MTA AIR HANDLER REPLACEMENTS

YORK & GARDINER MAINTENANCE FACILITIES

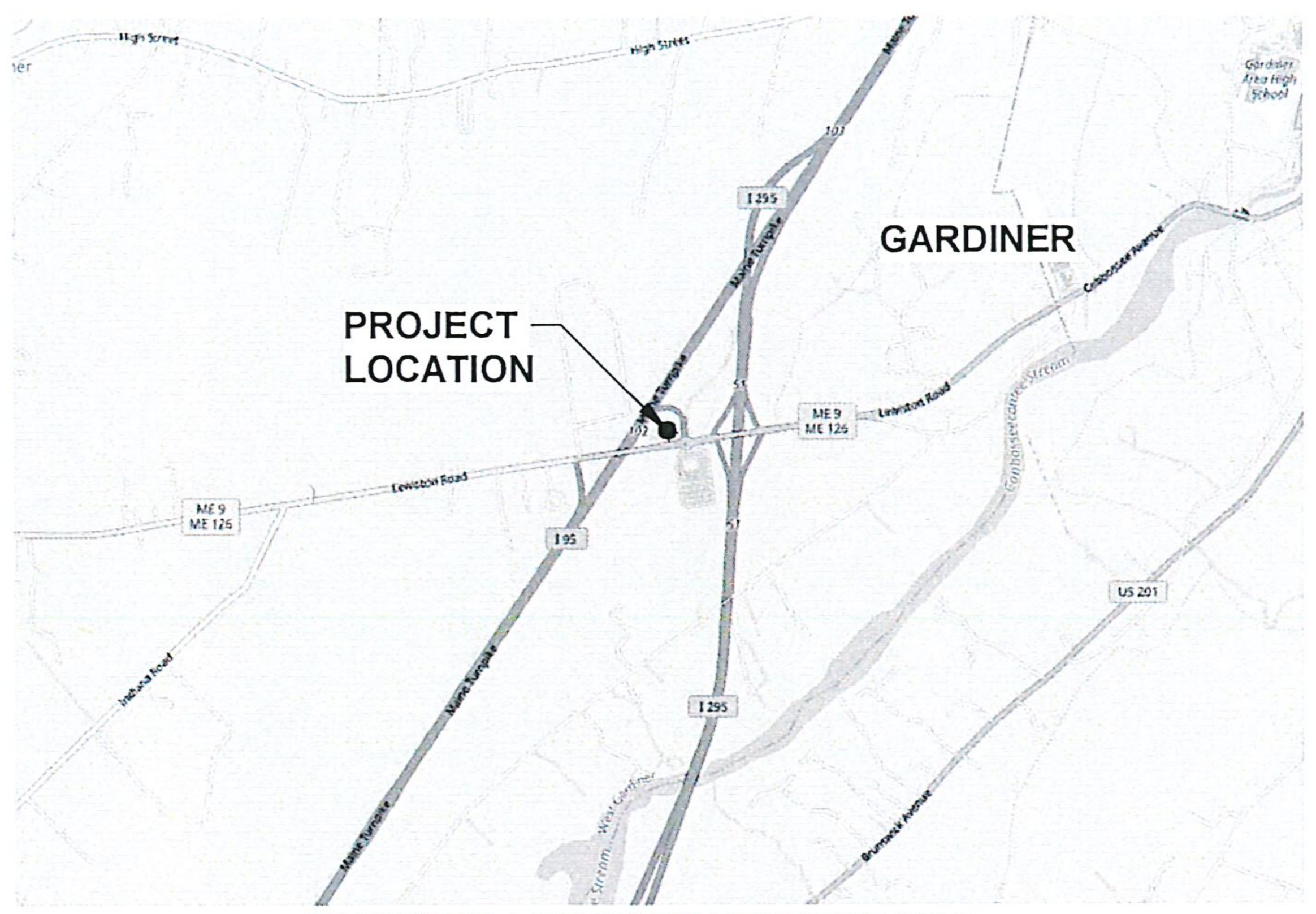
MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

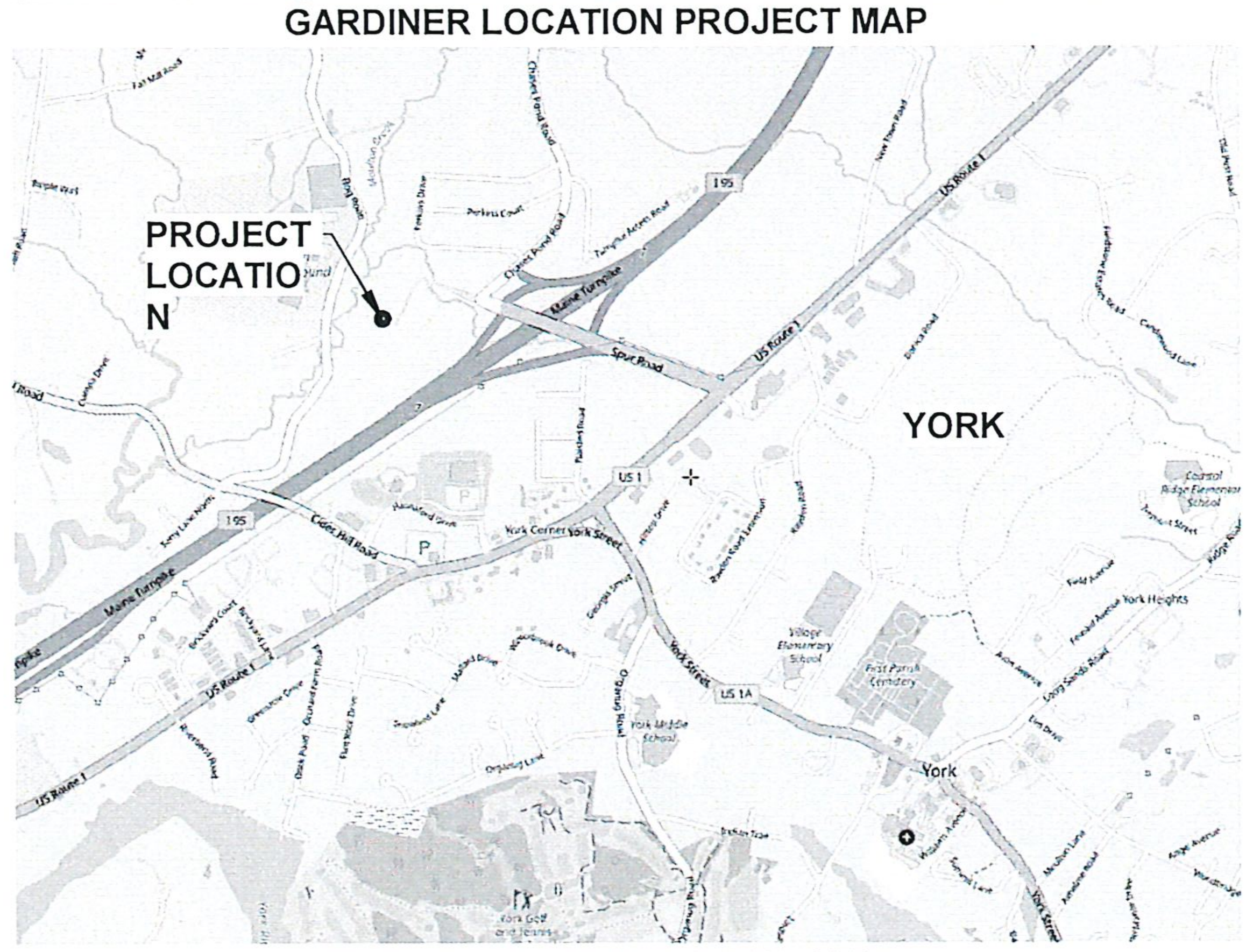
YORK & GARDINER, MAINE

CONTRACT: 2026.13

ISSUED FOR BID
SEPTEMBER 22, 2025



GARDINER LOCATION PROJECT MAP



YORK LOCATION PROJECT MAP

DRAWINGS		ISSUE DATE	5/16/2025	6/26/2025	8/29/2025	9/22/2025				
SHEET No.	SHEET TITLE	DESCRIPTION	DD SET	75% PS&E	100% PS&E	ISSUED FOR BID				
G-000	COVER SHEET			•	•	•				
MH-000	MECHANICAL NOTES, LEGEND AND ABBREVIATIONS		•	•	•	•				
MH-100	MECHANICAL PLANS - YORK		•	•	•	•				
MH-101	MECHANICAL PLANS -YORK		•	•	•	•				
MH-102	MECHANICAL PLANS - GARDINER		•	•	•	•				
MH-103	MECHANICAL PLANS - GARDINER		•	•	•	•				
MH-500	MECHANICAL SCHEDULES		•	•	•	•				
E-000	ELECTRICAL NOTES		•	•	•	•				
E-001	ELECTRICAL LEGEND		•	•	•	•				
E-100	ELECTRICAL GARDINER PLAN		•	•	•	•				
E-101	ELECTRICAL YORK PLAN		•	•	•	•				
E-500	ELECTRICAL DETAILS		•	•	•	•				
E-600	ELECTRICAL SCHEDULES		•	•	•	•				

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APPROVED:
MAINE TURNPIKE AUTHORITY

Stephen R. Tartre 9/23/25

STEPHEN R. TARTRE, P.E., - CHIEF ENGINEER/DIRECTOR OF ENGINEERING   DATE

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ANTHONY S. DAVIS
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LICENSED PROFESSIONAL ENGINEER

STATE OF MAINE
BRIAN T. GARDNER
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12x8S — DUCTWORK ~ FIRST DIMENSION IS SIDE SHOWN IN INCHES
S= SUPPLY, R= RETURN,
E= EXHAUST AIR, OA= OUTSIDE AIR
F.O. = FLAT OVAL

ACCOUSTICAL LINING (DUCT DIMENSION FOR NET FREE AREA)

DUCTWORK TO BE REMOVED

SINGLE LINE DUCTWORK TO BE REMOVED

DUCT TRANSITION

SQUARE TO ROUND DUCT TRANSITION

FLEX DUCT ~ DOUBLE LINE

FLEX DUCT ~ SINGLE LINE

UP — CHANGE IN ELEVATION - UP, DOWN, RISE OR DROP

SUPPLY DUCT TURNED UP / DN

RETURN DUCT TURNED UP / DN

EXHAUST DUCT TURNED UP / DN

ROUND DUCT TURNED UP / DN

MITERED DUCT ELBOW w/ TURNING VANES

RADIUS DUCT ELBOW

DUCT / PIPE CAP- SINGLE / DOUBLE LINE

VOLUME DAMPER

FIRE DAMPER — FD

SMOKE DAMPER — SD

FIRE AND SMOKE DAMPER — FSD

BACKDRAFT DAMPER — BDD

M — MOTORIZED DAMPER

FLEXIBLE CONNECTION

T — TEMPERATURE SENSOR OR THERMOSTAT (AS SPECIFIED)

H — HUMIDISTAT OR HUMIDITY SENSOR (AS SPECIFIED)

Co2 — CARBON DIOXIDE SENSOR

Co — CARBON MONOXIDE SENSOR

AP — ACCESS PANEL

DSD — DUCT SMOKE DETECTOR

EF- — ROOFTOP EXHAUST FAN

SF- — ROOFTOP SUPPLY FAN

CEILING DIFFUSER ~ 4-WAY BLOW

CEILING DIFFUSER ~ 3-WAY BLOW

CEILING DIFFUSER ~ 2-WAY BLOW

CEILING DIFFUSER ~ CORNER BLOW

CEILING RETURN GRILLE

CEILING EXHAUST GRILLE

POINT OF CONNECTION - EXISTING TO NEW

DIRECTION OF AIR FLOW

REGISTER, GRILLE & DIFFUSER TAG
S1 / 1 / 100
- DIFFUSER, REGISTER OR GRILLE No.
- QUANTITY
- CFM AIR FLOW

FINTUBE TAG
FT-1 / 8'-0" / 2.1
- FINTUBE No.
- LENGTH
- GPM

VAV TAG
VAV-1 / 100 / 350 / 2.1
- VAV No.
- MINIMUM CFM
- MAXIMUM CFM
- GPM

EQUIPMENT TAG
AHU / 1
- TYPE DESIGNATOR
- NUMBER

EQUIPMENT TAG (ON FLOOR/ROOF ABOVE)
AHU / 1
- TYPE DESIGNATOR
- NUMBER

DETAIL REFERENCE SYMBOL
A1 / MH-100
- DETAIL No.
- SHEET DETAIL LOCATED ON

SECTION REFERENCE SYMBOL
A1 / MH-500
- SECTION No.
- SHEET SECTION LOCATED ON

E1 SYMBOLS LEGEND

NONE

A1 PIPING LINETYPE LEGEND

AW	ACID WASTE
ATV	AIR RELIEF
BBD	BOILER BLOWDOWN
C	CONDENSATE (HVAC DRAIN PAN)
CA	COMPRESSED AIR
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CTR	COOLING TOWER RETURN
CTS	COOLING TOWER SUPPLY
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
–	DOMESTIC COLD WATER
– – –	DOMESTIC HOT WATER
– – – –	DOMESTIC HOT WATER RECIRC.
D	DRAIN
FM	PUMP FORCE MAIN
FOF	FUEL OIL FILL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL TANK VENT
FW	FEEDWATER
GR	GLYCOL RETURN
GS	GLYCOL SUPPLY
GV	GREASE LADEN VENT
GW	GREASE LADEN WASTE
GWR	GEOTHERMAL WATER RETURN
GWS	GEOTHERMAL WATER SUPPLY
H	HUMIDIFICATION LINE
H2	HYDROGEN GAS
HCR	HEAT/COOL RETURN
HCS	HEAT/COOL SUPPLY
HPWR	HEAT PUMP WATER RETURN
HPWS	HEAT PUMP WATER SUPPLY
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HTWR	HIGH-TEMP HOT WATER RETURN
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IND	INDUSTRIAL WASTE
IW	INDIRECT WASTE
LN	LIQUID NITROGEN
LOX	LIQUID OXYGEN
LP	LIQUID PETROLEUM GAS
LPR	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
MA	MEDICAL AIR
MPR	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
MUW	MAKE-UP WATER
N2	NITROGEN
NG	NATURAL GAS
NO	NITROUS OXIDE
NPW	NON-POTABLE WATER
OX	OXYGEN
PC	PUMPED CONDENSATE
PCWR	PROCESS COLD WATER RETURN
PCWS	PROCESS COLD WATER SUPPLY
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RO	REVERSE OSMOSIS WATER
RW	RAIN WATER - ABOVE FLOOR
RW	RAIN WATER - BELOW GRADE
RWO	RAIN WATER OVERFLOW - ABOVE FLOOR
RWO	RAIN WATER OVERFLOW - BELOW GRADE
SP	SPRINKLER MAIN PIPING
SWR	SOLAR WATER RETURN
SWS	SOLAR WATER SUPPLY
– – – TP – – –	TRAP PRIMER - ABOVE FLOOR
– – – TP – – –	TRAP PRIMER - BELOW GRADE
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
– – – V – – –	SANITARY SOIL VENT - ABOVE FLOOR
– – – V – – –	SANITARY SOIL VENT - BELOW GRADE
VAC	VACUUM (AIR)
VC	VACUUM CLEANING (HOUSE)
VPD	VACUUM PUMP DISCHARGE
W	SANITARY SOIL WASTE - ABOVE FLOOR
– – W – –	SANITARY SOIL WASTE - BELOW GRADE
WV	SANITARY WET VENT - ABOVE FLOOR
– – WV – –	SANITARY WET VENT - BELOW GRADE

NONE

A5 ABBREVIATIONS

AAV	AUTOMATIC AIR VENT
AC	ABOVE CEILING
ACC	AIR COOLED CONDENSER
ACU	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
AD	ACCESS DOOR
AE	ACID EXHAUST
AW	ACID WASTE
AFF; A.F.F.	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
APPROX.	APPROXIMATE; APPROXIMATELY
APMR	AS PER MFR'S RECOMMENDATIONS
ATC	AUTOMATIC TEMPERATURE CONTROL
AV	AIR VENT
BC	BALANCING COCK
BDD	BACKDRAFT DAMPER
BG	BLAST GATE
BF	BARRIER FREE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
B.T.U.; BTU	BRITISH THERMAL UNIT
CONV.	CONVECTOR
CCW	COUNTER CLOCKWISE
CFF	CAPPED FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CO	CLEANOUT
CM	CONSTRUCTION MANAGER
CNTR	COUNTER; COUNTER TOP
CONN	CONNECT; CONNECTION
CONT.	CONTINUE; CONTINUATION
COORD.	COORDINATE
CORR	CORRIDOR
CR	CHEMICAL RESISTING
CT	COOLING TOWER
CTE	CONNECT TO EXISTING
CTR	CENTER
CTRLN	CENTERLINE
CU	COPPER; CONDENSING UNIT
CUH	CABINET UNIT HEATER
C.V.	CONTROL VALVE
CW	COLD WATER; CLOCKWISE
DB	DRY BULB TEMPERATURE
DC	DOUBLE CONTAINED
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DIA	DIAMETER
DIC	DOWN IN CHASE
DIW	DOWN IN WALL
DN	DOWN
DS	DOWNSPOUT
DT	DROP AND TRANSITION
DV	DRAIN VALVE
DWG	DRAWING
E	EXHAUST AIR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ELEV	ELEVATION
ELONG	ELONGATE
ENC	ENCLOSURE
ER	EXHAUST REGISTER
ERU	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
(E)	EXISTING
F&T	FLOAT AND THERMOSTATIC
FBO	FURNISHED BY OTHERS
FBP	FACE AND BYPASS
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEANOUT
FD-#	FLOOR DRAIN TAG
FD	FIRE DAMPER
FDC	FIRE DEPT. CONNECTION
FIN	FINISH
FL; FLR	FLOOR
FP	FROST/FREEZE PROOF
FTG	FOOTING
FTR	FINNED TUBE RADIATION
FS	FLOW SWITCH
FM	FORCE MAIN
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GRV	GRAVITY ROOF VENTILATOR
H	HUMIDIFIER
HB	HOSE BIBB
HC; HDC	HANDICAP ACCESS
HGT; HT	HEIGHT
HP	HEAT PUMP
HRU	HEAT RECOVERY UNIT
HTR	HEATER
H&V	HEATING AND VENTILATION
HVAC	HEATING, VENTILATING AND AIR COND.
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
ID	INSIDE DIAMETER
IN WG	INCHES WATER GAUGE
INCL.	INCLUDING
INV. EL.	INVERT ELEVATION
IPS	IRON PIPE SIZE
KE-#	KITCHEN EQUIPMENT NUMBER
LD	LINEAR DIFFUSER
LE-#	SCIENCE LAB EQUIPMENT NUMBER
LP	LIQUID PETROLEUM GAS
LPR	LOW PRESSURE STEAM RETURN
LPS	LOW PRESSURE STEAM SUPPLY
MAX	MAXIMUM
MBH	1000 BTUH/hr.
MFR	MANUFACTURER
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
MPG	MEDIUM PRESSURE GAS
MPV	MULTI-PURPOSE VALVE
MTD	MOUNTED
MTG	MOUNTING
MUA	MAKE UP AIR
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
P-#	PLUMBING FIXTURE TAG
PD	PUMPED DISCHARGE
PP	PROCESS PIPING
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
R	RETURN AIR
RD	ROOF DRAIN
REC	RECOMMENDATION
REG	REGULAR
RF	RETURN FAN
RG	RETURN GRILLE
RHC	REHEAT COIL
RM	ROOM
RPZ	REDUCED PRESSURE BFP
RR	RETURN REGISTER
RV	RELIEF VALVE
RW	RAIN WATER
S	SUPPLY AIR
SA-" "	SHOCK ABSORBER OF PDI SIZE (" ") AS INDICATED
SCV	SELF-CONTAINED VALVE
SD	SMOKE DAMPER
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SGL	SINGLE
SHT	SHEET
SPLR	SPRINKLER
SQ. FT; SF	SQUARE FEET
SR	SUPPLY REGISTER
S/O	SHUT-OFF
S.S.	STAINLESS STEEL
TD	TRENCH DRAIN
TG	TRANSFER GRILLE
TOD	TOP OF DUCT
TP	TRAP PRIMER
TSP	TOTAL STATIC PRESSURE
TTS	TIGHT TO STEEL
TV	TURNING VANE
TW	TEMPERED WATER
TYP	TYPICAL
UH	UNIT HEATER
UIC	UP IN CHASE
UIW	UP IN WALL
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCFF	VALVE & CAP FOR FUTURE
VD	VOLUME DAMPER - MANUAL
VLV	VALVE
VS	VENT STACK
VTR	VENT TO ROOF
W	WASTE
W/	WITH
WB	WET BULB TEMPERATURE, °F
WCO	WALL CLEANOUT
WH	WATER HEATER
WHYD	WALL HYDRANT
Ø	DIAMETER
@	AT
&	AND
%	PERCENT

NOTE

ALL GENERAL NOTES, SYMBOL LEGENDS AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING AND HVAC DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

Scale: AS INDICATED

Designed by:

STATE OF MAINE — ANTHONY S. DAVIS No. 8834 — LICENSED PROFESSIONAL ENGINEER

ISSUED FOR BID - SEPTEMBER 22, 2025

No.	Revision	By	Date

	By	Date		By	Date
Designed:	SCL	9/22/2025	Checked:		9/22/2025
Drawn:	SCL	9/22/2025			

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AEI PROJ.NO.:2561-00002 | CAD FILE: 2561-00002.RVT

MAINE TURNPIKE

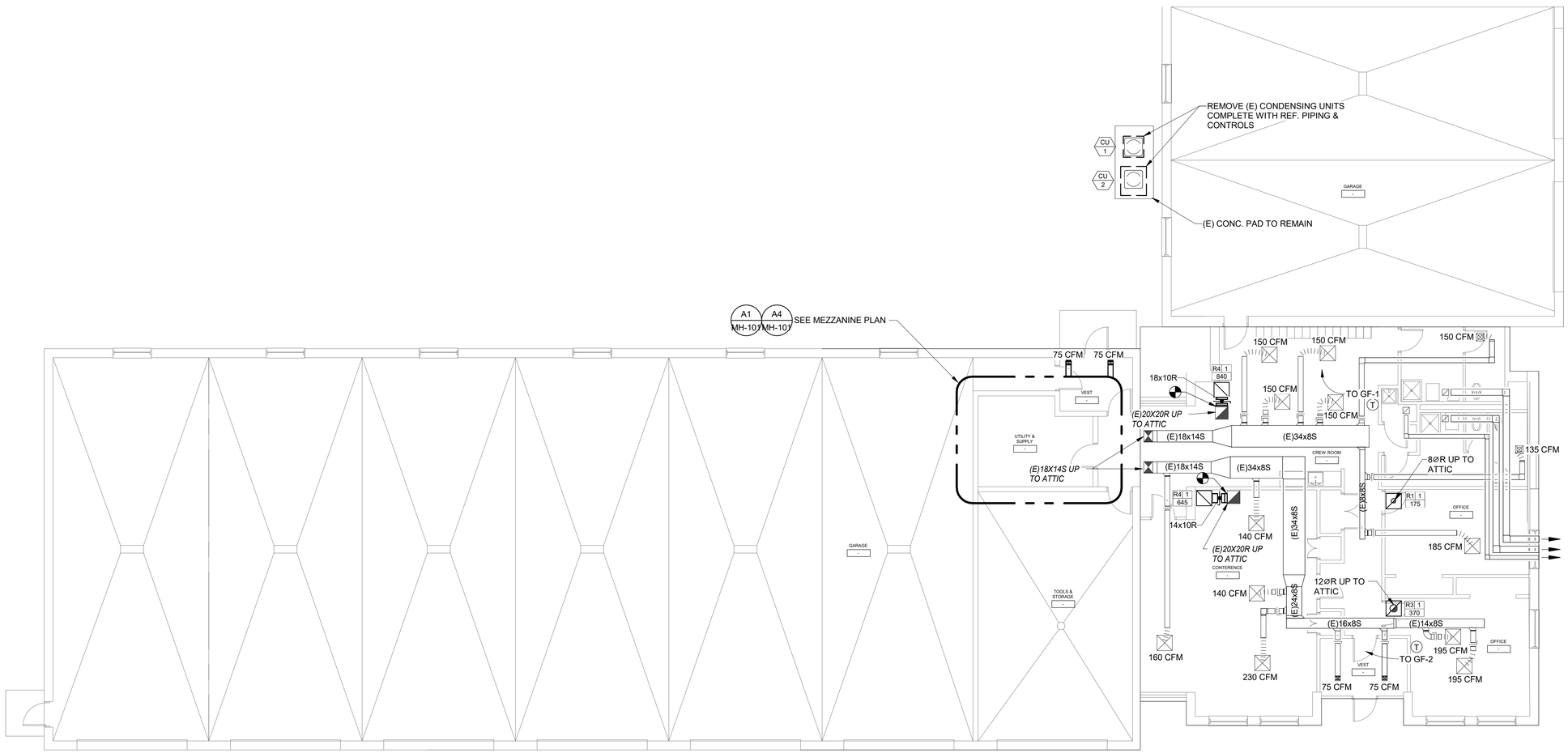
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
MECHANICAL NOTES, LEGEND AND ABBREVIATIONS

SHEET NUMBER: MH-000

CONTRACT: 2026.13.



A1	MECHANICALFIRST FLOOR PLAN - YORK
1/8" = 1'-0"	

Scale: AS INDICATED

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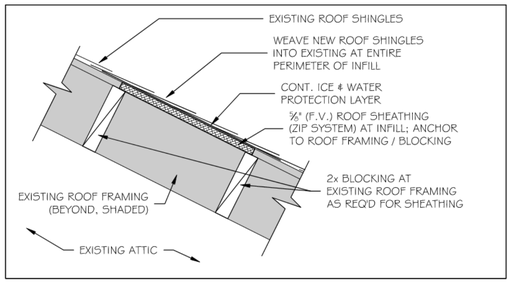
YORK AND GARDINER MAINTENANCE FACILITIES
MECHANICAL PLANS - YORK

CONTRACT: 2026.13.

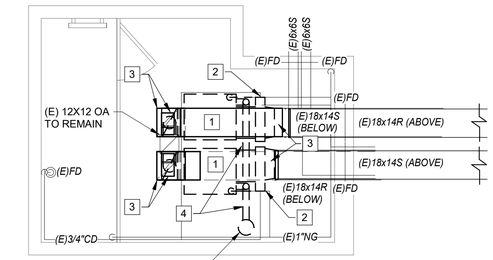
SHEET NUMBER: MH-100



C1	ROOF INFILL DETAIL
NONE	

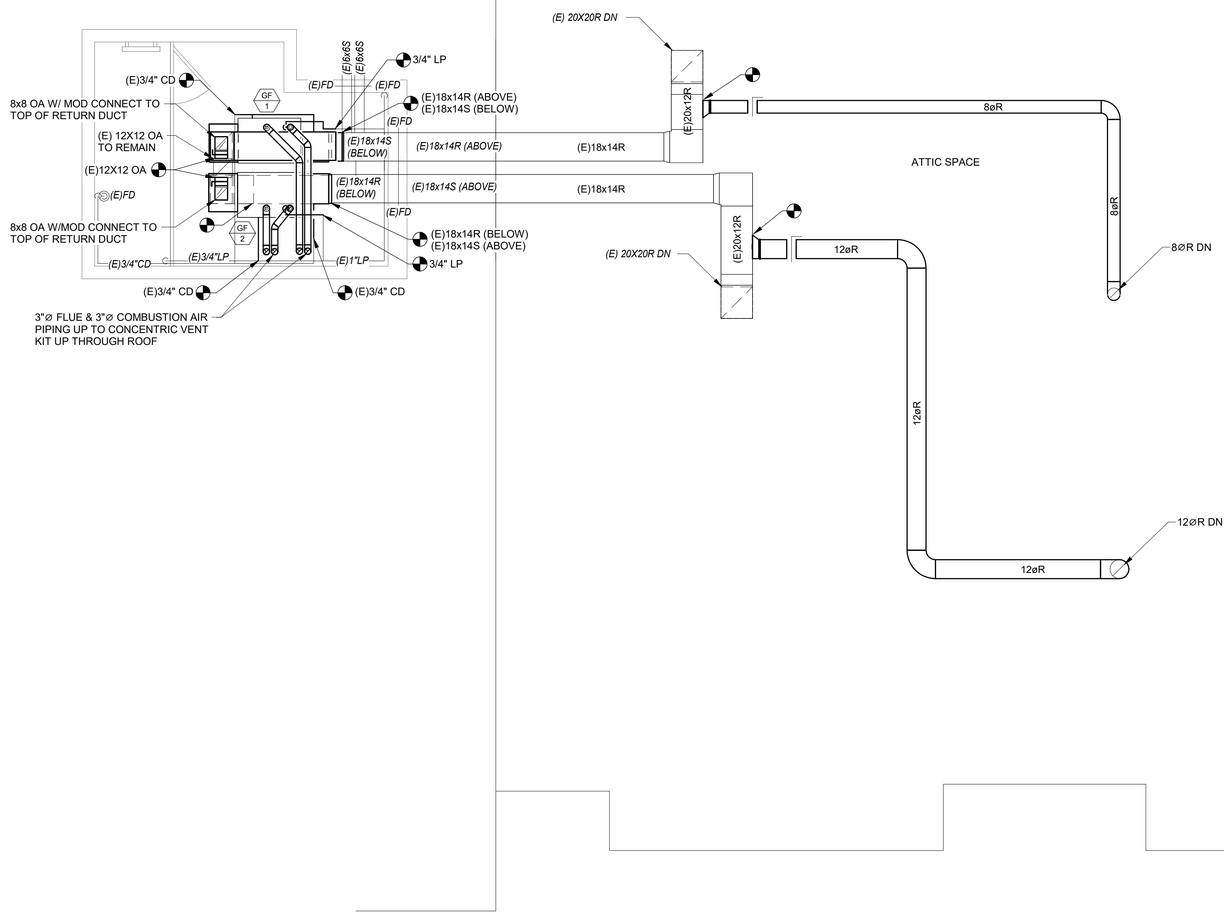
DEMOLITION KEY NOTES:

1. REMOVE (E) GAS FURNANCE COMPLETE WITH DUCTWORK, GAS PIPING, FLUE AND CONTROLS.
2. REMOVE (E) DX COIL COMPLETE WITH DUCTWORK, REF. PIPING, CONDENSATE PIPING AND CONTROLS.
3. REMOVE (E) DUCTWORK AS INDCATED.
4. REMOVE (E) FLUE AS INDCATED.



C1 / MH-101 — REMOVE (E) 10ø FLUE UP THROUGH ROOF SEE ROOF INFILL DETAIL

A1	MECHANICAL DEMOLITION MEZZANINE PLAN - YORK
1/4" = 1'-0"	



A4	MECHANICAL MEZZANINE & ATTIC PLAN - YORK
1/4" = 1'-0"	

Scale: AS INDICATED

Designed by:

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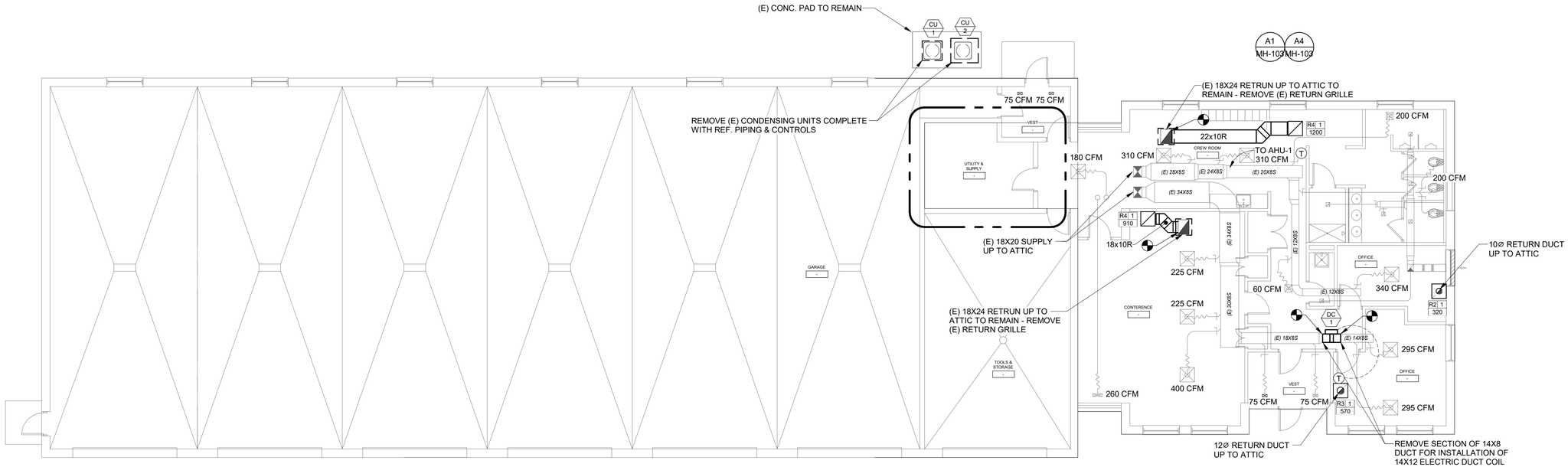
AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
MECHANICAL PLANS -YORK

SHEET NUMBER: MH-101

CONTRACT: 2026.13.



A1	MECHANICAL FIRST FLOOR PLAN - GARDINER
1/8" = 1'-0"	

Scale: AS INDICATED

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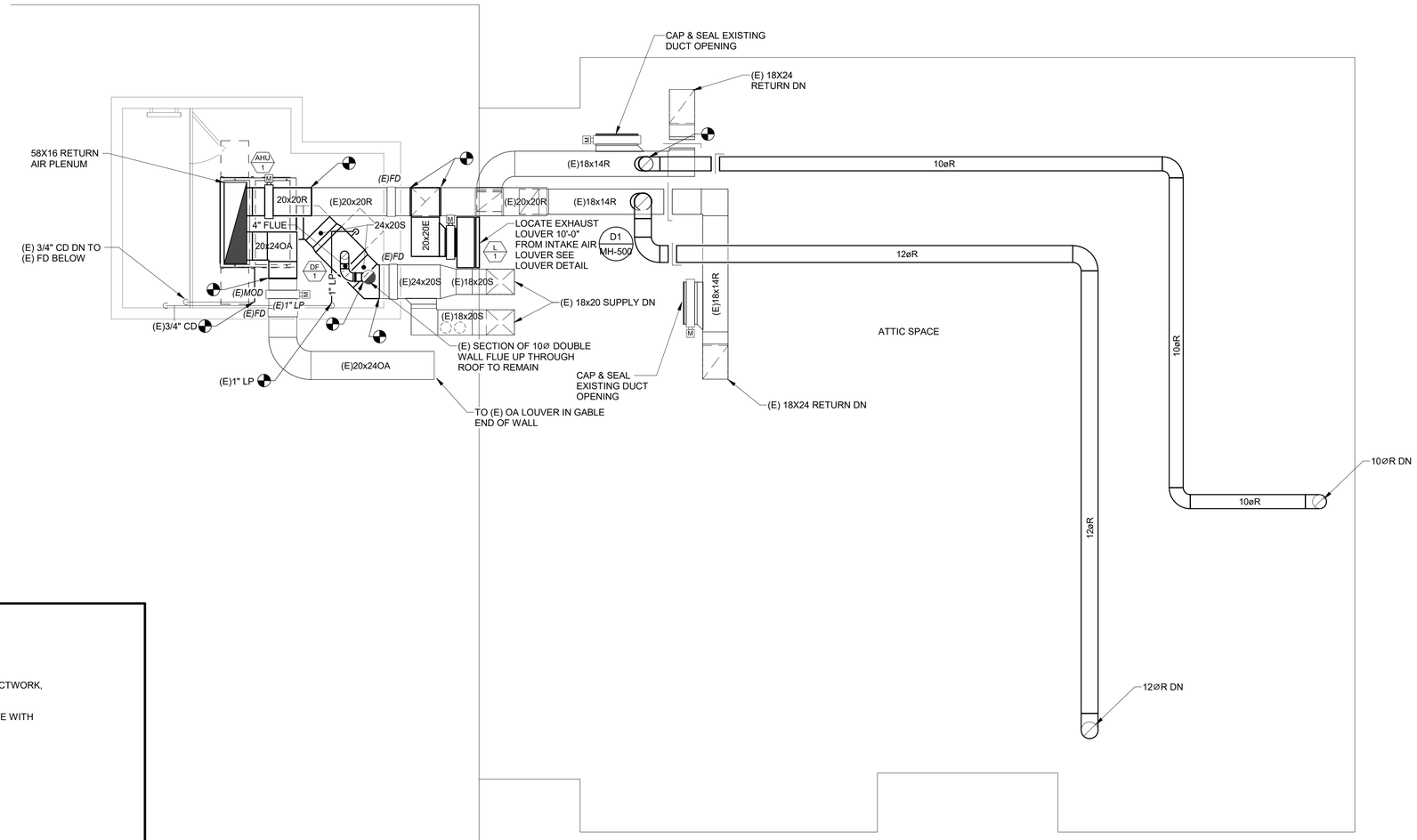
YORK AND GARDINER MAINTENANCE FACILITIES
MECHANICAL PLANS - GARDINER

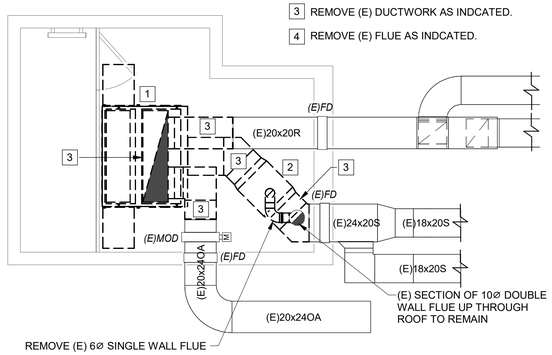
SHEET NUMBER: MH-102

CONTRACT: 2026.13.



DEMOLITION KEY NOTES:

1. REMOVE (E) AIR HANDLER UNIT COMPLETE WITH DUCTWORK, REF. PIPING, CONDENSATE PIPING AND CONTROLS.
2. REMOVE (E) IN-LINE DUCT GAS FURNANCE COMPLETE WITH DUCTWORK, GAS PIPING, FLUE AND CONTROLS.
3. REMOVE (E) DUCTWORK AS INDCATED.
4. REMOVE (E) FLUE AS INDCATED.



A1	MECHANICAL DEMOLITION MEZZANINE PLAN - GARDINER	A4	MECHANICAL MEZZANINE & ATTIC PLAN - GARDINER
1/4" = 1'-0"		1/4" = 1'-0"	

Scale: AS INDICATED

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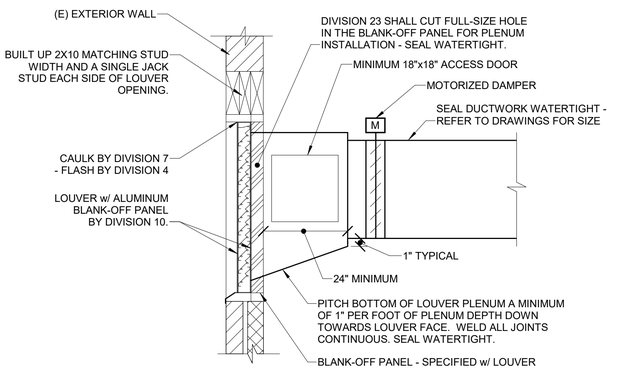
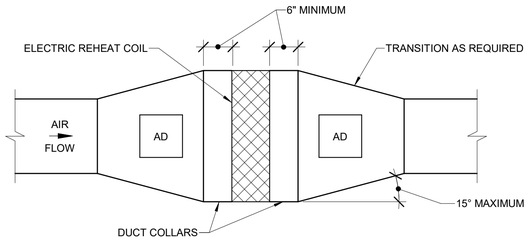
YORK AND GARDINER MAINTENANCE FACILITIES
MECHANICAL PLANS - GARDINER

SHEET NUMBER: MH-103

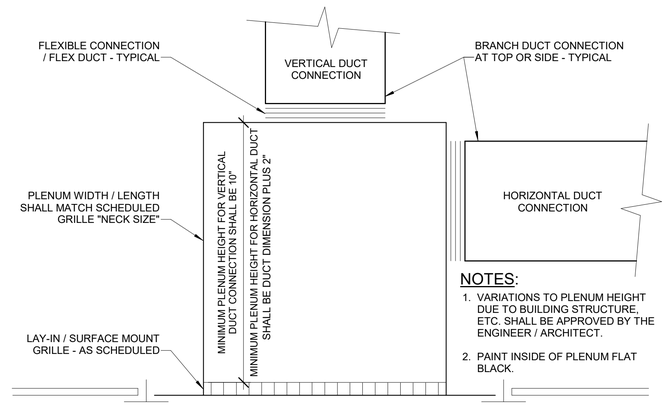
CONTRACT: 2026.13.



D1	EXTERIOR LOUVER
NONE	



C1	REHEAT COIL DUCT CONNECTION
NONE	



A1	RETURN AIR REGISTER BOOT
NONE	

GAS FURNACE UNIT SCHEDULE - YORK

GENERAL	UNIT NO.	**GF-1**	**GF-2**
	SERVES	**OFFICE**	**OFFICE**
	MANUFACTURER	TRANE S9X2B040U3PSB	TRANE S9X2B040U3PSB
	SIZE H X W X D	35-1/2" X 19-1/2" X 30-7/8"	35-1/2" X 19-1/2" X 30-7/8"
	WEIGHT (LBS)	122	122
ELECTRICAL	VOLTAGE	120/1/60	120/1/60
	MCA	8.8	8.8
	MOP	15	15
	VFD'S FURNISHED BY	-	-
	DISCONNECT SW. FURN BY	DIV. 26	DIV. 26
	SMOKE DETECTOR (SD)	-	-
	SD FURN BY	-	-
	SD INSTALLED IN DUCT BY	-	-
	SD WIRED TO HVAC...	-	-
	SD WIRED TO FIRE ALARM BY	-	-
FILTER	FILTER TYPE	1" MERV 8	1" MERV 8
GAS HEAT	STAGE	2	2
	INPUT BTUH	40,000	40,000
	OUTPUT BTUH	38,800	38,800
	AFUE	96%	96%
	FLUE SIZE	3" DIA	3" DIA
	COMBUSTION AIR	3" DIA	3" DIA
	GAS	LP	LP
FAN	TYPE	DIRECT DRIVE	DIRECT DRIVE
	FAN QUANITY	1	1
	CFM STD. AIR	**1,200**	**1,200**
	MIN. OA CFM	285	285
	ESP, in.wc.	.7"	.7"
	TSP, in. wc.	1.0"	1.0"
	FAN RPM	706	706
	MOTOR HP	0.5	0.5
	MOTOR EFFICIENCY	PREMIUM	PREMIUM
DX COIL CASED	MANUFACTURER	TRANE 5TXCB004AS3	TRANE 5TXCB004AS3
	TMBTUH	33.8	33.8
	SMBTUH	26.3	26.3
	WEIGHT (LBS)	58	58
	LINE SIZE - GAS	7/8"	7/8"
	LINE SIZE - LIQUID	3/8"	3/8"
	CASE SIZE H X W X D	22-1/2" X 17-1/2" X 21-1/2"	22-1/2" X 17-1/2" X 21-1/2"

CONDENSING UNIT SCHEDULE - YORK

UNIT	**CU-1**	**CU-2**
SERVES	GF-1	GF-2
MANUFACTURER	TRANE	TRANE
MODEL	5TTR4036A1	5TTR4036A1
EER - AT AHRI	11.7	11.7
NOMINAL CAPACITY, TONS	3	3
NET TOTAL CAPACITY, MBH	33.8	33.8
NET TOTAL CAPACITY, TONS	2.8	2.8
AMBIENT	95F	95F
SAT. SUCTION TEMP.	45F	45F
WEIGHT, LBS.	156	156
LENGTH	33"	33"
WIDTH	30	30
HEIGHT	38"	38"
REFRIGERANT	R454B	R454B
LIQUID LINE SIZE	5/16"	5/16"
SUCTION LINE SIZE	7/8"	7/8"
POWER SUPPLY	208-230 / 1 / 60	208-230 / 1 / 60
MCA	18	18
MOP	30	30

PROVIDE:
1. PROVIDE ACCESSORIES AS PER SPEC. 236200
2. DISCONNECT SWITCH PROVIDED BY DIV. 26

LOUVER SCHEDULE

TAG	MFR.	MODEL	AIR SYSTEM	CFM	DIMENSIONS						WATER PENETRATION (NOTE 1) FPM	MAX P.D. IN. W.C.	SCREEN	NOTES
					WIDTH (IN.)	HEIGHT (IN.)	MIN. FREE AREA...	GROSS VEL. (FPM)	FREE AREA VEL....	% FREE AREA				
L-1	AMERICAN WARMING & VENTILATING	LE-53	EXHAUST	3,600	36	24	2.24	600	1,607	37.3%	1,250	0.10"	INSECT	1

NOTES
1. BEGINNING POINT OF WATER PENETRATION AT 0.01 OZ./SF , FREE AREA VELOCITY.

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE

TAG	MFR.	MODEL	TYPE	NECK SIZE	FACE SIZE	MAX CFM	MAX TOTAL P.D. (IN.W.C.)	MAX NC LEVEL	BLOW	NOTES
R-1	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	22" X 22"	23.75" X 23.75"	220	0.05"	20	-	8" DIA RUNOUT
R-2	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	22" X 22"	23.75" X 23.75"	360	0.05"	20	-	10" DIA RUNOUT
R-3	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	22" X 22"	23.75" X 23.75"	600	0.05"	20	-	12" DIA RUNOUT
R-4	PRICE	530	STEEL RETURN, 3/4" SPACING, 45 DEG VANES	22" X 22"	23.75" X 23.75"	1,200	0.05"	21	-	SEE PLANS

GAS FIRED DUCT FURNACE SCHEDULE - GARDINER

TAG	MFR. -MODEL	SIZE	TYPE	FLUE SIZE	UNIT SIZE W X L X H	WEIGHT	INPUT MBH	OUPUT MBH	APD	MIN./MAX. TEMP RISE	CFM	ELECT	GAS PIPE SIZE
DF- 1	TRANE GLPD	15	HIGH EFFICIENCY DUCT FURNACE	4"	26" X 20-5/8" X 36"	197	150.0	120	0.75	30-80	3600	120-1-60	1/2"

NOTES:
1. LP MIN. - MAX GAS PRESSURE 11.0" - 14.0" WC

ELECTRIC DUCT HEATING COIL SCHEDULE - GARDINER

TAG	MANUFACTURER - MODEL	SERVES	AIRFLOW	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MAX APD	BTUH	KW	AMPS	VOLT / PH
DC-1	GREENHECK IDHE	AHU-1	590	14	12	506	60	85	0.2"	16,000	4.7	20.0	240/1

NOTES:
1. Provide SCR Heating Control
2. Provide disconnect switch.
3. Accessories: Airflow switch, spacethermostat and transformer with primary fusing.
4. Coordinate control box location - LH or RH for proper maintenance access.

AIR HANDLING UNIT SCHEDULE - GARDINER

GENERAL	UNIT NO.	**AHU-1**
	SERVES	**OFFICE**
	MANUFACTURER	TRANE TWE090K1BA
	WEIGHT (LBS)	373
ELECTRICAL	VOLTAGE	208-230/1/60
	MCA	10
	MOP	15
	VFD'S FURNISHED BY	-
	DISCONNECT SW. FURN BY	DIV. 26
	SMOKE DETECTOR (SD)	YES
	SD FURN BY	DIV 26
	SD INSTALLED IN DUCT BY	DIV 23
	SD WIRED TO HVAC CONTROLS BY	DIV 23
	SD WIRED TO FIRE ALARM BY	DIV 26
FILTER	FILTER TYPE	2" MERV 13
DX COIL	CIRCUTS	2
	ENT. AIR, DB/WB	80.0 / 67.0
	TMBTUH	99.9
	SMBTUH	81.0
	TYPE	DIRECT DRIVE PLENUM FAN
	FAN QUANITY	1
	CFM STD. AIR	**3,600**
FAN	MIN. OA CFM	600
	ESP, in.wc.	.5"
	TSP, in. wc.	1.5"
	FAN RPM	706
	MAX-BHP	1.4
	MOTOR HP	2
	MOTOR EFFICIENCY	PREMIUM
	STARTER OR VFD	VFD

CONDENSING UNIT SCHEDULE - GARDINER

UNIT	**CU-1**	**CU-2**
SERVES	AHU-1	
MANUFACTURER	TRANE	TRANE
MODEL	5TTR5048A1	5TTR5048A1
EER - AT AHRI	11.7	11.7
NOMINAL CAPACITY, TONS	4.0	4.0
NET TOTAL CAPACITY, MBH	48	48
NET TOTAL CAPACITY, TONS	4.0	4.0
AMBIENT	95F	95F
SAT. SUCTION TEMP.	45F	45F
WEIGHT, LBS.	257	257
LENGTH	38	38
WIDTH	35	35
HEIGHT	50.5"	50.5"
REFRIGERANT	R454B	R454B
LIQUID LINE SIZE	5/16"	5/16"
SUCTION LINE SIZE	7/8"	7/8"
POWER SUPPLY	208-230 / 1 / 60	208-230 / 1 / 60
MCA	26	26
MOP	45	45

PROVIDE:
1. PROVIDE ACCESSORIES AS PER SPEC. 236200
2. DISCONNECT SWITCH PROVIDED BY DIV. 26

A5	MECHANICAL SCHEDULES
NONE	

Scale: AS INDICATED

No.	Revision	By	Date

Designed by:

ISSUED FOR BID - SEPTEMBER 22, 2025

	By	Date		By	Date
Designed:	SCL	9/22/2025	Checked:	ASD	9/22/2025
Drawn:	SCL	9/22/2025			

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

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AEI PROJ.NO.:2561-00002 | CAD FILE: 2561-00002.RVT

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
MECHANICAL SCHEDULES

SHEET NUMBER: MH-500

CONTRACT: 2026.13.

PROJECT NOTES

1. THE SCOPE OF WORK SHALL INCLUDE PROVIDING ALL WORK INDICATED UNLESS OTHERWISE SPECIFICALLY INDICATED AS EXISTING OR WORK BY OTHERS, AND COORDINATION WITH ALL TRADES SCOPE OF WORK AS INDICATED ON THE CONTRACT DOCUMENTS INCLUDING BOTH THE DRAWINGS AND THE SPECIFICATIONS, WHICH ARE COMPLIMENTARY. WORK REQUIREMENTS INDICATED IN ANY CONTRACT DOCUMENT SHALL BE CONSIDERED PART OF THE SCOPE OF WORK, UNLESS SPECIFICALLY INDICATED AS EXISTING OR WORK BY OTHERS.
2. IN GENERAL, WORK REQUIREMENTS ARE NOT INDICATED IN BOTH DOCUMENTS. WHERE DOCUMENTS CONFLICT WITHIN THEMSELVES OR WITH CODES AND REGULATIONS. PROVIDE THE HIGHER QUANTITY AND QUALITY AND FOLLOW THE STRICTER REQUIREMENTS.
3. WORK AT A MINIMUM SHALL BE IN ACCORDANCE WITH OSHA, NFPA STANDARDS, THE ELECTRICAL CODE AND THE LOCAL GOVERNING AUTHORITIES. THE DRAWINGS AND SPECIFICATIONS DO NOT ATTEMPT TO INDICATE ALL WORK REQUIRED BY CODE AND AUTHORITIES. DO NOT INSTALL WORK THAT DOES NOT MEET THE MINIMUM REQUIREMENTS. IF NECESSARY, REQUEST CLARIFICATION FROM ARCHITECT AND ENGINEER BEFORE PROCEEDING.
4. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND PROFESSIONAL MANNER. RECTILINEAR TO BUILDING STRUCTURE.
5. ALL COMPONENTS SHOWN ON THE RISER DIAGRAMS OR DETAILS, BUT NOT ON THE PLAN OR VICE VERSA SHALL BE INCLUDED AS IF SHOWN ON BOTH.
6. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE A WORKING INSTALLATION IN EVERY DETAIL AND ALL ITEMS REQUIRED FOR SUCH AN INSTALLATION SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY INDICATED OR MENTIONED.
7. VISIT THE SITE TO DETERMINE PRE-EXISTING CONDITIONS AND WORK NECESSARY PRIOR TO SUBMISSION OF BID PRICE. SUBMIT ANY QUESTIONS REQUIRED TO CLARIFY SCOPE PRIOR TO BID. INCLUDE ALL REQUIRED WORK IN BID PRICE.
8. INCLUDE IN BID WHATEVER IS REQUIRED TO MEET SCHEDULE INCLUDING OVERTIME, EXPRESS SHIPPING, EXPEDITING EQUIPMENT, ETC. PLAN FOR PROJECT AND SUBMIT SHOP DRAWING AND ORDER EQUIPMENT IN A TIMELY MANNER; EQUIPMENT SHALL BE BASED ON THE SPECIFIED EQUIPMENT.
9. ANY EQUIPMENT TO BE SUBSTITUTED SHALL BE IDENTIFIED AT THE TIME OF BID. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBSTITUTIONS.
10. ALL ELECTRICAL DEVICES, WHEN INSTALLED, SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. COVER PLATES SHALL BE INSTALLED AFTER FINISH MATERIALS HAVE BEEN APPLIED.
11. TEST ALL EQUIPMENT AND SYSTEMS INSTALLED TO CERTIFY COMPLIANCE WITH DRAWINGS, SPECIFICATIONS, CODES, LOCAL AUTHORITIES AND REGULATIONS, INCLUDE LABOR AND COSTS FOR TESTING, REVIEWS, COMMISSIONING, APPROVALS AND CERTIFICATIONS.
12. PROVIDE TRAINING TO OWNER ON ALL EQUIPMENT AND SYSTEMS INSTALLED.
13. TEMPORARY LIGHTING AND POWER SHALL BE PROVIDED AS REQUIRED BY OSHA, CODES AND LOCAL AUTHORITIES. REMOVE ALL TEMPORARY FACILITIES PROVIDED AT PROJECT COMPLETION.

INSTALLATION COORDINATION NOTES

1. PRIOR TO ROUGH-IN OF ELECTRICAL PROVISIONS FOR OWNER FURNISHED EQUIPMENT AND EQUIPMENT PROVIDED BY OTHER TRADES, COORDINATE WITH THE GENERAL CONTRACTOR, EQUIPMENT SHOP DRAWINGS AND APPLICABLE EQUIPMENT INSTALLER FOR EXACT LOCATION AND WIRING REQUIREMENTS. PROVIDE ALL NECESSARY EQUIPMENT, WIRING AND ACCESSORIES FOR A COMPLETE INSTALLATION. MAKE ALL FINAL CONNECTIONS AS REQUIRED, I.E. POWER, CONTROL, INTERLOCK, ETC.
2. DISCONNECT, REMOVE, RELOCATE, AND RECONNECT ELECTRICAL CONDUIT, WIRING, DEVICES, BOXES, FIXTURES, EQUIPMENT, ETC. AS INDICATED AND AS REQUIRED TO FACILITATE THE WORK OF DIVISION 26 AND OTHER DIVISIONS. THESE DRAWINGS ARE NOT INTENDED TO INDICATE ALL ITEMS TO BE REMOVED.
3. ELECTRICAL EQUIPMENT, RACEWAYS AND OUTLETS MOUNTED TO AND OR INSTALLED IN OWNER FURNISHED FURNITURE SHALL BE COORDINATED WITH THE EQUIPMENT AND FURNITURE INSTALLERS AND THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN. EXCEPT WHERE INDICATED OR REQUIRED OTHERWISE.
4. THE LOCATION OF EQUIPMENT, OUTLETS, ETC. AS GIVEN ON THE DRAWINGS IS APPROXIMATE. IT SHALL BE UNDERSTOOD THAT THESE LOCATIONS ARE SUBJECT TO MODIFICATION AS MAY BE FOUND NECESSARY OR DESIRABLE AT THE TIME OF INSTALLATION IN ORDER TO MEET PROJECT REQUIREMENTS. SUCH CHANGES SHALL BE MADE WITHOUT EXTRA CHARGE.
5. IF EXACT LOCATION, MOUNTING OR RACEWAY ROUTING ARE NOT INDICATED OR ARE NOT CLEAR OR CONFLICT (LOCATION OR HEIGHT) COORDINATE WITH OTHER TRADES AND REQUEST CLARIFICATION PRIOR TO ROUGH-IN OR INSTALLATION. DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION, MOUNTING HEIGHTS OR EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS.
6. WHERE LOADS ARE ADDED TO EXISTING BRANCH CIRCUITS, VERIFY THAT THE EXISTING CIRCUITS HAVE ADEQUATE CAPACITY TO SUPPORT THE ADDITIONAL LOAD WITHOUT EXCEEDING SPECIFIED MAXIMUM LOAD.
7. UNLESS OTHERWISE DIRECTED, PROVIDE ALL NEW POWER DISTRIBUTION EQUIPMENT WITH AIC RATINGS THAT MATCH OR EXCEED THE AIC RATING OF THE NEXT ACTIVE EXISTING UPSTREAM OVER-CURRENT PROTECTIVE DEVICE SERVING THE PANEL WHEN SERVED DIRECTLY BY ITS SOURCE (E.G. NO TRANSFORMER) OR PROVIDE AIC RATING THAT EXCEEDS BY 10% THE MAXIMUM LET THROUGH FAULT CURRENT (UNDER INFINITE PRIMARY BUSS) OF THE NEXT ACTIVE UPSTREAM TRANSFORMER (EXISTING OR NEW) SERVING THE RESPECTIVE PANEL.
8. ALL NEW PANELS SHALL BE FULLY RATED FOR THE DESIGNATED AIC VALUE; PANELS UTILIZING SERIES RATINGS WILL NOT BE ACCEPTABLE. NEW CIRCUIT BREAKERS PROVIDED IN EXISTING PANELS SHALL BE PROVIDED WITH AIC RATINGS THAT MATCH OR EXCEED THE HIGHEST RATED OVER-CURRENT PROTECTIVE DEVICE WITHIN THE RESPECTIVE EXISTING PANEL.
9. SUBMIT SHORT CIRCUIT STUDY WITH POWER DISTRIBUTION EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL. IN THE STUDY DEMONSTRATE THAT THE AIC RATING SELECTIONS ARE PROPERLY INTEGRATED AND COORDINATED WITH THE EXISTING AND NEW POWER DISTRIBUTION EQUIPMENT. CONFIRM THAT THE AIC RATING SELECTIONS HAVE INCORPORATED THE AVAILABLE FAULT DUTY VALUES OBTAINED FROM THE UTILITY COMPANY FOR THE PROJECTS ELECTRICAL SERVICE POINT OF COMMON COUPLING.
10. SUBMIT OVER-CURRENT PROTECTIVE DEVICE COORDINATION STUDY, FOR ALL NEW POWER DISTRIBUTION EQUIPMENT, WITH THE POWER DISTRIBUTION EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL. INCLUDE THE NEXT ACTIVE EXISTING UPSTREAM OVER-CURRENT PROTECTIVE DEVICES, IN THE STUDY ANALYSIS, WHEN PROJECT IS WITHIN AN EXISTING FACILITY.
11. SUBMIT ARC FLASH REPORT, FOR ALL NEW POWER DISTRIBUTION EQUIPMENT, WITH POWER DISTRIBUTION EQUIPMENT SUBMITTALS FOR REVIEW AND APPROVAL.

WIRING NOTES

1. UNLESS OTHERWISE INDICATED ON PLANS OR IN SPECIFICATIONS; ALL CONDUCTORS, POWER DISTRIBUTION EQUIPMENT BUSSING AND TRANSFORMER WINDINGS SHALL BE FABRICATED OF 98% CONDUCTIVE COPPER MATERIAL.
2. WIRING IS INDICATED ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
3. BRANCH CIRCUIT WIRING NOT SHOWN. CIRCUITING SHALL IN ACCORDANCE WITH APPLICABLE CODES AND STANDARD PRACTICE. PROVIDE A 20A, 1P CIRCUIT BREAKER FOR EACH LIGHTING AND RECEPTACLE CIRCUIT UNLESS OTHERWISE INDICATED OR NOTED. CONNECT NO MORE THAN SIX DUPLEX CONVENIENCE RECEPTACLES PER BRANCH CIRCUIT. CONNECTED LOAD ON LIGHTING CIRCUITS SHALL NOT EXCEED 12 AMPS.
4. ALL WIRING SHALL BE RUN CONCEALED UNLESS SPECIFIED OTHERWISE. ALL EXPOSED WIRING INCLUDING THAT WHICH IS INSTALLED ABOVE BUT IS VISIBLE FROM BELOW, PARTIALLY OR FULLY OPEN CEILING, SHALL BE INSTALLED IN CONDUIT OR RACEWAYS. REFER TO SPECIFICATIONS FOR ACCEPTABLE WIRING METHODS.
5. WIRING AND CONDUIT SHALL BE REQUIRED FOR ALL SWITCHES, AND OUTLETS INDICATED WITH CIRCUIT NUMBERS. PROVIDE ¾" CONDUIT , 3#12 UNLESS OTHERWISE INDICATED (1 PHASE, 1 NEUTRAL AND 1 GROUND). WIRE AND CONDUIT SIZES ON HOME RUNS SHALL BE CONTINUOUS THROUGHOUT CIRCUIT, REFER TO VOLTAGE DROP CHART ON SCHEDULE SHEET. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
6. RACEWAYS SHALL BE LIMITED TO SIX CURRENT CARRYING CONDUCTORS (PHASE AND NEUTRALS) AND GROUNDING CONDUCTOR. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH SINGLE-PHASE RECEPTACLE OR LIGHTING CIRCUIT, UNLESS OTHERWISE INDICATED OR IF AN OVERSIZED NEUTRAL IS SPECIFIED. CIRCUITS WITH SHARED NEUTRALS SHALL BE PROVIDED WITH CIRCUIT BREAKERS THAT HAVE A COMMON TRIP (E.G. FURNITURE WHIPS)
7. MARK ALL CONDUITS AND JUNCTION BOXES WITH PERMANENT MARKER INDICATING PANEL AND CIRCUIT NUMBER OF CONDUCTORS CONTAINED WITHIN. LABEL WHERE CONDUITS ENTER PANELS, WIRE WAYS, PULL BOXES, ETC. LABEL EMPTY CONDUITS WITH SYSTEM (VOICE, DATA, SECURITY, ETC.) AND SOURCE OF CONDUIT.
8. COORDINATE WITH OWNER TO DETERMINE WHICH RECEPTACLES AND ITEMS OF EQUIPMENT REQUIRE STANDBY GENERATOR POWER.
9. ELECTRICAL WORK NOT SERVING STAIRWELLS SHALL NOT PASS THROUGH A STAIR ENCLOSURE UNLESS AN APPROVED RATED SOFFIT IS PROVIDED TO MAINTAIN FIRE AND SMOKE RATING.
10. ALL RACEWAYS CROSSING EXPANSION JOINTS SHALL BE EQUIPPED WITH EXPANSION FITTINGS.
11. PROVIDE WATERTIGHT AND GAS TIGHT SEALS INSIDE AND OUTSIDE OF CONDUITS THAT PENETRATE THE BUILDING BELOW GRADE. O.Z. GEDNEY OR APPROVED EQUAL. PROVIDE WEATHER TIGHT SEAL AT PENETRATIONS ABOVE GRADE.
12. PROVIDE NRTL LISTED SMOKE AND FIRE SEALS AT ALL PENETRATIONS THROUGH FLOORS OR FULL HEIGHT (FLOOR TO FLOOR) WALLS.

SYSTEM POWER WIRING NOTES

1. ALL VIDEO PROJECTOR, CAMERA AND MONITOR POWER OUTLETS AND THEIR ASSOCIATED COMPUTER POWER OUTLETS FEEDING THE VIDEO SOURCE ARE TO BE CONNECTED TO THE SAME PHASE TO ELIMINATE THE POTENTIAL FOR VIDEO INTERFERENCE BETWEEN VIDEO SOURCE AND EQUIPMENT. COORDINATE ALL POWER WIRING FOR SYSTEM EQUIPMENT WITH THE SYSTEM INSTALLER PRIOR TO INSTALLATION

RECEPTACLE COLOR CODE NOTES

UNLESS OTHERWISE INDICATED PROVIDE 20A HEAVY DUTY GRADE RECEPTACLES WITH COLOR CODE AS FOLLOWS:

1. ON GENERATOR POWER – RED
2. ON UPS POWER – BLUE
3. ISOLATED GROUND – ORANGE
4. ON NORMAL POWER – IVORY OR AS SELECTED BY ARCHITECT

MOUNTING NOTES

1. DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR EXACT DIMENSIONS.
2. INSTALL ALL ELECTRICAL DEVICES (FIRE ALARM, SWITCHES, RECEPTACLES, WORK BOXES, JUNCTION BOXES, EXIT SIGNS, LUMINAIRES, ETC.) IN THE LOCATIONS IDENTIFIED OR DIMENSIONS ON THE ARCHITECTURAL PLANS, DETAILS, OR ELEVATIONS.
3. IF THE DEVICE LOCATION IS NOT SPECIFICALLY SHOWN ON ARCHITECTURAL DRAWINGS, FOLLOW THE GUIDELINES LISTED BELOW:
4. INSTALL NEARBY DEVICES ON ONE COMMON VERTICAL CENTERLINE
5. INSTALL ADJACENT TO DEVICES LINED UP WITH A COMMON BOTTOM LINE.
6. INSTALL DEVICES AT INDICATED HEIGHT AS APPLICABLE UNLESS OTHERWISE NOTED. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT AS INDICATED BY NOTE 7.
7. ON MASONRY WALLS LINE UP THE BOTTOM OF THE DEVICE WITH A MASONRY JOINT AS CLOSE TO THE INDICATED HEIGHT AS PRACTICAL.
8. INSTALL DEVICES IN SAME AREA AT THE SAME HEIGHT.
9. MOUNT PANELS SIX FEET TO THE TOP OF THE PANEL OR ANNUNCIATOR/ FA GRAPHIC.
10. MOUNT AT 8 FOOT TO BOTTOM FOR SIGNAGE, EMERGENCY LIGHTING, CLOCKS, SECURITY SENSORS, WALL MOUNTED OCCUPANCY SENSORS MODIFIED AS FOLLOWS: 4" FROM TOP OF DEVICE TO CEILING AND 4" ABOVE DOOR FRAMES.
11. LOCATE CONTROL DEVISE AT LEAST 18" FROM AN INSIDE CORNER.
12. SUPPORT WORK FROM THE BUILDING STRUCTURE.
13. IN FINISHED AREAS ELECTRICAL WORK SHALL BE INSTALLED CONCEALED, RECESSED INTO WALLS OR INSTALLED ABOVE HUNG CEILINGS UNLESS OTHERWISE INDICATED.
14. DO NOT INSTALL OUTLETS BACK TO BACK. PROVIDE 24" SPACING IN FIRE RATED WALLS.
15. PROVIDE ELECTRICAL OUTLET PLATE GASKETS SEALS AT RECEPTACLES, SWITCHES AND OTHER ELECTRICAL BOXES ON EXTERIOR WALLS AND INTERIOR WALLS BETWEEN CONDITIONED AND NON-CONDITIONED SPACES.

REMOVAL NOTES

1. REFER TO FLOOR PLANS FOR SCOPE OF WORK AREA. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION ABOUT ELECTRICAL DEMOLITION SCOPE OF WORK AS RELATED TO THEIR RESPECTIVE SYSTEMS.
2. DASHED LINES REPRESENT WALLS SCHEDULED FOR REMOVAL; SOLID LINES REPRESENT WALLS REMAINING OR NEW WALLS.
3. REFER TO LEGEND FOR DEFINITION OF (E), (R), (ER) AND (RL) TAGS.
4. REFER TO NEW CONDITIONS PLANS FOR PROPOSED LOCATIONS OF ANY DEVICES/EQUIPMENT SCHEDULE FOR RELOCATION. PROVIDE REQUIRED SUPPORT COMPONENTS FOR INSTALLATION AT NEW LOCATION. EXTEND CONDUIT AND WIRE FROM EXISTING SOURCE OR LAST MAINTAINED ACTIVE DEVICE TO THE NEW LOCATION AND RE-TERMINATE TO DEVICE/EQUIPMENT.
5. DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES/EQUIPMENT LOCATED ON WALLS SCHEDULED FOR REMOVAL (E.G. LIGHTING, RECEPTACLES, CONTROL DEVICES, SWITCHES, POWER DISTRIBUTION EQUIPMENT, FIRE ALARM DEVICES, COMMUNICATION AND DATA DEVICES, ETC.) UNLESS OTHERWISE SPECIFICALLY NOTED ON THE PLANS.
6. DISCONNECT AND REMOVE ALL WIRING FOR EQUIPMENT, SCHEDULED TO BE REMOVED, BACK TO THE POINT OF CONNECTION OR THE NEXT ACTIVE DEVICE SCHEDULED TO REMAIN. NOTHING SHALL BE ABANDONED IN PLACE.
7. VERIFY ALL EXISTING SOURCES OF POWER TO DEVICES/EQUIPMENT PRIOR TO FINAL REMOVAL.
8. COORDINATE ALL SHUTDOWN PROCEDURES WITH THE OWNER PRIOR TO DISCONNECTING ANY CIRCUITS.
9. ALL DEVICES/EQUIPMENT LOCATED ON WALLS SCHEDULED TO REMAIN SHALL BE MAINTAINED; RECIRCUIT THESE DEVICES/EQUIPMENT AS NECESSARY.
10. WHERE ANY WALL OR SYSTEM COMPONENT REMOVALS IMPACT WIRING TO EXISTING DEVICES/EQUIPMENT SCHEDULED TO REMAIN, PROVIDE WIRING AND CONNECTIONS AS REQUIRED TO RE-FEED THESE DEVICES/EQUIPMENT.
11. PROVIDE BLANK COVER PLATES FOR REMOVED POWER AND COMMUNICATIONS OUTLETS IN EXISTING WALLS THAT ARE SCHEDULED TO REMAIN.
12. THE WORK INCLUDES DISPOSAL OF ALL REMOVED ELECTRICAL DEVICES/EQUIPMENT/CONDUIT/WIRING/BOXES INCLUDING BALLASTS, DRIVERS, LAMPS, THERMOSTATS, ETC. LEGALLY DISPOSE OF ALL HAZARDOUS MATERIALS. COORDINATE WITH THE OWNER TO RECEIVE DIRECTION FOR ANY REMOVED DEVICES/EQUIPMENT THAT THE OWNER WOULD LIKE TO RETAIN; CAREFULLY DISCONNECT AND REMOVED THEM THEN RELOCATE THEM TO A LOCATION ON SITE DESIGNATED BY THE OWNER.
13. THE ELECTRICAL DEMOLITION FLOOR PLANS REPRESENT THE GENERAL SCOPE AND ARE NOT INTENDED TO SHOW ALL EXISTING EQUIPMENT, WIRING, CONDUITS, BOXES, DEVICES, OR FIXTURES. SURVEY THE WORK AREA AND VERIFY/IDENTIFY IN FIELD ALL DEVICES/EQUIPMENT AND RELATED COMPONENTS PLANNED FOR REMOVAL. COORDINATE WITH OWNER, ARCHITECT OR ENGINEER FOR DEMOLITION SCOPE CLARIFICATION AS NEEDED PRIOR TO REMOVING ITEMS IN QUESTION.
14. COORDINATE, IN FIELD, WITH OTHER TRADES AND THEIR SYSTEM COMPONENTS SCHEDULED FOR REMOVAL TO ENSURE ANY RELATED POWER HAS BEEN PROPERLY DISCONNECTED, REMOVED AND MADE SAFE PRIOR TO THEIR RELATED DEMOLITION SCOPE.
15. LIGHTING REMOVALS INCLUDE, BUT ARE NOT LIMITED TO INTERIOR LINEAR FIXTURES AND EXTERIOR WALL MOUNTED FIXTURES AS WELL AS THEIR RELATED CONTROL DEVICES AND WIRING.
16. PROVIDE UPDATED PANEL DIRECTORIES INDICATING NEW LOADS AND SPARES FOR LOADS THAT HAVE BEEN REMOVED. TURN TO THE OFF POSITION ANY CIRCUIT BREAKERS THAT ARE NOT CONNECTED TO A LOAD. PROVIDE PLUGS IN EXISTING PANEL ENCLOSURES WHERE OPENINGS HAVE BEEN LEFT DUE TO REMOVED CONDUITS OR WRING AND PROVIDE BLANKING PLATES IN PANELS WHERE BREAKERS HAVE BEEN REMOVED OR DO NOT EXIST.

A1 | ELECTRICAL GENERAL NOTES

Scale: AS INDICATED

Designed by:

STATE OF MAINE — BRIAN T GARDNER No. 15506 — LICENSED PROFESSIONAL ENGINEER

ISSUED FOR BID - SEPTEMBER 22, 2025

No.	Revision	By	Date

	By	Date		By	Date
Designed:	RT	9/22/2025	Checked:	BTG	9/22/2025
Drawn:	RT	9/22/2025			

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AEI PROJ.NO.:2561-00002 | CAD FILE: 2561-00002.RVT

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
ELECTRICAL NOTES

SHEET NUMBER: E-000

CONTRACT: 2026.13.

A	AMPERE
AC	ALTERNATING CURRENT
AF	ARC FAULT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BKBD	BACKBOARD
C	CONDUIT
CAT	CATALOG, CATEGORY
CATV	CABLE TV
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CM	CIRCULAR MILS
COMM	COMMUNICATIONS
CU	MECH CONDENSING UNIT
CU	COPPER
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DDC	DIGITAL DIRECT CONTROL
DN	DOWN
DW	DISHWASHER
DWG	DRAWING
EF	EXHAUST FAN
ELEV	ELEVATOR
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
ERU	ENERGY RECOVERY UNIT
EWC	ELECTRIC WATER COOLER
FACP	FIRE ALARM CONTROL PANEL
FB	FLOOR BOX
FLA	FULL LOAD AMPS
FWE	FURNISHED WITH EQUIPMENT
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HP	HORSEPOWER
HVAC	HEATING, VENTILATION AND COOLING UNIT
IDS	INTRUSION DETECTION SYSTEM
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
K	KILO
KCMIL	KILO CIRCULAR MILS
KW	KILOWATT
KVA	KILO VOLT-AMPS
LAN	LOCAL AREA NETWORK
LC	LIGHTING CONTACTOR
LF	LINEAR FEET
LC	LOADCENTER
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
LTS	LIGHTS
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MH	MOUNTING HEIGHT
MC	MICROPHONE
MW	MICROWAVE
MLO	MAIN LUG ONLY
MT	MOUNT
MTS	MANUAL TRANSFER SWITCH
MCP	MOTOR CONTROL PANEL
MH	METAL HALIDE
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NF	NON-FUSED
NO	NORMALLY OPEN
NO., #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCC	OCCUPANCY
OH	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULLBOX
PH,	PHASE
PIR	PASSIVE INFRARED
PNL	PANELBOARD
P/O	PART OF
PV	PHOTOVOLTAIC
PVC	POLY-VINYL CHLORIDE
REC RECEPT	RECEPTACLE
REF	REFRIGERATOR
RF	RETURN FAN
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METAL CONDUIT
RTU	ROOFTOP UNIT
REF	REFRIGERATOR
SF	SUPPLY FAN
SPDT	SINGLE POLE, DOUBLE THROW
SQ	SQUARE
TEL	TELEPHONE
TP	TAMPERPROOF
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UF	UNDER FLOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
W	WATT
WP	WEATHERPROOF
WG	WIREGUARD
XFMR	TRANSFORMER
(E)	EXISTING ITEM TO REMAIN
(R)	REMOVE ITEM AND DISPOSE OF PROPERLY
(ER)	RELOCATED ITEM AT NEW LOCATION
(RL)	REMOVE AND RELOCATE

PANELBOARD ~ FLUSH MOUNTED

PANELBOARD ~ SURFACE MOUNTED

DISCONNECT SWITCH

CABLE TRAY

MOTOR OR FAN

JUNCTION BOX, CEILING OR WALL MOUNTED. MAKE CONNECTION TO RESPECTIVE EQUIPMENT. COORDINATE EXACT TERMINATION POINT IN FIELD OR THROUGH APPROVED SUBMITTALS.

T# TRANSFORMER ~ SEE TRANSFORMER SCHEDULE

INDICATES DEDICATED CIRCUIT OR HOMERUN BACK TO RESPECTIVE PANEL ~ (2)#12+(1)#12G UNO. REFER TO EQUIPMENT SCHEDULES AND PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.

P DIVIDED POWER POLE FOR SYSTEM FURNITURE POWER AND DATA WIRING

P MOTORIZED DOOR OPERATOR AND PUSH PADDLE ~ FURNISHED BY DIVISION 08, WIRED BY DIVISION 26

CB ENCLOSED CIRCUIT BREAKER

ATS AUTOMATIC TRANSFER SWITCH

#V/D SF SYSTEMS FURNITURE FEED WITH WHIPS, WALL MOUNT OR MOUNTED AT POWER POLE WHERE INDICATED ~ PROVIDE SINGLE GANG JUNCTION BOX 18" AFF FOR POWER; PROVIDE DOUBLE GANG JUNCTION BOX 18" AFF WITH EMPTY 1"CONDUIT WITH PULLSTRING FOR VOICE/DATA CABLING UP TO 6" ABOVE NEAREST ACCESSIBLE CEILING

TPS TRIPLE SWITCH FOR MANUAL TRANSFER FROM PERMANENT GENERATOR TO TEMPORARY ROLL-UP GENERATOR WITH CONNECTION (CAM-LOK) PROVISIONS FOR ROLL-UP UNIT (ESL OR EQUAL)

PH IN-GRADE PULL HOLE, REFER TO PLANS FOR REQUIRED SIZE

$M MOTOR RATED SWITCH WITH THERMAL OVERLOAD PROTECTION

C3 POWER DISTRIBUTION

SINGLE RECEPTACLES

LP RC 30" (X) SPECIAL RECEPTACLE ~ REFER TO SPECIAL RECEPTACLE SCHEDULE FOR AMPACITY, NEMA CONFIGURATION, WIRE SIZE AND ADDITIONAL RELATED INFORMATION FOR ASSOCIATED LETTER

(X) OVERHEAD SPECIAL RECEPTACLE DROP ~ REFER TO SPECIAL RECEPTACLE SCHEDULE FOR AMPACITY, NEMA CONFIGURATION, WIRE SIZE AND ADDITIONAL RELATED INFORMATION FOR ASSOCIATED LETTER

NOTES:

1. PROVIDE MATCHING CORD AND PLUG FOR SINGLE RECEPTACLES
2. MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO
3. MOUNT RECEPTACLES WITH CENTERLINE 18" AFF UNO. (30") INDICATES DEVICE MOUNTING HEIGHT WHEN NOT MOUNTED AT 18".

FLOOR AND CEILING DEVICES

OVERHEAD RECEPTACLE DROP, DOUBLE DUPLEX CR= CORD REEL

RECEPTACLES

DUPLEX RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R

DOUBLE DUPLEX RECEPTACLE

GFCI DUPLEX RECEPTACLE, MOUNT 44" AFF UNO

GFCI DOUBLE DUPLEX RECEPTACLE, MOUNT 44" AFF UNO

WP GFCI RECEPTACLE WITH WEATHERPROOF COVER

WP GFCI RECEPTACLE IN WP ENCLOSURE ON ROOF

TECHNOLOGY DEVICES ~ REFER TO TECHNOLOGY SCHEDULE

NOTES:

1. MOUNT RECEPTACLES WITH CENTERLINE AT 18" AFF UNO
2. MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO

LIGHTING SWITCHES

$a LIGHT SWITCH, 20A,125/277V

$a, $b MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING

$OS OCCUPANCY SENSOR SWITCHOCCUPANCY SENSOR SWITCH

$OSD OCCUPANCY SENSOR SWITCH WITH DIMMING ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED

OS OCCUPANCY SENSOR, CEILING MOUNTED

$D DIMMER SWITCH ~ COORDINATE DIMMING TECHNOLOGY WITH LOAD TO BE DIMMED

$LV LOW VOLTAGE LIGHT SWITCH, MOMENTARY CONTACT

DS DAYLIGHT HARVESTING SENSOR, CEILING MOUNTED

NOTES:
1. MOUNT LIGHT SWITCHES WITH CENTERLINE 48" AFF, UNO
2. LOWER CASE LETTER AT SWITCH INDICATES SWITCH GROUP

EMERGENCY AND EXIT LIGHTING

HATCHING INDICATES FIXTURE CONNECTED TO LIFE SAFETY BRANCH PANEL. FIXTURES SHALL AUTOMATICALLY SWITCH TO FULL ON UPON FIRE ALARM OR LOSS OF NORMAL POWER.

EM "EM" INDICATES EMERGENCY WHERE SYMBOL HATCHING IS UNCLEAR

EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE(S) ARROWHEAD INDICATES CHEVRON(S) REQUIRED, CONNECT TO UNSWITCHED PORTION OF AREA LIFE SAFETY LIGHTING BRANCH CIRCUIT, U.N.O.

EXIT SIGN, WALL MOUNTED, SHADING INDICATES FACE(S) MOUNT AT 7'-6"AFF OR OVER DOOR, CONNECT TO UNSWITCHED PORTION OF AREA LIFE SAFETY LIGHTING BRANCH CIRCUIT, U.N.O.

EMERGENCY BATTERY LIGHTING UNIT WITH INTEGRAL HEADS

EMERGENCY LIGHTING REMOTE HEADS

TYPICAL FOR ALL FIXTURE TYPES:

2 R2 a — 2 R1 a — INDICATES LUMINAIRE TYPE ON SCHEDULE; LOWER CASE LETTER INDICATES SWITCHING

R1 2 a — W1 2 a — C1 2 a

NOTE

SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT NECESSARILY INDICATE THEIR INCORPORATION INTO THE DESIGN

FACP FIRE ALARM CONTROL PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF

FATC FIRE ALARM TRANSPONDER CABINET

FAA FIRE ALARM ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF, WIRED TO FACP

S SMOKE DETECTOR, WIRED TO FACP "E" INDICATES CONNECTION FOR ELEVATOR RECALL, WIRED TO FACP

H HEAT DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL, WIRED TO FACP

D DUCT SMOKE DETECTOR, WIRED TO FACP

S SINGLE STATION SMOKE DETECTOR WITH AUDIBLE INDICATING APPLIANCE, WALL MOUNTED

S AV SINGLE STATION SMOKE DETECTOR WITH AUDIBLE/VISUAL INDICATING APPLIANCE, CEILING MOUNTED

CO S SINGLE/MULTI-STATION SMOKE/CARBON MONOXIDE DETECTOR WITH AUDIBLE INDICATING APPLIANCE, CEILING MOUNTED

CO S SINGLE/MULTI-STATION SMOKE/CARBON MONOXIDE DETECTOR WITH AUDIBLE INDICATING APPLIANCE, WALL MOUNTED

G GAS DETECTOR, WIRED TO FACP

CO CARBON MONOXIDE DETECTOR, WIRED TO FACP

L FLAME DETECTOR, WIRED TO FACP

DH MAGNETIC DOOR HOLD OPEN DEVICE, WIRED TO FACP

F SPRINKLER SYSTEM WATER FLOW SWITCH, PROVIDED UNDER DIVISION 23, WIRED TO FACP UNDER DIVISION 26

T SPRINKLER SYSTEM TAMPER SWITCH, PROVIDED UNDER DIVISION 23, WIRED TO FACP UNDER DIVISION 26

C SPRINKLER SYSTEM CHECK VALVE PRESSURE SWITCH, FURNISHED AND INSTALLED UNDER DIVISION 23, WIRED TO FACP UNDER DIVISION 26

P SPRINKLER SYSTEM PRE-ACTION VALVE, FURNISHED AND INSTALLED UNDER DIVISION 21, WIRED TO FACP UNDER DIVISION 26

K KNOX BOX, MOUNT 60" AFF

SD SMOKE DAMPER, WIRED TO FACP

FSD FIRE AND SMOKE DAMPER, WIRED TO FACP

RTS REMOTE TEST/INDICATOR FOR DUCT SMOKES, MOUNT ON CEILING BENEATH UNIT, OR WALL MOUNT WHERE INDICATED ON PLANS.

MANUAL PULL STATION, MOUNT 48" AFF

HORN/STROBE, WALL MOUNTED CANDELA AS NOTED ON PLANS, WIRED TO FACP. MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.

HORN/STROBE, CEILING MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP. MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER

STROBE ONLY INDICATING APPLIANCE, CEILING MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP

STROBE ONLY INDICATING APPLIANCE, WALL MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP, MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.

HORN/STROBE WITH PULL STATION DIRECTLY BELOW, MOUNT 80" AFF TO BOTTOM, OR 6" BELOW CEILING, WHICH EVER IS LOWER.

SPEAKER/STROBE, WALL MOUNTED CANDELA AS NOTED ON PLANS, WIRED TO FACP

SPEAKER/STROBE, CEILING MOUNTED, CANDELA AS NOTED ON PLANS, WIRED TO FACP

A1	ABBREVIATIONS	A3	RECEPTACLES	A5	LIGHTING	A7	FIRE ALARM LEGEND

Scale: AS INDICATED

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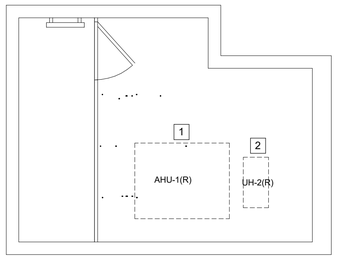
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
ELECTRICAL LEGEND

SHEET NUMBER: E-001

CONTRACT: 2026.13.

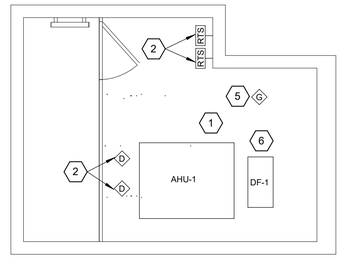


D1 ELECTRICAL GARDINER DEMO MEZZANINE PLAN

1/4" = 1'-0"

1. REMOVE DISCONNECT SWITCH, CONDUIT AND WIRING THAT SERVES EXISTING SCHEDULED FOR REMOVAL AHU-1 COMPLETELY BACK TO SOURCE.
2. REMOVE DISCONNECT SWITCH, CONDUIT AND WIRING THAT SERVES EXISTING SCHEDULED FOR REMOVAL UH-2 BACK TO SOURCE OR NEXT ACTIVE JUNCTION BOX, PRESERVE CIRCUIT INTEGRITY TO SERVE ANY EXISTING LOADS THAT ARE TO REMAIN.
3. REMOVE RESPECTIVE DISCONNECT SWITCH, WIRING AND CONDUIT BACK TO SOURCE. THAT SERVES SCHEDULED FOR REMOVAL CONDENSING UNIT. (CU-1 AND CU-2).

D3 DEMOLITION KEY NOTES

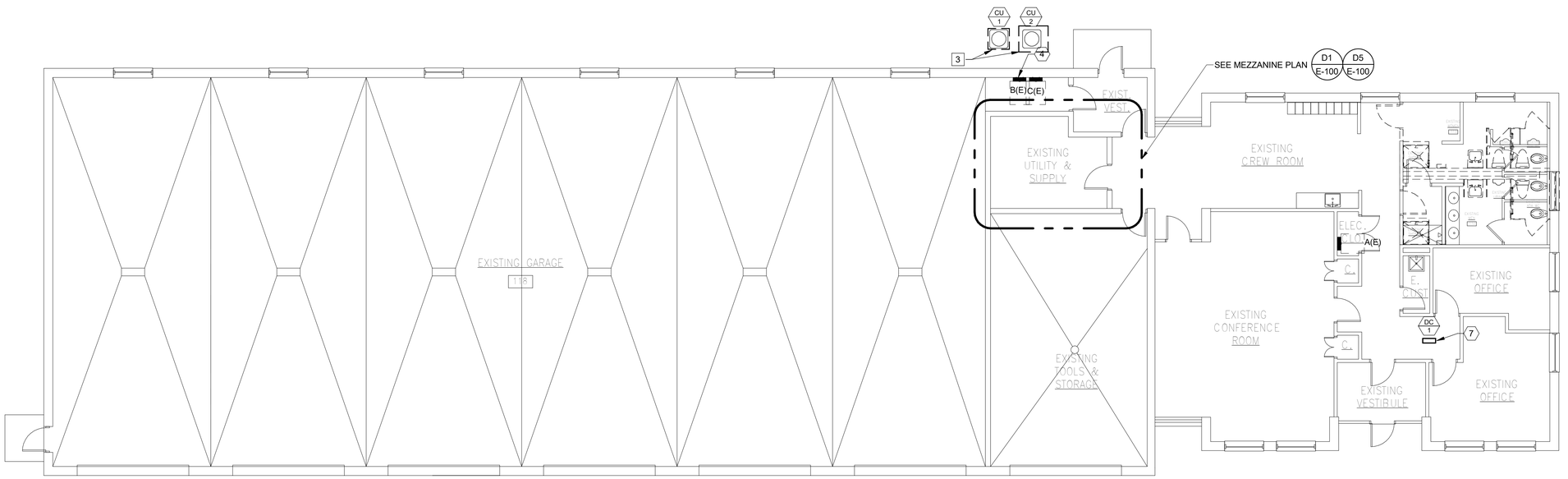


D5 ELECTRICAL GARDINER MEZZANINE PLAN

1/4" = 1'-0"

1. NEW AHU-1. PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL B REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
2. PROVIDE NEW (2) DUCT DETECTORS, ONE IN SUPPLY DUCT AND ONE IN RETURN DUCT, WITH (2) REMOTE TEST SWITCHES (1) FOR SUPPLY DETECTOR AND OTHER FOR RETURN DETECTOR LABLED TO REFLECT DETECTOR THEY SERVE.WIRED INTO EXISTING FA INITIATING LOOP.
3. NEW CU-1AND CU-2 PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL B REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
4. APPROXIMATE LOCATION OF EXISTING PANEL (B) THAT SERVES EXISTING SCHEDULED FOR REMOVAL MECHANICAL EQUIPMENT AND WILL SERVE NEW MECHANICAL EQUIPMENT.REPLACE BREAKERS AS REQUIRED WITH BREAKERS THAT MATCH THE CHARACTERISTICS OF EXISTING BREAKERS SIZED PER MECHANICAL EQUIPMENT SCHEDULE ON SHEET E-600. FOR MORE INFORMATION SEE PHOTO D1 SHEET E-500.
5. PROVIDE (1) NEW GAS DETECTOR WIRED INTO EXISTING FA INITIATING LOOP.
6. NEW DF-1. PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL B REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
7. NEW DC-1. PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL B REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.

D8 KEY NOTES



A1 ELECTRICAL GARDINER PLAN

1/8" = 1'-0"

Scale: AS INDICATED

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MAINE TURNPIKE

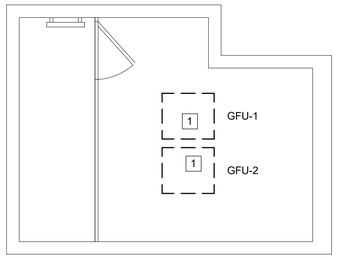
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

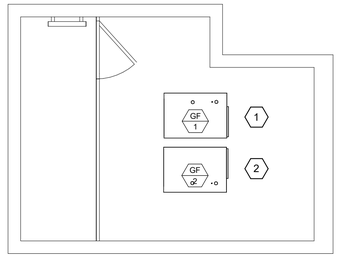
AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
ELECTRICAL GARDINER PLAN

SHEET NUMBER: E-100

CONTRACT: 2026.13.



D1	ELECTRICAL YORK DEMO MEZZANINE PLAN
1/4" = 1'-0"	



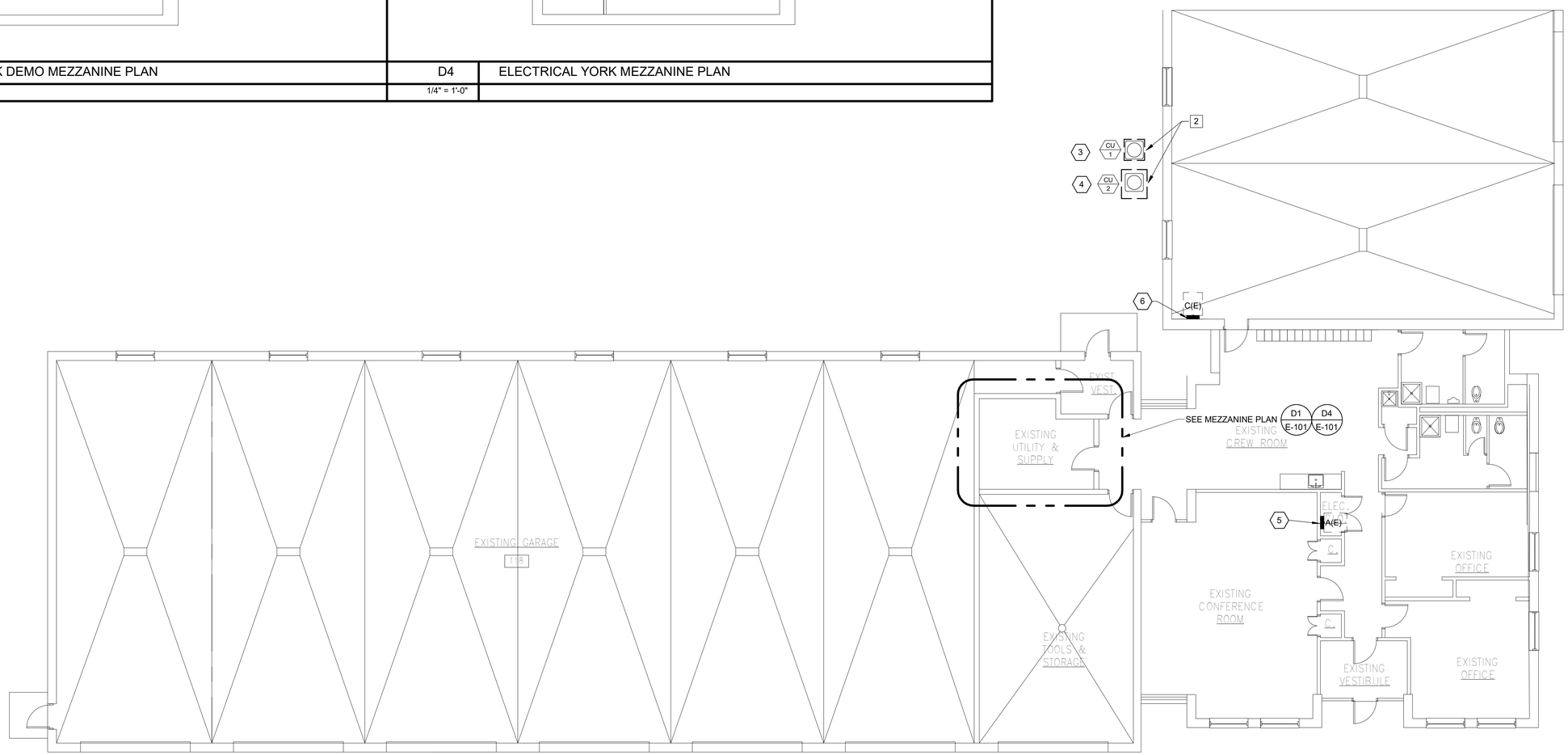
D4	ELECTRICAL YORK MEZZANINE PLAN
1/4" = 1'-0"	

1. REMOVE RESPECTIVE DISCONNECT SWITCH, CONDUIT AND WIRING THAT SERVES EXISTING SCHEDULED FOR REMOVAL GFU-1 AND GFU-2 COMPLETELY BACK TO SOURCE.
2. REMOVE RESPECTIVE DISCONNECT SWITCH, WIRING AND CONDUIT BACK TO SOURCE. THAT SERVES SCHEDULED FOR REMOVAL CONDENSING UNIT. (CU-1 AND CU-2).

E7	DEMOLITION KEY NOTES

1. NEW GF-1. PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL A REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
2. NEW GF-2. PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL A REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
3. NEW CU-1 PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL C REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
4. NEW CU-2 PROVIDE NEW CONDUIT AND WIRING FROM EXISTING PANEL C REFER TO ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT ON SHEET E-600 FOR MORE INFORMATION.
5. EXISTING PANEL (A) APPROXIMATE LOCATION.
6. EXISTING PANEL (C) APPROXIMATE LOCATION.

E8	KEY NOTES



A1	ELECTRICAL YORK PLAN
1/8" = 1'-0"	

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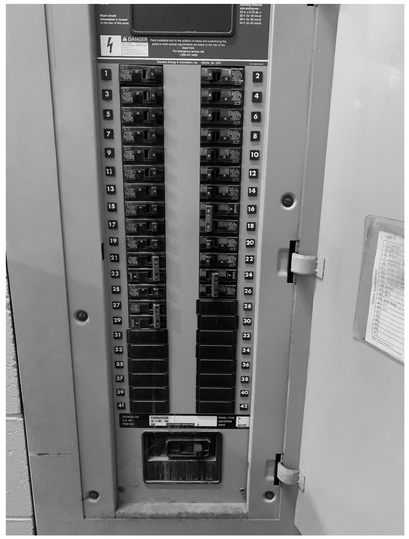
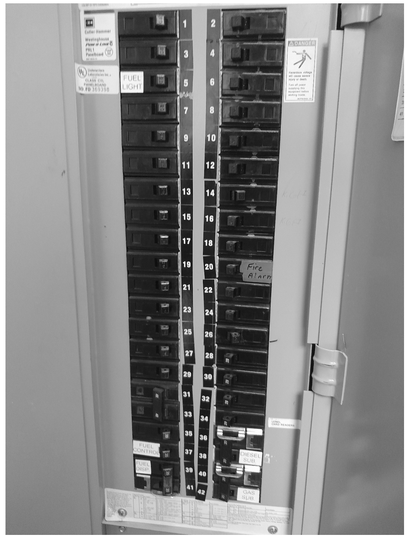
ELECTRICAL YORK PLAN

SHEET NUMBER: E-101

CONTRACT: 2026.13.

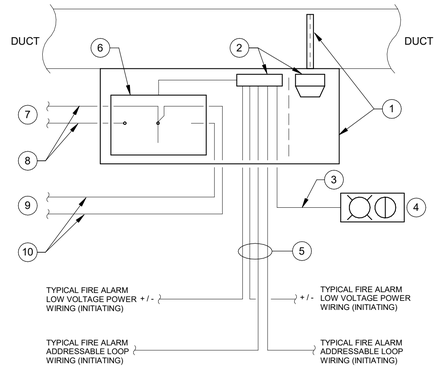


D1 GARDINER PANEL B



D2 YORK PANEL A

D4 YORK PANEL C



TAG	DESCRIPTION	FURN. BY DIV:	INST. BY DIV:	WIRED BY DIV:
1	AIR SAMPLING TUBE INSTALLED INTO THE DUCTWORK AND CONNECTED TO THE RESPECTIVE DUCT TYPE SMOKE DETECTOR HOUSING MOUNTED ON THE DUCTWORK	26	23	N/A
2	PHOTOELECTRIC TYPE ADDRESSABLE SMOKE DETECTOR WITH LOW VOLT TERM., ALARM CONTACTS AND AUXILIARY CONTACTS FOR REMOTE INDICATOR AND TEST STATION (RTS)	26	26	26
3	SIGNAL WIRING FROM AUXILIARY CONTACTS ON DUCT TYPE SMOKE DETECTOR TO RESPECTIVE (RTS)	26	26	26
4	DUCT TYPE SMOKE DETECTOR (RTS)	26	26	26
5	ADDRESSABLE FIRE ALARM SYSTEM INITIATION LOOP AND LOW VOLT POWER WIRING	26	26	26
6	DETECTOR RELAY UNIT WITH ONE (NC) AND ONE (NO) FORM "C" CONTACT. FOR HVAC CONTROL WIRING. IF UNIT IS NOT INTEGRAL AND LOCATED WITHIN THE HOUSING THEN INSTALL IN JUNCTION BOX WITH LABEL	26	26	N/A
7	CONTROL SIGNAL WIRING FROM RESPECTIVE DETECTOR RELAY UNIT TO RESPECTIVE STARTER OR VFD FOR FAN SHUT DOWN	23	23	23
8	EXTEND AND TERMINATE THE CONTROL SIGNAL CIRCUIT TO THE APPROPRIATE TERMINALS (SHUT DOWN) OF THE RESPECTIVE STARTER OR VFD UNIT AS IDENTIFIED IN THE CONTROL SCOPE	23	23	23
9	CONTROL SIGNAL WIRING FROM RESPECTIVE DETECTOR RELAY BASE TO RESPECTIVE STARTER OR VFD UNIT FOR BMS OVERRIDE	23	23	23
10	EXTEND AND TERMINATE THE CONTROL SIGNAL CIRCUIT TO THE APPROPRIATE TERMINALS (OVERRIDE) OF THE RESPECTIVE STARTER OR VFD UNIT AS IDENTIFIED IN THE CONTROL SCOPE	23	23	23

SEQUENCE OF OPERATION AND COORDINATION NOTES:

1. WHEN PRESENCE OF SMOKE IN THE DUCT IS SENSED BY THE DUCT SMOKE DETECTOR, AN ALARM SIGNAL SHALL BE SENT TO THE FIRE ALARM CONTROL PANEL (FACP).
2. CONTROL WIRING SHALL BE PROVIDED FROM APPROPRIATE CONTACT IN THE ADDRESSABLE CONTROL MODULE TO OVERRIDE THE BUILDING MANAGEMENT SYSTEM (BMS) SYSTEM CONTROL OF THE RESPECTIVE HVAC EQUIPMENT.
3. UPON ALARM ACTIVATION OF DUCT TYPE SMOKE DETECTOR, (OTHER THAN FOR FIRE DRILLS OR TESTING) THE N.C. CONTACT IN THE DETECTOR RELAY UNIT SHALL OPEN AND SHUT DOWN THE RESPECTIVE FAN.
4. HVAC EQUIPMENT 2,000 CFM AND OVER; PROVIDE DUCT SMOKE DETECTOR SYSTEM IN DUCT WORK ON SUPPLY SIDE OF RESPECTIVE UNIT AT LOCATION IDENTIFIED ON MECHANICAL PLANS.
5. HVAC EQUIPMENT 15,000 CFM AND OVER OR AS SHOWN ON PLANS; PROVIDE DUCT SMOKE DETECTOR SYSTEM IN DUCT WORK ON RETURN SIDE OF RESPECTIVE UNIT AT LOCATION IDENTIFIED ON MECHANICAL PLANS.
6. REFER TO FLOOR PLANS FOR PROPOSED QUANTITY AND LOCATION OF DUCT TYPE SMOKE DETECTORS.
7. THE ELECTRICAL AND MECHANICAL CONTRACTORS SHALL COORDINATE AND CONFIRM, IN THE FIELD, THE EXACT QUANTITY, LOCATION AND WIRING CONNECTION POINTS FOR EACH DUCT TYPE SMOKE DETECTORS REQUIRED FOR THE PROJECT.

A1 DUCT SMOKE DETECTOR INSTALLATION & CONTROL INTERFACE WIRING DIAGRAM

Scale: AS INDICATED

No.	Revision	By	Date

Designed by:

ISSUED FOR BID - SEPTEMBER 22, 2025

STATE OF MAINE
BRIAN T. GARDNER
No. 15506
REGISTERED PROFESSIONAL ENGINEER

	By	Date		By	Date
Designed:	RT	9/22/2025	Checked:	BTG	9/22/2025
Drawn:	RT	9/22/2025			

Allied Engineering
A Salas O'Brien Company
160 Veranda Street
Portland, Maine 04103
P: 207.221.2260
F: 207.221.2266

AEI PROJ.NO.:2561-00002 | CAD FILE: 2561-00002.RVT

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

AIR HANDLER REPLACEMENTS
YORK AND GARDINER MAINTENANCE FACILITIES
ELECTRICAL DETAILS

SHEET NUMBER: E-500

CONTRACT: 2026.13.

12 OF 13

PANEL SCHEDULE ~B GARDINER(E)

VOLTAGE: 240/120V | MCB: 225A | AIC: 10k

1-PHASE, 3-WIRE

CIRCUIT BREAKER CKT NO	BRKR SIZE	NO OF POLES	PH	CIRCUIT LOAD (KVA)... A	B	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	0.60		LIGHTING
3	20	1	B		1.50	LIGHTING
5	20	1	A	1.30		HEATERS
7	20	1	B		0.72	RECEPTACLES
9	20	1	A	0.72		RECEPTACLES
11	30	1	B		1.60	GARAGE DOOR OPENER
13	30	1	A	1.60		GARAGE DOOR OPENER
15	30	1	B		1.60	GARAGE DOOR OPENER
17	30	1	A	1.60		GARAGE DOOR OPENER
19	20	1	B		1.40	HEATERS
21	20	2	A	1.40		AHU-1
23			B		1.40	
25	20	1	A	0.30		WATER HEATER
27	40	2	B		3.30	CU-1
29			A	3.30		
31	20	1	B		0.00	SPACE
33	20	1	A	0.00		SPACE
35	20	1	B		0.00	SPACE
37	20	1	A	0.00		SPACE
39	20	1	B		0.00	SPACE
41	20	1	A	0.00		SPACE
		SUBTOTAL		10.82	11.52	
2	20	1	A	1.50		LIGHTING-ATTIC
4	20	1	B		1.00	LIGHTING
6	20	1	A	0.72		RECEPTACLES
8	20	1	B		0.72	RECEPTACLES
10	30	1	A	1.60		GARAGE DOOR OPENER
12	30	1	B		1.60	GARAGE DOOR OPENER
14	30	1	A			GARAGE DOOR OPENER
16	40	2	B		3.30	CU-1
18			A	3.30		
20	20	1	B		0.00	SPARE
22	20	1	A	1.00		ATTIC RECEPTACLE
24	20	2	B		0.00	SPARE
26			A	0.00		
28	20	1	B		0.00	SPACE
30	20	1	A	0.00		SPACE
32	20	1	B		0.00	SPACE
34	20	1	A	0.00		SPACE
36	20	1	B		0.00	SPACE
38	20	1	A	0.00		SPACE
40	20	1	B		0.00	SPACE
42	20	1	A	0.00		SPACE
		SUBTOTAL		8.12	6.62	

PANEL SCHEDULE ~B GARDINER REVISED

VOLTAGE: 240/120V | MCB: 225A | AIC: 10k

1-PHASE, 3-WIRE

CIRCUIT BREAKER CKT NO	BRKR SIZE	NO OF POLES	PH	CIRCUIT LOAD (KVA)... A	B	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	0.60		LIGHTING
3	20	1	B		1.50	LIGHTING
5	20	1	A	1.30		HEATERS
7	20	1	B		0.72	RECEPTACLES
9	20	1	A	0.72		RECEPTACLES
11	30	1	B		1.60	GARAGE DOOR OPENER
13	30	1	A	1.60		GARAGE DOOR OPENER
15	30	1	B		1.60	GARAGE DOOR OPENER
17	30	1	A	1.60		GARAGE DOOR OPENER
19	20	1	B		1.40	HEATERS
21	**15**	**2**	A	**1.20**		**AHU-1**
23			B		**1.20**	
25	20	1	A	0.30		WATER HEATER
27	**45**	**2**	B		**2.50**	**CU-1**
29			A	**2.50**		
31	**30**	**2**	B		**2.35**	**DC-1**
33			A	**2.35**		
35	20	1	B		0.00	SPACE
37	20	1	A	0.00		PETROVEND FUEL CONTROLLER
39	20	1	B		0.00	SPACE
41	20	1	A	0.00		SPACE
		SUBTOTAL		12.17	12.87	
2	20	1	A	1.50		LIGHTING-ATTIC
4	20	1	B		1.00	LIGHTING
6	20	1	A	0.72		RECEPTACLES
8	20	1	B		0.72	RECEPTACLES
10	30	1	A	1.60		GARAGE DOOR OPENER
12	30	1	B		1.60	GARAGE DOOR OPENER
14	30	1	A			GARAGE DOOR OPENER
16	**45**	**2**	B		**2.50**	**CU-2**
18			A	**2.50**		
20	20	1	B		0.00	SPARE
22	20	1	A	1.00		ATTIC RECEPTACLE
24	20	2	B		0.00	SPARE
26			A	0.00		
28	**15**	**1**	B		**0.48**	**DF-1**
30	20	1	A	0.00		SPACE
32	20	1	B		0.00	SPACE
34	20	1	A	0.00		SPACE
36	20	1	B		0.00	SPACE
38	20	1	A	0.00		SPACE
40	20	1	B		0.00	SPACE
42	20	1	A	0.00		SPACE
		SUBTOTAL		7.32	6.30	

PANEL SCHEDULE ~A YORK(E)

VOLTAGE: 240/120V | MCB: 125A | AIC: 10k

1-PHASE, 3-WIRE

CIRCUIT BREAKER CKT NO	BRKR SIZE	NO OF POLES	PH	CIRCUIT LOAD (KVA)... A	B	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	1.70		LIGHTING
3	20	1	B		0.90	LIGHTING
5	20	1	A	1.50		FUEL DISP. LIGHT
7	20	1	B		0.60	LIGHTS (OUTSIDE) SO.
9	20	1	A	0.60		LIGHTS (OUTSIDE) W.
11	30	1	B		0.80	REFRIGERATOR
13	30	1	A	0.72		RECEPTACLE
15	30	1	B		0.72	RECEPTACLE
17	30	1	A	0.72		RECEPTACLE
19	20	1	B		-	AHU-1 LUNCH ROOM (E) GF-1
21	20	1	A	-		AHU-1 OFFICE (E) GF-2
23	20	1	B		0.42	EXHAUST FANS
25	20	1	A	-		SITE LIGHTS (POLES)
27	20	1	B		-	WATER HEATER
29	20	1	A	-		PAINT ROOM ALARM
31	40	2	B		-	RANGE
33			A	-		
35	20	1	B		-	WATER COOLER RECEPTACLES
37	20	1	A	-		PETROVEND FUEL CONTROLLER
39	20	1	B		0.00	FUEL DISPENSER
41		1	A	0.00		
		SUBTOTAL		5.24	3.44	
2	20	1	A	-		LIGHTING
4	20	1	B		-	LIGHTING
6	20	1	A	-		PANEL SURGE
8	20	1	B		-	PANEL SURGE
10	30	1	A	-		VENDING MACHINE
12	30	1	B		-	VENDING MACHINE
14	30	1	A	-		VENDING MACHINE
16	20	1	B		-	RECEPTACLE
18	20	1	A	-		TELEPHONE BACKBOARD
20	20	1	B		-	FIRE ALARM CONTROL PANEL
22	20	1	A	-		VEEDER ROOF FUEL SYSTEM
24	20	2	B		-	SEPTIC TANK PUMP
26	20		A	-		
28	20	1	B		-	ROOF HEAT TAPE
30	20	1	A	-		ROOF HEAT TAPE
32	20	1	B		-	ROOF HEAT TAPE
34	20	1	A	-		LENEL CARD READERS
36	20	2	B		-	DIESEL SUBMERSIBLE
38			A	-		
40	20	2	B		-	GAS SUBMERSIBLE
42			A	-		
		SUBTOTAL		0.00	0.00	

PANEL SCHEDULE ~A YORK REVISED

VOLTAGE: 240/120V | MCB: 125A | AIC: 10k

1-PHASE, 3-WIRE

CIRCUIT BREAKER CKT NO	BRKR SIZE	NO OF POLES	PH	CIRCUIT LOAD (KVA)... A	B	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	1.70		LIGHTING
3	20	1	B		0.90	LIGHTING
5	20	1	A	1.50		FUEL DISP. LIGHT
7	20	1	B		0.60	LIGHTS (OUTSIDE) SO.
9	20	1	A	0.60		LIGHTS (OUTSIDE) W.
11	30	1	B		0.80	REFRIGERATOR
13	30	1	A	0.72		RECEPTACLE
15	30	1	B		0.72	RECEPTACLE
17	30	1	A	0.72		RECEPTACLE
19	**15**	**1**	B		**0.85**	**GF-1**
21	**15**	**1**	A	**0.85**		**GF-2**
23	20	1	B		0.42	EXHAUST FANS
25	20	1	A	-		SITE LIGHTS (POLES)
27	20	1	B		-	WATER HEATER
29	20	1	A	-		PAINT ROOM ALARM
31	40	2	B		-	RANGE
33			A	-		
35	20	1	B		-	WATER COOLER RECEPTACLES
37	20	1	A	-		PETROVEND FUEL CONTROLLER
39	20	1	B		0.00	FUEL DISPENSER
41		1	A	0.00		
		SUBTOTAL		6.09	4.29	
2	20	1	A	-		LIGHTING
4	20	1	B		-	LIGHTING
6	20	1	A	-		PANEL SURGE
8	20	1	B		-	PANEL SURGE
10	30	1	A	-		VENDING MACHINE
12	30	1	B		-	VENDING MACHINE
14	30	1	A	-		VENDING MACHINE
16	20	1	B		-	RECEPTACLE
18	20	1	A	-		TELEPHONE BACKBOARD
20	20	1	B		-	FIRE ALARM CONTROL PANEL
22	20	1	A	-		VEEDER ROOF FUEL SYSTEM
24	20	2	B		-	SEPTIC TANK PUMP
26	20		A	-		
28	20	1	B		-	ROOF HEAT TAPE
30	20	1	A	-		ROOF HEAT TAPE
32	20	1	B		-	ROOF HEAT TAPE
34	20	1	A	-		LENEL CARD READERS
36	20	2	B		-	DIESEL SUBMERSIBLE
38			A	-		
40	20	2	B		-	GAS SUBMERSIBLE
42			A	-		
		SUBTOTAL		0.00	0.00	

PANEL SCHEDULE ~C YORK(E)

VOLTAGE: 240/120V | MCB: 175A | AIC: 10k

1-PHASE, 3-WIRE

CIRCUIT BREAKER CKT NO	BRKR SIZE	NO OF POLES	PH	CIRCUIT LOAD (KVA)... A	B	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	1.50		LIGHTING
3	20	1	B		1.50	LIGHTING
5	20	1	A	0.72		RECEPTACLE
7	20	1	B		0.90	RECEPTACLE
9	30	2	A	2.32		CU-2
11			B		2.32	
13	30	1	A	1.60		GARAGE DOOR OPENER
15	30	1	B		1.60	GARAGE DOOR OPENER
17	30	1	A	1.60		GARAGE DOOR OPENER
19	30	1	B		1.60	GARAGE DOOR OPENER
21	20	1	A	0.90		ANTENNA RECEPT
23	-		B			SPACE
		SUBTOTAL		8.64	7.92	
2	20	1	A	1.00		LIGHTING
4	20	1	B		0.72	RECEPTACLE
6	20	1	A	0.72		RECEPTACLE
8	30	2	B		2.32	CU-1
10			A	2.32		
12	30	1	B		1.60	GARAGE DOOR OPENER
14	30	1	A	1.60		GARAGE DOOR OPENER
16	30	1	B		1.60	GARAGE DOOR OPENER
18	20	1	A	1.00		HEATERS
20	20	1	B		1.00	HEATERS
22	20	1	A	1.00		HEATERS
24	-	1	B		0.00	SPACE
		SUBTOTAL		7.64	7.24	

PANEL SCHEDULE ~C YORK REVISED

VOLTAGE: 240/120V | MCB: 175A | AIC: 10k

1-PHASE, 3-WIRE

CIRCUIT BREAKER CKT NO	BRKR SIZE	NO OF POLES	PH	CIRCUIT LOAD (KVA)... A	B	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	1.50		LIGHTING
3	20	1	B		1.50	LIGHTING
5	20	1	A	0.72		RECEPTACLE
7	20	1	B		0.90	RECEPTACLE
9	**30**	**2**	A	**2.00**		**CU-2**
11			B		**2.00**	
13	30	1	A	1.60		GARAGE DOOR OPENER
15	30	1	B		1.60	GARAGE DOOR OPENER
17	30	1	A	1.60		GARAGE DOOR OPENER
19	30	1	B		1.60	GARAGE DOOR OPENER
21	20	2	A	0.90		ANTENNA RECEPT
23	-		B			SPACE
		SUBTOTAL		8.32	7.60	
2	20	1	A	1.00		LIGHTING
4	20	1	B		0.72	RECEPTACLE
6	20	1	A	0.72		RECEPTACLE
8	**30**	**2**	B		**2.00**	**CU-1**
10			A	**2.00**		
12	30	1	B		1.60	GARAGE DOOR OPENER
14	30	1	A	1.60		GARAGE DOOR OPENER
16	30	1	B		1.60	GARAGE DOOR OPENER
18	20	1	A	1.00		HEATERS
20	20	1	B		1.00	HEATERS
22	20	1	A	1.00		HEATERS
24	-	1	B		0.00	SPACE
		SUBTOTAL		7.32	6.92	

ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT

TAG	DESCRIPTION	VOLTS	PH	LOAD	FLA	MCA	MOPD	DISCONNECT SWITCH FRAME	POLES	FUSE	NEMA ENCL	FBD	STARTER (NEMA) SIZE/ VFD	FBD	CBD	PANEL	WIRING IN CONDUIT	NOTES
						GARDINER												
AHU-1	AIR HANDLING UNIT MEZZANINE	240	1			10	15	15	2	-	1	26	-	23	23	GARDINER (B)	(2)#12 (1) #12 GND	2
CU-1	CONDENSING UNIT OUTSIDE SERVES AHU-1	240	1		20.8	26	45	60	2	-	3R	26		23	23	GARDINER (B)	(2)#10 (1) #12 GND	
CU-2	CONDENSING UNIT OUTSIDE SERVES AHU-1	240	1		20.8	26	45	60	2	-	3R	26		23	23	GARDINER (B)	(2)#10 (1) #12 GND	
DC-1	ELECTRIC DUCT HEATING COIL OFFICE 102	240	1	4.7KW	20		30	30	2	-	1	26		23	23	GARDINER (B)	(2)#12 (1) #12 GND	
DF-1	DUCT FURNACE ON MEZZANINE	120	1		4		15	MRT	1	-	1	26		23	23	GARDINER (B)	(2)#12 (1) #12 GND	
						YORK												
GF-1	GAS FURNACE UNIT MEZZANINE	120	1		7.04	8.8	15	MRT	1	-	1	26	-	23	23	YORK (A)	(2)#12 (1) #12 GND	
GF-2	GAS FURNACE UNIT MEZZANINE	120	1		7.04	8.8	15	MRT	1	-	1	26	-	23	23	YORK (A)	(2)#12 (1) #12 GND	
CU-1	CONDENSING UNIT OUTSIDE SERVES GF-1	240	1		14.4	18	30	30	2	-	3R	26	-	23	23	YORK (C)	(2)#10 (1) #12 GND	
CU-2	CONDENSING UNIT OUTSIDE SERVES GF-2	240	1		14.4	18	30	30	2	-	3R	26	-	23	23	YORK (C)	(2)#10 (1) #12 GND	

NOTES:

1. LEAD/LAG.
2. DUCT SMOKE DETECTORS FURNISHED BY DIVISION 26, INSTALLED BY DIVISION 23, WIRED TO FIRE ALARM BY DIVISION 26.
3. POWER TO CU BY DIVISION 26, WIRING BETWEEN AC AND CU PROVIDED BY DIVISION 23.
4. WIRE AND CONNECT MOTORIZED DAMPER AT EXHAUST FAN. CONNECT DAMPER TO SAME BRANCH CIRCUIT THAT SUPPLIES FAN.
5. UNIT IS CONSISTS OF MULTIPLE MOTORS FACTORY WIRED FOR SINGLE-POINT POWER CONNECTION.
6. CORD AND PLUG FURNISHED WITH EQUIPMENT, PROVIDE NEMA 5-20 RECEPTACLE.

ABBREVIATIONS:

FWE	FURNISHED WITH EQUIPMENT
NF	NOT FUSED
SWBD	SWITCHBOARD
FBD	FURNISHED BY DIVISION
CBD	CONTROL WIRING BY DIVISION
MRT	MOTOR RATED TOGGLE SWITCH (VOLTAGE, CURRENT RATING AND POLE QUANTITY AS...

THREE PHASE AND SINGLE PHASE CIRCUIT SCHEDULE NOTES

1	UNLESS OTHERWISE INDICATED, CONDUCTOR SIZING SHALL MATCH THE SIZE INDICATED FOR THE APPLICABLE OVERCURRENT DEVICE. PROVIDE LARGER CONDUCTORS AND RACEWAY WHERE INDICATED.
2	PROVIDE TYPE AND MINIMUM SIZE OF RACEWAY OR CABLE AS INDICATED IN SPECIFICATION OR ON THE DRAWINGS.
3	PROVIDE NEUTRAL IN CIRCUIT UNLESS DEVICE SERVED DOES NOT HAVE PROVISIONS FOR A NEUTRAL CONNECTION.
4	MINIMUM SIZE CONDUIT FOR SCHEDULE 80 OR ENT IS ONE STANDARD ELECTRICAL SIZE LARGER THAN INDICATED IN THE SCHEDULE. PROVIDE LARGER CONDUIT WHERE SPECIFICALLY INDICATED OTHERWISE. DO NOT...
5	PROVIDE SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT.
6	PROVIDE ADDITIONAL ISOLATED GROUNDING CONDUCTOR SAME SIZE AS THE EQUIPMENT GROUND. IN CIRCUITS TO ISOLATED GROUND PANELS OR DEVICES, GREEN WITH YELLOW STRIPE.
7	FOR PANELS WITH 200% NEUTRAL PROVIDE 200% NEUTRAL USING TWO PHASE SIZED CONDUCTORS IF SIZE 1/0 OR LARGER, OTHERWISE PROVIDE (1) 3/0...
8	PROVIDE SEPARATE INDIVIDUAL NEUTRAL FOR ALL CIRCUITS EXCEPT LIGHTING CIRCUITS. PROVIDE A DEDICATED NEUTRAL FOR GFCI AND AFCI CIRCUITS.
9	CIRCUIT SIZING BASED ON 600 VOLT 90 DEGREE (C) RATED INSULATION. INTERIOR TYPE THHN/THWN OR XHHW-2 (LARGER THAN SIZE #6), FOR EXTERIOR OR BELOW GRADE UTILIZE RHW-2/USE-2 IN CONDUIT ONE SIZE LARGER. SIZING BASED ON 60 DEGREE (C) FOR AMPACITIES 100A OR LESS AN...
10	FOR SERVICE ENTRANCE CONDUCTORS IT IS NOT REQUIRED TO INSTALL THE GROUNDING CONDUCTOR. THE NEUTRAL CONDUCTOR IS FULL SIZED AND IS BONDED TO THE GROUNDING ELECTRODE CONDUCTOR AT THE TRANSFORMER AND THE SERVICE DISCONNECT.
11	FOR BATTERY CABLES, INSTALL AND GROUP IN PAIRS (ONE POSITIVE AND ONE NEGATIVE CONDUCTOR). MARK POSITIVE CONDUCTOR WITH (5) OVERLAPPING WRAPS OF RED ELECTRICAL TAPE ON EACH END.

VOLTAGE DROP CHART

MAXIMUM LOAD (VA)	MAXIMUM LENGTH PER CONDUCTOR SIZE #12	#10	#8
120 VOLT CIRCUITS			
800	155	245	390
1000	125	195	310
1200	105	165	260
1400	90	140	220
1600	80	125	195
1800	70	110	175
277 VOLT CIRCUITS			
2000	330	525	830
2500	265	420	665
3000	220	350	555
3500	190	300	475
4000	165	260	415

BRANCH CIRCUITS SCHEDULE

CIRCUIT BREAKER	CONDUCTOR
120 OR 277 VOLT, 1 PH., 2W CIRCUITS	
15A-1P, 20A-1P	2#12 & 1#12 GND - 3/4" C.
30A-1P	2#10 & 1#10 GND - 3/4" C.
40A-1P	2#8 & 1#10 GND - 3/4" C.
50A-1P	2#6 & 1#10 GND - 3/4" C.
60A-1P	2#6 & 1#10 GND - 3/4" C.
208/240 OR 480 VOLT, 1PH., 2W CIRCUITS	
15A-2P, 20A-2P	2#12 & 1#12 GND - 3/4" C.
30A-2P	2#10 & 1#10 GND - 3/4" C.
40A-2P	2#8 & 1#10 GND - 3/4" C.
50A-2P	2#6 & 1#10 GND - 3/4" C.
60A-2P	2#6 & 1#10 GND - 3/4" C.
208/240 OR 480 VOLT, 3PH., 3W CIRCUITS	
15A-3P, 20A-3P	3#12 & 1#12 GND - 3/4" C.
30A-3P	3#10 & 1#10 GND - 3/4" C.
40A-3P	3#8 & 1#10 GND - 3/4" C.
50A-3P	3#6 & 1#10 GND - 3/4" C.
60A-3P	3#6 & 1#10 GND - 3/4" C.

BRANCH CIRCUIT SCHEDULE NOTES:

1. TYPE MC CABLE SHALL INCLUDE FULL SIZE INSULATED GROUND CONDUCTOR. SIZES AS INDICATED IN SCHEDULE.
2. WIRING BASED ON MAXIMUM FEEDER LENGTH OF 150 FEET FOR 120 VOLT CIRCUITS AND 300 FEET FOR 277 VOLT CIRCUITS.
3. UPGRADE WIRE AND CONDUIT SIZE AS REQUIRED TO ADDRESS VOLTAGE DROP.

1. (GARDINER) PANEL B, REPLACE (2) EXISTING 40A 2P BREAKERS WITH (2) NEW 30A 2P BREAKERS, (1) ON POSITIONS 16,18 TO SERVE NEW CU-2 AND (1) ON POSITIONS 27,29 TO SERVE NEW CU-1.
PROVIDE NEW (1) 30A 2P BREAKER ON POSITIONS 31,33 TO SERVE NEW DC-1.
PROVIDE NEW (1) 15A 1P BREAKER ON POSITION 28 TO SERVE NEW DF-1.
PROVIDE NEW (1) 15A 2P BREAKER TO SERVE NEW AHU-1. REFER TO PHOTO D1 ON SHEET E-500.
BREAKERS SHALL MATCH ORIGINAL BREAKERS CHARACTERISTICS.PROVIDE NEW UPDATED PANEL SCHEDULE TO REFLECT CHANGES.

2. (YORK) PANEL A, REPLACE (2) EXISTING 20A 1P BREAKERS WITH (2) NEW 15A 1P BREAKERS,
(1) ON POSITION 19 TO SERVE NEW GF-1 AND (1) ON POSITION 21 TO SERVE NEW GF-2
REFER TO PHOTO D2 ON SHEET E-500. PROVIDE NEW UPDATED PANEL SCHEDULE TO REFLECT CHANGES.

3. (YORK) PANEL C, RE-UTILIZE (2) EXISTING 30A 2P BREAKERS (1) ON POSTIONS 8,10 TO SERVE NEW CU-1. (1) ON POSTIONS 9,11 TO SERVE NEW CU-2.
REFER TO PHOTO D4 ON SHEET E-500. PROVIDE NEW UPDATED PANEL SCHEDULE TO REFLECT CHANGES.

A7 KEY NOTES

Scale: AS INDICATED

Designed by:

No.	Revision	By	Date

ISSUED FOR BID - SEPTEMBER 22, 2025

STATE OF MAINE — BRIAN T. GARDNER No. 15506 — REGISTERED PROFESSIONAL ENGINEER — 10/1/25

	By	Date		By	Date
Designed:	RT	9/22/2025	Checked:	BTG	9/22/2025
Drawn:	RT	9/22/2025			

Allied Engineering
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AEI PROJ.NO.:2561-00002 | CAD FILE: 2561-00002.RVT

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

AIR HANDLER REPLACEMENTS YORK AND GARDINER MAINTENANCE FACILITIES ELECTRICAL SCHEDULES

SHEET NUMBER: E-600

CONTRACT: 2026.13.

13 OF 13