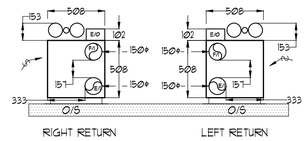
PIPE SHAFT B: 2/F -T/F — NTS

PIPE SHAFT C: 2/F -T/F — NTS



NOTE:
- ALL DIMENSIONS IN MM.
- HEIGHT OF FCU IS 2,013.

INSUITE FCU DIMENSIONS — NTS

UNIT	NAME	AREA (SQ. FT.)	# OF WR	# OF POWDER	SIZE (T)	FIXTURE UNITS	BR	SQ. FT/T
201	2N-MT	830	2	Ø	1.5	16	2	553
202	2VT	655	2	Ø	1.5	16	2	437
205	2RT	670	2	Ø	1.5	16	2	447
206	IF	510	1	Ø	1	10	1	510
208	UT	560	1	Ø	1.5	10	1	560
209	1GT	530	1	Ø	1	10	1	530
210	1C+D&T	590	2	Ø	1	16	1	590
211	1C+DT4	590	2	Ø	1	16	1	590
212	1C+DT3	590	2	Ø	1	16	1	590
213	1C+D	590	2	Ø	1	16	1	590
228	2DT	650	2	Ø	1.5	16	2	433

GRILLE SIZING TABLE

DESIGNATION	SIZE	L/S	(UNLESS SPECIFIED ELSEWHERE)
SG-A	300x100	47-70	
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	

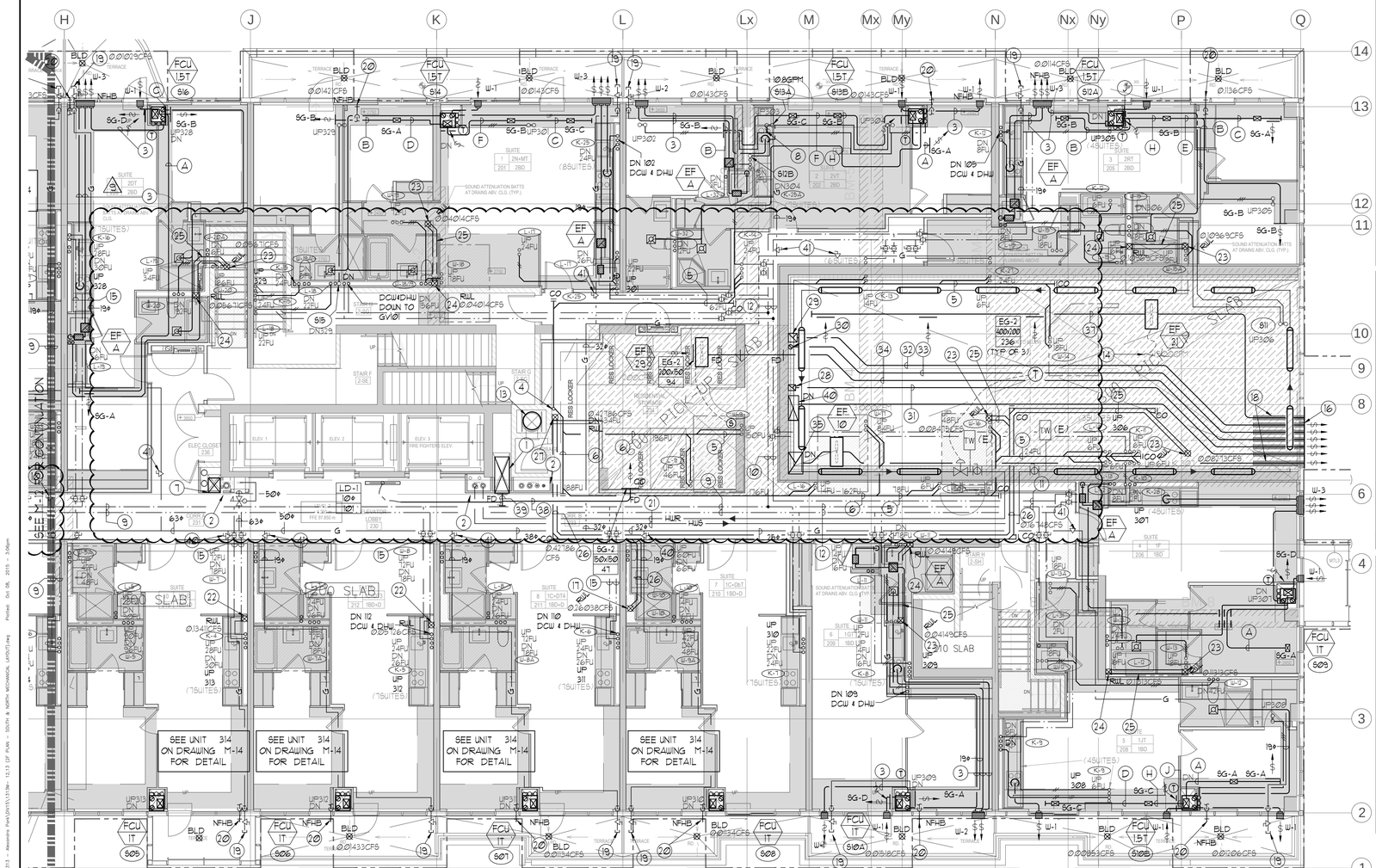
VERTICAL FAN COIL SIZE

DESIGNATION	MODEL	W x D
FCU-1T	450	500x660
FCU-1.5T	600	500x660
FCU-2T	800	500x660
FCU-2.5T	1000	559x660
FCU-3T	1200	559x660

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	377	500x200
F	165	300x150			



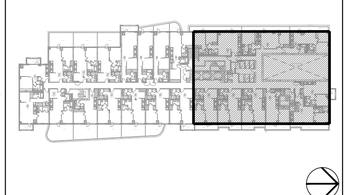
1. EXHAUST DUCTWORK TO BE C/W 25mm THICK THERMAL INSULATION 6FT. FROM EXTERIOR WALL. (TYPICAL)
2. F/A INTAKE DUCTWORK TO BE C/W 25mm THICK THERMAL INSULATION FOR ENTIRE LENGTH FROM EXTERIOR WALL TO ERV FCU. (TYPICAL)

TYPICAL DETAIL:INSULATION FOR INTAKE/EXHAUST DUCTWORK — NTS

1. NORTH F/A SHAFT A
2. 150ø CWS
3. 150ø CWR

1. 150ø SWS
2. 50ø GAS VENT
3. 63ø GAS (5LB) FOR BUILDING

PIPE SHAFT A: 2/F -T/F — NTS



KEY PLAN — N.T.S.

32. 300x300 DUCT.
33. 150ø DUCT.
34. 200x150 DUCT.
36. 750x500 EXHAUST DUCT FROM BELOW.
37. 600x300 DUCT.
38. 150x150 DUCT.
39. 200x200 DUCT.

GENERAL NOTES:

1) CONTRACTOR SHALL CO-ORDINATE ARCHITECTURAL, STRUCTURAL, LIGHTING, HVAC, SPRINKLER DRAWINGS TO AVOID AREAS OF CONFLICT AND TO MAINTAIN CEILING HEIGHTS.
2) CONTRACTOR SHALL REPORT ALL DISCREPANCIES AND AREA OF CONFLICTS TO THE ENGINEER PRIOR TO WORK BEGINS.
3) PROVIDE EXPANSION CHAMBERS FOR ALL KITCHEN SINKS.
4) SEE INSTALLATION DETAILS DRAWING FOR WASHER DOM. H.C WATER, SANITARY CONNECTION DETAILS.
5) 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.
6) ALL VENT PIPE INSTALLATION TO COMPLY WITH PLUMBING CODES.
7) FOR D.H.C. W. RISER SIZES, REFER TO RISER DIAGRAM
8) FIRE DAMPERS ARE REQUIRED TO BE LISTED AND ARE TO HAVE FIRE PROTECTION RATING OF THE PENETRATED FIRE SEPARATION.
9) THE PIPING PENETRATING THE VARIOUS FIRE SEPARATION IS REQUIRED TO BE FIRESTOPPED WITH A LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH OBC ARTICLE 3.1.9.)
10) 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.
11) NO FLEXIBLE DUCT SHALL BE USED FOR ANY IN-SUITE DUCTWORK.
12) PROVIDE 25MM EXTERNAL INSULATION TO ENTIRE FRESH AIR DUCT FROM EXTERIOR WALL TO ERV FAN COIL UNIT.
13) DRYER EXHAUST DUCT SHALL BE SMOOTH AND CORROSION-RESISTANT MATERIAL (FLEXIBLE CONNECTION IS NOT ACCEPTABLE).

ACOUSTIC NOTES:

1) 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.
2) ALL PIPES SMALLER THAN 50MM DIA. SHALL BE ISOLATED WITH 5MM THICK RIBBED OR WAFFLED RUBBER PADS IN HANGER SADDLES.

CLEAR FLOOR TO UNDERSLAB = 2950mm
CLEAR PRODUCT= 2700mm

NOTES:

1. NORTH F/A SHAFT B FROM G/F TO 14/F. DUCT SERVING CORRIDOR FROM G/F TO 14/F. SEE PRESSURIZATION /VENTILATION RISER DIAGRAM FOR DETAILS.
2. PIPE SHAFT - REFER TO PIPE RISER DETAIL ON THIS DRAWING FOR DETAILS.
3. 150ø KITCHEN / DRYER / W/R / FCU INTAKE / FCU EXHAUST DUCT. (TYPICAL UNLESS OTHERWISE NOTED)
4. 150ø SAN DOWN
5. 100ø SAN @1%.
6. 150ø SAN @1%.
7. NORTH F/A SHAFT A FROM G/F TO 14/F. DUCT SERVING CORRIDOR FROM G/F TO 14/F. SEE PRESSURIZATION / VENTILATION RISER DIAGRAM FOR DETAILS.
8. 32ø SWS.
9. 75ø DCW & 63ø DHW.
10. 63ø DCW & 50ø DHW.
11. 63ø DHW.
12. 50ø DCW & 38ø DHW.
13. 600ø GARBAGE CHUTE.
14. CONNECT EF-21 TO NO SENSOR AT LOWER LEVEL.
15. REFER TO DCW, DHW & DHWR RISER DIAGRAM ON DRAWING M-36 FOR SIZING. (TYPICAL)
16. 2,100x800 WEATHERPROOF EXHAUST LOUVRE c/w BIRDSCREEN.
17. 150ø RWL FROM ABOVE.
18. 50MM THICK EXTERNAL INSULATION 15M FROM EXTERIOR WALL.
19. 19ø GAS PIPE c/w VALVE AND CAP FOR BBQ.
20. 19ø DCW FOR NFHB TO BE CONNECTED TO SUITE'S MAIN DCW LINE.
21. 32ø HWS & R.
22. 100ø RWL FROM ABOVE AND DOWN.
23. 100ø RWL FROM ABOVE.
24. 100ø RWL FROM DOWN.
25. 100ø STM @1%.
26. 150ø STM @1%.
27. 150ø RWL DOWN.
28. 250x200 EXHAUST DUCT FROM BELOW.
29. 300x300 EXHAUST DUCT FROM BELOW.
30. 150ø EXHAUST DUCT FROM BELOW.
31. 250x200 DUCT.

LEGEND MECHANICAL

SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER
	SUPPLY AIR TROFFER
	LINEAR SUPPLY DIFFUSER
T	THERMOSTAT
F	FAN SWITCH
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	SUPPLY DUCT UP
	SUPPLY DUCT DOWN
	RETURN DUCT UP
	RETURN DUCT DOWN
	EXHAUST DUCT UP
	EXHAUST DUCT DOWN
FD	FIRE DAMPER
BD	BALANCING DAMPER
	MOTORIZED DAMPER
MFD	MOTORIZED FIRE DAMPER
BDD	BACKDRAFT DAMPER
OBD	OPPOSED BLADE VOLUME CONTROL DAMPER C/W LOCKING QUADRANT
	TURNING VANES
	FLEXIBLE CONNECTION
	ACOUSTIC INSULATION
XX	TYPE OF EQUIPMENT
XX	EQUIPMENT IDENTIFICATION
XX	TYPE OF DIFFUSER OR GRILLE
XXX	GRILLE SIZE OR DIFFUSER NECK SIZE
XXX	AIRFLOW (CFM OR L/S)
SD	STARTER (3 PHASE / PHASE)
S	IN-SUITE ERV MASTER SWITCH
S	FAN SWITCH / IN-SUITE ERV OVERRIDE BUTTON
CO	CO SENSOR
G	GAS LINE
G	GAS METER
G	GAS COCK
	PRESSURE REDUCING VALVE
	SANITARY ABOVE GRADE
	SANITARY BELOW GRADE
	STORM ABOVE GRADE
	STORM BELOW GRADE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	SANITARY VENT
WM	WATER METER
FD	FLOOR DRAIN
FD	FUNNEL FLOOR DRAIN
HD	HUB DRAIN
RD	ROOF DRAIN
SLD	SLAB DRAIN
AD	AREA DRAIN
BL-AD	BI-LEVEL AREA DRAIN
CB	CATCH BASIN
	SANITARY TRAP
	ELBOW UP
	ELBOW DOWN
CO	WALL CLEANOUT
CO	FLOOR CLEANOUT
HB	HOSE BIBB
NFHB	NON-FREEZE HOSE BIBB
	GLOBE VALVE
	GATE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	PRESSURE REDUCING VALVE
	CHECK VALVE
	CAP
	COMPRESSED AIR OUTLET
	BACKFLOW PREVENTER
	CIRCUIT BALANCING VALVE
	MULTIPLE PIPES / - DENOTES NO. OF PIPES
T	TEMPERATURE SENSOR
T	THERMOSTER
T	2-WAY MODULATING VALVE
T	3-WAY MODULATING VALVE
	1/2"x4"(D) THERMOWELL C/W 1/2" BUSHING + 1/2" PLUG
XXX	FLOOR ELEVATION ABOVE LEVEL
XXX	FLOOR ELEVATION THIS LEVEL
XXX	HEADROOM (FLOOR TO U/S HEIGHT)

DATE	NO.	DESCRIPTION	BY
2014/11/5	5	ISSUED FOR SITE INSTRUCTION #11-5	E.P.
2014/10/9	4	ISSUED FOR SITE INSTRUCTION #11-1	E.P.
2014/2/5	3	ISSUED FOR SITE INSTRUCTION #11-4	E.P.
2014/1/15	2	ISSUED FOR SITE INSTRUCTION #11-3	E.P.
2013/11/15	1	ISSUED FOR SITE INSTRUCTION #11-2	E.P.
2013/11/8	0	ISSUED FOR CITY COMMENTS	E.P.
2013/11/5	4	ISSUED FOR SITE INSTRUCTION #11-1	E.P.
2013/3/4	3	ISSUED FOR TENDER	E.P.
2013/1/4	2	RE-ISSUED FOR PERMIT	E.P.
2012/12/14	1	ISSUED FOR PERMIT	E.P.

MARK VOID ALL PRINTS DATED PREVIOUS TO FINAL DATE ABOVE

REVISIONS

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT CONDEPARTURES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS THE PROPERTY OF THE ENGINEER AND MUST BE RETURNED UPON COMPLETION OF THE WORK.

DRAWINGS ARE NOT TO BE SCALED

NOVA MECHANICAL ENGINEERING & ENERGY SYSTEMS
115 West Beaver Creek Road, Unit 31
Richmond Hill, Ontario L4B 3M1
Tel: 905 881-5445
Fax: 905 881-5447

DRAWING TITLE:
2/F NORTH
MECHANICAL LAYOUT

PROJECT TITLE:
SQ ALEXANDRA PARK
BLOCK 11
38 CAMERON STREET
TORONTO ONTARIO

DRAWN BY:	CHECKED BY:	SCALE:
G.S.	E.P.	1:50
DATE: FEB. 13	PROJECT NUMBER: 1313	DRAWING NUMBER: M-13 OF 43