MAINE STATE POLICE CRIME LAB, HVAC UPGRADES AUGUSTA, MAINE

GENERAL CONSTRUCTION NOTES

- 1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO COMMENCING WORK.
- 2. ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL STATE, NATIONAL AND OTHER CODES AND ORDINANCES WHICH ARE APPLICABLE TO THIS PROJECT.
- 3. WORK FROM GIVEN DIMENSIONS AND LARGE SCALE DETAILS ONLY. DO NOT SCALE DRAWINGS.
- 4. ROOM NUMBERS ON PLANS ARE FOR REFERENCE ONLY AND DO NOT CORRESPOND TO ACTUAL ROOM NUMBERS.
- 5. THE LOCATION OF ALL DOOR OPENINGS NOT DIMENSIONED SHALL BE 6" FROM ADJACENT WALL (FACE OF FRAMING TO ROUGH OPENING).
- 6. INSTALL BLOCKING BEHIND ALL SURFACE APPLIED FIXTURES, TRIM, SHELVES, WOOD TRIM AND OTHER ACCESSORIES WHEN MOUNTED ON STUD WALLS.
- 7. ALL ROOM DIMENSIONS ARE FROM FACE OF FRAMING TO FACE OF FRAMING OR FROM FACE OF CONCRETE. DIMENSIONS INDICATED AS "CLEAR" SHALL BE MAINTAINED IN CASE OF DISCREPANCY.
- 8. BEFORE PENETRATING JOISTS, BEAMS OR OTHER STRUCTURAL MEMBERS, CONSULT WITH THE ARCHITECT FOR

9. AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A NEAT, CLEAN AND SAFE

- CONDITION.
- 10. THE CONTRACTOR SHALL DISPOSE OF AND/OR RECYCLE ANY CONSTRUCTION DEBRIS FROM THE PROJECT AS REQUIRED BY THE STATE OF MAINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DISPOSAL PERMITS WHICH ARE REQUIRED. CONSTRUCTION DEBRIS FROM THE PROJECT SHALL BE DISPOSED OF IN A STATE APPROVED LANDFILL.
- 11. ALL WORK SHALL BE PROVIDED IN COMPLIANCE WITH THAT INDUSTRY'S STANDARDS AND PERFORMED IN A WORKMANLIKE PROFESSIONAL MANNER.
- 12. CONTRACTOR IS RESPONSIBLE TO MAINTAIN SPACE TEMPERATURE, HUMIDITY AND NEGATIVE PRESSURE REQUIREMENTS THROUGHOUT THE LAB SPACES. PROVIDE TEMPORARY HVAC SUBMITTAL FOR APPROVAL BASED ON SUBMITTED CONSTRUCTION SCHEDULE.

LIST OF DRAWINGS

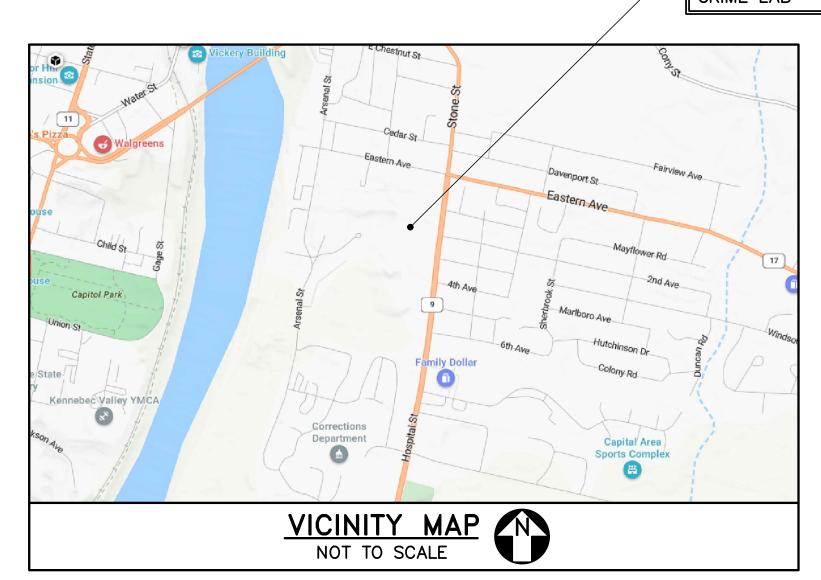
SHEET NUMBER		MBER SHEE		SHEET NAMES
G-001 G-002	1 2		15 15	· · · · · · · · · · · · · · · · · · ·
AD701 AE120 AE701	3 4 5		15 15 15	ROOF PLAN
M-001 MD101 MD102 MH101 MH102 MH103 MP101 MP102	7 8 9 10 11	OF OF OF OF	15 15 15 15 15 15 15	ROOF MECHANICAL PLAN FIRST FLOOR MECHANICAL PIPING AND CONTROLS PLAN
E-001 ED101 E-101	14 15 16		15 15 15	ELECTRICAL REMOVALS PLANS

PROJECT LOCATION: MAINE STATE POLICE CRIME LAB

NEW

ATLANTIC

BRUNSWICK



NOT TO SCALE

QUEBEC

BURLINGTON

VERMONT

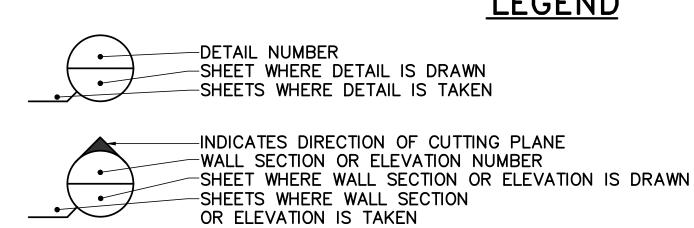
BRATTLEBORO #

MONTPELIER

ABBREVIATIONS

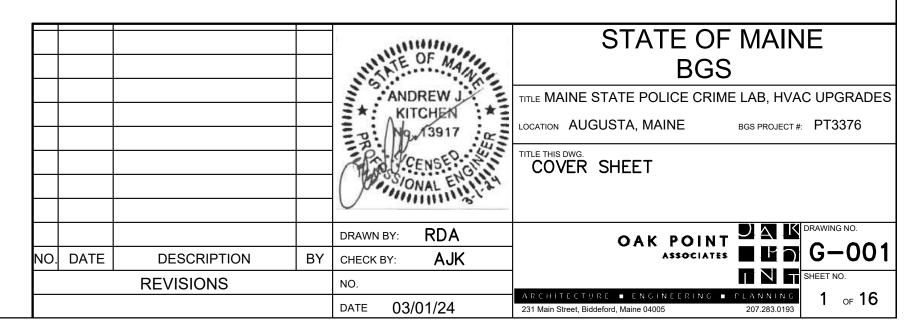
±	PLUS/MINUS	MIN	MINIMUM
&	AND	MIR	MIRROR
@	AT	N	NORTH
BD	BOARD	NIC	NOT IN CONTRACT
BL	BORROWED LITE	NO, #	NUMBER
<u>~</u>	CENTERLINE	NTS "	NOT TO SCALE
ČLG	CEILING	OC	ON CENTER
CPT	CARPET	PL LAM, PLAM	PLASTIC LAMINATE
CT	CERAMIC TILE	PLYWD	PLYWOOD
DIA Ø	DIAMETER	PNT	PAINT
DWG	DRAWING	RCP	REFLECTED
ELEV	ELEVATION		CEILING PLAN
EXIST	EXISTING	RM	ROOM
GYP BD	GYPSUM BOARD	SAT	SUSPENDED
НМ	HOLLOW METAL		ACOUSTICAL TILE
LT	LIGHT	SCH	SCHEDULE
MAX	MAXIMUM	SIM	SIMILAR
MDF	MEDIUM DENSITY	TYP	TYPICAL
	FIBER BOARD	UL	UNDERWRITERS
MFR	MANUFACTURER		LABORATORY
MFRS	MANUFACTURER'S	W/	WITH
		WD	WOOD

LEGEND

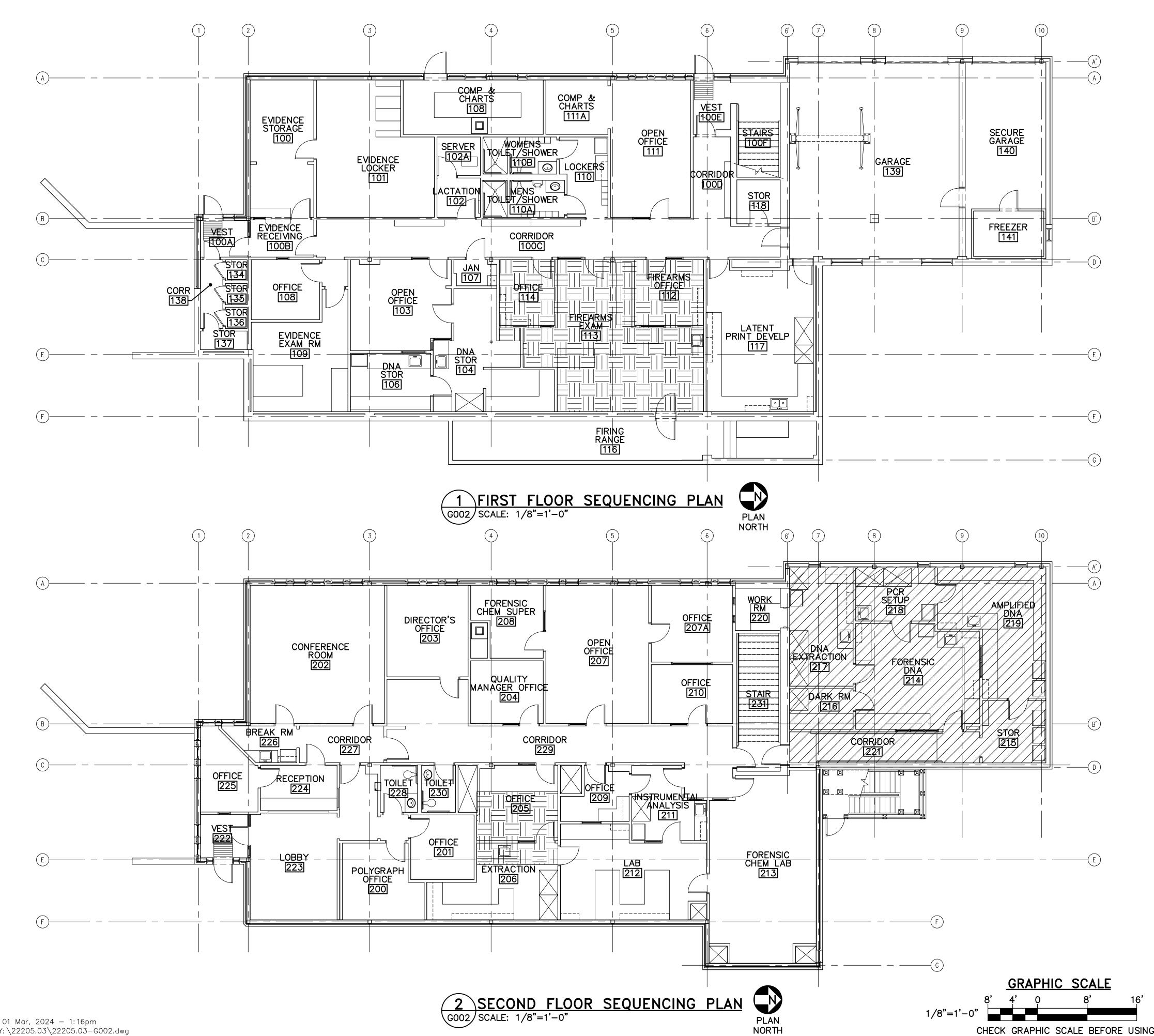




CLASSROOM ROOM NAME AND NUMBER DOOR NUMBER WALL TYPE DETAIL NUMBER - SHEET WHERE DETAIL IS DRAWN REMOVE OR DEMO ITEM PROVIDE OR INSTALL ITEM EXISTING ITEM



01 Mar, 2024 - 1:15pm 7: \22205.03\22205.03-G001.dwg



GENERAL SEQUENCING NOTES

- 1. THE FOLLOWING IS AN OVERVIEW OF THE WORK DESCRIBED WITHIN THE CONSTRUCTION DOCUMENTS AND IS A PROPOSED CONSTRUCTION SEQUENCE STRATEGY WHICH HAS BEEN COORDINATED WITH THE BGS. DEVELOPMENT OF A FINAL CONSTRUCTION SEQUENCE AND SCHEDULE IS THE RESPONSIBILITY OF THE CONTRACTOR WITH APPROVAL BY THE CONTRACTING OFFICER.
- 2. THE BUILDING WILL CONTINUE TO OPERATE AND BE OCCUPIED DURING THE CONSTRUCTION PERIOD. COORDINATE FIRE/LIFE SAFETY REQUIREMENTS, SECURITY REQUIREMENTS, UTILITY SHUTDOWNS, TEMPORARY CLOSURES AND REROUTING OF UTILITIES WITH THE CONTRACTING OFFICER FIFTEEN (15) DAYS PRIOR TO THE START OF EACH PHASE OF WORK AND AS SPECIFIED..
- 3. COORDINATE PROGRAM IMPLEMENTATION AND CONSTRUCTION SEQUENCE STRATEGY WITH THE GOVERNMENT.
- 4. REFER TO SHEET G-001 FOR GENERAL PROJECT NOTES.
- 5. COORDINATE OCCURRENCE, TIME, AND DURATION REQUIRED FOR MOVEMENT OF INDUSTRIAL EQUIPMENT WITH THE GOVERNMENT.
- 6. COORDINATE OCCURRENCE, TIME, AND DURATION OF INTERRUPTIONS TO ROADWAYS, LAY DOWN AREAS, AND OTHER SITE ELEMENTS WITH THE GOVERNMENT. OBTAIN PERMISSION FROM CONTRACTING OFFICER PRIOR TO INTERRUPTIONS OF SITE ELEMENTS.
- 7. COORDINATE MATERIAL AND VEHICLE MOVEMENT AROUND THE PROJECT SITE AND ON AND OFF THE SITE.
- 8. PROTECT EXISTING OCCUPIED SPACES, FINISHES, FURNITURE SYSTEMS AND EQUIPMENT FROM DUST, CONSTRUCTION DEBRIS, AND WEATHER DURING CONSTRUCTION. DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS MUST BE REPAIRED OR REPLACED AS APPROVED BY THE CONTRACTING OFFICER BY THE CONTRACTOR AT NO ADDITIONAL COST TO BGS.
- 9. CONTRACTOR IS RESPONSIBLE FOR AND REQUIRED TO PROVIDE AND SUBMIT PHASING PLANS ILLUSTRATING THE TIMING, SCHEDULE, AND IMPLEMENTATION OF THE WORK TO THE CONTRACTING OFFICER FOR REVIEW PRIOR TO ANY CONSTRUCTION ACTIVITY. THIS PLAN SHALL BE UPDATED AND RESUBMITTED IF THERE ARE ANY SCHEDULE CHANGES. THIS FACILITY SHALL NOT BE SHUT DOWN.

SEQUENCING LEGEND AND NOTES

PHASE 1

PHASE 1, SECOND FLOOR DNA LAB. LAB MUST REMAIN OPERATIONAL DURING CONSTRUCTION. WORK TO BE DONE OFF HOURS, AFTER 5 PM MONDAY TO FRIDAY AND WEEKENDS ONLY. COORDINATE WORK TIMES WITH CONTRACTING OFFICER. PHASE 1 WORK INCLUDES TESTING, ADJUSTING AND BALANCING HVAC SYSTEMS SERVING THIS AREA.

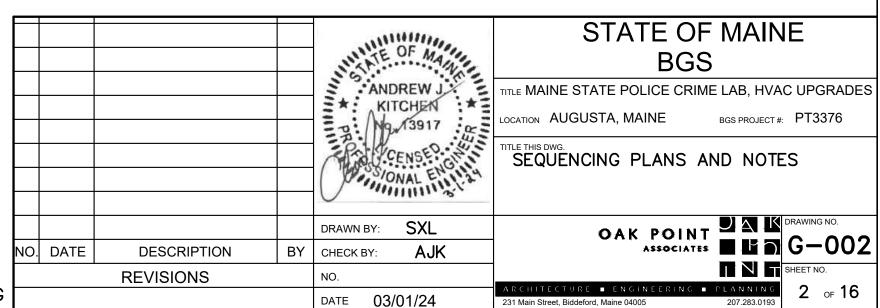


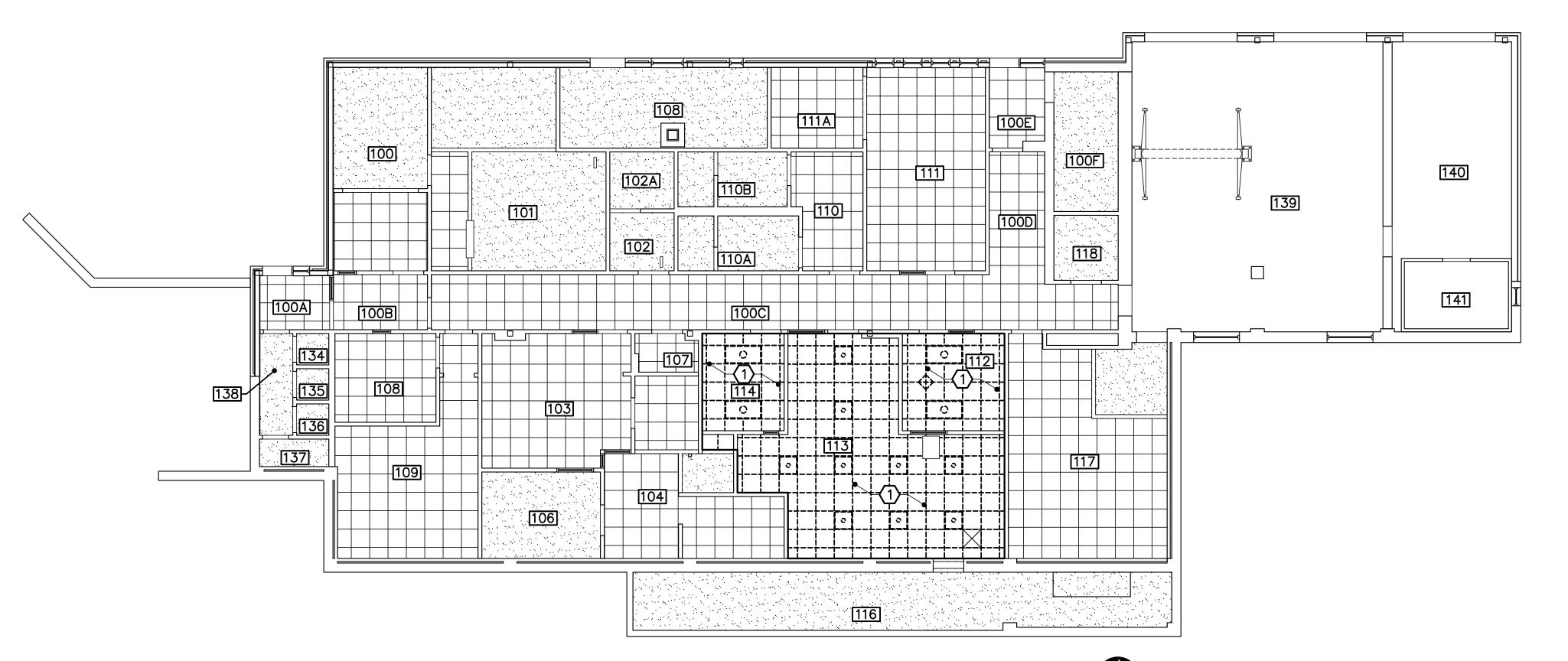
PHASE 2

PHASE 2, FIRST FLOOR LABS. LAB MUST REMAIN OPERATIONAL DURING CONSTRUCTION. WORK TO BE DONE OFF HOURS, AFTER 5 PM MONDAY TO FRIDAY AND WEEKENDS ONLY. COORDINATE WORK TIMES WITH CONTRACTING OFFICER.

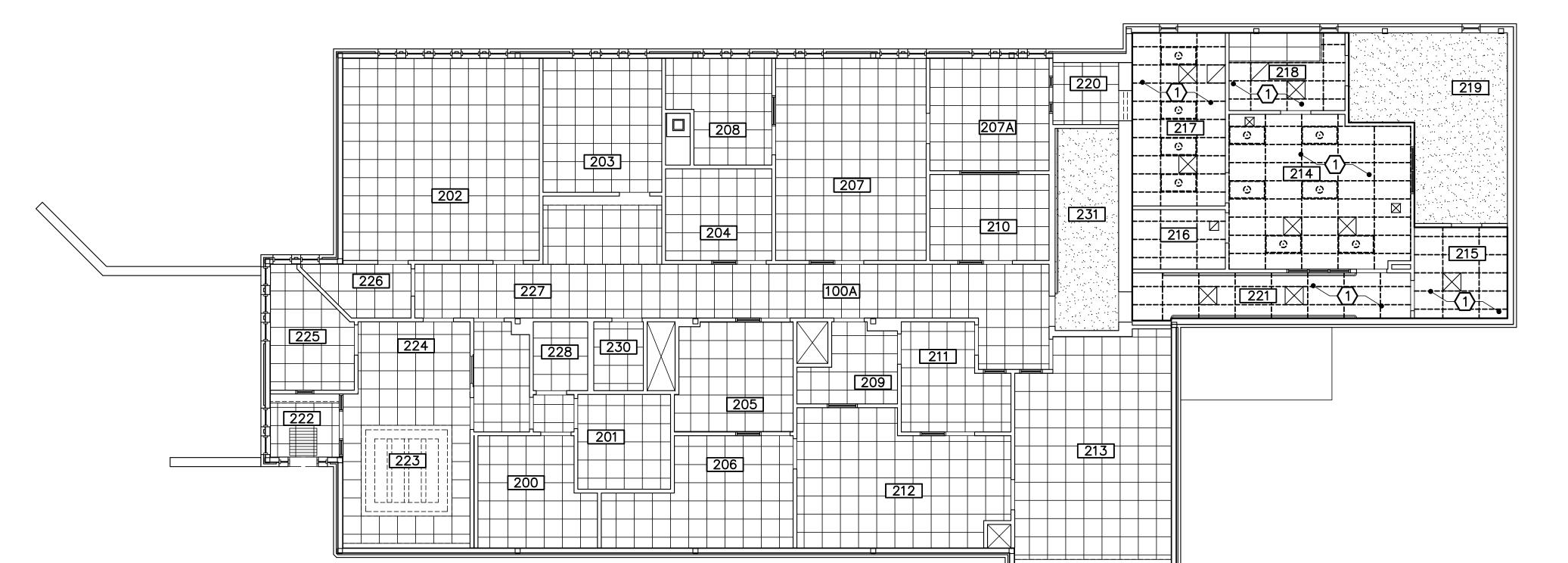
PHASE 3

PHASE 3, ENTIRE MAIN BUILDING MINUS DNA LAB. TEST AND BALANCE IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS SECTION 230593 TESTING, ADJUSTING AND BALANCING FOR HVAC.

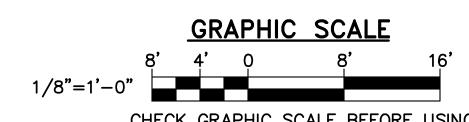




1 FIRST FLOOR REMOVALS REFLECTED CEILING PLAN AD701 SCALE: 1/8"=1'-0" PLAN NORTH



2 SECOND FLOOR REMOVALS REFLECTED CEILING PLAN
AD701 SCALE: 1/8"=1'-0"



PLAN NORTH

GENERAL NOTES

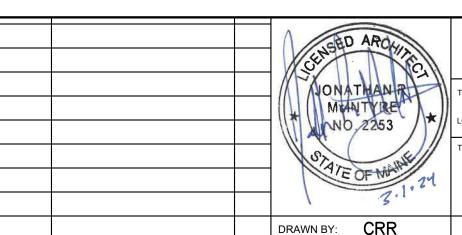
COORDINATE REMOVALS WITH MECHANICAL AND ELECTRICAL SHEETS.

REMOVAL KEYNOTES

REMOVE AND STORE ACOUSTICAL CEILING PANELS AND GRID AS REQUIRED FOR MECHANICAL DUCTWORK REMOVALS AND INSTALLATIONS.

CEILING REMOVALS LEGEND:

- EXISTING (TO REMAIN) ---- EXISTING TO BE REMOVED 2'x2' LED LIGHT FIXTURES 2'x4' LED LIGHT FIXTURES EXIT SIGN GYP BD SUSPENDED ACOUSTICAL 2'-0"x2'-0" CEILING SYSTEM SUSPENDED ACOUSTICAL 2'-0"x4'-0" CEILING SYSTEM SUPPLY DIFFUSER RETURN DIFFUSER



BY CHECK BY:

DATE 03/01/24

DESCRIPTION

REVISIONS

NO. DATE

STATE OF MAINE BGS

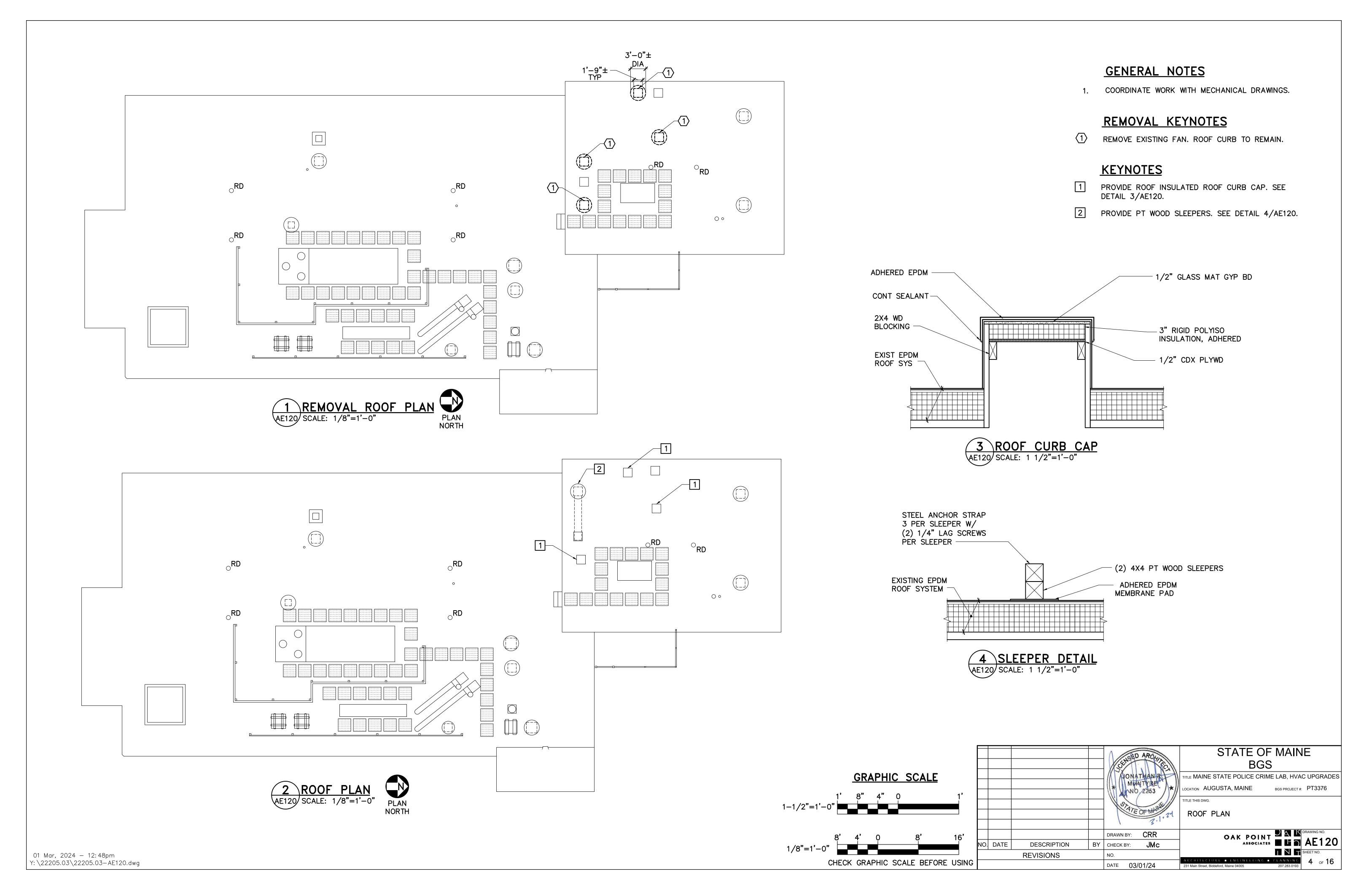
TITLE MAINE STATE POLICE CRIME LAB, HVAC UPGRADES LOCATION AUGUSTA, MAINE

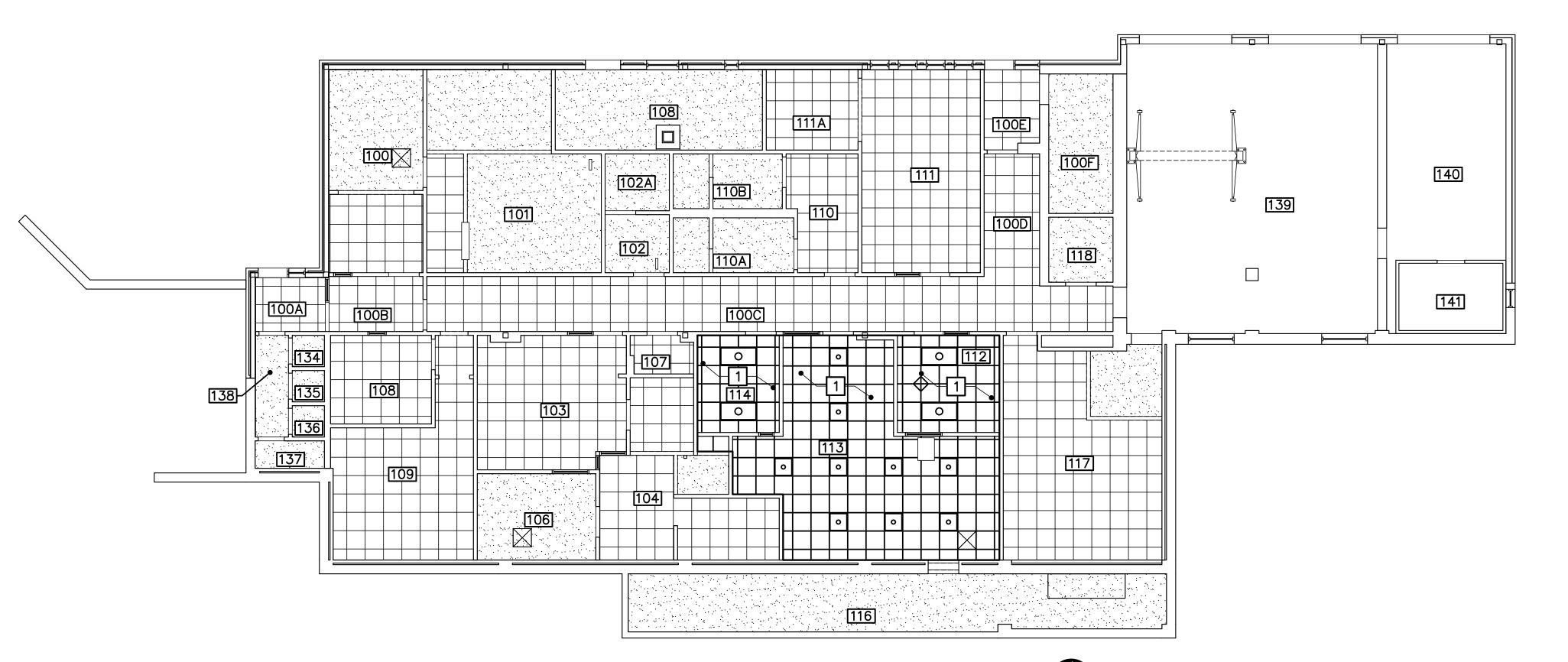
FIRST AND SECOND FLOOR
REMOVALS REFLECTED CEILING PLANS

OAK POINT DAM DRAWING NO.

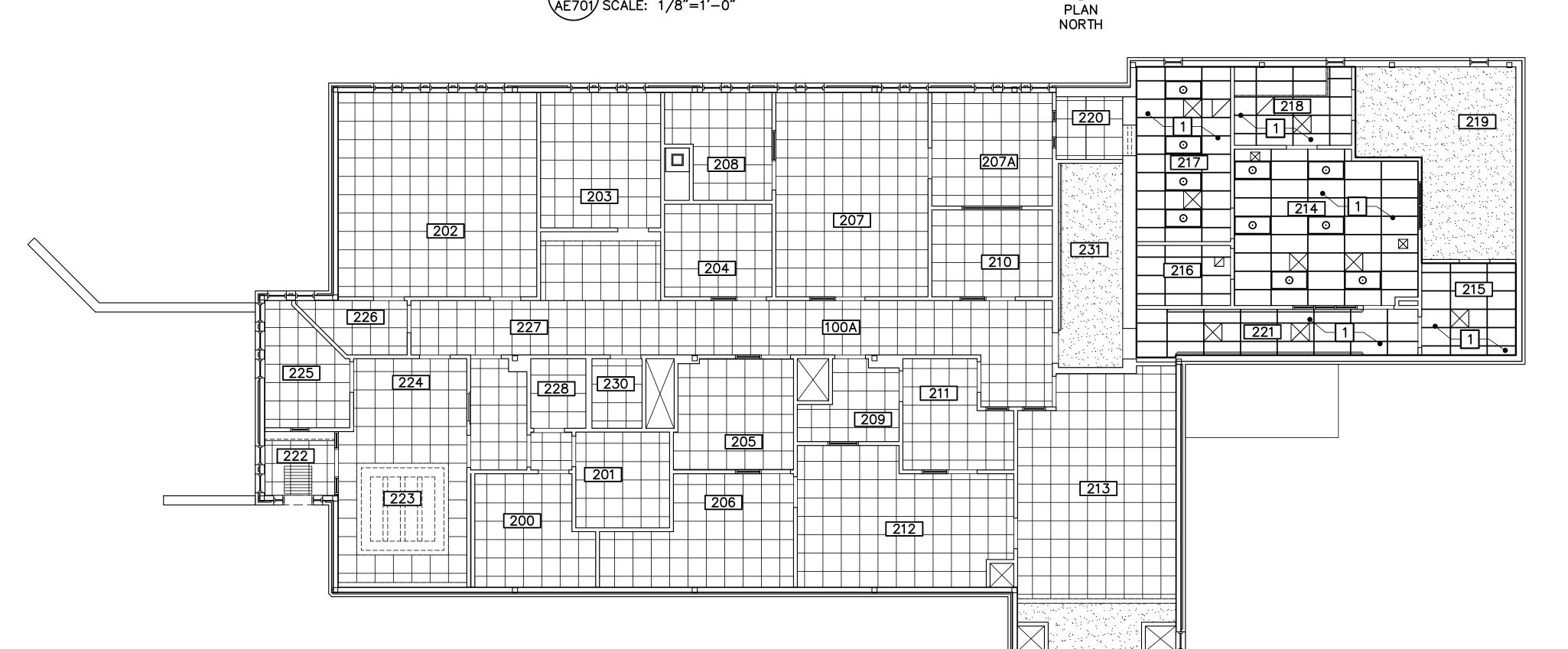
ASSOCIATES DE AD701 SHEET NO.

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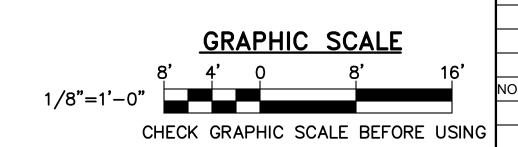


1 FIRST FLOOR REFLECTED CEILING PLAN
AE701 SCALE: 1/8"=1'-0"



2 SECOND FLOOR REFLECTED CEILING PLAN
AE701 SCALE: 1/8"=1'-0"





GENERAL NOTES

COORDINATE REMOVALS WITH MECHANICAL AND ELECTRICAL SHEETS.

KEYNOTES

REINSTALL ACOUSTICAL CEILING PANELS AND GRID. REPLACE DAMAGED ACOUSTICAL PANELS (20% OF EACH TYPE OF PANEL) TO MATCH EXISTING.

CEILING REMOVALS LEGEND:

EXISTING (TO REMAIN) ---- EXISTING TO BE REMOVED

2'x2' LED LIGHT FIXTURES

0 2'x4' LED LIGHT FIXTURES

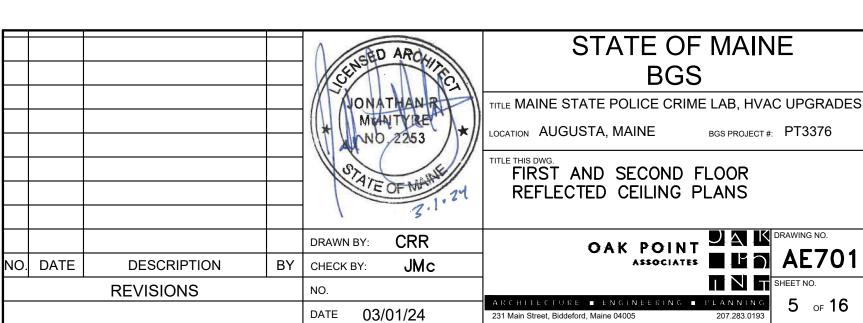
GYP BD

SUSPENDED ACOUSTICAL 2'-0"x2'-0" CEILING SYSTEM

SUSPENDED ACOUSTICAL 2'-0"x4'-0" CEILING SYSTEM

SUPPLY DIFFUSER

RETURN DIFFUSER



DATE 03/01/24

MECHANICAL ABBREVIATIONS **ANNOTATION** AIR CONDITIONING, AIR CONDITIONER -SYMBOL PER ABBREVIATION LIST $\begin{pmatrix} H \\ 2 \end{pmatrix}$ AIR HANDLING UNIT **ASTM** AMERICAN SOCIETY FOR -EQUIPMENT SEQUENCE NUMBER TESTING AND MATERIALS BOILER AIR INLET OR OUTLET WITH CFM COMPUTER ROOM AIR CRAC CONDITIONER 1)1 KEY NOTE CUH CABINET UNIT HEATER DDC DIRECT DIGITAL CONTROLS DH DEHUMIDIFIER DIRECTION OF AIR FLOW Ø,DIA DIAMETER DN DOWN CONNECT TO EXISTING DTWR DUEL TEMPERATURE WATER RETURN DTWS DUEL TEMPERATURE WATER **DUCTWORK** SUPPLY EXISTING, EXHAUST RETURN GRILLE/REGISTER EXHAUST AIR, EACH EΑ EXHAUST FAN SUPPLY DIFFUSER/REGISTER/GRILLE ESP EXTERNAL STATIC PRESSURE ELECTRIC UNIT HEATER EXHAUST GRILLE/REGISTER **EVAP EVAPORATOR EWB** ENTERING WET BULB TRANSFER GRILLE **TEMPERATURE** EWC ELECTRIC WATER COOLER ENTERING WATER TEMPERATURE EWT -√\\ SUPPLY DIFFUSER/REGISTER/GRILLE EXIST **EXISTING** EXP **EXPANSION** GUI GRAPHICAL USER INTERFACE DUCT HUMIDIFIER, HUMIDISTAT, HEIGHT HORSEPOWER FLEXIBLE CONNECTION HVAC HEATING, VENTING AND AIR CONDITIONING (UNIT) RECTANGULAR TO ROUND FITTING HWR HOT WATER RETURN HWS HOT WATER SUPPLY MANUAL BALANCING DAMPER IN DUCT MUA MAKE UP AIR NFPA NATIONAL FIRE PROTECTION ASSOCIATION RETURN DUCT UP OBD OPPOSED BLADE DAMPER OED OPEN ENDED DUCT EXHAUST DUCT UP POLY VINYL CHLORIDE PVC RD ROOF DRAIN $\geq \leq$ SUPPLY DUCT UP REFRIGERANT LIQUID ROOM SQUARE ELBOW WITH TURNING VANES RPM REVOLUTIONS PER MINUTE REFRIGERANT SUCTION RTU ROOFTOP UNIT FLEXIBLE DUCT SUPPLY SS STAINLESS STEEL MY MOTORIZED DAMPER, PARALLEL BLADE START/STOP THERMOSTAT, TRANSFER UNIT HEATER VAV VARIABLE AIR VOLUME VTR VENT TO ROOF WATER COLUMN WC MECHANICAL LINE TYPE LEGEND ----- REMOVE ITEMS ——— EXIST ITEMS TO REMAIN ---- PROVIDE ITEMS

MECHANICAL SY

MBOLS LEG	<u>END</u>
EQUIPME	:NT
	FINTUBE RADIATION AND ENCLOSURE
	UNIT HEATER
	TERMINAL UNIT, VARIABLE VOLUME
\bigcirc	CENTRIFUGAL FAN
	ROOF EXHAUST FAN OR HOOD
	PUMP
PIPING &	& VALVES
	PIPE TEE UP OR UP AND DOWN
G	ELBOW DOWN
•——	ELBOW UP OR UP AND DOWN
	PIPE TEE DOWN
<u>—</u> б—	BALL VALVE
——————————————————————————————————————	2-WAY ELECTRIC AUTOMATIC CONTROL VALVE
── Ā──	3-WAY AUTOMATIC CONTROL VALVE
E	CAP
	DIRECTION OF FLOW
CONTROL	S AND METERING
\bigcirc	WALL MOUNTED THERMOSTAT WITH INTEGRAL CONTACTORS, USER—ADJUSTABLE

\bigcirc	WALL MOUNTED THERMOSTAT WITH INTEGRAL CONTACTORS, USER—ADJUSTABLE
	WALL MOUNTED TEMPERATURE SENSO (REFER TO CONTROL DIAGRAMS FOR VARYING SPECIFIC REQUIREMENTS)
SD-	DUCT MOUNTED SMOKE DETECTOR

WALL MOUNTED, RELATIVE HUMIDITY SENSOR **SENSOR**

M-001 NOT TO SCALE

∠12" EXISTING ROOF CURB

PRESSURE TREATED SLEEPER

SEE ARCHITECTURAL SHEET

FOR SLEEPER DETAILS——

EXHAUST

START/STOP CONTROLLER CURRENT SENSOR

MOTORIZED DAMPER ACTUATOR

BELLMOUTH FITTING WITH BUTTERFLY DAMPE	P PROVIDE			NOTES
RIGID DUCT FROM DAMPER TO DIFFUSER EXC 5 FEET MAY BE FLEX DUCT. FOR CONNECTI ROUND MAIN DUCT PROVIDE CONICAL TEE OF	CEPT LAST TON TO	ROUND FLEXIBLE DUC 90° MAXIMUM FOR TOTAL BENDS	ïΤ	
MAIN DUCT SUPPLY, RETURN OR EXHAUST				
PROVIDE 3" MIN HEIGHT TRANSITION W/ ROUND DUCT COLLAR—				
OBD INTEGRAL WITH REGISTER WHERE SCHEDULED	- NYLON DRAW BAND CONNECTION TO DIFFUSER NECK			
SQUARE/RECTANGULAR REGISTER OR GRILLE	ROUND NECK DIFFUSER	AIR FLOW	TERMINATE ABOVE ROC	
1 DIFFUSER AND RIM-001 NOT TO SCALE	EGISTER RUNOUT	DETAIL	WELD DUCT TO SS ROOF CURB CAP	FC-

MECHANICAL GENERAL NOTES

RL ---- REFRIGERANT LIQUID

HWS ---- HOT WATER SUPPLY

HWR ——— HOT WATER RETURN

— · — · — CONTROL WIRING

———— G ———— NATURAL GAS

RS — REFRIGERANT SUCTION

-DTWS — DUEL TEMPERATURE WATER SUPPLY — DTWR ———— DUAL TEMPERATURE WATER RETURN

- MECHANICAL WORK MUST BE PERFORMED IN ACCORDANCE WITH STATE AND LOCAL CODES, THE INTERNATIONAL MECHANICAL CODE (I MC), 2015, AND THE INTERNATIONAL ENERGY AND CONSERVATION CODE (IECC), 2015.
- DUCTWORK IS SHOWN DIAGRAMMATICALLY, EXACT LOCATIONS MUST BE DETERMINED IN THE FIELD.
- COORDINATE LOCATION OF HVAC WORK WITH OTHER TRADES. PERFORM CUTTING WORK ASSOCIATED WITH MECHANICAL SYSTEMS.
- 4. HVAC WORK MUST BE SUPPORTED FROM BUILDING STRUCTURE. DO NOT CUT STRUCTURAL MEMBERS. 01 Mar, 2024 - 4:05pm

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NOTE ON BASIS OF DESIGN PRODUCTS OF OTHER MANUFACTURERS ARE ACCEPTABLE IF THEY MEET THE OPERATIONAL REQUIREMENTS INDICATED. ANY ADJUSTMENTS TO DUCTING, PIPING, WIRING OR CONFIGURATION DUE TO THE SELECTION OF A MANUFACTURER OTHER THAN THAT LISTED AS THE BASIS OF DESIGN WILL BE ACCOMPLISHED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE GOVERNMENT.

	FAN SCHEDULE										
UNIT NO	SERVES	CFM	ESP IN WC	FAN TYPE	FAN RPM	SONES	HP	VOLTS/ PHASE	BASIS OF DESIGN	ACCESSORIES	NOTES
EF-3	FUME HOOD	650	0.51	CENTRIFUGAL	3185	15.0	3/4	115/1	GREENHECK FJI-07-BI-X	A,B,C,D,E	1
NOTES: . ROOF I	MOUNTED UP-BL	AST E	XHAUST	FAN.							

1.	ROOF	MOUNTED	UP-BLAST	EXHAUST	FAI
ACC	CESSOF	RIES:			

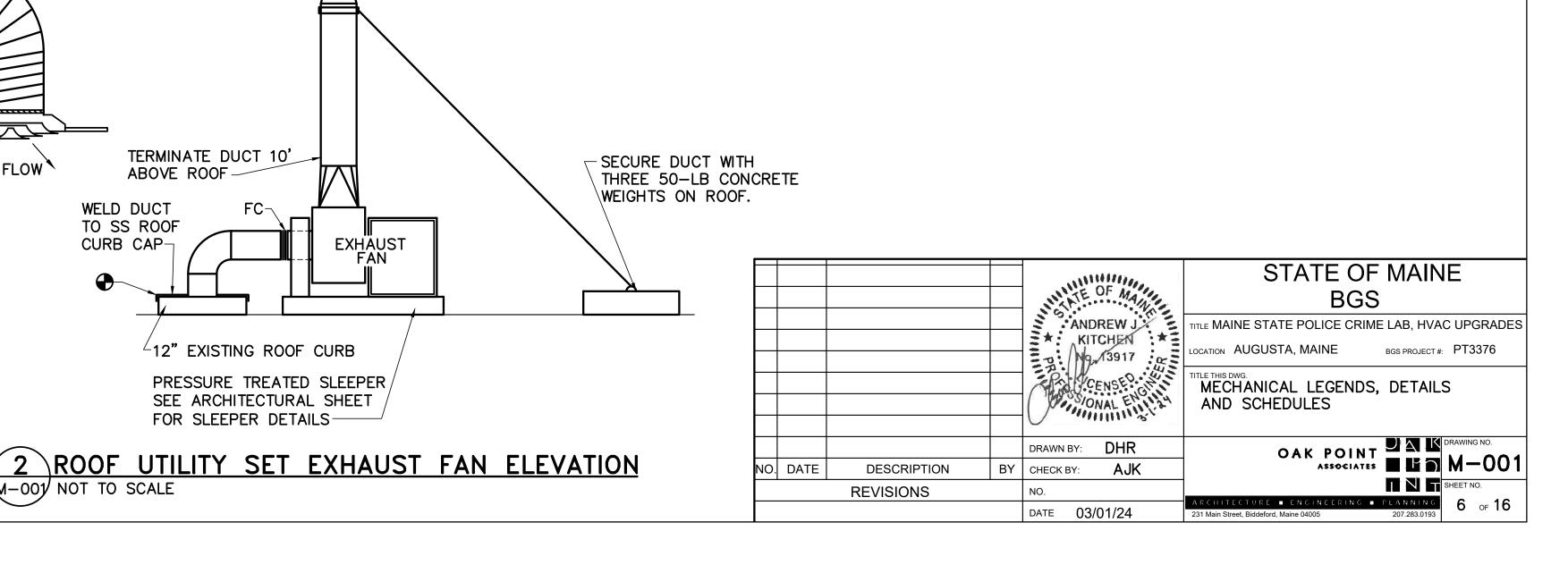
MOTORIZED DAMPER. GALVANIZED BIRD SCREEN.

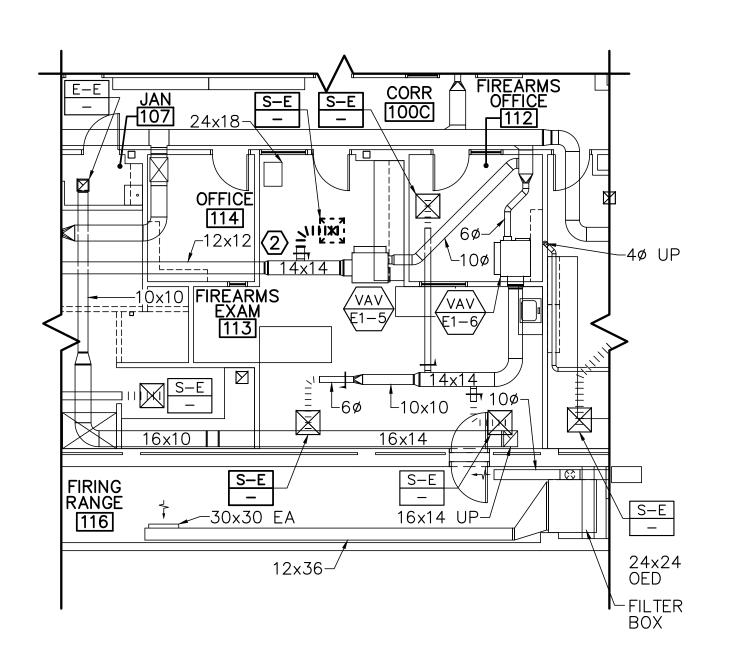
GRAVITY BACKDRAFT DAMPER.

MFR FAN MOUNTED DISCONNECT SWITCH TIME DELAY SWITCH.

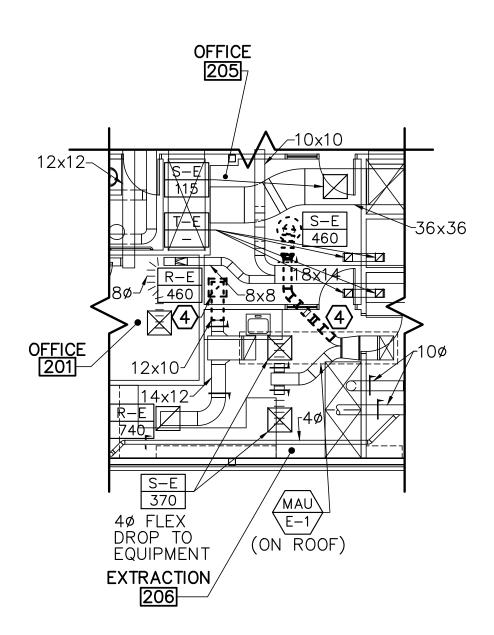
				DIFFU	SER /	REGISTER SCHEDULE		
UNIT NO	FACE SIZE IN	NECK SIZE IN	MAX PRESSURE DROP IN WC	MAX NOISE CRITERIA	CFM RANGE	TYPE	BASIS OF DESIGN	NOTES
S-1	24×24	6ø	0.10	25	0-100	LAY-IN SQUARE SUPPLY DIFFUSER	PRICE SCD	1
NOTES: 1.	24x24 LAY	-IN FOR	T-BAR CEI	LING				1

EXISTING VAV SCHEDULE							
	PRIMAF						
UNIT NO	MAX	MIN	GPM	NOTES			
VAV E1-1	100	0	0.5	_			
VAV E1-2	275	0	0.6	_			
VAV E1-3	200	100	0.5	_			
VAV E1-4	350	200	0.8	_			
VAV E1-5	150	100	0.5	_			
VAV E1-6	275	150	0.5	_			
VAV E1-7	400	200	1.0	–			
VAV E2-1	210	150	0.5	_			
VAV E2-2	720	450	1.6	_			
VAV E2-3	100	0	0.5	_			
VAV E2-4	250	150	0.6	_			
VAV E2-5	170	100	0.5	_			
VAV E2-6	400	250	0.9	_			
VAV E2-7	340	215	0.8	-			
VAV E2-8	265	100	0.5	-			
VAV E2-9	460	250	0.7	-			
VAV E2-10	300	150	0.5	_			
VAV E2-11	800	300	1.8	_			
NOTES: 1. –.							

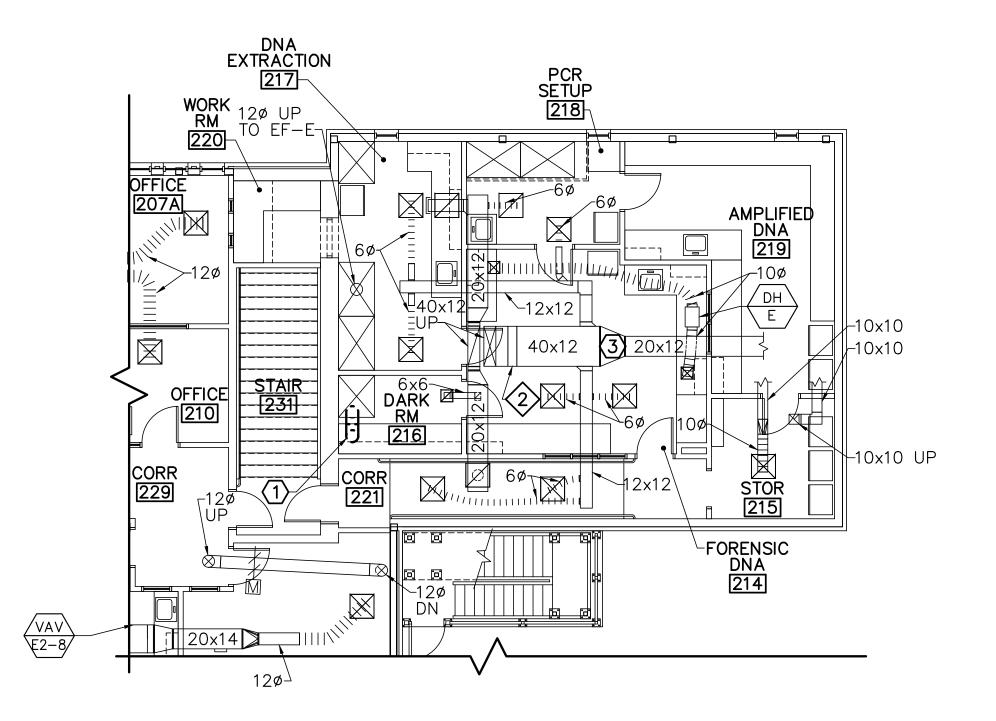












SECOND FLOOR MECHANICAL DUCTWORK REMOVALS PART PLAN MD101 SCALE: 1/8"=1'-0"



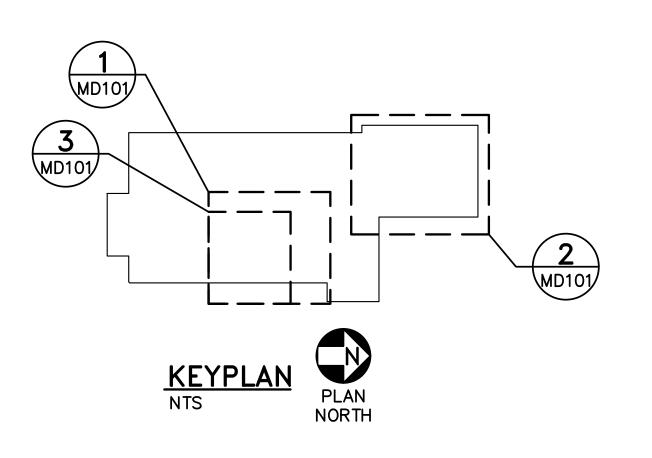
GENERAL NOTES

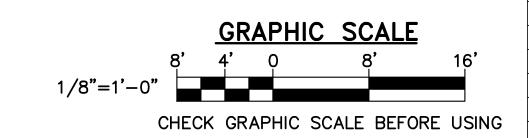
EXISTING KEYNOTES (THIS SHEET ONLY)

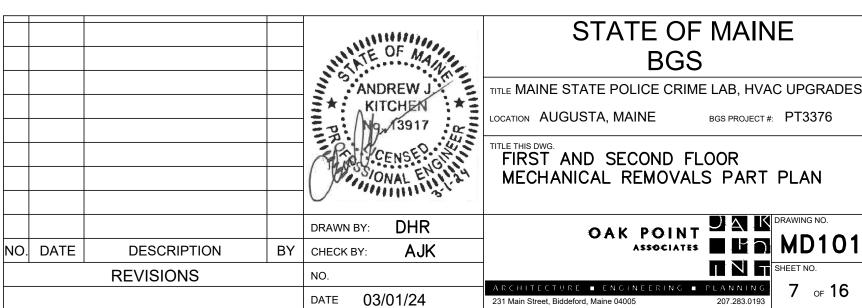
- (3) 4ø DUCTS TO 16x12 INSULATED PLENUM WITH INTERIOR DIVIDERS AS INDICATED. 16x12 UP TO RELIEF HOOD ON ROOF WITH COUNTERBALANCED BACKDRAFT DAMPER IN CURB.
- ABANDONED HUMIDIFICATION COIL.

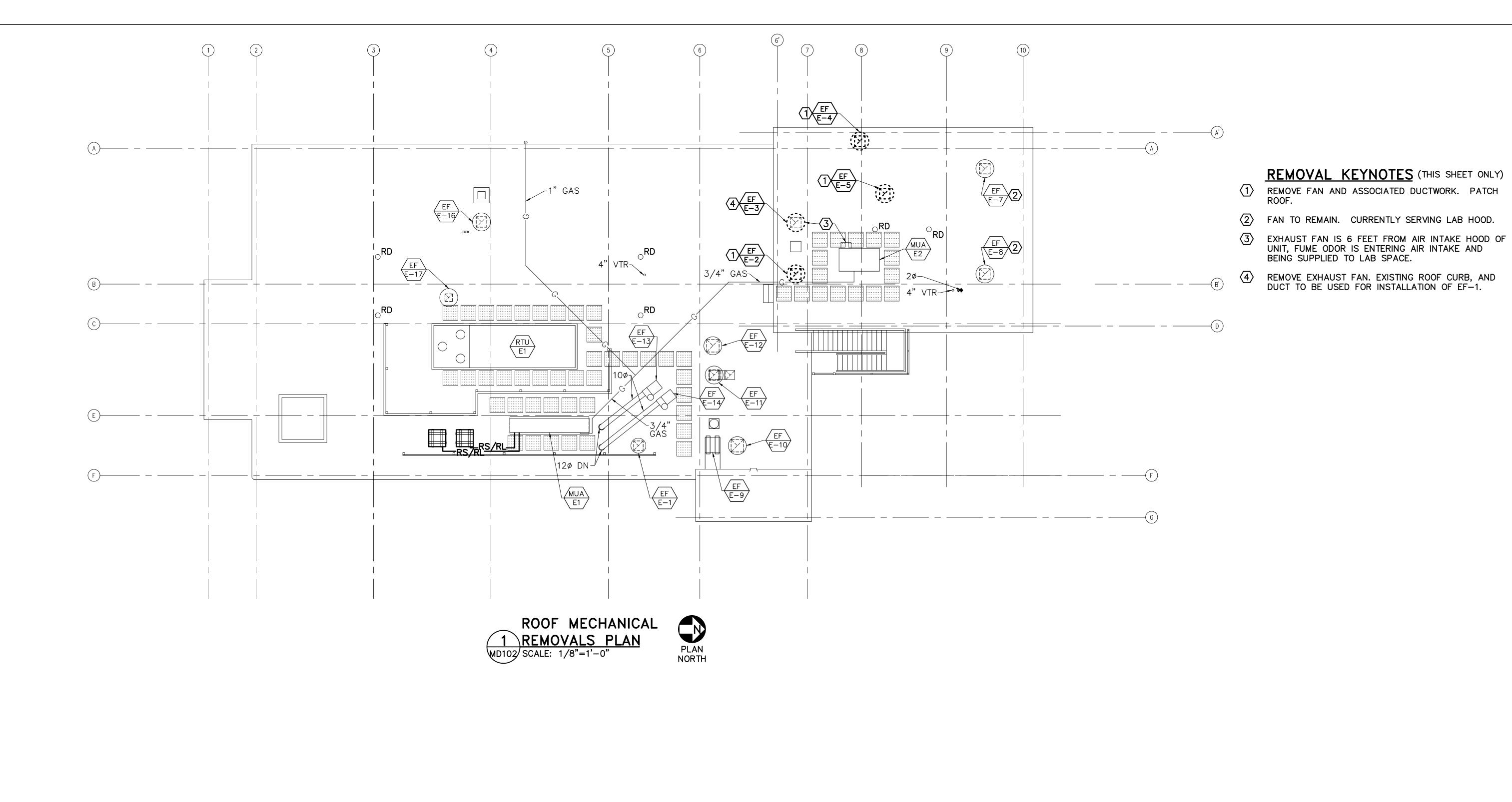
REMOVAL KEYNOTES (THIS SHEET ONLY)

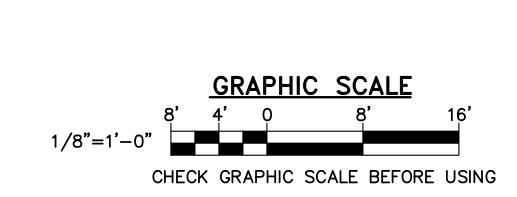
- REMOVE ABANDONED DUCTWORK UP TO ABANDONED EF-1, SEE MD102.
- REMOVE EXISTING DUCT AND DIFFUSER AS INDICATED BY LINETYPE.
- REMOVE DUCTWORK INSULATION ON ALL SUPPLY AND RETURN DUCTWORK ON THIS SYSTEM EXCEPT IN ROOM 219.
- REMOVE DUCTWORK AND DIFFUSERS AS INDICATED BY DEMO LINE-TYPE. STORE DIFFUSERS FOR RE-INSTALLATION. REMOVE CEILING TILES AS NEEDED TO ACCESS DUCTWORK, SALVAGE TILES FOR RE-INSTALLATION. WORK IN THIS AREA UNDER PHASE 2.

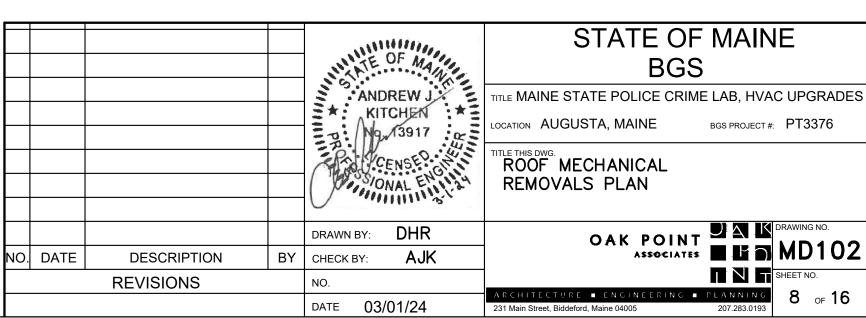


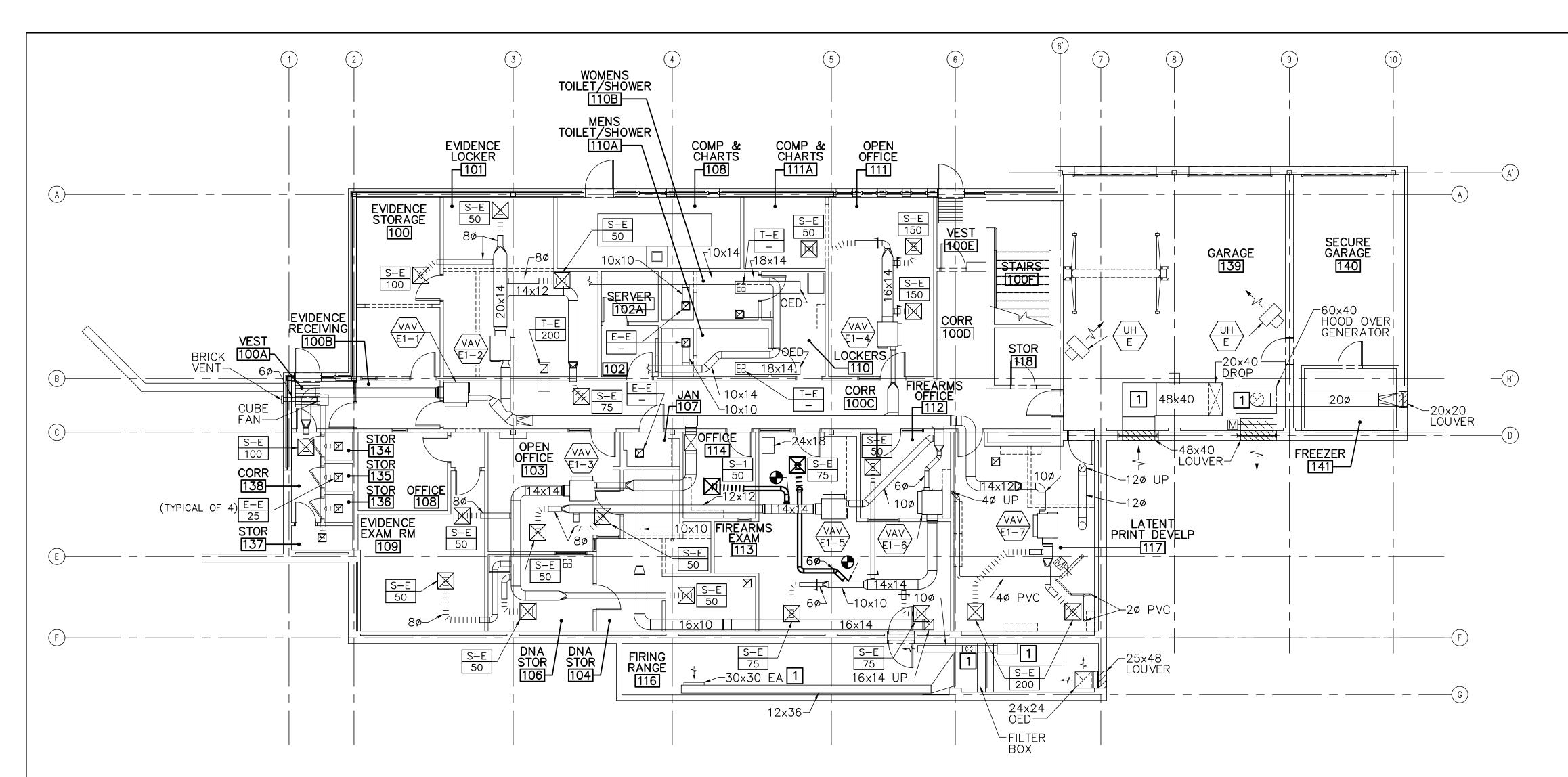










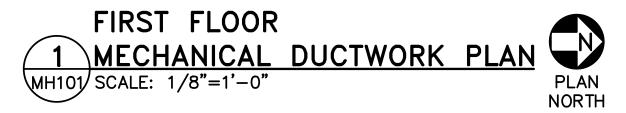


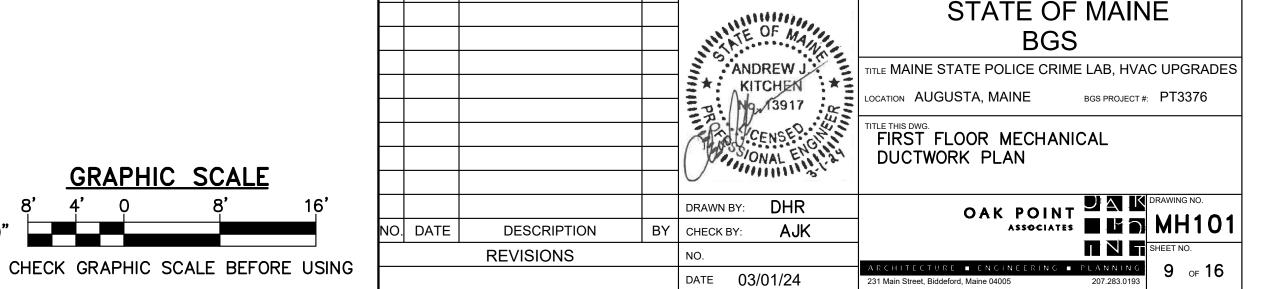
GENERAL NOTES

TEST AND BALANCE ALL AIRSIDE SYSTEMS ON THIS DRAWING (UNLESS OTHERWISE NOTED) IN ACCORDANCE WITH SPECIFICATIONS.

KEYNOTES (THIS SHEET ONLY)

1 NOT TO BE BALANCED.





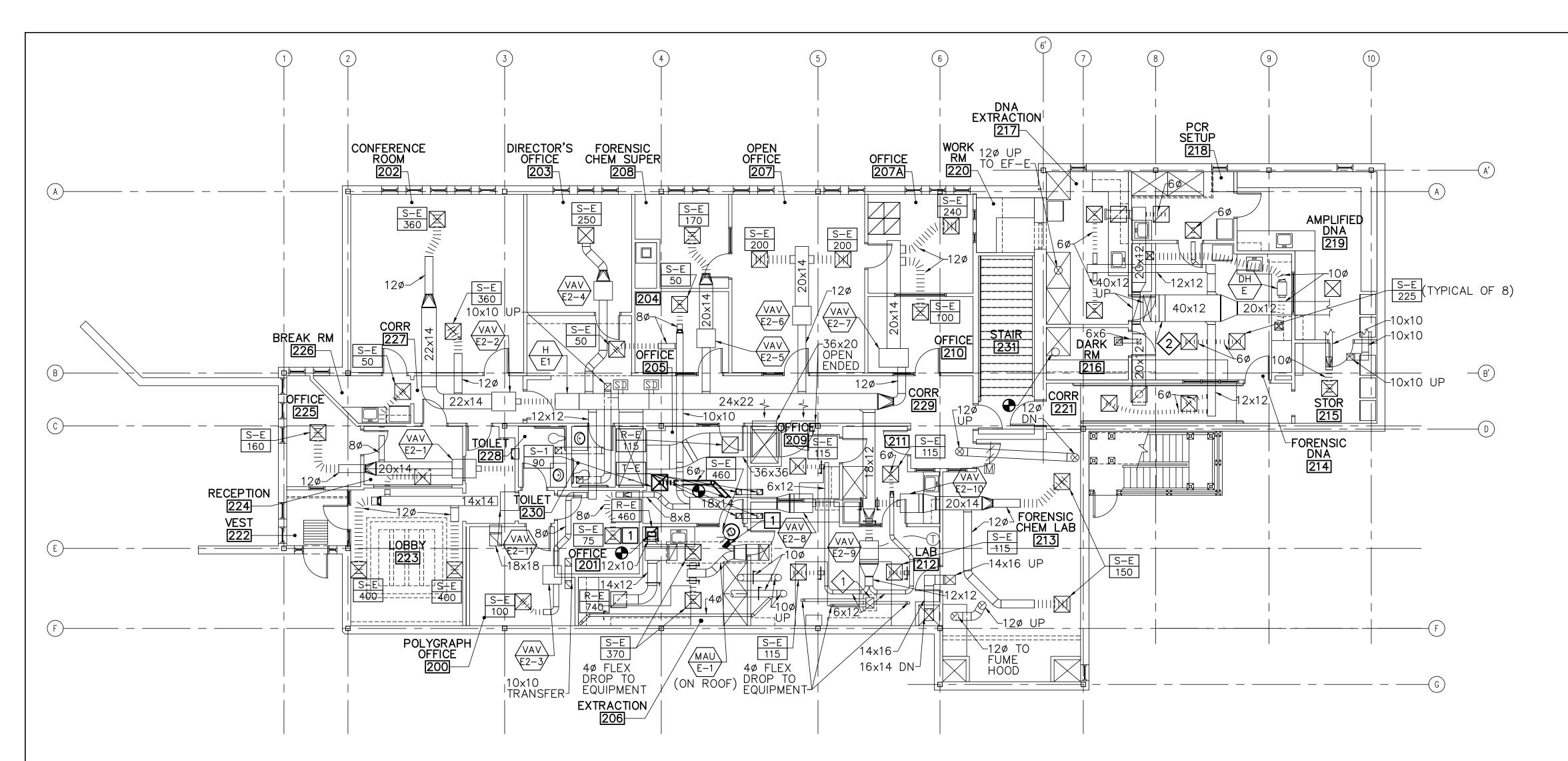
GRAPHIC SCALE

STATE OF MAINE

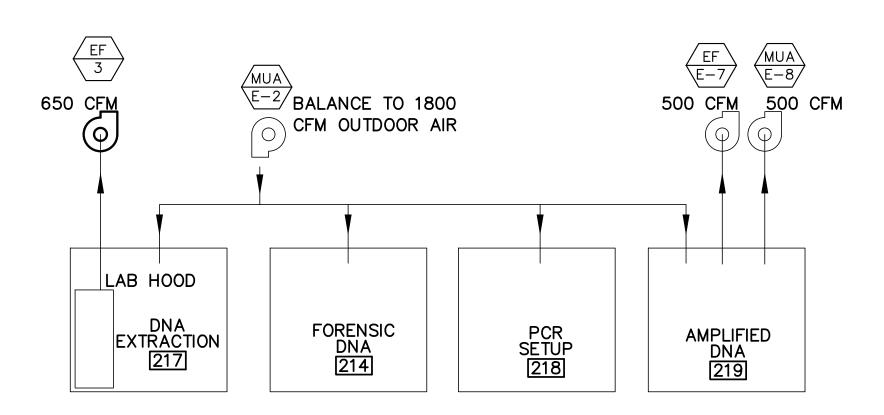
OAK POINT DAM MH101

SHEET NO.

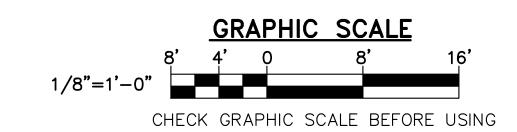
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2 DNA LAB AIR BALANCE DETAIL
MH102 NOT TO SCALE



GENERAL NOTES

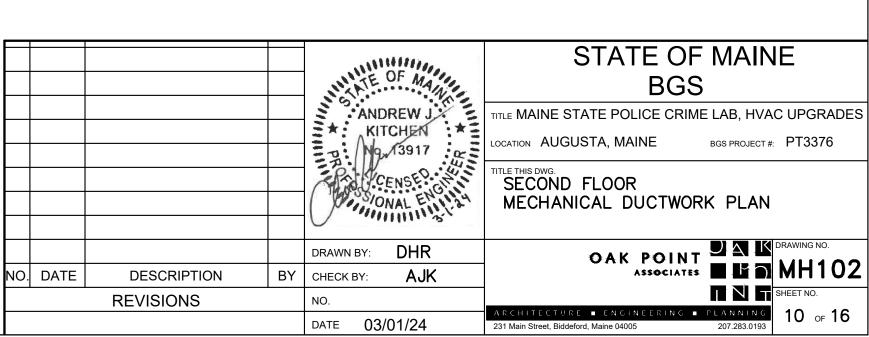
1. TEST AND BALANCE ALL AIRSIDE SYSTEMS ON THIS DRAWING IN ACCORDANCE WITH SPECIFICATIONS.

EXISTING KEYNOTES (THIS SHEET ONLY)

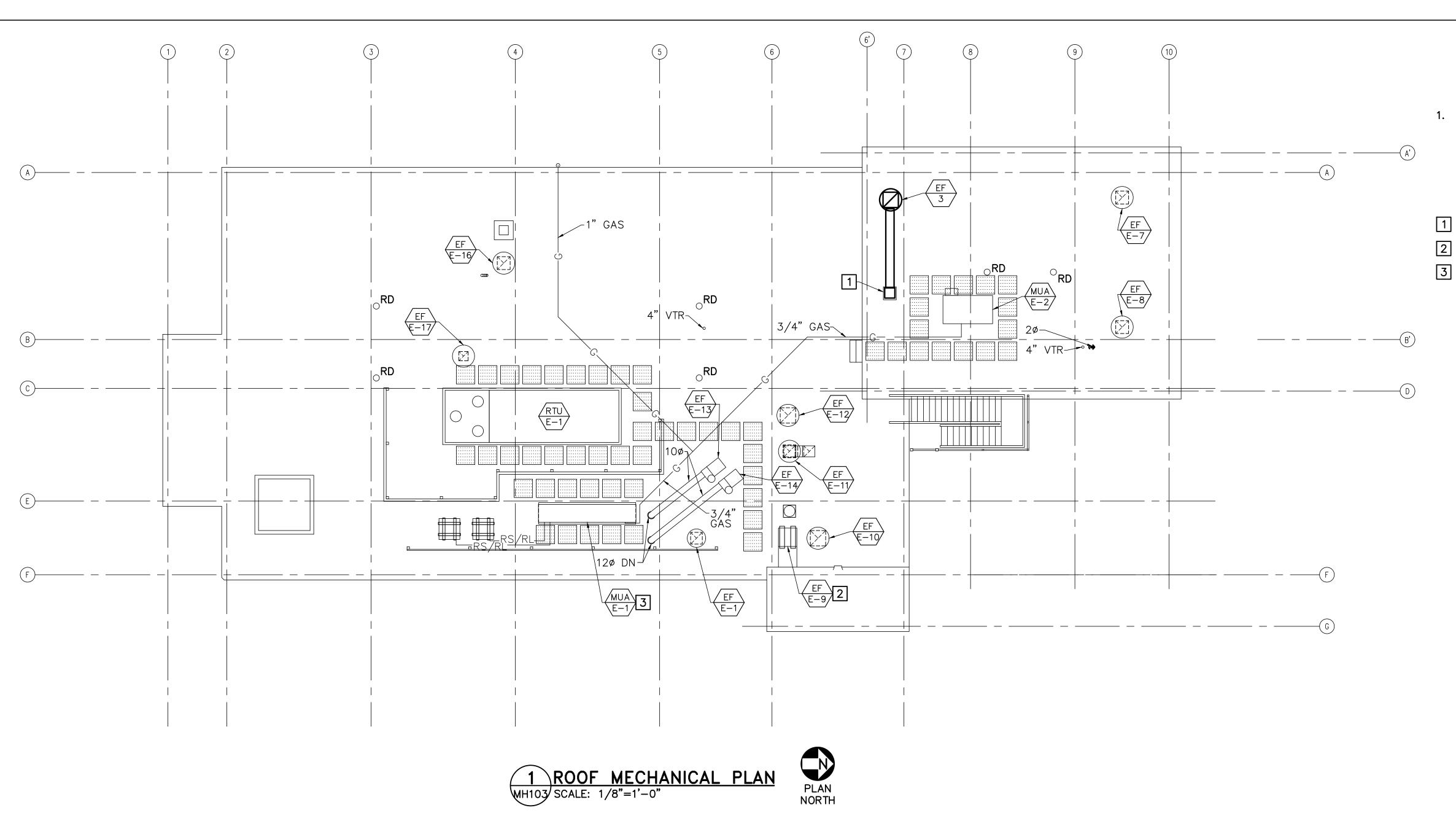
- (3) 4ø DUCTS TO 16x12 INSULATED PLENUM WITH INTERIOR DIVIDERS AS INDICATED. 16x12 UP TO RELIEF HOOD ON ROOF WITH COUNTERBALANCED BACKDRAFT DAMPER IN CURB.
- 2 ABANDONED HUMIDIFICATION COIL.

KEYNOTES (THIS SHEET ONLY)

1 RELOCATE EXISTING SUPPLY AND RETURN DIFFUSERS AS SHOWN. WORK IN THIS AREA UNDER PHASE 2



01 Mar, 2024 — 4:04pm Y:\22205.03\22205.03—MH102.dwg



GENERAL NOTES

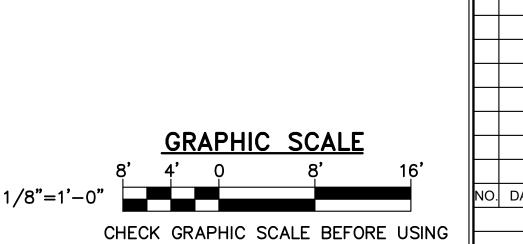
1. TEST AND BALANCE ALL AIRSIDE SYSTEMS ON THIS DRAWING (UNLESS OTHERWISE NOTED) IN ACCORDANCE WITH SPECIFICATIONS.

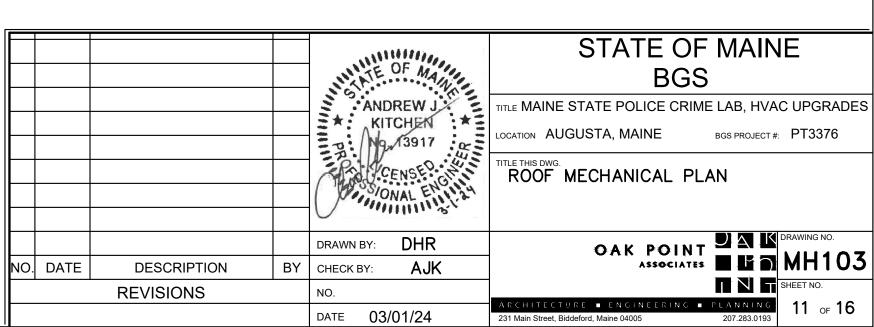
KEYNOTES (THIS SHEET ONLY)

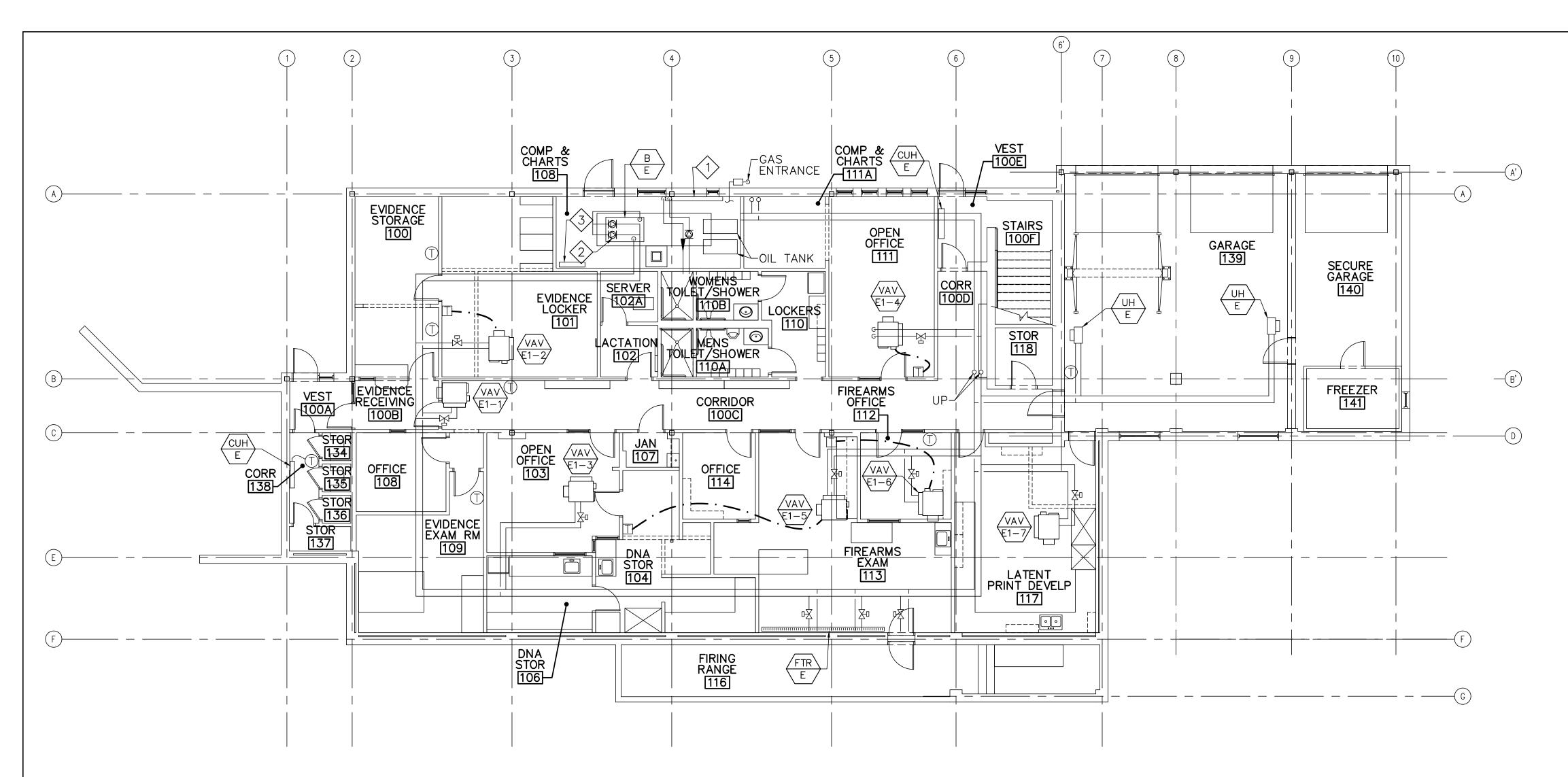
CONNECT TO EXISTING DUCT PENETRATION.

NOT TO BE BALANCED

TAKE AIRFLOW MEASUREMENTS OF EF-13 AND EF-14 AND BALANCE MAKEUP AIR UNIT ACCORDINGLY.







FIRST FLOOR TIRST FLOOR

1 MECHANICAL PIPING AND CONTROLS PLAN

MP101 SCALE: 1/8"=1'-0"

PLAN

NORTH



GENERAL NOTES

VERIFY LOCATION OF VAV BOX AND THERMOSTAT FOR TAB PURPOSES.

EXISTING KEYNOTES (THIS SHEET ONLY)

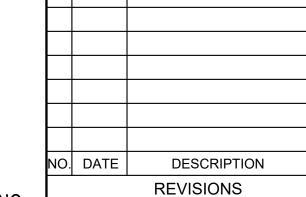
GLYCOL HEAT EXCHANGER FOR ROOFTOP HEATING COIL.

HOT WATER SUPPLY PUMP SERVING PERIMETER HEAT AND VAV BOX REHEAT COILS.

LOCATION OF EXISTING TRANE CONTROLS INTERFACE.

KEYNOTES (THIS SHEET ONLY)

1



BY CHECK BY:

DATE 03/01/24

ANDREW J.

KITCHEN

LOCATION AUGUSTA, MAINE

BGS PROJECT #: PT3376

TITLE THIS DWG.
FIRST FLOOR MECHANICAL PIPING
AND CONTROLS PLAN

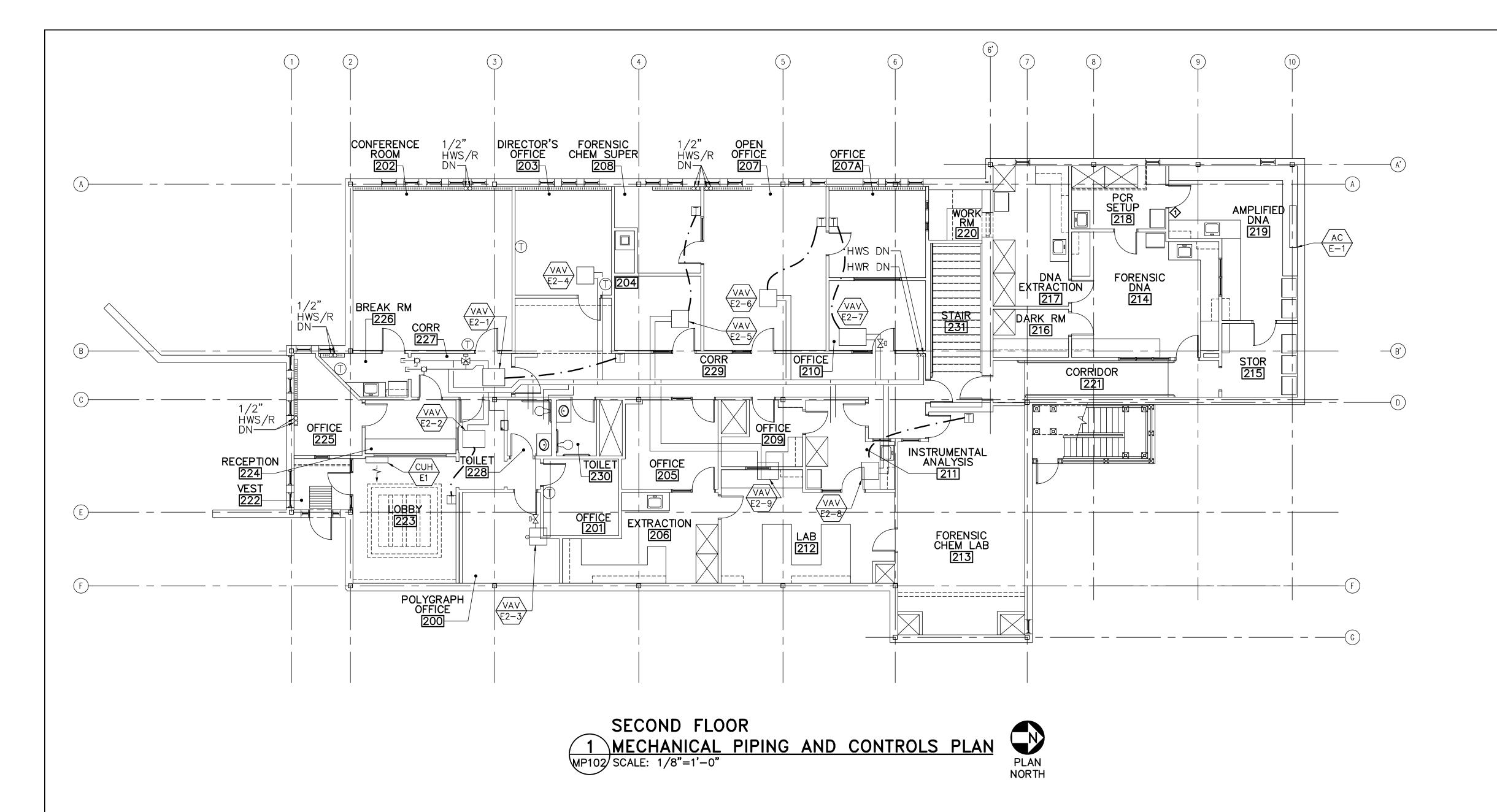
OAK POINT

OAK POINT

OAK POINT DAK DRAWING NO.

ASSOCIATES MP101 SHEET NO. ARCHITECTURE - ENGINEERING - PLANNING 231 Main Street, Biddeford, Maine 04005 207.283.0193

GRAPHIC SCALE CHECK GRAPHIC SCALE BEFORE USING



GENERAL NOTES

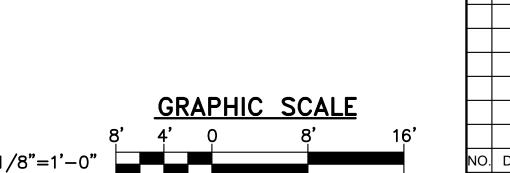
VERIFY LOCATION OF VAV BOX AND THERMOSTAT FOR TAB PURPOSES.

EXISTING KEYNOTES (THIS SHEET ONLY)

1 ROOM PRESSURE SENSOR

KEYNOTES (THIS SHEET ONLY)

1



						STATE
					TE OF MAIN	В
					ANDREW J	TITLE MAINE STATE POLICE
					Ng /13917 @	LOCATION AUGUSTA, MAINE
					CENSE	SECOND FLOOR MECHANICAL PIPINO
GRAPHIC SCALE	\vdash				Committee of the second	MECHANICAL FIFTING
8' 4 ' 0 8' 16'					DRAWN BY: DHR	OAK PO
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CHECK GRAPHIC SCALE BEFORE USING					DATE 03/01/24	ARCHITECTURE - ENGINEER

E OF MAINE BGS CE CRIME LAB, HVAC UPGRADES BGS PROJECT #: PT3376

ING AND CONTROLS PLAN

POINT MP102

ASSOCIATES MP102

SHEET NO.

13 OF 16

207.283.0193

ELECTRICAL SYMBOLS

FIRE ALARM SYSTEM NOTES

A. HONEYWELL ADDRESSABLE CONTROL PANEL.

EXISTING FIRE—ALARM CONTROL PANEL

2. FIRE ALARM INSTALLATION AND TESTING

LIGHTING	CASE SUBSCRIPTS INDICATE FIXTURE TYPE.	GENERAL (J)	JUNCTION BOX
	TO LIGHTING FIXTURE SCHEDULE.	A-1	BRANCH CIRCUIT HOMERUN,
	LIGHT FIXTURES	<u> </u>	A-1 INDICATES PANEL DESIGNATION AND CIRCUIT NUMBER
0			EXISTING PANELBOARD
ď	OCCUPANCY SENSOR		DOME CAMERA
		S	SPEAKER
<u>SECURITY</u>		\square_{j}	FUSIBLE DISCONNECT SWITCH
\Leftrightarrow	MOTOR SENSOR	미	NON-FUSIBLE DISCONNECT SWITCH
REX	REQUEST TO EXIT DEVICE	(AP)	WIRELESS ACCESS POINT, CAT 6 CABLE
LINE TYPE	<u>LEGEND</u>	₽WP	DUPLEX RECEPTACLE, 120V, 20A, SPECIFICATION GRADE, NEMA 5-20 R WP INDICATES WEATHERPROOF
	REMOVE EXISTING ITEMS		WHILE-IN-USE AND GFCI
	EXIST ITEMS TO REMAIN		
	PROVIDE ITEMS	FIRE ALARM	
		S _D	SMOKE DETECTOR D INDICATES DUCT SMOKE DETECTOR
		FC	FIRE ALARM CONTROL PANEL HONEYWELL, ADDRESSABLE SYSTEM

ELECTRICAL GENERAL NOTES

- 1. COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), NFPA, AND STATE AND LOCAL CODES.
- 2. COORDINATE WORK WITH ARCHITECTURAL, AND MECHANICAL TRADES.
- 3. ELECTRICAL EQUIPMENT AND WIRING MUST BE NEW AND UL LISTED UNLESS OTHERWISE NOTED.
- 4. COORDINATE LIGHT FIXTURES AND OTHER CEILING MOUNTED ELECTRICAL EQUIPMENT WITH ARCHITECTURAL, AND MECHANICAL WORK TO AVOID INTERFERENCE.
- 5. PROVIDE A SEPARATE GREEN GROUNDING CONDUCTOR FOR EACH INDIVIDUAL CIRCUIT. METAL CONDUIT MUST BE GROUNDED BUT MUST NOT BE USED AS THE EQUIPMENT GROUNDING CONDUCTOR.
- 6. VERIFY EXISTING CONDITIONS AND DIMENSIONS AND REPORT DISCREPANCIES TO THE CONTRACTING OFFICERS REPRESENTATIVE. THE CONTRACTOR MUST PROCEED WITH THE WORK ONLY AFTER THE DISCREPANCIES HAVE BEEN RESOLVED BY THE OWNER.
- 7. CONDUCTORS MUST BE MINIMUM #12 AWG UNLESS NOTED OTHERWISE.
- 8. CONDUIT MUST BE MINIMUM 3/4" UNLESS OTHERWISE NOTED.
- 9. UNLESS OTHERWISE INDICATED, WIRE AND CONDUIT SIZE FOR EACH 15A 1P, 15A 2P, 20A 1P, AND 20A 2P BRANCH CIRCUIT MUST BE 2 #12 + #12G, IN 3/4"C.
- 10. PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH INDIVIDUAL 120V CIRCUIT.
- 11. SEAL CONDUIT INTERIOR OF SPARE AND ACTIVE CONDUITS TO PROHIBIT PASSAGE OF MOISTURE. PROVIDE SEALANT PRODUCT INTENDED FOR SUCH USE. PROVIDE AT CONDUITS PENETRATING FLOORS, EXTERIOR WALLS, AND ROOF. BASIS OF DESIGN: AMERICAN POLYWATER FST.

ELECTRICAL ABBREVIATIONS

-	AMPERE
A3P	AMPERES, 3-POLE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
С	CONDUCTOR, CONDUIT
CB	CIRCUIT BRÉAKER
CKT	CIRCUIT
DWG	DRAWING
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
G	GROUND; GROUND FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
KCMIL	· · · · · · · · · · · · · · · · · · ·
KVA	KILO-VOLT-AMPERE
	· · · - · · · · · · · · · · · · · · · ·
KW	KILO-WATT
L	LIGHTING LOAD TYPE FOR PANEL SCHEDULE
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
M	MOTOR LOAD TYPE FOR PANEL SCHEDULE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANELBOARD
MIN	MINIMUM
MLO	MAIN LUG ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL
	MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO, #	NUMBER
OCC	OCCUPANCY
Ø	PHASE
Ρ.	POLE
P/0	PART OF
Ŕ	RECEPTACLE LOAD TYPE FOR PANEL SCHEDULE
REC	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METAL CONDUIT
SW	SWITCH
THHN	HEAT RESISTANT THERMOPLASTIC WIRE WITH NYLON JACKET
THWN	MOISTURE & HEAT RESISTANT THERMOPLASTIC WIRE WITH NYLON JACKET
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
V	VOLT
VA	VOLT AMPERE
4 / 1	WATT WIRE

INDICATED: 1. NOTIFY OWNER NO FEWER THAN FOURTEEN DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF FIRE—ALARM SERVICE.

B. NFPA CERTIFICATION: OBTAIN CERTIFICATION ACCORDING TO NFPA 72 BY AN NRTL (NATIONALLY RECOGNIZED TESTING LABORATORY).

A. INSTALLER QUALIFICATIONS: PERSONNEL MUST BE TRAINED AND CERTIFIED BY MANUFACTURER FOR THE REMOVAL AND REINSTALLATION OF

- 2. DO NOT PROCEED WITH INTERRUPTION OF FIRE-ALARM SERVICE WITHOUT OWNER'S WRITTEN PERMISSION.
- E. USE OF DEVICES DURING CONSTRUCTION: PROTECT DEVICES DURING CONSTRUCTION UNLESS DEVICES ARE PLACED IN SERVICE TO PROTECT THE FACILITY DURING CONSTRUCTION.

UNITS AND DEVICES REQUIRED FOR THIS PROJECT. INSTALLATION MUST BE BY PERSONNEL CERTIFIED BY NICET AS FIRE-ALARM LEVEL III TECHNICIAN.

C. PERFORM A FULL TEST OF THE EXISTING SYSTEM PRIOR TO STARTING WORK. DOCUMENT ANY EQUIPMENT OR COMPONENTS NOT FUNCTIONING PROPERLY.
D. INTERRUPTION OF EXISTING FIRE—ALARM SERVICE: DO NOT INTERRUPT FIRE—ALARM SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS

PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY GUARD SERVICE ACCORDING TO REQUIREMENTS

- F. COMPLY WITH NFPA 72, NFPA 101, AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION FOR INSTALLATION AND TESTING OF FIRE—ALARM EQUIPMENT. INSTALL ALL ELECTRICAL WIRING TO COMPLY WITH REQUIREMENTS IN NFPA 70 INCLUDING, BUT NOT LIMITED TO, ARTICLE 760, "FIRE ALARM SYSTEMS."
- G. FIRE ALARM WIRING INSTALLATION: COMPLY WITH NECA 1 AND NFPA 72. FIRE ALARM CIRCUITS AND EQUIPMENT CONTROL WIRING ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN A DEDICATED PATHWAY SYSTEM. THIS SYSTEM SHALL NOT BE USED FOR ANY OTHER WIRE OR CABLE.

 1. CABLES AND PATHWAYS USED FOR FIRE ALARM CIRCUITS, AND EQUIPMENT CONTROL WIRING ASSOCIATED WITH THE FIRE ALARM SYSTEM, MAY NOT CONTAIN ANY OTHER WIRE OR CABLE.
 - 2. SIGNALING LINE CIRCUITS: POWER-LIMITED FIRE ALARM CABLES SHALL NOT BE INSTALLED IN THE SAME CABLE OR PATHWAY AS SIGNALING LINE CIRCUITS.
 - 3. WRING WITHIN ENCLOSURES: SEPARATE POWER-LIMITED AND NON-POWER-LIMITED CONDUCTORS AS RECOMMENDED BY MANUFACTURER. INSTALL CONDUCTORS PARALLEL WITH OR AT RIGHT ANGLES TO SIDES AND BACK OF THE ENCLOSURE. BUNDLE, LACE, AND TRAIN CONDUCTORS TO TERMINAL POINTS WITH NO EXCESS. CONNECT CONDUCTORS THAT ARE TERMINATED, SPLICED, OR INTERRUPTED IN ANY ENCLOSURE ASSOCIATED WITH THE FIRE ALARM SYSTEM TO TERMINAL BLOCKS. MARK EACH TERMINAL ACCORDING TO THE SYSTEM'S WIRING DIAGRAMS. MAKE ALL CONNECTIONS WITH APPROVED CRIMP-ON TERMINAL SPADE LUGS, PRESSURE-TYPE TERMINAL BLOCKS, OR PLUG CONNECTORS.
 - 4. CABLE TAPS: USE NUMBERED TERMINAL STRIPS IN JUNCTION, PULL, AND OUTLET BOXES, CABINETS, OR EQUIPMENT ENCLOSURES WHERE CIRCUIT CONNECTIONS ARE MADE.
- 5. COLOR CODING: COLOR CODE FIRE ALARM CONDUCTORS DIFFERENTLY FROM THE NORMAL BUILDING POWER WIRING. USE ONE COLOR CODE FOR ALARM CIRCUIT WIRING AND ANOTHER FOR SUPERVISORY CIRCUITS. COLOR CODE AUDIBLE ALARM—INDICATING CIRCUITS DIFFERENTLY FROM ALARM—INITIATING CIRCUITS. USE DIFFERENT COLORS FOR VISIBLE ALARM—INDICATING DEVICES. PAINT FIRE ALARM SYSTEM JUNCTION BOXES AND COVERS RED.
- H. FIELD TESTS SHALL BE WITNESSED BY AUTHORITIES HAVING JURISDICTION.
- I. AFTER INSTALLING SALVAGED DEVICES, PERFORM THE FOLLOWING TESTS AND INSPECTIONS WITH THE ASSISTANCE OF A FACTORY—AUTHORIZED SERVICE REPRESENTATIVE:

 1. VISUAL INSPECTION: CONDUCT VISUAL INSPECTION PRIOR TO TESTING. INSPECTION SHALL BE BASED ON COMPLETED RECORD DRAWINGS AND SYSTEM DOCUMENTATION THAT IS REQUIRED BY THE "COMPLETION DOCUMENTS, PREPARATION" TABLE IN THE "DOCUMENTATION" SECTION OF THE "FUNDAMENTALS" CHAPTER IN NFPA 72. COMPLY WITH THE "VISUAL INSPECTION FREQUENCIES" TABLE IN THE "INSPECTION" SECTION OF THE "INSPECTION, TESTING AND MAINTENANCE" CHAPTER IN NFPA 72; RETAIN THE "INITIAL/REACCEPTANCE" COLUMN AND LIST ONLY THE INSTALLED COMPONENTS.
 - 2. SYSTEM TESTING: COMPLY WITH THE "TEST METHODS" TABLE IN THE "TESTING" SECTION OF THE "INSPECTION, TESTING AND MAINTENANCE" CHAPTER IN NFPA 72.
- J. FIRE—ALARM SYSTEM WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS.

INTRUSION DETECTION AND ACCESS CONTROL SYSTEMS NOTES

1. INTRUSION DETECTION INSTALLATION AND TESTING

INSPECTIONS.

A. INSTALLER QUALIFICATIONS: PERSONNEL SHALL BE TRAINED AND CERTIFIED BY MANUFACTURER FOR REMOVAL AND RE-INSTALLATION OF UNITS REQUIRED FOR THIS PROJECT.

WATT, WIRE

WEATHERPROOF

- B. PERFORM A FULL TEST OF THE EXISTING SYSTEM PRIOR TO STARTING WORK.
 DOCUMENT ANY EQUIPMENT OR COMPONENTS NOT FUNCTIONING PROPERLY.
- C. INTERRUPTION OF EXISTING INTRUSION DETECTION AND ACCESS CONTROL SYSTEMS: DO NOT INTERRUPT INTRUSION DETECTION SYSTEM TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY GUARD SERVICE ACCORDING TO REQUIREMENTS INDICATED:
- 1. NOTIFY OWNER NO FEWER THAN FOURTEEN DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF SYSTEMS.
- 2. DO NOT PROCEED WITH INTERRUPTION OF SYSTEM WITHOUT OWNER'S WRITTEN PERMISSION.
- D. AFTER INSTALLING SALVAGED DEVICES, PERFORM TESTS AND INSPECTIONS WITH THE ASSISTANCE OF A FACTORY—AUTHORIZED SERVICE REPRESENTATIVE.
- E. SYSTEM WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND

DALE C.
LINCOLN, II
No. 10443
3/1/24

DRAWN BY: BPD

NO. DATE DESCRIPTION BY CHECK BY: DCL

DATE 03/01/24

REVISIONS

STATE OF MAINE BGS

TITLE MAINE STATE POLICE CRIME LAB, HVAC UPGRADES

LOCATION AUGUSTA, MAINE BGS PROJECT #: PT3376

ELECTRICAL SYMBOLS, ABBREVIATIONS,
AND GENERAL NOTES

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14 of 16

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