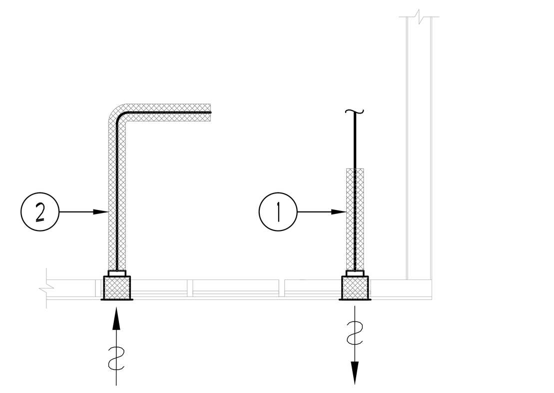
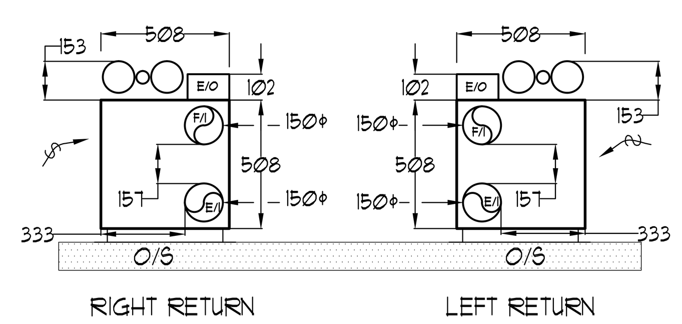


1. EXHAUST DUCTWORK TO BE C/W 25mm THICK THERMAL INSULATION 6FT. FROM EXTERIOR WALL. (TYPICAL)
2. F/A INTAKE DUCTWORK TO BE C/W 25mm THICK THERMAL INSULATION FOR ENTIRE LENGTH FROM EXTERIOR WALL TO ERV FCU. (TYPICAL)

TYPICAL DETAIL: INSULATION FOR INTAKE & EXHAUT DUCTWORK — NTS



NOTE:
- ALL DIMENSIONS IN MM.
- HEIGHT OF FCU IS 2,023.

INSUITE FCU DIMENSIONS — NTS

UNIT	NAME	AREA (SQ. FT.)	# OF WR	# OF POWDER	SIZE (T)	FIXTURE UNITS	BR	SQ. FT/T
214	1C+DT2	590	2	0	1	16	1	590
215	1C+DcT	600	2	0	1	16	1	600
216	1C+DfT	610	2	0	1	16	1	610
217	1DT	480	1	0	1	10	1	480
218	1C+DaT	570	1	1	1	16	1	570
219	2G	700	2	0	1.5	16	1	467
221	1M	550	1	0	1.5	10	1	367
222	1C+DeT	655	2	0	1.5	16	1	437
223	1C+DdT	620	2	0	1	16	1	620
224	1C+DgT	620	2	0	1	16	1	620
225	1L2	615	1	0	1.5	10	1	410
226	1LaT	595	1	0	1.5	10	1	397
227	1LT	615	1	0	1.5	10	1	410

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

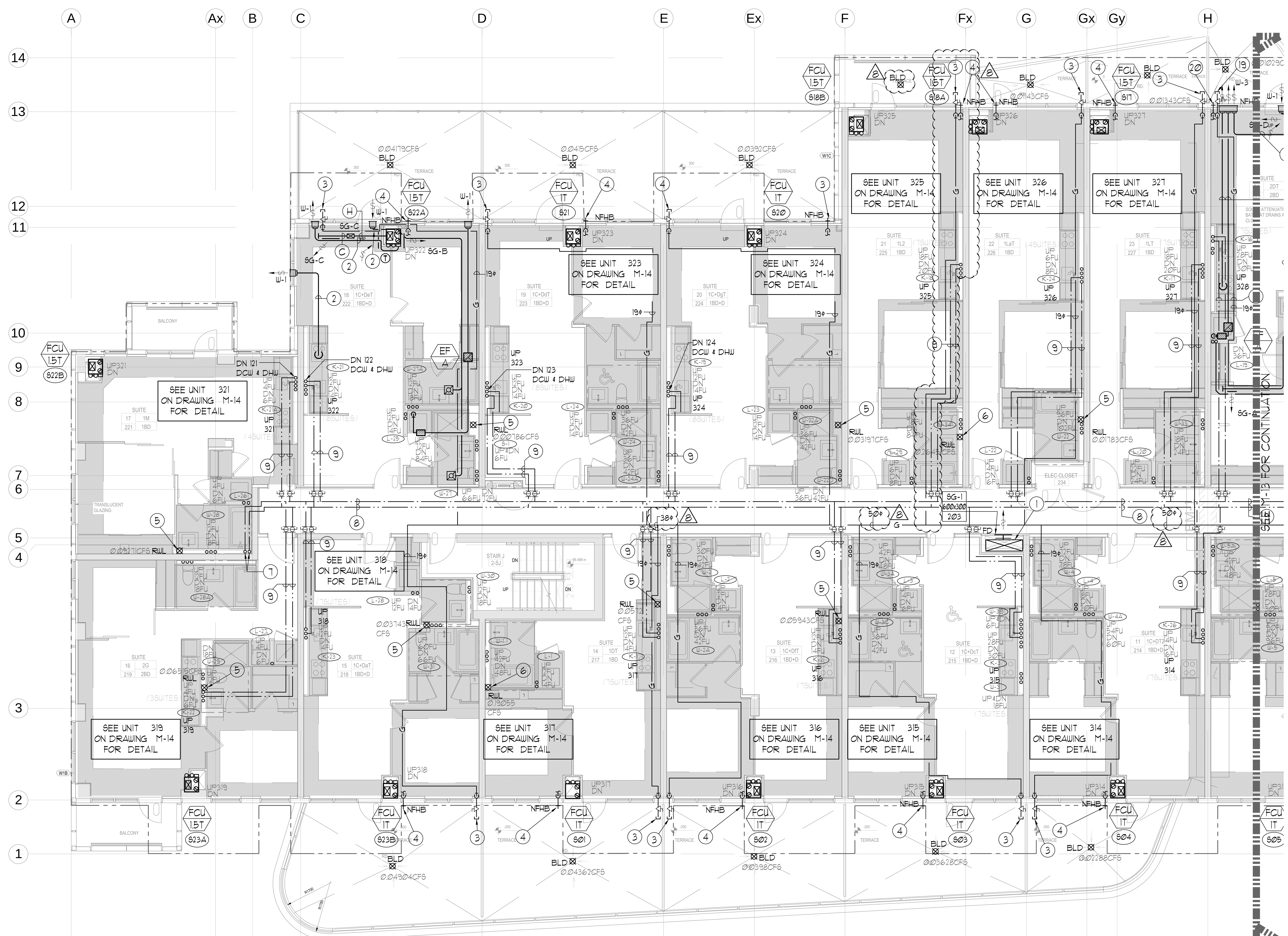
VERTICAL FAN COIL SIZE

DESIGNATION	MODEL	W x D
FCU-1T	450	508x660
FCU-1.5T	600	508x660
FCU-2T	800	508x660
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			



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 3.1.9.1
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. SOUTH F/A SHAFT FROM G/F TO 8/F. DUCT SERVING CORRIDOR FROM G/F TO 8/F. SEE PRESSURIZATION / VENTILATION RISER DIAGRAM FOR DETAILS.
2. 150φ KITCHEN / DRYER / W/R / FCU INTAKE / FCU EXHAUST DUCT. (TYPICAL UNLESS OTHERWISE NOTED)
3. 19φ GAS PIPE c/w VALVE AND CAP FOR BBQ.
4. 19φ DCW FOR NFHB TO BE CONNECTED TO SUITE'S MAIN DCW LINE.
5. 100φ RWL FROM ABOVE AND DOWN.
6. 150φ RWL FROM ABOVE AND DOWN.
7. 100φ DCW (LZ)& 75φ DHW (LZ).
8. 100φ DCW & 75φ DHW.
9. REFER TO DCW, DHW & DHWR RISER DIAGRAM ON DRAWING M-36 FOR SIZING. (TYPICAL)

LEGEND
MECHANICAL

SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER
	SUPPLY AIR TROFFER
	LINEAR SUPPLY DIFFUSER
T	THERMOSTAT
S	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
M	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 / X	TYPE OF EQUIPMENT / EQUIPMENT IDENTIFICATION
XX-X / XXX / XXX	TYPE OF DIFFUSER OR GRILLE / GRILLE SIZE OR DIFFUSER NECK SIZE / AIRFLOW (CFM OR L/S)
	STARTER (3 PHASE , 1 PHASE)
S	IN-SUITE ERV MASTER SWITCH
S	FAN SWITCH / IN-SUITE ERV OVERRIDE BUTTON
CO	CO SENSOR
G	GAS LINE
G	GAS METER
	GAS COCK
	PRESSURE REDUCING VALVE
	SANITARY ABOVE GRADE
	SANITARY BELOW GRADE
	STORM ABOVE GRADE
S	STORM BELOW GRADE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	SANITARY VENT
M	WATER METER
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
HD	HUB DRAIN
RD	ROOF DRAIN
SLD	SLAB DRAIN
AD	AREA DRAIN
BLAD	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
	THERMOMETER
	2-WAY MODULATING VALVE
	3-WAY MODULATING VALVE
TW	1/2"x4"(D) THERMOWELL C/W 1/2" BUSHING & 1/2" PLUG
XXX / XXX / XXX	FLOOR ELEVATION ABOVE LEVEL / FLOOR ELEVATION THIS LEVEL / HEADROOM (FLOOR TO U/S HEIGHT)

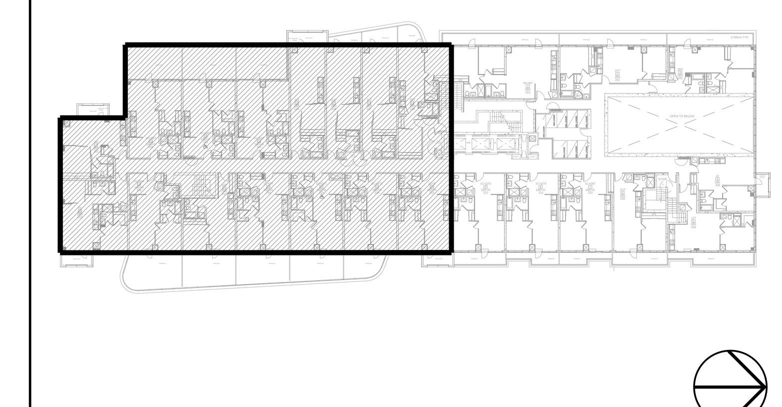
DATE	NO.	DESCRIPTION	BY
08/18/15	8	ISSUED FOR SITE INSTRUCTION #M-7	E.P.
07/28/15	7	ISSUED FOR SITE INSTRUCTION #M-6	E.P.
05/12/15	6	ISSUED FOR SITE INSTRUCTION #M-4	E.P.
04/27/15	5	ISSUED FOR CITY COMMENTS	E.P.
02/27/15	4	ISSUED FOR SITE INSTRUCTION #M-1	E.P.
09/23/14	3	ISSUED FOR TENDER	E.P.
07/10/14	2	RE-ISSUED FOR PERMIT	E.P.
05/30/14	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 DISCREPANCIES TO THE ENGINEERS BEFORE PROCEEDING WITH THE WORK. THIS DRAWING IS THE PROPERTY OF THE ENGINEERS AND MUST BE RETURNED UPON COMPLETION OF THE WORK.

DRAWINGS ARE NOT TO BE SCALED



KEY PLAN — N.T.S.

NOVA TREND ENGINEERING GROUP LTD
175 West Beaver Creek Road, Unit 31
Richmond Hill, Ontario L4B 3M1
Tel: 905 882-5445
Fax: 905 882-5447

DRAWING TITLE: 2/F SOUTH 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-12 OF 43