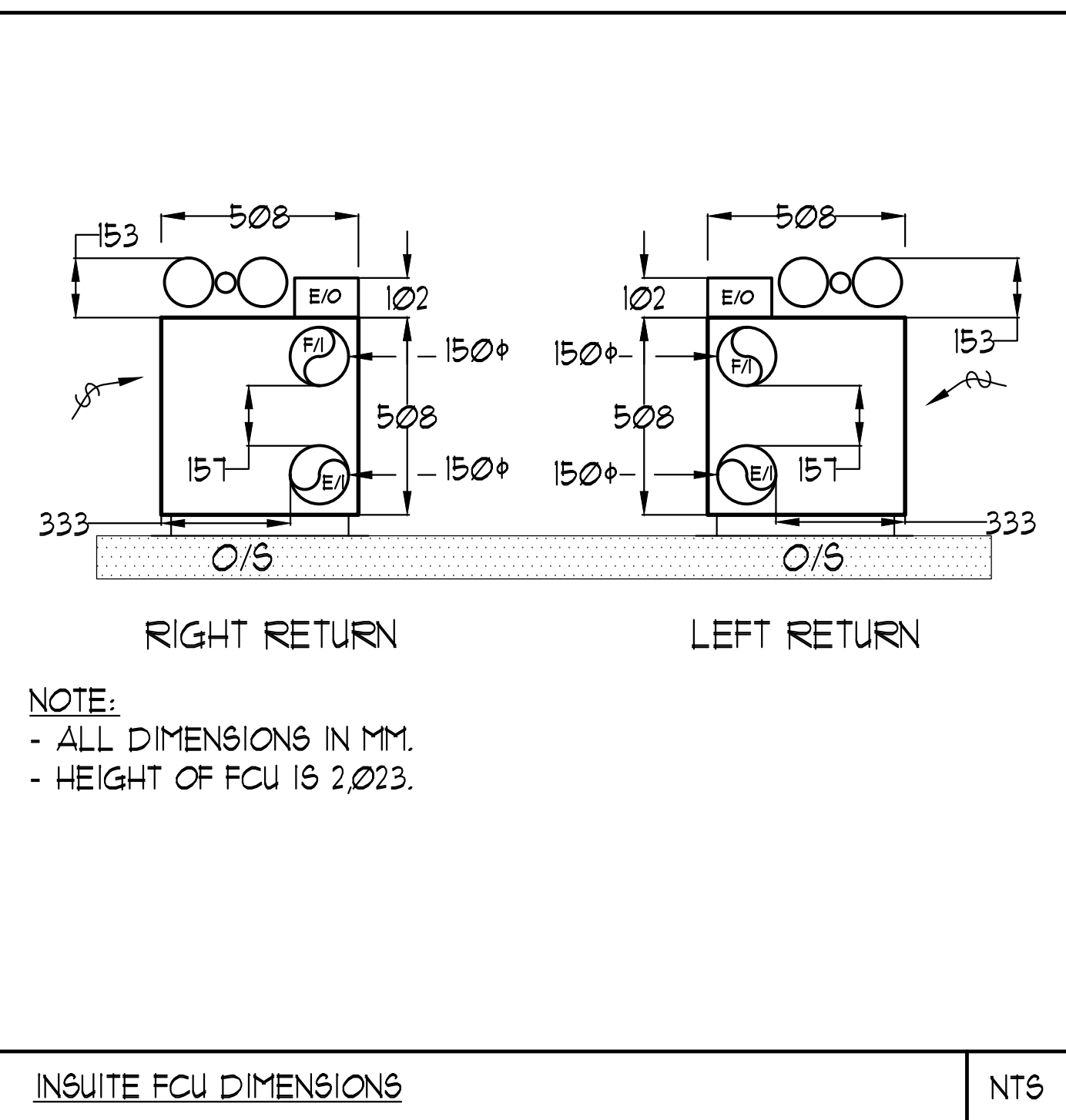
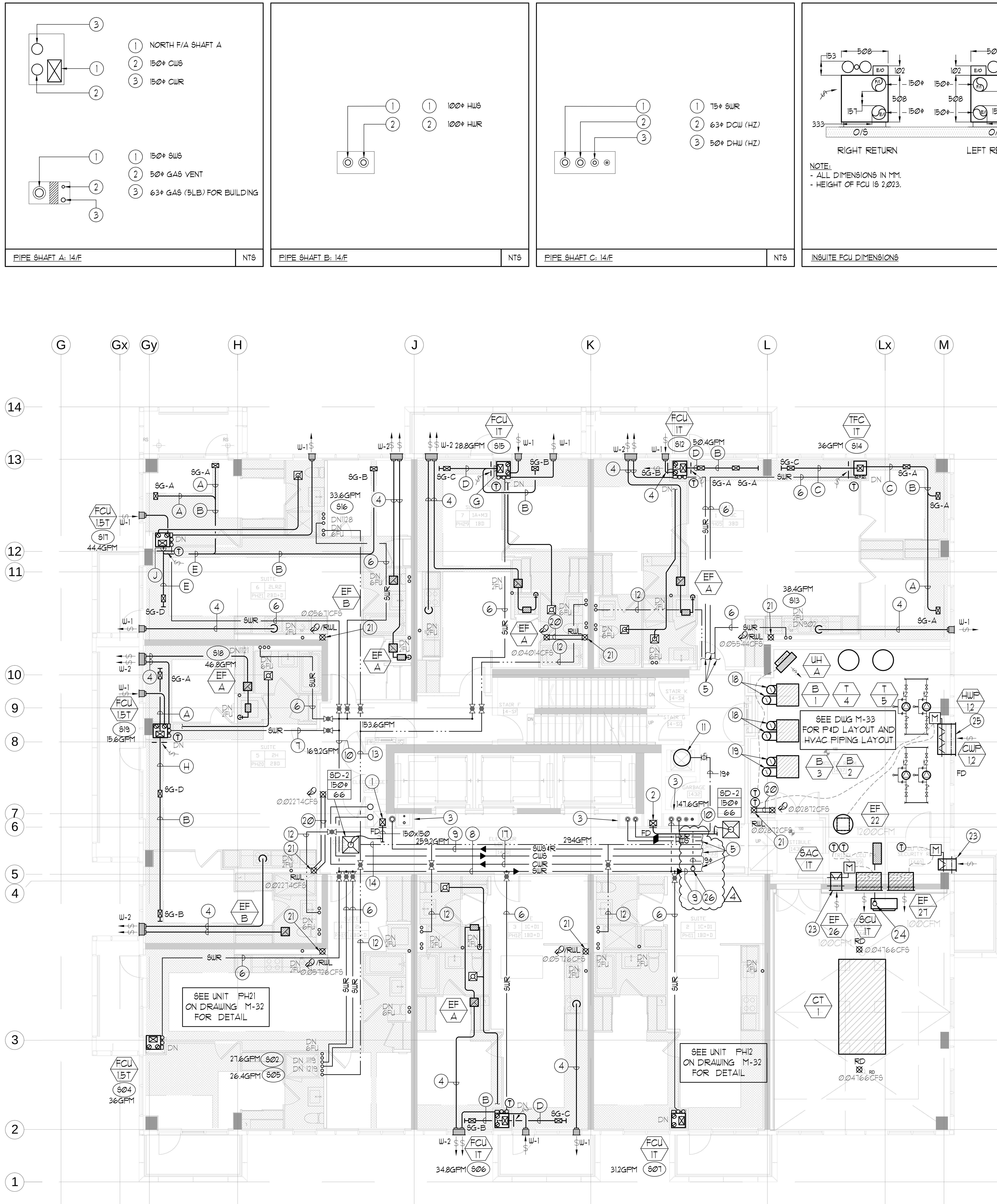




UNIT	NAME	AREA (SQ. FT.)	* OF UR	* OF FOLDER	SIZE (T)	FIXTURE UNITS	BR	SQ. FT./T
PH05	3C	990	2	0	2	16	3	495
PH11	1C-D1	590	2	0	1	16	1	590
PH12	1C-D1	590	2	0	1	16	1	590
PH18	2L	755	2	0	15	16	2	503
PH20	2H	740	2	0	15	16	2	493
PH21	2L-R2	755	2	0	15	16	2	503
PH29	1A-M3	580	1	0	1	10	1	580

GRILLE SIZING TABLE		
DESIGNATION	SIZE	L/S (UNLESS SPECIFIED ELSEWHERE)
SG-A	300x100	47-10
SG-B	300x150	71-93
SG-C	400x150	94-140
SG-D	450x150	141-188
EG-A	150x150	35
W-1	225x200	210mm(L)
W-2	425x200	INSULATED
W-3	625x200	WALL BOX

VERTICAL FAN COIL SIZE		
DESIGNATION	MODEL	W x D
FCU-IT	450	500x660
FCU-15T	600	500x660
FCU-2T	800	500x660
FCU-25T	1000	550x660
FCU-3T	1200	550x660

NOTE:
A MIN. OF 125mm IS REQUIRED ON THE SIDE OF PIPE RISER

DUCT SIZING TABLE (4.06 m/s, 800 FPM)							
DESIGNATION		L/s	DUCT SIZE	DESIGNATION		L/s	DUCT SIZE
(A)		47	100x150	(G)		189	350x150
(B)		71	150x150	(H)		236	450x150
(C)		94	200x150	(J)		283	500x150
(D)		118	200x150	(K)		330	600x150
(E)		141	250x150	(L)		371	500x200
(F)		165	300x150				

- (25) 1200x400 WEATHERPROOF INTAKE LOUVE c/w MOTORIZED DAMPER, FIRE DAMPER & BIRDSCREEN.
- (26) 19" DCU UP TO SERVE NFHB.

- GENERAL NOTES:
- CONTRACTOR SHALL CO-ORDINATE ARCHITECTURAL, STRUCTURAL, LIGHTING, HVAC, SPRINKLER DRAWINGS TO AVOID AREAS OF CONFLICT AND TO MAINTAIN CEILING HEIGHTS.
 - CONTRACTOR SHALL REPORT ALL DISCREPANCIES AND AREA OF CONFLICTS TO THE ENGINEER PRIOR TO WORK BEGINS.
 - PROVIDE EXPANSION CHAMBERS FOR ALL KITCHEN SINKS.
 - SEE INSTALLATION DETAILS DRAWING FOR WASHER DRY, HAC WATER, SANITARY CONNECTION DETAILS.
 - SUPPLY AND INSTALL COMPLETE DOMESTIC HOT AND COLD WATER LINES, SANITARY AND VENT LINES TO EACH FIXTURE/EQUIPMENT INCLUDING WATER CLOSETS, LAVATORIES, BATHS, SHOWERS, KITCHEN SINK, WASHING MACHINES, DISHWASHERS, AND FLOOR DRAINS. KITCHEN SINK, LAVATORIES, WATER CLOSETS AND WASHING MACHINE TO BE C/W LOCALIZED SHUT-OFF VALVES.
 - ALL VENT PIPE INSTALLATION TO COMPLY WITH PLUMBING CODES.
 - FOR D.H.A.C. W. RISER SIZES, REFER TO RISER DIAGRAM
 - FIRE DAMPERS ARE REQUIRED TO BE LISTED AND ARE TO HAVE FIRE PROTECTION RATING OF THE PENETRATED FIRE SEPARATION.
 - THE PIPING PENETRATING THE VARIOUS FIRE SEPARATION IS REQUIRED TO BE FIRESTOPPED WITH A LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH CBC ARTICLE 3.13.1
 - THE FIRE HOSE CABINET THAT ARE RECESSED INTO THE EXIT STAIR SHAFTS ARE REQUIRED TO BE SEPARATED FROM THE EXIT STAIR BY A 2 HR. FIRE SEPARATION.
 - NO FLEXIBLE DUCT SHALL BE USED FOR ANY IN-SUITE DUCTWORK.
 - PROVIDE 25MM EXTERNAL INSULATION TO ENTIRE FRESH AIR DUCT FROM EXTERIOR WALL TO ERV FAN COIL UNIT.
 - DRYER EXHAUST DUCT SHALL BE SMOOTH AND CORROSION-RESISTANT MATERIAL (FLEXIBLE CONNECTION IS NOT ACCEPTABLE).

- ACOUSTIC NOTES:
- ALL HORIZONTAL SUPPLY AIR DUCTWORK SHALL BE C/W 25MM INTERNAL ACOUSTIC LINING AND SHALL BE SUSPENDED ON RUBBER PADS IN THE HANGERS. ELBOWS SHALL BE COMPLETE WITH TURNING VANES.
 - ALL SYSTEM/DOMESTIC PIPE LOOPS OR OFFSETS WHICH ARE 50MM DIA. AND LARGER SHALL BE ISOLATED USING NEOPRENE-IN-SHEAR HANGERS, AND ADDITIONAL 25 MM THICK RIBBED OR WAFFLED NEOPRENE PADS IN THE SADDLES OF CLEVIS HANGERS.
 - ALL PIPES SMALLER THAN 50MM DIA. SHALL BE ISOLATED WITH 5MM THICK RIBBED OR WAFFLED RUBBER PADS IN HANGER SADDLES.
- CLEAR FLOOR TO UNDERSLAB = 3210mm
CLEAR PRODUCT = 2100mm
COMPLETE DROP CEILING = 510mm

- NOTES:
- NORTH F/A SHAFT B FROM G/F TO 14/F DUCT SERVING CORRIDOR FROM G/F TO 14/F. SEE VENTILATION RISER DIAGRAM FOR DETAILS.
 - NORTH SHAFT B F/A SERVING FROM G/F TO 14/F. F/A DUCT SERVING CORRIDOR FROM G/F TO 14/F. SEE VENTILATION RISER DIAGRAM FOR DETAILS.
 - PIPE SHAFT - REFER TO PIPE DIAGRAM FOR DETAILS.
 - 150" KITCHEN / DRYER / W/R / FCU INTAKE / FCU EXHAUST DUCT. (TYPICAL UNLESS OTHERWISE NOTED)
 - SEE DWG. M-33 FOR PIPING CONNECTION DETAIL.
 - 50" SUR.
 - 32" SUR.
 - 100" SUR.
 - 150" SUR.
 - 75" SUR.
 - 600" GARBAGE CHUTE c/w 19" DCU WITH BACKFLOW PREVENTOR AND ISOLATING VALVE FOR GARBAGE CHUTE WASHDOWN RING.
 - 19" DHUR.
 - 25" DHUR.
 - 32" DHUR.
 - 38" DHUR.
 - 50" DHUR.
 - 150" CUS 4 R.
 - 250" COMBUSTION AIR INTAKE AND 250" EXHAUST UP THROUGH ROOF C/W TERMINATION FITTING, AS PER MANUFACTURER'S INSTALLATION MANUAL AND TSSA REQUIREMENTS.
 - 300" COMBUSTION AIR INTAKE AND 2225" EXHAUST UP THROUGH ROOF C/W TERMINATION FITTING, AS PER MANUFACTURER'S INSTALLATION MANUAL AND TSSA REQUIREMENTS.
 - 1200" STM 01%.
 - 100" RUL DOWN.
 - 100" RUL FROM ABOVE.
 - 400x200 INTAKE LOUVE c/w MOTORIZED DAMPER FIRE DAMPER & WIRE MESH.
 - REFRIGERANT PIPES FROM SPLIT COOLING INDOOR UNIT (SAC-IT) TO CONDENSING UNIT (SCU-IT). PIPE SIZING AND INSTALLATION AS PER MANUFACTURER'S RECOMMENDATIONS (TYPICAL).

LEGEND
MECHANICAL

SYMBOL	DESCRIPTION
[Symbol]	SUPPLY AIR DIFFUSER
[Symbol]	SUPPLY AIR TROOPER
[Symbol]	LINEAR SUPPLY DIFFUSER
[Symbol]	THERMOSTAT
[Symbol]	FAN SWITCH
[Symbol]	RETURN AIR GRILLE
[Symbol]	EXHAUST AIR GRILLE
[Symbol]	SUPPLY DUCT UP
[Symbol]	SUPPLY DUCT DOWN
[Symbol]	RETURN DUCT UP
[Symbol]	RETURN DUCT DOWN
[Symbol]	EXHAUST DUCT UP
[Symbol]	EXHAUST DUCT DOWN
[Symbol]	FIRE DAMPER
[Symbol]	BALANCING DAMPER
[Symbol]	MOTORIZED FIRE DAMPER
[Symbol]	MOTORIZED FIRE DAMPER
[Symbol]	BACKDRAFT DAMPER
[Symbol]	OPPOSED BLADE VOLUME CONTROL DAMPER
[Symbol]	CUS LOCKING QUADRANT
[Symbol]	TURNING VANE
[Symbol]	FLEXIBLE CONNECTION
[Symbol]	ACOUSTIC ANULATION
[Symbol]	TYPE OF EQUIPMENT
[Symbol]	EQUIPMENT IDENTIFICATION
[Symbol]	TYPE OF DIFFUSER OR GRILLE
[Symbol]	VALVE SIZE OR DIFFUSER NECK SIZE
[Symbol]	WALLPEN (OPT OR L)
[Symbol]	STARTER / 3 PHASE / 1 PHASE /
[Symbol]	FAN SWITCH / IN-SUITE DRY OVERHEAT BUTTON
[Symbol]	CO SENSOR
[Symbol]	GAS LINE
[Symbol]	GAS METER
[Symbol]	GAS COOK
[Symbol]	PRESSURE REDUCING VALVE
[Symbol]	BAUTARY ABOVE GRADE
[Symbol]	BAUTARY BELOW GRADE
[Symbol]	STORY ABOVE GRADE
[Symbol]	STORY BELOW GRADE
[Symbol]	DOMESTIC COLD WATER
[Symbol]	DOMESTIC HOT WATER
[Symbol]	DOMESTIC HOT WATER RECIRCULATION
[Symbol]	WATER METER
[Symbol]	FLOOR DRAIN
[Symbol]	PANTRY FLOOR DRAIN
[Symbol]	HUB DRAIN
[Symbol]	ROOF DRAIN
[Symbol]	BLVD DRAIN
[Symbol]	BLVD AREA DRAIN
[Symbol]	BLVD CATCH BASIN
[Symbol]	BAUTARY TRAP
[Symbol]	ELBOW UP
[Symbol]	ELBOW DOWN
[Symbol]	WALL CLEANOUT
[Symbol]	FLOOR CLEANOUT
[Symbol]	HOSE BIBB
[Symbol]	NON-REFREEZE HOSE BIBB
[Symbol]	SCREED VALVE
[Symbol]	GATE VALVE
[Symbol]	BALL VALVE
[Symbol]	BUTTERFLY VALVE
[Symbol]	PRESSURE REDUCING VALVE
[Symbol]	CHECK VALVE
[Symbol]	CAP
[Symbol]	COP-PREMIUM AIR OUTLET
[Symbol]	BACKFLOW PREVENTER
[Symbol]	CIRCUIT BALANCING VALVE
[Symbol]	FULL SIZE PIPES
[Symbol]	7" DROPTES NO. OF PIPES
[Symbol]	TEMPERATURE SENSOR
[Symbol]	THERMISTOR
[Symbol]	2-WAY MODULATING VALVE
[Symbol]	3-WAY MODULATING VALVE
[Symbol]	1/2" (4" D) THERMISTOR
[Symbol]	CAN 12" BURNING 4 1/2" PLUS
[Symbol]	FLOOR ELEVATION ABOVE LEVEL
[Symbol]	FLOOR ELEVATION BELOW LEVEL
[Symbol]	HEADROOM (FLOOR TO US HEIGHT)

REVISED	3	ISSUED FOR TENDER	EF
REVISED	1	RE-ISSUED FOR PERMIT	EF
REVISED	1	ISSUED FOR PERMIT	EF
DATE	NO.	DESCRIPTION	BY

MARK AND ALL PRINTS DATED PREVIOUS TO FINAL DATE ABOVE

REVISIONS

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS THE PROPERTY OF THE ENGINEER AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER.

DRAWINGS ARE NOT TO BE SCALED

NOVA
TREND
ENGINEERS & ARCHITECTS

REGISTERED PROFESSIONAL ENGINEER
ENGINEERING REG. NO. 14183
PROFESSIONAL SEAL

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DRAWING TITLE
14/F
MECHANICAL LAYOUT

PROJECT TITLE
50 ALEXANDRA PARK
BLOCK II
38 CAMERON STREET
TORONTO ONTARIO

DRAWN BY	CHECKED BY	SCALE
G.S.	E.P.	1:50
DATE	PROJECT NUMBER	DRAWING NUMBER
FEB, 13	1313	M-32

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