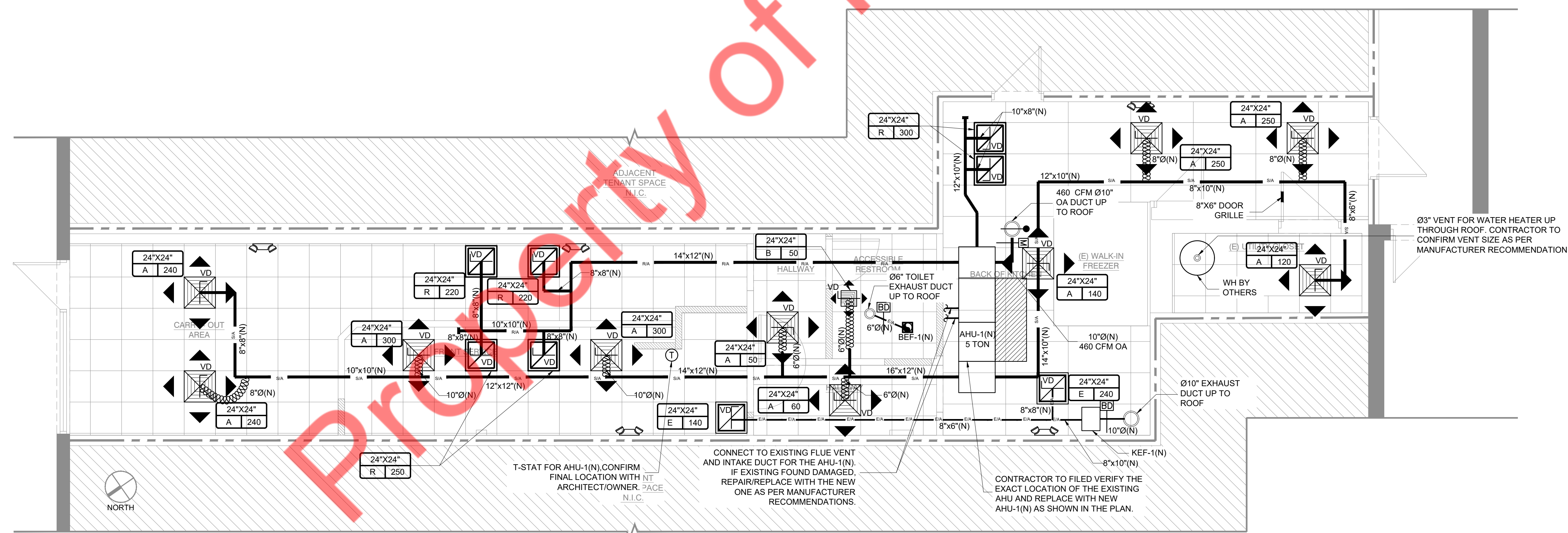


HVAC ROOF PLAN

SCALE  
1/4" = 1'-0"



HVAC FLOOR PLAN

SCALE  
1/4" = 1'-0"

THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

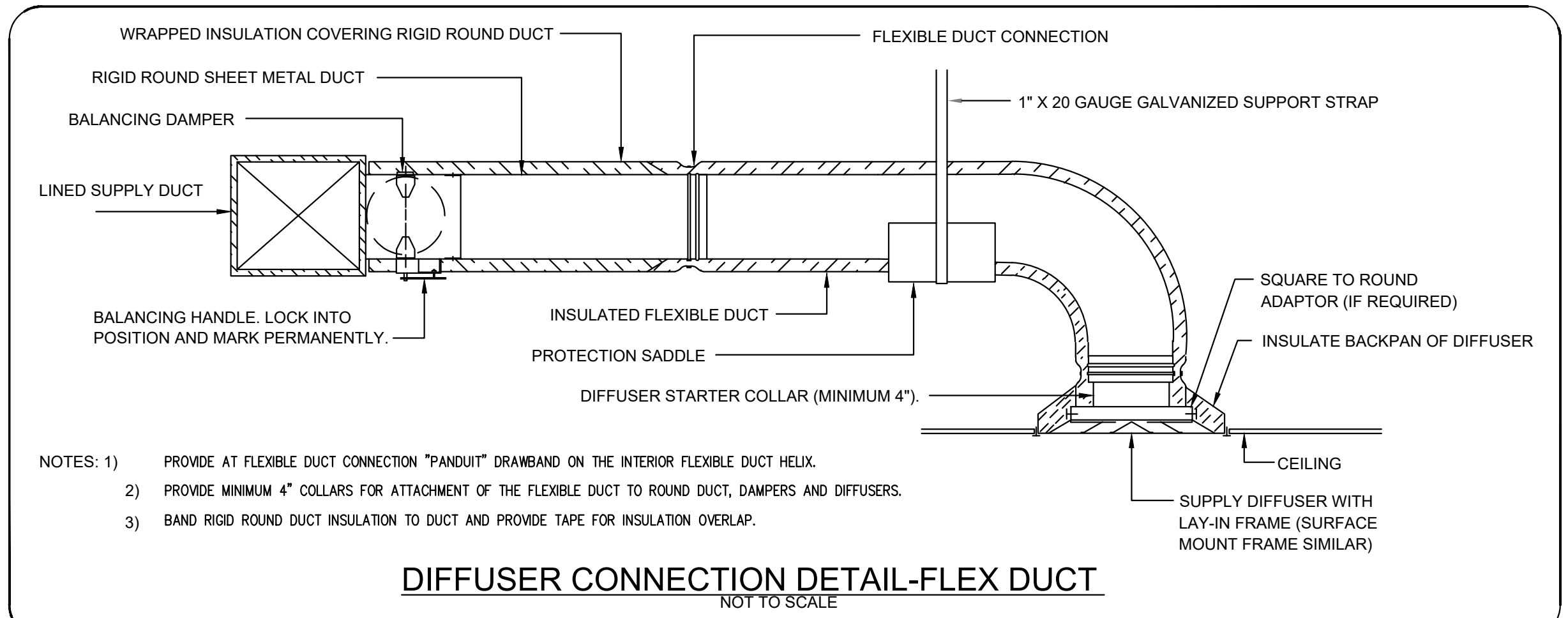
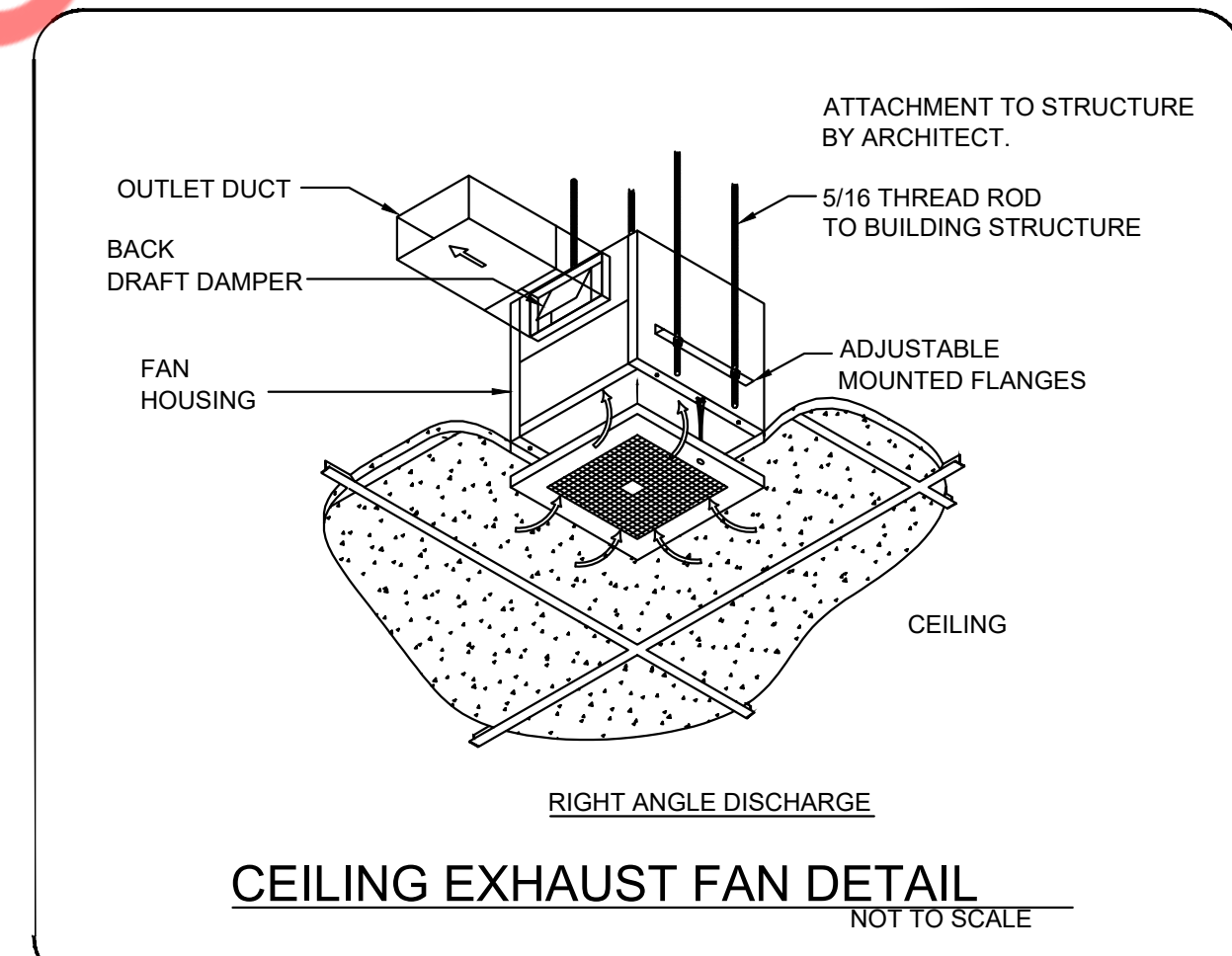
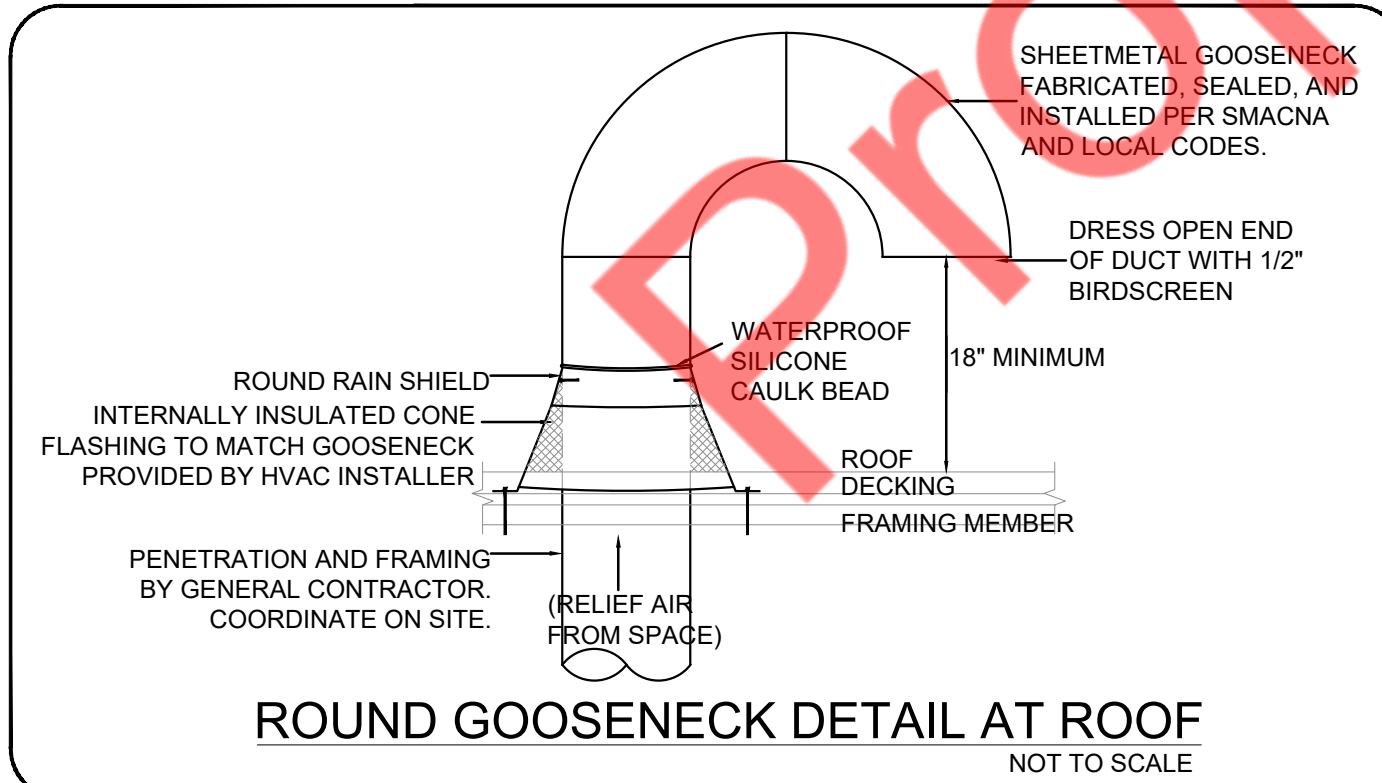
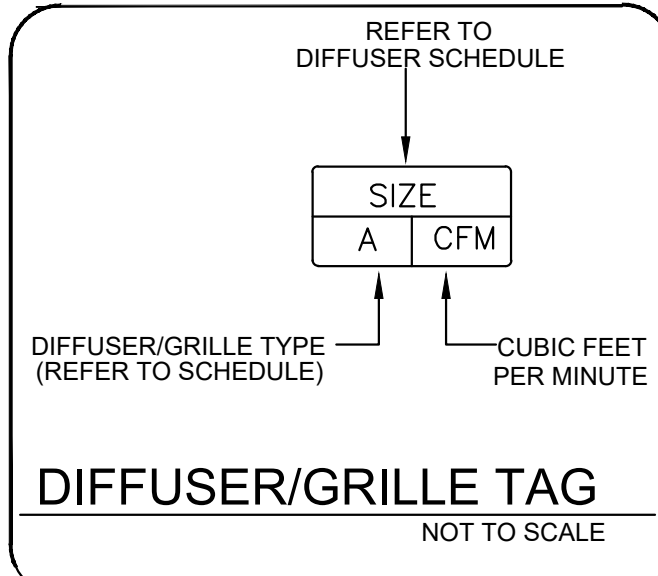
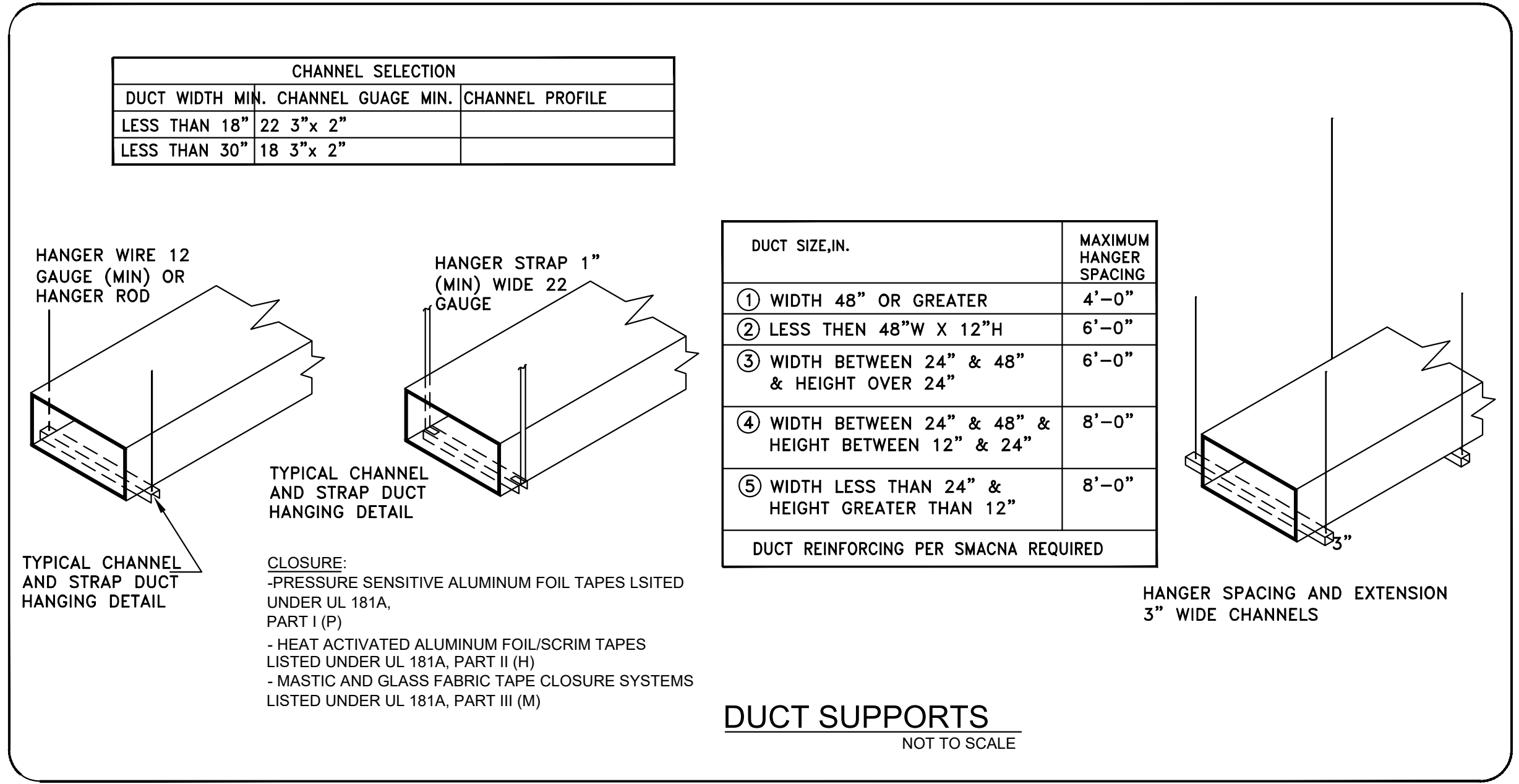
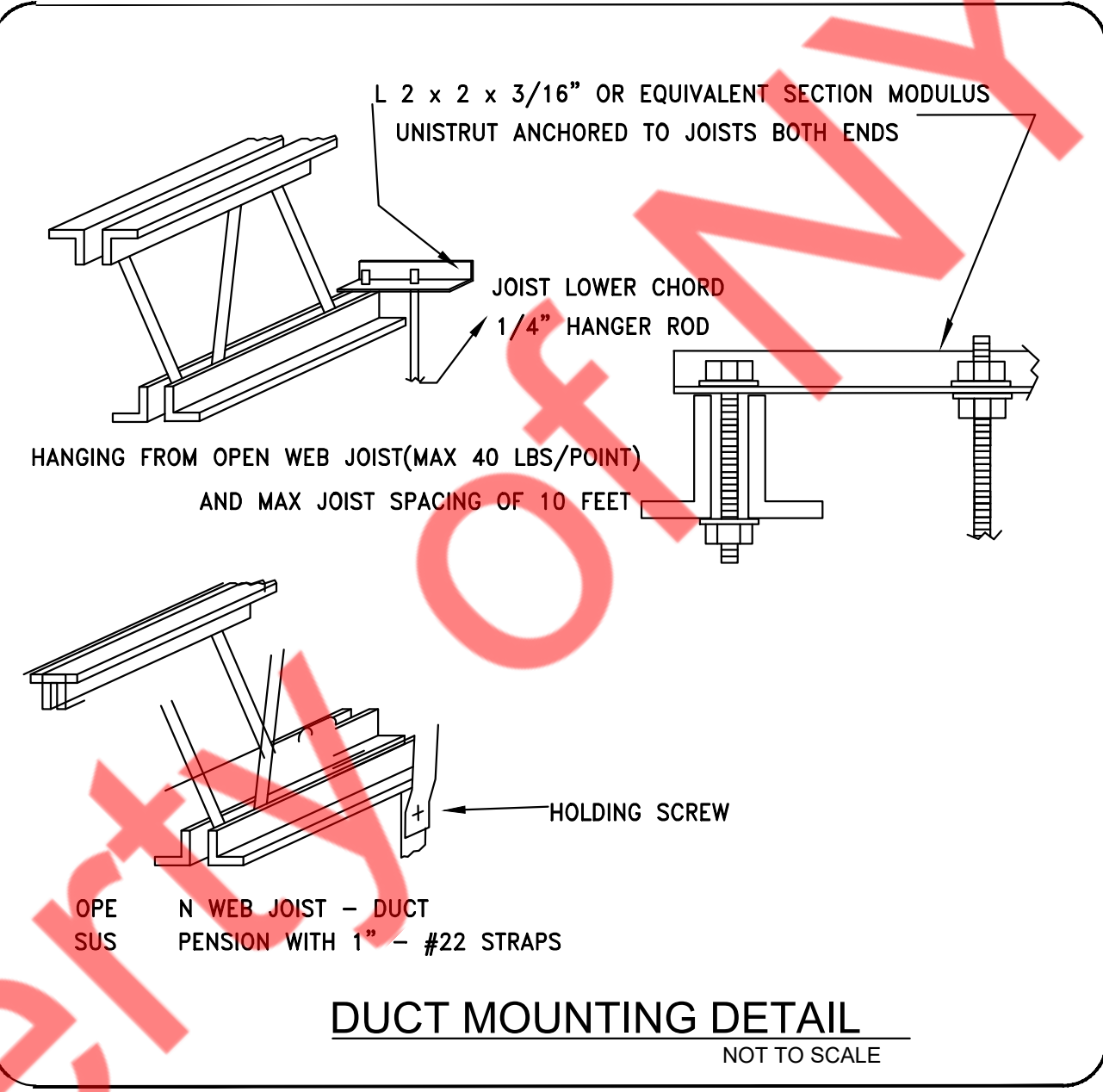
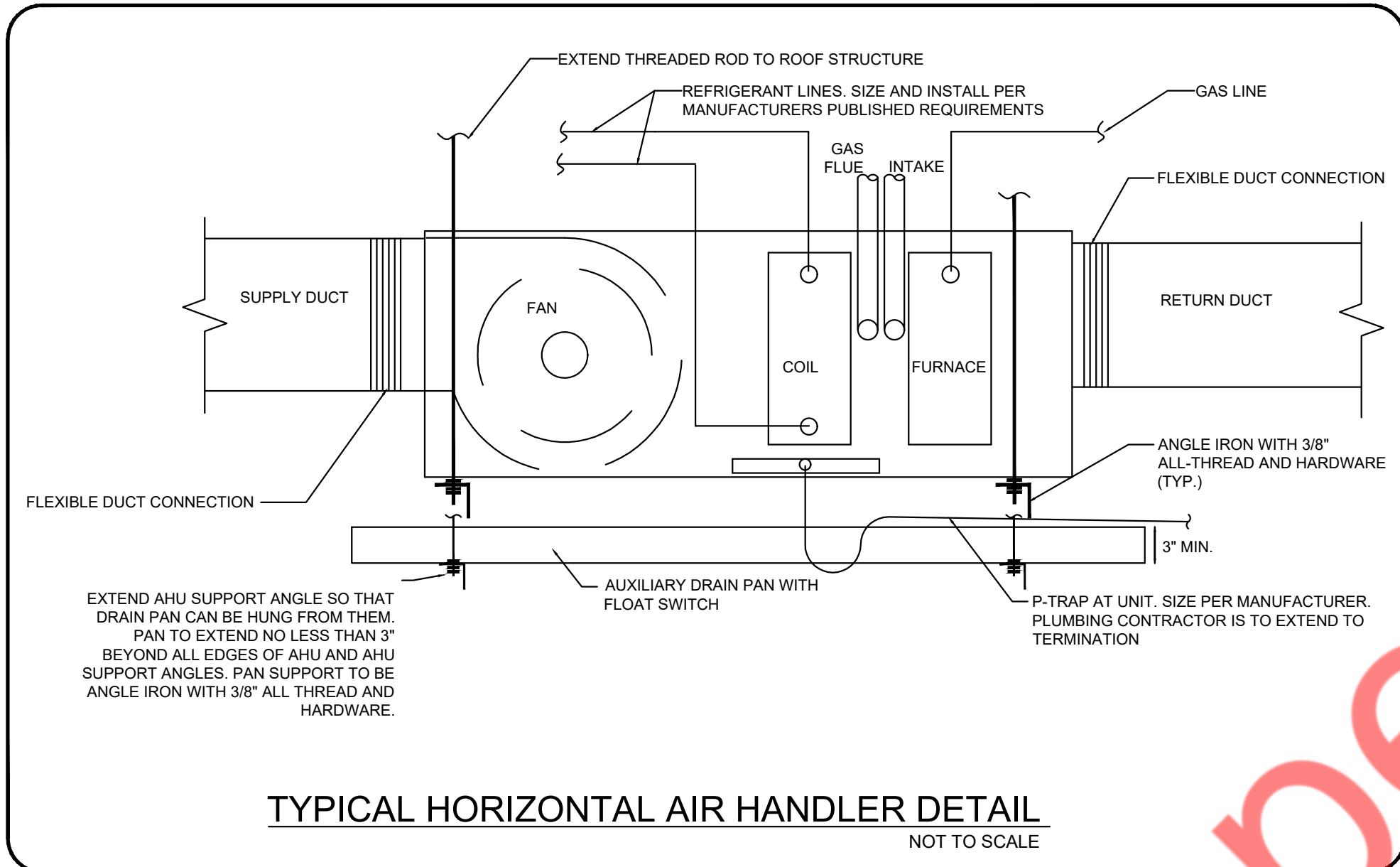
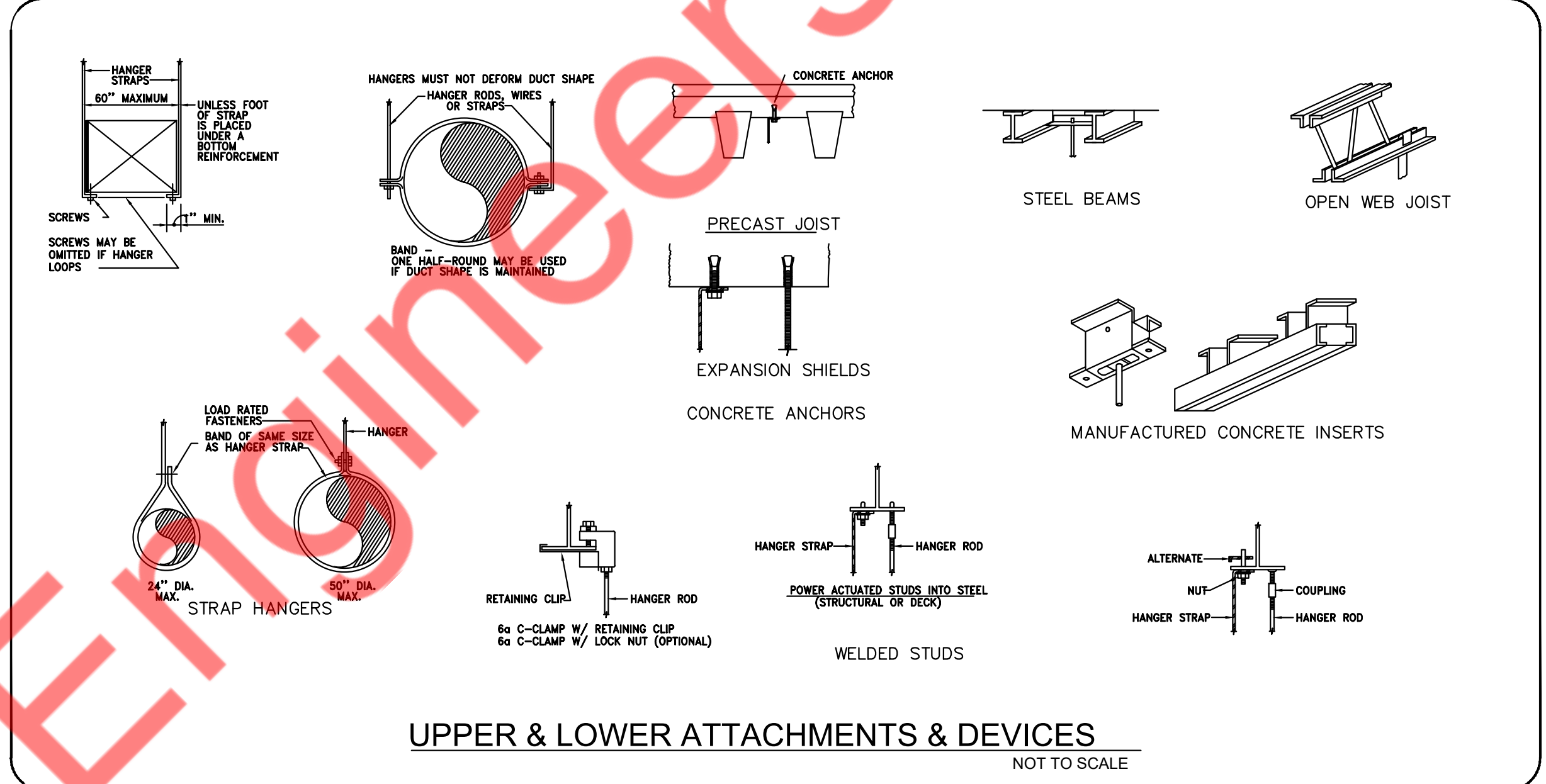
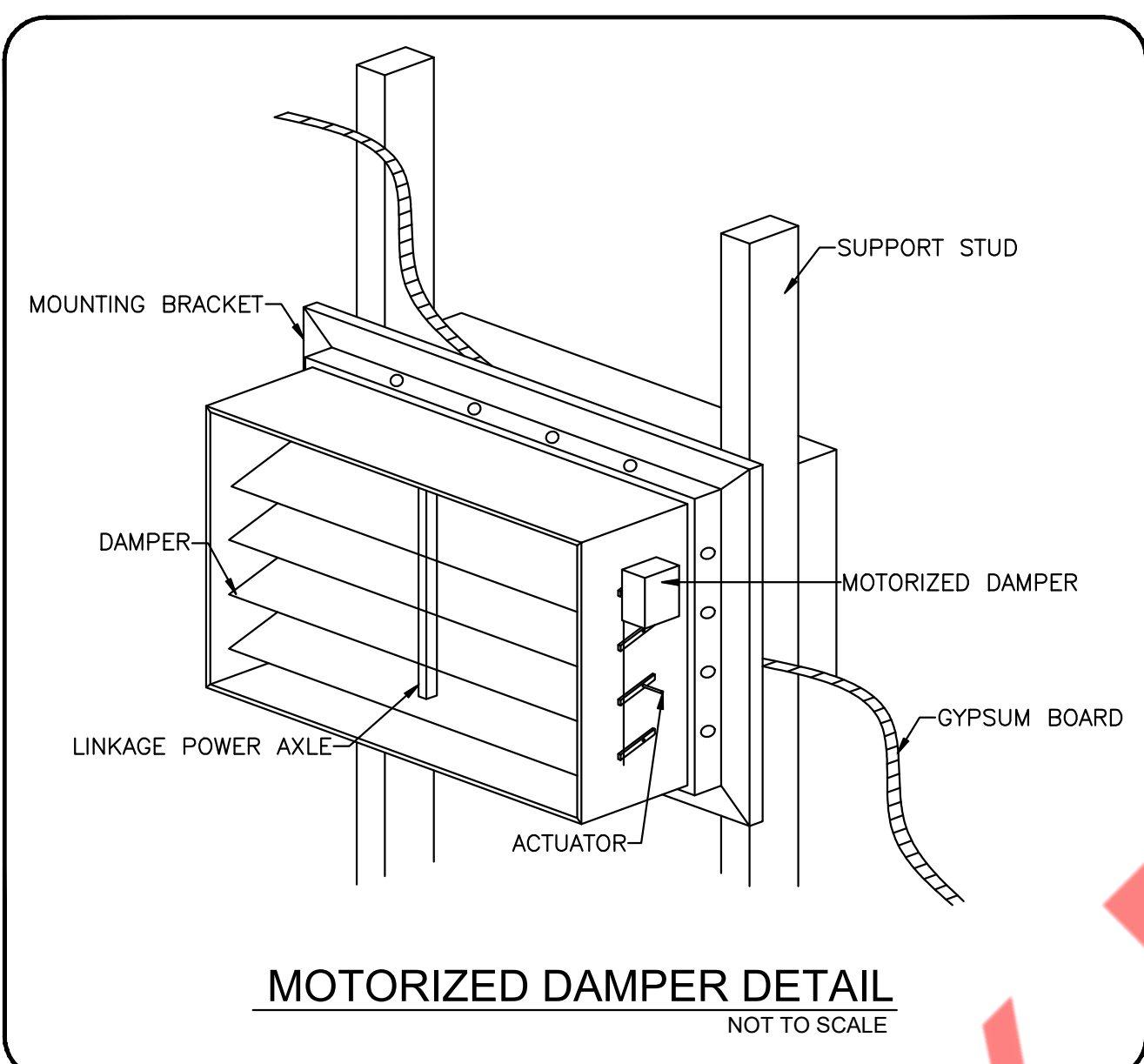
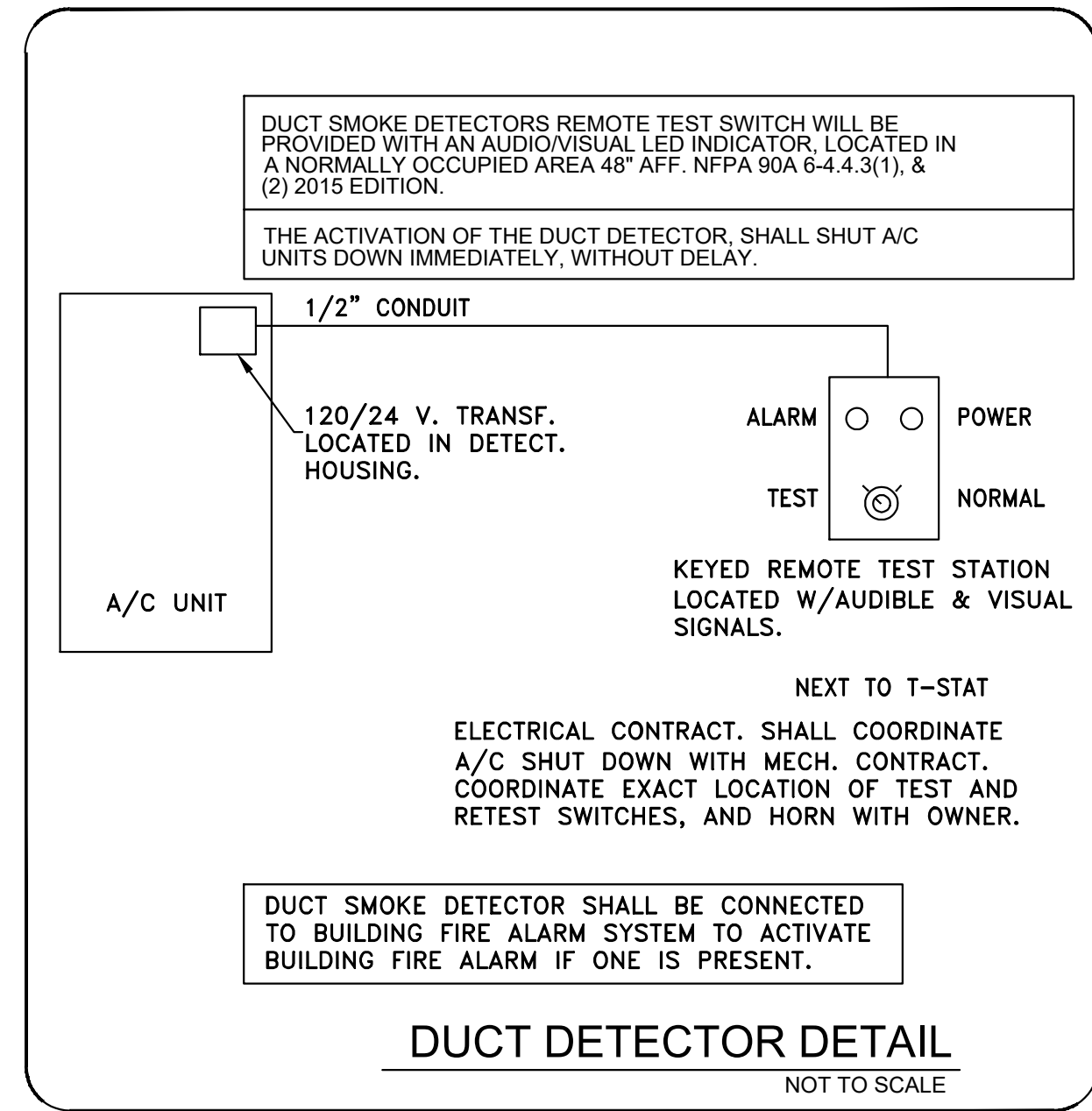
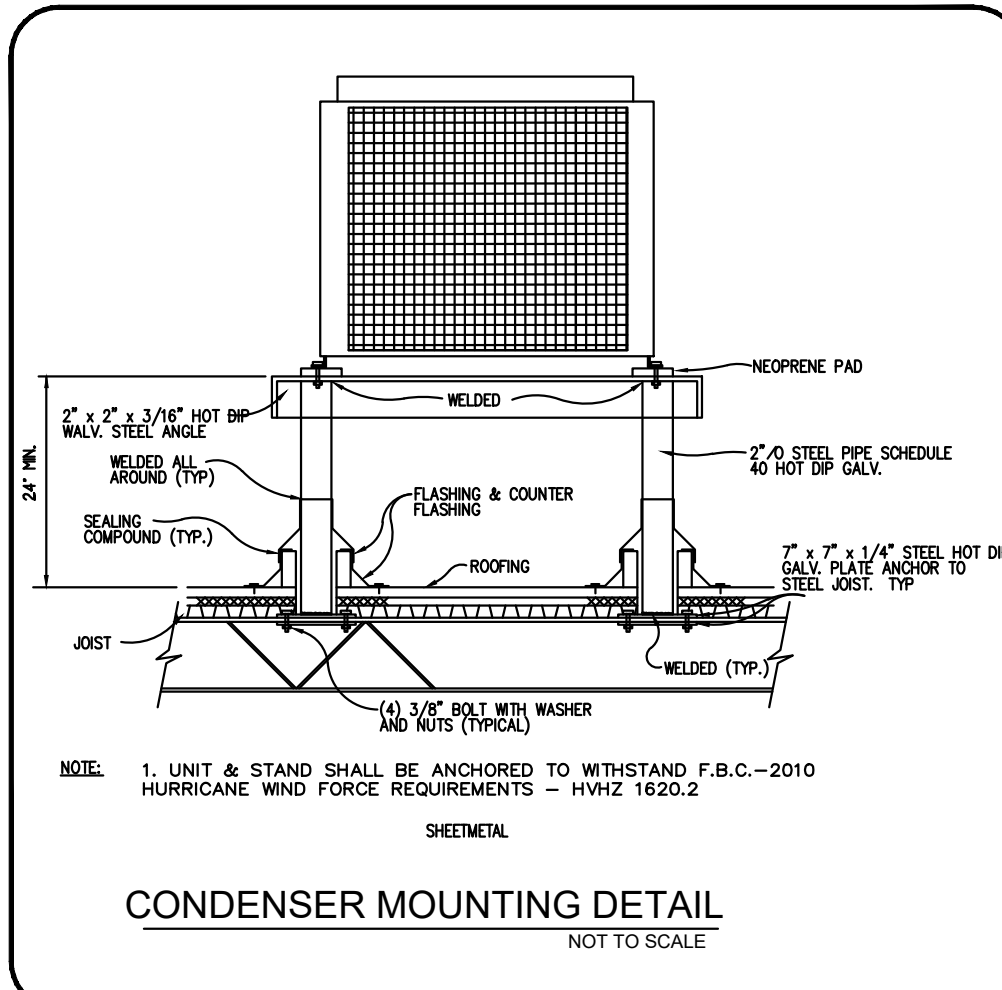
SOBOL

REVISIONS DATES:

PROFESSIONAL SEAL

ISSUE DATE: 03.21.23  
PROJECT #: 360E.1346E  
DRAWN BY: NYE  
CHECKED BY: NYE

HVAC FLOOR & ROOF PLANS





THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

SOBOL

REVISIONS DATES:

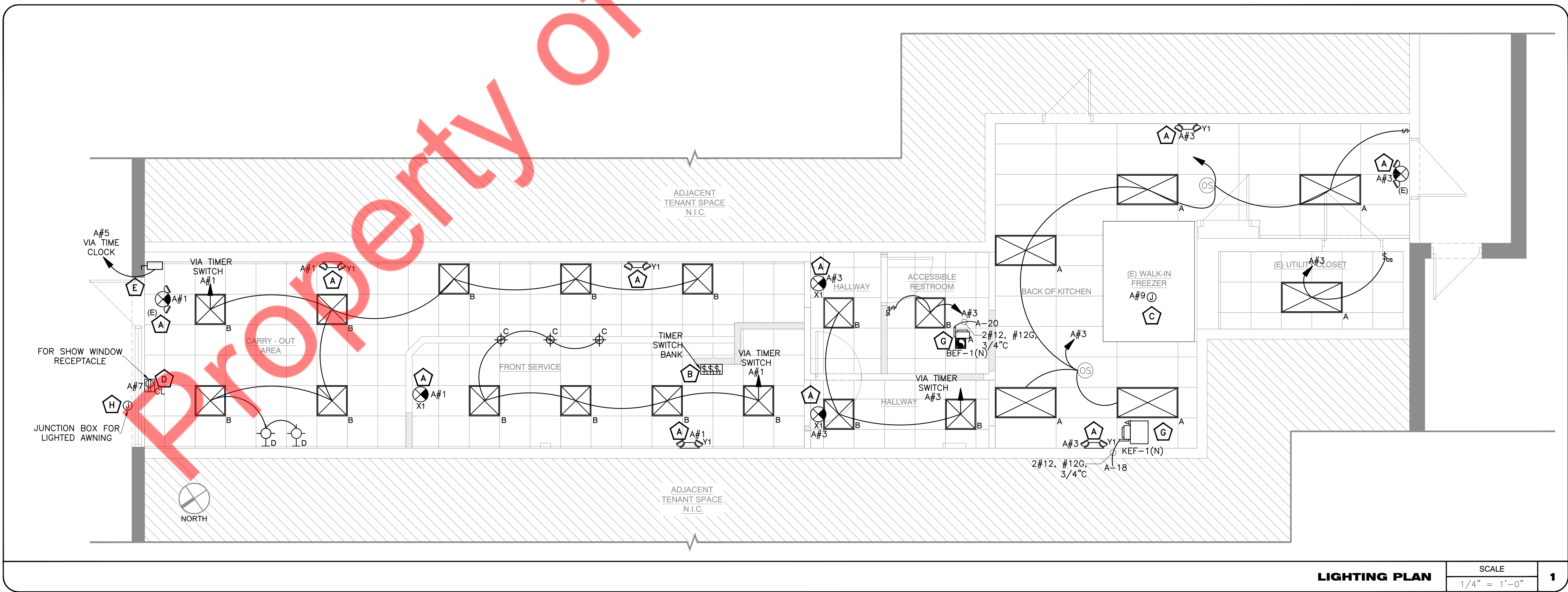

PROFESSIONAL SEAL

ISSUE DATE: 03.21.23  
 PROJECT #: 360E.1346E  
 DRAWN BY: NYE  
 CHECKED BY: NYE

LIGHTING PLAN

E-2

- ELECTRICAL LIGHTING PLAN KEYED WORK NOTES:**
- A** CONNECT ALL EMERGENCY EGRESS AND NIGHT LIGHTING FIXTURES TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES.
  - B** E.C. SHALL COORDINATE EXACT LOCATION OF TIMER SWITCH BANK WITH ARCHITECT/OWNER.
  - C** WALK-IN BOX FREEZER LIGHTING TO BE PROVIDED BY MANUFACTURER.
  - D** PROVIDE CEILING MOUNTED RECEPTACLE FOR SHOW WINDOW AS REQUIRED BY CODE. VERIFY WITH LOCAL ENERGY AGENCY. VERIFY EXACT LOCATION WITH ARCHITECT. SHOW WINDOW RECEPTACLE TO BE PROVIDED BY TIME CLOCK PER TENANT GUIDELINES.
  - E** JUNCTION BOX WITH TOGGLE DISCONNECT PER NEC FOR CONNECTION TO BUILDING MOUNTED SIGNAGE. VERIFY EXACT LOCATION AND CONNECT TO SIGN PER MANUFACTURE'S INSTRUCTION. ROUTE CIRCUIT TO PANEL VIA TIMECLOCK AS INDICATED ON PLAN.
  - F** PROVIDE IP20 MOTOR RATED SWITCH IN WEATHERPROOF BOX FOR KEF-1(N) AND KEF-2(N). INTERLOCK EXHAUST FAN WITH RTU-1(E). E.C. TO COORDINATE WITH MECHANICAL DRAWINGS.
  - G** INTERCONNECT EXHAUST FANS KEF-1(N) & BEF-1(N) WITH AHU-1(N). E.C. TO COORDINATE WITH MECHANICAL DRAWINGS.
  - H** JUNCTION BOX FOR LIGHTED AWNING. E.C. SHALL COORDINATE THE EXACT POWER REQUIREMENTS PRIOR TO ROUGH-IN. MAKE POWER PROVISION AND BID ACCORDINGLY.



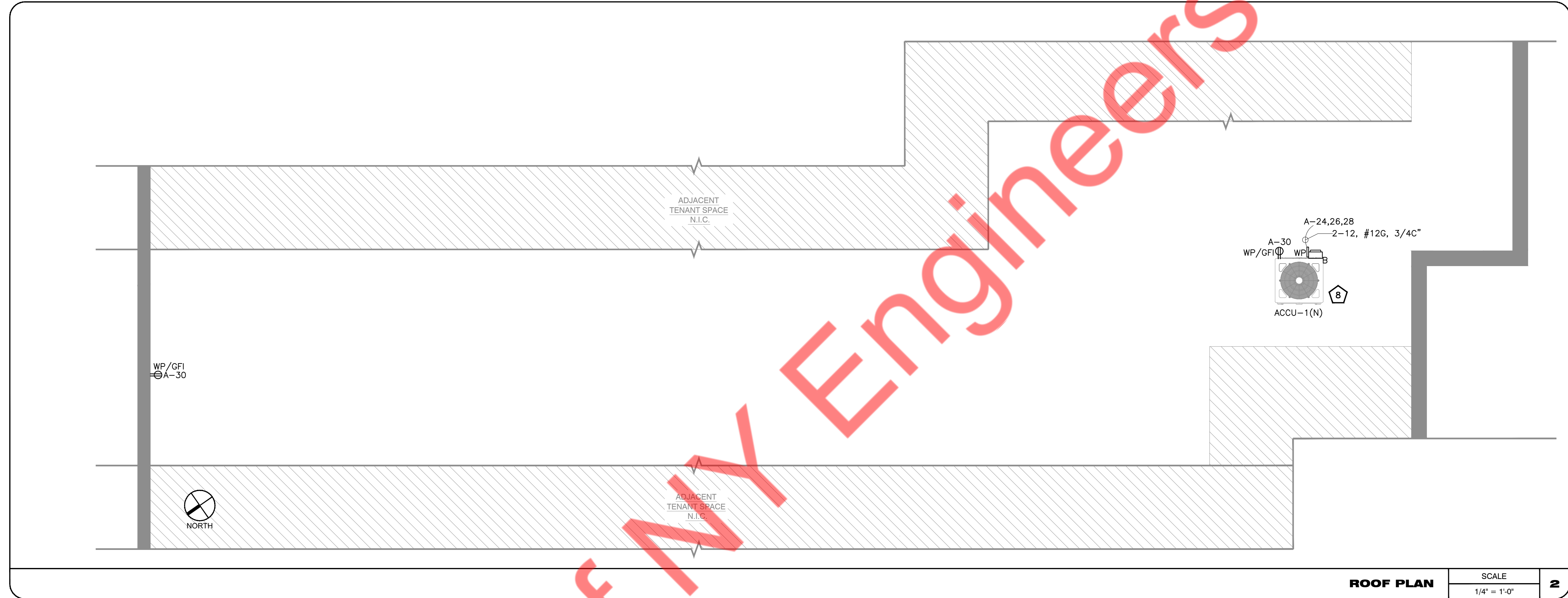
**LIGHTING PLAN** SCALE 1/4" = 1'-0" 1

**ELECTRICAL POWER PLAN KEYED WORK NOTES:**

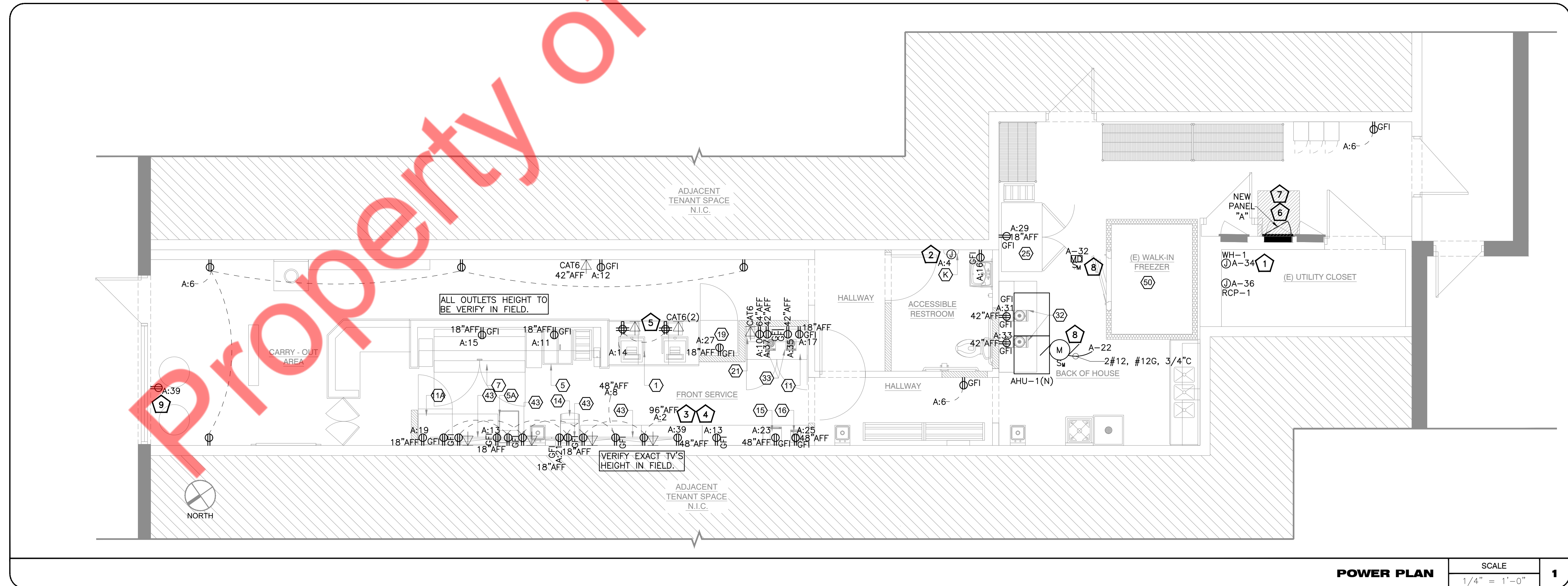
- 1 ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE WATER HEATER MANUFACTURER FOR THE EXACT POWER REQUIREMENTS PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.
- 2 JUNCTION BOX FOR HAND DRYER. COORDINATE MOUNTING HEIGHT TO COMPLY WITH ADA.
- 3 PROVIDE (1) DUPLEX RECEPTACLE AND (1) CAT6 DATA CABLE AND CONNECTION FOR EACH MENUBOARD AT 96" A.F.F. COORDINATE IN FIELD. FINAL LOCATION WITH OWNER.
- 4 COORDINATE WITH OWNER ADDITIONAL POWER AND DATA REQUIREMENTS FOR MENUBOARD PRIOR COMMENCING WORK.
- 5 PROVIDE TWO (2) CAT 6 HOMERUN TO EACH POS (4 TOTAL) AND ONE (1) QUAD 20 AMPS RECEPTACLE AT 24" A.F.F. AT COUNTER FOR EACH POS. COORDINATE WITH OWNER PRIOR TO ROUGH-IN.
- 6 NEW 200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A". E.C. SHALL COORDINATE LOCATION WITH ARCHITECT/OWNER.
- 7 WORKING SPACE CLEARANCE SHALL NOT BE LESS THAN SPECIFIED IN TABLE 110.26(A)(1) NEC.
- 8 ELECTRICAL CONTRACTOR SHALL COORDINATE FOR EXACT LOCATION OF MECHANICAL EQUIPMENTS WITH MECHANICAL DRAWINGS.
- 9 OUTLET ABOVE WINDOW. ELECTRICAL CONTRACTOR SHALL COORDINATE MOUNTING HEIGHT OF OUTLET WITH OWNER PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.

**ELECTRICAL POWER PLAN GENERAL WORK NOTES:**

1. ARRANGE LOAD TO MAINTAIN A BALANCE BETWEEN PHASES OF 10% OR LESS.
2. TENANT SHALL HAVE BREAKER LOCKS ON CONTROL AND TIME CLOCK CIRCUITS.
3. SWITCHING DUTY BREAKERS SHOULD BE INSTALLED FOR TURNING LOADS ON/OFF.
4. ELECTRICAL DEVICES, TIME CLOCKS, PANELS, CABINETS, ETC., SHALL BE MOUNTED ON A FIRE-TREATED PLYWOOD BACKER BOARD.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. COORDINATE LOCATION OF DISCONNECT WITH OWNER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.



**ROOF PLAN** SCALE 1/4" = 1'-0" **2**



**POWER PLAN** SCALE 1/4" = 1'-0" **1**

THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

**SOBOL**

REVISIONS DATES:

PROFESSIONAL SEAL

ISSUE DATE: 03.21.23  
PROJECT #: 360E.1346E  
DRAWN BY: NYE  
CHECKED BY: NYE

POWER AND ROOF PLAN

THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

SOBOL

REVISIONS DATES:

PROFESSIONAL SEAL

ISSUE DATE: 03.21.23  
PROJECT #: 360E.1346E  
DRAWN BY: NYE  
CHECKED BY: NYE

ROOF PLAN & PANEL SCHEDULES

PANEL: A(N)												MOUNTING: RECESSED		
208Y/120	VOLTS,	3	PHASE,	4	WIRE									
MAIN CB	200A	MLO	NA	BUS	225A	MIN.								
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA)			MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
						A	B	C						
1	20	LIGHTING (CARRY-OUT AREA, FRONT SERVICE)	L	0.40	2#12, #12G, 3/4"C	1.60			2#12, #12G, 3/4"C	1.20	R	55" TV MENU BOARD(#43)	20	2
3	20	LIGHTING (KITCHEN, HALLWAY, RR, STORAGE)	L	0.37	2#12, #12G, 3/4"C		0.90		2#12, #12G, 3/4"C	0.53	E	HAND DRYER(#K)	20	4
5	20	EXTERIOR SIGN/TIMECLOCK	L	1.20	2#12, #12G, 3/4"C			2.28	2#12, #12G, 3/4"C	1.08	R	GENERAL RECEPTACLE	20	6
7	20	SHOW WINDOW RECEPTACLES	R	1.60	2#12, #12G, 3/4"C	2.32			2#12, #12G, 3/4"C	0.72	R	CONVENIENCE OUTLET	20	8
9	20	WALK-IN BOX MISCELLANEOUS	L	0.54	2#12, #12G, 3/4"C		0.72		2#12, #12G, 3/4"C	0.18	R	CONVENIENCE OUTLET	20	10
11	20	SIX TUB ICE CREAM STORAGE FREEZER(#5)	E	0.14	2#12, #12G, 3/4"C			0.32	2#12, #12G, 3/4"C	0.18	R	CONVENIENCE OUTLET	20	12
13	20	4 TUB ICE CREAM STORAGE FREEZER(#5A)	E	0.16	2#12, #12G, 3/4"C	0.88			2#12, #12G, 3/4"C	0.72	R	POS	20	14
15	20	2 DOOR REFRIGERATED SANDWICH PREP TABLE(#7)	E	0.81	2#12, #12G, 3/4"C		0.99		2#12, #12G, 3/4"C	0.18	R	GFI RESTROOM RECEPTACLE	20	16
17	20	U/C FREEZER (#11)	E	0.36	2#12, #12G, 3/4"C			0.46	2#12, #12G, 3/4"C	0.10	M	KEF-1(N)	20	18
19	20	U/C FREEZER (#11A)	E	0.24	2#12, #12G, 3/4"C	0.26			2#12, #12G, 3/4"C	0.02	M	BEF-1(N)	20	20
21	20	ICE MACHINE(#14)	E	0.24	2#12, #12G, 3/4"C		1.91		2#12, #12G, 3/4"C	1.67	H	AHU-1(N)	15	22
23	20	AIRPORT COFFEE BREWER(#15)	E	1.37	2#12, #12G, 3/4"C			4.01		2.64	H			24
25	20	COFFEE GRINDER (#16)	E	0.36	2#12, #12G, 3/4"C	3.00			3#8, #10G, 3/4"C	2.64	H	ACCU-1(N)	40/3P	26
27	20	DRINK COOLER(#19)	E	0.81	2#12, #12G, 3/4"C		3.45			2.64	H			28
29	20	2 DOOR REACH-IN REFRIGERATOR(#25)	E	0.44	2#12, #12G, 3/4"C			0.80	2#12, #12G, 3/4"C	0.36	R	ROOF RECEPTACLE	20	30
31	20	BLENDER(#32)	E	1.80	2#12, #12G, 3/4"C	1.81			2#12, #12G, 3/4"C	0.01	R	MOTORISED DAMPER	20	32
33	20	BLENDER(#32)	E	1.80	2#12, #12G, 3/4"C		2.40		2#12, #12G, 3/4"C	0.60	O	WATER HEATER(WH-1)	20	34
35	20	DRINK MACHINE(#33)	E	1.38	2#12, #12G, 3/4"C			1.47	2#12, #12G, 3/4"C	0.09	M	RCP-1	20	36
37	20	DRINK MACHINE(#33)	E	1.38	2#12, #12G, 3/4"C	1.38						SPACE		38
39	20	CONVENIENCE OUTLET	R	0.36	2#12, #12G, 3/4"C		0.36					SPACE		40
41	20	LIGHTED AWNING	L	0.40	2#12, #12G, 3/4"C			0.40				SPACE		42
TOTAL LOAD (KVA)						11.26	10.72	9.73						
LOAD CLASSIFICATION			CONNECTED LOAD (KVA)		DEMAND FACTOR		DEMAND LOAD (KVA)		PANEL TOTAL LOAD					
TOTAL LIGHTING			L	2.91	125%		3.64							
TOTAL RECEPTACLE			R	6.59	100%		6.59		TOTAL CONNECTED LOAD		31.70	KVA		
TOTAL HVAC			H	9.59	100%		9.59		TOTAL DEMAND LOAD		28.30	KVA		
TOTAL MOTOR			M	0.21	100%		0.21		TOTAL CONNECTED CURRENT		88.11	AMP		
TOTAL KITCHEN/EQUIPMENTS			E	11.80	65%		7.67		TOTAL DEMAND CURRENT		78.65	AMP		
TOTAL OTHER/MISCELLANEOUS			O	0.60	100%		0.60		SYSTEM VOLTAGE		120/208 Wye			

PANEL SCHEDULES

SCALE  
N.T.S. 1

KITCHEN EQUIPMENT SCHEDULE:

ITEM NO.	DESCRIPTION	VOLTAGE	PHASE	AMPS	kW	REMARKS
5	SIX TUB ICE CREAM STORAGE FREEZER	115	1	1.2	0.14	-
5A	4 TUB ICE CREAM STORAGE FREEZER	115	1	1.4	0.16	-
7	2 DOOR REFRIGERATED SANDWICH PREP TABLE	115	1	7	0.81	-
11	UNDERCOUNTER FREEZER	115	1	3.1	0.36	-
11A	UNDERCOUNTER FREEZER	115	1	2.1	0.24	-
14	AIR COOLED UNDERCOUNTER MEDIUM CUBE ICE MACHINE	115	1	12	1.38	-
15	AIRPOT COFFEE BREWER	120	1	11.4	1.37	-
16	COFFEE GRINDER	120	1	3	0.36	-
19	DRINK COOLER	115	1	7	0.81	-
25	SOLID 2 DOOR REACH-IN REFRIGERATOR	115	1	3.8	0.44	-
32	PROGRAMMABLE BLENDER	120	1	15	1.80	-
33	DRINK MACHINE	120	1	11.5	1.38	-
43	55"TV MENU BOARD W/MOUNTING BRACKETS	-	-	-	-	T.B.D.

NOTES:  
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR THE EXACT POWER PROVISION AND REQUIREMENTS PRIOR TO COMMENCING ANY WORK. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.

KITCHEN EQUIPMENT SCHEDULE

SCALE  
N.T.S. 2





THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

SOBOL

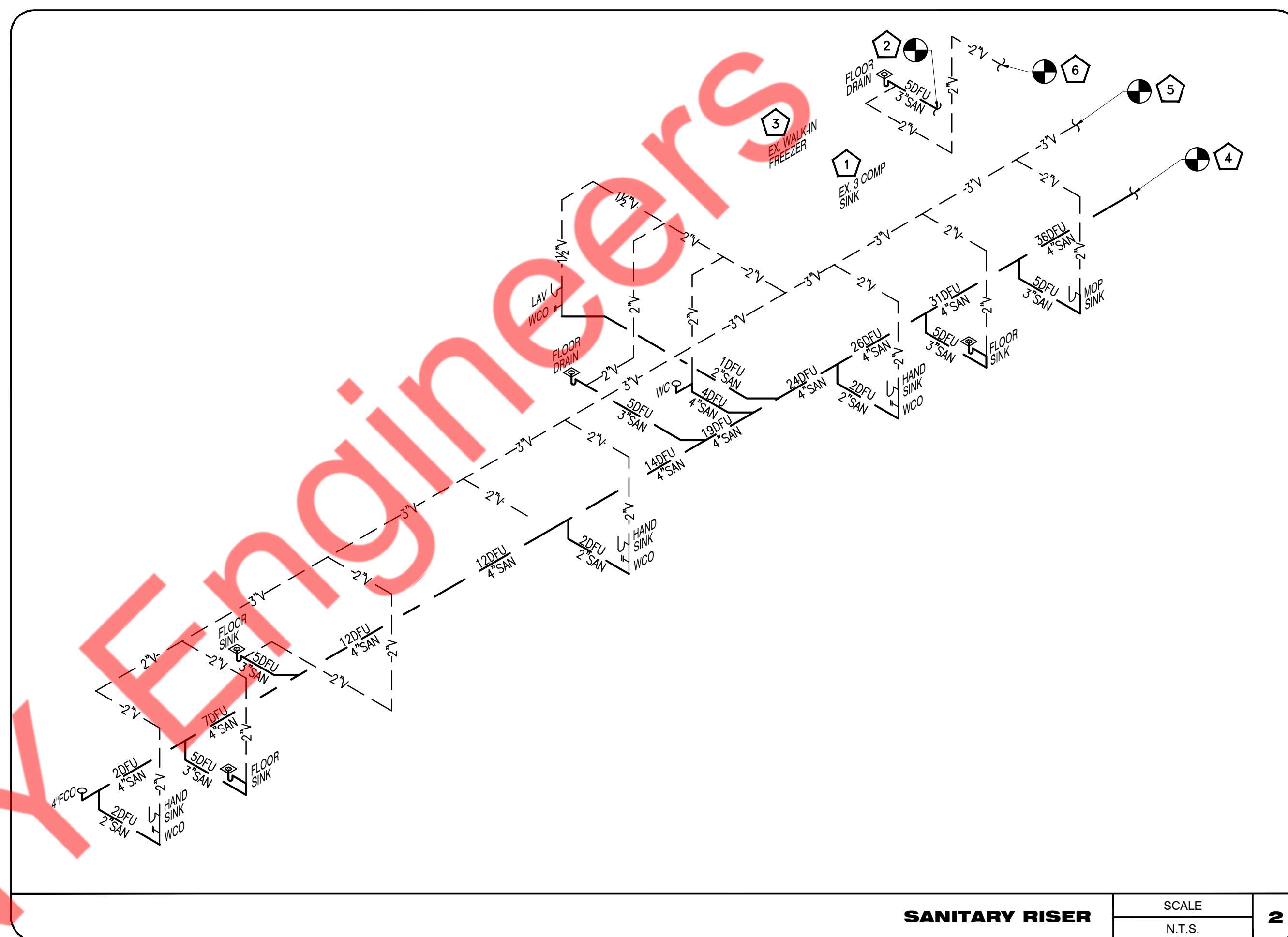
REVISIONS DATES:

PROFESSIONAL SEAL

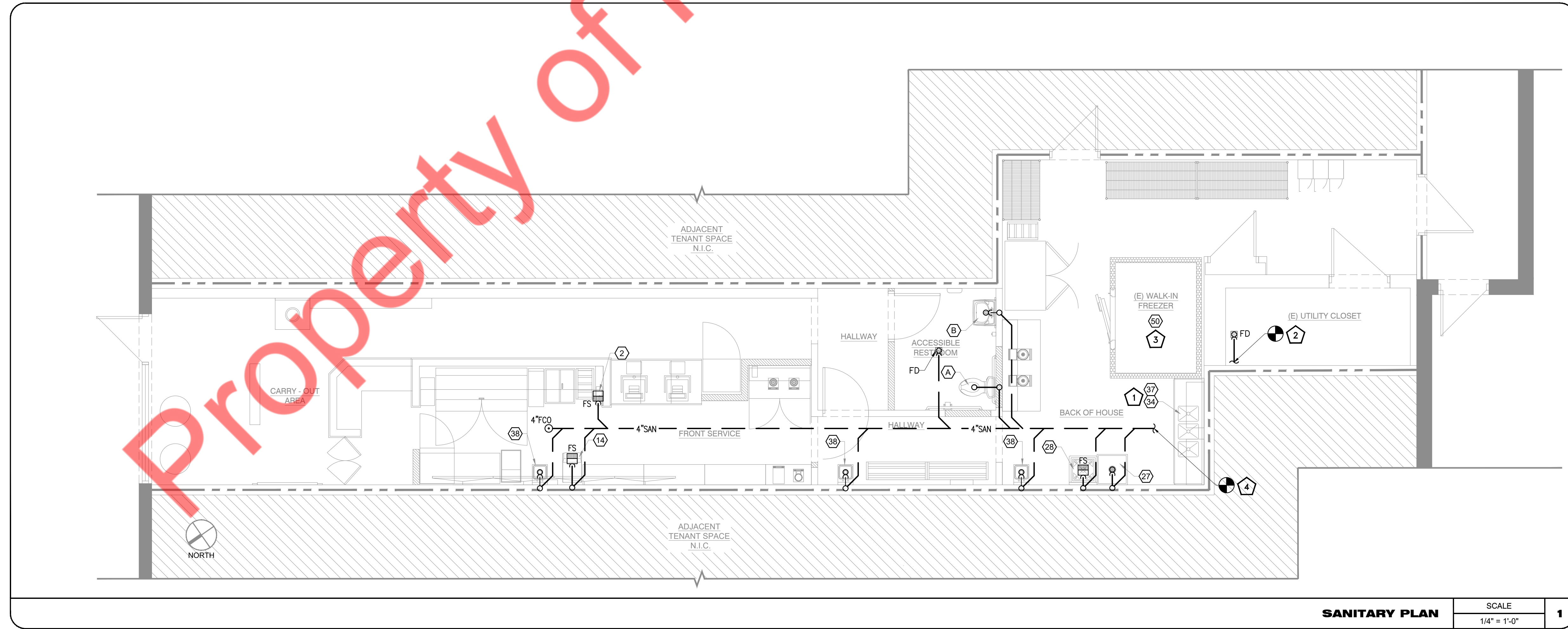
ISSUE DATE: 03.21.23  
 PROJECT #: 360E.1346E  
 DRAWN BY: NYE  
 CHECKED BY: NYE

SANITARY PLAN & RISER

P-2



- SANITARY KEY NOTE**
- EXISTING 3 COMPARTMENT SINK WITH EXISTING SANITARY INDIRECT CONNECTION AND RELATED FITTINGS, FIXTURES & ACCESSORIES TO REMAIN. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE IF REQUIRED. PROVIDE NEW WASTE DRAIN VALVE AS PER SCHEDULE IF NOT EXISTING.
  - CONTRACTOR TO PROVIDE NEW FLOOR DRAIN NEAR WATER HEATER, IF THERE WAS NO EXISTING DRAIN POINT AND CONNECT 3" SANITARY LINE FROM FLOOR DRAIN TO THE EXISTING NEAREST SANITARY LINE IN THE AREA.
  - EXISTING WALK-IN FREEZER WITH EXISTING SANITARY INDIRECT CONNECTION AND RELATED FITTINGS, FIXTURES & ACCESSORIES TO REMAIN. CONTRACTOR TO FIELD VERIFY THE CONDITION OF EXISTING PIPING AND REPLACE/PROVIDE NEW IF REQUIRED.
  - CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY WASTE LINE IN AREA WITH EXISTING HOUSE TRAP. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT OF EXISTING SANITARY WASTE LINE & HOUSE TRAP. NEW SANITARY LINE SHOULD BE CONNECTED TO EXISTING SANITARY LINE BEFORE HOUSE TRAP ONLY.
  - CONNECT NEW 3" VENT PIPING TO EXISTING ADEQUATE SIZE VENT PIPE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING VENT PIPE AND UPGRADE THE SIZE OF EXISTING VENT PIPE IF REQUIRED.
  - CONNECT NEW 2" VENT PIPING TO EXISTING ADEQUATE SIZE VENT PIPE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING VENT PIPE AND UPGRADE THE SIZE OF EXISTING VENT PIPE IF REQUIRED.
- GENERAL NOTES**
- UNLESS OTHERWISE NOTED, SLOPE OF DRAINAGE SYSTEM TO BE 1/8" PER FOOT OF RUN FOR PIPE 3" TO 6" AND 1/4" PER FOOT FOR PIPE 2-1/2" OR LESS.
  - CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
  - ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
  - ALL CLEANOUTS TO BE ACCESSIBLE.



THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

SOBOL

REVISIONS DATES:

PROFESSIONAL SEAL

ISSUE DATE: 03.21.23  
 PROJECT #: 360E.1346E  
 DRAWN BY: NYE  
 CHECKED BY: NYE

WATER PLAN & RISER

P-3

RECIRCULATION PUMP SCHEDULE	
MANUFACTURER & MODEL	GRUNDFOS UP 15-18 B5
EQUIPMENT TAG	RCP-1
STATUS	NEW
QUANTITY	1
GPM	2
HEAD (FEET)	13
WATER TEMP. (°F)	140
PUMP TYPE	INLINE
MHP	85 WATTS
V/PH/Hz	115/1/60
RPM	2280
SERVICE FACTOR	1.0

NOTE:  
 PROVIDE AQUA STAT WITH AUTOMATIC TIMER KIT FOR THE TEMPERATURE CONTROL OF HOT WATER SYSTEM. COORDINATE ELECTRICAL REQUIREMENTS FOR TIMER WITH ELECTRICAL CONTRACTOR.

WATER HEATER SCHEDULE	
MANUFACTURER	AO SMITH
MODEL	BTX-80
EQUIPMENT TAG	WH-1
STATUS	NEW
QUANTITY	1
CAPACITY	50 GALLONS
FUEL	GAS
BTU/HR	76,000
RECOVERY	95 GPH*
EFFICIENCY	94%
VENT	3"Ø
VOLTAGE	120/1/60
AMPERAGE	5
WEIGHT (EMPTY)	225 LBS.

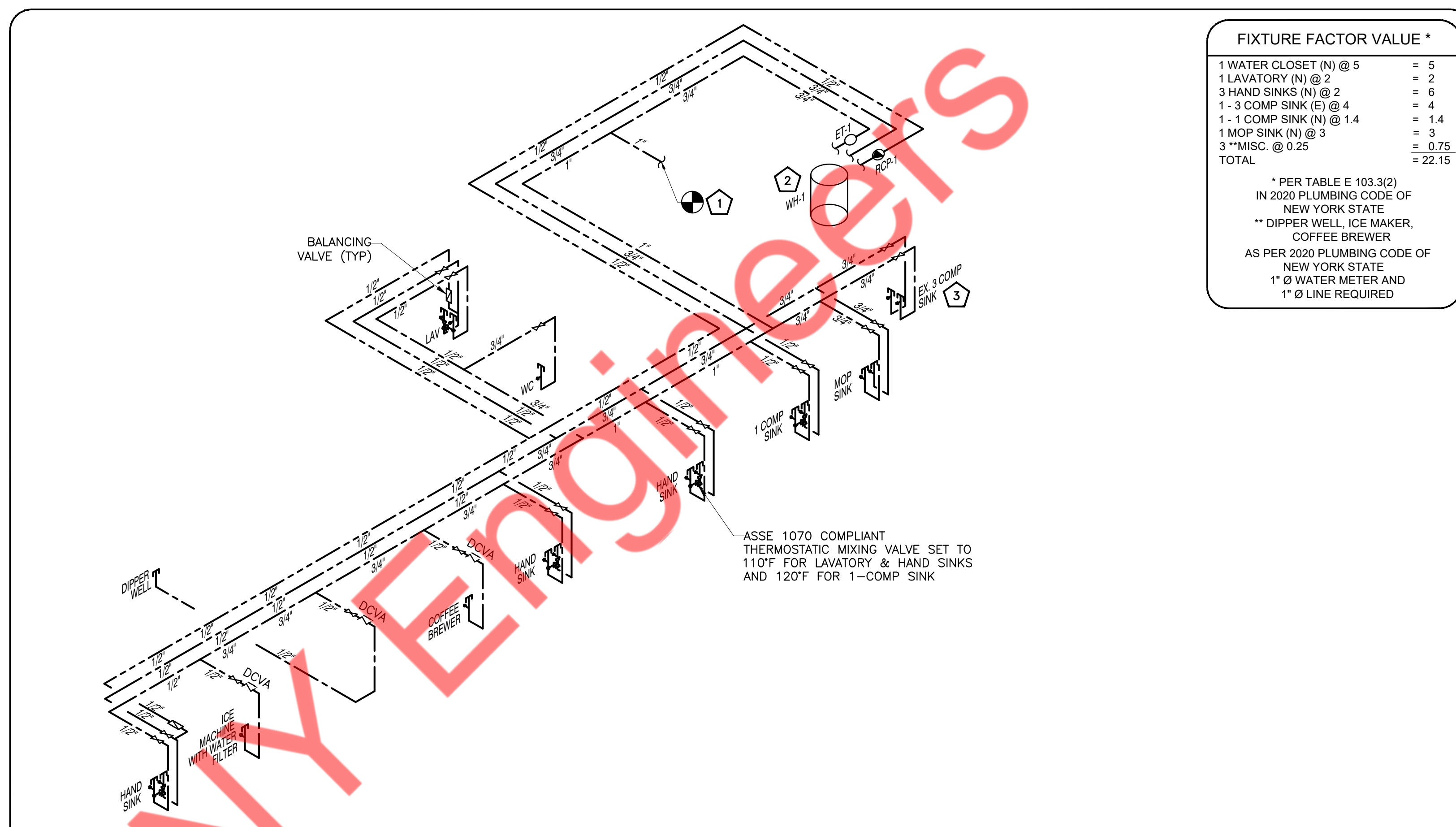
NOTES:  
 1. \* @ 90° F TEMPERATURE RISE.  
 2. INSTALL NEW EXPANSION TANK (ET-1) AMTROL MODEL THERM-X-TROL ST-SC-DD, 2.0 GAL PER LOCAL CODE REQUIREMENTS.  
 3. CONDENSATE AND T&P DRAIN CONNECTION SHOULD BE MADE PROPERLY AS PER LOCAL CODES AND MANUFACTURER RECOMMENDATIONS.

**WATER PIPING KEY NOTE**

1. CONNECT NEW 1" CW LINE TO EXISTING WATER MAIN LINE WITH EXISTING SHUT OFF VALVE, WATER METER & BACKFLOW PREVENTER. WATER METER & BACKFLOW PREVENTER IS LOCATED IN THE BASEMENT LEVEL. CONTRACTOR TO FIELD VERIFY SIZE & LOCATION OF EXISTING BACKFLOW PREVENTER, WATER METER & WATER LINE AND UPGRADE IF REQUIRED.
2. EXISTING WATER HEATER WITH EXISTING PIPING TO BE DEMOLISHED AND REPLACED WITH NEW WATER HEATER AT SAME LOCATION. CONTRACTOR TO PROVIDE NEW PIPING AND ACCESSORIES AS SHOWN. REFER WATER HEATER SCHEDULE FOR MORE DETAILS.
3. EXISTING 3 COMPARTMENT SINK TO BE PROVIDED WITH NEW PRE RINSE FAUCET AS PER ARCHITECTURE SCHEDULE. PROVIDE NEW WATER PIPING FOR NEW FAUCET AS SHOWN. CONTRACTOR TO VERIFY WITH OWNER/ARCHITECT FOR REQUIREMENT OF NEW FAUCET.

**GENERAL NOTES**

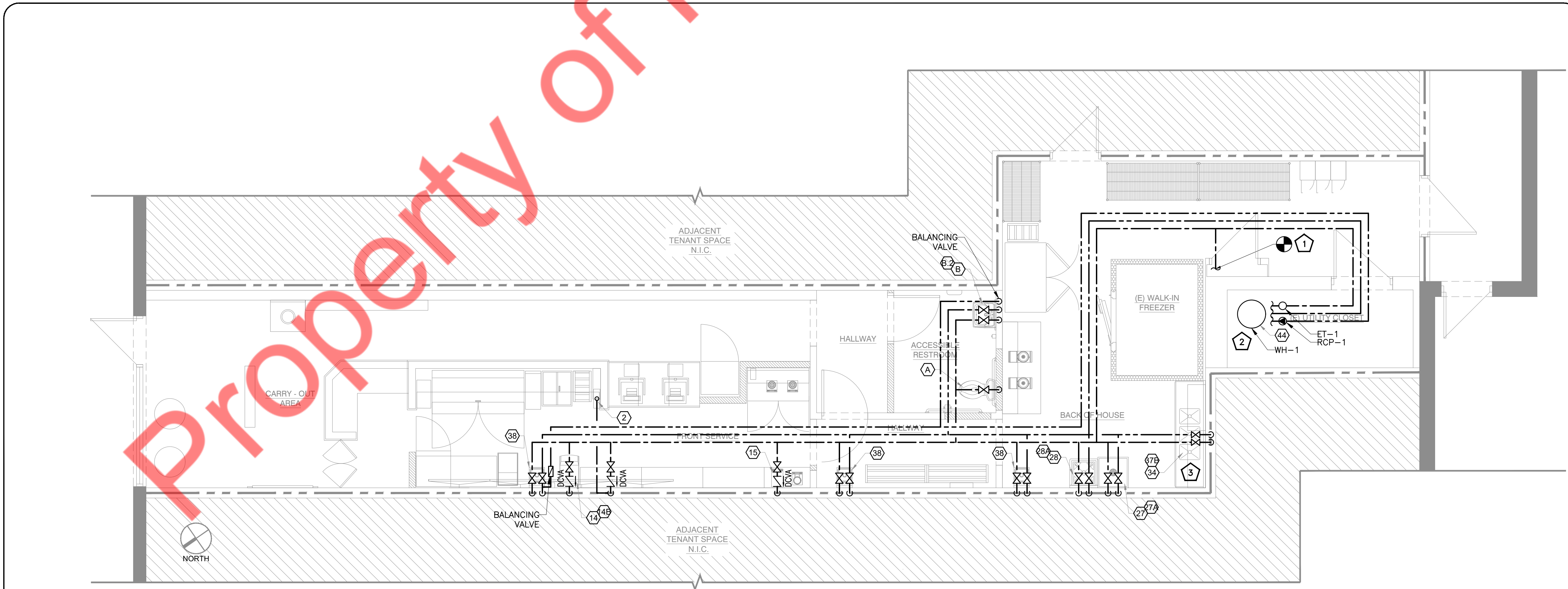
1. CW/HW/HWR PIPING TO BE PROVIDED WITH INSULATION AS PER 2020 ENERGY CONSERVATION CODE OF NEW YORK STATE (REFER SHEET P-1).
2. PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
3. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
4. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT-OFF VALVES AS REQUIRED.
5. REFER RISER DIAGRAMS FOR ALL PIPE SIZES.



FIXTURE FACTOR VALUE *	
1 WATER CLOSET (N) @ 5	= 5
1 LAVATORY (N) @ 2	= 2
3 HAND SINKS (N) @ 2	= 6
1- 3 COMP SINK (E) @ 4	= 4
1- 1 COMP SINK (N) @ 1.4	= 1.4
1 MOP SINK (N) @ 3	= 3
3 **MISC. @ 0.25	= 0.75
TOTAL	= 22.15

\* PER TABLE E 103.3(2) IN 2020 PLUMBING CODE OF NEW YORK STATE  
 \*\* DIPPER WELL, ICE MAKER, COFFEE BREWER  
 AS PER 2020 PLUMBING CODE OF NEW YORK STATE  
 1" Ø WATER METER AND 1" Ø LINE REQUIRED

**WATER RISER** SCALE N.T.S. 2



**WATER PLAN** SCALE 1/4" = 1'-0" 1

THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

SOBOL

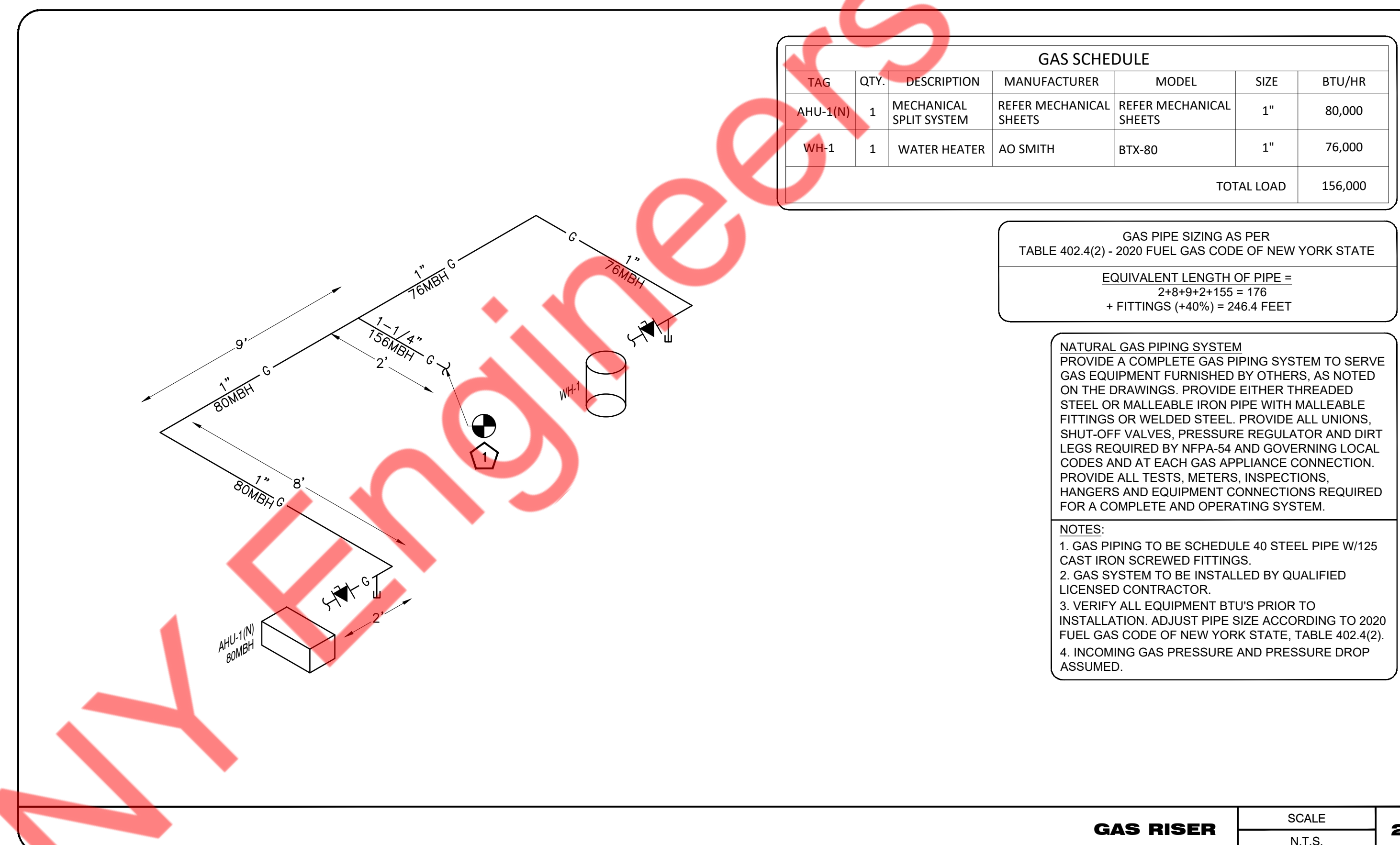
REVISIONS DATES:


PROFESSIONAL SEAL

ISSUE DATE: 03.21.23  
 PROJECT #: 360E.1346E  
 DRAWN BY: NYE  
 CHECKED BY: NYE

GAS PLAN & RISER

P-4



**GAS PIPING KEY NOTE**

1. CONNECT NEW 1-1/4" GAS PIPING TO EXISTING LINE IN AREA DEDICATED FOR OUR SPACE. CONTRACTOR TO FIELD VERIFY THE EXISTING GAS METER LOCATION & CAPACITY. ALSO, CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION & AVAILABLE PRESSURE OF EXISTING GAS LINE AND UPGRADE IF REQUIRED.

