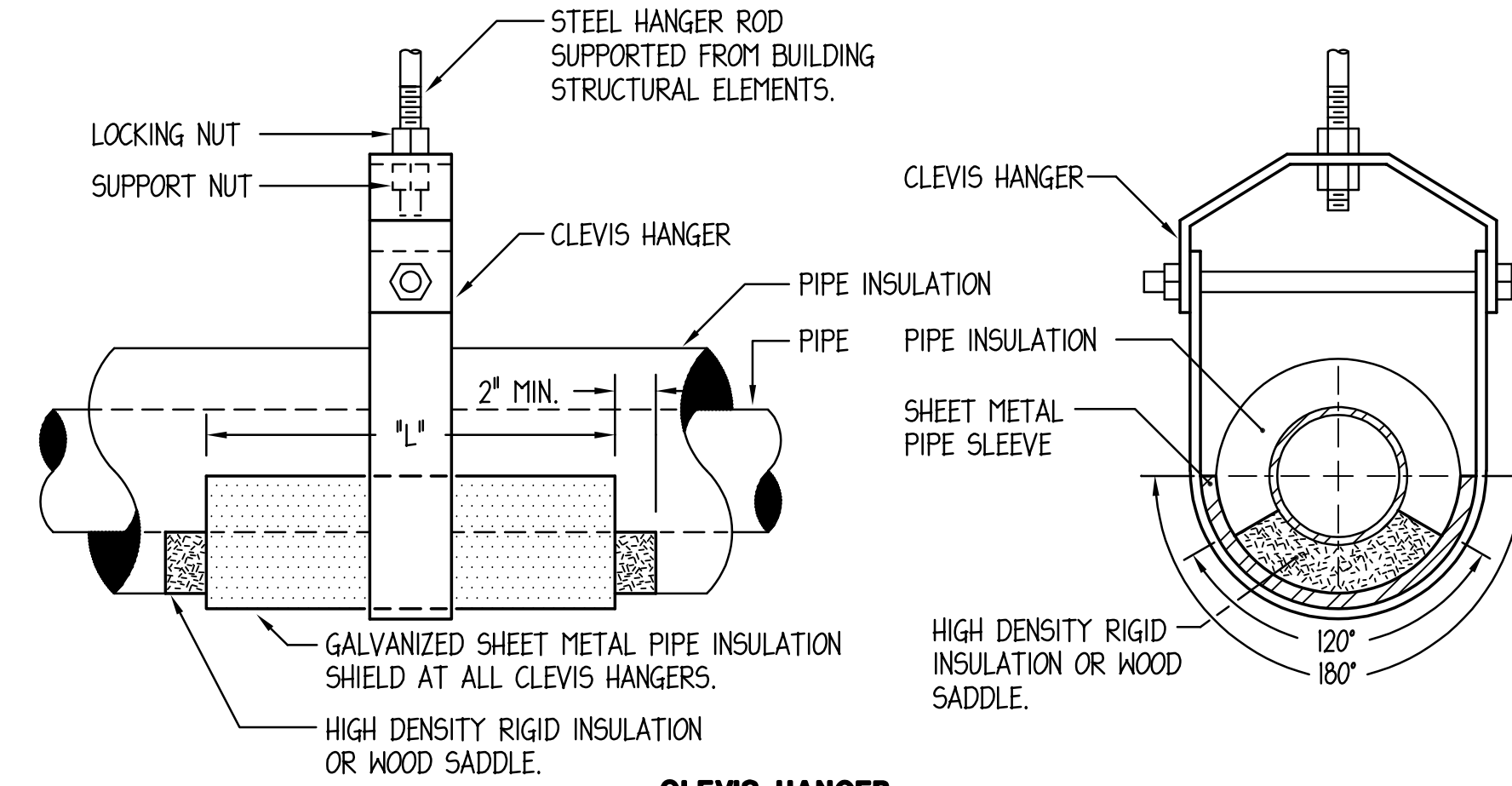


NOTE:
IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS, ADJACENT TO ALL VALVES OR BRANCHES, AND AT BOTH SIDES OF WALL/FLOOR PENETRATIONS. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

SIZE OF LEGEND LETTERS		
OUTSIDE DIAMETER OF PIPE OR COVERING	LENGTH OF COLOR FIELD A	SIZE OF LETTERS B
3/4" TO 1 1/4"	8"	1/2"
1 1/2" TO 2"	8"	3/4"
2" 1/2" TO 6"	12"	1 1/4"
8" TO 10"	24"	2 1/2"
OVER 10"	32"	3 1/2"

SERVICE	BACKGROUND OR COLOR BAND	LETTER COLOR
CONDENSATE	SAFETY GREEN	WHITE
LOW PRESSURE STEAM	SAFETY GREEN	WHITE
LOW PRESSURE CONDENSATE	SAFETY GREEN	WHITE
REFRIGERANT RELIEF	SAFETY ORANGE	BLACK
NATURAL GAS	SAFETY YELLOW	BLACK
SANITARY DRAIN	SAFETY GREEN	WHITE
PLUMBING VENT	SAFETY GREEN	WHITE
STORY WATER	SAFETY GREEN	WHITE
CITY WATER	SAFETY GREEN	WHITE
DOMESTIC COLD WATER	SAFETY GREEN	WHITE
DOMESTIC HOT WATER	SAFETY GREEN	WHITE
DOMESTIC HOT WATER CIRC.	SAFETY GREEN	WHITE

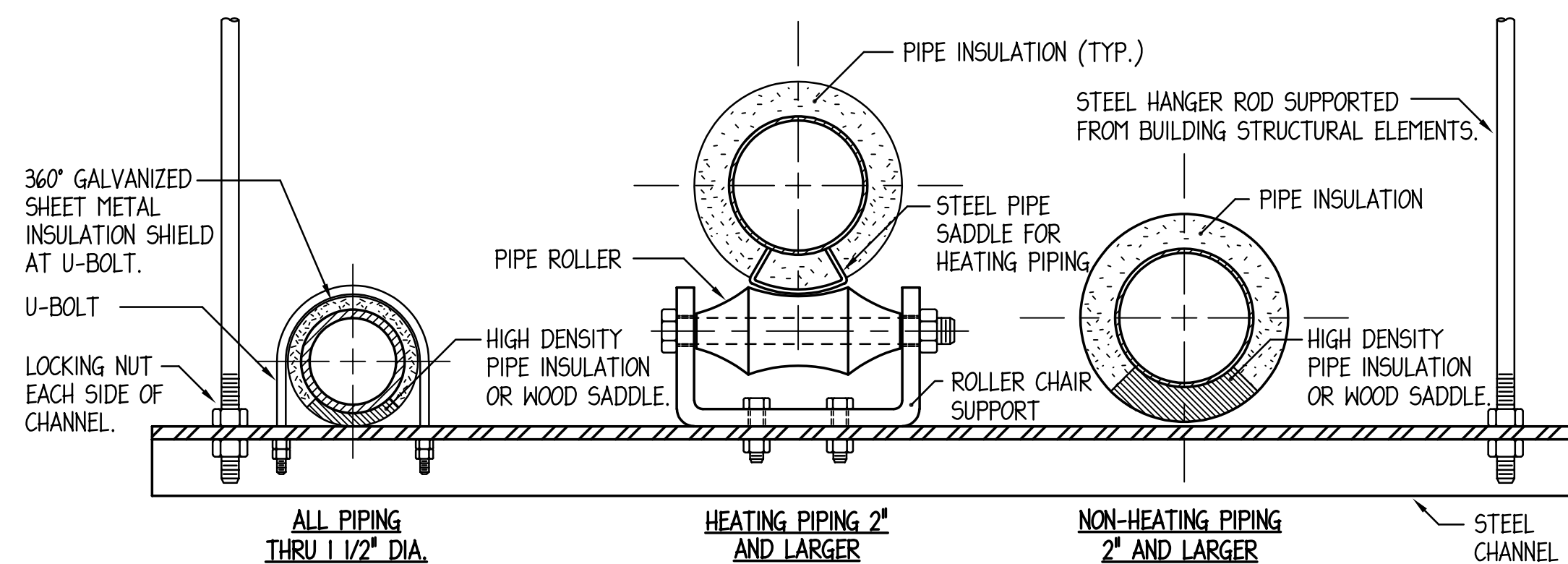
TYPICAL PIPE IDENTIFICATION MARKERS
NO SCALE



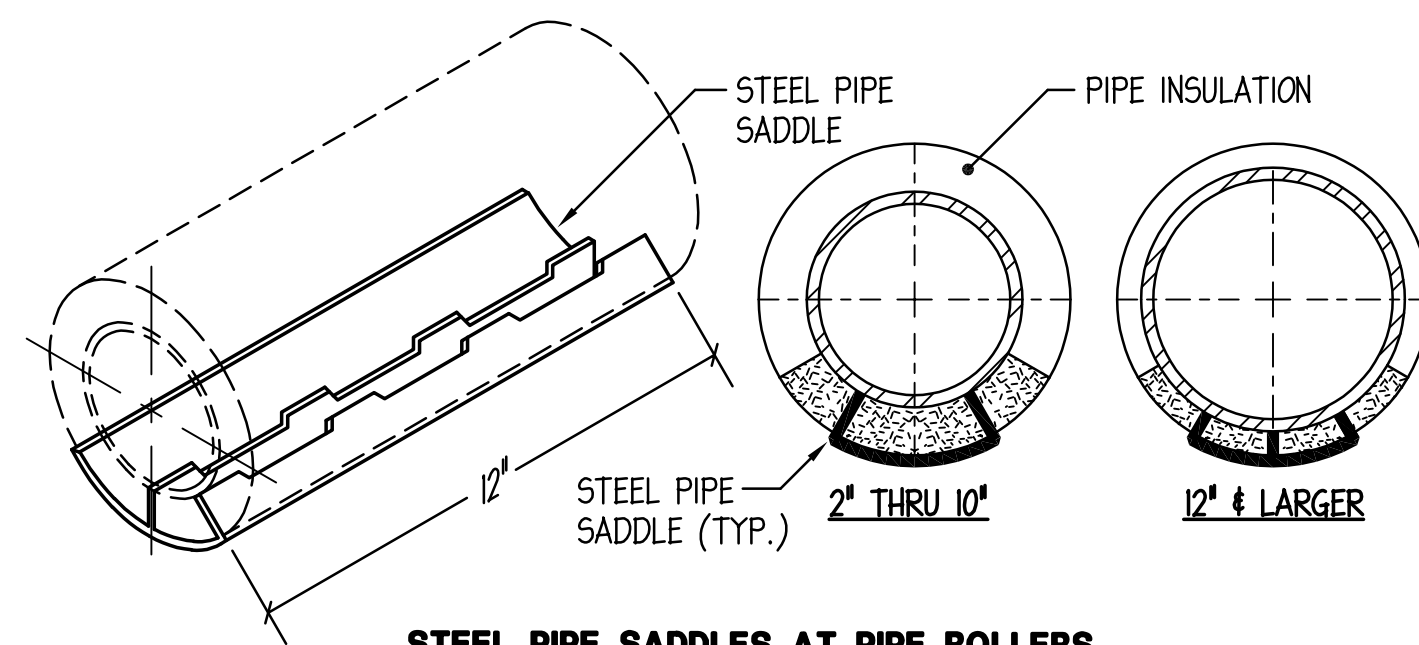
CLEVIS HANGER

PIPE INSULATION SHIELD SCHEDULE		
PIPE SIZE	LENGTH	GAUGE
UP TO 3/4"	8"	20 GA.
1" - 2"	12"	18 GA.
2 1/2" - 4"	12"	16 GA.
5" & 6"	18"	16 GA.
8" & UP	24"	14 GA.

NOTE: 1. CONFER WITH ARCHITECT AND REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON ACCEPTABLE METHODS AND LOCATIONS FOR HANGER SUPPORTS.

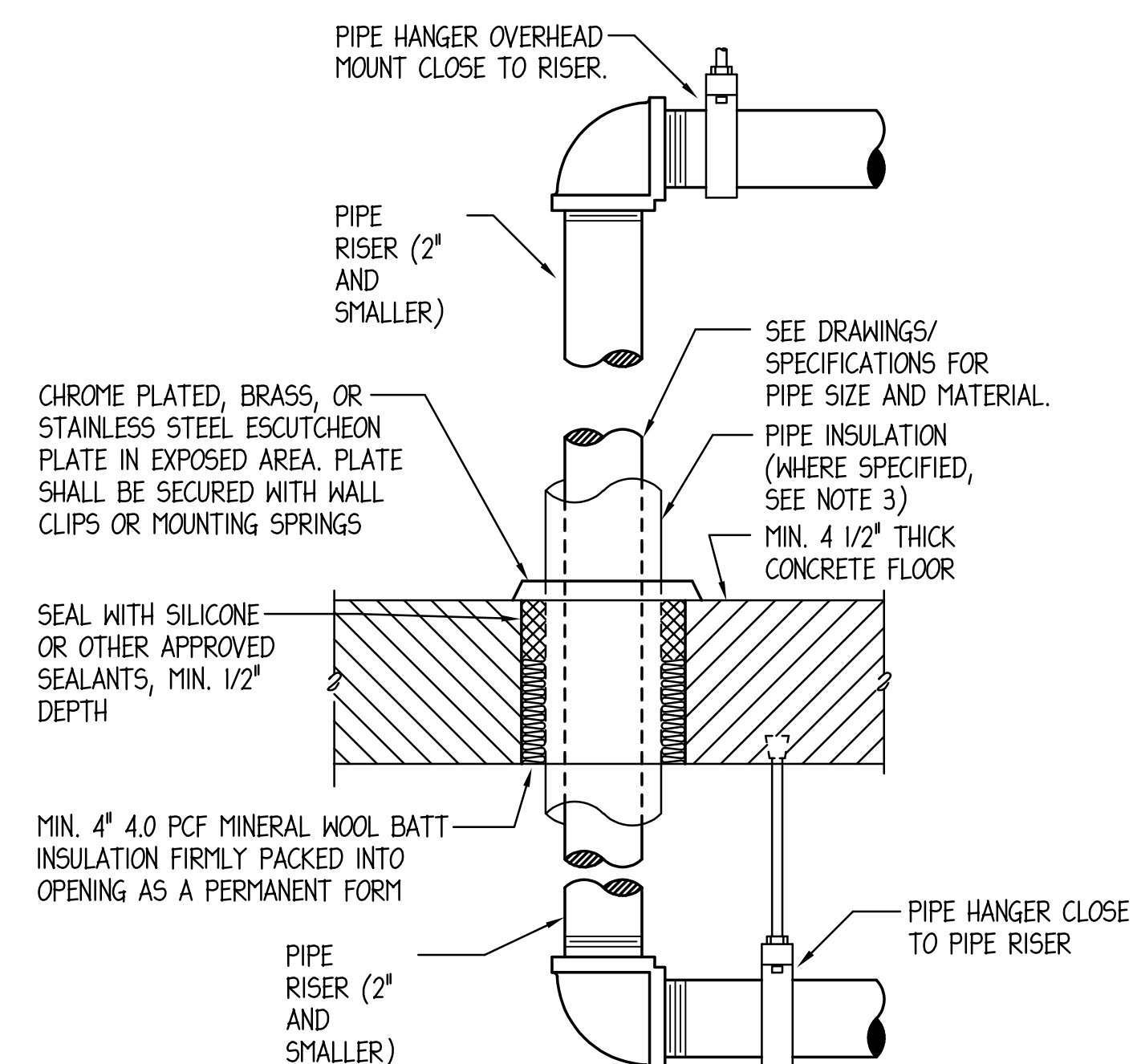


TRAPEZE HANGER



STEEL PIPE SADDLES AT PIPE ROLLERS

TYPICAL PIPE HANGER DETAILS
NO SCALE



NOTES:

- CONTRACTOR SHALL ISOLATE ALL PIPES WHICH VIBRATE FROM CONSTRUCTION IN ORDER TO AVOID TRANSMISSION TO STRUCTURE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR WALL OPENINGS WITH OTHER TRADES AND/OR CONTRACTORS.
- WHERE INSULATED: 1" THICK 3.5 PCF GLASS FIBER INSULATION WITH ALL SERVICE JACKET SHALL BE UTILIZED AND SEALED WITH METAL FASTENERS OR SELF SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT TAPE SUPPLIED WITH PRODUCT.

PIPE PENETRATION OF FLOOR ASSEMBLY (DIA. 2" AND BELOW)

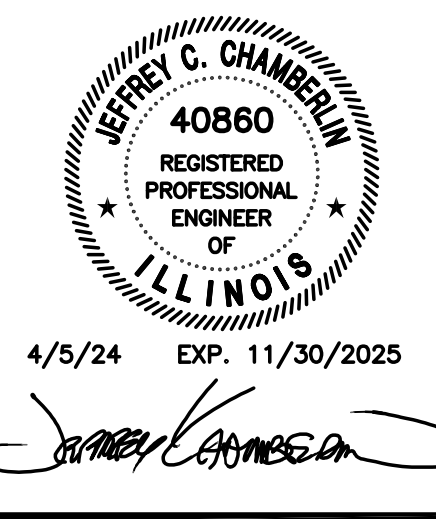
NO SCALE

GENERAL REMODELING NOTES - ALL CONTRACTORS

- ALL WORK SHOWN ON DRAWINGS SHALL BE CONSIDERED NEW AND IN CONTRACT UNLESS SPECIFICALLY INDICATED OTHERWISE.
- DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC., AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.
- IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.
- CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY OWNER/ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.
- CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.
- WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
- CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.
- THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ENGINEER AND OWNERS STIPULATION AS DIRECTED.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTOR'S WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.
- CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK OR REMOVAL OF EXISTING WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT AND OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, REFINISHING, AND REMOVAL/REPLACEMENT. (NOTE: CONTRACTOR SHALL VERIFY EXISTING BUILDING'S ROOF WARRANTY AND EMPLOY OTHER SUBCONTRACTOR(S) AS REQUIRED BY ROOF MANUFACTURER'S REPRESENTATIVE SO AS NOT TO VOID OWNER'S ROOF WARRANTY.)
- SOME OF THE EXISTING ITEMS AND EQUIPMENT SCHEDULED TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER. ANY ITEMS THAT THE OWNER WANTS TO RETAIN SHALL BE REMOVED CAREFULLY SO AS NOT TO DAMAGE THEM. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ENGINEER.
- CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.
- IT IS MANDATORY THAT THE COMPLETE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING REMODELING/ALTERING OF SAID EXISTING BUILDING. THE SPECIFIC AREA(S) BEING REMODELED/ALTERED AT ANY SCHEDULED TIME ARE OBVIOUSLY EXCLUSIVE OF THIS STATEMENT. SERVICES TO EXISTING BUILDING SHALL BE KEPT IN CONTINUOUS OPERATION INCLUDING POWER, SIGNAL SYSTEMS, LIGHTING, TELEPHONE, HEATING, COOLING, VENTILATING, TEMPERATURE CONTROL, SEWERS AND HOT AND COLD WATER. ANY ABSOLUTELY NECESSARY INTERRUPTION OF THESE SERVICES TO ACCOMPLISH CONTRACT WORK SHALL BE ARRANGED WITH THE OWNER A MINIMUM OF TEN (10) WORKING DAYS IN ADVANCE. SUCH INTERRUPTIONS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AS FAR AS TIME INTERVAL IS INVOLVED AND TEMPORARY SERVICES SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT WHERE NECESSARY TO ACCOMPLISH THIS PURPOSE. TEMPORARIES SHALL BE REMOVED BY THE CONTRACTOR ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL.

- UNLESS INDICATED OTHERWISE, THE ARCHITECT/ENGINEER MAKES NO REPRESENTATION AS TO WHETHER OR NOT ANY HAZARDOUS OR CONTAMINATED MATERIALS (INCLUDING BUT NOT LIMITED TO ASBESTOS, PCB'S, CONTAMINATED SOILS, ETC.) ARE PRESENT WITHIN THE EXISTING BUILDING OR ON THE SITE. WORK SHOWN ON THE DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CALL FOR CONTACT WITH ANY OF THESE MATERIALS. IF THESE MATERIALS ARE ENCOUNTERED OR SUSPECTED, THE CONTRACTOR SHALL NOT DISTURB THEM AND SHALL CONTACT THE ARCHITECT/ENGINEER IMMEDIATELY.
- WHERE WORK CALLED FOR ON THE DRAWINGS OR IN THE SPECIFICATIONS INVOLVES THE REMOVAL OR RELOCATION OF PIPING OR EQUIPMENT CONTAINING REFRIGERANT, ALL REFRIGERANT SHALL BE RECOVERED BY APPROVED METHODS PER EPA REGULATIONS.
- CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED OUTSIDE THE BUILDING ON THE SITE UNLESS IT IS SUPPORTED OFF THE GROUND AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.
- THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT FROM A SPECIFIED ACCEPTABLE MANUFACTURER, BUT NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE OF THE EQUIPMENT. WHEN EQUIPMENT SUBMITTED FOR REVIEW DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.
- CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEET THE CAPACITY AND DUTY SPECIFIED. WHEN EQUIPMENT SUBMITTED FOR REVIEW REQUIRES MODIFICATIONS TO THE WORK OF OTHER CONTRACTORS, SUBMITTING CONTRACTOR SHALL PAY FOR ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT FUNCTION SAFELY AND PROPERLY.
- CONTRACTOR SHALL FIELD VERIFY THE SIZE OF EXISTING OPENINGS, WINDOWS, DOORS, CORRIDORS, ROOMS, ETC. FOR ACCESS OF THE NEW EQUIPMENT INTO OR REMOVAL OF EXISTING EQUIPMENT FROM THE BUILDING. IF OPENINGS ARE TOO SMALL FOR ACCESS THEN CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE NEW OR ENLARGED OPENINGS AND RESTORE SAME TO ORIGINAL SIZE AND CONDITION. CONTRACTOR MAY ELECT TO ORDER THE EQUIPMENT DISASSEMBLED AND/OR WITH SPLIT HOUSING FOR ENTRANCE INTO THE EXISTING SPACE OR BUILDING. CONTRACTOR SHALL REASSEMBLE EQUIPMENT AFTER IT IS IN THE SPACE AT HIS OWN EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND THEIR ASSOCIATED FEES.
- CONTRACTOR SHALL SUBMIT DIGITAL COPIES OF SHOP DRAWINGS OF ALL EQUIPMENT, DIFFUSERS, REGISTERS, TEMPERATURE CONTROL SYSTEM, FIRE DAMPERS, LIGHTING FIXTURES, PANELBOARDS, ELECTRICAL DEVICES, PLUMBING FIXTURES, AND 1/4" = 1'-0" SCALE DETAILED DUCT LAYOUT DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO ORDERING ANY ITEMS OR FABRICATING ANY DUCTWORK.
- CONTRACTOR SHALL PROVIDE OWNER TRAINING ON ALL EQUIPMENT AND BUILDING SYSTEMS PROVIDED/ALTERED BY HIS WORK. TRAINING SHALL BE ACCOMPLISHED DURING TIME DEDICATED FOR THAT PURPOSE, NOT IN CONJUNCTION WITH SERVICE WORK. SEE SPECIAL TEMPERATURE CONTROL TRAINING INSTRUCTIONS ELSEWHERE.
- AT COMPLETION OF PROJECT, CONTRACTOR SHALL SUBMIT DIGITAL COPIES OF OPERATION AND MAINTENANCE MANUALS FOR ALL WORK PROVIDED BY THEM ON PROJECT. MANUALS SHALL BE CLEARLY ORGANIZED AND CONTAIN COPIES OF APPROVED EQUIPMENT, SHOP DRAWINGS, EQUIPMENT PARTS LISTS, SERVICE CONTACTS, CONTRACTOR AND MANUFACTURER WARRANTIES, AND "AS BUILT" FLOOR PLANS.
- CONTRACTOR SHALL PROVIDE WARRANTY FOR ALL MATERIAL AND GUARANTEE ALL WORKMANSHIP PROVIDED BY HIM FOR 1 (ONE) YEAR FROM SUBSTANTIAL COMPLETION OF WORK INVOLVED.
- CONTRACTOR SHALL MAINTAIN A CURRENT CITY OF CHICAGO LICENSE THROUGHOUT ALL PHASES OF CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE ALL INSPECTIONS WITH THE INSPECTORS INCLUDING PRIOR NOTICE FOR ALL INSPECTIONS.
- IDENTIFY ALL PIPING AND DUCTWORK WITH PLASTIC LABELS INDICATING CONTENTS AND FLOW DIRECTION. MARKERS TO BE PLACED AT A MAXIMUM OF 50 FT. INTERVALS AT BRANCH CONNECTIONS, AND AT BOTH SIDES OF WALL/FLOOR PENETRATIONS. IDENTIFY VALVES, EQUIPMENT, AND PANELS WITH ENGRAVED 3-LAYER PLASTIC LAMINATED TAGS OR SIGNS. IN ADDITION TO PROVIDING ENGRAVED PLASTIC NAMEPLATES ON THE VAV AND FFB BOXES, PROVIDE ENGRAVED PLASTIC NAMEPLATES ON THE CEILING GRID BELOW THE BOX. THE NAMEPLATE SHALL BE NO WIDER THAN THE WIDTH OF THE GRID (WHITE WITH BLACK LETTERS).

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



Client
WCMEA
Rialto Square Theatre
Restroom Renovation &
Expansion
102 N Chicago Street
Joliet, Illinois 60432
Project No. 22-22104-00

Mechanical - Electrical Engineers
1216 Tower Road
Schaumburg, Illinois 60173
847.882.2010
Fax 847.882.2201



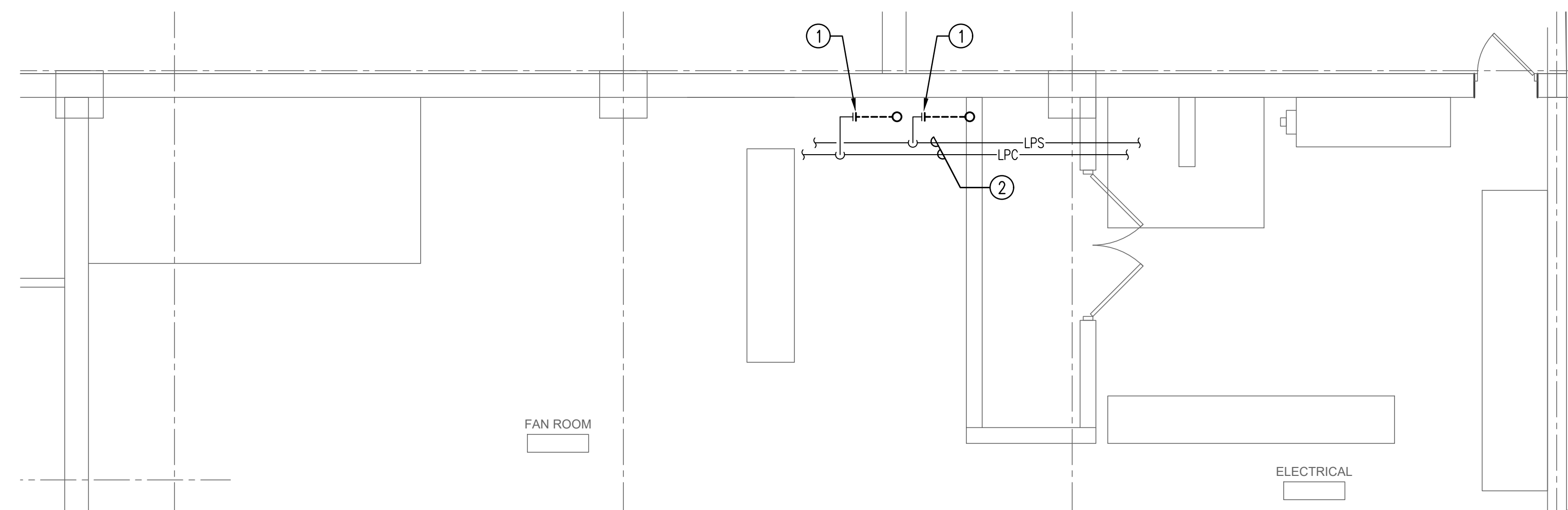
MECHANICAL/ELECTRICAL
NOTES & DETAILS

CD
ME101

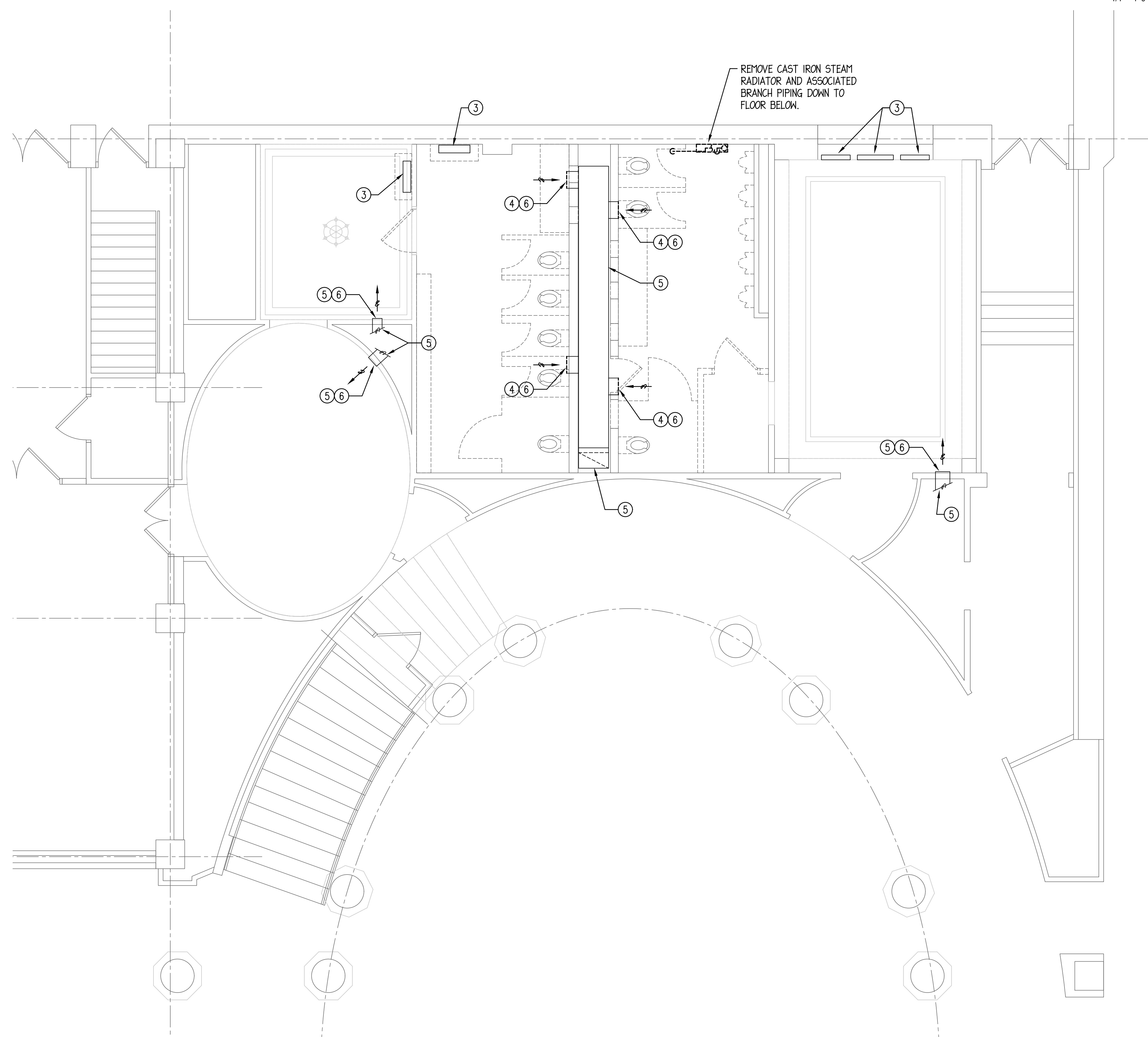
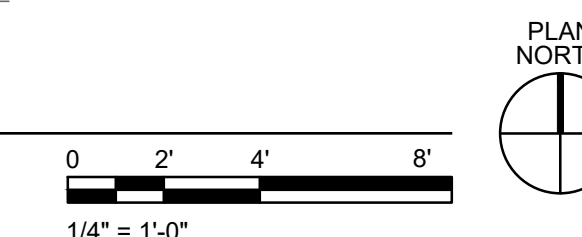
Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

DRAWING NOTES:

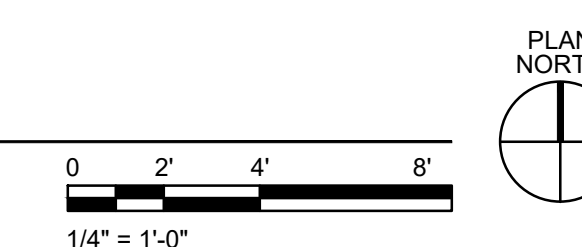
- ① NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL PIPING, VALVING, HANGERS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
- ② EXISTING PIPING AND VALVING TO REMAIN.
- ③ EXISTING CAST IRON STEAM RADIATOR AND ASSOCIATED PIPING/VALVING TO REMAIN.
- ④ REMOVE WALL EXHAUST GRILLE AND PORTION OF BRANCH DUCT AS REQUIRED TO SUIT NEW WALL CONSTRUCTION.
- ⑤ EXISTING DUCTWORK, DIFFUSERS, REGISTERS, DAMPERS, ETC. TO REMAIN
- ⑥ PRIOR TO PERFORMING ANY WORK, PROVIDE AIR FLOW TESTING OF EXISTING SUPPLY AND EXHAUST REGISTERS AND PROVIDE RESULTS TO ARCHITECT/ENGINEER.



1 PARTIAL BASEMENT HVAC DEMOLITION PLAN - NORTH
1/4" = 1'-0"



1 PARTIAL FIRST FLOOR HVAC DEMOLITION PLAN - NORTH
1/4" = 1'-0"



4/5/24 EXP. 11/30/2025

Jeffrey C. Chambliss

Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion

102 N Chicago Street
 Joliet, Illinois 60432

Project No. 22-22104-00

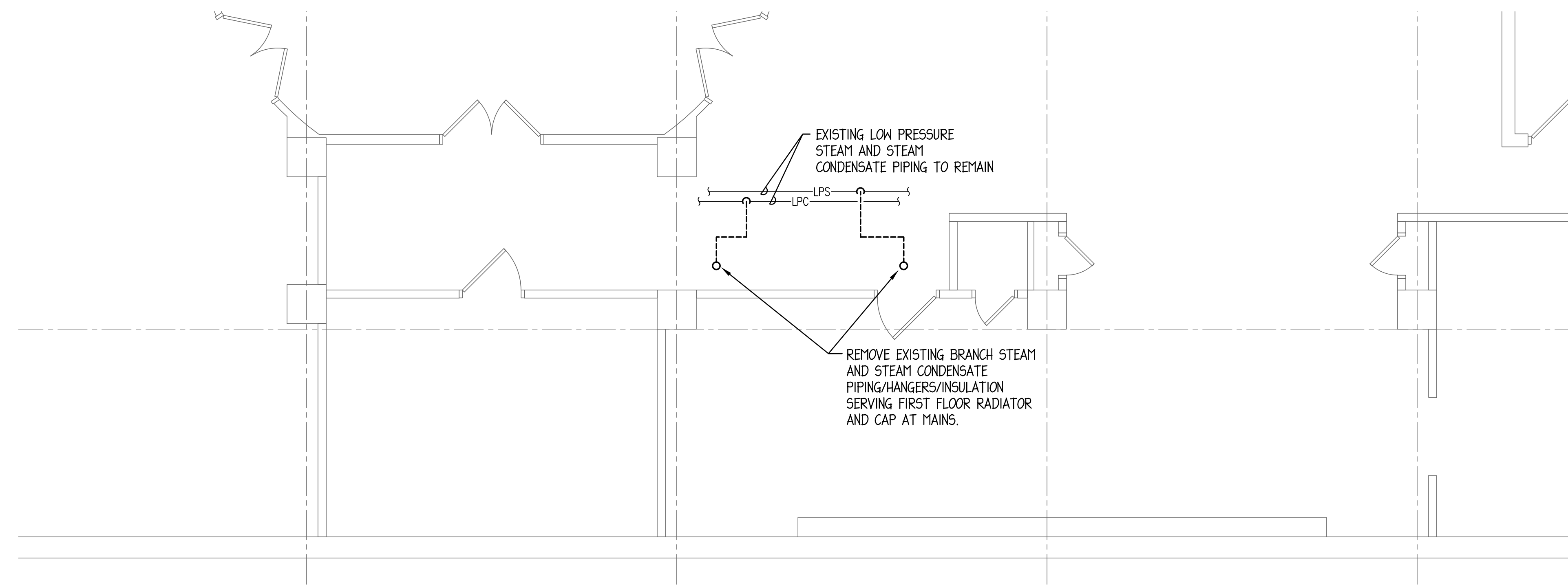
Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201



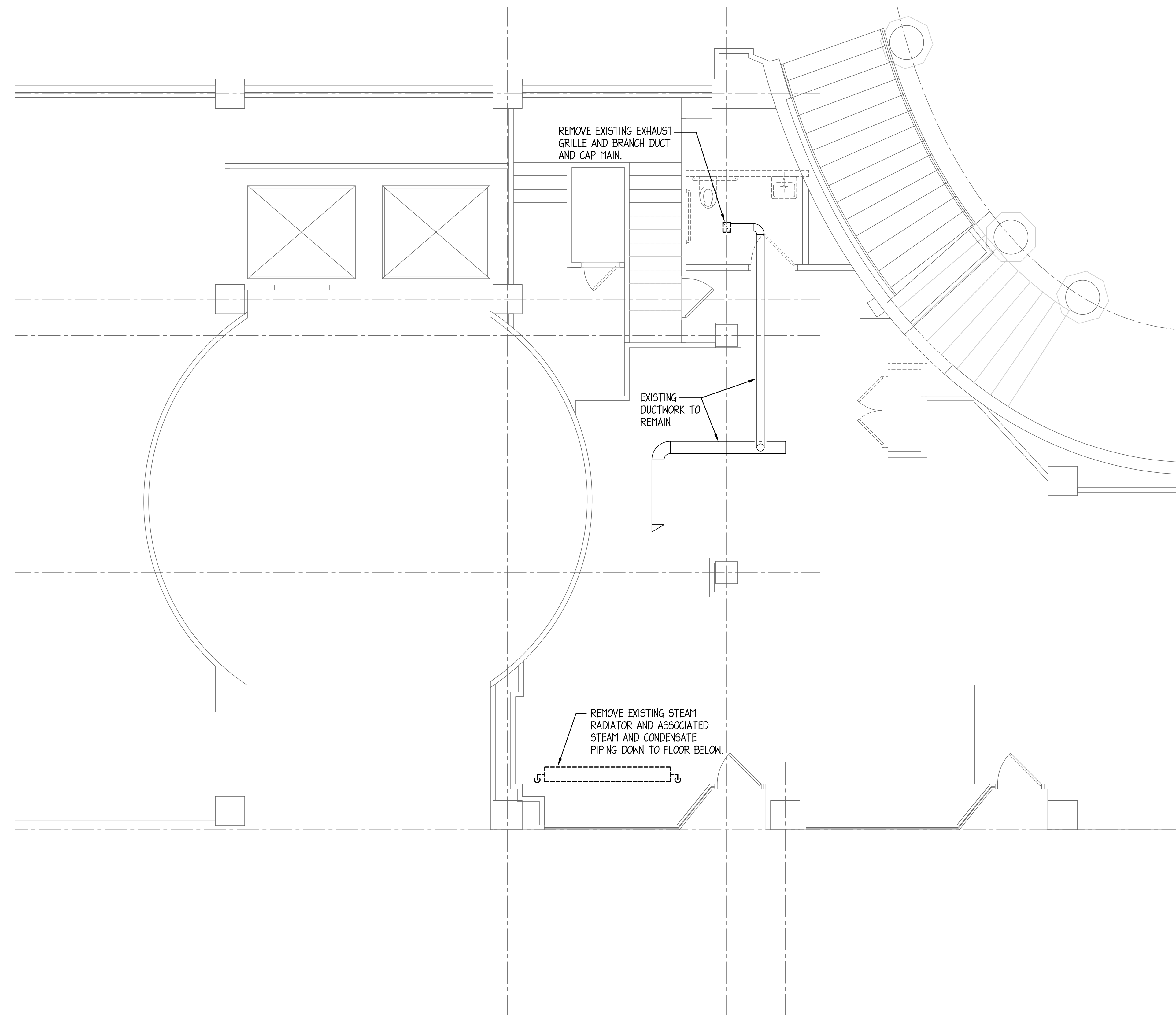
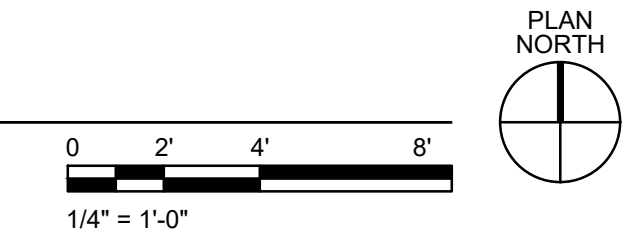
PARTIAL LOWER LEVEL &
 FIRST FLOOR HVAC
 DEMOLITION PLANS -
 NORTH CD

HVD101

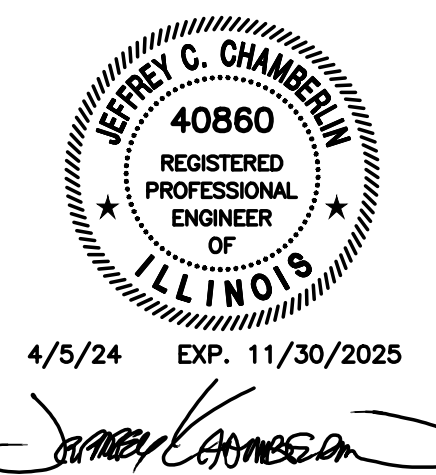
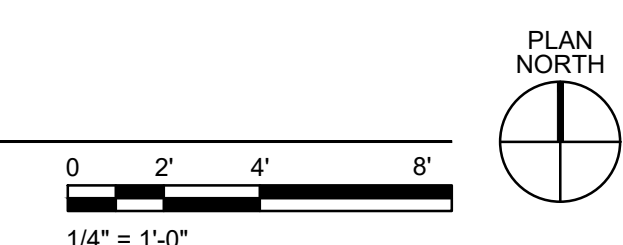
Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



1 PARTIAL LOWER LEVEL HVAC DEMOLITION PLAN - SOUTH
1/4" = 1'-0"



1 PARTIAL FIRST FLOOR HVAC DEMOLITION PLAN - SOUTH
1/4" = 1'-0"



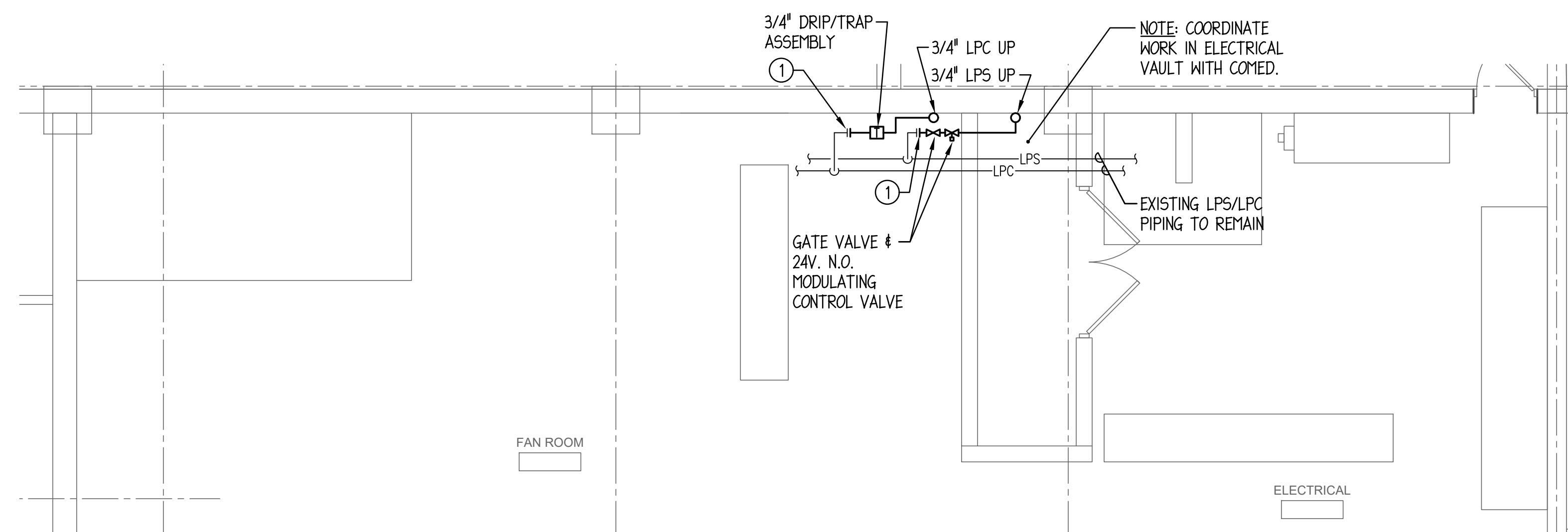
Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00



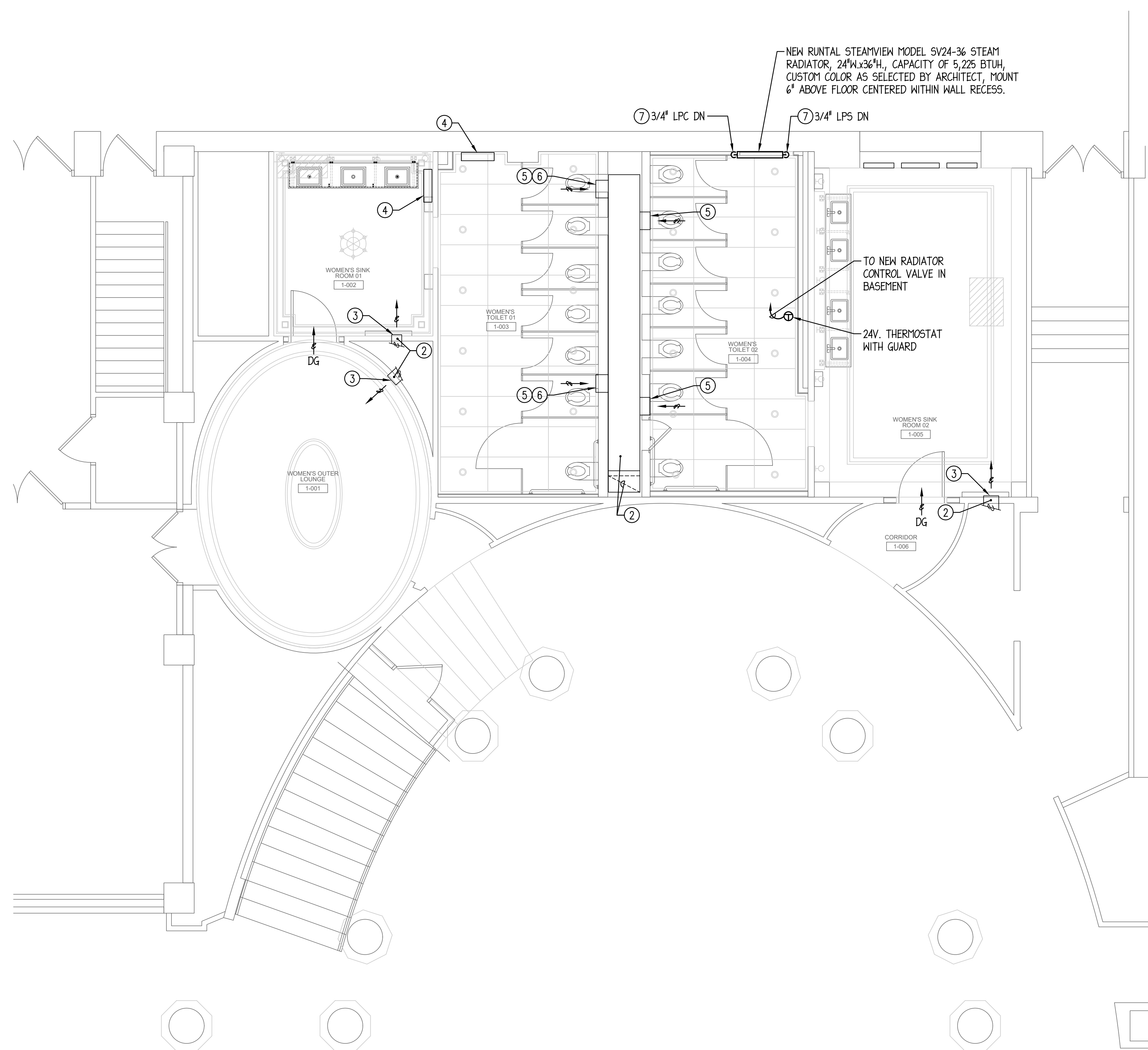
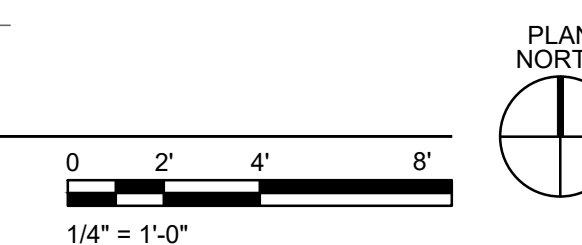
Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

PARTIAL FIRST FLOOR
 HVAC DEMOLITION PLAN -
 SOUTH
 CD
HVD102

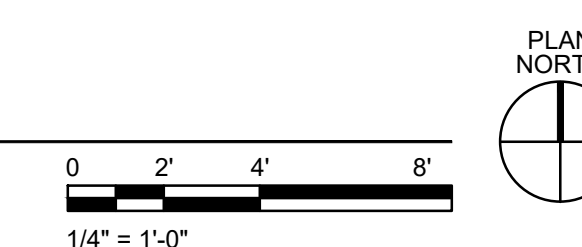
Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



2 PARTIAL BASEMENT HVAC PLAN - NORTH
1/4" = 1'-0"



1 PARTIAL FIRST FLOOR HVAC PLAN - NORTH
1/4" = 1'-0"



- DRAWING NOTES:** (TYPICAL FOR THIS DRAWING ONLY.)
- 1 MAKE NEW CONNECTION TO EXISTING PIPING AT LOCATION SHOWN.
 - 2 EXISTING DUCTWORK TO REMAIN.
 - 3 EXISTING SUPPLY REGISTER TO REMAIN.
 - 4 EXISTING CAST IRON RADIATOR AND ASSOCIATED PIPING/VALVING TO REMAIN.
 - 5 NEW TITUS 350FL REGISTER, 146 TO MATCH EXISTING BRANCH DUCT, BALANCE TO 275 CFM EXHAUST MINIMUM, OR UP TO 350 CFM IF POSSIBLE.
 - 6 ADJUST LENGTH OF BRANCH EXHAUST DUCT AS REQUIRED TO SUIT LOCATION OF NEW WALL.
 - 7 ROUTE PIPE DOWN THRU FLOOR WITHIN WALL RECESS. PROVIDE ESCUTCHEON AT FLOOR PENETRATION. EXPOSED PIPE TO BE UNINSULATED ABOVE FLOOR AND PAINTED COLOR AS SELECTED BY ARCHITECT.



4/5/24 EXP. 11/30/2025

Jeffrey C. Chambliss

Client
WCMEAA
 Rialto Square Theatre
 Restroom Renovation &
 Expansion

102 N Chicago Street
 Joliet, Illinois 60432

Project No. 22-22104-00

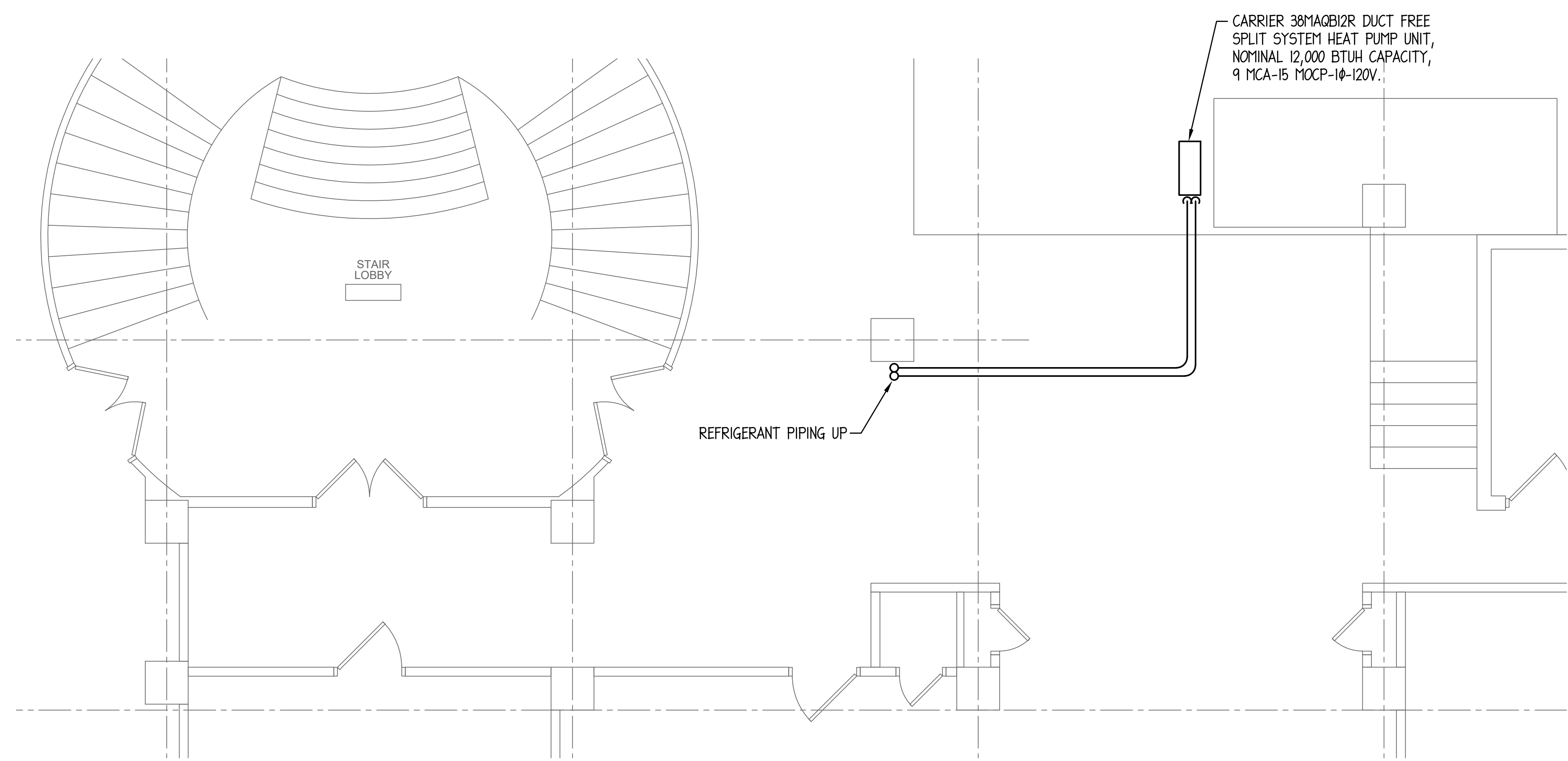
Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201



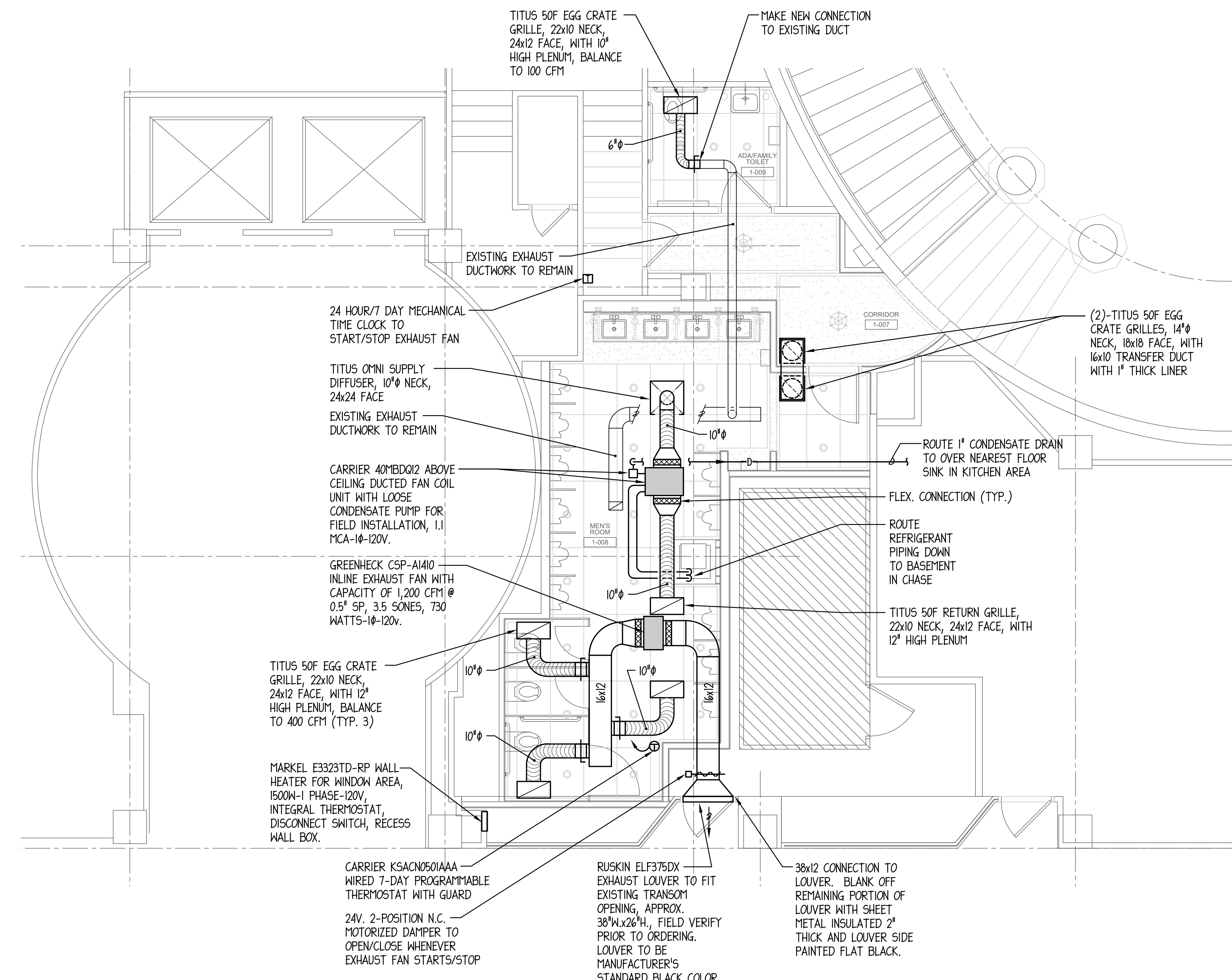
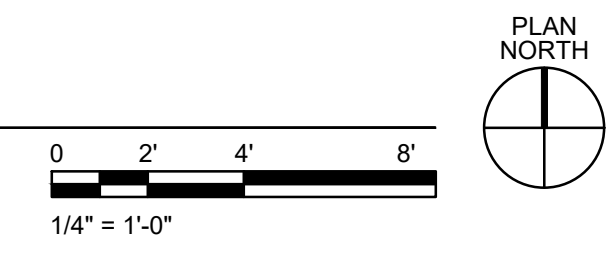
PARTIAL LOWER LEVEL &
 FIRST FLOOR HVAC
 PLANS - NORTH

CD

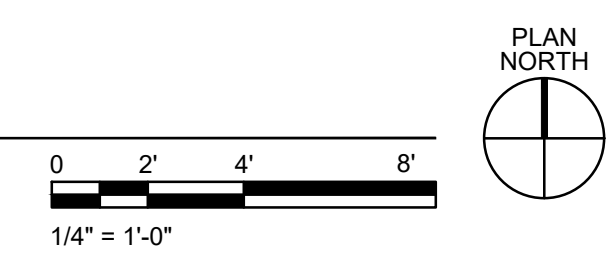
HV101



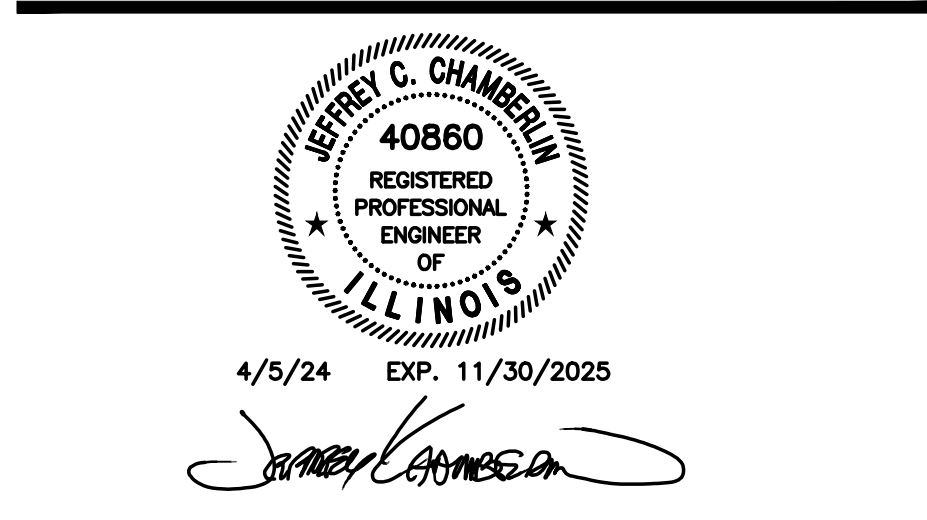
1 PARTIAL BASEMENT HVAC PLAN - SOUTH
1/4" = 1'-0"



1 PARTIAL FIRST FLOOR HVAC PLAN - SOUTH
1/4" = 1'-0"



Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

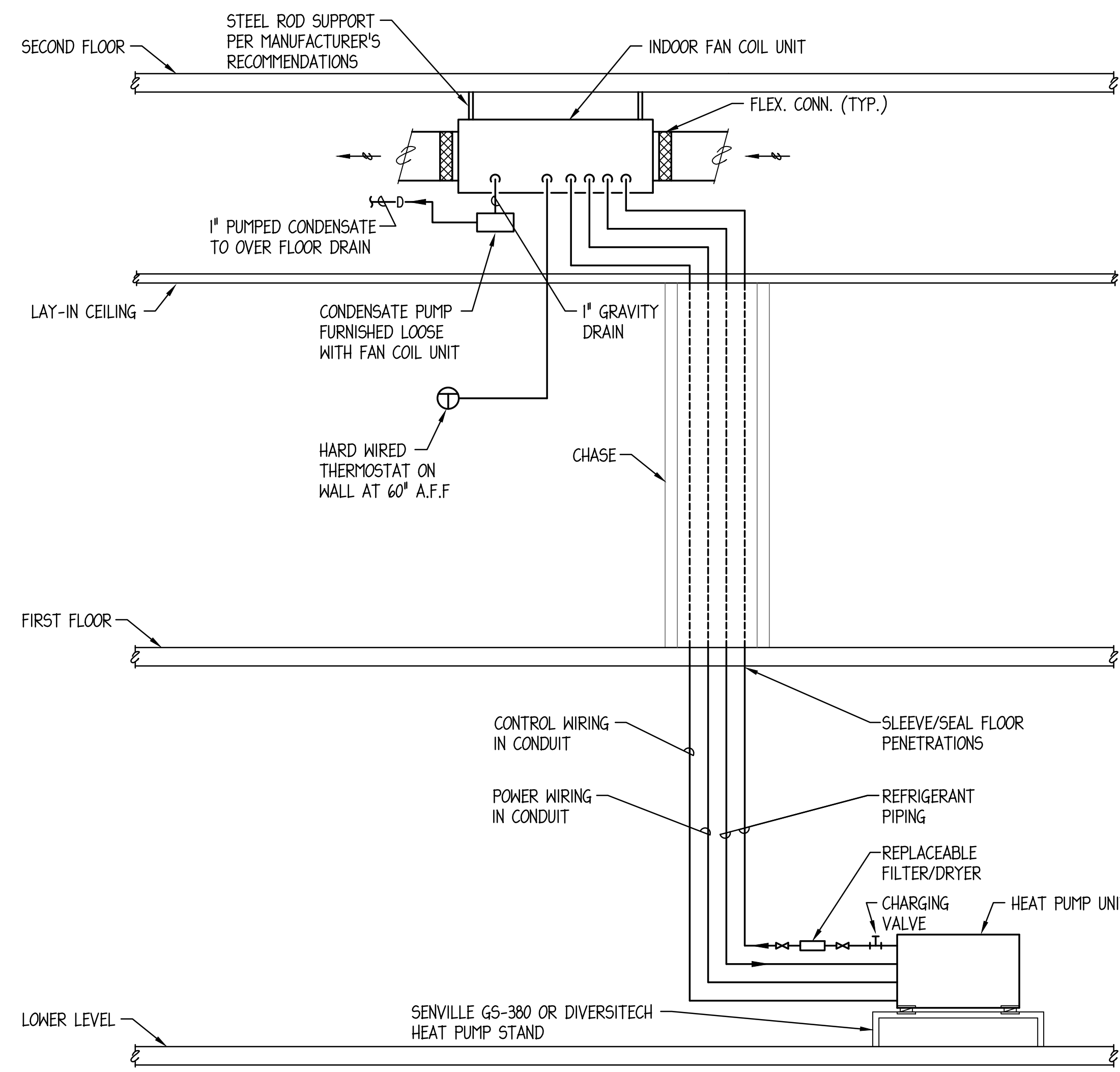


Client
WCMEAA
 Rialto Square Theatre
 Restroom Renovation &
 Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00



PARTIAL LOWER LEVEL &
 FIRST FLOOR HVAC PLANS
 - SOUTH
 CD
HV102

DATE: 2024/04/02.DWG BY: JCC DATE: Apr. 3, 24 TIME: 8:57 AM



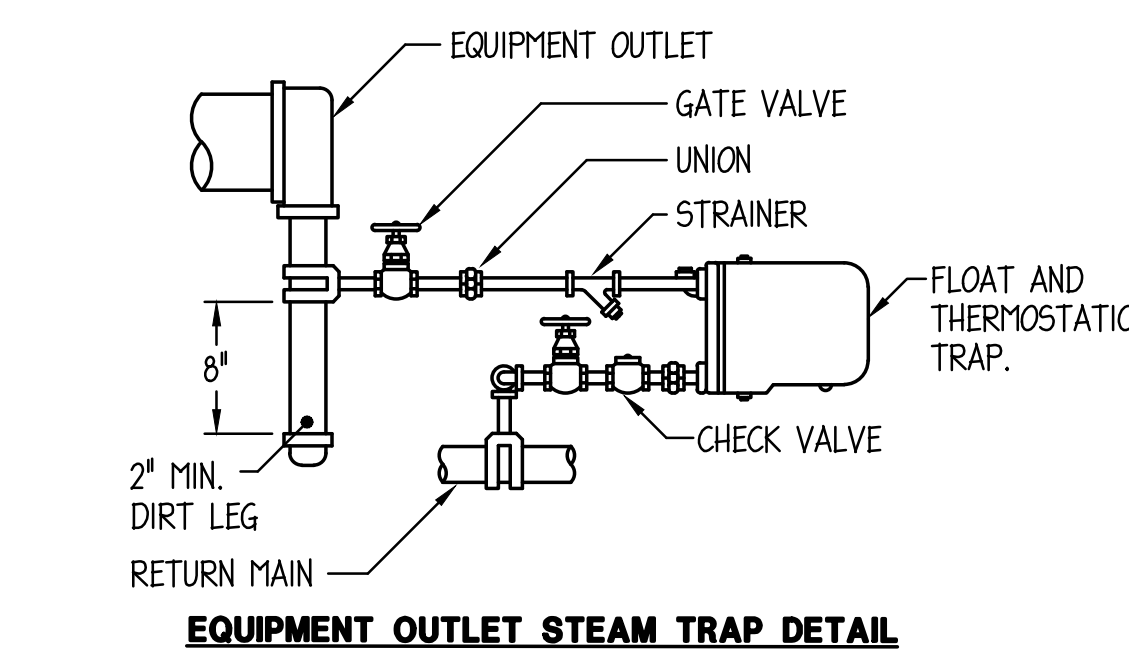
NOTES:
 1. REFRIGERANT PIPING AS SHOWN IS TO ILLUSTRATE GENERAL REQUIREMENTS. PIPING SHALL BE SIZED, PITCHED, AND ARRANGED PER CONDENSING UNIT MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.

REFRIGERANT PIPING DETAIL
 NO SCALE

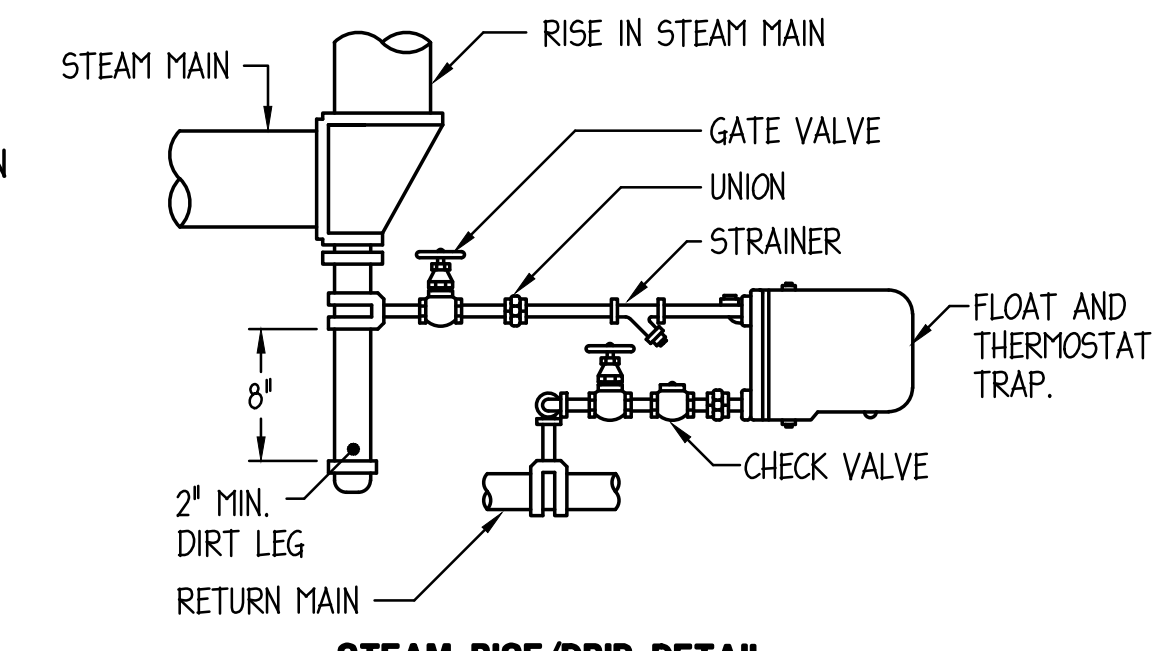
GENERAL NOTES - HVAC WORK:

1. ALL NEW WORK AND MATERIALS SHALL CONFORM TO CITY OF JOLIET CODE AND RIALTO SQUARE THEATRE BUILDING STANDARDS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND INSPECTIONS AND PAYING THEIR ASSOCIATED FEES.
3. PATCH AND REFINISH ALL DAMAGED INSULATED SURFACES OF ALL EXISTING DUCTWORK, PIPING AND ASSOCIATED FITTINGS TO MATCH EXISTING WHERE NEW CONNECTIONS ARE BEING MADE.
4. CONTRACTORS SHALL PROVIDE A ONE YEAR WARRANTY ON ALL MATERIALS, EQUIPMENT AND LABOR FROM DATE OF SUBSTANTIAL COMPLETION OF WORK EXCEPT AS FOLLOWS: PROVIDE A 5 YEAR PARTS WARRANTY FOR HEAT PUMP UNIT COMPRESSOR.
5. THE LOCATIONS SHOWN FOR ALL DIFFUSERS, REGISTERS AND GRILLES, ETC. ARE DIAGRAMMATIC. EXACT LOCATION SHALL BE DETERMINED FROM THE REFLECTED CEILING PLANS AND/OR ON THE JOB SITE BY THE ARCHITECT/ENGINEER REPRESENTATIVES.
6. EXCEPT AS NOTED OTHERWISE, ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE GALVANIZED SHEET METAL WITH SEALED JOINTS CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH CURRENT SMACNA MANUAL. SIZES SHOWN ARE INSIDE FACE TO INSIDE FACE.
7. THE GAUGES OF IRON FOR DUCTS AND CASINGS AND SIZE OF STRUCTURAL REINFORCING ANGLES FOR DUCTS AND CASING SHALL BE SUCH AS TO PROVIDE ABSOLUTELY AIR TIGHT CONSTRUCTION FREE FROM PULSATION, DEFORMATION, OR VIBRATION AT NORMAL OPERATING PRESSURES.
8. ALL ROUND CONCEALED FLEXIBLE DUCT SHALL BE WIREMOLD OR THERMOFLEX FACTORY INSULATED 1" THICK MAXIMUM OF 5'-0" LONG TO DIFFUSERS/REGISTERS, MAXIMUM OF 3'-0" LONG TO VAV OR FAN POWERED BOXES. FLEXIBLE DUCT MAY BE UTILIZED ONLY WHERE CONCEALED ABOVE ACCESSIBLE CEILINGS.
9. ALL NEW RECTANGULAR SUPPLY, RETURN, AND EXHAUST DUCTWORK (WITHIN 10' OF FAN) SHALL BE INTERNALLY LINED 1" THICK WITH MATT FACED FIBERGLASS DUCT LINER.
10. PROVIDE MANUAL VOLUME DAMPERS AT EACH BRANCH DUCT TAKEOFF IN SUPPLY DUCTWORK AND IN RETURN/EXHAUST DUCTWORK. PROVIDE TURNING VANES IN ALL SQUARE DUCT ELBOWS.
11. PAINT ALL INTERIOR DUCTWORK VISIBLE THROUGH AIR INLETS OR OUTLETS FLAT BLACK.
12. BALANCE DUCT SYSTEMS TO ACCOMPLISH AIR QUANTITIES SHOWN AT ALL INLETS/OUTLETS (NEW AND EXISTING) AS SHOWN ON DRAWING AND SUBMIT TEST REPORT FOR REVIEW BY OWNER AND ENGINEER.
13. LOW PRESSURE STEAM PIPING SHALL BE SCHEDULE 40 BLACK STEEL INSULATED WITH 1 1/2" THICK (1 1/4" AND BELOW) OR 2" THICK (1 1/2" AND ABOVE) FIBERGLASS WITH ALL SERVICE JACKET.
14. LOW PRESSURE CONDENSATE PIPING SHALL BE SCHEDULE 80 BLACK STEEL, INSULATED WITH 1 1/2" THICK (1 1/4" AND BELOW) OR 2" THICK (1 1/2" AND ABOVE) FIBERGLASS WITH ALL SERVICE JACKET.
15. DRIP PAN DRAIN PIPING SHALL BE SCHEDULE 40 PVC OR TYPE "M" COPPER WITH 1/2" INSULATION.
16. ALL PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR TRAPEZE PIPE HANGERS. INSULATED PIPING SHALL REST ON SHEET METAL INSULATION SHIELDS.
17. PITCH ALL SUPPLY AND RETURN WATER LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH HOSE THREAD OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF EQUIPMENT. PROVIDE MANUAL AIR VENTS IN ALL PIPE DROPS IN DIRECTION OF FLOW.
18. ALL STEAM, AND CONDENSATE PIPING SHALL BE INSTALLED TO COMPENSATE FOR EXPANSION OF THE PIPE BY INSTALLING PIPE ANCHORS, GUIDES, EXPANSION JOINTS OR LOOPS AND PIPE OFFSETS AS REQUIRED BY FIELD CONDITIONS OR AS SHOWN ON THE DRAWINGS.

19. ALL NEW PIPING SHALL BE IDENTIFIED WITH WRAP AROUND PIPE MARKERS. ALL NEW EQUIPMENT SHALL BE IDENTIFIED WITH PLASTIC ENGRAVED NAMEPLATES.
20. PROVIDE 7 DAY/24 HOUR TIME CLOCK TO START/STOP EXHAUST FAN.
21. LOW VOLTAGE WIRING SHALL BE U/L LISTED AND PLENUM RATED (LOW SMOKE PRODUCING). WIRING SHALL BE CONCEALED IN WALLS AND MAY BE INSTALLED WITHOUT CONDUIT ABOVE ACCESSIBLE LAY-IN CEILING SPACES ONLY.
22. ALL EXHAUST DUCTWORK BETWEEN THE LOUVER AND THE DAMPER SHALL BE EXTERNALLY INSULATED 2" THICK WITH 3 LB. DENSITY RIGID BOARD FIBERGLASS DUCT INSULATION WITH ALL SERVICE JACKET.
23. ALL REFRIGERANT PIPING SHALL BE TYPE "K" COPPER OR ACR WITH WROUGHT COPPER SOLDER FITTINGS AND BE SIZED PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. INSULATE REFRIGERANT SUCTION AND HOT GAS LINES WITH 3/4" THICK AP/ARMFLEX.
24. FLUSH, CLEAN, PRESSURE TEST AND CHARGE ALL NEW PIPING SYSTEMS AND EXTENSION TO PIPING SYSTEMS. TESTING SHALL BE MINIMUM 50 PSI HIGHER THAN NORMAL OPERATING PRESSURE OF SYSTEM.
25. GATE VALVES SHALL BE STOCKHAM, MILWAUKEE OR NIBCO WITH BRONZE BODY, BRONZE TRIM, RISING STEM.
26. FLOAT & THERMOSTAT TRAPS SHALL BE ARMSTRONG, ILLINOIS, OR SARCO.

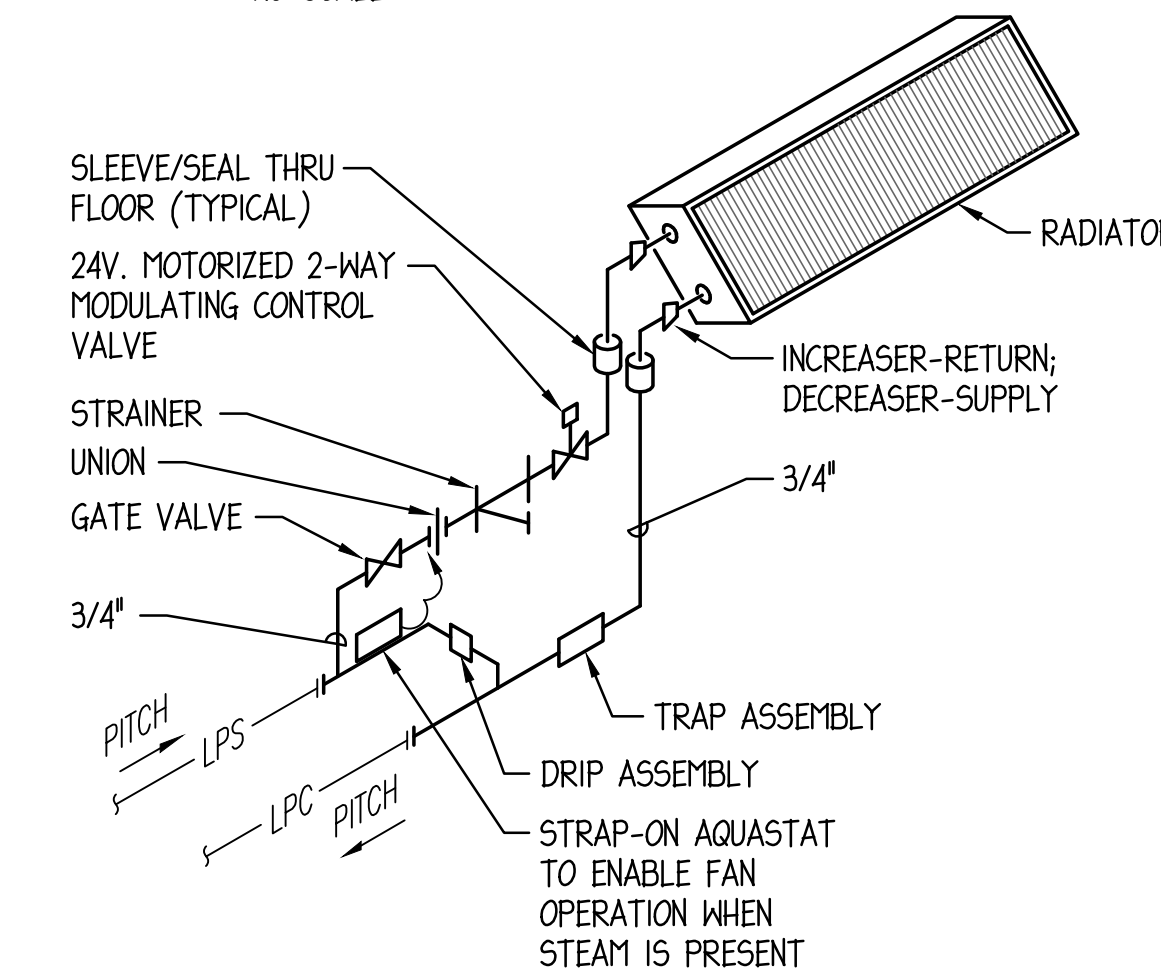


EQUIPMENT OUTLET STEAM TRAP DETAIL



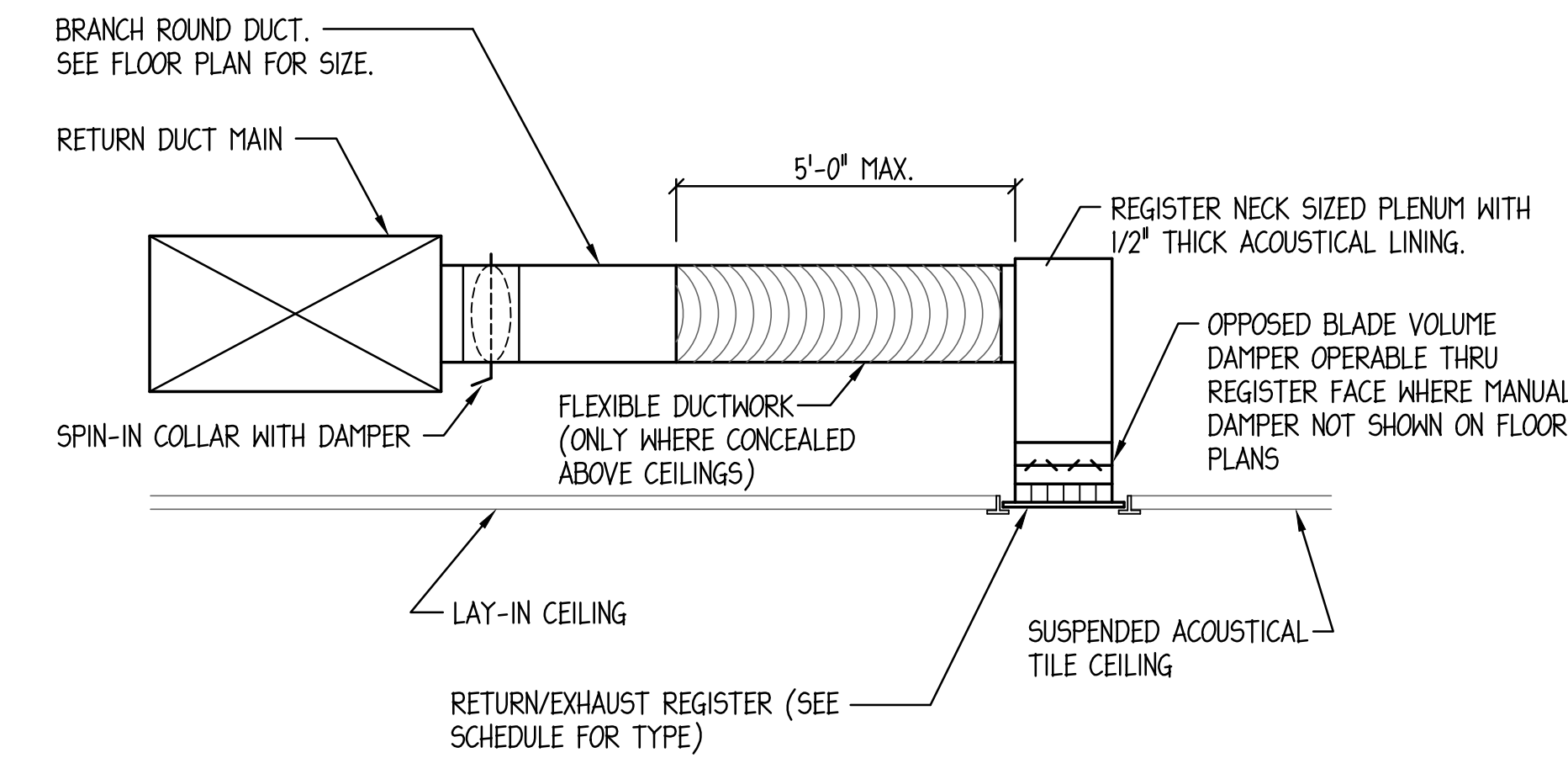
STEAM RISE/DRIP DETAIL

STEAM DRIP DETAILS
 NO SCALE



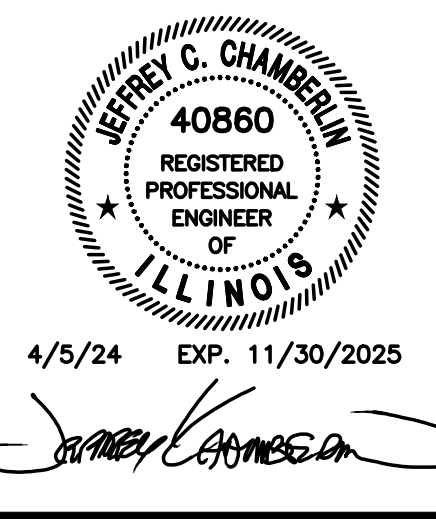
NOTES:
 1. ALL LPS/LPC PIPING SHALL BE INSULATED PER SPECIFICATIONS.

STEAM RADIATOR PIPING DETAIL
 NO SCALE



RETURN/EXHAUST REGISTER INSTALLATION DETAIL
 NO SCALE

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



Client
WCMEAA
 Rialto Square Theatre
 Restroom Renovation &
 Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00

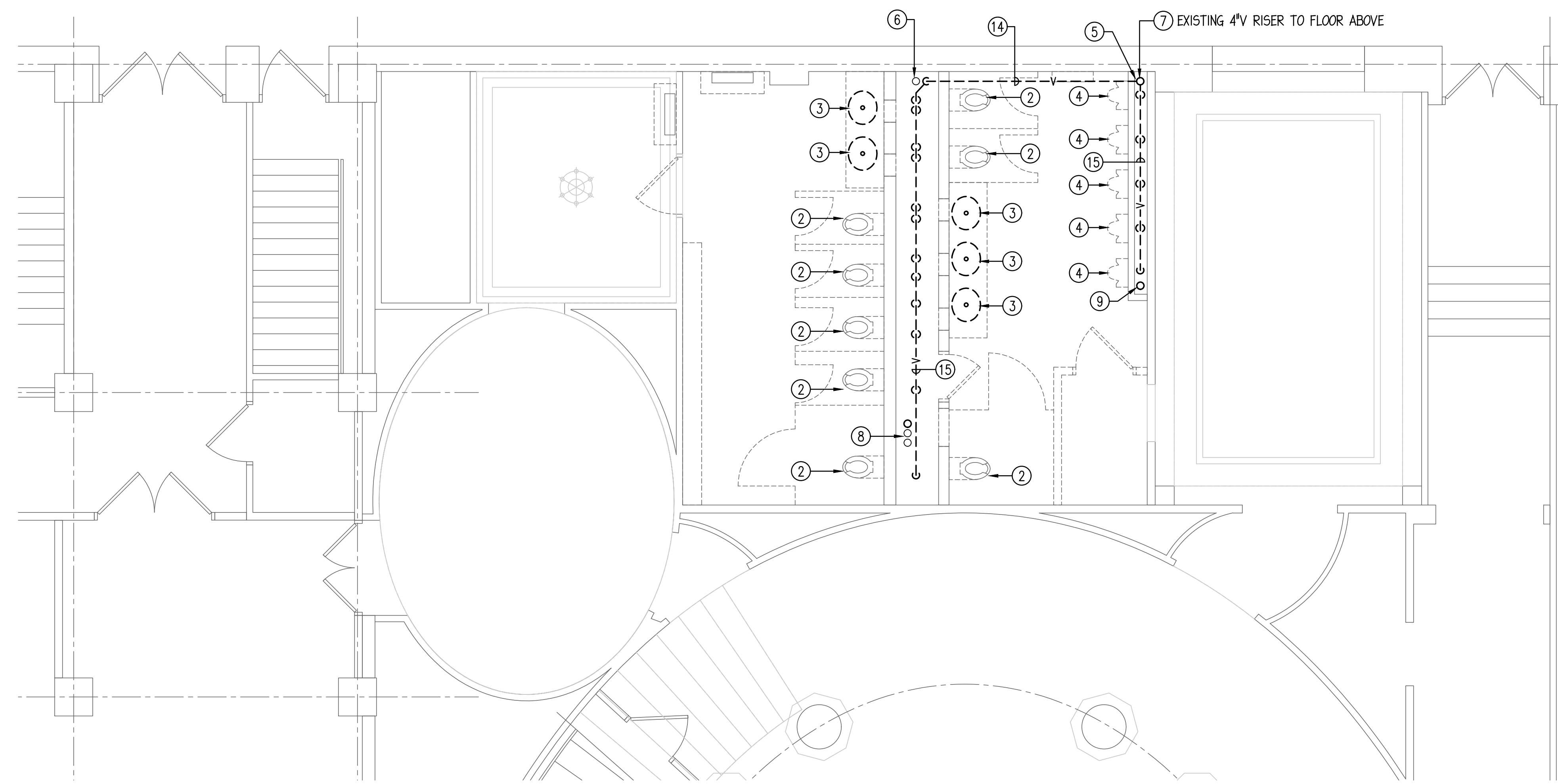
Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201



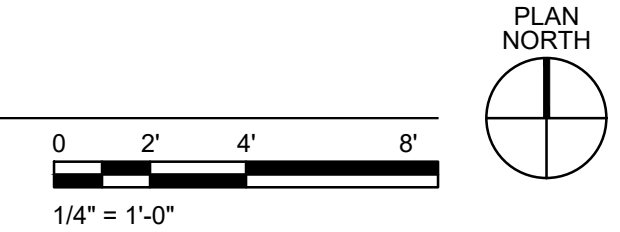
HVAC NOTES AND DETAILS

CD
HV201

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

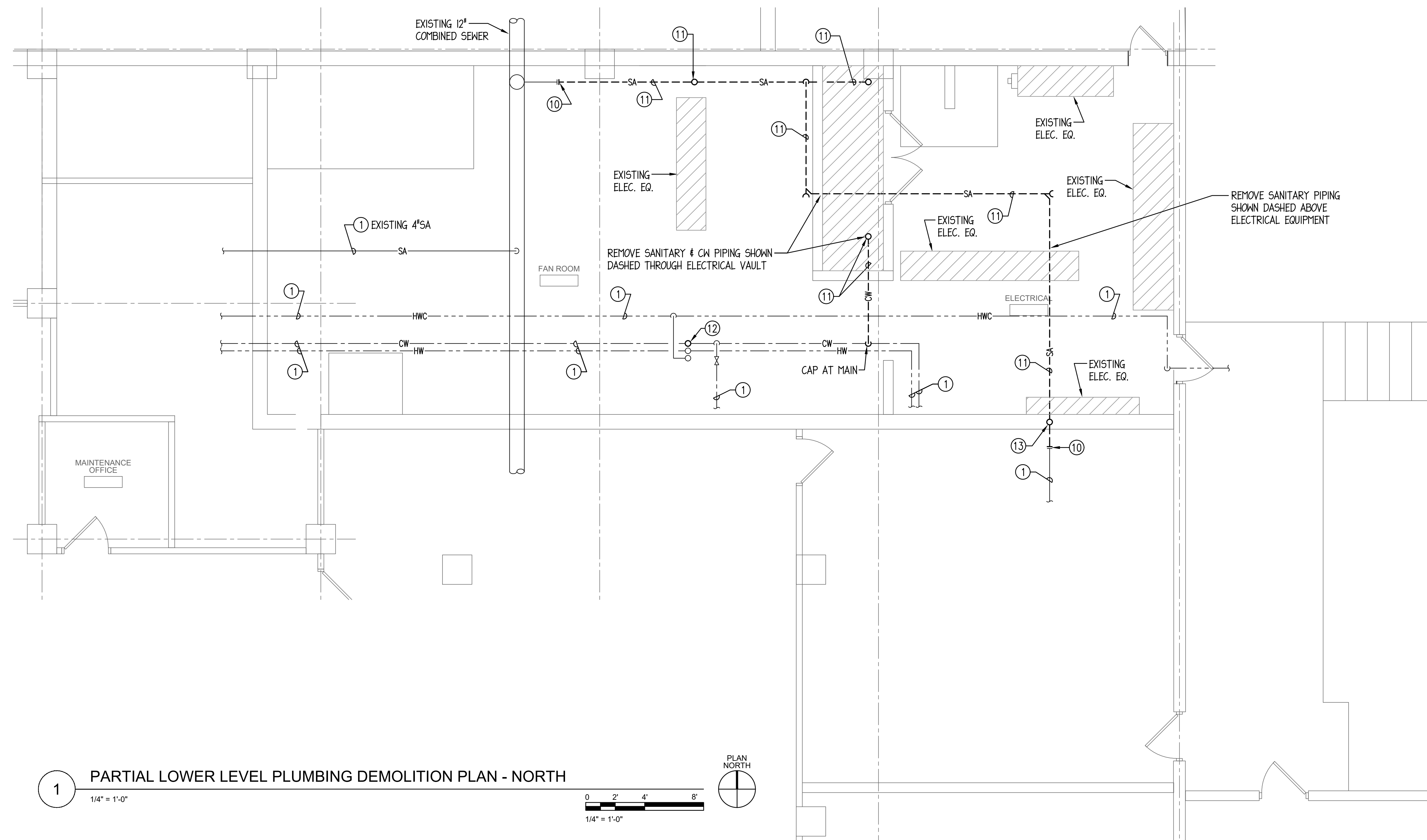


2 PARTIAL FIRST FLOOR PLUMBING DEMOLITION PLAN - NORTH
1/4" = 1'-0"

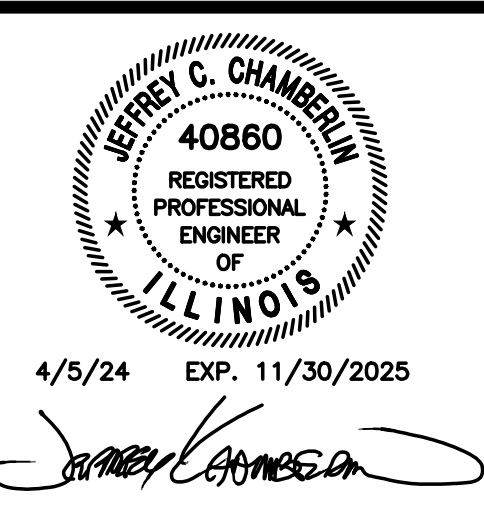
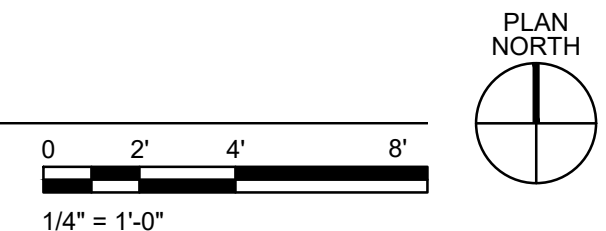


DRAWING NOTES:

- 1 EXISTING PLUMBING PIPING, FIXTURE, EQUIPMENT ETC. TO REMAIN.
- 2 REMOVE EXISTING WALL HUNG WATER CLOSET, FLUSH VALVE AND CARRIER. REMOVE ALL ASSOCIATED SA AND CW PIPING BACK TO RISERS IN CHASE. REMOVE VENT PIPING BACK TO VENT RISER IN CHASE. PATCH ALL UNUSED FLOOR PENETRATIONS.
- 3 REMOVE EXISTING LAVATORY. REMOVE ALL ASSOCIATED CW/HW & SA PIPING BACK TO RISERS IN CHASE. REMOVE VENT PIPING BACK TO RISER IN CHASE. PATCH ALL UNUSED FLOOR PENETRATIONS.
- 4 REMOVE EXISTING WALL HUNG URINAL, FLUSH VALVE AND CARRIER. REMOVE ALL ASSOCIATED CW & SA PIPING BACK TO RISERS IN CHASE. REMOVE VENT PIPING BACK TO RISER IN CHASE. PATCH ALL UNUSED FLOOR PENETRATIONS.
- 5 REMOVE EXISTING SANITARY PIPING TO FLOOR BELOW, PATCH UNUSED FLOOR PENETRATIONS WHERE APPLICABLE.
- 6 DISCONNECT EXISTING SANITARY PIPING FROM RISER AT CEILING AND REMOVE SANITARY PIPING TO FLOOR BELOW. ALL ASSOCIATED SANITARY PIPING SERVING TOILET ROOMS ON FLOOR ABOVE TO REMAIN.
- 7 DISCONNECT EXISTING VENT PIPING FROM RISER AT CEILING AND REMOVE VENT PIPING BACK TO FIXTURES ON THIS FLOOR. EXISTING VENT RISER TO FLOOR ABOVE TO REMAIN AND BE REUSED.
- 8 EXISTING HW AND HWC RISERS TO REMAIN. REMOVE CW PIPING TO FLOOR BELOW. ALL ASSOCIATED CW/HW & HWC PIPING SERVING TOILET ROOMS ON FLOOR ABOVE TO REMAIN.
- 9 REMOVE CW PIPING TO FLOOR BELOW. PATCH UNUSED FLOOR PENETRATION.
- 10 NEW CONNECTION TO BE MADE AT THIS LOCATION, REMOVE ALL PIPING SHOWN DASHED BEYOND THIS POINT.
- 11 REMOVE ALL SUSPENDED WATER SUPPLY AND SANITARY PIPING SHOWN DASHED SERVING FIXTURES ON FLOOR ABOVE, REMOVE PIPING BACK TO FLOOR ABOVE.
- 12 EXISTING HW & HWC PIPING TO REMAIN. REMOVE CW PIPING BACK TO MAIN AND CAP AT MAIN. REMOVE CW PIPING TO FLOOR ABOVE.
- 13 DISCONNECT SANITARY RISER AT BOTTOM OF RISER IN BASEMENT CEILING AND REMOVE ASSOCIATED SANITARY PIPING SHOWN DASHED BACK TO LOCATION SHOWN.
- 14 REMOVE PIPING SHOWN DASHED.
- 15 REMOVE ALL SANITARY, VENT & CW/HW PIPING IN CHASE BETWEEN FIXTURES AND RISERS.



1 PARTIAL LOWER LEVEL PLUMBING DEMOLITION PLAN - NORTH
1/4" = 1'-0"



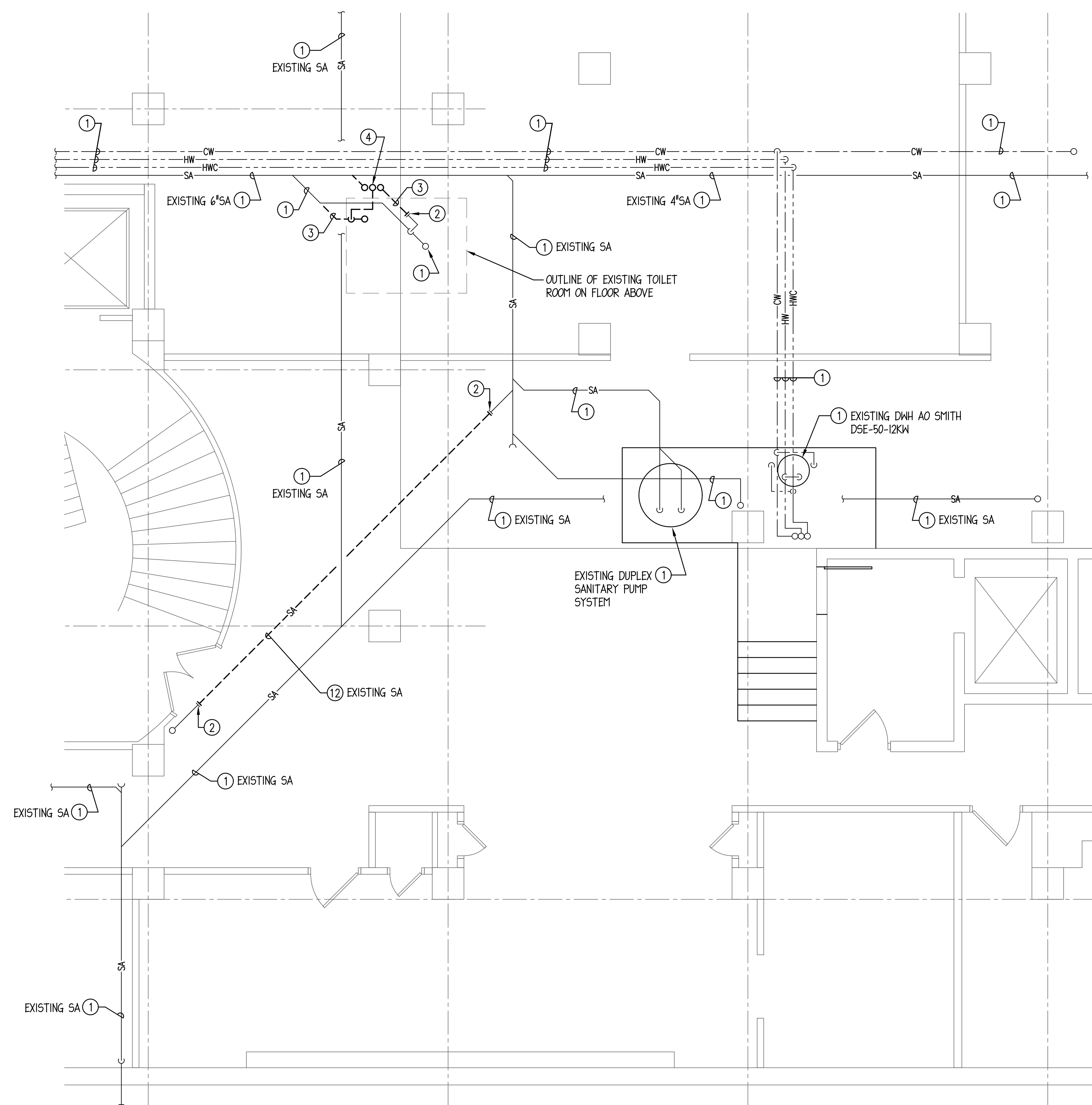
Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00



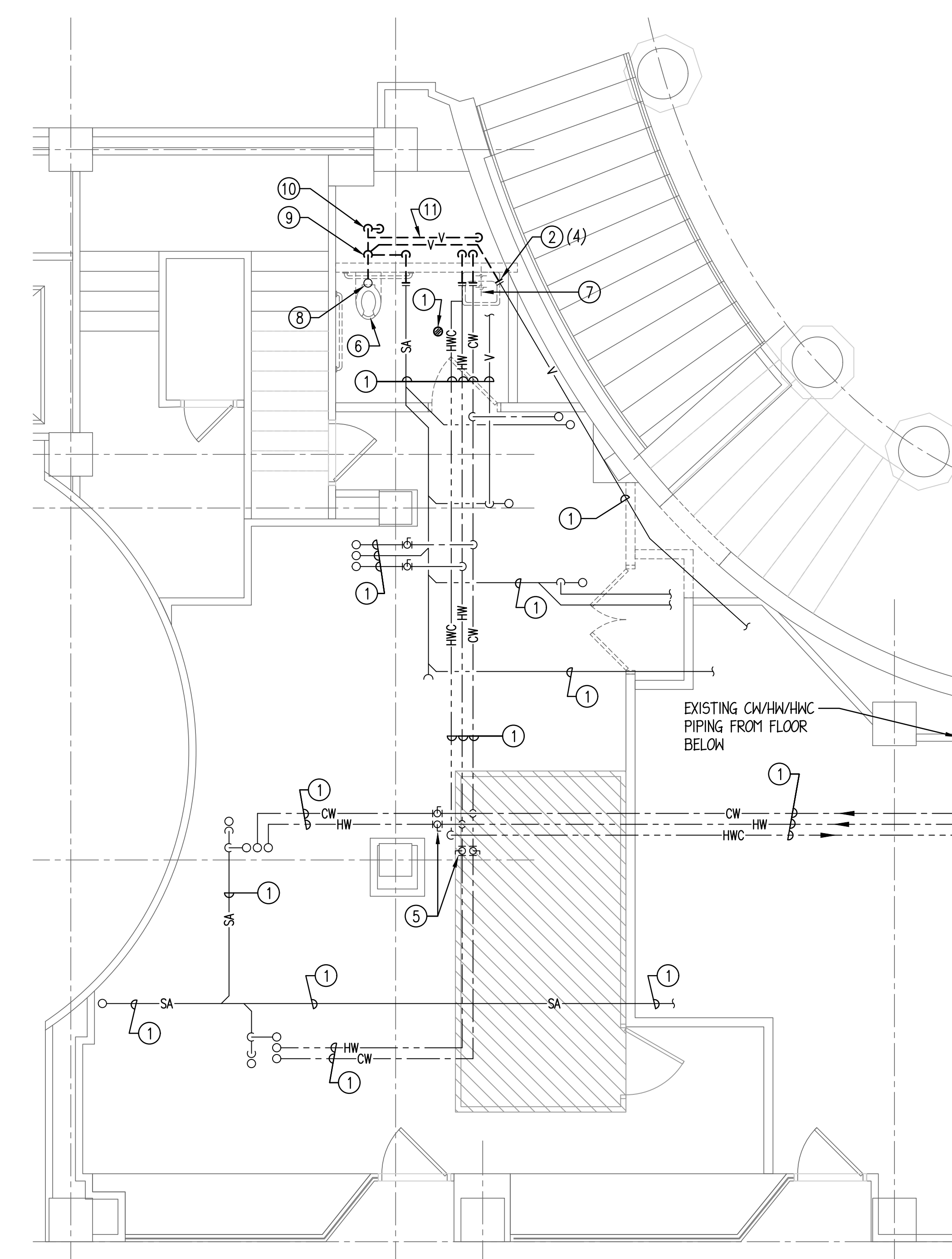
Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

PARTIAL PLUMBING
 DEMOLITION PLANS -
 NORTH CD
PD101

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

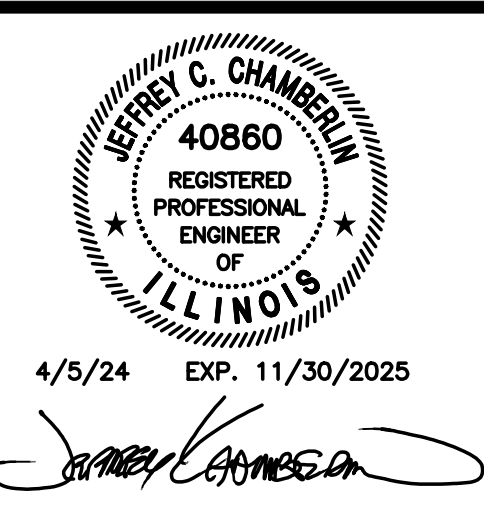


1 PARTIAL LOWER LEVEL PLUMBING DEMOLITION PLAN - SOUTH
 1/4" = 1'-0"
 0 2' 4' 8'
 1/4" = 1'-0"
 PLAN NORTH



2 PARTIAL FIRST FLOOR PLUMBING DEMOLITION PLAN - SOUTH
 1/4" = 1'-0"
 0 2' 4' 8'
 1/4" = 1'-0"
 PLAN NORTH

- DRAWING NOTES:**
- 1 EXISTING PLUMBING PIPING, FIXTURE, EQUIPMENT ETC. TO REMAIN.
 - 2 NEW CONNECTION TO BE MADE AT LOCATION SHOWN, REMOVE ALL PIPING SHOWN DASHED BEYOND THIS POINT.
 - 3 REMOVE SAN & VENT PIPING SHOWN DASHED SERVING TOILET ROOM ON FLOOR ABOVE.
 - 4 REMOVE 4" SAN & (2) 2"V UP TO FLOOR ABOVE.
 - 5 EXISTING (4) 3/4" BALL VALVES TO BE REMOVED AND NEW VALVES INSTALLED IN NEW LOCATION PER NEW WORK PLAN.
 - 6 REMOVE EXISTING FLOOR MOUNTED TOILET AND FLUSH VALVE. REMOVE ALL ASSOCIATED SANITARY AND VENT PIPING TO FLOOR BELOW. REMOVE CW PIPING IN CHASE BACK TO SUPPLY RISER IN CHASE.
 - 7 REMOVE EXISTING LAVATORY. REMOVE ALL ASSOCIATED SANITARY AND VENT PIPING IN CHASE BACK RISERS IN CHASE. REMOVE CW/HW PIPING IN CHASE BACK TO SUPPLY RISERS IN CHASE.
 - 8 DISCONNECT EXISTING 4" VENT RISER AT FIRST FLOOR CEILING. VENT RISER TO FLOOR ABOVE TO REMAIN. REMOVE ASSOCIATED VENT PIPING BACK TO PLUMBING CHASE AS SHOWN.
 - 9 REMOVE EXISTING 4" SANITARY STACK TO FLOOR BELOW.
 - 10 REMOVE EXISTING (2) 2"V TO FLOOR BELOW.
 - 11 REMOVE ALL PLUMBING PIPING IN CHASE SERVICE WATER CLOSET AND LAV TO FLOOR BELOW AND TO CEILING OF FIRST FLOOR AS SHOWN.
 - 12 REMOVE PIPING SHOWN DASHED.



Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00

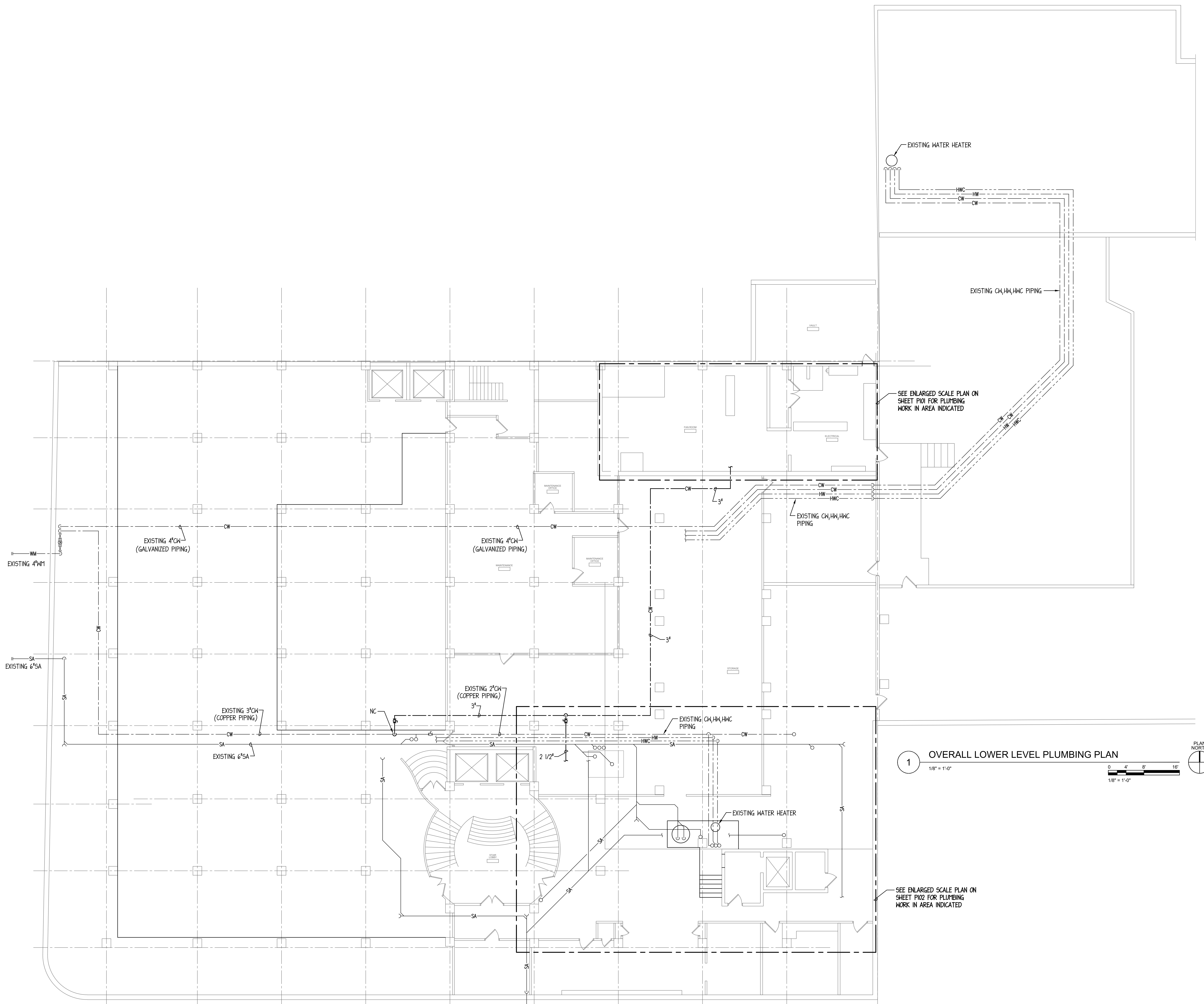


Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

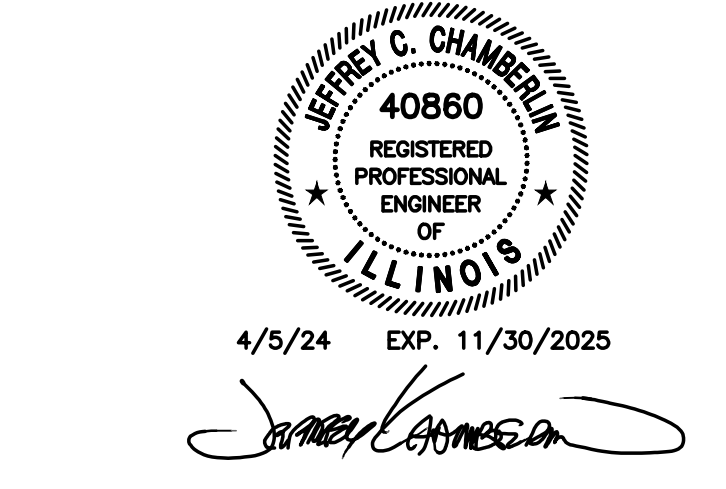
PARTIAL PLUMBING DEMOLITION PLANS - SOUTH

CD
PD102

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



1 OVERALL LOWER LEVEL PLUMBING PLAN
 1/8" = 1'-0"
 0 4' 8' 16'
 1/8" = 1'-0"
 PLAN NORTH



Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00

Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

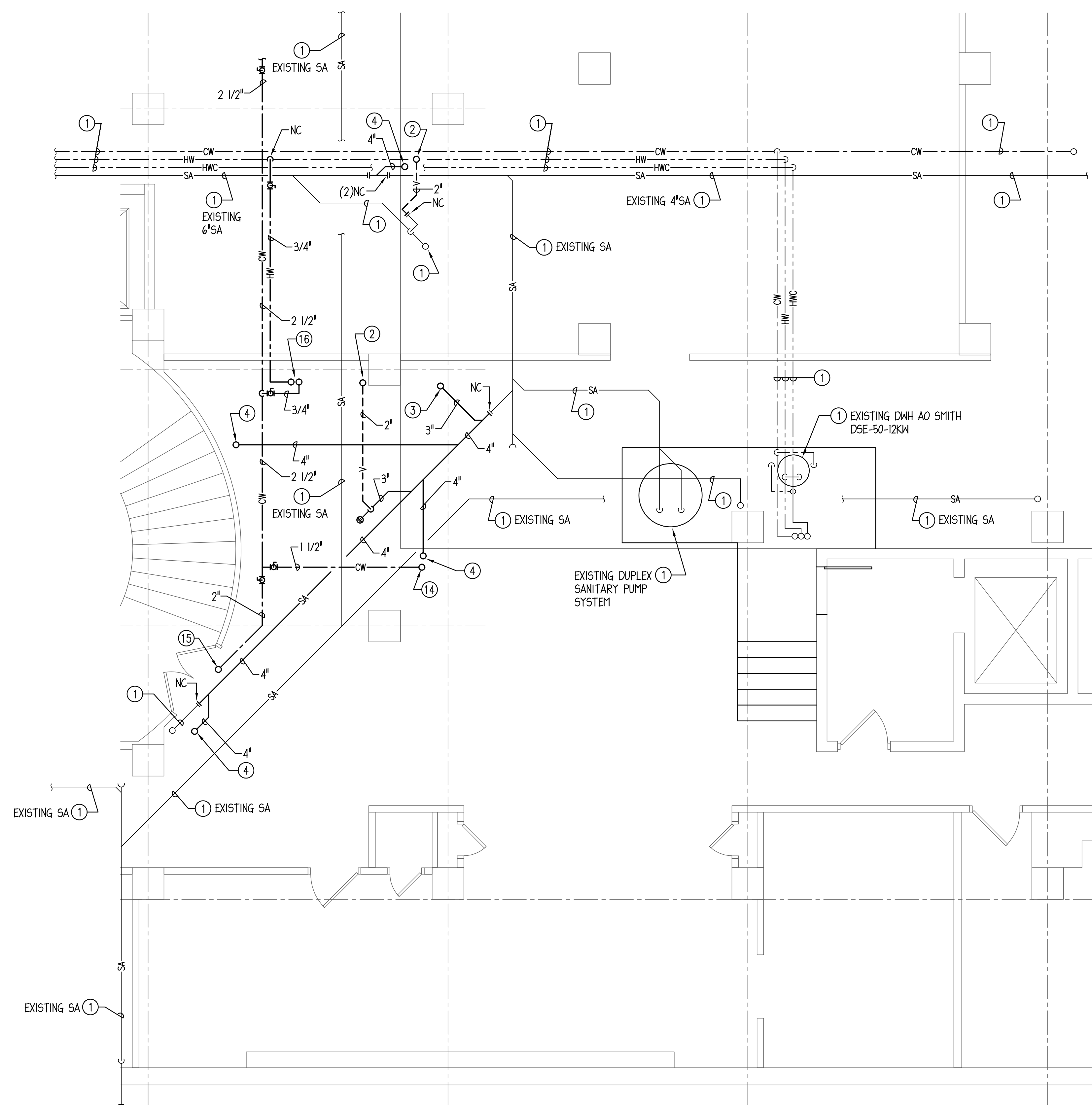


OVERALL LOWER LEVEL
 PLUMBING PLAN

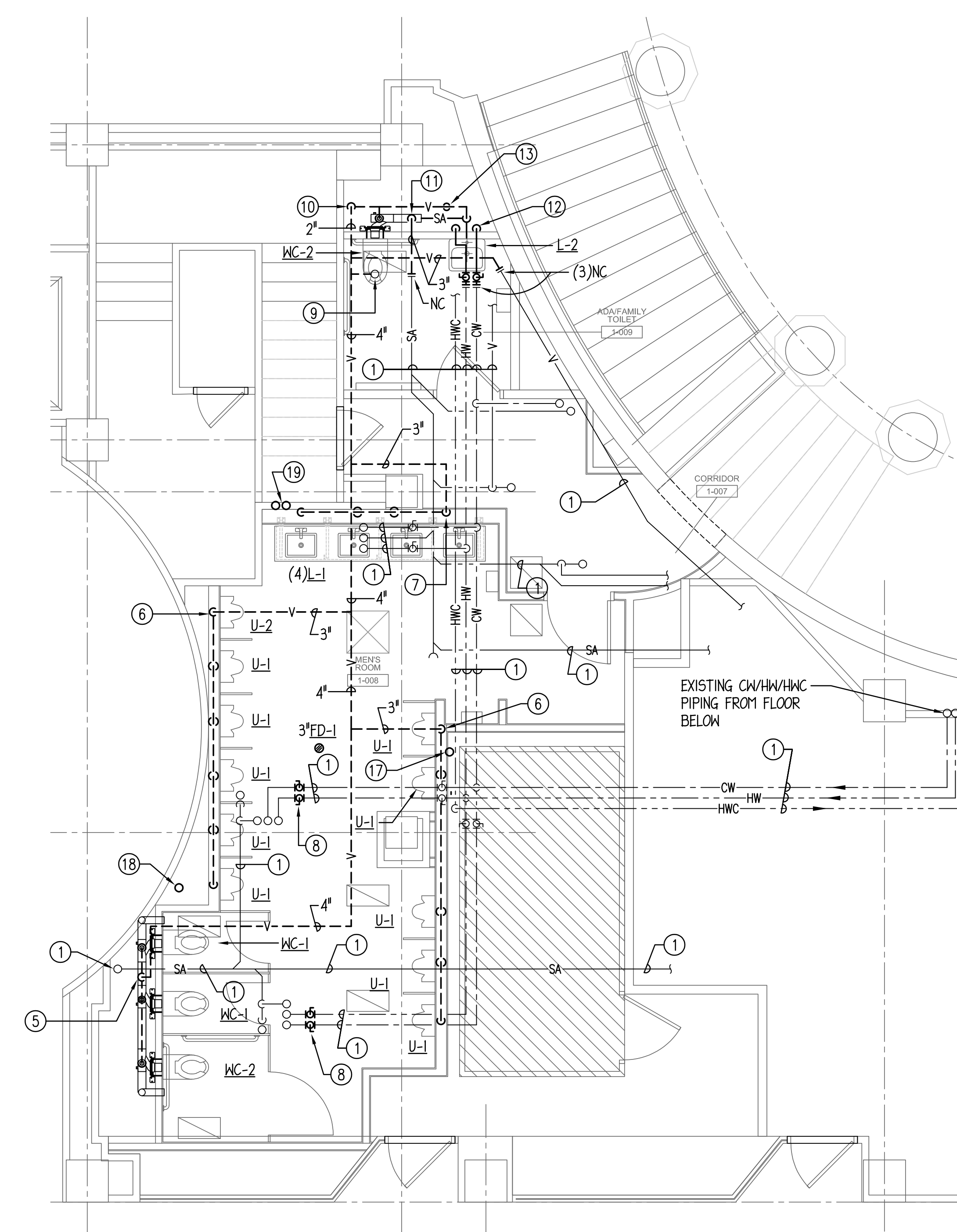
CD
P100

DATE: 2024/04/05 11:45 AM BY: JKR

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



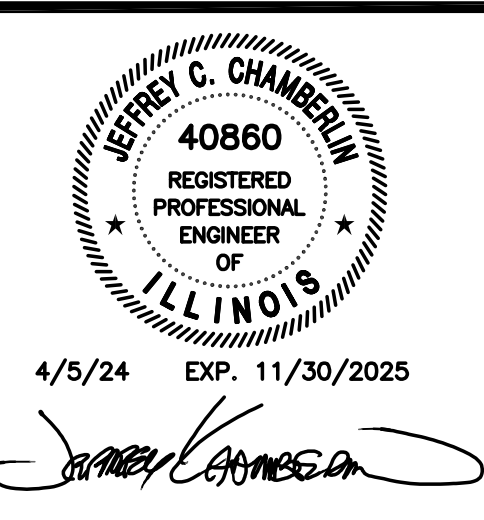
1 PARTIAL LOWER LEVEL PLUMBING PLAN - SOUTH
1/4" = 1'-0"



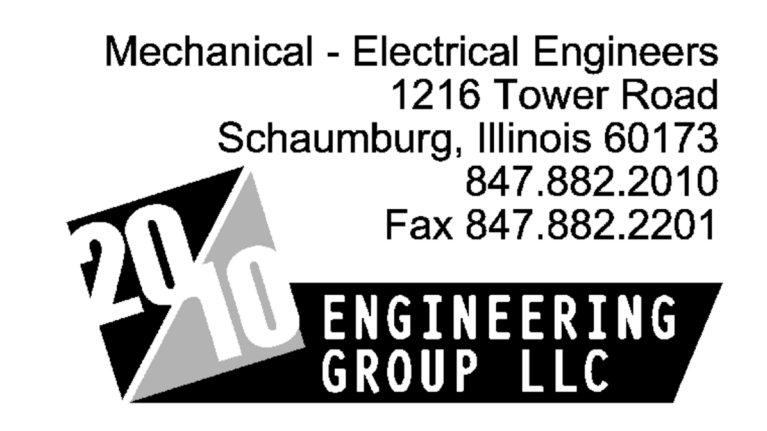
2 PARTIAL FIRST FLOOR PLUMBING PLAN - SOUTH
1/4" = 1'-0"

DRAWING NOTES:

- ① EXISTING PLUMBING PIPING, FIXTURE, EQUIPMENT ETC. TO REMAIN.
- ② 2"V UP TO FLOOR ABOVE.
- ③ 3"SA UP TO FLOOR ABOVE.
- ④ 4"SA UP TO FLOOR ABOVE.
- ⑤ 4"SA FROM FLOOR BELOW, 4"V DOWN IN CHASE.
- ⑥ 4"SA FROM FLOOR BELOW, 3"V DOWN IN CHASE.
- ⑦ 3"SA FROM FLOOR BELOW, 3"V DOWN IN CHASE.
- ⑧ CUT IN NEW 3/4" CW/HW BALL VALVES IN ACCESSIBLE LOCATION FOR SHUT OFF OF FIXTURES ON FLOOR ABOVE.
- ⑨ RECONNECT TO EXISTING 4"V RISER AT FIRST FLOOR CEILING.
- ⑩ 2"V DOWN IN CHASE.
- ⑪ 3"SA DOWN IN CHASE. 4"SA FROM FLOOR BELOW.
- ⑫ EXTEND EXISTING 1 1/4" CW & 3/4" HW TO DOWN IN CHASE TO SERVE FIXTURES IN CHASE.
- ⑬ 2"V FROM FLOOR BELOW.
- ⑭ 1 1/2" CW UP TO FLOOR ABOVE.
- ⑮ 2" CW UP TO FLOOR ABOVE.
- ⑯ 3/4" CW/HW UP TO FLOOR ABOVE.
- ⑰ 1 1/2" CW FLOOR FLOOR BELOW.
- ⑱ 2" CW FROM FLOOR BELOW.
- ⑳ 3/4" CW/HW FROM FLOOR BELOW.



Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00



Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

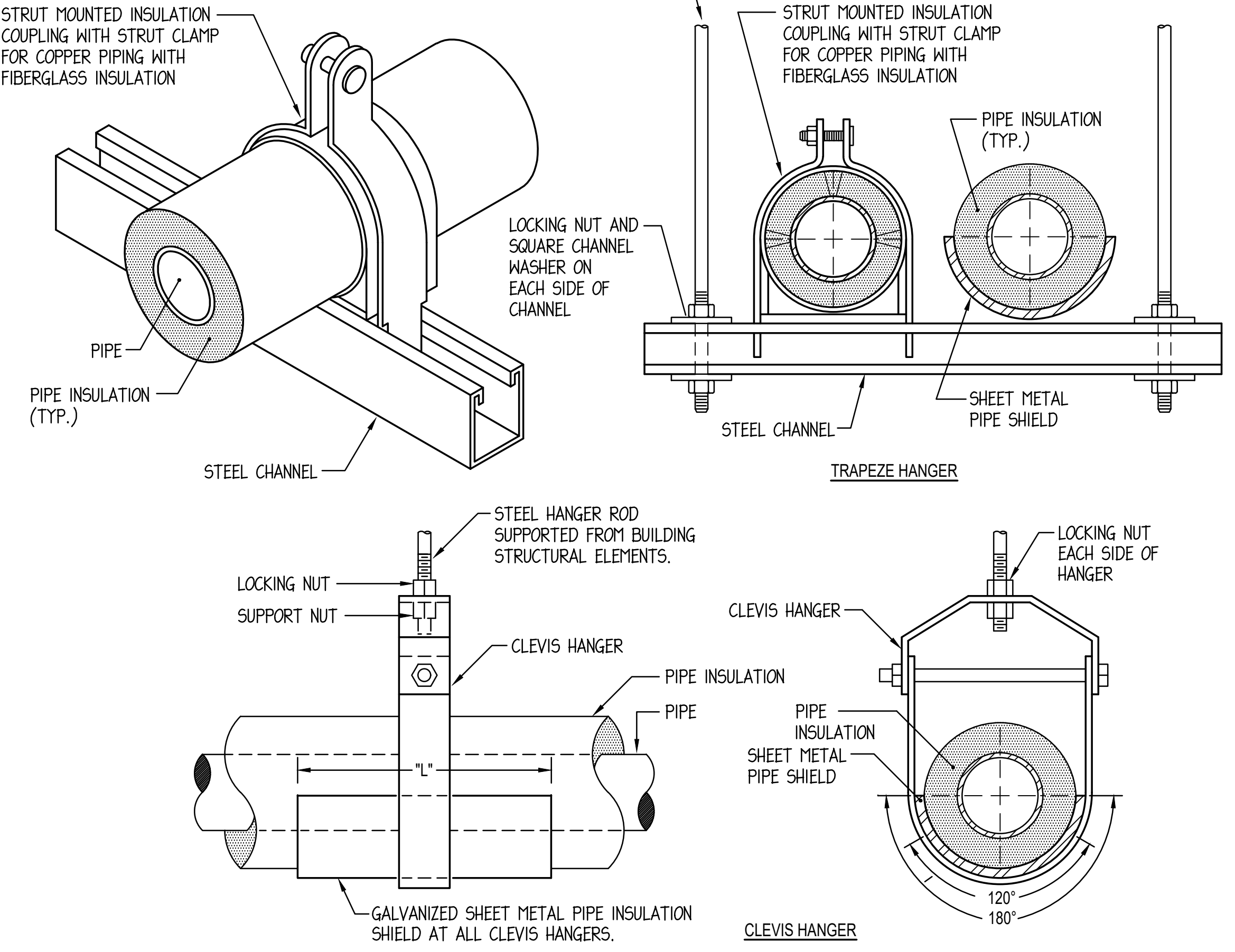
PARTIAL PLUMBING PLANS
- SOUTH

CD
P102

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

PLUMBING SYMBOLS AND ABBREVIATIONS

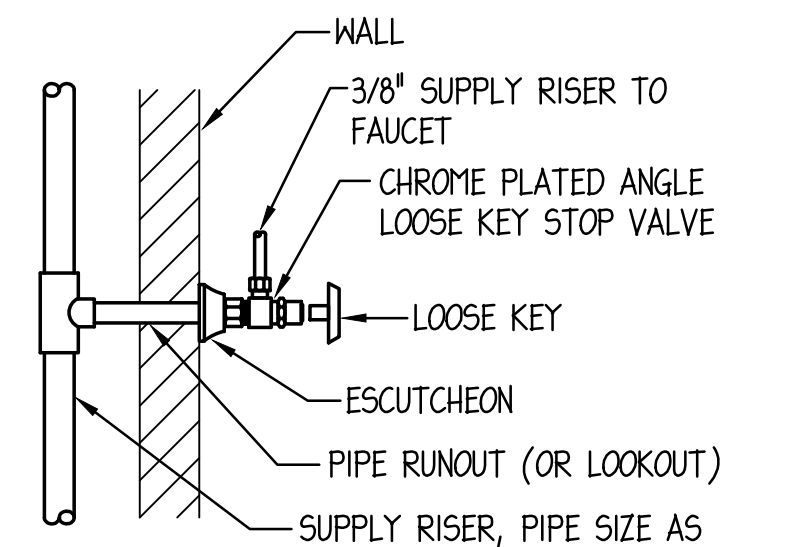
AFF.	ABOVE FINISHED FLOOR	— CW —	DOMESTIC COLD WATER
AP	ACCESS PANEL	— HW —	DOMESTIC HOT WATER
BFP	BACK FLOW PREVENTER	— HWC —	DOMESTIC HOT WATER CIRCULATING
CI	CAST IRON	— WM —	WATER MAIN
CO	CLEANOUT	— SA —	SUSPENDED SANITARY SEWER
CN	COLD WATER	— SA —	UNDERGROUND SANITARY SEWER
DS	DOWNSPOUT	— V —	SUSPENDED VENT PIPING
DWH	DOMESTIC WATER HEATER	---	PIPING TO BE REMOVED (DEMOLITION DRAWING ONLY)
DWP	DOMESTIC WATER PUMP	— —	GATE VALVE
DWET	DOMESTIC WATER EXPANSION TANK	— —	CHECK VALVE
ENC	ELECTRIC WATER COOLER	— —	BALL VALVE
FCO	FLOOR CLEANOUT	— —	CIRCUIT BALANCING VALVE W/BALANCING PORTS
FD	FLOOR DRAIN	— —	CONCENTRIC PIPE REDUCER OR INCREASER
HN	HOT WATER	— —	PRESSURE GAUGE AND NEEDLE VALVE
HWC	HOT WATER CIRCULATING	— —	THERMOMETER (WITH PIPE WELL)
INV.	INVERT ELEVATION	— —	THERMOMETER WELL
L	LAVATORY	— —	STRAINER
MB	MOP BASIN	— —	DIRECTION OF FLOW
NC	NEW CONNECTION	— —	PITCH OF PIPE (DOWN)
S	SINK	— —	PIPE ELBOW (TURNED UP)
SA	SANITARY	— —	PIPE ELBOW (TURNED DOWN)
THV	THERMOSTATIC MIXING VALVE	— —	PIPE TEE DOWN (DROP)
TYP.	TYPICAL	— —	PIPE TEE UP
U	URINAL	— —	PIPE TEE UP OR ANGLE
V	VENT	— —	PIPE TEE DOWN OR ANGLE
VTR	VENT THROUGH ROOF	— —	NEW CONNECTION
WC	WATER CLOSET	— —	WALL HYDRANT
WCO	WALL CLEANOUT	— —	CLEANOUT IN SUSPENDED CEILING
		— —	FLOOR DRAIN (ROUND)



- NOTES:**
1. CONFER WITH ARCHITECT AND REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON ACCEPTABLE METHODS AND LOCATIONS FOR HANGER SUPPORTS.
 2. WHEN WATER SUPPLY PIPING IS INSTALLED IN PARALLEL AND SAME ELEVATION, PROVIDE TRAPEZE HANGERS. PIPING SHALL REST ON SHEET METAL SHIELD AT EACH TRAPEZE HANGER WITH ATTACHMENT TO STEEL CHANNEL EVERY 30 FEET UTILIZING A STRUT MOUNTED INSULATION COUPLING WITH STRUT CLAMP FOR USE WITH COPPER PIPING AND FIBERGLASS INSULATION.

PIPE INSULATION SHIELD SCHEDULE		
PIPE SIZE	LENGTH	GUAGE
UP TO 3/4"	8"	20 GA.
1" - 2"	12"	18 GA.
2 1/2" - 4"	12"	16 GA.
5" & 6"	18"	16 GA.
8" & UP	24"	14 GA.

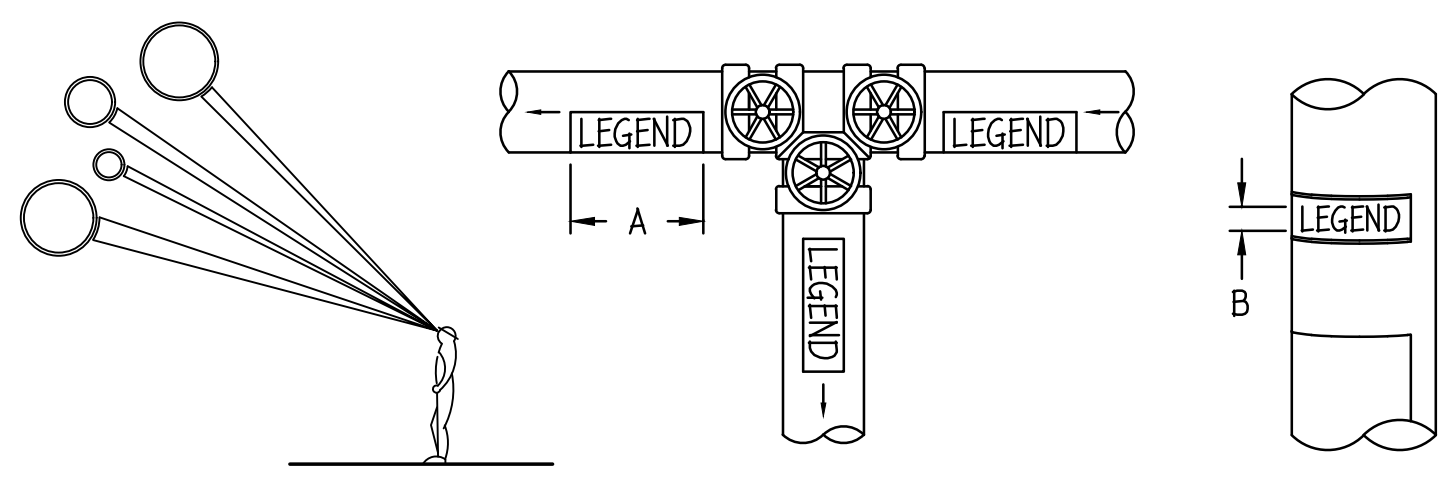
TYPICAL PIPE HANGER DETAILS
NO SCALE



NOTE: PIPE RUNOUT OR LOOKOUT SHALL BE DEFINED AS THE HORIZONTAL PIPE FROM THE SUPPLY RISER STUBBED THRU WALL TO STOP VALVE OR FLUSH VALVE AT FIXTURE.

PIPE RUNOUT (OR LOOKOUT) SCHEDULE		
PLUMBING FIXTURE	SUPPLY RISER SIZE	PIPE RUNOUT SIZE
LAVATORY	3/4"	1/2"
SHOWER	3/4"	1/2"
SINK	3/4"	1/2"
DRINKING FOUNTAIN	3/4"	1/2"
WATER CLOSETS WITH FLUSH VALVE	1 1/4"	1"
URINAL WITH FLUSH VALVE	1"	3/4"

PIPE RUNOUT SIZING DETAIL
NO SCALE

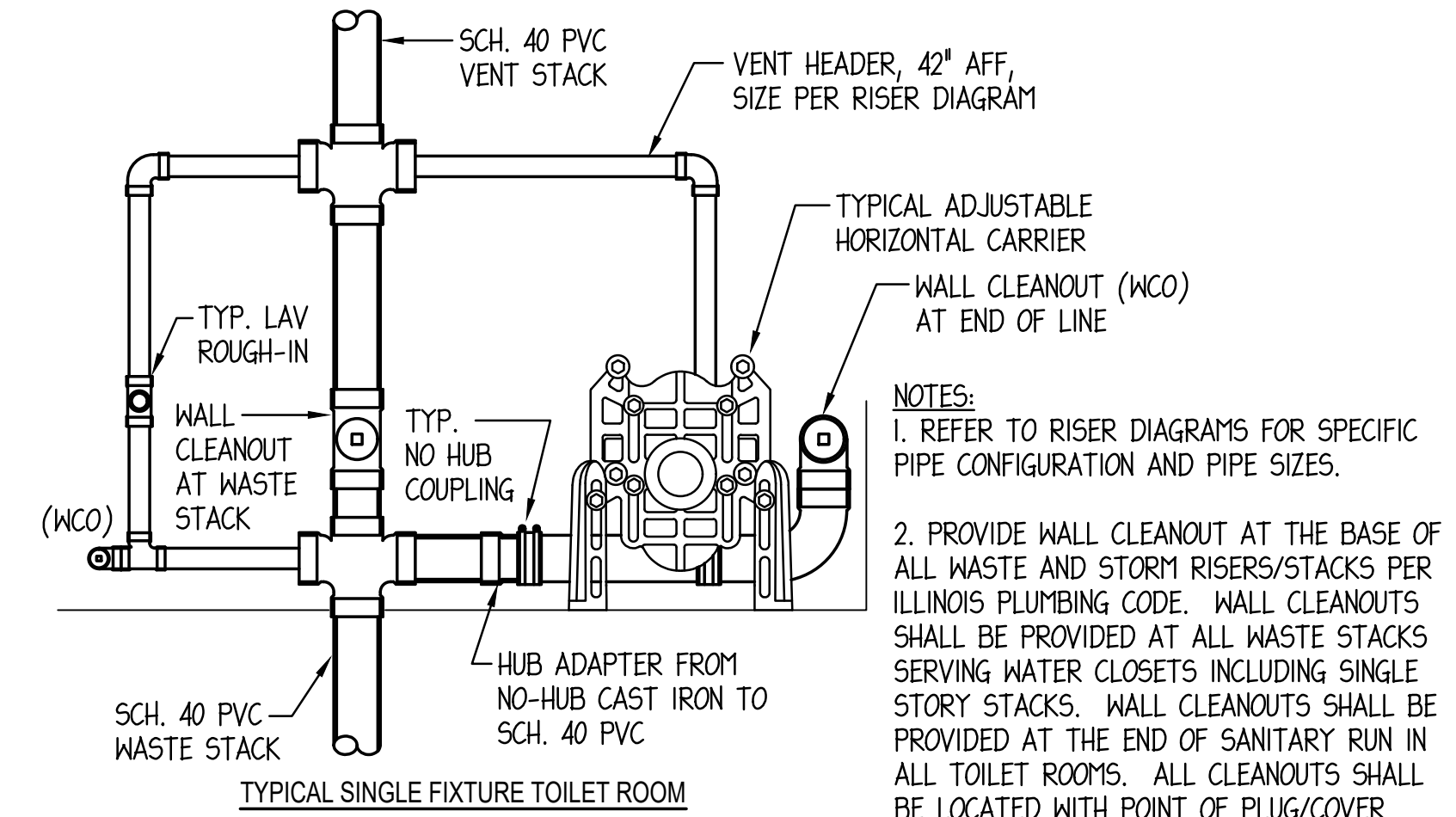


NOTE: IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS, ADJACENT TO ALL VALVES OR BRANCHES, AND AT BOTH SIDES OF WALL/FLOOR PENETRATIONS. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

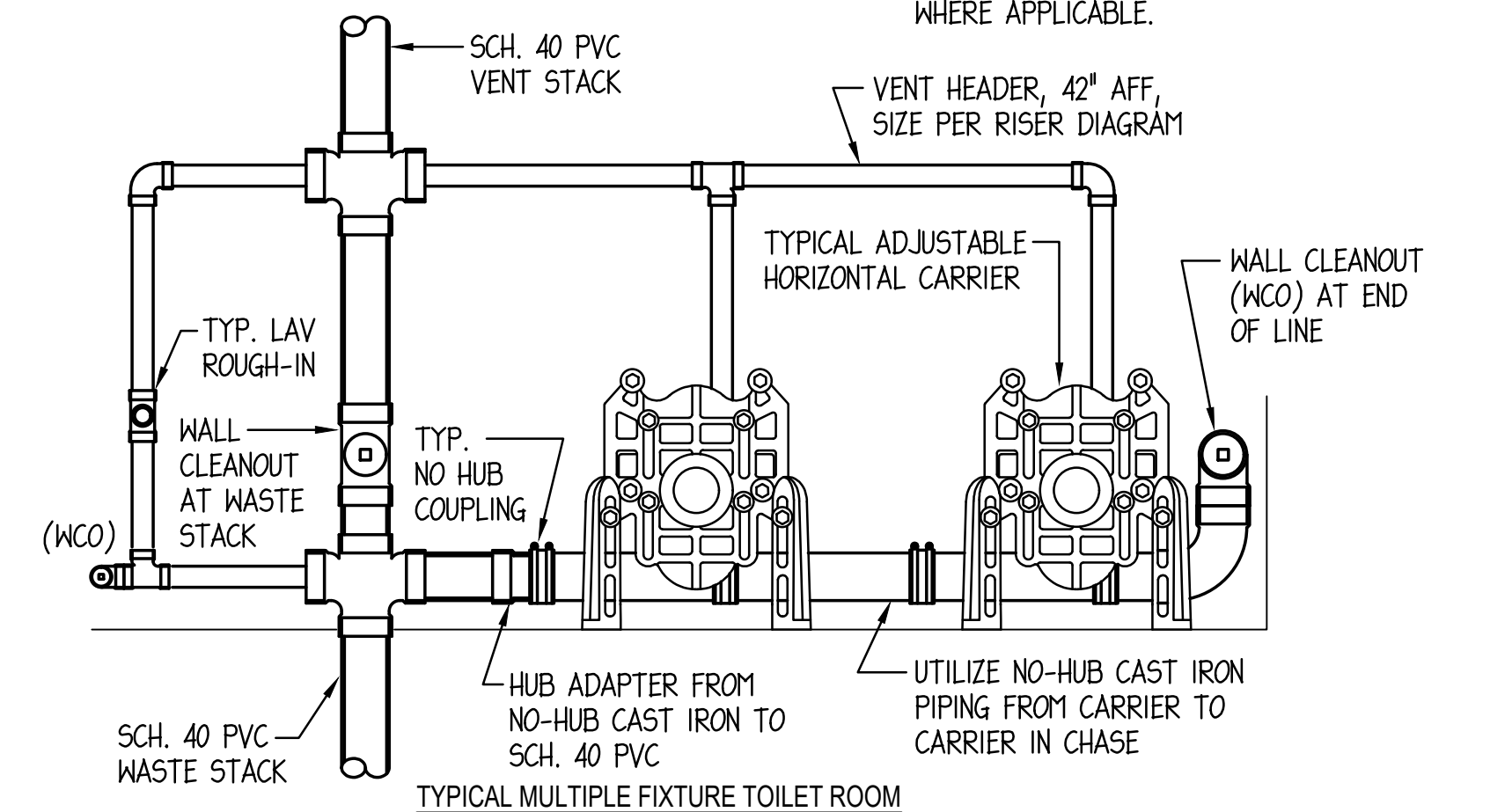
SIZE OF LEGEND LETTERS		
OUTSIDE DIAMETER OF PIPE OR COVERING	LENGTH OF COLOR FIELD A	SIZE OF LETTERS B
3/4" TO 1 1/4"	8"	1/2"
1 1/2" TO 2"	8"	3/4"
2" 1/2" TO 6"	12"	1 1/4"
8" TO 10"	24"	2 1/2"
OVER 10"	32"	3 1/2"

SERVICE	BACKGROUND OR COLOR BAND	IDENTIFICATION MARKER
SANITARY DRAIN	GREEN	WHITE ON GREEN
STORM WATER	GREEN	WHITE ON GREEN
PLUMBING VENT	GREEN	WHITE ON GREEN
DOMESTIC COLD WATER	GREEN	WHITE ON GREEN
DOMESTIC HOT WATER	GREEN	WHITE ON GREEN
DOMESTIC HOT WATER CIRC.	GREEN	WHITE ON GREEN

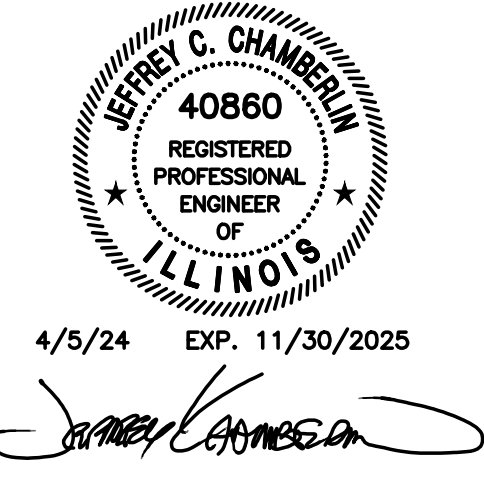
TYPICAL PIPE IDENTIFICATION MARKERS
NO SCALE



- NOTES:**
1. REFER TO RISER DIAGRAMS FOR SPECIFIC PIPE CONFIGURATION AND PIPE SIZES.
 2. PROVIDE WALL CLEANOUT AT THE BASE OF ALL WASTE AND STORM RISERS/STACKS PER ILLINOIS PLUMBING CODE. WALL CLEANOUTS SHALL BE PROVIDED AT ALL WASTE STACKS SERVING WATER CLOSETS INCLUDING SINGLE STORY STACKS. WALL CLEANOUTS SHALL BE PROVIDED AT THE END OF SANITARY RUN IN ALL TOILET ROOMS. ALL CLEANOUTS SHALL BE LOCATED WITH POINT OF PLUG/COVER ACCESS LOCATED WITHIN MENS TOILET ROOM WHERE APPLICABLE.



WASTE STACK WITH WALL CLEANOUT AT TYPICAL TOILET ROOM PLUMBING CHASE DETAIL
NO SCALE



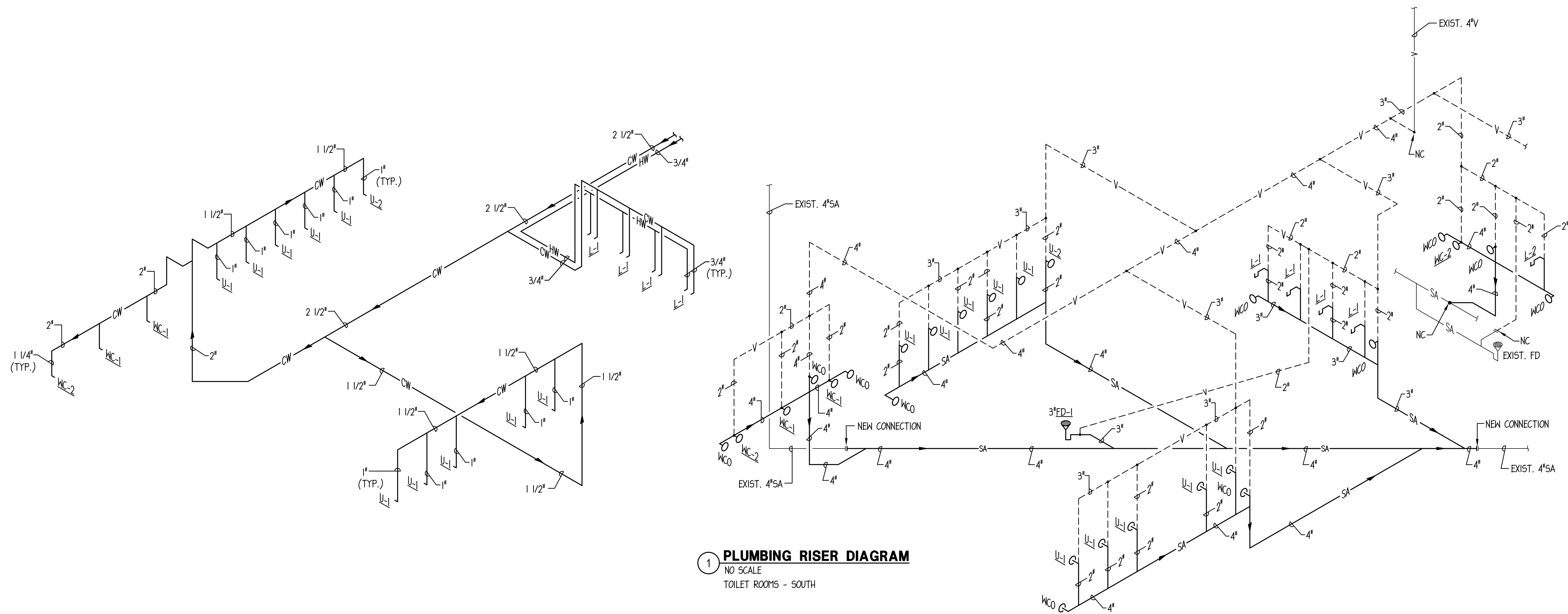
Client
WCMEA
Rialto Square Theatre
Restroom Renovation & Expansion
102 N Chicago Street
Joliet, Illinois 60432
Project No. 22-22104-00



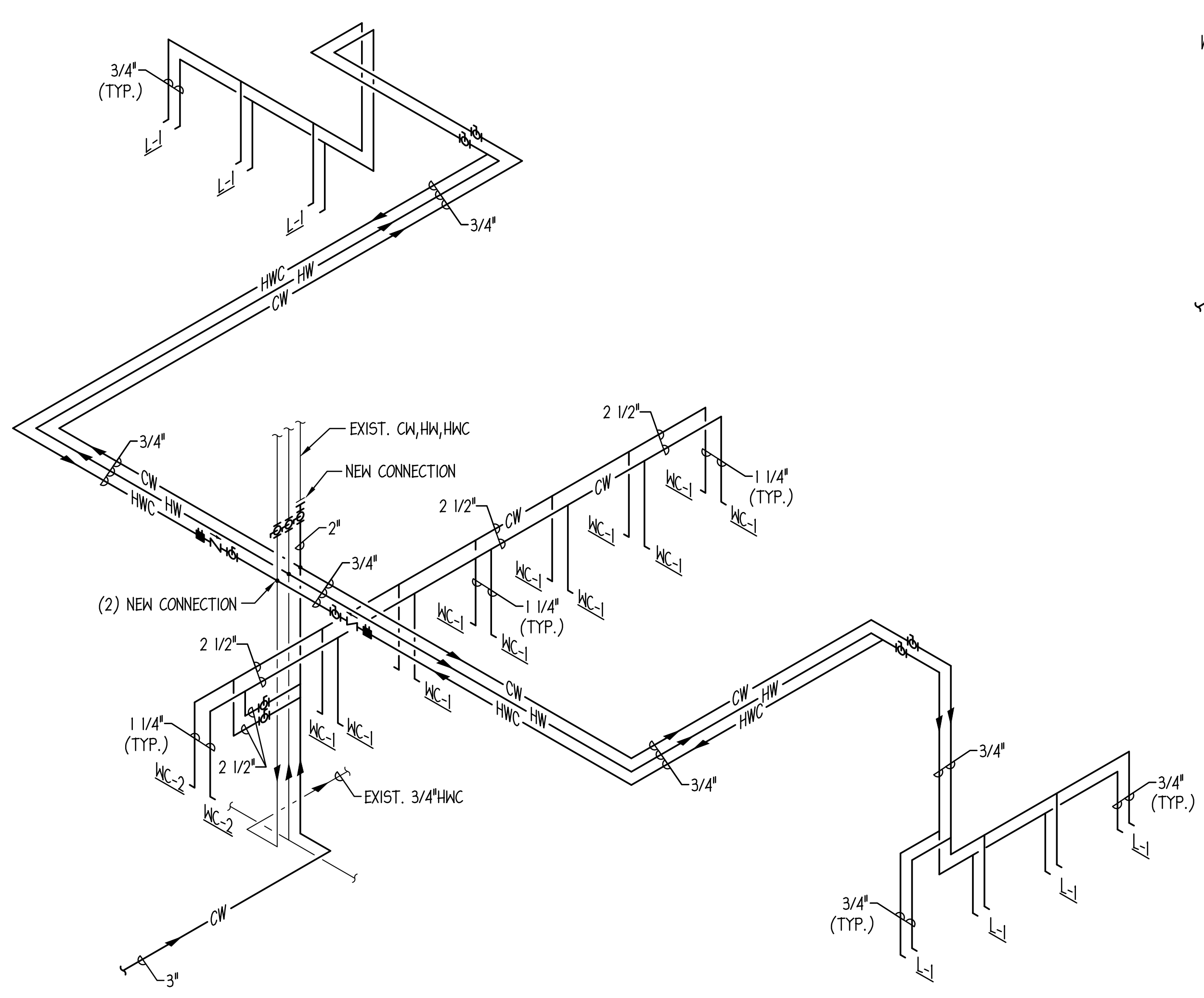
PLUMBING DETAILS

CD
P202

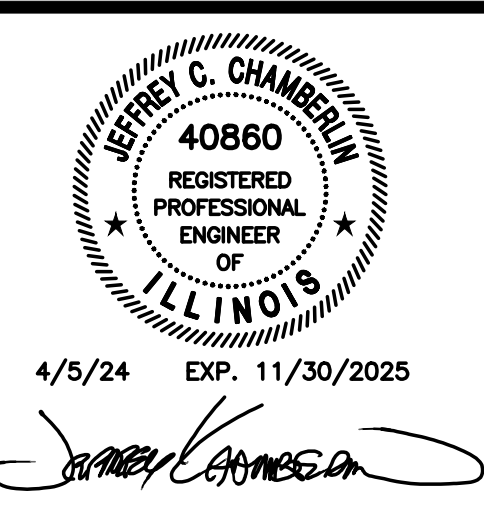
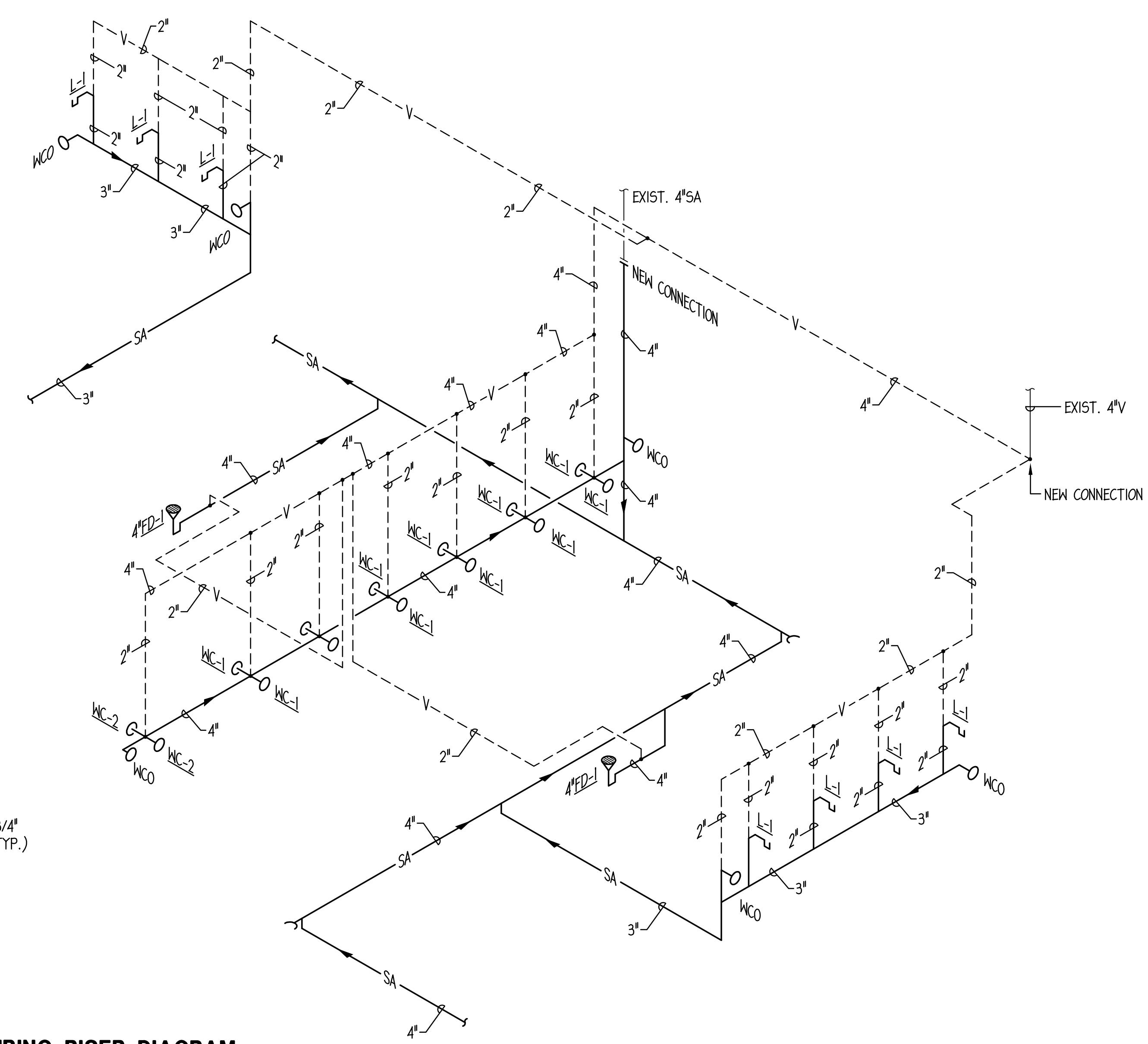
Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



1 PLUMBING RISER DIAGRAM
NO SCALE
TOILET ROOMS - SOUTH



2 PLUMBING RISER DIAGRAM
NO SCALE
TOILET ROOMS - NORTH



Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
102 N Chicago Street
Joliet, Illinois 60432
Project No. 22-22104-00

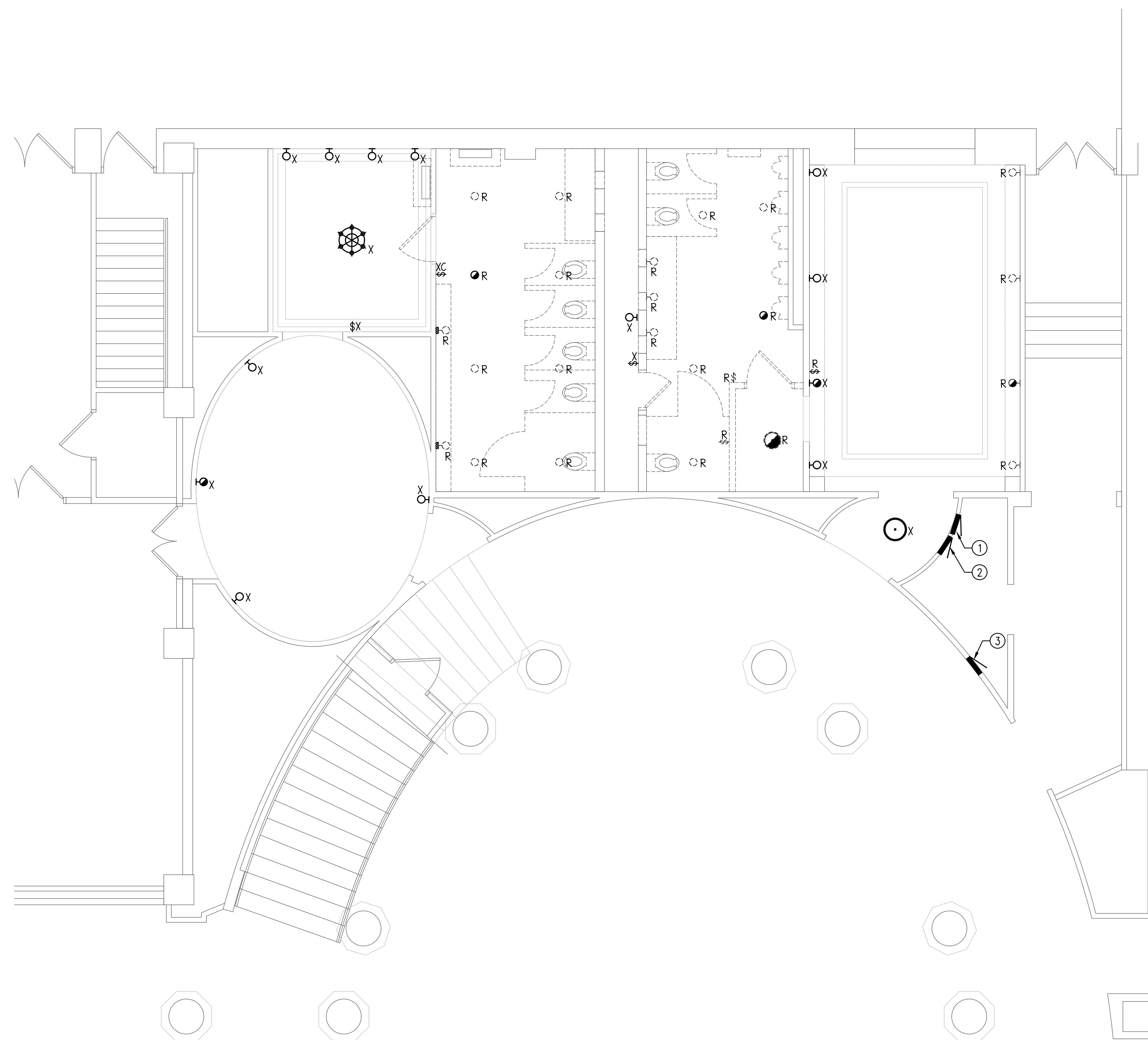
Mechanical - Electrical Engineers
1216 Tower Road
Schaumburg, Illinois 60173
847.882.2010
Fax 847.882.2201



PLUMBING RISER DIAGRAMS

CD
P203

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



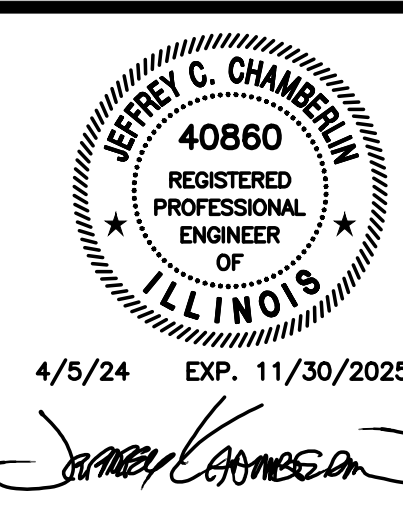
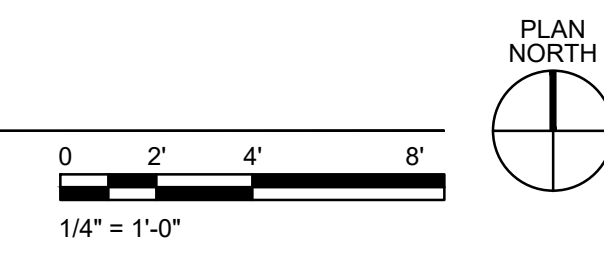
DEMOLITION SYMBOLS	
SYMBOL	DESCRIPTION
R	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED.
X	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO REMAIN.
XC	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED AND JUNCTION BOX CAPPED OR REUSED AS REQUIRED.
XO	NEW ELECTRICAL EQUIPMENT INSTALLED OVER EXISTING OUTLET.
XRR	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED, RELOCATED AND JUNCTION BOX REMOVED OR CAPPED AS REQUIRED.
XR	EXISTING ELECTRICAL EQUIPMENT OR OUTLET RELOCATED (NEW LOCATION).
XRT	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE TEMPORARILY REMOVED AND REINSTALLED IN SAME LOCATION.
XA	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE ABANDONED.
XM	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE MODIFIED.
XM	EXISTING ELECTRICAL EQUIPMENT TO BE REWIRED.

NOTE: NOT ALL SYMBOLS MAY BE USED.

DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY.)

- ① EXISTING 240/120V 1Ø, 3W PANEL "A"
- ② EXISTING 240/120V 1Ø, 3W PANEL "B"
- ③ EXISTING GENERATOR BACKED, 240/120V 1Ø, 3W PANEL "1X"

1 PARTIAL FIRST FLOOR ELECTRICAL DEMOLITION PLAN - NORTH
1/4" = 1'-0"



Client
WCMEAA
 Rialto Square Theatre
 Restroom Renovation &
 Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00

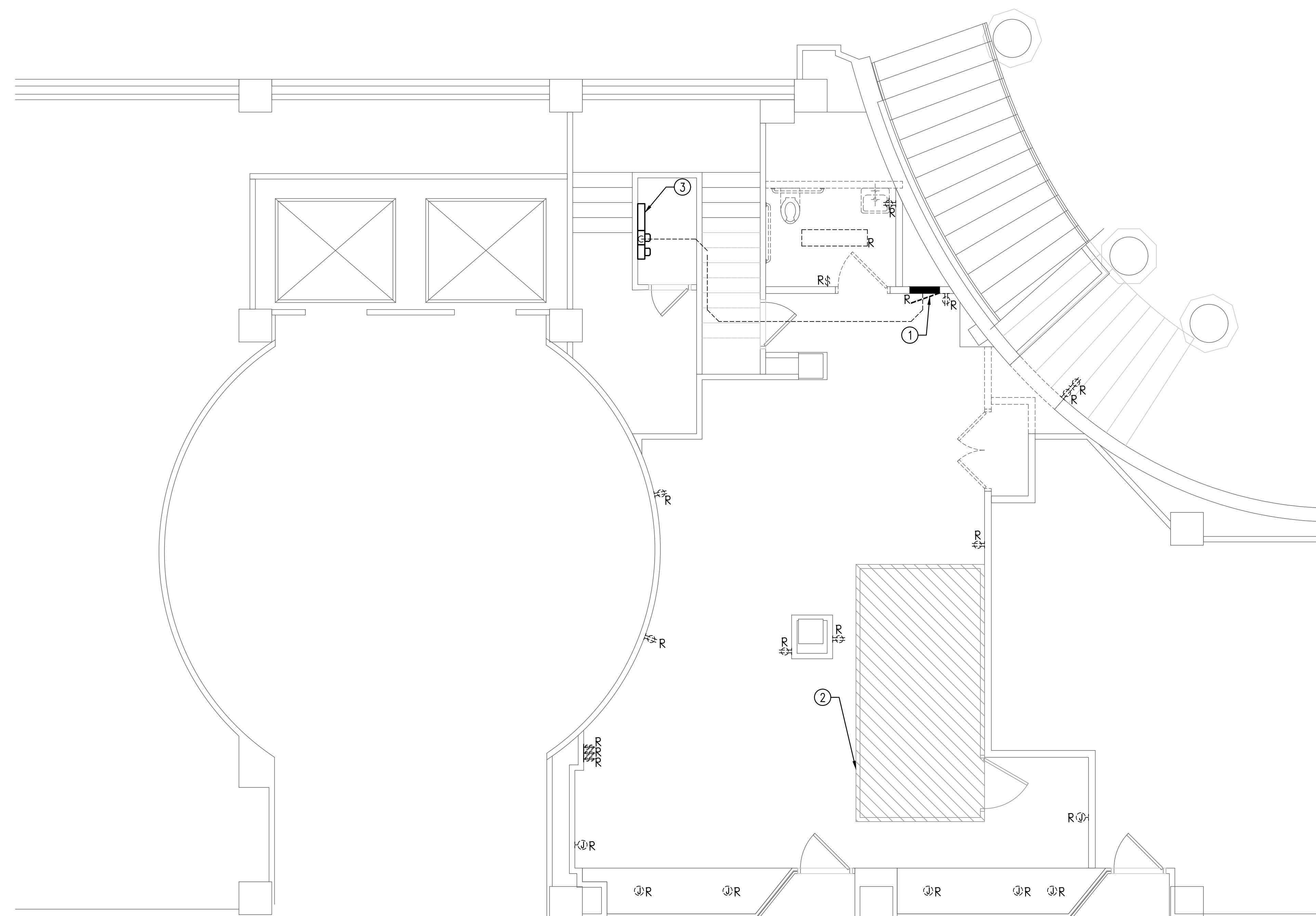


Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

PARTIAL FIRST FLOOR
 ELECTRICAL DEMOLITION
 PLAN - NORTH

CD
ED101

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



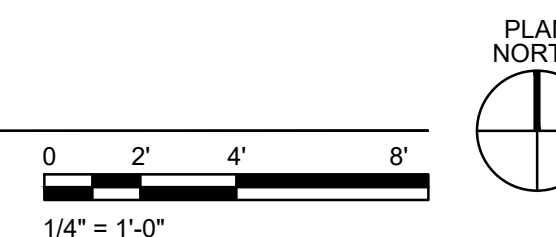
DEMOLITION SYMBOLS	
SYMBOL	DESCRIPTION
R	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED.
X	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO REMAIN.
XC	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED AND JUNCTION BOX CAPPED OR REUSED AS REQUIRED.
XO	NEW ELECTRICAL EQUIPMENT INSTALLED OVER EXISTING OUTLET.
XRR	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE REMOVED, RELOCATED AND JUNCTION BOX REMOVED OR CAPPED AS REQUIRED.
XR	EXISTING ELECTRICAL EQUIPMENT OR OUTLET RELOCATED (NEW LOCATION).
XRT	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE TEMPORARILY REMOVED AND REINSTALLED IN SAME LOCATION.
XA	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE ABANDONED.
XM	EXISTING ELECTRICAL EQUIPMENT OR OUTLET TO BE MODIFIED.
XN	EXISTING ELECTRICAL EQUIPMENT TO BE REWIRED.

NOTE: NOT ALL SYMBOLS MAY BE USED.

DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY.)

- ① EXISTING PANEL TO BE REMOVED. DISCONNECT LOADS ON PANELS 2,4,6,8,12/14. REMOVE PANEL AND RETURN TO OWNER. REMOVE FEEDER BETWEEN PANEL AND METER CENTER. COORDINATE WITH UTILITY TO REMOVE METER FROM SOCKET AND BLANK OFF.
- ② EXISTING WALK IN COOLER TO REMAIN. DISCONNECT FROM PANEL TO BE DEMOLISHED. COOLER TO BE REFEED FROM ALTERNATE PANEL. SEE NEW WORK PLANS.
- ③ EXISTING METER CENTER TO REMAIN. CONTRACTOR TO CONTACT UTILITY COMPANY ON OWNERS BEHALF TO REMOVE METER ASSOCIATED WITH PANEL TO BE DEMOLISHED.

1 PARTIAL FIRST FLOOR ELECTRICAL DEMOLITION PLAN - SOUTH
1/4" = 1'-0"



4/5/24 EXP. 11/30/2025

Jeffrey C. Chambliss

Client
WCMEAA
 Rialto Square Theatre
 Restroom Renovation &
 Expansion

102 N Chicago Street
 Joliet, Illinois 60432

Project No. 22-22104-00

Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

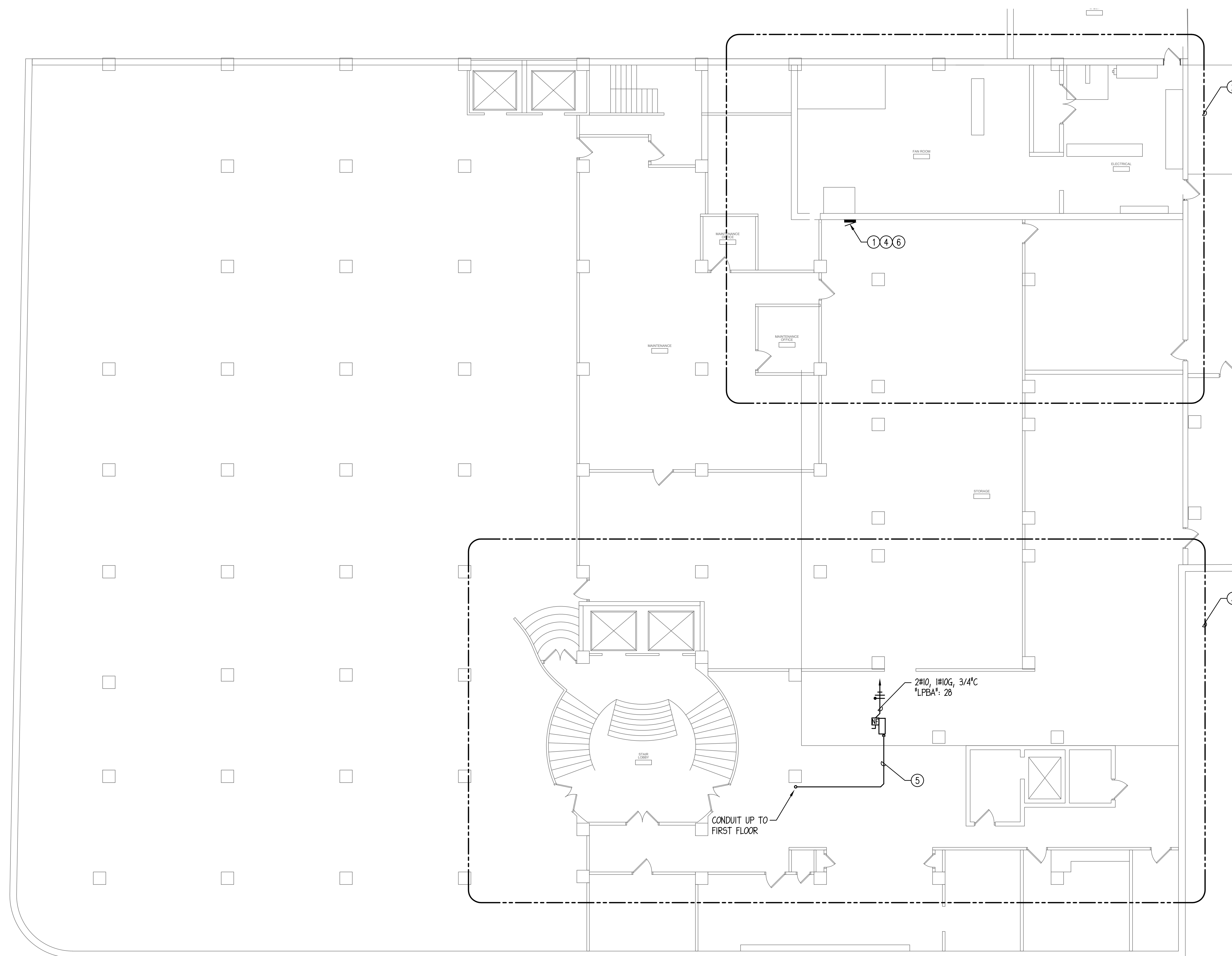


PARTIAL FIRST FLOOR
 ELECTRICAL DEMOLITION
 PLAN - SOUTH

CD

ED102

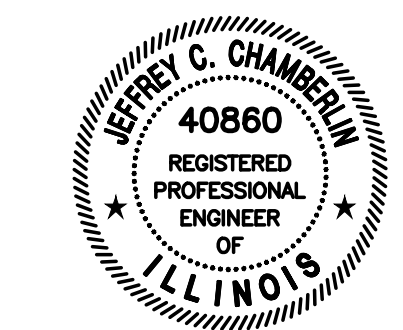
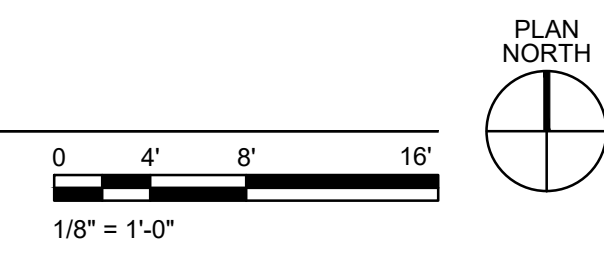
Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY.)

- ① EXISTING 240/120V, 1Ø, 3W, 225A PANEL BOARD "LPBA". PROVIDE (7) NEW 20A/1P CIRCUIT BREAKERS IN AVAILABLE SPACES TO SERVE NEW HAND DRYERS IN REMODELED TOILET ROOMS ON FIRST FLOOR. PROVIDE NON REMOVABLE PANELBOARD ACCESSORY AT EACH BREAKER TO ALLOW LOCKOUT OF EACH BREAKER. PROVIDE (1) NEW 20A/1P BREAKER TO SERVE TOILET ROOM CONVENIENCE RECEPTACLES. PROVIDE (1) NEW 20A/1P BREAKER TO SERVE SHOW WINDOW HEATER.
- ② APPROXIMATE AREA OF NORTH TOILET ROOM WORK ONE LEVEL ABOVE.
- ③ APPROXIMATE AREA OF SOUTH TOILET ROOM WORK ONE LEVEL ABOVE.
- ④ EXISTING 240/120V, 1Ø, 3W, 225A PANEL BOARD "LPBA". PROVIDE (1) NEW 20A/1P CIRCUIT BREAKERS IN AVAILABLE SPACE TO SERVE NEW DUCT FREE SPLIT SYSTEM SERVING NEW TOILET ROOMS ON FIRST FLOOR.
- ⑤ CONDUITS BETWEEN SPLIT SYSTEM CONDENSING UNIT AND FAN COIL TO FOLLOW ROUTING OF MECHANICAL REFRIGERATION PIPING.
- ⑥ EXISTING 240/120V, 1Ø, 3W, 225A PANEL BOARD "LPBA". PROVIDE (1) NEW 20A/1P CIRCUIT BREAKERS IN AVAILABLE SPACE TO SERVE NEW EXHAUST FAN SERVING NEW TOILET ROOMS ON FIRST FLOOR.

1 LOWER LEVEL ELECTRICAL PLAN
1/8" = 1'-0"



4/5/24 EXP. 11/30/2025

Jeffrey C. Chambliss

Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00

Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

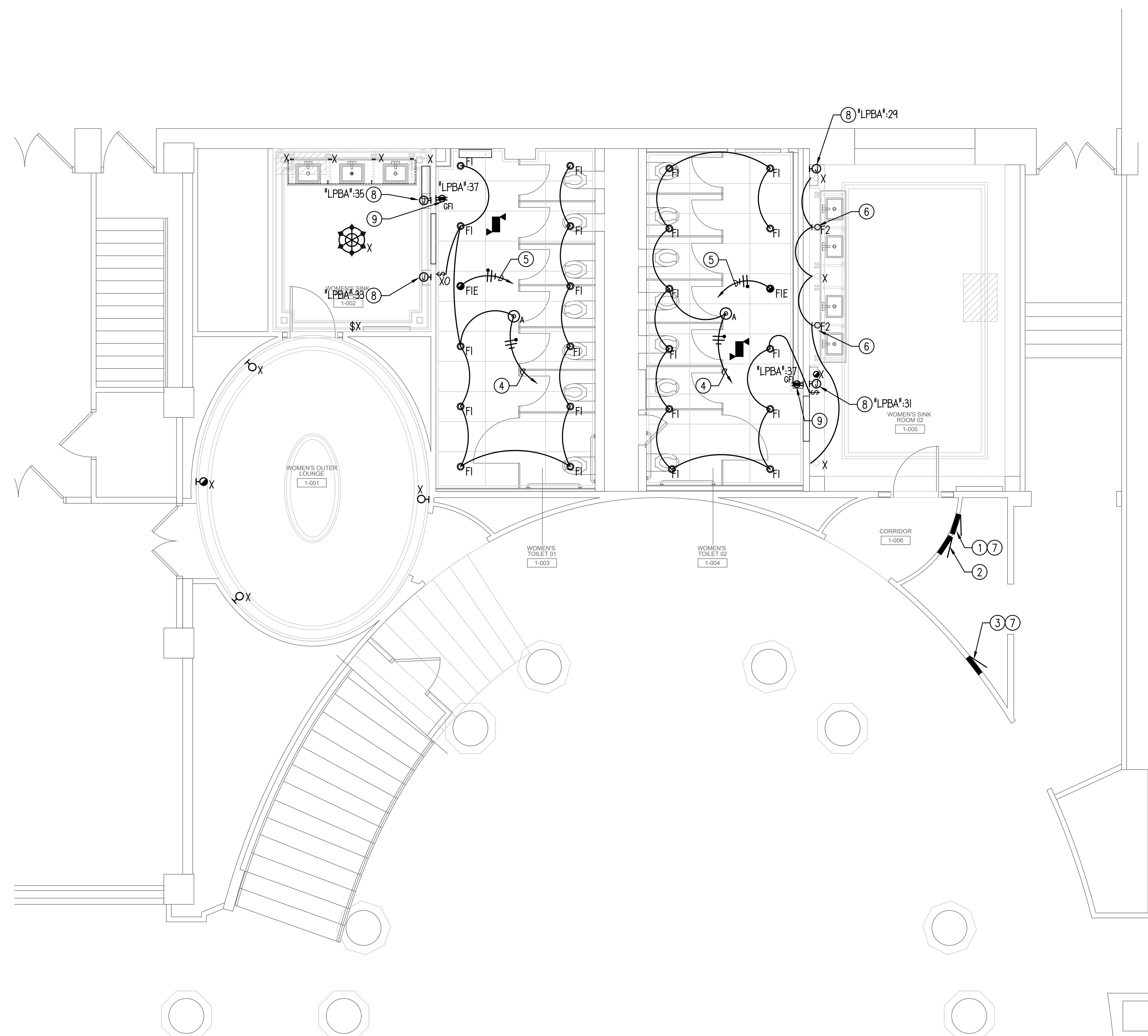


LOWER LEVEL ELECTRICAL PLAN

CD
E100

DATE: 20240405.DWG BY: RJR DATE: Apr - 3, 24 TIME: 10:32 AM

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

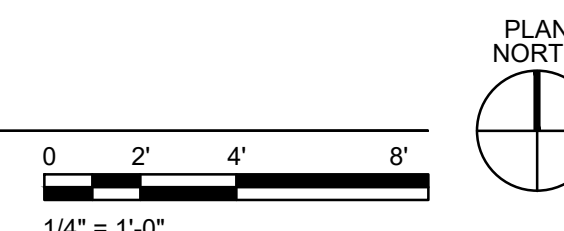


DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY.)

- ① EXISTING 240/120V 1Ø, 3W PANEL "A"
- ② EXISTING 240/120V 1Ø, 3W PANEL "B"
- ③ EXISTING GENERATOR BACKED, 240/120V 1Ø, 3W PANEL "1X"
- ④ UTILIZE EXISTING CIRCUIT SERVING LIGHTING IN THIS SPACE TO SERVE NEW LIGHT FIXTURES. MODIFY AND EXTEND EXISTING CONDUCTORS AND RACEMAYS AS REQUIRED. CREATE NEW SWITCHLEGS AND INCORPORATE LIGHTING CONTROL DEVICES (SENSORS) WHERE SHOWN ON PLANS.
- ⑤ UTILIZE EXISTING CIRCUIT SERVING NIGHT LIGHTS IN THIS SPACE FROM GENERATOR BACKED PANEL TO SERVE NEW NIGHT LIGHT FIXTURES. MODIFY AND EXTEND EXISTING CONDUCTORS AND RACEMAYS AS REQUIRED.
- ⑥ UTILIZE EXISTING CIRCUIT SERVING EXISTING WALL SCONCE LIGHTING IN THIS SPACE TO SERVE NEW LIGHT FIXTURES. MODIFY AND EXTEND EXISTING CONDUCTORS AND RACEMAYS AS REQUIRED. FISH CONDUCTORS IN FLEXIBLE METAL CONDUIT THROUGH CEILING AND WALL CAVITIES.
- ⑦ NEW WIRING TO PANELS TO BE BROUGHT INTO ROOM FROM LEVEL BELOW. BRING CIRCUITS INTO SURFACE MOUNTED JUNCTION BOX ADJACENT TO PANEL AND MARK JUNCTION BOX WITH LOAD SERVED. FROM JUNCTION BOX, HOME RUN CIRCUIT TO PANELBOARD. FISH THROUGH WALL CAVITY FROM JUNCTION BOX TO PANEL. MOUNT JUNCTION BOX JUST ABOVE PANELBOARD.
- ⑧ PROVIDE 2#12, #12G IN 3/4" C TO PANEL "LPBA". ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. PROVIDE 120V CONNECTION TO NEW HAND DRYER.
- ⑨ PROVIDE 2#12, #12G IN 3/4" C TO PANEL "LPBA". ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. PROVIDE 120V CONNECTION TO NEW RECEPTACLE

1 PARTIAL FIRST FLOOR ELECTRICAL PLAN - NORTH

1/4" = 1'-0"



4/5/24 EXP. 11/30/2025

Jeffrey C. Chambliss

Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion

102 N Chicago Street
 Joliet, Illinois 60432

Project No. 22-22104-00

Mechanical - Electrical Engineers
 1216 Tower Road
 Schaumburg, Illinois 60173
 847.882.2010
 Fax 847.882.2201

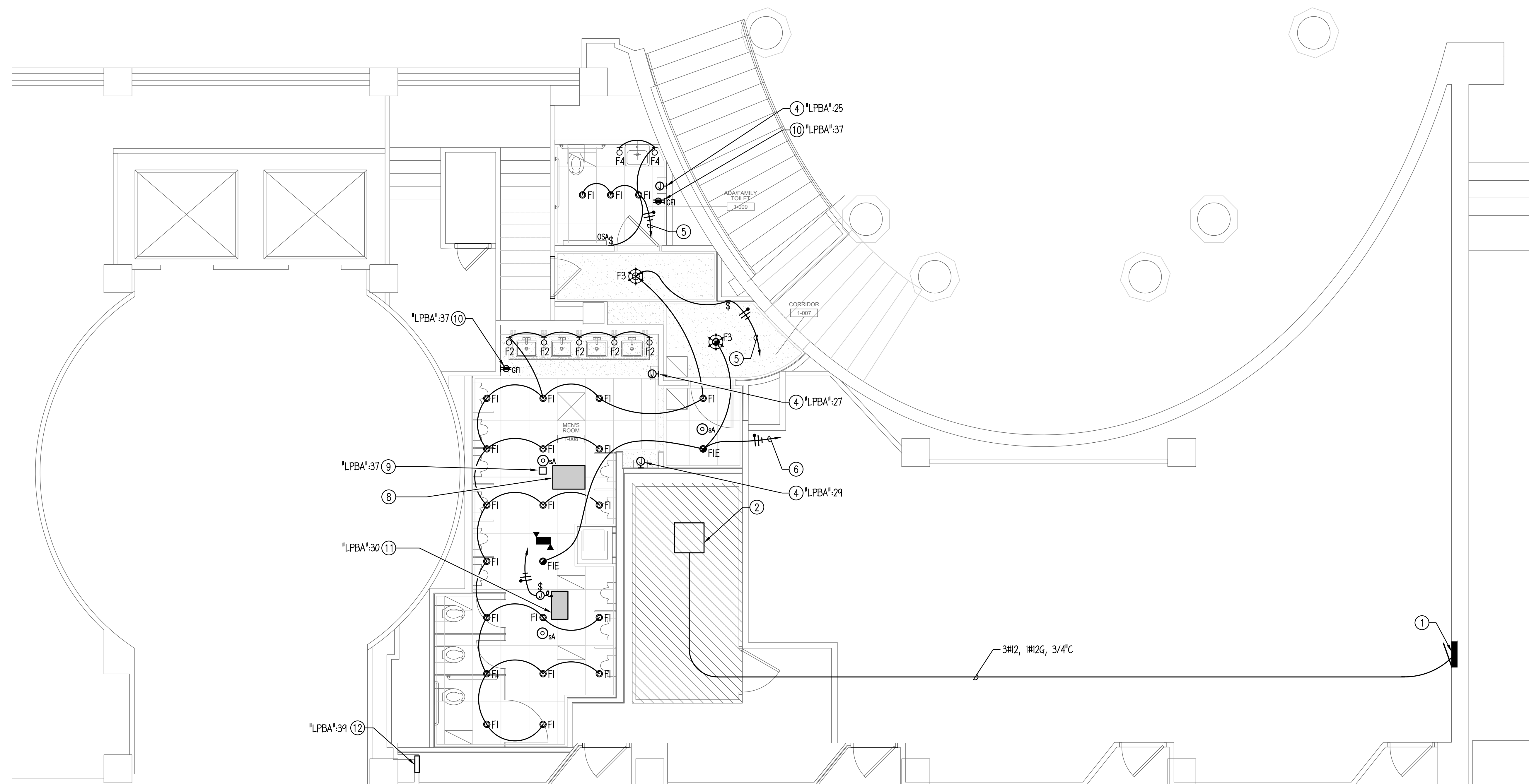


PARTIAL FIRST FLOOR
 ELECTRICAL PLAN -
 NORTH

CD

E101

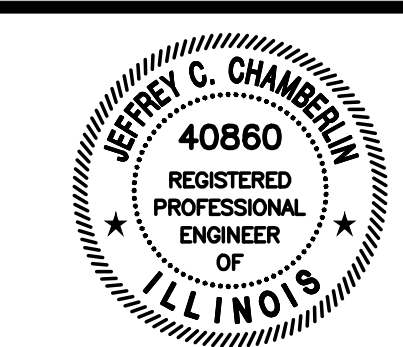
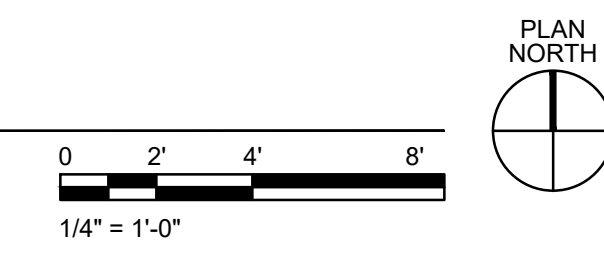
Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY.)

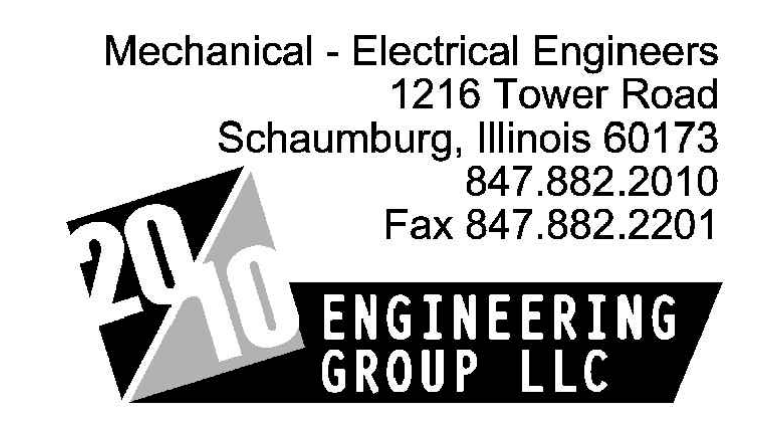
- ① EXISTING RECESSED PANEL. REMOVE (2) SPARE 1 POLE BREAKERS AND PROVIDE NEW 20A/2P CIRCUIT BREAKER IN SPACE TO SERVE EXISTING WALK IN COOLER. FISH NEW CONDUIT DOWN WALL INTO PANEL. VERIFY ROUGH IN HEIGHT WITH ARCHITECTURAL ELEVATIONS AND MANUFACTURERS WRITTEN INSTRUCTIONS.
- ② EXISTING WALK IN COOLER TO REMAIN. CONNECT TO NEW CIRCUIT FROM PANEL SHOWN ON PLANS. REUSE EXISTING DISCONNECTS.
- ③ EXISTING METER CENTER TO REMAIN. CONTRACTOR TO CONTACT UTILITY COMPANY ON OWNERS BEHALF TO REMOVE METER ASSOCIATED WITH PANEL TO BE DEMOLISHED.
- ④ PROVIDE 2#10, 1#10G IN 3/4"C TO PANEL "LPBA". ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. PROVIDE 120V CONNECTION TO NEW HAND DRYER.
- ⑤ PROVIDE 2#10, 1#10G IN 3/4"C TO PANEL "A" IN NORTH AREA OF CONSTRUCTION. ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. UTILIZE CIRCUIT "21".
- ⑥ PROVIDE 2#10, 1#10G IN 3/4"C TO PANEL "IXE" IN NORTH AREA OF CONSTRUCTION. ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. UTILIZE CIRCUIT "17".
- ⑦ PROVIDE 2#10, 1#10G IN 3/4"C TO PANEL "LPBA". ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. PROVIDE 120V CONNECTION TO NEW RECEPTACLE
- ⑧ FAN COIL UNIT POWERED FROM SPIT SYSTEM HEAT PUMP LOCATED ON LEVEL BELOW. PROVIDE 2#12, 1#12G IN 1/2"C. PROVIDE 1/2" CONDUIT FOR CONTROL WIRING.
- ⑨ CONDENSATE PUMP FURNISHED WITH FAN COIL UNIT. WIRE COMPLETE TO LOCAL ROOM RECEPTACLE CIRCUIT.
- ⑩ PROVIDE 2#10, 1#10G IN 3/4"C TO PANEL "LPBA". ROUTE CIRCUIT DOWN IN WALL AND THROUGH LOWER LEVEL. PROVIDE 120V CONNECTION TO RECEPTACLES.
- ⑪ PROVIDE MOTOR RATED TOGGLE DISCONNECT ADJACENT TO NEW EXHAUST FAN. ROUTE CONDUCTORS AND CONDUIT ASSOCIATE WITH UNIT DOWN TO LOWER LEVEL PANEL. FOLLOW ROUTING OF REFRIGERANT PIPING TO LOWER LEVEL.
- ⑫ NEW 1500W, 120V SINGLE PHASE ELECTRIC WALL HEATER WITH INTEGRAL DISCONNECT SWITCH. PROVIDE 2#10, 1#10G, 3/4"C TO PANEL "LPBA". ROUTE CIRCUIT DOWN AND THROUGH LOWER LEVEL.

1 PARTIAL FIRST FLOOR ELECTRICAL PLAN - SOUTH
1/4" = 1'-0"



4/5/24 EXP. 11/30/2025
Jeffrey C. Chambliss

Client
WCMEAA
Rialto Square Theatre
Restroom Renovation & Expansion
102 N Chicago Street
Joliet, Illinois 60432
Project No. 22-22104-00



PARTIAL FIRST FLOOR
ELECTRICAL PLAN -
SOUTH

CD
E102

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT

INTERIOR LUMINAIRE SCHEDULE								
TYPE	DESCRIPTION	MOUNTING	LAMPS	VOLTAGE	INPUT WATTAGE	MANUFACTURER & CATALOG NUMBER	ALTERNATE MANUFACTURER	NOTES
F1	6" APERTURE LED DOWNLIGHT	RECESSED	LED	120V.	25	LITHONIA LIGHTING LDN6-AL02-SKWH-L06-NR-WD-MVOLT-UGZI	SUBMIT FOR APPROVAL	1
F1E	6" APERTURE LED DOWNLIGHT WITH INTEGRAL BACK UP BATTERY PACK AND INTEGRAL TEST SWITCH	RECESSED	LED	120V.	25	LITHONIA LIGHTING LDN6-AL02-SKWH-L06-NR-WD-MVOLT-UGZI-E10WCP	SUBMIT FOR APPROVAL	1,2
F2	DECORATIVE WALL SCONCE	WALL	(2) 60W EQUIV CANDELABRA	120V.	-	CRYSTORMA 650-0B	SUBMIT FOR APPROVAL	1,3
F3	DECORATIVE PENDENT	CEILING	(2) 60W EQUIV CANDELABRA	120V.	-	CRYSTORMA 716-0B-CL-MWP	SUBMIT FOR APPROVAL	1,3
F4	DECORATIVE WALL SCONCE	WALL	(1) 60W EQUIV CANDELABRA	120V.	-	CRYSTORMA 651-0B	SUBMIT FOR APPROVAL	1,3

NOTES:

- CONTRACTOR TO PROVIDE ALL OPTIONS AND ACCESSORIES AS REQUIRED TO INSTALL FIXTURE IN VARYING CEILING TYPES AS SHOWN ON THE PLANS.
- PROVIDE CONSTANT 140°F WIRE FROM CIRCUIT SERVING LIGHT FIXTURES AHEAD OF ALL LIGHTING CONTROLS FOR MONITORING OF NORMAL POWER STATUS.
- PROVIDE 60W EQUIVALENT CANDELABRA BASE LED LAMP, COLOR TEMPERATURE TO BE SELECTED BY ARCHITECT.

GENERAL NOTES:

- ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY MOUNTING HARDWARE AND LABOR FOR ALL LUMINAIRES.
- ELECTRICAL CONTRACTOR TO PROVIDE ALL WIRING, CABLING, AND ACCESSORIES AS REQUIRED FOR PROPER FUNCTIONALITY OF LUMINAIRES UTILIZING OCCUPANCY CONTROL SYSTEM AND/OR DIMMING PER MANUFACTURER'S INSTRUCTIONS.
- ALL LED LUMINAIRES SHALL BE 4000K COLOR TEMPERATURE, 80 CRI, UNLESS NOTED OTHERWISE, AND INSTALLED BY THIS CONTRACTOR.
- FINISH SHALL BE SELECTED BY THE ARCHITECT.

OCCUPANCY SENSOR SCHEDULE				
SYMBOL	DESCRIPTION	MOUNTING	MANUFACTURER & CATALOG NUMBER	ACCEPTABLE MANUFACTURERS
⊙ _{UA}	STANDARD RANGE 360° LOW VOLTAGE, DUAL TECHNOLOGY	CEILING	SENSOR SWITCH CM-PDT-10	WATTSTOPPER PHILIPS HUBBELL
⊙ _{OSA}	WALL SWITCH STATION & SENSOR, MANUAL ON/AUTO OFF LINE VOLTAGE, DUAL TECHNOLOGY	WALL	SENSOR SWITCH H5X-PDT	WATTSTOPPER

OCCUPANCY SENSOR NOTES:

- ALL SENSOR LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
- ULTRASONIC CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX FEET FROM HVAC SUPPLY/RETURN VENTS. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY & TIME DELAY SETTINGS (FOR NON-ADAPTIVE PRODUCTS) RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH IN RESPECT TO POWER PLACEMENT.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS:
 - ONE POWER PACK IS REQUIRED FOR EACH CIRCUIT TO BE CONTROLLED.
 - ONE POWER PACK IS REQUIRED FOR EACH ZONE.
 - IF MULTIPLE CIRCUITS ARE TO BE CONTROLLED BY A SENSOR, AN AUXILIARY RELAY CAN BE USED IN CONJUNCTION WITH THE POWER PACK.
 - THE MAXIMUM NUMBER OF SENSORS THAT CAN BE PUT ON A POWER PACK IS TO BE REDUCED BY ONE FOR EACH SLAVE PACK USED.
 - ROOM OCCUPANCY SENSORS TO PROVIDE SIGNAL FOR HVAC MANAGEMENT. OR ALL POWER PACKS SHALL HAVE AUX HVAC RELAY.
- WHERE RETURN AIR PLENUM IS UTILIZED, MOUNT CONTROL UNITS WITHIN JUNCTION BOXES INSTALLED PER ALL CODE REQUIREMENTS.
- CONTROL WIRING BETWEEN SENSORS AND CONTROLS UNITS SHALL BE CLASS II, 18-24 AWG, STRANDED UL CLASSIFIED. WHERE RETURN AIR PLENUM IS UTILIZED, ALL CONTROL WIRING SHALL BE PLENUM-RATED.
- SENSORS MOUNTED OVER THE DOOR MUST BE PLACED ONE FOOT INSIDE THE THRESHOLD.
- SENSOR PLACEMENT ON PLANS IS APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR ENGAGING A MANUFACTURER TO PRODUCE A MOTION SENSOR LAYOUT THAT IS COMPLIANT WITH THE GOVERNING ENERGY CODE. CONTRACTOR IS RESPONSIBLE FOR ENSURING MOTION CONTROL OF ALL LOCATIONS SHOWN ON PLAN.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING EQUIPMENT IN COMPLIANCE WITH LOCAL CODE.
- ALL LINE VOLTAGE SENSORS AND ALL POWER PACKS SHALL HAVE AUXILIARY CONNECTIONS FOR FOR HVAC AUTOMATION.
- PRODUCTS FROM SPECIFIED AND ACCEPTABLE MANUFACTURERS SHALL PROVIDE SAME LEVEL OF CONTROL AND SHALL PROVIDE AUXILIARY RELAY/CONTACTS FOR HVAC SYSTEM.

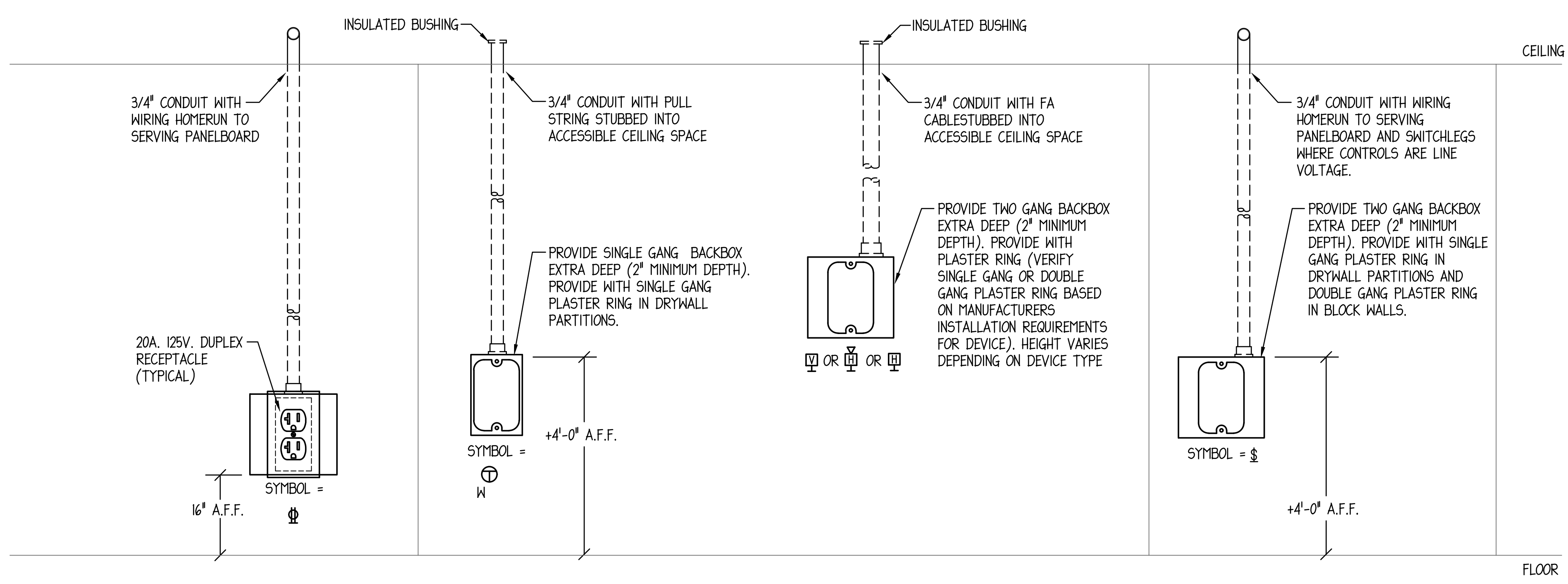
EXIT SIGN & EMERGENCY LIGHTING SCHEDULE								
SYMBOL	TAG	DESCRIPTION	MOUNTING	LAMPS	VOLTAGE	MANUFACTURER & CATALOG NUMBER	ALTERNATE MANUFACTURER	NOTES
⊙	*EM1*	DUAL HEAD EMERGENCY LIGHTING UNIT WITH WHITE ENCLOSURE, RECESSED CEILING MOUNTED	RECESSED	LONG LIFE LED	UNV.	SURE-LITES CX SERIES #CX1170RW	LITHONIA PHILIPS	1

NOTES:

- CONNECT ALL BATTERY LIGHT FIXTURES TO LOCAL UNSWITCHED NORMAL LIGHTING CIRCUIT.

GENERAL NOTES:

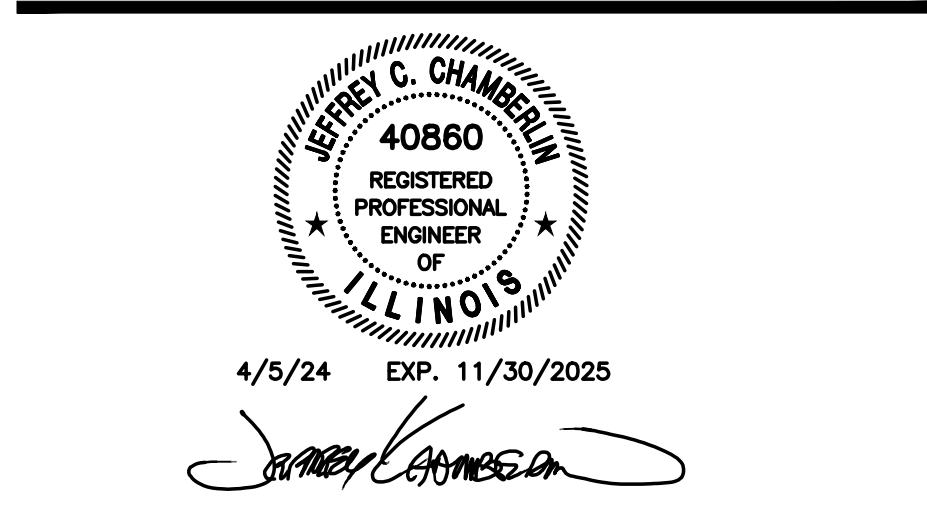
- ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY MOUNTING HARDWARE AND LABOR FOR ALL FIXTURES.
- BATTERIES SHALL BE CAPABLE OF PROVIDING ILLUMINATION FOR A MINIMUM OF 90 MINUTES.



JUNCTION BOX ROUGH-IN DETAIL
 NO SCALE

NOTES:

- DETAILS ARE FOR REFERENCE ONLY.
- NOT ALL DEVICES ARE REQUIRED FOR THIS PROJECT.
- PROVIDE TWO GANG BACKBOXES (2" MINIMUM DEPTH) WITH ALL RECEPTACLE OUTLETS.



Client
WCMEAA
 Rialto Square Theatre
 Restroom Renovation & Expansion
 102 N Chicago Street
 Joliet, Illinois 60432
 Project No. 22-22104-00



ELECTRICAL SCHEDULES AND DETAILS

CD
E201

DEMOLITION PLAN GENERAL NOTES (APPLICABLE TO ALL SHEETS)

- 1. ALL INDICATED ELECTRICAL EQUIPMENT, FIXTURES, DEVICES, AND RELATED CONDUIT AND WIRING TO BE REMOVED UNLESS NOTED OTHERWISE.
- 2. ALL DEMOLITION OF THE ELECTRICAL SYSTEM AS NOTED ON THE DEMOLITION DRAWINGS SHALL BE COORDINATED WITH THE RENOVATION REQUIREMENTS TO DETERMINE THIS CONTRACTOR'S WORK.
- 3. IT IS THE INTENT OF THE ELECTRICAL DEMOLITION DRAWING(S) TO INDICATE AREAS IN WHICH ELECTRICAL EQUIPMENT, CONDUIT, LUMINAIRES, DEVICES, ETC. NEED TO BE REMOVED, RELOCATED, OR MODIFIED BY THIS CONTRACTOR TO ALLOW FOR THE RENOVATION PHASE OF CONSTRUCTION. THE ELECTRICAL DEMOLITION PLAN IS FOR REFERENCE PURPOSES ONLY AND IT IS NOT INTENDED TO BE THE SOLE SOURCE OF EXISTING CONDITIONS.
- 4. CONTRACTOR SHALL VISIT THE BUILDING, BEFORE SUBMITTING THEIR BID, TO VERIFY THE EXISTING CONDITIONS WHICH WILL AFFECT THEIR WORK.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE ELECTRICAL DEMOLITION REQUIRED TO ACCOMMODATE THE RENOVATION. REMOVE AS REQUIRED ALL LUMINAIRES, CONNECTIONS TO MECHANICAL EQUIPMENT, DEVICES, ETC. PULL OUT ALL UNUSED CONDUCTORS AND CABLES, AND REMOVE ALL ABANDONED CONDUIT. ELECTRICALLY DISCONNECT AIR HANDLING UNITS, PUMPS, BOILERS, AND OTHER SUCH EQUIPMENT FOR REMOVAL BY OTHERS. BACKFEED AS REQUIRED ALL DOWNSTREAM DEVICES WHICH REMAIN. (THE CONTRACTOR SHALL COORDINATE WITH THE OWNER WHICH ITEMS INDICATED TO BE REMOVED & DISCONNECTED SHALL BE SALVAGED AND PRESENTED TO THE OWNER PRIOR TO ANY DISPOSAL OF THESE ITEMS.)
- 6. ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. WHERE WORK CALLED FOR ON THE DRAWINGS OR IN THE SPECIFICATIONS INVOLVES THE REMOVAL OF FLUORESCENT LAMPS CONTAINING MERCURY OR CLOTH INSULATED CONDUCTORS, THEY SHALL BE PROPERLY HANDLED AND REMOVED FROM SITE BY APPROVED METHODS PER EPA REGULATIONS.
- 7. ALL EXISTING RECEPTACLES/DATA OUTLETS/DEVICES/EQUIPMENT THAT ARE NOT PART OF DEMOLITION SHALL REMAIN AS IS UNLESS NOTED OTHERWISE. CONTRACTOR SHALL CHECK AND VERIFY FOR CONTINUING OPERATION OF THESE DEVICES PRIOR TO SUBSTANTIAL COMPLETION. IF ANY EXISTING CIRCUITS TO REMAIN ARE INTERRUPTED BY DEMOLITION OR NEW CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT/REMOVAL/REROUTING/MODIFICATION OF CONDUITS AND WIRES INCLUDING EXTENSION, AS REQUIRED TO MAINTAIN FUNCTIONALITY OF DOWNSTREAM RECEPTACLES/DATA OUTLETS/DEVICES/EQUIPMENT.
- 8. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT PHASING AND MAINTAIN EXISTING SYSTEMS ACTIVE IN AREAS WHICH REMAIN OCCUPIED.
- 9. SUPPORT ALL CABLING DRAPED OR LYING LOOSE ABOVE EXISTING CEILING WHICH ARE SCHEDULED TO BE REMOVED. TIE WRAP CABLING TO JOISTS OR OTHER STRUCTURAL MEMBERS AS REQUIRED. UPON THE COMPLETION OF THE PROJECT, NO WIRING SHALL BE LYING ON ACCESSIBLE CEILING.
- 10. WHERE EXISTING DEVICE IS REMOVED FROM WALL WITH NO NEW DEVICE GOING BACK AT SAME LOCATION, PROVIDE BLANK COVER PLATES AS REQUIRED. COVER PLATES SHALL BE OF PROPER SIZE AND INSTALLED FLUSH WITH WALL.

LIGHTING PLAN GENERAL NOTES (APPLICABLE TO ALL SHEETS)

- 1. THE MINIMUM WIRE SIZE SHALL BE #12 AWG EXCEPT FOR SHARED NEUTRAL CONDUCTORS WHICH THE MINIMUM SIZE SHALL BE #10 AWG. THE MINIMUM CONDUIT SIZE FOR HOMERUNS SHALL BE 3/4". 1/2" CONDUIT IS ACCEPTABLE FOR BRANCH WIRING TO LUMINAIRES WHERE APPLICABLE. ALL LIGHTING BRANCH CIRCUITS SHALL TERMINATE AT 20A/1-POLE CIRCUIT BREAKERS IN PANELBOARD INDICATED UNLESS NOTED OTHERWISE.
- 2. PROVIDE LOCK-ON CIRCUIT BREAKER DEVICES FOR ALL EMERGENCY LIGHTING & EXIT SIGN BRANCH CIRCUITS.
- 3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LUMINAIRE LOCATIONS. REFER TO ARCHITECTURAL ELEVATIONS FOR LUMINAIRE SUSPENSION LENGTHS AND MOUNTING HEIGHTS.
- 4. ALL LUMINAIRES SHOWN HALF SHADED SHALL BE WIRED (NON-SWITCHED CIRCUIT) DIRECTLY TO THE GENERATOR PANEL PANEL. PROVIDE DEDICATED NEUTRAL CONDUCTOR TO EACH BRANCH CIRCUIT TO THE EMERGENCY PANEL.
- 5. CIRCUIT NUMBER(S), WHERE SHOWN, ARE TO INDICATE QUANTITY OF CIRCUITS REQUIRED. VERIFY EXACT CIRCUIT NUMBER TO BE UTILIZED IN FIELD. CONTRACTOR SHALL PROVIDE ACTUAL CIRCUITING AS PART OF "AS BUILT" DRAWINGS.
- 6. EMERGENCY BATTERY PACKS SHOWN ARE TO BE CONNECTED TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL SWITCH UNLESS NOTED OTHERWISE.
- 7. PROVIDE PULL BOX(ES) BETWEEN PULL POINTS AS REQUIRED TO COMPLY WITH NEC 344.26 SUCH THAT THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREE TOTAL) BETWEEN PULL POINTS.
- 8. IN NEW WORK, CONTRACTOR SHALL PROVIDE COMMON DISCONNECTING MEANS FOR BRANCH CIRCUITS UTILIZING SHARED NEUTRALS PER ARTICLE 210.4(B). HANDLE TIES ARE ACCEPTABLE WHEN BREAKERS ARE "SLASH RATED" FOR THE HIGHER SYSTEM VOLTAGE RATING OF THE SYSTEM. WHEN HANDLE TIES ARE NOT POSSIBLE DUE TO NON-ADJACENT BREAKERS, PROVIDE A DEDICATED NEUTRAL FOR EACH UNGROUNDED CONDUCTOR.
- 9. PROVIDE DEDICATED NEUTRAL FOR EACH BRANCH CIRCUIT
- 10. IN JUNCTION BOXES WHERE CURRENT CARRYING CONDUCTORS ARE SPLICED OR TERMINATED, PROVIDE BOND TO JUNCTION BOX FROM EQUIPMENT GROUNDING CONDUCTOR.

POWER PLAN GENERAL NOTES (APPLICABLE TO ALL SHEETS)

- 1. THE MINIMUM WIRE SIZE SHALL BE #12 AWG EXCEPT FOR SHARED NEUTRAL CONDUCTORS WHICH THE MINIMUM SIZE SHALL BE #10 AWG. THE MINIMUM CONDUIT SIZE FOR HOMERUNS AND BRANCH FEEDS TO POWER OUTLETS SHALL BE 3/4". 1/2" CONDUIT IS ACCEPTABLE FOR BRANCH WIRING TO END OF THE LINE RECEPTACLES ONLY. ALL POWER BRANCH CIRCUITS SHALL TERMINATE AT 20A/1-POLE CIRCUIT BREAKERS IN PANELBOARD INDICATED UNLESS NOTED OTHERWISE.
- 2. THE CONTRACTOR SHALL PROVIDE ALL PENETRATIONS, SLEEVES, AND SEALANT AS REQUIRED THROUGH PARTITIONS TO ACCOMMODATE THE FIRE ALARM, PAGING, CLOCK, VOICE, AND DATA CABLING. ANY PENETRATIONS THROUGH WALLS AND FLOORS SHALL BE PROPERLY SEALED AND TREATED TO MAINTAIN THE FIRE STOPPING RATING OF THE WALLS, FLOORS, AND CEILINGS.
- 3. BACKBOXES ARE TO BE MOUNTED OFFSET, NOT BACK TO BACK.
- 4. CIRCUIT NUMBER(S), WHERE SHOWN, ARE TO INDICATE QUANTITY OF CIRCUITS REQUIRED. VERIFY EXACT CIRCUIT NUMBER TO BE UTILIZED IN FIELD. CONTRACTOR SHALL PROVIDE ACTUAL CIRCUITING AS PART OF "AS BUILT" DRAWINGS.
- 5. UNLESS INDICATED OTHERWISE, ALL MATERIALS REQUIRED TO PROVIDE BRANCH CIRCUITS AND FEEDERS ARE TO BE NEW.
- 6. DURING THE COURSE OF INVESTIGATION AND DEMOLITION, IF IT IS DETERMINED THAT IT MAY BE FEASIBLE TO UTILIZE EXISTING MATERIALS FOR BRANCH CIRCUITS AND FEEDERS, CONTRACTOR SHALL NOTIFY ENGINEER FOR APPROVAL PRIOR TO PERFORMING ANY WORK.
- 7. REFER TO MECHANICAL AND PLUMBING SHEETS FOR ADDITIONAL EQUIPMENT INFORMATION.
- 8. ANY ELECTRICAL DEVICES ON NEW WALLS SHALL BE FLUSH MOUNTED. NO WIREMOLDS ARE ACCEPTABLE ON NEW WALLS UNLESS NOTED OTHERWISE.
- 9. VERIFY RECEPTACLE LOCATIONS WITH ARCHITECTURAL LAYOUT TO ENSURE PROPER ACCESSIBILITY.
- 10. REFER TO ELECTRICAL DETAILS SHEET FOR ADDITIONAL NOTES AND DETAILS.
- 11. LOW VOLTAGE WIRING SHALL NOT LIE ON TOP OF CEILING GRID SYSTEM. WIRING SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING 5 FEET BY UTILIZING J-HOOKS SUPPORTED BY STRUCTURAL MEMBERS. WIRING SHALL BE ROUTED PARALLEL OR PERPENDICULAR TO STRUCTURAL MEMBERS.
- 12. UNLESS INDICATED ON ARCHITECTURAL DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING, AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK. REMOVE, STORE, AND REINSTALL CEILING TILES AS REQUIRED TO INSTALL WORK ABOVE EXISTING REMOVABLE CEILING WHICH REMAIN; REPLACE TILES BROKEN OR DAMAGED DURING CONSTRUCTION. ALL PATCHING, REPAIRING, AND REFINISHING WORK TO OTHER FINISHES AND STRUCTURAL ELEMENTS SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS POSSIBLE WHILE MAINTAINING EXISTING FIRE RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXISTING FIRE RATINGS OF CEILING AND PARTITIONS SYSTEMS. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK OR REMOVAL OF EXISTING WORK SHALL BE REPAIRED, REPLACED, AND PAID FOR BY THE INSTALLING CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT AND OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, REFINISHING, AND REMOVAL/REPLACEMENT.

- 13. REMOVE AND REINSTALL CEILING MOUNTED DEVICES AS REQUIRED TO ALLOW INSTALLATION OF FEEDERS, BRANCH CIRCUITS, MECHANICAL PIPING, AND DUCT WORK. DEVICES INCLUDE BUT ARE NOT LIMITED TO: LUMINAIRES, SPEAKERS, FIRE ALARM, AND PAGING DEVICES.
- 14. PROVIDE PULL BOX(ES) BETWEEN PULL POINTS AS REQUIRED TO COMPLY WITH NEC 344.26 SUCH THAT THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREE TOTAL) BETWEEN PULL POINTS.
- 15. SPECIAL ATTENTION SHALL BE PAID TO ALL CONDUIT ROUTING IN OPEN CEILING SPACE FOR AESTHETIC PURPOSES. ALL EXPOSED CONDUITS SHALL BE ROUTED PERPENDICULAR AND PARALLEL TO BUILDING LINES AND TIGHT TO CEILING/STRUCTURAL CORNERS. WHERE THIS IS NOT FEASIBLE, SUBMIT CONDUIT ROUTING PLAN TO ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- 16. IN RENOVATIONS, IF AN EXISTING RECEPTACLE/JUNCTION BOX LOCATION WILL END UP HIDDEN BEHIND PERMANENTLY INSTALLED EQUIPMENT OR CASEWORK, PROCEED AS NOTED BELOW:
 - A. IF THE RECEPTACLE IS AN END OF LINE DEVICE (IT DOES NOT FEED OTHER DEVICES), IT SHALL BE REMOVED INCLUDING ASSOCIATED WIRING BACK TO LAST ACTIVE DEVICE OR JUNCTION BOX AND A BLANK COVER PLATE INSTALLED.
 - B. IF THE RECEPTACLE DOES SERVE DOWNSTREAM DEVICES, REMOVE RECEPTACLE AND REWORK WIRING TO A NEW OR EXISTING JUNCTION BOX ABOVE CEILING SUCH THAT NO WIRES ARE PRESENT IN THE JUNCTION BOX. A BLANK COVER PLATE SHALL BE INSTALLED.

- 17. PROVIDE A DEDICATED NEUTRAL FOR EACH UNGROUNDED CONDUCTOR.
- 18. IN JUNCTION BOXES WHERE CURRENT CARRYING CONDUCTORS ARE SPLICED OR TERMINATED, PROVIDE BOND TO JUNCTION BOX FROM EQUIPMENT GROUNDING CONDUCTOR.
- 19. CONDUITS AND RACEWAYS SHALL NOT BE ROUTED ACROSS FLOORS OR SLABS.
- 20. COORDINATE POWER TO BUILDING AUTOMATION SYSTEM CONTROLLERS WITH HVAC/BAS CONTRACTORS. PROVIDE 120V CIRCUIT FROM NEAREST PANELBOARD WITH SPACES TO PROVIDE POWER TO BAS CONTROLLERS. PROVIDE BRANCH CIRCUIT 20A/1P CIRCUIT BREAKER IN PANEL AND 2#12, #142G, IN 1/2" C FROM PANEL TO EACH CONTROLLER.
- 21. CONDUCTORS FOR EQUIPMENT RATED 100A AND BELOW ARE SIZED PER ARTICLE 110.14(C)(1)(a)(2) WHICH INDICATES TO UTILIZE THE 60° TEMPERATURE RATING COLUMN OF TABLE 310.15(B)(16) REGARDLESS OF CONDUCTOR INSULATION RATING.

ELECTRICAL SPECIFICATIONS

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND SHALL CONFORM TO LOCAL AMENDMENTS
- 2. PROVIDE ALL PERMITS AND INSPECTION FEES.
- 3. ALL MATERIAL AND LABOR SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY THE ENGINEER.
- 4. THIS CONTRACTOR SHALL PROVIDE ALL THEIR OWN RIGGING, SCAFFOLDING, RUBBISH REMOVAL, AND LEAVE SPACE BROOM CLEAN.
- 5. MINIMUM SIZE CONDUIT SHALL BE 3/4" EMT, PROVIDE IMC FOR CONDUITS 2" AND LARGER OR WHERE EXPOSED TO WET OR DAMP LOCATIONS. EMT FITTINGS SHALL BE COMPRESSION TYPE. IMC SHALL HAVE THREADED CONNECTIONS. TRANSITION TO LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR FINAL CONNECTION (MAXIMUM LAST 6 FEET) OF CONDUCTORS SERVING EQUIPMENT SUBJECT TO VIBRATION.
- 6. CONDUIT AND ELECTRIC METALLIC TUBING SHALL BE IN ACCORDANCE WITH APPLICABLE ARTICLES OF THE NATIONAL ELECTRICAL CODE AND AS MAY BE MODIFIED BY THE LOCAL ELECTRICAL CODE.
 - INTERMEDIATE METAL CONDUIT (IMC) - ARTICLE 342
 - RIGID METAL CONDUIT (RMC) - ARTICLE 344
 - FLEXIBLE METAL CONDUIT (FMC) - ARTICLE 348
 - LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC) - ARTICLE 350
 - RIGID POLYVINYL CHLORIDE CONDUIT (PVC) ARTICLE 352
 - ELECTRICAL METALLIC TUBING (EMT) - ARTICLE 358IMC, RMC, AND EMT SHALL BE GALVANIZED STEEL.

- 7. MINIMUM SIZE CONDUCTOR SHALL BE #12 THIN, OR THIN WHERE REQUIRED, WITH #14 USED FOR CONTROL WIRING. CONDUCTOR MATERIAL SHALL BE COPPER ONLY
- 8. CONDUCTORS SHALL BE COLOR CODED.
- 9. PROVIDE EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS.
- 10. WIRE AND CABLE FOR BRANCH CIRCUITS AND SECONDARY FEEDERS WITHIN THE BUILDING SHALL BE COPPER, THERMOPLASTIC INSULATED, TYPE THIN OR THIN, AND 600V RATED. TYPE THIN MAY BE USED IN LIEU OF TYPE THIN OR THIN IN SIZES OF #12 AWG AND #10 AWG IN DRY LOCATIONS AT THE CONTRACTOR'S OPTION. WIRE BENEATH OR IN THE GROUND FLOOR AND OTHER WET LOCATIONS SHALL BE TYPE THIN.
- 11. NO WIRE SMALLER THAN #12 AWG SHALL BE USED ON THIS PROJECT UNLESS INDICATED. LOW VOLTAGE CONTROL AND SIGNAL CIRCUITS MAY BE A MINIMUM OF #18 AWG.

PROVIDE COLOR CODED WIRING AS FOLLOWS:

PHASE A	120/208V BLACK	120/240V DELTA BLACK	277/480V BROWN
PHASE B	RED	ORANGE	ORANGE
PHASE C	BLUE	BLUE	YELLOW
NEUTRAL	WHITE	WHITE	GRAY
GROUND	GREEN	GREEN	GREEN W/ YELLOW STRIPE

- BRANCH CIRCUIT WIRING FOR 20 AMP RECEPTACLES AND LIGHTING CIRCUITS SHALL BE ADJUSTED FOR VOLTAGE DROP:
 - 120/240V:
 - 0'-75' - #12AWG MINIMUM
 - 75'-150' - #10AWG MINIMUM
 - 150'-225' - #8AWG MINIMUM
 - WIRE SIZES #12 AWG AND #10 AWG SHALL BE SOLID. WIRE SIZE #8 AWG AND LARGER SHALL BE STRANDED.
 - CONDUCTORS OF DIFFERENT VOLTAGES ("LOW VOLTAGE" vs. 120/208 VOLT) SHALL NOT OCCUPY THE SAME WIRING ENCLOSURE, CABLE, OR RACEWAY.
 - ALL WIRING SHALL BE ENCLOSED WITHIN A COMPLETE AND CONTINUOUS METAL RACEWAY.
- 12. LIGHT SWITCHES SHALL BE OF THE HEAVY DUTY GRADE, 120/277 VOLT, FLUSH TOGGLE TYPE RATED AT 20 AMPERES AND UL APPROVED. ALL SWITCHES SHALL HAVE POLES AS REQUIRED AND SHALL BE SIMILAR TO PASS # SEYMOUR #PS20AC1. DEVICE COLORS TO BE SELECTED BY ARCHITECT. RECEPTACLES SHALL BE POLARIZED, GROUNDED, DUPLEX, BACK AND SIDE WIRE, RATED 20 AMPERES, AND UL APPROVED. ALL GENERAL PURPOSE RECEPTACLES SHALL BE SPECIFICATION GRADE SIMILAR TO PASS # SEYMOUR #PS362. ALL TAMPER RESISTANT RECEPTACLES SHALL BE SIMILAR TO PASS # SEYMOUR #TRS362. ALL GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLES SHALL BE SIMILAR TO PASS # SEYMOUR #2097TRM. ALL OUTDOOR RECEPTACLES SHALL BE WEATHER RESISTANT AND GROUND FAULT CIRCUIT INTERRUPTER TYPE SIMILAR TO PASS # SEYMOUR #2096TRWRN. ACCEPTABLE MANUFACTURERS:PASS # SEYMOUR, LEVITON, COOPER, OR HUBBELL.

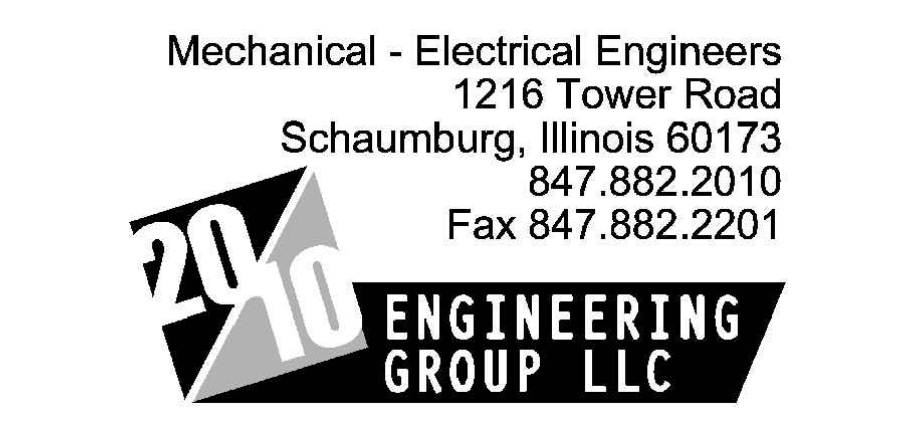
- 13. JUNCTION BOXES, PULL BOXES, AND TERMINAL BOXES SHALL BE INSTALLED WHERE SHOWN ON THE DRAWINGS AND AT OTHER LOCATIONS AS REQUIRED TO FACILITATE THE PULLING OF CABLES. THEY SHALL BE CODE SIZED AND SHALL BE CONSTRUCTED OF CODE GAUGE GALVANIZED SHEET STEEL. EACH BOX SHALL BE PROVIDED WITH A SCREW-ON REMOVABLE COVER. PROVIDE FLANGED COVERS ON FLUSH BOXES. BOXES SHALL BE SMOOTH, SQUARE, AND SET PARALLEL WITH WALLS AND CEILING. MINIMUM SIZE OF JUNCTION BOXES SHALL BE 4" X 4" X 2" SQUARE.
- 14. GENERALLY, OUTLET BOXES OF PROPER TYPE AND NOT LESS THAN 4 INCHES SQUARE OR OCTAGONAL AS REQUIRED BY BUILDING CONDITIONS SHALL BE PLACED AT ALL LIGHT, RECEPTACLE, AND SWITCH OUTLETS. OUTLET BOXES SHALL BE FIRMLY SECURED IN PLACE AND SHALL BE SET TRUE, SQUARE, AND FLUSH WITH THE FINISHED SURFACES. THE CONTRACTOR SHALL MOVE ANY OUTLET BOX UP TO 5 FEET IN ANY DIRECTION WITHOUT COST IF RELOCATED PRIOR TO INSTALLATION. MINIMUM DEPTH SHALL BE 2 INCHES
- 15. SWITCH AND RECEPTACLE PLATES IN FINISHED AREAS SHALL BE IMPACT RESISTANT NYLON WITH COLOR AS SELECTED BY ARCHITECT. ALL PLATES IN UNFINISHED AREAS AREA SHALL BE FORMED STEEL (GARVIN COVERS).
- 16. CONDUCTOR SIZES #14 AWG, #12 AWG, AND #10 AWG SHALL BE SOLID. CONDUCTOR SIZES #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS SHALL BE COLOR CODED.
- 17. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY CUTTING AND PATCHING INCLUDING SLEEVES AND INSERTS.
- 18. THE COLOR AND FINISH OF ALL MATERIALS SHALL BE SUBJECT TO REVIEW AND APPROVAL OF ARCHITECT OR ENGINEER. PROVIDE SHOP DRAWINGS REQUIRED FOR FINISH AND COLOR SELECTION.
- 19. ALL NEW CIRCUIT BREAKERS SHALL BE BOLT-ON BREAKERS (10,000 A.I.C.), COMPATIBLE WITH EXISTING PANELBOARD. PROVIDE TYPEWRITTEN DIRECTORIES IN ALL PANELS.
- 20. BEFORE SUBMITTING THEIR BID, THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO ASCERTAIN ALL WORK INVOLVED IN THE PROJECT.

- 21. THIS CONTRACTOR SHALL COORDINATE THEIR WORK WITH OTHER CONTRACTORS ON THE PROJECT.
- 22. THIS CONTRACTOR SHALL MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL ELECTRICAL ITEMS AND EQUIPMENT AS MAY BE REQUIRED BY THIS WORK.
- 23. ALL LAY-IN FIXTURES SHALL BE SUPPORTED INDEPENDENTLY FROM CEILING FRAMES BY TYING TWO HANGER WIRES ON OPPOSITE CORNERS OF THE FIXTURE UP TO A STRUCTURAL MEMBER.
- 24. ALL ELECTRICAL EQUIPMENT MUST MAINTAIN WORKING CLEARANCES AS REQUIRED BY NEC
- 25. ALL NEW FIRE ALARM CABLING ABOVE ACCESSIBLE CEILING SHALL BE PLENUM RATED CABLE OF TYPE COMPATIBLE WITH EXISTING BUILDING FIRE ALARM SYSTEM.
- 26. FLEXIBLE RACEWAY SYSTEMS SHALL NOT BE USED TO PENETRATE ROOFS, FLOORS, OR AIR/MOISTURE BARRIERS.
- 27. RACEWAY SYSTEMS SHALL NOT BE ROUTED THROUGH OR IN HVAC DUCTS.
- 28. LUMINAIRES SHALL BE PROVIDED AS SPECIFIED ON DRAWINGS. ALL LUMINAIRES SHALL BE HUNG AND MOUNTED IN PLACE, PROPERLY WIRED, TESTED, AND LEFT READY FOR OPERATION BY THE CONTRACTOR. LUMINAIRES SHALL BE COMPLETE WITH BASE, GLASSWARE, REFLECTORS, AND ACCESSORIES. LUMINAIRES SHALL BE COMPLETELY WIRED ACCORDING TO CODE. MINIMUM WIRE SIZE PERMITTED IN LUMINAIRE WHIPS IS #14 AWG. ALL LUMINAIRES SHALL CARRY THE UL LABEL. LED LUMINAIRES: DESIGNED AND TESTED TO IESNA STANDARDS LM-80 AND LM-79, WITH 5 YEAR MANUFACTURER'S WARRANTY. WHERE LOCATED BENEATH DUCTWORK, THE CONTRACTOR IS PROHIBITED FROM PUNCTURING THE DUCTWORK OR MOUNTING LUMINAIRES DIRECTLY TO THE DUCTWORK. THE CONTRACTOR MAY MOUNT THE LUMINAIRES TO THE DUCTWORK TO THE MEMBERS.

Issued / Revised		
No.	Date	Description
	04/05/24	ISSUED FOR BID & PERMIT



Client
WCMEA
Rialto Square Theatre
Restroom Renovation & Expansion
102 N Chicago Street
Joliet, Illinois 60432
Project No. 22-22104-00



ELECTRICAL NOTES AND SPECIFICATIONS

CD
E202