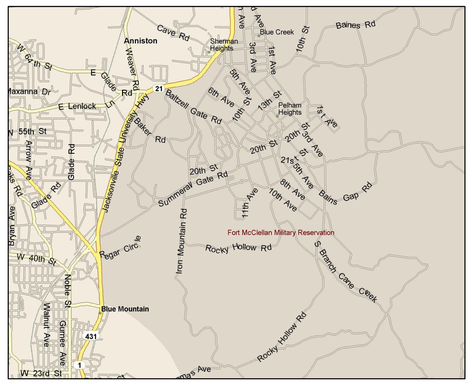
FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA

ABBREVIATIONS

A	A.B.	ANCHOR BOLT
	ABV	ABOVE
	A/C	AIR CONDITIONING
	ACC.	ACCESS
	AC.T.	ACOUSTICAL TILE (CLG)
	AFF	ABOVE FINISH FLOOR
	A.D.	AREA DRAIN
	ADD	ADDENDUM
	ADH	ADHESIVE
	ADJ	ADJUSTABLE
	AGG	AGGREGATE
	A.H.U.	AIR HANDLING UNIT
	ALT	ALTERNATE
	ALUM	ALUMINUM
	A.P.	ACCESS PANEL
	APX.	APPROXIMATE
	ARCH.	ARCHITECT(URAL)
	ASPH	ASPHALT
	A.T.	ASPHALT TILE
	AUTO.	AUTOMATIC
	AVG	AVERAGE
	AWNG	AWNING
B	B36	36" WIDE BASE CAB.
	BD	BOARD
	BF	BI-FOLD (DOOR)
	BIT.	BITUMINOUS
	BLKG	BLOCKING
	BLDG	BUILDING
	BLK	BLOCK (CMUs)
	BLKG	BLOCKING
	BM	BEAM
	B.M.	BENCH MARK
	BP	BI-PASS (DOOR)
	BRG	BEARING
	BRK	BRICK
	B.S.	BOTH SIDES
	BSMT	BASEMENT
	BOT	BOTTOM
	BTWN	BETWEEN
	BVL	BEVELED
	B.W.	BOTH WAYS
C	CAB	CABINET
	C.B.	CATCH BASIN
	CEM	CEMENT
	CER	CERAMIC
	CF	CUBIC FOOT
	CHAM	CHAMFER
	C.I.	CAST IRON
	C.I.P. CONC.	CAST-IN-PLACE CONC.
	CIR	CIRCLE
	CIRC	CIRCUMFERENCE
	C.J.	CONTROL JOINT
	CK	CALK(ING) CAULK(ING)
	CL	CLOSET OR CENTER LINE
	CLG	CEILING
	CLR	CLEAR(ANCE)
	CLS	CLOSURE OR CLOSER
	CM	CENTIMETER(S)
	CMU	CONCRETE MASONRY UNIT
	C.O.	CASED OPENING
	COL	COLUMN
	COMB	COMBINATION
	CONC	CONCRETE
	COND	(AC) CONDENSER
	CONST	CONSTRUCTION
	CONT	CONTINUOUS
	CONTR	CONTRACTOR
	CORR	CORRUGATED
	CPR	COPPER
	C OR CPT	CARPET
	CRS	COURSE(S)
	CSMT	CASEMENT
	C.ST.	CAST STONE
	C.T.	CERAMIC TILE
	CTR	CENTER OR COUNTER
	CX	CONNEXTION
	CY	CUBIC YARD
D	12"D	12" DEEP
	D	DRYER, OR DRAIN
	DBL	DOUBLE
	DECO	DECORATIVE
	DEM	DEMOLISH; DEMOLITION
	DEP	DEPRESSED
	DET	DETAIL
	D.F.	DRINKING FOUNTAIN
	DH	DOUBLE HUNG
	DIAM	DIAMETER
	DIM	DIMENSION
	D.L.	DEAD LOAD
	DN	DOWN
	D.P.	DAMP-PROOFING
	DR	DOOR
	DRY	DRYER MACHINE
	DS	DOWNSPOUT
	D/S	DRAWER STACK
	D.T.	DRAIN TILE
	DTL	DETAIL
	DW	DISH WASHER
	DWG	DRAWING
	DWR	DRAWER
E	EA	EACH
	EB	EYEBROW
	E.F.	EACH FACE
	E.J.	EXPANSION JOINT
	EL	ELEVATION
	ELEC	ELECTRICAL)
	E.P.	ELECTRICAL PANEL
	EQ	EQUAL
	EST.	ESTIMATE
	E.W.C.	ELECTRIC WATER COOLER
	EXG	EXISTING
	EXH	EXHAUST
	EXT	EXTERIOR
F	FAS	FASTEN(ER)
	F.B.	FACE BRICK
	F.B.O.	FURNISHED BY OTHERS
	F.D.	FLOOR DRAIN
	F.E.	FIRE EXTINGUISHER
	F.F.	FINISH FLOOR
	F.G.	FIXED GLASS
	FGL	FIBERGLASS
	FIN	FINISH
	FLG	FLASHING
	FLR	FLOOR
	FLUR	FLOURESCENT
	FN	FENCE
	FND	FOUNDATION
	F.O.	FACE OF
	FP	FIRE PROOF
	FPHB	FIRE PROOF HOSE BIBB
	FP	FIREPLACE
	FR	FRAME
	FS	FULL SIZE
	FTG	FOOTING
	FUR	FURRED(ING)
	F.V.	FIELD VERIFY
G	GA	GAUGE
	G.B.	GYPSUM BOARD
	G.C.	GENERAL CONTRACTOR
	GD	GRADE OR GRADING
	G.D.O.	GARAGE DOOR OPENER
	GFI	GROUND FAULT INTERRUPTER
	GL	GLASS OR GLAZING
	GL.BK.	GLASS BLOCK
	G.I.	GALVANIZED IRON
	GT	GROUT
H	H	HIGH
	HB	HOSE BIBB
	H.C.	HOLLOW CORE
	HD	HEAD OR HARD
	H.D.	HEAT DETECTOR OR HEAVY DUTY
	HDR	HEADER
	HDW	HARDWARE
	HT	HEIGHT
	H.M.	HOLLOW METAL
	HORIZ	HORIZONTAL
	HR	HOUR
	H.R.	HALF ROUND
	HS	HORIZONTAL SLIDER
	HTG	HEATING
	HVAC	HEATING/VENTILATING/AIR COND.
	HWD	HARDWOOD
I	I.B.	IRONING BOARD
	I.D.	INSIDE DIAMETER
	I.L.O.	IN LIEU OF
	I.M.	INSULATED METAL
	INS / INSUL	INSULATED(TION)
	INT	INTERIOR
J	JST	JOIST
	JT	JOINT
K	KD	KNOCKDOWN
	KIT	KITCHEN
	KO	KNOCKOUT
	KPL	KICKPLATE
	K/S	KNEE SPACE
L	LAM.	LAMINATE(D)
	LAV	LAVATORY
	L.B.O.	LOCATION BY OTHERS
	LIV	LIVING
	LL.	LIVE LOAD
	L.P.	LAMINATED PLASTIC
	LT	LIGHT
	L.T.	LAUNDRY TUB
	LTL	LINTEL
	LVL	VENNER LUMBER
	LVR	LOUVER
M	M	METER(S)
	MAX	MAXIMUM
	MAS	MASONRY
	MATL	MATERIAL
	MC	MEDICINE CABINET
	MECH	MECHANICAL
	MFR.	MANUFACTURER
	MH	MANHOLE
	MIN	MINIMUM
	MIR	MIRROR
	MISC	MISCELLANEOUS
	MLD	MOULDING
	MM	MILLIMETER
	MMB	MMB MEMBRANE
	M.O.	MASONRY OPENING
	MOD	MODULAR
	MRB	MARBLE
	MTL	METAL
	MT	MOUNTED(ING)
	MULL	MULLION OR MULLED
N	N/A	NOT APPLICABLE
	N.I.C.	NOT IN CONTRACT
	NL	NAILABLE
	NOM	NOMINAL
	N.T.S.	NOT TO SCALE
	N.G.V.D.	NAT. GEODETIC VERTICAL DATOM
O	OA	OVERALL
	OBS	OBSCURE (GLASS)
	O.C.	ON CENTER
	OHC	OVERHEAD CABINET
	O.D.	OUTSIDE DIAMETER
	O.G.D.	OVERHEAD GARAGE DOOR
	OH	OVERHEAD
	OPNG	OPENING
	OPT	OPTIONAL
	OSB	ORIENTED STRAND BOARD
P	PAR	PARALLEL
	P.BD.	PARTICLE BOARD
	PCC.	PRECAST CONCRETE
	P.E.	PORCELAIN ENAMEL
	PED	PEDESTAL (SINK)
	PERI	PERIMETER
	PKG	PARKING
	PL	PLATE
	P.LAM.	PLASTIC LAMINATE
	PLAS	PLASTER
	PNL	PANEL
	PNT	PAINT
	P. TILE	PORCELAIN TILE
	PR	PAIR
	PREFAB	PREFABRICATED
	PSF	POUNDS PER SQUARE FOOT
	PSI	POUNDS PER SQUARE INCH
	PTN	PARTITION
	P.T.	PRESSURE TREATED
	PV	PAVE(D) OR PAVING
	PVC	POLYVINYL CHLORIDE (PIPE)
	PVMT	PAVEMENT
	PWD	PLYWOOD
Q R	Q.T.	QUARRY TILE
	R	RISER
	R/A	RETURN AIR
	R.B.	RUBBER BASE
	RAD	RADIUS
	RBL	RUBBLE
	R.D.	ROOF DRAIN
	REF	REFRIGERATOR
	REQ	REQUIRED
	RES	RESILIENT
	REV	REVISION, REVISED
	REINF	REINFORCED(ING)
	RFG	ROOFING
	R.J.B.	REINFORCED JUNCTION BOX
	RLG	RAILING
	R&M	RANGE W/ MICROWAVE
	RWL	ROOF WATER LEADER
	R.O.	ROUGH OPENING
	R.O.W.	RIGHT OF WAY
	R&S	ROD AND SHELF(S)
S	SC	SOLID CORE
	SCH	SCHEDULE
	SD	SMOKE DETECTOR
	SEC	SECTION
	S.F.	SQUARE FEET
	SF.GL.	SAFETY GLASS
	S.G.D.	SLIDING GLASS DOOR
	SH	SINGLE HUNG OR SHELF
	SHT	(DRAWING) SHEET
	SHTHG	SHEATHING
	SIM	SIMILAR
	SKL	SKYLIGHT
	SL	SIDELIGHT OR SLEEVE
	SNT	SEALANT
	SPC	SPACER
	SPEC	SPECIFICATIONS
	SPK	SPEAKER
	S.ST.	STAINLESS STEEL
	STD	STANDARD
	STOR	STORAGE
	STL	STEEL
	STR	STRUCTURAL
	SQ	SQUARE
	SUS	SUSPENDED
	S.W.	SHEAR WALL
T	T	TREAD
	T.B.	TOWEL BAR
	T.B.D.	TO BE DETERMINED
	TC	TERRA COTTA
	T.C.J.	TROWELED CONTROL JOINT
	TEMP.	TEMPERED (GLASS)
	T&G	TONGUE & GROOVE
	TEL	TELEPHONE
	THK	THICK(NESS)
	THR	THRESHOLD
	T.O.C.	TOP OF CONCRETE
	T.O.F.	TOP OF FOUNDATION
	T.O.M.	TOP OF MASONRY
	T.O.W.	TOP OF WINDOW
	TR	TRANSOM
	TP	TOILET PAPER HOLDER
	TV	TELEVISION OUTLET
	TYP	TYPICAL
U	UC	UNDERCUT
	UNF	UNFINISHED
	U.N.O.	UNLESS NOTED OTHERWISE
V	VB	VANITY BASE
	V.B.	VAPOR BARRIER
	VBW	VANITY BASE WIDTH
	VERT	VERTICAL
	VIN	VINYL(SHEET)
	V.S.	VEGTABLE SINK
	V.C.T.	VINYL COMPOSITION TILE
W	W	WIDE OR WASHING MACHINE
	WC	WATER CLOSET
	WF	WIDE FLANGE
	WH	WATER HEATER
	W.H.	WALL HUNG
	WI	WROUGHT IRON
	WIC	WALK-IN CLOSET
	WIN	WINDOW
	W/ W/O	WITH OR WITHOUT
	WP	WATERPROOF
	W.R.	WATER RESISTANT
	W.S.	WATER SOFTENER
	WSCT	WAINSCOT
	W.T.W.	WALL TO WALL
	WWM	WELDED WIRE MESH

VICINITY MAP



PROJECT INFORMATION

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ARCHITECTURAL SYMBOLS

- 10 — DOOR MARK
- A — WINDOW MARK
- 205 — ROOM FINISH MARK
- A — REVISION MARK
- B.F.E. — BRACKET MOUNTED FIRE EXTINGUISHER
- F.E.C. — FIRE EXTINGUISHER CABINET
- A / A2.1 — LARGE SCALE PLAN OR DETAIL ENLARGEMENT
- F.F.= — FINISH FLOOR ELEVATION
- + — FINISH GRADE ELEVATION
- DETAIL NO. / DWG. NO. — DETAIL
- ELEV. NO. / DWG. NO. — INTERIOR ELEVATION
- SECT. NO. / DWG. NO. — SECTION MARKER
- BEARING ELEVATION

GENERAL NOTES

1. DRAWINGS AND SPECIFICATIONS OF ALL DISCIPLINES INCLUDED HEREIN ARE GRAPHIC AND TEXT REPRESENTATIONS INTENDED TO ESTABLISH THE FULL SCOPE OF THIS PROJECT AND THE FULL CONTRACTUAL OBLIGATION OF THE GENERAL CONTRACTOR TO COMPLETE THE WORK SHOWN, IMPLIED, AND SPECIFIED. IT SHALL BE THE GENERAL CONTRACTOR'S ULTIMATE RESPONSIBILITY TO COORDINATE THE PROPOSALS AND WORK OF ALL TRADES TO ENSURE ALL MATERIALS AND WORK REQUIRED BY THE CONTRACT DOCUMENTS ARE INCLUDED IN THE GENERAL CONTRACTOR'S PROPOSAL AND ARE ULTIMATELY FURNISHED AND INSTALLED IN THE FINISHED PRODUCT, WHETHER EXPLICIT OR IMPLIED BY THESE DOCUMENTS.

2. THE FOLLOWING PRIORITIES ARE ESTABLISHED WITH REFERENCE TO DISCIPLINE COORDINATION
   A. ALL PLUMBING WORK AND INSTALLATION SHALL BE COORDINATED FULLY TO ALLEVIATE CONFLICTS.
   B. NO TRADE WILL TAKE UNNECESSARY ADVANTAGE OF AVAILABLE PLENUM SPACE OVER OTHER TRADES. RELOCATION OF ANY ITEMS VIOLATING THIS PRINCIPLE SHALL BE AT THE TRADES' EXPENSE.
   C. ALL STRUCTURAL DESIGN & DETAILING SHALL GOVERN OVER ARCHITECTURAL GRAPHIC REPRESENTATION WHERE APPLICABLE.
   D. ALL CIVIL DESIGN & DETAILING SHALL GOVERN OVER ARCHITECTURAL REPRESENTATION WHERE APPLICABLE.

3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR CONSTRUCTION ON THIS SITE. IF PROBLEMS ARE ENCOUNTERED WHILE ATTEMPTING TO OBTAIN PERMITS, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND WILL ASSIST AS NECESSARY.

4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE CONTRACT DOCUMENTS APPLICABLE TO THIS PROJECT PRIOR TO CONSTRUCTION. THE DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY AND BOTH DOCUMENTS SHALL BE BINDING.

5. THE CONTRACTOR IS TO MAINTAIN A COMPLETE SET OF AS-BUILT DRAWINGS AT THE JOB SITE. AS BUILTS SHALL BE AVAILABLE FOR FEILD OBSERVATION BY THE ARCHITECT OR ENGINEER.

6. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS, PROCEDURES, OR METHODS OF CONSTRUCTION. IT IS INTENDED THAT A COMPLETE BUILDING BE PROVIDED WITH ALL NECESSARY EQUIPMENT APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL PARAMETERS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE BUILDING IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE CONTRACT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.

7. COORDINATE PIPING WITH STRUCTURAL AND PLUMBING. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

8. COORDINATE ALL REVIEWS OF WORK IN PLACE PRIOR TO CONCEALMENT OF ALL INTERIOR AND EXTERIOR WORK.

9. CONTRACTOR SHALL CHECK AND COORDINATE ALL DIMENSIONS PRIOR TO PROJECT LAYOUT. CONFIRM EXISTING CONDITIONS WILL ACCOMODATE DIMENSIONAL CRITERIA SHOWN FOR NEW WORK, CONSTRUCTION, AND INSTALLATION. THIS CONFIRMATION WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

BID ITEMS & ALTERNATES

BID ITEM A: COMPLETE HVAC REPLACEMENT AND RESTORATION WITHIN FMTC BUILDING 1021 COMPLETE REPAIRS / REPLACEMENT OF THE EXISTING FIRE ALARM SYSTEMS AND COMPONENTS THROUGHOUT THE ENTIRE BUILDING AND UPGRADES TO INTERIOR LIGHTING PER THE ELECTRICAL DRAWINGS. INTERIOR RENOVATIONS TO ACCOMMODATE HVAC SYSTEM UPGRADES.

BID ALTERNATE A1: REMOVE AND REPLACE PORTIONS OF EXISTING DUCT(HORIZONTAL AND VERTICAL RISERS) . INSTALL NEW FIRE DAMPERS AT FLOOR PENETRATIONS OF NEW DUCT AND OTHER COMPONENTS THROUGHOUT THE BUILDING PER THE MECHANICAL DRAWINGS.

BID ALTERNATE A2: COMPLETE INSTALLATION OF SUB-METERS FOR WATER AND GAS TO INTERFACE WITH THE BUILDING AUTOMATION SYSTEM PER THE MECHANICAL DRAWINGS.

BID ALTERNATE A3: COMPLETE REPLACEMENT OF FOUR PAIRS OF HOLLOW METAL DOORS AND FRAMES WITH HARDWARE AT THE ROOFTOP MECHANICAL PENTHOUSES.

BID ITEM B: COMPLETE REPLACEMENT OF EXISTING LIGHTING FIXTURES ON THE SECOND AND THIRD FLOORS OF THE BUILDING WITH NEW LED FIXTURES PER THE ELECTRICAL DRAWINGS.

INDEX OF DRAWINGS

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FMTC BUILDING 1021 HVAC RESTORATION
ANNISTON, ALABAMA
IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

Project Number: 23-1337
Date: 26 MARCH 2024
Revisions:

Sheet Description

COVER, INDEX, LEGENDS, & NOTES

Sheet Number

T1.1

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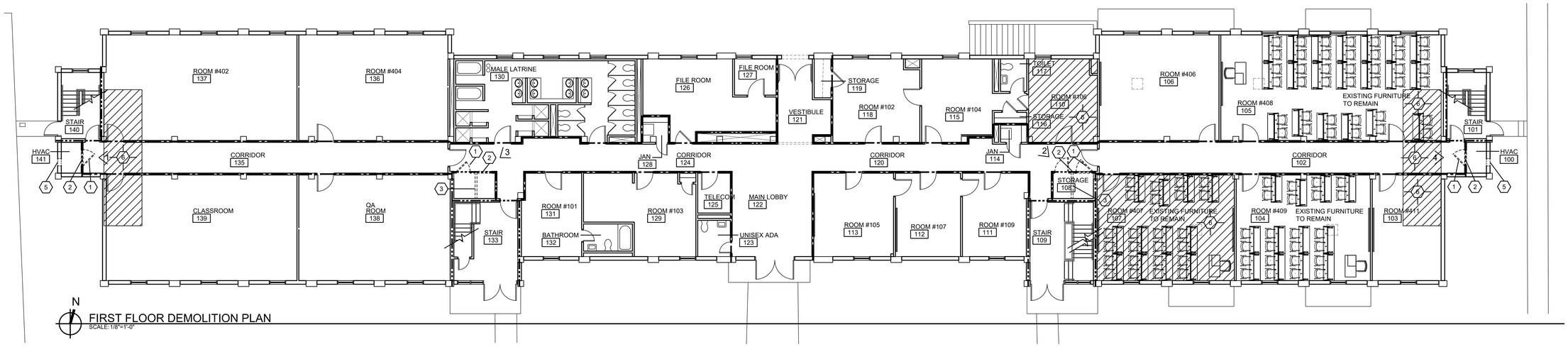
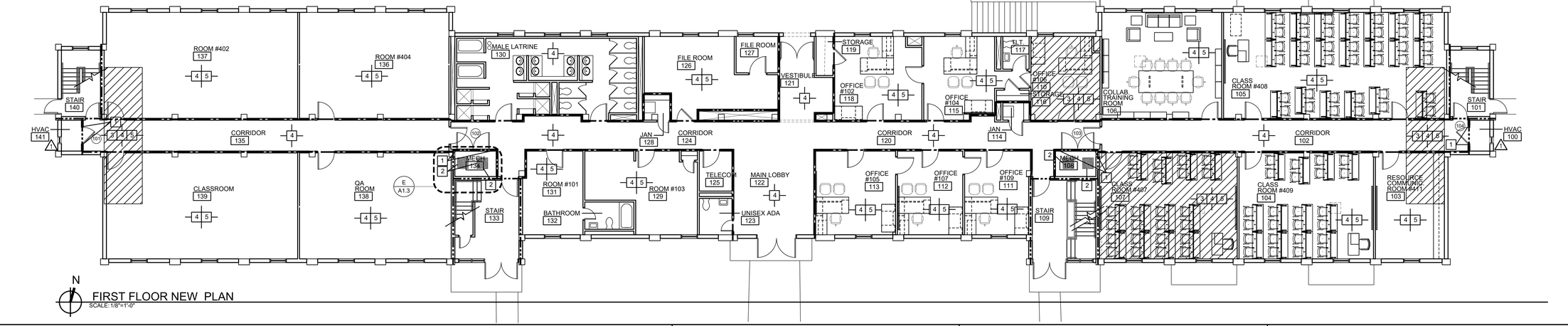


FIRST FLOOR DEMOLITION PLAN
SCALE: 1/8"=1'-0"



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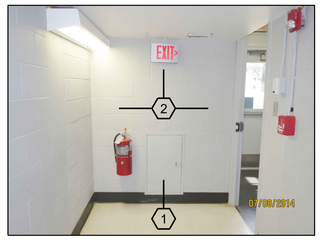

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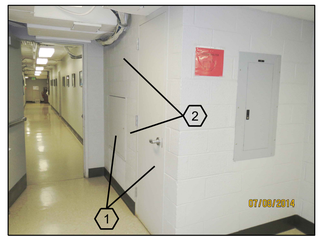

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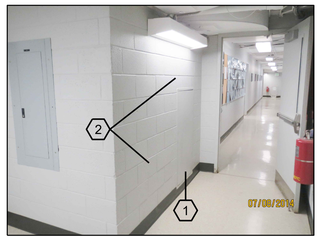

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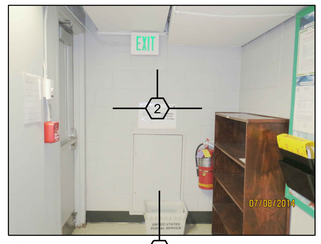

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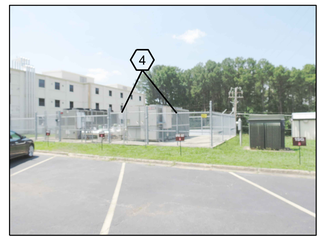

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KEY

INDICATES APPROXIMATE ZONE WHERE REMOVAL OF CEILING TILE, SECONDARY CEILING GRID, HVAC CEILING GRILLES & REGISTERS, SMOKE DETECTORS, ETC. IS REQUIRED FOR THE INSTALLATION OF NEW MECHANICAL SYSTEMS. WILL VERIFY REMOVAL REQUIREMENTS (AREA & QUANTITIES) & WILL COORDINATE FOR THE REMOVAL & REINSTALLATION OF ALL COMPONENTS.
NOTE: CONTRACTOR WILL ACCOMPLISH ALL INSTALLATION WITHOUT THE REMOVAL OF CEILING GRID MAIN TEES IF POSSIBLE. COORDINATE WITH MECHANICAL DRAWINGS. LIGHT FIXTURES TO REMAIN IN PLACE. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT AS REQUIRED.

PLAN LEGEND

- 205 — ROOM FINISH MARK
- 2 — WORK NOTE REFERENCE
- A2.1 — DETAIL OR ELEVATION NUMBER / SHEET NUMBER
- A2.1 — PLAN OR SECTION ENLARGEMENT
- NEW 3 5/8" METAL STUD PARTITION W/ 5/8" GYP BOARD EACH SIDE FROM FLOOR TO CEILING
- 101 — NEW DOOR MARK
- 2 — DEMOLITION NOTES
- 2 — DEMOLITION PHOTO REFERENCE
- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- A2.1 — SECTION KEY
- A2.1 — DETAIL KEY
- CMU WALL
- FIRE EXT. CABINET
- 1-HOUR RATING
- 2-HOUR RATING
- NO WORK THIS AREA
- 1 — NEW LOUVER MARK

WORK NOTES

1. INFILL EXISTING CMU WALL AS REQUIRED FOR INSTALLATION OF NEW HOLLOW METAL FRAME. TOOTH-IN AND STRING JOINT TO MATCH EXISTING. PRIME & PAINT NEW CMU TO MATCH EXISTING
2. FORM AND INFILL HOLES (APPROX. 14"X14") IN EXISTING SLAB WHERE DUCTWORK WAS REMOVED WITH NEW CONCRETE AND REINFORCING AS SHOWN IN DETAIL E/A1.3
3. REMOVE EXISTING LAY-IN CEILING AND GRID AS REQUIRED FOR INSTALLATION OF MECHANICAL DUCTWORK. REINSTALL TILE AND GRID IN ORIGINAL LOCATION AFTER INSTALLATION OF DUCTWORK IS COMPLETE
4. PATCH, REPAIR, AND PAINT EXISTING CMU WALLS WHERE EXISTING CONDUIT IS BEING REMOVED. SEE ELECTRICAL DRAWINGS.
5. PATCH AND REPAIR EXISTING CEILING GRID WHERE DAMAGED AS A RESULT OF DEMOLITION OF EXISTING CONDUIT. RE-INSTALL EXISTING ACOUSTICAL CEILING TILE/REPLACE DAMAGED CEILING TILE AS REQUIRED.
6. UNDER **ALTERNATE A3** - INSTALL NEW HOLLOW METAL DOORS, HOLLOW METAL FRAME, AND NEW HARDWARE. PATCH AND REPAIR ALL TRIM SURROUNDING DOOR FRAME TO MATCH EXISTING. PAINT TRIM, FRAMES, AND DOORS IN COLORS AS DIRECTED BY THE OWNER AND ARCHITECT.

DEMOLITION NOTES

1. REMOVE AND DISCARD EXISTING ACCESS DOOR, FRAME & ALL ASSOCIATED HARDWARE TO ACCOMMODATE NEW CONSTRUCTION.
2. SAWCUT AND REMOVE PORTION OF EXISTING C.M.U. WALL AS REQUIRED FOR NEW HOLLOW METAL FRAME. RELOCATE/ RE-ROUTE EXISTING ELECTRICAL, FIRE PROTECTION, ETC. COMPONENTS AS REQUIRED. PATCH ALL FLOORS AND ADJACENT WALLS TO REMAIN. NEW MASONRY BUILD-BACK WILL BE "TOOTHED-IN" AT NEW JAMB LOCATIONS.
3. REMOVE EXISTING C.M.U. WALL IN ITS ENTIRETY FROM FLOOR SLAB TO SLAB ABOVE. PATCH & REPAIR ADJACENT WALLS TO REMAIN & FLOOR & SLAB ABOVE.
4. REMOVE PORTION OF CHAIN LINK FENCING AS REQUIRED TO REMOVE EXISTING MECHANICAL UNIT. REINSTALL FENCING IN ORIGINAL LOCATION & CONFIGURATION AFTER INSTALLATION OF NEW MECHANICAL UNIT IS COMPLETE.
5. REMOVE PORTION OF EXISTING EXTERIOR WALL AS REQUIRED TO ACCOMMODATION INSTALLATION OF NEW LOUVER. SEE MECH. FOR SIZE OF PENETRATION. PROVIDE STEEL LINTEL AT MASONRY TYPICAL
6. REMOVE, STORE AND PROTECT EXISTING CEILING TILE AND GRID AS REQUIRED FOR REMOVAL AND REPLACEMENT OF EXISTING MECHANICAL EQUIPMENT IN THIS AREA. RE-INSTALL EXISTING CEILING TILE AND GRID IN AFFECTED AREAS. REPLACE ANY DAMAGED CEILING TILE AND GRID.
7. UNDER **ALTERNATE A3** - REMOVE EXISTING HOLLOW METAL DOORS, HOLLOW METAL FRAMES, AND HARDWARE. PREP OPENING TO RECEIVE NEW DOORS, FRAME, AND HARDWARE.

GENERAL NOTES

1. THE GENERAL AND DEMOLITION CONTRACTOR AND ALL SUB-CONTRACTORS SHALL MAKE A DETAILED INVESTIGATION OF THE SITE PRIOR TO STARTING WORK TO ENSURE THAT THE FULL SCOPE FOR THE DEMOLITION IS DOCUMENTED. THE ELEMENTS OUTLINED AND IDENTIFIED ON THE DEMOLITION DRAWINGS (ALL DISCIPLINES) ARE GENERAL IN NATURE & ARE NOT INTENDED TO ESTABLISH OR IMPLY THE COMPLETE DEMOLITION SCOPE. ALL NECESSARY PROCEDURES, TECHNIQUES, MATERIALS AND PRODUCTS TO COMPLETE ALL DEMOLITION REQUIRED TO ACCOMMODATE ALL NEW CONSTRUCTION SHALL BE A PART OF THIS CONTRACT. ALL DEMOLITION BY PLUMBING, MECHANICAL & ELECTRICAL DISCIPLINES SHALL BE INCLUDED IN EACH RESPECTIVE DISCIPLINES' SCOPE OR AS COORDINATED FOR COMPLETION BY THE DEMOLITION IN THE GENERAL PROJECT SCOPE.
2. GENERAL CONTRACTOR SHALL SALVAGE ALL EXISTING DEMOLISHED MATERIALS, EQUIPMENT, FIXTURES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL DISPOSITIONS OF ALL DEMOLISHED, SALVAGED ITEMS. NO ITEM IS TO REMAIN ON THE SITE. COORDINATE WITH THE OWNER FOR ANY ITEMS WHICH THE OWNER MAY WISH TO SALVAGE. ANY AND ALL DEMOLISHED OR SALVAGED .
3. SEE MECHANICAL, PLUMBING AND ELECTRICAL DEMOLITION DRAWINGS, NOTES, ETC. FOR SCOPE OF DEMOLITION IN THESE DISCIPLINES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PATCH AND REPAIR OF ANY FINISHES OR BUILDING COMPONENTS TO INCLUDE OR ASSOCIATED WITH, BUT NOT LIMITED TO FLOORS, WALLS, ROOFS, ETC. DAMAGED BY THE CONTRACTOR OR HIS SUBS DURING THE PROCESS OF THE WORK. DURING THE DETAILED INVESTIGATION DESCRIBED IN DEMOLITION NOTE 1., THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL BECOME FULLY AWARE OF THE SCOPE OF DEMOLITION AND ITS EFFECT ON BUILDING SYSTEMS TO REMAIN OR BE CONSTRUCTED SO AS TO ANTICIPATE ANY PATCHING OR REPAIR REQUIRED TO COMPLETE THE PROJECT AS OUTLINED IN THE CONSTRUCTION DOCUMENTS.
5. CONTRACTOR SHALL PROTECT EXISTING FLOOR FINISHES, WALLS, DOORS / DOOR FRAMES & HARDWARE, CEILINGS THROUGH OUT BUILDING, AREAS OF ACCESS AND AREAS OF WORK. CONTRACTOR SHALL REPAIR / PATCH DAMAGED ITEMS / AREAS AS REQUIRED TO ACHIEVE LIKE NEW CONDITIONS / FINISH. CONTRACTOR SHALL PHOTO DOCUMENT EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
6. ALL FURNITURE INDICATED ON THESE PLANS IS EXISTING FURNITURE TO REMAIN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY RE-LOCATE EXISTING FURNITURE WITHIN AREAS OF WORK AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. CONTRACTOR SHALL DOCUMENT EXISTING FURNITURE LAYOUT, PROTECT FURNITURE, AND RE-INSTALL FURNITURE IN ITS ORIGINAL LOCATION.

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FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA
IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

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FIRST FLOOR DEMO. & NEW FLOOR PLANS, NOTES

Sheet Number

BI.A/A1.1

PRINTED: 3/26/2024 @ 10:12AM
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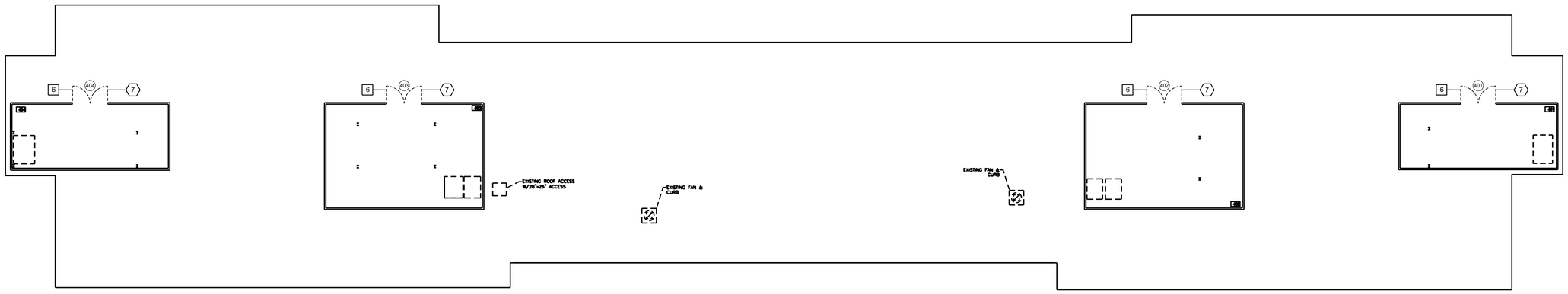

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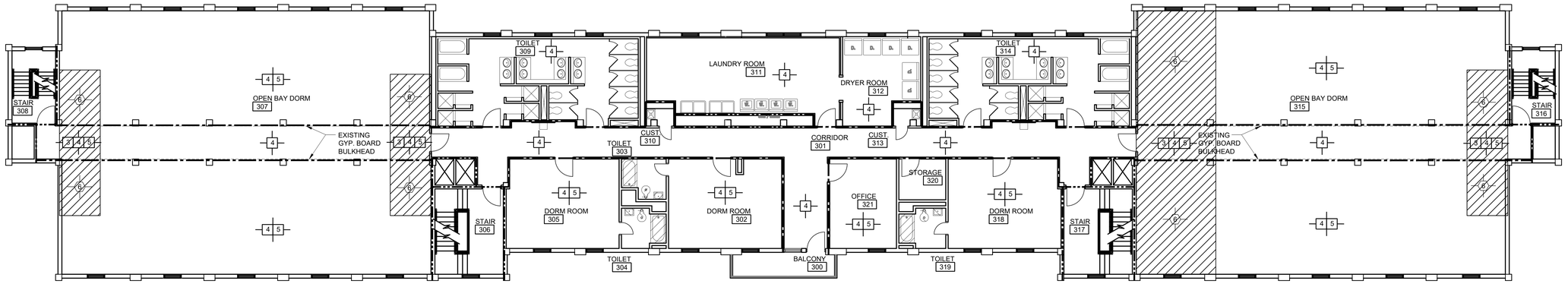
ROOF / PENTHOUSE LEVEL PLAN

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

NOTE: REFER TO DRAWING A1.1 FOR ALL GENERAL, DEMOLITION, AND WORK NOTES.



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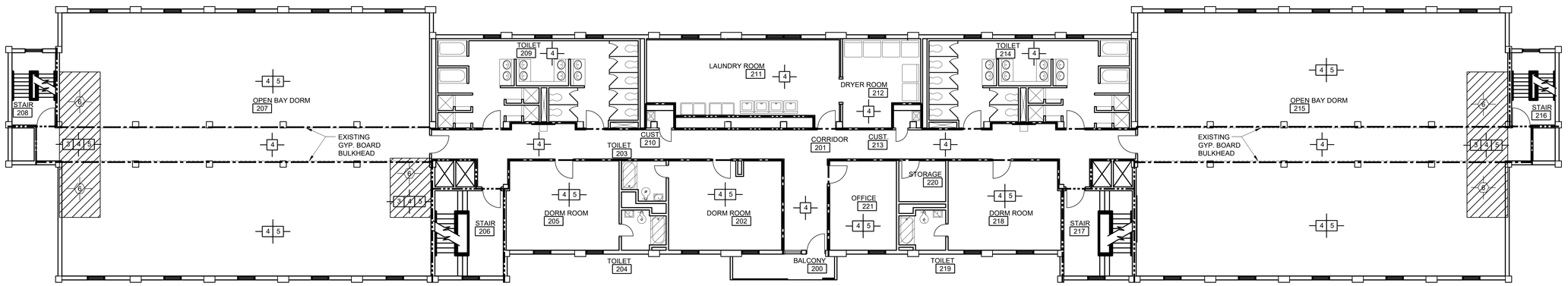
THIRD FLOOR PLAN

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

NOTE: REFER TO DRAWING A1.1 FOR ALL GENERAL, DEMOLITION, AND WORK NOTES.



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SECOND FLOOR PLAN

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

NOTE: REFER TO DRAWING A1.1 FOR ALL GENERAL, DEMOLITION, AND WORK NOTES.

PLAN LEGEND

- 205 — ROOM FINISH MARK
- 2 — WORK NOTE REFERENCE
- A2.1 / A — DETAIL OR ELEVATION NUMBER; SHEET NUMBER
- A2.1 / A — PLAN OR SECTION ENLARGEMENT
- NEW 3 ⅝" METAL STUD PARTITION W/ ⅝" GYP BOARD EACH SIDE FROM FLOOR TO CEILING
- 101 — NEW DOOR MARK
- 2 — DEMOLITION NOTES
- 2 — DEMOLITION PHOTO REFERENCE
- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- A2.1 / A — SECTION KEY
- A2.1 / A — DETAIL KEY
- CMU WALL
- FIRE EXT. CABINET
- 1-HOUR RATING
- 2-HOUR RATING
- NO WORK THIS AREA
- 1 — NEW LOUVER MARK

KEY

INDICATES APPROXIMATE ZONE WHERE REMOVAL OF CEILING TILE, SECONDARY CEILING GRID, HVAC CEILING GRILLES & REGISTERS, SMOKE DETECTORS, ETC. IS REQUIRED FOR THE INSTALLATION OF NEW MECHANICAL SYSTEMS. CONTRACTOR WILL VERIFY REMOVAL REQUIREMENTS (AREA & QUANTITIES) & WILL COORDINATE FOR THE REMOVAL & REINSTALLATION OF ALL COMPONENTS.

NOTE: CONTRACTOR WILL ACCOMPLISH ALL INSTALLATION WITHOUT THE REMOVAL OF CEILING GRID MAIN TEES IF POSSIBLE. COORDINATE WITH MECHANICAL DRAWINGS. LIGHT FIXTURES TO REMAIN IN PLACE, CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT AS REQUIRED.

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SECOND & THIRD FLOOR PLANS, ROOF / PENTHOUSE LEVEL PLAN

Sheet Number

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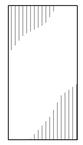
FILE NAME: W:\JMRH Projects 2023\23-1337 Building 1021 HVAC Restoration\1021 - A1.2 - Second Floor Plan.dwg

DOOR SCHEDULE							
NO.	TYPE	SIZE	FRAME TYPE	HDW SET	LABEL	GLASS TYPE	REMARKS
FIRST FLOOR							
101	A	4'-0"x5'-10"x1¾"	2	1	20 MIN	-----	1
102	A	PR. 3'-0"x5'-10"x1¾"	1	2	20 MIN	-----	1
103	A	PR. 3'-0"x5'-10"x1¾"	1	2	20 MIN	-----	1
104	A	4'-0"x5'-10"x1¾"	2	1	20 MIN	-----	1
ROOF / PENTHOUSE LEVEL							
401	A	PR. 3'-0"x6'-0"x1 ¾"	1	3	-----	-----	2
402	A	PR. 3'-0"x6'-0"x1 ¾"	1	3	-----	-----	2
403	A	PR. 3'-0"x6'-0"x1 ¾"	1	3	-----	-----	2
404	A	PR. 3'-0"x6'-0"x1 ¾"	1	3	-----	-----	2

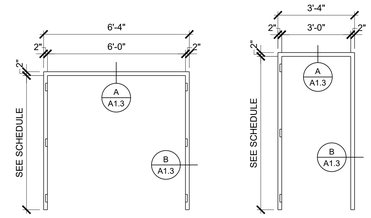
DOOR SCHEDULE REMARKS:

1. COORDINATE FINAL LOCATION OF DOOR WITH MECHANICAL CONTRACTOR, FT. MCCLELLAN DPW, AND OWNERS REPRESENTATIVE.
2. REMOVE AND REPLACE EXISTING DOORS, FRAMES, & HARDWARE UNDER **BID ALTERNATE - A3**.



(A) FLUSH PANEL HOLLOW METAL DOOR

DOOR TYPES
SCALE: 3/8"=1'-0"



(1) DOUBLE LEAF HOLLOW METAL FRAME - PAINTED

(2) SINGLE LEAF HOLLOW METAL - PAINTED

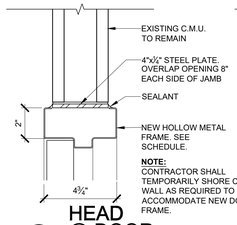
FRAME TYPES
SCALE: 3/8"=1'-0"

(E / A1.3) TYPICAL CONCRETE FLOOR SLAB INFILL
SCALE: 1 1/2"=1'-0"

1 ALUMINUM LOUVER W/ KYNAR FINISH & DAMPER TO INCLUDE FLANGE FRAME. REFER TO SHEET M4.1 FOR LOCATION.

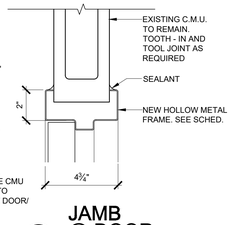
LOUVER SCHEDULE
SCALE: 3/8"=1'-0"

(D / A1.3) LOUVER DETAIL
SCALE: 1" = 1'-0"

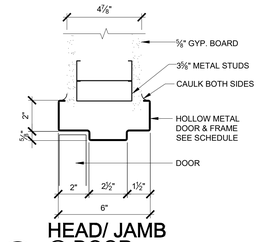


NOTE: CONTRACTOR SHALL TEMPORARILY SHORE CMU WALL AS REQUIRED TO ACCOMMODATE NEW DOOR/ FRAME.

HEAD @ DOOR
(A / A1.3) SCALE: 3"=1'-0"



JAMB @ DOOR
(B / A1.3) SCALE: 3"=1'-0"



HEAD/ JAMB @ DOOR
(C / A1.3) SCALE: 3"=1'-0"

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DOOR SCHEDULE & DETAILS

Sheet Number

BI.A/A1.3

GENERAL NOTES

1. THE GENERAL AND DEMOLITION CONTRACTOR AND ALL SUB-CONTRACTORS SHALL MAKE A DETAILED INVESTIGATION OF THE SITE PRIOR TO STARTING WORK TO ENSURE THAT THE FULL SCOPE FOR THE DEMOLITION IS DOCUMENTED. THE ELEMENTS OUTLINED AND IDENTIFIED ON THE DEMOLITION DRAWINGS (ALL DISCIPLINES) ARE GENERAL IN NATURE & ARE NOT INTENDED TO ESTABLISH OR IMPLY THE COMPLETE DEMOLITION SCOPE. ALL NECESSARY PROCEDURES, TECHNIQUES, MATERIALS AND PRODUCTS TO COMPLETE ALL DEMOLITION REQUIRED TO ACCOMMODATE ALL NEW CONSTRUCTION SHALL BE A PART OF THIS CONTRACT. ALL DEMOLITION BY PLUMBING, MECHANICAL & ELECTRICAL DISCIPLINES SHALL BE INCLUDED IN EACH RESPECTIVE DISCIPLINES' SCOPE OR AS COORDINATED FOR COMPLETION BY THE DEMOLITION IN THE GENERAL PROJECT SCOPE.
2. GENERAL CONTRACTOR SHALL SALVAGE ALL EXISTING DEMOLISHED MATERIALS, EQUIPMENT, FIXTURES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL DISPOSITIONS OF ALL DEMOLISHED, SALVAGED ITEMS. NO ITEM IS TO REMAIN ON THE SITE. COORDINATE WITH THE OWNER FOR ANY ITEMS WHICH THE OWNER MAY WISH TO SALVAGE. ANY AND ALL DEMOLISHED OR SALVAGED .
3. SEE MECHANICAL, PLUMBING AND ELECTRICAL DEMOLITION DRAWINGS, NOTES, ETC. FOR SCOPE OF DEMOLITION IN THESE DISCIPLINES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PATCH AND REPAIR OF ANY FINISHES OR BUILDING COMPONENTS TO INCLUDE OR ASSOCIATED WITH, BUT NOT LIMITED TO FLOORS, WALLS, ROOFS, ETC. DAMAGED BY THE CONTRACTOR OR HIS SUBS DURING THE PROCESS OF THE WORK. DURING THE DETAILED INVESTIGATION DESCRIBED IN DEMOLITION NOTE 1., THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL BECOME FULLY AWARE OF THE SCOPE OF DEMOLITION AND ITS EFFECT ON BUILDING SYSTEMS TO REMAIN OR BE CONSTRUCTED SO AS TO ANTICIPATE ANY PATCHING OR REPAIR REQUIRED TO COMPLETE THE PROJECT AS OUTLINED IN THE CONSTRUCTION DOCUMENTS.
5. CONTRACTOR SHALL PROTECT EXISTING FLOOR FINISHES, WALLS, DOORS / DOOR FRAMES & HARDWARE, CEILINGS THROUGH OUT BUILDING, AREAS OF ACCESS AND AREAS OF WORK. CONTRACTOR SHALL REPAIR / PATCH DAMAGED ITEMS / AREAS AS REQUIRED TO ACHIEVE LIKE NEW CONDITIONS / FINISH. CONTRACTOR SHALL PHOTO DOCUMENT EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
6. ALL FURNITURE INDICATED ON THESE PLANS IS EXISTING FURNITURE TO REMAIN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEMPORARILY RE-LOCATE EXISTING FURNITURE WITHIN AREAS OF WORK AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. CONTRACTOR SHALL DOCUMENT EXISTING FURNITURE LAYOUT, PROTECT FURNITURE, AND RE-INSTALL FURNITURE IN ITS ORIGINAL LOCATION.

DEMOLITION NOTES

1. REMOVE AND DISCARD EXISTING ACCESS DOOR, FRAME & ALL ASSOCIATED HARDWARE TO ACCOMMODATE NEW CONSTRUCTION.
2. SAWCUT AND REMOVE PORTION OF EXISTING C.M.U. WALL AS REQUIRED FOR NEW HOLLOW METAL FRAME. RELOCATE/ RE-ROUTE EXISTING ELECTRICAL, FIRE PROTECTION, ETC. COMPONENTS AS REQUIRED. PATCH ALL FLOORS AND ADJACENT WALLS TO REMAIN. NEW MASONRY BUILD-BACK WILL BE "TOOTHED-IN" AT NEW JAMB LOCATIONS.
3. REMOVE EXISTING C.M.U. WALL IN ITS ENTIRETY FROM FLOOR SLAB TO SLAB ABOVE. PATCH & REPAIR ADJACENT WALLS TO REMAIN & FLOOR & SLAB ABOVE.
4. REMOVE PORTION OF CHAIN LINK FENCING AS REQUIRED TO REMOVE EXISTING MECHANICAL UNIT. REINSTALL FENCING IN ORIGINAL LOCATION & CONFIGURATION AFTER INSTALLATION OF NEW MECHANICAL UNIT IS COMPLETE.
5. REMOVE PORTION OF EXISTING EXTERIOR WALL AS REQUIRED TO ACCOMMODATION INSTALLATION OF NEW LOUVER. SEE MECH. FOR SIZE OF PENETRATION. PROVIDE STEEL LINTEL AT MASONRY TYPICAL
6. REMOVE, STORE AND PROTECT EXISTING CEILING TILE AND GRID AS REQUIRED FOR REMOVAL AND REPLACEMENT OF EXISTING MECHANICAL EQUIPMENT IN THIS AREA. RE-INSTALL EXISTING CEILING TILE AND GRID IN AFFECTED AREAS. REPLACE ANY DAMAGED CEILING TILE AND GRID.

WORK NOTES

1. INFILL EXISTING CMU WALL AS REQUIRED FOR INSTALLATION OF NEW HOLLOW METAL FRAME. TOOTH-IN AND STRING JOINT TO MATCH EXISTING. PRIME & PAINT NEW CMU TO MATCH EXISTING
2. FORM AND INFILL HOLES (APPROX. 14"X14") IN EXISTING SLAB WHERE DUCTWORK WAS REMOVED WITH NEW CONCRETE AND REINFORCING AS SHOWN IN DETAIL E/A1.3
3. REMOVE EXISTING LAY-IN CEILING AND GRID AS REQUIRED FOR INSTALLATION OF MECHANICAL DUCTWORK. REINSTALL TILE AND GRID IN ORIGINAL LOCATION AFTER INSTALLATION OF DUCTWORK IS COMPLETE
4. PATCH, REPAIR, AND PAINT EXISTING CMU WALLS WHERE EXISTING CONDUIT IS BEING REMOVED. SEE ELECTRICAL DRAWINGS.
5. PATCH AND REPAIR EXISTING CEILING GRID WHERE DAMAGED AS A RESULT OF DEMOLITION OF EXISTING CONDUIT. RE-INSTALL EXISTING ACOUSTICAL CEILING TILE/REPLACE DAMAGED CEILING TILE AS REQUIRED.

PLAN LEGEND

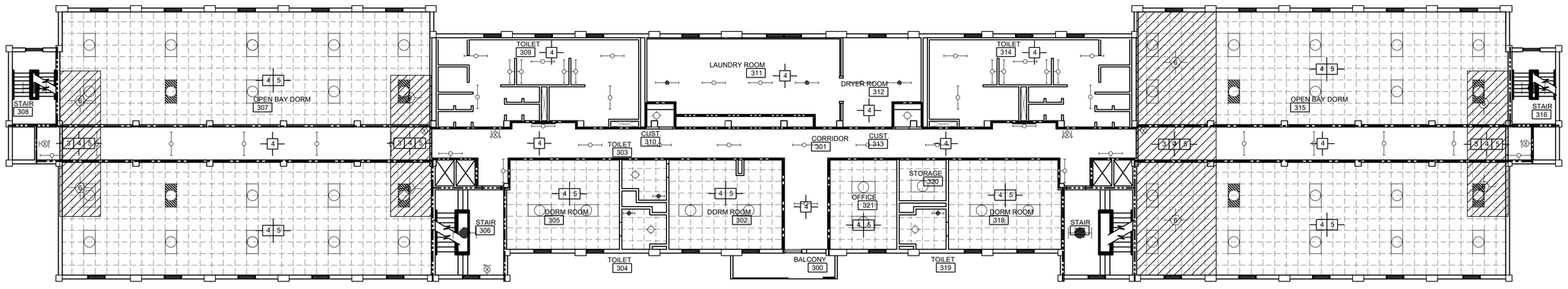
- DEMOLITION NOTE REFERENCE
- DEMOLITION PHOTO REFERENCE
- WORK NOTE REFERENCE
- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- DOOR MARK
- ROOM FINISH MARK (205)
- DETAIL OR ELEVATION NUMBER / SHEET NUMBER
- SECTION KEY
- NO WORK THIS AREA
- ELEVATION KEY
- DETAIL KEY
- PLAN OR SECTION ENLARGEMENT
- CMU WALL
- FIRE EXT. CABINET
- 1-HOUR RATING
- 2-HOUR RATING

RCP GENERAL NOTES

1. COORDINATE ALL CEILING DIFFUSERS AND LIGHT FIXTURES WITH MECHANICAL / ELECTRICAL DRAWINGS. NOTIFY ARCHITECT OF CONFLICT WITH LAYOUT ON REFLECTED CEILING PLAN.
2. ENGINEERING SHEETS TAKE PRECEDENCE FOR PARTICULAR FIXTURE TYPES. ARCHITECTURAL REFLECTED CEILING PLANS ARE FOR COORDINATION OF AESTHETIC ARRANGEMENTS.
3. CEILING HEIGHTS SHOWN ON THESE DOCUMENTS PROPOSE THE MOST DESIRED CEILING HEIGHT FOR SPACES INDICATED. SHOULD CONFLICT ARISE WITH MECHANICAL / ELECTRICAL / STRUCTURAL, NOTIFY THE ARCHITECT AND ADJUSTMENTS WILL BE MADE ACCORDINGLY.

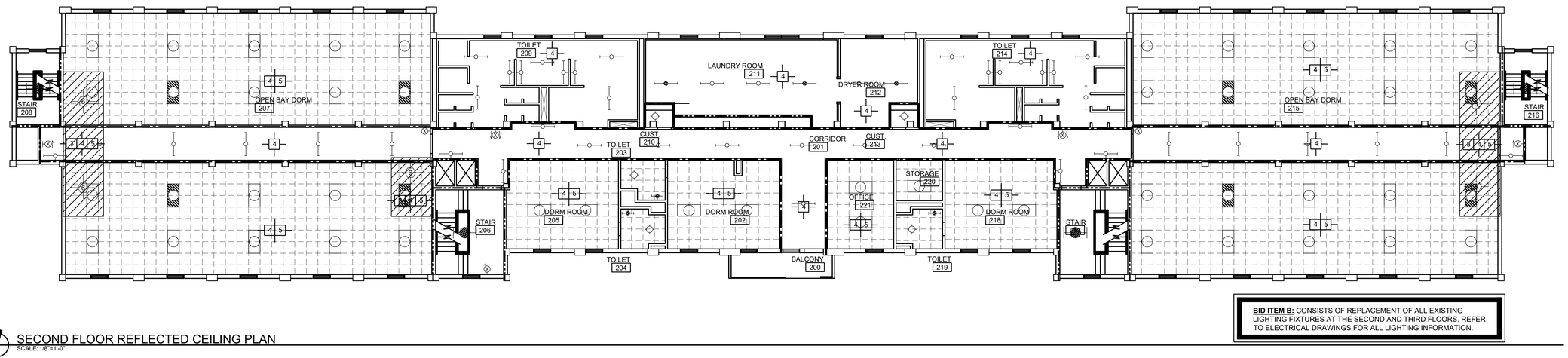
RCP LEGEND

- 2' X 2' DIFFUSER SEE MECHANICAL
- 2'X2' RETURN GRILL SEE MECHANICAL
- VRF SYSTEM SEE MECHANICAL
- 2'x 4' FLUORESCENT LIGHT
- EXISTING 2 X 2 ACOUSTICAL TILE
- NEW 2 X 2 ACOUSTICAL TILE
- EXISTING GYPSUM BOARD CEILING
- NEW MOISTURE RESISTANT GYPSUM BOARD CEILING BOARD PAINTED EPOXY
- EXPOSED
- CONCRETE



BID ITEM B: CONSISTS OF REPLACEMENT OF ALL EXISTING LIGHTING FIXTURES AT THE SECOND AND THIRD FLOORS. REFER TO ELECTRICAL DRAWINGS FOR ALL LIGHTING INFORMATION.

THIRD FLOOR REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"



BID ITEM B: CONSISTS OF REPLACEMENT OF ALL EXISTING LIGHTING FIXTURES AT THE SECOND AND THIRD FLOORS. REFER TO ELECTRICAL DRAWINGS FOR ALL LIGHTING INFORMATION.

SECOND FLOOR REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"

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SECOND & THIRD FLOOR REFLECTED CEILING PLANS

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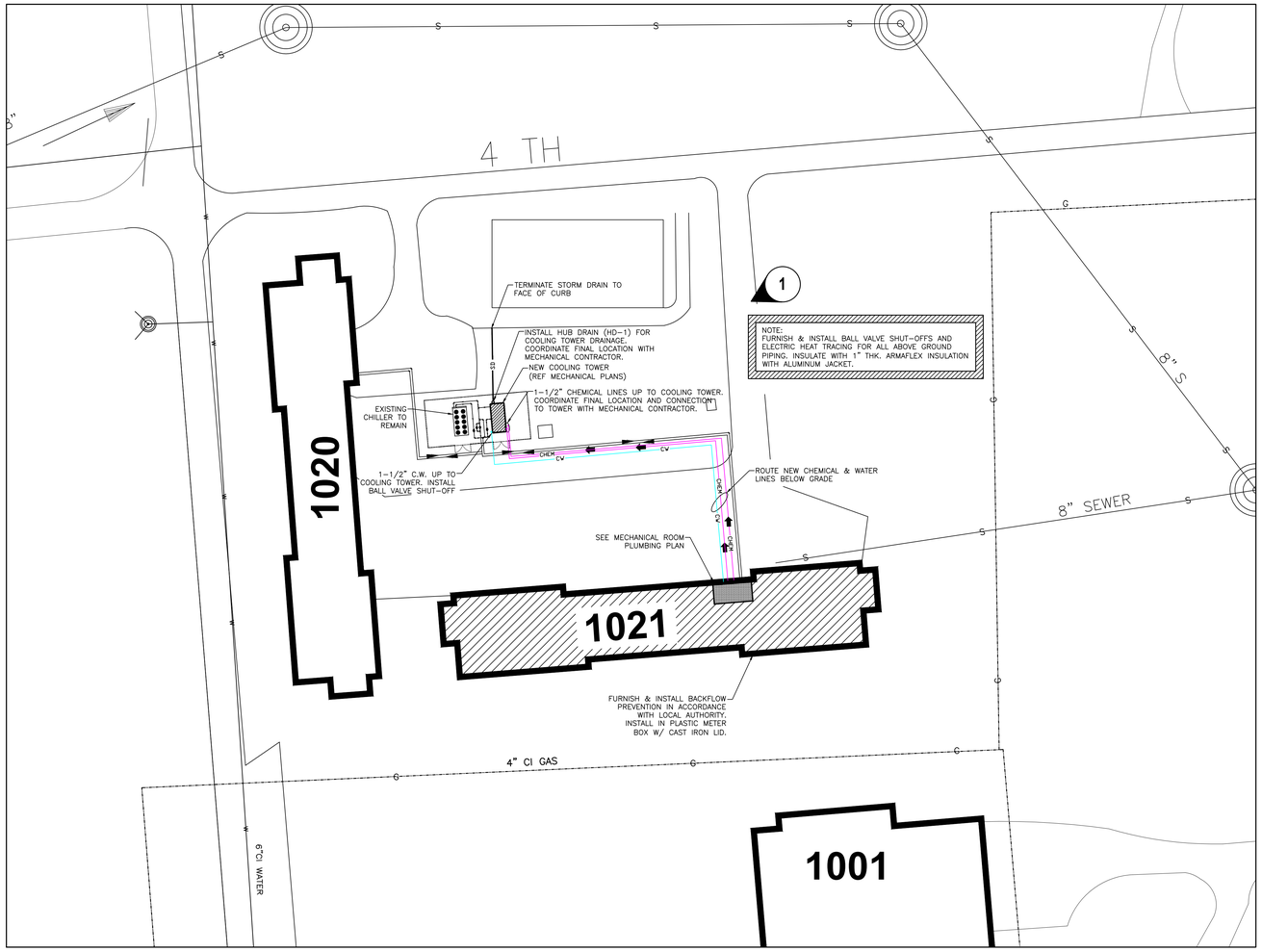
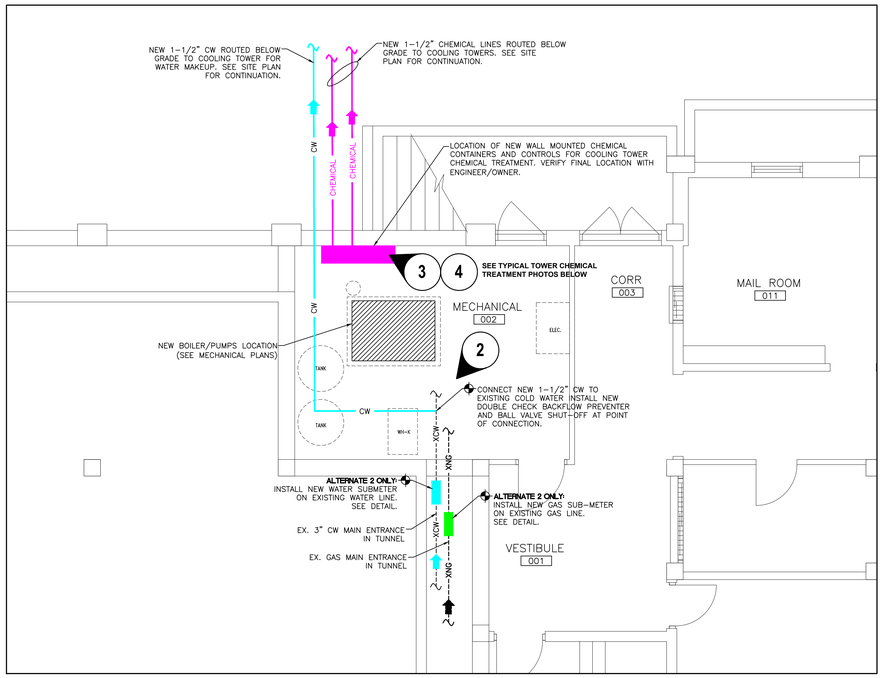




MECHANICAL ROOM PLUMBING PLAN

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

PLUMBING SITE PLAN

SCALE: 1" = 30'-0"

EVAPORATIVE CONDENSER TOWER CHEMICAL TREATMENT NOTES

1. **CHEMICAL TREATMENT SYSTEM SHALL MATCH EXISTING EQUIPMENT IN SERVICE. EXISTING SYSTEM IN SERVICE. EXISTING SYSTEM INCLUDES EQUIPMENT SUCH AS BELOW.**
2. **DUAL TABLET TYPE CANISTERS FOR GARRATT CALLAHAN SMART RELEASE TECHNOLOGY WITH CW311-SR SCALE AND CORROSION INHIBITOR.**
3. **REFERENCE PHOTO FOR TYPICAL TOWER BASIN TREATMENT EQUIPMENT TO BE INSTALLED IN BUILDING MECHANICAL ROOM.**
4. **ALL ABOVE GROUND CHEMICAL TREATMENT TOWER AT THE TOWER PAD SHALL BE ELECTRICALLY HEAT TRACED FOR FREEZE PROTECTION.**

BUILDING HYDRONIC WATER LOOP CHEMICAL TREATMENT NOTES

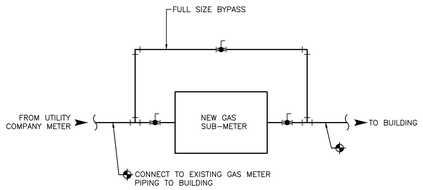
1. **THE BUILDING HYDRONIC WATER LOOP SHALL BE TREATED VIA THE "POT TYPE" CHEMICAL FEEDER.**
2. **EQUIPMENT SHALL BE INSTALLED AS SHOWN ON PLANS AND SHALL INCLUDE A CHEMICAL / WATER LOOP FROM THE BUILDING MECHANICAL ROOM TO THE TOWER BASIN.**

PLUMBING NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESSORIES, AND CONTROLS COMPLETELY COORDINATED WITH ALL TRADES. ALL REQUIREMENTS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED TO. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, LOCAL AUTHORITIES, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
2. ALL PLUMBING COMPONENTS TO BE LEAD-FREE.
3. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC..
4. HORIZONTAL DRAINAGE PIPING OF 2-1/2" INCH DIAMETER OR LESS SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/4" INCH PER FOOT. PIPING 3" AND LARGER SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/8" INCH PER FOOT.
5. COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS AND OTHER STRUCTURAL CONDITIONS.
6. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED ON DRAWINGS FINAL CONNECTION SHALL INCLUDE ANY ADAPTORS, NIPPLES, SHUT-OFF VALVES, PRV'S, SHOCK ABSORBERS, BACKFLOW PREVENTION DEVICES, REGULATORS ETC..
7. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCKOUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
8. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.

GAS SUB-METER PIPING DIAGRAM

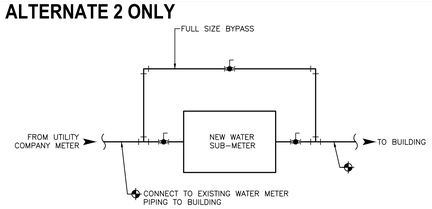
ALTERNATE 2 ONLY



COORDINATE WITH DDC CONTROLS CONTRACTOR FOR COMPLETE INTERFACE TO THE HONEYWELL BUILDING AUTOMATION SYSTEM.

WATER SUB-METER PIPING DIAGRAM

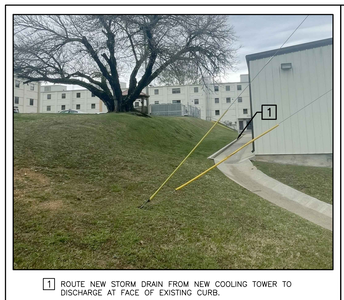
ALTERNATE 2 ONLY



COORDINATE WITH DDC CONTROLS CONTRACTOR FOR COMPLETE INTERFACE TO THE HONEYWELL BUILDING AUTOMATION SYSTEM.

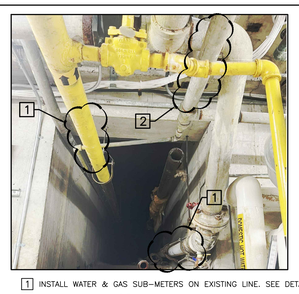
PLUMBING SPECIALITY SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	MIXED WATER SIZE	NOTES
HD-1	HUB DRAIN	PROSET MODEL SYSTEM INC. MODEL NO. TG34IP OR APPROVED EQUAL	FLOOR	-	4"	-	-	-	-	STUB TO 1" A.F.F.



1 ROUTE NEW STORM DRAIN FROM NEW COOLING TOWER TO DISCHARGE AT FACE OF EXISTING CURB.

1 NEW PLUMBING EQUIPMENT
NOT TO SCALE



1 INSTALL WATER & GAS SUB-METERS ON EXISTING LINE. SEE DETAIL.
2 CONNECT NEW 1-1/2" CW FOR COOLING TOWER MAKE-UP TO EXISTING WATER LINES.

2 NEW PLUMBING EQUIPMENT
NOT TO SCALE

3 TYP. TOWER CHEMICAL TREATMENT INSTALLATION
NOT TO SCALE

4 TYP. TOWER CHEMICAL TREATMENT INSTALLATION
NOT TO SCALE

PLUMBING LEGEND

SD	STORM DRAIN
CW	COLD WATER
CHEM	COOLING TOWER CHEMICAL LINES
S	EXISTING DOMESTIC COLD WATER
XCW	EXISTING NATURAL GAS
XNG	EXISTING SANITARY SEWER

PLUMBING DRAWING INDEX

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FMTC BUILDING
1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

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Sheet Description

PLUMBING SITE PLAN

Sheet Number

BI.A/P1.1

HVAC LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING DIFFUSER – SUPPLY RECTANGULAR WITH ROUND NECK 4–WAY THROW UNLESS OTHERWISE INDICATED		ACCESS DOORS VERTICAL OR HORIZONTAL		STANDARD 90° RADIUS ELBOW
	CEILING DIFFUSER – SUPPLY ROUND 2 HORIZONTAL DISCHARGE PATTERNS		MANUAL VOLUME DAMPER OPPOSED BLADE		STANDARD 45° RADIUS ELBOW
	CEILING DIFFUSER – RETURN RECTANGULAR WITH SQUARE NECK	M	LOW LEAKAGE MOTORIZED VOLUME DAMPER		90° VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
	SIDEWALL DIFFUSER – SUPPLY WITH MULTI–VANE DEFLECTOR	S_S	SMOKE DETECTOR FOR FAN SHUT–DOWN		45° VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
	SIDEWALL DIFFUSER – RETURN WITH 30° FIXED DEFLECTION	F_S	FIRE–STAT FOR FAN SHUT–DOWN		VANED TEE (PROVIDE ALL SQUARE OR RECTANGULAR TEE'S WITH VANES EVEN IF SYMBOL IS MISSING)
XX–X XXX CFM	DIFFUSER TAG REFERENCE SCHEDULE FOR SIZING	$	IN DUCT SENSOR (TEMP/HUMIDITY) LOCATION		STANDARD DUCT SIZE TRANSITION
	CEILING EXHAUST FAN		HORIZONTAL MOUNTED FIRE DAMPER		STANDARD SQUARE TO ROUND TRANSITION
12"X12"	NEW RECTANGULAR DUCT WIDTH X DEPTH		VERTICAL MOUNTED FIRE DAMPER	CD	HVAC CONDENSATE DRAIN PIPING
10"ø	NEW ROUND DUCT DIAMETER	T	THERMOSTAT LOCATION	R	HVAC REFRIGERANT LINE
	FLEXIBLE DUCT CONNECTION	H	HUMIDISTAT LOCATION		CONNECTION TO EXISTING
R	DUCT RISE IN DIRECTION OF ARROW	C	CARBON DIOXIDE SENSOR LOCATION		
D	DUCT DROP IN DIRECTION OF ARROW	X O.S.	CEILING MOUNTED OCCUPANCY SENSOR		

HVAC NOTES

1. ALL DUCT DIMENSIONS SHOWN ARE NET INTERNAL.
2. INSTALL OPPOSED BLADE BALANCING DAMPERS IN ALL NEW DIFFUSERS AND GRILLES.
3. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE HVAC SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL REQUIREMENTS OF THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE HVAC SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE CONTRACT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
4. COORDINATE DUCTWORK AND PIPING WITH STRUCTURAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS AS REQUIRED TO CLEAR STRUCTURAL MEMBERS, ETC. COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES; COORDINATE EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS WITH ARCHITECTURAL AND INTERIOR REFLECTED CEILING PLANS AND LIGHTING FIXTURES. FOR PARTICULAR ITEMS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ARCHITECT FOR REVIEW AND/OR APPROVAL.
6. COORDINATE ALL ROOF AND SLAB PENETRATIONS WITH THE STRUCTURAL ENGINEER. TRANSITIONS RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. MAINTAIN DUCTWORK LEVEL AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.
7. THE HVAC CONTRACTOR IS TO REVIEW THE ENTIRE SET OF PLANS FOR COORDINATION WITH OTHER TRADES. SHOP DRAWINGS WITH ALL TRADES COORDINATED WILL BE REQUIRED.
8. THE HVAC CONTRACTOR SHALL REVIEW THE ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL RATED WALLS, CEILINGS, FLOORS, ETC. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL FIRE OR FIRE/SMOKE DAMPERS IN ALL RATED LOCATIONS WHETHER SHOWN ON THE MECHANICAL PLANS OR NOT.
9. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
10. ALL THREE PHASE EQUIPMENT SHALL BE EQUIPPED WITH PHASE LOSS PROTECTION.
11. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR.
12. CONTRACTOR TO COORDINATE ALL CEILING TYPES WITH DIFFUSERS. ALL DIFFUSERS IN GYPSUM CEILING SHALL INCLUDE PLASTER FRAME.
13. ALL DISTRIBUTION DEVICES SHALL HAVE FACE OPERABLE DAMPERS. ALL DIFFUSER RUNOUTS SHALL INCLUDE SPIN–IN WITH DAMPER IN ROUND DUCTS.
14. INSULATE TOP SIDE/BACK OF ALL DIFFUSERS/GRILLES, ETC.
15. CONDENSATE DRAIN PIPING SHALL BE SLOPED A MINIMUM OF 1/8" PER FOOT AND SHALL BE SIZED PER TABLE 307.2.2 IN THE 2021 INTERNATIONAL MECHANICAL CODE UNLESS SHOWN LARGER ON PLANS.
16. ALL 3/4" AND 1" CONDENSATE DRAIN TRAPS SHALL BE EZ–TRAP OR APPROVED EQUAL WITH FLOAT SWITCH.
17. INSTALL AUXILIARY DRAIN PAN UNDER ALL UNITS MOUNTED IN ATTIC, ABOVE CEILINGS, ETC. INSTALL WET SWITCH FOR UNIT SHUT DOWN IN AUXILIARY DRAIN PAN – DIVERSITECH "WET SWITCH" CONDENSATE DETECTION SWITCH OR APPROVED EQUAL.
18. VERIFY WITH THE ARCHITECTURAL DRAWINGS, SIZE, LOCATION, AND MOUNTING HEIGHT OF ALL LOUVERS. VERIFY COLOR AND FINISH WITH OWNER.
19. ALL UNUSED PORTION OF LOUVERS SHALL BE CAPPED OFF WITH 1" INSULATED ALUMINUM AND SEALED AIR/WATER TIGHT.
20. UNLESS OTHERWISE NOTED, UNITS SHALL INCLUDE A HONEYWELL SPYDER PUL6438SR (OR EQUAL) PROGRAMMABLE CONTROLLER WITH HONEYWELL SYLK I/O MODULES OR EQUAL) AS REQUIRED TO PROVIDE THE CONTROL POINTS AS LISTED IN THE POINTS MATRIX. WALL MODULES SHALL BE COMMUNICATING HONEYWELL TR–71H MODULES (OR EQUAL) FOR TEMPERATURE/HUMIDITY CONTROL AND TR–40–CO2 (OR EQUAL) FOR CO2 CONTROL WHERE A CO2 SENSOR IS SPECIFIED.
21. ALL THERMOSTATS TO BE MOUNTED 4'–0" A.F.F. TO HIGHEST OPERABLE CONTROL UNLESS OTHERWISE INDICATED.
22. PAINT ALL EXTERIOR EXPOSED ARMAFLEX INSULATION FOR UV PROTECTION.
23. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES, REGISTERS, AND DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
24. FLEXIBLE DUCT (SUPPLY RUNOUTS ONLY) SHALL NOT EXCEED 6'–0" IN LENGTH.
25. DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
    RECTANGULAR SUPPLY: 1" INTERNAL
    ROUND SUPPLY: 1–1/2" EXTERNAL
    FLEXIBLE SUPPLY: 1" PRE INSULATED
    RECTANGULAR RETURN: 1" INTERNAL
    OSA/EXHAUST: 1–1/2" EXTERNAL
26. DUCTWORK SHALL BE GALVANIZED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS.
27. LABEL ALL DUCTS WITH TYPE (SUPPLY, RETURN, ETC.) AND ARROWS INDICATING DIRECTION OF AIR FLOW. LABELS SHALL BE EVERY SIX FEET AND AT EACH CHANGE OF DIRECTION (T'S, ELBOWS, ETC.)
28. ROUND DUCT SHALL BE INSULATED WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 75 WITH MINIMUM INSTALLED R–VALUE 4.2. ROUND DUCTS LOCATED WITHIN THE ATTIC SHALL BE INSULATED WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 100 WITH MINIMUM INSTALLED R–VALUE 6.0
29. ALL OPEN ENDED DUCT SHALL BE CAPPED WITH 1/2"X1/2" WIRE MESH.
30. ALL EXPOSED DUCT SHALL BE INSULATED INTERNALLY WITH 1" DUCT LINER EQUAL TO CERTAINTEED TG2 DUCT LINER WITH MINIMUM INSTALLED R–VALUE 4.0.
31. ALL EXPOSED DUCT SHALL BE PAINTED. DUCT SHALL BE "PAINT GRIP". COORDINATE PAINT COLOR WITH OWNER.
32. DUCT LINER FOR RECTANGULAR DUCTS SHALL BE EQUAL TO CERTAINTEED TG2 DUCT LINER WITH A MINIMUM R–VALUE OF 4.0. RECTANGULAR DUCTS LOCATED WITHIN THE ATTIC SHALL BE LINED WITH DUCT LINER EQUAL TO CERTAINTEED TG2 DUCT LINER WITH A MINIMUM R–VALUE OF 4.0 AND WRAPPED EXTERNALLY WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 75 WITH A MINIMUM INSTALLED R–VALUE OF 4.2.
33. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL A SMOKE DETECTOR FOR FIRE SHUT DOWN IN ALL UNITS 2000 CFM AND ABOVE AND IN ALL UNITS SERVING EXIT ACCESS CORRIDORS REGARDLESS OF SIZE.
34. ALL DAMPERS INTERLOCKED WITH CARBON DIOXIDE SENSOR SHALL BE 24 VOLT MODULATING MOTORIZED DAMPER. DAMPER SHALL INCLUDE STEP DOWN TRANSFORMER 120V/24V.
35. WARRANTIES SHALL BEGIN AT DATE OF FINAL ACCEPTANCE OR BENEFICIAL OCCUPANCY. ALL COMPRESSORS SHALL INCLUDE MIN. OF FIVE YEAR WARRANTY. ONE YEAR WARRANTY FOR LABOR, PARTS, UNITS, ETC. IS REQUIRED FOR ALL EQUIPMENT. ADDITIONALLY CONTRACTOR IS RESPONSIBLE FOR ALL PREVENTATIVE MAINTENANCE AND ROUTINE SERVICE ON INSTALLED EQUIPMENT FOR THE ONE YEAR WARRANTY PERIOD IN ORDER TO MAINTAIN ALL FACTORY/MANUFACTURER WARRANTIES.
36. INSTALL ANGLE COVER OVER CONDENSATE LINES, REFRIGERANT LINES, ETC. THAT CROSS MEZZANINE FLOOR WHERE TRIPPING MIGHT BE A HAZARD. PRIME AND PAINT ANGLE COVER SAFETY YELLOW COLOR.
37. CONTRACTOR SHALL ANCHOR OUTDOOR UNITS TO CONCRETE PAD IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, WIND LOAD REQUIREMENTS, AND AS PER PLANS/SPECIFICATIONS. COORDINATE CONCRETE PAD SIZE, UNIT CLEARANCES, ETC. WITH STRUCTURAL AND ARCHITECTURAL PLANS, FRAMING, ETC.
38. THE CONTRACTOR SHALL INSTALL ANY CURB–MOUNTED EQUIPMENT IN SUCH A WAY THAT NO WATER LEAKAGE IS INTRODUCED INTO THE BUILDING.
39. ALL INDOOR AND OUTDOOR UNITS SHALL BE LOCATED SO THAT MAINTENANCE CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND AS PER PLANS/SPECIFICATIONS ARE MAINTAINED. COORDINATE MAINTENANCE CLEARANCES WITH STRUCTURAL AND ARCHITECTURAL PLANS, FRAMING, ETC.
40. MANUFACTURER/CONTRACTOR SHALL FURNISH AND INSTALL TORNADO/HURRICANE WIND CLIPS FOR CURB MOUNTED EQUIPMENT.
41. ALL COLOR/FINISH SELECTIONS SHALL BE MADE BY OWNER.
42. COORDINATE DDC CONTROLLER TERMINAL ASSIGNMENTS WITH AANG DDC STANDARDS AND PRACTICES.

PUMP SCHEDULE

MARK NO.	SERVICE	TYPE	GPM	TOTAL HEAD FT. WG.	MAXIMUM H.P.	MINIMUM EFFICIENCY	VOLTAGE	MODEL NO. DATA: MANUFACTURER (OR APPROVED EQUAL)	MODEL NO. DATA: UNIT MODEL NO.	NOTES
WP 1	HYDRONIC LOOP	FRAME MOUNTED	245	70	7.5	70%	208–3–60	TACO	FI3009	SEE BELOW
WP 2	HYDRONIC LOOP	FRAME MOUNTED	245	70	7.5	70%	208–3–60	TACO	FI3009	SEE BELOW

1. FACTORY MOUNTING FRAME TO BE PROVIDED, SUCTION DIFFUSER.
2. EACH PUMP SYSTEM SHALL INCLUDE VARIABLE SPEED PUMPING COMPLETE WITH ALL CONTROLS AND BE INTERFACED TO THE BUILDING AUTOMATION SYSTEM. ELECTRONIC VARIABLE SPEED CONTROLS SHALL BE BY BELL AND GOSSETT, ABB, OR AN APPROVED EQUAL. SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR A VARIABLE SPEED WATER SOURCE HEAT PUMP INSTALLATION. FULL COORDINATION WITH THE HEAT PUMP SUPPLIER IS REQUIRED. THE VARIABLE SPEED DRIVE SYSTEM SHALL REQUIRE ONLY SINGLE POINT ELECTRICAL SERVICE AND SHALL INCLUDE A FACTORY DISCONNECT.
3. WP–1 AND WP–2 SHALL OPERATE AS LEAD/LAG PUMP AND ROTATE WEEKLY (PUMPS DO NOT RUN SIMULTANEOUSLY).
4. ALL PUMPS SHALL BE SIZED FOR FLOW PLUS 10% EXTRA CAPACITY.
5. VARIABLE FREQUENCY DRIVES SHALL NOT BE MOTOR MOUNTED. VFD DRIVES SHALL BE SEPARATE FROM THE MOTOR.

APPROVED EQUALS: BELL AND GOSSETT, ARMSTRONG, AURORA, GRUNDFOS, AND PACO

LOUVER SCHEDULE

MARK NO.	MOUNTING	SIZE W X H	BLADE ANGLE	BLADE CENTERS	MIN. FREE AREA	MINIMUM FREE AREA SQ. FT.	MAXIMUM PRESSURE DROP IN W.G.	CFM	MODEL NO. DATA: MANUFACTURER (OR APPROVED EQUAL)	MODEL NO. DATA: MODEL NO.	NOTES
L 1	SIDE WALL	16"X16"	37°	4"	32%	0.57	0.10	375	GREENHECK	ESD–635	SEE BELOW
L 2	SIDE WALL	16"X16"	37°	4"	32%	0.57	0.10	375	GREENHECK	ESD–635	SEE BELOW

1. LOUVER TO INCLUDE FLANGE FRAME AND KYNAR FINISH. VERIFY FINAL COLOR AND FINISH WITH ARCHITECT. VERIFY QUANTITY WITH PLANS.

APPROVED EQUALS: RUSKIN AND UNITED ENERTECH.

AIR / DIRT SEPARATOR SCHEDULE

MARK NO.	SYSTEM	SIZE (INCHES)	GPM	MAX. PD (FT.)	TYPE	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	NOTES
AS 1	HVAC WATER	4"	245	1.0	TANK – HIGH VELOCITY (AIR/DIRT)	SPIROTHERM	SPIROVENT VHN40O	SEE BELOW

1. ASME CERTIFIED

EXPANSION TANK SCHEDULE

MARK NO.	SYSTEM	TANK VOLUME (GAL)	SHIPPING WEIGHT (LBS)	CHARGE PRESSURE PSI	DIAMETER (IN.)	HEIGHT (IN.)	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	NOTES
ET 1	HVAC WATER	79	320	25	24"	60.5"	TACO	CA300	SEE BELOW

1. ASME CERTIFIED

CODES AND STANDARDS

- **2021 INTERNATIONAL PLUMBING CODE**
- **2021 INTERNATIONAL MECHANICAL CODE**
- **2021 INTERNATIONAL FUEL GAS CODE**
- **ASHRAE 90.1-2013 ENERGY STANDARD**

HVAC DRAWING INDEX

HVAC LEGEND, NOTES, AND SCHEDULES

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FMTC BUILDING
1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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HVAC LEGEND, NOTES, AND SCHEDULES

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WATER SOURCE HEAT PUMP EQUIPMENT SCHEDULE

MARK NO.	NOMINAL FAN CFM	NOMINAL OSA CFM	EXT. STATIC IN WC	GPM	COOLING CAPACITY									HEATING CAPACITY								ELECTRICAL DATA								MODEL NO. DATA			ASSOCIATED PUMP SCHEDULE						NOTES
					WATER PD. (FT.)	TOTAL CAP. MBH	SENS. CAP. MBH	TOTAL HEAT REJ.	EER	COOLING POWER K.W.	ENT. AIR TEMP. (°F)	LEAVING AIR TEMP. (°F)	ENTERING WATER TEMP.	LEAVING WATER TEMP.	TOTAL CAP. MBH	TOTAL HEAT ABSORPT.	HEATING POWER K.W.	ENTERING AIR TEMP. (DEG. F)	WATER PD. (FT.)	ENTERING WATER TEMP.	LEAVING WATER TEMP.	COP	VOLTAGE	COMP. QTY.	COMP. R.L.A. (EA.)	FAN MOTOR QTY.	FAN H.P.	TOTAL F.L.A.	MINIMUM CIRCUIT AMPACITY	MAX. FUZE SIZE	MANUFACTURER (OR APPROVED EQUAL)	MANUFACTURER MODEL NO.	UNIT WEIGHT (LBS.)	MARK NO.	VOLTAGE	PUMP H.P.	TOTAL HEAD (FT)	MANUFACTURER (OR APPROVED EQUAL)	MANUFACTURER MODEL NO.	
WSHP 1	NOT USED																																						
WSHP 2	NOT USED																																						
WSHP 3	1750	375	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 3	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 4	1750	100	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 4	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 5	1750	100	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 5	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 6	1800	165	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 6	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 7	1750	210	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 7	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 8	1750	375	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 8	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 9	1750	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 9	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 10	2000	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 10	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 11	2000	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 11	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 12	1750	100	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 12	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 13	1750	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 13	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 14	1750	100	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 14	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 15	1750	120	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 15	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 16	1750	120	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 16	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 17	2000	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 17	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 18	1750	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 18	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 19	1750	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 19	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
WSHP 20	2000	200	0.7	14.0	10.65	58.55	48.51	71.45	17.5	3.78	80/67	59/58	86°	96.21°	67.25	56.07	4.02	70	11.4	68°	59.99°	5.9	208-3-60	1	14.5	1	1.0	18.3	22	35	TRANE	EXHG 060	613	P/WSHP 20	120-1-60	1/6	25.0	TACO	L1034	SEE BELOW
TOTAL				252.0		1,053.9	873.18	1,286.1		68.04					1,210.5	1,009.26	72.36																							

1. UNIT TO INCLUDE HOT GAS REHEAT AND HUMIDISTAT.
2. ALL UNITS SHALL INCLUDE MERV 13 FILTERS.
3. REFRIGERANT R-410A.
4. ALL VERTICAL UNITS TO BE MOUNTED ON A STEEL ANGLE FRAME. PRIME AND PAINT TO MATCH UNIT.
5. ALL PUMPS TO BE STARTED AND STOPPED WITH UNIT COMPRESSOR. ALL ELECTRICAL REQUIRED FOR THIS OPERATION/CONNECTION SHALL BE FURNISHED AND INSTALLED BY THE DDC SYSTEM INSTALLER.
6. UNIT TO INCLUDE UV-C PROTECTION. EQUIPMENT SHALL BE FRESH-AIRE UV AIRBORNE DUCT SYSTEM MODEL TUV-C-ADS (OR APPROVED EQUAL).
7. UNIT SHALL INCLUDE FACTORY HVAC UNIT CONTROLLER. COORDINATE WITH CONTROLS CONTRACTOR.
8. UNIT SHALL INCLUDE EXTENDED RANGE OPTION.
9. UNIT TO INCLUDE FACTORY CONDENSATE PUMP.
10. ALL UNITS SHALL BE ASHRAE 90.1-2013 COMPLIANT.
11. UNIT TO INCLUDE BIOCLIMATIC (OR APPROVED EQUAL) BI-POLAR IONIZATION UNIT (NEEDLEPOINT) MOUNTED IN UNIT RETURN DUCT PER MANUFACTURER'S RECOMMENDATION. IONIZATION UNIT SHALL BE POWERED FROM ASSOCIATED AIR HANDLER.
12. EQUIPMENT MUST BE FULLY COORDINATED WITH THE HVAC CONTRACTOR AS WELL AS THE ELECTRICAL CONTRACTOR FOR FINAL SUBMITTAL AND INCORPORATION IN THE PROJECT. THIS INCLUDES SIZE, WEIGHT, SOUND PRESSURE LEVELS, AIR FLOW, MOUNTING CLEARANCES, ETC.

APPROVED EQUALS: CARRIER AND TRANE

CEILING MOUNTED ELECTRIC HEATER SCHEDULE

MARK NO.	NOMINAL CFM	VOLTAGE	K.W.	BTU/HR	AMPS	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	UNIT WEIGHT (LBS)	NOTES
CEH 1	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 2	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 3	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 4	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 5	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 6	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 7	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW
CEH 8	150	208-1-60	3.0	10239	14.4	BERKO	QFF-4004	23	SEE BELOW

1. UNIT TO INCLUDE A SURFACE MOUNTING ENCLOSURE.
2. UNIT TO INCLUDE AUTOMATIC THERMAL CUTOUT AND POWER DISCONNECT.
3. UNIT TO INCLUDE AN INTEGRAL THERMOSTAT COMPLETELY CONCEALED BEHIND FACEPLATE.

APPROVED EQUALS: INDEECO, MARKEL, QMARK, AND RAYWALL

BOILER PUMP SCHEDULE

MARK NO.	TYPE	GPM	TOTAL HEAD FT. WG.	MAXIMUM H.P.	MINIMUM EFFICIENCY	VOLTAGE	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	NOTES
BP 1	VERTICAL IN-LINE	47	25	1.0	57%	208-3-60	TACO	KV1506	SEE BELOW

1. FLANGED CONNECTIONS.

APPROVED EQUALS: BELL AND GOSSETT, ARMSTRONG, AURORA, GRUNDFOS, AND PACO

EVAPORATIVE FLUID COOLING TOWER SCHEDULE

MARK NO.	LOOP WATER				FAN MOTOR		BASIN HEATER			SPRAY PUMP		OUTSIDE AIR W.B.	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	UNIT SHIPPING WEIGHT (LBS)	UNIT OPERATING WEIGHT (LBS)	NOTES
	GPM	ENTERING (°F)	LEAVING (°F)	COIL PD PSI	H.P.	VOLTAGE	NO.	KW	VOLTAGE	H.P.	VOLTAGE						
ECT 1	245	97°	85°	1.5	7.5	460-3-60	1	7	460-3-60	5	460-3-60	78	EVAPCO	ESWA-77-36H	10,280	14,390	SEE BELOW

1. EXTERNAL SERVICE PLATFORM WITH VERTICAL LADDER.
2. CONTROL PANEL WITH STARTERS AND CONTACTORS.
3. EL. HEATERS.
4. 304 STAINLESS STEEL BASIN.
5. FAN MOTOR: - 2 SPEED - 1 WINDING.
6. ALL EXTERIOR PIPING TO BE HEAT TRACED AND INSULATED.
7. STAINLESS STEEL COLD WATER BASIN AND STAINLESS STEEL COIL.
8. DISCHARGE ATTENUATION.
9. SINGLE POINT CONNECTION WITH FACTORY CONTROL PANEL AND INTERFACE TO WATER SOURCE HEAT PUMP CONTROL SYSTEM. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

APPROVED EQUALS: DAIKIN, REYMSA, AND SANYO

BOILER SCHEDULE

MARK NO.	TYPE	W x L x H (IN.)	GAS PRESSURE (IN. W.C.)	VOLTAGE	NAT. GAS INPUT (MBH)	NAT. GAS OUTPUT (MBH)	WATER CONNECTION	GAS CONNECTION	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	UNIT WEIGHT (LBS)	NOTES
B 1	HOT WATER	32" X 50" X 56"	4 TO 14	120-1-60	999	959	2-1/2"	1-1/4"	RAYPAK	XTHERM-H7-1005	1,200	SEE BELOW

1. BOILER TO INCLUDE ELECTRONIC IGNITION, HIGH LIMIT, DRAFT PROVING SWITCH, FLOW SWITCH, AND PUMP CONTROL.
2. BOILER TO INCLUDE WATER REGULATOR, MAIN GAS SHUT-OFF VALVE, CONNECTIONS, 6" COMBUSTION AIR INLET, CUPRO-NICKEL FINNED TUBE HEAT EXCHANGER, TEMPERATURE AND PRESSURE GAUGE, ULTRA-LOW NOX LESS THAN 30 PPM, 10 YEAR LIMITED WARRANTY, ASME RELIEF VALVE, REDUNDANT SAFETY SHUT-OFF VALVE, MAIN GAS PRESSURE.
3. BOILER HAS 6"ø GAS FLUE TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR.
4. BOILER TO INCLUDE FACTORY CONDENSATE NEUTRALIZER KIT AND EMERGENCY SHUT-DOWN SWITCH.
5. 6"ø AIR INTAKE AND 6"ø VENT EXHAUST WITH MAXIMUM 75 FT. EQ. LENGTH.
6. BOILER TO BE NATURAL GAS. THERMAL EFFICIENCY: 96% AND TURN DOWN: 7:1
7. CONTRACTOR SHALL ARRANGE FOR THE STATE OF ALABAMA BOILER AND PRESSURE VESSEL SAFETY DIVISION INSPECTOR TO VISIT THE JOB SITE TO INSPECT THE BOILER INSTALLATION. THE CONTRACTOR SHALL FURNISH A WRITTEN REPORT OF HIS FINDINGS AND COMPLY WITH ALL COMMENTS.
8. BOILER TO INCLUDE LOW GAS PRESSURE SWITCH AND MANUAL RESET.
9. BOILER TO INCLUDE HIGH GAS PRESSURE SWITCH AND MANUAL RESET.
10. BOILER TO INCLUDE MOTORIZED MODULATION CONTROL.
11. BOILER TO INCLUDE LOW WATER CUT-OFF, REMOTE PROBE.
12. BOILER TO INCLUDE FACTORY START-UP AND FACTORY OWNER TRAINING.

APPROVED EQUALS: LOCHINVAR AND FULTON

HVAC SCHEDULES

WHORTON ENGINEERING, INC.
HVAC - PLUMBING - PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
DATE 03-25-2024
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
STATE OF ALABAMA REGISTERED No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
WHORTON ENGINEERING PROJECT NO. 23169

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Architecture, PC
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Montgomery, Al 36104
Phone: (334) 420-5672
Fax: (334) 420-5692
STATE OF ALABAMA J.MICHAEL RUTLAND 2149 TIMOTHY R. HOLMES 3188 REGISTERED ARCHITECT

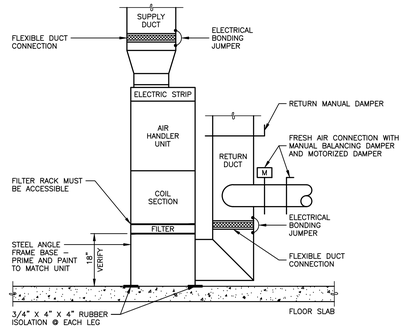
FMTC BUILDING
1021 HVAC RESTORATION
ANNISTON, ALABAMA
IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

Project Number: 23-1337
Date: 26 MARCH 2024
Revisions:

Sheet Description
HVAC SCHEDULES

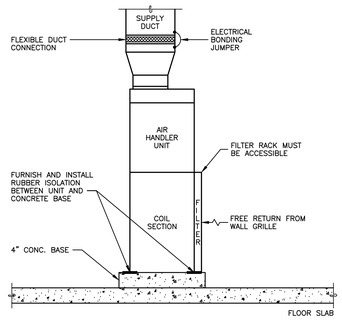
Sheet Number
BI.A/M1.2



TYPICAL SECTION AT INDOOR UNIT

NOT TO SCALE

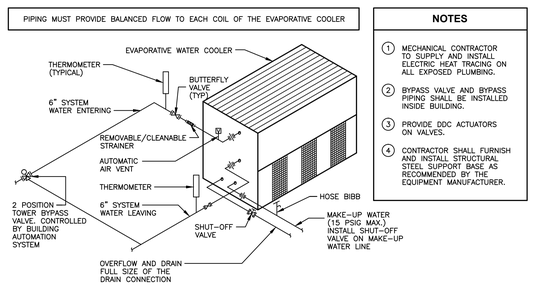
WITH DUCTED RETURN



TYPICAL SECTION AT INDOOR UNIT

NOT TO SCALE

WITH FREE RETURN

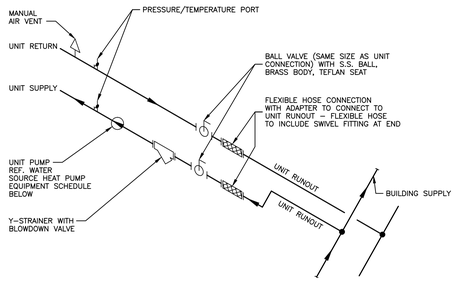


NOTES

1. MECHANICAL CONTRACTOR TO SUPPLY AND INSTALL ELECTRIC HEAT TRACING ON ALL EXPOSED PLUMBING.
2. BYPASS VALVE AND BYPASS PIPING SHALL BE INSTALLED INSIDE BUILDING.
3. PROVIDE DDC ACTUATORS ON VALVES.
4. CONTRACTOR SHALL FURNISH AND INSTALL STRUCTURAL STEEL SUPPORT BASE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

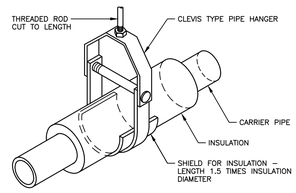
TYPICAL EVAPORATIVE WATER COOLER PIPING DETAIL

NOT TO SCALE



TYPICAL WATERSOURCE HEAT PUMP CONNECTION DETAIL

NOT TO SCALE

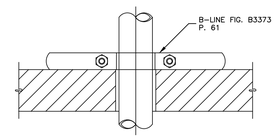


TYPICAL CLEVIS TYPE PIPE HANGER FOR INSULATED PIPE DETAIL

NOT TO SCALE

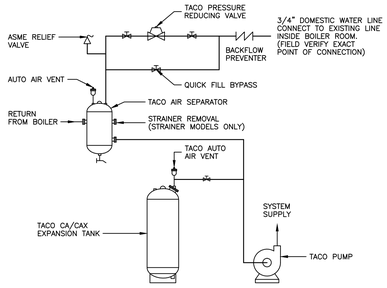
NOTES

1. SIZE CLAMP TO ADEQUATELY SUPPORT LOAD.
2. FOR COPPER TUBING USE COPPER PLATED OR PAINTED OR PLASTIC COATED CLAMPS.



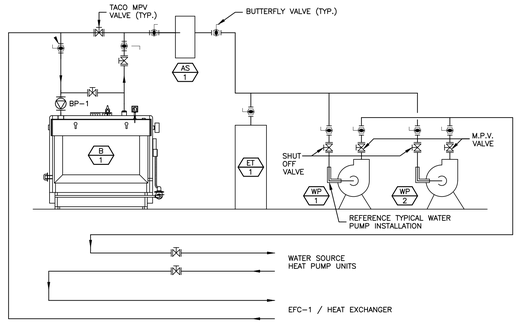
TYPICAL VERTICAL PIPE SUPPORTS DETAIL

NOT TO SCALE



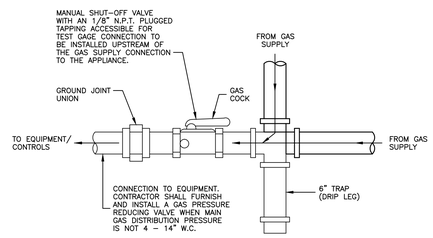
TYPICAL AIR CONTROL SYSTEM WITH BLADDER EXPANSION TANK PIPING

NOT TO SCALE



TYP. BOILER WATER PLUMBING DETAIL

NOT TO SCALE

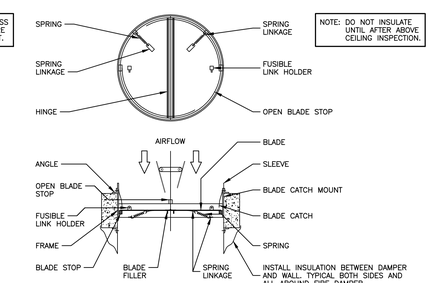


TYPICAL GAS CONNECTION TO EQUIPMENT DETAIL

NOT TO SCALE

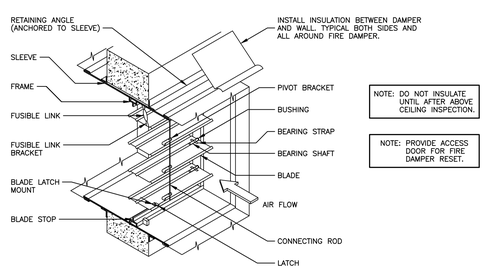
NOTE: PROVIDE ACCESS DOOR FOR FIRE DAMPER RESET.

NOTE: DO NOT INSULATE UNTIL AFTER ABOVE CEILING INSPECTION.



TYPICAL SMALL ROUND FIRE DAMPER INSTALLATION

NOT TO SCALE



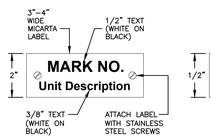
NOTE: DO NOT INSULATE UNTIL AFTER ABOVE CEILING INSPECTION.

NOTE: PROVIDE ACCESS DOOR FOR FIRE DAMPER RESET.

TYPICAL RECTANGULAR FIRE DAMPER INSTALLATION

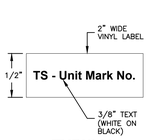
NOT TO SCALE

1. MARK NO. – LABEL MARK NO. TO MATCH PLANS (EF-1, HP-1, WHP-1, ETC.)
2. UNIT DESCRIPTION – EXHAUST FAN, SPLIT SYSTEM, HEAT PUMP, WATER SOURCE HEAT PUMP, ETC.



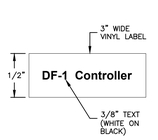
TYPICAL HVAC EQUIPMENT LABEL DETAIL

1. UNIT MARK NO. – LABEL WITH MARK NO. TO MATCH PLANS (TS-HP-1, TS-WHP-1, ETC.)



TYPICAL TEMP. SENSOR / THERMOSTAT LABEL DETAIL

NOTE: ALL LABELS SHALL BE RIGID PLASTIC. LABEL ALL DEVICES, DUCTWORK, PIPING, VALVES, SENSORS, ACTUATORS, ETC.



TYPICAL FAN CONTROLLER LABEL DETAIL

HVAC EQUIPMENT LABELING DETAILS

NOT TO SCALE

HVAC DETAILS

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
Randall Whorton
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FMTC BUILDING
1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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HVAC DETAILS

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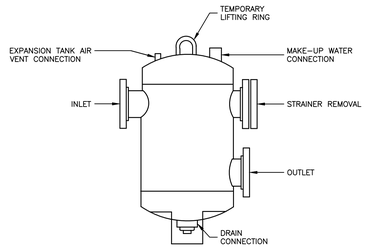
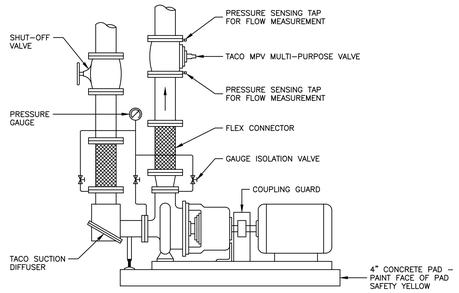
BI.A/M2.1



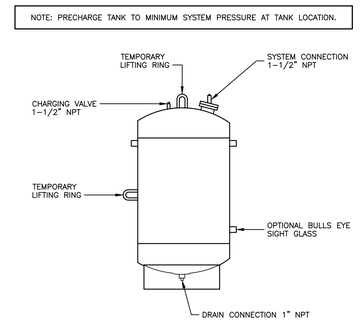
TYPICAL AIR SEPARATOR DETAIL

NOT TO SCALE



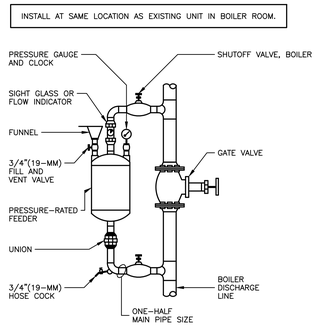
TYPICAL WATER PUMP INSTALLATION

NOT TO SCALE



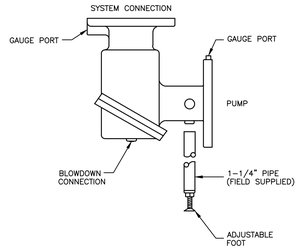
TYPICAL EXPANSION TANK DETAIL

NOT TO SCALE



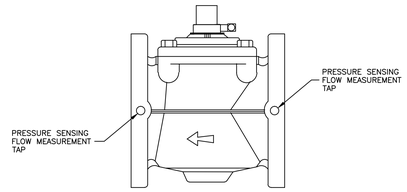
TYPICAL ONE-SHOT CHEMICAL FEEDER

NOT TO SCALE



TYPICAL PUMP SUCTION DIFFUSER

NOT TO SCALE



TYPICAL MULTI-PURPOSE VALVE DETAIL

NOT TO SCALE

BUILDING AUTOMATION SYSTEM INTER-TRADE RESPONSIBILITY MATRIX

FMS = FACILITY MANAGEMENT SYSTEM/BUILDING AUTOMATION SYSTEM CONTRACTOR
23 = DIVISION 23 CONTRACTOR (PLUMBING OR HVAC)
26 = DIVISION 26 CONTRACTOR (ELECTRICAL OR FIRE ALARM CONTRACTOR)

	WORK	FURNISH	INSTALL	LOW VOLTAGE WIRE AND CONDUIT	LINE POWER AND CONDUIT
1	DUCT SMOKE DETECTORS (SHOWN ON PLANS)	26	23	FMS	26
2	AUTOMATION DAMPERS	FMS	23	FMS	FMS
3	MANUAL VALVES, DAMPERS	23	23		
4	AUTOMATIC VALVES	FMS	23	FMS	FMS
5	EVAPORATIVE FLUID COOLER DDC CONTROLS	FMS	FMS	FMS	
6	PIPE INSERTION DEVICES AND TAPS INCLUDING THERMOWELLS FLOW AND PRESSURE STATIONS, ETC REQUIRING DDC INTERFACE.	FMS	23	FMS	FMS
7	PIPE INSERTION DEVICES AND TAPS INCLUDING THERMOWELLS FLOW AND PRESSURE STATIONS, ETC. NOT REQUIRING DDC INTERFACE.	23	23		
8	PUMP FLOW SWITCHES	23	23	FMS	
9	WATER SOURCE HEAT PUMP CONTROLLERS	FMS	FMS	FMS	26
10	WATER SOURCE HEAT PUMP SOLENOID VALVES	23	23	FMS	FMS
11	THERMOSTATS AND HUMIDISTATS	FMS	FMS	FMS	
12	BOILER DDC CONTROLS	FMS	FMS	FMS	
13	BOILER CONTROL PACKAGE (STAGING)	FMS	FMS	FMS	26
14	WATER TREATMENT SYSTEM	23	23	23	26
15	VARIABLE FREQUENCY DRIVES	FMS	23	FMS	26
16	FMS LOW VOLTAGE AND COMMUNICATION WIRING	FMS	FMS	FMS	
17	FMS CONDUITS AND RACEWAY	FMS	FMS	FMS	
18	CONTROL RELAYS	FMS	FMS	FMS	
19	FMS NETWORK ROUTERS, BRIDGES, HUBS AND ASSOCIATED CABLING	FMS	FMS	FMS	
20	FMS NODES, EQUIPMENT, HOUSINGS, ENCLOSURES AND PANELS AND POWER FROM DIV. 26 PANELS	FMS	FMS	FMS	FMS
21	THERMOSTAT/HUMIDISTAT/CO2 DETECTOR FOR CONTROL OF FRESH AIR MOTORIZED DAMPERS	FMS	23	FMS	FMS
22	FMS SOFTWARE, FIRMWARE AND PROJECT SPECIFIC SOFTWARE CONFIGURATIONS AND DATABASE ENTRIES	FMS	FMS	FMS	
23	OCCUPANCY SENSORS	FMS	FMS	FMS	FMS
24	GAS AND WATER SUB-METERS	FMS	FMS	FMS	
25	POWER SUB-METERS (EXISTING TO REMAIN)	FMS	FMS	FMS	

(1) SMOKE DETECTORS MUST BE COORDINATED WITH THE FIRE ALARM SYSTEM.

(2) THE ABOVE MATRIX IS FURNISHED BY THE ENGINEER OF RECORD AS A GUIDE FOR THE CONTRACTOR'S USE. THE CONTRACTOR SHALL SUBMIT A RESPONSIBILITY MATRIX BASED UPON THE CONTRACTOR'S PROJECT COORDINATION AND BID PREPARATION. THE CONTRACTOR SHALL PREPARE AND SUBMIT A FINAL MATRIX OF THE COORDINATED RESPONSIBILITIES OF THE REQUIRED TRADES WITH PROJECT SUBMITTALS AND SUB-CONTRACTORS IDENTIFIED BY NAME, ADDRESS, ETC.

DDC SYSTEM NOTES

(1) INTERFACE ALL NEW UNITS TO EXISTING HONEYWELL BUILDING AUTOMATION SYSTEM.

(2) BUILDING AUTOMATION SYSTEM JACE PANELS SHALL INCLUDE UPS BATTERY BACK-UP.

(3) CONTROLLERS SHALL BE HONEYWELL SPYDER CONTROLLERS – PUL6438SR. (SEE HVAC NOTE 20 FOR ADDITIONAL INFORMATION).

(4) HONEYWELL COMMUNICATING MODULES SHALL BE MODEL TR-71H (TEMP/HUMIDITY) WITH LCD (SEE HVAC NOTE 20 FOR ADDITIONAL INFORMATION).

(5) RETESTING: SYSTEMS SHALL BE TESTED MULTIPLE TIMES AS NEEDED TO VERIFY PROPER OPERATION.

(6) SEASONAL TEST AND BALANCE IS REQUIRED. SEASONAL TESTING SHALL BE DONE IN CONJUNCTION WITH TEST AND BALANCE AGENCY, MECHANICAL CONTRACTOR, AND CONTROLS CONTRACTOR. FULL COORDINATION IS REQUIRED.

(7) ALL WARRANTIES SHALL BEGIN AT THE DATE OF FINAL ACCEPTANCE OR BENEFICIAL OCCUPANCY (WHICHEVER COMES FIRST).

(8) WHERE SHOWN ON PLANS, ADD OCCUPANCY SENSORS AND INTERFACE TO THE BUILDING AUTOMATION SYSTEM AND EXHAUST FANS TO PLACE EXHAUST FAN IN OCCUPIED/UNOCCUPIED MODE. NEW OCCUPANCY SENSORS SHALL BE DUAL TECHNOLOGY WATTSTOPPER MODEL DT-300 SERIES. SENSORS SHALL INCLUDE ISOLATED RELAY CONTACTS.

(9) UPGRADE THE EXISTING BUILDING AUTOMATION CONTROL SYSTEM TO THE HONEYWELL PLATFORM VERSION THAT IS CURRENTLY OPERATING ON THE WEB-SUPERVISOR OR A NEWER VERSION OF THE SYSTEM INCORPORATING THE NIAGARA FRAMEWORK. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

(10) LABEL ALL CONTROL DEVICES TO MATCH CONTROL DRAWINGS.

(11) ALL NEW FRESH AIR MOTORIZED DAMPERS SHALL BE CONTROLLED BY THE BUILDING AUTOMATION SYSTEM WITH OCCUPANCY SCHEDULE.

(12) ALL CONTROLS COMPONENTS INCLUDING SENSORS, DAMPERS, ETC. SHALL BE LABELED TO MATCH CONTROL DRAWINGS.

(13) ALL I.P. ADDRESSES SHALL BE LABELED.

(14) ALL CONTROL PANELS SHALL BE LABELED.

(15) LAMINATED CONTROL DRAWINGS SHALL BE INSTALLED AT CONTROL JACE PANELS.

(16) ALL JACE CONTROL PANELS SHALL INCLUDE BATTERY BACKUP UPS.

(17) COORDINATE DDC CONTROLLER TERMINAL ASSIGNMENTS WITH AANG DDC STANDARDS AND PRACTICES.

(18) DDC CONTROLS AS-BUILT DRAWINGS SHALL INCLUDE COLOR CODES FOR ALL MULTI-CONDUCTOR CABLES.

(19) ALL CONTROL DEVICES SHOWN ON THE CONTROL DIAGRAMS SHALL BE FURNISHED BY THE FMS CONTRACTOR UNLESS OTHERWISE NOTED OR SPECIFIED.

(20) ALL COMPONENTS REQUIRED FOR THE SEQUENCES OF OPERATION, SHOWN AND/OR DESCRIBED ON THE CONTROL DIAGRAMS AND/OR SPECIFICATIONS, OR AS REQUIRED FOR A PROPERLY OPERATING SYSTEM SHALL BE FURNISHED AND INSTALLED BY THE FMS CONTRACTOR UNLESS OTHERWISE NOTED.

(21) FMS CONTRACTOR IS RESPONSIBLE TO FURNISH, INSTALL, AND WIRE ALL COMPONENTS REQUIRED FOR INTEGRATION OF INFORMATION SHOWN TO BE ACCESSED BY THE FMS FROM OTHER SYSTEMS AND EQUIPMENT UNLESS OTHERWISE BE NOTED OR SPECIFIED.

(22) ALL POWER WIRING AND TRANSFORMERS FOR SENSORS, ACTUATORS, AND OTHER CONTROL COMPONENTS AS REQUIRED FOR THE FMS AND/OR DDC SYSTEMS TO FUNCTION PROPERLY, SHALL BE FURNISHED AND INSTALLED BY THE FMS CONTRACTOR UNLESS OTHERWISE SHOWN, NOTED, OR SPECIFIED.

(23) ALL POWER WIRING FOR SENSORS, ACTUATORS, AND OTHER DEVICES SHALL BE FROM THE DDC PANEL OR THE FMS/BAS PANEL OF THE ASSOCIATED SYSTEM.

(24) ALL CONTROL, INTERLOCK, AND POWER WIRING SHALL BE INSTALLED PER THE ELECTRICAL SPECIFICATION, LOCAL STATE, AND NATIONAL CODES. RACEWAY SHALL BE INSTALLED PER THE ELECTRICAL SPECIFICATIONS.

(25) ALL CONTROL POINTS SHOWN ON THE CONTROL DIAGRAMS SHALL BE PROVIDED AND INTEGRATED INTO A FMS/BAS SYSTEM GRAPHIC REPRESENTATIVE OF THE CONTROL DIAGRAMS.

(26) ALL CONTROL BANDS, SETPOINTS, SETPOINT LIMITS, SETPOINT INCREMENT VALUES, SETPOINT DECREMENT VALUES, ALARM LIMITS, AND OTHER PARAMETERS SHALL BE ADJUSTABLE FROM THE FMS/BAS.

(27) ALL SETPOINTS SHALL BE ADJUSTABLE FROM THE FMS/BAS SYSTEM GRAPHIC(S).

(28) SPACE SETPOINTS SHALL BE ADJUSTABLE FROM THE ROOM SENSOR UNLESS OTHERWISE SHOWN ON DRAWINGS OR SPECIFIED.

(29) THE FMS/BAS SYSTEM GRAPHICS SHALL BE LINKED WITH ASSOCIATED BUILDING FLOOR PLANS FROM THE SPACE SENSOR OR AREA SERVED.

(30) WHERE ONE SYSTEM IS ASSOCIATED WITH ANOTHER SYSTEM, THE SYSTEM GRAPHIC SHALL BE LINKED TO THE ASSOCIATED GRAPHIC AS WELL AS THE BUILDING FLOOR PLAN GRAPHIC. EXAMPLE – A WATER SOURCE/GEOTHERMAL HEAT PUMP UNIT SYSTEM GRAPHIC SHALL BE LINKED TO THE LOOP WATER SYSTEM GRAPHIC IN ADDITION TO BOTH BEING LINKED TO THE BUILDING FLOOR PLAN.

(31) THE BUILDING FLOOR PLAN SHALL DISPLAY THE SPACE TEMPERATURE AT EACH SPACE SENSOR LOCATION WITH AREA SERVED DISPLAYED IN SEPARATE COLORS BASED ON THE CONDITION OF THE ZONE. EXAMPLE – ALARM, NORMAL, HIGH OR LOW TEMPERATURE, HIGH OR LOW HUMIDITY, ETC.

(32) ALL BUILDING FLOOR PLANS AND SYSTEM GRAPHICS SHALL DISPLAY OUTSIDE AIR TEMPERATURE AND HUMIDITY.

(33) THE FLOOR PLAN GRAPHICS SHALL BE LINKED TO A BUILDING GRAPHIC WITH A DIGITAL PHOTOGRAPH BACKGROUND OF THE ACTUAL BUILDING. DURING CONSTRUCTION A TEMPORARY GRAPHICS MAY BE USED THAT IS REPRESENTATIVE OF THE BUILDING.

(34) ALL GRAPHICS SHALL BE SUBMITTED IN COLOR WITH THE FMS/BAS SUBMITTAL.

DDC SYSTEM NOTES (BID ALTERNATE A2)

(35) BUILDING AUTOMATION CONTRACTOR SHALL INSTALL WATER SUB-METER AND GAS SUB-METER FOR INTERFACE WITH THE BUILDING AUTOMATION SYSTEM TO OBTAIN TOTAL ENERGY ON THE BUILDING. INSTALLATION SHALL INCLUDE TRENDING, CONTROLS, AND GRAPHICS.

(36) GAS PRESSURE TO THE BUILDING SHALL BE MEASURED BY LOCAL UTILITY. COORDINATE SUB-METER INSTALLATION WITH LOCAL OFFICE.

(37) INSTALL WATER SUB-METER AT EXISTING WATER METER. FIELD VERIFY EXACT LOCATION.

(38) THE INSTALLATION OF GAS AND WATER SUB-METERS SHALL INCLUDE METER BYPASS. BYPASS PIPING SHALL BE FULL SIZE OF PIPE MAIN AND SHALL INCLUDE ISOLATION VALVES.

HVAC DETAILS

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FMTC BUILDING
1021 HVAC
RESTORATION

ANNISTON, ALABAMA
IFB#: AC-24-B-0033-S

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HVAC DETAILS

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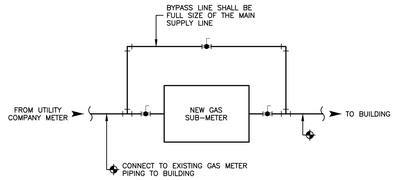
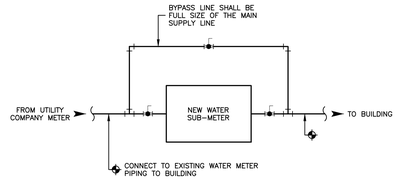
COORDINATE WITH DDC CONTROLS CONTRACTOR FOR COMPLETE INTERFACE TO THE HONEYWELL BUILDING AUTOMATION SYSTEM.



TYPICAL NEW GAS SUB-METER PIPING DIAGRAM

NOT TO SCALE

COORDINATE WITH DDC CONTROLS CONTRACTOR FOR COMPLETE INTERFACE TO THE HONEYWELL BUILDING AUTOMATION SYSTEM.



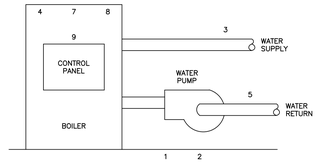
TYPICAL NEW WATER SUB-METER PIPING DIAGRAM

NOT TO SCALE

BOILER CONTROL SYSTEM POINT LIST

SYSTEM POINT DESCRIPTION / BOILER	ANALOG INPUT: GRAPHIC	TEMPERATURE	PRESSURE	RH	KW	GPM	CFM	PPM	PERCENT	PERCENT RLA	ANALOG OUTPUT: DDC	SETPOINT ADJ.	BINARY INPUT: PNEU. TRANSDUCER	STATUS ON/OFF	FILTER STATUS	STATUS OPEN/CLOSED	STATUS	BINARY OUTPUT: OFF/ON	OPEN/CLOSE	LOCK OUT	ENABLE/DISABLE	SYSTEMS FEATURES ALARMS: HIGH ANALOG	LOW ANALOG	BINARY	PROOF	SENSOR FAIL	FLOW FAIL	COMM. FAIL	DIAGNOSTICS	PROGRAMS: TIME SCHEDULING	OPTIMAL START/STOP	DEMAND LIMITING	RESET	EVENT PROGRAM	DDC	ALARM INSTRUCT	MAINT. WK. ORD.	RUN TIME	EXP. MESSAGE	SET BACK/SET UP	NIGHT PURGE	TENANT BILLING	CHILLER SEQUENCING	TOTALIZING	TIMED OVERRIDE	NOTES
HOT WATER SUPPLY	X	X										X										X	X			X																	
HOT WATER RETURN	X	X																				X	X			X																	
HOT WATER SUPPLY SETPOINT	X											X																															
PUMP	X												X					X							X		X										X	X					
BOILER ALARM	X															X									X																	
BOILER ENABLE	X																				X																	X	X				COULD BE INTERLOCKED
BOILER FLOW	X																								X		X															

BOILER CONTROL



		AI	AO	BI	BO
1.	WATER PUMP CONTROL				X
2.	WATER PUMP STATUS			X	
3.	WATER SUPPLY TEMPERATURE	X			
4.	WATER SUPPLY SETPOINT		X		
5.	WATER RETURN TEMPERATURE	X			
6.	OUTDOOR AIR TEMPERATURE	X			
7.	BOILER ALARM (GENERAL)			X	
8.	BOILER START/STOP CONTROL (ENABLE/DISABLE)				X
9.	BOILER FLOW			X	

BOILER CONTROLS

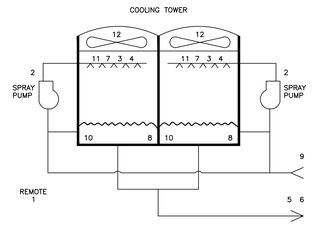
NOT TO SCALE

COOLING TOWER CONTROL SYSTEM POINT LIST

SYSTEM POINT DESCRIPTION / COOLING TOWER	ANALOG INPUT: GRAPHIC	TEMPERATURE	PRESSURE	RH	KW	GPM	CFM	PPM	PERCENT	PERCENT RLA	ANALOG OUTPUT: DDC	SETPOINT ADJ.	BINARY INPUT: PNEU. TRANSDUCER	STATUS ON/OFF	FILTER STATUS	STATUS OPEN/CLOSED	STATUS	BINARY OUTPUT: OFF/ON	OPEN/CLOSE	LOCK OUT	ENABLE/DISABLE	SYSTEMS FEATURES ALARMS: HIGH ANALOG	LOW ANALOG	BINARY	PROOF	SENSOR FAIL	FLOW FAIL	COMM. FAIL	DIAGNOSTICS	PROGRAMS: TIME SCHEDULING	OPTIMAL START/STOP	DEMAND LIMITING	RESET	EVENT PROGRAM	DDC	ALARM INSTRUCT	MAINT. WK. ORD.	RUN TIME	EXP. MESSAGE	SET BACK/SET UP	NIGHT PURGE	CHILLER SEQUENCING	TOTALIZING	TIMED OVERRIDE	NOTES
SPRAY PUMP CONTROL	X															X		X							X		X															
CONDENSER WATER SUPPLY SETPOINT	X	X										X																															
SUMP HEATER	X															X					X																						
SUMP TEMPERATURE	X	X																				X	X			X																	
FAN LOW	X															X		X							X																	
FAN HIGH	X															X		X							X																	
CONDENSER SUPPLY TEMPERATURE	X	X																				X	X			X																	
CONDENSER RETURN TEMPERATURE	X	X																				X	X			X																	
SUMP LEVEL (FLOAT)	X															X									X																	
VIBRATION SWITCH	X															X								X																	
DAMPER	X															X			X																							

(1) SOFTWARE PROGRAMS SHALL INCLUDE A WINDOWS GRAPHICS BASED BUILDING MANAGEMENT SYSTEM.

COOLING TOWER



		AI	AO	BI	BO
1.	CONDENSER WATER PUMP STATUS			X	
2.	COOLING TOWER SPRAY PUMP CONTROL				X
3.	COOLING TOWER FAN ON/OFF CONTROL				X
4.	COOLING TOWER FAN HIGH/LOW CONTROL				X
5.	COND. WATER SUPPLY TEMP. (TO COND.)	X			
6.	CONDENSER WATER SUPPLY SETPOINT		X		
7.	DAMPER OPEN/CLOSE				X
8.	SUMP HEATER CONTROL				X
9.	COND. WATER RETURN TEMP. (FROM COND.)	X			
10.	SUMP TEMPERATURE	X			
11.	COOLING TOWER FAN STATUS			X	
12.	VIBRATION SWITCH			X	

COOLING TOWER CONTROLS

NOT TO SCALE

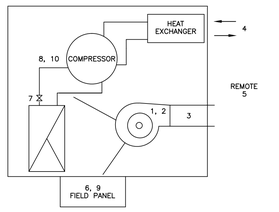
WATER TO AIR - WATER SOURCE HEAT PUMP CONTROL SYSTEM POINT LIST

SYSTEM POINT DESCRIPTION / GEOTHERMAL HEAT PUMP	ANALOG INPUT: GRAPHIC	TEMPERATURE	RH	SETPOINT	SETPOINT HT/CL	CFM	ANALOG OUTPUT: SETPOINT ADJ.	DAMPER CONTROL	BINARY INPUT: STATUS HI/LOW	ENABLE/DISABLE	TIMED OVERRIDE	CANCEL	STATUS	BINARY OUTPUT: OFF/ON	OPEN/CLOSE	ENABLE/DISABLE	GENERAL ALARM	SYSTEMS FEATURES ALARMS: HIGH ANALOG	LOW ANALOG	BINARY	LATCH DIAGNOSTICS	SENSOR FAIL	COMM. FAIL	DIAGNOSTICS	PROGRAMS: TIME SCHEDULING	OPTIMAL START/STOP	DEMAND LIMITING	RESET	EVENT PROGRAM	ALARM INSTRUCT	MAINT. WK. ORD.	RUN TIME	EXP. MESSAGE	SET BACK/SET UP	NIGHT PURGE	MORNING WU/CD	RAND. START/STOP	NOTES
CONTROL PANEL	X												X			X						X	X			X	X													
COMPRESSOR	X								X					X							X			X						X							X	X		
SUPPLY FAN	X								X					X							X			X						X										
WATER PUMP/VALVE	X													X																											
REVERSING VALVE	X													X																											
ZONE SENSOR	X	X		X	X						X	X						X	X			X		X										X						
DISCHARGE AIR	X	X																X	X			X	X																	
LEAVING WATER	X	X																X	X			X	X																	
EWT/RETURN AIR	X	X																X	X			X	X																	
MIXED AIR TEMP., RETURN AIR TEMP.	X	X																X	X			X	X																	
DIRTY FILTER	X												X																											
CONDENSATE OVERFLOW	X								X													X											X		X				
OUTSIDE AIR TEMP.	X	X																X	X				X		X														
CONDENSATE MOISTURE SENSOR	X								X																															
OUTSIDE AIR CFM	X					X																																		

(1) SOME WATER SOURCE HEAT PUMPS FRESH AIR MOTORIZED DAMPERS SHALL BE CONTROLLED BY A CO2 DETECTOR TO MODULATE OUTSIDE AIR. REFERENCE PLANS FOR LOCATIONS.

(2) INTERFACE OVERFLOW DRAIN PAN WET SWITCH SENSOR TO BUILDING AUTOMATION SYSTEM.

WATER SOURCE HEAT PUMP WITH FIELD INSTALLED UNIT CONTROLLER



		AI	AO	BI	BO
1.	SUPPLY FAN START/STOP				X
2.	SUPPLY FAN STATUS			X	
3.	SUPPLY AIR TEMPERATURE	X			
4.	LEAVING WATER TEMPERATURE	X			
5.	ZONE TEMPERATURE	X			
6.	ZONE SETPOINT		X		
7.	REVERSING VALVE				X
8.	COMPRESSOR 1 STATUS			X	
9.	COMMUNICATION STATUS			X	
10.	COMPRESSOR 1 START/STOP				X

WATER TO AIR WATER SOURCE HEAT PUMP CONTROLS

NOT TO SCALE

HVAC DETAILS

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FMTC BUILDING
1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

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HVAC DETAILS

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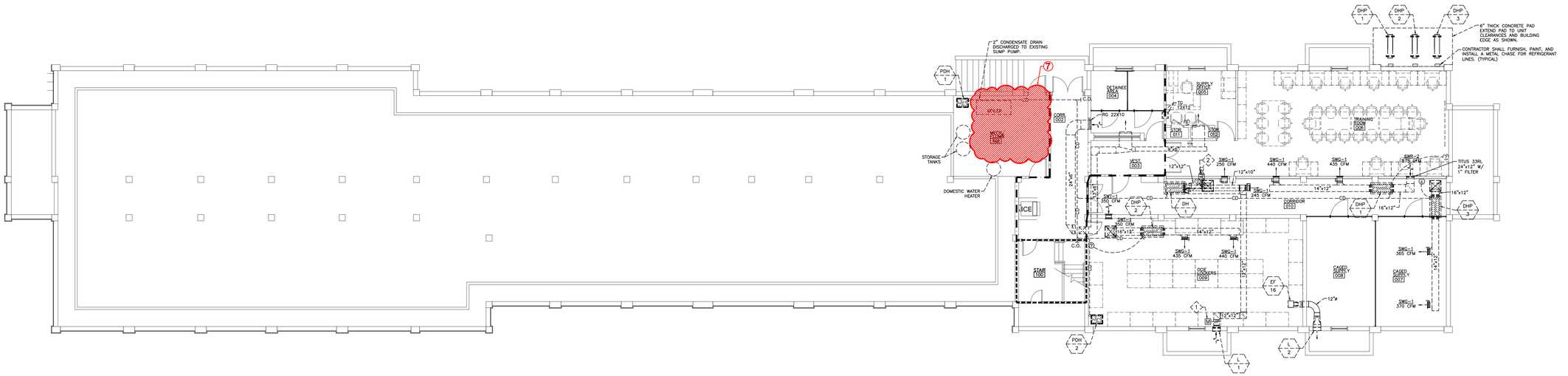
HVAC DEMOLITION NOTES

1. REMOVE EXISTING SUPPLY DUCT INSIDE VERTICAL CHASE TO ACCOMMODATE INSTALLATION OF NEW AIR HANDLING UNIT AND PIPING.
2. REMOVE EXISTING THERMOSTAT AND CONTROL WIRING.
3. PATCH/REPAIR FLOOR, CEILING, AND WALLS TO MATCH EXISTING. INSTALL NEW CONCRETE SLAB IN CHASE TO SUPPORT NEW EQUIPMENT.
4. REMOVE EXISTING HOT WATER UNIT HEATER, THERMOSTAT, PIPING, ETC.
5. REMOVE EXISTING AIR HANDLER, PIPING, CONTROLS, THERMOSTAT, DUCT, ETC. AS REQUIRED FOR INSTALLATION OF NEW EQUIPMENT. CAP ALL ABANDONED PIPING AND DUCT, WATER AND AIR TIGHT.
6. REMOVE AND REPLACE PORTIONS OF EXISTING DUCT. INSTALL NEW FIRE DAMPERS AT FLOOR PENETRATIONS OF THE NEW DUCT.
7. REMOVE EXISTING BOILER, PUMPS, EXPANSION TANKS, AIR SEPARATOR, PIPING, ETC. PATCH/REPAIR ALL EXISTING OPENINGS/SURFACES TO MATCH EXISTING FINISHES.

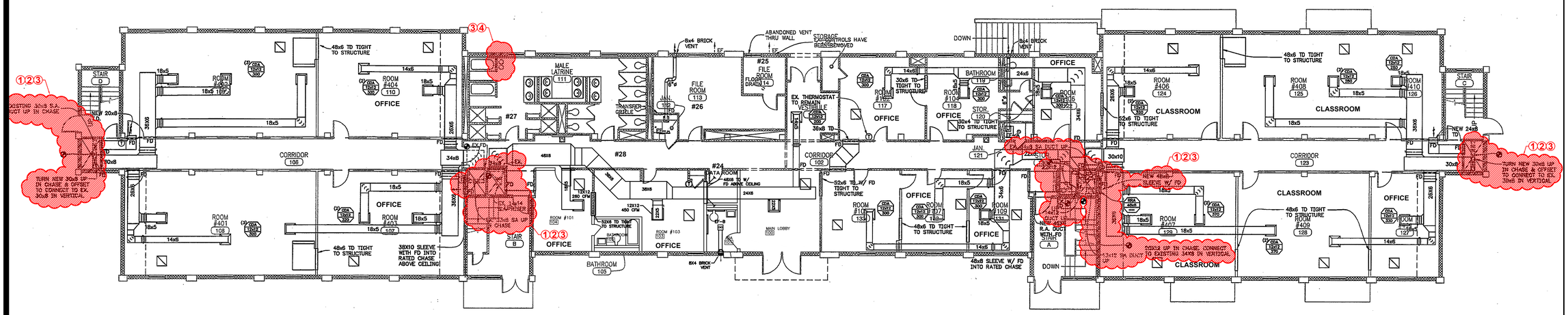
VERIFY DISPOSAL OF EXISTING EQUIPMENT WITH OWNER

GENERAL:

- REMOVE ALL ABANDONED PIPING, CONDUIT, ELECTRICAL, ETC. PATCH/REPAIR ALL HOLES, ETC. TO MATCH EXISTING FINISHES
- VERIFY DISPOSITION OF ALL EQUIPMENT WITH OWNER. INCLUDE ALL COSTS ASSOCIATED WITH COMPLETE REMOVAL AND DISPOSAL IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS.
- REPAIR/REPLACE ANY EXISTING EQUIPMENT DAMAGED DURING DEMOLITION.
- PATCH/REPAIR WALLS, FLOOR, CEILING, ETC. TO MATCH EXISTING.
- CONTRACTOR SHALL REVIEW ALL EXISTING CONDITIONS PRIOR TO STARTING WORK.



BASEMENT HVAC DEMOLITION PLAN



FIRST FLOOR HVAC DEMOLITION PLAN

EXISTING CONDITIONS DRAWING IS FOR REFERENCE PURPOSES ONLY. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK.

BASEMENT AND FIRST FLOOR HVAC DEMOLITION PLAN

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

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FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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BASEMENT AND FIRST FLOOR HVAC DEMOLITION PLAN

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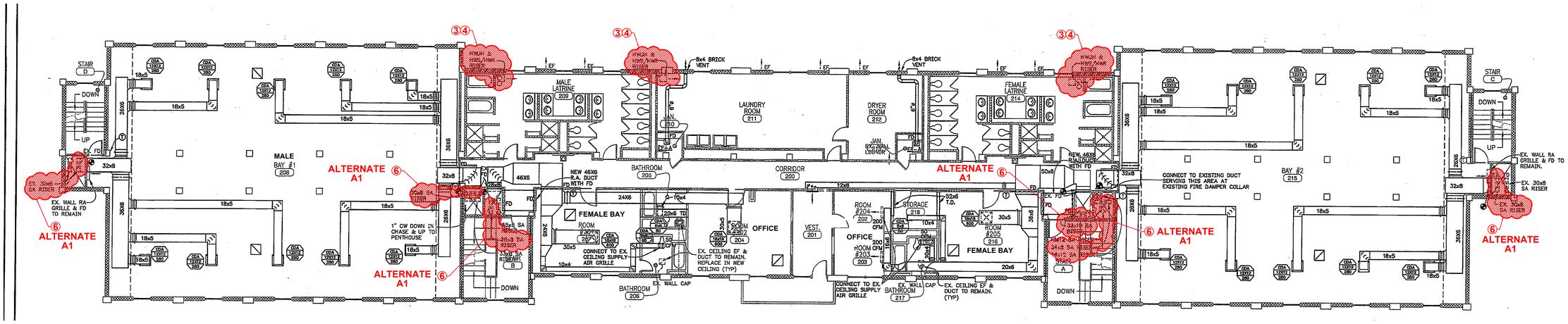
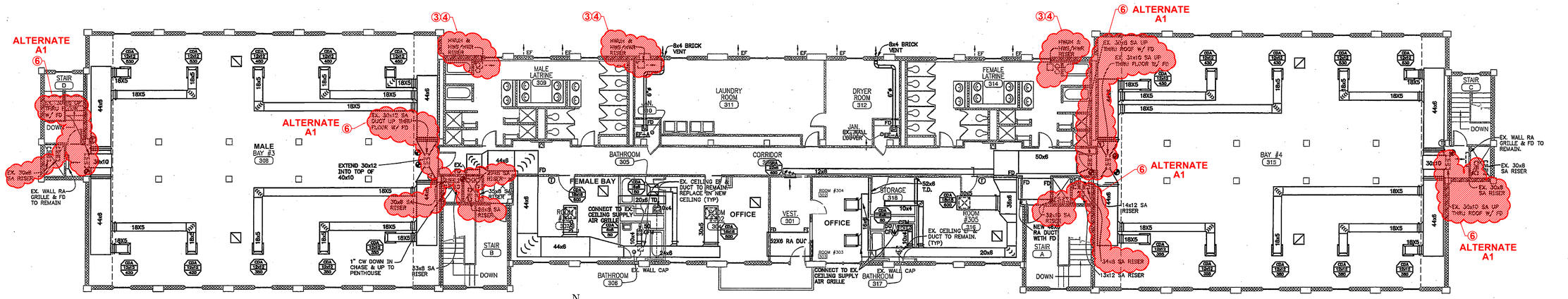


SECOND FLOOR HVAC DEMOLITION PLAN

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



THIRD FLOOR HVAC DEMOLITION PLAN

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

HVAC DEMOLITION NOTES

1. REMOVE EXISTING SUPPLY DUCT INSIDE VERTICAL CHASE TO ACCOMMODATE INSTALLATION OF NEW AIR HANDLING UNIT AND PIPING.
2. REMOVE EXISTING THERMOSTAT AND CONTROL WIRING.
3. PATCH/REPAIR FLOOR, CEILING, AND WALLS TO MATCH EXISTING. INSTALL NEW CONCRETE SLAB IN CHASE TO SUPPORT NEW EQUIPMENT.
4. REMOVE EXISTING HOT WATER UNIT HEATER, THERMOSTAT, PIPING, ETC.
5. REMOVE EXISTING AIR HANDLER, PIPING, CONTROLS, THERMOSTAT, DUCT, ETC. AS REQUIRED FOR INSTALLATION OF NEW EQUIPMENT. CAP ALL ABANDONED PIPING AND DUCT, WATER AND AIR TIGHT.
6. REMOVE AND REPLACE PORTIONS OF EXISTING DUCT. INSTALL NEW FIRE DAMPERS AT FLOOR PENETRATIONS OF THE NEW DUCT.
7. REMOVE EXISTING BOILER, PUMPS, EXPANSION TANKS, AIR SEPARATOR, PIPING, ETC. PATCH/REPAIR ALL EXISTING OPENINGS/SURFACES TO MATCH EXISTING FINISHES.

VERIFY DISPOSAL OF EXISTING EQUIPMENT WITH OWNER

GENERAL:

- REMOVE ALL ABANDONED PIPING, CONDUIT, ELECTRICAL, ETC. PATCH/REPAIR ALL HOLES, ETC. TO MATCH EXISTING FINISHES
- VERIFY DISPOSITION OF ALL EQUIPMENT WITH OWNER. INCLUDE ALL COSTS ASSOCIATED WITH COMPLETE REMOVAL AND DISPOSAL IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS.
- REPAIR/REPLACE ANY EXISTING EQUIPMENT DAMAGED DURING DEMOLITION.
- PATCH/REPAIR WALLS, FLOOR, CEILING, ETC. TO MATCH EXISTING.
- CONTRACTOR SHALL REVIEW ALL EXISTING CONDITIONS PRIOR TO STARTING WORK.

EXISTING CONDITIONS DRAWING IS FOR REFERENCE PURPOSES ONLY. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK.

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FMTC BUILDING
1021 HVAC RESTORATION
ANNISTON, ALABAMA
IFB#: AC-24-B-0033-S

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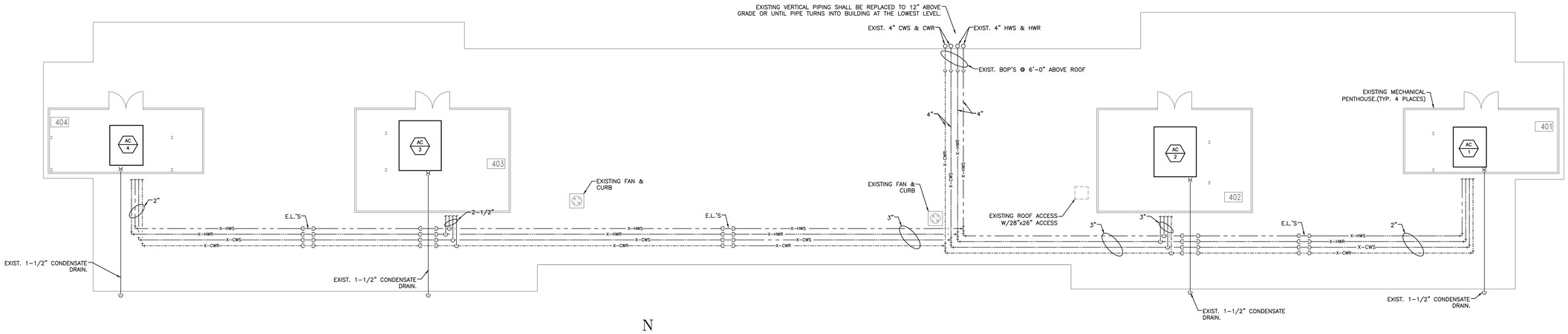
Revisions:

Sheet Description

SECOND & THIRD FLOOR HVAC DEMOLITION PLAN

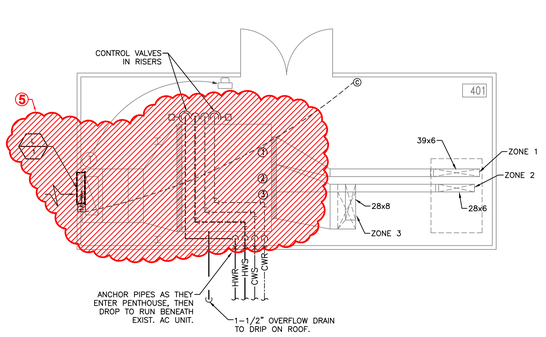
Sheet Number

BI.A/M3.2



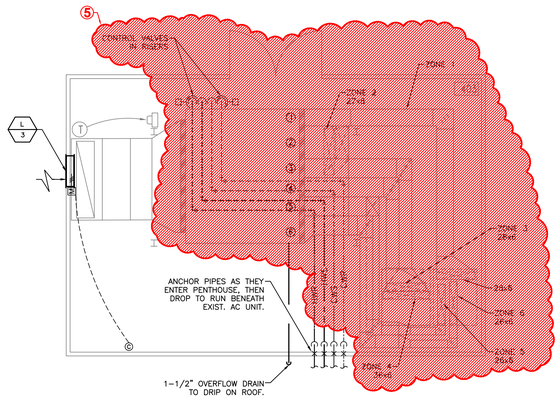
ROOF HVAC DEMOLITION PLAN

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



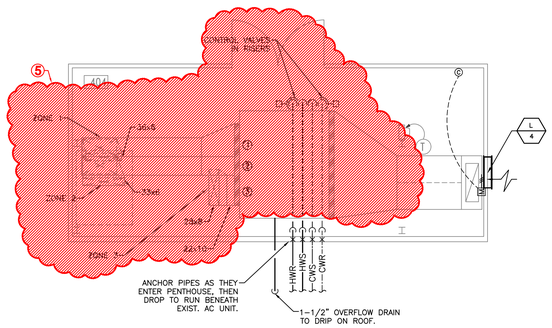
ENLARGED AC-1 LAYOUT

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



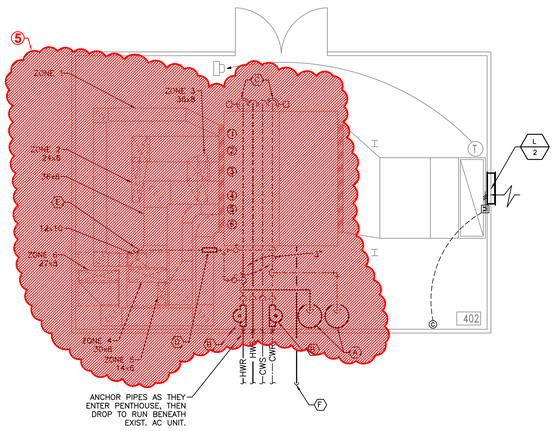
ENLARGED AC-2 LAYOUT

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



ENLARGED AC-3 LAYOUT

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



ENLARGED AC-4 LAYOUT

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

EXISTING EQUIPMENT NOTES

- (A) 53 GALLON ACCEPTANCE BLADDER TYPE EXPANSION TANK
- (B) LINE SIZE TANGENTIAL AIR SEPARATORS
- (C) CONTROL VALVES IN RISERS
- (D) 1/2" MAKE-UP WATER ASSEMBLY,
- (E) 5/8" TO 1/2" WATER LINE
- (F) 1-1/2" OVERFLOW DRAIN TO DRIP ON ROOF

HVAC DEMOLITION NOTES

1. REMOVE EXISTING SUPPLY DUCT INSIDE VERTICAL CHASE TO ACCOMMODATE INSTALLATION OF NEW AIR HANDLING UNIT AND PIPING.
2. REMOVE EXISTING THERMOSTAT AND CONTROL WIRING.
3. PATCH/REPAIR FLOOR, CEILING, AND WALLS TO MATCH EXISTING. INSTALL NEW CONCRETE SLAB IN CHASE TO SUPPORT NEW EQUIPMENT.
4. REMOVE EXISTING HOT WATER UNIT HEATER, THERMOSTAT, PIPING, ETC.
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6. REMOVE AND REPLACE PORTIONS OF EXISTING DUCT. INSTALL NEW FIRE DAMPERS AT FLOOR PENETRATIONS OF THE NEW DUCT.
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VERIFY DISPOSAL OF EXISTING EQUIPMENT WITH OWNER

GENERAL:

- REMOVE ALL ABANDONED PIPING, CONDUIT, ELECTRICAL, ETC. PATCH/REPAIR ALL HOLES, ETC. TO MATCH EXISTING FINISHES
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ROOF HVAC DEMOLITION PLAN

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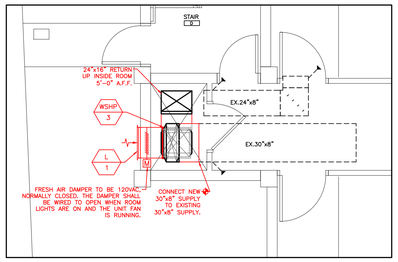
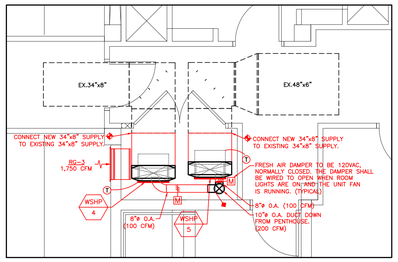


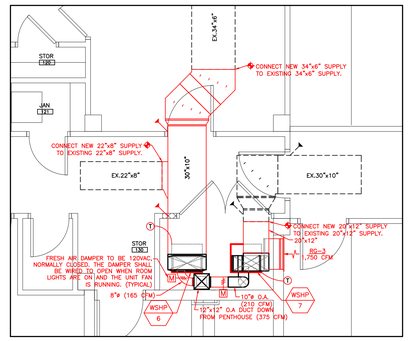
ENLARGED WSHP-3 PLAN

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



ENLARGED WSHP-4/5 PLAN

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



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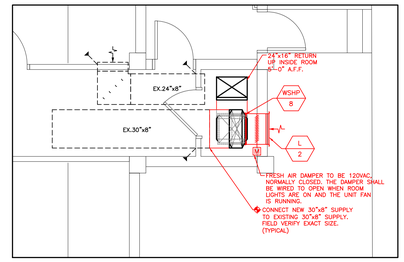
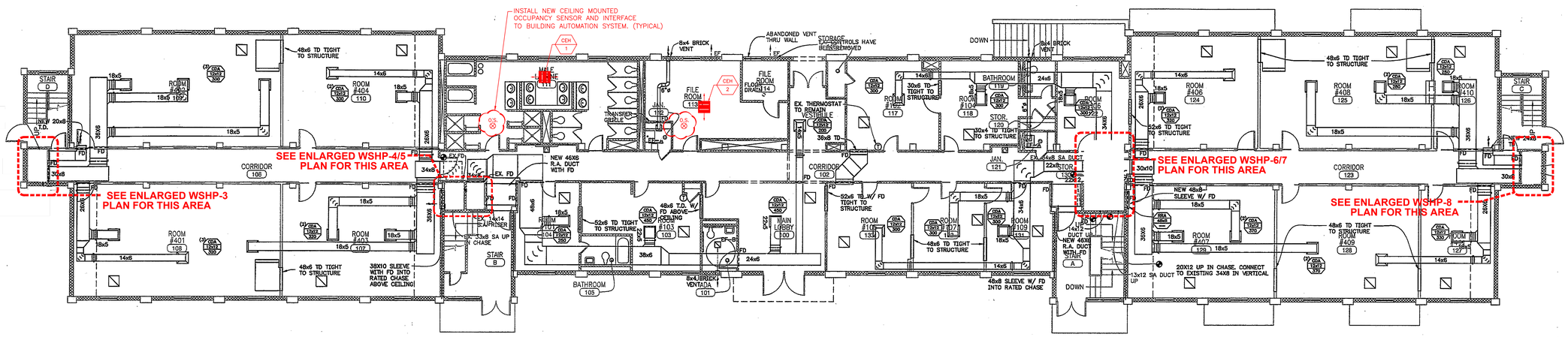
SCALE: 1/4" = 1'-0"



ENLARGED WSHP-8 PLAN

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



FIRST FLOOR REVISED HVAC PLAN

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

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SHEET NOTES

TEST AND BALANCE SHALL INCLUDE NEW AND EXISTING DUCT, GRILLES, ETC. REFERENCE DEMOLITION PLANS FOR EXISTING AIRFLOWS.

DIFFUSER SCHEDULE

TAG	Size	Neck Size	Quantity	Manufacturer	Model Number	Type	Notes
RG-1	24"X24"	23X23	1	TITUS	8RF	RETURN	20"x20"x1" FILTER
RG-2	24"X36"	24X24	2	TITUS	33RL	RETURN	1" FILTER
RG-3	24"X36"	24X24	1	TITUS	33RL	RETURN	1" FILTER
SWG-1	20"X6"	12X4	4	TITUS	272RL	SUPPLY	
			8				

FURNISH AND INSTALL AN INSULATION BLANKET ON THE BACK OF ALL MOUNTED DIFFUSERS AND GRILLES.

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FMTC BUILDING
1021 HVAC RESTORATION

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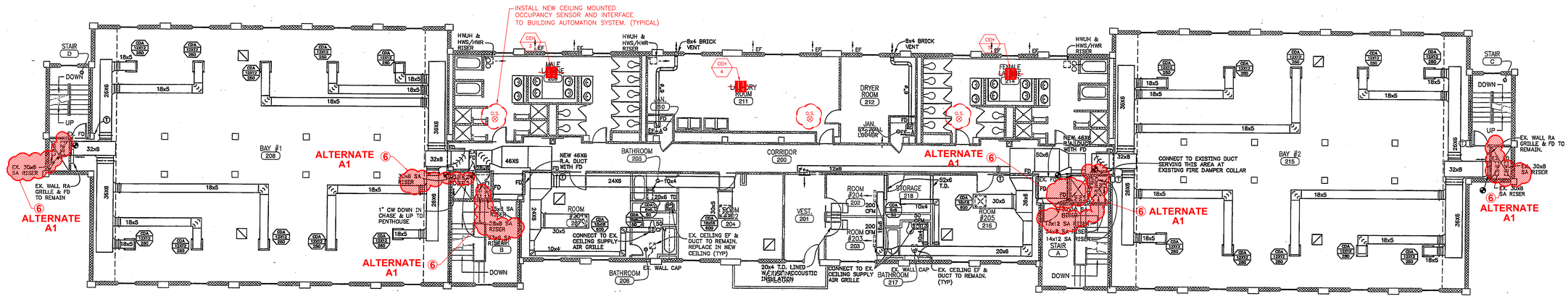
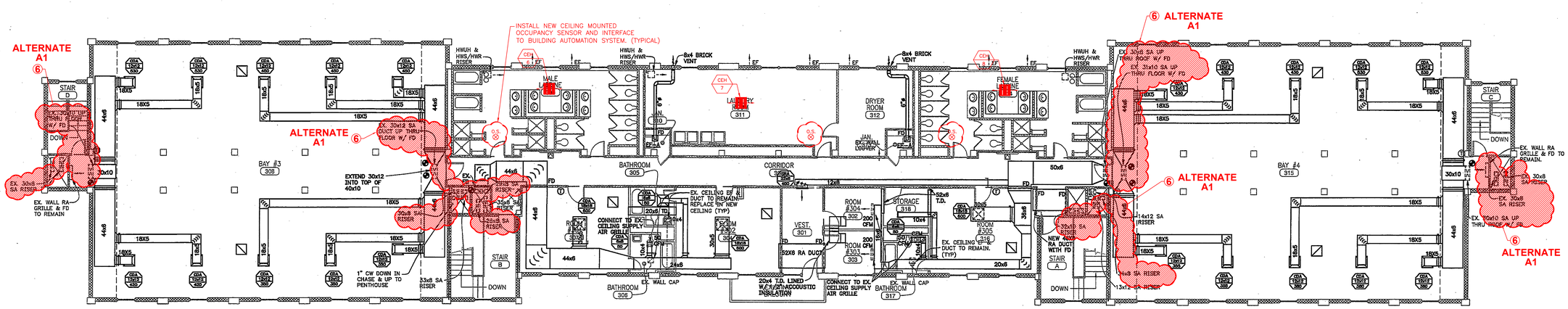


SECOND FLOOR REVISED HVAC PLAN

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



THIRD FLOOR REVISED HVAC PLAN

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

HVAC DEMOLITION NOTES

⑥ REMOVE AND REPLACE PORTIONS OF EXISTING DUCT. INSTALL NEW FIRE DAMPERS AT FLOOR PENETRATIONS OF THE NEW DUCT.

VERIFY DISPOSAL OF EXISTING EQUIPMENT WITH OWNER

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SECOND & THIRD FLOOR REVISED HVAC PLAN

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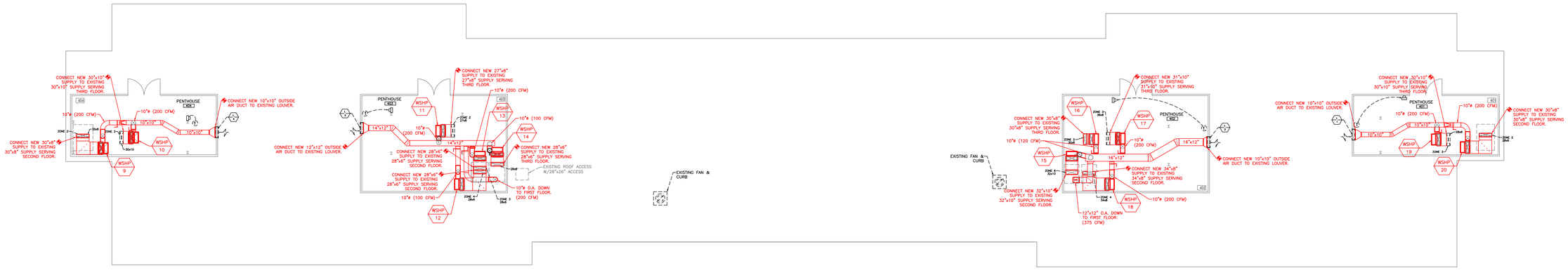

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W E

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ROOF REVISED HVAC PLAN

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

SHEET NOTES

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Randall Whorton

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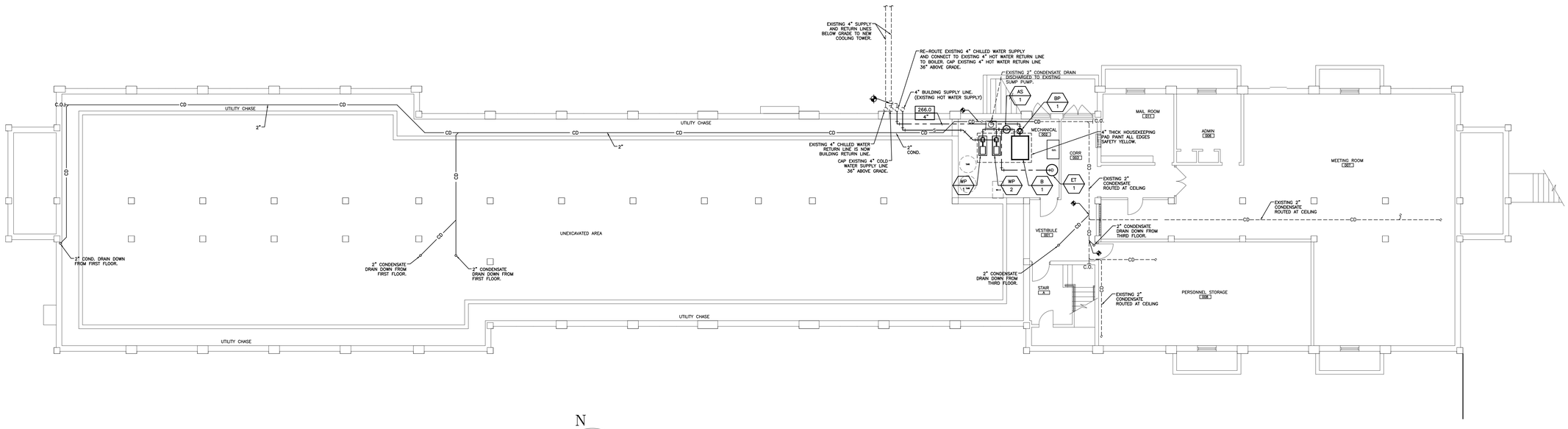
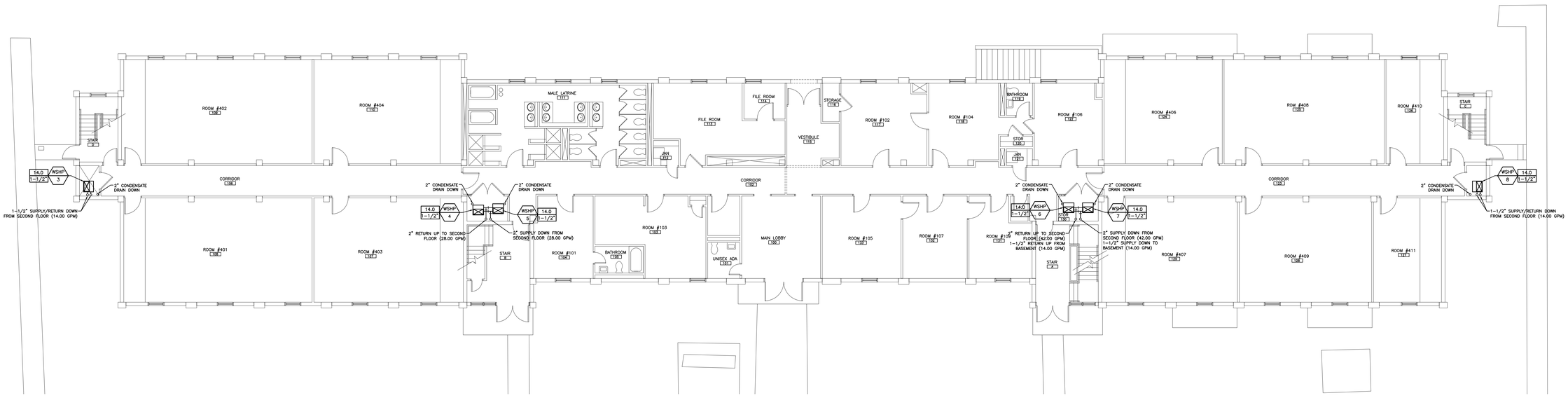


BASEMENT HYDRONIC PIPING PLAN

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



FIRST FLOOR HYDRONIC PIPING PLAN

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

PLUMBING LEGEND

—S—	NEW SUPPLY LINE		TEMPERATURE GAGE
- · -R- · -	NEW RETURN LINE		PRESSURE GAGE
—EXS—	EXISTING SUPPLY LINE		AIR VENT
- · -EXR- · -	EXISTING RETURN LINE		GATE VALVE
—EXHWS—	EXIST. HOT WATER SUPPLY		GLOBE VALVE
—EXHWR—	EXIST. HOT WATER RETURN		BUTTERFLY VALVE
—EXCWS—	EX. CHILLED WATER SUPPLY		CHECK VALVE
—EXCWR—	EX. CHILLED WATER RETURN		BALL VALVE
—W—	EXISTING WATER		THREE WAY VALVE
	90° ELBOW		PUMP
	TEE		STRAINER
	TEE, DOWN		CONNECT TO EXISTING
	CROSS		

4.0 = GPM
1" = SIZE

ALL HYDRONIC PIPING MAY BE SCHEDULE 10 VICTAULIC PIPE AND FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

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BASEMENT & FIRST FLOOR HYDRONIC PIPING PLAN

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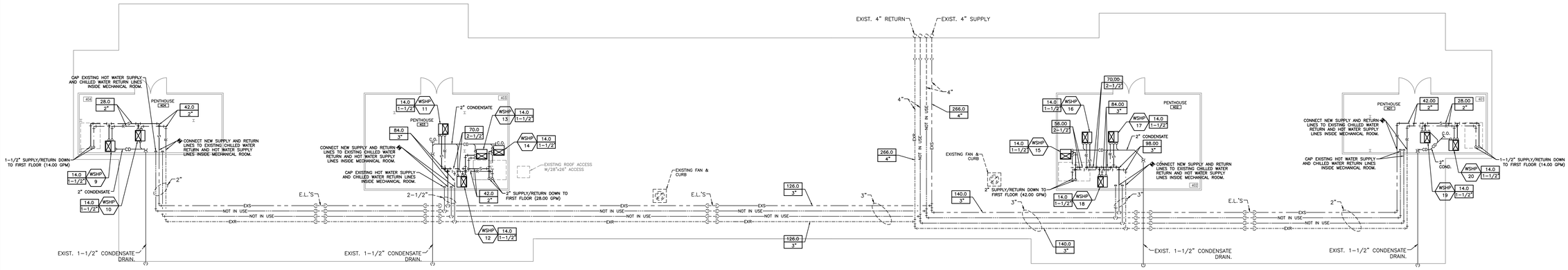

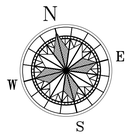

ROOF HYDRONIC PIPING PLAN

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

PLUMBING LEGEND

—S—	NEW SUPPLY LINE		TEMPERATURE GAGE
— · — R —	NEW RETURN LINE		PRESSURE GAGE
—EXS—	EXISTING SUPPLY LINE		AIR VENT
—EXR—	EXISTING RETURN LINE		GATE VALVE
—EXHWS—	EXIST. HOT WATER SUPPLY		GLOBE VALVE
—EXHWR—	EXIST. HOT WATER RETURN		BUTTERFLY VALVE
—EXCWS—	EX. CHILLED WATER SUPPLY		CHECK VALVE
—EXCWR—	EX. CHILLED WATER RETURN		BALL VALVE
—W—	EXISTING WATER		THREE WAY VALVE
	90° ELBOW		PUMP
	TEE		STRAINER
	TEE, DOWN		CONNECT TO EXISTING
	CROSS		

4.0 = GPM
1" = SIZE

ALL HYDRONIC PIPING MAY BE SCHEDULE 10 VICTAULIC PIPE AND FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

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HVAC DEMOLITION NOTES

(1) REMOVE EXISTING CHILLER, PUMPS, PIPING, ETC. TO ACCOMMODATE INSTALLATION OF NEW COOLING TOWER. CONTRACTOR SHALL CAP EXISTING LINES AS SHOWN ON REVISED PLANS.

(2) LOCATE AND REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN LINES AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW COOLING TOWER. CONTRACTOR SHALL CAP EXISTING CHILLED WATER LINES BELOW GRADE AS SHOWN ON REVISED PLANS.

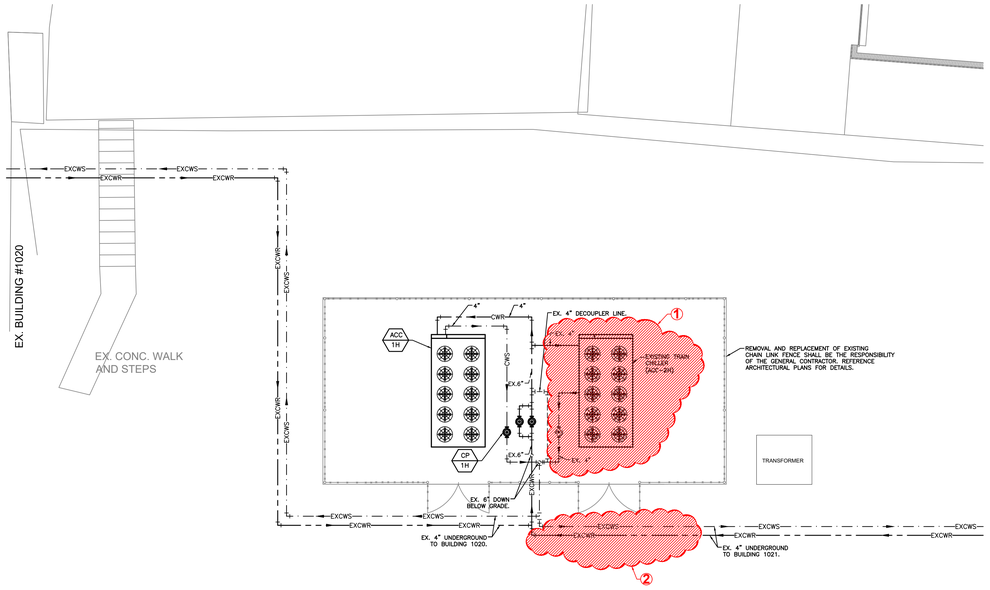
VERIFY DISPOSAL OF EXISTING EQUIPMENT WITH OWNER

GENERAL:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND EQUIPMENT PRIOR TO BIDDING. THIS SHALL INCLUDE ALL ITEMS TO BE REMOVED OR RELOCATED, ALL ELECTRICAL, ALL REFRIGERANT PIPING, CONTROLS, ETC.
2. PATCH/REPAIR ALL OPENINGS LEFT ABANDONED DUE TO THE REMOVAL OF ALL EQUIPMENT (UNIT,DUCT, PIPING, ELECTRICAL, ETC.) PATCH/REPAIR ALL SURFACES TO MATCH EXISTING.
3. REMOVE ALL ABANDONED PIPING, CONDUIT, ELECTRICAL, ETC. PATCH/REPAIR ALL HOLES, ETC. TO MATCH EXISTING FINISHES.
4. VERIFY DISPOSITION OF ALL EQUIPMENT WITH OWNER. INCLUDE ALL COSTS ASSOCIATED WITH COMPLETE REMOVAL AND DISPOSAL IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS.
5. REPAIR/REPLACE ANY EXISTING EQUIPMENT DAMAGED DURING DEMOLITION.
6. PATCH/REPAIR WALLS, FLOOR, CEILING, ETC. TO MATCH EXISTING.
7. PROTECT ALL EXISTING BUILDINGS AND WORK TO REMAIN, INCLUDING ALL EXISTING STRUCTURE, FINISHES, AND MATERIALS AT ALL TIMES FROM DAMAGE DUE TO WORK UNDER THIS CONTRACT OR FROM DAMAGE DUE TO EXPOSURE TO THE ELEMENTS. ANY SUCH DAMAGE WILL BE REPAIRED, PATCHED, OR REPLACED TO MATCH ORIGINAL EXISTING CONDITION.
8. TEMPORARILY REMOVE EXISTING ITEMS TO REMAIN IF REQUIRED TO PROPERLY INSTALL NEW WORK. UPON COMPLETION OF DEMOLITION OR NEW WORK, RE-INSTALL SUCH REMOVED ITEMS TO MATCH ORIGINAL EXISTING CONDITION.
9. ALL BIDDERS SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE TOTAL SCOPE OF WORK, AND TO COMPLETELY FAMILIARIZE THEMSELVES WITH THE PROJECT. INCLUDING ALL EXISTING CONDITIONS, BUILDINGS, STRUCTURE, FINISHES, AND MATERIALS IN ALL AREAS AFFECTED BY WORK UNDER THIS CONTRACT.

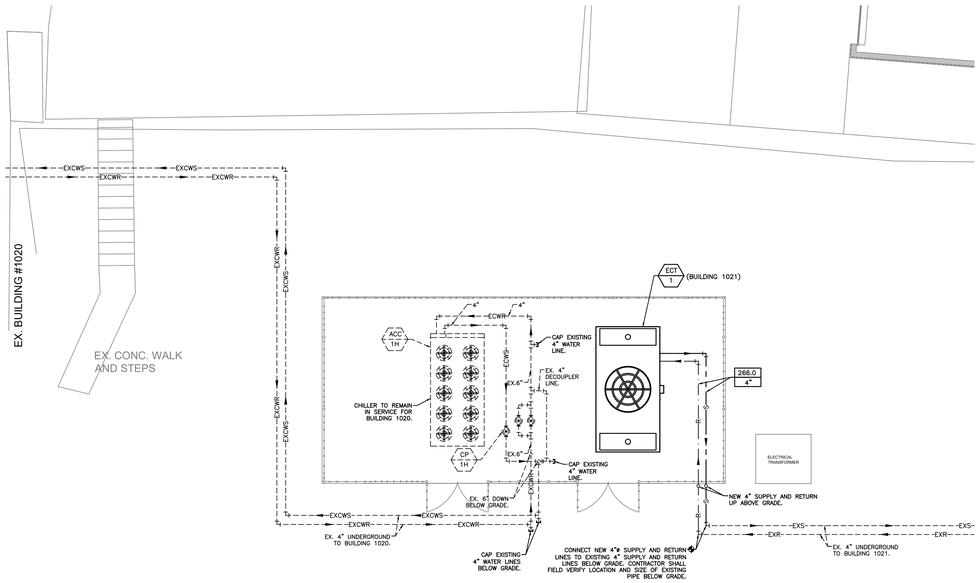
PLUMBING LEGEND

S	NEW SUPPLY LINE		TEMPERATURE GAGE
R	NEW RETURN LINE		PRESSURE GAGE
EXS	EXISTING SUPPLY LINE		AIR VENT
EXR	EXISTING RETURN LINE		GATE VALVE
EXHWS	EXIST. HOT WATER SUPPLY		GLOBE VALVE
EXHWR	EXIST. HOT WATER RETURN		BUTTERFLY VALVE
EXCWS	EX. CHILLED WATER SUPPLY		CHECK VALVE
EXCWR	EX. CHILLED WATER RETURN		BALL VALVE
W	EXISTING WATER		THREE WAY VALVE
	90° ELBOW		PUMP
	TEE		STRAINER
	TEE, DOWN		CONNECT TO EXISTING
	CROSS		



MECHANICAL YARD DEMOLITION PLAN

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



4.0 = GPM
1" = SIZE

ALL HYDRONIC PIPING MAY BE SCHEDULE 10 VICTAULIC PIPE AND FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

MECHANICAL CONTRACTOR TO SUPPLY AND INSTALL ELECTRIC HEAT TRACING ON ALL EXPOSED HYDRONIC PIPING.

REVISED MECHANICAL YARD PLAN

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

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STATE OF ALABAMA
J.MICHAEL RUTLAND 2149
TIMOTHY R. HOLMES 3188
REGISTERED ARCHITECT

FMTC BUILDING
1021 HVAC
RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

Project Number: 23-1337
Date: 26 MARCH 2024
Revisions:

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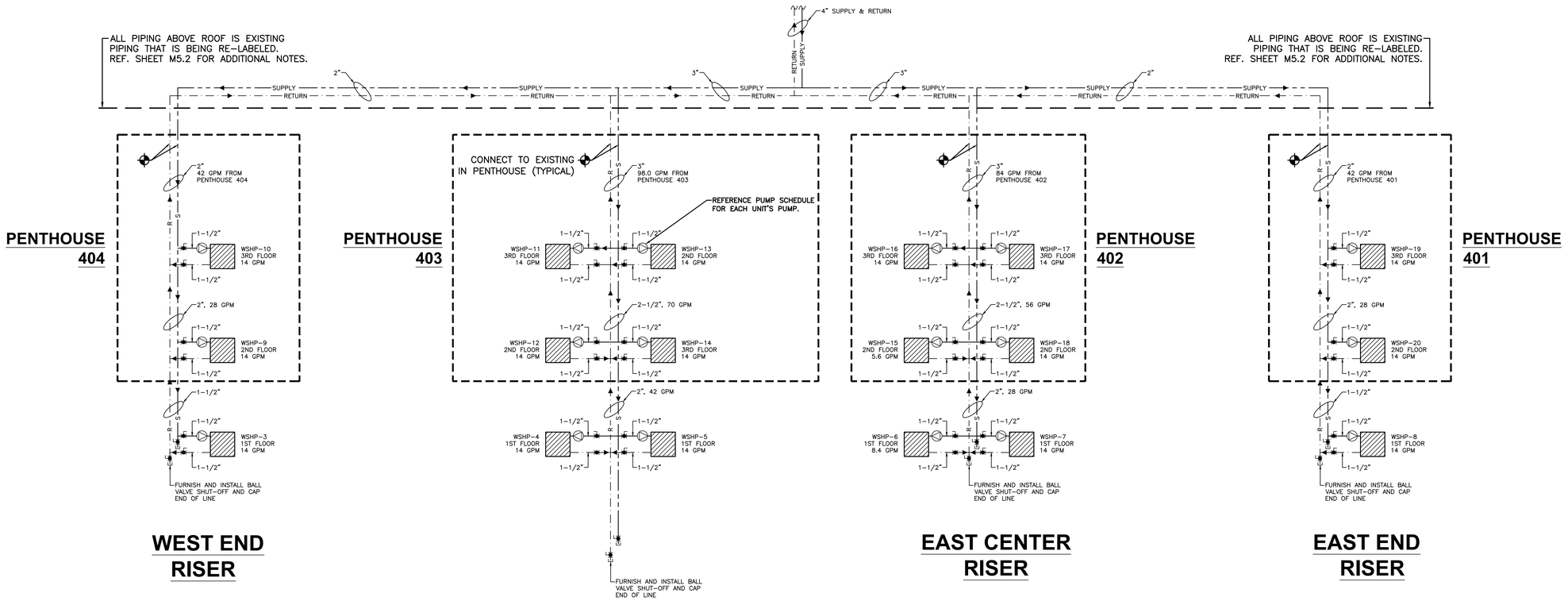
MECHANICAL YARD PLAN

Sheet Number

BI.A/M5.3

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
DATE 03-25-2024
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
ALABAMA REGISTERED No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON

WHORTON ENGINEERING PROJECT NO. 23169



SHEET NOTES

NEW VERTICAL PIPING IN CHASE MAY BE AQUATHERM BLUE PIPE (OR APPROVED EQUAL) WITH FUSED JOINTS.

HYDRONIC PIPING DIAGRAM

NOT TO SCALE

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STATE OF ALABAMA
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FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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HYDRONIC PIPING DIAGRAM

Sheet Number

BI.A/M5.4

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
Randall Whorton
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
DATE 03-25-2024
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
ALABAMA REGISTERED No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
WHORTON ENGINEERING PROJECT NO. 23169

ELECTRICAL SYMBOLS

	WALL OUTLET – GFCI DUPLEX OUTLET, 20A, 125V, GROUNDED, WEATHERPROOF, HUBBELL #GF-5362-GY – GREY WITH #S-26 PLATE. ("WP" DENOTES EXTRA DUTY METAL IN-USE WEATHERPROOF COVER)
•	FLOOR OUTLET – CONDUIT STUB UP.
J	CEILING OUTLET – JUNCTION BOX.
J	WALL OUTLET – JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT.
$	SWITCH OUTLET – AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221 – GREY.("N" DENOTES NARROW)
$TS	SWITCH OUTLET/TIMER – TIME SWITCH WITH ON/OFF BUTTON. WATT STOPPER TS-400-G OR EQUAL.
	LIGHTING PANEL – SEE SPECIFICATIONS AND SCHEDULE.
	POWER PANELS – SEE SPECIFICATIONS AND SCHEDULE.
	BRANCH CIRCUIT CONCEALED IN WALL OR CEILING.
	BRANCH CIRCUIT CONCEALED IN FLOOR OR GROUND.
	HOMERUN TO PANELBOARD – ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2 # 12 & 1 # 12(G) – 1/2" CONDUIT. 3 # 12 & 1 # 12(G) – 3/4" CONDUIT. 4 # 12 & 1 # 12(G) – 3/4" CONDUIT.
	EMPTY CONDUIT – 3/4".
	BRANCH CIRCUIT EXPOSED.
◦	CONDUIT RUN DOWN WALLS, CONCEALED
•	CONDUIT RUN UP WALLS, CONCEALED
S	MOTOR SHOWN 5hp (TYPICAL) OR (20) 40 AMPS (TYPICAL).
F	EXHAUST FAN MOTOR – FRACTIONAL HORSEPOWER.
	MAGNETIC MOTOR STARTER.
	NON-FUSED DISCONNECT SWITCH. (RT – RAINTIGHT).
	FUSED DISCONNECT SWITCH. (RT – RAINTIGHT).
EX.	EXISTING ELECTRICAL EQUIPMENT TO REMAIN, UNLESS OTHERWISE NOTED.
A.F.F.	ABOVE FINISHED FLOOR.
A.F.G.	ABOVE FINISHED GRADE.
MD	MOTORIZED DAMPER.
VER.	VERIFY LOCATION.
N.E.C.	NATIONAL ELECTRICAL CODE.
T	THERMOSTAT – WALL OUTLET 60" AFF OR AS DIRECTED BY MECHANICAL DRAWINGS. RUN EMPTY 3/4" CONDUIT TO UNIT.
	FIRE ALARM – SMOKE DETECTOR – MATCH EXISTING
H	FIRE ALARM – HEAT DETECTOR – MATCH EXISTING
	FIRE ALARM – DUCT DETECTOR – MATCH EXISTING
	FIRE ALARM – MAGNETIC DOOR HOLDER – MATCH EXISTING
F	FIRE ALARM – MANUAL PULL STATION – MATCH EXISTING
F	FIRE ALARM – STROBE LIGHT/HORN – MATCH EXISTING. "WP" INDICATES WEATHERPROOF.
H	FIRE ALARM – EXISTING MINI-HORN.
F	FIRE ALARM – STROBE LIGHT – MATCH EXISTING

GENERAL NOTES

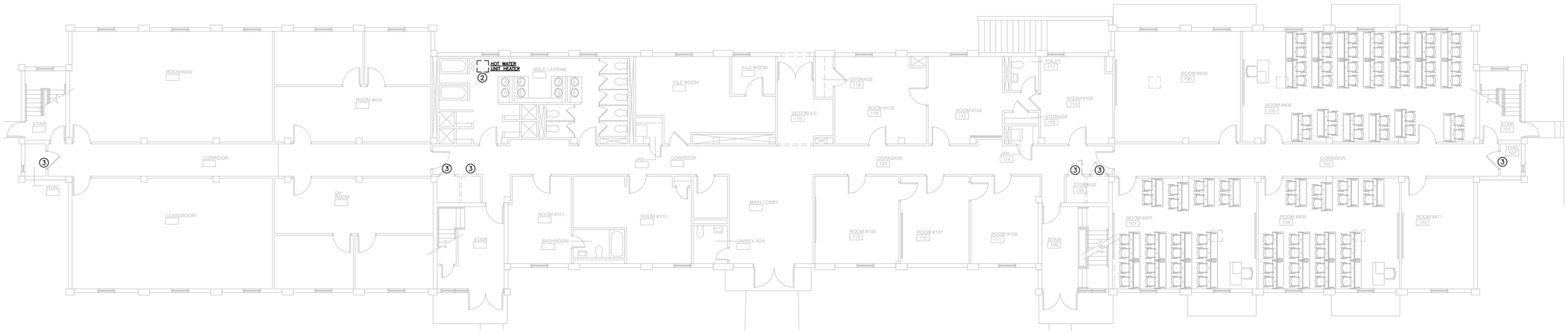
1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL DETAILS OF THE WORK AND ALL EXISTING FIELD CONDITIONS.
3. CONTRACTOR SHALL PROVIDE A COMPLETE ELECTRICAL INSTALLATION INCLUDING ALL WORK CUSTOMARILY INCLUDED EVEN IF NOT SPECIFICALLY CALLED OUT.
4. THE ELECTRICAL CONTRACTOR SHALL CAREFULLY COORDINATE HIS WORK WITH OTHER CONTRACTORS THROUGH THE GENERAL CONTRACTOR FOR SPACE REQUIREMENTS, ETC.
5. CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT NAMEPLATE DATA BEFORE ANY WORK IS DONE AND MAKE ANY ADJUSTMENTS IN BREAKER AND WIRE SIZE AS MAY BE REQUIRED.
6. SHOULD THE CONTRACTOR FIND DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS OR BE IN DOUBT AS TO INTENT, HE SHALL IMMEDIATELY OBTAIN CLARIFICATION FROM THE ARCHITECT OR ENGINEER.
7. THE ELECTRICAL DRAWINGS ARE SCHEMATIC AND ARE NOT INTENDED TO SHOW THE EXACT LOCATION OF CONDUIT, OUTLETS, ETC.. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS AND SHALL FIT HIS WORK TO CONFORM WITH THE BUILDING CONSTRUCTION AND WITH THE OTHER TRADES.
8. MOUNTING HEIGHTS OF ALL WALL OUTLETS SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
   WALL SWITCHES.....4'-0" (TO CENTER OF BOX)
   RECEPTACLES.....1'-6" (TO CENTER OF BOX)
   FIRE ALARM HORN/STROBE.....6'-8" (TO CENTER OF BOX)
9. ALL OUTLET BOXES MOUNTED BACK-TO-BACK IN WALLS SHALL HAVE FIREPROOF SOUND INSULATING MATERIAL INSTALLED BETWEEN THE BOXES TO PREVENT SOUND TRANSMISSION FROM ONE ROOM TO ANOTHER.
10. VERIFY ALL DOOR SWINGS WITH THE ARCHITECT BEFORE ROUGHING IN LIGHT SWITCHES.
11. CONTRACTOR SHALL CHECK ALL LIGHT FIXTURES FOR EXACT MOUNTING TYPE AND SPACE REQUIRED PRIOR TO ROUGH-IN.
12. BRANCH CIRCUITS SHALL BE #12 AWG AND 1/2" CONDUIT MINIMUM. CONDUCTORS SHALL BE 98% CONDUCTIVITY COPPER. SEE SPECIFICATIONS FOR INSULATION TYPE.
13. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION TYPE FITTINGS.
14. VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
15. SUPPORT OF ALL LIGHTING FIXTURES SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. SEE SPECIFICATIONS FOR SUPPORTING METHODS.
16. COORDINATE SERVICES WITH POWER AND COMMUNICATION COMPANIES. REMOVE OR RELOCATE ALL POWER AND COMMUNICATIONS CIRCUITS ABOVE OR BELOW GRADE THAT WOULD OBSTRUCT CONSTRUCTION OF THE PROJECT OR CONFLICT IN ANY MANNER WITH COMPLETION OF THE PROJECT OR ANY CODE PERTAINING THERETO. IF UTILITY COMPANY REQUIREMENTS ARE AT A VARIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE THE ADDITIONAL COST.
17. THIS CONTRACTOR SHALL INSTALL EQUIPMENT GROUNDS THROUGHOUT THIS PROJECT, USING GREEN INSULATED CONDUCTORS. USE OF CONDUIT AS THE ONLY GROUND CONDUCTOR WILL NOT BE ALLOWED. SIZE GROUND CONDUCTORS PER N.E.C..
18. CONTRACTOR SHALL FIELD MARK ALL ELECTRICAL EQUIPMENT WITH ARC-FLASH WARNING LABELS PER NEC 110.16.
19. CONTRACTOR SHALL PAINT NEW CONDUIT TO MATCH EXISTING CEILING AND WALLS WHERE IT IS EXPOSED.
20. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTION ABOUT OPERATION AND MAINTENANCE OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE.
21. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF ELECTRICAL EQUIPMENT WITH THE OWNER PRIOR TO SUBMITTING AND ORDERING EQUIPMENT.
22. WHERE NEW CIRCUITS ARE ADDED TO EXISTING PANELS, CONTRACTOR SHALL UPDATE THE EXISTING PANEL DIRECTORY WITH A NEW TYPED PANEL DIRECTORY.
23. VERIFY EXACT LOCATION AND EXACT MOUNTING HEIGHT OF ALL ELECTRICAL EQUIPMENT AND ELECTRICAL CONNECTIONS WITH THE ARCHITECT AND THE OWNER PRIOR TO ROUGH-IN.

DEMOLITION NOTES

1. DISCONNECT ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
2. PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION.
3. REMOVE ELECTRICAL EQUIPMENT NOT REQUIRED TO REMAIN IN SERVICE. RECONNECT EXISTING CIRCUITS TO OTHER SOURCES OF SUPPLY.
4. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY.
5. REMOVE EXPOSED ABANDONED CONDUIT INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOORS, AND PATCH SURFACES.
6. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED.
7. DISCONNECT AND REMOVE ABANDONED DISTRIBUTION EQUIPMENT.
8. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVING UTILIZATION EQUIPMENT THAT HAS BEEN REMOVED.
9. WHEN A CIRCUIT IS INTERRUPTED BY REMOVAL OF A DEVICE OR FIXTURE FROM THAT CIRCUIT, INSTALL WIRE, CONDUIT, AND ACCESSORIES TO RESTORE SERVICE TO REMAINING DEVICES AND FIXTURES ON THAT CIRCUIT.
10. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE.
11. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
12. REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH REMAIN OR ARE TO BE REUSED.

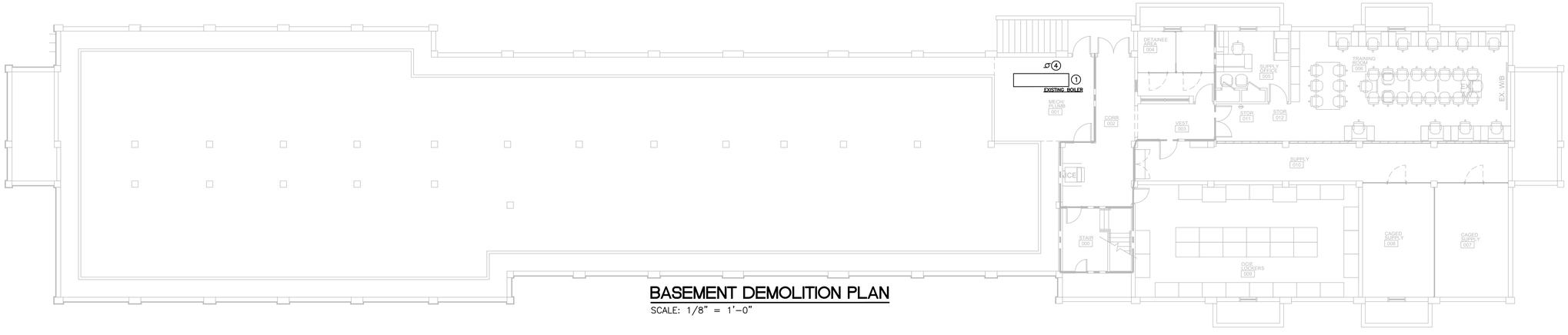
DEMOLITION KEYNOTES

1. DISCONNECT EXISTING CIRCUIT TO EXISTING MECHANICAL UNIT BEING REPLACED, RECONNECT CIRCUIT TO NEW UNIT.
2. REMOVE EXISTING DISCONNECT, CONDUIT, WIRE, ETC. FOR MECHANICAL UNIT BEING REMOVED.
3. CONTRACTOR SHALL RELOCATE ANY EXISTING ELECTRICAL EQUIPMENT THAT INTERFERES WITH THE EXISTING CHASE BEING CONVERTED TO A MECHANICAL CLOSET. THIS APPLIES TO THE CORRIDOR AS WELL AS THE CHASE.
4. CONTRACTOR SHALL DISCONNECT EXISTING PUMP AND REUSE EXISTING CIRCUIT TO THE EXTENT POSSIBLE FOR THE NEW PUMP.



FIRST FLOOR DEMOLITION PLAN

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



BASEMENT DEMOLITION PLAN

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

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J. MICHAEL RUTLAND 2149
TIMOTHY R. HOLMES 3188
REGISTERED ARCHITECT

FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

CONSTRUCTION DOCUMENTS

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Date: 26 MARCH 2024
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Sheet Description

SYMBOLS, NOTES AND DEMOLITION PLANS

Sheet Number

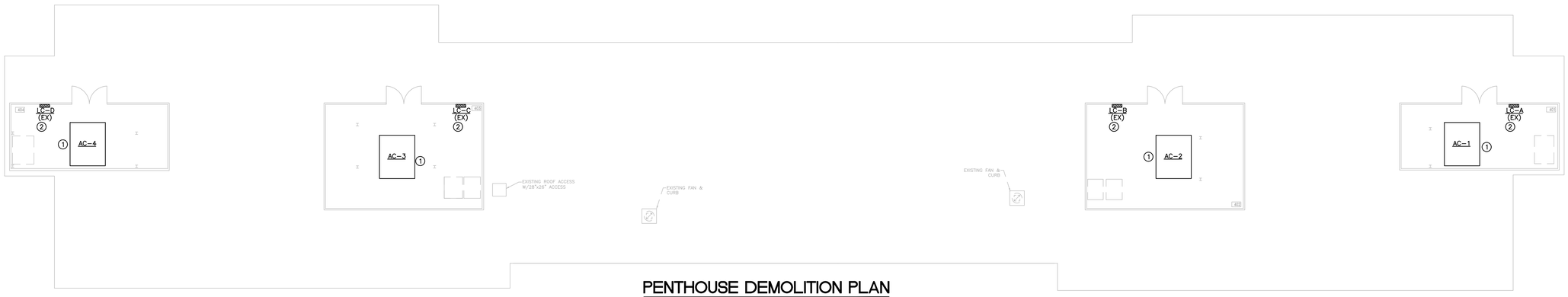
BI.A/E1.1

STATE OF ALABAMA LICENSED PROFESSIONAL ENGINEER No. 29753 STANLEY J. MCCARTER
03-26-24

McCARTER ENGINEERING
ELECTRICAL ENGINEERING CONSULTANTS
PHONE: (256) 240-7335
878 AVALON LANE
ANNISTON, AL 36207
M.E. JOB #2404

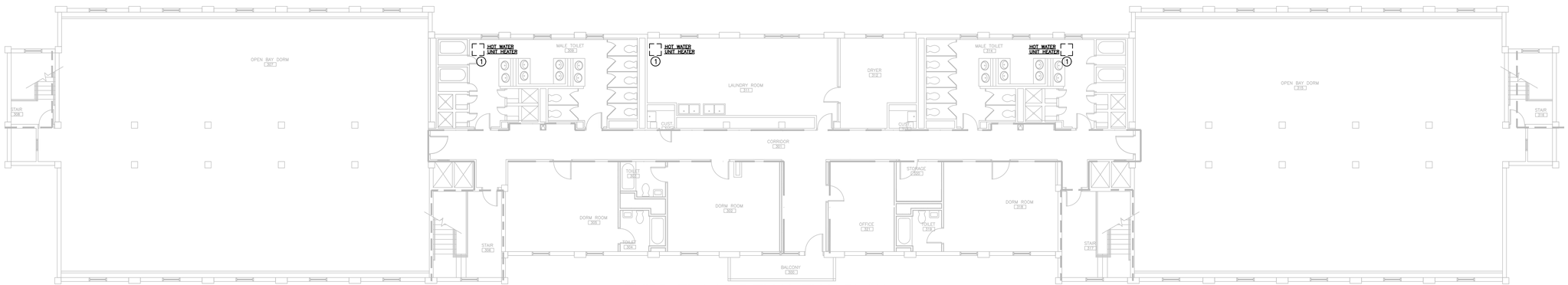
DEMOLITION KEYNOTES

1. REMOVE EXISTING DISCONNECT, CONDUIT, WIRE, ETC. FOR MECHANICAL UNIT BEING REMOVED.
2. DISCONNECT AND REMOVE PANELBOARD, DISCONNECTS, AND TROUGH. INSTALL NEW PANELBOARD PER REVISED PLAN. EXTEND EXISTING CIRCUITS AS NECESSARY.



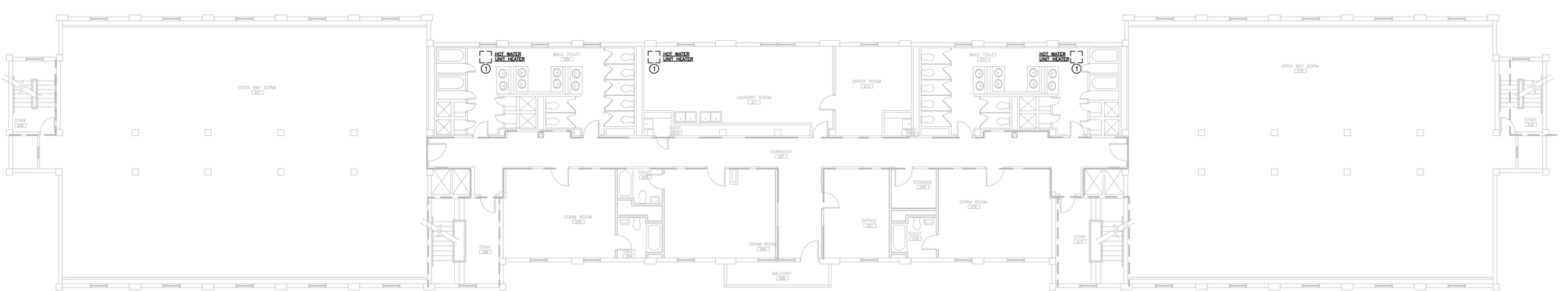
PENTHOUSE DEMOLITION PLAN

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



THIRD FLOOR DEMOLITION PLAN

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



SECOND FLOOR DEMOLITION PLAN

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

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DEMOLITION PLANS

Sheet Number

BI.A/E2.1

23 OF 29

STATE OF ALABAMA
REG. 22753
PROFESSIONAL
STANLEY J. MCCARTER ENGINEER
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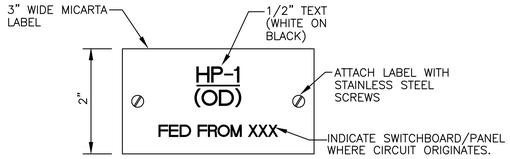
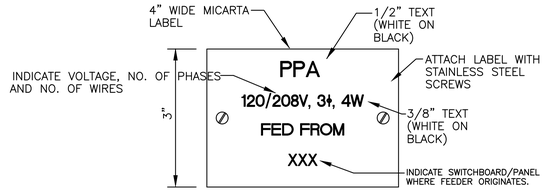


EQUIPMENT LABEL DETAIL

N.T.S. (TYPICAL)

NOTES:
1. INSTALL LABEL ON ALL DISCONNECTING MEANS FOR EACH PIECE OF EQUIPMENT.

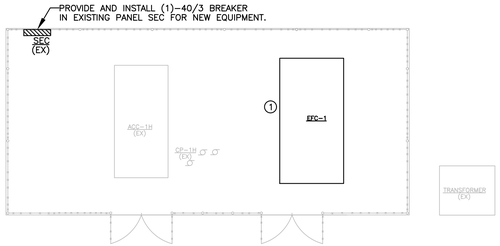


PANEL LABEL DETAIL

N.T.S. (TYPICAL)

ELECTRICAL KEYNOTES

① TIE INTO EXISTING CIRCUIT FOR HEAT TAPE. EXTEND CIRCUITS AS NECESSARY.

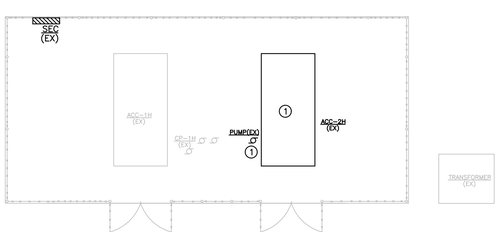


MECHANICAL YARD POWER PLAN

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

DEMOLITION KEYNOTES

① REMOVE EXISTING DISCONNECT, CONDUIT, WIRE, ETC. FOR MECHANICAL EQUIPMENT BEING REMOVED.



MECHANICAL YARD DEMOLITION PLAN

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

LIGHTING FIXTURE SCHEDULE

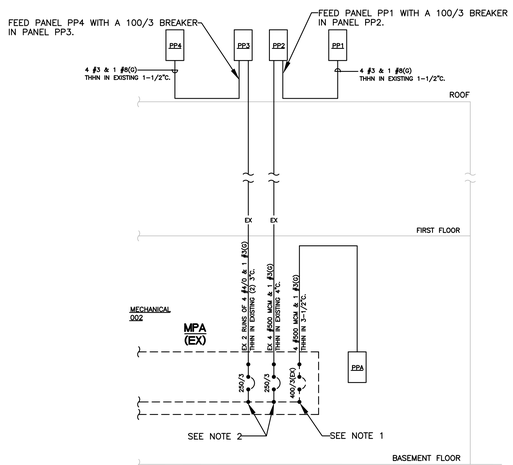
MARK	MANUFACTURER	CATALOG NO.	LAMPS NO.	LAMPS WATTS	LAMPS TYPE	MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
D1	LITHONIA	ZL1D-L24-2500LM-FST-120-50K-80CRI-WH	FURNISHED WITH FIXTURE			VERIFY	SURFACE		SEE NOTE 1

NOTES:
1. EQUAL FIXTURE BY COLUMBIA OR DAYBRITE WILL BE ACCEPTABLE.

PANELBOARD SCHEDULE

MARK	TYPE	MAINS TYPE	MAINS AMPS	MAINS SERVICE	BRANCHES 1 POLE	BRANCHES 2 POLE	BRANCHES 3 POLE	BRANCHES SPARES	BRANCHES SPACES	LUG LOCATION	TYPE MOUNTING	MINIMUM AIC RATING	REMARKS
PPA	NQOD	MLO	400	120/208V 3ϕ, 4W		8–20	6–35 2–50	6–20/1	14–1PS	TOP	SURFACE	VERIFY WITH APCO	SEE NOTE 1 (TWO SECTION PANEL)
PP1	NQOD	MLO	100	120/208V 3ϕ, 4W	6–20		1–15 2–35	3–20/1	12–1PS	BOTTOM	SURFACE	VERIFY WITH APCO	SEE NOTES 1 & 2
PP2	NQOD	MLO	250	120/208V 3ϕ, 4W	6–20		1–15 4–35 1–100	3–20/1	15–1PS	BOTTOM	SURFACE	VERIFY WITH APCO	SEE NOTES 1 & 2
PP3	NQOD	MLO	250	120/208V 3ϕ, 4W	6–20		1–15 4–35 1–100	3–20/1	15–1PS	BOTTOM	SURFACE	VERIFY WITH APCO	SEE NOTES 1 & 2
PP4	NQOD	MLO	100	120/208V 3ϕ, 4W	6–20		1–15 2–35	3–20/1	12–1PS	BOTTOM	SURFACE	VERIFY WITH APCO	SEE NOTES 1 & 2

NOTES:
1. PANEL SHALL BE FULLY RATED AND SHALL HAVE A HINGED FRONT TRIM.
2. PANEL SHALL REPLACE EXISTING PANEL IN SAME LOCATION. CONTRACTOR SHALL RECONNECT EXISTING CIRCUITS TO NEW BREAKERS IN THE NEW PANEL. EXTEND CIRCUITS AS NECESSARY.



ELECTRICAL SINGLE LINE DIAGRAM

N.T.S.

NOTES:
1. REUSE ONE EXISTING 400/3 BREAKER IN EXISTING PANEL MPA THAT PRESENTLY FEEDS THE PENTHOUSE FOR NEW PANEL.
2. PROVIDE AND INSTALL (2)-250/3 BREAKERS IN MPA(EX) FOR FEEDS TO NEW PANELS IN PENTHOUSE 2 & 3. PROVIDE AND INSTALL ALL HARDWARE NECESSARY TO INSTALL THE NEW BREAKERS. RETERMINATE EXISTING PENTHOUSE FEEDERS TO THE NEW 250/3 BREAKERS. EXTEND FEEDERS AS NECESSARY.

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FMTC BUILDING
1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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SINGLE LINE DIAGRAM, SCHEDULES AND MECHANICAL YARD PLANS

Sheet Number

BI.A/E2.2

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PROFESSIONAL ENGINEER
03-26-24

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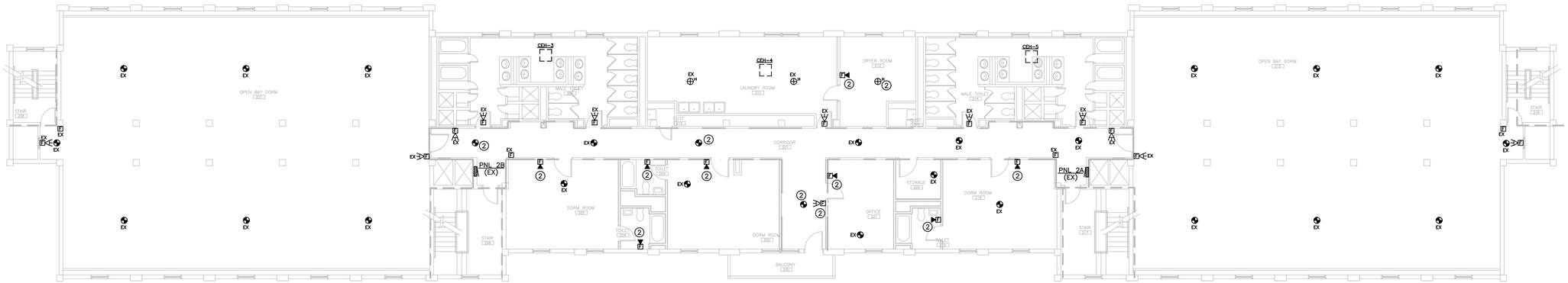
M.E. JOB #2404

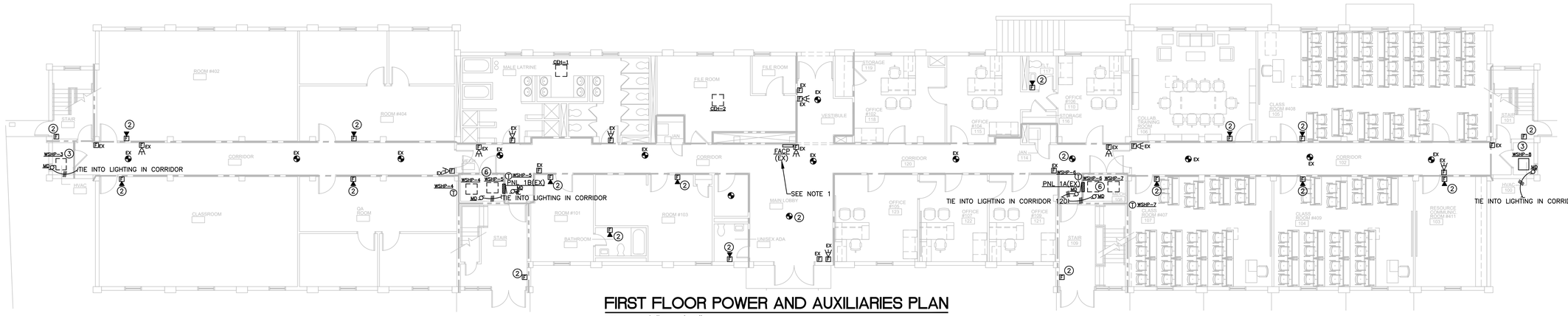
ELECTRICAL KEYNOTES

1. RECONNECT NEW MECHANICAL UNIT TO EXISTING CIRCUIT. EXTEND CIRCUIT AS NECESSARY.
2. INSTALL NEW FIRE ALARM DEVICE AND TIE INTO EXISTING FIRE ALARM SYSTEM. RECERTIFY SYSTEM ONCE CHANGES ARE MADE.
3. PROVIDE AND INSTALL ONE(1) NEW "D1" LIGHT FIXTURE AND TIME SWITCH (T^{M}) IN ROOM. COORDINATE LOCATION OF LIGHT FIXTURE WITH MECHANICAL CONTRACTOR DUE TO DUCT WORK CONFLICTS. CIRCUIT FIXTURE IN TO NEAREST AVAILABLE LIGHTING CIRCUIT.
4. CONTRACTOR MAY UTILIZE EXISTING CONDUIT TO THE EXTENT POSSIBLE FOR NEW PUMP. EXTEND CIRCUIT AS REQUIRED.
5. UTILIZE EXISTING 15/3 BREAKER IN EXISTING PANEL LCP FOR NEW CIRCUIT TO BP-1 PUMP.
6. PROVIDE AND INSTALL TWO(2) NEW "D1" LIGHT FIXTURES AND TIME SWITCH (T^{M}) IN ROOM. COORDINATE LOCATION OF LIGHT FIXTURES WITH MECHANICAL CONTRACTOR DUE TO DUCT WORK CONFLICTS. CIRCUIT FIXTURES IN TO NEAREST AVAILABLE LIGHTING CIRCUIT.



SECOND FLOOR POWER AND AUXILIARIES PLAN

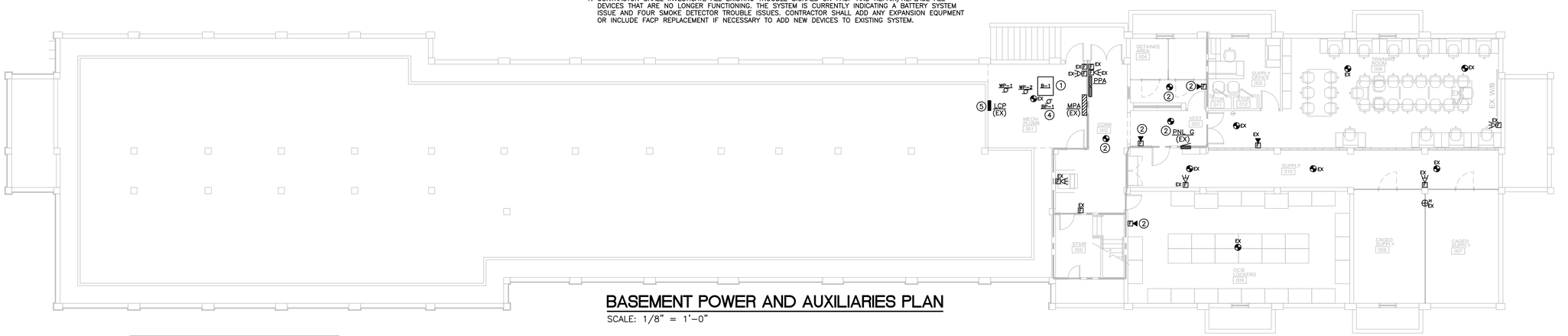
SCALE: 1/8" = 1'-0"



FIRST FLOOR POWER AND AUXILIARIES PLAN

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

NOTES:
1. CONTRACTOR SHALL INVESTIGATE ALL EXISTING TROUBLE SIGNALS ON FACP AND REPAIR/REPLACE ALL DEVICES THAT ARE NO LONGER FUNCTIONING. THE SYSTEM IS CURRENTLY INDICATING A BATTERY SYSTEM ISSUE AND FOUR SMOKE DETECTOR TROUBLE ISSUES. CONTRACTOR SHALL ADD ANY EXPANSION EQUPMENT OR INCLUDE FACP REPLACEMENT IF NECESSARY TO ADD NEW DEVICES TO EXISTING SYSTEM.



BASEMENT POWER AND AUXILIARIES PLAN

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

NOTE:
ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
LESS THAN 75 FEET.....#12 AWG
BETWEEN 76' AND 125'.....#10 AWG
BETWEEN 126' AND 190'....#8 AWG

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FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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BASEMENT, FIRST AND SECOND FLOOR POWER AND AUXILIARIES PLANS

Sheet Number

BI.A/E3.1

STATE OF ALABAMA
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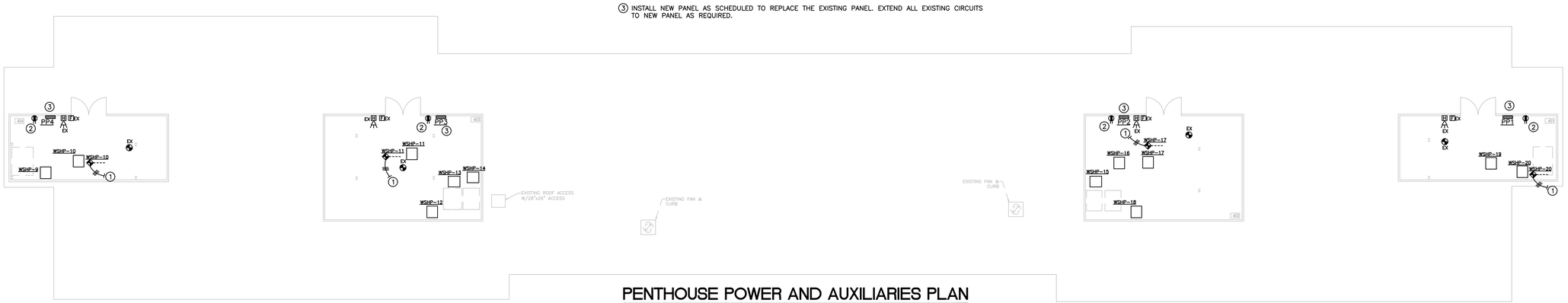
MECHANICAL EQUIPMENT CIRCUIT SCHEDULE

UNIT ID	CIRCUIT NUMBER	BREAKER SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	DISCONNECT TYPE
EFC-1	SEC(EX)	40/3	3 #8	#10	3/4"	60/3, F, RT
BP-1	LCP(EX)	15/3	3 #12	#12	1/2"	30/3, NF
WP-1	PPA-40,41,42	50/3	3 #8	#10	3/4"	60/3, NF
WP-2	PPA-43,44,45	50/3	3 #8	#10	3/4"	60/3, NF
WSHP-3	PPA-6,7,8	35/3	4 #8*	#10	1"	60/3, NF
WSHP-4	PPA-9,10,11	35/3	4 #8*	#10	1"	60/3, NF
WSHP-5	PPA-14,15,16	35/3	4 #8*	#10	1"	60/3, NF
WSHP-6	PPA-17,18,19	35/3	4 #8*	#10	1"	60/3, NF
WSHP-7	PPA-22,23,24	35/3	4 #8*	#10	1"	60/3, NF
WSHP-8	PPA-25,26,27	35/3	4 #8*	#10	1"	60/3, NF
WSHP-9	PP4-1,2,3	35/3	4 #8*	#10	1"	NONE
WSHP-10	PP4-4,5,6	35/3	4 #8*	#10	1"	NONE
WSHP-11	PP3-4,5,6	35/3	4 #8*	#10	1"	NONE
WSHP-12	PP3-7,8,9	35/3	4 #8*	#10	1"	NONE
WSHP-13	PP3-10,11,12	35/3	4 #8*	#10	1"	NONE
WSHP-14	PP3-13,14,15	35/3	4 #8*	#10	1"	NONE
WSHP-15	PP2-4,5,6	35/3	4 #8*	#10	1"	NONE
WSHP-16	PP2-7,8,9	35/3	4 #8*	#10	1"	NONE
WSHP-17	PP2-10,11,12	35/3	4 #8*	#10	1"	NONE
WSHP-18	PP2-13,14,15	35/3	4 #8*	#10	1"	NONE
WSHP-19	PP1-1,2,3	35/3	4 #8*	#10	1"	NONE
WSHP-20	PP1-4,5,6	35/3	4 #8*	#10	1"	NONE
CEH-1	PPA-12,13	20/2	2 #10	#10	1/2"	NONE
CEH-2	PPA-20,21	20/2	2 #10	#10	1/2"	NONE
CEH-3	PPA-28,29	20/2	2 #10	#10	1/2"	NONE
CEH-4	PPA-30,31	20/2	2 #10	#10	1/2"	NONE
CEH-5	PPA-32,33	20/2	2 #12	#12	1/2"	NONE
CEH-6	PPA-34,35	20/2	2 #10	#10	1/2"	NONE
CEH-7	PPA-36,37	20/2	2 #10	#10	1/2"	NONE
CEH-8	PPA-38,39	20/2	2 #12	#12	1/2"	NONE

NF - NONFUSED
F - FUSED (FUSE PER MANUFACTURERS RECOMMENDATIONS)
RT - RAINTIGHT
TS - TOGGLE SWITCH ("WP" INDICATES WEATHERPROOF)
MRS - MOTOR RATED SWITCH
S/T - SHUNT TRIP BREAKER
DPTS - DOUBLE POLE TOGGLE SWITCH
NOTE: MAINTAIN CODE REQUIRED CLEARANCES FOR DISCONNECTS.
* NOTE THAT A NEUTRAL SHALL BE PULLED TO EACH WSHP FOR A 120V PUMP THAT IS INTEGRAL TO EACH UNIT.

ELECTRICAL KEYNOTES

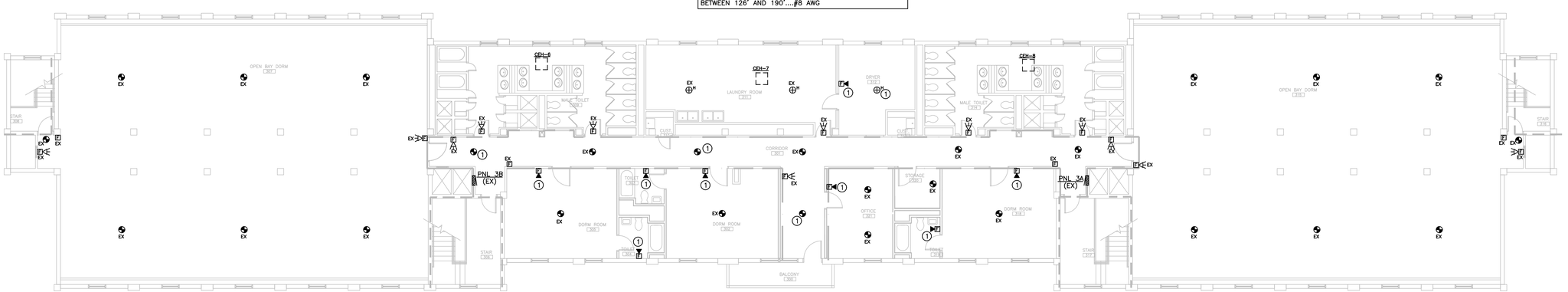
1. INSTALL NEW FIRE ALARM DEVICE AND TIE INTO EXISTING FIRE ALARM SYSTEM. RECERTIFY SYSTEM ONCE CHANGES ARE MADE.
2. INSTALL NEW GFCI RECEPTACLE AS SHOWN AND TIE INTO NEAREST AVAILABLE RECEPTACLE CIRCUIT. RECEPTACLE SHALL BE INSTALLED FOR SERVICING INDOOR HVAC IN THIS ROOM.
3. INSTALL NEW PANEL AS SCHEDULED TO REPLACE THE EXISTING PANEL. EXTEND ALL EXISTING CIRCUITS TO NEW PANEL AS REQUIRED.



PENTHOUSE POWER AND AUXILIARIES PLAN

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

NOTE:
ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
LESS THAN 75 FEET.....#12 AWG
BETWEEN 76' AND 125'.....#10 AWG
BETWEEN 126' AND 190'....#8 AWG



THIRD FLOOR POWER AND AUXILIARIES PLAN

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

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THIRD FLOOR AND PENTHOUSE POWER AND AUXILIARIES PLANS

Sheet Number

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ELECTRICAL SYMBOLS

CEILING OUTLET – RECESSED LED FIXTURE. HATCHING INDICATES LIGHT FIXTURE THAT HAS AN EMERGENCY BATTERY PACK.

CEILING OUTLET – SURFACE OR PENDANT LED FIXTURE.

CEILING OUTLET – SURFACE LED FIXTURE.

WALL OUTLET – LED BRACKET TYPE.

WALL OUTLET – LED BRACKET TYPE.

WALL OUTLET – DUPLEX OUTLET, 20A, 125V, GROUNDED, HUBBELL #5362 – GREY.
("WP" DENOTES EXTRA DUTY METAL IN–USE WEATHERPROOF COVER)

WALL OUTLET – GFCI DUPLEX OUTLET, 20A, 125V, GROUNDED, WEATHERPROOF, HUBBELL #GF–5362–GY – GREY WITH #S–26 PLATE. ("WP" DENOTES EXTRA DUTY METAL IN–USE WEATHERPROOF COVER)

FLOOR OUTLET – CONDUIT STUB UP.

CEILING OUTLET – JUNCTION BOX.

WALL OUTLET – JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT.

SWITCH OUTLET – AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221 – GREY.("N" DENOTES NARROW)

SWITCH OUTLET/TIMER – TIME SWITCH WITH ON/OFF BUTTON. WATT STOPPER TS–400–G OR EQUAL.

SWITCH OUTLET – LOW VOLTAGE SWITCH FOR "MANUAL ON" ONLY. SENSOR SWITCH SPODM–SA OR EQUAL.

CEILING/WALL SENSOR – DUAL TECHNOLOGY CEILING SENSOR. SENSOR SWITCH CM PDT SERIES WTH POWER PACK OR EQUAL.

LIGHTING PANEL – SEE SPECIFICATIONS AND SCHEDULE.

POWER PANELS – SEE SPECIFICATIONS AND SCHEDULE.

BRANCH CIRCUIT CONCEALED IN WALL OR CEILING.

BRANCH CIRCUIT CONCEALED IN FLOOR OR GROUND.

HOMERUN TO PANELBOARD – ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2 # 12 & 1 # 12(G) – 1/2" CONDUIT.
3 # 12 & 1 # 12(G) – 3/4" CONDUIT. 4 # 12 & 1 # 12(G) – 3/4" CONDUIT.

EMPTY CONDUIT – 3/4".

BRANCH CIRCUIT EXPOSED.

CONDUIT RUN DOWN WALLS, CONCEALED

CONDUIT RUN UP WALLS, CONCEALED

MOTOR SHOWN 5hp (TYPICAL) OR 40 AMPS (TYPICAL).

EXHAUST FAN MOTOR – FRACTIONAL HORSEPOWER.

MAGNETIC MOTOR STARTER.

NON–FUSED DISCONNECT SWITCH. (RT – RAINTIGHT.

FUSED DISCONNECT SWITCH. (RT – RAINTIGHT).

EX. EXISTING ELECTRICAL EQUIPMENT TO REMAIN, UNLESS OTHERWISE NOTED.

EXR. EXISTING ELECTRICAL EQUIPMENT TO BE REPLACED, UNLESS OTHERWISE NOTED.

A.F.F. ABOVE FINISHED FLOOR.

A.F.G. ABOVE FINISHED GRADE.

VER. VERIFY LOCATION.

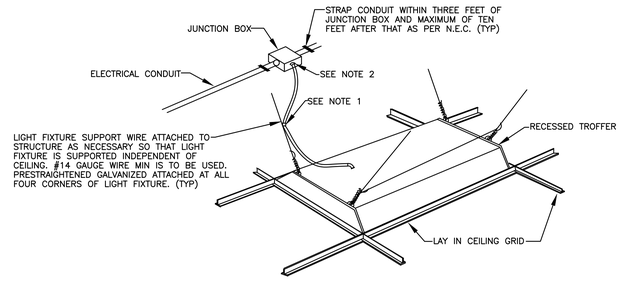
N.E.C. NATIONAL ELECTRICAL CODE.

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ORDINANCES. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL DETAILS OF THE WORK AND ALL EXISTING FIELD CONDITIONS.
3. CONTRACTOR SHALL PROVIDE A COMPLETE ELECTRICAL INSTALLATION INCLUDING ALL WORK CUSTOMARILY INCLUDED EVEN IF NOT SPECIFICALLY CALLED OUT.
4. THE ELECTRICAL CONTRACTOR SHALL CAREFULLY COORDINATE HIS WORK WITH OTHER CONTRACTORS THROUGH THE GENERAL CONTRACTOR FOR SPACE REQUIREMENTS, ETC.
5. CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT NAMEPLATE DATA BEFORE ANY WORK IS DONE AND MAKE ANY ADJUSTMENTS IN BREAKER AND WIRE SIZE AS MAY BE REQUIRED.
6. SHOULD THE CONTRACTOR FIND DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS OR BE IN DOUBT AS TO INTENT, HE SHALL IMMEDIATELY OBTAIN CLARIFICATION FROM THE ARCHITECT OR ENGINEER.
7. THE ELECTRICAL DRAWINGS ARE SCHEMATIC AND ARE NOT INTENDED TO SHOW THE EXACT LOCATION OF CONDUIT, OUTLETS, ETC.. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS AND SHALL FIT HIS WORK TO CONFORM WITH THE BUILDING CONSTRUCTION AND WITH THE OTHER TRADES.
8. MOUNTING HEIGHTS OF ALL WALL OUTLETS SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
   WALL SWITCHES.....4'–0" (TO CENTER OF BOX)
   RECEPTACLES.....1'–6" (TO CENTER OF BOX)
9. ALL OUTLET BOXES MOUNTED BACK–TO–BACK IN WALLS SHALL HAVE FIREPROOF SOUND INSULATING MATERIAL INSTALLED BETWEEN THE BOXES TO PREVENT SOUND TRANSMISSION FROM ONE ROOM TO ANOTHER.
10. VERIFY ALL DOOR SWINGS WITH THE ARCHITECT BEFORE ROUGHING IN LIGHT SWITCHES.
11. CONTRACTOR SHALL CHECK ALL LIGHT FIXTURES FOR EXACT MOUNTING TYPE AND SPACE REQUIRED PRIOR TO ROUGH–IN.
12. BRANCH CIRCUITS SHALL BE #12 AWG AND 1/2" CONDUIT MINIMUM. CONDUCTORS SHALL BE 98% CONDUCTIVITY COPPER. SEE SPECIFICATIONS FOR INSULATION TYPE.
13. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION TYPE FITTINGS.
14. VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
15. SUPPORT OF ALL LIGHTING FIXTURES SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. SEE SPECIFICATIONS FOR SUPPORTING METHODS.
16. COORDINATE SERVICES WITH POWER AND COMMUNICATION COMPANIES. REMOVE OR RELOCATE ALL POWER AND COMMUNICATIONS CIRCUITS ABOVE OR BELOW GRADE THAT WOULD OBSTRUCT CONSTRUCTION OF THE PROJECT OR CONFLICT IN ANY MANNER WITH COMPLETION OF THE PROJECT OR ANY CODE PERTAINING THERETO. IF UTILITY COMPANY REQUIREMENTS ARE AT A VARIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE THE ADDITIONAL COST.
17. THIS CONTRACTOR SHALL INSTALL EQUIPMENT GROUNDS THROUGHOUT THIS PROJECT, USING GREEN INSULATED CONDUCTORS. USE OF CONDUIT AS THE ONLY GROUND CONDUCTOR WILL NOT BE ALLOWED. SIZE GROUND CONDUCTORS PER N.E.C..
18. CONTRACTOR SHALL FIELD MARK ALL ELECTRICAL EQUIPMENT WITH ARC–FLASH WARNING LABELS PER NEC 110.16.
19. CONTRACTOR SHALL PAINT NEW CONDUIT TO MATCH EXISTING CEILING AND WALLS WHERE IT IS EXPOSED.
20. VERIFY EXACT LOCATION AND EXACT MOUNTING HEIGHT OF ALL ELECTRICAL EQUIPMENT AND ELECTRICAL CONNECTIONS WITH THE ARCHITECT AND THE OWNER PRIOR TO ROUGH–IN.

DEMOLITION NOTES

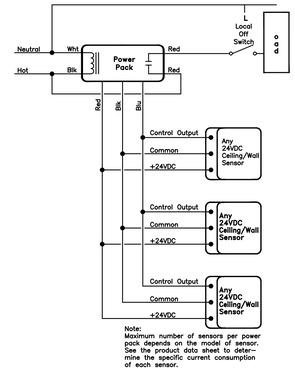
1. DISCONNECT ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
2. PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION.
3. REMOVE ELECTRICAL EQUIPMENT NOT REQUIRED TO REMAIN IN SERVICE. RECONNECT EXISTING CIRCUITS TO OTHER SOURCES OF SUPPLY.
4. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY.
5. REMOVE EXPOSED ABANDONED CONDUIT INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOORS, AND PATCH SURFACES.
6. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED.
7. DISCONNECT AND REMOVE ABANDONED DISTRIBUTION EQUIPMENT.
8. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVING UTILIZATION EQUIPMENT THAT HAS BEEN REMOVED.
9. WHEN A CIRCUIT IS INTERRUPTED BY REMOVAL OF A DEVICE OR FIXTURE FROM THAT CIRCUIT, INSTALL WIRE, CONDUIT, AND ACCESSORIES TO RESTORE SERVICE TO REMAINING DEVICES AND FIXTURES ON THAT CIRCUIT.
10. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE.
11. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
12. REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH REMAIN OR ARE TO BE REUSED.



LAY–IN LIGHT FIXTURE SUPPORT DETAIL

N.T.S.

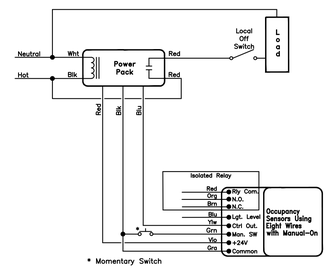
NOTES:
1. CONTRACTOR SHALL ATTACH FLEXIBLE CONDUIT WITH APRROVED STRAP OR HANGER PER THE SPECIFICATIONS. (TYP)
2. FLEXIBLE CONNECTION TO LIGHT FIXTURE. ATTACH TO STRUCTURE TO PREVENT FLEXIBLE CONDUIT FROM RESTING ON CEILING. ENSURE FLEXIBLE CONDUIT IS NO LONGER THAN SIX FEET FROM LIGHT FIXTURE TO JUNCTION BOX.



Note:
Maximum number of sensors per power pack depends on the model of sensor. See the product data sheet to determine the specific current consumption of each sensor.

OCCUPANCY SENSOR DIAGRAM FOR MULTIPLE SENSORS ON ONE POWER PACK

N.T.S.



Note
The Manual ON feature via a momentary switch is optional. Refer to the installation instruction for additional information.

OCCUPANCY SENSOR WIRING DETAIL

N.T.S.

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS NO.	LAMPS WATTS	LAMPS TYPE	MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
A10	LITHONIA	2BLTX4-60L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A11	LITHONIA	2BLTX4-60L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A12	LITHONIA	BLTX4-40L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A13	LITHONIA	BLTX4-40L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A14	LITHONIA	BLTX4-60L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A15	LITHONIA	BLTX4-60L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A16	LITHONIA	2BLT4-60L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 2
A17	LITHONIA	2BLT4-60L-ADP-120-EZ1-LP850-EL14L-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 2
A18	LITHONIA	2BLT4-40L-ADP-120-EZ1-LP850-GMF	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-3/8"	SEE NOTE 2
A22	LITHONIA	VAP-4000LM-FST-WD-120-GZ10-50K-80CRI-WLFEND2	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
A23	LITHONIA	VAP-4000LM-FST-WD-120-GZ10-50K-80CRI-E15WCP-WLFEND2	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
D13	LITHONIA	ZL1D-L48-5000LM-FST-120-50K-80CRI-E7W-WH	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
D15	LITHONIA	FMML-7-8-35-WL	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 2
F4	ECLIPSE	AS-XL2-HR-PGC-(LED 40W)-5K-UNV-WH-FUS	FURNISHED WITH FIXTURE			ABOVE MIRROR	SURFACE		SEE NOTES 1 & 2
F5	ECLIPSE	AS-XL-HR-PGC-(LED 20W)-5K-UNV-WH-FUS-EL8W	FURNISHED WITH FIXTURE			ABOVE MIRROR	SURFACE		SEE NOTES 1 & 2
F7	LITHONIA	BLWP4-40L-ADP-120-EZ1-LP850-QMB	FURNISHED WITH FIXTURE			MATCH EXISTING	WALL		SEE NOTE 2
F8	LITHONIA	BLWP4-40L-ADP-120-EZ1-LP850-EL14L-QMB	FURNISHED WITH FIXTURE			MATCH EXISTING	WALL		SEE NOTE 2
G8	BROAN	QT130LE	FURNISHED WITH FIXTURE			CEILING	RECESSED	7-5/8"	
X	LITHONIA	LES-R-120-ELN	FURNISHED WITH FIXTURE			ABOVE DOOR/CEILING	SURFACE		SEE NOTE 2

NOTES:
1. VERIFY FINISH WITH ARCHITECT.
2. EQUALS BY DAYBRITE AND COLUMBIA WILL BE ACCEPTABLE.

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REGISTERED ARCHITECT

FMTC BUILDING
1021 HVAC
RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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SYMBOLS, NOTES, LIGHTING FIXTURE SCHEDULE AND DETAILS

Sheet Number

E1.1

ALABAMA REGISTERED No. 22753 PROFESSIONAL ENGINEER STANLEY MCCARTER
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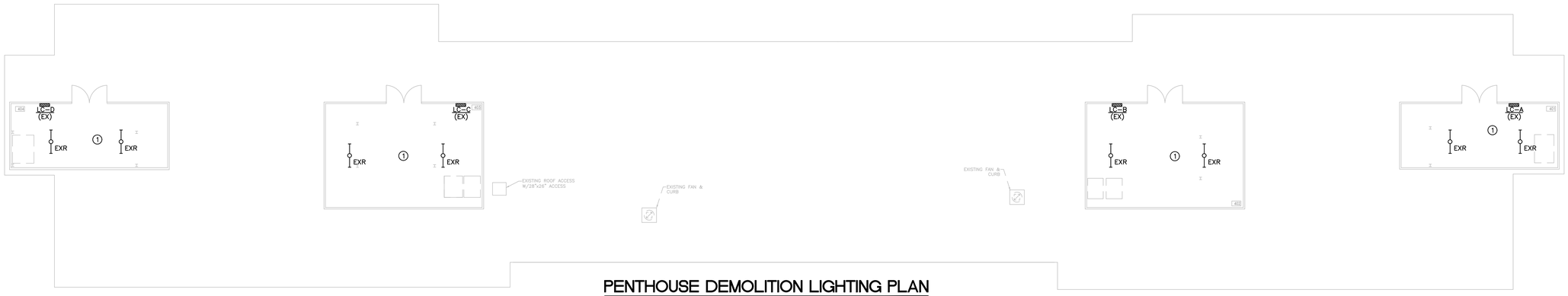
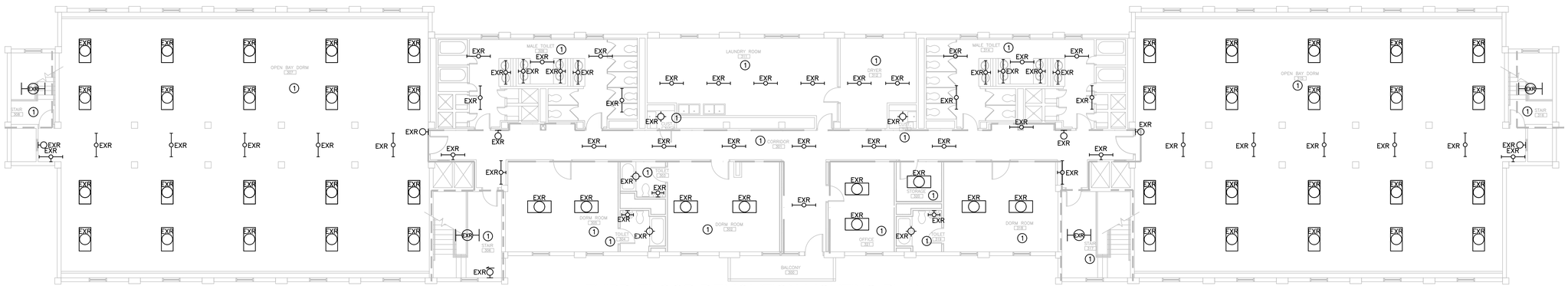
DEMOLITION KEYNOTES

(1) REMOVE EXISTING LIGHT FIXTURES AND DISCARD PER LOCAL, STATE AND FEDERAL LAWS/REGULATIONS. INSTALL NEW LIGHT FIXTURES PER REVISED LIGHTING PLAN.



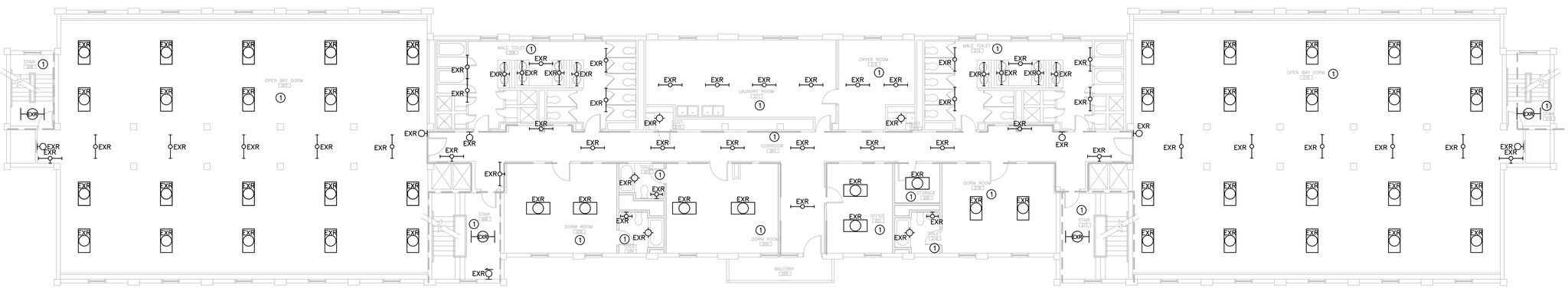
PENTHOUSE DEMOLITION LIGHTING PLAN

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



THIRD FLOOR DEMOLITION LIGHTING PLAN

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



SECOND FLOOR DEMOLITION LIGHTING PLAN

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

JMR+H
Architecture, PC
445 Dexter Avenue
Suite 5050
Montgomery, Al 36104

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FMTC BUILDING 1021 HVAC RESTORATION

ANNISTON, ALABAMA

IFB#: AC-24-B-0033-S

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Project Number: 23-1337
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Revisions:

Sheet Description

DEMOLITION LIGHTING PLANS

Sheet Number

BI.B/E2.1

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ANNISTON, AL 36207
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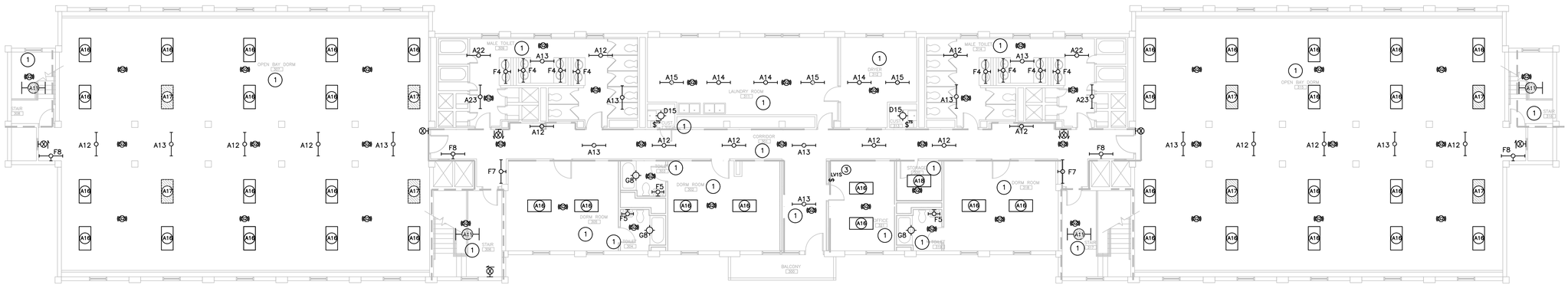
RENOVATION KEYNOTES:

1. CONTRACTOR SHALL REPLACE EXISTING FIXTURES WITH NEW FIXTURES AS SCHEDULED. THE CONTRACTOR SHALL FURNISH AND INSTALL OCCUPANCY SENSORS IN ALL ROOMS/SPACES INDICATED. OCCUPANCY SENSOR LOCATIONS, QUANTITIES AND TYPES SHOULD BE VERIFIED WITH MANUFACTURER PRIOR TO BIDDING. THE MANUFACTURER SHALL PROVIDE ALL EQUIPMENT NECESSARY TO PROVIDE COVERAGE FOR ALL ROOMS/SPACES INDICATED. THE TIME DELAYS FOR THE SENSORS SHALL BE COORDINATED WITH THE OWNER. CONTRACTOR SHALL CIRCUIT EXISTING SWITCHES TO POWER PACKS FOR OVERRIDE OFF CONTROL OF LIGHTS WHERE LOW VOLTAGE SWITCHING AND DIMMING ARE NOT INDICATED. WHERE 3-WAY SWITCHING EXISTS, ALL SWITCHES SHALL PROVIDE OVERRIDE OFF CAPABILITIES. WHERE MULTI-LEVEL SWITCHING EXISTS, CONTRACTOR SHALL PROVIDE SLAVE POWER PACKS TO MAINTAIN MULTI-LEVEL SWITCHING. CONTRACTOR SHALL ENSURE A HOT LEG IS ROUTED TO ALL EMERGENCY BATTERY PACKS AND EXIT SIGNS. WHERE NEW EXIT SIGNS ARE SHOWN, CONTRACTOR SHALL CIRCUIT INTO THE ROOM LIGHTS, AHEAD OF ANY SWITCHING.
2. CONTRACTOR SHALL REPLACE EXISTING FIXTURES WITH NEW FIXTURES AS SCHEDULED. CONTRACTOR SHALL ENSURE A HOT LEG IS ROUTED TO ALL EMERGENCY BATTERY PACKS.
3. REPLACE EXISTING SWITCH IN THIS ROOM WITH A NEW LOW VOLTAGE SWITCH AS SHOWN.

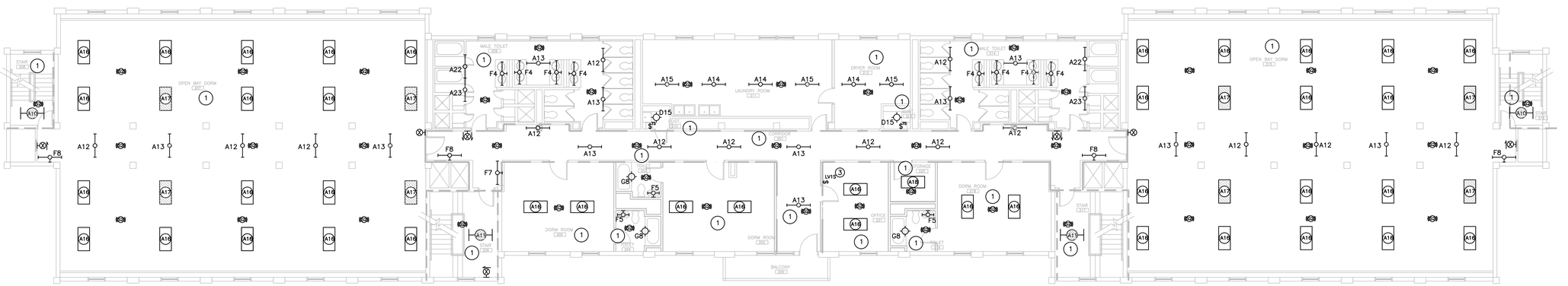
NOTE:
ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
LESS THAN 75 FEET.....#12 AWG
BETWEEN 76' AND 125'.....#10 AWG
BETWEEN 126' AND 190'....#8 AWG

PENTHOUSE LIGHTING PLAN
SCALE: 1/8" = 1'-0"

OCCUPANCY SENSOR LOCATIONS AND TYPES SHOWN ARE THE BASIS OF DESIGN FOR ONE MANUFACTURER AND ARE SCHEMATIC AND SHOULD BE VERIFIED WITH MANUFACTURER PRIOR TO BIDDING. OCCUPANCY SENSOR MANUFACTURER SHALL SUBMIT A LAYOUT OF RECOMMENDED SENSOR TYPES AND LOCATIONS PRIOR TO INSTALLATION. THE MANUFACTURER SHALL PROVIDE ALL EQUIPMENT NECESSARY TO PROVIDE COVERAGE FOR ALL ROOMS AND THE MANUFACTURER SHALL PROVIDE ON-SITE START-UP AND SENSOR ADJUSTMENTS AS NECESSARY TO ENSURE PROPER FUNCTION AND COVERAGE IN ALL ROOMS. THE TIME DELAYS FOR THE SENSORS SHALL BE COORDINATED WITH THE OWNER. THE MANUFACTURER SHALL INSTALL EITHER SLAVE RELAY POWER PACKS OR TWO RELAY POWER PACKS TO ENSURE THAT MULTILEVEL SWITCHING FUNCTIONS CORRECTLY IN EACH SPACE.



THIRD FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"



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SECOND FLOOR, THIRD FLOOR AND PENTHOUSE LIGHTING PLANS

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