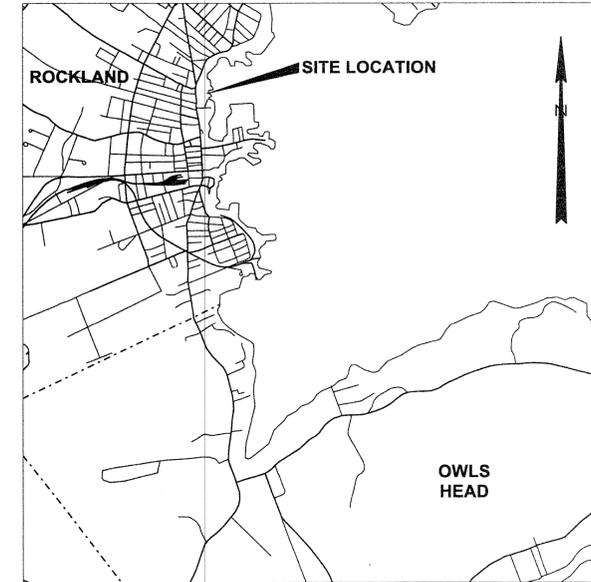
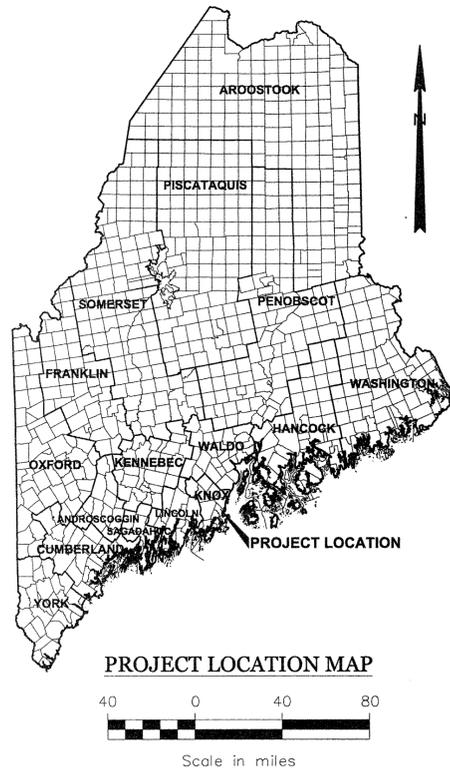


STATE OF MAINE DEPARTMENT OF TRANSPORTATION



CITY OF ROCKLAND KNOX COUNTY ROCKLAND FERRY TERMINAL HVAC IMPROVEMENTS WIN: 018342.10 FEDERAL PROJECT NO. FBD - 1834 (210)



SHEET INDEX

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED: *[Signature]* DATE: 9/24/13

COMMISSIONER: *[Signature]*

CHIEF ENGINEER: *[Signature]* 9-24-13

ROLAND A. LAVALLÉE
No. 6452
PROFESSIONAL ENGINEER

SIGNATURE: *[Signature]*
P.E. NUMBER: 67822
DATE: 9/19/13

PROJECT INFORMATION

PROGRAM: MULTIMODAL
PROJECT MANAGER: JEFFERY TWEEDE, P.E.
DESIGNER: CRAIG R. MORIN, P.E.
CONSULTANT: HNTB CORP.
PROJECT RESIDENT: -
CONTRACTOR: -
PROJECT COMPLETION DATE: -

WIN 018342.10

ROCKLAND FERRY TERMINAL
HVAC IMPROVEMENTS
KNOX COUNTY

ROCKLAND

TITLE/INDEX SHEET

SHEET NUMBER

G1

1 OF 9

Date: 9/19/2013

Username:

Division:

Filename: G1-COVER.dgn

GENERAL NOTES:

1. THESE DRAWINGS FORM PART OF THE CONTRACT DOCUMENTS AND SHALL BE WORKED IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS.
2. ALL DIMENSIONS AND CONDITIONS SHALL BE FIELD VARIFIED BY THE CONTRATOR PRIOR TO THE START OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE AFFECTED PARTS OF THE PROJECT.
3. THE EXACT SIZE AND LOCATION OF ALL EXISTING UTILITIES SHALL BE FIELD VARIFIED BY THE CONTRACTOR. CARE SHALL BE TAKEN TO PROTECT ANY UTILITIES PRESENT AND ALL CONSTRUCTION SHALL BE COORDINATED WITH THE RESIDENT.
4. IT IS CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION MEANS AND METHODS TO ENSURE THE INTEGRITY OF THE EXISTING FACILITIES, AS WELL AS THE SAFETY OF TERMINAL EMPLOYEES AND THE GENERAL PUBLIC DURING DEMOLITION AND CONSTRUCTION ACTIVITIES. THIS INCLUDES THE USE OF TEMPORARY BARRIERS, ENCLOSURES, AND SIGNAGE TO CLEARLY DEMARK CONSTRUCTION ZONES AND PREVENT DEBRIS FROM LEAVING THE CONSTRUCTION AREA.
5. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE AND MAINTAIN ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE, AND MUNICIPAL REGULATIONS AND PERMITS. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT NOT BE LIMITED TO NOISE, LIQUIDS, AND DUST.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS INCLUDING THE FEDERAL DEPARTMENT OF LABOR, SAFETY, AND HEALTH; FEDERAL, STATE, AND LOCAL BUILDING CODES; AND ALL REQUIREMENTS ASSOCIATED WITH THE AMERICANS WITH DISABILITIES ACT.
7. THE CONTRACTOR MAY BE CHARGED ANY ADDITIONAL COST OF REINSPECTION OR RETEST WHEN PRIOR, WHEN PRIOR REJECTION MAKES REINSPECTION OR RETEST NECESSARY.
8. DRAWING PLAN VIEWS WITH SCALES ARE INTENDED FOR FULL SIZE 22x34-INCH DRAWINGS

DEMOLITION NOTES:

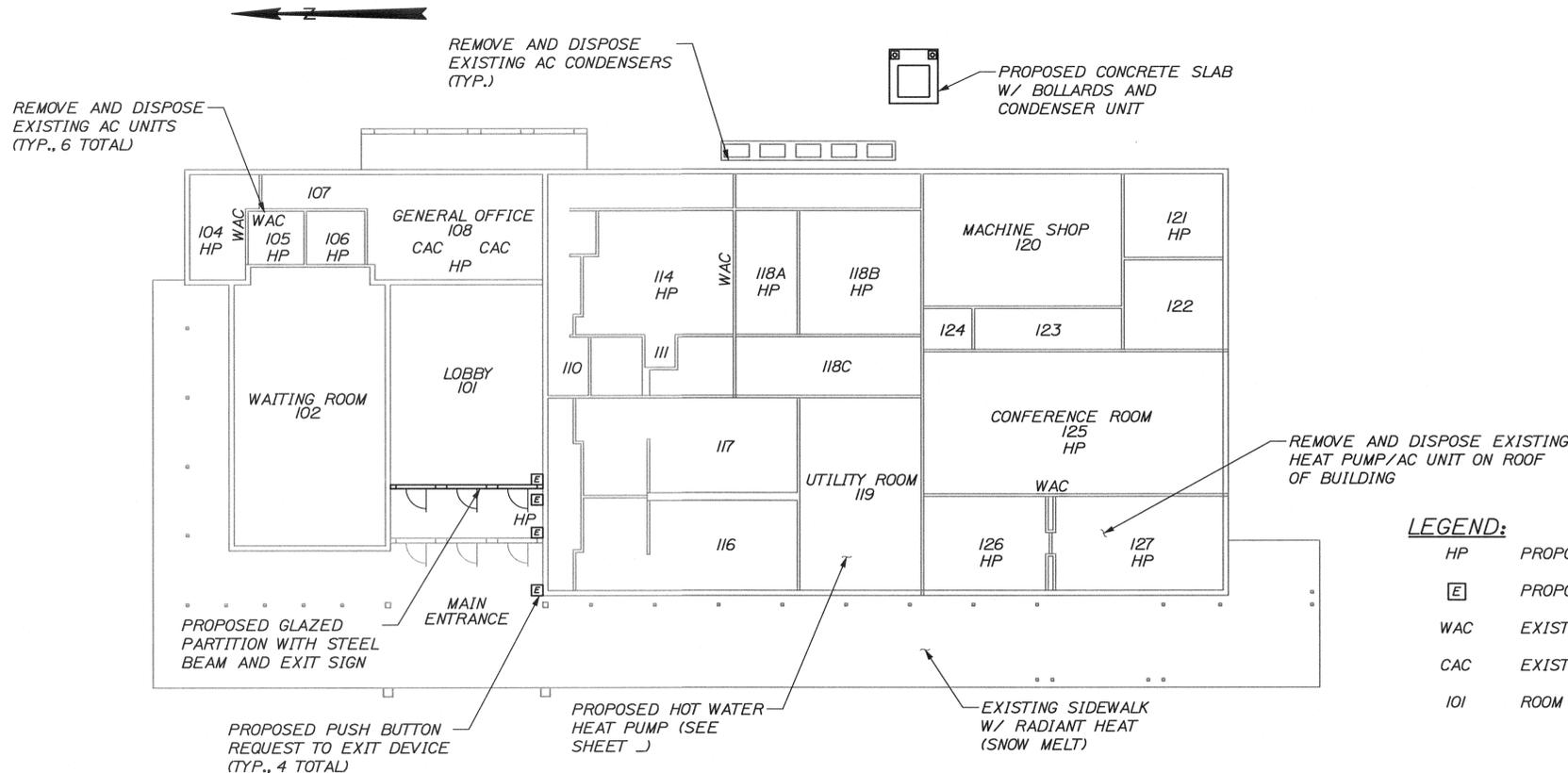
1. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE EXISTING FACILITIES.

ABBREVIATIONS:

AC	AIR CONDITIONING
BLDG	BUILDING
CIP	CAST-IN-PLACE
CLR	CLEAR
CY	CUBIC YARD
DIA	DIAMETER
EA	EACH
EF	EACH FACE
EL	ELEVATION IN FEET
EW	EACH WAY
FS	FAR SIDE
GWB	GYPSUM WALL BOARD
HDG	HOT DIPPED GALVANIZED
HSS	HOLLOW STRUCTURAL SECTIONS
ID	INSIDE DIAMETER
K (KIP)	1000 POUNDS
LBS	POUNDS
LF	LINEAR FEET
MAX	MAXIMUM
MIL	.001 INCHES
MIN.	MINIMUM
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
PSF	POUNDS PER SQUARE FOOT
RADIUS	RADIUS
REF	REFERENCE
REQ'D	REQUIRED
SF	SQUARE FEET
SS	STAINLESS STEEL
STD	STANDARD
TEMP	TEMPORARY
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED

LEGEND:

PL	PLATE
CL	CENTER LINE
#6	REINFORCING BAR SIZE
+12.22	SPOT ELEVATION (FEET)
⊕	PROJECT BENCHMARK
⊕	FIRE HYDRANT
⊕	UNDERGROUND ELECTRIC BOX
⊕	EXISTING LIGHT POLE
⊕	SANITARY MANHOLE
⊕	WATER GATE
⊕	CATCH BASIN
⊕	DRAIN MANHOLE
⊕	MANHOLE
⊕	TELEPHONE MANHOLE
⊕	ELECTRICAL MANHOLE
⊕	EXISTING CHAIN LINK FENCE
⊕	PROPOSED CHAIN LINK FENCE
⊕	TEMPORARY CHAIN LINK FENCE
⊕	JERSEY BARRIER WITH CHAIN LINK FENCE
⊕	GUARD RAIL
⊕	OVERHEAD ELECTRIC
⊕	UNDERGROUND ELECTRIC
⊕	SANITARY SEWER
⊕	STORM DRAIN
⊕	TELEPHONE
⊕	WATER
⊕	GAS
⊕	OVERHEAD SANITARY SEWER
⊕	OVERHEAD WATER
⊕	CURBING
⊕	CONCRETE
⊕	SAND
⊕	STEEL



NOTES:

1. MECHANICAL AND ELECTRICAL RUNS AND CONDUITS NOT SHOWN FOR CLARITY. SEE MECHANICAL SHEETS FOR DETAILS.

LEGEND:

HP	PROPOSED HEAT PUMP
[E]	PROPOSED REQUEST TO EXIT DEVICE
WAC	EXISTING WALL MOUNTED AC UNIT
CAC	EXISTING CEILING MOUNTED AC UNIT
101	ROOM IDENTIFICATION NUMBER

BUILDING / SITE PLAN
SCALE: NOT TO SCALE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	FBD -1834 (210)	WIN 018342.10
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED2 DESIGN-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE	DATE BY RAL DATE
ROCKLAND FERRY TERMINAL HVAC IMPROVEMENTS GENERAL NOTES AND DESIGN CRITERIA		
SHEET NUMBER G2		
2 OF 9		

Date: 9/19/2013

Username:

Division:

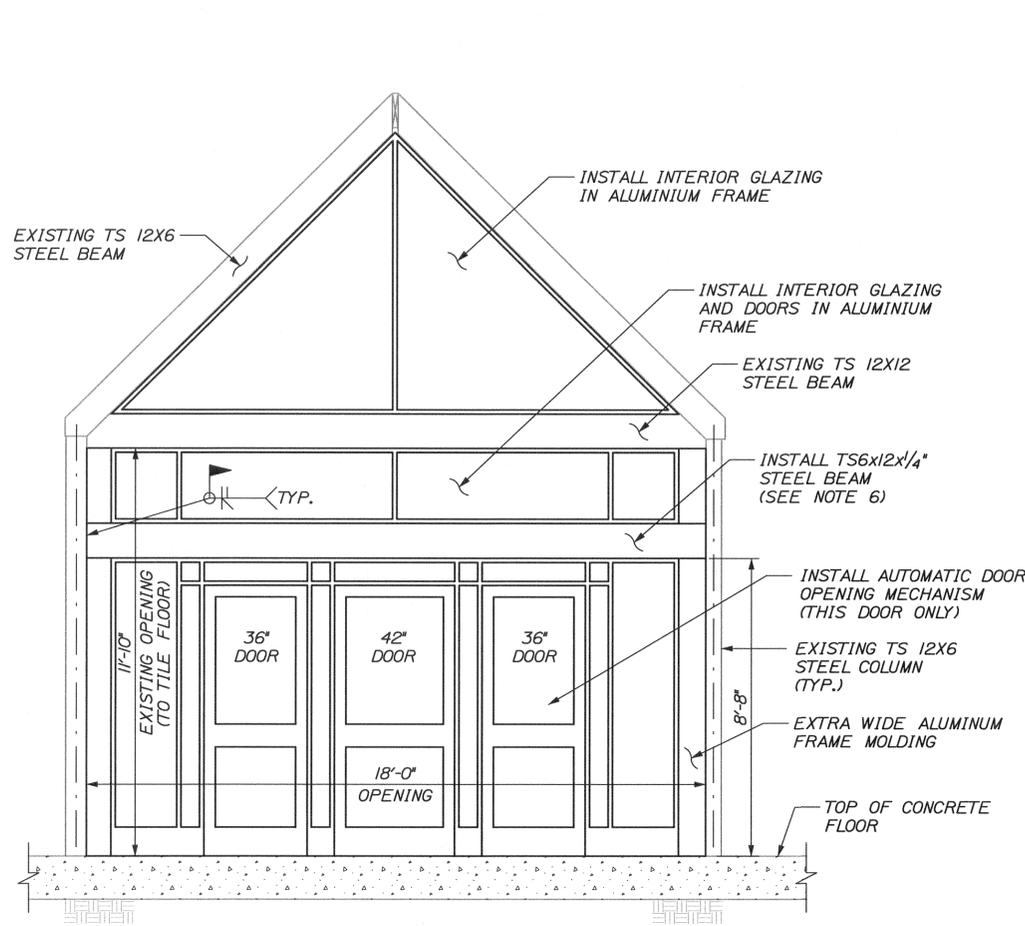
Filename: G2_SitePlan.dgn

Date: 9/19/2013

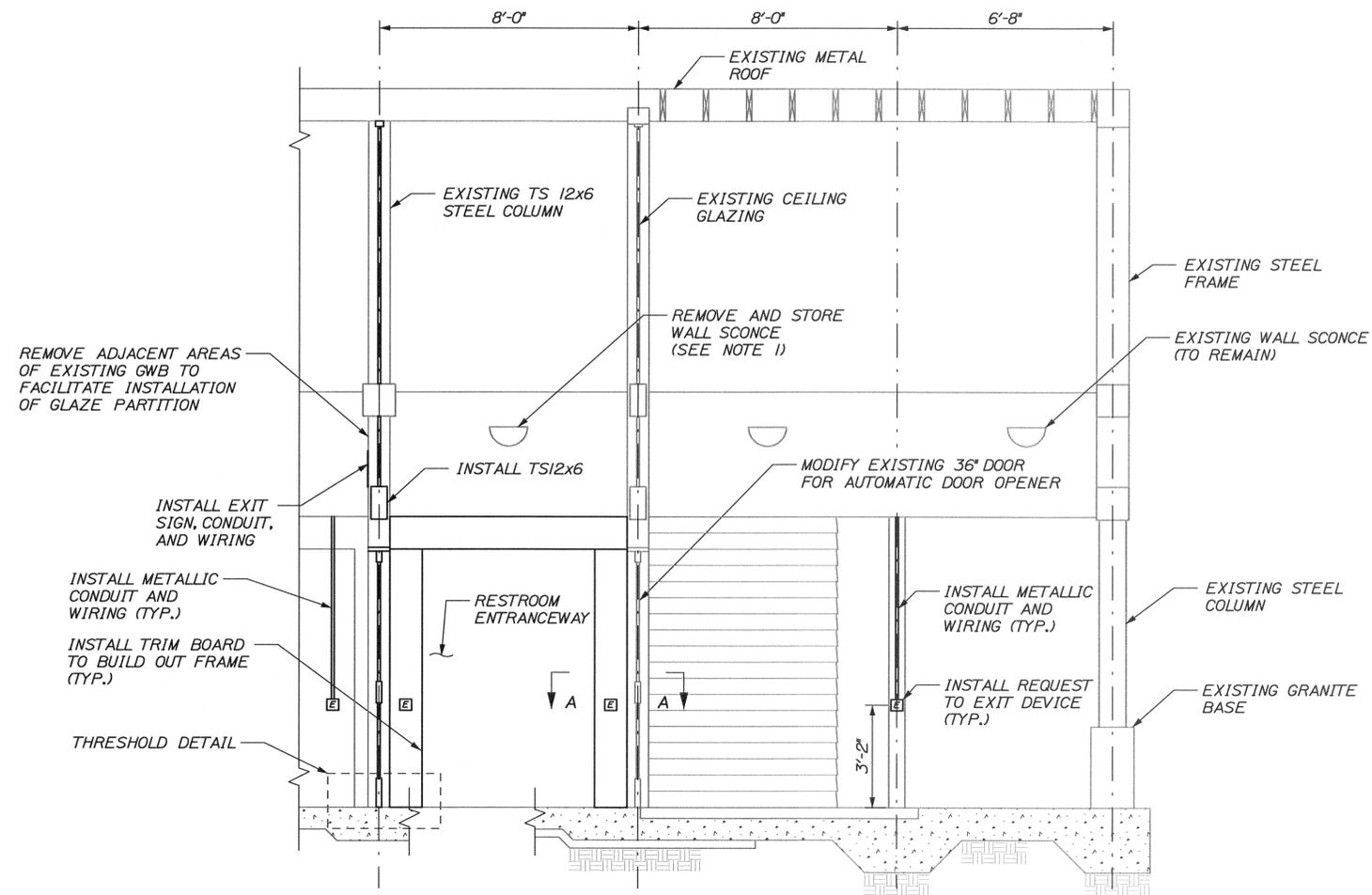
Username:

Division:

Filename: G3_Building Modification.dgn

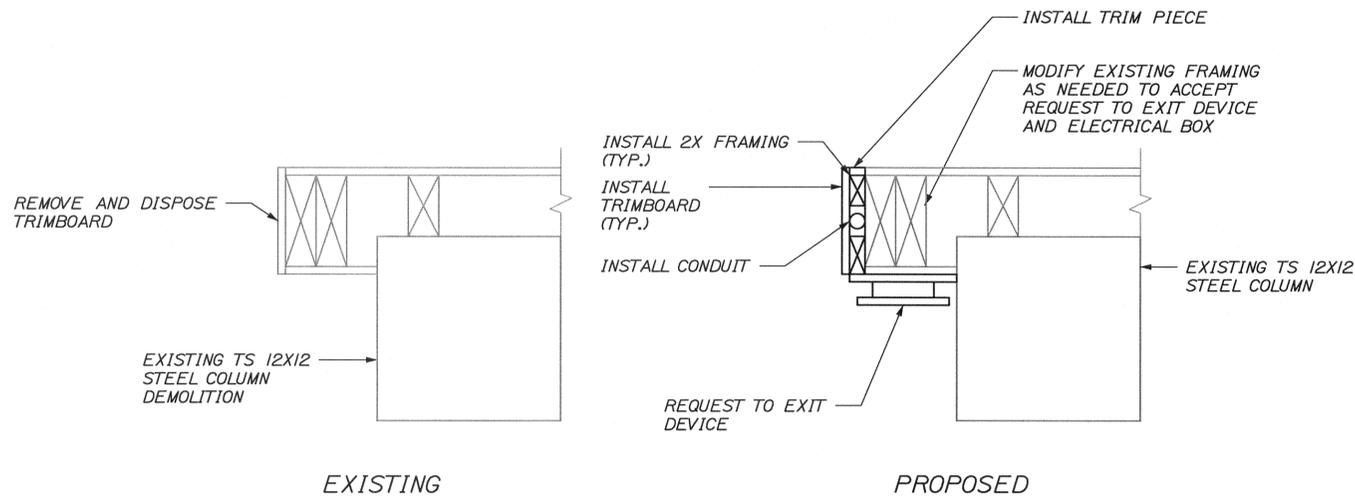


**ELEVATION
FACING EAST**
SCALE: 3/8" = 1'-0"

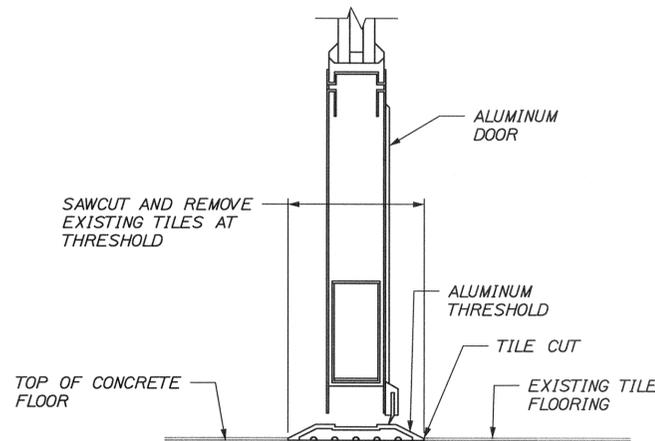


**SECTION
FACING SOUTH**
SCALE: 3/8" = 1'-0"

INTERNAL GLAZED PARTITION



SECTION A-A
SCALE: 2" = 1'-0"



THRESHOLD DETAIL
N.T.S.

NOTES:

1. WALL SCONCE SHALL BE REMOVED AND STORED IN LOCATION DESIGNATED BY RESIDENT. REPLACE WALL SCONCE WITH HEAT PUMP AS SHOWN ON MECHANICAL DRAWING.
2. PROPOSED GLAZING, DOORS, AND FRAMES SHALL BE INTERIOR GRADE MATERIAL OF SIMILAR DIMENSION AND STYLE TO THE EXTERIOR SYSTEM. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSION PRIOR TO ORDERING MATERIALS AND COMMENCING THE WORK. INTERIOR DIMENSIONS OF GLAZING OPENING SLIGHTLY DIFFER FROM EXTERIOR DIMENSIONS. ACCOMMODATE HORIZONTAL DIFFERENCES WITH WIDER ALUMINIUM FRAMES ALONG SIDE WALLS.
3. INSTALL ADA DECALS (DOUBLE-SIDED FACING) ON 36" DOORS NEAREST THE REQUEST TO EXIT DEVICES.
4. INSTALLATION OF TUBE STEEL BEAM SHALL COMPRISE FULL PENETRATION BEVEL WELDS GROUND SMOOTH. APPLY TOUCH-UP PAINT UPON COMPLETION.
5. TUBE STEEL: ASTM A500 GRADE B E70 ELECTRODES. PAINT COATING SHALL BE THREE-PART EPOXY COATING WITH TOP COAT COLOR TO MATCH EXISTING.
6. TS6x12 STEEL BEAM SHALL BE PAID FOR UNDER THE RESPECTIVE PAY ITEMS 504.70, 504.71, AND 506.9102.
7. ALL CONDUITS AND WIRING NECESSARY TO COMPLETE THE WORK WILL NOT BE PAID FOR SEPARATELY, BUT RATHER SHALL BE INCIDENTAL TO THE RESPECTIVE PAY ITEMS.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
FBD - 1834 (210)
WIN
018342.10

ROLAND A. LAVALLE
No. 6452
P.E. NUMBER
9/19/13
DATE

PROJ. MANAGER	DATE	BY	RAL
DESIGN-DETAILED			
CHECKED-REVIEWED			
DESIGN-DETAILED2			
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ROCKLAND FERRY TERMINAL
HVAC IMPROVEMENTS
BUILDING MODIFICATIONS

SHEET NUMBER

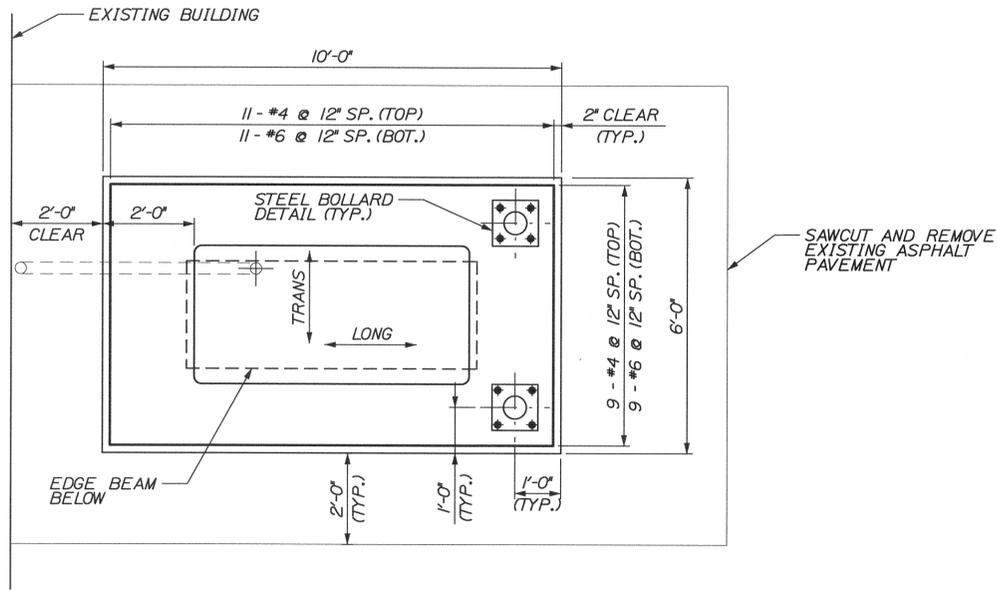
G3

Date: 9/19/2013

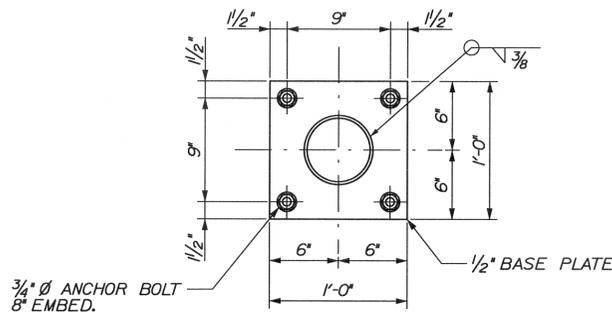
Username:

Division:

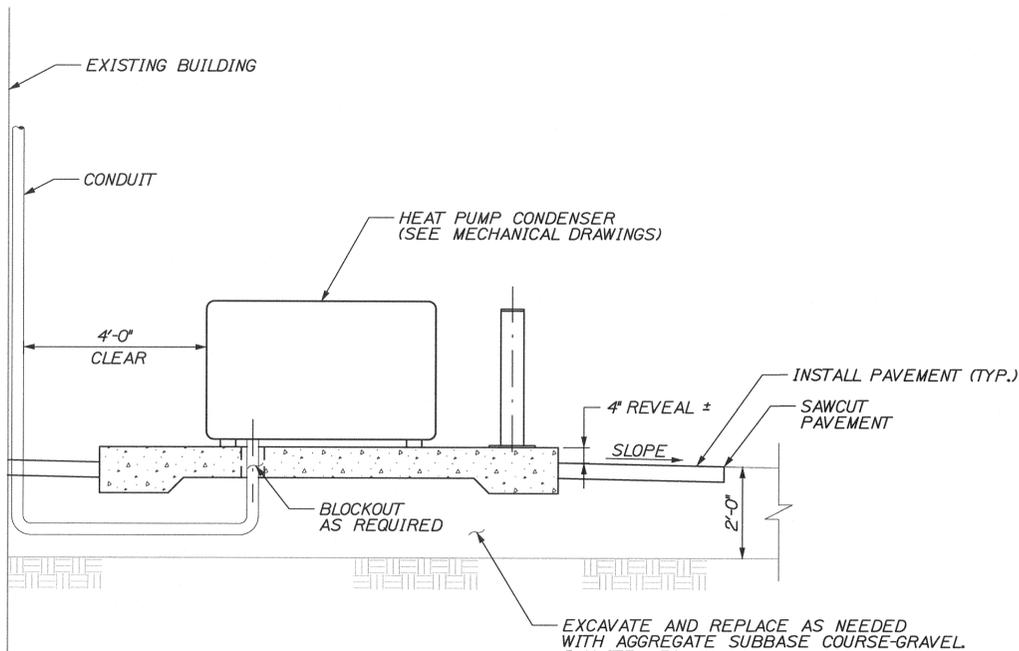
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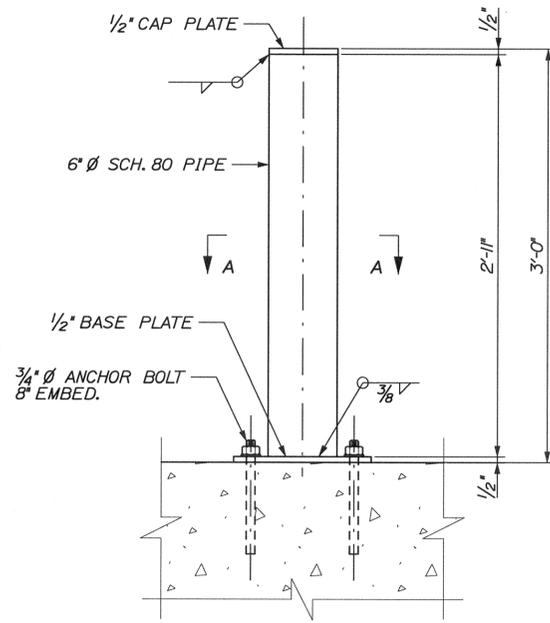
PLAN
SCALE: 1/2" = 1'-0"



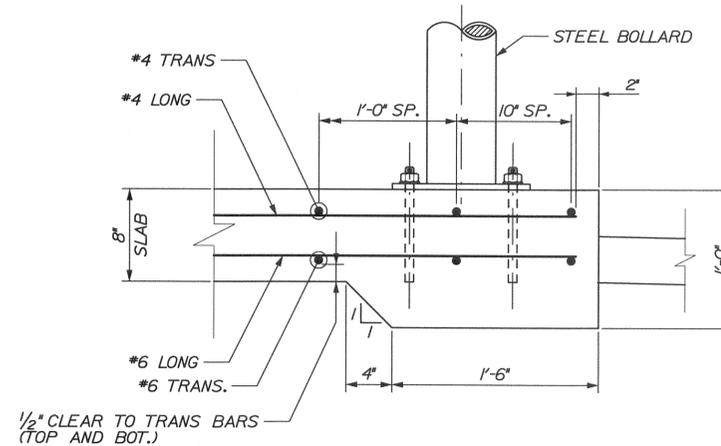
SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION A
SCALE: 1/2" = 1'-0"



PAD MOUNTED STEEL BOLLARD
SCALE: 1/2" = 1'-0"



EDGE BEAM DETAIL
SCALE: 1/2" = 1'-0"

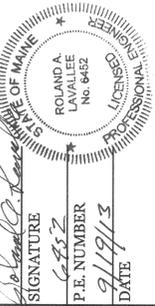
NOTES:

1. CONCRETE SHALL BE MAINE DOT CLASS LP (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION).
2. ALL CONCRETE EDGES SHALL BE CHAMFERED 3/4".
3. ALL STEEL REINFORCEMENT SHALL BE ASTM A615 EPOXY COATED BARS.
4. SUB-BASE MATERIAL SHALL BE MAINE DOT TYPE D.
5. CONTRACTOR TO COORDINATE LOCATION SIZE AND REQUIREMENT OF BLOCKOUT FOR CONDUITS WITH MECHANICAL AND ELECTRICAL COMPONENTS.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

FBD -1834 (210)

WIN
018342.10



PROJ. MANAGER	DATE	BY	RAL
DESIGN-DETAILED			
CHECKED-REVIEWED			
DESIGN-DET. FILED 2			
DESIGN-DET. FILED 3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ROCKLAND FERRY TERMINAL
HVAC IMPROVEMENTS
SITE MODIFICATIONS

SHEET NUMBER

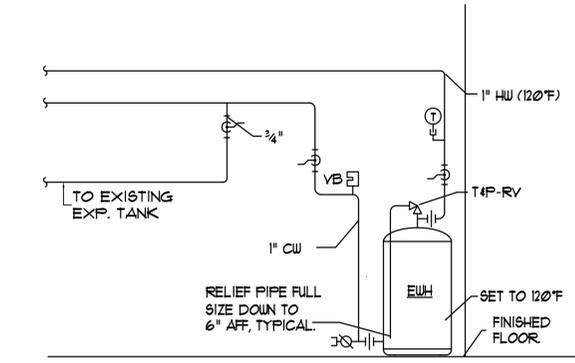
G4

Mechanical Existing Conditions / Demolition Notes
 R1 - Remove existing air-cooled condensing units (roof / ground mounted). Remove associated refrigerant piping, condensate piping, wiring, etc. Paint and patch to match existing.
 R2 - Remove existing wall / ceiling cassette air conditioning units.
 R3 - Remove existing Buderus indirect water heater. Disconnect 1" hot, cold water piping from the tankless coil on the boiler and route to the new EWH.
 1. Mount temperature sensors @ 48" AFF.
 2. Connect new condensate piping into existing. The minimum size of condensate piping shall be 3/4".

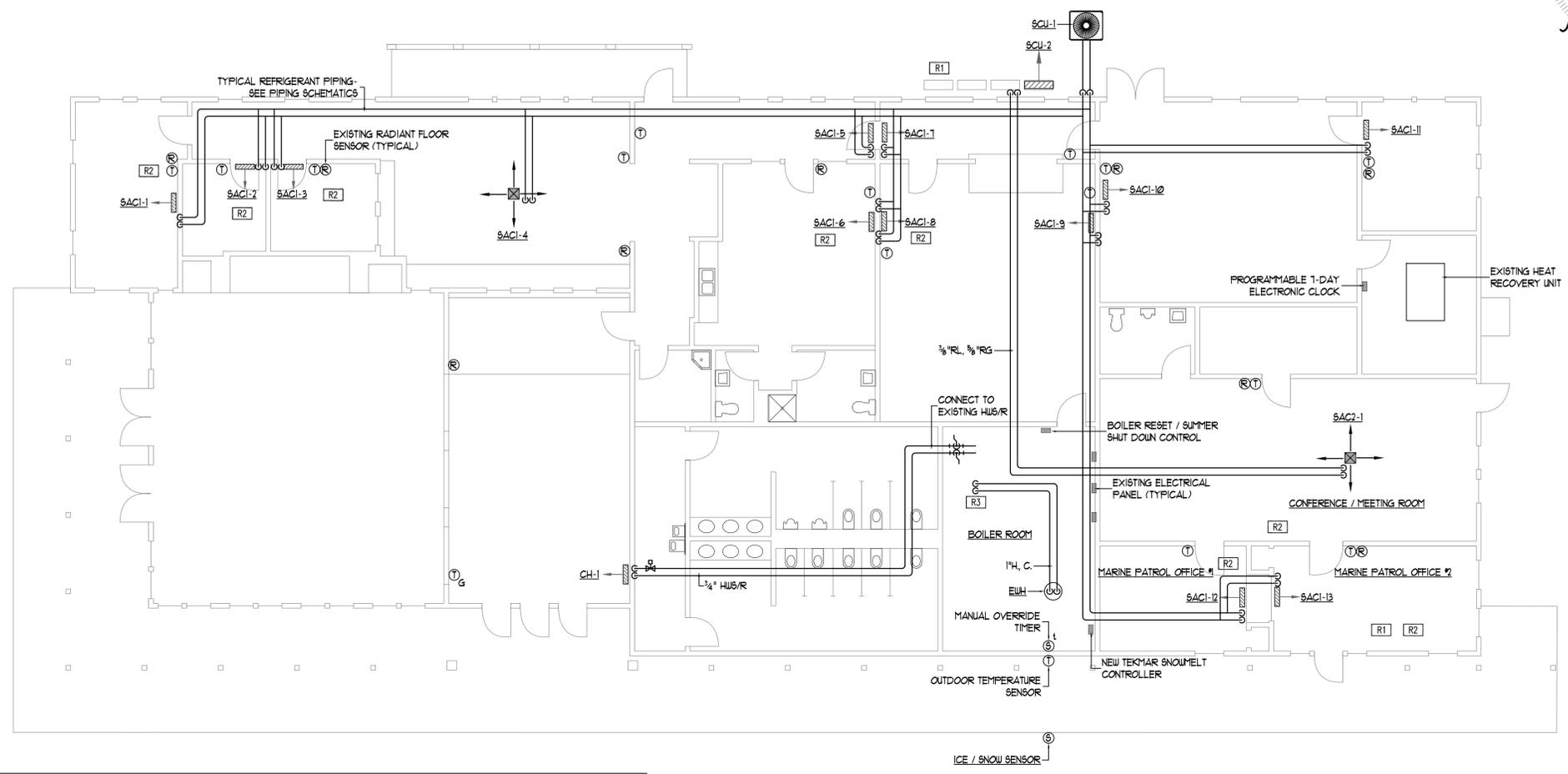
CABINET UNIT HEATER PERFORMANCE SCHEDULE										HEATING PERFORMANCE BASED ON 60°F ENTERING AIR TEMPERATURE UON.			
TAG	OUTPUT (MBH)	FLOW RATE (GPM)	WPD (FT/LG)	AIRFLOW (CFM)	ROUS	HTGHT. (INCHES)	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN TRANE			
							WATTS	MCA	V/PH/Hz	EWLT. (°F)	MOUNTING	ARRANGEMENT	MODEL
CHI	19.2	2.0	1.0	190	3	90" AFF	50	1.0	120/1/60	190	SURFACE	INVERTED WALL	FF-M-B03

Notes
 1. All data based on medium speed operation.

ELECTRIC / HEAT PUMP WATER HEATER PERFORMANCE SCHEDULE										
TAG	STORAGE (GALS)	INPUT (KW)	RECOVERY @ 100°F (GPH)	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN AO Smith			
				HP	WATTS	V/PH/Hz	SERVICE	FUEL	MODEL	DIMENSIONS
EWH	60	4.5	66.0	-	-	208/1/60	DCM HU	HYBRID /ELECTRIC	FHPT-60	61H x 24"



DOMESTIC HOT WATER PIPING SCHEMATIC
 NTS



SYMBOLS AND ABBREVIATIONS LEGEND

NOTE: USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET. SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
CA	COMPRESSED AIR PIPING (CA)	2	BUTTERFLY VALVES w/ SINGLE ACTUATOR	AAV	AUTOMATIC AIR VENT	P-*	PLUMBING FIXTURE TAG
CD	CONDENSATE DRAIN PIPING (C)	AV	BUTTERFLY VALVE w/ ACTUATOR	AD	ACCESS DOOR	PENETN	PENETRATION
CTR	COOLING TOUER RETURN PIPING (CTR)	TV	TRIPLE-DUTY VALVE	AF	ABOVE FINISHED FLOOR	FF-*	PADDLE FAN TAG
CTS	COOLING TOUER SUPPLY PIPING (CTS)	U	UNION	AHU	AIR HANDLING UNIT TAG	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
CWR	CHILLED WATER RETURN PIPING (CWR)	AFSD	ADJUSTABLE FLOW STATION FOR DISPLACEMENT DIFFUSERS	AFSD	ADJUSTABLE FLOW STATION FOR DISPLACEMENT DIFFUSERS	PSIG	POUNDS PER SQUARE INCH GAGE
CWS	CHILLED WATER SUPPLY PIPING (CWS)	FC	PIPE FLANGE	AMP	AMPERES	PVC	POLYVINYL CHLORIDE (PIPE)
FOR	FUEL OIL RETURN PIPING (FOR)	CDS	CARBON DIOXIDE SENSOR	AMP	AMPERES	RA	RETURN AIR
FOS	FUEL OIL SUPPLY PIPING (FOS)	AP	ACCESS PANEL	AP	ACCESS PANEL	RD	ROOF DRAIN
G	GAS PIPING (G)	APD	AIR PRESSURE DROP	APD	AIR PRESSURE DROP	RDE	RECOMMENDED DUAL ELEMENT FUSE AMP
HUR	HOT WATER RETURN PIPING (HUR)	AS-*	AIR SEPARATOR TAG	AS-*	AIR SEPARATOR TAG	RFF-*	RADIANT FLOOR MANIFOLD TAG
HUS	HOT WATER SUPPLY PIPING (HUS)	ATC	AUTOMATIC TEMPERATURE CONTROL	ATC	AUTOMATIC TEMPERATURE CONTROL	RG-*	RETURN GRILLE TAG
RL	REFRIGERANT LIQUID PIPING (RL)	B-*	BOILER TAG	B-*	BOILER TAG	RHW	RECIRCULATED HOT WATER
RG	REFRIGERANT GAS PIPING (RG)	BD-*	BYPASS DAMPER TAG	BD-*	BYPASS DAMPER TAG	RLA	RUNNING LOAD AMP
LTHUR	LOW TEMP HOT WATER RETURN PIPING (LTHUR)	BFP-*	BACKFLOW PREVENTER TAG	BFP-*	BACKFLOW PREVENTER TAG	RPM	REVOLUTIONS PER MINUTE
LTHUS	LOW TEMP HOT WATER SUPPLY PIPING (LTHUS)	BHP	BRAKE HORSEPOWER	BHP	BRAKE HORSEPOWER	RPS	REVOLUTIONS PER SECOND
SA	SANITARY PIPING BELOW FLOOR (SAN)	BTU	BRITISH THERMAL UNITS PER HOUR	BTU	BRITISH THERMAL UNITS PER HOUR	RR-*	RETURN REGISTER TAG
SAV	SANITARY PIPING ABOVE FLOOR (SAV)	B.S.	BELOW SLAB	B.S.	BELOW SLAB	RTU	ROOM TEMPERATURE SENSOR
SV	SANITARY VENT PIPING	CA	COMPRESSED AIR PIPING	CA	COMPRESSED AIR PIPING	RV	RELIEF VALVE
RL	RAINWATER LEADER ABOVE SLAB (RL)	CFM	CUBIC FEET PER MINUTE	CFM	CUBIC FEET PER MINUTE	RUL	RAINWATER LEADER
CW	DOMESTIC COLD WATER PIPING (CW)	CHL-*	CHILLER TAG	CHL-*	CHILLER TAG	SA	SUPPLY AIR
HW	DOMESTIC HOT WATER PIPING (HW)	CO	CLEANOUT	CO	CLEANOUT	SAN	SANITARY (DRAIN & WASTE)
RHW	RECIRCULATED HOT WATER PIPING (RHW)	CONV-*	CONNECTOR TAG	CONV-*	CONNECTOR TAG	SD	SMOKE DAMPER
PC	PIPE CAP	CUH-*	CABINET UNIT HEATER TAG	CUH-*	CABINET UNIT HEATER TAG	SEER	SEASONAL ENERGY EFFICIENCY RATIO
DF	DIRECTION OF FLUID FLOW	CP-*	CIRCULATING PUMP TAG	CP-*	CIRCULATING PUMP TAG	SF	SUPPLY FAN
EL	ELBOW UP	CT-*	COOLING TOUER TAG	CT-*	COOLING TOUER TAG	SG-*	SUPPLY GRILLE TAG
ED	ELBOW DOWN	CV	VALVE COEFFICIENT	CV	VALVE COEFFICIENT	SP	STATIC PRESSURE
TT	PIPE TEE UP	CW	COLD WATER	CW	COLD WATER	SP-*	SUPPLY PUMP TAG
TR	PIPE TEE DOWN	CUH/R	CHILLED WATER SUPPLY AND RETURN	CUH/R	CHILLED WATER SUPPLY AND RETURN	SR-*	SUPPLY REGISTER TAG
RD	PIPE REDUCER	DB	DRY BALLS	DB	DRY BALLS	SOFT	SQUARE FEET
WG	PIPE WITH GUIDE	DB RE	DECIBELS RELATIVE TO DOUBLE CHECK	DB RE	DECIBELS RELATIVE TO DOUBLE CHECK	ΔT	TEMPERATURE DIFFERENTIAL
WA	PIPE WITH ANCHOR	DCA	DOUBLE CHECK	DCA	DOUBLE CHECK	TEMP.	TEMPERATURE
BV	BUTTERFLY VALVE	DEG F	DEGREES FAHRENHEIT	DEG F	DEGREES FAHRENHEIT	TC	TEMPERATURE CONTROL PANEL
G1	G1 1/2 GATE VALVE	DIA	DIAMETER	DIA	DIAMETER	TMV-*	THERMOSTATIC MIXING VALVE TAG
BFP	BACKFLOW PREVENTER (BFP)	DIW	DOWN IN WALL	DIW	DOWN IN WALL	TSP	TOTAL STATIC PRESSURE
CV	CHECK VALVE	DN	DOWN	DN	DOWN	TYP	TYPICAL
AV	BALANCING VALVE (ADJUSTABLE)	EA	EXHAUST AIR	EA	EXHAUST AIR	UH-*	UNIT HEATER TAG
AFV	AUTOMATIC FLOW CONTROL VALVE	EAT	ENTERING AIR TEMPERATURE	EAT	ENTERING AIR TEMPERATURE	UWCO	UNITS PER HOUR
RV	RELIEF VALVE (RV)	EDB	ENTERING DRY BULB	EDB	ENTERING DRY BULB	VAV-*	VARIABLE AIR VOLUME BOX TAG
BV	BALL VALVE	EDC-*	ELECTRIC DUCT COIL TAG	EDC-*	ELECTRIC DUCT COIL TAG	VB	VACUUM BREAKER
BV	BALL VALVE	EER	ENERGY EFFICIENCY RATIO	EER	ENERGY EFFICIENCY RATIO	VFD	VARIABLE FREQUENCY INVERTER DRIVE
3/4"	3/4" BALL VALVE WITH 3/4" HOSE END	EF-*	EXHAUST FAN TAG	EF-*	EXHAUST FAN TAG	VTR	VENT THRU ROOF
G1	GATE VALVE	EF	EXHAUST FAN TAG	EF	EXHAUST FAN TAG	V/PH/Hz	VOLTS/PHASE/HERTZ
PRV	PRESSURE REDUCING VALVE	EG-*	EXHAUST GRILLE TAG	EG-*	EXHAUST GRILLE TAG	UB	UBET BULB
FV	FUSIBLE VALVE	ER-*	EXHAUST REGISTER TAG	ER-*	EXHAUST REGISTER TAG	UCO	WALL CLEANOUT
SB	STRAINER w/ BLOWDOWN BALL VALVE	ESP	EXTERNAL STATIC PRESSURE	ESP	EXTERNAL STATIC PRESSURE	UG	WATER GAGE
2-WAY	2-WAY CONTROL VALVE	ET-*	ENTERING AIR TEMPERATURE	ET-*	ENTERING AIR TEMPERATURE	UGD	WATER PRESSURE DROP
3-WAY	3-WAY CONTROL VALVE	EUB	ENTERING WET BULB	EUB	ENTERING WET BULB	UA	WIRE SIZING AMP
3-WAY	3-WAY CONTROL VALVE (TOP VIEW)	EWH	ELECTRIC WATER HEATER TAG	EWH	ELECTRIC WATER HEATER TAG	UTD	WATER TEMPERATURE DROP
4-WAY	4-WAY CONTROL VALVE (TOP VIEW)	EWT	ENTERING WATER TEMPERATURE	EWT	ENTERING WATER TEMPERATURE	WD	WATER DRAIN
		EXG	EXISTING	EXG	EXISTING	W	WIRE
						WD	WATER DRAIN
						WTH	WITH
						ZD-*	ZONE DAMPER TAG

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 MDOT PROJ #FBD-6069(00)X
 WIN 018342.10

BENNETT ENGINEERING MECHANICAL • ELECTRICAL (207) 865-9475		SIGNATURE	P.E. NUMBER	DATE
PROJECT MANAGER/ENGINEER/DESIGNER	DATE	9/20/13		
DESIGNER-DETAILED	BY			
SPD	CAT			

ROCKLAND FERRY TERMINAL
 HVAC IMPROVEMENTS
 HVAC MODIFICATIONS AND DETAILS
 SHEET NUMBER
M1
 5 OF 9



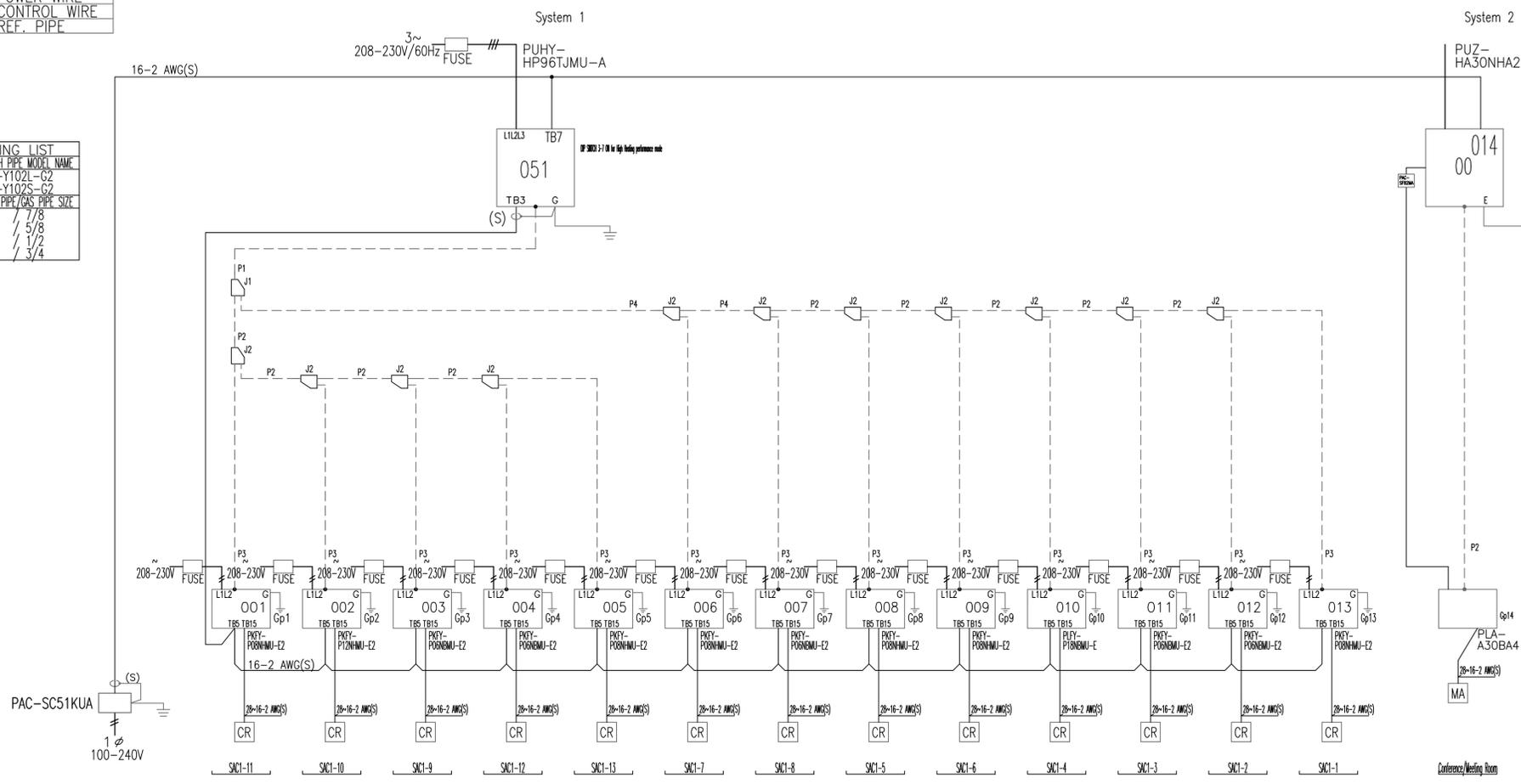
Rockland Ferry Terminal

CITY MULTI
SYSTEM SCHEMATIC DWG.

Additional refrigerant charge is needed depending on the size and length of extended piping.
Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

DIAGRAM	SYMBOL	LEGEND	CONT.No	PAGE
---	---	POWER WIRE		
---	---	CONTROL WIRE		
---	---	REF. PIPE		

PIPING LIST		
SYMBOL	BRANCH PIPE MODEL NAME	
J1	CMY-Y102L-C2	
J2	CMY-Y102S-C2	
SYMBOL LIQUID PIPE/GAS PIPE SIZE		
P1	1/2	7/8
P2	3/8	5/8
P3	1/4	1/2
P4	3/8	3/4



REMARKS
Comments:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MDOT PROJ #FBD-6069(00)X
WIN
018342.10



PROJ. MANAGER	JEFFREY TWEDD, PE	SIGNATURE	
DESIGNER	CRAIG MORIN, PE	P.E. NUMBER	
DATE	9/20/13	DATE	
BY	CAT	P.E. NUMBER	
DESIGN-DETAILED	SPD	DATE	

ROCKLAND FERRY TERMINAL
HVAC IMPROVEMENTS
HVAC MODIFICATIONS AND DETAILS

SHEET NUMBER

M2

MITSUBISHI CITY MULTI VRF OUTDOOR UNIT SCHEDULE

System Tag	Tag Reference	M-Net Address	Model Number	Modules	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Voltage / Phase	Electrical-Per Module 208/230 or 460			Notes / Options
												MCA	RFS	MFS	
System 1		51	PUHY-HP96TJMU-A	HP96	96,000.0	108,000.0	88.0	-7.5	94,702.9	91,376.6	208/230V, 3-phase 3-wire	74/68	75	75/75	1, 2, 3, 4, 5
System 2		14	PUZ-HA30NHA2		30,000.0	32,000.0	88.0	-7.5	30,201.3	27,280.0	208/230V,				1, 2, 3, 4, 5

Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
- For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module
- Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.



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MITSUBISHI CITY MULTI VRF INDOOR UNIT SCHEDULE

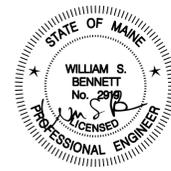
System Tag	Room Name	Tag Reference	Model	Type	Remote Sensor	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Design Entering Temp DB/WB (°F) / [Water in temp]	Heating Design Entering Temp DB/WB (°F) / [Water in temp]	Cooling Diversity Full/Partial (See Note 5, 6)
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P08NHMU E2	Wall mounted type		8,000.0	9,000.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P08NHMU E2	Wall mounted type		8,000.0	9,000.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P08NHMU E2	Wall mounted type		8,000.0	9,000.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P08NHMU E2	Wall mounted type		8,000.0	9,000.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND
System 1			PKFY-P06NBMU E2	Wall mounted type		6,000.0	6,700.0	80.0/67.0	70.0	FULL DEMAND

Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected
- See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and
- Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system. Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply. It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (full demand/partial demand) prior to generating this schedule.
- It is recommended to always base heating corrected capacity on full demand.

DATE	BY	DATE	BY	DATE	BY
9/20/13	CAJ				

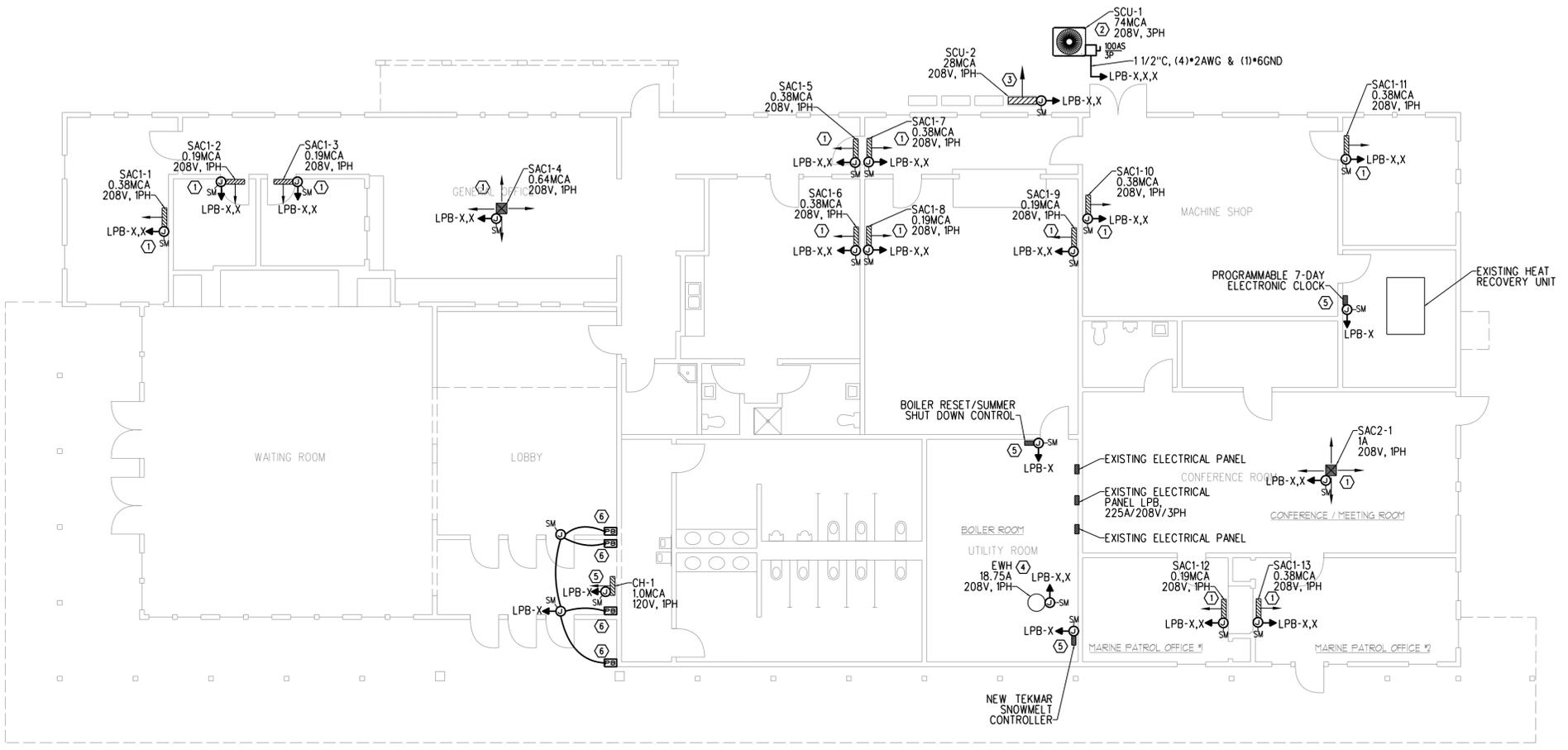
ROCKLAND FERRY TERMINAL
 HVAC IMPROVEMENTS
 HVAC MODIFICATIONS AND DETAILS



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 MDOT PROJ #FBD-1834(210)
 W/TN
 018342.10



DATE	BY	PROJ. MANAGER	DESIGNER	DESIGN-DETAILED	SPD	CRANG	MORIN	PE	SIGNATURE	P.E. NUMBER	DATE
8/13	CAT										



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

WORK NOTES

- ① CONTRACTOR SHALL WIRE ALL SAC UNITS (SAC1-1 THRU SAC1-13) TO THE NEXT AVAILABLE 2 POLE, 20A CIRCUIT BREAKER IN EXISTING PANEL LPB.
- ② CONTRACTOR SHALL WIRE SCU-1 TO THE NEXT AVAILABLE 3 POLE, 75A CIRCUIT BREAKER IN EXISTING PANEL LPB.
- ③ CONTRACTOR SHALL WIRE SCU-2 TO THE NEXT AVAILABLE 2 POLE, 35A CIRCUIT BREAKER IN EXISTING PANEL LPB.
- ④ CONTRACTOR SHALL WIRE EWH TO THE NEXT AVAILABLE 2 POLE, 30A CIRCUIT BREAKER IN EXISTING PANEL LPB.
- ⑤ CH-1, BOILER RESET/SUMMER SHUTDOWN CONTROLLER, TEKMAR SNOWMELT CONTROLLER AND PROGRAMMABLE 7-DAY ELECTRONIC CLOCK SHALL EACH BE SEPARATELY WIRED TO THE NEXT AVAILABLE 1 POLE, 20A CIRCUIT BREAKERS IN EXISTING PANEL LPB.
- ⑥ CONTRACTOR SHALL WIRE DOOR PUSHBUTTONS (TYPICAL OF 4) TO THE SAME, NEXT AVAILABLE 1 POLE, 20A CIRCUIT BREAKER IN EXISTING PANEL LPB.

ROCKLAND FERRY TERMINAL
 HVAC IMPROVEMENTS
ELECTRICAL PLAN

SHEET NUMBER

E1

GENERAL NOTES

- NOT ALL SYMBOLS INDICATED IN THE LEGEND APPEAR ON THE DRAWINGS. COORDINATE WORK ACCORDINGLY. COMPLY WITH SPECIFICATIONS AND NOTES BELOW AS APPLICABLE.
- ALL RECEPTACLES SHALL BE INSTALLED 18" AFF TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.
- PROVIDE PANELBOARDS AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, SIEMENS, CUTLER HAMMER OR APPROVED EQUAL.
- ALL WIRING SHALL BE COPPER UNLESS DESIGNATED AS "AL". UNLESS OTHERWISE NOTED ALL WIRING SHALL BE 2*12 AWG. AND 1*12 EQUIPMENT GROUNDING CONDUCTOR. HOMERUNS FED FROM A 20A-1P, 120V CIRCUIT IN EXCESS OF 70' SHALL BE *10 AWG.
- CONNECT BATTERY BACKED EMERGENCY AND EXIT LIGHTING TO NEAREST LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. CONNECT REMOTE HEADS WITH *10 AWG. COPPER CONDUCTORS. AC EXIT FIXTURES SHALL BE CONNECTED TO NEAREST EMERGENCY CIRCUIT OR AS INDICATED.
- TEST ALL EMERGENCY LIGHTING UNITS FOR PROPER OPERATION OF LAMPS AND BATTERIES.
- SEE MECHANICAL PLAN FOR HVAC UNITS, PUMPS AND FANS CONTROLLED BY THERMOSTATS (PROVIDED BY ATC CONTRACTOR).
- FUSES AND OVERLOAD UNITS FOR MOTORS SHALL BE SIZED BASED ON ACTUAL MOTOR NAMEPLATE DATA AND IN ACCORDANCE WITH NEC. CIRCUIT BREAKERS FOR MOTORS ARE SUPPLIED AT MAX VALUE PER NEC (2.5 x FLA). SIZE IN THE FIELD IN ACCORDANCE WITH MFG. RECOMMENDATION.
- ALL WORK SHALL COMPLY WITH NFPA70, NFPA72, NFPA101 & ALL FEDERAL, STATE & LOCAL REGULATIONS.
- ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN FIRE RATING FOR THE SEPARATION.
- ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
- AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS. SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.
- PROVIDE TWO BALLASTS FOR EACH FIXTURE INDICATED AS REQUIRING DUAL LEVEL SWITCHING. ONE BALLAST TO CONTROL OUTER LAMPS AND THE SECOND BALLAST TO CONTROL INNER LAMPS).
- COORDINATE INSTALLATION OF VOICE/DATA OUTLETS WITH OWNER, MIS OR COMMUNICATIONS CONTRACTOR.
- LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED BY MANUFACTURER. LOCATIONS ON DRAWINGS ARE APPROXIMATE.
- OPERATE ALL FLUORESCENT AND METAL HALIDE LAMPS FROM INITIAL INSTALLATION FOR 100 HOURS AT FULL OUTPUT (NO DIMMING) TO SEASON LAMPS AND STABILIZE LAMP COLOR.
- PROVIDE RISER OR PLENUM RATED CABLES ABOVE SUSPENDED CEILINGS.
- THE CONTRACTOR SHALL SET ALL ELECTRONIC BREAKERS TO SPECIFIED TRIP SETTINGS BEFORE ENERGIZING EQUIPMENT.
- PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND RACEWAYS ENTERING ENCLOSURES ATTACHED TO FIXED STRUCTURES.
- OUTDOOR RECEPTACLE COVERS SHALL COMPLY WITH NFPA 70 - ARTICLE 406.9.
- ALL CONDUCTOR INSULATION FOR BUILDING WIRE SHALL BE THWN/THHN UNLESS NOTED OTHERWISE.
- PROVIDE LABEL ON SERVICE EQUIPMENT INDICATING AVAILABLE SHORT CIRCUIT CURRENT ADD TO MASTER AND DATE OBTAIN VALUES FROM ENGINEER.
- PROVIDE ARC FAULT LABELS PER NFPA 70-ARTICLE 110.24
- BUILDING REQUIRES TWO SERVICE ENTRANCES, PROVIDE SIGNS PER NFPA 70-230.
- PROVIDE LABELING AT SERVICE EQUIPMENT INDICATING THE LOCATION OF EMERGENCY/STANDBY GENERATORS.

ABBREVIATIONS

A	AMP	LP	LIGHTING PANELBOARD
AC	ALTERNATING CURRENT, ABOVE COUNTER	LTG	LIGHTING
ADA	AMERICANS WITH DISABILITIES ACT	LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT CIRCUIT BREAKER TRIP FUNCTIONS AS INDICATED
AF	AMP FRAME	MCC	MOTOR CONTROL CENTER
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MCCB	MOLDED CASE CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
AFG	ABOVE FINISHED GRADE	MDP	MAIN DISTRIBUTION PANEL
AIC	AMPERES INTERRUPTING CAPACITY	MH	MANHOLE
AL	ALUMINUM	MLO	MAIN LUGS ONLY
AT	AMP TRIP	MTS	MANUAL TRANSFER SWITCH
ATC	AUTOMATIC TEMPERATURE CONTROL	NC	NORMALLY CLOSED OF NURSE CALL
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BLDG	BUILDING	NL	NIGHT LIGHT
C	CONDUIT	NO	NORMALLY OPEN
CB	CIRCUIT BREAKER	CI	CAST IRON
CI	CIRCUIT	NO.	NUMBER
CKT	CIRCUIT	OL	OVERLOAD
CL	CENTERLINE	P	POLE
CMP	CENTRAL MAINE POWER (ELECTRIC UTILITY)	PA	PUBLIC ADDRESS
CMU	CONCRETE MASONRY UNIT	PB	PUSH BUTTON
CT	CURRENT TRANSFORMER	PF	POWER FACTOR
CONC	CONCRETE	PH	PHASE
CS	CARBON STEEL	PNL	PANEL
CU	COPPER	TP1-2	TELE-POWER POLE - POLE AND CIRCUIT NUMBER AS INDICATED
CUH	CABINET UNIT HEATER	PSNH	PUBLIC SERVICE OF NEW HAMPSHIRE (ELECTRIC UTILITY)
DL	DAMP LOCATION	PT	POTENTIAL TRANSFORMER
EC	ELECTRICAL CONTRACTOR	PVC	POLYVINYL CHLORIDE
EF	EXHAUST FAN	RL	ELECTRICAL EQUIPMENT TO BE RELOCATED
ER	EXISTING REMAINS IN PLACE	RM	ELECTRICAL EQUIPMENT TO REMAIN
ERL	EXISTING RELOCATE	RSC	RIGID STEEL CONDUIT
ERM	EXISTING REMOVE	RTU	ROOF TOP UNIT
EUH	ELECTRIC UNIT HEATER	RV	ELECTRICAL EQUIPMENT TO REMOVE
EWC	ELECTRICAL WATER COOLER	RVNR	REDUCED VOLTAGE, NON-REVESING
FACP	FIRE ALARM CONTROL PANEL	SB	SMART BOARD
FAPS	FIRE ALARM PULL STATION	SF	SUPPLY FAN
FRP	FIBER REINFORCED PLASTIC	SLD	SINGLE LINE DIAGRAM
FVNR	FULL VOLTAGE, NON-REVERSING	SM	MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD DEVICE, MOUNTED AT UNIT SOLID STATE
FWU	FURNISHED WITH UNIT	SS	SWITCHBOARD NUMBER AS DESIGNATED
DC	DIRECT CURRENT	SWBD-1	SWITCHBOARD NUMBER AS DESIGNATED
GFI	GROUND FAULT INTERRUPTER	TC	TIME CLOCK
GND	GROUND	TS	TRANSFER SWITCH
HID	HIGH INTENSITY DISCHARGE	T&B	TOP AND BOTTOM
HOA	HAND-OFF-AUTOMATIC	TYP	TYPICAL
HP	HORSEPOWER	UG	UNDERGROUND
HPS	HIGH PRESSURE SODIUM	V	VOLT
HZ	HERTZ	VA	VOLT-AMPERE
ICB	INSULATED CASE CIRCUIT BREAKER	VFD	VARIABLE FREQUENCY DRIVE
JB	JUNCTION BOX	W	WATT
KAIC	THOUSAND AMP INTERRUPTING CAPACITY	W/	WITH
KCML	THOUSAND CIRCULAR MIL	WP	WEATHERPROOF
KV	THOUSAND VOLTS	XFMR	TRANSFORMER
KVA	THOUSAND VOLT-AMPS	XP	EXPLOSION PROOF
KW	THOUSAND WATTS (KILOWATT)	3PH	THREE PHASE
LC	LIGHTING CONTACTORS	4W	FOUR WIRE
LCP	LATERAL CONTROL PIT	3W	THREE WIRE
LED	LIGHT EMITTING DIODE		

SYMBOL LEGEND

- POWER PANEL, 120/208V, 3PHS, 4WIRE
- ELECTRIC MOTOR DRIVEN EQUIPMENT, HP SHOWN
- JUNCTION BOX - "H" DENOTES RANGE HOOD, "DS" DENOTES DISPOSAL, "DW" DENOTES DISHWASHER
- DISCONNECT SWITCH - 250 VOLT - SIZE AND NUMBER OF POLES AS INDICATED ON DRAWING. PROVIDED BY E.C. UNLESS NOTED OTHERWISE. PROVIDE FUSES WHERE RECOMMENDED BY MANUFACTURER.
- COMBINATION MOTOR STARTER/ DISCONNECT SWITCH - WITH AUXILIARY CONTACTS AND HAND-OFF-AUTO SWITCH AND RED RUN LIGHT. PROVIDED AND INSTALLED BY E.C. UNLESS NOTED OTHERWISE.
- VARIABLE FREQUENCY DRIVE - PROVIDED BY M.C., INSTALLED AND WIRED BY E.C.
- DUPLEX RECEPTACLE - 20A, 125V. SPEC GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT 18" AFF UNLESS NOTED OTHERWISE. "R" DENOTES REFRIGERATOR, MOUNT RECEPTACLE AT *48" ABOVE FINISHED FLOOR (AFF).
- QUAD RECEPTACLE - 20A, 125V. SPEC. GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT 18" AFF UNLESS NOTED OTHERWISE.
- DUPLEX RECEPTACLE - 20A, 125V. SPEC. GRADE GROUNDING TYPE, TAMPER PROOF AND MATCHING PLATE, MOUNT 18" AFF - BOTTOM RECEPTACLE SWITCHED.
- GROUND FAULT DUPLEX RECEPTACLE - 20A, 125V - TAMPER PROOF WITH MATCHING PLATE FURNISHED W/ OUTLET. FLUSH MOUNTED 45" AFF EXCEPT AS NOTED.
- FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE - 15A, 125V. SPEC. GRADE GROUNDING TYPE
- RANGE OUTLET 50 AMP, 250 VOLT, GROUNDING TYPE FLUSH MOUNTED 18" AFF
- DRYER OUTLET 30 AMP, 250 VOLT, GROUNDING TYPE FLUSH MOUNTED 18" AFF
- RACEWAY & WIRING OR MC CABLE RUN CONCEALED IN WALLS/CEILINGS.
- RACEWAY & WIRING RUN EXPOSED
- RACEWAY & WIRING RUN CONCEALED UNDER FLOOR OR BURIED 30" BELOW FINISH GRADE
- HOME RUN TO PANEL - ARROWS INDICATE QUANTITY OF CIRCUITS - NUMERALS DENOTE CIRCUIT NUMBERS
- CABLE TV JUNCTION BOX "CTV" - SIZE AS REQUIRED BY CABLE TV CO.
- TV OUTLET LOCATION - CABLE AND JACKS BY E.C.
- TEMPERATURE CONTROL PANEL - PROVIDED BY M.C. WIRED BY E.C.
- PUSHBUTTON FOR ELECTRICALLY OPERATED DOOR - FURN. W/ DOOR OPERATOR - WIRED BY E.C.
- DOOR PUSHBUTTON
- DOOR ELECTRIC STRIKE
- LIGHTING FIXTURES - CAPITAL LETTERS DENOTE TYPE AS PER LIGHTING FIXTURE SCHEDULE. LOWER CASE LETTERS
- INDICATE SWITCH CONTROL. DIAGONAL LINE INDICATES NIGHT LIGHT - UNSWITCHED
- FAN/LIGHT UNIT PROVIDED BY MECHANICAL CONTRACTOR WIRED AND LAMPED BY E.C.
- EMERGENCY LIGHTING BATTERY PACK. WIRE TO DESIGNATED CIRCUIT AS SHOWN ON DRAWINGS.
- REMOTE HEAD EMERGENCY LIGHTING. DUAL-LITE (3 WATT, LED) INTERIOR MODEL No. CPRD1203L, EXTERIOR MODEL No. OCRSW03L. RUN LOW VOLTAGE WIRING TO UNIT FROM BATTERY PACK.
- EXIT LIGHT FIXTURE - UNSWITCHED - DUAL-LITE *LX-U-R-W-E OR APPROVED EQUAL
- MOTION SENSOR (WATTSTOPPER OR EQUAL) CORRIDORS: WT-2255 SENSOR & B120E-P POWER PACK. OTHER COMMON SPACES: WT-605 SENSOR & B120E-P POWER PACK.
- WALL MOUNTED SWITCH MOTION SENSOR. MOUNT AT 48" AFF UNLESS OTHER WISE NOTED
- SINGLE POLE SWITCH, 120 VOLT, 20 AMP, SPEC. GRADE, GROUNDING TYPE, MOUNT 48" AFF, 3-3-WAY, 4-4-WAY, P-PILOT, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD.
- PL - DENOTES PILOT LIGHT, SWITCHES SHALL BE PROVIDED W/ ENGRAVED NAMEPLATE IDENTIFYING USE
- BURNER SAFETY SWITCH - PROVIDE WITH RED PLATE - MOUNTED 72" AFF
- RANGE HOOD FAN SWITCH. WIRE TO GROUNDED RECEPTACLE.
- RANGE HOOD LIGHT SWITCH. WIRE TO JUNCTION BOX.
- PHOTOCELL
- LIGHTING CONTACTOR
- TIMECLOCK
- TELEPHONE/DATA DUAL JACK LOCATION MOUNT 18" AFF - TWO CAT 5E CABLES BACK TO TBB.
- FLUSH FLOOR MOUNTED TELEPHONE/DATA DUAL JACK TWO CAT 5E CABLES BACK TO TBB.
- TELEPHONE JACK LOCATION MOUNT 18" AFF - ONE CAT 5E CABLE BACK TO TBB.
- WIFI ROUTER, ONE CAT 5E CABLE BACK TO TBB OR IT ROOM. "CL" DENOTES MOUNTED ABOVE CEILING, "W" DENOTES WALL MOUNTED AT 72" AFF
- INTERCOM PANEL IN UNIT
- INTERCOM PANEL AT RECEPTION
- FIRE ALARM CONTROL PANEL
- FIRE ALARM AUDIO/VISUAL, MOUNT 6'-8" AFF - NUMERAL DENOTES CANDELA RATING. "MH" DENOTES MINI HORN. NO DESIGNATION EQUALS 15cd.
- FIRE ALARM PULL STATION - MOUNT 48" AFF
- KNOX BOX
- FIRE ALARM VISUAL STROBE ONLY - FLUSH MOUNT 6'-8" AFF. NUMERALS DENOTE CANDELA RATINGS.
- CEILING MOUNTED (CL) FIRE ALARM VISUAL STROBE ONLY. NUMERALS DENOTE CANDELA RATINGS.
- SYSTEM CONNECTED FIXED TEMPERATURE HEAT DETECTOR
- SMOKE DETECTOR, PHOTOELECTRIC TYPE - SYSTEM CONNECTED.
- SMOKE DETECTOR, PHOTOELECTRIC TYPE - SYSTEM CONNECTED. "ER" = ELEV. RECALL
- SYSTEM CONNECTED SMOKE DETECTOR, PHOTOELECTRIC TYPE - W/ SOUNDER BASE - "SB" DENOTES SOUNDER BASE.
- CARBON MONOXIDE DETECTOR
- DUCT SMOKE DETECTOR & TEST STATION
- SMOKE DAMPER
- SPRINKLER SYSTEM FLOW SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR WIRED BY E.C. VERIFY LOCATIONS WITH SPRINKLER CONTRACTOR.
- SPRINKLER SYSTEM TAMPER SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR WIRED BY E.C. VERIFY LOCATIONS WITH SPRINKLER CONTRACTOR.



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DEPARTMENT OF TRANSPORTATION
MDOT PROJ #FBD-1834(210)
WIN 018342.10

		DATE	BY	PROJ. MANAGER	DESIGNER	DATE	BY	PROJ. MANAGER	DESIGNER
		8/13	CAT	WEEK	WEEK	WEEK	WEEK	WEEK	WEEK
SIGNATURE		P.E. NUMBER		DATE		DATE		DATE	

ROCKLAND FERRY TERMINAL
HVAC IMPROVEMENTS
ELECTRICAL NOTES, ABBREVIATIONS & LEGEND