SELECTIVE CEILING DEMOLITION NOTES

REMOVE EXISTING GYPSUM BOARD 3 1/2" STEEL STUD PARTITION SECTION FROM TILE FLOOR TO U/S EXISTING ACOUSTIC TILE CEILING, INCLUDING RUBBER COVE BASE.

DISMOUNT EXISTING WOOD DOOR, HARDWARE RETAIN HARDWARE FOR REUSE ON NEW DOOR TURN DOOR OVER TO OWNER'S MAINTENANCE

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER
SHEET WHERE DETAILED



SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-0" BARRIER FREE TURNING

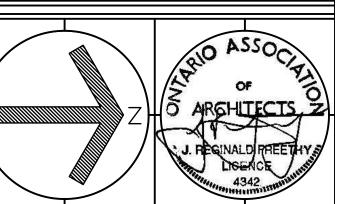
NOT IN THE CONTRACT INDICATES SUPPLY AND INSTALL.

C.C. 20/09/2024 C.C. 18/09/2024 3 | CLIENT REVIEW PRELIMINARY C.C. 17/09/2024 C.N. 16/08/2024 PRELIMINARY

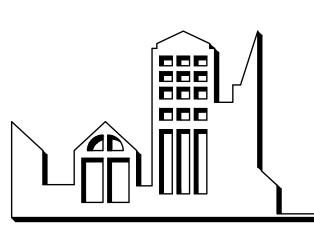
BY. DATE.

sealed by the Consultant. All drawings are the copyright property of the Architect.

No. DESCRIPTION



J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

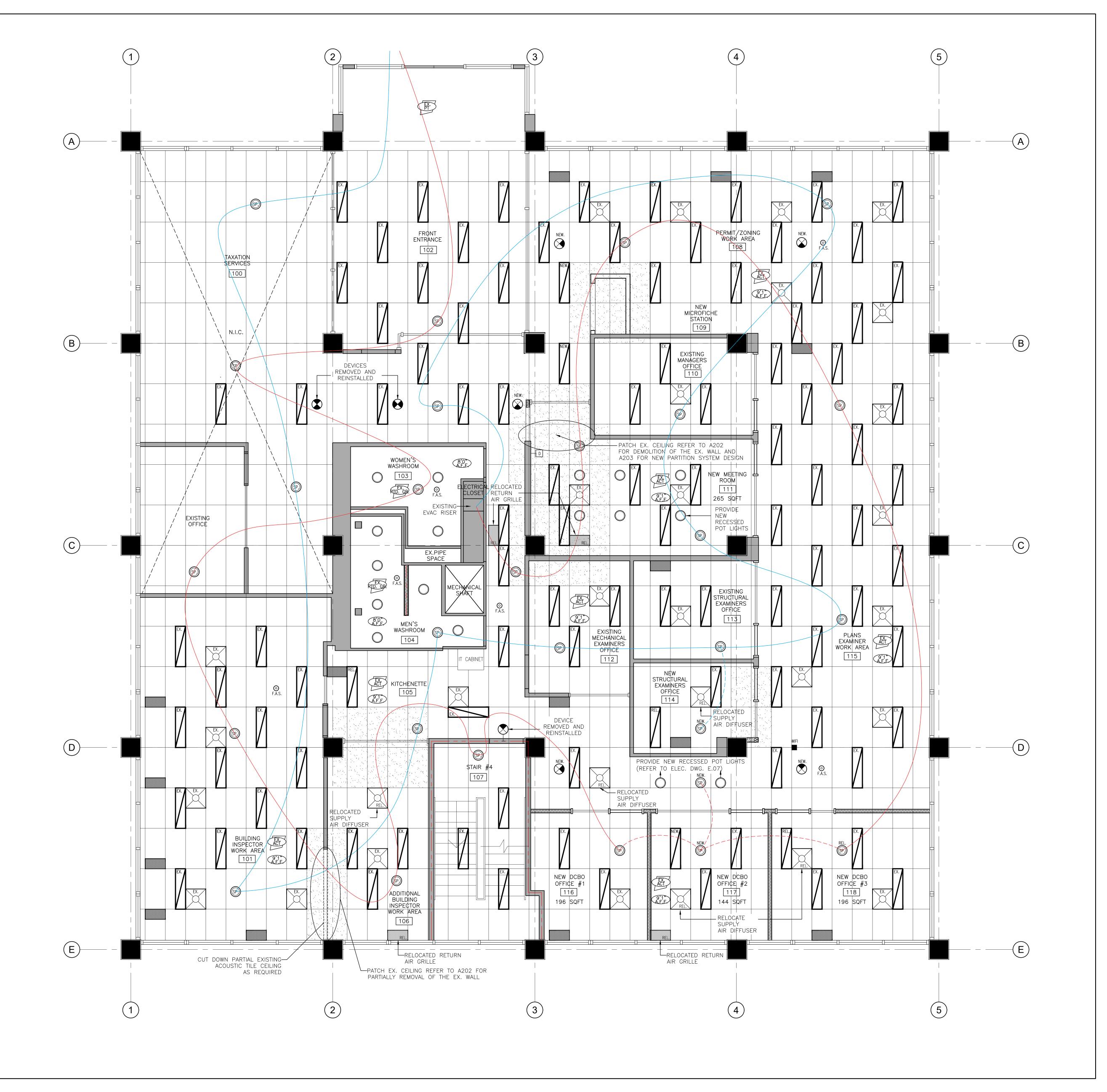
PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1
· ·	

DEMOLITION CEILING PLAN



CEILING PLAN LEGEND

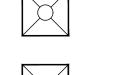
EXISTING 1x4 LED LIGHT FIXTURE RECESSED MOUNT



EXISTING 1x4 LED LIGHT FIXTURE RECESSED MOUNT TO BE RELOCATED NEW 1x4 LED LIGHT FIXTURE RECESSED MOUNT TO BE ADDED



EXISTING 2X2 SUPPLY AIR DIFFUSER RECESSED MOUNTED



EXISTING 2X2 SUPPLY AIR DIFFUSER



RECESSED MOUNTED TO BE RELOCATED



RECESSED MOUNTED RETURN AIR GRILLE RECESSED MOUNTED TO BE RELOCATED



EX. GYPSUM BD. CEILING TO BE PATCHED

EXISTING FIRE EXIT SIGN

EXISTING POTLIGHT

 \bigotimes $\vdash \bigotimes$ EXISTING FIRE ALARM STROBE LIGHT

EXISTING WASHROOM LED POTLIGHTS

EVACUATION SPEAKER

EXISTING SANITARY EXHAUST

EXISTING WIFI ROUTER EXISTING OVERHEAD VOICE

> TOA IP CEILING MOUNTED VOICE EVACUATION SPEAKER MODEL IP-A1PC58580R 324mm DIA. COMPLETE WITH BUILT IN 8WATT AMPLIFIER/

BAFFLE STEEL PLATE WHITE RAL 9016 GRILLE STEEL NET WHITE RAL 9016. CONNECT TO EXISTING VOICE EVACUATION SYSTEM WITH CAT 5 PLENUM RATED CABLE.

EXISTING COMMUNICATION CIRCUIT

NEW COMMUNICATION CIRCUIT

EXISTING EVAC. COMMUNICATION CIRCUIT

NEW EVAC. COMMUNICATION CIRCUIT

LEGEND

	ABBREV.	DEFINITION
	UF.	UNFINISHED
FLOORING	CPT.	CARPET TILE
BASE	PT.	PORCELAIN TILE
	CPT. CB.	CARPET COVE BASE
	TB.	TILE BASE
WALLS	VB.	VINYL BASE
	CT.	CERAMIC TILE
	GWB	GYPSUM WALL BOARD
CEILINGS	ACT.	ACOUSTIC TILE CEILING
CEILINGS	PTD. GB.	1 LAYER OF 16mm TYPE 'X' PAINTED GYPSUM BOARD
	BPA	BUILDING PERMIT ASSISTANT
	СВО	CHIEF BUILDING OFFICIAL
	PE	PLANS EXAMINER
	ZE	ZONING EXAMINER

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER
SHEET WHERE DETAILED

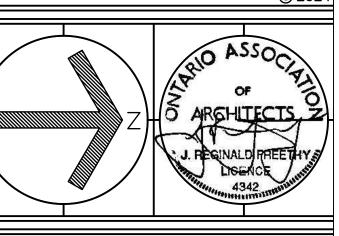
SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-0" BARRIER FREE TURNING

NOT IN THE CONTRACT

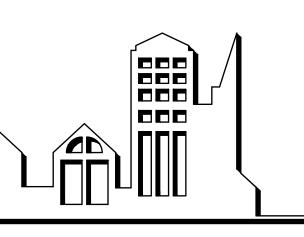
INDICATES SUPPLY AND INSTALL.

5 IFTP C.C. 20/09/2024 4 CLIENT REVIEW C.C. 18/09/2024 C.C. 17/09/2024 PRELIMINARY C.C. 10/09/2024 PRELIMINARY PRELIMINARY C.N. 16/08/2024 No. DESCRIPTION BY. DATE. **REVISIONS**

proceeding with the work. These documents shall sealed by the Consultant. All drawings are the copyright property of the Architect.



J.R. FREETHY ARCHITECT



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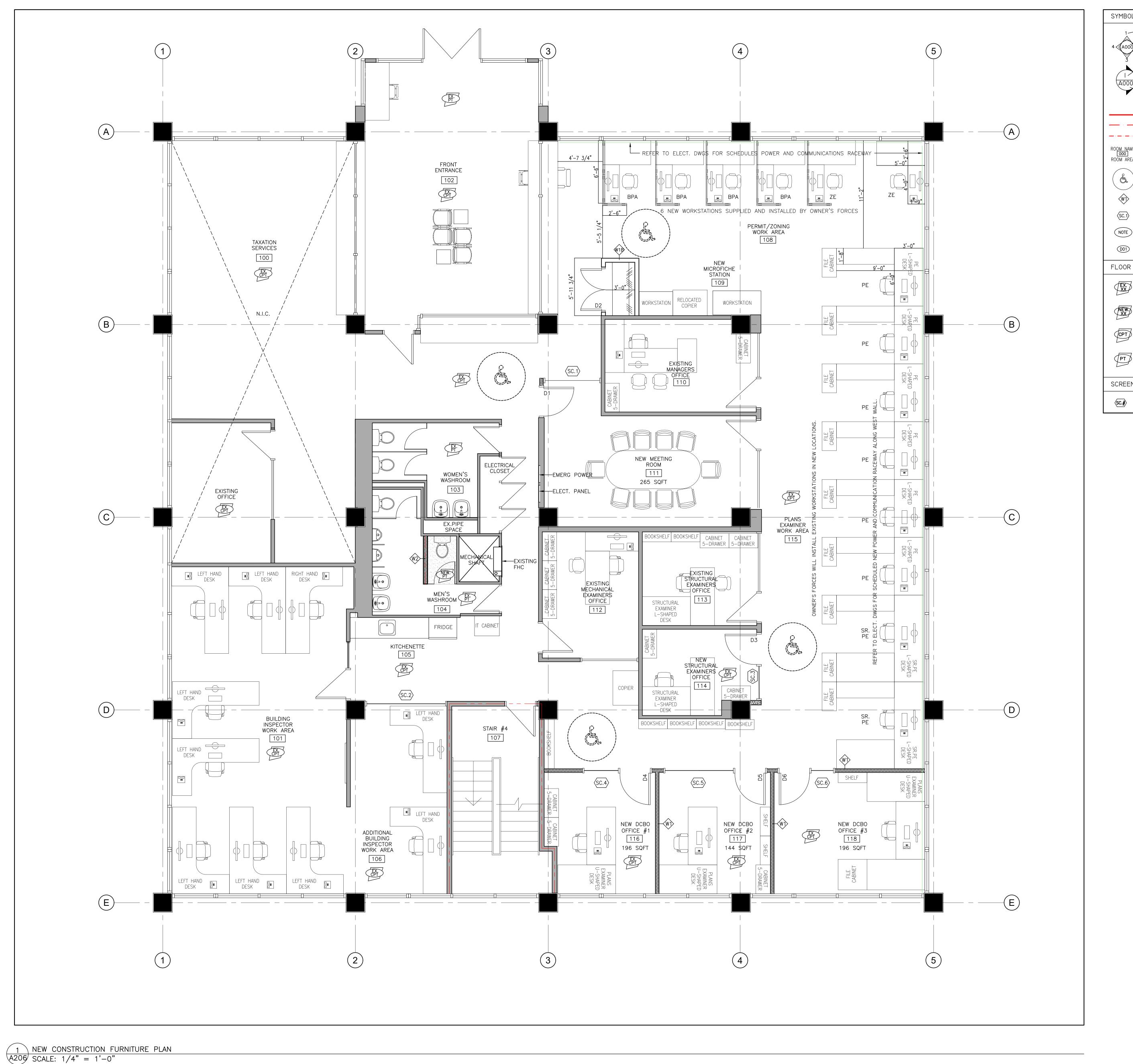
PROJECT:

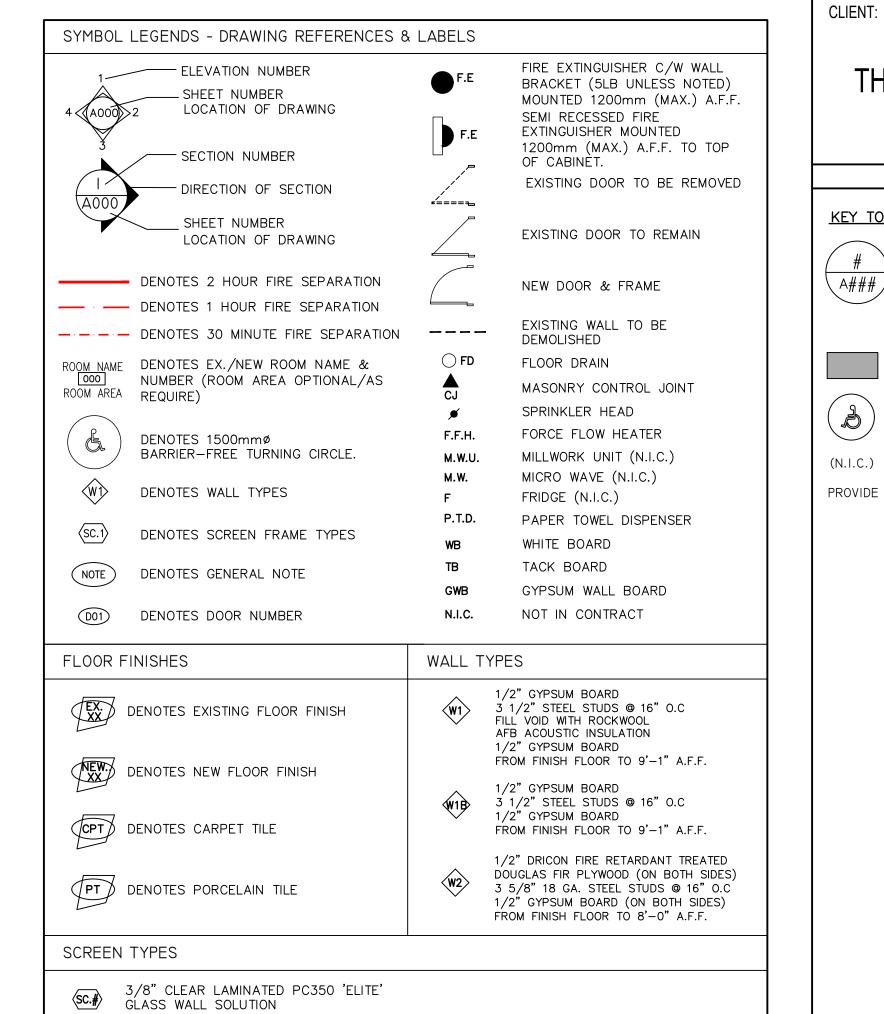
BUILDING DEPARTMENT OFFICE ALTERATIONS

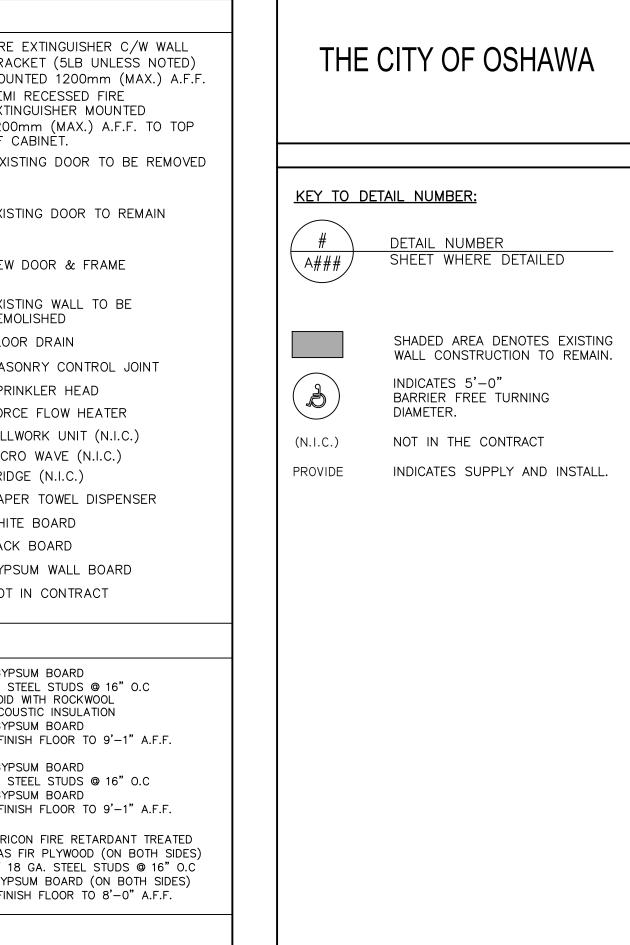
50 CENTRE ST. S, OSHAWA, ON

	SCALE:	AS NOTED	
J	DWG. BY:	C.C.	
	CHECKED BY:	J.R.F.	
	STATUS:	TENDER & PERMIT	
	PLOT FACTOR:	1:1	

REFLECTED **CEILING PLAN**



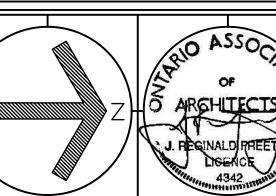


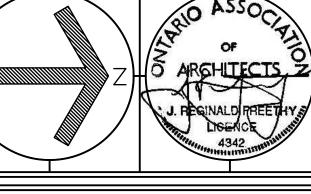


6	IFTP	c.c.	20/09/2024
5	CLIENT REVIEW	c.c.	18/09/2024
4	PRELIMINARY	c.c.	17/09/2024
3	PRELIMINARY	c.c.	10/09/2024
2	PRELIMINARY	C.N.	16/08/2024
1	PRELIMINARY	C.N.	01/08/2024
No.	DESCRIPTION	BY.	DATE.

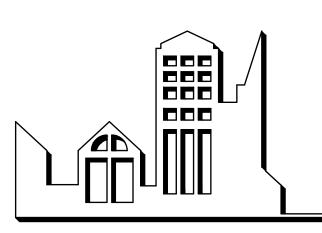
REVISIONS

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J.R. FREETHY ARCHITECT



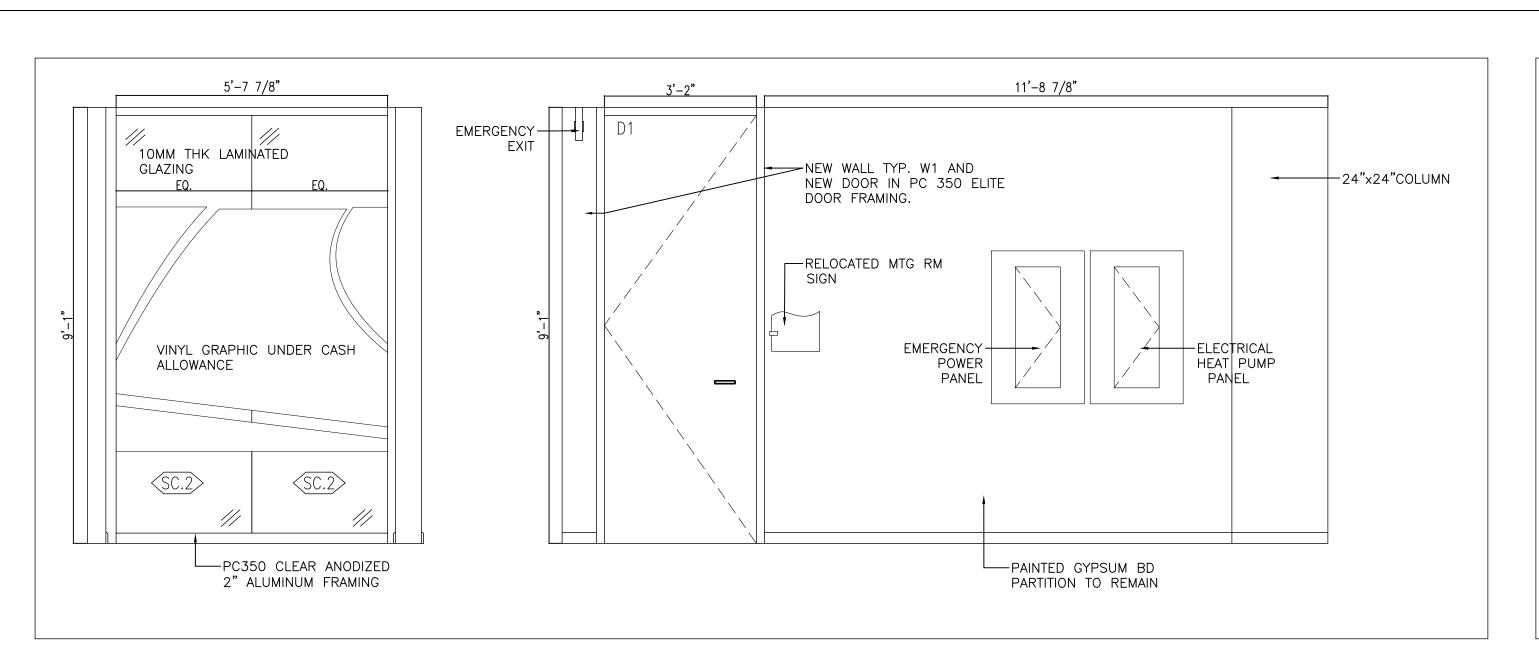
325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 1EL. (905) 623 7476

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

NEW CONSTRUCTION FURNITURE PLAN



1 NEW MEETING ROOM WITH PC350 SCREEN - INTERIOR ELEVATIONS
A300 SCALE: 1/2" = 1'-0"

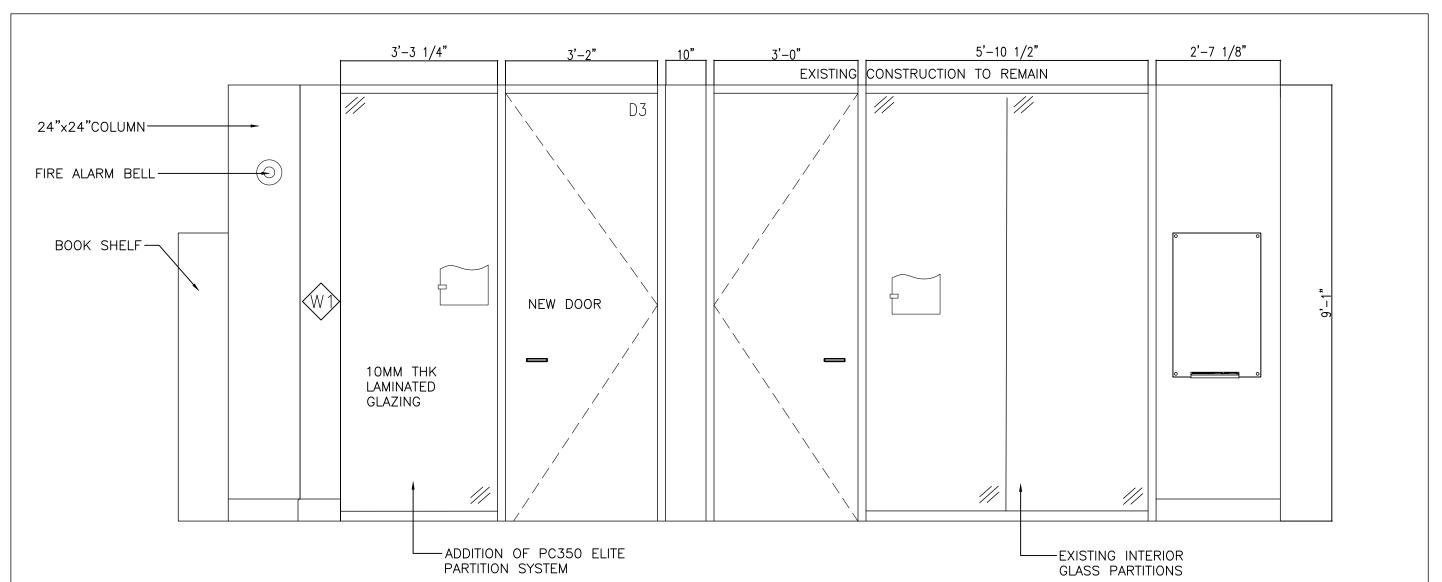
—EXISTING WALL PARTIALLY REMOVED TO PROVIDE OPENINGS 9'-0 1/2" FOR ADDITIONAL ROOM FIRE ALARM BELL (E) RELOCATED 50" LED SCREEN FOR MEETINGS ---LEFT HAND DESK UNIT 2 NEW MICROFICHE STATION – INTERIOR ELEVATION A300 SCALE: 1/2" = 1'-0"

5'-2 3/8"

FIRE ALARM BELL

SANITARY PLASTIC LAMINATED FINISH WORK SURFACE

30" A.F.F.



PLASTIC LAMINATED
FINISH WORK SURFACE
36" A.F.F.

6" HT. PLAM FINISH

KICK

BUILDING INSPECTOR WORK AREA WITH NEW 50" SCREEN - INTERIOR ELEVATION

A300 SCALE: 1/2" = 1'-0"

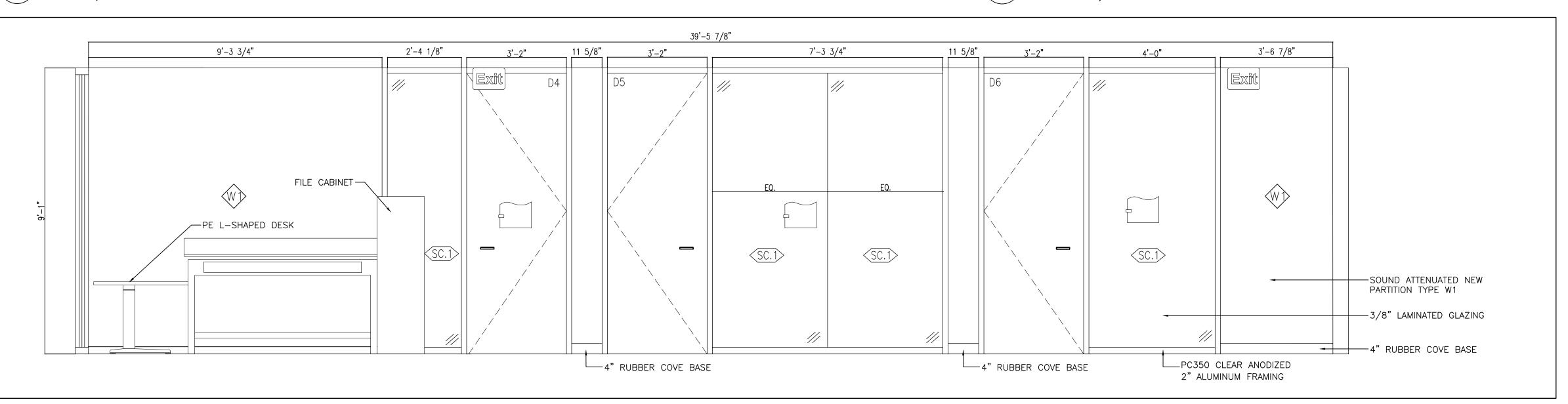
A300 SCALE: 1-1/2" = 1'-0"

A300 SCALE: 0.00 SCALE: 0.

12'-10"

NEW 4X'8' TACKBOARD

1" TRIM



5 NEW DCBO OFFICE - INTERIOR ELEVATION A300 SCALE: 1/2" = 1'-0"

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



(N.I.C.)

DETAIL NUMBER
SHEET WHERE DETAILED



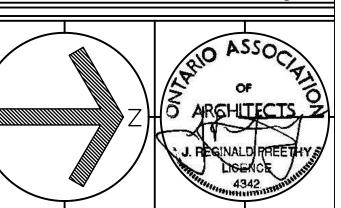
SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-4"
BARRIER FREE TURNING
DIAMETER.

NOT IN THE CONTRACT

INDICATES SUPPLY AND INSTALL.

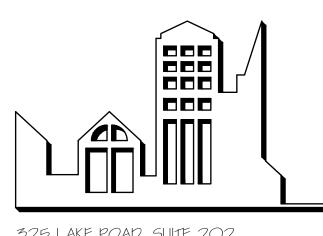
C.C. 20/09/2024 2 | IFTP C.C. 10/09/2024 PRELIMINARY No. DESCRIPTION BY. DATE. **REVISIONS**

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J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 1EL. (905) 623 7476

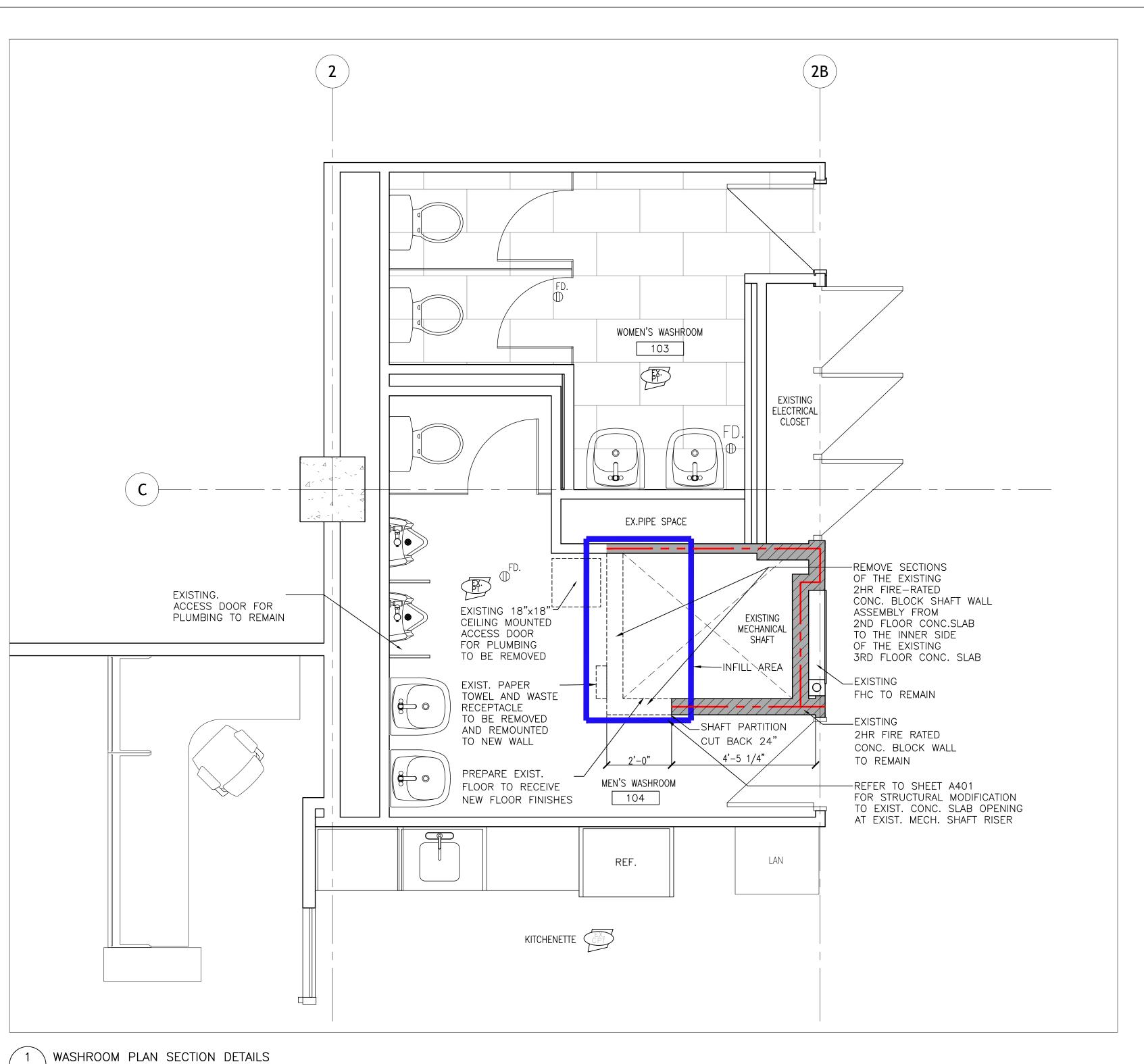
PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

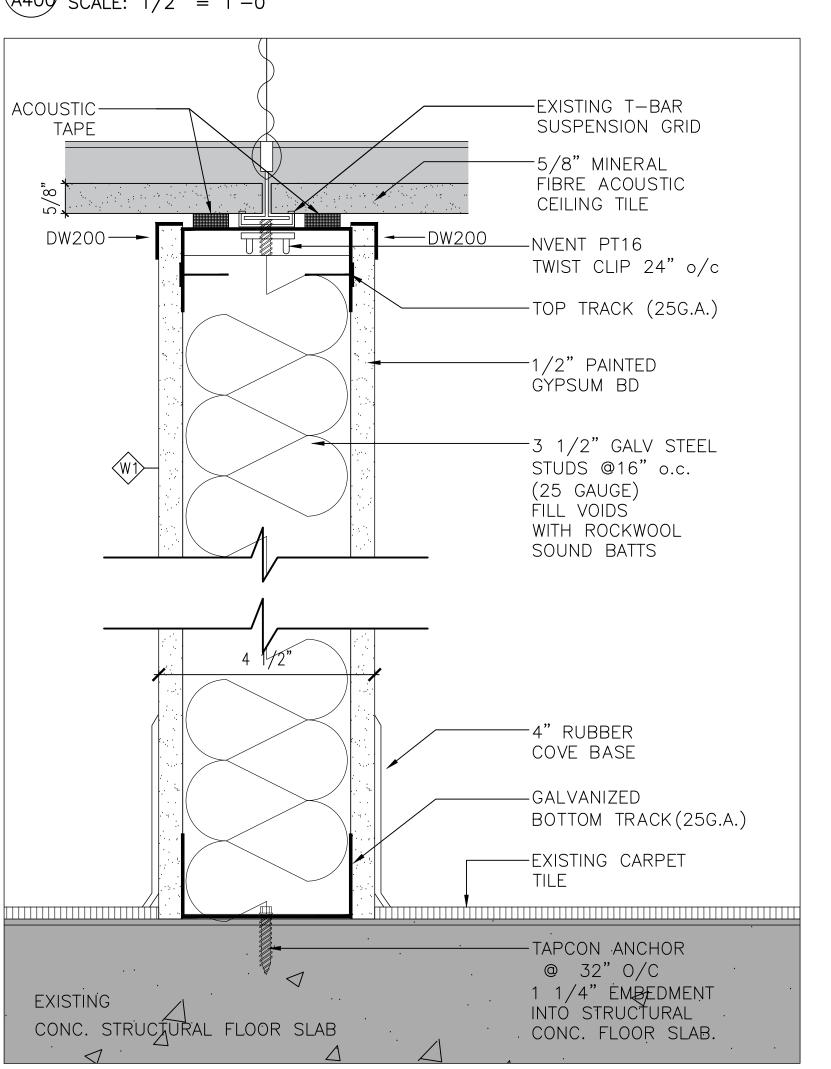
50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED	
DWG. BY:	C.C.	
CHECKED BY:	J.R.F.	
STATUS:	TENDER & PERMIT	
PLOT FACTOR:	1:1	
	-	

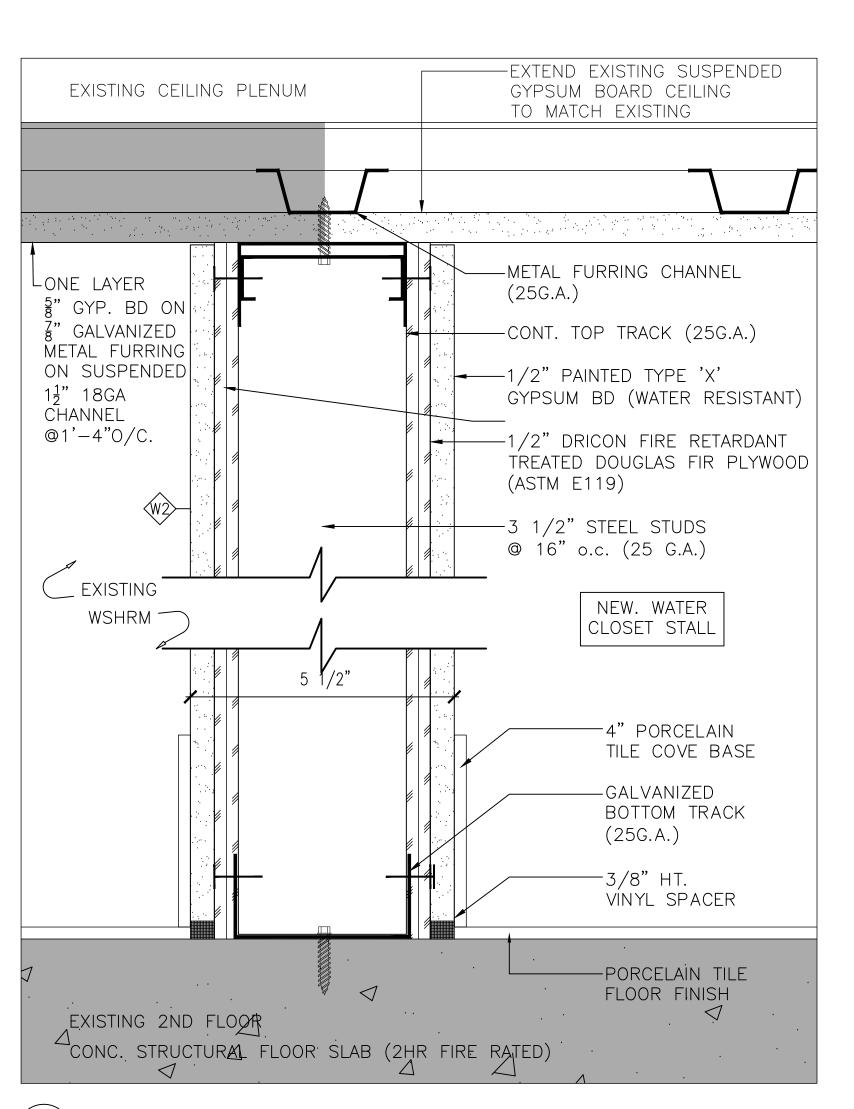
NEW INTERIOR ELEVATIONS



A400 SCALE: 1/2" = 1'-0"







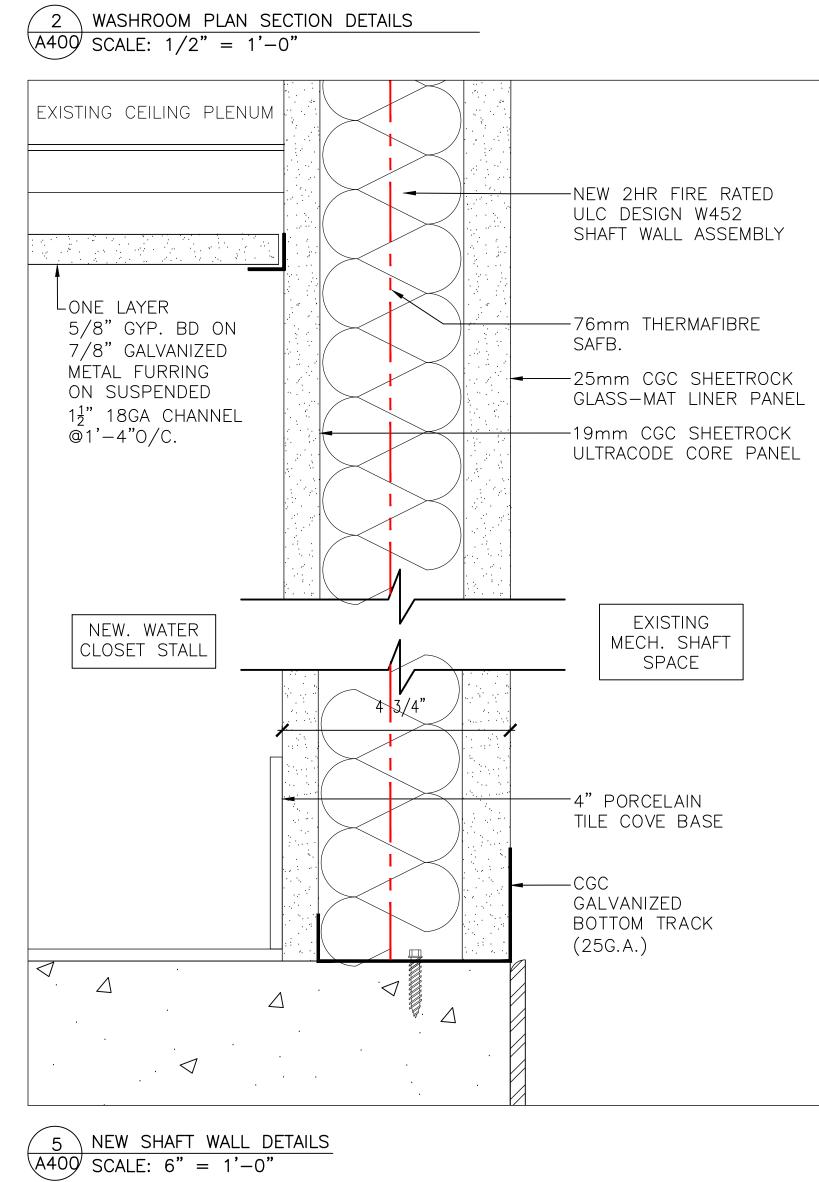
2 WASHROOM PLAN SECTION DETAILS

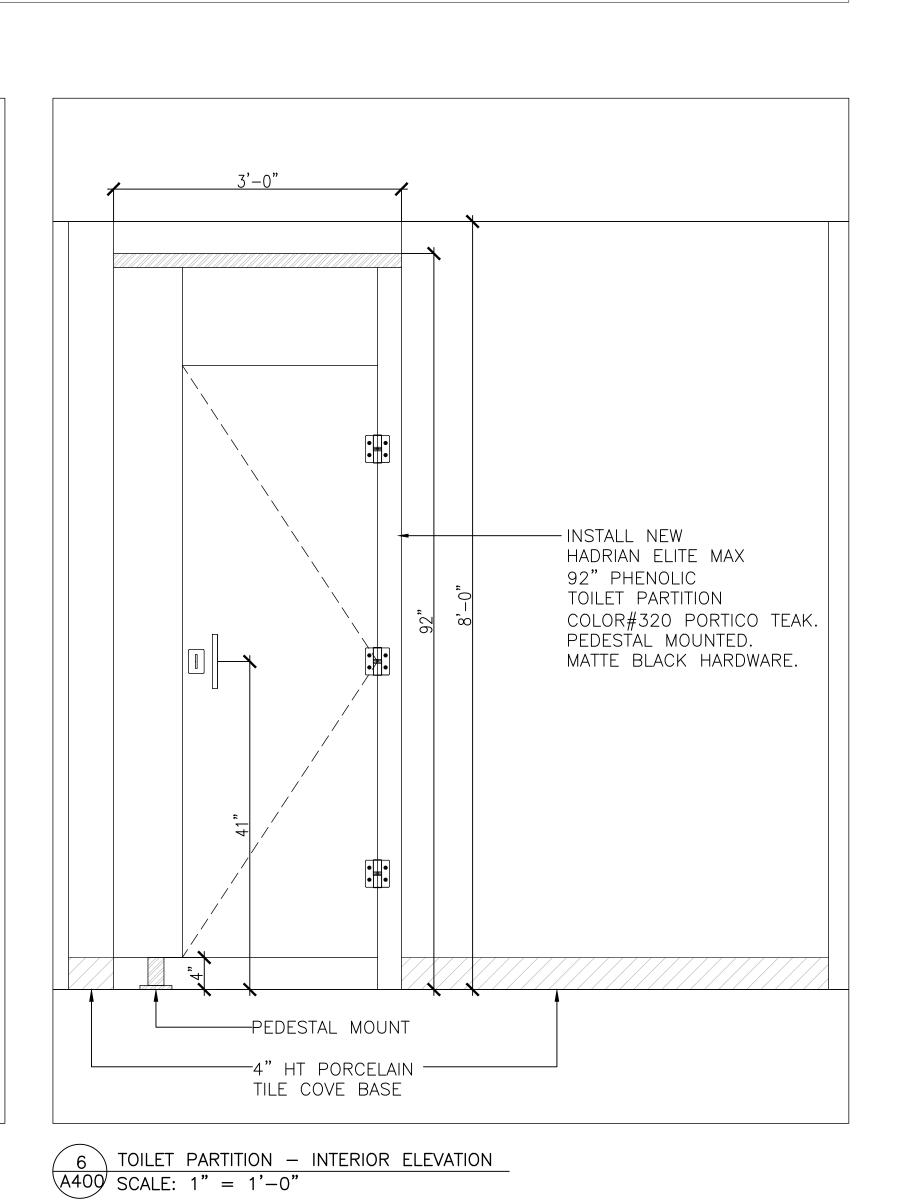
EXIST. PAPER TOWEL AND

PROVIDE NEW SURFACE— MOUNTED HAND DRYER

ON THE NEW WALL

WASTE RECEPTACLE REMOUNTED





WOMEN'S WASHROOM

103

EX.PIPE SPACE

Ö(● >) CONSTRUCT

| ♦(• >) INSTALL NEW

NEW PARTITION

PLUMBING FIXTURE

INSTALL NEW ---

TO MATCH EXISTING

104

KITCHENETTE PT

REF.

PORCELAIN TILE

FLOOR FINISH

(SEE MECH.)

EXISTING

CLOSET

_EXISTING

TO REMAIN

EXISTING

2HR FIRE RATED

CONC. BLOCK WALL

-- INSTALL NEW HADRIAN ELITE MAX 92"

PORTICO TEAK.PEDESTAL MOUNTED.

MATTE BLACK HARDWARE.

PHENOLIC TOILET PARTITION COLOR#320

ELECTRICAL

MECHANICAL

/ÚLC\W452

ASSEMBLY

_SHAFT PARTITION /

LAN

CUT BACK 24"/

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



SHEET WHERE DETAILED



SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-4"

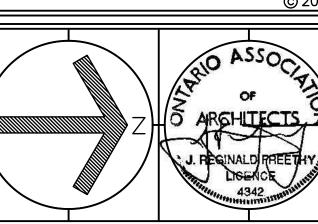
BARRIER FREE TURNING

NOT IN THE CONTRACT (N.I.C.) INDICATES SUPPLY AND INSTALL.

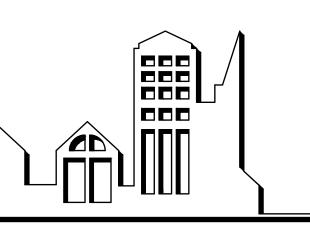
C.C. 22/01/2025 4 REVISION C.C. 14/01/2025 REVISION C.C. 20/09/2024 C.C. 18/09/2024 PRELIMINARY BY. DATE. No. DESCRIPTION REVISIONS

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J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 1EL, (905) 623 7476

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

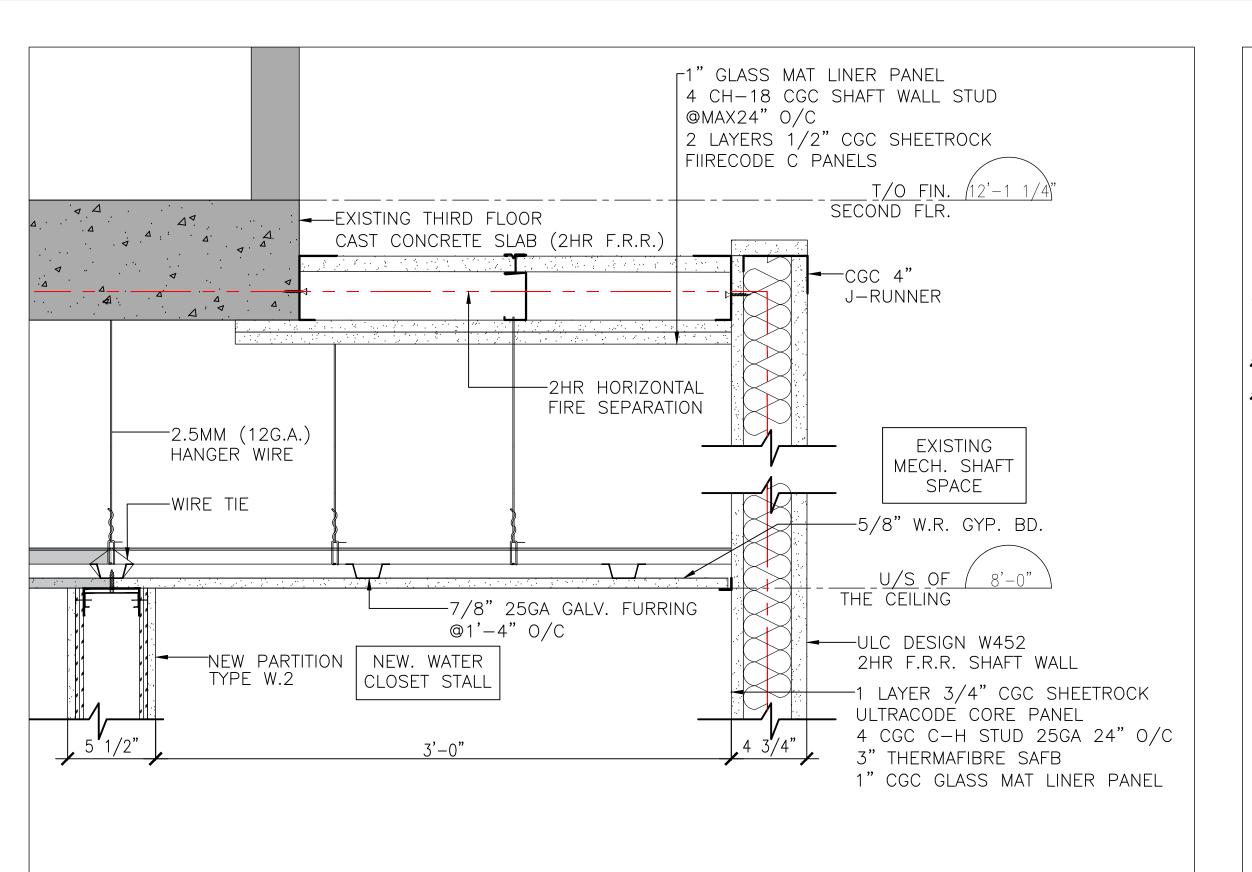
SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	PERMIT RESUBMISSION
PLOT FACTOR:	1:1

TITLE: WASHROOM PLAN DETAILS AND WALL SECTION DETAILS

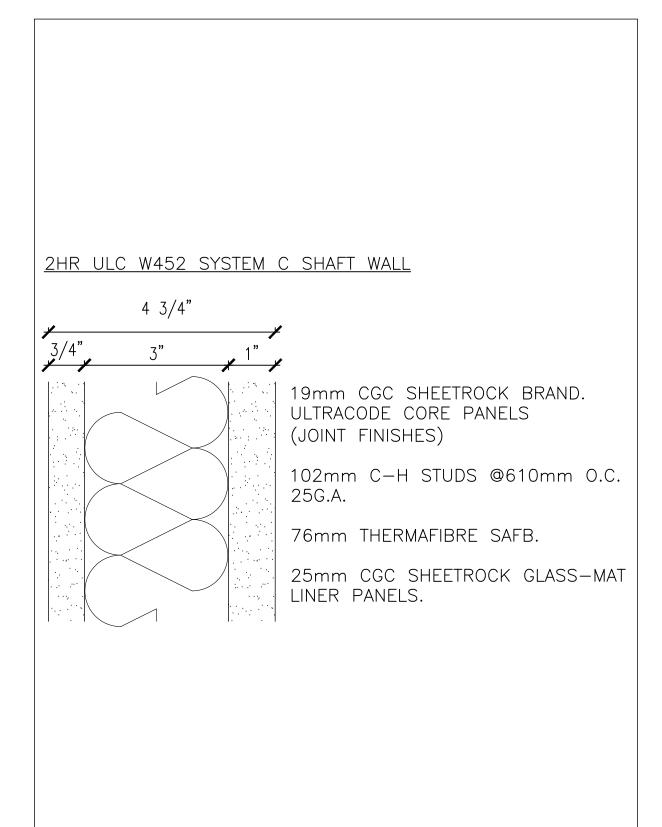
PROJECT No.: 2024-15

DATE: JAN 22, 2025

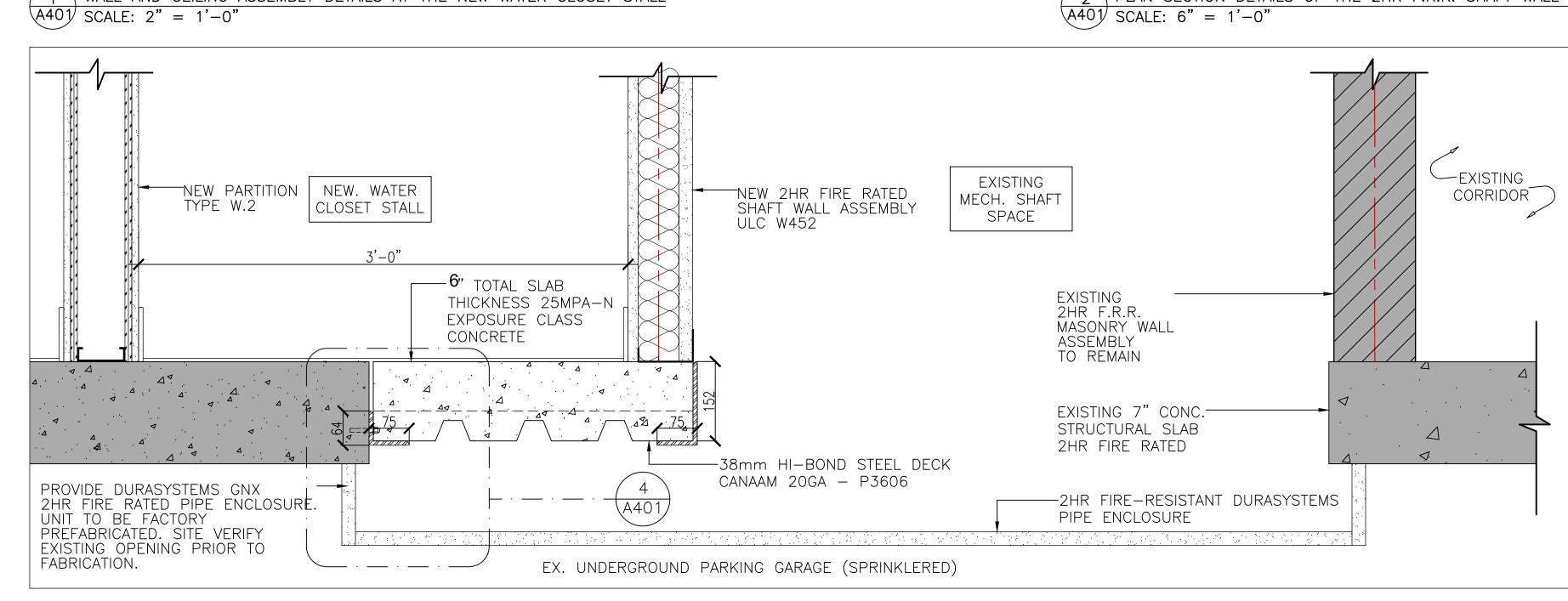
DWG. No.: A400



 $igcep_1$ igcap wall and ceiling assembly details at the new water closet stall

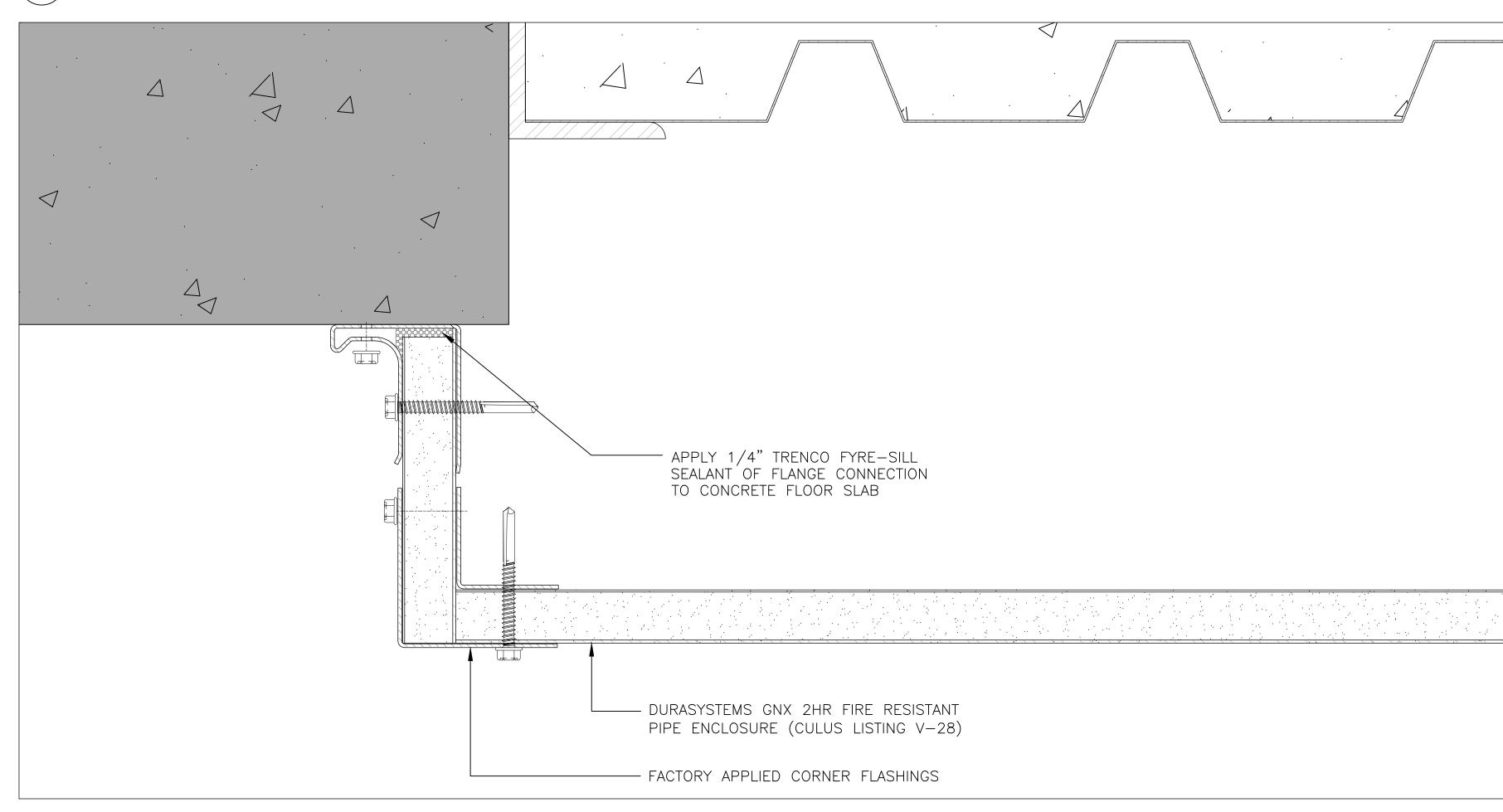


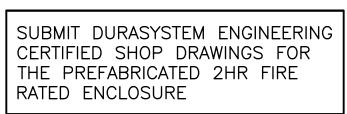
2 PLAN SECTION DETAILS OF THE 2HR F.R.R. SHAFT WALL A401 SCALE: 6" = 1'-0"

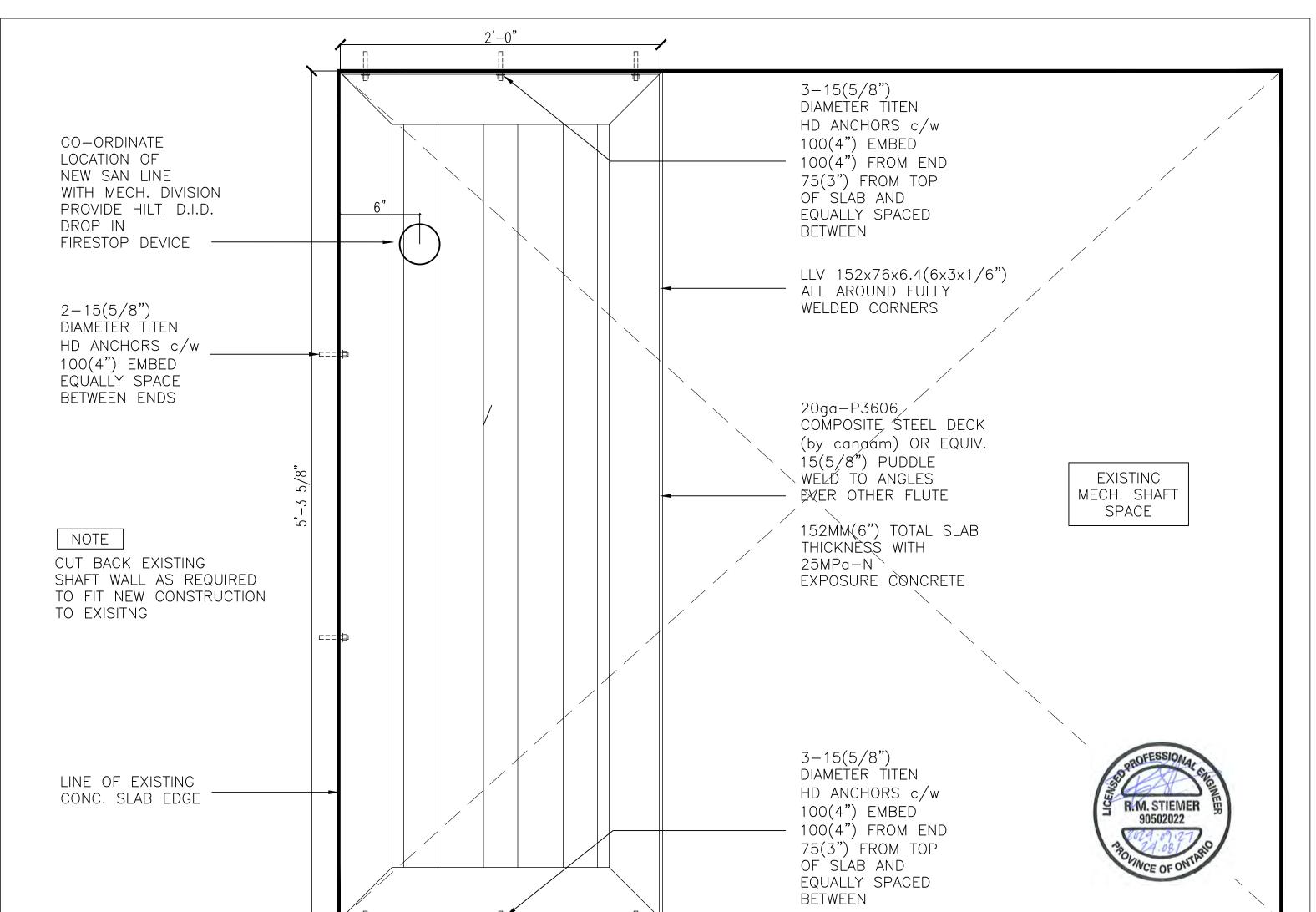


3 SECTION DETAILS OF FIRE-RATED BARRIER AND STRUCTURAL SLAB BELOW THE NEW WATER CLOSET (2ND FLOOR LEVEL)

A401 SCALE: 2" = 1'-0"





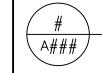


5 STRUCTURAL SLAB INFILL AT WASHROOM RM.104 A401 SCALE: 2" = 1'-0"

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER SHEET WHERE DETAILED



SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-4" BARRIER FREE TURNING

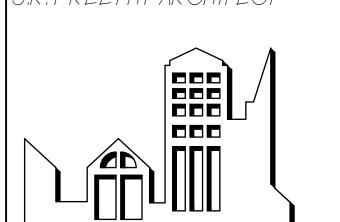
NOT IN THE CONTRACT

(N.I.C.) INDICATES SUPPLY AND INSTALL.

C.C. 22/01/2025 4 REVISION C.C. 14/01/2025 REVISION C.C. 20/09/2024 C.C. 18/09/2024 PRELIMINARY No. DESCRIPTION BY. DATE. REVISIONS

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J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: AS NOTED DWG. BY: C.C. CHECKED BY: J.R.F. STATUS: PERMIT RESUBMISSION PLOT FACTOR: 1:1

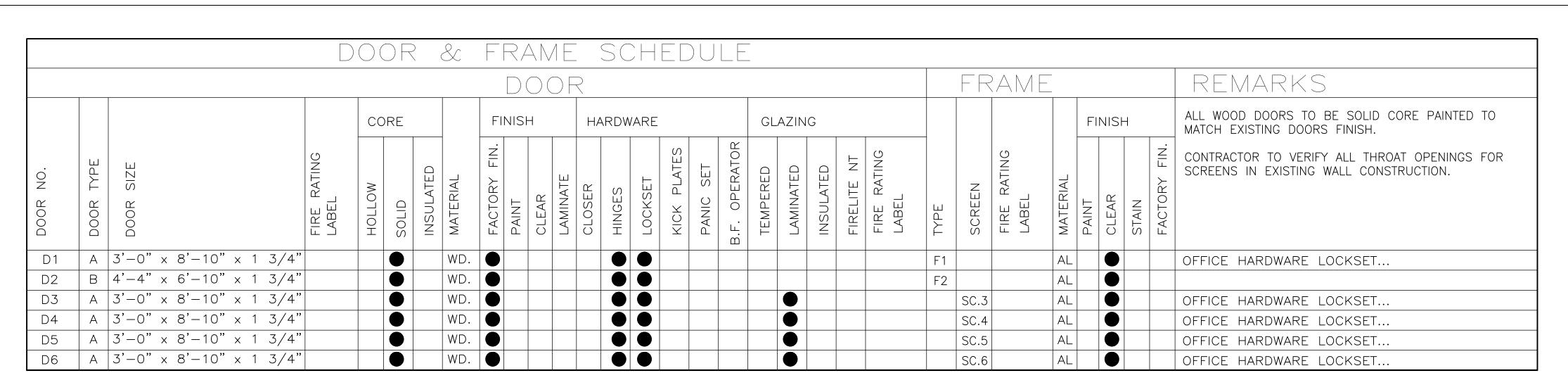
TITLE: WALL SECTION AND STRUCTURAL SLAB **DETAILS**

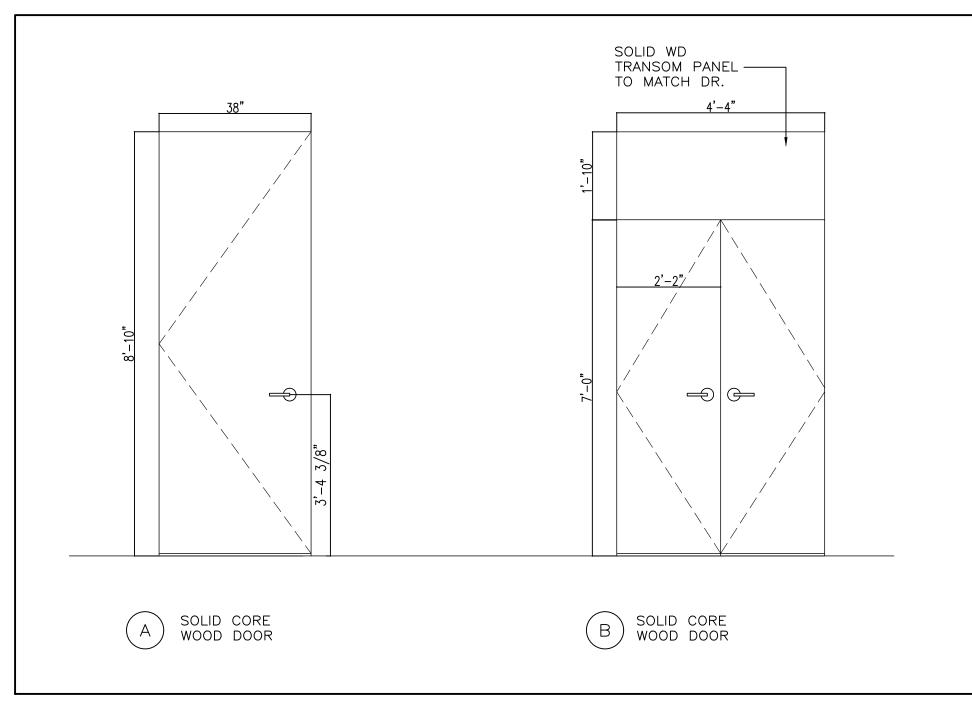
PROJECT No.: 2024-15

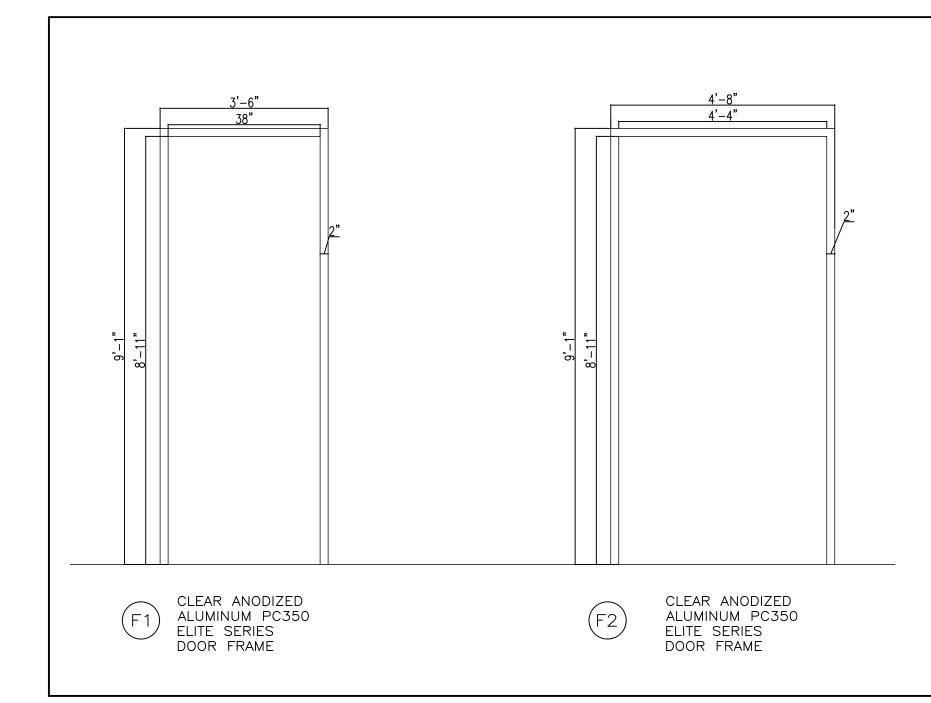
DATE: JAN 22, 2025

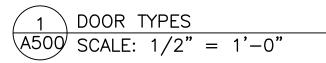
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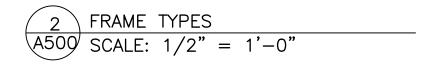
CONNECTION DETAILS BETWEEN SECOND FLOOR SLAB AND 2HR FIRE-RESISTANT DURASYSTEMS PIPE ENCLOSURE A401 SCALE: 8" = 1'-0"

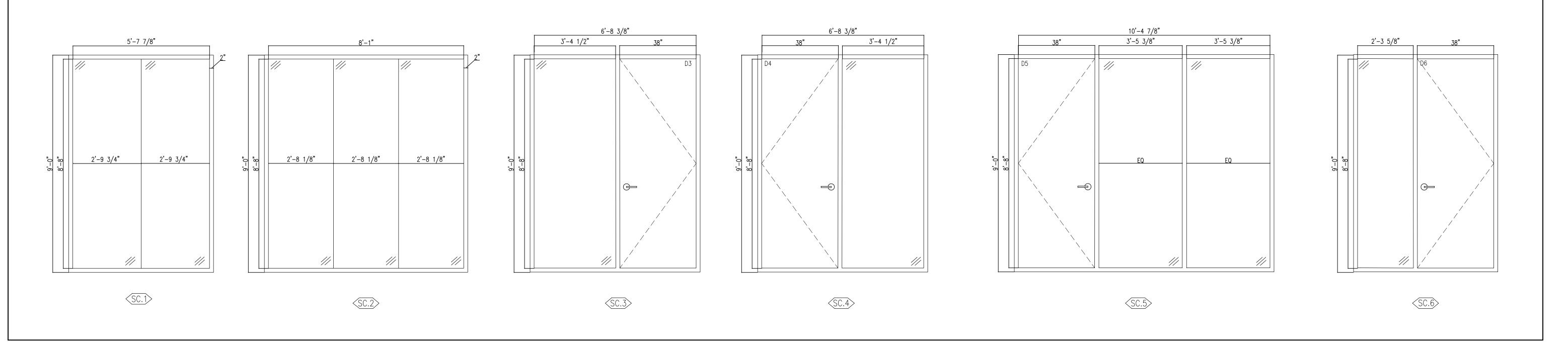












3 SCREEN TYPES
A500 SCALE: 1/2" = 1'-0"

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER
SHEET WHERE DETAILED



SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN.

IN BA DI.

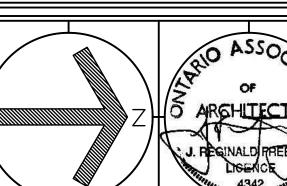
INDICATES 5'-4"
BARRIER FREE TURNING
DIAMETER.

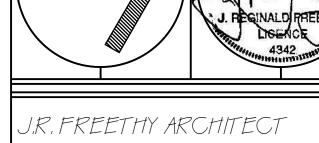
NOT IN THE CONTRACT
INDICATES SUPPLY AND INSTALL.

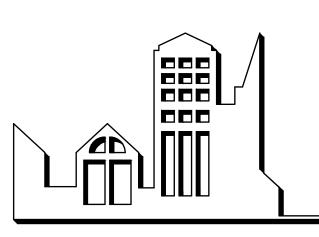
3	IFTP	c.c.	20/09/202
2	PRELIMINARY	c.c.	12/09/202
1	PRELIMINARY	C.D.	16/08/202
No.	DESCRIPTION	BY.	DATE.

REVISIONS

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PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

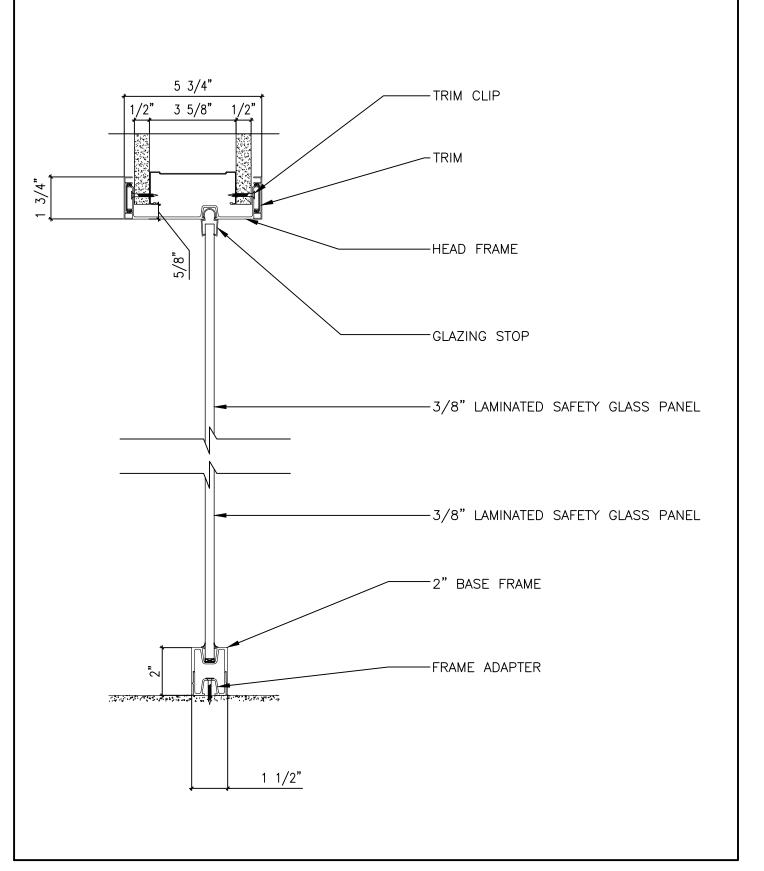
DOOR AND ROOM FINISH SCHEDULES

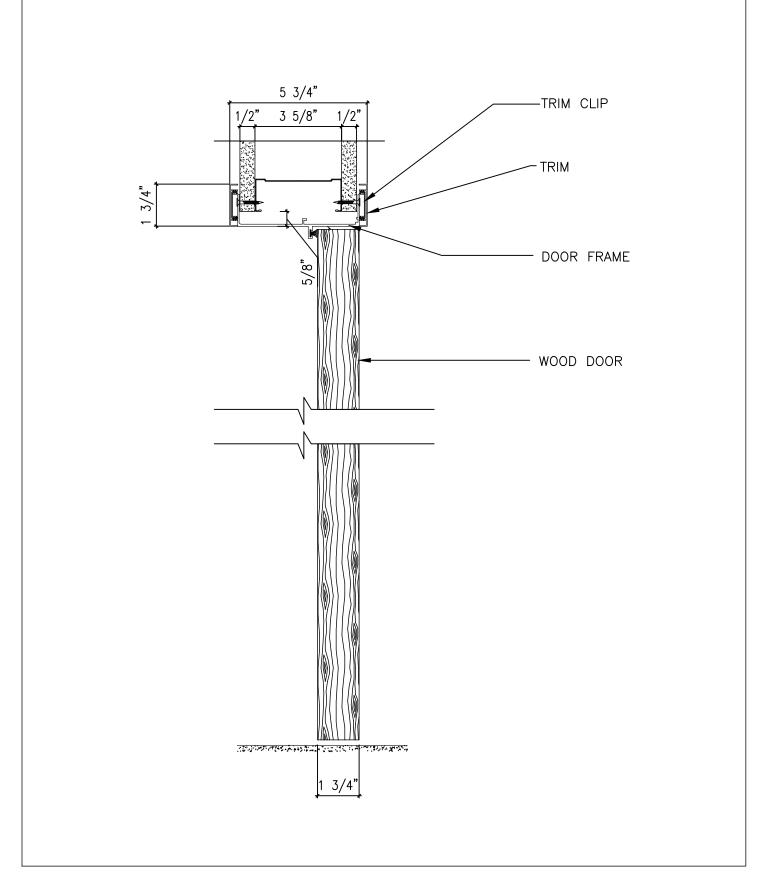
PROJECT No.:

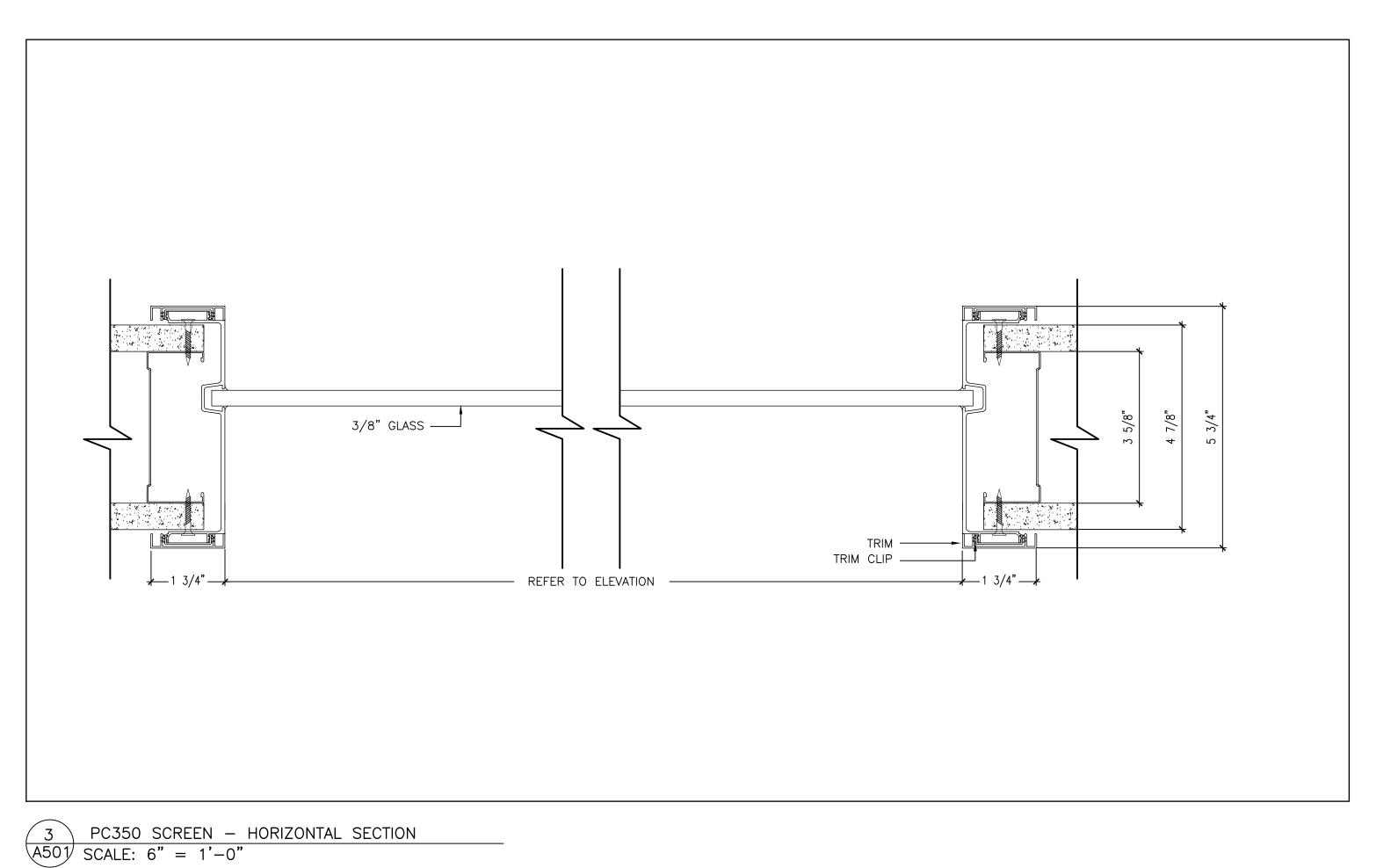
2024-15

DATE: SEPTEMBER 20, 2024

A500





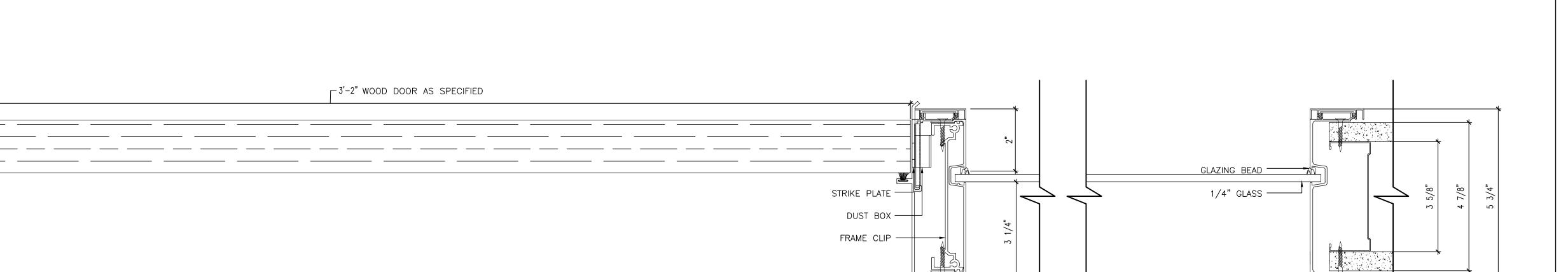


— REFER TO ELEVATION —

1 PC350 'ELITE' PARTITION HEAD AND JAMB DETAIL - 2" NARROW BASE A501 SCALE: 3" = 1'-0" 2 SINGLE DOOR FRAME - VERTICAL SECTION A501 SCALE: 3" = 1'-0"

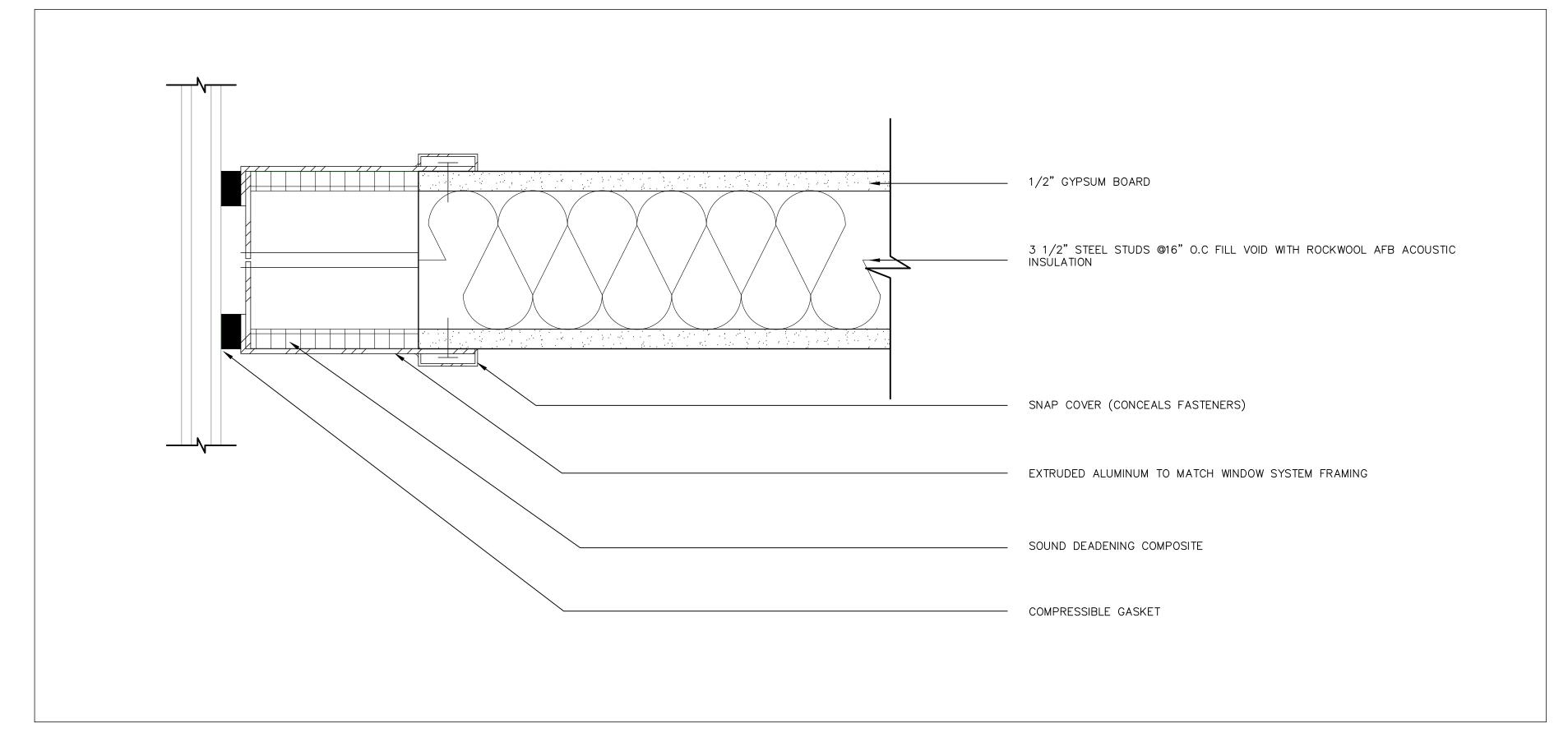
> REINFORCING BACKER PLATE

--- DOOR FRAME



REFER TO ELEVATION ----

4 PC350 SINGLE DOOR FRAME WITH SIDELIGHT - HORIZONTAL SECTION A501 SCALE: 6" = 1'-0"



5 CURTAIN WALL AND GYPSUM BD PARTITION CONNECTION DETAILS
A501 SCALE: 6" = 1'-0"

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER
SHEET WHERE DETAILED





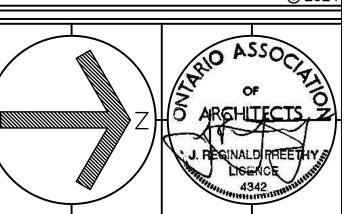
SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN. INDICATES 5'-4"
BARRIER FREE TURNING
DIAMETER.

NOT IN THE CONTRACT (N.I.C.)

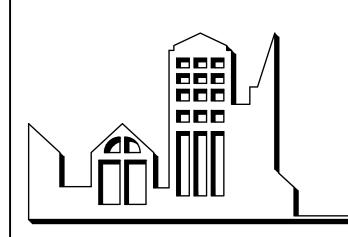
INDICATES SUPPLY AND INSTALL.

2	IFTP	C.C.	20/09/2024
1	PRELIMINARY	C.C.	13/09/2024
No.	DESCRIPTION	BY.	DATE.
REVISIONS			

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325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

PROJECT:

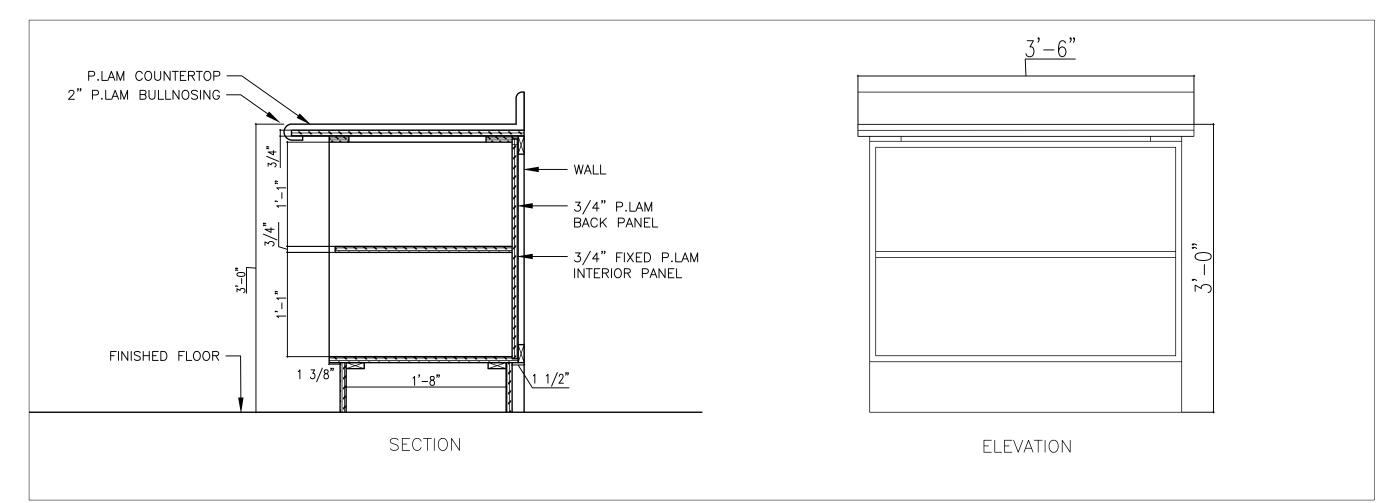
BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

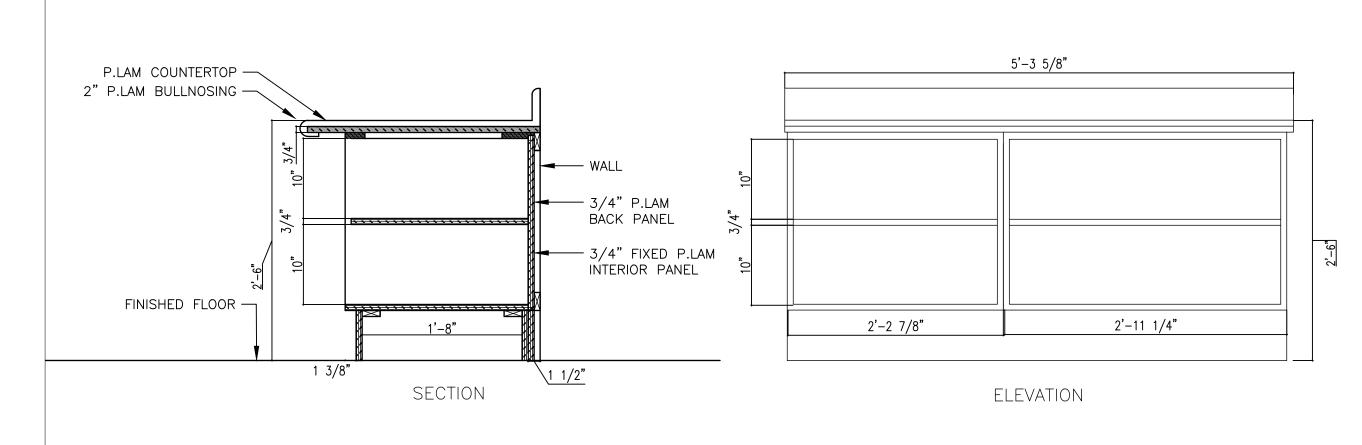
SCALL.	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1
	_

PC350 'ELITE' PARTITION SYSTEM DETAILS

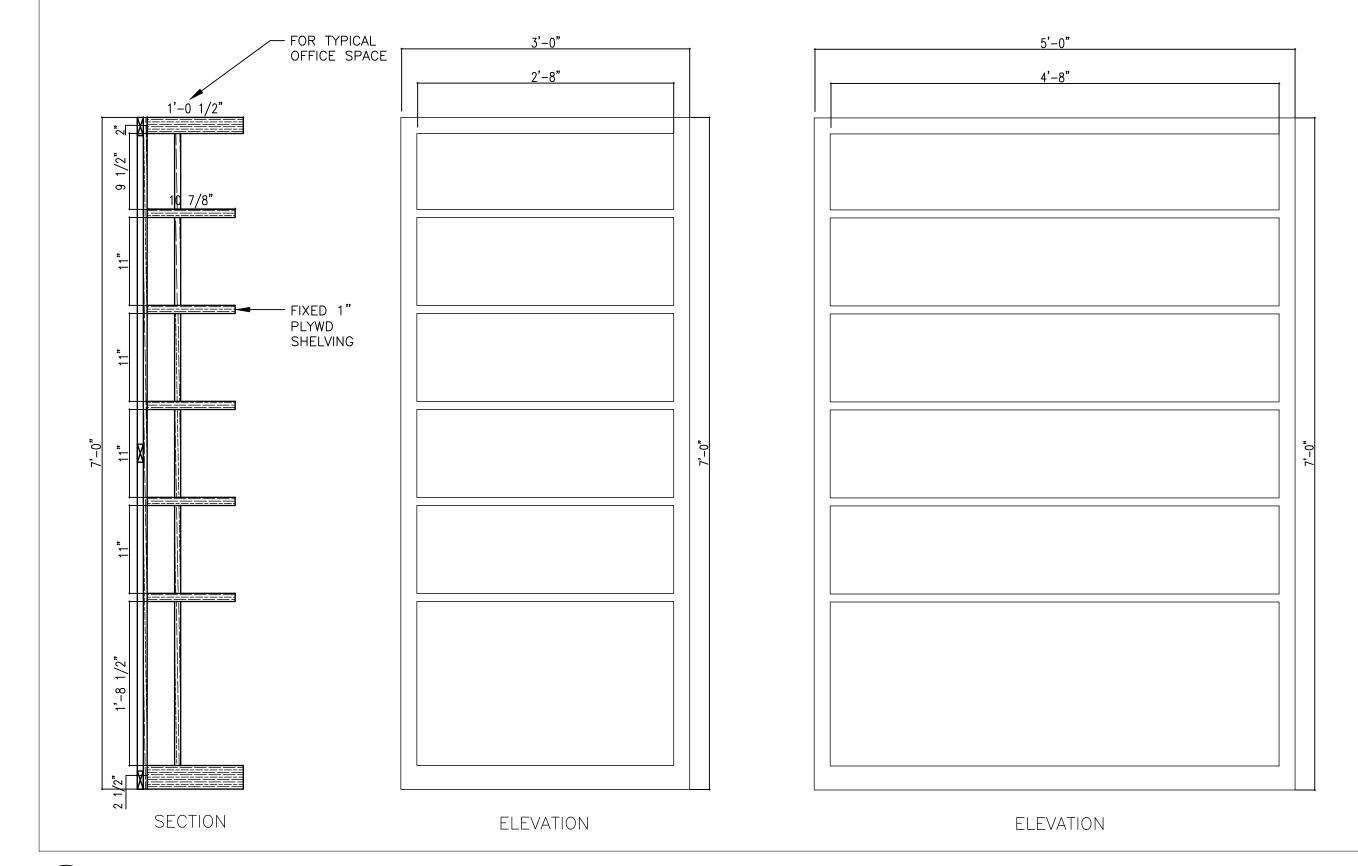
PROJECT No.: 2024-15



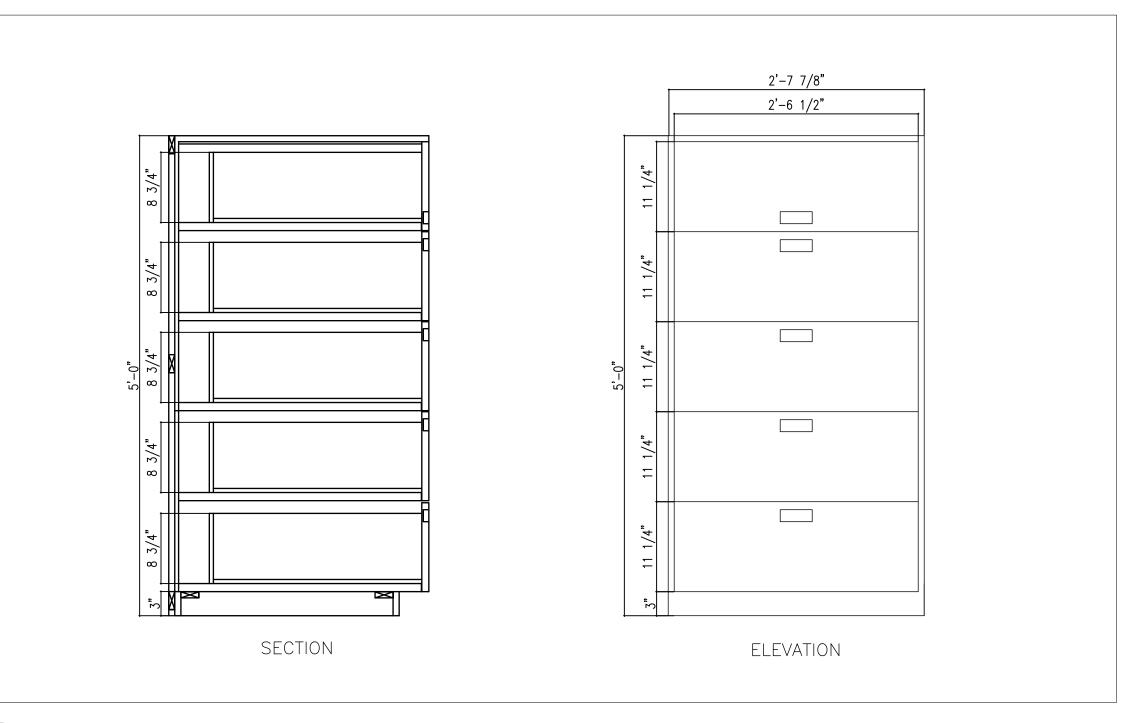




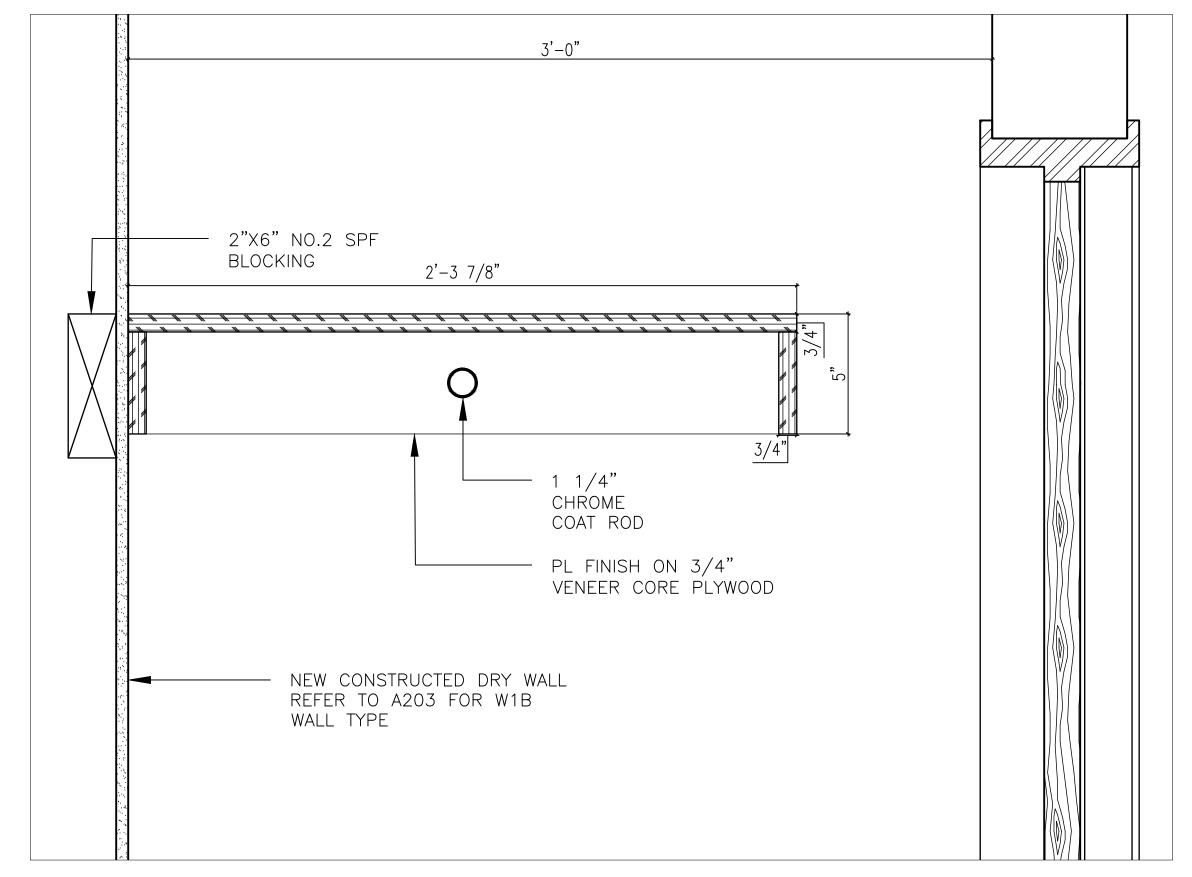
2 WORK STATION #2 A700 SCALE: 1" = 1'-0"



3 WORK STATION #2 A700 SCALE: 1" = 1'-0"



4 5-DRAWER CABINET A700 SCALE: 1" = 1'-0"



5 COAT SHELF SECTION A700 SCALE: 3" = 1'-0"

CLIENT:

THE CITY OF OSHAWA

KEY TO DETAIL NUMBER:



DETAIL NUMBER SHEET WHERE DETAILED



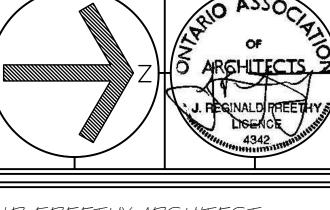
INDICATES 5'-4"
BARRIER FREE TURNING
DIAMETER. (N.I.C.)

NOT IN THE CONTRACT

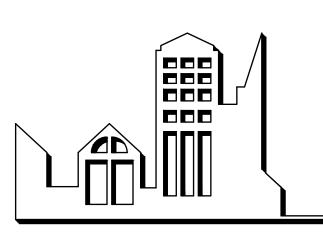
INDICATES SUPPLY AND INSTALL.

	IFTP	C.C.	20/09/2024
	PRELIMINARY	C.C.	18/09/2024
lo.	DESCRIPTION	BY.	DATE.
RE	VISIONS		_

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J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE:	AS NOTED
DWG. BY:	C.C.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1
	•

MILLWORK DETAILS

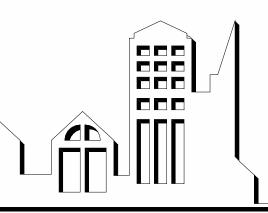


SHEET WHERE DETAILED

SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN.

C.C. 18/09/2024 C.D. 05/07/2024 BY. DATE

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BUILDING DEPARTMENT OFFICE ALTERATIONS

SCALE:	
DWG. BY:	C.N.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

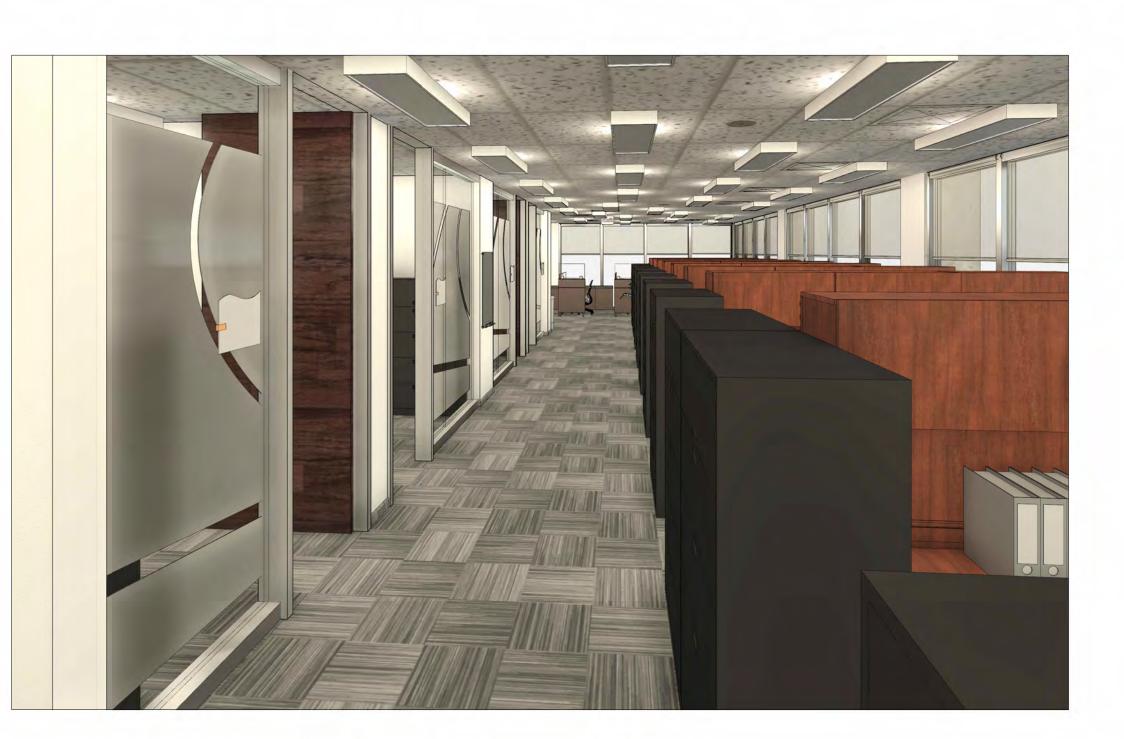
DWG. No.:



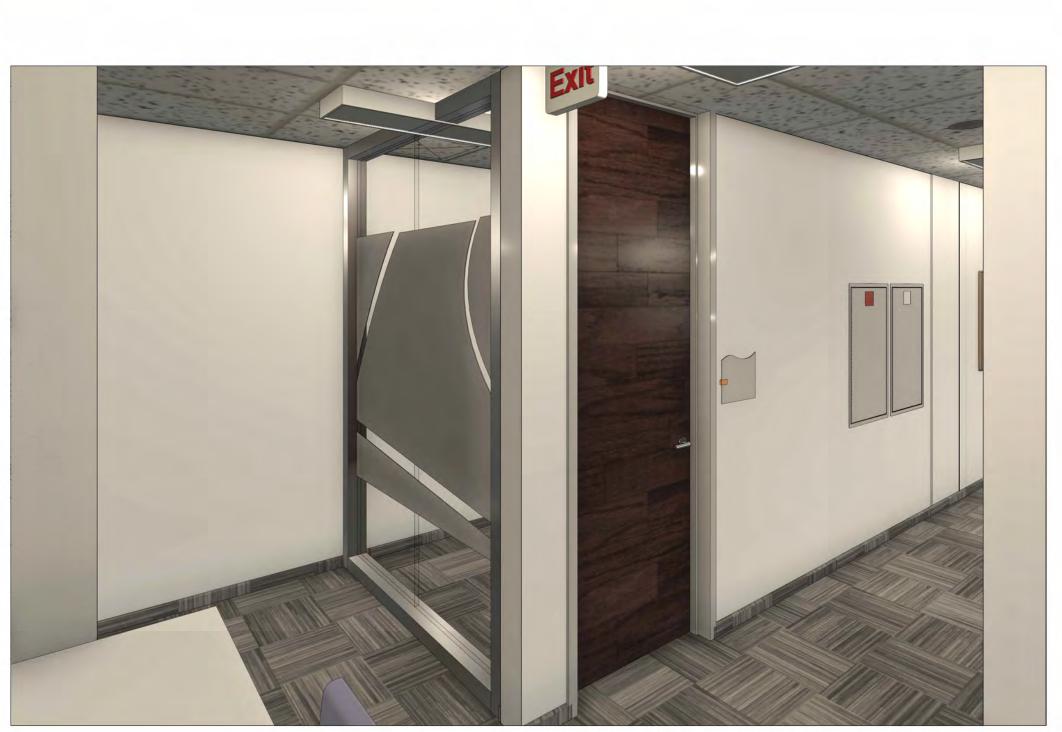


New Meeting Room

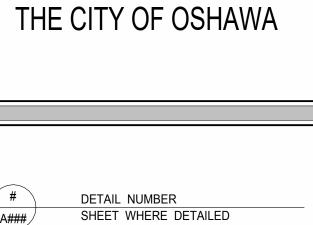
Permit/Zoning Area and New Coat Shelf



New Meeting Room/Corridor







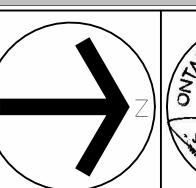
SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN.

INDICATES 5'-4" BARRIER FREE TURNING DIAMETER.

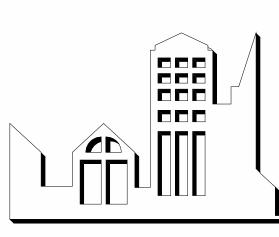
PROVIDE INDICATES SUPPLY AND INSTALL.

TENDER & PERMIT
CLIENT REVIEW C.C. 20/09/2024 C.C. 18/09/2024 C.D. 05/07/2024 BY. DATE No. DESCRIPTION

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J.R. FREETHY ARCHITECT



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PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S. OSHAWA, ON

CHECKED BY: J.R.F. TENDER & PERMIT PLOT FACTOR: 1:1

3D MODEL VIEWS 2

PROJECT No.: 2024-15





Permit/Zoning Work Area



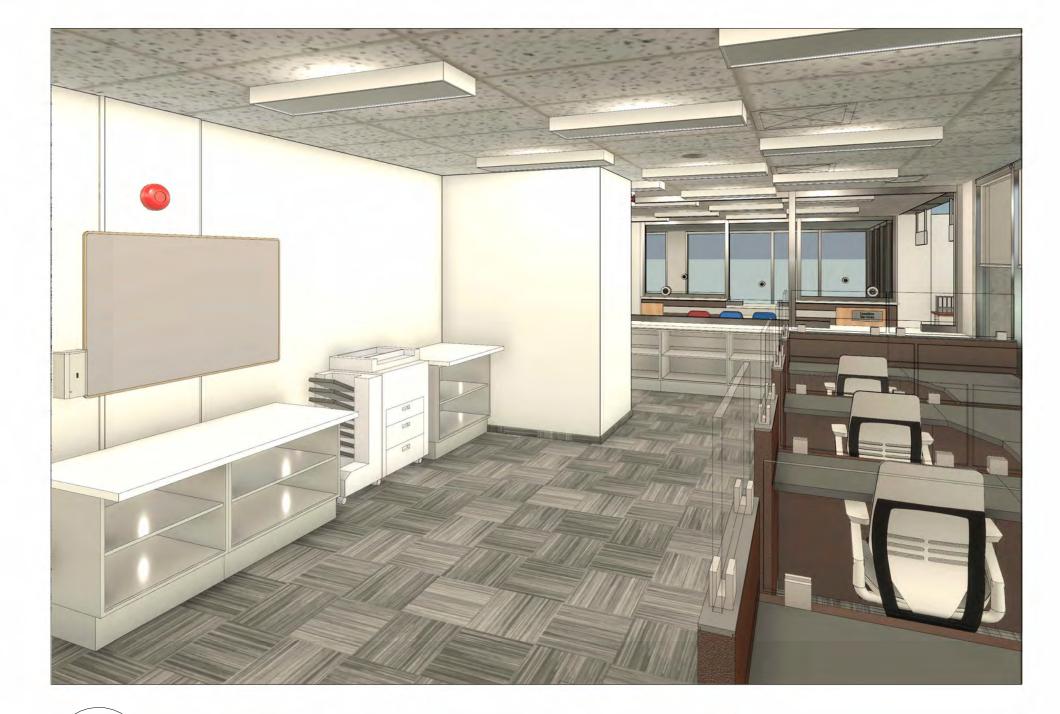
2 Permit/Zoning & Plan Examiners Work Stations



3 Permit/Zoning Work Stations



4 Plan Examiners Work Area



5 New Microfiche Station near Permit/ Zoning Area



6 New Structural Examiners Office



Existing Manager Office A703

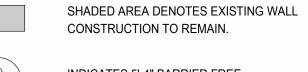


8 Existing Ex. Structural Examiners Office A703

THE CITY OF OSHAWA



DETAIL NUMBER
SHEET WHERE DETAILED



INDICATES 5'-4" BARRIER FREE

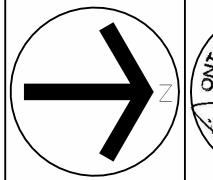
TURNING DIAMETER.

NOT IN THE CONTRACT

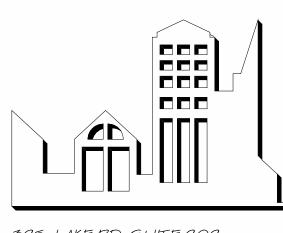
INDICATES SUPPLY AND INSTALL.

TENDER & PERMIT
CLIENT REVIEW C.C. 20/09/2024 C.C. 18/09/2024 C.D. 05/07/2024 BY. DATE o. DESCRIPTION

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J.R. FREETHY ARCHITECT



325 LAKE RD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 Tel. (905) 623 7476

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S. OSHAWA, ON

SCALE:	
DWG. BY:	C.N.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

3D MODEL VIEWS 3

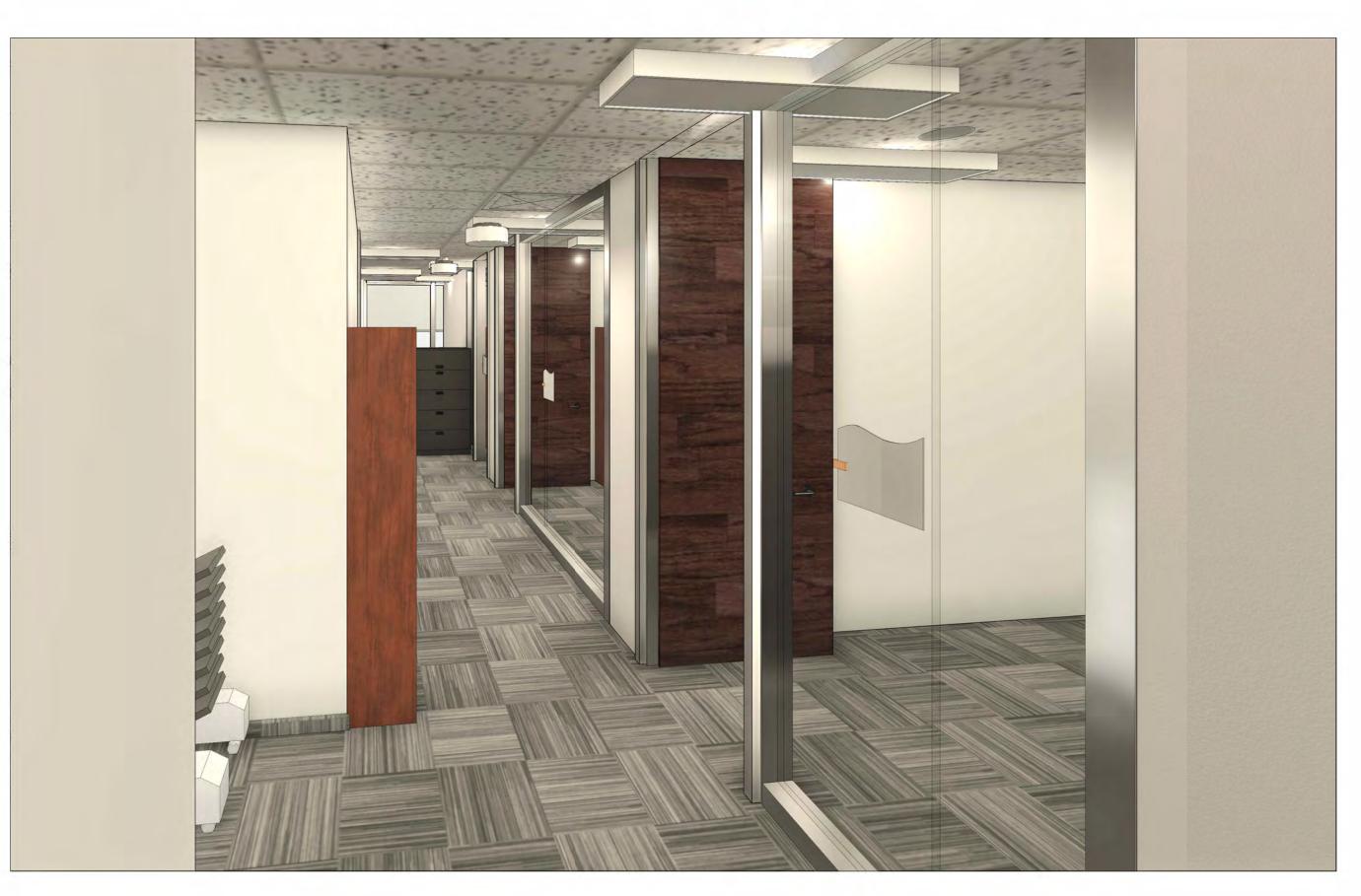
PROJECT No.: 2024-15



1 New DCBO Offices A704



2 New DCBO Office #1 and new shelf A704



3 New DBCO Offices and Corridor

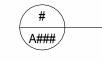


4 Offices Corridor around Existing Mechanical Examiners Office

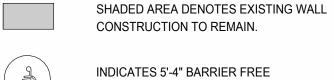


5 Kitchenette

THE CITY OF OSHAWA



DETAIL NUMBER
SHEET WHERE DETAILED



CONSTRUCTION TO REMAIN.



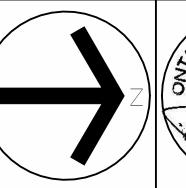
INDICATES 5'-4" BARRIER FREE TURNING DIAMETER.

NOT IN THE CONTRACT

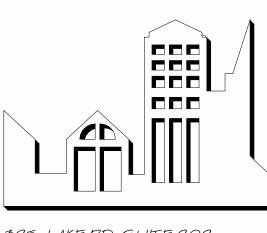
INDICATES SUPPLY AND INSTALL.

TENDER & PERMIT
CLIENT REVIEW C.C. 20/09/2024 C.C. 18/09/2024 C.D. 05/07/2024 BY. DATE o. DESCRIPTION

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PROJECT:

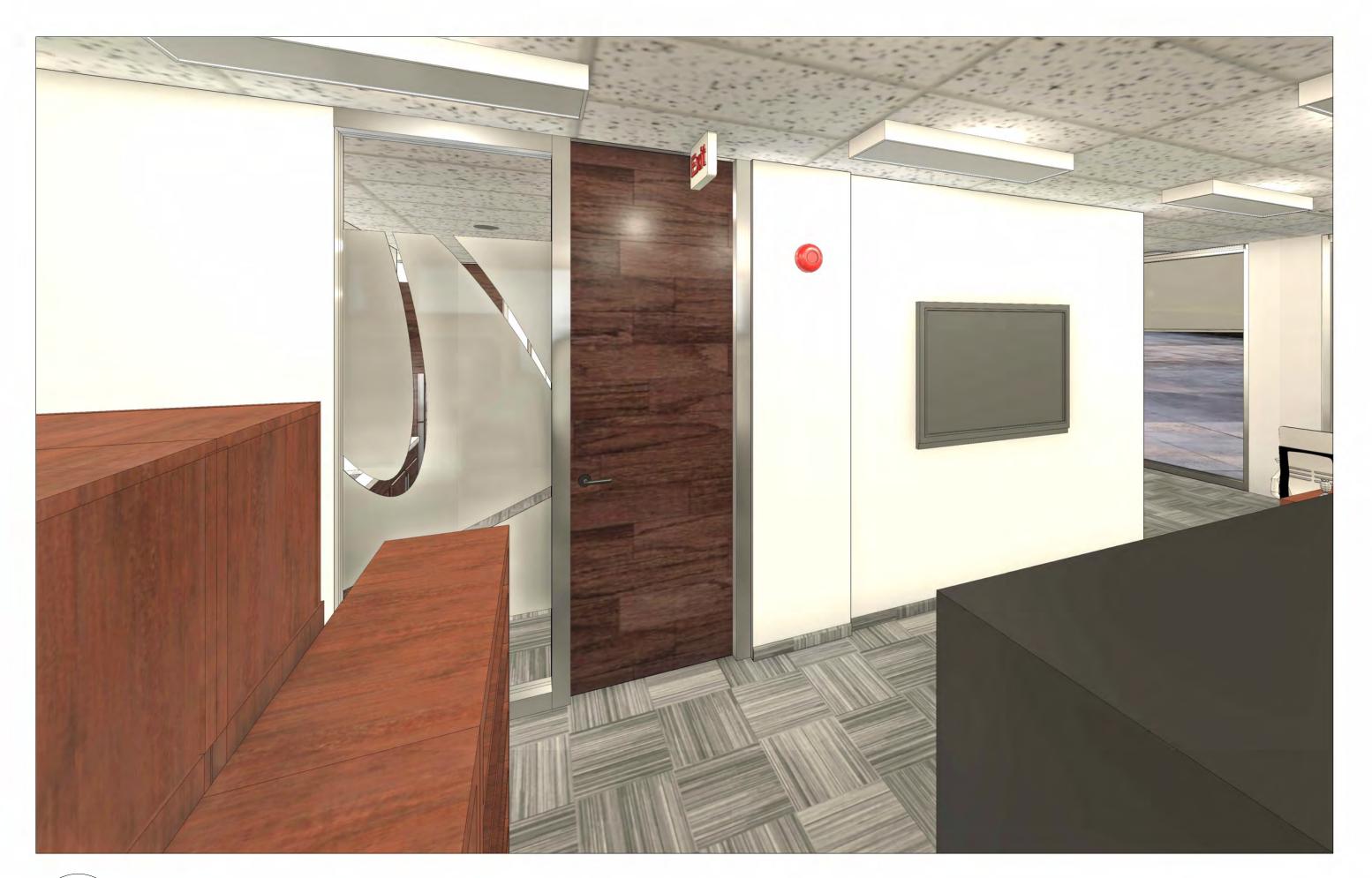
BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S. OSHAWA, ON

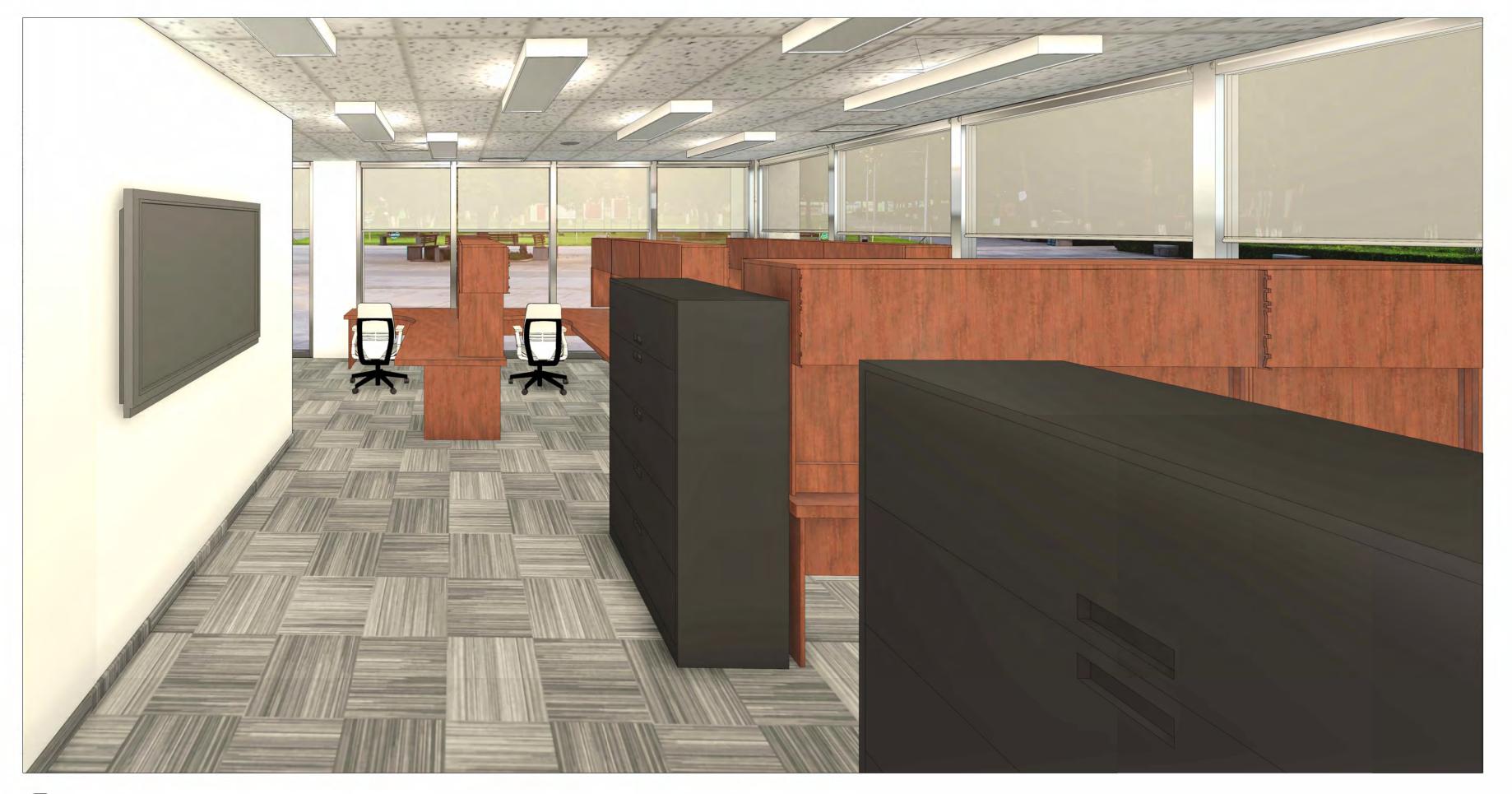
SCALE:	
DWG. BY:	C.N.
CHECKED BY:	J.R.F.
STATUS:	TENDER & PERMIT
PLOT FACTOR:	1:1

3D MODEL VIEWS 4

2024-15



Meeting Screen at Bldg Inspectors Area

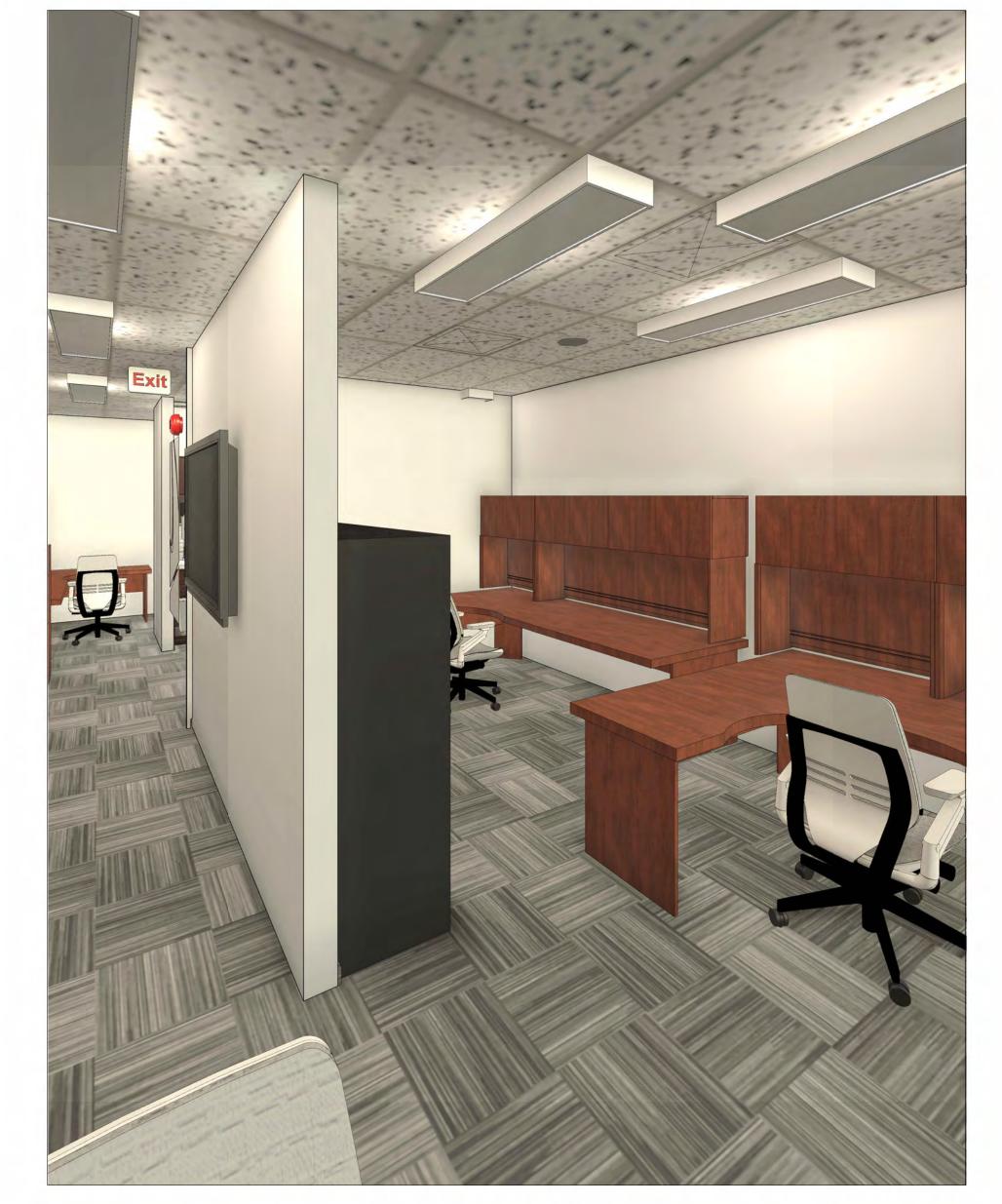


2 Bldg Inspectors Work Area - East View A705





3 A705



4 Additional Bldg Inspectors Work Area

THE CITY OF OSHAWA



DETAIL NUMBER
SHEET WHERE DETAILED



SHADED AREA DENOTES EXISTING WALL CONSTRUCTION TO REMAIN.

INDICATES 5'-4" BARRIER FREE

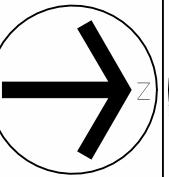
TURNING DIAMETER.

NOT IN THE CONTRACT

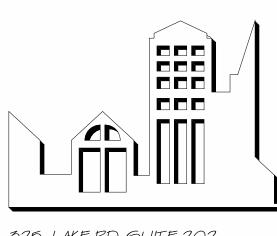
INDICATES SUPPLY AND INSTALL.

C.C. 20/09/2024 C.C. 18/09/2024 CLIENT REVIEW C.D. 05/07/2024 No. DESCRIPTION BY. DATE

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J.R. FREETHY ARCHITECT



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BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S. OSHAWA, ON

	SCALE:	
	DWG. BY:	C.N.
	CHECKED BY:	J.R.F.
	STATUS:	TENDER & PERMIT
	PLOT FACTOR:	1:1

3D MODEL VIEWS 5

2024-15

PERFORM ALL MECHANICAL WORK DETAILED ON THESE DRAWINGS TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL OPERATING SYSTEM TO THE SATISFACTION OF THE MECHANICAL CONSULTANT. EQUIPMENT SUBSTITUTIONS AFTER AWARD OF CONTRACT WILL NOT BE CONSIDERED WITHOUT WRITTEN EXPLANATION AND CONSULTANT'S WRITTEN AUTHORIZATION. THE QUALITY AND PERFORMANCE CHARACTERISTICS OF SUBSTITUTED PRODUCT SHALL BE EQUIVALENT TO THE SPECIFIED PRODUCT. ALL SUBSTITUTE PRODUCTS SHALL BE APPROVED BY CONSULTANTS. ANY ADDITIONAL COSTS INCURRED BY ALL TRADES FOR SUBSTITUTED EQUIPMENT INSTALLATION MUST BE INCURRED BY THIS CONTRACT.

BASE BUILDING STANDARDS SHALL FORM THE BASIS FOR THIS CONSTRUCTION. COMPLY WITH LANDLORD'S REQUIREMENTS FOR SYSTEM SHUTDOWN AND CONNECTION.

CODES AND BYLAWS SHALL BE STRICTLY ADHERED TO. OBTAIN NECESSARY PERMITS, APPROVALS AND INSPECTIONS FROM THE AUTHORITIES HAVING JURISDICTION.

PERMITS AND FEES REQUIRED BY THE AUTHORITIES HAVING JURISDICTION SHALL BE OBTAINED AND PAID FOR BY THIS CONTRACTOR. INCLUDE ALL APPLICABLE TAXES. EXISTING SITE CONDITIONS AFFECTING THE WORK OF THIS TRADE SHALL BE REVIEWED PRIOR TO TENDER SUBMISSION. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF FULL CONTRACT RESPONSIBILITY.

FIRE STOP SHALL BE ULC LISTED FOR THE REQUIRED SEPARATION AND PROVIDED AT ALL PIPE PENETRATIONS THROUGH RATED ASSEMBLIES.

SHOP DRAWINGS SHALL BE COMPLETE WITH CONTRACTORS REVIEWED STAMP. SUBMIT ONE ELECTRONIC COPY. ALLOW ONE (1) WEEK FOR ENGINEERS REVIEW.

CONTROL WIRING AND DEVICES SHALL BE PROVIDED UNDER THIS CONTRACT. WHEN REQUIRED, CONTROL WORK SHALL BE COMPLETED BY OWNER'S/LANDLORD'S APPROVED CONTRACTOR AND PAID FOR UNDER THIS CONTRACT.

ELECTRICAL DEVICES SHALL BE PROVIDED FOR ALL LOAD SIDES INCLUDING WIRING. STARTERS. DISCONNECT, ETC. VERIFY AND COORDINATE VOLTAGE AND PHASE WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

ENGINEERS FINAL INSPECTION IS IMPERATIVE. PRIOR TO INSTALLATION OF ALL CEILINGS, THIS CONTRACTOR SHALL CONTACT MARGARET EDWARDS (ROMAR) AT MEDWARDS@ROMARENGINEERING.COM TO PERFORM A FINAL INSPECTION. WHEN CEILING TILES HAVE BEEN INSTALLED IT WILL BE NECESSARY FOR THE CONTRACTOR TO REMOVE PORTIONS

ONE YEAR WRITTEN WARRANTY SHALL BE PROVIDED FOR THE COMPLETE MECHANICAL INSTALLATION FROM DATE OF ACCEPTANCE.

CAD AS-BUILT DRAWINGS SHALL BE COMPLETED UTILIZING AUTOCAD. RECORD ACCURATELY INSTALLED WORK ON WHITE PRINTS TRANSFERRING TO AUTOCAD. SUBMIT BOTH COPIES. OPERATING AND MAINTENANCE MANUALS CONTAINING APPROVED SHOP DRAWINGS, BALANCING REPORTS, EQUIPMENT DATA SHEETS, WRITTEN WARRANTY, OPERATING INSTRUCTIONS AND MAINTENANCE PROCEDURES SHALL BE SUBMITTED TO CONSULTANT FOR REVIEW. MANUALS SHALL BE SEPARATED WITH DIVIDERS IN APPROPRIATE SECTIONS. MAKE ALL CORRECTIONS

REQUESTED BY CONSULTANT AND RESUBMIT FOR REVIEW.

MECHANICAL DEMOLITION

CHANGE NOTICE QUOTATIONS SHALL BE SUBMITTED COMPLETE WITH COST BREAKDOWN OF LABOUR AND MATERIALS. FAILURE TO PROVIDE WILL RESULT IN REJECTION. ALL MECHANICAL CHANGE NOTICES SHALL BE PRICED IN ACCORDANCE WITH "MECHANICAL CONTRACTORS ASSOCIATION" (MCA). LABOUR UNITS STRICTLY FOR LABOUR AND FOR MATERIAL COST USE "ALL PRICER" LESS DISCOUNT, TYPICALLY 20%-30%.

TEMPORARY FILTERS 25MM (1 IN.) SHALL BE PROVIDED AT ALL BASE BUILDING RETURN AIR OPENINGS WHICH REMAIN OPERATIONAL DURING CONSTRUCTION. FILTERS TO BE REPLACED WEEKLY. REMOVE UPON CONSTRUCTION COMPLETION.

PROVIDE LABOUR, MATERIALS, PRODUCTS, EQUIPMENT AND SERVICES REQUIRED TO COMPLETE THE DEMOLITION WORK SPECIFIED HEREIN. REFER TO DRAWINGS FOR EXTENT OF DEMOLITION WORK. THE DRAWINGS INDICATE THE APPROXIMATE LOCATIONS OF SERVICES AS FAR AS THESE ARE KNOWN. DISPOSE, OFF SITE, OF ALL DEBRIS IN ACCORDANCE WITH THE JURISDICTIONAL AUTHORITIES. REMOVAL AND STORAGE OF SALVAGEABLE ITEMS AS DIRECTED BY THIS SPECIFICATION SECTION UND THE OWNER OF THEIR REPRESENTATIVE.

MEET THE REQUIREMENTS AND RECOMMENDATIONS OF ALL MUNICIPAL, PROVINCIAL AND FEDERAL BYLAWS AND ORDINANCES. EXECUTE THIS WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS. CAN/CSA-S350-M1980 CODE OF PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES. ONTARIO BUILDING CODE. OCCUPATIONAL HEALTH AND SAFETY ACT. REGULATIONS FOR CONSTRUCTION PROJECTS. ONTARIO FIRE CODE. REGULATIONS UNDER FIRE MARSHALS ACT.

REMOVAL FROM SITE AND DISPOSAL OF DEBRIS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL JURISDICTIONAL AUTHORITIES. ARRANGE AND PAY FOR ALL PERMITS, NOTICES AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE DEMOLITION WORK. ALL MATERIALS WHICH HAVE NOT BEEN DESIGNATED FOR SALVAGE FROM THE DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVE ALL MATERIAL AND DEBRIS FROM THE SITE AS QUICKLY AS POSSIBLE AND DISPOSE OF LEGALLY. BURNING OF DEBRIS OR SELLING OF MATERIALS ON THE SITE WILL NOT BE PERMITTED. CONFORM TO REQUIREMENTS OF MUNICIPALITY'S WORKS DEPARTMENT REGARDING DISPOSAL OF WASTE MATERIALS. MATERIALS PROHIBITED FROM MUNICIPALITY WASTE MANAGEMENT FACILITIES SHALL BE REMOVED FROM SITE AND DISPOSED OF THROUGH RECYCLING COMPANIES SPECIALIZING IN RECYCLABLE MATERIALS. AT THE END OF EACH WORK SHIFT, LEAVE WORK IN A SAFE CONDITION. PATCH FIRE RATED PARTITIONS AND FLOORS TO MAINTAIN RATING UPON REMOVAL OF MECHANICAL SERVICES ORIGINALLY SPANNING FIRE RATED ASSEMBLIES. DEMOLISH WORK INTO SECTIONS OF PRACTICAL SIZE FOR REMOVAL WITHOUT ALTERATION OR DAMAGE TO EXISTING BUILDING. STORE MATERIALS ONLY IN AREAS DESIGNATED BY THE OWNER AND AS PERMITTED BY THE LOCAL JURISDICTIONAL AUTHORITIES. MATERIALS AND DEBRIS SHALL NOT BE STACKED IN BUILDING TO THE EXTENT THAT OVERLOADING OF ANY PART OF THE STRUCTURE WILL OCCUR CONFER WITH THE OWNER CONCERNING SCHEDULE. DUST AND NOISE CONTROL PRIOR TO COMMENCING WORK IN OR ADJACENT TO EXISTING FACILITIES WHERE SUCH WORK MIGHT AFFECT EITHER THOSE FACILITIES OR THEIR OCCUPANTS. EXECUTE WORK WITH LEAST POSSIBLE INTERFERENCE OR DISTURBANCE TO OCCUPANTS. PUBLIC AND NORMAL USE OF PREMISES. PROVIDE TEMPORARY MEANS TO MAINTAIN SECURITY WHEN SECURITY HAS BEEN REDUCED BY

ONLY ELEVATORS, DUMBWAITERS, CONVEYORS OR ESCALATORS ASSIGNED FOR CONTRACTOR'S USE MAY BE USED FOR MOVING MEN AND MATERIAL WITHIN BUILDING. PROTECT WALLS OF PASSENGER ELEVATORS, TO APPROVAL OF OWNER PRIOR TO USE. ACCEPT LIABILITY FOR DAMAGE, SAFETY OF EQUIPMENT AND OVERLOADING OF EXISTING EQUIPMENT. PROVIDE TEMPORARY DUST SCREENS, BARRIERS, WARNING SIGNS IN LOCATIONS WHER RENOVATIONS AND ALTERNATION WORK IS ADJACENT TO AREAS WHICH WILL BE OPERATIVE

PROTECT ALL MECHANICAL SYSTEMS, INDICATED TO REMAIN, FROM DAMAGE. PROVIDE AND MAINTAIN READY ACCESS TO FIREFIGHTING EQUIPMENT AT ALL TIMES. PROVIDE AND MAINTAIN PROPER AND SUITABLE FIRE EXTINGUISHERS THROUGHOUT THE DURATION OF THE WORK. THE DRAWINGS INDICATE THE APPROXIMATE LOCATIONS OF SERVICES AS FAR AS THESE ARE KNOWN. SHOULD ANY MECHANICAL OR ELECTRICAL SERVICE LINE BE BROKEN, OR DISRUPTED BY OPERATIONS SPECIFIED UNDER THIS CONTRACT, REPAIR SERVICE LINES, AND MAKE GOOD ALL DAMAGE DUE TO THE DISRUPTION OR BREAK, AT NO EXPENSE TO THE OWNER. NOTIFY

ACCEPT LIABILITY FOR COSTS INCURRED BY THE OWNER IN REPAIRING AND CLEANING EQUIPMENT, ETC., RESULTING FROM FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS.

THE OWNER IMMEDIATELY WHENEVER ANY SERVICE LINE IS BROKEN OR DAMAGED.

DURING THE PROCESS OF WORK EACH CONTRACTOR SHALL KEEP HIS WORK TIDY. THE PREMISES SHALL AT ALL TIMES BE FREE FROM RUBBISH AND SURPLUS MATERIALS, CLEAN

DIVISION 15 IS ENTIRELY FINANCIALLY RESPONSIBILITY FOR ALL DAMAGE TO PROPERTY OR ADJACENT PROPERTY, ARISING OF THE WORK OF THIS CONTRACTOR, WHETHER CAUSED BY HIMSELF OR ANY PERSONS ENGAGED ON HIS WORK.

DIVISION 15 CONTRACTORS ARE RESPONSIBLE TO ENSURE THAT THEIR EMPLOYEES AND SUB-TRADES USE ONLY SAFE PRACTICES AND CONDITIONS, OBSERVE ALL SAFETY REGULATIONS, SECURITY REGULATIONS AND FIRE SAFETY RULES.

NEW MATERIAL AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH BASE BUILDING STANDARDS.

DUCTWORK AND HANGERS SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST SMACNA

FLEXIBLE DUCTWORK SHALL BE FLEXMASTER TRIPLE LOC OR EQUAL, SPIRAL WOUND ALUMINUM.

SECURE TO RIGID DUCT USING GEAR CLAMPS. AT THE INLET OF EACH VAV TERMINAL CONTROL

UNIT, PROVIDE A MINIMUM OF 3 DIAMETERS OF STRAIGHT FLEX DUCT. MAXIMUM LENGTH 1200 MM [4 FT.-O IN.]. FLEXIBLE DUCTS SERVING DIFFUSERS SHALL BE INSTALLED AS ONE CONTINUOUS PEICE AND SHALL NOT EXCEED 10'-0" LENGTHS.

FIRE DAMPER SHALL BE OUT OF STREAM ULC LABELED. PROVIDE FIRE DAMPERS AS REQUIRED IN NEW AND EXISTING DUCTWORK C/W ACCESS DOORS.

ACOUSTIC DUCT LINING 25MM [1 IN.] SHALL BE PROVIDED WHERE SHOWN ON DRAWINGS. SECURE WITH MECHANICAL FASTENERS AND ADHESIVE. SEAL RAW EDGES. NOTE DUCT DIMENSIONS ARE CLEAR INSIDE.

THERMAL INSULATION WITH VAPOUR BARRIER SHALL BE PROVIDED ON ALL NEW SUPPLY AIR DUCTWORK TO MATCH BASE BUILDING STANDARDS OR REFER TO INSULATION SECTION. FLEXIBLE DUCT CONNECTIONS SHALL BE DURODYNE NEOPRENE AND INSTALLED BETWEEN ALL AIR HANDLING EQUIPMENT AND SYSTEM DUCTWORK.

AIR TRANSFER OPENINGS INDICATED WITHOUT DUCT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO ADVISE AND CONFIRM PROVISION BY GENERAL TRADES.

BALANCING AND VOLUME CONTROL DAMPERS SHALL BE PROVIDED IN NEW OR EXISTING DUCTWORK TO PROVIDE A COMPLETE AND BALANCED SYSTEM. BALANCING CONTRACTOR SHALL BE A MEMBER OF AABC OR NEBC. SUBMIT BALANCING REPORT IN TRIPLICATE TO THE CONSULTANT AND THE LANDLORD INDICATING TERMINAL DESIGN AND MEASURED FLOW RATES. WHEN REQUIRED, BALANCING WORK SHALL BE COMPLETED BY OWNER'S/LANDLORD'S APPROVED CONTRACTOR AND PAID FOR UNDER THIS CONTRACT. PROVIDE SIX (6) ADDITIONAL HOURS OF

BALANCING WORK. THIS WORK SHALL BE PERFORMED AFTER THE TENANT HAS MOVED IN, AS MAY BE REQUIRED FOR COMFORT BALANCING.

FAN SHEAVES SHALL BE ADJUSTED OR REPLACED AS REQUIRED TO OBTAIN DESIGN AIR QUANTITIES. COORDINATE THIS WORK WITH OWNER/LANDLORD.

PLUMBING SYSTEM

EXISTING SANITARY DRAIN LOCATIONS AND INVERT ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.

PIPING MATERIALS: .1 DOMESTIC HOT AND COLD WATER PIPING - TYPE "L" COPPER WITH COPPER FITTINGS USE

95/5 TIN/ANTIMONY SOLDER. PROVIDE TYPE "K" SOFT COPPER PIPING WITHOUT JOINTS BELOW

.2 DRAINAGE AND VENT PIPING $(2-1/2^{\circ})$ AND SMALLER):

SANITARY PIPING, ABOVE GROUND - DWV COPPER PIPE WITH DRAINAGE FITTINGS AND 50/50 SOLDER JOINTS.

SANITARY PIPING, BELOW GROUND — TYPE L COPPER WITH 50/50 SOLDER JOINTS.

VENT PIPING, ABOVE GROUND - DWV COPPER PIPE WITH DRAINAGE FITTINGS, 50/50 SOLDER

VENT PIPING, BELOW GROUND - TYPE L COPPER PIPE WITH WROUGHT COPPER FITTINGS AND

.3 DRAINAGE AND VENT PIPING (3"Ø AND LARGER):

50/50 SOLDER JOINTS.

WITH MECHANICAL JOINTS.

MECHANICAL JOINTS.

SANITARY PIPING, ABOVE GROUND - CSA CLASS 4000 CAST IRON SOIL PIPE AND FITTINGS,

SANITARY PIPING, BELOW GROUND - CSA CLASS 4000 CAST IRON SOIL PIPE AND FITTINGS,

WITH MECHANICAL JOINTS. VENT PIPING, ABOVE GROUND - CSA CLASS 4000 CAST IRON SOIL PIPE AND FITTINGS, WITH

VENT PIPING, BELOW GROUND - CSA CLASS 4000 CAST IRON SOIL PIPE AND FITTINGS, WITH MECHANICAL JOINTS.

VALVES SHALL BE KITZ FIGURES BELOW OR EQUAL:

50 MM [2"] AND SMALLER - SOLDERED 1400 KPA [200 PSI] W.O.G. FIG. 44.

50 MM [2"] AND SMALLER - SOLDERED 2070 KPA [300 PSI] W.O.G. FIG. 10 WITH

65 MM [2-1/2"] AND LARGER - FLANGED 1400 KPA [200 PSI] W.O.G. FIG. 75. .2 GLOBE VALVES:

65 MM [2-1/2"] AND LARGER - FLANGED 1400 KPA [200 PSI] W.O.G. FIG. 76.

.3 STANDARD CHECK VALVES: 50 MM [2"] AND SMALLER — SOLDERED 2070 KPA [300 PSI] W.O.G. FIG. 23. 65 MM [2-1/2"] AND LARGER - FLANGED 1400 KPA [200 PSI] W.O.G. FIG. 78.

.4 PROVIDE ALL BRONZE BALL TYPE SHUT OFF VALVES ON MAIN AND BRANCH LINES AND ISOLATING VALVES FOR EACH INDIVIDUAL PLUMBING FIXTURE SERVED.

PLUMBING FIXTURES INCLUDING DOMESTIC HOT WATER HEATERS SHALL BE NEW, OF FIRST QUALITY, IN PERFECT CONDITION AND INSTALLED IN BEST WORKMANLIKE MANNER. VERIFY PLUMBING FIXTURE QUANTITIES AND LOCATIONS WITH ARCHITECT'S/DESIGNER'S DRAWINGS. REUSE OF DOMESTIC WATER HEATER IS NOT PERMITTED.

TRAP SEAL PRIMER MUST BE PROVIDED ON ALL NEW FLOOR DRAINS, FUNNEL FLOOR DRAINS

EXPOSED PIPING AND FITTINGS WITHIN WASHROOMS SHALL BE CHROME PLATED. PROVIDE

CHROME PLATED ESCUTCHEONS ON ALL PIPING PASSING THROUGH FINISHED SURFACES AND

STAINLESS STEEL WATER HAMMER ARRESTORS EQUAL TO ZURN SHOKTROL SHALL BE PROVIDED

ON ALL LINES SERVING GROUPS OF FIXTURES, QUICK CLOSING VALVES AND FLUSH VALVES.

PROVIDE ALL LABOUR, MATERIALS, PRODUCTS, EQUIPMENT AND SERVICES TO SUPPLY AND INSTALL THERMAL INSULATION, VAPOUR BARRIERS AND FINISHES FOR MECHANICAL WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED IN THIS SECTION OF THESE SPECIFICATIONS.

MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURERS OF ADHESIVES, MASTICS AND INSULATING CEMENTS.

INSULATION MATERIALS MUST BE MANUFACTURED AT FACILITIES CERTIFIED AND REGISTERED WITH AN APPROVED REGISTRAR TO CONFORM TO ISO 9000 QUALITY STANDARD.

ALL INSULATION PERTAINING TO DIVISION 15 SHALL BE CARRIED OUT BY ONE FIRM SPECIALIZING IN INSULATION WORK. DO NOT MIX SIMILAR PRODUCTS OF MULTIPLE

ACCEPTABLE INSULATION MANUFACTURERS ARE OWENS CORNING CANADA, JOHNS MANVILLE, MANSON INSULATION INC. KNAUF FIBER GLASS AND CERTAINTEED.

PROVIDE INSULATION AND COVERS IN STRICT ACCORDANCE WITH AUTHORITIES GOVERNING COMBUSTIBILITY AND FIREPROOFING OF MATERIALS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PROVIDE NON-COMBUSTIBLE INSULATION, JACKETS AND FINISHES HAVING A FLAME SPREAD/SMOKE DEVELOPED RATING OF 25/50 OR LESS, MEETING CAN/ULC S-102 REQUIREMENTS.

ATTAIN A COMPLETE AND CONTINUOUS VAPOUR BARRIER OVER INSULATION APPLIED TO COLD AND DUAL TEMPERATURE PIPING, SHEET METAL AND EQUIPMENT. USE EITHER FACTORY APPLIED VAPOUR BARRIER JACKET OF FIELD APPLIED REINFORCED FOIL FLAME RESISTANT KRAFT VAPOUR BARRIER JACKET. APPLY TO PIPING, FITTINGS, VALVES AND INLINE COMPONENTS, SHEET METAL AND FITTINGS AND EQUIPMENT. SEAL LONGITUDINAL AND CIRCUMFERENTIAL LAPS WITH CHILDERS CP82 OR BAKOR 230-39 ADHESIVE. IF VAPOUR BARRIER JACKET IS NOT LAPPED, SEAL JOINTS WITH SELF-ADHERING 4" WIDE PLAIN ALUMINUM FOIL TAPE, OR ADHERE 4" WIDE ALUMINUM FOIL TAPE WITH CHILDERS CP82 OR BAKOR 230-39 ADHESIVE. JACKETING WITH SELF-ADHESIVE LAPS AND SELF-ADHESIVE BARRIER TAPE WILL BE AN ACCEPTABLE ALTERNATIVE CLOSURE SYSTEM.

PROVIDE INSULATION MATERIALS WITH A MINIMUM THERMAL CONDUCTIVITY OF 0.24BTU.IN/(HR. SQ.FT°F) AT 100°F MEAN TEMPERATURE.

ON HOT PIPING APPLICATIONS, HOLD INSULATION IN PLACE WITH FLARE TYPE STAPLES (OUTWARD CLINCH).

ON COLD PIPING APPLICATIONS, APPLY VAPOUR BARRIER JACKET OVER INSULATION AND SEAL LONGITUDINAL AND CIRCUMFERENTIAL LAPS WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE. SEAL ALL PIPE TERMINATIONS. INCLUDING FITTINGS. WALL PENETRATIONS AND PIPE SUPPORTS WITH VAPOUR BARRIER MASTIC. FOR CHILLED WATER SYSTEMS PROVIDE VAPOUR SEAL PIPE TERMINATIONS EVERY FOUR PIPE SECTIONS.

APPLY PIPE INSULATION OVER 1-1/2" THICKNESS IN TWO LAYERS WITH JOINTS STAGGERED.

INSULATE FITTINGS WITH FABRICATED MITERED OR PREFORMED SECTIONS OF SPECIFIED

INSULATE OVER FLANGES AND MECHANICAL COUPLINGS WITH SPECIFIED INSULATION AND

THICKNESS, SIZED TO SUIT FLANGE DIAMETERS. FILL SPACES BETWEEN INSULATION AND

INSULATE VALVES AND INLINE COMPONENTS WITH FLEXIBLE INSULATION DENSITY (3/4 LBS./CU.FT.) COMPRESSED NOT MORE THAN 50% OF ORIGINAL THICKNESS. BUILD UP TO

SPECIFIED THICKNESS WITH APPROVED ASBESTOS FREE FINISHING CEMENT.

DO NOT INSULATE TERMINAL UNIT AUTOMATIC CONTROL VALVES INSTALLED IN HOT PIPING. DO NOT INSULATE TERMINAL UNIT AUTOMATIC CONTROL VALVES WHICH ARE INSTALLED IN COLD PIPING AND WHICH ARE LOCATED OVER CONDENSATE DRAIN PANS.

UNDER ALL HANGERS USED ON CHILLED WATER AND DOMESTIC COLD WATER, PROVIDE AN INSERT BETWEEN SUPPORT SHIELD AND PIPING FOR PIPING 1-1/2" OR LARGER. PROVIDE THE FOLLOWING PIPE INSULATION TYPE AS INDICATED IN THE PIPE INSULATION TABLE

'TYPE P1' OWENS CORNING 850 PIPE INSULATION, JOHNS MANVILLE MICRO-LOK AP-T PLUS FIBERGLAS PIPE INSULATION. MANSON FIBERGLAS PIPE INSULATION OR KNAUF PIPE INSULATION WITH FACTORY APPLIED ALL PURPOSE VAPOUR BARRIER JACKET WHERE SCHEDULED.

DUTY	INSULATION TYPE	THICKNESS	VAPOUR BARRIER
DOMESTIC COLD WATER 4" AND LESS	P-1	1/2"	YES
DOMESTIC HOT WATER LESS THAN 1-1/2" 1-1/2" AND LARGER	P–1 P–1	1" 1-1/2"	NO NO

<u>CONTROLS</u>

MANUFACTURE AND INSTALLATION WHEN REQUIRED SHALL BE BY OWNER'S APPROVED CONTRACTOR.

THERMOSTATS TO BE RELOCATED AS SHOWN.

REPORT THAT THIS WORK WAS COMPLETED.

MOUNTING HEIGHT SHALL MATCH BASE BUILDING. COORDINATE LOCATION WITH ARCHITECT/DESIGNER. DO NOT INSTALL IN VISCINITY OF ELECTRICAL LIGHTING DIMMERS.

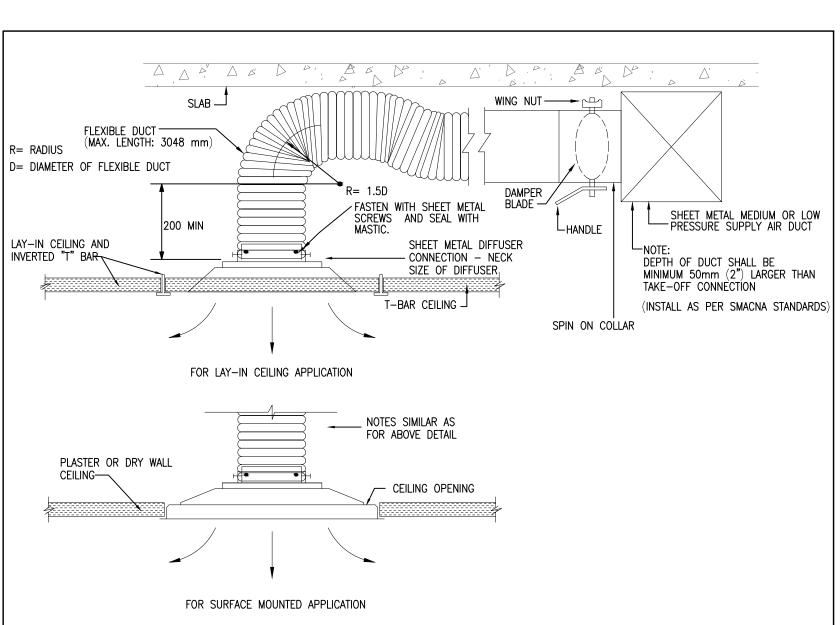
COORDINATE FINAL LOCATION OF THERMOSTATS WITH THE INTERIOR DESIGNER WITHIN 1000MM (40 IN) OF LOCATION SHOWN. ALL RELOCATIONS OUTSIDE OF THIS RANGE SHALL BE REVIEWED WITH THE CONSULTANT.

CLEAN AND RECALIBRATE ALL EXISTING THERMOSTATS ASSOCIATED WITH ANY HP BEING BALANCED OR PART OF THIS RENOVATION. UPON COMPLETION OF CONSTRUCTION. SUBMIT

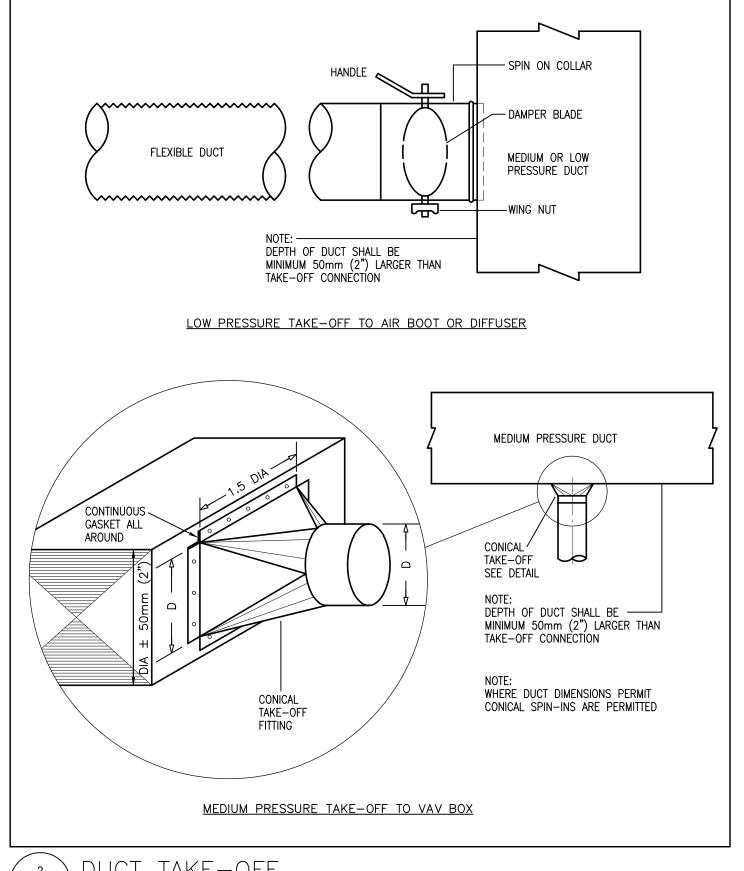
PLUMBING FIXTURES:

WITH AQUAGUARD LINER TANK

WC-1 AMERICAN STANDARD TANK TYPE TOILET 215AA154.020 TANK TYPE TOILET, FLOOR MOUNTED WITH FLOOR OUTLET, HIGH EFFICIENCY HET 4.8 LPF (1.28 GPF), WHITE FINISH VITREOUS CHINA, EVERCLEAN® ANTIMICROBIAL SURFACE, ELONGATED BOWL, RIGHT HEIGHT RIM AT 419 MM (16-1/2"), MINIMUM 305 MM (12") ROUGH-IN FROM WALL TO THE CENTER OF WASTE OUTLET, SIPHON JET FLUSH ACTION, MANUAL, WHITE LEFT-HAND TRIP LEVER (7381231-200.0200A), WITHOUT TANK COVER LOCKING DEVICE, GRAVITY-ASSISTED FLUSH, CADET FLUSHING SYSTEM, 76 MM (3") FLUSH VALVE, METAL SHANK FILL VALVE, TANK COUPLING COMPONENTS, FULLY-GLAZED 54 MM (2-1/8") TRAPWAY, POWERWASH™ RIM SCRUBS BOWL WITH PRESSURIZED WATER EVERY FLUSH, INCLUDES EZ-INSTALL TOOLS, TRADE EXCLUSIVE TANK, TOILET SEAT NOT INCLUDED. COLOURMATCHED BOLT CAPS, CONSISTING OF: 3517A101 BOWL, 4188A154 TANK COMPLETE







2 DUCT TAKE—OFF

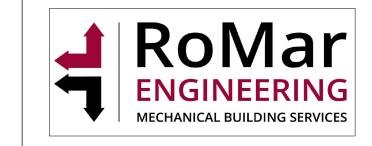
CVMDOL	DESCRIPTION	CVMDOL	DECODIDATION
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING DUCTS, PIPES & EQUIPMENT TO REMAIN		RESERVED
R	DUCTS, PIPES & EQUIPMENT TO BE REMOVED	(H)	EXISTING HUMIDISTAT TO REMAIN
	NEW DUCT OR PIPE	Θ	NEW HUMIDISTAT
	NEW DUCT OR EQUIPMENT	⊜ FD-	NEW FLOOR DRAIN
/~~_/	NEW FLEXIBLE DUCT	⊜ RD−	NEW ROOF DRAIN
SB	SOUND BAFFLE	\bowtie	NEW ISOLATION VALVE
	DUCTWORK W/ 2HR. FIRE RATED ENCLOSURE. ENCLOSURE TO BE PROVIDED BY ARCH. DIV.	ібі	EXISTING BALL VALVE TO REMAIN
{	DUCT WITH 25mm(1") ACOUSTIC LINING	ιδι	NEW BALL VALVE
	DUCT WITH 25mm(1") ACOUSTIC LINING	吳	EXISTING CONTROL VALVE TO REMAIN
_	NEW CAP ON EXISTING DUCT OR PIPE	及	NEW CONTROL VALVE
	NEW CAP ON EXISTING DUCT	×	NEW PRESSURE REDUCING VALVE
	EXISTING VAV BOX TO REMAIN	8	NEW CIRCUIT BALANCING VALVE
R []	REMOVE OR RELOCATE	显	NEW THREE WAY AUTOMATIC CONTROL VALVE
	NEW VAV BOX	VTR	VENT THROUGH ROOF
	EXISTING AIR BOOT TO REMAIN	DTF	DOWN THROUGH FLOOR
R	REMOVE OR RELOCATE	— ю	PIPE UP
	NEW AIR BOOT	tə	PIPE DOWN
	EXISTING LIGHT TROFFER TO REMAIN	(M)	NEW METER
	REMOVE OR RE-USE EXISTING LIGHT TROFFER		NEW UNION
	NEW LIGHT TROFFER		NEW STRAINER
	EXISTING LIGHT TROFFER TO REMAIN	BFP	NEW BACKFLOW PREVENTER
	REMOVE OR RE-USE EXISTING LIGHT TROFFER	AP	ACCESS PANEL
—≒	NEW LIGHT TROFFER	SAN	EXISTING SANITARY DRAIN TO REMAIN
	NEW SUPPLY AIR DIFFUSER	— — SAN— —	
	NEW RETURN GRILLE	ST	EXISTING STORM DRAIN TO REMAIN
	EXISTING RETURN GRILLE TO REMAIN		EXISTING STORM DRAIN UNDER FLOOR TO REMAIN
	EXISTING THERMOSTAT TO REMAIN	SAN	NEW SANITARY DRAIN
 ①R	REMOVE OR RE-USE WHERE SHOWN AS NEW	— — — — — — — — — — — — — — — — — — —	NEW SANITARY DRAIN UNDER FLOOR
	NEW THERMOSTAT	ST	NEW STORM DRAIN
	FAN SWITCH	— — ST— —	NEW STORM DRAIN UNDER FLOOR
···			P-TRAP
6"ø A 200	DIFF NECK SIZE DIFF TYPE SUPPLY AIR CFM	<u></u>	
			EXISTING DOMESTIC COLD WATER TO REMAIN
2 12/12 D 300 ■	GRILLE OR REGISTER SIZE TYPE SUPPLY AIR CFM		EXISTING DOMESTIC HOT WATER TO REMAIN
			EXISTING DOMESTIC HOT WATER RECIRCULATION TO REMAIN
12/12 E 300	GRILLE OR REGISTER SIZE TYPE EXHAUST OR RETURN AIR CFM		NEW DOMESTIC COLD WATER
	The state of the s		NEW DOMESTIC HOT WATER
12/12 D 300	GRILLE OR REGISTER SIZE TYPE SUPPLY AIR CFM		NEW DOMESTIC HOT WATER RECIRCULATION
	332. 7	V	NEW SANITARY VENT PIPE
12/12 E 300	GRILLE OR REGISTER SIZE TYPE EXHAUST OR RETURN AIR CFM	V	EXISTING SANITARY VENT PIPE TO REMAIN
	VAV BOX SETTING (COOLING) DESIGN (CFM)		
4 250	VAV BOX SETTING (COOLING) MINIMUM (CFM) VAV BOX SIZE		
	VAV BOX SETTING (COOLING) DESIGN (CFM)		
4 250	VAV BOX MINIMUM SETTING (COOLING): 0 CFM FOR INTERIOR ZONES & 20% OF DESIGN FOR		
\ \ \ \ \ \ \ \ \ \ \ \ \ \	PERIMETER ZONES		

MECHANICAL LEGEND

_					
	DRAWING SCHEDULE				
	DWG NO DRAWING TITLE				
	M-100	M-100 MECHANICAL LEGEND, SPECIFICATIONS, DETAILS & DWG. LIST			
	M-200 BASEMENT & GROUND FLOOR WASHROOM - PD				
	M-300 GROUND FLOOR HVAC - DEMO/NEWW				

CLIENT:

THE CITY OF OSHAWA



No. DESCRIPTION BY. | DATE. REVISIONS Do not scale drawings. Work to dimensions only Contractor shall verify all measurements and report any discrepancies to the architect prior to proceeding with the work. These documents shall not be used for construction, unless signed and sealed by the Consultant. All drawings are the copyright property of the Architect. M.Z. EDWARDS

J.R. FREETHY ARCHITECT

325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

LIC 4P8 TEL. (905) 623 7476

50 CENTRE ST. S, OSHAWA, ON

SCALE: AS NOTED DWG. BY: GPC. CHECKED BY: ME. STATUS: PLOT FACTOR:

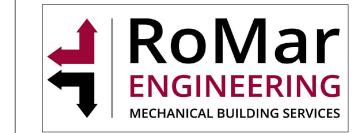
MECHANICAL LEGEND. SPECIFICATIONS, DETAILS & DRAWING LIST

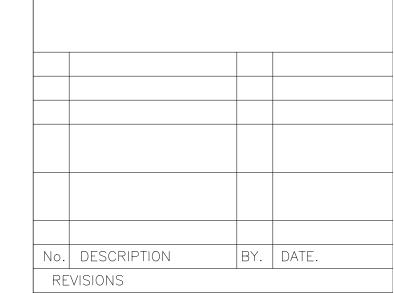
PROJECT No.: 24-11

DATE: AUGUST 25, 2024

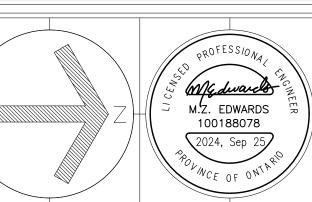
3" DCW & 1-1/4" J DHW FROM BELOW ← L 1-1/4" DCW & WASHROOM KEYED NOTES: TIE IN TO EXISTING DCW LINE IN WASHROOM TO PROVIDE DCW FOR NEW WC-1. \bigcirc CONNECT WC-1 SANITARY (4") TO MAIN SANITARY LINE AS SHOWN. MECHANICAL ROOM 4" SAN DOWN / EXIST EXAMI OFF DUCT SHAFT MEN'S WASHROOM OPENING IN SLAB ---KITCHENETTE

THE CITY OF OSHAWA

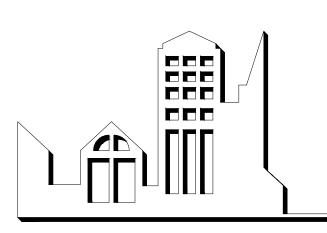




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J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: AS NOTED DWG. BY: GPC. CHECKED BY: ME.

STATUS:

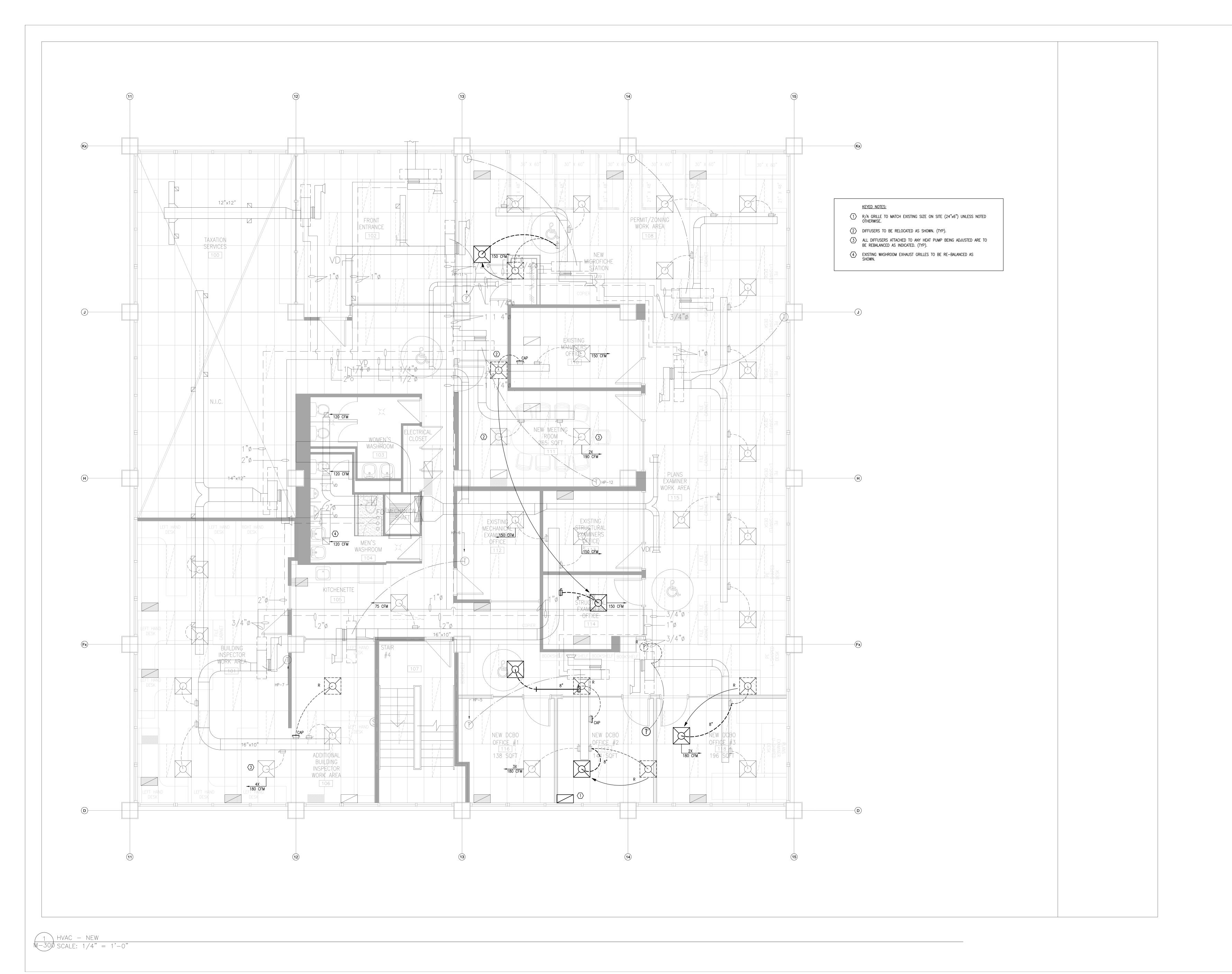
PLOT FACTOR:

GROUND FLOOR

PROJECT No.:

24-11

DATE: AUGUST 25, 2024



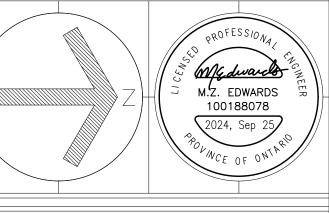
CLIENT:

THE CITY OF OSHAWA

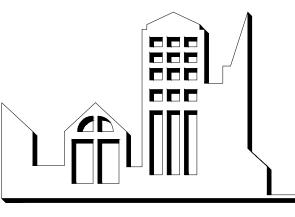


No. DESCRIPTION BY. DATE.
REVISIONS

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J.R. FREETHY ARCHITECT



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PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: AS NOTED

DWG. BY: GPC.

CHECKED BY: ME.

STATUS:

PLOT FACTOR:

HVAC - DEMO/NEW

PROJECT No.:

24-11

DATE: AUGUST 25, 2024

M-300

ELECTRICAL GENERAL NOTES

- 1. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. THE ARRANGEMENT OF ALL EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATIONS ONLY. THESE ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, INTERIOR DESIGNER, COMMUNICATIONS, AUDIO/VISUAL AND MECHANICAL DRAWINGS FOR QUANTITY, LOCATION OF ALL DEVICES, MOUNTING HEIGHTS, FINISH COLOUR RELATED AND CONSTRUCTION DETAILS. REPORT ANY DISCREPANCIES TO THE ELECTRICAL CONSULTANT.
- 2. ALL NEW BASE BUILDING LIGHT FIXTURES SHALL MATCH EXISTING. ALL ADDITIONAL BASE BUILDING STANDARD LIGHT FIXTURES SHALL BE PURCHASED FROM THE LANDLORD UNLESS OTHERWISE NOTED. IF LANDLORD IS UNABLE TO SUPPLY THEM, PURCHASE ANY REQUIRED NEW LIGHT FIXTURES ALONG WITH ALL NECESSARY CONNECTORS DIRECTLY FROM THE SAME MANUFACTURER. ENSURE COST TO BE INCLUDED IN THE TENDER BID.
- 3. ALL BASE BUILDING RELOCATED LIGHT FIXTURES SHALL HAVE WIRING AND CONDUIT EXTENDED TO SUIT NEW LOCATION AS SHOWN ON PLANS.
- 4. ALL REMOVED BASE BUILDING LIGHT FIXTURES SHALL BE BOXED AND TURNED OVER TO THE LANDLORD.
- 5. CONNECT ALL NEW AND RELOCATED EMERGENCY LIGHT FIXTURES TO EXISTING BASE BUILDING EMERGENCY LIGHT CIRCUITS. ELECTRICAL CONTRACTOR SHALL RE—ARRANGE THE EXISTING EMERGENCY LIGHTING LAYOUT ON SITE TO ACHIEVE THE EMERGENCY LAYOUT SHOWN ON PLANS.
- 6. ALL NEW EXIT SIGNS SHALL BE PICTOGRAM (GREEN RUNNING MAN) TYPE AND MATCH BASE BUILDING STANDARDS UNLESS OTHERWISE NOTED. ALL NEW EXIT SIGNS SHALL BE CONNECTED TO THE NEAREST EXISTING EXIT SIGN CIRCUIT UNLESS OTHERWISE NOTED.
- 7. ALL NEW LIGHT FIXTURES SHALL BE CONNECTED TO THE BASE BUILDING LIGHTING CIRCUITS, TENANT LIGHTING ZONES AND CONTROLLED BY THE BASE BUILDING LIGHTING CONTROL SYSTEM. PROVIDE ALL NECESSARY RELAYS, CONTACTORS, STEP DOWN TRANSFORMERS AS REQUIRED TO ACHIEVE PROPER INSTALLATION.
- 8. IT IS THE ELECTRICAL CONTRACTOR RESPONSIBILITY TO PROVIDE AND INSTALL OPERATIONAL LIGHTING CONTROL SYSTEM WITH ALL ASSOCIATED WIRING AND DEVICES. ALL ENQUIRES ON A GIVEN SYSTEM OR WIRING SCHEME SHOULD BE DISCUSSED PRIOR TO BIDDING ON A PROJECT, SO THE COSTS ARE CAPTURED IN THE BIDDING DOCUMENTS.
- ID, CIRCUIT NUMBER DESCRIPTIONS AND ALL RELEVANT INFORMATION (SUB-FED FROM, VOLTAGE, AMP, ETC.). CIRCUIT NUMBERS SHOWN ON DRAWINGS ARE FOR GROUPING PURPOSE ONLY TO SHOW GENERAL CIRCUIT ARRANGEMENT AND PANEL DESIGNATION.

9. ALL ELECTRICAL PANELS (NEW AND EXISTING) TO BE PROPERLY LABELED, CLEARLY INDICATING PANEL

- 10. PROVIDE NEW BREAKERS WITHIN EXISTING PANELS AS REQUIRED, RE—ARRANGE EXISTING CIRCUITS TO SUIT. FINAL ARRANGEMENT SHALL BE SHOWN ON RECORDS (AS BUILT) DRAWINGS AND ON SITE IN UPDATED PANEL DIRECTORIES (IN TYPEWRITTEN FORMAT).
- 11. ALL LOW VOLTAGE STARTERS C/W LOW VOLTAGE CONTROL WIRING FOR MECHANICAL DEVICES SHALL BE SUPPLIED AND INSTALLED BY MECHANICAL CONSTRICTOR UNLESS OTHERWISE NOTED. ALL LINE VOLTAGE STARTERS SHALL BE SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL
- 12. ALL RECEPTACLES AND SYSTEM FURNITURE FEEDS SHALL BE LABELED TO INCLUDE PANEL AND CIRCUIT DESIGNATION.
- 13. VERIFY WITH MANUFACTURER THE EXACT POWER REQUIREMENTS AND OUTLET TYPES FOR ALL SPECIALTY EQUIPMENT (COPY/PRINT MACHINES, KITCHEN EQUIPMENT, UPS, MECHANICAL EQUIPMENT ETC.) PRIOR TO INSTALLATION. REPORT ANY DISCREPANCIES TO ELECTRICAL CONSULTANT.
- 14. THE SPECIFICATION OF THE SYSTEM FURNITURE IS 8 WIRE, 4 CIRCUITS SYSTEM. 4 HOT, 2 NEUTRAL AND 2 GROUND CONDUCTORS SHALL BE PROVIDED FOR SUCH A SYSTEM. FURNITURE WHIP IS BY THE FURNITURE SUPPLIER AND THE FINAL CONNECTION TO THE FURNITURE SYSTEM IS BY THE ELECTRICAL
- 15. FOR ALL COMMUNICATION SYSTEM (VOICE/DATA) OUTLETS, PROVIDE EMPTY CONDUIT SYSTEM COMPLETE WITH PULL STRING. ALL WORK SHALL BE COORDINATED WITH COMMUNICATIONS DRAWINGS AND WITH THE CLIENT PRIOR TO ANY INSTALLATION.
- 16. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH THE EXISTING BASE BUILDING FIRE ALARM
- 17. COST OF MODIFICATION (ADDITION AND RELOCATION), TESTING AND VERIFICATION OF THE FIRE ALARM SYSTEM WITHIN THE SCOPE OF WORK SHALL BE INCLUDED IN THE TENDER BID. ALL CONNECTION TO THE BASE BUILDING FIRE ALARM SYSTEM SHALL BE DONE BY THE BASE BUILDING CONTRACTOR.

	LUMINAIRE SCHEDULE						
TYPE LAMP DESCRIPTION							
A	LED 14W 3500K	PRESCOLITE LITEBOX PRO - 4" DOWNLIGHT; SWITCHABLE LUMENS 800/1200/1600; SWITCHABLE CCT SET TO 3500K; 90 CRI; DIFFUSE CLEAR ANODIZED REFLECTOR; C/W MOUNTING PAN & HANGER BARS AND 120V (0-10V) DIMMING. PRESCOLITE-CAT# LBRP-M-LS-SL-CS9-LBRP-4RD-T-D-LB-4R-F-TG					
х	2W LED	SURFACE MOUNT EDGELIT GREEN RUNNING MAN EXIT SIGN, 120V SELF POWERED. 120MIN DISCHARGE. STANPRO-CAT# RMES-0-WH-IB1					

	LIGHTING CONTROL SCHEDULE					
SYMBOL	DESCRIPTION					
\$ OS WALL MOUNTED 120V DUAL TECHNOLOGY SWITCH OCCUPANCY SENSOR. FINISH COLOUR SHALL BE WHITE. WATTSTOPPER-CAT# DSW-301-120V WALL MOUNTED (0-10V) DIMMING WALL SWITCH. FINISH COLOUR SHALL BE WHITE. WATTSTOPPER-CAT# RH4FBL3PW						
		(S)	LINE VOLTAGE CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR 120V. FINISH COLOUR SHALL BE WHITE. WATTSTOPPER-CAT# DT-355-120V			

	DRAWING LIST					
DRAWING NUMBER						
E-01 E-02 E-03 E-04 E-05 E-06 E-07 E-08 E-09 E-10	ELECTRICAL LEGEND AND GENERAL NOTES ELECTRICAL SPECIFICATION ELECTRICAL SPECIFICATION ELECTRICAL SPECIFICATION ELECTRICAL LIGHTING EDMOLITION PLAN ELECTRICAL POWER AND SYSTEMS DEMOLITION PLAN ELECTRICAL POWER PLAN ELECTRICAL POWER PLAN ELECTRICAL DETAILS ELECTRICAL DETAILS ELECTRICAL DETAILS					

DESCRIP	TION OF LIGHTING SYMBOLS	DESCRI	PTION OF POWER SYMBOLS
□ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	RECESSED/SURFACE LIGHT FIXTURE — EXISTING TO REMAIN. RECESSED/SURFACE LIGHT FIXTURE — EXISTING TO BE REMOVED OR REMOVED AND RELOCATED. RECESSED DOWNLIGHT FIXTURE — NEW OR EXISTING LUMINAIRE SHOWN IN RELOCATED LOCATION. RECESSED DOWNLIGHT LIGHT FIXTURE — EXISTING, NEW, REMOVED OR RELOCATED (REFER TO ABBREVIATIONS NOTED BELOW). LETTER DESIGNATION SYMBOL "X" ETC. DENOTES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE FOR SPECIFICATIONS. WALL MOUNTED SINGLE POLE LIGHT SWITCH. COORDINATE MOUNTING HEIGHTS WITH DESIGNER'S DRAWINGS. VOLTAGE RATING SHALL BE COMPATIBLE TO LIGHT FIXTURES VOLTAGE. WALL MOUNTED GANGED LIGHT SWITCHES. REFER TO DRAWINGS FOR QUANTITY OF SWITCHES. COORDINATE MOUNTING HEIGHTS WITH DESIGNER'S DRAWINGS. VOLTAGE RATING SHALL BE COMPATIBLE TO LIGHT FIXTURES VOLTAGE. WALL MOUNTED DIMMER SWITCH. REFER TO LIGHTING CONTROL SCHEDULE FOR SPECIFICATIONS. COORDINATE MOUNTING HEIGHTS WITH DESIGNER'S DRAWINGS. WALL MOUNTED LIGHT SWITCH C/W OCCUPANCY SENSOR. REFER TO LIGHTING CONTROL SCHEDULE FOR SPECIFICATIONS. COORDINATE MOUNTING HEIGHTS WITH DESIGNER'S DRAWINGS. CEILING AND WALL MOUNTED OCCUPANCY MOTION SENSOR DEVICE. REFER TO LIGHTING CONTROL SCHEDULE FOR SPECIFICATIONS.	♥ _ • DESCRI	WALL MOUNTED 15A,1P,120V (NEMA 5-15R) OR AS NOTED DUPLEX RECEPTACLE. ('C' DENOTES CEILING MOUNTED) WALL MOUNTED 15A,1P,120V (NEMA 5-15R) OR AS NOTED QUAD RECEPTACLE. ('C' DENOTES CEILING MOUNTED) OUTLETS MOUNTED ON A RACEWAY HARDWIRE DIRECT CONNECTION OUTLET SURFACE AND RECESSED MOUNTED POWER OR LIGHTING PANELBOARD. REFER TO PANEL SCHEDULES FOR SPECIFICATIONS PTION OF COMMUNICATION SYMBOLS WALL MOUNTED COMBINATION VOICE/DATA OUTLET, ALL ASSOCIATED ROUGH-IN, JUNCTION BOXES AND CONDUITS TO BE PROVIDED AND INSTALLED BY DIV.16. ('C' DENOTES CEILING MOUNTED).
DESCRIP	CEILING MOUNTED EXIT LIGHT. HATCHING (S) DENOTE (S) ILUMINATED FACE(S) ONLY AND ARROW (S) DENOTES DIRECTION. WALL MOUNTED EXIT LIGHT. HATCHING (S) DENOTE (S) ILUMINATED FACE (S) ONLY AND ARROW (S) DENOTES DIRECTION. LIGHT FIXTURES CONNECTED TO EMERGENCY POWER. REFER TO SPECIFICATIONS FOR TYPE.	DESCRII N N N N N N N N N N N N N N N N N N	PTION OF FIRE ALARM SYMBOLS WALL MOUNTED FIRE ALARM PULLSTATION DEVICE. WALL MOUNTED FIRE ALARM BELL DEVICE ("C" DENOTES CEILING MOUNTED). CEILING AND WALL MOUNTED FIRE ALARM STROBE LIGHT DEVICE. FIRE ALARM SMOKE DETECTOR DEVICE. FIRE ALARM HEAT DETECTOR. ("C" DENOTES CEILING MOUNTED).
	TION OF ABBREVIATIONS		PTION OF ABBREVIATIONS
IG JB	JUNCTION BOX	TL C	TWIST LOCK CEILING MOUNTED
NL	NIGHT LIGHT	AFF	ABOVE FINISHED FLOOR
E	EXISTING EQUIPMENT TO REMAIN	NTS	NOT TO SCALE
R	EXISTING EQUIPMENT TO BE REMOVED	C/W	COMPLETE WITH
ER	EXISTING EQUIPMENT IN NEW RELOCATED POSITION	EC	EMPTY CONDUIT
R/R	EQUIPMENT TO BE REMOVED AND REINSTALLED-LOCATION AS SOWN ON THE DRAWINGS	CCT	CIRCUIT
WP	WEATHER-PROOF DEVICE	GRD	GROUND
GFI	GROUND FAULT INTERRUPTER		

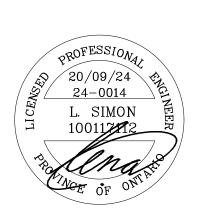
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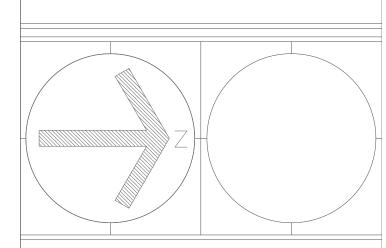


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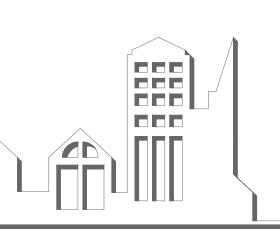
Tel:(416) 824-5822, E: lina.simon@simna.ca



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No.	DESCRIPTION	BY.	DATE.
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J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: N.T.S.

DWG. BY: L.S.

CHECKED BY: L.S.

STATUS:

PLOT FACTOR:

ELECTRICAL
LEGEND AND GENERAL
NOTES

PROJECT No.:

24-0014

DATE: SEPTEMBER __, 2024

E-01

1. GENERAL REQUIREMENTS

1.1. <u>DEFINITIONS</u>

1.1.1. WHEN WORDS SUCH AS "PROVIDE", "SUPPLY" OR "SUPPLY AND INSTALL" ARE USED, IT IS INTERPRETED TO MEAN SUPPLY AND INSTALL COMPLETE WITH ALL MATERIALS, LABOUR, INSTALLATION AND COMMISSIONING FOR THE SCOPE REFERENCED ON THE PLANS.

CONTRACT DOCUMENTS

- DRAWINGS ARE PROVIDED BY THE CONSULTANT AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK AS WELL AS THE GENERAL DISTRIBUTION AND LOCATION OF EQUIPMENT.
- 1.2.2. DRAWINGS ARE NOT INTENDED TO CONVEY DESIGN REQUIREMENTS FOR OTHER DISCIPLINES OR FOR THE EXISTING BASE BUILDING SYSTEMS.
- 1.2.3. THE CONTRACTOR IS REQUIRED TO HAVE A THOROUGH UNDERSTANDING OF ALL ELEMENTS OF THE
- 1.2.4. CONTRACTOR SHALL SUPPLY AND INSTALL A FULLY OPERATIONAL AND FUNCTIONAL SYSTEM, INCLUDING ALL ACCESSORIES REQUIREMENT IN THE BID SUBMISSION. ANY SIGNIFICANT CHANGES REQUESTED BY THE CONTRACTOR TO THE DESIGN INTENT OR SPECIFICATIONS SHALL BE SUBMITTED TO THE CONSULTANT IN WRITING FOR CONSIDERATION BEFORE ANY WORK IS UNDERTAKEN.
- 1.2.5. ALL MATERIALS AND EQUIPMENT USED SHALL BE NEW, CSA CERTIFIED AND MANUFACTURED TO THE STANDARDS SPECIFIED. SALVAGED EQUIPMENT SHALL NOT BE USED UNLESS WITH PRIOR APPROVAL
- 1.2.6. ANY CHANGES OR ADDITIONS TO DESIGN, MATERIALS OR EQUIPMENT NECESSARY TO ACCOMMODATE OTHER DISCIPLINES DESIGN REQUIREMENTS SHALL BE MADE BY THE CONTRACTOR AT NO COST.

1.3. <u>TENANT'S EQUIPMENT</u>

1.3.1. ALL EQUIPMENT PROVIDED BY THE OWNER OR TENANT SHALL BE RECEIVED, STORED AND INSTALLED AS PER SPECIFICATIONS FROM THE MANUFACTURER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL EQUIPMENT AS WELL AS ALL ACCESSORIES REQUIRED TO INSTALL AND OPERATE CORRECTLY.

- CONTRACTOR SHALL AT THE TIME OF BID SUBMISSION PROVIDE COPIES OF WSIB CLEARANCE
- CERTIFICATE AS WELL AS INSURANCE CERTIFICATE IN GOOD STANDING THAT NAMES THE OWNER AS AN ADDITIONAL INSURED. 1.4.2. INSURANCE AMOUNT SHALL BE APPROVED BY CONSULTANT, OWNER AND TENANT BEFORE APPROVAL
- OF THE BID SUBMISSION. 1.4.3. CONTRACTOR SHALL MAINTAIN THROUGHOUT THE PROJECT ALL INSURANCE REQUIREMENTS AS PER THE BID DOCUMENTS.

<u>PERMITS AND FEES</u>

- THE CONTRACTOR SHALL BE REQUIRED, AT THEIR OWN EXPENSE TO OBTAIN ALL REQUIRED PERMITS,
- INSPECTIONS AND REGULATORY APPROVALS REQUIRED TO COMPLETE THE WORK. 1.5.2. COPIES OF THESE DOCUMENTS INCLUDING DEFICIENCY REPORTS, INSPECTIONS AND CERTIFICATES SHALL BE SENT TO ALL PARTIES INCLUDING THE CONSULTANT AND OWNER WITHIN THREE DAYS OF RECEIPT.

EXISTING CONDITIONS

- THE CONTRACTOR WILL BE REQUIRED TO VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF THE WORK AND SUBMISSION OF BID.
- 1.6.2. NO CLAIMS WILL BE ENTERTAINED FOR EXTRA WORK AS A DIRECT RESULT OF NONATTENDANCE AT THE WORK SITE, THIS INCLUDES ALL SERVICES AT ARE REASONABLY ACCESSIBLE THROUGH A VISUAL INSPECTION (INCLUDING EXISTING SERVICES ABOVE THE CEILING) OR REASONABLE INFERENCE DURING THE SITE EXAMINATION PRIOR TO BID SUBMISSION.
- 1.6.3. IN ANY INSTANCE WHERE IT IS SUSPECTED THAT ASBESTOS IS PRESENT CONSULTANT MUST BE INFORMED AS SOON AS POSSIBLE. ANY REMEDIATION WORK REQUIRED WILL BE INCLUDED IN BID

WORK IN NEW AND RENOVATED AREAS

- 1.7.1. FOR ALL EXISTING ELECTRICAL DEVICES MEANT TO BE REMOVED, ENSURE TO INCLUDE REMOVAL OF DISCONNECTED WIRING AND CUT BACK TO SOURCE (ELECTRICAL PANEL OR MAIN DISTRIBUTION).
- 1.7.2. ALL REDUNDANT CONDUITS SHALL BE CUT BACK TO THE NEAREST JUNCTION BOX. 1.7.3. FOR ALL EXISTING OUTLET BOXES ARE TO BE REMOVED FROM EXISTING UNDER FLOOR DUCTS, ENSURE THAT ALL EXISTING HOLES ARE CAPPED AND FLUSH WITH THE FLOOR. PROVIDE ALL
- NECESSARY AND APPROVED FITTINGS. 1.7.4. WORK SHALL BE DONE WITH MINIMAL DISRUPTION TO OCCUPANTS AND SPACE.
- 1.7.5. THE LANDLORD MUST GIVE WRITTEN APPROVAL FOR THE USE OF ANY POWER EQUIPMENT ELEVATORS, WASHROOMS OR ANY OCCUPIED SPACE THAT MAY BE REQUIRED TO COMPLETE THE
- 1.7.6. ALL EXPOSED EXISTING CONDUITS INSTALLED IN FINISHED AREAS THAT ARE REQUIRED TO REMAIN,
- SHALL BE REROUTED AND OR REMOVED. 1.7.7. THE SITE SHALL BE MAINTAINED IN A CLEAN AND ORGANIZED SITE. EACH DAY CONTRACTOR SHALL CLEAN THE AREA AND CORRECTLY DISPOSE OF ALL WASTE MATERIALS. WHERE APPLICABLE
- RECYCLING SERVICES WILL BE UTILIZED. PROVIDE ALL THE TOOLS AND CLEANING EQUIPMENT. 1.7.8. ANY ELECTRICAL EQUIPMENT THAT ARE IN GOOD WORKING ORDER AND WILL NO LONGER BE
- REQUIRED SHALL BE PACKAGED UP, LABELLED AND RETURN TO OWNER OR LANDLORD.
- ANY EQUIPMENT TO BE REUSED WILL BE REFURBISHED ACCORDINGLY, THE CONTRACTOR IS REQUIRED PROVIDE CERTIFICATES TO SHOW REFURBISHED EQUIPMENT MEET ALL REGULATORY BODIES
- 1.7.10. REMOVE ALL REDUNDANT DEVICES, CABLE, CONDUIT AND COMMUNICATIONS CABLES. CUT BACK ALL
- CABLES TO SOURCE. 1.7.11. ALL DAMAGED EQUIPMENT IS TO BE DISPOSED OF AND REPLACED AT NO COST TO THE OWNER.
- 1.7.12. ANY DAMAGED INCURRED TO THE BASE BUILDING SYSTEMS WHILE WORK IS BEING PERFORMED IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR OR ANY SUBCONTRACTOR CARRIED BY TH CONTRACTOR. CONTRACTOR SHALL BE REQUIRED TO SHOULDER ANY ASSOCIATED COST WITH ANY
- 1.7.13. ALL DUST, DEBRIS, DIRT OR OTHER MATERIALS LEFT AS A RESULT OF THE WORK ARE TO BE CLEANED BY THE CONTRACTOR.

VALUATION OF CHANGES 1.8.

- 1.8.1. ALL QUOTES FOR CHANGE NOTICES SHALL:
- 1.8.1.1. BE SUBMITTED WITHIN TEN DAYS OF THE ISSUE OF THE CHANGE.
- 1.8.1.2. A BREAKDOWN OF MATERIAL, LABOUR OVERHEAD AND ANY OTHER RELEVANT COSTS ASSOCIATED
- 1.8.1.3. HOURLY LABOUR COSTS, THIS COSTS SHALL BE INCLUSIVE OF ALL ASSOCIATED LABOUR COSTS NOT LIMITED TO INSURANCE, OVERHEAD EXPENSE, WARRANTIES ETC.
- 1.8.1.4. QUOTE SHALL INCLUDE ANY PROPOSED COST SAVINGS.
- 1.8.1.5. THE QUOTATION SHALL REFERENCE THE CONSULTANTS CHANGE DIRECTLY.
- 1.8.1.6. ALL QUOTES SHALL NOT SURPASS THE RATES AND COSTS AS PER NECA & NPS AS OF THE DATE THE QUOTE WAS ISSUED.

- 1.9.1. WARRANT'
- THE CONTRACTOR MUST SUBMIT ALL WARRANTY DOCUMENTATION TO THE CONSULTANT AND THE OWNER PRIOR TO SUBSTANTIAL COMPLETION CERTIFICATE ISSUE. WARRANTY TO INCLUDE ANY EQUIPMENT, MATERIALS, LABOUR, WORKMANSHIP OR ANY PART OF
- THE WORK DONE BY THE CONTRACTOR OR THEIR SUBCONTRACTORS 1.9.1.3. WARRANTY SHALL BE VALID ON ALL ITEMS, WITHOUT EXCLUSION FOR A PERIOD OF (1) ONE
- 1.9.1.4. ANY DEFICIENCIES FOUND DURING THE WARRANTY PERIOD, EITHER FROM NEGLIGENCE FROM THE CONTRACTOR OR FROM PERCEIVED PERFORMANCE DEFICIENCIES SHALL BE REPAIRED OR
- REPLACED BY THE CONTRACTOR AT NO COST. 1.9.1.5. THE WARRANTY PERIOD WILL START WHEN THE CONTRACTOR HAS GIVEN ALL RELEVANT TESTING,
- COMMISSIONING, OPERATIONS AND MAINTENANCE MANUAL DOCUMENTATION. 1.9.1.6. REPLACE AT NO COST WITHIN (90) DAYS OF ISSUE OF SUBSTANTIAL COMPLETION CERTIFICATE
- THE FOLLOWING:
- 1.9.1.6.1. ANY LIGHTING DEVICES 1.9.1.6.2. LAMPS
- 1.9.1.6.3. TRANSFORMERS 1.9.1.6.4. BALLASTS
- 1.9.1.6.5. DEFECTIVE OR BURNT OUT BULBS
- 1.9.1.7. ALL WARRANTY REPAIR WORK SHALL BE CARRIED OUT AT A TIME ACCEPTABLE BY THE TENANT AND OWNERS REPRESENTATIVE.

1.10. <u>CODES & STANDARDS</u>

- 1.10.1. THE INSTALLATION OF THE WORK SHALL BE IN ACCORDANCE WITH THE MOST STRINGENT STANDARDS AND CODES APPLICABLE TO THE WORK. ALL WORK SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE ONTARIO BUILDING CODE, CSA, ELECTRICAL SAFETY AUTHORITY, ULC, OHSA, AND ALL OTHER APPLICABLE CODES, BULLETINS AND UPDATES THAT GOVERN THE WORK. THESE CODES MUST BE REFLECTED IN THE BID SUBMISSION, UP TO AND INCLUDING THE DATE OF SUBMISSION.
- 1.10.2. LANDLORD'S REQUIREMENTS, CONSULTANT'S DRAWINGS AND BASE BUILDING STANDARDS SHALL BE ADHERED TO THROUGH THE PROJECT AND TENDER PERIOD. ANY SIGNIFICANT CHANGES TO THE REQUIREMENTS MUST BE SUBMITTED TO THE CONSULTANT IN WRITING BEFORE ANY CHANGES ARE COMPLETED.

2. OPERATION AND MAINTENANCE OF ELECTRICAL SYSTEMS

- 2.1.1. PROVIDE THREE HARD COPY SETS OF OPERATION AND MAINTENANCE MANUALS, BOUNDED AND ORGANIZED 2.1.2. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE COMPLETE DOCUMENTATION OF ALL THE ELECTRICAL
- SYSTEMS DEVICES AND INSULATION AND SHALL NOT BE LIMITED TO LINE VOLTAGE POWER DEVICES.
- 2.1.3. THE FOLLOWING INFORMATION SHALL BE INCLUDED IN THE OPERATIONS AND MAINTENANCE MANUALS: 2.1.3.1. NAMES AND ADDRESS OF THE NEAREST SUPPLIERS FOR THE ITEMS INCLUDED IN THE MAINTENANCE MANUAL.
- 2.1.3.2. TECHNICAL AND PRODUCT DATA TO BE IN A FORM OF APPROVED SHOP DRAWINGS SUPPLEMENTED BY BULLETINS AND COMPONENT ILLUSTRATIONS.
- 2.1.3.3. ELECTRICAL SAFETY INSPECTION REPORT. 2.1.3.8. CERTIFICATE(S) OF ACCEPTANCE FROM THE AUTHORITIES INSPECTION DEPARTMENT.
- 2.1.3.9. MAINTENANCE SCHEDULE, INCLUDING RECOMMENDED PROVIDERS
- 2.1.3.10. COMPONENT ILLUSTRATIONS, TECHNICAL DESCRIPTIONS AND PARTS LIST.
- 2.1.3.11. ALL TRAINING DOCUMENTATION FOR MAINTENANCE STAFF.
- 2.1.3.12. TEST VERIFICATION REPORTS AND CERTIFICATE(S) INCLUDING FIRE ALARM VERIFICATION REPORT. 2.1.3.13. LOAD BALANCE REPORT AND WIRING.
- 2.1.3.14. WRITTEN GUARANTEE LETTER. 2.1.3.15. MEGGER TEST REPORT IN GIGA OHM (Ω) VALUES.
- 2.1.3.16. COORDINATION STUDY FOR EQUIPMENT INCLUDING RELAY PROTECTION EQUIPMENT, SHORT CIRCUIT AND ARC
- 2.1.3.17. LIST OF EACH LIGHT FIXTURES TYPE IDENTIFYING THE TYPE OF LAMP, WATTAGE AND MANUFACTURER'S CONTACT INFORMATION.
- 2.1.3.12. ADVERTISING OR SALES LITERATURE IS NOT ACCEPTABLE.

3. <u>COMMON WORK RESULTS FOR ELECTRICAL</u>

- GENERAL SERVICE EQUIPMENT 3.1.1. ALL NEW ELECTRICAL SERVICE EQUIPMENT TO EXISTING BASE BUILDING EQUIPMENT IN MANUFACTURE NAME, RATING,
- TYPE, ETC.. UNLESS OTHERWISE DIRECTED. 3.1.2. APPROVED EQUAL SERVICE EQUIPMENT MANUFACTURERS ARE 'SIMENS, SCHNEIDER ELECTRIC, EATON
- CUTLER-HAMMER'. 3.1.3. ALL NEW SERVICE EQUIPMENT MUST BE SUBMITTED FOR APPROVAL TO THE CONSULTANT. SUBMITTALS SHALL
- INCLUDE PRODUCTS DATA SHEETS AS WELL AS SHOP DRAWINGS. 3.1.4. ALL NEW SERVICE EQUIPMENT (PANELBOARDS, DISCONNECT SWITCHES, METERS, TRANSFORMERS, ETC..) TO BE
- COPPER WINDINGS/BUS-BARS.
- 3.1.5. ALL AUTOMATIC TRANSFER SWITCHES AND SURFACE MOUNTED PANELBOARDS MUST BE SPRINKLER PROOF. 3.1.6. FOR ALL FLOOR MOUNTED DISTRIBUTION EQUIPMENT INCLUDING UPS, PROVIDE 100MM (4") HIGH CONCRETE BASE WITH 50MM (2") EXTENSION ON ALL SIDES AND CHAMFERED CORNERS.

- 3.2.1. PROVIDE LAMACOID NAMEPLATES ON ALL DISCONNECT SWITCHES, PANELS, SPLITTERS ETC.
- 3.2.2. EACH NAMEPLATE WILL HAVE THE FOLLOWING:
- 3.2.2.1. DESIGNATION
- 3.2.2.2. VOLTAGE 3.2.2.3. NUMBER OF WIRES
- 3.2.2.4. PHASE
- 3.2.2.5. FEED LOCATION
- 3.2.3. ALL NAMEPLATES FOR NEW EQUIPMENT TO MATCH EXISTING BASE BUILDING NAMEPLATES.
- 3.2.4. ALL NAMEPLATES SHALL BE MECHANICALLY FIXED TO LOCATIONS AND AFFIXED BEFORE ENERGIZATION OF
- 3.2.5. MARK ALL EXPOSED CONDUIT, PULL BOXES, JUNCTION BOXES ETC
- 3.2.6. ALL NEW AND EXISTING PANEL BOARDS SHALL BE COMPLETE WITH PANEL DIRECTORY.

- 3.3.1. ALL NEW PANELBOARDS SHALL BE COMPLETE WITH 200% RATED NEUTRAL BUS.
- 3.3.2. MOULDED CASE CIRCUIT BREAKERS SHALL BE BOLT-ON TO THE PANEL 3.3.3. ALL BUS BARS, LUGS AND BREAKER TERMINAL SHALL BE COPPER AND SILVER PLATED AT THE CONNECTION POINT.
- 3.3.4. ALL MAIN BREAKERS SHALL BE INDIVIDUALLY MOUNTED ON TOP OR BOTTOM OF THE PANEL TO ACCOMMODATE CABLE ENTRY.
- 3.3.5. THE INTERRUPTING RATING SHOULD BE MINIMUM 10KA FOR 208V PANELS AND 14KA FOR 347/600V PANELS.

- ALL NEW AND EXISTING BREAKERS FOR EMERGENCY LIGHTING, EXIT SIGN AND BACKUP POWER BATTERIES SHALL BE COMPLETE WITH REQUIRED BREAKER LOCKS.
- 3.4.2. TANDEM BREAKERS ARE NOT ACCEPTABLE.
- 3.4.3. ALL NEW BREAKERS IN EXISTING PANELS SHALL MATCH EXISTING BREAKERS TYPE AND MANUFACTURE. CONFIRM TYPE ON SITE.

3.4.4. ALL SPLIT RECEPTACLES SHALL BE COMPLETE WITH 15A,2P GFI BREAKER.

3.5. <u>TRANSFORMERS</u>

- 3.5.1. ALL SMALL TRANSFORMERS SHALL BE DRY TYPE AND SHALL HAVE THE FOLLOWING SPECIFICATIONS: 3.5.1.1. INDOOR AIR-COOLED TYPE RATED THREE PHASE, 60 CYCLE.
- 3.5.1.2. K FACTOR OF 13 AND WITH ELECTROSTATICALLY SHIELDED. 3.5.1.3. COPPER WINDINGS.
- 3.5.1.4. TRANSFORMERS SHALL NOT BE "T-TAP" TYPE.
- 3.5.1.5. DESIGNED WITH CLASS B' OR H INSULATION SYSTEM. 3.5.1.6. DOUBLE LUGS ON TRANSFORMER NEUTRALS.
- 3.5.2. ALL CEILING MOUNTED TRANSFORMERS UP TO 45KVA SHALL BE SUSPENDED BY A SUSPENSION RODS AND SPRING ISOLATORS WHILE TRANSFORMERS 60KVA AND LARGER SHOULD BE FLOOR MOUNTED ON KORFUND ISOLATION PADS.
- 3.5.3. ALL TRANSFORMERS SHALL BE SPRINKLER PROOF AS REQUIRED TO MEET LOCAL CODES.

- 3.6.1. ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY, CSA APPROVED, FRONT OPERATED TYPE.
- 3.6.2. FUSIBLE DISCONNECT SWITCHES TO BE COMPLETE WITH FUSE CLIPS SUITABLE FOR ARC FUSES, UNLESS OTHERWISE NOTED AND COMPLETE WITH SHORT CIRCUIT CURRENT RATING OF 200KA.
- 3.6.3. DISCONNECT SWITCH ENCLOSURE TO BE SPRINKLER-PROOF. 3.6.4. AMP RATING, NUMBER OF POLES AND FUSE REQUIREMENTS ARE AS INDICATED ON DRAWINGS.

- 3.7.1. ALL DUPLEX RECEPTACLES SHALL BE SPECIFICATION GRADE 15A. 120 VOLT, "U" GROUND COMPLETE WITH
- MATCHING COVER PLATES UNLESS OTHERWISE NOTED. 3.7.2. ALL DUPLEX RECEPTACLES SHALL BE 'DESIGNER' RECTILINEAR STYLE.
- 3.7.3. ALL RECEPTACLES TO HAVE CIRCUIT NUMBER IDENTIFIED ON THE WALL PLATE.
- 3.7.5. ALL OUTDOOR RECEPTACLES SHALL BE COMPLETE WITH WEATHER PROOF COVERS AND COMPLETE WITH GFI BREAKERS.

3.7.4. ALL RECEPTACLES LOCATED WITHIN 1.5 METERS OF THE SINK, SHOWER, ETC. SHALL BE GFI TYPE.

3.8. <u>DRYWALL CEILINGS</u>

- 3.8.1. ALL EXISTING JUNCTION BOXES LOCATED IN NEW DRYWALL CEILING AREAS SHALL BE DISCONNECTED AND RELOCATE TO THE NEAREST ACCESSIBLE CEILING SPACE.
- 3.8.2. ALL NEW AND EXISTING JUNCTION BOXES SHALL BE ACCESSIBLE. PROVIDE ACCESS PANELS AS REQUIRED. COORDINATE ALL WORK WITH GENERAL CONTRACTOR ON SITE.

3.9. <u>INTERRUPTION OF SERVICES</u>

- 3.9.1. INTERRUPTION OF ELECTRICAL SERVICE TO ANY PART OF THE BUILDING SHALL OCCUR ONLY BY PRE-ARRANGEMENT WITH CONSULTANT AND OWNERS REPRESENTATIVE.
- 3.9.2. PLANNED INTERRUPTIONS OF SERVICE MUST BE GIVEN AT LEAST (36) THIRTY—SIX HOURS' NOTICE, IN WRITING, TO THE CONSULTANT, TENANTS AND ANY OCCUPANTS THAT MAY BE AFFECTED.
- 3.9.3. ANY UNPLANNED INTERRUPTION TO SERVICE THAT RESULTS IN A SIGNIFICANT LOSS OF THE OWNER, TENANTS OR OCCUPANTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 3.9.4. ALL INTERRUPTIONS IN SERVICE SHALL BE ACCOUNTED FOR IN THE BID PRICE.

3.10. <u>CUTTING AND PATCHING</u>

- 3.10.1. OBTAIN WRITTEN APPROVAL FROM CONSULTANT OR LANDLORD BEFORE ANY CUTTING IS CARRIED OUT.
- 3.10.2. ALL CUTTING AND PATCHING REQUIREMENTS SHALL BE INCLUDED IN THE BID SUBMISSION. 3.10.3. WHERE CONDUITS PASS THROUGH FIRE RATED WALLS OR FLOORS, PROVIDE FIRE-STOPPING MATERIAL.
- 3.10.4. FIRE STOPPING MUST MEET MOST CURRENT REQUIREMENTS OF CSA AND ULC.

3.11. CORE DRILLING

- 3.11.1. OBTAIN OWNER'S AND IF REQUIRED STRUCTURAL CONSULTANT'S APPROVAL OF CORE DRILLING PRIOR TO COMMENCEMENT OF
- 3.11.2. ENSURE TO X-RAY FLOOR SLAB OR STRUCTURAL WALLS REQUIRE CORE DRILLING PRIOR TO ANY WORK.
- 3.11.3. ANY DAMAGES TO THE EXISTING BUILDING SERVICES DUE TO THE CORE DRILLING MUST BE REPAIRED BY THIS CONTRACTOR WITHOUT ANY ADDITIONAL COST TO OWNER OR TENANT.
- DONE WITHOUT ANY ADDITIONAL COST TO OWNER OR TENANT. 3.11.5. FLOOR DRILLING TO BE CARRIED OUT AFTER NORMAL WORKING HOURS IF POSSIBLE. ALL TIMES SHALL BE APPROVED BY THE

3.11.4. ALL CORING AND DRILLING DUE TO THE CONTRACTOR'S MISS COORDINATING WITH DESIGNERS OR OTHER TRADES SHALL BE

3.12. <u>ACCESS DOORS</u>

3.12.1. PROVIDE ACCESS DOORS FOR ANY EQUIPMENT REQUIRES ACCESSIBILITY AND MAINTENANCE. OBTAIN OWNER'S AND DESIGN CONSULTANT APPROVAL PRIOR TO ANY WORK.

3.13. <u>PLYWOOD</u>

3.13.1. INSTALL ALL SURFACE MOUNTED ELECTRICAL DISTRIBUTION EQUIPMENT ON CONSTRUCTION GRADE FIRE PLYWOOD. 3.13.2. PLYWOOD BACKBOARD SHALL BE 19MM THICK, FLAME RETARDANT PRIME COAT PAINTED WITH FLAME SPREAD RATING IN

3.14. <u>OUTLET LOCATION AND MOUTING HEIGHT</u> 3.14.1. REFER TO ARCHITECTURAL/INTERIOR DESIGNER'S DRAWINGS AND ELEVATIONS FOR EXACT OUTLETS BOXES AND LIGHT

3.14.2. THERE SHOULD NOT BE ANY ADDITIONAL COST FOR REVISING OUTLET BOXES AND LIGHT FIXTURES LOCATION WITHIN DISTANCE DOSE NOT EXCEED 3M (10'-0").

ACCORDANCE WITH OBC REQUIREMENTS.

FIXTURES LOCATION AND MOUNTING HEIGHT.

4. <u>SELECTIVE DEMOLITION FOR ELECTRICAL</u>

- 4.1. <u>DEMOLITION REQUIREMENTS</u> 4.1.1. IT IS REQUIRED TO FIRST VISITS THE SITE TO ASSESS RISK, COST SAVINGS AND REASONABLE PLAN TO MINIMIZE
- DISTURBANCES TO OCCUPANTS. 4.1.2. SUBMIT DEMOLITION PLAN TO THE CONSULTANT FOR REVIEW AND COMMENTS BEFORE UNDERSTATING MAJOR DEMOLITIONS.
- CONSULTANT AND ARCHITECT TO REVIEW DEMOLITION PLAN TO MAINTAIN CONSTANCY WITH DESIGN INTENT. 4.1.3. INCLUDE SAFETY PLAN FOR DEMOLITION AND SHALL SUBMIT WITH DEMOLITION PLAN.
- 4.1.4. ENSURE NO DISRUPTION TO LIFE SAFETY EQUIPMENT OR SYSTEMS WITHOUT PRIOR NOTICE TO TENANTS AND CONSULTANTS. WHERE DISRUPTION IS NECESSARY, ENSURE BACKUP SYSTEMS IS IN PLACE IN ORDER TO ENSURE THE SAFETY OF THE OCCUPANTS IN CASE OF AN EMERGENCY.
- 4.1.5. ALL DEMOLISHED EQUIPMENT, CONDUIT, DEVICES AND WIRING ETC. SHALL BE MADE SAFE. ALL REDUNDANT MATERIALS WILL BE COMPLETELY REMOVED AND DISPOSED OF RESPONSIBLY.

4.1.6. ANY DAMAGES INCURRED WHILE CONDUCTING THE DEMOLITION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

- 4.1.7. ANY UNPLANNED DISRUPTION OF SERVICES DURING DEMOLITION THAT LEAD TO INCURRED COST, LOSS OF PRODUCTIVITY OR LOSS OF INCOME IMPACTING THE TENANT OR OWNER SHALL BE REIMBURSED BY THE CONTRACTOR AT COST.
- 4.1.8. DISCONNECT ELECTRICAL CIRCUITS AND PANEL FEEDERS; MAINTAIN ELECTRICAL SERVICE AND MAIN DISTRIBUTION PANEL AS IS, READY FOR SUBSEQUENT WORK.

4.1.9. REMOVE EXISTING LUMINAIRES, ELECTRICAL DEVICES AND EQUIPMENT INCLUDING ASSOCIATED CONDUITS, BOXES, WIRING, AND

- SIMILAR ITEMS UNLESS SPECIFICALLY NOTED OTHERWISE. 4.1.10. DISCONNECT AND REMOVE EXISTING FIRE ALARM SYSTEM INCLUDING ASSOCIATED CONDUITS, BOXES, WIRING, AND SIMILAR ITEMS UNLESS SPECIFICALLY NOTED OTHERWISE
- 4.1.11. DISCONNECT AND REMOVE COMMUNICATION SYSTEMS INCLUDING ASSOCIATED CONDUITS, BOXES, CABLING, AND SIMILAR ITEMS UNLESS SPECIFICALLY NOTED OTHERWISE.
- 4.1.12. DISCONNECT AND REMOVE TELEPHONE OUTLETS, ASSOCIATED CONDUIT, CABLING AND SUB TERMINAL BACKBOARDS AND RELATED ACCESSORIES; MAINTAIN TELEPHONE SERVICE AND MAIN TERMINAL BACKBOARD AS IS. 4.1.13. PERFORM DEMOLITION WORK IN A NEAT AND WORKMANLIKE MANNER.
- 4.1.14. REMOVE TOOLS OR EQUIPMENT AFTER COMPLETION OF WORK, AND LEAVE SITE CLEAN AND READY FOR SUBSEQUENT 4.1.15. REPAIR AND RESTORE DAMAGES CAUSED AS A RESULT OF WORK OF THIS SECTION TO MATCH EXISTING MATERIALS AND
- 4.1.16. DISCONNECT PANEL FEEDERS BACK TO MAIN DISTRIBUTION PANEL AND RE LABEL RESPECTIVE CIRCUIT BREAKER AS "SPARE".
- 4.1.17. PLACE WEATHERPROOF BLANK COVER PLATES ON EXTERIOR OUTLET BOXES REMAINING AFTER DEMOLITION AND REMOVAL 4.1.18. REMOVE EXISTING CONDUITS, BOXES, CABLING AND WIRING ASSOCIATED WITH REMOVED LUMINAIRES, ELECTRICAL DEVICES AND
- 4.1.19. GRIND OFF CONDUITS AND MAKE FLUSH WITH SURFACE OF CONCRETE WHERE CONDUITS ARE CAST INTO CONCRETE; SEAL

5.1.6. INSTALL CABLE DROPS FOR LUMINAIRES OF SUFFICIENT LENGTH TO ALLOW LUMINAIRE TO BE RELOCATED TO ANY LOCATION

5.1.11. CHANG OF LOCATION OF WIRING DEVICES WITH IN 5M OF THE LOCATION SHOWN ON THE PLANS SHALL BE AT NO COST TO

4.1.20. SEAL OPEN ENDS OF CONDUIT WITH SILICONE SEALANT AND LEAVE IN PLACE WHERE THEY ARE INACCESSIBLE OR CANNOT BE REMOVED WITHOUT DAMAGING ADJACENT CONSTRUCTION.

5. LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

- <u>WIRE & CABLE</u>
- 5.1.1. PROVIDE SEPARATE INSULATED BONDING WIRE IN CONDUIT 5.1.2. MINIMUM WIRE SIZES, BASED ON USE OF COPPER CONDUCTORS:

OPEN ENDS OF CONDUIT WITH SILICONE SEALANT AND LEAVE IN PLACE.

- 5.1.2.1. POWER AND LIGHTING: NO.12 AWG, COLOUR CODED CONDUCTORS
- 5.1.2.2. RW90 FOR INTERIOR AND RWU90 FOR EXTERIOR WIRING 5.1.2.3. 600 VOLT RATING.
- 5.1.2.4. CONDUCTORS NO. 10 AND LARGER: STRANDED.
- 5.1.2.5. MINIMUM CONDUIT SIZE 19MM (3/4"). 5.1.2.6. INSTALL WIRING IN OR UNDER FLOOR SLABS IN RIGID PVC CONDUIT
- 5.1.2.7. INSTALL TERMINATION FITTINGS APPROVED FOR LOCATION ON CABLE
- 5.1.3. ALL WIRE SHALL BE SIZED FOR MAXIMUM 2% VOLTAGE DROP. 5.1.4. USE TYPE AC90 ARMOURED CABLE (BX) FOR:
- 5.1.4.1. CONNECTIONS FROM CONDUIT TO LUMINAIRES IN ACCESSIBLE CEILINGS AND STUD PARTITIONS. 5.1.4.2. SERVICING DEVICES IN STUD PARTITION WALLS FROM OUTLET BOX IN CEILING TO DEVICE LOCATION.
- 5.1.4.3. DO NOT LOOP BETWEEN WIRING DEVICES. 5.1.5. DO NOT USE TYPE AC90 CABLES FOR ANY OTHER APPLICATION.
- 5.1.7. CLAMP CABLE BEFORE ENTERING LUMINAIRE AND CLIP CABLE BEFORE ENTERING CONDUIT SYSTEM JUNCTION BOX.

5.1.10. ALL HOME RUN CABLES SHALL BE IN CONDUIT.

WITHIN [3000] MM RADIUS.

5.1.8. ALL WALL MOUNTED DEVICES SHALL BE FED VERTICALLY. 5.1.9. HORIZONTAL RUNS THROUGH PARTITIONS SHALL NOT BE PERMITTED UNLESS OTHERWISE NOTED.

THE CLIENT ASSUMING THE LOCATION HAS BEEN CLARIFIED PRIOR TO INSTALLATION

CLIENT:

THE CITY OF OSHAWA

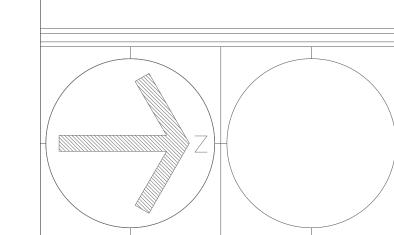


20 AMBER STREET, UNIT#6, MARKHAM, ONTARIO,L3R 5P4,

Tel:(416) 824-5822, E: lina.simon@simna.ca

/20/09/24 24-0014 L. SIMON

REVISIONS





PROJECT:

BOWMANVILLE ONTARIO

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

LIC 4P8 1EL. (905) 623 7476

SCALE: N.T.S. DWG. BY: L.S. CHECKED BY: L.S.

STATUS:

PLOT FACTOR:

TITLE: ELECTRICAL

PROJECT No.:

5.2.1. MEGGER ALL LIGHTING AND POWER CIRCUITS TO MEET CODES AND LATEST NETA MANUAL.

5.2.2. ALL FEEDERS SHALL BE MEGGER TESTED WITH 1000VDC APPROVED MEGGER TEST.

5.2.3. FOR CABLES RATED 300V AND LESS MEGGER TEST IS 500VDC.

5.2.4. ADJUST BRANCH CIRCUITS CONNECTIONS TO ENSURE OBTAINING THE BEST BALANCE OF CURRENT BETWEEN PHASES. INCLUDE TEST REPORT IN OPERATION AND MAINTENANCE MANUAL.

6. GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

6.0.1. GROUND ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH THE LATEST EDITION OF ESA.

6.0.2. PROVIDE GROUND WIRES WITH ALL FEEDERS, SEPARATE GREEN INSULATED GROUND CONDUCTOR (GREEN STANDARD #6AWG) MINIM SHALL BE INSTALLED IN EVERY CONDUIT TO ALL DEVICES, UNLESS OTHERWISE DIRECTED.

6.0.3. PROVIDE ALL REQUIRED BONDING AS REQUIRED BY CODE.

7. RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

7.1. <u>CONDUIT FOR ELECTRICAL SYSTEMS</u> 7.1.1. INSTALL CONDUITS TO CONSERVE HEADROOM IN EXPOSED LOCATIONS AND CAUSE MINIMUM INTERFERENCE IN SPACES

THROUGH WHICH THEY PASS. 7.1.2. USE ELECTRICAL METALLIC TUBING (EMT) CONDUIT EXCEPT WHERE SPECIFIED OTHERWISE.

7.1.3. USE RIGID GALVANIZED STEEL THREADED CONDUIT WHERE CONDUIT IS SUBJECT TO MECHANICAL INJURY AND UP TO

2.4 M ABOVE FINISHED FLOOR WHERE EXPOSED IN ALL OUTDOOR AND INDOOR LOCATIONS. 7.1.4. USE RIGID PVC CONDUIT IN CORROSIVE AREAS AND UNDERGROUND.

7.1.5. USE FLEXIBLE METAL CONDUIT FOR CONNECTION TO SURFACE OR RECESSED FLUORESCENT FIXTURES, [WORK IN MOVABLE METAL PARTITIONS, CONNECTION TO RECESSED INCANDESCENT FIXTURES WITHOUT PREWIRED OUTLET BOX

AND CONNECTION TO MOTORS IN DRY AREAS.

7.1.6. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR CONNECTION TO MOTORS OR VIBRATING EQUIPMENT IN DAMP, WET OR CORROSIVE LOCATIONS.

7.1.7. INSTALL FISH CORD IN EMPTY CONDUITS.

7.1.8. RUN TWO (2) 25MM (1") SPARE CONDUITS UP TO CEILING SPACE AND TWO (2) 25MM (1") SPARE CONDUITS DOWN TO CEILING SPACE FROM EACH FLUSH PANELBOARD. TERMINATE THESE CONDUITS IN 152 X 152 X 102 MM JUNCTION BOXES IN CEILING SPACE OR IN CASE OF AN EXPOSED CONCRETE SLAB, TERMINATE EACH CONDUIT IN FLUSH CONCRETE OR SURFACE TYPE BOX.

7.1.9. ALL SURFACE CONDUITS SHALL RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES, LOCATED BEHIND INFRARED OR GAS FIRED HEATERS WITH 1.5M CLEARANCE, RUN IN FLANGED PORTION OF STRUCTURAL STEEL AND GROUPED WHEREVER POSSIBLE ON SURFACE CHANNELS.

7.1.10. DO NOT PASS SURFACE CONDUIT THROUGH STRUCTURAL MEMBERS EXCEPT AS INDICATED.

7.1.11. DO NOT LOCATE SURFACE CONDUITS LESS THAN 75MM PARALLEL TO STEAM OR HOT WATER LINES WITH MINIMUM OF 25MM (1") AT CROSSOVERS.

7.1.12. ALL CONCEALED CONDUITS SHALL RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.

7.1.13. FOR CONCEALED CONDUITS, DO NOT INSTALL HORIZONTAL RUNS IN MASONRY WALL AND DO NOT INSTALL CONDUITS IN TERRAZZO OR CONCRETE TOPPINGS.

7.1.14. MINIMUM CONDUIT SIZE FOR LIGHTING AND POWER CIRCUITS SHOULD BE 19MM (3/4").

7.1.15. AT ALL SLEEVE LOCATIONS AND CONDUITS PENETRATING THE FLOOR SLAB, PROVIDE A CONCRETE BASE 100MM (4") HIGH AND 100MM (4") EXTENDED BEYOND THE EDGE OF THE SLEEVE OR CONDUIT.

JUNCTION BOXES & SPLITTERS

7.2.1. PROVIDE CSA APPROVED SPLITTER, COMPLETE WITH FORMED PRIMED AND PAINTED STEEL BOX WITH KNOCKOUTS, TERMINAL BLOCKS COMPLETE WITH PRESSURE TYPE LUGS, HINGED FRONT COVERPLATE, SUITABLE MOUNTING

PROVISIONS AND ALUMINUM I.D. NAMEPLATE.

7.2.2. ALL FLUSH MOUNTED PULL AND JUNCTION BOXES SHALL BE COMPLETE WITH 25MM MINIMUM EXTENSION COVER ALL

7.2.3. PROVIDE JUNCTION BOXES AND PULL-BOXES SIZED IN ACCORDANCE WITH CODE TO SUIT NUMBER AND SIZE OF CONDUITS AND CONDUCTORS.

7.2.4. WHEREVER IS NECESSARY TO FACILITATE CONDUCTOR/CONDUIT INSTALLATIONS, PROVIDE PULL—BOXES AND JUNCTION

BOXES. FOR EVERY 130M OF CONDUIT A MINIMUM OF ONE PULL BOX SHALL BE INCLUDED. 7.2.5. DO NOT INSTALL MORE THAN TWO (2) — 90 DEG. BENDS BETWEEN ANY TWO ADJACENT PULL BOXES.

7.2.6. ALL JUNCTION AND PULL BOXES SHALL BE INSTALLED AT CONVENIENT AND SUITABLE INTERMEDIATE ACCESSIBLE

7.2.7. PROVIDE JUNCTION BOXES, OUTLET BOXES, WIRING, PLATES, ETC., AS NECESSARY FOR COMPLETE RELOCATION OF

EXISTING DEVICES.

7.3. <u>OUTLET BOXES</u>

7.3.1. PROVIDE CSA APPROVED STAMPED GALVANIZED STEEL OUTLET BOX FOR EACH LIGHT SWITCH, RECEPTACLE,

COMMUNICATION, FIRE ALARM, ETC.. 7.3.2. PROVIDE "FS" OR "FD" TYPE BOXES FOR RIGID STEEL CONDUITS AND ALL SURFACE MOUNTED DEVICES, INCLUDING FIRE

ALARM, SECURITY AND AUXILIARY SYSTEMS. 7.3.3. SIZE, ARRANGEMENT AND TYPE OF THE BOXES MUST BE SUITABLE FOR APPLICATION AND AS REQUIRED BY CODE.

7.3.4. PROVIDE 76MM (3") DEEP 1004 BOXES FOR DIMMING SWITCHES.

7.3.5. GANGE TOGETHER IN THE SAME COVER PLATE EVERY TWO OR MORE OUTLET BOXES THAT OCCUR AT THE SAME LOCATION UNLESS OTHERWISE NOTED.

7.3.6. PROVIDE BLANK COVER PLATES ON OBSOLETE BOXES WITHOUT WIRING AND WHICH ARE TO REMAIN.

7.3.7. DO NOT INSTALL OUTLET BOXES BACK TO BACK IN WALL PARTITIONS.

8. SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

8.1. <u>HANGERS & SUPPORTS</u>

8.1.1. SECURE EQUIPMENT TO MASONRY, TILE AND PLASTER SURFACES WITH LEAD ANCHORS.

8.1.2. SECURE EQUIPMENT TO POURED CONCRETE WITH EXPANDABLE INSERTS. 8.1.3. SUPPORT EQUIPMENT, CONDUIT OR CABLES USING CLIPS, SPRING LOADED BOLTS, CABLE CLAMPS DESIGNED AS

ACCESSORIES TO BASIC CHANNEL MEMBERS. 8.1.4. FASTEN EXPOSED CONDUIT OR CABLES TO BUILDING CONSTRUCTION OR SUPPORT SYSTEM USING STRAPS.

PROVIDE METAL BRACKETS, FRAMES, HANGERS, CLAMPS AND RELATED TYPES OF SUPPORT STRUCTURES WHERE INDICATED OR AS REQUIRED TO SUPPORT CONDUIT AND CABLE RUNS.

8.1.6. ENSURE ADEQUATE SUPPORT FOR RACEWAYS AND CABLES DROPPED VERTICALLY TO EQUIPMENT WHERE THERE IS NO

8.1.7. DO NOT USE WIRE LASHING OR PERFORATED STRAP TO SUPPORT OR SECURE RACEWAYS OR CABLES.

8.1.8. DO NOT USE SUPPORTS OR EQUIPMENT INSTALLED FOR OTHER TRADES FOR CONDUIT OR CABLE SUPPORT 8.1.9. INSTALL FASTENINGS AND SUPPORTS AS REQUIRED FOR EACH TYPE OF EQUIPMENT CABLES AND CONDUITS, AND IN

ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. 8.1.10. DON NOT WELD SUPPORTS TO BUILDING STRUCTURAL STEELS MEMBERS.

8.1.11. DO NOT BURN HOLES IN O BUILDING STRUCTURAL STEELS MEMBERS.

8.2. <u>SLEEVES</u>

8.2.1. NO BASE BUILDING INFRASTRUCTURE SHALL BE USED. 8.2.2. ALL SLEEVES MUST BE APPROPRIATE FOR THE INTENDED USE.

ISOLATION PADS FOR FLOOR MOUNTED TRANSFORMERS.

8.2.3. MUST BE WATERTIGHT AND FULLY SEALED.

8.2.4. PROVIDE ADEQUATE BRACING FOR SUPPORT OF SLEEVES DURING CONCRETE AND MASONRY WORK. 8.2.5. ANY SLEEVES GOING THROUGH CONCRETE SHALL BE SCHEDULE 40 STEEL PIPE, FLUSH WITH THE UNDERSIDE OF THE

CONCRETE SLAB AND MUST BE EXTENDED 100 MM ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

9. <u>VIBRATION CONTROLS FOR ELECTRICAL SYSTEMS</u> 9.1.

TO RECTIFY VIBRATION OR NOISE ISSUES AT NO COST

9.1.3. PROVIDE ALL NECESSARY VIBRATION ISOLATION HANGERS FOR WALL AND CEILING MOUNTED TRANSFORMERS AND

9.1.2. MINIMUM 1.5M OF LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE USED FOR CONNECTIONS TO NOISE AND VIBRATION GENERATING EQUIPMENT.

<u>VIBRATION</u>

9.1.1. ALL ELECTRICAL EQUIPMENT SHALL OPERATE WITHIN REASONABLE LEVELS OF NOISE AND VIBRATION. IF IN THE OPINION OF THE TENANT OR CONSULTANT THESE LEVELS ARE FOUND TO BE UNACCEPTABLE THE CONTRACTOR IS OBLIGATED

CONSULTANT'S REVIEW AND APPROVAL.

15.1. <u>METERING SYSTEM</u>

15.1.2. INCLUDE IN THE BID DOCUMENTS COST OF METERING INSTALLATION BY BASE BUILDING METERING CONTRACTOR.

15.1.3. METERS MUST BE CERTIFIED BY CSA.

15.1.4. ALL METERING COMPONENTS SHALL BE CAPTURED IN THE BID PRICE. INCLUDING BUT NOT LIMITED TO TRANSFORMERS, LABOUR, BREAKERS AND ASSOCIATED ACCESSORIES.

COORDINATION AND ARC FLASH STUDY

10.1.1. A COORDINATION STUDY SHALL BE PERFORMED TO ENSURE THAT THE SYSTEM IS SAFE, EFFICIENT, AND MAINTAINS ECONOMICAL OPERATION. COORDINATION STUDY WILL ENSURE THAT PERSONNEL AND EQUIPMENT ARE PROTECTED BY ESTABLISHING PROPER INTERRUPTING RATINGS AND THAT ALL DESIGN CHANGES OVER THE COURSE OF CONSTRUCTION WILL WORK AS PER THE DESIGN INTENT.

10.1.2. OBTAIN THE SERVICES OF INDEPENDENT COORDINATION CONSULTANT FOR THE PURPOSE OF COORDINATION AND ESTING SERVICES WHEN ALL NEW ELECTRICAL SERVICES GREATER THAN AND EQUAL TO 200A, 600V 3PH OR 400A. 120/208V 3PH

10.1.3. THE REPORT SHALL BE CONDUCTED BY INDEPENDENT TESTING CONTRACTOR AND SIGNED BY PROFESSIONAL ENGINEER. REPORT SHALL BE SUBMITTED AS PART OF THE ELECTRICAL DISTRIBUTION SYSTEM SHOP DRAWINGS FOR REVIEW BY THE CONSULTANT.

10.1.4. All CIRCUIT PROTECTIVE DEVICES SUCH AS FUSES, CIRCUIT BREAKERS, OVERCURRENT TRIPS AND RELAYS SHALL BE INSTALLED IN A WAY SUCH AS THEIR TRIP VALUES AND SETTINGS SHALL PROVIDE PROTECTION THRU OUT THE ELECTRICAL DISTRIBUTION SYSTEM BY MEANS OF OPENING THE NEAREST DEVICE TO THE

10.1.5. STUDY TO INCLUDE THE FOLLOWING:

10.1.5.1. DATA FOR ALL EQUIPMENT USED IN THE STUDY, INCLUDING BUT NOT LIMITED TO:

10.1.5.1.1. TRANSFORMER TYPES, SIZES AND IMPEDANCES 10.1.5.1.2. FUSE TYPES AND SETTINGS

POINTS IN THE DISTRIBUTION SYSTEM.

10.1.5.1.3. CIRCUIT BREAKERS AND SETTINGS

10.1.5.1.4. RELAYS TYPES AND SETTINGS 10.1.5.1.5. CABLE SIZES

10.1.5.1.6. MOTORS

10. <u>POWER SYSTEM STUDIES</u>

10.1.5.1.7. ANY OTHER EQUIPMENT AND DEVICES REQUIRED IN THE STUDY.

10.1.5.2. STUDY TO INCLUDE AVAILABLE SHORT CIRCUIT CURRENT PROVIDED BY THE THE LOCAL ELECTRICAL UTILITY PROVIDER AND INCORPORATED IN THE STUDY. 10.1.5.3. THE SHORT CIRCUIT STUDY SHALL CLEARLY INDICATE SHORT CIRCUIT CURRENT LEVELS AT ALL MAJOR

10.1.6. AN ARC FLASH STUDY WILL BE PERFORMED TO CALCULATE THE DEGREE OF RISK OF AN ARC FLASH HAZARD. THE CONTRACTOR WILL COMPILE A REPORT CONTAINING AREAS OF POTENTIAL RISK AND THE NECESSARY CHANGES TO MAKE IN ORDER TO KEEP YOUR WORKERS SAFE AND TO IMPROVE AND MAINTAIN ELECTRICAL

10.1.7. PROVIDE ARC FLASH WARNING LABELS AS PER CSA STANDARDS. LABELS SHALL INDICATE RATING LEVELS AND SHALL BE PROVIDE ON ALL ELECTRICAL DISTRIBUTION EQUIPMENT AND PANELS.

11. <u>COMMISSIONING OF ELECTRICAL SYSTEMS</u>

SYSTEM COMMISSIONING

11.1.1. INCLUDE IN THE BID THE COST FOR INDEPENDENT 3RD PARTY FIRE ALARM VERIFICATION IN ACCORDANCE WITH

11.1.2. CONTRACTOR SHALL SUBMIT COMMISSIONING PLAN IN PDF FORMAT TO CONSULTANT, OWNER AND

COMMISSIONING AUTHORITY FOR REVIEW AND APPROVAL. 11.1.3. FINAL COMMISSIONING REPORT TO BE SUBMITTED TO CONSULTANT, OWNER AND COMMISSIONING AUTHORITY IN PDF FORMAT.

11.1.4. THE REPORT SHALL INCLUDE THE FOLLOWING:

11.1.4.1. ALL REVIEW SHOP DRAWINGS

11.1.4.2. DATA SHEETS AND TESTING REPORTS. 11.1.4.3. CONTRACTOR'S INSTALLATION LETTER FOR FIRE ALARM, EMERGENCY LIGHTING, AND EXIT LIGHTING

11.1.5. THE REPORT SHALL INCLUDE THE FOLLOWING TESTING REPORT DATA:

11.1.5.1. FIRE ALARM

11.1.5.1.1. DECIBEL LEVEL (DBA) 11.1.5.1.2. INTELLIGIBILITY LEVEL (CIS)

11.1.5.1.3. AUDIBILITY RESULTS THROUGHOUT THE RENOVATED AREAS

11.1.5.2. CABLES & ELECTRICAL SYSTEMS

11.1.5.2.1. MEGGER TESTING 11.1.5.2.2. VOLTAGE DROP TESTING

11.1.5.2.3. BREAKER SWITCH TESTING

11.1.5.2.4. EMERGENCY POWER SYSTEMS

11.1.5.2.5. PHASE BALANCING 11.1.5.3. LIGHTING 11.1.5.3.1. LIGHT LEVELS FOR INTERIOR AND EXTERIOR LIGHTING

11.1.5.4. EMERGENCY LIGHTING 11.1.5.4.1. BATTERIES

11.1.5.4.2. EXIT SIGNS

11.1.5.4.3. EMERGENCY LIGHT LEVELS TESTING

11.1.5.5. INDEPENDENT 3RD PARTY VERIFICATION SHALL BE REQUIRED ON THE FOLLOWING: 11.1.5.5.1. LIFE SAFETY SYSTEMS

BY THE CONTRACTOR AT NO COST.

11.1.5.5.2. EXIT LIGHTING 11.1.5.5.3. EMERGENCY LIGHTING

12. <u>ENGINEERS FINAL INSPECTION</u> 12.0.1. FINAL INSPECTIONS WILL BE PERFORMED BY THE ENGINEERING CONSULTANT AND THE OWNERS REPRESENTATIVE. PRIOR TO THE CLOSING OF WALLS OR CEILINGS CONSULTANT MUST BE GIVEN 48 HOURS' NOTICE THAT A FINAL INSPECTION IS REQUIRED. CONTACT SIMNA ENGINEERING INC. AT (416) 824-5822.

13. <u>RECORD DRAWINGS</u>

13.0.1. PROVIDE ALL RECORD DRAWINGS IN AUTOCAD (V. 2010 OR LATER) AND PDF FORMAT AT NO COST TO THE CONSULTANT OR OWNER. DRAWINGS WILL REFLECT ALL BUT NOT LIMITED TO ADDENDUM, TENDER,

ANY MODIFICATIONS OR ACCOMMODATIONS TO THE WORK REQUIRED TO DO THE INSPECTIONS WILL BE DONE

CONSTRUCTION AND SITE CHANGES MADE. 13.0.2. DRAWINGS SHALL NOT HAVE ENGINEERING STAMP AND SHALL BE CLEARLY LABELLED RECORD DRAWINGS, INCLUDE DATE AND KEEP 'SIMNA ENGINEERING INC.' LOGO ...

13.0.3. DRAWINGS SHALL INCORPORATE ALL SYSTEMS, INCLUDING BUT NOT LIMITED TO BRANCH WIRING, JUNCTION BOXES, CONDUIT REROUTING, FLOOR OUTLETS, AS WELL AS DETAILED PANEL SCHEDULES.

WITH EXISTING BUILDING OR BASE BUILDING SYSTEMS. 13.0.5. CONSULTANT SHALL BE GIVEN RECORD DRAWINGS FOR REVIEW IN PDF AND CAD FORMAT FOR REVIEW.

13.0.4. DRAWINGS WILL ALSO BE SUPPLEMENTED WITH ANY DOCUMENTATION TO RECORD SYSTEM INTEGRATION DONE

13.0.6. WHEN FOUND TO BE COMPLIANT, SUBMIT TO OWNER AND TENANT (3) FULL SETS OF HARD COPIES AND (1) CAD-DISK.

13.0.7. RECORD DRAWINGS SHALL INCLUDE ALL SPEAKER TAP SETTINGS ON RECORD DRAWINGS. 13.0.8. IF REQUIRED CONSULTANT WILL PROVIDE ADDITIONAL DRAWINGS AT THE FOLLOWING COSTS:

13.0.8.1. \$45.00 PER DRAWING FOR TEN OR LESS. 13.0.8.2. \$50.00 PER DRAWING FOR TEN OR MORE

14.0.1. SUBMIT SHOP DRAWINGS FOR ALL NEW SPECIFIED ELECTRICAL DEVICES OUTLINED ON THE DRAWINGS FOR

15. <u>ELECTRICITY METERING</u>

15.1.1. ALL NEW METERING SYSTEMS SHALL MATCH EXISTING BASE BUILDING SYSTEMS UNLESS OTHERWISE NOTED.

16. <u>SURGE PROTECTIVE DEVICES</u>

16.1. <u>STANDARDS</u> 16.1.1. THE SPD SHALL COMPLY WITH THE LATEST ADDITION OF THE FOLLOWING STANDARDS

16.1.1.1. ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002

16.1.1.2. NATIONAL ELECTRIC CODE: ARTICLE 285, ARTICLE 810.6

16.1.1.3. UNDERWRITERS LABORATORIES:

16.1.1.3.1. UL 1449 (4 IH EDITION): STANDARD FOR SURGE PROTECTIVE DEVICES 16.1.1.3.2. UL 1283 (6TH EDITION): STANDARD FOR ELECTROMAGNETIC INTERFERENCE FILTERS

16.1.2. SPD SHALL BE MARKED WITH THE OFFICIAL STANDARD HOLOGRAPHIC LABEL, WHICH DISPLAYS THE FILE NUMBER UNDER WHICH THE SPD IS CERTIFIED.

16.2. <u>SUBMITTAL REQUIREMENTS</u>

16.2.1. SUBMITTAL PACKAGE SHALL INCLUDE VERIFICATION OF UL LISTING TO UL 1449 AND UL 1283 (WHEN APPLICABLE).

16.2.1.1. NOMINAL NETWORK VOLTAGE (UN) AND OPERATING VOLTAGE OF THE SPD.

16.2.1.2. MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV). 16.2.1.3. VOLTAGE PROTECTION RATING (VPR).

16.2.1.4. SHORT CIRCUIT CURRENT RATING (SCCR).

16.2.1.5. NOMINAL DISCHARGE CURRENT OF THE SPD (IN).

16.2.2. SUBMITTAL PACKAGE SHALL INCLUDE, MANUFACTURER'S DATASHEET AND INSTALLATION SHEET. THESE DOCUMENTS MUST DETAIL DEVICE DIMENSIONS, WEIGHT, WIRING INSTRUCTIONS FOR FIELD INSTALLATION, RECOMMENDED WIRE GAUGE AND UPSTREAM OVERCURRENT PROTECTION, IF APPLICABLE.

16.2.3. THE CONTRACTOR SHALL SUBMIT, UPON REQUEST FROM CONSULTANT, A PHYSICAL SAMPLE OF THE SPD, ALLOWING END USER TO VALIDATE THAT THE SPD MAXIMUM SURGE CAPACITY AND VOLTAGE PROTECTION RATINGS MATCH THE DECLARED VALUES FROM THE DATASHEET. SPD MONITORING AND PROTECTION CIRCUITS SHALL BE ACCESSIBLE FOR VISUAL INSPECTION.

16.2.4. MANUFACTURER'S WARRANTY SHALL BE 10-YEARS WITH FREE REPLACEMENT OF PLUGGABLE PROTECTION MODULES DURING THAT TIME PERIOD.

16.3. PRODUCTS

16.3.1. MANUFACTURERS AND PART NUMBERS

16.3.1.1. APPROVED MANUFACTURES ARE:

16.3.1.1.1. CIETEL-POWER ESSENTIAL, 16.3.1.1.1. MDS750E SERIES FOR SERVICE ENTRANCE AND TRANSFER SWITCHES

16.3.1.1.1.2. MS200 SERIES FOR DISTRIBUTION AND MOTOR CONTROL CENTRE

16.3.1.1.3. MS100 SERIES FOR BRANCH PANELS 16.3.1.1.2. SQUARE D-SCHNEIDER ELECTRIC

16.3.2. AC POWER.

16.3.2.1. STANDARDS 16.3.2.1.1. FOR SPD'S INSTALLED ON THE LINE SIDE OF THE MAIN DISCONNECT, SPD SHALL BE UL 1449 4 IH EDITION LISTED AS A TYPE 1 SPD AND

16.3.2.1.2. FOR SPD'S INSTALLED ON THE LOAD SIDE OF THE MAIN DISCONNECT, THE SPD SHALL BE LISTED AS A UL 1449 4TH EDITION TYPE 1 OR

TYPE 2 SPD AND LABELED ACCORDINGLY. THE SPD SHALL ALSO BE UL 1283 LISTED IF IT IS A UL 1449 TYPE 2 DEVICE.

16.3.2.2. PERFORMANCE.

16.3.2.2.1. SPD UL NOMINAL DISCHARGE CURRENT (IN - 8/20MS) SHALL BE OF 20KA FOR EACH MODE OF PROTECTION.

16.3.2.2.2. SPD MAXIMUM DISCHARGE CURRENT PER PHASE (IMAX — 8/20MS) SHALL BE:

16.3.2.2.2.1. 300KA OR ABOVE FOR SERVICE ENTRANCE OR TRANSFER SWITCH.

16.3.2.2.2.2. 220KA OR ABOVE FOR DISTRIBUTION PANEL AND MOTOR CONTROL CENTER.

16.3.2.2.3. 132KA OR ABOVE FOR BRANCH PANEL. 16.3.2.2.3. SPD MAXIMUM DISCHARGE CURRENT TOTAL (ITOTAL - 8/20MS) SHALL BE OF 265KA OR ABOVE REGARDLESS OF THE INSTALLATION.

16.3.2.2.4. SPD UL 1449 SHORT CIRCUIT CURRENT RATING (SCCR) SHALL BE 200KA MINIMUM. 16.3.2.2.5. SERVICE ENTRANCE OR TRANSFER SWITCH SPD SHALL OFFER A MODULAR DESIGN, ALLOWING REPLACEMENT OF INDIVIDUAL PROTECTION MODULES TO RESTORE FULL CAPACITY TO THE SPD WITHOUT INTERRUPTING SERVICE.EACH SUB—COMPONENT REPLACEMENT SHALL INCLUDE A

VOLTAGE KEY SAFETY SYSTEM, IN ORDER TO AVOID VOLTAGE MISMATCH, CAUSING SAFETY CONCERNS. 16.3.2.2.6. SERVICE ENTRANCE OR TRANSFER SWITCH SPD SHALL INCLUDE AN INTEGRAL DISCONNECT SWITCH FOR EASE OF MAINTENANCE.

16.3.2.2.7. SPD SHALL INCLUDE VISUAL STATUS INDICATION PER MODE OF PROTECTION. IT SHALL PROVIDE INDICATION OF THE LEVEL OF PROTECTION 16.3.2.2.8. SPD SHALL PROVIDE AN AUDIBLE ALARM TO SIGNAL END OF LIFE OR DIMINISHED SURGE CAPACITY.

150

550

WIRE DOES NOT EXIST, THE SPD GROUND CAN BE BONDED TO EQUIPMENT CHASSIS.

16.3.2.3.9. THE DISTANCE BETWEEN THE SPD AND THE PROTECTED EQUIPMENT SHOULD NOT EXCEED 30FT.

16.3.2.2.9. REMOTE INDICATION (DRY CONTACT) SHALL BE INCLUDED TO MONITOR SPD STATUS. 16.3.2.2.10. EACH SINGLE INTERNAL METAL OXIDE VARISTOR (MOV), SHALL BE INDIVIDUALLY THERMALLY PROTECTED TO PROVIDE SAFE END OF LIFE

DISCONNECTION. 16.3.2.2.11. SPD LEAKAGE CURRENT TO GROUND SHALL BE LIMITED AT 1MA MAXIMUM.

16.3.2.2.12. SPD ENCLOSURE MUST BE PROPERLY RATED, OUTDOOR (NEMA 4 OR BETTER) OR INDOOR (NEMA 12 OR BETTER). A STAINLESS STEEL ENCLOSURE SHALL BE USED FOR HIGH SALINITY APPLICATIONS.

16.3.2.2.13. PD MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV) AND VOLTAGE PROTECTION RATING (VPR) SHALL NOT BE LOWER THAN VALUES

WIRES MCOV(L-N)VAC MCOV(L-G)VAC MCOV(L-L)VAC MCOV(N-G)VAC VPR(L-N) VPR(L-G) VPR(L-L) VPR(N-G)

16.3.2.2.13.1. SERVICE ENTRANCE OR TRANSFER SWITCH:

PROVIDED IN THE TABLES BELOW FOR EACH MODE.

120/240 (SPLIT PHASE) 3W+G	210	210	420	150	1200	1200	1800	900
120/208 (WYE)	4W+G	150	150	300	150	1200	1200	1500	1000
347/600 (WYE)	4W+G	460	460	920	420	1800	1800	3000	1800
16.3.2.2.13.2.	DISTRIBU [*]	TION PANEL OR MOT	OR CONTROL CENTER): :					
NETWORK	WIRES	MCOV(L-N)VAC	MCOV(L-G)VAC	MCOV(L-L)V	AC MCOV(N-G)VAC	VPR(L-N)	VPR(L-G)	VPR(L-I	L) VPR(N-G)
120/240 (SPLIT PHASE) 3W+G	150	150	300	150	700	700	1000	700
120/208 (WYE)	4W+G	150	150	300	150	700	700	1000	700
347/600 (WYE)	4W+G	550	550	1100	550	1800	1800	3000	1800
16.3.2.2.13.3.	BRANCH	PANEL:							
NETWORK	WIRES	MCOV(L-N)VAC	MCOV(L-G)VAC	MCOV(L-L)V	AC MCOV(N-G)VAC	VPR(L-N)	VPR(L-G)	VPR(L-I	L) VPR(N-G)
120/240 (SPLIT PHASE) 3W+G	150	150	300	150	700	700	1000	700

16.3.2.3. INSTALLATION.

4W+G

4W+G 550

AVOID A PHYSICAL LOOP.

16.3.2.3.5. THE MINIMUM GAUGE FOR A GROUND WIRE IS 10AWG.

120/208 (WYE)

347/600 (WYE)

NETWORK

16.3.2.3.1. SPD SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ALL LOCAL AND NATIONAL CODES.

150

550

700

1800

700

1800

1000

3000 1800

700

300

1100

16.3.2.3.2. THE SPD SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE PANEL OR EQUIPMENT IT INTENDS TO PROTECT. 16.3.2.3.3. PROVIDE AN UPSTREAM, DEDICATED OVERCURRENT PROTECTION DEVICE FOR EACH SPD WITH SUITABLE TRIP RATING. OVERCURRENT PROTECTION DEVISE SHALL PROTECT EACH INCOMING PHASE. NO OVERCURRENT PROTECTION SHALL BE PLACED ON THE NEUTRAL OR GROUND 16.3.2.3.4. THE SPD SHALL BE GROUNDED TO THE SAME GROUND REFERENCE AS THE EQUIPMENT IT IS INTENDED TO PROTECT. WHEN PHYSICAL GROUND

16.3.2.3.8. THE CONDUCTORS BETWEEN THE SPD AND THE PROTECTED EQUIPMENT (INCLUDING GROUND CONDUCTOR) SHALL FOLLOW THE SAME PATH TO

16.3.2.3.6. THE TOTAL CONDUCTOR LENGTH (CONNECTED LEADS), BETWEEN THE SPD AND THE INCOMING PHASE CONNECTIONS AND FROM THE SPD TO THE GROUND NETWORK, SHALL NOT EXCEED 3 FEET. 16.3.2.3.7. ALL CONNECTED LEADS OF THE SPD SHALL AVOID SHARP ANGLES AND LOOPS CREATED BY THE WIRING.

CLIENT:

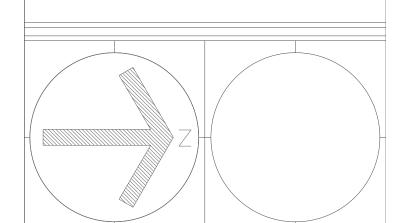
THE CITY OF OSHAWA



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BUILDING DEPARTMEN

OFFICE ALTERATIONS

BOWMANVILLE ONTARIO

PROJECT:

50 CENTRE ST. S, OSHAWA, ON SCALE: N.T.S. DWG. BY: L.S.

CHECKED BY: L.S.

STATUS:

PLOT FACTOR:

PROJECT No.:

TITLE:

ELECTRICAL

17. <u>LIGHTING AND CONTROLS</u>

- 17.1. <u>INDOOR LIGHTING</u> 17.1.1. PROVIDE ALL LUMINAIRES AS SHOWN ON THE LIGHTING PLANS AND AS SPECIFIED IN THE LUMINAIRE SCHEDULE.
- 17.1.2. ALL LUMINAIRES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 17.1.3. ALL LUMINAIRES TO BE APPROVED BY CSA, ULC AND LOCAL CODES.
- 17.1.4. FOR LUMINARIES MOUNTING HEIGHT AND EXACT LOCATION REFER TO ARCHITECTURAL/INTERIOR DESIGNER'S DRAWINGS.
- 17.1.5. ALL LUMINAIRES SHALL BE COMPLETE WITH NEW LAMPS, MOUNTING BRACKETS, TRANSFORMERS, DRIVERS, SUPPORTS, TRIMS, LOUVERS, LENSES AND ALL NECESSARY ACCESSORIES TO MAKE LUMINAIRES OPERATIONAL AND INSTALLED IN THE LOCATIONS SHOWN ON LIGHTING PLANS.
- 17.1.8. ACCEPTABLE LAMP MANUFACTURES ARE OSRAM SYLVANI, PHILIPS AND GE.
- 17.1.9. UNLESS OTHERWISE NOTED, BALLASTS AND LAMPS MUST BE BY THE SAME MANUFACTURER.
- 17.1.10. LUMINAIRES SHALL NOT TO BE SUSPENDED FROM MECHANICAL PIPES, DUCTWORK OR OTHER BUILDING SERVICES.
- 17.1.11. FOR SUSPENDED LUMINAIRES, SUPPORT FIXTURES FROM STRUCTURAL SLAB IN ACCORDANCE WITH LOCAL INSPECTION
- 17.1.12. ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINE. 17.1.13. ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING GRID LINES.

17.2. <u>OUTDOOR LIGHTING</u>

- 17.2.1. ALL LUMINARIES SHALL BE SUITABLE FOR OUTDOOR APPLICATION.
- 17.2.2. POLES AND BOLLARDS SHALL BE INSTALLED ON INDEPENDENT CONCRETE BASES UNLESS OTHERWISE. CONCRETE BASE SHALL BE BY OTHERS.

17.3. <u>LIGHT SWITCHES, DIMMERS & OCCUPANCY SENSORS</u>

- 17.3.1. LIGHT SWITCHS (120V AND 347V) SHALL BE BRYANT QUIET TYPE WITH WHITE SPECIFICATION GRADE, DECORA STYLE COMPLETE WITH COVERPLATE. ACCEPTABLE MANUFACTURES ARE P&S, HUBBELL, LEGRAND, LEVETON OR EQUAL.
- 17.3.2. PROVIDE INDIVIDUAL TIME AND SENSOR ADJUSTMENT TO CLIENT'S REQUIREMENTS.
- 17.3.3. SENSOR SHALL BE COMPLETE WITH POWER PACK AND ALL NECESSARY WIRING ACCESSORIES.

- 18. <u>FIRE DETECTION AND ALARM</u> ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WORK IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS AND SHALL NOTIFY THE CONSULTANT OF ANY DISCREPANCIES ON SITE AND DRAWINGS PRIOR TO COMMENCEMENT OF ANY
- 18.2. THE FIRE ALARM SYSTEM INSTALLATION AND VERIFICATION SHALL COMPLY TO THE LATEST REQUIREMENTS OF ULC

17.3.4. FOR DIMMERS AND SENSORS TYPE AND SPECIFICATION REFER TO LIGHTING CONTROL SCHEDULE AND DETAILS.

- STANDARDS CAN-S524-06 AND CAN-S537-04.
- 18.3. ALL FIRE ALARM DEVICES SHALL BE CSA AND/OR ULC & FM APPROVED. ALL FIRE ALARM WIRING SHALL BE FAS RATED, CSA APPROVED AND MEET MANUFACTURER REQUIREMENTS.
- FIRE ALARM WIRING SHALL BE INSTALLED IN A MINIMUM OF 19MM (3/4") EMT CONDUIT.
- ALL BACK MOUNTING AND JUNCTION BOXES SHALL BE PAINTED IN RED OR IDENTIFIED APPROPRIATELY AS PERTAINING TO THE FIRE ALARM SYSTEM.
- 18.7. FIRE ALARM PULL STATIONS MUST BE MOUNTED AT 1200MM AFF. FROM CENTER OF THE DEVICE AND NOT MORE THAN
- BASE BUILDING FIRE ALARM SYSTEM IS EXISTING TO REMAIN. ALL NEW FIRE ALARM DEVICES MUST BE COMPATIBLE 18.8. WITH THE EXISTING FIRE ALARM SYSTEM.
- 18.9. EXISTING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. WHERE FIRE ALARM DEVICES ARE BEING REMOVED AND RELOCATED THEY MUST BE REINSTALLED AS PER LATEST ULC
- STANDARDS CAN-S524-06.
- 18.11. PROTECT ALL EXISTING FIRE ALARM DEVICES WITHIN THE AREA OF CONSTRUCTION.
- ALL SMOKE DAMPERS SHALL BE CONNECTED TO THE NEAREST 120V EMERGENCY CIRCUIT. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK AND PROVIDE ALL NECESSARY DEVICES FOR A
- 18.13. PROVIDE TIE-IN BETWEEN NEW MAGLOCKS AND BASE BUILDING FIRE ALARM SYSTEM SUCH THAT ALL MAGLOCKS RELEASE UPON ACTIVATION OF THE FIRE ALARM SYSTEM.
- 18.14. MAGLOCKS TO BE RELEASED UPON ACTIVATION OF THE FIRE ALARM PULL STATION THROUGH DIRECT CONNECTION.
- 18.15. PROVIDE TIE-IN OF NEW MAGLOCKS TO EXISTING RELEASE/RESET KEYSWITCH LOCATED NEAR THE MAIN FIRE ALARM
- PANEL. LOCATION TO BE CONFIRMED ON SITE.
- 18.16. FOR ALL VISUAL & AUDITORY DEVICES, INITIATING, SIGNALING AND NOTIFICATION CIRCUITS LINE SHALL BE CLASS "A". 18.17. VERIFICATION IS REQUIRED OF ALL EXISTING FIRE ALARM DEVICES LEFT FOR RE INSTALLATION BY THIS CONTRACTOR.
- FCAA CERTIFIED THIRD PARTY MUST BE CONDUCTING ALL FIRE ALARM DEVICES AND SYSTEM VERIFICATION. SUBMIT A COPY OF THE VERIFICATION REPORT TO THE CONSULTANT PRIOR ISSUING FINAL ACCEPTANCE LETTER TO THE CITY AS
- PER N.S.B.C REQUIREMENTS. 18.19. INCLUDE IN THE TENDER DOCUMENTS COST OF ADDITION, RELOCATION, ADJUSTMENT TO AUDIBLE DEVISES TAP
- SETTING, VERIFICATION AND TESTING OF THE FIRE ALARM SYSTEM DEVICES WITHIN THE TENANT SPACE. 18.20. ALL TIE-IN TO THE BASE BUILDING FIRE ALARM SYSTEM SHALL BE DONE BY LANDLORD'S ELECTRICAL CONTRACTOR.
- INCLUDE COST IN THE TENDER DOCUMENTS. 18.21. PROVIDE AS BUILT DRAWINGS SHOWING LOCATION OF FIRE ALARM DEVICES WITH ZONE NUMBERS.

CLIENT:

THE CITY OF OSHAWA

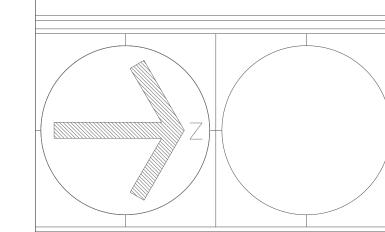


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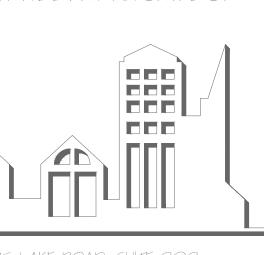


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PROJECT:

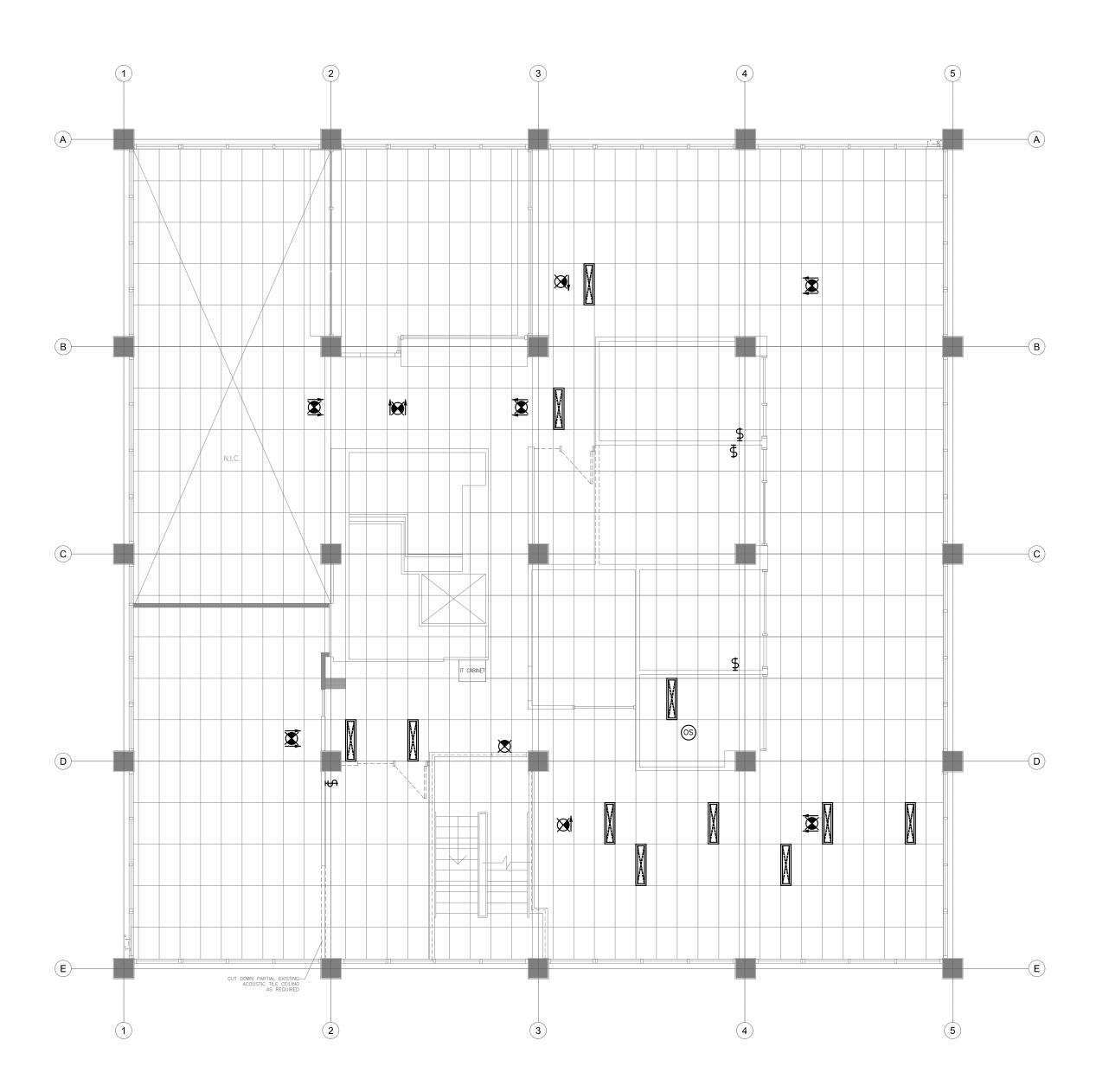
BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: N.T.S. DWG. BY: L.S. CHECKED BY: L.S.
STATUS:
PLOT FACTOR:

TITLE: ELECTRICAL

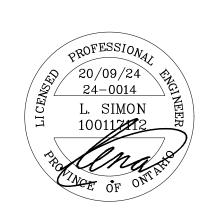
PROJECT No.:



ALL DEVICES SHOWN ON THIS DRAWING SHALL BE REMOVED COMPLETE WITH WIRING AND CONDUIT UNLESS OTHERWISE NOTED.

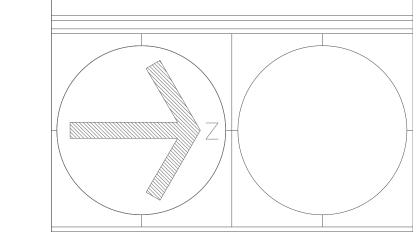
THE CITY OF OSHAWA



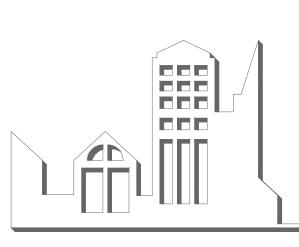


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PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: 1/8"=1'-0"

DWG. BY: L.S.

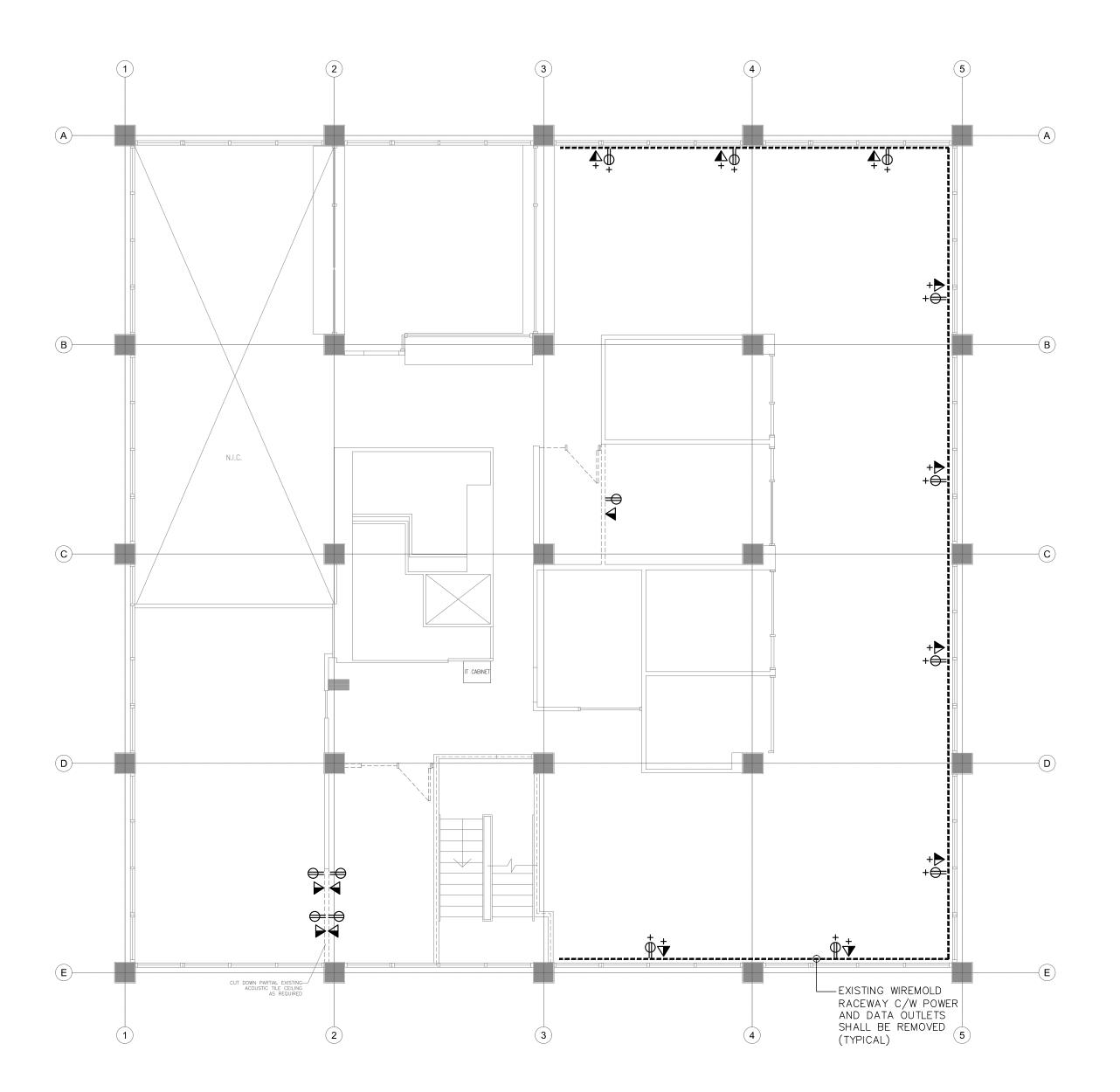
CHECKED BY: L.S.

STATUS:

PLOT FACTOR:

TITLE: ELECTRICAL LIGHTING DEMOLITION PLAN

PROJECT No.: 24-0014



ALL DEVICES SHOWN ON THIS DRAWING SHALL BE REMOVED COMPLETE WITH WIRING AND CONDUIT UNLESS OTHERWISE NOTED.

CLIENT:

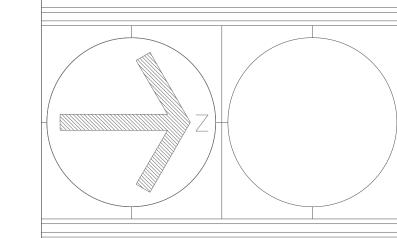
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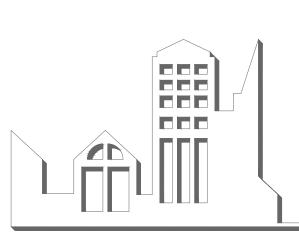
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BUILDING DEPARTMENT OFFICE ALTERATIONS

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SCALE: 1/8"=1'-0"

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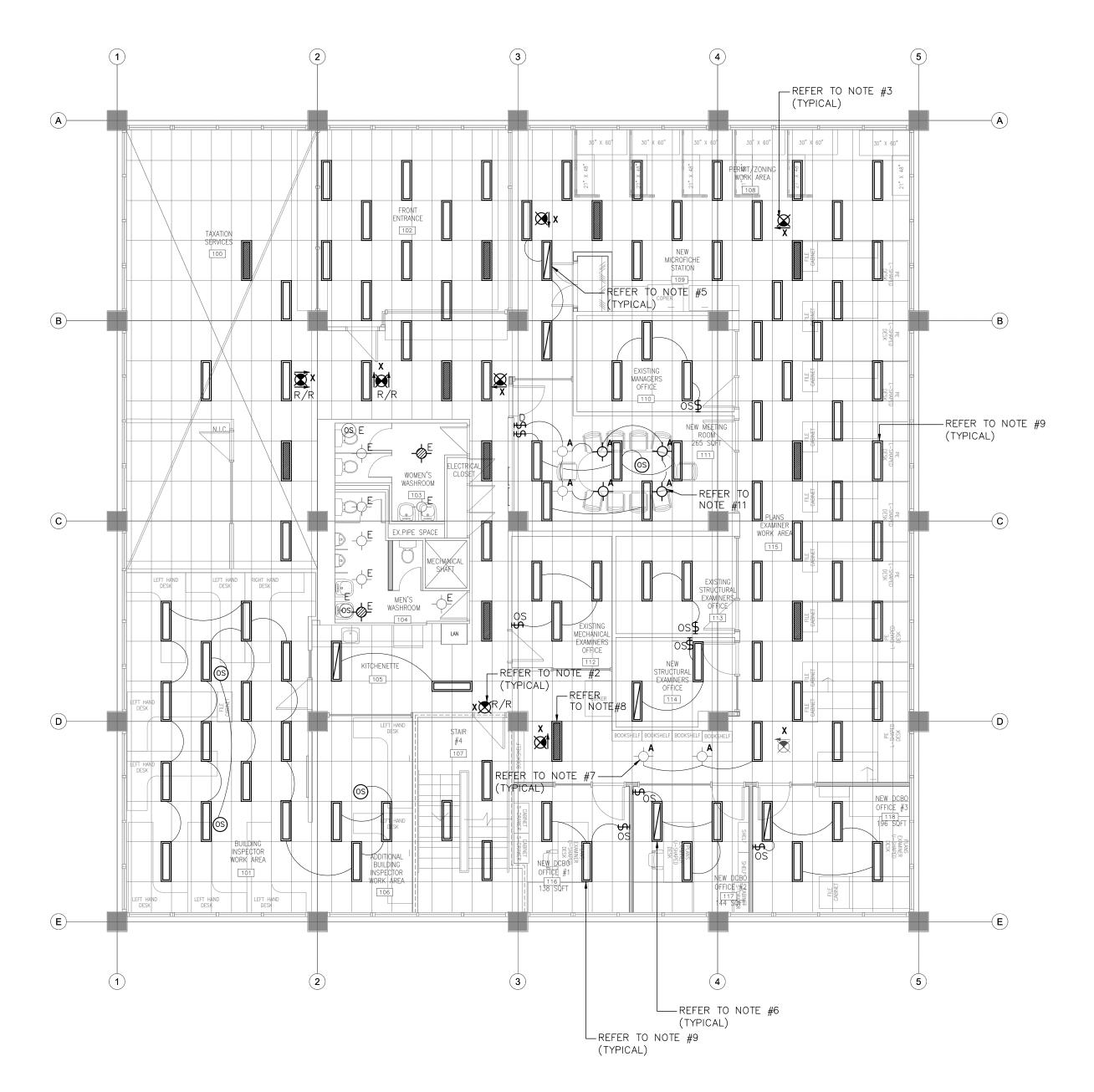
STATUS:

PLOT FACTOR:

TITLE: ELECTRICAL POWER AND SYSTEMS **DEMOLITION PLAN**

PROJECT No.: 24-0014

DATE: SEPTEMBER __, 2024



NOTES:

FOR EXACT MOUNTING HEIGHT AND LOCATION REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS.

2. EXIT SIGN WITH (R/R) DENOTES NEW GREEN RUNNING MAN EXIT SIGN AT EXISTING LOCATION. EXISTING RED EXIT SIGN SHALL BE REMOVED AND REPLACED WITH NEW GREEN RUNNING MAN EXIT SIGN AS SHOWN. CONNECT NEW EXIT SIGN TO EXISTING EXIT SIGN CIRCUIT.

- 3. CONNECT NEW EXIT SIGN TO NEAREST EXISTING EXIT SIGN CIRCUIT.
- 4. EMERGENCY LIGHTING LAYOUT IS EXISTING. CONFIRM EMERGENCY LAYOUT ON SITE.
- 5. RELOCATED EXISTING LIGHT FIXTURE. CONNECT TO NEAREST EXISTING LIGHT CIRCUIT AND CONTROL. FOR EXISTING LOCATION REEFER TO DEMOLITION PLAN. 6. RELOCATED EXISTING LIGHT FIXTURE. CONNECT TO NEAREST EXISTING LIGHT CIRCUIT AND NEW CONTROL. FOR EXISTING LOCATION REEFER
- NEW LIGHT FIXTURE. CONNECT TO NEAREST EXISTING NORMAL LIGHT CIRCUIT AND CONTROL.
- 8. CONNECT TO NEAREST EXISTING EMERGENCY LIGHT CIRCUIT.
- 9. EXISTING LIGHT FIXTURE TO REMAIN.

TO DEMOLITION PLAN.

- 10. ALL EXISTING LIGHT FIXTURES IN THE OFFICE/PRIVATE ROOMS SHALL REMAIN AND CONNECTED TO NEW LIGHTING CONTROLS AS SHOWN.
- 11. NEW LIGHT FIXTURE. CONNECT TO NEAREST EXISTING NORMAL LIGHT CIRCUIT AND NEW LIGHTING CONTROL AS SHOWN.

THE CITY OF OSHAWA

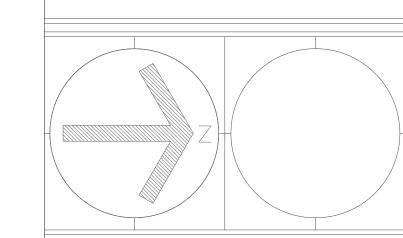


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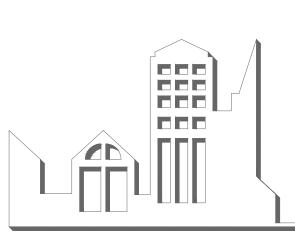


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PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: 1/8"=1'-0"

DWG. BY: L.S.

CHECKED BY: L.S.

STATUS:

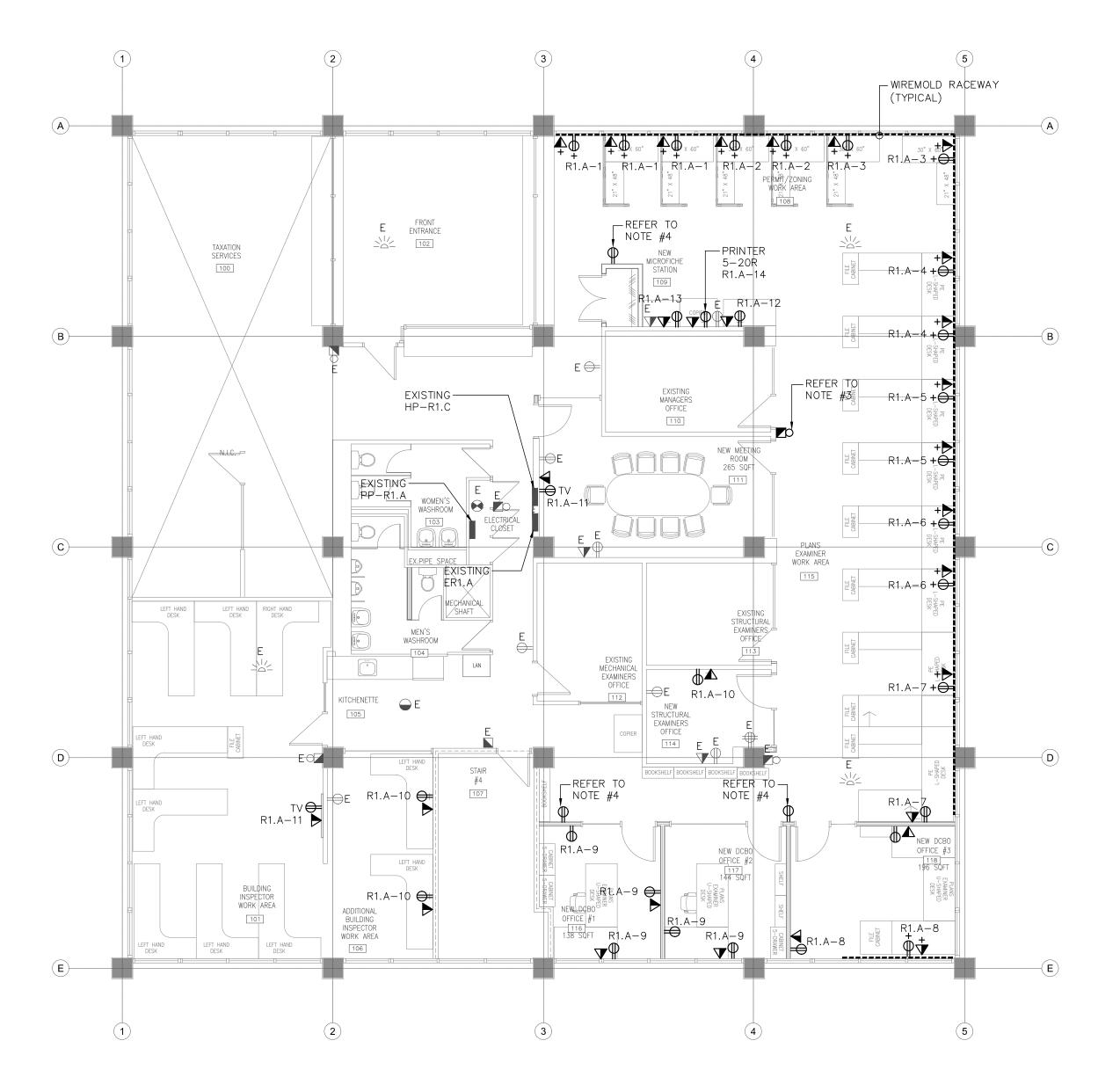
PLOT FACTOR:

TITLE: ELECTRICAL

LIGHTING PLAN

PROJECT No.:

DWG. No.: **E-07**



NOTES:

- NOTES:

 1. FOR EXACT OUTLETS MOUNTING HEIGHT AND LOCATION REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS.
- COORDINATE EXACT LOCATION OF ELECTRICAL SERVICES FOR MECHANICAL EQUIPMENTS WITH DIV. 15 PRIOR TO ROUGH—IN.
- 3. NEW FIRE ALARM BELL TO MATCH EXISTING. CONNECT TO NEAREST FIRE ALARM BELL CIRCUIT.
- 4. CONNECT TO NEAREST CORRIDOR EXISTING CONVENIENCE RECEPTACLE CIRCUIT.
- 5. PROVIDE 13X15A,1P CIRCUIT BREAKERS IN EXISTING PANEL 'PP-R1.A' 120/208V,3ø,4W,225A,42CCT, SQUARE 'D' FOR CCT# R1.A-1,2,3,4,5,6,7,8,9,10,11,12,13. CIRCUIT NUMBERS ARE FOR GROUPING PURPOSE ONLY.
- PROVIDE 1X20A,1P CIRCUIT BREAKER IN EXISTING PANEL 'PP-R1.A'
 120/208V,3Ø,4W,225A,42CCT, SQUARE 'D' FOR CCT# R1.A-14. CIRCUIT NUMBERS ARE FOR GROUPING PURPOSE ONLY.
- 7. EXISTING LIGHTING PANEL 'HP-R1.C', 120/208V,3ø,4W,225A,42CCT, SQUARE 'D'.

8. EXISTING EMERGENCY PANEL 'ER1.A', 120/208V,3ø,4W,225A,42CCT, SQUARE 'D'.

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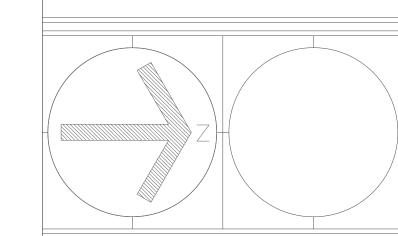


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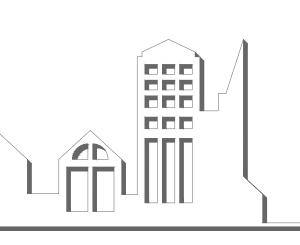


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PROJECT

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: 1/8"=1'-0"

DWG. BY: L.S.

CHECKED BY: L.S.

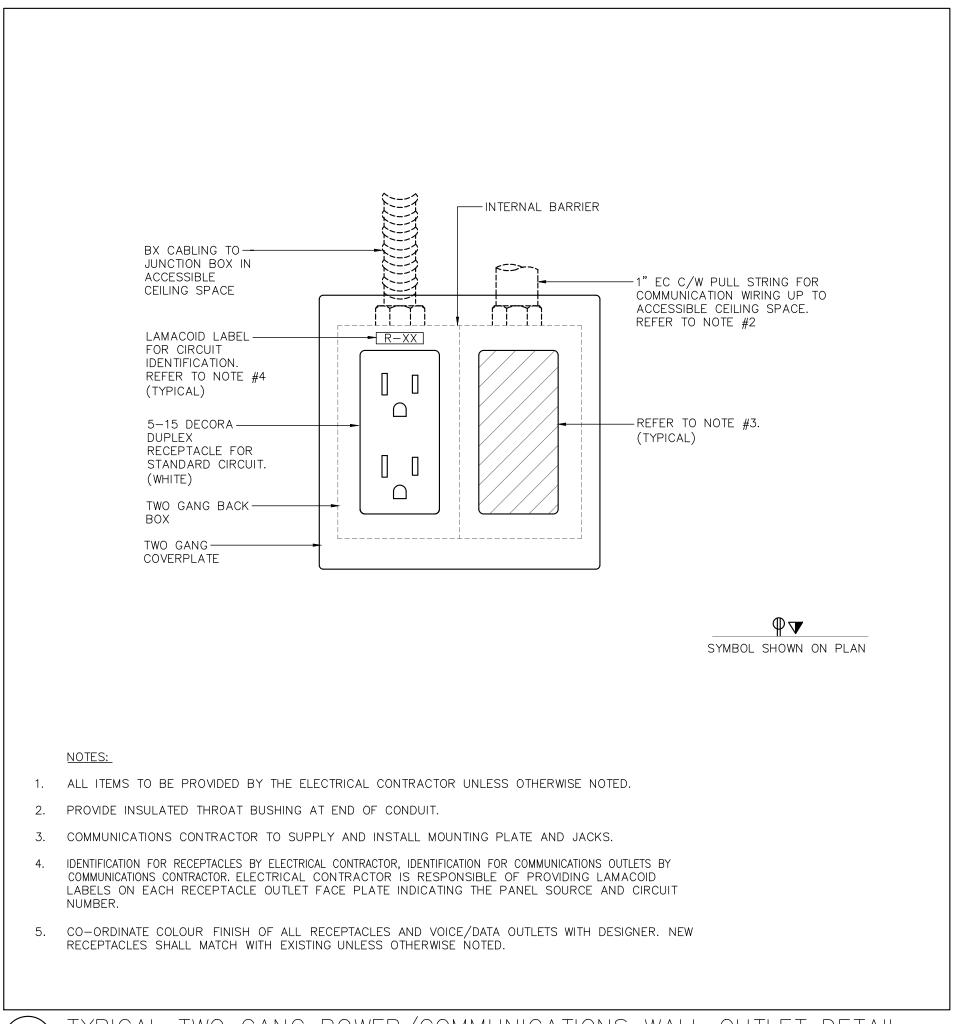
STATUS:

PLOT FACTOR:

ELECTRICAL
POWER AND SYSTEM
PLAN

PROJECT No.: 24-0014

E-08

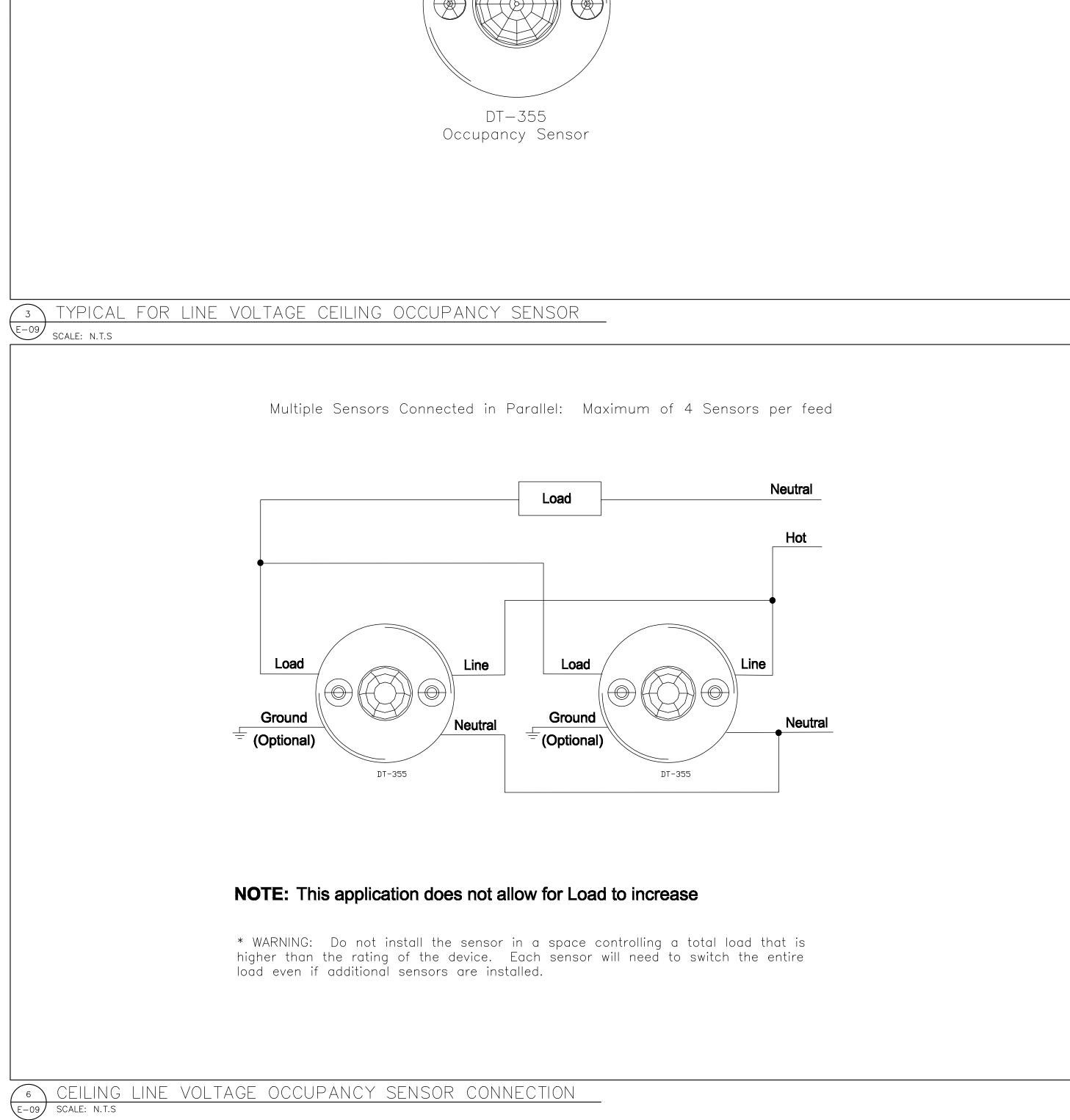


FINISHED T-BAR ----OR DRYWALL CEILING DRYWALL PARTITION 1" EC FOR COMMUNICATION WIRING. — REFER TO NOTE #3 FLUSH WALL MOUNTED DATA/VOICE OUTLET REFER TO NOTE #5-FINISHED FLOOR ----FLOOR SLAB SYMBOL SHOWN ON PLAN 1. TERMINATE CONDUIT IN ACCESSIBLE CEILING SPACE. 2. FOR ALL COMMUNICATION CONDUITS END POINT PROVIDE INSULATED THROAT BUSHING. 3. ELECTRICAL CONTRACTOR TO PROVIDE EMPTY CONDUIT C/W PULLSTRING, COORDINATE TERMINATION POINT WITH COMMUNICATIONS CONTRACTOR ON SITE. 4. ALL ITEMS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. 5. CO-ORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH INTERIOR DESIGNER.

2 TYPICAL DATA/VOICE WALL OUTLET DETAIL E-09 SCALE: N.T.S Class 2 0—10 Vo<u>lt</u> Control Wiring Ground Green White RH4FBL3PW <u>Neutral</u>

5 TYPICAL FOR WALL DIMMER (0-10V)

E-09 SCALE: N.T.S



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CLIENT:

Load

J.R. FREETHY ARCHITECT

325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 1EL. (905) 623 7476

PROJECT:

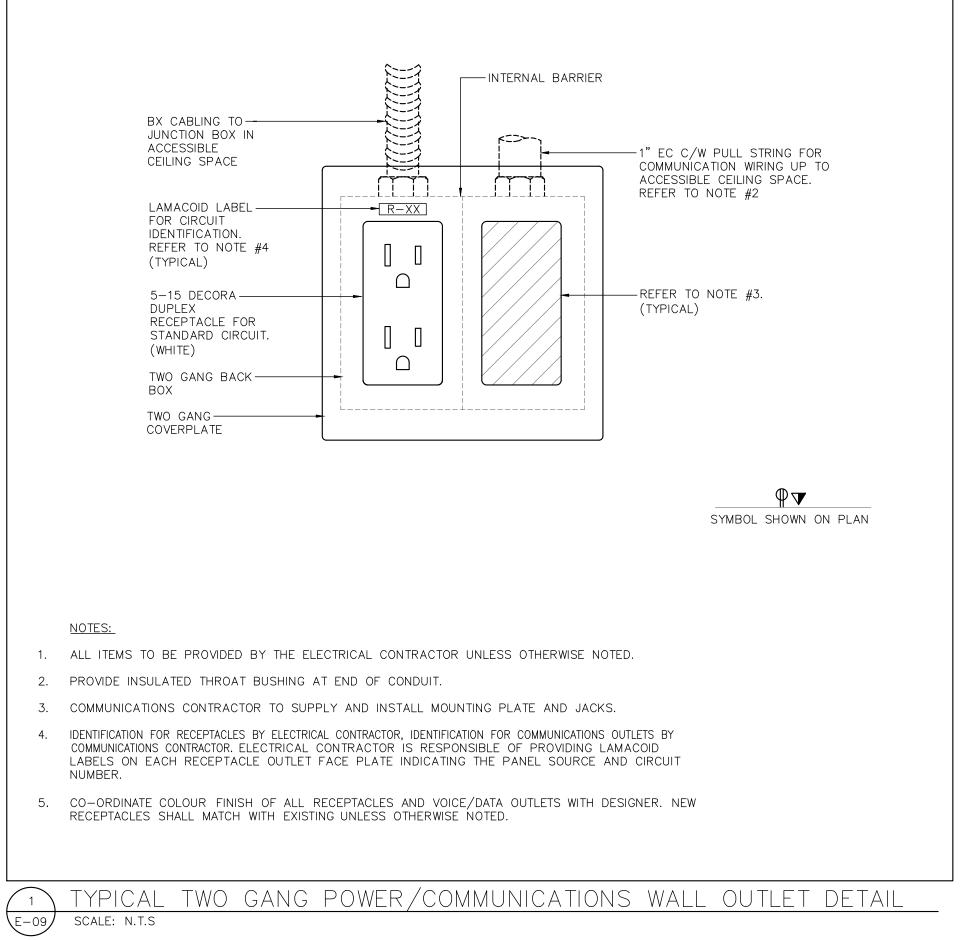
BUILDING DEPARTMENT OFFICE ALTERATIONS

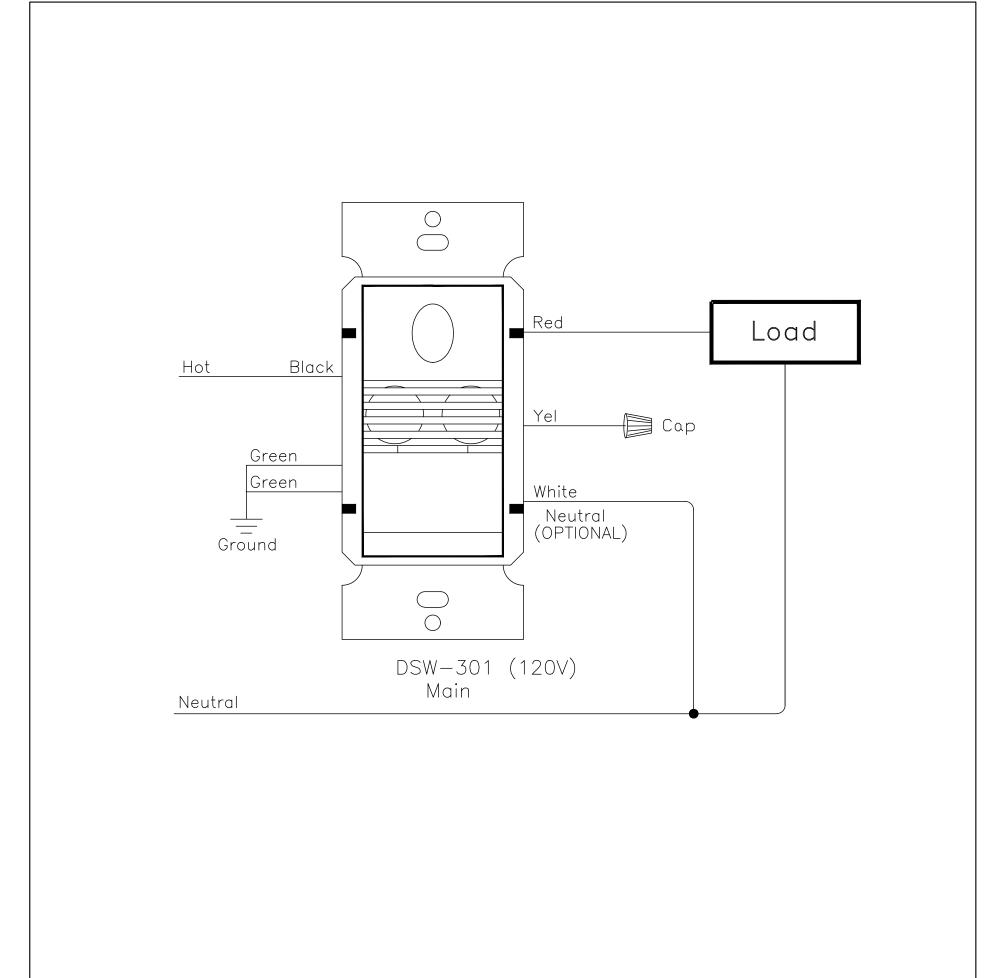
50 CENTRE ST. S, OSHAWA, ON

SCALE: AS SHOWN
DWG. BY: L.S. CHECKED BY: L.S.
STATUS:
PLOT FACTOR:

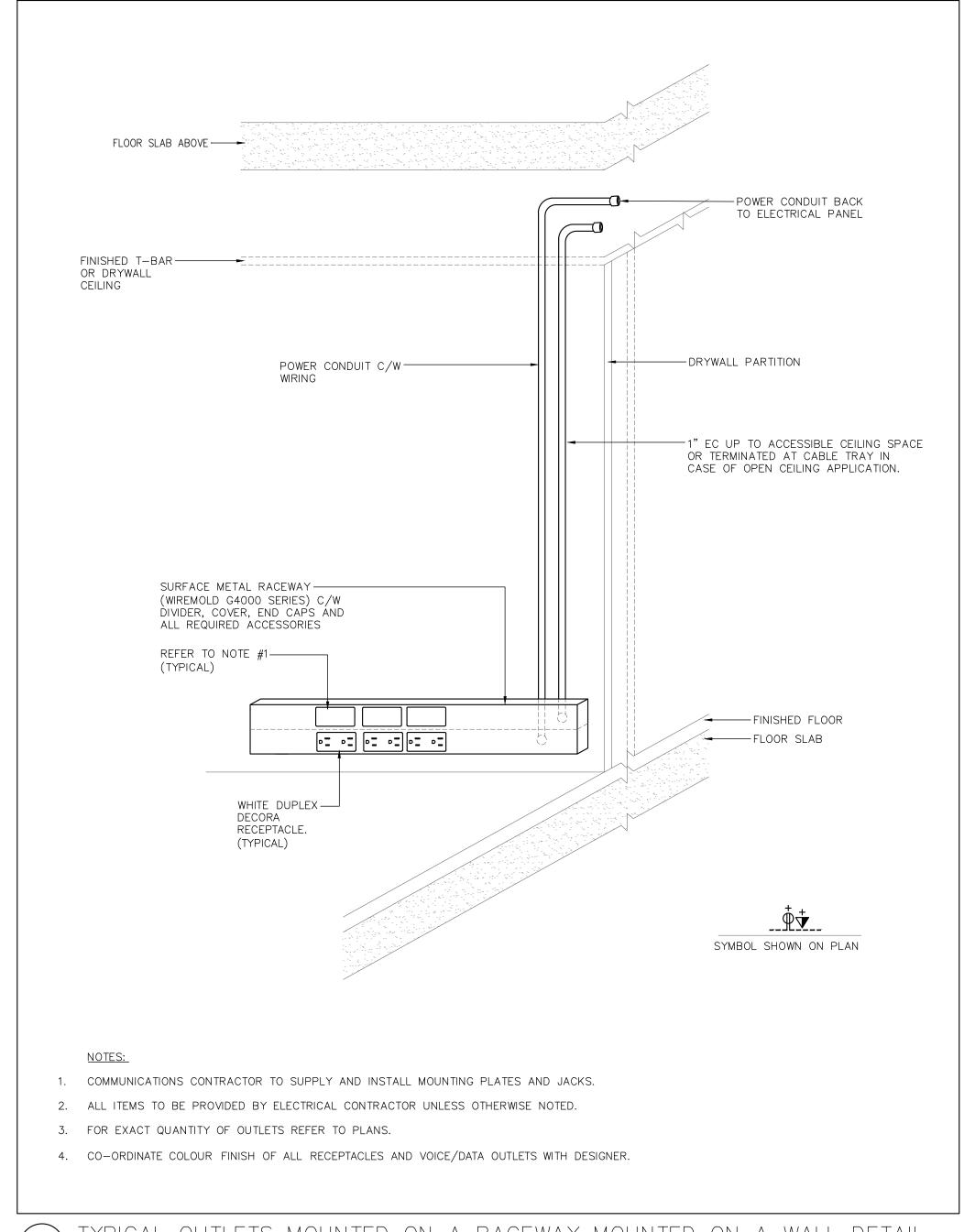
TITLE: ELECTRICAL

DETAILS PROJECT No.:









1 TYPICAL OUTLETS MOUNTED ON A RACEWAY MOUNTED ON A WALL DETAIL E-10 SCALE: N.T.S

CLIENT:

THE CITY OF OSHAWA

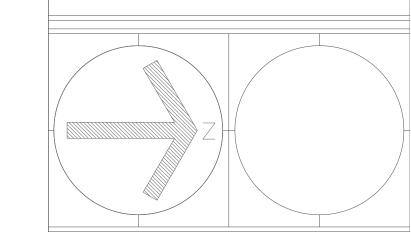


20 AMBER STREET, UNIT#6, MARKHAM, ONTARIO,L3R 5P4, Tel:(416) 824-5822, E: lina.simon@simna.ca

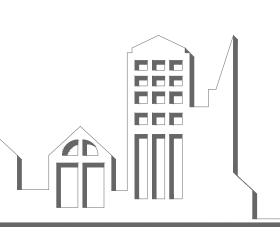


1	ISSUED FOR PERMIT/TENDER	LS	20/09/2024
No.	DESCRIPTION	BY.	DATE.

REVISIONS



J.R. FREETHY ARCHITECT



325 LAKE ROAD, SUITE 202 BOWMANVILLE ONTARIO LIC 4P8 TEL. (905) 623 7476

PROJECT:

BUILDING DEPARTMENT OFFICE ALTERATIONS

50 CENTRE ST. S, OSHAWA, ON

SCALE: AS SHOWN"

DWG. BY: L.S.

CHECKED BY: L.S.

STATUS:

PLOT FACTOR:

TITLE:

ELECTRICAL DETAILS

PROJECT No.:

24-0014

E-10