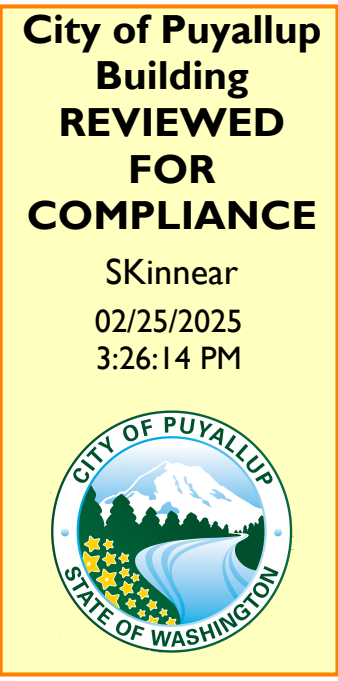


Approval of submitted plans is not an approval of omissions or oversights by this office or non compliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

Full sized legible color plans are required to be provided by the permittee on site for inspection.

Separate Electrical Permit is required with the Washington State Department of Labor & Industries.
https://lni.wa.gov/licensing-permits /electrical/electrical-permits-fees-and-inspections
or call for Licensing Information: 1-800-647-0982



GENERAL NOTES:

- THE FOLLOWING NOTES APPLY TO ALL MECHANICAL DRAWINGS. ADDITIONAL NOTES MAY BE INDICATED ON INDIVIDUAL DRAWINGS.
- DRAWINGS INDICATE CONNECTIONS FOR EQUIPMENT TO BE FURNISHED BY THE OWNER OR AS THE WORK OF OTHER TRADES. VERIFY LOCATION OF EQUIPMENT, ROUGH-IN LOCATIONS, AND TYPE OF CONNECTIONS PRIOR TO PREPARATION OF SHOP DRAWINGS OR SUBMITTALS, AND PRIOR TO INSTALLATION OF SERVICE CONNECTIONS. DO NOT INTERFERE WITH ACCESS FOR MAINTENANCE AND REMOVAL OR REPLACEMENT OF EQUIPMENT.
- COORDINATE THE PHASING AND INSTALLATION OF NEW WORK WITH THE WORK OF ALL OTHER TRADES. BEAR THE TOTAL EXPENSE FOR ANY ADDITIONAL WORK WHICH MAY BE CAUSED BY IMPROPER SEQUENCING OF CONSTRUCTION ACTIVITIES.
- REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR GENERAL CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, PENETRATION DETAILS, FLASHING AND SEALING DETAILS, AND OTHER ELEMENTS OF GENERAL CONSTRUCTION. COORDINATE THE SIZE AND LOCATION OF EQUIPMENT HOUSEKEEPING PADS WITH APPROVED EQUIPMENT.
- COORDINATE EQUIPMENT POWER CONNECTION REQUIREMENTS AND ELECTRICAL CHARACTERISTICS WITH ELECTRICAL DRAWINGS AND CONNECTION REQUIREMENTS.
- EQUIPMENT SHORT CIRCUIT CURRENT RATINGS (SCCR) SHALL BE NOT LESS THAN THE INTERRUPTING RATING OF THE BRANCH CIRCUIT OVER CURRENT PROTECTIVE DEVICE SUPPLYING POWER TO THE EQUIPMENT. REFER TO ELECTRICAL SCHEDULES FOR BRANCH CIRCUIT OVER CURRENT DEVICE INTERRUPTING RATINGS.
- COORDINATE THE LOCATION OF WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES AND OTHER CEILING MOUNTED DEVICES AS REQUIRED TO ALLOW FOR REMOVAL AND MAINTENANCE ACCESS.
- DO NOT RESTRICT ACCESS TO ELECTRICAL CABLE TRAYS. AT A MINIMUM, ALLOW 18" CLEAR ON ONE SIDE OF CABLE TRAYS UP TO AN ELEVATION OF 6" ABOVE THE TOP OF THE CABLE TRAY. MAINTAIN 12" MINIMUM CLEARANCE OVER TOP OF CABLE TRAYS EXCEPT WHERE PIPING OR CONDUIT CROSS PERPENDICULAR TO CABLE TRAY, THIS CLEARANCE MAY BE REDUCED TO 6" OVER A DISTANCE OF NO MORE THAN 36" ALONG THE CABLE TRAY. PROVIDE NO LESS THAN 36" BETWEEN AREAS OF REDUCED CLEARANCE AND MAINTAIN INDICATED ACCESS ON THE SAME SIDE OF THE CABLE TRAY EXCEPT WHERE OTHERWISE APPROVED. DO NOT CONNECT OTHER TRADE ITEMS TO CABLE TRAYS, CABLE TRAY SUPPORTS OR CABLE TRAY SEISMIC RESTRAINTS.
- PROVIDE SUPPORTS AND SEISMIC RESTRAINTS FOR PIPES AND EQUIPMENT AS SPECIFIED, AS REQUIRED, AND AS SHOWN ON THE DRAWINGS. IF REQUIRED FOR INSTALLATION OF PIPES AND EQUIPMENT, DESIGN AND PROVIDE ADDITIONAL STRUCTURAL MEMBERS BETWEEN COLUMNS, JOISTS, AND STRUCTURAL FRAME TO MEET SUPPORT AND SEISMIC RESTRAINT REACTIONS (FORCES, MOMENTS, DEFLECTIONS). STRUCTURAL MEMBERS AND ANCHORAGES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. REFER TO STRUCTURAL DRAWINGS FOR DESIGN CRITERIA. SUBMIT STRUCTURAL MEMBER SHOP DRAWINGS AND CALCULATIONS FOR REVIEW. STRUCTURAL MEMBERS, BOLTS, AND WELDS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SHOWN ON THE STRUCTURAL DRAWINGS AND INDICATED IN THE SPECIFICATIONS. NO WELDING, BOLTING, OR OTHER MEANS OF ATTACHMENT TO THE STRUCTURAL MEMBERS SHALL BE MADE ON PORTIONS OF STRUCTURAL MEMBERS AT OR NEAR CONNECTIONS BETWEEN STRUCTURAL MEMBERS ON ANY ELEMENTS DESIGNATED IN THE SEISMIC LOAD RESISTING SYSTEMS UNLESS APPROVED BY THE STRUCTURAL ENGINEER. SUPPORTS SHALL NOT INDUCE TORSIONAL LOADS INTO SUPPORTING STRUCTURAL FRAMING.
- DO NOT CORE DRILL OR DRILL THROUGH BEAMS, COLUMNS OR SHEAR WALLS UNLESS INDICATED ON STRUCTURAL DRAWINGS OR AS APPROVED BY THE STRUCTURAL ENGINEER.
- PROVIDE PIPE SLEEVES AND PENETRATION SEALS AS REQUIRED FOR THE INSTALLATION OF PIPING SYSTEMS. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- COORDINATE THE LAYOUT OF EQUIPMENT, PIPING, AND APPURTENANCES SO THAT IT FITS INTO THE SPACE ALLOTTED. PROVIDE SERVICE ACCESS AND CLEARANCES AS INDICATED ON DRAWINGS, AS REQUIRED BY CODES, AND AS RECOMMENDED BY THE MANUFACTURER FOR THE INSTALLATION, REMOVAL, ENTRY, SERVICING, AND MAINTENANCE OF EQUIPMENT. PRIOR TO INSTALLATION, COORDINATE LAYOUT OF EQUIPMENT, PIPING, AND APPURTENANCES WITH ALL OTHER TRADES TO AVOID BLOCKING SERVICE OR REPLACEMENT ACCESS FOR NEW AND EXISTING EQUIPMENT AND EQUIPMENT INSTALLED BY OTHERS.
- DRAWINGS ARE DIAGRAMMATIC AND SHOW APPROXIMATE LOCATIONS OF EQUIPMENT, PIPING, AND APPURTENANCES. DRAWINGS DO NOT SHOW REQUIRED TRANSITIONS, OFFSETS, FITTINGS, AND DEVICES. REFER SPECIFICATIONS FOR REQUIRED SYSTEM APPURTENANCES, CONTROL DEVICES, ETC. INSTALL DEVICES IN ACCORDANCE WITH DEVICE MANUFACTURER RECOMMENDATIONS. CAREFULLY INVESTIGATE ELEMENTS OF CONSTRUCTION THAT COULD AFFECT THE WORK TO BE PERFORMED AND ARRANGE NEW WORK ACCORDINGLY. PREPARE COORDINATION DRAWINGS FOR NEW WORK, WHICH ARE COORDINATED WITH THE APPROVED AND INSTALLED WORK OF OTHER TRADES. PROVIDE REQUIRED OFFSETS, FITTINGS, TRANSITIONS, SUPPORTS AND OTHER APPURTENANCES AS REQUIRED. BEAR THE TOTAL EXPENSE OF RE-WORK THAT IS CAUSED BY FAILURE TO COORDINATE.
- PROVIDE MAXIMUM HEADROOM AND CLEARANCE BELOW PIPING AND EQUIPMENT AND ASSOCIATED SUPPORTS AND RESTRAINTS. UNLESS OTHERWISE INDICATED, INSTALL TIGHT TO STRUCTURAL SYSTEMS ABOVE. WHERE WALL MOUNTED, INSTALL AS CLOSE TO WALL AS POSSIBLE. PROVIDE ADDITIONAL FITTINGS AND OFFSETS AS REQUIRED.
- REFER TO EQUIPMENT SCHEDULES FOR DESIGN CAPACITIES. SCHEDULED VALUES SHALL BE CONSIDERED DESIGN CAPACITIES. PROVIDE EQUIPMENT WHICH MEETS OR EXCEEDS THE SCHEDULED VALUES. MARK THE CONTRACT DRAWING EQUIPMENT SCHEDULES TO INDICATE THE MANUFACTURER, MODEL AND CAPACITY OF THE ACTUAL APPROVED EQUIPMENT PROVIDED AND SUBMIT THIS INFORMATION WITH RECORD DRAWINGS AS PART OF PROJECT CLOSEOUT.
- TO ENHANCE THE CLARITY OF PLAN DRAWINGS, AND WHERE NOT NECESSARY TO DESCRIBE THE REQUIRED SIZE, INDIVIDUAL SEGMENTS OF PIPE BETWEEN CONNECTIONS MAY BE SHOWN WITHOUT A SIZE INDICATED. WHERE SIZE IS NOT SHOWN ON PLANS, THAT SEGMENT SHALL BE THE SAME SIZE AS THE NEXT UPSTREAM SEGMENT WITH A SIZE INDICATED.
- WHERE NOT INDICATED ON PLANS, REFER TO EQUIPMENT SCHEDULES FOR INLET AND OUTLET PIPE SIZES. WHERE INDICATED ON PLANS, PLAN SIZES SHALL TAKE PRECEDENCE.
- INSULATE ALL CHILLED WATER PIPING WITH 1-INCH CLOSED CELL FOAM IN ACCORDANCE WITH TABLE C403.10.3 OF THE 2021 WASHINGTON STATE ENERGY CODE (WSEC).
- THE FOLLOWING IS A LIST OF DEFERRED SUBMITTALS ITEMS. DO NOT INSTALL DEFERRED SUBMITTAL ITEMS UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
A. SEISMIC
- CONTROLS CONTRACTOR TO PROVIDE UPDATED SEQUENCE OF OPERATION TO INCORPORATE NEW EQUIPMENT. DIRECT DIGITAL CONTROLS SEQUENCES SHALL COMPLY WITH THE REQUIREMENTS OF THE 2021 WSEC FOR WATERSIDE ECONOMICIZER AND VARIABLE SPEED FAN/PUMP CONTROL.

GENERAL SYMBOLS

- LIGHT LINE INDICATES BACKGROUND
— LIGHT LINE INDICATES EXISTING WORK
— HEAVY LINE INDICATES NEW WORK
- - - MATCHLINE OR PROPERTY LINE
- - - FUTURE WORK
● POINT OF CONNECTION
△ SHEET NOTE

REFERENCE CALLOUTS

- DETAIL IDENTIFICATION
1 NUMBER INDICATES DETAIL
MXV SHEET NUMBER WHERE DETAIL IS DRAWN
DRAWING REVISION DESIGNATOR
△ REVISION NO.

PLAN AND DETAIL TITLE CALLOUT

(DRAWING/PLAN TITLE)
SCALE: (DRAWING/PLAN SCALE)

(DETAIL TITLE)
SCALE: (DETAIL SCALE) (REFERENCE DRAWING #)

ABBREVIATIONS

- (E) EXISTING
EWT ENTERING WATER TEMPERATURE
F FAHRENHEIT
GPM GALLONS PER MINUTE
IN INCHES
KW KILOWATTS
LB POUND
L LITER
LWT LEAVING WATER TEMPERATURE
PH PHASE
POC POINT OF CONNECTION
TYP TYPICAL
W WASTE, WATT
WSEC WASHINGTON STATE ENERGY CODE

PIPING VALVES / FITTINGS

- BALL VALVE
— BUTTERFLY VALVE
— FLANGE
— UNION

PIPING TYPES

- CHR — CHILLED WATER RETURN
— CHS — CHILLED WATER SUPPLY

PROJECT DESCRIPTION:

THIS PROJECT ADDS 12 NEW PIPING CONNECTIONS ALONG WITH USING 6 EXISTING MANIFOLDS TO INCREASE DATA CENTER CABINET CAPACITY. THE SERVER RACK SCHEDULE SHOWS THE EXISTING CAPACITY AND ADDITIONAL UNITS BEING BROUGHT ONLINE. THE MECHANICAL COOLING CAPACITY WILL BE 3,880KW (97% OF MAXIMUM CAPACITY). THE CHILLED WATER SYSTEM DESIGN MAXIMUM CAPACITY IS 4,000KW.

DRAWING LIST	
SHEET No.	DRAWING TITLE
M-0.01	GENERAL NOTES, ABBREVIATIONS, LEGEND, AND SYMBOLS
M-1.01	ENLARGED FIRST FLOOR PIPING PLAN
M-6.01	MECHANICAL SCHEDULES

IF SHEET IS LESS THAN 30"x42"
IT IS A REDUCED PRINT
SCALE REDUCED ACCORDINGLY

REVISION

BY

929 108th Ave NE,
Suite 1000
Bellevue WA 98004
425.626.6000
woodharbinger.com

Wood Harbinger

NICHOLAS R. BAKER
PROFESSIONAL ENGINEER
No. 34402
WASHINGTON STATE

City of Puyallup
Development & Planning Services
Utility Division

Engineering

Public Works

Fee

Traffic

centeris

Centers for Information Systems

CENTERIS DATA CENTERS
DATA CENTER EXPANSION PHASE 2
1028 30TH AVENUE SE, PUYALLUP, WA 98674

SHEET TITLE

**GENERAL NOTES, ABBREVIATIONS,
LEGEND, AND SYMBOLS**

DATE

11/22/24

SCALE

NONE

ENGR

TJB

DRWN

TJB

CHKD

PMG

APPR

NRB

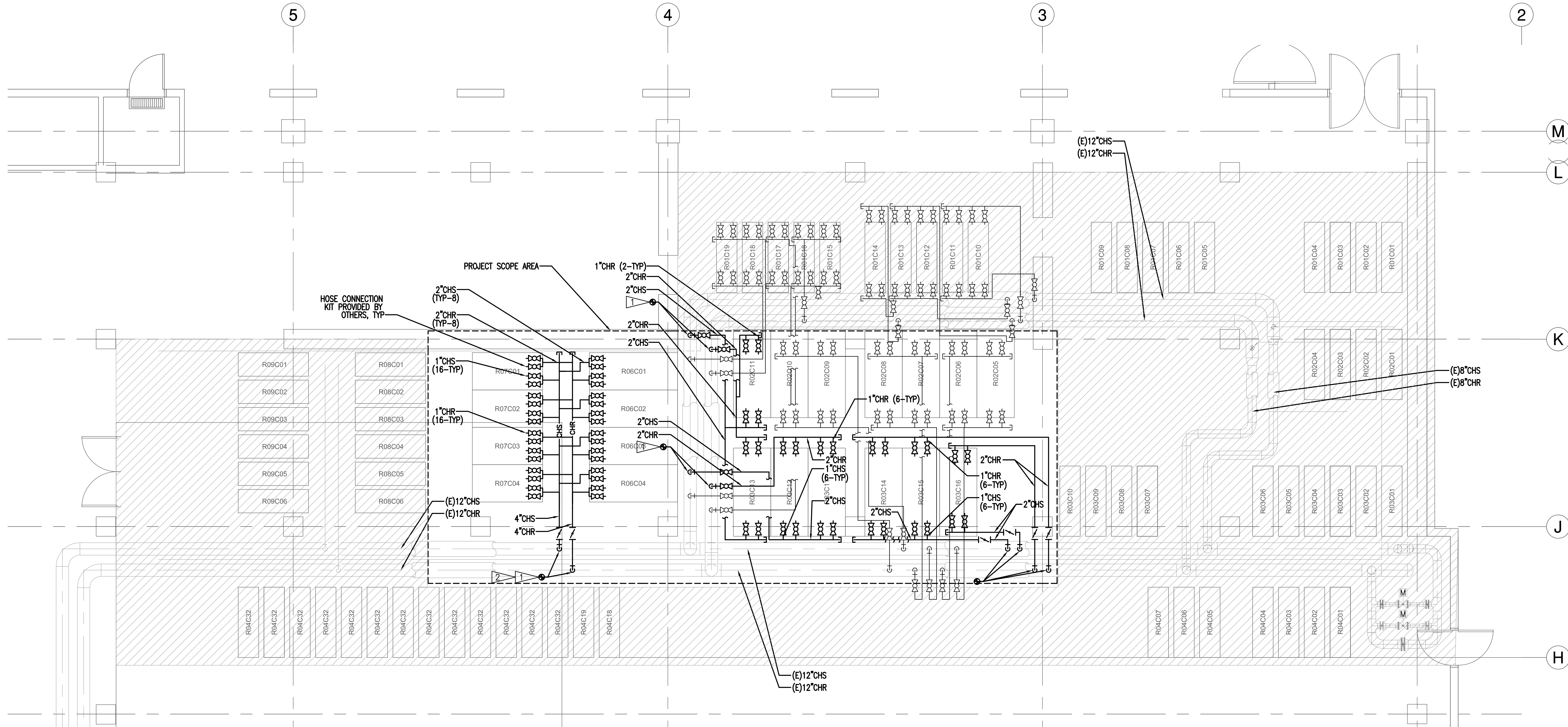
JOB

23025.00

M-0.01

SHEET 1 OF 3

IF SHEET IS LESS THAN
30"x42"
IT IS A REDUCED PRINT
SCALE REDUCED ACCORDINGLY



PARTIAL 1ST FLOOR PIPING PLAN

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



GENERAL NOTES

- DRAWINGS ARE DIAGRAMMATIC - FIELD VERIFY PIPING ROUTES AND SPACING.
- MANUFACTURER'S HOSE CONNECTION KIT AND FINAL CONNECTIONS PROVIDED BY OTHERS.
- ALL EXISTING SERVER RACKS SHOWN ARE CONNECTED TO CHILLED WATER SYSTEM.

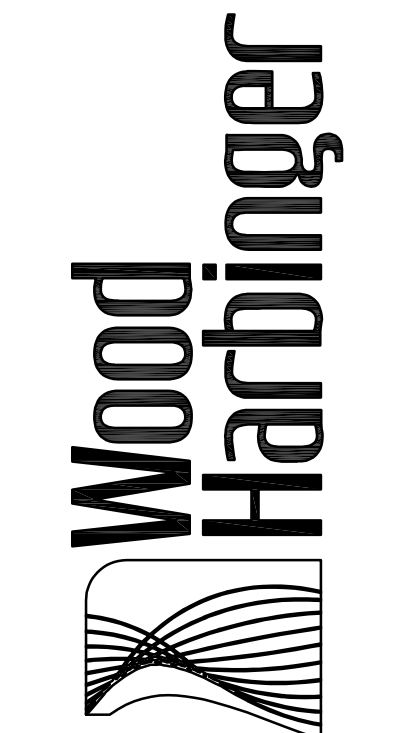
SHEET NOTES

- CONNECT TO EXISTING TAPS. FIELD VERIFY EXACT LOCATIONS. PROVIDE NEW WELDOLET CONNECTION ON PIPING MAIN WHERE NEEDED.
- PIPE SIZE IS BASED ON FLOW RATES AT 90 PERCENT DIVERSITY FOR THE CONNECTED LOAD. IF FLOW RATES EXCEED 90 PERCENT DIVERSITY, PIPE TAP AND SIZE SHOULD BE INCREASED TO ACCOMMODATE HIGHER FLOW RATES.



REVISION	BY

929 108th Ave NE,
Suite 1000
Bellevue WA 98004
425.628.6000
woodharbinger.com



PRMH20241875

City of Puyallup
Development & Planning Service
Special Permit
Economic Public Works

centeris
Centers for Information Systems

CENTERIS DATA CENTERS
DATA CENTER EXPANSION PHASE 2
1028 39TH AVENUE SE, PUYALLUP, WA 98074

SHEET TITLE
ENLARGED FIRST FLOOR
PIPING PLAN

DATE	11/22/24
SCALE	1/4" = 1'-0"
ENGR	TJB
DRWN	TJB
CHKD	PMG
APPR	NRB
JOB	23025.00

