



SITE PLAN

EXISTING RTU

ZOE FOODS LIMITED

GAS METER

INCOMING CITY WATER LINE

KITCHEN HOOD FIRE SUPPRESSION SYSTEM:

- CHEMICAL FIRE SUPPRESSION SYSTEM SHALL COMPLY WITH UL300 AND NFPA 17A-2009 STANDARDS.
- THE FIRE SUPPRESSION SYSTEM INSTALLATION SHALL COMPLY WITH UL STANDARDS, ULC/ORD-C1254, 6-1995 AND THE NFPA 96, 2014 EDITION, NEPA 17A, 2013 EDITION, THE TERMS OF THE EQUIPMENT LISTINGS AND THE MANUFACTURERS'S INSTRUCTION.
- THIS SYSTEM SHALL BE CONNECTED AND ANNUNCIATED AS A SEPARATE ZONE AT THE FIRE ALARM PANEL AND ANNUNCIATOR.
- IN CASE OF AUTOMATIC FIRE DETECTION OR MANUAL PULL STATION (MOUNTED BETWEEN 42" TO 48" ABOVE THE FLOOR ON THE EGRESS PATH) OPERATION.
  - THIS SYSTEM CONTROL SHALL ACTIVATE THE FIRE ALARM SYSTEM.
  - ALL SOURCES OF FUEL TO ALL APPLIANCES WILL SHUT OFF UPON FIRE SUPPRESSION ACTIVATION, INCLUDING SHUT OFF OF GAS TO ALL APPLIANCES UNDER THE HOOD.
  - SHUT OFF OF ELECTRIC POWER TO ELECTRICAL OUTLETS UNDER ALL HOODS.
  - THE MAKE-UP AIR UNIT WILL SHUT OFF AND THE HOOD EXHAUST FAN MUST BE ALLOWED TO CONTINUE TO RUN.
  - THE ELECTRICAL CONNECTION FROM THE FIRE SUPPRESSION SYSTEM TO THE FIRE ALARM PANEL AND THE ANNUNCIATOR SHALL BE VERIFIED BY A QUALIFIED INDEPENDENT AGENCY.
- PORTABLE FIRE EXTINGUISHER SHALL BE PROVIDED WITHIN A 30-FOOT TRAVEL DISTANCE OF COMMERCIAL-TYPE COOKING EQUIPMENT.
- ACCORDING TO NFPA 17A-5.6.1.6.1 FUSIBLE LINK SHALL BE LOCATED AT OR WITHIN 12" INTO THE EXHAUST DUCT OPENING.ER.

KITCHEN HOOD FIRE SUPPRESSION SYSTEM:

- IN NON-FIRE CONDITION, START-UP SEQUENCE WILL BE AS FOLLOWS- I) MAKE-UP AIR FAN, II) EXHAUST FAN, III) DIRECT-FIRED MAKE-UP AIR HEATER, IV) COOKING EQUIPMENT. THE SHUT-DOWN SEQUENCE IS IN REVERSE ORDER.
- THE FOLLOWING ARE INTERLOCKED:  
MAKE-UP AIR AND EXHAUST SO THAT THEY OPERATE TOGETHER.  
MAKE-UP AIR HEATER AND EXHAUST SO THE HEATER CAN ONLY OPERATE IF THE EXHAUST IS ON.

PROCEDURES FOR USE & MAINTENANCE OF KITCHEN FIRE SUPPRESSION SYSTEM

- COMPLY ULC/ORD-C1254.18 LATEST STANDARD FOR SERVICING OF COOKING AREA EXTINGUISHING SYSTEM.
- U.L. 1046 BAFFLE FILTER-EQUIPPED EXHAUST SYSTEMS SHALL NOT BE OPERATED WITH FILTERS REMOVED.
- OPENINGS PROVIDED FOR REPLACING AIR EXHAUSTED THROUGH VENTILATING EQUIPMENT SHALL NOT BE RESTRICTED BY COVERS, DAMPERS, OR ANY OTHER MEANS THAT WOULD REDUCE THE OPERATING EFFICIENCY OF THE EXHAUST SYSTEM.
- INSTRUCTIONS FOR MANUALLY OPERATING THE FIRE-EXTINGUISHING SYSTEM SHALL BE POSTED CONSPICUOUSLY IN THE KITCHEN AND SHALL BE REVIEWED WITH EMPLOYEES BY THE MANAGEMENT.
- LISTED EXHAUST HOODS SHALL BE OPERATED ACCORDANCE WITH THE TERMS OF THEIR LISTINGS AND THE MANUFACTURE'S INSTRUCTIONS.
- COOKING EQUIPMENT SHALL NOT BE OPERATED WHILE ITS FIRE-EXTINGUISHING SYSTEM OR EXHAUST SYSTEM IS NONOPERATIONAL OR OTHERWISE IMPAIRED.
- WET CHEMICAL EXTINGUISHING SYSTEM SERVICED SEMI-ANNUALLY BY AN AUTHORIZED LICENSED SERVICE COMPANY.

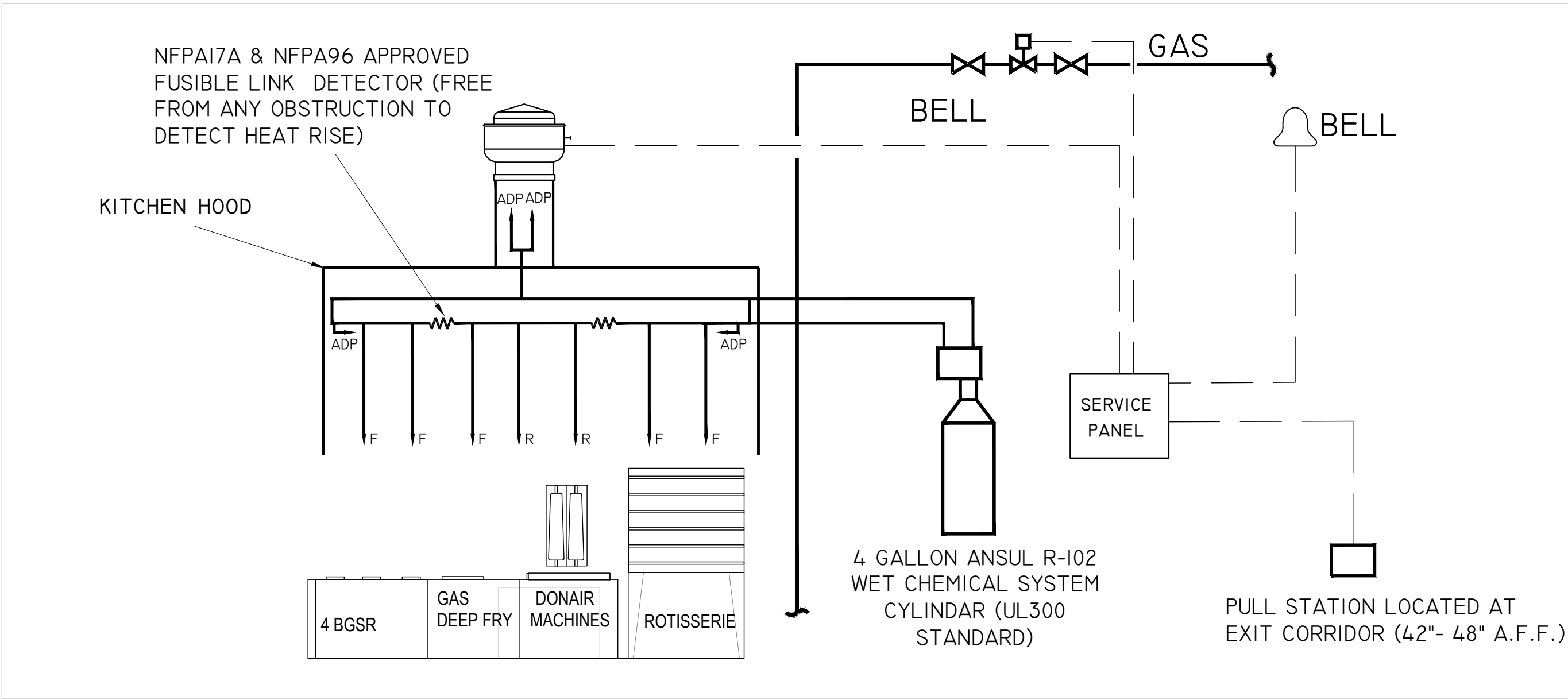
DRAWING LIST	
PAGE	TITLE
M1	SITE PLAN, GAS PIPING, AND FIRE SUPPRESSION SYSTEM
M2	PLUMBING PLAN
M3	HVAC DUCTING PLAN AND SECTIONS
M4	MECHANICAL SPECIFICATION

MECHANICAL ROOM

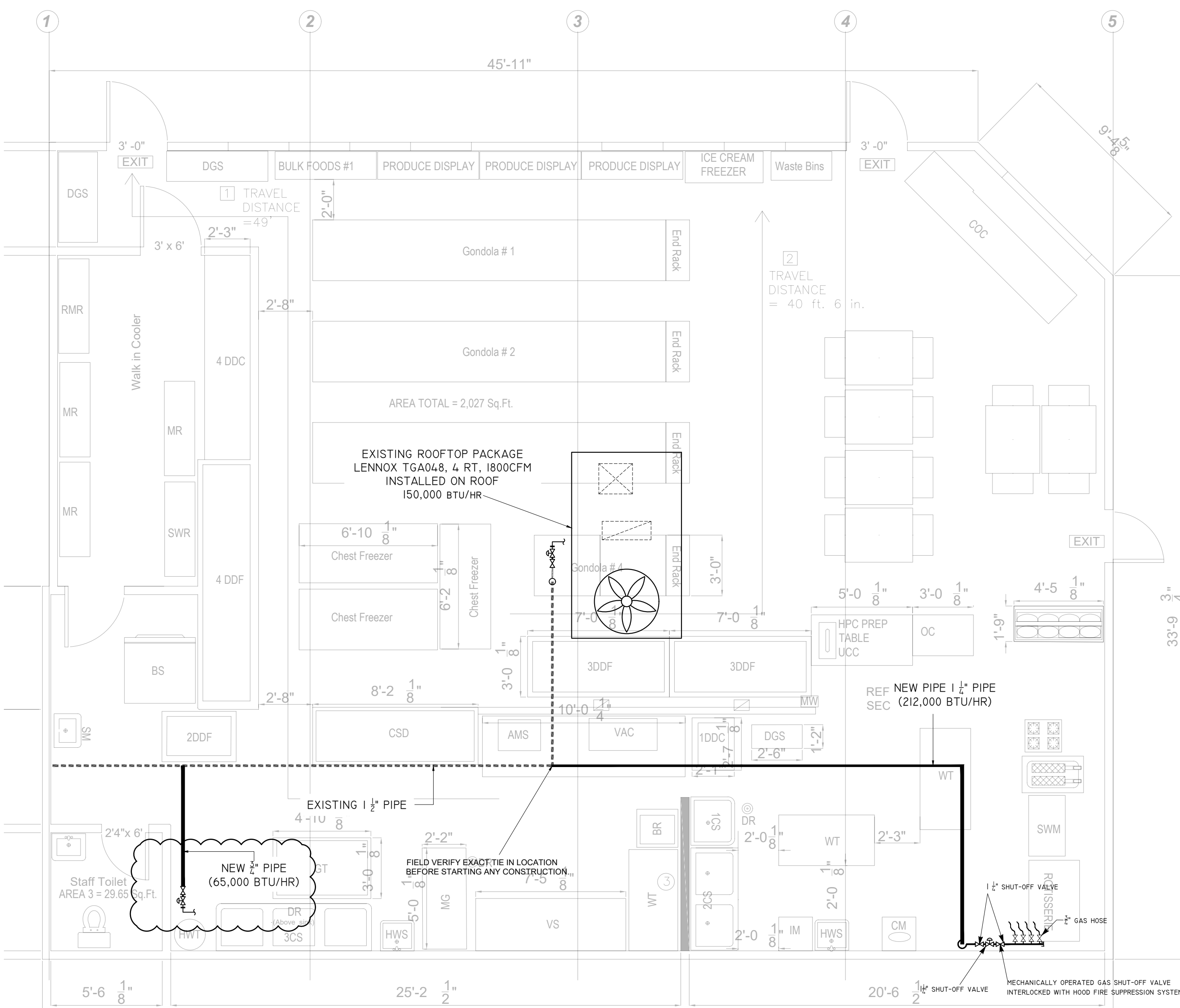


EXISTING WATER ENTRY (REF ONLY, DOES NOT SUPPLY NEW PLUMBING NTS)

GAS LOAD CALCULATION				
FIXTURE	QTY	BTU/HR EACH	BTU/HR TOTAL	CONNECTION SIZE
ROTISSERIE (NEW)	1	54,000	54,000	3/4"
4 BGSR RANGE (NEW)	1	48,000	48,000	1/2"
DONER MACHINE (NEW)	2	36,000	72,000	1/2" (2)
GAS DEEP FRYER (NEW)	1	38,000	38,000	1/2"
ROOFTOP PACKAGE (EXISTING)	1	150,000	150,000	1/2"
HOT WATER HEATER (NEW)	1	65,000	65,000	1/2"
MAKE-UP AIR UNIT (NEW)	1	0	0	12kW ELEC COIL
GRAND TOTAL (NEW)			277,000	
GRAND TOTAL			427,000	BTU/HR



FIRE SUPPRESSION SYSTEM SCHEMATIC NTS



GAS PIPING PLAN SCALE: 1/4"=1'-0"

NOZZLE SUMMARY				
LOCATION	NOZZLE TYPE	NOZZLE QTY	UNIT FLOW	TOTAL FLOW
DUCT	ADP	1	2	2
HOOD	ADP	1	2	2
4 BGSR RANGE	R	1	2	2
ROTISSERIE	F	2	2	4
DONER MACHINE 1	F	1	2	2
DONER MACHINE 2	F	1	2	2
GAS DEEP FRY	F	1	2	2
GRAND TOTAL				16

LEGEND	
SYMBOL	DESCRIPTION
—	SANITARY-UNDER FLOOR
---	VENT
----	DOMESTIC COLD WATER
- . - . - .	DOMESTIC HOT WATER
+	TEE
— —CO — —CO	CLEAN OUT
☒	F.D FLOOR DRAIN
⊕	H.D HUB DRAIN
⊞	EXHAUST FAN
⊞	GATE VALVE
⊞	CHECK VALVE
⊞	BALL VALVE
⊞	VERTICAL SUPPLY DUCT
⊞	VERTICAL RETURN DUCT

		REV		DATE	DESCRIPTION
5	29 APR 2020	REVISED AS PER CITY COMMENTS			
4	18 JULY 2019	REVISED AS PER CITY COMMENTS			
3	07 APR 2019	REVISED AS PER NEW LAYOUT			
2	03 OCT 2017	AS PER ARCH PLAN CHANGES			
1	23 JUN 2017	ISSUED FOR BUILDING PERMIT			

ARCHITECT:  
TRINITY HOME SOLUTION

CLIENT:  
RAMON MELGAR

**VOLTAS ENGINEERING LTD.**  
ENGINEERS. PROJECT MANAGERS.

PHONE: 604-593-2293 FAX: 604-800-9230  
#108 8299 129 STREET, SURREY, BC V3W 0A6  
WWW.VOLTASENGINEERING.COM  
INFO@VOLTASENGINEERING.COM

STAMP

PROJECT #: 17-1779

PROJECT ADDRESS:  
ZOE FOODS LIMITED  
9336 120 STREET  
SURREY, BC

DESIGN DATE: 23 JUN 2017

DSN: AR/HSG CHK: GSP APP: GSP

SCALE: AS SHOWN

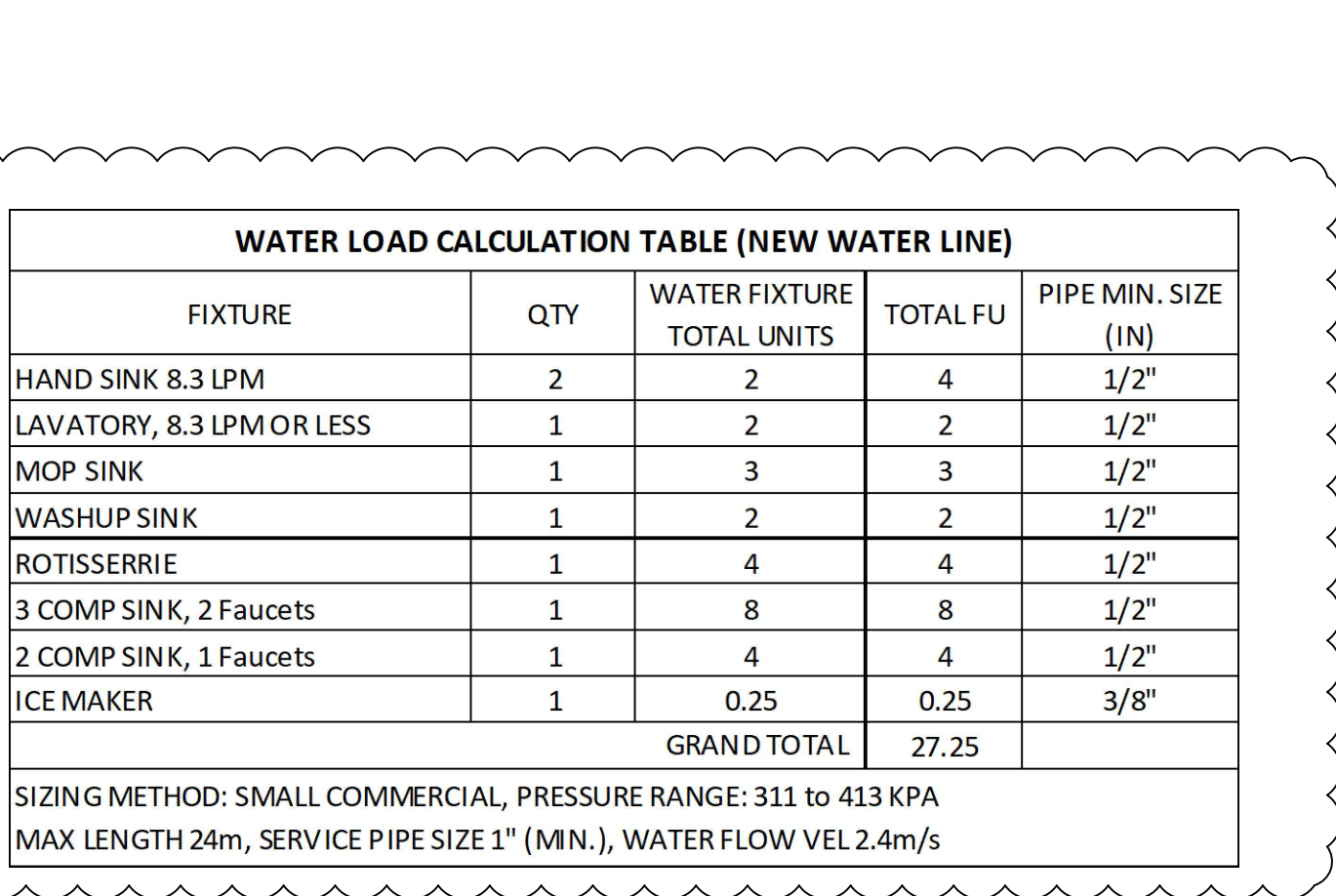
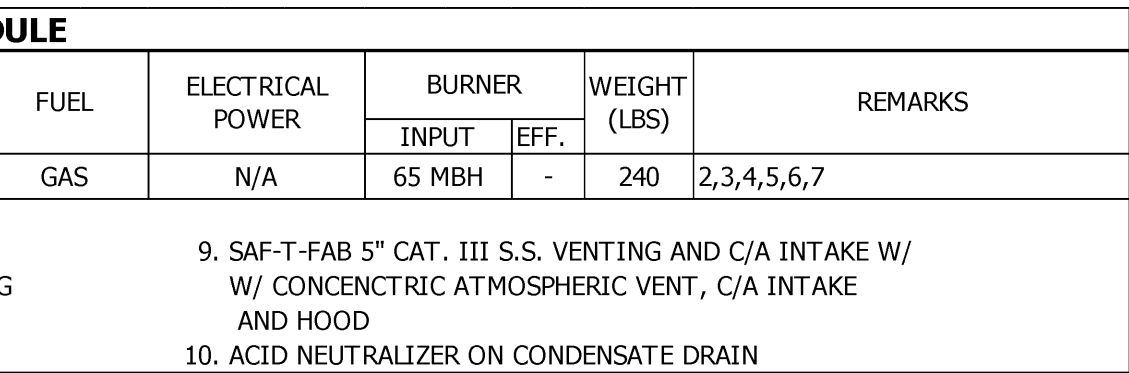
DRAWING TITLE:  
**SITE PLAN,  
GAS PIPING,  
AND FIRE SUPPRESSION  
SYSTEM**

DRAWING #: M1



NOTES:

1. WHERE THE LAVATORY IS ACTING AS A WET VENT, USE 2" PIPE.
2. 2" PIPE TO BE USED WHERE THE ARM IS MORE THAT 1.8m.



\_\_\_\_\_

GREASE INTERCEPTOR SPECIFICATION						
ITEM	MANUFACTURER	MODEL	DIMENSION	FLOW RATE (GPM)	MADE	INLET & OUTLET CONNECTIONS
GI	WATTS	WD-215	40"x28"x39"	150	EPOXY COATED STEEL	4"

4.1- SAMPLING PORT INSTALLED AT RIGHT ANGLES AND VERTICALLY ABOVE THE FLOW OF THE SEWER PIPE AT THE DISCHARGE OF THE GI  
 4.2- CLEAN OUT TO INSTALLED ON INLET  
 4.3- TRAP MUST BE INSTALLED INSIDE OR TO PREVENT DRAIN LINE FROM FREEZING  
 4.4- INDIVIDUAL RUNNING VENTS OR THROUGH ROOF FOR GFI INTERCEPTOR. EXACT ROUTING TO BE DETERMINED ON SITE.

AFTER INSTALLATION IS COMPLETE OWNER TO SUBMIT WATER QUALITY REPORT TO THE ENGINEER.

ARCHITECT:  
TRINITY HOME SOLUTION

CLIENT:  
RAMON MELGAR

PHONE: 604-593-2293 FAX: 604-800-9230  
#108 8299 129 STREET, SURREY, BC, V3W 0A6

**WWW.VOLTASENGINEERING.COM**  
**INFO@VOLTASENGINEERING.COM**



PROJECT #:	17-1779
PROJECT ADDRESS:	ZOE FOODS LIMITED 9336 120 STREET SURREY, BC

DRAWING #: M2



## 1.0 GENERAL

- THE SEWER MAIN AND WATER MAIN ARE INSTALLED IN SEPARATE TRENCHES AND THE WATER MAIN INVERT IS AT LEAST 0.5M ABOVE THE CROWN OF THE SANITARY SEWER OR STORM SEWER; OR
- THE SEWER MAIN AND WATER MAIN ARE INSTALLED IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AT LEAST 0.5M ABOVE THE CROWN OF THE SANITARY SEWER OR THE STORM SEWER.

- ## 2.0 MATERIALS

- | NOMINAL PIPE<br>SIZE (IN.) | MAXIMUM DISTANCE<br>BETWEEN<br>SUPPORTS (FT.) | ROD DIAMETER (IN.) |
|----------------------------|---|--------------------|
| 1/2                        | 6   | 3/8                |
| 3/4                        | 8   | 3/8                |
| 1 - 2 1/2                  | 10  | 1/2                |
| 3 - 4                      | 12  | 1/2                |

- ### 3.0 PLUMBING

- C.W.S. IN HEATED AREAS 1/2" MINERAL FIBRE WITH VAPOR BARRIER
  - C.W.S. IN UNHEATED AREAS 1 1/2" PIPE INSULATION. HEAT TRACED.
  - RWLS: IN HEATED AREAS 1/2" MINERAL FIBRE WITH VAPOR BARRIER.
- 3.5 STERILIZE DOMESTIC WATER SYSTEM- BEFORE BEING PLACED IN SERVICE ALL WATER LINES SHALL BE CHLORINATED TO THE SATISFACTION OF THE ENGINEER IN ACCORDANCE WITH AIWA SPEC C 60-53T.
- 3.6 ALL WATER PIPES TO BE TYPE "L" COPPER WITH LEAD FREE SOLDER, E.G., 95/5 TIN/ANTIMONY SOLDER OR EQUIVALENT APPROVED IN JURISDICTION WITH PERMISSION OF AUTHORITIES HAVING JURISDICTION.

- #### 4.0 HEATING AND VENTILATION

- | ROUND DUCTWORK      |       |
|---------------------|-------|
| DUCT DIAMETER (IN.) | GAUGE |
| UP TO 12            | 26    |
| 13 TO 30            | 24    |

- 4.5 SUPPLY DUCTS SHALL BE INSULATED WITH MINIMUM 2" THICKNESS FIBER GLASS WRAP WITH ALUMINUM FOIL PROTECTION OR EQUAL.
- 4.6 INSULATION SHALL BE INSTALLED ACCORDING TO TIAC MECHANICAL INSULATION BEST PRACTICE GUIDE.
- 4.7 SEALING TAPE SHALL NOT BE USED AS THE PRIMARY SEALANT FOR AIR-HANDLING DUCTS AND PLENUMS.
- 4.8 WHERE DUCTS ARE NOT CONSTRUCTED, INSTALLED AND SEALED, THEY SHALL BE TESTED FOR LEAKAGE IN CONFORMANCE WITH THE SMACNA 1985, "HVAC AIR DUCT LEAKAGE TEST MANUAL".

- ## 5.0 SEISMIC REQUIREMENTS

- 5.2.1. NATIONAL BUILDING CODE, SECTION 4.1.8,  
5.2.2. LATEST EDITION OF PROVINCIAL BUILDING CODE. NFPA13-2013.  
5.2.3. SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND  
PLUMBING PIPING SYSTEMS.