PROJECT No. NFC–04–2024

NFC BUILDING 8 HVAC REPLACEMENT

NORTH FLORIDA COLLEGE
MADISON, FLORIDA

NBP ENGINEERS

NBP ENGINEERS, INC.
CONSULTANTS
316 CORPORATE PARKWAY MACON, GEORGIA
478–745–1691 www.nbpengineers.com

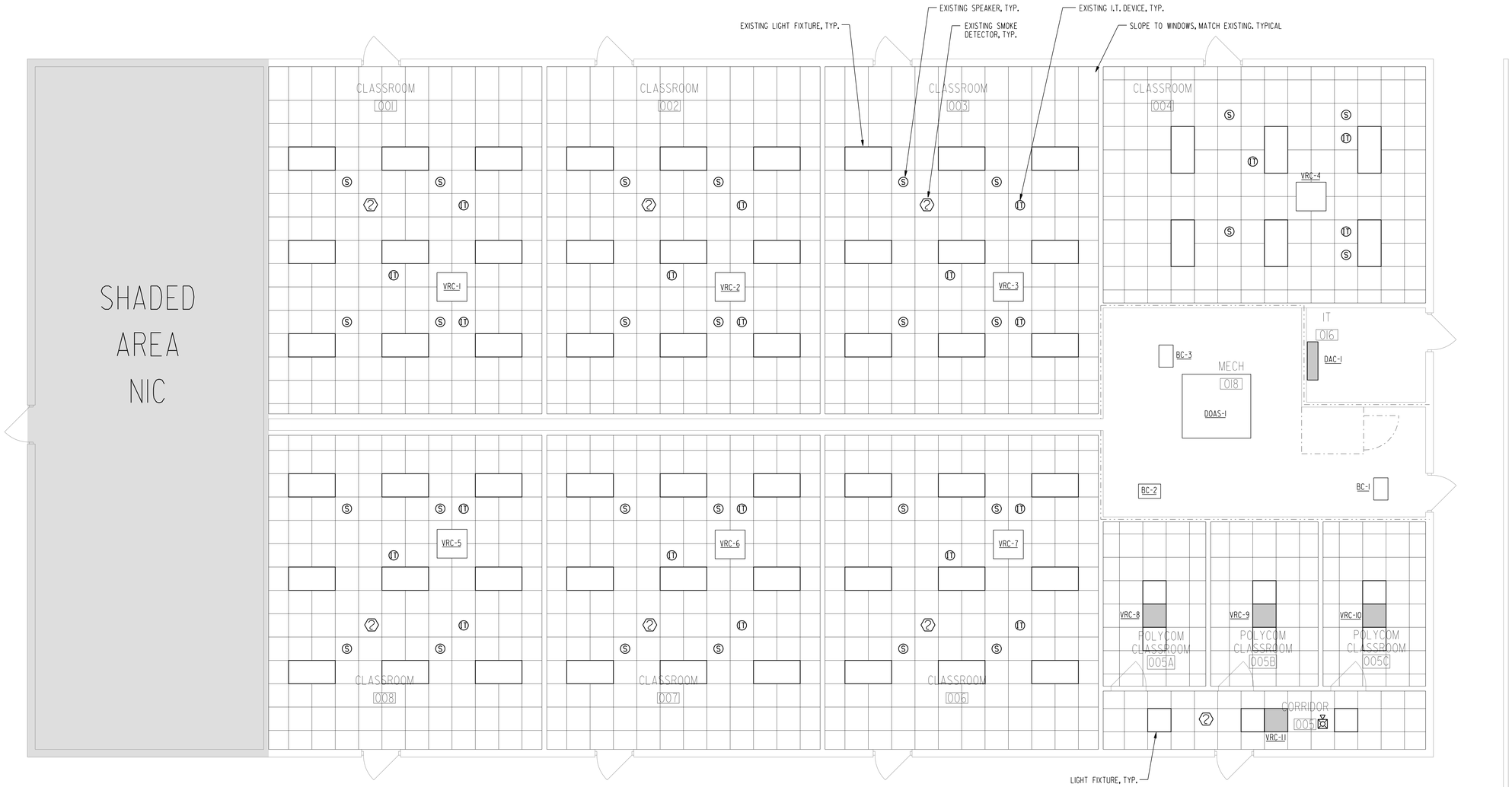
PROJECT CONSULTANTS

INDEX OF DRAWINGS

BID SET OCTOBER 25, 2024

DGN FILE
P:\24045\24045a201.dgn

DATE PLOTTED
24-OCT-2024



CONTRACTOR SHALL SALVAGE AND PROTECT EXISTING WHOLE UNDAMAGED CEILING TILES AND TURN OVER TO THE OWNER.

GENERAL NOTES: (THIS SHEET ONLY)

(A) REMOVE THE EXISTING CEILINGS IN THEIR ENTIRETY. EXISTING CEILING MOUNTED ELEMENTS SHALL REMAIN IN THE ROOMS, AND SHALL REMAIN CONNECTED TO THEIR SYSTEMS. SUPPORT THE CEILING ELEMENTS (LIGHT FIXTURES, SPEAKERS, I.T. EQUIPMENT, FIRE ALARM DEVICES) FROM THE OVERHEAD STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGED DEVICES OR LIGHT FIXTURES.

(B) THE LOCATION OF CEILING MOUNTED ELEMENTS VARY SLIGHTLY AMONG THE DIFFERENT CLASSROOMS. THE CONTRACTOR SHALL FIELD VERIFY ALL CEILING ELEMENTS BEFORE RELEASING CEILING MATERIALS, AND BEFORE BEGINNING WORK.

(C) COORDINATE WITH MECHANICAL FOR EXACT SIZE OF THE HVAC VRF CASSETTE ACTUALLY PROVIDED.

1 BUILDING 8 - REFLECTED CEILING PLAN - NEW WORK
SCALE: 1/4" = 1'-0"

4 0 2 4 8

N

LINE LEGEND	
———	EXISTING TO REMAIN
———	NEW WORK

NBP ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL
SUSAN H. DAY LICENSE No. 65148 STATE OF FLORIDA PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

SHEET TITLE:
REFLECTED CEILING PLAN - NEW WORK

DESIGNED:	SHD
DRAWN:	BCO
CHECKED:	SHD
DATE:	10.25.2024
PROJECT NUMBER:	24045
SCALE:	AS SHOWN
FILE PATH:	P:\24045\24045a201.dgn
SHEET NUMBER:	A201

BID SET

DGN FILE
P:/24045/24045m001.dgn

DATE PLOTTED
24-OCT-2024

ABBREVIATIONS

A	COMPRESSED AIR	FC	FAN COIL UNIT	NIC	NOT IN CONTRACT
AAV	AUTOMATIC AIR VENT	FD	FLOOR DRAIN	NO	NORMALLY OPEN
AD	AREA DRAIN/ACCESS DOOR	FF	FOULING FACTOR	NTS	NOT TO SCALE
AE	ADJUSTABLE AIR EXTRACTOR	FF-	FLY FAN	O2	OXYGEN
AF	AIR FOIL	FF	FINISHED FLOOR	OA	OUTSIDE AIR
-AFF	ABOVE FINISHED FLOOR	FF	FINAL FILTER	OAD	OUTSIDE AIR DAMPER
AV	ACID VENT	FFM	FIRE FLOW METER	OAL	OUTSIDE AIR LOUVER
AVD	AUTOMATIC VOLUME DAMPER	FLEX	FLEXIBLE	ODT	OUTDOOR TEMPERATURE
AW	ACID WASTE	FM	FIRE MAIN	PC	PUMP CONDENSATE
-AC	ABOVE CEILING	FMS	FLOW METER STATION	PD	PRESSURE DROP
AH-	AIR HANDLING UNIT	FOF	FUEL OIL FLOW	PRV	PRESSURE REDUCING VALVE
BBD	BOILER BLOW DOWN	FOR	FUEL OIL RETURN	PWF	PROPELLER WALL FAN
BE	BOTTOM ELEVATION	FOV	FUEL OIL VENT	R	REFRIGERANT
BOL	BOTTOM OF LINE (UNINSULATED)	FOP	FUEL OIL PUMP	RA	RETURN AIR
BOD	BOTTOM OF DUCT	FP	FIRE PUMP	RAD	RETURN AIR DAMPER
BP-	BOOSTER PUMP	FP-	FAN POWERED	RAO	RETURN AIR OPENING
BPD	BYPASS DAMPER	FPM	FEET PER MINUTE	RAS	RELIEF AIR SUPPLY
BTUH	BRITISH THERMAL UNIT PER HOUR	FPS	FEET PER SECOND	RP	RECIRCULATING PUMP
-BF	BELOW FLOOR	FRT	FLOW RATE TRANSMITTER	RHG	REFRIGERANT HOT GAS
BFP	BACK FLOW PREVENTOR	FSD	FIRE/SMOKE DAMPER	RL	REFRIGERANT LIQUID
C	CONDUIT	FT	FEET	RS	REFRIGERANT SUCTION
CC	COOLING COIL	G	LOW PRESSURE GAS	RD	ROOF DRAIN
CHR	CHILLED WATER RETURN	GA	GAUGE	RV	RELIEF VALVE
CHS	CHILLED WATER SUPPLY	GPM	GALLONS PER MINUTE	SR	SHORT RADIUS
CR	CONDENSER WATER RETURN	GT	GREASE TRAP	SAN	SANITARY SEWER
CS	CONDENSER WATER SUPPLY	GTH	GRAND TOTAL HEAT	SC	SILL COCK
CW	DOMESTIC COLD WATER	H	HEIGHT	SCD	SMOKE DAMPER
CAB	CABINET FAN	HC	HEATING COIL	SCIM	STANDARD CUBIC INCHES
CF	CENTRIFICAL FAN	HB	HOSE BIBB		PER MINUTE
CFM	CUBIC FEET PER MINUTE	HBT	HORIZONTAL BLOW THROUGH	SD	STORM DRAIN
CFP	CHEMICAL FEED PUMP	HD	HUB DRAIN	SD	SMOKE DETECTOR
CFT	CHEMICAL FEED TANK	HDT	HORIZONTAL DRAW THROUGH	SDO	STORM DRAIN OVERFLOW
CH	CABINET HEATER	HP	HORSEPOWER/HIGH PRESSURE	SF	SQUARE FEET
CHR	CHILLER	HPA	HIGH PRESSURE AIR	SG	SPECIALTY GAS
CL	CENTER LINE	HPG	HIGH PRESSURE GAS	SHC	SENSIBLE HEAT CAPACITY
CO	CLEANOUT	HPS	HIGH PRESSURE STEAM	SP	SPRINKLER PIPE
CP	CHILLER PUMP	HPWS	HEAT PUMP WATER SUPPLY	SP	STAND PIPE
CPHB	CHROME PLATED HOSE BIBB	HPWR	HEAT PUMP WATER RETURN	SP	SUMP PUMP
CT	COOLING TOWER	HSC	HORIZONTAL SPLIT CASE	SP	STATIC PRESSURE
CU	COPPER	HWG	HOT WATER GENERATOR	SPS	STATIC PRESSURE SENSOR
CV-	CONVECTOR	HWR	HEATING WATER RETURN	SST	SATURATED SUCTION
CV	VALVE COEFFICIENT	HWS	HEATING WATER SUPPLY		TEMPERATURE
D	DRAIN	ILC	IN-LINE CENTRIFICAL	STA	STATION
DDC	DIRECT DIGITAL CONTROL	IT	INTERVAL TIMER	STR	STRAINER
DHW	DOMESTIC HOT WATER	IN	INCHES	T	TEMPERED WATER
DHR	DOMESTIC HOT WATER	INV	INVERT	TR	TEMPERED WATER RETURN
	RECIRCULATING	JB	JUNCTION BOX	TB	THRUST BLOCK
DN	DOWN	L	LENGTH	TE	TOP ELEVATION
DP	DIFFERENTIAL PRESSURE	LR	LONG RADIUS		(UNINSULATED)
DPT	DIFFERENTIAL PRESSURE	LAT	LEAVING AIR TEMPERATURE	TP	CONDENSER WATER
	TRANSMITTER	LCP	LOCAL CONTROL PANEL		(TOWER) PUMP
DS	DOWN SPOUT	LDB	LEAVING DRY BULB	TOS	TOP OF STRUCTURE
DSO	DOWN SPOUT OVER FLOW	LN	LIQUID NITROGEN	UC	UNDERCUT (DOOR - 3/4")
DX	DIRECT EXCHANGE	LWB	LEAVING WET BULB	UG	UNDERGROUND
EA	EXHAUST AIR	LWT	LEAVING WATER TEMPERATURE	V	VENT
EAD	EXHAUST AIR DAMPER	LPS	LOW PRESSURE STEAM	V-	VALVE
EAL	EXHAUST AIR LOUVER	MA	MIXED AIR	VAC	VACUUM PIPING
EAT	ENTERING AIR TEMPERATURE	MAV	MANUAL AIR VENT	VAV	VARIABLE AIR VOLUME
ECH	ELECTRIC CABINET HEATER	MVD	MANUAL VOLUME DAMPER	VB	VACUUM BREAKER
EDB	ENTERING DRY BULB	MAX	MAXIMUM	VDT	VERTICAL DRAW THROUGH
EWB	ENTERING WET BULB	MBH	ONE THOUSAND BTUH PER HOUR	VFD	VARIABLE FREQUENCY DRIVE
ESP	END SUCTION PUMP	MCC	MOTOR CONTROL CENTER	VT	VERTICAL TURBINE
ESP	EXTERNAL STATIC PRESSURE	MIN	MINIMUM	VTR	VENT THROUGH ROOF
ELL	ELBOW	MH	MAN HOLE	W	WIDTH
ET	EXPANSION TANK	MP	SUMP (MUD) PUMP	W	WASTE
EQT	EQUIPMENT TRAP SET	MPS	MEDIUM PRESSURE STEAM	WB	WET BULB
EUH	ELECTRIC UNIT HEATER	MPR	MEDIUM PRESSURE RETURN	WG	WATER GAUGE
EWT	ENTERING WATER TEMPERATURE	MTS	MEDIUM TEMPERATURE SUPPLY	WH	WATER HEATER
EX	EXPANSION TANK LINE	MTR	MEDIUM TEMPERATURE RETURN	WL	WATER LINE
EXT	EXTERNAL	MUA	MAKE-UP AIR	WM	WATER METER
FOB	FLAT ON BOTTOM	MUW	MAKE-UP WATER	°C	DEGREES CENTIGRADE
FOT	FLAT ON TOP	MZ	MULTIZONE	°F	DEGREES FAHRENHEIT
F&BP	FACE & BYPASS	NC	NORMALLY CLOSED		

SINGLE LINE DUCT LEGEND

	DUCT (SUPPLY, RETURN & EXHAUST)
	DUCT WITH DUCT LINER
	SUPPLY DUCT UP
	SUPPLY DUCT DOWN
	RETURN OR EXHAUST DUCT UP
	RETURN OR EXHAUST DUCT DOWN
R	DUCT RISE
DN	DUCT DOWN
	VOLUME DAMPER (MANUAL UNLESS INDICATED A.V.D.)
	TRANSITION
OR	DUCT TAKE-OFF (SEE SPEC. PERTAINING TO DEFLECTROLS)
	TRANSITION (FLAT ON TOP)
FOB	TRANSITION (FLAT ON BOTTOM)
T OR B	TRANSITION (TOP OR BOTTOM ONLY)
OR	SUPPLY CEILING DIFFUSER
	RETURN OR EXHAUST CEILING GRILLE
	SIDEWALL SUPPLY
	SIDEWALL RETURN
	FLEXIBLE CONNECTION (DUCT)
RAS	RELIEF AIR SUPPLY TO TOILET
12/10 SPLIT	DUCT SPLIT WITH SPLITTER DAMPER
	FLEX. DUCT WITH SCREW ON COLLAR, TAKE-OFF
	SQUARE ELBOW WITH TURNING VANES
	RADIUS ELBOW (SEE SPECS. PERTAINING TO TURNING VANES)
AVD	AUTOMATIC VOLUME DAMPER
SCD	SMOKE CONTROL DAMPER
FD/SCD	COMBINATION FIRE/SMOKE CONTROL DAMPER
FD	FIRE DAMPER
	FIRE DAMPER (FD)

HVAC LEGEND

xxØ OR xx/xx⊖	ROUND OR FLAT OVAL DUCT	xxØK OR xx/xx⊖K	DOUBLE WALL INSULATED ROUND OR FLAT OVAL DUCT (K)
	DUCT/PLENUM w/LINER		FLEX. DUCT CONN.
	DAMPER - BLADE VIEW		DAMPER - END VIEW
	FIRE DAMPER		ELBOW WITHOUT TURNING VANES
	ELBOW WITH TURNING VANES		DUCT SPLIT
	ADJUSTABLE AIR EXTRACTOR		INSULATED FLEX. DUCT
	INSULATED FLEX. DUCT		DOOR GRILLE
24/12	DUCT SIZE FIRST DIMENSION IS SIDE SHOWN		C.F.M.
T	THERMOSTAT	1/M-4	REFERS TO DETAIL OR PLAN ON SHEET M-1.
T G	THERMOSTAT w/GROUND		GATE VALVE THREADED & FLANGED
I.T.	INTERVAL TIMER		BUTTERFLY VALVE THREADED & FLANGED
	BALANCE VALVE THREADED & FLANGED	M	2-WAY MOTORIZED VALVE
	GLOBE VALVE THREADED & FLANGED		RELIEF VALVE
	CHECK VALVE THREADED & FLANGED		CONTROL VALVE PLAN VIEW
M	3-WAY MIXING VALVE		FLANGED UNION
	SOLENOID VALVE		BRANCH OUT BOTTOM
	GATE VALVE WITH 3/4" HOSE END		TEE OUT BOTTOM
	UNION		ELBOW DOWN
	BRANCH OUT TOP		THERMOMETER
	TEE OUT TOP		ECCENTRIC REDUCER
	ELBOW UP		PIPE SLEEVE
	GAUGE TAPPING		MANUAL AIR VENT
	GAUGE WITH TAPPING		BLIND FLANGE
	CONCENTRIC REDUCER		PIPE SOCKET WELL
	PIPE ANCHOR		COMBINATION STARTER
	PIPE CAP		PIPE TEST PLUG
AAV	AUTOMATIC AIR VENT		ANNULAR ELEMENT FLOW STATION
	STRAINER	CHS	CHILLED WATER FLOW
	FLEX. PIPE CONN.	CHR	CHILLED WATER RETURN
	BACKFLOW PREVENTER		HOT WATER DOMESTIC
	FLOW INDICATOR BALANCER	CS	CONDENSER WATER FLOW
HWS	HEATING WATER FLOW	CR	CONDENSER WATER RETURN
HWR	HEATING WATER RETURN		STARTER
	COLD WATER DOMESTIC	SPS	STATIC PRESSURE SENSOR
G	NATURAL GAS	SD	SMOKE DETECTOR
D	DRAIN		POINT OF CONNECTION

DESIGN CONDITIONS

	SUMMER	WINTER
OUTSIDE	95°F DB / 78°F WB	20°F DB
INSIDE	75°F DB / 55% RH	72°F DB

SPLIT SYSTEM HEAT PUMP SCHEDULE

MARK		TOTAL CFM	MAX. MOTOR HP SUPPLY	APPROX. TOTAL SP IN. H20 SUPPLY	EXT. SP IN. H20 SUPPLY	COOLING COIL								HOT GAS REHEAT	ELECTRIC HEATING CAPACITY (Kw)	UNIT LAT DB (°F)	LAYOUT BASIS	REMARKS
						MAX COIL FACE VEL. FPM	TOTAL SENSIBLE MBH	TOTAL COIL MBH	ENTERING AIR		LEAVING AIR		MIN. ROWS	MIN. COIL MBH			UNITED COOL AIR	
INDOOR	OUTDOOR								DB (°F)	WB (°F)	DB (°F)	WB (°F)						
DOAS-1	ACC-1	1550	3/4		0.75	274	70	126	96.0	78.0	55.4	55.3	6	33.5	30	68	OSAH10/PBU15	

VARIABLE REFRIGERANT FLOW OUTDOOR UNIT SCHEDULE

MARK	MINIMUM TOTAL COOLING (MBH)	MINIMUM TOTAL HEATING (MBH)	VOLTAGE / PHASE	LAYOUTS BASIS CARRIER MODEL #	REMARKS
VRHR-1	315	284	208/1	MMY-UP336IFT9P-UL	

DUCTLESS SPLIT SYSTEM SCHEDULE

INDOOR UNIT MARK	OUTDOOR UNIT MARK	MIN COOLING MBH	MIN EER	CARRIER MODEL #	
				INDOOR	OUTDOOR
DAC-1	DCU-1	24	13	40MHHC24	38MHRCC24

VARIABLE REFRIGERANT FLOW INDOOR UNIT SCHEDULE

MARK	TYPE	ASSOCIATED OUTDOOR UNIT	MINIMUM SENSIBLE COOLING (MBH)	MINIMUM TOTAL COOLING (MBH)	MINIMUM TOTAL HEATING (MBH)	VOLTAGE/ PHASE	LAYOUTS BASIS CARRIER MODEL #	REMARKS
VRC-1	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-2	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-3	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-4	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-5	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-6	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-7	CEILING CASETTE	VRHR-1	40.3	29.1	36.6	208/1	MMU-UP0481HP-UL	
VRC-8	CEILING CASETTE	VRHR-1	8.2	7.8	7.1	208/1	MMU-UP091MHP-UL	
VRC-9	CEILING CASETTE	VRHR-1	8.2	7.8	7.1	208/1	MMU-UP091MHP-UL	
VRC-10	CEILING CASETTE	VRHR-1	8.2	7.8	7.1	208/1	MMU-UP091MHP-UL	
VRC-11	CEILING CASETTE	VRHR-1	8.2	7.8	7.1	208/1	MMU-UP091MHP-UL	

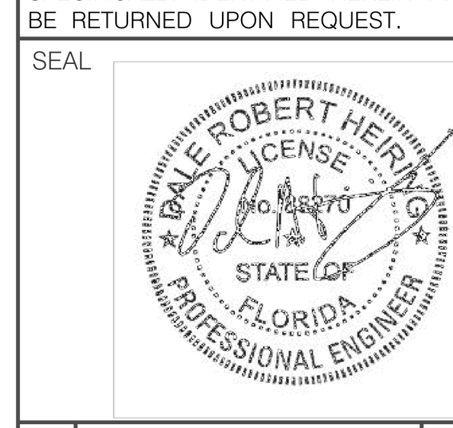
GRILLE SCHEDULE

MARK	TYPE	TITUS	FACE	NECK	FINISH	NECK VOLUME DAMPER	(1) RUNOUT	REMARKS
A	NBW	1700L	8"x4"	8"x4"	OFFWHITE	NO	8/4	
B	NBW	TMS	14"x8"	14"x8"	OFFWHITE	NO	14/8	

NOTES:
(1) RUNOUT SIZE UNLESS OTHERWISE NOTED.

NBP ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL



No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

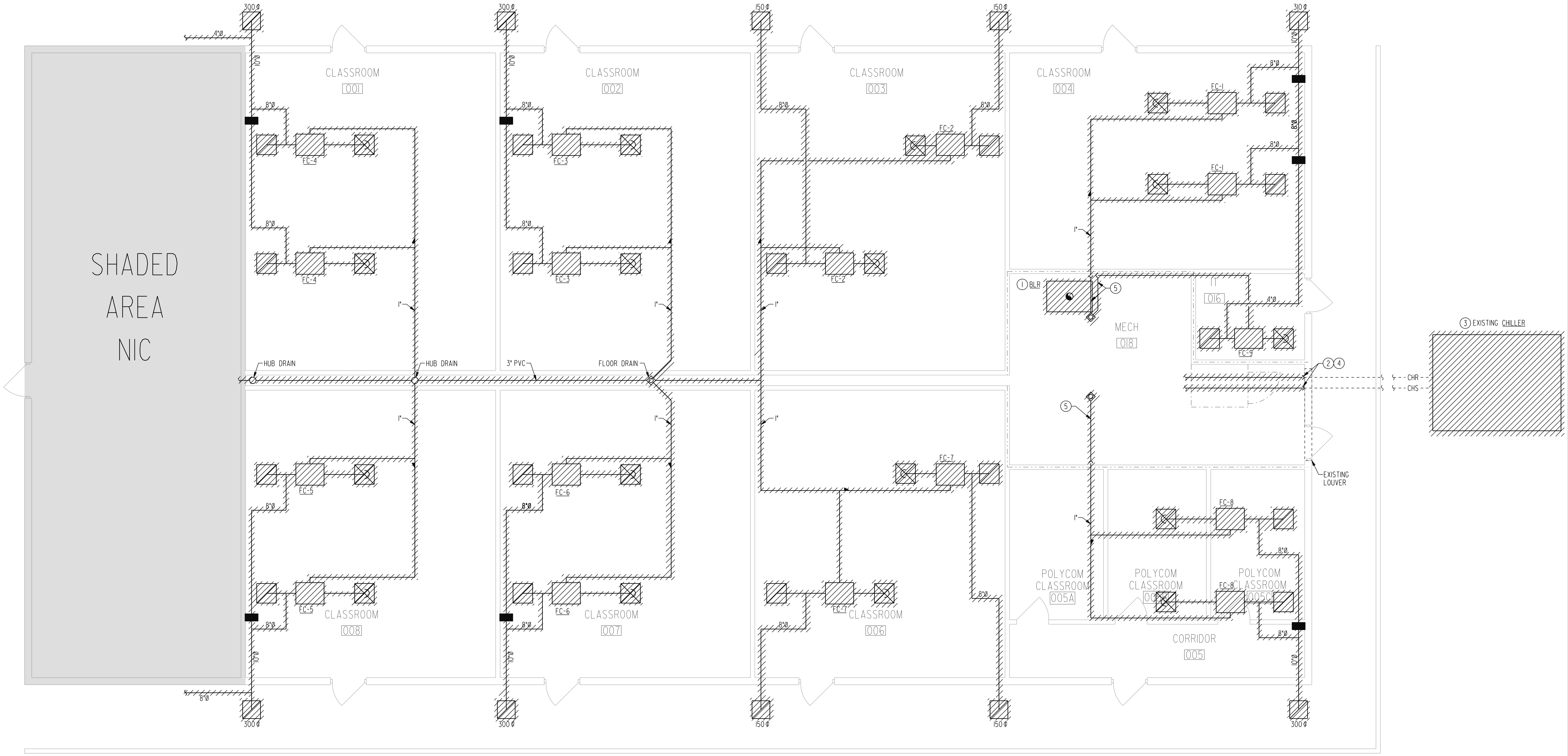
SHEET TITLE:
ABBREVIATIONS, LEGENDS & SCHEDULES - HVAC

DESIGNED: WSH
DRAWN: LTF
CHECKED: DRH
DATE: 10.25.2024
PROJECT NUMBER: 24045
SCALE: AS SHOWN
FILE PATH: P:\24045\24045m001.dgn
SHEET NUMBER:
M001

BID SET

DGN FILE
P:/24045/24045m101.dgn

DATE PLOTTED
24-OCT-2024



BUILDING 8 - FLOOR PLAN - DEMOLITION - HVAC

SCALE: $\frac{1}{4}$" = 1'-0"

N

NOTES: (THIS SHEET ONLY)

1. REMOVE EXISTING BOILER AND ASSOCIATED HW PUMP, EXPANSION TANK, AND OTHER APPURTENANCES. TURN BOILER OVER TO OWNER.
2. REMOVE EXISTING CHR/S PIPING DOWN TO FLOOR. CAP PIPING AT FLOOR. ABANDON UNDERGROUND (UG) PIPING IN PLACE.
3. REMOVE EXISTING AIR COOLED CHILLER SERVING BUILDING ALONG WITH CHILLED WATER PIPING (CHW) AT CHILLER. CAP PIPING AT GRADE. TURN BOILER OVER TO OWNER.
4. REMOVE CHILLED WATER PUMP.
5. REMOVE EXISTING CHW/HW PIPING.

LINE LEGEND	
- - - - - - -	EXISTING TO REMAIN
//////////	DEMOLITION

NBP ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

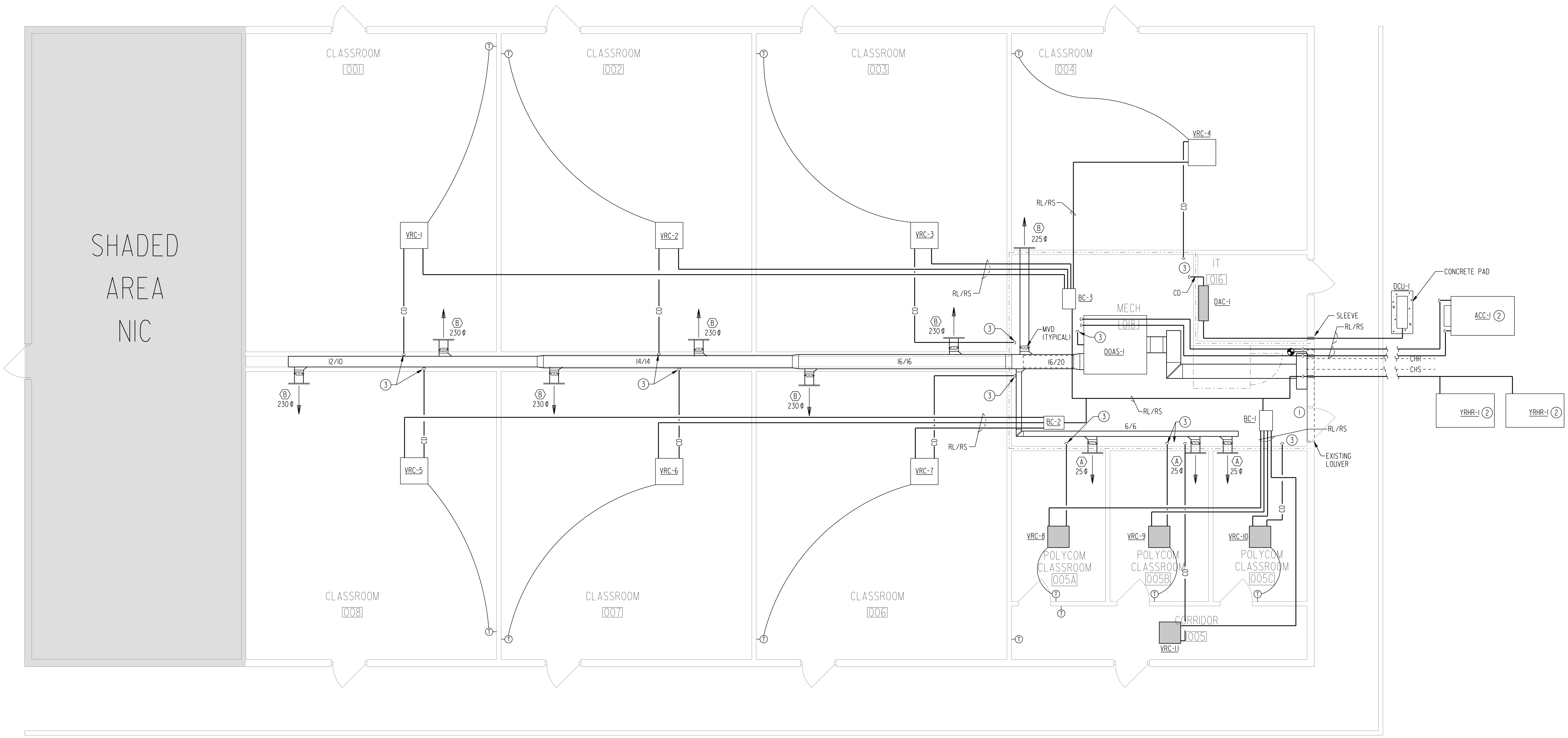
SHEET TITLE:
BUILDING 8 - FLOOR PLAN - DEMOLITION - HVAC

DESIGNED:	WSH
DRAWN:	LTF
CHECKED:	DRH
DATE:	10.25.2024
PROJECT NUMBER:	24045
SCALE:	AS SHOWN
FILE PATH:	P:\24045\24045m101.dgn
SHEET NUMBER:	M101

BID SET

DGN FILE
P:/24045/24045m201.dgn

DATE PLOTTED
24-OCT-2024



1 BUILDING 8 - FLOOR PLAN - NEW WORK - HVAC

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

4 0 2 4 8

N

NOTES: (THIS SHEET ONLY)

1. PROVIDE INSULATED METAL BLANK OFF PANEL ON PORTION OF LOUVER NOT USED.
2. INSTALL ON EXISTING CONCRETE BASE.
3. ROUTE CONDENSATE DRAIN PIPING TO NEAREST FLOOR DRAIN.

LINE LEGEND

(symbol)	POINT OF CONNECTION
- - - - -	EXISTING TO REMAIN
———	NEW WORK

NBP
ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL

DALE ROBERT HEIRING
LICENSE
No. 58270
STATE OF FLORIDA
PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT TITLE:

PROJECT No. NFC-04-2024
NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

SHEET TITLE:
BUILDING 8 - FLOOR PLAN - NEW WORK - HVAC

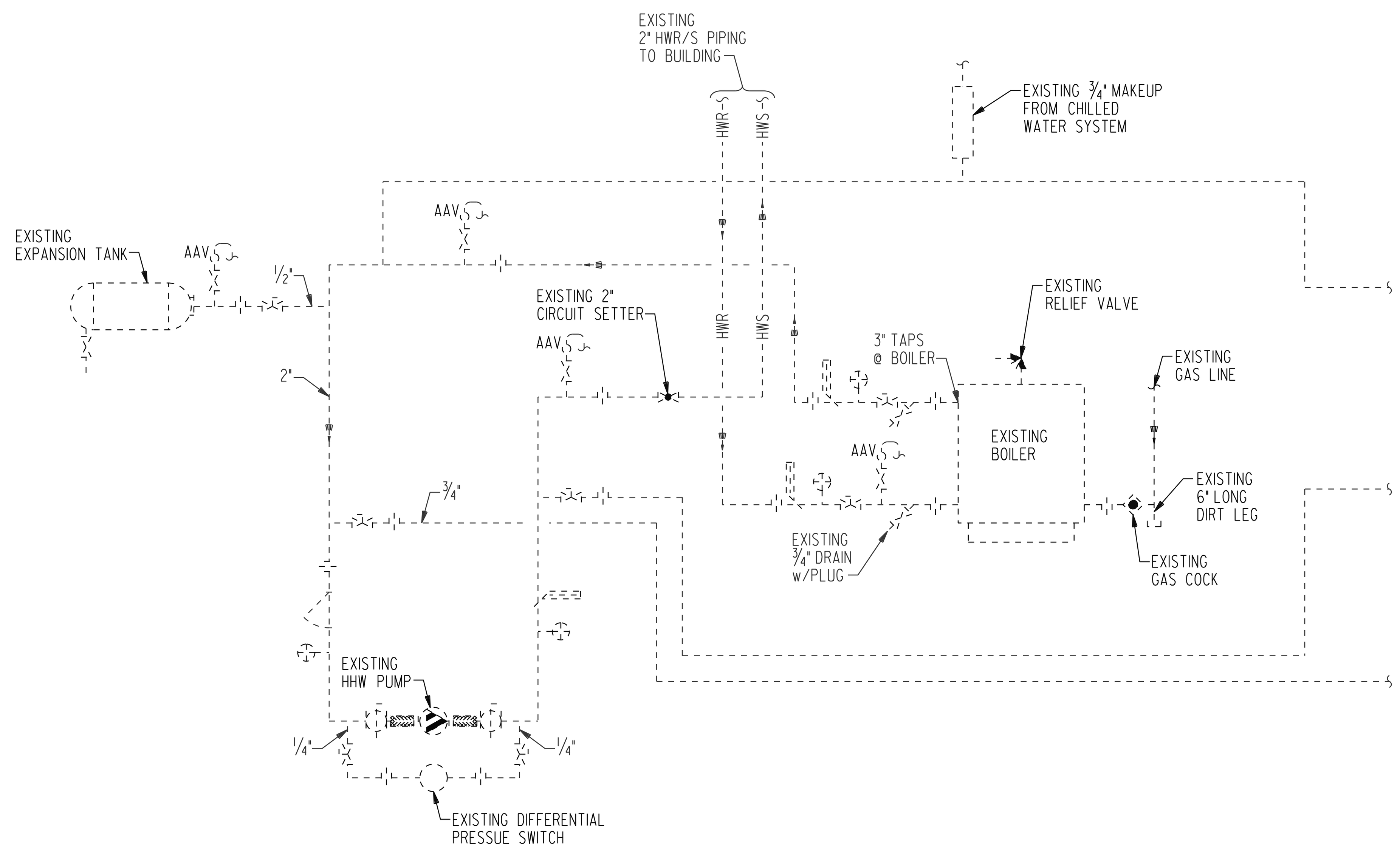
DESIGNED: WSH
DRAWN: LTF
CHECKED: DRH
DATE: 10.25.2024
PROJECT NUMBER: 24045
SCALE: AS SHOWN
FILE PATH: P:\24045\24045m201.dgn
SHEET NUMBER:

M201

BID SET

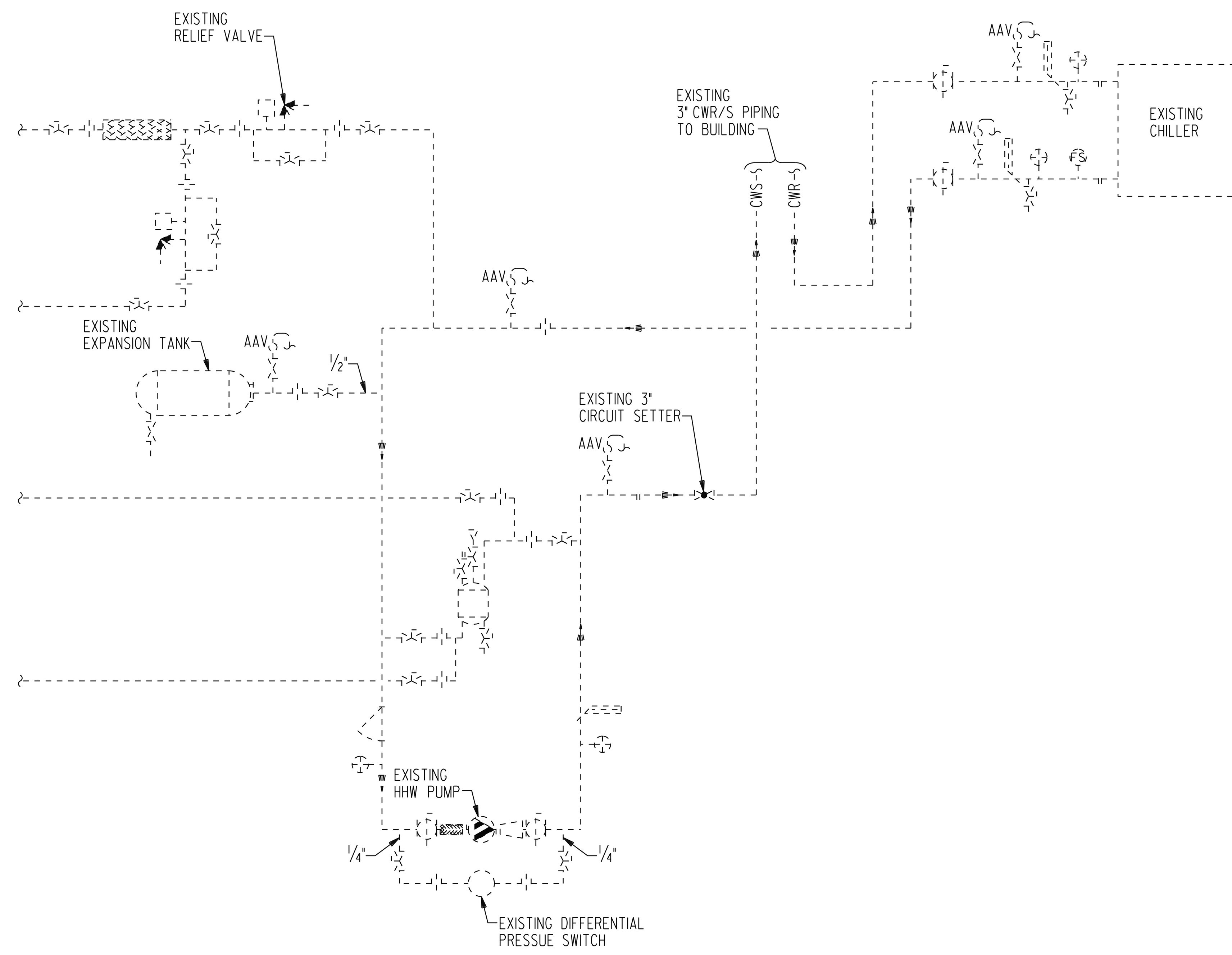
DGN FILE
P:/24045/24045m401.dgn

DATE PLOTTED
24-OCT-2024



1 BUILDING 8 - EXISTING HEATING WATER FLOW DIAGRAM - HVAC

NOT TO SCALE



2 BUILDING 8 - EXISTING CHILLED WATER FLOW DIAGRAM - HVAC

NOT TO SCALE

LINE LEGEND	
	POINT OF CONNECTION
	EXISTING TO REMAIN
	DEMOLITION
	NEW WORK

NBP ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL

STATE OF FLORIDA
PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT TITLE:

PROJECT No. NFC-04-2024
NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

SHEET TITLE:
BUILDING 8 - EXISTING HEATING & CHILLED WATER FLOW DIAGRAMS - HVAC

DESIGNED:
WSH

DRAWN:
LTF

CHECKED:
DRH

DATE:
10.25.2024

PROJECT NUMBER:
24045

SCALE:
AS SHOWN

FILE PATH:
P:\24045\24045m401.dgn

SHEET NUMBER:
M401

BID SET

DGN FILE
Ps/24045/24045e00i.dgn

DATE PLOTTED
24-OCT-2024

MECHANICAL EQUIPMENT WIRING SCHEDULE

MARK	LOCATION	HP/KW	MOCP	MCA	VOLTAGE/PHASE	MEANS OF DISCONNECT	CIRCUIT	REMARKS
DUCTLESS SPLIT SYSTEMS								
DCU-1/DAC-1	MECHANICAL COURTYARD/DATA RM		30		208/1	FUSED DISCONNECT	LVRF-34	PROVIDE 30/2/3R DISCONNECT AT OUTDOOR UNIT. FUSE SIZE PER MFR. INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT. REFER TO MFR'S INSTRUCTIONS.
VRF SYSTEM EQUIPMENT INFORMATION IS BASED ON VRF SYSTEM BASIS OF DESIGN DESCRIBED IN HVAC DOCUMENTS. OTHER MANUFACTURERS MAY VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE REQUIREMENTS OF OTHER MANUFACTURERS.								
ODU SYSTEM-1	MECHANICAL YARD		80/80	57.4/57.4	208/3	FUSED DISCONNECT	LVRF-2 LVRF-8	THE VFR OUTDOOR UNIT FOR THE BASIS OF DESIGN CONSISTS OF TWO MODULES. EACH MODULE REQUIRES ITS OWN SEPARATE FEEDER. PROVIDE A 100A/3P/3R FUSED DISCONNECT AT EACH MODULE, 2 TOTAL.
BC-1	ACCESSIBLE LOCATION		15	0.75	208/1	MOTOR RATED SWITCH	LVRF-22	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
BC-2	ACCESSIBLE LOCATION		15	0.75	208/1	MOTOR RATED SWITCH	LVRF-26	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
BC-3	ACCESSIBLE LOCATION		15	0.75	208/1	MOTOR RATED SWITCH	LVRF-30	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-1	CLASSROOM 001		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-1	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-2	CLASSROOM 002		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-5	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-3	CLASSROOM 003		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-9	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-4	CLASSROOM 004		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-13	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-5	CLASSROOM 008		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-17	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-6	CLASSROOM 007		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-21	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-7	CLASSROOM 006		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-25	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-8	CLASSROOM 005A		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-29	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-9	CLASSROOM 005B		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-33	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-10	CLASSROOM 005C		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-14	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
VRC-11	CORRIDOR 005		15	1.44	208/1	MOTOR RATED SWITCH	LVRF-18	PROVIDE 20A/2P MOTOR RATED SWITCH FOR LOCAL DISCONNECT AT UNIT.
DEDICATED OUTDOOR AIR SYSTEM								
DOAS-1 OUTDOOR UNIT	MECHANICAL YARD		3.6	15	480/3	FUSED DISCONNECT SWITCH	HCHR-7	PROVIDE 30/3/3R FUSED DISCONNECT AT THE OUTDOOR UNIT. PROVIDE FUSE SIZE IN ACCORDANCE WITH THE DOAS MFR'S DATA. NOTE THE FEEDER FOR THE DOAS IS 30A/3P. THIS IS TO ALLOW FOR VARIANCE AMONG MANUFACTURERS. THE MOCP AND MCA VALUES LISTED IN THIS TABLE ARE FOR THE HVAC BASIS OF DESIGN.
DOAS-1 INDOOR UNIT	MECHANICAL ROOM		50	49	480/3	FUSED DISCONNECT SWITCH	HCHR-14	PROVIDE 100A/3P FUSED DISCONNECT IN THE MECHANICAL ROOM FOR THE DOAS. PROVIDE FUSE SIZE IN ACCORDANCE WITH THE DOAS MFR'S DATA. NOTE THE FEEDER FOR THE DOAS IS 100A/3P. THIS IS TO ALLOW FOR VARIANCE AMONG MANUFACTURERS. THE MOCP AND MCA VALUES LISTED IN THIS TABLE ARE FOR THE HVAC BASIS OF DESIGN.

EXISTING HCHR

480 / 277 3 4 PH. WIRE — FED BY SERVICE ENTRANCE DISCONNECT SWITCH — 400 FLOOR — AMPS MOUNTED 250 SURFACE

CKT	TRIP	POLE	WIRE	CD.	SERVES	VOLT-AMPS	POLE	PHASE LOAD V.A. A	B	C	POLE	VOLT-AMPS	SERVES	CD.	WIRE	TRIP	POLE	CKT
1	30	3			SPARE		1	0			2		SEE NOTE 2.			30	3	2
3							3		0		4							4
5							5			0	6							6
7	30	3	5#10	3/4"	SEE NOTE 1.	1000	7	1000			8		SEE NOTE 2.			30	3	8
9						1000	9		1000		10							10
11						1000	11			1000	12							12
13					SPACE		13	13573			14	13573	SEE NOTE 3.		SEE	100	3	14
15					SPACE		15		13573		16	13573			RISER			16
17					SPACE		17			13573	18	13573						18
19					SPACE		19	17576			20	17576	SEE NOTE 4.		SEE	100	3	20
21					SPACE		21		19926		22	19926			RISER			22
23					SPACE		23			19926	24	19926						24
25					SPACE		25	0			26		SPACE					26
27					SPACE		27		0		28		SPACE					28
29					SPACE		29			0	30		SPACE					30
							31	0			32							
							33		0		34							
							35			0	36							
							37	0			38							
							39		0		40							
							41			0	42							

Minimum KAIC: FIELD VERIFY

PANEL SECTION	CONN	V	A
PANEL SECTION	CONN	AMPS	
MULTISECTION	CONN	V	A
MULTISECTION	CONN	AMPS	
32149	34499	34499	
116	124	124	
32149	34499	34499	
116	124	124	

LOCATION: MECHANICAL ROOM

NOTES
1. CURRENTLY SERVES CHW PUMP. REUSE TO SERVE NEW DOAS OUTDOOR UNIT.
2. LOAD IS NOT LABELED. FIELD VERIFY AND ENTER ON NEW DIRECTORY.
3. CURRENTLY SERVED AIR COOLED CHILLER. REUSE TO SERVE NEW INDOOR DOAS UNIT VIA FUSED DISCONNECT.

NOTES CONTINUED:
4. CURRENTLY SERVES HWP (PUMP). REUSE TO SERVE NEW 75KVA TRANSFORMER.
5. PROVIDE UPDATED TYPEWRITTEN DIRECTORY. REMOVE TAPE ON DEADFRONT.
VA VALUES SHOWN ARE FOR NEW EQUIPMENT.

LVRF

208 / 120 3 4 PH. WIRE — FED BY HCHR VIA XVRF — MAIN BREAKER — 250 SURFACE — AMPS MOUNTED

CKT	TRIP	POLE	WIRE	CD.	SERVES	VOLT-AMPS	POLE	PHASE LOAD V.A. A	B	C	POLE	VOLT-AMPS	SERVES	CD.	WIRE	TRIP	POLE	CKT
1	15	2	#12	1/2"	VRF-1	150	1	7038			2	6888	VRF OUTDOOR UNIT	1 1/2"	4#1	100	3	2
3						150	3		7038		4	6888	NO. 1		1#6G			4
5	15	2	#12	1/2"	VRF-2	150	5			7038	6	6888						6
7						150	7	7038			8	6888	VRF OUTDOOR UNIT	1 1/2"	4#1	100	3	8
9	15	2	#12	1/2"	VRF-3	150	9		7038		10	6888	NO. 1		1#6G			10
11						150	11			7038	12	6888						12
13	15	2	#12	1/2"	VRF-4	150	13	300			14	150	VRF-10	1/2"	#12	15	2	14
15						150	15		300		16	150						16
17	15	2	#12	1/2"	VRF-5	150	17			300	18	150	VRF-11	1/2"	#12	15	2	18
19						150	19	300			20	150						20
21	15	2	#12	1/2"	VRF-6	150	21		950		22	800	BC-1 BRANCH	1/2"	#12	15	2	22
23						150	23			950	24	800	CONTROLLER					24
25	15	2	#12	1/2"	VRF-7	150	25	950			26	800	BC-2 BRANCH	1/2"	#12	15	2	26
27						150	27		950		28	800	CONTROLLER					28
29	15	2	#12	1/2"	VRF-8	150	29			950	30	800	BC-3 BRANCH	1/2"	#12	15	2	30
31						150	31	950			32	800	CONTROLLER					32
33	15	2	#12	1/2"	VRF-9	150	33		2650		34	2500	DCU/DAC	1/2"	#10	30	2	34
35						150	35			2650	36	2500	IT ROOM					36
37	30	3			SURGE		37	1000			38	1000	EXISTING PANEL		SEE	100	3	38
39					SUPPRESSION		39		1000		40	1000	LCP WITH ACE ELEC		RISER			40
41							41			1000	42	1000	STICKER					42

Minimum KAIC: 22

PANEL SECTION	CONN	V	A
PANEL SECTION	CONN	AMPS	
MULTISECTION	CONN	V	A
MULTISECTION	CONN	AMPS	
17576	19926	19926	
146	166	166	
17576	19926	19926	
146	166	166	

LOCATION: MECHANICAL ROOM

NOTES
PROVIDE WITH FEED THRU LUGS.

ELECTRICAL LEGEND

LIGHTING FIXTURES (SYMBOLS VARY BASED ON FIXTURES TYPE)

	LED ON "NORMAL" POWER		LIFE SAFETY EGRESS FIXTURE
○	CEILING MOUNTED FIXTURE		EXIT LIGHT (ARROWS AS SHOWN)
○	WALL MOUNTED FIXTURE		EMERGENCY BATTERY PACK-WALL
	TRACK LIGHTS: QUANTITY OF HEADS AS SHOWN		EMERGENCY BATTERY PACK-CEILING

LIGHTING CONTROL

$	SINGLE POLE SWITCH	U	CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR AND RELAY
$3	THREE WAY SWITCH		
$4	FOUR WAY SWITCH	I/I	CEILING/WALL MOUNTED INFRARED OCCUPANCY SENSOR AND RELAY
$D	DIMMER SWITCH		
$K	KEYED SWITCH	UI	CEILING MOUNTED COMBINATION INFRARED/ ULTRASONIC OCCUPANCY SENSOR AND RELAY - VACANCY AUTO SHUT OFF
$I	WALL MOUNTED SWITCH INFRARED OCCUPANCY SENSOR		
$L	LOW VOLTAGE OVERRIDE SWITCH	SP	SWITCHING PHOTOCELL (INTERIOR TYPE) F.C. NOTED
$L1	SINGLE ZONE LOW VOLTAGE SWITCH	DP	DIMMING PHOTOCELL (INTERIOR TYPE)
$L2	TWO ZONE LOW VOLTAGE SWITCH	PE	EXTERIOR TYPE PHOTO SWITCH
$L4	FOUR ZONE LOW VOLTAGE SWITCH	$P	"P" INDICATES PILOT LIGHT

RECEPTACLES

	DUPLEX RECEPTACLE - NORMAL	EWC	ELECTRIC WATER COOLER RECEPTACLE(GFCI)
	QUAD - NORMAL	WP	WEATHER PROOF RECEPTACLE (GFCI)
	GFCI DUPLEX RECEPTACLE - NORMAL	H	HORIZONTALLY MOUNTED DUPLEX RECEPTACLE
	GFCI QUAD - NORMAL		SPECIAL - TYPE NOTED OR SHOWN
	FLOOR DUPLEX RECEPTACLE - NORMAL		CEILING SPECIAL - TYPE NOTED OR SHOWN
	FLOOR QUAD - NORMAL		WALL/CEILING RACEWAY
	CEILING DUPLEX RECEPTACLE - NORMAL		CLOCK OUTLET
USB	DUPLEX RECEPTACLE WITH INTEGRAL USB	AC	ABOVE COUNTER DUPLEX RECEPTACLE (COORDINATE HEIGHT WITH ARCHITECT)
TV	TV DUPLEX RECEPTACLE		
R	DUPLEX RECEPTACLE MOUNTED IN RACEWAY		DUPLEX RECEPTACLE - GENERATOR CIRCUIT, RED IN COLOR
T	DUPLEX RECEPTACLE - TAMPER PROOF		QUAD - GENERATOR CIRCUIT, RED IN COLOR

CIRCUITS

	CONDUIT CONCEALED IN CEILING OR WALL		RACEWAY EXPOSED
			FLEXIBLE RACEWAY
	CONDUIT IN GROUND, SLAB, OR UNDER FLOOR		CONDUIT UP
			CONDUIT DOWN
	HOMERUN - ONE ARROW PER CIRCUIT		CAP
			CONNECTION TO EQUIPMENT

GENERAL EQUIPMENT

	PANELBOARD-250 VAC OR LESS SURFACE MOUNTED		SURGE SUPPRESSOR
			JUNCTION BOX - WALL/CEILING/FLOOR
	PANELBOARD-250 VAC OR LESS RECESSED		MOTOR
			EXHAUST FAN
	PANELBOARD-OVER 250 VAC SURFACE MOUNTED		COMBINATION STARTER AND DISCONNECT
		$M	MANUAL STARTER AND MOTOR RATED SWITCH
	PANELBOARD-OVER 250 VAC RECESSED		EMERGENCY PUSHBUTTON
			ENCLOSED CIRCUIT BREAKER
T	TRANSFORMER		ENCLOSED BREAKER-RECESSED IN WALL
			BACKBOARD
F */*/*	DISCONNECT SWITCH: "F" IF FUSED FRAME AMPS/POLES/NEMA TYPE FUSE PER MANUFACTURERS RECOMMENDATIONS	CT	CABLE TRAY

FIRE PROTECTION EQUIPMENT

FACP	FIRE ALARM PANEL		DUCT MOUNTED SMOKE DETECTOR
FAA	FIRE ALARM ANNUNCIATOR		
F	MANUAL PULL STATION		SMOKE DETECTOR: CEILING / WALL
	AUDIO/VISUAL ALARM: CEILING/WALL		HEAT DETECTOR: CEILING / WALL
	VISUAL ALARM: CEILING/WALL	WF	WATER FLOW SWITCH
	SPEAKER/VISUAL ALARM: CEILING/WALL	VS	WATER TAMPER SWITCH
		DH	DOOR HOLDER
BT	SMOKE DETECTOR/SENSOR - BEAM TRANSMITTER		FIREMAN'S PHONE OUTLET
BR	SMOKE DETECTOR/SENSOR - BEAM RECEIVER		

COMMUNICATIONS

#	VOICE OUTLET, QUANTITY OF JACKS AS NOTED	M / MH	MICROPHONE: FLOOR/WALL
#	DATA OUTLET, QUANTITY OF JACKS AS NOTED	S / SH	SPEAKER: CEILING/WALL
#/#	COMBINATION VOICE/DATA OUTLET, QUANTITY OF VOICE/DATA JACKS AS NOTED		FIBER OUTLET
		TV	TELEVISION OUTLET
#	FLOOR VOICE OUTLET, QUANTITY OF JACKS AS NOTED	B	BOX, STUB-UP, AND MODULAR PLATE W/ BLANKS
		V	WALL MOUNTED VOLUME CONTROL
#	FLOOR DATA OUTLET, QUANTITY OF JACKS AS NOTED	IC	INTERCOM CALL-IN STATION
		ICM	INTERCOM MASTER STATION
#/#	FLOOR COMBINATION VOICE/DATA OUTLET, QUANTITY OF JACKS AS NOTED	MC	MASTER CLOCK
		J	J-HOOK
R	DATA OUTLET MOUNTED IN RACEWAY		CABLE TRAY

LIGHTNING PROTECTION AND GROUNDING

G	GROUNDING CONDUCTOR- UNDER SLAB OR BELOW GRADE	G	GROUNDING CONDUCTOR- CONCEALED IN ROOF OR WALLS
C	GROUND ROD - C IF CHEMICAL	G	GROUNDING CONDUCTOR- EXPOSED
	GROUND CONNECTION (SCHEMATIC)		AIR TERMINAL
		G	GROUNDING PLATE

SECURITY

C	CARD READER	C	SECURITY CAMERA: CEILING/WALL MOUNTED
P	DOOR POSITION SENSOR		
ES	ELECTRIC STRIKE		

NBP ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL
SUSAN H. DAVIS LICENSE No. 65148 STATE OF FLORIDA PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

SHEET TITLE:
LEGEND AND SCHEDULES - ELECTRICAL

DESIGNED: SHD
DRAWN: BCO
CHECKED: SHD
DATE: 10.25.2024
PROJECT NUMBER: 24045
SCALE: AS SHOWN
FILE PATH: P:\24045\24045e001.dgn
SHEET NUMBER: **E001**

BID SET

DGN FILE
P:\24045\24045e101.dgn

DATE PLOTTED
24-OCT-2024

GENERAL NOTES: (THIS SHEET ONLY)

(A) SEAL ALL PENETRATIONS AT RATED PARTITIONS INCLUDING AROUND EXISTING RACEWAY, AND HOLES CREATED BY DEMOLITION OR REMOVAL OF RACEWAY.

(B) EXISTING FEEDERS AND BRANCH CIRCUIT ASSIGNMENTS WERE DETERMINED FROM CASUAL OBSERVATION OF EXISTING PANELBOARDS. CONTRACTOR SHALL FIELD VERIFY BEFORE BEGINNING DEMOLITION.

(C) WHERE HVAC EQUIPMENT IS NOTED TO BE REMOVED, REMOVE ALL WIRE TO SOURCE PANEL. REMOVE ACCESSIBLE CONDUIT TO SOURCE PANEL. FOR CONDUIT UNDER SLAB OR UNDERGROUND, CUT OFF FLUSH, SEAL WATERTIGHT WITH DUCT-SEAL, AND ABANDON IN PLACE. REMOVE ASSOCIATED STARTERS AND SAFETY DISCONNECT SWITCHES. IF BREAKER IS NOT NOTED AS REUSED, RE-LABEL AS SPARE.

NOTES: (THIS SHEET ONLY)

1. REMOVE EXISTING BOILER AND ASSOCIATED HW PUMP.
2. REMOVE CHILLED WATER PUMP
3. REMOVE EXISTING AIR COOLED CHILLER SERVING BUILDING ALONG WITH HEAT TRACE AT CHILLER.
4. EXISTING FAN COIL UNITS ARE SERVED FROM THIS PANEL.
5. CIRCUIT NUMBER AS DETERMINED FROM EXISTING PANEL SCHEDULE AND CURRENT ROOM NUMBERS. CONTRACTOR TO FIELD VERIFY.
6. SEE RISER DIAGRAM ON SHEET E401.

1 BUILDING 8 - FLOOR PLAN - DEMOLITION - ELECTRICAL
SCALE: 1/4" = 1'-0"

N

4 0 2 4 8

LINE LEGEND	
- - - - - - - - - -	EXISTING TO REMAIN
//////////	DEMOLITION

NBP ENGINEERS
NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL

SUSAN H. DAY LICENSE No. 65148 STATE OF FLORIDA PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

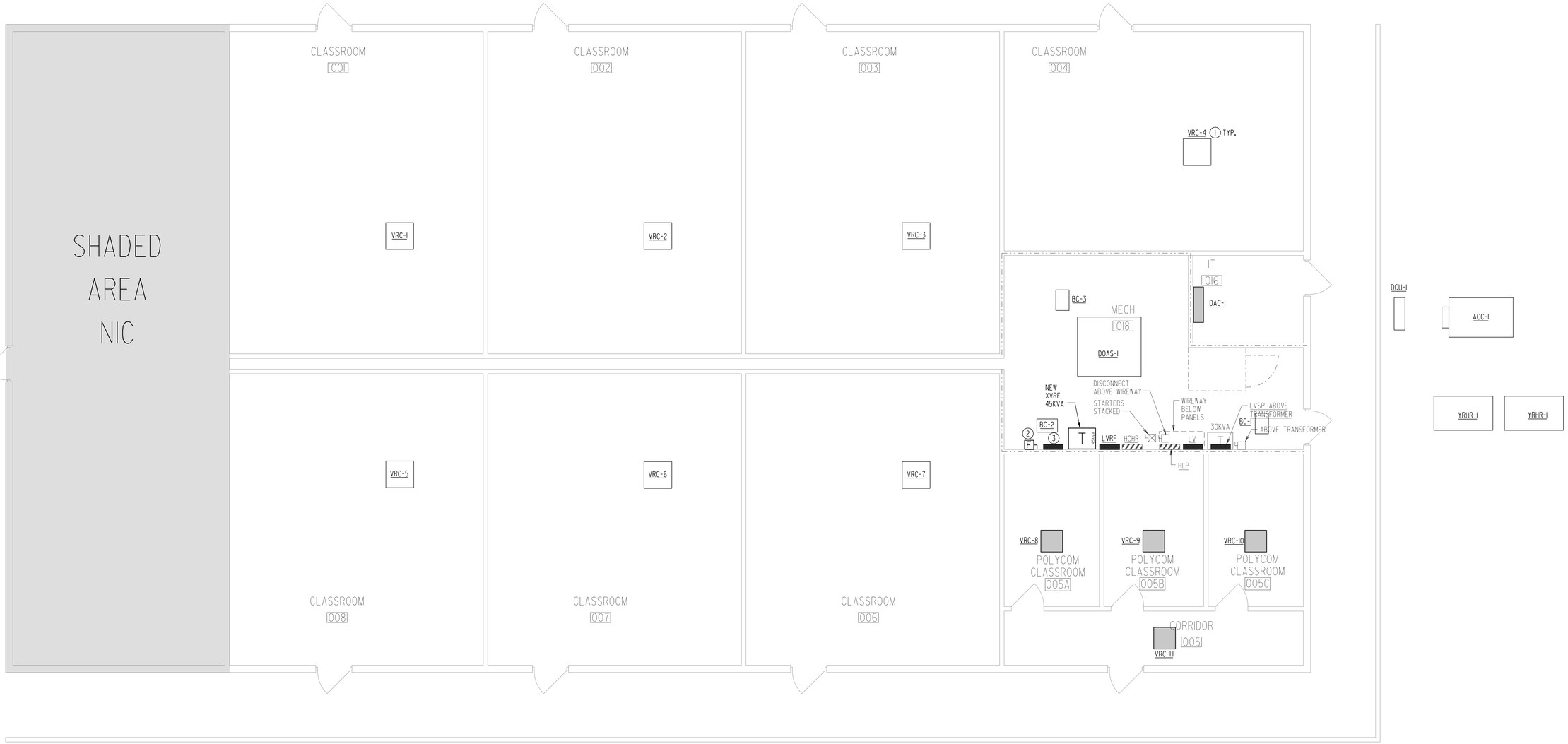
SHEET TITLE: BUILDING 8 - FLOOR PLAN - DEMOLITION - ELECTRICAL

DESIGNED: SHD
DRAWN: BCO
CHECKED: SHD
DATE: 10.25.2024
PROJECT NUMBER: 24045
SCALE: AS SHOWN
FILE PATH: P:\24045\24045e101.dgn
SHEET NUMBER: E101

BID SET

DGN FILE
P:\24045\24045e201.dgn

DATE PLOTTED
24-OCT-2024



GENERAL NOTES: (THIS SHEET ONLY)

(A) SEAL ALL PENETRATIONS AT RATED PARTITIONS.

NOTES: (THIS SHEET ONLY)

(1) REFER TO MECHANICAL WIRING SCHEDULE SHEET E001.

(2) NEW 100A/3P FUSED DISCONNECT FOR NEW INDOOR DOAS UNIT.

(3) THIS PANEL IS NOT LABELED. IT CAN BE IDENTIFIED BY THE LARGE "ACE ELECTRIC" STICKER ON IT.

(1) BUILDING 8 - FLOOR PLAN - NEW WORK - ELECTRICAL

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

4 0 2 4 8

N

LINE LEGEND	
———	EXISTING TO REMAIN
———	NEW WORK

NBP ENGINEERS

NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL

SUSAN H. DAY LICENSE No. 65148 STATE OF FLORIDA PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

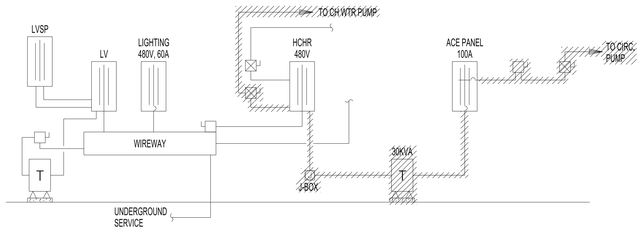
SHEET TITLE:
BUILDING 8 - FLOOR PLAN - NEW WORK - ELECTRICAL

DESIGNED:	SHD
DRAWN:	BCO
CHECKED:	SHD
DATE:	10.25.2024
PROJECT NUMBER:	24045
SCALE:	AS SHOWN
FILE PATH:	P:\24045\24045e201.dgn
SHEET NUMBER:	E201

BID SET

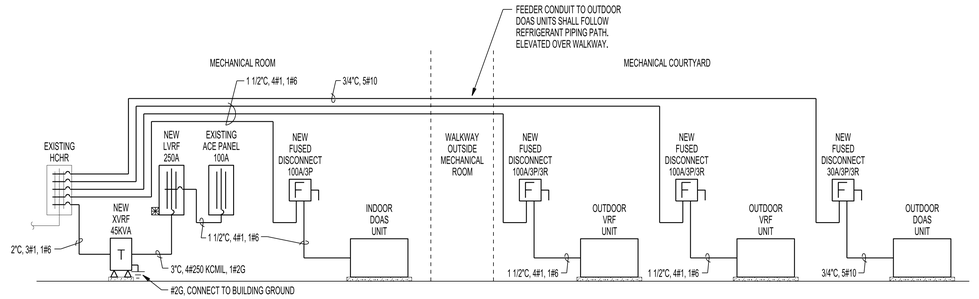
DGN FILE
P:\24045\24045e401.dgn

DATE PLOTTED
24-OCT-2024



1 EXISTING POWER RISER DIAGRAM DEMOLITION

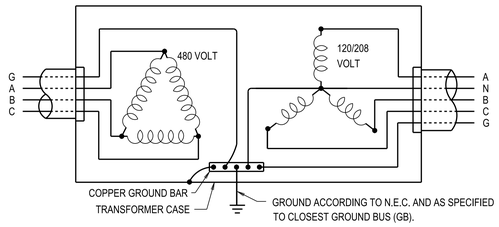
NOT TO SCALE



2 POWER RISER DIAGRAM NEW WORK

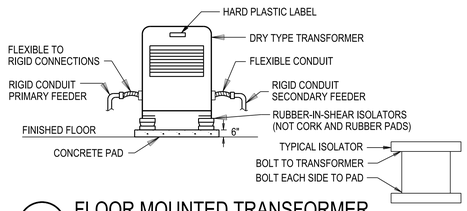
NOT TO SCALE

WIRE COLOR CODE		
A/C	120/208	277/480
PHASE A	BLACK	BROWN
PHASE B	RED	ORANGE
PHASE C	BLUE	YELLOW
NEUTRAL	WHITE	GRAY
GROUND	GREEN	GREEN



3 DRY TYPE TRANSFORMER CONNECTIONS

NOT TO SCALE



4 FLOOR MOUNTED TRANSFORMER

NOT TO SCALE

LINE LEGEND	
	EXISTING TO REMAIN
	DEMOLITION
	NEW WORK

NBP ENGINEERS

NBP Engineers, Inc.
CONSULTANTS
316 CORPORATE PARKWAY
MACON, GEORGIA 31210
478-745-1691 www.nbpengineers.com

SEAL

SUSAN H. DAY LICENSE No. 65148 STATE OF GEORGIA PROFESSIONAL ENGINEER

No.	REVISIONS/SUBMISSIONS	DATE

PROJECT No. NFC-04-2024

NFC BUILDING 8 HVAC REPLACEMENT
NORTH FLORIDA COLLEGE
MADISON, FLORIDA

PROJECT TITLE:

SHEET TITLE:
RISER DIAGRAMS AND DETAILS - ELECTRICAL

DESIGNED: SHD
DRAWN: BCO
CHECKED: SHD
DATE: 10.25.2024
PROJECT NUMBER: 24045
SCALE: AS SHOWN
FILE PATH: P:\24045\24045e401.dgn
SHEET NUMBER: **E401**

BID SET