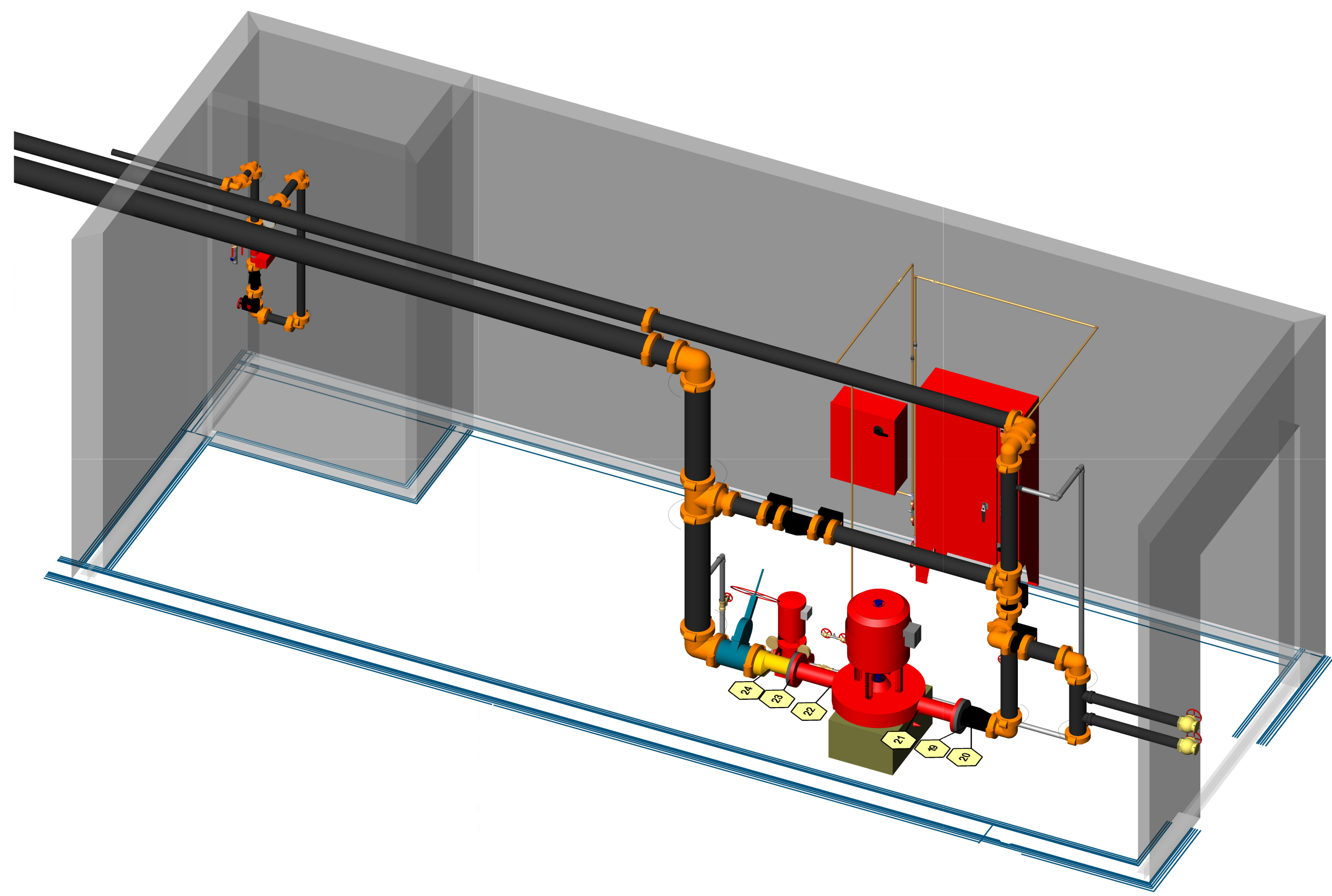
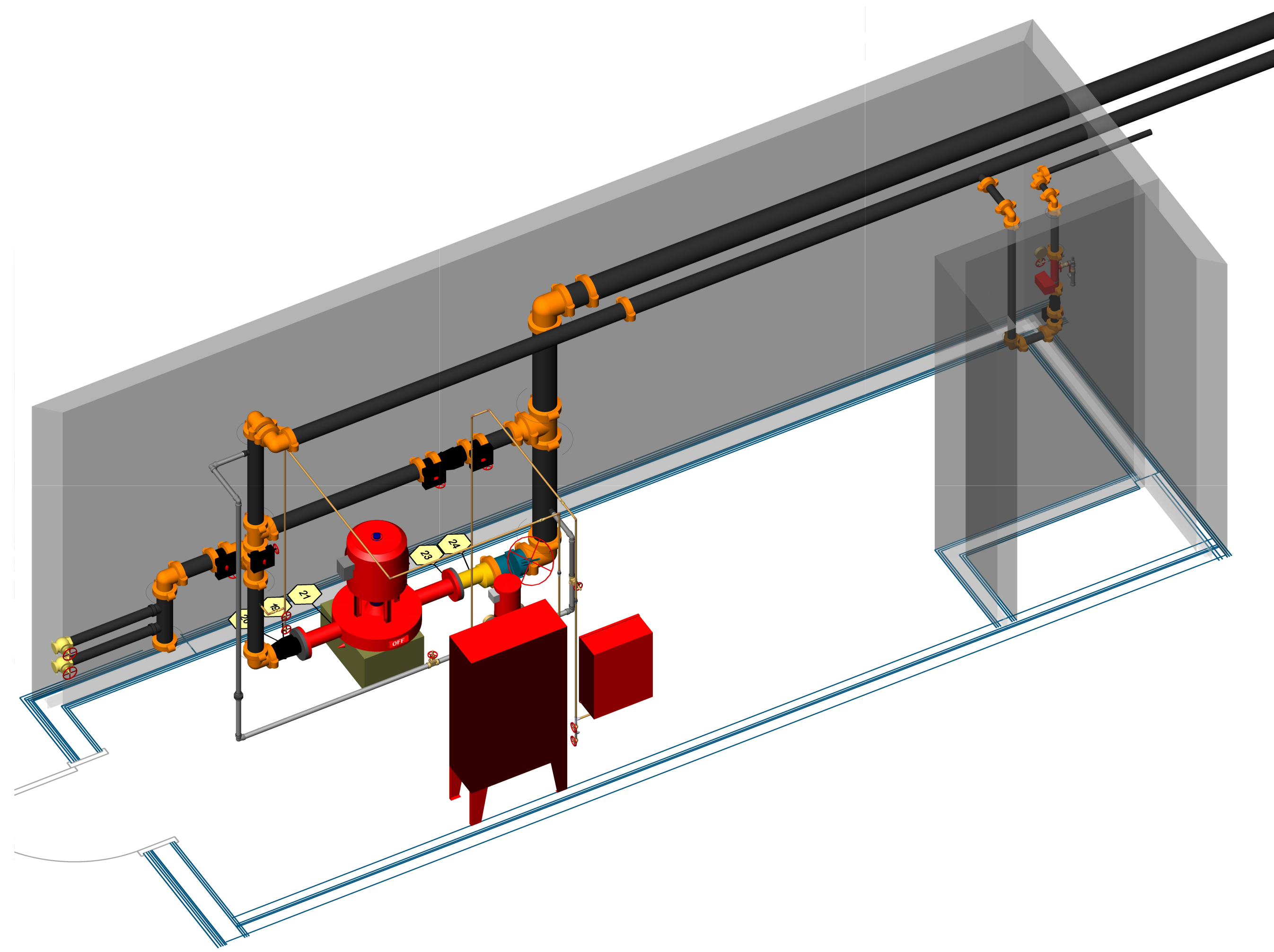


PUMP ROOM ISOMETRIC 1



NOT TO SCALE

PUMP ROOM ISOMETRIC 1



NOT TO SCALE

STAMP

PROJECT

1335 GALINDO

1335 GALINDO ST
CONCORD, CA 94520

CUSTOMER

APPROVALS

CONTRA COSTA COUNTY FIRE DEPARTMENT

4005 PORT CHICAGO HWY, SUITE 250
CONCORD CA.
(925) 941.3300

INSPECTIONS

PHONE: (925) 941.3523
WELD INSPECTION: YES

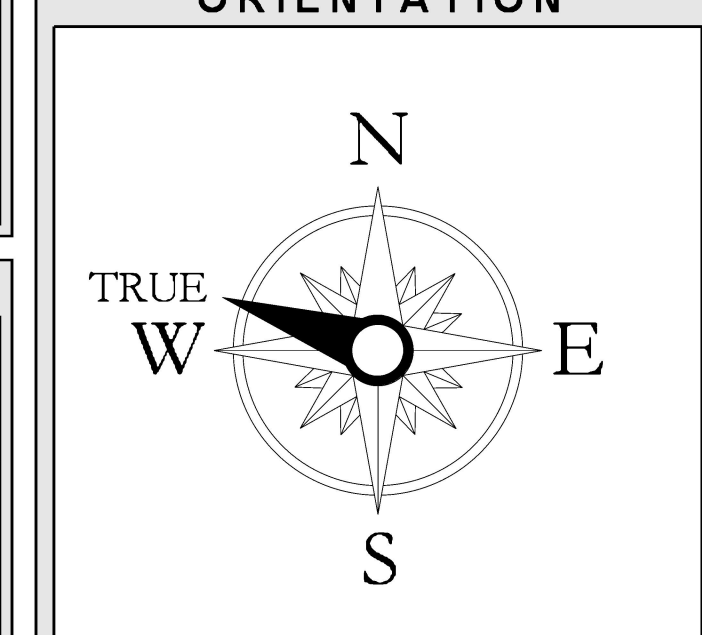
REVISIONS

NO.	DATE	DESCRIPTION

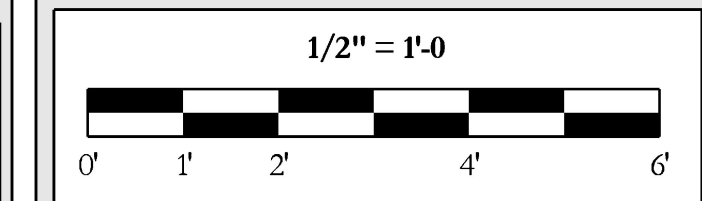
CITY SUPPLY

STATIC PRESSURE: 58 PSI
RESIDUAL PRESSURE: 54 PSI
FLOW @ RESIDUAL: 1770 GPM
TEST LOCATION: 1325-1335 GALINDO STREET
TEST DATE: 03/30/2022
TESTING AGENCY: CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT
HYDRANT #: N/A

ORIENTATION



SCALE



DESCRIPTION

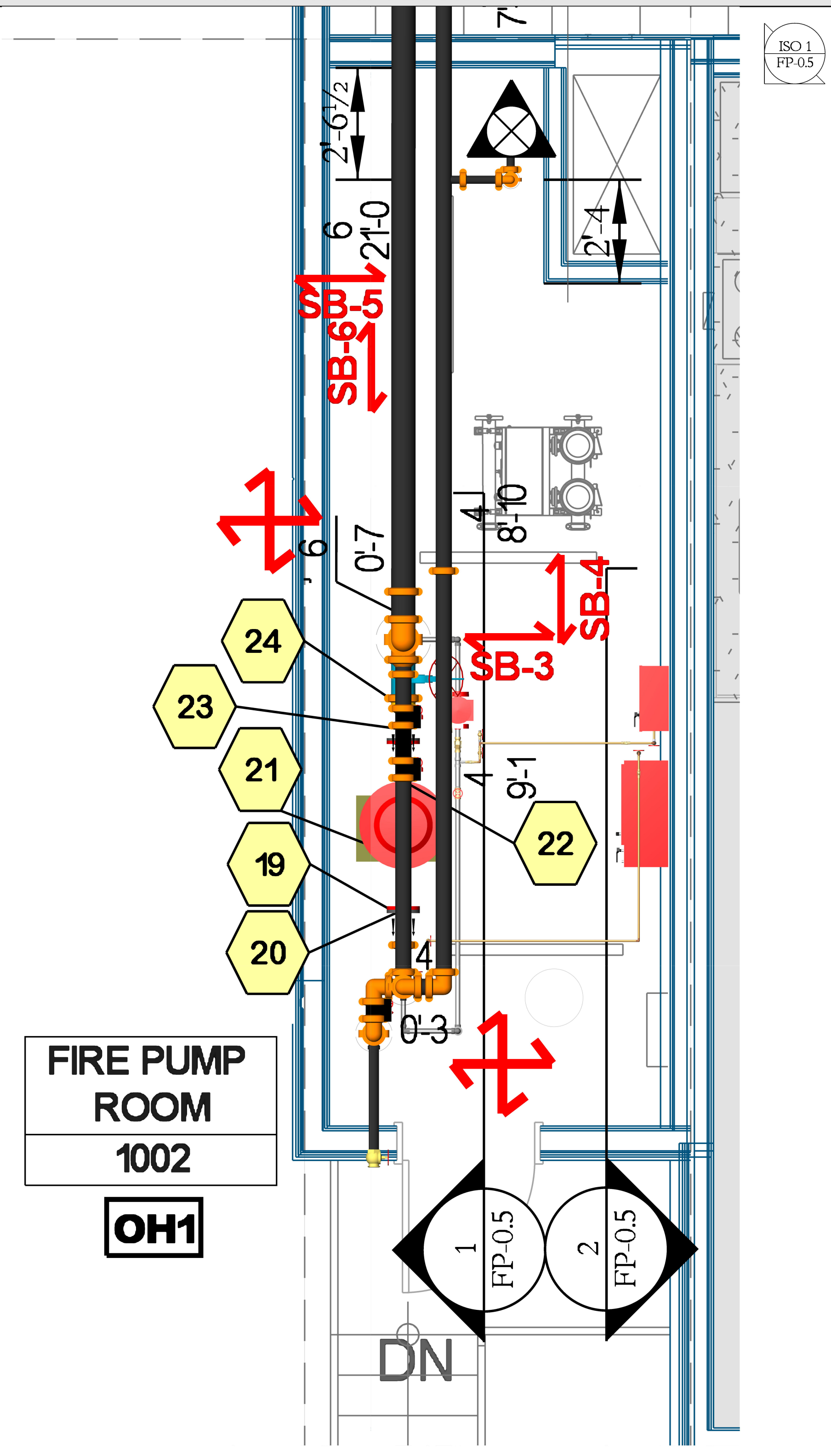
ENLARGED FIRE PUMP ROOM

SHEET NUMBER

FP-05

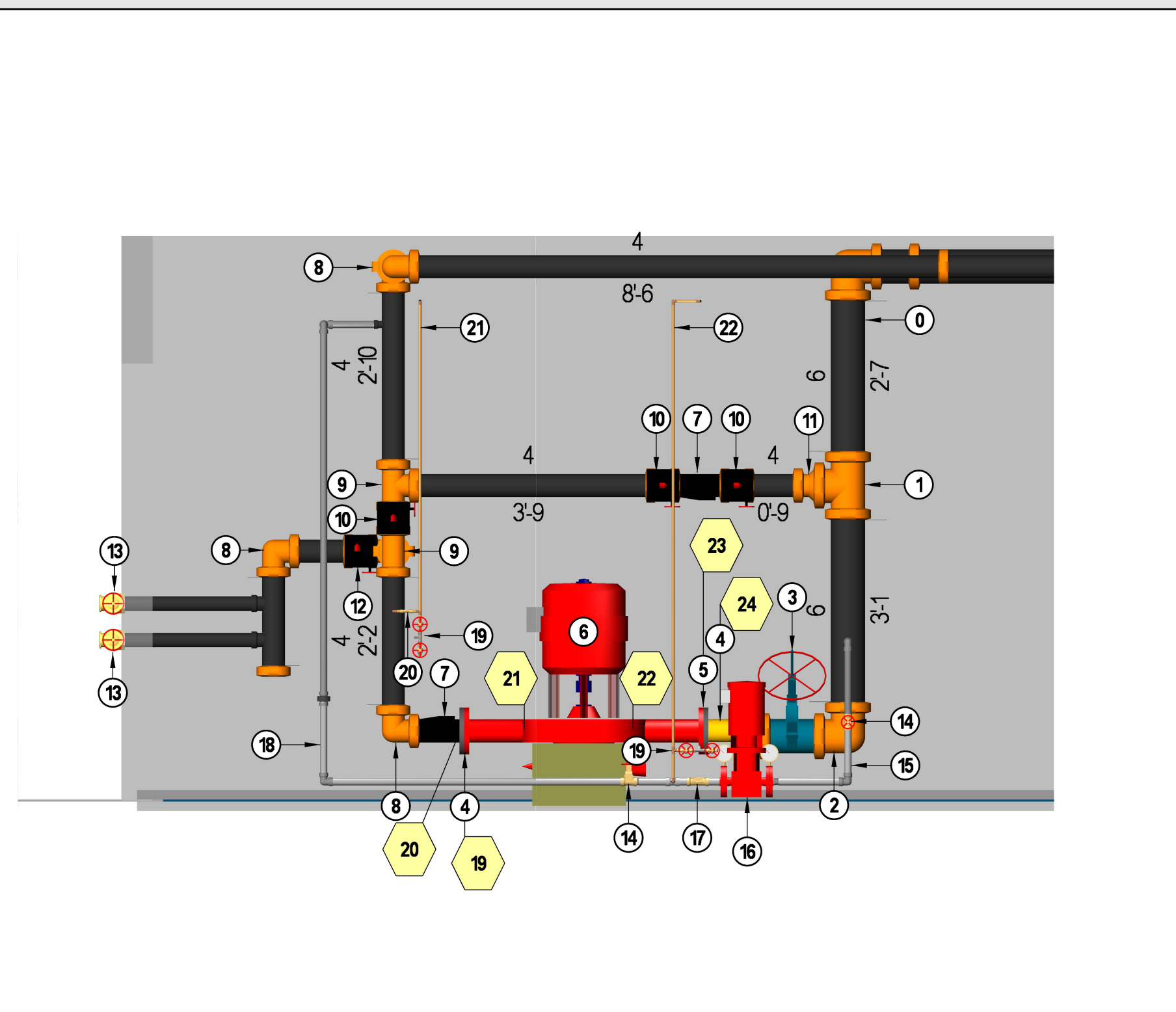
JOB NUMBER:
DRAWN BY:
PLAN DATE: 07/20/22
PRINT DATE: 07/20/22

PUMP ROOM FLOOR PLAN

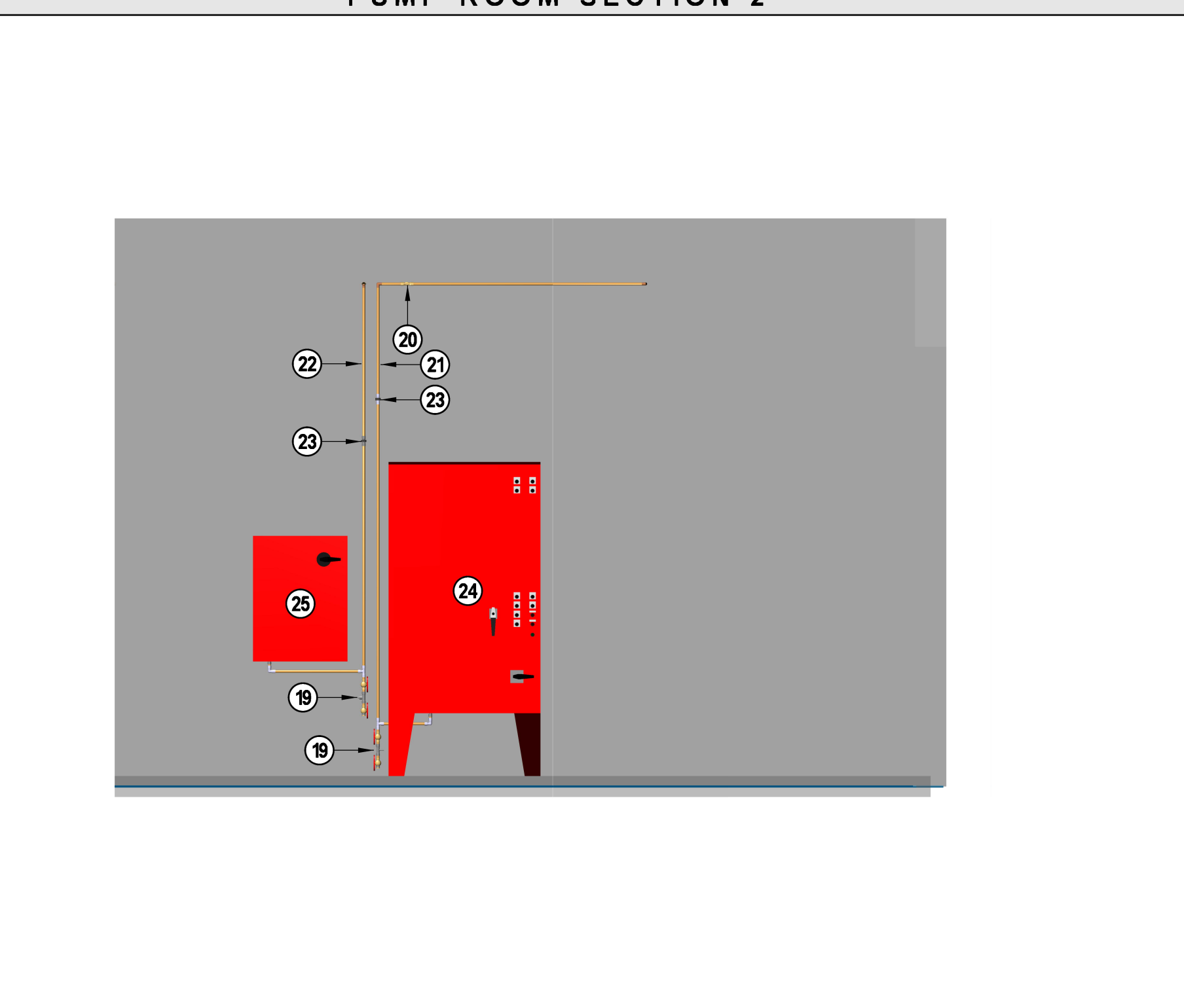


ISO 1
FP-05

PUMP ROOM SECTION 1



PUMP ROOM SECTION 2



PUMP ROOM LEGEND

#	DESCRIPTION	REMARKS
0	6" FROM UNDERGROUND	
1	6" GROOVED TEE	
2	6" GROOVED 90	
3	6" GXG OS&Y WITH TAMPER	
4	6"X4" GROOVED ECCENTRIC REDUCER	
5	4" GROOVED FLANGE	
6	FIRE PUMP AND DRIVER, SEE INFORMATION TABLE	
7	4" GROOVED CHECK VALVE	
8	4" GROOVED 90	
9	4" GROOVED TEE	
10	4" GROOVED BUTTERFLY VAVLE WITH TAMPER	NORMALLY OPEN
11	6"X4" CONCENTRIC REDUCER	
12	4" GROOVED BUTTERFLY VALVE WITH TAMPER	NORMALLY CLOSED
13	2-1/2" HOSE VAVLE	
14	1-1/4" OS&Y CONTROL VALVE WITH TAMPER	
15	1-1/4" JOCKEY PUMP SUCTION PIPING	
16	JOCKEY PUMP	
17	1-1/4" CHECK VALVE	
18	1-1/4" JOCKEY PUMP DISCHARGE PIPING	
19	TEST ASSEMBLY PER NFPA 20	
20	COPPER CHECK VALVE WITH 3/32" HOLE IN CLAPPER	
21	FIRE PUMP SENSING LINE	
22	JOCKEY PUMP SENSING LINE	
23	1/2" DI. ELECTRIC UNION	
24	FIRE PUMP CONTROL PANEL	
25	JOCKEY PUMP CONTROL PANEL	
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SYSTEM MONITORING

VALVE MONITORING, WATER-FLOW ALARM, AND TROUBLE SIGNALS SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION. THIS WORK IS BY OTHERS.

TEST HEADER GREATER THAN 15'-0

TEST HEADER HAS BEEN SIZED PER HYDRAULIC CALCULATIONS PER NFPA 20, SECTION 4.21.3.4 (2).

TEST HEADER CALCULATION INFORMATION	
PUMP RATING IN GPM	500
150% OF PUMP RATING	750
NUMBER OF TEST HOSE STREAMS	2
SIZE OF FIRE HOSE	2.5"

DISCHARGE NOZZLE

WHERE: P = PIOTOT PRESSURE IN PSI
Q = FLOW RATE IN GPM
C = NOZZLE DISCHARGE COEFFICIENT
D = NOZZLE DIAMETER IN INCHES

$$P = \left(\frac{Q}{29.84 \cdot C \cdot D^2} \right)^2$$

FLOW RATE IN GPM (150% RATING / NUMBER OF STREAMS)	Q = 375
NOZZLE DISCHARGE COEFFICIENT	C = 0.97
NOZZLE DIAMETER IN INCHES	D = 1.75
PIOTOT PRESSURE REQUIRED	P = 17.90

FIRE HOSE FRICTION LOSS

WHERE: FL = FRICTION LOSS IN PSI
C = FRICTION LOSS COEFFICIENT
Q = FLOW RATE IN GPM
L = HOSE LENGTH

$$FL = C \left(\frac{Q}{100} \right)^2 \left(\frac{L}{100} \right)$$

FRICTION LOSS COEFFICIENT	C = 2
FLOW RATE IN GPM (150% RATING / NUMBER OF STREAMS)	Q = 375
HOSE LENGTH	L = 50
FRICTION LOSS IN PSI	FL = 14.06
TEST HEADER HOSE VALVE DISCHARGE:	375 GPM @ 31.96 PSI

FIRE PUMP DATA

MAKE & MODEL	PENTAIR AURORA 4-383-7B
TYPE	VERTICAL IN-LINE
SIZE	4x6x7B
RATING	500 GPM @ 60 PSI
RPM	3,500
ROTATION	RIGHT HANDED
SUCTION SIZE	4"
DISCHARGE SIZE	4"
IMPELLER	6.50"
ESTIMATED WEIGHT	191 LB.
START PRESSURE (FIELD VERIFY)	112 PSI
STOP PRESSURE (FIELD VERIFY)	127 PSI

DRIVER DATA

TYPE	ELECTRIC
POWER	2500 HP
PHASE	3 PHASE
HERTZ	60 Hz
VOLTS	208 V
RPM	3560
ESTIMATED WEIGHT	247.0 LB.

JOCKEY PUMP DATA

MAKE & MODEL	PENTAIR PVM16
RATING	6 GPM @ 70 PSI
SUCTION & DISCHARGE SIZE	1-1/4"
POWER	0.75HP
PHASE	3 PHASE
VOLTS	208 V
START PRESSURE (FIELD VERIFY)	117 PSI
STOP PRESSURE (FIELD VERIFY)	127 PSI

FIRE PUMP CONTROL PANEL DATA

MAKE & MODEL	EATON CUTLER HAMMER FD30
VOLTAGE	208V
HP RANGE	5-150
SOFT START	NO
AUTOMATIC TRANSFER SWITCH	NO
REMOTE ALARMS	PHASE REVERSAL, MOTOR RUN, FAIL TO START

SPRINKLER LEGEND										
SYM.	SIN	MFR.	MODEL	RESP.	K-FACTOR	TYPE	TEMP.	FINISH	TRIM	QUANTITY
●	TY226	Tyco	LFR	Quick	49	Pendent	155°F	White	Recessed	82
▲	TY323	Tyco	TY-FRB	Quick	5.6	Pendent	155°F	White	Recessed	17
●	TY323	Tyco	TY-FRB	Quick	5.6	Pendent	200°F	White	Recessed	4
										Total = 103

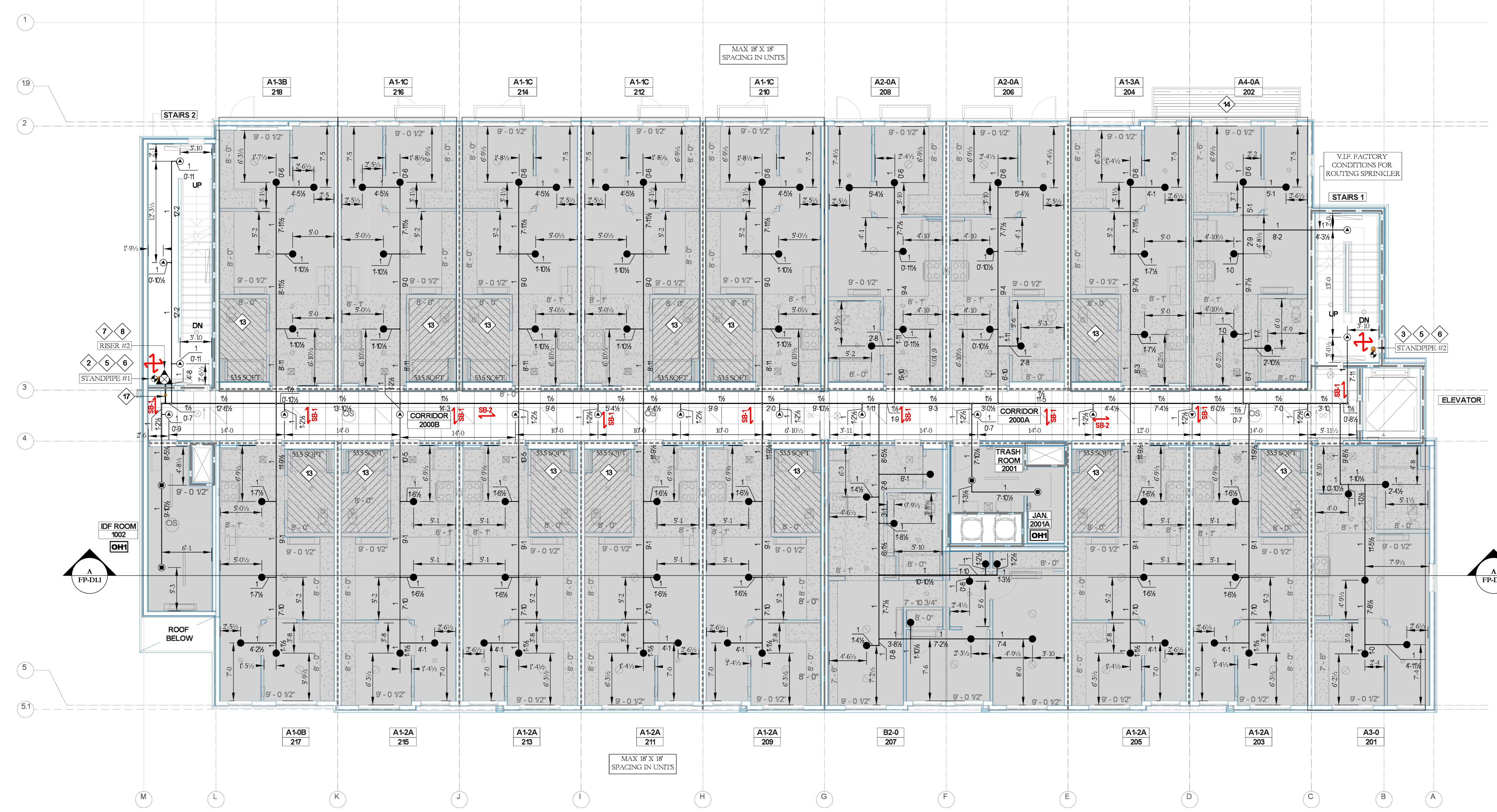
BUILD LEGEND	
	PRE-FABRICATED MODULAR CONSTRUCTION
	SITE BUILD

FIREWALL LEGEND	
	1 HR FIRE WALL
	2 HR FIRE WALL

KEY NOTES	
1	TYPICAL SYSTEM RISER SEE DETAIL ON SHEET FP-D2
2	TYPICAL COMBINATION STANDPIPE SEE DETAIL ON SHEET FP-D2
3	TYPICAL STANDPIPE SEE DETAIL ON SHEET FP-D2
4	4" TYPICAL STANDPIPE & HOSE VALVE CABINET SEE DETAIL ON SHEET FP-D2
5	4" DOWN TO FLOOR BELOW
6	8" CAN FOR ANNULAR CLEARANCE PER NFPA 13
7	4" UP TO FLOOR ABOVE
8	2" DRAIN UP TO FLOOR ABOVE
9	4" CAN FOR ANNULAR CLEARANCE PER NFPA 13
10	2" DRAIN DOWN TO FLOOR BELOW
11	4" CAN FOR ANNULAR CLEARANCE PER NFPA 13
12	2" DRAIN TO SANITARY CONNECTION
13	1" AUXILIARY DRAIN NIPPLE, VALVE & PLUG
14	1" AUXILIARY DRAIN PIPE TO SANITARY DRAIN
15	9" O MAX. IN SMALL ROOMS SEE DESIGN NOTE #1 ON SHEET FP-01
16	SPRINKLER OMITTED FROM BATHROOM SEE DESIGN NOTE #2 ON SHEET FP-01
17	SPRINKLERS OMITTED FROM OVERHANG SEE DESIGN NOTE #3 ON SHEET FP-01
18	SPRINKLERS OMITTED FROM VERTICAL SHAFT SEE DESIGN NOTE #4 ON SHEET FP-01
19	LAUNDRY OR GARBAGE CHUTE SPRINKLER PRE-INSTALLED & CONNECTED BY AEGIS
20	CPVC TO STEEL PIPE ADAPTER THREADED OR GROOVED AS APPLICABLE

PIPING NOTES	
1	ALL BRANCHLINE PIPING TO BE INSTALLED CENTER OF CEILING ASSEMBLY UNO.
2	ALL MAINS TO BE INSTALLED 6" ABOVE CORRIDOR CEILING UNO.
3	ALL PIPING 2" AND SMALLER SHALL BE CPVC PIPE & FITTINGS.
4	ALL PIPING 2 1/2" AND LARGER SHALL BE STEEL & GROOVED FITTINGS.
5	ALL EXPOSED PIPING SHALL BE STEEL PIPE PER GENERAL NOTE # 17 ON SHEET FP-01.

CONCEALED SPACES	
1	ALL CONCEALED COMBUSTIBLE SPACES SHALL BE ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION.
2	SPRINKLERS SHALL BE OMITTED FROM CONCEALED COMBUSTIBLE SPACES ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, 8.15.12.7.



STAMP

PROJECT
1335 GALINDO
 1335 GALINDO ST
 CONCORD, CA 94520

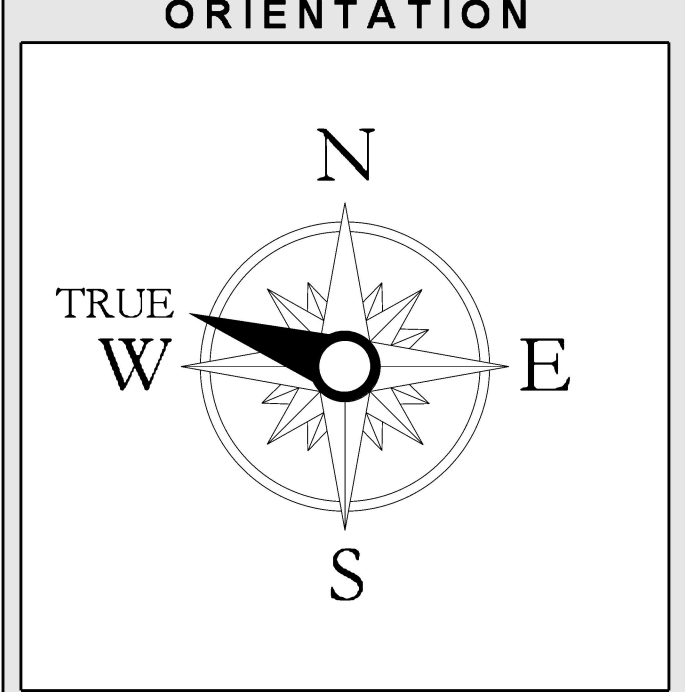
CUSTOMER

APPROVALS
CONTRA COSTA COUNTY FIRE DEPARTMENT
 4005 PORT CHICAGO HWY, SUITE 250
 CONCORD CA.
 (925) 941-3300

INSPECTIONS
 PHONE: (925) 941-3523
 WELD INSPECTION: YES

REVISIONS	
NO.	DATE DESCRIPTION

CITY SUPPLY
 STATIC PRESSURE: 58 PSI
 RESIDUAL PRESSURE: 54 PSI
 FLOW @ RESIDUAL: 1770 GPM
 TEST LOCATION: 1325-1335 GALINDO STREET
 TEST DATE: 03/30/2022
 TESTING AGENCY: CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT
 HYDRANT #: N/A



SCALE
 1/8" = 1'-0"

DESCRIPTION
 FLOOR 1 SYSTEM PIPING PLAN

SHEET NUMBER
FP-2.1

JOB NUMBER:
DRAWN BY: J. Gutierrez
PLAN DATE: 07/20/22 **PRINT DATE:** 07-20-2022

STAIR SECTION

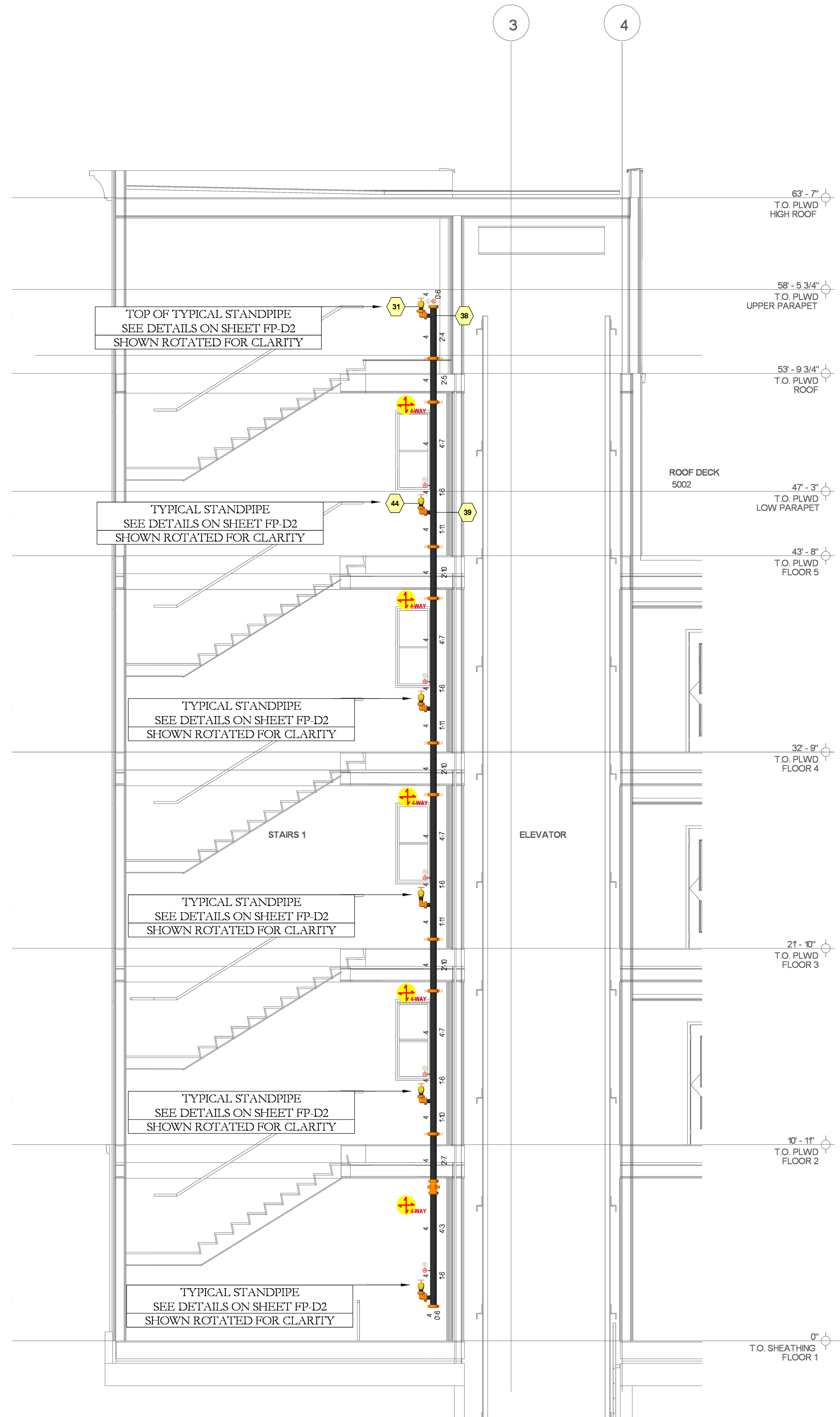
NOTE: 4-WAY BRACES SHALL BE PERMITTED TO BE OMITTED WHERE RISERS PENETRATE INTERMEDIATE FLOORS WHERE THE CLEARANCE DOES NOT EXCEED THE LIMITS OF 93.4, PER NFPA 13 - 9.3.5.8.3.

LIMITED CLEARANCE AROUND A RISER EXTENDING THROUGH A SUBSTANTIAL FLOOR OR ROOF RESTRICTS MOVEMENT AND PROVIDES THE EQUIVALENT OF BRACING (SEE 9.3.5.8.3). FOR RISERS THAT EXTEND ABOVE A ROOF TO SERVE A STANDPIPE OUTLET, THE BRACING CAN BE LOCATED AT THE UNDERSIDE OF THE ROOF OR CAN BE PROVIDED BY THE CLEARANCE THROUGH THE ROOF STRUCTURE IN THIS MANNER.

CONCEALED SPACES

1 ALL CONCEALED COMBUSTIBLE SPACES SHALL BE ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION.

2 SPRINKLERS SHALL BE OMITTED FROM CONCEALED COMBUSTIBLE SPACES ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, 8.15.1.2.7.



STAIR #1

STAIR SECTION

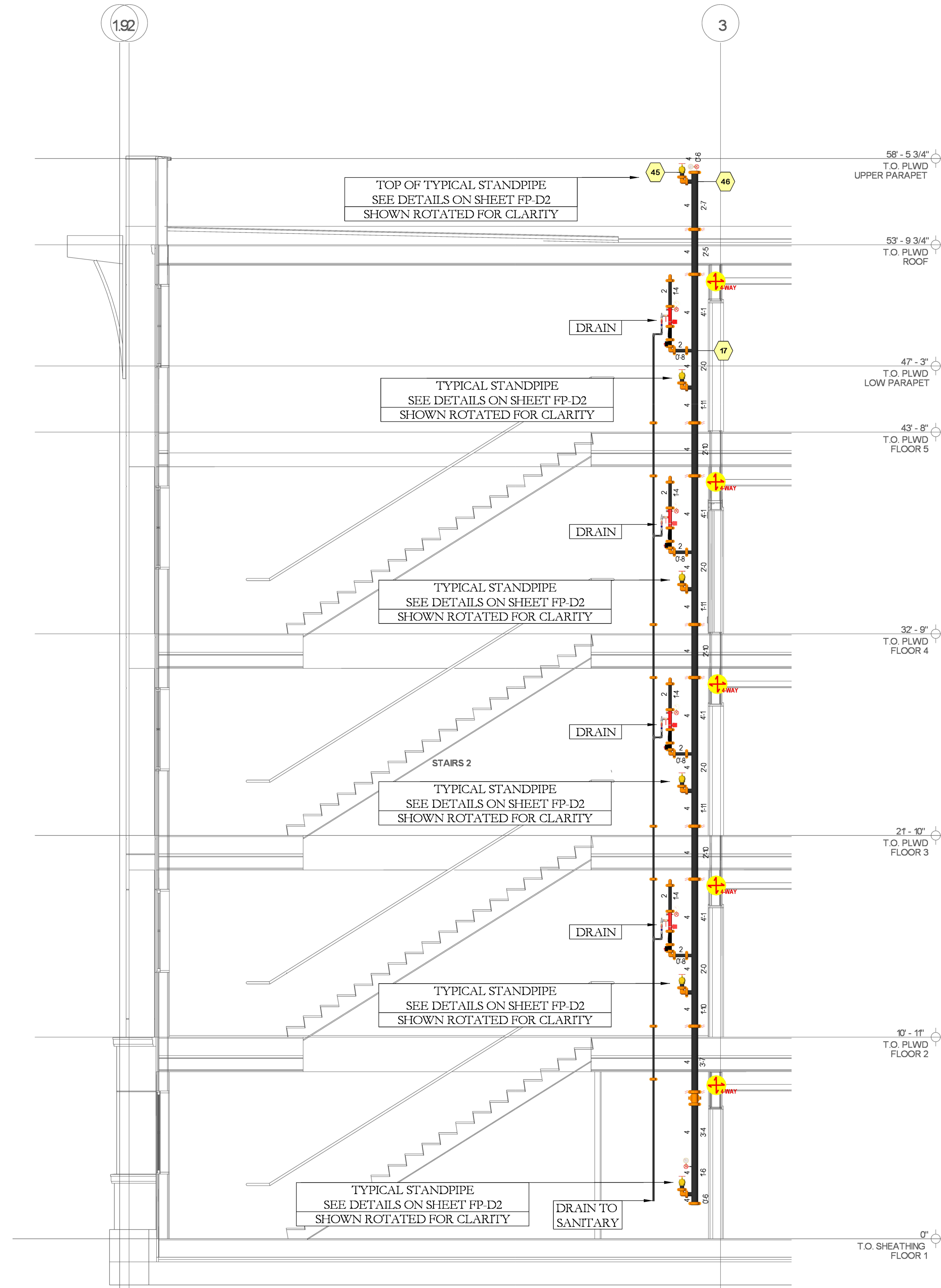
NOTE: 4-WAY BRACES SHALL BE PERMITTED TO BE OMITTED WHERE RISERS PENETRATE INTERMEDIATE FLOORS WHERE THE CLEARANCE DOES NOT EXCEED THE LIMITS OF 93.4, PER NFPA 13 - 9.3.5.8.3.

LIMITED CLEARANCE AROUND A RISER EXTENDING THROUGH A SUBSTANTIAL FLOOR OR ROOF RESTRICTS MOVEMENT AND PROVIDES THE EQUIVALENT OF BRACING (SEE 9.3.5.8.3). FOR RISERS THAT EXTEND ABOVE A ROOF TO SERVE A STANDPIPE OUTLET, THE BRACING CAN BE LOCATED AT THE UNDERSIDE OF THE ROOF OR CAN BE PROVIDED BY THE CLEARANCE THROUGH THE ROOF STRUCTURE IN THIS MANNER.

CONCEALED SPACES

1 ALL CONCEALED COMBUSTIBLE SPACES SHALL BE ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION.

2 SPRINKLERS SHALL BE OMITTED FROM CONCEALED COMBUSTIBLE SPACES ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, 8.15.1.2.7.



STAIR #2

STAMP

PROJECT

1335 GALINDO

1335 GALINDO ST
CONCORD, CA 94520

CUSTOMER

APPROVALS

CONTRA COSTA COUNTY FIRE DEPARTMENT
4005 PORT CHICAGO HWY, SUITE 250
CONCORD CA, 925 941.3300

INSPECTIONS

PHONE: (925) 941.3523
WELD INSPECTION: YES

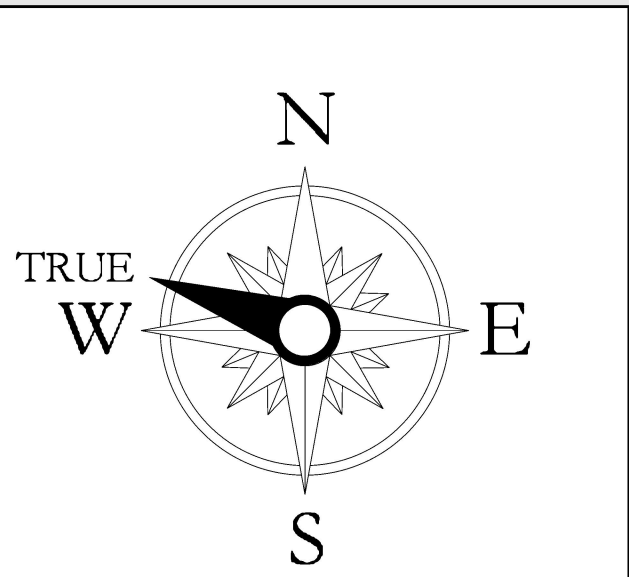
REVISIONS

NO.	DATE	DESCRIPTION

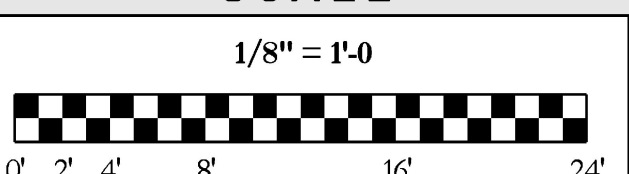
CITY SUPPLY

STATIC PRESSURE: 58 PSI
RESIDUAL PRESSURE: 54 PSI
FLOW @ RESIDUAL: 1770 GPM
TEST LOCATION: 1325-1335 GALINDO STREET
TEST DATE: 03/30/2022
TESTING AGENCY: CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT
HYDRANT #: N/A

ORIENTATION



SCALE



DESCRIPTION

STAIR SECTIONS

SHEET NUMBER

FP-D1.2

JOB NUMBER:
DRAWN BY:
J. Gutierrez

PLAN DATE: 07/20/22
PRINT DATE: 07/20/2022