

1
Ground Floor Heating, Ventilation and Air Conditioning Layout
M01 SCALE: 1:175 METERS

REVISIONS

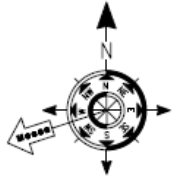
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12		PRELIMINARY DESIGN SUBMIT



**RENOVATION OF THE
 MINISTRY OF INTERIOR
 KABUL CITY FIRE STATIONS
 KABUL, AFGHANISTAN**

**M 0 1 - FIRE DEPARTMENT HQ
 HQ ADMIN. BLDG.
 GROUND FLOOR
 HVAC LAYOUT**

CONTRACT NO:	FA8695-00-D-0000
JOB NO:	00001-000-000
CHECKED BY:	JO DEL ROSARIO
DRAWN BY:	PH DONOR
DATE:	18 JULY 2011
FILE NAME:	MECHANICAL
SHEET NUMBER:	M-01
	1 / 10



REVISIONS

NO.	DATE	REVISION
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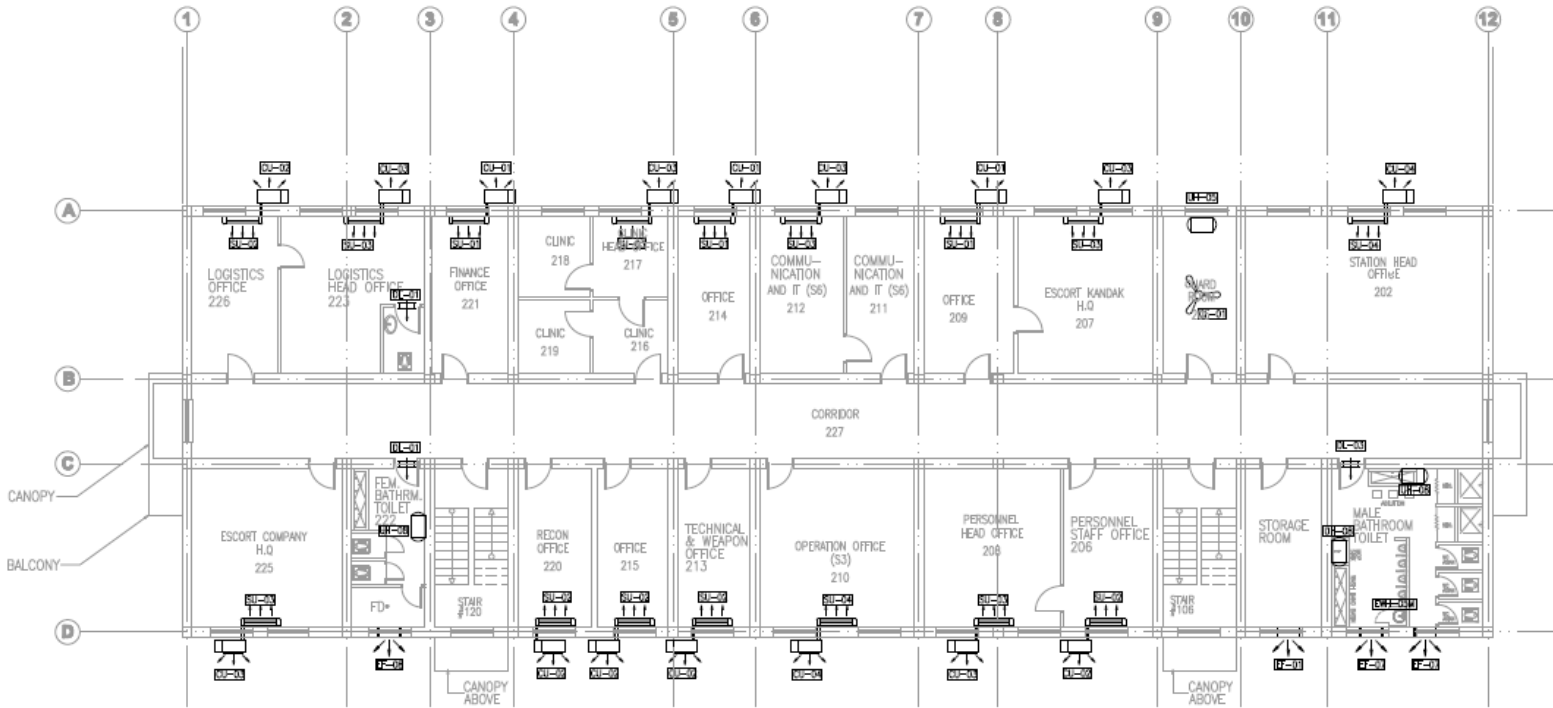
RENOVATION OF THE
MINISTRY OF INTERIOR
KABUL CITY FIRE STATIONS
KABUL, AFGHANISTAN

PROJECT NAME:

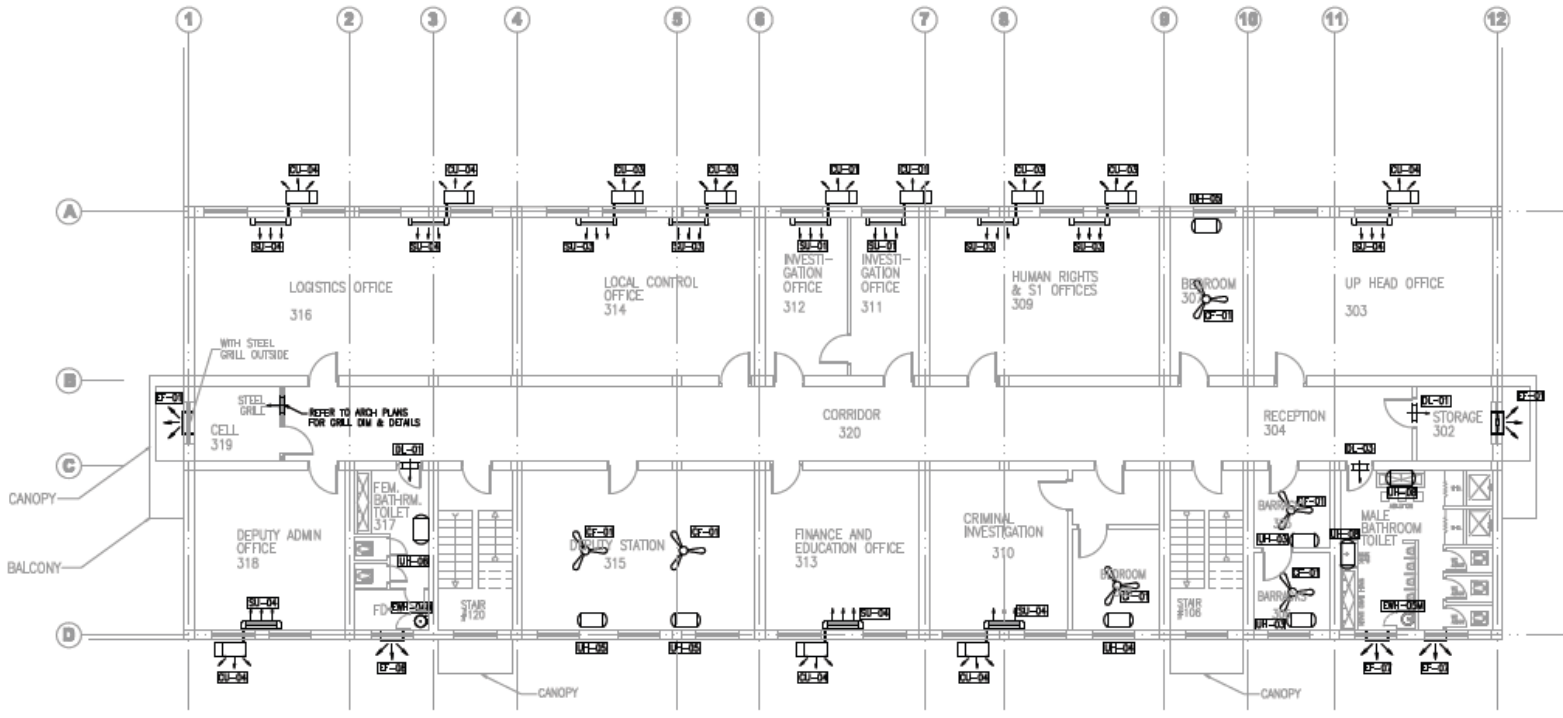
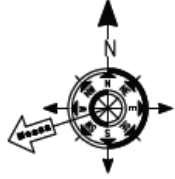
M O I - FIRE DEPARTMENT HQ
HQ ADMIN. BLDG.
SECOND 2ND FLOOR PLAN
HVAC LAYOUT

PROJECT TITLE:

CONTRACT NO:
FA000-00-0-0000
JOB NO:
0000.000.000
CHECKED BY:
JO DEL ROSARIO
DRAWN BY:
RO DONOR
DATE:
10 JULY 2011
FILE NAME:
MECHANICAL
SHEET NUMBER:
M-02



1
First Floor Heating, Ventilation and Air Conditioning Layout
SCALE: 1:175 METERS



1
Second Floor Heating, Ventilation and Air Conditioning Layout
M03 SCALE : 1:175 METERS

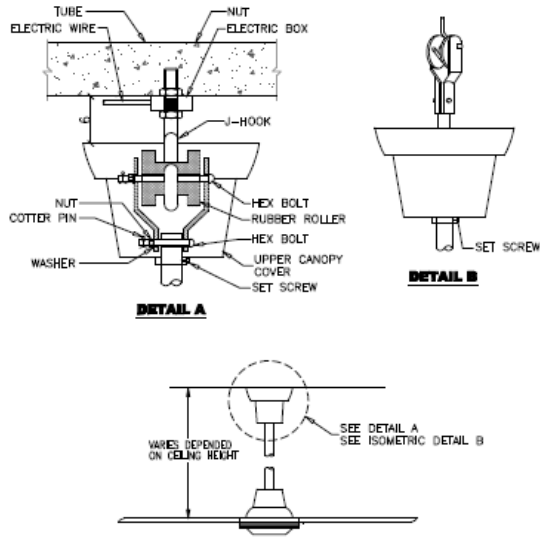
Rev.	Date	Description
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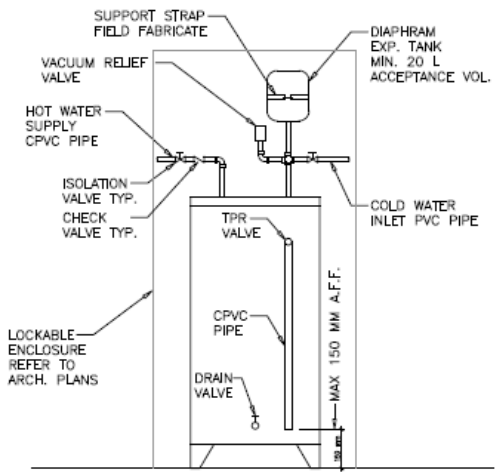
**RENOVATION OF THE
MINISTRY OF INTERIOR
KABUL CITY FIRE STATIONS
KABUL, AFGHANISTAN**

**MOI - FIRE DEPARTMENT HQ
HQ ADJACENT BLDG.
THIRD AND FLOOR PLAN
HVAC LAYOUT**

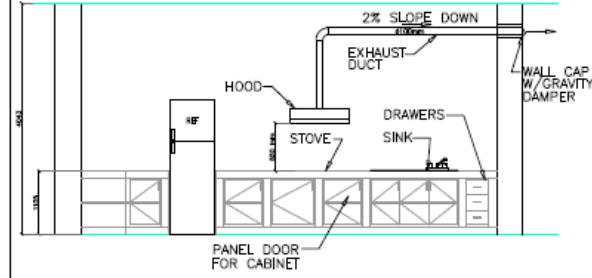
CONTRACT NO:	FA000-00-C-0000
JOB NO:	0000000000
DRAWN BY:	JD DEL ROSARIO
DATE:	18 JULY 2011
FILE NAME:	MECHANICAL
SHEET NUMBER:	M-03
	8/19



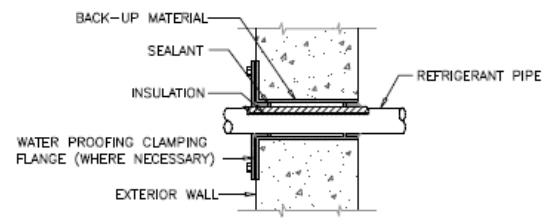
CEILING FAN MOUNTING DETAIL
SCALE: N.T.S.



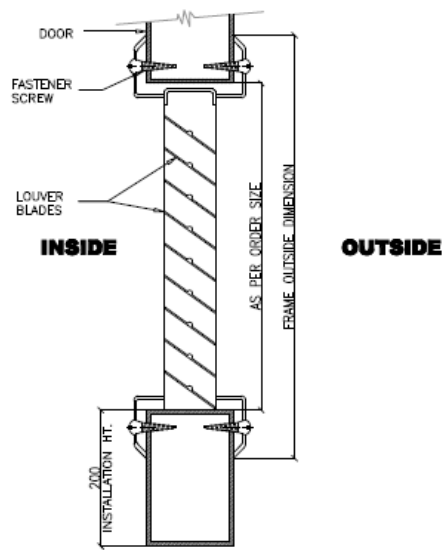
STAND TYPE ELECTRIC WATER HEATER DETAIL
SCALE: N.T.S.



EXHAUST HOOD DETAIL - ROOM 122
SCALE: N.T.S.



PIPE SLEEVE THRU EXTERIOR WALL DETAIL
SCALE: N.T.S.



LOUVER CROSS SECTION DETAIL
SCALE: N.T.S.

REVISIONS:

No.	Date	Revised
1		FOR DESIGN
2		FOR DESIGN
3		FOR DESIGN
4		FOR DESIGN
5		FOR DESIGN



**RENOVATION OF THE
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KABUL CITY FIRE STATIONS
KABUL, AFGHANISTAN**

**M O I - FIRE DEPARTMENT HQ
HQ ADMIN. BLDG.
EQUIPMENT DETAILS**

CONTRACT NO:
FABR00-00-D-0008
JOB NO:
00000-000-000
CHECKED BY:
JO DEL NORIARO
DRAWN BY:
RO DONOR
DATE:
18 JULY 2011
FILE NAME:
MECHANICAL
SHEET NUMBER:
M-09
9 / 10

MECHANICAL LEGENDS:

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

- 8 KGS. FIRE EXTINGUISHER
- 50 KGS. FIRE EXTINGUISHER
- FIRE HOSE REEL
- AIR TRANSFER LOUVER
- CEILING FAN
- EXHAUST FAN WALL MOUNTED
- EXHAUST FAN ROOF MOUNTED
- EXHAUST FAN CEILING MOUNTED
- EXHAUST FAN FLOOR MOUNTED
- HOOD EXHAUST FAN
- WALL FAN
- SPLIT TYPE UNIT
- UNIT HEATER
- FRESH AIR UNIT HEATER
- FRESH AIR EXHAUST UNIT
- MAKE-UP AIR UNIT
- SUPPLY AIR CEILING MOUNTED DIFFUSER
- EXHAUST AIR CEILING MOUNTED DIFFUSER
- EXHAUST AIR WALL MOUNTED DIFFUSER
- SUPPLY AIR WALL MOUNTED DIFFUSER
- VOLUME DAMPER
- SUPPLY AIR DUCT
- EXHAUST AIR DUCT
- SUPPLY DUCT SECTION
- RETURN DUCT SECTION
- EXHAUST DUCT SECTION
- MOVABLE AIR COMPRESSOR
- ELECTRIC WATER HEATER
- PUMP
- REFRIGERATING COMPRESSOR

DENOTATIONS & ABBREVIATIONS:

- ACU AIR-CONDITIONING UNIT
- BTU BRITISH THERMAL UNIT
- BV BALL VALVE
- CC MOVABLE AIR COMPRESSOR
- CD CEILING DIFFUSER
- CF CEILING FAN
- CFM CUBIC FEET PER MINUTE
- CMH CUBIC METER PER HOUR
- CU CONDENSING UNIT
- CV CHECK VALVE
- EF EXHAUST FAN
- EU EXHAUST AIR UNIT
- EWL ELECTRIC WATER HEATER
- EWL EXHAUST AIR WALL MOUNTED DIFFUSER
- FCV FLOW CONTROL VALVE
- FEX FIRE EXTINGUISHER
- FFL FINISH FLOOR LEVEL
- FGL FINISH GROUND LEVEL
- FJ FRESH AIR UNIT
- GPM GALLON PER MINUTE
- GV GATE VALVE
- HP HORSEPOWER
- KG KILOGRAM
- L LITER
- LPH LITER PER HOUR
- M METER
- mm MILLIMETER
- MPa MEGAPASCAL
- MUA MAKE-UP AIR UNIT
- RC REFRIGERATING COMPRESSOR
- RPM REVOLUTION PER MINUTE
- RV RELEASE VALVE
- SF SUPPLY FAN
- SU SPLIT UNIT
- SWD SIDE WALL DIFFUSER
- SWL SUPPLY AIR WALL MOUNTED DIFFUSER
- UH UNIT HEATER
- VD VOLUME DAMPER
- WF WALL FAN

FIRE EXTINGUISHER SCHEDULE											
UNIT NUMBER	QTY.	MODEL	WEIGHT (KGS.)	WEIGHT (LBS.)	DISCHARGE TIME	RAI/C	RAE RATING	DISCHARGE H (mm)	DISCHARGE W (mm)	DISCHARGE L (mm)	REMARKS
FE-01	21	B	1.20	2.60	213 SECS.	33.5cm	4A/225B/C	575	183	142	DRY POWDER ABC WALL MOUNT

NOTE: SMED: BRAND OR EQUIVALENT MODEL.

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE							
UNIT NUMBER	MODEL	QTY.	MAX COOLING CAPACITY (RTU/HR)	MAX HEATING CAPACITY (RTU/HR)	MAX AMP 220-240 VOLTS	THERMOSTAT TYPE	REMARKS
UC-01	ADN06	3	15,818	15,355	4.4	WIRELESS REMOTE	SAMSUNG BRAND
UC-02	ADN12	13	12,885	16,237	5.3	WIRELESS REMOTE	SAMSUNG BRAND
UC-03	ADN15	12	20,473	27,287	7.7	WIRELESS REMOTE	SAMSUNG BRAND
UC-04	ADN24	13	27,287	32,415	13.0	WIRELESS REMOTE	SAMSUNG BRAND

UNIT HEATER SCHEDULE							
UNIT NUMBER	MODEL	QTY.	BTU/HR	FW	ELECTRICAL DATA VOLTS PHASE-SECT	THERMOSTAT TYPE	REMARKS
UH-03	CH900	4	10,238	3.1	220-240 1 50	ELECTR. WIRE REMOTE CONTRL.	WALL MOUNT
UH-04	CH900	1	13,448	4.1	220-240 1 50	ELECTR. WIRE REMOTE CONTRL.	WALL MOUNT
UH-05	CH900	8	15,354	4.8	220-240 1 50	ELECTR. WIRE REMOTE CONTRL.	WALL MOUNT
UH-06	CH1200	2	20,007	5.5	220-240 1 50	ELECTR. WIRE REMOTE CONTRL.	WALL MOUNT

NOTE: SABRO BRAND OR EQUIVALENT MODEL.

CEILING FAN SCHEDULE								
UNIT NUMBER	QTY.	TYPE (NOTE 1)	RPM	FAN DIMENSIONS INCH MM	MAX WATTS	ELECTRICAL DATA VOLTS PHASE/HECTZ	CFM	REMARKS
CF-01	13	CEILING FAN	200	56 1,400	80	220 1 50	9,200	

NOTE: ROYAL BRAND OR EQUIVALENT MODEL.

EXHAUST FAN SCHEDULE							
UNIT NUMBER	TYPE	QTY.	AMP DRAW	CFM	RPM	ELECTRICAL DATA VOLTS PHASE/HECTZ	REMARKS
EF-01	EF-01	3	119	70	1,300	7.5 220 1 50	WALL MOUNTED
EF-02	EF-02	1	282	172	1,520	22.4 220 1 50	WALL MOUNTED
EF-03	EF-03	4	578	340	1,300	22.4 220 1 50	WALL MOUNTED
EF-04	EF-04	2	638	376	1,520	27.3 220 1 50	WALL MOUNTED

ELECTRIC WATER HEATER SCHEDULE					
UNIT NUMBER	WPS MODEL	QTY.	CAPACITY (L)	(KW) 220-240V 50HZ-1PH	REMARKS
EW-04W	EWT-05	1	300	3.0 KW	AO SMITH PROMAX
EW-05W	EWT-05	3	300	3.0 KW	AO SMITH PROMAX

NOTE: ARISTON BRAND OR EQUIVALENT MODEL.

HOOD EXHAUST FAN SCHEDULE							
UNIT NUMBER	QTY.	MODEL OR EQUIVALENT	FAN RPM	FAN CFM	STATIC PRESSURE (IN. W.G.)	NOTES	REMARKS
HEF-01	1	SHUBSHANE	3 SPEED	297	0.25	0.04	WITH LIGHTS

PROPANE GAS MANIFOLD SCHEDULE				
MARK	QTY.	DESCRIPTION	SIZE (mm)	SPECIFICATION
G-01	3	COMBO TANK FITTING REGULATOR, L.P. NOSE	280mm W.G. DESCH. PRESS	MARSHALL GAS CONTROL
G-02	3	SHUT-OFF BALL VALVE	9.5mm F.P.T.	PDR ANSI Z 21-15-97
G-03	1	SHUT-OFF BALL VALVE	32mm F.P.T.	PDR ANSI Z 21-15-97
G-04	1	SAFETY RELIEF VALVE	AV 619 G 3/4 500 MBR RELEASE	HTTGAS.COM
G-05	1	SHUT-OFF BALL VALVE	13mm F.P.T.	PDR ANSI Z 21-15-97
G-06	1	CORRUGATED STAINLESS TUBING	13mm M.P.T.	PDR ANSI Z 21-24-97

LOUVER SCHEDULE				
UNIT NUMBER	QTY.	CAPACITY	SIZE (mm)	REMARKS
DL-01	6	194 CFM	300 x 300	COLD ROLLED STEEL FRAME LOUVER BLADES AND INNER SUPPORT MEMBER.
DL-03	3	1000 CFM	600 x 600	COLD ROLLED STEEL FRAME LOUVER BLADES AND INNER SUPPORT MEMBER.

NOTES: (1) ANDERSTAT BRAND OR EQUIVALENT MODEL.
(2) INSTALLATION AS PER MANUFACTURER.



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MINISTRY OF INTERIOR
KABUL CITY FIRE STATIONS
KABUL, AFGHANISTAN**

**HO ADMIN. BLDG.
EQUIPMENT SCHEDULES &
MECHANICAL LEGENDS**

CONTRACT NO:
PAFNS-18-0-000
 JOB NO:
000000000
 CHECKED BY:
JO DEL ROBAO
 DRAWN BY:
MO SONOR
 DATE:
18 JULY 2011
 FILE NAME:
MECHANICAL
 SHEET NUMBER:
M-10
 18 / 18