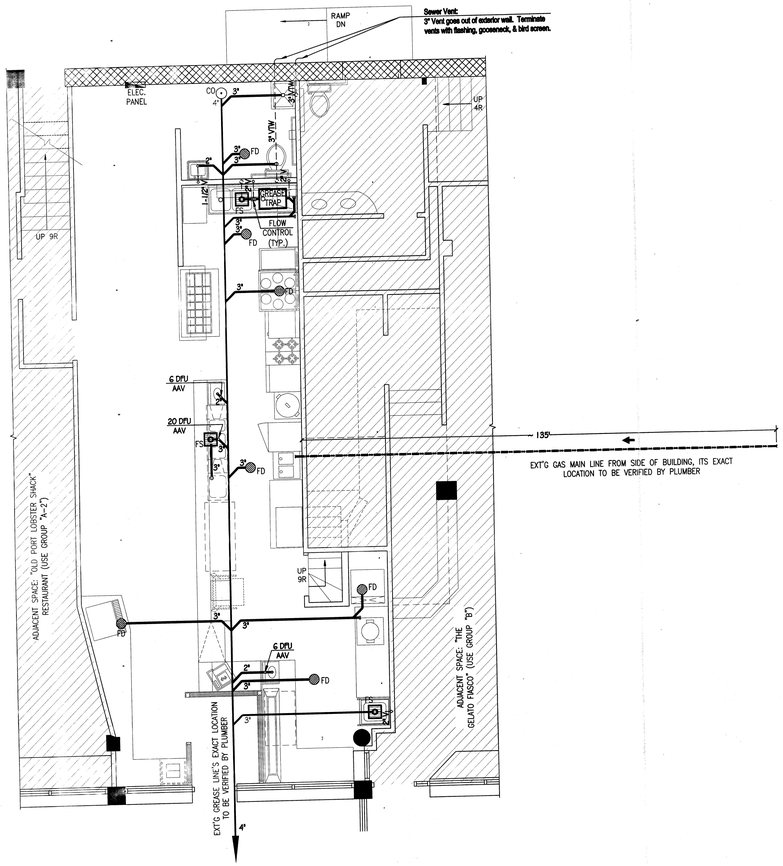
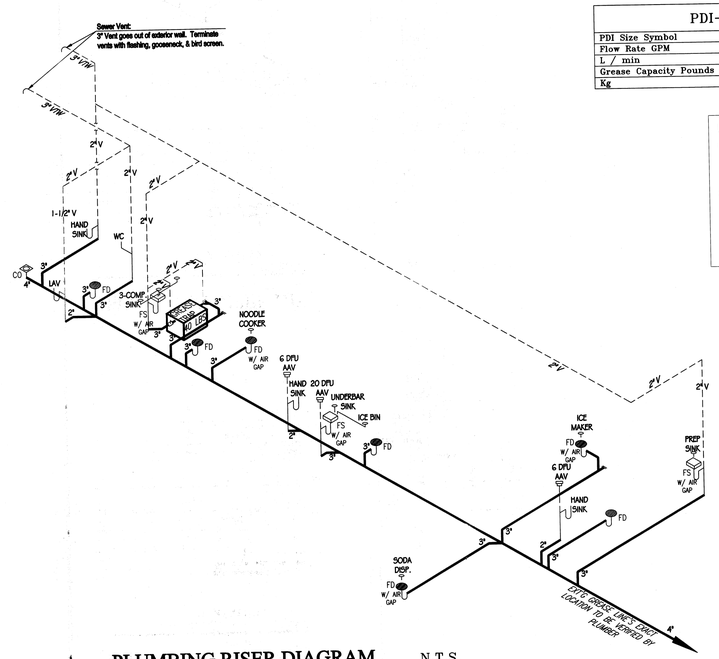



## PLUMBING PLAN

SCALE: 3/16" = 1'-0"




## PLUMBING RISER DIAGRAM

N.T.S.

| PDI-G 101 TABLE 1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PDI Size Symbol | 4 | 7 | 10 | 15 | 20 | 25 | 35 | 50 | 75 | 100 |
| Flow Rate GPM | 4 | 7 | 10 | 15 | 20 | 25 | 35 | 50 | 75 | 100 |
| L / min | 15 | 26 | 38 | 57 | 77 | 95 | 132 | 191 | 230 | 378 |
| Grease Capacity Pounds | 8 | 14 | 20 | 30 | 40 | 50 | 70 | 100 | 150 | 200 |
| Kg | 3.6 | 6.4 | 9.1 | 13.8 | 18.2 | 22.7 | 31.8 | 45.4 | 68 | 90.8 |

INDOOR GREASE INTERCEPTOR SIZING CALCULATION:

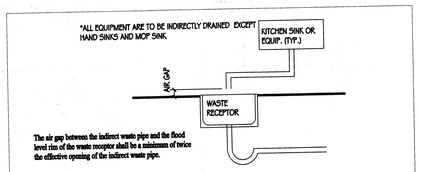
1> 3-comp. sink ("EAGLE" 412-17.5-3-1(8 R) bowl size: 17.5" x 17.5" x 10.5"
(17.5 x 17.5 x 10.5) x 3 x 1/231 x 0.75 = 31.32 GPM (as per PDI-G101)
For 2-minute drainage period, it requires PDI size 20.
So select "ZURN" GT2700-20. (20 GPM / 40 LBS)

2> Flow control device shall be installed in line between fixture & grease trap. Air opening on flow control device must connect to the plumbing vent system (As per 2009 IPC, 1003.3.4.2).
So flow control device select "ZURN" Z1106 for trap flow rate <= 50 gpm, select "ZURN" Z1105, 1106 for trap flow rate >= 75 gpm.

3> Client should clean the grease trap regularly.

## LEGEND

- FD — FLOOR DRAIN
- CO — CLEAN OUT
- FS — FLOOR SINK
- COLD WATER LINES
- 140°F HOT WATER LINES
- 110°F HOT WATER LINES
- VENT LINES
- 3" — SANITARY SEWER LINES (NEW)
- (EXT'G) — SANITARY SEWER LINES (EXT'G)
- 2"G — GAS LINES




## INDIRECT WASTE DETAIL (TYP.)

N.T.S.

PLUMBING REQUIREMENTS

1. ALL PLUMBING SHALL COMPLY WITH THE LOCAL PLUMBING & HEALTH DEPARTMENT REQUIREMENTS.
2. INSULATE ALL HOT & COLD WATER LINES ABOVE GRADE WITH 3/4" FIBERGLASS PIPE INSULATION, WITH VAPOR BARRIER.
3. VERIFY ALL FINAL CONNECTIONS TO KITCHEN EQUIPMENT WITH KITCHEN SUPPLIER. VERIFY ROUGH-IN REQUIREMENTS WITH SAME.
4. MATERIALS SHALL BE AS FOLLOWS:
   - A: WATER PIPING TO BE TYPE 'K' COPPER BELOW GRADE, TYPE 'L' COPPER ABOVE GRADE.
   - B: WASTE PIPING TO BE CAST IRON.
   - C: VENTS TO BE CAST IRON, GALVANIZED STEEL.
   - D: GAS PIPING TO BE SCHEDULE 40, BLACK STEEL PIPE. PROVIDE AUTOMATIC GAS SHUT-OFF VALVE IN COOKING EQUIPMENT SUPPLY MAIN AS REQUIRED FOR COOKING EQUIPMENT FIRE PROTECTION SYSTEM. VERIFY & COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER.
5. ALL INDIRECT WASTES EXCEEDING 24" IN LENGTH SHALL BE TRAPPED.
6. PROVIDE CLEANOUTS REQUIRED, & AT THE BASE OF ALL STACKS.
7. ALL MATERIALS USED WITHIN RETURN AIR PLENUMS SHALL BE APPROVED FOR SUCH USE.
8. PROVIDE FIXTURE STOPS AT ALL PLUMBING FIXTURES.
9. PROVIDE ALL FITTING & ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
10. HOT WATER SUPPLIED TO LAVATORY FIXTURES SHALL NOT EXCEED 110°F.
11. HANDICAP PLUMBING FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE ADA REQUIREMENTS & LOCAL STATE BARRIER FREE REQUIREMENTS .
12. COORDINATE ALL WORK IN FIELD WITH ARCHITECTURAL, MECHANICAL & ELECTRICAL TRADES.
13. VERIFY ALL EXISTING JOB CONDITIONS & AS REQUIRED FOR A COMPLETE INSTALLATION.

GAS CALCULATION
(KITCHEN COOKING EQUIPMENT)

RICE COOKER 35,000 BTU 1/2"
GRIDDLE / RANGE COMBO 150,000 BTU 3/4"
GRIDDLE / RANGE COMBO 150,000 BTU 3/4"
NOODLE COOKER 160,000 BTU 3/4"
DEEP FRYER 140,000 BTU 3/4"

Total gas consumption = 635,000 BTU 2" @ Max. 155'
Max. capacity of gas pipng = [ 654,000 ] BTU > 635,000 BTU.

GAS CALCULATION
(HOT WATER HEATER)

HOT WATER HEATER 120,000 BTU 3/4"

Total gas consumption = 120,000 BTU 1" @ Max. 60'
Max. capacity of gas pipng = [ 144,000 ] BTU > 120,000 BTU.

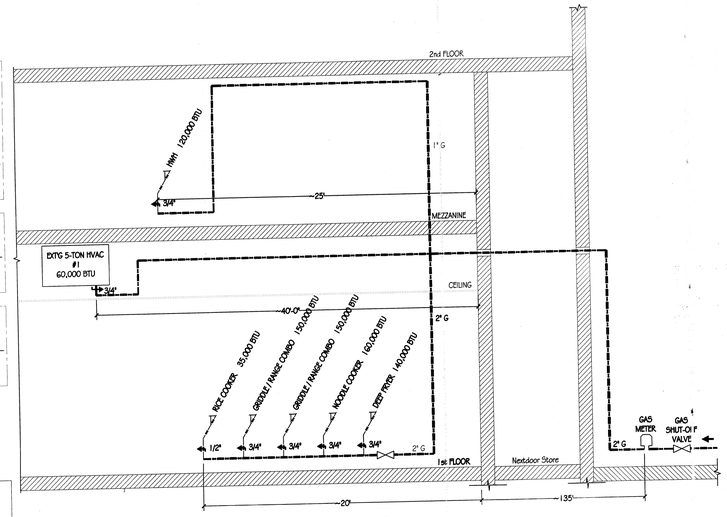
GAS CALCULATION
(HVAC RTU)

EXTG 5-TON HVAC #1 60,000 BTU 3/4" @ MAX. 175'

Total gas consumption = 60,000 BTU 1" @ Max. 175'
Max. capacity of gas pipng = [ 144,000 ] BTU > 60,000 BTU.

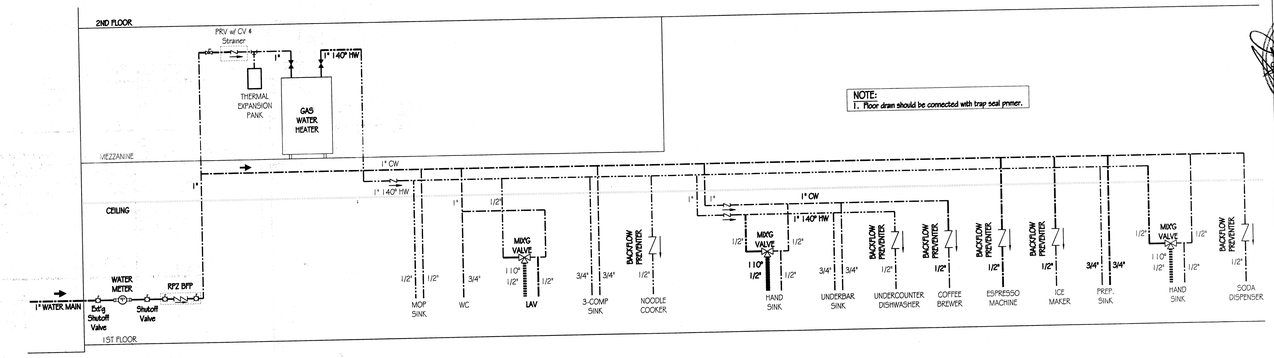
Grand total gas consumption
= 635,000 + 120,000 + 60,000 = 815,000 BTU 2" @ Max. 175'
Max. capacity of gas pipng = [ 654,000 ] BTU > 815,000 BTU.
Maximum capacity of pipe in cubic feet of gas per hour based on a pressure drop of 0.5-inch Water Column, 0.6 Specific Gravity Gas and Schedule 40 Pipe.
Gas piping sizing is as per Table 402.4(2) Schedule 40 Metallic Pipe, International Fuel Gas Code 2009.

NOTES:
1. INSTALL GAS SOLENOID FOR FIR. SUPPRESSION SYSTEM.
2. SUPPLY FAN SHALL SHUT DOWN UPON ACTIVATION OF FIRE SUPPRESSION SYSTEM AS PER 2009 IBC, CHAPTER 9.
3. GAS APPLIANCES AND EQUIPMENT SHALL BE CONNECTED TO THE BUILDING PIPING WITH CONNECTORS AND SHUTOFF VALVES.




## GAS RISER DIAGRAM

N.T.S.




NOTE:
1. Floor drain should be connected with trap seal primer.

## WATER RISER DIAGRAM

N.T.S.

DATE: 05/13/2016


KING'S USA GROUP INC.
112-45 ROOSEVELT AVENUE
QUEENS, NY 11368
TEL: (212) 274-8833
FAX: (212) 274-8889

JOHN E. STUMPF P.C.
CONSULTING ARCHITECT
725 FRANKLIN AVE.
GARDEN CITY, NY 11530
TEL: (516) 877-0400
EMAIL:JSBPI@OPTONLINE.COM


# 66S FUSION RESTAURANT

425 FORE STREET, STE #400
PORTLAND, MAINE 04101
(IN "FORE STREET GARAGE")

JOHN E. STUMPF
STATE OF MAINE
No. 3049

PLUMBING PLAN
PLUMBING RISER DIAGRAM
WATER RISER DIAGRAM
GAS RISER DIAGRAM

DWG. NO.
ME160403R
A-4
4 OF 5