

GENERAL NOTES:

1. THE GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS UNDER THIS CONTRACT. REFER TO INDIVIDUAL DRAWINGS FOR ADDITIONAL NOTES.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF NFPA 70 (NEC).
3. ALL ELECTRICAL EQUIPMENT, WIRING, AND CONDUITS SHALL BE GROUNDED AS PER NEC.
4. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT EVERY DETAIL OR EXACT LOCATION OF EQUIPMENT AND/OR CONDUIT IS SHOWN. VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD BEFORE ORDERING ANY MATERIAL OR PERFORMING ANY WORK. NOTIFY THE ENGINEER OF ANY CONDITIONS OR DIMENSIONS WHICH WOULD AFFECT THE PERFORMANCE OF WORK IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
5. REMOVED MATERIALS AND DEBRIS SHALL NOT BE DROPPED IN THE WATERWAY AND SHALL BE REMOVED FROM THE SITE IMMEDIATELY. CONTRACTOR SHALL ENSURE WORK SITE IS CLEAR OF DEBRIS DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE BRIDGE AND ITS AUXILIARIES FROM THE BEGINNING TO THE END OF THE PROJECT IN ACCORDANCE WITH THE CONTRACT AND U.S. COAST GUARD REQUIREMENTS. ALL SAFETY CODES SHALL BE OBSERVED TO PROTECT THE WELFARE OF PEDESTRIANS USING THE BRIDGE, MARINE TRAFFIC PASSING UNDER THE BRIDGE, VISITORS, INSPECTORS AND CONTRACTOR PERSONNEL DURING CONSTRUCTION.
7. WHERE CONDUITS PASS THROUGH WALLS, SEAL ALL HOLES WITH APPROVED NON-SHRINK FIRE STOPPING MATERIAL.
8. PERFORM ALL CUTTING AND DRILLING TO PROVIDE PENETRATIONS THROUGH WALLS AND FLOORS FOR ELECTRICAL INSTALLATION WORK.
9. UON, ALL WIRING SHALL BE 600V, SINGLE CONDUCTOR COPPER TYPE "RHW-2" WIRES FOR WIRE SIZE 10 AWG OR SMALLER.
10. UON, ALL JUNCTION BOXES AND ENCLOSURES FOR ELECTRICAL EQUIPMENT SHALL BE HEAVY DUTY TYPE NEMA 4X WITH HINGED COVERS.
11. UON, ALL WIRING SHALL BE INSTALLED IN APPROVED CONDUITS OR RACEWAYS.
12. UON, ALL ITEMS TO BE SECURED SHALL BE FASTENED TO STEEL BY THREADED BEAM CLAMPS WITH LOCKING NUTS. ALL FASTENING HARDWARE SHALL BE STAINLESS STEEL AND SHALL INCLUDE SHAKE-PROOF (EXTERNAL STAR) LOCK WASHERS. ALL BOLTS SHALL HAVE LOCK WASHERS AND ELASTIC STOP NUTS IN ADDITION TO REGULAR NUTS. SCREWS SHALL BE TAMPERPROOF AND BOLT ENDS SHALL BE PRENEED.
13. FURNISH AND INSTALL BRASS IDENTIFICATION TAGS ON ENCLOSURES, CONDUITS, AND PANELBOARDS. PROVIDE TYPED DIRECTORY FOR PANELBOARDS.
14. FOR ALL JUNCTION BOXES AND ENCLOSURES, CONDUITS SHALL ENTER ONLY THROUGH THE BOTTOM OR SIDES OF THE JUNCTION BOX OR ENCLOSURE. ALL CONDUIT CONNECTIONS SHALL BE MOISTURE TIGHT. USE MOISTURE TIGHT HUBS FOR ALL CONDUIT ENTRANCES INTO EQUIPMENT ENCLOSURES. BREATHERS SHALL BE INSTALLED IN JUNCTION BOXES LOCATED OUTDOORS. ALL BREATHERS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
15. PRIOR TO SHUTDOWN OR DISCONTINUATION OF SERVICE ON ANY CIRCUIT, SYSTEM, OR FEEDER, COORDINATE SUCH ACTIVITIES WITH THE ENGINEER IN ORDER TO MINIMIZE SHUTDOWN PERIODS. PROVIDE A MINIMUM OF TWO WEEKS NOTICE IN WRITING TO THE ENGINEER BEFORE PERFORMING ANY SHUTDOWNS. THE MINIMUM NOTIFICATION PERIOD MAY BE REDUCED WITH THE EXPRESS WRITTEN PERMISSION OF THE ENGINEER.
16. WHERE CONDUITS ARE TO PENETRATE EXISTING CONCRETE, SUBMIT CONCRETE CUTTING LOCATIONS AND PROCEDURES FOR APPROVAL BY THE ENGINEER.
17. MAINTAIN THE INTEGRITY OF ALL CIRCUITS IN SERVICE THAT MAY BE AFFECTED BY THIS WORK. IDENTIFY ALL SOURCES OF POWER AND DE-ENERGIZE REQUIRED CIRCUITS BEFORE BEGINNING WORK.
18. SUBMIT SHOP DRAWINGS FOR RACEWAY SYSTEMS FOR APPROVAL.

GENERAL NOTES CONT.:

19. PROVIDE TEMPORARY POWER TO MAINTAIN OPERATION OF THE NAVIGATION LIGHT FIXTURES AT ALL TIMES.
20. TYPE, MOUNTING, AND LOCATION OF NEW EQUIPMENT AS SHOWN ON THE CONTRACT PLANS AND IN SPECIAL PROVISION.
21. PROVIDE TEMPORARY LIGHTING THROUGHOUT THE WORK AREA TO PROVIDE FOR SAFE PASSAGE, SECURITY AND TO FACILITATE THE WORK, INCLUDING MAINTENANCE AND INSPECTION.
22. CONTRACTOR SHALL OPERATE, TEST, AND DOCUMENT THE BRIDGE OPERATION PRIOR TO ANY WORK TO BEGIN. AT A MINIMUM, THE CONTRACTOR SHALL DOCUMENT:
 - A. SEQUENCE OF OPERATION (CONTROL SCHEME).
 - B. INTERLOCKS AND FUNCTIONALITY OF ALL INTERLOCKS.
 - C. PERMISSIVES WHICH ARE CURRENTLY ON BYPASSES AND SHALL BRING TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
 - D. ANY ITEMS THAT ARE CURRENTLY NOT FUNCTIONING SHALL BRING TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

ABBREVIATIONS:

A	AMPS, AMBER
AK	ACKNOWLEDGE
AL	ALARM
AM	AMMETER
AT	ASTRONOMICAL TIMER
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
B*	BEACON (WHERE * IS THE BEACON DESIGNATOR)
BC	BRIDGE CONTROL
BCR	BRIDGE CONTROL RELAY
BL*	BRAKE RELEASE (WHERE * IS THE BRAKE DESIGNATOR)
BP	BYPASS, BRIDGE POWER
BR	BRAKE RELEASE
BS	BRAKE SET
C	CENTER
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CENTER LINE
CO	CUT OUT
CR	CONTROL RELAY
CS	CONTROL SWITCH
DIA	DIAMETER
DS	DISCONNECT
ELEC	ELECTRICAL
EMER	EMERGENCY
ES	EMERGENCY STOP
ESL	EMERGENCY STOP LOCK OUT
FC	FULLY CLOSED
FO	FULLY OPEN
FS	FULLY SEATED
FU	FUSE
FVNR	FULL VOLTAGE NON REVERSING
FVR	FULL VOLTAGE REVERSING
GR	GROUND
H	HEATER
HP	HORSEPOWER
HR	HAND RELEASE
KLS	KEY LOCK SWITCH
KVA	KILO-VOLT AMP(S)
LO	LOCKOUT
LS	LIMIT SWITCH
M	MAGNETIC RELAY COIL
MBV	MAIN BUS VOLTMETER
MM	MAIN MOTOR
M*	MOTOR (WHERE * IS THE MOTOR DESIGNATOR)
NAV	NAVIGATIONAL LIGHT
NC	NEARLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NH	NAVIGATIONAL HORN, NEW HAMPSHIRE
NO	NEARLY OPEN, NORMALLY OPEN
NTS	NOT TO SCALE
OCPD	OVERCURRENT PROTECTIVE DEVICE
OD	OUTSIDE DIAMETER
OL	OVERLOAD
P	POLE
PB	PUSHBUTTON
PFR	PHASE FAILURE RELAY
PS*	POSITION SWITCH (WHERE * IS THE SWITCH DESIGNATOR)
PVC	POLYVINYL CHLORIDE
RCC	RELAY CONTROL CABINET
RCLS	ROTARY CAM LIMIT SWITCH
RCS	REMOTE CONTROL SWITCH
RGS	RIGID GALVANIZED STEEL
RHW	HEAT AND MOISTURE RESISTANT RUBBER WIRE INSULATION TYPE
RM	ROOM
RTD	RESISTANCE TEMPERATURE DETECTOR
SB	SEATING BUTTON
SDM	SPAN DRIVE MOTOR
SFO	SIMULATE FULLY OPEN
SFS	SIMULATE FULLY SEATED
SR	SPEED RELAY
SS	SELECTOR SWITCH
SW	SWITCH
SYM	SYMMETRICAL
TB*	THRUSTER BRAKE (WHERE * IS THE BRAKE DESIGNATOR)
TR	TIMING RELAY
UON	UNLESS OTHERWISE NOTED
UTL	UTILITY
VM	VOLTMETER
W	WATTS
WM	WATTMETER

SYMBOLS:

	DRAWOUT CONNECTOR BUS		TRANSIENT VOLTAGE SURGE SUPPRESSOR
	TRANSFORMER (SIZE AS NOTED)		ADJUSTABLE INSTANTANEOUS TRIP CIRCUIT BREAKER FOR MOTOR PROTECTION (RATING AS INDICATED)
	NEMA SIZE X FULL VOLTAGE REVERSING STARTER		CIRCUIT BREAKER (RATING AS INDICATED)
	NEMA SIZE X FULL VOLTAGE NON-REVERSING STARTER		MOTOR DISCONNECT SWITCH, 3-POLE (RATING AS INDICATED)
	NEMA SIZE X FULL VOLTAGE NON-REVERSING STARTER WITH INTEGRAL CIRCUIT BREAKER		MECHANICAL MOTOR BRAKE
	NEMA SIZE X, 2-SPEED FULL VOLTAGE REVERSING STARTER WITH INTEGRAL CIRCUIT BREAKER		MOTOR (HORSEPOWER /WATTAGE AS SHOWN)
	PANELBOARD (DESIGNATION AS SHOWN)		
	AC FLUX VECTOR DRIVE CONTROLLER		

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME	BRIDGE NO.	247/084	STATE PROJECT	13678F				
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
NOTES, SYMBOLS AND ABBREVIATIONS									
BRIDGE SHEET									
E-1 OF E-16									
FILE NUMBER									
-									
TOTAL SHEETS									
44									

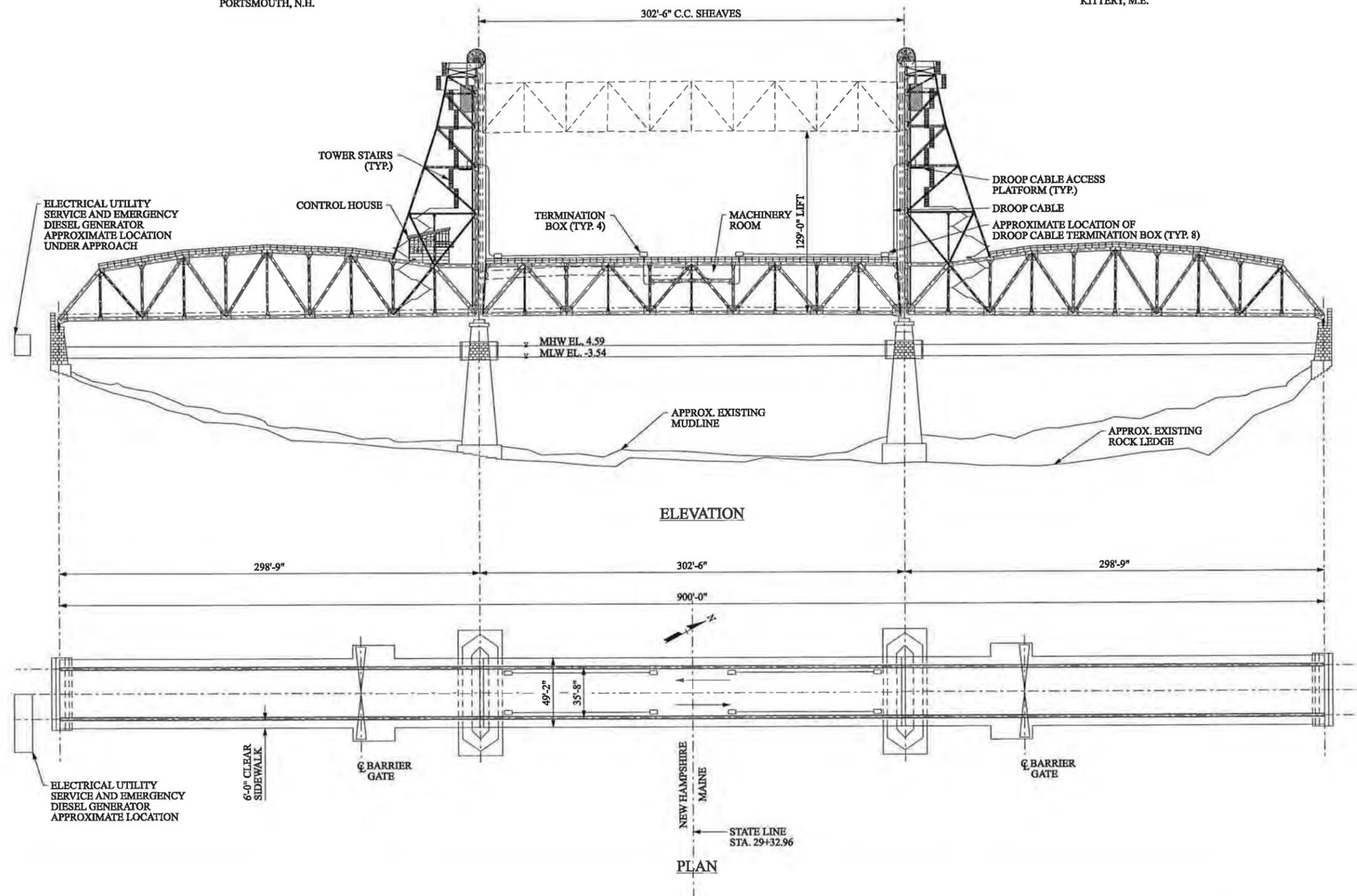
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-01	NTS

PORTSMOUTH, N.H.

KITTERY, M.E.

NOTES:

1. PROVIDE DROOP CABLE SYSTEM CONTAINED IN A CARRIER CHAIN. THE DROOP CABLE SYSTEM SHALL BE FULLY REDUNDANT WITH ONE AT EACH TOWER LEG. DROOP CABLES SHALL BE AS PER SPECIFICATION.
2. DROOP CABLE TERMINAL BOXES SHALL BE PVC COATED NEMA 4X TYPE WITH HINGED COVER. SIZE ALL TERMINATION BOXES PER NEC.
3. ALL DROOP CABLES SHALL HAVE A MINIMUM OF 20% SPARE CONDUCTORS.
4. EQUIPMENT LOCATIONS ARE DIAGRAMMATIC.
5. PEDESTRIAN AND WARNING GATES ARE SHOWN ON DRAWING S-12.



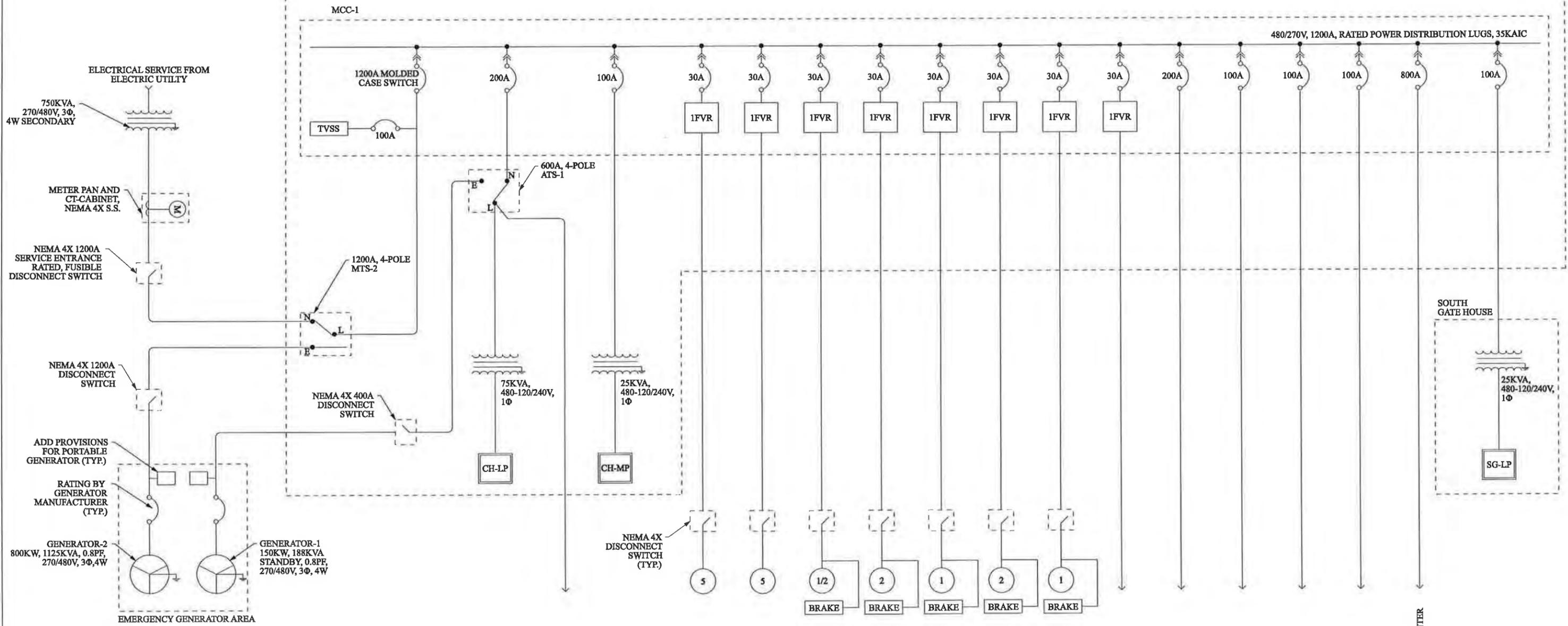
ELEVATION

PLAN

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME		BRIDGE NO.	247/084		STATE PROJECT	13678F		
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
GENERAL PLAN AND ELEVATION									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET		
		DESIGNED	XXX XX/XX	CHECKED	XXX	XX/XX	E-2 of E-16		
		DRAWN	XXX XX/XX	CHECKED	XXX	XX/XX	FILE NUMBER		
		QUANTITIES	XXX XX/XX	CHECKED	XXX	XX/XX	-		
		ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.		TOTAL SHEETS		
		REV. DATE			30		44		

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-02	1" = 40'

CONTROL HOUSE ELECTRICAL ROOM



- NOTES:
1. ALL WIRING AND CONDUIT SHALL BE SIZED AS PER NEC.
 2. ALL CONDUIT SHALL BE RGS TYPE. ALL OUTDOOR CONDUIT SHALL BE PVC COATED RGS.
 3. ALL TRANSFER SWITCHES SHALL BE PROVIDED WITH A LOCAL BYPASS SWITCH.
 4. PROVIDE ONE SPARE CONDUIT OF EACH SIZE USED FROM GENERATOR AREA TO CONTROL HOUSE. ALL SPARE CONDUITS SHALL BE HEAVY DUTY FIBERGLASS TYPE.
 5. PROVIDE ONE SPARE 4" CONDUIT FROM SCOTT AVE BRIDGE TO THE CONTROL HOUSE. EXACT LOCATION OF THE CONDUIT SHALL BE APPROVED BY THE ENGINEER.
 6. ALL MOTORS SHALL BE PROVIDED WITH PHASE LOSS PROTECTION.
 7. MAIN MOTORS AND AUX. MOTOR SHALL BE EQUIPPED WITH INTERNAL HEATER AND THERMAL OVERLOAD PROTECTION.

CONTROL HOUSE LIGHTING PANEL
 TO MACHINERY ROOM
 CONTROL HOUSE MECHANICAL PANEL
 SOUTH WEST SPAN LOCK
 SOUTH EAST SPAN LOCK
 SOUTH ONCOMING SOUTHEAST WARNING GATE
 SOUTH ONCOMING SOUTHEAST BARRIER GATE
 SOUTH ONCOMING SOUTHEAST PEDESTRIAN GATE
 SOUTH OFFGOING SOUTHWEST BARRIER GATE
 SOUTH OFFGOING SOUTHWEST PEDESTRIAN GATE
 SPARE
 SPARE
 GENERATOR SUB-PANEL (GEN-LP)
 TO CONTROL HOUSE CRANE
 TO SOUTH TOWER CRANE
 MACHINERY ROOM MOTOR CONTROL CENTER (MCC-2)
 SOUTH GATE LIGHTING PANEL

STATE OF NEW HAMPSHIRE
 DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN PORTSMOUTH, NH - KITTERY, ME BRIDGE NO. 247/084 STATE PROJECT 13678F
 LOCATION U.S. ROUTE 1 OVER PISCATAQUA RIVER

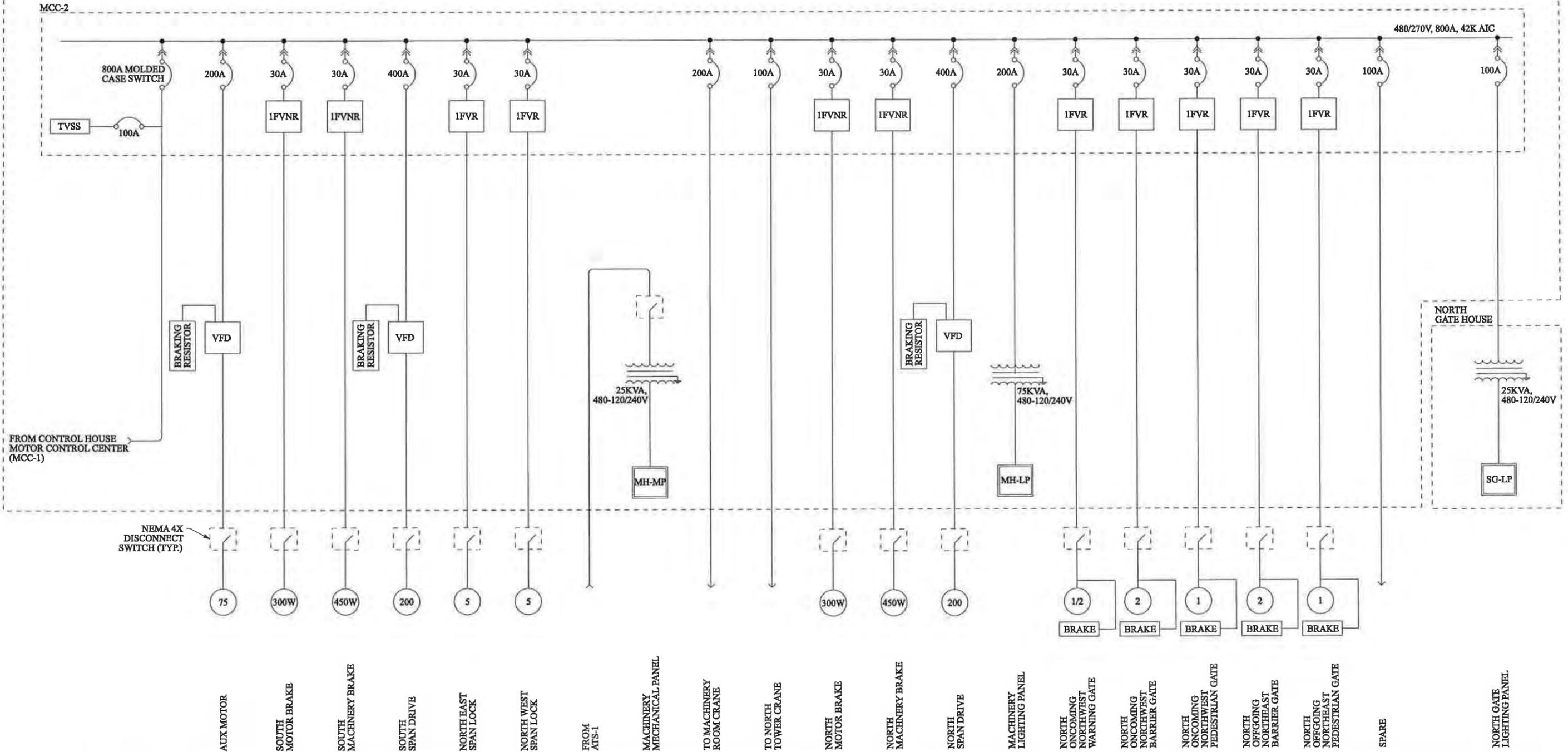
ONE LINE DIAGRAM-1

REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE
DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX	
DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX	
QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	
ISSUE DATE			FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
REV. DATE					31	44

BRIDGE SHEET
E-3 of E-16

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-04	NTS

MACHINERY HOUSE ELECTRICAL ROOM



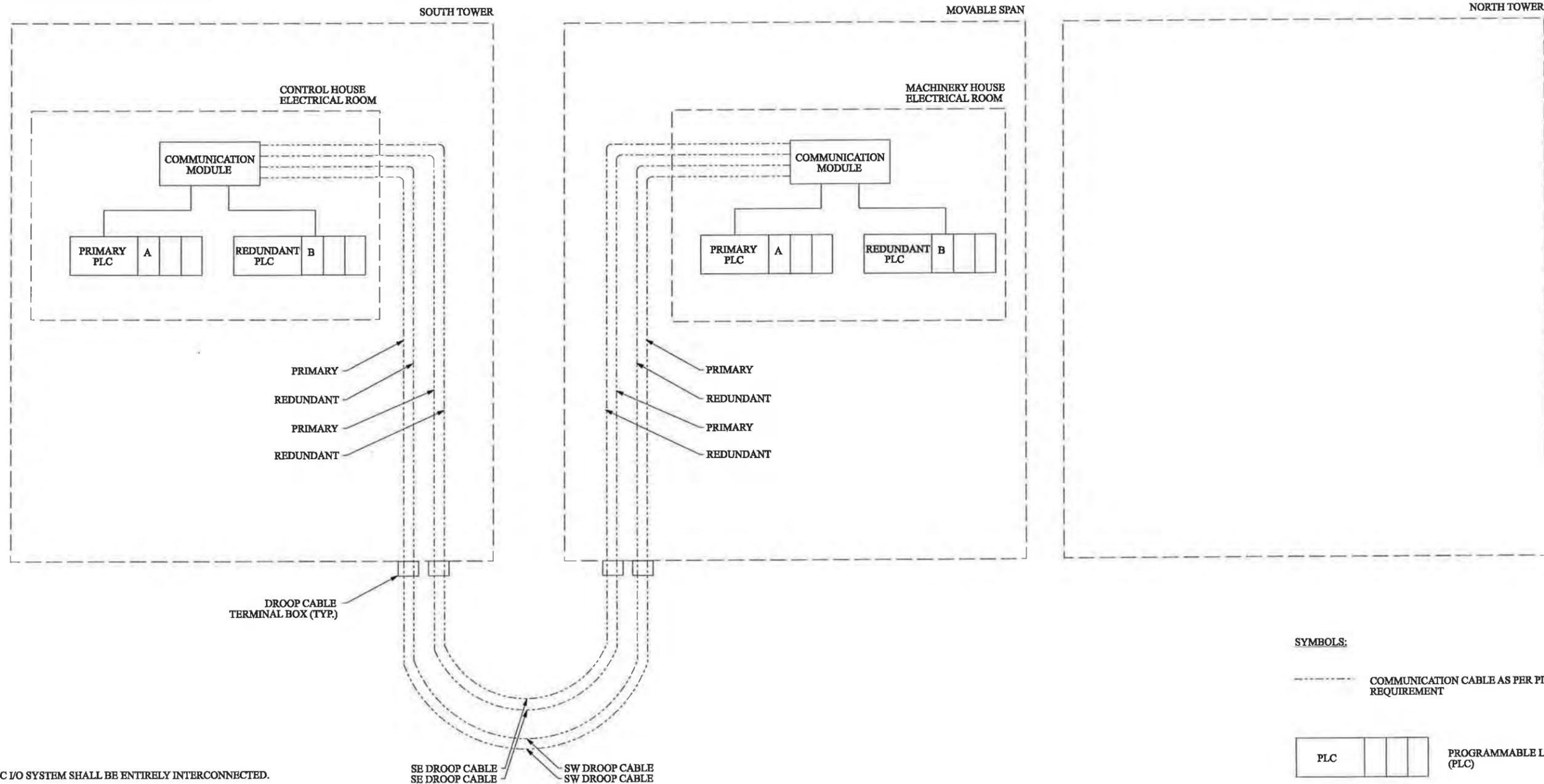
NOTES:

1. ALL DISCONNECT SWITCHES SHALL BE SIZED PER NEC. THEY SHALL BE NEMA 4X HEAVY DUTY TYPE.
2. ALL VFD SHALL BE IN STRICT COMPLIANCE WITH IEEE 519.
3. THE MAIN DRIVE SHALL BE A CLOSED LOOP WITH SPEED FEEDBACK.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, MB	BRIDGE NO.	247084	STATE PROJECT	13678F				
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
ONE LINE DIAGRAM-2									
BRIDGE SHEET									
E-4 OF E-16									
FILE NUMBER									
-									
TOTAL SHEETS									
44									

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-04	NTS

REVISIONS AFTER PROPOSAL	BY	DATE	CHECKED	BY	DATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX		32	44
DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX			
QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX			
ISSUE DATE								
REV. DATE								



DROOP CABLE
TERMINAL BOX (TYP.)

PRIMARY
REDUNDANT
PRIMARY
REDUNDANT

PRIMARY
REDUNDANT
PRIMARY
REDUNDANT

SE DROOP CABLE
SW DROOP CABLE

SYMBOLS:

----- COMMUNICATION CABLE AS PER PLC MANUFACTURER REQUIREMENT

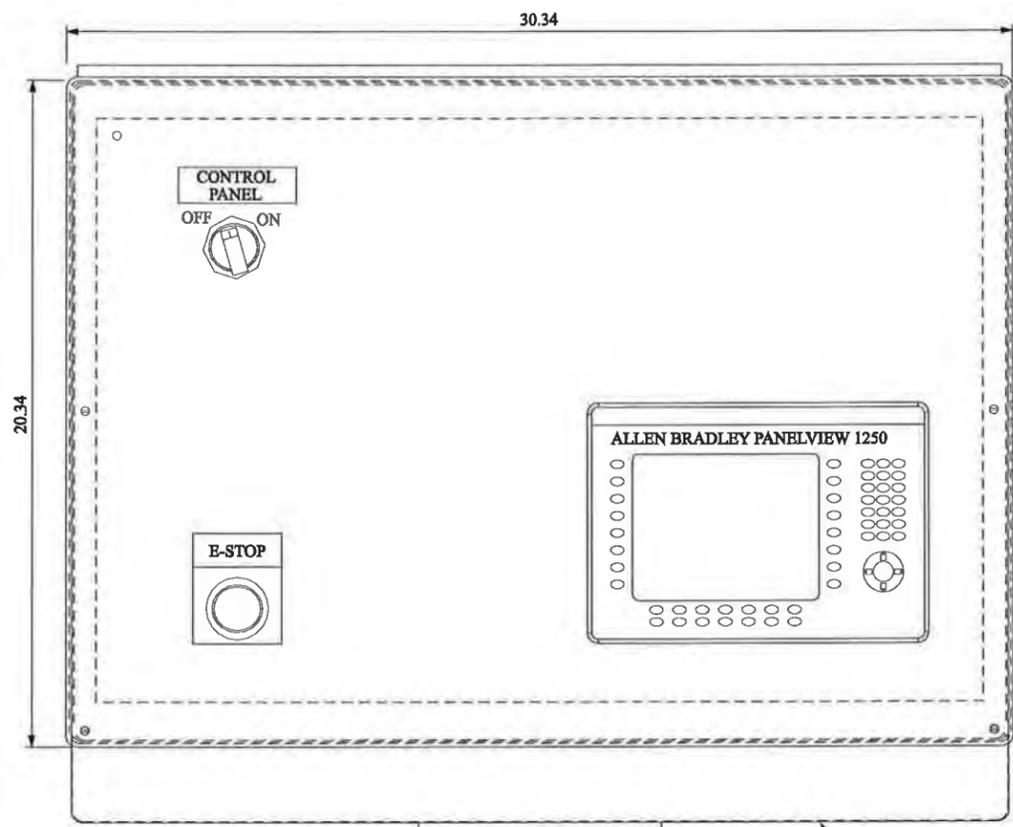
PLC PROGRAMMABLE LOGIC CONTROLLER (PLC)

NOTES:

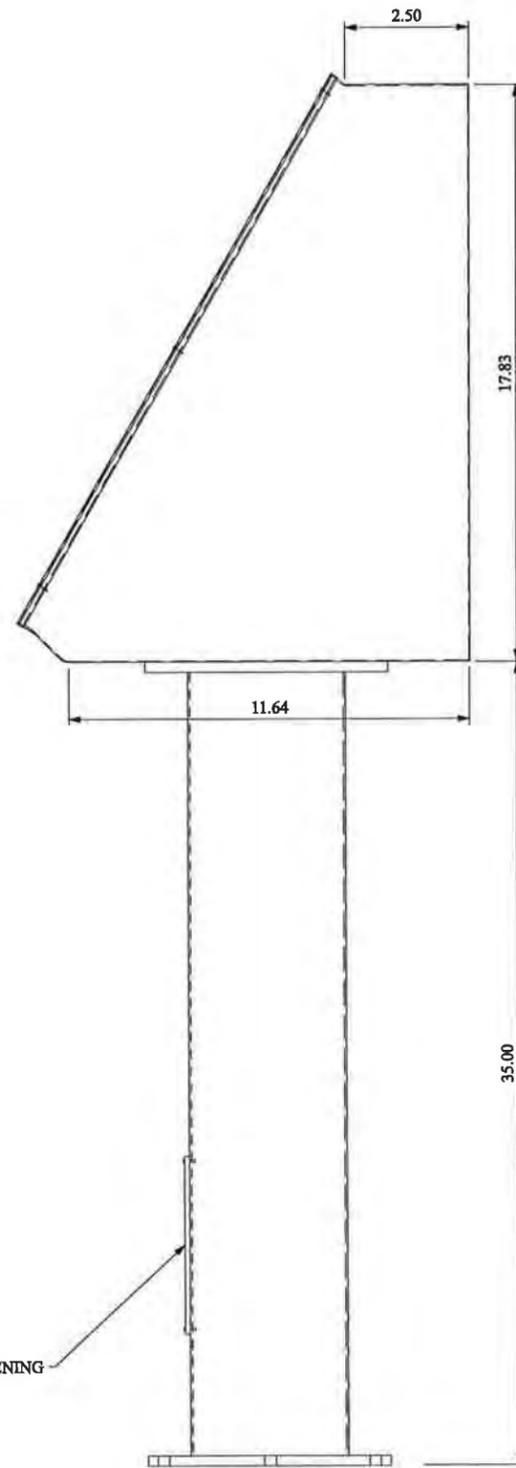
1. THE PLC I/O SYSTEM SHALL BE ENTIRELY INTERCONNECTED.
2. THIS SYSTEM SHALL BE CONNECTED SUCH THAT ANY CUT IN THE SYSTEM SHALL NOT CAUSE A COMMUNICATION DISRUPTION.
3. IN THE EVENT OF A COMMUNICATION DISRUPTION, THE SYSTEM SHALL PROVIDE AN AUTOMATIC RE-ROUTING OF DATA OVER AVAILABLE ADDITIONAL PATHWAYS TO RETAIN CONNECTION TO ALL DEVICES.
4. EACH SUB-SYSTEM SHALL REPORT ANY LOSS OF COMMUNICATION, EVEN IF THE COMMUNICATION LOSS DOES NOT AFFECT SYSTEM OPERATION.
5. THE COMMUNICATION PATHWAYS SHALL BE PHYSICALLY ARRANGED IN REDUNDANT PATHS SUCH THAT EITHER THE EAST OR WEST DROOP CABLE MAY BE COMPLETELY DISABLED WITHOUT LOSS OF CONNECTIVITY TO ALL DEVICES IN THIS SYSTEM.
6. ADDITIONAL EQUIPMENT MAY BE REQUIRED TO ACHIEVE THE SPECIFIED SYSTEM PERFORMANCE.
7. PLC SYSTEM SHALL BE PROVIDED WITH A UPS SYSTEM. ADD PROVISIONS TO AUTOMATICALLY SWITCH THE PLC TO THE UPS SYSTEM.
8. THE PLC SYSTEM SHALL BE CAPABLE OF REMOTE OPERATION AND CONTROL. IT SHALL HAVE PROVISIONS FOR VPN ACCESS. IT SHALL BE CAPABLE OF LOGGING FAULTS AND ALARMS. PROVISIONS SHALL BE MADE TO BE ABLE TO VIEW THE FAULTS AND ALARMS AT THE HMI. THE PLC SHALL ALSO BE CAPABLE OF RAISING THE SPAN AT PRESET HEIGHTS.

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-05	NTS

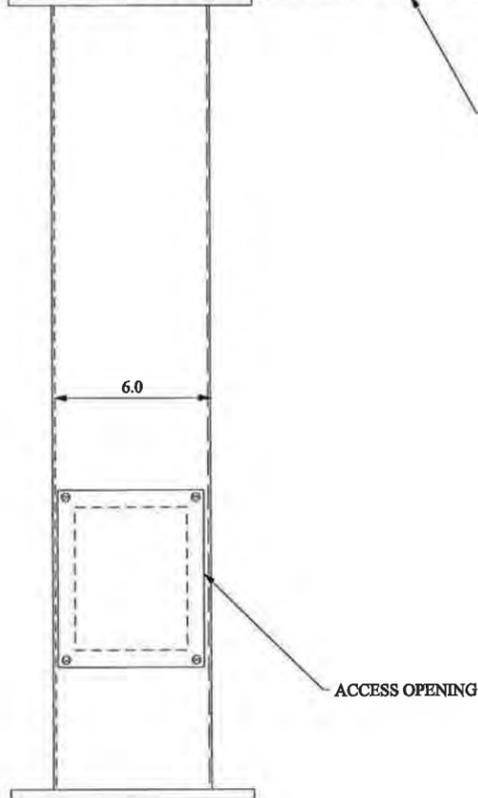
STATE OF NEW HAMPSHIRE										
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN										
TOWN	PORTSMOUTH, NH - KITTBY, ME			BRIDGE NO.	247/084		STATE PROJECT	13678F		
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER									
CONTROL LOGIC (BLOCK DIAGRAM)										
REVISIONS AFTER PROPOSAL				BY	DATE	BY	DATE	BRIDGE SHEET		
				DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX	E-5 of E-16
				DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX	
				QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	FILE NUMBER
				ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS	
				REV. DATE	-----			33	44	



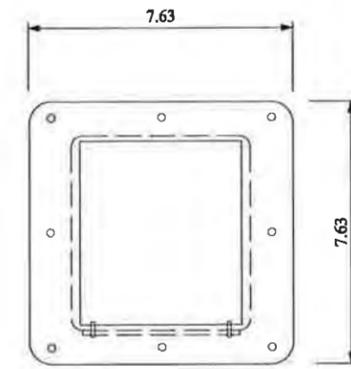
PLAN VIEW OF CONSOLE COVER SHOWN



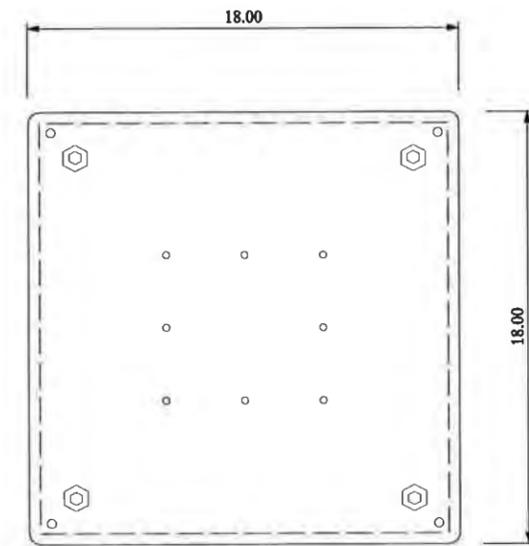
SIDE VIEW



ELEVATION



BASE FLANGE



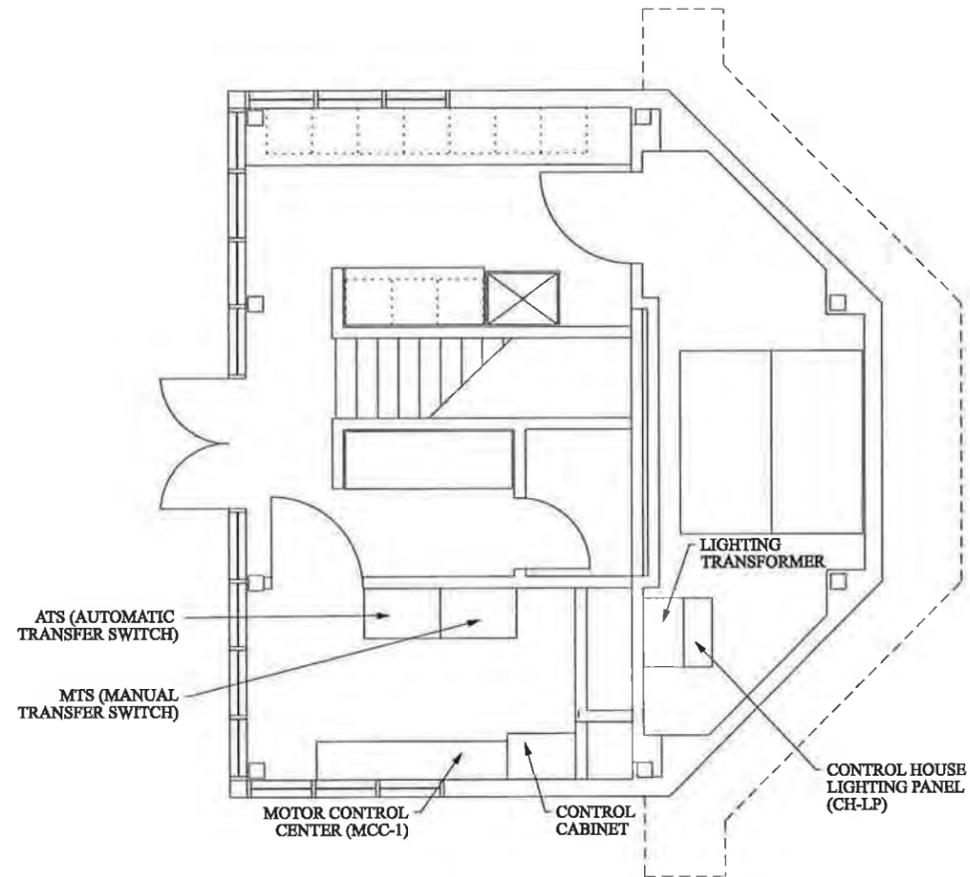
BASE PLATE DETAIL

NOTES:

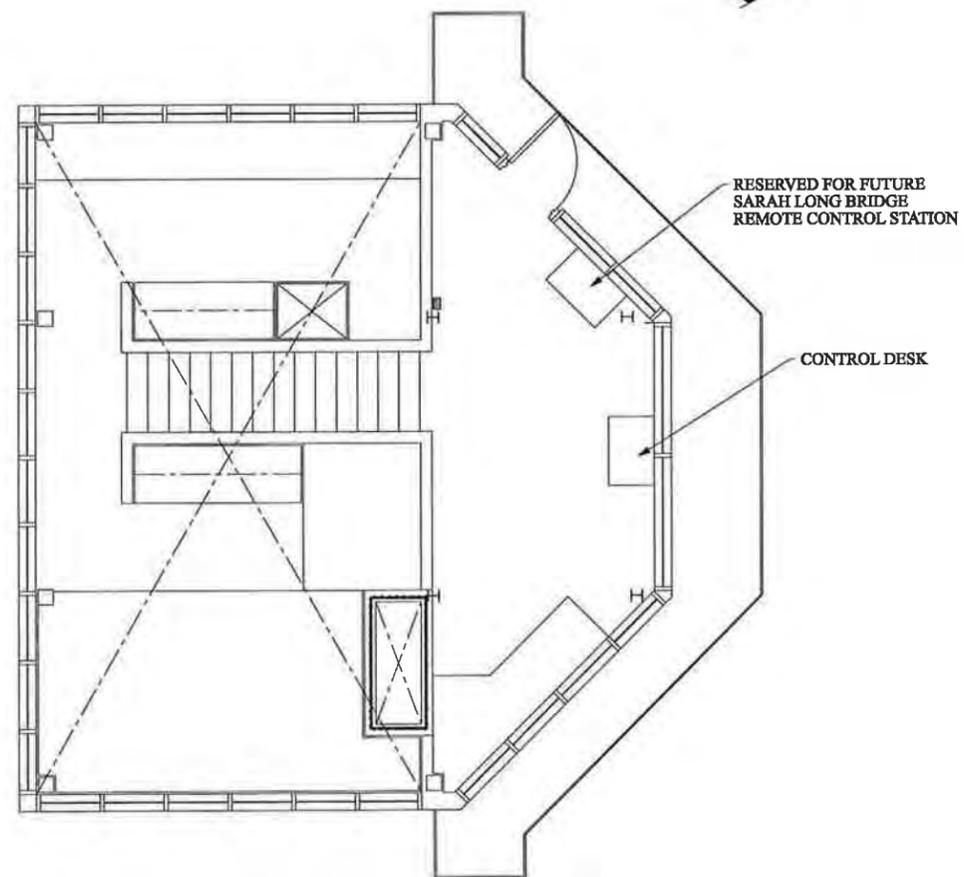
1. THE CONTROL DESK SHALL BE CONSTRUCTED OF HEAVY DUTY STAINLESS STEEL 10 GAUGE. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. THE HMI (HUMAN MACHINE INTERFACE) SHALL BE PASSWORD PROTECTED.
3. THE HMI SHALL HAVE PROVISIONS TO BYPASS INTERLOCKS IN CASE OF AN EMERGENCY.
4. THE E-STOP PUSH BUTTON SHALL BE HARD WIRED TO THE CONTROL CIRCUIT.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO.	247084		STATE PROJECT	13678F	
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
CONTROL DESK LAYOUT									
REVISIONS AFTER PROPOSAL				BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET
				DESIGNED	XXX	XX/XX	XXX	XX/XX	E-6 of E-16
				DRAWN	XXX	XX/XX	XXX	XX/XX	FILE NUMBER
				QUANTITIES	XXX	XX/XX	XXX	XX/XX	*
				ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS
				REV. DATE	-----			34	44

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
SUPER	E-06	NTS



CONTROL HOUSE FIRST FLOOR PLAN



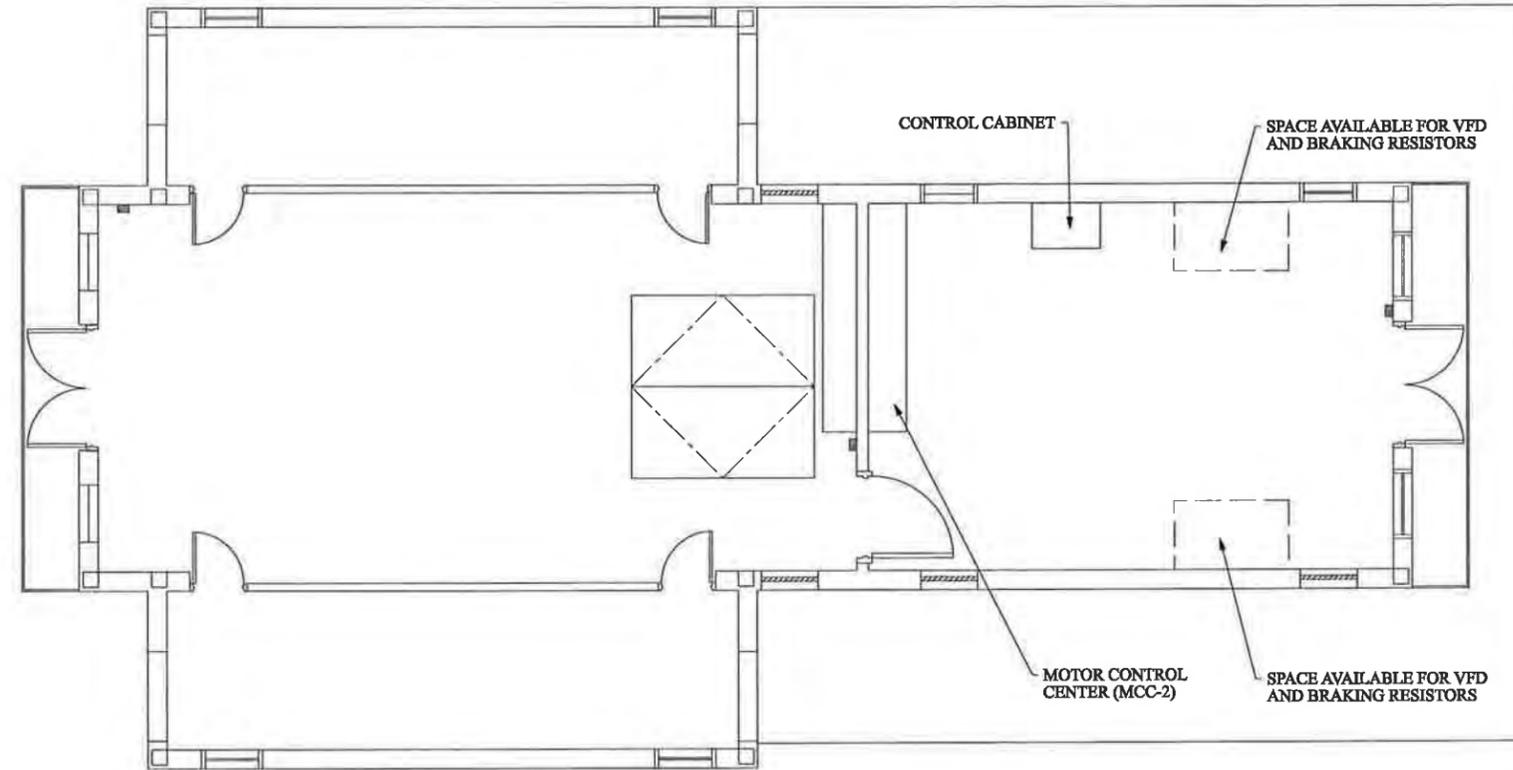
CONTROL HOUSE SECOND FLOOR PLAN

NOTES:

1. ALL CONDUITS SHALL BE ROUTED UNDER THE FLOOR.
2. ALL OUTDOOR CONDUITS SHALL BE PVC COATED RGS. ALL INDOOR CONDUITS SHALL BE RGS TYPE.
3. ALL CABINETS, DISCONNECTS, BOXES, PANELS, AND MCC SHALL BE NEMA 4X. ALL ENCLOSURES MOUNTED OUTDOORS SHALL BE PVC COATED.
4. WHERE CONDUITS PASS THROUGH WALLS, SEAL ALL HOLES WITH APPROVED NON-SHRINK FIRE STOPPING MATERIAL.
5. LIGHTING AND FIRE ALARM ARE SHOWN ON DIFFERENT PLANS FOR CLARITY. CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS IN THE FIELD TO AVOID CONFLICTS PRIOR TO PROVIDING ANY EQUIPMENT.
6. ALL INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE LATEST REVISION OF THE NEC.
7. EACH MOTOR AND BRAKE THRUSTER SHALL BE PROVIDED WITH A LOCAL DISCONNECTING MEAN AS PER NEC.
8. POWER, CONTROL, FIRE ALARM AND CCTV WIRING FROM AND TO THE CONTROL HOUSE SHALL BE VIA DROOP CABLES. DROOP CABLES SHALL BE PROVIDED WITH A MINIMUM OF 20% SPARE CONDUCTORS.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO.	247/084		STATE PROJECT	13678F	
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
ELECTRICAL ROOM PLAN -1									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET		
		DESIGNED	XXX	03/11	XXX	XX/XX	E-7 of E-16		
		DRAWN	XXX	03/11	XXX	XX/XX	FILE NUMBER		
		QUANTITIES	XXX	XX/XX	XXX	XX/XX	-		
		ISSUE DATE	FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS		
		REV. DATE			35		44		

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-07	1" = 40'



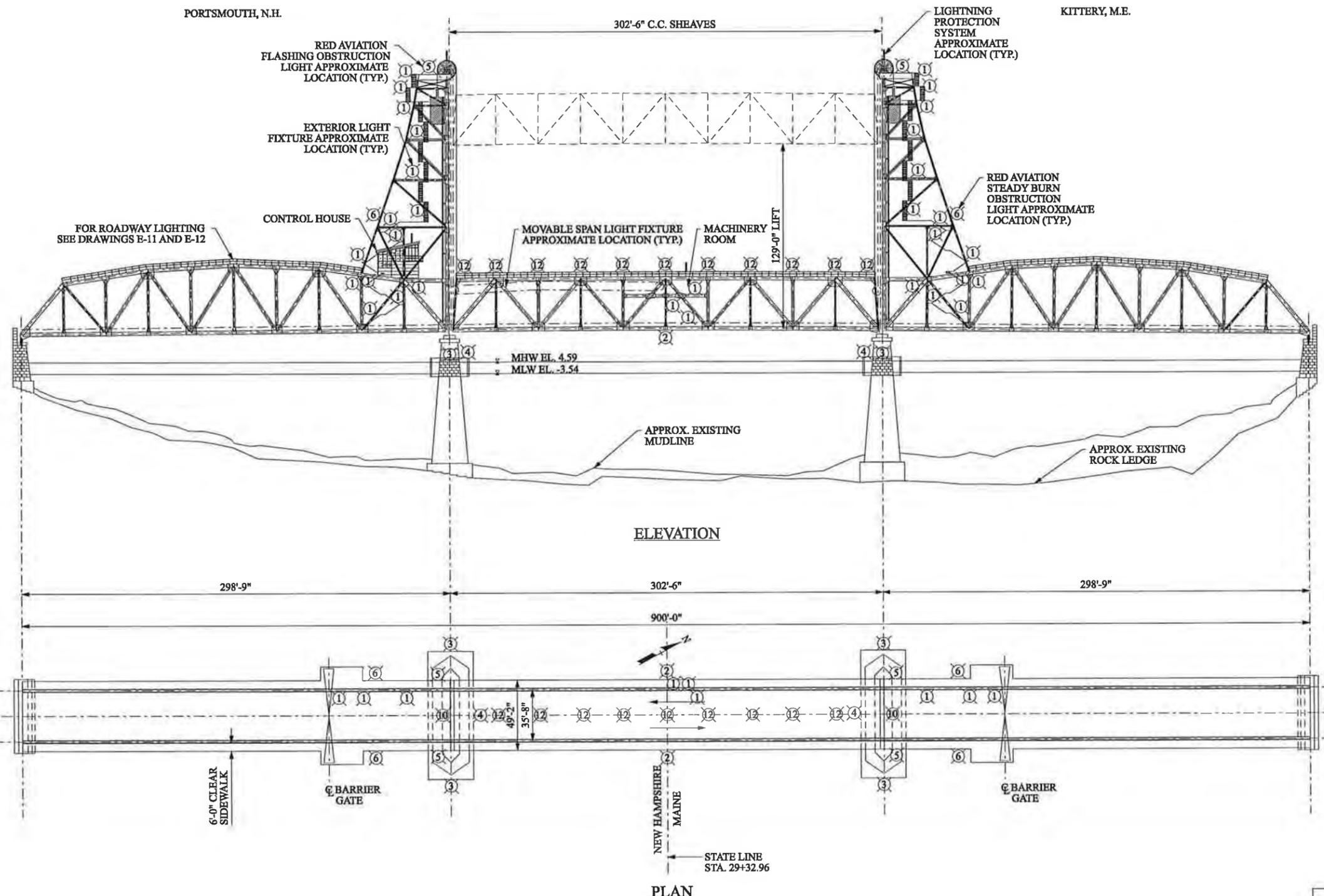
MACHINERY ROOM PLAN

NOTES:

1. ALL CONDUITS SHALL BE ROUTED UNDER THE FLOOR.
2. ALL OUTDOOR CONDUITS SHALL BE PVC COATED RGS. ALL INDOOR CONDUITS SHALL BE RGS TYPE.
3. ALL CABINETS, DISCONNECTS, BOXES, PANELS, AND MCC SHALL BE NEMA 4X. ALL ENCLOSURES MOUNTED OUTDOORS SHALL BE PVC COATED.
4. WHERE CONDUITS PASS THROUGH WALLS, SEAL ALL HOLES WITH APPROVED NON-SHRINK FIRE STOPPING MATERIAL.
5. LIGHTING AND FIRE ALARM ARE SHOWN ON DIFFERENT PLANS FOR CLARITY. CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS IN THE FIELD TO AVOID CONFLICTS PRIOR TO PROVIDING ANY EQUIPMENT.
6. ALL INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE LATEST REVISION OF THE NEC.
7. EACH MOTOR AND BRAKE THRUSTER SHALL BE PROVIDED WITH A LOCAL DISCONNECTING MEAN AS PER NEC.
8. POWER, CONTROL, FIRE ALARM AND CCTV WIRING FROM AND TO THE MACHINERY HOUSE SHALL BE VIA DROOP CABLES. DROOP CABLES SHALL BE PROVIDED WITH A MINIMUM OF 20% SPARE CONDUCTORS.

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-08	1" = 40'

STATE OF NEW HAMPSHIRE										
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN										
TOWN	PORTSMOUTH, NH - KITTERY, ME	BRIDGE NO.	247/084	STATE PROJECT	13678F					
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER									
ELECTRICAL ROOM PLAN -2										
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET			
		DESIGNED	XXX	03/11	CHECKED	XXX	XX/XX	E-8 of E-16		
		DRAWN	XXX	03/11	CHECKED	XXX	XX/XX	FILE NUMBER		
		QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	-		
		ISSUE DATE			FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS			
		REV. DATE				36	44			

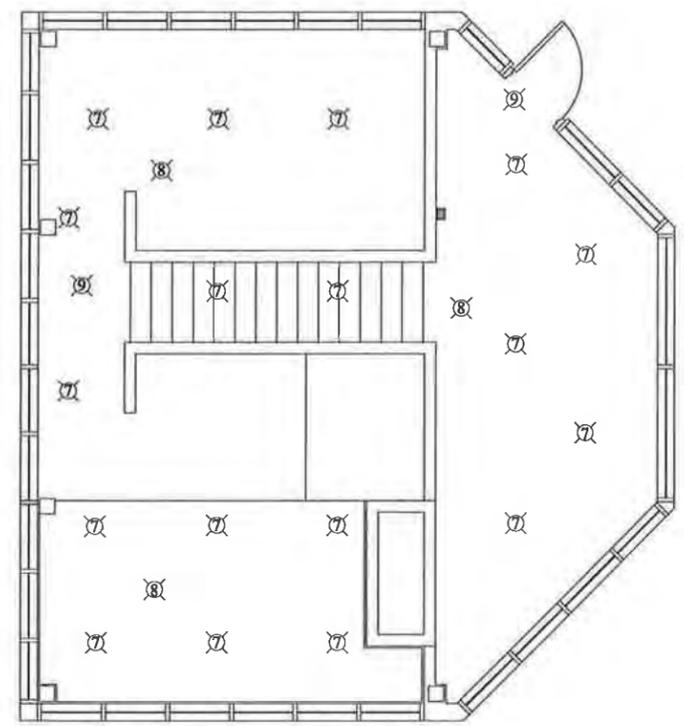


- LEGEND:**
- | LIGHTNING PROTECTION SYSTEM
 - ① EXTERIOR TYPE LIGHT FIXTURE
 - ② CENTER CHANNEL LIGHT - GREEN AND RED
 - ③ PIER LIGHT - RED
 - ④ AXIS LIGHT - RED
 - ⑤ RED AVIATION FLASHING OBSTRUCTION LIGHT - 360° (MEDIUM INTENSITY, FAA TYPE L864)
 - ⑥ RED AVIATION STEADY BURN OBSTRUCTION LIGHT - 360° (LOW INTENSITY, FAA TYPE L810)
 - ⑫ MOVABLE SPAN LIGHT FIXTURE

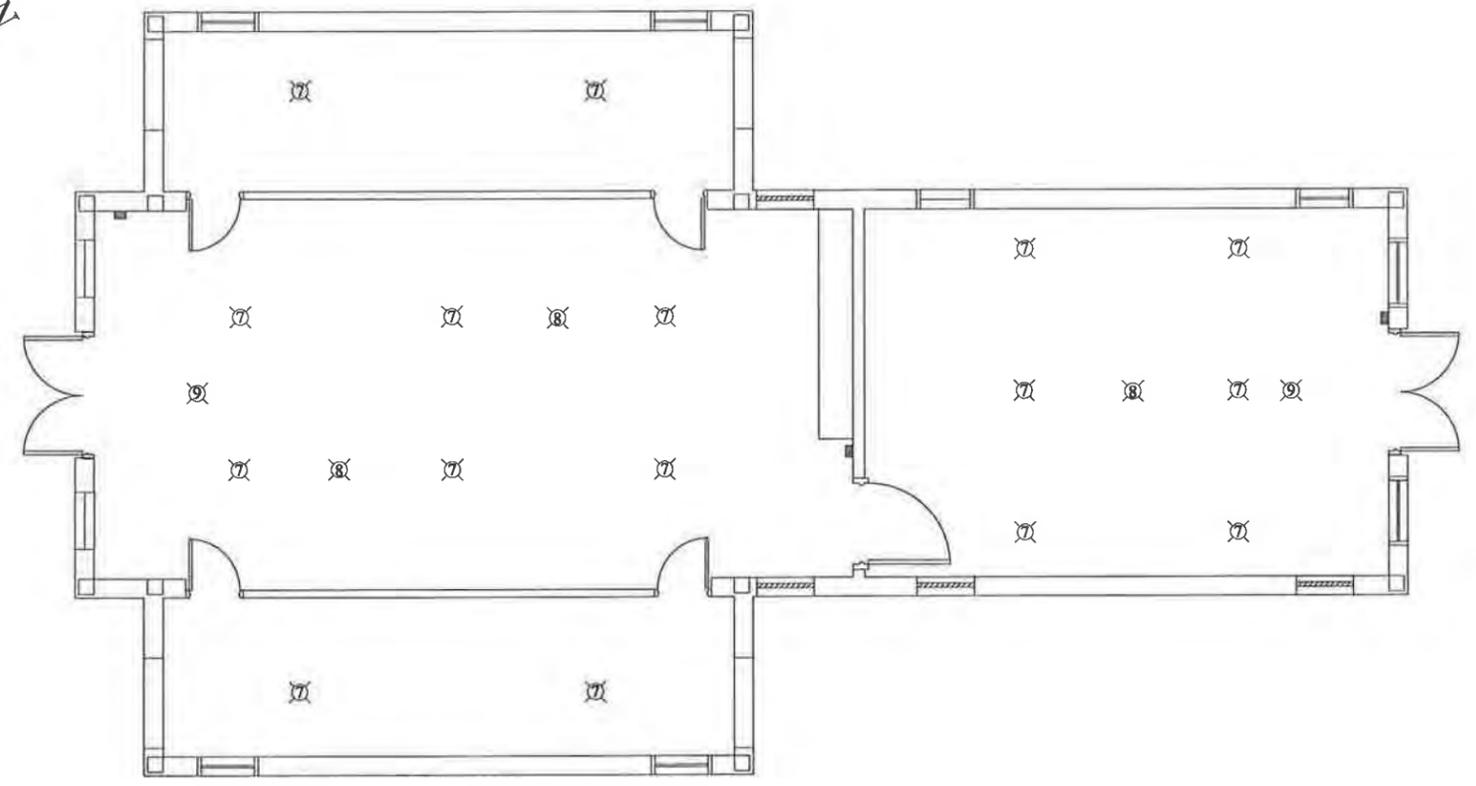
- NOTES:**
1. THIS DRAWING IS DIAGRAMMATIC AND SHOWS THE INTENDED GENERAL LOCATIONS OF LIGHT FIXTURES. HOWEVER, NOT ALL FIXTURES ARE SHOWN. THE CONTRACTOR SHALL REFER TO THE STRUCTURAL DRAWINGS FOR LOCATING AND MEASURING PLATFORMS. THE QUANTITY OF LIGHT FIXTURES SHALL BE TO OBTAIN ONE LIGHT FIXTURE EVERY 40 FEET MAXIMUM.
 2. LIGHT FIXTURES SHALL BE INSTALLED AT 7 FEET ABOVE PLATFORM WITH ALL STAINLESS STEEL CHANNEL AND HARDWARE. THE CONTRACTOR SHALL SUBMIT DETAILS OF INTENDED MOUNTING METHOD FOR REVIEW AND APPROVAL.
 3. THE CONTRACTOR SHALL LIMIT CIRCUITS TO 12 FIXTURES EACH BASED ON A 100 WATT LAMP. ALL CONDUCTORS SHALL BE 10 GAUGE MINIMUM, WITH 10 GAUGE NEUTRAL AND GROUND. RACEWAYS SHALL BE PVC COATED RGS TYPE CONDUIT. CONNECTIONS SHALL BE MADE BY MANUFACTURER'S APPROVED METHOD. ADJACENT FIXTURES SHALL BE PLACED ON ALTERNATE CIRCUITS.
 4. SWITCHES ARE NOT DETAILED, HOWEVER, SHALL BE PROVIDED TO ALLOW CONTROL FROM TWO LOCATIONS UNLESS INDICATED OTHERWISE.
 5. INCLUDE LIGHTING AT MOVABLE AND STATIONARY CABLE TERMINAL BOXES, AT TOP OF EACH TOWER, AND AT VARIOUS LOCATIONS ALONG THE SPAN AS NECESSARY.
 6. FURNISH AND INSTALL 120VAC RECEPTACLES AT ALL MOVABLE AND STATIONARY DROOP CABLE TERMINAL BOXES AND AT TOP OF EACH TOWER AND AT VARIOUS LOCATIONS ALONG THE SPAN AND TOWERS. ALL OUTDOOR RECEPTACLES SHALL BE INSTALLED IN WEATHER PROTECTED LOCKABLE BOXES.
 7. CENTER CHANNEL LIGHTS SHALL BE SECURELY MOUNTED JUST BELOW THE LOWEST EDGE OF THE BRIDGE STRUCTURE SO BOTH WILL BE VISIBLE FROM A VESSEL APPROACHING FROM EITHER SIDE. VERIFY STRUCTURAL DETAILS WITH STRUCTURAL PLANS.
 8. LENGTH OF THE SUPPORT ARM SHALL BE LONG ENOUGH TO SWING THE CHANNEL LIGHT ABOVE THE RAILING FOR EASE OF MAINTENANCE.
 9. INSTALLATIONS SHALL BE FIELD COORDINATED WITH OTHER DISCIPLINES.
 10. CENTER CHANNEL LIGHTS SHALL BE SECURED TO SIDEWALK STRINGERS USING STAINLESS STEEL MACHINE BOLTS, NUTS, AND LOCK WASHERS.
 11. LIGHTING FIXTURES SHALL BE MOUNTED TO AVOID INTERFERENCE WITH THE MECHANICAL AND STRUCTURAL EQUIPMENT.
 12. ALL NAVIATION LIGHTS SHALL BE LED TYPE.
 13. ALL OUTDOOR CONDUITS SHALL BE PVC COATED RGS.

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-09	1" = 40'

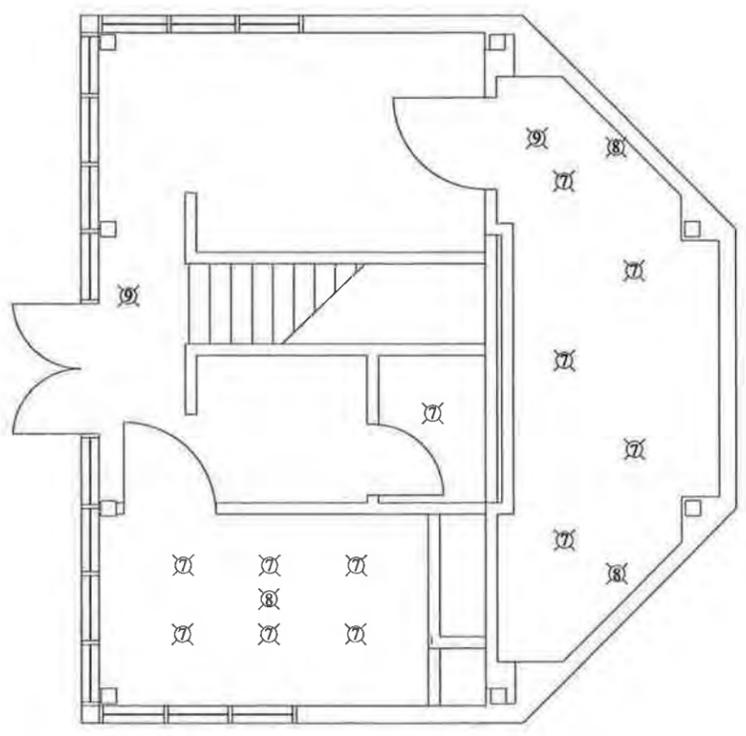
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	PORTSMOUTH, NH - KITTEERY, ME	BRIDGE NO.	247/084	STATE PROJECT	13678F
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER				
GENERAL LIGHTING PLAN - 1					BRIDGE SHEET
					E-9 of E-16
REVISIONS AFTER PROPOSAL	BY	DATE	CHECKED	BY	DATE
	DESIGNED	XXX XX/XX	CHECKED	XXX XX/XX	
	DRAWN	XXX XX/XX	CHECKED	XXX XX/XX	
	QUANTITIES	XXX XX/XX	CHECKED	XXX XX/XX	
	ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
	REV. DATE			37	44



CONTROL HOUSE SECOND FLOOR PLAN



MACHINERY ROOM PLAN



CONTROL HOUSE FIRST FLOOR PLAN

LEGEND:

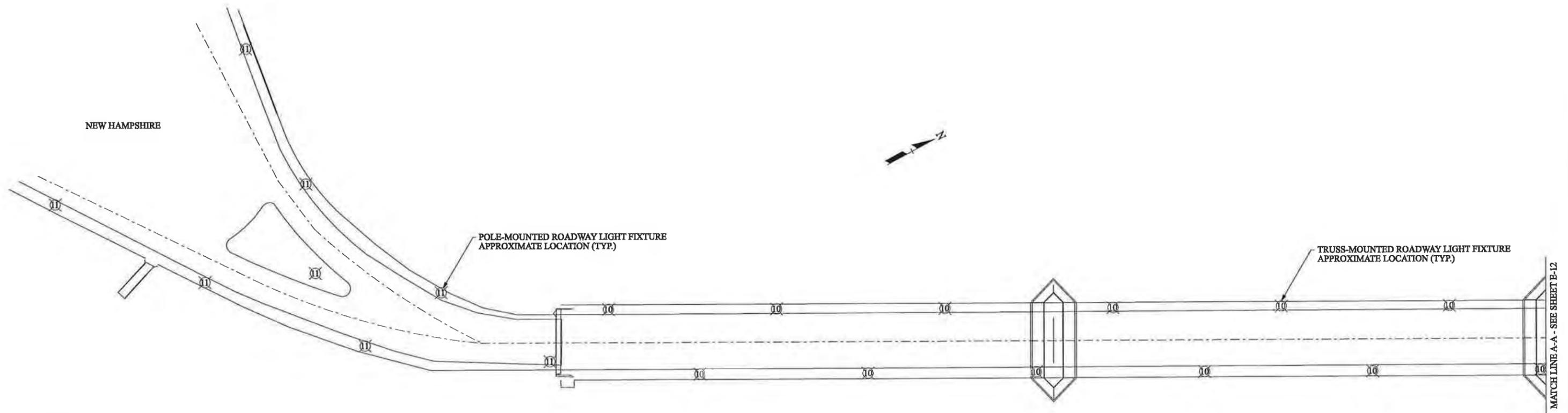
- ⊗ CEILING MOUNTED LIGHT FIXTURE
- ⊗ EMERGENCY LIGHT WITH BATTERY BACKUP
- ⊗ EXIT SIGN WITH BATTERY BACKUP

NOTES:

1. ALL LIGHTING SHALL BE STAINLESS STEEL HEAVY DUTY TYPE.
2. PROVIDE RECEPTACLES IN ALL ROOMS AS PER NEC. ALL RECEPTACLES SHALL BE HEAVY DUTY.
3. ALL CONDUITS SHALL BE RGS. THEY SHALL BE EMBEDDED IN THE CONCRETE WHERE POSSIBLE. ALL OUTDOOR CONDUITS SHALL BE PVC COATED RGS.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO.	247/084		STATE PROJECT	13678F	
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
GENERAL LIGHTING PLAN - 2									
REVISIONS AFTER PROPOSAL	BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET			
	DESIGNED	XXX	03/11	XXX	XX/XX	E-10 ^{of} E-16			
	DRAWN	XXX	03/11	XXX	XX/XX	FILE NUMBER			
	QUANTITIES	XXX	XX/XX	XXX	XX/XX	-			
	ISSUB DATE			FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS			
	REV. DATE				38	44			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-10	1" = 40'



LEGEND:

- ⊕ TRUSS-MOUNTED ROADWAY LIGHT FIXTURE
- ⊖ POLE-MOUNTED ROADWAY LIGHT FIXTURE

NOTES:

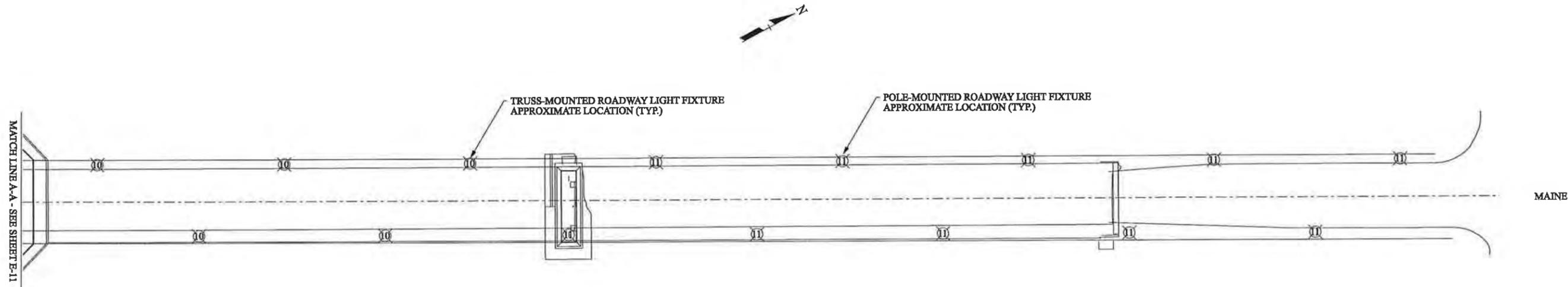
1. LIGHT FIXTURES SHALL BE MOUNTED AT A HEIGHT OF 22 FEET.
2. LIGHT FIXTURE LOCATIONS SHOWN DIAGRAMMATICALLY. A PHOTOMETRIC SURVEY AND PHOTOMETRIC CALCULATIONS SHALL BE PERFORMED TO DETERMINE EXACT LOCATION BASED ON LIGHT WATTAGE AND TYPE.
3. WIRING, JUNCTION BOXES, AND CONDUITS SHALL BE SIZED PER NEC.
4. WIRING, JUNCTION BOXES, AND CONDUITS OUTSIDE OF THE LIGHT FIXTURES AND SUPPORTING HARDWARE SHALL BE INSTALLED PER NEC.
5. WIRING WITHIN THE LIGHT FIXTURES AND SUPPORTING HARDWARE SHALL BE INSTALLED PER NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION REGULATIONS ON THE NEW HAMPSHIRE PORTION OF THE BRIDGE. WIRING WITHIN THE LIGHT FIXTURES AND SUPPORTING HARDWARE SHALL BE INSTALLED PER MAINE DEPARTMENT OF TRANSPORTATION REGULATIONS ON THE MAINE PORTION OF THE BRIDGE.
6. ALL CONDUITS SHALL BE RGS TYPE. ALL OUTDOOR CONDUITS SHALL BE PVC COATED RGS.
7. ALL ROADWAY LIGHTING SHALL BE DARK SKY COMPLIANT.
8. LIGHTING ON THE NEW HAMPSHIRE APPROACHES SHALL BE UNDER THE JURISDICTION OF THE CITY OF PORTSMOUTH. LIGHTING ON THE MAINE APPROACHES SHALL BE UNDER THE JURISDICTION OF THE TOWN OF KITTERY.

ROADWAY LIGHTING PLAN

MATCH LINE A-A - SEE SHEET E-12

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-11	1" = 40'

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME	BRIDGE NO.	247/084	STATE PROJECT	13678F				
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
ROADWAY LIGHTING PLAN - 1									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET		
		DESIGNED	XXX XX/XX	CHECKED	XXX XX/XX	E-11 of E-16			
		DRAWN	XXX XX/XX	CHECKED	XXX XX/XX	FILE NUMBER			
		QUANTITIES	XXX XX/XX	CHECKED	XXX XX/XX	-			
		ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS			
		REV. DATE			39	44			



ROADWAY LIGHTING PLAN

LEGEND:

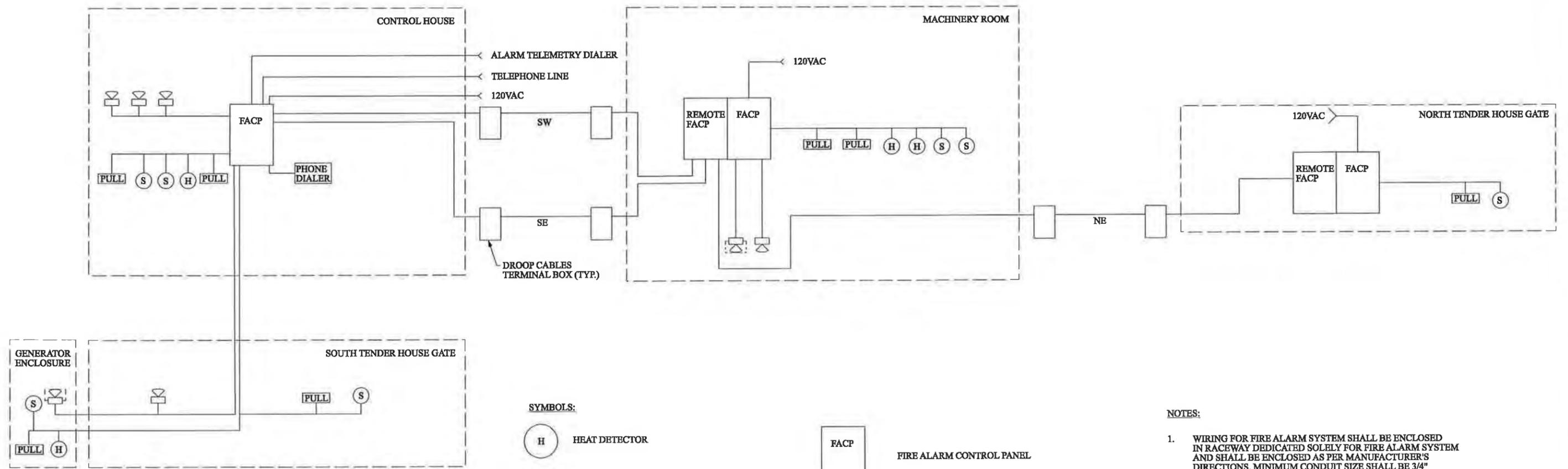
-  TRUSS-MOUNTED ROADWAY LIGHT FIXTURE
-  POLE-MOUNTED ROADWAY LIGHT FIXTURE

NOTES:

1. LIGHT FIXTURES SHALL BE MOUNTED AT A HEIGHT OF 22 FEET.
2. LIGHT FIXTURE LOCATIONS SHOWN DIAGRAMMATICALLY. A PHOTOMETRIC SURVEY AND PHOTOMETRIC CALCULATIONS SHALL BE PERFORMED TO DETERMINE EXACT LOCATION BASED ON LIGHT WATTAGE AND TYPE.
3. WIRING, JUNCTION BOXES, AND CONDUITS SHALL BE SIZED PER NEC.
4. WIRING, JUNCTION BOXES, AND CONDUITS OUTSIDE OF THE LIGHT FIXTURES AND SUPPORTING HARDWARE SHALL BE INSTALLED PER NEC.
5. WIRING WITHIN THE LIGHT FIXTURES AND SUPPORTING HARDWARE SHALL BE INSTALLED PER NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION REGULATIONS ON THE NEW HAMPSHIRE PORTION OF THE BRIDGE. WIRING WITHIN THE LIGHT FIXTURES AND SUPPORTING HARDWARE SHALL BE INSTALLED PER MAINE DEPARTMENT OF TRANSPORTATION REGULATIONS ON THE MAINE PORTION OF THE BRIDGE.
6. ALL CONDUITS SHALL BE RGS TYPE. ALL OUTDOOR CONDUITS SHALL BE PVC COATED RGS.
7. ALL ROADWAY LIGHTING SHALL BE DARK SKY COMPLIANT.
8. LIGHTING ON THE NEW HAMPSHIRE APPROACHES SHALL BE UNDER THE JURISDICTION OF THE CITY OF PORTSMOUTH. LIGHTING ON THE MAINE APPROACHES SHALL BE UNDER THE JURISDICTION OF THE TOWN OF KITTERY.

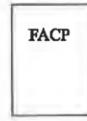
STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO.	247/084		STATE PROJECT	13678F	
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
ROADWAY LIGHTING PLAN - 2									BRIDGE SHEET
REVISIONS AFTER PROPOSAL				BY	DATE	BY	DATE	E-12 ⁰⁸ E-16	
DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX	FILE NUMBER			
DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX	-			
QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	TOTAL SHEETS			
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	40				
REV. DATE	-----			40		44			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-12	1" = 40'



SYMBOLS:

-  HEAT DETECTOR
-  SMOKE DETECTOR
-  ADDRESSABLE MANUAL PULL STATION
-  HORN/STROBE
-  WEATHERPROOF HORN/STROBE



FIRE ALARM CONTROL PANEL



REMOTE FIRE ALARM CONTROL PANEL

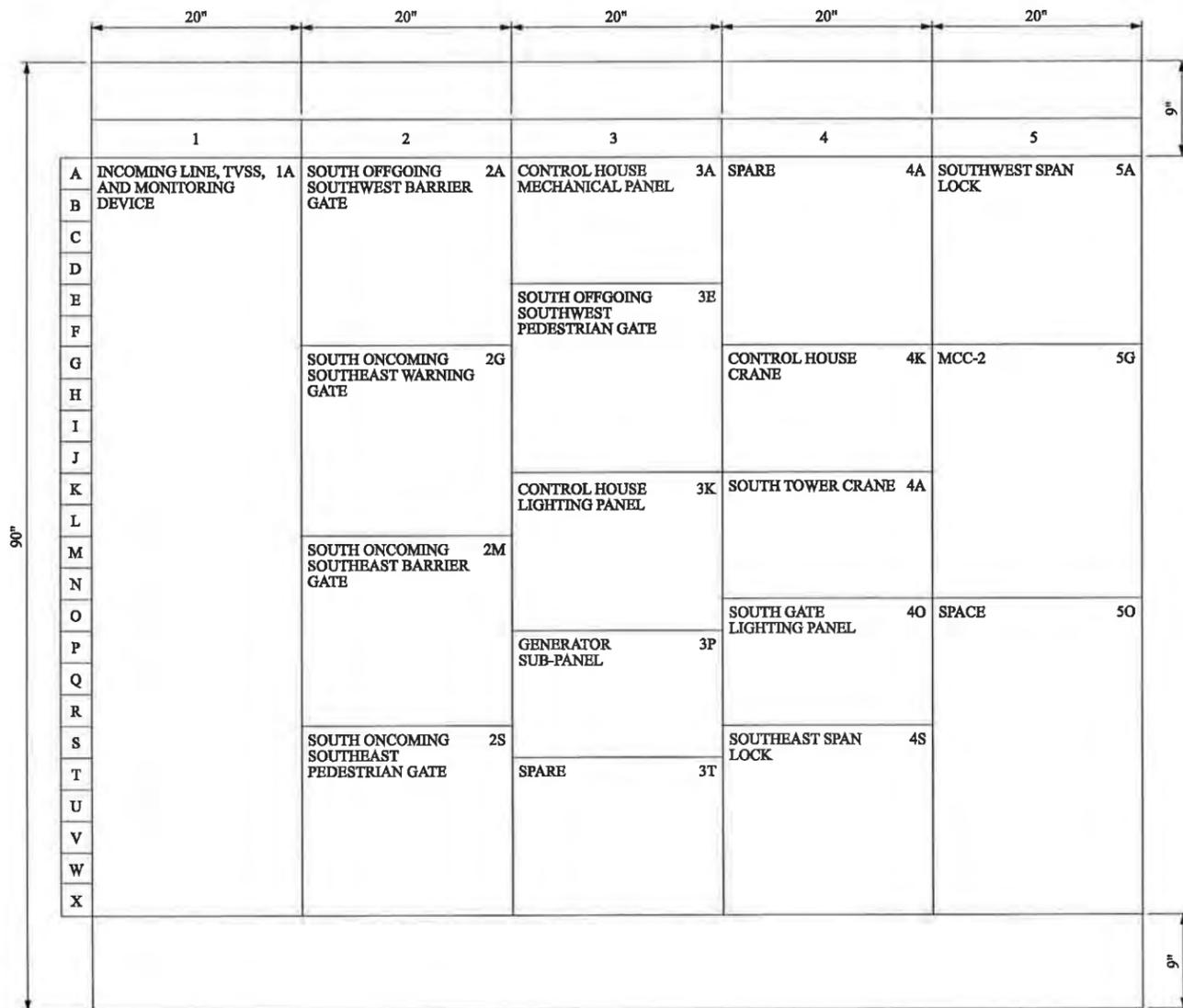
— POWER AND COMMUNICATION CABLE PER MANUFACTURER

NOTES:

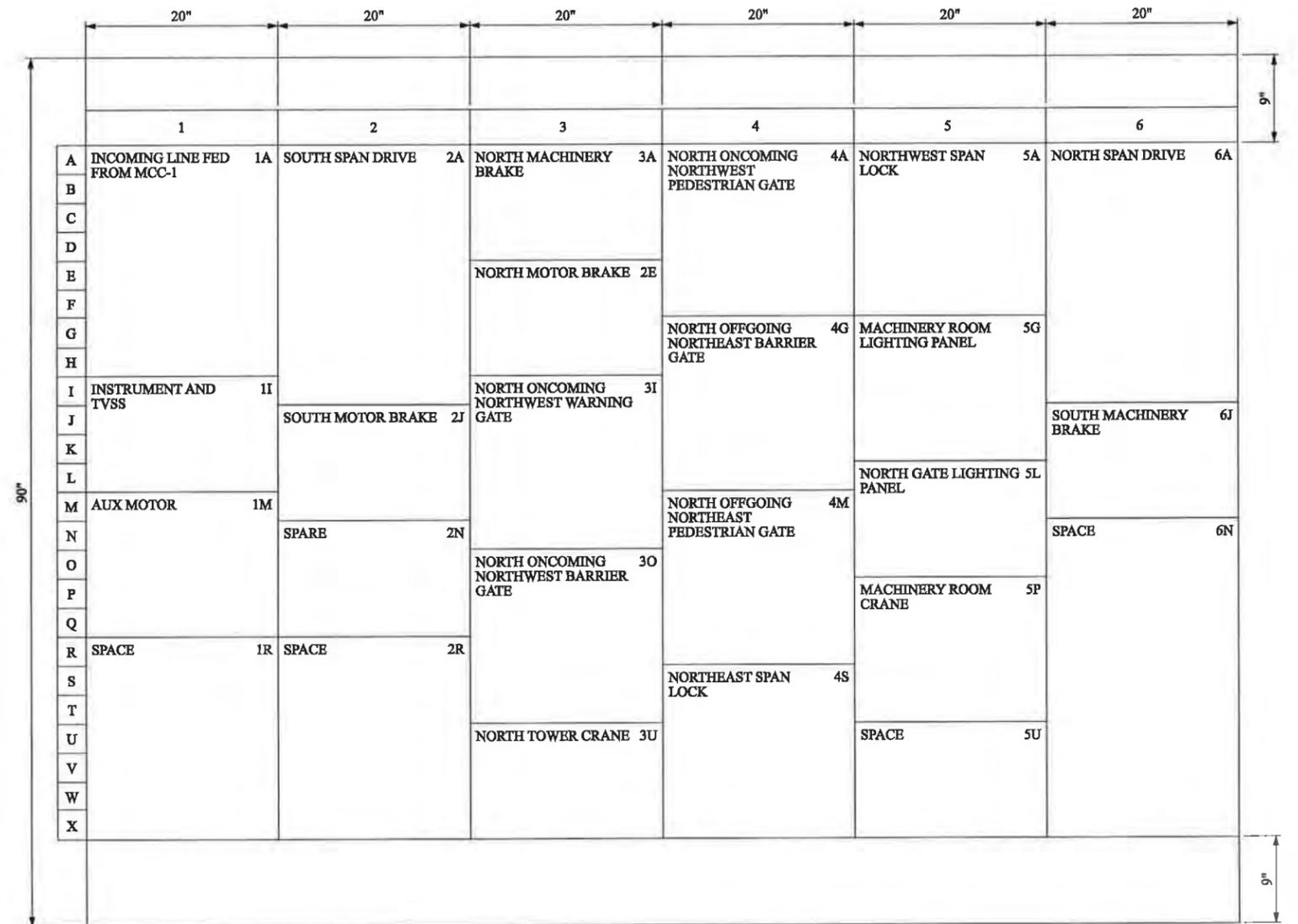
1. WIRING FOR FIRE ALARM SYSTEM SHALL BE ENCLOSED IN RACEWAY DEDICATED SOLELY FOR FIRE ALARM SYSTEM AND SHALL BE ENCLOSED AS PER MANUFACTURER'S DIRECTIONS. MINIMUM CONDUIT SIZE SHALL BE 3/4"
2. POWER FROM LIGHTING PANELS SHALL BE PROVIDED THROUGH #12 AWG SIZE CONDUCTORS IN 3/4" CONDUIT.
3. IN AREAS THAT MAY BE DUSTY, HEAT SENSOR UNITS MAYBE INSTALLED IN LIEU OF SMOKE DETECTOR. SMOKE DETECTORS SHALL NOT BE COVERED BY ANY MEANS.
4. EACH SMOKE DETECTOR AND PULL STATION SHALL HAVE ITS OWN CONTROL UNIT AND ADDRESSABLE MONITOR.
5. FURNISH AND INSTALL INTERCONNECT TELEPHONE LINE TO THE FIRE ALARM CONTROL PANEL.
6. MOUNT FIBER CONVERTER TERMINAL BOX INSIDE COMMUNICATION CABINET.
7. FIBER OPTIC CABLES SHALL BE ROUTED THROUGH THE BRIDGE DROOP CABLE SYSTEM.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO.	247/084		STATE PROJECT	13678F	
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
FIRE ALARM SYSTEM BLOCK DIAGRAM									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET		
		DESIGNED	XXX XX/XX	CHECKED	XXX XX/XX	E-13 of E-16			
		DRAWN	XXX XX/XX	CHECKED	XXX XX/XX	FILE NUMBER			
		QUANTITIES	XXX XX/XX	CHECKED	XXX XX/XX	-			
		ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS			
		REV. DATE			41	44			

SURDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-13	AS NOTED



MCC-1 (MOTOR CONTROL CENTER - CONTROL HOUSE)



MCC-2 (MOTOR CONTROL CENTER - MACHINERY ROOM)

NOTES:

1. ALL MOTOR COMPARTMENT SHALL BE PROVIDED WITH LOCAL START/STOP AND PROVISION TO SELECT LOCAL OR REMOTE.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO. 247/084		STATE PROJECT 13678F			BRIDGE SHEET	
LOCATION U.S. ROUTE 1 OVER PISCATAQUA RIVER									
MCC LAYOUT								E-140E-16	
REVISIONS AFTER PROPOSAL		BY		DATE		BY		DATE	
		DESIGNED		XXX XX/XX		CHECKED		XXX XX/XX	
		DRAWN		XXX XX/XX		CHECKED		XXX XX/XX	
		QUANTITIES		XXX XX/XX		CHECKED		XXX XX/XX	
		ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS	
		REV. DATE		-----		42		44	

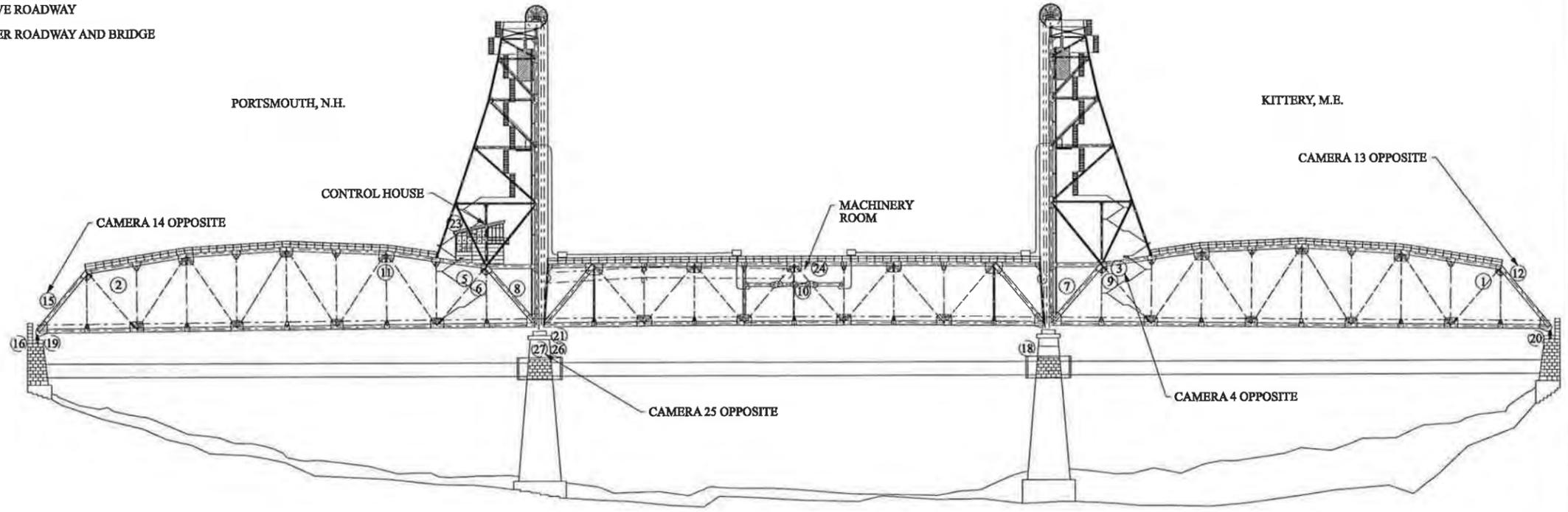
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-14	1-1/2" = 1'

NOTES:

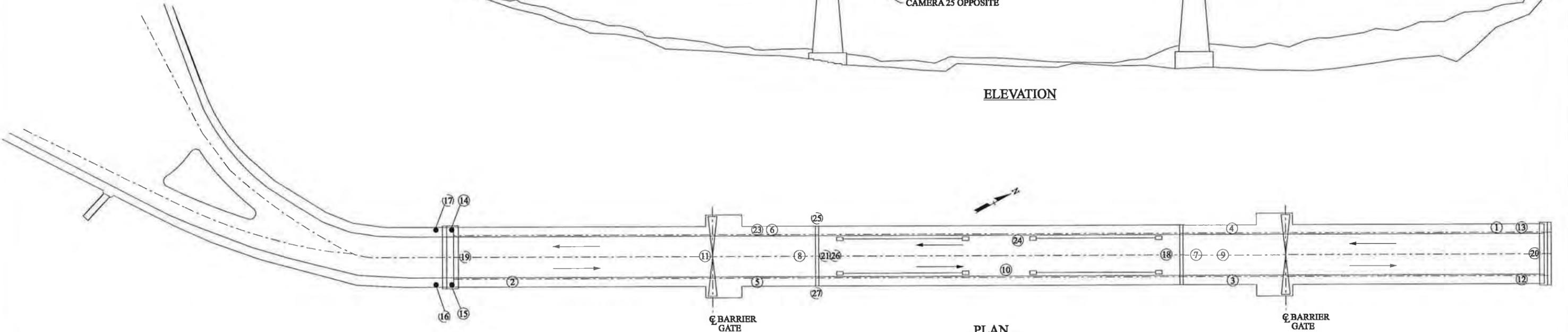
1. ALL CAMERAS SHALL BE HARD WIRED. A WIRELESS COMMUNICATION INFRASTRUCTURE IS NOT ACCEPTABLE.
2. ALL CAMERAS SHALL BE PTZ (PAN TILT ZOOM) TYPE.
3. THE CONTROLLER SHALL HAVE ROOM FOR EXPANSION OF ADDITIONAL CAMERAS.
4. THE CONTROLLER SHALL BE CAPABLE OF REMOTE CONTROLLER. HOWEVER, PRIMARY CONTROL SHALL BE BY THE BRIDGE OPERATOR.
5. CAMERA EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO INSTALLATION.
6. PROVIDE 4 SPLIT-SCREEN 20" MONITORS. THE MONITORS SHALL BE CAPABLE OF SWITCHING FROM ONE SCREEN TO ANOTHER.
7. THE CCTV CONTROL SYSTEM SHALL BE FULLY REDUNDANT.
8. THE MONITORS SHALL BE LOCATED CONVENIENTLY IN FRONT OF THE OPERATOR. THEY SHALL BE MOUNTED AT A HEIGHT THAT WILL NOT OBSTRUCT VIEW OF THE SPAN OR CHANNELS.

SYMBOLS:

- ⑥ CAMERA LOCATION ABOVE ROADWAY
- ⑳ CAMERA LOCATION UNDER ROADWAY AND BRIDGE



ELEVATION



PLAN

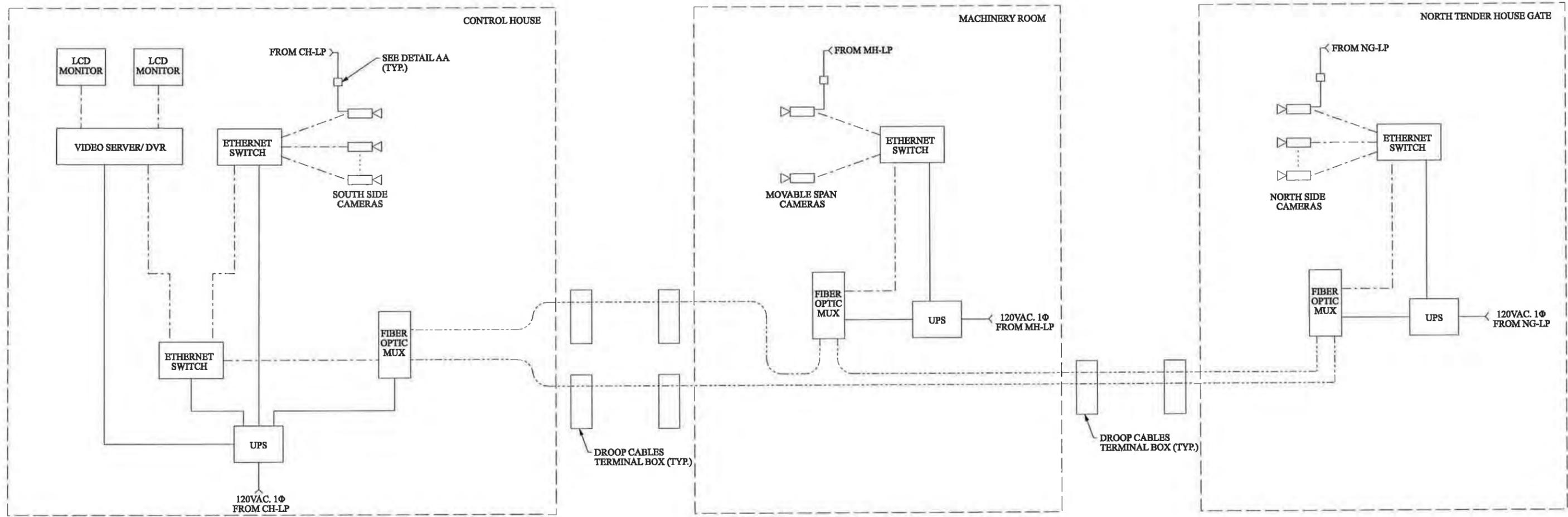
MEMORIAL BRIDGE CAMERA LAYOUT	
CAMERA #	PRIMARY VIEW
WARNING GATES	
1	NORTH ONCOMING WARNING GATE
2	SOUTH ONCOMING WARNING GATE
PEDESTRIAN GATES	
3	NORTHEAST PEDESTRIAN GATE AND SIDEWALK BETWEEN PEDESTRIAN GATE AND WARNING GATE
4	NORTHWEST PEDESTRIAN GATE AND SIDEWALK BETWEEN PEDESTRIAN GATE AND WARNING GATE
5	SOUTHEAST PEDESTRIAN GATE AND SIDEWALK BETWEEN PEDESTRIAN GATE AND WARNING GATE
6	SOUTHWEST PEDESTRIAN GATE AND SIDEWALK BETWEEN PEDESTRIAN GATE AND WARNING GATE

CAMERA #	PRIMARY VIEW
BARRIER GATES	
7	NORTH BARRIER GATES AND NORTH APPROACH SPAN
8	SOUTH BARRIER GATES AND SOUTH APPROACH SPAN
ROADWAY BETWEEN BARRIER GATES	
9	NORTH APPROACH SPAN (BARRIER GATES AND NORTH APPROACH SPAN)
10	CENTER SPAN ROADWAY
11	SOUTH APPROACH SPAN (BARRIER GATES AND SOUTH APPROACH SPAN)
SECURITY CAMERAS	
12	NORTHEAST SIDEWALK
13	NORTHWEST SIDEWALK
14	SOUTHWEST SIDEWALK
15	SOUTHEAST SIDEWALK
16	SOUTHEAST UTILITY BAY

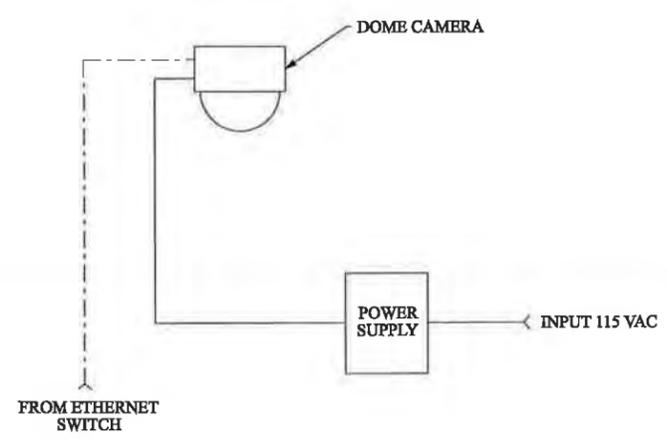
CAMERA #	PRIMARY VIEW
SECURITY CAMERAS (CONTINUED)	
17	SOUTHWEST UTILITY BAY
18	NORTH SIDE OF SOUTH PIER
19	SOUTH SIDE OF SOUTH PIER
20	NORTH SIDE OF NORTH PIER
21	SOUTH SIDE OF NORTH PIER
22	PARKING AREA UNDER SCOTT AVE
23	CONTROL HOUSE STAIRWAY ENTRANCE
24	MACHINERY HOUSE ENTRANCE
WATERWAY	
25	UPRIVER WATERWAY
26	UNDER CENTER WATERWAY
27	DOWNRIVER WATERWAY

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
SUPER	E-15	1" = 40'

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTERY, ME			BRIDGE NO.	247/084	STATE PROJECT	13678F		
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
CCTV LAYOUT									BRIDGE SHEET
REVISIONS AFTER PROPOSAL									E-150E-16
DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX	FILE NUMBER		-	
DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX	QUANTITIES		-	
ISSUE DATE	XXX	XX/XX	CHECKED	XXX	XX/XX	FEDERAL PROJECT NO.		-	
REV. DATE						SHEET NO.		43	
								TOTAL SHEETS	
								44	



CCTV EQUIPMENT CONNECTION BLOCK DIAGRAM



**DETAIL AA
CCTV DOME CAMERA INSTALLATION DIAGRAM**

- LEGEND:**
- CAT 6 COAXIAL CABLE
 - FIBER OPTIC CABLE
 - CCTV CAMERA
 - UPS UNINTERRUPTABLE POWER SUPPLY

- NOTES:**
1. FIBER OPTIC CABLES SHALL BE ROUTED THROUGH THE BRIDGE DROOP CABLE SYSTEM.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	PORTSMOUTH, NH - KITTEBY, ME			BRIDGE NO.	247/084		STATE PROJECT	13678F	
LOCATION	U.S. ROUTE 1 OVER PISCATAQUA RIVER								
CCTV SYSTEM BLOCK DIAGRAM									
REVISIONS AFTER PROPOSAL	BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET			
DESIGNED	XXX	XX/XX	CHECKED	XXX	XX/XX	E-16 ⁰⁸ E-16			
DRAWN	XXX	XX/XX	CHECKED	XXX	XX/XX	FILE NUMBER			
QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	-			
ISSUE DATE	FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS				
REV. DATE	-----		44		44				

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
SUPER	E-16	NTS