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RENOVATE BUILDING 10

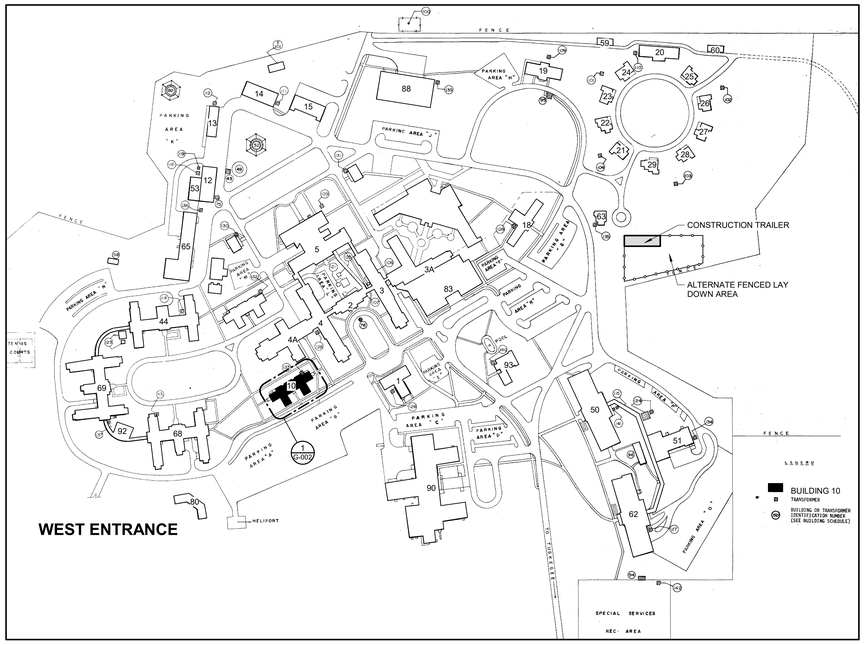
CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS
2400 HOSPITAL ROAD
TUSKEGEE, AL 36083

VA PROJECT #: 619A4-23-105

VOLUME 2

PROJECT SITE MAP

PROJECT LOCATION MAP



EXISTING BUILDING 10 - VIEW FROM WEST

EXISTING BUILDING 10 - VIEW FROM SOUTH

EXISTING BUILDING 10 - VIEW FROM EAST

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#	Revisions:	Date

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: COVER - VOLUME 2	Project Title: RENOVATE BUILDING 10		VA PROJECT NUMBER: 619A4-23-105
			Building Number: # 10
Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083	Approved		Drawing Number: G-001
	Date: MAY 9, 2025	Checked: DJR / Drawn: CET	Dwg 1 of 1

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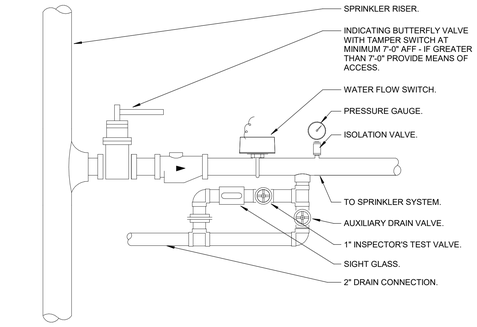
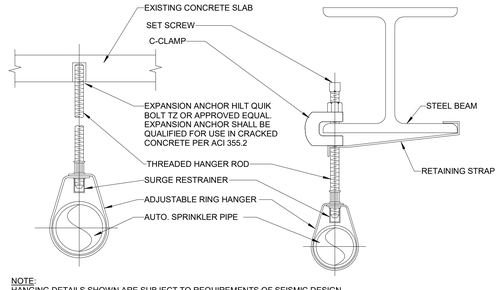


7 FLOOR CONTROL VALVE ASSEMBLY DETAIL

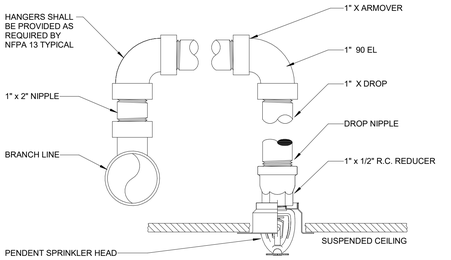
Scale: No Scale



NOTE:
HANGING DETAILS SHOWN ARE SUBJECT TO REQUIREMENTS OF SEISMIC DESIGN.

3 PIPE HANGER SUPPORT DETAIL

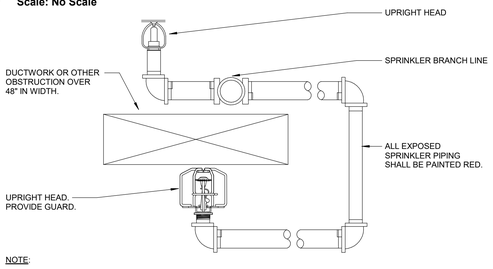
Scale: No Scale



NOTE:
1. ALL SPRINKLERS SHALL BE FM APPROVED QUICK RESPONSE.
2. ALL EXPOSED PIPING SHALL BE PAINTED RED.

8 SEMI-RECESSED PENDENT SPRINKLER DETAIL

Scale: No Scale

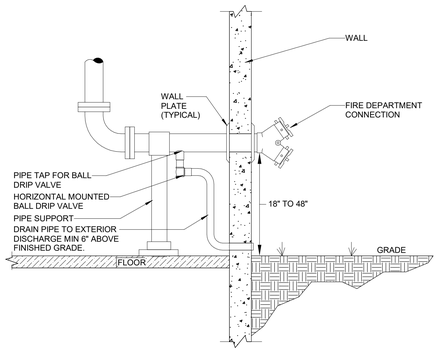


NOTE:

1. PROVIDE SPRINKLER ABOVE AND BELOW DUCT OR OTHER OBSTRUCTION OVER 48" IN WIDTH.
2. COORDINATE SPRINKLER PIPE ROUTING AND LOCATION WITH COR AND ALL PARTIES INVOLVED WITH INSTALLATION OF THE OBSTRUCTION.
3. PROVIDE PIPE SUPPORTS THAT COMPLY WITH NFPA 13 REQUIREMENTS. INCLUDE COST OF ADDITIONAL SUPPORTS AS REQUIRED.
4. ATTACH PIPE SUPPORTS TO BUILDING STRUCTURE OR PROVIDE SUPPLEMENTAL STEEL ANCHOR POINTS. DO NOT ATTACH PIPE SUPPORTS TO DUCTWORK, PIPES, CONDUIT, OR EXISTING HANGER RODS FOR OTHER EQUIPMENT.

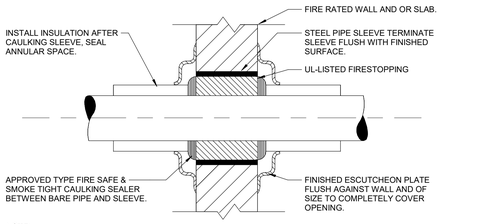
4 SPRINKLER ABOVE AND BELOW DUCT DETAIL

Scale: No Scale



9 WALL MOUNTED FIRE DEPARTMENT CONNECTION DETAIL

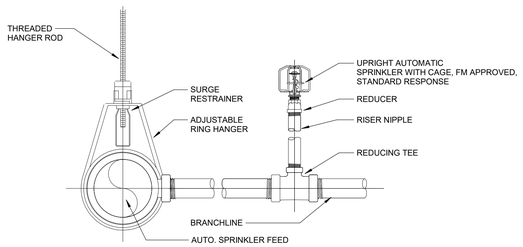
Scale: No Scale



NOTE:
MINIMUM SIZE OF OPENINGS AROUND SPRINKLER PIPE PENETRATIONS OF CONCRETE OR CMU WALLS SHALL BE IN ACCORDANCE WITH NFPA 13 SEISMIC REQUIREMENTS.

5 SPRINKLER PIPE SLEEVE THRU FIRE RATED WALL DETAIL

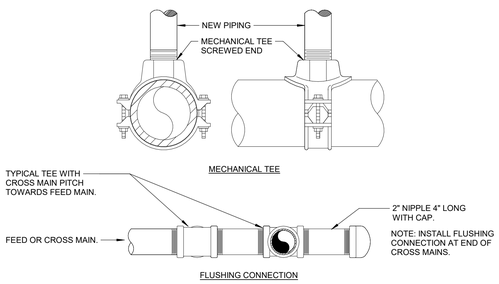
Scale: No Scale



NOTE:
1. ALL EXPOSED PIPING SHALL BE PAINTED RED.
2. PROVIDE GUARDS ON UPRIGHT SPRINKLERS UNLESS OTHERWISE NOTED.

10 UPRIGHT AUTOMATIC SPRINKLER DETAIL WITH CAGE (GUARD)

Scale: No Scale



6 MECHANICAL TEE AND FLUSHING CONNECTION DETAIL

Scale: No Scale

FIRE SUPPRESSION SYMBOLS & ABBREVIATIONS

NOTE: NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

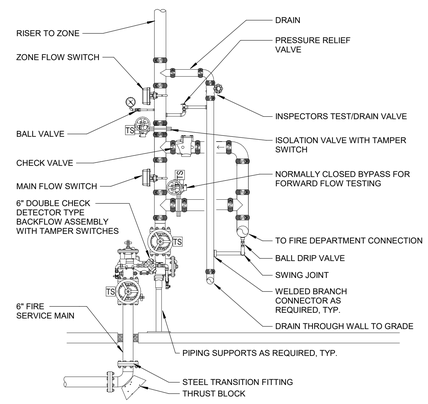
FS	FIRE SUPPRESSION LINE	FPC	FIRE PROTECTION CONTRACTOR
DRAIN	FIRE DRAIN		EXTERIOR ALARM GONG (WATER ACTIVATED)
	UPRIGHT SPRINKLER HEAD		BACKFLOW PREVENTER
	SEMI-RECESSED SPRINKLER HEAD		CHECK VALVE
	CONCEALED SPRINKLER HEAD		GATE VALVE
	PENDANT SPRINKLER HEAD	T&D	TEST AND DRAIN ASSEMBLY
	SIDEWALL SPRINKLER HEAD	TS	TAMPER SWITCH
	FIRE DEPARTMENT CONNECTION (FDC)	FS	FLOW SWITCH
#	NEW WORK KEYNOTE		LIGHT HAZARD
#	DEMOLITION KEYNOTE		ORDINARY HAZARD GROUP 1 OCCUPANCY
	POINT OF NEW CONNECTION		ORDINARY HAZARD GROUP 2 OCCUPANCY
	LIMIT OF DEMOLITION	## / #	DETAIL MODULE NUMBER / DETAIL OR SECTION MARK / SHOWN ON DRAWING

INFECTION CONTROL MEASURES

1. CONTRACTOR SHALL COMPLY WITH THE VA'S INFECTION CONTROL RISK ASSESSMENT REQUIREMENTS AND WRITTEN DUST CONTROL PLAN.
2. EXISTING AIR QUALITY REQUIREMENTS AND OTHER UTILITY REQUIREMENTS FOR OCCUPIED AREAS SHALL BE MAINTAINED.
3. RENOVATION AREAS SHALL BE ISOLATED FROM OCCUPIED AREAS DURING CONSTRUCTION USING AIRTIGHT BARRIERS. PROVIDE EXHAUST AIRFLOW IN A MANNER THAT SHALL BE SUFFICIENT TO MAINTAIN NEGATIVE AIR PRESSURE IN THE CONSTRUCTION ZONE. COORDINATE TEMPORARY BARRIERS WITH INTERIM LIFE SAFETY MEASURES.
4. FIRE PROTECTION SYSTEM REVISIONS SHALL BE PROPERLY PERFORMED TO LIMIT WATERBORNE OPPORTUNISTIC PATHOGENS.
5. CRUCIAL VENTILATION SPECIFICATIONS FOR AIR BALANCE AND FILTRATION SHALL BE VERIFIED BEFORE COR ACCEPTANCE.

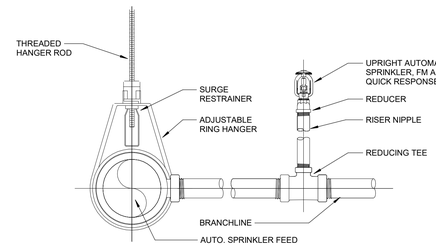
BUILDING AND OCCUPANT SAFETY - INTERRUPTION OF FIRE PROTECTION SERVICE

1. DURING THE TIME THAT THE FIRE PROTECTION RENOVATION WORK IS BEING PERFORMED, AND THE FIRE PROTECTION SYSTEM IS OUT OF COMMISSION, CONTRACTOR SHALL HAVE SUFFICIENT PERSONNEL ONSITE TO KEEP A "FIRE WATCH" ON THE FACILITY IN ACCORDANCE WITH VA REQUIREMENTS. AN OUT OF SERVICE TAG MUST BE PLACED AT THE FIRE ALARM PANEL AND THE FIRE DEPARTMENT CONNECTION. REFER TO INTERNATIONAL FIRE CODE CHAPTER 9, SECTION 901.7.
2. FIRE WATCH PERSONNEL ARE TO KEEP WATCH FOR FIRES IN THE GENERAL AREA OF PERFORMANCE, THE PERSONS PERFORMING THE FIRE WATCH ARE NOT PERMITTED TO PERFORM ANY OTHER DUTIES.
3. FIRE WATCH PERSONNEL ARE TO HAVE FIRE EXTINGUISHING EQUIPMENT READILY AVAILABLE AND TO BE TRAINED IN ITS USE.
4. THE QUANTITY OF PERSONNEL INVOLVED IN THE FIRE WATCH IS TO BE ADEQUATE SUCH THAT EACH FLOOR, LEVEL, AND ROOM OF THE FIRE AREA IS COVERED.
5. CONTRACTOR'S OPTION TO TEMPORARILY MODIFY EXISTING SPRINKLER HEADS TO UPRIGHT POSITION IN ACCORDANCE WITH NFPA 13 TO PROVIDE SPRINKLER PROTECTION FOR THE WORK AREA IN LIEU OF FIRE WATCH.



1 BACKFLOW PREVENTER AND RISER DETAIL

Scale: No Scale



NOTE:
1. ALL EXPOSED PIPING SHALL BE PAINTED RED.
2. PROVIDE GUARDS ON UPRIGHT SPRINKLERS UNLESS OTHERWISE NOTED.

2 UPRIGHT AUTOMATIC SPRINKLER DETAIL

Scale: No Scale

FIRE SUPPRESSION DEMOLITION GENERAL NOTES

1. LOCATIONS SHOWN FOR EXISTING FIRE PROTECTION PIPE AND EQUIPMENT ARE APPROXIMATE. FIELD VERIFY THE EXACT LOCATIONS OF EXISTING FIRE PROTECTION LINES AND EQUIPMENT INCLUDING RISERS AND VALVES PRIOR TO START OF WORK.
2. COORDINATE WITH COR FOR ANY SHUTDOWNS OR PLANNED INTERRUPTIONS OF THE FIRE PROTECTION SERVICE. GIVE THE COR THREE (3) DAYS NOTICE PRIOR TO PLANNED SHUTDOWN OR INTERRUPTION.
3. COORDINATE DEMOLITION OF FIRE PROTECTION PIPING WITH OTHER PIPING WHICH IS NOT TO BE REMOVED. PROTECT OTHER PIPING WHICH IS NOT TO BE REMOVED FROM DAMAGE, DIRT, AND DEBRIS.
4. FIRE PROTECTION RELATED EQUIPMENT AND PIPING WHICH IS REMOVED FROM THE BUILDING IS TO BE TAKEN OFFSITE AND DISPOSED OF.
5. REMOVE SPRINKLER MAINS, BRANCHES AND SPRINKLERS BACK TO THE ZONE CONTROL VALVE AS NEEDED TO INSTALL NEW SPRINKLER SYSTEM.

FIRE SUPPRESSION GENERAL NOTES

1. USE NFPA-13 (CURRENT EDITION), "PLANS AND CALCULATIONS CHAPTER" AS A GUIDELINE WHEN PREPARING SUBMITTALS FOR REVIEW. DISREGARD ONLY THOSE ITEMS NOT APPLICABLE TO THE INDIVIDUAL BUILDING SYSTEM. FIRE PROTECTION MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13 FOR THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEM.
2. INSTALLATION SHALL COMPLY WITH NFPA AND VA REQUIREMENTS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND ROOM FINISH SCHEDULE WHICH INDICATE CEILING HEIGHTS. COORDINATE WITH ARCHITECT'S REFLECTED CEILING PLAN FOR LOCATION OF SPRINKLER HEADS IN AREAS WITH CEILINGS. LOCATE HEADS IN AREAS WITHOUT CEILINGS AS REQUIRED BY NFPA AND VA REQUIREMENTS FOR THE APPROPRIATE HAZARD CLASSIFICATION.
4. THIS FACILITY IS FULLY SPRINKLERED. FIRE SUPPRESSION SYSTEM SHALL BE WET PIPE TYPE SYSTEM WITH COMPLETE SPRINKLER PROTECTION UNLESS NOTED OTHERWISE. SYSTEM TO BE DESIGNED AS REQUIRED BY NFPA AND VA REQUIREMENTS FOR THE APPROPRIATE HAZARD CLASSIFICATION.
5. SPRINKLER HEAD LAYOUTS INDICATED ARE BASED ON OCCUPANCY HAZARD CLASSIFICATIONS OUTLINED IN NFPA-13 AND VA STANDARDS.
6. HYDRAULICALLY CALCULATE SPRINKLER DEMAND IN ACCORDANCE WITH REQUIREMENTS FOR APPROPRIATE HAZARD OCCUPANCY. PROVIDE ACTUAL NUMBER OF HEADS, REQUIRED SPACING AND PIPE ROUTING AS REQUIRED FOR CLEARANCE WITH STRUCTURAL CONDITIONS AND OTHER TRADES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM IN ACCORDANCE WITH NFPA AND VA REQUIREMENTS.
7. FIRE PROTECTION CONTRACTOR SHALL OBTAIN FLOW TEST DATA INDICATING THE WATER FLOW, STATIC PRESSURE AVAILABLE WITH NO FLOW, AND RESIDUAL PRESSURE AT FULL FLOW TO THE FACILITY. SUBMIT HYDRAULIC CALCULATIONS AND PLANS RELATED TO A MINIMUM OF 1 REMOTE AREA FOR REVIEW.
8. PIPING IS SHOWN IN SCHEMATIC FORM TO INDICATE APPROXIMATE ARRANGEMENT OF EQUIPMENT AND PIPING. SPRINKLER CONTRACTOR SHALL DESIGN THE SYSTEM AND ROUTE PIPING AS REQUIRED FOR CONFORMANCE WITH ACTUAL BUILDING CONDITIONS AND NFPA REQUIREMENTS. COORDINATE SPRINKLER WORK WITH ALL OTHER TRADES TO AVOID CONFLICT.
9. SUPPORT NEW PIPING AND EQUIPMENT FROM STRUCTURE. PROVIDE ALL SUPPLEMENTAL STEEL TO SPAN BETWEEN PRIMARY BUILDING STRUCTURAL MEMBERS. DESIGN SUPPLEMENTAL STEEL AND SUPPORTS INCLUDING REACTION LOADS AT PRIMARY BUILDING STRUCTURAL MEMBERS.
10. PROVIDE SPRINKLER HEADS IN CONCEALED LOCATIONS IN ACCORDANCE WITH NFPA REQUIREMENTS.
11. CLEAN ENTIRE WORK AREA OF ALL DUST, DIRT, AND OTHER DEBRIS. MAINTAIN WORK AREA IN CLEAN CONDITION.
12. PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, ETC. REQUIRED FOR COMPLETE AND FUNCTIONAL SYSTEM AS SPECIFIED AND INDICATED ON THE DRAWINGS.
13. SUBMIT ONE COMPLETE SET OF AUTOMATIC SPRINKLER SYSTEM DRAWINGS, HYDRAULIC CALCULATIONS, CURRENT WATER FLOW TEST, AND THE EQUIPMENT DATA BROCHURES PREPARED BY OR UNDER THE SUPERVISION OF, AND SEALED BY A PROFESSIONAL ENGINEER.
14. REPAIR OR REPLACE NON-CONFORMING AND INADEQUATE WORK AT NO ADDITIONAL COST TO THE VA.
15. PROVIDE FIRE STOPS / SEALANT AT ALL PIPE PENETRATIONS THROUGHOUT FIRE RATED WALLS. REVIEW ARCHITECTURAL PLANS PRIOR TO BIDDING AND INDICATE PENETRATIONS ON SPRINKLER LAYOUT SUBMITTAL.
16. FLOW AND TAMPER SWITCHES ARE TO BE PURCHASED AND INSTALLED AS WORK OF DIVISION 21. PROVIDE WIRING TO FLOW AND TAMPER SWITCHES AS WORK OF DIVISION 26.
17. WATER SERVICE AND DETECTOR TYPE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER TO BE PROVIDED AND TESTED AS WORK OF DIVISION 22. INCORPORATE ASSOCIATED PRESSURE DROP OF SELECTED BACKFLOW PREVENTER DEVICE IN HYDRAULIC CALCULATIONS.
18. FURNISH AND INSTALL ARMOVER SUPPORTS FOR ALL END OF LINE BRANCH LINES IN ACCORDANCE WITH NFPA-13.
19. ALL DROPS TO SPRINKLER HEADS SHALL TEE / ELBOW OFF TOP OF BRANCH PIPE, EXCEPT WHERE STRUCTURAL, ARCHITECTURAL OR MECHANICAL EQUIPMENT CONDITIONS PRECLUDE CONNECTION AT TOP OF PIPE.
20. SPRINKLER HEADS SHALL BE IN A SYMMETRICAL PATTERN, NOT NECESSARILY IN THE CENTER OF ROOMS OR CORRIDORS. LOCATE CENTERED IN CEILING TILE WHERE POSSIBLE.
21. LOCATE THE INSPECTOR'S TEST CONNECTION AND MAIN DRAIN LOCATIONS IN ACCORDANCE WITH NFPA-13.
22. FIRE DEPARTMENT CONNECTION SHALL BE LOCATED NOT MORE THAN 100 FEET AWAY FROM THE NEAREST FIRE HYDRANT CONNECTED TO AN APPROVED WATER SUPPLY AND SHALL BE LOCATED NOT LESS THAN 18 INCHES, NOR MORE THAN 48 INCHES ABOVE ADJACENT SURFACE.
23. STANDPIPES SHALL BE PROVIDED IN EACH REQUIRED EGRESS STAIRWAY, WITH 4 INCH DIAMETER MINIMUM SIZE.
24. CLASS 1 SYSTEM SHALL BE PROVIDED WITH 2 1/2 INCH HOSE CONNECTIONS AT EACH INTERMEDIATE LANDING BETWEEN FLOORS IN EACH REQUIRED EGRESS EXIT STAIRWAY. COORDINATE TYPE OF HOSE CONNECTIONS WITH THE LOCAL FIRE DEPARTMENT.

WALL RATING LEGEND

- 2 HOUR FIRE SEPARATION
- 1 HOUR FIRE SEPARATION
- S — S — S SMOKE RATED

FIRE SERVICE BACKFLOW PREVENTER SCHEDULE

MARK	LOCATION	SYSTEM	TYPE	SIZE	NOTES
10-BFP-1	MECHANICAL ROOM A B02	FIRE SERVICE	DETECTOR	6"	-

FIRE PROTECTION WATER SUPPLY DEMAND ESTIMATE

DESIGN DATA:

SYSTEM TYPE:	WET
OCCUPATION CLASSIFICATION:	ORD. GR. 1
DENSITY:	0.15 GPM/FT²
AREA OF APPLICATION:	1500
MINIMUM SPRINKLER DEMAND:	225 GPM
HOSE STREAM DEMAND:	250 GPM
OVERFLOW FACTOR (10%):	22.5 GPM
TOTAL WATER REQUIRED (INCLUDING HOSE STREAMS):	497.5 GPM

THE FIRE PROTECTION DRAWING IS DESIGNED TO BE IN CONFORMANCE WITH NFPA 13. IT IS A PERFORMANCE BASED DRAWING INDICATING THE EXTENT OF FIRE PROTECTION WORK FOR THE AREA THAT THIS DRAWING REPRESENTS. THIS DRAWING IS "FOR INFORMATION ONLY", AS A REFERENCE FOR THE FIRE PROTECTION CONTRACTOR TO BASE THE DESIGN OF THE FIRE PROTECTION SYSTEM ON. THE CONTRACTOR SHALL VERIFY THE EXACT CONDITIONS THAT THIS DRAWING REPRESENTS, INCLUDING ANY PERCEIVED CONCEALED SPACES, AND THE BUILDING TYPE AND CONSTRUCTION, PRIOR TO THE START OF WORK. REFER TO NFPA 13, AND THE PROJECT SPECIFICATIONS FOR OTHER FIRE PROTECTION REQUIREMENTS.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

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ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE SUPPRESSION GENERAL INFORMATION

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: FX001

Dwg 1 of 4

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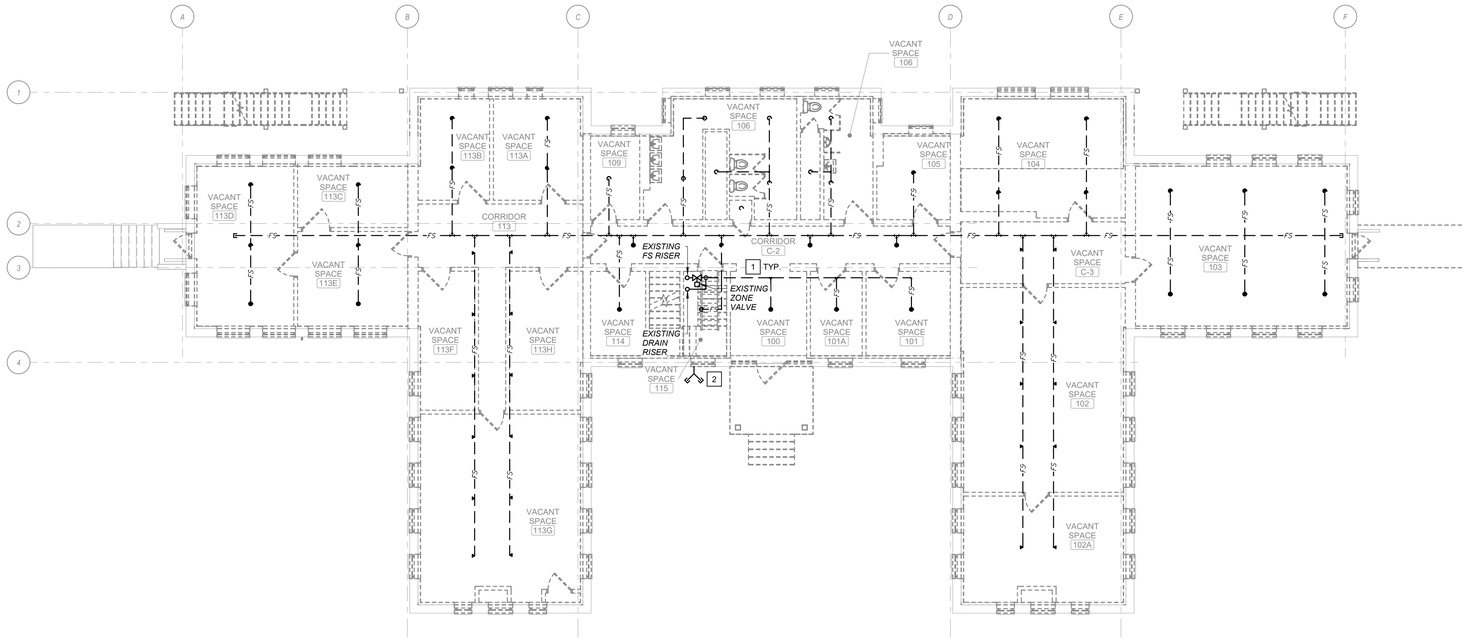
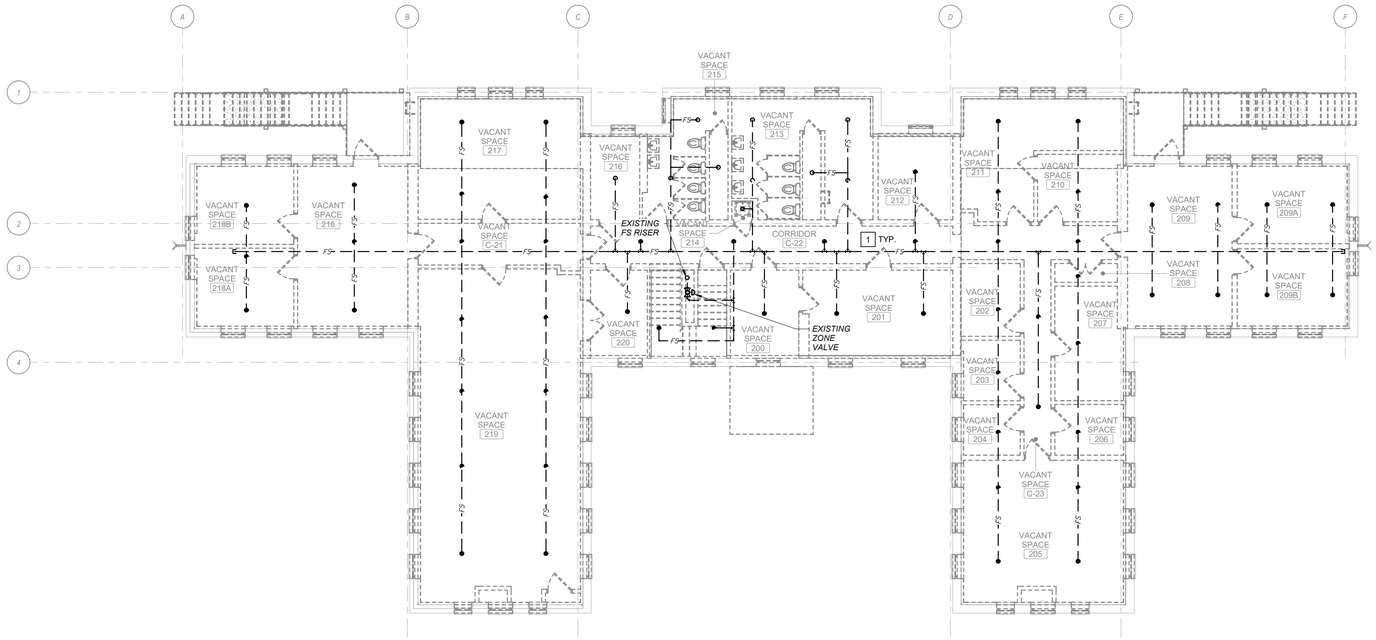


1 FIRST FLOOR FIRE SUPPRESSION DEMOLITION PLAN

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



2 SECOND FLOOR FIRE SUPPRESSION DEMOLITION PLAN

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

SHEET NOTES:

A. REMOVE EXISTING SPRINKLER HEADS IN THE AREAS BEING RENOVATED.

B. DEMOLISH ALL SPRINKLER PIPING AS NECESSARY FOR THE NEW LAYOUT.

C. EXISTING PIPE SIZES ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY.

D. SPRINKLER PROTECTION DURING CONSTRUCTION SHALL BE PROVIDED PER VA REQUIREMENTS.

KEY NOTES:

1 FIELD VERIFY LOCATION OF ALL EXISTING SPRINKLER HEADS AND ASSOCIATED PIPING. REMOVE ALL EXISTING SPRINKLER HEADS, EVEN IF NOT SHOWN ON THE DRAWINGS. DEMOLISH ALL EXISTING SPRINKLER PIPING BACK TO THE MAIN AND CAP.

2 DEMOLISH EXISTING FIRE DEPARTMENT CONNECTION. DEMOLISH ALL ASSOCIATED PIPING.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR AND SECOND FLOOR FIRE SUPPRESSION DEMOLITION PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: FK101

Dwg 2 of 4

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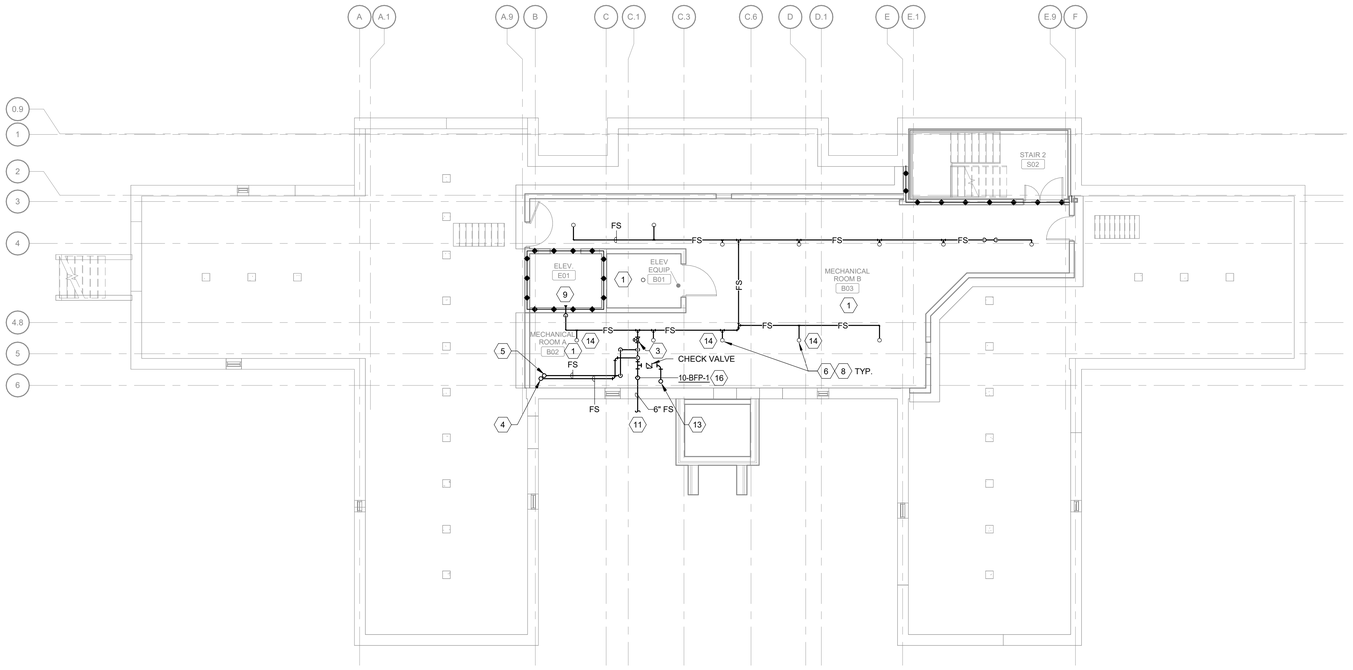
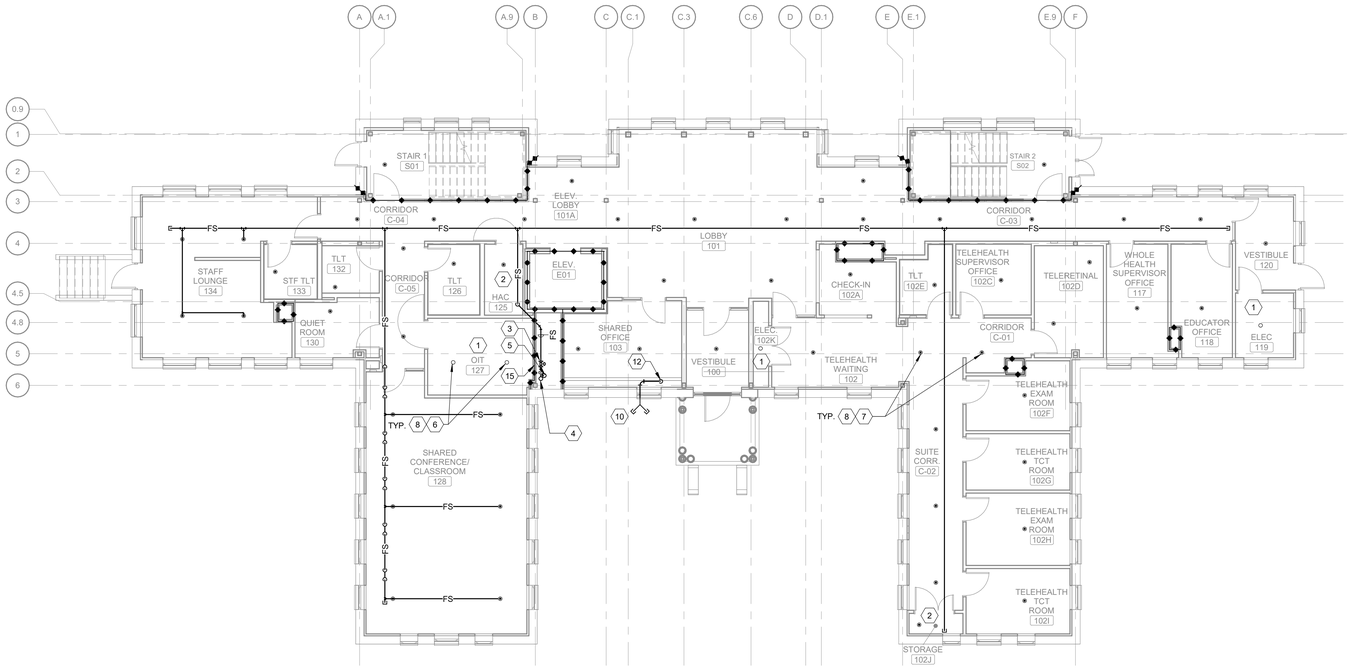


1 BASEMENT FIRE SUPPRESSION PLAN

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

0 4 8 16 NORTH



2 FIRST FLOOR FIRE SUPPRESSION PLAN

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

0 4 8 16 NORTH

SHEET NOTES:

A. UNLESS OTHERWISE NOTED, SPACES ARE LIGHT HAZARD CLASSIFICATION.

B. PROVIDE NEW SPRINKLERS HEADS AS PER NEW LAYOUT.

C. PROVIDE BRANCH PIPING AS REQUIRED.

D. WET SPRINKLER PIPING LAYOUT AND SPRINKLERS LAYOUT IS FOR REFERENCE ONLY. SUBMIT SHOP DRAWINGS, CALCULATION, PIPE SIZING AND LAYOUT, DETAILS SIGNED BY PROFESSIONAL ENGINEER FOR VA REVIEW.

E. NEW PIPING SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1 THIS ROOM SHALL BE CONSIDERED ORDINARY HAZARD, GROUP 1.
2 THIS ROOM SHALL BE CONSIDERED ORDINARY HAZARD, GROUP 2.
3 FLOOR CONTROL VALVE ASSEMBLY.
4 FIRE RISER.
5 DRAIN RISER.
6 PROVIDE NEW UPRIGHT SPRINKLER HEADS PER NEW LAYOUT. SEE DETAIL 2/FX001.
7 PROVIDE NEW SEMI-RECESSED QUICK RESPONSE SPRINKLER HEADS PER NEW LAYOUT. SEE DETAIL 8/FX001.
8 PROVIDE NEW BRANCH PIPING AS REQUIRED.
9 PROVIDE SIDEWALL TYPE SPRINKLER HEAD AT THE BOTTOM OF ELEVATOR HOISTWAY. LOCATE WITHIN 18" OF HOISTWAY FLOOR. SUPPORT AS REQUIRED.
10 PROVIDE NEW FIRE DEPARTMENT CONNECTION, PROTECT EXISTING BRICK. SEE DETAIL 9/FX001.
11 UNDERGROUND FIRE WATER SERVICE LINE. REFER TO CS101 FOR CONTINUATION.
12 FS PIPING FROM FDC DOWN TO THE BASEMENT.
13 FS PIPING UP TO THE FIRST FLOOR FDC.
14 PROVIDE UPRIGHT SPRINKLER HEAD ABOVE AND BELOW DUCTWORK. SEE DETAIL 4/FX001.
15 PROVIDE ACCESS PANEL TO FIRE RISER, DRAIN RISER, AND FLOOR CONTROL VALVE ASSEMBLY.
16 PROVIDE BACKFLOW PREVENTER ON INCOMING FIRE SERVICE. BACKFLOW PREVENTER SHALL BE CONFIGURED FOR VERTICAL INSTALLATION. SEE DETAIL 1/FX001.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR FIRE SUPPRESSION PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: FX101

Dwg 3 of 4

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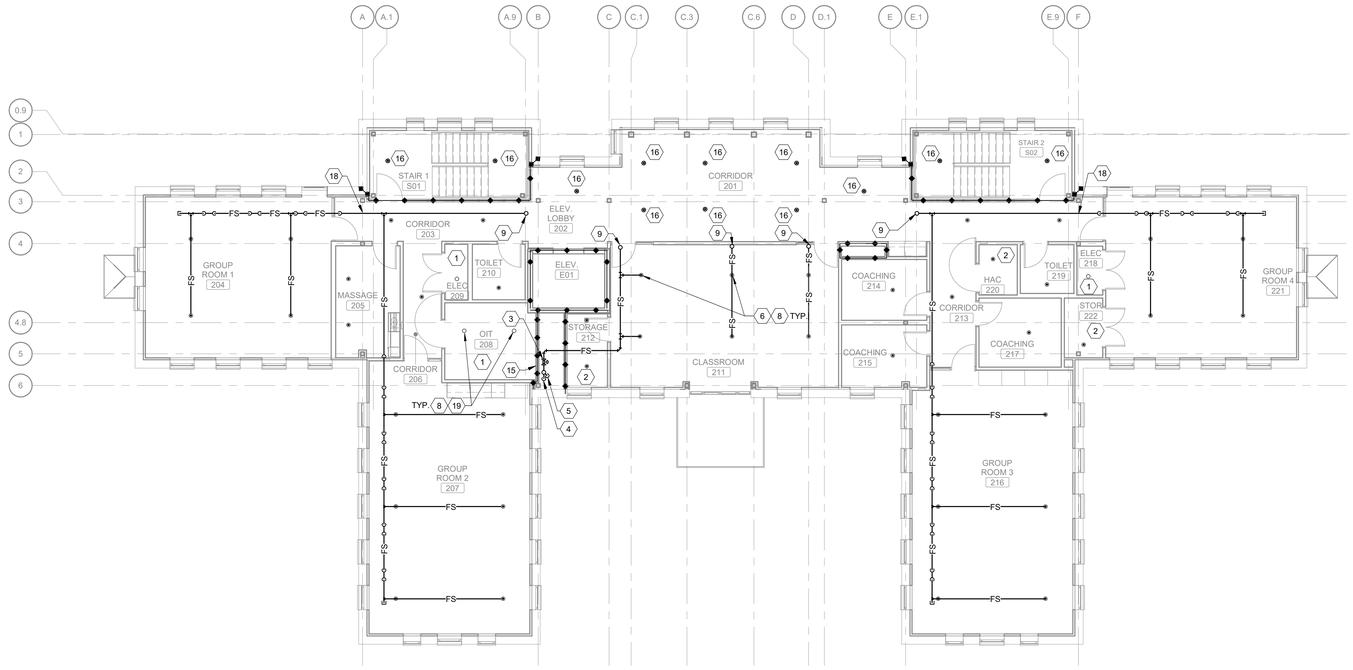
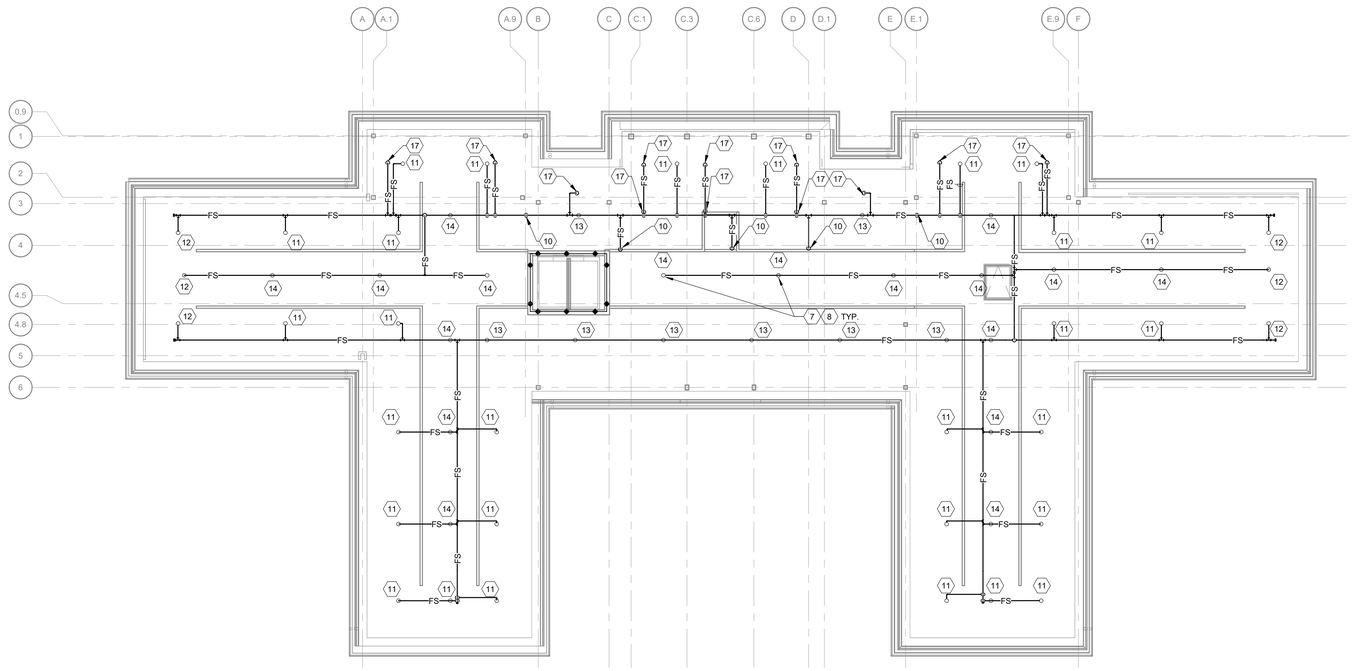


1 SECOND FLOOR FIRE SUPPRESSION PLAN

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

0 4 8 16 NORTH



2 ATTIC FIRE SUPPRESSION PLAN

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

0 4 8 16 NORTH

SHEET NOTES:

A. UNLESS OTHERWISE NOTED, SPACES ARE LIGHT HAZARD CLASSIFICATION.

B. PROVIDE NEW SPRINKLERS HEADS AS PER NEW LAYOUT.

C. PROVIDE BRANCH PIPING AS REQUIRED.

D. WET SPRINKLER PIPING LAYOUT AND SPRINKLERS LAYOUT IS FOR REFERENCE ONLY. SUBMIT SHOP DRAWINGS, CALCULATION, PIPE SIZING AND LAYOUT, DETAILS SIGNED BY PROFESSIONAL ENGINEER FOR VA REVIEW.

E. NEW PIPING SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1 THIS ROOM SHALL BE CONSIDERED ORDINARY HAZARD, GROUP 1.
2 THIS ROOM SHALL BE CONSIDERED ORDINARY HAZARD, GROUP 2.
3 FLOOR CONTROL VALVE ASSEMBLY.
4 FIRE RISER.
5 DRAIN RISER.
6 PROVIDE NEW SEMI-RECESSED QUICK RESPONSE SPRINKLER HEADS PER NEW LAYOUT. SEE DETAIL 8/FX001.
7 PROVIDE NEW UPRIGHT SPRINKLER HEADS PER NEW LAYOUT. SEE DETAIL 2/FX001.
8 PROVIDE NEW BRANCH PIPING AS REQUIRED.
9 FIRE LINE UP TO THE ATTIC.
10 FIRE LINE DOWN TO THE SECOND FLOOR.
11 SPRINKLER HEAD LOCATED AT 3'-0".
12 SPRINKLER HEAD LOCATED AT 2'-6".
13 SPRINKLER HEAD LOCATED AT 4'-6".
14 SPRINKLER HEAD LOCATED AT 5'-6".
15 PROVIDE ACCESS PANEL TO FIRE RISER, DRAIN RISER, AND FLOOR CONTROL VALVE ASSEMBLY.
16 SPRINKLER HEAD FEEDS FROM THE ATTIC.
17 FIRE LINE DOWN TO SPRINKLER HEAD ON THE SECOND FLOOR.
18 SPRINKLER PIPE PENETRATES LOW BEAM. PROVIDE A HOLE IN THE BEAM. SEE STRUCTURAL DRAWINGS FOR MORE INFORMATION.
19 IN OIT ROOM PROVIDE NEW UPRIGHT STANDARD RESPONSE SPRINKLER HEADS WITH CAGE PER NEW LAYOUT. SEE DETAIL 10/FX001.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC FIRE SUPPRESSION PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: FX102

Dwg 4 of 4

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PLUMBING ABBREVIATIONS

A/E	ARCHITECT/ENGINEER
AC	ABOVE CEILING
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AG	AIR GAP
AP	ACCESS PANEL
AS	AUTOMATIC SPRINKLER
AFG	ABOVE FINISHED GRADE
ASD	ADJUSTABLE SPEED DRIVE
ASHRAE	AMERICAN SOCIETY HEATING, REFRIGERATING, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
AV	ACID VENT
AW	ACID WASTE
BAS	BUILDING AUTOMATION SYSTEM
BF	BELOW FLOOR
BFP	BACKFLOW PREVENTER
BG	BELOW GRADE
BH	BOOSTER HEATER
BHP	BREAK HORSEPOWER
BJ	BETWEEN JOISTS
BOP	BOTTOM OF PIPE
BSP	BLACK STEEL PIPE
BT	BATHTUB
BTUH	BRITISH THERMAL UNITS PER HOUR
C	CELSIUS
CF	COMBINATION FIXTURE
CGA	COMPRESSED GAS ASSOCIATION
CI	CAST IRON
CO	CLEANOUT
COND	CONDENSATE
CP	CONDENSATE PUMP
CS	CLINICAL SINK
CV	CONTROL VALVE
DA	DENTAL COMPRESSED AIR
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DF	DRINKING FOUNTAIN
DI	DEIONIZED WATER
DN	DOWN
DOE	DEPARTMENT OF ENERGY
DS	DOWNSPOUT
DV	DENTAL VACUUM
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWR	DRINKING WATER RETURN
DWS	DRINKING WATER SUPPLY
DWT	DOMESTIC WATER TEMPERED
DWV	DRAIN WASTE VENT
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION
EMCS	ENERGY MONOSERRAT AND CENTRAL SYSTEM
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPACT	ENERGY POLICY ACT
ESC	ESCUTCHEON
ESH	EMERGENCY SHOWER
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYEWASH STATION
EX	EXISTING
F	FAHRENHEIT
FA	FROM ABOVE
FB	FROM BELOW
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEANOUT
FCW	FILTERED COLD WATER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT (HOSE) CONNECTION
FM	FLOW METER
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FS	FLOOR SINK
FU	FIXTURE UNITS
G	GALLON
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUTS
GD	GARBAGE DISPOSAL
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GRS	GAS REGULATOR STATION
GT	GREASE TRAP
GVTR	GAS VENT THROUGH ROOF
GWH	GAS FIRED WATER HEATER
H&CW	HOT AND COLD WATER
HB	HOSE BIBB (INTERIOR)
HD	HUB DRAIN
HEX	HEAT EXCHANGER
HP	HORSEPOWER
HS	HAND SINK
HST	HOT WATER STORAGE TANK (DOMESTIC)
HWB	HOT WATER BOILER
HWCP	HOT WATER CIRCULATING PUMP
HWP	HOT WATER PUMP
HYD	HYDRANT
ICW	INDUSTRIAL COLD WATER
INV	INVERT
IPC	INTERNATIONAL PLUMBING CODE
IRW	IRRIGATION WATER
IW	INDIRECT WASTE
IWH	INSTANTANEOUS WATER HEATER
IWR	INDUSTRIAL WATER RETURN
IWS	INDUSTRIAL WATER SUPPLY
KW	KILOWATT
KWHR	KILOWATT-HOUR
L/S	LITER PER SECOND
LA	LABORATORY AIR
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LNG	LIQUID NATURAL GAS
LOX	LIQUID OXYGEN
LV	LABORATORY VACUUM
LW	LOW WATER
M	METER
MA	MEDICAL AIR
MAV	MANUAL AIR VENT
MBH	THOUSANDS OF BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MED	MEDICAL
MER	MECHANICAL EQUIPMENT ROOM
MH	MANHOLE
MOU	MEMORANDUM OF UNDERSTANDING
MSB	MOP SINK BASIN
MV	MEDICAL VACUUM
N2	NITROGEN
N2O	NITROUS OXIDE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSD	OVERFLOW STORM DRAIN
OR	OPERATING ROOM
OVFL	OVERFLOW
PA	PASCAL
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PDI	PLUMBING AND DRAINAGE INSTITUTE
PG	PRESSURE GAUGE
PP	PLUMBING PUMP
PPM	PARTS PER MILLION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE
PW	POTABLE WATER
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
RL	ROOF LEADER
RO	REVERSE OSMOSIS
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SCFM	STANDARD CUBIC FOOT/MIN
SCW	SOFTENED COLD WATER
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SP	SUMP PUMP
SPR	SPRINKLER LINE
SQFT	SQUARE FOOT
SS	STAINLESS STEEL
ST	STORAGE TANK
TCV	TEMPERATURE CONTROL VALVE
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TDL	TEMPERATURE DIFFERENTIAL
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TSTAT	THERMOSTAT
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
V	SANITARY VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCO	VACUUM CLEANER OUTLET
VP	VACUUM PUMP
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAUGE
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WHD	WALL HYDRANT
WL	WATER LINE
WM	WATER METER
WPD	WATER PRESSURE DROP
WS	WASTE STACK
YCO	YARD CLEANOUT
YH	YARD HYDRANT

PLUMBING SYMBOLS

- PIPE SLOPE ARROW
- FLOW ARROW
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- 3-WAY CONTROL VALVE
- ANGLE GATE VALVE
- ANGLE GLOBE VALVE
- BALL VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- BALANCING VALVE
- CONTROL VALVE
- GATE VALVE
- GLOBE VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE (WATER)
- PRESSURE REGULATOR (GAS)
- SAFETY RELIEF VALVE
- TWO POSITION CONTROL VALVE
- BACKFLOW PREVENTER
- HOSE BIBB / SILLCOCK
- AUTOMATIC AIR VENT
- PRESSURE GAUGE
- THERMOMETER
- F — FLOW SWITCH
- P — PRESSURE SWITCH
- T — TEMPERATURE SWITCH
- PIPE UNION
- WYE STRAINER
- WYE STRAINER WITH DRAIN VALVE
- PUMP
- OR — FLOOR DRAIN - ROUND OR SQUARE
- FLOOR CLEANOUT
- CO — SUSPENDED CLEANOUT
- WCO — WALL CLEANOUT
- PIPE CAP
- PIPE TURNING DOWN
- PIPE TURNING UP
- TEE UP
- TEE DOWN
- DROP AND RUN
- DROP AND TURN
- TEE OFF TOP
- TEE OFF BOTTOM
- CROSS AND RISER
- PLAN 90° ELBOW
- PIPE TEE
- FLEXIBLE PIPE CONNECTOR
- PIPE ANCHOR
- PIPE GUIDES
- M — WATER METER
- GAS SHUTT-OFF VALVE
- WATER HAMMER ARRESTOR

PLUMBING SYMBOLS

	PIPING SYSTEM	
—AW—	AW	ACID WASTE
—CA—	CA	COMPRESSED AIR
—CD—	CD	CONDENSATE DRAIN
—CO2—	CO2	CARBON DIOXIDE
—NG—	NG	NATURAL GAS
—GW—	GW	GREASE WASTE
—MA—	MA	MEDICAL AIR
—N2—	N2	NITROGEN
—N2O—	N2O	NITROUS OXIDE
—OFD—	OFD	OVERFLOW STORM DRAIN
—OW—	OW	OIL WASTE
—O2—	O2	OXYGEN
—PD—	PD	PUMP DISCHARGE
—PG—	PG	PROPANE GAS
—ST—	ST	STORM
—VAC—	VAC	VACUUM
—WAGD—	WAGD	WASTE ANESTHETIC GAS DISPOSAL
—SAN—	SAN	SANITARY WASTE
—AV—	AV	ACID VENT
—OV—	OV	OIL VENT
—V—	V	SANITARY VENT
—DCW—	DCW	DOMESTIC COLD WATER
—DI—	DI	DE-IONIZED WATER
—NPCW—	NPCW	NONPOTABLE COLD WATER
—RO—	RO	REVERSE OSMOSIS WATER
—SCW—	SCW	SOFTENED COLD WATER
—DHW—	DHW	DOMESTIC HOT WATER
—HW 140—	DHW 140	DOMESTIC HOT WATER (OTHER TEMP)
—DCWR—	DCWR	DOMESTIC CW RECIRCULATION
—DHWR—	DHWR	DOMESTIC HW RECIRCULATION
—DWT—	DWT	DOMESTIC WATER TEMPERED

ANNOTATION SYMBOLS

#	NEW WORK KEYNOTE
#	DEMOLITION KEYNOTE
NEW	BOLD TEXT INDICATES NEW ITEM
EXISTING	ITALICIZED TEXT INDICATES EXISTING ITEM
## / #	DETAIL MODULE NUMBER / DETAIL OR SECTION MARK SHOWN ON DRAWING
	CONNECT TO EXISTING
	LIMIT OF DEMOLITION
P-###	NEW PLUMBING EQUIPMENT MARK
P-###	EXISTING PLUMBING EQUIPMENT MARK

PLUMBING DEMOLITION GENERAL NOTES

1. VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY COR REGARDING CONFLICTS BEFORE PROCEEDING WITH WORK.
2. REMOVED ITEMS REMAIN PROPERTY OF GOVERNMENT UNTIL COR DETERMINES THAT THEY ARE NOT REQUIRED. REMOVE FROM SITE ITEMS NOT BEING RETAINED BY GOVERNMENT OR REINSTALLED AS PART OF THIS WORK.
3. DO NOT DISTURB ITEMS NOT INDICATED FOR DEMOLITION.
4. VERIFY SIZE AND LOCATION OF EXISTING UTILITIES PRIOR TO START OF DEMOLITION. RELOCATE, REMOVE AND ADJUST MECHANICAL AND ELECTRICAL ITEMS AS NECESSARY TO COORDINATE WITH NEW WORK.
5. AFTER DEMOLITION IS COMPLETE, PATCH AND REPAIR FINISHES TO MATCH EXISTING ADJACENT CONDITIONS.
6. COORDINATE DEMOLITION WITH COR. SUBMIT SHUTDOWN PLAN AND SCHEDULE TO COR FOR REVIEW AND APPROVAL.
7. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING DEMOLITION. REPAIR UTILITIES AND SERVICES DAMAGED AT NO ADDITIONAL COST.
8. TEMPORARILY MOVE OR TAKE EQUIPMENT OUT OF SERVICE AS NECESSARY TO COMPLETE WORK.
9. SAWCUT CONCRETE FLOOR AS REQUIRED FOR DEMOLITION WORK INDICATED. COORDINATE WITH NEW PLUMBING WORK AND WORK OF OTHER TRADES.

PLUMBING GENERAL NOTES

1. WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
2. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
3. OBTAIN AND PAY FOR PERMITS, FEES, AND INSPECTIONS REQUIRED FOR THIS WORK.
4. PROVIDE NEW MATERIALS, EQUIPMENT AND PRODUCTS INCORPORATED IN THE WORK, OF A SUITABLE GRADE FOR THE PURPOSES INTENDED.
5. EQUIPMENT OR MATERIAL DEVIATIONS FROM INDICATED CONTRACT REQUIREMENTS ARE SUBJECT TO THE APPROVAL OF THE COR. SUBMIT PROPOSED EQUIPMENT DEVIATIONS THAT ARE SIMILAR BOTH IN QUALITY AND CAPACITY TO THAT EQUIPMENT SPECIFIED, AS SOLELY DETERMINED BY THE COR.
6. INSTALL EQUIPMENT AS INDICATED, ALLOWING FOR SUFFICIENT ACCESS AND CLEARANCE SPACE FOR EQUIPMENT MAINTENANCE, REPAIRS, AND REPLACEMENT.
7. AT EACH PLUMBING FIXTURE WITH QUICK CLOSING VALVES, PROVIDE A PISTON TYPE WATER HAMMER ARRESTOR SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
8. SANITARY DRAINAGE PIPING INDICATED IS LOCATED BELOW FLOOR SLAB OR WITHIN WALLS UNLESS NOTED OTHERWISE. SANITARY VENT PIPING INDICATED IS ABOVE THE CEILING OR WITHIN WALLS UNLESS NOTED OTHERWISE.
9. SUPPORT PIPING SYSTEM AS REQUIRED BY APPLICABLE LOCAL, STATE, AND NATIONAL CODES ALONG WITH SPECIFICATIONS, VA STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
10. FIRESTOP AND SEAL PIPING PENETRATIONS THROUGH WALLS AND FLOORS EQUAL TO THE RATING OF WALLS AND FLOORS.
11. TEST PLUMBING SYSTEM IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
12. COORDINATE PLUMBING PIPING WITH WORK OF OTHER DISCIPLINES.
13. DISINFECT DOMESTIC WATER SYSTEM IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
14. PROVIDE SHUT OFF VALVES AT BRANCH PIPING TO FIXTURES.
15. COORDINATE PLUMBING WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION. COORDINATE ROUTING OF PIPING WITH EXISTING CONDITIONS.
16. PROVIDE ALL NECESSARY OFFSETS, TEES, ELBOWS, ETC. FOR A COMPLETE AND COORDINATED WORKING PLUMBING SYSTEM. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS.
17. CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRED SHUTDOWN WITH THE COR 2 WEEKS IN ADVANCE AND CONFIRM 48 HOURS PRIOR.
18. PATCH, PAINT AND CLEAN SURFACES SUSTAINING DAMAGE ASSOCIATED WITH PLUMBING WORK OF THIS CONTRACT, UNLESS NOTED OTHERWISE.
19. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.
20. DO NOT INSTALL PIPES ABOVE TELECOM OR ELECTRICAL EQUIPMENT.

WALL RATING LEGEND

- 2 HOUR FIRE SEPARATION
- 1 HOUR FIRE SEPARATION
- S — SMOKE RATED

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING GENERAL INFORMATION

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: P-001

Dwg 1 of 12

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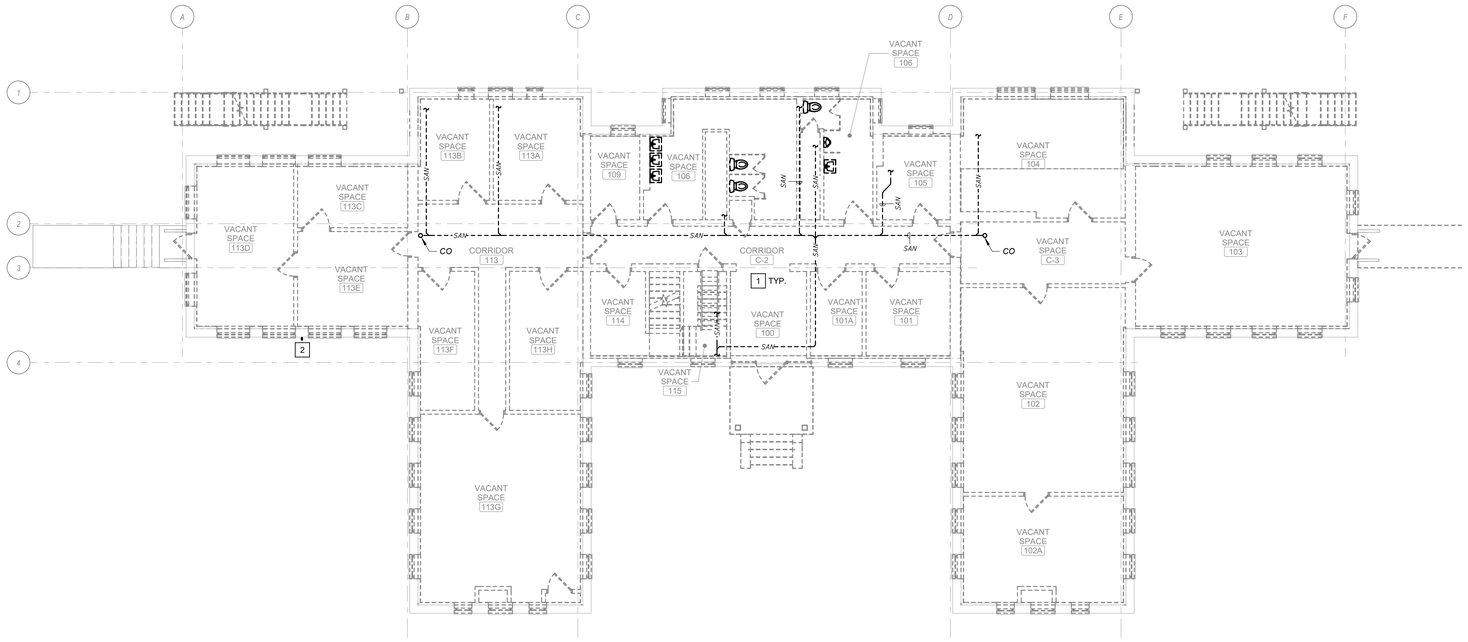
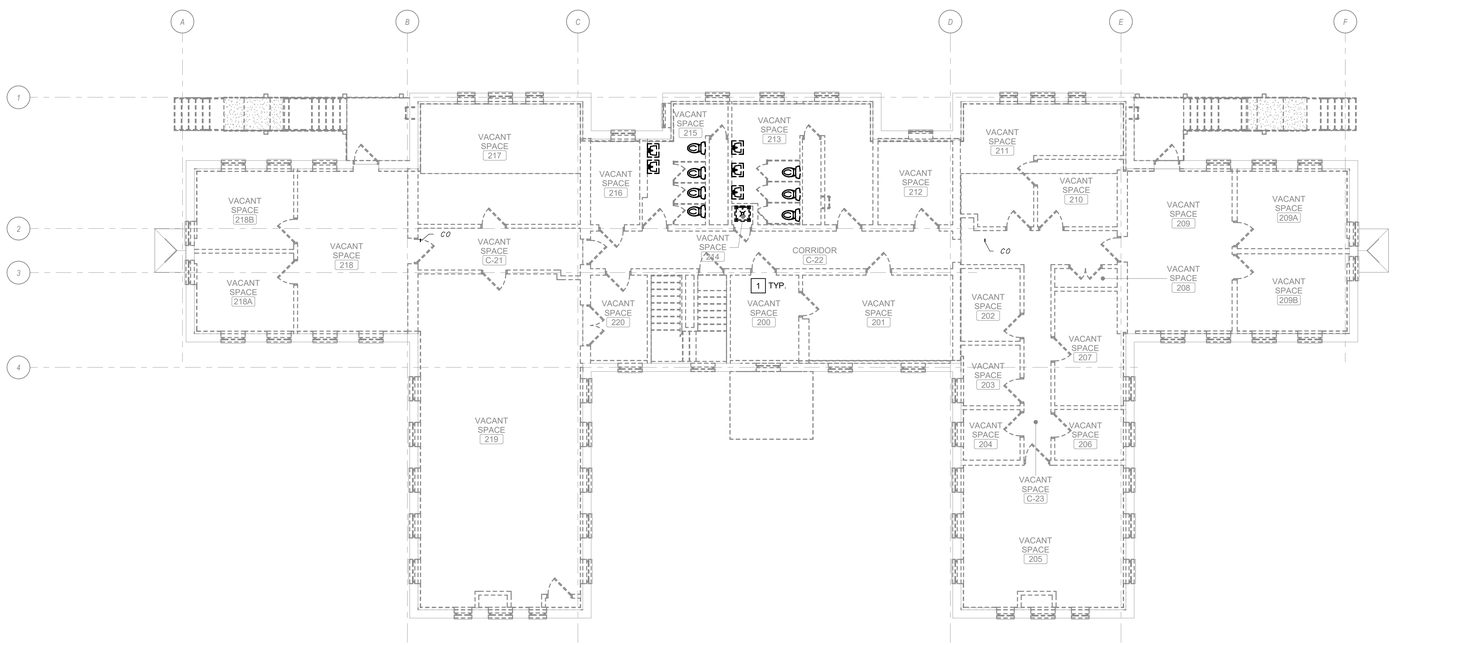


1 FIRST FLOOR PLUMBING DEMOLITION PLAN

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



2 SECOND FLOOR PLUMBING DEMOLITION PLAN

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

SHEET NOTES:

A. DEMOLITION WORK SHALL BE PERFORMED SUCH THAT ALL PIPES, HANGERS, SUPPORTS, AND VALVES IN SCOPE ARE REMOVED COMPLETELY TO MAINS. REMOVE ALL ITEMS TO ENSURE NOTHING IS ABANDONED IN PLACE.

B. NO DEAD ENDS SHALL REMAIN. THE MAXIMUM LENGTH OF DEAD ENDS SHALL BE TWO PIPE DIAMETERS FROM THE BRANCH, RISER, OR MAIN.

C. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS. PRESERVE ANY EXISTING PIPING OR EQUIPMENT THAT IS NOT INDICATED FOR DEMOLITION OR IS DISCOVERED IN THE DEMOLITION PROCESS.

KEY NOTES:

1 FIELD VERIFY LOCATION OF ALL EXISTING FIXTURES, WATER, WASTE, AND VENT PIPING. REMOVE ALL EXISTING PLUMBING FIXTURES, EVEN IF NOT SHOWN ON THE DRAWINGS. DEMOLISH ALL EXISTING DOMESTIC WATER PIPING BACK TO THE MAIN OUTSIDE THE BUILDING AND CAP TO WITHIN TWO PIPE DIAMETERS OF THE MAIN. DEMOLISH ALL EXISTING WASTE PIPING BACK TO THE MAIN OUTSIDE THE BUILDING AND CAP. DEMOLISH ALL EXISTING VENT PIPING.

2 DEMOLISH EXISTING HOSE BIBB AND ALL ASSOCIATED PIPING.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR AND SECOND FLOOR PLUMBING DEMOLITION PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: PD101

Dwg 2 of 12

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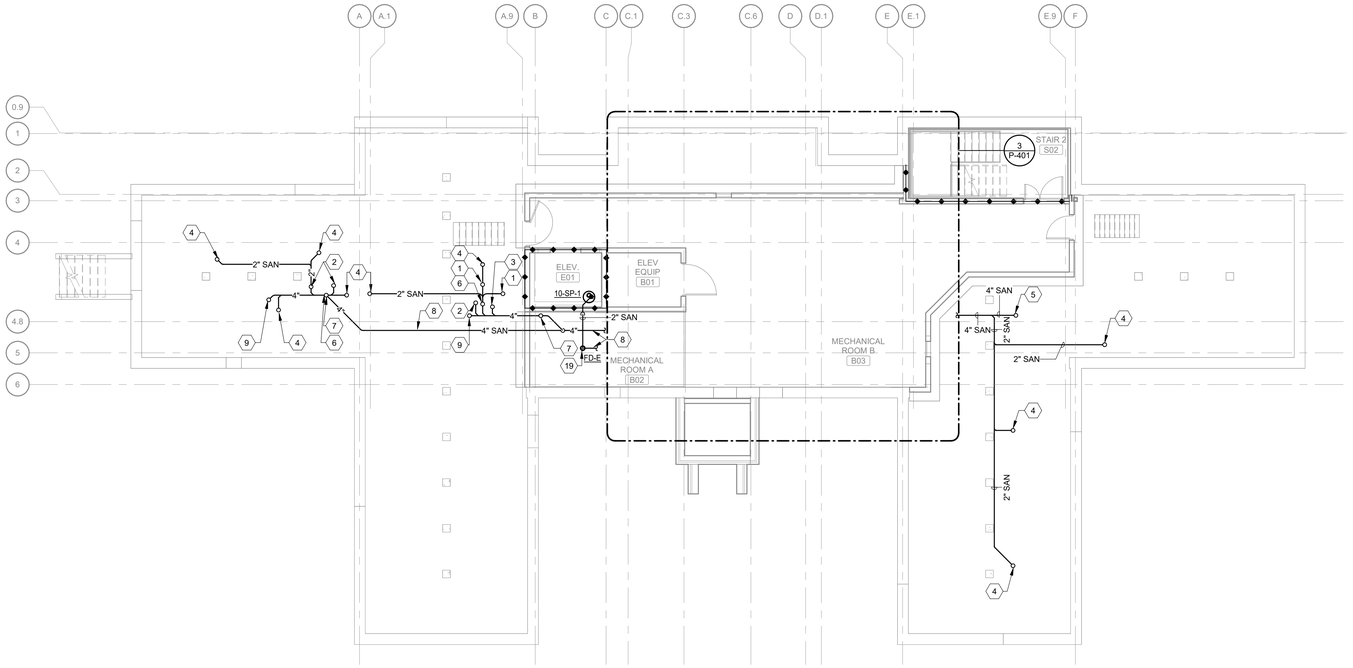
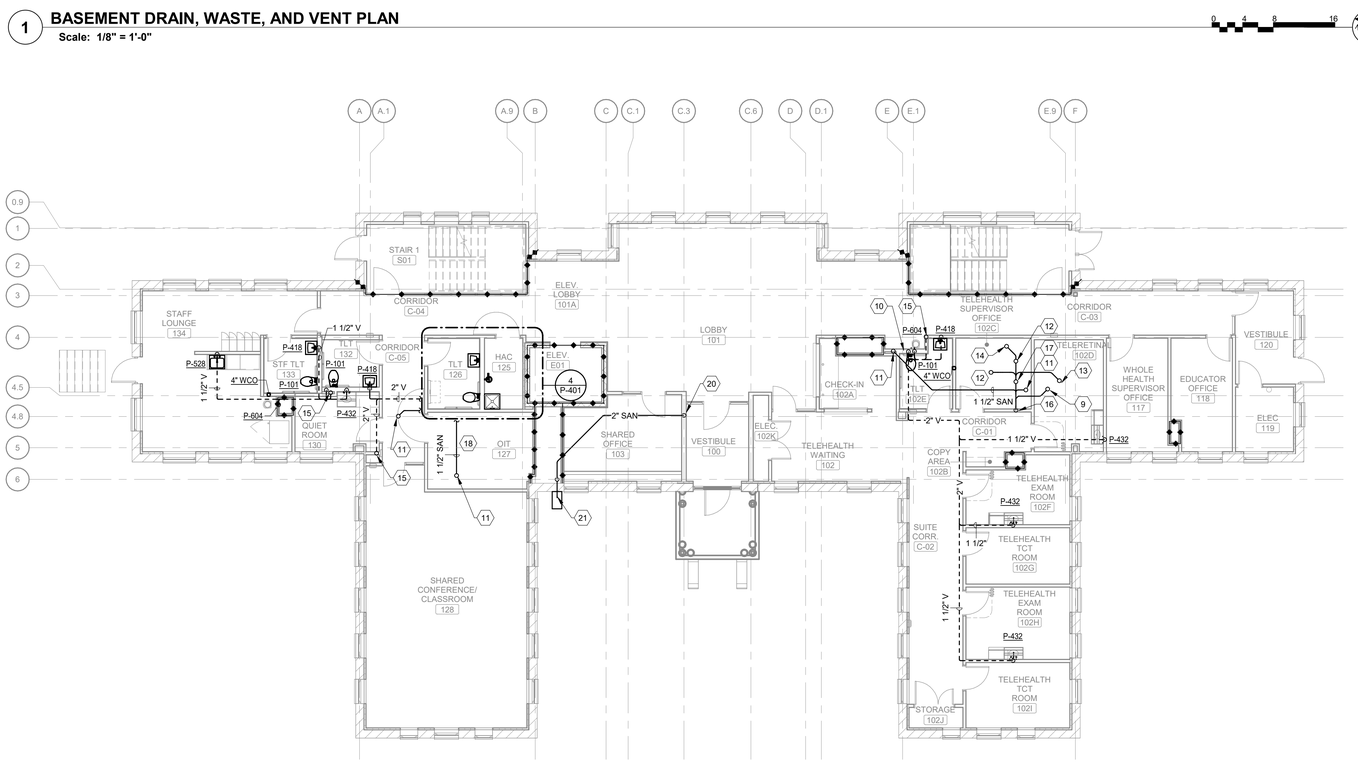


1 BASEMENT DRAIN, WASTE, AND VENT PLAN

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



2 FIRST FLOOR DRAIN, WASTE, AND VENT PLAN

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

SHEET NOTES:

A. SLEEVE ALL PENETRATIONS. FIRESTOP AND SEAL WATER TIGHT.

B. UNLESS NOTED OTHERWISE, THE SIZE OF FIXTURE RUNOUTS IS TO BE WHAT IS LISTED IN THE PLUMBING FIXTURE SCHEDULE.

C. NEW PIPING SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1 2" SANITARY PIPE UP TO THE FIRST FLOOR PLUMBING FIXTURE.
2 4" SANITARY PIPE UP TO THE FIRST FLOOR PLUMBING FIXTURE.
3 3" SANITARY PIPE UP TO THE FIRST FLOOR PLUMBING FIXTURE.
4 1-1/2" SANITARY PIPE UP TO THE FIRST FLOOR PLUMBING FIXTURE.
5 4" SANITARY PIPE UP TO THE FIRST FLOOR.
6 2" VENT PIPE UP TO THE FIRST FLOOR.
7 4" SANITARY PIPE UP TO THE FIRST FLOOR AND DOWN TO THE UNDERGROUND.
8 SANITARY PIPING UNDERGROUND.
9 4" SANITARY PIPE UP TO THE WALL CLEAN OUT.
10 2" VENT PIPE DOWN TO THE BASEMENT.
11 1-1/2" SANITARY PIPE UP TO THE SECOND FLOOR PLUMBING FIXTURE.
12 2" SANITARY PIPE UP TO THE SECOND FLOOR PLUMBING FIXTURE.
13 4" SANITARY PIPE UP TO THE SECOND FLOOR PLUMBING FIXTURE.
14 3" SANITARY PIPE UP TO THE SECOND FLOOR PLUMBING FIXTURE.
15 2" VENT PIPE UP TO THE SECOND FLOOR.
16 4" SANITARY PIPE UP TO THE SECOND FLOOR AND DOWN TO THE BASEMENT CEILING.
17 2" VENT PIPE UP TO THE SECOND FLOOR.
18 PROVIDE DRIP PAN UNDER SANITARY PIPING PER DETAIL 1/P-502.
19 PROVIDE MINIMUM 1" AIR GAP FOR INDIRECT CONNECTION OF SUMP PUMP DISCHARGE PIPING.
20 SUMP PUMP DISCHARGE PIPING DOWN TO THE BASEMENT SUMP PUMP.
21 SUMP PUMP DISCHARGE PIPING PUMP TO OUTSIDE 1' ABOVE GROUND LEVEL. PROVIDE SPLASH BLOCK.

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER ELIAS F. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR DRAIN, WASTE, AND VENT PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: PW101

Dwg 3 of 12

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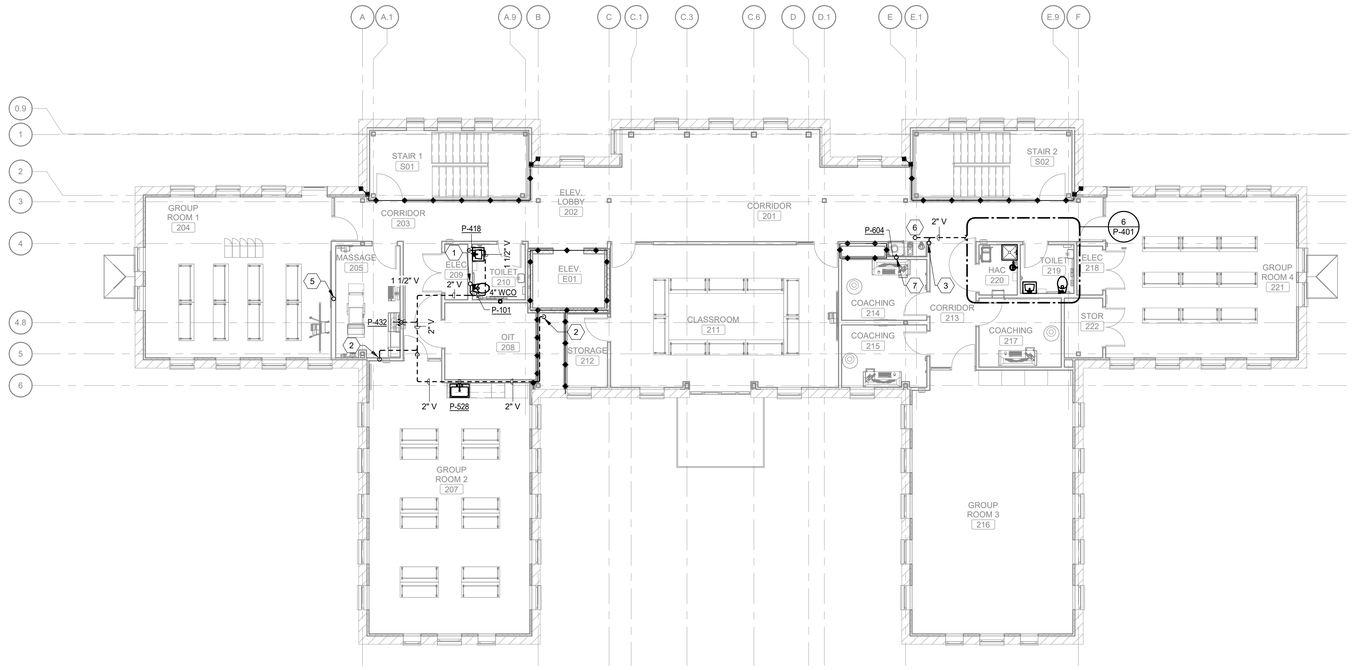
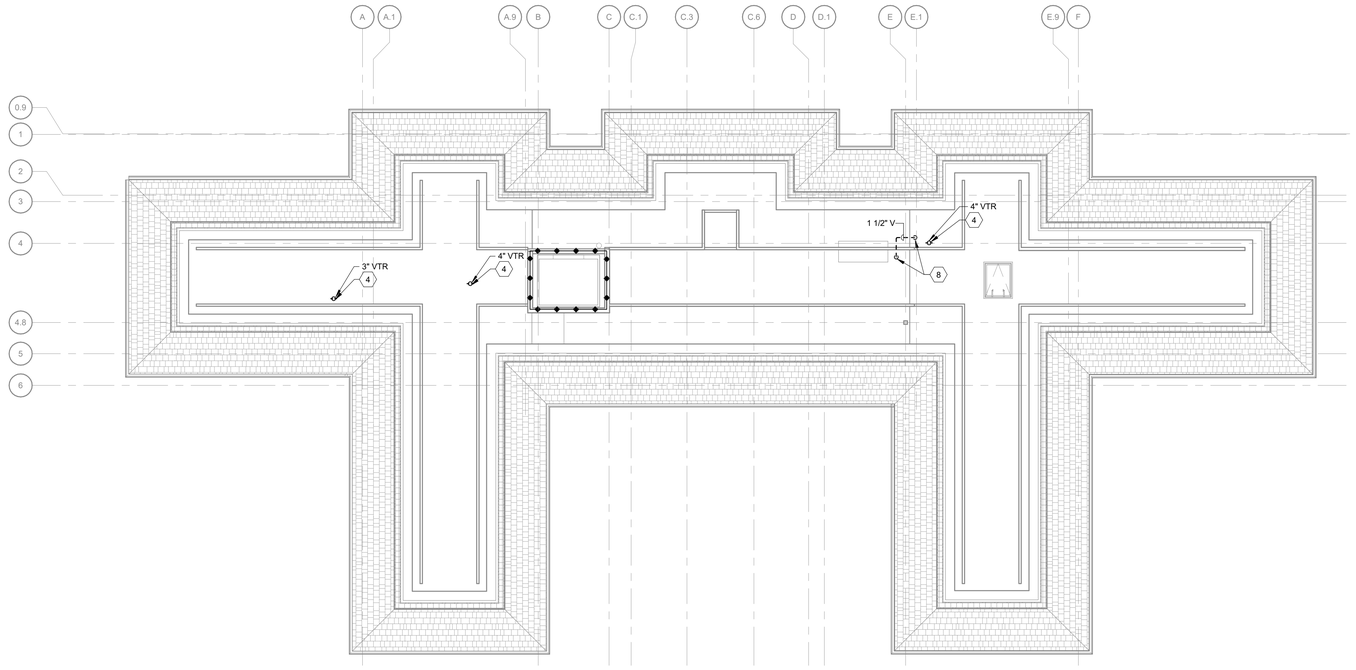


1 SECOND FLOOR DRAIN, WASTE, AND VENT PLAN

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



2 ROOF PLUMBING PLAN

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

SHEET NOTES:

A. SLEEVE ALL PENETRATIONS. FIRESTOP AND SEAL WATER TIGHT.

B. UNLESS NOTED OTHERWISE, THE SIZE OF FIXTURE RUNOUTS IS TO BE WHAT IS LISTED IN THE PLUMBING FIXTURE SCHEDULE.

C. THE ROOF IS DRAINED BY EXTERNAL GUTTERS AND DOWNSPOUTS. SEE ARCHITECTURE DRAWINGS FOR MORE INFORMATION.

D. NEW PIPING SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1 4" VENT PIPE UP TO VTR.
2 2" VENT PIPE DOWN TO THE FIRST FLOOR.
3 4" VENT PIPE UP TO VTR, 2" VENT PIPE DOWN TO THE FIRST FLOOR.
4 VENT THROUGH ROOF, SIZE AS NOTED. SEE DETAIL 11P-501 FOR CLAMPING REQUIREMENTS.
5 3" VENT PIPE UP TO VTR.
6 1-1/2" VENT PIPE UP TO THE ATTIC.
7 1-1/2" VENT PIPE FROM THE ATTIC DOWN TO PLUMBING FIXTURE.
8 1-1/2" VENT PIPE DOWN TO THE SECOND FLOOR.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE
5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR DRAIN, WASTE, AND VENT PLAN AND ROOF PLUMBING PLAN.

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: PW102

Dwg 4 of 12

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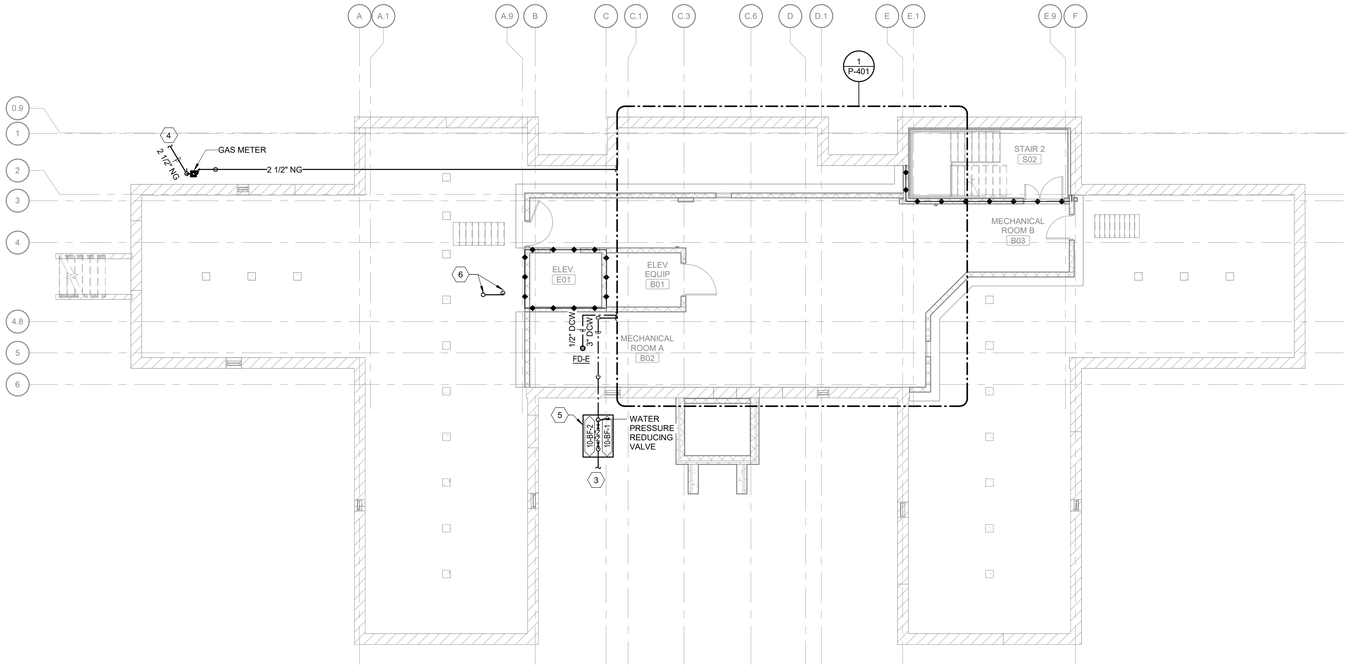
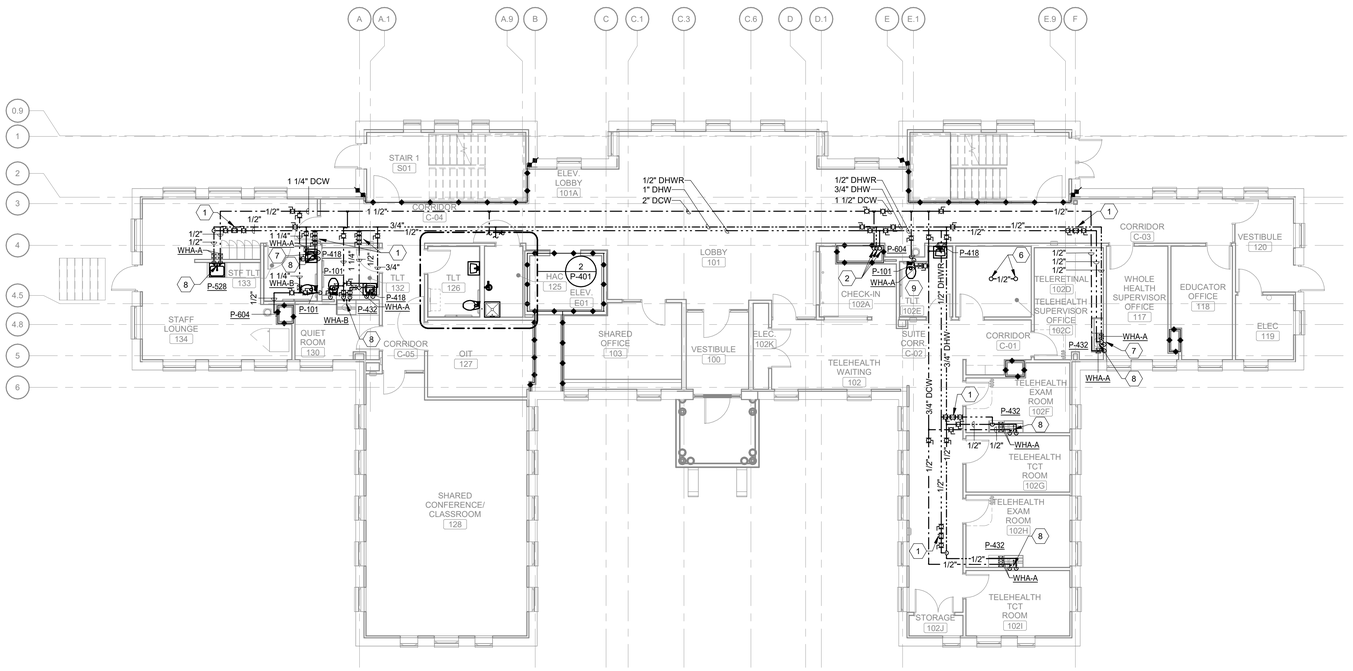


1 BASEMENT DOMESTIC WATER AND NATURAL GAS PLANS

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



2 FIRST FLOOR DOMESTIC WATER PLAN

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

SHEET NOTES:

A. SLEEVE ALL PENETRATIONS. FIRESTOP AND SEAL WATER TIGHT.

B. UNLESS NOTED OTHERWISE, THE SIZE OF FIXTURE RUNOUTS IS TO BE WHAT IS LISTED IN THE PLUMBING FIXTURE SCHEDULE.

C. PROVIDE ISOLATION BALL VALVES AT EACH BRANCH TO FIXTURE. LOCATE AS CLOSE TO MAIN AS POSSIBLE.

D. PROVIDE WATER HAMMER ARRESTOR AT ALL QUICK CLOSING VALVES. SEE DETAIL 2/P-501 FOR SCHEDULE.

E. PROVIDE THERMOSTATIC MIXING VALVE AT EACH LAVATORY. SET TEMPERATURE AT 110°F.

F. NEW PIPING SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1. PROVIDE THERMOSTATIC SELF-ACTUATING BALANCING VALVE. SET TO 124 F MINIMUM.
2. 1 1/2" DCW, 1" DHW, AND 1/2" DHWR PIPING UP TO THE SECOND FLOOR; 2" DCW, 1 1/2" DHW, AND 3/4" DHWR DOWN TO THE BASEMENT.
3. 3" UNDERGROUND DOMESTIC WATER SERVICE LINE. REFER TO CS101 FOR CONTINUATION.
4. UNDERGROUND NATURAL GAS SERVICE LINE. REFER TO CS101 FOR CONTINUATION.
5. PROVIDE HEATED HOT BOX, FIBERGLASS FLIPTOP ENCLOSURE FOR BACKFLOW PREVENTERS.
6. 1/2" DCW PIPING UP TO TRAP PRIMER ASSEMBLY AND CONNECT ABOVE FLOOR DRAIN P-TRAP. SEE DETAIL 3/P-501 FOR MORE INFORMATION.
7. 1/2" DHWR CONNECT TO DHW AS CLOSE TO THE FIXTURE AS POSSIBLE.
8. PROVIDE AUTO FLUSHING/PURGING FAUCET. SET FAUCET CONTROLS FOR AUTOMATIC FLUSHING FOR 20 MIN (ADJ.) AT 2:00 AM. COORDINATE WITH COR.
9. PROVIDE AN ACCESS PANEL IN THIS ROOM TO ACCESS THE DOMESTIC WATER PIPING IN GYPSUM CEILING.

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT DOMESTIC WATER AND NATURAL GAS AND FIRST FLOOR DOMESTIC WATER PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: PP101

Dwg 5 of 12

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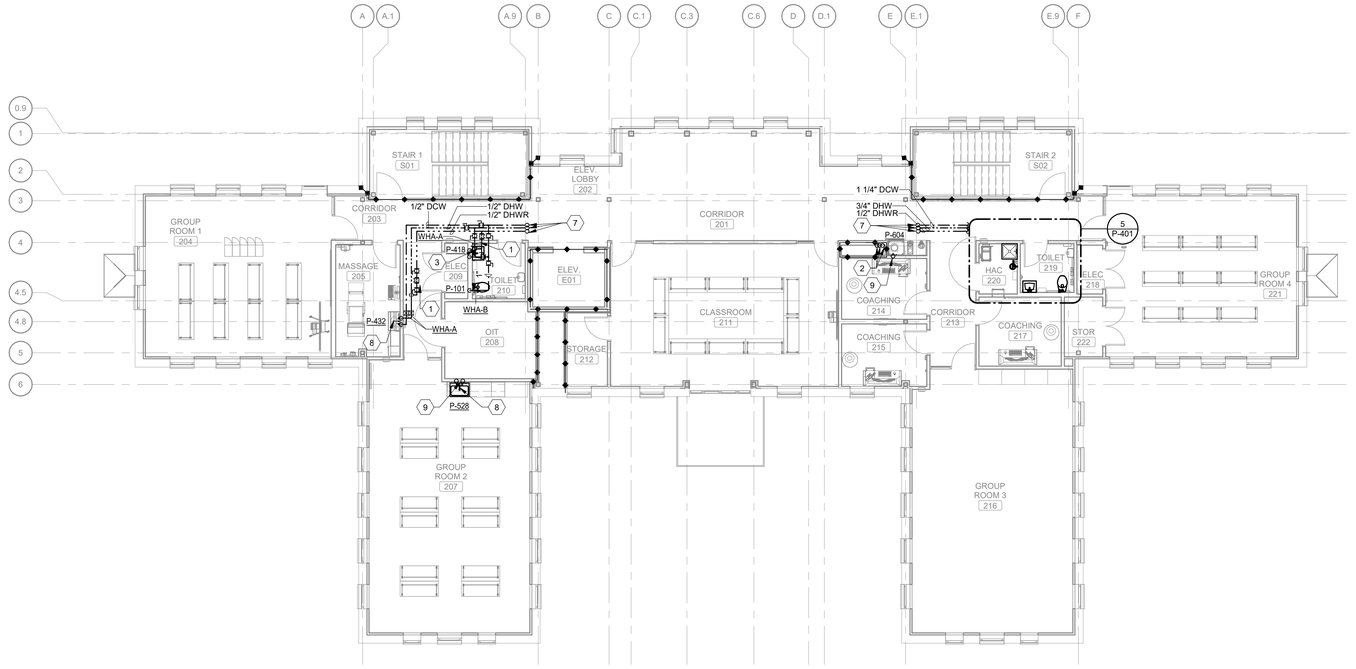
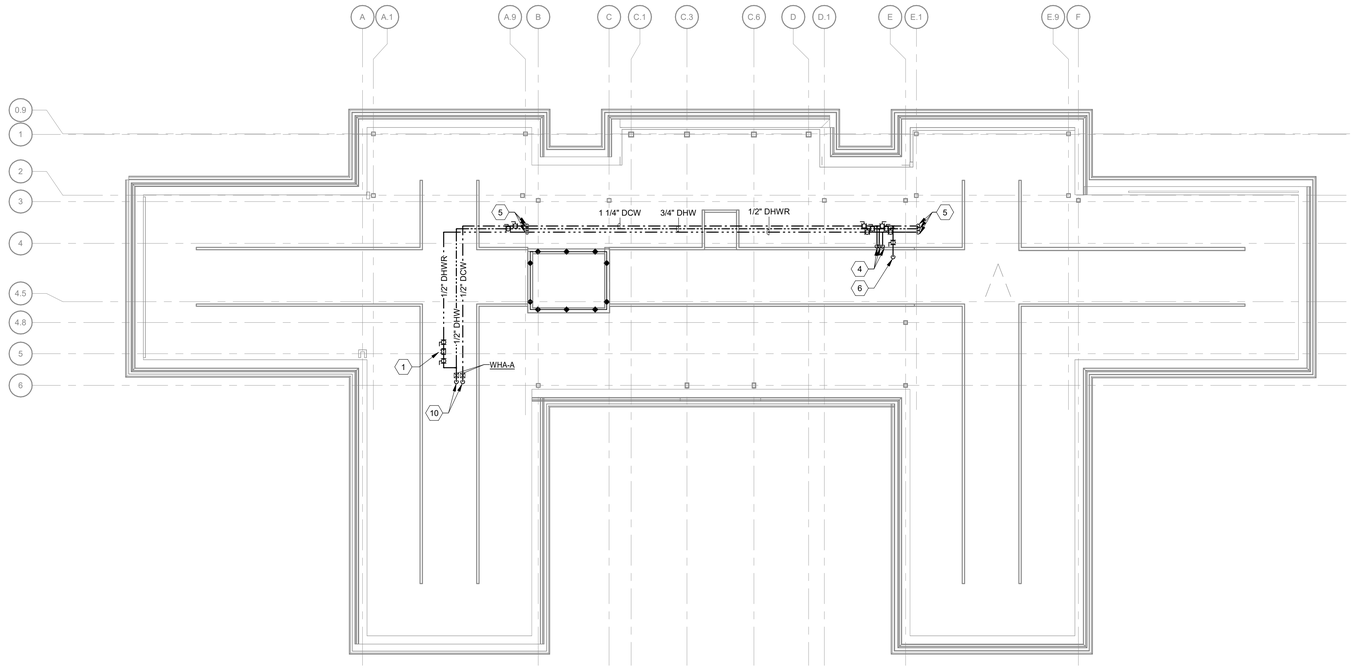


1 SECOND FLOOR DOMESTIC WATER PLAN

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



2 ATTIC DOMESTIC WATER PLAN

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

SHEET NOTES:

A. SLEEVE ALL PENETRATIONS. FIRESTOP AND SEAL WATER TIGHT.

B. UNLESS NOTED OTHERWISE, THE SIZE OF FIXTURE RUNOUTS IS TO BE WHAT IS LISTED IN THE PLUMBING FIXTURE SCHEDULE.

C. PROVIDE ISOLATION BALL VALVES AT EACH BRANCH TO FIXTURE. LOCATE AS CLOSE TO MAIN AS POSSIBLE.

D. PROVIDE WATER HAMMER ARRESTOR AT ALL QUICK CLOSING VALVES. SEE DETAIL 2/P-501 FOR SCHEDULE.

E. PROVIDE THERMOSTATIC MIXING VALVE AT EACH LAVATORY. SET TEMPERATURE AT 110°F.

F. NEW PIPING SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1 PROVIDE THERMOSTATIC SELF-ACTUATING BALANCING VALVE. SET TO 124 F MINIMUM.
2 1 1/2" DCW, 1" DHW, AND 1/2" DHWR PIPING DOWN TO THE FIRST FLOOR AND UP TO THE ATTIC.
3 1/2" DHWR CONNECT TO DHW AS CLOSE TO THE FIXTURE AS POSSIBLE.
4 1 1/2" DCW, 1" DHW, AND 1/2" DHWR PIPING DOWN TO THE SECOND FLOOR.
5 1 1/4" DCW, 3/4" DHW, AND 1/2" DHWR PIPING DOWN TO THE SECOND FLOOR.
6 1/2" DCW DOWN TO PLUMBING FIXTURE.
7 1 1/4" DCW, 3/4" DHW, AND 1/2" DHWR PIPING UP TO THE ATTIC.
8 PROVIDE AUTO FLUSHING/PURGING FAUCET. SET FAUCET CONTROLS FOR AUTOMATIC FLUSHING FOR 20 MIN (ADJ.) AT 2:00 AM. COORDINATE WITH COR.
9 PLUMBING FIXTURE FEEDS FROM THE ATTIC.
10 1/2" DCW DOWN TO PLUMBING FIXTURE.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC DOMESTIC WATER PLANS

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Drawing Number PP102

Dwg 6 of 12

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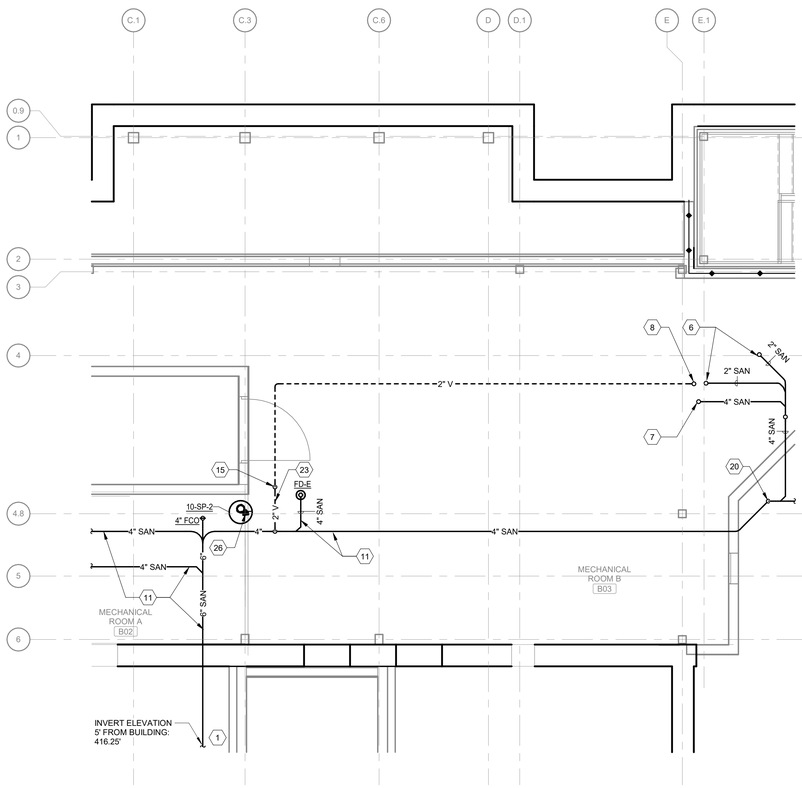
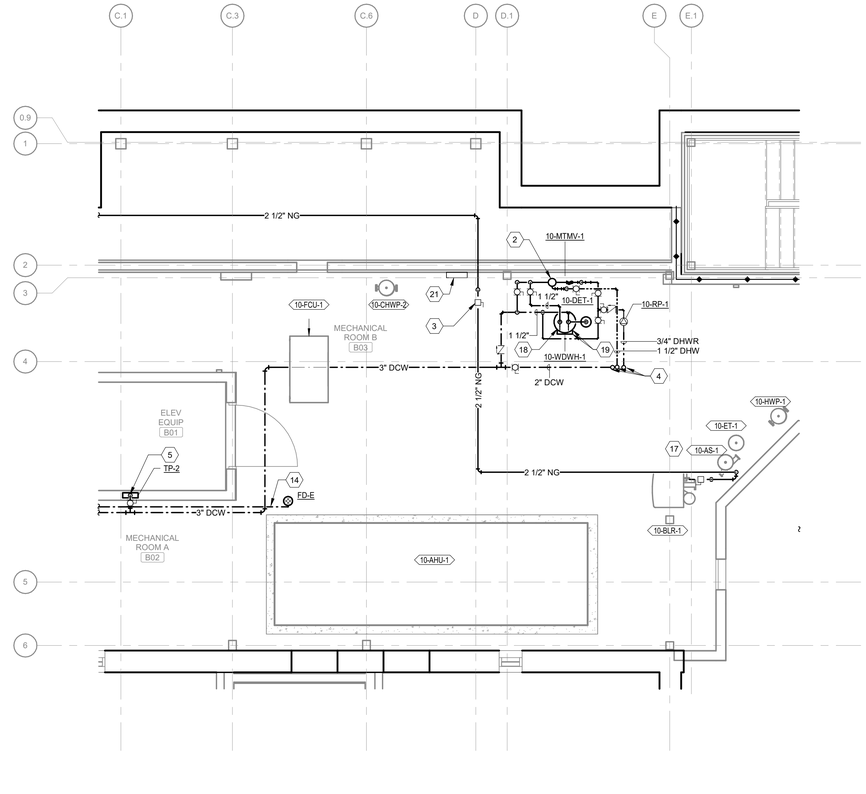


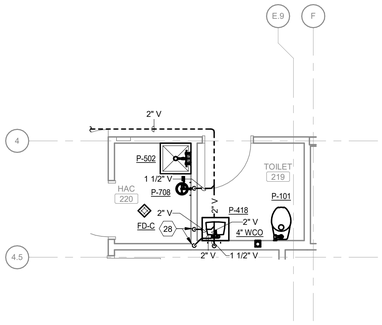
3 ENLARGED MECHANICAL ROOM B B03 DRAIN, WASTE, AND VENT PLAN

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



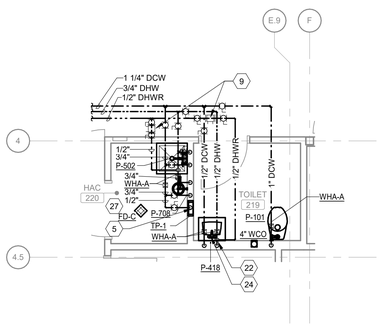
1 ENLARGED MECHANICAL ROOM B B03 DOMESTIC WATER PLAN

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



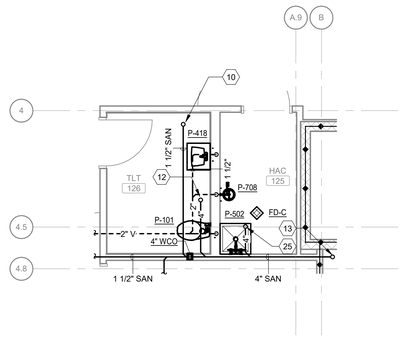
6 ENLARGED HAC 220, TOILET 219 DRAIN, WASTE, AND VENT PLAN

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



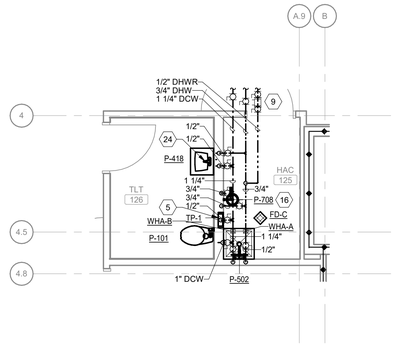
5 ENLARGED HAC 220, TOILET 219 DOMESTIC WATER PLAN

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



4 ENLARGED HAC 125, TOILET 126 DRAIN, WASTE, AND VENT PLAN

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



2 ENLARGED HAC 125, TOILET 126 DOMESTIC WATER PLAN

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

SHEET NOTES:

A. SLEEVE ALL PENETRATIONS. FIRESTOP AND SEAL WATER TIGHT.

B. UNLESS NOTED OTHERWISE, THE SIZE OF FIXTURE RUNOUTS IS TO BE WHAT IS LISTED IN THE PLUMBING FIXTURE SCHEDULE.

C. PROVIDE ISOLATION BALL VALVES AT EACH BRANCH TO FIXTURE. LOCATE AS CLOSE TO MAIN AS POSSIBLE.

D. PROVIDE WATER HAMMER ARRESTOR AT ALL QUICK CLOSING VALVES. SEE DETAIL 2/P-501 FOR SCHEDULE.

E. PROVIDE THERMOSTATIC MIXING VALVE AT EACH LAVATORY. SET TEMPERATURE AT 110°F.

KEY NOTES:

1 UNDERGROUND SANITARY WASTE LINE. REFER TO CS101 FOR CONTINUATION.
2 PROVIDE DIGITAL MASTER THERMOSTATIC MIXING VALVE STATION.
3 GAS LINE EMERGENCY SHUT-OFF.
4 2" DCW, 1 1/2" DHW, AND 3/4" DHWR UP TO THE FIRST FLOOR.
5 1/2" DCW DOWN TO TRAP PRIMER ASSEMBLY AND TO FLOOR DRAIN TO CONNECT ABOVE P-TRAP(S).
6 1-1/2" SANITARY PIPE UP TO THE FIRST FLOOR PLUMBING FIXTURE.
7 4" SANITARY PIPE UP TO THE FIRST FLOOR PLUMBING FIXTURE.
8 2" VENT PIPE UP TO THE FIRST FLOOR.
9 PROVIDE THERMOSTATIC SELF-ACTUATING BALANCING VALVE. SET TO 124 F MINIMUM.
10 1-1/2" SANITARY PIPE UP TO THE SECOND FLOOR PLUMBING FIXTURE.
11 SANITARY PIPING UNDERGROUND.
12 4" SANITARY PIPE UP TO THE SECOND FLOOR PLUMBING FIXTURE.
13 4" SANITARY PIPE DOWN TO THE BASEMENT, 2" VENT PIPE UP.
14 1/2" DCW PIPING UNDERGROUND.
15 4" SANITARY PIPE DOWN.
16 FOR EMERGENCY EYE/FACE WASH, PROVIDE MANUFACTURER'S MIXING VALVE. PROVIDE TEPID WATER CONNECTION FROM MIXING VALVE TO EMERGENCY EYE/FACE WASH COMBO. MIXING VALVE SHALL PROVIDE A MINIMUM OF 3 GPM OF TEPID WATER (60 OF-100 OF) FOR A MINIMUM DURATION OF 15 MINUTES TO EMERGENCY EYE/FACE WASH COMBO IN COMPLIANCE WITH ANSI Z358.1-2009. MIXING VALVE AND EYE/FACE WASH FIXTURE SHALL BE IN COMPLIANCE WITH ANSI Z358.1-2009.
17 FOR MECHANICAL EQUIPMENT SCHEDULES SHOWING IN THIS ROOM SEE MECHANICAL DRAWINGS.
18 ROUTE HEAT EXCHANGER PRESSURE RELIEF VALVE DRAINPIPE TO FLOOR DRAIN.
19 HEATING HOT WATER SUPPLY AND RETURN CONNECTIONS.
20 4" SANITARY PIPE UP TO THE WALL CLEAN OUT.
21 CARBON MONOXIDE DETECTION SYSTEM MOUNTED 5'-0" ABOVE FINISH FLOOR.
22 1/2" DHWR CONNECT TO DHW AS CLOSE TO THE FIXTURE AS POSSIBLE.
23 2" VENT PIPING 6" ABOVE THE RIM OF THE FLOOR DRAIN BEFORE OFFSETTING HORIZONTALLY.
24 PROVIDE AUTO FLUSHING/PURGING FAUCET. SET FAUCET CONTROLS FOR AUTOMATIC FLUSHING FOR 20 MIN (ADJ.) AT 2:00 AM. COORDINATE WITH COR.
25 4" SANITARY PIPE UP TO THE WALL CLEAN OUT.
26 SUMP PUMP DISCHARGE PIPING UP TO THE FIRST FLOOR.
27 PROVIDE AN ACCESS PANEL IN THIS ROOM TO ACCESS THE DOMESTIC WATER PIPING IN GYPSUM CEILING.
28 2" VENT PIPING DOWN.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED PLUMBING PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: P-401

Dwg 7 of 12

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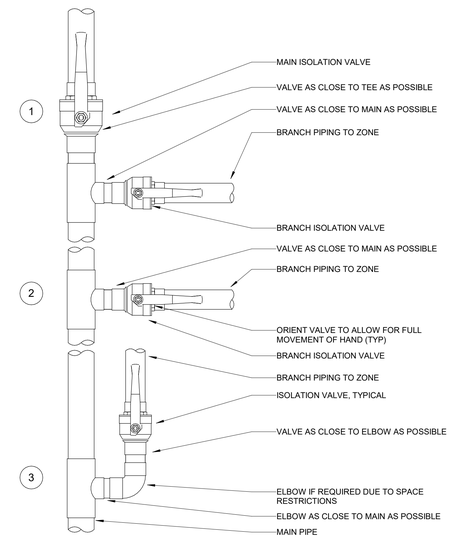
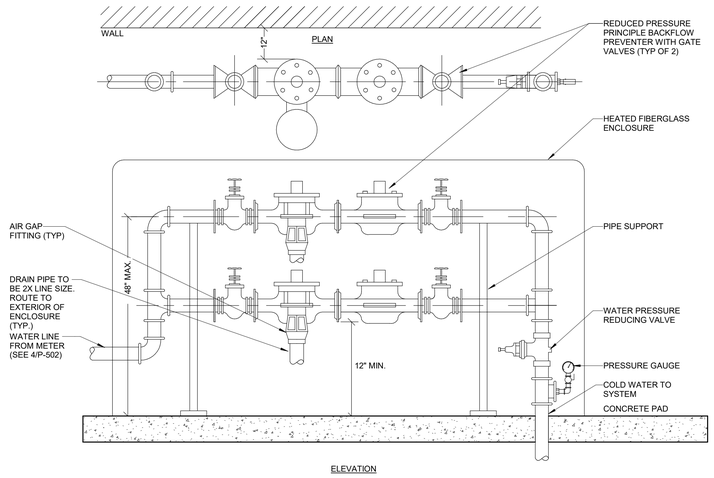
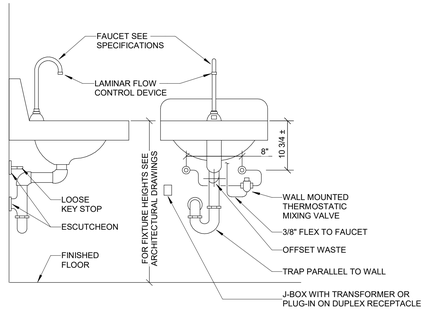


NOTE:
1. DISTANCE FROM MAIN TO THE VALVE SHALL BE NO GREATER THAN TWO PIPE DIAMETERS FROM THE BRANCH, RISER, OR MAIN THAT IT IS CONNECTED TO, OR AS CLOSE AS POSSIBLE IF SPACE LIMITATIONS OR FITTING CONFIGURATION DOES NOT ALLOW FOR TWO PIPE DIAMETERS. COR TO BE NOTIFIED PRIOR TO INSTALLATION.
2. COR APPROVAL REQUIRED FOR INSTALLATION TYPE 3 WITH ELBOW BEFORE VALVE.

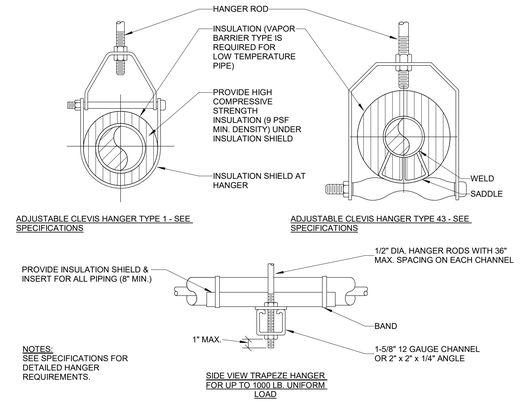
12 ISOLATION VALVE LOCATION DETAIL
Scale: No Scale



8 BACKFLOW PREVENTERS PIPING DIAGRAM
Scale: No Scale

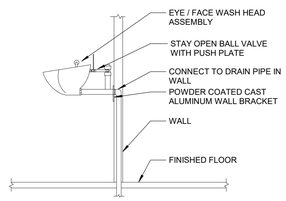


4 LAVATORY WALL HUNG - SENSOR OPERATED FAUCET DETAIL
Scale: No Scale

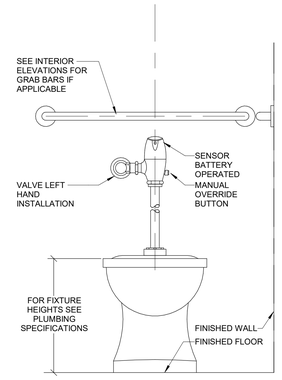


MAXIMUM PIPE/TUBING SUPPORT SPACING													
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19	22	23
TUBING (FT.)	5 FT	6	7	8	8	9	10	12	13	14	16	-	-
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE													

1 PIPE HANGER DETAIL
Scale: No Scale



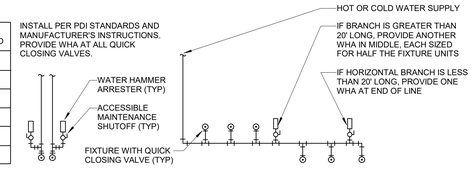
9 EMERGENCY EYE / FACE WASH DETAIL
Scale: No Scale



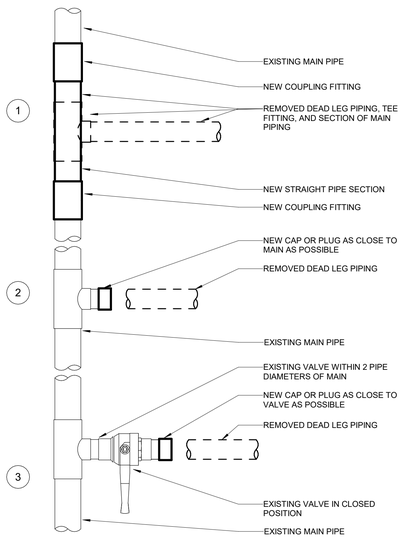
5 WATER CLOSET FLOOR MOUNT - BATTERY OPERATED SENSOR DETAIL
Scale: No Scale

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
WHA-A	1/2"	1-11
WHA-B	3/4"	12-32
WHA-C	1"	33-60
WHA-D	1-1/4"	61-113
WHA-E	1-1/2"	114-154
WHA-F	2"	154-330

INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS. PROVIDE WHA AT ALL QUICK CLOSING VALVES.

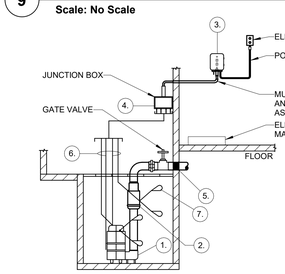


2 WATER HAMMER ARRESTOR DETAIL
Scale: No Scale



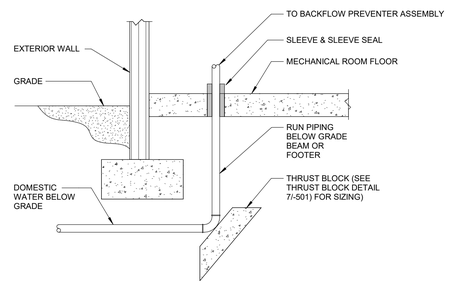
NOTES:
1. DISTANCE FROM MAIN OR VALVE TO THE CAP SHALL BE NO GREATER THAN TWO PIPE DIAMETERS FROM THE BRANCH, RISER, OR MAIN THAT IT IS CONNECTED TO, OR AS CLOSE AS POSSIBLE IF SPACE LIMITATIONS OR FITTING CONFIGURATION DOES NOT ALLOW FOR TWO PIPE DIAMETERS. COR TO BE NOTIFIED PRIOR TO INSTALLATION.

13 DEAD LEG REMOVAL DETAIL
Scale: No Scale

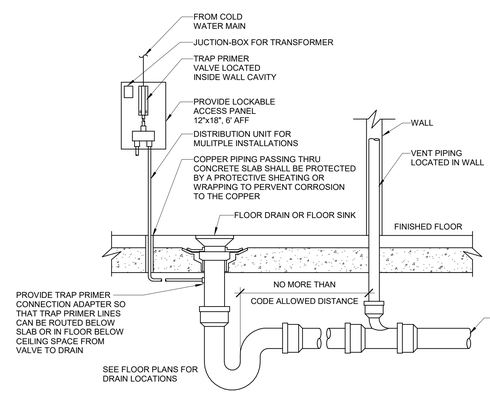


1. SUBMERSIBLE EFFLUENT PUMP, 2" DISCHARGE CONNECTION
2. CHECK VALVE.
3. OIL-DISCIMINATING CONTROL SYSTEM AUDIBLE AND VISUAL ALARM WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT, HIGH AMPERAGE OR HIGH LIQUID CONDITION. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO PANEL. PANEL SHALL HAVE ADDITIONAL CONTACT FOR A REMOTE ALARM LOCATION.
4. PROVIDE JUNCTION BOX WITH MULTI-PIN CONNECTOR AND CORD IN LENGTHS AS REQUIRED.
5. ALL BURIED PUMP PRESSURE DISCHARGE PIPING SHALL BE PROTECTED WITH TAPECOAT CT CORROSION PROTECTION TAPE.
6. COMBINED POWER CABLE, PROBE CABLE AND FLOAT CABLE (ALL 16' LOING).
7. HIGH LIQUID ALARM FLOAT WITH CLAMP DEVICE TO MOUNT TO PUMP DISCHARGE PIPING.

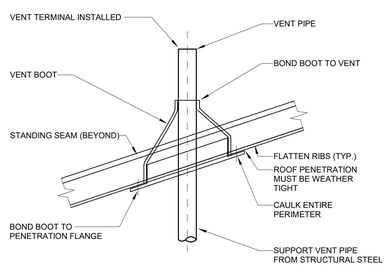
10 ELEVATOR PIT SUMP PUMP DETAIL
Scale: No Scale



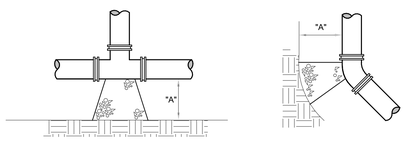
6 DOMESTIC WATER SERVICE ENTRANCE DETAIL
Scale: No Scale



3 FLOOR DRAIN & TRAP PRIMER DETAIL
Scale: No Scale



11 ROOF VENT BETWEEN SEAMS DETAIL
Scale: No Scale



TEES, PLUGS & HYDRANTS

ELBOWS

1. THRUST BLOCK SHALL BE FC'=2500 PSI @ 28 DAYS (SEE SPECIFICATIONS SECTION (03300)
2. ALL THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
3. BOLTS, FITTING, & JOINTS SHALL BE KEPT CLEAR OF CONCRETE.
4. A BEARING CAPACITY OF 2000# PER FOOT WAS USED IN DETERMINING THE MINIMUM "BEARING AREAS" IN THE ABOVE TABLES.
5. THE CROSS SECTION OF THE THRUST BLOCKS SHALL BE SQUARE.

ELBOWS					
PIPE DIA. INCHES	"A" FEET	BEARING AREA (SQUARE FEET)			
		90°	45°	22-1/2°	11-1/4°
4	1.5	2.1	1.1	0.6	0.3
6	2.0	4.1	2.2	1.1	0.6
8	2.0	6.8	3.7	1.9	0.9
10	2.5	10.1	5.5	2.8	1.4
12	3.0	14.1	7.6	3.9	2.0
16	3.0	24.2	13.0	6.7	3.3
18	3.0	30.0	16.3	8.3	4.2
20	3.0	36.8	19.9	10.1	5.1

TEES, PLUGS & HYDRANTS		
PIPE DIA. INCHES	"A" FEET	BEARING AREA SQUARE FEET
4	2.0	1.5
6	2.0	2.9
8	2.5	4.8
10	2.5	7.1
12	3.0	10.0
16	3.0	17.1
18	3.5	21.0
20	4.0	26.0

7 THRUST BLOCK DETAIL
Scale: No Scale

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number: P-501

Dwg 8 of 12

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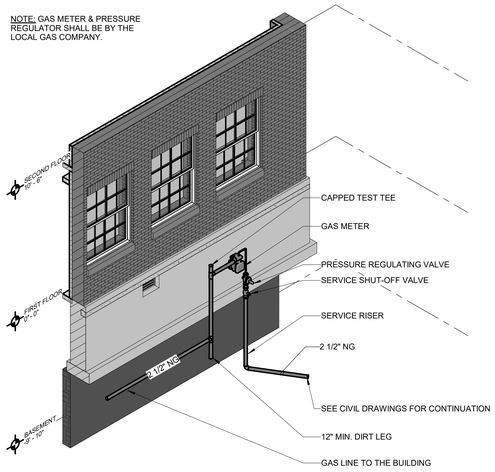
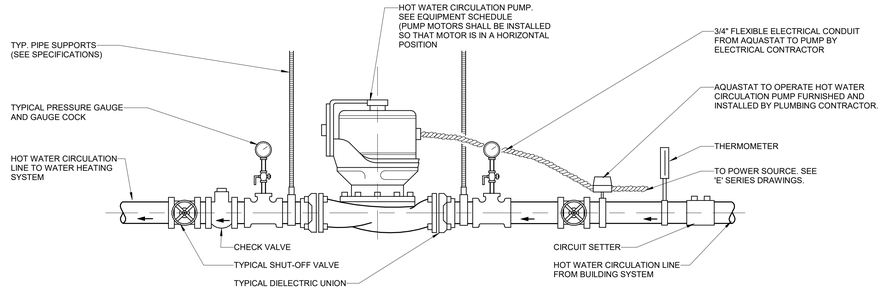


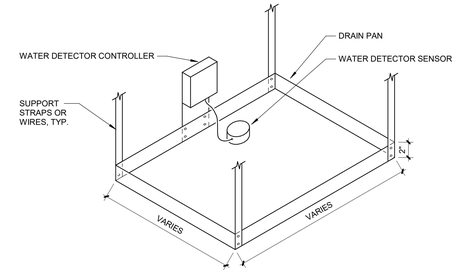
7 INCOMING GAS SERVICE WITH GAS METER DETAIL

Scale:



4 HOT WATER RECIRCULATION PUMP DETAIL

Scale: No Scale



NOTES:

1. DRAIN PAN TO BE GALVANIZED SHEETMETAL WITH WATER-TIGHT JOINTS.
2. LOCATE 4 TO 8 INCHES (10 TO 20 CM) BELOW PIPE OR EQUIPMENT THAT IS SUBJECT TO LEAK.
3. SUPPORT PAN WITH 1" (2.5 CM) WIDE STRAPS OR WIRES ATTACHED TO STRUCTURE.
4. WIDTH AND LENGTH SHALL BE A MINIMUM OF 2 INCHES (5 CM) LONGER THAN THE PIPE OR EQUIPMENT SIZE.
5. WATER DETECTOR SHALL ALARM TO THE BUILDING AUTOMATION SYSTEM (BAS). BAS SHALL SHOW ROOM LOCATION WITH ALARM.

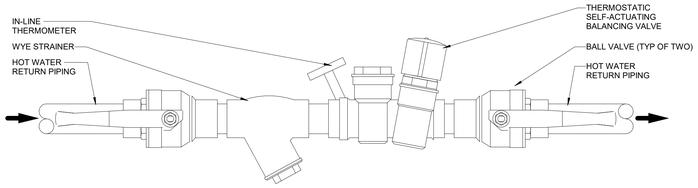
1 DRIP PAN DETAIL

Scale: No Scale

	HARDWARE POINTS				SOFTWARE POINTS						
POINT NAME:	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	SHOW ON GRAPHIC
DRAIN PAN WATER DETECTION ALARM			X							X	X
	0	0	1	0	0	0	0	0	1	1	1
TOTAL HARDWARE (1)					TOTAL SOFTWARE (2)						

2 DRIP PAN POINTS LIST

Scale: No Scale

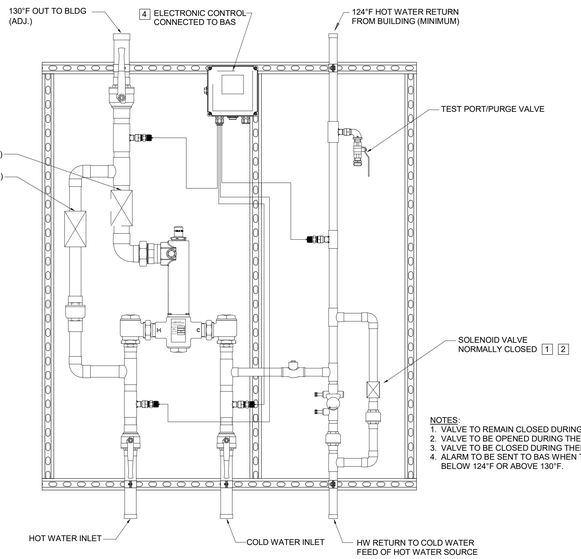


NOTE:

1. BALANCING VALVE SHALL RESTRICT FLOW AT 125°F (51.7°C) (ADJ.) WITH A HIGH-TEMPERATURE BYPASS ACTUATING AT 160°F (71.0°C).
2. THERMOMETER SHALL HAVE MINIMUM RANGE OF 60°F TO 180°F.

8 THERMAL BALANCING VALVE DETAIL

Scale: No Scale

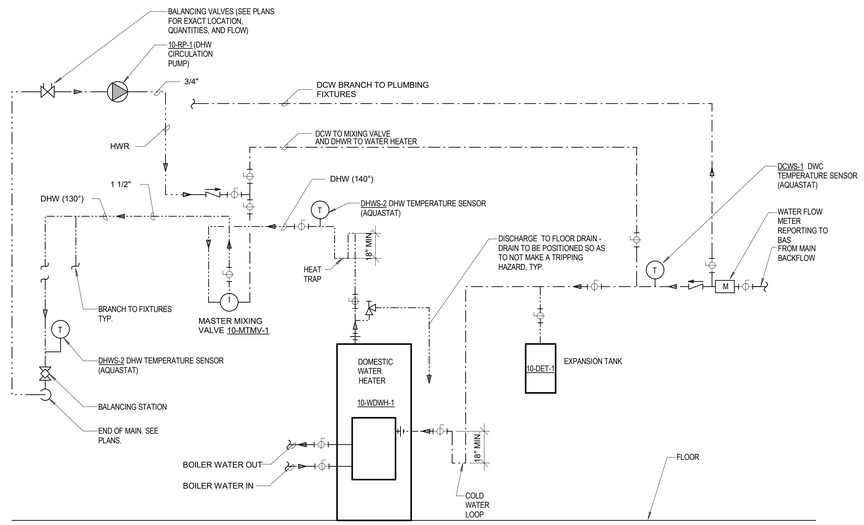


NOTES:

1. VALVE TO REMAIN CLOSED DURING NORMAL OPERATION.
2. VALVE TO BE OPENED DURING THERMAL ERADICATION.
3. VALVE TO BE CLOSED DURING THERMAL ERADICATION.
4. ALARM TO BE SENT TO BAS WHEN TEMPERATURE FALLS BELOW 124°F OR ABOVE 130°F.

5 MASTER DIGITAL THERMOSTATIC MIXING VALVE DETAIL

Scale: No Scale



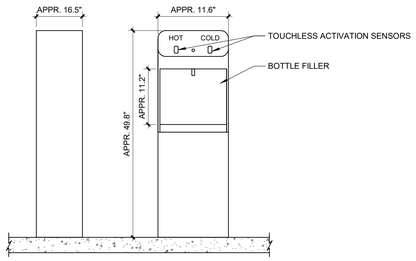
SEQUENCE OF CONTROL :

DCWS-1 MONITORS INCOMING COLD WATER TEMPERATURE.

DHWS-2 MONITORS DOMESTIC HOT WATER TEMPERATURE. DOMESTIC HOT WATER DISTRIBUTION WILL BE 135°F (ADJUSTABLE). WHEN WATER TEMPERATURE DROPS TO 130°F (ADJ.)

3 DOMESTIC WATER HEATER SCHEMATIC

Scale: No Scale

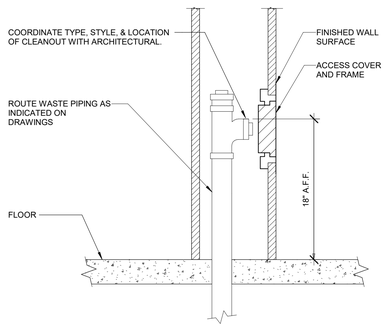


NOTES:

1. BASIS OF DESIGN IS QUENCH Q8 OR EQUAL.

9 ELECTRIC WATER COOLER STATION DETAIL

Scale: No Scale



6 WALL CLEANOUT DETAIL

Scale: No Scale

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

Drawing Number P-502

Dwg 9 of 12

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PLUMBING LOAD SUMMARY

* - PRIVATE FIXTURES

MARK	DESCRIPTION	QUANTITY	DFU EACH	DFU	CW WSFU EACH	CW WSFU	HW WSFU EACH	HW WSFU	TOTAL WSFU EACH	TOTAL WSFU
P-101	WATER CLOSET, FLUSH VALVE, FLOOR MOUNT, PUBLIC	6	4	24	10	60	0	0	10	60
P-418	LAVATORY, WALL MOUNT, SENSOR, PUBLIC	6	1	6	1.5	9	1.5	9	2	12
P-432	LAVATORY, INTEGRAL, SENSOR, PUBLIC	5	1	5	1.5	7.5	1.5	7.5	2	10
P-502	SERVICE SINK, TERRAZO MOP	2	2	4	3	6	3	6	4	8
P-528	SINK, COUNTER MOUNT, SINGLE COMPARTMENT	2	3	6	1.5	3	1.5	3	2	4
P-604	ELECTRIC WATER COOLER	3	0.5	1.5	0.25	0.75	0	0	0.25	0.75
TP-1	TRAP PRIMER SINGLE	2	3	6	3	6	0	0	4	8
TP-2	TRAP PRIMER MULTIPLE	1	3	3	3	3	0	0	4	4
	TOTAL:	27		55.5		95.25		25.5		106.75

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	QUANTITY	WASTE PIPE	VENT PIPE	COLD WATER	HOT WATER	WRIST BLADE HANDLES	ELECTRIC SENSOR	NOTES
FD-C	FLOOR DRAIN, SQUARE, 2" OUTLET	2	2"	1 1/2"	-	-	-	-	-
FD-E	FLOOR DRAIN, ROUND, 4" OUTLET	2	4"	2"	-	-	-	-	-
P-101	WATER CLOSET, FLUSH VALVE, FLOOR MOUNT, PUBLIC	6	4"	2"	1"	-	-	YES	-
P-418	LAVATORY, WALL MOUNT, SENSOR, PUBLIC	6	1 1/2"	1 1/2"	3/8"	3/8"	NO	YES	-
P-432	LAVATORY, INTEGRAL, SENSOR, PUBLIC	5	1 1/2"	1 1/2"	3/8"	3/8"	NO	YES	-
P-502	SERVICE SINK, TERRAZO MOP	2	3"	1 1/2"	1/2"	1/2"	NO	NO	-
P-528	SINK, COUNTER MOUNT, SINGLE COMPARTMENT	2	1 1/2"	1 1/2"	3/8"	3/8"	NO	YES	-
P-604	ELECTRIC WATER COOLER	3	1 1/2"	1 1/2"	3/8"	-	-	YES	-
P-708	EMERGENCY EYE AND FACE WASH, WALL MOUNT	2	1 1/2"	1 1/2"	3/4"	3/4"	-	-	-
TP-1	TRAP PRIMER SINGLE	2	-	-	1/2"	-	-	-	-
TP-2	TRAP PRIMER MULTIPLE	1	-	-	1/2"	-	-	-	-

PLUMBING SUMP PUMP SCHEDULE

MARK	AREA AND/OR ROOM SERVED	PERFORMANCE				ELECTRICAL			SPEED CONTROL	NOTES
		FLUID	FLOW	HEAD FT	TEMPERATURE	HP	PHASE	VOLTAGE		
10-SP-1	ELEVATOR PIT	WATER	53.0 GPM	15.0	50 °F	4/10	1	115	NO	1
10-SP-2	BASEMENT	WATER	53.0 GPM	15.0	50 °F	4/10	1	115	NO	1

NOTES:

1. WITH OIL/WATER DISCRIMINATING FEATURE. HIGH OIL AND HIGH WATER LIMIT ALARMS.

PLUMBING BACKFLOW PREVENTER SCHEDULE

MARK	LOCATION	SYSTEM	TYPE	FLOW	INLET PRESSURE	SIZE	NOTES
10-BF-1	HOT BOX OUTSIDE THE BUILDING	DOMESTIC COLD WATER	REDUCED PRESSURE PRINCIPLE	70.0 GPM	60.00 psi	3"	-
10-BF-2	HOT BOX OUTSIDE THE BUILDING	DOMESTIC COLD WATER	REDUCED PRESSURE PRINCIPLE	70.0 GPM	60.00 psi	3"	-

PLUMBING RECIRCULATION PUMP SCHEDULE

MARK	LOCATION	SYSTEM	TYPE	PERFORMANCE				SPEED CONTROL	ELECTRICAL			NOTES
				FLOW	HEAD FT	TEMPERATURE	MIN % EFF		HP	PHASE	VOLTAGE	
10-RP-1	MECHANICAL ROOM B B03	HOT WATER RETURN	CARTRIDGE	5.0 GPM	8.5	140 °F	70	CONSTANT	1/25	1	115	-

PLUMBING EXPANSION TANK SCHEDULE

MARK	LOCATION	TYPE	APPROX. SYSTEM VOLUME	MIN TEMP	MAX TEMP	INITIAL PRESSURE IN TANK	MAX OPERATING PRESSURE	MIN VOLUME TANK	MAX ACCEPTANCE FACTOR	MIN BLADDER VOLUME	NOTES
10-DET-1	MECHANICAL ROOM B B03	DIAPHRAGM	60.0 gal	45 °F	140 °F	70 psi	125 psi	2.3 gal	2.50	0.9 gal	-

PLUMBING LIQUID TO LIQUID HEAT EXCHANGER SCHEDULE

MARK	LOCATION	TYPE	HOT SIDE			COLD SIDE			NOTES
			FLOW	INLET WATER TEMP	OUTLET WATER TEMP	FLOW	INLET WATER TEMP	OUTLET WATER TEMP	
10-WDWH-1	MECHANICAL ROOM B B03	PLATE & FRAME	3.0 GPM	180 °F	140 °F	72.0 GPM	40 °F	140 °F	1

NOTES:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PLUMBING MASTER MIXING VALVE SCHEDULE

MARK	LOCATION	TYPE	OUTLET PIPE SIZE	FLOW	INLET TEMP	OUTLET TEMP	ELECTRICAL		NOTES
							VOLT	PHASE	
10-MTMV-1	MECHANICAL ROOM B B03	DIGITAL	1 1/2"	26.0 GPM	140 °F	130 °F	120	1	1

NOTES:

1. BASIS OF DESIGN IS LEONARD NUCLEAR MODEL NV-150-LF.

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING SCHEDULES

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: TB

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Drawing Number P-601

Dwg 10 of 12

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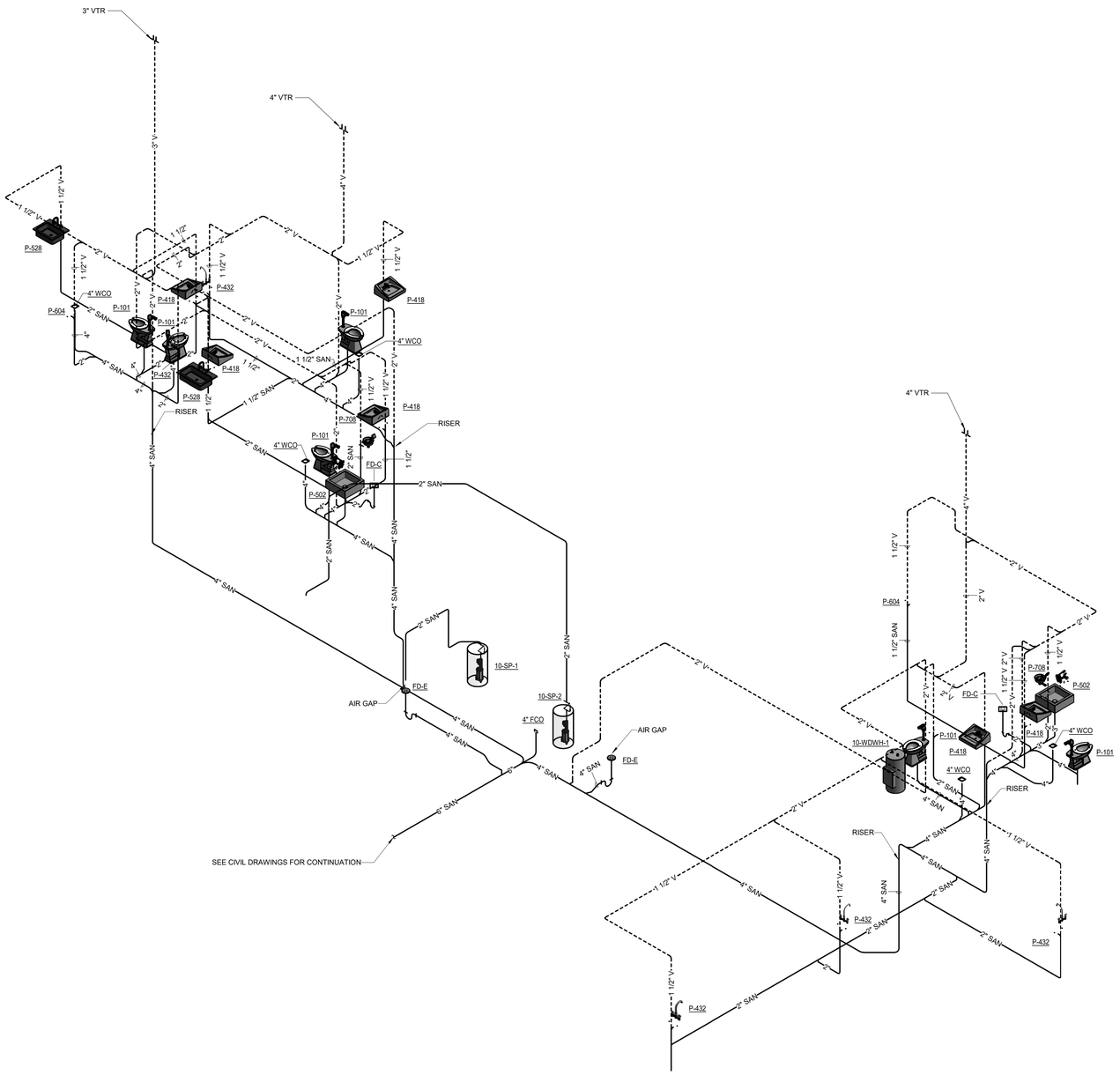

1 **SANITARY PIPE RISERS**
Scale: No Scale

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE
5/6/2025

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SANITARY PIPE RISERS
Project Title: RENOVATE BUILDING 10
VA PROJECT NUMBER: 619A4-23-105
Building Number: # 10
Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083
Approved
Date: MAY 9, 2025
Checked: SPG
Drawn: TB
Drawing Number: P-901
Dwg 11 of 12

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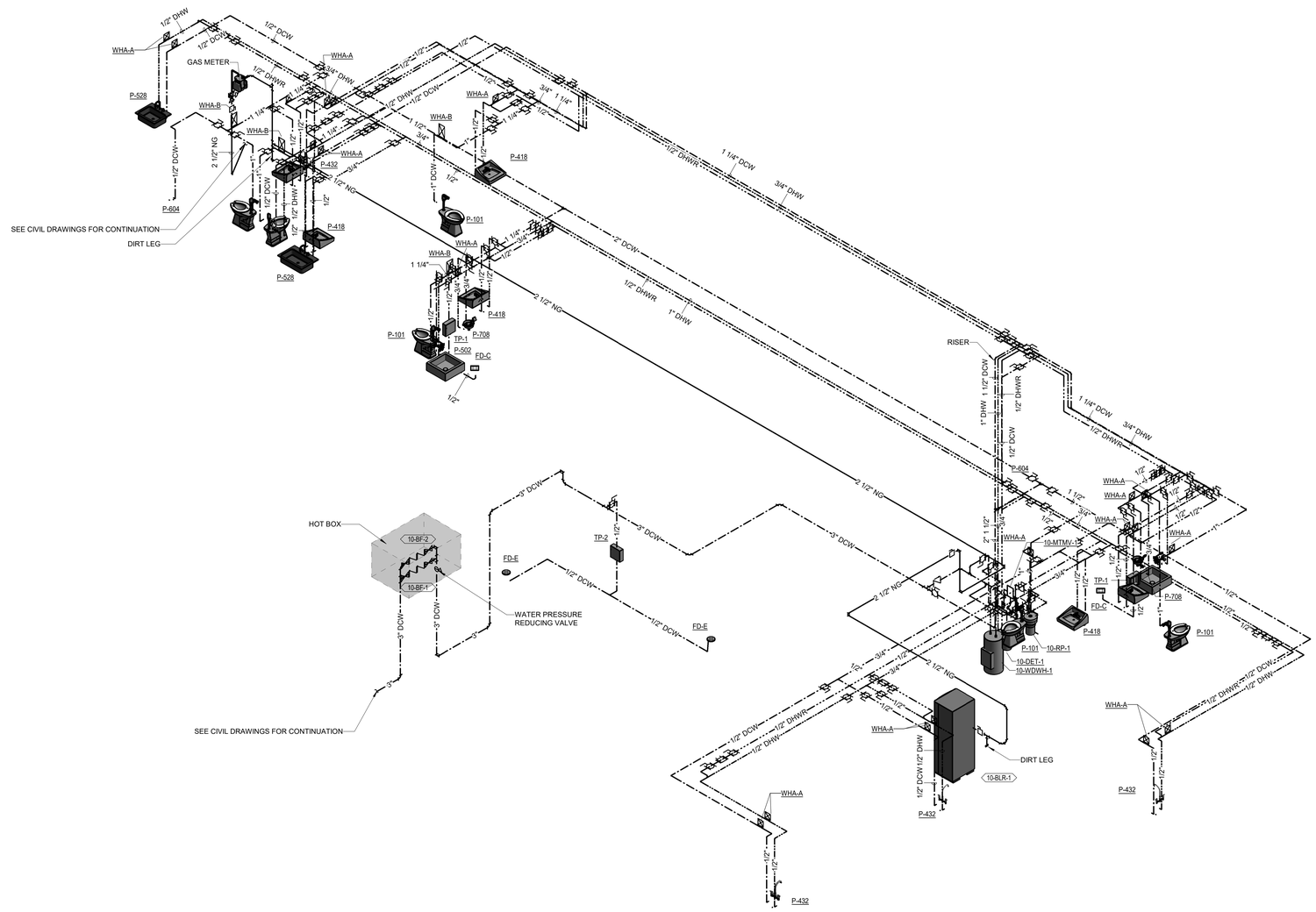

NATURAL GAS CONNECTION LOAD:

TAG	EQUPMENT TYPE	INPUT (MBH)
10-BLR-1	BOILER	1000
	TOTAL:	1000

EQUIVALENT LENGTH: 150 FT DOWNSTREAM OF METER.

*CALCULATION MADE FROM TABLE 402.4(2) IN THE 2021 ICC FUEL GAS CODE. PIPE SIZING BASED ON LESS THAN 2 PSI PRESSURE DROP FROM THE METER.

2 NATURAL GAS CONNECTION LOAD

Scale: No Scale

1 DOMESTIC PIPE AND NATURAL GAS RISERS

Scale: No Scale

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER ELIAS F. GEORGE 5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: DOMESTIC PIPE AND NATURAL GAS RISERS AND NATURAL GAS CONNECTION LOAD

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

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Dwg 12 of 12

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MECHANICAL ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AAHX	AIR TO AIR HEAT EXCHANGER
AB	AIR BLENDER
AAV	AUTOMATIC AIR VENT
ACC	AIR-COOLED CONDENSER
ACCH	AIR-COOLED CHILLER
ACCU	AIR-COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
ACD	AUTOMATIC CONTROL DAMPER, MODULATING
ACD-TP	AUTOMATIC CONTROL DAMPER,TWO POSITION
AD	ACCESS DOOR
AF	AFTER FILTER
AFCV	AIR FLOW CONTROL VALVE
AFF	ABOVE FINISHED FLOOR
AFMD	AIR FLOW MEASURING DEVICE
AFW	AIR FOIL WHEEL (FAN)
AHU	AIR-HANDLING UNIT
AMP	AMPERAGE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
AS	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AW	AIR WASHER
AXF	AXIAL FLOW
B	BOILER
BD	BUTTERFLY DAMPER
BDD	BACKDRAFT DAMPER
BDR	BASE BOARD RADIATOR
BFP	BACKFLOW PREVENTER
BFT	BOILER PLANT FIRE TUBE
BHP	BRAKE HORSEPOWER
BHW	HOT WATER HEATING BOILER
BHX	BOILER BLOWDOWN HEAT EXCHANGER
BIW	BACKWARD INCLINED WHEEL (FAN)
BSC	BIOLOGICAL SAFETY CABINETS
BT	BUFFER TANK
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CENTIGRADE (CELSIUS)
CC	COOLING COIL
CCD	COOLING COIL CONDENSATE DRAIN
CENT	CENTRIFUGAL
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFT	CUBIC FEET
CFP	CHEMICAL FEED PUMP
CH	CHILLER
CHWP	CHILLED WATER PUMP
CHW	CHILLER WATER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CM	CARBON MONOXIDE
CM	CUBIC METER
CM/S	CUBIC METER PER SECOND
CO	CLEAN OUT
CO2	CARBON DIOXIDE
COMP	COMPRESSOR UNIT
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CW	COLD WATER (POTABLE)
CHWCC	CHILLED WATER COOLING COIL
D	DAMPER - AUTOMATIC
D-1	OUTDOOR AIR DAMPER
D-2	RETURN AIR DAMPER
D-3	RELIEF AIR DAMPER
D-4	ECONOMIZER OUTDOOR AIR DAMPER
dB	DECIBELS
Db	DRY-BULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREE
DF	DIFFUSER
DIA	DIAMETER
DIW	DEIONIZED WATER
DP	DEW POINT TEMPERATURE
DP	DIFFUSER PLATE
DPA	DIFFERENTIAL PRESSURE ASSEMBLY
DPS	DIFFERENTIAL PRESSURE SENSOR
DX	DIRECT EXPANSION
DXCC	DIRECT EXPANSION COOLING COIL
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECC	ENGINEERING CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EGS	EMERGENCY GAS SHUTOFF
EH	EXHAUST HOOD
EJ	EXPANSION JOINT
EMD	END OF MAIN DRIP (STEAM)
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
F	FAHRENHEIT
F&T	FLOAT AND THERMOSTATIC
F/SDPR	COMBINATION FIRE SMOKE DAMPER
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT (4 PIPE)
FCW	FORWARD CURVED WHEEL (FAN)
FD	FLOOR DRAIN
FD	FIRE DAMPER
FF	FINAL FILTER
FM	FLOW METER
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBER REINFORCED POLYESTER
FS	FLOW SWITCH
FSTAT	FREEZESTAT
FT	FEET
FT-LB	FOOT-POUND
FTR	FIN TUBE RADIATION
FV	FACE VELOCITY
GA	GAUGE
GAL	GALLONS
GH	GRAVITY HOOD
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GS	GALVANIZED STEEL
H	HUMIDIFIER
H&CW	HOT & COLD WATER
HAC	HOUSEKEEPING AID CLOSET
HB	HOSE BIBB
HC	HEATING COIL
HD	HEAD
HD	HOOD
HHW	HEATING HOT WATER
HHWC	HEATING HOT WATER COIL
HHWP	HEATING HOT WATER PUMP
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
HOA	HAND/OFF/AUTOMATIC
HP	HEAT PUMP
HP	HORSEPOWER
HPDT	HIGH PRESSURE DRIP TRAP
HPR	HIGH PRESSURE RETURN (STEAM CONDENSATE)
HPS	HIGH PRESSURE SUPPLY (STEAM)
HRC	HEAT RECOVERY COIL
HRD	HEAT RECOVERY DEVICE
HRP	HYDRONIC RADIANT (CEILING) PANEL
HRW	HEAT RECOVERY WHEEL
HSTAT	HUMIDISTAT
HUM	HUMIDIFIER UNIT MOUNTED
HVU	HEATING AND VENTILATING UNIT
HW	HOT WATER
HWC	HOT WATER COIL
HWUH	HOT WATER UNIT HEATER
HX	HEAT EXCHANGER
Hz	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
IBT	INVERTED BUCKET TRAP
ICF	IN-LINE CENTRIFUGAL FAN
ICU	INTENSIVE CARE UNIT
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE AND BYPASS
IN	INCHES
IN HG	INCHES OF MERCURY
IN WC	INCH WATER COLUMN
IN WG	INCH WATER GAUGE
IN-LB	INCH-POUND
IPLV	INTEGRATED PART LOAD VALUE
IRH	INFRARED HEATER
IS	INSECT SCREEN
IV	INLET VANES
kg	KILOGRAM
kg/HR	KILOGRAM PER HOUR
kPa	KILOPASCAL
kW	KILOWATT
kWh	KILOWATT HOUR
L	LITER
L/s	LITERS PER SECOND
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAR FOOT (FEET)
LH	LATENT HEAT
LPR	LOW PRESSURE RETURN (STEAM CONDENSATE)
LPS	LOW PRESSURE SUPPLY (STEAM)
LSD	LINEAR SLOT DIFFUSER
LTCP	LOCAL TEMPERATURE CONTROL PANEL
LVG	LEAVING
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	METER, SI UNIT
M/s	METERS PER SECOND (OR METERS/SECOND)
MA	MIXED AIR
MAT	MIXED AIR TEMPERATURE
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MB	MIXING BOX
MBH	1000 BTUH
MCA	MINIMUM BRANCH CIRCUIT AMPACITY
MER	MECHANICAL EQUIPMENT ROOM
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MHP	MOTOR HORSEPOWER
MIN	MINIMUM
MM	MILLIMETER
MOV	MOTOR OPERATED VALVE
MPR	MEDIUM PRESSURE RETURN (STEAM CONDENSATE)
MPS	MEDIUM PRESSURE SUPPLY (STEAM)
MTD	MEAN TEMPERATURE DIFFERENCE
MVD	MANUAL VOLUME DAMPER
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NOAA	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
NOM	NOMINAL
NPLV	NON-STANDARD PART LOAD VALUE
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
OR	OPERATING ROOM
OSA	OUTSIDE SUPPLY AIR (CONDITIONED)
P	PUMP
PC	PUMPED CONDENSATE
PCF	POUNDS PER CUBIC FOOT (FEET)
PD	PRESSURE DROP
PF	PRE-FILTER
PG	PRESSURE GAGE
PHC	PREHEAT COIL
PHCP	PREHEAT COIL PUMP
PPM	PARTS PER MILLION
PRV	PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH – ABSOLUTE
PSIG	POUNDS PER SQUARE INCH – GAGE
PSS	PRIMARY SECONDARY SYSTEM
PSV	PRESSURE SAFETY VALVE
R/E	RETURN OR EXHAUST
RA	RETURN AIR
RAT	RETURN AIR TEMPERATURE
RDS	ROOM DATA SHEETS
REA	RELIEF AIR
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RL	REFRIGERANT LIQUID LINE
RLA	RUN LOAD AMPERE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOF TOP UNIT
RV	RELIEF VALVE
SA	SUPPLY AIR
SAD	SOUND ATTENUATING DEVICE
SAT	SUPPLY AIR TEMPERATURE
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SD	SUPPLY AIR DIFFUSER
SDPR	SMOKE DAMPER
SDR	SMOKE DAMPER (RETURN)
SDS	SMOKE DAMPER (SUPPLY)
SEN	SENSIBLE HEAT
SF	SUPPLY FAN
SH	STEAM HUMIDIFIER
SHC	STEAM HEATING COIL
SI	SQUARE INCHES
SP	STATIC PRESSURE
SP GR	SPECIFIC GRAVITY
SPD	SUPPLY PROCESS AND DISTRIBUTION
SPRV	STEAM PRESSURE REDUCING VALVE
SPS	STATIC PRESSURE SENSOR
SQ FT	SQUARE FOOT (FEET)
SR	SUPPLY AIR REGISTER
SS	STAINLESS STEEL
SSR	SOLID SEPARATOR
ST	STEAM TRAP
SV	STEAM SAFETY VALVE
SVS	STEAM VENT SILENCER
T & PCV	TEMPERATURE AND PRESSURE CONTROL VALVE
TAB	TESTING, ADJUSTING, BALANCE
TD	TEMPERATURE DIFFERENCE
TDH	TOTAL DYNAMIC HEAD
TDS	TOTAL DISSOLVED SOLIDS
TP	TRAP
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TU	TERMINAL UNIT
UC	UNDER CUT
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
V	VALVE
VAF	VANE-AXIAL FAN
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
VFD	VARIABLE FREQUENCY DRIVE
VHA	VETERANS HEALTH ADMINISTRATION
VI	VIBRATION ISOLATOR
VP	VACUUM PUMP
VPS	VARIABLE PRIMARY SYSTEM
VR	VACUUM (STEAM CONDENSATE) RETURN
VSD	VARIABLE SPEED DRIVE
VUH	VERTICAL UNIT HEATER
W	WATTS
Wb	WET-BULB (TEMPERATURE)
WFCV	WATER FLOW CONTROL VALVE
WFM	WATER FLOWMETER
WFMD	WATER FLOW MEASURING DEVICE
WG	WATER GAGE
WPD	WATER SIDE PRESSURE DROP
XT	EXPANSION TANK
YR	YEAR

MECHANICAL LEGEND

CARBON DIOXIDE SENSOR
THERMOSTAT OR TEMPERATURE SENSOR
HUMIDISTAT OR HUMIDITY SENSOR
SUPPLY DIFFUSER
RETURN GRILLE
EXHAUST GRILLE
LINEAR SLOT DIFFUSER
BALANCING DAMPER
FIRE DAMPER
SMOKE DAMPER
FIRE / SMOKE DAMPER
MOTORIZED DAMPER
ROUND FLEX DUCT
INCLINED RISE, IN DIRECTION OF AIRFLOW
INCLINED DROP, IN DIRECTION OF AIRFLOW
CONNECT NEW DUCT TO EXISTING
LIMIT OF DEMOLITION

VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
VANED ELBOW (SHORT RADIUS)
STANDARD RADIUS ELBOW (LONG RADIUS)
NEW DUCT (INSIDE DIMENSIONS: WIDTH X DEPTH)
EXISTING DUCT TO REMAIN
EXISTING DUCT TO BE DEMOLISHED
DUCT TRANSITION
END MOUNTED OR SIDEWALL GRILLE
TERMINAL UNIT SUPPLY DUCT BRANCH (CONICAL TAP)
STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)
SUPPLY DUCT (UP & DOWN)
EXHAUST DUCT (UP & DOWN)
RETURN DUCT (UP & DOWN)

HIGH PRESSURE STEAM PIPING (60 PSI)
HIGH PRESSURE STEAM CONDENSATE RETURN
MEDIUM PRESSURE STEAM PIPING (16 PSI AND 59 PSI)
MEDIUM PRESSURE STEAM CONDENSATE RETURN
LOW PRESSURE STEAM PIPING (15 PSI AND BELOW)
LOW PRESSURE STEAM CONDENSATE RETURN
CHILLED WATER SUPPLY PIPING
CHILLED WATER RETURN PIPING
HEATING HOT WATER SUPPLY PIPING
HEATING HOT WATER RETURN PIPING
REFRIGERANT LINE SET (LIQUID AND SUCTION)
CONDENSATE DRAIN LINE
PIPE UP
PIPE DOWN
BOTTOM CONNECTION
TOP CONNECTION
CAPPED OR PLUGGED PIPE
CONNECT TO EXISTING PIPE
LIMIT OF DEMOLITION

GLOBE VALVE
GATE VALVE
BALL VALVE
CHECK VALVE
STEAM SAFETY VALVE
PRESSURE REGULATING VALVE
WYE STRAINER VALVE
BALANCING VALVE
MODULATING TWO-WAY CONTROL VALVE
MODULATING THREE-WAY CONTROL VALVE
TWO POSITION CONTROL VALVE
STEAM TRAP
DRAIN VALVE
TEST PLUG
STEAM PRESSURE REDUCING VALVE
INLINE CENTRIFUGAL PUMP

MECHANICAL DEMOLITION GENERAL NOTES

1. VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY COR REGARDING CONFLICTS BEFORE PROCEEDING WITH WORK.
2. REMOVED ITEMS REMAIN PROPERTY OF GOVERNMENT UNTIL COR DETERMINES THAT THEY ARE NOT REQUIRED. REMOVE FROM SITE ITEMS NOT BEING RETAINED BY GOVERNMENT OR REINSTALLED AS PART OF THIS WORK.
3. DO NOT DISTURB ITEMS NOT INDICATED FOR DEMOLITION.
4. VERIFY SIZE AND LOCATION OF EXISTING UTILITIES PRIOR TO START OF DEMOLITION. RELOCATE, REMOVE AND ADJUST MECHANICAL AND ELECTRICAL ITEMS AS NECESSARY TO COORDINATE WITH NEW WORK.
5. AFTER DEMOLITION IS COMPLETE, PATCH AND REPAIR FINISHES TO MATCH EXISTING ADJACENT CONDITIONS.
6. COORDINATE DEMOLITION WITH COR. SUBMIT SHUTDOWN PLAN AND SCHEDULE TO COR FOR REVIEW AND APPROVAL.
7. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING DEMOLITION. REPAIR UTILITIES AND SERVICES DAMAGED AT NO ADDITIONAL COST.
8. TEMPORARILY MOVE OR TAKE EQUIPMENT OUT OF SERVICE AS NECESSARY TO COMPLETE WORK.
9. SAWCUT OR CORE DRILL CONCRETE FLOOR AS REQUIRED FOR DEMOLITION WORK INDICATED. COORDINATE WITH NEW MECHANICAL WORK AND WORK OF OTHER TRADES.

MECHANICAL GENERAL NOTES

1. WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND APPLICABLE VA STANDARDS.
2. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
3. PROVIDE NEW MATERIALS, EQUIPMENT AND PRODUCTS INCORPORATED IN THE WORK, OF A SUITABLE GRADE FOR THE PURPOSES INTENDED.
4. WHERE POSSIBLE, PROVIDE STANDARD PRODUCTS OF THE VARIOUS MANUFACTURERS EXCEPT WHERE SPECIAL CONSTRUCTION OR PERFORMANCE FEATURES ARE REQUIRED.
5. EQUIPMENT OR MATERIAL DEVIATIONS FROM INDICATED CONTRACT REQUIREMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE COR. SUBMIT PROPOSED EQUIPMENT DEVIATIONS THAT ARE SIMILAR BOTH IN QUALITY AND CAPACITY TO THAT EQUIPMENT SPECIFIED, AS SOLELY DETERMINED BY THE COR.
6. PROVIDE MECHANICAL EQUIPMENT THAT IS LISTED AND LABELED BY UNDERWRITERS LABORATORIES (U.L.).
7. INSTALL EQUIPMENT AS INDICATED, ALLOWING FOR SUFFICIENT ACCESS AND CLEARANCE SPACE FOR EQUIPMENT MAINTENANCE, REPAIRS, AND REPLACEMENT.
8. INSTALL EQUIPMENT WITH PROPER CLEARANCES FOR REQUIRED PIPING AND ELECTRICAL SERVICES AND CONNECTIONS. INSTALL EQUIPMENT WITH REQUIRED ACCESS AND CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS AND APPLICABLE CODES AND STANDARDS.
9. COORDINATE LOCATION, INSTALLATION, AND ROUTING OF DUCTWORK, PIPING, AND EQUIPMENT WITH WORK OF ALL OTHER TRADES.
10. PROVIDE SUPPORT FOR MECHANICAL EQUIPMENT. COORDINATE SUPPORT LOCATIONS WITH ALL CONTRACTORS PRIOR TO INSTALLATION.
11. PROVIDE POWER CONNECTIONS TO EQUIPMENT PROVIDED UNDER THIS CONTRACT AS WORK OF DIVISION 26.
12. PROVIDE CONTROL WIRING FOR MECHANICAL EQUIPMENT AS WORK OF DIVISION 23.
13. DUCTWORK AND PIPING LAYOUTS AND LOCATIONS ARE SCHEMATIC. DO NOT SCALE THESE DRAWINGS. COORDINATE AND DETERMINE EXACT ROUTING OF DUCTWORK AND PIPING IN THE FIELD.
14. FIELD VERIFY DIMENSIONS BY ACTUAL MEASUREMENT AND OBSERVATION BEFORE ORDERING OR FABRICATING DUCTWORK, PIPING OR EQUIPMENT.
15. NOTIFY COR REGARDING DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND EXISTING CONDITIONS OR DIMENSIONS BEFORE PERFORMING WORK. FAILURE TO VERIFY AND REPORT SHALL CONSTITUTE CONTRACTOR'S ACCEPTANCE OF EXISTING CONDITIONS AS FIT FOR THE PROPER EXECUTION OF THE WORK.
16. SEE ARCHITECTURAL DRAWINGS FOR FINAL LOCATION OF CEILING INSTALLED EQUIPMENT.
17. INSTALL DUCTWORK AND PIPING AS HIGH AS POSSIBLE AND AS CLOSE AS POSSIBLE TO BUILDING WALLS, CEILING AND FLOOR AND ROOF STRUCTURE. PROVIDE OFFSETS, FITTINGS, AND DIMENSIONAL TRANSITIONS NOT SHOWN BUT REQUIRED TO MAINTAIN MINIMUM CLEAR SPACE TO BUILDING SURFACES AT NO ADDITIONAL COST.
18. PATCH, PAINT AND CLEAN SURFACES SUSTAINING DAMAGE ASSOCIATED WITH MECHANICAL WORK OF THIS CONTRACT, UNLESS NOTED OTHERWISE.
19. SUBMIT BOUND SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT AT COMPLETION OF PROJECT.
20. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.
21. MAKE A COMPLETE REVIEW OF DRAWINGS, INCLUDING SCHEDULES AND DETAILS, PRIOR TO BEGINNING MECHANICAL SYSTEM INSTALLATION. RESOLVE CONFLICTS WITH COR.
22. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS.
23. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY INDICATED OTHERWISE.
24. INSTALL PIPING FREE OF SAGS AND BENDS.
25. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION.
26. PIPING SHALL NOT BE ROUTED OVER TELECOM OR ELECTRICAL CLOSETS/ROOMS.
27. PREPARE DRAWINGS SHOWING MECHANICAL SYSTEMS AND EQUIPMENT FOR COORDINATION WITH WORK OF OTHER DIVISIONS AND WORK BY THE GOVERNMENT.
    A. INCLUDE PLAN VIEWS, SECTIONS, AND ELEVATIONS, AS REQUIRED, TO FULLY COORDINATE ALL NEW WORK WITH ITSELF AND EXISTING CONDITIONS.
    B. DRAWINGS SHALL SHOW, BUT NOT BE LIMITED TO, ALL DUCTWORK, AIR DISTRIBUTION, MECHANICAL EQUIPMENT, MECHANICAL PIPING, FIRE PROTECTION PIPING, PLUMBING PIPING, CABLE TRAYS, LIGHTING FIXTURES, CEILING GRID AND HEIGHT, BEAMS AND JOISTS (WITH ELEVATIONS MARKED), ELECTRICAL CONDUIT LARGER THAN 2 INCHES IN DIAMETER AND OTHER CEILING MOUNT DEVICES OR EQUIPMENT THAT PROTRUDE INTO THE CEILING CAVITY.
    C. IF THERE ARE OUTSTANDING ISSUES THAT CANNOT BE RESOLVED, CONSULT WITH COR FOR GUIDANCE AND MAKE CORRECTIONS IN ACCORDANCE WITH DIRECTIONS GIVEN.
    D. DO NOT BEGIN FABRICATION OR PLACE EQUIPMENT ORDERS UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED.
28. INSTALLATION COMMENCED PRIOR TO COORDINATION DRAWING APPROVAL IS TAKEN AT THE CONTRACTORS OWN RISK. MODIFY, MOVE OR RECONFIGURE WORK LACKING COORDINATION AT NO ADDITIONAL COST

ANNOTATION SYMBOLS

#	NEW WORK KEYNOTE
#	DEMOLITION KEYNOTE
NEW	BOLD TEXT INDICATES NEW ITEM
EXISTING	ITALICIZED TEXT INDICATES EXISTING ITEM
## / #	DETAIL MODULE NUMBER; DETAIL OR SECTION MARK; SHOWN ON DRAWING
	CONNECT TO EXISTING
	LIMIT OF DEMOLITION
SD-## ###	DIFFUSER TAG
##-VAV-#	EQUIPMENT TAG

WALL RATING LEGEND

2 HOUR FIRE SEPARATION
1 HOUR FIRE SEPARATION
SMOKE RATED

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER BILAL P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL GENERAL INFORMATION

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date MAY 9, 2025 | Checked SPG | Drawn AV

Drawing Number M-001

Dwg 1 of 14

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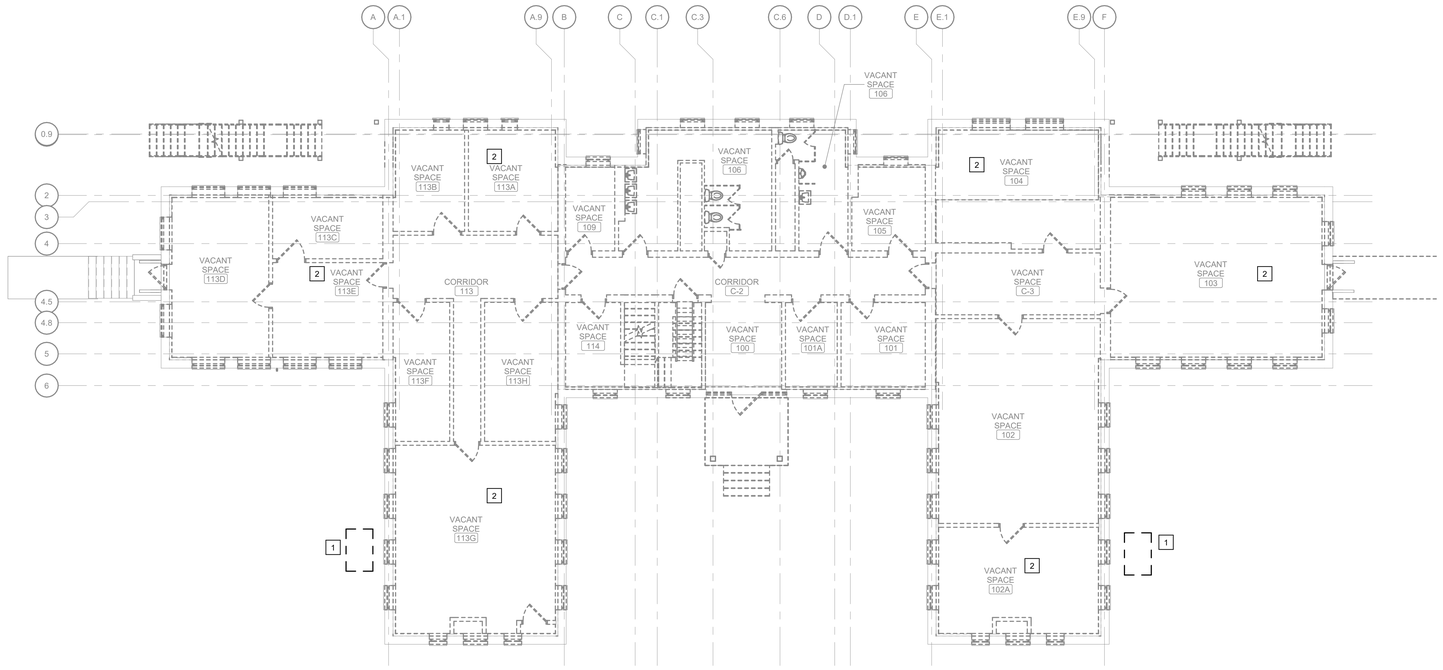
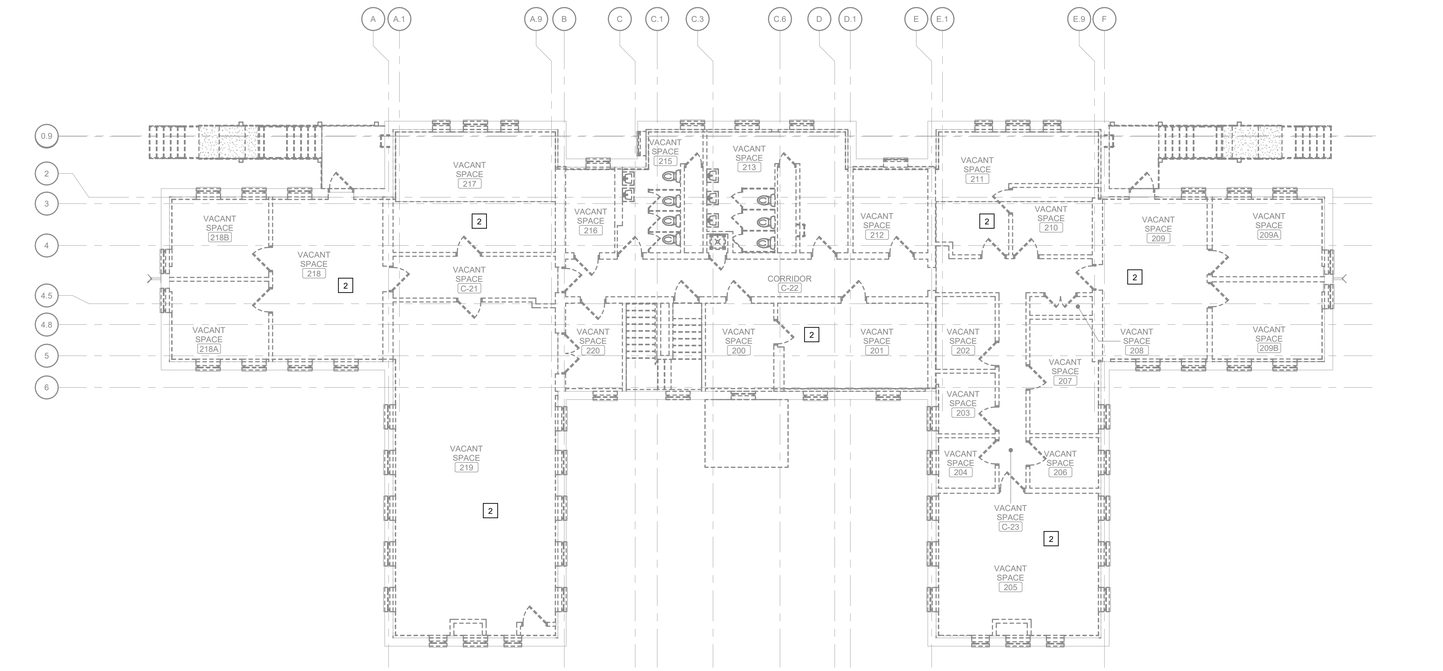


1 FIRST FLOOR MECHANICAL DEMOLITION PLAN

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

0 4 8 16 NORTH



2 SECOND FLOOR MECHANICAL DEMOLITION PLAN

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

0 4 8 16 NORTH

SHEET NOTES:

A. COORDINATE ALL DEMOLITION WORK WITH THE GENERAL CONTRACTOR, OTHER TRADES AND THE COR TO MINIMIZE DISRUPTION OF AREAS OUTSIDE OF THE PROJECT LIMITS OF WORK.

B. ALL DEMOLISHED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH VAPHS REQUIREMENTS AND ENVIRONMENTAL REGULATIONS.

C. CONTRACTOR TO FIELD VERIFY ALL CONDITIONS. PRESERVE EXISTING DUCTWORK, PIPING OR EQUIPMENT THAT IS NOT INDICATED FOR DEMOLITION OR IS DISCOVERED IN THE DEMOLITION PROCESS.

KEY NOTES:

1 DEMOLISH EXISTING MECHANICAL EQUIPMENT AND ASSOCIATED EQUIPMENT PAD.

2 DEMOLISH EXISTING MECHANICAL SYSTEMS AND EQUIPMENT COMPLETE. (TYP.)

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE

5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR AND SECOND FLOOR MECHANICAL DEMOLITION PLAN

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: MD101

Dwg 2 of 14

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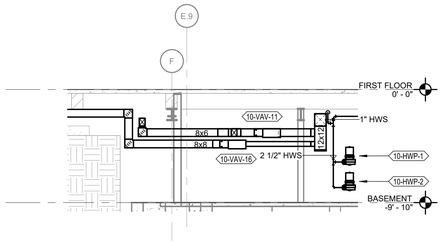
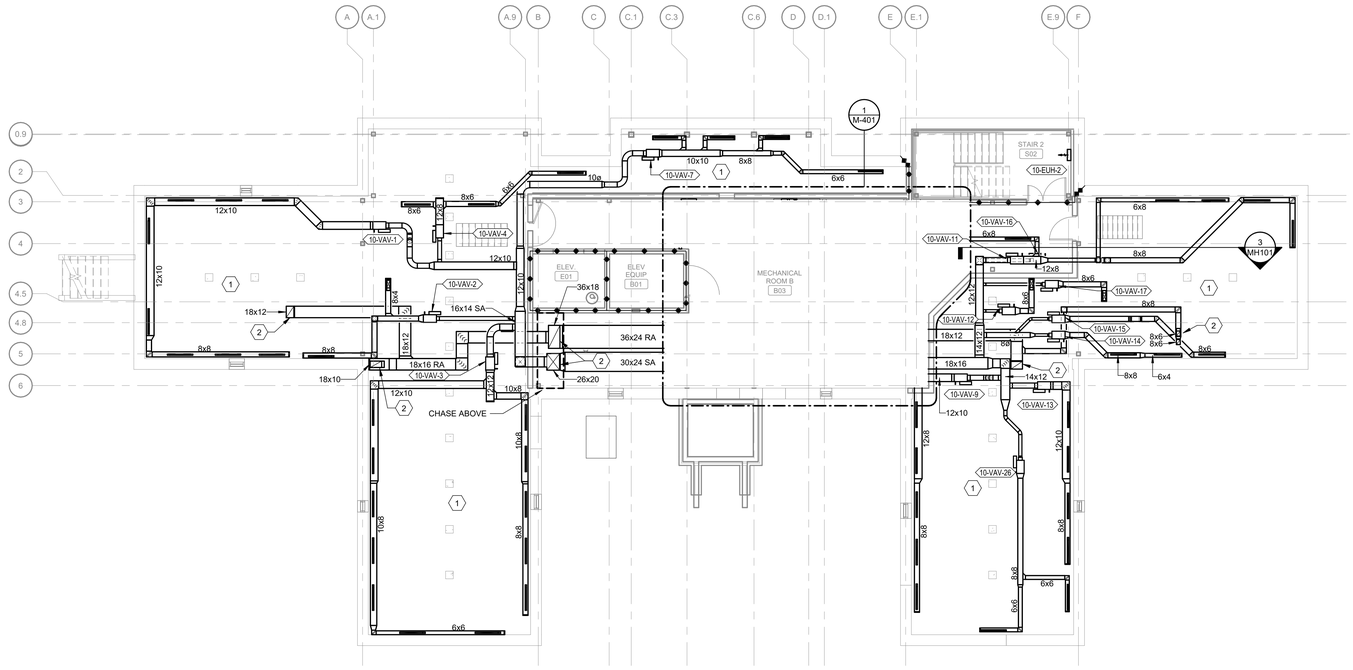
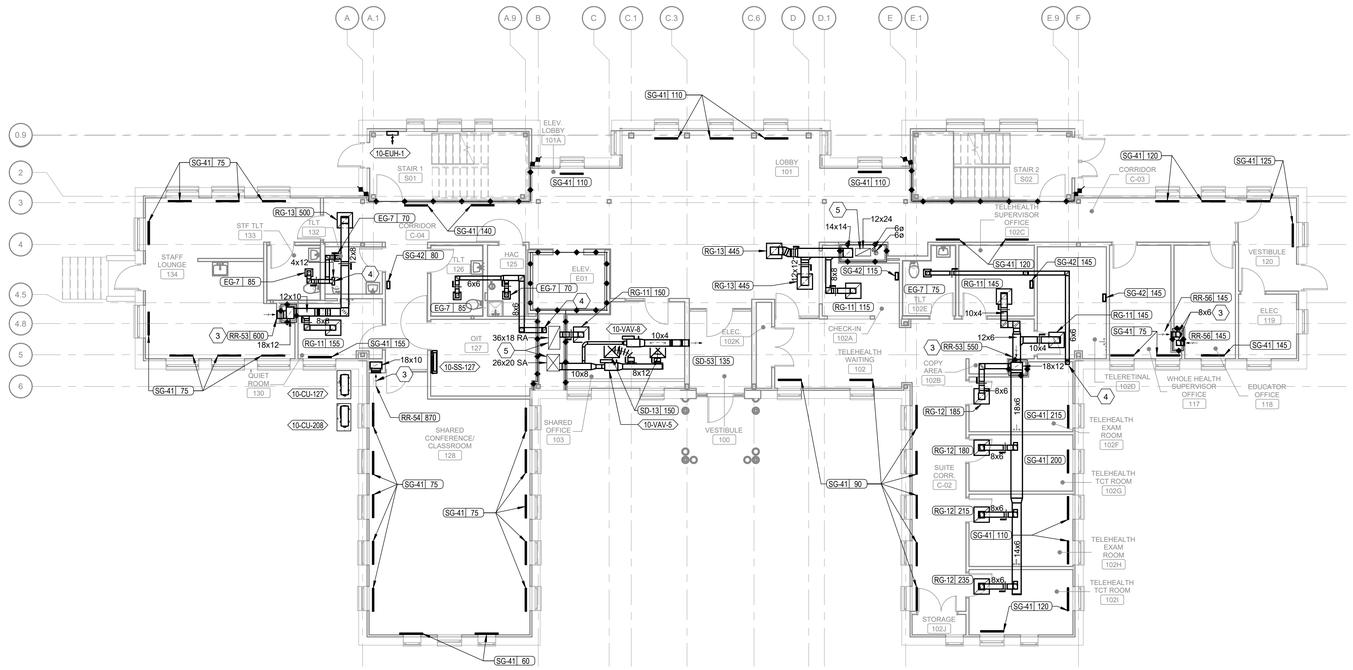


3 **VAV-16/VAV-11 SECTION VIEW**
Scale: 3/16" = 1'-0"



1 **BASEMENT FLOOR MECHANICAL HVAC PLAN**
Scale: 1/8" = 1'-0"

0 4 8 16 NORTH



2 **FIRST FLOOR MECHANICAL HVAC PLAN**
Scale: 1/8" = 1'-0"

0 4 8 16 NORTH

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, OTHER TRADES AND THE COR TO MINIMIZE DISRUPTION OF AREAS OUTSIDE OF THE PROJECT LIMITS OF WORK.

B. UNLESS NOTED OTHERWISE, ALL DIFFUSERS AND GRILLE RUN-OUTS ARE THE SAME SIZE AS THE NECK/DUCT CONNECTION SIZE SPECIFIED IN THE AIR DEVICE SCHEDULE.

C. ALL DIFFUSER AND GRILLE TAKEOFFS SHALL INCLUDE A BALANCING DAMPER.

D. SEE ARCHITECTURAL CEILING PLAN FOR CEILING TYPES AS WELL AS DIFFUSER AND GRILLE PLACEMENT WITHIN THE CEILING.

E. NEW PIPE/DUCT HANGARS SHALL NOT BE ANCHORED TO THE EXISTING STRUCTURAL BEAMS.

KEY NOTES:

1 DUCTWORK ROUTED UP TO AIR DEVICE ON FIRST FLOOR, SEE 2/MH101. (TYPICAL.)
2 DUCTWORK ROUTED UP TO CHASE ON FIRST FLOOR.
3 LOW RETURN GRILLE LOCATED 6" AFF.
4 DUCTWORK ROUTED DOWN FROM SECOND FLOOR.
5 DUCT RISER FROM BASEMENT ROUTED UP TO SECOND SECOND FLOOR.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE
5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR MECHANICAL HVAC PLANS

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Approved

Date MAY 9, 2025 | Checked SPG | Drawn AV

Drawing Number MH101

Dwg 3 of 14

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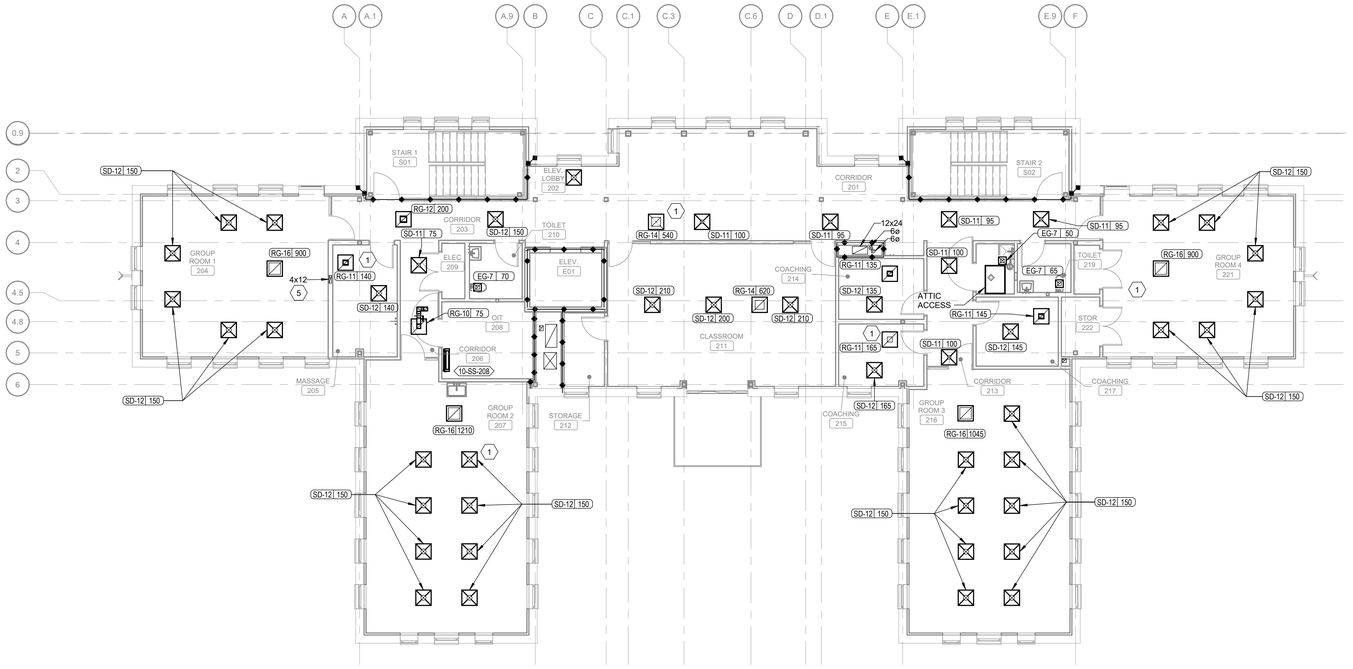
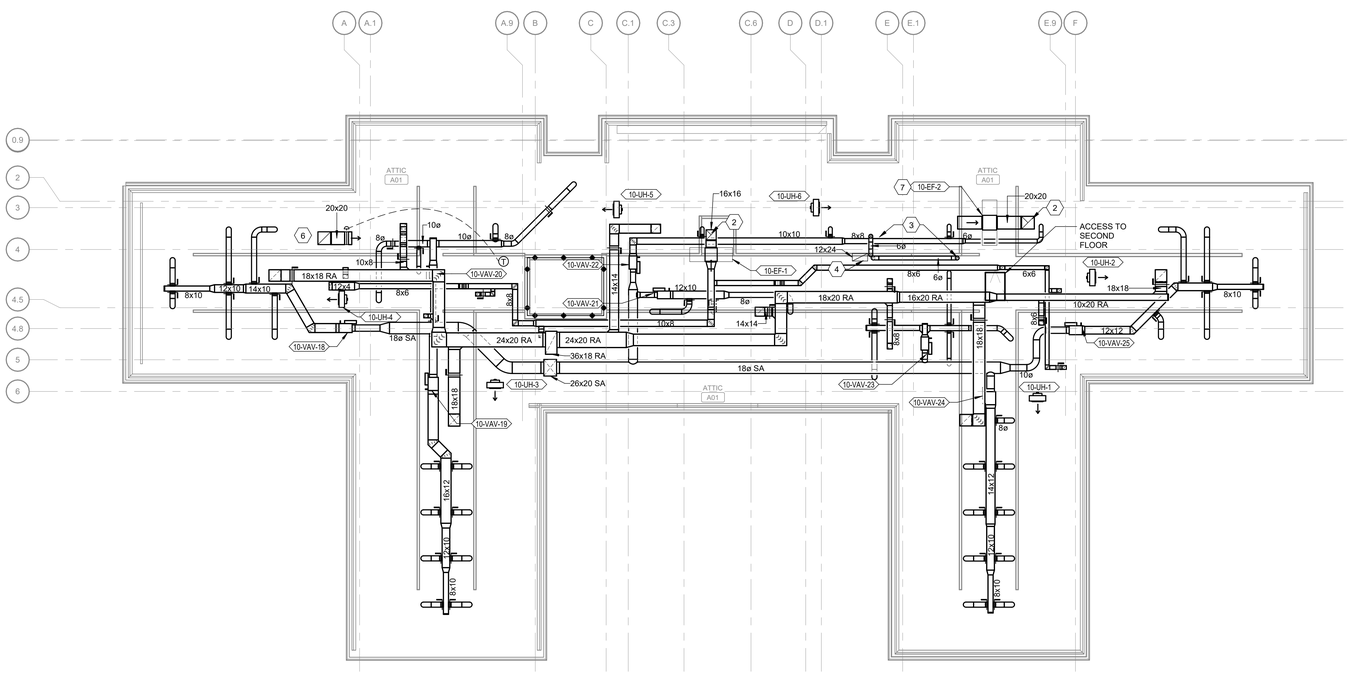


1 SECOND FLOOR MECHANICAL HVAC PLAN

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



2 ATTIC HVAC MECHANICAL PLAN

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

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, OTHER TRADES AND THE COR TO MINIMIZE DISRUPTION OF AREAS OUTSIDE OF THE PROJECT LIMITS OF WORK.

B. UNLESS NOTED OTHERWISE, ALL DIFFUSERS AND GRILLE RUN-OUTS ARE THE SAME SIZE AS THE NECK/DUCT CONNECTION SIZE SPECIFIED IN THE AIR DEVICE SCHEDULE.

C. ALL DIFFUSER AND GRILLE TAKEOFFS SHALL INCLUDE A BALANCING DAMPER.

D. SEE ARCHITECTURAL CEILING PLAN FOR CEILING TYPES AS WELL AS DIFFUSER AND GRILLE PLACEMENT WITHIN THE CEILING.

KEY NOTES:

1. RUNOUTS TO AIR DEVICES ROUTED UP THROUGH CEILING. TERMINAL UNITS AND DUCTWORK MAINS LOCATED IN ATTIC SPACE, SEE 2/MH102. (TYPICAL)
2. ROUTE DISCHARGE FROM EXHAUST FAN UP TO ROOF AND TERMINATE WITH ROOF CAP.
3. BOILER FLUE EXHAUST AND BOILER COMBUSTION AIR INTAKE ROUTED FROM BASEMENT, TERMINATE WITH RAIN HOODS. ROUTE AND INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. OUTSIDE AIR DUCT ROUTED UP FROM BASEMENT MECHANICAL ROOM, TERMINATE AT ROOF WITH AN INTAKE HOOD WITH SLOPED CURB.
5. ROUTE EXHAUST DUCT DOWN TO FIRST FLOOR THROUGH 6" WALL.
6. OUTSIDE AIR INTAKE, PROVIDE WITH MOTORIZED DAMPER. TERMINATE AT ROOF WITH AN INTAKE HOOD WITH SLOPED CURB. CONTROLLED BY THERMOSTAT INDICATED.
7. ROUTE DISCHARGE FROM EXHAUST FAN UP TO ROOF AND TERMINATE WITH ROOF CAP.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

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ACG Project Number 22-139

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VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC MECHANICAL HVAC PLAN

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS, 2400 HOSPITAL ROAD, TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: MH102

Dwg 4 of 14

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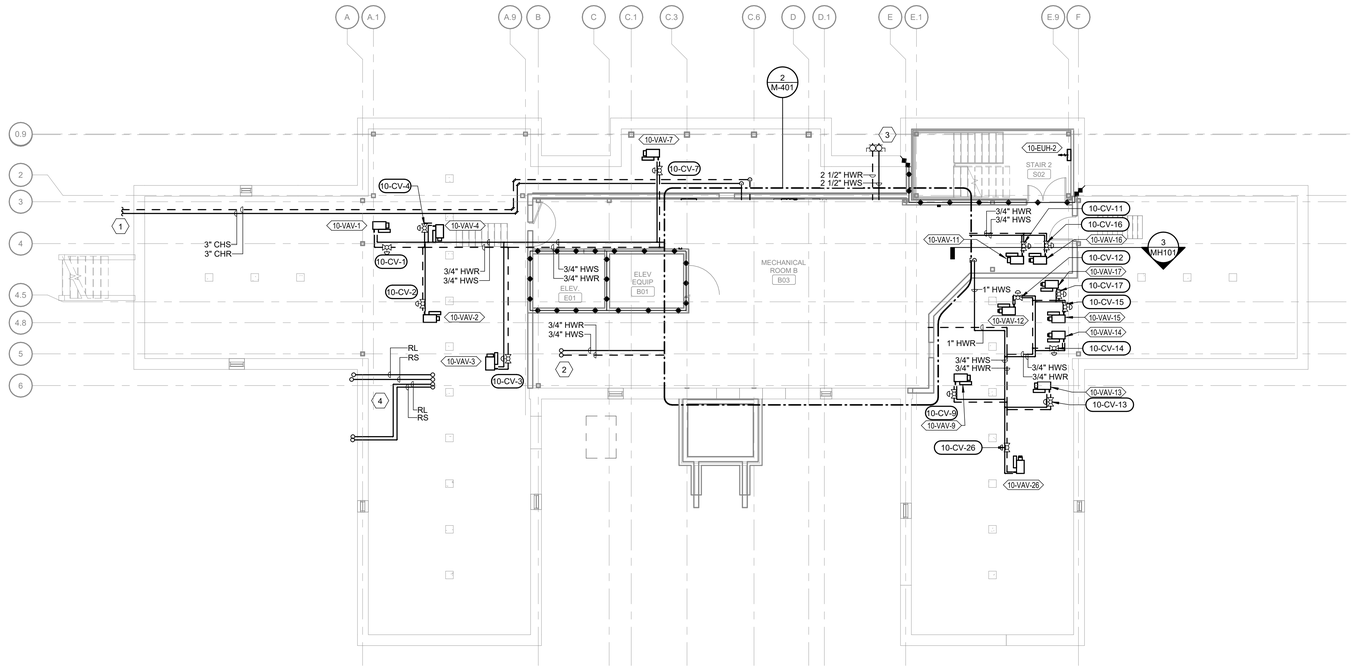
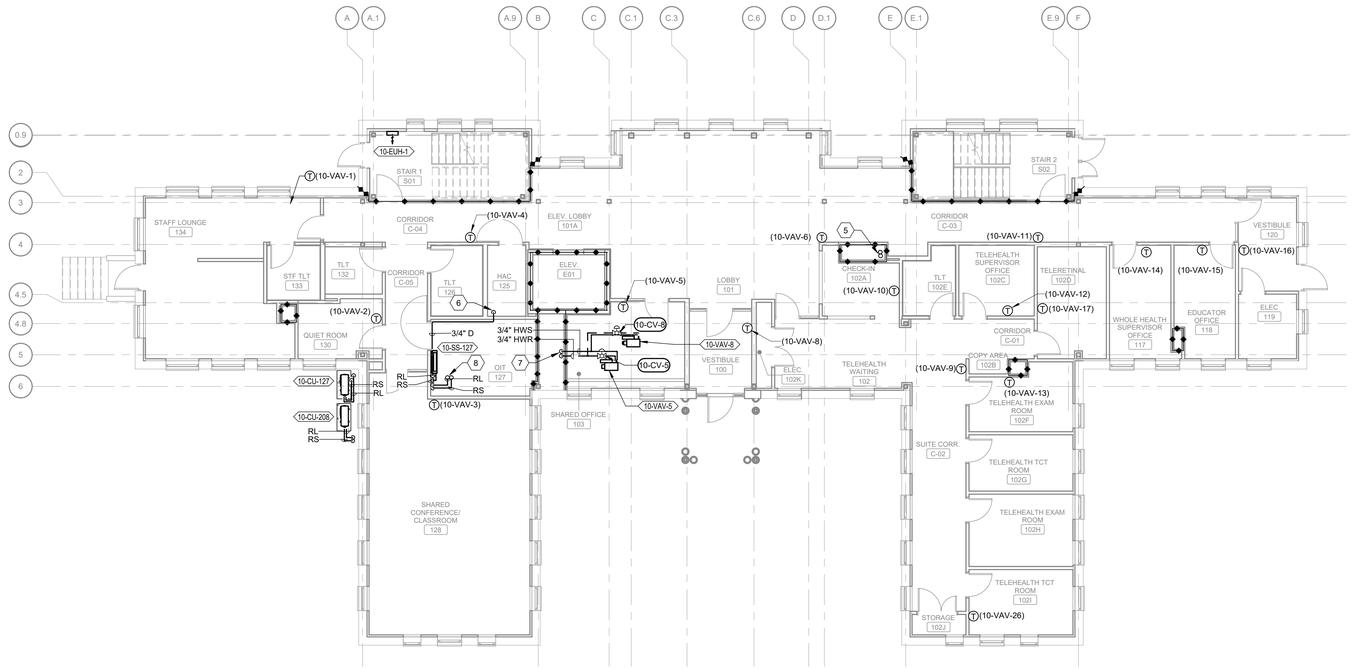


2 BASEMENT FLOOR MECHANICAL PIPING PLAN

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

0 4 8 16 NORTH



1 FIRST FLOOR MECHANICAL PIPING PLAN

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

0 4 8 16 NORTH

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, OTHER TRADES AND THE COR TO MINIMIZE DISRUPTION OF AREAS OUTSIDE OF THE PROJECT LIMITS OF WORK.

B. PROVIDE ISOLATION BALL VALVES FOR EACH PIPING BRANCH. LOCATE AS CLOSE TO MAIN AS POSSIBLE.

C. COORDINATE ALL THERMOSTAT LOCATIONS WITH ALL OTHER WALL MOUNTED OBJECTS BEFORE INSTALLATION.

KEY NOTES:

1. ROUTE CAMPUS CHILLED WATER SUPPLY AND RETURN TO BASEMENT MECHANICAL ROOM.
2. HWS/R PIPING ROUTED UP IN CHASE TO FIRST FLOOR.
3. NEW VALVE BOX WITH HWS/R PIPING AND SHUTOFF VALVES FOR FUTURE CONNECTION.
4. ROUTE REFRIGERANT PIPING BELOW GRADE THROUGH BASEMENT. ROUTE UP TO FIRST FLOOR EQUIPMENT. SEE 2/MP101 FOR CONTINUATION.
5. 2" HEATING HOT WATER SUPPLY/RETURN MAINS ROUTED UP FROM BASEMENT THROUGH SHAFT.
6. ROUTE CONDENSATE TO HAC 125, DISCHARGE TO NEW MOP SINK.
7. 3/4" HEATING HOT WATER SUPPLY/RETURN PIPING ROUTED UP FROM CRAWLSPACE.
8. ROUTE REFRIGERANT PIPING UP TO EQUIPMENT LOCATED ON SECOND FLOOR, SEE 1/MP102 FOR CONTINUATION.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR MECHANICAL PIPING PLAN

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Approved

Date MAY 9, 2025 | Checked SPG | Drawn AV

Drawing Number MP101

Dwg 5 of 14

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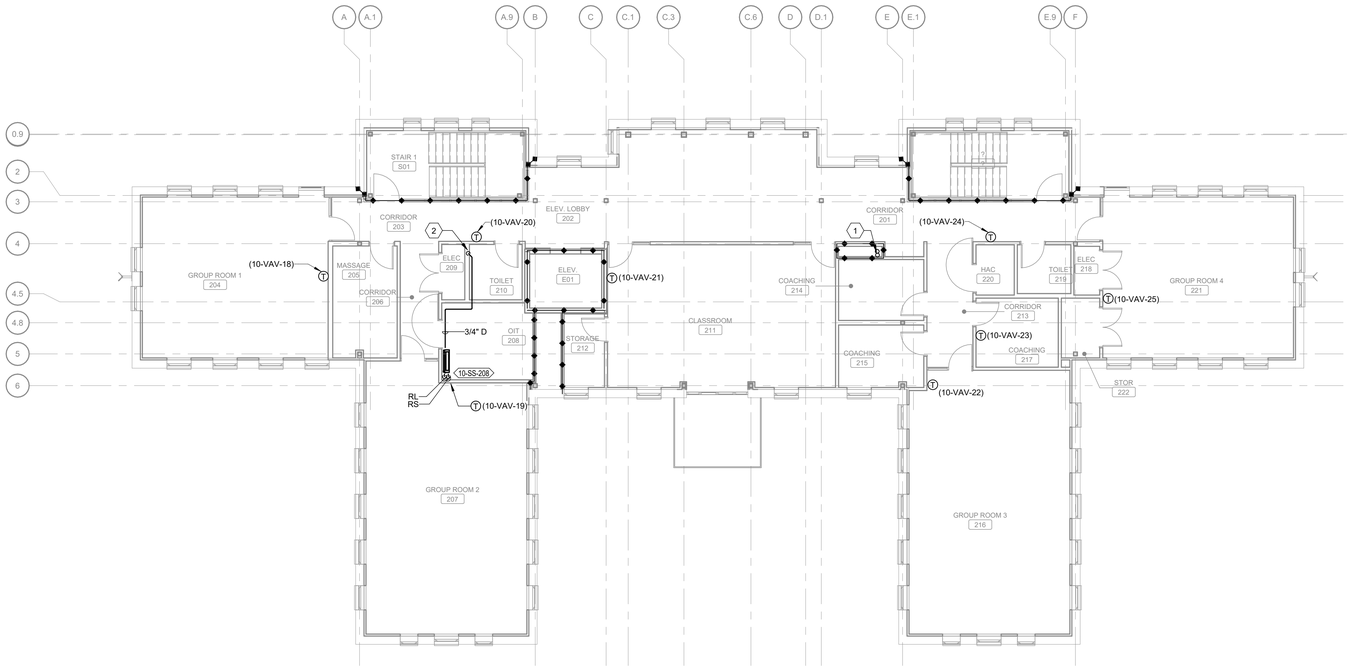
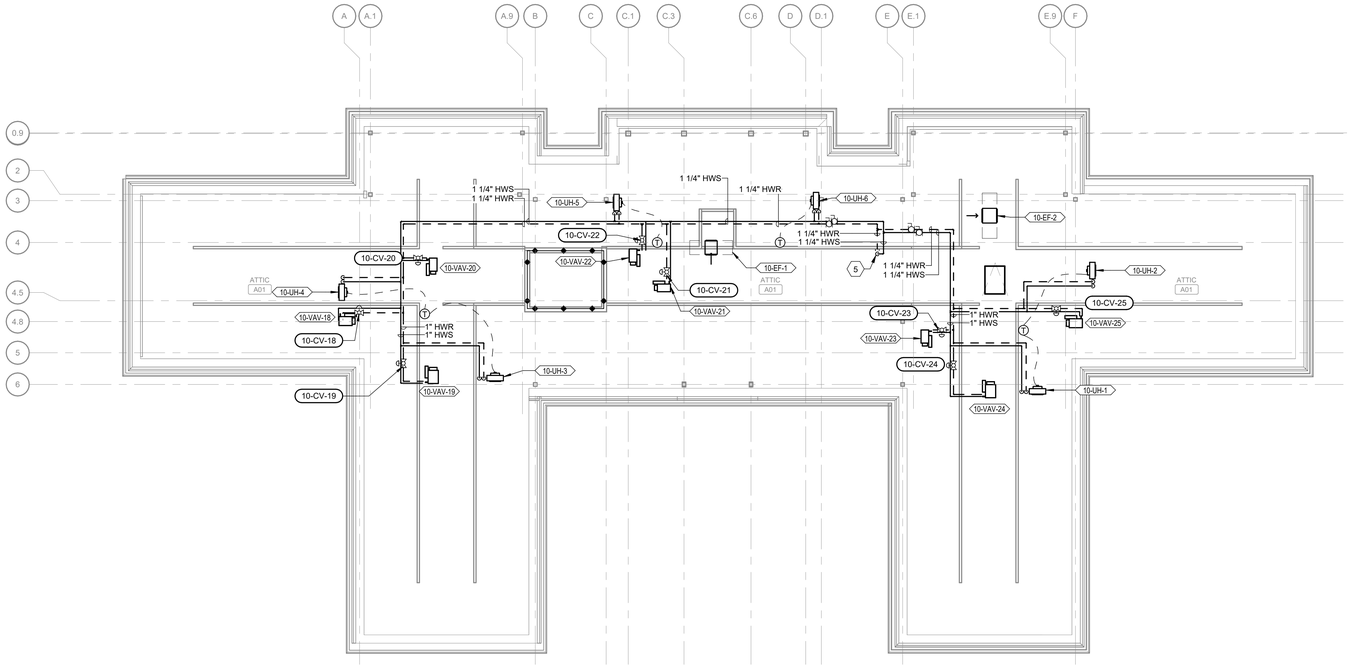


1 SECOND FLOOR MECHANICAL PIPING PLAN

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



2 ATTIC MECHANICAL PIPING PLAN

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

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, OTHER TRADES AND THE COR TO MINIMIZE DISRUPTION OF AREAS OUTSIDE OF THE PROJECT LIMITS OF WORK.

B. PROVIDE ISOLATION BALL VALVES FOR EACH PIPING BRANCH. LOCATE AS CLOSE TO MAIN AS POSSIBLE.

C. COORDINATE ALL THERMOSTAT LOCATIONS WITH ALL OTHER WALL MOUNTED OBJECTS BEFORE INSTALLATION.

KEY NOTES:

1 HEATING HOT WATER SUPPLY/RETURN MAINS ROUTED UP FROM BASEMENT THROUGH SHAFT.

2 ROUTE CONDENSATE DRAIN TO LAVATORY IN TOILET 210. DISCHARGE IN LAVATORY AIR GAP FITTING.

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC MECHANICAL PIPING PLAN

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: MP102

Dwg 6 of 14

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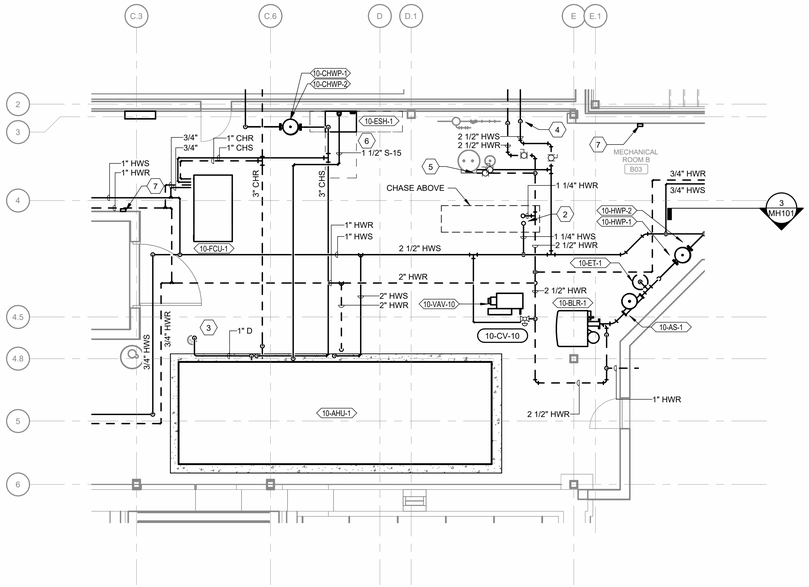
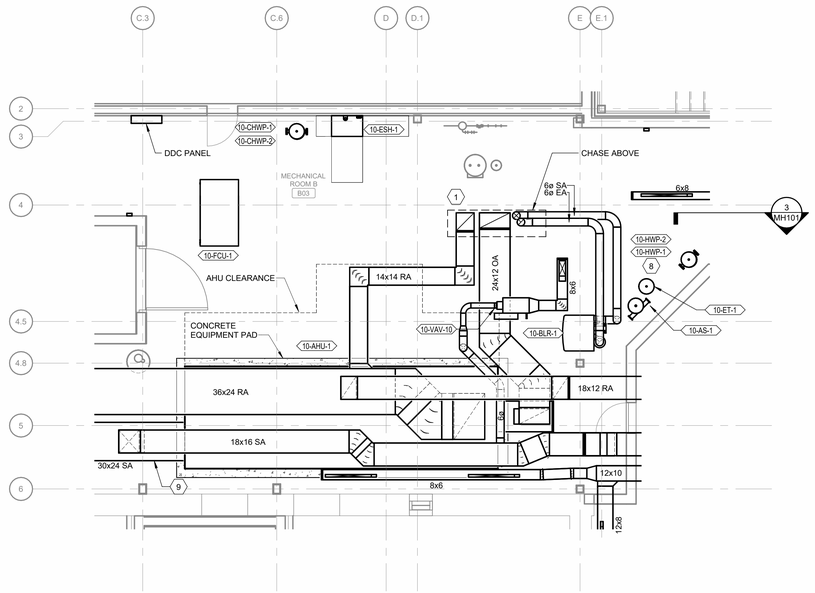


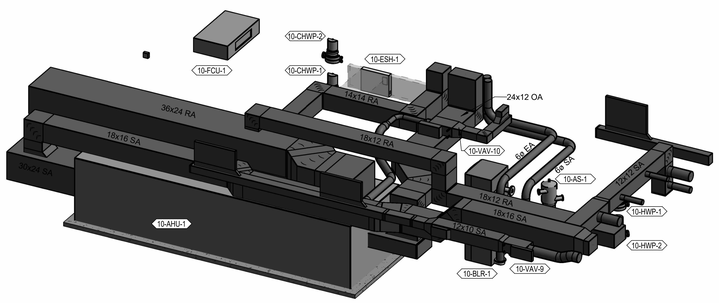
2 ENLARGED MECHANICAL ROOM MECHANICAL PIPING PLAN

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



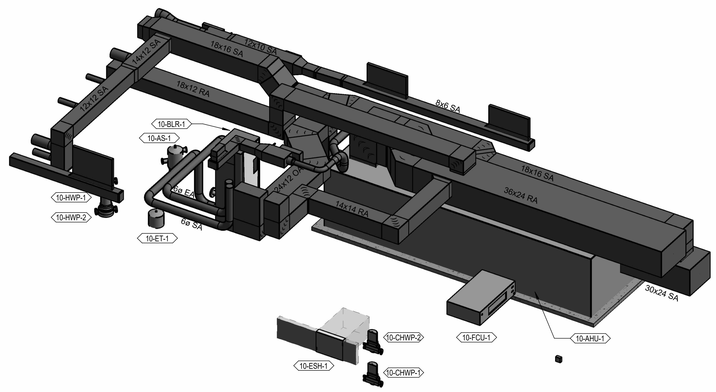
1 ENLARGED MECHANICAL ROOM HVAC PLAN

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



4 MECHANICAL ROOM DUCTWORK ISOMETRIC VIEW 2

Scale:



3 MECHANICAL ROOM DUCTWORK ISOMETRIC VIEW

Scale:

SHEET NOTES:

A. COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, OTHER TRADES AND THE COR TO MINIMIZE DISRUPTION OF AREAS OUTSIDE OF THE PROJECT LIMITS OF WORK.

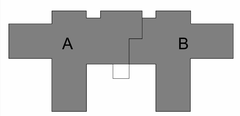
B. PROVIDE ISOLATION BALL VALVES FOR EACH PIPING BRANCH. LOCATE AS CLOSE TO MAIN AS POSSIBLE.

KEY NOTES:

1. RETURN AIR AND RELIEF AIR DUCTWORK UP IN CHASE TO ATTIC.
2. 1 1/4" HWS/R ROUTED UP IN CHASE TO ATTIC.
3. ROUTE CONDENSATE DRAIN TO NEAREST FLOOR DRAIN.
4. NEW 2 1/2" HWS/R PIPING FROM NEW VALVE BOX FOR FUTURE CONNECTION TO CAMPUS HOT WATER SYSTEM.
5. NEW 1 1/2" HWS/R PIPING ROUTED TO NEW DOMESTIC WATER HEAT EXCHANGER.
6. INSTALL NEW ELECTRIC STEAM HUMIDIFIER, CONNECT TO NEW DOMESTIC COLD WATER PIPING. ROUTE CONDENSATE TO NEAREST FLOORDRAIN, ROUTE 15 PSI STEAM TO 10-HUM-1.
7. PROVIDE EMERGENCY BOILER SHUTOFF BUTTON AT INDICATED LOCATION. WIRE TO EMERGENCY GAS SHUTOFF VALVE, SEE 9/M-503.
8. TWO INLINE PUMPS IN A STACKED CONFIGURATION.
9. PROVIDE DUCT DETECTOR IN 30"X24" SUPPLY AIR DUCT BEFORE BRANCH TAKE OFF.

KEY PLAN

SCALE: NO SCALE



SCOPE OUTLINE

AREA OF WORK

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER BILAS P. GEORGE 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED MECHANICAL PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: M-401

Dwg 7 of 14

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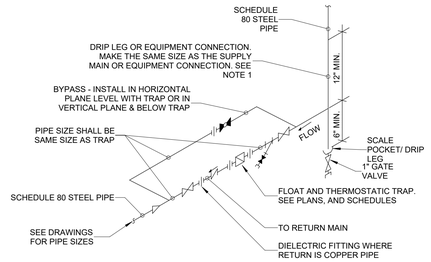
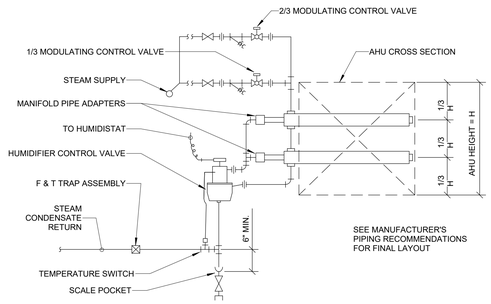


NOTE:

ALL DRIP POINTS ON STEAM MAINS SHALL BE PROVIDED WITH A 12" MINIMUM HIGH DRIP LEG FROM BOTTOM OF STEAM MAIN TO TRAP INLET. DRIP LEG SHALL HAVE 6" SCALE POCKET BELOW TRAP INLET.

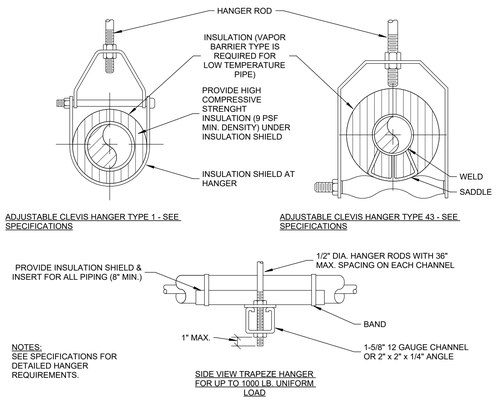
8 FLOAT AND THERMOSTATIC STEAM TRAP ASSEMBLY DETAIL

Scale: No Scale



9 STEAM HUMIDIFIER PIPING DETAIL

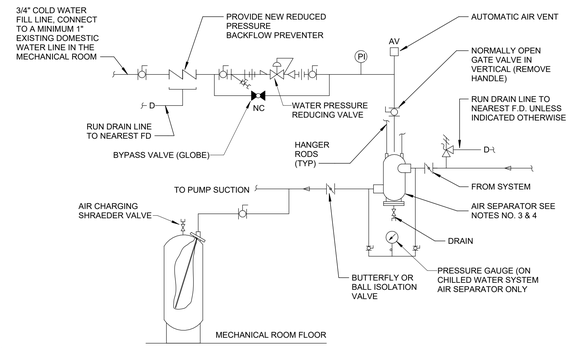
Scale: No Scale



MAXIMUM PIPE/TUBING SUPPORT SPACING													
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19	22	23
TUBING (FT.)	5 FT	6	7	8	8	9	10	12	13	14	16	-	-
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE													

10 PIPE HANGER

Scale: No Scale

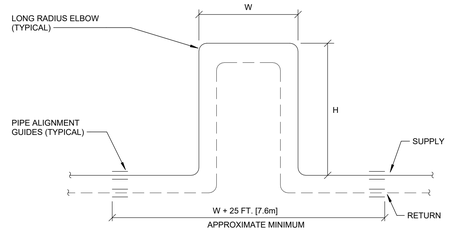


NOTES:

1. RELIEF VALVE FOR CHILLED WATER SYSTEM IS SHOWN. OMIT WHEN RELIEF VALVE IS SHOWN ON HEAT EXCHANGER DETAIL & SYSTEM IS USED ONLY FOR HOT WATER HEATING.
2. PROVIDE STRAINER IN CHILLED WATER AIR SEPARATOR ONLY.
3. SET PRESSURE REDUCING VALVE SO PRESSURE AT HIGHEST POINT IN SYSTEM HAS A MINIMUM OF 4 PSIG [28kPa].
4. NOT ALL REQUIRED PIPING TO THE EXPANSION TANK IS SHOWN. PIPE EXPANSION TANK PER MANUFACTURER'S INSTRUCTIONS.
5. THIS DETAIL APPLIES TO BOTH HOT WATER AND COLD WATER EXPANSION TANKS. HOT WATER SYSTEM HAS (2) EXPANSION TANKS.

4 FLOOR-MOUNTED EXPANSION TANK-PIPING CONNECTIONS

Scale: No Scale

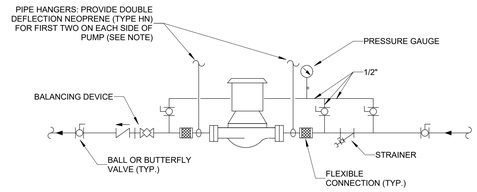


PLAN VIEW

EXPANSION LOOP		
LOOP NO.	W	H
---	---	---
---	---	---

5 EXPANSION LOOP DETAIL

Scale: No Scale

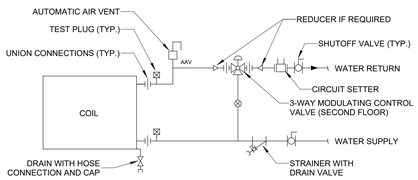


NOTE:

SUPPORT PUMP FROM PIPING ONLY. DO NOT SUPPORT PUMP FROM MOTOR.

6 INLINE PUMP CONNECTIONS

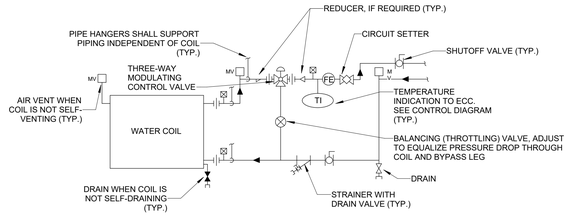
Scale: No Scale



NOTE: FIRST FLOOR VAV TERMINALS SHALL HAVE 2-WAY MODULATING CONTROL VALVES.

7 TERMINAL UNIT WATER COILS - PIPING CONNECTIONS

Scale: No Scale

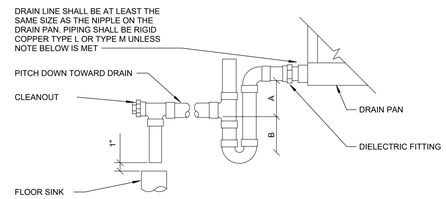


NOTES:

1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST TWO HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE. TYPE "H" 4" DIA. PIPE & SMALLER. TYPE "H-P" FOR 5" DIA. PIPE & LARGER.
2. PIPING SHALL BE INSTALLED IN SUCH A MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.
3. THE FLOW ELEMENT MAY BE INSTALLED IN THE SUPPLY PIPING IF THE REQUIRED MINIMUM UPSTEAM AND DOWNSTREAM DIMENSIONS CANNOT BE OBTAINED IN THE RETURN PIPING.
4. PROVIDE THREE-WAY MODULATING CONTROL VALVE FOR 58-AHU-3 AND 58-AHU-4. PROVIDE TWO-WAY MODULATING CONTROL VALVE FOR 58-AHU-5 AND 58-AHU-6.
5. INSTALL NEW 2-1/2" CIRCUIT SETTERS IN THE CHILLED WATER PIPING TO EXISTING 58-AHU-1 AND 58-AHU-2. INSTALL NEW BALANCING (THROTTLING) VALVES IN THE BYPASS LINES.
6. ALL SUPPLY AND RETURN PIPING SHALL BE THE SIZE INDICATED ON THE FLOOR PLANS, EXCEPT FOR TRANSITIONS AT THE CONTROL VALVE AND TRANSITIONS AT THE COIL CONNECTION. BYPASS LINE SHALL BE ONE PIPE SIZE SMALLER.

1 AHU CHILLED WATER COILS - PIPING CONNECTIONS

Scale: No Scale



NOTES:

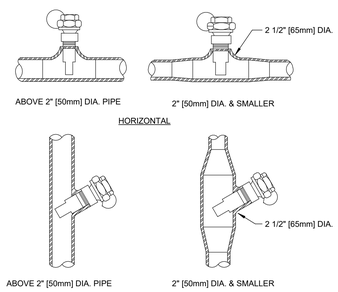
1. DIELECTRIC FITTING TO BE USED WHEN TWO DISSIMILAR METALS ARE TO BE CONNECTED.

UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MINIMUM	2X

WHERE X = STATIC PRESSURE IN PAN

2 AIR HANDLING UNIT DRAIN TRAP DETAIL

Scale: No Scale



3 INSTALLATION OF THERMOMETER WELLS

Scale: No Scale

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER BLAS P. GEORGES 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: M-501

Dwg 8 of 14

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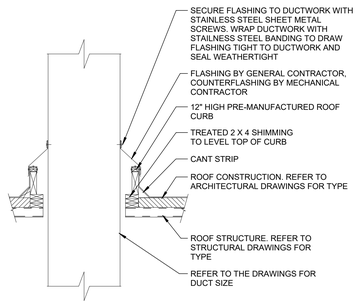
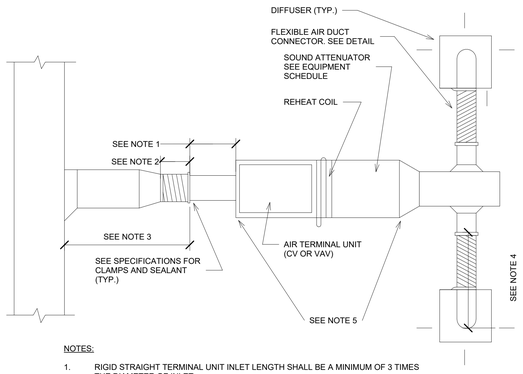


11 DUCTWORK ROOF PENETRATION DETAIL

Scale: No Scale

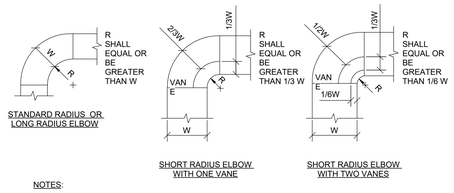


NOTES:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET.
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0" [900 mm].
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100' [1.64Pa/m].
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0" [1500mm]. USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
6. USE OF THE FLEXIBLE AIR DUCT CONNECTORS ARE NOT PERMITTED FOR THE DEDICATED AHU SERVING THE SURGICAL SUITE.

8 FLEXIBLE AIR DUCT CONNECTOR AT TERMINAL UNIT

Scale: No Scale

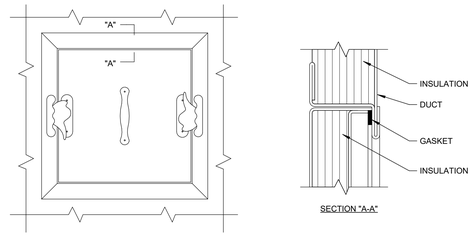


NOTES:

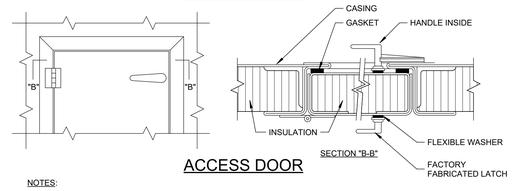
1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED , SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

4 DUCTWORK RADIUS ELBOW

Scale: No Scale



ACCESS PANEL



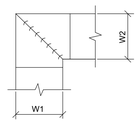
ACCESS DOOR

NOTES:

1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHT.
2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
3. SEE SMACNA 2005, FIGURE 9-16.

1 ACCESS PANEL AND DOOR DETAIL

Scale: No Scale

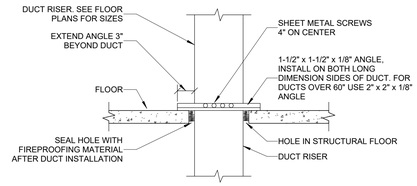


NOTES:

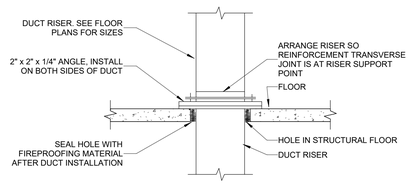
1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" RADIUS, 1-1/2" MAXIMUM SPACE BETWEEN VANES AND A 3/4" TRAILING EDGE.
4. WHEN W EQUAL W2 AND W1 IS GREATER THAN 20" VANES SHALL BE DOUBLE VANE TYPE.

5 DUCTWORK SQUARE VANE ELBOWS

Scale: No Scale



0.5 INCH WG TO 2 INCHES WG DUCT RISER SUPPORT

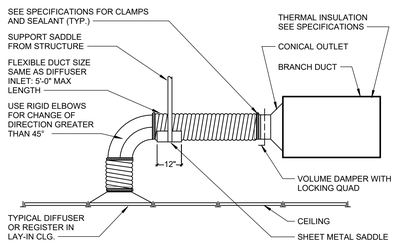


2 INCHES WG TO 4 INCHES WG DUCT RISER SUPPORT

NOTE:
ALL DUCTWORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND FAN ROOM FLOORS SHALL BE PROVIDED WITH A 3" HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

12 DUCT RISER SUPPORTS

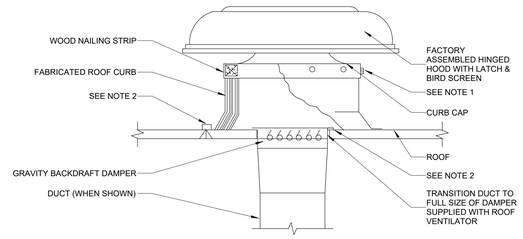
Scale: No Scale



NOTE:
THE USE OF FLEXIBLE AIR DUCT CONNECTORS ARE NOT PERMITTED FOR THE DEDICATED AHU SERVING THE SURGICAL SUITE

9 FLEX AIR DUCT CONNECTOR DETAIL

Scale: No Scale

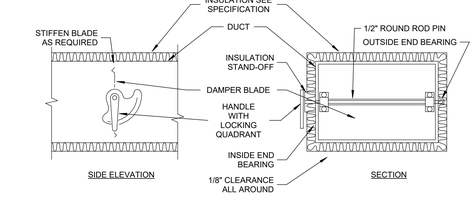


NOTES:

1. SECURE HOOD TO WOOD NAILING STRIP WITH 3/8" CADMIUM PLATED LAG BOLTS NOT OVER 12" ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (METAL DECK AND BAR JOIST ROOF).

6 LOW SILHOUETTE EXHAUST OR INTAKE HOOD

Scale: No Scale

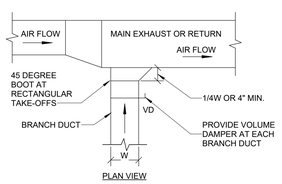


NOTES:

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

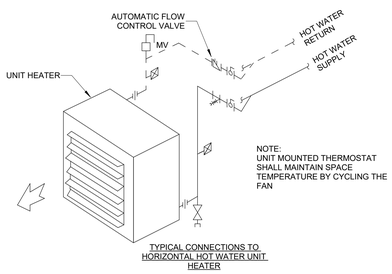
2 VOLUME DAMPER DETAIL

Scale: No Scale



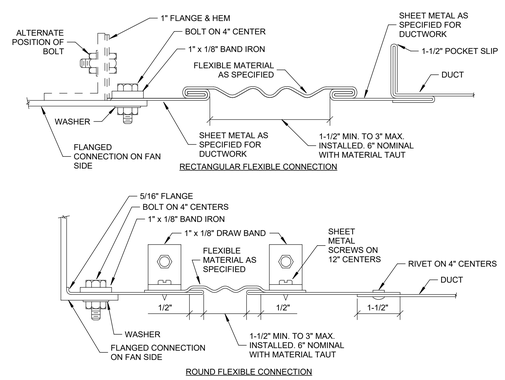
13 EXHAUST OR RETURN BRANCH DUCTWORK

Scale: No Scale



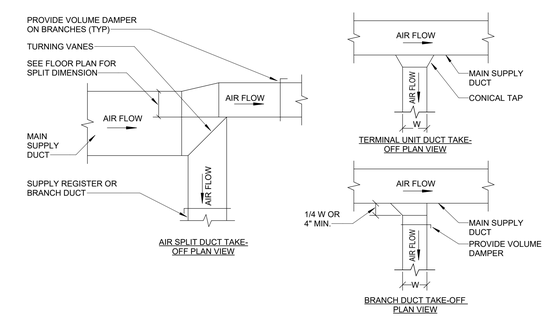
10 UNIT HEATERS (HOT WATER) PIPING CONNECTIONS

Scale: No Scale



7 FLEXIBLE DUCT CONNECTIONS

Scale: No Scale



3 SUPPLY DUCT TAKE-OFFS

Scale: No Scale

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE
5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: M-502

Dwg 9 of 14

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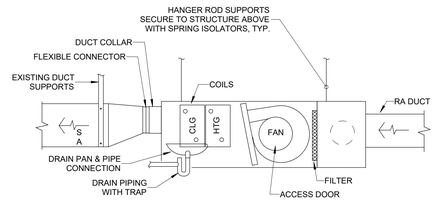
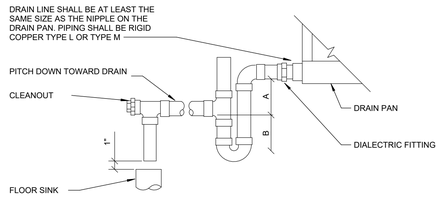


7 FAN COIL UNIT INSTALLATION DETAIL

Scale: No Scale



NOTES:

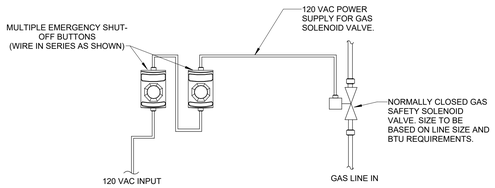
1. CPVC PIPE MAY BE USED ONLY IF APPROVED BY LOCAL VA AND IS INDOORS AND DOES NOT PASS THROUHG RATED BARRIERS.
2. DIALECTRIC FITTING TO BE USED WHEN TWO DISSIMILAR METALS ARE TO BE CONNECTED.

UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MINIMUM	2X

WHERE X = STATIC PRESSURE IN PAN

8 FAN COIL UNIT DRAIN TRAP DETAIL

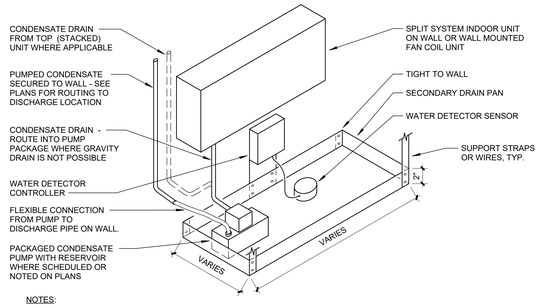
Scale: No Scale



NOTES:
1. MULTIPLE EMERGENCY SHUT-OFF BUTTONS SHALL BE WIRED IN SERIES.
2. POWER SHALL BE RUN THROUGH EMERGENCY SHUT-OFF BUTTON AND THEN TO THE VALVE.
3. GAS SAFETY VALVE SHALL BE NORMALLY CLOSED. ONCE ENERGIZED IT WILL OPEN. EMERGENCY SHUT-OFF BUTTON SHALL REMOVE POWER TO THE GAS SAFETY VALVE WHEN PRESSED.

9 BOILER EMERGENCY SHUT-OFF BUTTON DETAIL

Scale: No Scale

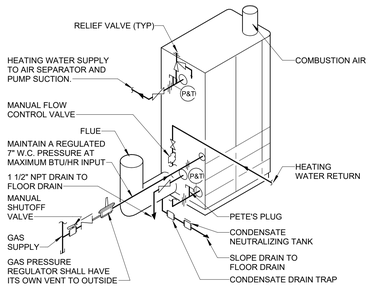


NOTES:

1. DRAIN PAN TO BE GALVANIZED SHEETMETAL WITH WATER-TIGHT JOINTS.
2. LOCATE DRAIN PAN 4 TO 8 INCHES (10 TO 20 CM) BELOW PIPE OR EQUIPMENT.
3. SUPPORT PAN AT WALL AND WITH 1" (2.5 CM) WIDE STRAPS OR WIRES ATTACHED TO STRUCTURE.
4. WIDTH AND LENGTH SHALL BE A MINIMUM OF 2 INCHES (5 CM) LONGER THAN THE EQUIPMENT SIZE.
5. WATER DETECTOR SHALL ALARM TO THE BUILDING AUTOMATION SYSTEM (BAS). BAS SHALL SHOW ROOM LOCATION WITH ALARM.

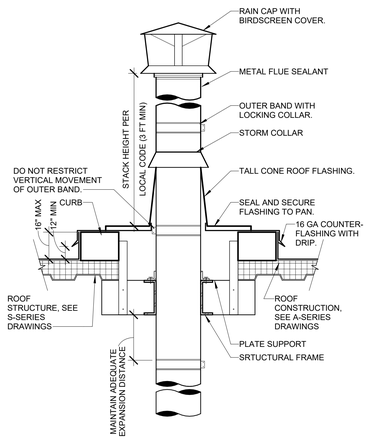
4 WALL MOUNTED SPLIT SYSTEM INDOOR UNIT WITH DRAIN PAN DETAIL

Scale: No Scale



5 BOILER PIPING DETAIL (1 BOILER)

Scale: No Scale

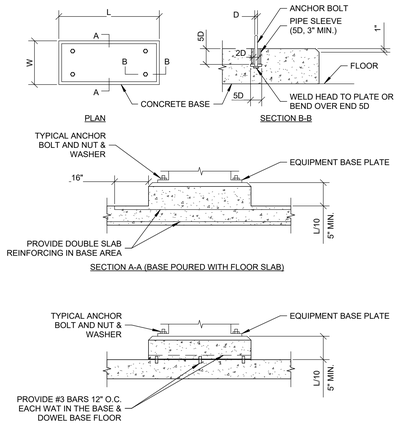


NOTE:

TYPICAL FOR FLUES THRU ROOF FROM DOMESTIC GAS-FIRED WATER HEATERS EXCEPT FOR TYPE "B" FLUES.

6 BOILER BREECHING FLUE DETAIL

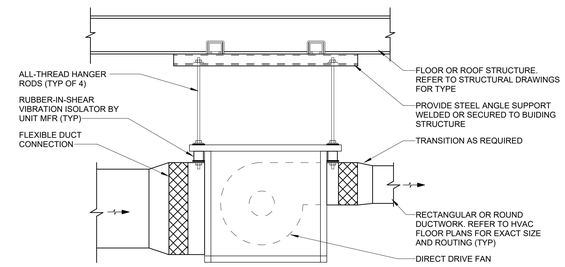
Scale: No Scale



NOTE:
L & W DIMENSIONS SHALL BE 6" GREATER THAN THE EQUIPMENT BASE PLATE.

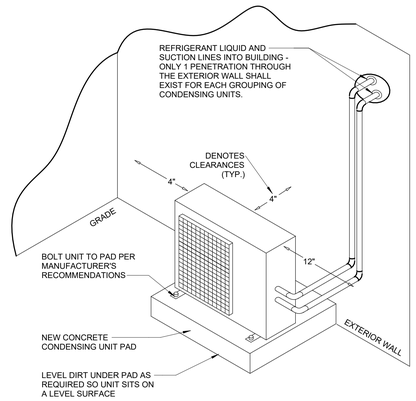
1 CONCRETE EQUIPMENT BASES

Scale: No Scale



2 IN-LINE EXHAUST FAN DETAIL

Scale: No Scale



NOTE:
CLEARANCES INDICATED IN THIS ARE MINIMUM REQUIRED. USE THESE MINIMUM DIMENSIONS, MANUFACTURES RECOMMENDATIONS, OR LARGER IF INDICATED ON PLANS.

3 CONDENSING UNIT INSTALLATION DETAIL - ON GRADE

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: M-503

Dwg 10 of 14

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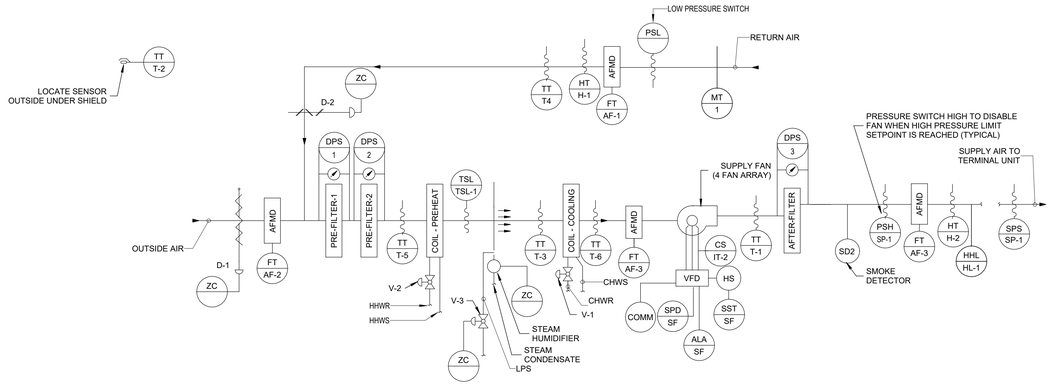


3 10-AHU-1 SCHEMATIC

Scale: No Scale

			POINT LEGEND						SYSTEM OUTPUTS		SYSTEM INPUTS										SYSTEM SOFTWARE/CONTROL											PAGE:
									BINARY	ANA-LOG	BINARY						ANALOG				ALARM PROCESSING				APPLICATION/FUNCTION							
SYSTEM: MODULAR VAV AIR HANDLER																																
SYSTEM COMPONENT:	POINT ID	ABBREVIATION	PROPERTY/ADD ALTER IF	ELECTRICAL DEVICE	STATICTEMP	OPENCLOSE	SPEED COMMAND	VALVE POSITION	DAMPER POSITION	ALARM	PRESSURE	HIGH HUMIDITY	HIGH TEMPERATURE	LOW TEMPERATURE	TEMPERATURE (TT)	PRESSURE	PRESSURE	PRESENT PRESSURE	STATIC PRESSURE	HUMIDITY	HUMIDITY	VALVE	DUCT ALARM PANEL	NAMEPLATE ALARM PANEL	HIGH LIMIT	LOW LIMIT	SCHEDULE START/STOP	PUMP CYCLE	DUCT CYCLE	ENTHALPY CONTROLLER	TEMPERATURE CONTROLLER	DEMAND LIMIT REQUEST	SPACE TEMPERATURE RESET	STATIC PRESSURE RESET	PRESSURE/VOL CONTROL	FAILSAFE MODE CONTROL	FILTER CHANGEOUT	TRENDING	REMARKS
RETURN AIR TEMPERATURE	AI-1	T-4							●					●																		●	
RETURN AIR HUMIDITY	AI-2	H-1							●									●														●	
MIXED AIR TEMPERATURE	AI-4	T-5							●					●																		●	
PRE-HEAT TEMPERATURE	AI-5	T-3							●					●																		●	
COOLING COIL TEMPERATURE	AI-6	T-6							●					●							●											●	
DISCHARGE AIR TEMPERATURE	AI-7	T-1							●					●													●					●	
DISCHARGE STATIC PRESSURE	AI-8	SP-1							●								●				●								●			●	
DISCHARGE AIR HUMIDITY	AI-9	H-2							●									●														●	
OUTSIDE AIR TEMPERATURE	AI-11	T-2												●																		●	
RETURN FAN STATUS	BI-1	CS-IT 1						●																								●	
SUPPLY FAN STATUS	BI-2	CS-IT 2						●																								●	
PRE-FILTER 1	BI-3	DPS-1								●											●											●	
PRE-FILTER 2	BI-4	DPS-2									●										●											●	
MIXED AIR LOW LIMIT	BI-6	TSL-1										●										●										●	
STATIC PRESSURE HIGH LIMIT	BI-7	SP-1											●								●											●	
HUMIDITY HIGH LIMIT	BI-8	HL-1									●										●											●	
SUPPLY FAN VSMC ALARM	BI-9	ALA-SF							●																							●	
RETURN FAN VSMC ALARM	BI-10	ALA-EF							●																							●	
DUCT SMOKE DETECTOR	BI-11	SD																			●											●	
RETURN FAN VSMC	AO-1	SPD-EF					●																									●	FULL COMMUNICATION
SUPPLY FAN VSMC	AO-2	SPD-SF					●																									●	FULL COMMUNICATION
MIN OUTSIDE AIR DAMPER	AO-3	D-4						●																		●						●	
RETURN AIR DAMPER	AO-4	D-2						●																		●						●	
PREHEAT VALVE	AO-8	V-2					●																									●	
COOLING VALVE	AO-9	V-1					●																									●	
STEAM HUMIDIFIER VALVE	AO-10	V-3					●																									●	
RETURN FAN START/STOP	BO-1	SST-EF			●																		●									●	
SUPPLY FAN START/STOP	BO-2	SST-SF			●																											●	
RETURN DAMPER OPEN/CLOSE	BO-5	D-5					●																									●	
AIRFLOW MONITORING - RA	FT-1	AF-1 / PSL								●						●						●										●	
AIRFLOW MONITORING - OA	FT-2	AF-2														●						●										●	
AIRFLOW MONITORING - SA	FT-3	AF-3														●																●	
OA DAMPER	AO-6	D-1						●																		●						●	
AFTER FILTER	BI-15	DPS-3									●										●											●	
SMOKE DETECTOR	BI-16	SD-1							●																							●	

1 10-AHU-1 POINTS LIST

Scale: No Scale

1. GENERAL FAN/TEMPERATURE CONTROL

1.1 **COOLING-OCCUPIED/OVERRIDE:** AHU'S WILL BE INTERLOCKED WITH ASSOCIATED AREA EXHAUST FANS, SO EACH EXHAUST FAN WILL OPERATE WHENEVER ITS ASSOCIATED AHU IS ENERGIZED. AHU SUPPLY FAN SPEED SHALL BE DETERMINED BY DISCHARGE AIR PRESSURE AND POLLING OF VA BOX DAMPER POSITIONS. DISCHARGE AIR PRESSURE SHALL INCLUDE A "CRITICAL ZONE RESET STRATEGY" WHICH REDUCES DISCHARGE AIR PRESSURE UNTIL AT LEAST ONE ZONE VAV BOX DAMPER IS 90% OPEN. THE INITIAL AIR PRESSURE SETPOINT SHALL BE 5" WG (ADJUSTABLE). THE AHU RETURN AIR FAN SHALL BE INTERLOCKED WITH THE SUPPLY AIR FAN. THE RETURN AIR FAN SPEED OFFSET SHALL BE DETERMINED DURING THE INITIAL TAB WORK. AS SPACE PRESSURIZATION RISES ABOVE 0.1" WG, THE RELIEF AIR SHALL MODULATE OPEN TO MAINTAIN SPACE PRESSURIZATION AT 0.1" WG (ADJUSTABLE).ALL ASSOCIATED VAV SUPPLY AIR FANS SHALL BE ENERGIZED PRIOR TO ENERGIZING THE ASSOCIATED AHU SUPPLY AND RETURN AIR FANS.

1.2 **COOLING-UNOCCUPIED:** SHALL OPERATE AS IN OCCUPIED MODE. UNOCCUPIED MODE ONLY ADJUSTS THE SUPPLY AIR VOLUME TO THE OPERATING ROOMS.

1.3 **HEATING-OCCUPIED:** AHU SUPPLY AIR FAN SHALL BE ENERGIZED AND RUN CONTINUOUSLY. OA FLOW WILL BE MAINTAINED AS DESCRIBED IN COOLING-OCCUPIED MODE ABOVE. WHEN DISCHARGE AIR TEMPERATURE DROPS BELOW 52°F, DISCHARGE AIR TEMPERATURE CONTROLLER THRU DDC CONTROL SHALL MODULATE THE STEAM VALVE TO MAINTAIN 55°F LEAVING AIR TEMPERATURE. THE CHILLED WATER VALVE SHALL BE FULLY CLOSED TO THE COIL.

1.4 **HEATING-UNOCCUPIED:** UNIT SHALL BE DE-ENERGIZED UNLESS THE AVERAGE OF THE ZONE TEMPERATURES FALLS BELOW THE SETBACK TEMPERATURE SETPOINT. THE OA AND EA DAMPER SHALL BE CLOSED.

1.5 **TRANSITION FROM OCCUPIED TO UNOCCUPIED:** AUTOMATICALLY THRU DDC CONTROL AND PRESET TIME SCHEDULE. SYSTEM SHALL ALSO BE ABLE TO BE RETURNED TO OCCUPIED MODE FROM UNOCCUPIED MODE BY THE OPERATOR WORKSTATION. TRANSITION FROM COOLING TO HEATING SHALL OCCUR WHEN CHILLED WATER CONTROL VALVE IS CLOSED AND MIXED AIR TEMPERATURE FALLS BELOW 52°F.

2. HUMIDIFICATION MODE:

2.1 THE SUPPLY AIR HIGH LIMIT HUMIDITY SENSOR SETPOINT SHALL BE CAPABLE OF BEING ADJUSTED FROM EITHER THE CENTRAL OR LOCAL ECC CONTROL PANEL.

2.2 THE RETURN AIR HUMIDITY SENSOR LOCATED IN THE RETURN AIR DUCT SHALL MODULATE THE UNIT'S HUMIDIFIER STEAM CONTROL VALVE TO MAINTAIN THE SPACE HUMIDITY. THE HIGH LIMIT HUMIDITY SENSOR SHALL MODULATE THE UNIT'S HUMIDIFIER STEAM CONTROL VALVE TO MAINTAIN 30% ADJUSTABLE RELATIVE HUMIDITY IN THE SPACES.

2.3 THE OUTDOOR AIR TEMPERATURE SENSOR SHALL CLOSE OFF THE HUMIDIFIER STEAM SUPPLY VALVE WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 60°F & OPEN THE HUMIDIFIER STEAM SUPPLY VALVE WHEN OUTSIDE AIR TEMPERATURE IS BELOW 60°F.

2.4 THE HUMIDIFIER STEAM CONDENSATE RETURN TEMPERATURE SWITCH SHALL FUNCTION TO CLOSE OFF THE HUMIDIFIER CONTROL VALVE UNTIL THE CONDENSATE TEMPERATURE APPROACHES STEAM TEMPERATURE. THE HUMIDIFIER CONTROL VALVE AND THE HUMIDIFIER STEAM SUPPLY VALVE WILL BE CLOSED TO THE HUMIDIFIER WHENEVER THE SUPPLY FAN IS OFF.

3. DEHUMIDIFICATION:

3.1 THE RETURN AIR HUMIDITY SENSOR LOCATED IN THE RETURN AIR DUCT SHALL MODULATE THE UNIT'S SA DISCHARGE TEMPERATURE DOWN TO 54°F.

4. SAFETY CONTROL/PROTECTION:

4.1 SMOKE DETECTOR SHALL BE PROVIDED BY FIRE ALARM CONTRACTOR. THROUGH DDC CONTROL IT SHALL DE-ENERGIZE THE ASSOCIATED AHU, ALL ASSOCIATED VAV SUPPLY AND EXHAUST FANS (INCLUDING INTERLOCKS), SIGNAL FIRE ALARM PANEL AND CLOSE THE OUTSIDE AIR DAMPER UPON THE DETECTION OF THE PRODUCTS OF COMBUSTION.

4.2 **FREEZE PROTECTION:** IF STEAM HEATING COIL DISCHARGE AIR TEMPERATURE FALLS BELOW 40°F DURING HEATING MODE, THE FREEZESTAT SHALL CLOSE THE OUTSIDE AIR DAMPER, DE-ENERGIZE THE AHU SUPPLY AIR FAN AND FULLY OPEN THE PRIMARY STEAM AND CHILLED WATER VALVES TO COIL.

4.3 **PRESSURE PROTECTION:** A HIGH PRESSURE TRANSMITTER LOCATED AT THE SUPPLY FAN DISCHARGE SHALL DE-ENERGIZE THE SUPPLY AIR FAN IF ITS SETPOINT, 5" WG, IS REACHED.

4.4 **CONDENSATE HIGH LEVEL PROTECTION:** IF CONDENSATE HIGH LEVEL SWITCH IS ACTIVATED, UNIT SHALL BE DE-ACTIVATED AND AN ALARM INITIATED.

5. WARM-UP / COOL-DOWN:

5.1 **MORNING WARM-UP:** THE UNIT SHALL EMPLOY OPTIMUM START. PRIOR TO OCCUPIED STATUS, THE UNIT SHALL GO INTO MORNING WARM-UP. AHU CHW COIL CONTROL VALVE SHALL BE CLOSED TO OPEN THE COIL. THE SUPPLY FAN SHALLBE ENERGIZED AND THE STEAM VALVE SHALL BE FULLY OPEN TO THE COIL UNTIL OCCUPIED SPACE TEMPERATURE SETPOINT IS ACHIEVED. THE UNIT SHALL THEN CYCLE TO MAINTAIN SPACE OCCUPIED TEMPERATURE SETPOINT.

5.2 **MORNING COOL-DOWN:** THE UNIT SHALL EMPLOY OPTIMUM START. PRIOR TO OCCUPIED STATUS, THE UNIT SHALL GO INTO MORNING COOL-DOWN. THE OA AND EA DAMPERS SHALL FULLY CLOSE, THE SUPPLY FAN SHALL MODULATE TO MAINTAIN DUCT STATIC PRESSURE. THE CHW VALVE SHALL MODULATE TO MAINTAIN A 55°F LEAVING AIR TEMPERATURE AND THE PRIMARY STEAM VALVE SHALL BE FULLY CLOSED TO THE COIL. ASSOCIATED VAV BOX AIR VALVES SHALL INITIALLY BE FULLY OPEN AND THEN MODULATE TO MAINTAIN SPACE OCCUPIED TEMPERATURE SETPOINT, VAV BOX SUPPLY FANS SHALL BE ENERGIZED AND VAV BOX HW VALVES SHALL BE FULLY CLOSED TO THE COIL.

6. ALARMS:

6.1 ALARM FOR DIRTY FILTER WHEN PRESSURE DROP EXCEEDS 0.5" WG ABOVE INITIAL PRESSURE DROP. ALARM IF LEAVING AIR TEMPERATURE EXCEEDS 60°F IN COOLING MODE OR DROPS BELOW 50°F IN HEATING MODE. ALARM IF AHU SUPPLY OR EXHAUST AIR FAN FAILS TO START OR FAILS DURING OPERATION. ALARM IF UNIT DISCHARGE STATIC PRESSURE EXCEEDS 5" WG. ALARM IF CONDENSATE REACHES HIGH LEVEL. ALARM UPON SMOKE DETECTOR ACTIVATION.

7. GRAPHICS AND MONITORING:

7.1 BAS FRONT END SYSTEM SHALL INCLUDE GRAPHICS SHOWING ALL HVAC SYSTEMS, ALARMS AND OTHER POINTS SHOWN ON THE DRAWINGS AND INCLUDED IN THE SPECIFICATIONS AND IN ACCORDANCE WITH VA REQUIREMENTS. VFDS SHALL REPORT OPERATIONAL AND ALARM CONDITIONS TO THE BAS.

8. DDC PANELS:

8.1 PROVIDE NETWORK AREA CONTROL PANELS IN ACCORDANCE WITH THE SPECS TO BE LOCATED IN THE EXISTING RESPECTIVE LOCATIONS TO SERVE AHUS, TERMINAL BOXES, AND OTHER EQUIPMENT.

2 10-AHU-1 SEQUENCE OF OPERATIONS

Scale: No Scale

SPLIT SYSTEM CONTROLS:

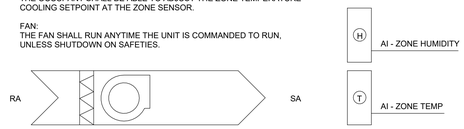
RUN CONDITIONS - CONTINUOUS:
THE UNIT SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN:
A 81° F (ADJ.) COOLING SETPOINT IN TELECOMMUNICATION AND FACILTIES ROOMS

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH ZONE TEMP- IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
- HIGH ZONE HUMIDITY (TELECOM AND FACILITIES ROOMS ONLY): IF THE ZONE HUMIDITY IS GREATER THAN THE 30% RH (ADJUSTABLE) BY A USER-DEFINABLE AMOUNT (ADJ.).
- WHEN THE FLOAT SWITCH IN THE UNIT DRAIN PAN TRIPS. FLOAT SWITCH TRIP SHALL SHUT DOWN THE INDOOR AND OUTDOOR UNITS. MANUAL RESET SHALL BE REQUIRED TO START UP SYSTEM AFTER FLOAT SWITCH TRIP.

ZONE SETPOINT ADJUST:
THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE COOLING SETPOINT AT THE ZONE SENSOR.

FAN:
THE FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES.



	HARDWARE POINTS				SOFTWARE POINTS						
POINT NAME	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	SHOW ON GRAPHIC
ZONE TEMP	X										X
HIGH ZONE TEMP										X	X
ZONE HUMIDITY	X										X
HIGH ZONE HUMIDITY										X	X
FLOAT SWITCH TRIP										X	X
TOTALS	2	0	0	0	0	0	0	0	0	3	5

REFER TO SPECIFICATION SECTION 23 09 23 FOR INTEGRATION REQUIREMENTS

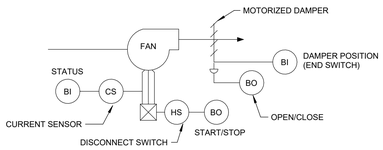
6 SPLIT SYSTEM CONTROL SCHEMATIC

Scale: No Scale

GENERAL EXHAUST FAN CONTROLS

FANS SHALL BE STARTED AND STOPPED BY THE DDC. FANS SHALL OPERATE CONTINUOUSLY DURING BUILDING OCCUPIED HOURS (ADJUSTABLE SCHEDULE). PRIOR TO THE FAN ENERGIZING, THE ASSOCIATED MOTORIZED DAMPERS SHALL OPEN AND BE PROVEN OPEN BY AN END SWITCH.

THE ATTIC EXHAUST FAN (10-EF-2) SHALL BE STARTED AND STOPPED BY ROOM COOLING THERMOSTAT. FAN MOTORIZED DAMPER AND INTAKE LOUVER MOTORIZED DAMPER SHALL BE WIRED TO THERMOSTAT TO OPEN PRIOR TO FAN ENERGIZING.



	HARDWARE POINTS				SOFTWARE POINTS						
POINT NAME:	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	SHOW ON GRAPHIC
FAN STATUS			X								X
FAN START/STOP				X				X			X
DAMPER OPEN/CLOSE				X							X
DAMPER POSITION (FEEDBACK)			X						X		X

5 GENERAL EXHAUST FAN CONTROLS

Scale: No Scale

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER SILAS P. GEORGE 5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL CONTROLS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: M-504

Dwg 11 of 14

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GENERAL:
10-BLR-1 WILL BE CONTROLLED BY THE BOILER MANUFACTURER'S CONTROL SYSTEM. ALL POINTS, ALARMS AND FAULTS SHALL BE COMMUNICATED TO THE BUILDING DDC CONTROL SYSTEM.

BOILERS AND HEATING WATER PUMPS- RUN CONDITIONS:
THE BOILER SHALL BE ENABLED TO RUN WHENEVER IT IS COMMANDED TO BE ENABLED BY THE BOILER MANAGMENT PROGRAM INTEGRAL WITH THE BOILER CONTROL PANEL. THE BOILER SYSTEM SHALL BE ENABLED WHENEVER THE OUTSIDE AIR TEMPERATURE FALLS BELOW 65°F (ADJUSTABLE), OR UPON A CALL FOR REHEAT FROM A VAV TERMINAL REHEAT VALVE. THE BOILER SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS. THE SYSTEM HEATING WATER PUMP (10-HWP-1 OR 10-HWP-2) SHALL BE ENABLED TO RUN WHEN THE BOILER SYSTEM IS COMMANDED ON. PRIOR TO THE BOILER ENERGIZING, THE ASSOCIATED BOILER CIRCULATION PUMP SHALL BE PROVEN ON BY A CURRENT SWITCH, AND FLOW THROUGH THE BOILER SHALL BE PROVEN BY A FLOW SWITCH. THE BOILER SYSTEM SHALL BE CONTROLLED BY THE BOILER MANAGEMENT SYSTEM, AND THE BOILER SHALL OPERATE AT THE LOWEST FIRING RATE REQUIRED TO MAINTAIN THE HEATING WATER TEMPERATURE SETPOINT.

TO PREVENT SHORT CYCLING, THE HEATING WATER PUMP SYSTEM SHALL RUN FOR AND BE OFF FOR MINIMUM ADJUSTABLE TIMES (BOTH USER DEFINABLE).

HEATING WATER PUMP LEAD/STANDBY OPERATION:
THE TWO BUILDING HEATING WATER PUMPS (10-HWP-1 AND 10-HWP-2) SHALL OPERATE IN A LEAD/STANDBY FASHION.
- THE LEAD PUMP SHALL RUN FIRST.
- ON FAILURE OF THE LEAD PUMP, THE STANDBY PUMP SHALL RUN AND THE LEAD PUMP SHALL TURN OFF.

THE DESIGNATED LEAD PUMP SHALL ROTATE UPON ONE OF THE FOLLOWING CONDITIONS (USER SELECTABLE):
- MANUALLY THROUGH A SOFTWARE SWITCH
- IF PUMP RUNTIME (ADJ.) IS EXCEEDED
- DAILY
- WEEKLY
- MONTHLY

ALARMS SHALL BE PROVIDED AS FOLLOWS:

HEATING WATER PUMP 10-HWP-1
- FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- RUNNING IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.

HEATING WATER PUMP 10-HWP-2
- FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- RUNNING IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.
-

HEATING WATER PUMP SPEED CONTROL
THE DDC SHALL CONTROL THE SPEED OF THE RUNNING HEATING WATER PUMP THROUGH ITS VFD TO MAINTAIN SYSTEM DIFFERENTIAL PRESSURE. THE DDC SHALL MONITOR THE TWO DIFFERENTIAL PRESSURE SENSORS AND CONTROL THE SPEED OF THE PUMP TO MAINTAIN THE FLOW RATE REQUIRED BY THE DIFFERENTIAL PRESSURE SENSOR CALLING FOR THE MOST FLOW. THE PUMP SHALL NEVER OPERATE BELOW ITS MINIMUM SPEED.

10-BLR-1 BOILER:
THE BOILER SHALL BE ENABLED AT A USER ADJUSTABLE TIME AFTER ITS BOILER CIRCULATION PUMP (BP-1) HAS BEEN COMMANDED TO START AND IS RUNNING AS DETERMINED BY A CURRENT SENSOR. THE CHILLER SHALL THEREFORE HAVE A USER ADJUSTABLE DELAY ON START.

THE DELAY TIME SHALL BE SET APPROPRIATELY TO ALLOW FOR ORDERLY BOILER WATER SYSTEM START-UP, SHUTDOWN AND SEQUENCING.

THE BOILER SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- BOILER FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- BOILER RUNNING IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- BOILER RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT.

10-BLR-1 BOILER HEATING WATER SUPPLY TEMPERATURE
HOT WATER SUPPLY TEMPERATURE SETPOINT SHALL BE 180°F (ADJ.).

HEATING WATER TEMPERATURE MONITORING:
THE FOLLOWING TEMPERATURES SHALL BE MONITORED FOR THE HEATING WATER SYSTEM:
- SYSTEM RETURN TEMPERATURE
- SYSTEM SUPPLY TEMPERATURE
- 10-BLR-1 SUPPLY TEMPERATURE

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH HEATING WATER SUPPLY TEMP: IF THE SYSTEM HEATING WATER SUPPLY TEMPERATURE IS GREATER THAN 190°F (ADJ.).
- LOW HEATING WATER SUPPLY TEMP: IF THE SYSTEM HEATING WATER SUPPLY TEMPERATURE IS LESS THAN 140°F (ADJ.).

ALL CONTROL POINTS, ALARMS, TRENDS, ETC ARE TO BE INTEGRATED INTO THE BUILDING DDC SYSTEM.

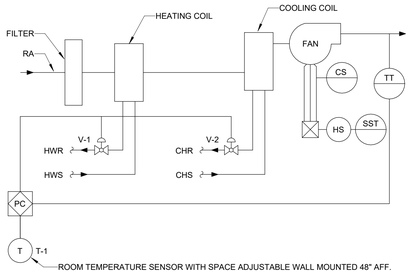
8 HEATING WATER SYSTEM SEQUENCE OF OPERATION
Scale: No Scale

FAN COIL SEQUENCE OF OPERATION (PATIENT ROOMS)

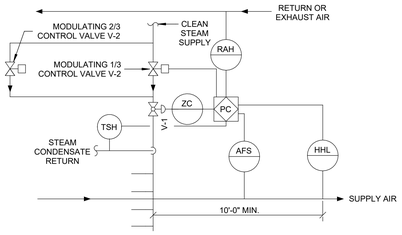
FAN COIL UNIT SHALL OPERATE ON A SCHEDULE AS SET BY THE ECC. FAN SHALL RUN CONTINUOUSLY. FAN STATUS SHALL BE MONITORED AND AN ALARM MESSAGE SHALL BE GENERATED IN THE EVENT THE UNIT FAILS TO RUN. THE ADJUSTABLE ROOM TEMP SETPOINT WILL BE 70°-75° WITH 0.5° HEATING COOLING OFFSETS. VALVE V-1 AND V-2 WILL NOT BE OPEN SIMULTANEOUSLY. ROOM OCCUPANT WILL HAVE THE ABILITY OF ADJUSTING ROOM TEMPERATURE BETWEEN 70°-75°.

FAN COIL SEQUENCE OF OPERATION (NONPATIENT ROOMS)

FAN COIL UNIT SHALL OPERATE ON A SCHEDULE AS SET BY THE ECC. FAN SHALL RUN CONTINUOUSLY. FAN STATUS SHALL BE MONITORED AND AN ALARM MESSAGE SHALL BE GENERATED IN THE EVENT THE UNIT FAILS TO RUN BETWEEN THE RANGE OF 70°-75° SPACE TEMPERATURE. BOTH V-1 AND V-2 SHALL BE CLOSED. UPON RISE IN TEMPERATURE ABOVE 75° V-2 SHALL MODULATE OPEN TO MAINTAIN 75°. UPON FALL IN TEMPERATURE BELOW 70° HEATING VALVE V-1 SHALL MODULATE TO OPEN TO MAINTAIN 70°.



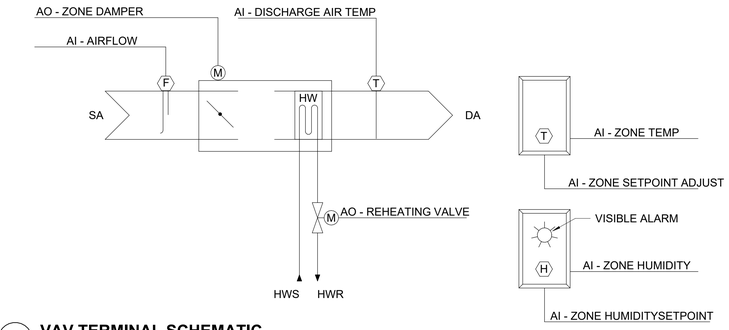
5 FOUR PIPE FAN COIL UNIT CONTROLS
Scale: No Scale



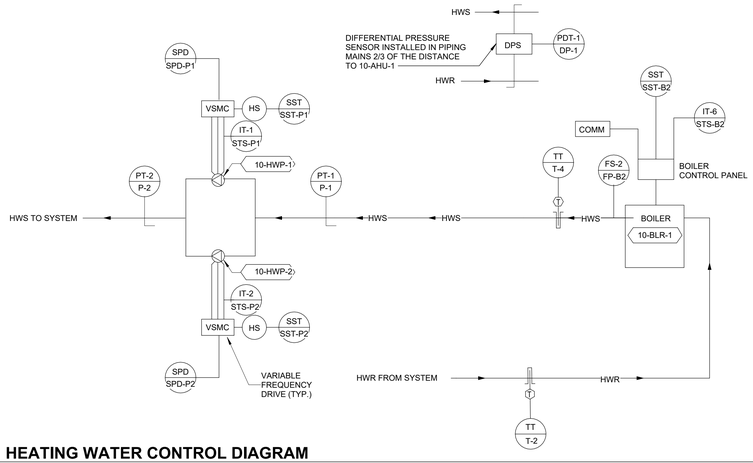
STEAM HUMIDIFIERS:

RETURN (OR EXHAUST) AIR HUMIDITY SHALL BE MONITORED. ON A CALL FOR HUMIDIFICATION,
HUMIDIFIER VALVE V-1 SHALL MODULATE TO MAINTAIN THE RETURN (OR EXHAUST) AIR HUMIDITY SET POINT TO 30% (ADJUSTABLE). PRIOR TO ACTIVATION OF V-1, THE ON/OFF CONTROL VALVE V-2 SHALL BE ENABLED THROUGH ECC AND JACKET TEMPERATURE SENSED
BY TSH SHALL BE WARM ENOUGH TO PREVENT CONDENSATION. THE HIGH LIMIT HUMIDITY SENSOR, LOCATED IN THE SUPPLY AIR DUCT 10 FEET AWAY FROM THE HUMIDIFIER SHALL DISABLE THE HUMIDIFIER AND GIVE AN ALARM SIGNAL TO THE ECC, IF THE SUPPLY AIR HUMIDITY EXCEEDS 90% RH (ADJUSTABLE). THE AIRFLOW SWITCH SHALL PROVE AIRFLOW BEFORE HUMIDITY CONTROLS ARE ACTIVATED.

4 STEAM HUMIDIFIER CONTROLS
Scale: No Scale



1 VAV TERMINAL SCHEMATIC
Scale: No Scale



6 HEATING WATER CONTROL DIAGRAM
Scale: No Scale

			POINT LEGEND							SYSTEM OUTPUTS		SYSTEM INPUTS														SYSTEM SOFTWARE/CONTROL																PAGE:
										BINARY	ANA-LOG	BINARY								ANALOG						ALARM PROCESSING						APPLICATION/FUNCTION										
SYSTEM: HEATING WATER SYSTEM SYSTEM COMPONENT:	POINT ID	ABBREVIATION	PROPRITYOOD ALTER R	SELECTED DEVICE	STATUS DEVICE	OPEN/CLOSE		SPEED COMMAND	VALVE POSITION	ALARM	HIGH PRESSURE	HIGH HUMIDITY	LOW STEAM PRESSURE	LOW TEMPERATURE	TEMPERATURE (TT)	PRESSURE	POSITION	ACCESS ON/OFF	STATIC PRESSURE	CARBON MONOXIDE	HUMIDITY	VACUUM	LOCAL ALARM PANEL	MASTER ALARM PANEL	HIGH LIMIT	LOW LIMIT	SCHEDULE START/STOP	FUNCTION	OUTDOOR CONDITIONS	TEMP CYCLE/OVERRIDE	TEMP SETPOINT/DEADBAND	TEMPERATURE RESET	DEMAND LIMITING	DIFFERENTIAL OVERRIDE	DIFF PRESSURE RESET	PRESSURE/VOL CONTROL	VALVE MOVE CONTROL	PULSE COUNTER/INTEGRATOR	TREND	REMARKS
SYSTEM RETURN WATER TEMP	AI-1	T-1													●										●	●																	●	
BLR-1 SUPPLY TEMPERATURE	AI-3	T-3								●					●										●	●																	●	
SYSTEM SUPPLY TEMPERATURE	AI-5	T-5								●					●										●	●						●											●	
HWP-1 VSMC FEEDBACK	AI-7	SPD-P1																●																									●	
HWP-2 VSMC FEEDBACK	AI-8	SPD-P2																●																									●	
DIFFERENTIAL PRESSURE	AI-9	DP-1												●																					●								●	
PUMP UPSTREAM PRESSURE	AI-11	P-1												●				●																									●	
PUMP DOWNSTREAM PRESSURE	AI-12	P-2												●																													●	
HWP-1 VSMC	AO-1	SPD-P1					●																																			●		
HWP-2 VSMC	AO-2	SPD-P2					●																																			●		
BLR-1 BOILER STATUS	BI-1	STS-B1								●	●										●																							
HWP-1 PUMP STATUS	BI-3	STS-P3								●																																		
HWP-2 PUMP STATUS	BI-4	STS-P4								●																																		
HWP-1 VSMC ALARM	BI-5	ALA-P3									●										●																							
HWP-2 VSMC ALARM	BI-6	ALA-P4									●										●																							
BLR-1 BOILER START/STOP	BO-1	SST-B1			●																						●																	
HWP-1 PUMP START/STOP	BO-3	SST-P1			●																						●																	
HWP-2 PUMP START/STOP	BO-4	SST-P2			●																						●																	
BLR-1 BOILER FLOW PROOF	BI-7	FP-B1																																										
OUTDOOR AIR TEMPERATURE														●																														GLOBAL POINT FROM RAHU CONTROL PANEL

7 HEATING WATER SYSTEM POINTS LIST
Scale: No Scale

2 VAV TERMINAL UNIT CONTROLS
Scale: No Scale

VAV TERMINAL UNIT

VARIABLE AIR VOLUME - TERMINAL UNIT

RUN CONDITIONS - CONTINUOUS:
THE UNIT SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN:
- A 75°F (ADJ.) COOLING SETPOINT.
- A 70°F (ADJ.) HEATING SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
- LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

ZONE SETPOINT ADJUST:
THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR.

PRESSURE INDEPENDENT VARIABLE VOLUME TERMINAL UNIT - FLOW CONTROL:
THE UNIT SHALL MAINTAIN ZONE SETPOINTS BY CONTROLLING THE AIRFLOW THROUGH ONE OF THE FOLLOWING:

OCCUPIED:
- WHEN ZONE TEMPERATURE IS GREATER THAN ITS COOLING SETPOINT, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM OCCUPIED AIRFLOW (ADJ.) AND THE MAXIMUM COOLING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.
- WHEN THE ZONE TEMPERATURE IS BETWEEN THE COOLING SETPOINT AND THE HEATING SETPOINT, THE ZONE DAMPER SHALL MAINTAIN THE MINIMUM REQUIRED ZONE AIRFLOW (ADJ.).
- WHEN ZONE TEMPERATURE IS LESS THAN ITS HEATING SETPOINT, THE CONTROLLER SHALL MODULATE THE HEATING VALVE OPEN TO MAINTAIN THE ZONE TEMPERATURE AT ITS HEATING SETPOINT. ADDITIONALLY, IF WARM AIR IS AVAILABLE FROM THE AHU, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM OCCUPIED AIRFLOW (ADJ.) AND THE MAXIMUM HEATING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.

UNOCCUPIED:
- WHEN THE ZONE IS UNOCCUPIED THE ZONE DAMPER SHALL CONTROL TO ITS MINIMUM UNOCCUPIED AIRFLOW (ADJ.).
- WHEN THE ZONE TEMPERATURE IS GREATER THAN ITS COOLING SETPOINT, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM UNOCCUPIED AIRFLOW (ADJ.) AND THE MAXIMUM COOLING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.
- WHEN ZONE TEMPERATURE IS LESS THAN ITS UNOCCUPIED HEATING SETPOINT, THE CONTROLLER SHALL MODULATE THE HEATING VALVE OPEN TO MAINTAIN THE ZONE TEMPERATURE AT THE SETPOINT. ADDITIONALLY, IF WARM AIR IS AVAILABLE FROM THE AHU, THE ZONE DAMPER SHALL MODULATE BETWEEN THE MINIMUM UNOCCUPIED AIRFLOW (ADJ.) AND THE AUXILIARY HEATING AIRFLOW (ADJ.) UNTIL THE ZONE IS SATISFIED.

REHEATING COIL VALVE:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE REHEATING COIL VALVE OPEN ON DROPPING ZONE TEMPERATURE TO MAINTAIN ITS HEATING SETPOINT.

REHEATING - HIGH DISCHARGE AIR TEMPERATURE LIMIT:
THE CONTROLLER SHALL MEASURE THE DISCHARGE AIR TEMPERATURE AND LIMIT HOT WATER VALVE POSITION IF THE DISCHARGE AIR TEMPERATURE IS MORE THAN 15°F (ADJ.) ABOVE THE ZONE TEMPERATURE.

DISCHARGE AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE DISCHARGE AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS GREATER THAN 100°F (ADJ.).
- LOW DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS LESS THAN 50°F (ADJ.).

HUMIDITY
THE CONTROLLER SHALL MONITOR THE ZONE HUMIDITY AND MODULATE THE STEAM HUMIDIFIER IF HUMIDITY FALLS BELOW SETPOINT. SETPOINT SHALL BE 20% WITH OCCUPANT ADJUSTMENT TO 50%. UPON A RISE OF 5% ABOVE SETPOINT THE HUMIDIFIER SHALL MODULATE OFF.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH HUMIDITY: IF THE SPACE RELATIVE HUMIDITY RISES ABOVE 60% A VISIBLE ALARM SHALL BE INITIATED IN THE AFFECTED OR AND AT THE DDC MONITORING STATION.

3 VAV TERMINAL SEQUENCE OF OPERATION
Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No.50996 PROFESSIONAL ENGINEER BILLY P. GEORGE 5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL CONTROLS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

Drawing Number: M-505

Dwg 12 of 14

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GAS FIRED BOILER SCHEDULE

MARK	TYPE	FLUID				BOILER		NATURAL GAS		FUEL	ELECTRICAL			REMARKS
		FLOW	EWT	LWT	WPD	OUTPUT GENERATED	MAX HEAT INPUT	MIN INLET PRESSURE	MAX INLET PRESSURE		AMPS	PHASE	VOLT	
10-BLR-1	FIRE TUBE CONDENSING	100.0 GPM	160 °F	180 °F	3.00 psi	920000 Btu	1000000 Btu	4.00 in-wg	14.00 in-wg	Natural Gas	13	1	208	1, 2, 3, 4, 5, 6

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. BASIS OF DESIGN: AERCO BMK-1000
3. BOILER SHALL HAVE MINIMUM 20:1 TURNDOWN.
4. PROVIDE GAS PRESSURE REGULATOR.
5. PROVIDE SINGLE WALL COMBUSTION AIR INTAKE AND DUAL WALL STAINLESS STEEL FLUE VENT, PIPED TO EXTERIOR, ROUTED SIZED AND INSTALLED IN ACCORDANCE WITH BOILER MANUFACTURER'S INSTRUCTIONS.
6. PROVIDE CONDENSATE NEUTRALIZATION KIT. DISCHARGE CONDENSATE TO FLOOR DRAIN

AIR SEPARATOR SCHEDULE

MARK	LOCATION	SYSTEM AND/OR SERVICE	TYPE	SIZE	FLOW	WPD	BUILT-IN STRAINER REQUIRED	REMARKS
10-AS-1	B03 MECHANICAL ROOM B	HEATING HOT WATER	TANGENTIAL	3"	100.0 GPM	1 ftH2O	Yes	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

EXPANSION TANK SCHEDULE

MARK	LOCATION	SYSTEM	TYPE	APPROX. SYSTEM VOLUME	SYSTEM TEMPERATURE RANGE		INITIAL PRESSURE IN TANK	MAX OPERATING PRESSURE	FILL PRESSURE AT TANK	MIN VOLUME TANK	MIN BLADDER VOLUME	PIPE SIZE TO TANK	REMARKS
					MIN TEMP	MAX TEMP							
10-ET-1	BASEMENT MECHANICAL ROOM	HEATING HOT WATER	DIAPHRAGM	75 gal	45 °F	180 °F	60.0 psi	175.0 psi	15.0 psi	5.0 gal	3.5 gal	1"	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

AIR FILTER SCHEDULE

MARK	LOCATION	SYSTEM AND/OR SERVICE	MERV RATING	APD	HOUSING TYPE	# - CARTRIDGES	CARTRIDGES		REMARKS
				MIDLIFE			SIZE	ARRANGEMENT	
10-PF-1	BASEMENT MECHANICAL ROOM	10-AHU-1	8	0.63 in-wg	SIDE LOAD	PER AHU MANUF.	2" THICK	PER AHU MANUF.	1
10-PF-2	BASEMENT MECHANICAL ROOM	10-AHU-1	13	0.63 in-wg	SIDE LOAD	PER AHU MANUF.	2" THICK	PER AHU MANUF.	1
10-AF-1	BASEMENT MECHANICAL ROOM	10-AHU-1	11	0.70 in-wg	SIDE LOAD	PER AHU MANUF.	4" THICK	PER AHU MANUF.	1
10-AF-2	BASEMENT MECHANICAL ROOM	10-AHU-1	15	0.81 in-wg	SIDE LOAD	PER AHU MANUF.	12" THICK	PER AHU MANUF.	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

ELECTRIC UNIT HEATER SCHEDULE

MARK	AREA AND/OR ROOM SERVED	CAPACITY	TEMPERATURES	ELECTRICAL		REMARKS
			EAT DB	PHASE	VOLT	
10-EUH-1	STAIR 01	2kw	60 °F	1	120	1
10-EUH-2	STAIR 02	2kw	60 °F	1	120	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	BUILDING SERVED	AIRFLOW			SUPPLY FAN MARK	PREFILTER MARK	AFTERFILTER MARK	FINAL FILTER MARK	HEATING COIL MARK	COOLING COIL MARK	HUMIDIFIER MARK	REMARKS
			SUPPLY	MIN OA	RETURN								
10-AHU-1	B03 MECHANICAL ROOM B	10	10000 CFM	2500 CFM	7500 CFM	10-SF-1	10-PF-1, 10-PF-2	10-AF-1, 10-AF-2	N/A	10-HC-1	10-CC-1	10-HUM-1	1, 2, 3, 4, 5

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE SLEEVED UV-C LIGHTS DOWNSTREAM OF COOLING COIL WITH VIEWING WINDOW AND DOOR INTERLOCK SWITCH.
3. PROVIDE WITH 3 POWER CIRCUITS: 1 - 480V FOR FANS AND CONTROLS, 2 - 120V FOR LIGHTS AND SERVICE RECEPTACLES.
4. BALANCE AIRFLOWS PER THE FLOOR PLANS. SCHEDULED AIRFLOWS ARE NOMINAL FOR SIZING EQUIPMENT.
5. PROVIDE CONTROLS TO INTEGRATE INTO THE EXISTING SIEMENS BAS.

CHILLED WATER COOLING COIL SCHEDULE

MARK	LOCATION	BUILDING SERVED	SYSTEM AIR HANDLING	AIRFLOW	MAX FACE VELOCITY	APD	EAT		LAT		CAPACITY		REMARKS
							DB	WB	DB	WB	TOTAL (MBh)	SENSIBLE (MBh)	
10-CC-1	B03 MECHANICAL ROOM B	10	10-AHU-1	10000 CFM	485 FPM	.656 in-wg	80 F	67 F	55 F	55 F	466	330	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

HOT WATER HEATING COIL SCHEDULE

MARK	LOCATION	BUILDING SERVED	SYSTEM AIR HANDLING	AIRFLOW	MAX FACE VELOCITY	APD	EAT	LAT	CAPACITY (MBh)	WATER				REMARKS
										FLOW	EWT	LWT	WPD (FT HD)	
10-HC-1	B03 MECHANICAL ROOM B	10	10-AHU-1	10000	498 FPM	0.11 in-wg	45 °F	90 °F	586	58.49 GPM	180 °F	160 °F	6.75 ftH2O	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

STEAM HUMIDIFIER SCHEDULE

MARK	LOCATION	SYSTEM AIR HANDLING	AIRFLOW	SOURCE	STEAM			TRAP	REMARKS
					PRESSURE ENT VALVE	PRESSURE ENT HUMIDIFIER	FLOW (LBS/HR)	CAPACITY (LBS/H)R	
10-HUM-1	B03 MECHANICAL ROOM B	10-AHU-1	10000	10-ESH-1	15 psig	10 psig	64.6	180	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

FAN SCHEDULE

MARK	SYSTEM AND/OR SERVICE	AIRFLOW	ESP	TSP	FAN		FAN	MOTOR ELECTTRICAL						REMARKS
					TYPE	MIN % EFF	DRIVE	NOMINAL POWER		PHASE	VOLT	R.P.M.	SPEED CONTROL	
								BHP	HP					
10-SF-1	10-AHU-1	10000 CFM	2.00 in-wg	5.63 in-wg	DIRECT DRIVE PLENUM ARRAY (2x2)	61.6%	DIRECT	17.392	7.5(4)	3	208	1800	VFD	1, 2, 3, 4, 5
10-EF-1	GENERAL EXHAUST	570 CFM	0.20 in-wg	0.20 in-wg	INLINE CENTRIFUGAL	51%	DIRECT	.03	.5	1	115	1800	CONSTANT	1, 2, 5
10-EF-2	ATTIC VENTILATION	3000 CFM	0.30 in-wg	0.30 in-wg	INLINE CENTRIFUGAL	22	DIRECT	.98	1	3	460	1800	CONSTANT	1, 2, 5

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. SUPPLY FANS SHALL BE ABLE TO DELIVER 105% OF THE AIRFLOW SCHEDULED.
3. PROVIDE VARIABLE SPEED FAN WITH VFD.
4. PROVIDE MOTOR OVERLOAD PANEL AND SHAFT GROUNDING RINGS FOR PLENUM DIRECT DRIVE FANS.
5. BALANCE AIRFLOWS PER THE FLOOR PLANS. SCHEDULED AIRFLOWS ARE NOMINAL FOR SIZING EQUIPMENT.

HYDRONIC PUMP SCHEDULE

MARK	BLDG SERVED	SYSTEM	TYPE	CIRCULATING FLUID					MIN % EFF	ELECTRICAL MOTOR					REMARKS
				FLUID	FLOW	HEAD	NPSH REQUIRED	TEMPERATURE		HP	PHASE	VOLT	R.P.M.	SPEED CONTROL	
10-CHWP-1	BUILDING 10	CHILLED WATER	INLINE CENTRIFUGAL	WATER	70 GPM	25 ftH2O	4.2 ftH2O	45 °F	61	1	3	208	1800	VFD	1, 2, 3
10-CHWP-2	BUILDING 10	CHILLED WATER	INLINE CENTRIFUGAL	WATER	70 GPM	25 ftH2O	4.2 ftH2O	45 °F	61	1	3	208	1800	VFD	1, 2, 3
10-HWP-1	BUILDING 10	HEATING HOT WATER	INLINE CENTRIFUGAL	WATER	100 GPM	25 ftH2O	7.5 ftH2O	180 °F	68.7	1.5	3	208	1800	VFD	1, 2, 3
10-HWP-2	BUILDING 10	HEATING HOT WATER	INLINE CENTRIFUGAL	WATER	100 GPM	25 ftH2O	7.5 ftH2O	180 °F	68.7	1.5	3	208	1800	VFD	1, 2, 3

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE CONTROLLER AS REQUIRED TO INTEGRATE INTO EXISTING JOHNSON CONTROLS BUILDING AUTOMATION SYSTEM.
3. PROVIDE PREMIUM EFFICIENCY MOTOR.

HYDRONIC UNIT HEATER SCHEDULE

MARK	AREA AND/OR ROOM SERVED	CAPACITY	AIRFLOW	TEMPERATURES		FLOW	WPD	MOTOR				REMARKS
				EAT DB	EWT			HP	PHASE	VOLT	AMPS	
10-UH-1	ATTIC	12,600 BTUh	340 CFM	80 °F	180 °F	0.5 GPM	4.9 ftH2O	1/15	1	115	.6	1
10-UH-2	ATTIC	12,600 BTUh	340 CFM	80 °F	180 °F	0.5 GPM	4.9 ftH2O	1/15	1	115	.6	1
10-UH-3	ATTIC	12,600 BTUh	340 CFM	80 °F	180 °F	0.5 GPM	4.9 ftH2O	1/15	1	115	.6	1
10-UH-4	ATTIC	12,600 BTUh	340 CFM	80 °F	180 °F	0.5 GPM	4.9 ftH2O	1/15	1	115	.6	1
10-UH-5	ATTIC	12,600 BTUh	340 CFM	80 °F	180 °F	0.5 GPM	4.9 ftH2O	1/15	1	115	.6	1
10-UH-6	ATTIC	12,600 BTUh	340 CFM	80 °F	180 °F	0.5 GPM	4.9 ftH2O	1/15	1	115	.6	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

ELECTRIC STEAM HUMIDIFIER SCHEDULE

MARK	LOCATION	SERVING	STEAM		TRAP	ELECTRICAL				REMARKS
			PRESSURE	FLOW (LBS/HR)	CAPACITY (LBS/H)R	KW	VOLT	PHASE	Hz	
10-ESH-1	B03 MECHANICAL ROOM B	10-AHU-1	15 psi	65	45	16	208	3	60	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

FAN COIL UNIT SCHEDULE

MARK	LOCATION	TYPE	DESIGN AIRFLOW (CFM)	ESP (in w.g)	FILTER	COOLING COIL										HEATING COIL						MOTOR		ELECTRICAL	REMARKS
						EAT (°F)		LAT (°F)		TOTAL CAPACITY (MBh)	SENSIBLE CAPACITY (MBh)	GPM	FLUID PD (ft H2O)	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	CAPACITY (MBh)	GPM	FLUID PD (ft H2O)	EWT (°F)	LWT (°F)	TYPE	HP		
						DB	WB	DB	WB																
10-FCU-1	B03 MECHANICAL ROOM B	HORIZONTAL CABINET	600	0	1" MERV 8 filter	80	67	55	55	19.77	14.1	4	8.5	45	55	60	92	14.1	.7	.6	180	160	Free discharge ECM	.25	115v/60hz/1ph	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

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5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date MAY 9, 2025 | Checked SPG | Drawn AV

Drawing Number M-601

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AIR DEVICE SCHEDULE (SUPPLY)

DIFFUSER MARK	TYPE	AIR FLOW MIN.	AIR FLOW MAX.	MAX. APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	MAX NC	DAMPER	FINISH	MATERIAL	REMARKS
SD-11	LOUVERED FACE	40	100	0.08 in-wg	CEILING	24x24	6"Ø	21	No	WHITE	STEEL	1, 2
SD-12	LOUVERED FACE	101	200	0.08 in-wg	CEILING	24x24	8"Ø	20	No	WHITE	STEEL	1, 2
SD-13	LOUVERED FACE	201	300	0.09 in-wg	CEILING	24x24	10"Ø	22	No	WHITE	STEEL	1, 2
SD-53	SUPPLY REGISTER	80	160	0.09 in-wg	WALL	12x6	10x4	25	No	WHITE	STEEL	1, 2
SG-41	FLOOR GRILLE	60	200	0.10 in-wg	FLOOR	40x4	36x2	23	Yes	WHITE	Extruded Aluminum	1
SG-42	FLOOR GRILLE	70	215	0.10 in-wg	FLOOR	14x7	12x5	23	Yes	WHITE	Extruded Aluminum	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE DAMPER IN BRANCH DUCT AS SHOWN ON PLANS.

AIR DEVICE SCHEDULE (RETURN)

MARK	TYPE	AIR FLOW MIN.	AIR FLOW MAX.	MAX. APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	MAX NC	DAMPER	FINISH	MATERIAL	REMARKS
RG-10	EGG CRATE	60	100	0.09 in-wg	CEILING	24x24	6X6	16	No	WHITE	STEEL	1, 2
RG-11	EGG CRATE	110	170	0.09 in-wg	CEILING	24x24	8x8	19	No	WHITE	STEEL	1, 2
RG-12	EGG CRATE	170	250	0.08 in-wg	CEILING	24x24	10X10	20	No	WHITE	STEEL	1, 2
RG-13	EGG CRATE	240	400	0.08 in-wg	CEILING	24x24	12X12	23	No	WHITE	STEEL	1, 2
RG-14	EGG CRATE	320	500	0.06 in-wg	CEILING	24x24	14x14	21	No	WHITE	STEEL	1, 2
RG-16	EGG CRATE	600	1250	0.05 in-wg	CEILING	24x24	18x18	22	No	WHITE	STEEL	1, 2
RR-53	RETURN REGISTER	270	440	0.08 in-wg	WALL	14x14	12x12	17	No	WHITE	STEEL	1, 2
RR-54	RETURN REGISTER	250	610	0.08 in-wg	WALL	16x16	14x14	18	No	WHITE	STEEL	1, 2
RR-56	RETURN REGISTER	90	160	0.08 in-wg	WALL	10x8	8x6	12	No	WHITE	STEEL	1, 2

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE DAMPER IN BRANCH DUCT AS SHOWN ON PLANS.

AIR DEVICE SCHEDULE (EXHAUST)

DIFFUSER MARK	TYPE	AIRFLOW MIN.	AIRFLOW MAX.	MAX. APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	MAX NC	DAMPER	FINISH	MATERIAL	REMARKS
EG-7	EGG CRATE	60	100	0.09 in-wg	CEILING	12x12	6x6	13	No	WHITE	STEEL	1, 2

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE DAMPER IN BRANCH DUCT AS SHOWN ON PLANS.

DUCTLESS SPLIT SCHEDULE

INDOOR UNIT							CONDENSING UNIT								
MARK	TYPE	AIRFLOW	CAPACITY (BTU)	EAT DB	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	MARK	COMPRESSOR TYPE	CAPACITY (BTU)	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLTAGE	ELECTRICAL PHASE	REMARKS
10-SS-127	WALL MOUNTED UNIT	320-355-390	12,000	75 °F	208	1	10-CU-127	DC INVERTER-DRIVEN TWIN ROTARY	12,000	13	20	208	1	1, 2, 3, 4
10-SS-208	WALL MOUNTED UNIT	320-355-390	12,000	75 °F	208	1	10-CU-208	DC INVERTER-DRIVEN TWIN ROTARY	12,000	13	20	208	1	1, 2, 3, 4

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE WITH STANDARD WALL THERMOSTAT AND FILTER ALONG WITH CONDENSATE PUMP.
3. INDOOR UNIT POWERED THROUGH CONDENSING UNIT.
4. CAPACITY BASED ON 95°F OUTDOOR TEMPERATURE.

SINGLE DUCT AIR TERMINAL SCHEDULE

MARK	SYSTEM AIR HANDLING	DUCT INLET	DESIGN AIRFLOW (CFM) MAX	DESIGN AIRFLOW (CFM) MIN	DESIGN AIRFLOW (CFM) REHEAT	ALLOWABLE AIRFLOW BY BOX SIZE (CFM) MAX	ALLOWABLE AIRFLOW BY BOX SIZE (CFM) MIN	CONTROL TYPE	CONTROL SEQUENCE	REHEAT	HOT WATER HEATING COIL ROWS	EAT	LAT	APD	EWT	LWT	FLOW	WPD	PIPE RUNOUT SIZE	CAPACITY	REMARKS
10-VAV-1	10-AHU-1	8 in	600	230	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-2	10-AHU-1	6 in	235	150	170	380	130	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	7,378 Btu/h	1, 2
10-VAV-3	10-AHU-1	10 in	870	400	550	1050	350	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	2.50 GPM	5 FT	3/4"	23,870 Btu/h	1, 2
10-VAV-4	10-AHU-1	6 in	390	130	300	380	130	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.25 GPM	5 FT	3/4"	13,020 Btu/h	1, 2
10-VAV-5	10-AHU-1	6 in	300	130	230	380	130	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.00 GPM	5 FT	3/4"	9,982 Btu/h	1, 2
10-VAV-7	10-AHU-1	8 in	440	320	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-8	10-AHU-1	4 in	135	60	135	170	60	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.50 GPM	5 FT	3/4"	5,859 Btu/h	1, 2
10-VAV-9	10-AHU-1	8 in	630	250	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-10	10-AHU-1	4 in	115	60	115	170	60	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.50 GPM	5 FT	3/4"	4,991 Btu/h	1, 2
10-VAV-11	10-AHU-1	8 in	480	230	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-12	10-AHU-1	4 in	145	70	145	170	60	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	6,293 Btu/h	1, 2
10-VAV-13	10-AHU-1	8 in	635	250	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-14	10-AHU-1	4 in	150	70	150	170	60	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	6,510 Btu/h	1, 2
10-VAV-15	10-AHU-1	4 in	145	70	145	170	60	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	6,293 Btu/h	1, 2
10-VAV-16	10-AHU-1	5 in	250	120	200	260	90	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	8,680 Btu/h	1, 2
10-VAV-17	10-AHU-1	4 in	145	70	145	170	60	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	6,293 Btu/h	1, 2
10-VAV-18	10-AHU-1	10 in	900	350	540	1050	350	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	2.25 GPM	5 FT	3/4"	23,436 Btu/h	1, 2
10-VAV-19	10-AHU-1	12 in	1200	500	800	1500	500	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	3.50 GPM	5 FT	1"	34,720 Btu/h	1, 2
10-VAV-20	10-AHU-1	8 in	520	230	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-21	10-AHU-1	8 in	620	300	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-22	10-AHU-1	8 in	385	350	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-23	10-AHU-1	8 in	645	250	350	680	230	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	1.50 GPM	5 FT	3/4"	15,190 Btu/h	1, 2
10-VAV-24	10-AHU-1	12 in	1350	400	810	1500	500	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	3.50 GPM	5 FT	1"	35,154 Btu/h	1, 2
10-VAV-25	10-AHU-1	10 in	900	350	550	1050	350	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	2.50 GPM	5 FT	3/4"	23,870 Btu/h	1, 2
10-VAV-26	10-AHU-1	5 in	240	70	200	260	90	VAV	5°F DEADBAND	HOT WATER	1	55 °F	95 °F	0.40 in-wg	180 °F	160 °F	0.75 GPM	5 FT	3/4"	8,680 Btu/h	1, 2

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE WITH 120V-24V TRANSFORMER.

VALVE SCHEDULE

MARK	SYSTEM AND/OR SERVICE	TYPE	SIZE	FLOW	REMARKS
10-CV-1	10-VAV-1	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-2	10-VAV-2	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1
10-CV-3	10-VAV-3	TWO-WAY CONTROL VALVE	3/4" -3/4"	2.50 GPM	1
10-CV-4	10-VAV-4	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.25 GPM	1
10-CV-5	10-VAV-5	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.00 GPM	1
10-CV-7	10-VAV-7	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-8	10-VAV-8	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.50 GPM	1
10-CV-9	10-VAV-9	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-10	10-VAV-10	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.50 GPM	1
10-CV-11	10-VAV-10	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-12	10-VAV-12	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1
10-CV-13	10-VAV-13	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-14	10-VAV-14	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1
10-CV-15	10-VAV-15	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1
10-CV-16	10-VAV-16	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1
10-CV-17	10-VAV-17	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1
10-CV-18	10-VAV-18	TWO-WAY CONTROL VALVE	3/4" -3/4"	2.25 GPM	1
10-CV-19	10-VAV-19	TWO-WAY CONTROL VALVE	3/4" -3/4"	3.50 GPM	1
10-CV-20	10-VAV-20	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-21	10-VAV-21	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-22	10-VAV-21	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-23	10-VAV-24	TWO-WAY CONTROL VALVE	3/4" -3/4"	1.50 GPM	1
10-CV-24	10-VAV-22	TWO-WAY CONTROL VALVE	3/4" -3/4"	3.50 GPM	1
10-CV-25	10-VAV-25	TWO-WAY CONTROL VALVE	3/4" -3/4"	2.50 GPM	1
10-CV-26	10-VAV-26	TWO-WAY CONTROL VALVE	3/4" -3/4"	0.75 GPM	1

NOTES:
1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

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5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: SPG | Drawn: AV

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ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)
1PH	1 PHASE
2/C	TWO-CONDUCTOR (3/C, 4/C, ETC.)
2W	TWO-WIRE (3W, 4W, ETC.)
3PH	3 PHASE
A	AMPERE
AAP	ALARM ANNUNCIATOR PANEL
AC	ABOVE COUNTER AIR CONDITIONER ALTERNATING CURRENT
ACC	ACCESSIBLE
ACLG	ABOVE CEILING
ADO	AUTOMATIC DOOR OPENER
A/E	ARCHITECT/ENGINEER
AF	AMP FRAME
AFC	AVAILABLE FAULT CURRENT (KILOAMPS)
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT CIRCUIT INTERRUPTER
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALT	ALTERNATE
AMP	AMPERE
APPROX	APPROXIMATELY
ARCH	ARCHITECT, ARCHITECTURAL
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BATT	BATTERY
BC	BARE COPPER
BD	BOARD
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
BYP	BYPASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATED
CAP	CAPACITY
CAT	CATALOG, CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCR	CONTROL CONTACTOR
CCT	CORRELATED COLOR TEMPERATURE
CCTV	CLOSED-CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR-FURNISHED
CKT	CIRCUIT
CLG	CEILING
CO	CONTRACTING OFFICER
COAX	COAXIAL CABLE
COMM	COMMUNICATION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUATION OR CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CTR	CENTER
CU	COPPER
CU FT	CUBIC FEET
D	DEMOLITION
dB	DECIBEL
DB	DIRECT BURIAL
DC	DIRECT CURRENT
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO	DEMOLISH/DEMOLITION
DEPT	DEPARTMENT
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DS	SAFETY DISCONNECT SWITCH
DT	DOUBLE THROW
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EM	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
ESMT	EASEMENT
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WALL HEATER ELECTRIC WATER HEATER
EX	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FCU	FAN COIL UNIT
FIXT	FIXTURE
FLR	FLOOR
FU	FUSE
FUDS	FUSED SAFETY DISCONNECT SWITCH
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL (CONDUIT)
GYP BD	GYPSUM BOARD
HID	HIGH-INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HTR	HEATER
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IES	ILLUMINATION ENGINEERING SOCIETY
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
I/W	INTERLOCK WITH
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LED	LIGHT-EMITTING DIODE
LF	LINEAR FEET/FOOT
LM	LUMEN
LRA	LOCKED ROTOR AMPS
LT	LIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR METAL-CLAD (CONDUIT)
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MFR	MANUFACTURER
MFS	MAIN FUSED DISCONNECT SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOA	MULTIOUTLET ASSEMBLY
MSBD	MAIN SWITCHBOARD
MT	MOUNT
MTR	MOTOR, MOTORIZED
MTS	MANUAL TRANSFER SWITCH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL	OVERLOAD
PA	PUBLIC ADDRESS
PB	PULL BOX OR PUSHBUTTON
PBPU	PREFABRICATED BEDSIDE PATIENT UNIT
PCB	POLYCHLORINATED BIPHENYL
PC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATING VALVE
PNL	PANEL
POE	POWER-OVER-ETHERNET
PR	PAIR
PRI	PRIMARY
PROJ	PROJECTION
PRV	POWER ROOF VENTILATOR
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT)
PWR	POWER
QTY	QUANTITY
R	RELOCATE/RELOCATED
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
REQD	REQUIRED
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
RTU	ROOF TOP UNIT
SC	SURFACE CONDUIT
SEC	SECONDARY
SF	SQUARE FEET/FOOT
SHT	SHEET
SI	INTERNATIONAL SYSTEM OF UNITS
SIM	SIMILAR
SIN	SOLID NEUTRAL
SPEC	SPECIFICATION
SPKR	SPEAKER
SP	SPARE
SR	SURFACE RACEWAY
SS	STAINLESS STEEL
SSW	SELECTOR SWITCH
STD	STANDARD
SURF	SURFACE MOUNTED
SW	SWITCH
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
SYS	SYSTEM
TC	TIMECLOCK
TEL	TELEPHONE
TEL/DATA	TELEPHONE/DATA
TERM	TERMINAL
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TR	TAMPER RESISTANT
T-STAT	THERMOSTAT
TTB	TELEPHONE TERMINAL BOARD
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TYP	TYPICAL
UC	UNDER COUNTER
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UT	UNDERGROUND TELEPHONE
UTP	UNSHIELDED TWISTED PAIR
UTIL	UTILITY
UV	UNIT VENTILATOR OR ULTRAVIOLET
V	VOLT
VA	VOLT-AMPERES
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATT
W/	WITH
WH	WATER HEATER
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
∠	ANGLE
@	AT
Δ	DELTA
'	FEET
"	INCHES
#	NUMBER
Φ	PHASE
℄	CENTER LINE
PL	PLATE

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT AND FEEDERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICANS WITH DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND VA STANDARDS.
2. PROVIDE ADDITIONAL SUPPORT FOR DEVICES, FIXTURES, EQUIPMENT AND FEEDERS WHERE THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
3. FIRESTOP, DRAFTSTOP, SMOKESTOP AND/OR PROTECT THE ANNULAR SPACE AROUND ALL PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILING, AND ROOFS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, UL LISTING REQUIREMENT AND THE APPLICABLE BUILDING CODES.
4. VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES, TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.
5. PROTECT EXISTING UNDERGROUND AND BUILDING INTERIOR UTILITIES DURING CONSTRUCTION.
6. BRANCH CIRCUIT CONDUCTORS SHALL BE 12 AWG COPPER MINIMUM.
7. COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION.
8. ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR SPARE, OR SPACE.
9. MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD, AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED. ALL PRODUCTS MUST COMPLY WITH "BUY AMERICAN ACT".
10. ALL FEEDERS AND CIRCUITRY SHALL BE TORQUED PER THE PANEL, BREAKER, AND/OR PARTICULAR EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
11. CIRCUITRY TO SWITCHES, RECEPTACLES, AND ALL OTHER DEVICES SHALL BE TERMINATED ON THE DEVICE'S SCREW TERMINALS.
12. MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE, OR EQUIPMENT UNLESS NOTED OTHERWISE.
13. ALL WIRE TERMINATIONS SHALL BE RATED FOR 75 DEGREES C.
14. ALL CONDUCTORS SHALL HAVE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.
15. ALL CONDUIT SHALL BE RGS OR EMT UNLESS OTHERWISE NOTED. FMC CONDUIT SHALL BE USED ON VIBRATING EQUIPMENT (MAXIMUM LENGTH OF 6 FEET). PVC SHALL BE USED FOR UNDERGROUND CONDUIT OR WHERE CONCRETE-ENCASED. WHERE VIBRATING EQUIPMENT IS LOCATED OUTSIDE, LFMC CONDUIT SHALL BE USED (MAXIMUM SIX FEET) FOR FINAL CONNECTIONS.
16. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
17. FOR ALL LED FIXTURES, THE FIXTURE MUST BE CAPABLE OF SELF-RESETTING TO THE SWITCHED/CONTROLLED STATE DURING ANY FLUCTUATION IN POWER SUPPLY WHERE AUTOMATIC PROTECTIVE MEASURES DISABLE THE LED LAMPS. PROVIDE A LETTER OR STATEMENT FROM THE MANUFACTURER, OR OTHER ACCEPTABLE PROOF, THAT ALL LED FIXTURES, WITH OR WITHOUT BROWNOUT PROTECTION, WILL RETURN TO THE SWITCHED/CONTROLLED STATE AUTOMATICALLY. PROVIDE STATEMENT WITH THE FIXTURE SUBMITTALS.
18. IN CASE OF CONFLICTS OR DISCREPANCIES WITHIN OR AMONG THE CONTRACT DRAWINGS, THE BETTER QUALITY, MORE STRINGENT REQUIREMENTS OR GREATER QUANTITY OF WORK , AS DETERMINED BY THE GOVERNMENT, SHALL BE PROVIDED.
19. COMPRESSION COUPLINGS SHALL BE USED. NO SET SCREW FITTINGS ARE ALLOWED.
20. MINIMUM CONDUIT SIZE TO BE USED IS 3/4".
21. FEEDER TAGS APPENDED WITH 'VD' ARE UPSIZED IN AMPACITY DUE TO VOLTAGE DROP.

ELECTRICAL SYMBOL NOTES

A1 b — THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER OR AN UPPER CASE LETTER AND NUMBER.
THE SWITCH DESIGNATION (IF NEEDED) IS INDICATED BY A LOWER CASE LETTER.

EXAMPLE: LIGHTING FIXTURE TYPE 'A1' IS CONTROLLED BY SWITCH 'b'.

EXIT SIGNS: STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S).

E1 — EXAMPLE 1: WALL MOUNTED EXIT SIGN TYPE 'E1' WITH SINGLE FACE AND DIRECTIONAL ARROW.

E2 — EXAMPLE 2: CEILING MOUNTED EXIT SIGN TYPE 'E2' WITH DOUBLE FACE AND DIRECTIONAL ARROWS.

DEVICES: THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

c — EXAMPLE: SPLIT DUPLEX RECEPTACLE; ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH 'c'.

THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

d — EXAMPLE: SINGLE POLE SWITCH 'd' TO CONTROL LIGHTING FIXTURES INDICATED BY 'd'.

TRANSFORMERS: THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER 'T'. SEE THE TRANSFORMER SCHEDULE OR THE SINGLE LINE DIAGRAM FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS.

T1 — EXAMPLE: TRANSFORMER TYPE 'T1'.

'LPN' — PANELBOARDS: PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION CODES.

— SHEET KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.

DEMOLITION KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE SQUARE.

HOME RUN TO BRANCH CIRCUIT PANEL: THE PANEL DESIGNATION AND CIRCUIT DESIGNATION ARE SHOWN ADJACENT TO THE HOME RUN ARROW. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANEL SCHEDULE WITH THE CORRESPONDING PANEL AND CIRCUIT DESIGNATION.

'LPN'-1,3,5 — EXAMPLE: HOME RUN TO PANELBOARD 'LPN'; CIRCUITS 1, 3, 5.

SYMBOL NOTATIONS: UPPER CASE LETTERS ADJACENT TO SYMBOLS INDICATE A UNIT TYPE. SEE APPROPRIATE SCHEDULE OR SPECIFICATIONS.

LIGHTNING PROTECTION SYMBOL LEGEND

SYMBOL	DESCRIPTION
— – —	LIGHTNING PROTECTION CONDUCTOR
	LIGHTNING PROTECTION AIR TERMINAL
	LIGHTNING PROTECTION GROUND ROD
	LIGHTNING PROTECTION DOWN CONDUCTOR

LIGHTING SYMBOL LEGEND

SYMBOL	HEIGHT AFF *	DESCRIPTION
	---	2' X 2' RECESSED ARCHITECTURAL TROFFER
	---	2' X 2' RECESSED ARCHITECTURAL TROFFER - EMERGENCY BACK UP
	---	6" DIAMETER RECESSED DOWNLIGHT
	---	6" DIAMETER RECESSED DOWNLIGHT - EMERGENCY BACK UP
	7'-0" CENTER	4' LINEAR - WALL MOUNTED
	---	4' LINEAR STRIP - SUSPENDED
	---	4' LINEAR STRIP - SUSPENDED - EMERGENCY BACK UP
	---	20' LINEAR GRID MOUNTED
	---	4' LINEAR - SURFACE MOUNTED
	7'-5" BOTTOM	EXIT SIGN - WALL MOUNTED
	---	EXIT SIGN - CEILING MOUNTED
	7'-6" CENTER	EMERGENCY LIGHT BATTERY OPERATED - WALL MOUNTED
	6'-0" CENTER	WALL SCONCE - DECORATIVE INTERIOR
	7'-0" CENTER	WALL SCONCE - EMERGENCY BACK UP
$	48" CENTER	SINGLE POLE WALL SWITCH
		SWITCH MODIFIERS: OS: OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY VS: VACANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY DR: DUAL RELAY VSD: VACANCY SENSOR, LINE VOLTAGE, DIMMER OSD: OCCUPANCY SENSOR, LINE VOLTAGE, DIMMER LV: LOW VOLTAGE LVD: LOW VOLTAGE DIMMER D: LINE VOLTAGE DIMMER T: DIGITAL TIMER K: KEYED 3: 3 WAY L: ILLUMINATED TOGGLE
	---	OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY - CEILING MOUNTED
	---	OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY - WALL/CORNER MOUNTED
RC	---	LOW VOLTAGE LIGHTING CONTROL DEVICE
RCD	---	LOW VOLTAGE LIGHTING CONTROL DEVICE WITH 0-10V DIMMING
	---	LIGHT LEVEL SENSOR, SINGLE ZONE DIMMING CLOSED LOOP - CEILING MOUNTED

* - ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.

ELECTRICAL SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION
	18"	120V SIMPLEX RECEPTACLE
	18"	120V DUPLEX RECEPTACLE
	18"	120V DUPLEX RECEPTACLE EMERGENCY OUTLET AND COVER PLATE SHALL BE RED IN COLOR
	18"	120V QUADRUPLEX RECEPTACLE
	18"	120V QUADRUPLEX RECEPTACLE EMERGENCY OUTLET AND COVER PLATE SHALL BE RED IN COLOR
	18"	208V DUPLEX RECEPTACLE
	18"	SPECIAL RECEPTACLE
		120V DUPLEX RECEPTACLE FLOOR BOX
		120V DUPLEX RECEPTACLE EMERGENCY FLOOR BOX OUTLET AND COVER PLATE SHALL BE RED IN COLOR
		120V QUADRUPLEX RECEPTACLE FLOOR BOX
		120V QUADRUPLEX RECEPTACLE EMERGENCY FLOOR BOX OUTLET AND COVER PLATE SHALL BE RED IN COLOR
		RECEPTACLE MODIFIERS: AC: 3" ABOVE COUNTERTOP/BACKSPLASH GFI: GROUND FAULT CURRENT INTERRUPTER WP: WEATHERPROOF ENCLOSURE DED: DEDICATED CIRCUIT
	AS NOTED	JUNCTION BOX, WALL MOUNTED, PURPOSE AS NOTED
CLG		JUNCTION BOX, CEILING MOUNTED, PURPOSE AS NOTED
		JUNCTION BOX, FLOOR MOUNTED, PURPOSE AS NOTED
E	AS NOTED	EQUIPMENT CONNECTION
	72" TOP	DISCONNECT SWITCH NON-FUSED
	72" TOP	DISCONNECT SWITCH FUSED
$	48"	SINGLE POLE WALL SWITCH: 48" AFF STANDARD UNO
		SWITCH MODIFIERS: M: MOTOR-RATED

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
TOP: HEIGHT TO TOP OF DEVICE
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.

WALL RATING LEGEND

- 2 HOUR FIRE SEPARATION
- 1 HOUR FIRE SEPARATION
- S — SMOKE RATED

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL GENERAL NOTES, SYMBOL LEGENDS, AND ABBREVIATIONS

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: E-001

Dwg 1 of 15

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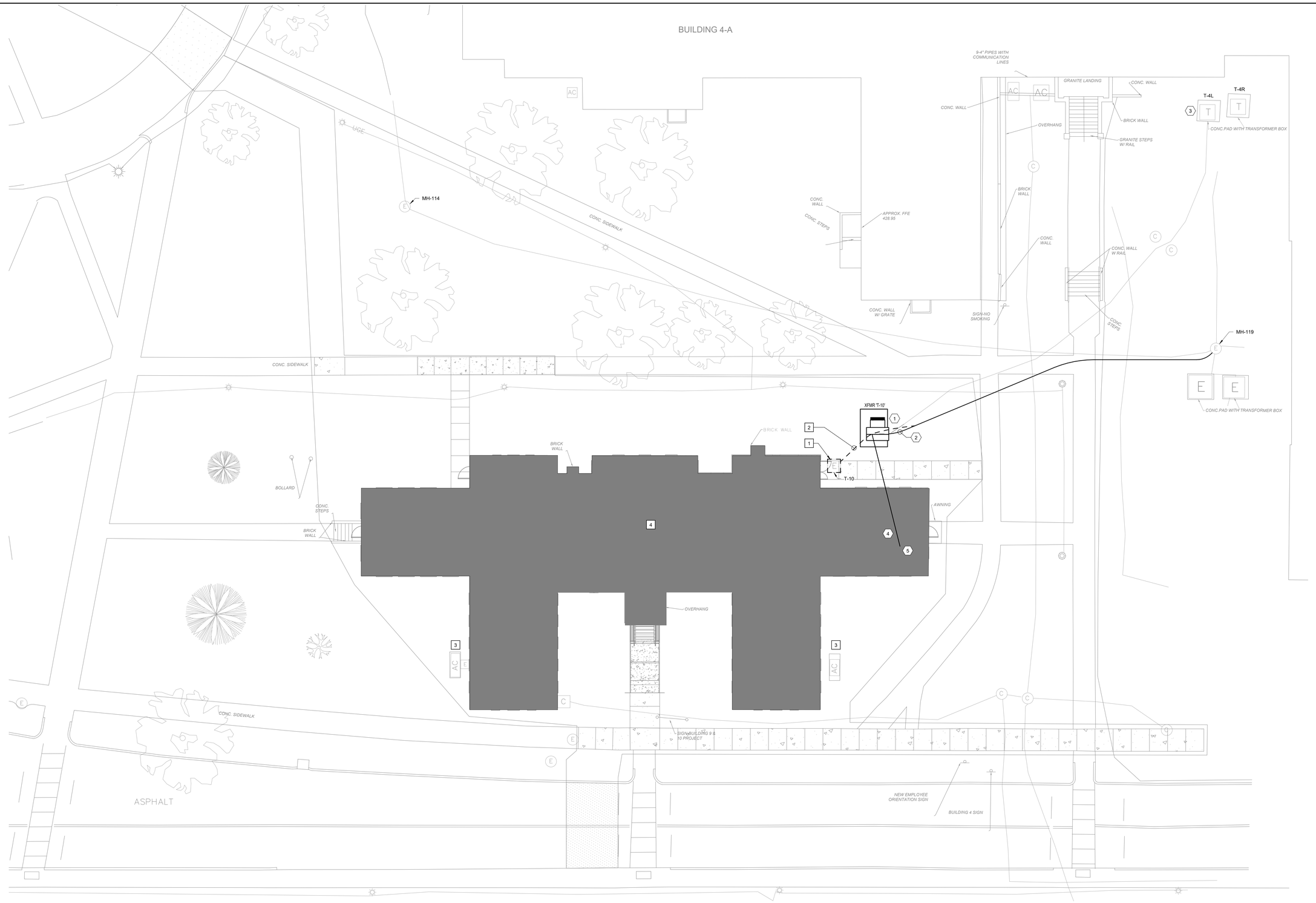

1 **ELECTRICAL SITE PLAN**
Scale: 1" = 10'-0"

SHEET NOTES:

A. REFERENCE E-601 FOR SINGLE LINE.

KEY NOTES:

1. DEMOLISH EXISTING TRANSFORMER. DISCONNECT AND REMOVE EXISTING MV CONDUCTORS BACK TO MH-119.
2. DEMOLISH TRANSFORMER PAD AND PORTION OF EXISTING DUCTBANK AS SHOWN. PROTECT REMAINING PORTION OF DUCTBANK FOR REUSE. PREPARE CONDUIT ENDS FOR EXTENSION TO NEW TRANSFORMER PAD.
3. REMOVE ALL ELECTRICAL CONNECTIONS, DISCONNECTS, WIRING, RACEWAY, ETC, TO MECHANICAL EQUIPMENT.
4. ALL ELECTRICAL DEVICES, CONDUIT, BOXES, WIRING, LIGHT FIXTURES, PANELS, ETC. WITHIN BUILDING TO BE COMPLETELY REMOVED.

KEY NOTES:

1. PROVIDE NEW 150 KVA, 12.47kV:120/208V TRANSFORMER AND EQUIPMENT PAD.
2. EXTEND EXISTING DUCTBANK RETAINED FROM DEMOLITION TO NEW TRANSFORMER PAD. TURN UP CONDUITS IN THE PRIMARY SIDE WINDOW OF THE PAD.
3. PROVIDE NEW MV CONDUCTORS FROM MH-119. SPLICE THE CONDUCTORS IN MH-119, REPLICATING THE PREVIOUS SERVICE ARRANGEMENT. REFER TO THE SINGLE LINE DIAGRAM ON SHEET E-601 FOR ADDITIONAL INFORMATION.
4. PROVIDE CONCRETE ENCASED DUCTBANK FOR SERVICE FEEDER TO MDP, MAINTAIN MINIMUM DEPTH OF 24" BELOW NEW GRADE ELEVATION AND UNDER BUILDING IN CRAWL SPACE. REFER TO SINGLE LINE DIAGRAM ON SHEET E-601 FOR ADDITIONAL INFORMATION.
5. USE RIGID GALVANIZED STEEL ELBOWS AND RACEWAY FOR TRANSITION FROM UNDERGROUND TO ELECTRICAL EQUIPMENT.

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#	Revisions:	Date

CONSULTANTS:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SITE PLAN

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Approved

Date MAY 9, 2025 | Checked KTK | Drawn CCH

Drawing Number ES101

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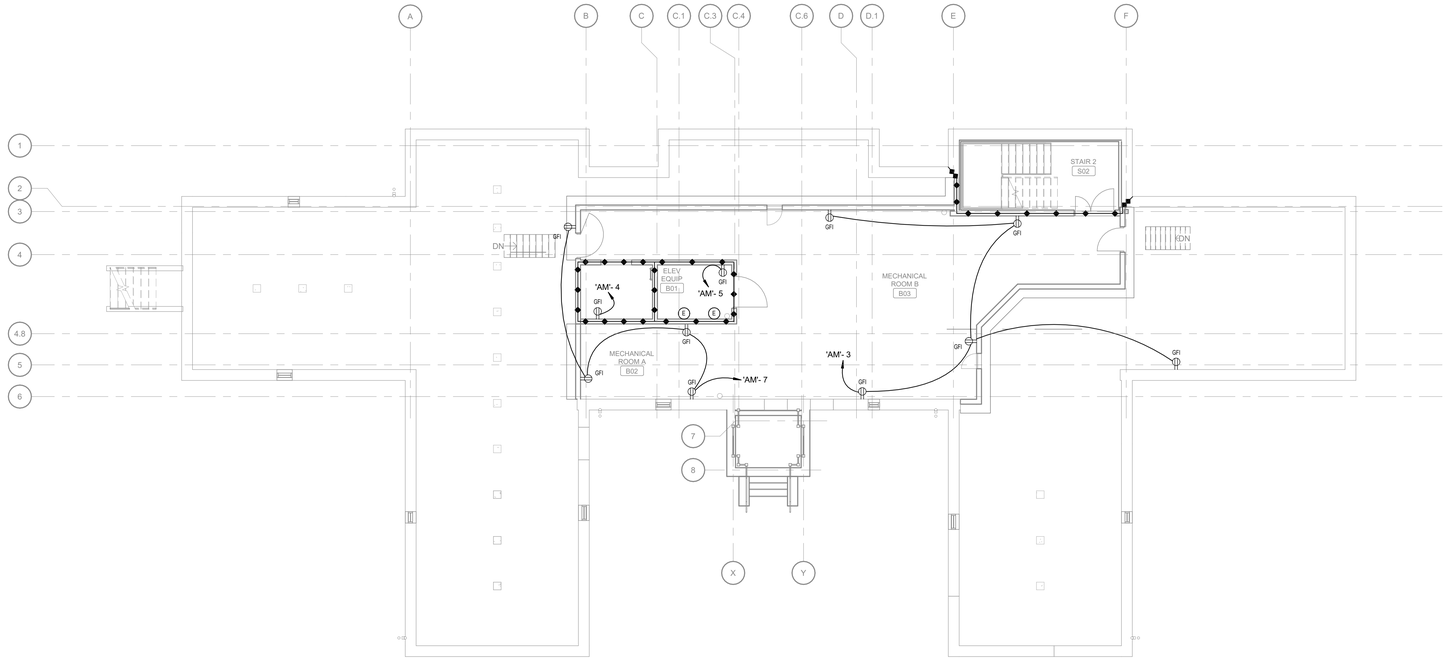
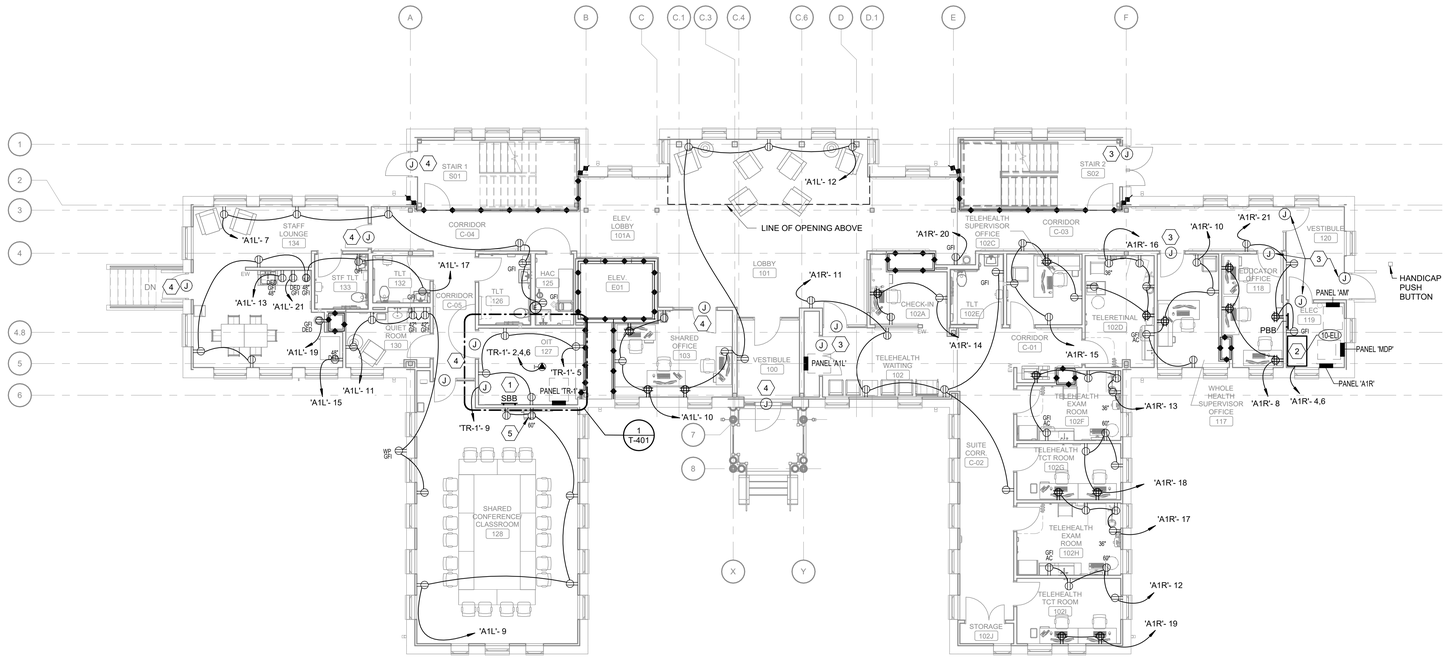


1 BASEMENT POWER PLAN

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



2 FIRST FLOOR POWER PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. PRIOR TO INSTALLING BRANCH CIRCUIT WIRES AND WIRING DEVICES TO LOCATIONS OF OWNER FURNISHED EQUIPMENT, CONTRACTOR TO REVIEW ALL OWNER FURNISHED EQUIPMENT CUT SHEETS. NOTIFY COR IF DISCREPANCIES EXIST BETWEEN WIRING DEVICES SHOWN AND EQUIPMENT FURNISHED.

C. ALL RECEPTACLE CONDUCTORS ARE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT MINIMUM UNLESS NOTED OTHERWISE.

D. COORDINATE EQUIPMENT WITH ARCHITECTURAL EQUIPMENT PLANS AND SCHEDULES.

E. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

F. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF WALL DEVICES. FOR DEVICES NOT FOUND ON INTERIOR SHEETS INSTALL DEVICES AT STANDARD MOUNTING HEIGHTS FOUND ON ELECTRICAL SYMBOL LEGEND.

G. GFCI RECEPTACLES SHALL NOT SERVE OTHER LOADS FROM THEIR LOAD SIDE TERMINALS.

H. THERE SHALL BE NO CONNECTIONS TO BEAMS.

KEY NOTES:

1. SECONDARY BONDING BUSBAR TO BE LOCATED BEHIND OR TO THE SIDE OF THE RACKS. TELECOMMUNICATIONS EQUIPMENT SHALL BE BONDED ACCORDING TO THE GROUNDING AND BONDING DETAILS. REFER TO DETAIL 3/T-501 FOR MORE INFORMATION.
2. CENTRAL EMERGENCY LIGHTING BATTERY INVERTER; 2.25 KVA; 90 MIN. RUNTIME; 208V SINGLE PHASE INPUT, 120V SINGLE PHASE OUTPUT WITH EIGHT (8) 20AMP 120V/1PH OUTPUT BREAKERS.
3. PROVIDE POWER FOR AUTOMATIC DOOR OPERATOR FROM PANEL 'A1R'-2. COORDINATE WITH DOOR INSTALLER.
4. PROVIDE POWER FOR AUTOMATIC DOOR OPERATOR FROM PANEL 'A1L'-18. COORDINATE WITH DOOR INSTALLER.
5. COORDINATE EXACT MOUNTING HEIGHT WITH COR FOR EQUIPMENT REQUIREMENTS.

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#	Revisions:	Date

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5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR POWER PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: EP101

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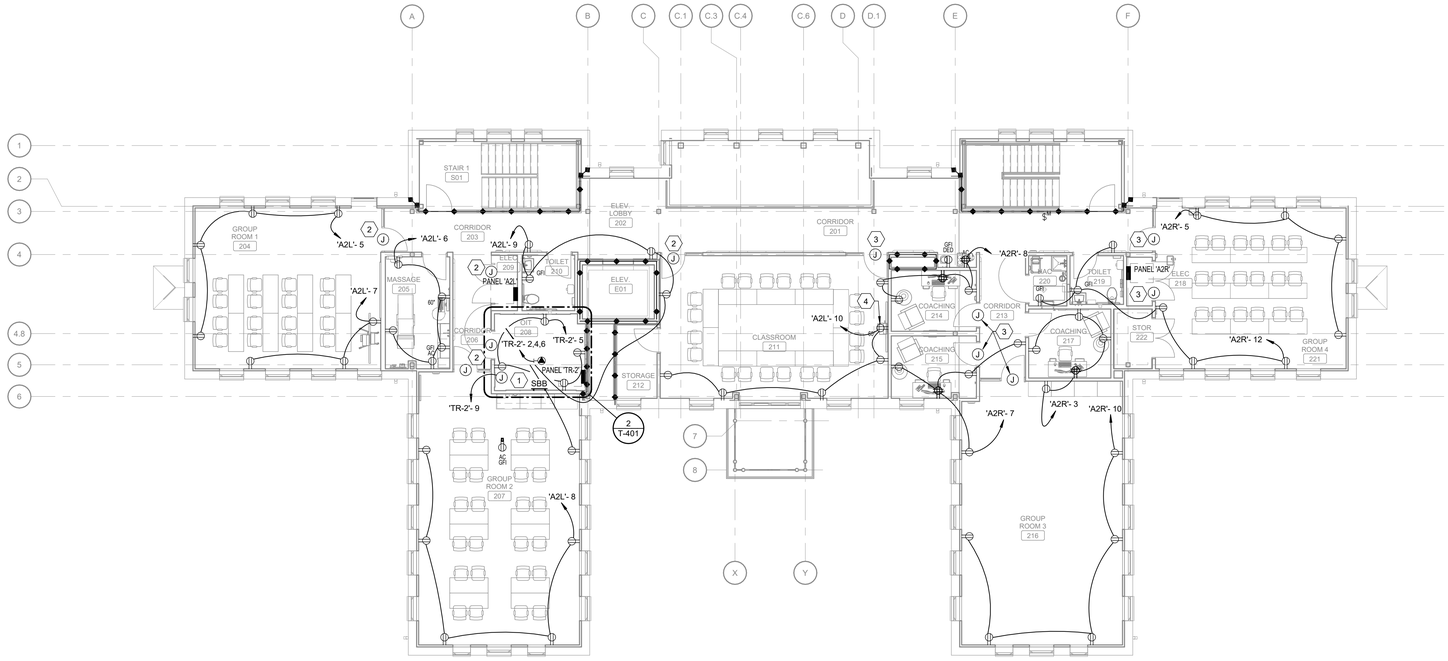
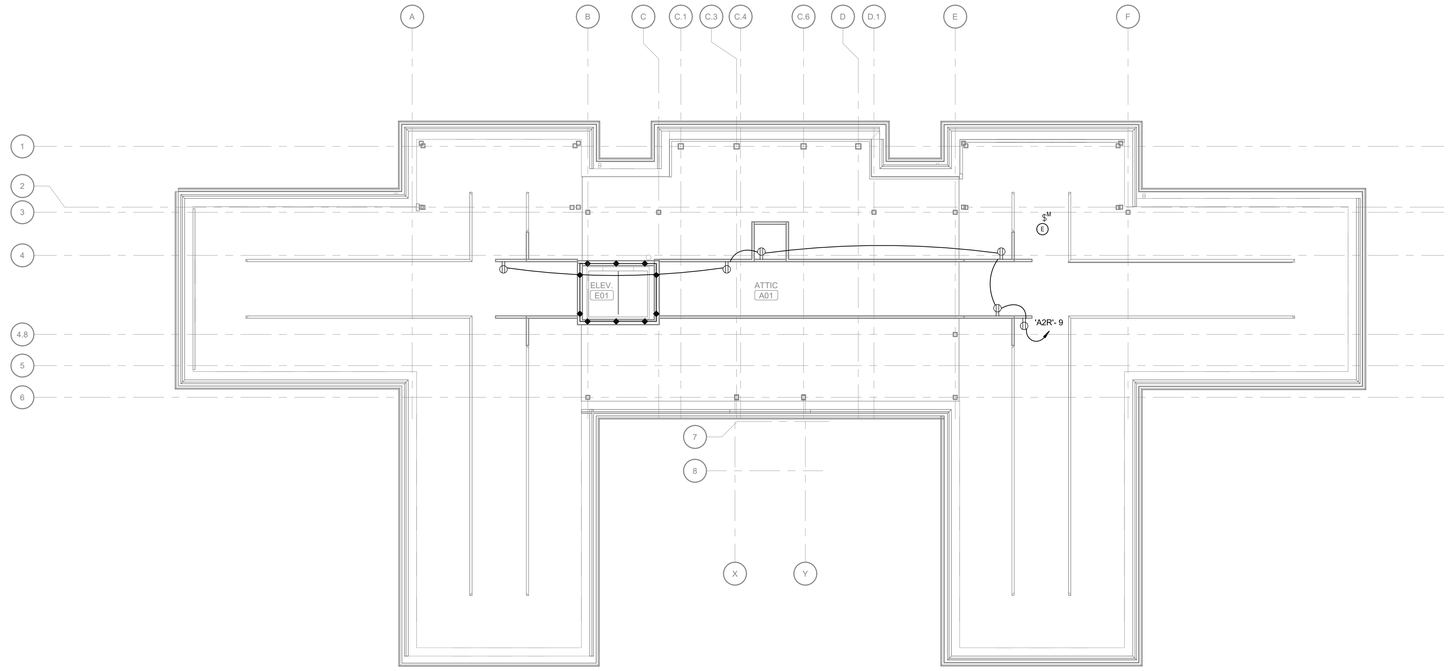


1 SECOND FLOOR POWER PLAN

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



2 ATTIC POWER PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. PRIOR TO INSTALLING BRANCH CIRCUIT WIRES AND WIRING DEVICES TO LOCATIONS OF OWNER FURNISHED EQUIPMENT, CONTRACTOR TO REVIEW ALL OWNER FURNISHED EQUIPMENT CUT SHEETS. NOTIFY COR IF DISCREPANCIES EXIST BETWEEN WIRING DEVICES SHOWN AND EQUIPMENT FURNISHED.

C. ALL RECEPTACLE CONDUCTORS ARE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT MINIMUM UNLESS NOTED OTHERWISE.

D. COORDINATE EQUIPMENT WITH ARCHITECTURAL EQUIPMENT PLANS AND SCHEDULES.

E. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

F. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF WALL DEVICES. FOR DEVICES NOT FOUND ON INTERIOR SHEETS INSTALL DEVICES AT STANDARD MOUNTING HEIGHTS FOUND ON ELECTRICAL SYMBOL LEGEND.

G. GFCI RECEPTACLES SHALL NOT SERVE OTHER LOADS FROM THEIR LOAD SIDE TERMINALS.

H. THERE SHALL BE NO CONNECTIONS TO BEAMS.

KEY NOTES:

1 SECONDARY BONDING BUSBAR TO BE LOCATED BEHIND OR TO THE SIDE OF THE RACKS. TELECOMMUNICATIONS EQUIPMENT SHALL BE BONDED ACCORDING TO THE GROUNDING AND BONDING DETAILS. REFER TO 3/T-501 FOR MORE INFORMATION.

2 PROVIDE POWER FOR AUTOMATIC DOOR OPERATOR FROM PANEL 'A2L'-11. COORDINATE WITH DOOR INSTALLER.

3 PROVIDE POWER FOR AUTOMATIC DOOR OPERATOR FROM PANEL 'A2R'-16. COORDINATE WITH DOOR INSTALLER.

4 COORDINATE EXACT MOUNTING HEIGHT WITH COR FOR EQUIPMENT REQUIREMENTS.

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#	Revisions:	Date

CONSULTANTS:

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VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC POWER PLANS

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

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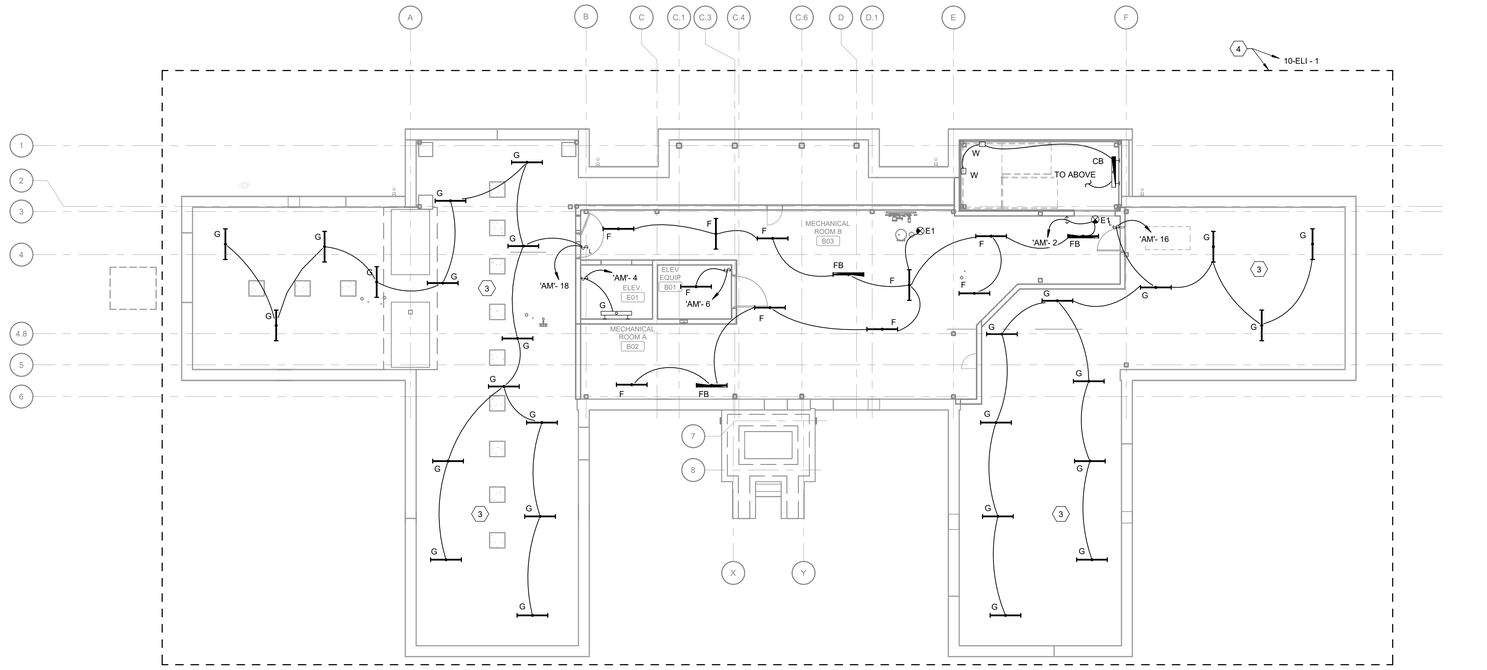
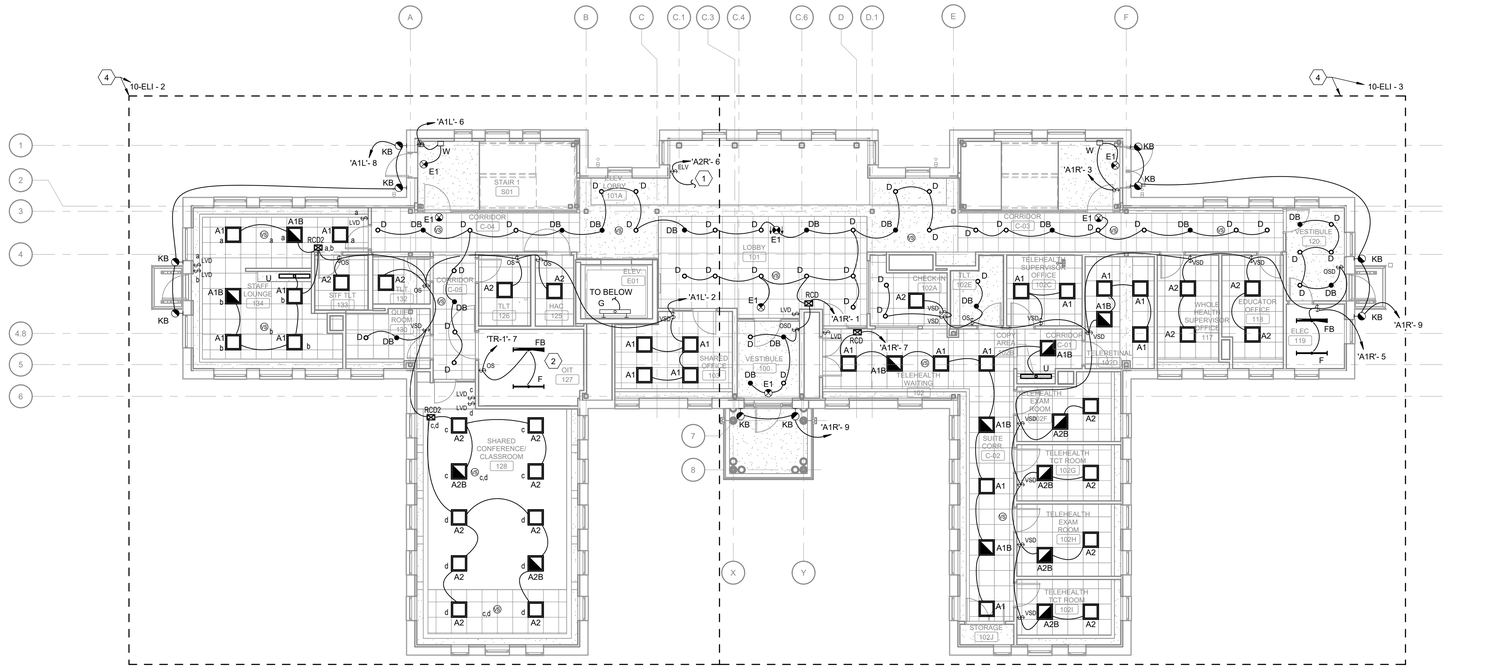


1 BASEMENT LIGHTING PLAN

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



2 FIRST FLOOR LIGHTING PLAN

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

SHEET NOTES:

A. ALL 120 VOLT 20 AMP BRANCH CIRCUIT CONDUCTORS SHALL BE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT, UNLESS NOTED OTHERWISE.

B. ALL UNSWITCHED EXIT SIGNS SHALL BE CIRCUITED FROM EMERGENCY LIGHTING INVERTER CIRCUIT INDICATED, BUT AHEAD OF ANY CONTROLS OR SWITCHING. EMERGENCY LIGHTING INVERTER SHALL RE-ENERGIZE LAMPS DURING A POWER OUTAGE.

C. ALL SWITCHED EMERGENCY LIGHTS WITH EMERGENCY INVERTER BATTERY BACK-UP SHALL BE CIRCUITED FROM EMERGENCY LIGHTING INVERTER CIRCUIT INDICATED. EMERGENCY LIGHTING INVERTER SHALL OVERRIDE ANY SWITCHING DURING A POWER OUTAGE VIA UL924 EMERGENCY DEVICE. SEE DETAIL 11/E-501.

D. ALL EXTERIOR BUILDING MOUNTED LIGHTING IS CONTROLLED BY PHOTOCELL AND ASTRONOMICAL TIME CLOCK.

E. LOCATION AND QUANTITY OF OCCUPANCY SENSORS AND LIGHT LEVEL SENSORS ARE APPROXIMATE. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED PLACEMENT AND INSTALL PER MANUFACTURER'S INSTRUCTIONS.

F. CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF ALL LIGHTING CONTROLS WITH THE LED DRIVERS TO BE CONTROLLED.

G. COORDINATE ALL TIME DELAY, AUTO DIM, PRESET DIMMING LEVELS, SENSOR SENSITIVITY AND OTHER CONFIGURATIONS WITH THE OWNER.

H. ALL MOUNTING HEIGHTS NOTED FOR LIGHTING FIXTURES ARE TO BOTTOM OF FIXTURE, UNLESS NOTED OTHERWISE.

I. EMERGENCY LIGHTING INVERTER WILL PROVIDE MINIMUM 90 MINUTES OF EMERGENCY BATTERY BACK UP FOR EMERGENCY LIGHTING.

J. SEE E-603 FOR LUMINAIRE SCHEDULE.

K. THERE SHALL BE NO CONNECTIONS TO BEAMS.

KEY NOTES:

1. TO SECOND STORY LOBBY LIGHTS ABOVE, TYPE B. PROVIDE COMPATIBLE DIMMER SWITCH PER MANUFACTURER.
2. MOUNT LIGHT FIXTURES AT 8'-0" AFF. COORDINATE LOCATIONS WITH CABLE TRAY.
3. SURFACE MOUNT ALL CRAWL SPACE LIGHT FIXTURES TO UNERSIDE OF STRUCTURE ABOVE.
4. ALL EMERGENCY LIGHTING FIXTURES CONTAINED IN THE DASHED LINE BOX ARE TO BE CIRCUITED TO DESIGNATION SHOWN.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER TODD KUBENA 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR LIGHTING PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: EL101

Dwg 5 of 15

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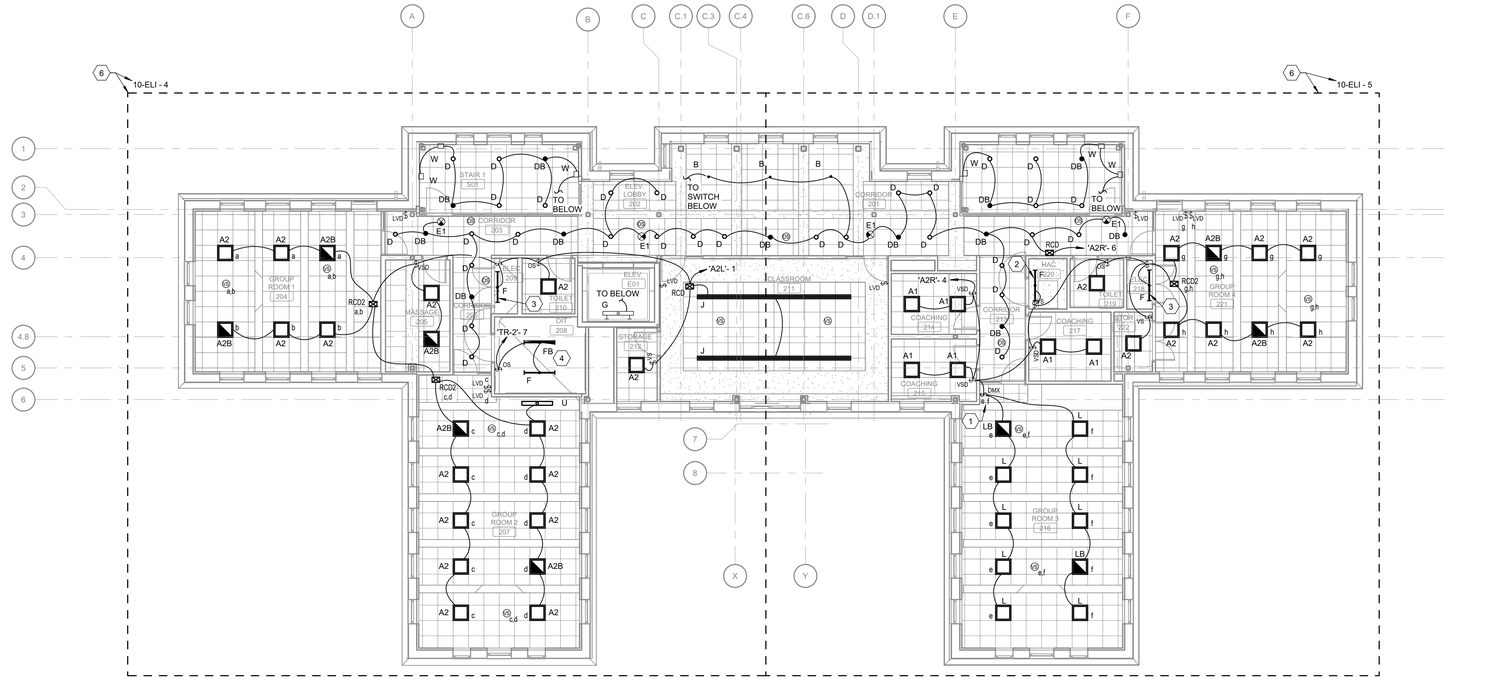
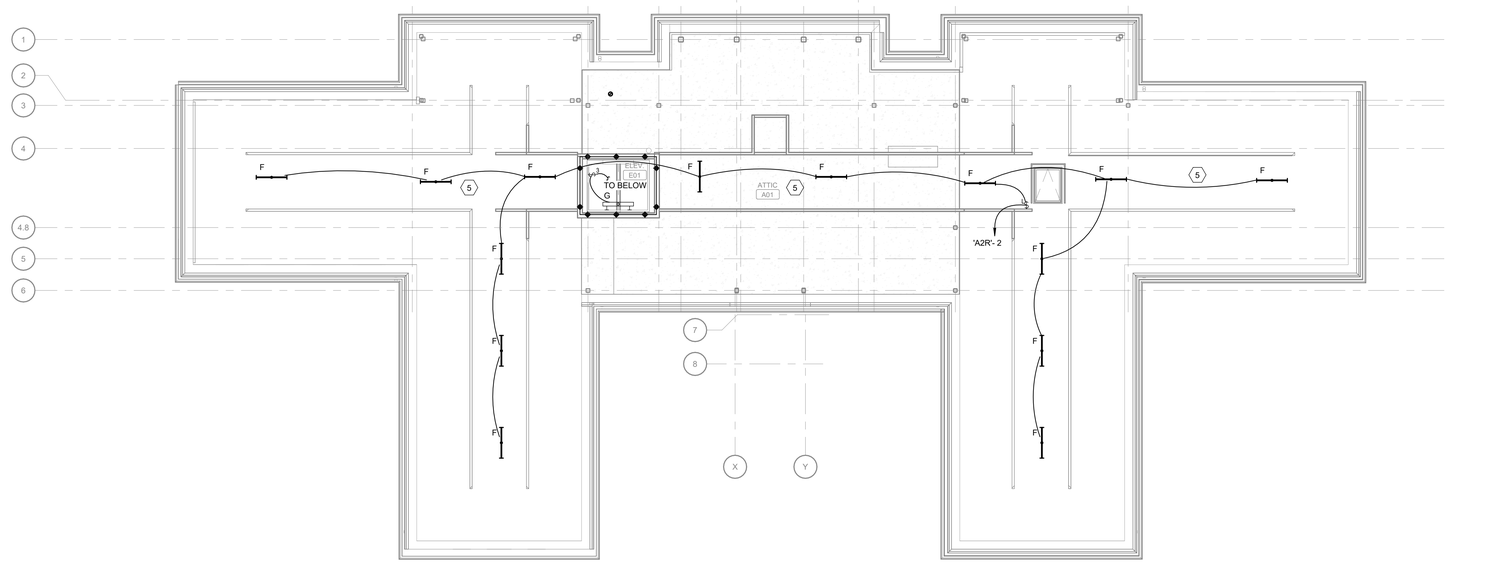


1 SECOND FLOOR LIGHTING PLAN

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



2 ATTIC LIGHTING PLAN

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

SHEET NOTES:

A. ALL 120 VOLT 20 AMP BRANCH CIRCUIT CONDUCTORS SHALL BE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT, UNLESS NOTED OTHERWISE.

B. ALL UNSWITCHED EXIT SIGNS SHALL BE CIRCUITED FROM EMERGENCY LIGHTING INVERTER CIRCUIT INDICATED, BUT AHEAD OF ANY CONTROLS OR SWITCHING. EMERGENCY LIGHTING INVERTER SHALL RE-ENERGIZE LAMPS DURING A POWER OUTAGE.

C. ALL SWITCHED EMERGENCY LIGHTS WITH EMERGENCY INVERTER BATTERY BACK-UP SHALL BE CIRCUITED FROM EMERGENCY LIGHTING INVERTER CIRCUIT INDICATED. EMERGENCY LIGHTING INVERTER SHALL OVERRIDE ANY SWITCHING DURING A POWER OUTAGE VIA UL924 EMERGENCY DEVICE. SEE DETAIL 11/E-501.

D. ALL EXTERIOR BUILDING MOUNTED LIGHTING IS CONTROLLED BY PHOTOCELL AND ASTRONOMICAL TIME CLOCK.

E. LOCATION AND QUANTITY OF OCCUPANCY SENSORS AND LIGHT LEVEL SENSORS ARE APPROXIMATE. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED PLACEMENT AND INSTALL PER MANUFACTURER'S INSTRUCTIONS.

F. CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF ALL LIGHTING CONTROLS WITH THE LED DRIVERS TO BE CONTROLLED.

G. COORDINATE ALL TIME DELAY, AUTO DIM, PRESET DIMMING LEVELS, SENSOR SENSITIVITY AND OTHER CONFIGURATIONS WITH THE OWNER.

H. ALL MOUNTING HEIGHTS NOTED FOR LIGHTING FIXTURES ARE TO BOTTOM OF FIXTURE, UNLESS NOTED OTHERWISE.

I. EMERGENCY LIGHTING INVERTER WILL PROVIDE MINIMUM 90 MINUTES OF EMERGENCY BATTERY BACK UP FOR EMERGENCY LIGHTING.

J. SEE E-603 FOR LUMINAIRE SCHEDULE.

K. THERE SHALL BE NO CONNECTIONS TO BEAMS.

KEY NOTES:

1. THREE ZONE WALL CONTROLLER, WHITE. COORDINATE WITH MANUFACTURER'S DMX INTEGRATOR FOR INSTALLATION.
2. SURFACE MOUNT TO GYP. CEILING
3. MOUNT LIGHT FIXTURES AT 8'-0" AFF HUNG FROM STRUCTURE ABOVE OR SURFACE MOUNTED ABOVE DOOR.
4. MOUNT LIGHT FIXTURES AT 8'-0" AFF. COORDINATE LOCATIONS WITH CABLE TRAY.
5. SURFACE MOUNT ALL ATTIC LIGHT FIXTURES TO UNDERSIDE OF STRUCTURE ABOVE.
6. ALL EMERGENCY LIGHTING FIXTURES CONTAINED IN THE DASHED LINE BOX ARE TO BE CIRCUITED TO DESIGNATION SHOWN.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER KYLE TODD KUBINSKI 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC LIGHTING PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: EL102

Dwg 6 of 15

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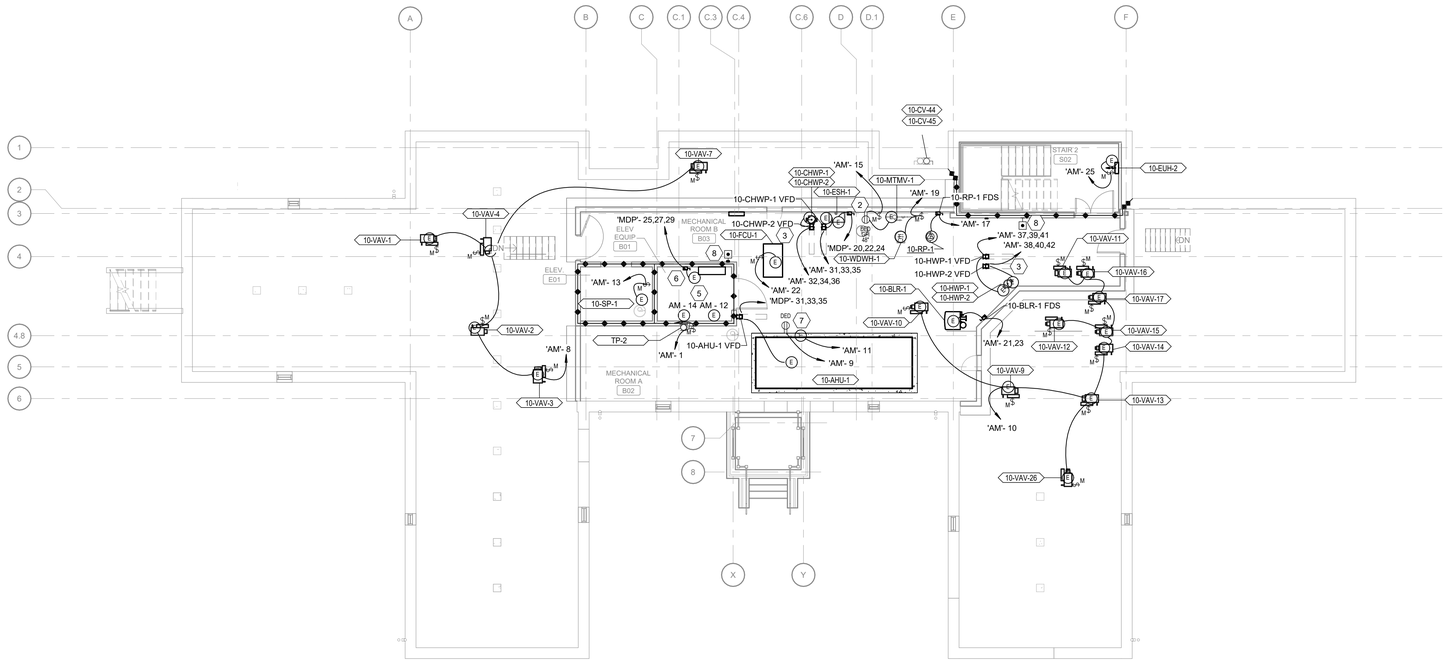
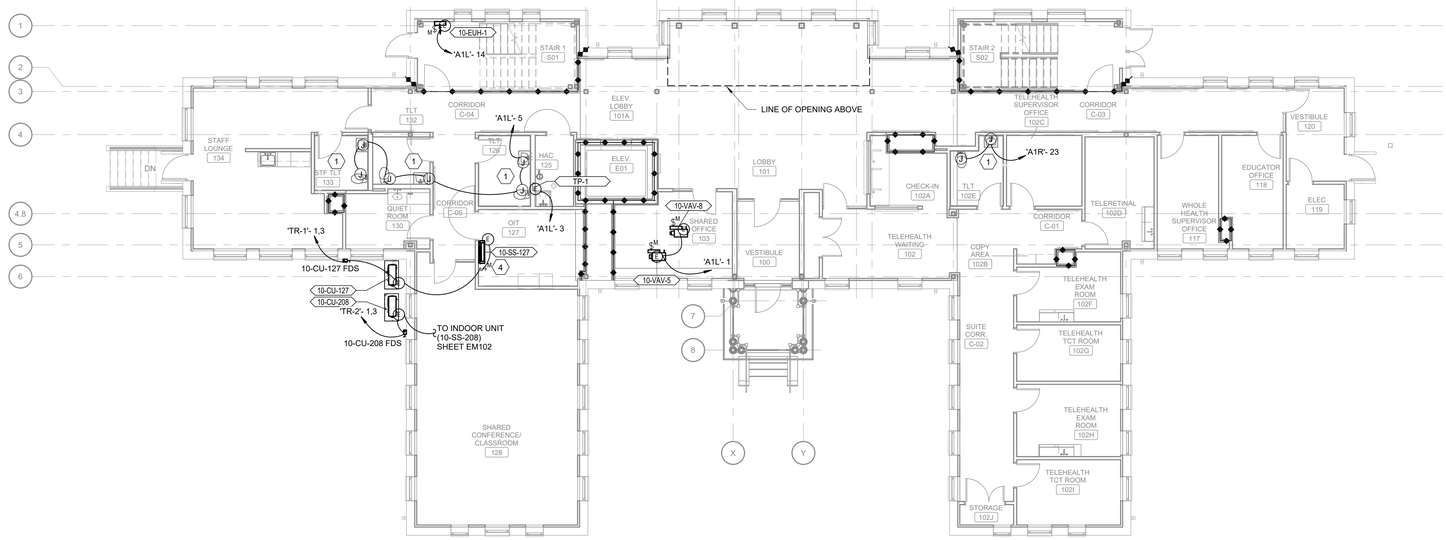


1 BASEMENT EQUIPMENT POWER PLAN

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



2 FIRST FLOOR EQUIPMENT POWER PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. PRIOR TO INSTALLING BRANCH CIRCUIT WIRES AND WIRING DEVICES TO LOCATIONS OF OWNER FURNISHED EQUIPMENT, CONTRACTOR TO REVIEW ALL OWNER FURNISHED EQUIPMENT CUT SHEETS. NOTIFY COR IF DISCREPANCIES EXIST BETWEEN WIRING DEVICES SHOWN AND EQUIPMENT FURNISHED.

C. COORDINATE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.

D. COORDINATE EQUIPMENT WITH ARCHITECTURAL EQUIPMENT PLANS AND SCHEDULES.

E. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

F. SEE EQUIPMENT CONDUCTOR SCHEDULE ON SHEET E-603 FOR MORE INFORMATION REGARDING EQUIPMENT BRANCH CIRCUITS AND DISCONNECT SIZING.

G. THERE SHALL BE NO CONNECTIONS TO BEAMS.

KEY NOTES:

1. PROVIDE (2) 12 AWG, (1) 12 AWG GND IN 3/4" C FEEDING INTO RECESSED J-BOX AT 48" AFF. PROVIDE GFI PROTECTED BREAKER FOR CIRCUIT FEEDING EQUIPMENT AND CIRCUIT TO FEED RELATED PLUMBING FIXTURE SENSOR. COORDINATE WITH PLUMBING CONTRACTOR FOR EQUIPMENT TIE-IN.
2. PROVIDE NEMA 5-15R RECEPTACLE FOR NEW MIXING VALVE POWER TIE-IN. COORDINATE WITH PLUMPING CONTRACTOR FOR DEVICE HEIGHT INSTALLATION.
3. PROVIDE UNISTRUT SUPPORTING INFRASTRUCTURE FOR VFD MOUNTING.
4. MECHANICAL EQUIPMENT AND LOCAL DISCONNECT FED FROM OUTDOOR UNIT. COORDINATE WITH MECHANICAL CONTRACTOR FOR POWER CONNECTION REQUIREMENTS.
5. PROVIDE (1) LOCKABLE DISCONNECT TO CONTROL ELEVATOR CAB LIGHTING AND (1) LOCKABLE DISCONNECT FOR CAB CAMERA CONTROLLER. COORDINATE WITH ELEVATOR CONTRACTOR FOR EQUIPMENT CONNECTIONS.
6. BRANCH EQUIPMENT CIRCUIT TO BE CONTROLLED BY SHUNT TRIP BREAKER. SEE PANEL SCHEDULES FOR SIZING AND COORDINATE WITH ELEVATOR CONTRACTOR FOR EQUIPMENT CONNECTIONS.
7. PROVIDE (2) 12 AWG, (1) 12 AWG GND IN 3/4" C TO ONE (1) EQUIPMENT SERVICE RECEPTACLE CIRCUIT AND ONE (1) EQUIPMENT LIGHTING CIRCUIT. COORDINATE WITH MECHANICAL CONTRACTOR FOR DEVICE CONNECTIONS.
8. PROVIDE 120V, 20A CIRCUIT TO EMERGENCY GAS OFF (EGO) BUTTON. MULTIPLE EGO'S TO BE WIRED IN SERIES WITH POWER GOING THROUGH THE BUTTON TO THE GAS VALVE. SEE DETAIL 9/M503 FOR ADDITIONAL DETAILS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER TODD KUBENIK 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR EQUIPMENT POWER PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: EM101

Dwg 7 of 15

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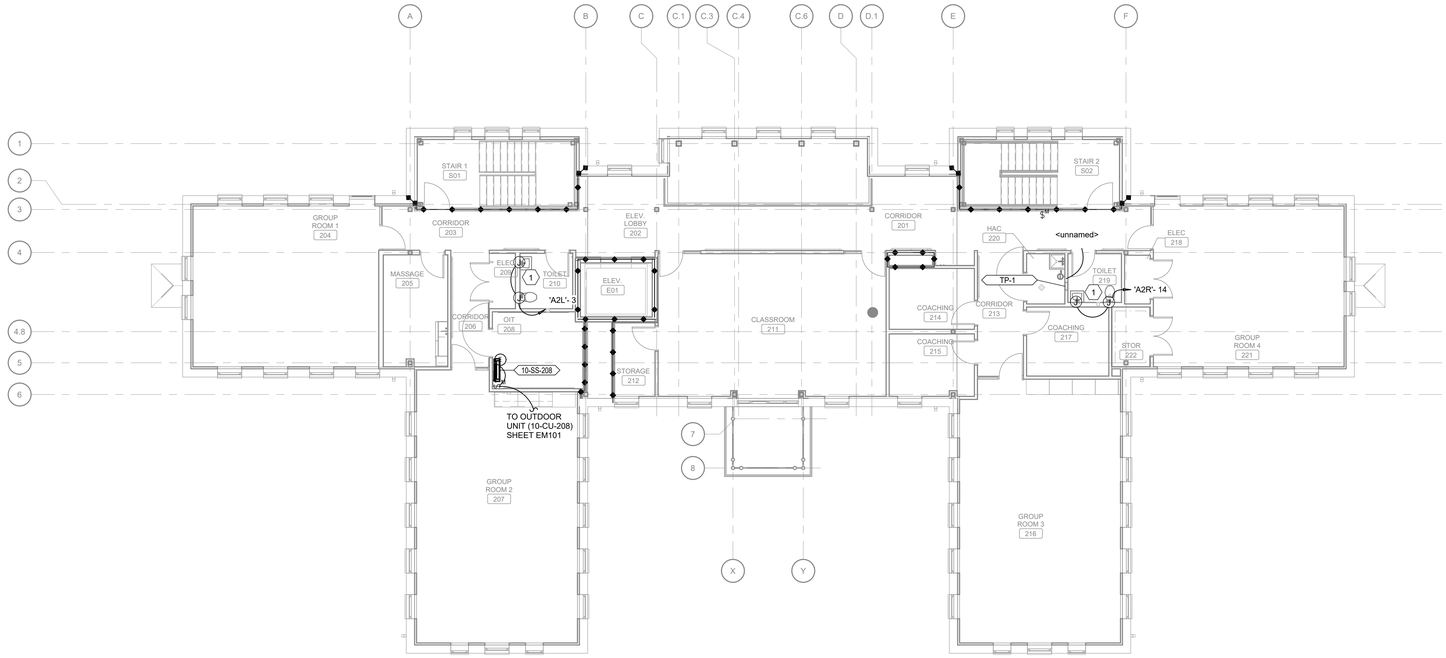
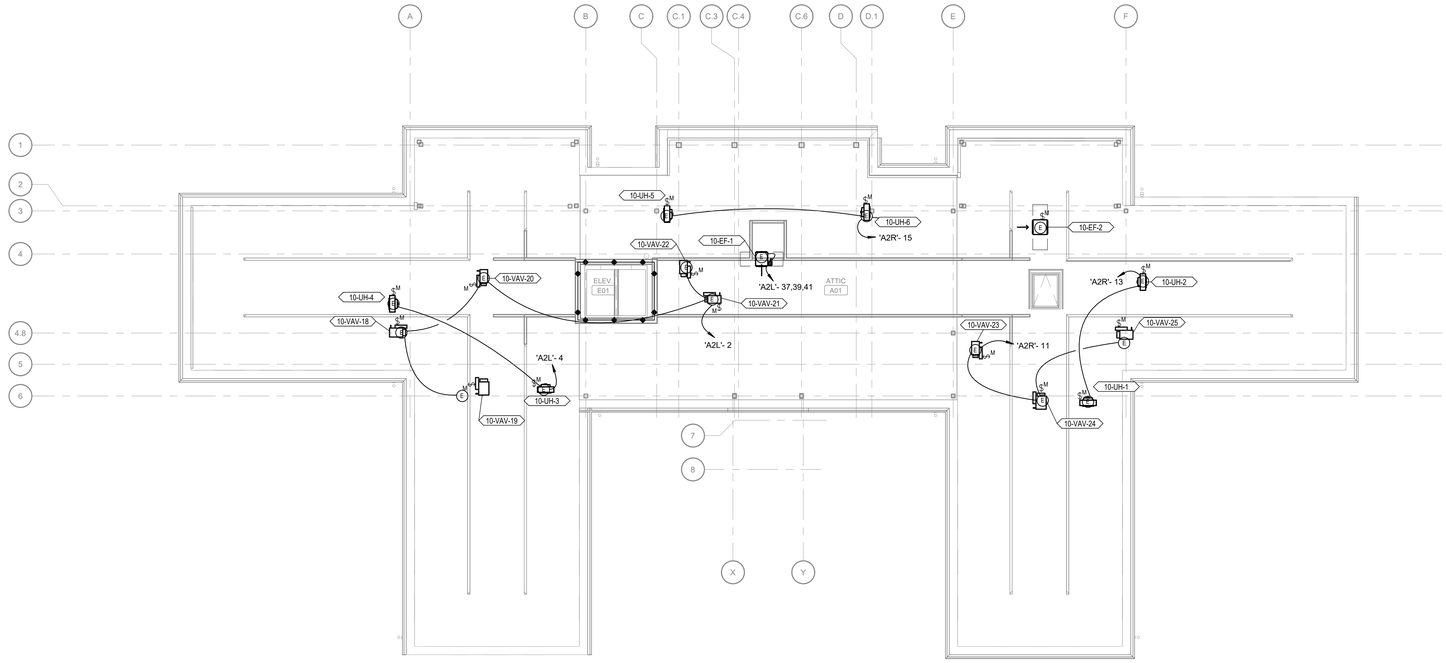


1 SECOND FLOOR EQUIPMENT POWER PLAN

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



2 ATTIC EQUIPMENT POWER PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. PRIOR TO INSTALLING BRANCH CIRCUIT WIRES AND WIRING DEVICES TO LOCATIONS OF OWNER FURNISHED EQUIPMENT, CONTRACTOR TO REVIEW ALL OWNER FURNISHED EQUIPMENT CUT SHEETS. NOTIFY COR IF DISCREPANCIES EXIST BETWEEN WIRING DEVICES SHOWN AND EQUIPMENT FURNISHED.

C. COORDINATE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.

D. COORDINATE EQUIPMENT WITH ARCHITECTURAL EQUIPMENT PLANS AND SCHEDULES.

E. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

F. SEE EQUIPMENT CONDUCTOR SCHEDULE ON SHEET E-603 FOR MORE INFORMATION REGARDING EQUIPMENT BRANCH CIRCUITS AND DISCONNECT SIZING.

G. THERE SHALL BE NO CONNECTIONS TO BEAMS.

KEY NOTES:

1 PROVIDE 2-12 AWG, 1-12 AWG EG IN 3/4" C FEEDING INTO RECESSED J-BOX AT 48" AFF. PROVIDE GFI PROTECTED BREAKER FOR CIRCUIT FEEDING EQUIPMENT AND CIRCUIT TO FEED RELATED PLUMBING FIXTURE SENSOR. COORDINATE WITH PLUMBING CONTRACTOR FOR EQUIPMENT TIE-IN.

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER KYLE TODD KUBINSKI 5/6/2025

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ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR AND ATTIC EQUIPMENT POWER PLANS

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Approved

Date MAY 9, 2025 | Checked KTK | Drawn CCH

Drawing Number EM102

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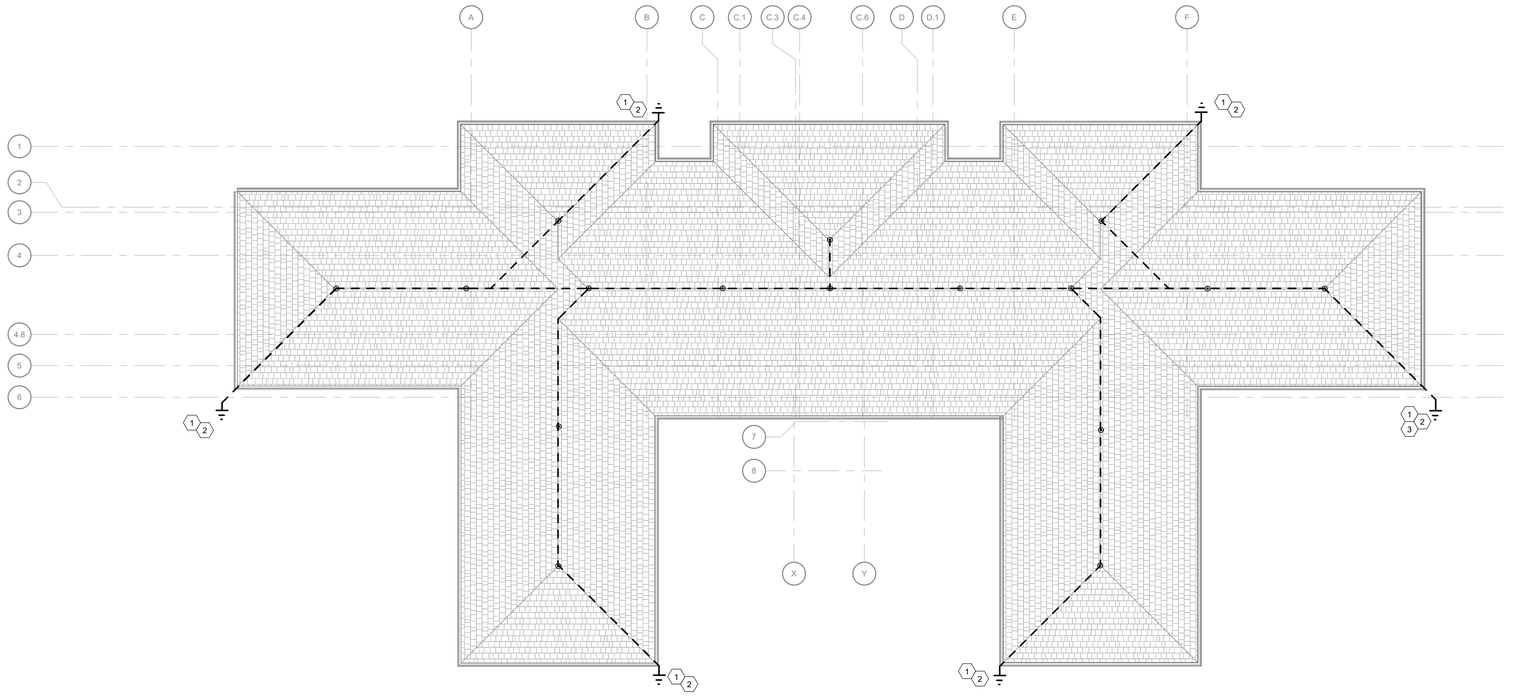

1 LIGHTNING PROTECTION PLAN

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

0 4 8 16

SHEET NOTES:

A. LIGHTNING PROTECTION SYSTEM (LPS) TO BE INSTALLED BY CERTIFIED LPS INSTALLER.

B. PROVIDE LIGHTNING PROTECTION SYSTEM THAT SHALL CONFORM TO THE LATEST EDITION OF NFPA 70, NFPA 780, AND UL96A. EXCEPT WHERE REQUIREMENTS IN EXCESS ARE INDICATED OR SPECIFIED.

C. SEE LIGHTNING PROTECTION DETAILS ON SHEET E-503.

D. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL FURNISH THE MASTER LABEL ISSUED BY THE UNDERWRITERS LABORATORIES, INC FOR THE LIGHTNING PROTECTION SYSTEM.

E. SECURE AIR TERMINALS AND TYPE 1 LPS ROOF CONDUCTORS WITH APPROPRIATE METHOD THAT IS COMPATIBLE WITH THE ROOF MATERIAL.

F. ISOLATED METAL BODIES THAT SHOW NO CONDUCTANCE TO GROUND SHALL NOT REQUIRE BONDING.

G. GROUNDED METAL BODIES THAT ARE WITHIN 6' OF THE MAIN CONDUCTOR SHALL BE BONDED TO THE SYSTEM.

H. ALL LIGHTNING CONDUCTORS ARE TO MAINTAIN A HORIZONTAL OR DOWNWARD PATH. ALL BENDS IN THE CONDUCTOR SHALL HAVE A RADIUS OF 8 INCHES OR GREATER AND SHALL HAVE AN ANGLE BEND OF 90 DEGREES OR GREATER.

I. CONDUCTORS SHALL BE FASTENED A MAXIMUM OF 3 FEET ON CENTER.

KEY NOTES:

1 PROVIDE DOWN CONDUCTOR ALONG EXTERIOR OF BUILDING AND CONNECT TO NEW GROUND ROD. DOWN CONDUCTORS SHALL BE FASTENED TO BUILDING WITH FASTENERS DESIGNED FOR BUILDINGS EXTERIOR MATERIAL.

2 DOWN CONDUCTOR TO BE PROTECTED TO A HEIGHT OF 6'-0" FROM GRADE WITH RIGID SCHEDULE 80 PVC ATTACHED TO BUILDING. PAINT PVC IN A COMPLIMENTARY COLOR TO THE EXISTING FACADE. PROVIDE PAINT SAMPLES TO COR TO VERIFY FINAL COLOR DECISION.

3 CONNECT LPS CONDUCTOR TO MAIN GROUNDING BUS BAR IN RM 119.

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER KYLE TODD KUBENKA

5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LIGHTNING PROTECTION PLAN

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

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Drawing Number: E-401

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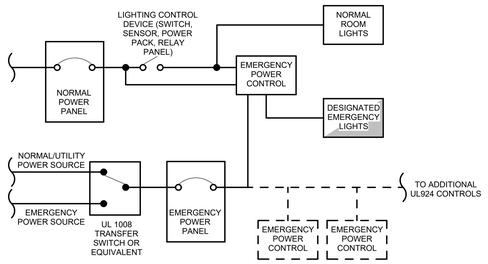

11 EMERGENCY LIGHTING POWER CONTROL

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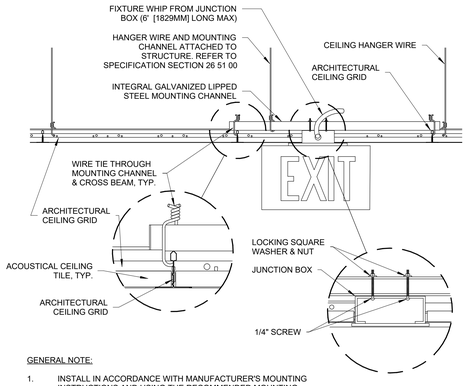
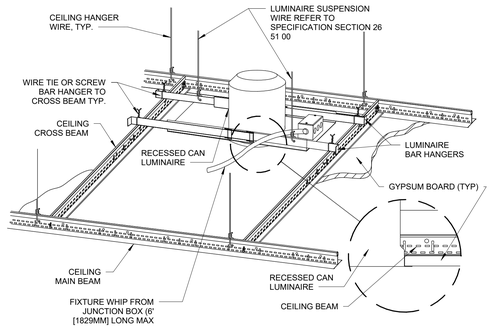


GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

7 EXIT SIGN MOUNTING - LAY-IN CEILING

Scale: No Scale

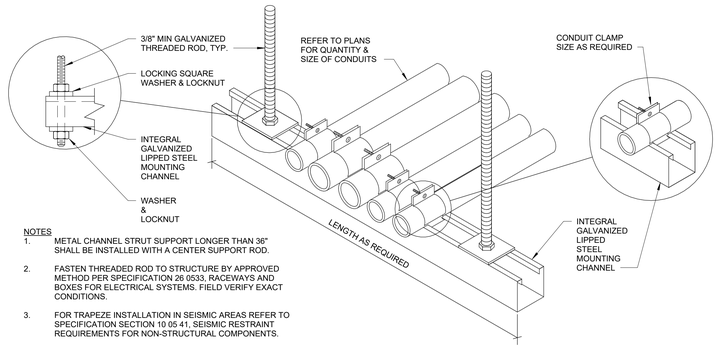


GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

4 DOWNLIGHT MOUNTING - GYPBOARD CEILING

Scale: No Scale

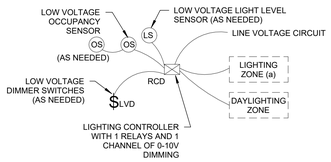


NOTES

1. METAL CHANNEL STRUT SUPPORT LONGER THAN 36" SHALL BE INSTALLED WITH A CENTER SUPPORT ROD.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION 26 0533, RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS. FIELD VERIFY EXACT CONDITIONS.
3. FOR TRAPEZE INSTALLATION IN SEISMIC AREAS REFER TO SPECIFICATION SECTION 10 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS.

1 CONDUIT TRAPEZE MOUNTING

Scale: No Scale



SEQUENCE OF OPERATION:

- OCCUPANCY SENSOR CONTROLS ALL LUMINARIES WITHIN ROOM
- LIGHT LEVEL SENSOR CONTROLS DIMMING OF LIGHTING ZONE CLOSEST TO WINDOWS
- ALL ZONES SET TO MANUAL ON-AUTO OFF UNLESS DIRECTED OTHERWISE BY THE VA
- LIGHTING CONTROL DEVICE MUST COMPLY WITH NEC 700.23

8 SINGLE RELAY ROOM CONTROLLER DIAGRAM

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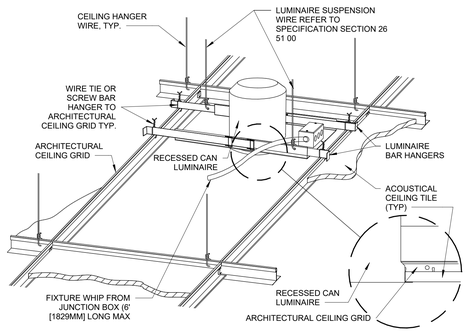
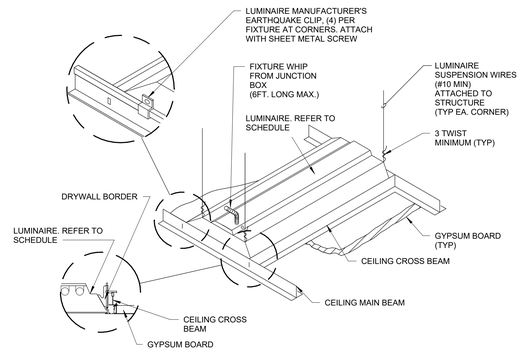


GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

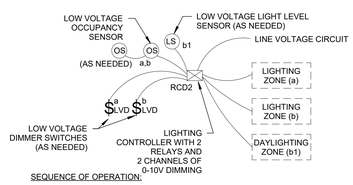
5 DOWNLIGHT MOUNTING - LAY-IN CEILING

Scale: No Scale



2 LUMINAIRE MOUNTING - GYPBOARD CEILING

Scale: No Scale

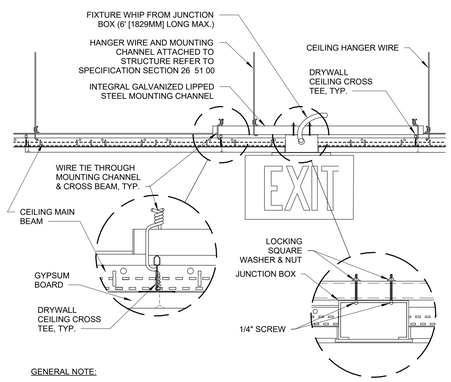


SEQUENCE OF OPERATION:

- OCCUPANCY SENSOR CONTROLS ALL LUMINARIES WITHIN ROOM
- LIGHT LEVEL SENSOR CONTROLS DIMMING OF LIGHTING ZONE CLOSEST TO WINDOWS
- ALL ZONES SET TO MANUAL ON-AUTO OFF UNLESS DIRECTED OTHERWISE BY THE VA
- LIGHTING CONTROL DEVICE MUST COMPLY WITH NEC 700.23

9 DUAL RELAY ROOM CONTROLLER DIAGRAM

Scale: No Scale

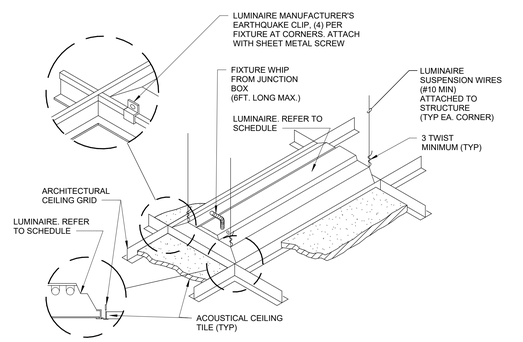


GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

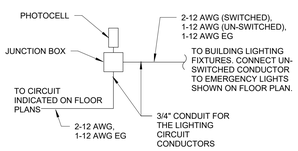
6 EXIT SIGN MOUNTING - GYPBOARD CEILING

Scale: No Scale



3 LUMINAIRE MOUNTING - LAY-IN CEILING

Scale: No Scale



10 SINGLE CIRCUIT EXTERIOR LIGHTING CONTROL

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER TODD KIRKPATRICK 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: E-501

Dwg 10 of 15

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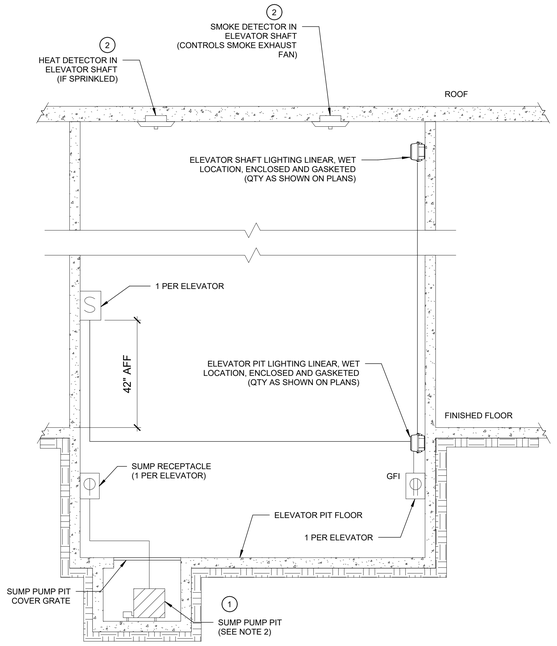
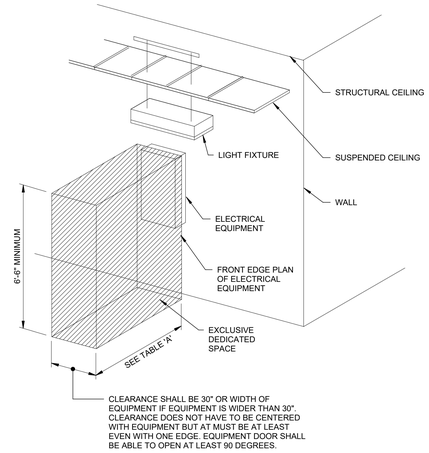


DETAIL NOTES:

1. IN CASE OF A FIRE ALARM THE ELEVATORS PRIMARY RECALL SHALL BE THE GROUND LEVEL AND THE SECONDARY RECALL SHALL BE THE SECOND LEVEL.
2. SEE ARCHITECTURAL PLANS FOR EXACT FLOOR NAMES AND ADDITIONAL HOISTWAY AND PIT INFORMATION.

3 ELEVATOR PIT

Scale: No Scale



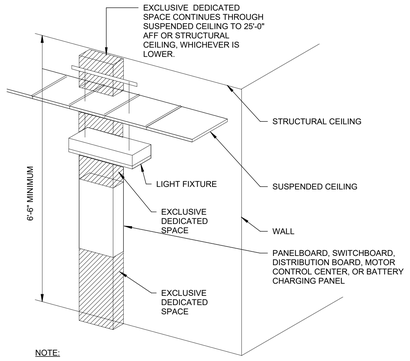
NOTE:

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT REQUIRED BY NEC 110.16.

ALL ELECTRICAL EQUIPMENT

GENERAL NOTES:

1. ELECTRICAL EQUIPMENT INCLUDES BUT IS NOT LIMITED TO PANELBOARDS, SAFETY SWITCHES, MOTOR STARTERS, JUNCTION BOXES, AND OTHER ELECTRICAL DISTRIBUTION AND CONTROLS EQUIPMENT.
2. PIPING, DUCTS OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT OR ARCHITECTURAL APPURTENANCES SHALL NOT BE PERMITTED TO BE INSTALLED IN, ENTER, OR PASS THROUGH THE DEDICATED SPACES SHOWN ABOVE.



NOTE:

THIS FIGURE ILLUSTRATES THE EXCLUSIVE DEDICATED SPACE REQUIRED ABOVE AND BELOW PANELBOARDS FOR ELECTRICAL DISTRIBUTION TO AND FROM PANELBOARDS REQUIRED BY NEC 384.4.

PANELBOARDS

TABLE 'A' - WORKING CLEARANCE

VOLTAGE TO GROUND (NOMINAL)	MINIMUM CLEAR DISTANCE		
	CONDITION 1	CONDITION 2	CONDITION 3
0 - 150	3' - 0"	3' - 0"	3' - 0"
150 - 600	3' - 0"	3' - 6"	4' - 0"

TABLE 'A' DEFINITIONS:

CONDITION 1: EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE.

OR

EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS.

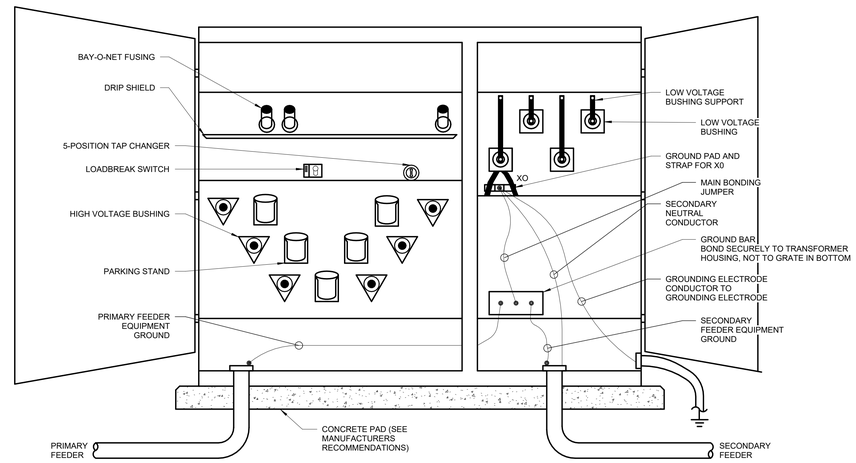
CONDITION 2: EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.

CONDITION 3: EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.

1 DEDICATED WORKING SPACE REQUIREMENTS FOR ELECTRICAL EQUIPMENT

Scale: No Scale



2 PAD MOUNTED COMPARTMENTAL TYPE TRANSFORMER

Scale: No Scale

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER KYLE TODD KUBINSKI 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number E-502

Dwg 11 of 15

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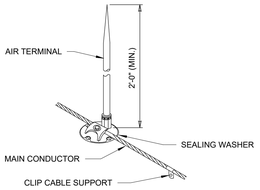
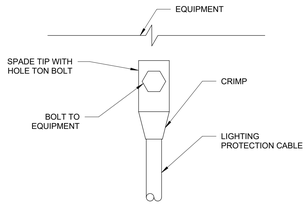


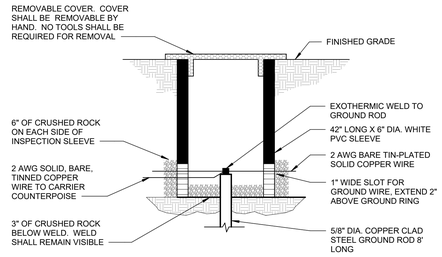
NOTES:
1. SEE PLATE E-001 FOR LEGEND.
2. ALL SPLICES BELOW GRADE SHALL BE THE EXOTHERMIC WELD TYPE.
3. AIR TERMINALS SHALL EXTEND NO LESS THAN 24 INCHES ABOVE THE ROOF.
4. ALL METAL EQUIPMENT ON THE ROOF SHALL BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.

4 LIGHTNING PROTECTION AIR TERMINAL
Scale: No Scale

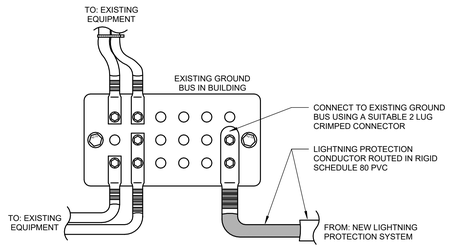
1 CLAMP DETAIL
Scale: No Scale



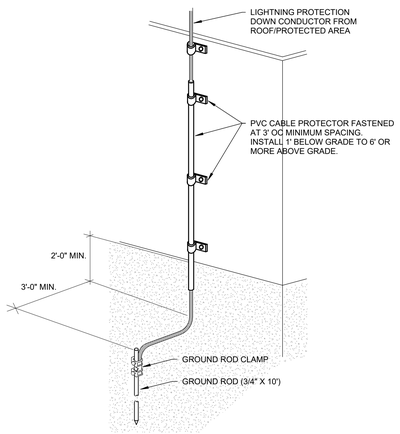
5 MECHANICAL CLAMP FITTING TO LIGHTNING PROTECTION CABLE CONNECTION TO EQUIPMENT
Scale: No Scale



2 GROUND TEST WELL
Scale: No Scale



6 LPS BONDING TO BUILDING GROUNDING BUS
Scale: No Scale



3 TYPICAL DOWNLEAD AND GROUND ROD
Scale: No Scale

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100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER TODD KUBIANSKI
5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL LIGHTNING PROTECTION DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: E-503

Dwg 12 of 15

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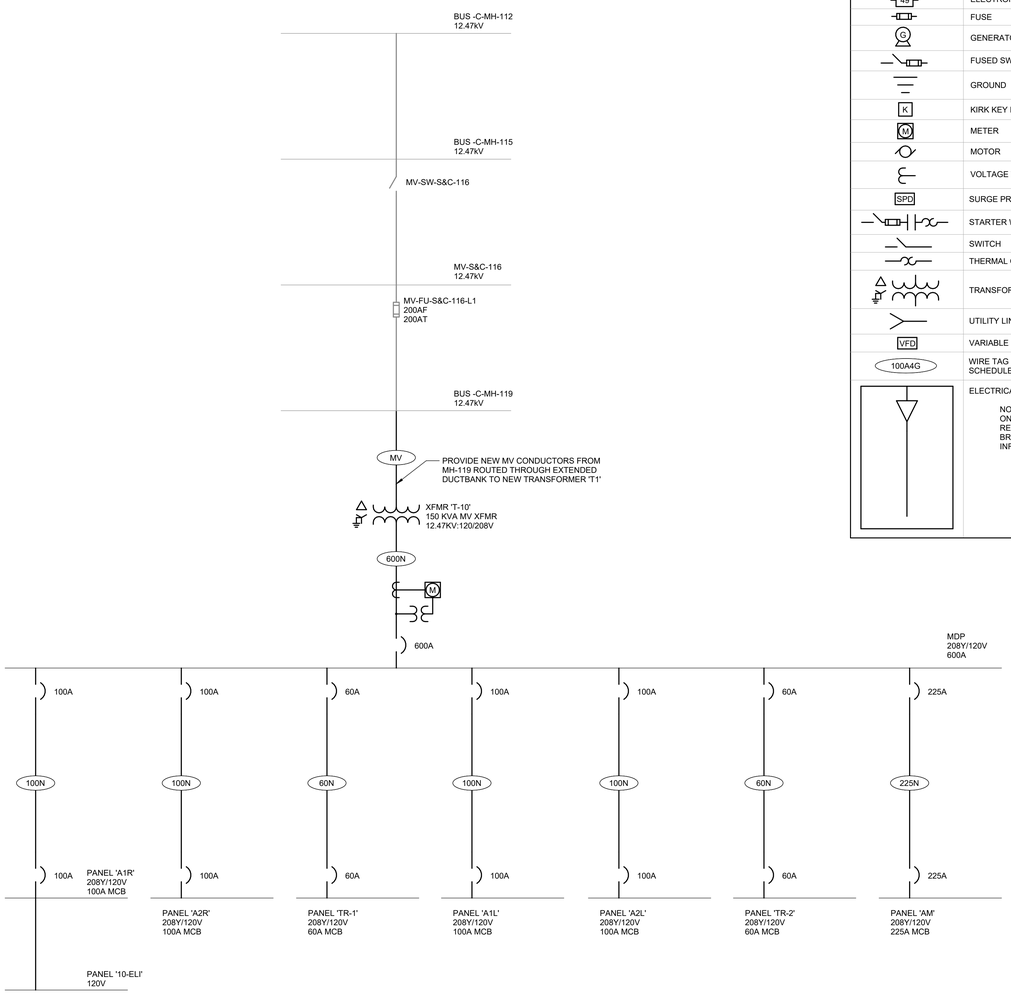
FEEDER SCHEDULE

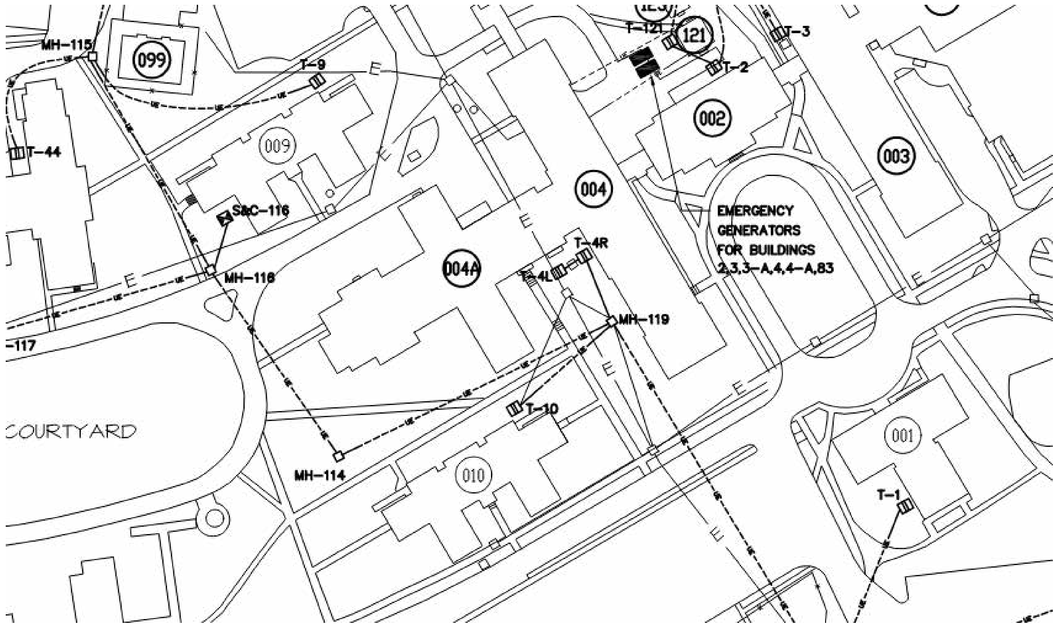
MARK	CONDUIT & CONDUCTORS	REMARKS
60N	(3) 6 AWG, (1) 4 AWG NEU, (1) 10 AWG EG, 1-1/4" C	
100N	(4) 1 AWG, (1) 8 AWG EG, 1-1/2" C	
225N	(4) 4/0 AWG, (1) 4 AWG EG, 2-1/2" C	
600N	2 SETS OF [(4) 350 KCMIL, (1) 4 AWG EG, 4" C]	PROVIDE ONE (1) SPARE 3" CONDUIT
MV	(3) 2 AWG 15KV MV-105, (1) 8 AWG GROUND	

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	TRANSFER SWITCH
	CIRCUIT BREAKER
G	GROUND FAULT CIRCUIT BREAKER
ST	SHUNT TRIP CIRCUIT BREAKER
	CONTACTOR
M	CT METER
	CT TRANSFORMER
DPM	DIGITAL POWER METER
	DRAW OUT CIRCUIT BREAKER
49	ELECTRONIC OVERLOAD
	FUSE
G	GENERATOR
	FUSED SWITCH
	GROUND
K	KIRK KEY INTERLOCK
M	METER
	MOTOR
	VOLTAGE TRANSFORMER
SPD	SURGE PROTECTION DEVICE
	STARTER WITH FUSED SWITCH
	SWITCH
	THERMAL OVERLOAD
	TRANSFORMER
	UTILITY LINE SERVICE DROP
VFD	VARIABLE FREQUENCY DRIVE
100A4G	WIRE TAG INDICATING FEEDER SIZE. SEE FEEDER SCHEDULE.
	ELECTRICAL PANEL NOTE: PANEL SHOWN HERE IS MAIN LUGS ONLY. MCB PANEL IS INDICATED BY REPLACING MLO SYMBOL WITH CIRCUIT BREAKER SYMBOL. ADDITIONAL PANEL INFORMATION INDICATED BELOW SYMBOL.



1 **SINGLE LINE DIAGRAM**
Scale: No Scale



2 **EXISTING SITE POWER CABLE ROUTING**
Scale: No Scale

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#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER TODD KUBENIK
5/6/2025

PROJECT MANAGER
ACG Project Number 22-139

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SINGLE LINE DIAGRAM
Project Title: RENOVATE BUILDING 10
VA PROJECT NUMBER: 619A4-23-105
Building Number: # 10
Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083
Approved
Date: MAY 9, 2025
Checked: KTK
Drawn: CCH
Drawing Number: E-601
Dwg 13 of 15

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PANEL: A1R

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 100 A MAIN CB
SHORT CIRCUIT RATING: 18,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	LTG VEST 100, LOBBY 101, CORR C-03,04,05	20 A	1	0.58			1.60			1	20 A	ADD RIGHT	2
3	LTG STAIR 2	20 A	1		0.26			0.00		2	20 A	EMERGENCY LIGHTING INVERTER	4
5	LTG RM 102F, 102G, 102H, 102I	20 A	1			0.75			0.00				6
7	LTG WAIT 102,102B,SORR C-02	20 A	1	0.15			0.72			1	20 A	RCPT RM 118	8
9	EXTERIOR LTG	20 A	1		0.08			1.26		1	20 A	RCPT RM 117, C-03	10
11	RCPT RM 101, 102, 102E	20 A	1			1.08			0.72	1	20 A	RCPT RM 102H, 102I	12
13	DED RCPT PRINTER, RM 102F	20 A	1	0.90			0.72			1	20 A	RCPT RM 102A	14
15	RCPT RM 102C	20 A	1		1.08			0.90		1	20 A	RCPT RM 102D	16
17	RCPT RM 102G, 102H	20 A	1			0.90			0.90	1	20 A	RCPT RM 102F, 102G	18
19	RCPT RM 102I	20 A	1	0.72			0.18			1	20 A	DED RCPT REF DRINK DISP. CORR C-03	20
21	RCPT RM C-03, 118, 119, 120	20 A	1		0.72			0.00		1	20 A	SPARE	22
23	PLUMBING RM 102E	20 A	1			0.10			0.00	1	20 A	SPARE	24
25	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	32
33	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	34
35	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	38
39	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		5.57 kVA	4.30 kVA		4.45 kVA						
		TOTAL AMPS:		47 A	36 A		37 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
RECEPTACLES (GENERAL)	12.32 kVA	90.58%	11.16 kVA		
RECEPTACLES (DEDICATED)	0.18 kVA	100.00%	0.18 kVA		
LIGHTING (GENERAL)	1.74 kVA	125.00%	2.17 kVA	CONNECTED LOAD:	14.32 kVA
LIGHTING (EXTERIOR)	0.08 kVA	125.00%	0.10 kVA	CONNECTED AMPS:	40 A
				TOTAL DEMAND LOAD:	13.61 kVA
				TOTAL DEMAND AMPS:	38 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

PANEL: A2R

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 100 A MAIN CB
SHORT CIRCUIT RATING: 10,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	DED RCPT CORR 201	20 A	1	0.18			0.48			1	20 A	LTG ATTIC	2
3	RCPT RM 216, 217	20 A	1		1.08			0.81		1	20 A	LTG 214, 215-222	4
5	RCPT RM 221	20 A	1			0.72			0.44	1	20 A	LTG CORRIDORS 201-203, 206, 213	6
7	RCPT RM 215, 216	20 A	1	1.08			1.26			1	20 A	RCPT RM 211, 214	8
9	RCPT ATTIC	20 A	1		1.08			0.90		1	20 A	RCPT RM 216	10
11	VAV-23,24,25 ATTIC	20 A	1			0.23			1.08	1	20 A	RCPT RM 219, 221	12
13	UNIT HEATER 10-UH-1, 10-UH-2	20 A	1	0.53			0.10			1	20 A	PLUMBING RM 219	14
15	UNIT HEATER 10-UH-5, 10-UH-6	20 A	1		0.53			1.20		1	20 A	ADD RIGHT	16
17	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	18
19	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	20
21	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	22
23	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	24
25	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	32
33	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	34
35	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	38
39	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		3.62 kVA	5.60 kVA		2.43 kVA						
		TOTAL AMPS:		32 A	48 A		20 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	1.24 kVA	108.35%	1.35 kVA		
RECEPTACLES (GENERAL)	8.68 kVA	100.00%	8.68 kVA		
LIGHTING (GENERAL)	1.73 kVA	125.00%	2.16 kVA	CONNECTED LOAD:	11.65 kVA
				CONNECTED AMPS:	32 A
				TOTAL DEMAND LOAD:	12.18 kVA
				TOTAL DEMAND AMPS:	34 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

PANEL: TR-1

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 60 A MAIN CB
SHORT CIRCUIT RATING: 10,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	10-CU-208	20 A	2	1.35			0.90			3	20 A	RACK RCPT	2
3					1.35			0.90					4
5	TELECOM RM RCPT	20 A	1			0.72			0.90				6
7	TELECOM RM LTG	20 A	1	0.07			0.00			1	20 A	SPARE	8
9	PACS OIT 127	20 A	1		0.25			0.00		1	20 A	SPARE	10
11	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	12
13	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	14
15	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	16
17	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	18
19	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	20
21	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	22
23	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	24
25	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	32
33	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	34
35	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	38
39	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		2.32 kVA	2.50 kVA		1.62 kVA						
		TOTAL AMPS:		20 A	22 A		14 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	2.70 kVA	125.00%	3.38 kVA		
RECEPTACLES (GENERAL)	0.97 kVA	100.00%	0.97 kVA		
RECEPTACLE (DEDICATED)	2.70 kVA	100.00%	2.70 kVA	CONNECTED LOAD:	6.45 kVA
LIGHTING (GENERAL)	0.07 kVA	125.00%	0.09 kVA	CONNECTED AMPS:	18 A
				TOTAL DEMAND LOAD:	7.14 kVA
				TOTAL DEMAND AMPS:	20 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

PANEL: A1L

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 100 A MAIN CB
SHORT CIRCUIT RATING: 10,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	VAV-5, 8 SHARED OFF - 103	20 A	1	0.15			0.69			1	20 A	LTG RM 103, 125, 126, 130, 132, 133	2
3	TP-1 HAC 125	20 A	1		0.36			0.01		1	20 A	LTG RM C-04, S01	4
5	PLUMBING RM 126, 132, 133	20 A	1			0.30			0.16	1	20 A	LTG STIAR 1	6
7	RCPT RM 125, 126, C-04, 134	20 A	1	1.08			0.05			1	20 A	EXTERIOR LTG	8
9	RCPT RM 128	20 A	1		0.90			1.08		1	20 A	RCPT RM 103	10
11	RCPT RM 128, 130	20 A	1			1.08			1.26	1	20 A	RCPT RM 100, 101, 103	12
13	DED RCPT COUNTER STAFF 134	20 A	1	0.18			2.01			1	30 A	UNIT HEATER 10-EUH-1	14
15	DED RCPT RM 134 REFRIGERATOR	20 A	1		0.18			1.40		1	20 A	ADD LEFT	16
17	RCPT RM 134	20 A	1			1.26			0.00	1	20 A	SPARE	18
19	DED RCPT REF DRINK DISP. LOUNGE 134	20 A	1	0.60			0.00			1	20 A	SPARE	20
21	DED RCPT MICROWAVE STAFF 134	20 A	1		1.08			0.00		1	20 A	SPARE	22
23	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	24
25	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	32
33	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	34
35	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	38
39	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		4.77 kVA	5.01 kVA		4.06 kVA						
		TOTAL AMPS:		41 A	43 A		34 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	2.52 kVA	119.93%	3.02 kVA		
RECEPTACLES (GENERAL)	9.32 kVA	100.00%	9.32 kVA		
RECEPTACLES (DEDICATED)	1.08 kVA	100.00%	1.08 kVA	CONNECTED LOAD:	13.83 kVA
LIGHTING (GENERAL)	0.86 kVA	125.00%	1.07 kVA	CONNECTED AMPS:	38 A
LIGHTING (EXTERIOR)	0.05 kVA	125.00%	0.07 kVA		
				TOTAL DEMAND LOAD:	14.56 kVA
				TOTAL DEMAND AMPS:	40 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

PANEL: A2L

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 100 A MAIN CB
SHORT CIRCUIT RATING: 10,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	LTG 204,205,207,209-212	20 A	1	1.03			0.38			1	20 A	VAV-18, 19, 20, 21	2
3	PLUMBING RM 21	20 A	1		0.10			0.53		1	20 A	UNIT HEATER 10-UH-3, 10-UH-4	4
5	RCPT RM 204	20 A	1			0.72			0.90	1	20 A	RCPT RM 204	6
7	RCPT RM 204, 205	20 A	1	0.54			0.90			1	20 A	RCPT RM 207	8
9	RCPT RM 202, 203, 207, 211	20 A	1		1.08			0.90		1	20 A	RCPT RM 211	10
11	ADD LEFT	20 A	1			1.00			0.00	1	20 A	SPARE	12
13	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	14
15	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	16
17	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	18
19	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	20
21	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	22
23	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	24
25	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	32
33	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	34
35	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	36
37				0.29			0.00			1	20 A	SPARE	38
39	EXHAUST FAN 10-EF-1 ATTIC	20 A	3		0.29			0.00		1	20 A	SPARE	40
41						0.29			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		3.07 kVA	2.90 kVA		2.91 kVA						
		TOTAL AMPS:		26 A	24 A		24 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	1.71 kVA	116.18%	1.99 kVA		
RECEPTACLES (GENERAL)	6.14 kVA	100.00%	6.14 kVA		
LIGHTING (GENERAL)	1.03 kVA	125.00%	1.28 kVA	CONNECTED LOAD:	8.86 kVA
				CONNECTED AMPS:	25 A
				TOTAL DEMAND LOAD:	9.40 kVA
				TOTAL DEMAND AMPS:	26 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

PANEL: TR-2

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 60 A MAIN CB
SHORT CIRCUIT RATING: 10,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	10-CU-208	20 A	2	1.35			0.90			3	20 A	RACK RCPT	2
3					1.35			0.90					4
5	TELECOM RM RCPT	20 A	1			0.72			0.90				6
7	LTG OIT 208	20 A	1	0.07			0.00			1	20 A	SPARE	8
9	PACS OIT 208	20 A	1		0.25			0.00		1	20 A	SPARE	10
11	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	12
13	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	14
15	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	16
17	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	18
19	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	20
21	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	22
23	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	24
25	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	32
33	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	34
35	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	36
37	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	38
39	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		2.32 kVA	2.50 kVA		1.62 kVA						
		TOTAL AMPS:		20 A	22 A		14 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	2.70 kVA	125.00%	3.38 kVA		
RECEPTACLES (GENERAL)	0.97 kVA	100.00%	0.97 kVA		
RECEPTACLE (DEDICATED)	2.70 kVA	100.00%	2.70 kVA	CONNECTED LOAD:	6.45 kVA
LIGHTING (GENERAL)	0.07 kVA	125.00%	0.09 kVA	CONNECTED AMPS:	18 A
				TOTAL DEMAND LOAD:	7.14 kVA
				TOTAL DEMAND AMPS:	20 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

PANEL: MDP

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 600 A MAIN CB
SHORT CIRCUIT RATING: 22,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1				5.57			4.77						2
3	PANEL 'A1R'	100 A	3		4.30			5.01		3	100 A	PANEL 'A1L'	4
5						4.45			4.06				6
7				3.62			3.07						8
9	PANEL 'A2R'	100 A	3		5.60			2.90		3	100 A	PANEL 'A2L'	10
11						2.43			2.91				12
13				2.32			2.32						14
15	PANEL 'TR-1'	60 A	3		2.50			2.50		3	60 A	PANEL 'TR-2'	16
17						1.62			1.62				18
19				8.53			5.40						20
21	PANEL 'AM'	225 A	3		7.81			5.40		3	60 A	10-ESH-1	22
23						8.12			5.40				24
25				3.67			0.00						26
27	*ELEVATOR CONTROLLER	60 A	3		3.67			0.00		3	20 A	SPARE	28
29						3.67			0.00				30
31				12.13			0.00						32
33	10-AHU-1	150 A	3		12.13			0.00		3	20 A	SPARE	34
35						12.13			0.00				36
37	SPARE	20 A	1	0.00			0.00			1	20 A	SPARE	38
39	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	40
41	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	42
		TOTAL LOAD:		51.40 kVA	51.83 kVA		46.41 kVA						
		TOTAL AMPS:		435 A	438 A		387 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	94.96 kVA	109.71%	104.17 kVA		
ELEVATOR	0.00 kVA	0.00%	0.00 kVA		
RECEPTACLES (GENERAL)	40.56 kVA	62.33%	25.28 kVA	CONNECTED LOAD:	149.63 kVA
RECEPTACLES (DEDICATED)	1.26 kVA	100.00%	1.26 kVA	CONNECTED AMPS:	415 A
RECEPTACLE (DEDICATED)	5.41 kVA	100.00%	5.41 kVA		
LIGHTING (GENERAL)	7.32 kVA	125.00%	9.15 kVA	TOTAL DEMAND LOAD:	145.43 kVA
LIGHTING (EXTERIOR)	0.13 kVA	125.00%	0.16 kVA	TOTAL DEMAND AMPS:	404 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.
2) PANEL TO INCLUDE POWER METER AND SURGE PROTECTION.

PANEL: AM

BRANCH:
PHASE CREATED: New Construction
MOUNTING: SURFACE
ENCLOSURE: NEMA 1
VOLTAGE: 120/208V, 3PH, 4W
MAINS, TYPE: 225 A MAIN CB
SHORT CIRCUIT RATING: 18,000 AMPS SYMMETRICAL

CKT	CIRCUIT DESCRIPTION	TRIP	POLE	A	B	C	A	B	C	POLE	TRIP	CIRCUIT DESCRIPTION	CKT
1	TP-2	20 A	1	0.00			0.42			1	20 A	LTG BASEMENT MECH RM	2
3	RCPT MECH RM B	20 A	1		0.90			0.31		1	20 A	LTG & RCPT ELEV PIT, SHAFT	4
5	RCPT ELEV EQUIP B01	20 A	1			0.18			0.03	1	20 A	LTG ELEV EQUIP B01	6
7	RCPT MECH RM A	20 A	1	0.72			0.38			1	20 A	VAV-1, 2, 3, 4, 5, 6, 7	8
9	AHU SERVICE RCPT	20 A	1		0.18			0.83		1	20 A	VAV-9, 10,11, 12, 13, 14, 15, 16, 17, 26	10
11	AHU EQUP LTG	20 A	1			0.36			0.18	1	20 A	ELEVATOR CAMERAS	12
13	10-SP-1	20 A	1	1.18			0.18			1	20 A	ELEVATOR LTG	14
15	10-MT MV-1 (DED RECP)	20 A	1		0.54			0.40		1	20 A	LTG CRAWLSPACE	16
17	10-RP-1	40 A	1			2.40			0.50	1	20 A	LTG CRAWLSPACE	18
19	10-GDWH-1	20 A	1	0.84			0.00			1	20 A	SPARE	20
21	10-BLR-1	20 A	2		1.66			0.18		1	20 A	10-FCU-1	22
23						1.66			0.00	1	20 A	SPARE	24
25	UNIT HEATER 10-EUH-2	20 A	1	2.01			0.00			1	20 A	SPARE	26
27	SPARE	20 A	1		0.00			0.00		1	20 A	SPARE	28
29	SPARE	20 A	1			0.00			0.00	1	20 A	SPARE	30
31				0.58			0.58						32
33	10-CHWP-1	15 A	3		0.58			0.58		3	15 A	10-CHWP-2	34
35						0.58			0.58				36
37				0.83			0.83						38
39	10-HWP-1	15 A	3		0.83			0.83		3	15 A	10-HWP-2	40
41						0.83			0.83				42
		TOTAL LOAD:		8.53 kVA	7.81 kVA		8.12 kVA						
		TOTAL AMPS:		71 A	65 A		68 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS	
MOTOR/HVAC	20.47 kVA	104.06%	21.31 kVA		
RECEPTACLES (GENERAL)	2.16 kVA	100.00%	2.16 kVA		
LIGHTING (GENERAL)	1.84 kVA	125.00%	2.30 kVA	CONNECTED LOAD:	24.47 kVA
				CONNECTED AMPS:	68 A
				TOTAL DEMAND LOAD:	25.76 kVA
				TOTAL DEMAND AMPS:	72 A

NOTES:
1) LOADS WITH LEADING * ELECTRICAL CONTRACTOR TO PROVIDE SHUNT TRIP BREAKER.

FULLY SPRINKLERED
100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

ALABAMA LICENSED No. 39881-E PROFESSIONAL ENGINEER TODD KUBENKA
5/6/2025

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL PANEL SCHEDULES
Project Title: RENOVATE BUILDING 10
VA PROJECT NUMBER: 619A4-23-105
Building Number: # 10
Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083
Approved
Date: MAY 9, 2025
Checked: KTK
Drawn:

Docusign Envelope ID: 732D8A2D-F433-41F8-981F-46FAD5E247FD

EQUIPMENT CONNECTION SCHEDULE

MARK	EQUIPMENT DISCRIPTION	ROOM NAME	PANEL	CIR #	VOLTAGE	PHASE	EQUIP. PWR RATING	BRANCH FEEDER SIZE	DISC SW SIZE & TYPE	NOTES
10-AHU-1	AIR HANDLING UNIT	MECHANICAL ROOM B - B03	MDP	31,33,35	208.00 V	3	36.39 kVA	3-1/0 AWG, 1-6 AWG GND, 2" C	VFD: C2/3P/VFD/1	4
10-BLR-1	BOILER	MECHANICAL ROOM B - B03	AM	21,23	208.00 V	1	3.33 kVA	2-12 AWG, 1-12 AWG GND, 3/4" C	FSD: 30A/2P/FPN/1	1
10-CHWP-1	PUMP	MECHANICAL ROOM B - B03	AM	31,33,35	208.00 V	3	1.73 kVA	3-12 AWG, 1-12 AWG GND, 3/4" C	VFD: A2/3P/VFD/1	
10-CHWP-2	PUMP	MECHANICAL ROOM B - B03	AM	32,34,36	208.00 V	3	1.73 kVA	3-12 AWG, 1-12 AWG GND, 3/4" C	VFD: A2/3P/VFD/1	
10-CU-127	SPLIT UNIT - CONDENSING UNIT	SOUTHWEST EXTERIOR	TR-1	1,3	208.00 V	1	2.70 kVA	2-12 AWG, 1-12 AWG GND, 3/4" C	FSD: 30A/2P/FPN/3R	1
10-CU-208	SPLIT UNIT - CONDENSING UNIT	SOUTHWEST EXTERIOR	TR-2	1,3	208.00 V	1	2.70 kVA	2-12 AWG, 1-12 AWG GND, 3/4" C	FSD: 30A/2P/FPN/3R	1
10-EF-1	EXHAUST FAN	ATTIC	A2L	37,39,41	208.00 V	3	0.86 kVA	3-12 AWG, 1-12 AWG GND, 3/4" C	FSD: 30A/3P/FPN/1	1
10-EF-2	EXHAUST FAN	ATTIC			208.00 V	3	0.79 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-ESH-1	ELECTRIC STEAM HUMIDIFIER	MECHANICAL ROOM B - B03	MDP	20,22,24	208.00 V	3	16.21 kVA	3-4 AWG, 1-8 AWG GND, 1" C	FSD: 60A/3P/FPN/1	
10-EUH-1	ELECTRIC UNIT HEATER	STAIR 1	A1L	14	120.00 V	1	2.01 kVA	1-10 AWG, 1-10 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-EUH-2	ELECTRIC UNIT HEATER	STAIR 2	AM	25	120.00 V	1	2.01 kVA	1-10 AWG, 1-10 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-FCU-1	FAN COIL UNIT	MECHANICAL ROOM B - B03	AM	22	120.00 V	1	0.18 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-FCU-1	FAN COIL UNIT	MECHANICAL ROOM B - B03	AM	12	120.00 V	1	0.18 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-FCU-1	FAN COIL UNIT	MECHANICAL ROOM B - B03	AM	14	120.00 V	1	0.18 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-HWP-1	PUMP	MECHANICAL ROOM B - B03	AM	37,39,41	208.00 V	3	2.49 kVA	3-12 AWG, 1-12 AWG GND, 3/4" C	VFD: A2/3P/VFD/1	
10-HWP-2	PUMP	MECHANICAL ROOM B - B03	AM	38,40,42	208.00 V	3	2.49 kVA	3-12 AWG, 1-12 AWG GND, 3/4" C	VFD: A2/3P/VFD/1	
10-MTMV-1	ELEC MIXING VALVE	MECHANICAL ROOM B - B03	AM	15	120.00 V	1	0.36 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	3
10-RP-1	RECIRCULATION PUMP	MECHANICAL ROOM B - B03	AM	17	120.00 V	1	2.40 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	FSD: 60A/1P/FPN/1	1
10-SP-1	SUMP PUMP	ELEV PIT - P01	AM	13	120.00 V	1	1.18 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-SS-127	SPLIT UNIT - FAN COIL	OIT - 127			120.00 V	1	0.12 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	2
10-SS-127	SPLIT UNIT - FAN COIL	OIT - 127	A1L	3	120.00 V	1	0.36 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	2
10-SS-208	SPLIT UNIT - FAN COIL	OIT - 208			208.00 V	1	0.21 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	2
10-UH-1	UNIT HEATER	ATTIC	A2R	13	120.00 V	1	0.26 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-UH-2	UNIT HEATER	ATTIC	A2R	13	120.00 V	1	0.26 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-UH-3	UNIT HEATER	ATTIC	A2L	4	120.00 V	1	0.26 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-UH-4	UNIT HEATER	ATTIC	A2L	4	120.00 V	1	0.26 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-UH-5	UNIT HEATER	ATTIC	A2R	15	120.00 V	1	0.26 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-UH-6	UNIT HEATER	ATTIC	A2R	15	120.00 V	1	0.26 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-1	VAV	MECHANICAL ROOM B - B03	AM	8	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-2	VAV	MECHANICAL ROOM B - B03	AM	8	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-3	VAV	MECHANICAL ROOM B - B03	AM	8	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-4	VAV	MECHANICAL ROOM B - B03	AM	8	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-5	VAV	SHARED OFFICE - 103	A1L	1	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-7	VAV	MECHANICAL ROOM B - B03	AM	8	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-8	VAV	SHARED OFFICE - 103	A1L	1	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-9	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-10	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-10	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-11	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-12	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-13	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-14	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-15	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-16	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-17	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-18	VAV	ATTIC	A2L	2	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-19	VAV	ATTIC	A2L	2	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-20	VAV	ATTIC	A2L	2	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-21	VAV	ATTIC	A2L	2	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-22	VAV	ATTIC	A2R	11	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-22	VAV	ATTIC	A2L	2	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-23	VAV	ATTIC	A2R	11	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-25	VAV	ATTIC	A2R	11	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-VAV-26	VAV	MECHANICAL ROOM B - B03	AM	10	120.00 V	1	0.08 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-WH-1	HOT WATER HEATER	MECHANICAL ROOM B - B03	AM	19	120.00 V	1	0.84 kVA	1-12 AWG, 1-12 AWG GND, 3/4" C	MOTOR RATED SWITCH	
10-WSHP-1	WATER SOURCE HEAT PUMP	ATTIC	MDP	25,27,29	208.00 V	3	11.02 kVA	3-10 AWG, 1-10 AWG GND, 3/4" C	ECB: 60A/3P/FPN/1	5

NOTES:
1. PROVIDE FUSES PER EQUIPMENT NAMEPLATE
2. POWERED FROM CONDENSING UNIT. PROVIDE CONDUCTORS AS INDICATED.
3. BASIS OF DESIGN EQUIPMENT FURNISHED WITH PLUG. PLUG TYPE SPECIFIED ON EM SHEETS.
4. PROVIDE ADDITIONAL BRANCH CIRCUITS (1) CIRCUIT TO SERVICE RECEPTACLE (1) CIRCUIT TO EQUIPMENT LIGHTS. SEE EM SHEETS FOR MORE INFORMATION.
5. SHUNT TRIP

LUMINAIRE SCHEDULE

GENERAL NOTES:

A. MANUFACTURER AND CATALOG NUMBERS SHOWN ARE FOR BASIS OF DESIGN, DESCRIPTIVE AND QUALITY STANDARDS ONLY, NOT TO BE USED FOR ORDERING WITHOUT VERIFICATION AND APPROVAL. CONTRACTOR TO PROVIDE PRODUCT OR EQUAL FOR APPROVAL BY OWNER, ARCHITECT AND ENGINEER. ENGINEER SHALL NOT BE RESPONSIBLE FOR MISMATCHED OR INACCURATE PART NUMBERS.

B. FOR ALL LED FIXTURES, THE FIXTURE SHALL BE CAPABLE OF SELF-RESETTING TO THE SWITCHED/CONTROLLED STATE DURING ANY FLUCTUATION IN POWER SUPPLY WHERE AUTOMATIC PROTECTIVE MEASURES DISABLE THE LED LAMPS. PROVIDE A LETTER OR STATEMENT FROM THE MANUFACTURER, OR OTHER ACCEPTABLE PROOF, THAT ALL LED FIXTURES, WITH OR WITHOUT BROWNOUT PROTECTION, SHALL RETURN TO THE SWITCHED/CONTROLLED STATE AUTOMATICALLY. PROVIDE STATEMENT WITH THE FIXTURE SUBMITTALS.

C. LIGHTING CONTROLS, INCLUDING CONTROL SCHEMATICS, DEVICES, SWITCHES, SENSORS AND GRAPHIC DISPLAYS/CONTROLLERS, MUST BE SUBMITTED WITH THE LIGHT FIXTURE SHOP DRAWINGS, FOR A COMPLETE REVIEW.

TYPE	DESCRIPTION	MOUNTING	LAMP	DRIVER	VOLTAGE	WATTS	MANUFACTURER	MODEL NUMBER
A1	2' X 2' FLAT SMOOTH LOW GLARE LENSED TROFFER;	RECESSED GRID	LED; 2000 LUMENS; 80 CRI; 3500K	0-10V DIMMABLE TO 1% LED DRIVER	120.00 V	14 W	LITHONIA	SPX 2X2 2000LM 80CRI 35K BFR LUGR MIN1 EZT MVOLT MW
A1B	2' X 2' FLAT SMOOTH LOW GLARE LENSED TROFFER; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER	RECESSED GRID	LED; 2000 LUMENS; 80 CRI; 3500K	0-10V DIMMABLE TO 1% LED DRIVER	120.00 V	14 W	LITHONIA	SPX 2X2 2000LM 80CRI 35K BFR LUGR MIN1 EZT MVOLT E10WLCP MW
A2	2' X 2' FLAT SMOOTH LOW GLARE LENSED TROFFER;	RECESSED GRID	LED; 4800 LUMENS; 80 CRI; 3500K	0-10V DIMMABLE TO 1% LED DRIVER	120.00 V	35 W	LITHONIA	SPX 2X2 4800LM 80CRI 35K BFR LUGR MIN1 EZT MVOLT MW
A2B	2' X 2' FLAT SMOOTH LOW GLARE LENSED TROFFER; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER	RECESSED GRID	LED; 4800 LUMENS; 80 CRI; 3500K	0-10V DIMMABLE TO 1% LED DRIVER	120.00 V	35 W	LITHONIA	SPX 2X2 4800LM 80CRI 35K BFR LUGR MIN1 EZT MVOLT E10WLCP MW
B	DECORATIVE CUSTOM CHANDELIER; PIX STICK CIRRUS WITH SIX 'STICKS' MOUNTED A VARIOUS HEIGHTS AND ANGLES, ADJUSTABLE IN FEILD; SATIN BLACK FINISH	SUSPENDED	LED; 907 LUMENS PER STICK; 80 CRI; 3500K	ELV DIMMING	120.00 V	88 W	PURE EDGE	PX6P-D1-5W-41-35K-SN
CB	4' LINEAR LED; WITH HIGH IMPACT PEARLESCENT POLYCARBONATE LENS SECURED WITH TAMPER RESISTANT FASTENERS; SEALED AND GASKETED; ADA COMPLIENT; WITH EMBEDDED CONTROL SYSTEM INCLUDING OCCUPANCY DETECTION, ADJUSTABLE DIMMING AND DAYLIGHT HARVESTING. MOUNTED AT 8'-6" TO CENTER OF FIXTURE WHEN WALL MOUNTED UNLESS NOTED OTHERWISE; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER	SURFACE CEILING OR WALL	LED; 7,750 LUMENS; 80 CRI; 4000K	ELECTRONIC, 0-10V DIMMING TO 1%	120.00 V	73 W	KENALL	MLHA8-48-F-MW-PP-67L40K-DCC-DV-TL50
D	6" DIAMETER WAFER-THIN CANLESS DOWNLIGHT WITH REMOTE DRIVER	RECESSED	LED; 1100 LUMENS; 3500K; 90 CRI	0-10V DIMMABLE TO 10% LED DRIVER	120.00 V	14 W	LITHONIA	WF6 LED 35K MVOLT 90CRI MW
DB	6" DIAMETER WAFER-THIN CANLESS DOWNLIGHT WITH REMOTE DRIVER; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER	RECESSED	LED; 1100 LUMENS; 3500K; 90 CRI	0-10V DIMMABLE TO 10% LED DRIVER	120.00 V	14 W	LITHONIA	WF6 LED 35K MVOLT 90CRI MW
E1	CONTEMPORARY SINGLE FACED EXIT SIGN WITH BLACK POWDER PAINT ALUMINUM HOUSING, BRUSHED ALUMINUM FACE, RED LETTERS, CHEVRON ARROWS AS SHOWN ON PLANS AND 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER	UNIVERSAL	LED RED	---	120.00 V	5 W	LITHONIA	LES 1 R 120/277 EL N SD
F	4' LINEAR STRIPLIGHT WITH FROSTED LENS; MOUNTED AT 9'-0" AFF TO BOTTOM OF FIXTURE, UNLESS NOTED OTHERWISE.	CHAIN SUSPEND	LED; 4,585 LUMENS; 80 CRI; 4000K	ELECTRONIC LED DRIVER	120.00 V	34 W	LITHONIA	ZL1N L48 5000LM FST MVOLT 40K 80CRI
FB	4' LINEAR STRIPLIGHT WITH FROSTED LENS; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER; MOUNTED AT 9'-0" AFF TO BOTTOM OF FIXTURE, UNLESS NOTED OTHERWISE.	CHAIN SUSPEND	LED; 4,585 LUMENS; 80 CRI; 4000K	ELECTRONIC LED DRIVER	120.00 V	34 W	LITHONIA	ZL1N L48 5000LM FST MVOLT 40K 80CRI
G	4' LINEAR SURFACE MOUNTED EXTREME ENVIRONMENT; WITH RIBBED FROSTED ACRYLIC LENS; ENCLOSED AND GASKETED; WET LOCATION	SURFACE CEILING OR WALL	LED; 4,250 LUMENS; 80 CRI; 4000K	ELECTRONIC LED DRIVER	120.00 V	33 W	COLUMBIA LIGHTING	LXEM4-40LW-RFA-EU
J	20'-0" X 1" COMPACT LINEAR T-BAR REPLACEMENT; FLUSH LENS; LAMBERTIAN DISTRIBUTION	T-BAR	LED; 750 LUMENS/FT; 80 CRI; 3500K	0-10V DIMMABLE TO 1% LED DRIVER	120.00 V	135 W	XICO	GBR1-RT 20' MWH E1 OFL S80 35 DLAM 75 UNV FD01
KB	EXTERIOR DECORATIVE CARRIAGE STYLE WALL SCONCE; OPAL ACRYLIC LENS; COPPER FINISH; WET LOCATION; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER; MOUNTED AT 7'-0" AFF TO CENTER OF FIXTURE	SURFACE WALL	LED; 700 LUMENS; 80 CRI; 4000K	ELECTRONIC LED DRIVER	120.00 V	13 W	SCOTT ARCHITECTURAL LIGHTING	S9305-L12-PT-CS
L	2' X 2' ARCHITECTURAL TROFFER; 4-CHANNEL RGB WITH 3500K WHITE; 3 ZONE DMX WALL CONTROLLER WHITE	RECESSED GRID	LED; 3200 LUMENS; 80 CRI; RGB; 3500K	DMX ENABLED LED DRIVER	120.00 V	31 W	LUMENWERX	VEGR 22 MTO HLO LED QUADRO 30W 120 DMX 1 W WC2W
LB	2' X 2' ARCHITECTURAL TROFFER; 4-CHANNEL RGB WITH 3500K WHITE; 3 ZONE DMX WALL CONTROLLER WHITE; 90 MIN EMERGENCY BATTERY BACK UP VIA EMERGENCY INVERTER	RECESSED GRID	LED; 3200 LUMENS; 80 CRI; RGB; 3500K	DMX ENABLED LED DRIVER	120.00 V	31 W	LUMENWERX	VEGR 22 MTO HLO LED QUADRO 30W 120 DMX 1 W WC2W
U	48" UNDERCABINET LOW PROFILE WITH WHITE FINISH AND ROCKER SWITCH	UNDERCABINET	LED; 2000 LUMENS; 80 CRI; 3500K	0-10V DIMMABLE TO 5% LED DRIVER	120.00 V	22 W	KENALL	AUCLED-I-MW-2035K-48-277-SW
W	DECORATIVE WALL SCONCE 4" X 4.5" X 26" HIGH; MOUNTED AT 6'-0" AFF TO CENTER OF FIXTURE	SURFACE WALL	LED; 2362 LUMENS; 80 CRI; 3000K	0-10V DIMMABLE LED DRIVER	120.00 V	17 W	ULTRALIGHTS	AKUT 22506 XX 04 XX

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#	Revisions:	Date

CONSULTANTS:

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5/6/2025

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER 619A4-23-105

Building Number # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: KTK | Drawn: CCH

Drawing Number: E-603

Dwg 15 of 15

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SECURITY SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION
PACS	6' TO TOP	PHYSICAL ACCESS CONTROL SYSTEM
CR	48"	DUAL AUTHENTICATION TYPE CARD READER (K - KEYPAD)
EL	DOOR	ELECTRONIC LOCKING MECHANISM
EP	DOOR	ELECTRONIC PANIC HARDWARE
DC	DOOR	DOOR CONTACT
RX	ABOVE DOOR	REQUEST FOR EXIT SENSOR
AOD	DOOR	DOOR OPERATOR
	48"	HANDWAVE
	48"	EMERGENCY EXIT BUTTON TO RELEASE DOOR (EEB)
PB	48"	PUSH PAD
MS	88"	MOTION DETECTOR
IC	54"	INTERCOM WITH CAMERA
IC M	DESK	INTERCOM MASTER WITH PUSH TO RELEASE DOOR
	CEILING	SSTV DOME CAMERA FIXED
	CEILING	SSTV (90/180/270/360) PANORAMIC MULTISENSOR CAMERA
SSTV	FLOOR	SSTV CAMERA EQUIPMENT CABINET
AOF	6' TO TOP	AREA OF REFUGE PANEL
AOFA	6' TO TOP	AREA OF REFUGE ANNUNCIATION PANEL
IC	48"	AREA OF REFUGE INTERCOM
SL	CEILING	AREA OF REFUGE STROBE LIGHT
DP	48"	DURESS PANIC ALARM PUSH BUTTON
DPP	6' TO TOP	DURESS PANIC ALARM PANEL

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.
SEE DRAWINGS FOR MORE INFORMATION.
NOTE: NOT ALL SYMBOLS ARE USED.

CABLES AND CONNECTORS COLOR LEGEND

DESCRIPTION ITEM	JACK	CABLE	PATCH CABLES	I.D.	CONDUIT COLOR	NOTES
TELEPHONE	IVORY	IVORY	IVORY	T	-	4 PAIR CABLE
DATA/COMPUTER	BLUE	BLUE	BLUE	C	BLUE	4 PAIR CABLE
WIRELESS ACCESS POINT	GREEN	GREEN	GREEN	WAP	-	4 PAIR CABLE
FIBER - MULTI-MODE	BLACK	AQUA	AQUA	FO	-	6/12/24/36
FIBER - SINGLE-MODE	IVORY	YELLOW	YELLOW	FO	-	6/12
SOUND SYSTEM	N/A	GREEN	N/A	SS	YELLOW	MULTI COLOR CONDUCTORS
NURSE CALL	N/A	YELLOW	N/A	NC	YELLOW	4 PAIR UTP
MATV	N/A	BLACK	N/A	MATV	YELLOW	COAX RG6
SSTV - IP	WHITE	WHITE	WHITE	SSTV	YELLOW	SSTV
PACS	N/A	GRAY	N/A	PACS	YELLOW	MULTI COLOR CONDUCTORS

GENERAL TECHNOLOGY SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION	
N	18"	DATA OUTLET - N-4 PR UTP	(N - QUANTITY)
N	48"	TELCO OUTLET - N-4 PR UTP	(N - QUANTITY)
W	48"	WALL PHONE JACK	
N	CEILING	WIRELESS ACCESS POINT - N-4 PR UTP	(N - QUANTITY)
S N	CEILING	SECURE WIRELESS ACCESS POINT - N-4 PR UTP	(N - QUANTITY)
	AS NOTED	TV OUTLET WALL MOUNTED	
	FLOOR	CHANNEL TR EQUIPMENT RACK	
	FLOOR	2-POST RACK	
	FLOOR	TR EQUIPMENT CABINET	
MATV	6' TO TOP	MATV EQUIPMENT CABINET	
	ABOVE CEILING	LADDER CABLE TRAY (4" HIGH - SEE PLANS FOR OTHER DIMENSIONS)	
	18"	GROUND BUS	
	8"	4'x8'x3/4" FIRE RETARDED TTB	
	FLOOR	HIGH CAPACITY FLOOR BOX FOR DATA (2-4P) & POWER (4-RECEPTACLE)	
J	AS NOTED	JUNCTION BOX - AS NOTED ON PLANS	

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.
SEE DRAWINGS FOR MORE INFORMATION.
NOTE: NOT ALL SYMBOLS ARE USED.

PUBLIC ADDRESS SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION
S	CEILING	CEILING MOUNTED SPEAKERS
S	96"	WALL MOUNTED SPEAKERS
	96"	WALL MOUNTED HORN SPEAKER
VC	48"	VOLUME CONTROL
PA	48"	PAGING CONSOLE
PA	FLOOR	PAGING CABINET

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.
SEE DRAWINGS FOR MORE INFORMATION.
NOTE: NOT ALL SYMBOLS ARE USED.

NURSE CALL SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION
NCE	6' TO TOP	NURSE CALL EQUIPMENT CABINET
	18"	NURSE CALL MASTER STATION/CONSOLE
	HEADWALL	NURSE CALL PATIENT STATION WITH PILLOW SPEAKER 2 ADDITIONAL PUSHBUTTONS, 1/4 RECEPTACLE AND COVER (1 - SINGLE, 2 - DUAL, V - VANDAL RESISTANT)
	HEADWALL	NURSE CALL PATIENT STATION WITH CALL CORD. (1 - SINGLE, 2 - DUAL, V - VANDAL RESISTANT)
	40", 72"	NURSE CALL EMERGENCY STATION WITH PULL CORD AND AUDIO +40" AFF IN RESTROOM, +72" AFF IN SHOWER (V - VANDAL RESISTANT, PB - PUSH BUTTON)
	HEADWALL /40"	NURSE CALL CODE BLUE STATION WITH COVER
	CEILING	NURSE CALL DOME LIGHT (Z - ZONE LIGHT, V - VANDAL RESISTANT)
	ABOVE DOOR	NURSE CALL DOME LIGHT
	18"	NURSE CALL PATIENT BED INTERFACE RECEPTACLE
	46"	NURSE CALL DUTY STATION
	46"	NURSE CALL STAFF TERMINAL
NW	CEILING	NURSE CALL WIRELESS ANTENNAS
	CEILING	WIRELESS PENDANT
M	48"	PATIENT STATION (PB - PUSH BUTTON, M - MICROPHONE, K -KEYED)
KP	48"	PATIENT ROAM ALERT ACCESS CONTROL KEYPAD
L	CEILING	PATIENT ROAM ALERT ANTENNA

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.
SEE DRAWINGS FOR MORE INFORMATION.
NOTE: NOT ALL SYMBOLS ARE USED.

TECHNOLOGY GENERAL NOTES

1. PROVIDE TECHNOLOGY DEVICES AND EQUIPMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICANS WITH DISABILITIES ACT, LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, BICSI STANDARDS, AND VA OIT STANDARDS.
2. PROVIDE ADDITIONAL SUPPORT FOR DEVICES AND EQUIPMENT WHERE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
3. FIRESTOP, DRAFTSTOP, SMOKESTOP OR PROTECT ANNULAR SPACE AROUND PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILINGS, AND ROOF IN ACCORDANCE WITH REQUIREMENTS OF NFPA 70, UL LISTING REQUIREMENT AND APPLICABLE BUILDING CODES.
4. PROVIDE CABLING THAT COMPLIES WITH THE LATEST EDITION OF TELECOMMUNICATIONS DISTRIBUTION METHOD MANUAL AND ANSI/TIA/EIA PUBLICATIONS.
5. COMPLY WITH THE LATEST ANSI/TIA/EIA 758 AND 607D - BONDING AND GROUNDING TELECOMMUNICATIONS.
6. COMPLY WITH THE LATEST ANSI/TIA/EIA 568.1E - COMMERCIAL BUILDING TELECOMMUNICATIONS WIRING STANDARD.
7. COMPLY WITH THE LATEST ANSI/TIA/EIA 569E - TELECOMMUNICATIONS PATHWAYS AND SPACES.
8. COMPLY WITH ANSI/TIA-1069 STANDARD FOR HOSPITAL SIGNALING & NURSE CALL EQUIPMENT.
9. COMPLY WITH ANSI/TIA-1179 HEALTHCARE FACILITY TELECOMMUNICATION INFRASTRUCTURE STANDARD.
10. COMPLY WITH THE LATEST NFPA 70 NATIONAL ELECTRICAL CODE.
11. COMPLY WITH THE LATEST NFPA 99 HEALTHCARE FACILITIES CODE.
12. COMPLY WITH THE LATEST NFPA 101 LIFE SAFETY CODE.
13. CONTRACTOR RESPONSIBLE FOR THE COORDINATION OF ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
14. MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES TO INDICATE A QUALITY STANDARD AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL IN ACCORDANCE WITH SPECIFIED PROCESSES FOR APPROVAL AND APPROVED BY THE COR WILL BE ACCEPTABLE. COMPLY WITH "BUY AMERICAN ACT".
15. MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, BOXES, OUTLET, OR EQUIPMENT UNLESS NOTED OTHERWISE.
16. PROVIDE RGS OR EMT CONDUIT UNLESS OTHERWISE NOTED.
17. PROVIDE MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT LABEL LISTED BY APPROVED THIRD PARTY TESTING AGENCY.
18. NOTIFY COR REGARDING DISCREPANCY BETWEEN PLANS AND SPECIFICATIONS FOR CLARIFICATION. THE MORE STRINGENT SHALL TAKE PRECEDENCE.
19. PROVIDE TIA/EIA 4 PR UTP COPPER CABLE, JACKS, AND CONNECTORS.
20. ALL WORK AREA OUTLETS SHALL BE CAT 6A, 8 PIN, 8P8C KEYSTONE JACK WIRED PER T568B.
21. LABEL DEVICES IN ACCORDANCE WITH LATEST ANSI/TIA 606A OR 606B EDITION AS WELL AS THE STANDARDS SET FORTH BY THE VAMC OIT.
22. PROVIDE A MINIMUM OF 12" CLEARANCE ABOVE THE CABLE TRAY PER TIA/EIA 569.B PARAGRAPH 4.5.6.2.
23. VA SHALL CONDUCT A WAP SURVEY AND PROVIDE THE SURVEY TO THE CONTRACTOR. CONTRACTOR SHALL INSTALL CABLING AND EQUIPMENT IN ACCORDANCE WITH THE SURVEY. COORDINATE WITH COR/OIT.
24. ALL CABLING INSTALLED ABOVE CEILING SHALL BE PLENUM RATED.
25. MINIMUM CONDUIT SIZE TO BE USED IS 1 1/4" CONDUIT.
26. WALL MOUNTED DEVICES PLACED IN TELECOMMUNICATIONS ROOM TO BE MOUNTED ON FIRE RETARDANT PLYWOOD.
27. ALL CAMERAS SHALL BE IN COMPLIANCE WITH THE NATIONAL DEFENSE AUTHORIZATION ACT.
28. ALL UTP STRUCTURED CABLING SHALL BE CAT 6A.

TECHNOLOGY SYMBOL NOTES

(#) SHEET KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.

DEMOLITION KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE SQUARE.

TECHNOLOGY DEVICE WORK IS INDICATED BY AN UPPER CASE LETTER.
- E: EXISTING DEVICE TO REMAIN
- D: EXISTING DEVICE TO BE DEMOLISHED
- R: EXISTING DEVICE TO BE REPLACED
- N: NEW DEVICE

TECHNOLOGY DEVICES THAT DO NOT HAVE AN UPPERCASE LETTER SHALL BE ASSUMED TO BE NEW.

DEVICES THAT ARE INDICATED HALFTONE ON THE PLAN ARE EXISTING TO REMAIN.

D EXAMPLE 1: DATA OUTLET TO BE DEMOLISHED.

R EXAMPLE 2: DATA OUTLET TO BE REPLACED.

EXAMPLE 3: NEW DATA OUTLET.

EXAMPLE 4: EXISTING DATA OUTLET TO REMAIN.

NOTE CONCERNING NEW SECURITY SURVEILLANCE CAMERA:

NONE OF THE NEW SECURITY SURVEILLANCE CAMERAS SUPPLIED BY CONTRACTOR WILL BE SOURCED FROM CHINESE MANUFACTURERS IN ACCORDANCE WITH THE NATIONAL DEFENSE AUTHORIZATION ACT. CONTRACTOR TO ENSURE NO NEW CAMERAS ARE REFURBISHED CAMERAS FROM CHINA.

GENERAL TECHNOLOGY DEMOLITION NOTES

1. PRIOR TO SUBMITTING PROPOSAL, BIDDER SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS.
2. ALL EXISTING CONDITIONS INCLUDING EQUIPMENT, CABINETS, CABLE TRAY, DEVICES, CONDUITS ARE BASED ON BEST AVAILABLE INFORMATION AT THE TIME OF SURVEY AND VISUAL INSPECTION.
3. RETURN REMOVED MATERIAL DEEMED SALVAGEABLE BY THE COR. MATERIALS DEEMED NOT SALVAGEABLE SHALL BE REMOVED FROM THE PREMISES.
4. REMOVE ALL EXISTING TELECOMMUNICATION DEVICES, WIRE, CONDUIT, ETC., AS NOTED OR INDICATED WITHIN DEMOLITION AREA (ALL ITEMS MAY NOT BE SHOWN). REWORK, AS NECESSARY, CIRCUITING WHICH REQUIRES CONTINUATION THROUGH THE AREA.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK IN REMOVING AND REPLACING "EXISTING TO REMAIN" DEVICES, ETC., AS REQUIRED SO THAT THESE DEVICES ARE NOT DAMAGED DURING DEMOLITION. RELOCATED TO NEAREST APPROPRIATE LOCATION TO AVOID CONFLICTS WITH OTHER TRADES' WORK. REPLACE WITH NEW ANY "EXISTING TO REMAIN" FIXTURE, DEVICE, ETC., NOT DEEMED SALVAGEABLE BY THE COR.
6. REMOVED OR DAMAGED CONDUIT, WIRE, AND FITTINGS SHALL NOT BE REUSED FOR RELOCATED OR NEW DEVICES.
7. CERTAIN REMODELING OF TELECOMMUNICATIONS FACILITIES WILL BE REQUIRED IN THE EXISTING BUILDING. EXISTING CONDUIT RUNS ARE GENERALLY NOT SHOWN. ALTHOUGH A FULL ATTEMPT HAS BEEN MADE TO SHOW SOME EXISTING CONDITIONS, OF WHICH INFORMATION HAS BEEN TAKEN FROM EXISTING RECORD DRAWINGS OF THIS PROJECT, THE DRAWINGS SHOWING LOCATION OF EXISTING EQUIPMENT, OUTLETS, FIXTURES, ETC., IN EXISTING AREAS ARE APPROXIMATE ONLY (FIELD VERIFY).
8. OUTLETS FROM WHICH TELEPHONE/DATA OUTLETS AND/OR OTHER TELECOMMUNICATIONS DEVICES ARE MOVED AND WHICH ARE NOT REPLACED OR REUSED SHALL BE REMOVED OR, IF IT IS NOT POSSIBLE TO REMOVE, PLACE A BLANK STAINLESS STEEL COVER ON THE OUTLET BOX. WHERE OUTLETS, BOXES, ETC., ARE COMPLETELY REMOVED, THE CONTRACTOR SHALL CUT OFF CONDUITS AND REMOVE WIRING.
9. WHERE CONDUITS EXTENDING THROUGH FLOORS ARE TO BE ABANDONED, THE CONTRACTOR SHALL CUT AND CAP OR PLUG CONDUIT, THAT IT WILL NOT PROTRUDE ABOVE THE FLOOR.
10. WHERE EXISTING CONDUIT IS TO BE ABANDONED, THE CONDUIT SHALL BE REMOVED IF IT IS EXPOSED, IN A CRAWL SPACE OR IN AN ACCESSIBLE CEILING. WHERE IT IS IMPOSSIBLE TO REMOVE THE CONDUIT, IT SHALL BE CUT OFF AND CAPPED OR PLUGGED.
11. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRED PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIR DUE TO THE INSTALLATION OF TELECOMMUNICATIONS WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED. THE CONTRACTOR SHALL EMPLOY QUALIFIED AND EXPERIENCED WORKMEN FOR THIS WORK. ALL RESTORATION WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND/OR THE COR/VA.
12. ALL TEMPORARY AND REMODELING WORK SHALL BE CONSIDERED A PART OF THIS CONTRACT AND NO EXTRA CHARGES WILL BE ALLOWED. THIS SHALL INCLUDE MINOR ITEMS OF MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.
13. EXAMINE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE SEQUENCE OF CONSTRUCTION THROUGHOUT THE PROJECT, INCLUDING EXISTING, TEMPORARY, REMODELED AND NEW AREAS.
14. ALL TELECOMMUNICATIONS CONNECTIONS REQUIRING AN OUTAGE SHALL BE MADE DURING AN APPROVED TIME LIMIT. CHANGEOVERS SHALL BE AS SHORT A DURATION AS POSSIBLE AND SHALL NOT INTERFERE WITH NORMAL OPERATION OF THE COR/VA FACILITIES. NOTIFY COR/VA NO LESS THAN 14 DAYS (TWO WEEKS) IN ADVANCE OF A SHUTDOWN OF ANY TELECOMMUNICATIONS CIRCUIT FOR CHANGEOVER, AND SUCH A CHANGEOVER SHALL BE DONE DURING HOURS AS DIRECTED BY COR/VA. WORK SHALL BE SCHEDULED SO THAT AT NO TIME WILL ANY EMERGENCY FEEDER, CIRCUIT, OR FIRE ALARM ZONE BE OUT OF SERVICE. PROVIDE NECESSARY TEMPORARY FEEDERS TO ACCOMPLISH THIS REQUIREMENT.
15. EXISTING LOW VOLTAGE WIRING WHICH WILL NOT BE MADE OBSOLETE AND WHICH WILL BE DISTURBED DUE TO CONSTRUCTION CHANGES REQUIRED BY THIS CONTRACT SHALL BE RESTORED TO CONDITION, OR POSITION, AS REQUIRED. PROPERLY RE-SECURE CABLE IN CHASES, CRAWL SPACES, TUNNELS, AND CEILING SPACES AS REQUIRED BY NEC. IN SOME CASES IT MAY BE NECESSARY TO ADD SUPPORTING HARDWARE TO ACCOMPLISH THIS REQUIREMENT.
16. IF POSSIBLE, ALL NEWLY INSTALLED TELEPHONE/DATA OUTLETS SHALL BE INSTALLED IN SEPARATE OR ADJACENT STUD SPACES, TO AVOID SOUND TRANSMISSION AND WALL INTEGRITY ISSUES. ALL NEWLY INSTALLED RECEPTACLES LOCATED IN COMMON STUD SPACES OF FIRE-RESISTANT WALLS SHALL BE EQUIPPED WITH FIRE-RESISTANT PUTTY PADS AT THE BACK OF EACH BOX IN ACCORDANCE WITH NEC 300.21.
17. EXISTING EQUIPMENT NOT IMPLICITLY SHOWN ON THE DRAWINGS IS INTENDED TO BE "EXISTING TO REMAIN UNCHANGED", UNLESS NOTED OTHERWISE.

TECHNOLOGY ABBREVIATIONS LIST

ADO	AUTOMATIC DOOR OPERATOR	OC	ON CENTER
AFF	ABOVE FINISH FLOOR	OIT	OFFICE OF INFORMATION TECHNOLOGY
BOD	BASIS OF DESIGN	PACS	PHYSICAL ACCESS CONTROL SYSTEM
		PAMN	PUBLIC ADDRESS AND MASS NOTIFICATION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION	PB	PUSH BUTTON
COAX	COAXIAL CABLE	PBB	PRIMARY BONDING BUSBAR
COMM	COMMUNICATION	PDU	RACK POWER DISTRIBUTION UNITS
COR	CONTRACTING OFFICER REPRESENTATIVE	POE	POWER OVER ETHERNET
		PR	PAIR
DC	DOOR CONTACT SWITCH		
DN	DOWN	RBB	RACK BONDING BUSBAR
DO	DOOR OPERATOR	RGS	RIGID GALVANIZED STEEL CONDUIT
DVC	DIGITAL VOICE COMMAND	RX	REQUEST TO EXIT
DVR	DIGITAL VIDEO RECORDER		
		SBB	SECONDARY BONDING BUSBAR
E	EXISTING DEVICES	SEP	SERVICE ENTRANCE PROTECTION
EEB	EMERGENCY EXIT BUTTON	SLC	SIGNALING LINE CIRCUIT
EL	ELECTRICAL STRIKE	SM	SINGLE MODE FIBER
EMT	ELECTRICAL METALLIC CONDUIT	SSTV	SECURITY SURVEILLANCE TELEVISION SYSTEM
ETR	EXISTING TO REMAIN		
		TBB	TELECOM BONDING CONDUCTOR
FA	FIRE ALARM	TEL	TELEPHONE
FACP	FIRE ALARM CONTROL PANEL	TM	TELEMONITORING
FAAP	FIRE ALARM ANNUNCIATOR PANEL	TP	TWISTED PAIR
FO	FIBER OPTIC	TR	TELECOM ROOM
FAGAP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL	TTB	TELEPHONE TERMINAL BOARD
		TV	TELEVISION
IT	INTERCOMMUNICATION ROOM		
		WM	WIRE MANAGEMENT
MATV	MASTER ANTENNA TELEVISION	WAP	WIRELESS ACCESS POINT
MM	MULTI MODE FIBER		
MS	MULTI SENSOR	UL	UNDERWRITERS LABORATORY
		UPS	UNINTERRUPTIBLE POWER SUPPLY
NAC	NOTIFICATION APPLIANCE CONTROL PANEL	UTP	UNSHIELDED TWISTED PAIR
N	NEW DEVICES		
NCA	NETWORK CONTROL ANNUNCIATOR		
NS	NO SCALE		
NTS	NOT TO SCALE		
NVR	NETWORK VIDEO RECORDER		

WALL RATING LEGEND

2 HOUR FIRE SEPARATION

1 HOUR FIRE SEPARATION

—S———S———S- SMOKE RATED

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#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Andrew D Richards BICSI ID # 571721 EXPIRES 12-31-25 RCDD 5/6/2025

NORTH CAROLINA PROFESSIONAL SEAL 057626 ENGINEER ANDREW D. RICHARDS 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY GENERAL NOTES, SYMBOL LEGEND, AND ABBREVIATIONS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-001

Dwg 1 of 10

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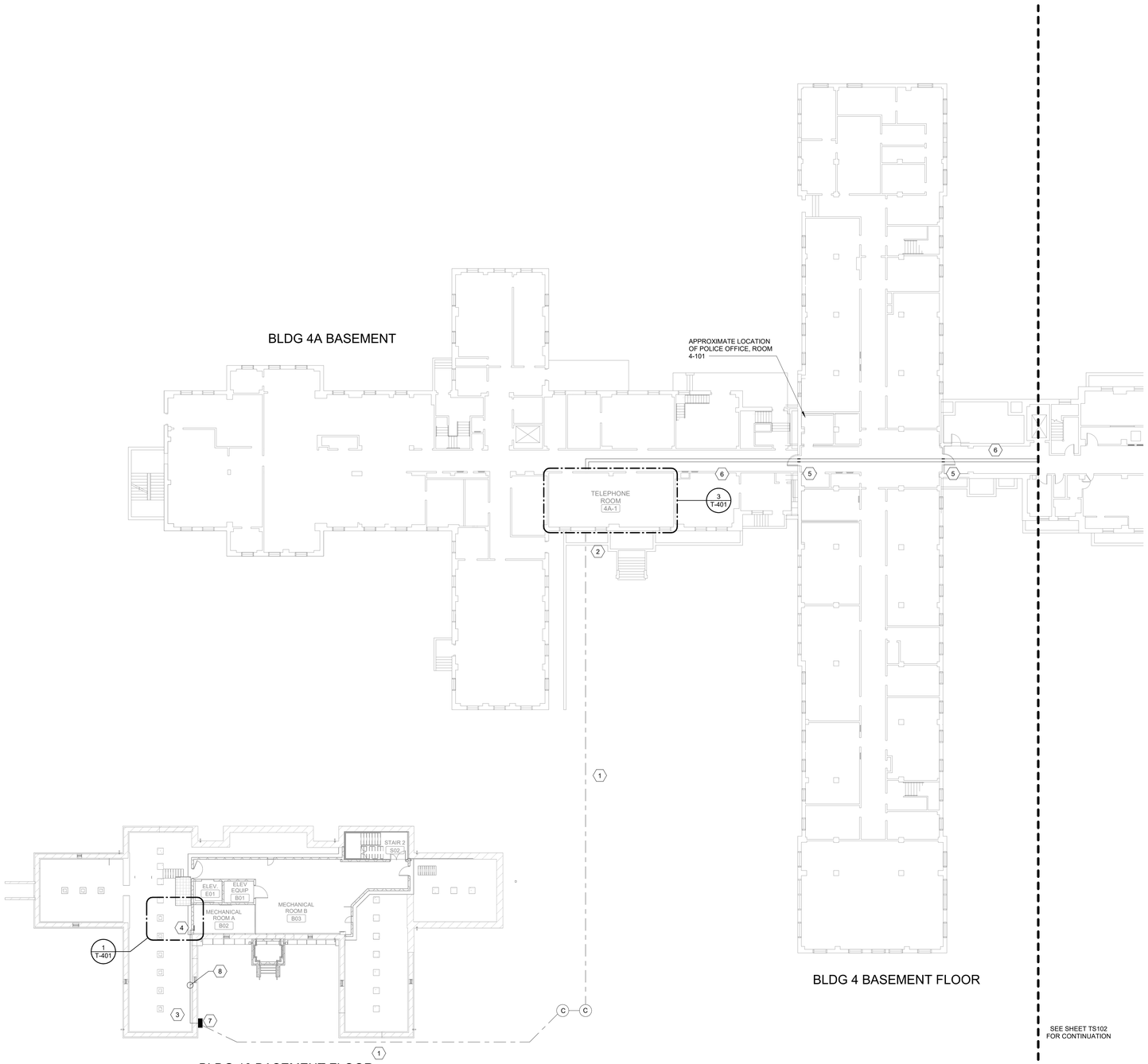


1 **TECHNOLOGY SITE PLAN 1**
Scale: 1/16" = 1'-0"

SHEET NOTES:

A. ALL EXISTING CONDITIONS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF FIELD INVESTIGATION. VERIFY ALL EXISTING CONDITIONS IN FIELD.

B. CONTRACTOR TO REPLACE ANY CEILING TILES BROKEN OR DAMAGED WHILE ROUTING CABLING AT NO EXPENSE TO THE GOVERNMENT.

C. PROVIDE LC TO LC CONNECTORS FOR FIBER CABLING.

D. PROVIDE "J-HOOKS", ABOVE CEILING, 5' O.C. FOR LOW VOLTAGE HORIZONTAL CABLING.

E. PROVIDE HYBRID FIBER CABLE WITH 24 STRAND, MULTIMODE FIBER (OM4) AND 12 STRAND SINGLE MODE FIBER (OS1) FOR CIRCUIT "A", FROM EACH TR ROOM, TO THE MAIN MCR ROOM IN BUILDING 3A, DATA CENTER ON THE FIRST FLOOR, ROOM 106.

F. PROVIDE HYBRID FIBER CABLE WITH 24 STRAND, MULTIMODE FIBER (OM4) AND 12 STRAND SINGLE MODE FIBER (OS1) FOR CIRCUIT "B", FROM EACH TR ROOM, TO THE MAIN MCR ROOM IN BUILDING 3A, DATA CENTER ON THE FIRST FLOOR, ROOM 106.

G. CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN FIBER BACKBONE ROUTE DIVERSITY. CIRCUITS A AND B SHALL NOT BE IMMEDIATELY ADJACENT TO EACH OTHER. FOR EXAMPLE, WHERE A AND B FIBER IS ROUTED DOWN THE SAME CORRIDOR, A SHOULD BE ON ONE SIDE OF THE CORRIDOR AND B ON THE OTHER.

H. CONTRACTOR SHALL REFER TO GENERAL SHEETS FOR ICRA INFORMATION.

KEY NOTES:

1 REUSE EXISTING UNDERGROUND CONDUIT IN DUCTBANK FROM BUILDING 4A TO FEED NEW COMMUNICATIONS EQUIPMENT IN BUILDING 10. PROVIDE THE FOLLOWING NEW: 2 RUNS OF FIBER TO NEW TR ROOMS, FIRE ALARM LOOP, PACS, CCTV, AND 50 PAIR COPPER. SEE SHEET T-401 FOR ADDITIONAL INFORMATION.

2 RUN NEW FIBER OPTIC CABLE AND COPPER BACKBONE CABLE IN EXISTING SPARE CONDUITS OF DUCTBANK. SEE SHEET T-401 FOR ADDITIONAL INFORMATION.

3 INSTALL 2-12 STRAND OS2 IN CRAWL SPACE, INDOOR/OUTDOOR TYPE BUFFERED ARMORED INTERLOCKED INTERDUCT. PROVIDE TWO 50 PAIR COPPER AT 6A CONDUCTORS. SUPPORT WITH J-HOOKS.

4 FOUR 4" CONDUITS STUB-UP INTO NEW OIT ROOM 127. SEE T-401 FOR CONTINUATION.

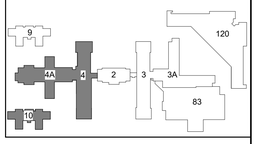
5 PROVIDE 1-4" FIRE/SMOKE UL LISTED SLEEVE ASSEMBLY.

6 ROUTE NEW CABLING ABOVE CEILING ON BASEMENT LEVEL. SUPPORT WITH J-HOOKS.

7 REMOVE EXISTING PULLBOX AND CONDUIT PENETRATING WALL AND TO EXISTING TELECOMMUNICATION SPACE ALONG WITH ALL CABLING. CONTRACTOR TO PATCH ALL OPENINGS TO MATCH EXISTING CONDITION.

8 PROVIDE 2-4" CONCRETE ENCASED CONDUITS TO NEW OIT. MAINTAIN MINIMUM DEPTH OF 24". COORDINATE WITH HVAC DUCTWORK AND PIPING.

KEY PLAN
SCALE: NO SCALE



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#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER — Bicsi — Andrew D Richards — BICSI ID # 371721 — EXPIRES 12-31-25 — RCDD — 5/6/2025

PROFESSIONAL ENGINEER — ANDREW D. RICHARDS — SEAL 057626 — 5/6/2025

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ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY SITE PLAN 1

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS
2400 HOSPITAL ROAD
TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: TS101

Dwg 2 of 10

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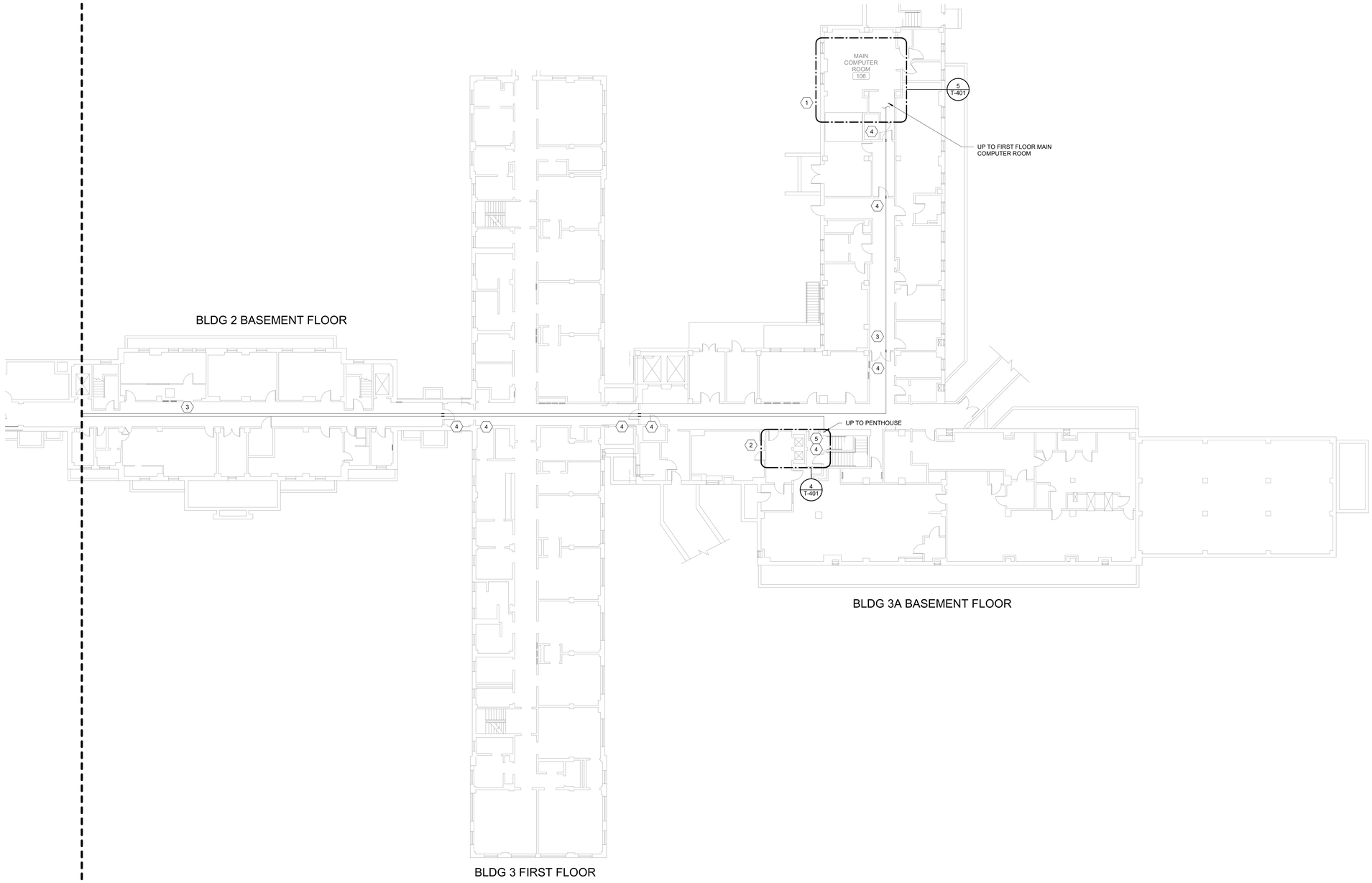


1 **TECHNOLOGY SITE PLAN 2**
Scale: 1/16" = 1'-0"

0 8 16 32 NORTH

SHEET NOTES:

A. ALL EXISTING CONDITIONS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF FIELD INVESTIGATION. VERIFY ALL EXISTING CONDITIONS IN FIELD.

B. CONTRACTOR TO REPLACE ANY CEILING TILES BROKEN OR DAMAGED WHILE ROUTING CABLING AT NO EXPENSE TO THE GOVERNMENT.

C. PROVIDE LC TO LC CONNECTORS FOR FIBER CABLING.

D. PROVIDE "J-HOOKS", ABOVE CEILING, 5' O.C. FOR LOW VOLTAGE HORIZONTAL CABLING.

E. PROVIDE HYBRID FIBER CABLE WITH 24 STRAND, MULTIMODE FIBER (OM4) AND 12 STRAND SINGLE MODE FIBER (OS1) FOR CIRCUIT 'A', FROM EACH TR ROOM, TO THE MAIN MCR ROOM IN BUILDING 3A, DATA CENTER ON THE FIRST FLOOR, ROOM 106.

F. PROVIDE HYBRID FIBER CABLE WITH 24 STRAND, MULTIMODE FIBER (OM4) AND 12 STRAND SINGLE MODE FIBER (OS1) FOR CIRCUIT 'B', FROM EACH TR ROOM, TO THE MAIN MCR ROOM IN BUILDING 3A, DATA CENTER ON THE FIRST FLOOR, ROOM 106.

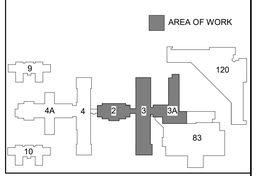
G. CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN FIBER BACKBONE ROUTE DIVERSITY. CIRCUITS A AND B SHALL NOT BE IMMEDIATELY ADJACENT TO EACH OTHER. FOR EXAMPLE, WHERE A AND B FIBER IS ROUTED DOWN THE SAME CORRIDOR, A SHOULD BE ON ONE SIDE OF THE CORRIDOR AND B ON THE OTHER.

H. CONTRACTOR SHALL REFER TO GENERAL SHEETS FOR ICRA INFORMATION.

KEY NOTES:

1 PROVIDE 2 RUNS OF SINGLE MODE FIBER FROM ROOM 106.
2 PROVIDE CATV FROM BUILDING 3A PENTHOUSE.
3 ROUTE NEW CABLING ABOVE CEILING ON BASEMENT LEVEL. SUPPORT WITH J-HOOKS.
4 PROVIDE 1-4" FIRE/SMOKE UL LISTED SLEEVE ASSEMBLY.
5 CATV CABLING DOWN FROM PENTHOUSE. REFERENCE 4/T-401 FOR MORE INFORMATION.

KEY PLAN
SCALE: NO SCALE



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CONSULTANTS:

RECESSED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi Andrew D Richards BICSI ID # 37172 Expires 12-31-25 RCDD 5/6/2025

NORTH CAROLINA PROFESSIONAL SEAL 057626 ENGINEER ANDREW D. RICHARDS 5/6/2025

PROJECT MANAGER
ACG Project Number 22-139

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY SITE PLAN 2
Project Title: RENOVATE BUILDING 10
VA PROJECT NUMBER: 619A4-23-105
Building Number: # 10
Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083
Approved
Date: MAY 9, 2025
Checked: ADR
Drawn: HT
Drawing Number: TS102
Dwg 3 of 10

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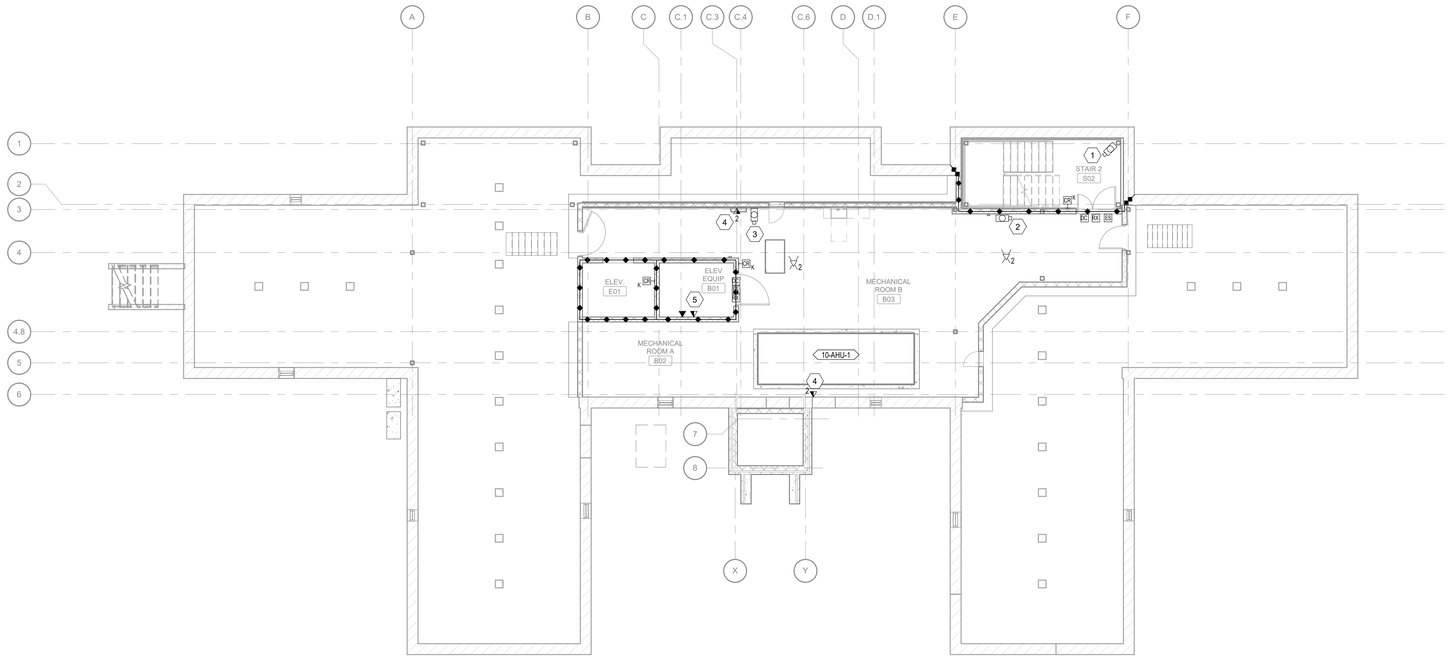
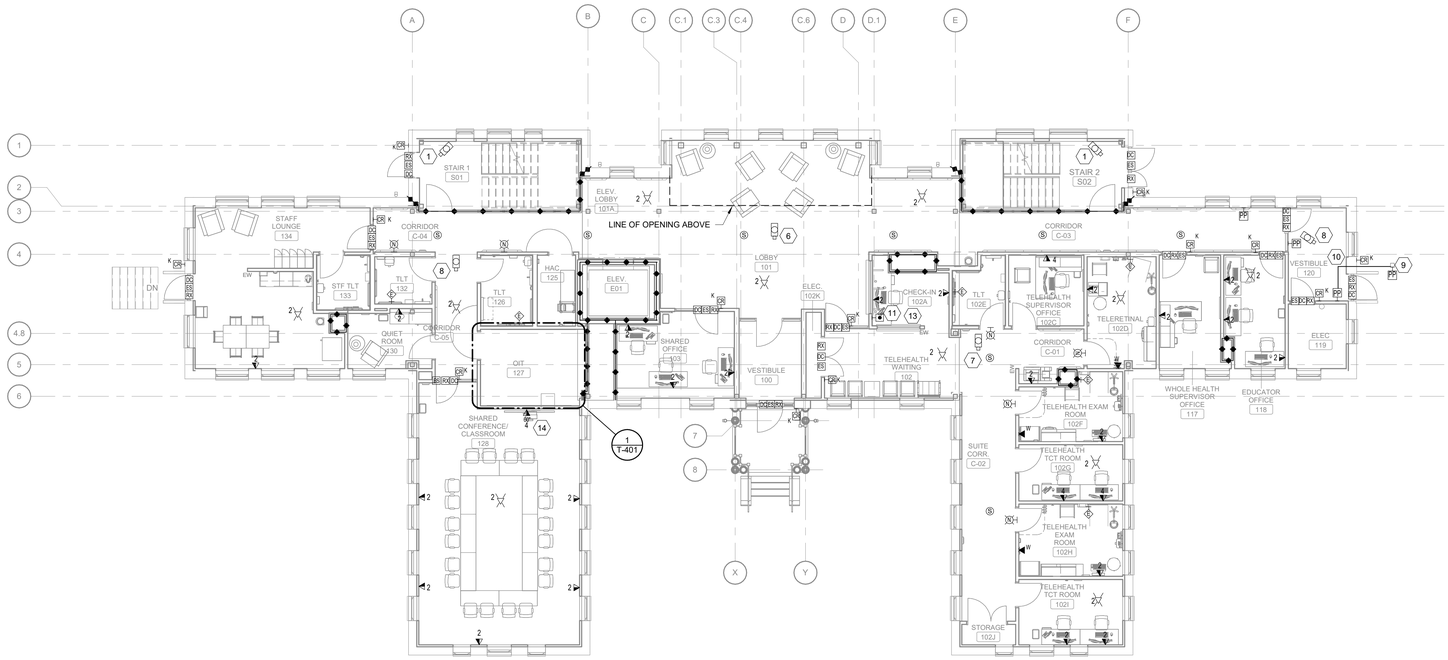


1 BASEMENT TECHNOLOGY PLAN

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



2 FIRST FLOOR TECHNOLOGY PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF WALL DEVICES. FOR DEVICES NOT FOUND ON INTERIOR SHEETS INSTALL DEVICES AT STANDARD MOUNTING HEIGHTS FOUND ON TECHNOLOGY SYMBOL LEGEND.

C. COORDINATE INSTALLATION AND PROGRAMING OF DUAL AUTHENTICATION DOOR CONTROL DEVICES WITH VA.

D. PROVIDE "J-HOOKS", ABOVE CEILING, 5' O.C. FOR LOW VOLTAGE HORIZONTAL CABLING.

E. WAP PROVIDED BY VA. CONTRACTOR TO PROVIDE TWO (2) CAT 6A RATED, UTP COPPER CABLES TO EACH LOCATION SHOWN. PROVIDE TWO (2) MODULAR PLUG TERMINATED LINKS AT EACH WAP LOCATION SHOWN.

F. PROVIDE 30' ETHERNET CABLE COIL AT ALL WIRELESS ACCESS POINTS SHOWN ON SHEET.

KEY NOTES:

1. PROVIDE WALL MOUNTED DOME CAMERA IN STAIRWELL. SURFACE MOUNT CAMERA A MINIMUM OF 8'-0" AFF. PROVIDE CAMERA MOUNTING HARDWARE.
2. PROVIDE WALL MOUNTED DOME CAMERA. SURFACE MOUNT CAMERA A MINIMUM OF 8'-0" AFF. PROVIDE CAMERA MOUNTING HARDWARE.
3. PROVIDE WALL MOUNTED MULTISENSOR CAMERA WITH 180 DEGREE FIELD OF VIEW. SURFACE MOUNT CAMERA A MINIMUM OF 8'-0" AFF. PROVIDE CAMERA MOUNTING HARDWARE.
4. SURFACE MOUNTED DATA OUTLET FOR HVAC CONTROLS. COORDIANTE EXACT LOCATION WITH MECHANICAL INSTALLER PRIOR TO ROUGH-IN.
5. DATA OUTLET FOR REQUIRED TWO-WAY VIDEO COMMUNICATION IN THE ELEVATOR CAB INTERIOR.
6. PROVIDE CEILING MOUNTED MULTISENSOR CAMERA WITH 360 DEGREE FIELD OF VIEW. PROVIDE CAMERA MOUNTING HARDWARE.
7. PROVIDE CEILING MOUNTED MULTISENSOR CAMERA WITH 360 DEGREE FIELD OF VIEW. PROVIDE CAMERA MOUNTING HARDWARE.
8. PROVIDE CEILING MOUNTED DOME CAMERA WITH 90 DEGREE FIELD OF VIEW. PROVIDE CAMERA MOUNTING HARDWARE.
9. CONTRACTOR TO DETERMINE EXACT LOCATION OF HANDICAP PUSH PLATE POST WITH ARCHITECTURAL PLAN.
10. PROVIDE 3/4" C WITH REQUIRED CABLING BELOW GRADE TO CONTROLLER AT MAIN DOOR.
11. PROVIDE DOOR RELEASE BUTTON TO ALLOW ENTRANCE FROM LOBBY 101 TO TELEHEALTH WAITING 102.
13. PROVIDE VISUAL INDICATOR MONITORS. COORDINATE EXACT LOCATION WITH COR PRIOR TO ROUGH IN.
14. COORDINATE WITH COR FOR EQUIPMENT HEIGHT REQUIREMENTS.

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#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER — Bicsi — Andrew D Richards — BICSI ID # 371721 — Expires 12-31-25 — RCDD — 5/6/2025

NORTH CAROLINA PROFESSIONAL SEAL 057626 ENGINEER ANDREW D. RICHARDS — 5/6/2025

PROJECT MANAGER

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR TECHNOLOGY PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS, 2400 HOSPITAL ROAD, TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-101

Dwg 4 of 10

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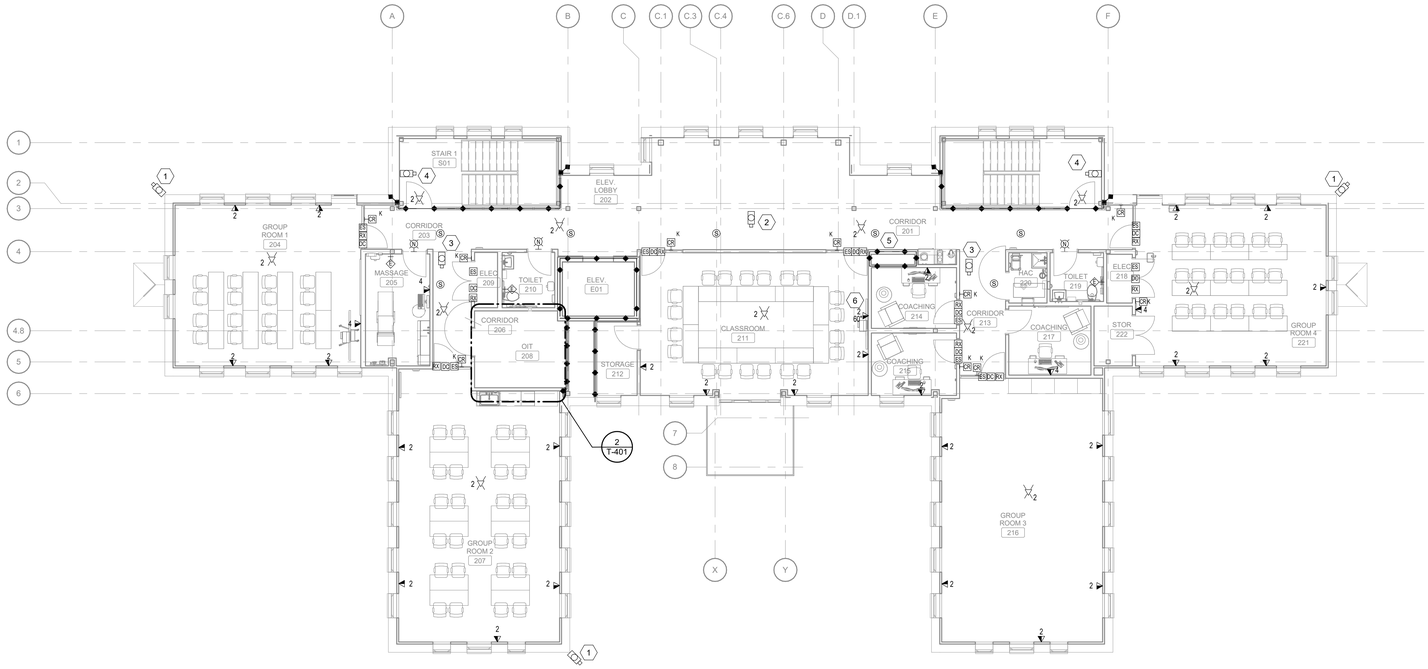

1 SECOND FLOOR TECHNOLOGY PLAN

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

0 4 8 16

NORTH

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF WALL DEVICES. FOR DEVICES NOT FOUND ON INTERIOR SHEETS INSTALL DEVICES AT STANDARD MOUNTING HEIGHTS FOUND ON TECHNOLOGY SYMBOL LEGEND.

C. PROVIDE 30' ETHERNET CABLE COIL AT ALL WIRELESS ACCESS POINTS SHOWN ON SHEET.

D. COORDINATE INSTALLATION AND PROGRAMING OF DUAL AUTHENTICATION DOOR CONTROL DEVICES WITH VA.

E. PROVIDE "J-HOOKS", ABOVE CEILING, 5' O.C. FOR LOW VOLTAGE HORIZONTAL CABLING.

KEY NOTES:

1. PROVIDE WALL MOUNTED MULTISENSOR CAMERA WITH 270 DEGREE FIELD OF VIEW UNDER SOFFIT. PROVIDE CAMERA MOUNTING HARDWARE.
2. PROVIDE CEILING MOUNTED MULTISENSOR CAMERA WITH 360 DEGREE FIELD OF VIEW. PROVIDE CAMERA MOUNTING HARDWARE.
3. PROVIDE CEILING MOUNTED DOME CAMERA WITH 90 DEGREE FIELD OF VIEW. PROVIDE CAMERA MOUNTING HARDWARE.
4. PROVIDE WALL MOUNTED DOME CAMERA IN STAIRWELL. SURFACE MOUNT CAMERA A MINIMUM OF 8'-0" AFF. PROVIDE CAMERA MOUNTING HARDWARE.
5. PROVIDE VISUAL INDICATOR MONITORS. COORDINATE EXACT LOCATION WITH COR PRIOR TO ROUGH IN.
6. COORDINATE WITH COR FOR EQUIPMENT HEIGHT REQUIREMENTS.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
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5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

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Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS
2400 HOSPITAL ROAD
TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-102

Dwg 5 of 10

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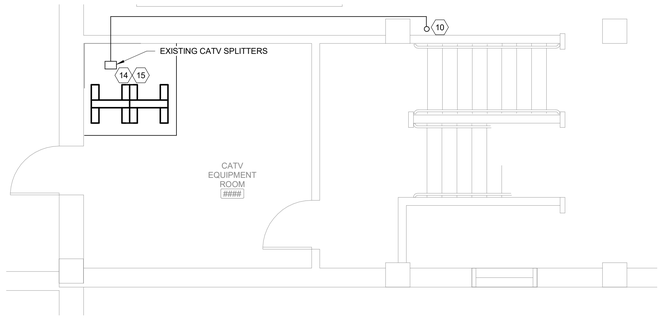
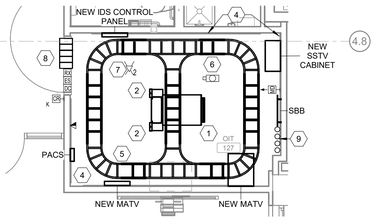
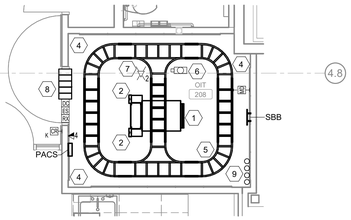


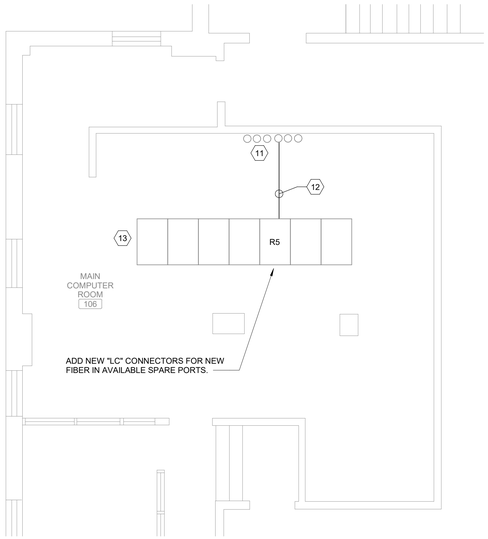
4 BUILDING 3A PENTHOUSE
Scale: 1/4" = 1'-0"



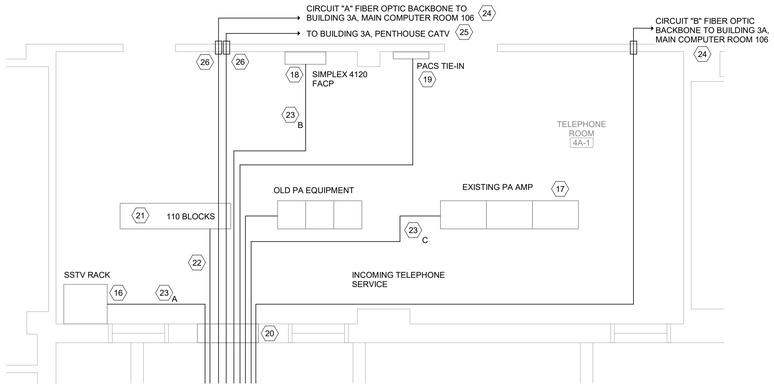
1 OIT ROOM 107 TECHNOLOGY ENLARGEMENT
Scale: 1/4" = 1'-0"



2 OIT ROOM 208 TECHNOLOGY ENLARGEMENT
Scale: 1/4" = 1'-0"



5 BUILDING 3A, MAIN COMPUTER ROOM 106
Scale: 1/4" = 1'-0"



3 BUILDING 4A, TELEPHONE ROOM 4A-1
Scale: 1/4" = 1'-0"

SHEET NOTES:

A. COORDINATE ALL LOCATIONS WITH INSTALLATION PRIOR TO ROUGH-IN.

KEY NOTES:

1 TELECOMMUNICATIONS CHANNEL RACK, 24 INCHES WIDE, 30 INCHES DEEP, 84 INCHES HIGH, 45RU, WHITE. PROVIDE ORTRONICS (LEGRAND) MM2073038-W. CONTRACTOR SHALL COORDINATE ADDITIONAL DETAILS INCLUDING BUT NOT LIMITED TO GROUNDING AND BONDING.

2 VERTICAL CABLE MANAGEMENT CAGE WITH DOOR, 6 INCHES WIDE, 84 INCHES HIGH, 45RU, WHITE. PROVIDE ORTRONICS (LEGRAND) MM20VMD706-W.

4 PLYWOOD BACKBOARD ON ALL WALLS. SEE ARCHITECTURAL.

5 PROVIDE NEW 4" X 12" WIRE BASKET CABLE TRAY AROUND THE ROOM AND ABOVE THE CHANNEL RACKS, WITH WATERFALL DROPOUTS INTO EACH RACK, 90 DEGREE CORNERS AND ALL RELATED FITTINGS. SEE CABLE TRAY DETAIL ON T-501 FOR MORE INFORMATION. PROVIDE CABLEOFIL CF1.

6 PROVIDE MULTI SENSOR CAMERA AND CONNECT TO CAMERA SYSTEM. LOCATION SHOULD BE COORDINATED WITH THE CHANNEL RACK LAYOUT AND OIT.

7 PROVIDE CABLING FOR VA FURNISHED WIRELESS ACCESS POINT.

8 FIRE/SMOKE SLEEVE ASSEMBLIES. PROVIDE FIVE (5) UL LISTED ASSEMBLIES, STI EZ-PATH, SERIES 44 FIRE-RATED PATHWAY, OR APPROVED EQUIVALENT. INSTALL SLEEVES AT AN ELEVATION COORDINATED WITH THE EXISTING CEILING HEIGHT IN THE ADJACENT CORRIDOR.

9 PROVIDE 4-4" CONDUIT STUB OUTS FOR INCOMING FIBER. SEE TS101 FOR MORE INFORMATION.

10 COAXIAL CABLE AND CONDUIT ROUTING DOWN TO BASEMENT LEVEL. REFERENCE SHEET TS102 FOR MORE INFORMATION.

11 EXISTING 6" CONDUIT ABOVE RAISED FLOOR TO ABOVE ACCESSIBLE CEILING. NEW FIBER FROM CABINET R5 TO STUB UP TO CEILING ABOVE AND FOLLOW EXISTING RACEWAY DOWN TO BASEMENT FLOOR. COORDINATE WITH COR FOR EXACT LOCATION OF ROUTING.

12 CONNECT TWO NEW FIBERS THROUGH SPARE PORTS IN EXISTING FIBER DISTRIBUTION PANEL IN CABINET R5 DOWN TO BASEMENT FLOOR.

13 EXISTING NETWORK FIBER DISTRIBUTION CABINET.

14 EXISTING SSTV RACK EQUIPMENT.

15 FROM SPARE PORT OF SPLITTER, RUN NEW R11 CABLING DOWN TO BASEMENT FLOOR.

16 EXISTING AVIGILON SSTV SURVEILLANCE CAMERA EQUIPMENT RACK.

17 EXISTING PA EQUIPMENT RACK.

18 EXISTING SIMPLEX FIRE ALARM CONTROL PANEL.

19 EXISTING LINNELL PACS PANEL.

20 EXISTING DUCTBANK CONDUITS ENTERING THE BUILDING WITH SPARE 6" CONDUITS.

21 EXISTING TELEPHONE RACKS.

22 PROVIDE TWO 50 PR 22AWG CAT5 OUTDOOR TELEPHONE CABLE WITH SERVICE ENTRANCE PROTECTION AT BOTH ENDS. RUN CABLE IN 4" CONDUIT ABOVE CEILING AND CONNECTION CORRIDOR TO IT ROOM. COORDINATE WITH COR. TERMINATE TO 110 BLOCK. LABEL ALL PORTS FOR OUTPATIENT PRIMARY CARE.

23 PROVIDE:

A.1-12 STRAND INDOOR/OUTDOOR FIBER OPTIC FOR SSTV.

B.2-6 STRAND INDOOR OUTDOOR FIBER OPTIC FOR FACP.

C.2-14/2 SHIELDED OUTDOOR FOR PAGING.

24 FOR EACH FIBER OPTIC BACKBONE FOR CIRCUIT A AND CIRCUIT B TO EACH TR ROOM IN BUILDING 10 PROVIDE TWO-12 STRAND OS2 SM FIBER OPTIC CABLES, INDOOR/OUTDOOR TIGHT BUFFERED, ARMORED, RATED ASSEMBLIES, FACTORY PRE-TERMINATED WITH MPO.

25 NEW RG11, 75 OHM COAXIAL CABLE WITH CONNECTORS.

26 PROVIDE UL RATED PENETRATION ASSEMBLY FOR ALL CABLES PENETRATING RATED WALL.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi Andrew D Richards BICSI ID # 377721 EXPIRES 12-31-25 RCDD 5/6/2025

NORTH CAROLINA PROFESSIONAL SEAL 057626 ENGINEER ANDREW D. RICHARDS 5/6/2025

PROJECT MANAGER

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VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY ENLARGEMENTS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-401

Dwg 6 of 10

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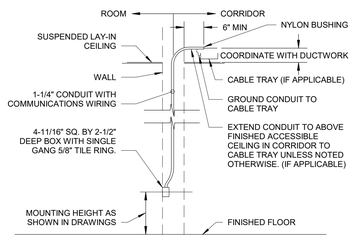
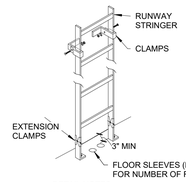


7 TELECOMMUNICATIONS OUTLET INSTALLATION

Scale: No Scale



DETAIL NOTES:

A. REFERENCE PLANS FOR LADDER/TRAY DIMENSIONS.

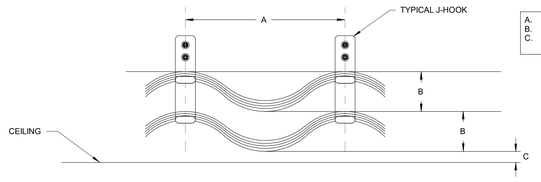
B. BOLT TO FLOOR & WALL PER MANUFACTURERS' INSTRUCTIONS.

C. GROUND ALL CONDUIT LEAVING CABLE TRAY TO CABLE TRAY PER MANUFACTURER'S INSTRUCTIONS.

D. LADDER TRAY IS FOR VERTICAL PATHWAY ONLY.

4 CABLE LADDER DETAILS

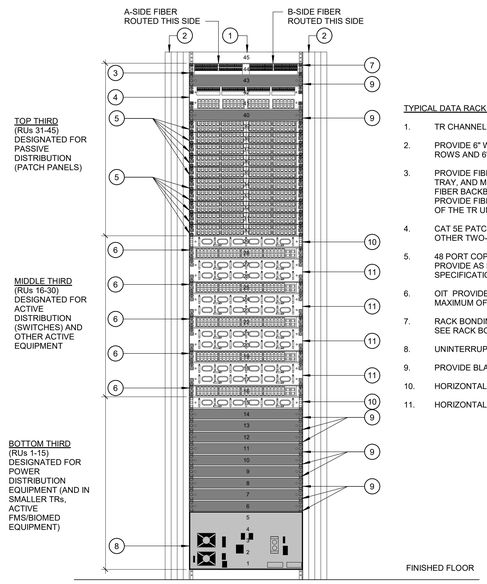
Scale: No Scale



A.	4 - 5 FEET
B.	LESS THAN 1 FOOT
C.	GREATER THAN 3 INCHES

5 "J-HOOK" SPACING REQUIREMENTS DETAIL

Scale: No Scale

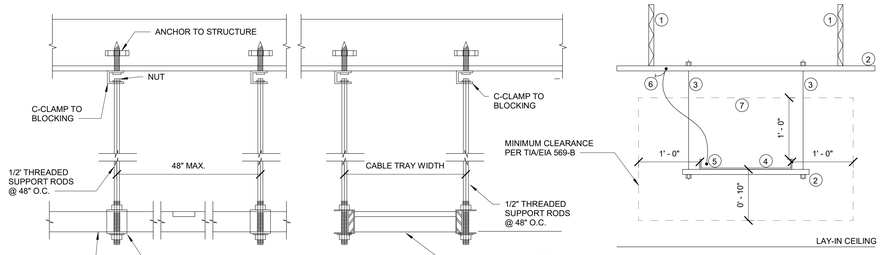


TYPICAL DATA RACK DETAIL NOTES:

1. TR CHANNEL RACK. 30" DEEP.
2. PROVIDE 6" WIRE MANAGER ON EACH END OF RACK ROWS AND 6" WIRE MANAGER BETWEEN RACKS.
3. PROVIDE FIBER PATCH PANEL (1U), METAL SPLICE TRAY, AND MPO CASSETTES FOR CONNECTION TO FIBER BACKBONE AS SHOWN IN RISER DIAGRAMS. PROVIDE FIBER PATCH PANEL IN CENTER-MOST RACK OF THE TR UNLESS NOTED OTHERWISE.
4. CAT 5E PATCH PANEL FOR ANALOG TELEPHONY AND OTHER TWO-WIRE APPLICATIONS.
5. 48 PORT COPPER ANGLED PATCH PANEL (1 RU), DATA. PROVIDE AS REQUIRED BY COUNTS IN DATA PORT SPECIFICATION SECTION 271510.
6. OIT PROVIDED SWITCHES AS REQUIRED (5 STANDARD - MAXIMUM OF 6).
7. RACK BONDING BUS MOUNTED AT RU45 (NOT SHOWN). SEE RACK BONDING DETAIL.
8. UNINTERRUPTIBLE POWER SUPPLY (UPS).
9. PROVIDE BLANKING PANELS FOR ALL EMPTY SPACES.
10. HORIZONTAL WIRE MANAGEMENT 1RU.
11. HORIZONTAL WIRE MANAGEMENT 2RU.

6 SINGLE DATA RACK ELEVATION TYPICAL

Scale: No Scale



NOTES:

1. BUILDING STRUCTURE.
2. UNISTRUT.
3. THREADED SUPPORT ROD WITH BUSHING AND NUTS.
4. CABLE TRAY.
5. GROUND LUG.
6. GROUND CABLE TO TGB.

DETAIL NOTES:

A. DETAIL BASED ON 75 LBS RATED CAPACITY.

B. PROVIDE A MINIMUM OF 12" ABOVE THE CABLE TRAY PER TIA/EIA 569-B PARAGRAPH 4.5.6.2. CONTRACTOR TO NOTIFY COR WHEN CLEARANCE DIMENSIONS CANNOT BE MET.

1 CABLE TRAY ELEVATIONS

Scale: No Scale

DETAIL NOTES:

A. ALL CONNECTIONS TO THE PBB AND SBB SHALL BE MADE WITH COMPRESSION STYLE LONG BARREL CONNECTORS ON THE CONDUCTOR AND 2-LUG BOLTED CONNECTIONS TO THE GROUNDING BUS BARS. CONNECTIONS TO STEEL SHALL BE WITH SILICON BRONZE HARDWARE. CONNECTION TO SLEEVES OR CONDUITS SHALL BE BY AN APPROVED GROUNDING BUSHING.

B. LOCATE PBB AND SBB ON THE LEFT OF THE TTB AND 12" AFF.

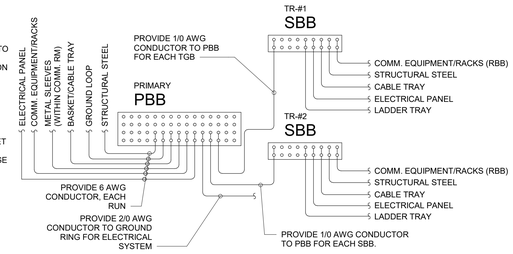
C. ALL CONDUCTORS USED FOR GROUNDING SHALL BE MARKED AT CONNECTION POINT AND EVERY TWENTY FEET (20') THEREAFTER WITH A LABEL IDENTIFYING IT AS THE TELECOMMUNICATIONS GROUNDING BACKBONE (TBB). USE PANDUIT #LTYK OR APPROVED EQUIVALENT.

D. REFERENCE SPECIFICATIONS REGARDING PBB.

E. REFERENCE SPECIFICATIONS REGARDING SBB.

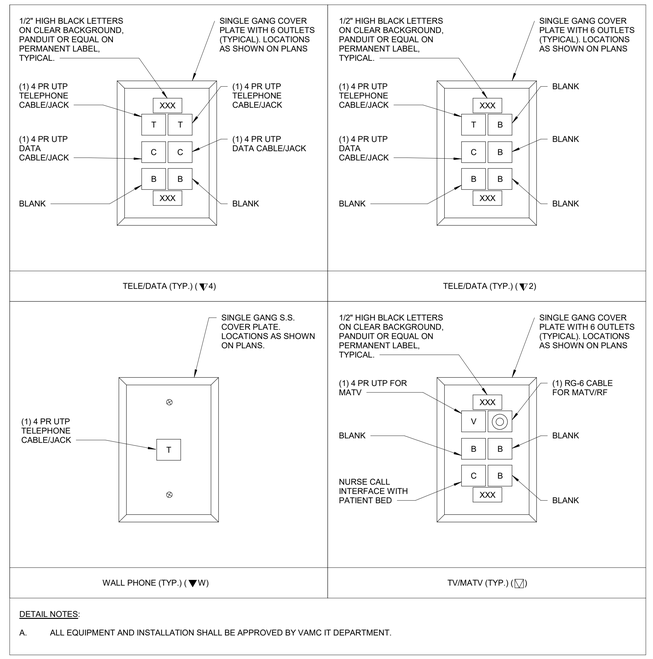
F. CONTRACTOR SHALL CLEAN THE GROUNDING BUS BAR AND APPLY ANTI-OXIDANT PRIOR TO FASTENING THE CONNECTORS TO THE GROUNDING BUS BAR.

G. ALL COPPER BACKBONE CABLING SHALL MEET THE REQUIREMENTS OF TIA/EIA 568-C FOR RISER CABLE.



2 TELECOMMUNICATIONS BONDING

Scale: No Scale



DETAIL NOTES:

A. ALL EQUIPMENT AND INSTALLATION SHALL BE APPROVED BY VAMC IT DEPARTMENT.

3 TELECOMMUNICATIONS FACEPLATES

Scale: No Scale

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Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-501

Dwg 7 of 10

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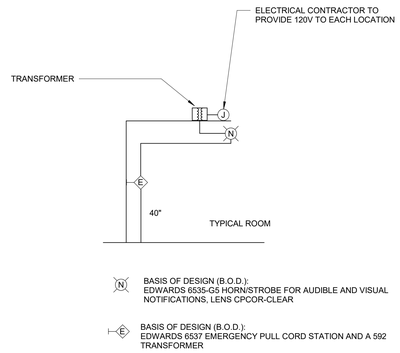

7 NURSE CALL RISER DIAGRAM

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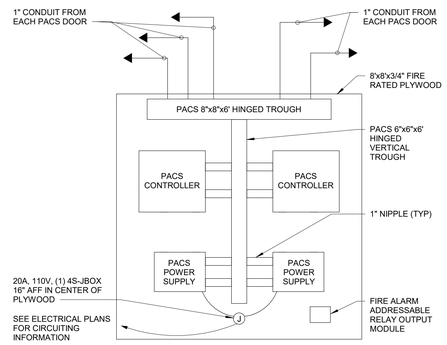
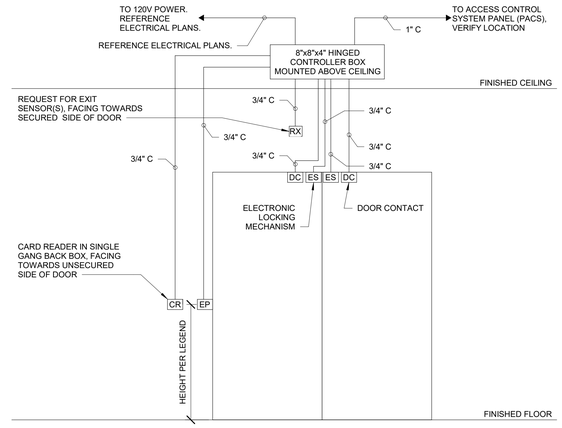


DETAIL NOTES:

A. CONTRACTOR SHALL COORDINATE SYSTEM PROGRAMMING AND FINAL CONNECTION WITH **COR AND OIT&T**.

4 DOOR CONTROLLER ELEVATION

Scale: No Scale



DETAIL NOTES:

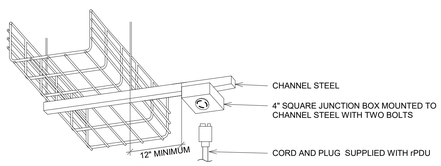
A. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, BOXES, AND SUPPORTS. COORDINATE AND VERIFY LOCATIONS WITH OWNER.

B. PROVIDE CABLING PER MANUFACTURER'S RECOMMENDATION.

C. COORDINATE PER ARCHITECTURAL PLANS & DOOR HARDWARE SCHEDULE. INDICATED AS GENERAL. PROVIDE AS INDICATED ON PLANS

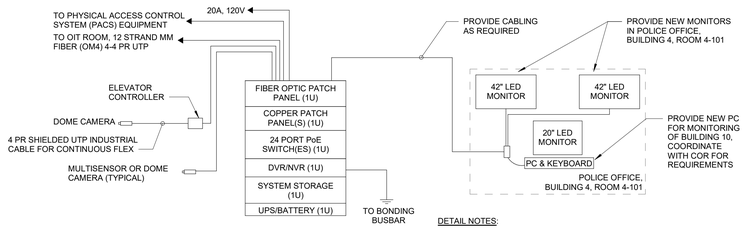
1 DOUBLE DOOR CARD ACCESS

Scale: No Scale



8 DATA CABINET PLUG CONNECTION - 1 RACK

Scale: No Scale



DETAIL NOTES:

A. SSTV CABINET SHALL BE 23"Wx12"D.

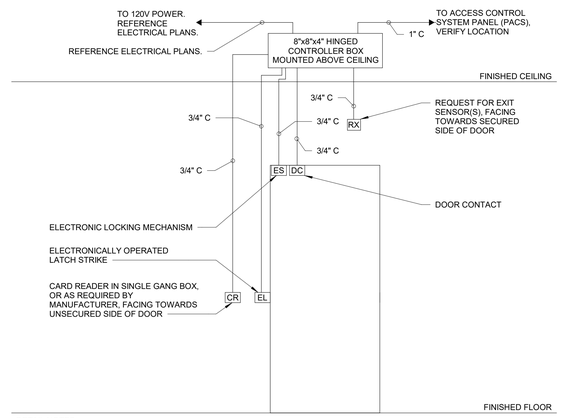
B. 4 PR UTP (<295')

C. FIBER (>295')

D. PROVIDE CONDUIT/RACEWAY SYSTEM FROM CAMERA TO CABLE TRAY.

5 SSTV SYSTEM RISER DIAGRAM

Scale: No Scale



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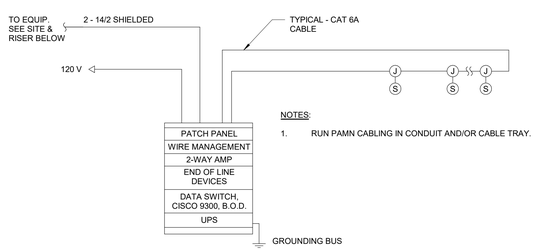
2 SINGLE DOOR CARD ACCESS

Scale: No Scale

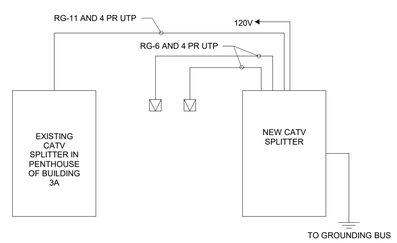


NOTES:

1. RUN PAMN CABLING IN CONDUIT AND/OR CABLE TRAY.

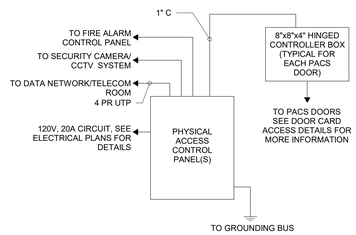
9 INTERCOM/PAGING (PA) RACK LAYOUT

Scale: No Scale



6 CATV SYSTEM RISER DIAGRAM

Scale: No Scale



DETAIL NOTES:

A. REFERENCE PACS DETAILS ON T-502.

3 PHYSICAL ACCESS CONTROL SYSTEM (PACS) RISER DIAGRAM

Scale: No Scale

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#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi Andrew D Richards BICSI ID # 371721 EXPIRES 12-31-25 RCDD 5/6/2025

PROFESSIONAL ENGINEER SEAL 057626 ANDREW D. RICHARDS 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-502

Dwg 8 of 10

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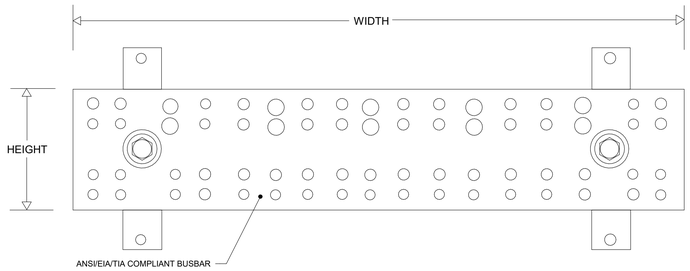
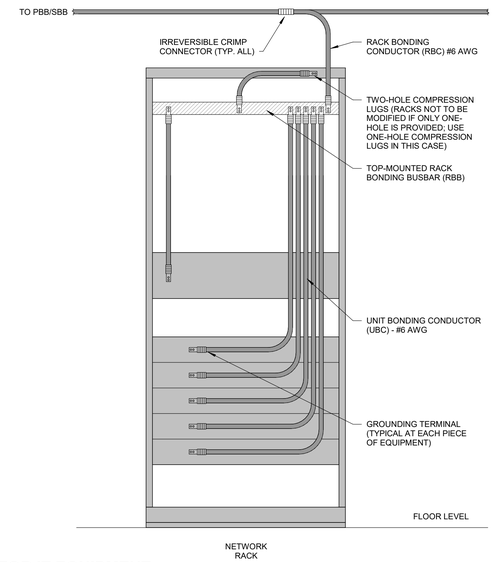


NOTES:

1. BUSBARS SHALL BE 0.25" THICK
2. MOUNT BUSBARS WITH 2" CLEARANCE BETWEEN THE REAR OF THE BUSBAR AND THE WALL
3. PRIMARY BODING BUSBAR (PBB) SHALL BE 20"W x 4"H
4. SECONDARY BODING BUSBAR (SBB) SHALL BE 12"W x 4"H

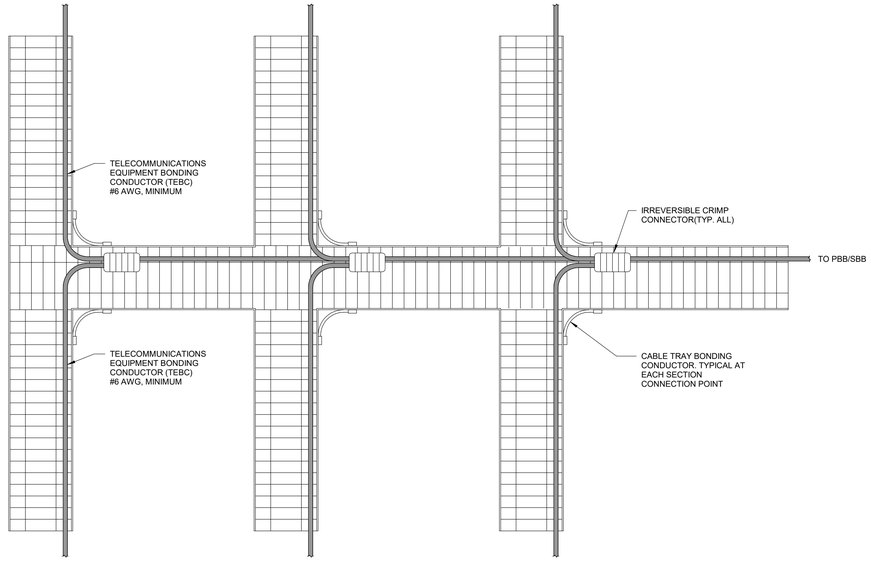
3 BONDING BUSBAR DETAIL

Scale: No Scale



1 TYPICAL BONDING REQUIREMENTS FOR IT EQUIPMENT ENCLOSURES

Scale: No Scale



2 TYPICAL CABLE TRAY BONDING LAYOUT

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CONSULTANTS:

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NORTH CAROLINA PROFESSIONAL SEAL 057626 ENGINEER ANDREW D. RICHARDS — 5/6/2025

PROJECT MANAGER

ACG Project Number 22-139

APOGEE Engineers | Architects

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY DETAILS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: T-503

Dwg 9 of 10

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SHEET NOTES:

A. SEE SHEET T-401 FOR INFORMATION AND NOTES.

B. PROVIDE MINIMUM OF 25' OF CABLE IN EACH COMMUNICATION MANHOLE AND HANDHOLE. SUPPORT CABLE ON SUPPORT RACK.

C. ALL CABLE SPLICING SHALL BE WATER TIGHT.

KEY NOTES:

1 NEW 2-4" CONDUIT, BORE FROM EXISTING UNDERGROUND DUCTBANK AND RUN UNDER BUILDING FOOTER TO BASEMENT.

2 EXISTING COMMUNICATIONS HANDHOLE.

3 PROVIDE NEW 50 PR 22AWG CAT5 OUTDOOR TELEPHONE CABLE WITH SERVICE ENTRANCE PROTECTION AT BOTH ENDS. RUN CABLE IN 4" CONDUIT. COORDINATE WITH COR. TERMINATE TO 110 BLOCK. LABEL ALL PORTS FOR BUILDING 10.

4 PROVIDE THE FOLLOWING:

A. 12 STRAND OUTDOOR/INDOOR TIGHT BUFFERED ARMORED INTERLOCKED MODE FIBER (DATA-OS2). PROVIDE NEW TR ROOMS WITH A AND B FIBER CIRCUITS.

B. 50 PR 22 AWG CAT5 OUTDOOR TELEPHONE CABLE WITH SERVICE ENTRANCE PROTECTION AT EACH END. PROVIDE NEW TR ROOMS WITH 50 PR COPPER.

C. 2-6 STRAND 62.5 MULTIMODE OUTDOOR FIBER FOR FIRE ALARM (OM1).

D. 2-14/2 SHIELDED INTERCOM/PAGING OUTDOOR CABLE W/S.E.P. AT BOTH ENDS.

E. INSTALL CABLES IN THE 4" CONDUITS WITH INNERDUCT.

F. 1-6 STRAND 62.5 MULTIMODE OUTDOOR FIBER FOR PACS INTERCONNECTION.

G. 1-RG-11, 75 OHM COAXIAL CABLE WITH CONNECTORS.

H. 1-6 STRAND 62.5 MULTIMODE OUTDOOR FIBER FOR SSTV INTERCONNECTION.

5 PROVIDE 40' OF COILED SLACK FOR EACH CIRCUIT OF FIBER BACKBONE FOR FUTURE TIE-IN TO EHRM RENOVATION TO NEW MCR FIBER PATCH PANEL(S) IN SERVER CABINET. COORDINATE WITH OI&T REPRESENTATIVE AND COR.

6 INTERCOM/PAGING (PA) EQUIPMENT WITH 2-14/2 SHIELDED OUTDOOR CABLE IN CONDUIT.

7 10' CABLE LOOP FOR EACH CABLE ENTERING AND EXISTING THE MANHOLES.

8 EXISTING FIRE ALARM CONTROL PANEL.

9 EXISTING PACS PANEL.

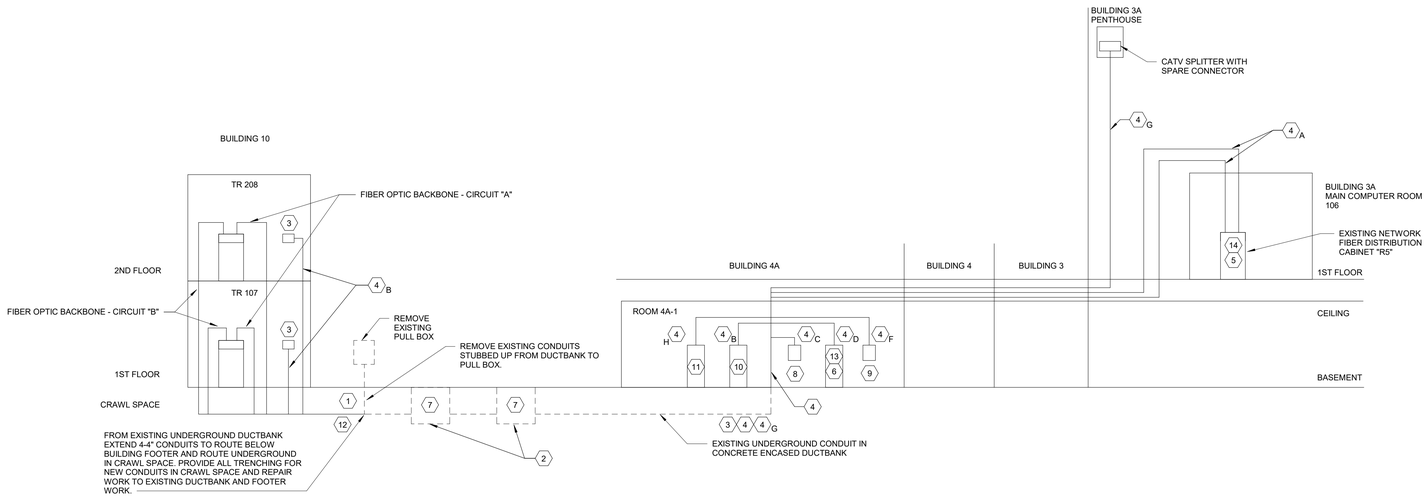
10 EXISTING TELEPHONE RACK WITH 110 BLOCKS FOR TELEPHONE TIE-IN.

11 EXISTING SSTV CABINET FOR TIE-IN.

12 EXISTING UNDERGROUND DUCT BANK WITH TELEPHONE ENTRANCE TO THE BUILDING WITH 4 SPARE 4" CONDUITS.

13 EXISTING PUBLIC ADDRESS EQUIPMENT.

14 EXISTING CORE SWITCH. CONTRACTOR TO PROVIDE ALL LC CONNECTORS AND CONNECTIONS AT FIBER PATCH PANEL.



1 **TECHNOLOGY RISERS**
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CONSULTANTS:

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Drawing Title: TECHNOLOGY RISERS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

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Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

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WALL RATING LEGEND

- 2 HOUR FIRE SEPARATION
- 1 HOUR FIRE SEPARATION
- SMOKE RATED

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX

INPUT DEVICE ↓ / OUTPUT →	1. SOUND GENERAL BUILDING ALARM FOR OTHER HIGH RISE (NOT REQUIRED FOR THIS PROJECT) SEE SECTION 7.21	2. NOTIFY NECESSARY STAFF FOR RESPONSE PER FIRE PLAN (ONLY IN HIGH RISE BUILDINGS AND MAY BE DIFFERENT ON DIFFERENT FLOORS).	3. NOTIFY FIRE DEPARTMENT	4. INITIATE SUPERVISORY SIGNAL TO A 24 HOUR MANNED POINT FOR IMMEDIATE RESPONSE.	5. CLOSE ASSOCIATE SMOKE DAMPERS AND DOORS ON THE FLOOR	6. CLOSE DAMPERS ON FAN PROVIDING AIR TO DETECTOR.	7. SHUT DOWN AIR HANDLER SERVED BY THE DETECTOR	8. RECALL ELEVATOR.
DUCT SMOKE DETECTOR *				X		X	Xa	
AREA SMOKE DETECTOR *	X	X	X					
DOOR RELEASE SMOKE DETECTOR *	X	X	X		X	X		
ELEVATOR SMOKE DETECTOR *	X	X	X					X
MANUAL PULL STATION	X	X	X		X			
ELEVATOR MACHINE ROOM HEAT DETECTOR	X	X	X					
SPRINKLER WATERFLOW/PRESSURE SWITCH	X	X	X		X			
WATER CONTROL VALVE TAMPER				X				

* WHILE NFPA 101 DOES NOT REQUIRE SOME DETECTORS TO NOTIFY BUILDING OCCUPANTS, VA REQUIRES ALL SMOKE DETECTORS, OTHER THAN DUCT SMOKE DETECTORS, TO NOTIFY BUILDING OCCUPANTS AS REQUIRED BY THE LIFE SAFETY CODE OR ITS REFERENCES.
** THOSE DOORS THAT ARE REQUIRED TO BE TIED TO THE FIRE ALARM SYSTEM SUCH AS DELAYED EGRESS AND ACCESS CONTROLLED DOORS.
a - DO NOT PROVIDE DUCT DETECTORS IN DEDICATED (100%) EXHAUST FANS, THEY SHOULD CONTINUE TO RUN.

FIRE ALARM ABBREVIATIONS LIST

ACC	ACCESSIBLE	MISC	MISCELLANEOUS
ACLG	ABOVE CEILING	MT	MOUNT
A/E	ARCHITECT/ENGINEER		
AFF	ABOVE FINISHED FLOOR	N	NEW DEVICES
AHJ	AUTHORITY HAVING JURISDICTION	NAC	NETWORK APPLIANCE CIRCUIT PANEL
AHU	AIR HANDLING UNIT		
AL	ALUMINUM	NCA	NETWORK CONTROL ANNUNCIATOR
ALT	ALTERNATE	NS	NO SCALE
AMP	AMPERE	NTS	NOT TO SCALE
APPRX	APPROXIMATELY		
ARCH	ARCHITECT, ARCHITECTURAL	OC	ON CENTER
AUTO	AUTOMATIC	OD	OUTSIDE DIAMETER
AUX	AUXILIARY	OH	OVERHEAD
AV	AUDIO VISUAL		
		PA	PUBLIC ADDRESS
BOD	BASIS OF DESIGN	PB	PULL BOX OR PUSHBUTTON
		PIV	POST INDICATING VALVE
C	CONDUIT	PVC	POLYVINYL CHLORIDE (CONDUIT)
CAB	CABINET		
cd	CANDELA	QTY	QUANTITY
CD	CONSTRUCTION DOCUMENTS		
CF	CONTRACTOR-FURNISHED	R	REMOVE AND REPLACE IN NEW LOCATION
CKT	CIRCUIT		
CLG	CEILING	RCP	REFLECTED CEILING PLAN
CO	CONTRACTING OFFICE	REQD	REQUIRED
COR	CONTRACTING OFFICER REPRESENTATIVE	RGS	RIGID GALVANIZED STEEL
		RM	ROOM
dB	DECIBEL	SC	SURFACE CONDUIT
DN	DOWN	SF	SQUARE FEET/FOOT
DVC	DIGITAL VOICE COMMAND	SHT	SHEET
		SI	INTERNATIONAL SYSTEM OF UNITS
E	EXISTING DEVICES	SIM	SIMILAR
ELEV	ELEVATOR	SPEC	SPECIFICATION
ETR	EXISTING TO REMAIN	SPKR	SPEAKER
		SR	SURFACE RACEWAY
FA	FIRE ALARM	SS	STAINLESS STEEL
FACP	FIRE ALARM CONTROL PANEL	STD	STANDARD
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SURF	SURFACE MOUNTED
FAGAP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL	SYM	SYMMETRICAL
		SYS	SYSTEM
FO	FIBER OPTIC		
		TC	TIMECLOCK
J-BOX	JUNCTION BOX	TEL	TELEPHONE
		TP	TWISTED PAIR
MAX	MAXIMUM	TPS	TWISTED PAIR SHIELDED
MC	MECHANICAL CONTRACTOR METAL-CLAD (CONDUIT)	TR	TAMPER RESISTANT
		TYP	TYPICAL
MECH	MECHANICAL		
MFR	MANUFACTURER	UL	UNDERWRITER'S LABORATORY
MIN	MINIMUM	UTP	UNSHIELDED TWISTED PAIR

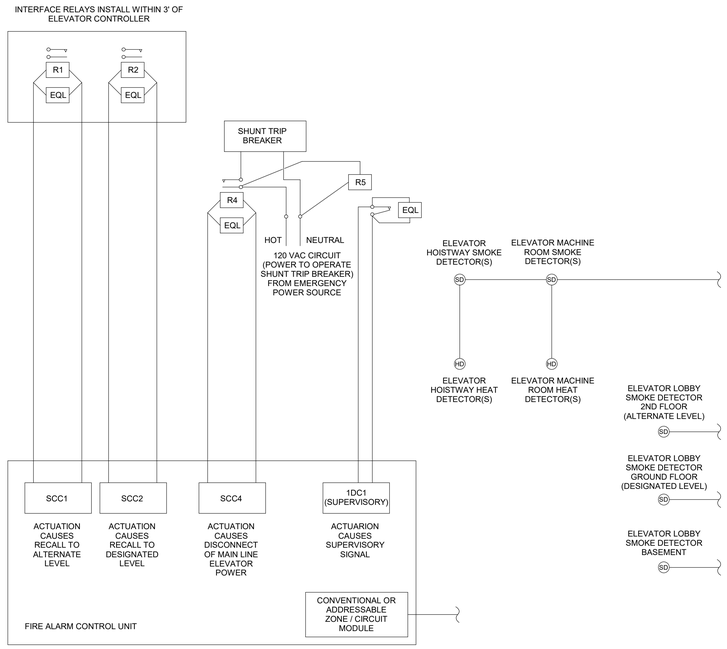
FIRE ALARM SYMBOL LEGEND

SYMBOL	HEIGHT	DESCRIPTION	
F	42"-48"	FIRE ALARM DUAL-ACTION TYPE PULL STATION	
S F	90"	FIRE ALARM SPEAKER	
F	90"	FIRE ALARM STROBE	XX - CANDELA
S F	90"	FIRE ALARM SPEAKER AND STROBE	XX - CANDELA XX - WATTAGE
	WALL	FIRE ALARM DOOR OPEN HOLDER	
SD	CEILING	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR	
HD	CEILING	FIRE ALARM HEAT DETECTOR	
S	CEILING	FIRE ALARM CEILING MOUNTED SPEAKER	
DD		FIRE ALARM DUCT SMOKE DETECTOR	
FACP	6'	FIRE ALARM CONTROL PANEL	
NAC	6'	FIRE ALARM NAC PANEL	
FAAP	6'	FIRE ALARM ANNUNCIATOR PANEL	
FAGAP	6'	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL	
FS		FLOW SWITCH	
TS		TAMPER SWITCH	
PIV		POST INDICATOR VALVE	
	6'	REMOTE LIGHT/TEST SWITCH FOR DUCT DETECTORS	
F	90"	FIRE ALARM BELL	
KB	60"	KNOX BOX	
R	60"	RELAYS	

ALL HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
TOP: HEIGHT TO TOP OF DEVICE
ANY HEIGHTS INDICATED IN PLANS SHALL SUPERSEDE THOSE LISTED HERE.

FIRE ALARM GENERAL NOTES

1. PROVIDE FIRE ALARM SYSTEM AND COMPONENTS COMPLYING WITH THE LATEST:
   - A. NFPA 13- STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
   - B. NFPA 14- STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEM.
   - C. NFPA 20- STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION.
   - D. NFPA 70 NATIONAL ELECTRICAL CODE.
   - E. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE.
   - F. NFPA 90A STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS.
   - G. NFPA 101 LIFE SAFETY CODE.
   - H. VA FIRE PROTECTION DESIGN MANUAL.
   - I. ANSI S3.41 AUDIBLE EMERGENCY EVACUATION SIGNAL.
2. FIRE ALARM SYSTEM SHALL COMPLY WITH FACTORY MUTUAL RESEARCH CORPORATION (FM).
3. PROVIDE FIRE ALARM WIRING IN CONDUIT, FACTORY PAINTED RED.
4. CIRCUIT BREAKER SERVING FIRE ALARM CONTROL PANEL TO HAVE A 'LOCK'.
5. ALL SMOKE DETECTORS TO BE PHOTOELECTRIC TYPE UNLESS OTHERWISE INDICATED.
6. CONTRACTOR TO ENSURE THAT ALL NEW FIRE ALARM SPEAKERS, TONES, AND STROBES ARE IN-SYNC WITH ALL ADJACENT AREAS BEYOND THE AREA OF WORK. WHEN WORK IS COMPLETE, TEST EXISTING FIRE ALARM SYSTEM IN WORK AREA AND ADJACENT AREAS.
7. MAKE REPAIRS TO RESOLVE INCORRECT SYSTEM OPERATIONS AT NO ADDITIONAL COST.
8. THE FIRE ALARM SYSTEM VENDOR/CONTRACTOR SHALL TERMINATE, TEST AND PROGRAM ALL NEW FIRE ALARM DEVICES. COORDINATE WITH COR.
9. CONNECT SPRINKLER SYSTEM SUPERVISORY DEVICES TO THE FIRE ALARM SYSTEM. COORDINATE LOCATION WITH THE SPRINKLER CONTRACTOR.
10. PROVIDE RELAY CONTROL MODULES FOR PACS, COORDINATE WITH PHYSICAL ACCESS CONTROL SYSTEM (PACS), CONTRACTOR AND COR.
11. THE OPERABLE PART OF A MANUAL ACTUATED ALARM INITIATING DEVICE SHALL BE NOT LESS THAN 42" (1.07M) AND NOT MORE THAN 48" (1.22M) FROM FINISH FLOOR.
12. FOR LOCATION (CORRIDOR, ROOM OR ADJACENT SPACE) WITH TWO OR MORE VISIBLE FIRE ALARM NOTIFICATION APPLIANCES WITHIN THE FIELD OF VIEW, PROGRAM VISIBLE TO FLASH IN SYNCHRONIZATION.

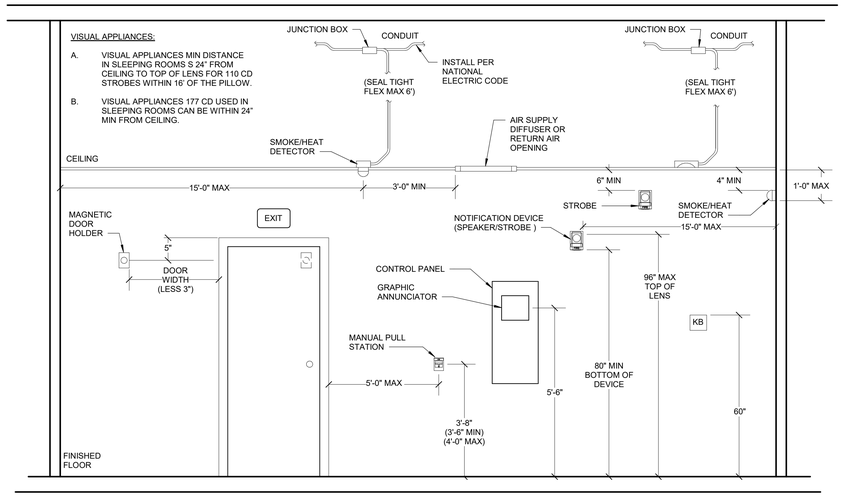


COMPONENT	FUNCTION
R1	SIGNAL TO ELEVATOR CONTROLLER FOR RECALL TO DESIGNATED LEVEL.
R2	SIGNAL TO ELEVATOR CONTROLLER TO RECALL TO ALTERNATE LEVEL.
R3	SIGNAL TO ACTIVATE SHUNT TRIP RELAY.
R5	SUPERVISORY RELAY TO MONITOR PRESENCE OF VOLTAGE (POWER) TO OPERATE SHUNT TRIP BREAKER
SCC1	SUPERVISED CONTROL CIRCUIT FOR OPERATING R1.
SCC2	SUPERVISED CONTROL CIRCUIT FOR OPERATING R2.
SCC3	SUPERVISED CONTROL CIRCUIT FOR OPERATING R3.
IDC1	INITIATING DEVICE CIRCUIT TO SUPERVISE R5 CONTACTS (MONITORING POWER TO OPERATE SHUNT TRIP BREAKER).

NOTE:
1. FIRE ALARM CIRCUITS ARE TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 72, NATIONAL FIRE ALARM CODE AND NEC 70, NATIONAL ELECTRICAL CODE

FIRE ALARM INTERFACE WITH ELEVATORS

Scale: No Scale



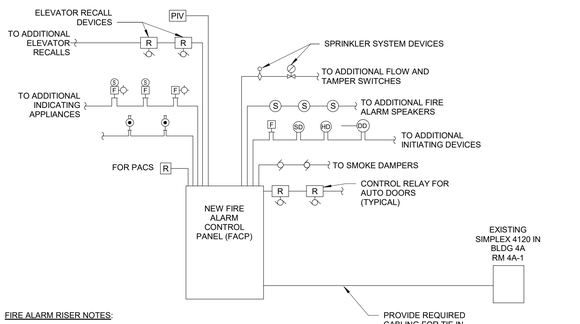
DETAIL NOTES:

A. MOUNT ALL AUDIBLE & VISUAL DEVICES IN APPROVED FIRE ALARM BOXES.

B. ALL ABOVE CEILING DEVICES SHALL BE MOUNTED IN ACCESSIBLE LOCATION.

FIRE ALARM DEVICE MOUNTING HEIGHTS

Scale: No Scale



FIRE ALARM RISER NOTES:

A. FIRE ALARM SYSTEM SHALL BE INTERCONNECTED WITH ACCESS CONTROL SYSTEM TO ALLOW EGRESS DURING ALARM CONDITIONS. COORDINATE BETWEEN ACCESS CONTROL SYSTEM AND FIRE ALARM SYSTEM MANUFACTURERS.

B. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN FACTORY PAINTED "RED" EMT CONDUIT.

C. ALL WIRING SHALL BE AS RECOMMENDED BY THE FIRE ALARM MANUFACTURER.

D. PROVIDE SEPARATE OUTPUT SIGNALS TO AIR HANDLER UNIT VFD FOR INDIVIDUAL UNIT SHUT-DOWN.

E. PROVIDE ZONE ADAPTER MODULES TO CONNECT NON-ADDRESSABLE DEVICES SUCH AS FLOW AND TAMPER SWITCHES, DOOR HOLD-OPEN DEVICES, AND CONTROL SIGNALS.

F. PROVIDE POWER SUPPLY AND/OR NAC (NOTIFICATION APPLIANCE CIRCUIT) PANEL AS REQUIRED FOR ADDITIONAL DEVICES.

G. PROVIDE POWER AMPLIFIERS FOR ALL SPEAKERS.

H. THE NEW FIRE ALARM SYSTEM SHALL MATCH THE EXISTING CAMPUS SYSTEM SIMPLEX 4120 FIRE ALARM SYSTEM.

I. PROVIDE ADDRESSABLE RELAY MODULES FOR:
   - a. ELEVATOR PRIMARY RECALL
   - b. ELEVATOR ALTERNATE RECALL
   - c. IN CAB NOTIFICATIONS

J. PROVIDE ADDRESSABLE CONTROL MODULES FOR:
   - a. ELEVATOR EMERGENCY SHUNT TRIP

K. PROVIDE ADDRESSABLE INTERFACE MODULES FOR: ELEVATOR EMERGENCY SHUNT TRIP POWER SUPERVISION

FIRE ALARM RISER

Scale: No Scale

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CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 057626 ANDREW D. RICHARDS
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Drawing Title: FIRE ALARM GENERAL NOTES, SYMBOL LEGEND, AND RISER

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: FA001

Dwg 1 of 3

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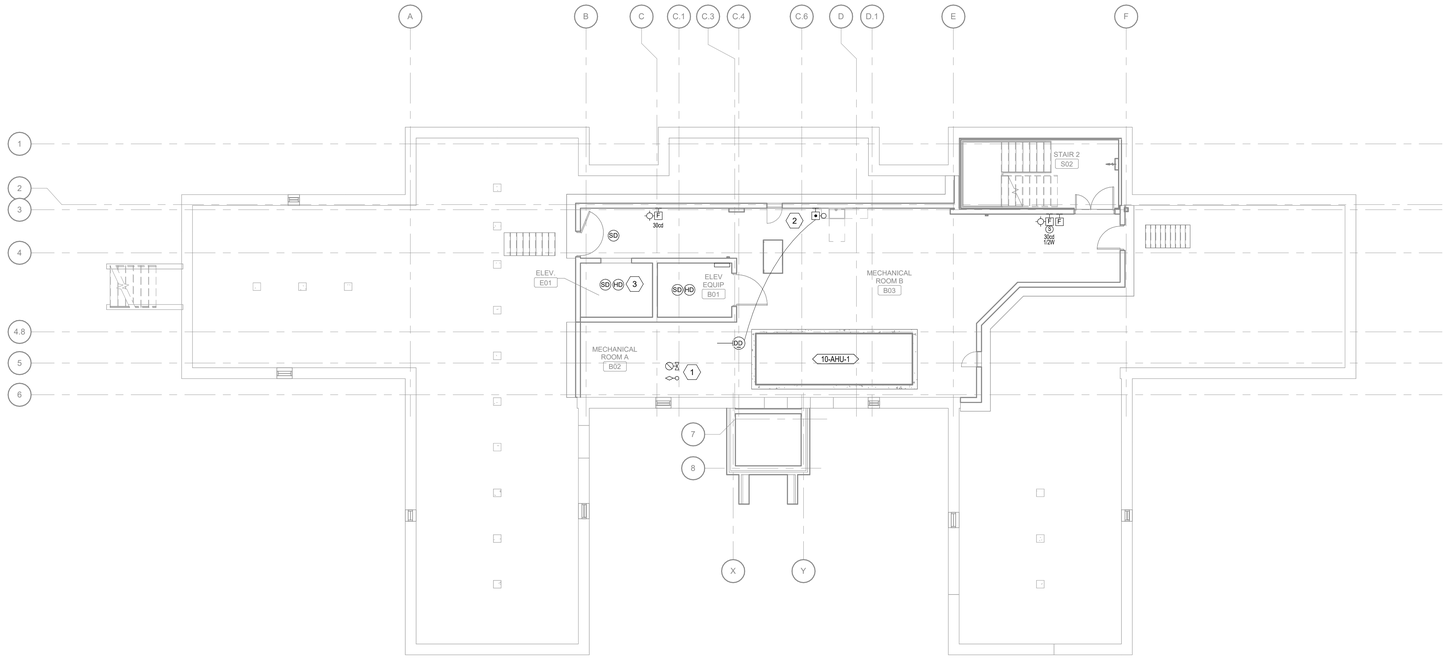
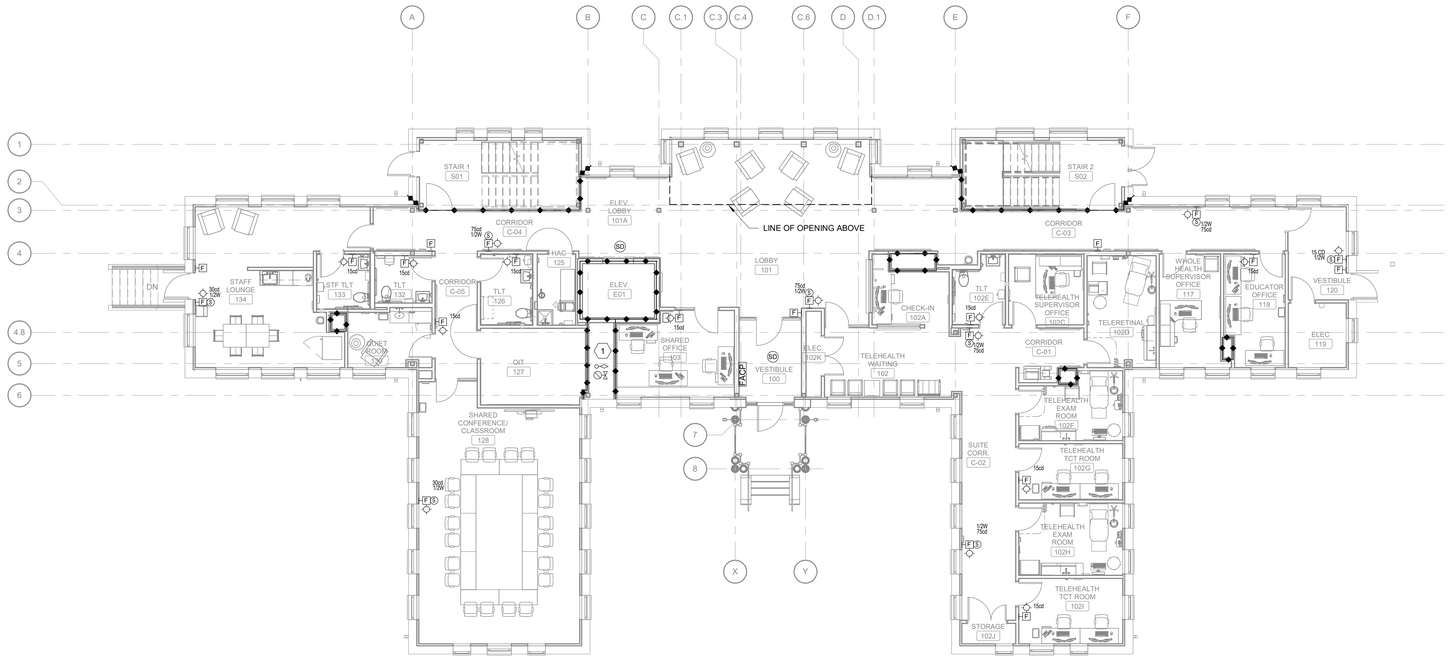


1 BASEMENT FIRE ALARM PLAN

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



2 FIRST FLOOR FIRE ALARM PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. COORDINATE LOCATION OF WALL DEVICES WITH INTERIOR DRAWINGS PRIOR TO ROUGH-IN.

KEY NOTES:

1 PROVIDE AND INSTALL TAMPER SWITCHES AND FOR PIV. COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR EXACT LOCATION, INSTALLATION, AND TIE-IN.

2 PROVIDE NEW FIRE ALARM DEVICES AND CONNECT TO FIRE ALARM SYSTEM. PROVIDE REMOTE INDICATOR LIGHT WITH TEST SWITCH.

3 PROVIDE NEW FIRE ALARM DEVICES AND CONNECT TO THE FIRE ALARM SYSTEM. HEAT DETECTOR TO BE WITHIN 2 FEET OF THE SPRINKLER. COORDINATE WITH MECHANICAL FOR LOCATION.

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#	Revisions:	Date

CONSULTANTS:

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER Bicsi Andrew Richards BICSI ID # 377723 EXPIRES 12-31-28 RCDD 7/17/2026

NORTH CAROLINA PROFESSIONAL SEAL 057626 ENGINEER ANDREW D. RICHARDS 7/17/2026

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VA U.S. Department of Veterans Affairs

Drawing Title: BASEMENT AND FIRST FLOOR FIRE ALARM PLANS

Project Title: RENOVATE BUILDING 10

VA PROJECT NUMBER: 619A4-23-105

Building Number: # 10

Location: CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, EAST CAMPUS 2400 HOSPITAL ROAD TUSKEGEE, AL 36083

Approved

Date: MAY 9, 2025 | Checked: ADR | Drawn: HT

Drawing Number: FA101

Dwg 2 of 3

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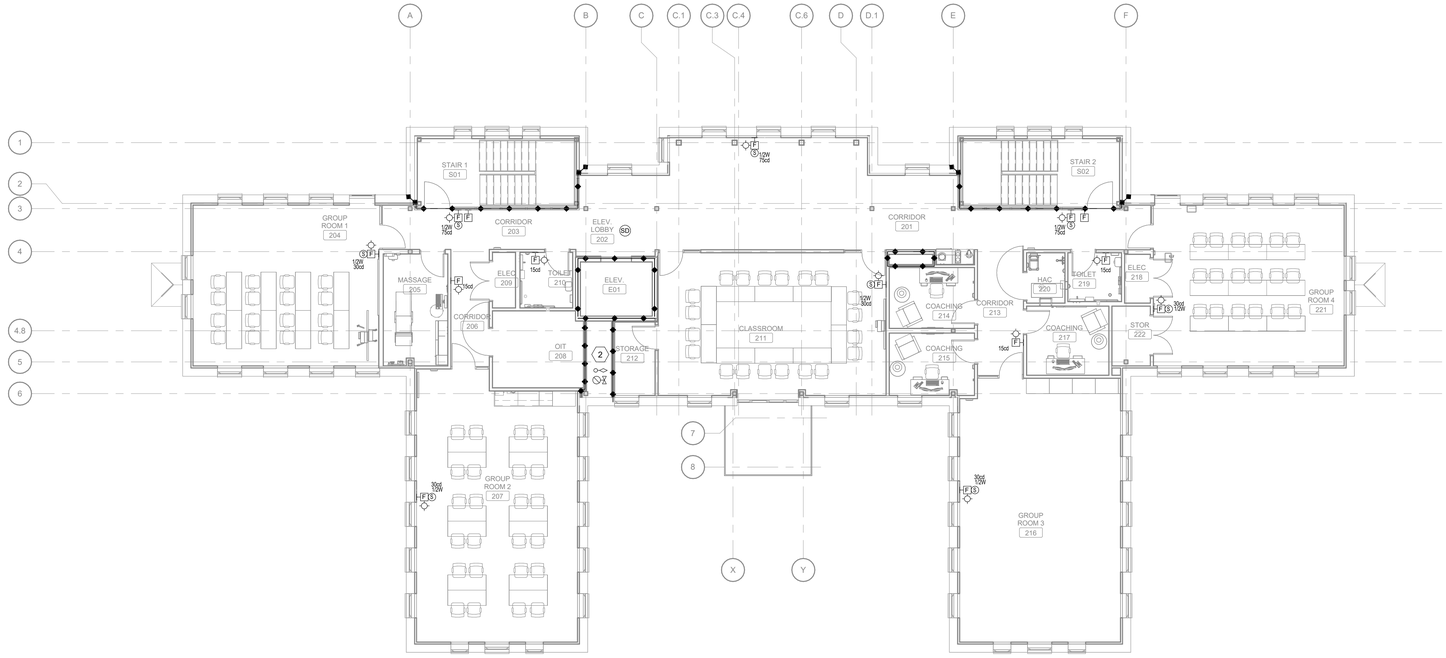
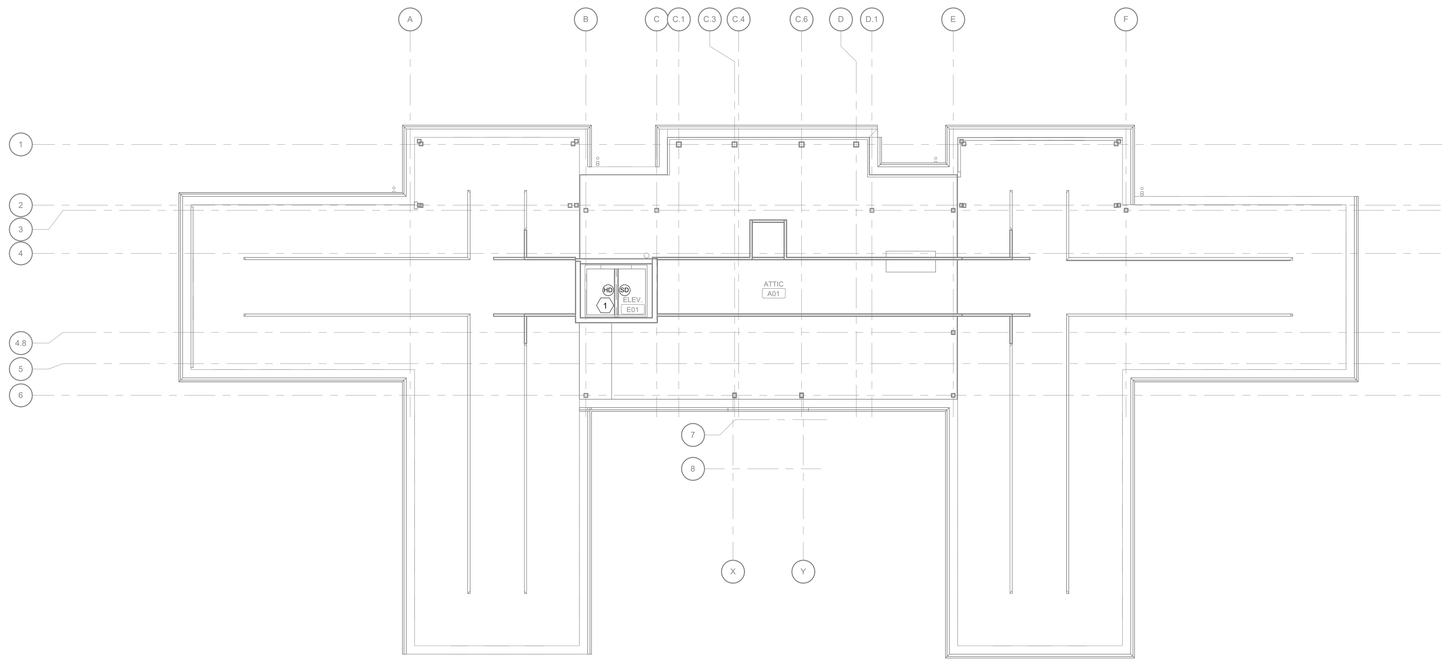


1 SECOND FLOOR FIRE ALARM PLAN

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



2 ATTIC FLOOR FIRE ALARM PLAN

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

SHEET NOTES:

A. CONTRACTOR TO PROVIDE AND INSTALL ALL DEVICES SHOWN ON THIS PLAN.

B. COORDINATE LOCATION OF WALL DEVICES WITH INTERIOR DRAWINGS PRIOR TO ROUGH-IN.

KEY NOTES:

1 PROVIDE AND INSTALL SMOKE AND HEAT DETECTOR AT THE TOP OF ELEVATOR SHAFT. COORDINATE WITH ELEVATOR CONSULTANT TO AVOID ANY CONFLICT WITH MECHANICAL COMPONENTS.

2 PROVIDE AND INSTALL TAMPER SWITCHES AND FOR PIV. COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR EXACT LOCATION, INSTALLATION, AND TIE-IN.

FULLY SPRINKLERED

100% BID DOCUMENTS

#	Revisions:	Date

CONSULTANTS:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

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Dwg 3 of 3

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