

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING DUCTS, PIPES & EQUIPMENT	Ю	NEW HUMIDISTAT
	DUCTS, PIPES & EQUIPMENT TO BE REMOVED	Э	EXISTING HUMIDISTAT
	NEW DUCT OR PIPE	⊜	NEW FLOOR DRAIN OR ROOF DRAIN
	NEW DUCT OR EQUIPMENT	$\bowtie$	EXISTING GATE VALVE
	NEW FLEXIBLE DUCT	M	NEW GATE VALVE
<del></del>		Image: Control of the	EXISTING CONTROL VALVE
	DUCT WITH 25mm(1") ACOUSTIC LINING		
<del></del>	DUCT WITH 25mm(1") ACOUSTIC LINING	因	NEW CONTROL VALVE
<u></u>	NEW CAP ON EXISTING DUCT OR PIPE		NEW GLOBE VALVE
	NEW CAP ON EXISTING DUCT	<b>X</b> ~	NEW PRESSURE REDUCING VALVE
	EXISTING VAV BOX	8	NEW CIRCUIT BALANCING VALVE
R [ ]	REMOVE OR RE-USE WHERE SHOWN AS NEW	昪	NEW THREE WAY AUTOMATIC CONTROL VALVE
	NEW VAV BOX	VTR	VENT THROUGH ROOF
	EXISTING AIR BOOT	DTF	DOWN THROUGH FLOOR
R			
e==C=i=	REMOVE OR RE-USE WHERE SHOWN AS NEW	CTE	CONNECT TO EXISTING
	NEW AIR BOOT	— ю	PIPE UP
	EXISTING LIGHT TROFFER	<del></del>	PIPE DOWN
I R [	REMOVE OR RE-USE EXISTING LIGHT TROFFER	<u> </u>	NEW METER
	NEW LIGHT TROFFER	<b>─</b> II	NEW UNION
	EXISTING LIGHT TROFFER	<del>-</del>	NEW STRAINER
R		BFP	NEW BACKFLOW PREVENTER
	REMOVE OR RE-USE EXISTING LIGHT TROFFER		
	NEW LIGHT TROFFER	AP	ACCESS PANEL
$\boxtimes$	NEW SUPPLY AIR DIFFUSER	—— SAN ——	EXISTING SANITARY DRAIN
	NEW RETURN GRILLE	SAN	EXISTING SANITARY DRAIN UNDER FLOOR
	NEW RETURN GRILLE	st	EXISTING STORM DRAIN
	EXISTING RETURN GRILLE	ST	EXISTING STORM DRAIN UNDER FLOOR
	EXISTING THERMOSTAT	——SAN——	NEW SANITARY DRAIN
	REMOVE OR RE-USE WHERE SHOWN AS NEW		
(Î)R		SAN	NEW SANITARY DRAIN UNDER FLOOR
<u> </u>	NEW THERMOSTAT	st	NEW STORM DRAIN
\$	FAN SWITCH	ST	NEW STORM DRAIN UNDER FLOOR
<b>⊼</b> 76"ø A	DIFF NECK SIZE/DIFF TYPE		EXISTING DOMESTIC COLD WATER
<u>6"ø ∆</u> 200	SUPPLY AIR CFM		EXISTING DOMESTIC HOT WATER
12/12 D	CRILLE OR RECISTER SIZE /TVDE		EXISTING DOMESTIC HOT WATER RECIRCULATION
12/12 D 300	GRILLE OR REGISTER SIZE/TYPE SUPPLY AIR CFM		NEW DOMESTIC COLD WATER
12/12 E 300	GRILLE OR REGISTER SIZE/TYPE EXHAUST OR RETURN AIR CFM		NEW DOMESTIC HOT WATER
	ENTROST ON RETORN FIRE OF III		NEW DOMESTIC HOT WATER RECIRCULATION
12/12 D	GRILLE OR REGISTER SIZE/TYPE	v	NEW SANITARY VENT PIPE
300	SUPPLY AIR CFM	v	EXISTING SANITARY VENT PIPE
, 12/12 E	GRILLE OR REGISTER SIZE/TYPE	—— G——	NEW NATURAL GAS PIPE
300	EXHAUST OR RETURN AIR CFM	G	EXISTING NATURAL GAS PIPE
	VAV BOX SETTING (Cooling)	CD	NEW CONDENSATE DRAIN
<b>f</b>	-DESIGN (CFM)		
4 250	VAV BOX SETTING (Cooling) -MINIMUM (CFM)	—— CD ——	EXISTING CONDENSATE DRAIN
10	-MINIMUM (CFM)	<u> — нws —</u>	HEATED WATER SUPPLY
	- VAV BOX SIZE	HWS	EXISTING HEATED WATER SUPPLY
	-VAV BOX SETTING (Cooling)	—— HWR ——	NEW HEATED WATER RETURN
	DESIGN (CFM)	—— HWR ——	EXISTING HEATED WATER RETURN
4 250	VAV BOX MINIMUM SETTING (Cooling): 0 CFM FOR INTERIOR ZONES & 20% OF DESIGN FOR	— CHWS —	NEW CHILLED WATER SUPPLY
	PERIMETER ZONES		
	- VAV BOX SIZE	—— CHWS ——	EXISTING CHILLED WATER SUPPLY
0	EXISTING SPRINKLER HEAD	— — CHWR — —	NEW CHILLED WATER RETURN
O R	REMOVE EXISTING SPRINKLER HEAD	—— CHWR ——	EXISTING CHILLED WATER RETURN
0	NEW SPRINKLER HEAD (SEMI RECESSED TYPE)	— cws —	NEW CONDENSER WATER SUPPLY
•	NEW SPRINKLER HEAD (CONCEALED TYPE)	cws	EXISTING CONDENSER WATER SUPPLY
FHC	EXISTING FIRE HOSE CABINET	cwr	NEW CONDENSER WATER RETURN
	REMOVE OR RE-USE WHERE SHOWN AS NEW	—— CWR ——	EXISTING CONDENSER WATER RETURN
FHC	NEW FIRE HOSE CABINET	F	EXISTING FIRE LINE
—— FD	NEW FIRE DAMPER	—— SP——	EXISTING SPRINKLER LINE
SD	NEW SMOKE DAMPER	<u>——</u> ғ——	NEW FIRE LINE
— вр	NEW MANUAL BALANCING DAMPER	—— SP——	NEW SPRINKLER LINE
VD	NEW VOLUME DAMPER	<del></del>	CIRCULATING PUMP
		110	DOOR LINDERCHT
-	FAN POWERED VAV BOX	UC	DOOR UNDERCUT
<b></b>		DG	DOOR GRILLE
	-FAN CAPACITY (CFM)		
	• •		
250	-PRIMARY AIR MAXIMUM SETTING (CFM)		
4 250 4	-PRIMARY AIR MAXIMUM SETTING (CFM) -PRIMARY AIR MINIMUM SETTING (CFM)		

DRAWING SCHEDULE

DRAWING TITLE

DWG NO

M-101 MECHANICAL DETAILS

M-103 MECHANICAL SCHEDULES M-104 MECHANICAL SCHEDULES M-105 MECHANICAL SCHEDULES

M-200 FLOOR PLAN - HVAC

M-400 ROOF PLAN - MECHANICAL

M-102 MECHANICAL SCHEDULES & DETAILS

M-300 FLOOR PLAN - PLUMBING & DRAINAGE

M-100 MECHANICAL DETAILS, LEGEND & DRAWING SCHEDULE

MECHANICAL LEGEND

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The Design, including, but not limited to: Spatial Relationships,

No.	Issued For	Date
1.	Review	13/01/20
2.	Review 2	31/01/20
3.	Structural	11/02/20
4.	Acoustical	18/02/20
5.	Mechanical Permit	04/05/20
6.	Coordination	06/09/22
7.	Review - Rev #1	25/11/22
8.	Coordination	12/12/22
9.	Mechanical Permit	20/01/23
10.	Mechanical Tender	13/04/23

## New lecumseth Alliston · Beeton · Tottenham

# alaimo

## architecture

Inc.

27 Roytec Rd. Unit 2-A Woodbridge, ON L4L 8E3 P: (905) 856-2840 F: (905) 856-4912

info@alaimoarchitecture.com

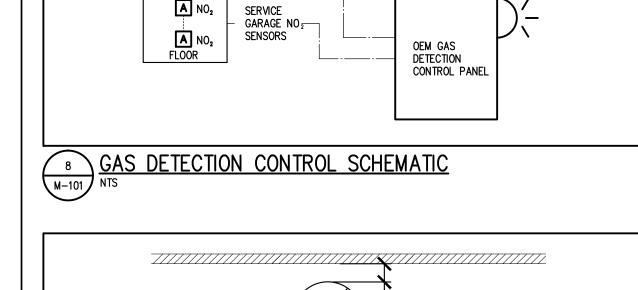
**Drawing Title** MECHANICAL DETAILS, LEGEND, & DRAWING SCHEDULE

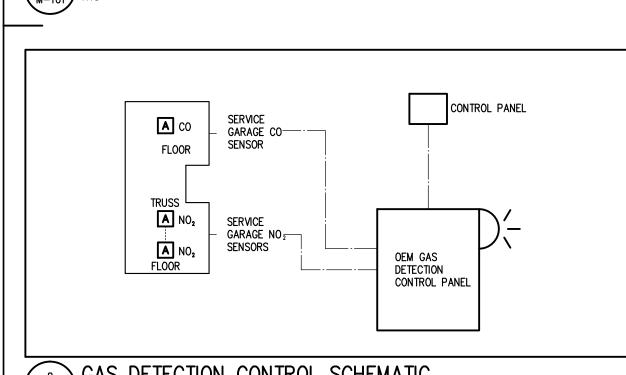
New Tecumseth Fire Station No. 4 6375 14th Line Alliston, Ont.

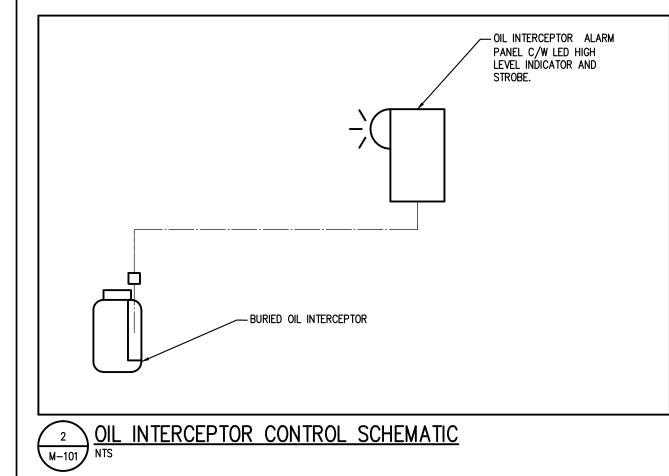
20.01.2023

Plot Date

### HEAT DEFLECTOR -SHIELD INFRARED HEATER THERMOSTAT ① CONTROL SEQUENCE INFRARED HEATER IH-01 INFRARED HEATERS CONTROLS WITH LOCAL THERMOSTAT TO MAINTAIN SPACE TEMPERATURE OF 20°C (68°F). 9 INFRARED HEATER CONTROL SCHEMATIC NTS







ON SIGNAL TO STOP FAN FROM GAS DETECTION CONTROL	PANEL, STOP FAN AND CLOSE DAMPERS.
EXHAUST FAN CONTROL W	/ITH DAMPERS - CO/NOx SYSTEM
	OIL INTERCEPTOR ALARM PANEL C/W LED HIGH LEVEL INDICATOR AND STROBE.
	-)

EXHUAS	DI K6 CO/NOx	DI K6 HARDWIRE TO STARTER MD3 EXHAUST AIR
SEQUEN	ICE:	
SIGNAL FAN.	FROM CO AND NOx SENSOR OR VEHICLE EXHAUST/EXTRACTI	ON SYSTEM, SHALL START/STOP
OPEN. I	NAL TO START FAN, THE OUTSIDE AIR DAMPERS IN THE APPA EXHAUST AIR DAMPER, MD3, OPENS. WHEN THE END SWITCH EXHAUST FAN IS ENERGIZED AND RUNS CONTINUOUSLY.	ARATUS BAY, MD1 & MD2 SHALL IES PROVE THE DAMPERS ARE
ON SIG	NAL TO STOP FAN FROM GAS DETECTION CONTROL PANEL, S	TOP FAN AND CLOSE DAMPERS.

DI K6

STARTER

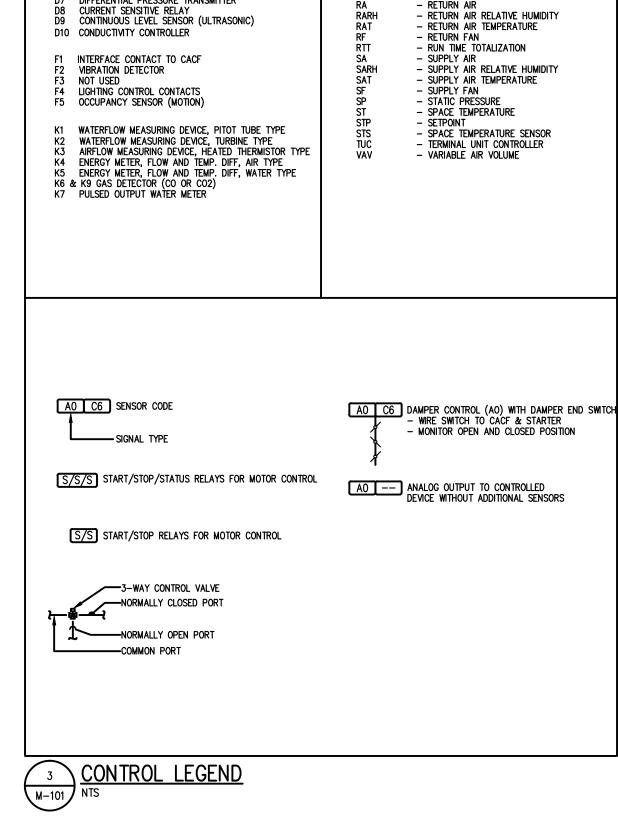
SUPPLY AIR

增MD1/MD2

MAKE-UP AIR - LOUVRE ABOVE DOOR

DI DI HARDWIRE TO STARTER  EXHAUST AIR  PLC LOGIC CONTROLLER
EXHAUST AIR
SEQUENCE:  ON A SIGNAL FROM A MANUAL SWITCH LOCATED IN THE SCBA COMPRESSOR ROOM TO START/STOP THE AIR COMPRESSOR, EF-2 SHALL SIMULTANEOUSLY START/STOP.  ON SIGNAL TO START FAN, THE OUTSIDE AIR DAMPER, MD-4 WITHIN THE SCBA COMPRESSOR ROOM SHALL OPEN. WHEN THE END SWITCH PROVES MOTORIZED DAMPER MD-4 IS OPEN, EXHAUST FAN EF-2 SHALL BE ENERGIZED AND OPERATE CONTINUOUSLY.  ON SIGNAL TO SHUT DOWN THE AIR COMPRESSOR FROM THE MANUAL SWITCH LOCATED IN THE COMPRESSOR ROOM, STOP FAN AND CLOSE DAMPERS.
EXHAUST FAN CONTROL WITH DAMPERS — AIR COMP.

PLC LOGIC CONTROLLER

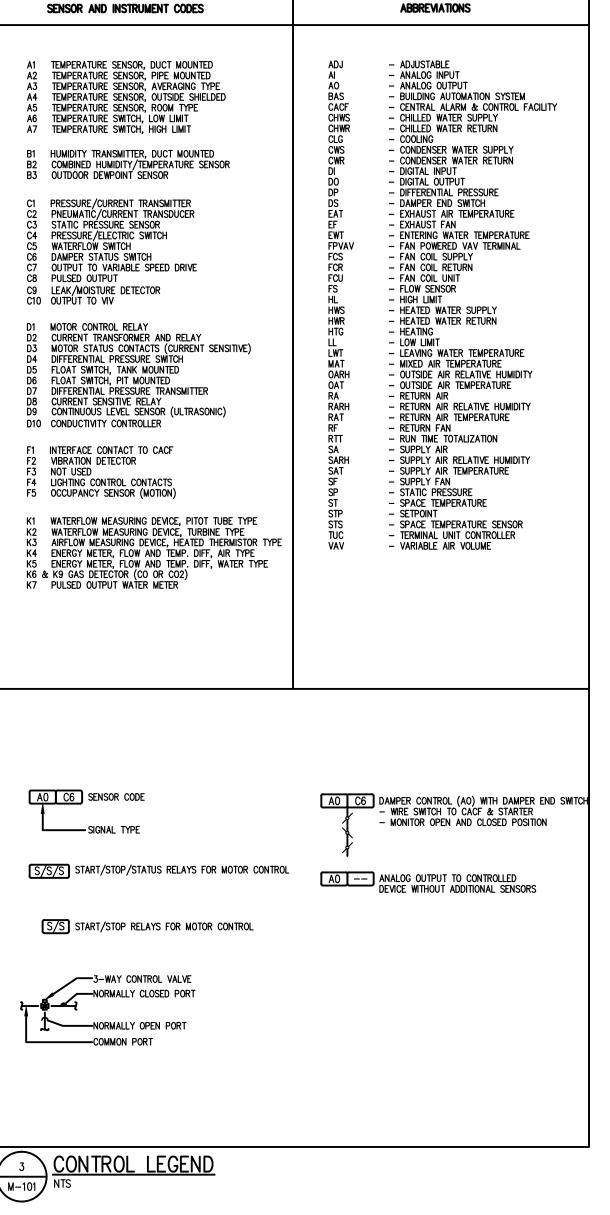


—HARDWIRE TO STARTER

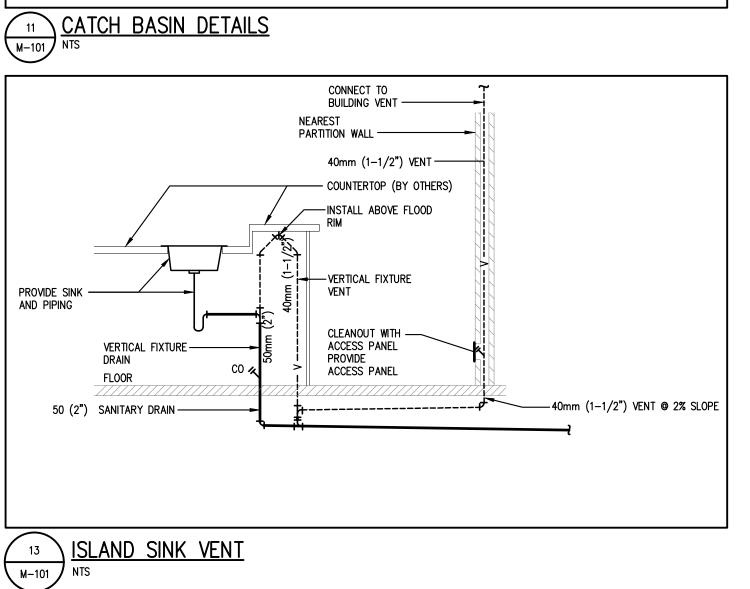
→ SUPPLY AIR

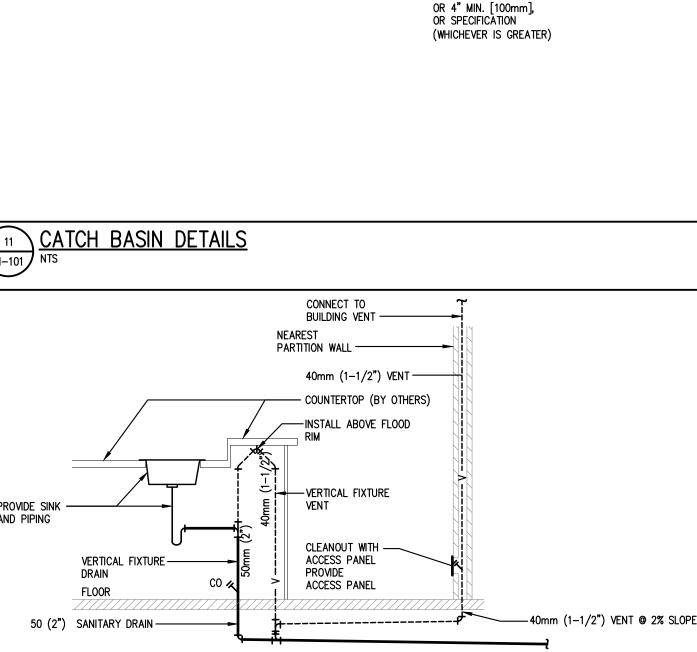
D0 C6

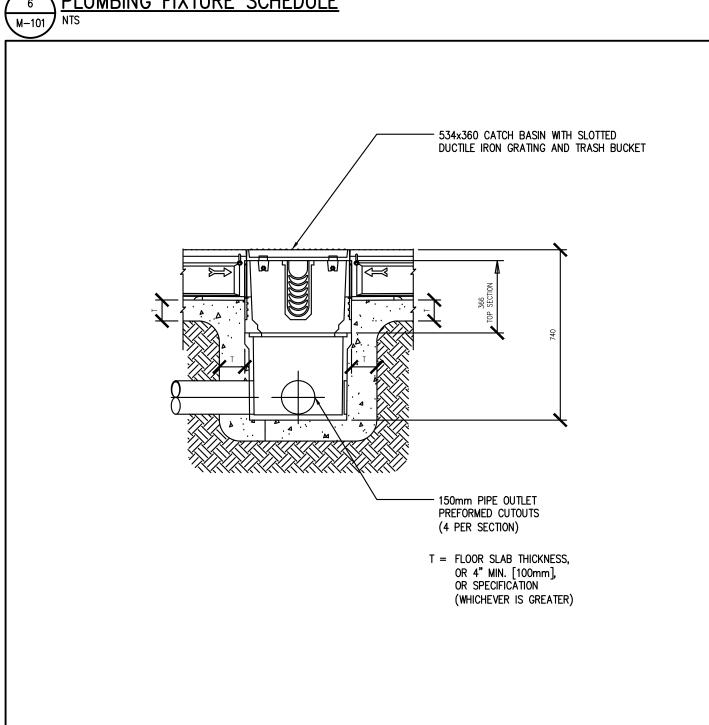
MAKE-UP AIR - LOUVRE

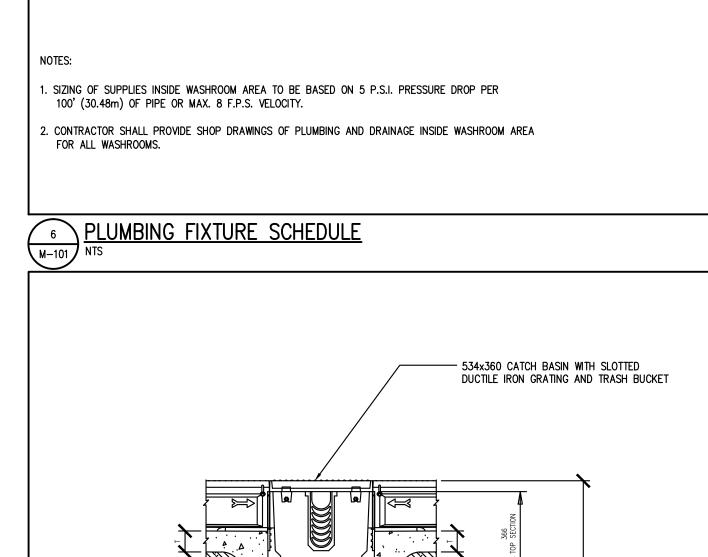


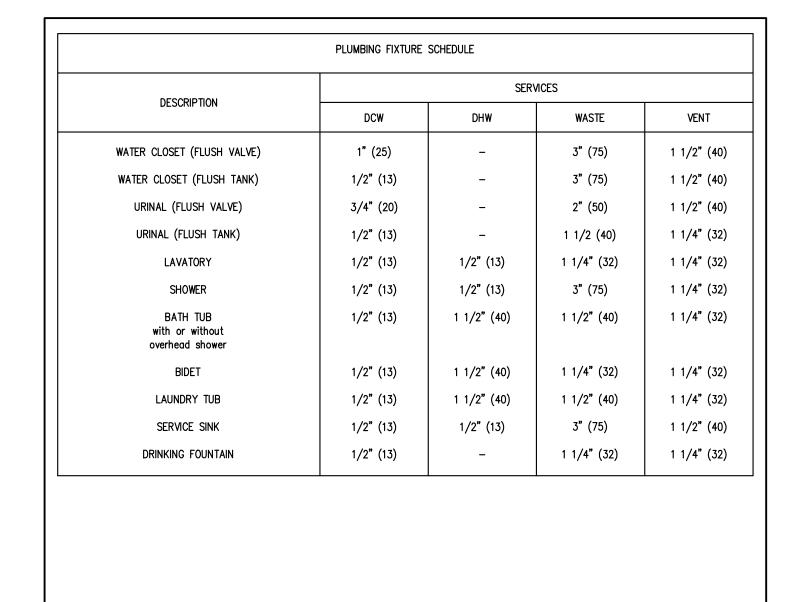
CONTROL LEGEND

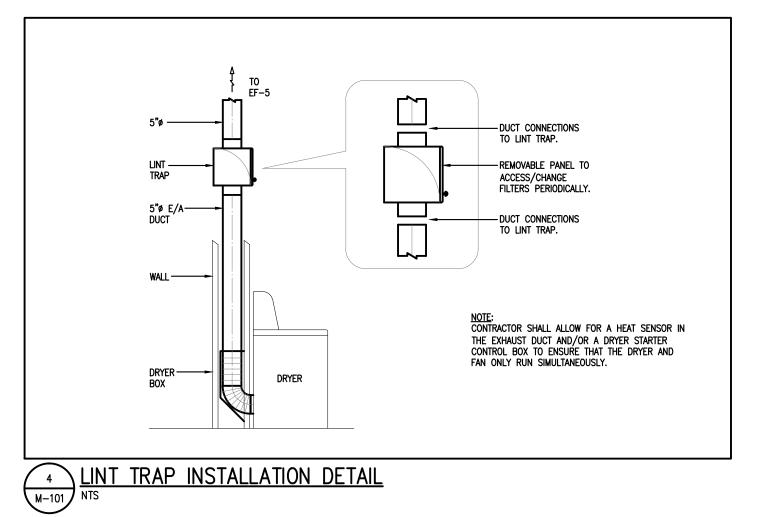


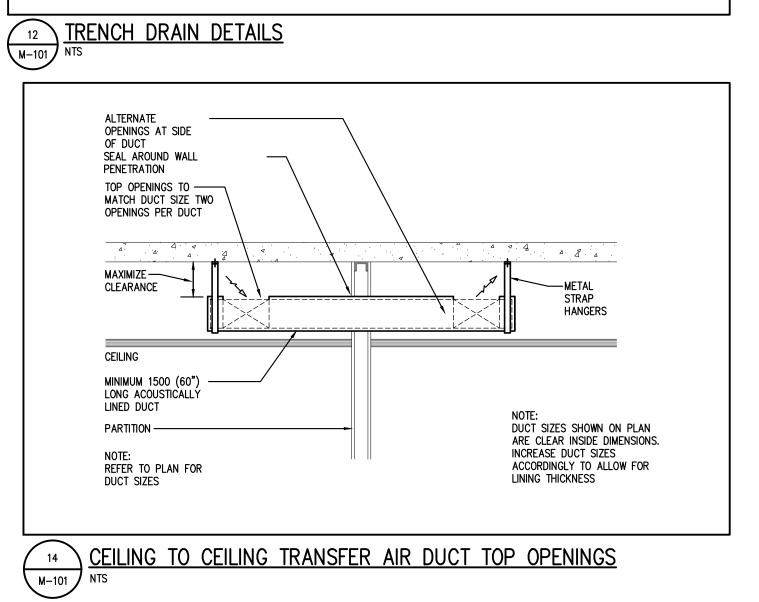


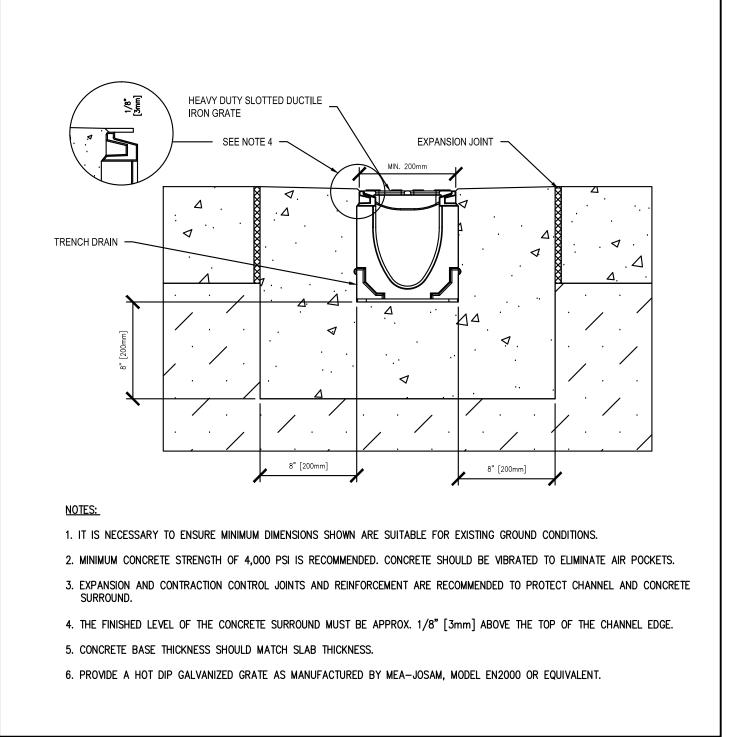


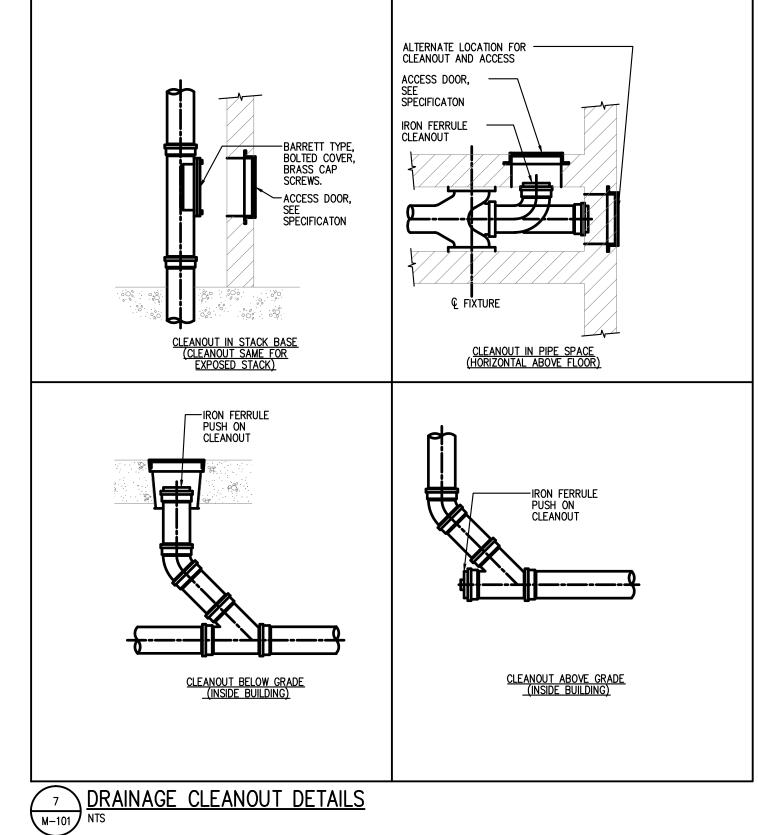


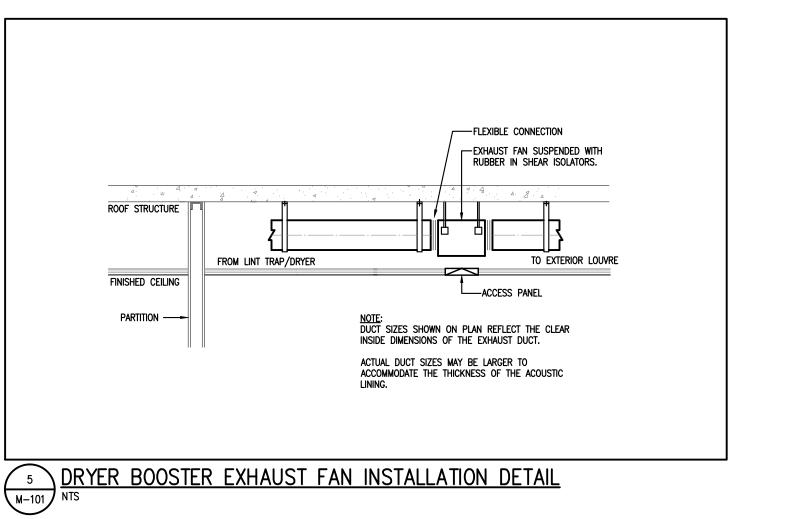












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Issued For

Review

Review 2

Structural

Acoustical

Mechanical Permit

Coordination Review - Rev #1

Coordination Mechanical Permit

New Tecumseth

Alliston · Beeton · Tottenhan

alaimo

27 Roytec Rd. Unit 2-A

P: (905) 856-2840 F: (905) 856-4912

Drawing Title

20.01.2023

Woodbridge, ON L4L 8E3

info@alaimoarchitecture.com

MECHANICAL DETAILS

New Tecumseth

Fire Station No. 4

6375 14th Line Alliston, Ont.

Plot Date

Inc.

architecture

Mechanical Tender | 13/04/23

13/01/20

No.

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							ELE	ECTRIC	C FORCE FLO	OW HEAT	ER SCH	HEDULI	E						
T	G SERVICE	TYPE	MANUFACTURER	MODEL	CAPA	CITY	AIR F	LOW	ELECTR	ICAL	DIMENSIONS			WEI	GHT	COMMENTS			
									(V/Ph/Hz)	POWER	LEN	IGTH	W	IDTH	H HEIGHT		1		
					(MBH)	(kW)	(CFM)	(L/s)		(kW)	(INCH)	(mm)	(INCH)	(INCH) (mm) (INCH) (mm)		(LBS)	(Kg)		
EF	H-1 SCBA FILL STATION	FORCE FLOW	OUELLET	OAC04000-T	13.6	4.0	160	76	208/1/60	4.0	16.1	409.6	4.4	111.1	22.1	560.4	24	11	FAN ASSISTED CABINET UNIT HEATER
EF	H-2 ENTRANCE VESTIBULE	FORCE FLOW	OUELLET	OAC01500-T	3.84	1.1	160	76	208/1/60	1.1	16.1	409.6	4.4	111.1	22.1	560.4	24	11	FAN ASSISTED CABINET UNIT HEATER

NOTES: 1. COLOUR TO BE AS DIRECTED BY ARCHITECT AND SHALL BE FACTORY FINISHED.

2. REFER TO ELECTRICAL DRAWINGS FOR VOLTAGE AND POWER REQUIREMENTS PRIOR TO ORDERING. 3. UNIT SHALL BE SUPPLIED AND INSTALLED BY DIVISION 16.

DX/GAS-FIRED PACKAGED ROOF TOP UNIT SCHEI

								DX	GAS-F	RED P	ACKAGED RC	OF TOP UNIT	SCHEDU	LE												
TAG	SERVICE	MANUFACTURER	MODEL																							
			NUMBER	FLO	ow	E.9	S.P.	PO	WER	VFD	OUTDOOR AIR	REFRIGERANT TOTAL CAPACITY SENSIBLE CAPACITY EAT DB EAT WB LAT DB LAT WB #OF ECONOMIZE												ECONOMIZER		
				(CFM)	(L/S)	(in.H2O)	(Pa)	(HP)	(kW)	(Y/N)	(CFM)	TYPE	(MBH)	(kW)	(MBH)	(kW)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	(°F)	(°C)	STAGES	(Y/N)
RTU-1	TRAINING ROOM	LENNOX	KGB060S4B	2,000	944	0.50	124.42	1.0	0.75	N	350	R-410A	60.0	17.6	45.0	13.2	80.0	26.7	67.0	19.4	57.1	13.9	56.4	13.6	1	Y
RTU-2	KITCHEN	LENNOX	KGB030S4E	1,000	472	0.50	124.42	0.33	0.25	N	159	R-410A	30.0	8.79	22.5	6.59	80.0	26.7	67.0	19.4	55.0	12.8	54.0	12.2	1	Y
RTU-3	SOUTH-WEST PERIMETER & DORM'S	LENNOX	KGB036S4B	1,200	566	0.50	124.42	1.0	0.75	N	260	R-410A	37.7.0	11.0	27.6	8.09	80.0	26.7	67.0	19.4	56.9	13.8	56.2	13.4	1	Y
RTU-4	WEST INTERIOR	LENNOX	KGB030S4E	1,000	472	0.50	124.42	0.33	0.75	N	260	R-410A	37.7.0	11.0	27.6	8.09	80.0	26.7	67.0	19.4	56.9	13.8	56.2	13.4	1	Y
RTU-5	NORTH-WEST PERIMETER	LENNOX	KGB036S4B	1,200	566	0.50	124.42	1.0	0.75	N	260	R-410A	37.7.0	11.0	27.6	8.09	80.0	26.7	67.0	19.4	56.9	13.8	56.2	13.4	1	Y
RTU-6	NORTH PERIMETER & BUNKER GEAR	LENNOX	KGB024S4E	800	378	0.50	124.42	0.33	0.25	N	115	R-410A	24.0	7.03	17.9	5.25	80.0	26.7	67.0	19.4	57.4	14.1	56.7	13.7	1	Y
	NOTES:		<u> </u>								-	-														

1. ALL UNITS SHALL BE SHIPPED COMPLETE WITH A FACTORY INSTALLED DISCONNECT SWITCH, DISPOSABLE AIR FILTERS AND AN ECONOMIZER.

2. EFFICIENCIES MUST BE EQUAL TO THOSE LISTED ABOVE AS A MINIMUM.

3. EACH RTU MUST COME EQUIPPED WITH AN EXTERNAL WEATHERPROOF GFCI RECEPTACLE, C/W A WEATHER PROOF COVER WHICH REMAINS CLOSED WHEN PLUGGED IN. 4. THE RECEPTACLE MUST BE A COMBINATON TYPE THAT ACCEPTS BOTH 15A AND 20A PRONGS. DIV. 16 SHALL PROVIDE SEPARATE POWER TO THE RECEPTACLE, WIRED INTERNALLY, TO A LOCATION BESIDE THE MAIN POWER FEED FOR THE UNIT.

#### DY/GAS-FIRED PACKAGED ROOF TOP UNIT SCHEDULE (CONT'D)

		GAS HEATING	3			ELI	ECTRICAL		<b>EMERGENCY</b>			DIMEN	SIONS			OPER/	ATING	MOUNTING	COMMENTS
INF	UT	оит	PUT	STAGES	FILTER TYPE	V/Ph/Hz	MCA	МОСР	POWER	LEN	GTH .	WIE	TH	HEI	GHT	WEI	GHT	ARRANGEMENT	
ЛВН)	(kW)	(MBH)	(kW)				(A)	(A)	(Y/N)	(INCH)	(mm)	(INCH)	(mm)	(INCH)	(mm)	(LBS)	(Kg)		
0.8	31.6	87.6	25.7	2	DISPOSABLE	575/3/60	10	15	N	85.3	2,165	47.0	1,194	43.4	1,102	1,280	581	DOWNFLOW	C/W BAROMETRIC RELIEF DAMPER AND 24" ROOF CURB
5.0	19.1	52,6	15.4	1	DISPOSABLE	208/1/60	22	30	N	85.3	2,165	47.0	1,194	38.9	988	1,110	502	DOWNFLOW	C/W BAROMETRIC RELIEF DAMPER AND 24" ROOF CURB
35.0	19.1	52.6	15.4	1	DISPOSABLE	575/3/60	7	15	N	85.3	2,165	47.0	1,194	36.4	924	1,170	530	DOWNFLOW	C/W BAROMETRIC RELIEF DAMPER AND 24" ROOF CURB
5.0	19.1	52.6	15.4	1	DISPOSABLE	208/1/60	22	30	N	85.3	2,165	47.0	1,194	36.4 924 1, <sup>-</sup>		1,170	530	DOWNFLOW	C/W BAROMETRIC RELIEF DAMPER AND 24" ROOF CURB
35.0	19.1	52.6	15.4	1	DISPOSABLE	575/3/60	7	15	N	85.3	2,165	47.0	1,194	36.4	924	1,170	530	DOWNFLOW	C/W BAROMETRIC RELIEF DAMPER AND 24" ROOF CURB
55.0	19.1	52,6	15.4	1	DISPOSABLE	208/1/60	19	25	N	85.3	2,165	47.0	1,194	36.4	924	1,100	502	DOWNFLOW	C/W BAROMETRIC RELIEF DAMPER AND 24" ROOF CURB

								EXH	IAUST F	AN SCI	HEDULE	•						
TAG	SERVICE	LOCATION	MANUFACTURER	MODEL	CAP	ACITY	STA	ATIC	<u> </u>	МОТО	R SIZE		FAN	VFD	ELECTRICAL	WEI	GHT	COMMENTS
							PRES	SURE	BRAKE	POWER	PO	WER						
					(CFM)	(L/s)	(in.H2O)	(Pa)	(HP)	(kW)	(HP)	(kW)	(RPM)	(Y/N)	V/P/Hz	(LBS)	(Kg)	1
EF-1	WASHROOMS/SHOWERS	ROOF	LOREN COOK	ACE-D 101C15D	635	300	0.50	124.42	0.13	0.09	0.13	0.09	1542	N	120/1/60	25	11.3	
EF-2	SCBA COMPRESSOR AREA	ROOF	LOREN COOK	ACE-B 195C5B	3,000	1,416	0.50	124.42	0.5	0.37	0.5	0.37	839	N	208/3/60	150	68.0	INTERLOCKED WITH MOTORIZED DAMPER, MD-4. REFER TO CONTROL SCHEMATICS.
EF-3	APPARATUS BAY	ROOF	LOREN COOK	ACE-B 180C9B	4450	2100	0.50	124.42	1.41	1.05	1.41	1.05	1347	N	575/3/60	110	49.9	SUSPENDED FROM ROOF STRUCTURE ABOVE, C/W VIBRATION ISOLATORS
EF-4	I.T. ROOM	CEILING	LOREN COOK	GN-642	425	200	0.50	124.42	-	-	-	-	1425	N	120/1/60	27	12.2	
EF-5	KITCHEN	ABOVE STOVE	REVERSOMATIC	4000-400	270	127	0.30	74.7	0.11	0.08	0.167	0.12	1100	N	120/1/60	30	13.6	
EF-6	WASHROOMS	CEILING	LOREN COOK	60 SQN-B	300	142	0.50	124.42	0.33	0.25	0.33	0.24	2791	N	120/1/60	80	36.4	
EF-7	CLOTHES DRYER EXHAUST FAN	CEILING	GREENHECK	BSQ-70-3	200	95	1.00	249.1	0.3	0.22	0.33	0.25	2030	N	120/1/60	97	44.0	C/W LINT TRAP MOUNTED ABOVE THE CLOTHES DRYER.
EF-8	GEAR ROOM	CEILING	LOREN COOK	60 SQN-B	200	95	0.50	124.42	0.15	0.11	0.15	0.11	2166	N	120/1/60	80	36.4	
EF-9	LAUNDRY ROOM	CEILING	REVERSOMATIC	QK -160	100	47	0.50	124.42	-	-	-	-	-	N	120/1/60	-	-	

NOTES: 1. PROVIDE LOCAL DISCONNECTS AND STARTERS FOR ALL FANS. 2. EF-1 SHALL OPERATE ON A TIMER LOCATED AT THE ELECTRICAL PANEL. 3. PROVIDE WEATHERPROOF DISCONNECTS FOR ALL FANS.

4. PROVIDE A MINIMUM 18" ROOF CURB FOR ALL FANS.

5. EF-3 SHALL COME COMPLETE WITH A MOTORIZED DAMPER, INTERLOCKED WITH INTAKE AIR DAMPERS IN THE APPARATUS BAY. 6. REFER TO DRAWING NOTES FOR SEQUENCE OF OPERATION FOR EF-3.

7. REFER TO DRAWING NOTES FOR SEQUENCE OF OPERATION FOR EF-5. 8. EF-7 TO START SIMULTANEOUSLY WHEN THE CLOTHES DRYER STARTS.

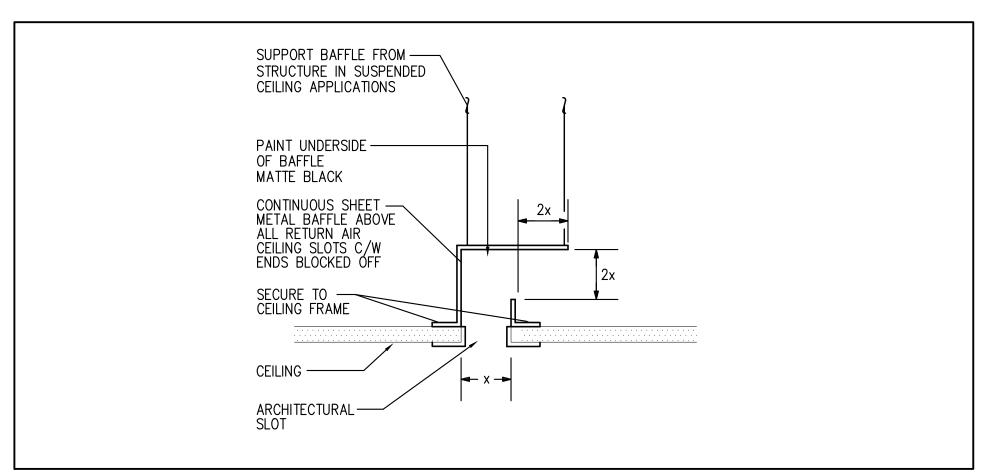
									GAS	-FIRED [	OMEST	ТС НОТ	WATER	TANK SC	HEDULE									
TAG	MANUFACTURER	MODEL	GASI	INPUT OUTPUT		EFFICIENCY	RECO	VERY	STOR	RAGE	PRES	SSURE	ELECT	TRICAL	FLUE CON	INECTION		DIMEN	SIONS		WE	GHT	COMMENTS	
							(THERMAL)	RA	TE	CAPA	CITY	RA <sup>*</sup>	TING	V/Ph/Hz	FLA	SIZ	ZE	DIAM	ETER	HEI	GHT	INCLUDIN	IG WATER	
			(MBH)	(kW)	(MBH)	(kW)	(%)	(USGPH)	(L/h)	(USGAL)	(L)	(PSI)	(kPa)		(A)	(INCH)	(mm)	(INCH)	(mm)	(INCH)	(mm)	(LBS)	(Kg)	
DHWT-1	A.O. SMITH	BTH-150	150.0	44.0	147.0	43.0	98.0	178.0	675.0	100.0	378.0	160.0	1,103.2	120/1/60	4	3.0	76.2	27.8	704.9	75.5	1918.0	1,400	635	FLOOR MOUNTED IN MECH ROOM-MEZZANINE

NOTES: 1, REFER TO DETAIL FOR PIPING ARRANGEMENT. 2. RECOVERY RATE BASED ON 100°F TEMPERATURE RISE

	EXPANSION TANK SCHEDULE																					
REF	SERVICE	EQUIPMENT LOCATION	MANUFACTURER	MODEL	FLUID	TOTAL AC	CEPTANCE	TOTAL	LTANK	MIN. OPERAT	TING SYSTEM	MAX. OPERA	TING SYSTEM	TANK PR	ESSURE		DIMEN	ISIONS		WEI	GHT	COMMENTS
						VOL	.UME	VOL	.UME	PRESSURE AT TANK PRESSURE AT TANK		RAT	ING	DIAM	ETER	HEI	GHT	INCLUDIN	IG WATER			
						(USGAL)	(LITRES)	(USGAL)	USGAL) (LITRES)		(kPa)	(PSI)	(kPa)	(PSI)	(kPa)	(INCH)	(mm)	(INCH)	(mm)	(LBS)	(Kg)	
ET-1	HEATING WATER	MECHANICAL ROOM	WATTS	ETA 40	WATER	10	37.8	25	94.6	30.0	206.8	150.0	1,034.2	150.0	1,034.2	16.0	406.4	33.0	838.2	300	136	
	_			·																		

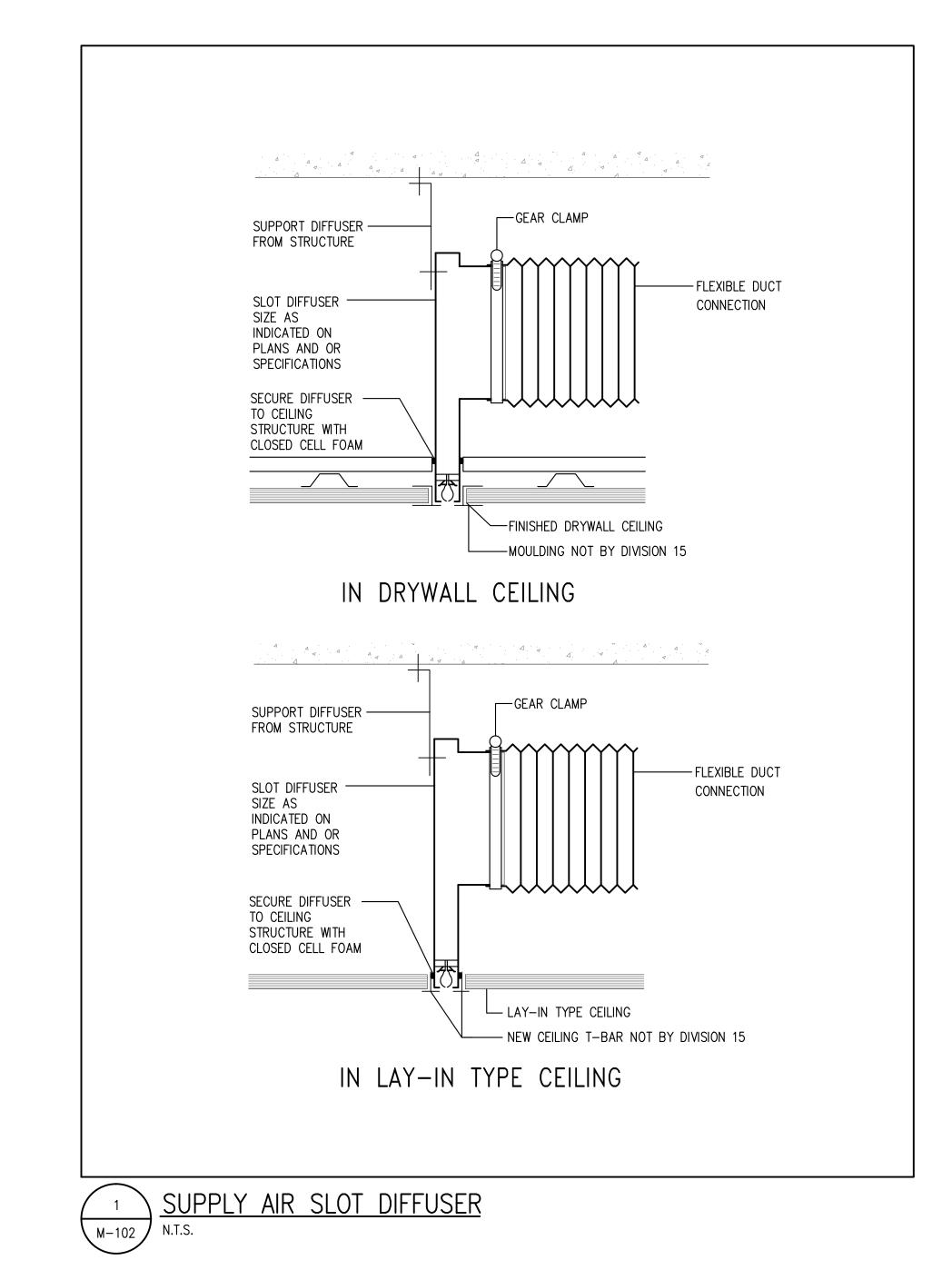
NOTES: 1. FINAL PRE-CHARGE PRESSURE OF TANK TO BE DETERMINED ON SITE BASED ON SYSTEM PRESSURE.

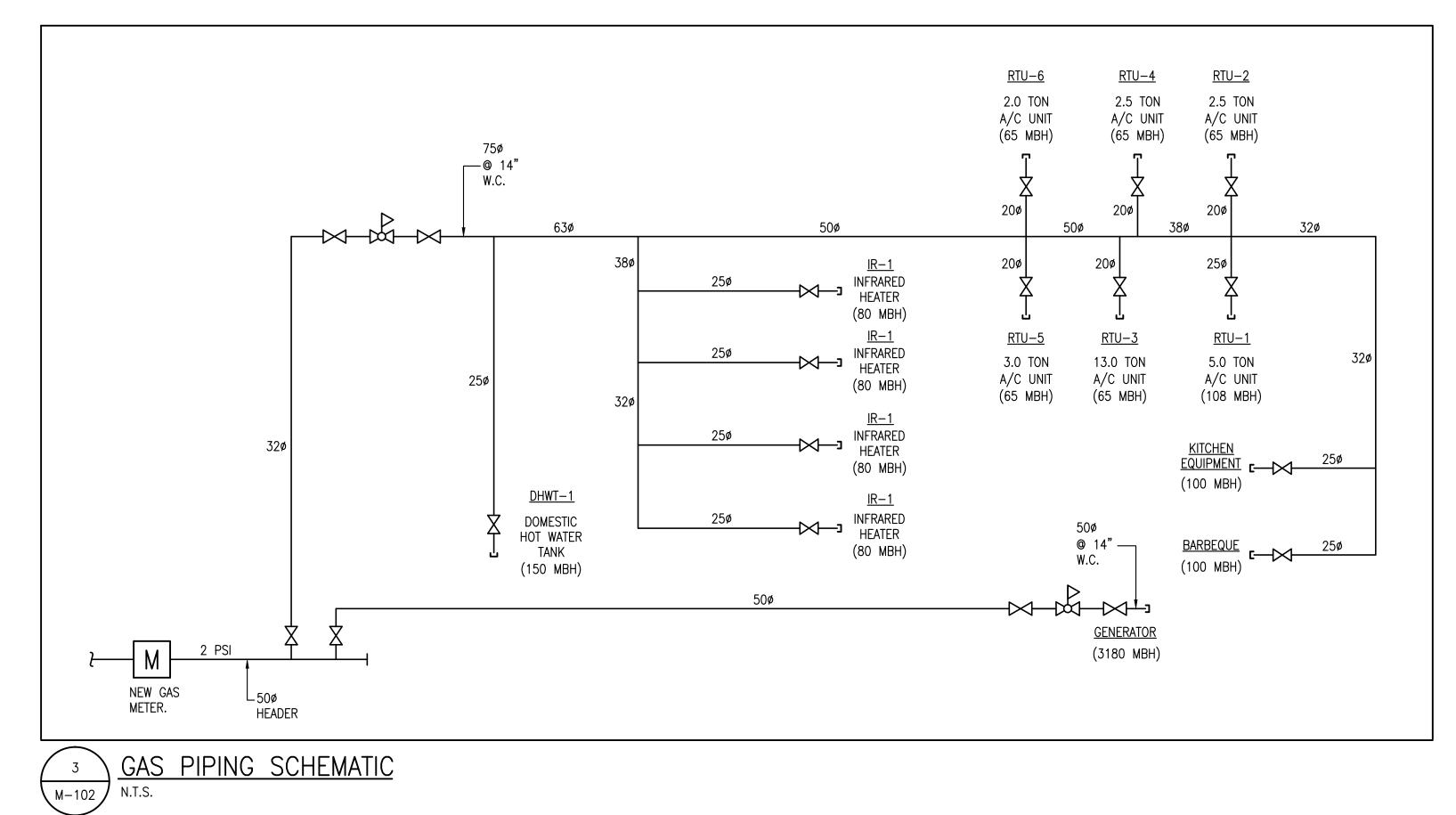
PUMP SCHEDULE																	
TAG	SERVICE	LOCATION	MANUFACTURER	MODEL	FLUID TYPE	CAPA	ACITY	HE	AD		мото	R SIZE		ELECTRICAL	PRES	SURE	COMMENTS
						BRAKE POV		POWER	PO	OWER		RATING					
						(USGPM)	(L/s)	(ft.H2O)	(kPa)	(HP)	(kW)	(HP)	(kW)	(V/Ph/Hz)	(PSI)	(kPa)	
P-1	DOMESTIC WATER RECIRCULATION	MECH ROOM	BELL & GOSSETT	NBF-25	WATER	2.0	0.1	10.5	31.4	0.2	0.1	0.2	0.1	120/1/60	150.0	1034.2	C/W AUDJUSTABLE TIMER AND AQUASTAT
NOTES: 1. ALL BRONZE CONSTRUCTION																	



SHEET METAL BAFFLE ABOVE RETURN AIR SLOT — CEILING N.T.S.

AIR TERMINAL SCHEDULE									
TAG	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL	FINISH	MOUNTING	COMMENTS		
S-1	SUPPLY DIFFUSER	EH PRICE	SPD-600x600	STEEL	WHITE	T-BAR	C/W REMOTE DAMPER IN SUPPLY DUCT.		
S-2	LINEAR DIFFUSER	EH PRICE	TBD3100- 4' LENGTH	STEEL	WHITE	DRYWALL	SINGLE SLOT, 1" DIFFUSER. C/W OPPOSED BLADE DAMPER & REMOTE DAMPER IN SUPPLY BRANCH DUCT.		
S-3	LINEAR SLOT DIFFUSER	EH PRICE	SDS75	ALUMINUM	WHITE	DRYWALL	SINGLE SLOT, 1" DIFFUSER, C/W REMOTE DAMPER IN SUPPLY DUCT. REFER TO DRAWINGS FOR DIFFUSER DIMENSIONS.		
S-4	LOUVRED SUPPLY AIR DIFFUSER	EH PRICE	500	STEEL	WHITE	SURFACE	C/W REMOTE DAMPER IN SUPPLY DUCT. MOUNT DIFFUSER AT 45° DOWNWARDS, BLADES AT 0°.		
S-5	SUPPLY DIFFUSER	EH PRICE	SPD-300x300	STEEL	WHITE	T-BAR	C/W REMOTE DAMPER IN SUPPLY DUCT.		
R-1	EGG CRATE FACE RETURN	EH PRICE	80	ALUMINUM	WHITE	DRYWALL/T-BAR			
R-2	TRANSFER AIR GRILLE	EH PRICE	ATGH	ALUMINUM	WHITE	DOOR	REFER TO DRAWINGS FOR DIMENSIONS		
R-3	LOUVRED RETURN	EH PRICE	500	STEEL	WHITE	SURFACE - UNDERSIDE	1/2" BLADE SPACING WITH 45° BLADES PARALLEL TO THE LONG DIMENSION. ORIENT GRILLE TO AVOID SIGHT LINES.		
E-1	EGG CRATE FACE RETURN AIR GRILLE	EH PRICE	80	ALUMINUM	WHITE	DRYWALL/T-BAR	REFER TO DRAWINGS FOR DIMENSIONS		
	NOTES: 1, MODULE AND NECK SIZE SHALL NOTED ON PLANS.								





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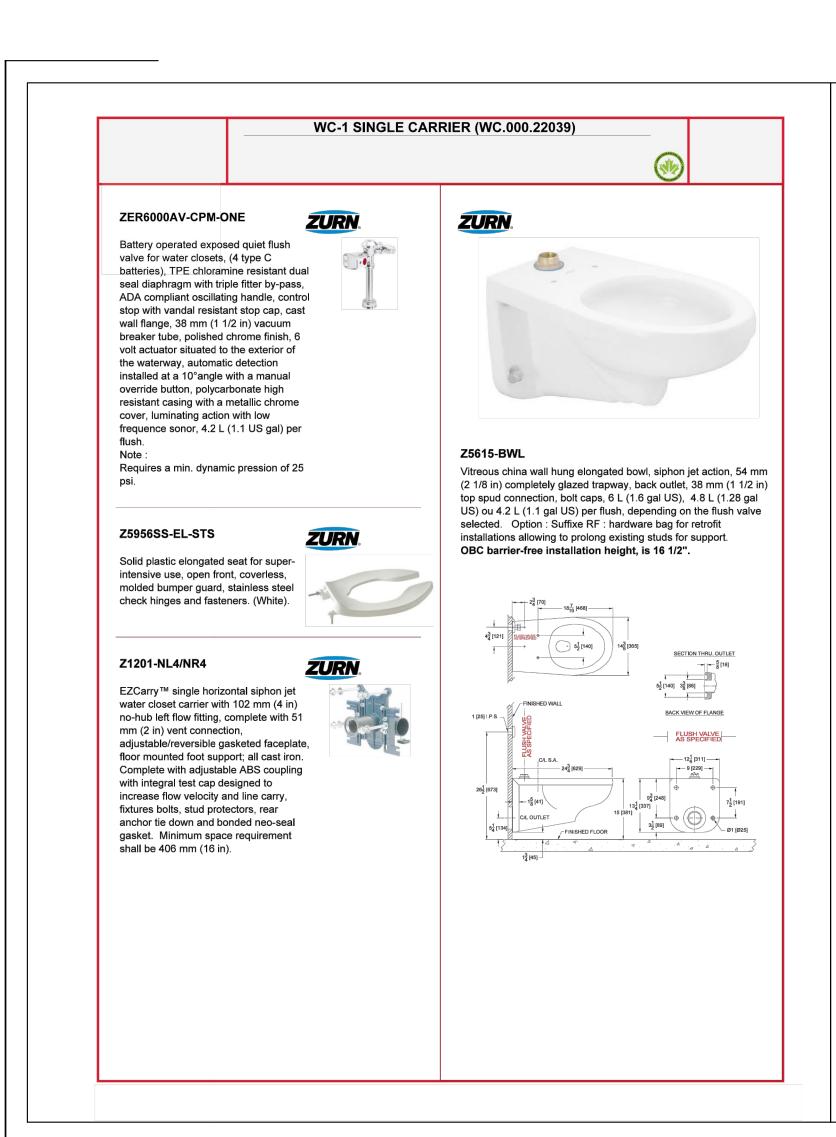
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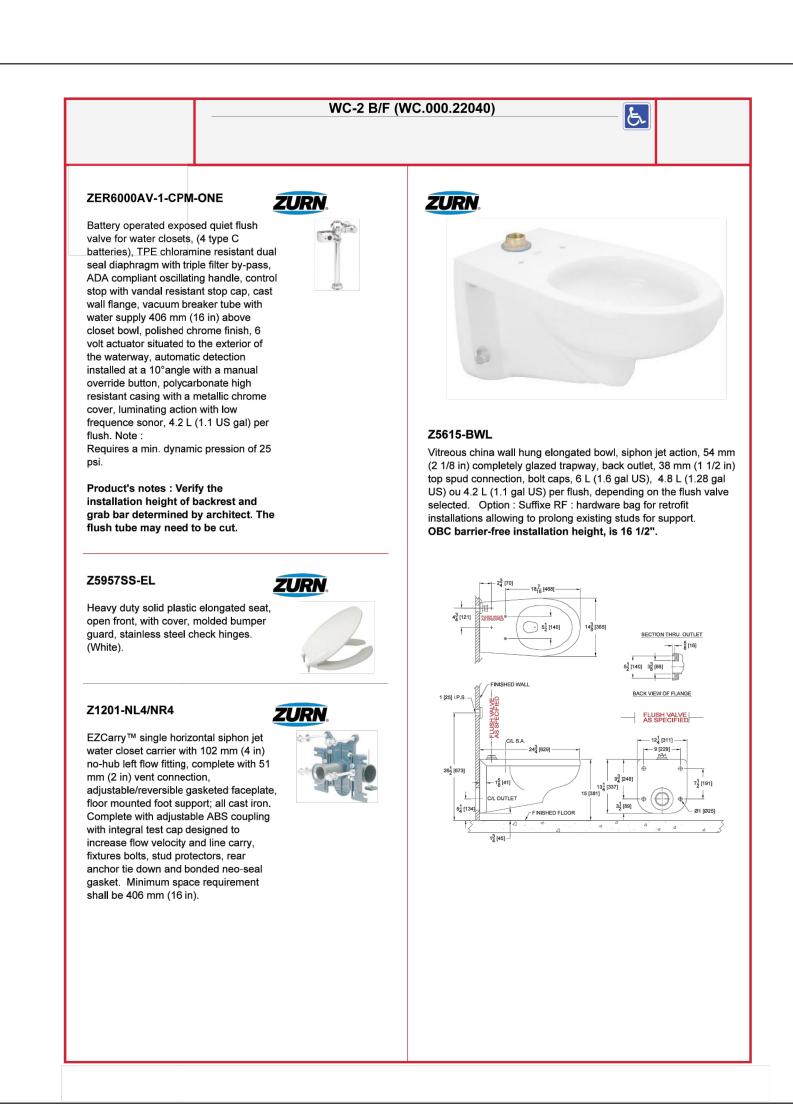
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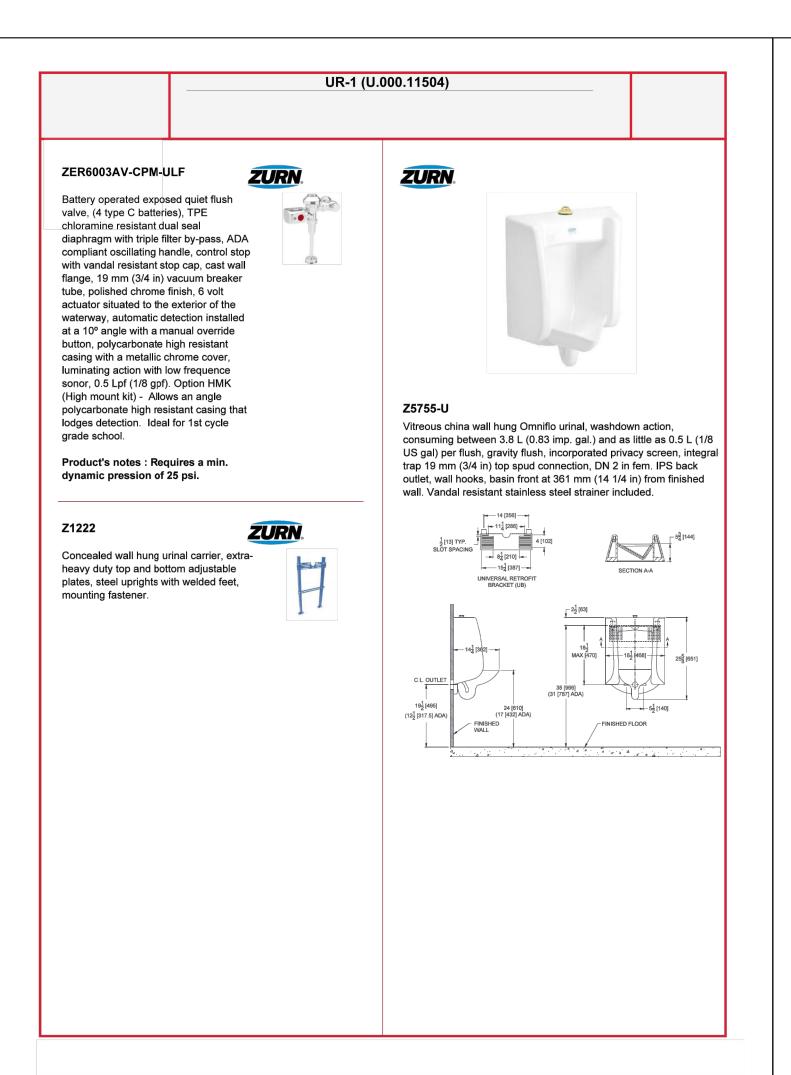
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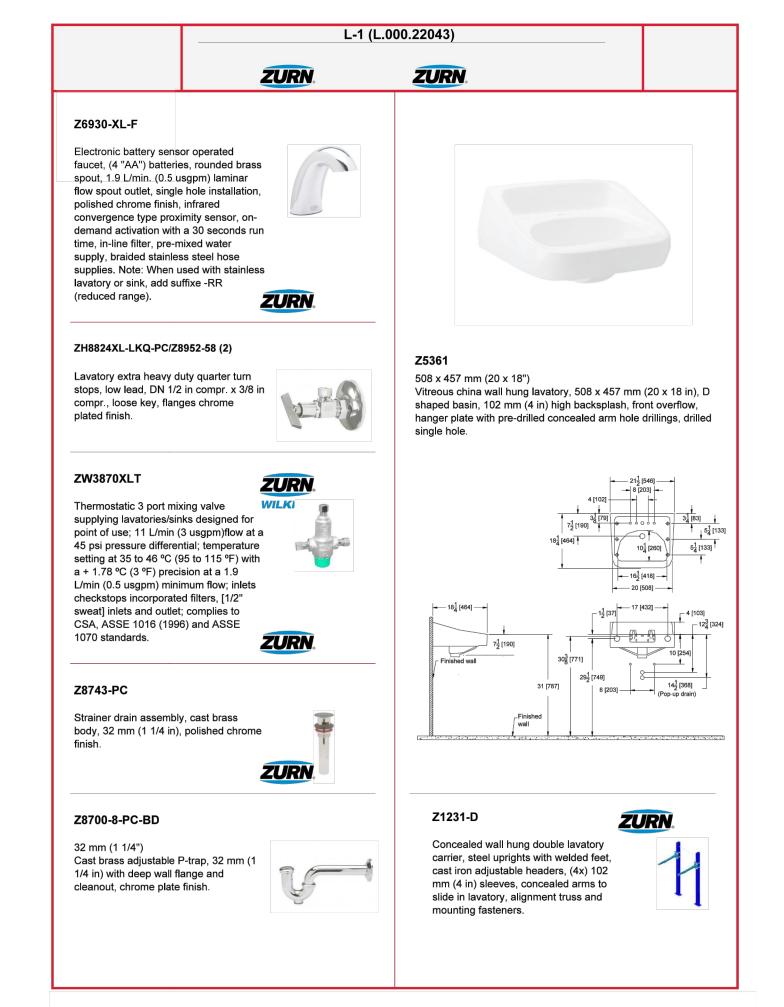
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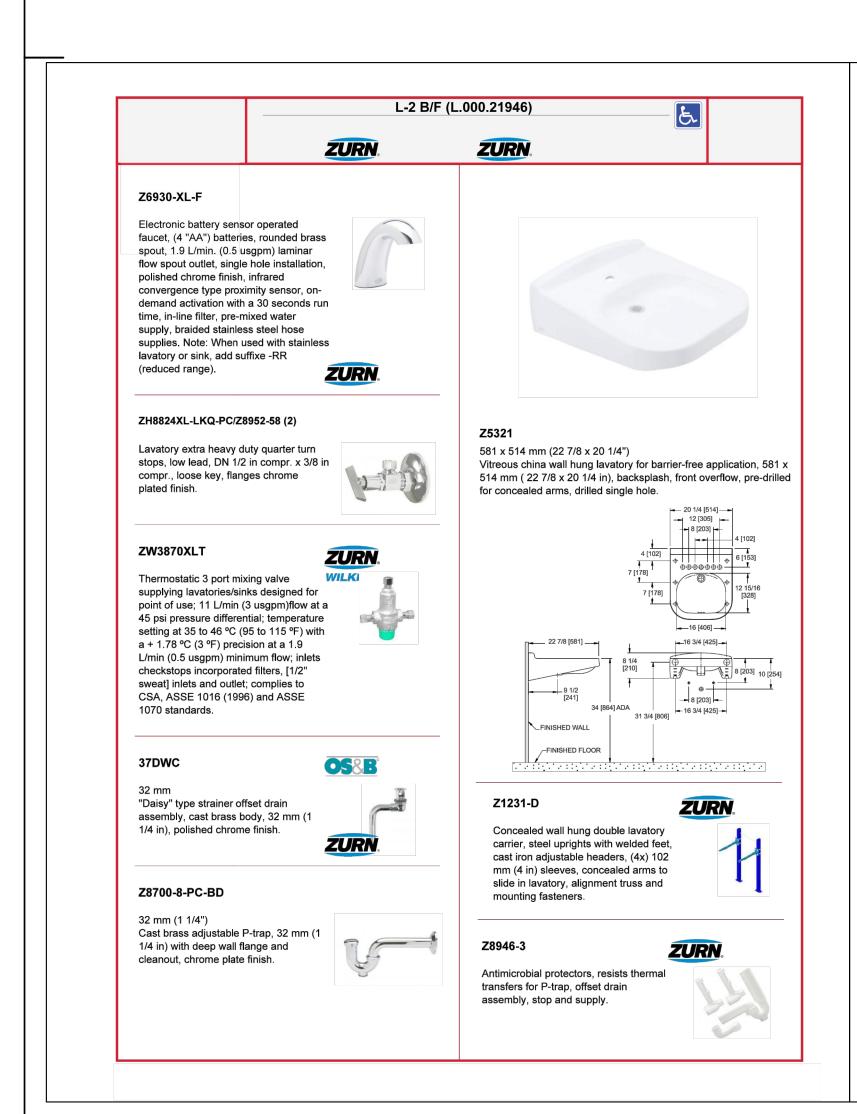
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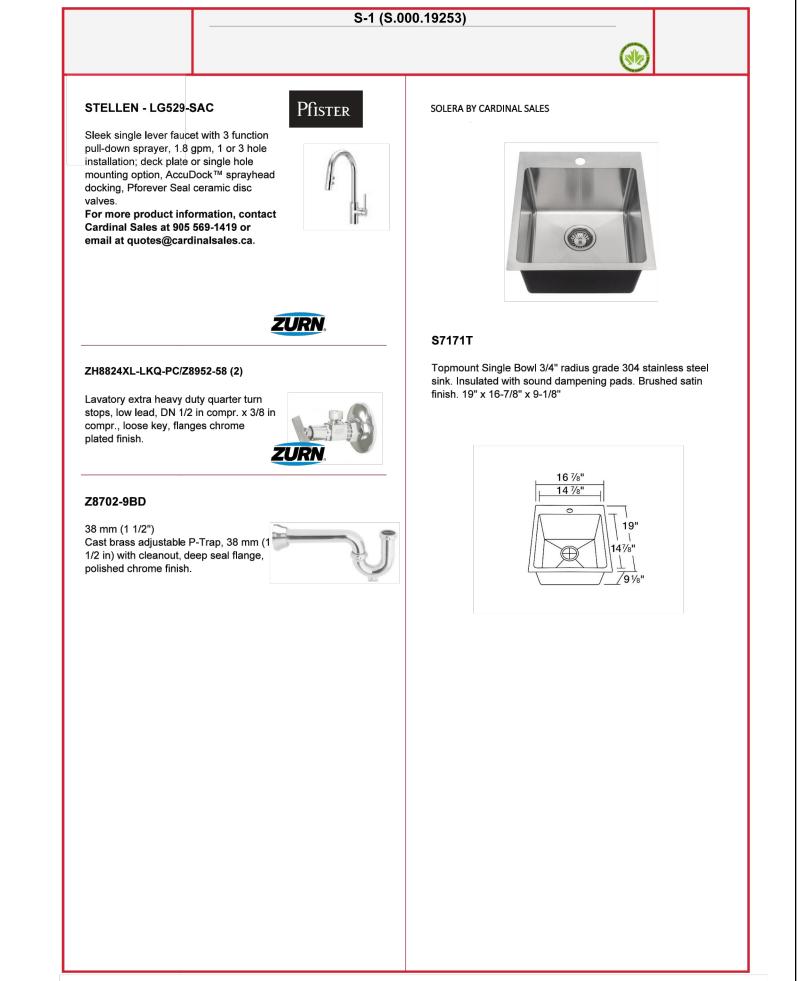
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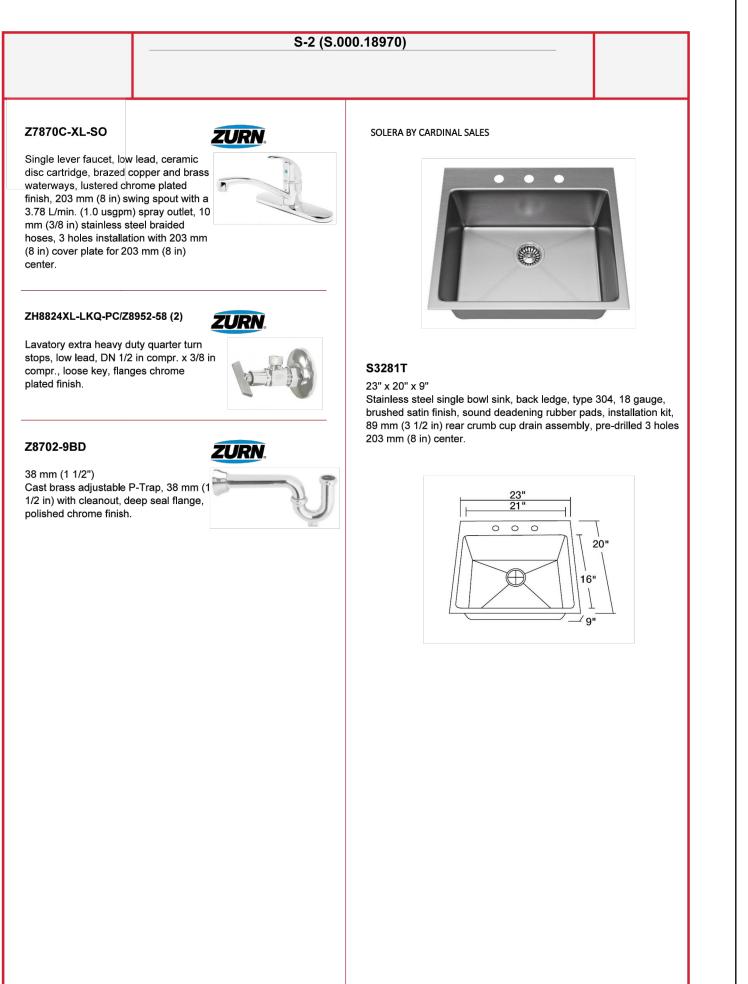
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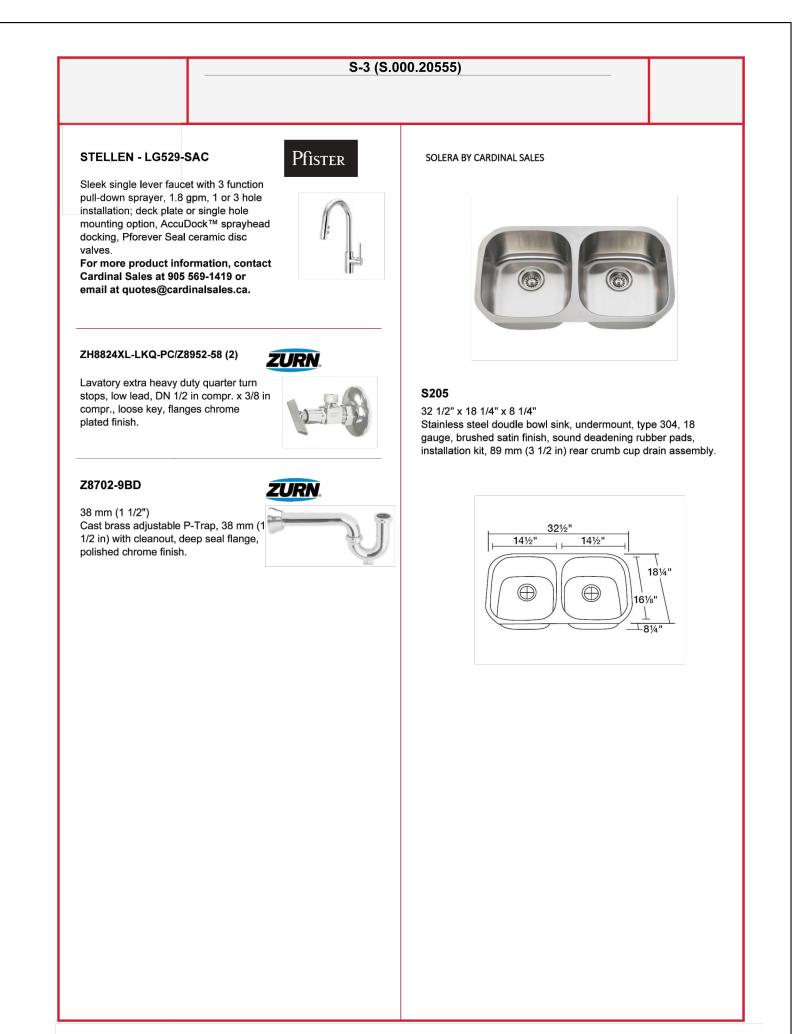
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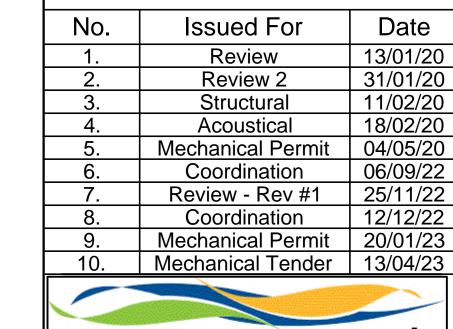
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Drawing Title

MECHANICAL SCHEDULES

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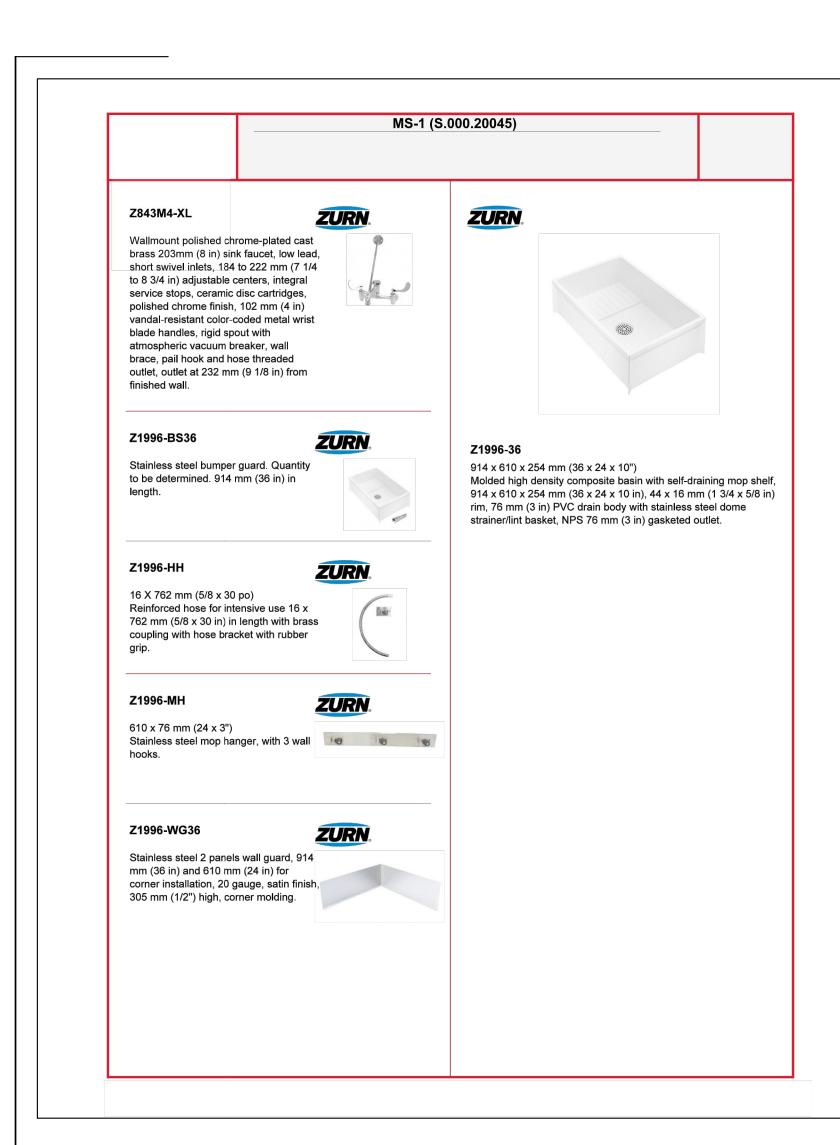
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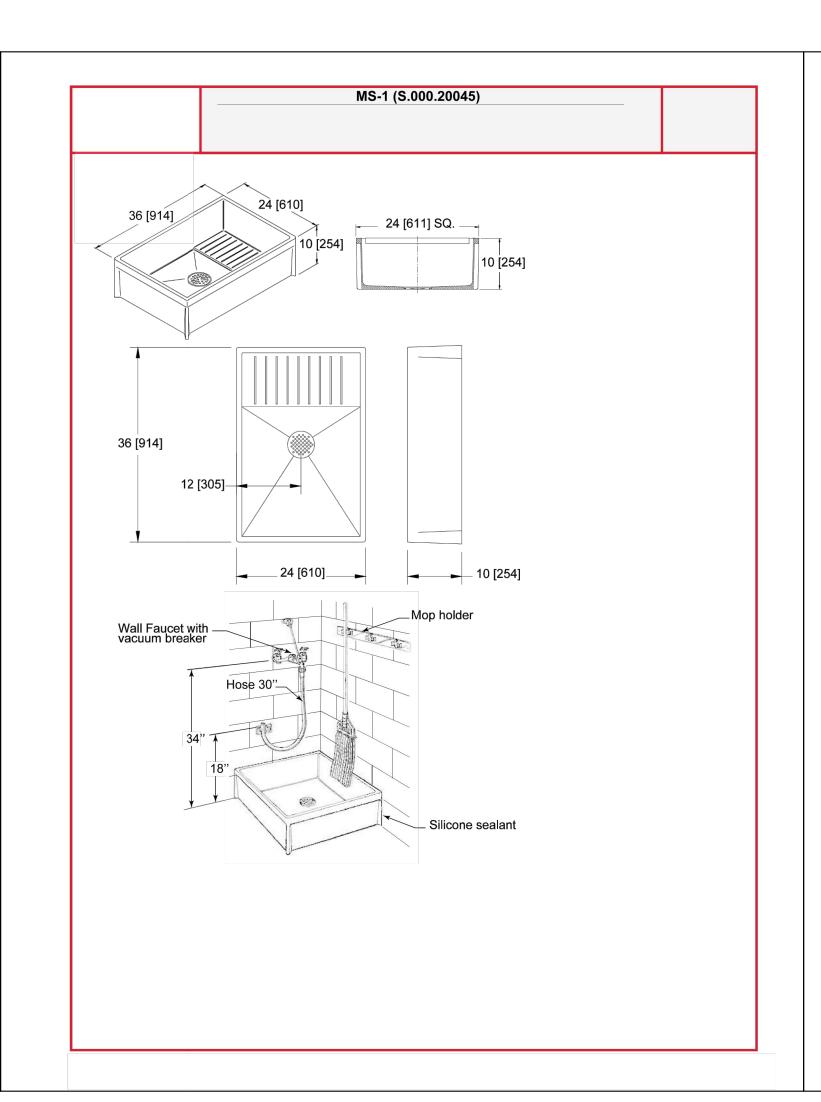
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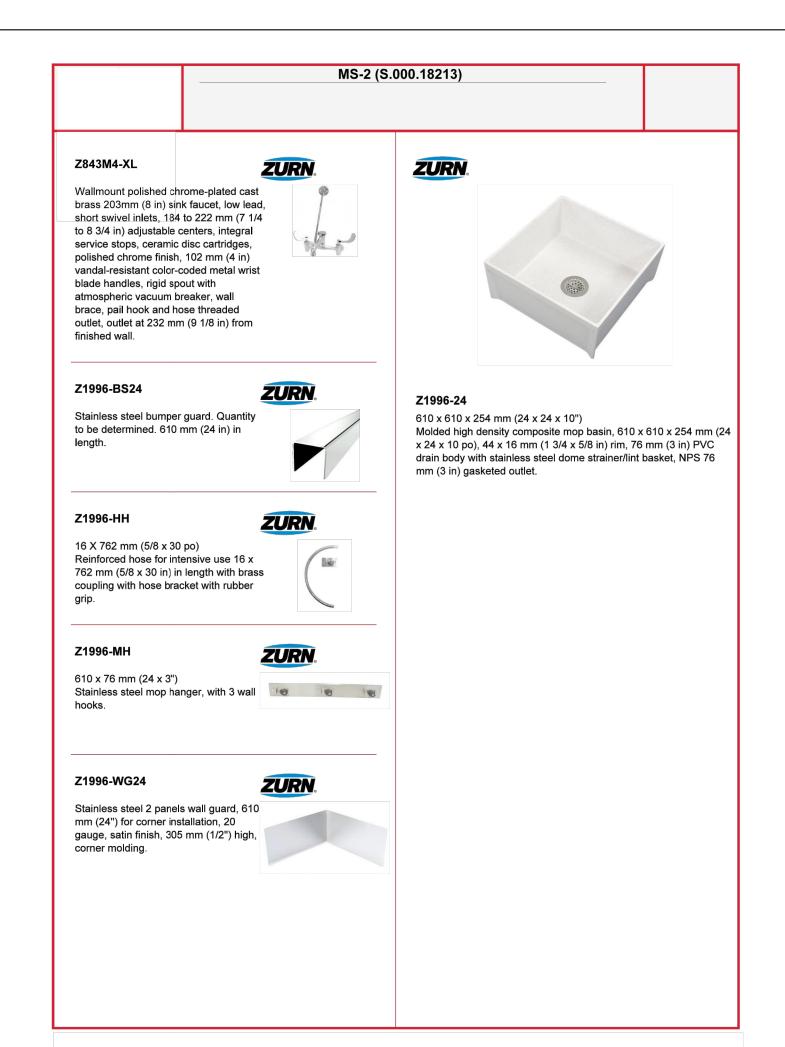
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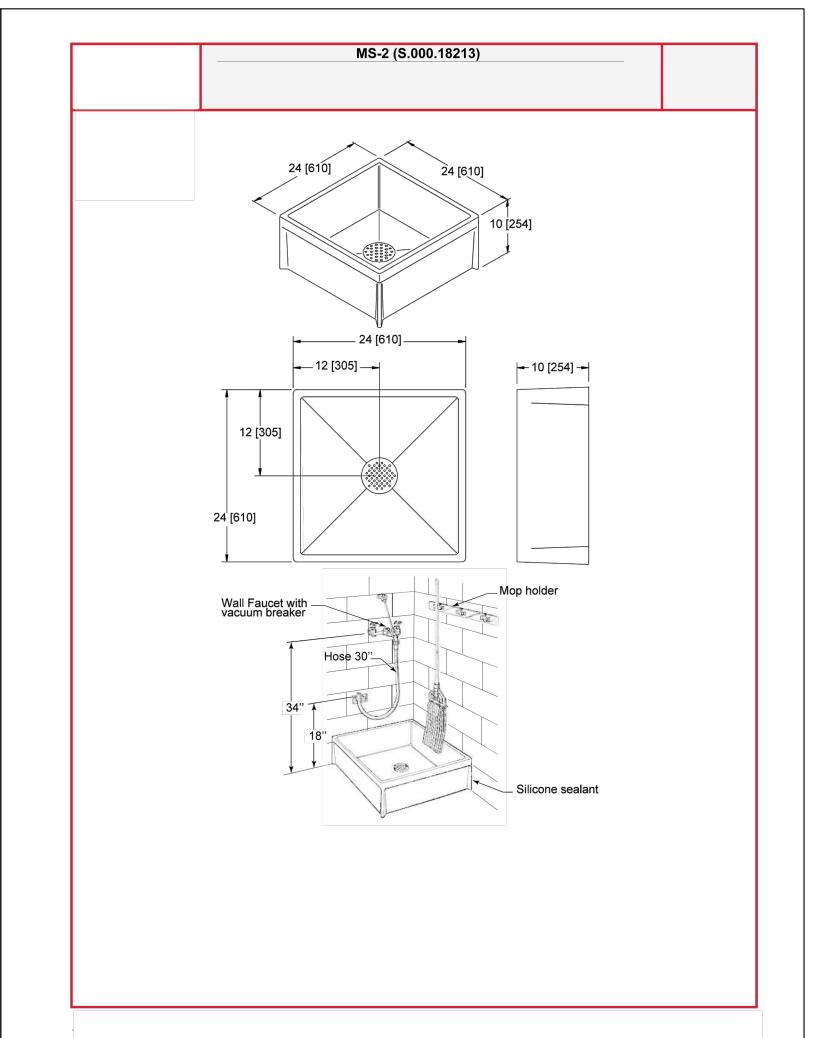
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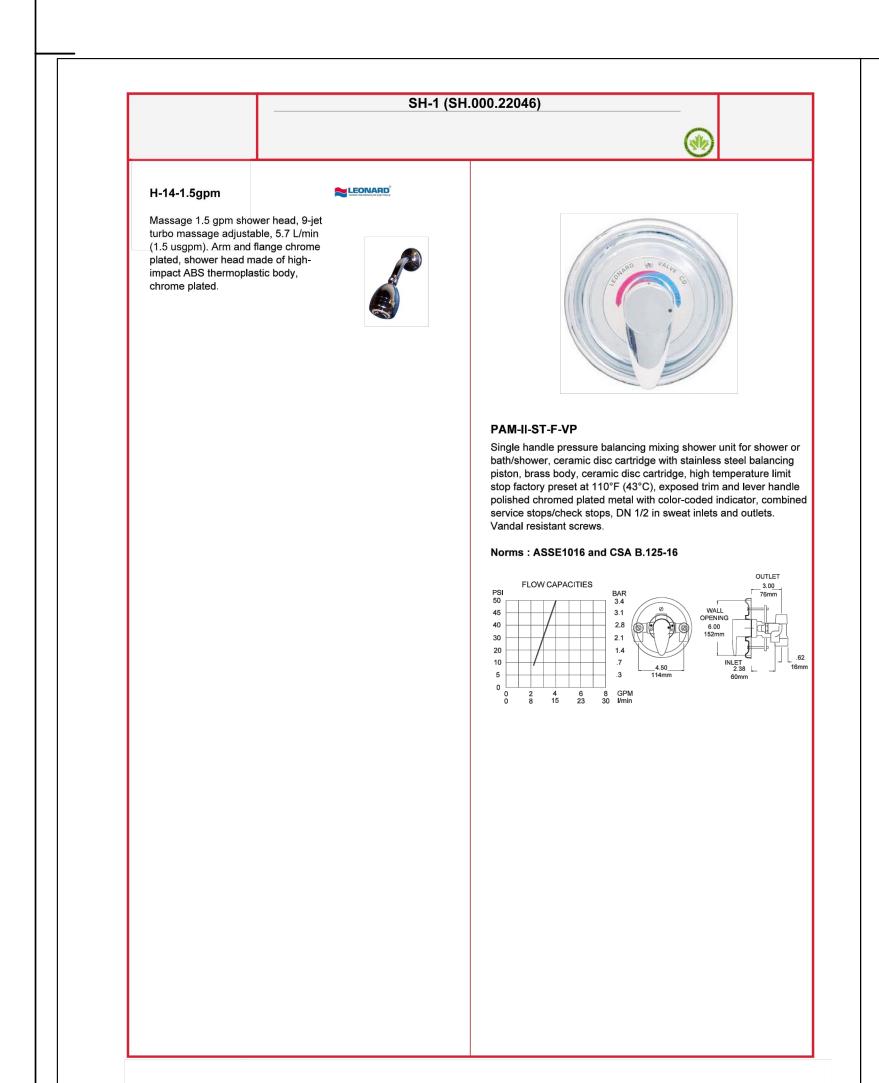
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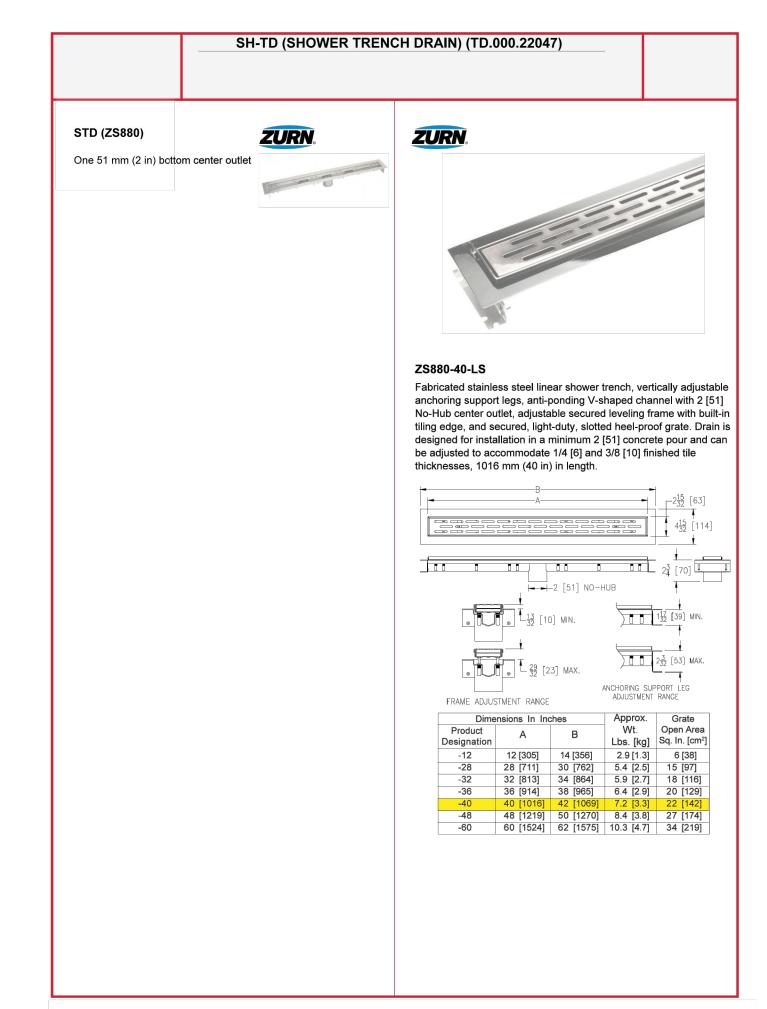
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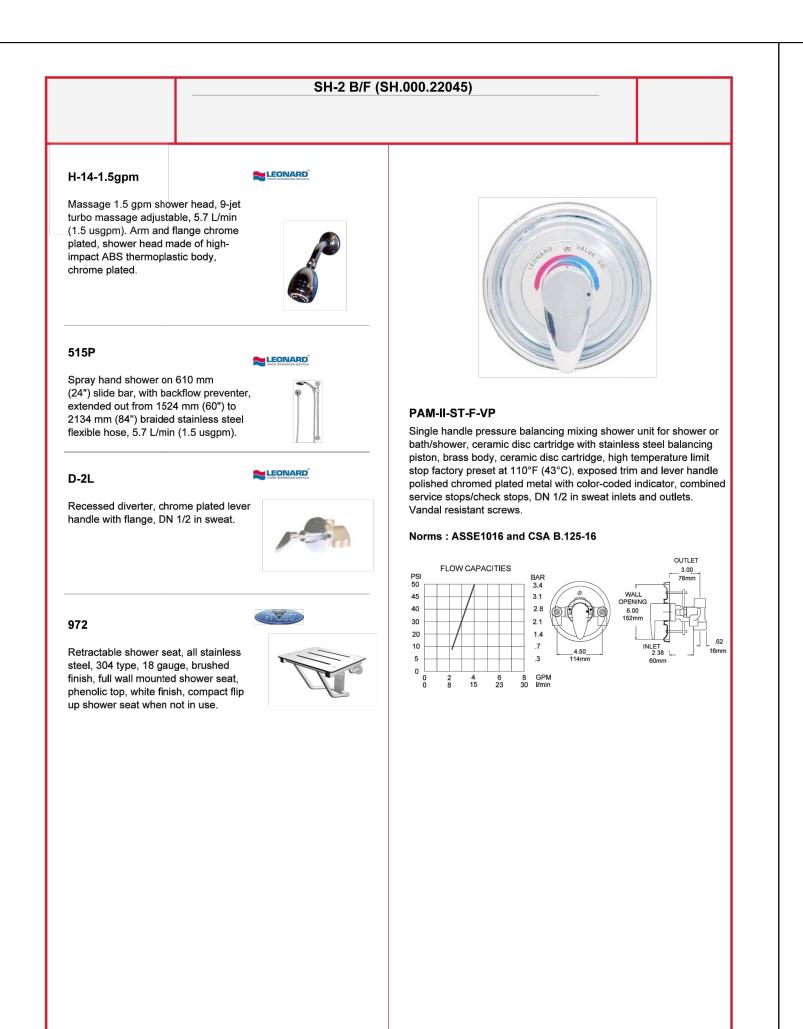
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# architecture

Inc.
27 Roytec Rd. Unit 2-A

Woodbridge, ON L4L 8E3
P: (905) 856-2840
F: (905) 856-4912
info@alaimoarchitecture.com

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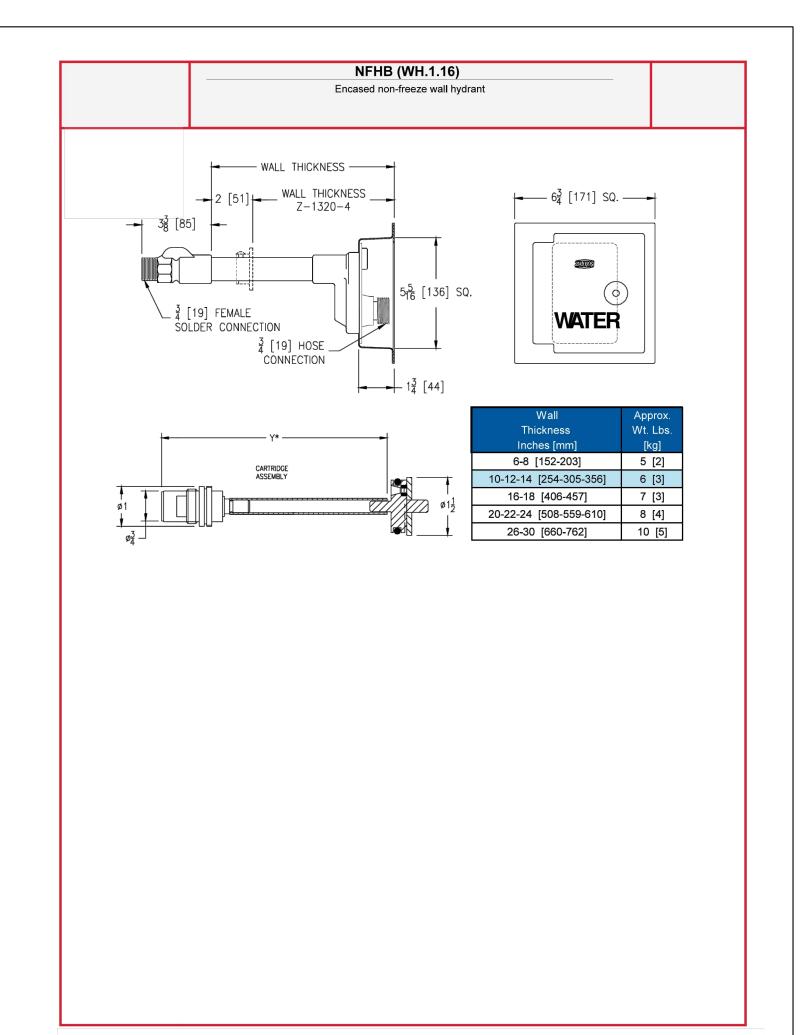
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4.	Acoustical	18/02/20
5.	Mechanical Permit	04/05/20
6.	Coordination	06/09/22
7.	Review - Rev #1	25/11/22
8.	Coordination	12/12/22
9.	Mechanical Permit	20/01/23
10.	Mechanical Tender	13/04/23

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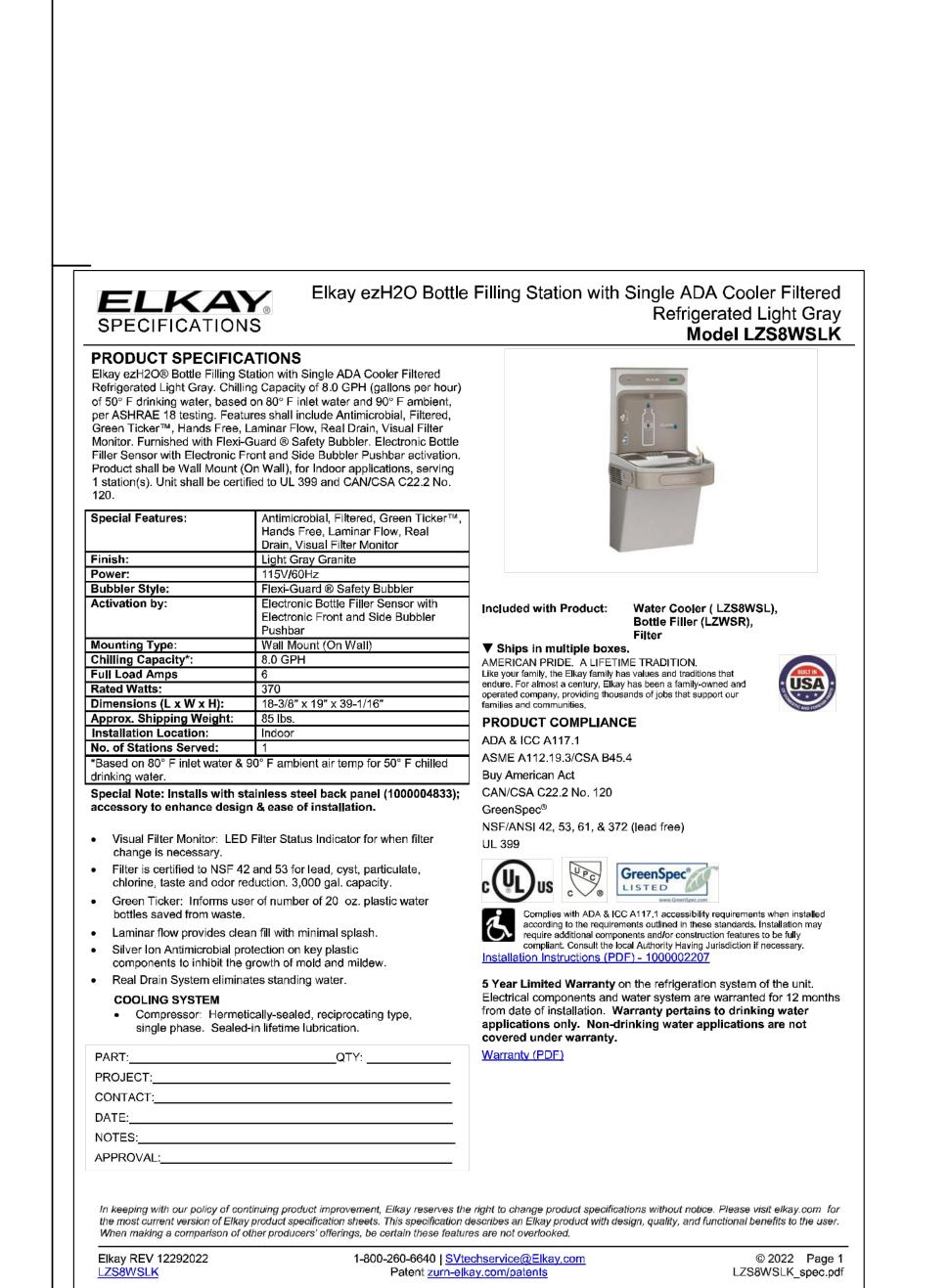
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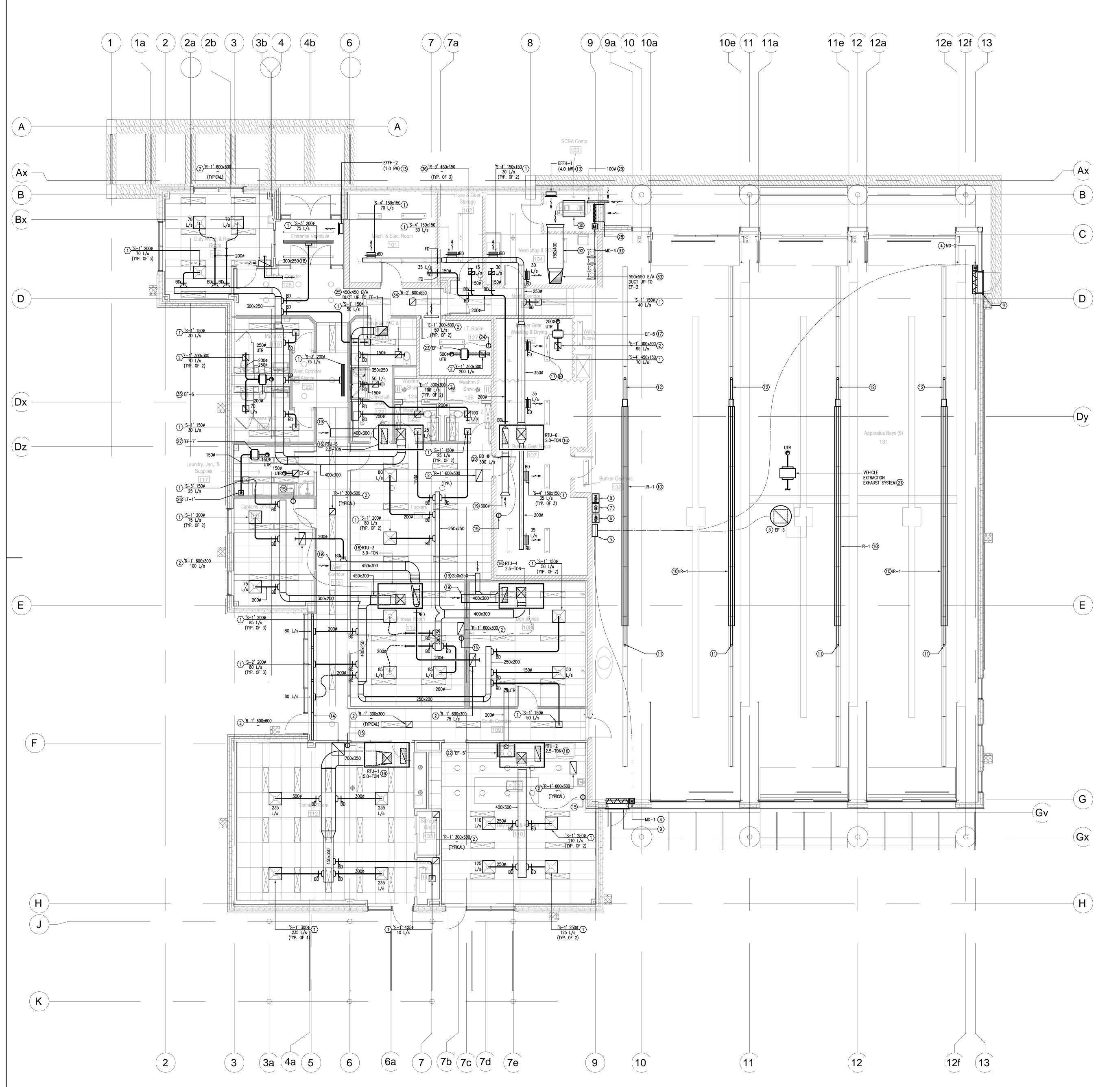
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#### **DRAWING NOTES**

- PROVIDE NEW SUPPLY AIR DIFFUSER AND BALANCE AIRFLOW (IN L/s) TO THE QUANTITY SHOWN ON THE DRAWINGS. (TYPICAL)
- PROVIDE A NEW EGGCRATE, RETURN/EXHAUST AIR CEILING GRILLE. REFER TO DRAWINGS FOR GRILLE DIMENSIONS. (TYPICAL)
- PROVIDE A NEW ROOF MOUNTED EXHAUST FAN, "EF-3" TO SERVE THE APPARATUS BAY, COMPLETE WITH A MOTORIZED DAMPER AND 18" ROOF CURB. REFER TO EXHAUST FAN SCHEDULE AND
- PROVIDE AND INSTALL A NEW MOTORIZED DAMPER, CONNECTED TO THE NEW INTAKE AIR LOUVRE AND WIRED BACK TO THE GAS DETECTION CONTROL PANEL. REFER TO THE SCHEMATICS FOR CONTROL SEQUENCE AND COMPLETE SCOPE OF WORK.

CONTROL SCHEDULE FOR SEQUENCE OF OPERATION AND COMPLETE SCOPE OF WORK.

- (5) PROVIDE AND INSTALL A NEW GAS DETECTION CONTROL PANEL MOUNTED ON THE WALL.
- PROVIDE AND INSTALL A NEW NOX SENSOR TO BE MOUNTED AT HIGH LEVEL. THE SENSOR SHALL BE TIED INTO THE GAS DETECTION CONTROL PANEL MOUNTED ON THE WALL.
- BE TIED INTO THE GAS DETECTION CONTROL PANEL MOUNTED ON THE WALL.

  7 PROVIDE AND INSTALL A NEW CO SENSOR TO BE MOUNTED AT 1.5m FROM FINISH FLOOR. THE
- SENSOR SHALL BE TIED INTO THE GAS DETECTION CONTROL PANEL MOUNTED ON THE WALL.

AT HIGH LEVEL OVER THE DOOR TO THE APPARATUS BAY (TYP. OF 2), COMPLETE WITH A NEW

FILTER, BIRD SCREEN AND MOTORIZED DAMPER WIRED TO THE GAS DETECTION CONTROL PANEL.

- PROVIDE AND INSTALL A NEW NO2 SENSOR TO BE MOUNTED AT 0.5m FROM FINISH FLOOR. THE SENSOR SHALL BE TIED INTO THE GAS DETECTION CONTROL PANEL MOUNTED ON THE WALL.

  PROVIDE A NEW 900mm x 1000mm HIGH INTAKE AIR LOUVRE (MIN. 51% FREE AREA) MOUNTED
- REFER TO THE SCHEMATICS FOR CONTROL SEQUENCE AND COMPLETE SCOPE OF WORK.

  (10) PROVIDE A NEW INFRARED HEATER, "IR-1", OUTPUT 80MBH HIGH FIRE. STRICTLY ADHERE TO ALL MANUFACTURER'S INSTALLATION GUIDELINES AND RECOMMENDATIONS. (TYP. OF 4)
- PROVIDE AND INSTALL A NEW 1000 INFRARED HEATER FLUE GAS EXHAUST AND ROUTE THROUGH
  THE ROOF. PROVIDE A NEW VENT TERMINATION KIT AND TERMINATE FLUE GAS EXHAUST ON ROOF.
  ENSURE THE MANUFACTURER'S INSTALLATION GUIDELINES AND RECOMMENDATIONS ARE STRICTLY
- PROVIDE AND INSTALL A NEW 1000 INFRARED HEATER OUTDOOR AIR INTAKE DUCT AND ROUTE THROUGH THE ROOF. TERMINATE ON ROOF COMPLETE WITH A NEW VENT CAP AND WIRE MESH
- PROVIDE A NEW 4.0 kW ELECTRIC FORCE FLOW HEATER, "EFFH—1", TO SERVE THE RESPECTIVE PERIMETER ROOM. REFER TO THE SCHEDULES FOR COMPLETE SPECIFICATIONS.

  (14) CONTRACTOR TO PROVIDE A MINIMUM 25mm WIDE BLANKED—OUT ARCHITECTURAL SLOT C/W
- SIGHT BAFFLE ABOVE WHERE SLOT IS NOT BEING OCCUPIED BY A SUPPLY DIFFUSER. REFER TO ARCHITECTURAL DRAWINGS AND DETAILS FOR COMPLETE SCOPE OF WORK. (TYPICAL)

  PROVIDE AND INSTALL NEW PROGRAMMABLE THERMOSTAT TO LOCATION SHOWN ON THIS DRAWING,

ALONG WITH ALL CONTROL WIRING TO CONNECT TO RESPECTIVE ROOF TOP UNIT.

NEW ROOF TOP UNIT AND ASSOCIATED DUCTWORK TO BE PROVIDED AND INSTALLED AS SHOWN ON THIS DRAWING. SEE DRAWING M-400 FOR FULL SCOPE OF WORK.

17)
PROVIDE A NEW EXHAUST FAN 'EF-8' TO SERVE THE TURNOUT GEAR AREA. UNIT SHALL BE OPERATED BY A HUMIDISTAT MOUNTED ON THE WALL AS SHOWN. PROVIDE A TIMER LOCATED AT

THE ELECTRICAL PANEL AND MANUAL SELECTED BY THE USER AS AN OVERRIDE. ASSOCIATED

- 200¢ DUCTWORK TO BE ROUTED UP THROUGH THE ROOF AND TERMINATED IN A GOOSENECK FASHION.

  (18) PROVIDE AND INSTALL A NEW ACOUSTICALLY—LINED TRANSFER AIR DUCT. (TYPICAL)
- PROVIDE AND INSTALL NEW OPEN ENDED RETURN AIR DUCTWORK TO TERMINATE WITHIN THE CEILING PLENUM. (TYPICAL)
- BALANCE AIRFLOW (IN L/s) ON THE RETURN AIR DUCT TO THE QUANTITY SHOWN ON THE DRAWINGS.
- VEHICLE EXTRACTION EXHAUST SYSTEM BY NEDERMAN. GENERAL CONTRACTOR SHALL RETAIN NEDERMAN'S SERVICES, WHICH SHALL INCLUDE FOR ALL NEDERMAN EQUIPMENT, DUCTWORK, RAILS, CONTROL SYSTEM, ETC. AND COMPLETE INSTALLATION AND COMMISSIONING OF EQUIPMENT. EXACT LOCATION OF FAN TO BE DETERMINED ON SITE AND APPROVED BY THE ARCHITECT. THE NEDERMAN, MODEL "NCF 80/20" SHALL BE PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL SPECIFICATIONS 575/3/60. EXHAUST FAN/SYSTEM SHOWN HERE FOR COORDINATION ONLY.
- PROVIDE A NEW KITCHEN EXHAUST FAN 'EF-5' COMPLETE WITH HOOD, TO SERVE THE NEW GAS STOVE AND COOK TOP. PROVIDE A MINIMUM 2000mm EXHAUST DUCT TO BE TERMINATED AT ROOF LEVEL IN A GOOSENECK FASHION. ALL EXHAUST DUCTWORK TO BE INSULATED. SEE DETAILS
- AND SPECIFICATIONS FOR FULL SCOPE OF WORK.

  23 PROVIDE NEW EXHAUST FAN 'EF-4' TO SERVE THE NEW NETWORK ROOM. REFER TO DRAWING NOTE #24 FOR SEQUENCE OF OPERATION.
- PROVIDE A NEW WALL MOUNTED THERMOSTAT CONNECTED TO 'EF-4'. THERMOSTAT SHALL ACTIVATE EXHAUST FAN ON A TEMPERATURE READING OF 85°F OR HIGHER. DEACTIVATE 'EF-4'
- WHEN THERMOSTAT MAINTAINS TEMPERATURE OF 78°F OR LOWER

  PROVIDE AND INSTALL NEW DUCTWORK DOWN FROM THE ASSOCIATED ROOF MOUNTED EXHAUST FAN. REFER TO DRAWING M-400 FOR FULL SCOPE OF WORK.
- PROVIDE AND INSTALL A NEW LINT TRAP, "LT-1", AS MANUFACTURED BY "REVERSOMATIC" MODEL "LT-250-45" (OR EQUIVALENT) MOUNTED ON THE WALL ABOVE THE CLOTHES DRYER. REFER TO DETAIL ON M-100 FOR COMPLETE SCOPE OF WORK.
- PROVIDE AND INSTALL A NEW INLINE DRYER BOOSTER EXHAUST FAN, 'EF-7'. UNIT SHALL BE SUSPENDED ON VIBRATION ISOLATORS FROM THE STRUCTURE ABOVE. AIR TO BE EXHAUSTED
- THROUGH THE ROOF IN A GOOSENECK FASHION. REFER TO DRAWING FOR FOR ALL ASSOCIATED DUCTWORK AND SCHEDULES FOR FULL SPECIFICATIONS.

  (28) PROVIDE AND INSTALL A NEW 900mm x 1200mm INTAKE AIR LOUVRE (MIN. 51% FREE AREA)
- PROVIDE AND INSTALL A NEW 900mm x 1200mm INTAKE AIR LOUVRE (MIN. 51% FREE AREA) MOUNTED 600mm ABOVE THE FINISHED FLOOR, COMPLETE WITH A NEW FILTER, BIRD SCREEN AND MOTORIZED DAMPER WIRED TO THE AIR COMPRESSOR CONTROL PANEL. REFER TO THE SCHEMATICS FOR CONTROL SEQUENCE AND COMPLETE SCOPE OF WORK.
- CONTRACTOR TO PROVIDE AND INSTALL A NEW 1000 (4"0) PVC INTAKE AIR PIPE. THE PIPING SHALL TO BE SECURED TO THE WALL WITH PROPER CLAMPS AND FASTENERS IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES & RECOMMENDATIONS. THE INTAKE AIR PIPE SHALL BE TERMINATED 3' TO 5' FROM THE COMPRESSOR INTAKE WITH A STUB REDUCER OF EQUAL SIZE AS THE COMPRESSOR INLET HOUSING ENTRANCE PIPE. CONTRACTOR SHALL ENSURE THAT THE SUCTION PIPE DOES NOT TERMINATE OVER THE COMPRESSOR COOLING AIR EXHAUST. ENSURE THE INTAKE PIPE IS EQUIPPED WITH AN INSECT SCREEN ON THE INLET END. PIPING SHALL TERMINATE OUTSIDE IN A GOOSENECK FASHION. ALL INDOOR PIPING SHALL BE ROUTED AT HIGH LEVEL AND DROP DOWN IN FRONT OF THE COMPRESSOR INTAKE MANIFOLD.
- 30) AIR COMPRESSOR UNIT TO BE PROVIDED AND INSTALLED BY OTHERS.
- MOTORIZED DAMPER MD-4 SHALL BE WIRED TO OPERATE SIMULTANEOUSLY WITH 'EF-2' FOR THE SCBA COMPRESSOR ROOM. CONTROLS CONTRACTOR TO PROVIDE A PLC-CONTROL MODULE, TO ENSURE PROPER OPERATION OF THE VENTILATION SYSTEM IN THE SCBA COMPRESSOR ROOM. REFER TO THE CONTROL SEQUENCE SCHEMATIC FOR COMPLETE SCOPE OF WORK.
- PROVIDE AND INSTALL A NEW 750mm x 400mm EXHAUST AIR DUCT TO SERVE 'EF-2' AND TERMINATE DUCTWORK OPEN-ENDED IN SCBA COMPRESSOR ROOM.
- PROVIDE AND INSTALL A NEW ROOF MOUNTED EXHAUST FAN 'EF-2' TO SERVE THE SCBA COMPRESSOR ROOM. REFER TO SCHEDULES FOR COMPLETE SPECIFICATIONS AND CONTROL SCHEMATICS ON DRAWING M-102.
- PROVIDE AND INSTALL A NEW TRANSFER DOOR GRILLE, 'R-2' TO FACILITATE AIRFLOW INTO THE RESPECTIVE ROOM.
- PROVIDE AND INSTALL NEW INLINE EXHAUST FAN, 'EF-6', TO SERVE THE NEW WASHROOM. NEW ASSOCIATED 250¢ DUCTWORK TO BE ROUTED UP THROUGH THE ROOF AND TERMINATED IN A
- GOOSENECK FASHION.

  PROVIDE AND INSTALL A NEW EGG-CRATE TYPE, RETURN AIR CEILING HARD-DUCTED TO THE MAIN RETURN AIR DUCT SERVING RTU-6. GRILLE SHALL BE MOUNTED AT THE HIGH LEVEL. REFER TO DRAWINGS FOR GRILLE DIMENSIONS. (TYP. OF 3)

#### GENERAL NOTES

INTERFERENCE DRAWINGS WHERE APPLICABLE.

- THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK, ORDERING OF EQUIPMENT AND/OR FABRICATING MATERIALS. THE RESPONSIBILITY SHALL LIE WITH THE CONTRACTOR TO NOTIFY THE ARCHITECT AND ENGINEER OF RECORD OF ANY DEFICIENCIES PRIOR TO THE COMMENCEMENT OF ANY WORK, TO IDENTIFY IF ANY SERVICES AND/OR EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON DRAWINGS. PROVIDE
- NOT ALL AIR BALANCING DEVICES ARE SHOWN ON PLAN FOR CLARITY. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY BALANCING DEVICES TO ACHIEVE PERFORMANCE SPECIFIED ON PLAN.
- 3. ENGINEER OF RECORD AND ARCHITECT SHALL BE NOTIFIED OF ALL & ANY CHANGES TO THE STRUCTURE AND/OR SYSTEM DESIGN BEFORE INSTALLATION BEGINS. INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
- 4. FOR THE PURPOSE OF DRAWING CLARITY, NOT ALL EXTERNAL DUCT INSULATION AND/OR ACOUSTIC LINING HAS BEEN SHOWN ON PLAN. REFER TO INSULATION SPECIFICATION SECTION OF THE DRAWINGS AND PROVIDE DUCT INSULATION/LINING AS REQUIRED.
- 5. PROVIDE A COMPLETELY FIRE STOPPED SYSTEM ACCORDING TO THE DETAILS DESCRIBED IN THE SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR PARTITION FIRE RATINGS AND ALLOW FOR THE PATCHING AND REPAIRING OF ANY EXISTING SERVICES ROUTED THROUGH EXISTING FIRE PARTITIONS WHICH DO NOT MEET THE SPECIFICATIONS OUTLINED IN THIS DRAWING PACKAGE.
- 6. PRIOR TO INSTALLATION OF ANY SERVICES COORDINATION WITH ALL OTHER TRADES SHALL BE REQUIRED TO AVOID ANY CONFLICTS WITHIN THE CEILING PLENUM WITH LIGHTING, CONDUIT, PLUMBING SERVICES, DUCTWORK, DIFFUSERS, ETC.
- . CONTRACTOR SHALL PROVIDE STARTERS FOR ALL MECHANICAL EQUIPMENT.
- 8. CONTRACTOR SHALL ENSURE THAT ALL DUCTWORK WITHIN THE BUILDING IS ACOUSTICALLY LINED.
  REFER TO THE INSULATION SECTION OF THE SPECIFICATIONS FOR COMPLETE DETAILS AND SCOPE
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27 Roytec Rd. Unit 2-A Woodbridge, ON L4L 8E3 P: (905) 856-2840 F: (905) 856-4912

info@alaimoarchitecture.com

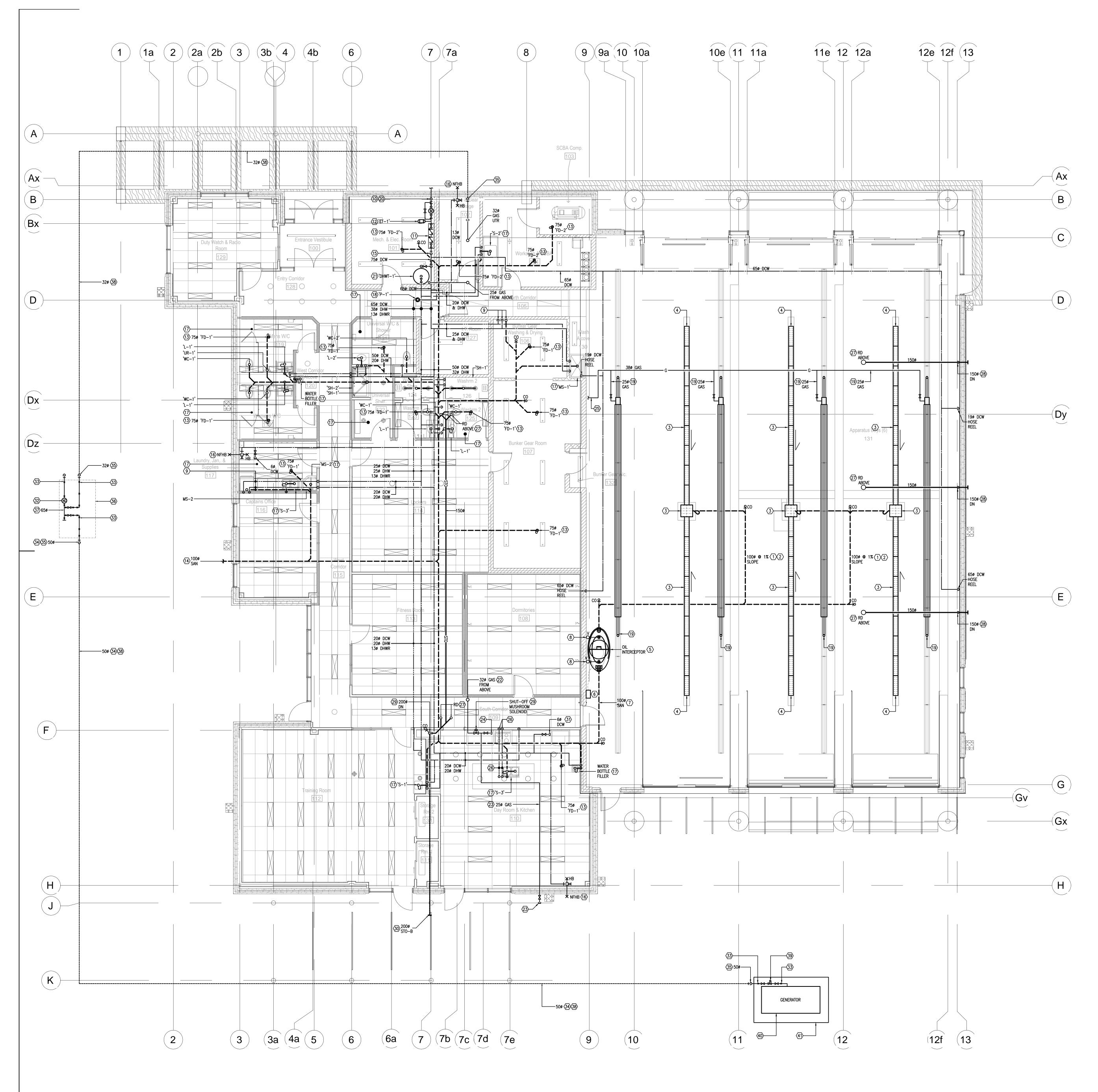
FLOOR PLAN — HVAC

ject

New Tecumseth
Fire Station No. 4
6375 14th Line Alliston, Ont.

1:75 Scale

| Issued by | File No. | Plot Date | 20.01.2023



#### **DRAWING NOTES**:

- PROVIDE NEW 1000 SANITARY PIPING TO SERVE EACH TRENCH DRAIN. (TYP. OF 3)

  ALL NEW SANITARY PIPING SHALL BE SLOPED AT A MINIMUM OF 1%. (TYPICAL)
- PROVIDE NEW 2000 PREFABRICATED TRENCH DRAIN, AS MANUFACTURED BY MEA GROUP, MODEL ENZ2000 OR EQUIVALENT, COMPLETE WITH CATCH BASIN SYSTEM. 100 MM PREFABRICATED PRECAST POLYMER CONCRETE COMPLETE WITH BUILT—IN DUCTILE IRON RAILS WITH PROFIX STAINLESS STEEL LOCKING SYSTEM, "E600" LOAD RATED, HOT DIPPED GALVANIZED DUCTILE IRON GRATES, CATCH BASIN SYSTEM COMPLETE WITH TRASH BUCKET, FOUL AIR TRAP AND DUCTILE IRON GRATE AND FRAME ALSO "E600" LOAD RATED. TRENCH SHALL HAVE A 0.6% SLOPE AND INSTALLED WITH POLYURETHANE SEALANT SUPPLIED BY TRENCH MANUFACTURER.
- PROVIDE AND INSTALL NEW TRENCH DRAIN SECTIONS. EACH SECTION SHALL BE 1M LONG.
  (TYPICAL OF 18). PROVIDE END CAPS AT THE TERMINATION POINTS OF THE TRENCH. (TYPICAL)
- PROVIDE NEW BURIED OIL INTERCEPTOR, ZURN MODEL "PROCEPTOR OMC-100" SIZE 100, 130 LBS., C/W HEAVY DUTY H20 LOADING COVER, OIL POINT ALARM SYSTEM INCLUDING PROBE AND
- (6) MOUNT NEW OIL INTERCEPTOR CONTROL PANEL ON WALL AT 1200mm A.F.F.
- CONNECT NEW 1000 SANITARY PIPING FROM OIL INTERCEPTOR TO MAIN SANITARY PIPING SERVING THE BUILDING.
- 8 EXTEND TWO BURIED 75mm VENTS FROM OIL INTERCEPTOR UP ALONG WALL AND THROUGH
- ROOF.

 $\overline{\langle 9 \rangle}$  provide and install a New 75ø sanitary connection, two (2) separate 20ø DHW

- CONNECTIONS AND A SINGLE 200 DCW CONNECTION TO THE NEW CLOTHES WASHING MACHINE. STRICLY ADHERE TO ALL MANUFACTURER'S INSTALLATION GUIDELINES AND RECOMMENDATIONS. REFER TO DETAIL ON M-101 FOR FURTHER CLARIFICATION AND COMPLETE SCOPE OF WORK.
- PROVIDE A NEW 1000 INCOMING DOMESTIC WATER SERVICE AND METER ASSEMBLY C/W BYPASS VALVE. METER SHALL BE PURCHASED FROM LOCAL UTILITY BUT INSTALLED BY DIVISION 15. CONTRACTOR SHALL CONTACT LOCAL UTILITY COMPANY TO COORDINATE THE INSTALLATION OF THE NEW 1000 INCOMING DOMESTIC WATER SERVICE AS REQUIRED.
- PROVIDE AND INSTALL A NEW CSA APPROVED, RPZ TYPE BACKFLOW PREVENTER ASSEMBLY (WATTS OR APPROVED EQUAL).
- PROVIDE AND INSTALL A NEW EXPANSION TANK AS MANUFACTURED BY WATTS, MODEL PLT-20

SEALED. REFER TO SCHEDULE FOR COMPLETE SPECIFICATIONS. (TYPICAL)

- 8.5 GALS CAPACITY (OR EQUIVALENT)

  13 PROVIDE A NEW 75¢ FLOOR DRAIN, 'FD-1' COMPLETE WITH A BURIED TRAP, PRIMED AND
- PROVIDE AND INSTALL A NEW BURIED 1000 SANITARY SERVICE FOR THE NEW BUILDING AND CONNECT TO THE SERVICE FROM THE STREET. REFER TO THE SITE SERVICING PLAN FOR COMPLETE SCOPE OF WORK AND DETAILS.
- (5) ROUTE NEW 1000 DOMESTIC COLD WATER PIPING UP TO HIGH LEVEL.
- PROVIDE A NEW 200 DCW LINE DOWN TO SERVE THE NEW INTERNAL HOSE BIBB (HB) AND NON-FREEZE HOSE BIBB (NFHB) COMPLETE WITH SHUT OFF VALVES AND VACUUM BREAKER.

  17 PROVIDE ALL NEW VENT PIPING TO SERVE ALL PLUMBING FIXTURES. ENSURE A "LIQUID TIGHT"

AND "WEATHER-PROOF" SEAL IS PROVIDED WHERE THE NEW ROOF PENETRATION(S) ARE INSTALLED. REFER TO SPECIFICATIONS AND DETAILS FOR COMPLETE SCOPE OF WORK. (TYPICAL)

- PROVIDE AND INSTALL A NEW DOMESTIC HOT WATER RE-CIRCULATION PUMP, 'P-1' AND ALL ASSOCIATED PIPING. ALL PIPING SHALL BE INSULATED. REFER TO THE SPECIFICATIONS AND DETAILS FOR THE COMPLETE SCOPE OF WORK.
- PROVIDE A NEW 25¢ GAS PIPING SERVICE TO SERVE EACH INDIVIDUAL GAS—FIRED INFRARED TUBE HEATER, IR—1, AT HIGH LEVEL OF THE APPARATUS BAY AS SHOWN. PROVIDE A NEW MANUAL SHIPT OFE VALVE AT EACH UNIT (TYP. OF 4)
- MANUAL SHUT-OFF VALVE AT EACH UNIT. (TYP. OF 4)

  ENSURE INCOMING 1000 DCW SERVICE AND METER/BACKFLOW PREVENTER ASSEMBLY IS COORDINATED WITH ALL OTHER POTENTIAL EQUIPMENT IN THIS AREA. EXACT EQUIPMENT
- SUB-TRADES, AND REVIEWED BY THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY WORK.

  PROVIDE NEW DOMESTIC HOT WATER TANK "DHWT-1" AND ALL ASSOCIATED PIPING, SHUT-OFF VALVES, DRIP PAN, COMBUSTION AND RELIEF PIPING THROUGH THE ROOF, GAS PIPING FROM

OCATION OF ALL COMPONENTS SHALL BE WORKED OUT WITH THE GENERAL CONTRACTOR AND

ABOVE, ETC. TANKS SHALL BE FLOOR MOUNTED. REFER TO DETAILS AND SPECIFICATIONS FOR

- COMPLÉTE SCOPE OF WORK.

  22 PROVIDE A NEW 32Ø GAS SERVICE FROM ABOVE, TO FEED THE POTENTIAL GAS—FIRED KITCHEN APPLIANCES AND THE GAS BARBEQUE ON THE PATIO, COMPLETE WITH A NEW MANUAL
- SHUT-OFF VALVE FOR EACH APPLIANCE. (TYPICAL)

  (23) PROVIDE A NEW 25¢ GAS SERVICE (VALVED & CAPPED AS A PROVISION) TO FEED THE GAS
- BARBEQUE ON THE PATIO. PROVIDE A GAS REGULATOR OUTSIDE (AS REQUIRED).

  PROVIDE A NEW 25¢ GAS SERVICE (VALVED & CAPPED AS A PROVISION) TO FEED THE KITCHEN APPLIANCES. FINAL CONNECTION TO EQUIPMENT SHALL BE BY OTHERS.
- REFER TO DRAWING M-400 FOR CONTINUATION OF GAS PIPING.
- 13ø DCW AND 13ø DHW PIPING TO BE ROUTED DOWN IN THE KITCHEN WALL PARTITION AND THEN ROUTED BURIED BELOW THE SLAB TO SERVE, THE KITCHEN SINK IN THE ISLAND.

  27 NEW CONVENTIONAL FLOW ROOF DRAIN TO BE PROVIDED BY ROOFING CONTRACTOR.
- MECHANICAL CONTRACTOR TO PROVIDE ALL DRAINAGE PIPING AND CONNECTION TO THE NEW ROOF DRAIN. (TYPICAL)
- 1500 STORM PIPING SHALL BE ROUTED WITHIN THE CEILING, TOWARDS THE PERIMETER, AND THROUGH THE EXTERIOR WALL. TERMINATE RAINWATER LEADER 2 FEET ABOVE FINISHED GRADE LEVEL AND ANGLE PIPING AT 45° AWAY FROM THE BUILDING. SEE DRAWING M-400 FOR ROOF
- DRAIN LOCATIONS.

  ROUTE NEW 200Ø STORM DRAINAGE PIPING DOWN THE PARTITION, COMPLETE WITH A NEW CLEAN—OUT PRIOR TO ENTERING THE FLOOR SLAB. COORDINATE EXACT LOCATION OF PIPE DROP ON SITE WITH THE GENERAL CONTRACTOR AS WELL AS THE APPROVAL OF THE ARCHITECT AND
- ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF ANY WORK.

  30 ROUTE NEW 2000 STORM DRAINAGE PIPING TOWARDS THE NEW CATCH BASIN AT THE BACK OF THE PROPERTY. TERMINATE PIPING 1.5M FROM THE BUILDING EXTERIOR. REFER TO THE SITE
- SERVICING DRAWINGS FOR COMPLETE DETAILS.

  (31) PROVIDE AND INSTALL NEW 60 SOFT COPPER DCW CAPPED CONNECTION FOR THE NEW
- REFRIGERATOR.

  PROVIDE A NEW GAS METER CAPABLE OF HANDLING A 4,500 CFH CAPACITY TO SERVE THE NEW FACILITY. CONTRACTOR SHALL CONTACT THE LOCAL UTILITY COMPANY AND COORDINATE THE INSTALLATION OF THE INCOMING SERVICE AND METER LOCATION. FINAL LOCATION TO BE
- APPROVED BY THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF ANY WORK.
- PROVIDE NEW GAS SUPPORTS (AS REQUIRED) TO BE BOLTED TO THE CONCRETE PAD. (TYPICAL)

  PROVIDE AND INSTALL NEW BURIED 50¢ GAS PIPING AT 2PSI TO SERVE THE NEW GENERATOR AT THE BACK END OF THE PROPERTY (EXACT LOCATION TO BE DETERMINED ON SITE). PROVIDE
- CONTRACTOR SHALL PROVIDE AND INSERT A SLEEVE WHERE THE GAS PIPING ENTERS/EXITS THE GROUND TO PREVENT ANY UNWANTED STRAIN PLACED ON THE PIPING FROM SHIFTING SOIL. ALSO PROVIDE A SHUT-OFF VALVE UPSTREAM OF ALL CONNECTIONS TO GAS FIRED APPLIANCES. ALL FINAL CONNECTIONS TO GAS FIRED APPLIANCES SHALL BE INCLUDED UNDER THIS SCOPE
- NATURAL GAS STATION SHALL BE MOUNTED ON A 300mm HIGH CONCRETE HOUSEKEEPING PAD. PAD SHALL EXTEND 300MM BEYOND THE NATURAL GAS STATION ON ALL FOUR (4) SIDES. EXACT LOCATION OF PAD TO BE DETERMINED ON SITE WITH THE ARCHITECT AND ENGINEER OF
- RECORDS' APPROVAL.

  PROVIDE A NEW 65¢ GAS HEADER AT 2PSI TO ACCOMMODATE THE BUILDING GAS LOAD OF 4,500 CFH FOR THE NEW FACILITY.
- ALL BURIED PIPING SHALL BE A MINIMUM OF 600mm BELOW GRADE WHEN PASSING UNDERNEATH PAVED SURFACES, OTHERWISE IT SHALL BE INSTALLED NO LESS THAN 450mm BELOW GRADE. ALL BURIED PIPING SHALL BE JOINED OR CONNECTED BY WELDING OR APPROVED MECHANICAL
- COMPRESSION FITTINGS.

  39 PROVIDE AND INSTALL NEW NATURAL GAS PRV TO REDUCE THE PRESSURE FROM 2PSI TO 7" w.c.
- NEW NATURAL GAS-FIRED GENERATOR TO BE PROVIDED AND INSTALLED BY OTHERS. REFER TO ELECTRICAL DRAWINGS FOR UNIT SPECIFICATIONS AND COMPLETE SCOPE OF WORK.
- GENERATOR SHALL BE MOUNTED ON A 300mm HIGH CONCRETE HOUSEKEEPING PAD. PAD SHALL EXTEND 300MM BEYOND THE GENERATOR ON ALL FOUR (4) SIDES.

(29) SOLENOID VALVE TO TURN OFF THE SUPPLY OF GAS TO ALL KITCHEN EQUIPMENT AND

BARBEQUE APPLIANCES. EXACT LOCATION TO BE DETERMINED ON SITE.

INTERFERENCE DRAWINGS WHERE APPLICABLE.

THE COMMENCEMENT OF WORK.

**GENERAL NOTES** 

A SHUT-OFF VALVE PRIOR TO THE BURIED PIPING.

- THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK, ORDERING OF EQUIPMENT AND/OR FABRICATING MATERIALS. THE RESPONSIBILITY SHALL LIE WITH THE CONTRACTOR TO NOTIFY THE ARCHITECT AND ENGINEER OF RECORD OF ANY DEFICIENCIES PRIOR TO THE COMMENCEMENT OF ANY WORK, TO IDENTIFY IF ANY SERVICES AND/OR EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON DRAWINGS. PROVIDE
- EXACT PIPE ROUTES, DROPS, AND FINAL CONNECTIONS SHALL BE DETERMINED ON SITE WITH PROJECT MANAGER. REFER TO INTERIOR DESIGNER DRAWINGS AND SHOP DRAWINGS FOR ALL
- EQUIPMENT AND FIXTURE LOCATIONS AND CONNECTIONS.

  3. ALLOW FOR THOROUGH COORDINATION WITH ALL DISCIPLINES PRIOR TO INSTALLATION OF ANY AND ALL RELEVANT SERVICES. ANY CONFLICTS WITH LIGHTS, DIFFUSERS, ETC. WILL BE DEEMED
- UNACCEPTABLE. PROVIDE INTERFERENCE DRAWINGS.

  4. NOT ALL VENT PIPING HAS BEEN SHOWN. FOR CLARITY AND COORDINATION, SOME VENT PIPING HAS BEEN SHOWN. WHILE SOME VENT PIPING MAY BE HIDDEN. PROVIDE AND SIZE A COMPLETE

VENTING SYSTEM ACCORDING TO THE LEAD SHEET SPECIFICATIONS IN THIS DRAWING PACKAGE AND

- THE LATEST OBC REQUIREMENTS.

  5. ALL EQUIPMENT, PIPING, FITTINGS, VALVES, PIPE ACCESSORIES, ETC. SHALL BE RATED FOR THE BUILDING WORKING PRESSURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE BUILDING WORKING PRESSURE PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER OF RECORD AND THE ARCHITECT PRIOR TO
- REFER TO THE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZING TO EACH INDIVIDUAL FIXTURE.

  7. NOT ALL FIRE STOPPING IS SHOWN. FOR CLARITY AND COORDINATION SOME FIRE STOPPING HAS BEEN SHOWN BUT THE MAJORITY IS HIDDEN. PROVIDE A COMPLETELY FIRE STOPPED SYSTEM ACCORDING TO THE DETAILS DESCRIBED IN THE SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR PARTITION FIRE RATINGS.
- ALLOW FOR THOROUGH COORDINATION WITH ALL DISCIPLINES PRIOR TO INSTALLATION OF ANY AND ALL RELEVANT SERVICES. ANY CONFLICTS WITH LIGHTS, DIFFUSERS, ETC. WILL BE DEEMED UNACCEPTABLE. PROVIDE INTERFERENCE DRAWINGS.
- 9. GENERATOR AND GAS METER STATION EXACT LOCATION TO BE DETERMINED ON SITE AND COORDINATED WITH THE ARCHITECT. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.

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7.	Review - Rev #1	25/11/22
8.	Coordination	12/12/22
9.	Mechanical Permit	20/01/23
10.	Mechanical Tender	13/04/23



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FLOOR PLAN — PLUMBING & DRAINAGE

New Tecumseth
Fire Station No. 4
6375 14th Line Alliston, Ont.

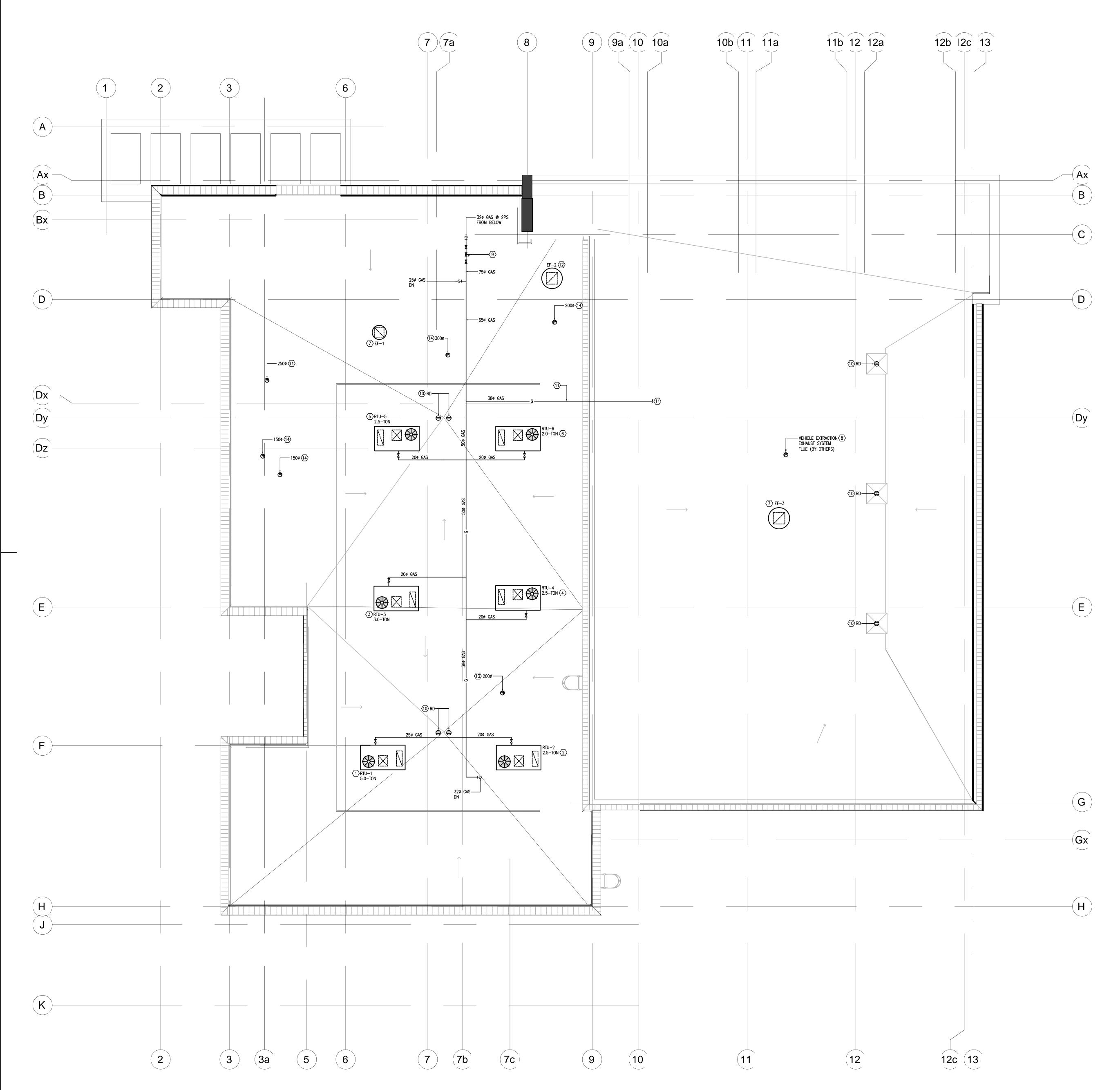
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#### **DRAWING NOTES:**

- CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 5.0—TON ROOFTOP UNIT (RTU—1), INCLUDING BUT NOT LIMITED TO, A MINIMUM 18" ROOF CURB, ECONOMIZER, GAS PIPING C/W A SHUT—OFF VALVE, DUCT MOUNTED CO2 SENSOR, BRACKET AND ALL ASSOCIATED CONTROLS, REMOTE TEMPERATURE SENSOR(S), ETC. CONTRACTOR SHALL BALANCE AIRFLOW TO A TOTAL OF 2,000 CFM AND PROVIDE AND INSTALL AN ECONOMIZER TO PROVIDE A MINIMUM OF 20% (400 CFM) OF OUTDOOR AIR. REFER TO SCHEDULES AND INSTALLATION DETAILS FOR COMPLETE SCOPE OF WORK.
- CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 2.5-TON ROOFTOP UNIT (RTU-2), INCLUDING BUT NOT LIMITED TO, A MINIMUM 18" ROOF CURB, ECONOMIZER, GAS PIPING C/W A SHUT-OFF VALVE, DUCT MOUNTED CO2 SENSOR, BRACKET AND ALL ASSOCIATED CONTROLS, REMOTE TEMPERATURE SENSOR(S), ETC. CONTRACTOR SHALL BALANCE AIRFLOW TO A TOTAL OF 1,000 CFM AND PROVIDE AND INSTALL AN ECONOMIZER TO PROVIDE A MINIMUM OF 20% (200) CFM OF OUTDOOR AIR. REFER TO SCHEDULES AND INSTALLATION DETAILS FOR COMPLETE SCOPE OF WORK.

   CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 3.0-TON ROOFTOP UNIT (RTU-3), INCLUDING BUT NOT LIMITED TO, A MINIMUM 18" ROOF CURB, ECONOMIZER, GAS PIPING C/W A SHUT-OFF
- VALVE, DUCT MOUNTED CO2 SENSOR, BRACKET AND ALL ASSOCIATED CONTROLS, REMOTE
  TEMPERATURE SENSOR(S), ETC. CONTRACTOR SHALL BALANCE AIRFLOW TO A TOTAL OF 1,200 CFM
  AND PROVIDE AND INSTALL AN ECONOMIZER TO PROVIDE A MINIMUM OF 15% (180) CFM OF
  OUTDOOR AIR. REFER TO SCHEDULES AND INSTALLATION DETAILS FOR COMPLETE SCOPE OF WORK.

  4 CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 2.5—TON ROOFTOP UNIT (RTU—4), INCLUDING
  BUT NOT LIMITED TO, A MINIMUM 18" ROOF CURB, ECONOMIZER, GAS PIPING C/W A SHUT—OFF
- VALVE, DUCT MOUNTED CO2 SENSOR, BRACKET AND ALL ASSOCIATED CONTROLS, REMOTE TEMPERATURE SENSOR(S), ETC. CONTRACTOR SHALL BALANCE AIRFLOW TO A TOTAL OF 1,000 CFM AND PROVIDE AND INSTALL AN ECONOMIZER TO PROVIDE A MINIMUM OF 25% (250 CFM) OF OUTDOOR AIR. REFER TO SCHEDULES AND INSTALLATION DETAILS FOR COMPLETE SCOPE OF WORK.

  (5) CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 2.5—TON ROOFTOP UNIT (RTU—5), INCLUDING BUT NOT LIMITED TO, A MINIMUM 18" ROOF CURB, ECONOMIZER, GAS PIPING C/W A SHUT—OFF VALVE, DUCT MOUNTED CO2 SENSOR, BRACKET AND ALL ASSOCIATED CONTROLS, REMOTE

TEMPERATURE SENSOR(S), ETC. CONTRACTOR SHALL BALANCE AIRFLOW TO A TOTAL OF 1,000 CFM

- AND PROVIDE AND INSTALL AN ECONOMIZER TO PROVIDE A MINIMUM OF 10% (100 CFM) OF OUTDOOR AIR. REFER TO SCHEDULES AND INSTALLATION DETAILS FOR COMPLETE SCOPE OF WORK.

  (6) CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 2.0—TON ROOFTOP UNIT (RTU—6), INCLUDING BUT NOT LIMITED TO, A MINIMUM 18" ROOF CURB, ECONOMIZER, GAS PIPING C/W A SHUT—OFF VALVE, DUCT MOUNTED CO2 SENSOR, BRACKET AND ALL ASSOCIATED CONTROLS, REMOTE TEMPERATURE SENSOR(S), ETC. CONTRACTOR SHALL BALANCE AIRFLOW TO A TOTAL OF 800 CFM AND PROVIDE AND INSTALL AN ECONOMIZER TO PROVIDE A MINIMUM OF 15% (120 CFM) OF
- OUTDOOR AIR. REFER TO SCHEDULES AND INSTALLATION DETAILS FOR COMPLETE SCOPE OF WORK.

  7 PROVIDE AND INSTALL A NEW ROOF MOUNTED SANITARY EXHAUST FAN, COMPLETE WITH A MINIMUM 18" ROOF CURB. REFER TO SCHEDULES, SPECIFICATIONS AND DRAWING M-200 FOR COMPLETE SCOPE OF WORK.
- (8) CONTRACTOR TO ALLOW FOR A ROOF PENETRATION FOR THE VEHICLE EXTRACTION EXHAUST SYSTEM. EXACT LOCATION TO BE DETERMINED ON SITE. REFER TO MANUFACTURER'S DRAWINGS & LITERATURE FOR COMPLETE SCOPE OF WORK AND FULL SPECIFICATIONS.
- 9 PROVIDE AND INSTALL NEW NATURAL GAS PRV TO REDUCE THE PRESSURE FROM 2PSI TO 7" w.c.

  10 NEW CONVENTIONAL FLOW ROOF DRAIN TO BE PROVIDED BY ROOFING CONTRACTOR. MECHANICAL

CONTRACTOR TO PROVIDE ALL DRAINAGE PIPING IN THE CEILING OF THE SPACE BELOW AND

- CONNECTION TO THE NEW ROOF DRAIN. SEE DRAWING M-300 FOR FULL SCOPE OF WORK. (TYPICAL)

  REFER TO DRAWING M-300 FOR CONTINUATION OF GAS PIPING WITHIN THE BUILDING.
- PROVIDE AND INSTALL A NEW ROOF MOUNTED EXHAUST FAN FOR THE SCBA COMPRESSOR ROOM, COMPLETE WITH A MINIMUM 18" ROOF CURB. REFER TO SCHEDULES, SPECIFICATIONS AND DRAWING M-200 FOR COMPLETE SCOPE OF WORK.
- CONTRACTOR SHALL TERMINATE THE NEW 2000 KITCHEN EXHAUST DUCT AT THE ROOF LEVEL.
  ENSURE THE TERMINATION POINT OF THE EXHAUST DUCT IS A MINIMUM OF 10' FROM ANOTHER
  OTHER INTAKES. REFER TO DRAWING M-200 FOR CONTINUATION OF DUCTWORK AND COMPLETE
- CONTRACTOR SHALL TERMINATE THE NEW EXHAUST DUCT AT THE ROOF LEVEL. ENSURE THE TERMINATION POINT OF THE EXHAUST DUCT IS A MINIMUM OF 10' FROM ANY OTHER OTHER BUILDING AIR INTAKES. REFER TO DRAWING M-200 FOR CONTINUATION OF DUCTWORK AND COMPLETE SCOPE OF WORK.

#### **GENERAL NOTES:**

- 1. THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK, ORDERING OF EQUIPMENT AND/OR FABRICATING MATERIALS. THE RESPONSIBILITY SHALL LIE WITH THE CONTRACTOR TO NOTIFY THE ARCHITECT AND ENGINEER OF RECORD OF ANY DEFICIENCIES PRIOR TO THE COMMENCEMENT OF ANY WORK, TO IDENTIFY IF ANY SERVICES AND/OR EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON DRAWINGS. PROVIDE INTERFERENCE DRAWINGS WHERE APPLICABLE.
- NOT ALL AIR BALANCING DEVICES ARE SHOWN ON PLAN FOR CLARITY. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY BALANCING DEVICES TO ACHIEVE PERFORMANCE SPECIFIED ON PLAN.
- 3. ENGINEER OF RECORD AND ARCHITECT SHALL BE NOTIFIED OF ALL & ANY CHANGES TO THE STRUCTURE AND/OR SYSTEM DESIGN BEFORE INSTALLATION BEGINS. INSTALLATION TO COMPLY WITH THE LATEST ONTARIO BUILDING CODE.
- 4. FOR THE PURPOSE OF DRAWING CLARITY, NOT ALL EXTERNAL DUCT INSULATION AND/OR ACOUSTIC LINING HAS BEEN SHOWN ON PLAN. REFER TO INSULATION SPECIFICATION SECTION OF THE DRAWINGS AND PROVIDE DUCT INSULATION/LINING AS REQUIRED.
- PROVIDE A COMPLETELY FIRE STOPPED SYSTEM ACCORDING TO THE DETAILS DESCRIBED IN THE SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR PARTITION FIRE RATINGS AND ALLOW FOR THE PATCHING AND REPAIRING OF ANY EXISTING SERVICES ROUTED THROUGH EXISTING FIRE PARTITIONS WHICH DO NOT MEET THE SPECIFICATIONS OUTLINED IN THIS DRAWING PACKAGE.
- PRIOR TO INSTALLATION OF ANY SERVICES COORDINATION WITH ALL OTHER TRADES SHALL BE REQUIRED TO AVOID ANY CONFLICTS WITHIN THE CEILING PLENUM WITH LIGHTING, CONDUIT,
- PLUMBING SERVICES, DUCTWORK, DIFFUSERS, ETC.

  CONTRACTOR SHALL PROVIDE STARTERS FOR ALL MECHANICAL EQUIPMENT.
- . CONTRACTOR SHALL ENSURE THAT ALL DUCTWORK WITHIN THE BUILDING IS ACOUSTICALLY LINED.
  REFER TO THE INSULATION SECTION OF THE SPECIFICATIONS FOR COMPLETE DETAILS AND SCOPE

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Mechanical Tender

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ROOF PLAN — MECHANICAL

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