	PLUMBING	SYMBOL LIST	
	NOTE: THIS IS A MASTER SCHEDULE. NOT ALL SYM	IBOLS CONTAINED HEREIN MAY AI	PPEAR ON THE DRAWINGS.
	ITEM TO BE REMOVED	—	ROOF DRAIN PIPING
⊕ ♦	POINT OF CONNECTION/DISCONNECTION	AV	ACID VENT PIPING
(#)	SHEET NOTE	——AW——	ABOVE GROUND ACID WASTE PIPING
*	REVISION NUMBER	— —AW— —	UNDERGROUND ACID WASTE PIPING
TAG	EQUIPMENT MARK		VENT PIPING
	· · · · · ·		ABOVE GROUND WASTE PIPING
L N	ACCESS PANEL		UNDERGROUND WASTE PIPING
-11	CLEAN OUT	—— GW ——	ABOVE GROUND GREASE WASTE PIPING
Ч , Н	WALL CLEAN OUT	— —GW— —	UNDERGROUND GREASE WASTE PIPING
0	FLOOR CLEAN OUT	 GW 	ABOVE GROUND GW PIPING W/HEAT TRACE
lacksquare	GRADE CLEAN OUT	= - GW = -	UNDERGROUND GW PIPING W/HEAT TRACE
\(\rightarrow\)	FLOOR DRAIN	—— ⊠ ——	CIRCUIT SETTER
	FLOOR SINK	—— >	2-WAY ELECTRONIC CONTROL VALVE
	FLOOR SINK W/ GRATE	— *	3-WAY ELECTRONIC CONTROL VALVE
©	ROOF DRAIN	—— 	2-WAY PNEUMATIC CONTROL VALVE
©	OVERFLOW ROOF DRAIN		3-WAY PNEUMATIC CONTROL VALVE
©	VENT THRU ROOF	—— 	SOLENOID VALVE
FS T	FLOW SWITCH	—— / r	BUTTERFLY VALVE
©	GAS REGULATOR		PLUG VALVE
G	GAS METER		GAS COCK
М	WATER METER		BALL VALVE
₹	WATER HAMMER ARRESTOR		CHECK VALVE
Q	SHUT-OFF VALVE IN IRRIGATION BOX	── ►	GATE VALVE
	BACKFLOW PREVENTION STATION	—— ⋈ I	HOSE END DRAIN VALVE
c ı	HOSE BIBB	—— ⋈ —— Ā	PRESSURE REDUCING VALVE
——A——	COMPRESSED AIR LINES	ሴ ቴ	RELIEF VALVE
——CD——	CONDENSATE DRAIN PIPING	1 T	TEMPERATURE PRESSURE RELIEF VALVE
——PC ——	PUMPED CONDENSATE DRAIN PIPING		THERMOMETER
——D——	DRAIN PIPING	<u>~~~</u>	PRESSURE GAUGE WITH GAUGE COCK
	COLD WATER PIPING	— Т	MANUAL AIR VENT
ICW	INDUSTRIAL COLD WATER PIPING		PRESSURE TEMPERATURE PORT
ISCW	INDUSTRIAL SOFTENED COLD WATER PIPING		Y-STRAINER WITH BLOWDOWN
scw	SOFTENED COLD WATER PIPING		PIPE GUIDE
 F	FIRE PROTECTION PIPING		UNION
——HPG ——	HIGH PRESSURE GAS PIPING		PIPE ANCHOR
——G——	LOW PRESSURE GAS PIPING		FLEXIBLE CONNECTOR
——MPG ——	MEDIUM PRESSURE GAS PIPING	 3	PIPE CAP/STUB-OUT
 GV 	GAS VENT PIPING	_	DIRECTION OF FLOW
	HOT WATER PIPING	 >	PIPE DOWN
——140°——	140° HOT WATER PIPING	 0	PIPE UP
	HOT WATER RETURN PIPING		PIPE TEE UP
——TW——	TEMPERED WATER PIPING		PIPE TEE DOWN
—— ORD ——	OVERFLOW ROOF DRAIN PIPING		

NOTE: THIS IS A MASTER SCHEDULE. NOT ALL ABBREVIATIONS CONTAINED HEREIN MAY APPEAR ON THE DRAWINGS. GRADE CLEANOUT PRESSURE DROP AMERICAN AIR BALANCE COUNCIL PRESSURE REDUCING VALVE ACD AUTOMATIC CONTROL DAMPER **GREASE INTERCEPTOR** PRV PSI GALLONS PER FLUSH POUNDS PER SQUARE INCH ABOVE FINISHED FLOOR GALLONS PER MINUTE PSIA POUNDS PER SQUARE INCH ABSOLUTE ACCESS PANEL GPM AMERICAN SOCIETY OF HEATING, GLYCOL RETURN POUNDS PER SQUARE INCH GLYCOL SUPPLY DIFFERENTIAL REFRIGERATION, AND AIR CONDITIONING ENGINEERS **GREASE WASTE** POUNDS PER SQUARE INCH GAUGE AMERICAN SOCIETY OF PLUMBING HD EXISTING TO BE RELOCATED HORSEPOWER **RETURN AIR ENGINEERS** ACID VENT HIGH PRESSURE GAS RELATIVE HUMIDITY RL/S REFRIGERANT LIQUID/SUCTION ACID WASTE HEATING SEASONAL PERFORMANCE REVOLUTIONS PER MINUTE BACKFLOW PREVENTION DEVICE RPM BRAKE HORSEPOWER **FACTOR** REDUCED PRESSURE PRINCIPAL **HOT WATER** ASSEMBLY BRITISH THERMAL UNIT PER HOUR REMOTE VOLUME DAMPER HEATING HOT WATER RETURN RVD CONDENSATE DRAIN HEATING HOT WATER SUPPLY HWS SA CUBIC FEET PER MINUTE SUPPLY AIR INTERNATIONAL BUILDING CODE SD SMOKE DAMPER CHARACTERISTICS CHR CHILLED WATER RETURN INVERT ELEVATION SEASONAL ENERGY EFFICIENCY RATIO SOI "SP INTERNATIONAL MECHANICAL CODE SAND OIL INTERCEPTOR CHS CHILLED WATER SUPPLY STATIC PRESSURE (INCHES OF W.C.) INTERNATIONAL PLUMBING CODE CLEANOUT KILOWATT CONDENSER WATER RETURN SPECIFICATIONS LEAVING AIR TEMPERATURE CONDENSER WATER SUPPLY SQ SQUARE COLD WATER POUNDS SQUARE FEET LEAVING WATER TEMPERATURE STAINLESS STEEL DRY BULB TEMPERATURE MAX MAXIMUM TEMPERATURE DDC DIRECT DIGITAL CONTROL MBH ONE THOUSAND BTUH TEST AND BALANCE REPORT MINIMUM CIRCUIT AMPS MCA TSP TOTAL STATIC PRESSURE DIAMETER MINIMUM TEMPERED WATER DOWN MAXIMUM OVERCURRENT PROTECTION DIRECT EXPANSION MEDIUM PRESSURE GAS EXISTING TO REMAIN UBC UNIFORM BUILDING CODE MPG UMC UON MANUAL VOLUME DAMPER UNIFORM MECHANICAL CODE EXHAUST AIR UNLESS OTHERWISE NOTED **ENTERING AIR TEMPERATURE** NOT APPLICABLE N/A NORMALLY CLOSED UPC UNIFORM PLUMBING CODE ELECTRICAL CONTRACTOR ENERGY EFFICIENCY RATIO NATIONAL ENVIRONMENTAL BALANCING BUREAU V/PH/HZ VOLTAGE/PHASE/HERTZ EFFICIENCY ELECTRICAL NATIONAL ELECTRIC CODE VFD VARIABLE FREQUENCY DRIVE EXTERNAL STATIC PRESSURE NATIONAL FIRE PROTECTION VTR VENT THROUGH ROOF

ASSOCIATION

NOT IN CONTRACT

NORMALLY OPEN

OPEN END DUCT

OUTSIDE AIR TEMPERATURE

OWNER FURNISHED, CONTRACTOR

OPPOSED BLADE DAMPER

NOT TO SCALE

OUTSIDE AIR

INSTALLED

OBD

OED

OFCI

EWT

FSD

GAL

ENTERING WATER TEMPERATURE

FAHRENHEIT

FIRE DAMPER FEET PER MINUTE

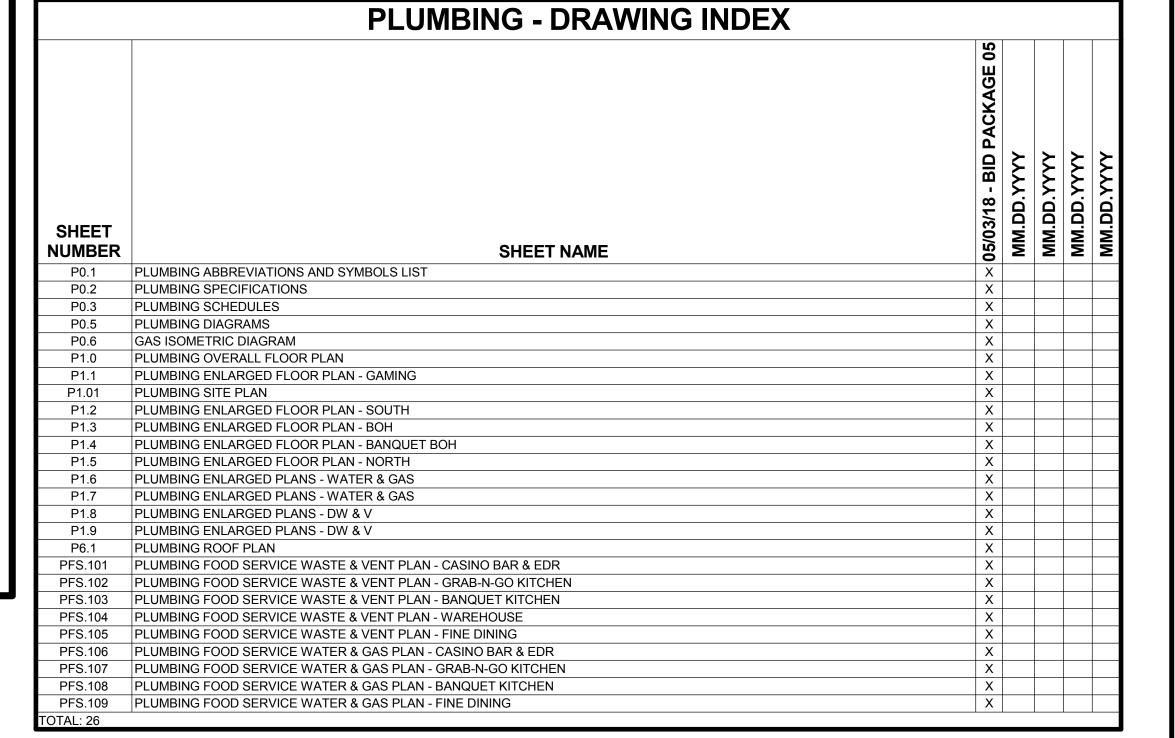
FLOOR CLEANOUT

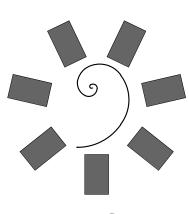
GAGE OR GAUGE

GALLONS

FIRE / SMOKE DAMPER

PLUMBING ABBREVIATIONS





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WET BULB TEMPERATURE

EXISTING TO BE REMOVED

WALL CLEANOUT

WIRE MESH SCREEN

WATER GUAGE

WB



CHEROKEE NATION
Entertainment

ENTERTAINME I CASINO NATION EN EQUAH ROKEE I TAHLI

PROJECT PHASE:

BID PACKAGE 05

REVISIONS BESCRIPTION

05/03/18 17-06

PLUMBING ABBREVIATIONS AND SYMBOLS LIST

FIRE SPRINKLER NOTES

- SPRINKLER CONTRACTOR SHALL PROVIDE SYSTEM DESIGN, LABOR, MATERIALS. EQUIPMENT, AND SERVICES NECESSARY FOR THE COMPLETE DESIGN BUILD FIRE SPRINKLER SYSTEM.
- THE DESIGN AND INSTALLATION SHALL CONFORM TO ALL REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 13) AND THE GENERAL REQUIREMENTS OF APPLICABLE SECTIONS OF THE INTERNATIONAL BUILDING CODE, THE SPECIFIC REQUIREMENTS OF THE LOCAL FIRE PREVENTION BUREAU, AND THE
- OWNER'S INSURANCE UNDERWRITER THE SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO, SPRINKLER HEADS, VALVES, ESCUTCHEONS, PIPING, FITTINGS, HANGERS, DRAINS, WET TEST CONNECTIONS, SIGNS
- AND OTHER IDENTIFICATION MARKINGS AS REQUIRED. ALL MATERIALS AND EQUIPMENT USED IN THE INSTALLATION OF FIRE PROTECTION SYSTEMS SHALL BE LISTED AS APPROVED BY UNDERWRITERS LABORATORIES, INC. "LIST OF INSPECTED FIRE PROTECTION EQUIPMENT AND MATERIALS," OR APPROVED BY OTHER APPROPRIATE, NATIONALLY RECOGNIZED TESTING LABORATORIES FOR USE IN SPRINKLER SYSTEMS, AND SHALL BE THE LATEST DESIGN OF THE MANUFACTURER. SPRINKLER HEADS SHALL BE PROVIDED AS REQUIRED AND CONFORM TO THE LATEST
- **EDITION OF NFPA 13.** PIPING, PIPE HANGERS AND SUPPORTS SHALL CONFORM TO THE LATEST EDITION OF
- INSTALL HEADS AT FINISHED HEIGHT WITH ESCUTCHEON, OR DIRECTLY IN REDUCER OF EXTRA LENGTH DROPS RATHER THAN PLUGGING. IF EXTRA LENGTH DROPS ARE INSTALLED, CUT BACK HEADS AFTER CEILING INSTALLATION IN THE CUSTOMARY
- SPRINKLER DROPS ARE TO BE INSTALLED PRIOR TO INSTALLATION OF CEILING SYSTEM THEN REMOVED AND REINSTALLED AFTER INSTALLATION OF CEILING SYSTEM, WITH
- DROPS MODIFIED, AS REQUIRED. PROVIDE ESCUTCHEONS AT EACH SPRINKLER HEAD. COORDINATE WITH OTHER WORK, INCLUDING DUCTWORK, DIFFUSERS, GRILLES, ELECTRICAL AND PLUMBING PIPING. AS NECESSARY TO INTERFACE COMPONENTS OF
- FIRE SPRINKLER PIPING PROPERLY WITH OTHER WORK. . AFTER SYSTEM IS COMPLETELY INSTALLED, IT SHALL BE FILLED AND TESTED IN ACCORDANCE WITH LOCAL REQUIREMENTS, AND THE REQUIREMENTS OF THE
- APPLICABLE NFPA BULLETINS. FINAL SHOP DRAWINGS SHALL FIRST BE SUBMITTED TO THE STATE FIRE MARSHAL FOLLOWING THEIR REVIEW AND APPROVAL, SUBMIT TO THE OWNER'S INSURANCE COMPANY. FOLLOWING THEIR SIGNATURED APPROVAL, THE SHOP DRAWINGS SHALL BE SENT TO THE ARCHITECT FOR CEILING DESIGN COORDINATION ONLY. IF REQUIRED BY ANY REVIEWING AGENT, OR IF REVIEW COMMENTS REQUIRE EXTENSIVE REVISIONS, THE SUBMITTAL SHALL BE REVISED AS REQUIRED AND RESUBMITTED FOR APPROVAL
- BEFORE SUBMISSION TO THE ARCHITECTS OFFICE. THE CONTRACTOR GUARANTEES THAT ALL WORK INSTALLED SHALL BE FREE OF ALL DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR FROM THE
- DATE OF THE CERTIFICATION OF COMPLETION AND ACCEPTANCE OF THE WORK. 3. ADDITIONAL SPRINKLER HEADS SHALL BE PROVIDED AS REQUIRED AND CONFORM TO THE LATEST EDITION OF NFPA 13.
- . ADDITIONAL PIPING, PIPE HANGERS AND SUPPORTS SHALL CONFORM TO THE LATEST EDITION OF NFPA 13.ADDITIONAL PIPING, PIPE HANGERS AND SUPPORTS SHALL
- CONFORM TO THE LATEST EDITION OF NFPA 13. 15. ACTIVATE THE SPRINKLER SYSTEM FOR PROTECTION PURPOSES AS SOON AS DROPS
- HAVE BEEN COMPLETE IN ANY ONE SECTION OF THE SPRINKLER. :. ALL SPRINKLER HEADS AND ESCUTCHEONS SHALL HAVE MOUNTING TYPE (FLUSH OR
- SEMI-RECESSED), FINISH AND COLOR AS SELECTED BY ARCHITECT ALL SPRINKLERS SHALL BE CENTERED WITHIN THE CEILING GRID, COORDINATE EXACT
- LOCATION WITH ARCHITECT PRIOR TO SUBMITTAL OF DRAWINGS TO FIRE DEPARTMENT.

PLUMBING GENERAL NOTES

THE OWNER HAS CONTRACT LANGUAGE THAT NEEDS TO BE READ PRIOR TO BID SUBMISSION AS THERE ARE ITEMS THAT MAY SUPPLEMENT OR SUPERSEDE ITEMS NOTED HEREIN. THE OWNER'S CONTRACT DOCUMENTS HAS INFORMATION ON HOW WORK IS TO BE PERFORMED, HOW DOCUMENT SUBMITTALS ARE PROVIDED, RECORD DOCUMENTS ARE SUBMITTED, ETC. SEE THE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL DIVISION 1 INFORMATION.

CODE USED IN DESIGN: IBC 2012, IMC 2012, IPC-2012, IECC-2012, IFGC 2012 ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC), LOCAL MECHANICAL CODE (UMC, IMC, ETC.), LOCAL PLUMBING CODE (UPC, IPC, ETC.), NATIONAL ELECTRIC CODES (NEC) AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

THE CONTRACTOR MUST ARRANGE A VISIT TO THE WORK SITE PRIOR TO BID SUBMISSION TO FULLY UNDERSTAND THE EXISTING CONDITIONS. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE WORK INTENT BUT NOT NECESSARILY ALL EXISTING OBSTRUCTIONS, PIPE OR DUCT BENDS. DETERMINING SITE CONDITIONS AND ADJUSTING THE INSTALLATION IS THE RESPONSIBILITY OF THE CONTRACTOR

THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR THEIR INDIVIDUAL SECTIONS OF WORK. THE WORD "WORK" SHALL MEAN ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION AND ANY OTHER INCIDENTAL ITEMS OR SERVICES NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY INDICATED OR NOTED.

ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS ARE MADE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND AFFECT AS IF COMPLETELY REPRODUCED. THE WORD "PROVIDE" SHALL MEAN FURNISH AND INSTALL. MAKE ALL FINAL CONNECTIONS

AND LEAVE IN AN APPROVED COMPLETE OPERATING CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL FEES AND OBTAINING ALL

PERMITS AND INSPECTIONS REQUIRED FOR THE WORK. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COORDINATE THE WORK WITH ALL OTHER TRADES INCLUDING, BUT NOT LIMITED TO, THE CONTRACT DOCUMENTS, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, ELECTRICAL AND SPECIALTY CONTRACTOR WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED, WITHOUT INTERFERENCE WITH OTHER WORK, AND SHALL MAKE REASONABLE MODIFICATIONS IN THE LAYOUTS NEEDED TO PREVENT CONFLICT WITH OTHER TRADES, TO PROVIDE ACCESS AND FOR THE PROPER EXECUTION OF THE WORK.

0. DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE, AND INDICATE THE TYPE, SIZE, ARRANGEMENT AND LOCATION OF MATERIALS AND EQUIPMENT. WORK INCLUDES CERTAIN COMPONENTS, APPURTENANCES AND RELATED SPECIALTIES THAT MAY NOT BE SHOWN. CONTRACTOR SHALL PROVIDE ALL NECESSARY ITEMS TO COMPLETE THE WORK ACCORDING TO INDUSTRY STANDARDS. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO CALL OUT FOR FINISHED WORK, TESTED AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF PIPES AND DUCTWORK, ETC. INDICATED ON DRAWINGS SHALL BE ROUTED PLUMB AND AT RIGHT ANGLES TO BUILDING CONSTRUCTION AND MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS AND REQUIRE ON SITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING").

1. ALL WORK REQUIRED FOR IDENTICAL/SIMILAR ITEMS SHOWN ON THE DRAWINGS SHALL BE PROVIDED, ALTHOUGH EACH SPECIFIC IDENTICAL/SIMILAR ITEM MAY NOT BE SHOWN IN

12. THE CONTRACTOR SHALL SUBMIT ELECTRONIC PDF SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR ALL EQUIPMENT AND MATERIALS SPECIFIED HEREIN TO THE ENGINEER. THE ENGINEER SHALL REVIEW SHOP DRAWINGS AND TECHNICAL DATA SHEETS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND ISSUE A WRITTEN ASSESSMENT TO THE OWNER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING FEES NECESSARY TO CHANGE PERMIT DOCUMENTS BASED ON ALTERNATE SUBMITTAL PACKAGES/EQUIPMENT SUBSTITUTIONS.

3. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION PRIOR TO BIDDING. THE OWNER'S REPRESENTATIVE SHALL PREAPPROVE ANY PROPOSED SUBSTITUTION IN WRITING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT OR MATERIALS WITH OTHER BUILDING TRADES, INCLUDING ALL ELECTRICAL, STRUCTURAL, OR ARCHITECTURAL ELEMENTS. (SHOP DRAWING REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM SUBSTITUTE EQUIPMENT COORDINATION REQUIREMENTS.) THE CONTRACTOR SHALL IDENTIFY AND ANNOTATE ALL REVISED REQUIREMENTS PER BUILDING TRADE ON THE SHOP DRAWINGS. THE CONTRACTOR SHALL ALSO IDENTIFY ALL COST DEBITS OR CREDITS IN WRITING FOR THE PROPOSED CHANGES PER BUILDING TRADE.

 UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH AN ELECTRONIC CAD AND PDF SET OF AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED.

15. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A MINIMUM OF ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER. REFRIGERATION COMPRESSORS SHALL BE GUARANTEED FOR A MINIMUM OF FIVE (5) YEARS FROM DATE OF OWNER'S ACCEPTANCE. IN ADDITION, THE CONTRACTOR SHALL GUARANTEE THAT THE INSTALLATION WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS WILL DEVELOP CAPACITY AND CHARACTERISTICS AS SPECIFIED AND WILL FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS. SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR WILL, WITHOUT DELAY OR WITHOUT COST TO THE OWNER, PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR REQUIRED TO CORRECT THE DEFICIENCY AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

16. CONTRACTOR SHALL CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATIONS OR PROBLEMS SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW. 17. PROVIDE BASE AND COUNTER FLASHING FOR ITEMS PENETRATING THE ROOF OR EXTERIOR

18. STARTERS, VFDs DISCONNECT SWITCHES AND CONTROLS FOR MOTORS IF NOT UNIT MOUNTED AND/OR SUPPLIED BY THE EQUIPMENT MANUFACTURER, UNLESS NOTED SPECIFICALLY OTHERWISE SHALL FOLLOW:

18.1. VFDs TO BE SUPPLIED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FINAL LOCATIONS COORDINATED WITH THE ENGINEER. WIRING BETWEEN THE VFD AND THE MOTOR SHALL BE SHIELDED POWER CABLE DESIGNED FOR VFD APPLICATIONS, GROUNDED AT BOTH ENDS.

18.2. UNLESS NOTED OTHERWISE, LOOSE MOTOR STARTERS, COMBINATION STARTERS, DISCONNECT SWITCHES, MOTOR RATED SWITCHES, TOGGLE SWITCHES, ETC. TO BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR

18.3. CONTROL AND INTERLOCKING WIRING SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR PERFORMING CONTROLS WORK. (SEE AUTOMATIC TEMPERATURE CONTROLS SECTION FOR ADDITIONAL INFORMATION WITH REGARD TO THIS WIRING RULE.) 19. ALL WORK SHOWN IS NEW UNLESS NOTED OTHERWISE.

20. MAINTAIN OCCUPANCY AND FIRE WALL SEPARATION INTEGRITY AS REQUIRED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF ALL OCCUPANCY/FIREWALL SEPARATIONS AND SPECIFIC DETAILS FOR CONSTRUCTION. PROVIDE ALL NECESSARY FIRE AND SMOKE FIRE DAMPERS, ACCESS DOORS, CAULKING, ETC. FOR APPROVED INSTALLATION.

THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING "ALL TRADES" COORDINATION DRAWINGS. THIS WORK APPLIES TO ABOVE CEILINGS, IN SHAFTS AND ON THE ROOF. THESE DRAWINGS ARE TO BE PREPARED IN 3D OR REVIT. 2D AUTOCAD DRAWINGS WILL BE AVAILABLE FROM THE DESIGN TEAM AND CAN BE UTILIZED TO ASSIST IN THE PREPARATION OF THE COORDINATION DRAWINGS. THESE DRAWINGS SHALL BE COMPLETED PRIOR TO WORK BEING INSTALLED IN THE FIELD FOR THE LOCATIONS NOTED ABOVE. AS-BUILT DOCUMENTS ARE NOT AVAILABLE FOR THE WORK LOCATION. THE CONTRACTOR WILL NEED TO PERFORM FIELD WORK TO LOCATE STRUCTURAL CONSTRAINTS AND EXISTING SERVICES THAT ARE REQUIRED TO REMAIN SO THAT ACCURATE DOCUMENTS CAN BE CREATED. THE ENGINEER WILL ASSIST WHERE NEEDED TO HELP IDENTIFY EQUIPMENT THAT NEEDS TO STAY WITHIN THE CEILING SPACE TO SERVICE OTHER SPACES. EACH TRADE INVOLVED IS TO PROVIDE THEIR DOCUMENTS, IN AUTOCAD FORMAT, TO THE MECHANICAL CONTRACTOR FOR INSERTION TO THE COMMON FILE. (DURING THE BID PROCESS THE MECHANICAL CONTRACTOR IS TO ENSURE THE GC IS AWARE OF THIS WORK WHERE THEY HAVE RESPONSIBLE CHARGE.) THE OWNER MAY PRE-PURCHASE THE SERVICES OF A FIRE SPRINKLER AGENCY, BUT THE INSTALLATION OF THE SPRINKLER PIPING WITH REGARD TO SCHEDULE, LOCATION AND INSTALLATION WILL FALL UNDER THE DIRECTION OF THE GC AND SPRINKLER PIPING MUST BE INCLUDED IN THE COORDINATION DOCUMENTS. AT A MINIMUM THE FOLLOWING TRADES ARE TO BE INVOLVED IN THE COORDINATION DRAWINGS: MECHANICAL, PLUMBING, ELECTRICAL, LOW VOLTAGE, BAS, SPRINKLER, CARPENTRY, ANY OTHER TRADE THAT WILL WORK IN THE AFFECTED AREAS.

BIDDING

1. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL COMPARE THE WORK SPECIFIED IN THE CONTRACT DOCUMENTS WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL IDENTIFY AND NOTATE ALL WORK OR CONDITIONS THAT ARE DIFFERENT FROM THE CONTRACT DOCUMENTS OR THEIR INTENT. THE CONTRACTOR SHALL, UPON DISCOVERY, IMMEDIATELY NOTIFY AND REPORT. IN WRITING, ANY DISCREPANCIES TO THE ENGINEER. NO EXTRAS OR CHANGE ORDERS WILL BE ALLOWED FOR FAILURE TO PERFORM THE PRE-BID SITE

BASE PROPOSAL ON MANUFACTURER NAMES LISTED UNLESS "OR EQUAL" IS INDICATED. PROVIDE SUBSTITUTION REQUESTS A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BID DATE CLOSING TO ALLOW TIME FOR DUE CONSIDERATION OF PROPOSED ALTERNATE. DETERMINATION OF SUBSTITUTION OF EQUALITY RESTS SOLELY WITH THE ENGINEER.

IBC PROJECTS: MECHANICAL AND ELECTRICAL SYSTEMS DEFINED WITHIN THE IECC AND LOCAL AMENDMENTS. COMMISSIONING MUST BE PERFORMED BY AN APPROVED THIRD PARTY

2. THE COMMISSIONING AGENT IS RESPONSIBLE FOR THE DEVELOPMENT OF THE COMMISSIONING PLAN AND THE COMMISSIONING PLAN IS TO BE SUBMITTED TO THE ENGINEER

AND THE LOCAL AHJ AS A DEFERRED SUBMITTAL FOR THIS PROJECT THE GC WILL BE RESPONSIBLE FOR THE RETENTION OF A CODE/LOCAL AHJ/OWNER/ENGINEER APPROVED COMMISSIONING AGENT (CXA). (THE MECHANICAL CONTRACTOR IS TO ENSURE THE GC IS AWARE OF THIS REQUIREMENT.) LOCATED ELSEWHERE IS A COMMISSIONING REQUIREMENT OUTLINE THAT PROVIDES AN OVERVIEW OF THE COMMISSIONING PROCESS. THESE REQUIREMENTS COMBINED WITH THOSE IN THE 2012 IECC, SECTION C408 SHALL DESIGN THE MINIMUM REQUIREMENTS FOR COMMISSIONING.

PART TWO - PRODUCTS PLUMBING EQUIPMENT

PROVIDE PLUMBING EQUIPMENT AS SPECIFIED AND/OR SCHEDULED HEREIN AND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. EQUIPMENT SHALL OPERATE ACCORDING TO THE MANUFACTURER'S "OWNER'S OPERATING AND MAINTENANCE MANUAL" TROUBLE FREE AND CONFORMING TO THE ONE-YEAR WARRANTEE.

PLUMBING PRODUCTS

DOMESTIC WATER PIPING 1.1. ABOVE GROUND: TYPE "L" COPPER (ASTM B-88), WROUGHT FITTINGS (ASME B16.22), JOINTS ANSI/ASTM B32, SOLDER: 95/5 TIN/ANTIMONY, 0.2% MAX LEAD. (SADDLE TAPS, SHARKBITE, PROPRESS, EXTRUDED OUTLETS ("PULLED TEES") OR SIMILAR FITTINGS NOT PERMITTED UNLESS SPECIFICALLY APPROVED

1.2. UNDER GROUND/BELOW GRADE: PROTECTED FROM SOIL, TYPE "K" COPPER (ASTM B-88), HARD DRAWN, WROUGHT FITTINGS (ASME B16.22) JOINTS: AWS A5.8, BCuP SILVER BRAZE. 1.3. MUST COMPLY WITH NSF/ANSI 61 AND NSF/ANSI 372.

2. DOMESTIC WASTE & VENT PIPING MATERIALS:

2.1. ABOVE GROUND AND BELOW GRADE NO-HUB CAST IRON

2.1.1. PIPE AND FITTINGS SHALL BE MARKED WITH CISP INSTITUTE AND LISTED BY NSF. NO-HUB COUPLINGS SHALL CONFORM TO CISPI STD 310 AND MARKED NSF. COUPLINGS SHALL BE

HUSKY HIGH PERFORMANCE HEAVY DUTY SD-4000) 2.1.2. EPOXY COATED PIPE AND FITTINGS BY NEWAGE CASTING. COUPLINGS SHALL BE EXTRA HEAVY DUTY (SIMILAR TO HUSKY SD-4000), BY NEWAGE CASTING. (E.C.C.I.) 2.1.3. CAST IRON PIPE SHALL CONFORM TO ASTM-A-888 OR CISPI 30.

2.1.4. ALTERNATE ACCEPTABLE MATERIAL: DWV COPPER. 2.2. STAINLESS STEEL ABOVE GROUND, GREASE WASTE PIPING TO BE JOSAM STAINLESS STEEL PUSH-FIT DRAINAGE SYSTEM. (INCLUDES FLOOR SINKS & DRAINS)

2.3. THIS PROJECT: STAINLESS STEEL

WASTE BELOW GRADE VFNT **GW ABOVE GRADE** GW BELOW GRADE

2.3. PVC SCH. 40 SOLID WALL PIPE AND PVC DWV FITTINGS: PIPE TO COMFORM TO ASTM D 1784. PVC PIPE TO BE IRON PIPE SIZE (IPS) CONFORMING TO ASTM D 1785 AND D 2665. PVC FITTINGS TO ASTM D 2665. BURIED PIPE SHALL BE INSTALLED PER LOCAL CODE AND ASTM D 2321 AND F 1668. SOLVENT CEMENT JOINTS TO BE PRIMER (PER ASTM F 656) AND SOLVENT CEMENT (PER ASTM D 2564)

2.3.1. STAINLESS STEEL GREASE WASTE PIPE WHERE NOTED TO BE INSULATED, SHALL BE URECON PRE-INSULATED SCH. 40 PVC PIPE USING THE URECON U.I.P. SYSTEM - 2" THICK INSULATION WITH A 50 MILPOLYETHYLENE JACKET. FITTINGS TO RECEIVE A URECON. INSULATION KIT. RUNOUTS FROM THE MAIN TO RECEIVE FIELD APPLIED URECON HALF SHELLS FOR A 4' DISTANCE OFF THE MAIN. WHERE NOTED TO BE HEAT TRACED, THE INSULATION SYSTEM SHALL PROVIDE A CONDUIT FOR HEAT TRACE CABLE. HEAT TRACE CABLE SHALL BE URICON CONSTANT WATT PARALLEL RESISTANCE THERMOCABLE. 4" PIPE TO RECEIVE 4 WATTS/FT. 6" PIPE TO RECEIVE TWO CABLES AT 3 WATTS/FT EACH (CABLE IS RATED AT 240 V BUT CAN BE POWERED BY 208 V). POWER, END TERMINATION KITS, POWER FEED KITS AND OTHER REQUIRED ACCESSORIES BY URECON. (NO UNDER GROUND SPLICES IN HEATING CABLE.) HEAT TRACE CONTROLLER - URECON UTC-2230 (WITH CIRCUIT BREAKER FOR LOCAL ISOLATION) AND PLATINUM RTD SENSORS.

2.3.2. PVC MAY ONLY BE USED BELOW GRADE WHERE ACCEPTABLE SOIL CONDITIONS ARE ROOF DRAIN AND OVERFLOW ROOF DRAIN PIPING: ABOVE GROUND - NO-HUB CAST IRON, PIPE AND FITTINGS SHALL BE MARKED WITH CISP INSTITUTE AND LISTED BY NSF. NO-HUB COUPLINGS SHALL CONFORM TO CISPI STD 310 AND MARKED NSF. COUPLINGS SHALL BE HUSKY HIGH PERFORMANCE HEAVY DUTY SD4000. CAST IRON PIPE SHALL CONFORM TO ASTM-A-888 OR CISPI 30. or PVC SCH. 40 (80) WITH PVC COUPLINGS. or SCH. 40 STEEL PIPE WITH VICTAULIC COUPLINGS. or LORO-JOSAM SIPHONIC ROOF DRAINAGE SYSTEM (INCLUDES

ROOF DRAINS & PIPE) RAIN WATER DRAIN PIPING SHALL BE CAST IRON, UNLESS OTHERWISE APPROVED. CONDENSATE DRAIN PIPING: TYPE "M" COPPER (ASTM B-88), WROUGHT FITTINGS (ASME

B16.22), JOINTS: ANSI/ASTM B32, SOLDER: 95/5 TIN/ANTIMONY, 0.2% MAX LEAD. GAS PIPING: ABOVE GRADE SCHEDULE 40 BLACK IRON(ASME A-53), THREADED MALLEABLE FITTINGS INSIDE AND GALVANIZED FITTINGS AND PIPE WHERE EXPOSED, JOINT COMPOUND. PROVIDE ISOLATION VALVES AT ALL EQUIPMENT. BELOW GRADE GAS PIPING SHALL BE POLYETHYLENE (PE) GAS PIPING WITH BUTT FUSION JOINTS. PIPING SHALL BE LABELED GAS. GAS VALVE SHALL BE BRONZE BODY, BRONZE TAPERED PLUG, NON-LUBRICATED, TEFLON

PACKING, THREADED ENDS. PIPE INSULATION: ALL DOMESTIC COLD WATER PIPING (IN UNCONDITIONED SPACES ONLY) AND ALL DOMESTIC HOT WATER PIPING ABOVE GROUND SHALL BE INSULATED WITH 1" THICK FIBERGLASS PIPE INSULATION WITH ALL-SERVICE JACKET AND MAXIMUM K VALUE OF 0.27 AT 75^F. WHERE CLEARANCE LIMITATIONS PREVENT THE USE OF FIBERGLASS INSULATION, A MINIMUM 3/4" THICK CLOSED CELL NEOPRENE PIPE INSULATION MAY BE USED. WHERE THE CLIMATE DICTATES, COLD WATER PIPING, CONDENSATE DRAIN AND ROOF DRAIN PIPING TO BE INSULATED. PROVIDE METAL SADDLES AND RIGID INSULATION AT HANGERS WHERE SYSTEM WEIGHT COMPRESSES INSULATION. PROVIDE ADA COMPLIANT INSULATION ON EXPOSED UNDER SINK PIPING.

PIPE HANGERS: PIPE SIZES 1/2" TO 1 1/2": MALLEABLE IRON, CARBON STEEL, ADJUSTABLE SWIVEL, SPLIT RING. PIPE SIZES 2" TO 4": CARBON STEEL, ADJUSTABLE, CLEVIS. PIPE SIZES 6" AND OVER THAT ARE SUBJECT TO EXPANSION & CONTRACTION: ADJUSTABLE STEEL YOKE, CAST IRON ROLL, DOUBLE HANGER. SYSTEM LOAD (PIPE FULL OF DESIGN LIQUID OR GAS) ON HANGER MUST NOT EXCEED MORE THAN 85% OF HANGER CAPACITY.

9. FLOOR DRAINS, UNLESS OTHERWISE SPECIFICALLY SPECIFIED: MIFAB F1000(-C), HD STAINLESS STEEL STRAINER, CAST LACQUERED BODY, TRAP PRIMER CONNECTION, ANCHOR FLANGE, WEEPHOLES. WITH MEMBRANE CLAMP WHERE APPLICABLE. (2, 3, 4, 5, 6 INCH PIPE

10. FLOOR SINKS, UNLESS OTHERWISE SPECIFICALLY SPECIFIED: MIFAB FS1930-FL (8" DEEP) 304 S.S., 2" TO 4" PIPE SIZE, NO-HUB; ANCHOR FLANGE, MEMBRANE CLAMP WHERE REQUIRED; TRAP PRIMER CONNECTION; 1/2, 3/4 OR FULL GRATE PER DOCUMENTS.

HEAT TRACE: RAY CHEM, XL-TRACE SYSTEM, INSTALLED PER MANUFACTURERS

- 1. DIELECTRIC FITTINGS SHALL BE USED WHEREVER DISSIMILAR METALS ARE JOINED. PROVIDE ACCESS PANELS IN CEILING TO ACCESS MECHANICAL/PLUMBING EQUIPMENT AND APPURTENANCES WHERE REQUIRED.
- PLUMBING FIXTURES: PROVIDE CHROME PLATED ANGLE STOPS WITH ESCUTCHEON PLATES AT PLUMBING FIXTURES. ALL PLUMBING FIXTURES SHALL COMPLY WITH LOCAL REGULATIONS AND ADOPTED WATER CONSERVATION CODES.
- DISINFECT ALL POTABLE WATER SYSTEMS IN ACCORDANCE WITH PLUMBING CODE AND/OR, AWWA STANDARD. PROVIDE WRITTEN CONFIRMATION TO OWNERS REPRESENTATIVE THAT THIS WORK HAS BEEN COMPLETED.

1. THE CONTRACTOR SHALL PROVIDE ALL SLEEVES, OPENINGS, CUTTING AND PATCHING NECESSARY FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES REQUIRED AND PAID BY THE CONTRACTOR REQUIRING THE WORK COMPLETED. SYSTEMS PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. SYSTEMS PASSING THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE PROOFED WITHER MATERIAL APPROVED FOR THE FIRE AND TEMPERATURE RATING OF THE ASSEMBLY AND U.L. LISTED. (IF THE ARCHITECT HAS NOT PROVIDED A STANDARD DRAWING/ASSEMBLY FOR AN APPLICATION AND ONE IS NOT AVALIABLE, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN AN "ENGINEERING JUDGEMENT" AND ASSOCIATED DRAWING FOR THE APPLICATION.)

2. THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HANDLING OF MATERIALS AND EQUIPMENT, AND THE NECESSARY PROTECTION FOR MATERIALS AND EQUIPMENT

THE CONTRACTOR WILL PROTECT THE WORK AND MATERIAL AGAINST DIRT, THEFT, INJURY OR DAMAGE UNTIL ACCEPTED BY OWNER. ALL WORK SHALL BE TURNED OVER TO OWNER CLEAN AND IN NEW CONDITION.

4. WHERE FLOOR DRAINS OR FLOOR SINKS OR SIMILAR FIXTURES ARE INSTALLED IN FLOORS THAT ARE NOT SLAB-ON-GRADE AND THE FLOOR IS A FIRE RATED ASSEMBLY, PER CODE, THE OPENING CREATED TO ACCEPT THE DRAIN AND THE DRAIN FITTING MUST USE A LISTED SYSTEM TO BE TEMPERATURE AND FIRE RATED TO MATCH THE RATING OF THE FLOOR (MIN 2

5. PROVIDE "TRAP GUARD", OR EQUIVALENT, FOR FLOOR DRAINS, FLOOR SINKS AND OTHER DEVICES WHERE TRAP SEALS EXIST.

EQUIPMENT CONDENSATE DRAINS: FAN COIL. AHU AND OTHER SIMILAR EQUIPMENT CONDENSATE DRAINS MAY OR MAY NOT BE DOCUMENTED ON THE PROJECT DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE CONDENSATE DRAINS TO AN APPROVED RECEPTOR, SIZE DRAIN TO MATCH OR EXCEED CODE MINIMUMS. PROVIDE A

CONDENSATE PUMP WHERE REQUIRED (IE: LITTLE GIANT NXTGEN) 7. EACH CONTRACTOR SHALL PROVIDE ALL FOUNDATIONS, HANGERS, AND SUPPORTS FOR ALL EQUIPMENT SUPPLIED AND/OR INSTALLED UNDER THEIR WORK. ANY EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH VIBRATION ISOLATION AND FLEXIBLE CONNECTIONS TO PIPING AND OR DUCTWORK IF APPLICABLE. MISCELLANEOUS STEEL AND ANCHORS REQUIRED FOR THE INSTALLATION OF THE CONTRACTORS EQUIPMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE RETENTION OF A STRUCTURAL ENGINEER OR OTHER DESIGN DISCIPLINE TO COMPLETE THE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR. EG: THE USE OF CONCRETE ANCHORS WILL REQUIRE DOCUMENTATION

APPROVAL FROM A STRUCTURAL ENGINEER RETAINED BY THE CONTRACTOR. 8. WHERE PIPES OR CONDUITS PASS THROUGH WALLS, FLOORS, OR CEILINGS IN FINISHED AREAS, THEY SHALL BE FURNISHED WITH ESCUTCHEON PLATES (COLOR PER ARCHITECT

AND/OR INTERIOR DESIGNER). 4. PIPES AND/OR CONDUITS PASSING THROUGH WALL, FLOORS AND PARTITIONS SHALL BE PROVIDED WITH SLEEVES. SLEEVES PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. SLEEVES/PIPES PASSING THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE PROOFED WITH MATERIAL APPROVED FOR THE FIRE AND TEMPERATURE RATING OF THE ASSEMBLY AND U.L. LISTED. (IF THE ARCHITECT HAS NOT PROVIDED A STANDARD DRAWING/ASSEMBLY FOR AN APPLICATION AND ONE IS NOT AVAILABLE, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN AN "ENGINEERING JUDGEMENT" AND ASSOCIATED DRAWING FOR THE APPLICATION.)

5. AT THE CONCLUSION OF THE JOB, EACH PIECE OF EQUIPMENT, VALVE, SWITCH, STARTER, PANEL, PIPE LINE, CONDUIT, DUCT, ETC., SHALL BE CLEARLY IDENTIFIED WHETHER EXPOSED OR CONCEALED, COVERED OR UNCOVERED, IN ACCORDANCE WITH OSHA AND ANSI REGULATIONS. IDENTIFY PIPES NEAR EACH VALVE WITH "BRANDY-PERMA' CODE PIPE TAPE" OR T. & B. WESTLINE "TEL-A-PIPE" INDICATING DIRECTION OF FLOW, SERVICE, ZONE, AND SIZE. TAPE SHALL BE APPLIED TO PIPE, CONDUIT, OR COVERING. VALVES, CONTROLS, AND DAMPERS SHALL BE IDENTIFIED BY 2-INCH LACQUERED BRASS TAGS WITH STAMPED LETTERS FASTENED WITH "S" HOOKS OR CHAINS. EQUIPMENT IS TO BE IDENTIFIED AS TO FUNCTION AND PURPOSE BY MEANS OF PERMANENTLY ATTACHED LAMINATED ENGRAVED PHENOLIC NAMEPLATES WITH BEVELED EDGES, AND WHITE LETTERS ON BLACK BACKGROUND. (NO ADHESIVE LABELS ALLOWED).

6. AT THE CONCLUSION OF THE WORK, ALL EQUIPMENT AND SYSTEMS SHALL BE BALANCED, ADJUSTED. AND TESTED TO PROVIDE A QUIET-OPERATING. STABLE, AND SAFELY OPERATING SYSTEM(S). DEMONSTRATE OPERATION OF ALL SYSTEMS TO THE OWNER'S DESIGNATED REPRESENTATIVE. THE TEST AND BALANCE WORK SHALL BE PERFORMED IN ACCORDANCE WITH NEBB OR AABC STANDARDS, BY INDEPENDENT, APPROVED, AND CERTIFIED TEST AND

BALANCE PERSONNEL 7. IN LOCATIONS WHERE SEISMIC DESIGN REQUIREMENTS EXIST, THE MECHANICAL/PLUMBING CONTRACTOR IS RESPONSIBLE FOR RETAINING AND PAYING FOR THE DESIGN SERVICES OF A STRUCTURAL ENGINEER TO CREATE THE DESIGN AND INSTALLATION DRAWINGS FOR MECHANICAL/PLUMBING SYSTEMS SEISMIC RESTRAINT SUPPORT. PER THE PROJECT BUILDING CODE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT MECHANICAL SYSTEMS SHOP DRAWINGS BASED UPON MULTI DISCIPLINE COORDINATION. INCLUDED WITH THE SHOP DRAWING SUBMISSION SHALL BE SEISMIC RESTRAINT DRAWINGS NOTING WHERE SEISMIC SUPPORT IS REQUIRED. FOR EACH AREA NOTED NEEDING SEISMIC SUPPORT FOR THE MECHANICAL SYSTEMS, THERE SHALL BE A SEISMIC DRAWING DETAILING THE REQUIRED SUPPORT. THE SEISMIC SUPPORT DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED STRUCTURAL ENGINEER IN THE SAME STATE AS THE PROJECT. IN ADDITION TO THE PROJECT DESIGN TEAM REVIEW. THE SEISMIC SUPPORT DRAWINGS WILL BE ISSUED TO THE LOCAL BUILDING DEPARTMENT FOR REVIEW AS PART OF A DEFERRED SUBMITTAL FOR THE BUILDING DOCUMENTS. COMMENCEMENT OF CONSTRUCTION PRIOR TO BUILDING

DEPARTMENT REVIEW IS AT THE CONTRACTOR'S RISK. 8. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF GRILLES, REGISTERS AND DIFFUSERS.

PIPE HANGERS: PIPE SIZES 1/2" TO 1 1/2" - 5'-0" MAX SPACING, 3/8" MIN. ROD DIAMETER; PIPE SIZES 2" TO 3" - 8'-0" MAX SPACING, 1/2" MIN. ROD DIAMETER; PIPE SIZES 4 TO 6"-10'-0" MAX SPACING, 5/8" MIN. ROD DIAMETER. 10. WATER PROOFING AND FLASHING OF PIPE PENETRATIONS THROUGH THE EXTERIOR WALL

AND ROOF SHALL BE THE RESPONSIBILITY OF THE INSTALLING MECHANICAL/PLUMBING CONTRACTOR. THE CONTRACTOR SHALL COORDINATE LOCATIONS, MEANS AND METHODS WITH GENERAL CONTRACTOR/OWNER FOR THE VARIOUS BUILDING SYSTEMS. ROOFING MEMBRANE PENETRATIONS MUST BE PERFORMED BY A CONTRACTOR THAT IS WARRANTY APPROVED FOR THE SPECIFIC ROOFING SYSTEM. 11. CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT THE EXACT LOCATION OF EQUIPMENT,

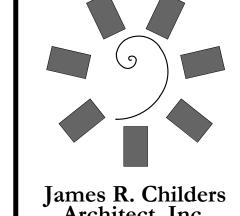
PLUMBING FIXTURES, FLOOR DRAINS AND ANY OTHER APPARATUS SPECIFIED IN THESE DRAWINGS. 12. PROVIDE CLEAN OUTS IN SANITARY, WASTE AND DRAIN LINES AS SHOWN AND AS REQUIRED

BY LOCAL CODE. ALL CLEANOUTS SHALL BE READILY ACCESSIBLE.

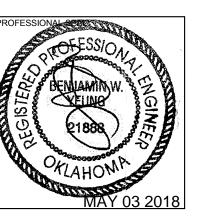
13. PROVIDE BALANCE VALVE FOR HOT WATER RETURN SYSTEM AS REQUIRED. PROVIDE PRESSURE REDUCING VALVE IN SYSTEM AS REQUIRED.

15. PROVIDE HEAT TRAPS (INTEGRAL OR EXTERNAL) FOR ALL WATER HEATING EQUIPMENT. 16. PROVIDE A NON-VENTED TRAP ON ALL INDIRECT WASTE PIPING FIVE (5) TO FIFTEEN (15) FEET IN DEVELOPED LENGTH. INDIRECT WASTE PIPING WITH ANGLES AND CHANGES OF DIRECTION SHALL BE BE PROVIDED WITH CLEANOUTS. INDIRECT DRAINS OVER FIFTEEN (15) FEET TO BE

TRAPPED AND WITH A DEDICATED VENT TO THE EXTERIOR. 17. WHERE A SINK IN A BAR, SODA FOUNTAIN, OR COUNTER HAS AN INDIRECT WASTE, THE DEVELOPED LENGTH FROM THE SINK OUTLET SHALL NOT EXCEED FIVE (5) FEET. 18. PAN ALL WASTE AND GREASE WASTE LINES DIRECTLY OVER ANY FOOD PREPARATION AREAS.







CONSULTANT LOGO:





SIN SIN

PROJECT PHASE: BID PACKAGE 05

	F	REVISIONS
#	DATE	DESCRIPTION

17-06 05/03/18

PLUMBING **SPECIFICATIONS**

WATER HAMMER ARRESTORS

P.D.I. SYMBOL	CONN. SIZE, IN.	FIXTURE UNITS								
Α	3/4"	1 - 11								
В	1"	12 - 32								
С	1"	33 - 60								
D	1"	61 - 113								
Е	1"	114 - 154								
F	1"	155 - 330								
NOTE: INSTALL	NOTE: INSTALL AS PER MANUFACTURER MODEL'S									
RECOMMENDATIONS										
(P.D.I. = PLUMBIN	G DRAINAGE INSTITUT	ΓE STANDARDS.)								

PLUMBING FIXTURE SPECIFICATIONS

MARK	DESCRIPTION
WC-1	WATER CLOSET (ACCESSIBLE) - AMERICAN STANDARD #2294.011EC, VITREOUS CHINA, WHITE-0 FINISH, WALL MOUNT, ELONGATED BOWL, SOLID PLASTIC OPEN FRONT SEAT, LESS COVER, AMERICAN STANDARD #6065.121.002 BATTERY POWERED, SENSOR OPERATED FLUSHOMETER, 1.28 GPF, PROVIDE SUPPORT CARRIER BY JR SMITH OR ZURN. WC-1 SAME FIXTURE MOUNTED AT ACCESSIBLE RIM HEIGHT. REFER TO ARCHITECT'S ACCESSIBILITY DETAILS PRIOR TO ROUGH-IN.
WC-2	WATER CLOSET - AMERICAN STANDARD #2294.011EC, VITREOUS CHINA, WHITE-0 FINISH, WALL MOUNT, ELONGATED BOWL, SOLID PLASTIC OPEN FRONT SEAT, LESS COVER, AMERICAN STANDARD #6065.121.002 BATTERY POWERED, SENSOR OPERATED FLUSHOMETER, 1.28 GPF, PROVIDE SUPPORT CARRIER BY JR SMITH OR ZURN. WC-1 SAME FIXTURE MOUNTED AT ACCESSIBLE RIM HEIGHT. REFER TO ARCHITECT'S ACCESSIBILITY DETAILS PRIOR TO ROUGH-IN.
U-1	URINAL (ACCESSIBLE) - AMERICAN STANDARD DECORUM #6042.001EC, WALL HUNG, VITREOUS CHINA, 1 1/4" INLET SPUD, 0.125 GPF, 2" TOP SPUD, FRONT JETTED, BLOWDOWN-TYPE, 1 1/2" GLAZED TRAPWAY, FLUSHING RIM. FLUSH VALVE: AMERICAN STANDARD #6063.025.002, 0.125 GPF, BATTERY POWERED, SENSOR OPERATED. WHITE FINISH. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS PRIOR TO ROUGH-IN.
U-2	URINAL - AMERICAN STANDARD DECORUM #6042.001EC, WALL HUNG, VITREOUS CHINA, 1 1/4" INLET SPUD, 0.125 GPF, 2" TOP SPUD, FRONT JETTED, BLOWDOWN-TYPE, 1 1/2" GLAZED TRAPWAY, FLUSHING RIM. FLUSH VALVE: AMERICAN STANDARD #6063.025.002, 0.125 GPF, BATTERY POWERED, SENSOR OPERATED. WHITE FINISH. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS PRIOR TO ROUGH-IN.
L-1	LAVATORY (ACCESSIBLE) - KOHLER PENNINGTON K-2196-1R VITREOUS CHINA, DROP-IN, WHITE FINISH. FAUCET: SLOAN MODEL #EFX100, SENSOR OPERATED, BATTERY POWERED, 0.5 GPM, CHROME PLATED FINISH, LOOSE KEY STOPS, BRAIDED STAINLESS STEEL SUPPLY, GRID DRAIN, ADJUSTABLE P-TRAP. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS PRIOR TO ROUGH-IN. PROVIDE PIPE PROTECTION PER ADA REQUIREMENTS.
L-2	LAVATORY (ACCESSIBLE) - KOHLER KATHRYN K-2297 VITREOUS CHINA, UNDER COUNTER, WHITE FINISH. FAUCET: SLOAN MODEL #EFX100, SENSOR OPERATED, BATTERY POWERED, 0.5 GPM, CHROME PLATED FINISH, LOOSE KEY STOPS, BRAIDED STAINLESS STEEL SUPPLY, GRID DRAIN, ADJUSTABLE P-TRAP. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS PRIOR TO ROUGH-IN. PROVIDE PIPE PROTECTION PER ADA REQUIREMENTS.
HS-1	HAND SINK (ACCESSIBLE) - ADVANCE TABCO #7-PS-68, 304 SERIES STAINLESS STEEL, WALL MOUNTED. FAUCET: CHICAGO FAUCETS #W4W-GN1AE35-317AB, 1.5 GPM AERATOR, 4" VANDAL PROOF WRISTBLADE HANDLE, WALL MOUNTED, GOOSENECK SPOUT.
MS-1	MOP SINK - FIAT MSB-3624, 36"X24" FLOOR MOUNT, POLYMER CONSTRUCTION, 832-AA HOSE AND BRACKET, 880-CC MOP HANGER, E-77AA VINYL RIM GUARDS, SYMMONS S-2490-CHKS WALL MOUNT BACK INLET SERVICE FAUCET WITH HOSE END SPOUT, PAIL HOOK, WALL BRACKET, INTEGRAL STOPS, CHECKS AND VACUUM BREAKER.
FD-1	FLOOR DRAIN - FOR SHOWERS, TOILETS, TERRACE, AND KITCHENS, J.R. SMITH #2010A, CAST IRON BODY, 6" DIAMETER NICKEL BRONZE SQUARE HOLE GRATE, INTEGRAL FLASHING FLANGE. PROVIDE WITH TRAP-GAURD.
FD-2	FLOOR DRAIN - FOR CASINO AREA UNDER RAISED FLOOR, J.R. SMITH #2130, SHALLOW DRAIN, 12" DIAMETER ROUND TOP, DUCO CAST IRON BODY AND FLASHING COLLAR WITH CAST IRON BAR GRATE, MEDIUM DUTY. PROVIDE WITH TRAP-GAURD.
FS-1	FLOOR SINK - ZURN MODEL Z1900 12"x12" WITH 6" SUMP DEPTH. CAST IRON BODY AND SQUARE SLOTTED GRATE WITH ANTI-SPLASH ENAMEL INTERIOR AND TOP COATING.
RD-1	ROOF DRAIN - J.R. SMITH #1010-ERC, CAST IRON BODY, CAST IRON OR CAST ALUMINUM DOME STRAINER, EXTENSION AS REQUIRED, SUMP RECEIVER AND UNDERDECK CLAMP.
ORD-1	OVERFLOW ROOF DRAIN - J.R. SMITH #1080-ERC, CAST IRON BODY, CAST IRON OR CAST ALUMINUM DOME STRAINER, EXTENSION AS REQUIRED, SUMP RECEIVER AND UNDERDECK CLAMP. INTEGRAL 2" HIGH SOLID WATER DAM.
HB-1	HOSE BIBB - WOODFORD MODEL RB65, AUTOMATIC DRAINING FREEZELESS WALL HYDRANT IN BOX WITH VACUUM BREAKER AND LOOSE TEEKEY OPERATOR.
HB-2	ROOF TOP FREEZE PROOF HOSE BIBB - WOODFORD #SRH-MS 3/4" HOSE FAUCET WITH ASSE 1052 CERTIFIED DOUBLE CHECK VALVE BACKFLOW PREVENTER (FIELD TESTABLE), ROOF DECK SLEEVE / SUPPORT WITH UNDERDECK CLAMP AND RAIN BOOT.
TD-1	TRENCH DRAIN - MIFAB MODEL P6030-29, 3" W x DESIRED LENGTH, CENTERED BOTTOM OUTLET WITH STAINLESS STEEL BODY AND GRATE. PROVIDE WITH SLIP RESISTANT GRATE. PROVIDE WITH TRAP-GAURD.
TD-2	TRENCH DRAIN - MIFAB MODEL P6060-SBG, 6 " W x DESIRED LENGTH, CENTERED BOTTOM OUTLET WITH STAINLESS STEEL BODY AND GRATE. PROVIDE WITH STAINLESS STEEL BAR GRATE. PROVIDE WITH TRAP-GAURD.
	DOWNSDOLIT NO77LE ZUDN 7100 DC STAINLESS STEEL EDAME WITH SECUEDED DEDEODATED S S. HINICED

PLUMBING FIXTURE SCHEDULE

DOWNSPOUT NOZZLE - ZURN Z199-DC. STAINLESS STEEL FRAME WITH SECURED PERFORATED S.S. HINGED

MARK	FIXTURE		R	OUGH-IN	(INCHE	S)		REMARKS
WARK	FIXTURE	C.W.	TW	HW	V	S/W	TRAP	REWARKS
<u>WC-1</u>	WATER CLOSET	1	-	-	-	-	-	WALL MOUNT - ACCESSIBLE
<u>WC-2</u>	WATER CLOSET	1	-	-	-	-	-	WALL MOUNT
<u>U-1</u>	URINAL	3/4	-	-	2	2	-	WALL HUNG - ACCESSIBLE
<u>U-2</u>	URINAL	3/4	-	-	2	2	-	WALL HUNG
<u>L-1</u>	LAVATORY	1/2	-	1/2	1 1/2	2	1 1/4 X 1 1/2	COUNTER
<u>L-2</u>	LAVATORY	1/2	-	1/2	1 1/2	2		UNDER MOUNT
<u>HS-1</u>	HAND SINK	1/2	-	1/2	1 1/2	2		WALL MOUNTED
MS-1	MOP SINK	3/4	-	3/4	2	3	-	FLOOR MOUNT
<u>FD-1</u>	FLOOR DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHERWISE
<u>FD-2</u>	FLOOR DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHERWISE
<u>FS-1</u>	FLOOR SINK	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHERWISE
<u>RD-1</u>	ROOF DRAIN	-	-	-	-	-	-	REFER TO DWGS. FOR EXACT SIZES
<u>ORD-1</u>	ROOF DRAIN	-	-	-	-	-	-	REFER TO DWGS. FOR EXACT SIZES
<u>HB-1</u>	HOSE BIBB	3/4	-	-	-	-	-	FREEZE PROOF RECESSED WALL BOX
<u>HB-2</u>	HOSE BIBB	3/4	-	-	-	-	-	FREEZE PROOF KEY OPERATED
<u>TD-1</u>	TROUGH DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHERWISE
<u>TD-2</u>	TROUGH DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHERWISE

WATER SOFTENER SCHEDULE

MARK	MANUFACTURER	GENERAL	GENERAL DATA		FLOW RATE (GPM)			PIPE SIZE (IN.)		TANK CIZE	BRINE	OPERATING	
	MODEL	SIZE	GRAIN CAPACITY	V/PH/HZ	CONTINUOUS	PEAK	BACKWASH	INLET	OUTLET	TANK SIZE (IN.)	TANK (IN.)		REMARKS
WS 1	PHOENIX PF-9210-TEM- CB-SK-PLC	38"D x 99"L x 98"H	300,000	120/1/60	55 GPM	88 GPM	15 GPM	2"	2"	24"x72"	24"x50"	8,540	1, 2, 3, 4, 5

- PROVIDE WATER METER. CONTRACTOR TO PROVIDE INTERCONNECT PIPING AS REQUIRED.
- ASME CODE TANKS REQUIRED, RATED FOR 125 PSIG WORKING PRESSURE. TYPE L COPPER FACE PIPING WITH BRASS SERVICE VALVES.
- PROVIDE 4" HOUSEKEEPING PAD.

GAS FIRED WATER HEATER SCHEDULE

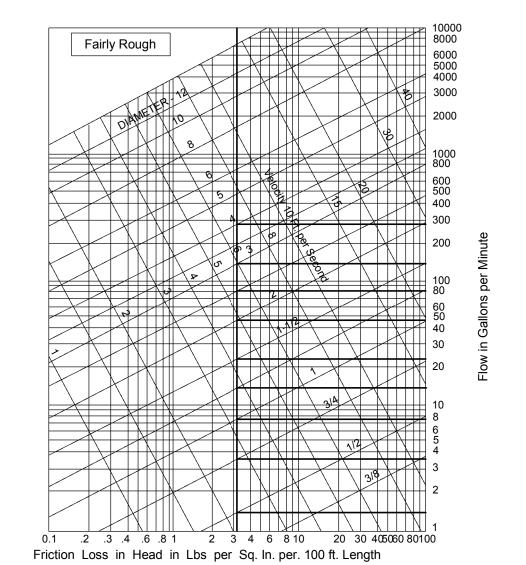
	OAOTIKED WATER HEATER COHEDCE													
				GENERA	AL DATA		ELECTRICAL	OPERATING						
MARK	MANUFACTURER MODEL	LOCATION	STORAGE CAPACITY (GAL)	GAS INPUT (MBH)	GAS CONNECTION (IN)	MINIMUM EFFICIENCY (%)	RECOVERY (GPH)	TEMP RISE (°F)	V/PH/HZ	WEIGHT (LBS)	REMARKS			
WH 1	LOCHINVAR SNA201-100	EVS STORAGE 12	90	199	1/2"	96%	221	90	120/1/60	1,475	1, 2			
WH 2	LOCHINVAR SNA201-100	EVS STORAGE 12	90	199	1/2"	96%	221	90	120/1/60	1,475	1, 2			

SEISMIC RESTRAINT STRAP. TP&R VALVE.

DOMESTIC WATER BRANCH PIPE SIZING CALC

PROJECT: CNE TAHLEQUAH CASINO DATE: 4/18/18 BY: AMOS PROJECT NO.: L18041 CHECKED BY: R. JONES

Friction Loss in Head in Lbs per Sq. In. per. 100 ft. Length



STATIC HEAD (S.H.)= 45 FT. x 0.43 = 19.35 P.S.I.

PRESS. AVAIL= 75 SERV PRESS.- (19.35 S.H.- 30 REQ'D PRESS. - 0 METER) = 25.65PSI DEVELOPED LENGTH (LONGEST RUN) = 600 FT.

50% FITTING LENGTH = 180 FT. TOTAL EQUIVALENT LENGTH = 780 FT.

ALLOWABLE FRICTION LOSS/100FT. =(25.65) (100) = 3.28 P.S.I.

COLD WATER	MAX. FLOW (GPM)	FLUSH TANK F.U.	FLUSH VALVE F.U.	VELOCITY (FPS)
1/2"	1.4	-	-	-
3/4"	3.6	4	-	2.7
1"	7.6	8	-	3.3
1 1/4"	14	20	-	3.7
1 1/2"	23	36	21	4.3
2"	46	111	39	4.9
2 1/2"	80	275	148	5.5
3"	140	585	490	6
4"	285	1583	1583	6.5

I CERTIFY THAT THE EXISTING WATER SUPPLY SYSTEM FOR THE BUILDING WILL MEET OR EXCEED THE MINIMUM REQUIREMENTS IN THE CITY OF LAS VEGAS CURRENTLY ADOPTED UNIFORM PLUMBING CODE REQUIREMENTS FOR THE FIXTURES INSTALLED IN THE PROPOSED TENANT IMPROVEMENT.

- ENTER NAME OF P.E. ON PROJECT -

MSA ENGINEERING CONSULTANTS COMPANY

RECIRCULATION PUMP SCHEDULE

	MANUFACTURER FLOW HEAD MOTOR											
MARK	MANUFACTURER MODEL	SERVICE	FLOW GPM	HEAD FT	HP '	V/PH/HZ	REMARKS					
CP 1	BELL & GOSSET XL B 55-45	DOMESTIC HOT WATER	20	35	1/2	208/1/60	1, 2, 4					

- PROVIDE SUPPLEMENTAL SUPPORT STEEL WITH NEOPRENE ISOLATION PAD. SET AQUASTAT TO PUMP "ON" AT 135[^] F AND "OFF" AT 140[^] F.
- SET AQUASTAT TO PUMP "ON" AT 105° F AND "OFF" AT 110° F.

	SUMP PUMP SCHEDULE										
MARK	MANUFACTURER MODEL	SERVICE	FLOW GPM	HEAD FT.	RPM	N HP	IOTOR V/PH/HZ	REMARKS			
SP 1	HYDROMATIC #SHEF50	ELEV. S-1	50	25	3450	1/2	120/1/60	5			

- PROVIDE 48"~x15'-0" DEEP BASIN WITH GAS TIGHT COVER HAVING ALL NECESSARY CONNECTIONS FOR THE PUMP DISCHARGE, BASIN VENT CONTROLS ETC.
- PROVIDE NEMA CONTROLLER COMPLETE WITH ALTERNATOR, MOTOR STARTERS, MOTOR PROTECTIVE DEVICES. HOA SWITH FOR EACH PUMP AND HIGH WATER ALARM ENUNCIATOR.
- PROVIDE FLOAT SWITCHES FOR PUMPS OFF LEAD PUMP ON LAG PUMP ON AND HIGH WATER ALARM.
- PROVIDE CHECK AND GATE VALVE IN DISCHARGE PIPING FROM EACH PUMP LOCATE ABOVE BASIN IN PUMP ROOM. PROVIDE FLOAT SWITCHES FOR AUTOMATIC OPERATION.

TEMPERING VALVE SCHEDULE

MARK	MANUFACTURER MODEL	dP (PSIG)	GPM	OUTLET TEMP, °F	INLET SIZE, IN.	OUTLET SIZE, IN.	REMARKS
TMV 1	LEONARD XL-186-82-LF	5	19	110	1	1 1/4	1, 2, 4
TMV 2	LEONARD XL-186-32-LF	5	11	110	3/4	3/4	1, 2, 4

- STEEL CABINET. RECESSED MOUNT.
- EXPOSED OR SURFACE MOUNT.
- CHROME PLATE FINISH.
- BAKED WHITE ENAMEL FINISH.

STAINLESS STEEL

	EXPANSION TANK SCHEDULE											
MARK	MANUFACTURER MODEL	LOCATION	TANK VOLUME (GAL)	ACCEPTANCE FACTOR	AIR PRE-CHARGE (PSI)	OPERATING WEIGHT (LBS)	NOTES					
ET 1	AMTROL ST-42V-C	EVS STORAGE 12	20	.57	50	200	1, 2, 3, 4					

BLADDER TYPE.

150 PSI WORKING PRESSURE FOR POTABLE HOT WATER USE.

B. MOUNT ON 4" HOUSEKEEPING PAD. 4. APPLICATION PER FDA REQUIREMENTS.

GREASE INTERCEPTOR SCHEDULE

REF: 2012 UPC 1014.3, TABLE 1014.3.6

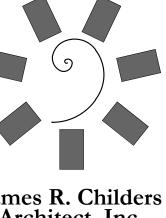
JENSEN PRECAST - JP1000EE-G, 1,000 GAL GREASE INTERCEPTOR WITH TRAFFIC RATED COVER (H-20)

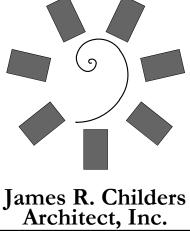
JENSEN PRECAST - JP1500EE-G, 1,500 GAL GREASE INTERCEPTOR WITH TRAFFIC RATED COVER (H-20)

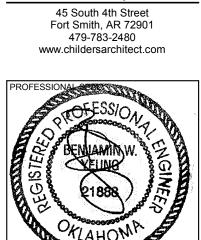
05/03/18

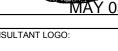
P0.3

PLUMBING SCHEDULES











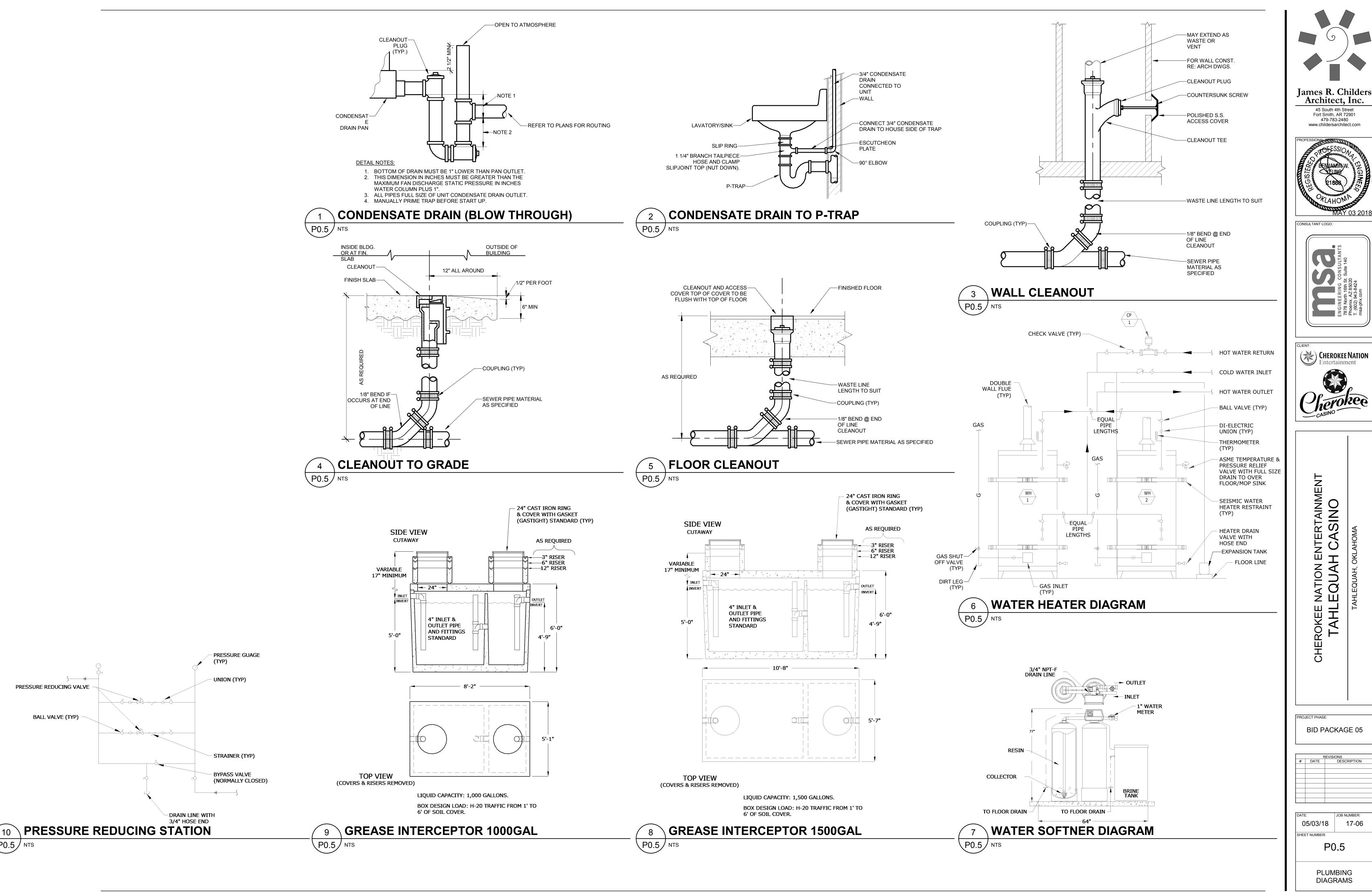


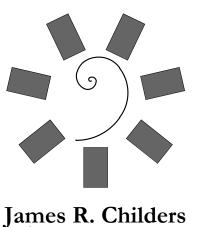


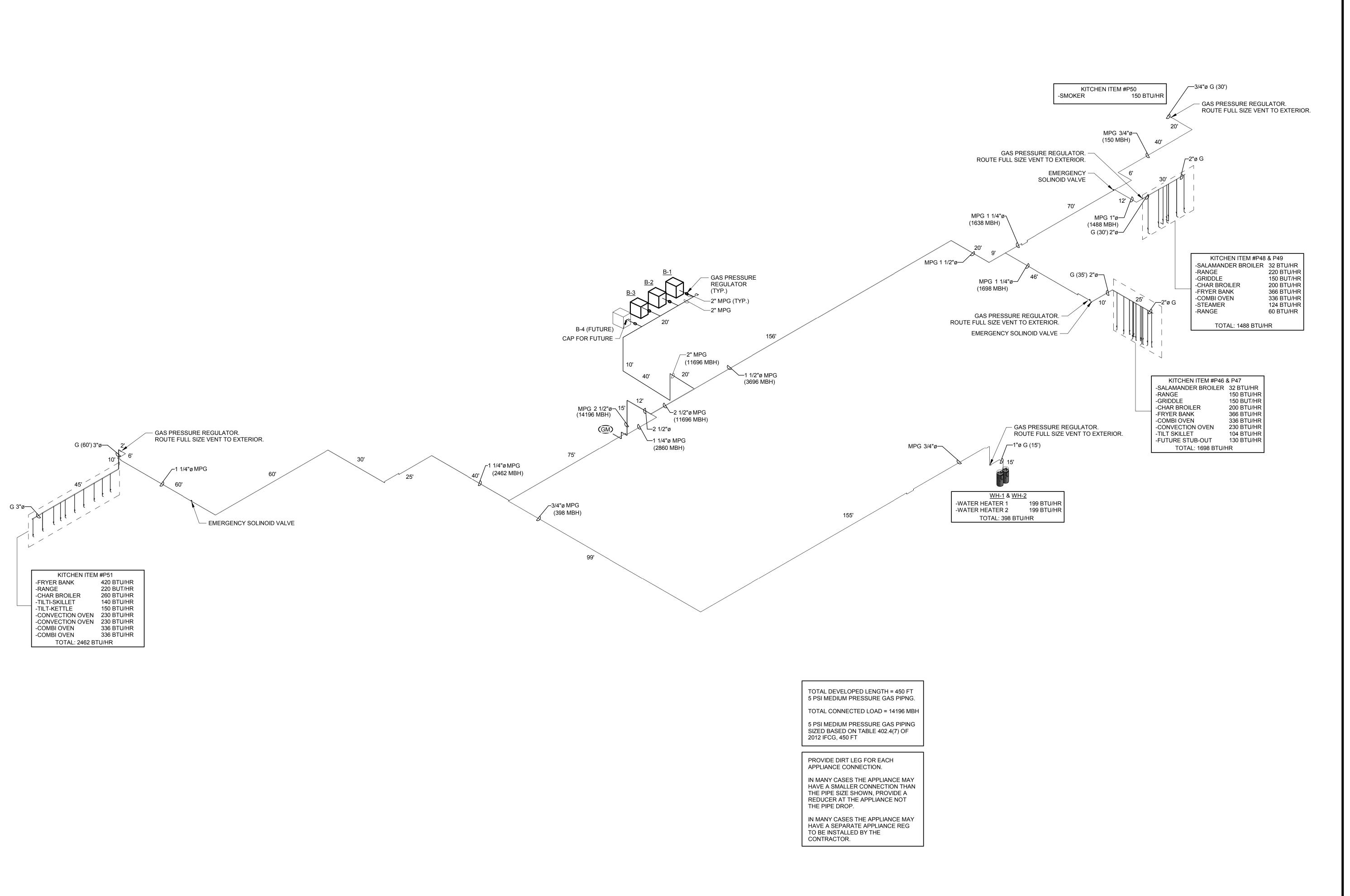
PROJECT PHASE: BID PACKAGE 05

DATE DESCRIPTION

17-06







(1) GAS ISOMETRIC DIAGRAM

CHEROKEE NATION ENTERTAINMENT
TAHLEQUAH CASINO





CONSULTANT LOGO:

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17-06

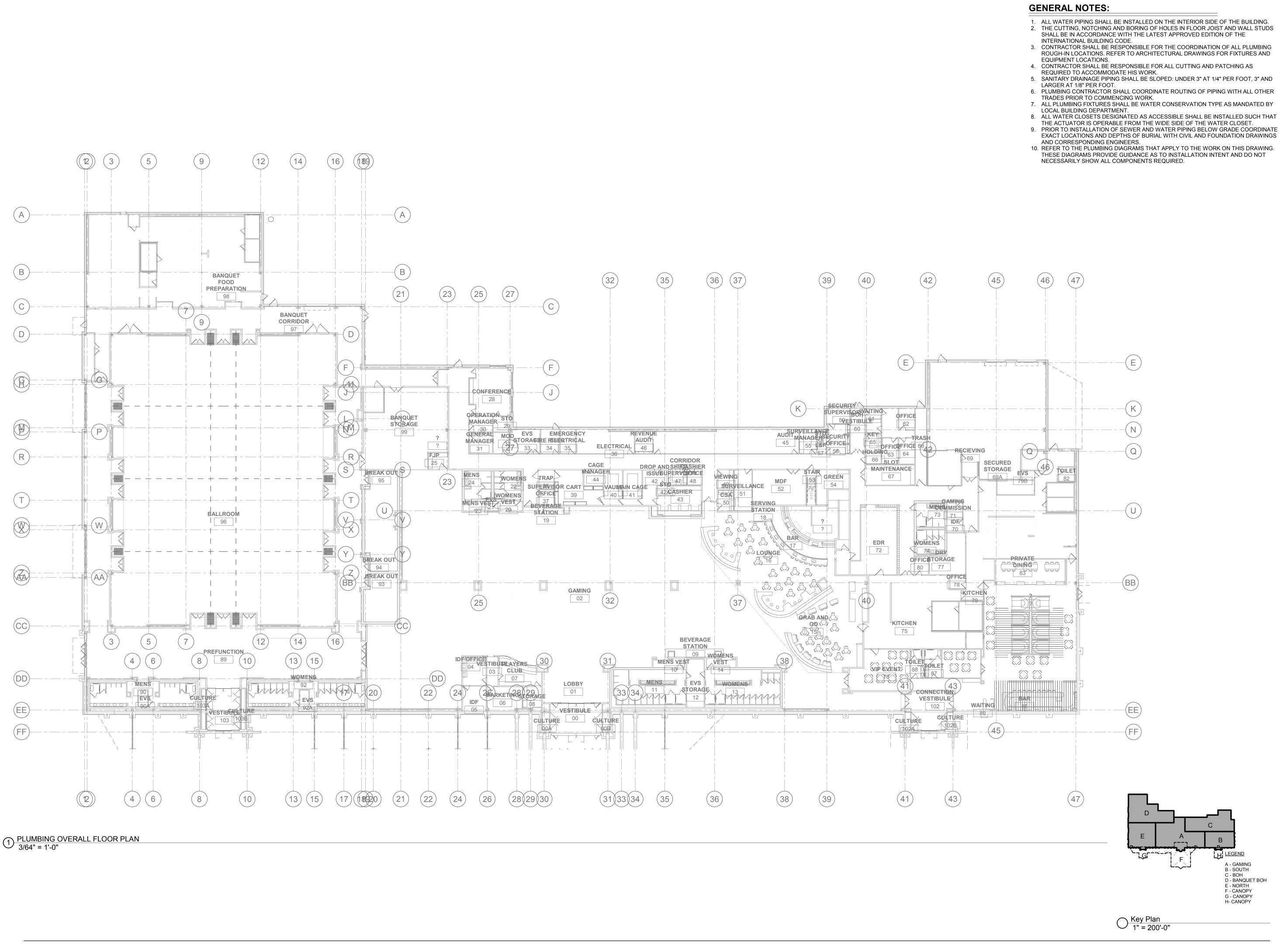
05/03/18 P0.6

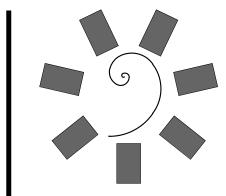
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REVISIONS # DATE DESCRIPTION

PROJECT PHASE:

GAS ISOMETRIC **DIAGRAM**





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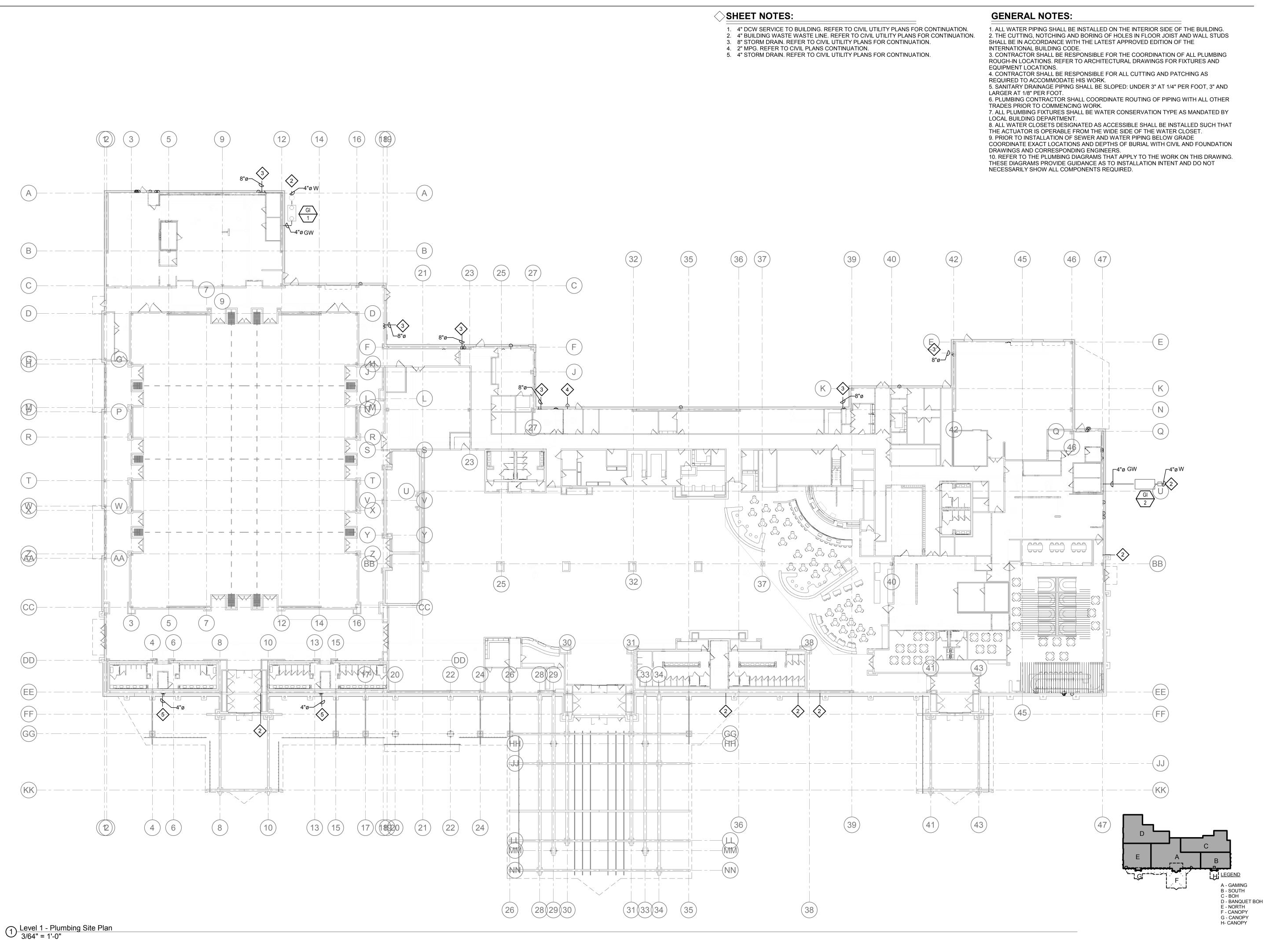
CHEROKEE NATION ENTERTAINMENT
TAHLEQUAH CASINO

DJECT PHASE:
BID PACKAGE 05

REVISIONS
DATE DESCRIPTION

DATE: JOB NUMBER: 17-06
SHEET NUMBER: P1.0

PLUMBING OVERALL FLOOR PLAN





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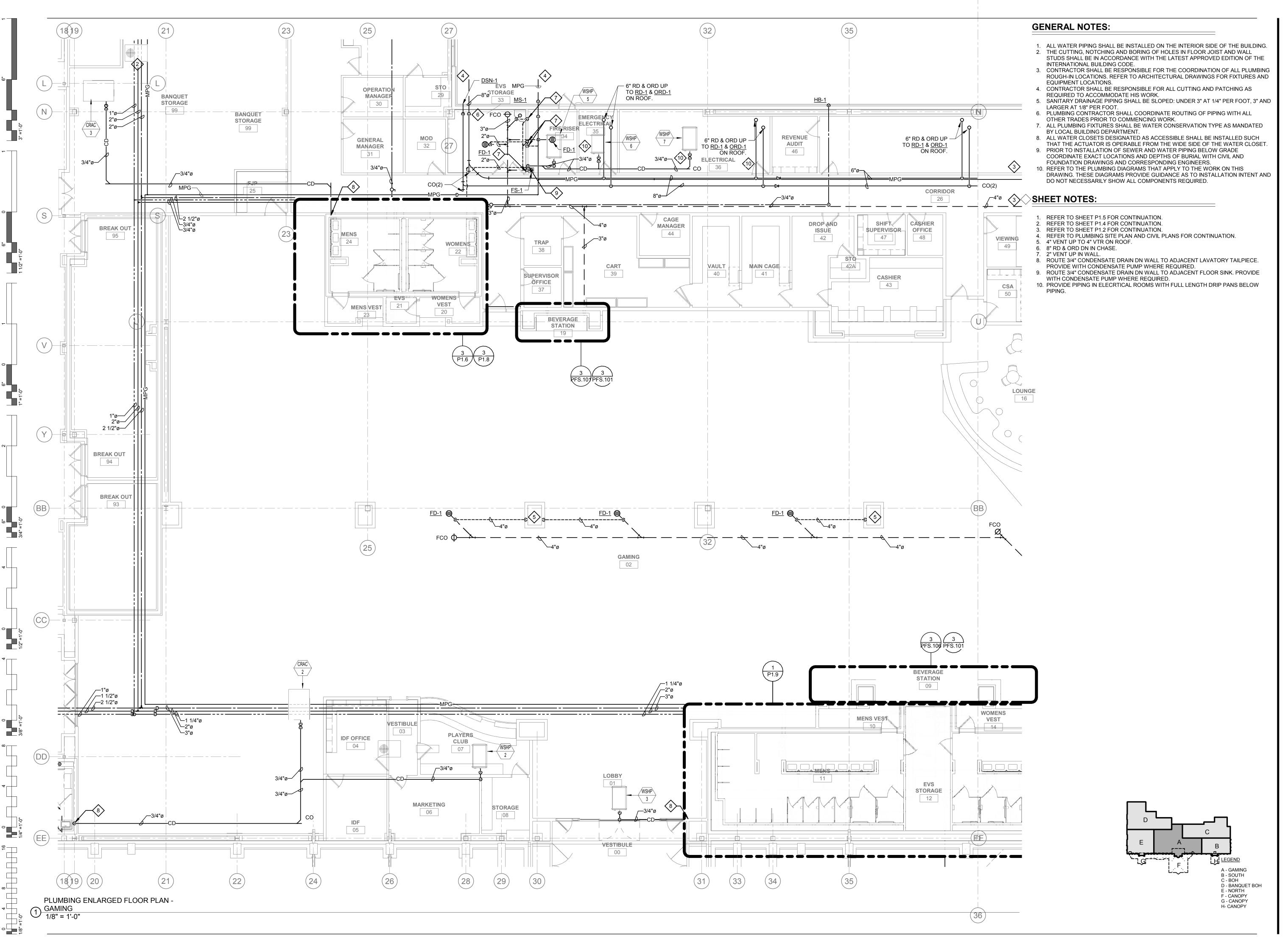
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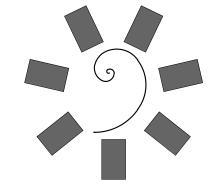
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P1.01

PLUMBING SITE PLAN





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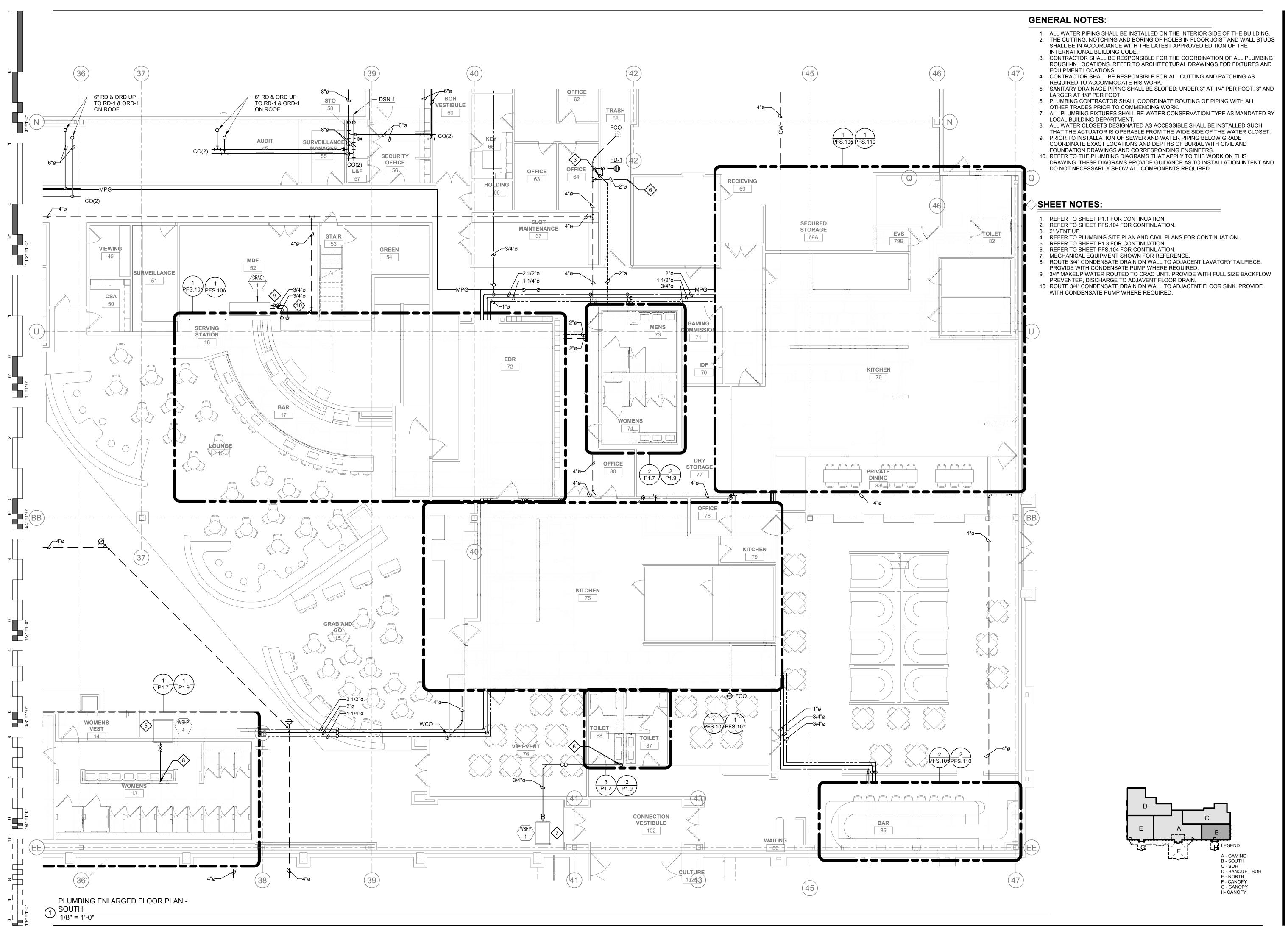
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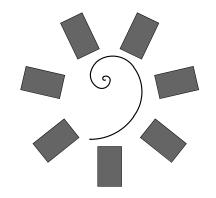
I ENTERTAINMENT H CASINO CHEROKEE NATION E
TAHLEQUAH

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05/03/18 17-06 P1.1

PLUMBING ENLARGED FLOOR PLAN - GAMING





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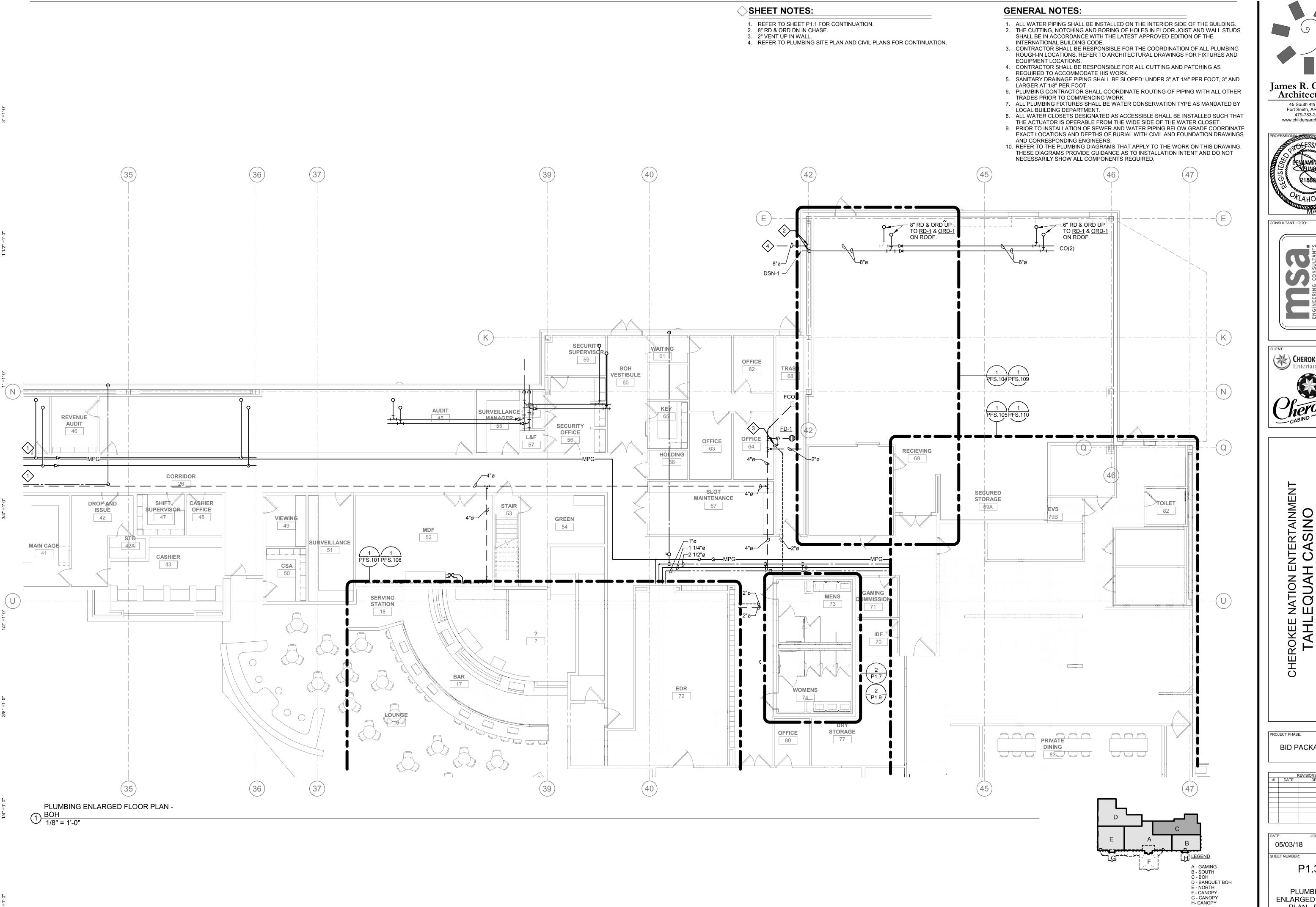
CHEROKEE NATION Entertainment

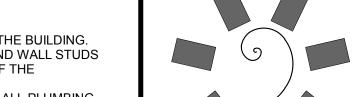
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TAHLEQUAH

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PLUMBING ENLARGED FLOOR PLAN - SOUTH





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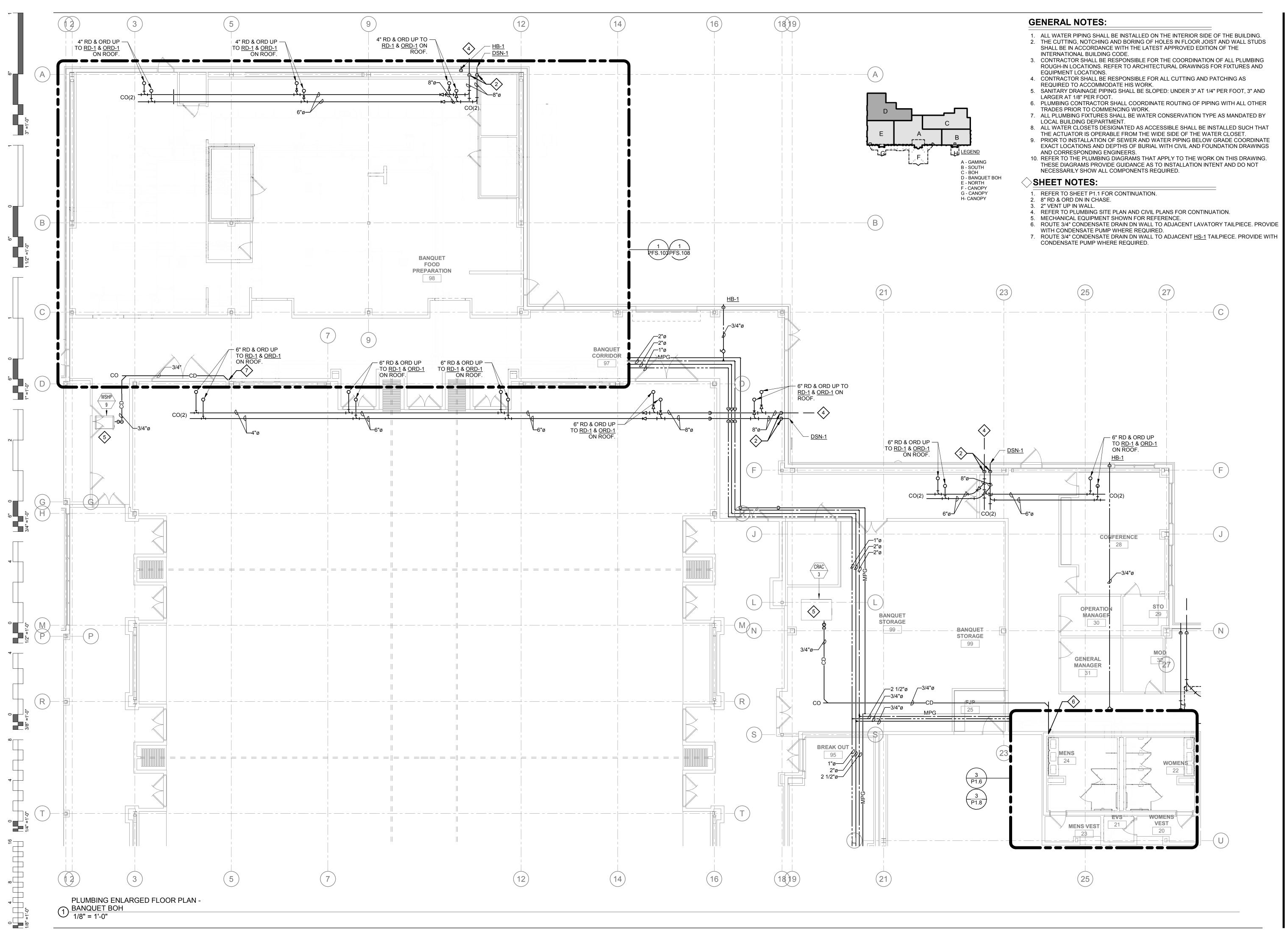


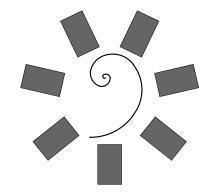
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BID PACKAGE 05

17-06 P1.3

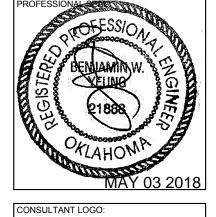
PLUMBING ENLARGED FLOOR PLAN - BOH





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05/03/18

PLUMBING ENLARGED FLOOR PLAN - BANQUET BOH____

- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
- INTERNATIONAL BUILDING CODE. 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL PLUMBING ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND
- **EQUIPMENT LOCATIONS.** 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AS
- REQUIRED TO ACCOMMODATE HIS WORK. 5. SANITARY DRAINAGE PIPING SHALL BE SLOPED: UNDER 3" AT 1/4" PER FOOT, 3" AND
- LARGER AT 1/8" PER FOOT. 6. PLUMBING CONTRACTOR SHALL COORDINATE ROUTING OF PIPING WITH ALL OTHER
- TRADES PRIOR TO COMMENCING WORK. 7. ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY
- LOCAL BUILDING DEPARTMENT. 8. ALL WATER CLOSETS DESIGNATED AS ACCESSIBLE SHALL BE INSTALLED SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE WATER CLOSET. 9. PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE
- EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND FOUNDATION DRAWINGS AND CORRESPONDING ENGINEERS. 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING. THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT

SHEET NOTES:

- 1. REFER TO SHEET P1.1 FOR CONTINUATION.
- 2. 4" RD & ORD DN IN CHASE.
- 3. REFER TO PLUMBING SITE PLAN AND CIVIL PLANS FOR CONTINUATION.

NECESSARILY SHOW ALL COMPONENTS REQUIRED.

4. MECHANICAL EQUIPMENT SHOWN FOR REFERENCE. 5. ROUTE 3/4" CONDENSATE DRAIN DN WALL TO ADJACENT LAVATORY TAILPIECE. PROVIDE WITH CONDENSATE PUMP WHERE REQUIRED.



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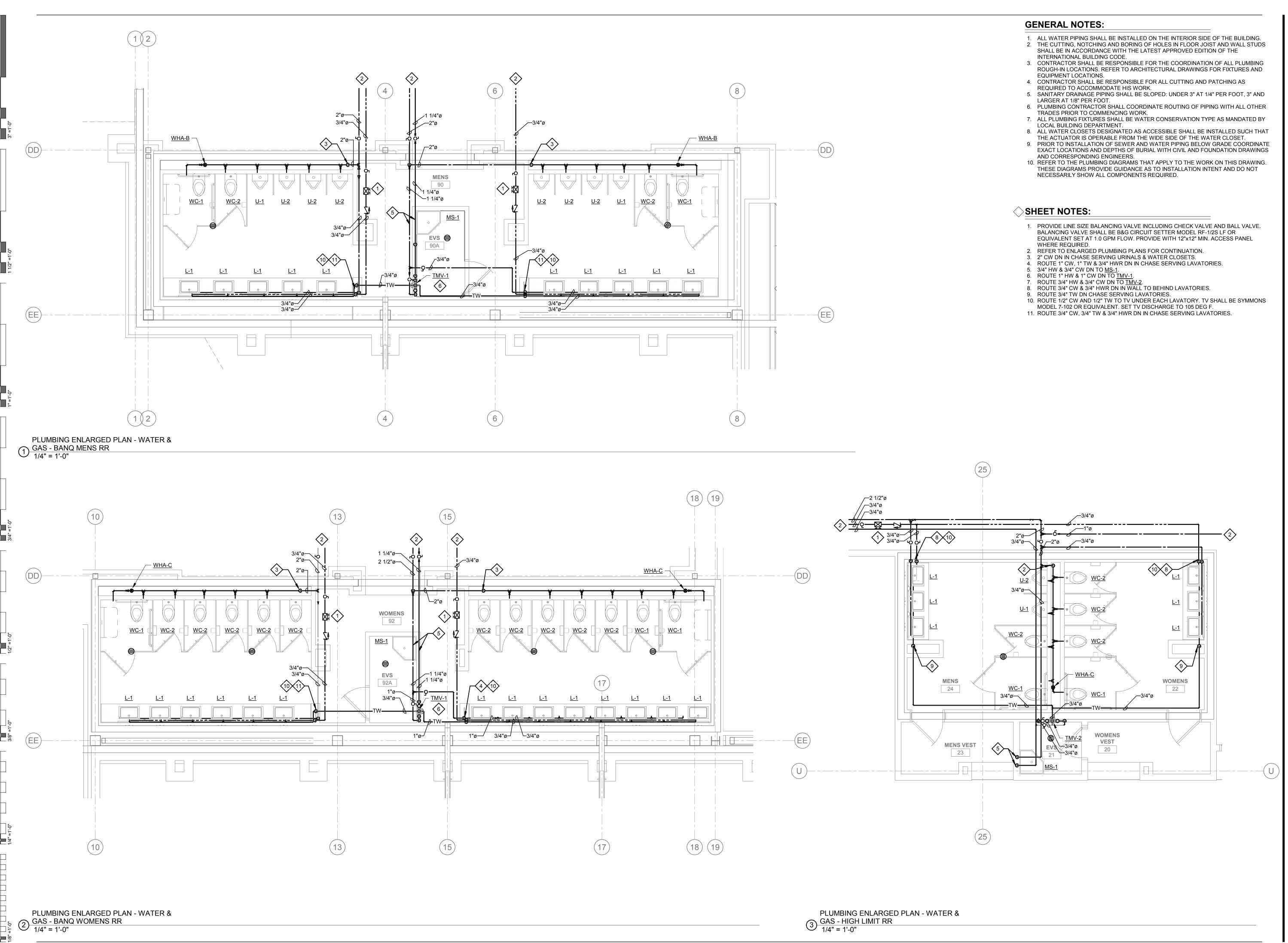
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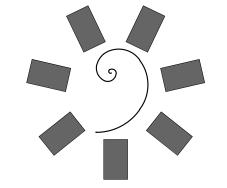
BID PACKAGE 05

05/03/18

A - GAMING
B - SOUTH
C - BOH
D - BANQUET BOH
E - NORTH
F - CANOPY
G - CANOPY
H- CANOPY

PLUMBING ENLARGED FLOOR PLAN - NORTH





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BID PACKAGE 05

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05/03/18

PLUMBING ENLARGED PLANS -WATER & GAS

/−2 1/2"ø

<u> WC-2</u>

`—3/4"ø 1 1/2"ø+

<u>WC-2</u>

WC-2

<u>WC-2</u>

WC-2

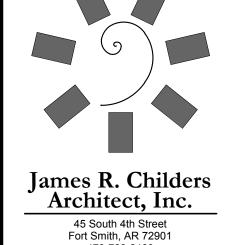
<u>WC-2</u>

- ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
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- 8. ALL WATER CLOSETS DESIGNATED AS ACCESSIBLE SHALL BE INSTALLED SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE WATER CLOSET. 9. PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE
- EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND FOUNDATION DRAWINGS AND CORRESPONDING ENGINEERS. 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING.
- THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT NECESSARILY SHOW ALL COMPONENTS REQUIRED.

SHEET NOTES:

- PROVIDE LINE SIZE BALANCING VALVE INCLUDING CHECK VALVE AND BALL VALVE. BALANCING VALVE SHALL BE B&G CIRCUIT SETTER MODEL RF-1/2S LF OR EQUIVALENT SET AT 1.0 GPM FLOW. PROVIDE WITH 12"x12" MIN. ACCESS PANEL WHERE REQUIRED.
- 2. REFER TO ENLARGED PLUMBING PLANS FOR CONTINUATION.
- 2" CW DN IN CHASE SERVING URINALS & WATER CLOSETS. ROUTE 1" CW, 1" TW & 3/4" HWR DN IN CHASE SERVING LAVATORIES.
- 3/4" HW & 3/4" CW DN TO MS-1
- ROUTE 1" HW & 1" CW DN TO TMV-
- ROUTE 3/4" HW & 3/4" CW DN TO <u>TMV-2</u>.
 ROUTE 3/4" CW & 3/4" HWR DN IN WALL TO BEHIND LAVATORIES.
- 9. ROUTE 3/4" TW DN CHASE SERVING LAVATORIES.
- 10. ROUTE 1/2" CW AND 1/2" TW TO TV UNDER EACH LAVATORY. TV SHALL BE SYMMONS MODEL 7-102 OR EQUIVALENT. SET TV DISCHARGE TO 105 DEG F.
- 11. 4" DCW SERVICE. PROVIDE WITH FULL SIZE SHUT-OFF VALVE. REFER TO PLUMBING SITE PLAN AND CIVIL UTILITY PLANS FOR CONTINUATION.
- 12. ROUTE 1 1/2" CW DN CHASE SERVING WATER CLOSETS. 13. ROUTE 2 1/2" CW DN CHASE SERVING WATER CLOSETS.
- 14. ROUTE 2 1/2" CW DN CHASE SERVING WATER CLOSETS AND URINALS. 15. REFER TO PLUMBING FOOD SERVICE PLANS FOR CONTINUATION.
- 16. GAS PRESSURE REGULATOR. REFER TO GAS ISOMETRIC DIAGRAM FOR FURTHER
- INFORMATION. 17. ROUTE FULL SIZE T/P RELIEF VALVE TO ADJACENT FLOOR SINK. TERMINATE WITH
- APPROVED AIR GAP.





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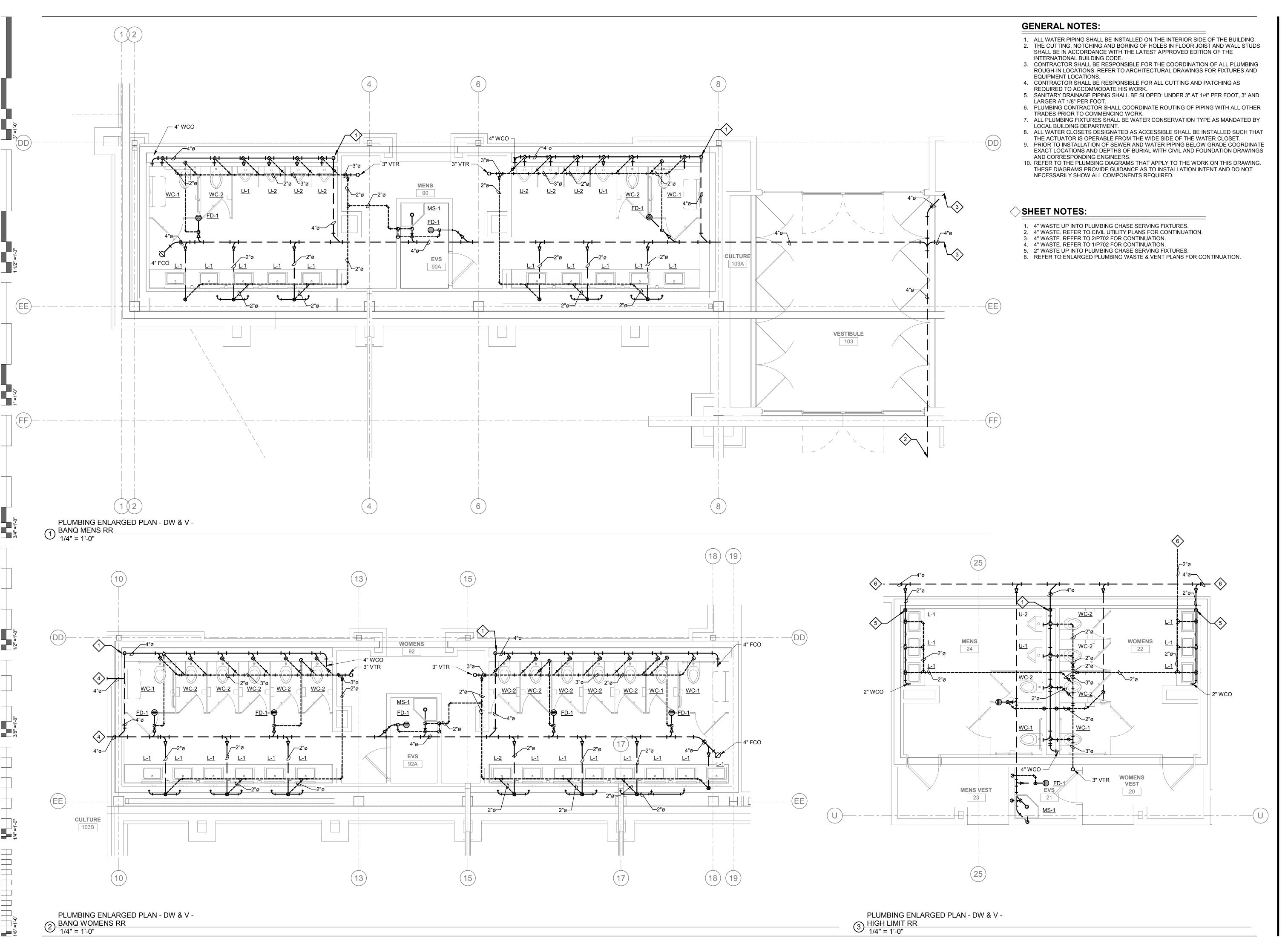
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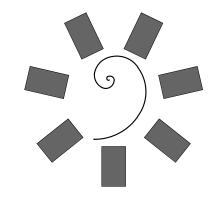
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BID PACKAGE 05 REVISIONS # DATE DESCRIPTION

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PLUMBING ENLARGED PLANS -WATER & GAS





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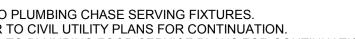
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PLUMBING ENLARGED PLANS -DW & V

- ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
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- 5. SANITARY DRAINAGE PIPING SHALL BE SLOPED: UNDER 3" AT 1/4" PER FOOT, 3" AND
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- 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING. THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT
- 4" WASTE. REFER TO PLUMBING FOOD SERVICE PLANS FOR CONTINUATION.
- 9. 4" WASTE UP INTO PLUMBING CHASE SERVING FIXTURES. CONTINUE 2" WASTE



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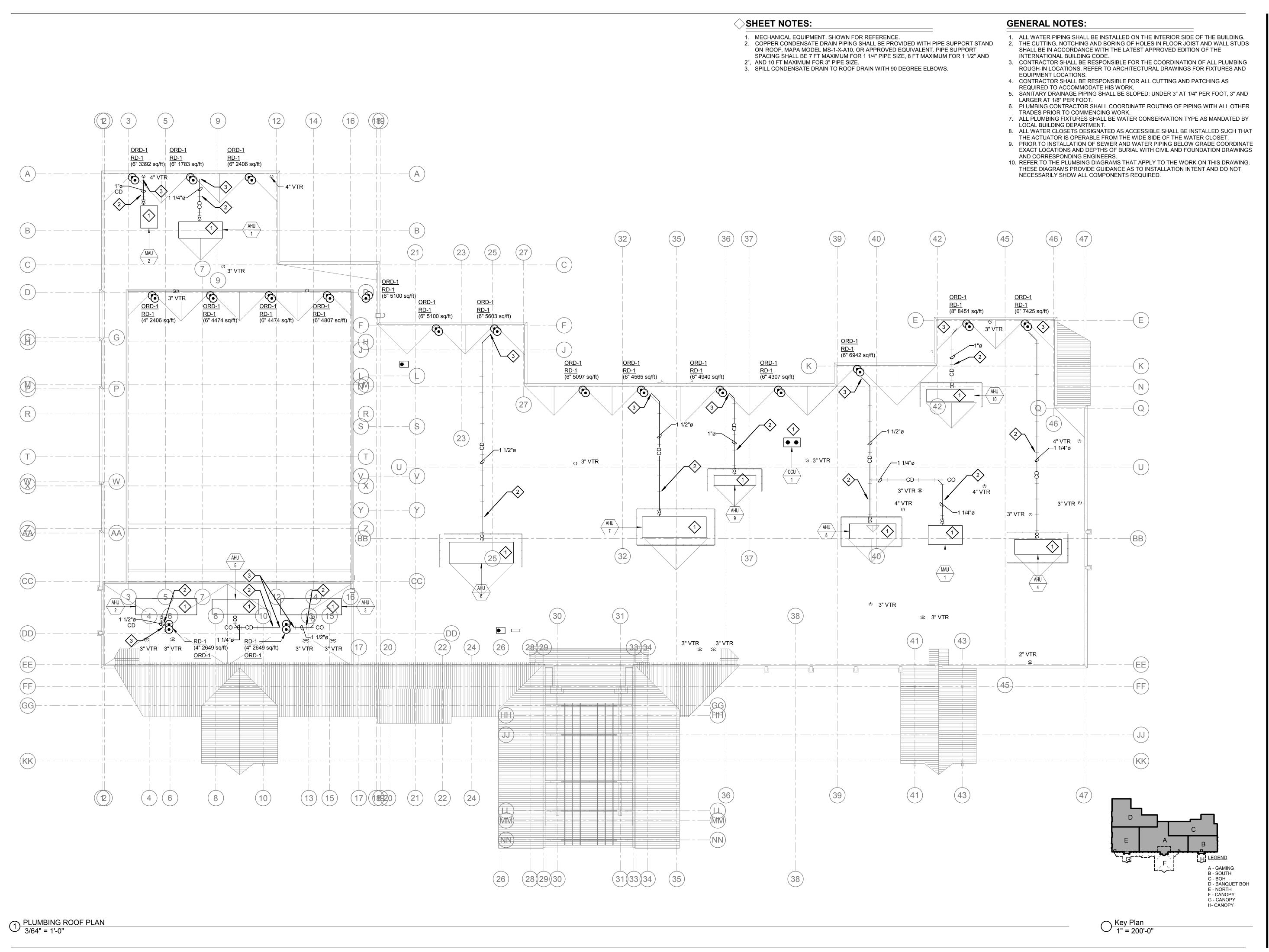
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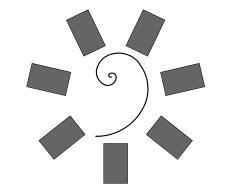
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P1.9

PLUMBING ENLARGED PLANS -DW & V





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PLUMBING ROOF PLAN



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05/03/18 17-06

PFS.101

PLUMBING FOOD SERVICE WASTE & VENT PLAN -_CASINO BAR & EDR__ SUPPRESSION

VIP EVENT

SYSTEM(S)

P54

P53 P53

TRASH CAN

(BY OWNER)

PLUMBING FOOD SERVICE WASTE &

1 VENT PLAN - GRAB-N-GO KITCHEN 1/4" = 1'-0"

GENERAL NOTES:

- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
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- AND CORRESPONDING ENGINEERS. 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING. THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT NECESSARILY SHOW ALL COMPONENTS REQUIRED.

SHEET NOTES:

OFFICE

4"ø—

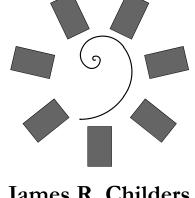
COMPRESSOR UNIT(S) MOUNTED ON

BUILDING ROOF. RACK WEIGHT OF

COMPRESSOR IS 209 LBS. REFER TO

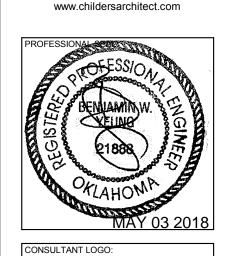
DETAIL 2, SHT. FS104.

- 1. REFER TO PLUMBING ENLARGED PLANS FOR CONTINUATION.
- 2. RUN FULL SIZE INDIRECT WASTE FROM ITEM #P53 & P54 TO FD-1. TERMINATE WITH
- APPROVED AIR GAP. 3. RUN FULL SIZE INDIRECT WASTE FROM ITEM #P26 TO <u>FS-1</u>. TERMINATE WITH APPROVED



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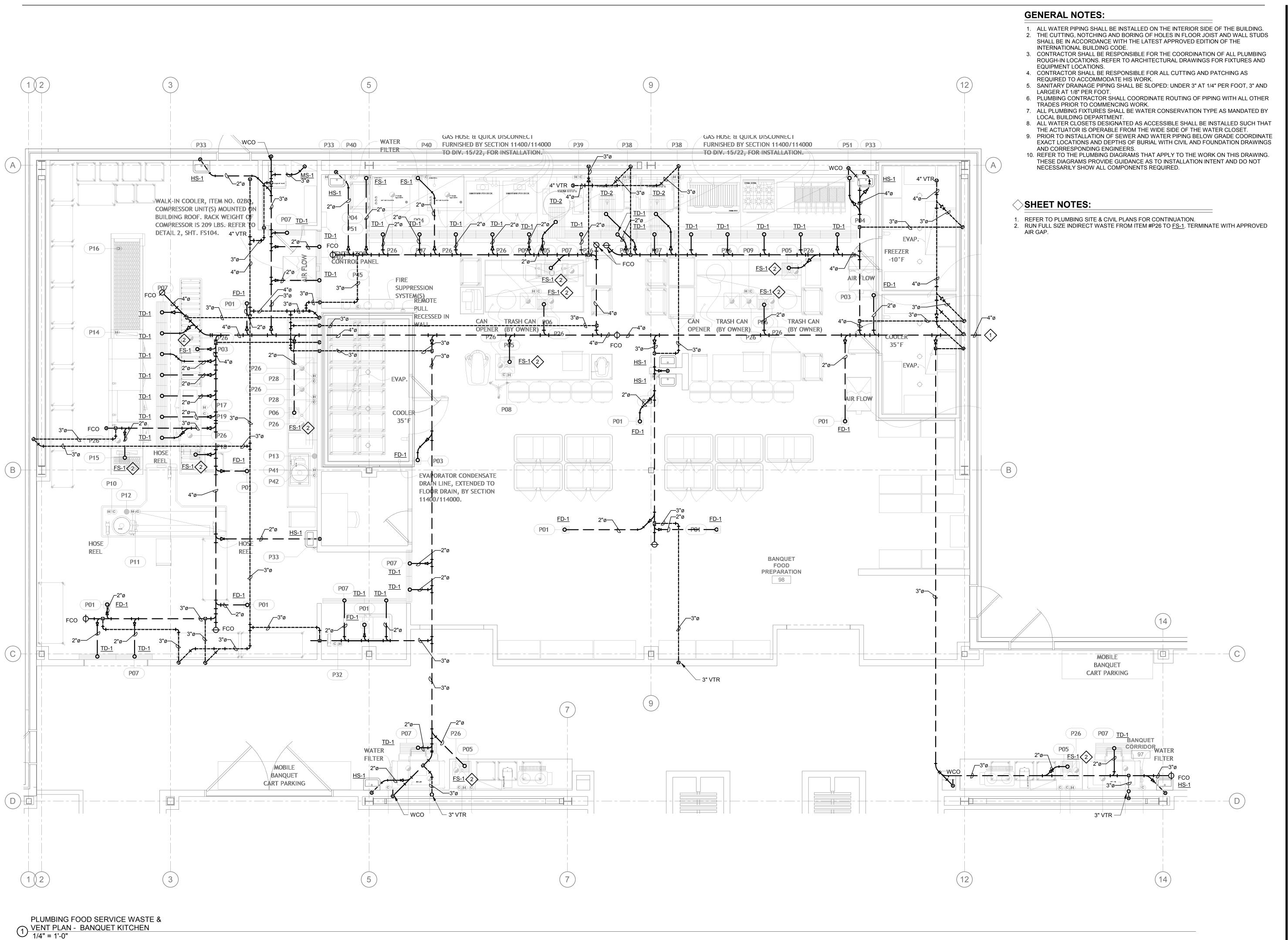
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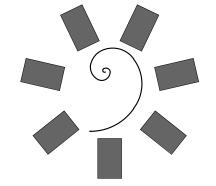
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05/03/18 17-06

PFS.102

-PLUMBING FOOD-SERVICE WASTE & VENT PLAN -GRAB-N-GO -KITCHEN-





James R. Childers Architect, Inc. 45 South 4th Street Fort Smith, AR 72901

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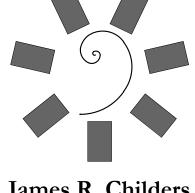
PFS.103

PLUMBING FOOD SERVICE WASTE & VENT PLAN -_BANQUET KITCHEN__

- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE INTERNATIONAL BUILDING CODE.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL PLUMBING ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND
- EQUIPMENT LOCATIONS. 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AS
- REQUIRED TO ACCOMMODATE HIS WORK. 5. SANITARY DRAINAGE PIPING SHALL BE SLOPED: UNDER 3" AT 1/4" PER FOOT, 3" AND LARGER AT 1/8" PER FOOT.
- 6. PLUMBING CONTRACTOR SHALL COORDINATE ROUTING OF PIPING WITH ALL OTHER TRADES PRIOR TO COMMENCING WORK.
- 7. ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY LOCAL BUILDING DEPARTMENT.
- 8. ALL WATER CLOSETS DESIGNATED AS ACCESSIBLE SHALL BE INSTALLED SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE WATER CLOSET. 9. PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE
- EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND FOUNDATION DRAWINGS AND CORRESPONDING ENGINEERS. 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING. THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT NECESSARILY SHOW ALL COMPONENTS REQUIRED.

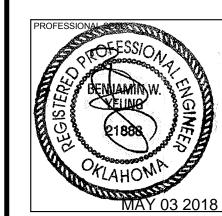
SHEET NOTES:

1. REFER TO PLUMBING ENLARGED PLANS FOR CONTINUATION.



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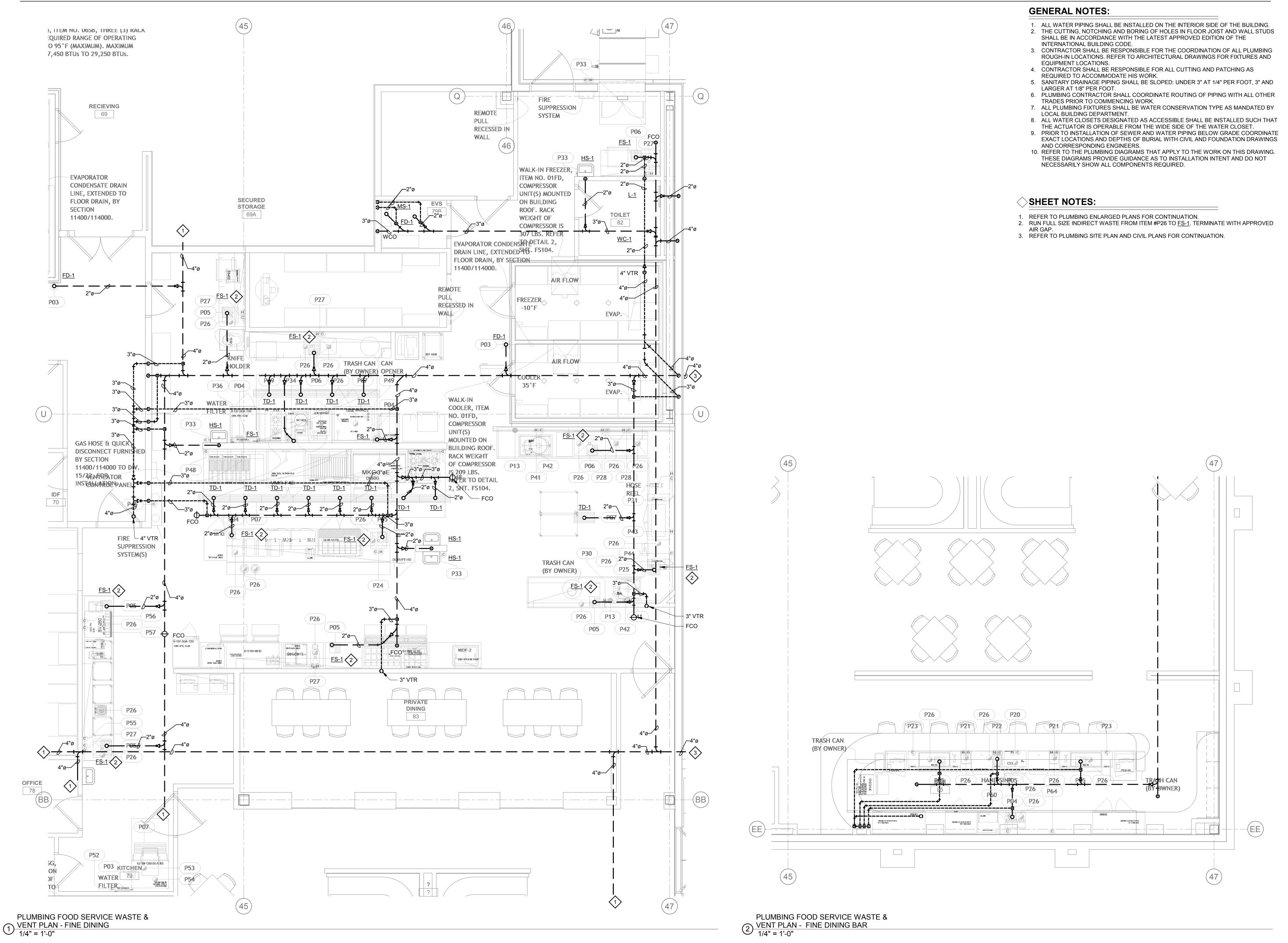
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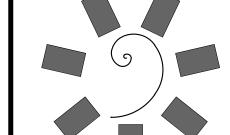
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PFS.104

PLUMBING FOOD SERVICE WASTE & VENT PLAN -_WAREHOUSE_





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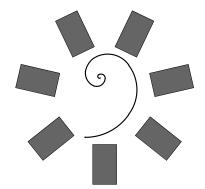
05/03/18 17-06 PFS.105

PLUMBING FOOD SERVICE WASTE & VENT PLAN - FINE DINING

- ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE INTERNATIONAL BUILDING CODE.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL PLUMBING ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND EQUIPMENT LOCATIONS.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AS
- REQUIRED TO ACCOMMODATE HIS WORK. 5. SANITARY DRAINAGE PIPING SHALL BE SLOPED: UNDER 3" AT 1/4" PER FOOT, 3" AND LARGER AT 1/8" PER FOOT.
- 6. PLUMBING CONTRACTOR SHALL COORDINATE ROUTING OF PIPING WITH ALL OTHER TRADES PRIOR TO COMMENCING WORK.
- 7. ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY LOCAL BUILDING DEPARTMENT.
- 8. ALL WATER CLOSETS DESIGNATED AS ACCESSIBLE SHALL BE INSTALLED SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE WATER CLOSET. 9. PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND FOUNDATION DRAWINGS
- AND CORRESPONDING ENGINEERS. 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING. THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT
- NECESSARILY SHOW ALL COMPONENTS REQUIRED. 11. WHERE APPLICABLE, WATER SUPPLY TO CARBONATORS AND COFFEE MACHINES TO BE PROVIDED WITH A WATTS #LF009QTS BACKFLOW PREVENTER. ICE MACHINES TO BE PROVIDED WITH A WATTS #9D DUAL CHECK VALVE.
- 12. REFER TO KITCHEN DRAWINGS FOR ITEM NUMBERS. 13. REFER TO KITCHEN DOCUMENTS FOR ADDITIONAL FIXTURES NEEDING WATER SUPPLY OR DRAIN CONNECTIONS NOT SHOWN HERE. SUBMIT AN RFI DURING BID PROCESS FOR CLARIFICATION IF REQUIRED.

SHEET NOTES:

- 1. PROVIDE LINE SIZE BALANCING VALVE INCLUDING CHECK VALVE AND BALL VALVE. BALANCING VALVE SHALL BE B&G CIRCUIT SETTER MODEL RF-1/2S LF OR EQUIVALENT SET AT 1.0 GPM FLOW. PROVIDE WITH 12"x12" MIN. ACCESS PANEL WHERE REQUIRED.
- 2. REFER TO ENLARGED PLUMBING PLANS FOR CONTINUATION. 3. ROUTE 3/4" CW DN IN WALL TO WATER FILTER SERVING ICE MAKER (ITEM #P52).
- 4. ROUTE 3/4" HW DN IN WALL TO SERVING COUNTER (ITEM #P63).
- 5. ROUTE 3/4" CW DN IN WALL TO BEVERAGE COUNTER (ITEM #P55), CARBONATOR (ITEM #P56) & ICE MAKER (ITEM #P57). PROVIDE CARBONATOR WITH WATTS #LF009QTS BACKFLOW PREVENTER. PROVIDE ICE MAKER WITH A WATTS #9D DUAL CHECK VALVE.
- 6. ROUTE 3/4" CW & HW DN TO HAND SINK. PROVIDE WITH SYMMONS 7-102 OR EQUIVALENT. SET DISCHARGE TEMPERATURE TO 105°F. 7. ROUTE 1" CW, 1" HW & 3/4" HWR DN IN WALL TO BELOW COUNTER SERVING
- CARBONATORS (ITEM #P23)(x3), GLASS WASHER (ITEM #P20)(x2), FAUCET (ITEM #P21)(x3) & HAND SINK (ITEM #P22)(x2). PROVIDE CARBONATORS WITH WATTS #LF009QTS BACKFLOW PREVENTER. PROVIDE WITH SYMMONS 7-102 OR EQUIVALENT. SET DISCHARGE TEMPERATURE TO 105°F.
- 8. ROUTE 3/4" CW DN TO BEVERAGE EQUIPMENT (ITEM #P65).
- 9. ROUTE 3/4" CW & 3/4" HW DN TO FAUCET (ITEM #P61).
- 10. ROUTE 3/4" CW & 3/4" HW DN TO GLASS WASHER (ITEM #P62). 11. ROUTE 1" CW & 3/4" HW DN IN WALL TO BELOW COUNTER SÉRVING GLASS RINSER (ITEM #P60)(x2), CARBONATOR (ITEM #P58)(x3) & HOSE BIBB (ITEM #P33). PROVIDE CARBONATORS WITH WATTS #LF009QTS BACKFLOW PREVENTER.
- 12. 3/4" CW DN IN WALL SERVING CARBONATOR (ITEM #P58)(x3). PROVIDE CARBONATORS WITH WATTS #LF009QTS BACKFLOW PREVENTER.
- 13. ROUTE 3/4" CW DN IN WALL TO CARBONATOR (ITEM #P56) & ICE MAKER (ITEM #P57). PROVIDE CARBONATOR WITH WATTS #LF009QTS BACKFLOW PREVENTER. PROVIDE ICE



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05/03/18 17-06

PFS.106

PLUMBING FOOD SERVICE WATER & GAS PLAN - CASINO BAR & EDR

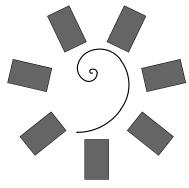
- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE INTERNATIONAL BUILDING CODE.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL PLUMBING ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND
- EQUIPMENT LOCATIONS. 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AS
- REQUIRED TO ACCOMMODATE HIS WORK. 5. SANITARY DRAINAGE PIPING SHALL BE SLOPED: UNDER 3" AT 1/4" PER FOOT, 3" AND LARGER AT 1/8" PER FOOT.
- 6. PLUMBING CONTRACTOR SHALL COORDINATE ROUTING OF PIPING WITH ALL OTHER TRADES PRIOR TO COMMENCING WORK. 7. ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY
- LOCAL BUILDING DEPARTMENT. 8. ALL WATER CLOSETS DESIGNATED AS ACCESSIBLE SHALL BE INSTALLED SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE WATER CLOSET.
- EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND FOUNDATION DRAWINGS AND CORRESPONDING ENGINEERS. 10. REFER TO THE PLUMBING DIAGRAMS THAT APPLY TO THE WORK ON THIS DRAWING.

9. PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE

- THESE DIAGRAMS PROVIDE GUIDANCE AS TO INSTALLATION INTENT AND DO NOT NECESSARILY SHOW ALL COMPONENTS REQUIRED.
- 11. WHERE APPLICABLE, WATER SUPPLY TO CARBONATORS AND COFFEE MACHINES TO BE PROVIDED WITH A WATTS #LF009QTS BACKFLOW PREVENTER. ICE MACHINES TO BE PROVIDED WITH A WATTS #9D DUAL CHECK VALVE.
- 12. REFER TO KITCHEN DRAWINGS FOR ITEM NUMBERS. 13. REFER TO KITCHEN DOCUMENTS FOR ADDITIONAL FIXTURES NEEDING WATER SUPPLY OR DRAIN CONNECTIONS NOT SHOWN HERE. SUBMIT AN RFI DURING BID PROCESS FOR CLARIFICATION IF REQUIRED.

SHEET NOTES:

- 1. PROVIDE LINE SIZE BALANCING VALVE INCLUDING CHECK VALVE AND BALL VALVE. BALANCING VALVE SHALL BE B&G CIRCUIT SETTER MODEL RF-1/2S LF OR EQUIVALENT SET AT 1.0 GPM FLOW. PROVIDE WITH 12"x12" MIN. ACCESS PANEL WHERE REQUIRED.
- 2. REFER TO ENLARGED PLUMBING PLANS FOR CONTINUATION. 3. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO HAND SINK. PROVIDE WITH SYMMONS 7-102 OR EQUIVALENT. SET DISCHARGE TEMPERATURE TO 105°F.
- 4. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO FAUCET (ITEM #P27). 5. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO BELOW FLOOR SERVING ISLAND FAUCET (ITEM
- 6. GAS PRESSURE REGULATOR. REFER TO GAS ISOMETRIC DIAGRAM FURTHER
- INFORMATION. PROVIDE EMERGENCY GAS SOLINOID VALVE IN ACCESSIBLE LOCATION.
- 8. ROUTE 3/4" CW DN IN WALL TO WATER FILTER SERVING ICE MAKER (ITEM #52). 9. ROUTE 3/4" CW, 3/4" HW & 3/4" HWR DN IN WALL TO BELOW FLOOR SERVING ISLAND FAUCET (ITEM #P09).
- 10. ROUTE 3/4" CW & 3/4" HW DN IN WALL SERVING KETTLE FAUCET (ITEM #P34) & TILTING SKILLET FAUCET (ITEM #P35).
- 11. ROUTE 3/4" CW DN IN WALL TO WATER FILTER AND EXTEND 3/4" CW TO COMBI OVEN
- 12. ROUTE 3/4" HW DN IN WALL TO CHEFS COUNTER (ITEM #P29).
- 13. EXTEND 3/4" CW & 3/4" HW BELOW HAND SINK TO HOSE BIBB (ITEM #P33). 14. ROUTE 3/4" HW DN IN WALL TO FAUCET (ITEM #P30).
- 15. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO HOSE REEL (ITEM #P31).
- 16. ROUTE 3/4" CW DN IN WALL TO DRAIN TEMPERING DEVICE (ITEM #P44).
- 17. ROUTE 3/4" HW DN IN WALL TO DISHWASHER (ITEM #P43). 18. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO MS-1.
- 19. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO FAUCET (ITEM #P28)(x2).
- 20. ROUTE 3/4" CW DN IN WALL TO BEVERAGE COUNTER (ITEM #55), CARBONATOR (ITEM #56) & ICE MAKER (ITEM #57). PROVIDE CARBONATOR WITH WATTS #LF009QTS BACKFLOW PREVENTER. PROVIDE ICE MAKER WITH A WATTS #9D DUAL CHECK VALVE.
- 21. ROUTE 3/4" CW, 3/4" HW & 3/4" HWR DN WALL. PROVIDE APPROPRIATE CONNECTIONS TO 3/4" CW, HW & HWR STUB-OUTS AT F.F.



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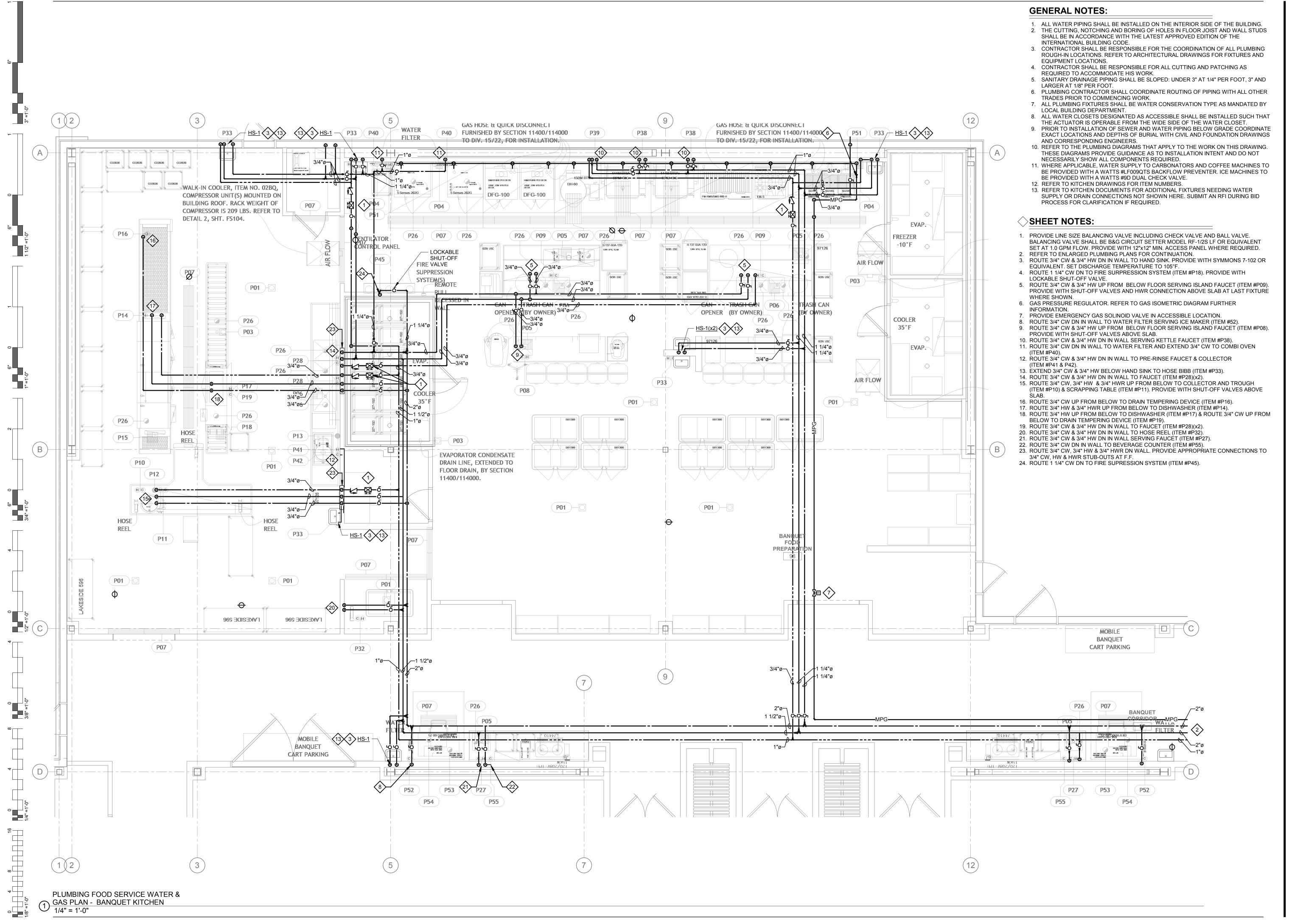
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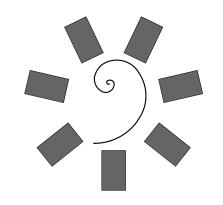
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PFS.107

-PLUMBING FOOD-SERVICE WATER & GAS PLAN -GRAB-N-GO -KITCHEN-





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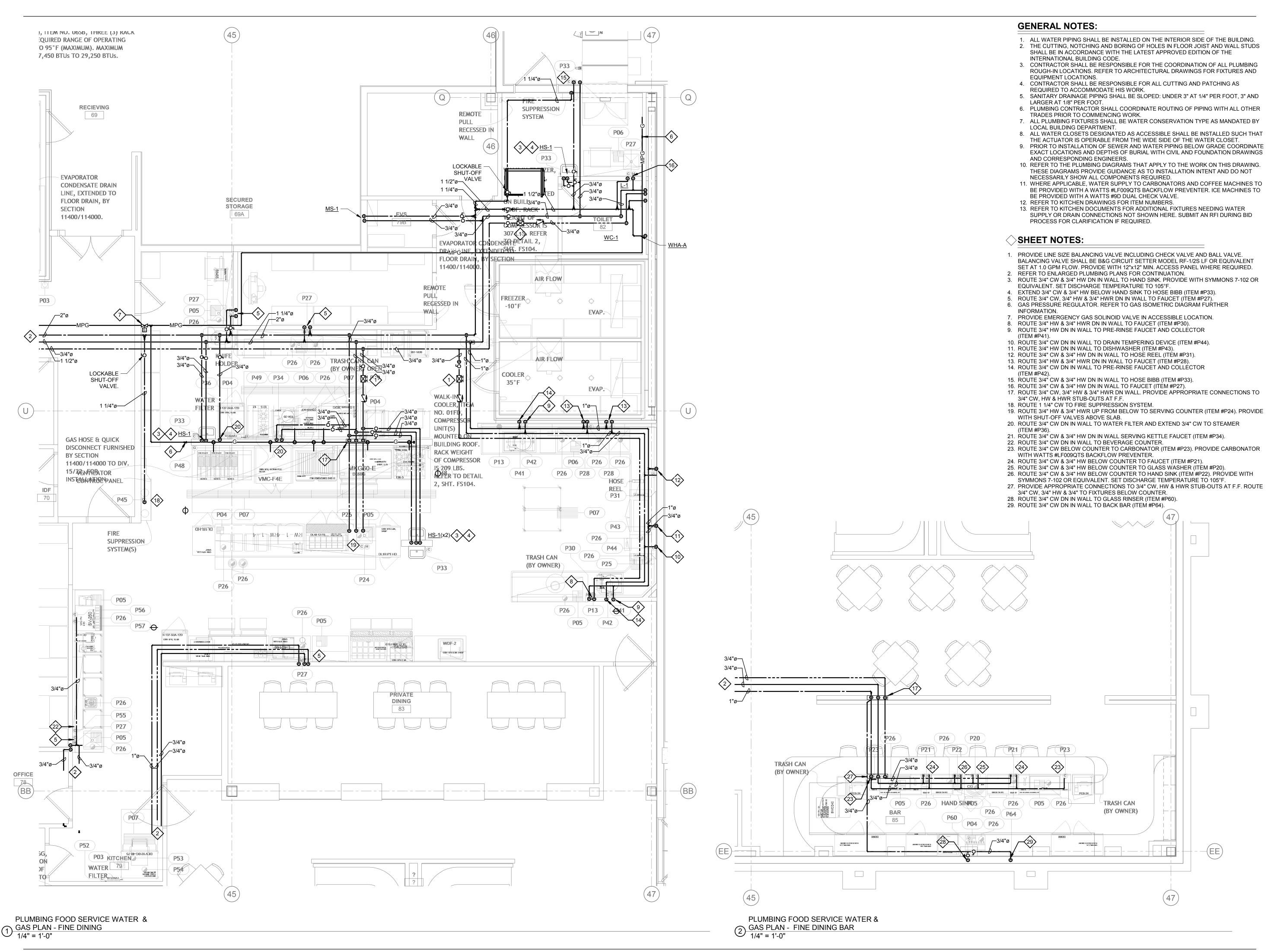
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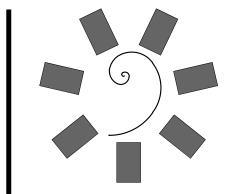
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SHEET NUMBER:

PFS.108

PLUMBING FOOD SERVICE WATER & GAS PLAN -_BANQUET KITCHEN_





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PROJECT PHASE: **BID PACKAGE 05**

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PFS.109

PLUMBING FOOD SERVICE WATER & GAS PLAN - FINE
____DINING____