GENERAL PLUMBING NOTES:

1. DRAWINGS ARE DIAGRAMMATIC ONLY. BUT THE GENERAL SCHEME OF THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. ALL DIMENSIONS AND CONDITIONS SHOWN AND ASSUMED ON THE DRAWINGS MUST BE VERIFIED AT THE SITE BY THE CONTRACTOR BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK. ANY DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS SHALL BE REPORTED TO THE ENGINEER. NO CHANGE IN DRAWINGS OR SPECIFICATIONS IS PERMISSIBLE WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS OF PREMISES AND THE EXTENT AND CHARACTOR OF WORK REQUIRED PRIOR TO COMMENCEMENT OF ANY WORK. NO ADDITIONAL COMPENSATION WILL BE APPROVED DUE TO THE FIELD CONDITION.
3. THE CONTRACTOR SHALL CONSULT AND COORDINATE WITH OTHER TRADES IN ORDER TO AVOID INTERFERENCES WITH THEIR WORK DURING INSTALLATION OF PIPING, EQUIPMENT, ETC.
4. ALL EXISTING SYSTEMS SHALL BE LEFT IN PERFECT WORKING ORDER UPON COMPLETION OF ALL NEW WORK.
5. THE CONTRACTOR SHALL NOT INTERRUPT ANY OF THE SERVICES OF THE EXISTING BUILDING NOR INTERFERE WITH THE SERVICES IN ANY WAY WITHOUT THE EXPRESSED PERMISSION OF THE AUTHORITY. SUCH INTERRUPTIONS AND INTERFERENCES SHALL BE MADE AS BRIEF AS POSSIBLE AND ONLY AT THE TIME SUITED BY THE OWNER.
6. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE IN ADVANCE TO THE AUTHORITY OF ANY REQUIRED SHUTDOWNS.
7. TO ENSURE CONTINUOUS OPERATION, MAKE ALL NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK. ALL COSTS RESULTING TEMPORARY SHUT DOWNS SHALL BE BORNE BY THIS CONTRACTOR.
8. THE CONTRACTOR SHALL RECONNECT ALL EXISTING MAINS AND BRANCHES TO THE NEW WATER PIPING EITHER THEY ARE SHOWN ON DRAWINGS OR NOT.
9. THE CONTRACTOR SHALL REPORT TO THE ENGINEER ANY ACTIVE OR INACTIVE PIPING CONDITIONS, WHERE OCCUR.
10. THE CONTRACTOR SHALL CAP ANY INACTIVE LINES AT NO ADDITIONAL COST.
11. PROVIDE PUMPING & PIPING SERVICE TO EMPTY THE DRAIN WATER FROM THE SUMP PIT. CLEAN EXISTING SUMP PIT, ALL EXISTING UNDERGROUND WASTE PIPING AND BLOWDOWN PIPING IN BOILER ROOM, TOGETHER WITH ALL FLOOR DRAINS IN THE BOILER ROOM AND AS SHOWN ON THE DRAWINGS.
12. ALL PLUMBING REMOVALS AND NEW WORK SHALL BE COORDINATED WITH PHASING PLANS AND WITH EXISTING CONDITIONS IN THE FIELD TO MAINTAIN THE CONTINUITY OF ALL THE PLUMBING SERVICES AND UTILITIES.
13. THE TYPE B GAS VENT MUST BE PLAINLY AND PERMANENTLY IDENTIFIED WITH A METAL LABEL THAT SAYS: TYPE B GAS VENT LISTED AND ACCEPTED IN ACCORDANCE WITH THE CONDITIONS OF THE ACCEPTANCE AND APPLICABLE PROVISIONS OF THE NEW YORK CITY BUILDING CODE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PIPING OCCURRING DURING CONSTRUCTION AND AFTER THE TESTING HAS BEEN COMPLETED.

BUILDING DEPARTMENT PLUMBING NOTES

ALL PLUMBING WORK SHALL MEET THE REQUIREMENTS OF THE 2008 NEW YORK CITY PLUMBING CODE.

1. PROTECTION OF PIPING AS OUTLINED IN SECTION PC 305 SHALL BE PROVIDED AS REQUIRED.
2. ALL PIPING AND MATERIALS SHALL BE AS DIRECTED IN SECTIONS PC 303 & PC 702.
3. PIPING JOINTS AND CONNECTIONS SHALL BE AS APPROVED IN SECTIONS PC 605 & PC 705.
4. CONSTRUCTION, QUANTITIES, DEVICES, FIXTURES, FAUCETS, VALVES AND FACILITIES FOR THE DISABLED SHALL BE AS OUTLINED IN CHAPTER 4.
5. TRAPS SHALL BE AS PER SECTION PC 1002.
6. CONSTRUCTION AND SPACING OF HANGERS AND SUPPORTS SHALL BE AS DIRECTED IN SECTION PC 308.
7. WATER SUPPLY SYSTEM, VALVES, TESTS SHALL BE AS DIRECTED IN CHAPTER 6. VALVES SHALL BE PROVIDED AT RISERS AND ELSEWHERE AS PER SECTION PC 606.
8. HOT WATER DISTRIBUTION AND REIRCULATION SYSTEM SHALL BE AS DIRECTED IN SECTION PC 607.
9. SANITARY DRAINAGE PIPING, SIZING, GRADING AND OFFSETS SHALL BE AS OUTLINED IN CHAPTER 7.
10. VENT SIZING, GRADING, CONNECTIONS, LOCATIONS AND OFFSETS SHALL BE AS DIRECTED IN CHAPTER 9.
11. STORM DRAINAGE PIPING AND SIZING SHALL BE IN ACCORDANCE WITH CHAPTER 11. STORM WATER MANAGEMENT UTILIZING CONTROLLED FLOW DRAINAGE SHALL BE AS PER CHAPTER 11.
12. SPECIAL AND MISCELLANEOUS PIPING SHALL BE AS DIRECTED IN CHAPTER 8.
13. INDIRECT WASTE PIPING SHALL BE AS DIRECTED IN CHAPTER 8.
14. ALL PLUMBING FIXTURES SHALL BE AS DIRECTED IN CHAPTER 4.
15. CLEAN OUTS FOR SANITARY AND STORM DRAINAGE SHALL BE AS PER SECTION PC 708.
16. GAS PIPING INSTALLATION, MATERIAL AND SIZES SHALL ADHERE TO SECTION FGC 401 THROUGH FGC 404.
17. TESTING AND PURGING OF GAS PIPING PRIOR TO OPERATIONS SHALL CONFORM TO FGC 406.
18. WATER HEATER FLUE SHALL COMPLY WITH CHAPTER 8 OF THE NYC MECHANICAL CODE SECTION FGC 503.
19. WATER HEATER SHALL BE TESTED IN ACCORDANCE WITH ANSI 21.10.1 AND ANSI 21.10.3 AND SHALL MEET THE REQUIREMENT OF SECTIONS FGC 624.
20. GAS FIRED WATER HEATER SHALL BE DESIGNED AND INSTALLED AS PER SECTION PC 502.
21. GAS METER ROOM INCLUDING PIPING AND SINAGE SHALL ADHERE TO SECTION E.3 OF FGC APPENDIX E.
22. ALL GAS VENTS INSTALLATION SHALL BE IN COMPLIANCE WITH SECTION FGC 503.6.
23. GAS PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED THE SPACING SPECIFIED IN TABLE 415.1 OF SECTION FGC 415.
24. PIPING JOINTS FOR GAS DISTRIBUTION PIPING SHALL BE DONE PER AUTHORITY'S SPECIFICATION #15416. ALL WELDED GAS PIPES SHALL BE RADIOGRAPHED. THE RADIOGRAPHY AND ACCEPTANCE SHALL ADHERE TO FGC 107.
25. ALL PLUMBING WORK SHALL BE DONE BY OR UNDER THE DIRECT SUPERVISION OF A LICENSED MASTER PLUMBER AS PER SECTION 28-408 OF THE 2008 NYC BUILDING CODE.

PUMP SCHEDULE

PUMP #	LOCATION	TYPE	SERVICE	GPM	TDH FEET	MOTOR DATA RPM	HP	PHASE	CYCLE	VOLTS	REMARKS
P-1	BOILER RM.	IN LINE CIRC PUMP	DOMESTIC HOT WATER RETURN	12	15	1725	¼	1	60	115	BRONZE BODY & BRONZE FITTED BASED ON BELL & GOSSET MOD # SERIES 60 AQUASTAT SET TO START @ 90° F & TO STOP @ 100° F.
P-2	BOILER RM.	IN LINE CIRC PUMP	KITCHEN HOT WATER RETURN	7	12	1725	⅛	1	60	115	BRONZE BODY & BRONZE FITTED BASED ON BELL & GOSSET MOD # SERIES PR AQUASTAT SET TO START @ 120° F & TO STOP @ 130° F.
P-3 & P-4	BOILER RM.	DUPLEX SUMP PUMPS	CLEAR WATER DRAINAGE	125	25	1150	1½ EACH	3	60	208	BASED ON FEDERAL PUMP CO. MODEL VSP-3K-1 1/2-6 WITH 48" x 48" FRAME, COVER, CONTROLS AND ACCESSORIES. CONC. PIT SIZE: 48" X 48"X 54" DEEP (V.I.F.)

WATER HEATER SCHEDULE

WATER HEATER NO.	LOCATION	RECOVERY RATE (GPH) 40°–140°F	INPUT	GALLONS STORAGE	MOTOR DATA AMPS	PHASE	CYCLE	VOLTS	VENT SIZE	GAS CONN.	APPROX. WEIGHT LBS.	DIMENSIONS	REMARKS
HWH-1	BOILER ROOM	305	300,000 BTU/HR	318	11	1ø	60	120	6"	3/4"	363 (HTR. ONLY)	HEATER: L 31 1/4" W 23 3/4" H 28"	BASED ON LOCHINVAR PACKAGED SYSTEM PU CONFIGURATION WITH WATER HEATER MOD # EWN 300 PM F9 & RGA0318 VERTICAL TANK. WATER HEATER TO BE TESTED PER ANSI 21.10. WATER HEATER THERMAL EFFICIENCY IS 84%. PROVIDE CONEDISON APPROVED 'VENTLESS' HIGH-LOW GAS PRESSURE SWITCHES.
											987 (TANK ONLY)	TANK: H 80" DIA. 40"	
USE WITH 14.0 GALLON ASME EXPANSION TANK, PRE-CHARGED, DIAPHRAGM TYPE, W/ 9.0 GALLON MAX. ACCEPTANCE VOLUME, OR APPROVED EQUAL											84	HT. 19 1/4" DIA. 16 1/4"	BASED ON BELL & GOSSETT MODEL # PTA-30V, W/55 PSI FACTORY PRE-CHARGED PRESSURE, FLOOR MOUNTED
HWH-2	BOILER ROOM	124	30 KW	119	(6) 5 KW HEAT ELEMENTS EQUAL TO 30 KW TOTAL 208V, 3 PHASE, 83 AMP						430	H 65" DIA. 30"	TEMP. ELECT. HWH BASED ON LOCHINVAR MODEL # HCK30-120A, 208V, 3 PHASE, 60 HZ MEA# 174-86

NOTE: ALL HOT WATER HEATERS SHALL BEAR AN ASME "HLW" CODE DESIGNATION PERMANENTLY AFFIXED ON HEATER'S NAME PLATE.

PLUMBING PIPING + JOINTS MATERIAL SCHEDULE

ACCORDINGLY WITH 'N.Y.C.S.C.A. DESIGN REQUIREMENTS.' MECHANICAL SERVICES-6.0 (6.1.3), REV. 0

STORM PIPING	INTERIOR (ABOVE GROUND)	SERVICE WEIGHT CAST IRON PIPE NO HUB WITH MECHANICAL STAINLESS STEEL COUPLINGS
	INTERIOR (UNDER GROUND)	SERVICE WEIGHT CAST IRON PIPE BELL AND SPIGOT WITH MOLTEN LEAD & PACKED OAKUM JOINTS
SANITARY PIPING (WASTE & VENT)	INTERIOR (ABOVE GROUND)	SERVICE WEIGHT CAST IRON PIPE NO HUB WITH MECHANICAL STAINLESS STEEL COUPLINGS
	INTERIOR (PUMP DISHARGE)	GALVANIZED STEEL, SCH 40, WITH THREADED DRANAGE FITTINGS ROLL GROOVED ENDS, GROOVED PIPE FITTINGS IN SIZE 2" AND ABOVE
	INTERIOR (UNDER GROUND)	SERVICE WEIGHT CAST IRON PIPE BELL AND SPIGOT WITH LEAD & OAKUM JOINTS
GAS PIPING	INTERIOR (ABOVE GROUND)	STANDARD WEIGHT, SCH. 40, BLACK STEEL PIPE WITH SCREWED FITTING FOR UNDER 3" DIA. PIPE AND WELDED JOINTS FOR 3" DIA. & LARGER PIPE SIZE. OPTION FOR WELDING OR SCREWED JOINTS APPLIES ONLY TO GAS SUPPLIED AT PRESSURE RANGING FROM 1/2 PSIG AND UP TO 3 PSIG. ABOVE 3 PSIG ALL JOINTS MUST BE WELDED. ALL WELDING REQUIRES CONTROL INSPECTION AS TESTING AND RADIOGRAPHING.
DOMESTIC WATER (HOT AND COLD)	INTERIOR	COPPER TUBING, TYPE L (BLUE COLOR BAR) WITH WROUGHT COOPER SOLDER JOINT FITTINGS

SYMBOLS & ABBREVIATIONS

NEW WORK
EXISTING WORK
SOIL OR WASTE (S/W)
UNDERGROUND PIPING
COLD WATER (CW)
HOT WATER 140° (HW 140°)
HOT WATER 105° (TEMP)
HOT WATER RETURN 105° (HWR)
HOT WATER RETURN 140° (HWR 140°)
VENT PIPING (V)
SANITARY PIPING
STORM PIPING
FIRM GAS PIPING (G)
BLOW DOWN PIPING (BD)
PUMP DISCHARGE (PD)
EXISTING TO BE REMOVED
GATE VALVE (GV)
CHECK VALVE (CV)
GATE VALVE & DRAIN BIBB
THREE WAY MIXING VALVE
THERMOSTATIC MIXING VALVE
PLUG VALVE
GAS SAFETY SHUT-OFF VALVE
GAS COCK
BALL VALVE (BV)
STRAINER
CLEAN OUT DECK PLATE (CODP)
CLEAN OUT (CO)
REDUCED PRESSURE ZONE BACKFLOW PREVENTER

UNION
AQUASTAT
PUMP
PIPE SLEEVE
FLOW-IN DIRECTION OF ARROW
FLOOR DRAIN (F.D.)
FLOOR DRAIN TO BE REMOVED
CONNECTION TO EXISTING
POINT OF DISCONNECTION
CLG. CEILING
CFH CUBIC FEET PER HOUR
MU MAKE UP WATER
RPZ REDUCED PRESSURE ZONE
R.T. RUNNING TRAP
WC WATER COLUMN
BVA BALANCING VALVE ASSEMBLY
H.B. HOSE BIBB
EXIST. EXISTING TO REMAIN, UNLESS OTHERWISE NOTED
TYP. TYPICAL
H.P. HIGH PRESSURE
L.P. LOW PRESSURE
A.W.D. AREAWAY DRAINS
AFF ABOVE FINISH FLOOR
V.I.F. VERIFY IN FIELD
E.T. EXPANSION TANK
POE POINT OF ENTRY

GAS PIPING SYSTEM TESTING:

A. UPON COMPLETION OF THE INSTALLATION OF A SECTION OF A GAS SYSTEM OR OF THE ENTIRE GAS SYSTEM, AND BEFORE APPLIANCES ARE CONNECTED THERETO, THE ENTIRE GAS SYSTEM SHALL BE VERIFIED AS TO MATERIALS, AND TESTED AND PROVEN TIGHT BY THIS CONTRACTOR, AS FOLLOWS:

1. GAS DISTRIBUTION PIPING
   - A. DISTRIBUTION PRESSURES UP TO 1/2 PSIG. THE COMPLETED PIPING IS TO BE TESTED AT 3 PSIG FOR A MINIMUM OF HALF HOUR.
   - B. DISTRIBUTION PRESSURES OVER 1/2 PSIG THROUGH 3 PSIG. THE COMPLETED PIPING IS TO BE TESTED AT 50 PSIG FOR A MINIMUM OF HALF HOUR.
   - C. DISTRIBUTION PRESSURES OVER 3 PSIG THROUGH 15 PSIG. THE COMPLETED PIPING IS TO BE TESTED AT 100 PSIG FOR A MINIMUM OF HALF HOUR.
   - D. DISTRIBUTION PRESSURES ABOVE 15 PSIG. THE COMPLETED PIPING IS TO BE TESTED TO TWICE THE MAXIMUM ALLOWABLE OPERATING PRESSURE, BUT NOT LESS THAN 100 PSIG, FOR A MINIMUM OF HALF HOUR.
2. GAS CONTROL, VENT AND RELIEF PIPING

   THE COMPLETED PIPING IS TO BE TESTED AT 3 PSIG FOR A MINIMUM OF HALF HOUR.

B. METER PIPING SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITY.

C. NOTWITHSTANDING THE ABOVE, ALL COATED OR WRAPPED PIPE SHALL BE PRESSURE TESTED AT A MINIMUM OF 90 PSIG.

D. PURGE ALL PIPING AFTER PRESSURE TEST.

E. PURGE ALL EQUIPMENT AFTER PIPING HAS BEEN PURGED.

F. RADIOGRAPHY SHALL BE PERFORMED ON ALL BUTT WELDS IN GAS METER AND GAS DISTRIBUTION PIPING OPERATING AT PRESSURES EXCEEDING 3 PSIG, WITHIN BUILDINGS, IN ACCORDANCE WITH API 1104-1977 OR ASME SECTION IX BOILER AND PRESSURE VESSEL CODE, 1980.

G. CONTROLLED INSPECTION IS REQUIRED FOR METER AND DISTRIBUTION PIPING AT GAS PRESSURE EXCEEDING 3 PSIG.

H. THE AUTHORITY MAY INSTRUCT THE CONTRACTOR THAT CERTAIN WELDING WORK MAY REQUIRE RADIOGRAPHIC INSPECTIONS. THE AUTHORITY SHALL SELECT THE TESTING LABORATORY. THE INSPECTOR SHALL HAVE A MINIMUM RADIOGRAPHY QUALIFICATION OF LEVEL II.

I. WHEN NEW PIPING IS CONNECTED TO EXISTING GAS PIPING THE CONTRACTOR SHALL INSPECT EXISTING GAS PIPING CONNECTING TO THE NEW PIPING UP TO THE FIRST EXISTING GAS SHUT-OFF VALVE ON THE LINE WITH 200 PSI LOAD.

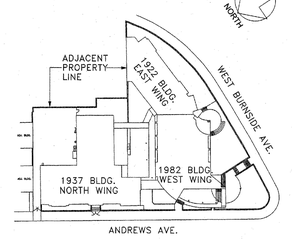
J. GAS TESTS SHALL BE MADE IN THE PRESENCE OF THE REPRESENTATIVES OF THE AUTHORITY, THE DEPARTMENT OF BUILDINGS AND THE GAS COMPANY; AND THE PIPING SHALL BE PROVEN TIGHT TO THEIR ENTIRE SATISFACTION. NOTIFICATION SHALL BE SENT TO THESE VARIOUS BUREAUS 72 HOURS IN ADVANCE OF THE TIME SET FOR THE OFFICIAL TEST.

K. GAS CONSUMED BEFORE THE BUILDING HAS BEEN ACCEPTED BY THE AUTHORITY WILL NOT BE PAID FOR UNLESS SPECIAL PERMISSION TO USE GAS HAS BEEN GRANTED BY THE AUTHORITY.

NOTE: Drawing may be printed at reduced scale

No. Date Revision

Key Plan:



Block # 3216 Lot # 2

SCA Program Design Manager:	JOSE BAEZ, P.E
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D015405	X026	12/06/13

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Drawing Title:
P&D SYMBOLS, SCHEDULES ABBREVIATIONS AND NOTES

Drawing No.: P001.00

Sheets in Contract Set: 20 of 79
Sheets in DOB Set: 20 of 59

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