

SANITARY WASTE AND VENT PIPING

- GREASE WASTE BELOW GRADE PIPING AND JOINTS:** PROVIDE SERVICE WEIGHT CAST IRON HUB AND SPIGOT PIPE (ASTM A 74) WITH COMPRESSION JOINTS (CISPI H5N) AND NEOPRENE GASKETS (ASTM C 564) OR NO-HUB PIPE AND FITTINGS (CISPI 301) WITH NEOPRENE GASKET / STAINLESS STEEL CLAMP JOINTS (CISPI 310) WITH NEOPRENE GASKET / STAINLESS STEEL CLAMP JOINTS (HEAVY-DUTY, ASTM C1540-15).
- EXCEPTION:** FOR GREASE WASTE LINES SERVING SODA STATIONS AND DISPOSERS, PROVIDE SCHEDULE 40 PVC SOLID WALL PIPE AND SOCKET FITTINGS (ASTM D 2665) WITH SOLVENT WELD JOINTS (ASTM D2855) TO A COMMON SANITARY WASTE MAIN. FOAM CORE PVC PIPE IS NOT APPROVED. INSTALL PLASTIC PIPE BELOW GRADE PER ASTM D2321.
- GREASE VENT ABOVE GRADE PIPING AND JOINTS:** PROVIDE SERVICE WEIGHT CAST IRON NO-HUB PIPE AND FITTINGS (CISPI 301) WITH NEOPRENE GASKET AND STAINLESS STEEL CLAMP JOINTS (CISPI 310) WITH NEOPRENE GASKET / STAINLESS STEEL CLAMP JOINTS (HEAVY-DUTY, ASTM C1540-15).
- SANITARY WASTE BELOW GRADE PIPING AND JOINTS:** PROVIDE SCHEDULE 40 SOLID WALL PVC PIPE AND SOCKET FITTINGS (ASTM D 2665) WITH SOLVENT WELD JOINTS (ASTM D2855). INSTALL PLASTIC PIPE BELOW GRADE PER ASTM D2321. FOAM CORE PVC PIPING IS NOT APPROVED.
- SANITARY VENT ABOVE GRADE PIPING AND JOINTS:** PROVIDE SCHEDULE 40 SOLID WALL PVC PIPE AND SOCKET FITTINGS (ASTM D 2665) WITH SOLVENT WELD JOINTS (ASTM D2855). FOAM CORE PVC PIPING IS NOT APPROVED.
- SLOPE WASTE PIPING AT 1/4" PER FOOT MINIMUM FOR PIPING 2-1/2" AND SMALLER AND 1/8" PER FOOT MINIMUM FOR PIPING 3" AND LARGER UNLESS NOTED OTHERWISE.**
- PROVIDE CLEAN-OUTS AT THE BASE OF WASTE STACKS AND AT EVERY TURN IN PIPING IN EXCESS OF 45° AND SPACED WITH-IN 100'-0" APART IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.**
- WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, REMOVABLE P-TRAPS, MATCHING STOPS AND ESCUTCHEONS FOR ALL LAVATORIES.**
- WASTE AND VENT SYSTEMS SHALL BE TESTED AND PROVED WATER TIGHT UNDER A HEAD PRESSURE OF NO LESS THAN 10 FT. THIS PRESSURE SHALL BE HELD FOR A PERIOD OF NO LESS THAN 15 MINUTES.**
- WHERE MECHANICAL ROOM FLOOR DRAINS ARE INSTALLED ABOVE GRADE, PROVIDE 1" THICK GLASS FIBER INSULATION WITH VAPOR BARRIER AND JACKET ON THE FLOOR DRAIN BODY, THE ASSOCIATED P-TRAP AND HORIZONTAL DRAIN PIPING ABOVE GRADE.**
- INSULATE ROOF DRAIN BODIES AND HORIZONTAL DRAIN PIPING ABOVE GRADE WITH 1" THICK GLASS FIBER INSULATION WITH VAPOR BARRIER AND JACKET.**
- PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES SHALL MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS AS TESTED BY ASTM E84 (NFPA 255) METHOD. INSTALL INSULATION CONTINUOUSLY THRU FIRE RATED WALLS AND PIPE HANGERS. PROVIDE GALVANIZED STEEL SHIELD BETWEEN PIPE HANGER AND INSULATION.**

COORDINATION DRAWINGS

PER DIVISION 01 SPECIFICATIONS, THE MECHANICAL CONTRACTOR SHALL ORGANIZE COORDINATION MEETINGS TO DEVELOP A SET OF COORDINATION DRAWINGS WITH ALL CONTRACTORS (ELECTRICAL, MECHANICAL, PLUMBING, FIRE PROTECTION, IT/DATA, AND GENERAL CONTRACTOR). THE MECHANICAL CONTRACTOR WILL HAVE THE LEAD RESPONSIBILITY FOR THE COORDINATION DRAWINGS. THE MECHANICAL CONTRACTOR SHALL PRODUCE THE ORIGINAL DRAWINGS AND FORWARD THE DRAWINGS TO EACH OF THE OTHER CONTRACTORS FOR THEM TO ADD THEIR SYSTEMS TO THIS SET OF COORDINATION DRAWINGS. THE CONTRACTORS WILL DEVELOP THE DRAWINGS IN THIS ORDER: MECHANICAL, FIRE PROTECTION, PLUMBING, ELECTRICAL, IT/DATA, AND GENERAL. THIS SHALL ALSO BE THE ORDER OF PRECEDENCE FOR INSTALLATION OF SYSTEMS. ANY RELOCATION OF SYSTEM ROUTINGS WILL BE FOUND IN THE COORDINATION PHASE AND NOTICED BY EACH OF THE CONTRACTORS. THESE DRAWINGS, WHEN COMPLETED, SHALL BE SIGNED OFF BY ALL OF THE ABOVE LISTED PARTIES. DRAWINGS SHALL BE COMPLETED PRIOR TO FABRICATION AND INSTALLATION OF DUCTWORK AND PIPING SYSTEMS, OR PURCHASE OF EQUIPMENT. THE FOLLOWING ITEMS REPRESENT THE MINIMUM REQUIREMENTS AND COORDINATION DRAWINGS:

- ALL COORDINATION DRAWINGS WILL BE PRODUCED AT 1/4" = 1'-0 SCALE.
- COORDINATION DRAWINGS WILL BE DISTRIBUTED ON REPRODUCIBLE MATERIAL 48"x36".
- COORDINATION DRAWINGS ARE NOT SHOP DRAWINGS AND ARE REQUIRED IN ADDITION TO SHOP DRAWINGS.
- ONCE THE COMPLETE COORDINATION DRAWINGS HAVE BEEN COMPILED, THE MECHANICAL CONTRACTOR WILL DISTRIBUTE ONE SIGNED SET TO EACH OF THE FOLLOWING CONTRACTORS: ELECTRICAL, PLUMBING, FIRE PROTECTION, AND GENERAL. ADDITIONAL SETS WILL BE SENT TO THE OWNER, ARCHITECT, AND ENGINEER.

KITCHEN CONNECTION NOTES

- PLUMBING CONTRACTOR TO BE RESPONSIBLE FOR PROTECTION OF DOMESTIC WATER SYSTEM AGAINST BACKFLOW AND BACK SIPHONING WHEN A "HARD" CONNECTION IS MADE TO ANY KITCHEN EQUIPMENT OR APPLIANCE. PER NC PLUMBING CODE 608.3, ALL DEVICES, APPURTENANCES, APPLIANCES, AND APPARATUS INTENDED TO SERVE SPECIAL FUNCTIONS SUCH AS PROCESSING, COOKING, HEATING, OR STORAGE OF ICE THAT ARE CONNECTED TO THE WATER SUPPLY SHALL BE PROVIDED WITH PROTECTION AGAINST BACKFLOW CONTAMINATION OF WATER SUPPLY SYSTEM.
- WATER FILTERS, SOFTENERS, AND HOLDING TANKS OF POTABLE WATER SHALL BE PROTECTED AGAINST CONTAMINATION. THE PC SHALL COOPERATE WITH KITCHEN EQUIPMENT CONTRACTOR AND SHALL VERIFY MOST ADEQUATE PROTECTION REQUIRED. ANY APPROVED DEVICE EITHER EXTERIOR TO OR BUILT-INTO THE APPLIANCE SHALL BE ACCEPTABLE.

DOMESTIC WATER PIPING

- BELOW GRADE PIPING AND JOINTS:** PROVIDE TYPE "K" SOFT ANNEALED SEAMLESS COPPER TUBING (ASTM B 88) WITH NO JOINTS FOR PIPING 2-1/2" AND SMALLER. PROVIDE DUCTILE IRON PIPE AND FITTINGS (AWWA C151, AWWA C110) WITH RUBBER GASKET JOINTS AND RODS (AWWA C111) FOR PIPING 3" AND LARGER.
- ABOVE GRADE PIPING AND JOINTS:** PROVIDE TYPE 1 "HARD DRAWN SEAMLESS COPPER TUBING (ASTM B 88) AND CAST COPPER ALLOY FITTINGS (ASME B16.18), JOINTS 2" AND SMALLER SHALL BE LEAD FREE 95-5 TIN/SILVER SOLDER JOINTS (ASTM B 32), JOINTS 2-1/2" AND LARGER SHALL BE BCUP SILVER / PHOSPHORUS / COPPER BRAZED JOINTS (AWS A5.8). ALTERNATELY PROVIDE COPPER PIPE AND FITTINGS AS SPECIFIED ABOVE EXCEPT WITH GROOVED ENDS (ASTM B 88, ASME B16.18) AND JOINTS UTILIZING GROOVED MECHANICAL COUPLINGS MEETING (ASTM F1476).
- INSULATE PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH GLASS FIBER INSULATION HAVING A VAPOR BARRIER AND JACKET. PIPE INSULATION SHALL HAVE A CONDUCTIVITY NOT EXCEEDING 0.27 BTU/H x 50 FT. SEE LIST BELOW FOR INSULATION THICKNESS.**
 - PROVIDE 1" THICK INSULATION FOR HOT WATER & CIRCULATION PIPING SIZES 1/2" THRU 1-1/4".
 - PROVIDE 1-1/2" THICK INSULATION FOR HOT WATER & CIRCULATION PIPING SIZES 1-1/2" THRU 4".
 - PROVIDE 1/2" THICK INSULATION FOR COLD WATER PIPING SIZES 1/2" THRU 1-1/4".
 - PROVIDE 1" THICK INSULATION FOR COLD WATER PIPING SIZES 1-1/2" THRU 4".
- PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES SHALL MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS AS TESTED BY ASTM E84 (NFPA 255) METHOD AND SHALL BE PLENUM RATED. PROVIDE PVC INSULATION JACKET FOR EXPOSED PIPING IN MECHANICAL ROOMS. INSTALL INSULATION CONTINUOUSLY THRU FIRE RATED WALLS AND PIPE HANGERS. PROVIDE GALVANIZED STEEL SHIELD BETWEEN PIPE HANGER AND INSULATION.
- PROVIDE A CHROME FINISH ON EXPOSED PIPING IN REST ROOMS AND OTHER FINISHED AREAS.
- PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS CARRIED ON TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH DISSIMILAR OTHER METALS.
- PROTECT COPPER PIPING AGAINST CONTACT WITH MASONRY. WHERE COPPER IS SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER MUST BE CONCEALED IN OR AGAINST MASONRY PARTITIONS, PROVIDE A HEAVY COATING OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 15# ASPHALT SATURATED FELT BETWEEN THE PIPING AND THE MASONRY PARTITION.
- PERFORM A PRESSURE TEST ON ALL WATER PIPING. FILL PIPING WITH POTABLE WATER, CAP AND SUBJECT PIPING TO A STATIC WATER PRESSURE OF 50 PSIG ABOVE OPERATING PRESSURE, WITHOUT EXCEEDING PRESSURE RATING OF PIPING SYSTEM MATERIALS. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR FOUR HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.
- STERILIZE THE DOMESTIC WATER SYSTEM IN PER THE AMERICAN WATER WORKS ASSOCIATION'S INSTRUCTIONSSPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
- SLOPE WATER PIPING FOR DRAINAGE WITH DRAIN VALVES INSTALLED AT LOW POINTS.
- BALANCE THE DOMESTIC HOT WATER CIRCULATION SYSTEM TO THE PERFORMANCE SPECIFICATIONS INDICATED ON THE PLANS AND PROVIDE THE ENGINEER WITH THREE COPIES OF A COMPLETE TEST AND BALANCE REPORT. THE REPORT IS TO BE ISSUED A MINIMUM OF TWO WEEKS PRIOR TO PROJECT COMPLETION. THE TEST AND BALANCE REPORT WILL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. ANY ADDITIONAL TESTING, ADJUSTING AND BALANCING REQUIRED (AT ENGINEER'S REQUEST) AFTER REVIEW OF THE INITIAL REPORT SHALL BE PROVIDED AT NO ADDITIONAL COST. TEST AND BALANCE REPORT TO BE COMPLETED BY AN INDEPENDENT, CERTIFIED TEST AND BALANCE CONTRACTOR.

NATURAL GAS PIPING

- ABOVE GRADE PIPING AND FITTINGS:** PROVIDE SCHEDULE 40 BLACK STEEL PIPING, TYPE S, SEAMLESS, GRADE B (ASTM A 53) AND 150 PSI MALLEABLE BLACK IRON FITTINGS, GRADE 2510, (ASTM B 16.3) OR FORGED STEEL WELDING TYPE FITTINGS (ASTM A234), PROVIDE TREADED JOINTS FOR PIPE 2" AND SMALLER. PROVIDE WELDED JOINTS (ASME B31.9) FOR PIPE 2-1/2" AND LARGER.
- SPACE GAS PIPING HANGER RODS 7'-0" ON CENTER MAXIMUM AND SPACE TRANSVERSE BRACING 20'-0" ON CENTER MAXIMUM. TRANSVERSE BRACING FOR ONE SECTION MAY ACT AS LONGITUDINAL BRACING FOR THE PIPE SECTION CONNECTED TO IT IF THE BRACING IS INSTALLED WITHIN 24" OF THE ELBOW OR TEE. COORDINATE HANGER LOCATIONS WITH STRUCTURAL DRAWING DETAILS.**
- PROVIDE A.G.A. CERTIFIED SHUT-OFF VALVES MINIMUM, 125 PSI RATED, NON- LUBRICATED PLUG TYPE WITH BRONZE BODY AND BRONZE PLUG, STRAINERS AND REGULATORS (AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER) FOR ALL EQUIPMENT CONNECTED TO THE NATURAL GAS SYSTEM.
- GAS PRESSURE REGULATORS SHALL COMPLY WITH ANSI Z21.80. REGULATORS SHALL BE CAST IRON OR DIE-CAST ALUMINUM CONSTRUCTION WITH INTERCHANGEABLE ZINC-PLATED STEEL SPRINGS, ZINC-PLATED STEEL DIAPHRAGM PLATE, NITRILE RUBBER SEAT DISC, INTERCHANGEABLE ALUMINUM ORIFICE, AND ULTRAVIOLET-STABILIZED MINERAL FILLED NYLON SEAL PLUG. REGULATOR SHALL BE SINGLE-PORT SELF-CONTAINED WITH ORIFICE NO LARGER THAN REQUIRED AT MAXIMUM PRESSURE INLET AND NO PRESSURE SENSING PIPING EXTERNAL TO THE REGULATOR. PRESSURE REGULATOR SHALL MAINTAIN DISCHARGE PRESSURE SETTING DOWNSTREAM AND NOT EXCEED 150 PERCENT OF DESIGN DISCHARGE PRESSURE AT SHUTOFF. OVERPRESSURE PROTECTION DEVICE SHALL BE FACTORY MOUNTED ON REGULATOR. WHEN USING VENTLESS REGULATORS, MOUNT REGULATOR IN A HORIZONTAL UPRIGHT POSITION. IF VENTED TYPE REGULATORS ARE USED, INSTALL VENT PIPING (FULL SIZE OPENING) FROM GAS PRESSURE REGULATORS TO OUTDOORS AND TERMINATE IN WEATHERPROOF HOOD.
- PAINT ALL GAS PIPING WITH 2 COATS OF YELLOW ENAMEL PAINT APPLIED WITH A BRUSH (2 MIL THICKNESS MINIMUM). STENCIL "GAS" ON PIPE AT 5'-0" CENTERS.
- PROVIDE SUB-METER WITH A PULSE OUTPUT COMPATIBLE WITH THE BUILDING AUTOMATION SYSTEM. COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR AND LOCAL GAS UTILITY.
- UNCW OWNS AND OPERATES THE CAMPUS GAS SYSTEM. THERE IS ONE MASTER METER (BY PIEDMONT NATURAL GAS) FOR THE ENTIRE CAMPUS. HOT TAPS ARE NOT PERMITTED UNLESS PERFORMED BY PIEDMONT NATURAL GAS.

FLOW TEST DATA

DATE / TIME	LOCATION	PRESSURE		FLOW (GPM)	FLOW AT 20 PSI (GPM)
		STATIC (PSI)	RESIDUAL (PSI)		
02-11-2020 7:05 AM	PRICE DRIVE (@UNCW IN FRONT OF DOBO HALL) WILMINGTON, NC 28403	49	40	920	1,760

FLOW TEST PERFORMED BY: BFPE INTERNATIONAL & UNCW FACILITIES DEPT.

FLOW TEST NOTES:

- THE CONTRACTOR IS SHALL OBTAIN A NEW FIRE FLOW TEST ON WHICH TO BASE HIS CALCULATIONS.
- THE FLOW TEST USED FOR THE WORKING PLAN DESIGN SHOULD BE PERFORMED AS INDICATED IN NFPA 13 WHICH USES TWO HYDRANTS: A PRESSURE HYDRANT AND A FLOW HYDRANT. THE TWO HYDRANTS SHALL BE AS CLOSE TO THE POINT OF CONNECTION AS POSSIBLE. PROVIDE A COPY OF THE FLOW TEST AND TEST HYDRANT LOCATIONS WITH THE SUBMITTED SPRINKLER SHOP DRAWING PACKAGE.

PLUMBING GENERAL NOTES

- PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NORTH CAROLINA STATE PLUMBING CODE AND WITH THE REQUIREMENTS OF THE NORTH CAROLINA STATE CONSTRUCTION OFFICE.
- SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL PLUMBING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES.
- WARRANT: THE SYSTEM LABOR, MATERIALS AND EQUIPMENT FOR THE TIME PERIOD SPECIFIED IN THE PROJECT MANUAL. IF NO WARRANTY SECTION IS PROVIDED, THEN WARRANT THE SYSTEM LABOR, MATERIAL AND EQUIPMENT FOR A MINIMUM OF ONE YEAR AFTER COMPLETION AND ACCEPTANCE. PRIOR TO TURNING THE COMPLETED SYSTEM OVER TO THE OWNER, REVIEW THE INSTALLATION WITH THE ARCHITECT / ENGINEER AND REPLACE OR REPAIR ANY DEFECTIVE WORKMANSHIP, EQUIPMENT AND MATERIALS AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE ALL PLUMBING PIPING LOCATIONS, ROUGH-IN LOCATIONS AND EQUIPMENT LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES. FINAL PIPING AND EQUIPMENT LOCATIONS SHALL BE A CODE COMPLIANT INSTALLATION FOR ALL TRADES.
- FIELD VERIFY PROPER OPERATION OF EXISTING SYSTEMS BEFORE STARTING CONSTRUCTION. NOTIFY THE ARCHITECT / ENGINEER OF RECORD OF ANY PROBLEMS OR DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.
- PLUMBING PLANS SHALL NOT BE SCALED. REFERENCE THE ARCHITECTURAL PLANS FOR DIMENSIONS OF ALL LOCATIONS OF PLUMBING FIXTURES, FLOOR DRAINS, COLUMNS, WALLS, DOORS, ETC.
- WHERE DISCREPANCIES ARE FOUND IN THE DRAWINGS AND SPECIFICATIONS THE MORE STRINGENT SHALL APPLY. CONTACT ENGINEER FOR CLARIFICATION.
- ALL PIPING SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA.
- ALL VALVES, BACKFLOW PREVENTERS, BOOSTER PUMPS, ETC. SERVING THE DOMESTIC WATER SYSTEM SHALL MEET LEAD FREE STANDARDS PER ANSI/NSF 372 AND NSF 61, ANNEX G.
- PROVIDE COMPLETE PLUMBING FIXTURES AND EQUIPMENT. INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PICES, ESCUTCHEONS, ETC. AND INSTALL PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- CUT WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF PLUMBING WORK. ALL CUTTING SHALL BE HELD TO A MINIMUM. PATCH AND FINISH SURFACES TO MATCH ADJOINING SURFACES.
- PIPING AND SPECIALTIES SHALL BE LOCATED CONCEALED IN WALLS, PARTITIONS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE. PIPING IN EXPOSED AREAS SHALL BE RUN TIGHT TO UNDERSIDE OF STRUCTURE.
- PROVIDE ACCESS DOORS FOR ALL SPECIALTIES, VALVES, WATER HAMMER ARRESTORS, TRAP PRIMERS, ETC., CONCEALED BEHIND WALLS OR CEILINGS THAT REQUIRE MAINTENANCE ACCESS.
- DO NOT INSTALL PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL PIPING SHOWN IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
- PIPING, VENTS, ETC. EXTENDING THROUGH EXTERIOR WALLS AND/OR THE ROOF SHALL BE FLASHED AND COUNTER FLASHED IN A WATERPROOF MANNER. COORDINATE FLASHING WITH THE GENERAL CONTRACTOR.
- PROVIDE A CHROME FINISH FOR ALL EXPOSED PIPING IN REST ROOMS AND OTHER FINISHED AREAS.
- PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
- ATTACH HANGERS TO STRUCTURE, HANGERS SHALL NOT ATTACH TO THE DECK.
- PROVIDE MANUFACTURERS RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT FOR MAINTENANCE.
- VALVES AND OTHER PIPING ACCESSORIES REQUIRING ACCESS SHALL BE INSTALLED IN ACCESSIBLE LOCATION NO MORE THAN 18" ABOVE THE CEILING, PROVIDE OFFSETS IN PIPING AS NEEDED.
- PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO: PLUMBING FIXTURES AND EQUIPMENT, FIRE STOPPING, SEISMIC BRACING, PIPE IDENTIFICATION, DOMESTIC WATER SYSTEM, SANITARY WASTE AND VENT SYSTEM, NATURAL GAS SYSTEM.

FIRE STOPPING:

- FIRE STOP ALL PENETRATIONS, BY PIPING OR CONDUITS, OF FIRE RATED WALLS, FLOORS AND PARTITIONS. PROVIDE A DEVICE(S) OR SYSTEM(S) WHICH HAS BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814 AND INSTALL IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE A DEVICE(S) OR SYSTEM(S) WITH AN "F" RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED. REFER TO ARCHITECTURAL PLANS FOR WALL AND FLOOR TYPES.

PIPE IDENTIFICATION:

- PIPE IDENTIFICATION SHALL MATCH THE FACILITY'S EXISTING STANDARD. IF NO STANDARD EXISTS, THEN THE PIPE IDENTIFICATION SHALL BE IN ACCORDANCE WITH ANSI A13.1.
- PROVIDE PIPING LABELS FOR ALL PLUMBING PIPING. PIPING LABELS SHALL BE ACRYLIC FACED, WRAP-AROUND TYPE. EACH LABEL SHALL INDICATE THE PIPING CONTENTS, DIRECTION OF FLOW AND SHALL BEAR THE MANUFACTURER'S STANDARD COLOR FOR THE SERVICE INDICATED.

SUBMITTALS:

- PROVIDE SUBMITTALS BEARING THE CONTRACTORS REVIEW STAMP FOR ALL PLUMBING FIXTURES, PIPING, EQUIPMENT AND ACCESSORIES IN ELECTRONIC FORMAT (.PDF).
- NO PRIVATE LABELED MATERIALS WILL BE ACCEPTED AS EQUALS TO PRODUCTS SPECIFIED HEREIN.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SUBSTITUTIONS TO SPECIFIED PLUMBING FIXTURES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO, PROVIDING MAINTENANCE ACCESS CLEARANCE, PIPING, ELECTRICAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC. AND ANY MODIFICATIONS TO ASSOCIATED MECHANICAL, ELECTRICAL OR PLUMBING SYSTEMS REQUIRED BY THE EQUIPMENT'S INSTALLATION INSTRUCTIONS. ALL COSTS ASSOCIATED WITH SUBSTITUTIONS SHALL BE INCLUDED IN THE ORIGINAL BASE BID.

SEISMIC NOTES

- PROVIDE DESIGN AND INSTALLATION OF SEISMIC RESTRAINT ELEMENTS FOR THE PLUMBING SYSTEM(S) IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF THE 2018 NORTH CAROLINA BUILDING CODE AND ASCE 7-10, CHAPTER 13. PER APPENDIX B, THE SITE'S SEISMIC DESIGN CATEGORY IS "C".
 - SYSTEMS WITH IMPORTANCE FACTOR OF 1.5 OR ABOVE ARE AS FOLLOWS:
 - NATURAL GAS PIPING AND APPURTENANCES
 - GAS FIRED WATER HEATERS
 - WATER HEATER COMBUSTION VENTS AND FRESH AIR INTAKES
- REFER TO THE LATEST EDITION OF THE "SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS" PUBLISHED BY SMACNA TO DETERMINE THE CORRECT RESTRAINTS FOR PIPING.
- PROVIDE CALCULATIONS AND PREPARE SHOP DRAWINGS FOR THE SPECIFIC METHODS OF SEISMIC RESTRAINT TO BE USED IN ACCORDANCE WITH ASCE 7-10. REQUIRED RESTRAINT DEVICES, MATERIALS, AND SUPPLEMENTARY FRAMING SHALL BE AN INTEGRAL PART OF THE DESIGN AND INCLUDED IN THE SHOP DRAWINGS. PROVIDE ISOLATORS, SEISMIC MOUNTS, RESTRAINTS, ETC. AS NECESSARY TO COMPLY WITH ALL APPLICABLE REQUIREMENTS.
- CALCULATIONS SHALL BE PREPARED BY A CERTIFIED OR LICENSED PROFESSIONAL WITH A MINIMUM 5 YEARS OF EXPERIENCE IN THE DESIGN AND SPECIFICATION OF SEISMIC RESTRAINT SYSTEMS.
- SUBMIT CALCULATIONS AND SHOP DRAWINGS TO THE ARCHITECT, ENGINEER, AND LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.
- COPIES OF THE APPROVED RESTRAINT SYSTEM(S) INSTALLATION MANUAL SHALL BE ON THE JOBSITE PRIOR TO INSTALLATION.
- REVIEW AND APPROVAL OF THE SHOP DRAWINGS AND CALCULATIONS BY THE ARCHITECT/ENGINEER/ SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLY WITH SEISMIC OR OTHER REQUIREMENTS OF THE 2018 NORTH CAROLINA BUILDING CODE AND ASCE 7-10.

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
----	CW	COLD WATER PIPING
----- 140----	140	140°F HOT WATER PIPING
----- 140----	140	140°F HOT WATER RETURN PIPING
-----	W	SANITARY WASTE PIPING
-----	V	SANITARY VENT PIPING
----- GW-----	GW	GREASE WASTE PIPING
----- GV-----	GV	GREASE VENT PIPING
----- SD-----	SD	STORM DRAIN PIPING
----- ESD-----	ESD	EMERGENCY STORM DRAIN PIPING
----- G-----	G	NATURAL GAS PIPING
----- D-----	D	DRAIN PIPING
-----	-	PIPING ELBOW DOWN
-----	-	PIPING ELBOW UP
-----	-	PIPING CONTINUES
-----	-	BALL VALVE
-----	-	CHECK VALVE
-----	-	BALANCING VALVE
-----	-	GAS VALVE
-----	PRV	PRESSURE REDUCING VALVE
-----	-	SOLENOID VALVE
-----	RPZ	REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY
-----	-	IN-LINE PUMP
-----	-	PIPING REDUCER
-----	FCO	FLOOR CLEANOUT
-----	YCO	YARD CLEANOUT
-----	WCO	WALL CLEANOUT
-----	CO	PLUG CLEANOUT
-----	FD	FLOOR DRAIN
-----	FS	FLOOR SINK
-----	RD	ROOF DRAIN
-----	HB	HOSE BIBB / WALL HYDRANT
-----	SA-#	SHOCK ARRESTOR - SUFFIX INDICATES PDI SIZE

ADDITIONAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MFG	MANUFACTURER
AFG	ABOVE FINISHED GRADE	PSI	POUNDS PER SQUARE INCH
BAS	BUILDING AUTOMATION SYSTEM	T&P	TEMPERATURE AND PRESSURE
BFF	BELOW FINISHED FLOOR	TW	TEMPERED WATER
CFH	CUBIC FEET PER HOUR	TYP	TYPICAL
CLG	CEILING	UG	UNDERGROUND
CONT	CONTINUATION	VTR	VENT THRU ROOF
DN	DOWN	VR	VANDAL RESISTANT
GNP	GALLONS PER FLUSH	WC	WATER COLUMN
GPM	GALLONS PER MINUTE	EC	ELECTRICAL CONTRACTOR
HP	HORSE POWER	FSEC	FOOD SERVICE EQUIP. CONTRACTOR
INV	INVERT ELEVATION	GC	GENERAL CONTRACTOR
KW	KILOWATT	MC	MECHANICAL CONTRACTOR
MBH	1,000 BRITISH THERMAL UNIT / HOUR	PC	PLUMBING CONTRACTOR

2018 NORTH CAROLINA ENERGY CONSERVATION CODE

COMMERCIAL ENERGY EFFICIENCY - PLUMBING SUMMARY

C401 METHOD OF COMPLIANCE			
<input checked="" type="checkbox"/> 2018 NCECC CHAPTER 4	<input type="checkbox"/> COMCHECK PROVIDED (2018 NCECC)		
<input type="checkbox"/> ASHRAE 90.1-2013 PRESCRIPTIVE	<input type="checkbox"/> COMCHECK PROVIDED (90.1-2013)		
<input type="checkbox"/> ASHRAE 90.1-2013 PERFORMANCE	<input type="checkbox"/> ENERGY MODELING DATA PROVIDED		
<input type="checkbox"/> N/A (EXISTING LIGHTING, HVAC, AND DOM. WATER HEATING SYSTEMS TO REMAIN)			
C406 ADDITIONAL EFFICIENCY PACKAGE OPTIONS			
<input type="checkbox"/> C406.2 EFFICIENT MECH EQUIPMENT	<input type="checkbox"/> C406.5 ON-SITE RENEWABLE ENERGY		
<input checked="" type="checkbox"/> C406.3 REDUCED LTG DENSITY	<input type="checkbox"/> C406.6 DEDICATED OA SYSTEM		
<input type="checkbox"/> C406.4 ENHANCED LTG CONTROLS	<input type="checkbox"/> C406.7 SERVICE WATER HEATING		

TABLE C404.2 - MINIMUM PERFORMANCE OF WATER HEATING EQUIPMENT:

EQUIPMENT TYPE	SIZE CATEGORY (INPUT)	SUB CATEGORY OR RATING CONDITION	PERFORMANCE REQUIRED a,b	REQ'D EFFICIENCY	SPECIFIED EQPM
INSTANTANEOUS WATER HEATERS, GAS	> 155,000 BTU/H	≥4000 BTU/H/GAL ≥10 GAL	80% E ₁ (Q/800+110 × V) ^{SL} BTU/H	80%	96%

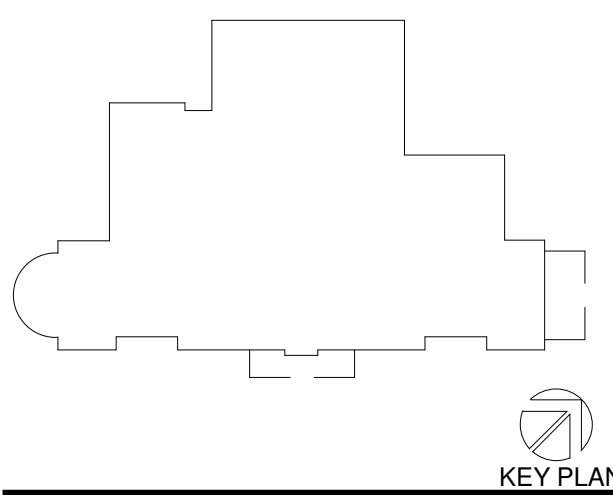
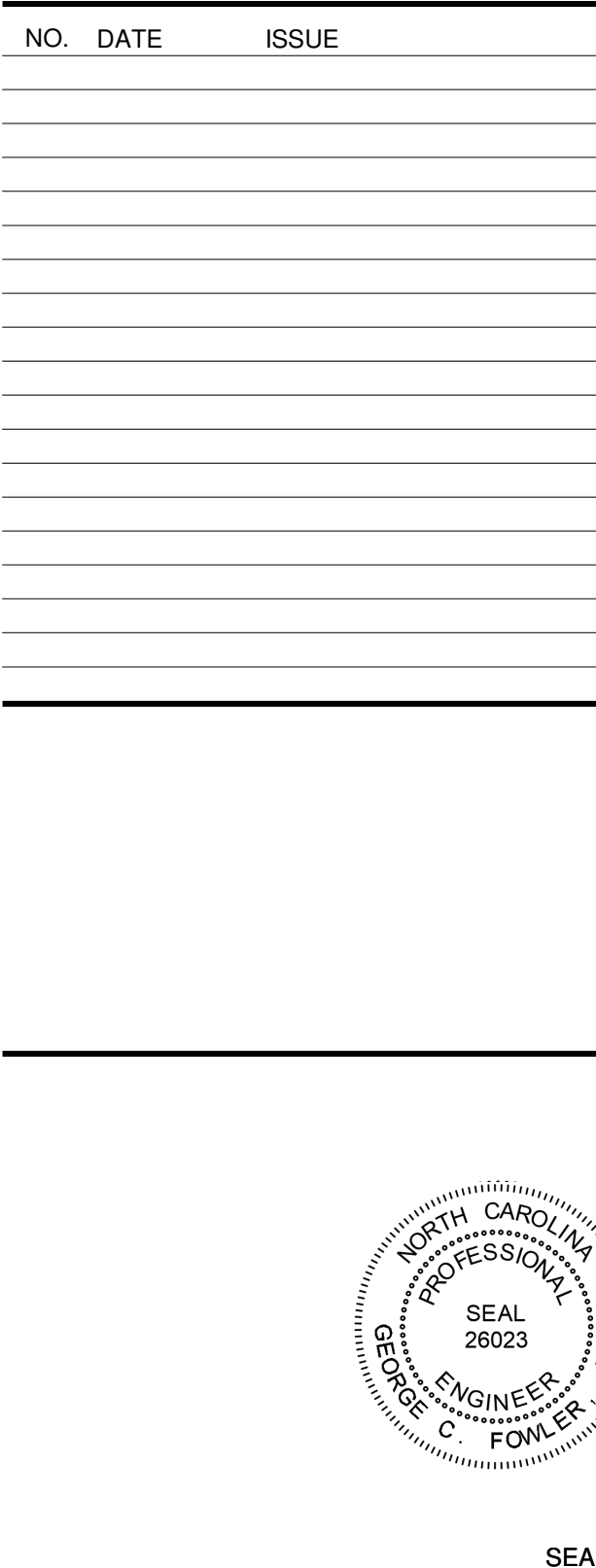
- ENERGY FACTOR (EF) AND THERMAL EFFICIENCY (E_t) ARE MINIMUM REQUIREMENTS. IN THE EF EQUATION V IS THE VOLUME IN GALLONS.
- STANDBY LOSS (SL) IS THE MAXIMUM BTU/H BASED ON A NOMINAL 70° TEMPERATURE DIFFERENCE BETWEEN STORED WATER AND AMBIENT REQUIREMENTS. IN THE SL EQUATION Q IS THE NAMEPLATE INPUT RATE IN BTU/H. IN THE EQUATIONS FOR ELECTRIC WATER HEATERS, V IS THE RATED VOLUME IN GALLONS AND V_{st} IS THE MEASURED VOLUME IN GALLONS. IN THE SL EQUATION FOR GAS WATER HEATERS AND BOILERS, V IS THE RATED VOLUME IN GALLONS.
- REFER TO WATER HEATER SCHEDULES FOR SPECIFIED WATER HEATING EQUIPMENT TYPES, CAPACITIES (STORAGE VOLUME) AND ENERGY INPUTS (ELECTRIC AND/OR GAS)

PLUMBING LOAD SUMMARY

LOAD	FIXTURE UNITS	FLOW
SANITARY WASTE	73 DFU	-
GREASE WASTE	109 DFU	-
DOMESTIC WATER	191.5 SFU	88.1 GPM
NATURAL GAS	-	10,350 CFH @ 2 PSI

PLUMBING SHEET INDEX

SHEET NUMBER	SHEET NAME
P-001	PLUMBING LEGEND, INDEX AND NOTES
P-002	PLUMBING SCHEDULES
P-101	FIRST FLOOR DRAINAGE PIPING PLAN
P-102	FIRST FLOOR SUPPLY PIPING PLAN
P-103	FIRST FLOOR PLUMBING GAS PIPING PLAN
P-104	ROOF PLUMBING PLAN
P-401	ENLARGED PLUMBING PLAN
P-402	ENLARGED PLUMBING PLAN
P-501	PLUMBING DETAILS
P-502	PLUMBING DETAILS



Owner:
UNCW WILMINGTON
601 S College Rd, Wilmington, NC 28403

Construction Manager:
Construction Manager Name
Construction Manager Address

Civil / Site:
McAdams
One Glenwood Ave. Suite 201, Raleigh, NC 27603

Landscape:
McAdams
One Glenwood Ave. Suite 201, Raleigh, NC 27603

Structural:
LHC Structural Engineers
5430 Waste Park Blvd., Suite 400

Mechanical & Plumbing:
Optima Engineering
1927 S. Tryon St. Suite 300, Charlotte, NC 28203

Electrical:
Optima Engineering
1927 S. Tryon St. Suite 300, Charlotte, NC 28203

Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

PROJECT TITLE:

UNCW SOUTHEAST DINING FACILITY

PRICE DRIVE, WILMINGTON NC 28403

SCO #: 19-21358-01B

PROJECT No: 71193

DRAWING TITLE:
PLUMBING LEGEND, INDEX AND NOTES

SCALE: 1/2" = 1'-0"

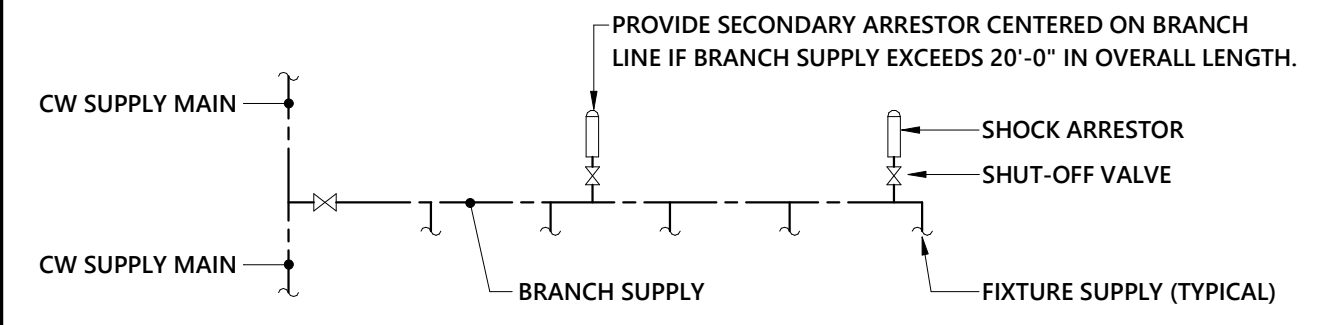
P-001

CD PACKAGE 2 - BUILDING

08-05-2020

SHOCK ARRESTOR TABLE				
DRAWING SYMBOL	FIXTURE UNITS	P.D.I. WH201 DESIGNATION	ARRESTOR SIZE	REMARKS
SA-A	1 - 11	A	1/2"	INSTALL SHOCK ARRESTORS PER THE PLUMBING DRAINAGE INSTITUTE (P.D.I.) GUIDELINES.
SA-B	12 - 32	B	3/4"	
SA-C	33 - 60	C	1"	
SA-D	61 - 113	D	1-1/4"	ACCEPTED MANUFACTURERS: SIOUX CHIEF, WATTS, PPP INC., ZURN
SA-E	114 - 154	E	1-1/2"	

— PROVIDE SECONDARY ARRESTOR CENTERED ON BRANCH LINE IF BRANCH SUPPLY EXCEEDS 20'-0" IN OVERALL LENGTH.



CW SUPPLY MAIN

BRANCH SUPPLY

SHOCK ARRESTOR

SHUT-OFF VALVE

FIXTURE SUPPLY (TYPICAL)

TANKLESS WATER HEATER CALC. - KITCHEN			
KITCHEN EQUIPMENT	QUANTITY	FLOW (GPM)	TOTAL (GPM)
HAND SINK - (PROVIDE 0.5 GPM AERATOR)	13	0.5	6.5
UTENSIL WASH SINK - (PROVIDE 2 GPM AERATOR)	1	2	2
PREPARATION SINK	9	1	9
MOP SINK	1	1	1
CAN WASH	1	1	1
KITCHEN HOOD COOKING EQUIPMENT	5	1	5
HOSE REEL STATION	0	3	0
CLOTHES WASHER	0	3	0
DISHMACHINE FINAL RINSE AT 20 PSI - HOBART AMIST-2	1	4.4	4.4
PRE-RINSE SINK - (PROVIDE 2 GPM AERATOR & SPRAYER)	1	2	2
TOTAL GALLONS PER MINUTE REQUIRED:			30.9
NOTES: 1. WATER HEATER CALCULATIONS BASED ON THE NC DIVISION OF HEALTH TANKLESS WATER HEATER CRITERIA. 2. WATER HEATERS PROVIDED: (B) NAVIEN NPE-240A TANKLESS HEATERS RATED FOR 30.4 GPM AT 100°F RISE.			

OUTDOOR GREASE INTERCEPTOR CALC. - GRS1										
SYMBOL	KITCHEN EQUIPMENT DESCRIPTION	QTY	INDIRECT WASTE / P-TRAP SIZE	CAPACITY (GALLONS)	PERCENT FULL (%)	FIXTURE UNIT VALUE	DRAINAGE FLOW (GPM)	DRAINAGE PERIOD (GPM)	FLOW RATE (GPM)	NOTES
A31, A41, A51, A95, A104	WORK TABLE WITH SINK	5	1-1/2" IW	-	-	2 FU x 5 = 10	5 GPM	CONTINUOUS	5 GPM	1,3
A55, A56, A57	COMBI OVEN	3	1-1/2" IW	-	-	2 FU x 3 = 6	3 GPM	CONTINUOUS	3 GPM	1,3
A58.1, A59.1	FLOOR TROUGH FOR TILTING SKILLET	2	4" P-TRAP	-	-	6 FU x 2 = 12	6 GPM	CONTINUOUS	6 GPM	1,3
A85, A97, A103, A107	HAND SINK	4	1-1/4" P-TRAP	-	-	1 FU x 4 = 4	2 GPM	CONTINUOUS	2 GPM	1,3
A102	BLAST CHILLER / FREEZER	1	1-1/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
B1, B17	WORK COUNTER WITH SINK	2	3/4" IW	-	-	2 FU x 2 = 4	2 GPM	CONTINUOUS	2 GPM	1,3
B6	COMBI OVEN	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
B9	HAND SINK	1	1-1/4" P-TRAP	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
B31.4	COLD PAN, DROP-IN	3	3/4" IW	-	-	1 FU x 3 = 3	1.5 GPM	CONTINUOUS	1.5 GPM	1,3
C11, C32	HAND SINK	2	1-1/4" P-TRAP	-	-	1 FU x 2 = 2	1 GPM	CONTINUOUS	1 GPM	1,3
C23	ROTISSERIE	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
C51.2	HOT / COLD PAN, DROP-IN	3	3/4" IW	-	-	1 FU x 3 = 3	1.5 GPM	CONTINUOUS	1.5 GPM	1,3
C51.6, C70.3	COLD PAN, DROP-IN	2	3/4" IW	-	-	1 FU x 2 = 2	1 GPM	CONTINUOUS	1 GPM	1,3
C71	ICE MACHINE	1	3/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
C71.2	SODA / ICE DISPENSER	1	3/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
C72	ICE AND WATER DISPENSER	1	3/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
D5	COMBI OVEN	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
D7	WOK RANGE	1	2" IW	-	-	3 FU	1.5 GPM	CONTINUOUS	1.5 GPM	1,3
D11	PASTA COOKER	1	1-1/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
D12	PASTA RINSE STATION	1	1-1/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
D16, D42	HAND SINK	2	1-1/4" P-TRAP	-	-	1 FU x 2 = 2	1 GPM	CONTINUOUS	1 GPM	1,3
D21.2, D21.7, D21.9, D31.4, D50.1	HOT / COLD PAN WITH AUTO FILL	5	3/4" IW	-	-	1 FU x 5 = 5	2.5 GPM	CONTINUOUS	2.5 GPM	1,3
D43	WORK TABLE WITH SINK	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
D83	ICE MACHINE	1	3/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
D83.2	SODA / ICE DISPENSER	1	3/4" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
E16	SOILED DISH CONVEYOR	3	1-1/2" IW	-	-	2 FU x 3 = 6	3 GPM	CONTINUOUS	3 GPM	1,3
E17	FOOD WASTE COLLECTOR	1	2" IW	-	-	3 FU	1.5 GPM	CONTINUOUS	1.5 GPM	1,3
E21	DISH MACHINE, RACK CONVEYOR	1	2" IW	-	-	3 FU	1.5 GPM	CONTINUOUS	1.5 GPM	1,3
E21.1	BLOWER DRYER	1	1" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
E22	CLEAN DISH CONVEYOR	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
E25, E27	HAND SINK	2	1-1/4" P-TRAP	-	-	1 FU x 2 = 2	1 GPM	CONTINUOUS	1 GPM	1,3
E30	POT SINK (24" x 26.5" x 14.85" EACH BOWL)	1	(3) 1-1/2" IW	3 @ 40.9 GAL	75%	-	92 GALLONS	2 MINUTES	46 GPM	2
E32	DISHWASHER	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
E32.1	CONDENSATE HOOD WITH LIGHT	1	1" IW	-	-	1 FU	0.5 GPM	CONTINUOUS	0.5 GPM	1,3
E33	CLEAN DISH TABLE	1	1-1/2" IW	-	-	2 FU	1 GPM	CONTINUOUS	1 GPM	1,3
-	CAN WASH / MOP SINK	2	3" P-TRAP	-	-	6 FU x 2 = 12	6 GPM	CONTINUOUS	6 GPM	1,3
-	DUMPSTER DRAIN (BY CIVIL)	1	4" P-TRAP	-	-	6 FU	3 GPM	CONTINUOUS	3 GPM	1,3
NOTES: 1. REFERENCE NORTH CAROLINA PLUMBING CODE - SECTIONS 709.2 AND 709.3. 2. FLOW RATE DETERMINED BY ANTICIPATED FULL VOLUME OF FIXTURE DIVIDED BY ALLOWABLE DRAINAGE TIME OF FIXTURE. 3. FLOW RATE DETERMINED BY FIXTURE UNIT VALUE.						4. RETENTION TIME REQUIRED PER CAPE FEAR PUBLIC UTILITY AUTHORITY DESIGN CRITERIA. 5. MINIMUM STORAGE REQUIRED PER CAPE FEAR PUBLIC UTILITY AUTHORITY DESIGN CRITERIA.				
						TOTAL GPM		102.5 GPM		
						RETENTION TIME		20 MIN.		
						MIN. STORAGE GALLONS REQUIRED		2,050 GAL		
						TOTAL GPM x RETENTION TIME		2,050 GAL		

GREASE INTERCEPTOR - GRS1 (FOR REFERENCE ONLY)

PROCEPTOR GMC-3000 OR APPROVED EQUAL BY SCHIER OR XERXES. 3,000 GALLON WATER CAPACITY. FIBERGLASS CONSTRUCTION, 4" INLETS AND OUTLETS AND 3" VENTS. PROVIDE MANWAYS TO MEET INVERT DEPTH AND H-20 TRAFFIC RATED MANHOLE COVERS AND FRAMES INSTALLED FLUSH WITH FINISHED GRADE. PROVIDE REINFORCED CONCRETE RELIEVING GLAS WHEN GREASE INTERCEPTOR IS LOCATED IN AREAS WITH VEHICLE ACCESS. INSTALL PER THE MANUFACTURERS INSTRUCTIONS. COORDINATE EXACT LOCATION WITH SITE UTILITY CONTRACTOR. SEE SCHEMATIC 5/P-511

PLUMBING EQUIPMENT SCHEDULE

SYM.	DESCRIPTION	CONN. SIZE INLET	SIZE OUT	SPECIFICATION	REMARKS
WHT TYP. OF 8	WATER HEATER, COMMERCIAL TANKLESS, GAS FIRED, WALL MOUNTED, INTERNAL CIRCULATION PUMP	3/4"	3/4"	EQUIPMENT: NAVIEN NPE-240A GAS INPUT: 199,999 BTUH ELEC: 120V, 350 WATT RECOVERY: 3.9 GPM AT 100° RISE.	SET OUTLET TEMPERATURE TO 140°F SEE NOTE 1
ET1	THERMAL EXPANSION TANK 2 GALLON CAPACITY	3/4"	-	EQUIPMENT: AMTROL ST-12-C	-
RCPI	HWR PUMP, ECM STAINLESS STEEL BODY	1"	1"	PUMP: B&G ECCOIRC 19-16 ELEC: 4-60 WATTS, 120 V RATED FOR 4 GPM AT 11.5 FT HEAD	SEE NOTE 2
MVI	THERMOSTATIC MIXING VALVE, POINT OF USE	1/2"	1/2"	VALVE: LEONARD 270-LF ASSE 1017	SEE NOTE 3
NOTES: 1. COMMERCIAL GAS FIRED WATER HEATER SHALL HAVE AT LEAST A 96% THERMAL EFFICIENCY RATING, A 5 YEAR WARRANTY, STAINLESS STEEL BURNERS, REDUNDANT GAS VALVES, SEALED COMBUSTION CHAMBER, FAN ASSISTED COMBUSTION, ASME 150 PSI WORKING PRESSURE, INLET AND OUTLET TEMPERATURE GAUGE, TEMP GAUGE, 150 PSI T&P RELIEF VALVE, OPERATING LIMIT AND HIGH LIMIT CONTROLS, U.L. AND FM APPROVED GAS TRAIN, FLOW SWITCH, 100% SAFETY SHUTDOWN AND LOW NOX EMISSIONS. PROVIDE WITH FACTORY CONDENSATE NEUTRALIZATION KIT. PROVIDE WATER HEATER WITH INTERNAL CIRCULATION PUMP, INTERNAL BUFFER TANK AND CIRCULATION INLET. SET WATER HEATER CIRCULATION PUMP CONTROL SETTING AND VALVE TO "EXTERNAL CIRCULATION MODE". WATER HEATER SHALL EXCEED ASHRAE 90.1 REQUIREMENTS. INTERLOCK WATER HEATER WITH BUILDING AUTOMATION SYSTEM. COORDINATE COMMUNICATION PROTOCOL WITH CONTROLS CONTRACTOR. 2. INTERLOCK RECIRCULATION PUMP WITH BUILDING AUTOMATION SYSTEM (BAS). CONTROLS CONTRACTOR TO PROVIDE TEMPERATURE SENSORS AT TEMPERATURE SENSOR WELL LOCATIONS INDICATED ON 7/P-501. COORDINATE WITH CONTROLS CONTRATOR. 3. PROVIDE MIXING VALVE BELOW SINK TO TEMPER 140 F HW DOWN TO REQUIRED TEMPERATURE. FOR KITCHEN HAND SINKS, SET OUTLET TEMPERATURE TO 115 F. FOR LAVATORIES IN PUBLIC RESTROOMS, SET OUTLET TEMPERATURE TO 105 F.					
APPROVED EQUALS: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE MODEL WHICH MOST CLOSELY MATCHES THE SPECIFIED PRODUCT. PROVIDE PRODUCTS MADE BY THE MANUFACTURER'S LISTED.		PRODUCT TYPE: WATER HEATERS EXPANSION TANKS PUMPS		ACCEPTED MANUFACTURERS: NAVIEN, MINNIAL, NORITZ AMTROL, A.O. SMITH, WATTS, WESSLES B&G, TACO, ARMSTRONG	

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	CONNECTION SIZE				SPECIFICATION	REMARKS
		W	V	CW	HW		
P1	TOILET ELONGATED, WHITE VITREOUS CHINA, CARRIER MOUNTED, BATTERY POWERED SENSOR OPERATED FLUSH VALVE, 1.28 GPF	4"	2"	1-1/4"	-	FIXTURE: KOHLER K-4325 "KINGSTON" FLUSH VALVE: MOEN 8311 SEAT: CHURCH 9500SSCT (WHITE) CARRIER: ZURN Z-1203 SERIES	SEAT HEIGHT 15" AFF. SEE NOTE 1 BELOW.
P1A	TOILET, A.D.A. COMPLIANT ELONGATED, WHITE VITREOUS CHINA, CARRIER MOUNTED, BATTERY POWERED SENSOR OPERATED FLUSH VALVE, 1.28 GPF	4"	2"	1-1/4"	-	FIXTURE: KOHLER K-4325 "KINGSTON" FLUSH VALVE: MOEN 8311 SEAT: CHURCH 9500SSCT (WHITE) CARRIER: ZURN Z-1203 SERIES	SEAT HEIGHT 17"-19" AFF. SEE NOTE 1 BELOW.
P2	URINAL WHITE VITREOUS CHINA, CARRIER MOUNTED, BATTERY POWERED SENSOR OPERATED FLUSH VALVE, 0.125 GPF	2"	2"	3/4"	-	FIXTURE: KOHLER K-4991-ETSS FLUSH VALVE: MOEN 8316 CARRIER: ZURN FLOOR MOUNTED URINAL CARRIER	FIXTURE LIP HEIGHT 24" AFF. SEE NOTE 2 BELOW.
P2A	URINAL, A.D.A. COMPLIANT WHITE VITREOUS CHINA, CARRIER MOUNTED, BATTERY POWERED SENSOR OPERATED FLUSH VALVE, 0.125 GPF	2"	2"	3/4"	-	FIXTURE: KOHLER K-4991-ETSS FLUSH VALVE: MOEN 8316 CARRIER: ZURN FLOOR MOUNTED URINAL CARRIER	FIXTURE LIP HEIGHT 17" AFF. SEE NOTE 2 BELOW.
P3	LAVATORY, A.D.A. COMPLIANT, 20"x18", CARRIER MOUNTED, 4" CENTER FAUCET HOLES, BATTERY POWERED SENSOR OPERATED, 0.5 GPM FAUCET	2"	1-1/2"	1/2"	1/2"	FIXTURE: KOHLER K-2032, WHITE VITREOUS CHINA FAUCET: MOEN CAB801, 0.5 GPM GRID DRAIN: MCGUIRE 155A, GRID STRAINER P-TRAP: MCGUIRE 8902, 1-1/4" x 1-1/2" SUPPLIES/STOPS: MCGUIRE LF175 CARRIER: ZURN Z-1231	SEE NOTES 3 & 5 BELOW
P3A	LAVATORY, A.D.A. COMPLIANT, 20"x17", OVAL, COUNTER MOUNTED, 4" CENTER FAUCET HOLES, BATTERY POWERED SENSOR OPERATED, 0.5 GPM FAUCET	2"	1-1/2"	1/2"	1/2"	FIXTURE: KOHLER K-2106-J, WHITE VITREOUS CHINA FAUCET: MOEN CAB801, 0.5 GPM GRID DRAIN: MCGUIRE 155A, GRID STRAINER P-TRAP: MCGUIRE 8902, 1-1/4" x 1-1/2" SUPPLIES/STOPS: MCGUIRE LF175	SEE NOTE 5 BELOW
P4	ELECTRIC WATER COOLER & BOTTLE FILLER, A.D.A. COMPLIANT, STAINLESS STEEL FINISH, BI-LEVEL DOUBLE BOWL, WALL MOUNTED, FLEXIBLE BUBBLERS, INTEGRAL WATER FILTER, SENSOR OPERATED BOTTLE FILLER WITH AUTO SHUT-OFF, REMOTE CHILLER	2"	1-1/2"	1/2"	-	FIXTURE: ELKAY L27WS-EDFPM171K ELEC: 370 WATT, 120 VOLT, SINGLE PHASE P-TRAP: MCGUIRE 8902, 1-1/4" x 1-1/2" SUPPLIES/STOPS: MCGUIRE LF175 REMOTE CHILLER: ELKAY ECHGRN	LOWER BUBBLER HEIGHT 34" AFF. PROVIDE REMOTE CHILLER ABOVE CEILING AT FIXTURE.
P6	MOP SINK, 24"x 24"x 12" TERRAZZO BASIN, 6" DROP FRONT WITH STAINLESS STEEL THRESHOLD CAP, 36" HIGH STAINLESS STEEL WALL GUARDS, SERVICE FAUCET FOR HOT WATER AND COLD WATER, HOSE, MOP HANGER BRACKET.	3"	2"	3/4"	3/4"	FIXTURE: FIAT T58C1610 DRAIN: FIAT M453-8B FAUCET: CHICAGO MODEL 952 (2 TOTAL, ONE FOR HW AND ONE FOR CW) ACCESSORIES: FIAT MSG2424 SS WALL GUARDS ACCESSORIES: FIAT 932-AA HOSE & BRACKET ACCESSORIES: FIAT 889-CC MOP HANGER P-TRAP: DEEP SEAL	PROVIDE CHECK VALVES ON HW AND CW SUPPLIES. PROVIDE P6EW EYEWASH ADJACENT TO MOP SINK.
P6EW	EMERGENCY EYEWASH / DRENCH HOSE WALL MOUNTED WITH DUAL SPRAY HEADS, SQUEEZE VALVE OPERATED.	-	-	1/2"	1/2"	FIXTURE: GUARDIAN GS026-FSH-TMV WITH THERMOSTATIC MIXING VALVE SUPPLY/STOP: MCGUIRE LF175	PROVIDE BRAIDED STAINLESS STEEL FLEXIBLE HOSE AND WALL BRACKET.
NOTES: 1. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT. PROVIDE A FLOOR MOUNTED PLATE STYLE CARRIER THAT MEETS ASME A112.6.1M OR ASME A112.6.2 AND 1,000 LBS. STATIC LOAD RATING. 2. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT. PROVIDE A FLOOR MOUNTED PLATE STYLE CARRIER EQUAL TO ZURN Z122-EZ (-SL) SERIES. WHEN CARRIER IS LOCATED BEHIND A BLOCK WALL, PROVIDE EXTENDED STUD LENGTHS TO COMPENSATE FOR THE BLOCK WALL THICKNESS. 3. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT. PROVIDE A FLOOR MOUNTED, ADJUSTABLE CONCEALED ARM CARRIER EQUAL TO ZURN Z1231-EZ (-SL) SERIES. WHEN CARRIER IS LOCATED BEHIND BLOCK WALL, PROVIDE EXTENDED CONCEALED ARM SLEEVES TO COMPENSATE FOR THE BLOCK WALL THICKNESS. 4. NOT USED. 5. PROVIDE PRE-MANUFACTURED A.D.A. COMPLIANT INSULATION KIT FOR EXPOSED PTRAP AND SUPPLY TRIM UNDER SINK. 6. MATCH PIPE SIZE SHOWN ON PLANS, SEE PLANS.							
APPROVED EQUALS: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE MODEL WHICH MOST CLOSELY MATCHES THE SPECIFIED PRODUCT. PROVIDE PRODUCTS MADE BY THE MANUFACTURER'S LISTED. NO PRIVATE LABELED MATERIALS WILL BE ACCEPTED AS EQUALS TO PRODUCTS SPECIFIED HEREIN. ALL FIXTURES OF THE SAME TYPE AND/OR MATERIAL SHALL BE PROVIDED BY A SINGLE MANUFACTURER.		PRODUCT TYPE: VITREOUS CHINA TOILET SEATS FLUSH VALVES SENSOR OPERATED FAUCETS ELECTRIC WATER COOLERS UTILITY SINKS ADA KIT FOR EXPOSED TRIM INLINE FLOOR DRAIN/TRAP SEALER DRAINS, CARRIERS, CLEANOUTS WATER SPECIALTIES EMERGENCY FIXTURES		ACCEPTED MANUFACTURERS: KOHLER, AMERICAN STANDARD, ZURN, TOTO CHURCH, OLSONITE, BENIS, CENTOCO SLOAN, ZURN, DELANEY SLOAN, T&S BRASS, ZURN ELKAY, OASIS, HAWES, HALSEY-TAYLOR FIAT, FLORESTONE, STERN WILLIAMS MCGUIRE, BRASSCRAFT, KEENEY TRUEBRO, PLUMBEREX, KEENEY SURESEAL, WIFAP, PROVENT ZURN, J.R. SMITH, WADE, JOSAM, WATTS PPP, SIOUX CHIEF, ZURN, WATTS GUARDIAN, HAWES, BRADLEY			

PLUMBING SPECIALTIES SCHEDULE

SYMBOL	DESCRIPTION	CONNECTION SIZE				SPECIFICATION	REMARKS
		W	V	CW	HW		
CS-x	BALANCING VALVE, THERMOSTATIC, AUTOMATIC, SUFFIX INDICATES PIPE SIZE, SEE FLOOR PLANS	-	-	-	**	EQUIPMENT: CIRCUIT SOLVER CS SERIES, SIZES 1/2" THRU 2", NSF 61 CERTIFIED.	PROVIDE 130°F MODEL
SA-x	SHOCK ARRESTOR, SUFFIX INDICATES PDI SIZE	-	-	x	-	EQUIPMENT: SIOUX CHIEF 650 SERIES, SIZES 1/2" THRU 2", NSF 61 CERTIFIED.	SEE SHOCK ARRESTOR TABLE THIS SHEET
HB1	HOSE BIBB, INTERIOR, EXPOSED, STAINLESS STEEL FACE PLATE, ANTI-SIPHON	-	-	3/4"	-	EQUIPMENT: ZURN Z1333-C-34EL, PROVIDE VACUUM BREAKER AND METAL LOOSE KEY FOR EACH HOSE BIBB	MOUNT 18" AFF
HB2	HOSE BIBB, EXTERIOR, EXPOSED, STAINLESS STEEL FACE PLATE, FREEZELESS, ANTI-SIPHON	-	-	3/4"	-	EQUIPMENT: ZURN Z1310-34EL, PROVIDE VACUUM BREAKER AND METAL LOOSE KEY FOR EACH HOSE BIBB	MOUNT 18" AFF
HB3	HOSE BIBB, EXTERIOR, EXPOSED, STAINLESS STEEL FACE PLATE, FREEZELESS, ANTI-SIPHON, DUAL TEMPERATURE, RECESSED	-	-	3/4"	3/4"	EQUIPMENT: WOODFORD HC867 WITH TEMPERATURE CONTROL MIXING VALVE, PROVIDE VACUUM BREAKER AND METAL LOOSE KEY	MOUNT 42" AFF
HB4	ROOFTOP HYDRANT, NON-FREEZE, AUTOMATIC DRAINING, VACUUM BREAKER	-	-	1"	-	EQUIPMENT: MAPA MPH-24FP-24/9 FINISH: STAINLESS STEEL	-
WCO	WALL CLEANOUT, CAST IRON BODY, STAINLESS STEEL WALL PLATE	**	-	-	-	CLEANOUT: ZURN Z-1446-BP, BRONZE PLUG, CLEANOUT SIZE SHALL MATCH PIPE SIZE	GAS / WATER TIGHT
FCD	FLOOR CLEANOUT, CAST IRON BODY, NICKEL BRONZE TOP, ADJUSTABLE	**	-	-	-	CLEANOUT: ZURN ZN-1400-BP, BRONZE PLUG CLEANOUT SIZE SHALL MATCH PIPE SIZE	GAS / WATER TIGHT, INSTALL TOP FLUSH WITH FINISHED FLOOR
YCO	YARD CLEANOUT, CAST IRON BODY, NICKEL BRONZE TOP, ADJUSTABLE, INSTALLED IN 18"x18"x6" CONCRETE PAD	**	-	-	-	CLEANOUT: ZURN ZN-1400-BP, BRONZE PLUG INSTALL IN 18"x 18"x 6" DEEP CONCRETE PAD	GAS / WATER TIGHT, INSTALL TOP FLUSH WITH FINISHED GRADE
FD1	FLOOR DRAIN, CAST IRON BODY, ROUND NICKEL BRONZE GRATE, ADJUSTABLE	**	-	-	-	DRAIN: ZURN ZN-415-B, 6" DIAMETER GRATE P-TRAP: DEEP SEAL	INSTALL TOP FLUSH WITH FINISHED FLOOR. SEE NOTE 1 BELOW.
FD2	FLOOR DRAIN, CAST IRON BODY, ROUND NICKEL BRONZE GRATE, ADJUSTABLE	**	-	-	-	DRAIN: ZURN ZN-415-I, 9" DIAMETER RECESSED GRATE P-TRAP: DEEP SEAL	INSTALL TOP OF DRAIN LIP FLUSH WITH FLOOR. SEE NOTE 1 BELOW.
FS1	FLOOR SINK, 12"x 12"x 6" DEEP, STAINLESS STEEL BODY AND GRATE	**	-	-	-	DRAIN: ZURN Z1750 P-TRAP: DEEP SEAL	SEE KITCHEN EQUIP. PLANS FOR GRATE (FULL / QUARTER / HALF)
FS2	FLOOR TROUGH BY FOOD SERVICE EQUIPMENT CONTRACTOR STAINLESS STEEL BODY AND GRATE	**	-	-	-	DRAIN: PROVIDED BY F.S.E.C. INSTALLED BY P.C. P-TRAP: DEEP SEAL	-
HD1	HUB DRAIN, CAST IRON BODY, DEEP SEAL P-TRAP	**	-	-	-	DRAIN: ZURN Z-XXX P-TRAP: DEEP SEAL	SEE NOTE 1 BELOW.
BPFI	REDUCED PRESSURE ZONE BACKFLOW PREVENTER FOR WATER SERVICE ENTRANCE TO BUILDING	**	-	-	-	BACKFLOW PREVENTER: WATTS/AMES SERIES 4000SS ASSE 1013	SEE NOTE 2 BELOW.
BPFD	BACKFLOW PREVENTER FOR ICE MAKERS, TEA BREWERS, COFFEE MAKERS, SODA STATIONS	**	-	-	-	BACKFLOW PREVENTER: WATTS SD-3 ASSE 1022	SEE NOTE 3 BELOW.
NOTES: 1. PROVIDE WATERLESS INLINE TRAP GUARD FOR EACH FLOOR DRAIN CONFORMING TO ASSE 1072 AND EQUAL TO RECOTORSEAL "SURE-SEAL" MODEL S53009V. INSTALL TRAP GUARDS IN THE OUTLET OF THE FLOOR DRAIN BODY (NOT IN THE STRAINER). 2. PROVIDE DRAIN WITH AIR GAP AND ROUTE DISCHARGE TO EXTERIOR OF BUILDING. 3. ROUTE DRAIN LINE FROM ATMOSPHERIC VENT PORT TO ADJACENT FLOOR DRAIN OR FLOOR SINK. 4. MATCH PIPE SIZE SHOWN ON PLANS, SEE PLANS.							
APPROVED EQUALS: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE MODEL WHICH MOST CLOSELY MATCHES THE SPECIFIED PRODUCT. PROVIDE PRODUCTS MADE BY THE MANUFACTURER'S LISTED.		PRODUCT TYPE: SHOCK ARRESTOR HOSE BIBBS DRAINS BACKFLOW PREVENTER		ACCEPTED MANUFACTURERS: SIOUX CHIEF, PPP INC., ZURN, WATTS ZURN, WOODFORD, ZURN, J.R. SMITH ZURN, J.R. SMITH, WADE WATTS, WILKINS, APOLLO			

1 - HOUR FIRE WALL

2 - HOUR FIRE WALL



$1/8" = 1'-0"$

0' 4' 8' 16' 24'

SCALE : 1/8" = 1'-0"

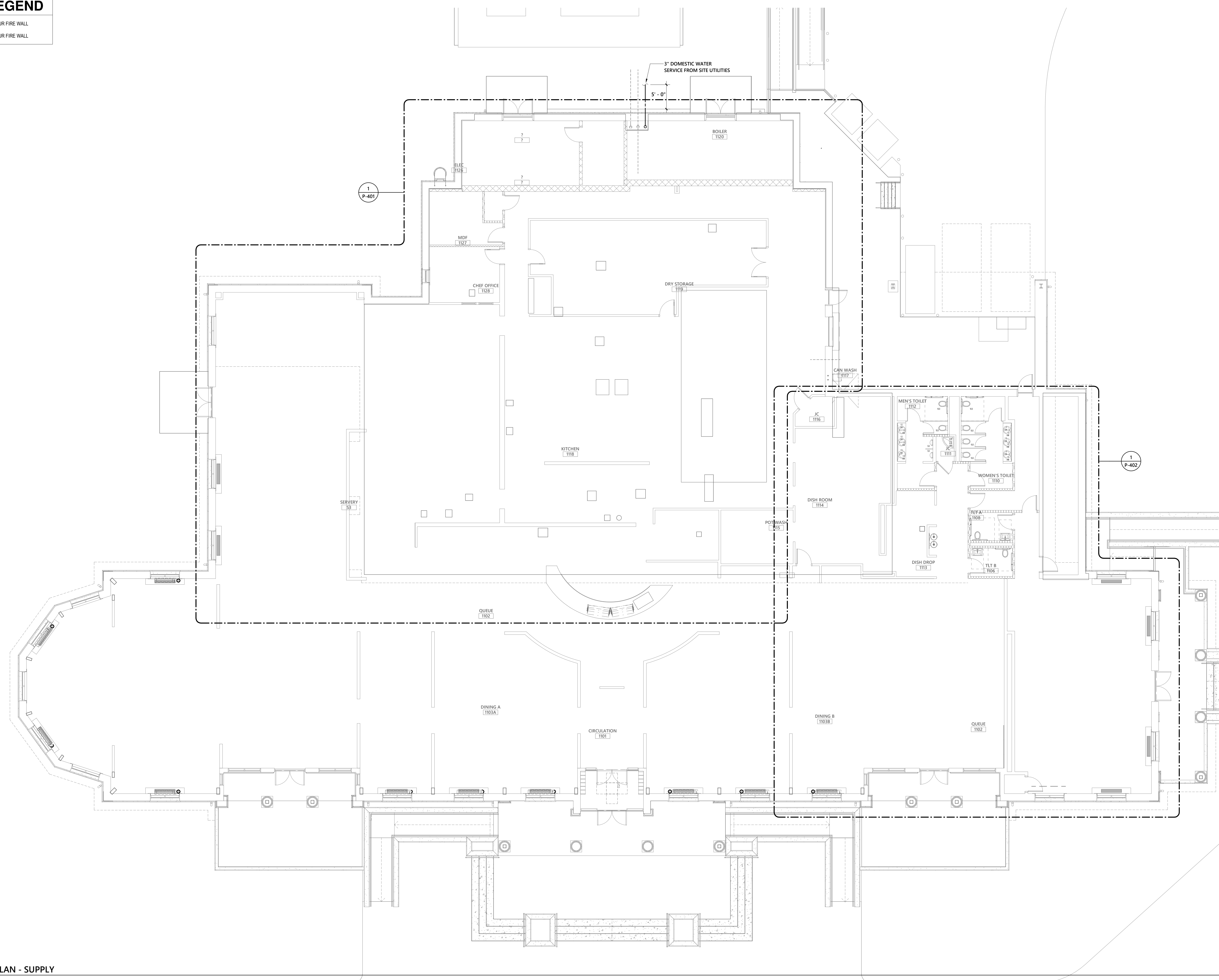


Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

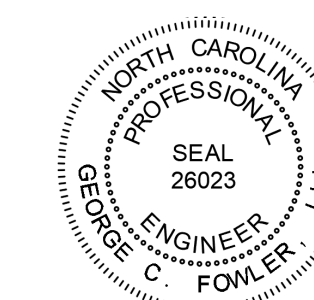
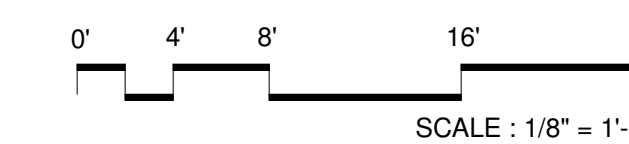
08-05-2020

1 - HOUR FIRE WALL

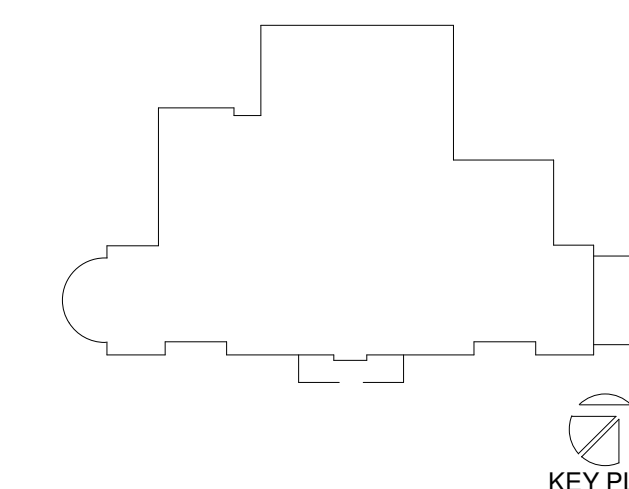
2 - HOUR FIRE WALL



1 FLOOR PLAN - SUPPLY
1/8" = 1'-0"

[illegible]

§



**PERKINS —
EASTMAN**

EAST
520 West Sixth S.
Charlotte, NC 282
T. +1 704 940 050
F. +1 704 382 460

Owner:
UNC WILMINGTON
601 S College Rd, Wilmington, NC 28403

Construction Manager:
Construction Manager Name
 Construction Manager Address

Civil / Site:
McAdams
One Glenwood Ave. Suite 201, Raleigh, NC 27603

Landscape:
McAdams
One Glenwood Ave. Suite 201, Raleigh, NC 27603

Structural:
LHC Structural Engineers
5430 Wade Park Blvd., Suite 400

Mechanical & Plumbing:
Optima Engineering
1927 S. Tryon St. Suite 300, Charlotte, NC 28203

Electrical:
Optima Engineering
1927 S. Tryon St. Suite 300, Charlotte, NC 28203

Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 0206

PROJECT TITLE:

UNCW SOUTHEAST
DINING FACILITY

PRICE DRIVE, WILMINGTON NC 28403

SCO #: 19-21358-01B

PROJECT No: 71193

DRAWING TITLE:
FIRST FLOOR
SUPPLY PIPING
PLAN

SCALE: 1/8" = 1'-0"

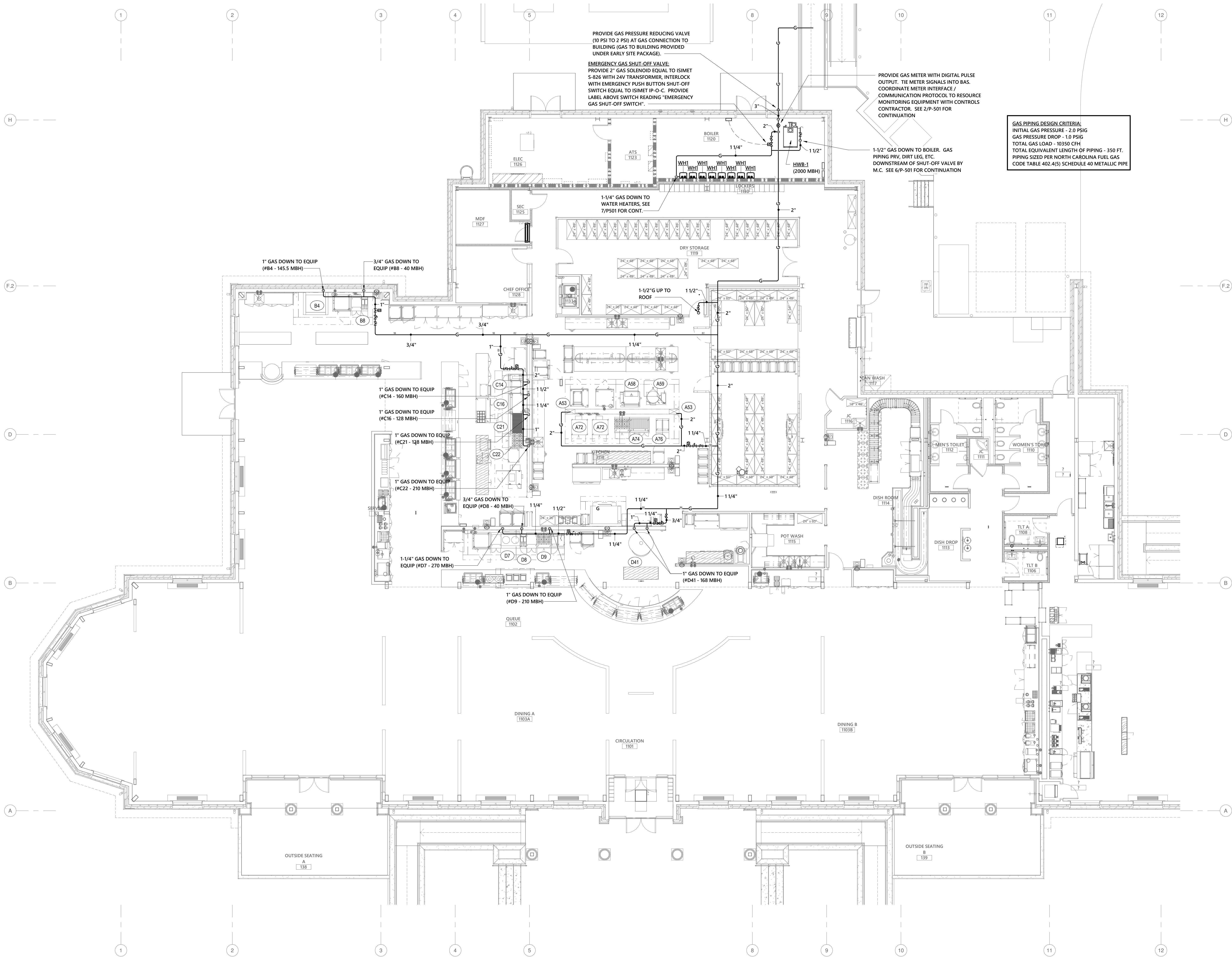
P-102

CD PACKAGE 2 - BUILDING

08-05-2020

FIRE WALL LEGEND

1-HOUR FIRE WALL
2-HOUR FIRE WALL



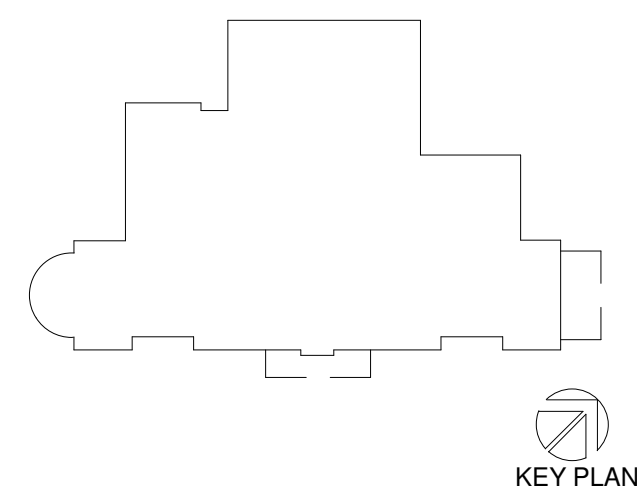
1 LEVEL 01 PLUMBING GAS PIPING PLAN
1/8" = 1'-0"

NO. DATE ISSUE

0' 4' 8' 16' 24'
SCALE : 1/8" = 1'-0"



SEAL



PERKINS — EASTMAN
520 West Sixth Street
Charlotte, NC 28202
T: +1 704 540 9501
F: +1 704 362 4602

Owner:
UNC WILMINGTON
601 S College Rd, Wilmington, NC 28403

Construction Manager:
Construction Manager Name
Construction Manager Address

Civil / Site:
McAdams
One Glenwood Ave, Suite 201, Raleigh, NC 27603

Landscape:
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Electrical:
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1927 S. Tryon St. Suite 300, Charlotte, NC 28203

Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

PROJECT TITLE:
UNCW SOUTHEAST DINING FACILITY

PRICE DRIVE, WILMINGTON NC 28403

SCO #: 19-21358-01B

PROJECT No: 71193

DRAWING TITLE:
FIRST FLOOR PLUMBING GAS PIPING PLAN

SCALE: 1/8" = 1'-0"

P-103

CD PACKAGE 2 - BUILDING

08-05-2020

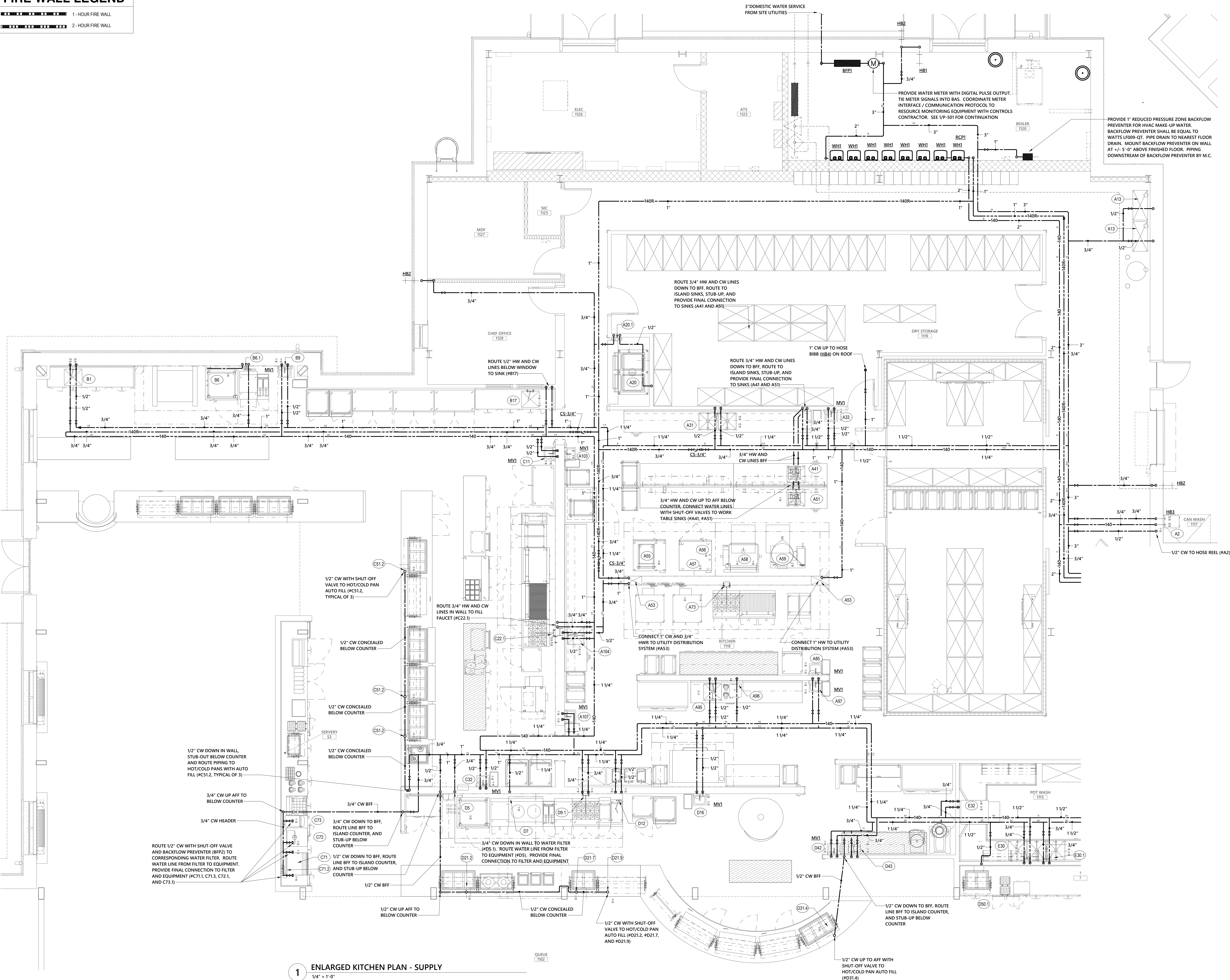


Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

08-05-2020

FIRE WALL LEGEND

1 - HOUR FIRE WALL
2 - HOUR FIRE WALL



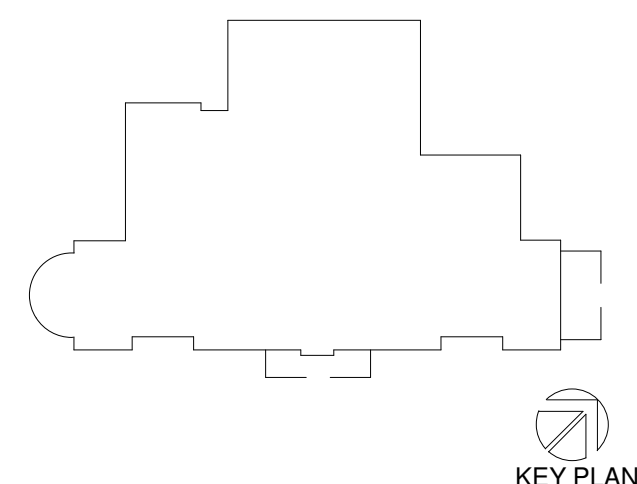
1 ENLARGED KITCHEN PLAN - SUPPLY
1/4" = 1'-0"

NO. DATE ISSUE

0' 4' 8' 16' 24'
SCALE : 1/8" = 1'-0"



SEAL



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Construction Manager Address

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Structural:
LHC Structural Engineers
5430 Waste Park Blvd., Suite 400

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Electrical:
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1927 S. Tryon St, Suite 300, Charlotte, NC 28203

Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

PROJECT TITLE:
UNCW SOUTHEAST DINING FACILITY

PRICE DRIVE, WILMINGTON NC 28403

SCO #: 19-21358-01B

PROJECT No: 71193

DRAWING TITLE:
ENLARGED PLUMBING PLAN

SCALE: 1/4" = 1'-0"

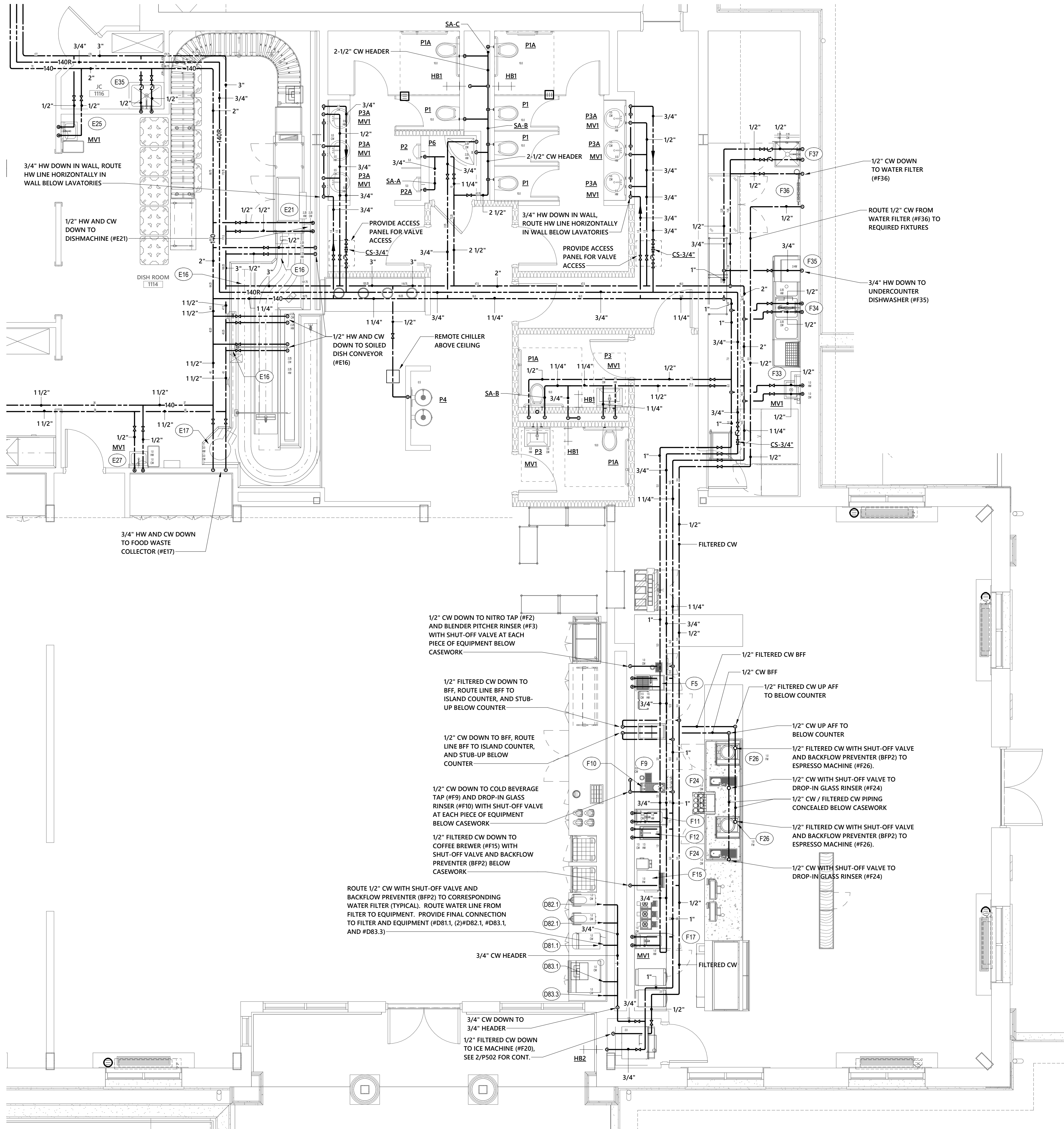
P-401

CD PACKAGE 2 - BUILDING

08-05-2020

FIRE WALL LEGEND

1 - HOUR FIRE WALL
2 - HOUR FIRE WALL

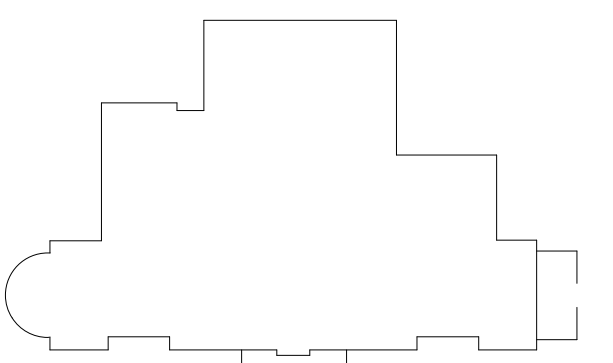


1 ENLARGED SUPPLY PIPING PLAN
1/4" = 1'-0"

NO. DATE ISSUE

0' 4' 8' 16' 24'
SCALE : 1/8" = 1'-0"

SEAL



KEY PLAN

PERKINS — EASTMAN
520 West Sixth Street
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Construction Manager:
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Construction Manager Address

Civil / Site:
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Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

PROJECT TITLE:
UNCW SOUTHEAST DINING FACILITY

PRICE DRIVE, WILMINGTON NC 28403

SCO #: ??-????-??

PROJECT No: 71193

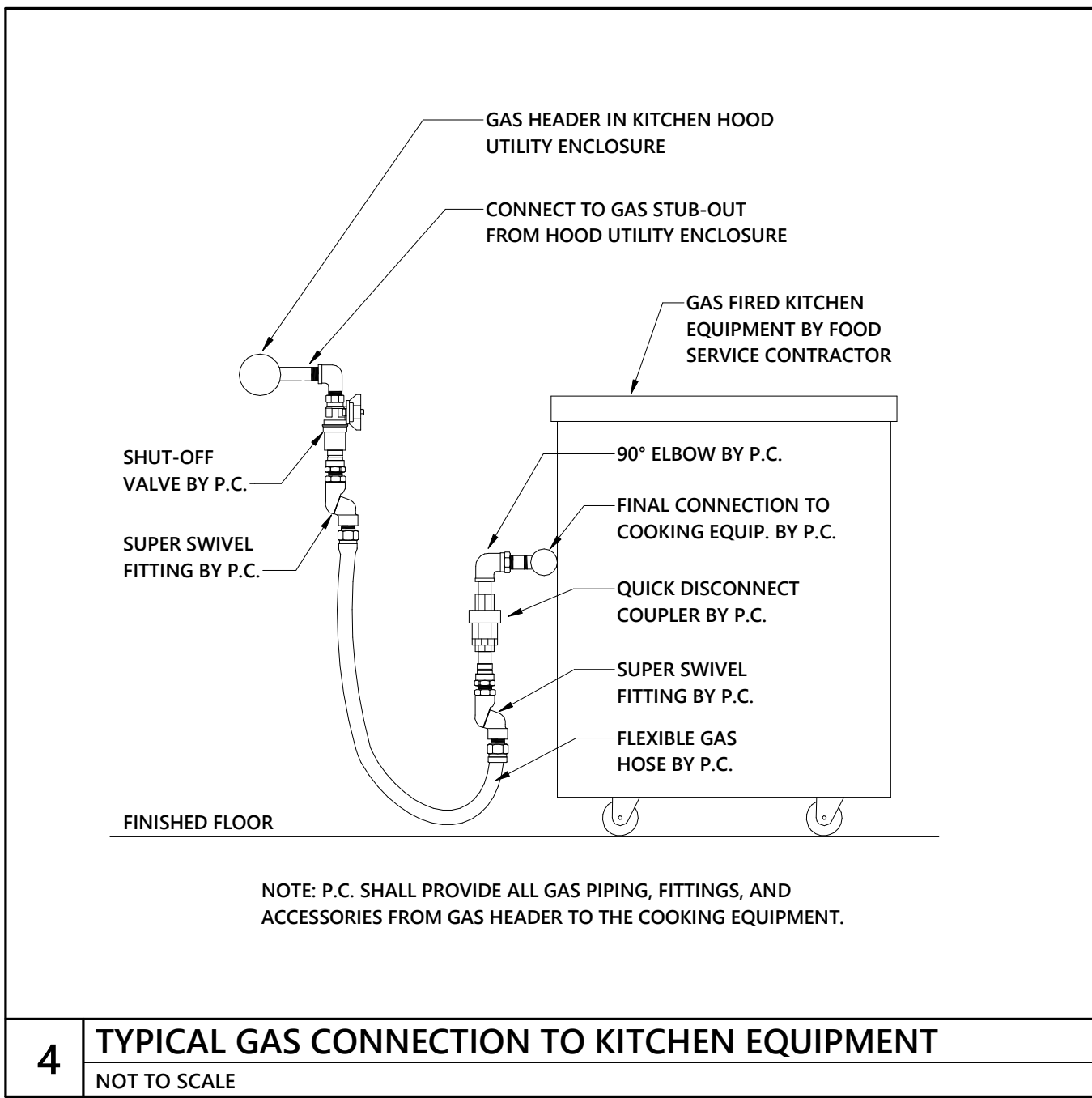
DRAWING TITLE:
ENLARGED PLUMBING PLAN

SCALE: 1/4" = 1'-0"

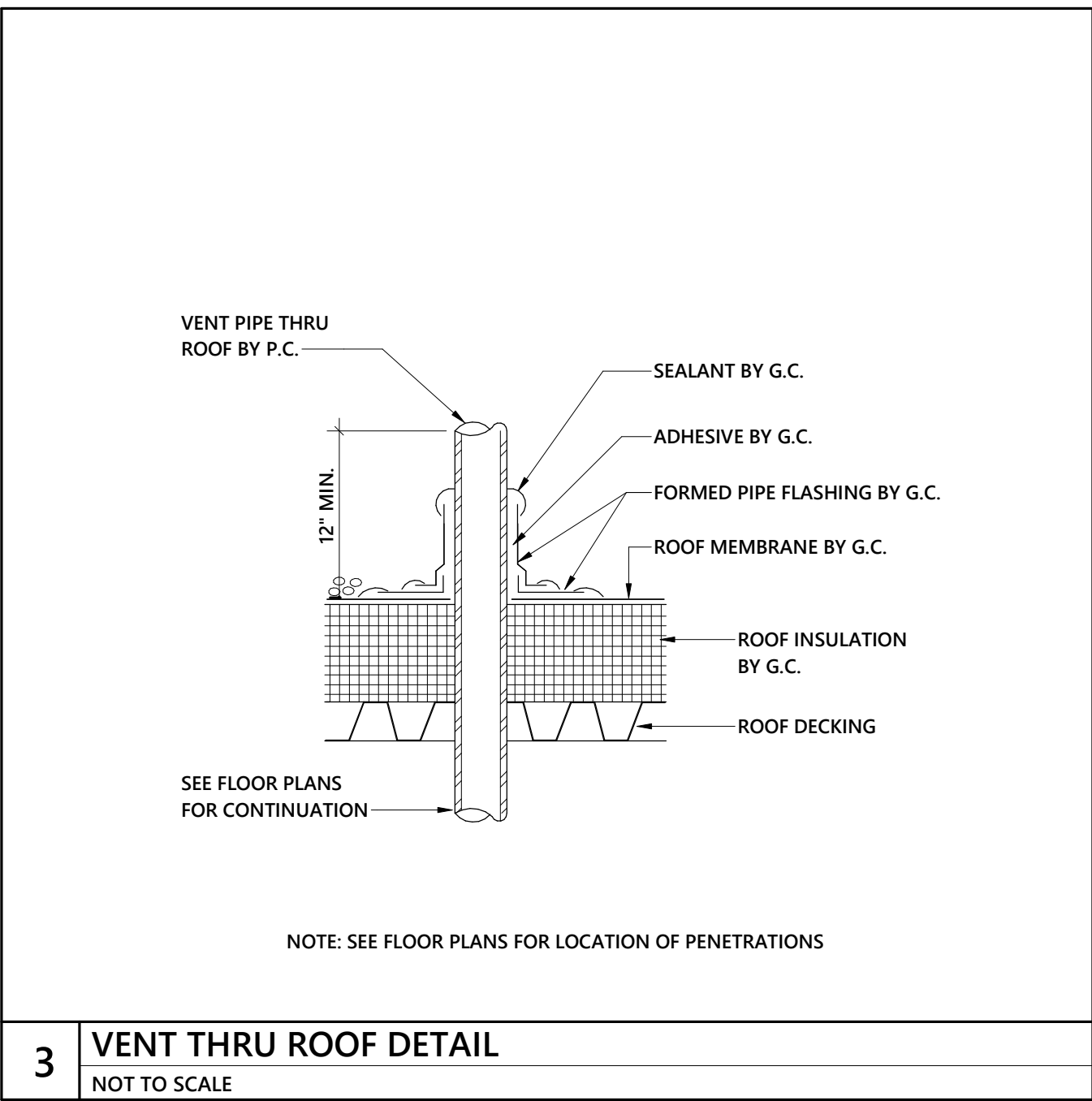
P-402

SITE PACKAGE

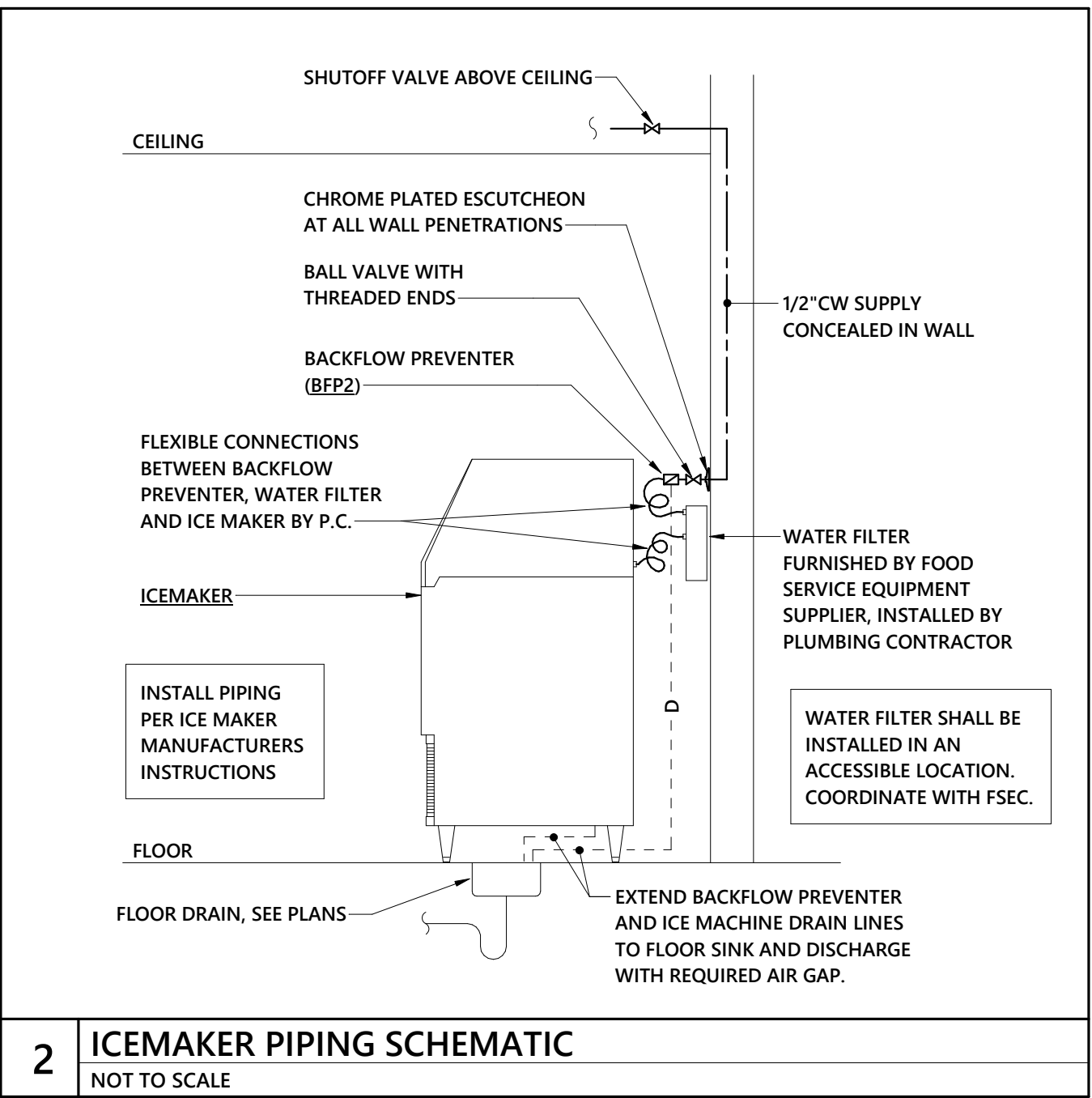
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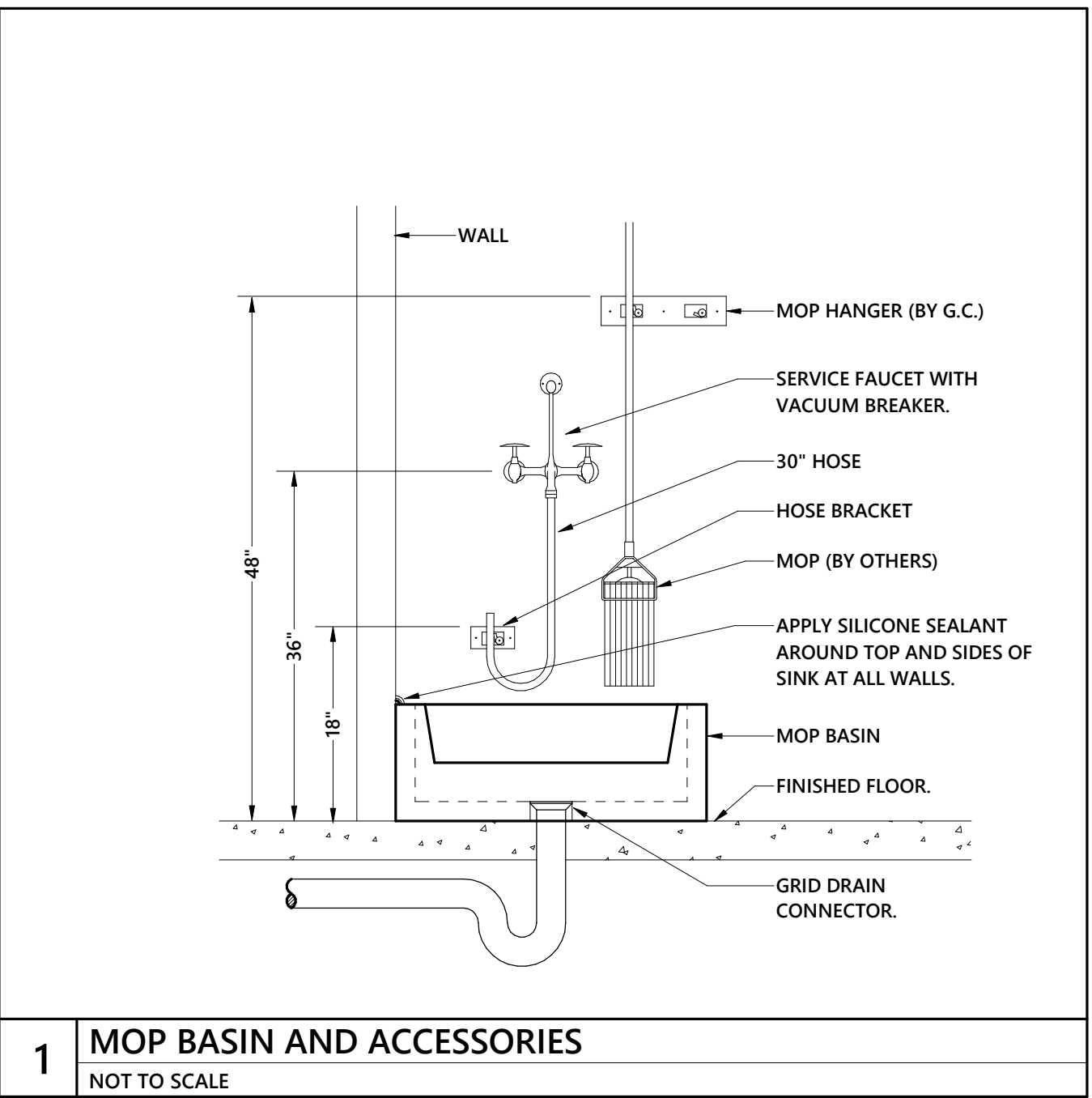
4 TYPICAL GAS CONNECTION TO KITCHEN EQUIPMENT
NOT TO SCALE



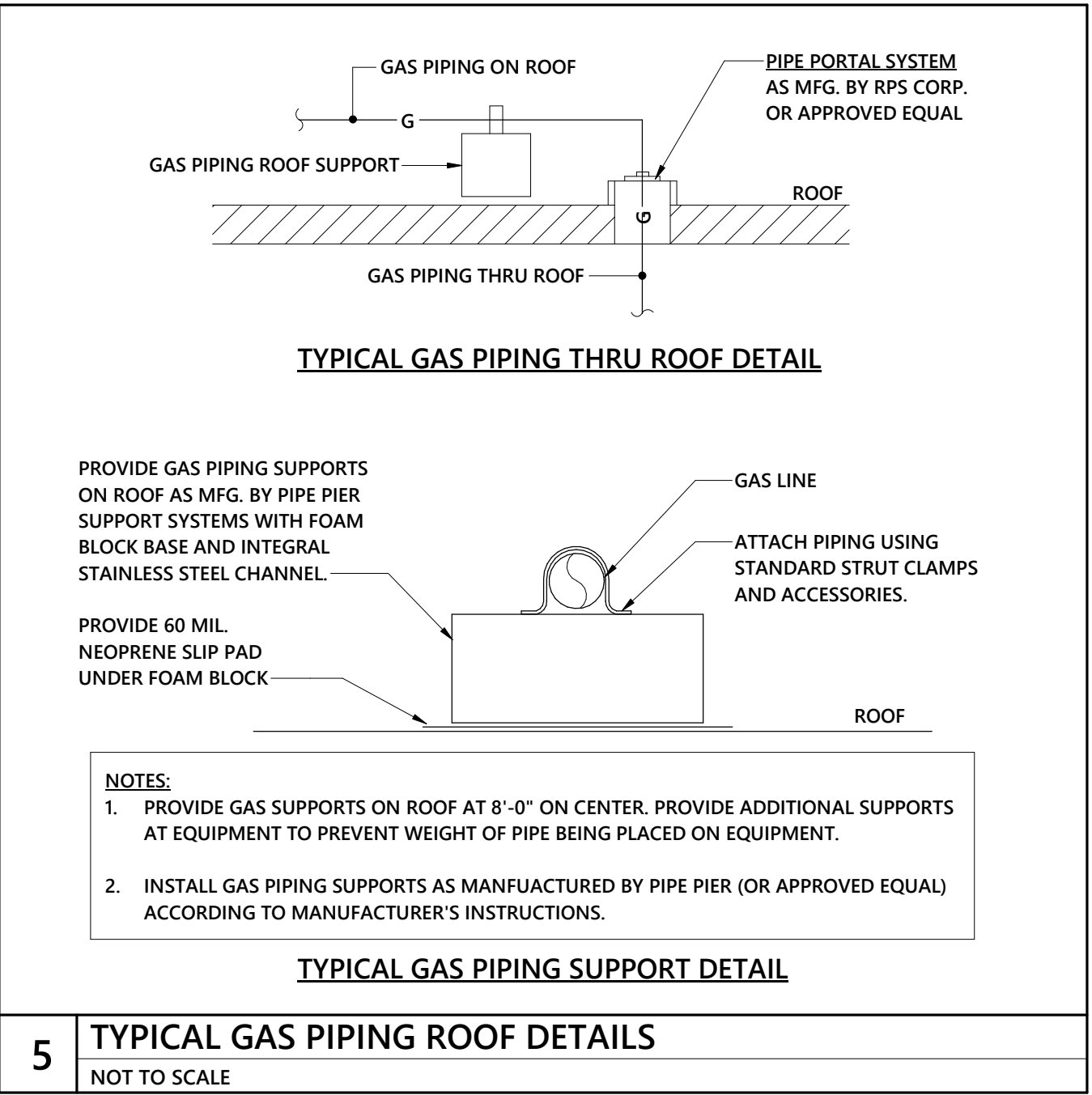
3 VENT THRU ROOF DETAIL
NOT TO SCALE



2 ICEMAKER PIPING SCHEMATIC
NOT TO SCALE



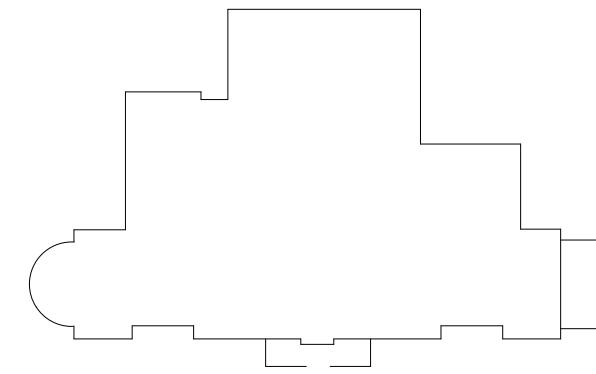
1 MOP BASIN AND ACCESSORIES
NOT TO SCALE



5 TYPICAL GAS PIPING ROOF DETAILS
NOT TO SCALE



SEAL



KEY PLAN

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1927 S. Tryon St. Suite 300, Charlotte, NC 28203

Food Service:
Ricca Design Studios
515 Washington Street Norwell, MA 02061

PROJECT TITLE:
UNCW SOUTHEAST DINING FACILITY

PRICE DRIVE, WILMINGTON NC 28403

SCO #: 19-21358-01B

PROJECT No: 71193

DRAWING TITLE:
PLUMBING DETAILS

SCALE: 1/8" = 1'-0"

P-502

CD PACKAGE 2 - BUILDING

08-05-2020