

**PLUMBING ABBREVIATIONS**

(D)	DEMOLISHED
(E)	EXISTING
(R)	RELOCATED
°C	DEGREES CELSIUS
°F	DEGREES FAHRENHEIT
Ø	DIAMETER
A/C	AIR CONDITIONING(E)
AAV	AUTOMATIC AIR VENT
ACC	ACCESSIBLE
AD	AREA DRAIN
ADJ	ADJUSTABLE
AF	ABOVE FINISHED FLOOR
AGF	AIR GAP FITTING
AHU	AIR HANDLING UNIT
ANCH	ANCHOR
AR	ACID RESISTING
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
AUTO	AUTOMATIC
AV	AUDIO-VIDEO, AUDIO-VISUAL
AV	ACID VENT
AV	AIR VENT
BBO	BOLTER BLOW OFF
BC	BALANCING COCK
BF	BOLTER FEED
BFF	BELOW FINISH FLOOR
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BLKG	BLOCKING
BLKHD	BULKHEAD
BOT	BOTTOM
BP	BOILER PLANT INSTRUMENTATION PANEL
BV	BALL VALVE
C	CONDUIT
C	CONDENSER WATER
CD	CONDENSATE DRAIN
CD	CONSTRUCTION DOCUMENTS
CF	CUBIC FEET
CI	CAST IRON
CI	CURB INLET
CIP	CAST IRON PIPE
CIRC	CIRCULATING
CLR	CLEAR
CO	CLEAN OUT
COMB	COMBINATION
CR	CORROSION RESISTANT
CS	COUNTERSINK
CS	COMBINATION SEWER
CSP	COMBINATION STANDPIPE
CT	COOLING TOWER
CTL	CONTROL
CU	CONDENSING UNIT
CW	COLD WATER
D	DRAIN
DBL	DOUBLE
DE	DEIONIZED WATER
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DFR	DIESEL FUEL RETURN
DFS	DIESEL FUEL SUPPLY
DFV	DIESEL FUEL VENT
DISCH	DISCHARGE
DSN	DOWNSPOUT NOZZLE
DSP	DRY STANDPIPE
DW	DISHWASHER
EA	EACH
EEW	EMERGENCY EYE WASH
EEWS	EMERGENCY EYE WASH SHOWER
EFF	EFFICIENCY
ELEV	ELEVATOR
EMER	EMERGENCY
ENT	ENTERING
EW	ELECTRIC WATER COOLER
EXP	EXPOSED

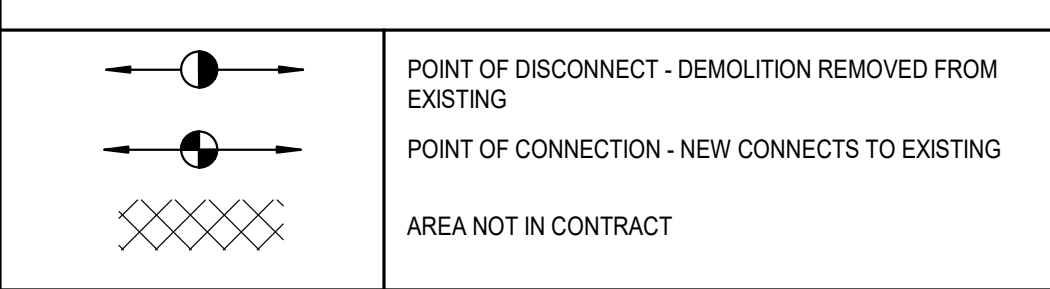
**PLUMBING ABBREVIATIONS**

F	FAHRENHEIT
F	FIRE WATER PIPING
F.V.	FIELD VERIFY
FAB	FABRICATE(D)
FCO	FLOOR CLEAN OUT
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FDNDR	FOUNDATION DRAIN
FF	FINISH FLOOR
FF	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIX	FIXTURE
FLEX	FLEXIBLE
FM	FIRE MAIN
FM	FORCE MAIN
FOF	FUEL OIL FILL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FPC	FIRE PROTECTION CONTRACTOR
FPD	FIRE PUMP DISCHARGE
PFM	FEET PER MINUTE
FS	FLOW SWITCH
FS	FLOOR SINK
FVC	FIRE VALVE CABINET
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
GCO	GRADE CLEAN OUT
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GV	GATE VALVE
GV	GREASE VENT
GVBF	GREASE VENT BELOW FLOOR
GW	GREASE WASTE
HB	HOSE BIB
HGR	HANGER
HID	HIGH INTENSITY DISCHARGE
HP	HEAT PUMP
HP	HIGH PRESSURE
HR	HOUR
HUM	HUMIDIFIER
HVAC	HEATING VENTILATING AND AIR CONDITIONING
HW	DOMESTIC HOT WATER
HW	DOMESTIC HOT WATER RECIRCULATING
I	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IES	ILLUMINATING ENGINEERING SOCIETY
INSUL	INSULATION
IP	IRON PIPE
IW	INDIRECT WASTE
JAN	JANITOR
LAV	LAVATORY
LF	LINEAR FOOT
LG	LENGTH (LONG)
LIN	LINEAR
LPG	LIQUIFIED PETROLEUM GAS
LS	LAWN SPRINKLER
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MV	MANUAL AIR VENT
MFRG	MANUFACTURING
MH	MANHOLE
MPG	MEDIUM PRESSURE GAS

**PLUMBING ABBREVIATIONS**

MTD	MOUNTED
MTG	MOUNTING
MV	MEDICAL VACUUM
N	NITROGEN
N2O	NITROUS OXIDE
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NO	NUMBER
NO2	NITROGEN DIOXIDE
NOM	NOMINAL
O&M	OPERATION AND MAINTENANCE
OD	OUTSIDE DIAMETER
ORD	OVERFLOW ROOF DRAIN
OS&Y	OUTSIDE SCREW AND YOKE
OVL	OVERFLOW
OX	OXYGEN
P	PUMP
PIT	PRESSURE/TEMPERATURE TEST PORT
PC	PUMPED CONDENSATE
PCF	POUNDS PER CUBIC FOOT
PCF	PUMP DISCHARGE
PD	PUMP DISCHARGE
PD	PUMP DISCHARGE
PDI	PLUMBING & DRAINAGE INSTITUTE
PG	PRESSURE GAUGE
PI	PRESSURE INDICATOR
PV	POST INDICATOR VALVE
PLBG	PLUMBING
POC	POINT OF CONNECTION
PR	PAIR
PSI	POUNDS PER SQUARE INCH
PT	PLASTER TRAP
PVC	POLYVINYL CHLORIDE
R	RISER
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RE	REMOVABLE
REM	REFRIGERANT SUCTION
RS	REFRIGERANT SUCTION
RTU	ROOF TOP UNIT
S	SANITARY SEWER
S	STATIC PRESSURE (H2O)
SAN	SANITARY WASTE
SCW	SOFT COLD WATER
SD	STORM DRAIN
SE	STEAM EXHAUST VENT
SH	SHOWER
SHW	SOFT HOT WATER
SK	SINK
SM	SPRINKLER MAIN
SP	STAND PIPE
SP	STAND PIPE
SPD	SURGE PROTECTION DEVICE
SPR	SPRINKLER PIPING
SQ	SQUARE
SS	STAINLESS STEEL
SS	SERVICE SINK
SST	SECONDARY STORM DRAINAGE
ST	STORM DRAINAGE
STOR	STORAGE
SUSP	SUSPENDED
T	TEMPERED
TEMP	TEMPERATURE
TK	THICKNESS
TMV	THERMOSTATIC MIXING VALVE
TOIL	TOILET
TPV	TRAP PRIMER
TS	TEMPERATURE SENSOR
TT	TEMPERATURE TRANSMITTER
UC	UNIT COOLER
UG	UNDERGROUND
UR	URINAL
UTIL	UTILITY
V	VENT
V	VACUUM
VA	VALVE
VBF	VENT BELOW FLOOR
VCP	VITRIFIED CLAY PIPE
VOL	VOLUME
VP	VACUUM PUMP
VTR	VENT THROUGH ROOF
W	WATER SERVICE
W	WASTE (PLUG)
WC	WATER COLUMN
WC	WATER CLOSET
WCC	WATER COOLED CONDENSER
WCL	WATER CLOSET/LAVATORY COMBINATION
WCO	WALL CLEAN OUT
WF	WASH FOUNTAIN
WFD	WATER FLOW MEASURING DEVICE
WH	WALL HYDRANT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WBP	WHIRLPOOL BATH
WSP	WET STAND PIPE
YH	YARD HYDRANT
ZCB	ZONE CONTROL BOX
ZCV	ZONE CONTROL VALVE

**GENERAL SYMBOLS**



**GENERAL NOTES**

- WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSAID DRAINS AT COMPLETION OF CONSTRUCTION.
- COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, AND EQUIPMENT TO PREVENT CONFLICTS.
- THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS THOSE ILLUSTRATED BY THESE DOCUMENTS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
- FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL MECHANICAL CODE.
- LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
- ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
- LOCATE DUCTWORK, PIPING AND MECHANICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT.
- FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. REFER TO SPECIFICATION.
- PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
- ADJUST PIPING AND DUCTWORK SIZES TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT.
- REFER TO PIPING SERIES DRAWINGS FOR REFRIGERANT AND CONDENSATE DRAIN PIPING.
- PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
- FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, EQUIPMENT MANUALS, AND SPECIFICATIONS.
- INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF QUALITY AND WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
- LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID INTERFERENCE IN THE FIELD.
- INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL, TIGHT TO STRUCTURE, IN ROOMS WITHOUT CEILINGS.
- CONTRACTOR SHALL NOT DRILL, NOTCH, OR PENETRATE ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN CONSENT OF STRUCTURAL ENGINEER, COORDINATE REQUIRED NOTICES, HOLES, AND PENETRATIONS WITH THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
- ALL PIPE INSULATION SHALL HAVE PAINTABLE JACKET, PAINT AND COLOR PER ARCHITECTURAL DIV. 08.

**GENERAL PLUMBING NOTES**

- FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
- PITCH UNDERFLOOR SANITARY WASTE PIPING LESS THAN 3" AT A 1/4" PER FOOT, UNLESS STATED OTHERWISE. PITCH UNDERFLOOR SANITARY WASTE PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE.
- PITCH UNDERFLOOR STORM PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE. PITCH ALL OTHER STORM PIPING AT 1/4" PER FOOT UNLESS OTHERWISE NOTED.
- FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
- ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY SEWER, AND STORM SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
- WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MINIMUM.

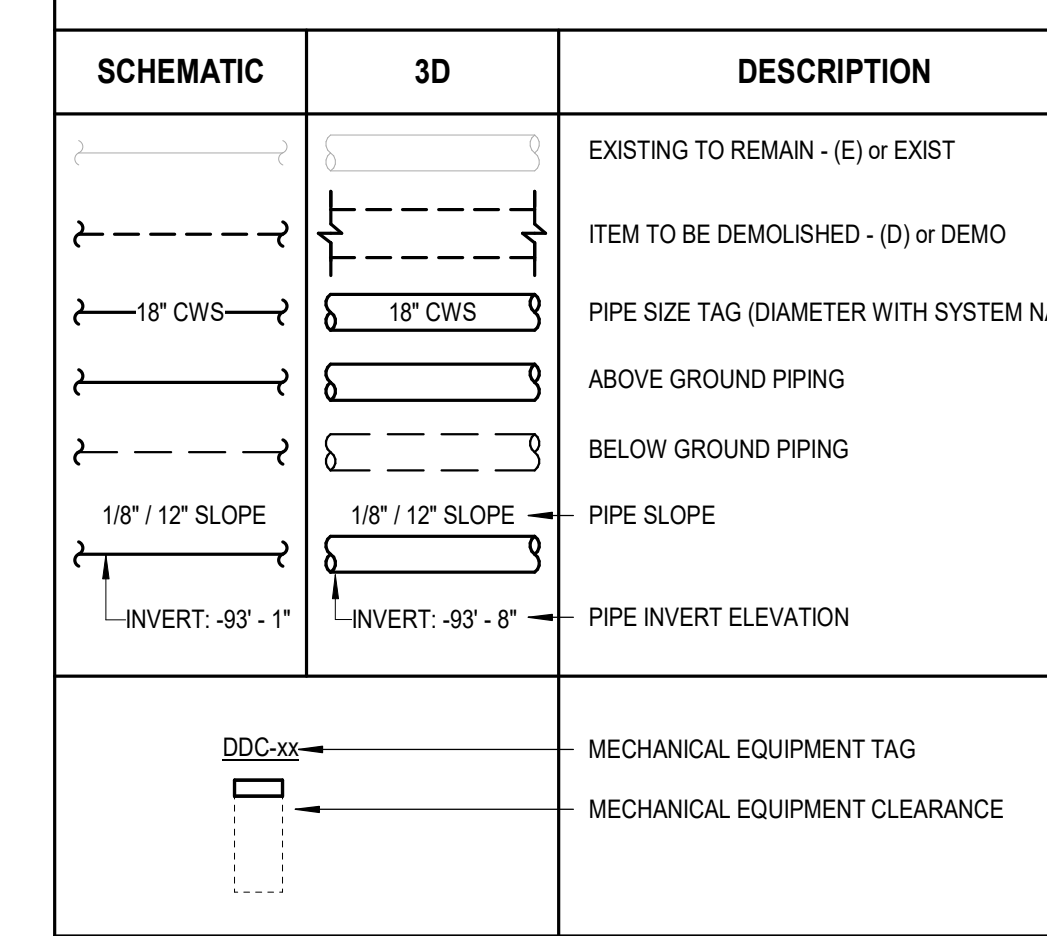
**PLUMBING SYMBOLS**

SCHEMATIC	3D	DESCRIPTION
		DOMESTIC COLD WATER
		DOMESTIC COLD WATER (LINETYPE)
		DOMESTIC HOT WATER
		DOMESTIC HOT WATER (LINETYPE)
		DOMESTIC HOT WATER (110 °F)
		DOMESTIC HOT WATER (140 °F)
		DOMESTIC HOT WATER RECIRCULATING
		DOMESTIC HOT WATER RECIRC (LINETYPE)
		DOMESTIC HOT WATER RECIRCULATING (110 °F)
		DOMESTIC HOT WATER RECIRCULATING (140 °F)
		FILTERED COLD WATER
		HARD COLD WATER
		TEMPERED WATER
		RECLAIMED WATER
		STORM DRAIN
		OVERFLOW STORM DRAIN
		GREASE VENT
		GREASE WASTE
		COMBINATION WASTE AND VENT
		FORCED MAIN
		INDIRECT WASTE
		PUMP DISCHARGE
		SANITARY WASTE
		SANITARY VENT
		FOUNDATION DRAIN
		CLEAN OUT
		WALL CLEAN OUT
		FLOOR CLEAN OUT
		GRADE CLEAN OUT (DOUBLE CLEAN OUT)
		FLOOR DRAIN / FLOOR SINK
		ROOF DRAIN / OVERFLOW DRAIN
		DOWNSPOUT NOZZLE
		WALL HYDRANT
		HOSE BIBB
		WATER HAMMER ARRESTER
		RISER TAG

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**PIPING ANNOTATIONS**



**PIPING VALVES AND FITTINGS**

SCHEMATIC	3D	DESCRIPTION
		PIPE DROP
		PIPE RISE
		PIPE TEE DOWN
		PIPE TEE UP
		CONCENTRIC REDUCER
		ECCENTRIC REDUCER
		PIPE CAP
		PIPE ALIGNMENT GUIDE
		PIPE ANCHOR
		FLOW DIRECTION
		EXPANSION JOINT
		FLEXIBLE CONNECTION
		UNION
		DIRECTION OF PIPE PITCH
		AQUIOSTAT
		EXPANSION LOOP
		BALANCING VALVE
		BALANCING VALVE W/ METERING POINTS
		BALL VALVE
		BUTTERFLY VALVE
		CHECK VALVE
		GATE VALVE
		CIRCUIT SETTER
		MANUAL AIR VENT
		AUTOMATIC AIR VENT
		PLUG VALVE
		PRESSURE GAUGE
		SOLENOID VALVE
		ANGLE VALVE
		AUTOMATIC CONTROL VALVE 2-WAY
		AUTOMATIC CONTROL VALVE 3-WAY
		AUTOMATIC FLOW CONTROL VALVE
		STRAINER
		PRESSURE AND TEMPERATURE TEST PORT
		THERMOMETER
		PRESSURE REDUCING VALVE (WATER SYSTEMS)
		PRESSURE REGULATING VALVE (GAS SYSTEMS)
		RELIEF VALVE
		FLOW MEASURING DEVICE
		BACKFLOW PREVENTER
		UNION

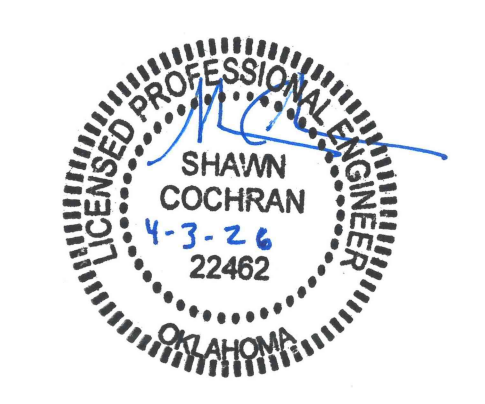
**\*NOTE\***  
ALL NOTES ON THIS SHEET ARE APPLICABLE TO ALL OTHER SHEETS IN THIS SET.  
THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE APPLICABLE IN THIS SET OF DRAWINGS.

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HDR, ENGINEERING INC.  
1917 SOUTH 67th STREET  
OMAHA, NEBRASKA 68106  
(402) 399-1000  
CA-0443

DLR GROUP  
6457 FRANCES ST., STE. 200  
OMAHA, NE 68106  
(402) 742-4200

KIMLEY-HORN & ASSOC. INC.  
1437 S BOULDER AVE.  
TULSA, OK 74119  
(918) 380-8868



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2026-04-03

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Author  
APPRVD:  
Approver

**CLY-HUB**  
  
PROJECT ADDRESS:  
TULSA COUNTY, OK  
  
PROJ. NO. 10438332

**GENERAL NOTES & SYMBOLS & ABBREVIATIONS FOR PLUMBING**

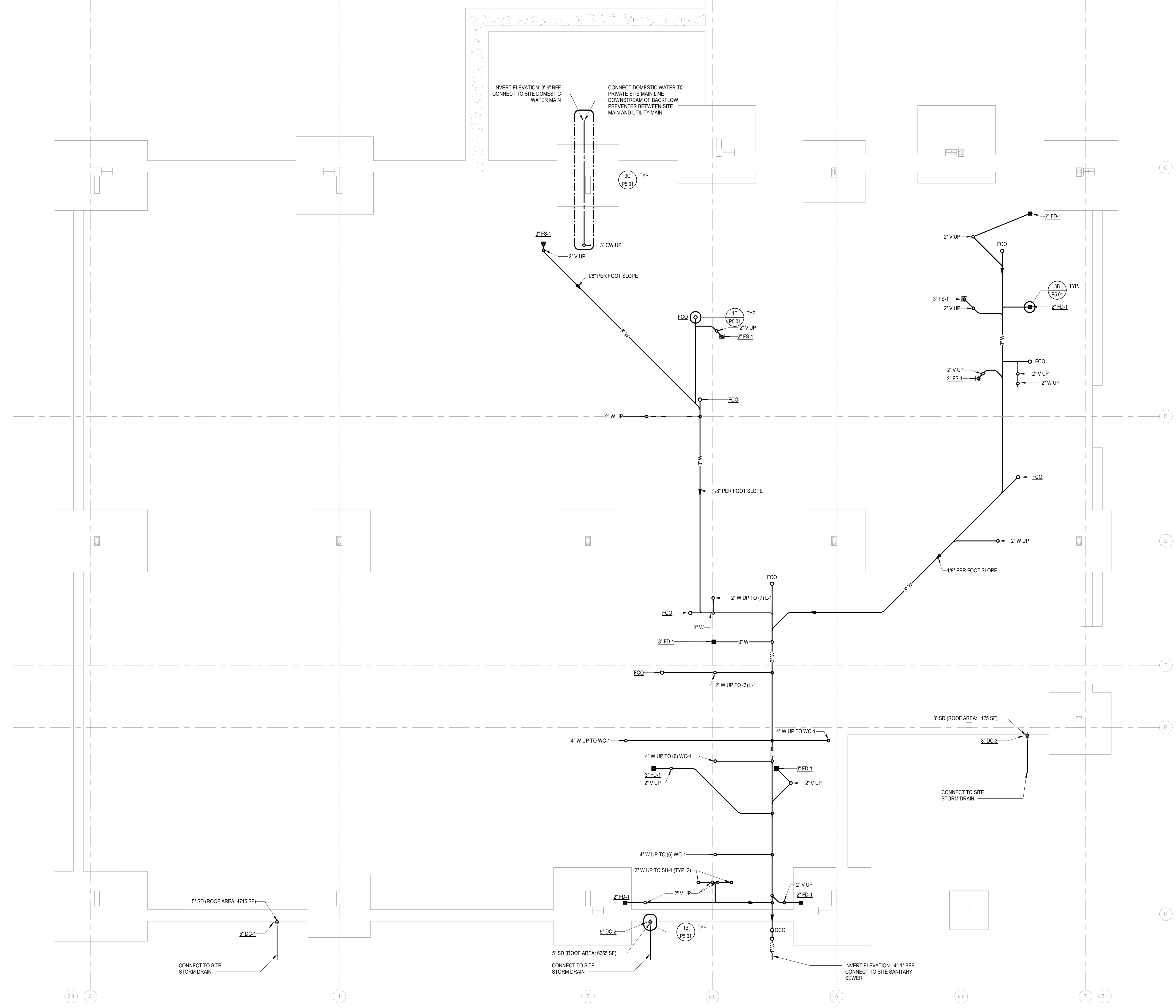
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**P0.01**  
  
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SHEET NOTES



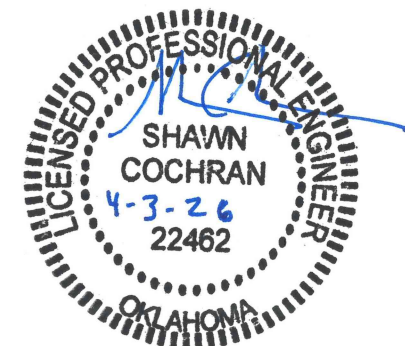
UNDERGROUND PLUMBING PLAN - AREA A  
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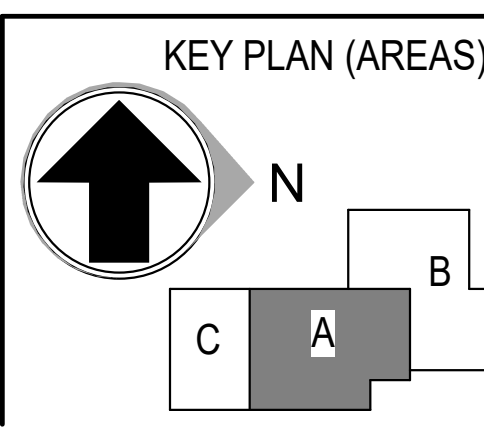


**DLR GROUP**  
DLR GROUP  
1917 SOUTH 67th STREET  
OMAHA, NEBRASKA 68106  
(402) 399-1000  
CA-0443

**Kimley Horn**  
KIMLEY-HORN & ASSOC., INC.  
1437 S BOULDER AVE.  
TULSA, OK 74119  
(918) 380-8868



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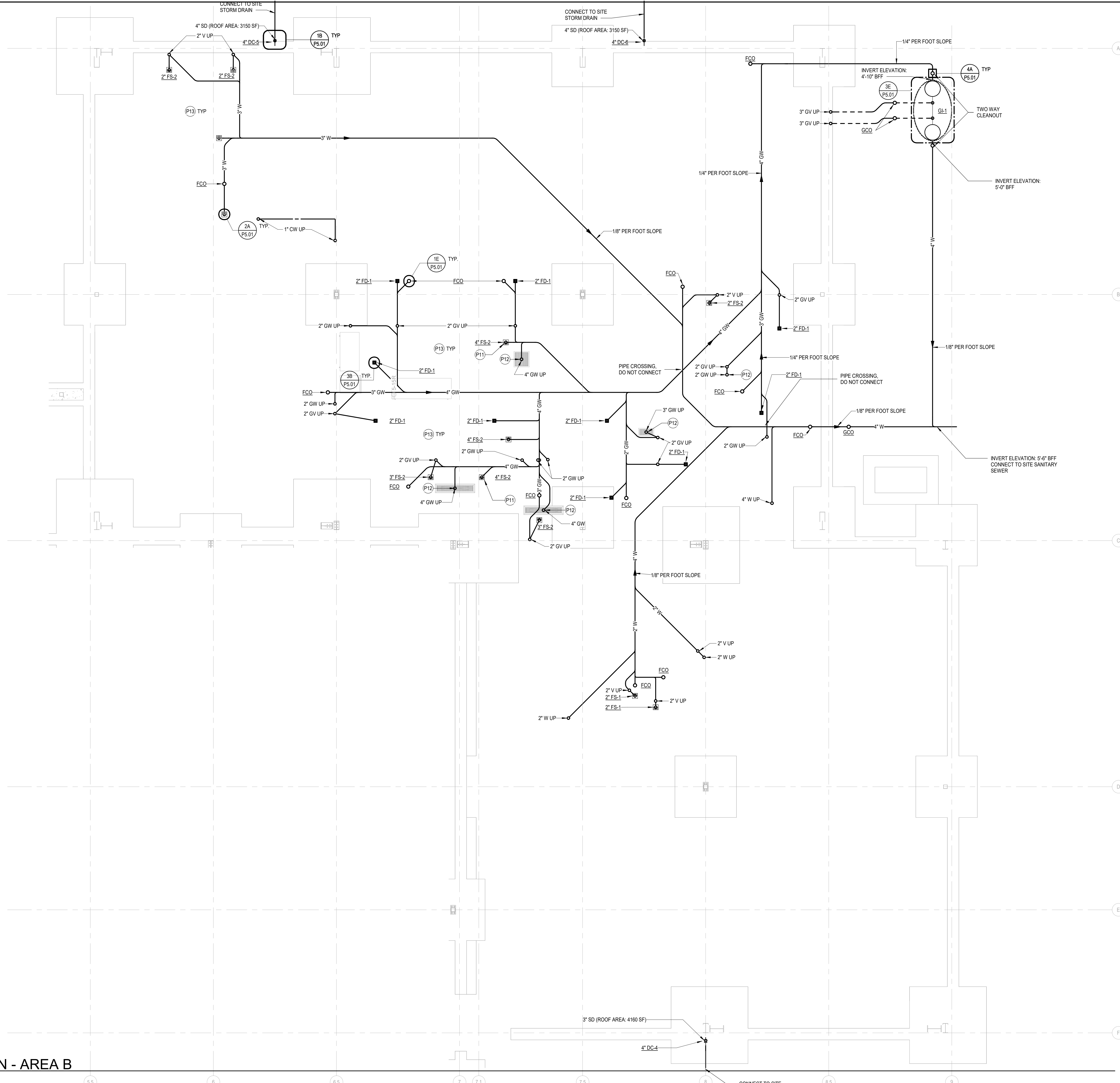
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APPRVD:  
Approver

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UNDERGROUND PLUMBING PLAN - AREA A  
SCALE: 3/16" = 1'-0"

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**P1.11**  
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**SHEET NOTES**

- P11 PROVIDE HUBLESS, CAST-IRON SOIL PIPE AND FITTINGS PER SPECIFICATIONS FOR FIRST 10' OF DRAIN LINE DOWNSTREAM OF DISHWASHER AND STEAM COOKER SANITARY WASTE DISCHARGES.
- P12 CONNECT TO IN-FLOOR FOOD SERVICE FIXTURES. REFER TO FOOD SERVICE DRAWINGS/SCHEDULES FOR BASIS OF DESIGN, DETAILS, AND CONNECTIONS.
- P13 REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE SCHEDULE, BASIS OF DESIGN, DETAILS AND CONNECTIONS AND CONNECTION LOCATIONS AFF. PROVIDE ALL WATER, DRAIN AND VENT PIPES INCLUDING INDIRECT WASTE LINES PER FOOD SERVICE DRAWINGS. PROVIDE LAV GUARDS, TRAPS, SUPPLY STOPS, POINT OF USE TMV, AND AIRPURTAINANCES AS REQUIRED FOR FOOD SERVICE EQUIPMENT AND FIXTURES. COORDINATE ALL FLOOR SINKS AND FLOOR DRAINS WITH FOOD SERVICE EQUIPMENT AND SCHEDULES.

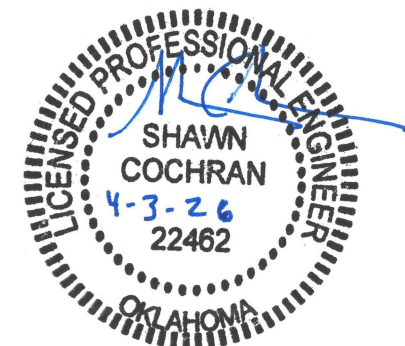
**UNDERGROUND PLUMBING PLAN - AREA B**

SCALE: 3/16" = 1'-0"

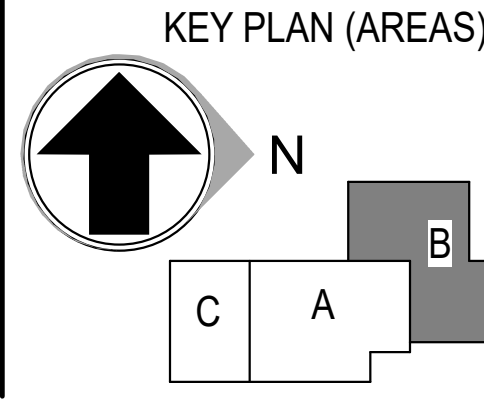


**DLR GROUP**  
 DLR GROUP  
 1917 SOUTH 67th STREET  
 OMAHA, NEBRASKA 68106  
 (402) 399-1000  
 CA-0443

**Kimley Horn**  
 KIMLEY-HORN & ASSOC., INC.  
 1437 S BOULDER AVE.  
 TULSA, OK 74119  
 (918) 380-8868



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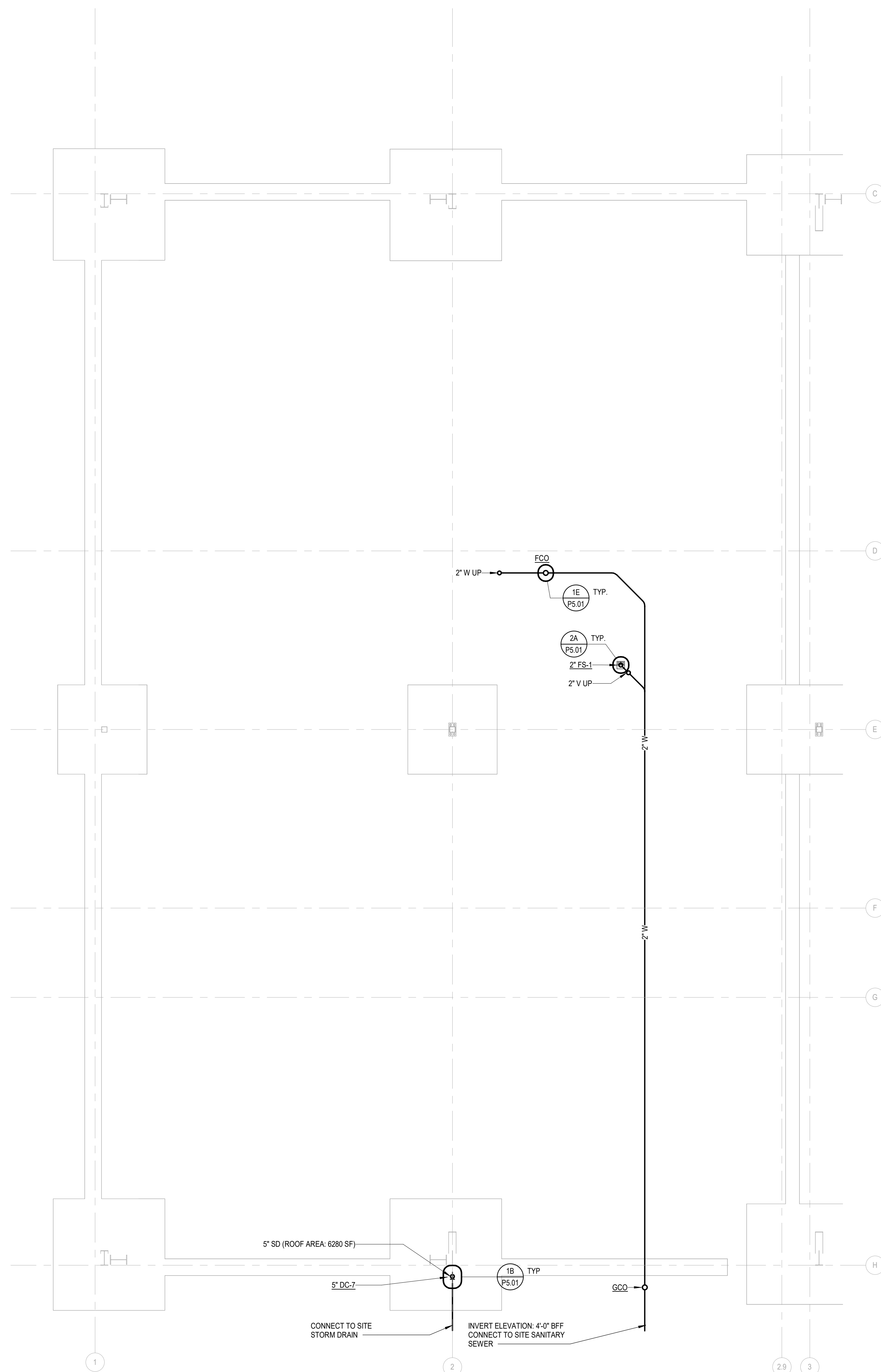
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**UNDERGROUND PLUMBING PLAN - AREA B  
 (4.0)**  
 SCALE: 3/16" = 1'-0"

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UNDERGROUND PLUMBING PLAN - AREA C

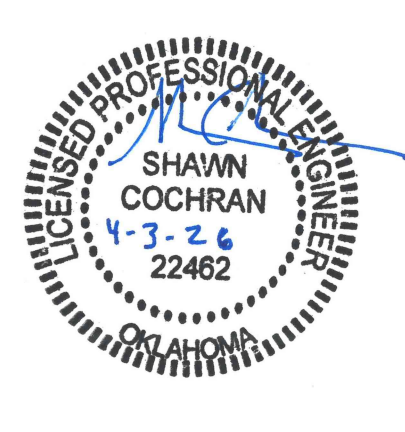
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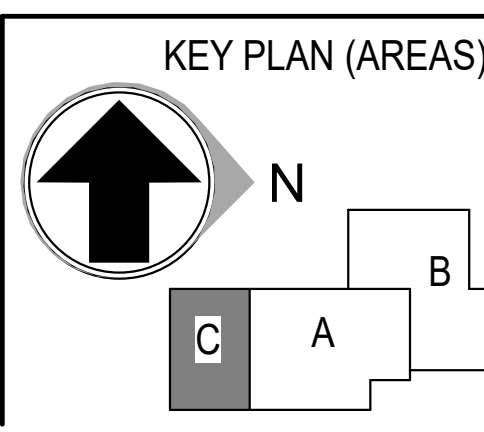


**DLR GROUP**  
DLR GROUP  
1917 SOUTH 67th STREET  
OMAHA, NEBRASKA 68106  
(402) 399-1000  
CA-0443

**Kimley-Horn**  
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1437 S BOULDER AVE.  
TULSA, OK 74119  
(918) 380-8868



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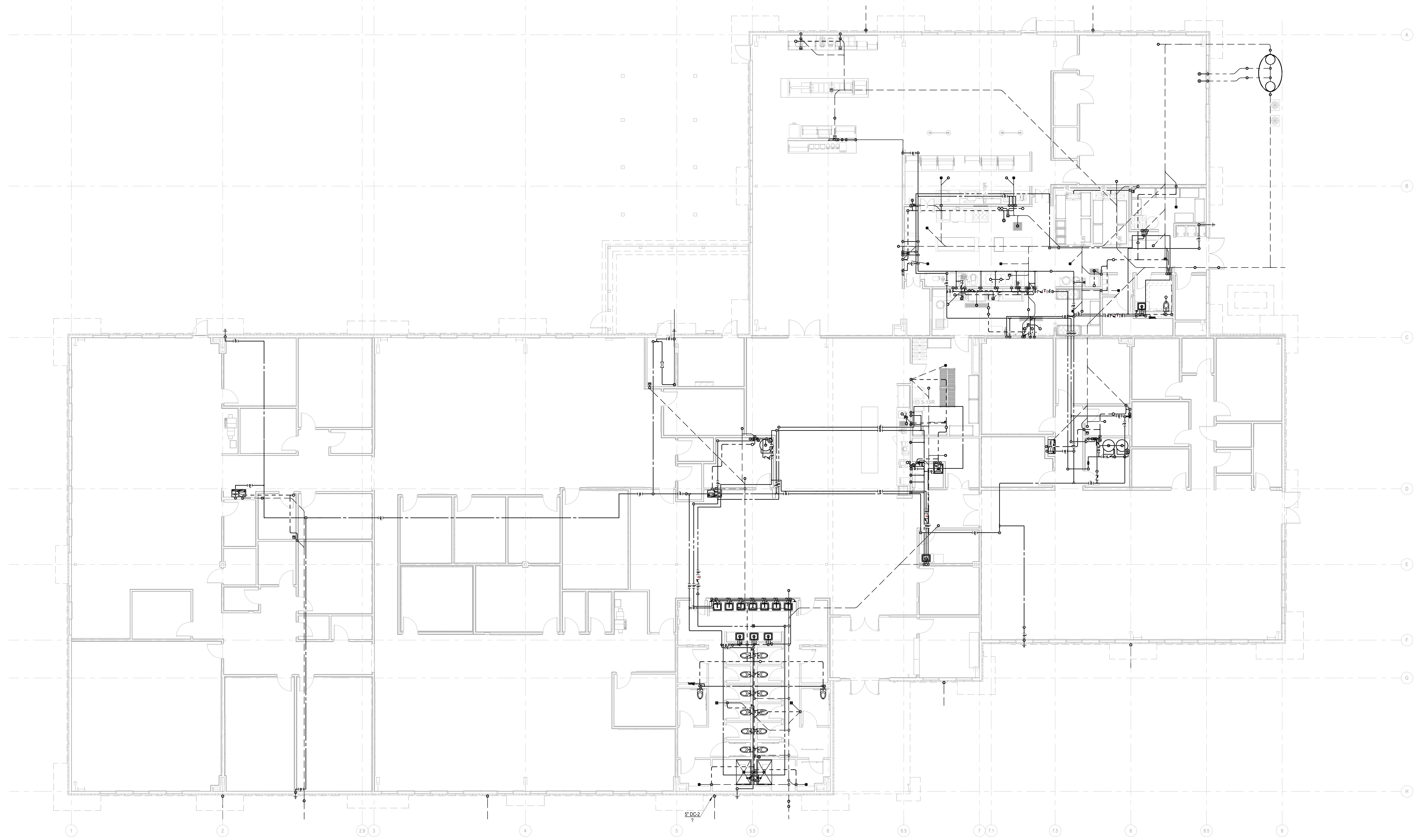
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PROJ. NO. 10438332

**UNDERGROUND PLUMBING PLAN - AREA C**  
SCALE: 3/16" = 1'-0"

SHEET NUMBER:  
**P1.31**  
PHASE: ISSUE FOR CONSTRUCTION - HUB

4/2/2026 12:10:20 PM Autodesk Docs://E3-CY1.1-A-Core&Shell/43-25105-00\_CY1.1\_MEP\_2025.rvt



### PLUMBING OVERALL PLAN

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

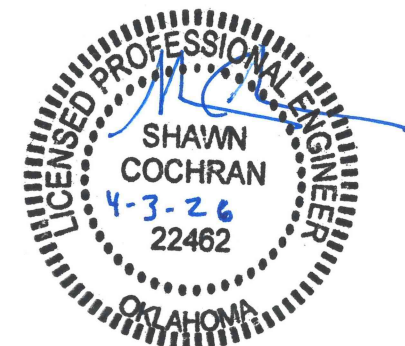
#### GENERAL NOTES

- A FOR SYMBOLS AND ABBREVIATIONS SEE DRAWING P0.1
- C CONTRACTOR SHALL NOT DRILL, NOTCH, OR PENETRATE ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN CONSENT OF STRUCTURAL ENGINEER. COORDINATE REQUIRED NOTCHES, HOLES AND PENETRATIONS WITH THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

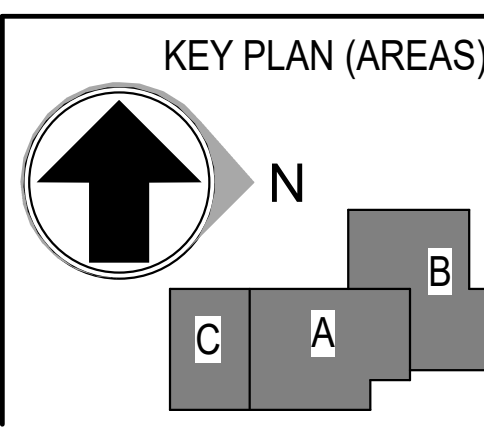


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**PLUMBING OVERALL PLAN (4.0)**  
SCALE: 1/8" = 1'-0"

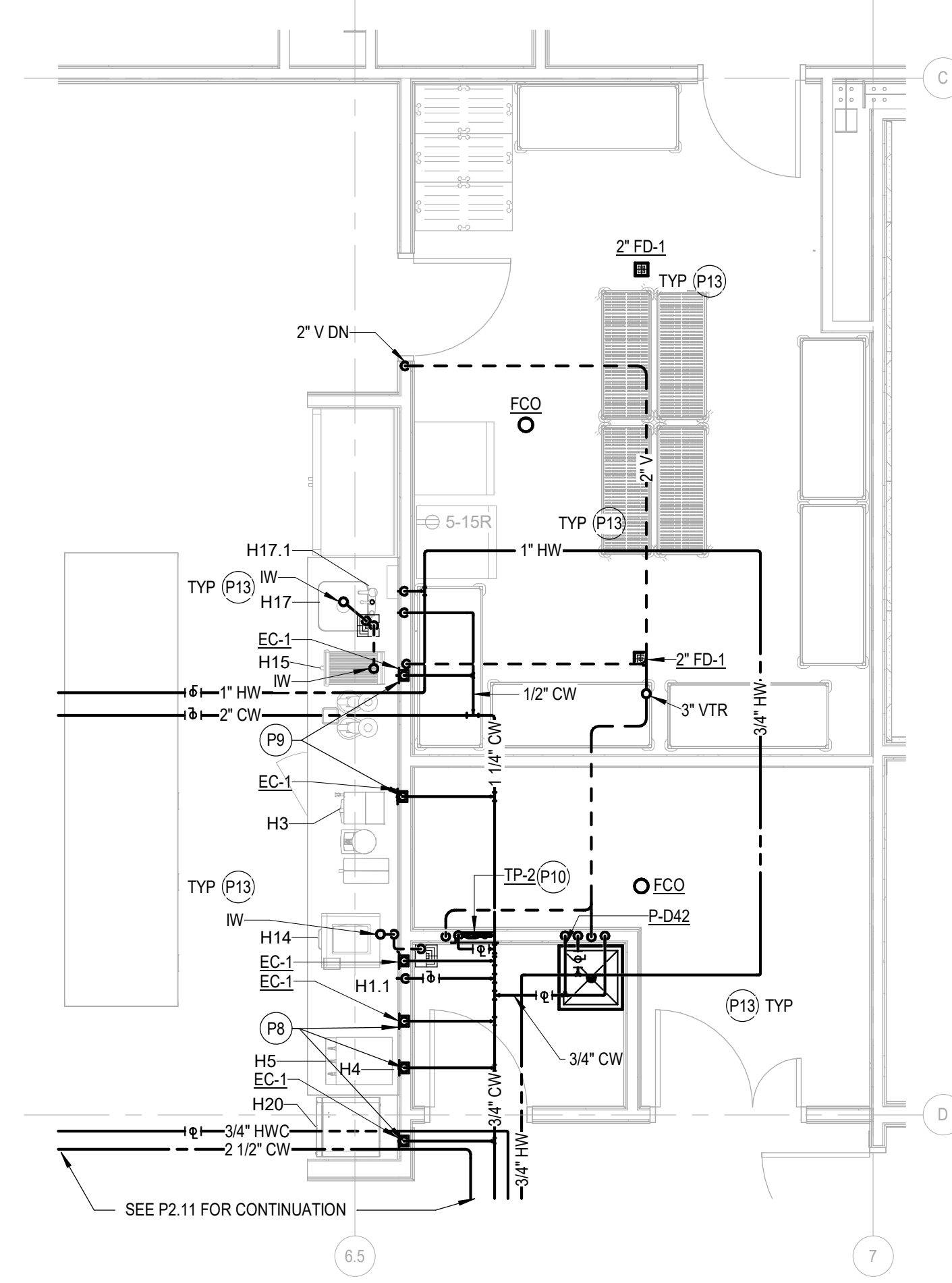
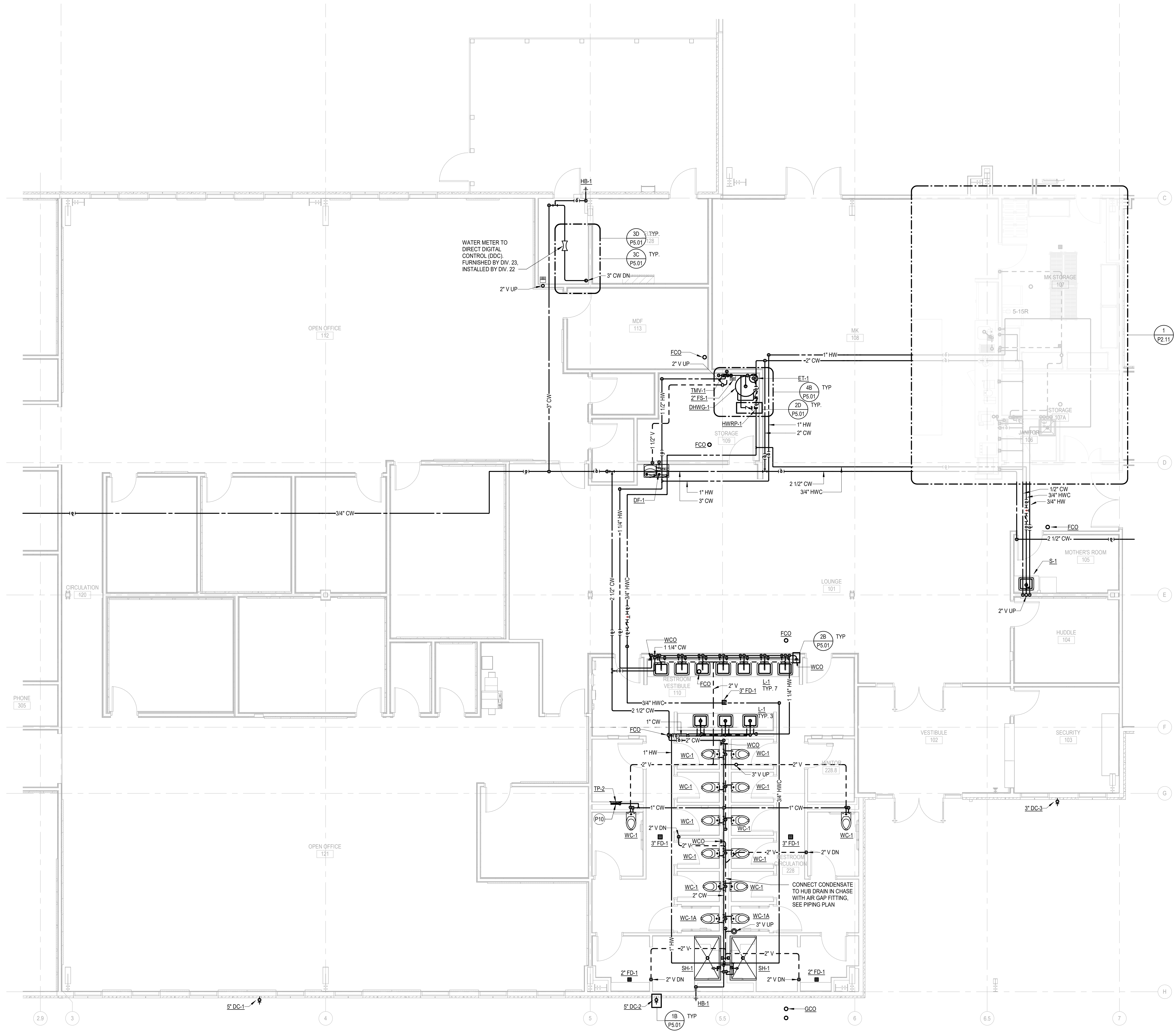
SHEET NUMBER:  
**P2.01.0**  
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GENERAL NOTES

- A FOR SYMBOLS AND ABBREVIATIONS SEE DRAWING P0.1
- C CONTRACTOR SHALL NOT DRILL, NOTCH, OR PENETRATE ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN CONSENT OF STRUCTURAL ENGINEER. COORDINATE REQUIRED NOTCHES, HOLES, AND PENETRATIONS WITH THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

SHEET NOTES

- P8 INSTALL WATTS SD-3 DUAL CHECK VALVE WITH VENT OR APPROVED EQUAL ASSE 1022 DEVICE. PIPE VENT TO NEARBY FLOOR SINK. INSTALL TIGHT TO WALL AND ATTACHED TO WATER OUTLET BOX UNDER COUNTER PRIOR TO CONNECTION TO BEVERAGE DISPENSER. SEE FOOD SERVICE EQUIPMENT.
- P9 INSTALL WATTS LFF DUAL CHECK VALVE OR APPROVED EQUAL ASSE 1024 DEVICE. INSTALL TIGHT TO WALL AND ATTACHED TO WATER OUTLET BOX UNDER COUNTER PRIOR TO CONNECTION TO COFFEE MACHINE AND ICE MAKER. SEE FOOD SERVICE EQUIPMENT.
- P10 CW TO TP-8. INSTALL TRAP PRIMER INSIDE WALL OR CHASE AND PROVIDE ACCESS PANEL WITH VANDAL-PROOF SCREW. ROUTE TRAP PRIMER LINES TO ALL FLOOR DRAINS AND FLOOR SINKS IN VICINITY. UNDERFLOOR COLD WATER LINES TO FLOOR SINKS AND FLOOR DRAINS ARE OMITTED FOR CLARITY.
- P13 REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE SCHEDULE, BASIS OF DESIGN, DETAILS AND CONNECTIONS AND CONNECTION LOCATIONS AFF. PROVIDE ALL WATER, DRAIN AND VENT PIPES INCLUDING INDIRECT WASTE LINES PER FOOD SERVICE DRAWINGS. PROVIDE LAV GUARDS, TRAPS, SUPPLY STOPS, POINT OF USE TMV AND APPURTENANCES AS REQUIRED FOR FOOD SERVICE EQUIPMENT AND FIXTURES. COORDINATE ALL FLOOR SINKS AND FLOOR DRAINS WITH FOOD SERVICE EQUIPMENT AND SCHEDULES.



1 MK ENLARGED PLAN  
P2.11 SCALE: 1/4" = 1'-0"

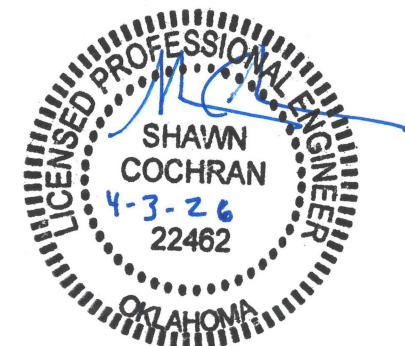
PLUMBING PLAN - AREA A  
SCALE: 3/16" = 1'-0"

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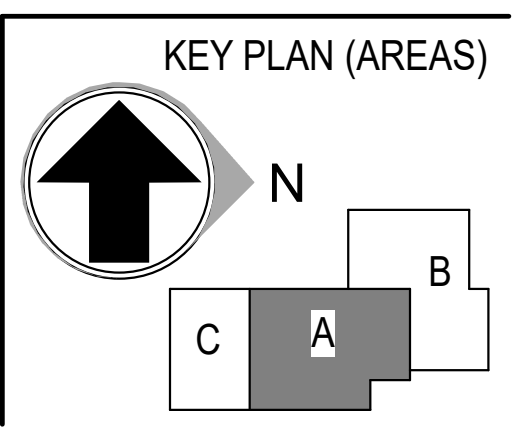
HDR, ENGINEERING INC.  
1917 SOUTH 67th STREET  
OMAHA, NEBRASKA 68106  
(402) 399-1000  
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DLR GROUP  
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OMAHA, NE 68106  
(402) 742-4200

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**PLUMBING PLAN - AREA A**  
SCALE: As indicated

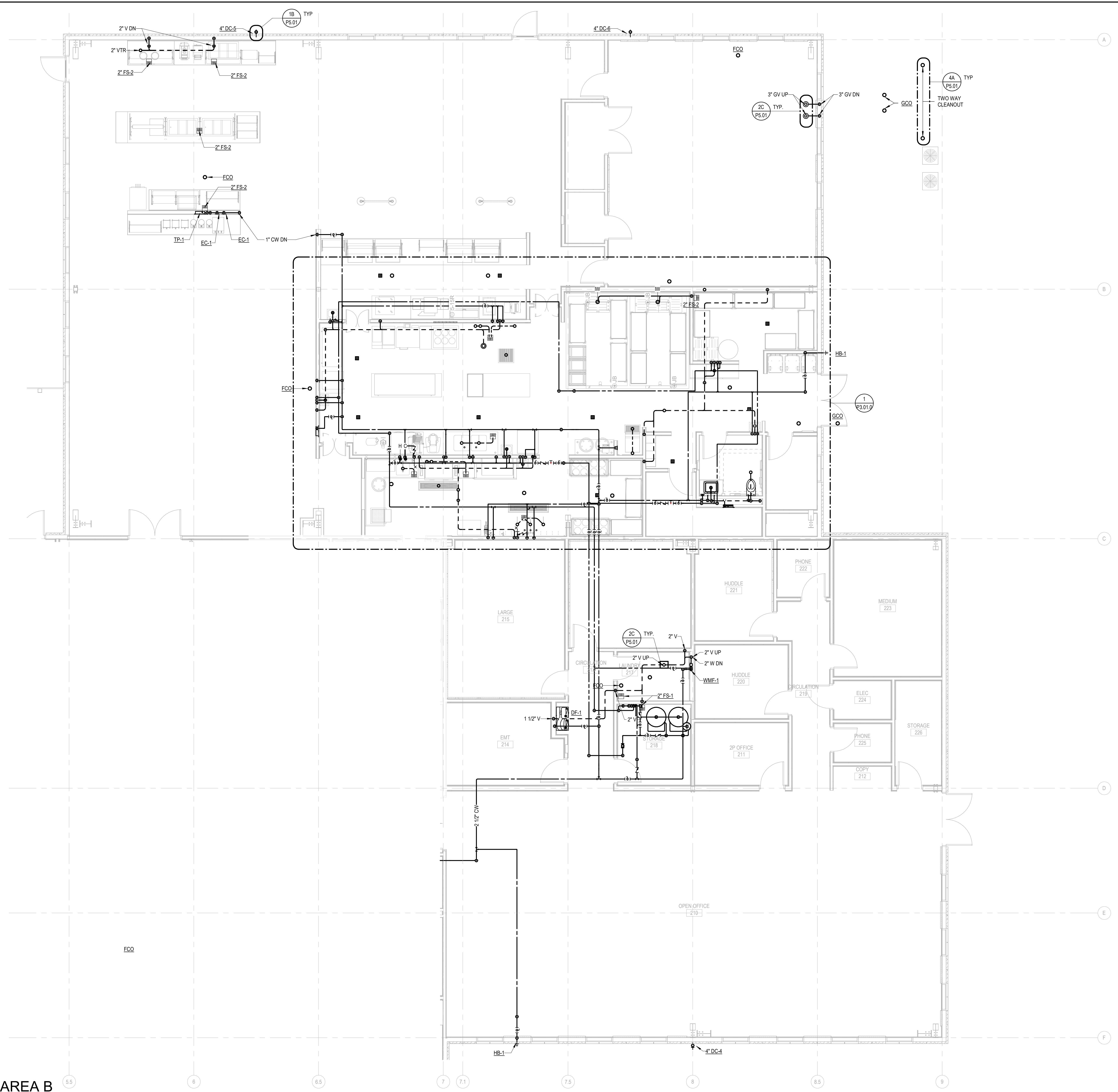
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GENERAL NOTES

- A FOR SYMBOLS AND ABBREVIATIONS SEE DRAWING PG.1
- C CONTRACTOR SHALL NOT DRILL, NOTCH, OR PENETRATE ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN CONSENT OF STRUCTURAL ENGINEER. COORDINATE REQUIRED NOTCHES, HOLES, AND PENETRATIONS WITH THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

SHEET NOTES



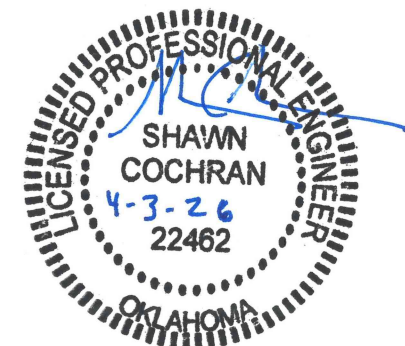
PLUMBING PLAN - AREA B

SCALE: 3/16" = 1'-0"

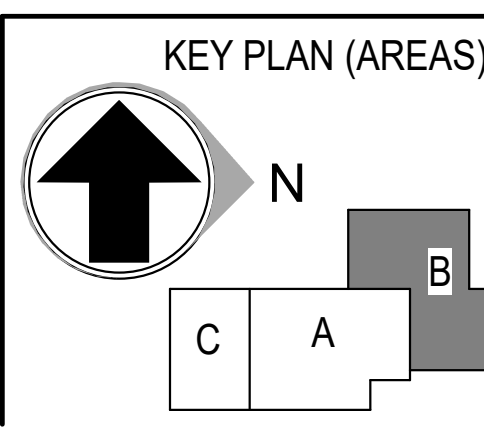


**DLR GROUP**  
DLR GROUP  
1917 SOUTH 67th STREET  
OMAHA, NEBRASKA 68106  
(402) 399-1000  
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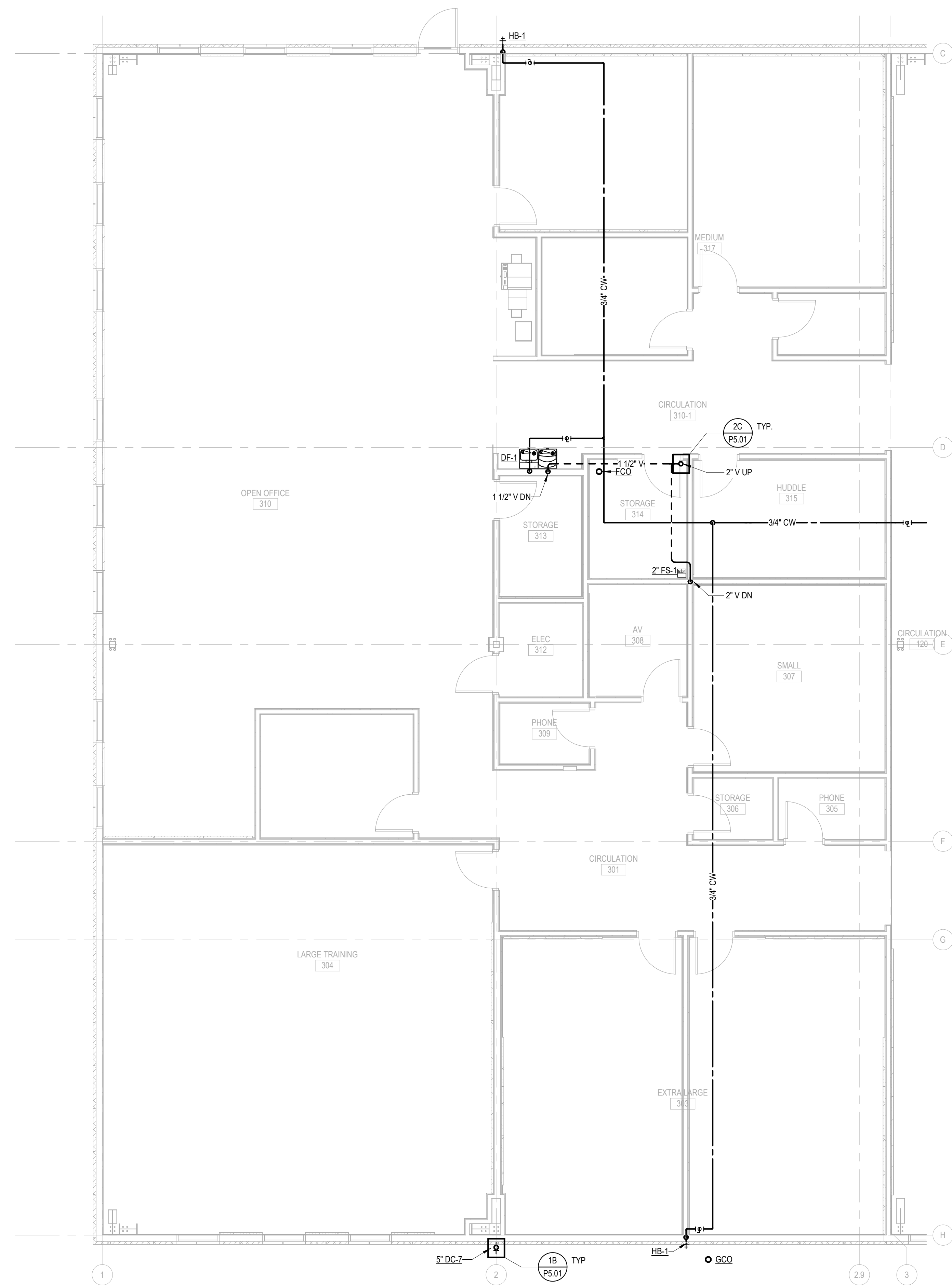
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**PLUMBING PLAN - AREA B (4.0)**  
SCALE: 3/16" = 1'-0"

SHEET NUMBER:  
**P2.21.0**  
PHASE: ISSUE FOR CONSTRUCTION - HUB

GENERAL NOTES

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- C CONTRACTOR SHALL NOT DRILL, NOTCH, OR PENETRATE ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN CONSENT OF STRUCTURAL ENGINEER. COORDINATE REQUIRED NOTCHES, HOLES, AND PENETRATIONS WITH THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.



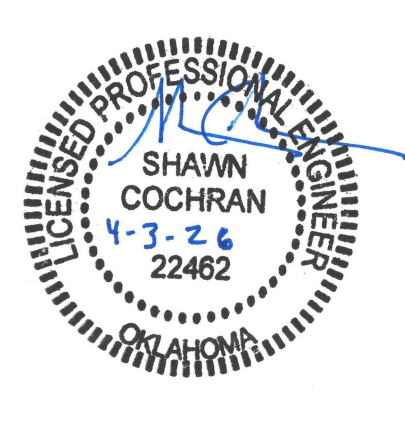
**PLUMBING PLAN - AREA C**  
SCALE: 3/16" = 1'-0"

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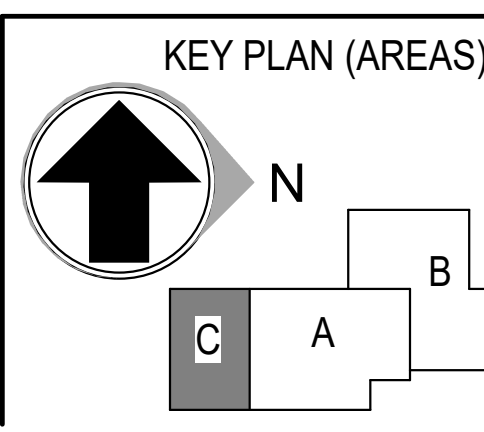


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DLR GROUP  
1917 SOUTH 67th STREET  
OMAHA, NEBRASKA 68106  
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CA-0443

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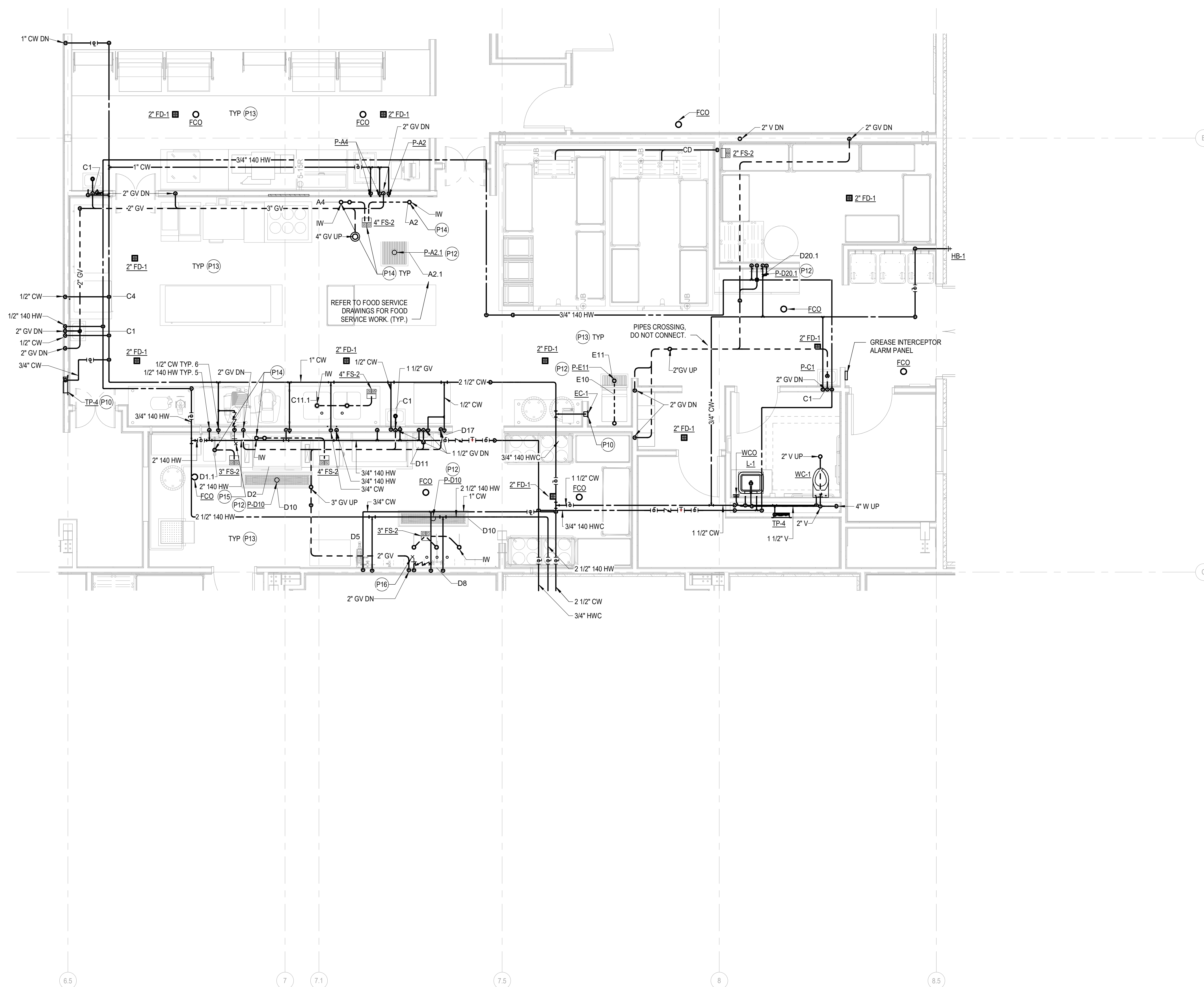
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**PLUMBING PLAN - AREA C**  
SCALE: 3/16" = 1'-0"

SHEET NUMBER:  
**P2.31**  
PHASE: ISSUE FOR CONSTRUCTION - HUB

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SHEET NOTES

- P10 CW TO TP-4. INSTALL TRAP PRIMER INSIDE WALL OR CHASE AND PROVIDE ACCESS PANEL WITH VANDAL-PROOF SCREW. ROUTE TRAP PRIMER LINES TO ALL FLOOR DRAINS AND FLOOR SINKS IN VICINITY. UNDERFLOOR COLD WATER LINES TO FLOOR SINKS AND FLOOR DRAINS ARE OMITTED FOR CLARITY.
- P12 CONNECT TO IN-FLOOR FOOD SERVICE FIXTURES. REFER TO FOOD SERVICE DRAWINGS/SCHEDULES FOR BASIS OF DESIGN, DETAILS, AND CONNECTIONS.
- P13 REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE SCHEDULE, BASIS OF DESIGN, DETAILS AND CONNECTIONS AND CONNECTION LOCATIONS. AFF PROVIDE ALL WATER, DRAIN AND VENT PIPES INCLUDING INDIRECT WASTE LINES PER FOOD SERVICE DRAWINGS. PROVIDE LAV GUARDS, TRAPS, SUPPLY STOPS, POINT OF USE TMV, AND APPURTENANCES AS REQUIRED FOR FOOD SERVICE EQUIPMENT AND FIXTURES. COORDINATE ALL FLOOR SINKS AND FLOOR DRAINS WITH FOOD SERVICE EQUIPMENT AND SCHEDULES.
- P14 PROVIDE COPPER INDIRECT WASTE PIPE AND FITTINGS CONNECTED TO EQUIPMENT. SIZE PER FOOD SERVICE DRAWINGS BETWEEN EQUIPMENT AND RECEIVING DRAIN.
- P15 PROVIDE SINGLE INLET, DUAL OUTLET, DUAL BALL VALVE ANGLE STOP (BRASSCRAFT CR180D10WC) INSTALLED 6" ABOVE TOP OF COUNTERBACKSPLASH WITH 3/8" FLEXIBLE BRAIDED HOSES AND MALE THREADED ENDS FOR CONNECTION TO FOOD SERVICE DEVICES. COORDINATE LENGTH AND CONNECTION WITH FOOD SERVICE. INSTALL WATTS SD3 IN SUPPLY LINE ABOVE CEILING. ROUTE VENT/DRAIN THROUGH WALL TO NEAREST FLOOR SINK.
- P16 PROVIDE SINGLE INLET/OUTLET BALL VALVE ANGLE STOP (BRASSCRAFT KT CR19XC) INSTALLED 6" ABOVE TOP OF COUNTERBACKSPLASH WITH 3/8" FLEXIBLE BRAIDED HOSE AND MALE THREADED END FOR CONNECTION TO FOOD SERVICE DEVICE. COORDINATE LENGTH AND CONNECTION WITH FOOD SERVICE. INSTALL WATTS SD3 IN SUPPLY LINE ABOVE CEILING. ROUTE VENT/DRAIN THROUGH WALL TO NEAREST FLOOR SINK.

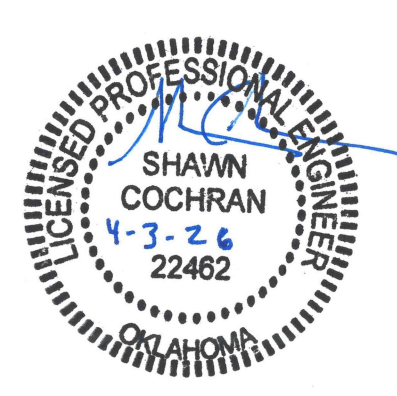
1 FRONT/BACK OF HOUSE ENLARGED PLAN  
P3.01.0 SCALE: 1/4" = 1'-0"

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OMAHA, NEBRASKA 68106  
(402) 399-1000  
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KIMLEY-HORN & ASSOC. INC.  
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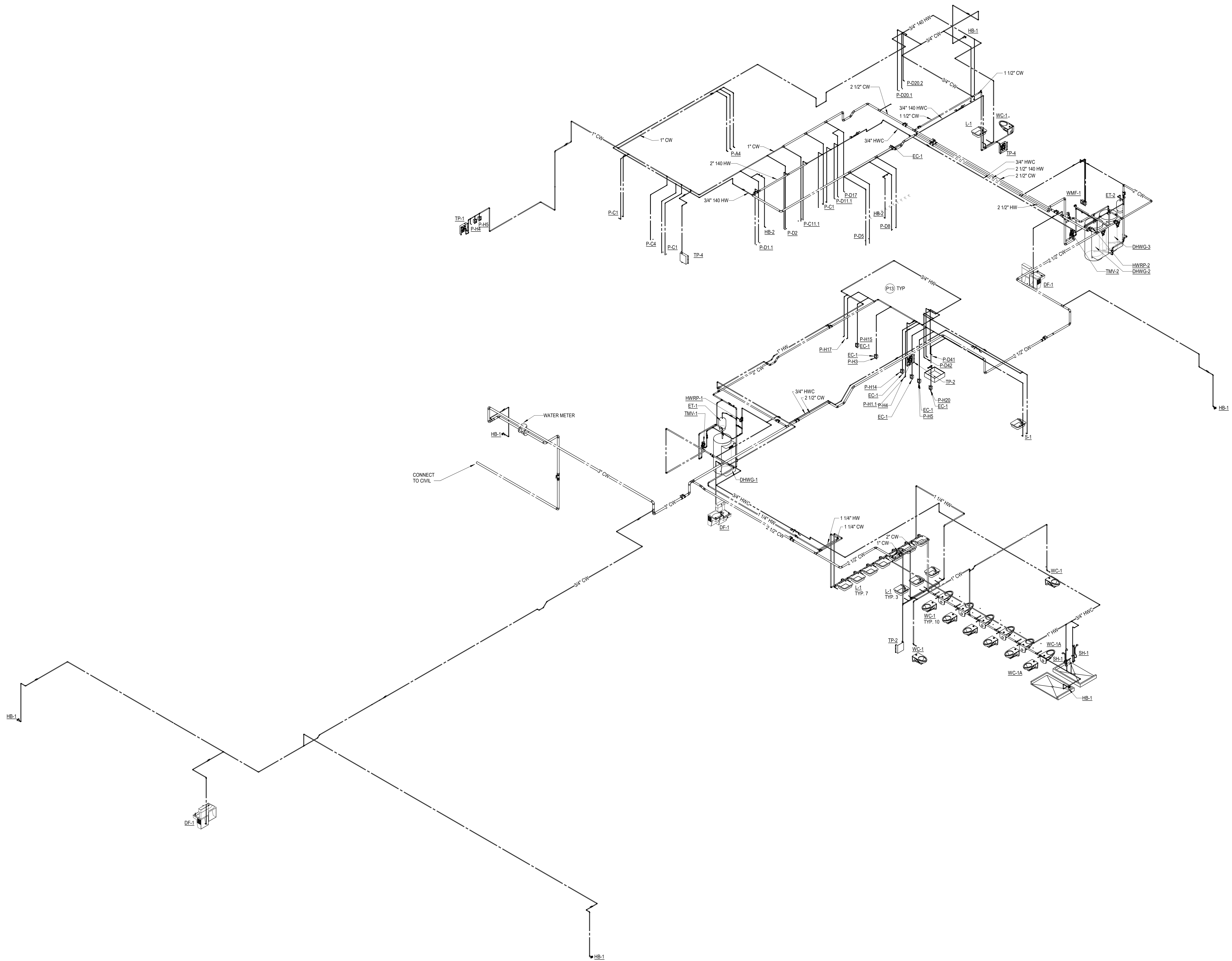
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APPRVD:  
Approver

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PROJ. NO. 10438332

ENLARGED PLUMBING PLANS (4.0)  
SCALE: 1/4" = 1'-0"

SHEET NUMBER:  
**P3.01.0**  
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**SHEET NOTES**

P13 REFER TO FOOD SERVICE DRAWINGS FOR FIXTURE SCHEDULE, BASIS OF DESIGN, DETAILS AND CONNECTIONS AND CONNECTION LOCATIONS AFF. PROVIDE ALL WATER, DRAIN AND VENT PIPES INCLUDING INDIRECT WASTE LINES PER FOOD SERVICE DRAWINGS. PROVIDE LAV GUARDS, TRAPS, SUPPLY STOPS, POINT OF USE TMV, AND APPURTENANCES AS REQUIRED FOR FOOD SERVICE EQUIPMENT AND FIXTURES. COORDINATE ALL FLOOR SINKS AND FLOOR DRAINS WITH FOOD SERVICE EQUIPMENT AND SCHEDULES.

1 DOMESTIC WATER RISER DIAGRAM  
P4.01.0



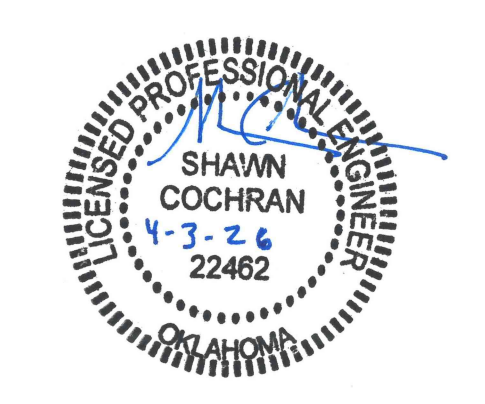
HDR ENGINEERING INC.  
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OMAHA, NEBRASKA 68106  
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OMAHA, NE 68106  
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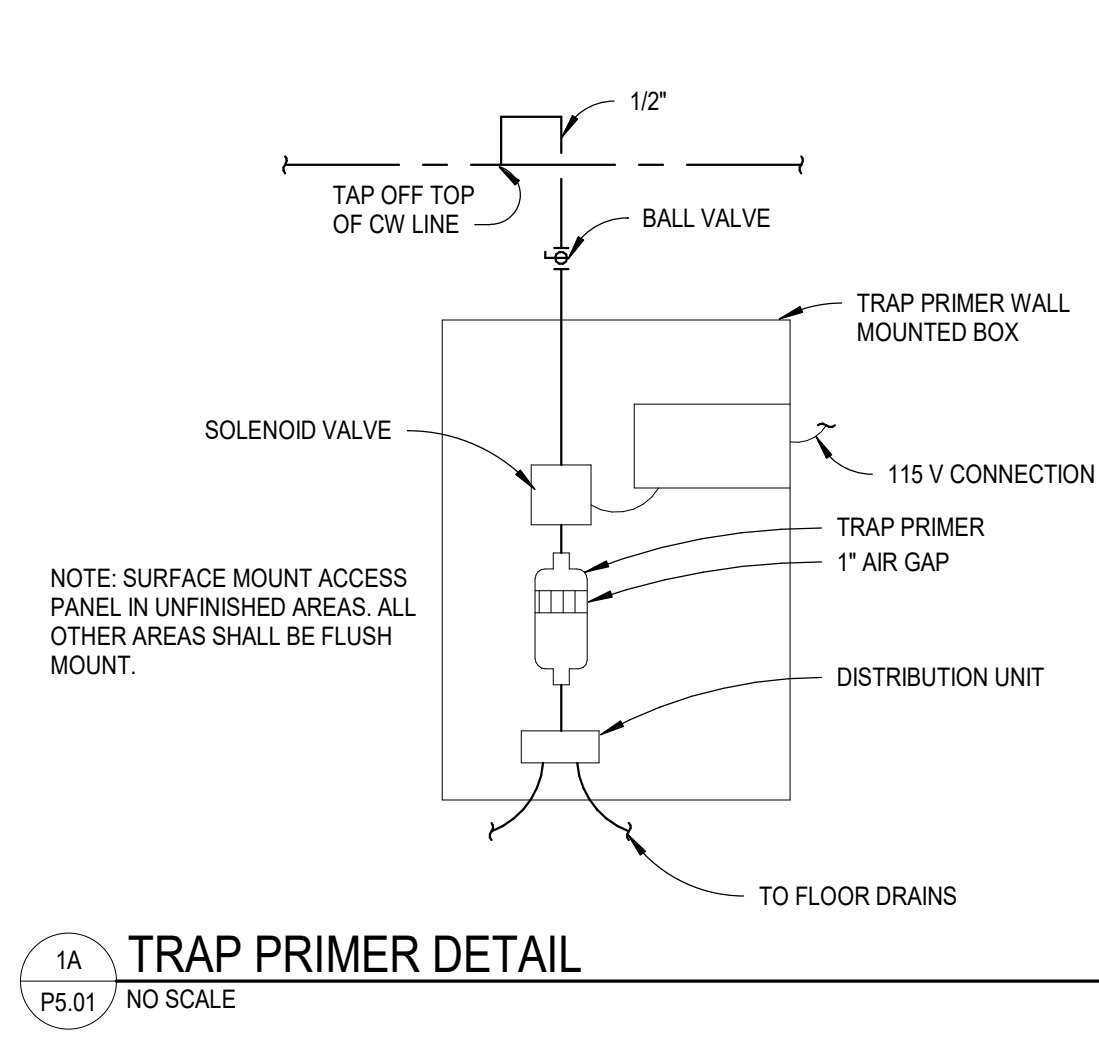
DRAWN:  
Author  
APPRVD:  
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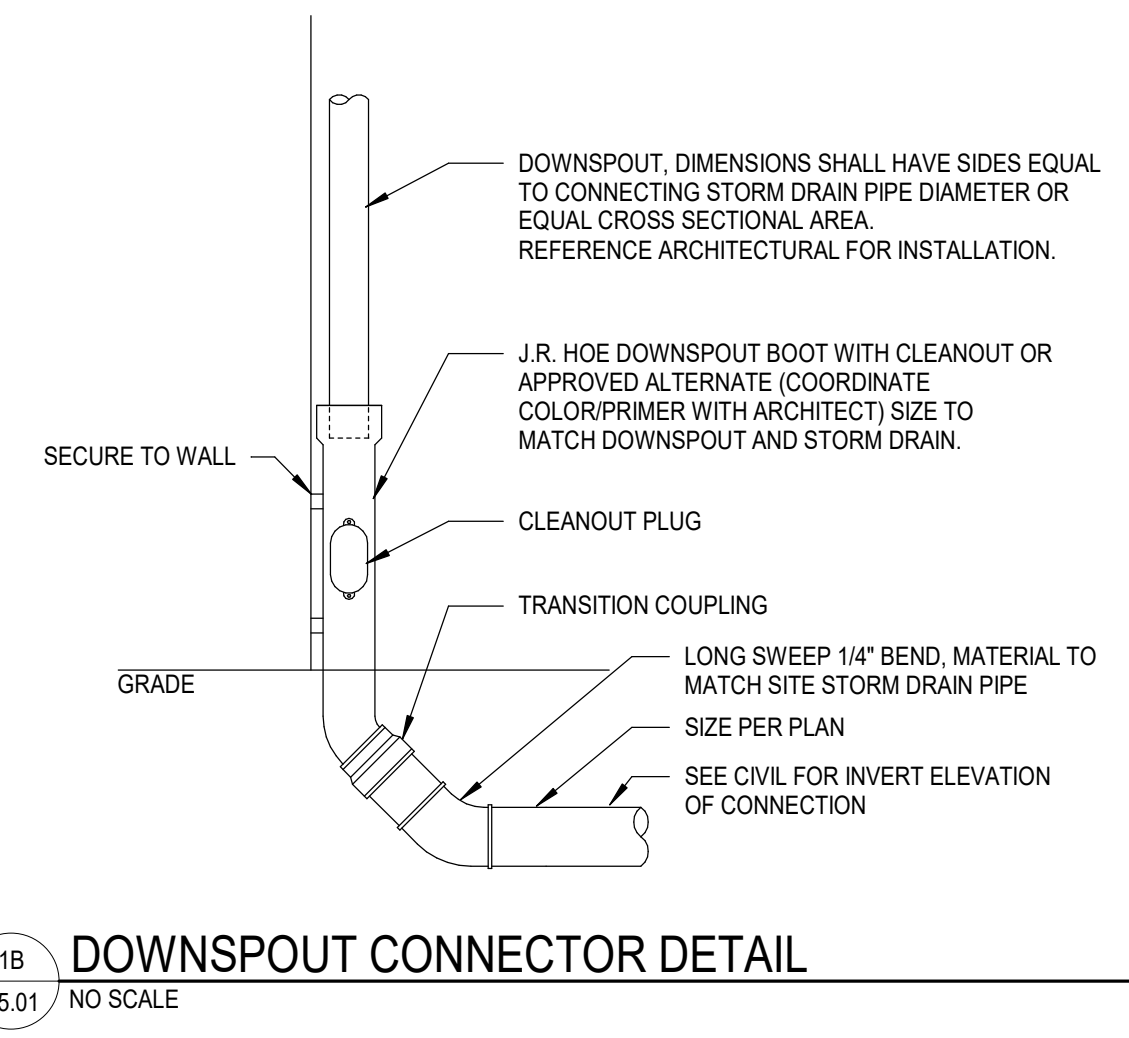
**DOMESTIC WATER RISER DIAGRAM (4.0)**  
SCALE:

SHEET NUMBER:  
**P4.01.0**  
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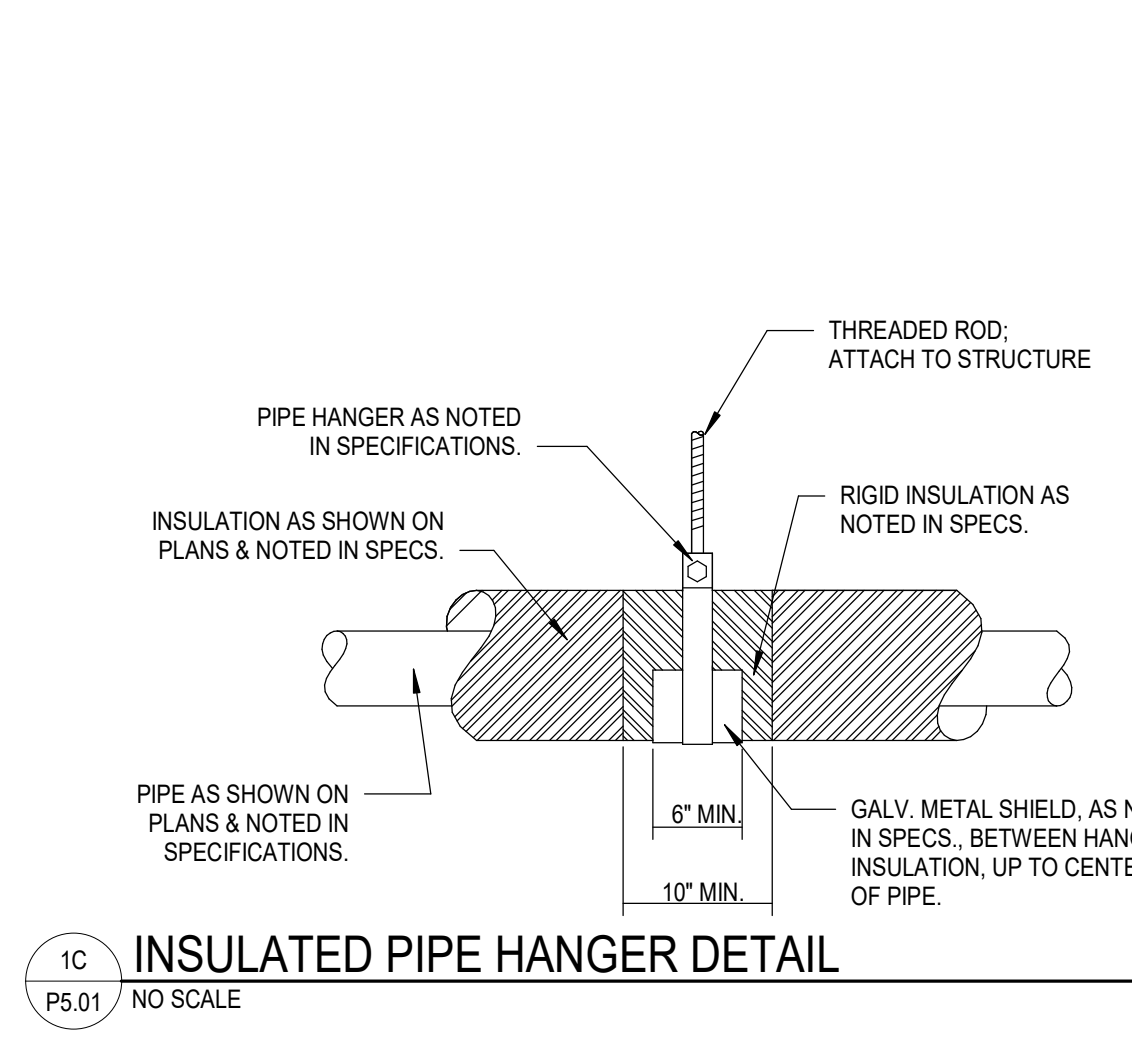




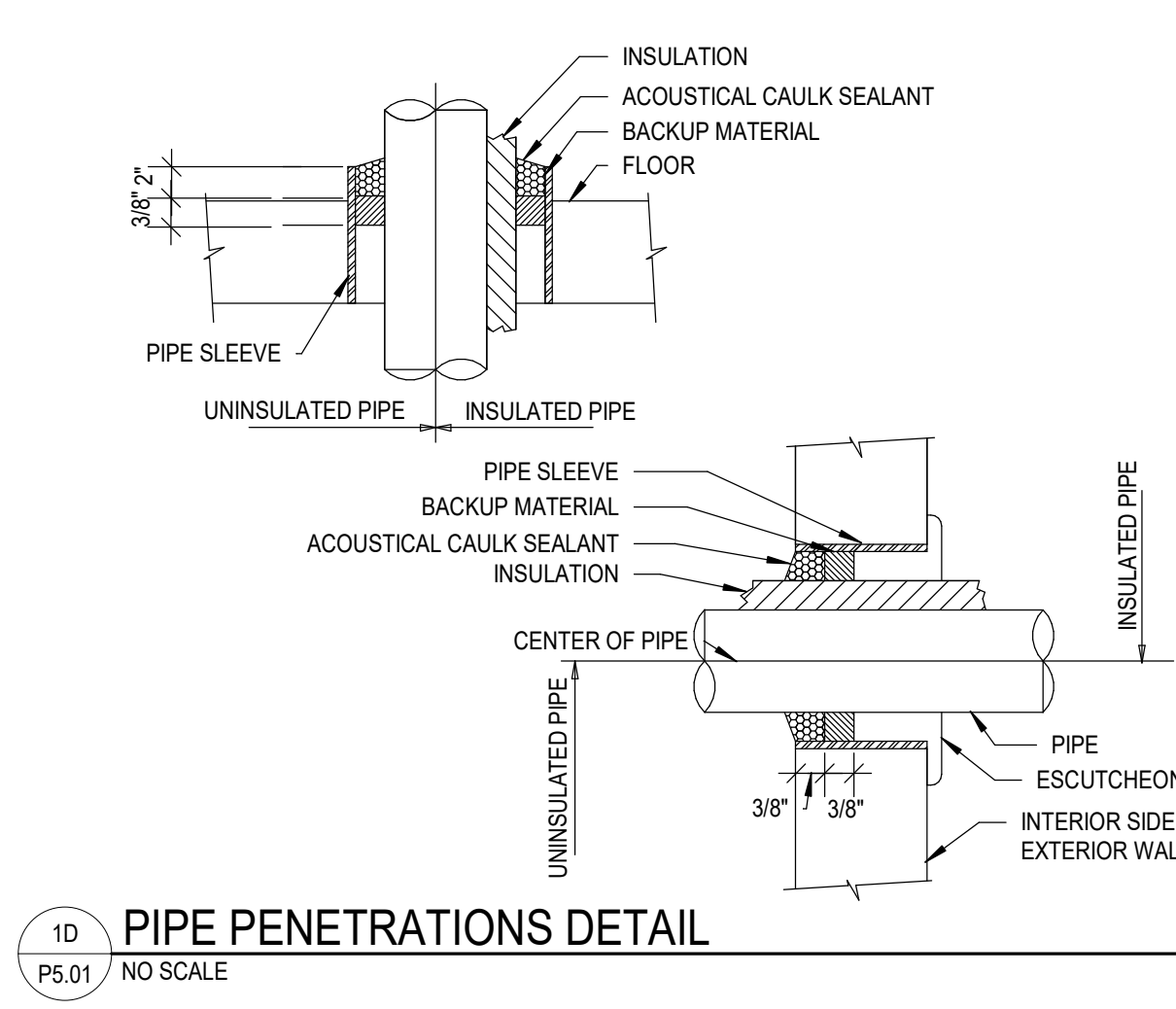
1A TRAP PRIMER DETAIL  
P5.01 NO SCALE



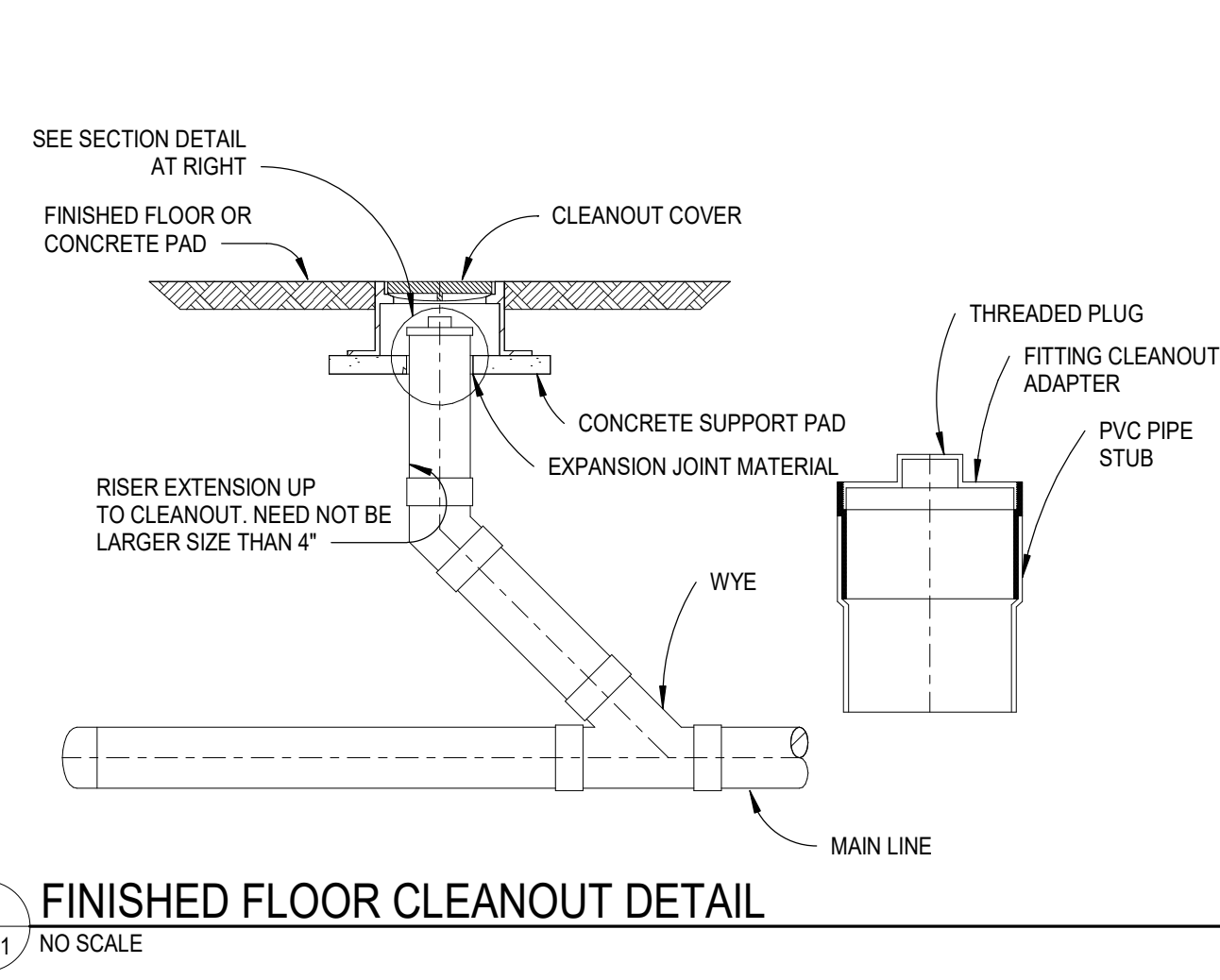
1B DOWNSPOUT CONNECTOR DETAIL  
P5.01 NO SCALE



1C INSULATED PIPE HANGER DETAIL  
P5.01 NO SCALE

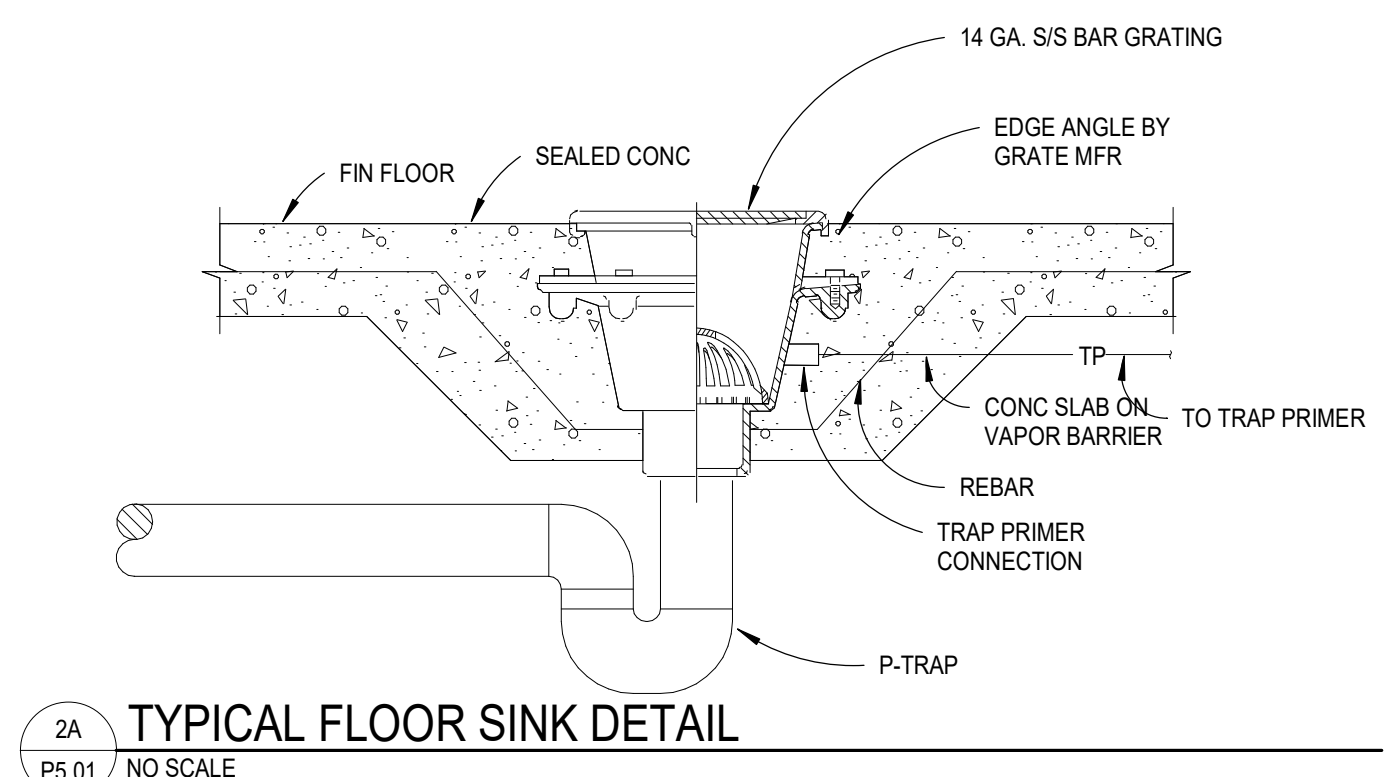


1D PIPE PENETRATIONS DETAIL  
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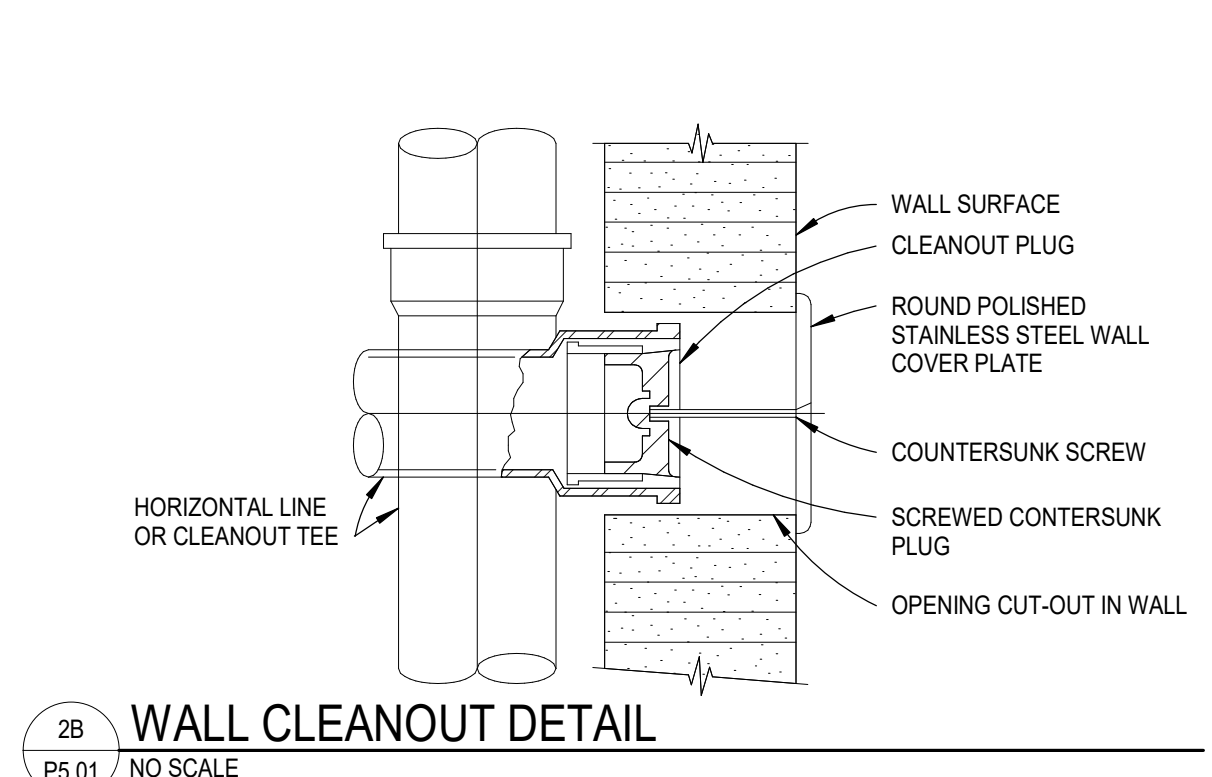


1E FINISHED FLOOR CLEANOUT DETAIL  
P5.01 NO SCALE

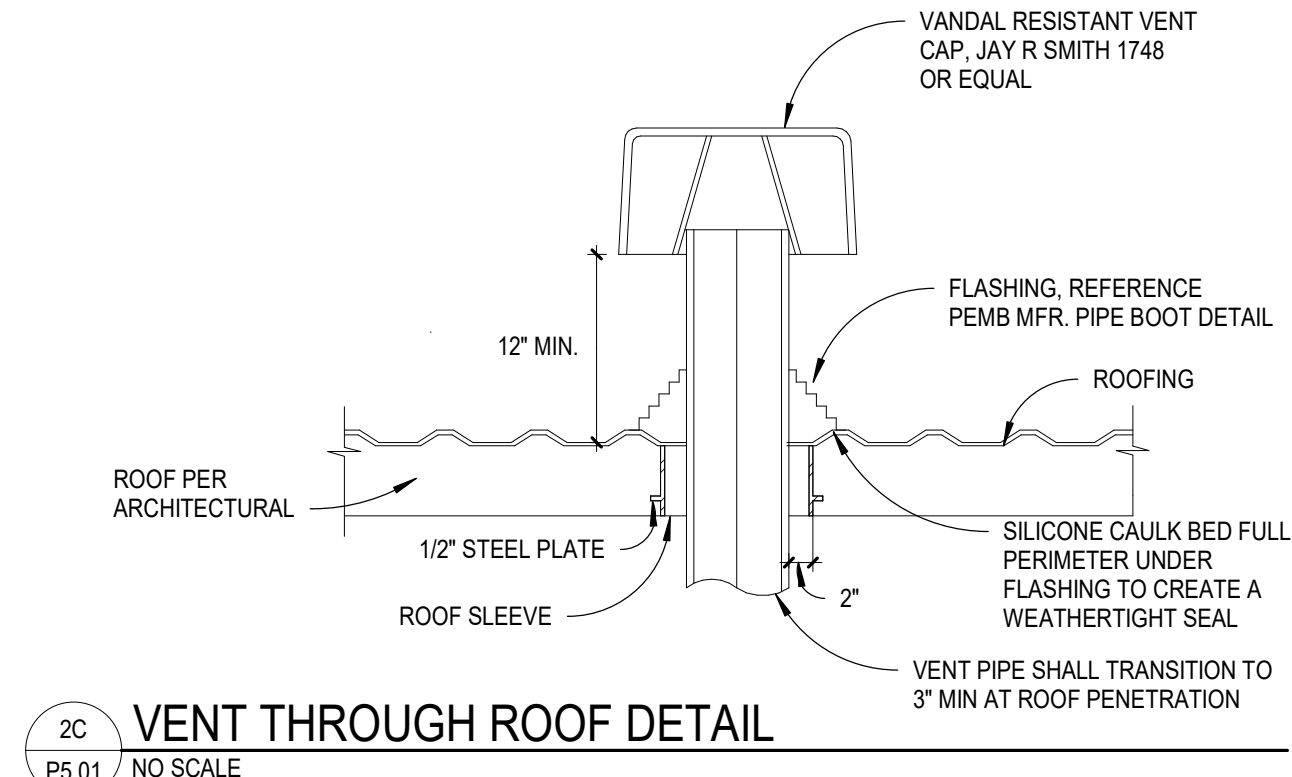
NOTE:  
A. TYPICAL FOR BAR SINKS, HANDWASH STATIONS, AND LAVS.  
B. MOUNT PIPING UNDER SINK AS CLOSE AS POSSIBLE TO BOTTOM OF FIXTURE.  
C. TEMPERED WATER SUPPLY MAY BE SUPPLIED TO MAX 3 FIXTURES WITH FIXED TEMP. SUPPLY FAUCETS.



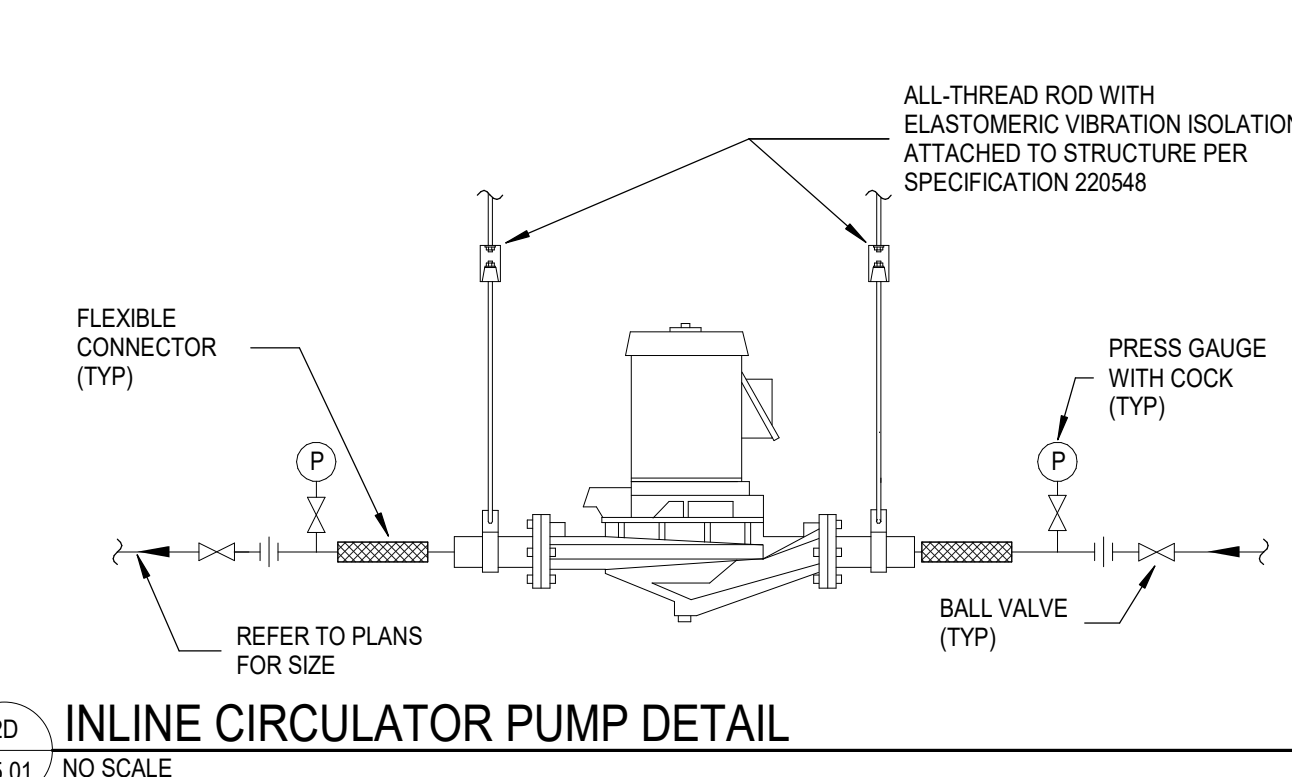
2A TYPICAL FLOOR SINK DETAIL  
P5.01 NO SCALE



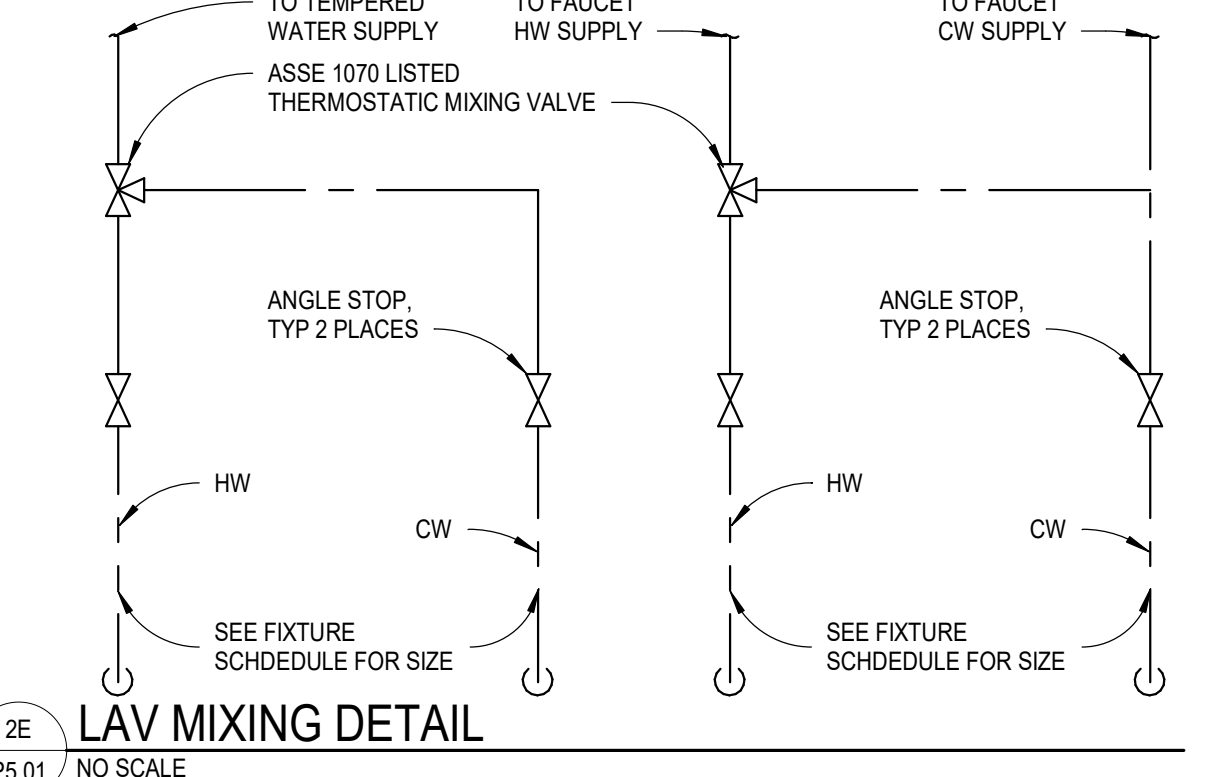
2B WALL CLEANOUT DETAIL  
P5.01 NO SCALE



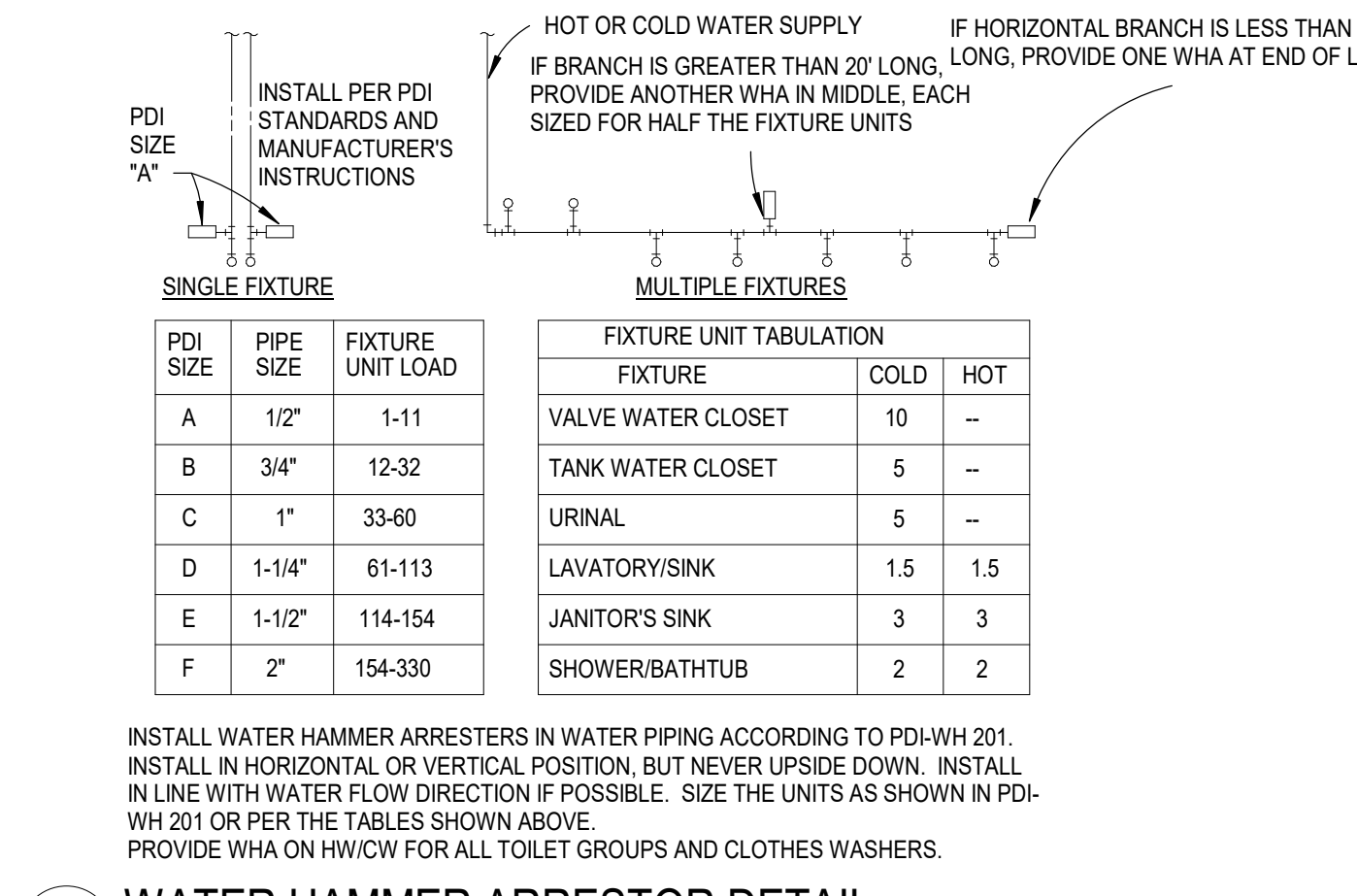
2C VENT THROUGH ROOF DETAIL  
P5.01 NO SCALE



2D INLINE CIRCULATOR PUMP DETAIL  
P5.01 NO SCALE



2E LAV MIXING DETAIL  
P5.01 NO SCALE

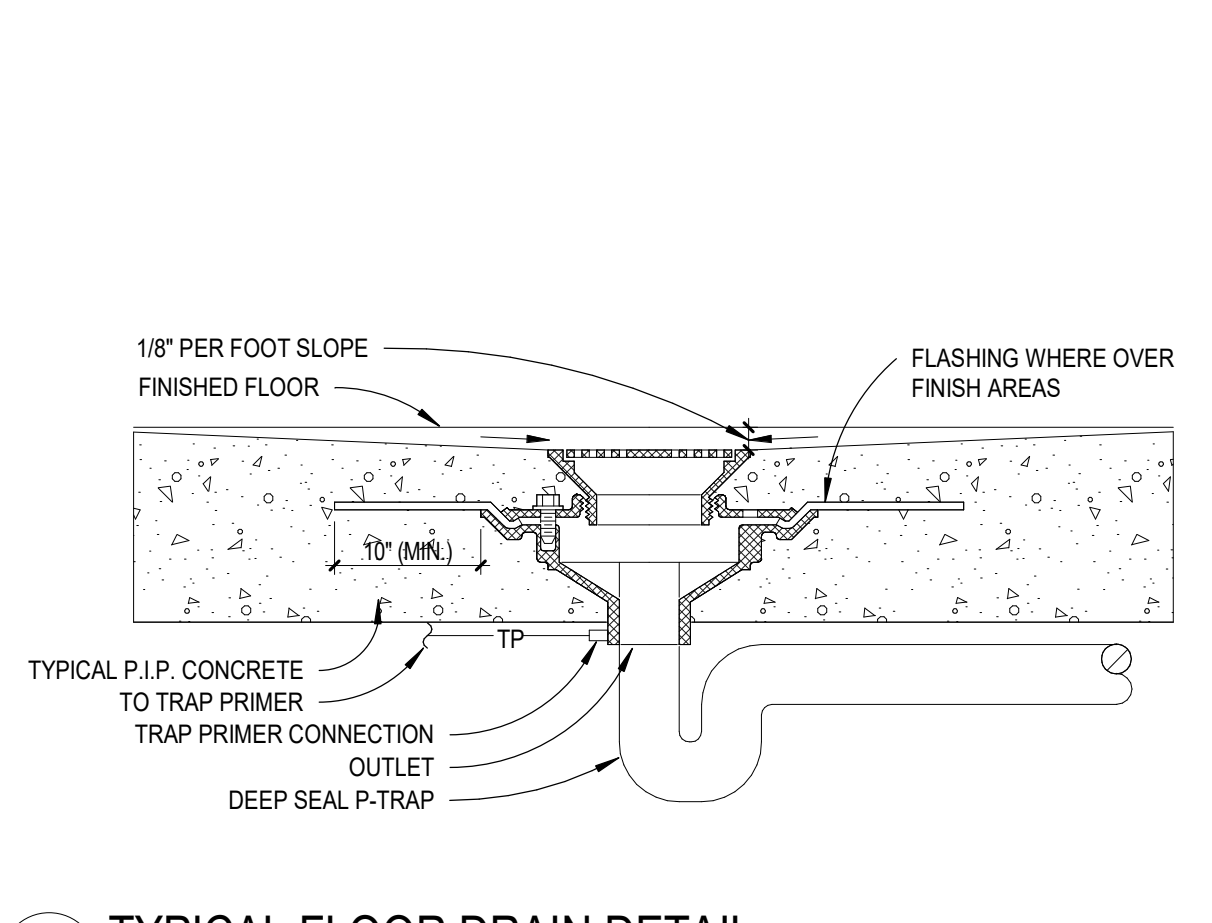


3A WATER HAMMER ARRESTOR DETAIL  
P5.01 NO SCALE

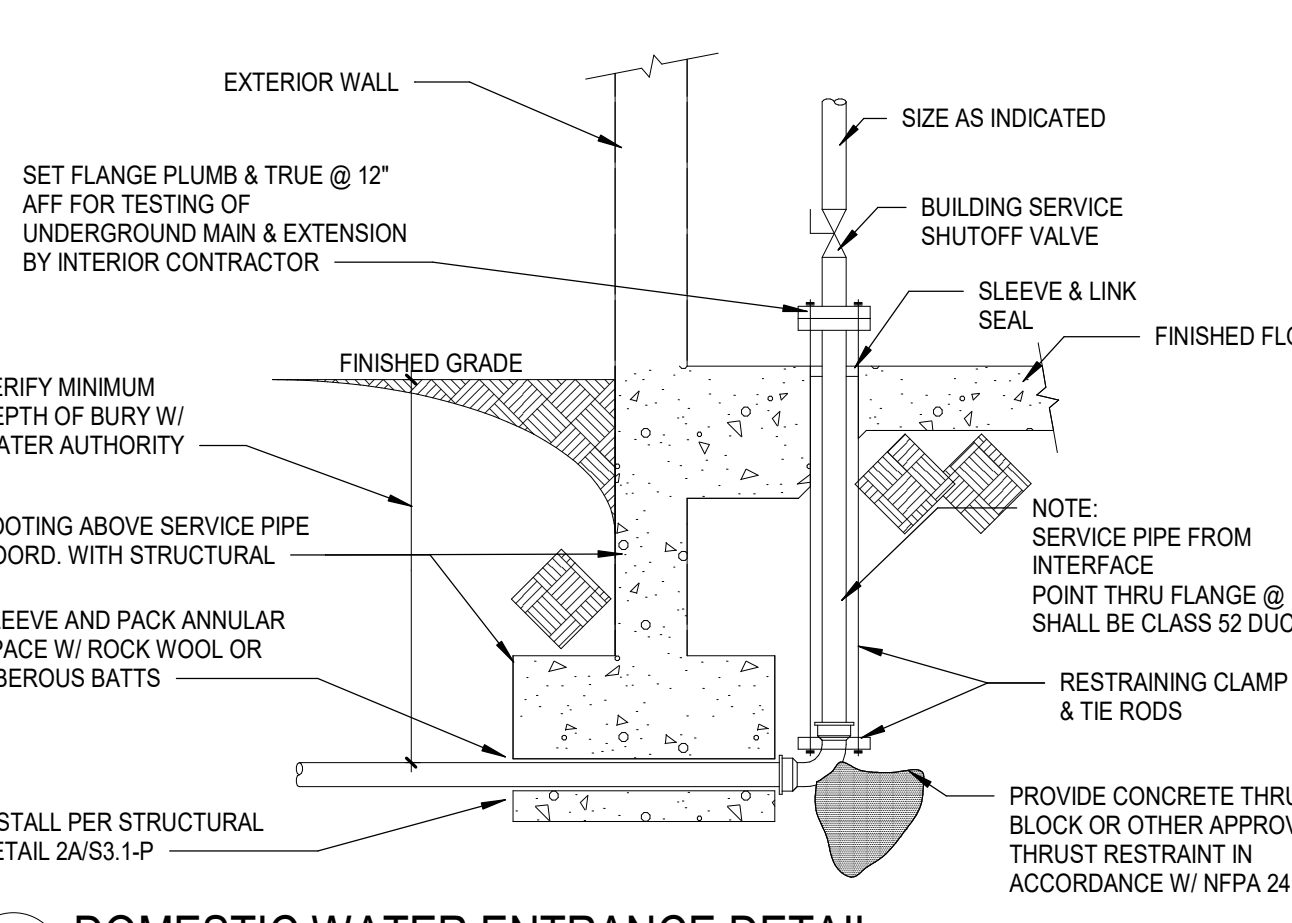
SINGLE FIXTURE		FIXTURE UNIT TABULATION	
PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD	
A	1/2"	1-11	
B	3/4"	12-32	
C	1"	33-60	
D	1-1/4"	61-113	
E	1-1/2"	114-154	
F	2"	154-330	

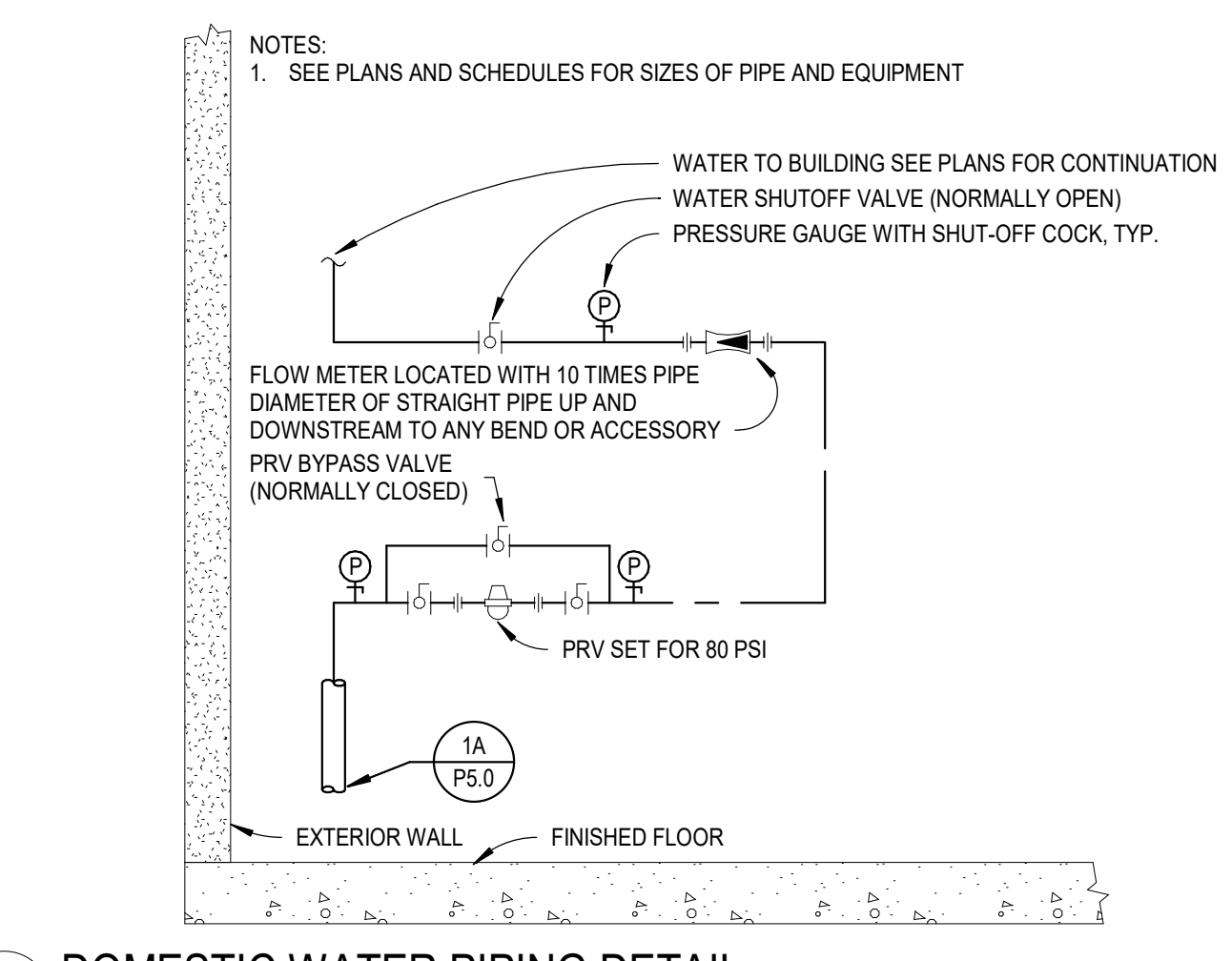
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3
SHOWER/BATH/TUB	2	2



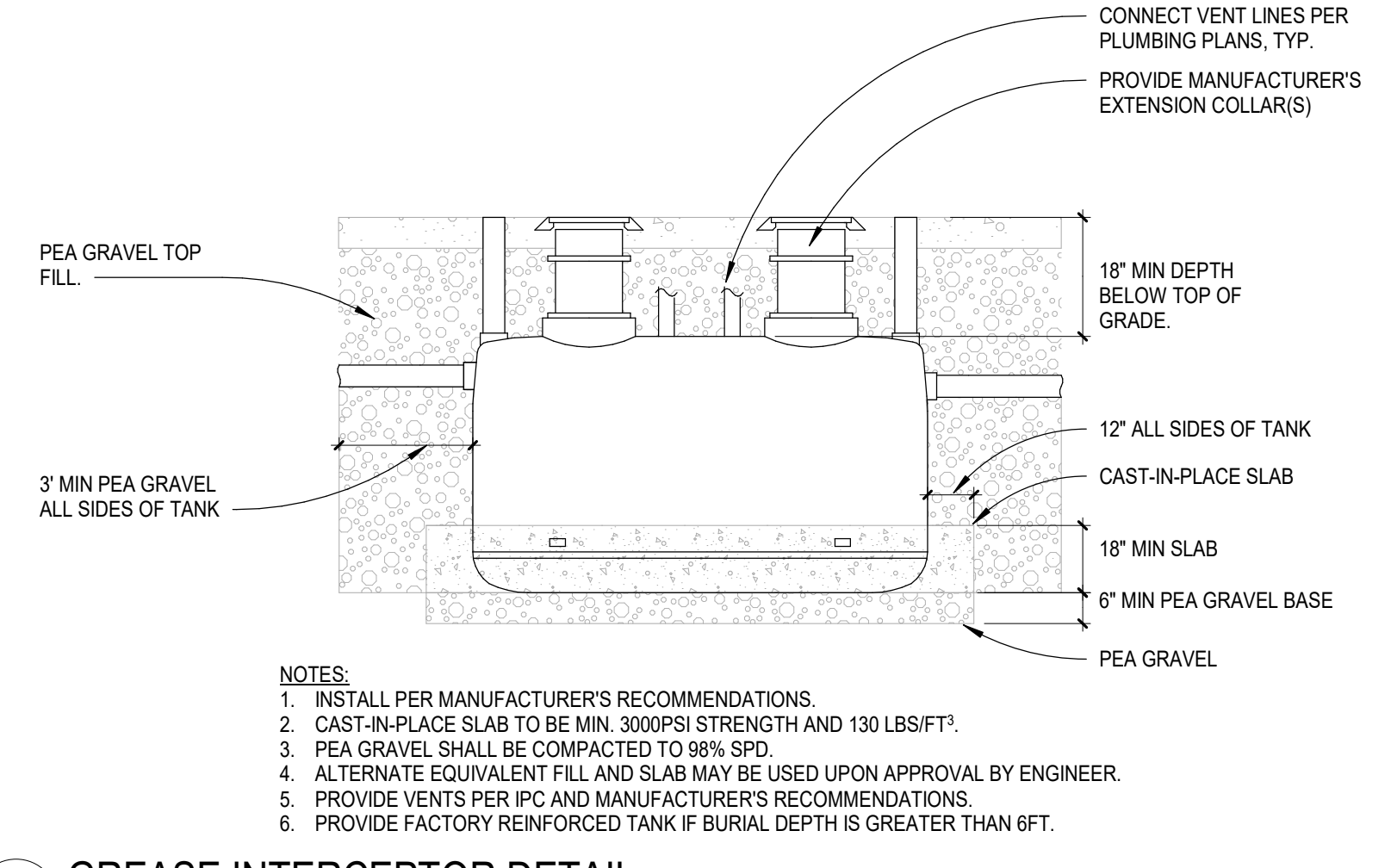
3B TYPICAL FLOOR DRAIN DETAIL  
P5.01 NO SCALE



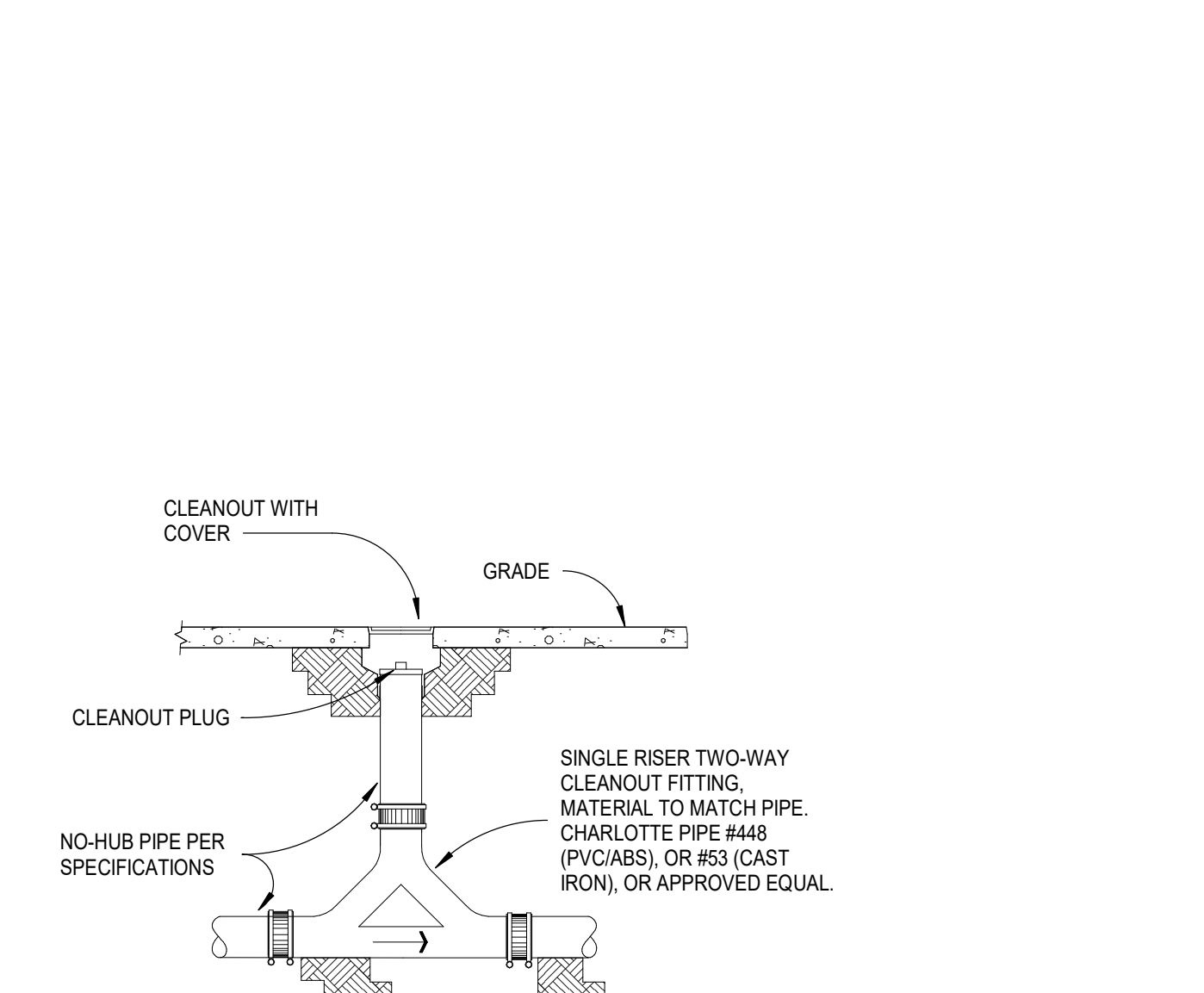
3C DOMESTIC WATER ENTRANCE DETAIL  
P5.01 NO SCALE



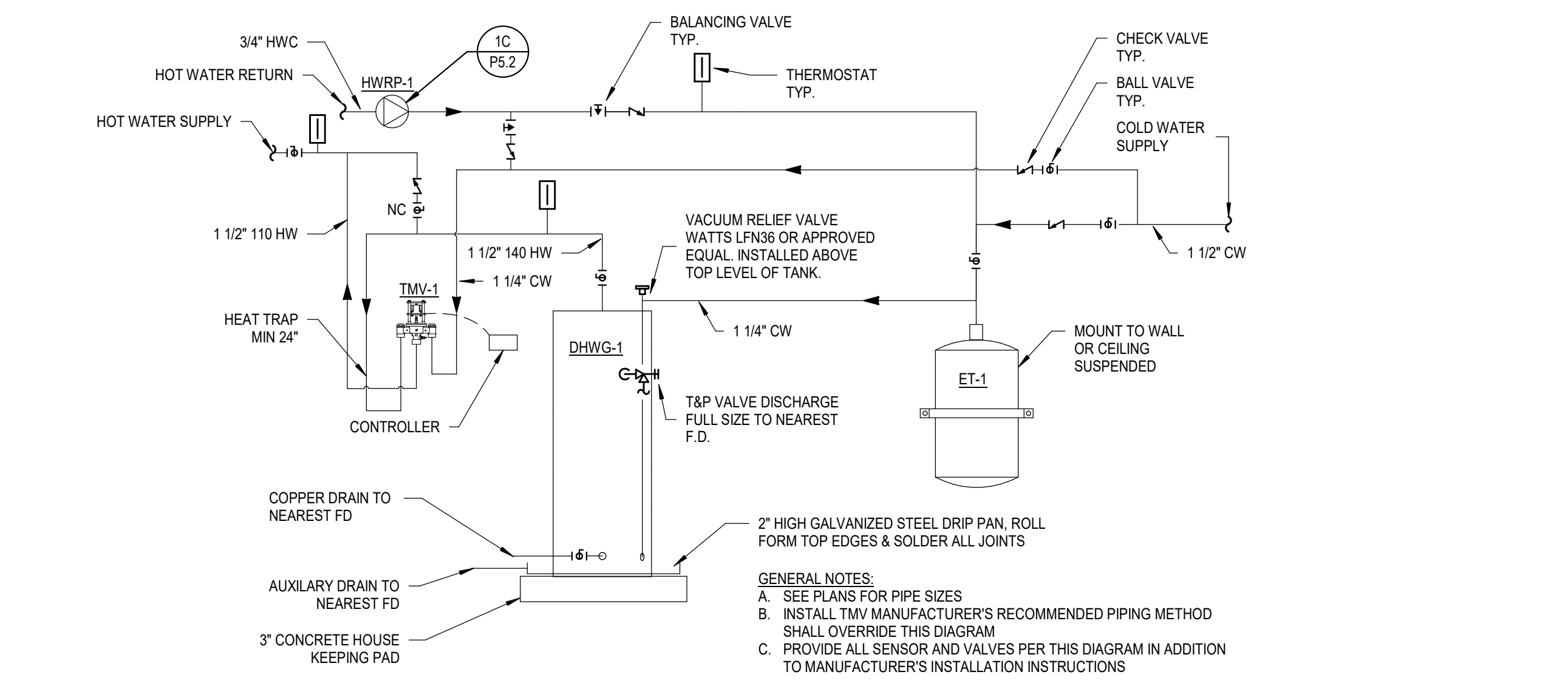
3D DOMESTIC WATER PIPING DETAIL  
P5.01 NO SCALE



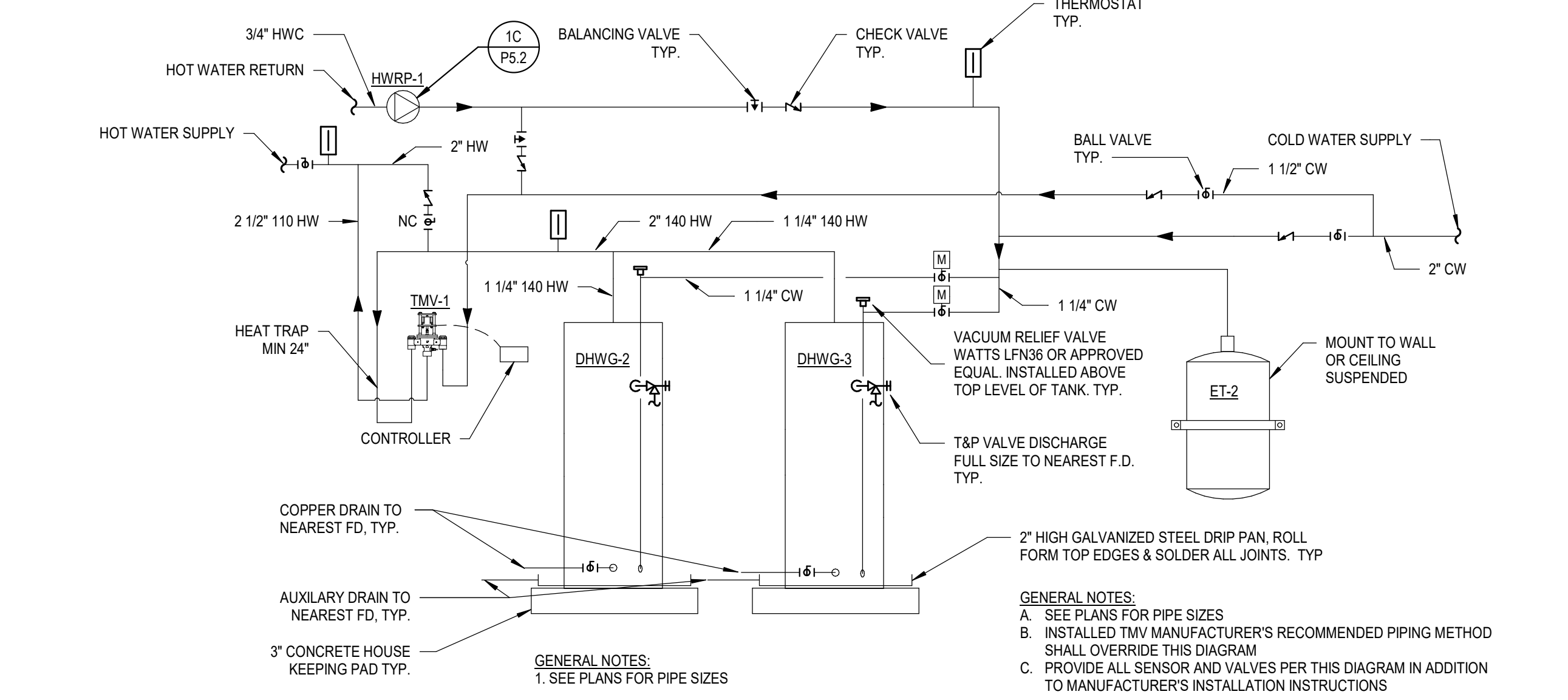
3E GREASE INTERCEPTOR DETAIL  
P5.01 NO SCALE



4A 2-WAY EXTERIOR CLEANOUT DETAIL  
P5.01 NO SCALE



4B ELECTRIC WATER HEATER 1 UNIT PIPING DIAGRAM  
P5.01 NO SCALE



4D ELECTRIC WATER HEATER 2 UNIT PIPING DIAGRAM  
P5.01 NO SCALE

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NO.	DATE	DESCRIPTION
1	2026-04-03	ISSUE FOR CONSTRUCTION - HUB

DRAWN:  
Author  
APPRVD:  
Approver

**CLY-HUB**  
PROJECT ADDRESS:  
TULSA COUNTY, OK  
PROJ. NO. 10438332

**PLUMBING DETAILS**  
SCALE: As indicated

SHEET NUMBER:  
**P5.01**  
PHASE: ISSUE FOR CONSTRUCTION - HUB

## PLUMBING FIXTURE SCHEDULE

GENERAL NOTES:  
 A. SEE PLANS FOR LOCATIONS AND QUANTITIES OF FIXTURES INSTALLED PER PHASE.  
 NOTES:  
 1. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.  
 2. PROVIDE LAVSINKS WITH DRAINS, TRAPS, AND APPURTENANCES PER SPECIFICATIONS. PROVIDE WITH LAVGUARD FOR SUPPLIES, TRAP, AND OFFSET TAILPIECES.  
 3. PROVIDE WITH ASSE 1070 OR 1016 THERMOSTATIC MIXING VALVE. SEE DETAIL FOR SINGLE OR DUAL SUPPLY TO FIXTURE.  
 4. PROVIDE ACCESS PANEL WITH LOCK.  
 5. SEE FOOD SERVICE PLANS FOR INSTALLATION HEIGHT AFF FOR CORRESPONDING FOOD SERVICE EQUIPMENT SERVED BY EACH OUTLET BOX.  
 6. COORDINATE MOUNTING HEIGHT FOR ADA LOCATIONS WITH ARCHITECTURAL DRAWINGS.

ID	DESCRIPTION	MATERIAL DESCRIPTION	FINISH	BASIS OF DESIGN		FAUCET / TRIM				FLOW FIXTURE				PIPE CONNECTION SIZE (IN)				SPECIFICATION	NOTES	
				MANUFACTURER	MODEL	MANUFACTURER	MODEL	TYPE	MOTION SENSOR CONTROL	WATER FLOW (GPM)	TIMER DURATION (SEC)	WASTE	VENT	COLD	HOT	PRIMARY	VENT			COLD
DF-1	WATER COOLER - DUAL HEIGHT	GALVANIZED STEEL	STAINLESS STEEL CABINET	ELKAY	LZSTLGRWSSK			ELECTRONIC	No	0.13	15	2"	1-1/2"	1/2"	TWO LEVEL WALL HUNG WATER COOLER WITH LEFT HAND HIGH SIDE AND RIGHT HAND BOTTLE FILLING STATION. THE UNIT SHALL BE COMPLETE WITH CABINET, MOUNTING FRAME, SELF CLOSING EASY TOUCH SIDE AND FRONT PUSHBAR CONTROLS, FLEXIGUARD SAFETY BUBBLER, REFRIGERATING SYSTEM, AIR COOLED, 120 VOLT, 60HZ, SINGLE PHASE POWER CONNECTION, FULLY AUTOMATIC.				1	
EC-1	WATER OUTLET BOX	ABS PLASTIC	WHITE	IPS CORP.	AB9700HA				No	0.5	0			1/2"	EQUIPMENT WATER CONNECTION - SHUT-OFF VALVE IN PLASTIC BOX, UNPAINTED, W/ FACE PLATE, W/ HAMMER ARRESTOR, BRASS OTR-TURN VALVE, APPLIANCE AND FINAL CONNECTION BY OTHERS.				5	
HB-1	EXTERIOR WALL HYDRANT			WOODFORD	67			MANUAL	No	2.5	0			3/4"	NON-FREEZE TYPE WALL HYDRANT, WITH DOUBLE CHECK BACKFLOW PREVENTER, VALVE ON THE INSIDE OF THE WALL, SPOUT WITH BACKFLOW PREVENTER, AND LOOSE KEY SOCKET ON THE OUTSIDE OF THE WALL. MAKE ARRANGEMENTS WITH THE GENERAL CONTRACTOR TO PROVIDE THE NECESSARY RECESS IN THE WALL WHERE A RISER TO A WALL HYDRANT OCCURS IN AN OUTSIDE WALL. THE CONTRACTOR SHALL INSULATE THE CHASE WITH 2" STYROFOAM INSULATION ON ALL SIDES OF THE CHASE, EXCEPT THE INSIDE WALL OF THE CHASE. PROVIDE SHUTOFF VALVE IN ACCESSIBLE LOCATION.					
L-1	LAVATORY - COUNTER	WHITE VITREOUS CHINA	WHITE	KOHLER	#K-2211-0	TOTO	#TEL105-D10ECP	ELECTRONIC	Yes	0.5	12	1-1/2"	1-1/2"	1/2"	1/2"	WHITE UNDERMOUNT LAVATORY, CHROME FAUCET, GRID STRAINER, POWERS LFLM95 MIXING VALVE, P-TRAP, BRAIDED STAINLESS STEEL SUPPLIES, CHROME ANGLE STOP AND CHROME ESCUTCHEONS.				1,2,3
S-1	SINGLE BOWL SINK	STAINLESS STEEL	LUSTROUS SATIN	ELKAY	#ELUHAD11645	ELKAY	#K7221B-CP	ELECTRONIC	Yes	1.5	240	1-1/2"	1-1/2"	1/2"	1/2"	UNDERCOUNTER MOUNT SINK, KOHLER POLISHED CHROME 1.5 GPM SINGLE HANDLE KITCHEN FAUCET, DEARBORN BRASS DB120 SINK STRAINER, BRASSCROFT G2CR19 STOPS, FLUIDMASTER B1F20 20" CONNECTORS, 1 1/2" P-TRAP, ELECTRICAL TO PROVIDE POWER RECEPTACLE.				1,2,3
SH-1	SHOWER STALL			KOHLER	#K-72420-H-CP	KOHLER	#K-745112-4-CP	MANUAL	No	1.25	0	2"	1-1/2"	1/2"	1/2"	ZURN #DZ254 FLOOR DRAIN PIPED FOR CONCRETE/TILE SHOWER PAN, #K-28304-KS-NA ROUGH-IN VALVE, KOHLER #K-TS74042-4-CP CHROME VALVE TRIM, KOHLER #K-45129-CP CHROME ARM & FLANGE KIT, KOHLER #K-72420-H-CP CHROME 1.5 GPM HAND SHOWER, KOHLER #K-6834-CP CHROME SLIDE BAR, KOHLER #K-9514-CP CHROME HOSE AND KOHLER #K-22173-CP CHROME SUPPLY ELBOW.				3
TP-1	TRAP PRIMER - FLUSH MOUNT - 4 PORT			PRECISION PLUMBING PRODUCTS	PT-4					0				3/4"	HARDWIRED ELECTRICAL CONNECTION 120V/1PH, CONNECT TO TRAP PRIMERS IN AREA. CAP ALL UNUSED TRAP PRIMER SUPPLIES.				4	
TP-2	TRAP PRIMER - FLUSH MOUNT - 6 PORT			PRECISION PLUMBING PRODUCTS	PT-8					0				3/4"	HARDWIRED ELECTRICAL CONNECTION 120V/1PH, CONNECT TO TRAP PRIMERS IN AREA. CAP ALL UNUSED TRAP PRIMER SUPPLIES.				4	
TP-3	TRAP PRIMER - FLUSH MOUNT - 8 PORT			PRECISION PLUMBING PRODUCTS	PT-8					0				3/4"	HARDWIRED ELECTRICAL CONNECTION 120V/1PH, CONNECT TO TRAP PRIMERS IN AREA. CAP ALL UNUSED TRAP PRIMER SUPPLIES.				4	
TP-4	TRAP PRIMER - FLUSH MOUNT - 20 PORT			PRECISION PLUMBING PRODUCTS	PT-1320					0				3/4"	HARDWIRED ELECTRICAL CONNECTION, CONNECT TO TRAP PRIMERS IN AREA. CAP ALL UNUSED TRAP PRIMER SUPPLIES.				4	
WC-1	WATER CLOSET - WALL HUNG - ADA	WHITE VITREOUS CHINA	WHITE	SLOAN	ST-2459	SLOAN	WES-111	MANUAL	No			4"	2"	1"	WATER CLOSET WITH OPEN FRONT SEAT AND MANUAL DUAL FLUSH FLUSHOMETER (1.1/1.6 GPF)				6	
WC-1A	WATER CLOSET - WALL HUNG - ADA	WHITE VITREOUS CHINA	WHITE	SLOAN	ST-2459	SLOAN	WES-111	MANUAL	No			4"	2"	1"	WATER CLOSET WITH OPEN FRONT SEAT AND MANUAL DUAL FLUSH FLUSHOMETER (1.1/1.6 GPF)				6	
WMF-1	WASHING MACHINE OUTLET BOX	ABS PLASTIC	WHITE	GUY GRAY	WB200HA				No	0.5	0	2"	2"	1/2"	1/2"	FULLY RECESSED WASHING MACHINE SUPPLY BOX WITH COVER, PROVIDE 1/4 TURN BALL VALVES AND WATER HAMMER ARRESTORS IN BOX, PROVIDE A 2" TRAPPED STANDPIPE IN CONCEALED WALL SPACE.				

## STORM DRAIN AREA CONNECTION SCHEDULE

GENERAL NOTES:  
 A. SIZES OF DOWNSPOUT CONNECTORS TO BE MINIMUM OF SAME SIZE AS SITE STORM DRAIN AND ARCHITECTURAL DOWNSPOUT.  
 B. RAINFALL RATES SHALL BE DETERMINED BASED ON SITE LOCATION.  
 C. INSTALL SO CLEANOUT IS ACCESSIBLE ABOVE GRADE.  
 D. SEE PLUMBING PLANS FOR LOCATIONS OF DOWNSPOUT CONNECTORS.  
 E. SEE DETAIL 2B/P5.1 FOR DOWNSPOUT CONNECTOR DETAIL.

ID	DESCRIPTION	HORIZONTAL PROJECTED ROOF AREA (SF)	DRAIN PIPE DIAMETER	RAINFALL RATE (IN/HR)	SPECIFICATION
DC-1	DOWNSPOUT CONNECTOR	4,715	5"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
DC-2	DOWNSPOUT CONNECTOR	8,355	5"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
DC-3	DOWNSPOUT CONNECTOR	1,125	3"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
DC-4	DOWNSPOUT CONNECTOR	4,160	4"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
DC-5	DOWNSPOUT CONNECTOR	3,150	4"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
DC-6	DOWNSPOUT CONNECTOR	3,150	4"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
DC-7	DOWNSPOUT CONNECTOR	6,280	5"	4.0	J.R. HOE DOWNSPOUT CONNECTOR BOOT WITH CLEANOUT
Grand total:		32,085			

## FIXTURE UNIT SUMMARY - GREASE

GENERAL NOTES:  
 A. BLACKED OUT CELLS HAVE NO FIXTURE CONNECTION CONTRIBUTION TO FIXTURE UNIT COUNT.  
 B. NSFU = WATER SUPPLY FIXTURE UNIT, CWFU = COLD WATER FU, HWFU = HOT WATER FU, DFU = DRAINAGE FU.  
 C. FIXTURES BEGINNING WITH "P" ARE SPECIFIED BY FOOD SERVICE. SEE FOOD SERVICE DRAWINGS AND SCHEDULES FOR DETAILS.  
 D. FIXTURES BELOW ARE ALL FIXTURES CURRENT OR PLANNED TO CONNECT TO THE GREASE INTERCEPTOR.

TYPE ID	FIXTURE DESCRIPTION	QTY	FIXTURE UNIT TOTAL PER TYPE
PS-2	FLOOR SINK - WITH TRAP PRIMER	5	15
HB-2	HOSE BIBB	2	0
PA-2	VARIO COOKER	1	3
PA-2.1	FLOOR TROUGH	1	2
PA-4	COMBI-STEAMER	2	6
P-C1	HAND SINK	4	8
P-C4	HOLDING CABINET	1	0.5
P-C11.1	2-COMPARTMENT PREP SINK	1	3
P-D1.1	PRE-RINSE FAUCET	1	3
P-D2	DISHWASHER	1	7
P-D5	OPEN HOSE REEL	1	6
P-D8	3-COMPARTMENT SINK	1	4
P-D10	FLOOR TROUGH	2	4
P-D11	HAND SINK	1	2
P-D17	EYEFACE WASH	1	3
P-D20.1	1-COMPARTMENT SINK	1	3
P-D20.2	HOSE BIB FAUCET	1	3
PE-11	FLOOR TROUGH	1	2
Grand total:			74.5

## FLOOR DRAIN SCHEDULE

GENERAL NOTES:  
 A. SEE PLANS FOR LOCATIONS, SIZES AND QUANTITIES OF FIXTURES INSTALLED PER PHASE.  
 NOTES:  
 1. HALF GRATE TOP, COORDINATE WITH DRAWINGS AND FOOD SERVICE.  
 2. NO HUB OUTLET.  
 3. TRAP PRIMER CONNECTION.  
 4. PROVIDE WITH BARRIER-TYPE TRAP SEAL PER IPC 2018 1002.4.1

ID	DESCRIPTION	MATERIAL DESCRIPTION		SPECIFICATION	BASIS OF DESIGN		NOTES
		DRAIN BODY	STRAINER		MANUFACTURER	MODEL	
FD-1	FLOOR DRAIN	EPOXY COATED CAST IRON	NICKEL BRONZE	EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE SQUARE HEEL, PROOF NICKEL BRONZE STRAINER, AND NO HUB OUTLET.	WATTS	FD-100M	2,3
FS-1	FLOOR SINK - WITH BARRIER TRAP SEAL	STAINLESS STEEL	STAINLESS STEEL	12" SQUARE X 6" DEEP SANITARY FLOOR SINK, STAINLESS STEEL BODY, GRATE, AND INTERIOR DOME STRAINER WITH BARRIER TRAP SEAL.	ZURN	21750	1,2,4
FS-2	FLOOR SINK - WITH TRAP PRIMER	STAINLESS STEEL	STAINLESS STEEL	12" SQUARE X 6" DEEP SANITARY FLOOR SINK, STAINLESS STEEL BODY, GRATE, AND INTERIOR DOME STRAINER WITH TRAP PRIMER.	ZURN	21750	1,2,3

## THERMOSTATIC MIXING VALVE SCHEDULE

GENERAL NOTES:  
 A. REFER TO PLANS AND FIXTURE SCHEDULE FOR ADDITIONAL POINT OF USE MIXING VALVES FOR INDIVIDUAL FIXTURES.  
 B. MIXING VALVE PIPING METHOD SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. INSTALL ALL BALANCING VALVES AND CHECK VALVES AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS.  
 C. INSTALL RIGHT SIDE UP.

ID	NO.	LOCATION	MATERIAL	FINISH	TYPE	FLUID DATA				VALVE DATA				ELECTRICAL DATA		SPECIFICATION	BASIS OF DESIGN			
						LVG WATER TEMP SETPOINT (°F)	HOT	COLD	MIN FLOW (GPM)	RATED FLOW (GPM)	RATED PRESS DROP (FT WC)	CONN SIZE (IN)	MAX ALLOW WORKING PRESS (PSI)	MAX ALLOW WORKING TEMP (°F)	VOLT (V)		PH	MANUFACTURER	MODEL	
TMV-1	109	STORAGE	LEAD FREE BRASS	ROUGH BRONZE	DIGITAL	110	140	40	0.25	40	5	1"	1 1/4"	200 psi	180	120	1	ASSE 1017 COMPLIANT	LEONARD VALVE	NV-125-LF
TMV-2	206	STORAGE	LEAD FREE BRASS	ROUGH BRONZE	DIGITAL	110	140	40	0.25	50	5	1 1/4"	1 1/2"	200 psi	180	120	1	ASSE 1017 COMPLIANT	LEONARD VALVE	PNV-150-LF

## ELECTRIC WATER HEATER SCHEDULE

GENERAL NOTES:  
 A. UNIT TO BE UL LISTED.  
 B. ASME TANK, INSULATED, 150 PSIG STANDARD WORKING PRESSURE OR HIGHER.  
 C. ELECTRICAL TO PROVIDE POWER DISCONNECT.  
 D. MEETS OR EXCEEDS THERMAL EFFICIENCY OR STANDBY LOSS REQUIREMENTS OF US DEPT. OF ENERGY AND ASHRAE 90.1.  
 E. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

ID	NO.	LOCATION	TYPE	HEATING CAPACITY (KW)	WATER SIDE DATA				HEATING ELEMENT DATA			ELECTRICAL DATA				BASIS OF DESIGN			
					STORAGE RECOVERY (GAL/H)	VOL (GAL)	TEMPERATURE (°F) ENT	LVG	QTY	KW	SCR	FLA (A)	MCA (A)	MCCP (A)	VOLT (V)	PH	WEIGHT (LBS)	MANUFACTURER	MODEL
DHWG-1	109	STORAGE	STORAGE TANK	12.3	50	120	40	140	1	12	Yes	14.8	18.5	20	480	3	1,451	AO SMITH	DSE-120A-12
DHWG-2	206	STORAGE	STORAGE TANK	60	246	120	40	140	4	15	Yes	72	90	100	480	3	1,451	AO SMITH	DSE-120A-60
DHWG-3	206	STORAGE	STORAGE TANK	60	246	120	40	140	4	15	Yes	72	90	100	480	3	1,451	AO SMITH	DSE-120A-60

## DOMESTIC CIRCULATING PUMP SCHEDULE

GENERAL NOTES:  
 A. PUMPS SHALL BE NSF-61 COMPLIANT FOR POTABLE WATER SUPPLY.

ID	DESCRIPTION	NO.	LOCATION	TYPE	PUMP DATA				ELECTRICAL DATA		WEIGHT (LBS)	BASIS OF DESIGN		
					DESIGN FLOW (GPM)	HEAD (FT)	WATTS	RPM	ECM	VOLT (V)		PH	MANUFACTURER	MODEL
HWRP-1	PUMP	109	STORAGE	INLINE DOMESTIC CIRCULATOR	1.5	13	70	4202	Yes	115	1	6	BELL & GOSSETT	ECOORC+ 20-18
HWRP-2	PUMP	218	STORAGE	INLINE DOMESTIC CIRCULATOR	1	6.5	70	2998	Yes	115	1	6	BELL & GOSSETT	ECOORC+ 20-18

## DOMESTIC EXPANSION TANK SCHEDULE

GENERAL NOTES:  
 A. TANK SHALL BE ASME RATED.

ID	NO.	LOCATION	MATERIAL	SYSTEM	TYPE	ARRANGEMENT	VOLUME (GAL)	ACCEPT VOLUME (GAL)	MAX TANK PRESSURE (PSI)	PRE CHARGE PRESS (PSI)	UNIT DIMENSIONS (IN)		WEIGHT (LBS)	BASIS OF DESIGN	
											DIA	HEIGHT		MANUFACTURER	MODEL
ET-1	109	STORAGE	CARBON STEEL	DOM WATER	DIAPHRAM	VERTICAL FLOOR MOUNT	8	5.3	140	40	12"	21"	78	BELL & GOSSETT	PTA-20V
ET-2	218	STORAGE	CARBON STEEL	DOM WATER	DIAPHRAM	VERTICAL FLOOR MOUNT	8	5.3	140	40	12"	21"	78	BELL & GOSSETT	PTA-20V

## GREASE INTERCEPTOR SCHEDULE

GENERAL NOTES:  
 A. GREASE INTERCEPTOR INSTALLED IN PHASE 2.  
 B. UNDERGROUND INSTALLATION AND RISERS TO WITHSTAND SURFACE LOADS OF VEHICLE AND TRUCK TRAFFIC.  
 C. FILL WITH CLEAN WATER PRIOR TO START-UP OF SYSTEM.  
 D. PROVIDE RISERS AS NEEDED TO GRADE AND INSTALL VEHICLE RATED COVER PLATES FLUSH WITH SURFACE.  
 E. PROVIDE WITH LEVEL ALARM TIED TO BUILDING CONTROLS, VISUAL AND AUDIBLE ALARM SET AT LEVEL TO ALARM BEFORE OIL/GREASE SPILLS INTO OUTLET PIPE.  
 F. SEE FIXTURE UNIT SUMMARY - GREASE WASTE FIXTURES SCHEDULE FOR TOTAL DRAINAGE FIXTURE UNITS (DFUs) FOR GREASE INTERCEPTOR SIZING PER UPC 2018 TABLE 1014.3.6.

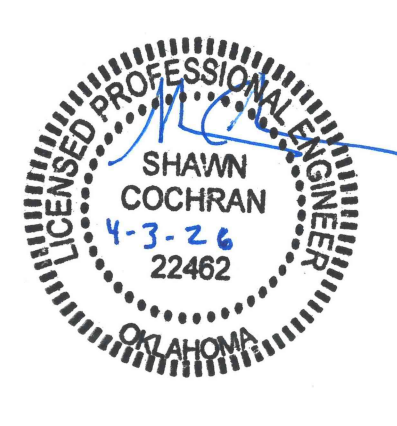
ID	TYPE	MATERIAL DESCRIPTION	COVER		DESIGN FLOW (GPM)	CAPACITY		INSTALLATION			PIPE CONNECTIONS		DIMENSIONS (FT-IN)			BASIS OF DESIGN	
			DESCRIPTION	CONN		LIQUID (GAL)	GREASE (LBS)	ARRANGEMENT	BTM OF EQUIPMENT ELEV (FT-IN)	ESTIMATED RISER HEIGHT (FT-IN)	INLET CONN	OUTLET CONN	LENGTH	WIDTH	HEIGHT	MANUFACTURER	MODEL
GI-1	GRAVITY	FIBERGLASS REINFORCED PLASTIC	CAST IRON	24"	43	1,300	707	BELOW GRADE	10' - 2"	2' - 5"	4"	4"	8' - 0"	5' - 2"	7' - 9"	ZURN	GMC-1300

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**DLR GROUP**  
 1917 SOUTH 67th STREET  
 OMAHA, NEBRASKA 68106  
 (402) 399-1000  
 CA-0443

**Kimley Horn**  
 KIMLEY-HORN & ASSOC. INC.  
 1437 S BOULDER AVE.  
 TULSA, OK 74119  
 (918) 380-8868



**CONFIDENTIAL CLIENT  
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REVISIONS		
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