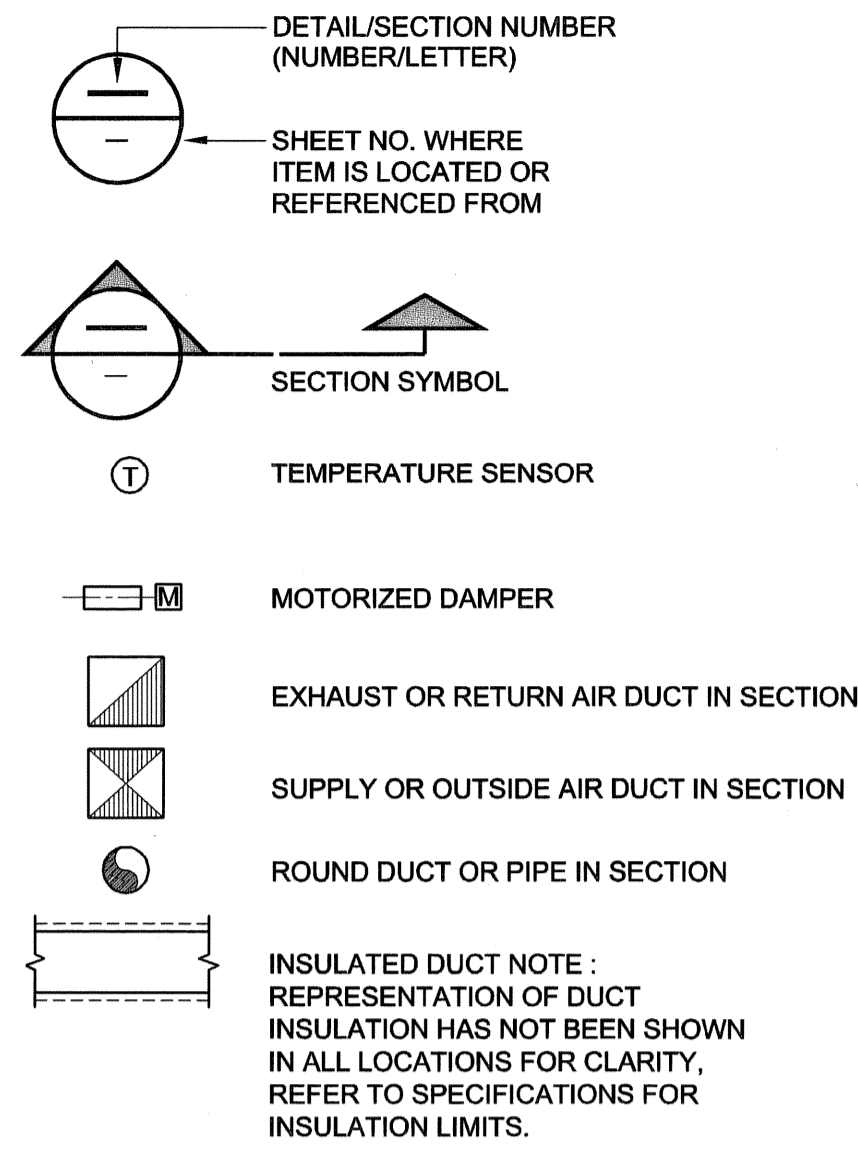
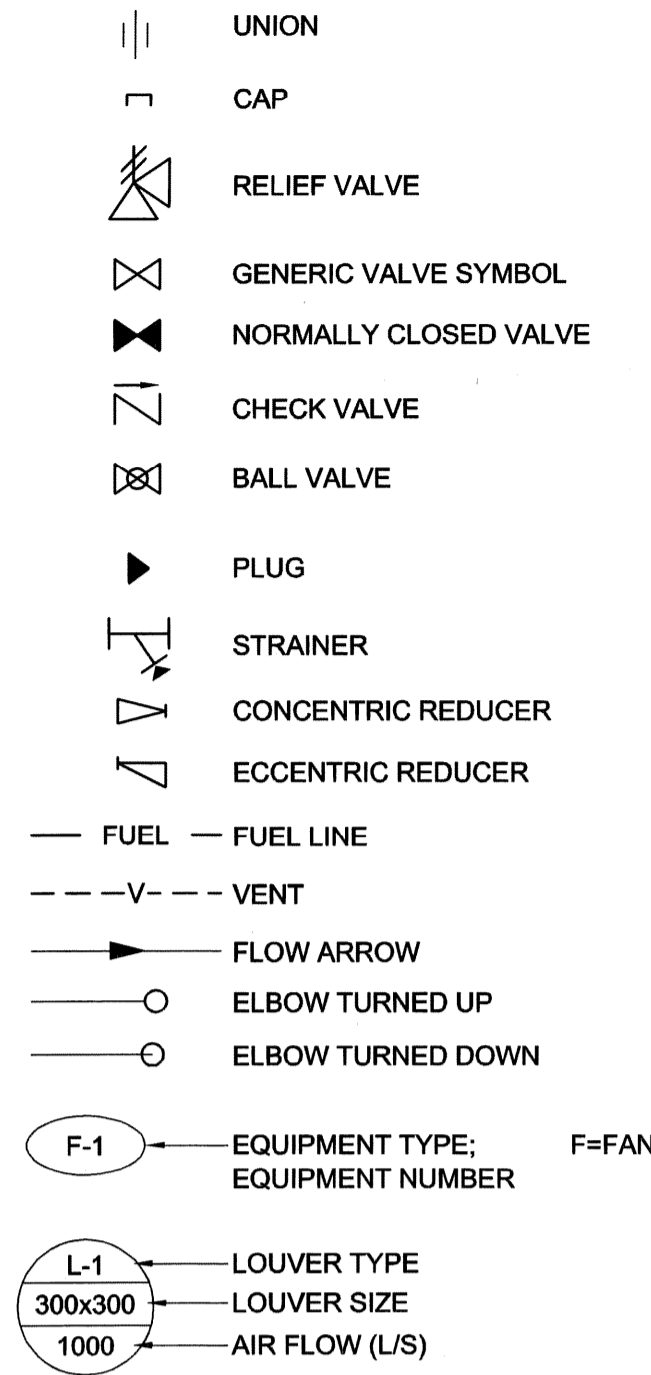


LEGEND



GENERAL

DO NOT SCALE DRAWINGS.  
 VERIFY ALL DIMENSIONS SHOWN PRIOR TO COMMENCING CONSTRUCTION.  
 LOCATE UNDERGROUND SERVICES AND PROTECT THEM AT ALL TIMES DURING CONSTRUCTION.  
 DETAILS SHOWING THE COMPLETED INSTALLATION DO NOT INDICATE COMPONENTS WHICH MAY BE NECESSARY FOR SAFETY DURING CONSTRUCTION.  
 BOLLARD ARRANGEMENT MAY REQUIRE ADJUSTMENT TO SUIT FINAL MANHOLE AND PIPING LOCATIONS.  
 THE CONTRACTOR TO PROVIDE A TWO YEAR WARRANTY AS PER D19 FOR ALL WORK. WARRANTY PERIOD TO BEGIN UPON ACCEPTANCE OF THE FULLY COMPLETED PROJECT.

DESIGN CONDITIONS:

- CODES AND STANDARDS REFERENCED:
- i) NATIONAL BUILDING CODE OF CANADA (NBC) 2005 AS REFERENCED BY THE MANITOBA BUILDING CODE REGULATION 127/2006.
  - ii) NATIONAL FIRE CODE OF CANADA (NFC) 2005 AS REFERENCED BY THE MANITOBA FIRE CODE REGULATION 216/2006.
  - iii) CAN/CSA-B139-2004, "INSTALLATION CODE FOR OIL BURNING EQUIPMENT"
  - iv) ULC-S615-98, "STANDARD FOR REINFORCED PLASTIC UNDERGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS"
  - v) CANADIAN PETROLEUM PRODUCTS INSTITUTE (C.P.P.I.) RECOMMENDED PRACTICE FIRST EDITION, JANUARY 1990, "USING THE C.P.P.I. COLOUR - SYMBOL SYSTEM TO MARK EQUIPMENT AND VEHICLES FOR PRODUCT IDENTIFICATION."
  - vi) MANITOBA REGULATION 188/2001, "STORAGE AND HANDLING OF PETROLEUM PRODUCTS AND ALLIED PRODUCTS REGULATION" AS AMENDED AND ENFORCED UNDER THE DANGEROUS GOODS HANDLING AND TRANSPORTATION ACT
  - vii) NFPA 37-2006, "STANDARD FOR THE INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES"

DIESEL FUEL PROPERTIES:

- i) SPECIFIC GRAVITY: 0.86 AT 15.6°C
- ii) CLASSIFICATION CLASS 2 : COMBUSTIBLE LIQUID PER NFC PART 4.
- iii) FLASH POINT: 40°C MINIMUM PER ASTM D83.

UNLEADED REGULAR GASOLINE PROPERTIES:

- i) SPECIFIC GRAVITY: 0.68 AT 15.6°C
- ii) CLASSIFICATION CLASS 1 : FLAMMABLE LIQUID PER NFC PART 4.
- iii) FLASH POINT: -40°C MINIMUM PER ASTM D439.

MECHANICAL GENERAL NOTES

PROVIDE ALL LABOUR, MATERIALS, TOOLS, PLANT AND EQUIPMENT NECESSARY TO EXECUTE ALL WORK SHOWN AND REQUIRED BY THE REFERENCED CODES, REGULATIONS, BYLAWS AND THE AUTHORITY HAVING JURISDICTION.

THE CONTRACTOR WILL FILE APPLICATION FOR AND PAY ALL FEES, LEVIES AND DUES RELATED TO PERMITS FOR THE WORK IN THIS CONTRACT.

THE CONTRACTOR SHALL BE A LICENSED PETROLEUM TECHNICIAN AND AUTHORIZED PETROLEUM AND ALLIED PRODUCTS INSTALLER, AND SHALL USE ONLY EXPERIENCED AND SKILLED WORKERS.

DESIGN CRITERIA:

- OUTDOOR AIR TEMPERATURE: PER NBC 2005 APPENDIX C WINTER: -35°C SUMMER: 30°C
- INDOOR AIR TEMPERATURE: HEATING: 23°C BY ELECTRIC UNIT HEATERS. COOLING: MAXIMUM 5°C SPACE TEMPERATURE RISE ABOVE OUTDOOR AMBIENT BY FREE-COOLING
- INTERNAL LOAD FROM GENERATOR EXHAUST PIPING, ENGINE AND ALTERNATOR HEAT REJECTION = 14.3kW
- MAXIMUM AIRFLOW RESTRICTION ON COOLING AIR FLOW = 125 Pa
- MAXIMUM FUEL CONSUMPTION = 9.0L/h
- RADIATOR FAN AIRFLOW USED IN DESIGN = 1510L/s MIN. TO 1850L/s MAX.
- COMBUSTION AIR REQUIREMENT = MAXIMUM 55.2L/s

FAN SCHEDULE								
UNIT No.	SERVICE & TYPE	MANUFACTURER AND MODEL NO.	AIRFLOW HIGH/LOW SPEED (L/S)	PRESSURE (Pa)	RPM	SHAFT PWR (kW)	MOTOR (kW)	COMMENTS & ACCESSORIES
F-1	SIDEWALL BELT-DRIVE CENTRIFUGAL FAN FOR AUXILIARY COOLING	GREENHECK MODEL CWB-161-5	944/613	125	936	0.24	0.37	WALL MOUNTING RING 120V 1Ø MOTOR AUTO BELT TENSIONER
		COOK MODEL ACW 165W4B			944	0.24	0.37	
F-2	CABINET DIRECT DRIVE CENTRIFUGAL EXHAUST FAN	GREENHECK MODEL SP-A125-QD	45	65	1100	0.053	0.053	INTAKE GRILLE, WALL CAP DISCHARGE AND INTEGRAL BACKDRAFT DAMPER
		COOK "GEMINI" MODEL GC-240			1200	0.065	0.065	
		PENN "ZEPHYR" MODEL ZSH			1550	0.079	0.079	

DO NOT SCALE THIS DOCUMENT. ALL MEASUREMENTS MUST BE OBTAINED FROM STATED DIMENSIONS.

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PROFESSIONAL SEALS

**PRELIMINARY**  
 NOT FOR CONSTRUCTION  
 Date: 2008/04/21

REV	DATE	DESCRIPTION	BY	CHK	DES	ENG	IDR	APP
C	08/05/06	Revised For Bid - With Owner Comments	RS	ALS	RBT	CC	BP	-
B	08/04/21	Issued For Bid	RS	ALS	RBT	CC	BP	-
A	08/04/07	Issued For Review	RS	ALS	RBT	CC	BP	-
1/R	YY/MM/DD	ISSUE/REVISION DESCRIPTION	DRN	CHK	DES	ENG	IDR	APP

UMA | AECOM

**City of Winnipeg**  
 Construction of a New Fueling Facility  
 District 6 Public Works Yard, 1539 Waverley St.  
 Legend, Design Notes and Schedules

PROJECT NUMBER	DRAWING NUMBER	ISSUE/REVISION
0265-405-00	01-M-0001	C