# O'CONNOR CHILD CARE CENTRE

TORONTO, ONTARIO

# CITY OF TORONTO

CLIENT

# SUSAN FRIEDRICH ARCHITECT INC.

ARCHITECTS

# LEA CONSULTING LTD.

QUASAR CONSULTING GROUP

STRUCTURAL

MECHANICAL AND ELECTRICAL

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Real Estate Division Design, Construction & Asset Preservation

DO NOT SCALE DRAWINGS.

APR 17 2024 ISSUED FOR TENDER APR 11 2024 FOR CLIENT REVIEW SSUED FOR BUILDING PERMIT FOR CLIENT REVIEW 1 FFB 23 2024 75% CLIENT REVIEW Revisions, Issues

O'Connor Child Care Centre

INTERIOR RENOVATIONS

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

TITLE PAGE

As Noted JAN 12 2024 23-40

DATE PLOTTED: APR 17 2024

#### STANDARD ABBREVIATIONS MANY WORDS OR EXPRESSIONS THAT ARE REPEATED FREQUENTLY ON THE DRAWINGS ARE ABBREVIATED TO REDUCE THE AMOUNT OF WORDING THAT MIGHT ABSCURE THE DETAILING. TO AVOID MISINTERPRETATION, THESE ABBREVATIONS ARE LISTED. WITH THEIR FULL MEANING. IN THIS SECTION. REFER ALSO TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR OTHER ABBREVIATIONS USED IN ABBREVIATIONS NOT LISTED HERE MAY BE USED IN TECHNICAL SECTIONS OF THE SPECIFICATIONS AND ARE DEFINED. IN THE SPECIFCATION SECTIONS WHERE THEY ARE USED. AB — anchor bolt FGB — folding grab bar PT — porcelain tile F'GLAS — fibreglass —— above QT — quarry tile FHC \_\_\_ fire hose cabinet — air conditioning FIN — finish or finished — Acoustic tile FIG — figure — resilient (base or flooring), ACOUST — acoustic FL, FLR — floor receptacle riser, or radius —— area drain FPRG — fire proofing —— radius, radiator — above finished floor FRR — fire resistance rating — recessed convector AGG — aggregate FTG — footing — rubber continuous base ALUM, AL \_\_\_ aluminium FUT — future ANOD — anodized GA — gauge recessed AP — acoustic pane GALV — galvanized RECP — receptacle ASPH — asphalt REINF \_\_\_\_ reinforced —— grab bar AVB, A/VB — air/vapour barrier REQ, REQ'D --- required GWB — gypsum board GWB-R \_\_\_ water resistant gypsum board REV — revised or revision — board GBBH \_\_\_ gypsum board bulkhead GL — glass — rubber flooring --- bulkhead GR — grade BLDG — building — granite or granular BLK --- block GRND \_\_\_\_ ground \_\_\_ roof hopper \_\_\_ rough opening HB \_\_\_ hose bibb BLKG — blocking HD — hand dryer ВМ --- rubber tile BOT \_\_\_ bottom —— hollow meta RUB — rubber BR --- brick HMS — hollow metal screen \_\_\_ rainwater leader BS. B/S — both sides HORIZ — horizontal S — stain SAF — safety flooring BSMT — basement HSH — handheld shower SAN — sanitary BU — built-up --- hour SCA, SCB — special coating --- height — built-up roofing \_\_\_ heater (Type A,B, etc.) \_\_\_ cash allowance —— hot water — soap dispenser SECT — section CAB — cabinet — included in contract SFPRG — sprayed fireproofing CAR — carpet ID — inside dimensions SGL — single glazed CART — carpet tile SIM \_\_\_\_ similar INSUL — insulation or insulated — catch basin or conc INT — interior block or chalkboard INV — invert C/C — centre to centre J or JAN — janitor SPEC \_\_\_\_ specifications --- cement CEM JT \_\_\_\_ joint CH \_\_\_ coat hook KO \_\_\_\_ knockout CJ — control joint SQ — square C JT — construction joint — lay—in acoustic panel CL — centre line LAT — lateral SS — stainless steel, CLG — ceiling LAV — lavatory CLNG ST or STL --- steel — caulk(ing) STD — standard — overhead lift track STM — storm CLOS — closet LS — light standard STR or \_\_\_\_ structural STRUC or STRUCT CMT — ceramic mosaic tile LWB — lightweight concrete block SV — sheet vinyl flooring --- column M \_\_\_ metres SW — switch CONC — concrete MACH — machine SWBD — switchboard COND — conduit MAT — mineral acoustic tile CONN \_\_\_ connect or connection — tread or terrazzo MAX — maximum CONST — construction MECH — mechanical MEL — melamine MET/MTL — metal

MEMB — membrane

MEZZ \_\_\_\_ mezzanine

MFD — manufactured MFR — manufacture(r)/min

fire rating

---- make good

MGTME \_\_\_\_ make good to match

— manhole

- miscellaneous

— moisture resistance

— not included in contract

\_\_\_ millimetres

MO — masonry opening

MRT — marble tile

MT — mosaic tile

N/A \_\_\_ not applicable

NTS — not to scale

— overall

- on centre

— overhead

OFS — overflow scuppers

OWSJ — open-web steel joist

PB-1 — B/F push button — to lock

PA \_\_\_ public address

PB — B/F push button

PC or PCC—— precast concrete

PE — porcelain enamel

PERIM — perimeter

PERF — perforate(d)

PL — plaster, plate, or property line

PLAM \_\_\_\_ plastic laminate

PLT — plate

PLSTR — plaster

PLYWD — plywood

PNL — panel

PTN — partition

PEP \_\_\_\_ porcelain enamel panel

— prefinished

PTD \_\_\_\_ paper towel dispenser

OPNG — opening

P \_\_\_ paint

OPP — opposite

— obscure glass

--- number

MTD \_\_\_ mounted

NOM — nominal

CPC — cement plaster ceiling

CRC — cold rolled chanel

--- countersunk

— centre

— cold water

CWT \_\_\_ ceramic wall tile

DB1, DB2 — decorative block

— door grille

— diameter

— dimensior

— door operato

— division

--- down

— drain

— drawing

— elevator

— electrical panel

— electric water cooler

membrane

fire damper

\_\_\_ fire extinguisher

FEC \_\_\_\_ fire extinguisher cabinet

— force flow heater

Finished Floor

— exposed waterproofing

EMERG — emergency

ENCL — enclosure

EQ — equal

EQUIP — equipment

EXH — exhaust

EXIST — existing

EXP — exposed

EXT — exterior

FA — fire alarm

FDN — foundation

FD — floor drain, or

EX JT —— expansion joint

— downspout

— emergency call system

— electrical change table

— double glazed

—— detail

—— ceramic tile

CWP — crystalline waterproofing

— drinking fountain

CRS — courses

CTR

RFG — rigid fiberglass (insul.) — resilient sheet flooring. — rubber sports flooring — sanitary napkin disposa — sanitary napkin receptacle SPD — standard proctor density SPF — sports surface flooring SRC — semi-recessed convector TD \_\_\_\_ toilet tissue dispenser TDD — towel dispenser and disposal unit \_\_\_\_ telephone TER — terrazzo TME \_\_\_\_ to match existing T/0 \_\_\_\_ top of TP — telephone pole TRANSF — transformer TRR — temperature rise rating T'STAT — thermostat TT — terrazzo tile TYP — typical U — up UC — undercut U/F \_\_\_ unfinished UFD — underfloor duct

UNO \_\_\_ unless noted otherwise

U/P or UP—— under painted

VAR \_\_\_\_ variable or varies

VAT — vinyl asbestos tile

VCT \_\_\_\_ vinyl composition tile

VENT — ventilated, ventilator or

VB — vapour barrier

U/S — underside

V \_\_\_\_ varnish

VERT \_\_\_\_ vertical

VEST — vestibule

VF — vinyl faced

VT — vinyl tile

WIN — window

WDW — window

W/ with

WP \_\_\_\_ waterproof

WR — washroom

WPFG \_\_\_\_ waterproofing

WPG — wired plate glass

VWP — vinyl wall panel

WBLKG — wood blocking

VOL \_\_\_\_ volume

# **GENERAL NOTES**

- ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT DRAWINGS MUST NOT BE SCALED. THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE PRIOR TO PROCEEDING. DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK AFFECTED, FOR DIRECTION.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO REQUIREMENTS OF THE ONTARIO BUILDING CODE LATEST EDITION AND THE OCCUPATIONAL HEALTH AND SAFETY ACT/REGULATIONS FOR CONSTRUCTION PROJECTS. COMPLY WITH ALL MUNICIPAL REGULATIONS.
- CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
- NOTIFY THE CONSULTANT PRIOR REMOVING ANY PORTION OF THE BUILDING THAT APPEARS TO BE STRUCTURAL REGARDLESS OF THE NOTATION ON THE DRAWINGS AND
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING BUILDING AND EQUIPMENT AND REPAIR SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT REPAIR ALL EXISTING JOINTS, FINISHES, ADJACENT SURFACES ETC. WHERE NEW WORK JOINS PROTECT

EXISTING FROM DAMAGE DURING WORK. REPAIR ANY

KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.

DAMAGE THAT SHOULD OCCUR.

REGULATIONS.

# **DEMOLITION NOTES**

- 1. ALL EXISTING ITEMS NOT INCORPORATED INTO THE REVISED LAYOUT TO BE REMOVED AND DISPOSED.
- DISPOSE OF MATERIALS IN LEGAL LANDFILL OR RECYCLING SITES IN ACCORDANCE WITH THE REGION OF YORK
- ALL EXISTING SURFACES AND PARTITIONS ETC. WHICH ARE TO REMAIN SHALL BE PROTECTED DURING DEMOLITION.
- MAKE GOOD ALL DISTURBED SURFACES, ADJACENT FLOORS, WALLS AND CEILINGS TO MATCH EXISTING AFTER COMPLETION OF WORK, UNLESS OTHERWISE NOTED.

# **CONSTRUCTION NOTES**

- MAINTAIN ANY EXISTING FIRE RATED SEPARATIONS & ASSEMBLIES. MAKE GOOD ANY FIREPROOFING DISTURBED BY CONSTRUCTION.
- 2. GENERAL CONTRACTOR SHALL CUT WALLS, FLOOR ETC., FOR MECHANICAL AND ELECTRICAL ACCESS AND SERVICES TO SUIT REQUIRED DIMENSIONS.
- 3. FILL ALL OPENINGS & CRACKS DUE TO REMOVAL OF EXISTING FLOORS & WALLS.
- MAKE GOOD ALL PENETRATIONS THROUGH FIRE SEPARATIONS. ALL PENETRATIONS TO BE SEALED WITH RATED MATERIAL. REPAIR EXISTING SPRAYED ON FIREPROOFING AT ALL EXISTING DAMAGED AREAS AND WHERE DISTURBED BY THE WORK OF THIS CONTRACT, MAXIMUM FLAME - SPREAD RATING OF 150 FOR ALL INTERIOR FINISHES.
- MODIFY TELEPHONE, ELECTRICAL, ALARM & HVAC AS REQUIRED REFER TO M&E DRAWINGS.
- 6 ALL EXPOSED DUCTWORK CONDUIT AND M/E FOLIPMENT TO BE PAINTED TO MATCH ADJACENT SURFACES UNLESS SPECIFICALLY NOTED. CONFIRM ALL FINISHES WITH ARCHITECT PRIOR TO
- 7. SEE M & E DRAWINGS FOR RE-LOCATION AND/OR REMOVAL OF OBSOLETE EQUIPMENT. PATCH & MAKE GOOD AND FINAL FINISH TO MATCH NEW CONDITION
- 8. HAZARDOUS AND DESIGNATED SUBSTANCES IF HAZARDOUS MATERIALS / DESIGNATED SUBSTANCES ARE ENCOUNTERED DURING CONSTRUCTION. OWNER IS TO BE NOTIFIED IMMEDIATELY. MATERIALS ARE NOT TO BE REMOVED BY CONTRACTOR. CONTRACTOR TO COORDINATE W/ OWNER AND OWNER'S CONTRACTOR.
- 9. ENTIRE FLOOR AREA: PROVIDE COVERS FOR ALL OPENINGS, SOCKETS, ETC. TO EXISTING UNDER FLOOR RACEWAY SYSTEM, PATCH OVER AND SEAL. ALL CUTTING, DRILLING AND BORING OF EXISTING FLOOR OR STRUCTURAL CEILING SLAB MUST ENSURE INTEGRITY OF STRUCTURAL SYSTEM (IE. REBAR, STEEL, ETC.) FIRE PROTECTION AND AIR TIGHTNESS ARE MAINTAINED.
- 10. COORDINATE ALL CUTTING AND PATCHING AROUND SERVICES ETC PENETRATING EXISTING OR NEW WALLS TO MAINTAIN STRUCTURAL, FIRESTOPPING, AIR TIGHTNESS INTEGRITY AND APPEARANCE. FINISH ALL OPENINGS AROUND DUCTS & OTHER OPENINGS, ETC WITH DRYWALL PRIOR TO DUCT PLACEMENT-TAPE, SEAL & PRIME. PROVIDE FIRE STOPPING / AIR BARRIER SEALANT BETWEEN DUCT, ETC. AND DRYWALL PERIMETER. MAKE GOOD ALL SURFACES FOR FINAL FINISH.
- EQUIPMENT LOCATIONS INDICATED ARE FOR INFORMATION ONLY -
- 12. MODIFY CEILING & LIGHTING AT EXISTING AREAS AS REQ'D
- 13. CONTRACTOR SHALL CHALK LINE ALL PARTITIONS AND EQUIPMENT POSITIONS FOR REVIEW & APPROVAL BY OWNER PRIOR TO COMMENCEMENT OF WORK. IF CONFLICT ARISES BETWEEN DRAWINGS AND FIELD MEASUREMENTS THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ARCHITECT FOR DIRECTION. AT NO TIME
- 14. ALL ELECTRICAL BOXES, PENETRATIONS, ETC. THROUGH WALLS
- 15. ELECTRONIC COPIES OF THE ARCHITECTURAL DRAWINGS FOR THIS PROJECT FOR USE IN THE PREPARATION OF SHOP DRAWINGS AND AS-BUILT DRAWINGS (AND FOR NO OTHER PURPOSE) ARE AVAILABLE.DRAWINGS ARE IN AUTOCAD (LATEST VERSION) FILE FORMATS. THE DRAWINGS ARE AVAILABLE AS-IS AND AT A COST OF \$100.00 PER DRAWING WITH A MINIMUM OF \$400.00 PER SUBMISSION. THE DRAWINGS WILL BE PROVIDED WITHOUT ANY TITLE BLOCKS OR

# DRAWING SYMBOL LEGEND

NOTE: NOT ALL TYPES ARE NECESSARILY USED ON THIS PROJECT.



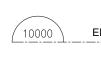
BUILDING CROSS SECTION . SECTION NO. AND SHEET DRAWN ON



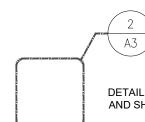
WALL CROSS SECTION, SECTION NO. AND SHEET DRAWN ON



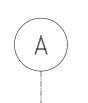
INTERIOR ELEVATION REFERENCE NUMBERS INDICATE VIEW NUMBER



**ELEVATION DATUM** 



DETAIL REFERENCE BUBLE, DETAIL NO. AND SHEET DRAWN ON



GRID LINE AND BUBBLE REFERENCE



DETAIL REFERENCE BUBLE, CEILING TYPE AND CEILING HEIGHT A.F.F.



DOOR NUMBER - FIRST FLOOR AT ROOM NO. A105



WINDOW NUMBER



SCREEN NUMBER

**ROOF TYPE** 

WALL TYPE

NAME

ROOM NAME AND NUMBER

EXISTING FINISH FLOOR ARE APPROXIMATE; SITE VERIFY PRIOR TO COMMENCING CONSTRUCTION

EXISTING WALL

TO REMAIN

NEW FINISH FLOOR ELEVATION

**EQUIPMENT NOT IN CONTRACT** 

# **DEMOLITION LEGEND**

ı, ı	EXISTING DOOR TO REMAIN	-
	DOOR TO BE DEMOLISHED	
1		

WALL TO BE DEMOLISHED ACT TO BE EXISTING ACT DEMOLISHED TO REMAIN

DENOTES: EXISTING DEVICE TO BE REMOVED AND DISPOSED

//////// NEW WALL

NEW 1 HR FRR

CONSTRUCTION LEGEND

DENOTES: EXISTING DEVICE TO REMAIN DENOTES: EXISTING DEVICE TO BE RELOCATED

EXISTING 1 HR FRR

**NEW ACT** 

DENOTES: NEW DEVICE

DENOTES: EXISTING RELOCATED DEVICE

- REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR LIGHT FIXTURES, GRILLES, DIFFUSERS & DEVICES. LOCATIONS TO BE CONFIRMED.
- 11. ALL EQUIPMENT LOCATIONS TO BE COORDINATED WITH THE OWNER. CONTRACTOR TO COORDINATE INTERACTING TRADES TO FACILITATE FULL OPERATION WHEN THE EQUIPMENT IS INSTALLED BY OWNER.
- SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.
- DESIGNATED TO BE AIR-TIGHT TO BE AIR SEALED.

# WALL TYPE SCHEDULE

CONSTRUCTION

WALL

TYPE

< P1

〈 P2 〉

〈 P3 〉

- . ALL PENETRATIONS IN FIRE RATED WALLS & JUNCTIONS TO BE FIRESTOPPED & SEALED WITH RATED MATERIAL. ALL WALLS, EXCEPT NOTED AS LOW WALL, TO EXTEND TO U/S OF STRUCTURE AND TO BE FIRESTOPPED & SMOKE SEALED WITH RATED MATERIAL TO DECK, SLAB & ADJ. WALLS. ALL PARTITION DIMENSIONS TO FACE OF GYPSUM WALL BOARD OR FACE OF BLOCK, TYPICAL.
- 4. ALL OUTSIDE CORNERS OF GWB PARTITIONS TO BE PROTECTED WITH 1200 HIGH STAINLESS STEEL CORNER GUARDS, LAMINATED TO GWB FINISH (NO MECHANICAL FASTENERS). REFER SPECIFICATION. PROVIDE SOLID WOOD BACKUP AT ALL WASHROOM ACCESSORIES, CUBBIES, UPPERS ETC. (TYPICAL)

CONCRETE BLOCK 90mm 75% SOLID 140mm STANDARD

DESCRIPTION

INTERIOR ACOUSTIC WALL PARTITION

152mm METAL STUDS @ 600mm O.C.

ULL HEIGHT INTERIOR ACOUSTIC WALL ARTITION TO MATCH EXISTING WALL

±92mm METAL STUDS @ 600mm O.C.

16mm IMPACT-RESISTANT GWB

16mm IMPACT-RESISTANT GWB

16mm IMPACT-RESISTANT GWB

16mm IMPACT-RESISTANT GWB

INFILL WALL PARTITION TO MATCH

EXISTING (TYPICAL)

127mm ACOUSTIC BATTS

140mm 75% SOLID 190mm 75% SOLID

AND SOUND

MINIMUM FIRE RATING

TRANSMISSION CLASS

SOUND: NRC TL-93-324

SOUND: RAL-TL-83-216 Corporate Services Facility & Real Estate Division Design, Construction & Asset Preservation METRO HALL - SECOND FLOOR 55 JOHN ST. TORONTO, ONT. M5V 3C6

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643 St. Clair St. West, Toronto, Ontario M6C 1A7 Telephone (416) 588-3740 Fax 588-2401

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# CEILING FIRE RESISTANCE RATING

# CONSTRUCTION

1. RATING BY MEMBRANE ONLY AS PER OBC SB 2TABLE 2.3.12 DESCRIPTION OF MEMBRANE: DOUBLE 16 MM TYPE "X" GYPSUM BOARD 64MM(18MILS)STEEL STUDS@406 O.C.

FASTEN BASE LAYER PERPENDICULAR TO SUPPORTS WITH 25MM SCREWS SPACED 300MM O.C. FASTEN FACE LAYER PERPENDICULAR TO SUPPORTS WITH 41MM SCREWS SPACED 300MM O.C. JOINS MUST BE OFFSET. TAPE AND FINISH JOINTS.

ALL PENETRATION TO BE FIRE STOPPED IN CONFORMANCE WITH ARTICLE 3.1.9.1 OF DIVISION B OF BUILDING CODE.

2. EXISTING ACT CEILING TO REMAIN. (1HR FRR ASSEMBLY) PATCH AND MAKE GOOD TO MATCH EXISTING.

> ISSUED FOR TENDER APR 17 2024 APR 11 2024 FOR CLIENT REVIEW MAR 22 2024 SSUED FOR BUILDING PERMIT MAR 19 2024 FOR CLIENT REVIEW

> > 75% CLIENT REVIEW

Revisions, Issues

INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

LEGEND AND GENERAL NOTES

As Noted JAN 12 2024

DATE PLOTTED: MAR 19 2024

23-40

Name of Practice: Susan Friedrich Architect Inc 643 St Clair Ave West Toronto ON M6C 1A7

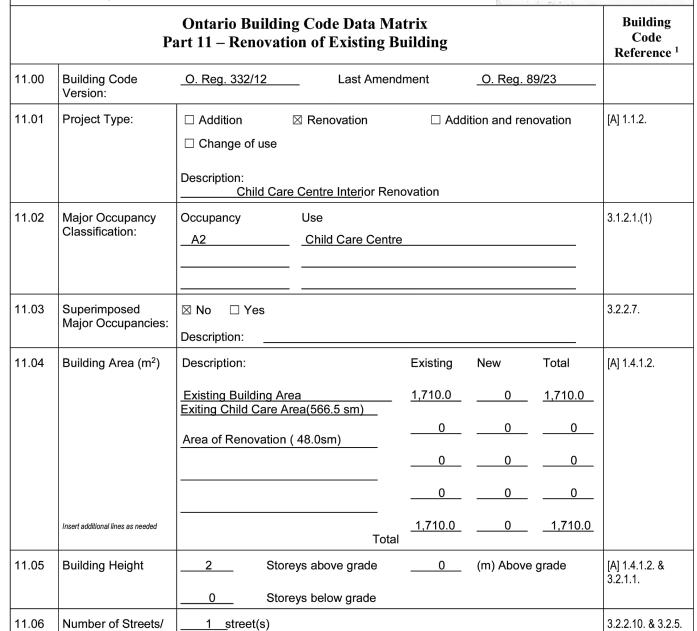
Name of Project: O'Connor Child Care Centre Interior Renovation

1386 Victoria Park Avenue, Toronto, ON M4A 2L8



Firefighter access

11.07 | Building Size



 $\square$  Medium oxtimes Large

□ > Large

T.11.2.1.1.B.-N.

11.08	Existing Building Classification:	Change in Major Occupand	cy: □ Yes 🏻	Not Applicab (no change o		pancy)	11.2.1.1.
		Construction Index:	0				T 11.2.1.1A
		Hazard Index:	0				T 11.2.1.1B to N
		1 .		□ Normal □ Post-disaste	er		4.2.1.(3), 5.2.2.1.(2)
11.09	Renovation type:	□ Basic Renovation □	Extensive F	Renovation			11.3.3.1. 11.3.3.2.
11.10	Occupant Load EXISTING	Floor Level/Area	Occupancy <u>Type</u>	Based On		ipant Load sons)	3.1.17.
	LAIGTING			_		0	
				_		0	
				_		0	
	Insert additional lines as needed					0	
11.11	Plumbing Fixture Requirements	Ratio: <u>M/F = 1/1 Exc</u>	cept as othe	rwise noted			3.7.4.
			<u>Occupant</u> <u>Load</u>	OBC Reference	<u>Fixtures</u> <u>Required</u>	<u>Fixtures</u> <u>Provided</u>	
			0		0	0_	
			0		0	0	
			0		0	0	
	Insert additional lines as needed		0		0	0	
11.12	Barrier-free Design:	x Yes Explanation OBC REQU	n – NEW RE UIREMENTS	ENOVATION A	<u>S</u> PER CURF	RENT	11.3.3.2.(2)
11.13	Reduction in	Structural:		⊠ No	□ Yes		11.4.2.1.
	Performance Level:	By Increase in occupant lo	ad:	⊠ No	□ Yes		11.4.2.2.
		By change of major occupa	ancy:	⊠ No	□ Yes		11.4.2.3.
		Plumbing:		⊠ No	□ Yes		11.4.2.4.
		Sewage-systems:		⊠ No	□ Yes		11.4.2.5.
		Extension of combustible construction:		⊠ No	□ Yes		11.4.2.6.

11.14	Compensating	⊠ No □ Yes	11.4.3.1,							
	Construction:	Structural: ⊠ No □ Yes <u>(Describe)</u>	11.4.3.2,							
		Increase in occupant load: ⊠ No □ Yes <u>(Describe)</u>	11.4.3.3,							
		Change of major occupancy: ⊠ No ☐ Yes <u>(Describe)</u>	11.4.3.4,							
		Plumbing: ⊠ No □ Yes <u>(Describe)</u>	11.4.3.5,							
		Sewage systems: ⊠ No □ Yes <u>(Describe)</u>	11.4.3.6,							
		Extension of combustible construction:	11.4.3.7.							
11.15	Compliance Alternatives	⊠ No □ Yes _(list numbers and describe)								
	Proposed:	(list numbers and describe)	_							
		(list numbers and describe)								
11.16	Notes:		11.5.1.							
			_							
	Insert additional lines as needed									

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APR 17 2024 ISSUED FOR TENDER FOR CLIENT REVIEW APR 11 2024 1 MAR 22 2024 ISSUED FOR BUILDING PERMIT Revisions, Issues

INTERIOR RENOVATIONS

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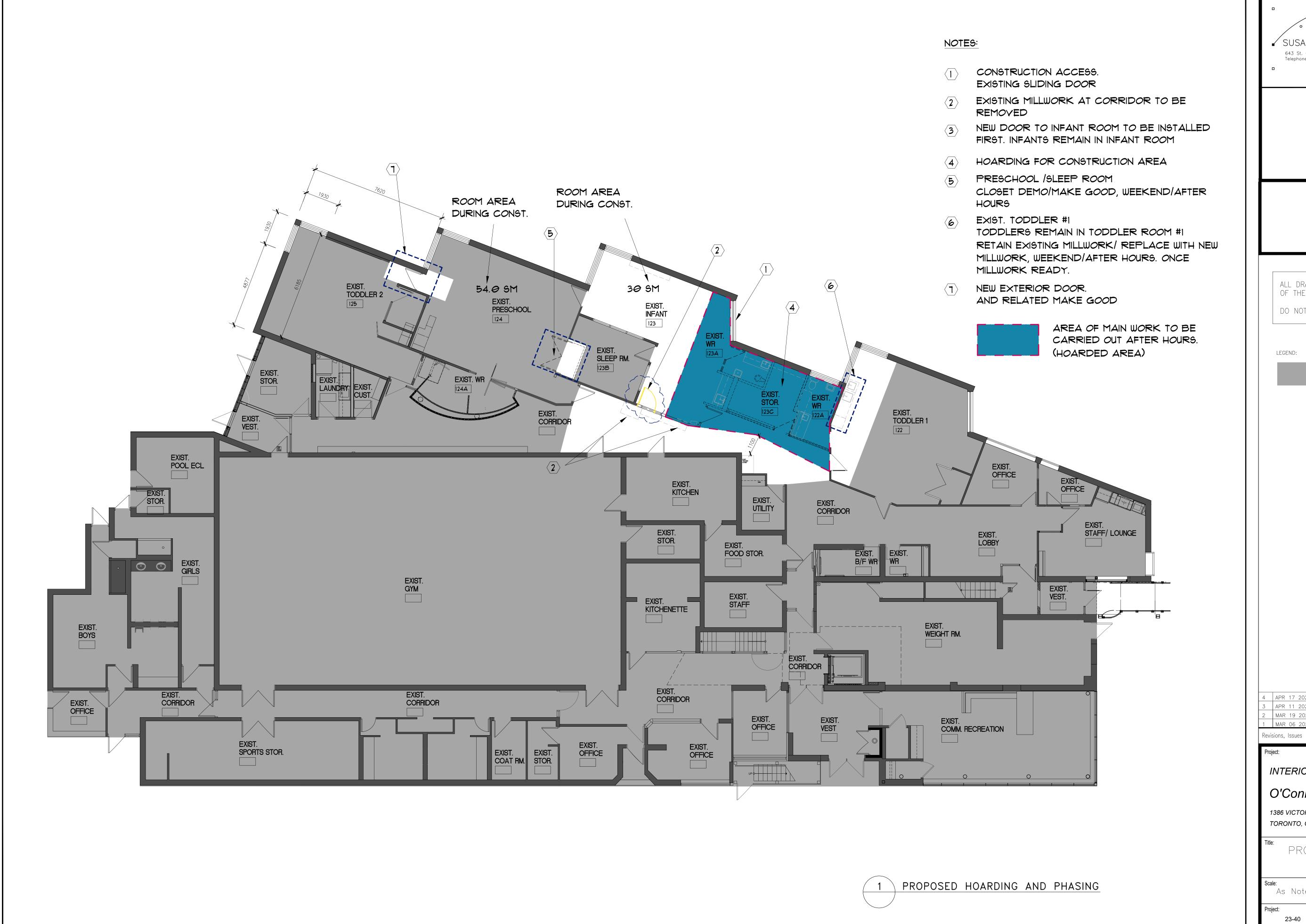
OBC DATA MATRIX

As Noted MAR 06 2024

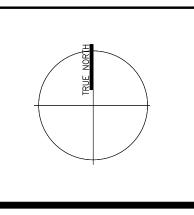
Ontario Building Code Data Matrix, Part 11

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23-40







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LEGEND:

DENOTES EXISTING BUILDING (NOT AREA OF WORK)

4	APR 17 2024	ISSUED FOR TENDER
3	APR 11 2024	FOR CLIENT REVIEW
2	MAR 19 2024	FOR CLIENT REVIEW
1	MAR 06 2024	ISSUED FOR CLIENT REVIEW

INTERIOR RENOVATIONS

O'Connor Child Care Centre

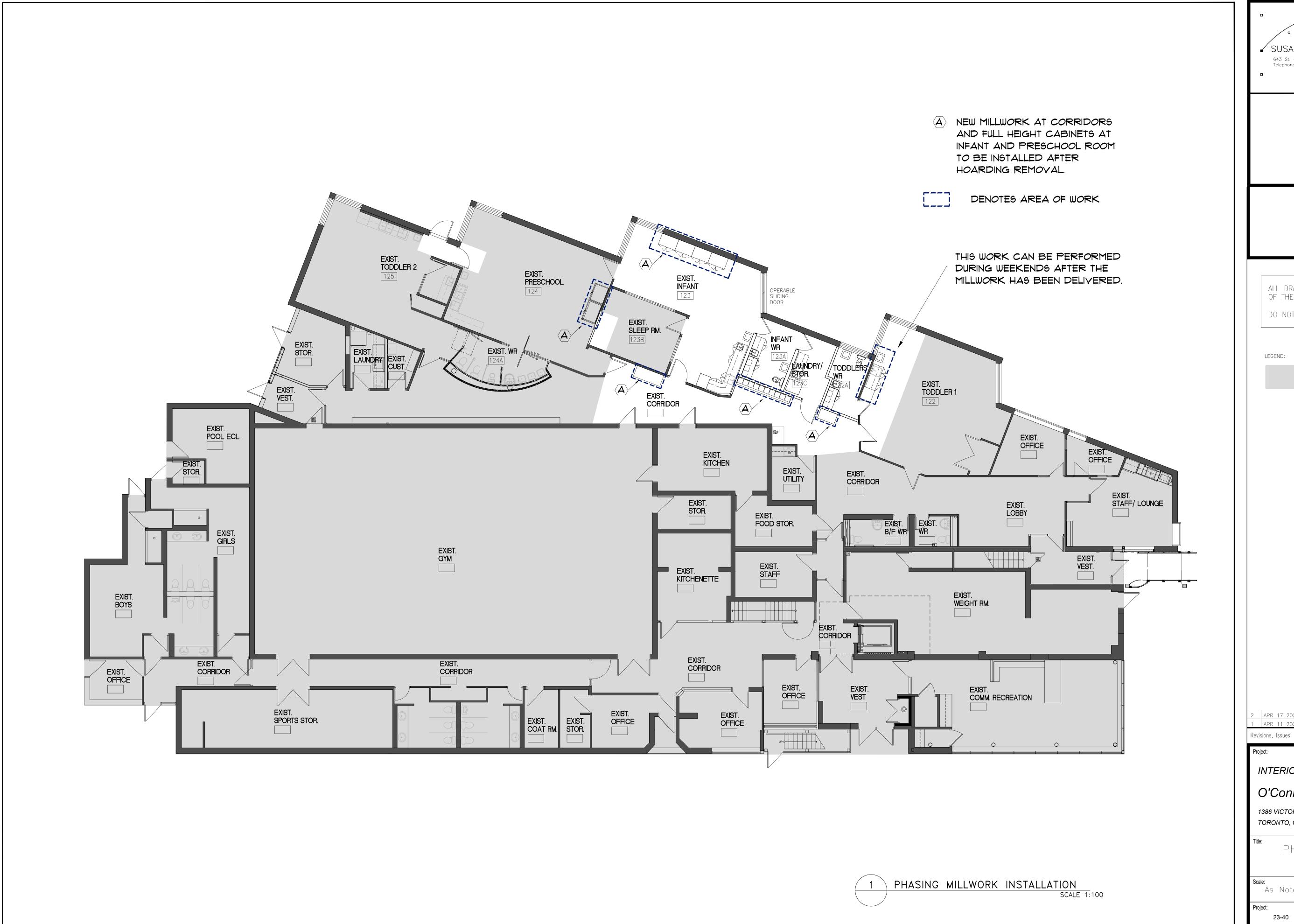
1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

PROPOSED HOARDING /PHASING

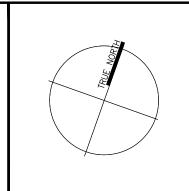
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INTERIOR RENOVATIONS

O'Connor Child Care Centre

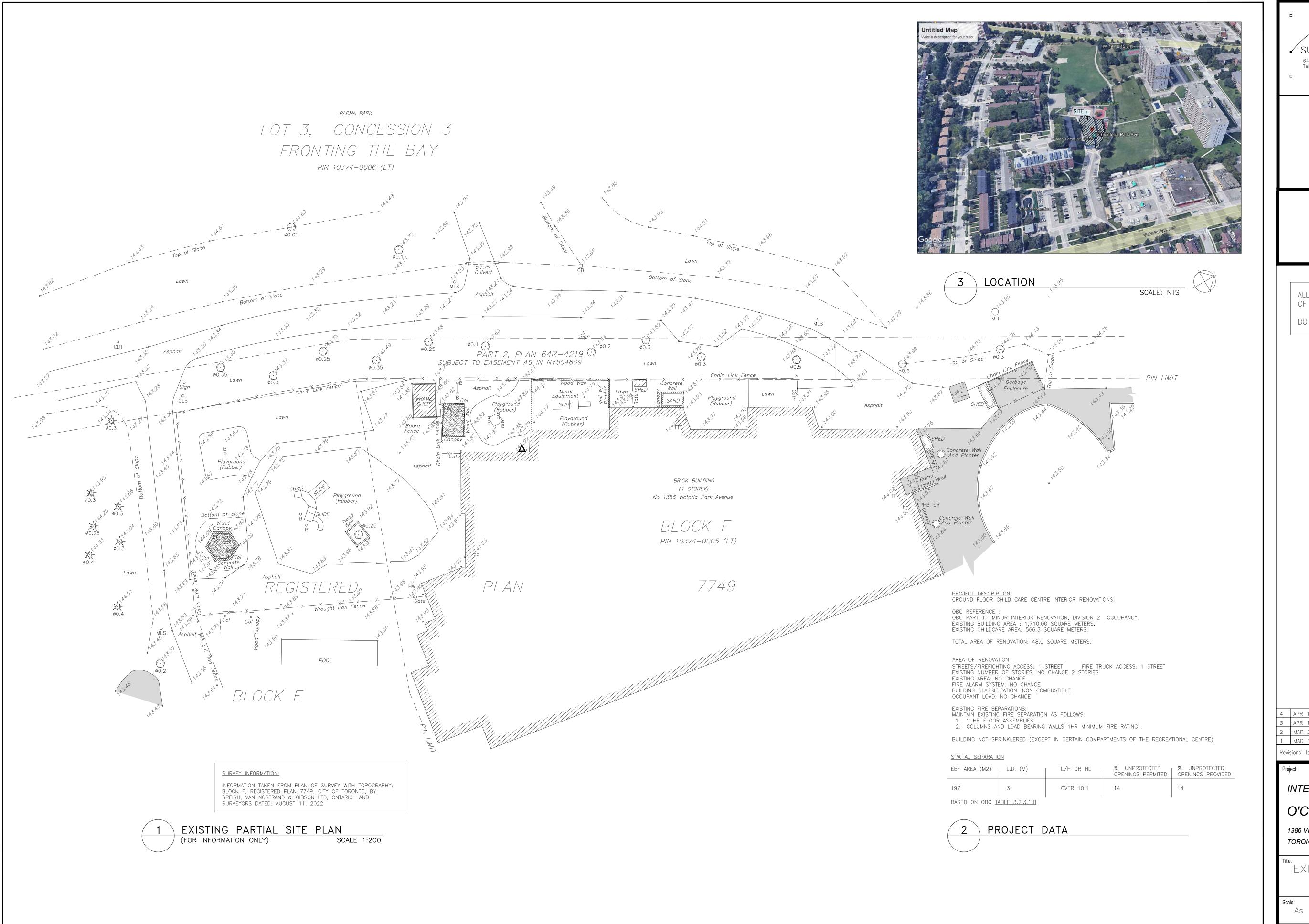
1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

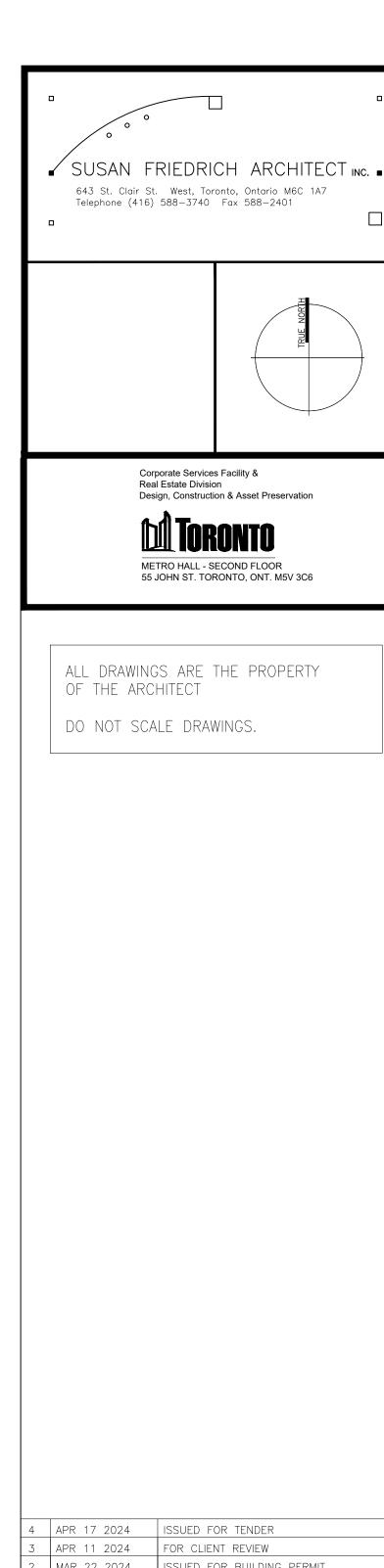
> PHASING MILLWORK INSTALLATION

As Noted

MAR 06 2024

DATE PLOTTED: APR 17 2024





	4	APR 17 2024	ISSUED FOR TENDER
	3	APR 11 2024	FOR CLIENT REVIEW
	2	MAR 22 2024	ISSUED FOR BUILDING PERMIT
	1	MAR 19 2024	FOR CLIENT REVIEW
	Revis	sions. Issues	

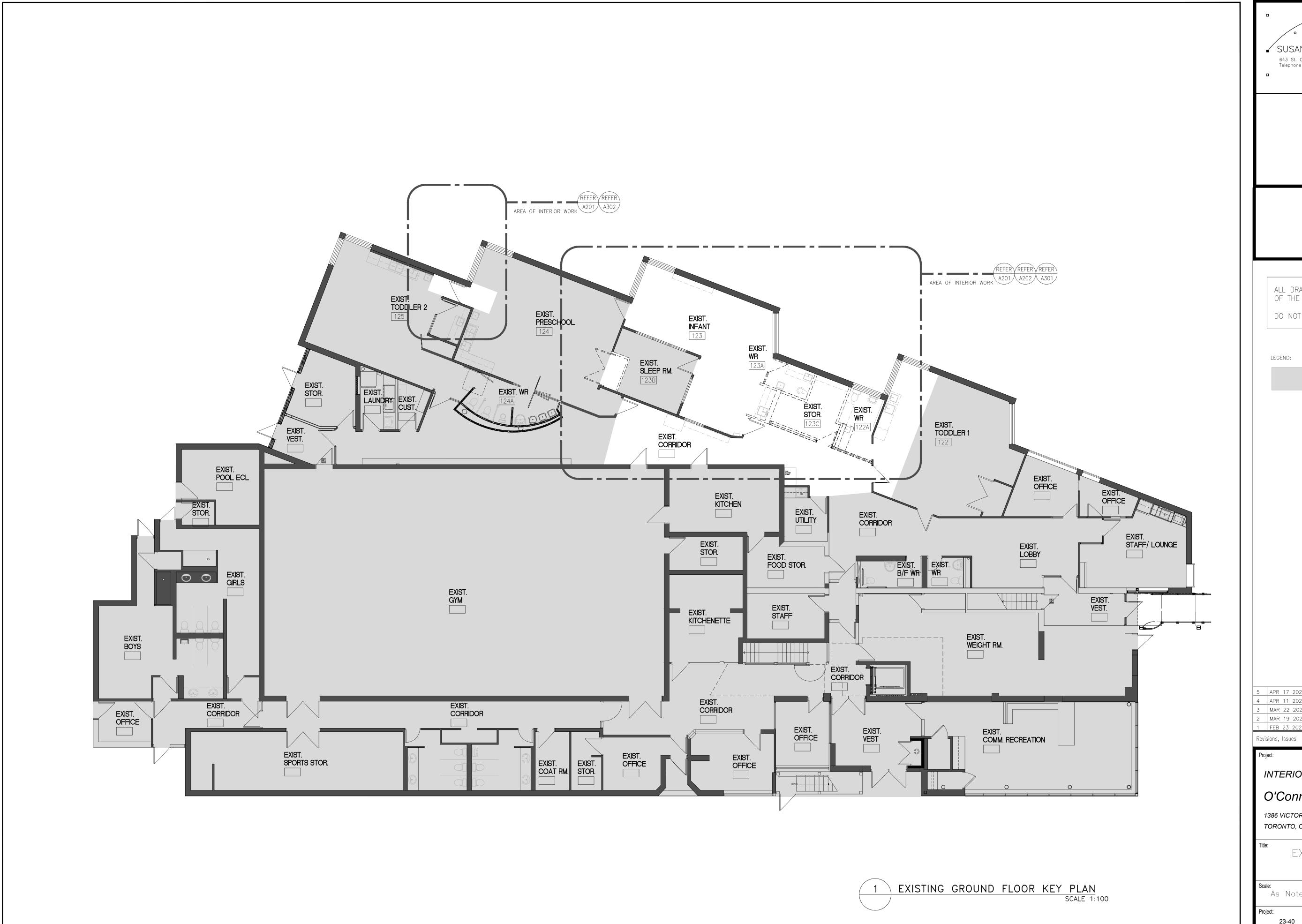
INTERIOR RENOVATIONS

O'Connor Child Care Centre 1386 VICTORIA PARK AVENUE

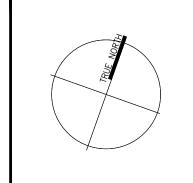
TORONTO, ON M4A 2L8

EXISTING PARTIAL SITEPLAN

Scale:	Date:	Drawing:
As Noted	JAN 12 2024	
		[ [ [ [ ]
Project:	Drawn By:	<i> </i>
23-40		



SUSAN FRIEDRICH ARCHITECT INC. 643 St. Clair St. West, Toronto, Ontario M6C 1A7 Telephone (416) 588—3740 Fax 588—2401



Corporate Services Facility & Real Estate Division Design, Construction & Asset Preservation

METRO HALL - SECOND FLOOR 55 JOHN ST. TORONTO, ONT. M5V 3C6

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DENOTES EXISTING BUILDING (NOT AREA OF WORK)

	5	APR 17 2024	ISSUED FOR TENDER
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	2	MAR 19 2024	FOR CLIENT REVIEW
	1	FEB 23 2024	75% CLIENT REVIEW

INTERIOR RENOVATIONS

O'Connor Child Care Centre

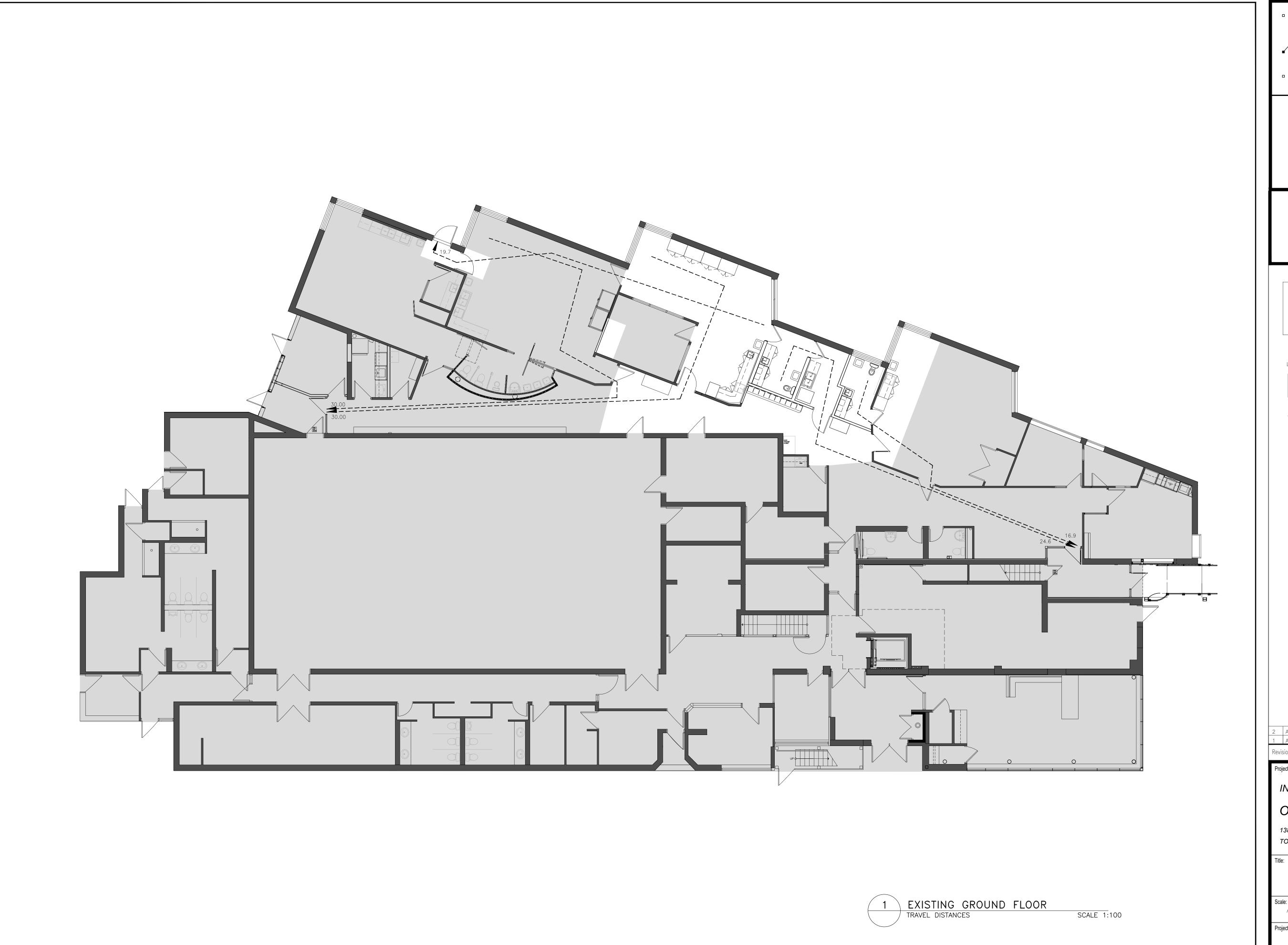
1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

EXISTING KEY PLAN

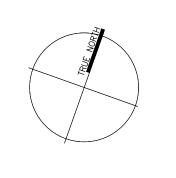
As Noted

JAN 12 2024 23-40

DATE PLOTTED: APR 02 2024



SUSAN FRIEDRICH ARCHITECT INC. . 643 St. Clair St. West, Toronto, Ontario M6C 1A7 Telephone (416) 588—3740 Fax 588—2401



Corporate Services Facility & Real Estate Division Design, Construction & Asset Preservation

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LEGEND:

DENOTES EXISTING BUILDING (NOT AREA OF WORK)

DENOTES TRAVEL DISTANCE

2 APR 17 2024 ISSUED FOR TENDER
1 APR 11 2024 FOR CLIENT REVIEW

Revisions, Issues

INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

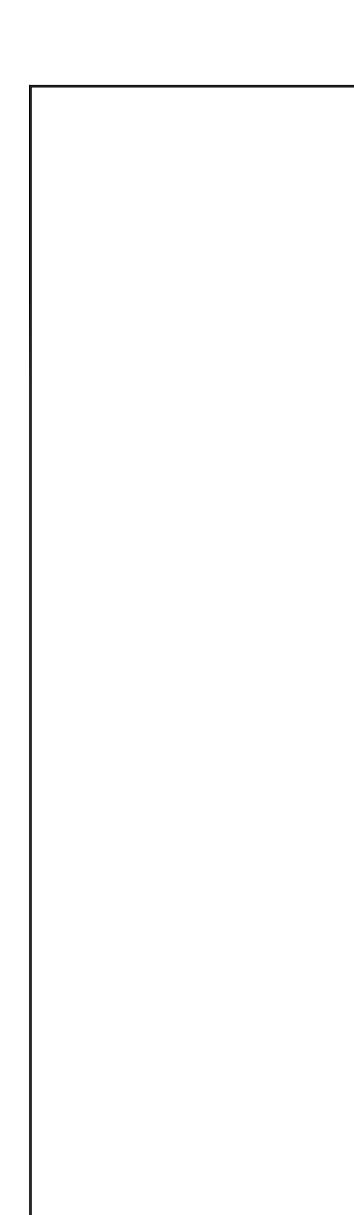
TRAVEL DISTANCE

Scale:

As Noted

MAR 25 2024 23-40

DATE PLOTTED: APR 15 2024



### DEMOLITION NOTES:

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

# 1 AT EXISTING TODDLER 2 ROOM #125:

- \_ REMOVE CAREFULLY PART OF EXISTING EXTERIOR MASONRY WALL FOR NEW DOOR
- REFER STRUCTURAL DWGS FOR ALL STRUCTURAL SUPPORT AND DETAILS
   ALL EXISTING MASONRY CUT TO BE REPLACED WITH NEW BULLNOSED SOLID BLOCK JAMBS & HEAD TO MATCH EXISTING (TYPICAL)
- G.C. TO MAKE SURE TO PROVIDE MINIMUM 200MM INSULATED HM FRAME
   PATCH AND MAKE GOOD ALL DISTURBED AREA (INTERIOR AND EXTERIOR) TO MATCH
  FXISTING
- A EXISTING DOOR AND FRAME TO BE CAREFULLY REMOVED AND REPLACED WITH NEW DOOR & FRAME AS PER NEW LAYOUT

- PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING

# 2 AT EXISTING INFANT ROOM #123:

- PART OF EXISTING GWB WALL AND SCREEN TO BE CAREFULLY REMOVED FOR NEW DOOR
- EXISTING DOOR, GWB WALL, MILLWORK W/ SINK TO BE CAREFULLY REMOVED INFILL OPENINGS TO MATCH EXISTING AS PER NEW LAYOUT
- EXISTING FLOOR FINISHING TO REMAIN EXISTING
   PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING

# AT EXISTING WR #123A:

- EXISTING DOOR, SCREEN, GWB WALLS, MILLWORK AND WASHROOM FIXTURES ETC.
  TO BE CAREFULLY REMOVED
- EXISTING FLOOR FINISHES AND BASE TO BE CAREFULLY REMOVED
   PREPARE EXISTING FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED.

# 3A AT EXISTING SLEEP ROOM #123B:

- PART OF EXISTING PARTITION TO BE REMOVED
   EXISTING DOUBLE DOORS AT EXISTING PRESCHOOL #124 TO BE REMOVED AND INFILLED
- PATCH, MAKE GOOD AND PAINT ALL DISTURBED AREA (FLOOR, CEILING AND WALLS) TO MATCH EXISTING

### 4 AT EXISTING STORAGE ROOM #123C:

- EXISTING FLOOR FINISHES (CT), BASE AND MILLWORK TO BE CAREFULLY REMOVED
   PREPARE FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED.
- EXISTING LOW WALL ADJACENT WR #122A TO BE REMOVED AND REPLACED WITH NEW FULL HEIGHT GWB WALL AS PER NEW LAYOUT
   CAREFULLY REMOVE EXISTING CORRIDOR WALL, GLAZING, DOOR AND FRAME AND REPLACED WITH NEW FULL HEIGHT GWB WALL AND DOOR AS INDICATED IN THE CONTRACT DOCUMENTS.

# 5 AT EXISTING WASHROOM #122A:

- EXISTING FLOOR FINISHES (VCT), BASE, MILLWORK, CT ON WALLS ETC. TO BE CAREFULLY REMOVED
- PREPARE EXISTING FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED
   EXISTING LOW WALL ADJACENT EXIST. STORAGE ROOM #123C TO BE REMOVED AND REPLACED WITH NEW FULL HEIGHT GWB WALL AS PER NEW LAYOUT
   ALL GLAZING AT EXISTING (CORRIDOR SIDE) WALL TO BE CAREFULLY REMOVED AND
- REPLACED WITH NEW FULL HEIGHT GWB WALL TO MATCH EXISTING

   ALL MILLWORK, EXISTING GATE AND WASHROOM FIXTURES TO BE CAREFULLY REMOVED
- AND REPLACED WITH NEW

   PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
- EXISTING MILLWORK TO BE REMOVED AND REPLACED WITH NEW MILLWORK AS PER NEW LAYOUT. INCLUDE FOR THE REMOVAL OF EXISTING TILE AND GWB. (WHERE REQUIRED) AND REPLACE WITH NEW AS PER SPECIFICATIONS AND DRAWINGS.
- 6A EXISTING TB, MIRROR ETC. TO BE CAREFULLY REMOVED AND RELOCATED AS REQUIRED
- ALL EXISTING AREAS (FLOOR, WALLS & CEILING) AFFECTED FOR THIS SCOPE OF WORK, PATCH AND MAKE GOOD TO MATCH EXISTING (TYPICAL)
- 8 ALL M&E DEMOLITION/RELOCATIONS REFER M&E DWGS (TYPICAL)
- WHERE EXISTING FLOOR/CEILING AT EXISTING CORRIDOR AFFECTED FOR THIS SCOPE OF WORK AND/OR TO BE CUT FOR NEW M&E SERVICES:

   REMOVE EXISTING CT AS REQUIRED AND SUPPLY/INSTALL NEW CT TO MATCH EXISTING.

   REMOVE AND REWORK EXISTING GWB CEILING AS NEEDED TO SUIT ALL NEW M&E WORK.
- 10 REFER STRUCTURAL DWGS FOR ALL STRUCTURAL SUPPORT AND DETAILS (TYPICAL)

- REFER M&E DWGS FOR THE EXTENT OF AREA OF WORK

DUSTPROOF PARTITIONS SHALL CONSIST OF CONSTRUCTION GRADE WOOD

38MM X 92MM FRAMING FROM FLOOR TO THE UNDERSIDE OF CEILING WITH VOIDS FILLED
WITH SOUND ATTENUATION BATTS, WITH ONE LAYER OF 13 MM PLYWOOD SHEATHING
COVERED WITH SEALED AND TAPED 10 MIL POLYETHYLENE, CAULKED AND SEALED AROUND
THE PERIMETER OF THE PARTITION AND COVERED BY ONE LAYER OF 16 MM TYPE X
GYPSUM WALL BOARD EACH SIDE WITH OFFSET JOINTS TAPED

- PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING (TYP.)

- ALL ITEMS EXISTING NOT INCORPORATED INTO THE REVISED LAYOUT TO BE REMOVED AND DISPOSED OF UNLESS NOTED. MAKE GOOD ALL DISTURBED SURFACES, ADJACENT FLOORS, WALLS AND CEILINGS TO MATCH EXISTING AFTER COMPLETION OF WORK, UNLESS OTHERWISE NOTED.

  ALL ABANDONED ELECTRIC PANELS, EQUIPMENT, CONDUIT, ETC., TO BE REMOVED

  GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE.
- 13 EXISTING MILLWORK TO BE REMOVED AND DISPOSED.

MAKE GOOD EXISTING MASONRY DISTURBED BY THE ALTERATIONS. PROVIDE MASONRY INFILL AS INDICATED ON DRAWINGS. MATCH EXISTING MATERIALS AND CONSTRUCTION.

REINSTATED WORK SHALL BE TO THE ARCHITECT'S APPROVAL. ALL MASONRY REPAIR WORK TO MATCH EXISTING AND COMPLY WITH REQUIREMENTS FOR MATCHING HISTORICAL MATERIALS AND DETAILS.

WHERE EXISTING MASONRY HAS BEEN REMOVED, ENSURE THAT REMAINING PREVIOUSLY ATTACHED MASONRY IS SOLID AND FORMS A FLAT SURFACE, RE-MORTAR OR REBUILD AS REQUIRED.

FOR MASONRY REPAIR, USE TEXTURE, PROFILE, THICKNESS AND SIZE TO SUIT EXISTING WALL CONDITIONS. MATCH EXISTING JOINT PROFILE.

FOR REPAIR WORK AT EXISTING, REUSE EXISTING BRICK WHEREVER POSSIBLE.

TOOTH IN NEW MASONRY TO MATCH EXISTING BOND WHERE INFILLING EXISTING OPENINGS OR REPAIRING SAW CUT EDGES OF NEW OPENING.

### CONCRETE CUTTING AND CORING:

- 1. PRIOR TO CUTTING OR CORING ANY CONCRETE SLAB OR ON GRADE, OR ANY CONCRETE BEAM, INVESTIGATE BY TELEMETRICALLY SCANNING THE ELEMENT FOR PRESENCE OF EMBEDDED SERVICES (PIPING, CABLING, CONDUIT, ETC.), AND FOR LOCATIONS OF REINFORCING STEEL IN CONCRETE SLABS AND BEAMS.
- ACCEPTABLE TELEMETRIC SCANNING SYSTEMS INCLUDE:
   a) X-RAY SCANNING OF SLABS AND FOR CONCRETE BEAMS.
   (GROUND-PENETRATING) RADAR FOR SLAB ON GRADE, FOR SLABS AND
- FOR CONCRETE BEAMS.

  b) MAGNETIC RADIO SCANNERS NOT ACCEPTABLE FOR TELEMETRIC CANNING.
  THE TERM X-RAYS INCLUDE GAMMA RAY METHODS, AND PROCEDURES
  THAT USE ELECTRICALLY GENERATED X-RAYS.
- c) WHERE X-RAYS EMPLOYED:

  I. PROVIDE OWNER MINIMUM 5 WORKING DAYS ADVANCE NOTICE OF SCANNING TIME IN ORDER TO PROVIDE SUFFICIENT ADVANCE NOTICE TO
- PERSONNEL THAT MAY BE AFFECTED BY THE X-RAY WORK.

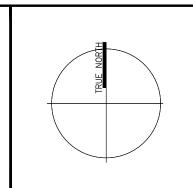
  II. CONFORM TO OWNER'S RADIATION PROTECTION REQUIREMENTS PRIOR TO
- START OF ANY XRAY WORK.

  III. PROVIDE OWNER AND CONSULTANT WITH INSPECTION AGENCY'S WRITTEN
  REPORT, SUMMARIZING INVESTIGATIONS AND CONCLUSIONS.
- IV. OBTAIN CONSULTANT'S DIRECTION WHERE INVESTIGATIONS REVEAL THAT
  CUTTING OR CORING REQUIRED IN CONTRACT WOULD CUT OR DAMAGE
  EMBEDDED SERVICES, OR CUT OR DAMAGE REINFORCING STEEL IN
  CONCRETE SLABS OR BEAMS.
- V. EXECUTE CUTTING AND CORING TO PREVENT DAMAGE TO ALL EMBEDDED SERVICES. MAKE GOOD ALL DAMAGE ARISING FROM CUTTING EMBEDDED SERVICES.
- VI. EXECUTE CUTTING AND CORING TO PREVENT DAMAGE (CUTTING IN WHOLE
  OR IN PART) REINFORCING STEEL IN CONCRETE SLABS WITH
- CONSULTANT'S PRIOR AUTHORIZATION. VII. MAKE GOOD ALL DAMAGE ARISING FROM CUTTING REINFORCING STEEL IN CONCRETE SLABS AND BEAMS.

SONRY INFILL

SUSAN FRIEDRICH ARCHITECT INC. 

643 St. Clair St. West, Toronto, Ontario M6C 1A7
Telephone (416) 588-3740 Fax 588-2401



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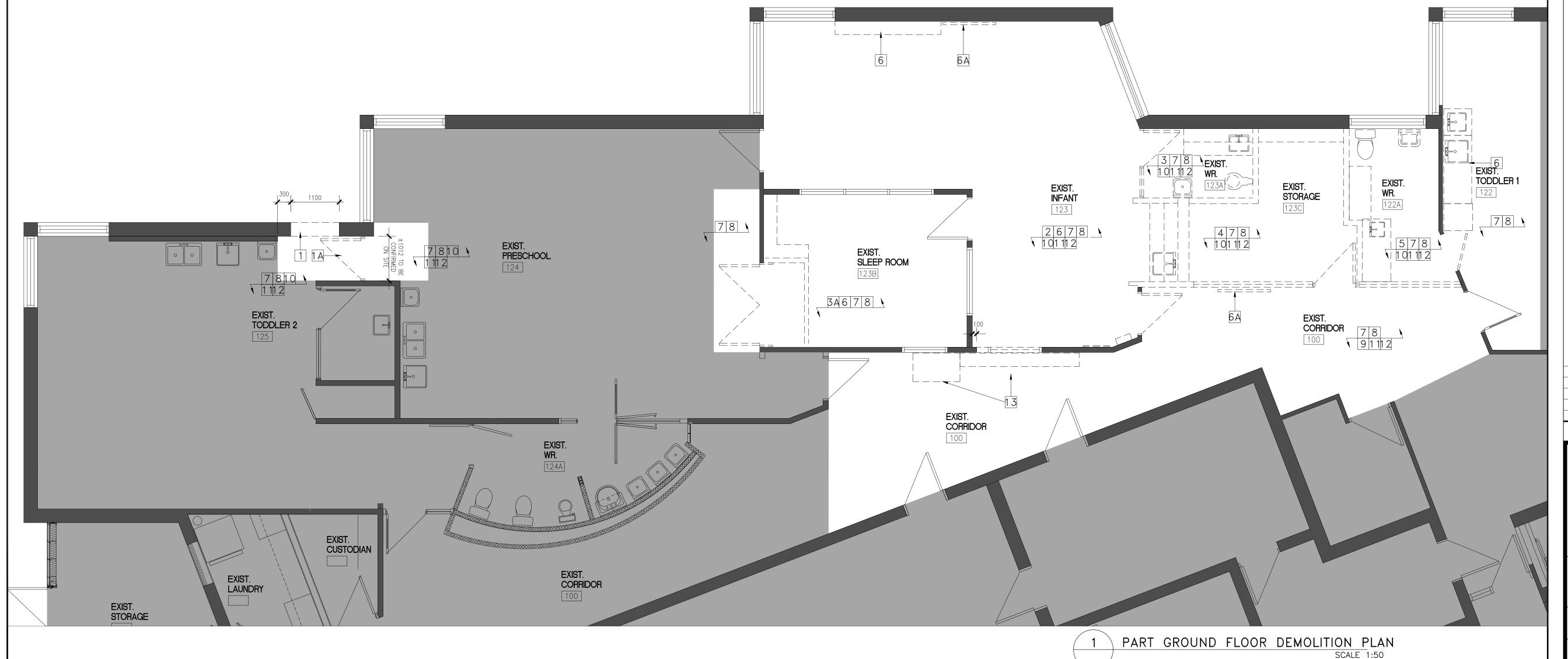


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LEGEND:

DENOTES EXISTING BUILDING (NOT AREA OF WORK)



5 APR 17 2024 ISSUED FOR TENDER
4 APR 11 2024 FOR CLIENT REVIEW
3 MAR 22 2024 ISSUED FOR BUILDING PERMIT
2 MAR 19 2024 FOR CLIENT REVIEW
1 FEB 23 2024 75% CLIENT REVIEW

Revisions, Issues

INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

Title:
PART GROUND FLOOR PLAN
DEMOLITION

Scale: I As Noted

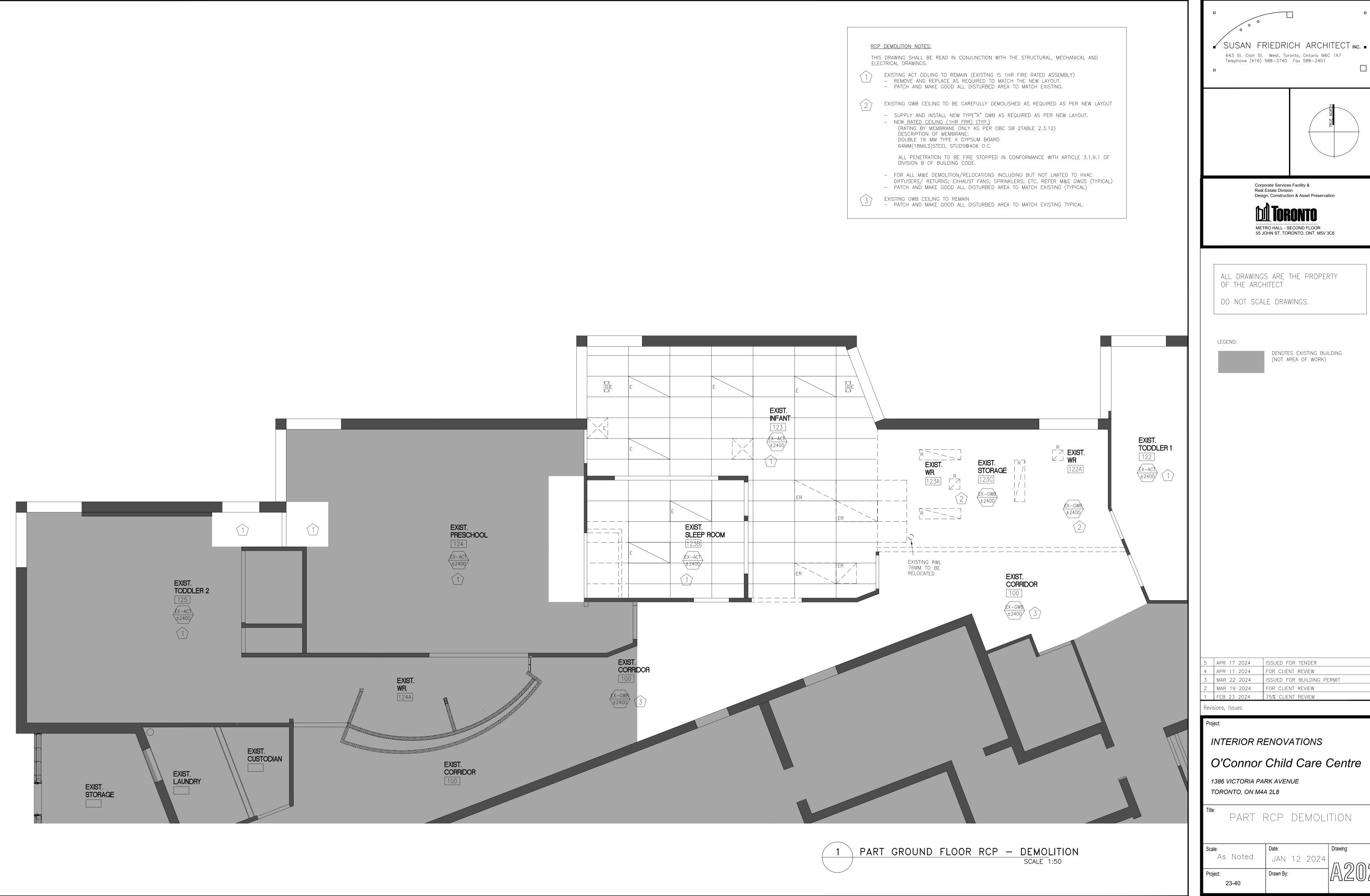
23-40

Date:

JAN 12 2024

Drawn By:

DATE PLOTTED: APR 17 2024



DATE PLOTTED: APR 17 2024

Corporate Services Facility &

Real Estate Division
Design, Construction & Asset Preservation

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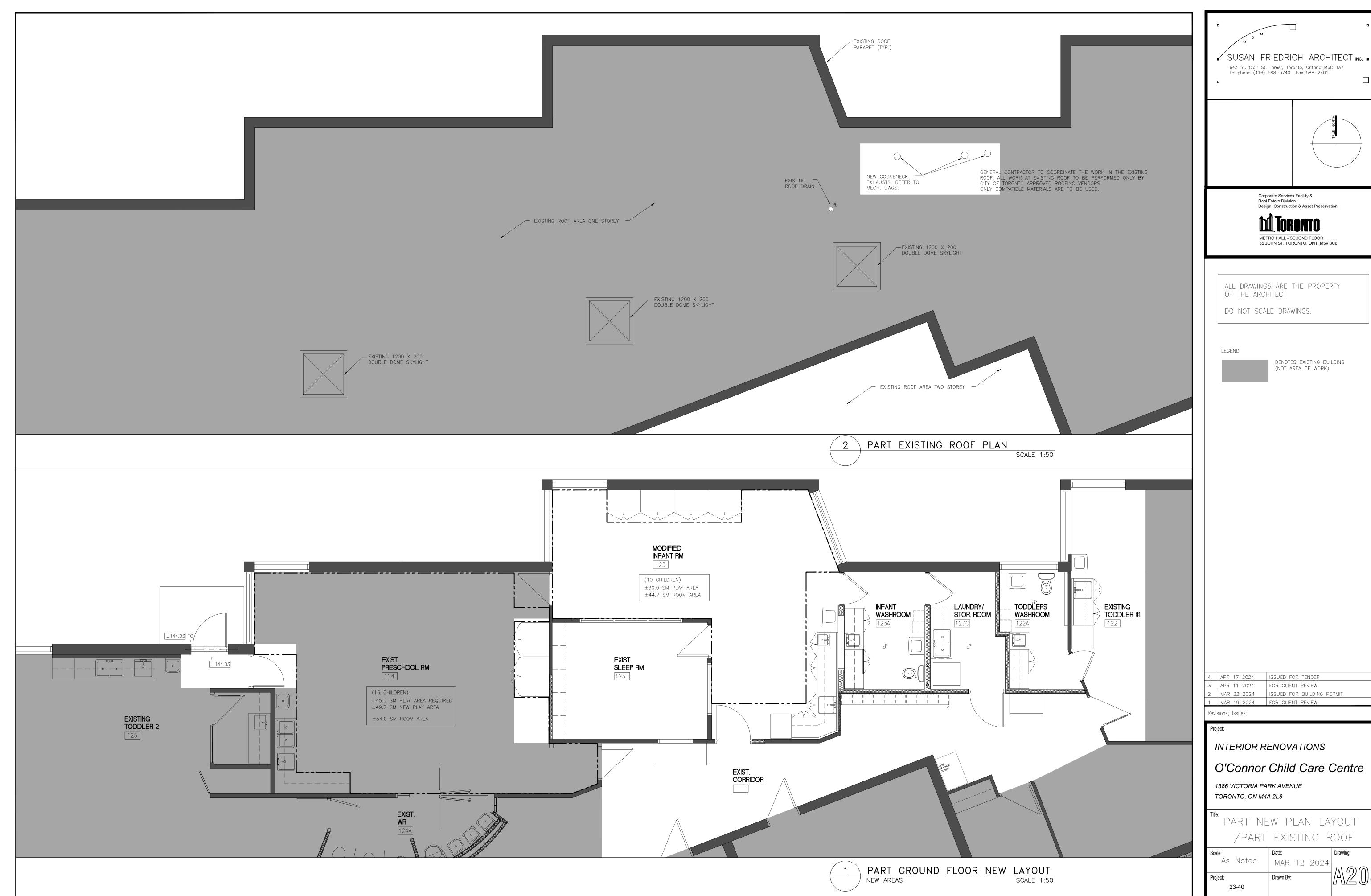
DENOTES EXISTING BUILDING (NOT AREA OF WORK)

FOR CLIENT REVIEW

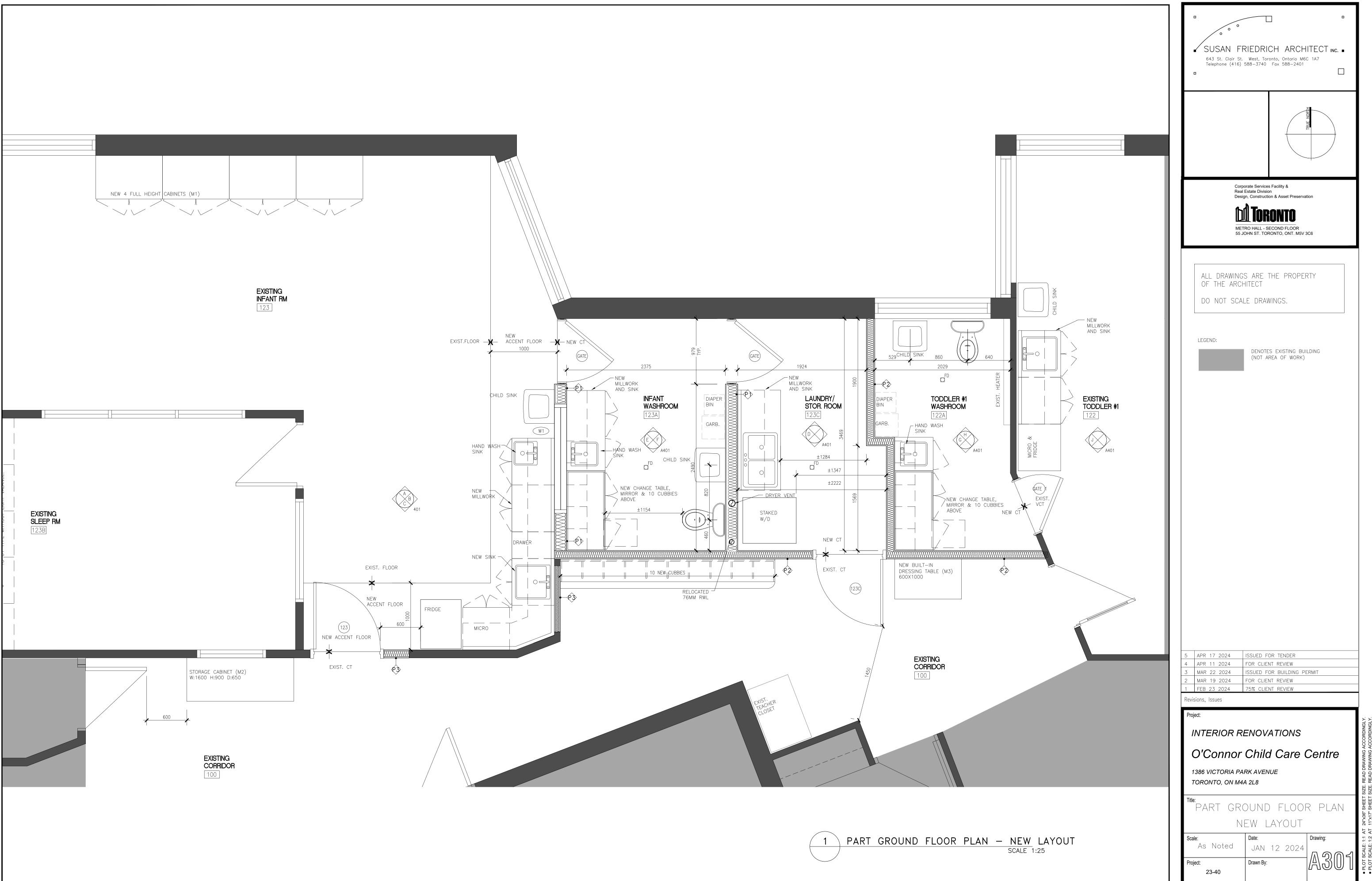
FOR CLIENT REVIEW

JAN 12 2024

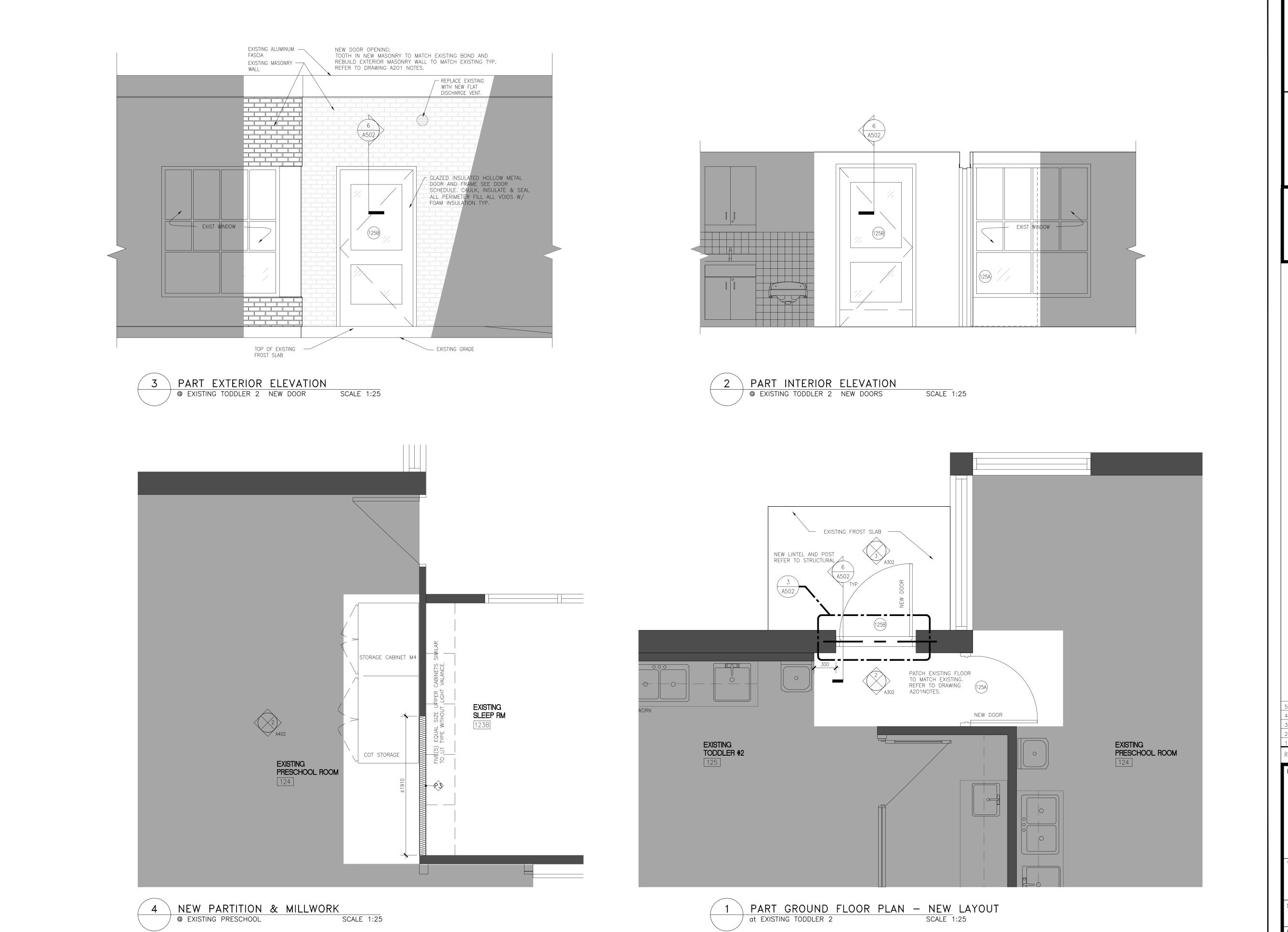
ISSUED FOR BUILDING PERMIT

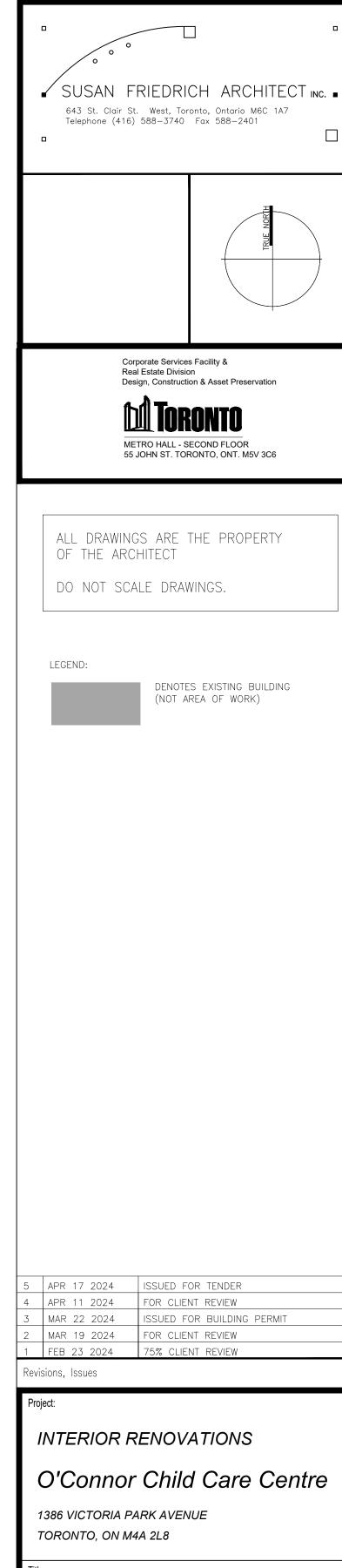


DATE PLOTTED: APR 17 2024



DATE PLOTTED: MAR 19 2024





DATE PLOTTED: APR 17 2024

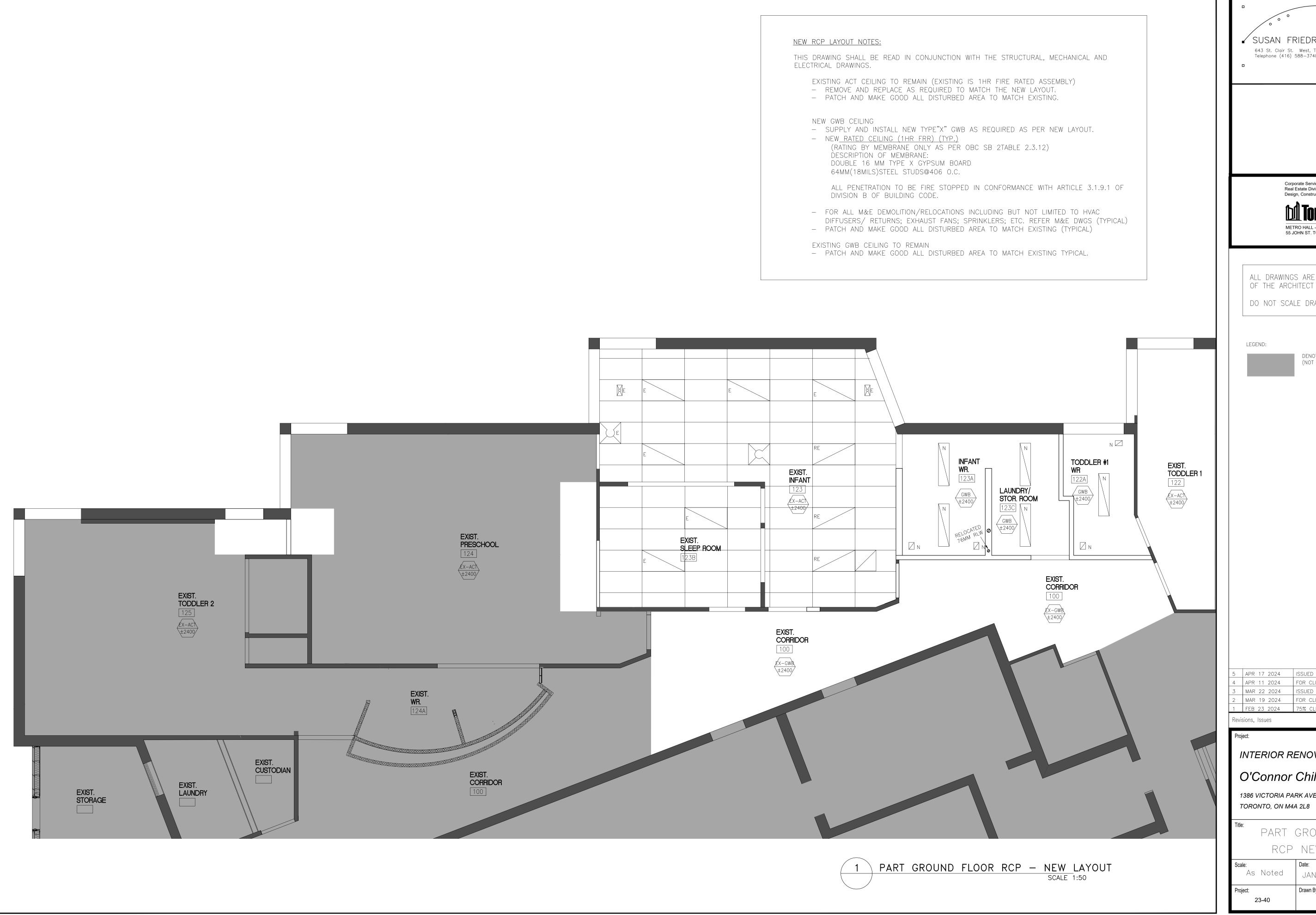
As Noted

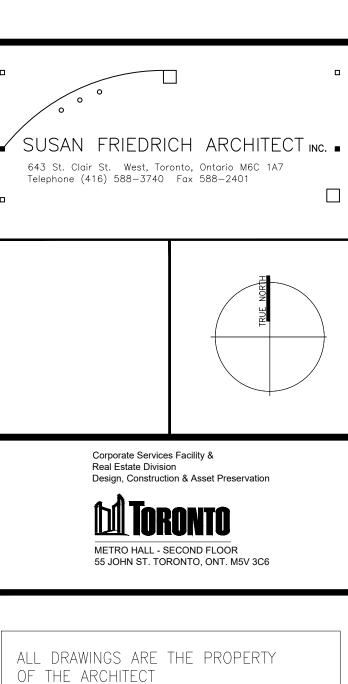
23-40

PART GROUND FLOOR

NEW LAYOUT

JAN 12 2024





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Revis	sions, Issues	

INTERIOR RENOVATIONS

O'Connor Child Care Centre

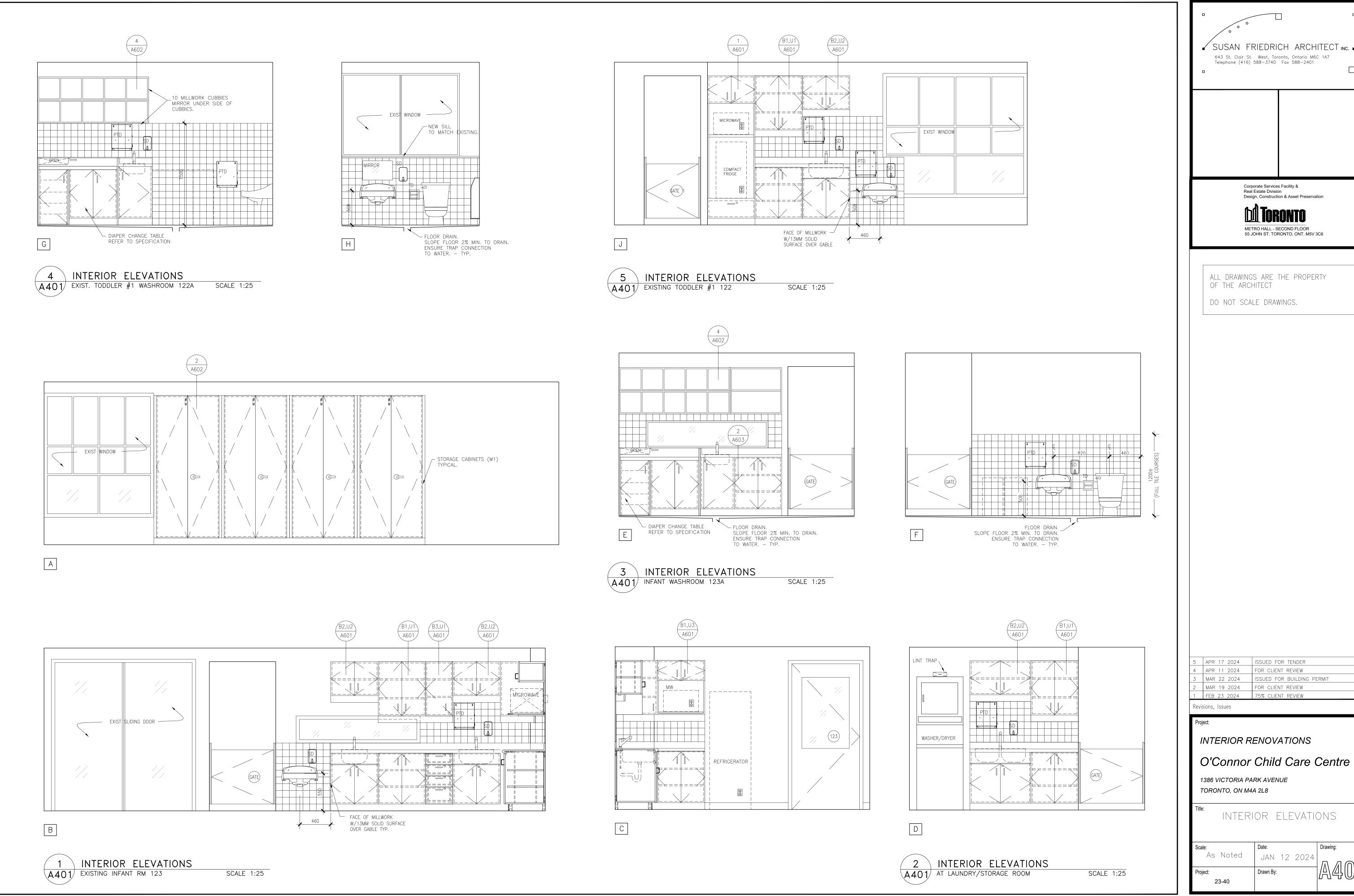
1386 VICTORIA PARK AVENUE

PART GROUND FLOOR RCP NEW LAYOUT

As Noted

JAN 12 2024 23-40

DATE PLOTTED: APR 03 2024



DATE PLOTTED: MAR 21 2024

23-40

ISSUED FOR TENDER FOR CLIENT REVIEW

FOR CLIENT REVIEW

INTERIOR ELEVATIONS

JAN 12 2024

SSUED FOR BUILDING PERMIT

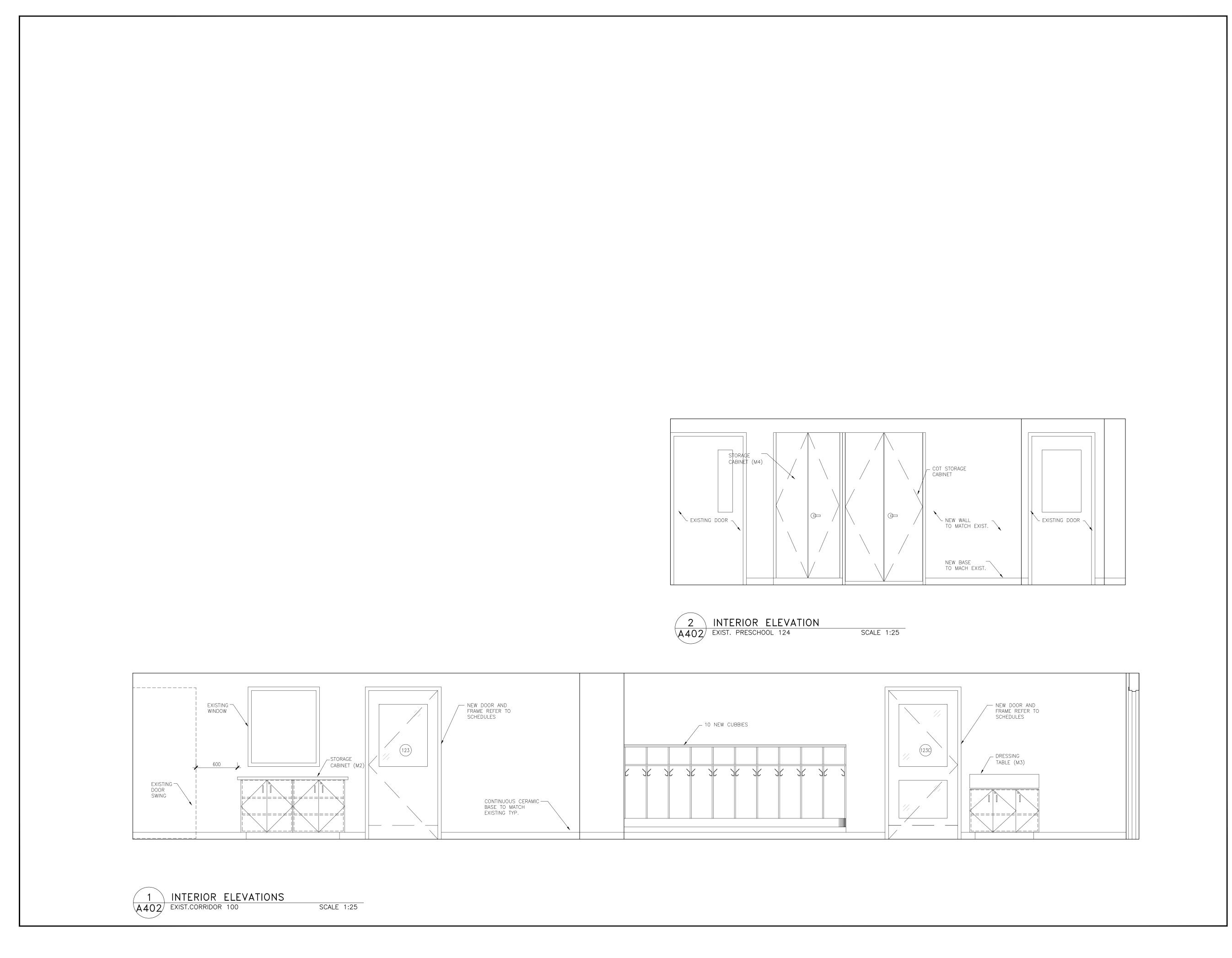
SUSAN FRIEDRICH ARCHITECT INC.

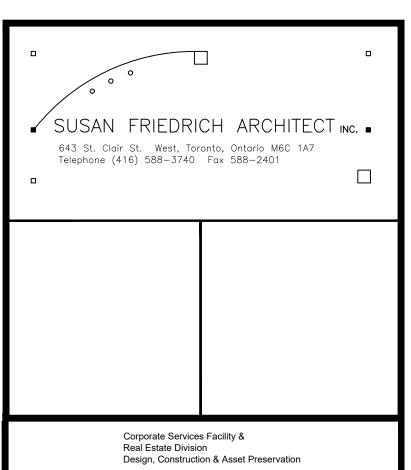
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4 APR 17 2024 ISSUED FOR TENDER
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Revisions, Issues

INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

INTERIOR ELEVATIONS

As Noted Date:

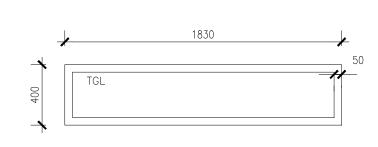
JAN 12 2024

Project: Drawn By:

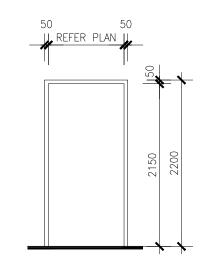
DATE PLOTTED: APR 03 2024

PLOT SCALE: 1:1 AT 24"x36" SHEET SIZE. READ DRAWING ACCORDINGLY.

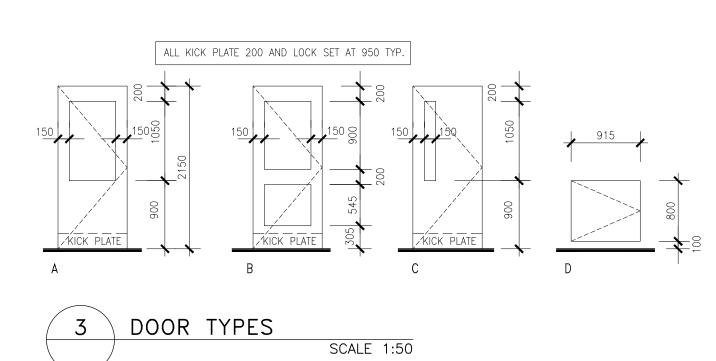
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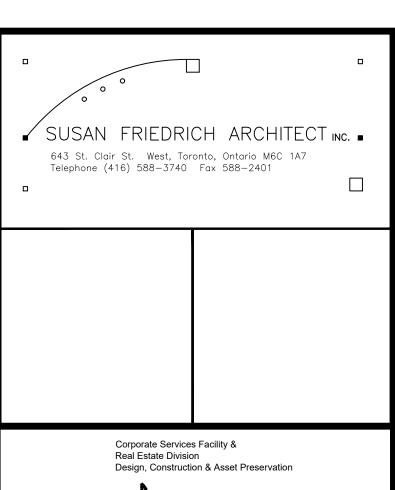


UND FLOOR PLAN	SIZE	TYPE	FIRE					IGU IM PANEL SCW ST TGL FRG		SULATED GLASS UNIT SULATED METAL LID CORE WOOD AIN— URETHANE MPERED GLASS E—RATED GLASS		<ul> <li>ALL FINGER GUARDS <u>NGP 2248A</u> TYPICAL. NO SUBSTITUTIONS LENGTH 50MM LESS THAN OPENING HEIGHT.</li> </ul>
			RATING		RIAL OF FRAME	FINISH	SELF CLOSER	LATCH	LOCK	PANIC	GLAZING	REMARKS
TIED INFANT ROOM 123	965×2150×44	А		НМ	НМ	PT					TGL	FINGER GUARD
DRY/STORAGE 123C	965×2150×44	В		НМ	НМ	PT					TGL	FINGER GUARD
TIED TODDLER 2 #125	+/-(915x2150x44)	С		НМ	НМ	PT					TGL	FINGER GUARD
TIED TODDLER 2 #125	1000×2150×44	В		НМ	НМ	PT					IGU	WEATHERSTRIP, ALUM. THRESHOLD, FINGER GUARD, CARD READER.
(TYPICAL)	915×800×44	D		SCW	SCW	ST						QUANTITY = TWO (2) HALF WOOD DOOR GATES, PROVIDE FINGER GUARDS
	+/-(915x800x44)	D		SCW	SCW	ST						QUANTITY = ONE (1) HALF WOOD DOOR GATES, PROVIDE FINGER GUARDS (EXISTING OPENING TO BE CONFIRMED ON SITE)
		TYPICAL) 915x800x44	TYPICAL) 915×800×44 D	TYPICAL) 915x800x44 D	TYPICAL) 915×800×44 D SCW	TYPICAL) 915x800x44 D SCW SCW	TYPICAL) 915x800x44 D SCW SCW ST	TYPICAL) 915×800×44 D SCW SCW ST	TYPICAL) 915x800x44 D SCW SCW ST	TYPICAL) 915x800x44 D SCW SCW ST	TYPICAL) 915x800x44 D SCW SCW ST	TYPICAL) 915x800x44 D SCW SCW ST

DOOR SCHEDULE SCALE 1:50

	ROOM FINISH SCHEDULE - GROUND FLOOR  NOTE: REFER TO PLANS, ELEVATIONS AND DETAILS																														
		С	EILI	NG		WALL														F	LO	OR				BASE	-				REMARKS
		EILING TILE	X ED X	JED L	1	٧.		E	. •			S.				W	•						TILE								
ROOM NUMBER	ROOM NAME	T-BAR SUSP. CEII C/W ACOUSTICAL		GWB B/H - PAINTED EXISTING CLG.	GWB-PAINTED	CMU - PAINTED PT. EXIST. WALL MAKE GOOD	CERAMIC TILE EXIST. MAKE GOOD	GWB-PAINTED	CMU - PAINTED PT. EXIST. WALL	CERAMIC TILE	EXIST. MAKE GOOD	GWB-PAINTED CMU - PAINTED	I I a I a a	CERAMIC TILE	EXIST. MAKE GOOD	<u> </u>	CMU - PAINTED PT. EXIST. WALL	. 님	CERAMIC TILE EXIST. MAKE GOOD	ATHLETIC RESILIENT FLOORING		KESILIENI FLOOK CERAMIC TILE		EXIST. VCT MAKE GOOD	NONE	RESILIENT BASE WOOD	CERAMIC TILE	TERRAZZO	BASE GOOD	EXISI. IEKKAZZO MAKE GOOD	
																															EXISTING FLOOR & BASE AFFECTED FOR THIS SCOPE OF WORK — SUPPLY AND
122	EXIST TODDLER 1																														INSTALL NEW TO MATCH EXISTING (TYPICAL)
122A	EXIST TODDLER 1 WC									)								(													
123	MODIFIED INFANT RM																	(								0					
123A	INFANT WASHROOM																	(				C	)				C				
123C	LAUNDRY/STOR. ROOM																	(				C									
124	EXIST PRESCHOOL RM																														PATCH & MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING (TYPICAL)
125	EXIST. TODDLER 2									)																					PATCH & MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING (TYPICAL)
100	EXIST. CORRIDOR																					C									PATCH & MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING (TYPICAL)

ROOM FINISH SCHEDULE
SCALE 1:50



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Revis	sions, Issues	

INTERIOR RENOVATIONS

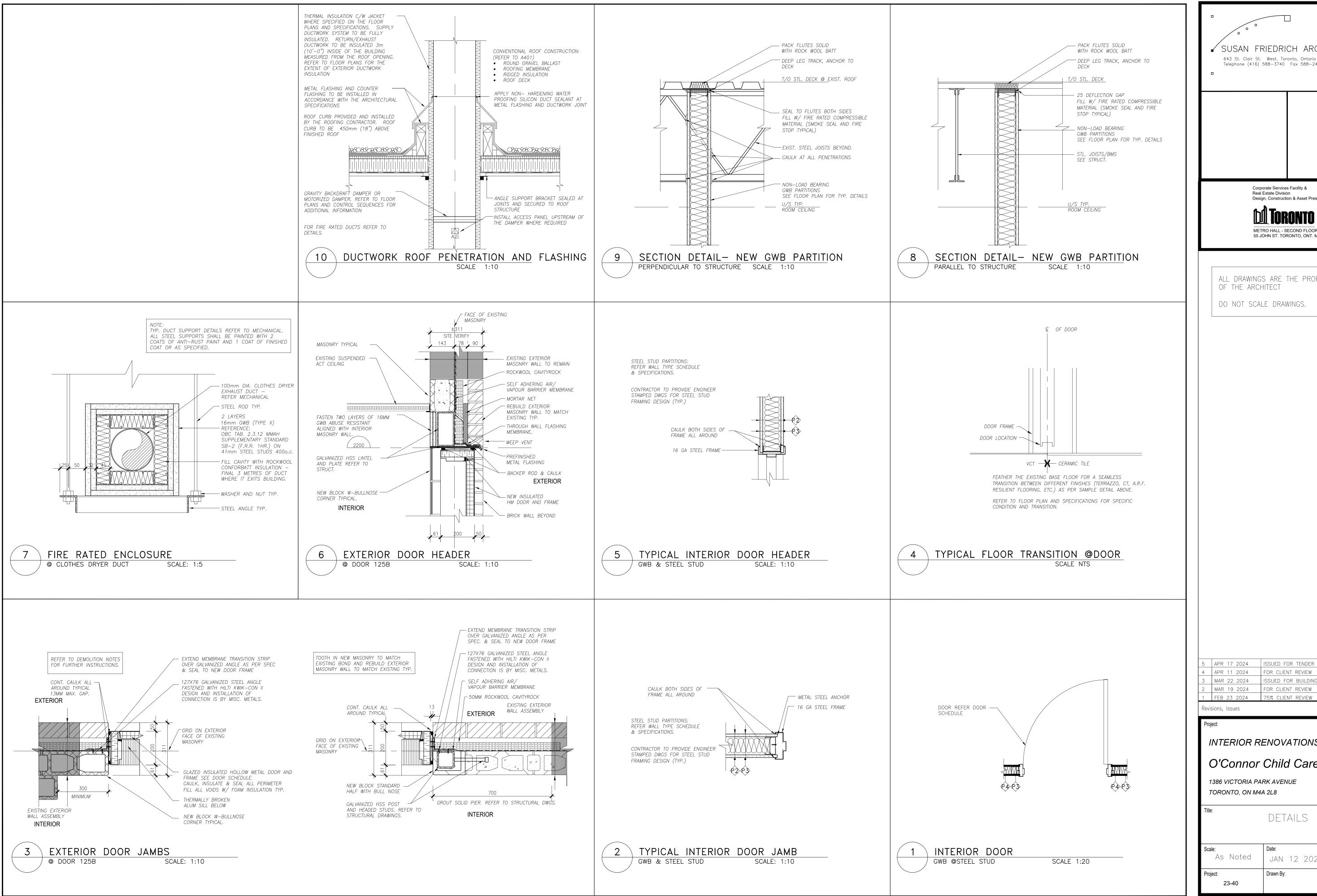
O'Connor Child Care Centre

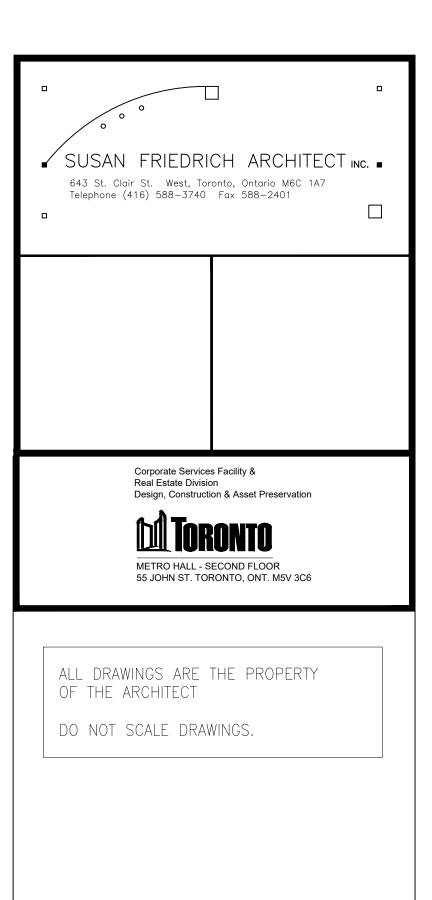
1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

SCHEDULES

As Noted JAN 12 2024

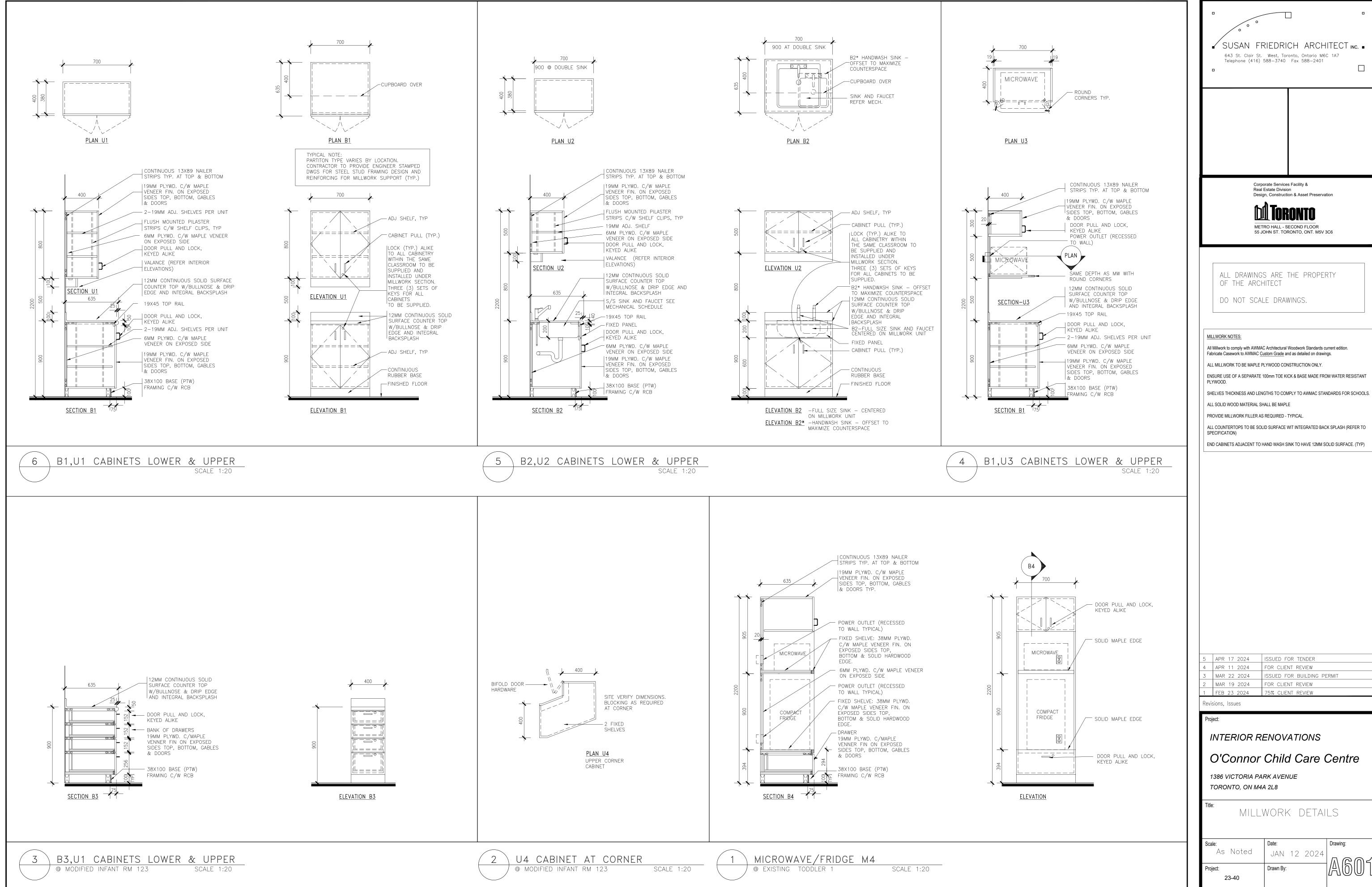
DATE PLOTTED: APR 03 2024





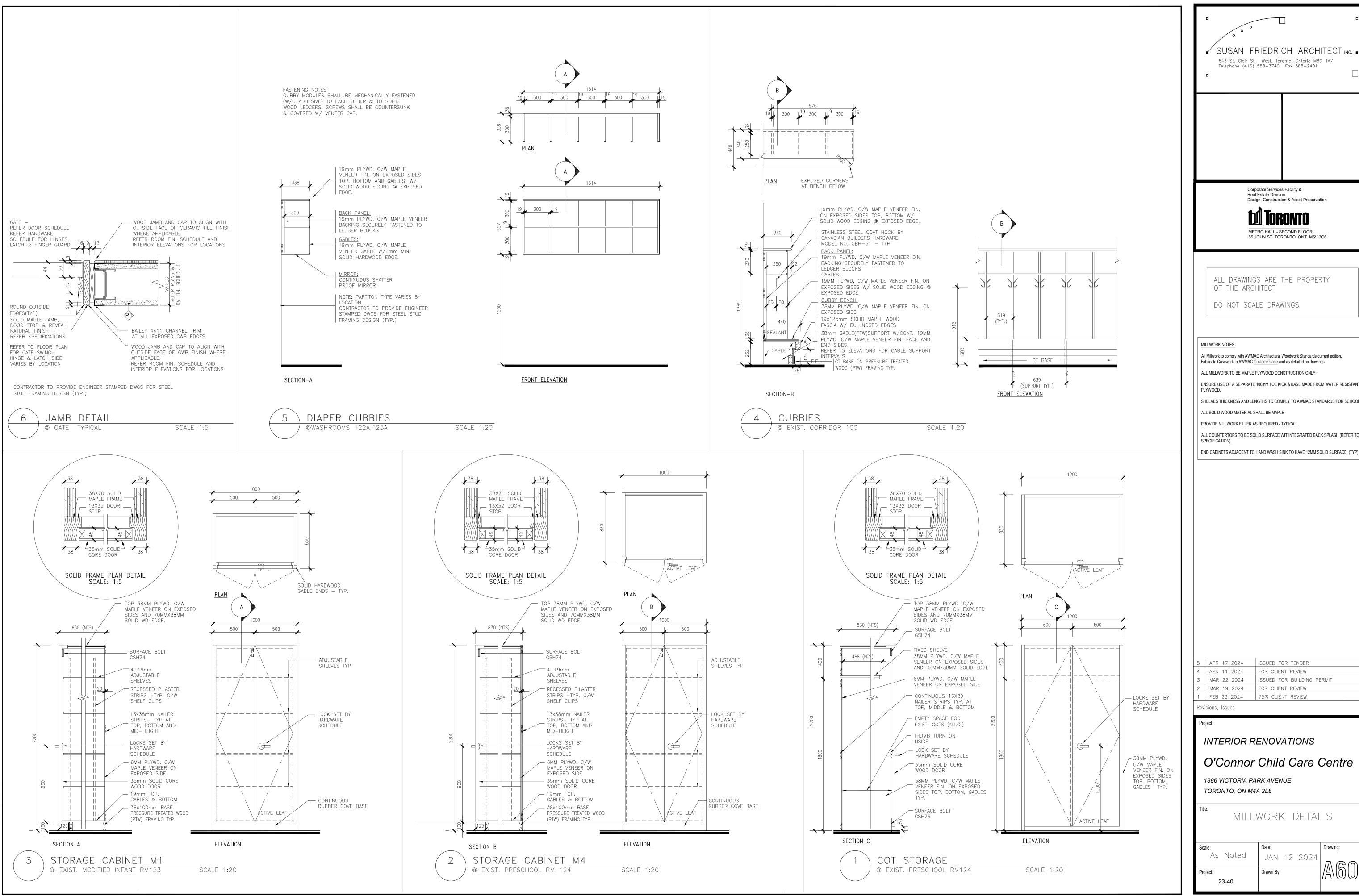


DATE PLOTTED: APR 16 2024



DATE PLOTTED: MAR 18 2024

PLOT SCALE: 1:1 AT 24"x36" SHEET SIZE. READ DRAWING ACCORDINGLY.
 PLOT SCALE: 1:2 AT 11"x17" SHEET SIZE. READ DRAWING ACCORDINGLY.

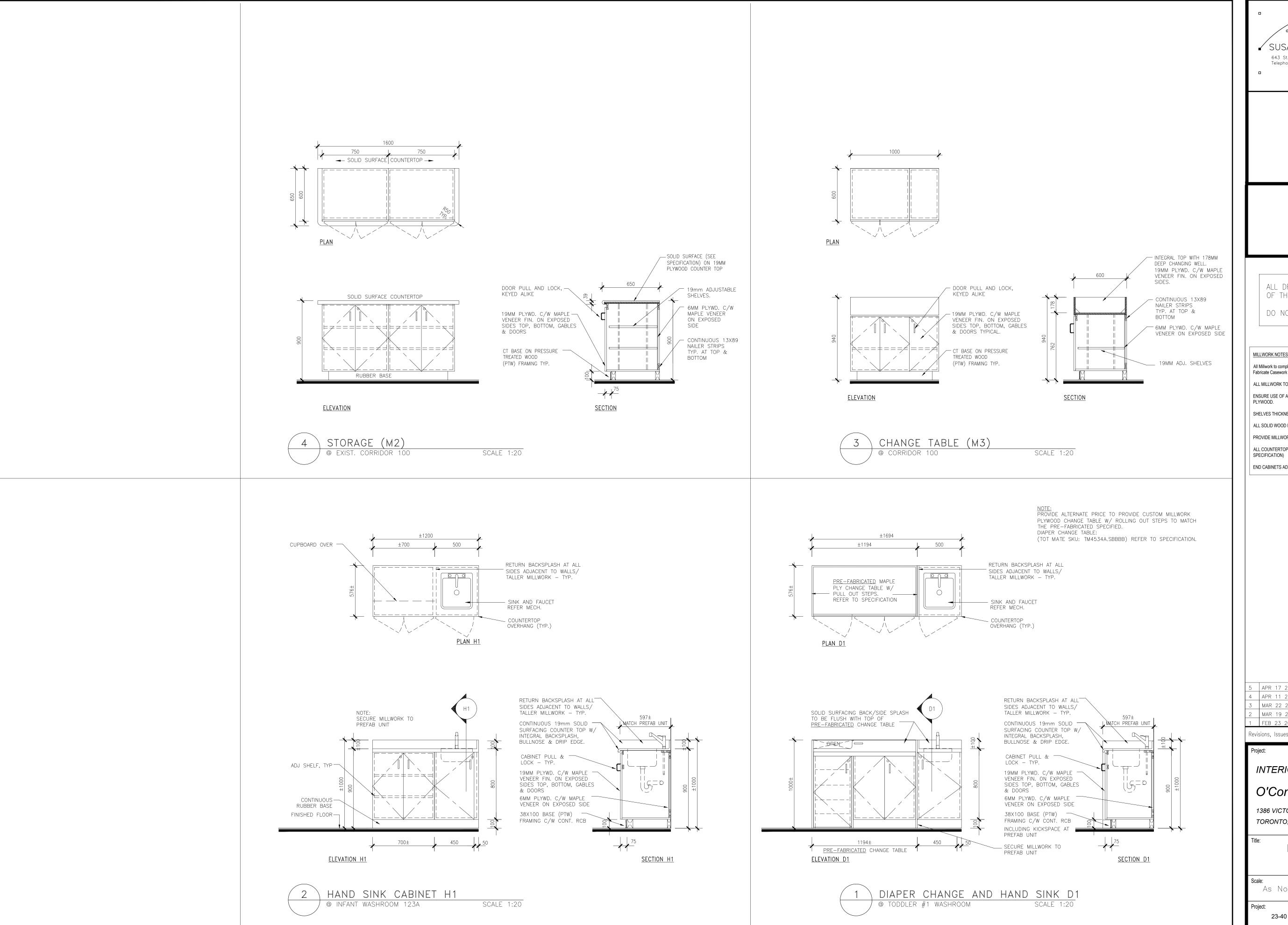


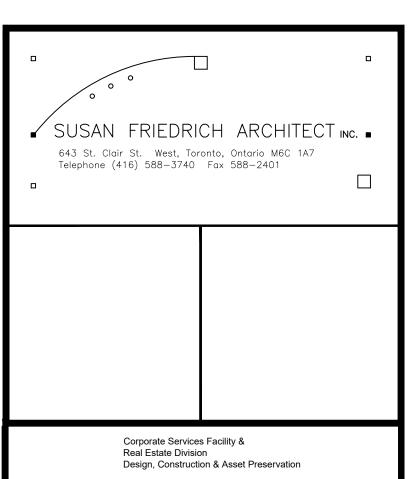
Corporate Services Facility & Real Estate Division Design, Construction & Asset Preservation METRO HALL - SECOND FLOOR 55 JOHN ST. TORONTO, ONT. M5V 3C6 ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT DO NOT SCALE DRAWINGS. All Millwork to comply with AWMAC Architectural Woodwork Standards current edition. Fabricate Casework to AWMAC <u>Custom Grade</u> and as detailed on drawings. ALL MILLWORK TO BE MAPLE PLYWOOD CONSTRUCTION ONLY. ENSURE USE OF A SEPARATE 100mm TOE KICK & BASE MADE FROM WATER RESISTANT SHELVES THICKNESS AND LENGTHS TO COMPLY TO AWMAC STANDARDS FOR SCHOOLS. ALL SOLID WOOD MATERIAL SHALL BE MAPLE PROVIDE MILLWORK FILLER AS REQUIRED - TYPICAL. ALL COUNTERTOPS TO BE SOLID SURFACE WIT INTEGRATED BACK SPLASH (REFER TO END CABINETS ADJACENT TO HAND WASH SINK TO HAVE 12MM SOLID SURFACE. (TYP) APR 17 2024 ISSUED FOR TENDER APR 11 2024 FOR CLIENT REVIEW MAR 22 2024 ISSUED FOR BUILDING PERMIT MAR 19 2024 FOR CLIENT REVIEW 1 | FEB 23 2024 | 75% CLIENT REVIEW INTERIOR RENOVATIONS O'Connor Child Care Centre 1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8 MILLWORK DETAILS

DATE PLOTTED: APR 15 2024

JAN 12 2024

Drawn By:





METRO HALL - SECOND FLOOR 55 JOHN ST. TORONTO, ONT. M5V 3C6

ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT

DO NOT SCALE DRAWINGS.

All Millwork to comply with AWMAC Architectural Woodwork Standards current edition. Fabricate Casework to AWMAC <u>Custom Grade</u> and as detailed on drawings.

ALL MILLWORK TO BE MAPLE PLYWOOD CONSTRUCTION ONLY.

ENSURE USE OF A SEPARATE 100mm TOE KICK & BASE MADE FROM WATER RESISTANT

SHELVES THICKNESS AND LENGTHS TO COMPLY TO AWMAC STANDARDS FOR SCHOOLS.

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APR 17 2024 ISSUED FOR TENDER APR 11 2024 FOR CLIENT REVIEW ISSUED FOR BUILDING PERMIT MAR 22 2024 MAR 19 2024 FOR CLIENT REVIEW 1 | FEB 23 2024 | 75% CLIENT REVIEW

Revisions, Issues

INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

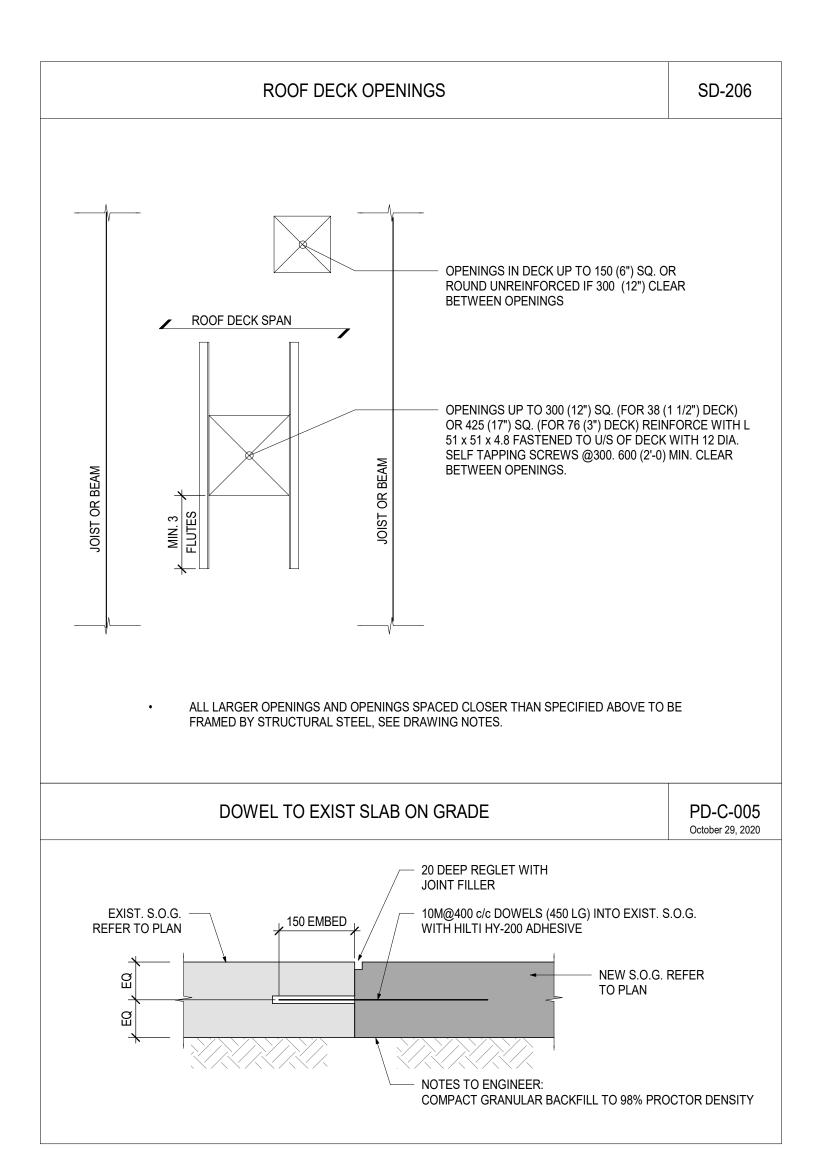
MILLWORK DETAILS

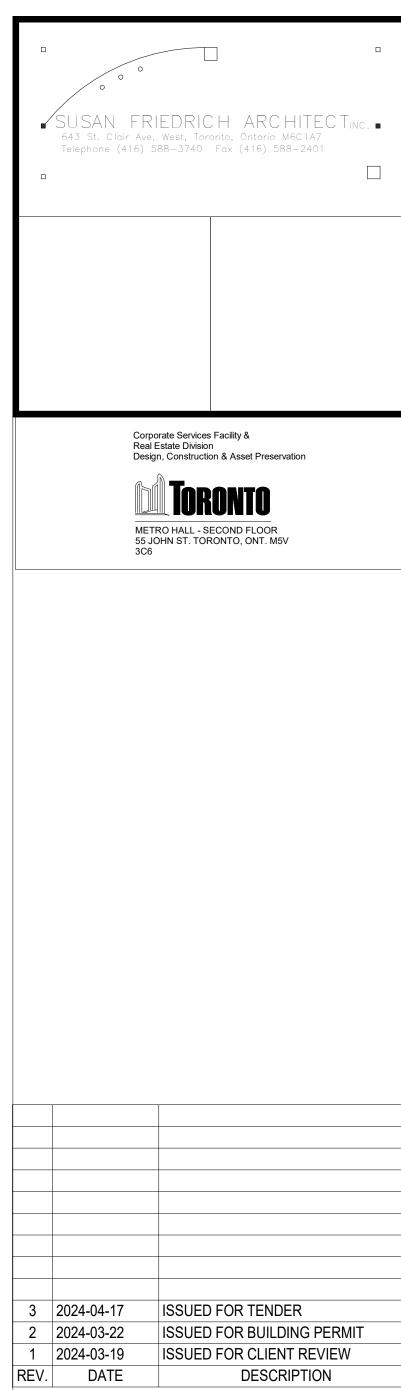
As Noted JAN 12 2024 Drawn By: 23-40

DATE PLOTTED: APR 15 2024

### **GENERAL NOTES:**

- 1. THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT. BREAKDOWN OF THE WORK BY TRADE IS THE RESPONSIBILITY OF THE CONTRACTOR. EXISTING CONDITIONS ARE ASSUMED. REPORT ANY INCONSISTENCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- THIS IS A METRIC PROJECT. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- DO NOT SCALE THESE DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS.
- CODES AND STANDARDS:
- COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE ONTARIO BUILDING CODE (OBC) IN FORCE AND ALL REGULATIONS AND STANDARDS THAT ARE IN EFFECT AT THE TIME OF THE CONSTRUCTION.
- SHOP DRAWING AND OTHER SUBMITTALS: A. SUBMIT FOR REVIEW BEFORE START OF WORK:
- STRUCTURAL STEEL TEMPORARY SHORING
- SHOP DRAWINGS FOR STRUCTURAL STEEL MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN ONTARIO WITH CERTIFICATE OF AUTHORIZATION FOR PRACTICE AND REQUIRED LIABILITY INSURANCE.
- REVIEW OF SHOP DRAWINGS IS ONLY FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS. COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS, NOR DO THEY AUTHORIZE ANY CHANGES TO THE CONTRACT. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR'S RESPONSIBILITIES INCLUDE ALL QUANTITIES, DETAIL DIMENSIONS, FIELD MEASUREMENTS, FABRICATION PROCESS, MEANS, METHODS, SEQUENCES AND PROCEDURES OF CONSTRUCTION, COORDINATION OF WORK WITH ALL TRADES AND PERFORMING ALL WORK IS A SAFE AND SATISFACTORY MANNER. THE REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS (SUCH AS STRUCTURAL STEEL CONNECTIONS, STEEL JOISTS, PRECAST ELEMENTS, ETC.).
- AFTER REVIEW OF SHOP DRAWINGS, ONLY ERECTION DIAGRAMS WILL BE RETURNED TO THE CONTRACTOR STAMPED TO SHOW ONE OF THE FOLLOWING:
- NOT REVIEWED IF THE WORK IS NOT IN LEA CONSULTING LTD. SCOPE
- REVIEWED NO COMMENTS NOTED REVIEWED AS MODIFIED - COMMENTS NOTED ON THE DRAWINGS
- RESUBMIT CORRECTION OF THE NOTED ITEMS MUST BE MADE AND RESUBMITTED FOR REVIEW
- ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS IN THE STRUCTURAL OFFICE. ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED ALONG WITH A PRIORITY LIST OF SUBMITTALS. SUBMIT IN ORDER WITH THE INTENDED SEQUENCE OF CONSTRUCTION.
- EXISTING STRUCTURE: EXISTING BUILDING STRUCTURAL INFORMATION IS BASED UPON DRAWINGS PREPARED BY ROBERT HALSALL & ASSOCIATES LTD.
- EXISTING CONDITIONS ARE ASSUMED. REPORT ANY VARIATIONS TO THE CONSULTANT IMMEDIATELY BEFORE PROCEEDING WITH THE
- PROTECT EXISTING STRUCTURE EXPOSED TO TEMPORARY CONSTRUCTION LOADING AND ACTIVITIES. WORK REQUIRED TO CONNECT OR REWORK EXISTING STRUCTURE FOR THE NEW WORK IS WITHIN THIS CONTRACT.
- PROVIDE TEMPORARY SHORING AND BRACING REQUIRED WHERE NEEDED. MAKE GOOD ONCE STRUCTURAL WORK IS DONE AND REVIEWED.
- STRUCTURAL MASONRY:
- CONFORM TO CSA-A371 "MASONRY CONSTRUCTION FOR BUILDINGS". MATERIALS:
- HOLLOW BLOCK: CSA A165.1-H/15/A/M
- CONCRETE BRICK: CSA A165.2 TYPE I-25
- CLAY BRICK: CAN/CSA A82.1M GRADE SW ABOVE-GRADE MORTAR: CSA A179M - TYPE S
- GROUT FOR BLOCK CORES: CSA A179M COARSE GROUT 1:3:2 CEMENT:SAND:PEA STONE BY VOLUME WITH 200mm (8") SLUMP
- DRILLED MASONRY ANCHORS (DMA) TO BE HILTI HLC SLEEVE ANCHORS OR EQUIVALENT. PULL TEST ANCHORS TO RATED CAPACITY
- AND REPORT RESULTS. NON LOAD-BEARING MASONRY WALLS ARE NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL DRAWINGS. LAY UNITS IN RUNNING BOND. ALL FACE SHELLS SHALL BE FULLY BEDDED. GROUT USING LOW LIFT GROUTING METHODS AND MAXIMUM
- 1500mm (5'-0") LIFTS. DO NOT USE MORTAR INSTEAD OF GROUT UNLESS OTHERWISE NOTED ON THE DRAWINGS, PROVIDE 3.66mm (9 GAUGE) GALVANIZED STEEL LADDER-TYPE JOINT REINFORCING EVERY SECOND BLOCK COURSE. PROVIDE JOINT REINFORCING IN THE FIRST TWO COURSES ABOVE AND BELOW WALL OPENINGS, AND EXTEND 600mm (2'-0") BEYOND EACH SIDE OF OPENING. USE HOT-DIPPED GALVANIZED MATERIAL FOR METAL TIES, GALVANIZED AFTER FABRICATION. USE PREFABRICATED CORNERS AND SPLICE LENGTHS OF 300mm (12") MINIMUM.
- G. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM 25 (1") DEFLECTION GAP AT TOP OF ALL NON LOAD BEARING MASONRY WALLS. STRUCTURAL STEEL:
- CONFORM TO CAN/CSA S16 "LIMIT STATES DESIGN OF STEEL STRUCTURES".
- FABRICATOR SHALL BE CERTIFIED BY CANADIAN WELDING BUREAU UNDER REQUIREMENTS OF CSA W47.1. DIVISION 1 OR 2. PROTECT COMBUSTIBLE MATERIALS AND FINISHES DURING WELDING OPERATIONS.
- MATERIALS:
- ANGLES: CAN/CSA G40.21. GRADE 350W
- PLATES AND BARS: CAN/CSA G40.21, GRADE 300W HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C (345 MPa FOR SQUARE / RECTANGULAR AND 317 MPa FOR ROUND), OR CAN/CSA G40.21, GR. 350W, CLASS C
- MACHINE BOLTS: ASTM A307 HIGH-STRENGTH BOLTS: ASTM A325M
- ANCHOR RODS: CAN/CSA G40.21, GRADE 300W
- REFERENCES: FABRICATION: CAN/CSA S16
- WELDING: CSA W59
- PRIMER PAINT: CISC/CPMA 2-75
- ZINC-RICH PRIMER: CGSB 1-GP-171M GALVANIZING: CAN/CSA G164
- DRILLED ANCHORS: SEE DRAWINGS
- HEADED STUDS: ASTM A108, GRADES 1010 THROUGH 1020, FY=345 MPa (50 KSI). LENGTHS OF STUDS GIVEN ON DRAWINGS ARE THE LENGTHS AFTER WELDING.
- ALL STRUCTURAL STEEL CONNECTIONS MUST BE DESIGNED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR TO CONFORM TO CAN/CSA S16-14. USE HEADER ANGLES AND HIGH-STRENGTH BOLTS. DESIGN BEAM CONNECTIONS FOR AN END REACTION DUE TO THE UNIFORMLY DISTRIBUTED LOAD CAPACITY OF THE MEMBER UNLESS A GREATER REACTION IS NOTED ON THE DRAWINGS
- DO NOT SPLICE SECTIONS WITHOUT THE PRIOR ACCEPTANCE OF THE CONSULTANT AND THE SUBMISSION OF PERTINENT SHOP DRAWINGS. ACCEPTED SPLICES WILL BE REQUIRED TO DEVELOP THE SECTION. EACH SPLICE SHALL BE GIVEN A NON-DESTRUCTIVE TEST BY AN INDEPENDENT INSPECTION COMPANY ACCEPTABLE TO THE CONSULTANT. TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE. EVALUATE RESULTS IN ACCORDANCE WITH CSA W59 AND REPORT TO THE CONSULTANT.
- APPLY PRIMER PAINT TO ALL STEELWORK. EXCEPT WHERE ZINC-RICH PAINT IS CALLED FOR ON THE DRAWINGS. TOUCH-UP PAINT
- AFTER ERECTION. SURFACES RECEIVING ZINC-RICH PAINT SHALL FIRST RECEIVE COMMERCIAL BLAST CLEANING. ALL STEEL LOCATED OUTSIDE THE VAPOUR BARRIER TO BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM 123/A123M, MINIMUM ZINC COATING OF 610g/m2. FOR ALL OTHER STEEL, CLEAN STEEL TO SSPC SP1 AND APPLY ONE COAT OF SHOP PAINT CISC/CPMA 1-73A. PROVIDE ALL ERECTION BRACING REQUIRED TO KEEP THE STRUCTURE STABLE AND IN ALIGNMENT DURING CONSTRUCTION.
- THE CONTRACTOR MUST PROVIDE INSPECTION REPORTS FOR STRUCTURAL STEEL. ALL REPORTS MUST BE PREPARED BY AN
- INDEPENDENT INSPECTION AND TESTING AGENCY.
- STRUCTURAL STEEL INSPECTION AND TESTING OF MATERIALS AND WORKMANSHIP, INCLUDING VISUAL THIRD-PARTY WELDING INSPECTION, WILL BE CARRIED OUT BY AN INDEPENDENT TESTING AGENCY. INDEPENDENT TESTING AGENCY TO BE CERTIFIED TO CSA W178.1 AND WELDING INSPECTOR TO BE CERTIFIED TO LEVEL 2 OR 3 OF CSA W178.2. SUBMIT INSPECTION AND TESTING CERTIFICATION AT THE REQUEST OF THE CONSULTANT.
- 11. CUTTING AND CORING: THE CONTRACTOR SHALL CARRY THE PRICE TO RETAIN AN INDEPENDENT TESTING COMPANY TO LOCATE EXISTING REINFORCEMENT AND CONDUIT IN THE AREAS OF PROPOSED OPENINGS AND TO MARK LOCATIONS ON THE SURFACES OF SLABS AND WALLS ON WHICH THE CORES AND CUTS ARE TO BE STARTED. MARK LOCATIONS USING INDELIBLE MARKERS AS FOLLOWS: RED FOR TOP BARS, GREEN FOR BOTTOM BARS, AND BLACK FOR CORES, OPENINGS, AND CONDUITS. X-RAY CONCRETE UNLESS OTHER METHODS CAN BE SHOWN BY CONTRACTOR TO ACCURATELY LOCATE REINFORCEMENT AND CONDUIT. THE CONTRACTOR SHALL ALSO LOCATE ALL SUSPENDED SERVICES ON BOTH SIDES OF THE PROPOSED OPENING. IF LOCATIONS ARE NOT ACCEPTABLE TO CONSULTANT, RELOCATE PROPOSED
  - OPENINGS AND REPEAT PROCESS AT NO EXTRA COST TO THE CONTRACT. CORING: DO NOT CUT EXISTING REINFORCEMENT AND CONDUIT WHEN CORING EXISTING CONCRETE UNLESS APPROVED IN ADVANCE BY THE CONSULTANT. SAVE THE COMPLETE LENGTH OF ALL CORES. LABEL EACH CORE WITH LOCATION TAKEN. MAKE ALL CORES
- AVAILABLE FOR REVIEW BY CONSULTANT. DISPOSE OF CORES ONLY WITH APPROVAL OF CONSULTANT. CUTTING: DO NOT CUT EXISTING REINFORCEMENT AND CONDUIT WHEN CUTTING EXISTING CONCRETE UNLESS APPROVED IN ADVANCE BY THE CONSULTANT. DO NOT OVER CUT OPENINGS. CORE FOUR CORNERS AND ENDS OF INTERMEDIATE SAWCUTS OF ALL OPENINGS PRIOR TO CUTTING SIDES AND INTERMEDIATE LINES. SAWCUT SIDES AND INTERMEDIATE LINES.CHIP CORNERS SQUARE IF NECESSARY. IF NEW REINFORCEMENT IS REQUIRED AT AN OPENING, INSTALL REINFORCEMENT BEFORE CUTTING OPENING OR SHORE UP STRUCTURE UNTIL NEW REINFORCEMENT IS INSTALLED.
- 12. CONSTRUCTION REVIEW: NOTIFY THE CONSULTANT TWO WORKING DAYS PRIOR TO CONCRETE POURS, BACKFILLING, AND COVERING UP THE STRUCTURE WITH FINISHES
- TEMPORARY WORKS MAKE ADEQUATE PROVISIONS FOR ALL LOADS ACTING ON THE STRUCTURE DURING ERECTION. PROVIDE TEMPORARY SHORING AND BRACING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT DURING CONSTRUCTION. MEMBERS SHOWN ON THE PLANS ARE
  - THOSE REQUIRED FOR THE COMPLETED STRUCTURE AND MAY NOT BE SUFFICIENT DURING CONSTRUCTION. TEMPORARY BRACING AND SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SHORING SHALL BE DESIGNED BY A
  - PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR. PREPARE SHORING DRAWINGS SIGNED AND SEALED BY THE ENGINEER. REROUTE ALL SERVICES IN AREAS AFFECTED BY CONSTRUCTION AS REQUIRED. PROVIDE TEMPORARY REROUTING AS REQUIRED TO KEEP THE BUILDING OPERATIONAL DURING CONSTRUCTION. SITE VERIFY SERVICES IMPACTED BY THE WORK, SERVICES PRESENT NOT NECESSARILY SHOWN ON PLANS.
- 14. REJECTED WORK: DO NOT DELIVER TO THE SITE MATERIALS, WHICH ARE KNOWN NOT TO MEET THE REQUIREMENTS OF THE SPECIFICATIONS. IF REJECTED AFTER DELIVERY, REMOVE IMMEDIATELY FROM SITE.





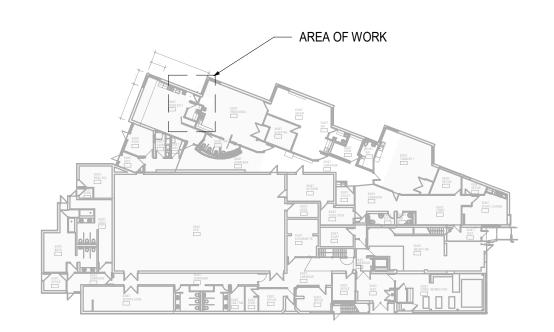


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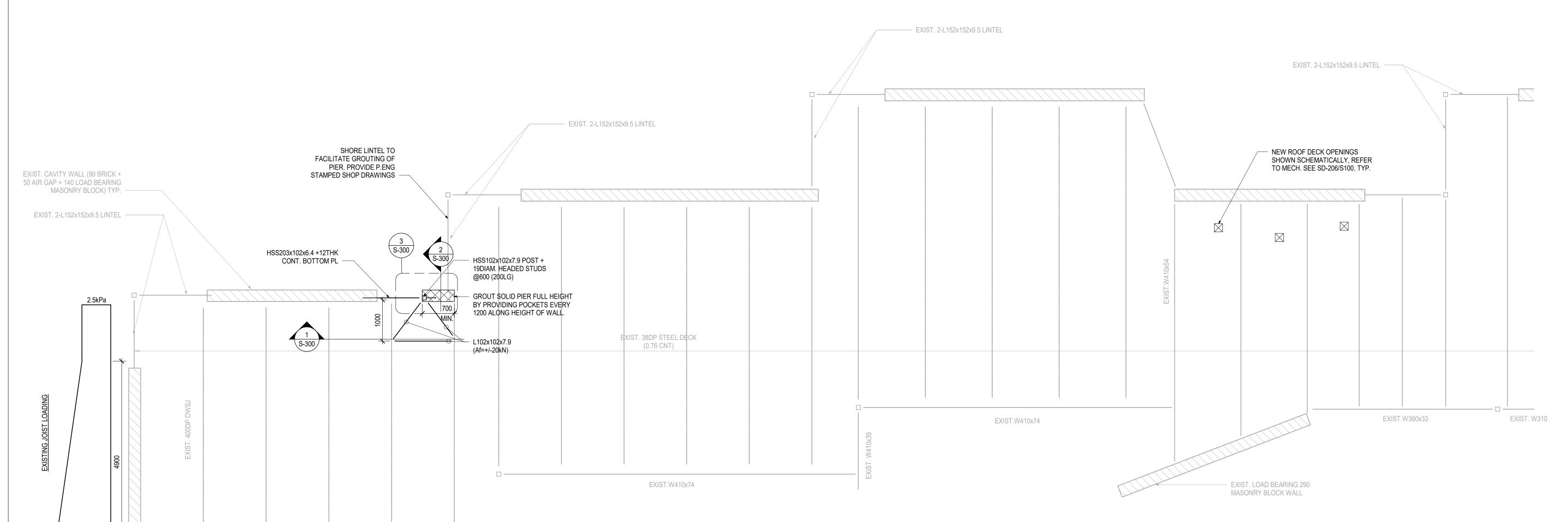
**Tel:** 905 470 0015 Fax: 905 470 0030 WWW.LEA.CA

INTERIOR RENOVATIONS O'Connor Child Care Centre 1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8 **GENERAL NOTES** Drawing: 2024-04-17 As indicated Drawn By: 24340 P.B.

DATE PLOTTED:









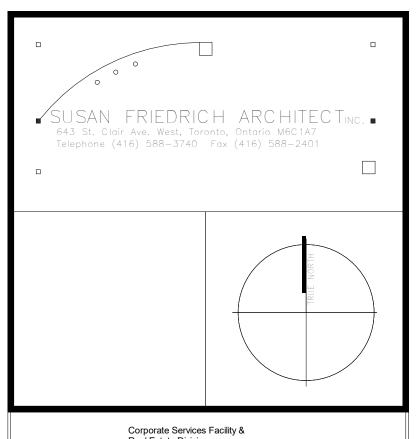
REFER TO GENERAL NOTES.

- 2. ALL EXISTING STRUCTURAL FRAMING IS ASSUMED & SHOWN SCHEMATICALLY. IF ANY DISCREPENCIES ARE NOTED, NOTIFY THE CONSULTANT IMMEDIATELY PRIOR TO PROCEEDING WITH THE WORK.
- 3. ALL STEEL TO BE HOT DIPPED GALVANIZED. TOUCH UP WITH ZINC RICH PAINT AS

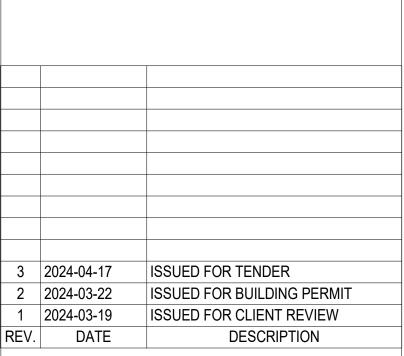
REQUIRED AT CONNECTION POINTS.

4. PROVIDE TEMPORARY SHORING AS REQUIRED TO CONDUCT THE WORK. UNFACTORED DESIGN WIND LOAD: 1.0kPa (WITH HIGH IMPORTANCE FACTOR).

6. GROUT STRENGTH TO BE 40MPa.



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INTERIOR RENOVATIONS

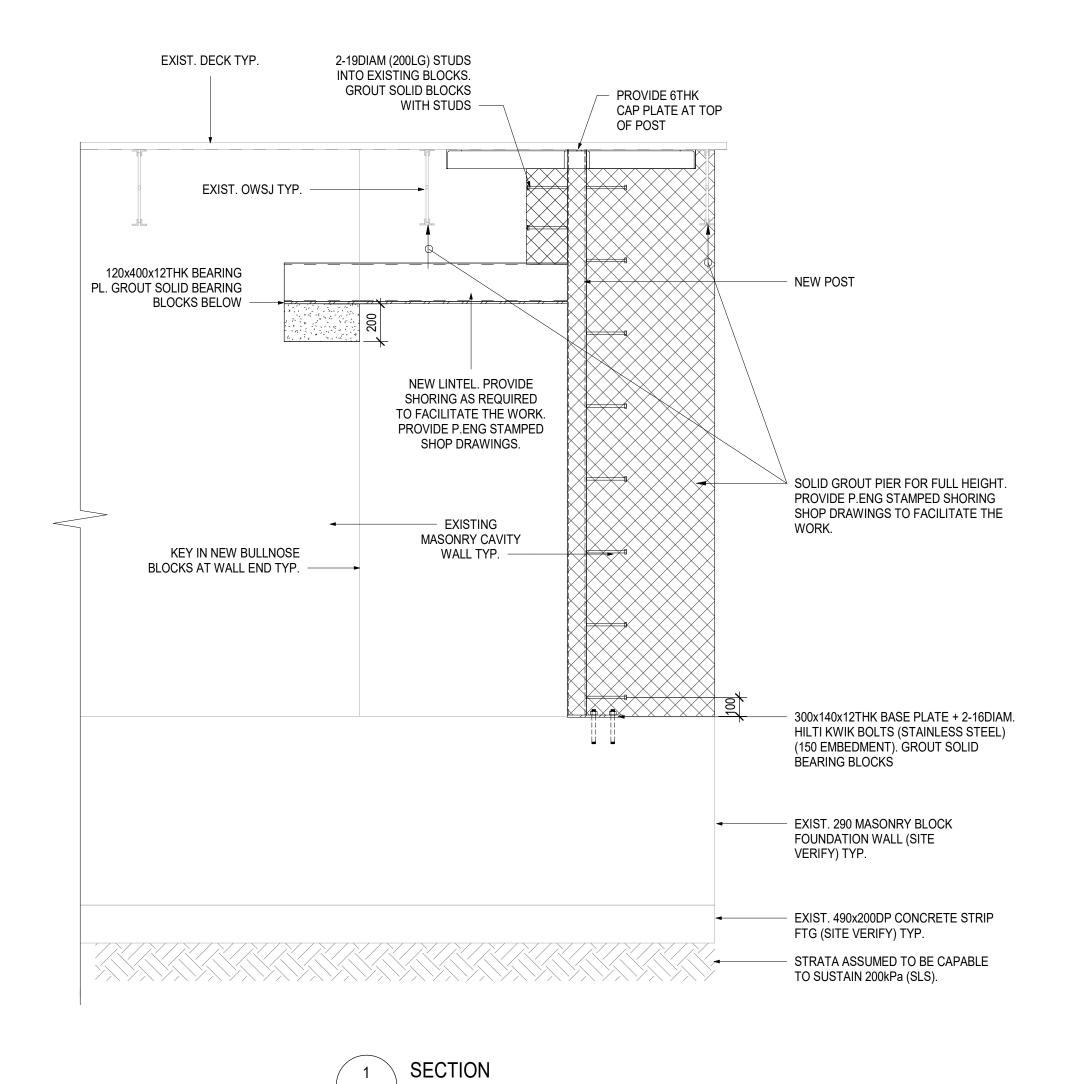
O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

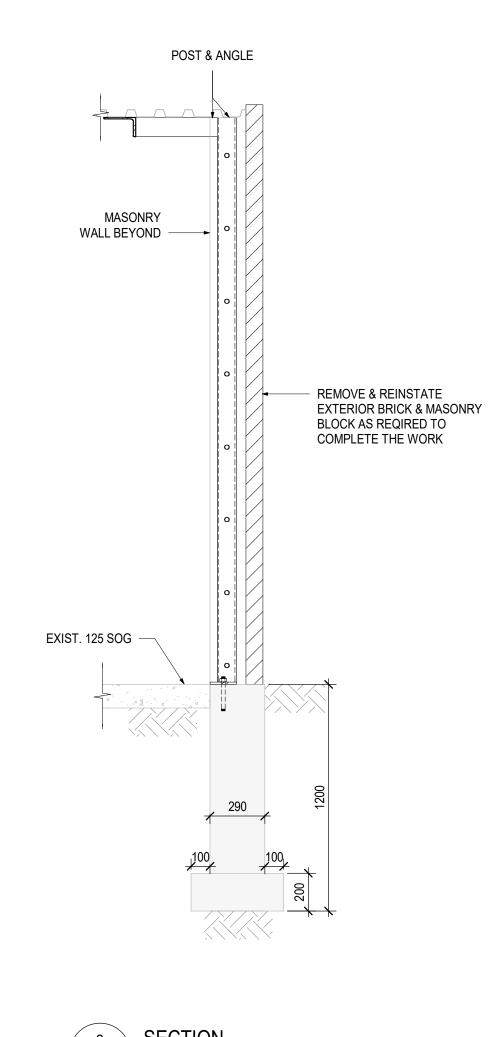
PART GROUND FLOOR PLAN

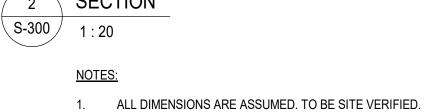
Author

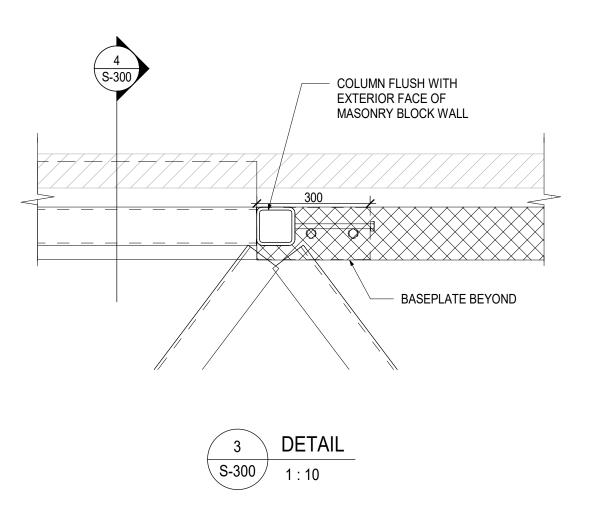
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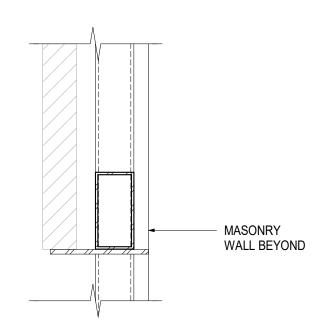


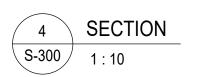
S-300 1 : 20

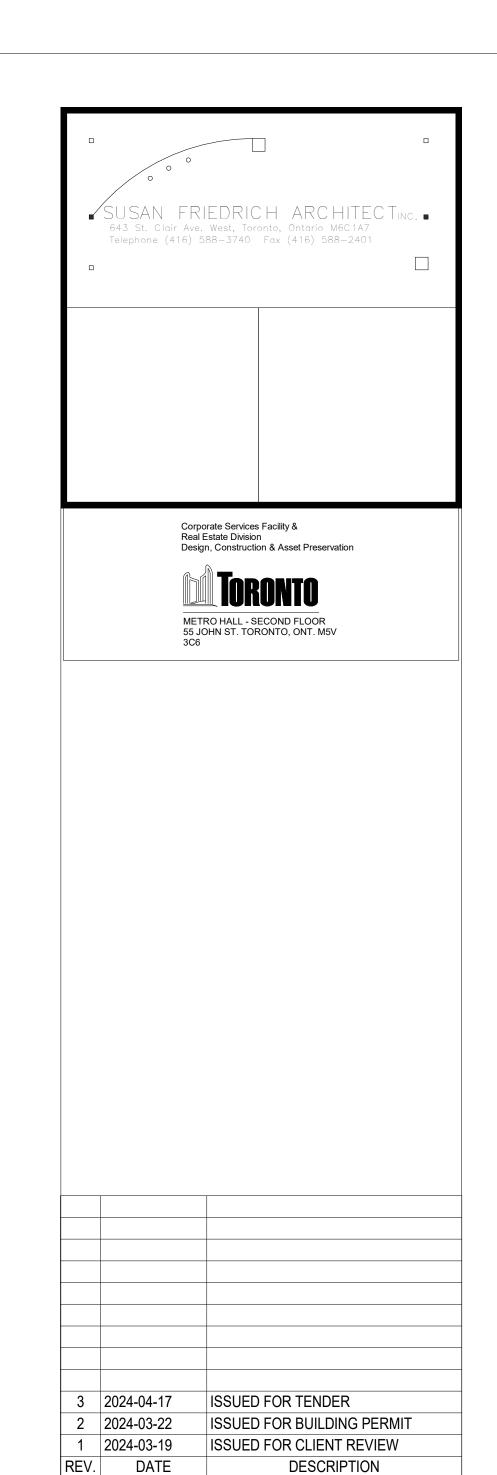














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INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 VICTORIA PARK AVENUE TORONTO, ON M4A 2L8

SECTIONS

Drawing: 2024-04-17 As indicated S-300 Drawn By: 24340 P.B.

DATE PLOTTED:

SYMBOL	DESCRIPTION
E	EXISTING TO REMAIN
D	EXISTING TO BE DEMOLISHED AND REMOVED
R	EXISTING TO BE RELOCATED
ER	EXISTING RELOCATED
	NEW
CTE	CONNECT TO EXISTING
CAP	CAP-OFF
SAN	SANITARY DRAINAGE - ABOVE GROUND
SAN	SANITARY DRAINAGE - UNDERGROUND
STM	STORM DRAINAGE - ABOVE GROUND
STM	STORM DRAINAGE - UNDERGROUND
	DOMESTIC COLD WATER SUPPLY
	DOMESTIC HOT WATER SUPPLY
V	VENT VENT
——————————————————————————————————————	
	PIPE UP
······································	PIPE UP
	P-TRAP
'WC-1'	DENOTES FIXTURE TYPE PER SPECIFICATION
<b>p</b> co	CLEANOUT IN FLOOR
⊢co	CLEANOUT IN CEILING
$\bowtie$	ISOLATION VALVE
R/A	RETURN AIR/RETURN AIR SLOT
O/A	OUTDOOR AIR/VENTILATION AIR
E/A	SANITARY EXHAUST AIR
•	THERMOSTAT
とう	CONTROL WIRING
WC-1/EF-1/HP-1 etc.	EQUIPMENT TAG
12"x10"	RECTANGULAR DUCTWORK
₹ <u>12"x10"</u>	DUCTWORK (SINGLE LINE)
8	FLEXIBLE DUCT (MAX. LENGTH 8'-0")
, ,	FLEXIBLE DUCT CONNECTION WITH BALANCING DAMPER ON TAKE-OFF
	TRANSFER AIR DUCT
<u> </u>	RECTANGULAR DUCT BREAK
	ROUND DUCT BREAK
	SINGLE LINE DUCT BREAK
<u>(</u>	CONICAL FITTING (TO TERMINAL UNIT)  DUCT TAKE-OFF (TO DIFFUSER) c/w
<u> </u>	BALANCING DAMPER
	SUPPLY AIR DIFFUSER
	EXHAUST/RETURN AIR GRILLE
ввн	ELECTRIC BASEBOARD HEATER Y (2 OR MORE)

	NEW DRYER EXHAUST AIR FAN SCHEDULE							
TAG	MAKE / MODEL	SERVICE	S.P. (in.w.c.)	AIR FLOW (CFM)	POWER V/Ph/Hz	MOTOR (WATTS )	MOTOR (RPM)	REMARKS
DEF-1	REVERSOMATIC	DRYER	0.7	220	115 / 1 / 60	115	2550	C/W LINT TRAP MODEL LT-300-45, 4" INLET, 5" OUTLET, DAS-200 SENSOR FAN CONTROL WITH SURGE PROTECTION, ISOLATION HANGERS.

DRAWING LIST				
AWING NUMBER	DRAWING TITLE			
M-001	MECHANICAL LEGEND, DRAWING LIST AND EQUIPMENT LIST			
M-002	HVAC - DEMO			
M-003	HVAC - NEW			
M-004	PLUMBING & DRAINAGE - DEMO			
M-005	PLUMBING & DRAINAGE - NEW			
M-006	MECHANICAL DETAILS			
M-007	MECHANICAL SPECIFICATIONS I			

MECHANICAL SPECIFICATIONS II

M-008

#### Equipment (standard of acceptance):

Note: Be responsible for ordering of products (equipment and materials) in a timely manner in order to meet project scheduling timelines. Failure to order products to allow manufacturers sufficient production/delivery time to meet project scheduling timelines is an unacceptable reason to request for other suppliers or substitutions.

New supply air diffusers and troffers shall match base building standard. Before submitting shop drawings, check compatibility with T-bar grid system i.e. whether it is an imperial or metric ceiling grid system.

New access panels shall be Cendrex fire-rated insulated access door with flange model #ADC-PFI. coordinate with project manager and general trades to confirm sizes and quantity before ordering.

Type "A": New 24"x24" supply air square plaque diffuser shall be E.H. Price model SPD, lay-in type for t-bar installation c/w fire damper, and white "B12" finish - refer to drawings for inlet sizes.

Type "C": New exhaust air eggcrate grille shall be E.H. Price model 80, white "B12" finish, c/w frame suitable for duct

Type "B": New return air eggcrate grille shall be E.H. Price model 80 for t-bar lay-in application c/w fire damper, and white "B12" finish - refer to drawings for sizes.

Type "D": New supply air grille shall be E.H. Price model 520D-FLA, front blades parallel to long dimension, steel opposed blade damper, frame suitable for duct connection c/w fire damper, and white "B12" finish. Size as noted.

EF-1&EF-2: New suspended inline washroom Exhaust Fan shall be Greenheck model CSP-A200, 150 CFM at 0.5" ESP, 825 rpm, 56.8W, 120/1/60, c/w back draft damper and interlocked with occupancy sensor. Power (line voltage) wiring by div.16. Mechanical contractor to coordinate with Electrical contractor for installation.

New Fire Dampers shall be RUSKIN, low leakage type, dynamic, type-B.

New Lint Trap shall be Reversomatic LT400SD.

connection c/w fire damper.

S-1: New single bowl kitchen sink shall be kindred "Steel Queen" model #QSL2020-8-3, counter mounted, stainless steel, 3-hole, 8" centres, 20-1/2"x20"x8" deep, back ledge, satin finished bowl, self rimming c/w sound deadening pads, undercoated, crumb cup strainer, and accessory parcel for counter top installation. Faucet shall be American Standard "Monterrey" model #6409170, two-handle top-mount kitchen faucet with 8" gooseneck spout, vandal-resistant metal with red/blue indexes. 1.25 gpm(5.7 lpm) pressure compensating aerator. Provide new 1-1/2" cast brass p-trap c/w cleanout, unions, and escutcheon. Provide new supplies with metal angle stops, escutcheons, and braided flexible metal risers.

S-2: New double bowl kitchen sink shall be Kindred "Steel Queen" model #QDL2031-8-3, counter mounted, stainless steel, 3-hole, 8" centres, 31-1/4"x20-1/2"x8" deep, back ledge, satin finished bowl, self rimming, c/w sound deadening pads, undercoated, crumb cup strainer, and accessory parcel for counter top installation. Faucet shall be American Standard "Monterrey" model #6409170, two-handle top-mount kitchen faucet with 8" gooseneck spout, vandal-resistant metal with red/blue indexes. 1.25 gpm(5.7 lpm) pressure compensating aerator. Provide new 1-1/2" cast brass p-trap c/w cleanout, unions, and escutcheon. Provide new supplies with metal angle stops, escutcheons, and braided flexible metal risers.

S-3: COUNTERMOUNT SINK - SINGLE HANDLE FAUCET - BELOW DECK MECHANICAL WATER MIXING VALVE. Franke Commercial #ALBS4605-1 Single Bowl, countermount sink, 478mm wide x 460mm long x 127mm high deep, no ledge, Grade 18-10 18 GA. (1.2 mm) type 304 stainless steel, Satin finish rim and bowls, Mounting kit provided, Fully undercoated to reduce condensation and resonance, 89 mm crumb cup waste assembly with 38 mm tailpiece. Faucet shall be American Standard "Monterrey" model #6409170, two-handle top-mount kitchen faucet with 8" gooseneck spout, vandal-resistant metal with red/blue indexes. 1.25 gpm(5.7 lpm) pressure compensating aerator. Provide new 1-1/2" cast brass p-trap c/w cleanout, unions, and escutcheon. Provide new supplies with metal angle stops, escutcheons, and braided flexible metal risers.

S-4: Wall hung lavatory shall be american standard, lucerne, barrier free, vitreous china, front overflow, d-shaped bowl, faucet ledge, 4" centers faucet holes model 0355.012 for wall hanger or concealed arm support, sloan sf series electronic sensor activated lavatory faucet, sf-2300 series, adapter powered with battery backup sensor activated, 4" centerset lavatory faucet, 120/ 6v dc adaptor, Point Of Use Thermostatic Water Mixing Valve, nickel plated bronze body, temperature adjusting spindle, 10mm inlets and outlet FNPT connections, Integral checks, offer temperature range between 35°C (95°F) and 46°C (114.8°F). Set valve temperature at 46°C (114.8°F). Provide tee, adaptors and flex. copper tubing to suit installation. McGuire #155WC Offset Open Grid Drain, cast brass one piece top, 17 GA. (1.5mm) mm tubular 32mm tailpiece. McGuire #LFH170BV Faucet Supplies, Chrome plated finish polished brass, commercial duty 1/4 turn ball valve angle stops, 13mm I.D. Inlet x 127mm horizontal extension tubes, convertible 1/4 turn/loose key handles, Escutcheon and flexible copper risers. McGuire #8872C P-Trap, heavy cast brass adjustable body, with slip nut, 32mm size, Shallow wall flange and Seamless tubular wall bend. Provide wall carrier model Zurn Z1231 "Concealed Arm System Wall Lavatories".

WC-1: New water closet shall be American Standard "Baby Devoro" water closet model #2315.228, 10-1/4" high "Baby Devoro FloWise", floor mounted, vitreous china, "low consumption" 4.8L (1.28 US GAL) flush, high efficiency toilet (HET), 10" rough-in, elongated siphon action bowl, chrome trip lever, sanitary dam on bowl, fully glazed trapway, ADA and TAS compliant. Seat model #AM2300STSCC Antimicrobial, juvenile (baby bowl), plastic seat, Heavy Duty open front less cover for regular bowl Stainless steel check hinge, white finish.

FD-1: New floor drain shall be zurn model #zn-415-b-p, dura-coated cast iron body with bottom outlet, combination invertible membrane clamp and adjustable collar, "type b" polished nickel bronze round strainer, and 1/2" trap primer connection. trap primer shall be precision plumbing products model p2 c/w backflow preventer and water hammer



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REVISIONS

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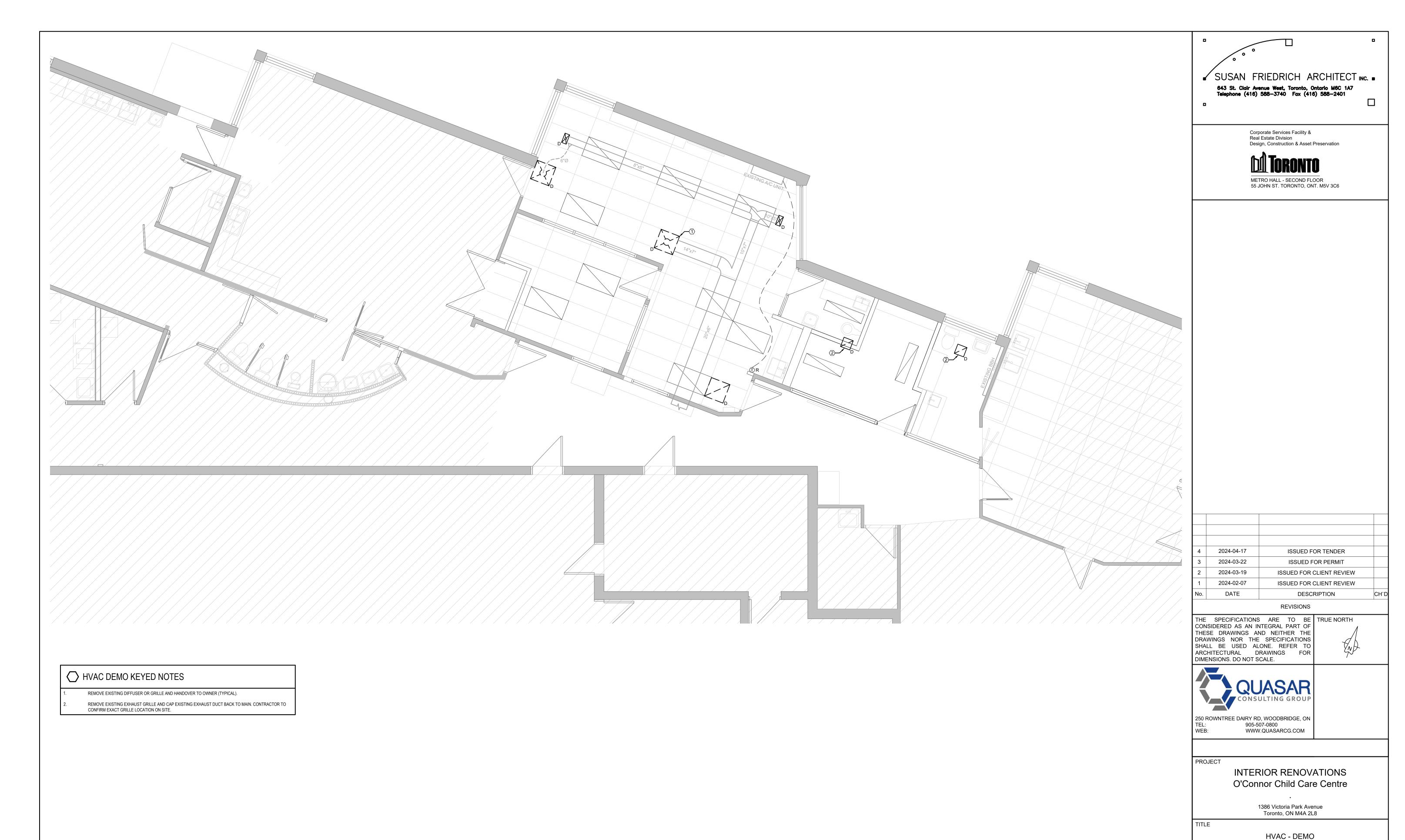
PROJECT

INTERIOR RENOVATIONS O'Connor Child Care Centre

> 1386 Victoria Park Avenue Toronto, ON M4A 2L8

MECHANICAL LEGEND, DRAWING LIST AND **EQUIPMENT LIST** 

CHECKED PROJECT No. CM-23-129 SCALE DRAWING No. M-001 N.T.S.



PROJECT No.

DRAWING No.

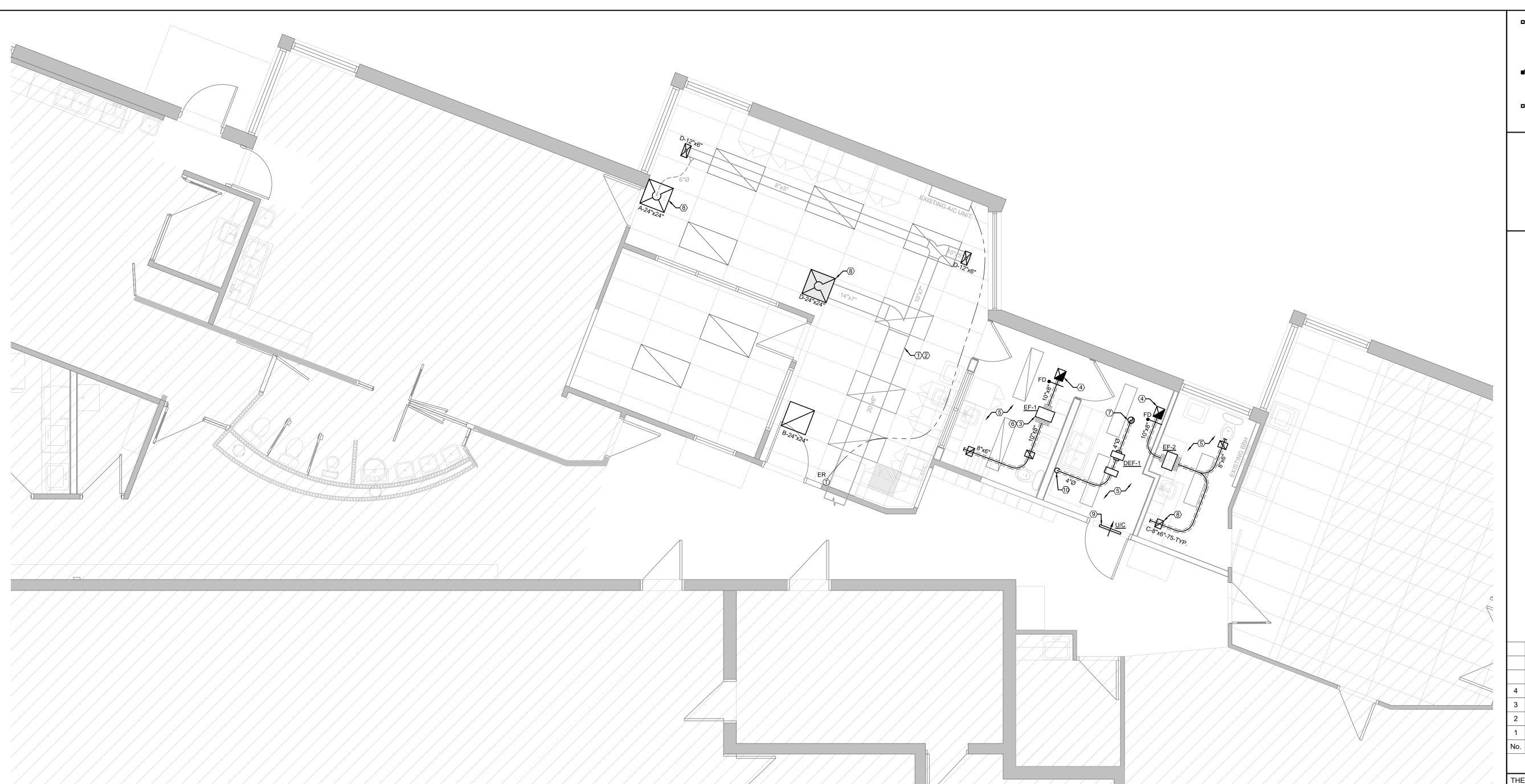
CM-23-129

M-002

CHECKED

1:50

SCALE



# HVAC GENERAL NOTES

- ALL MECHANICAL SERVICES SHOWN IN THIS DRAWING TO REMAIN UNLESS NOTED OTHERWISE.
- ALL EXISTING DUCT WORK TO REMAIN UNLESS NOTED OTHERWISE. REPLACE BROKEN, CRUSHED, OR DAMAGED DUCTS WITH NEW.
- COORDINATE WITH BASE BUILDING PRIOR TO START OF WORK.
- VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID. CONFIRM THAT EQUIPMENT AND SERVICES CAN BE INSTALLED AS SHOWN ON DRAWINGS AND INCLUDE ADDITIONAL COSTS IN BID TO FACILITATE INSTALLATION. NOTIFY THE ENGINEERS OF ANY DISCREPANCIES, OMISSIONS, AND INTERFERENCES.
- DUCT LAYOUT AS SHOWN ON PLANS IS TO SHOW DESIGN INTENT. CONTRACTOR SHALL COORDINATE DUCT ROUTE AND ALL NECESSARY FITTINGS TO ACCOMMODATE THE SITE CONDITIONS AND TO MEET THE DESIGN
- ALL DUCTS SHALL C/W SUPPORTS AND NECESSARY HARDWARE TO COMPLETE THE INSTALLATION . PROVIDE DUCT WORK IN ACCORDANCE WITH WITH SMACNA STANDARDS.
- ALL CONTROL WIRING FROM EQUIPMENT TO WALL MOUNTED THERMOSTATS SHALL BE INSTALLED NEATLY AND TIGHT TO UNDERSIDE OF SLAB STRUCTURE.
- CAP AND SEAL ALL REDUNDANT OPENINGS IN DUCTS.
- ALL DUCT SHALL BE RIGID DUCT. FLEXIBLE DUCT CAN BE USED TO CONNECT AIR OUTLET FROM RIGID DUCT. MAXIMUM FLEXIBLE DUCT SHALL NOT EXCEED 8 FEET.
- ALL NEW AND EXISTING MECHANICAL EQUIPMENT REQUIRING MAINTENANCE SHALL BE ACCESSIBLE. ENSURE THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW OR EXISTING SERVICES AND STRUCTURE -COORDINATE WITH PROJECT MANAGER AND ALL OTHER TRADES. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN SUCH A WAY TO PROVIDE ALL ACCESS REQUIREMENTS - REFER TO SHOP DRAWINGS AND/OR MANUFACTURER'S RECOMMENDATIONS FOR ACCESS REQUIREMENTS. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND MECHANICAL ENGINEER. PROVIDE ACCESS DOORS/PANELS TO MATCH BASE BUILDING STANDARD AS REQUIRED.
- PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CEILINGS AND WALLS TO FACILITATE THE INSTALLATION OF THE MECHANICAL SERVICES OUTLINED IN THIS SCOPE OF WORK. CONTROLS BY BASE BUILDING CONTRACTOR.

# NEW HVAC KEYED NOTES

- MECHANICAL CONTRACTOR TO REVIEW SUPPLY AIR MAIN DUCT WITHIN SCOPE OF WORK AND RESEAL ANY OPENINGS OR GAPS WHICH MAY BE LEAKING INTO THE CEILING PLENUM. SEAL ALL LEAKS "AIR-TIGHT" -
- REFER TO MECHANICAL SPECIFICATION FOR SEALANT AND SUBMIT REPORT TO ENGINEER.
- MECHANICAL CONTRACTOR TO REVIEW SUPPLY AIR MAIN DUCT WITHIN SCOPE OF WORK AND REMOVE ABANDONED DUCTWORK IN CEILING SPACE AND SUBMIT REPORT TO ENGINEER.
- PROVIDE NEW SUSPENDED WASHROOM EXHAUST FANS (EF-1 & EF-2) IN CEILING SPACE C/W VIBRATION ISOLATORS, FLEXIBLE DUCT CONNECTORS AND CONTROLS. INTERLOCK CONTROLS WITH OCCUPANCY
- SENSORS. REFER TO DETAIL ON M-006 FOR FURTHER INFORMATION. PROVIDE NEW 10"X8" EXHAUST AIR DUCT TO ROOF TO SERVE NEW WASHROOM C/W FIRE DAMPER AND GOOSENECK ELBOW. INSULATE DUCT MINIMUM 10 FEET FROM ROOF OPENING. ROOF OPENINGS TO BE
- COORDINATED ON SITE AND FINAL LOCATIONS TO BE APPROVED BY MECHANICAL ENGINEER. REFER TO DETAILS ON M-006 FOR FURTHER INFORMATION. PROVIDE 18"X18" FIRE RATED ACCESS PANELS FOR MAINTENANCE OF MECHANICAL EQUIPMENT IN
- AND BUILDING OPERATOR. FINAL LOCATION OF NEW MECHANICAL EQUIPMENT AND NEW DUCTWORK SHALL BE COORDINATED WITH

DRYWALL CEILING SPACE - FINAL LOCATIONS SHALL BE COORDINATED ON SITE WITH PROJECT MANAGER

DRYER. INSULATE DUCT MINIMUM 10 FEET FROM ROOF OPENING. ROOF OPENINGS TO BE COORDINATED

- EXISTING SERVICES AND STRUCTURE (TYPICAL). PROVIDE NEW VENT FOR DRYER C/W LINT TRAP, EXHAUST FAN (DEF-1), SENSOR FAN SWITCH, 6"Ø DRYER EXHAUST DUCT TO ROOF C/W 6"Ø GOOSENECK ELBOW. EXHAUST DUCT IN WALL TO BE IN FIRE RATED ENCLOSURE AND EXHAUST DUCT IN CEILING SPACE TO BE FIRE WRAPPED. INTERLOCK EXHAUST FAN WITH
- ON SITE AND FINAL LOCATIONS TO BE APPROVED BY MECHANICAL ENGINEER. PROVIDE ALL NEW SUPPLY AIR GRILLES, RETURN AIR GRILLES AND EXHAUST AIR GRILLES C/W FIRE
- PROVIDE 3/4" DOOR UNDERCUT.
  - INSTALL LINT TRAP AS PER MANUFACTURER'S INSTRUCTIONS.

DAMPER AND BALANCING DAMPER. (TYPICAL).



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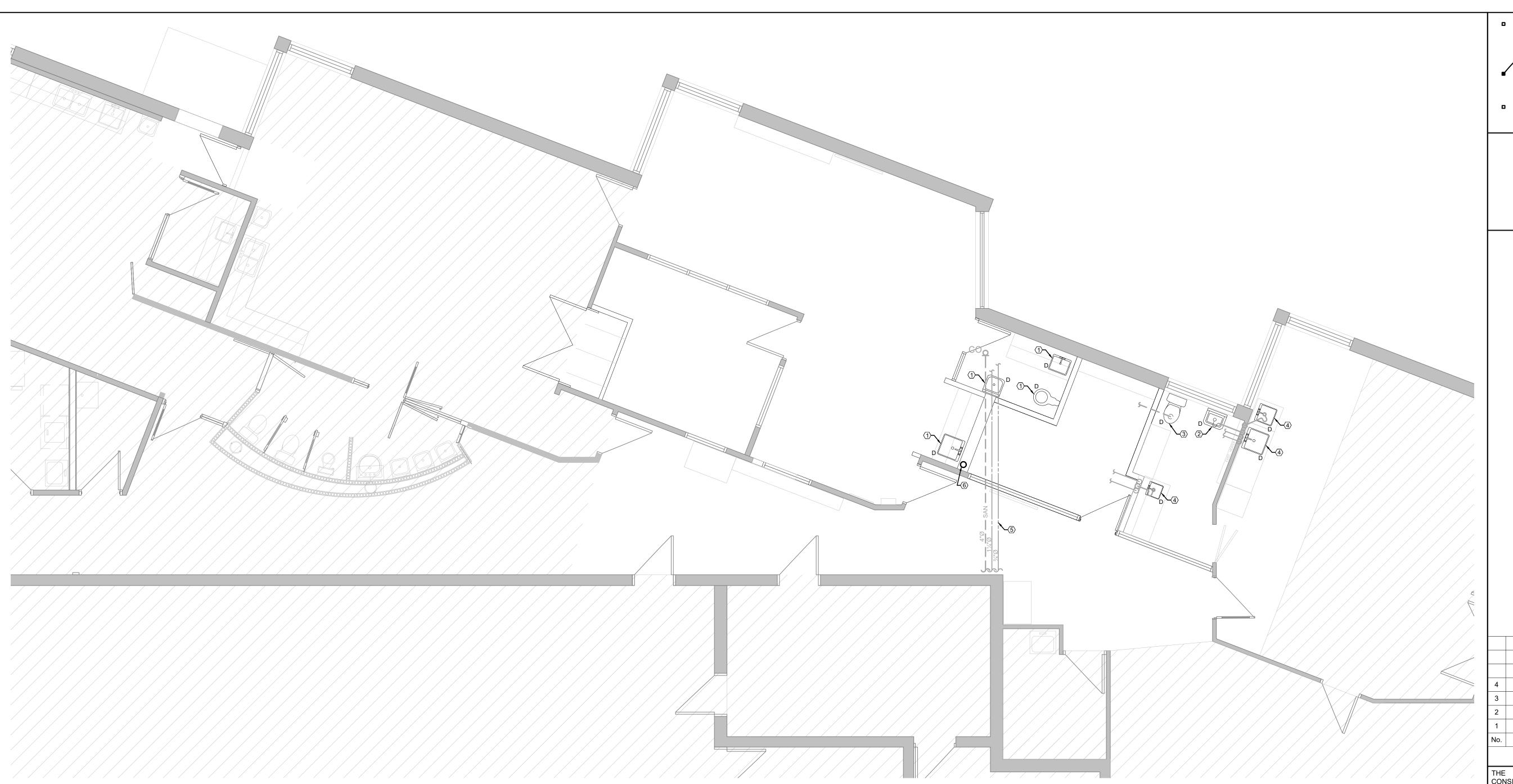
PROJECT

INTERIOR RENOVATIONS O'Connor Child Care Centre

> 1386 Victoria Park Avenue Toronto, ON M4A 2L8

HVAC - NEW

CHECKED PROJECT No. CM-23-129 DRAWING No. SCALE 1:50



# PLUMBING DEMO KEYED NOTES

- REMOVE EXISTING SINK, LAVATORY OR WATER CLOSET AND CAP OFF EXISTING PIPING & DRAINAGE AT MAINS.
- REMOVE EXISTING LAVATORY. EXISTING PIPING & DRAINAGE TO BE REUSED AND MODIFIED AS REQUIRED FOR INSTALLATION OF NEW LAVATORY IN THIS AREA. CONTRACTOR TO CONFIRM LOCATION OF EXISTING PIPING & DRAINAGE ON SITE. REFER TO M-005 FOR FURTHER INFORMATION.
- REMOVE EXISTING WATER CLOSET. EXISTING PIPING & DRAINAGE TO BE REUSED AND MODIFIED AS REQUIRED FOR INSTALLATION OF NEW WATER CLOSET IN THIS AREA. CONTRACTOR TO CONFIRM LOCATION OF EXISTING PIPING & DRAINAGE ON SITE. REFER TO M-005 FOR FURTHER INFORMATION.
- REMOVE EXISTING SINK. EXISTING PIPING & DRAINAGE TO BE REUSED AND MODIFIED AS REQUIRED FOR INSTALLATION OF NEW SINK IN THIS AREA. CONTRACTOR TO CONFIRM LOCATION OF EXISTING PIPING & DRAINAGE ON SITE. REFER TO M-005 FOR FURTHER INFORMATION.
- BEFORE COMMENCEMENT OF WORK, CONTRACTOR TO CONFIRM EXISTING SIZE AND LOCATION OF EXISTING SANITARY, COLD WATER AND HOT WATER MAINS ON SITE.
- RELOCATE EXISTING RAIN WATER LEADER WITHIN THE EXISTING PARTITION.



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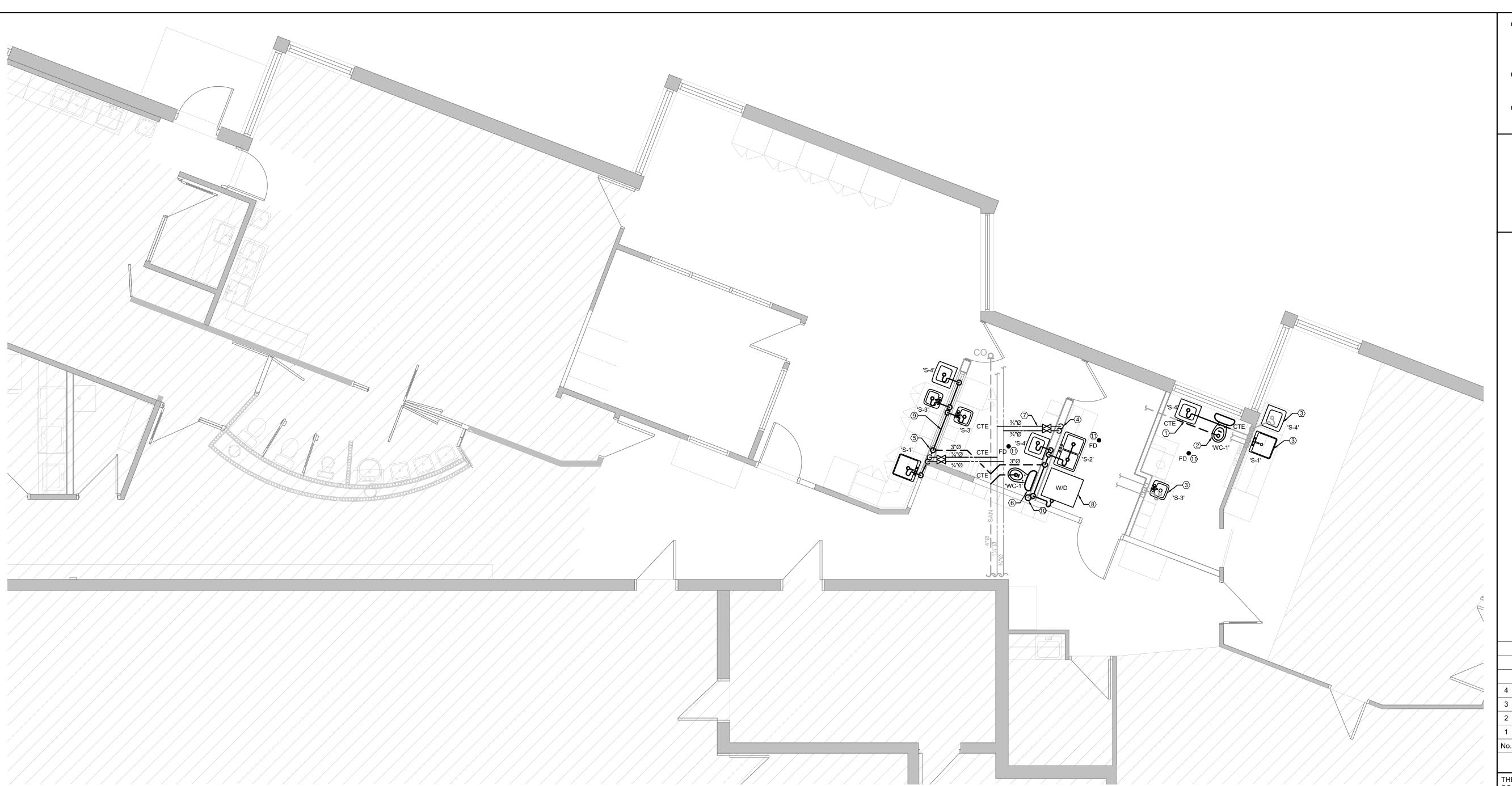
PROJECT

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PLUMBING & DRAINAGE - DEMO

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# PLUMBING GENERAL NOTES

- ALL MECHANICAL SERVICES SHOWN IN THIS DRAWING TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR TO VERIFY EXACT LOCATION AND SIZES OF EXISTING SERVICES. COORDINATE WITH BASE BUILDING BEFORE COMMENCEMENT OF WORK.
- VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID. THIS SHALL BE DONE IN ORDER TO CONFIRM THAT EQUIPMENT AND SERVICES CAN BE INSTALLED AS SHOWN ON DRAWINGS AND THAT ADDITIONAL COSTS ARE INCLUDED IN BID TO FACILITATE INSTALLATION. NOTIFY THE ENGINEERS OF ANY DISCREPANCIES, OMISSIONS, AND INTERFERENCES.
- ENSURE THAT ALL NEW AND EXISTING MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW OR EXISTING SERVICES AND STRUCTURE -COORDINATE WITH PROJECT MANAGER AND ALL OTHER TRADES. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED TO PROVIDE ALL ACCESS REQUIREMENTS - REFER TO SHOP DRAWINGS AND/OR MANUFACTURER'S RECOMMENDATIONS FOR ACCESS REQUIREMENTS. REPORT ANY OBSTRUCTIONS TO THE PROJECT MANAGER AND MECHANICAL ENGINEER. PROVIDE ACCESS DOORS/PANELS TO MATCH BASE BUILDING STANDARD AS REQUIRED.
- PLUMBING AND SANITARY DRAINAGE LAYOUTS AS SHOWN ON PLANS IS TO SHOW DESIGN INTENT. CONTRACTOR SHALL COORDINATE ROUTING AND ALL NECESSARY FITTINGS TO ACCOMMODATE THE SITE CONDITIONS AND TO MEET THE DESIGN INTENT.
- PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CEILINGS AND WALLS TO FACILITATE THE INSTALLATION OF THE MECHANICAL SERVICES OUTLINED FOR THIS SCOPE OF WORK.

# NEW PLUMBING KEYED NOTES

- REPLACE EXISTING LAVATORY AND RELOCATE TO NEARBY LOCATION AS SHOWN. ASSOCIATED PIPING & DRAINAGE UNDER REMOVED LAVATORY TO BE DISCONNECTED, EXTENDED, THEN RECONNECTED TO SUIT THE NEW INSTALLATION. PROVIDE NEW VENT PIPE IN CEILING SPACE TO EXISTING VENT PROVISION. MODIFY EXISTING VENT PIPE AS REQUIRED TO SUIT.
- REPLACE EXISTING WATER CLOSET AND RELOCATE TO NEARBY LOCATION AS SHOWN. ASSOCIATED PIPING & DRAINAGE UNDER REMOVED WATER CLOSET TO BE DISCONNECTED, EXTENDED, THEN RECONNECTED TO SUIT THE NEW INSTALLATION. PROVIDE NEW VENT PIPE IN CEILING SPACE TO EXISTING VENT PROVISION. MODIFY EXISTING VENT PIPE AS REQUIRED TO SUIT.
- REMOVE AND REPLACE EXISTING SINK. ASSOCIATED PIPING & DRAINAGE UNDER REMOVED SINK TO BE DISCONNECTED THEN RECONNECTED TO SUIT THE NEW INSTALLATION. PROVIDE NEW VENT PIPE IN CEILING SPACE TO EXISTING VENT PROVISION. MODIFY EXISTING VENT PIPE AS REQUIRED TO SUIT.
- PROVIDE 3/4" DCW AND 3/4" DHW FOR NEW SINK, NEW LAVATORY, NEW WATER CLOSET AND NEW WASHING MACHINE. PROVIDE AND CONNECT 1/2" DCW AND 1/2" DHW TO NEW SINK, 1/2" DCW AND 1/2" DHW TO NEW LAVATORY AND 1/2" DCW TO NEW WATER CLOSET C/W ISOLATION VALVES. PROVIDE 1-1/2" DRAINAGE FOR NEW SINK AND 1-1/2" DRAINAGE FOR NEW LAVATORY AND CONNECT TO NEW 3" BURIED SANITARY DRAIN. CONNECT NEW 3" BURIED SANITARY DRAIN TO EXISTING SANITARY PROVISION AS SHOWN. PROVIDE NEW VENT PIPES IN CEILING SPACE TO EXISTING VENT PROVISION. MODIFY EXISTING VENT PIPE AS REQUIRED
- PROVIDE 3/4" DCW AND 3/4" DHW FOR FOUR NEW SINKS. PROVIDE AND CONNECT 1/2" DCW AND 1/2" DHW TO EACH NEW SINK C/W ISOLATION VALVES. PROVIDE 1-1/2" DRAINAGE TO EACH NEW SINK AND CONNECT TO NEW 3" BURIED SANITARY DRAIN. CONNECT NEW 3" BURIED SANITARY DRAIN TO EXISTING SANITARY PROVISION AS SHOWN. PROVIDE NEW VENT PIPE IN CEILING SPACE TO EXISTING VENT PROVISION. MODIFY EXISTING VENT PIPE AS REQUIRED TO SUIT.
- PROVIDE 3" SANITARY DRAINAGE FOR NEW WATER CLOSET AND CONNECT TO EXISTING SANITARY PROVISION AS SHOWN. PROVIDE NEW VENT PIPE IN CEILING SPACE TO EXISTING VENT PROVISION. MODIFY EXISTING VENT PIPE AS REQUIRED TO SUIT.

- INSULATE DOMESTIC HOT WATER AND COLD WATER PIPES AS SPECIFIED (TYPICAL).
- PROVIDE NEW DCW, DHW, DRAINAGE AND VENT FOR NEW WASHER. PROVIDE WASHER BOX. REFER TO DETAILS ON M-006 FOR FURTHER INFORMATION.
- INSTALL NEW PLUMBING WITHIN THE PARTITION UNDER THE WINDOW.
- RELOCATED RAIN WATER LEADER AT NEW LOCATION. MODIFY UNDERGROUND PIPE TO SUITE. MODIFY RAIN WATER PIPE IN CEILING SPACE TO SUIT. PROVIDE ACCESS FOR THE RAIN WATER LEADER CLEAN OUT.
  - PROVIDE NEW 3"Ø FLOOR DRAIN C/W VENT PIPE AND TRAP SEAL PRIMER. PROVIDE NEW 3"Ø SANITARY DRAIN PIPE. CONNECT TO EXISTING UNDERGROUND MAIN. ALLOW FOR X-RAY AND FLOOR CUTTING.

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PROJECT

INTERIOR RENOVATIONS O'Connor Child Care Centre

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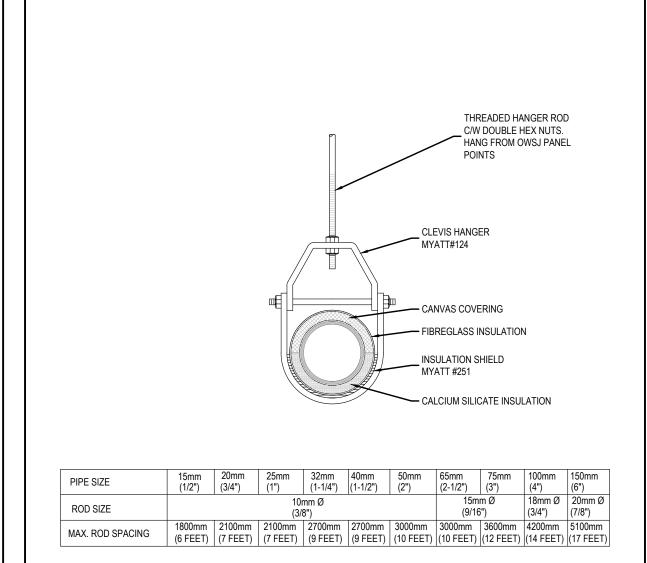
PLUMBING & DRAINAGE - NEW

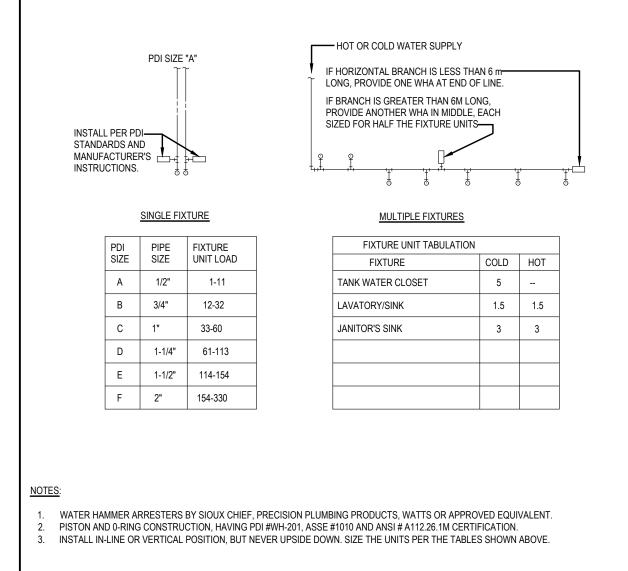
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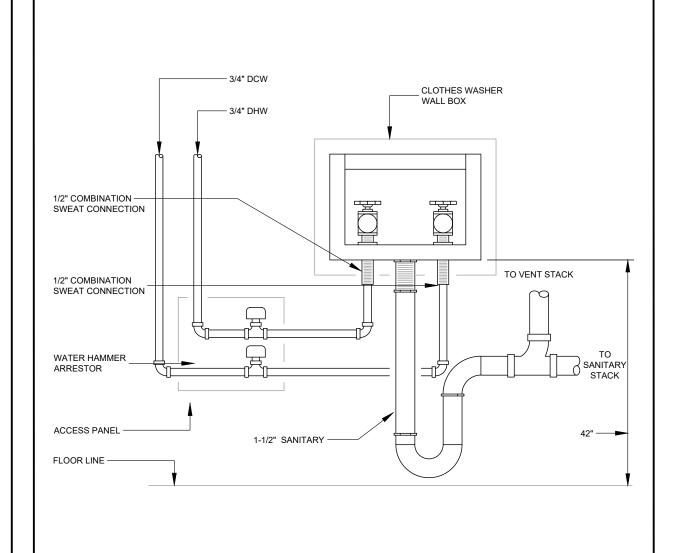
PLUMBING FIXTURE SCHEDULE						
DESCRIPTION	SERVICES					
DESCRIPTION	DCW	DHW	WASTE	VENT		
WATER CLOSET (FLUSH TANK)	1/2"	-	3"	1-1/2"		
LAVATORY	1/2"	1/2"	1-1/2"	1-1/4"		
SINK	1/2"	1/2"	1-1/2"	1-1/4"		
WASHING MACHINE	1/2"	1/2"	1-1/2"	1-1/2"		

# NOTES:

- . CONTRACTOR SHALL PROVIDE PLUMBING SHOP DRAWINGS WITH CSA STAMP.
- PROVIDE ALL PLUMBING, DRAINAGE, AND VENTS. 3. MAXIMUM PRESSURE OF INCOMING COLD WATER LINE SHALL BE 80PSI. PROVIDE PRESSURE REDUCING VALVE WHERE INCOMING WATER PRESSURE IS HIGHER THAN 80PSI. CONFIRM THAT MINIMUM WATER PRESSURE IS 15PSI FOR FURTHEST PLUMBING FIXTURE.
- 4. MAXIMUM WATER VELOCITY IN PIPING SHALL BE 8 FEET PER SECOND. PLUMBING FIXTURE SCHEDULE 1

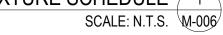






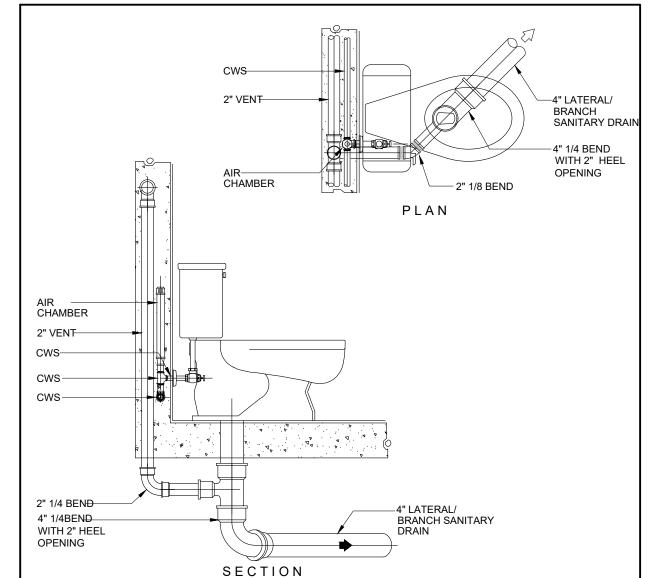
LAUNDRY BOX 4 SCALE: N.T.S. M-006

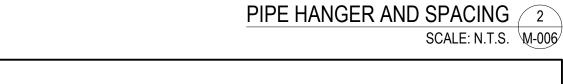
# SCALE: N.T.S. M-006

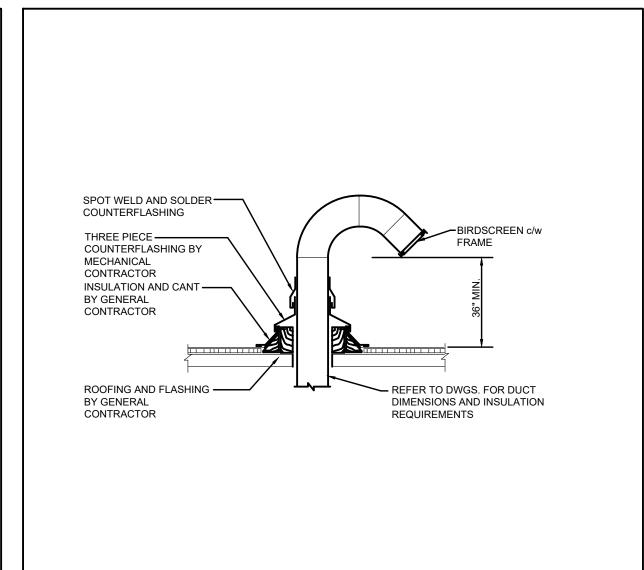


WATER CLOSET 5

SCALE: N.T.S. W-006









CEILING ALTERNATIVE OPENING IF -ADEQUATE SPACE (12" MIN.) FLEXIBLE CONNECTION ABOVE TOP OF DUCT (INLET & OUTLET) OPENING IS NOT AVAILABLE SUSPENDED EXHAUST FAN c/w VIBRATION ISOLATORS AND FLEXIBLE DUCT CONNECTORS EXHAUST GRILLE(S) NOTES:

1. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
2. ALL DUCTS SHALL BE INTERNALLY LINED WITH 1" ACOUSTIC LINING.
3. REFER TO EQUIPMENT LIST OR SCHEDULE FOR ELECTRICAL REQUIREMENTS.

LOCATION WITH NEW AND EXISTING SERVICES AND EXISTING STRUCTURE...

4. ENSURE THAT ALL ACCESS REQUIREMENT ARE PROVIDED - COORDINATE FINAL

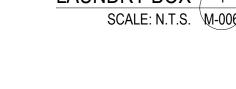
EXHAUST FAN 7 SCALE: N.T.S. M-006

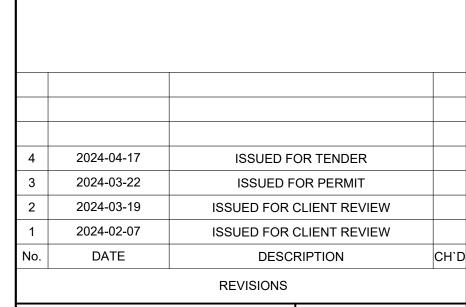
WATER HAMMER ARRESTER 3

60" MIN. LONG ACOUSTICALLY LINED DUCT, THEN DUCT UP

TO ROOF

SCALE: N.T.S. M-006





✓ SUSAN FRIEDRICH ARCHITECT INC. ■

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Real Estate Division

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ARCHITECTURAL DRAWINGS FOR	97
DIMENSIONS. DO NOT SCALE.	<b>,</b>



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PROJECT

INTERIOR RENOVATIONS O'Connor Child Care Centre

1386 Victoria Park Avenue Toronto, ON M4A 2L8

MECHANICAL DETAILS

PROJECT No. CHECKED CM-23-129 DRAWING No. SCALE M-006 N.T.S.

### 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

- 00 70 00 GENERAL CONDITIONS
- 1.1 Obtain all requirements including Green Measures, if any.
- 1.2 Conform to Schedule 'C' of the Landlord/Tenant lease agreement. 1.3 Maintain Base Building Standards and equipment compatibility.
- 1.4 Comply with all codes, standards, and authority having jurisdiction.
- 1.5 All mechanical work must be performed by a mechanical contractor approved by the Landlord.
- 1.6 Include all material, labor, and equipment as necessary for a complete installation as shown and specified.
- 1.7 Comply with the General contractor's construction schedule.
- 1.8 It shall be the Contractor's responsibility to ensure that the mechanical systems are complete and operative.
- 1.9 The fire protection systems shall remain active and be protected during construction.
- 2.0 DRAWINGS AND SPECIFICATIONS
- 2.1 Drawings are to be read in conjunction with specifications, and cross-referenced with electrical and architectural drawings.
- 2.2 If the contractor finds a discrepancy between drawings and specifications, a written query shall be submitted to the mechanical engineer for clarification before submitting bid price. If this is not done, the most expensive option shall be provided in bid.
- 2.3 Mechanical drawings are to be considered diagrammatical. Visit the site to review existing site conditions prior to submitting bid, and include all costs associated with installation of mechanical services. Examine routing in which mechanical services are proposed to be located, and include for all offsets, transition pieces, fittings, etc. as required for a complete installation

#### 00 73 00 - SUPPLEMENTARY CONDITIONS

- 1.0 GENERAL
- 1.1 Refer to Architectural/Interior Designer drawings for exact location of dimensioned
- 1.2 Refer to Architectural/Interior Designer drawings for ceiling types and heights.
- 1.3 Refer to Architectural/Interior Designer drawings for wall types and fire-rating. Provide fire-dampers where wall is fire-rated. Provide security bars where wall is a secure type. Provide transfer air ducts or openings for full-height demising walls or rooms enclosed with full-height partition walls (drywall or baffle) i.e., from floor to underside of structure above.
- 2.0 HEALTH AND SAFETY REQUIREMENTS
- 2.1 Be responsible for the safety of workers and the equipment on the project in accordance with all applicable safety legislation passed by federal, provincial, and local authorities governing construction safety. The more stringent regulations shall prevail.

# 01 GENERAL REQUIREMENTS

### 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

- 1.0 PROJECT COORDINATION
- 1.1 Cooperate and coordinate with Project Manager and all other trades so that all equipment can be satisfactorily installed and no delay is caused to other trades.
- 1.2 Location of existing and new services are approximate. Before fabrication and installation of equipment and services, ensure that installation can be accomplished without interfering with the structure, obstructing access requirements to equipment, or hindering the work of other trades. Location of new services and equipment shall be installed to suit site conditions. Before installing new equipment, ensure that all access requirements have been provided - refer to shop drawings for access requirements. Access requirements for existing equipment shall be maintained and not obstructed by new equipment or services. Coordinate with project manager, electrical contractor, and communication contractor to ensure that new electrical and communications services do not obstruct access requirements for mechanical equipment. Failure to provide access for new and existing equipment may involve relocating the piece of mechanical equipment or services at no additional cost to the contract
- 1.3 Provide code and manufacturer required clearances for servicing and removal of equipment and components.
- 2.0 FACILITY SERVICES COORDINATION
- 2.1 The operation of all Base Building services shall be maintained. To shutdown any Base Building services, submit a written request 72 hours minimum before the proposed shutdown to the Landlord or as indicated in Tenant Construction Criteria manual. Do not proceed with shutdown until written approval has been obtained from the Landlord.
- 2.2 All work in adjacent tenant spaces and celling spaces below shall be done after regular office hours - coordinate and schedule with Landlord and Project Manager.
- 2.3 All work generating noise shall be done after regular office hours refer to Tenant Construction Criteria manual for exact times.
- 2.4 Coordinate with Landlord for scheduling of all work required to be done after regular office hours and weekends. All costs including security shall be at Tenant Contractor's expense.
- 2.5 Turn over all removed equipment not being reused (Diffusers, Terminal Units, Fans etc.) to the Landlord. Dispose of unwanted equipment as directed by the Landlord.
- 2.6 Ensure that a clear path for the return air and smoke exhaust air is provided to the base building's return/exhaust openings.

# 01 33 00 - SUBMITTAL PROCEDURES

standard of acceptance.

- 1.1 Submit shop drawings in PDF format, pre-checked and stamped by the Contractor, for the Consultant's review. Indicate project information and provide adequate space to accommodate the Consultant's review stamp.
- 1.2 Submit shop drawings within one week of award of contract.

project site, and submit the approval to the Consultant.

- 1.3 Be responsible for ordering of products (equipment and materials) in a timely manner in order to meet project scheduling timelines. Failure to order products to allow manufacturers sufficient production/delivery time to meet project scheduling timelines is an
- unacceptable reason to request for other suppliers or substitutions.
- 1.4 Mechanical Equipment shall meet the energy efficiency requirements of ASHRAE 90.1. 1.5 Equipment shall be certified by a recognized testing agency accredited by the Standards Council of Canada, and bear a certification mark from that agency such as CSA certification, cUL listing, or ULC listing. Where certified or listed material and equipment is

not available, obtain special approval from Authority Having Jurisdiction before delivery to

- 1.6 Equipment specified on drawings and in specification are considered the minimum
- 1.7 All materials to meet flame spread rating requirements as indicated in the building code or Authority Having Jurisdiction.
- 1.8 The following is to be read in conjunction with consultant's shop drawing review stamp for submitted shop drawings or product data sheets: "This review by the mechanical consultant is for the sole purpose of determining conformance with the general design concept. This review does not mean that consultant approves detail design indicated in the reviewed shop drawings, the responsibility for which remains with the contractor. Consultant's review does not relieve contractor of responsibility for errors or omissions in shop drawings or of the contractor's responsibility for meeting requirements of contract documents. Confirm dimensions and weights for coordination of work of sub-trades."

- 2.0 SUBSTITUTION OF SPECIFIED EQUIPMENT.
- 2.1 Equivalent equipment must be equal to or better than the specified product. Obtain consultant's approval before submitting equivalent equipment shop drawing.
- 3.0 PRODUCT STORAGE AND HANDLING REQUIREMENTS.
- 3.1 Store all equipment and materials in dry locations.

### 01 40 00 - QUALITY REQUIREMENTS

- 1.0 PERMITS AND FEES
- 1.1 Obtain and pay for all Permits and fees required. Submit to the Authority Having Jurisdiction the necessary number of drawings and specifications for examination and approval before commencement of work.
- 2.0 CODES AND STANDARDS
- 2.1 Comply with all applicable codes, provincial codes, and municipal codes.
- 3.0 QUALITY ASSURANCE
- 3.1 Work to be carried out by qualified licensed tradespersons or apprentices in accordance with Authorities Having Jurisdiction.
- 3.2 Only first-class workmanship will be accepted. Present a neat and clean appearance on completion. Any unsatisfactory work will be replaced at no extra cost.
- 3.3 Install all equipment and systems in accordance with code requirements and manufacturers' recommendations.
- 4.0 FIELD QUALITY CONTROL
- 4.1 Provide instruments, meters, equipment, and personnel to conduct tests during and at conclusion of project.
- 5.0 INSPECTIONS
- 5.1 Furnish a Certificate of Acceptance from the Building Inspection Department on completion of work.
- 5.2 The Consultant will carry out reviews during and on completion of the Project. The Consultant will issue a review report including a deficiency list that the contractor will need to rectify before completion. A compliance letter will be issued when all deficiencies have been rectified and closeout documents have been submitted and approved.

#### 01 57 36 - TEMPORARY DUST CONTROL

- 1.0 GENERAL
- 1.1 Refer to Tenant Construction Criteria manual for dust control procedures.
- 2.0 GENERAL CONTAINMENT AND CLEAN UP PROCEDURES
- 2.1 Provide all exit doors from construction area with dust retaining mats.
- 2.2 Return air openings shall be provided with temporary 1" thick (MERV 8) filters and replaced weekly during the construction period. Remove temporary filter when construction has been completed.
- 2.3 After completion of work, all mechanical equipment such as diffusers, grilles, and thermostats shall be wet brushed and cleaned.

#### 01 70 00 - EXECUTION REQUIREMENTS

- 1.0 EXAMINATION AND PREPARATION
- 1.1 Before submitting Tender, the Contractor shall visit the site to ascertain all conditions that affect the work. No extras will be allowed for work resulting from conditions that would have been evident from a thorough examination.
- 1.2 Verify location and sizes of existing services prior to making new connections to ensure that the existing systems have adequate capacities to accommodate new loads.
- 2.0 CUTTING AND PATCHING
- 2.1 The Contractor will be responsible for all cutting and patching required for the installation.
- 2.2 Structural members and structural floor are not to be cut without the consent of the Landlord and Base Building Structural Engineer.
- 2.3 Restore finishes to match existing.
- 3.0 CLEANING AND WASTE MANAGEMENT
- 3.1 Comply with all requirements in the Tenant Construction Criteria manual.
- 4.0 STARTING AND ADJUSTING
- 4.1 Demonstrate that equipment and systems meet the specified requirements. Submit start-up reports
- 4.2 Provide instruments, meters, equipment, and personnel required to conduct tests. Submit test results.

# 01 77 00 - CLOSEOUT PROCEDURES

- 1.0 BUILDING PERMIT COMPLIANCE
- 1.1 Before requesting the Consultant's "Review of General Conformance" letter for submission to the Municipal Building Department for occupancy, the following documents must be submitted to the Mechanical Consultant:
- .2 Plumbing
- .1 Confirmation that municipal plumbing inspector has reviewed the work and has no deficiencies.
- .1 Air balancing report with confirmation that all noted deficiencies in the report have been rectified and final balancing completed.
- .2 Contractor must certify that HVAC control interlocks with life safety systems are operational.
- 1.2 If any of the above documents have not been completed and submitted, the "assurance of professional field review and compliance" letter cannot be issued. Any costs for subsequent reviews will be charged to the Contractor.
- 2.0 SUBSTANTIAL PERFORMANCE
- 2.1 Before requesting the "Substantial Performance certificate", the following documents must be submitted to the Consultant:

  - .1 Project as-built drawings and red-line record drawings must be submitted to
- .2 Operation and Maintenance manuals must be submitted to consultant for review 2.2 If any of the above items have not been completed during the Substantial Performance review, the "Substantial Performance certificate" cannot be issued. Any costs for
- subsequent reviews will be charged to the Contractor. 3.0 OPERATION AND MAINTENANCE (O&M) MANUALS
- 3.1 Submit O&M manual in PDF format to the Consultant for review.
- 3.2 After approval, provide the Landlord with three hard copies in a 3-ring binder and a PDF copy of the O&M manual.

- 3.3 O&M Manuals to include:
- .1 As-Built Drawings (AutoCAD and PDF format).
- .2 Testing and Commissioning Reports.
- .3 HVAC balancing reports (air and hydronic water)
- .4 Warranties.
- .5 Training records.
- .6 Operation and Maintenance procedures.
- .7 Reviewed shop drawings of all new equipment.
- 4.0 PROJECT RECORD AND AS-BUILT DOCUMENTS
- 4.1 Record Drawings
- .1 Maintain record drawings on site with red-line markups of all deviations.
- 4.2 As-Built drawings
- .1 Obtain ACAD files from the Consultant for production of contractor's as-built
- .2 On completion of as-built drawings based on red-line record drawings, submit ACAD drawings and PDF files to Consultant for review.
- .3 Once approved, submit as-built drawings (in AutoCAD and pdf formats) to Landlord.
- 5.0 WARRANTIES
- 5.1 Submit a written guarantee to the Owner for one year from the date of acceptance. This guarantee shall bind the Contractor to correct, replace, or repair any defective equipment or services without cost to the Owner.

#### 03 CONCRETE

- 03 05 00 COMMON WORK RESULTS FOR CONCRETE 1.0 STRUCTURAL CONCRETE FLOOR WORK
- 1.1 For structural concrete floors, check with the Base Building's procedures for core drilling and cutting of floor slab to facilitate the mechanical installation. Provide X-ray or scanning (check Tenant Construction Criteria manual for applicable procedure) to locate all reinforcing, electrical conduit etc. in concrete floor slab. Submit proposed locations to Landlord and Base Building Structural Engineer for review. Obtain Landlord and Structural Engineer's written approval before proceeding with coring and cutting.
- 1.2 For structural concrete floors on grade, provide all scoping and x-rays or scanning (check Tenant Construction Criteria manual for applicable procedure) for cutting and coring of existing concrete floors to facilitate the installation of buried sanitary drain piping and venting. Confirm location of existing buried sanitary drain on site by scoping, and determine routing of new buried sanitary drain piping for connection to existing buried sanitary drain. Submit proposed locations of cutting and coring to Landlord and Base Building Structural Engineer's for review. Obtain Landlord and Structural Engineer's written approval before proceeding with coring and cutting. Make arrangements with Plumbing inspector and Mechanical Engineer to review buried sanitary and venting work before

proceeding with back-fill, concrete, screed work, and making floor good.

### 07 THERMAL AND MOISTURE PROTECTION

#### 07 80 00 - FIRE AND SMOKE PROTECTION

- 1.0 FIRESTOPPING
- 1.1 Submit shop drawings of each type of firestopping and smoke seal system including product data sheet and a WHMIS sheets for review.
- 1.2 Before starting any work on site, submit detailed shop drawings to the Mechanical Consultant for review. Include the following information:
- .1 Manufacturer's technical product data and installation instructions for each specific type and location of penetration.
- .2 For each specific type and location of penetration, provide installation instructions from a recognized independent testing agency. .3 Mark penetration types and locations on set of white prints. At completion of project,
- transfer this information to "as-built" drawings.
- 1.3 Provide approved fire-stopping material to maintain integrity of fire separations.
- 1.4 Manufacturers: 3M, AD Fire Protection, Hilti, or approved equal. 1.5 Fire stopping and smoke seal system materials shall be asbestos-free elastomeric materials tested, listed, and labelled by ULC in accordance with ULC S115 and ULC S101 for installation in ULC designated firestopping and smoke seal systems to provide a positive fire, water and smoke seal, and a fire-resistance rating (flame, hose stream and

temperature) not less than fire resistance rating of surrounding fire rated construction.

- 1.6 Materials are to be compatible with abutting dissimilar materials and finishes and complete with primers, damming and back-up materials, supports, and anchoring devices in accordance with firestopping manufacturer's recommendations and ULC tested assembly.
- 1.7 Ensure suitable environmental conditions for proper installation of fire stopping. Refer to manufacturer's recommendations and requirements.
- 1.8 Only qualified workers (min 3 years) shall perform fire-stopping work.
- 1.9 Submit certification indicating a letter of proper firestopping and smoke seal installation, ensuring installation complies with CAN4-115-M85 and include in close-out manual.

# 08 OPENINGS

# 08 31 00 - ACCESS DOORS AND PANELS

- 1.0 ACCESS DOORS 1.1 Provide access doors for new and existing concealed valves, dampers, equipment, etc.
- concealed behind walls or inaccessible ceilings.
- 1.2 Access doors to match wall and ceiling finishes.
- 1.3 Use recessed type access doors in gypsum ceilings. 1.4 Access doors flush to edge of frame, concealed continuous hinge with screwdriver operated cam latch. Provide a lockable type for Access Doors in Secure areas. Door construction to be minimum 14-gauge with 16-gauge frame. Fire-rated door construction to be a minimum 20-gauge insulated door with 16-gauge frame. Insulation thickness to
- provide required rating. 1.5 Size doors to allow adequate operating/maintenance clearance for devices. Body entry: 600mmx600mm (24"x24"). Hand entry: 300mmx300mm (12"x12"), unless noted otherwise. Coordinate locations and sizes of access doors/panels with Landlord, Base Building
- operator, interior designer, and project manager. 1.6 Acceptable manufacturers: Acudor model as per assembly, or equal by LeHage:
- .1 Concealed plaster: PS-5010
- .2 Concealed drywall: DW-5015
- .3 Existing drywall: DW-5040
- .4 Fire-rated: FW-5050/FB-5060 to match assembly. 1.7 Minimize quantity of access panels/doors by grouping together valves, balancing dampers
- backflow preventors etc. 1.8 Provide Fire-rated access doors where required - refer to interior designer drawings for fire-rating.

### 22 PLUMBING

# 22 05 00 - COMMON WORK RESULTS FOR PLUMBING

- 1.0 REFERENCES
- 1.1 Ontario Building Code, Division B, Part 7 Plumbing.
- 2.0 COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT
- 2.1 Provide low voltage step-down transformers as required for all electronic controls, including but not limited to plumbing fixtures.
- 3.0 SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING
- 3.1 Use schedule 40 steel pipe sleeves through concrete structural members, floor slabs. For sleeves through other construction - drywall, tiles, masonry, etc., use minimum 22-gauge
- galvanized steel construction. 3.2 Provide sleeves for all pipes which pass through walls and floors.
- 3.3 Coat exposed exterior surfaces of ferrous sleeves with heavy application of zinc rich pain to CGSB 1-GP-181M+AMDT-MAR-78. Provide firestopping material and install within annular space between pipes, insulation, and adjacent fire separation.
- 4.0 GENERAL DUTY VALVES FOR PLUMBING

# 4.1 Gate Valves:

- .1 NPS 2 (50mm) and under, soldered:
- .1 Class 125, 860 kPa, bronze body, screw in bonnet, solid wedge disc. .2 Acceptable material: Milwaukee 1169, Crane 1324-300 psi, Jenkins 813.

### 4.2 Ball Valves:

- .1 NPS 2 (50mm) and under, soldered: .1 To ANSI B16.18, Class 150.
- .2 Bronze body, chrome plated brass ball, PTFE Teflon adjustable packing, brass gland and PTFE Teflon seat, steel lever handle, with NPT to copper adaptors.
- .3 Acceptable material: Milwaukee BA, Crane, Jenkins, Victaulic 722 (threaded), or PL300 (push to connect)
- .4 Isolating ball valves: Crane no. 9302, Crane no. 9322, or approved equal.
- 4.4 Provide shut-off valves or screwdriver stops on water supplies to all plumbing fixtures.

5.0 HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

4.3 Isolate equipment, fixtures and branches with gate butterfly ball valves.

- 5.1 Install piping close to building structure to minimize furring, conserve headroom and space. Group exposed piping and run parallel to walls.
- 5.2 Isolate copper pipes from hangers/clamps/metal wall studs with electrolytic action tape.

### 5.3 Tie wire or perforated metal strap hangers are not accepted.

- 5.4 Concrete Inserts .1 Use inserts placed in pre-drilled holes. Do not use powder driven inserts or self-drilling inserts. Before drilling holes, accurately locate all reinforcing bars in the
- affected areas using an electro-magnetic locator. .2 Do not drill through or otherwise damage reinforcing bars. If reinforcing is encountered, the inserts must be relocated. Ensure that hole diameter, depth of penetration, spacing, etc., are in strict accordance with the insert manufacturer's
- recommendations for the specific insert type and load condition. 6.0 VIBRATION CONTROLS FOR PLUMBING PIPING AND EQUIPMENT
- accessories. 7.0 IDENTIFICATION FOR PLUMBING SYSTEMS

6.1 Provide spring with elastomeric washer hangers for ceiling suspended equipment and

- 7.1 Identify all equipment with engraved phenolic nameplates, secured in place with rivets. For valve tags, install with chain. 7.2 Identify piping in accordance with Base Building standards and ASME A13.1.
- 8.0 FACILITY DRAINAGE PIPING CLEANOUTS
- 9.0 PIPING INSTALLATION 9.1 Provide new plumbing fixtures as specified. Refer to all drawings for exact quantities and

8.1 Finished areas - Jay R. Smith 4000 NB, equal by Precision Plumbing Products, or equal

vent etc. for a complete and operational system. 9.2 Provide new hot water tanks. Relocating existing hot water tanks is strictly not permitted. Hot water tank, lining and coatings that come into contact with potable water shall be

locations. All plumbing fixtures shall be complete with all necessary piping, drainage, and

- certified to NSF/ANSI 61: Drinking Water System Components Health Effects. 9.3 Provide electronic trap seal primer and piping to traps at floor drains, funnel floor drains, and hub drains.
- 9.4 Cut square, ream and clean tubing and tube ends, clean recesses of fittings and assemble
- without binding 9.5 Assemble all piping using fittings manufactured to ANSI standards.
- 9.6 Install piping close to building structure to minimize furring, conserve headroom and space. Group exposed piping and run parallel to walls.

9.7 Connect to fixtures and equipment in accordance with manufacturer's instructions unless

otherwise indicated.

22 07 00 - PLUMBING INSULATION

1.0 PIPING INSULATION

- 9.8 Pipe equipment drains to nearest drain. 9.9 All exposed piping and fittings in washrooms shall be chrome plated. Provide chrome
- 9.10Provide heat tracing for all piping and sanitary drain piping located in unheated areas c/w thermal insulation and PVC jacketing. 9.11Provide insulation kits for piping and sanitary drains for barrier-free type lavatories as
- required by the Ontario Building Code. 9.12Remove all redundant piping, sanitary drain lines, and vent lines back to core riser. Provide valve and cap-off.

plated escutcheon plates for all piping penetrations through walls.

1.1 Insulate all domestic hot and cold water piping with pre-molded low pressure glass fibre pipe insulation. Install vapour barrier on cold and hot water piping. Seal joints of vapour barrier. Provide PVC jacketing on all exposed insulated piping.

later version if called for by authority having jurisdiction.

# 22 08 00 - COMMISSIONING OF PLUMBING

1.1 Test piping to maintain test pressure without loss for 4 hours or as required by local building code. Pressure test all piping prior to applying mechanical insulation.

1.2 Insulation R-values and insulation thicknesses in accordance with ASHRAE 90.1-2010, or

- .1 Hydraulically test domestic cold-water piping at 1-1/2 times system operating pressure or minimum 860 kPa, whichever is greater.
- .2 Before testing sanitary drainage, confirm that no debris and materials are in drainage
- .3 Test Gravity Drainage and Vent Piping in accordance with local governing building code. After fixtures and fittings are set and pipes are connected to building drain or drains, turn on water into pipe, fixtures, fittings and traps in order to detect any imperfect material or workmanship. Perform a smoke test if required by local governing authorities.

### 2.0 BALANCING

- 2.1 Balance domestic hot water recirculation system using circuit balancing valves. Mark settings and record on as built drawings on completion.
- 3.0 DISINFECTION
- 3.1 Flush out, disinfect, and rinse system to requirements of authority having jurisdiction.

.1 All joints shall be made with 95% tin 5% antimony solder to ASTM B32.

- 22 11 00 FACILITY WATER DISTRIBUTION
- 1.0 DOMESTIC WATER PIPING 1.1 Type L hard copper to ASTM B75M.
- 1.2 Copper pipe fittings: screwed, flanged, or soldered:

.3 Wrought copper fittings: to ANSI/ASME B16.22.

- .2 Cast copper fittings: to ANSI B16.18.
- .4 Above ground: copper tube, hard drawn, type "L" to ASTM B42. .5 All soft copper piping for coffee makers, water filters, and water chillers etc. shall be type "L" soft copper to ASTM B88 - Standard Specification for Seamless Copper

# 2.0 FITTINGS

3.0 JOINTS

Water Tube.

- 2.1 Bronze pipe flanges and flanged fittings, class 150 and 300: to ANSI B16.24.
- 2.2 Cast bronze threaded fittings, class 125 and 250: to ANSI/ASME B16.15. 2.3 Cast copper, solder type: to ANSI B16.18.
- 2.4 Wrought copper and copper alloy, solder type: to ANSI/ASME B16.22.
- 3.1 Rubber gaskets, 1.6mm ( $\frac{1}{16}$  in) thick: to ANSI/AWWA C111/A21.11. 3.2 Bolts, nuts, hex head and washers: to ASTM A307, heavy series.

C550 or that is FDA approved for 2-1/2" and larger.

- 3.3 Solder/brazing: lead free silver solder.
- 4.0 DOMESTIC WATER PIPING SPECIALTIES 4.1 Water Hammer Arrestor, Precision Plumbing Products 'SC' series, equal by Precision Plumbing Products, or equal by Zurn. For Hot and Cold water piping connections serving plumbing fixtures and equipment with quick closing valves.
- 4.2 Backflow Preventers: to CSA B64.1 series and for operation in continuous pressure applications. Mount 30" to 50" from finished floor.
- .2 End Connections: Threaded for NPS 2 and smaller; flanged for NPS 2-1/2" and

.1 Valves: Ball type with threaded ends on inlet and outlet of NPS 2 and smaller;

outside screw and yoke gate-type with flanged ends on inlet and outlet of NPS

.1 Body: Bronze for 2" and smaller; cast iron with interior lining complying with AWWA

- .3 Basis of Design: Watts Series 009 for 50mm (2") and smaller, or equal by Febco.

equipment. Make and Model shall match base building standards.

.2 Air-Gap Fitting: ASME A112.1.2, matching backflow-preventer connection.

1.0 SANITARY WASTE AND VENT PIPING

may be type DWV copper to ASTM B306.

- 4.3 Domestic Expansion Tanks: Therm-X-Trol, ST-12, from Amtrol. 4.4 Label Piping as per Base Building standards. 4.5 Provide isolation valves on main and branch piping suitable for operating pressure of the
- 4.6 Where copper piping connection to a different type of piping material, provide dielectric type adapters/unions. Ensure that no dissimilar metals come in contact with piping. 22 13 00 - FACILITY SANITARY SEWERAGE
- 1.1 Above Ground Sanitary Drain and Vent piping (DWV) cast iron pipe, fittings, and mechanical coupling joints to CAN/CSA B70. .1 Pipe inside building and aboveground in sizes less than or equal to 65mm (2-1/2") dia.
- .2 For urinals provide type "L" copper drain from drain outlet to sanitary riser. Do not use DVW drain pipes for Urinal drain piping. .3 Slope horizontal drainage piping up to an including 3" at 2% slope.

Slope horizontal drainage piping from low-flow toilets at 3% slope

Slope horizontal drainage piping 4" and larger at 1% slope.

.4 Cleanouts as indicated on drawings and/or where required by code. Cleanouts for 4 mains and smaller drainage piping shall match pipe size; Cleanouts for other drain piping shall be 4". Provide access panels where cleanouts are located in concealed

#### .5 Prior to x-raying/scanning floors where coring is required, check for interferences in ceiling and type of ceiling in space below.

1.2 Below Ground - PVC or ABS.

.1 Before commencing work, verify existing locations and inverts of existing sanitary

.2 Where sanitary is buried, provide saw-cutting of concrete floor. .3 Before sanitary drainage is tested, check that no debris or materials are left in drainage piping.

.4 After buried drainage has been inspected and approved, provide backfill, concrete

.1 Electronic Trap Seal Primer Precision Plumbing Products #MP-500-115V (1-4 traps)

2.0 SANITARY WASTE PIPING SPECIALITIES

and make floor good.

drainage by scoping and x-ray/scanning.

or Precision Plumbing Products #PT series-115V (5-30 traps) .2 CO (cleanout finished area) Smith 4000 NB

.5 FD "X" (Floor Drain) Smith 2630-H-NB-P

- .3 HD (Hub Drain) Smith 2005A-3580-P .4 F/FD (Funnel Floor Drain) Smith 2005A-3591-P
- .6 FD (Floor Drain) Smith 2005A-P

2.1 Manufactured by Jay R. Smith, or Precision Plumbing Products, or Zurn:

SUSAN FRIEDRICH ARCHITECT INC. . 643 St. Clair Avenue West, Toronto, Ontario M6C 1A7 Telephone (416) 588-3740 Fax (416) 588-2401

> Corporate Services Facility & Real Estate Division



METRO HALL - SECOND FLOOR

55 JOHN ST. TORONTO, ONT. M5V 3C6

# 2024-04-17 ISSUED FOR TENDER 2024-03-22 ISSUED FOR PERMIT 2024-03-19 ISSUED FOR CLIENT REVIEW 2024-02-07 ISSUED FOR CLIENT REVIEW

DATE DESCRIPTION REVISIONS THE SPECIFICATIONS ARE TO BE TRUE NORTH CONSIDERED AS AN INTEGRAL PART OF



THESE DRAWINGS AND NEITHER THE

DRAWINGS NOR THE SPECIFICATIONS

250 ROWNTREE DAIRY RD, WOODBRIDGE, ON

905-507-0800

O'Connor Child Care Centre

MECHANICAL SPEC I PROJECT No. CHECKED CM-23-129 SCALE DRAWING No.

1386 Victoria Park Avenue Toronto, ON M4A 2L8

M-007 N.T.S.

SHALL BE USED ALONE. REFER TO DIMENSIONS. DO NOT SCALE.

**PROJECT** INTERIOR RENOVATIONS

WWW.QUASARCG.COM

TITLE

- 3.0 HEAT TRACING FOR SANITARY PIPING (IN UNHEATED SPACES)
- 3.1 Self-regulating cable complete with thermostatic (4 degrees C) and moisture sensor controls complete with thermal insulation.
- 3.2 Outer jacket: fluoropolymer.
- 3.3 Submit detailed shop drawings including lengths and locations.
  - Manufacturer: Raychem or approved equal.

#### 23 HEATING, VENTILATING, AND AIR CONDITIONING

# 23 01 00 - OPERATION AND MAINTENANCE OF HVAC SYSTEMS

- 1.0 VERIFICATION OF OPERATION OF EXISTING SYSTEMS
- 1.1 Before start of construction, complete a mechanical review of all existing HVAC equipment to remain (rooftop units, perimeter heating control valves, thermostats, HVAC Terminal units, controllers etc.). Submit report of deficiencies to Landlord and the Mechanical
- Engineer. All deficiencies should be rectified before air balancing work commences. 2.0 HVAC AIR-DISTRIBUTION SYSTEM CLEANING (AFTER CONSTRUCTION HAS BEEN
- 2.1 Clean new, existing, and relocated grilles and diffusers to remove dirt, dust, and
- 2.2 Clean and recalibrate all new and existing, and relocated thermostats.
- 2.3 Vacuum and clean existing HVAC equipment that is to be reused including wall-fin heaters, cabinets, heaters, induction units etc.
- 3.0 OPERATION AND MAINTENANCE OF DECENTRALIZED HVAC EQUIPMENT
- 3.1 Rebalance primary air quantities in induction units to Base Building design refer to Base Building Drawings and maintenance manuals.

### 23 05 00 - COMMON WORK RESULTS FOR HVAC

1.0 REFERENCES

COMPLETED)

- 1.1 Ontario Building Code, Division B, Part 6 HVAC.
- 2.0 COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT
- 2.1 Supply starters, disconnects, relays, etc. for all mechanical equipment. Turn over to Electrical Contractor for installation
- 2.2 Supply low voltage step-down transformers as required. Turn over to Electrical Contractor for installation.
- 3.0 SLEEVES AND SLEEVE SEALS FOR HVAC PIPING
- 3.1 Use schedule 40 steel pipe sleeves through concrete structural members, floor slabs. For sleeves through other construction - drywall, tiles, masonry, etc., use minimum 22-gauge galvanized steel construction.
- 3.2 Provide sleeves for all pipes which pass through walls and floors.
- 3.3 Coat exposed exterior surfaces of ferrous sleeves with heavy application of zinc rich paint to CGSB 1-GP-181M+AMDT-MAR-78. Provide firestopping material and install within

annular space between pipes, ducts, insulation, and adjacent fire separation.

- 4.0 METERS AND GAUGES FOR HVAC PIPING
- 4.1 Thermometers: Winters Instruments or Weiss Instruments.
- 4.2 Pressure Gauges: Winters Instruments or Weiss Instruments
- 5.0 GENERAL DUTY VALVES FOR HVAC
- 5.1 Isolating ball valves: Crane (Jenkins), Dezurick, Bell & Gossett, or equal.
- 5.2 Circuit setting valves: Bell & Gossett, or equal, and be suitably sized for required flows.
- 5.3 Circuit setting valves: 65mm (2-1/2") and larger: Dezurick Series 100 or equal, complete with measuring ports and memory stops, and be suitably sized for required flows.
- 5.4 Gate valves 65mm (2-1/2") and larger:
- .1 Butterfly type: Jenkins Fig. 2232EL iron body lug type with bronze disc, EDPM liner, lever, flanged ends.
- .2 Gate type: Jenkins Fig. 454 having iron body and bronze trim, solid wedge discs, OS&Y with rising stem, flanged ends.
- 5.5 Check valves: Swing check type 65mm (2-1/2") and larger: Iron body flanged, Jenkins
- #587. Crane #373. Tovo #435JA. Kitz 78. 5.6 Strainers: Mueller or Sarco, inline type c/w 304 stainless steel baskets, rated at 125 psi
- 6.0 HANGERS AND SUPPORTS FOR HVAC
- 6.1 Tie wire or perforated metal strap hangers will not be accepted.
- 6.2 Concrete Inserts
- .1 Use inserts placed in pre-drilled holes. Do not use powder driven inserts or self-drilling inserts. Before drilling holes, accurately locate all reinforcing bars in the affected areas using an electro-magnetic locator.
- .2 Do not drill through or otherwise damage reinforcing bars. If reinforcing is encountered, the inserts must be relocated. Ensure that hole diameter, depth of penetration, spacing, etc., are in strict accordance with the insert manufacturer's recommendations for the specific insert type and load condition.

# 6.3 Floor supports:

.1 Provide a 150mm (6") high concrete housekeeping pad for floor mounted HVAC equipment.

# 6.4 Pipe Hangers and Supports

- .1 Manufacturers: Anvil International, Crane, Adsco, or approved equal.
- .2 Hangers for Pipe Sizes 50mm and over: Carbon steel, adjustable, clevis.
- .3 Hanger Rods: Hot-dipped galvanized steel threaded both ends, threaded one end, or
- continuous threaded
- .4 Upper attachments for existing concrete:
- .1 Provide any additional supports required from existing concrete construction for any piping or equipment by drilling same and installing expansion anchors. Do not install in uncured concrete.
- .2 Vibration Applications:
- .1 Provide any additional supports required from existing concrete construction for any equipment subject to vibration by drilling same and installing chemical epoxy adhesive threaded rod anchors.
- .2 Do not install in uncured concrete.
- .3 Do not use explosive drive pins in any Section of Work without obtaining prior approval.
- .5 Pipe Attachment
- .1 Hot or cold suspended piping, including conduits, where horizontal movement is 25mm (1") or less and middle attachment (rod) is longer than 300mm (12"):
- .1 For steel or cast iron, use adjustable clevis to MSS SP-69, type 1, ULC
- .2 Suspended hot piping, steel or copper, with horizontal movement in excess of

- 25mm (1") hot steel piping with middle attachment (rod) 300mm (12") or less. Pipe roller to MSS SP-69, type 43.
- .3 Bottom supported hot piping, steel and copper. Pipe roller stand (adjustable) to MSS SP-69, type 46.

### 7.0 VIBRATION ISOLATION

- 7.1 Provide spring with elastomeric washer hangers for ceiling suspended equipment, duct work, and accessories in areas that are considered seismic.
- 7.2 Provide spring with elastomeric washer hangers for ceiling suspended equipment.
- 8.0 IDENTIFICATION FOR HVAC
- 8.1 Identify all equipment with engraved phenolic nameplates, secured in place with rivets. Provide chain for valve tags.
- 8.2 Identify HVAC piping in accordance with base building standards.
- 9.0 TESTING, ADJUSTING, AND BALANCING FOR HVAC
- .1 Coordinate with project manager. During balancing, report deficiencies to project manager so that they can be rectified promptly.
- .2 Submit balancing reports to consultant for review.

### 9.2 Air Systems:

- .1 Employ the services of the Landlord approved air balancing company to balance the air systems to achieve the airflows shown. Air balancing company must be a member of Associated Air Balance Council (AABC) or National Environmental Balancing
- .2 Test and balance air systems so that air quantities are within 5% of design figures. Adjust fan speeds, splitter, and balancing dampers to achieve results.
- .3 Indicate all test results including air flow rates, air velocity, farthest outlet supply air
- temperatures, deficiency summary, and room temperatures. .4 Testing and balancing of air handling systems shall be under supervision of qualified personnel. Balancing and testing shall be performed by trained personnel with
- .5 Submit a complete air balancing report to the Consultant for review. Acceptance of air balancing report will be subject to on site verification and spot checking. Allow 2 hours of balancing work for site spot checking.
- .6 If spot checking systems reveals actual air quantities do not agree with air balance report, rebalancing of systems will have to be redone without extra remuneration.
- .7 Clean or replace filters and leave systems in clean operating condition.

records kept of each trial balance for supervision and review.

.8 Provide a minimum of 6 hours of additional air balancing work that should be performed one month (or as indicated on drawings) after the tenant has moved in for "comfort balancing".

### 23 07 00 - HVAC INSULATION

- 1.0 INSULATION R-VALUES IN ACCORDANCE WITH ASHRAE 90.1-2010.
- 2.0 ACOUSTIC INSULATION FOR DUCTS
- 2.1 Provide where indicated for equipment and in all transfer air ducts.
- 2.2 25mm (1") thick internal lining c/w factory applied black acrylic polymer coating, having a flame spread rating of 25 or less and smoke development classification of 50 or less.
- 2.3 Johns Manville Permacote Linacoustic standard/HP or equivalent.
- 2.4 Seal all cut edges to avoid any airborne fibres. 3.0 THERMAL INSULATION FOR DUCTS
- 3.1 Blanket or rigid thermal insulation as follows unless otherwise indicated:
- .1 Insulate full length of supply air ducts. .2 Insulate full length of outdoor air supply air ducts with 3" thick insulation.
- .3 Insulate first 3 meters (10 feet) of ducts from exterior wall or roof with 2" thick thermal
- insulation and 1" acoustic lining for interior of ducts.
- .4 Insulate full length of supply and return air ducts that are routed through a non-conditioned space.
- 5 Thermal insulation is not required for return air ducts within a conditioned space.
- .6 Use rigid insulation and drywall type corner beads in areas where insulation is easily
- 3.2 Insulation: foil faced, flame spread rating of 25 or less, smoke development classification of 50 or less.
- 3.3 Thermal insulation: 38mm (1-1/2") thick blanket mineral fiber or 25mm (1") thick rigid mineral fiberboard for warm air ducts.
- 3.4 Thermal insulation for cold air ducts: 38mm (1-1/2") thick rigid insulation or 50mm (2") thick blanket mineral fibre.
- 3.5 Vapour-retarder membrane shall be installed with insulation on cold, dual-temp, and outdoor air ducts 3.6 Acceptable blanket mineral fiber: John Manville microlite duct wrap type 100, or
- equivalent. 3.7 Acceptable rigid mineral fiberboard: John Manville 800 series spin-glass type, or
- 3.8 Seal all joints with ULC listed self-adhesive insulation tape for indoor ducts and insulation. 3.9 Use rigid insulation and drywall type corner beads in areas where insulation is easily
- 3.10 Cover exterior ductwork insulation with 1.016mm (0.04 inch) thick aluminum jacket (forming the double skin). Form all longitudinal seams along the bottom. Ensure that aluminum jacket is fastened with secure, watertight, mechanical connections. Apply
- exterior grade sealant at all seams. 3.11For exposed ductwork in interior areas, cover insulation with canvas and lagging cement.
- 4.0 THERMAL INSULATION FOR PIPING, GENERAL
- 4.1 Insulation R-values in accordance with ASHRAE 90.1-2010.
- 4.2 Insulation type in accordance with related sections. 5.0 BASIC PIPE INSULATION (PRE-MOLDED)
- 5.1 Sectional fibreglass pipe insulation in pre-molded sections 900mm (36") long, split and ready for application with a maximum "K" factor of 0.035 at 24 degrees C mean temperature and capable of use in service temperatures from 40 degrees C to 260 degrees C. Insulation complete with factory applied vapour seal jacket of vinyl coated foil craft laminated with reinforcing of open mesh glass fibre.
- 5.2 Provide jacket for exposed insulated pipe. Recovering jacket treated cotton fabric, ULC listed with lagging adhesive. PVC jacket, 0.015 mil white in colour. Installation in accordance with manufacturer's solvent weld adhesive. Junctions between fittings and jacketing sealed with white silicone.
- 5.3 Provide pre-molded fitting covers to suit insulated fitting.
- 23 08 00 COMMISSIONING OF HVAC

- 1.0 CLEANING AND FLUSHING OF HYDRONIC SYSTEMS.
- 1.1 On completion, clean complete heat pump loop piping in Project space using Ferroquest 345 or equal cleaner for at least eight hours at 37.8°C (100°F). Flush out each system, opening and cleaning each scale pocket and strainer. System must be flushed out before filling with clean water. Provide portable pump for flushing and filling.
- 1.2 During cleaning operation, disconnect hydronic equipment and use the hose connections used to bypass water around each unit. Operate heating boilers to maintain 30°C (86°F) system water temperature in systems. DO NOT EXCEED 43°C (109°F). See equipment manufacturers printed instructions for further information and guidance.
- 1.3 The supplier of the base building chemical treatment equipment and chemicals shall supervise the entire cleaning and flushing operation of all the systems. Coordinate with base building operator.
- 1.4 Ensure the system is flushed of all sand, gravel and filings before cleaner is added.
- 1.5 Ensure the proper strength of cleaner is added and circulated for the prescribed time.
- 1.6 Ensure system is thoroughly flushed again before chemicals are added.
- 1.7 Ensure the proper dosage of chemicals is added. 1.8 Provide written report to Consultant when cleaning is completed. Advise Consultant and Owner at least 48 hours prior to cleanout so same can be witnessed. Carry out all work in accordance with base building requirements.
- 2.0 TESTING
- 2.1 Operate system to full capacity and verify proper, safe efficient operation of all parts and each complete system. Oil motors and grease bearings before operating equipment.
- 2.2 When work is complete and system is in operation, adjust valves, belt drives, controls, dampers and thermostats so that there is even distribution of cooling, heating and ventilation air throughout. Turn over to Owner necessary keys, handles, and operating devices for each system.

### 23 09 93 - SEQUENCE OF OPERATION FOR HVAC CONTROLS

- 1.0 TEMPERATURE
- 1.1 Maintain base building standard temperature in all continuously occupied spaces.

### 23 31 00 - HVAC DUCTS AND CASINGS

- 1.0 DUCTWORK
- 1.1 Provide duct work and hangers in accordance with SMACNA standards.
- 1.2 Duct layout as shown on plans is to show the design intent. Design drawings should not be used to measure duct lengths or for fabrication. The design drawings are schematic in nature. Contractor shall coordinate duct route and all necessary fittings to accommodate site conditions and to meet the design intent.
- 1.3 Duct sizes shown on drawings indicate clear inside dimensions.
- 1.4 Rectangular or square galvanized steel ductwork shall be prime lock forming quality to ASTM A525M. Ductwork shall have G60 coating; ductwork to be painted shall have satin coated finish. Sheet metal gauges shall be in accordance with SMACNA "HVAC duct construction standards metal and flexible" suiting duct size and classification. All rectangular ductwork shall be sized (width x height) for up to a ratio of 3:1.
- 1.5 Round (spiral) galvanized steel ductwork shall be alpha industries limited "free-flow" or equivalent, prime lock forming quality to ASTM A525M, factory fabricated fittings with fully welded seams and joints. Ductwork shall have G60 coating; ductwork to be painted shall have satin coated finish. Sheet metal gauges shall be in accordance with SMACNA "HVAC duct construction standards metal and flexible" to suit the duct size and
- 1.6 Unless stated otherwise, duct work shall be rigid galvanized steel. Use 45 degree conical transitions for branch connections.
- 1.7 Equivalent duct sizes may be substituted in lieu of those shown, in order to avoid interference with structure and other services. Width and height shall not be larger than a 3:1 ratio. Obtain Consultant's review prior to fabrication of ductwork.
- 1.8 Install all ductwork and piping as high as possible, unless otherwise stated.
- 1.9 Spin-in duct fittings: SMC 24-gauge or Kerr-Hunt model no. SO-2 complete with balancing damper of size equal to branch duct or diffuser neck diameter.
- 1.10 Seal all new low pressure ducts, less than 0.5 kPa (2 inches WC) and low pressure modifications to SMACNA seal class "C" using sealant and aluminium tape.
- 1.11 Provide flexible duct connections between inline mechanical equipment and ductwork. 1.12 Repair existing thermal insulation when connection to existing ductwork
- 1.13 Provide rigid duct branches and hangers to all diffusers located in drywall ceilings. 1.14 For VAV boxes and Fan Powered Boxes, provide a minimum four (4) times duct diameter
- but not more than 48" (maximum) of straight rigid duct from supply mains to box inlet. 1.15 Provide transfer air duct for all demising walls and full height partition walls. No transfer air ducts or openings to be installed in multi-tenant corridors. Ensure that return air and smoke exhaust air has an unobstructed path of travel to base building return air and smoke exhaust openings.
- 1.16 Transfer air openings in baffle and door undercuts shall be coordinated with general
- 2.0 FLEXIBLE DUCTS 2.1 Aluminum flex duct shall be Commercial (Bare) True Flex - Model TF by Peppertree Air Solutions Inc. Flex duct shall be manufactured from a continuous strip of spirally wound 3003 corrugated aluminum, mechanically interlocked to produce an air-tight and leak proof triple seam. ULC-S110 listed as Class 1 air duct connector, Flame Spread Rating of not
- over 25, Smoke Developed Rating of not over 50. 2.2 Install as one continuous piece. Maximum length not to exceed 8 feet. Remainder of duct branch shall be rigid duct. Flexible ducts shall be of diameter equal to diffuser neck size or
- 2.3 Flexible ducts shall be secured to rigid ducts by mechanical fasteners and tape or sealant.
- 3.0 STAINLESS STEEL DUCTWORK 3.1 Provide stainless steel ductwork for all outdoor air intakes, dishwasher exhaust ducts, 10'-0" upstream and downstream of humidifier manifolds, and wherever else indicated on
- drawings. Slope ductwork at 2% slope minimum to drainage points. 3.2 300 Series stainless steel, type 304 or type 316 as specified in Part 3 of this Section, ASTM A167 and ASTM A480, with a #4 finish where bare (uncovered) and exposed in finished areas and a #2B finish elsewhere, with, unless otherwise specified, metal gauges in accordance with ANSI/SMACNA HVAC Duct Construction Standards Metal and Flexible to suit duct location and working pressure classification, and stainless-steel support

# hardware to match duct material.

- 23 33 00 AIR DUCT ACCESSORIES
- 1.0 VOLUME BALANCING DAMPERS 1.1 Balancing dampers shall be manually operated opposed blade or splitter type. Splitter dampers shall be completed with control rode, pivot bracket, and ball joint fitting with
- 1.2 Opposed blade dampers shall be used for all supply air diffusers and exhaust air grilles.
- 2.0 FIRE RATED DAMPERS 2.1 Provide fire dampers where shown on drawings and where required by local authorities and codes complete with access doors or panels. Fire dampers ratings shall match the fire

- rating of the separation. Dampers shall be dynamic type and ULC approved, and installed in accordance with NFPA/CUA 90A and local authorities having jurisdiction.
- 2.2 Fire Dampers: curtain type with 57.2°C (135°F) fusible ink suitable for horizontal or vertical installation, 1-1/2-hour ULC rating.
- 2.3 Provide access doors unless front access to fire damper is available.
- 2.4 Ruskin model DIBD2 for duct heights not exceeding 305mm (12-1/64"), and DIBD2 style A for duct heights exceeding 305mm (12-1/64"), or equal.
- 2.5 Fire/Smoke Dampers shall be Ruskin, leakage class II. Smoke damper complete with parallel blade type damper suitable for vertical mounting c/w smoke spring return actuator and DSDF integral smoke detector. Elec: 120/1/60.
- 3.0 DUCT ELBOWS AND TURNING VANES
- 3.1 Provide elbows with radius equal to width of duct (minimum).
- 4.0 FLEXIBLE CONNECTORS
- 4.1 Flexible connectors to be fire resistant neoprene coated glass fabric. Provide flexible

connections at all ducted HVAC units, fans, and where indicated.

- 5.0 LOUVRES
- 5.1 Price Industries Inc. DE439 or DE635, 100mm (4") or 150mm (6") deep (to suit wall thickness) factory assembled stationary, drainable, storm-proof louvres sized as indicated on drawings, each AMCA water penetration and air performance certified, constructed of welded, extruded, alloy 6063-T5 aluminum with drainable blades, mounting and securing hardware to suit the application, and 12mm (1/2") mesh aluminum bird-screen in an aluminum frame.
- 5.2 Install louvre assemblies and secure in place in accordance with manufacturer's instructions and details. Confirm exact louvre sizes and finish prior to ordering.
- 5.3 Obtain written permission to proceed from Landlord, Architect and Structural Engineer before commencing work

# 23 40 00 - HVAC AIR CLEANING DEVICES

- 1.0 FILTERS
- 1.1 Provide filters to suit equipment, or as directed by equipment manufacturer.
- 1.2 Replace air filters for all rooftop units after work has been completed.

and remove when construction has been completed.

1.4 Provide temporary MERV 8 filters for inlets to induction units. Replace when construction has been completed. Vacuum and clean nozzles and rebalance to base building design.

1.3 Provide temporary MERV 8 filters for return air inlets during construction. Replace weekly

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> Corporate Services Facility & Real Estate Division Design, Construction & Asset Preservation



55 JOHN ST. TORONTO, ONT. M5V 3C6

2024-04-17 ISSUED FOR TENDER 2024-03-22 ISSUED FOR PERMIT 2024-03-19 ISSUED FOR CLIENT REVIEW 2024-02-07 ISSUED FOR CLIENT REVIEW DATE DESCRIPTION REVISIONS

THE SPECIFICATIONS ARE TO BE TRUE NORTH

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PROJECT

TITLE

SCALE

INTERIOR RENOVATIONS O'Connor Child Care Centre

> 1386 Victoria Park Avenue Toronto, ON M4A 2L8

MECHANICAL SPEC II CHECKED PROJECT No. CM-23-129

N.T.S.

DRAWING No M-008

#### 00 PROCUREMENT AND CONTRACTING REQUIREMENTS 2.0 SUBSTITUTION OF SPECIFIED EQUIPMENT 2.1 "Approved equal" shall be defined as an alternate approved by the Consultant. 2.2 If during the Tender bid process, the bidding Contractor wishes to substitute the specified equipment 00 30 00 - AVAILABLE INFORMATION for an "approved equal", the bidding Contractor must submit Shop Drawings to the Consultant before the Tender close, for approval. If no substitution request is made, the as-specified equipment 1.0 EXISTING CONDITION INFORMATION is that to be provided. .1 Review with Owner if existing drawings are available for review. The Consultant does not warrant them for accuracy nor for completeness, and it remains the Contractor's responsibility to verify field 3.0 PRODUCT STORAGE AND HANDLING REQUIREMENTS conditions inferred from such materials 3.1 Store all equipment and materials in dry locations. 2.0 EXISTING HAZARDOUS MATERIAL INFORMATION 2.1 Review with Owner if existing Designated Substance Survey (DSS) report is available for review. 01 70 00 - EXECUTION REQUIREMENTS 1.0 EXAMINATION AND PREPARATION 00 70 00 - GENERAL CONDITIONS 1.1 Prior to submitting Tender, the Contractor shall carefully examine the Site and ascertain all 1.0 INTENT 1.2 No extras will be allowed for work resulting from conditions that would have been evident upon a .1 Include all material, labour, equipment, and plant construction as necessary to make a complete thorough examination of electrical closets, rooms and ceiling spaces, whether exposed or not. installation as shown and specified hereinafter 1.3 Verify location and sizes of existing services prior to making new connections to ensure that the 1.2 The organizational structure of the Specifications does not imply how the work is assigned to various existing systems have adequate capacities to accommodate new loads. design disciplines, trades, or subcontractors. The MasterFormat numbering system is not intended to determine which particular elements of the project manual are prepared by a particular discipline. Similarly, it is not intended to determine what particular work required by the project manual is the 2.0 EXECUTION 4.1 Record Drawings responsibility of a particular trade. It shall be the Contractor's responsibility to ensure that the 2.1 Location of Outlets systems specified hereafter are complete and operative. .1 The Consultant reserves the right to change the location of outlets to within 3 m (10 feet) from 2.0 DRAWINGS AND SPECIFICATIONS the point indicated on the drawings without extra charge, providing the Contractor is advised 2.1 The drawings and specifications are complementary each to the other, and what is called for by one, before installation is made is to be binding as if called for by both. 2.2 Mounting Heights: where not dimensioned on the architectural or interior designer's drawings, the 2.2 Should any discrepancy appear between the drawings and specifications which leaves the centreline of the device or operating control as follows: Contractor in doubt as to the true intent and meaning, a ruling is to be obtained from the Consultant .1 Thermostats: 1200 mm (47 inch) AFF (Above Finished Floor). in writing before submitting Tender. If this is not done, the maximum, the most expensive alternate .2 Light switches: 1100 mm (43 inch) AFF. or option, will be provided in Base Tender Rid .3 Duplex receptacles: min. 400 mm (16 inch) AFF .3 The drawings provide design intent, and are not to be used to measure or quantify material. .4 Duplex receptacles (over counter): 175 mm (7 inch) above counter or furniture height. Contractor is to coordinate installation of work so as to meet the design intent. .5 Duplex receptacles (electrical and mechanical rooms): 1100 mm (43 inch) AFF. .6 Receptacles for electric ranges: 130 mm AFF. 00 73 00 - SUPPLEMENTARY CONDITIONS .7 Emergency lighting remote heads: 300 mm (12 inch) below finished ceiling, or 2400 mm (94 inch) AFF for exposed areas or areas with ceiling height above 2750 mm (108 inch). 1.0 GENERAL 8 Communications outlets: to match adjacent power receptacles 1.1 The requirements of the Supplementary General Conditions apply to this Specification as though .9 Fire alarm pull stations: 1200 mm (47 inch) AFF. written in full herein. .10 Fire alarm audible devices: 150 mm (6 inch) below finished ceiling for ceiling heights less than 1.2 Refer to Architectural drawings for exact location of dimensioned equipment and devices. 2450 mm (96 inch), or 2300 mm (91 inch) AFF for exposed areas, all measured to the top of the 1.3 Refer to Architectural drawings for additional notes which complement these specifications. 2.0 HEALTH AND SAFETY REQUIREMENTS .11 Exact dimensions to be provided and approved by Consultant prior to any rough-in. 2.1 Be responsible for the safety of workers and the equipment on the project in accordance with all .12 Any mounting heights not specified are to be coordinated with the Consultant prior to applicable safety legislation passed by federal, provincial, and local authorities governing construction safety. The more stringent regulations prevail. 5.2 Provide extended warranties as specified. 3.0 CUTTING AND PATCHING 3.1 The Contractor will be responsible for all cutting and patching required for the installation. 01 GENERAL REQUIREMENTS 06 WOOD, PLASTICS, AND COMPOSITES 3.2 Structural members are not to be cut without the consent of the Consultant. 06 10 00 - ROUGH CARPENTRY 01 10 00 - SUMMARY 3.3 Restore finishes to match existing surroundings. 1.0 SUMMARY OF WORK 1.0 FIRE-RETARDANT PLYWOOD BOARD 4.0 CLEANING AND WASTE MANAGEMENT 1.1 Demolition of existing, reconfiguration, and new facility services to suit changes to Owner's 4.1 The Contractor and associated sub trades, at all times during construction, is to keep the site free of all debris, boxes, packing, etc., resulting from performance of the Work. 1.2 Space reconfiguration including partition modifications and associated revisions to facility services. 4.2 At the completion of this Work, the installation is to be left in a clean and finished condition. 4.3 Clean and touch up surfaces of shop-painted equipment scratched or marred during shipment or installation, to match original paint, 01 31 00 - PROJECT MANAGEMENT AND COORDINATION 07 THERMAL AND MOISTURE PROTECTION 4.4 Remove and dispose off-site, all materials removed, abandoned, and not to remain, designated for 1.0 PROJECT COORDINATION 07 80 00 - FIRE AND SMOKE PROTECTION salvage, or be re-used in an appropriate manner acceptable to local authorities having jurisdiction, 1.1 Read specifications and drawings of other trades, and conform with their requirements before specifically equipment and materials considered hazardous to the environment, unless otherwise 1.0 FIRESTOPPING proceeding with any work specified here as related to other trades. Cooperate with all other trades noted to be turned over to the Owner or to the Landlord. on the job, so that all equipment can be satisfactorily installed, and so that no delay is caused to any 5.0 STARTING AND ADJUSTING other trades. 5.1 Conduct acceptance tests to demonstrate that the equipment and systems meet the specified .2 Prior to fabrication and installation of equipment, ensure that such items can be installed as requirements. Tests may be conducted as soon as conditions permit, and consequently the indicated without interference with the structure, or the work of other trades. If any materials are Contractor is to make all changes, adjustments, or replacements required as the preliminary tests fabricated or installed prior to the investigation and reaching of a solution to the possible interference may indicate prior to the final tests. Tests are as specified in various sections of the specifications. problems, necessary changes shall be made at the Contractor's expense. 5.2 Carry out tests in the presence of the Consultant. Provide instruments, meters, equipment and 1.3 Provide code or manufacturer required clear space for servicing, disassembly, and removal of personnel required to conduct tests during and at conclusion of Project. The Contractor shall be in charge of the plant during tests. The Contractor shall assume responsibility for damages in the 2.0 FACILITY SERVICES COORDINATION event of injury to the personnel, building, equipment, and shall bear all costs for liability, repairs, and 2.1 Maintain all operational building services; shutdown of services shall only take place as authorized restoration in this connection. Submit test results. by base building and request to be in writing. 5.3 Test new and interfaced systems for proper operation to ensure that the quality and reliability of the 08 OPENINGS 2.2 Co-ordinate with Property Management for scheduling of all work required to be done after office base building system is not altered or reduced. hours and weekends, i.e., drilling through slab, power shutdowns, interfacing to life safety systems, 08 31 00 - ACCESS DOORS AND PANELS etc. all costs involved, including work to be done by the Property Management's approved fire alarm 01 77 00 - CLOSEOUT PROCEDURES 1.0 ACCESS DOORS and life safety systems contractor, etc., shall be at Tenant Contractor's expense. 1.1 Provide access doors for new and existing concealed valves, dampers, junction boxes, equipment, 1.0 BUILDING PERMIT COMPLIANCE 1.1 Prior to requesting the Consultant's letter "Review of General Conformance" for submission to the 01 33 00 - SUBMITTAL PROCEDURES 1.2 Access doors to match wall and ceiling finishes. municipal building department to allow occupancy, the following items must be complete and .1 Before delivery to site of any item of equipment, submit shop drawings complete with all data, submitted to the Consultant, as applicable: pre-checked by the Contractor and stamped accordingly, for review by the Consultant. Indicate project name on each brochure or sheet, make reference to the number and title of the appropriate .1 Submit all applicable inspection reports from Authorities Having Jurisdiction. specification section, and provide adequate space to accommodate the Consultant's review .2 Continuity of fire separations at service penetrations must be complete. 1.2 Submit shop drawings to the Consultant in electronic (PDF) format, as coordinated after award of .3 All seismic restraint requirements must be complete. contract. Where submittals are derived from digital originals, to ensure maximum quality and 2 Fire Protection legibility, do not print and rescan documents; submittals made as such will be immediately rejected. Contractor must confirm that all fire extinguishers have been installed. .3 Submit a schedule of shop drawings within one week after award of contract. Group submittals by Provide Fire Inspector's clearance for fire pump and main sprinkler room. specification division as appropriate .3 Provide NFPA 14 certificate for standpipe system. .4 Submit Material Safety Data Sheet (MSDS) for all applicable products. .4 Provide NFPA 13 certificate for sprinkler system. .3 Plumbing 01 40 00 - QUALITY REQUIREMENTS .1 Confirmation that municipal plumbing inspector has reviewed the work and notes no deficiencies. 1.0 PERMITS AND FEES .4 HVAC .1 Obtain and pay for all Permits and fees required for the execution and inspection of the Work and .1 Contractor must certify the availability of minimum ventilation from air supply system. pay all charges incidental to such Permits. Submit to the Authority Having Jurisdiction the necessary .2 Contractor must certify that HVAC control interlocks with life safety systems (e.g. fire alarm) number of drawings and specifications for examination and approval prior to commencement of 1.2 Arrange and pay for any special inspection of equipment specified if and when required. .5 Electrical .1 Provide Certificate of Acceptance from Electrical Inspection Department. 2.0 CODES AND STANDARDS .2 Any devices not installed must have the wiring made safe and terminated in an outlet box 2.1 Comply with current regulations of all applicable provincial and municipal codes and regulations, complete with cover. including, but not limited to, the Ontario Building Code, and the requirements of any Authorities .3 All outlets must have cover plates installed. All electrical equipment not located in service Having Jurisdiction (AHJ). rooms must have covers and/or doors installed complete. 2.2 Comply with other standards as related to each trade. .4 Emergency Lighting 3.0 REFERENCES .1 Emergency lighting system must be operational and tested by Contractor. Where 3.1 Health Canada / Workplace Hazardous Materials Information System (WHMIS), Material Safety battery units and remote heads are indicated on the drawing, provide certification letter Data Sheets (MSDS). from equipment manufacturer indicating the system meets code requirements. 3.2 Ontario Building Code. .2 If the building is provided with emergency power with CSA C282 equipment (emergency generator or similar), the contractor is to perform light meter 4.0 QUALITY ASSURANCE measurements and submit a letter indicating the system meets code requirements 4.1 Qualifications: Work to be carried out by qualified, licensed tradespersons or apprentices in .3 Simulate normal power failure within the premises in the presence of the consultant and accordance with Authorities Having Jurisdiction the owner's representative. Test and verify exit lights and emergency lighting 4.2 Only first class workmanship will be accepted, not only in regards to durability, efficiency and safety, operations under emergency conditions. Submit letter of certification copy to Landlord but also in regards to neatness of detail. Present a neat and clean appearance on completion. Any stating that the systems have been tested, witnessed by the consultant and the unsatisfactory workmanship will be replaced at no extra cost. Owner's representative, etc., and the methods of installation and performance are 4.3 Conform to the best practices applicable to the type of work. Install all equipment and systems in satisfactory to all parties. accordance with manufacturers' recommendations, and consistent with the general requirements of .4 All exit lights must be installed and operational. the specification. .6 Electronic Safety and Security 5.0 FIELD QUALITY CONTROL .1 Fire alarm system and devices must be operational. Submit fire alarm verification report per 5.1 Carry out tests in presence of Owner, or designated representative. CAN/ULC-S537, and submit audibility test. Indicate tap settings of all signalling devices. 5.2 Provide instruments, meters, equipment and personnel required to conduct tests during and at 1.2 If any of the above items have not been completed at the time of Consultant's Inspection, and the conclusion of project. letter of "assurance of professional field review and compliance" cannot be issued, any costs for 5.3 Manufacturer's Field Services subsequent Inspections will be charged to the Contractor. .1 Obtain written report from manufacturer verifying compliance of Work, in handling, installing, applying, protecting and cleaning of product and submit Manufacturer's Field Reports. 2.1 Prior to requesting Substantial Performance Inspection, the following items must be complete and submitted to the Consultant, as applicable: 6.1 Furnish a Certificate of Acceptance from Inspection Department on completion of work. 6.2 The Consultant will carry out inspections and prepare deficiency lists for action by the Contractor, .1 Project record drawings must be submitted to Consultant for review. during, and on completion of the Project. .2 Maintenance manuals must be submitted to Consultant for review. 01 50 00 - TEMPORARY FACILITIES AND CONTROLS 1.1 Contractor shall assume responsibility for any disruption caused by his forces to operational building Air Balancing report services. Should temporary connections be required to maintain services during the work, supply .2 Hydronic Balancing report.

.3 Electrical

.1 Provide final Certificate of Acceptance from Electrical Inspection Department.

2.2 If any of the above items have not been completed at the time of the Substantial Performance

3.1 Submit three hard copies in 3-ring binder, and one soft copy in searchable PDF format of O&M

Inspection, and the Substantial Performance certificate cannot be issued, any costs for subsequent

.3 All panelboards provided with typewritten panel schedules.

.4 Load balancing report and voltage drop measurements.

.5 Lighting controls functional testing report.

Inspections will be charged to the Contractor.

3.0 OPERATION AND MAINTENANCE (O&M) MANUALS

.2 Receptacles, and all direct equipment connections labelled with source and circuit number.

and install all necessary equipment. Repair any system damaged during the execution of the work.

1.1 Products certified by a recognized testing agency accredited by the Standards Council of Canada,

or ULC listing. Where certified or listed material and equipment is not available, obtain special

1.2 Products described in this specification are considered to be the minimum standard of acceptance.

1.3 All materials to meet flame spread rating requirements of all Authorities Having Jurisdiction.

and bear a certification mark from that agency, for example the CSA certification mark, cUL listing,

approval from Authority Having Jurisdiction before delivery to project site, and submit the approval to

01 60 00 - PRODUCT REQUIREMENTS

1.0 GENERAL

Manual to the Consultant for review.

.2 Testing and Commissioning Reports

.2 HVAC balancing reports

.1 Panelboard schedules

4.0 PROJECT RECORD DOCUMENTS

.1 All pipe routing.

.1 As-Built Drawings (AutoCAD and PDF format)

.2 Lighting controls functional testing report.

Coordinate access to Consultant's AutoCAD files.

Building Inspection Department to Landlord.

workmanship without cost to the Owner.

format, and one full size hard copy of as-built AutoCAD files.

1.1 Pre-treated fire-retardant plywood board in locations as indicated.

1.2 Manufacturers: 3M, AD Fire Protection, Hilti, or approved equal.

comments. Include the following information:

recognized independent testing agency.

1.3 Use recessed type access doors in gypsum ceilings.

behind walls or inaccessible ceilings.

.1 Concealed plaster: PS-5010

.2 Concealed drywall: DW-5015

.4 Fire-rated: FW-5050/FB-5060 to match assembly.

.3 Existing drywall: DW-5040

this information to "as-built" drawings.

verification by Consultant and by Authority Having Jurisdiction AHJ.

1.1 Provide approved firestopping material to maintain integrity of fire separations.

1 Structured cabling testing reports.

.10 Operation and Maintenance procedures.

.4 Verification Reports and Certificates for all life safety systems.

.11 Reviewed shop drawings of all new equipment (arranged by Specification section number)

.1 Maintain a drawing on Site, complete with red-line record of all revisions. Provide exact

dimensions and routing of below-grade or below-slab services. Indicate the following:

.1 All circuiting as installed and all power and systems junction box locations, as well as

.3 Complete record drawings accurately marked up in red ink must be submitted for review. Once

.1 On completion of Work, submit to the Consultant electronic drawings in AutoCAD and PDF

.2 Submit copies of 'As-Built' record drawings (in AutoCAD format) indicating actual circuits used

5.1 Submit a written guarantee to the Owner for one year from the date of acceptance. This guarantee

1.2 Paint plywood board white, or to match adjacent finishes. Leave fire-retardant label unpainted for

1.3 Before starting any work on site, submit detailed shop drawings to the Consultant for review and

.2 For each specific type and location of penetration, provide installation instructions from a

.3 Mark penetration types and locations on set of white prints. At completion of project, transfer

1.4 Provide access doors wherever equipment, valves, dampers, control devices, etc., are concealed

1.5 Access doors flush to edge of frame, concealed continuous hinge with screwdriver operated cam

to be a minimum 20 gauge insulated door with 16 gauge frame. Insulation thickness to provide

1.6 Size doors to allow adequate operating/maintenance clearance for devices. Body entry: 600 mm x

600 mm (24 inch x 24 inch). Hand entry: 300 mm x 300 mm (12 inch x 12 inch), unless noted

1.7 Acceptable manufacturers: Acudor model as per assembly, or equal by LeHage:

latch. Door construction to be minimum 14 gauge with 16 gauge frame. Fire-rated door construction

.1 Manufacturer's technical product data and installation instructions for each specific type and

location of penetration; certification that proposed firestopping materials and assemblies comply

shall bind the Contractor to correct, replace or repair promptly any defective equipment

and equipment installed on site and final unconditional certificate of approval from ESA and

reviewed, prepare as-built drawings in a neat manner, showing all deviations in work as per site

3.2 O&M Manuals to include:

.3 Inspection Certificates

.5 HVAC and Plumbing

.1 Valve charts

.6 Electrical

.8 Warranties

.7 Communications

.9 Training records

.2 Electrical

4.2 AutoCAD as-built drawings

Sheet List Table

GENERAL SPECIFICATIONS, LEGEND AND DRAWING LIST

ELECTRICAL SPECIFICATIONS AND GENERAL NOTES

ELECTRICAL DEMOLITION AND KEY PLAN

POWER AND SYSTEMS - NEW PLAN

LIGHTING - NEW PLAN

ELECTRICAL DETAILS AND PANEL SCHEDULE

Sheet Number

E001

E002

E101

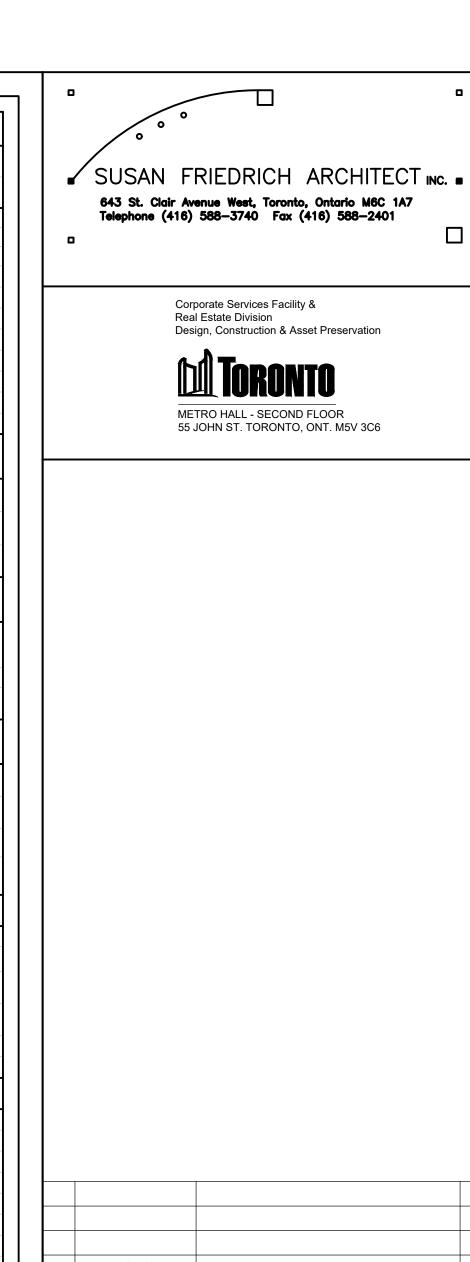
E111

E121

E501

SYMBOL	DESCRIPTION
	GENERAL
	NEW WORK WORK TO BE DEMOLISHED OR REMOVED.
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
E, EX	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
RR	MATERIAL/EQUIPMENT/SERVICES TO BE RELOCATED
ER	EXISTING IN RELOCATED POSITION
W	WALL MOUNTED CONNECTION
#D,#V	NUMBER OF DATA AND TELEPHONE/VOICE DROP
HD NIC	HAND DRYER  NOT IN CONTRACT
-	LIGHTING FIXTURES
	tefer to Lighting Fixture Schedule for exact fixture specifications.  DENOTES NEW FLUORESCENT LUMINAIRE.
	AS ABOVE, CONNECTED TO NIGHT LIGHT CIRCUIT, CONTRA
	TO VERIFY.  LUMINAIRE CONNECTED TO EMERGENCY CIRCUIT OR NIGH
EM, NL	LIGHT CIRCUIT
Refer to	EMERGENCY LIGHTING  DEMergency Lighting Fixture Schedule for exact fixture specifications.
<b>⋈ ⊬</b>	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHA AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTION.
X 1X	ARROWS AS INDICATED ON PLANS.
	EMERGENCY LIGHTING BATTERY UNIT.
<b></b>	ONE AND TWO HEAD WALL MOUNTED EMERGENCY LIGHTII REMOTE UNITS.
Refe	LIGHTING CONTROLS r to specifications and respective schedules for exact specifications.
\$	SINGLE POLE, SINGLE THROW TOGGLE SWITCH C/W COVER
	OR AS INDICATED ON PLAN.  3-WAY SINGLE THROW TOGGLE SWITCH C/W COVERPLATE
\$³w	INDICATED ON PLAN
Ÿ	DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR
2	DUAL TECHNOLOGY DUAL RELAY WALL SWITCH OCCUPANG
¥ <b>~</b>	SENSOR
	POWER RECEPTACLES AND BOXES
$\Leftrightarrow$	120V U-GROUND DUPLEX RECEPTACLE.
<del>\$</del>	120V U-GROUND QUAD RECEPTACLE.
<del></del>	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE
r	COUNTER TOP OR AS INSTRUCTED ON SITE.  120V U-GROUND TIME CLOCK 1 GANG RECESSED SINGLE
<b>O</b>	RECEPTACLE
GFI	GROUND FAULT INTERRUPTER.
WP	WEATHER PROOF.
	COMMUNICATION DEVICES AND ROUGH-INS
4	WALL MOUNTED DATA OR TELEPHONE OUTLET.
◀	WALL MOUNTED TELEPHONE OUTLET.
$\triangleleft$	WALL MOUNTED DATA OUTLET.
•	PUSH BUTTON
DO	DOOR OPERATOR
ES	ELECTRONIC STRIKE
DC	DOOR CONTACT
KP	KEY PAD
KS	KEY SWITCH OVER-RIDE FOR ADO (AUTOMATIC DOOR OPERATOR)
0	MUSHROOM PUSH BUTTON, PUSH/PULL, 'PRESS FOR
	EMERGENCY ASSISTANCE'.
IC	SINGLE GANG ANNUNCIATOR, WITH SOUNDER, 'ASSISTANC REQUESTED'.
	SINGLE GANG DOME LIGHT, WITH SOUNDER
§A	RESIDENTIAL TYPE SMOKE ALARM DEVICE
	POWER EQUIPMENT
$\bigcirc$	DIRECT CONNECTION OUTLET AS NOTED.
6	SINGLE PHASE MOTOR, HP (KW) AS NOTED.
	POWER/COMM. SYSTEM FURNITURE POWER/SERVICE POL
	PROVIDED AND INSTALL BY DIV. 16
'W' 'F'	HARDWIRED DIRECT CONNECTION TO FURNITURE. 'C'-CEIL' 'W'-WALL, 'F'-FLOOR MOUNT DIRECT CONNECTION.
	DISTRIBUTION EQUIPMENT
	SURFACE MOUNTED DISTRIBUTION PANELBOARD.
	RECESS MOUNTED DISTRIBUTION PANELBOARD.
	FIRE SAFETY DEVICES
	FIRE ALARM BELL
~	FIRE ALARM PULL STATION
	RESIDENTIAL STYLE LINE VOLTAGE SMOKE / CARBON MON
	ALARM DEVICE
SA	
<del></del>	FIRE ALARM HEAT DETECTOR  HVAC & MECHANICAL DEVICES
— ⑤A	FIRE ALARM HEAT DETECTOR
— <b>⑤</b> A <b>①</b> ①	FIRE ALARM HEAT DETECTOR  HVAC & MECHANICAL DEVICES

LEGEND



4	2024-04-17	ISSUED FOR TENDER	
3	2024-03-22	ISSUED FOR PERMIT	
2	2024-03-19	ISSUED FOR CLIENT REVIEW	
1	2024-02-07	ISSUED FOR CLIENT REVIEW	
No.	DATE	DESCRIPTION	CH.

**REVISIONS** 

THE SPECIFICATIONS ARE TO BE TRUE NORTH

THESE DRAWINGS AND NEITHER THE DRAWINGS NOR THE SPECIFICATIONS SHALL BE USED ALONE. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. DO NOT SCALE.

CONSIDERED AS AN INTEGRAL PART OF

2024-03-22

250 ROWNTREE DAIRY RD, WOODBRIDGE, ON 905-507-0800 WWW.QUASARCG.COM

**PROJECT** 

INTERIOR RENOVATIONS

O'Connor Child Care Centre

1386 Victoria Park Avenue Toronto, ON M4A 2L8

GENERAL SPECIFICATIONS, LEGEND AND DRAWING

CHECKED PROJECT No. CM-23-129 SCALE DRAWING No AS SHOWN

8.2 Provide flexible conduits for final connections of conduits to any vibrating equipment. 26 01 00 - OPERATION AND MAINTENANCE OF ELECTRICAL SYSTEMS 1.0 LOW-VOLTAGE TRANSFORMERS 9.0 IDENTIFICATION FOR ELECTRICAL SYSTEMS 1.0 TRACING EXISTING ELECTRICAL CIRCUITS following features: 1.1 Trace all circuits in the area of work listed as existing, and verify existing conditions prior to any modifications as .1 Ensure manufacturer's nameplates, approval label (CSA, cUL, etc.), and identification nameplates are .1 CSA type 2 drip-proof enclosure. visible and legible after equipment is installed Comply with ANSI, NEMA, and IEEE Standards. .2 Where drawings indicate "connect to existing circuit", use a spare breaker, where available. Otherwise, verify [Provide warning signs, as specified, or to meet requirements of inspection department, health and safety, Final coating to be ANSI 61 grey epoxy power. existing load with a meter and advise the Consultant if the additional load will cause a circuit to trip. .4 60 Hz operating frequency, 600-120/208 V, 3ø, delta-wye 3-phase with 3-coil, ANN type. Where provided panelboard schedules indicate "Existing Circuit" or similar, provide the correct description for the 9.2 Wiring Identification .5 Four (4) taps, 2xFCAN and 2xFCBN with 2.5% per tap. circuit. Existing Circuit will not be acceptable in the final panelboard schedules submitted as part of closeout .1 Identify wiring with permanent indelible identifying markings, either numbered or coloured plastic tapes, on Copper windings. both ends of phase conductors of feeders and branch circuit wiring. Epoxy impregnation, anti-vibration pads, electrostatic shield. 2.0 EXISTING CABLING IN RETURN AIR PLENUMS Maintain phase sequence and colour coding throughout. .8 220 insulation class and 115°C (239°F) winding temperature rise. 2.1 In ceilings being used as a return air-plenum, Contractor to review existing low-voltage cabling uncovered as part .3 Colour coding: to CSA C22.1. 9 To be wall mounted for 45 kVA or less unless otherwise noted 9.3 Identification of Equipment .10 Heavy gauge steel with rust and corrosion protection. 2.2 Immediately notify the Consultant if any cables identified are not plenum rated (i.e. CMP, or FT-6 rated). .1 Identify all electrical equipment with engraved phenolic nameplates, engraved 10 mm (3/8 in) high white .11 1-2 kV class with 10 kV BIL. 3.0 THERMOGRAPHIC INVESTIGATION block letters, securely fastened with rivets. .12 Double neutral connector. 3.1 Check and inspect existing distribution equipment to be re-used (i.e., panels, panel breakers, disconnect .2 Identify all electrical splitters, junction boxes, conduits crossing walls and pull boxes of different systems 1.2 Meet or exceed the nominal efficiencies shown in Table 8.1 of ASHRAE 90.1-2013. switches, etc.) for any evidence of abnormal overheating conditions. Report to Consultant and rectify any issues with a different colour consistent throughout the project. 1.3 Average sound levels: encountered. Perform thermographic scan under actual tenant load in operations and submit scan results Match existing identification system colours. Where an identification system does not exist, colours as .1 45 dB max up to 45 kVA. indicating problems have been corrected to Property Management for review and include same in Maintenance .2 50 db max up to 150 kVA. .1 347/600 volt: blue .3 55 db max up to 300 kVA 4.0 [LUMINAIRE CLEANING] 2 120/208 volt: black. .4 57 db max up to 500 kVA. 4.1 Clean existing luminaires to be re-used and existing luminaires to remain. Emergency: yellow. 1.4 Manufacturers: .4 UPS power: orange. 5.0 [LUMINAIRE RELAMPING] .1 STI. 5.1 Provide new lamps for existing luminaires. Dispose of existing lamps in accordance with Recycling Council of .5 Communications: green. .2 Delta Transformer Ontario's "Take Back The Light" program. .6 Fire Alarm: red. .3 Hammond .4 Label all receptacles and devices indicating panel and circuit numbers. Use electronic labeller with adhesive 6.0 LUMINAIRE REPLACEMENT .4 Powersmiths. label. Install label on the faceplate of the device 6.1 Provide new fixture chain hangers to independently support new luminaires from the building structure, .5 Square D by Schneider Electric. .5 Ensure that all panel directories are typewritten and indicate the latest renovations. Identify all circuits [in supported at opposite ends 1.5 T-connected transformers are not acceptable. panels used by this tenant]. Do not provide the words 'existing' for any circuits remaining as is. Should an 26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL existing panel not be labeled, the Contractor shall provide such, indicating the panel name, voltage, phase 26 24 16 - PANEL BOARDS current rating and 'fed from' information. 1.0 REFERENCES 1.0 DISTRIBUTION PANELBOARDS 10.0 OVERCURRENT PROTECTIVE DEVICE COORDINATION 1.1 Canadian Standards Association (CSA) 1.1 Manufacturers 10.1 Ensure interrupting capacity of circuit protective devices meet the required fault level. .1 CSA C22.1:21, Canadian Electrical Code, Part 1 (25th Edition), Safety Standard for Electrical Installations. .1 Square D by Schneider Electric, I-Line series. 10.2 Provide high-interrupting capacity breakers for panels fed from dry-type transformers rated greater than 75 kVA. .2 Ontario Electrical Safety Code (OESC) 28th Edition, 2021. .2 Eaton Cutler Hammer, PRL3 or PRL4 series. .3 CSA C235:19. Preferred voltage levels for AC Systems up to 50 000 V. 11.0 EQUIPMENT WIRING .3 Equal by Siemens. .4 [CSA C22.3 No. 1-15, Overhead Systems,] 11.1 Provide the following services for equipment supplied by other trades: 1.2 Description: CSA C22.2 no.29-15, circuit breaker type. .5 [Do underground systems in accordance with CSA C22.3 No. 7-15, Underground systems, except where .1 The trade supplying the equipment will be responsible for supply of motors, starters, variable frequency 1.3 Panelboard bus: copper, ratings as indicated. Provide copper ground bus in each panelboard. specified otherwise.1 .2 In every instance, install starter, motor control centre, variable frequency drive (VFD), etc. and wire to line 2.0 SELECTIVE DEMOLITION FOR ELECTRICAL amperes RMS symmetrical for 600 volt panelboards, or as indicated. side of the starter, the Motor Control Centre, or VFD. Extend wiring from starter, motor control centre or 2.1 Remove all electrical equipment and devices on redundant structures. Make safe all circuits. 2.2 Maintain continuity of remaining devices and circuits VFD to motor. .3 Provide minimum 600 mm (24 in) of flexible waterproof conduit for final connection to motors. 2.3 To make safe: withdraw redundant wiring and remove unwanted conduit/wiring and accessories. Position .4 Provide disconnect switches where required by code and as indicated on the drawings. breakers to off position and update panel schedules. .5 Where individual starters and controls are grouped together provide a floor mounted strut channel support limiting elements, in addition to integral thermal and instantaneous magnetic trip in each pole. 2.4 Make safe any redundant devices as shown on other drawings. for mounting this equipment. 2.5 When relocating or removing equipment, should any circuits be abandoned, the conductors to these circuits must .6 Ascertain exact locations of starters, motor control centres, motors, motorized dampers, VAV boxes. be removed or properly terminated as detailed in OESC Rule 2-130, Rule 12-114, Rule 12-3000, and OESC touchless plumbing fixtures, and heating control valves from other drawings and coordinate exact locations Bulletin 12-25-(latest version) permitted for same size class RK5 fuse with appropriate trade 3.0 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES 11.2 Plumbing equipment wiring 1.8 Circuit breaker accessories: trip units and auxiliary switches as indicated 3.1 Conductors: minimum #12 AWG solid, and stranded for #8 AWG and larger. Copper conductors sized as .1 Provide branch circuit wiring and an outlet for each touchless plumbing fixture. Control wiring performed by indicated with [RW90] [T90], 600 V insulation of chemically cross-linked thermosetting CSA C22.2 No. 38-14. plumbing trade. gray enamel. 3.2 AC90 (commonly referred to as BX) cable maximum wire size to be #12 AWG unless otherwise noted. AC90 to .2 For connections to domestic water heaters, provide 120 V connection for water supply solenoid valve be used only as drop to lighting fixtures and as drop to wiring devices in partitions from ceiling junction whether indicated or not in panelboard schedules interlocked with leak detection. pox/conduit combination. Maximum run of AC90 to be 3 m (10 ft) where exposed in lay-in suspended ceiling 11.3 HVAC equipment wiring 1.11 Two keys for each panelboard and key panelboards alike. space only. Do not install exposed AC90. Do not daisy chain (leap frog) AC90 between luminaires. .1 In the case of unit heaters, reheat coils, and cabinet unit heaters, terminate wiring on terminals provided. 1.12 Breakers feeding motors: motor rated. 3.3 All conductors used outdoor or in wet locations: RWU90 copper. Control wiring, thermostat integration, and other controls are to be performed by the supplying trade. 1.13 Breakers for lighting circuits: switch rated. 3.4 Wire and Box Connectors: .2 Provide branch circuit wiring and an outlet for each motorized damper, variable air volume box (VAV box), 1.14 Circuit breakers feeding transformers rated accordingly. .1 Wire connectors: PVC insulation, steel shall be spring pressure type, current carrying parts copper or or heating control valve. Control wiring performed by HVAC trade. copper alloy sized to suit copper conductors as indicated to CSA C22.2 No. 65-13. 2.0 LIGHTING AND RECEPTACLE PANELBOARDS 11.4 Motor sizing .2 Splicing connectors: fixture type current carrying parts copper or copper alloy sized to fit copper conductors 2.1 To CSA 22.2 no 29-15 with the following features: .1 Motors up to and including 1/3 HP, shall be 1 phase, 60 Hz, 120 volts. #12 AWG with insulating materials of thermoplastic material to CSA C22.2 No.75-17 .2 Motors above 1/3 HP as indicated on drawings. .3 Clamps to connectors for flexible circuits to CSA C22.2 No.18.3-12 (R2017). 26 08 00 - COMMISSIONING OF ELECTRICAL SYSTEMS .4 Lugs, terminals, or screws used for termination of wiring to be suitable for copper conductors. 3.5 Voltage Drop: 1.0 STARTUP identified by permanent number identification as to circuit number .1 Feeder conductors: maximum voltage drop of 2%. 1.1 Startup equipment to NETA ATS standards. .2 Branch circuit conductors: maximum voltage drop of 3%. .5 Two keys for each panelboard and key panelboards alike. 2.0 CONDUCT FOLLOWING TESTS: Copper bus with full size neutral. 4.0 CONDUIT FOR ELECTRICAL SYSTEMS 2.1 Insulation resistance testing: Mains suitable for bolt on breakers 25 mm (1 inch) or 19 mm (3/4 inch) wide. 4.1 Rigid metal conduit: to CSA C22.2 No. 45.1-07 (R2017). .1 Megger circuits, feeders and equipment up to 350 V with a 500 V instrument. .8 Finish trim and door baked grey enamel. 4.2 Electrical Metallic Tubing (EMT): with couplings to CSA C22.2 No. 83-M1985 (R2017). .2 Megger 350-600 V circuits, feeders and equipment with a 1000 V instrument. 2.2 Molded case circuit breakers to CSA C22.2 no. 5-16. 4.3 Rigid PVC conduit: to CSA C22.2 No. 211.2-06 (R2011) .3 Check resistance to ground before energizing. 4.4 Flexible metal conduit and liquid-tight flexible metal conduit: to CSA C22.2 No. 56-17. 3.0 LOAD BALANCING: temperature compensation for 40°C (104°F) ambien 4.5 Conduit Fastenings: 8.1 Measure phase current to panelboards with normal loads (lighting) operating at time of acceptance; adjust 2.4 Common-trip breakers with single handle for multi-pole applications. .1 One hole steel strap to secure surface conduits 50 mm (2 in) and smaller. Use two hole steel straps for branch circuit connections as required to obtain best balance of current between phases and record changes. 2.5. All panels to be flush or surface mounted as indicated conduits larger than 50 mm (2 in). Balance the loading on feeders so that unbalanced load is less than 10 per cent. 2.6 Lock-on devices on emergency lighting, night lights, security and exit light circuits. .2 Beam clamps to secure conduits to exposed steel work. 3.2 Measure phase voltages at loads and adjust transformer taps to within 2% of rated voltage of equipment. 2.7 Breakers feeding motors: motor rated. .3 Channel type supports for two or more conduits at 1.5 m (5 feet) on centre 3.3 Provide upon completion of work, load balance report: phase and neutral currents on panelboards, dry-type 2.8 Circuit breakers feeding transformers rated accordingly. 4.6 Conduit Fittings: transformers and motor control centres, operating under normal load, as well as hour and date on which each .1 Fittings for raceways to CSA C22.2 No. 18.3-12 (R2017). Fittings manufactured for use with conduit 26 27 00 - LOW-VOLTAGE DISTRIBUTION EQUIPMENT load was measured, and voltage at time of test. specified. Factory elbows where 90% bends are required for 50 mm (2 in) and larger conduits. 1.0 INDOOR SERVICE POLES 26 09 23 - LIGHTING CONTROL DEVICES .2 Cast fittings are not permitted to be used. 1.1 Two channel service pole, Wiremold NP800 series, or equal. Provide devices as indicated on plans. 1.0 OCCUPANCY SENSORS TIME SWITCHES ETC. 4.7 Branch circuits, control wiring, etc. 1.2 Poles bolted to floor and secured at ceiling level. .1 Conceal conduit work in finished areas unless otherwise noted. 1.1 As described in applicable schedules 2.0 WIRING DEVICES .2 Run conduit exposed in unfinished areas such as service rooms, rooms with no suspended ceilings, service 1.2 Dimming Switches tunnels, and penthouses. Install parallel to building lines. .1 Provide dimmers with linear slide controls, and sized to suit loads controlled for fluorescent, incandescent, 2.1 Switches .1 Manually operated AC switches to CSA C22.2 no. 111-10 (R2015). .3 Use electrical metallic tubing (EMT) for branch circuits unless noted otherwise. low voltage magnetic and low voltage electronic lighting as indicated. .2 Snap switches to CSA C22.2 no. 55-15. .2 All dimmers shall incorporate an air gap which shall be accessible without removing the faceplate. .4 Use rigid metal conduit in mechanical spaces. Use PVC conduit in service tunnels and for exterior work unless noted otherwise 5 Dimmer shall meet CSA C22.2 no. 111-10 and CSA C22.2 no. 184.1-15 limited short circuit test requirements for snap switches; operator as indicated. .6 Use liquid tight flexible conduit for connection to motors. .4 Dimmer shall meet ANSI/IEEE C62.41.1-2002 and ANSI/IEEE C62.41.2-2002, tested to withstand voltage .4 Switches of one manufacturer throughout Project. 7 Use flexible metal conduit for connection to recessed incandescent fixtures without a pre-wired outlet box surges of up to 6000 V and current surges of up to 200 A without damage. Manufacturer shall provide file connection to surface fixtures, across expansion joints, work in movable metal partitions, or transformers. .5 Finish colour as selected by Architect. Confirm colour prior to ordering. card upon request showing their compliance with the above standards .8 Flexible metal conduit for fixtures in finished areas only where chain hanging is specified. Tie wrap the .5 Gang dimmers shown side by side on plans under one seamless, multi-gang faceplate. flexible conduit to the chain. .6 Dimmers: rated 1000 W, unless otherwise noted. .7 120 volt: .9 Install conduit and sleeves prior to pouring of concrete. Sleeves through concrete: schedule 40 steel pipe sized for free passage of conduit, and protruding 50.8 mm (2 in). .7 Finish colour by architect/designer. .1 P&S #262x series .8 Manufacturers: Lutron Nova T series or approved equal. .10 If plastic sleeves are used in fire rated walls or floors, remove before conduit installation .2 Hubbell #2121 series .11 Install cables, conduits and fittings to be embedded or plastered over, neatly and close to building structure .8 347 volt: 2.0 SEQUENCES OF OPERATION so furring can be kept to minimum .1 P&S #2601-347 series 2.1 In accordance with ASHRAE 90.1-2013 as amended by OBC SB-10 2017. 5.0 BOXES FOR ELECTRICAL SYSTEMS 2.2 Receptacles 2.2 Configure sensors to turn off lighting a maximum of 20 minutes of all occupants leaving the space. Confirm exact Receptacles, plugs and similar wiring devices to CSA C22.2 no. 42-10, specification grade. 5.1 Junction and Pull Boxes set point with the Consultant prior to installation. .2 Duplex or single receptacles, CSA type 5-15R, 125V, 15A, U-ground, with the following features. 1 Junction and pull boxes: to CSA C22.2 No. 40-17 welded steel construction, with screw-on flat covers for 3.0 SITE TESTS AND INSPECTIONS Suitable for no. 10 AWG for back and side wiring. surface mounting. 3.1 The lighting controls manufacturer's representative and Contractor shall conduct functional testing and provide .2 Covers with 25.4 mm (1 in) minimum extension all around, for flush mounted pull and junction boxes. Only Break-off links for use as split receptacles. report as described in ASHRAE 90.1-2013: main junction and pull boxes are indicated. Provide all boxes so as not to exceed 30 m (100 ft) of conduit .4 Eight (8) back wired entrances, four (4) side wiring screws Lighting control devices and control systems shall be tested to ensure that control hardware and software run between pull boxes. Double wipe contacts, and riveted grounding contacts. are calibrated, adjusted, programmed, and in proper working condition in accordance with the construction 5.2 Outlet boxes, conduit boxes to CSA C22.2 No. 18.1-13 (R2018). documents and manufacturer's installation instructions. 5.3 Sheet Steel Outlet Boxes: .2 When occupant sensors, time switches, programmable schedule controls, or photosensors are installed, at colour by Architect: .1 Hot Dipped Galvanized steel single and multi-gang flush device boxes for flush installation, minimum size a minimum, the following procedures shall be performed: .1 P&S #26252 series 75 mm x 50 mm x 32 mm (3 in x 2 in x 1-1/4 in). 100 mm (4 in) square outlet boxes when more than one .1 Occupant Sensors Hubbell #2152 series conduit enters one side with extension .1 Certify that the sensor has been located and aimed in accordance with manufacturer .3 Other receptacles with ampacity and voltage as indicated. .2 Hot Dipped Galvanized steel utility boxes for outlets connected to surface-mounted EMT conduit, minimum Receptacles of one manufacturer throughout project size 100 mm x 50 mm x 50 mm (4 in x 2 in x 2 in). For projects with up to seven (7) occupancy sensors, all occupancy sensors shall be tested. .3 Cast boxes for surface work in finished areas. .3 For projects with more than seven (7) occupancy sensors, testing shall be done for each unique 2.3 Cover Plates 5.4 Size boxes in accordance with CSA C22.1, rule 12-3036. Provide 100 mm (4 in) square or larger outlet boxes as combination of sensor type and space geometry .1 Cover plates for wiring devices to suit the wiring device. required for special devices. .4 For each sensor to be tested, verify the following: .2 Cover plates from one manufacturer throughout project 5.5 Gang boxes where wiring devices are grouped. .1 Status indicator (as applicable) operates correctly 5.6 Blank cover plates for boxes without wiring devices .4 Stainless Steel cover plates for all flush mount boxes. .2 Controlled lights turn off or dim down to the specified level within the required time 5.7 Combination boxes with barriers where outlets for more than one system are grouped. .5 Stainless steel cover plates for all surface mount cast boxes in finished areas. (20 minutes, or as noted), as applicable to the space type 5.8 Location of Outlets .6 Where exposed to the weather, provide "while in use" cover plates. .1 Do not install outlets back-to-back in wall; allow minimum 150 mm (6 in) horizontal clearance between .3 For auto-on occupant sensors (occupancy mode), the lights turn on to the permitted level 26 28 00 - LOW-VOLTAGE CIRCUIT PROTECTIVE DEVICES .2 Change location of outlets at no extra cost or credit, providing distance does not exceed 3 m (10 ft), and .4 For manual-on sensors (vacancy mode), the lights turn on only when manually activated. information is given before installation 1.1 Dimensions and Performance: CSA C22.2 No. 248 Series, Class as specified or indicated. .5 The lights are not incorrectly turned on by movement in nearby areas or by HVAC operation 6.0 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS 1.2 Manufacturers .2 Automatic Time Switches 6.1 Provide all equipment grounding as required, regardless of whether it has been shown on drawings or called for .1 Mersen .1 Confirm that the automatic time switch control is programmed with appropriate weekday, .2 GEC. weekend, and holiday (as applicable) schedules. 6.2 Arrange grounds so that under normal operating conditions, no injurious amount of current will flow in any .3 Littelfuse. .2 Document for the owner automatic time switch programming, including weekday, weekend, and grounding conductor holiday schedules, as well as all setup and preference program settings .4 Eaton-Cooper Bussman. 6.3 Provide a ground wire in every conduit. Verify that correct time and date are properly set in the time switch. 1.3 Voltage: Provide fuses with voltage rating suitable for circuit phase-to-phase voltage. 7.0 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS .4 Power Load Feeder Switches: HRC-1 Class J time delay type (Gould type AJT). Verify that any battery backup (as applicable) is installed and energized. 7.1 Support Channels: 1.5 Other Feeder Switches: HRC-1 Class J time delay type (Gould type AJT). Verify that the override time limit is set to no more than two (2) hours. .1 Support channels: length as indicated, u-shape, size 44 mm x 44 mm x 3 mm (1-3/4 in x 1-1/3 in x 1/8 in) .6 Simulate occupied condition. Verify and document the following: 2.0 ENCLOSED SWITCHES thick, surface mounted or suspended as required. .1 All lights can be turned on and off by their respective area control switch. 2.1 Fusible and non-fusible to CSA C22.2 no. 4, size as indicated. 7.2 All supporting devices, strut channel, threaded rod, anchors, etc. of the "hot dipped" galvanized type. 2.2 Provision for padlocking in on-off switch position by one lock. Electrogalvanized components will not be accepted. .2 The switch only operates lighting in the enclosed space in which the switch is located. 2.3 Mechanically interlocked door to prevent opening when handle in ON position. .7 Simulate unoccupied condition. Verify and document the following: 2.4 Fuses: size as indicated. .1 All conduits, panels, etc. to be securely and adequately supported. .1 All non-exempt lighting turns off.  $2.5\,$  Fuse holders: suitable without adaptors, for type and size of fuse indicated. .2 Where more than three conduits run together, conduit racks to be used. .2 Manual override switch allows only the lights in the enclosed space where the override switch 2.6 Quick-make, quick-break action. .3 Single runs of conduit to be supported by galvanized conduit straps or ring bolt type hangers. is located to turn on or remain on until the next scheduled shut off occurs. 2.7 On-off switch position indication on switch enclosure cover. .4 Tie wire or perforated metal strap hangers will not be accepted. .5 Support all luminaires independently of the ceiling structure. 26 29 00 - LOW-VOLTAGE CONTROLLERS

7.4 Floor supports:

supplies and batteries, and transfer switches.

8.0 VIBRATION CONTROLS FOR ELECTRICAL SYSTEMS

.1 Provide a 100 mm (4 in) high concrete housekeeping pad for floor mounted electrical distribution equipment,

8.1 Ensure that all electrical equipment operates without objectionable noise or vibration. Provide isolation devices to

prevent noise and vibration transmission (i.e., spring type and pad type isolators and loop flexible conduits).

.2 Extend pad a minimum of 100 mm (4 in) beyond footprint of equipment, unless noted otherwise

such as transformers, switchboards, distribution panelboards, engine generators, uninterruptible power

.1 All control devices (photocontrols) have been properly located, field-calibrated, and set for

.3 The individual(s) responsible for the functional testing shall not be directly involved in either the design or

Daylight controlled lighting loads adjust to appropriate light levels in response to available daylight.

The location where calibration adjustments are made is readily accessible only to authorized

construction of the project and shall provide documentation certifying that the installed lighting controls meet

appropriate set points and threshold light levels.

or exceed all documented performance criteria.

26 22 00 - LOW-VOLTAGE TRANSFORMERS

1.0 ENCLOSED STARTERS

1.3 Manufacturers:

.2 Eaton.

.1 Allen-Bradlev.

associated controls and overload relays.

.3 Square D by Schneider Electric.

1.2 To match motor FLA and Horsepower ratings.

.4 Siemens. 1.1 Dry type transformers to CSA C22.2 No. 9-17, CSA C22.2 No. 47-13 (R2018), and CAN/CSA-C802.2-18 with the 1.0 LUMINAIRE SUPPORTS 3.3 5 year warranty. 3.4 80 CRI minimum. 1.4 Minimum integrated short circuit rating: 10 000 amperes RMS symmetrical for 240 volt panelboards; 25 000 1.5 Molded case circuit breakers: CSA C22.2 no. 5-16. circuit breakers with integral thermal and instantaneous magnetic trip in each pole. Provide circuit breakers CSA classified as type HACR for air conditioning equipment 1.6 Molded case circuit breakers with current limiters: CSA C22.2 no. 5-16, circuit breakers with replaceable current 26 52 13.16 - EXIT SIGNS 7 Current limiting molded case circuit breakers: CSA C22.2 no. 5-16, circuit breakers with integral thermal and instantaneous magnetic trip in each pole, coordinated with automatically resetting current limiting elements in each pole. Interrupting rating 100 000 symmetrical amperes, let through current and energy level less than 1.9 Cabinet front: surface type, fastened hinge and latch, metal directory frame, finished in manufacturer's standard 1.10 Breaker positions labeled as "spare" or "space" constituting no less than 20% of available breaker positions, 77 COMMUNICATIONS .1 600 V panelboards: bus and breakers rated for 25 000 asymmetrical interrupting capacity, or as indicated. .2 250 V panelboards: bus and breakers rated for 10 000 asymmetrical interrupting capacity, or as indicated. .3 Sequence phase bussing with odd numbered breakers on left and even on right, with each breaker .4 Panelboards; mains, number of circuits, and number and size of branch circuit breakers as indicated. 1.0 EXTRA MATERIALS: 2.3 Bolt-on molded case circuit breaker, quick-make, quick break type for manual and automatic operation with 2.0 INSTALLATION 2.1 To CAN/ULC S524-14. .3 15A and 20A-120V, single pole, double pole, three-way, and four-way switches with pilot lights and or key .6 Provide specification grade local 20A, 120 volt and 20A, 347 volt switches, AC type with matching cover Provide specification grade 15A. 120 volt, "U" ground receptacles, duplex type with matching cover plates, Controlled receptacles: Permanently marked to visually differentiate them from uncontrolled receptacles. Sheet steel utility box cover for wiring devices installed in surface mounted utility boxes in service areas. 1.1 Hand-Off-Auto combination starters in minimum CSA type 2 enclosure, complete with HRC fusing and

26 43 00 - SURGE PROTECTIVE DEVICES 1.0 SPDS FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUITS **GENERAL** 1.1 To UL 1449 3RD edition, Type 2 for Canada. 1.2 To protect all modes L-G, L-N, L-L, N-G. 1.3 SCCR: 100 kA, I-nominal: minimum 10 kA, 1.4 MCOV not less than 125% for 120 V system, not less than 120% for up to 240 V system, not less than 115% for 347 and 600 volt systems 1.5 VPR: not exceed 700 volt for all modes for 208Y/120 volt systems. 1.6 EMI/RFI filtering: -50 dB at 100 kHz. 1.7 Minimum five year warranty, full replacement of unit. 1.8 Provide 60A-3P breaker on panelboard to feed unit, or as directed by manufacturer. 1.9 Manufacturers: APT, Current Technology, TPS Canada, Mersen, Raycap. 26 51 00 - INTERIOR LIGHTING IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATION OR ON DRAWINGS THAT 1.1 Provide chain hangers to independently support luminaires from the building structure, supported at opposite 2.0 FLUORESCENT LAMPS AND BALLASTS ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS AND GROUNDS. 2.1 Manufacturers: GE, Signify (Philips), or Osram Sylvania. 2.2 Lamps: F32T8, or as indicated on schedule. 80 CRI, 3500 K CCT, low mercury lamps, minimum 94% lumen maintenance and 30 000 hour lamp life. 2.3 Programmed Rapid Start ballasts unless otherwise indicated on schedule. Less than 10% THD, power factor CONDITIONS. INCLUDE FOR ANY NECESSARY OVERTIME WORK AS REQUIRED. 3.0 LED INTERIOR LUMINAIRES 3.1 Performance tested in accordance with IES LM-79, LM-80, and L70 lumen maintenance at 50 000 hours or greater calculated per IES TM-21 extrapolation 3.2 Drivers minimum 0.9 power factor, THD less than or equal to 20%, 0-10 volt dimming standard, or alternate protocol to suit controls ALL OPENINGS THROUGH RATED WALLS OR FLOORS (APPLIES TO ALL INSTANCES) SHALL BE 3.5 Luminaire efficacy in accordance with DesignLights Consortium (DLC), or Energy Star, as applicable. 26 52 13.13 - EMERGENCY LIGHTING 1.0 BATTERY LINITS AND REMOTE HEADS PER SCHEDULE 1.1 Use minimum 10 gauge or heavier if needed to provide a maximum voltage drop of 5%. Consult manufacturer's table for sizing the minimum gauge and length of wire runs permitted for connected loads to ensure a maximum voltage drop of 5% from the battery unit to the farthest emergency remote, in accordance with OBC and local 1.2 Provide breaker lock on emergency lighting circuit at source panelboard. INTERFERENCE WITH NORMAL BUILDING OPERATION. 1.3 Contractor to certify in writing to the Consultant that the system is complete, installed per CSA C22.2 No. 141, has been tested, and operates for the specified battery run time, and meets voltage drop requirements. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND DISTRIBUTION OF TEMPORARY 1.4 Manufacturers: Lumacell, Aimlite, Beghelli, Emergilite, Lithonia, Stanpro. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL THE WORK WITH ALL OTHER 1.0 EXIT SIGNS PER SCHEDULE 1.1 Internally illuminated exit signs consisting of a green and white LED pictogram ("Running Man"). 1.2 Certified to CSA 22.2 No.141-15, meets ISO 3864-1, and meets ISO 7010:2010. EXISTING FACILITY 1.3 Include a standard single face with optional double-faceplate included. 1.4 Maximum 5 Watts per face. 1.5 Manufacturers: Lumacell, Aimlite, Beghelli, Emergilite, Lithonia, Stanpro. 2.0 EXTRA MATERIALS: ALLOW THE COST FOR MATERIAL AND FOR INSTALLATION OF AN ADDITIONAL FOUR EXIT SIGNS, SINGLE FACE OR DUAL FACE, TO BE INSTALLED AS DIRECTED BY THE OWNER AND CONSULTANT CONSULTANT DURING CONSTRUCTION, INCLUDE 15.24 METRES (50 FEET) OF WIRE AND CONDUIT THERWISE INDICATED 27 05 28 - PATHWAYS FOR COMMUNICATIONS 1.1 Conduits to communications outlet boxes: minimum 21 mm (3/4 inch) diameter conduit from single gang box in TO BEGINNING WORK partition to accessible ceiling space for maximum six communications drops per wall box. Provide pull wire for addition of communications drops by Communications contractor. ARE TO REMAIN THROUGHOUT THE COURSE OF THE WORK TO PREVENT DAMAGE OR LOSS. 1.2 Conduits and boxes in accordance with Section 26 05 00. 1.3 Provide blank off plates for all outlet boxes not populated with communications outlets. DEMOLITION 28 ELECTRONIC SAFETY AND SECURITY 28 46 00 - FIRE DETECTION AND ALARM 1.1 Allow for the supply and installation of six additional audible signalling devices to match existing system, and allow for three additional visual signalling devices, and allow for supplemental verification. TENDER BID PRICE. NO ADDITIONAL COSTS ASSOCIATED WITH THE EXISTING CONDITIONS SHALL BI 2.2 Manufacturer's Field Services .1 The Manufacturer's representative shall inspect and verify the complete installation of the fire alarm equipment including those components necessary to the direct operation of the system such as: manual and automatic alarm initiating devices, alarm signalling devices and controls (whether or not manufactured by the manufacturer) to the satisfaction of the local Fire Marshal and verifying that the type of equipment installed is as specified herein .1 All wiring connections to all devices shall meet Underwriters' Laboratories of Canada and Canadian Standards Association requirements .2 Equipment shall be installed in accordance with the manufacturer's recommendations and all signalling LIGHTING devices shall be tested. .3 Supervisory wiring of those items of equipment connected to a supervised circuit, shall operate and meet the governmental regulations to the satisfaction of inspecting officials. The manufacturer shall supply to the Contractor reasonable amounts of technical assistance with respect to any changes necessary to conform with work to all items above. .1 During the period of inspection by the manufacturer, the electrical contractor shall make available FROM THE T-BAR CEILING SUSPENSION SYSTEM. 3.0 VERIFICATION AND REPORT 3.1 On completion of the inspection and when all of the above conditions have been complied with, the manufacturer shall issue to the Consultant: .1 A copy of the inspecting technician's report showing the location of each device and certifying the test results of each device. REWORK EXISTING LIGHTING CIRCUIT(S) AS REQUIRED TO SUIT LOCATIONS OF NEW LIGHT .2 A certificate of verification to CAN/ULC-S537-13 (R2018) confirming that the inspection has been completed and showing the conditions upon which such inspection and certification have been rendered. .3 The manufacturer shall submit shop drawings indicating the complete wiring arrangement of all devices, and interlocking. All directories and labeling shall be submitted for review. All equipment and devices shall have pertinent shop drawings submitted. .4 Contractor shall be responsible for the verification of fire alarm audible signalling devices and adjust the location in order to provide audible levels as per Authorities Having Jurisdiction PANEL SCHEDULE. PER SPECIFICATIONS FOR CIRCUIT LENGTH EXCEEDING 90 FEET PROVIDE SEPARATE NEUTRAL AND GROUNDING TO ALL COPIER/PRINTER RECEPTACLE CIRCUITS. LIFE SAFETY CONNECT ALL EMERGENCY REMOTE HEADS TO THE INDICATED BATTERY UNIT WITH #10 AWG TESTING/VERIFICATION SHALL BE INCLUDED IN THE TENDER BID. ALL NEW NEW AND RELOCATED FIRE ALARM SIGNALING DEVICES (AUDIBLE AND VISUAL) SHALL BE COORDINATE WITH LANDLORDS REPRESENTATIVE FOR RESPONSIBILITY OF FIRE ALARM SCOPE

**GENERAL NOTES** 

ALL DRAWINGS ARE FOR DIAGRAMMATIC PURPOSES ONLY AND SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL INTERIOR DESIGNER AND MECHANICAL DRAWINGS FOR LOCATION O ALL LUMINAIRES, LIGHTING CONTROL DEVICES, DEVICES, OUTLETS, FURNITURE FEED POINTS, DIMENSIONS, MOUNTING HEIGHTS, AND CONSTRUCTION DETAILS

ALL LIFE SAFETY SYSTEMS SERVING EXISTING BUILDING (FIRE ALARM, EXIT SIGNAGE AND EMERGENCY LIGHTING) SHALL REMAIN IN FULL OPERATION THROUGHOUT THE ENTIRE CONSTRUCTION STAGE. MAINTAIN CIRCUIT INTEGRITY OF SYSTEMS THAT ARE ROUTED THROUGH THE SCOPE OF WORK THAT SERVE OTHER PARTS OF THE BUILDING IF THE FIRE ALARM SYSTEM CANNOT BE MAINTAINED, PROVIDE FIRE WATCH FOR AREAS NOT MONITORED BY THE FIRE ALARM

EQUIPMENT AND MATERIALS BE REMOVED FROM EXISTING LOCATIONS AND RE-INSTALLED. EITHER IN WHOLE OR IN PART IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFOR REING RE-INSTALLED IN THE NEW LOCATION, TEST ALL PARTS OF THE RE-USED OR RELOCATED

CONTRACTOR SHALL ENSURE THAT ELECTRICAL SERVICES (INCLUDING, BUT NOT LIMITED TO: AUXILIARY SERVICES, SECURITY, CRITICAL LOADS, FIRE ALARM SYSTEMS, ETC.) TO ANY AREAS OF THE BUILDING TO REMAIN IN OPERATION DURING CONSTRUCTION NOT BE AFFECTED UNDER AN

ALL SLAB OPENINGS WILL BE X-RAYED AND REVIEWED WITH LANDLORD AND BASE BUILDING STRUCTURAL CONSULTANT CONTRACTOR SHALL X-RAY THE FLOOR AND SUBMIT TO BASE

BUILDING STRUCTURAL ENGINEER FOR WRITTEN APPROVAL AT LEAST 72 HOURS PRIOR TO ANY CORE DRILLING ON THE BUILDING. THE CONTRACTOR SHALL INCLUDE THE COST OF STRUCTURAL ENGINEER. COORDINATE ALL CORE DRILLING WITH LANDLORD'S SITE REPRESENTATIVE AND TENANT, ALL NOISY WORK SHALL BE PERFORMED AFTER HOURS.

SEALED WITH APPROVED FIRE STOPPING MATERIAL. ANY FIREPROOFING MATERIAL REMOVED WILL BE REPLACED WITH A SUITABLE AND APPROVED FIREPROOFING MATERIAL AND SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS TO APPLICABLE BUILDING AND FIRE

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIR OF DAMAGED BUILDING AREAS AND FINISHES AFFECTED BY THE WORK AS OUTLINED UNDER SCOPE OF WORK OF THIS PROJECT

ALL INSTALLATIONS WITHIN EXISTING AREAS SHALL BE COORDINATED WITH OWNER AND BASE BUILDING MANAGEMENT. INSTALLATION MUST BE PERFORMED IN A MANNER TO MINIMIZE ANY

POWER AND LIGHTING WITHIN THE PREMISES DURING THE CONSTRUCTION PERIOD. EXPOSED ELECTRICAL CORDS OUTSIDE THE LEASED PREMISES SHALL NOT BE PERMITT

TRADES, CONSULTANTS, AND THE OWNER. ALL WORK SHALL BE SCHEDULED AND CARRIED OUT BY THE CONTRACTOR IN A MANNER TO ENSURE CONTINUED AND NON-INTERRUPTED OPERATION OF

CONTRACTOR SHALL IDENTIFY AND LABEL CLEARLY ALL CIRCUITS, WIRING, SERVICES, JUNCTION BOXES, PULLBOXES, DEVICES AND EQUIPMENT INSTALLED AND CONNECTED UNDER SCOPE OF WORK OF THIS PROJECT. IDENTIFICATION SHALL BE AS PER OWNER'S REQUIREMENTS AND ALL MARKINGS SHALL BE OF NON-ERASEABLE LAMACOID TYPE. COORDINATE ALL LABELING WITH THE

ALL NEW DEVICES INSTALLED WHERE NEW FINISHES OCCUR SHALL BE FLUSH MOUNTED, UNLESS

ALL CONDUIT RUNS SHOWN ON PLANS ARE FOR INFORMATION AND DIAGRAMMATIC PURPOSES ONLY. CONTRACTOR SHALL VERIFY EXACT LOCATION AND ROUTING OF ALL RUNS ON SITE PRIOR

PROTECT ALL EXISTING STRUCTURES SYSTEMS FINISHES AND GENERAL CONSTRUCTION THAT

DEMOLITION DRAWINGS INDICATE VISIBLE DEVICES AND/OR SERVICES SEEN ONLY DURING CONSULTANT SITE VISIT CONTRACTOR SHALL BE RESPONSIBLE FOR DETAILED SITE SURVEY OF ALL EXISTING AREAS (INCLUDING CEILING SPACE) DURING MANDATORY SITE WALKTHROUGH T INVESTIGATE AND RECORD EXISTING BUILDING CONDITIONS PRIOR TO SUBMITTING THE BID. INCLUDE FOR ALL COSTS ASSOCIATED WITH DEMOLITION SCOPE OF WORK IN THE BID PRICE. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES FULLY WITH ALL EXISTING CONDITIONS BEARING UPON SCOPE OF WORK IDENTIFIED IN THE PROJECT DRAWINGS AND SPECIFICATIONS AND FOR INCLUSION OF ALL REQUIRED COSTS FOR THIS SCOPE OF WORK IN THE

APPROVED BY THE OWNER DURING THE CONSTRUCTION OF THE PROJECT. REMOVE ALL REDUNDANT POWER AND DATA CABLING IN CEILING SPACE AS PER ONTARIO

DEMOLISH ALL EQUIPMENT AS INDICATED BACK TO SOURCE AND MARK BREAKER AS SPARE.

WHERE CIRCUIT SERVES OTHER EQUIPMENT TO REMAIN, DEMOLISH BACK TO NEXT DEVICE IN LINE. CONTRACTOR IS REQUIRED TO MAINTAIN OPERATION OF ALL EXISTING EQUIPMENT TO REMAIN.

PROVIDE SUPPORT CHAIN FOR ALL LUMINAIRES (INCLUDING EXISTING) THAT ARE INSTALLED IN T-BAR CEILING. SUPPORT ALL LUMINAIRES DIRECTLY TO CEILING SLAB STRUCTURE, NOT TO CEILING HANGERS, DUCTWORK, PIPING, CABLE TRAYS, ROOF DECK, ETC. ALL NEW AND RELOCATE LUMINAIRES MUST BE CHAIN HUNG DIRECTLY FROM THE CEILING CONCRETE SLAB INDEPENDENT

FOR ALL LUMINAIRES THAT EXCEED 150V SHOWN AS NEW AND OR RELOCATED, SUPPLY AND INSTALL NEW LUMINAIRES DISCONNECT THAT COMPLY WITH RECOMMENDATION SPECIFIED IN

CANADIAN ELECTRICAL CODE, RULE 30-308(4). ALL NEW RELOCATED FIXTURES (THAT EXCEED 150 SHALL BE MARKED IN A CONSPICUOUS LEGIBLE AND PERMANENT MANNER ADJACENT TO THE CONNECTING MEANS, IDENTIFYING THE SPECIFIC PURPOSES.

FIXTURES AND LIGHTING CONTROL DEVICES. PROVIDE FEEDER AND CONDUIT AS REQUIRED (SIZE TO MATCH EXISTING) IN ORDER TO MAINTAIN LIGHTING CIRCUIT CONTINUITY. CONTRACTOR SHALL ENSURE THAT ADDITION OF NEW LIGHT FIXTURES WILL NOT OVERLOAD EXISTING CIRCUIT(S).

ALL NEW COMMUNICATIONS CABLING SHALL BE PLENUM RATED. DO NOT USE CONDUITS OR SHEATHING MATERIAL FOR NEW POWER CABLING THAT IS NOT PLENUM RATED. PROPERLY LABEL ALL ELECTRICAL PANELS. CLEARLY INDICATING ALL INFORMATION INCLUDING

CIRCUIT NUMBERS, CIRCUITING SHOWN ON DRAWING IS DIAGRAMMATIC TO SHOW GENERAL CIRCUIT ARRANGEMENT AND PANEL DESIGNATION. RE-ARRANGE EXISTING BREAKERS IN EXISTING AND NEW PANELS AS REQUIRED TO SUIT NEW WORK REQUIREMENTS. SHOW FINAL ARRANGEMEN'

ON AS-BUILT DRAWINGS AND PROVIDE TYPED PANEL SCHEDULES WITHIN MODIFIED PANELBOARDS. ALL FXISTING LOADS CONNECTED TO PANELS WITHIN THE SCOPE OF WORK SHALL BE TRACED AND IDENTIFIED ON UPDATED PANEL SCHEDULES. THERE SHALL BE NO 'EXISTING' DESCRIPTIONS ON

BE RESPONSIBLE FOR ALL EXISTING ELECTRICAL DEVICES TO REMAIN; CONNECT TO EXISTING IRCUIT OR REWORK AND CONNECT TO NEW CIRCUIT AS SHOWN ON DRAWING

PROVIDE 2#12AWG + G IN 21MMC FOR ALL 15A AND 20A CIRCUITS WITH A NOMINAL VOLTAGE OF

120V UNLESS OTHERWISE NOTED, CONDUCTORS SHALL BE OVERSIZED TO SUIT VOLTAGE DROP AS

COORDINATE RECEPTACLE COORDINATION WITH THE COPIER SUPPLIER AND TENANT PRIOR TO

COPPER WIRE MINIMUM. PROVIDE LARGER WIRE SIZE AS REQUIRED OR AS RECOMMENDED BY MANUFACTURER. PROVIDE MEASUREMENT OF LIGHT LEVELS TO OBTAIN LOCAL INSPECTION APPROVALS AND PERMITS. AN AUTHORIZED TECHNICIAN OF THE MANUFACTURER SHALL PREPARE AND PROVIDE A SIGNED TEST REPORT VERIFYING THAT THE SYSTEM IS PROPERLY WORKING AND THAT LIGHT LEVELS MEET LOCAL CODE REQUIREMENTS. INCLUDE REQUIRED TEST MEASUREMENTS IN REPORT AND SUBMIT TO CONSULTANT FOR REVIEW. ALL COST FOR

ELECTRICAL CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR AMOUNT TO INCLUDE IN BID FOR ADDITIONAL EXIT SIGNS, REMOTE HEADS AND FIRE ALARM DEVICES PER BUILDING INSPECTORS

CONNECTED TO EXISTING CIRCUIT SERVING AREA. IF FIRE ALARM AUDIBLE SIGNALING DEVICES UTILIZE AN 'A/B' CIRCUITING TOPOLOGY, ADJACENT FIRE ALARM DEVICES SHALL BE ON ALTERNATE

PRIOR TO SUBMISSION OF BID. THIS INCLUDES THE COORDINATION OF INSTALLING NEW/RELOCATED DEVICES, FINAL CONNECTION TO FIRE ALARM INFRASTRUCTURE AND VERIFICATION OF FIRE ALARM SYSTEM.

SUSAN FRIEDRICH ARCHITECT INC. . 643 St. Clair Avenue West, Toronto, Ontario M6C 1A7 Telephone (416) 588-3740 Fax (416) 588-2401

> Corporate Services Facility & Real Estate Division Design, Construction & Asset Preservation

55 JOHN ST. TORONTO, ONT. M5V 3C6

ISSUED FOR TENDER 2024-04-17 2024-03-22 ISSUED FOR PERMIT ISSUED FOR CLIENT REVIEW 2024-03-19 2024-02-07 ISSUED FOR CLIENT REVIEW DATE DESCRIPTION

**REVISIONS** 

THE SPECIFICATIONS ARE TO BE TRUE NORTH

DRAWINGS NOR THE SPECIFICATIONS SHALL BE USED ALONE. REFER TO ARCHITECTURAL DRAWINGS DIMENSIONS. DO NOT SCALE.

CONSIDERED AS AN INTEGRAL PART OF

THESE DRAWINGS AND NEITHER THE

2024-03-22

250 ROWNTREE DAIRY RD, WOODBRIDGE, ON 905-507-0800 WWW.QUASARCG.COM

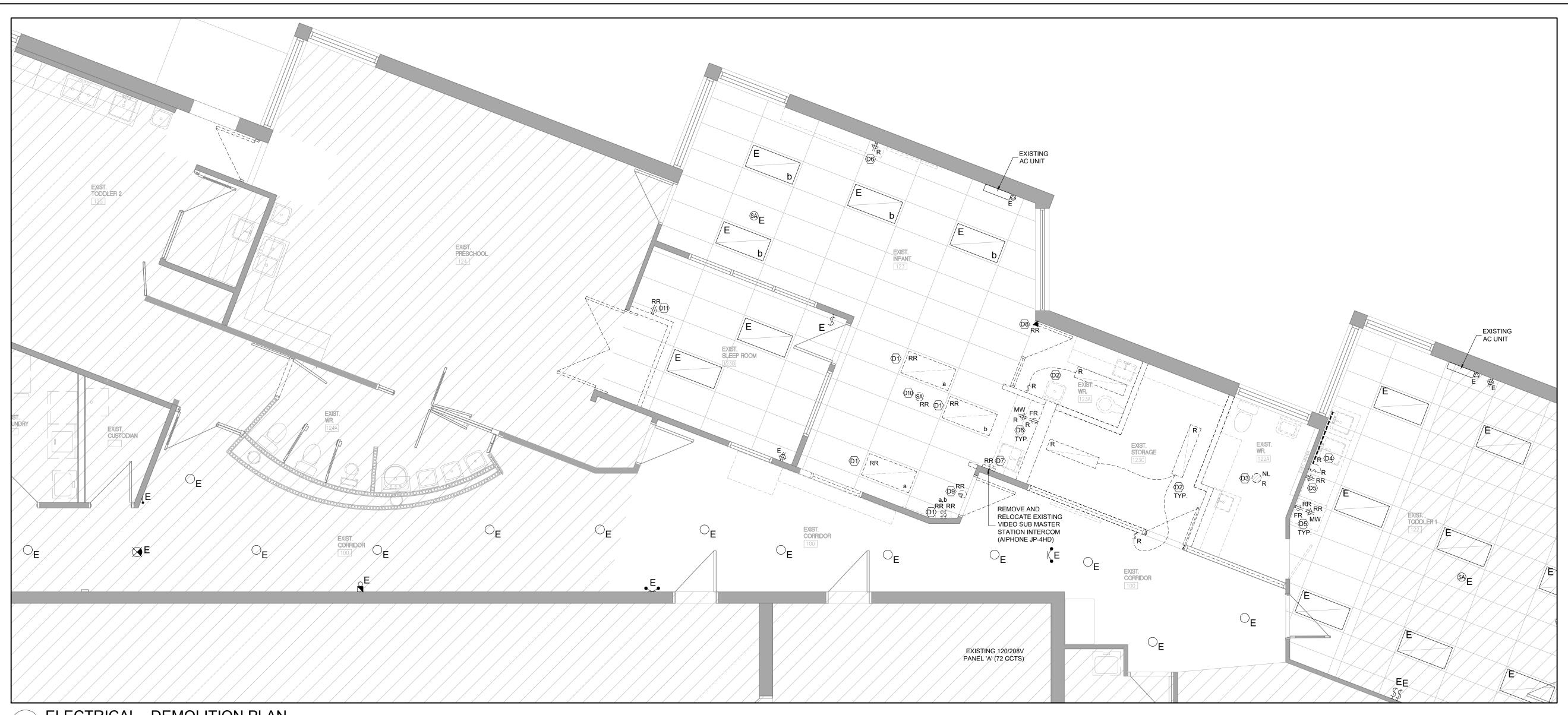
**PROJECT** 

INTERIOR RENOVATIONS O'Connor Child Care Centre

> 1386 Victoria Park Avenue Toronto, ON M4A 2L8

ELECTRICAL SPECIFICATIONS AND GENERAL NOTES

CHECKED PROJECT No. CM-23-129 SCALE DRAWING N **AS SHOWN** 



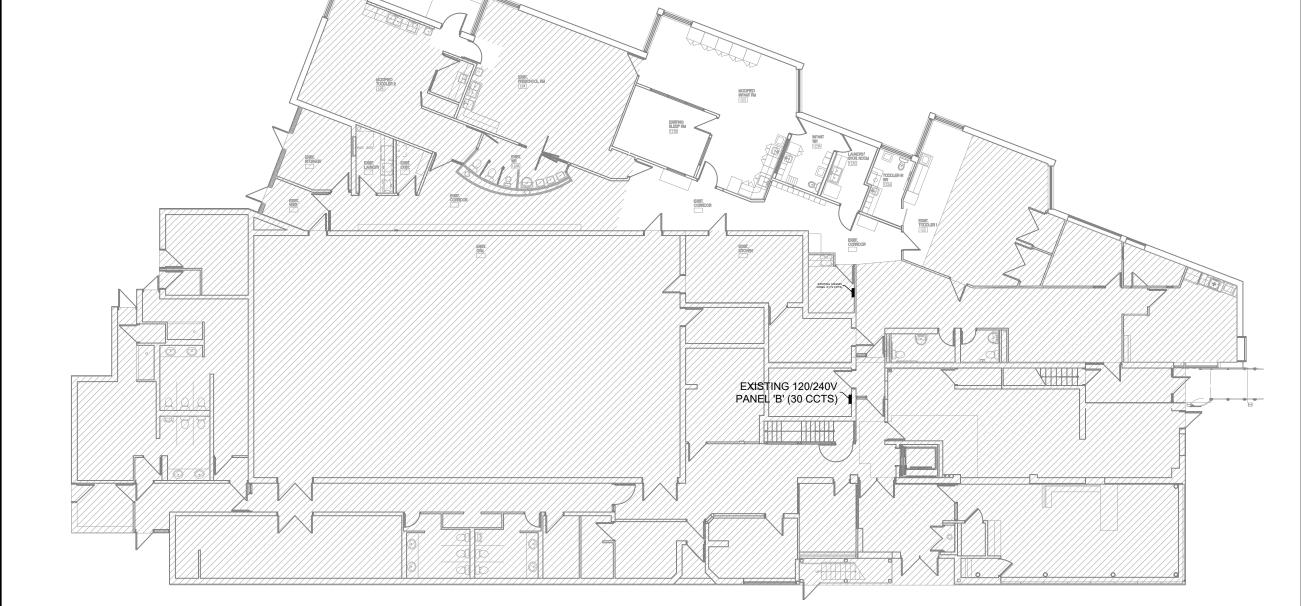
ELECTRICAL - DEMOLITION PLAN SCALE: 1:50

ELECTRICAL DEMOLITION NOTES: (##)

- D1 DISCONNECT, REMOVE AND RELOCATE 'RR' EXISTING 2x4 LIGHT FIXTURES AND ASSOCIATED CONTROL SWITCHES (TWO SWITCHES) AS SHOWN. EXTEND WIRING AND CONDUITS TO NEW LOCATION AS REQUIRED.
- DISCONNECT AND REMOVE 'R' EXISTING SURFACE MOUNTED 1x4 LIGHT FIXTURES COMPLETE WITH ASSOCIATED CONTROL SWICHES, WIRING AND CONDUIT. MAKE SAFE EXISTING CIRCUIT IN CEILING SPACE FOR REUSE TO CONNECT TO NEW LIGHT FIXTURES.
- D3 DISCONNECT AND REMOVE 'R' EXISTING RECESSED POT LIGHT FIXTURE COMPLETE WITH ASSOCIATED WIRING. MAKE SAFE EXISTING CIRCUIT IN JUNCTION BOX IN CEILING SPACE TO REUSE TO CONNECT NEW LIGHT FIXTURE AT SAME LOCATION.
- D4 DISCONNECT AND REMOVE 'R' EXISTING UNDER COUNTER LIGHT FIXTURE COMPLETE WITH ASSOCIATED LIGHT FIXTURE, WIRING AND CONTROL SWITCH. MAKE SAFE EXISTING CIRCUIT IN CEILING SPACE IN JUNCTION BOX FOR REUSE.
- D5 REMOVE EXISTING RECEPTACLES. MAKE SAFE EXISTING CIRCUITS, JUNCTION BOXES, WIRING AND CONDUIT TO CONNECT TO NEW RECEPTACLES AS SAME LOCATION AFTER
- DISCONNECT AND REMOVE 'R' EXISTING RECEPTACLES COMPLETE WITH WIRING AND CONDUITS. MAKE SAFE EXISTING CIRCUITS IN CEILING SPACE IN JUNCTION BOXES FOR
- D7 DISCONNECT, REMOVE AND RELOCATE 'RR' EXISTING VIDEO SUB MASTER STATION INTERCOM. EXTENDING WIRING / CABLE TO NEW LOCATION.
- D8 DISCONNECT, REMOVE AND RELOCATE 'RR' EXISTING TELEPHONE. EXTEND CABLE TO THE NEW LOCATION.
- DISCONNECT, REMOVE AND RELOCATE 'RR' EXISTING TIME CLOCK RECEPTACLE (1 GANG RECESSED SINGLE RECEPTACLE). EXTEND WIRING AND CONDUIT TO NEW LOCATION.
- D10 DISCONNECT, REMOVE AND RELOCATE 'RR' EXISTING CEILING MOUNTED SMOKE / CARBON MONOXIDE ALARM DEVICE. EXTEND WIRING TO NEW LOCATION.
- D11 DISCONNECT, REMOVE AND RELOCATE 'RR' EXISTING RECEPTACLE. EXTEND WIRING AND CONDUIT TO NEW LOCATION.

# **GENERAL NOTES**

- G1 MAINTAIN CIRCUIT CONTINUITY FOR EXISTING DEVICES TO REMAIN THAT MAY BE AFFECTED BY THE DEMOLITION OF OTHER DEVICES.
- G2 REMOVE ALL DROP CEILING WIRING POWER / COMMUNICATION BACK TO THE CORRESPONDING PANELS. MAKE SURFACE GOOD.
- G3 REMOVE ALL REDUNDANT WIRING BACK TO SOURCE, CAP AND MAKE SAFE.
- G4 WHEN RELOCATING OR REMOVING ANY EQUIPMENT, SHOULD ANY CIRCUITS BE ABANDONED, THE CONDUCTORS TO THESE CIRCUITS MUST BE REMOVED OR PROPERLY TERMINATED AS DETAILED IN OESC BULLETIN 12-25-1.
- G5 IN AREA SCOPE OF WORK PROVIDE SAFETY CHAINS FOR ALL EXISTING, RELOCATED AND NEW LIGHT FIXTURES. HANG TO STRUCTURAL CEILING ONLY
- G6 CONTRACTOR TO VISIT SITE PRIOR TO SUBMITTAL OF BID.
- G7 PROVIDE TEMPORARY LIGHTING DURING CONSTRUCTION.







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PROJECT

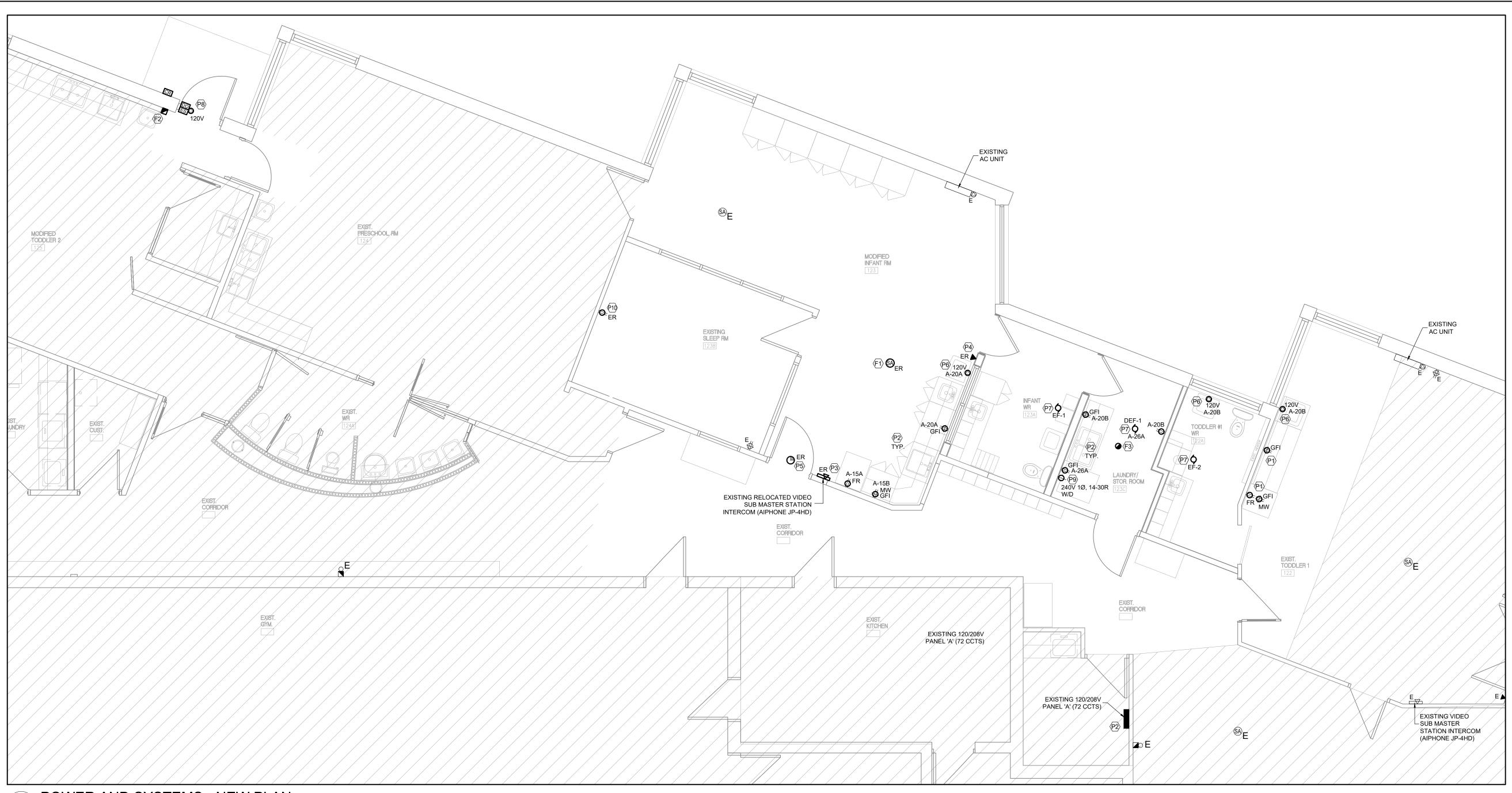
INTERIOR RENOVATIONS O'Connor Child Care Centre

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ELECTRICAL DEMOLITION AND KEY PLAN

CHECKED	PROJECT No.		
<del></del>	CM-23-129		
SCALE	DRAWING No.		
AS SHOWN	E101		





POWER AND SYSTEMS - NEW PLAN

SCALE: 1:50

POWER AND SYSTEMS NOTES:

- P1 CONNECT NEW RECEPTACLES TO EXISTING TO BE REMOVED RECEPTACLES AT SAME LOCATION. REFER TO DEMOLITION NOTE.
- P2 IDENTIFY SPARES / SPACES BREAKERS IN EXISTING 120/208V PANEL 'A' AND PROVIDE NEW CIRCUIT BREAKER / TANDEM BREAKERS AND CONNECT TO NEW RECEPTACLES AND DEVICES.
- P3 EXISTING RELOCATED 'ER' VIDEO SUB MASTER STATION INTERCOM. EXTEND WIRING / CABLE TO NEW LOCATION AND RECONNECT TO EXISTING INTERCOM SYSTEM. COORDINATE WITH ARCHITECT / CLIENT FOR EXACT LOCATION PRIOR TO ROUGH-IN.
- P4 EXISTING RELOCATED 'ER' TELEPHONE. EXTEND CABLE TO NEW LOCATION AND RECONNECT.
- P5 EXISTING RELOCATED 'ER' TIME CLOCK RECEPTACLE (1 GANG RECESSED SINGLE RECEPTACLE). EXTEND WIRING AND CONDUIT TO NEW LOCATION AND RECONNECT TO EXISTING CIRCUIT AND SYSTEM. PROVIDE NEW RECEPTACLE AT NEW LOCATION.
- P6 PROVIDE 120V FOR AUTOMATIC SENSOR FAUCET. COORDINATE WITH MECHANICAL PRIOR TO ROUGH-IN.
- P7 CONNECT NEW WASHROOMS EXHAUST FAN TO NEW LIGHTING CONTROL DUAL RELAY OCCUPANCY SENSOR SWITCH LIGHTING CIRCUIT. COORDINATE WITH MECHANICAL CONTRACTOR. CONTRACTOR TO VERIFY LOAD ON EXISTING LIGHTING CIRCUIT PRIOR TO WORK. INTERLOCK WASHER/DRYER EXHAUST FAN 'DEF-1' WITH WASHER/DRYER. CONTRACTOR TO PROVIDE CURRENT SENSOR IN DYER TO CONTROL EXHAUST FAN 'DEF-1'. COORDINATE EXACT LOCATIONS WITH MECHANICAL CONTRACTOR.
- P8 INSTALL CARD READER, C/W ASSOCIATED DEVICES (DOOR CONTACT, ELECTRIC STRIKES, ETC.) AS SHOWN. PROVIDE 120VAC CIRCUIT TO DOOR OPERATOR / ELECTRIC STRIKE CONTROL BOX. CONNECT TO CLIENT / BASE BUILDING ACCESS CONTROL SYSTEM. PROVIDE COMMISSIONING. COORDINATE WITH OWNERS SECURITY CONTRACTORS AND CLIENT. DOOR CONTACT, ELECTRIC STRIKE, CARD READER ETC. ARE SUPPLIED BY GC. CONTRACTOR TO COORDINATE WITH ARCHITECT AND HARDWARE SUPPLIER FOR MOUNTING HEIGHT AND EXACT LOCATION PRIOR TO ROUGH-IN.
- P9 IDENTIFY TWO (2) SPARES / SPACES IN EXISTING 120/240V PANEL 'B' AND PROVIDE 30A/2P BREAKER AND CONNECT TO NEW WASHER AND DRYER COMBO UNIT. REFER TO DRAWING E101 FOR LOCATION OF EXISTING PANEL 'B'
- P10 EXISTING RELOCATED 'ER' RECEPTACLE. EXTEND WIRING AND CONDUIT TO NEW LOCATION AND RECONNECT TO EXISTING CIRCUIT. PROVIDE NEW RECEPTACLE AS NEW LOCATION.

# FIRE ALARM NOTES:

- ALARM DEVICE. EXTEND WIRING AND CONDUITS TO NEW LOCATION AND RECONNECT TO EXISTING FIRE
- E2 PROVIDE NEW FIRE ALARM PULL STATION AND CONNECT TO EXISTING BASE BUILDING FIRE ALARM ZONE AND NEAREST EXISTING ALARM INITIATING CIRCUIT. NEW TO MATCH EXISTING BASE BUILDING DEVICE.
- CONTRACTOR TO ALLOW FOR SUPPLY AND INSTALLATION OF TWO (2) ADDITIONAL FIRE ALARM BELLS C/W 50 FEET CONDUIT, WIRING AND RE-TESTING IN THE BASE BID IF REQUESTED BY FIRE MARSHAL ON FINAL INSPECTION AND / OR AFTER AUDIBILITY TESTING. IF ADDITIONAL BELLS ARE NOT USED PROVIDE CREDIT AT THE END OF CONSTRUCTION. EXISTING FIRE ALARM REMOTE ANNUNCIATOR PANEL IS 'MIRCOM'.
- F3 PROVIDE NEW FIRE ALARM HEAT DETECTOR AND CONNECT TO EXISTING BASE BUILDING FIRE ALARM SYSTEM AND NEAREST EXISTING ALARM INITIATION CIRCUIT. NEW TO MATCH EXISTING BASE BUILDING DEVICE.

# FIRE ALARM GENERAL NOTES

- F4 CONTRACTOR IS RESPONSIBLE TO MODIFY EXISTING INITIATING / SIGNALLING CIRCUIT AS REQUIRED TO ACCOMMODATE ADDITIONAL DEVICES. PROVIDE VERIFICATION AND TESTING OF ALL FIRE ALARM DEVICES IN GENERAL AREAS AND ALL ENCLOSED ROOMS WITH DOOR OPEN, ENSURE THAT db LEVELS ARE MET ACCORDING TO OBC STANDARDS.
- CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT THE FIRE ALARM SYSTEMS BOUNDED BY AREA UNDER RENOVATIONS REMAIN IN TACT IN DURING AND AFTER COMPLETION OF CONSTRUCTION. REPORT ANY OBSTRUCTION OF RELOCATION OF ANY DEVICES AFFECTED BY RENOVATIONS TO THE ENGINEER.
- F6 CONTRACTOR TO RETAIN AND CARRY THE COST OF THE BASE BUILDING FIRE ALARM CONTRACTOR FOR ANY

# POWER AND SYSTEMS GENERAL NOTES:

- F1 EXISTING RELOCATED 'ER' CEILING MOUNTED RESIDENTIAL STYLE LINE VOLTAGE SMOKE / CARBON MONOXIDE G1 CIRCUITING IS SHOWN FOR GENERAL GROUPING ONLY EXACT CIRCUITING TO BE VERIFIED ON SITE. PROVIDE REVISE TYPE WRITTEN PANEL DIRECTORY FOR EXISTING / NEW / RELOCATED PANELS.
  - G2 FROM MECHANICAL EQUIPMENT (EXHAUST FANS, RTU'S, UH'S ETC.) PROVIDE 3/4" CONDUIT AND ACCESSORIES FOR CONTROL WIRING TO CORRESPONDING THERMOSTATS, MOTOR STARTERS, OR VARIABLE SPEED CONTROLLER. ALL THERMOSTATS, MOTOR STARTERS AND VARIABLE SPEED SWITCHES ARE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. LOCATIONS OF EQUIPMENT CONTROL DEVICES ARE NOT SHOWN ON DRAWING. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.
  - G3 NO EXTRA COST OR CREDIT SHALL BE INCURRED FOR ANY CHANGE IN LOCATION OF EQUIPMENT, PROVIDING DISTANCE DOES NOT EXCEED 3 M (10') AND INFORMATION IS GIVEN BEFORE INSTALLATION OF SAID EQUIPMENT.
  - G4 ALL ELECTRICAL DEVICES ARE NEW UNLESS OTHERWISE NOTED. PROVIDE GFI TYPE FOR RECEPTACLES WITHIN 1.5 METRES FROM ANY SINK.
  - G5 PROVIDE FIRE-PROOFING/SOUND ATTENUATION INSULATION WHEN RUNNING CONDUITS CROSSING FIRE-RATED WALL/SOUND BARRIER LOCATIONS.
  - G6 GANG ALL SERVICE BOXES TOGETHER. REFER TO INTERIOR DESIGNER'S DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHT OF POWER AND COMMUNICATION OUTLETS. G7 ELECTRICAL CONTRACTOR TO PROVIDE ROUGH-IN FOR ALL COMMUNICATION OUTLETS. EACH VOICE AND DATA OUTLET TO BE COMPLETE WITH A SINGLE GANG JUNCTION BOX AND A
  - $rac{1}{2}$ "Ø EMPTY CONDUIT UP TO THE CEILING. PROVIDE A PULL STRING IN EACH EMPTY CONDUIT. G8 ALL EMPTY CONDUITS SHALL BE COMPLETE WITH PULL STRINGS.
  - SCOPE OF WORK AREA. CERTIFY THE FIRE ALARM SYSTEM. INCLUDE IN REPORT SOUND LEVEL READINGS IN G9 ALL POWER, VOICE AND DATA COVER PLATES ARE TO BE WHITE. REPLACE EXISTING IF REQUIRED TO MATCH. PROVIDE BLANK COVER PLATES FOR ALL VOICE AND DATA LOCATIONS. G10 FOR COPIERS AND PRINTERS PROVIDE A SEPARATE NEUTRAL. CONFIRM EXACT POWER REQUIREMENT PRIOR TO INSTALLATION.
- MAINTAIN EXISTING FIRE ALARM SYSTEMS AND OTHER LIFE SAFETY SYSTEMS IN FULL OPERATION DURING G11 FOR ALL OUTLETS INDICATED AS EXISTING TO REMAIN, CONTRACTOR TO TEST TO ENSURE NORMAL AND SAFE OPERATION AND LABEL THEIR CIRCUIT NUMBERS. PROVIDE NEW COVERPLATES AS REQUIRED. NEW COVERPLATES TO MATCH EXISTING.
  - G12 BE RESPONSIBLE FOR CARE OF THE BUILDING. DO ALL CUTTING, PATCHING AND PAINTING REQUIRED FOR THE WORK OF THIS TRADE. WORK TO BE PERFORMED BY THE GENERAL CONTRACTOR'S FORCE AT THE ELECTRICAL CONTRACTOR'S EXPENSE. CLEAN ALL DEBRIS DURING CONSTRUCTION.
  - G13 ANY CORING TO THE CONCRETE SLAB TO BE DONE BY BASE BUILDING CONTRACTOR AND COST CARRIED BY THIS CONTRACTOR. ANY NOISY WORK TO OCCUR AFTER HOURS FROM 6:00

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PROJECT

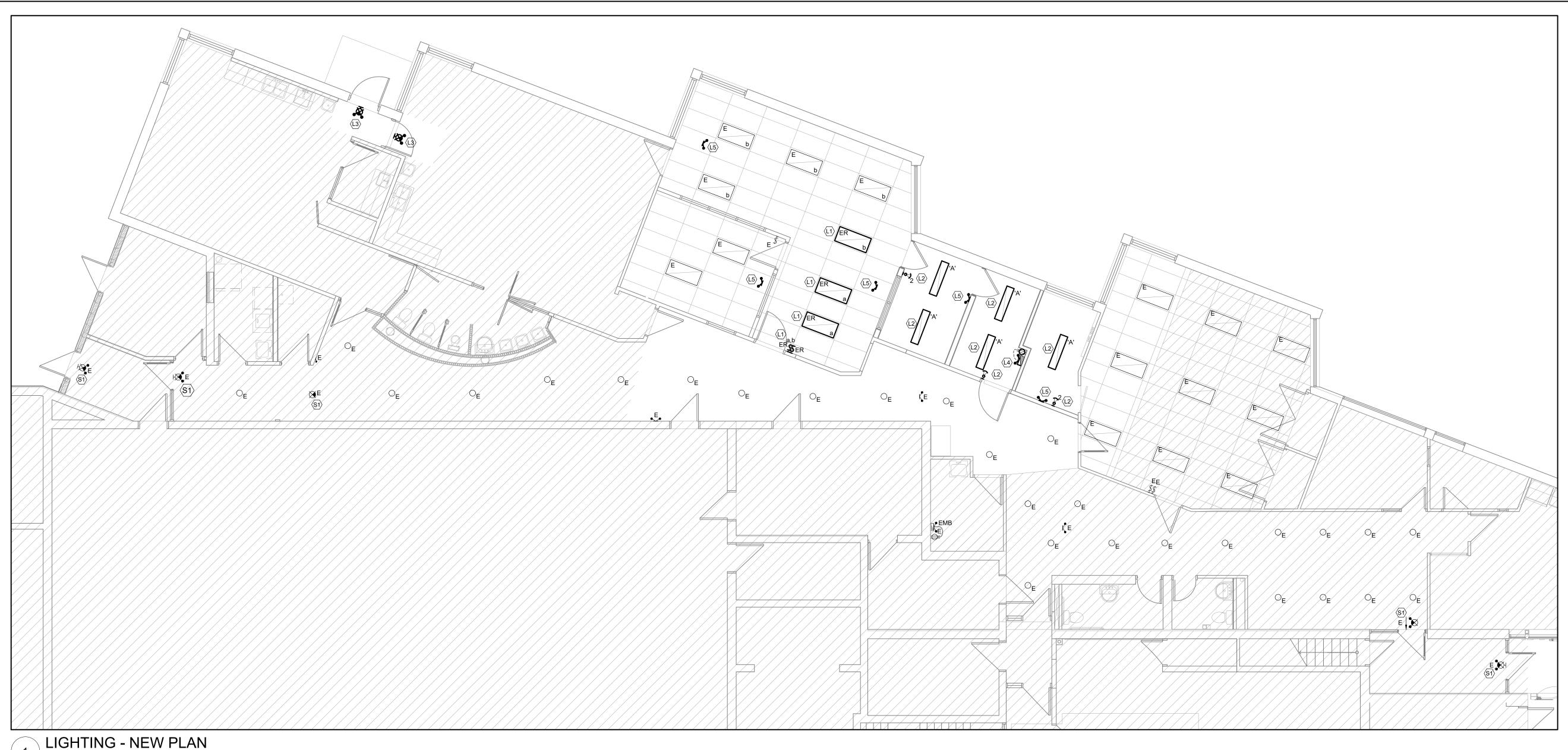
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POWER AND SYSTEMS - NEW PLAN

CHECKED PROJECT No. CM-23-129 SCALE DRAWING No AS SHOWN





SCALE: 1 : 75

# LIGHTING NOTES: (##)

L1 EXISTING RELOCATED 'ER' 2x4 LIGHT FIXTURES AND CONTROL SWITCHES AT NEW LOCATION AS SHOWN. CLEAN, RELAMP AND RECONNECT TO EXISTING CIRCUITS AND LIGHTING CONTROL SWITCHES. PROVIDE NEW CONTROL SWITCHES AT NEW LOCATION. CONTRACTOR TO VERIFY EXACT LOCATIONS OF ALL LUMINAIRES WITH ARCHITECT PRIOR TO INSTALLATION. RELOCATION OF LIGHT FIXTURE TO MATCH EXISTING.

L2 PROVIDE NEW SURFACE MOUNTED LIGHT FIXTURES 1x4 TYPE 'A' AND LIGHTING CONTROL WALL MOUNTED OCCUPANCY SWITCHES AS SHOWN, AND CONNECT TO EXISTING LIGHTING CIRCUIT AND NEW WALL MOUNTED CONTROL SWITCH. NEW SURFACE MOUNTED 1x4 TYPE 'A' LIGHT FIXTURE SHALL BE: STANPRO, L3CBA GEN.2, LED CENTER BASKET, 3 CCT AND 3 POWER SELECTABLE, 1'x4' (L3CBA-1LPS30P-Q/3C), 120V, COMPLETE WITH SURFACE MOUNTED KIT FOR FIRE RATED DRY WALL CEILING.

NEW WALL MOUNTED SWITCHES SHALL BE DUAL TECHNOLOGY DUAL RELAY WALL OCCUPANCY SENSOR SWITCH, WATTSTOPPER DSW-302 FOR LIGHTS AND FAN, WATTSTOPPER DSW-301 FOR LAUNDRY / STORAGE ROOM.

L3 PROVIDE NEW PICTOGRAM 'RUNNING MAN' COMBINATION UNIT EXIT SIGNS AND G3 ALL LUMINAIRES AND SWITCHES ARE NEW UNLESS OTHERWISE NOTED. CONTRACTOR CONNECT TO EXISTING BASE BUILDING EXIT SIGN CIRCUIT. NEW EXIT SIGN TO MATCH EXISTING OR AS SHOWN ON LIGHTING FIXTURE SCHEDULE.

CONTRACTOR TO ALLOW FOR THE SUPPLY AND INSTALLATION OF FOUR (4) ADDITIONAL EXIT SIGNS C/W 50' CONDUITS AND WIRING FOR BOTH 12V AND 120V CONNECTIONS INCLUDED IN THE BASE BID. CONTRACTOR TO INCLUDE IN THE BASE BID TO RELOCATION OF TWO (2) EXIT SIGNS IF REQUESTED BY BUILDING INSPECTOR.

- L4 PROVIDE NEW EMERGENCY BATTERY UNIT 'EMB' AND CONNECT TO 120V EXISTING BASE BUILDING EXIT SIGN / BATTERY UNIT CIRCUIT. CONTRACTOR TO VERIFY EXISTING LOAD ON EXISTING CIRCUIT PRIOR TO ROUGH-IN.
- L5 PROVIDE NEW EMERGENCY REMOTE HEADS AND CONNECT TO NEW EMERGENCY BATTERY UNIT 'EMB'.

CONTRACTOR TO ALLOW FOR THE SUPPLY AND INSTALLATION OF FOUR (4) ADDITIONAL EMERGENCY REMOTE HEADS C/W 50' CONDUITS AND WIRING FOR BOTH 12V AND 120V CONNECTIONS INCLUDED IN THE BASE BID.

# SEPARATE PRICE

PROVIDE SEPARATE PRICE TO REPLACE EXISTING COMBINATION UNIT AND EXIT SIGNS COMPLETE WITH REMOTE HEADS WITH NEW PICTOGRAM 'RUNNING MAN' COMBINATION UNIT OF EXIT SIGN COMPLETE WITH REMOTE HEADS.

# GENERAL NOTES:

- G1 CONFIRM THAT TOTAL QUANTITIES OF RELOCATED FIXTURES ON NEW LAYOUT DRAWINGS ARE LESS THAN OR EQUAL TO TOTAL NUMBER OF FIXTURES BEING REMOVED ON DEMOLITION LAYOUT DRAWINGS. PROVIDE NEW FIXTURES WHERE QUANTITY DISCREPANCIES EXIST.
- G2 THE CONTRACTOR TO ENSURE ALL EXISTING AND RELOCATED LUMINAIRES ARE CLEANED AND ILLUMINATED AT THE END OF CONSTRUCTION. PROVIDE NEW LAMPS, BALLASTS, LOUVERS AND LENSES AS REQUIRED.
- TO COORDINATE WITH CLIENT / ARCHITECT FOR EXACT LOCATIONS OF LUMINAIRES AND CONTROL SWITCHES PRIOR TO ROUGH-IN.
- G4 CONTRACTOR TO ENSURE ALL EXISTING LUMINAIRES TO REMAIN ARE IN GOOD WORKING CONDITION (C/W LAMPS, BALLASTS, LOUVERS AND LENSES). PROVIDE NEW LAMPS, BALLASTS, LOUVERS AND LENSES AS REQUIRED.
- G5 MAINTAIN CIRCUIT CONTINUITY FOR EXISTING DEVICES TO REMAIN THAT MAY BE AFFECTED BY THE DEMOLITION OF OTHER DEVICES.
- G6 IN AREA SCOPE OF WORK PROVIDE SAFETY CHAINS FOR ALL LUMINAIRES, HANG TO STRUCTURAL CEILING ONLY.

SYMBOL	DESCRIPTION	MANUFACTURER & CAT NO.	VOLTAGE	LAMPS	REMARKS
ŀ <b>⊘</b>	EXISTING PICTOGRAM 'GREEN RUNNING MAN' EXIT SIGN COMPLETE WITH REMOTE HEADS	LUMACELL CAT.#LAC-1-W-640-2-LD10- AT SERIES	120V	2xMR16 LED, 12V, 6W	
	'EMB' 12V EMERGENCY BATTERY UNIT COMPLETE WITH AUTO-TEST AND DOUBLE HEADS, UNIVERSAL, 120V	LUMACELL CAT.#RG12S-144-2-LD10-AT SERIES	120V	2xMR16 LED, 12V, 6W	
•_•	12V LED REMOTE SINGLE OR DOUBLE HEAD	LUMACELL CAT.#MQM-2LD10	12VDC	2xMR16 LED, 12V, 6W	CONNECT TO EMERGENCY POWER 'EMB'
<b>X</b>	PICTOGRAM EXIT SIGN, UNIVERSAL MOUNTING, FACTORY WHITE FINISH. FOR FACES/ARROW - REFER TO PLANS	LUMACELL CAT.# LA SERIES	6-24VDC	LED	CONNECT TO EMERGENCY POWER 'EMB'

LIGHTING FIXTURE SCHEDULE

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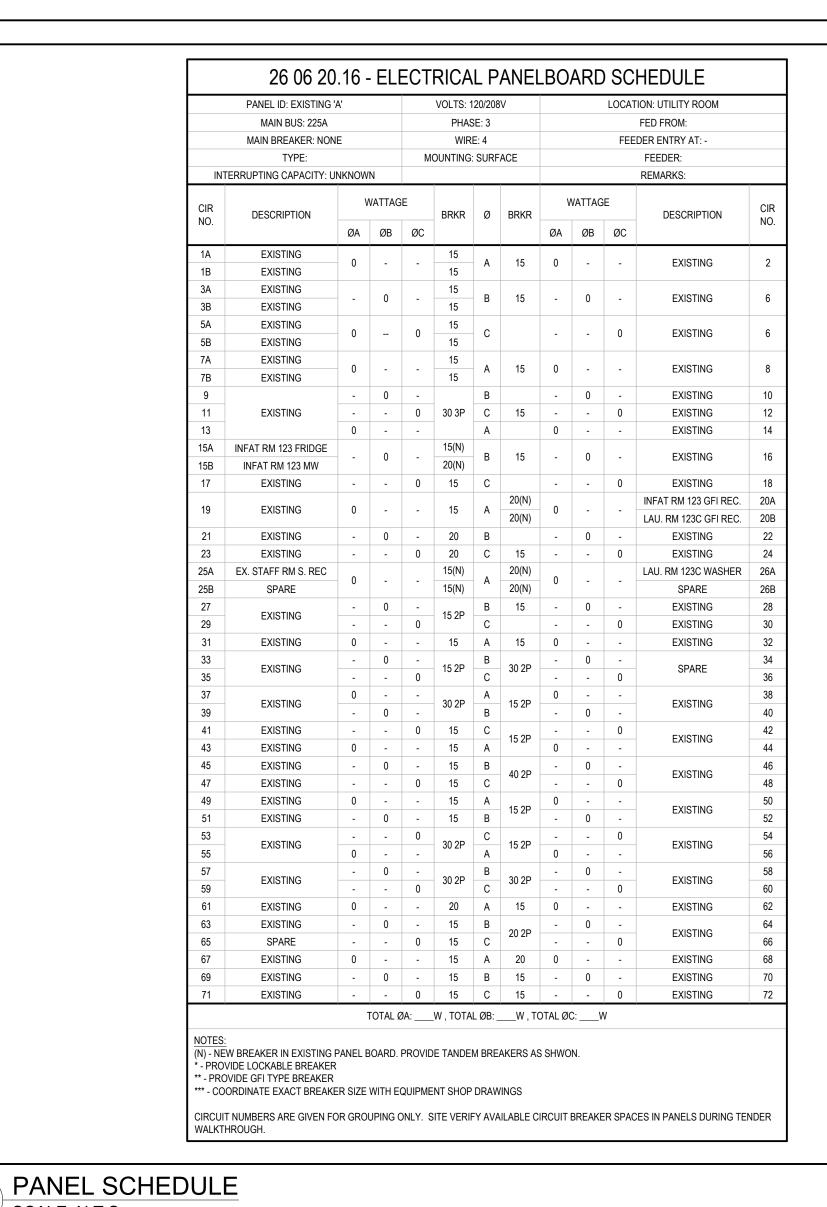
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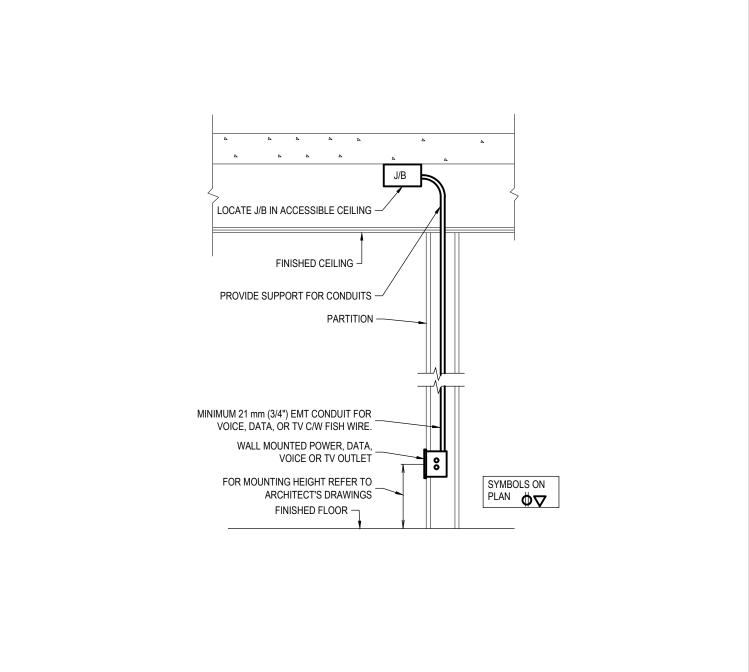
LIGHTING - NEW PLAN

CHECKED PROJECT No. CM-23-129 SCALE DRAWING No. AS SHOWN

NOTES SCALE: N.T.S.



GANG RECEPTACLE DETAIL SCALE: N.T.S.



21 mm (3/4") CONDUIT UP TO J/B IN CEILING SPACE  $\neg$ 

CONDUIT UP TO J/B IN CEILING SPACE -

LABEL RECEPTACLE WITH

CIRCUIT NUMBER USING

ELECTRONIC LABELLER,

THREE GANG

BACK BOX

(WHITE) -

SEE NOTE 1 ———

SYMBOLS ON PLAN:

**♥**♥♥ OR **₩**♥

QUAD RECEPTACLE AND COMM

BROTHER P-TOUCH OR EQUAL

THREE GANG COVER PLATE

DUPLEX RECEPTACLE

(TYPICAL OF TWO)

21 mm (3/4") CONDUIT UP TO J/B IN CEILING SPACE —

CONDUIT UP TO J/B IN CEILING SPACE -

BARRIER-

TWO GANG

BACK BOX

TWO GANG

RECEPTACLE-

(WHITE)

SEE NOTE 1 ----

SYMBOLS ON PLAN:

DUPLEX RECEPTACLE AND COMM

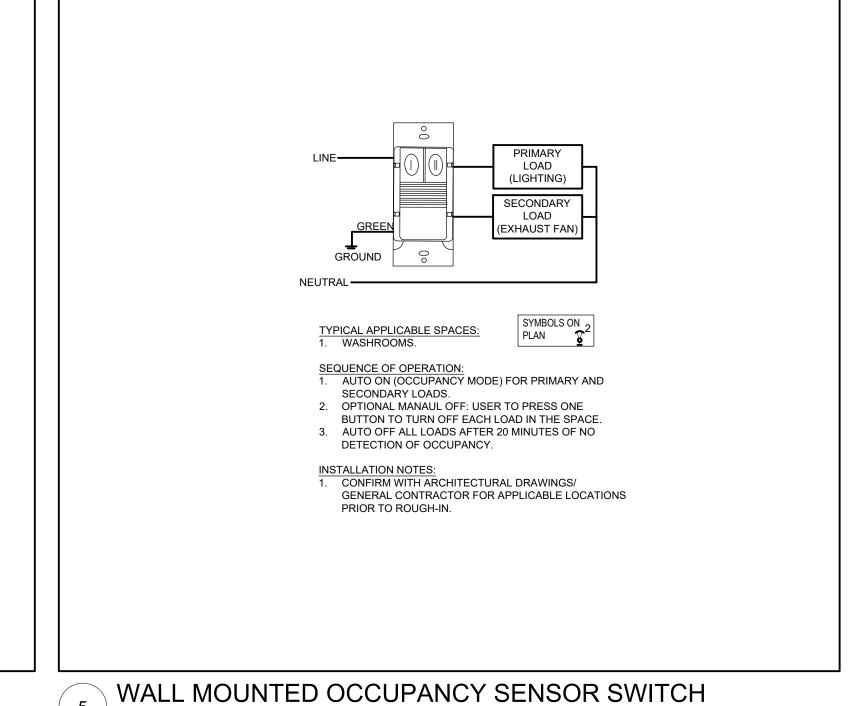
1. MOUNTING PLATES & JACKS SUPPLIED & INSTALLED BY

FOR APPLICABLE LOCATIONS PRIOR TO ROUGH-IN.

2. CONFIRM WITH INTERIOR DESIGNER/GENERAL CONTRACTOR

COMMUNICATIONS CONTRACTOR.

COVER PLATE -



CONDUIT UP TO J/B IN CEILING SPACE -

SINGLE GANG

SINGLE GANG

COVER PLATE

BACK BOX

(WHITE)

DUPI FX

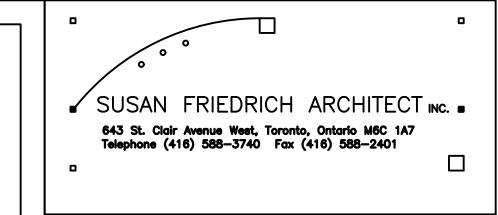
RECEPTACLE—

A-24

SYMBOLS ON PLAN:

DUPLEX RECEPTACLE

Φ



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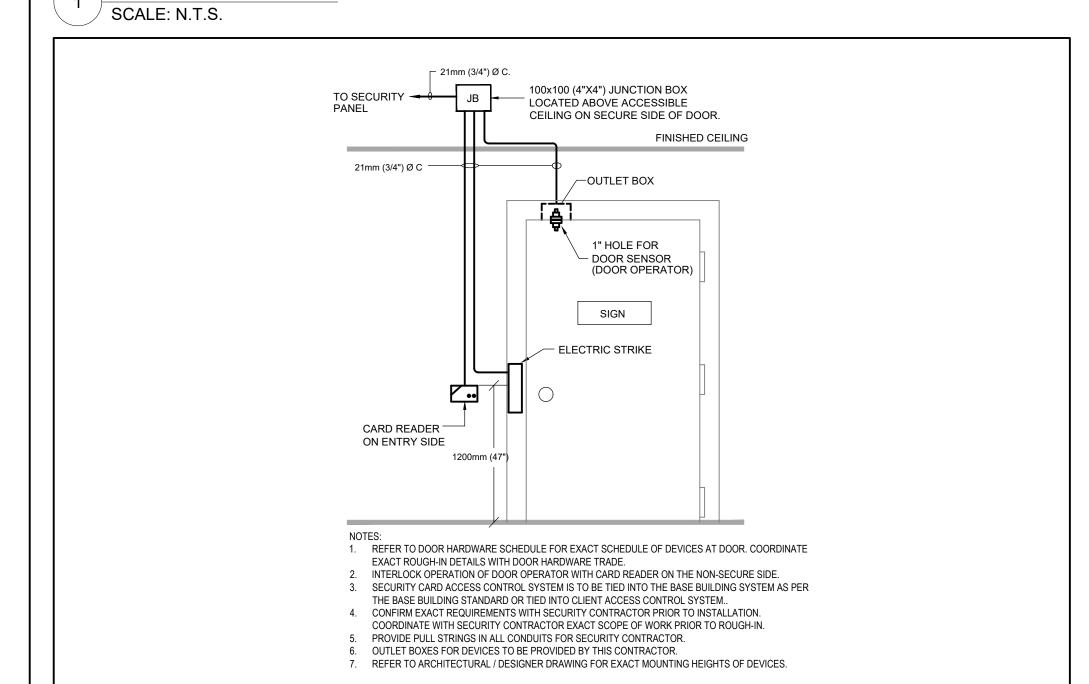
PROJECT

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ELECTRICAL DETAILS AND PANEL SCHEDULE

	711122 331123322
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-	CM-23-129
SCALE	DRAWING No.
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WALL MOUNTED OUTLET BOX

DOOR ROUGH-IN DETAIL