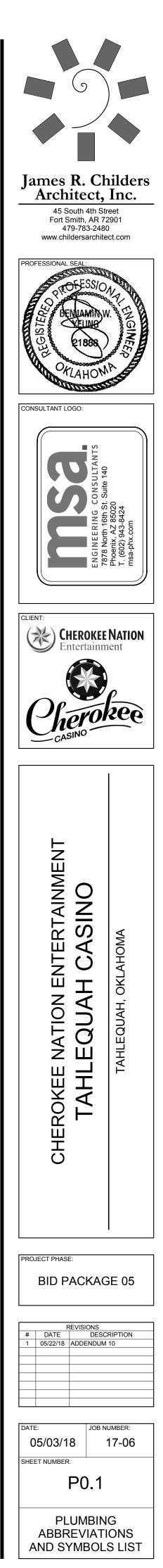
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PLUMBING		PLUMBING ABBREVIATIONS									
TE: THIS IS A MASTER SCHEDULE. NOT ALL SYMB	BOLS CONTAINED HEREIN MAY AF	PEAR ON THE DRAWINGS.		NOTE: THIS IS A MASTER	SCHEDULE. NC	T ALL ABBREVIATIONS CONTAINED HEREIN M	AY APPEAR (ON THE DRAWINGS.			
BE REMOVED CONNECTION/DISCONNECTION DTE NUMBER NT MARK PANEL JT CAN OUT LEAN OUT LEAN OUT LEAN OUT LEAN OUT LEAN OUT RAIN NK NK W/ GRATE AIN W ROOF DRAIN &U ROOF JTCH ULATOR ER ETER AMMER ARRESTOR VALVE IN IRRIGATION BOX W PREVENTION STATION	RD AV AW AW AW AW AW AW AW AW	ROOF DRAIN PIPING ACID VENT PIPING ABOVE GROUND ACID WASTE PIPING UNDERGROUND ACID WASTE PIPING VENT PIPING ABOVE GROUND WASTE PIPING UNDERGROUND WASTE PIPING ABOVE GROUND GREASE WASTE PIPING UNDERGROUND GREASE WASTE PIPING ABOVE GROUND GW PIPING W/HEAT TRACE UNDERGROUND GW PIPING W/HEAT TRACE CIRCUIT SETTER 2-WAY ELECTRONIC CONTROL VALVE 3-WAY ELECTRONIC CONTROL VALVE 2-WAY PNEUMATIC CONTROL VALVE 3-WAY PNEUMATIC CONTROL VALVE SOLENOID VALVE BUTTERFLY VALVE PLUG VALVE GAS COCK BALL VALVE CHECK VALVE	ACD AFF AP ASHRAE ASPE AV AW BFD BHP BTUH CD CFM CHAR CHR CHS CO CR CS CW D DB DDC DIA DN DX (E) EA EAT EC EER EFF ELEC ESP EWT °F FCO FD FPM FSD G GA	AMERICAN AIR BALANCE COUNCIL AUTOMATIC CONTROL DAMPER ABOVE FINISHED FLOOR ACCESS PANEL AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS AMERICAN SOCIETY OF PLUMBING ENGINEERS ACID VENT ACID WASTE BACKFLOW PREVENTION DEVICE BRAKE HORSEPOWER BRITISH THERMAL UNIT PER HOUR CONDENSATE DRAIN CUBIC FEET PER MINUTE CHARACTERISTICS CHILLED WATER RETURN CONDENSER WATER RETURN CONDENSER WATER RETURN CONDENSER WATER SUPPLY CLEANOUT CONDENSER WATER SUPPLY COLD WATER DRAIN DRY BULB TEMPERATURE DIRECT DIGITAL CONTROL DIAMETER DOWN DIRECT EXPANSION EXISTING TO REMAIN EXTERING AIR TEMPERATURE ELECTRICAL CONTRACTOR ENERGY EFFICIENCY RATIO EFFICIENCY ELECTRICAL EXTERNAL STATIC PRESSURE ENTERING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE ENTERING WATER TEMPERATURE ENTERING WATER TEMPERATURE ELECTRICAL EXTERNAL STATIC PRESSURE ENTERING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE ENTERING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FING WATER TEMPERATURE FIRE J SMOKE DAMPER GAS GAGE OR GAUGE GALLONS	GCO GI GPF GPM GR GS GW HD HP HPG HR HSPF HW HWR HWS IBC IE IMC IPC KW LAT LBS LWT MAX MBH MCA MIN MOCP MPG MVD N/A NC NEBB NEC NFPA NIC NO SOA OAT OBD OFCI	GRADE CLEANOUT GREASE INTERCEPTOR GALLONS PER FLUSH GALLONS PER MINUTE GLYCOL RETURN GLYCOL SUPPLY GREASE WASTE HEAD HORSEPOWER HIGH PRESSURE GAS HOUR HEATING SEASONAL PERFORMANCE FACTOR HOT WATER HEATING HOT WATER RETURN HEATING HOT WATER SUPPLY INTERNATIONAL BUILDING CODE INVERT ELEVATION INTERNATIONAL MECHANICAL CODE INVERT ELEVATION INTERNATIONAL MECHANICAL CODE INTERNATIONAL PLUMBING CODE KILOWATT LEAVING AIR TEMPERATURE POUNDS LEAVING WATER TEMPERATURE MAXIMUM ONE THOUSAND BTUH MINIMUM CIRCUIT AMPS MINIMUM MAXIMUM OVERCURRENT PROTECTION MEDIUM PRESSURE GAS MANUAL VOLUME DAMPER NOT APPLICABLE NORMALLY CLOSED NATIONAL ENVIRONMENTAL BALANCING BUREAU NATIONAL ELECTRIC CODE NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE OUTSIDE AIR TEMPERATURE OPPOSED BLADE DAMPER OVTSIDE AIR TEMPERATURE OPPOSED BLADE DAMPER OPEN END DUCT OWNER FURNISHED, CONTRACTOR INSTALLED	PD PRV PSI PSIA PSID PSIG (R) RA RH RL/S RPM RPPA RVD SA SD SEER SOI "SP SPECS SQ SQFT SS T TAB TSP TW TYP UBC UMC UON UPC V V/PH/HZ VFD VTR WB WCO WG WMS (X)	PRESSURE DROP PRESSURE REDUCING POUNDS PER SQUARE POUNDS PER SQUARE DIFFERENTIAL POUNDS PER SQUARE EXISTING TO BE RELOU RETURN AIR RELATIVE HUMIDITY REFRIGERANT LIQUID/ REVOLUTIONS PER MII REDUCED PRESSURE ASSEMBLY REMOTE VOLUME DAM SUPPLY AIR SMOKE DAMPER SEASONAL ENERGY EI SAND OIL INTERCEPTO STATIC PRESSURE (IN SPECIFICATIONS SQUARE SQUARE FEET STAINLESS STEEL TEMPERATURE TEST AND BALANCE RI TOTAL STATIC PRESSU TEMPERED WATER TYPICAL UNIFORM BUILDING CO UNIFORM MECHANICA UNIFORM MECHANICA UNIFORM PLUMBING O VENT VOLTAGE/PHASE/HERT VARIABLE FREQUENCY VENT THROUGH ROOF WET BULB TEMPERATUR WALL CLEANOUT WATER GUAGE WIRE MESH SCREEN EXISTING TO BE REMO	INCH INCH INCH INCH INCH CATED SUCTION SUCTION PRINCI IPER FFICIEN CHES O CHES	ABSOLI GAUGE DN IPAL NCY RA DF W.C	TIO
B SED AIR LINES SATE DRAIN PIPING CONDENSATE DRAIN PIPING CONDENSATE DRAIN PIPING TER PIPING AL COLD WATER PIPING AL COLD WATER PIPING D COLD WATER PIPING TECTION PIPING SSURE GAS PIPING SSURE GAS PIPING PRESSURE GAS PIPING ER PIPING WATER PIPING ER RETURN PIPING WOOF DRAIN PIPING		PRESSURE REDUCING VALVE RELIEF VALVE TEMPERATURE PRESSURE RELIEF VALVE THERMOMETER PRESSURE GAUGE WITH GAUGE COCK MANUAL AIR VENT PRESSURE TEMPERATURE PORT Y-STRAINER WITH BLOWDOWN PIPE GUIDE UNION PIPE GUIDE UNION PIPE ANCHOR FLEXIBLE CONNECTOR PIPE CAP/STUB-OUT DIRECTION OF FLOW PIPE DOWN PIPE UP PIPE TEE UP PIPE TEE DOWN	SHEET NUMBER P0.1 P0.2 P0.3 P0.5 P0.6 P1.0 P1.1 P1.01 P1.2 P1.3 P1.4 P1.5 P1.6 P1.7 P1.8 P1.9 P6.1 PFS.101 PFS.102 PFS.103 PFS.104 PFS.105 PFS.106 PFS.107 PFS.108 PFS.109 TOTAL: 26	PLUMBING ABBREVIATIONS AND SYM PLUMBING SPECIFICATIONS PLUMBING SPECIFICATIONS PLUMBING SCHEDULES PLUMBING DIAGRAMS GAS ISOMETRIC DIAGRAM PLUMBING OVERALL FLOOR PLAN PLUMBING ENLARGED PLANS - WATE PLUMBING ENLARGED PLANS - WATE PLUMBING ENLARGED PLANS - DW & PLUMBING ENLARGED PLANS - DW & PLUMBING FOOD SERVICE WASTE & PLUMBING FOOD SERVICE WATER &	IBOLS LIST GAMING SOUTH BOH BANQUET BOH NORTH R & GAS R & GAS R & GAS V V V V VENT PLAN - CAS VENT PLAN - GRA VENT PLAN - GRA VENT PLAN - GRA VENT PLAN - FINE GAS PLAN - CASI GAS PLAN - GRAI GAS PLAN - BAN	AB-N-GO KITCHEN IQUET KITCHEN REHOUSE E DINING NO BAR & EDR B-N-GO KITCHEN QUET KITCHEN			x x x x x x x x x x x x x x x x x x x		



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 NFPA 13. 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 MANNER 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. 0. 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. 4. 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. 6. ALL SPRINKLER HEADS AND ESCUTCHEONS SHALL HAVE MOUNTING TYPE (FLUSH OR
- SEMI-RECESSED), FINISH AND COLOR AS SELECTED BY ARCHITECT. 7. ALL SPRINKLERS SHALL BE CENTERED WITHIN THE CEILING GRID, COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO SUBMITTAL OF DRAWINGS TO FIRE DEPARTMENT.

PART ONE - GENERAL

- 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"). . 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 DFTAII
- 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. 2.3. THE CONTRACTOR SHALL ALSO IDENTIFY ALL COST DEBITS OR CREDITS IN WRITING FOR THE PROPOSED CHANGES PER BUILDING TRADE.
- 4. 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 WALLS. 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.

COORDINATION DRAWINGS

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.

PLUMBING GENERAL NOTES

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PLUMBING GENERAL NOTES	
	 DIELECTRIC FITTINGS SHALL BE USED WHEREVER DISSIMILAR METALS ARE JOINED. PROVIDE ACCESS PANELS IN CEILING TO ACCESS MECHANICAL/PLUMBING EQUIPMENT AND
IN THE CONTRACT DOCUMENTS WITH THE EXISTING CONDITIONS. THE CONTRACTOR SHALL	APPURTENANCES WHERE REQUIRED.
CONTRACT DOCUMENTS OR THEIR INTENT. THE CONTRACTOR SHALL, UPON DISCOVERY,	3. PLUMBING FIXTURES: PROVIDE CHROME PLATED ANGLE STOPS WITH ESCUTCHEON PLATES AT PLUMBING FIXTURES. ALL PLUMBING FIXTURES SHALL COMPLY WITH LOCAL REGULATIONS
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	AND ADOPTED WATER CONSERVATION CODES. 4. DISINFECT ALL POTABLE WATER SYSTEMS IN ACCORDANCE WITH PLUMBING CODE AND/OR,
VISIT.	AWWA STANDARD. PROVIDE WRITTEN CONFIRMATION TO OWNERS REPRESENTATIVE THAT
BASE PROPOSAL ON MANUFACTURER NAMES LISTED UNLESS "OR EQUAL" IS INDICATED. PROVIDE SUBSTITUTION REQUESTS A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BID	THIS WORK HAS BEEN COMPLETED.
DATE CLOSING TO ALLOW TIME FOR DUE CONSIDERATION OF PROPOSED ALTERNATE.	PART THREE - EXECUTION 1. THE CONTRACTOR SHALL PROVIDE ALL SLEEVES, OPENINGS, CUTTING AND PATCHING
	NECESSARY FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE DONE
OMMISSIONING IBC PROJECTS: MECHANICAL AND ELECTRICAL SYSTEMS DEFINED WITHIN THE IECC AND	BY WORKMEN SKILLED IN THE TRADES REQUIRED AND PAID BY THE CONTRACTOR REQUIRING THE WORK COMPLETED. SYSTEMS PASSING THROUGH WATER PROOFING OR DAMP
LOCAL AMENDMENTS. COMMISSIONING MUST BE PERFORMED BY AN APPROVED THIRD PARTY	PROOFING SHALL BE WATER TIGHT. SYSTEMS PASSING THROUGH FIRE RATED
CONTRACTOR. THE COMMISSIONING AGENT IS RESPONSIBLE FOR THE DEVELOPMENT OF THE	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
COMMISSIONING PLAN AND THE COMMISSIONING PLAN IS TO BE SUBMITTED TO THE ENGINEER	PROVIDED A STANDARD DRAWING/ASSEMBLY FOR AN APPLICATION AND ONE IS NOT AVALIABLE, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN AN "ENGINEERING JUDGEMENT"
AND THE LOCAL AHJ AS A DEFERRED SUBMITTAL. FOR THIS PROJECT THE GC WILL BE RESPONSIBLE FOR THE RETENTION OF A CODE/LOCAL	AND ASSOCIATED DRAWING FOR THE APPLICATION.)
AHJ/OWNER/ENGINEER APPROVED COMMISSIONING AGENT (CXA). (THE MECHANICAL CONTRACTOR IS TO ENSURE THE GC IS AWARE OF THIS REQUIREMENT.) LOCATED	2. THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HANDLING OF MATERIALS AND EQUIPMENT, AND THE NECESSARY PROTECTION FOR MATERIALS AND EQUIPMENT.
ELSEWHERE IS A COMMISSIONING REQUIREMENT OUTLINE THAT PROVIDES AN OVERVIEW OF	3. THE CONTRACTOR WILL PROTECT THE WORK AND MATERIAL AGAINST DIRT, THEFT, INJURY
THE COMMISSIONING PROCESS. THESE REQUIREMENTS COMBINED WITH THOSE IN THE 2012 IECC, SECTION C408 SHALL DESIGN THE MINIMUM REQUIREMENTS FOR COMMISSIONING.	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
<u>RT TWO - PRODUCTS</u> <u>UMBING EQUIPMENT</u>	OPENING CREATED TO ACCEPT THE DRAIN AND THE DRAIN FITTING MUST USE A LISTED
PROVIDE PLUMBING EQUIPMENT AS SPECIFIED AND/OR SCHEDULED HEREIN AND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS. EQUIPMENT	SYSTEM TO BE TEMPERATURE AND FIRE RATED TO MATCH THE RATING OF THE FLOOR $(MIN \ 2 \ HOUR).$
SHALL OPERATE ACCORDING TO THE MANUFACTURER'S "OWNER'S OPERATING AND	5. PROVIDE "TRAP GUARD", OR EQUIVALENT, FOR FLOOR DRAINS, FLOOR SINKS AND OTHER
MAINTENANCE MANUAL" TROUBLE FREE AND CONFORMING TO THE ONE-YEAR WARRANTEE.	DEVICES WHERE TRAP SEALS EXIST. 6. EQUIPMENT CONDENSATE DRAINS: FAN COIL, AHU AND OTHER SIMILAR EQUIPMENT
UMBING PRODUCTS	CONDENSATE DRAINS MAY OR MAY NOT BE DOCUMENTED ON THE PROJECT DRAWINGS. IT IS
DOMESTIC WATER PIPING: . ABOVE GROUND: TYPE "L" COPPER (ASTM B-88), WROUGHT FITTINGS (ASME B16.22), JOINTS:	THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE CONDENSATE DRAINS TO AN APPROVED RECEPTOR, SIZE DRAIN TO MATCH OR EXCEED CODE MINIMUMS. PROVIDE A
ANSI/ASTM B32, SOLDER: 95/5 TIN/ANTIMONY, 0.2% MAX LEAD. (SADDLE TAPS, SHARKBITE,	CONDENSATE PUMP WHERE REQUIRED (IE: LITTLE GIANT NXTGEN) 7. EACH CONTRACTOR SHALL PROVIDE ALL FOUNDATIONS, HANGERS, AND SUPPORTS FOR ALL
UNLESS SPECIFICALLY APPROVED)	EQUIPMENT SUPPLIED AND/OR INSTALLED UNDER THEIR WORK. ANY EQUIPMENT WITH
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.	MOVING PARTS SHALL BE PROVIDED WITH VIBRATION ISOLATION AND FLEXIBLE CONNECTIONS TO PIPING AND OR DUCTWORK IF APPLICABLE. MISCELLANEOUS STEEL AND
MUST COMPLY WITH NSF/ANSI 61 AND NSF/ANSI 372.	ANCHORS REQUIRED FOR THE INSTALLATION OF THE CONTRACTORS EQUIPMENT IS THE
DOMESTIC WASTE & VENT PIPING MATERIALS: ABOVE GROUND AND BELOW GRADE NO-HUB CAST IRON	RESPONSIBILITY OF THE CONTRACTOR AND THE RETENTION OF A STRUCTURAL ENGINEER OR OTHER DESIGN DISCIPLINE TO COMPLETE THE WORK IS THE RESPONSIBILITY OF THE
1. PIPE AND FITTINGS SHALL BE MARKED WITH CISP INSTITUTE AND LISTED BY NSF. NO-HUB	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
2. EPOXY COATED PIPE AND FITTINGS BY NEWAGE CÁSTING. COUPLINGS SHALL BE EXTRA HEAVY DUTY (SIMILAR TO HUSKY SD-4000), BY NEWAGE CASTING. (E.C.C.I.)	AREAS, THEY SHALL BE FURNISHED WITH ESCUTCHEON PLATES (COLOR PER ARCHITECT AND/OR INTERIOR DESIGNER).
3. CAST IRON PIPE SHALL CONFORM TO ASTM-A-888 OR CISPI 30.	4. PIPES AND/OR CONDUITS PASSING THROUGH WALL, FLOORS AND PARTITIONS SHALL BE
4. ALTERNATE ACCEPTABLE MATERIAL: DWV COPPER. STAINLESS STEEL ABOVE GROUND, GREASE WASTE PIPING TO BE JOSAM STAINLESS STEEL	PROVIDED WITH SLEEVES. SLEEVES PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. SLEEVES/PIPES PASSING THROUGH FIRE RATED
PUSH-FIT DRAINAGE SYSTEM. (INCLUDES FLOOR SINKS & DRAINS)	CONSTRUCTION SHALL BE FIRE PROOFED WITH MATERIAL APPROVED FOR THE FIRE AND
THIS PROJECT: EPOXY	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
CAST IRON COATED C.I. STAINLESS STEEL SCH. 40 PVC WASTE X	AVAILABLE, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN AN "ENGINEERING JUDGEMENT" AND ASSOCIATED DRAWING FOR THE APPLICATION.)
WASTE BELOW GRADE X	5. AT THE CONCLUSION OF THE JOB, EACH PIECE OF EQUIPMENT, VALVE, SWITCH, STARTER,
VENT X GW ABOVE GRADE X	PANEL, PIPE LINE, CONDUIT, DUCT, ETC., SHALL BE CLEARLY IDENTIFIED WHETHER EXPOSED OR CONCEALED, COVERED OR UNCOVERED, IN ACCORDANCE WITH OSHA AND ANSI
GW ABOVE GRADEXGW BELOW GRADEX	REGULATIONS. IDENTIFY PIPES NEAR EACH VALVE WITH "BRANDY-PERMA' CODE PIPE TAPE"
PVC SCH. 40 SOLID WALL PIPE AND PVC DWV FITTINGS: PIPE TO COMFORM TO ASTM D 1784.	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
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	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
2321 AND F 1668. SOLVENT CEMENT JOINTS TO BE PRIMER (PER ASTM F 656) AND SOLVENT	AND PURPOSE BY MEANS OF PERMANENTLY ATTACHED LAMINATED ENGRAVED PHENOLIC
CEMENT (PER ASTM D 2564) 1. STAINLESS STEEL GREASE WASTE PIPE WHERE NOTED TO BE INSULATED, SHALL BE	NAMEPLATES WITH BEVELED EDGES, AND WHITE LETTERS ON BLACK BACKGROUND. (NO ADHESIVE LABELS ALLOWED).
URECON PRE-INSULATED SCH. 40 PVC PIPE USING THE URECON U.I.P. SYSTEM - 2" THICK	6. AT THE CONCLUSION OF THE WORK, ALL EQUIPMENT AND SYSTEMS SHALL BE BALANCED,
INSULATION WITH A 50 MIL POLYETHYLENE JACKET. FITTINGS TO RECEIVE A URECON INSULATION KIT. RUNOUTS FROM THE MAIN TO RECEIVE FIELD APPLIED URECON HALF	ADJUSTED, AND TESTED TO PROVIDE A QUIET-OPERATING, STABLE, AND SAFELY OPERATING SYSTEM(S). DEMONSTRATE OPERATION OF ALL SYSTEMS TO THE OWNER'S DESIGNATED
SHELLS FOR A 4' DISTANCE OFF THE MAIN. WHERE NOTED TO BE HEAT	REPRESENTATIVE. THE TEST AND BALANCE WORK SHALL BE PERFORMED IN ACCORDANCE WITH NEBB OR AABC STANDARDS, BY INDEPENDENT, APPROVED, AND CERTIFIED TEST AND
TRACED, THE INSULATION SYSTEM SHALL PROVIDE A CONDUIT FOR HEAT TRACE CABLE. HEAT TRACE CABLE SHALL BE URICON CONSTANT WATT PARALLEL RESISTANCE	BALANCE PERSONNEL.
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	7. IN LOCATIONS WHERE SEISMIC DESIGN REQUIREMENTS EXIST, THE MECHANICAL/PLUMBING CONTRACTOR IS RESPONSIBLE FOR RETAINING AND PAYING FOR THE DESIGN SERVICES OF A
TERMINATION KITS, POWER FEED KITS AND OTHER REQUIRED ACCESSORIES BY URECON.	STRUCTURAL ENGINEER TO CREATE THE DESIGN AND INSTALLATION DRAWINGS FOR
(NO UNDER GROUND SPLICES IN HEATING CABLE.) HEAT TRACE CONTROLLER - URECON UTC-2230 (WITH CIRCUIT BREAKER FOR LOCAL ISOLATION) AND PLATINUM RTD SENSORS.	MECHANICAL/PLUMBING SYSTEMS SEISMIC RESTRAINT SUPPORT, PER THE PROJECT BUILDING CODE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT MECHANICAL SYSTEMS
2. PVC MAY ONLY BE USED BELOW GRADE WHERE ACCEPTABLE SOIL CONDITIONS ARE	SHOP DRAWINGS BASED UPON MULTI DISCIPLINE COORDINATION. INCLUDED WITH THE SHOP
CONFIRMED TO EXIST. ROOF DRAIN AND OVERFLOW ROOF DRAIN PIPING: ABOVE GROUND - NO-HUB CAST IRON,	DRAWING SUBMISSION SHALL BE SEISMIC RESTRAINT DRAWINGS NOTING WHERE SEISMIC SUPPORT IS REQUIRED. FOR EACH AREA NOTED NEEDING SEISMIC SUPPORT FOR THE
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	MECHANICAL SYSTEMS, THERE SHALL BE A SEISMIC DRAWING DETAILING THE REQUIRED SUPPORT. THE SEISMIC SUPPORT DRAWINGS SHALL BE SIGNED AND SEALED BY A
HUSKY HIGH PERFORMANCE HEAVY DUTY SD4000. CAST IRON PIPE SHALL CONFORM TO	REGISTERED STRUCTURAL ENGINEER IN THE SAME STATE AS THE PROJECT. IN ADDITION 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	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
ROOF DRAINS & PIPE)	THE BUILDING DOCUMENTS. COMMENCEMENT OF CONSTRUCTION PRIOR TO BUILDING
RAIN WATER DRAIN PIPING SHALL BE CAST IRON, UNLESS OTHERWISE APPROVED. CONDENSATE DRAIN PIPING: TYPE "M" COPPER (ASTM B-88), WROUGHT FITTINGS (ASME	DEPARTMENT REVIEW IS AT THE CONTRACTOR'S RISK. 8. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT
B16.22), JOINTS: ANSI/ASTM B32, SOLDER: 95/5 TIN/ANTIMONY, 0.2% MAX LEAD.	LOCATION OF GRILLES, REGISTERS AND DIFFUSERS. 9. PIPE HANGERS: PIPE SIZES 1/2" TO 1 1/2" - 5'-0" MAX SPACING, 3/8" MIN. ROD DIAMETER; PIPE
FITTINGS INSIDE AND GALVANIZED FITTINGS AND PIPE WHERE EXPOSED, JOINT COMPOUND.	SIZES 2" TO 3" - 8'-0" MAX SPACING, 1/2" MIN. ROD DIAMETER; PIPE SIZES 4 TO 6"-10'-0" MAX
PROVIDE ISOLATION VALVES AT ALL EQUIPMENT. BELOW GRADE GAS PIPING SHALL BE	SPACING, 5/8" MIN. ROD DIAMETER. 10. WATER PROOFING AND FLASHING OF PIPE PENETRATIONS THROUGH THE EXTERIOR WALL
GAS VALVE SHALL BE BRONZE BODY, BRONZE TAPERED PLUG, NON-LUBRICATED, TEFLON	AND ROOF SHALL BE THE RESPONSIBILITY OF THE INSTALLING MECHANICAL/PLUMBING
PACKING, THREADED ENDS. PIPE INSULATION: ALL DOMESTIC COLD WATER PIPING (IN UNCONDITIONED SPACES ONLY)	CONTRACTOR. THE CONTRACTOR SHALL COORDINATE LOCATIONS, MEANS AND METHODS WITH GENERAL CONTRACTOR/OWNER FOR THE VARIOUS BUILDING SYSTEMS. ROOFING
AND ALL DOMESTIC HOT WATER PIPING ABOVE GROUND SHALL BE INSULATED WITH 1" THICK	MEMBRANE PENETRATIONS MUST BE PERFORMED BY A CONTRACTOR THAT IS WARRANTY
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	APPROVED FOR THE SPECIFIC ROOFING SYSTEM. 11. CONTRACTOR SHALL OBTAIN FROM THE ARCHITECT THE EXACT LOCATION OF EQUIPMENT,
MINIMUM 3/4" THICK CLOSED CELL NEOPRENE PIPE INSULATION MAY BE USED. WHERE THE	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
SYSTEM WEIGHT COMPRESSES INSULATION. PROVIDE ADA COMPLIANT INSULATION ON	BY LOCAL CODE. ALL CLEANOUTS SHALL BE READILY ACCESSIBLE. 13. PROVIDE BALANCE VALVE FOR HOT WATER RETURN SYSTEM AS REQUIRED.
PIPE HANGERS: PIPE SIZES 1/2" TO 1 1/2": MALLEABLE IRON, CARBON STEEL, ADJUSTABLE	14. PROVIDE PRESSURE REDUCING VALVE IN SYSTEM AS REQUIRED.
SWIVEL, SPLIT RING. PIPE SIZES 2" TO 4": CARBON STEEL, ADJUSTABLE, CLEVIS. PIPE SIZES	 PROVIDE HEAT TRAPS (INTEGRAL OR EXTERNAL) FOR ALL WATER HEATING EQUIPMENT. PROVIDE A NON-VENTED TRAP ON ALL INDIRECT WASTE PIPING FIVE (5) TO FIFTEEN (15) FEET
YOKE, CAST IRON ROLL, DOUBLE HANGER. SYSTEM LOAD (PIPE FULL OF DESIGN LIQUID OR	IN DEVELOPED LENGTH. INDIRECT WASTE PIPING WITH ANGLES AND CHANGES OF DIRECTION
GAS) ON HANGER MUST NOT EXCEED MORE THAN 85% OF HANGER CAPACITY. FLOOR DRAINS, UNLESS OTHERWISE SPECIFICALLY SPECIFIED: MIFAB F1000(-C), HD	SHALL BE BE PROVIDED WITH CLEANOUTS. INDIRECT DRAINS OVER FIFTEEN (15) FEET TO BE TRAPPED AND WITH A DEDICATED VENT TO THE EXTERIOR.
STAINLESS STEEL STRAINER, CAST LACQUERED BODY, TRAP PRIMER CONNECTION, ANCHOR	17. WHERE A SINK IN A BAR, SODA FOUNTAIN, OR COUNTER HAS AN INDIRECT WASTE, THE
FLANGE, WEEPHOLES. WITH MEMBRANE CLAMP WHERE APPLICABLE. (2, 3, 4, 5, 6 INCH PIPE SIZE)	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.
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.	

- 2.3
- 3

- IER CONNECTION; 1/2, 3/4 OR FULL GRATE PER DOCUM 11. HEAT TRACE: RAY CHEM, XL-TRACE SYSTEM, INSTALLED PER MANUFACTURERS RECOMMENDATION.

James R. Childers Architect, Inc. 45 South 4th Street Fort Smith, AR 72901 479-783-2480 www.childersarchitect.com CONSULTANT LOGO CHEROKEE NATION SIN ШA Ļΰ ШТ Q ŻШ T TAI \bigcirc ()PROJECT PHASE: BID PACKAGE 05 REVISIONS DESCRIPTION DATE 05/22/18 ADDENDUM 10 JOB NUMBER 17-06 05/03/18 FT NUMBER P0.2 PLUMBING SPECIFICATIONS

PLUMBING FIXTURE SPECIFICATIONS

MARK	DESCRIPTION
WC-1	WATER CLOSET (ACCESSIBLE) - AMERICAN STANDARD #2294.011EC, VI MOUNT, ELONGATED BOWL, SOLID PLASTIC OPEN FRONT SEAT, LESS 6065.121.002 BATTERY POWERED, SENSOR OPERATED FLUSHOMETER JR SMITH OR ZURN. WC-1 SAME FIXTURE MOUNTED AT ACCESSIBLE RI ACCESSIBILITY DETAILS PRIOR TO ROUGH-IN.
WC-2	WATER CLOSET - AMERICAN STANDARD #2294.011EC, VITREOUS CHIN/ ELONGATED BOWL, SOLID PLASTIC OPEN FRONT SEAT, LESS COVER, A BATTERY POWERED, SENSOR OPERATED FLUSHOMETER, 1.28 GPF, PF OR ZURN. WC-1 SAME FIXTURE MOUNTED AT ACCESSIBLE RIM HEIGHT DETAILS PRIOR TO ROUGH-IN.
U-1	URINAL (ACCESSIBLE) - AMERICAN STANDARD DECORUM #6042.001EC, SPUD, 0.125 GPF, 2" TOP SPUD, FRONT JETTED, BLOWDOWN-TYPE, 1 1/ FLUSH VALVE: AMERICAN STANDARD #6063.025.002, 0.125 GPF, BATTEF FINISH. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTIN
U-2	URINAL - AMERICAN STANDARD DECORUM #6042.001EC, WALL HUNG, V GPF, 2" TOP SPUD, FRONT JETTED, BLOWDOWN-TYPE, 1 1/2" GLAZED T AMERICAN STANDARD #6063.025.002, 0.125 GPF, BATTERY POWERED, S COORDINATE WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIG
L-1	LAVATORY (ACCESSIBLE) - KOHLER PENNINGTON K-2196-1R VITREOUS SLOAN MODEL #EFX100, SENSOR OPERATED, BATTERY POWERED, 0.5 GPM, CHROME BRAIDED STAINLESS STEEL SUPPLY, GRID DRAIN, ADJUSTABLE P-TRAF DRAWINGS FOR MOUNTING HEIGHTS PRIOR TO ROUGH-IN. PROVIDE P
L-2	LAVATORY (ACCESSIBLE) - KOHLER KATHRYN K-2297 VITREOUS CHINA SLOAN MODEL #EFX100, SENSOR OPERATED, BATTERY POWERED, 0.5 STOPS, BRAIDED STAINLESS STEEL SUPPLY, GRID DRAIN, ADJUSTABLE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS PRIOR TO ROU REQUIREMENTS.
HS-1	HAND SINK (ACCESSIBLE) - ADVANCE TABCO #7-PS-68, 304 SERIES STA FAUCET: CHICAGO FAUCETS #W4W-GN1AE35-317AB, 1.5 GPM AERATO HANDLE, WALL MOUNTED, GOOSENECK SPOUT.
MS-1	MOP SINK - FIAT MSB-3624, 36"X24" FLOOR MOUNT, POLYMER CONSTR 880-CC MOP HANGER, E-77AA VINYL RIM GUARDS, SYMMONS S-2490-C FAUCET WITH HOSE END SPOUT, PAIL HOOK, WALL BRACKET, INTEGR BREAKER.
FD-1	FLOOR DRAIN - FOR SHOWERS, TOILETS, TERRACE, AND KITCHENS, J. DIAMETER NICKEL BRONZE SQUARE HOLE GRATE, INTEGRAL FLASHIN
FD-2	FLOOR DRAIN - FOR CASINO AREA UNDER RAISED FLOOR, J.R. SMITH ROUND TOP, DUCO CAST IRON BODY AND FLASHING COLLAR WITH CA PROVIDE WITH TRAP-GAURD.
FS-1	FLOOR SINK - ZURN MODEL Z1900 12"x12" WITH 6" SUMP DEPTH. CAST WITH ANTI-SPLASH ENAMEL INTERIOR AND TOP COATING.
RD-1	ROOF DRAIN - J.R. SMITH #1010-ERC, CAST IRON BODY, CAST IRON OR STRAINER, EXTENSION AS REQUIRED, SUMP RECEIVER AND UNDERDE
ORD-1	OVERFLOW ROOF DRAIN - J.R. SMITH #1080-ERC, CAST IRON BODY, CA STRAINER, EXTENSION AS REQUIRED, SUMP RECEIVER AND UNDERDE WATER DAM.
HB-1	HOSE BIBB - WOODFORD MODEL RB65, AUTOMATIC DRAINING FREEZE VACUUM BREAKER AND LOOSE TEEKEY OPERATOR.
HB-2	ROOF TOP FREEZE PROOF HOSE BIBB - WOODFORD #SRH-MS 3/4" HO DOUBLE CHECK VALVE BACKFLOW PREVENTER (FIELD TESTABLE), RO UNDERDECK CLAMP AND RAIN BOOT.
TD-1	TRENCH DRAIN - MIFAB MODEL P6030-29, 3" W x DESIRED LENGTH, CE STEEL BODY AND GRATE. PROVIDE WITH SLIP RESISTANT GRATE. PRO
TD-2	TRENCH DRAIN - MIFAB MODEL P6060-SBG, 6" W x DESIRED LENGTH, 0 STAINLESS STEEL BODY AND GRATE. PROVIDE WITH STAINLESS STEE
DSN-1	DOWNSPOUT NOZZLE - ZURN Z199-DC. STAINLESS STEEL FRAME WITH STRAINER.

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MARK	FIXTURE							REMARKS
WARK	FIXTURE	C.W.	тw	HW	V	S/W	TRAP	REMARKS
<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
<u>MS-1</u>	MOP SINK	3/4	-	3/4	2	3	-	FLOOR MOUNT
<u>FD-1</u>	FLOOR DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHER
<u>FD-2</u>	FLOOR DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHER
<u>FS-1</u>	FLOOR SINK	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHER
<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 BO
<u>HB-2</u>	HOSE BIBB	3/4	-	-	-	-	-	FREEZE PROOF KEY OPERATED
<u>TD-1</u>	TROUGH DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHER
<u>TD-2</u>	TROUGH DRAIN	-	-	-	-	-	-	SIZE AS SHOWN UNLESS NOTED OTHERV

WATER HAMMER ARRESTORS

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

VITREOUS CHINA, WHITE-0 FINISH, WALL S COVER, AMERICAN STANDARD # R, 1.28 GPF, PROVIDE SUPPORT CARRIER BY RIM HEIGHT. REFER TO ARCHITECT'S

NA, WHITE-0 FINISH, WALL MOUNT, , AMERICAN STANDARD #6065.121.002 PROVIDE SUPPORT CARRIER BY JR SMITH IT. REFER TO ARCHITECT'S ACCESSIBILITY

C, WALL HUNG, VITREOUS CHINA, 1 1/4" INLE 1/2" GLAZED TRAPWAY, FLUSHING RIM. ERY POWERED, SENSOR OPERATED. WHITE ING HEIGHTS PRIOR TO ROUGH-IN.

VITREOUS CHINA, 1 1/4" INLET SPUD, 0.125 TRAPWAY, FLUSHING RIM. FLUSH VALVE: , SENSOR OPERATED. WHITE FINISH. GHTS PRIOR TO ROUGH-IN.

IS CHINA, DROP-IN, WHITE FINISH. FAUCET: E PLATED FINISH, LOOSE KEY STOPS, AP. COORDINATE WITH ARCHITECTURAL PIPE PROTECTION PER ADA REQUIREMENTS

A, UNDER COUNTER, WHITE FINISH. FAUCET 5 GPM, CHROME PLATED FINISH, LOOSE KEY LE P-TRAP. COORDINATE WITH JGH-IN. PROVIDE PIPE PROTECTION PER ADA

FAINLESS STEEL, WALL MOUNTED. OR, 4" VANDAL PROOF WRISTBLADE

RUCTION, 832-AA HOSE AND BRACKET, CHKS WALL MOUNT BACK INLET SERVICE RAL STOPS, CHECKS AND VACUUM

J.R. SMITH #2010A, CAST IRON BODY, 6" NG FLANGE. PROVIDE WITH TRAP-GAURD.

#2130, SHALLOW DRAIN, 12" DIAMETER AST IRON BAR GRATE, MEDIUM DUTY.

IRON BODY AND SQUARE SLOTTED GRATE

R CAST ALUMINUM DOME ECK CLAMP.

AST IRON OR CAST ALUMINUM DOME ECK CLAMP. INTEGRAL 2" HIGH SOLID

ELESS WALL HYDRANT IN BOX WITH

OSE FAUCET WITH ASSE 1052 CERTIFIED OOF DECK SLEEVE / SUPPORT WITH

ENTERED BOTTOM OUTLET WITH STAINLES ROVIDE WITH TRAP-GAURD.

CENTERED BOTTOM OUTLET WITH EL BAR GRATE. PROVIDE WITH TRAP-GAURD

TH SECURED PERFORATED S.S. HINGED

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WATER SOFTENER SCHEDULE PIPE SIZE (IN.) ELECTRICAL FLOW RATE (GPM) GENERAL DATA MANUFACTURER GRAIN CAPACITY MARK MODEL SIZE CONTINUOUS PEAK BACKWASH INLET OUTLET V/PH/HZ PHOENIX /ws\ 55 GPM 88 GPM 2" 300,000 120/1/60 15 GPM 2" PF-9210-TEM-38"D x 99"L x 98"H $\sqrt{1}$ CB-SK-PLC

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.

2. TP&R VALVE

	GAS FIRED WATER HEATER SCHEDULE										
		GENERAL DATA									
MARK	MANUFACTURER MODEL	LOCATION	STORAGE CAPACITY (GAL)	GAS INPUT (MBH)	GAS CONNECTION (IN)	MINIMUM EFFICIENCY (%)	RECOVERY (GPH)	TEMP RISE (°F)	V/PH/HZ	OPERATING 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
1. SEISM	1. SEISMIC RESTRAINT STRAP.										

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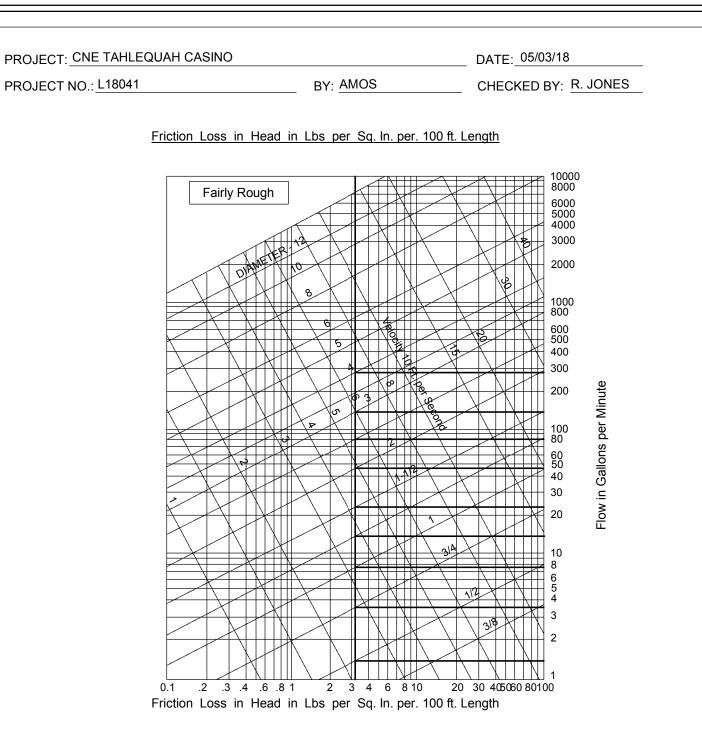
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DOMESTIC WATER BRANCH PIPE SIZING CALC



STATIC HEAD (S.H.)=45 FT. x 0.43 =19	9.35 P.S.I.
PRESS. AVAIL= <u>75</u> SERV PRESS (<u>19.35</u>	5 S.H <u>30</u> REQ'D PRESS <u>0</u> METER) = <u>25.65</u> PSI
DEVELOPED LENGTH (LONGEST RUN) =600	FT.
50% FITTING LENGTH = <u>180</u>	FT.
TOTAL EQUIVALENT LENGTH = 780	FT.
ALLOWABLE FRICTION LOSS/100FT. = <u>(25.65) (100)</u> 780	_ = <u>3.28</u> 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.

R. JONES

NAME

MSA ENGINEERING CONSULTANTS COMPANY

OAO FIDED WATED HEATED OOLEDIN E

1	SCHEDULE									
-	TANK SIZE (IN.)	BRINE TANK (IN.)	OPERATING WEIGHT (LBS)	REMARKS						
	24"x72"	24"x50"	8,540	1, 2, 3, 4, 5						

RECIRCULATION PUN	MP SCHEDULE
--------------------------	-------------

MANUFACTURER MODEL	0.00	FLOW GPM	HEAD FT	MOTOR		
	SERVICE			HP	V/PH/HZ	REMARKS
BELL & GOSSET (L 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. LEAD FREE.

TEMPERING VALVE SCHEDULE

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

MANUFACTURER MODEL	LOCATION	TANK VOLUME (GAL)	ACCEPTANCE FACTOR	AIR PRE-CHARGE (PSI)	OPERATING WEIGHT (LBS)	NOTES
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. 3. MOUNT ON 4" HOUSEKEEPING PAD.

APPLICATION PER FDA REQUIREMENTS.

GREASE INTERCEPTOR SCHEDULE

REF: 2012 UPC 1014.3, TABLE 1014.3.6

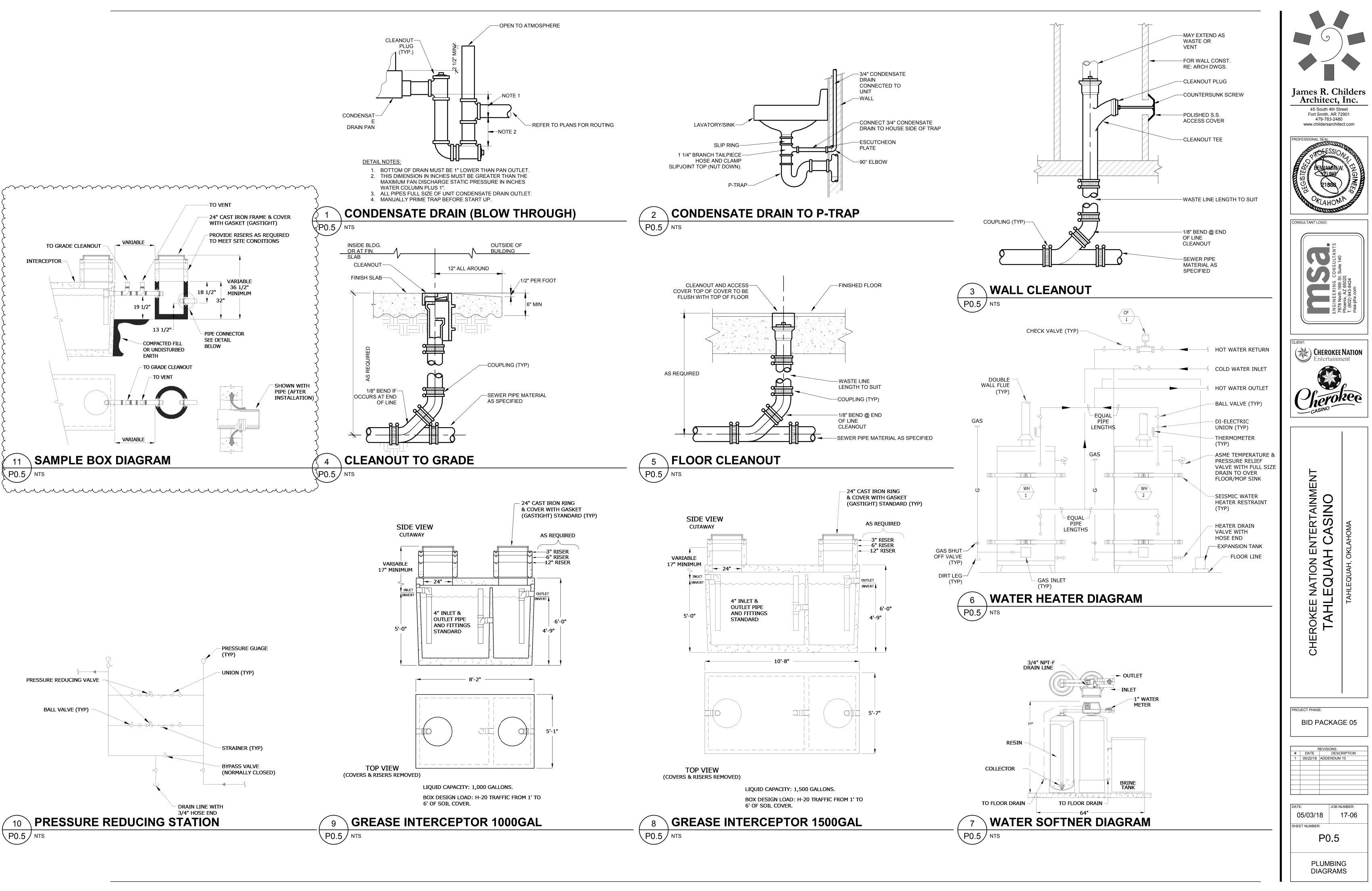
JENSEN PRECAST - JP1000EE-G, 1,000 GAL GREASE INTERCEPTOR WITH TRAFFIC RATED COVER (H-20)

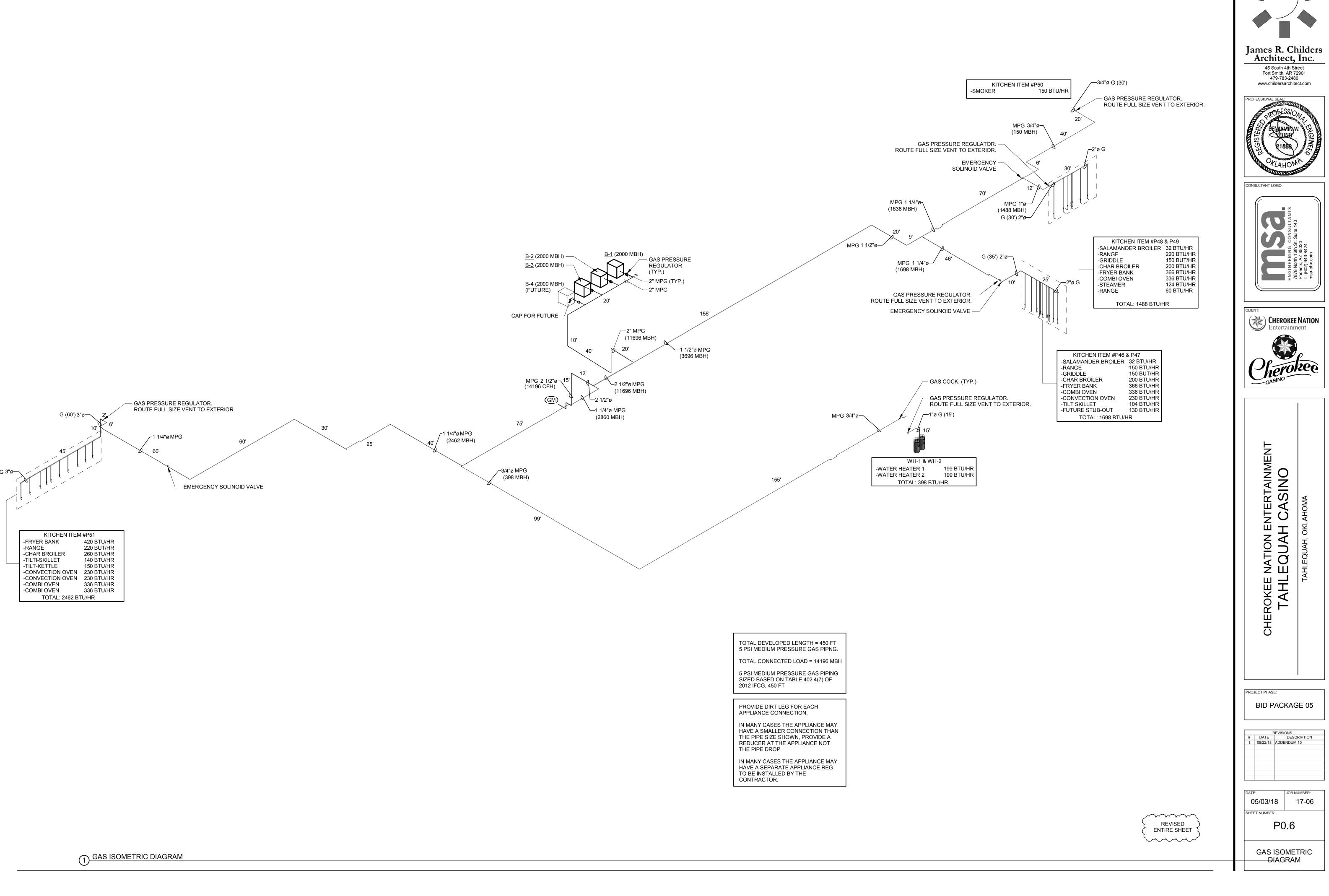
JENSEN PRECAST - JP1500EE-G, 1,500 GAL GREASE INTERCEPTOR WITH TRAFFIC RATED COVER (H-20)

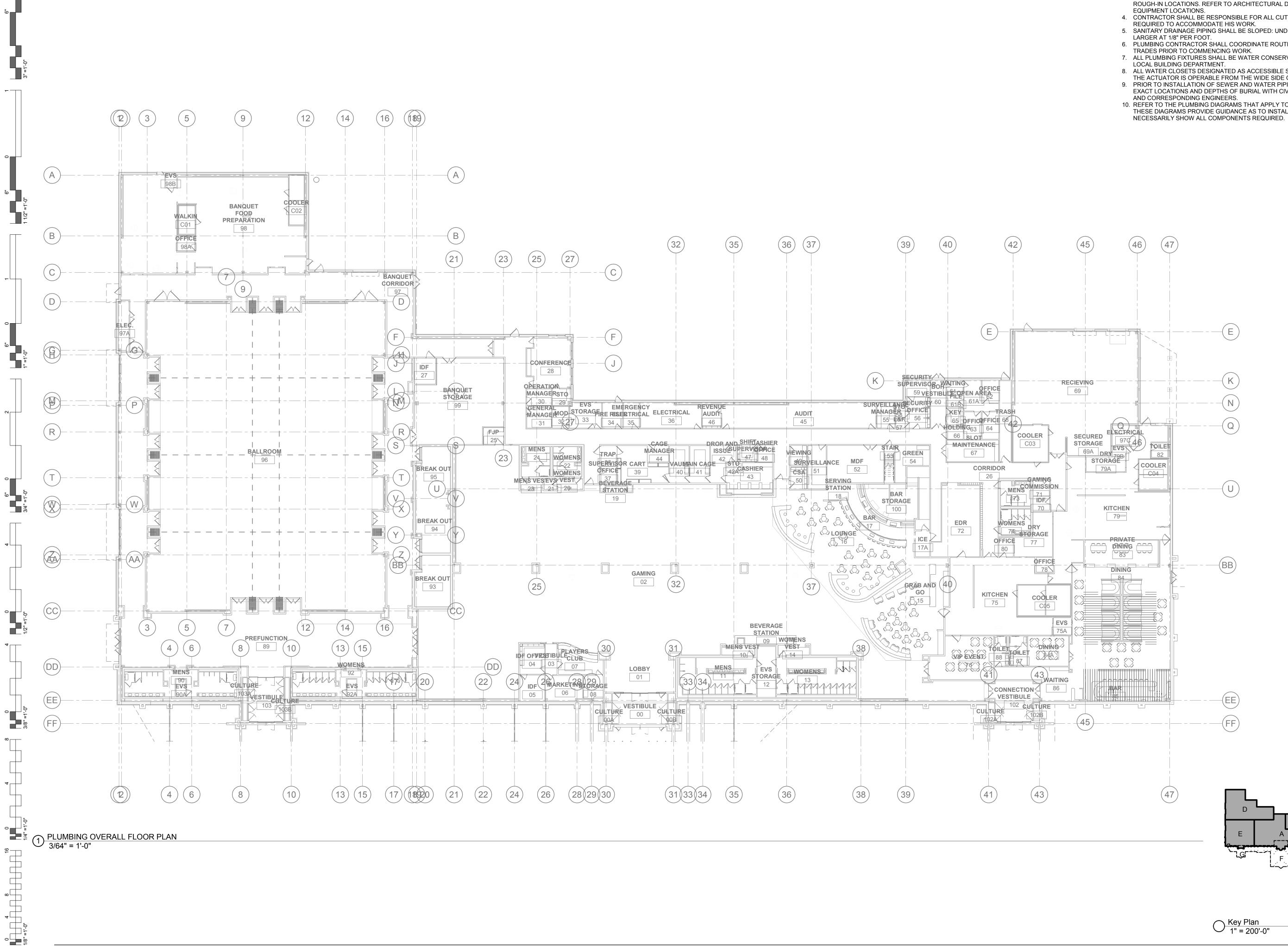
James R. Childers Architect, Inc. 45 South 4th Street Fort Smith, AR 72901 479-783-2480 www.childersarchitect.com
PROFESSIONAL SEAL: PROFESSIONAL
CONSULTANT FOR CONSULTANTS RAGINE ERING CONSULTANTS 7878 North 16th St. Suite 140 T. (602) 943-8424 msa-phx.com
CLIENT: CHEROKEE NATION Entertainment Cherokee Cherokee Cherokee Cherokee
CHEROKEE NATION ENTERTAINMENT TAHLEQUAH CASINO TAHLEQUAH, OKLAHOMA
PROJECT PHASE: BID PACKAGE 05
REVISIONS # DATE DESCRIPTION 1 05/22/18 ADDENDUM 10 - - - - - - - - - - - -
DATE: JOB NUMBER: 05/03/18 17-06 SHEET NUMBER: P0.3

PLUMBING SCHEDULES

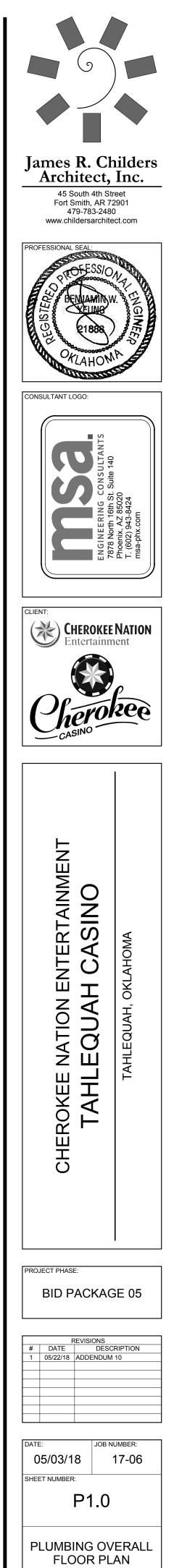








- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
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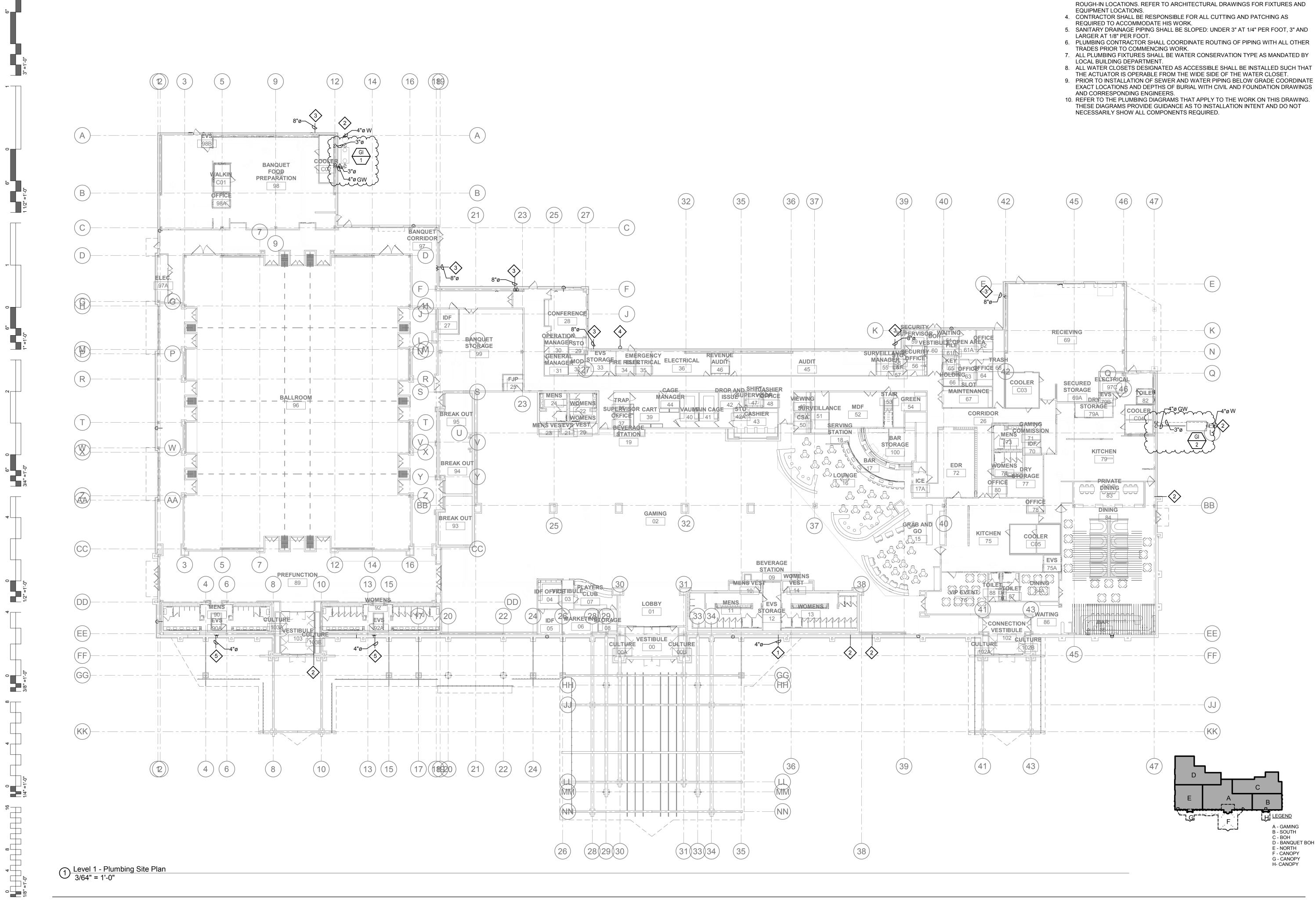


A - GAMING B - SOUTH C - BOH

E - NORTH F - CANOPY

G - CANOPY H- CANOPY

D - BANQUET BOH

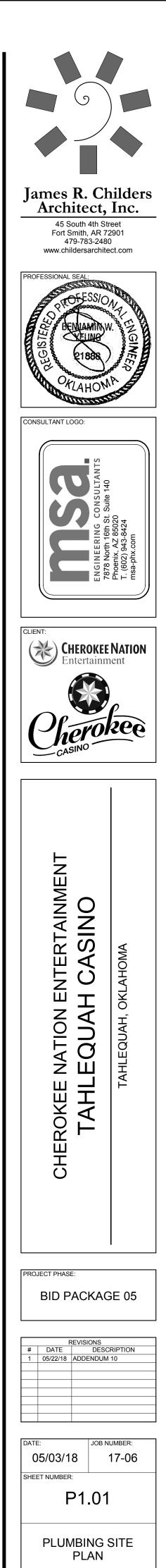


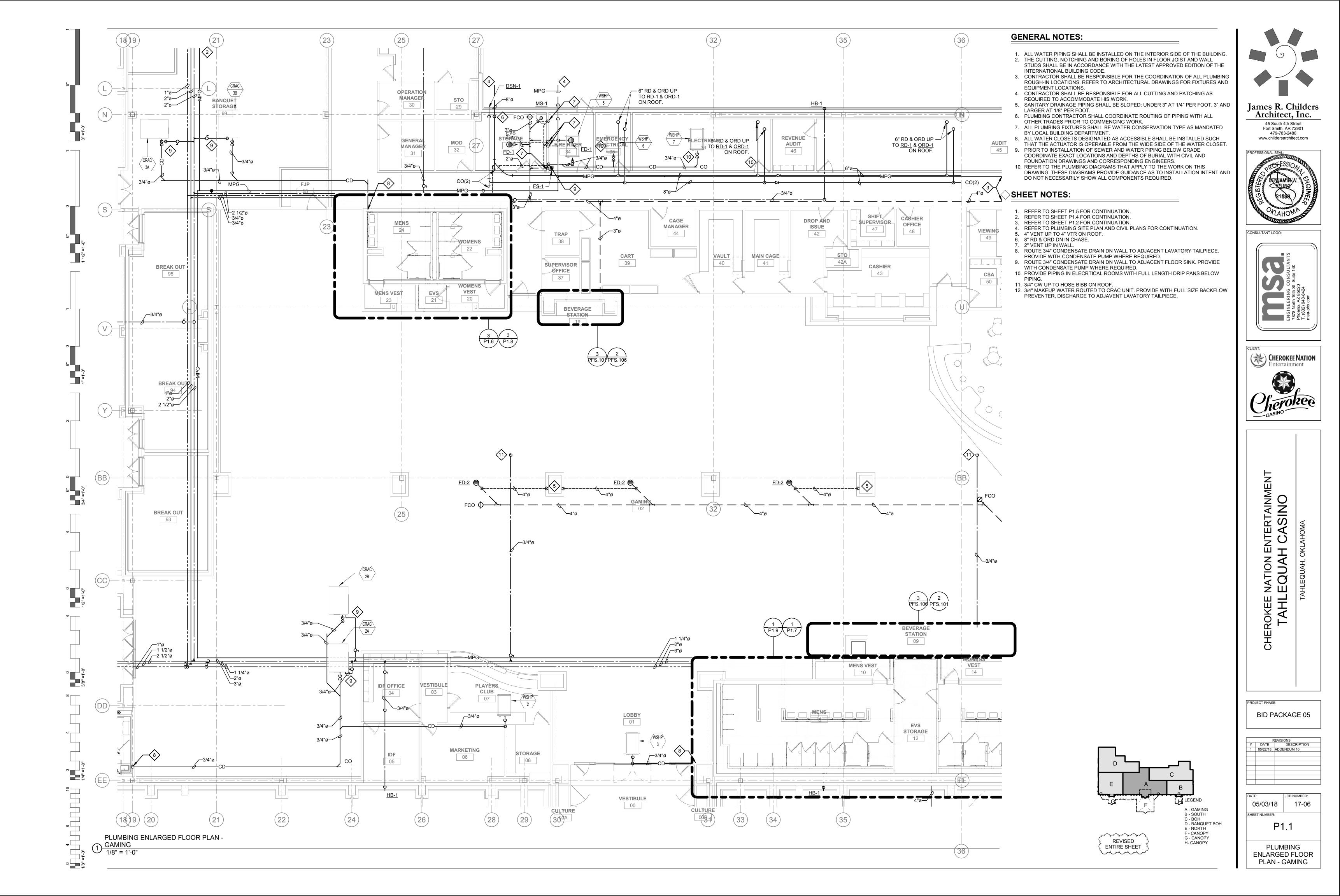
SHEET NOTES:

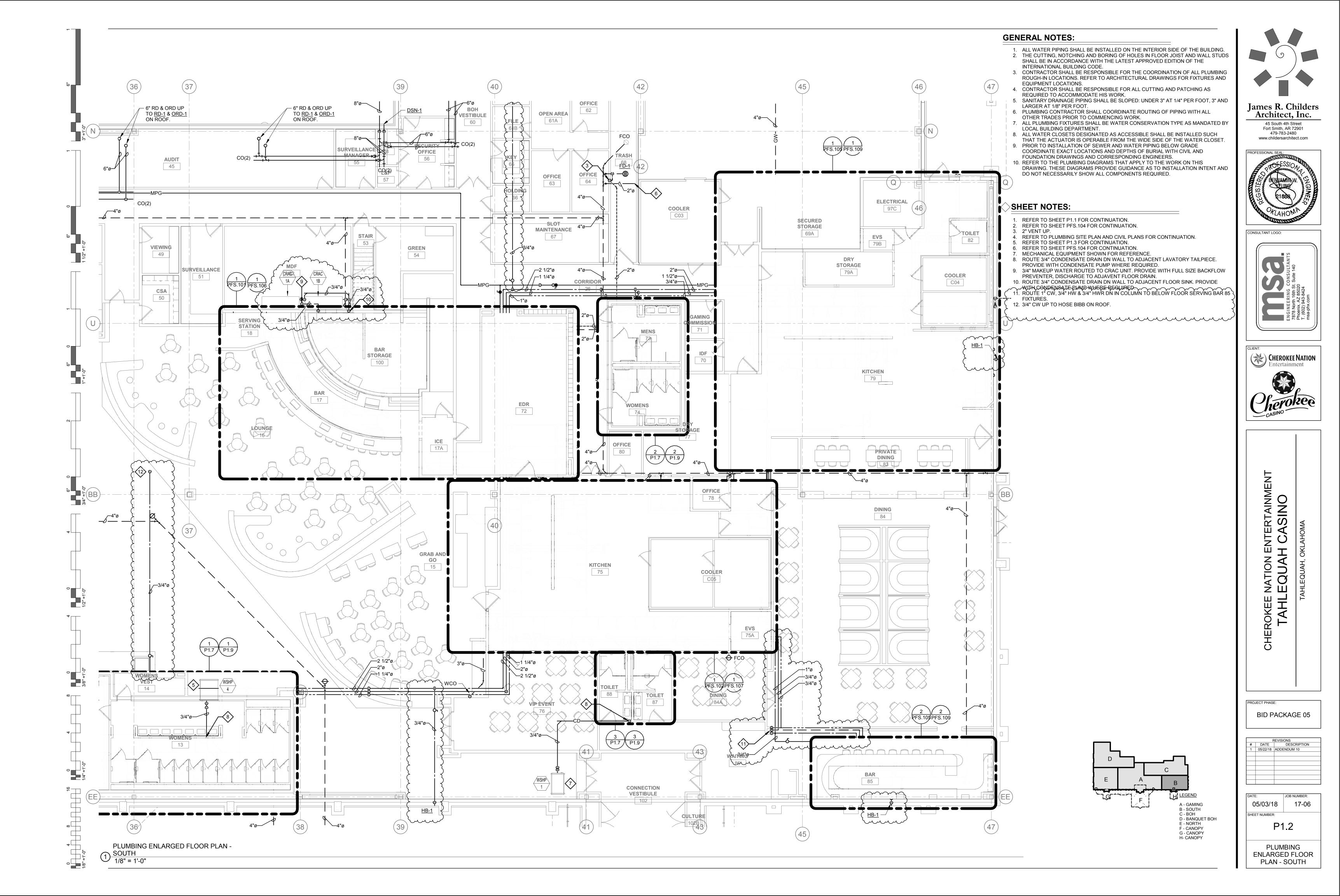
- 1. 4" DCW SERVICE TO BUILDING. REFER TO CIVIL UTILITY PLANS FOR CONTINUATION.
- 2. 4" BUILDING WASTE WASTE LINE, REFER TO CIVIL UTILITY PLANS FOR CONTINUATION.
- 3. 8" STORM DRAIN. REFER TO CIVIL UTILITY PLANS FOR CONTINUATION. 4. 2" MPG. REFER TO CIVIL PLANS CONTINUATION.
- 5. 4" STORM DRAIN. REFER TO CIVIL UTILITY PLANS FOR CONTINUATION.

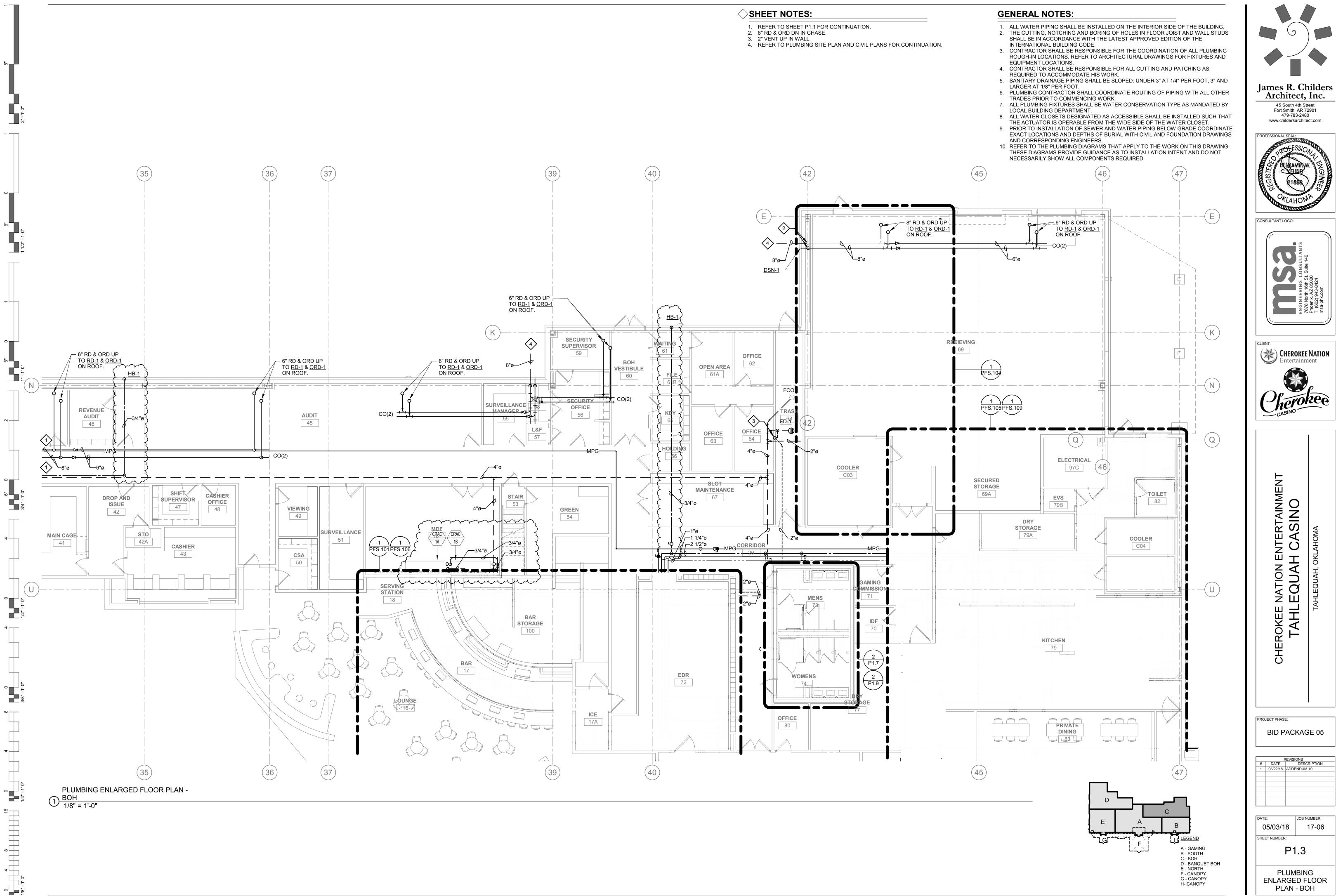
GENERAL NOTES:

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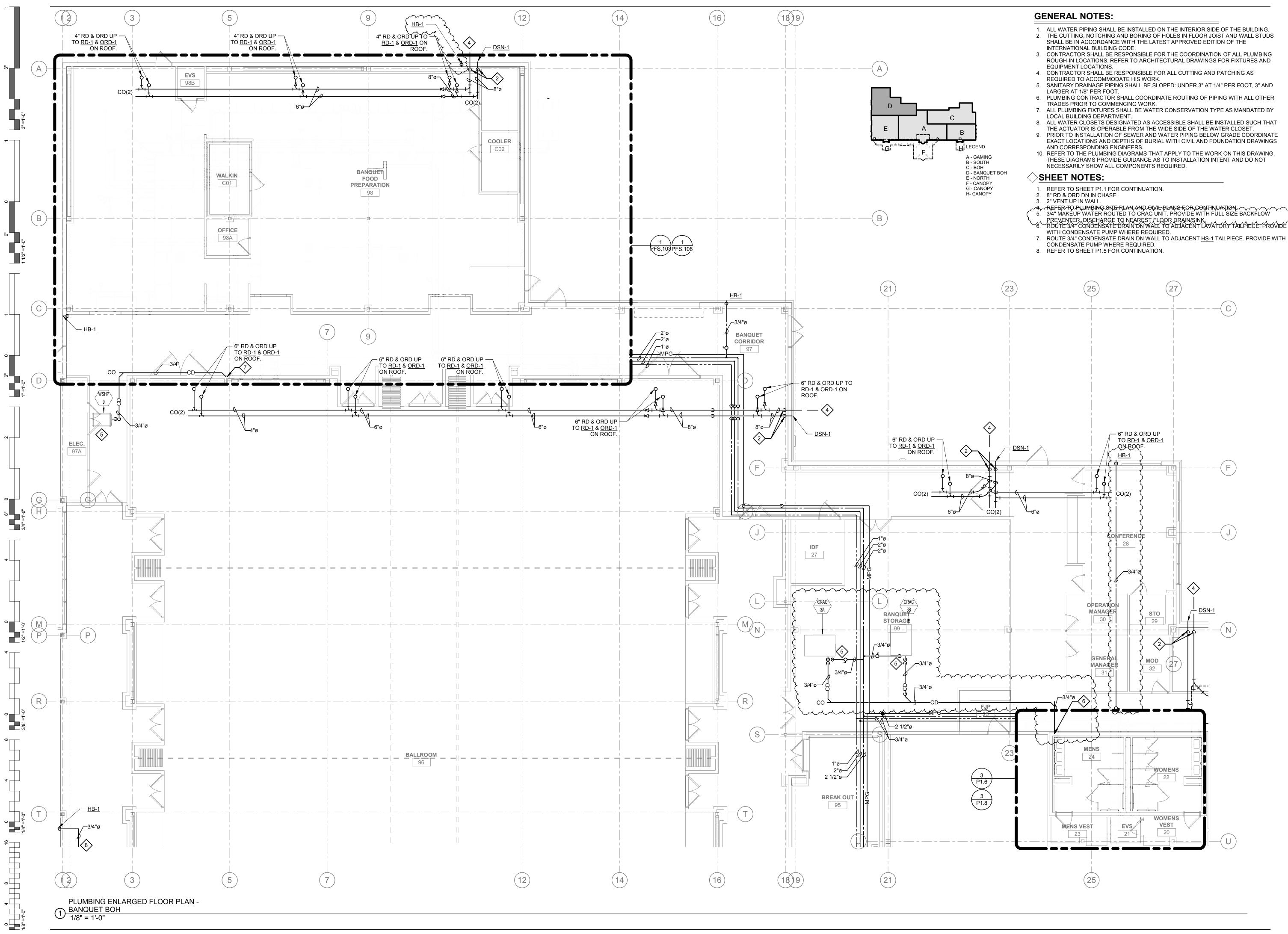








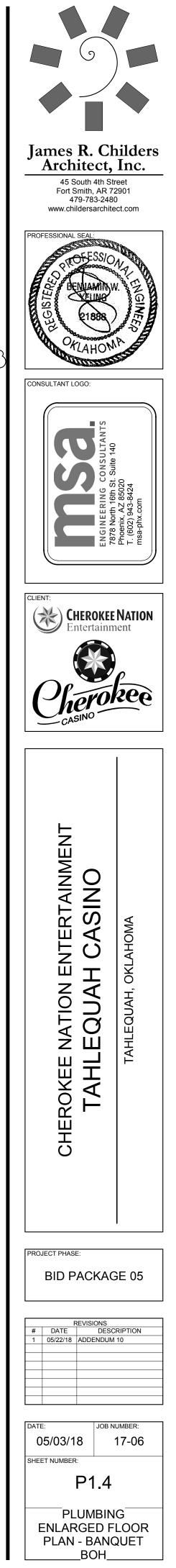


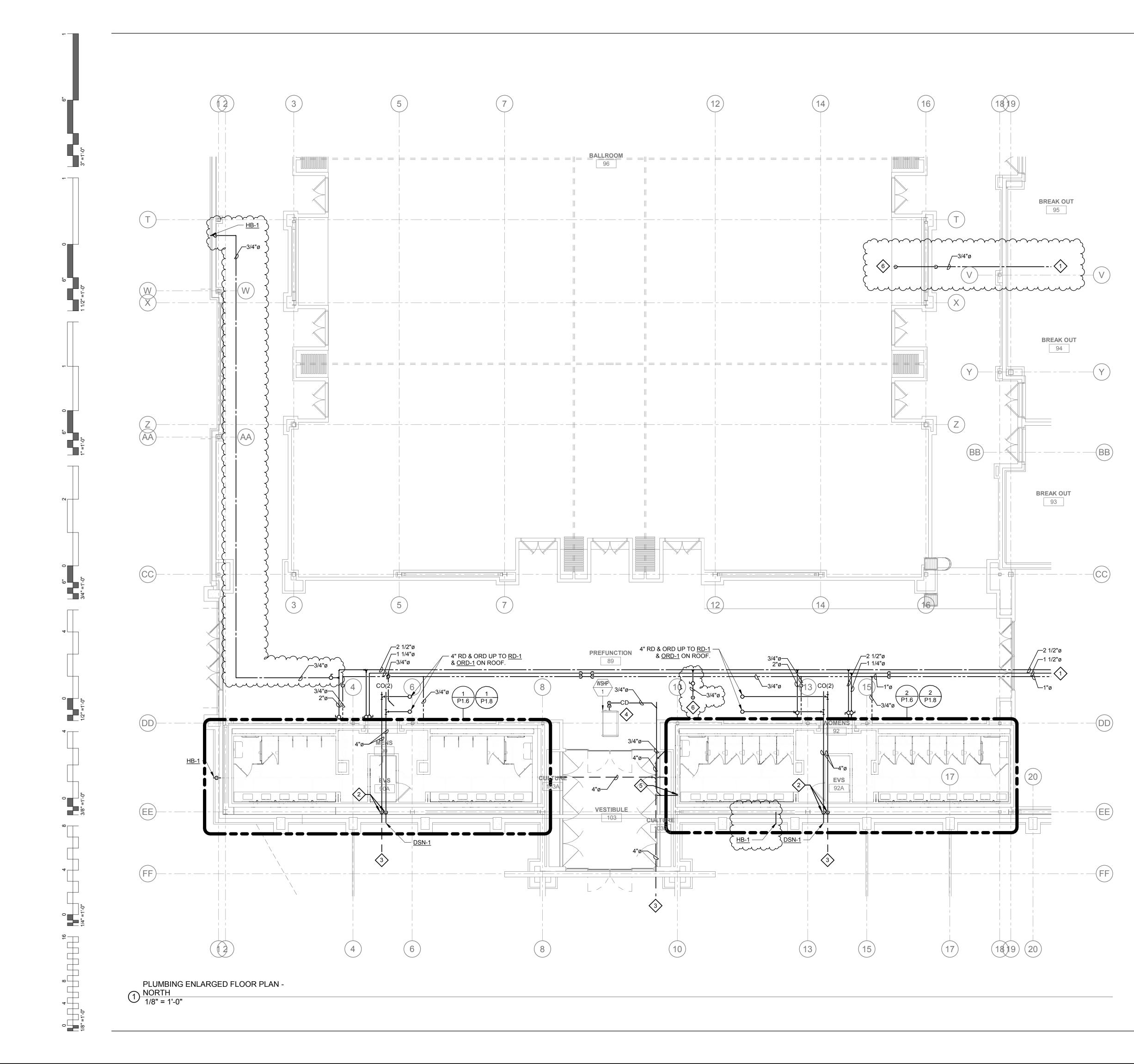




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- 7. ROUTE 3/4" CONDENSATE DRAIN DN WALL TO ADJACENT HS-1 TAILPIECE. PROVIDE WITH

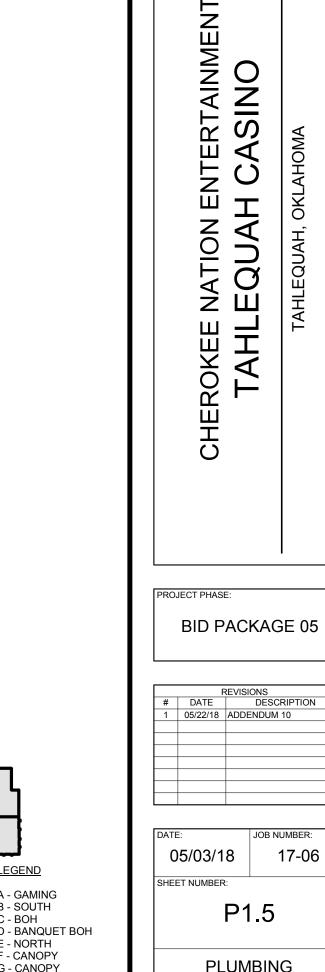


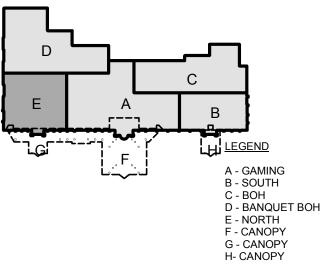


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SHEET NOTES:

- 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.
- 4. MECHANICAL EQUIPMENT SHOWN FOR REFERENCE. 5. ROUTE 3/4" CONDENSATE DRAIN DN WALL TO ADJACENT LAVATORY TAILPIECE. PROVIDE
- 6. 3/4" CW UP TO HOSE BIBB ON ROOF. }



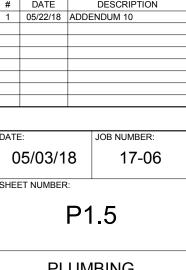


45 South 4th Street Fort Smith, AR 72901 479-783-2480 www.childersarchitect.com PROFESSIONAL S CONSULTANT LOGO: CHEROKEE NATION Entertainment Entertainment

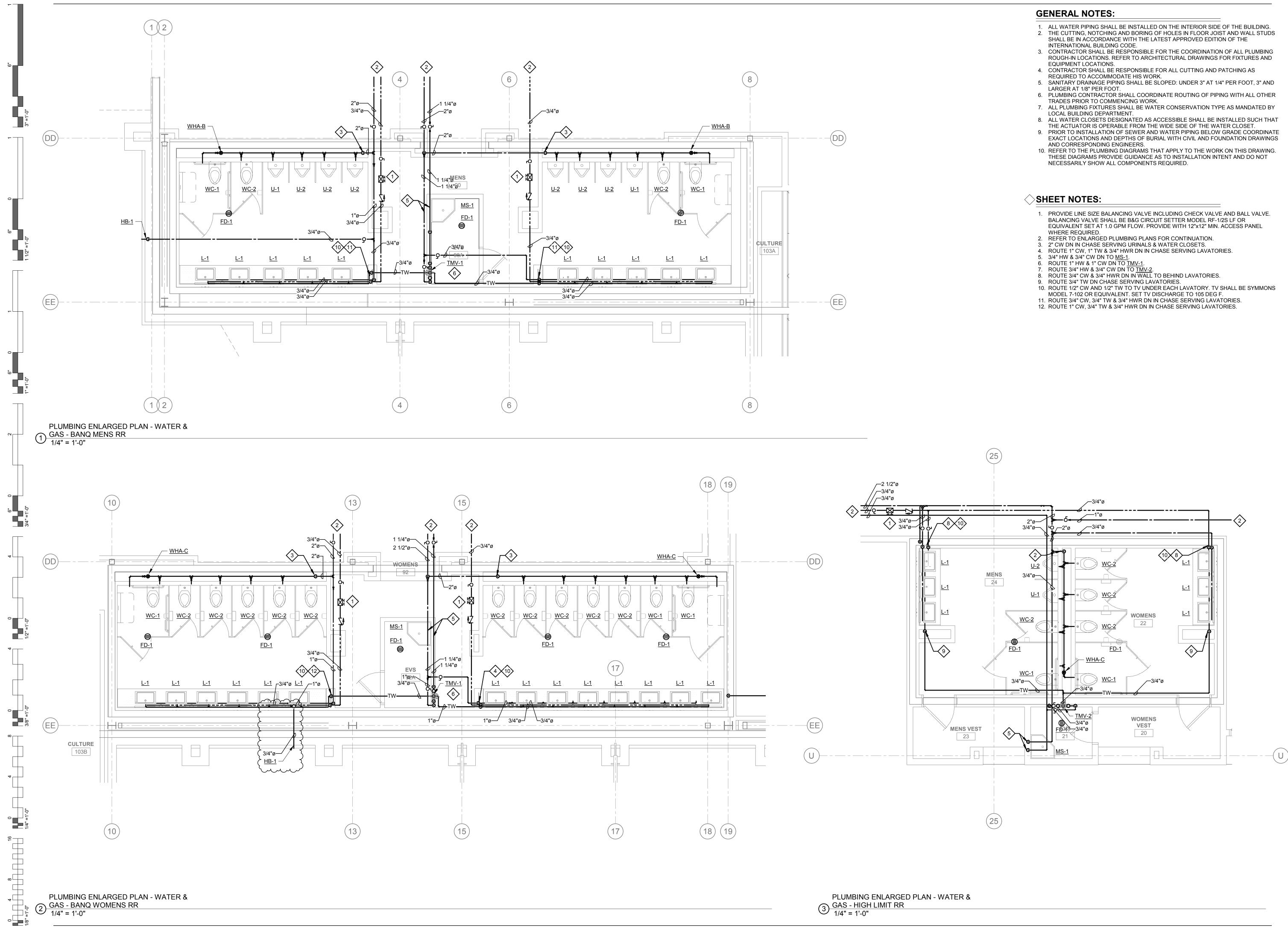
James R. Childers

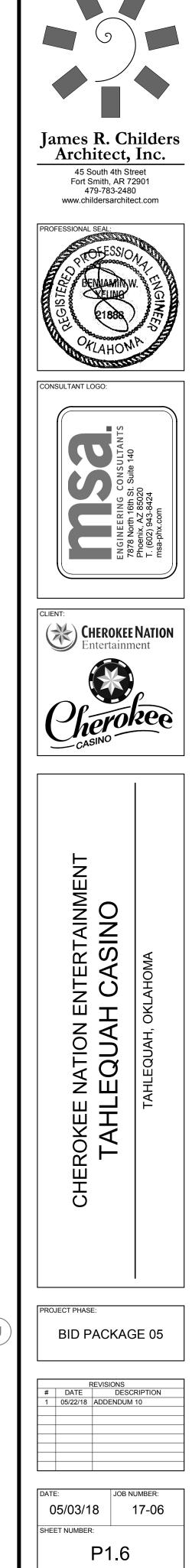
Architect, Inc.





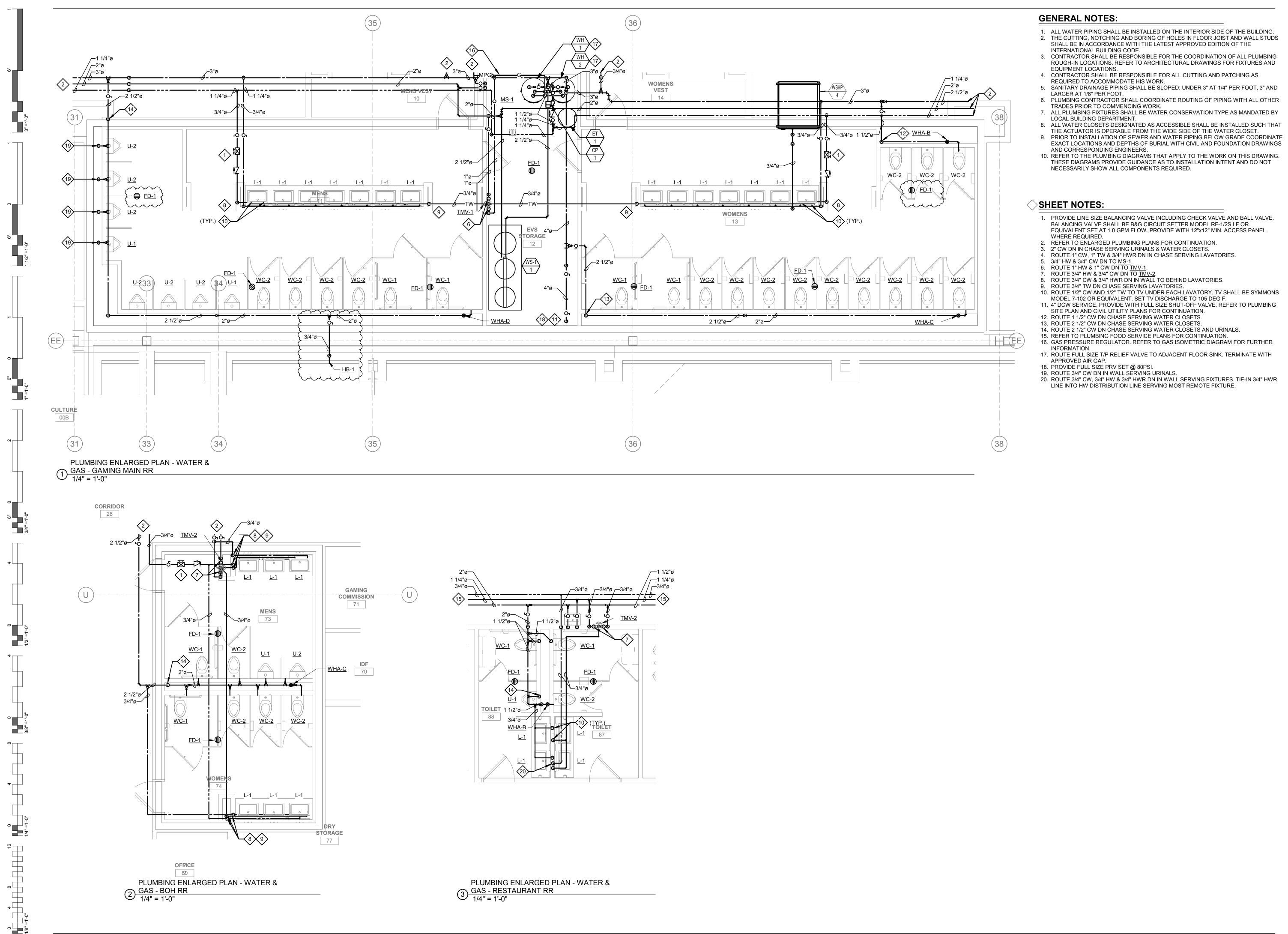
PLUMBING ENLARGED FLOOR PLAN - NORTH

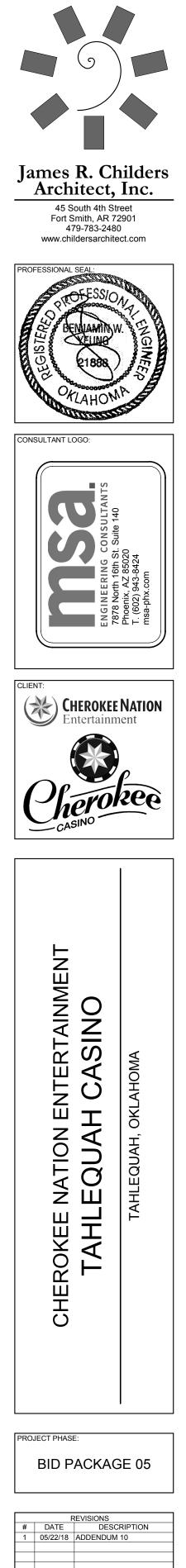




PLUMBING ENLARGED PLANS -

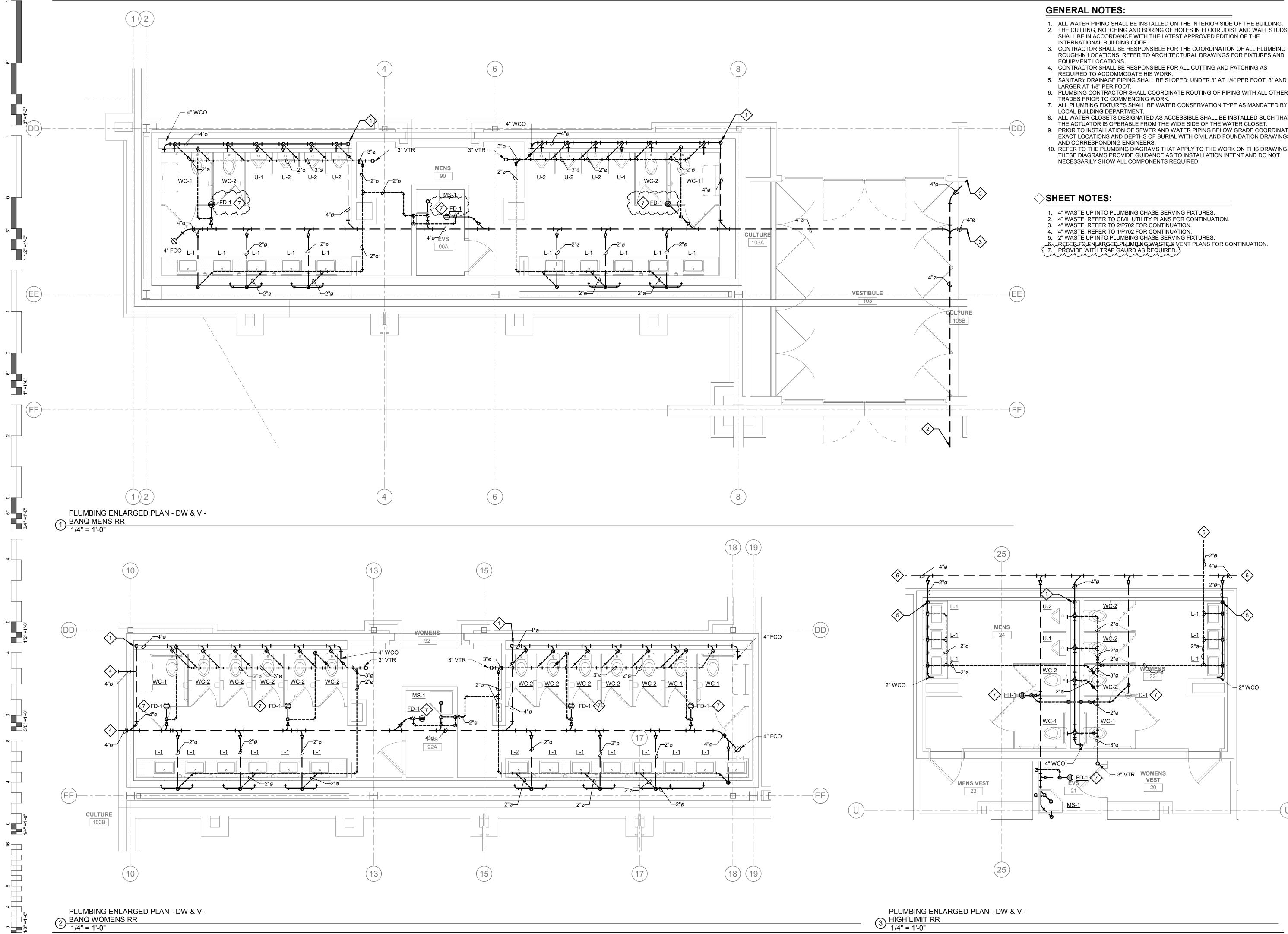
WATER & GAS





DATE	:		JOB NUMBER:		
05/03/18		8	17-06		
SHEE	SHEET NUMBER:				
P1.7					
PLUMBING					

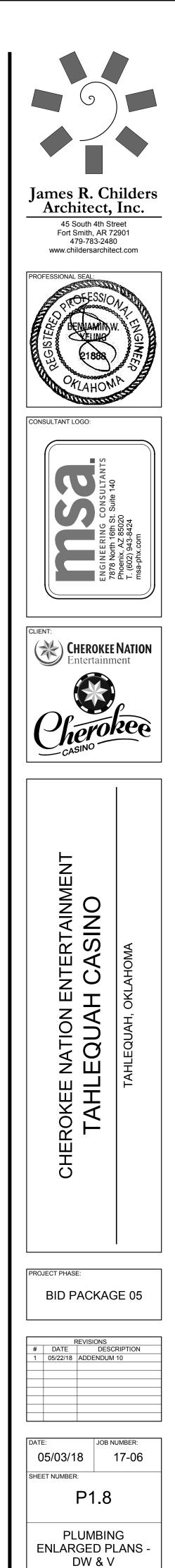
ENLARGED PLANS -WATER & GAS



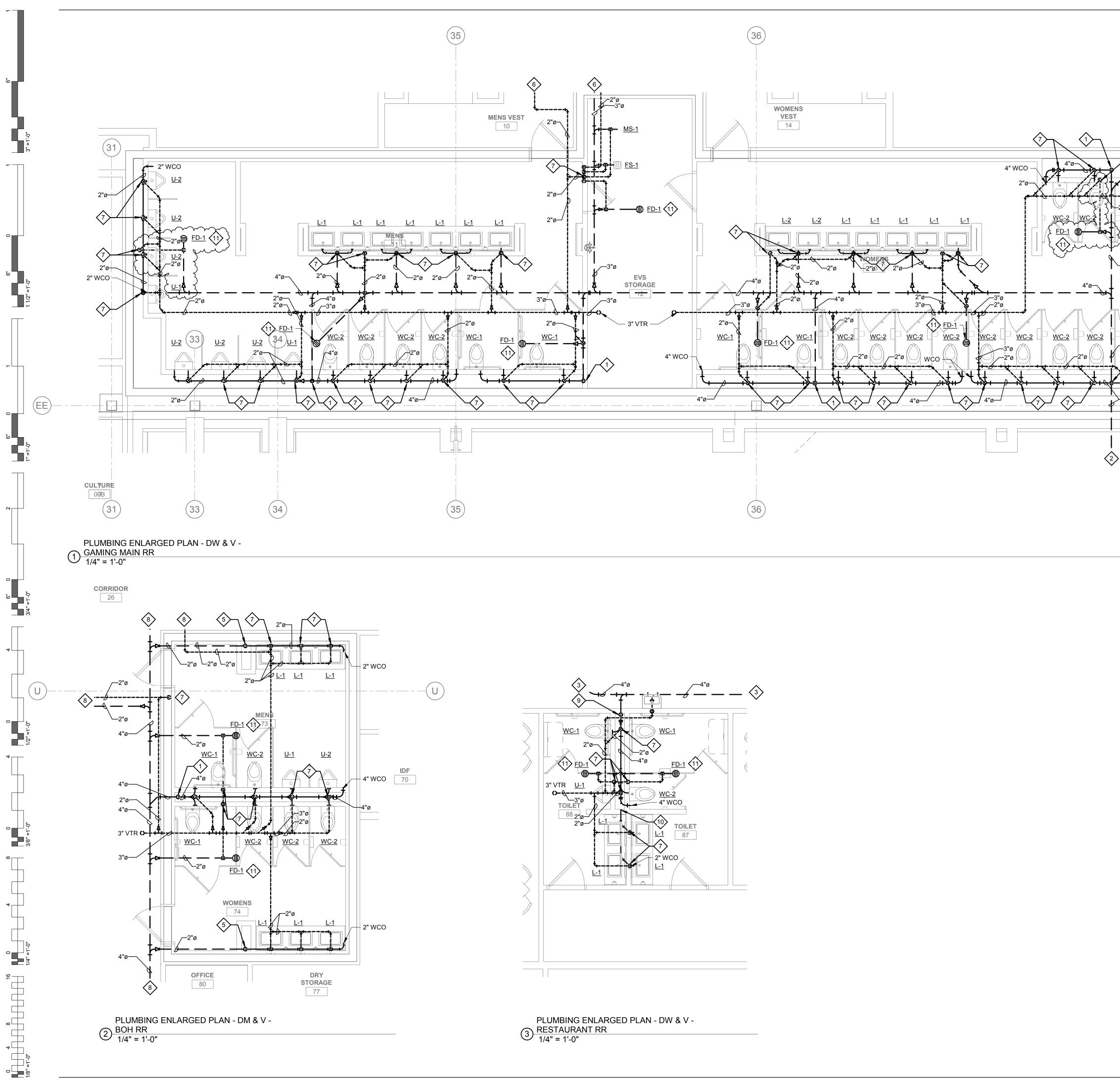
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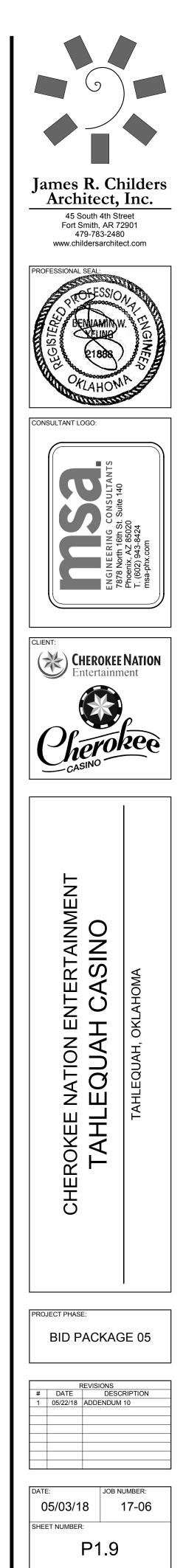
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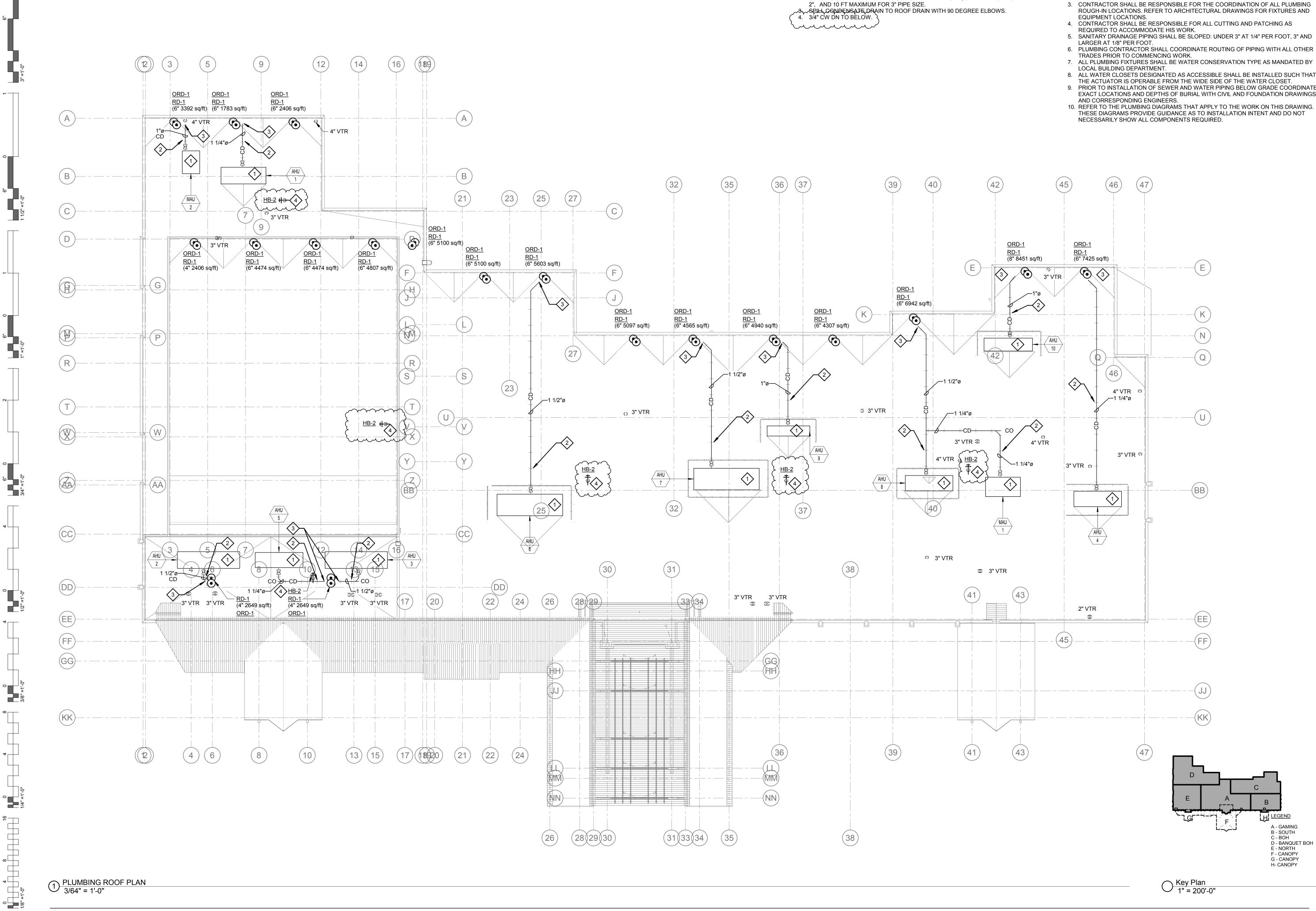
SHEET NOTES:

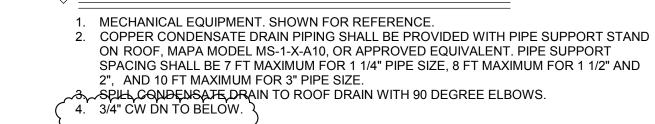
- 1. 4" WASTE UP INTO PLUMBING CHASE SERVING FIXTURES.
- 2. 4" WASTE. REFER TO CIVIL UTILITY PLANS FOR CONTINUATION. 4" WASTE. REFER TO PLUMBING FOOD SERVICE PLANS FOR CONTINUATION.
- 4. 4" WASTE. REFER TO 1/P703 FOR CONTINUATION. 5. 2" WASTE UP INTO PLUMBING CHASE SERVING FIXTURES.
- 6. REFER TO SHEET PFS-101 FOR CONTINUATION.
- 7. 2" VENT UP IN WALL.
- REFER TO ENLARGED PLUMBING WASTE & VENT PLANS FOR CONTINUATION. 9. 4" WASTE UP INTO PLUMBING CHASE SERVING FIXTURES. CONTINUE 2" WASTE LATERAL BELOW GRADE TO LAVATORIES.
- 19-24 WASTER OUTED BELOW GRADE FROM MAIN TO LAVATORIES. 11. PROVIDE TRAP GAURD AS REQUIRED.



PLUMBING ENLARGED PLANS -DW & V

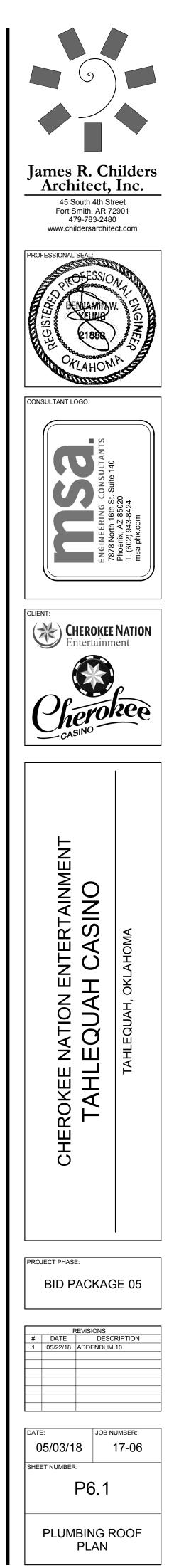
<u>WC-2</u> —4"ø <u>WC-1</u>

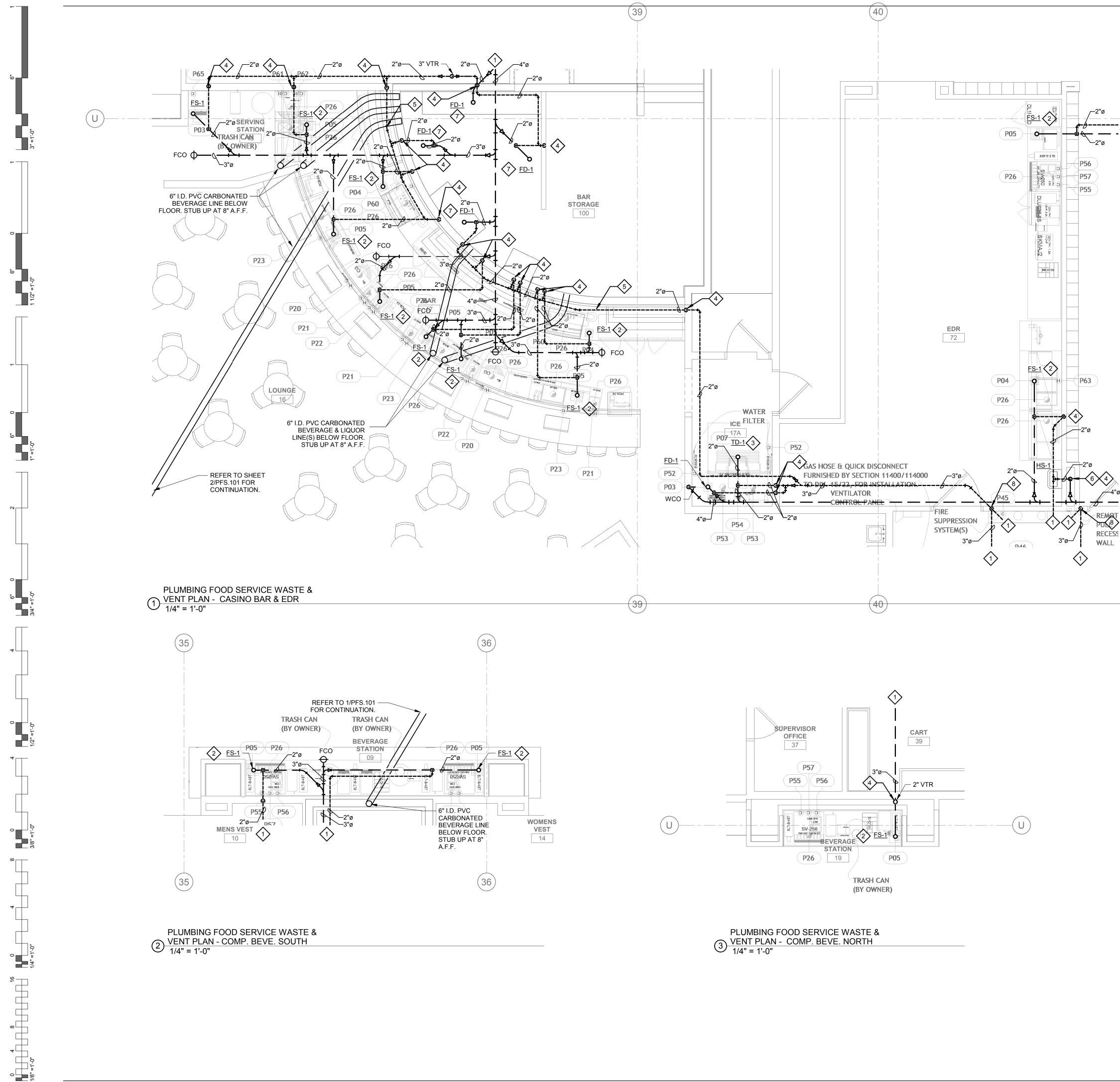




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- ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND

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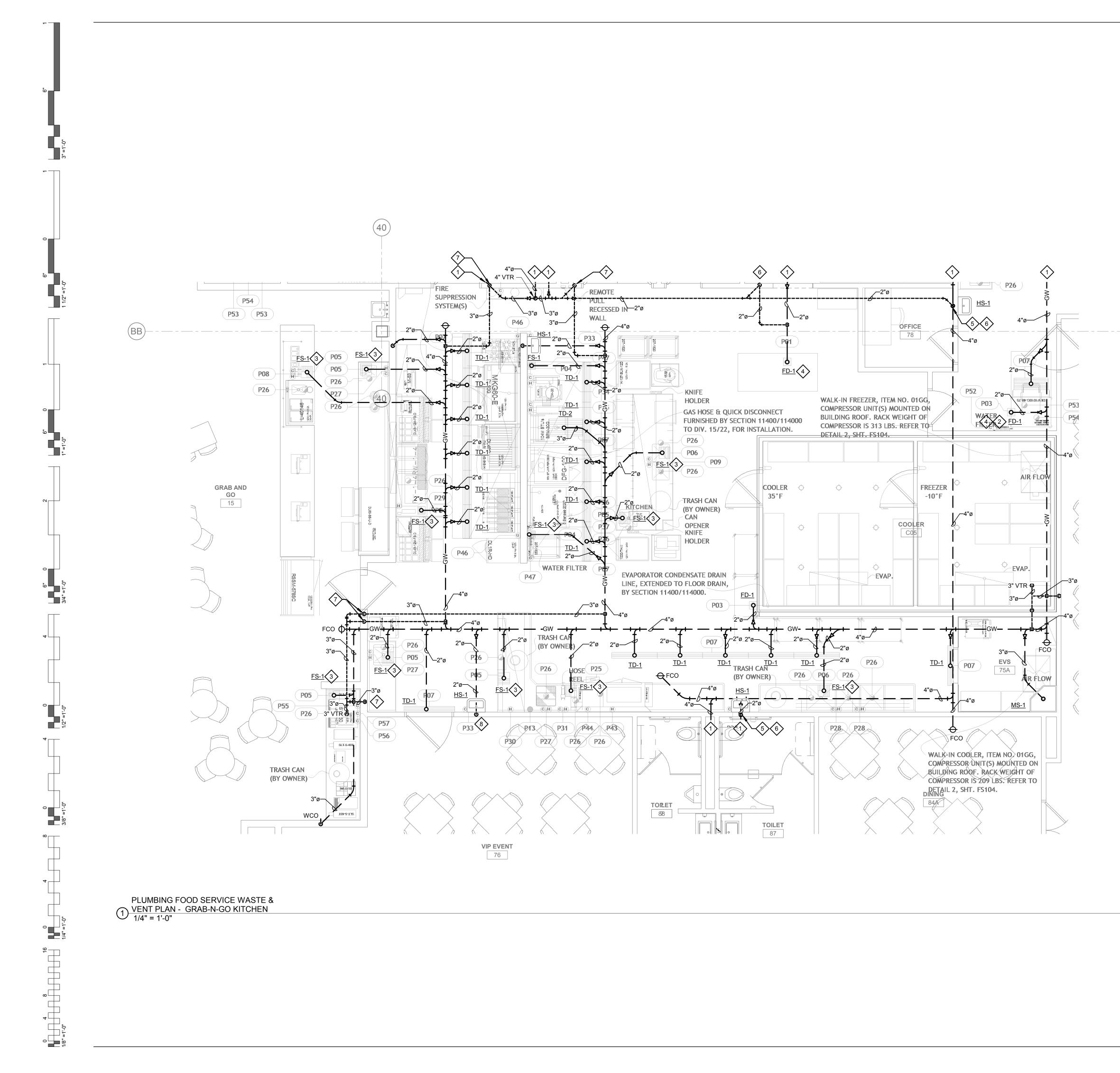
SHEET NOTES:

U

- 1. REFER TO PLUMBING ENLARGED PLANS FOR CONTINUATION.
- 2. RUN FULL SIZE INDIRECT WASTE FROM ITEM #P26 TO FS-1. TERMINATE WITH APPROVED AIR GAP. 3. RUN FULL SIZE INDIRECT WASTE FROM ITEM #P53 TO TD-1. TERMINATE WITH APPROVED AIR GAP.
- 4. 2" VENT UP IN WALL.
- 2" VENT ROUTED BELOW COUNTER.
 2" WASTE UP IN WALL TO <u>HS-1</u>.
 PROVIDE TRAP GAURD AS REQUIRED. 8. 3" VENT UP IN WALL.

James R. Cl Architect,	nilders
45 South 4th St Fort Smith, AR 7 479-783-248	reet 2901
www.childersarchite	ect.com
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- 4. PROVIDE TRAP GAURD AS REQUIRED.
- 2" WASTE UP IN WALL.
 2" VENT UP IN WALL.
- 3" VENT UP IN WALL.
 2" GREASE WASTE UP IN WALL.

-(BB)

James R. C Architect	hilders
45 South 4th S Fort Smith, AR 479-783-24	street 72901 80
PROFESSIONAL SEAL:	
CHERNAMIN BERNAMIN 91888 04LAHO	W. ENGINEED
CONSULTANT LOGO:	
ENGINEERING CONSULTANTS	7878 North 16th St. Suite 140 Phoenix, AZ 85020 T. (602) 943-8424 msa-phx.com
CLIENT: CHEROKE Entertaint	ENATION ment
CHEROKEE NATION ENTERTAINMENT TAHLEQUAH CASINO	TAHLEQUAH, OKLAHOMA
PROJECT PHASE:	
BID PACKA	GE 05
1 05/22/18 ADDENDU	vi 10
05/03/18	NUMBER: 17-06
SHEET NUMBER: PFS.1	02

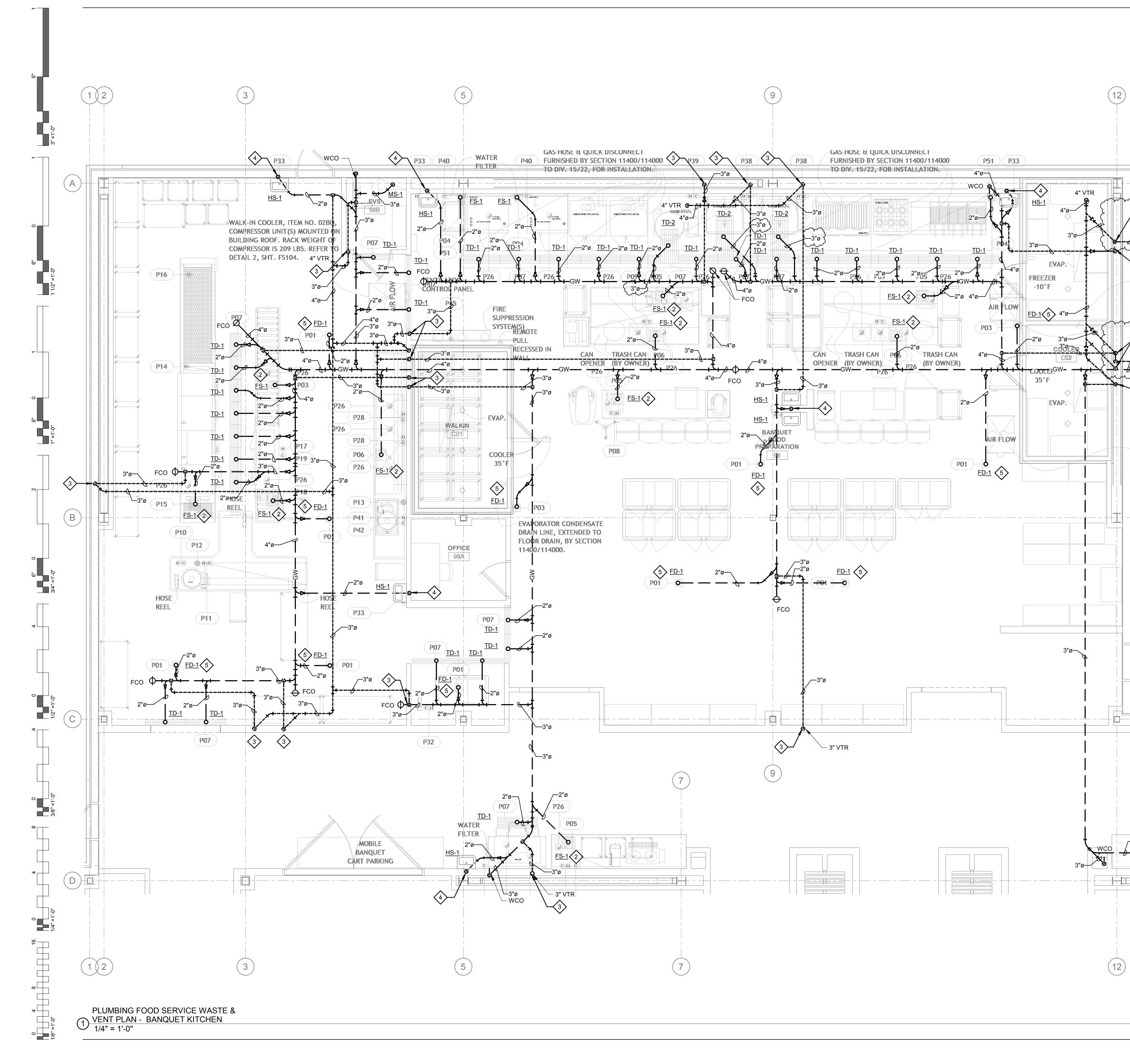
-PLUMBING FOOD-

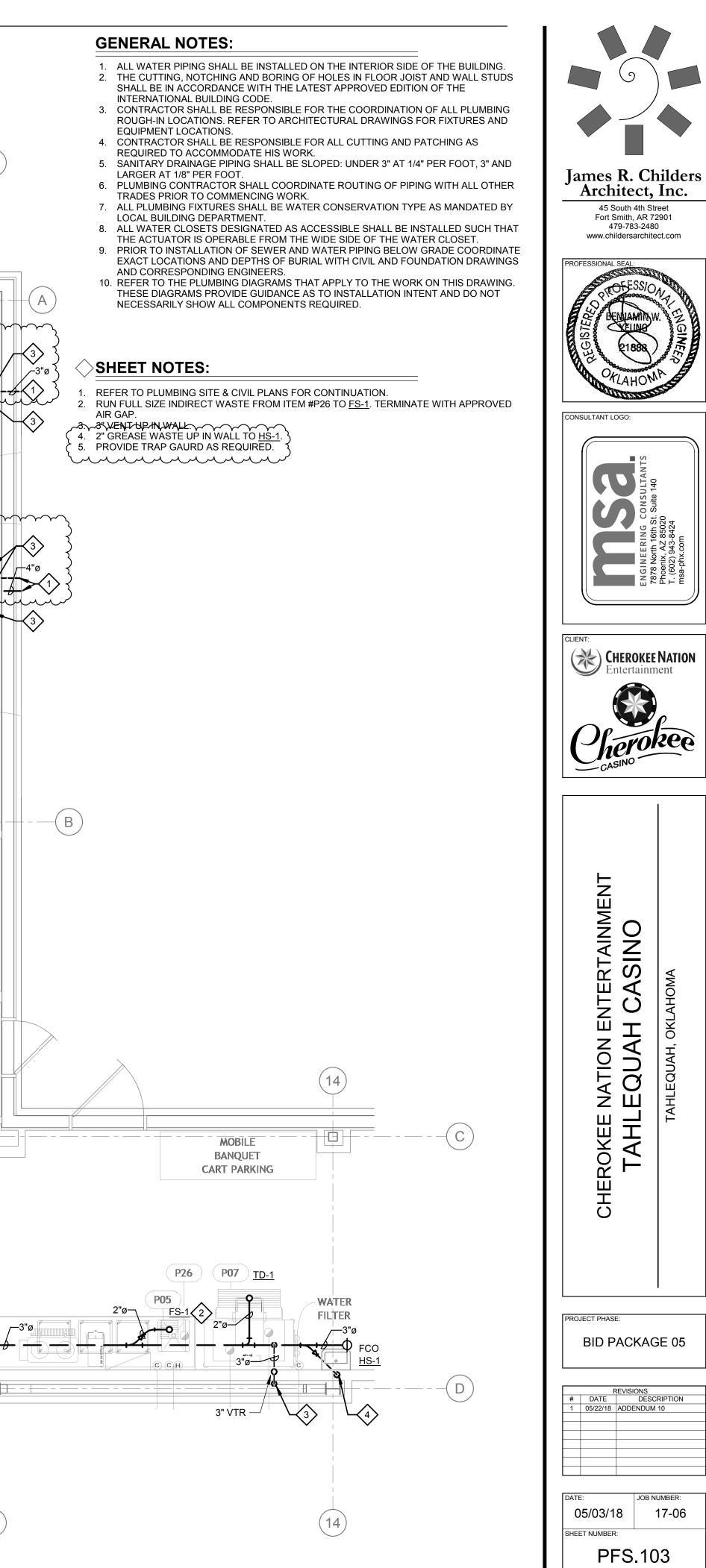
SERVICE WASTE & VENT PLAN -

GRAB-N-GO —KITCHEN—

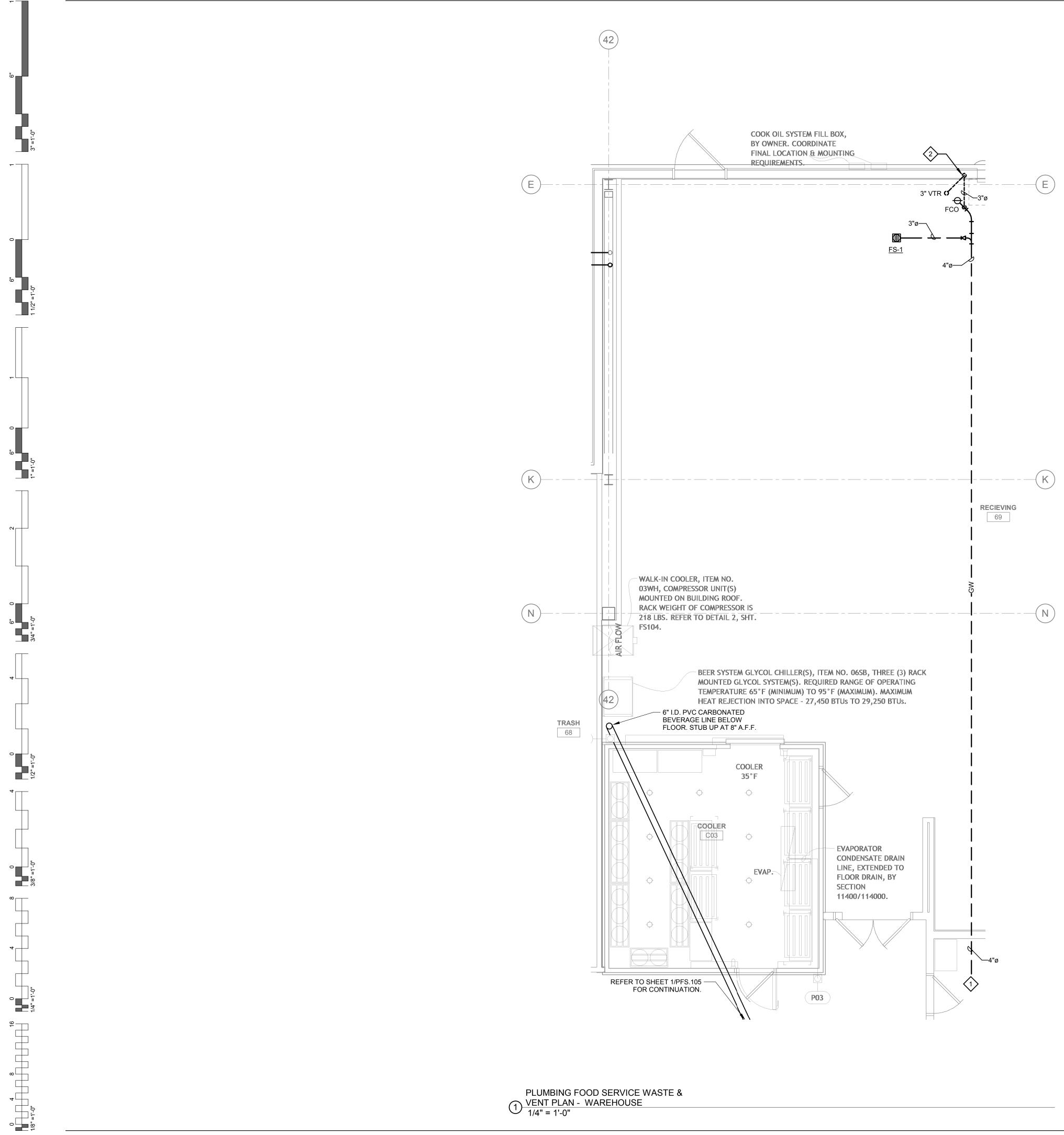
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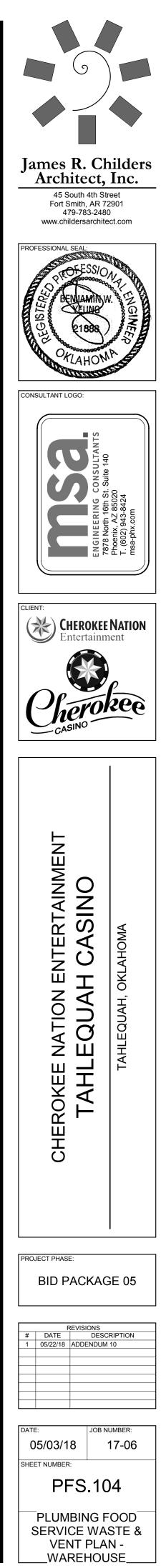
PFS.103 PLUMBING FOOD SERVICE WASTE & VENT PLAN -BANQUET KITCHEN_



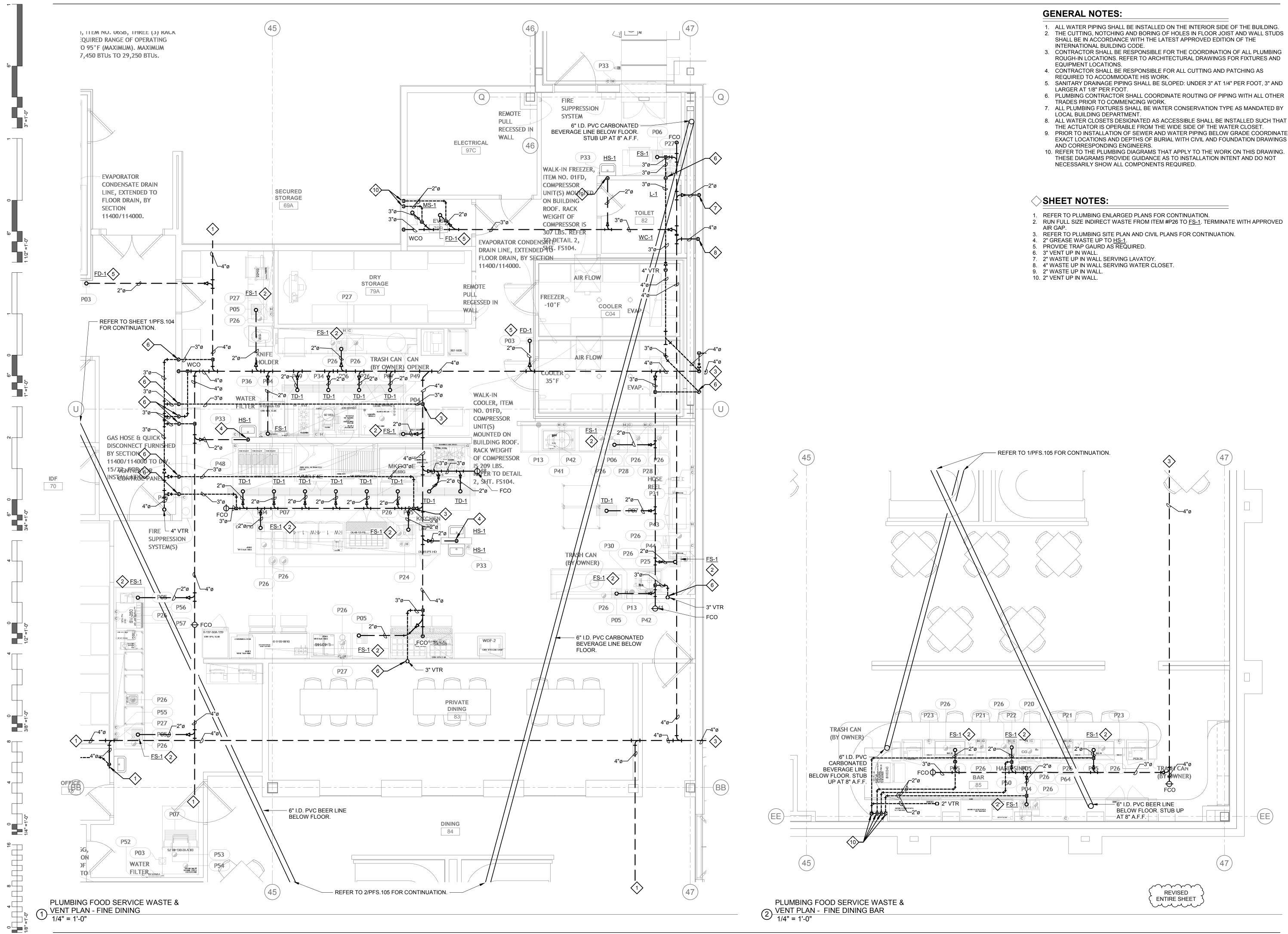
- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE INTERNATIONAL BUILDING CODE.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION 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. 2. 3" VENT UP IN WALL.



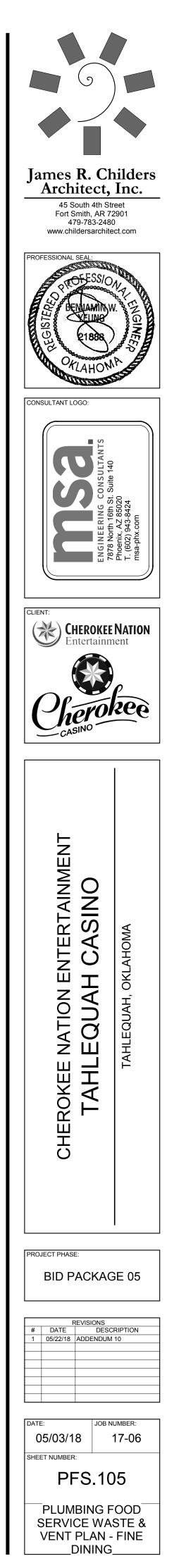
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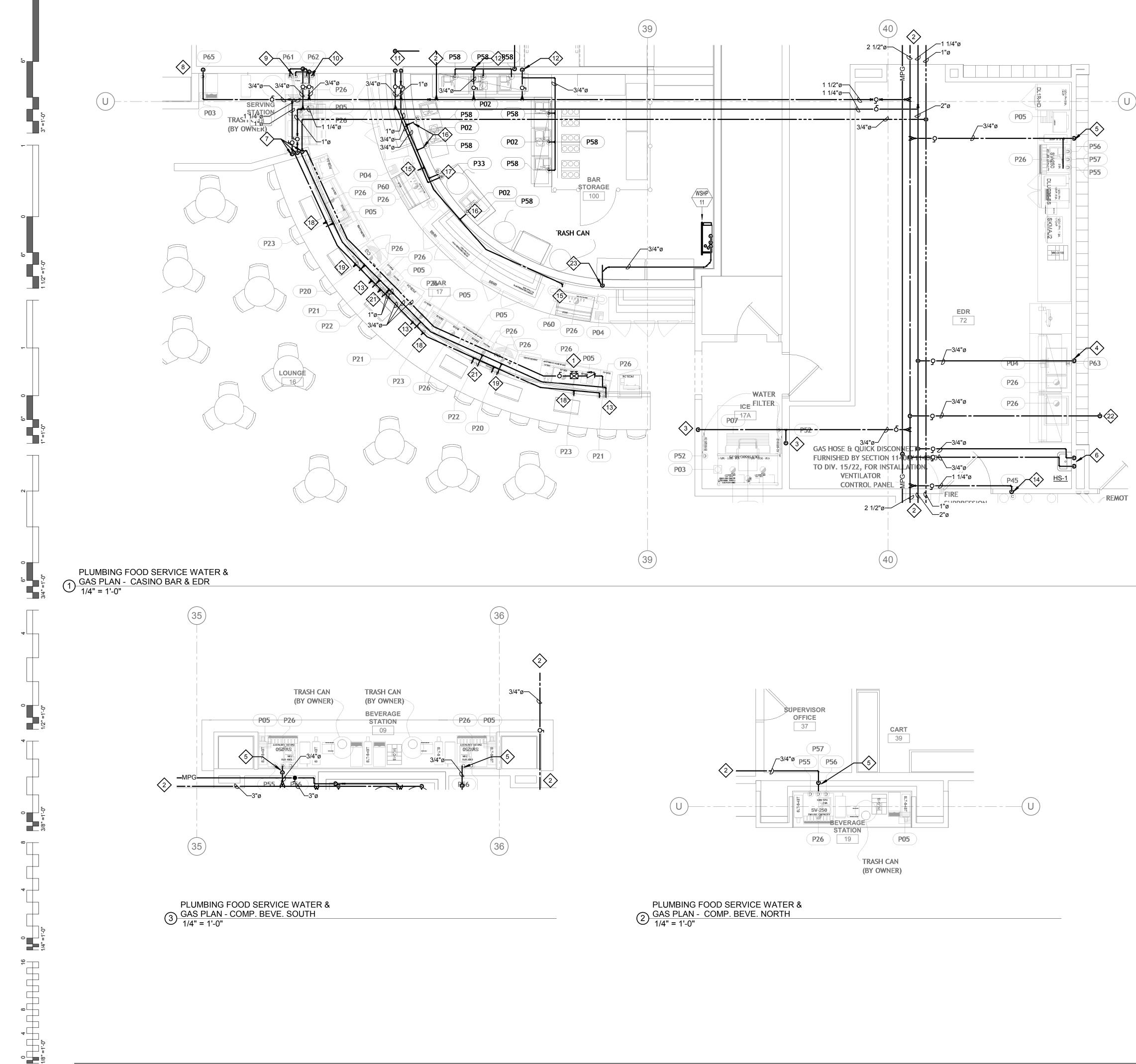


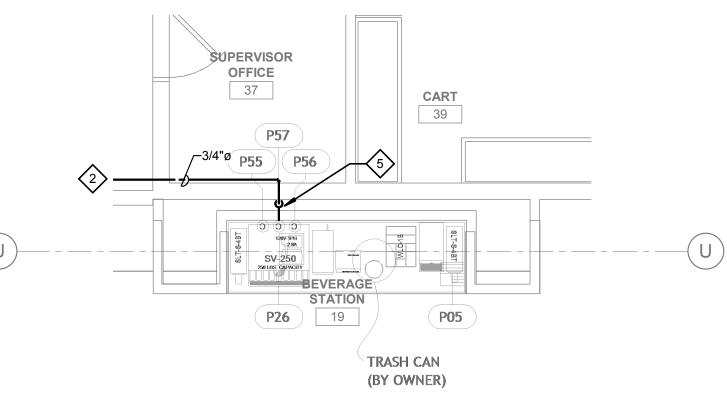
- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL PLUMBING ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND

- 6. PLUMBING CONTRACTOR SHALL COORDINATE ROUTING OF PIPING WITH ALL OTHER
- 9. PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE

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





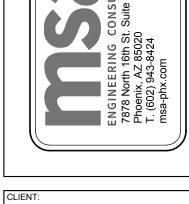


- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING. 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE INTERNATIONAL BUILDING CODE.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION 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. 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:

- 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 KITCHEN ITEMS.
- 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 SERVING KITCHEN ITEMS. 12. 3/4" CW DN IN WALL SERVING CARBONATOR (ITEM #P58)(x3). PROVIDE CARBONATORS WITH WATTS #LF009QTS BACKFLOW PREVENTER.
- 13. ROUTE 3/4" CW & 3/4" HW TO FAUCET (ITEM #P21). 14. ROUTE 1 1/4" CW LINE DN IN WALL TO FIRE SUPRESSION SYSTEM (ITEM #P45). PROVIDE WITH LOCKABLE SHUT-OFF VALVE.
- 15. ROUTE 3/4" CW TO GLASS RINSER (ITEM #P60). 16. ROUTE 3/4" CW TO CARBONATOR (ÌTEM #P58). PROVIDE CARBONATORS WITH WATTS
- #LF009QTS BACKFLOW PREVENTER. 17. ROUTE 3/4" CW & 3/4" HW TO HOSE BIBB (ITEM #P33). 18. ROUTE 3/4" CW CARBONATOR (ITEM #P23). PROVIDÉ CARBONATORS WITH WATTS
- #LF009QTS BACKFLOW PREVENTER.
- 19. ROUTE 3/4" CW & 3/4" HW TO GLASS WASHER (ITEM #P20). 20. ROUTE 3/4" CW & 3/4" HW TO FAUCET (ITEM #P21).
- 21. HAND SINK (ITEM #P22). PROVIDE CARBONATORS WITH WATTS #LF009QTS BACKFLOW PREVENTER. PROVIDE WITH SYMMONS 7-102 OR EQUIVALENT. SET DISCHARGE TEMPERATURE TO 105°F.
- 22. 3/4" CW UP TO HOSE BIBB ON ROOF. 23. ROUTE 3/4" CONDENSATE DRAIN DN WALL TO ADJACENT FLOOR SINK. PROVIDE WITH CONDENSATE PUMP WHERE REQUIRED.





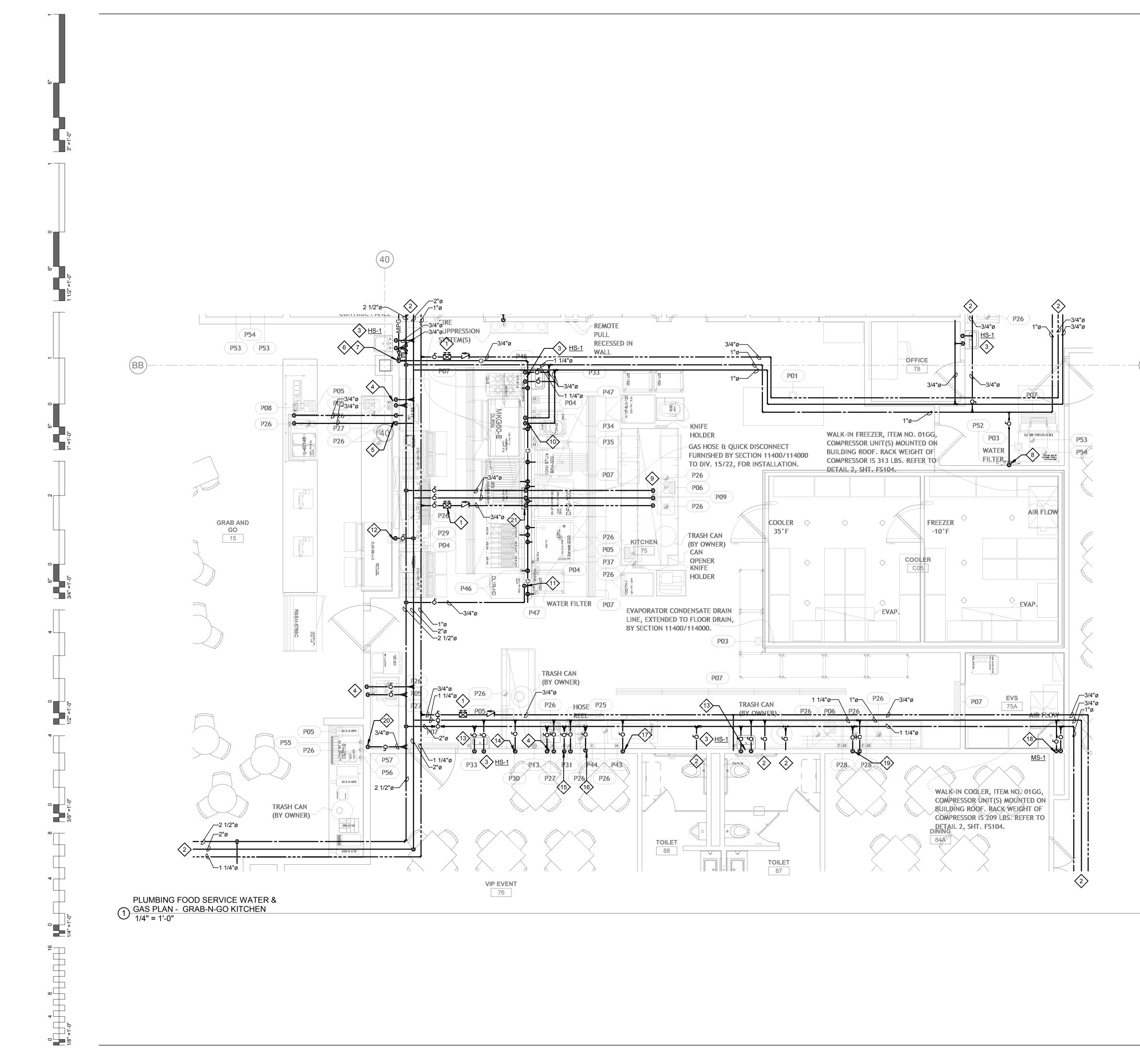
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CHEROKEE NATION ENTERTAINMENT TAHLEQUAH CASINO	TAHLEQUAH, OKLAHOMA			
PROJECT PHASE:				
BID PACKAGE 05				
REVISIONS # DATE DESCRIPTION 1 05/22/18 ADDENDUM 10				
DATE: JOB NU	JMBER:			
	17-06			
SHEET NUMBER:	•			
PFS.106				

SERVICE WATER &

GAS PLAN - CASINO __BAR & EDR__

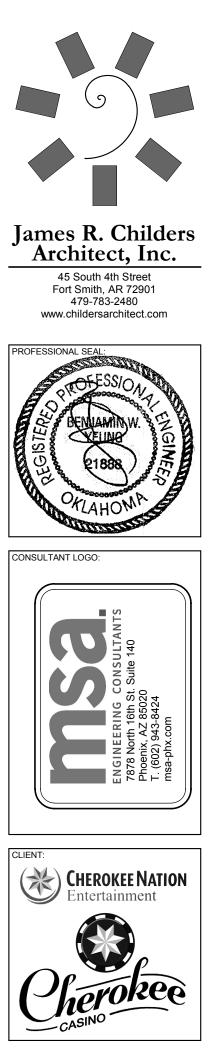




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- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL PLUMBING ROUGH-IN LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURES AND EQUIPMENT LOCATIONS.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AS REQUIRED TO ACCOMMODATE HIS WORK.
- SANITARY DRAINAGE PIPING SHALL BE SLOPED: UNDER 3" AT 1/4" PER FOOT, 3" AND LARGER AT 1/8" PER FOOT.
- PLUMBING CONTRACTOR SHALL COORDINATE ROUTING OF PIPING WITH ALL OTHER TRADES PRIOR TO COMMENCING WORK.
 ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY
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 ALL WATER CLOSETS DESIGNATED AS ACCESSIBLE SHALL BE INSTALLED SUCH THAT
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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 NECESSARII X SHOW ALL COMPONENTS REQUIRED.
- 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.
- REFER TO KITCHEN DRAWINGS FOR ITEM NUMBERS.
 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.

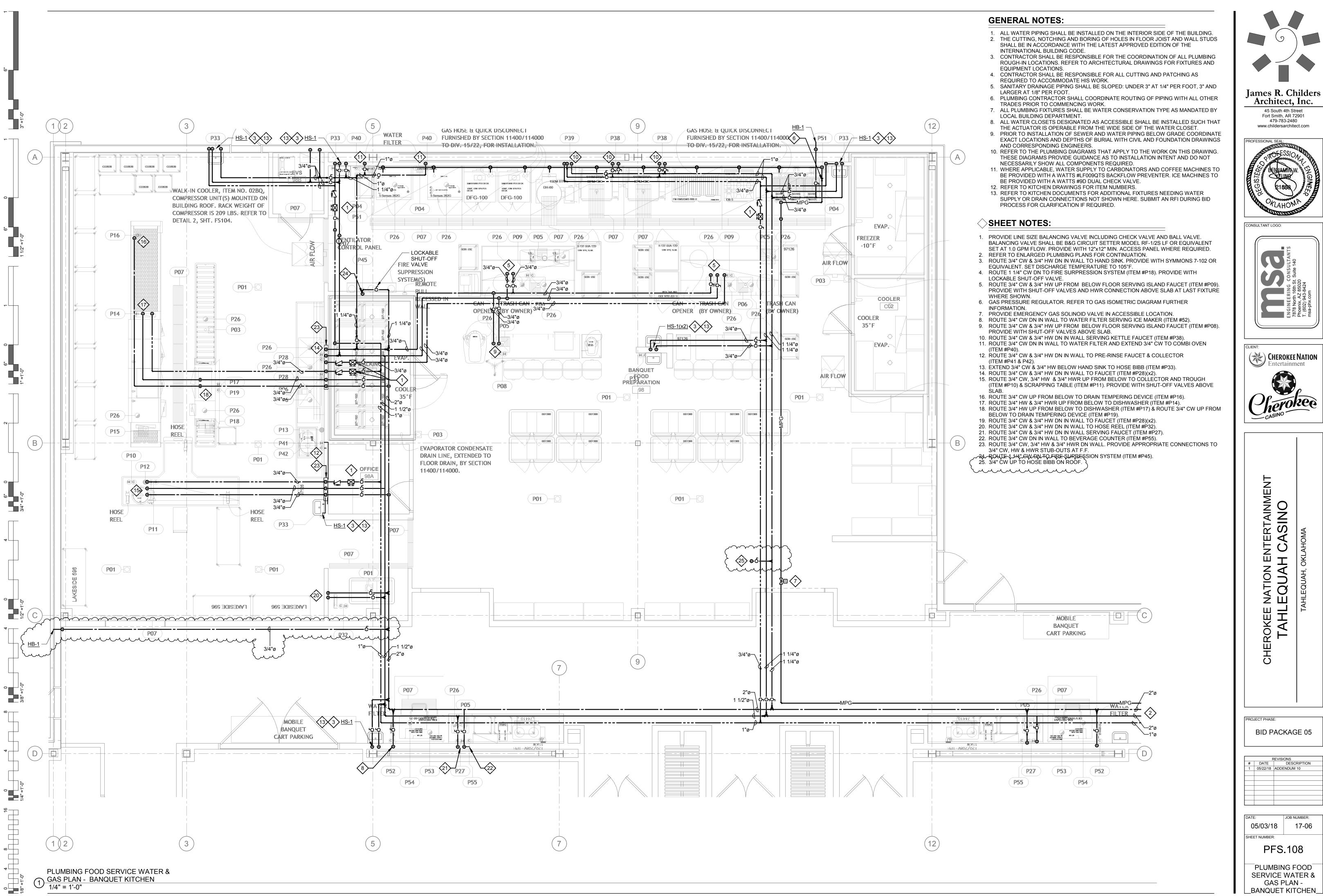
<<u> SHEET NOTES:</u>

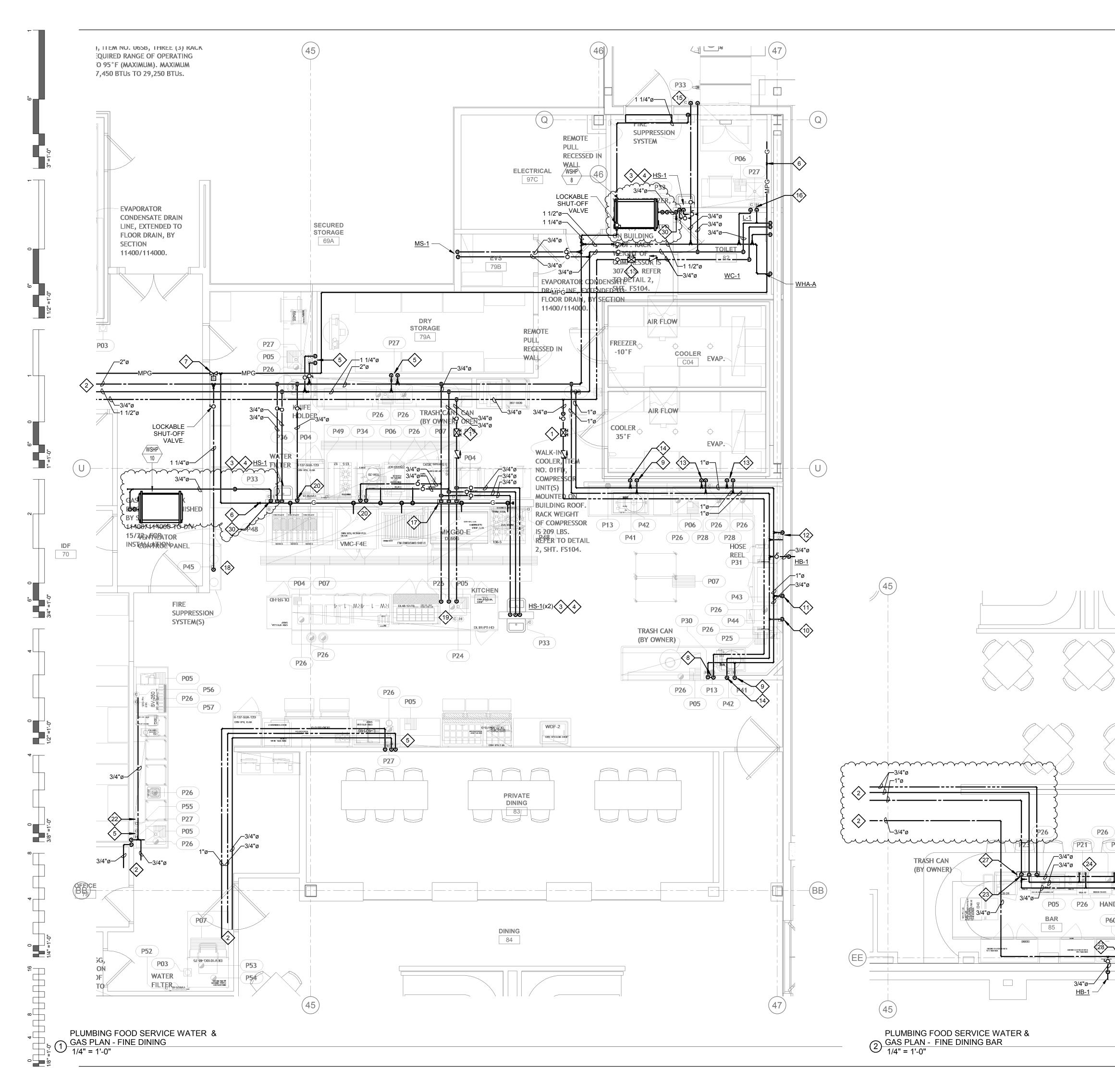
- 1. PROVIDE LINE SIZE BALANCING VALVE INCLUDING CHECK VALVE AND BALL VALVE. BALANCING VALVE SHALL BE B&G CIRCUIT SETTER MODEL RF-1/2S LF OR EQUIVALENT
- SET AT 1.0 GPM FLOW. PROVIDE WITH 12"x12" MIN. ACCESS PANEL WHERE REQUIRED.
 REFER TO ENLARGED PLUMBING PLANS FOR CONTINUATION.
 ROUTE 3/4" CW & 3/4" HW DN IN WALL TO HAND SINK. PROVIDE WITH SYMMONS 7-102 OR EQUIVALENT. SET DISCHARGE TEMPERATURE TO 105°F.
- ROUTE 3/4" CW & 3/4" HW DN IN WALL TO FAUCET (ITEM #P27).
 ROUTE 3/4" CW & 3/4" HW DN IN WALL TO BELOW FLOOR SERVING ISLAND FAUCET (ITEM #P09)
- #P08).6. GAS PRESSURE REGULATOR. REFER TO GAS ISOMETRIC DIAGRAM FURTHER INFORMATION.
- PROVIDE EMERGENCY GAS SOLINOID VALVE IN ACCESSIBLE LOCATION.
 ROUTE 3/4" CW DN IN WALL TO WATER FILTER SERVING ICE MAKER (ITEM #52).
- ROUTE 3/4" CW, 3/4" HW & 3/4" HWR FROM BELOW FLOOR SERVING ISLAND FAUCET (ITEM #P09).
 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 (ITEM #P37).
 12. ROUTE 3/4" CW DN IN WALL TO CHEED COUNTED (ITEM #P30).
- ROUTE 3/4" HW DN IN WALL TO CHEFS COUNTER (ITEM #P29).
 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 DISHWASHER (IT 18. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO <u>MS-1</u>.
- ROUTE 3/4" CW & 3/4" HW DN IN WALL TO FAUCET (ITEM #P28)(x2).
 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.



CHEROKEE NATION ENTERTAINMENT TAHLEQUAH CASINO	TAHLEQUAH, OKLAHOMA			
PROJECT PHASE: BID PACKAGE 05				
REVISIONS # DATE DESCRIPTION 1 05/22/18 ADDENDUM 10 - - - - - - - - - - - - - - - - - - - - -				
	UMBER: 17-06			
SHEET NUMBER: PFS.10)7			
PLUMBING FOOD SERVICE WATER & GAS PLAN - GRAB-N-GO KITCHEN				

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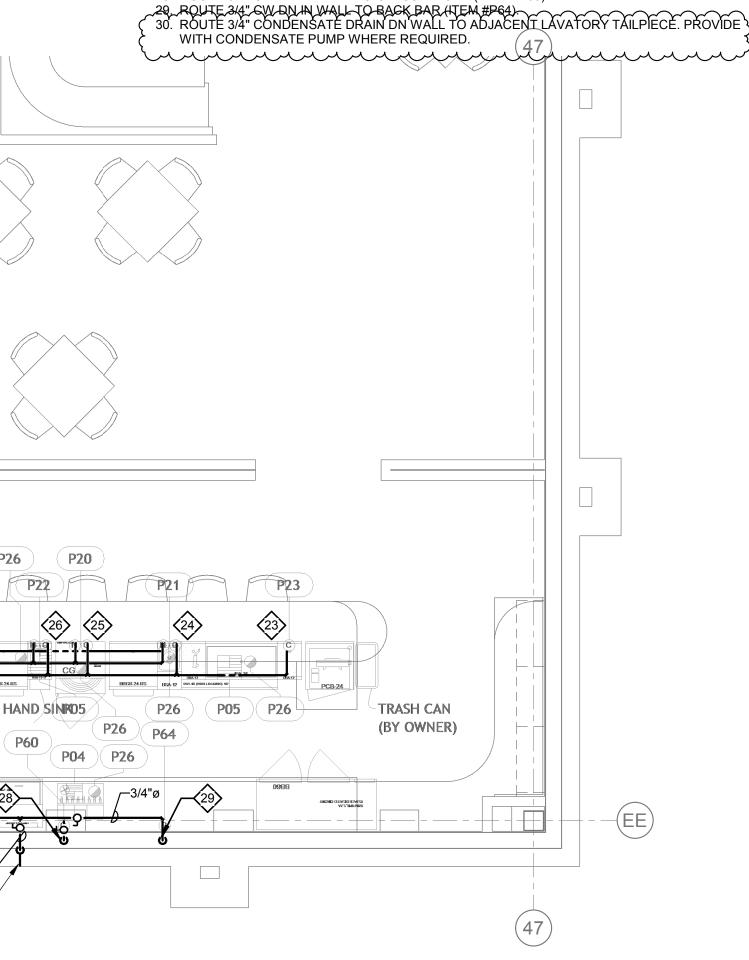


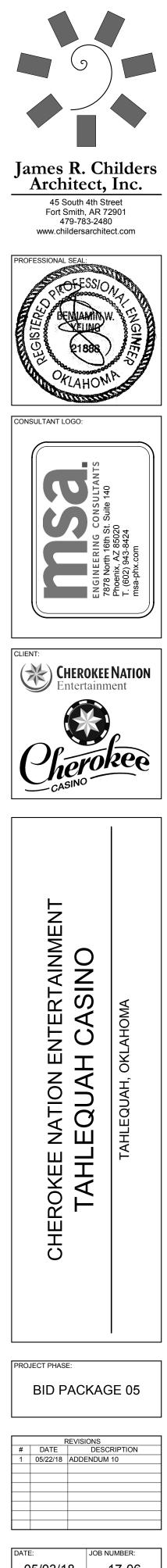


- 1. ALL WATER PIPING SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE BUILDING 2. THE CUTTING, NOTCHING AND BORING OF HOLES IN FLOOR JOIST AND WALL STUDS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE
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- 4. CONTRACTOR SHALL BE RESPONSIBLE 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.
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- 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. EXTEND 3/4" CW & 3/4" HW BELOW HAND SINK TO HOSE BIBB (ITEM #P33).
- 5. ROUTE 3/4" CW, 3/4" HW & 3/4" HWR DN IN WALL TO FAUCET (ITEM #P27). 6. GAS PRESSURE REGULATOR. REFER TO GAS ISOMETRIC DIAGRAM FURTHER
- INFORMATION. 7. PROVIDE EMERGENCY GAS SOLINOID VALVE IN ACCESSIBLE LOCATION.
- 8. ROUTE 3/4" HW & 3/4" HWR DN IN WALL TO FAUCET (ITEM #P30). 9. ROUTE 3/4" HW DN IN WALL TO PRE-RINSE FAUCET AND COLLECTOR
- (ITEM #P41). 10. ROUTE 3/4" CW DN IN WALL TO DRAIN TEMPERING DEVICE (ITEM #P44).
- 11. ROUTE 3/4" HW DN IN WALL TO DISHWASHER (ITEM #P43).
- 12. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO HOSE REEL (ITEM #P31). 13. ROUTE 3/4" HW & 3/4" HWR DN IN WALL TO FAUCET (ITEM #P28).
- 14. ROUTE 3/4" CW DN IN WALL TO PRE-RINSE FAUCET AND COLLECTOR
- (ITEM #P42).
- 15. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO HOSE BIBB (ITEM #P33).
- 16. ROUTE 3/4" CW & 3/4" HW DN IN WALL TO FAUCET (ITEM #P27). 17. 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.
- 18. ROUTE 1 1/4" CW TO FIRE SUPPRESSION SYSTEM.
- 19. ROUTE 3/4" HW & 3/4" HWR UP FROM BELOW TO SERVING COUNTER (ITEM #P24). PROVIDE WITH SHUT-OFF VALVES ABOVE SLAB. 20. ROUTE 3/4" CW DN IN WALL TO WATER FILTER AND EXTEND 3/4" CW TO STEAMER
- (ITEM #P36). 21. ROUTE 3/4" CW & 3/4" HW DN IN WALL SERVING KETTLE FAUCET (ITEM #P34).
- 22. ROUTE 3/4" CW DN IN WALL TO BEVERAGE COUNTER.
- 23. ROUTE 3/4" CW BELOW COUNTER TO CARBONATOR (ITEM #P23). PROVIDE CARBONATOR WITH WATTS #LF009QTS BACKFLOW PREVENTER.
- 24. ROUTE 3/4" CW & 3/4" HW BELOW COUNTER TO FAUCET (ITEM #P21).
- 25. ROUTE 3/4" CW & 3/4" HW BELOW COUNTER TO GLASS WASHER (ITEM #P20). 26. ROUTE 3/4" CW & 3/4" HW BELOW COUNTER TO HAND SINK (ITEM #P22). PROVIDE WITH SYMMONS 7-102 OR EQUIVALENT. SET DISCHARGE TEMPERATURE TO 105°F.
- 27. PROVIDE APPROPRIATE CONNECTIONS TO 3/4" CW, HW & HWR STUB-OUTS AT F.F. ROUTE 3/4" CW, 3/4" HW & 3/4" TO FIXTURES BELOW COUNTER. 28. ROUTE 3/4" CW DN IN WALL TO GLASS RINSER (ITEM #P60).





DATE:	JOB NUMBER:			
05/03/18	17-06			
SHEET NUMBER:				
PFS.109				
PLUMBING FOOD				

SERVICE WATER & GAS PLAN - FINE DINING