CONSTRUCTION PLANS FOR

AIRPORT PERIMETER FENCING UPGRADES

PLAN SET K: KETCHIKAN AIRPORT (KTN), PROJECT NO. SFAPT00176
PLAN SET P: PETERSBURG AIRPORT (PSG), PROJECT NO. SFAPT00175
PLAN SET S: STANDARD DRAWINGS (APPLICABLE TO BOTH AIRPORTS)

The undersigned hereby certifies that this duplicated document is an exact and true copy of the original.

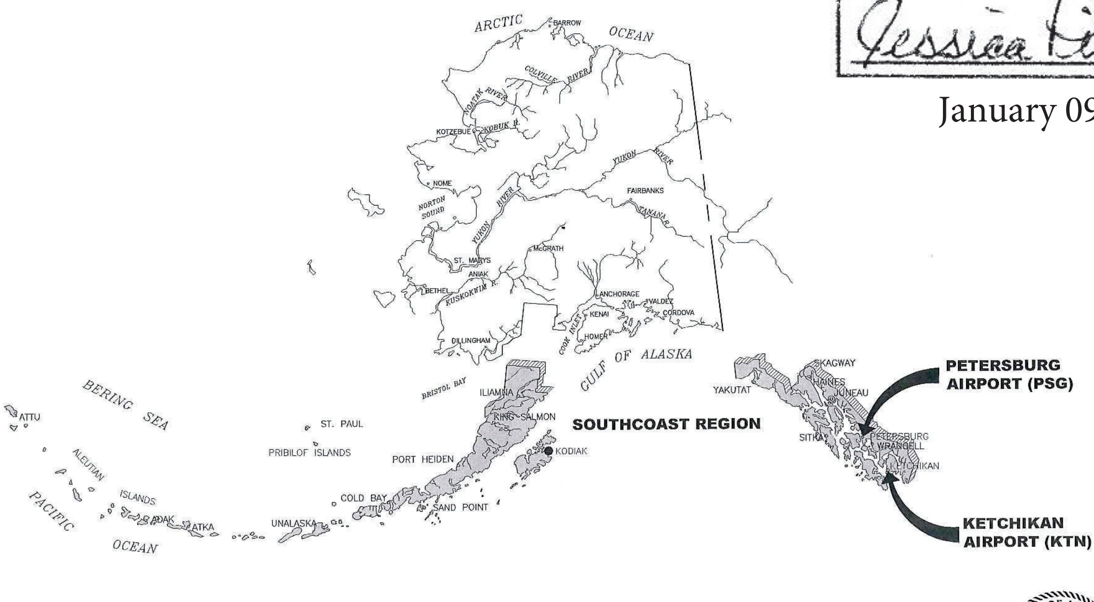
Jessica Dukala

January 09, 2020

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



ALASKA SOUTHCOAST REGION LOCATION MAP

NOT TO SCALE

CONCUR	D. LANCE MEARIG, P.E.	DATE 30 Aug 2019	REGIONAL DIRECTOR
APPROVED	PAT L. CARROLL, P.E.	DATE 8-30-19	REGIONAL PRECONSTRUCTION ENGINEER
APPROVED	CHRISTOPHER GOINS, P.E.	DATE 8-30-2019	DESIGN GROUP CHIEF
APPROVED	JIM BROWN, P.E.	DATE 8·30·2019	PROJECT MANAGER

STATE OF ALASKA
49TH
Wesley A. Holden
08/30/2019
CE 120568
REGISTERED PROFESSIONAL ENGINEER

SPONSORED BY STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES SOUTHCOAST REGION

6860 GLACIER HIGHWAY
JUNEAU, ALASKA 99801
907-465-1763

SHEET 1 OF 2

Designed By:
Checked By:
Drawn By:

Date Plotted:
Plot Ratio and Layout:
File:

PLOTTED: Aug 29, 2019 - 8:29am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	G002	58

ESTIMATED QUANTITIES

SPECIFICATIONS ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY	
D751.050.0000	STOPLOG STRUCTURE	EACH	1	
F162.010.0008	8-FEET CHAIN-LINK FENCE	LINEAR FOOT	~~1,836~~	1938.6 LF
F162.010.0010	10-FEET CHAIN-LINK FENCE	LINEAR FOOT	~~188~~	164.3 LF
F162.070.0004	PEDESTRIAN GATE W/KEYLESS LOCK, 4-FEET WIDE	EACH	8	
F162.120.0000	BARBED WIRE TOP EXTENSION	LINEAR FOOT	24	
F162.170.0000	REMOVE GATE	EACH	17	
F162.190.0000	REMOVE FENCE	LINEAR FEET	~~1,985~~	2056.35 LF
F170.010.0000	STEEL BOLLARD	EACH	72	
F171.140.0014	PIVOTING VEHICLE GATE SYSTEM, 14-FEET WIDE	EACH	1	
F171.140.0020	PIVOTING VEHICLE GATE SYSTEM, 20-FEET WIDE	EACH	2	
F171.140.0022	PIVOTING VEHICLE GATE SYSTEM, 22-FEET WIDE	EACH	3	
F171.140.0024	PIVOTING VEHICLE GATE SYSTEM, 24-FEET WIDE	EACH	2	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 1 PSG	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 10 PSG	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 2 PSG	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 4 PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 10A PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 11 PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 1A PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 2A PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 3 PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 4A PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 5A PSG	LUMP SUM	ALL REQUIRED	
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 8 PSG	LUMP SUM	ALL REQUIRED	
F186.040.0000	ACCESS CONTROL SYSTEM, FRONT END & MISC PSG	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE F13 KTN	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE F2 KTN	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE F4 KTN	LUMP SUM	ALL REQUIRED	
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE F5 KTN	LUMP SUM	ALL REQUIRED	
F186.040.0000	ACCESS CONTROL SYSTEM, FRONT END & MISC KTN	LUMP SUM	ALL REQUIRED	
G100.010.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED	
G115.010.0000	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED	
G131.010.0000	ENGINEERING TRANSPORTATION (TRUCK)	EACH	2	
~~G131.020.0000~~	~~ENGINEERING TRANSPORTATION (ATV)~~	~~EACH~~	~~2~~	Deleted by CO 2
G135.010.0000	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	ALL REQUIRED	
G135.020.0000	EXTRA THREE PERSON SURVEY PARTY	HOUR	~~80~~	0 hours
G210.010.0000	CONTRACTOR SAFETY PLAN COMPLIANCE DOCUMENT	LUMP SUM	ALL REQUIRED	
G700.030.0000	AIRPORT TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED	
G710.010.0000	HIGHWAY TRAFFIC MAINTAINANCE	LUMP SUM	ALL REQUIRED	
P151.030.0000	CLEARING & GRUBBING	ACRE	~~0.2~~	0.08 Acres
P152.010.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	~~1,259~~	873.98 CY
P154.020.0000	SUBBASE COURSE	TON	~~46~~	666.99 tons
P160.010.0000	EXCAVATION OF PAVEMENT, AC	SQUARE YARD	~~1,372~~	1275.73 SY
P160.050.0000	EXCAVATION OF PAVEMENT, PCC	SQUARE YARD	~~129~~	89.84 SY
P165.010.0000	REMOVAL OF STRUCTURES	LUMP SUM	ALL REQUIRED	
P209.020.0000	CRUSHED AGGREGATE BASE COURSE	TON	~~18~~	382.89 tons
P501.010.0000	PORTLAND CEMENT CONCRETE PAVEMENT	CUBIC YARD	~~248~~	226.07 CY
P610.010.0000	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	~~83~~	79.398 CY
P641.010.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED	
P641.030.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED	
P641.040.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQUIRED	
P641.060.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED	
P641.070.0000	SWPPP MANAGER	LUMP SUM	ALL REQUIRED	
P661.030.0000	STANDARD SIGNS	LUMP SUM	ALL REQUIRED	
T901.010.0000	SEEDING	ACRE	~~0.2~~	0.04 Acres
T905.010.0010	TOPSOILING, CLASS A	SQUARE YARD	~~379~~	172.70 SY
U100.010.00000	WATER SYSTEM	LUMP SUM	ALL REQUIRED	

ITEMS ADDED BY CHANGE ORDER

F171.141.0001	Vehicle Gate Adjustable Clearance Wedges, PSG (CO # 1)	LS	1.00
F171.141.0002	Vehicle Gate Adjustable Clearance Wedges, KTN (CO # 1)	LS	1.00
P160.051.0000	~~Demolition and Excavation of Reinforced Concrete - (IWA #02)~~	CS	
F186.041.0001	Access Control System Switch & Radio Power Revisions, PSG (CO#3)	EACH	1.00
F186.041.0002	Access Control System Switch & Radio Power Revisions, KTN (CO#3)	EACH	1.00
F186.010.0021	Extra Circuit for Photo Eyes, PSG (CO#6)	LS	1.00
F186.010.0022	Extra Circuit for Photo Eyes, KTN (CO#6)	LS	1.00
G100.010.0001	Electrical Delay Mobilization, KTN (CO#6)	LS	1.00
P152.020.0000	Unsuitable Excavation - PSG Gate 01 (CO#7)	LS	1.00
D751.020.0001	Adjust Catch Basin (CO#4)	EACH	1.00
P160.051.0000	Demolition and Excavation of Reinforced Concrete - Petersburg (CO #1	LS	1.00
P160.051.0000	Demolition and Excavation of Reinforced Concrete - Ketchikan(CO #10	LS	1.00

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

BASIS OF ESTIMATE/ESTIMATING FACTORS

ITEM NO.	ITEM	ESTIMATING FACTORS
P154.020.0000	SUBBASE COURSE	145 LB/CF
P209.020.0000	CRUSHED AGGREGATE BASE COURSE	145 LB/CF

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49TH
Wesley A. Holden
08/30/2019
CE 120568
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

KTN-PSG AIRPORT PERIMETER FENCING UPGRADES

COMBINED KTN-PSG ESTIMATE OF QUANTITIES

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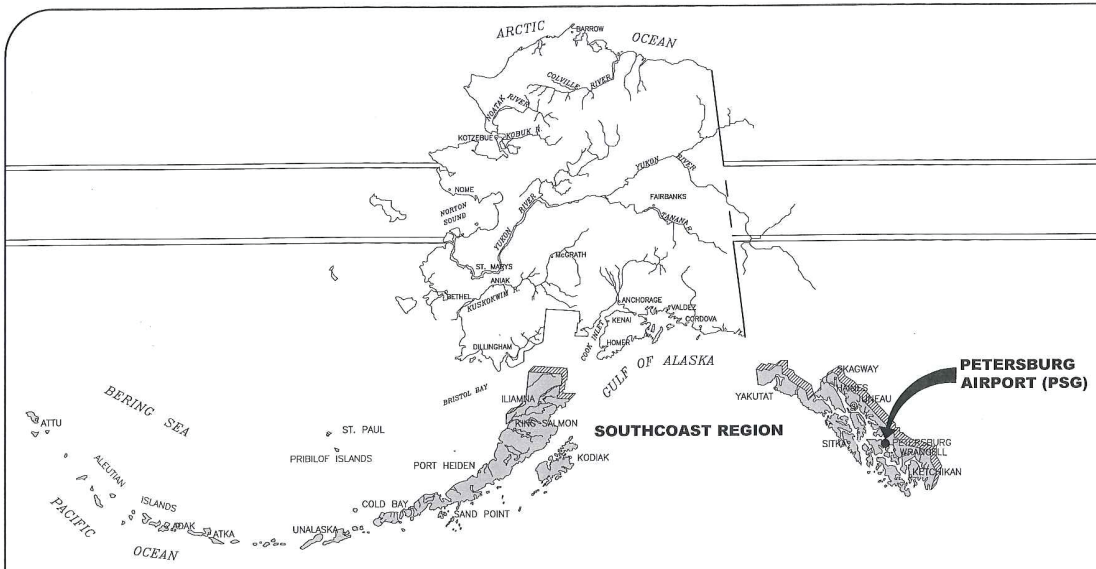
DRAFTED: JK

CONSTRUCTION PLANS FOR

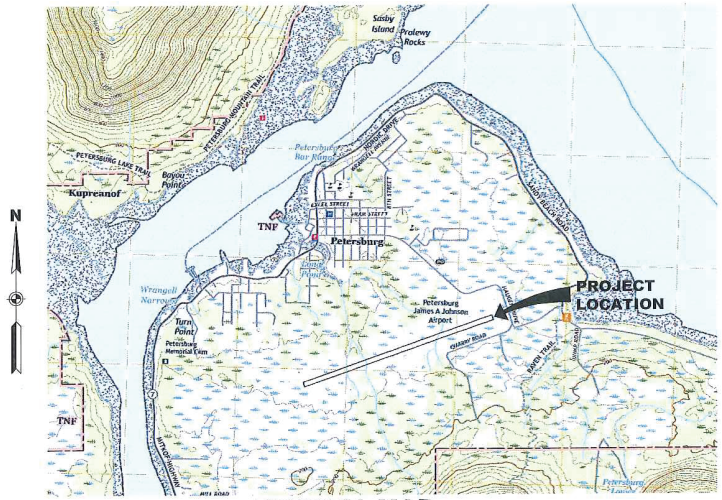
PETERSBURG AIRPORT (PSG)

AIRPORT PERIMETER FENCING UPGRADES
PROJECT NO. SFAPT00175
A.I.P. No. 3-02-0219-XXX-2019



ALASKA SOUTHCOAST REGION LOCATION MAP

NOT TO SCALE



VICINITY MAP

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

CONCUR		DATE	30 Aug 2019
D. LANCE MEARIG, P.E.			REGIONAL DIRECTOR
APPROVED	Pat Carroll	DATE	8-30-19
PAT L. CARROLL, P.E.			REGIONAL PRECONSTRUCTION ENGINEER
APPROVED		DATE	8-30-2019
CHRISTOPHER GOINS, P.E.			DESIGN GROUP CHIEF
APPROVED		DATE	8·30·2019
JIM BROWN, P.E.			PROJECT MANAGER

STATE OF ALASKA 49TH Wesley A. Holden 07/30/2019 CE 120568 REGISTERED PROFESSIONAL ENGINEER

SPONSORED BY STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
SOUTHCOAST REGION

6860 GLACIER HIGHWAY
JUNEAU, ALASKA 99801
907-465-1763

SHEET 1 OF 52

Designed By:
Checked By:
Drawn By:
Date Plotted:
Plot Ratio and Layout:
File:

PLOTTED: Jul 26, 2019 - 9:39am
DRAWING NAME: C:\Civil 3D Projects\2019\SAP\70988-01\Civil\SC-CS-CV-PSG-70988.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PG2	58

ABBREVIATIONS

ADF&G	ALASKA DEPARTMENT OF FISH AND GAME
AIP	AIRPORT IMPROVEMENT PROJECT
BFM	BONDED FIBER MATRIX
BMP	BEST MANAGEMENT PRACTICE
BRL	BUILDING RESTRICTION LINE
CL/℄	CENTERLINE
CABC	CRUSHED AGGREGATE BASE COURSE
CF	CUBIC FEET/FOOT
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYLENE PIPE
CS	CONTINGENT SUM
CSPP	CONSTRUCTION SAFETY AND PHASING PLAN
CVO	COMMAND VEHICLE OPERATOR
CY	CUBIC YARD
DOT&PF	DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
ELEV	ELEVATION
EG	EXISTING GROUND
EP	EDGE OF PAVEMENT
FAA	FEDERAL AVIATION ADMINISTRATION
F.F.	FINISHED FLOOR
FG	FINISHED GRADE
F&I	FURNISH AND INSTALL
FATO	FINAL APPROACH AND TAKE OFF AREA
FOD	FOREIGN OBJECTS AND DEBRIS
FT	FOOT/FEET
GA	GENERAL AVIATION
HDG	HOT DIP GALVANIZED
HMA	HOT MIX ASPHALT
HPZ	HELIPORT PROTECTION ZONE
HSA	HELIPORT SAFETY AREA
INV	INVERT
LF	LINEAR/LINEAL FOOT
LS	LUMP SUM
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NFS	NON-FROST SUSCEPTIBLE
NIC	NOT IN CONTRACT
NOTAM	NOTICE TO AIRMEN
OFA	OBJECT FREE AREA
OFZ	OBSTACLE FREE ZONE
PAPI	PRECISION APPROACH PATH INDICATOR
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE, OR PORTLAND CEMENT CONCRETE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RAP	RECYCLED ASPHALT PAVEMENT
RP	RADIUS POINT
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
RT	RIGHT
RW	RUNWAY
SF	SQUARE FEET/FOOT
SSWR	SANITARY SEWER
STA	STATION
SY	SQUARE YARD
TLOF	TOUCHDOWN AND LIFTOFF AREA
TOFA	TAXIWAY/TAXILANE OBJECT FREE AREA
TW	TAXIWAY
TYP	TYPICAL
VC	VERTICAL CURVE

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		PROPERTY BOUNDARY
		EDGE OF GRAVEL
		EDGE OF ASPHALT PAVEMENT
		DITCH OR SWALE FLOWLINE
	W	WATER LINE
X	X	FENCE
FISH		FISH EXCLUSION FENCE
	E	ABANDONED UNDERGROUND ELECTRIC
UGE	UGE	UNDERGROUND ELECTRICAL LINE
UGE/UGT		UNDERGROUND ELECTRICAL & TELEPHONE LINE
	OHE	OVERHEAD ELECTRICAL LINE
HT	HT	HEAT TRACE CABLING
T	T	UNDERGROUND TELEPHONE CABLE
S	S	SANITARY SEWER LINE
		CULVERT
		CUT LIMITS
		FILL LIMITS
		BREAKLINE
	RSA	RUNWAY SAFETY AREA
	OFA	OBJECT FREE AREA
	OFZ	OBSTACLE FREE ZONE
TOFA	TOFA	TAXIWAY/TAXILANE OBJECT FREE AREA
HPZ		HELIPORT PROTECTION ZONE
HSA		HELIPORT SAFETY AREA
FATO		FINAL APPROACH AND TAKEOFF AREA
TLOF		TOUCHDOWN AND LIFTOFF AREA
		STORM DRAIN CATCH BASIN
C.O.		SANITARY SEWER CLEANOUT
	E	SECONDARY POWER PEDESTAL
		ELECTRICAL JUNCTION BOX
		TELEPHONE PEDESTAL
		POWER TRANSFORMER
		BOLLARD/MISC POLE
		SIGN
		ASPHALT PAVEMENT
		PORTLAND CEMENT CONCRETE
		RAP SURFACE COURSE
		ROCK LINING/RIPRAP
		TOPSOIL, SEEDING & BFM
		FED. GOV'T SECTION CORNER
		PRIMARY MONUMENT
		SECONDARY MONUMENT
		CENTERLINE MONUMENT
		GEODETIC CONTROL STATION
		PRIMARY AIRPORT CONTROL STATION

SHEET INDEX

SHEET #	SHEET TITLE
PG1	COVER SHEET
PG2	SHEET INDEX, LEGEND, & ABBREVIATIONS
PG3	ESTIMATE OF QUANTITIES
PG4	SURVEY CONTROL DIAGRAM
PD1	DEMOLITION PLAN GATE 1 AND VICINITY
PD2	DEMOLITION PLAN WEST APRON AREA
PD3	DEMOLITION PLAN CENTRAL APRON AREA
PD4	DEMOLITION PLAN EAST APRON AREA
PC1	OVERALL CIVIL SITE PLAN
PC2	ENHANCED SITE PLAN GATES 1 AND 1A VICINITY
PC3	ENHANCED SITE PLAN EAST AREA
PC4	DETAILED SITE PLAN GATE 1 AND 1A
PC5	DETAILED SITE PLAN GATE 2 AND 2A
PC6	DETAILED SITE PLAN GATES 3, 4, AND 4A
PC7	DETAILED SITE PLAN GATE 5A
PC8	DETAILED SITE PLAN GATE 5 AND 6
PC9	DETAILED SITE PLAN GATES 8, 10, AND 10A
PC10	DETAILED SITE PLAN GATE 11
PGR1	GRADING PLAN – GATE 1 AND 1A
PGR2	GRADING PLAN – GATE 2
PGR3	GRADING PLAN – GATES 3 & 4
PGR4	GRADING PLAN – GATES 8 & 10
PTD1	TYPICAL SECTIONS AND CIVIL DETAILS
PTD2	CIVIL DETAILS
PE1	GENERAL NOTES AND LEGEND
PE2	OVERALL ELECTRICAL SITE PLAN
PE3	GATE 1, 1A, & ARFF BUILDING SITE PLAN
PE4	GATE 2, 2A, 3, 4, & 4A SITE PLAN
PE5	GATE 8, 10, 10A, & 11 SITE PLAN
PE6	GATE 1 & 1A DETAILED SITE PLAN
PE7	GATE 1 & 1A SINGLE LINE DIAGRAM
PE8	GATE 1 & 1A POWER AND NETWORK SCHEMATIC AND ELEVATION
PE9	ARFF BUILDING PARTIAL FLOOR PLAN
PE10	GATE 2 & 2A DETAILED SITE PLAN
PE11	GATE 2 & 2A SINGLE LINE DIAGRAM
PE12	GATE 2 & 2A POWER & NETWORK SCHEMATIC
PE13	GATE 3, 4, & 4A DETAILED SITE PLAN
PE14	GATE 3, 4, & 4A SINGLE LINE DIAGRAM
PE15	GATE 3, 4, & 4A POWER & NETWORK SCHEMATIC
PE16	GATE 5A DETAILED SITE PLAN
PE17	GATE 5A SINGLE LINE DIAGRAM
PE18	GATE 5A POWER & NETWORK SCHEMATIC
PE19	GATE 8, 10, & 10A DETAILED SITE PLAN
PE20	GATE 8, 10, & 10A SINGLE LINE DIAGRAM
PE21	GATE 8, 10, & 10A POWER & NETWORK SCHEMATIC
PE22	GATE 11 DETAILED SITE PLAN
PE23	GATE 11 SINGLE LINE DIAGRAM
PE24	GATE 11 POWER & NETWORK SCHEMATIC
PE25	WIRELESS TOPOLOGY SCHEMATIC

EROSION AND SEDIMENT CONTROL PLAN

SHEET #	SHEET TITLE
PEC1	OVERALL EROSION & SEDIMENT CONTROL PLAN
PEC2	EROSION & SEDIMENT CONTROL PLAN–WEST APRON AREA
PEC3	EROSION & SEDIMENT CONTROL PLAN–CENTRAL APRON AREA
PEC4	EROSION & SEDIMENT CONTROL PLAN–EAST APRON AREA

APPENDIX DRAWINGS
CONSTRUCTION SAFETY AND PHASING PLAN

SHEET #	SHEET TITLE
PAD1	CONST. SAFETY & PHASING PLAN OVERVIEW
PAD2	CONST. SAFETY & PHASING PLAN – WORK AREA 1
PAD3	CONST. SAFETY & PHASING PLAN–WORK AREA 2
PAD4	CONST. SAFETY & PHASING PLAN–WORK AREAS 3 & 4
PAD5	CONST. SAFETY & PHASING PLAN–WORK AREA 4

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49th
Wesley A. Holden
07/30/2019
CE 120568
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6860 GLACIER HIGHWAY, JUNEAU, AK 99801
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

SHEET INDEX, LEGEND, & ABBREVIATIONS

DRAFTED JK | CHECKED NH | DESIGNED WH | LAYOUT | DATE 7/26/2019 11:14 | FILE C:\Civil 3D Projects\2016\SFA\70988-01\Civil\SC-CS-PSG-70988.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PG3	58

ESTIMATED QUANTITIES

SPECIFICATIONS ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
F162.010.0008	8-FEET CHAIN-LINK FENCE	LINEAR FOOT	261
F162.010.0010	10-FEET CHAIN-LINK FENCE	LINEAR FOOT	14
F162.070.0004	PEDESTRIAN GATE W/KEYLESS LOCK, 4-FEET WIDE	EACH	8
F162.170.0000	REMOVE GATE	EACH	13
F162.190.0000	REMOVE FENCE	LINEAR FEET	231
F170.010.0000	STEEL BOLLARD	EACH	37
F171.140.0014	PIVOTING VEHICLE GATE SYSTEM, 14-FEET WIDE	EACH	1
F171.140.0020	PIVOTING VEHICLE GATE SYSTEM, 20-FEET WIDE	EACH	1
F171.140.0024	PIVOTING VEHICLE GATE SYSTEM, 24-FEET WIDE	EACH	2
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 1 PSG	LUMP SUM	ALL REQUIRED
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 10 PSG	LUMP SUM	ALL REQUIRED
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 2 PSG	LUMP SUM	ALL REQUIRED
F186.010.0010	ACCESS CONTROLS FOR VEHICLE GATE, GATE 4 PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 10A PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 11 PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 1A PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 2A PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 3 PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 4A PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 5A PSG	LUMP SUM	ALL REQUIRED
F186.020.0010	ACCESS CONTROLS FOR PEDESTRIAN GATE, GATE 8 PSG	LUMP SUM	ALL REQUIRED
F186.040.0000	ACCESS CONTROL SYSTEM, FRONT END & MISC PSG	LUMP SUM	ALL REQUIRED
G100.010.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
G115.010.0000	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
G131.010.0000	ENGINEERING TRANSPORTATION (TRUCK)	EACH	1
G131.020.0000	ENGINEERING TRANSPORTATION (ATV)	EACH	1
G135.010.0000	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	ALL REQUIRED
G135.020.0000	EXTRA THREE PERSON SURVEY PARTY	HOUR	40
G210.010.0000	CONTRACTOR SAFETY PLAN COMPLIANCE DOCUMENT	LUMP SUM	ALL REQUIRED
G700.030.0000	AIRPORT TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
G710.010.0000	HIGHWAY TRAFFIC MAINTAINANCE	LUMP SUM	ALL REQUIRED
P151.030.0000	CLEARING & GRUBBING	ACRE	0.1
P152.010.0000	UNCLASSIFIED EXCAVATION	CUBIC YARD	657
P154.020.0000	SUBBASE COURSE	TON	24
P160.010.0000	EXCAVATION OF PAVEMENT, AC	SQUARE YARD	770
P160.050.0000	EXCAVATION OF PAVEMENT, PCC	SQUARE YARD	32
P165.010.0000	REMOVAL OF STRUCTURES	LUMP SUM	ALL REQUIRED
P209.020.0000	CRUSHED AGGREGATE BASE COURSE	TON	10
P501.010.0000	PORTLAND CEMENT CONCRETE PAVEMENT	CUBIC YARD	130
P610.010.0000	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	43
P641.010.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
P641.030.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
P641.040.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL ADDITIVES	CONTINGENT SUM	ALL REQUIRED
P641.060.0000	WITHHOLDING	CONTINGENT SUM	ALL REQUIRED
P641.070.0000	SWPPP MANAGER	LUMP SUM	ALL REQUIRED
P661.030.0000	STANDARD SIGNS	LUMP SUM	ALL REQUIRED
T901.010.0000	SEEDING	ACRE	0.1
T905.010.0010	TOPSOILING, CLASS A	SQUARE YARD	112

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

BASIS OF ESTIMATE/ESTIMATING FACTORS

ITEM NO.	ITEM	ESTIMATING FACTORS
P154.020.0000	SUBBASE COURSE	145 LB/CF
P209.020.0000	CRUSHED AGGREGATE BASE COURSE	145 LB/CF

PLANS DEVELOPED BY:
DOWL
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

ESTIMATE OF QUANTITIES

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Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PG4	58

CIVIL SITE PLAN NOTES:

1. SEE ENHANCED SITE PLANS AND DETAILED SITE PLANS FOR SPECIFIC GATE AND FENCING WORK.
2. CONTRACTOR SHALL VERIFY PROJECT CONTROL PRIOR TO BEGINNING ANY WORK.

HORIZONTAL CONTROL STATEMENT

THE PROJECT HORIZONTAL DATUM IS ALASKA STATE PLANE, ZONE 1 GRID COORDINATES BASED ON OBSERVATIONS DIFFERENTIALLY CORRECTED BY NGS CORS "PETERSBURGAK2005" AND TRANSLATED TO LOCAL COORDINATES.

COORDINATE SYSTEM

THE PROJECT COORDINATES ARE A LOCAL GROUND BASED SYSTEM USING THE TRANSFORMATION PARAMETERS OF DOT SOUTHCOAST COORDINATE SYSTEM "PETERSBURG GRID–2001"

BASIS OF COORDINATES

THE BASIS OF COORDINATES IS POINT No. 37, A DOT/PF ALUMINUM CAP. THE GEODETIC POSITION, AS OBSERVED, IS 56°48'12.2086" N LATITUDE AND 132°55'42.6360" W LONGITUDE, NAD83(92). THE STATE PLANE COORDINATE IS 1,815,774.211 FEET NORTHING, 2,832,876.006 FEET EASTING. THE LOCAL COORDINATE IS 299,991.249 FEET NORTHING, 201,186.603 FEET EASTING.

BASIS OF BEARINGS

PROJECT BEARINGS ARE ALASKA STATE PLANE, ZONE 1 GRID BEARINGS ROTATED TO THE LOCAL COORDINATE SYSTEM.

TRANSFORMATION PARAMETERS

TO CONVERT FROM LOCAL COORDINATES TO THE STATE PLANE COORDINATE SYSTEM NAD83(92), ZONE 1, U.S. SURVEY FEET: TRANSLATE USING +1515770.473 NORTH, +2632689.489 EAST. ROTATE BY +0°36'11" AND SCALE BY 0.999905 AROUND PSG–D (N 1815770.473, E 2832689.489).

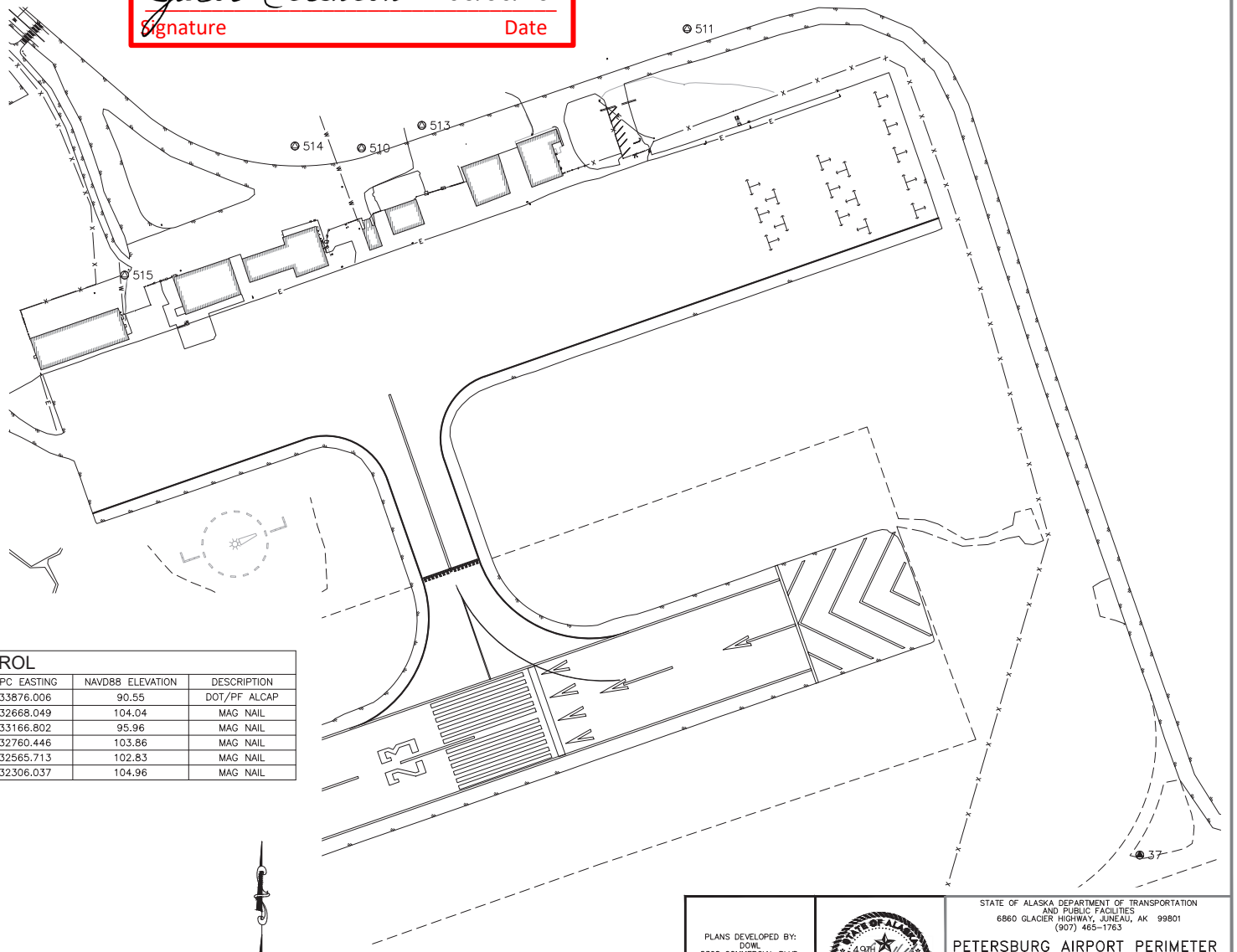
TO CONVERT FROM STATE PLANE COORDINATE SYSTEM, ZONE 1, U.S. SURVEY FEET TO LOCAL COORDINATES: TRANSLATE USING –1515770.473 NORTH, –2632689.489 EAST. ROTATE BY –0°36'11" AND SCALE BY 1.000095 AROUND PSG–D (N 300000.000, E 200000.000).

VERTICAL CONTROL STATEMENT

THE PROJECT VERTICAL DATUM IS NAVD88 BASED ON NGS CORS "PETERSBURGAK2005" (CORS ID: AB51, PID NO. DM7459) HAVING A PUBLISHED ELEVATION OF 254.04 FEET. STATIC GPS SESSION IN OCTOBER 2018 WAS USED TO TRANSFER ELEVATIONS TO DOT 37.

LEGEND

- SECONDARY CONTROL
- PRIMARY CONTROL



EXISTING CONTROL

POINT	LOCAL NORTHING	LOCAL EASTING	AKSPC NORTHING	AKSPC EASTING	NAVD88 ELEVATION	DESCRIPTION
37	299991.249	201186.603	1815774.211	2833876.006	90.55	DOT/PF ALCAP
510	301078.659	199989.910	1816848.864	2832668.049	104.04	MAG NAIL
511	301262.089	200490.669	1817037.536	2833166.802	95.96	MAG NAIL
513	301113.489	200082.688	1816884.665	2832760.446	103.86	MAG NAIL
514	301081.766	199887.592	1816850.893	2832565.713	102.83	MAG NAIL
515	300883.351	199625.788	1816649.753	2832306.037	104.96	MAG NAIL

80 0 80 160
SCALE IN FEET

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

SURVEY CONTROL DIAGRAM

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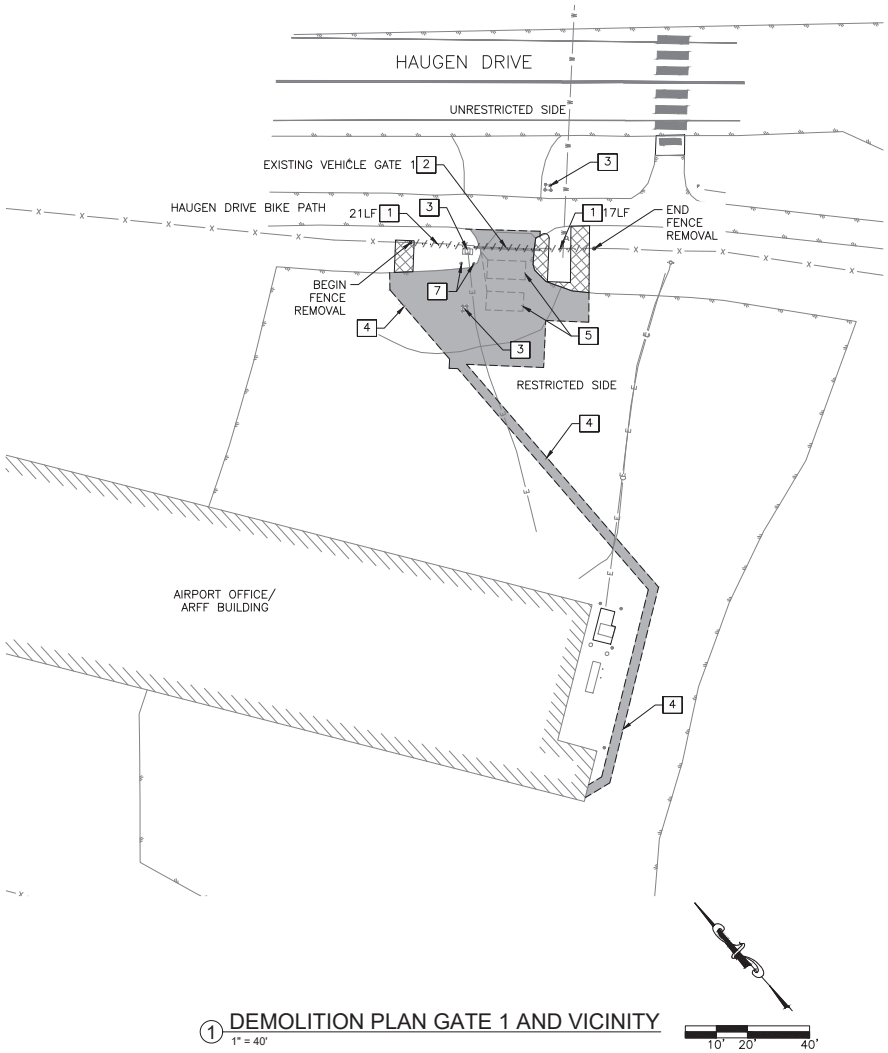
			ALASKA	SFAPT00175	2019	PD1	58



1 DEMOLITION PLAN GATE 1 AND VICINITY
1" = 40'

DEMOLITION GENERAL NOTES:

1. WHERE EXISTING AUTOMATED GATES ARE TO BE REMOVED, REMOVAL SHALL INCLUDE DEMOLITION AND REMOVAL OF ALL ASSOCIATED EQUIPMENT, INCLUDING BUT NOT LIMITED TO: GATE, GATE FOUNDATION, GATE SUPPORTS, ALL CARD READERS, PEDESTALS, ACCESSORIES, GATE OPERATOR AND FOUNDATION, CABLES, CONDUIT, BOLLARDS, AND OTHER ITEMS.
2. FENCE REMOVAL LIMITS WILL BE TO THE NEAREST EXISTING POST, UNLESS OTHERWISE NOTED. CONFIRM FENCE REMOVAL LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
3. REMOVE ALL EXISTING SIGNAGE ON EXISTING GATES AND PRESERVE FOR REINSTALLATION.
4. CONFIRM ALL SAWCUT LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
5. SEE GRADING PLAN, SHEETS PGR1–PGR4 FOR PAVEMENT REMOVAL LIMITS.

DEMOLITION KEY NOTES

[1] REMOVE EXISTING FENCE

[2] REMOVE EXISTING GATE

[3] REMOVE EXISTING CARD READER, PEDESTAL, BOLLARDS. CABLE, CONDUITS, AND FOUNDATIONS

[4] SAWCUT AND REMOVE EXISTING PAVEMENT AND BASE MATERIAL AS NEEDED FOR NEW PAVEMENT SECTION

[5] ABANDON EXISTING GATE SAFETY LOOPS

[7] REMOVE EXISTING BOLLARD AND BASE

DEMOLITION LEGEND

REMOVE ASPHALT PAVEMENT

REMOVE FENCE AND/OR GATE

SAWCUT EXISTING PAVEMENT FULL DEPTH

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DEMOLITION PLAN
GATE 1 AND VICINITY

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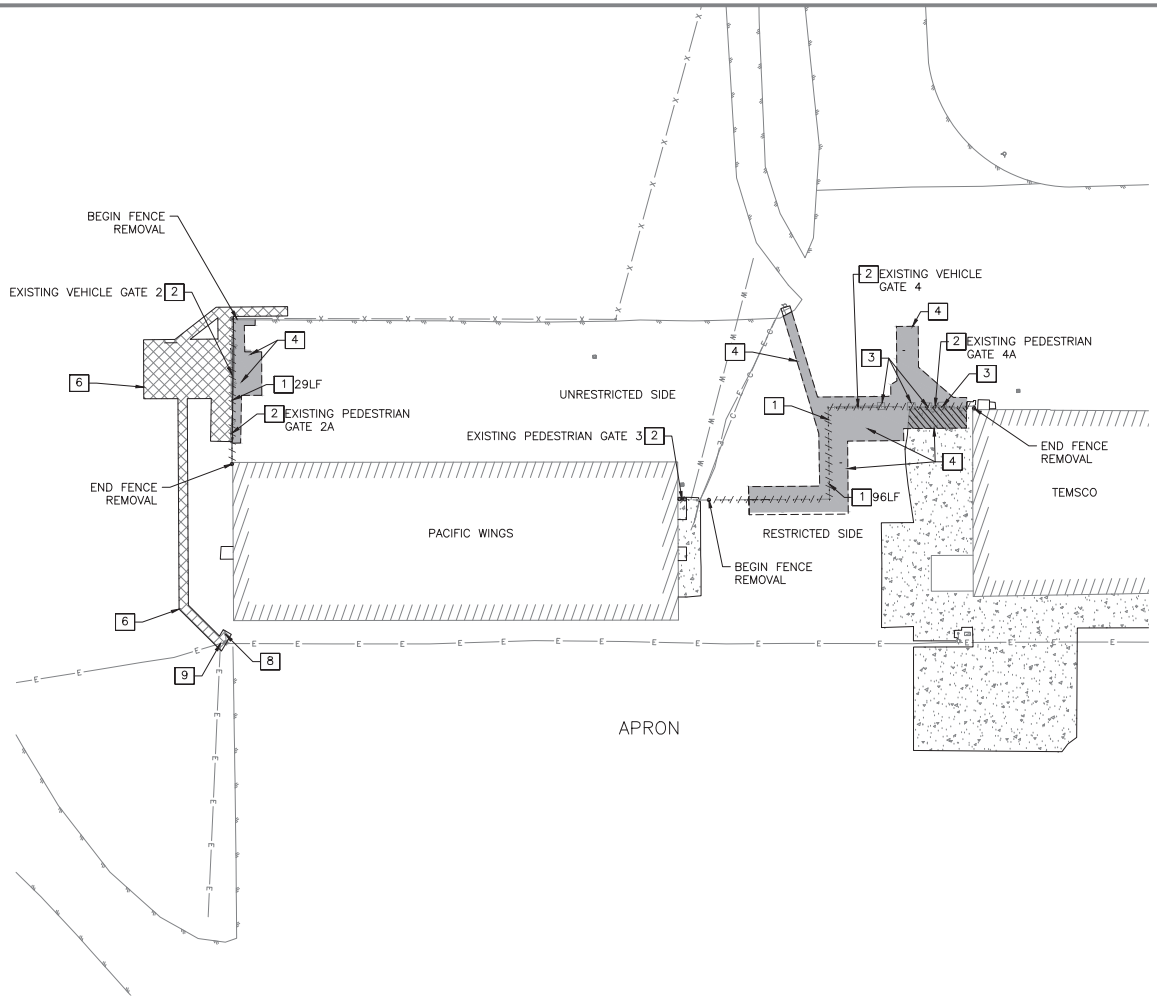
			ALASKA	SFAPT00175	2019	PD2	58



① DEMOLITION PLAN WEST APRON AREA
1" = 40'

10' 20' 40'

DEMOLITION GENERAL NOTES:
1. WHERE EXISTING AUTOMATED GATES ARE TO BE REMOVED, REMOVAL SHALL INCLUDE DEMOLITION AND REMOVAL OF ALL ASSOCIATED EQUIPMENT, INCLUDING BUT NOT LIMITED TO: GATE, GATE FOUNDATION, GATE SUPPORTS, ALL CARD READERS, PEDESTALS, ACCESSORIES, GATE OPERATOR AND FOUNDATION, CABLES, CONDUIT, BOLLARDS, AND OTHER ITEMS.
2. FENCE REMOVAL LIMITS WILL BE TO THE NEAREST EXISTING POST, UNLESS OTHERWISE NOTED. CONFIRM FENCE REMOVAL LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
3. REMOVE ALL EXISTING SIGNAGE ON EXISTING GATES AND PRESERVE FOR REINSTALLATION.
4. CONFIRM ALL SAWCUT LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
5. SEE GRADING PLAN, SHEETS PGR1–PGR4 FOR PAVEMENT REMOVAL LIMITS.

DEMOLITION KEY NOTES

1 REMOVE EXISTING FENCE

2 REMOVE EXISTING GATE

3 REMOVE EXISTING CARD READER, PEDESTAL, BOLLARDS, CABLE, CONDUITS, AND FOUNDATIONS

4 SAWCUT AND REMOVE EXISTING PAVEMENT AND BASE MATERIAL AS NEEDED FOR NEW PAVEMENT SECTION

6 REMOVE EXISTING AGGREGATE AND TURF AS NEEDED FOR NEW PAVEMENT SECTION OR TRENCHING

8 REMOVE EXISTING LIGHT POLE AND BASE

9 REMOVE EXISTING ELECTRICAL JUNCTION BOX

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DEMOLITION PLAN
WEST APRON AREA

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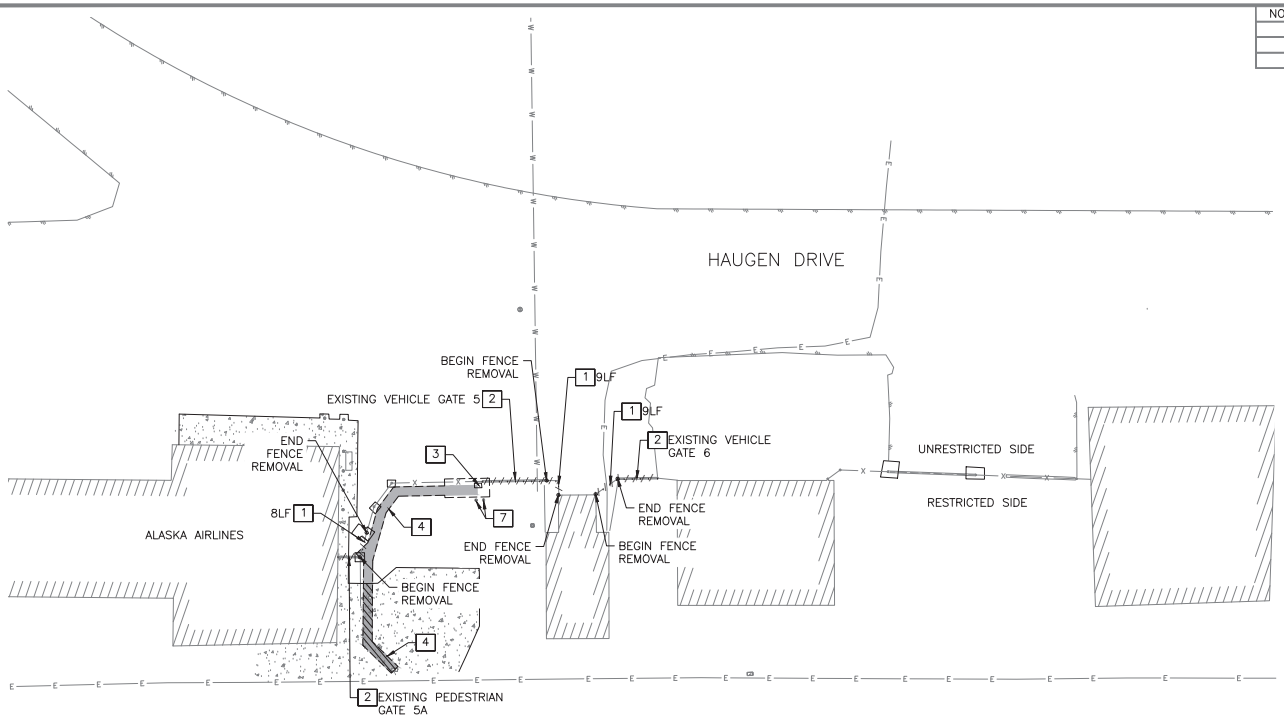

1 DEMOLITION PLAN CENTRAL APRON AREA
1" = 40'

10' 20' 40'

DEMOLITION GENERAL NOTES:
1. WHERE EXISTING AUTOMATED GATES ARE TO BE REMOVED, REMOVAL SHALL INCLUDE DEMOLITION AND REMOVAL OF ALL ASSOCIATED EQUIPMENT, INCLUDING BUT NOT LIMITED TO: GATE, GATE FOUNDATION, GATE SUPPORTS, ALL CARD READERS, PEDESTALS, ACCESSORIES, GATE OPERATOR AND FOUNDATION, CABLES, CONDUIT, BOLLARDS, AND OTHER ITEMS.
2. FENCE REMOVAL LIMITS WILL BE TO THE NEAREST EXISTING POST, UNLESS OTHERWISE NOTED. CONFIRM FENCE REMOVAL LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
3. REMOVE ALL EXISTING SIGNAGE ON EXISTING GATES AND PRESERVE FOR REINSTALLATION.
4. CONFIRM ALL SAWCUT LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
5. SEE GRADING PLAN, SHEETS PGR1–PGR4 FOR PAVEMENT REMOVAL LIMITS.

DEMOLITION KEY NOTES

1 REMOVE EXISTING FENCE

2 REMOVE EXISTING GATE

3 REMOVE EXISTING CARD READER, PEDESTAL, BOLLARDS, CABLE, CONDUITS, AND FOUNDATIONS

4 SAWCUT AND REMOVE EXISTING PAVEMENT AND BASE MATERIAL TO NEW PAVEMENT DEPTH

7 REMOVE EXISTING BOLLARD AND BASE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DEMOLITION PLAN
CENTRAL APRON AREA

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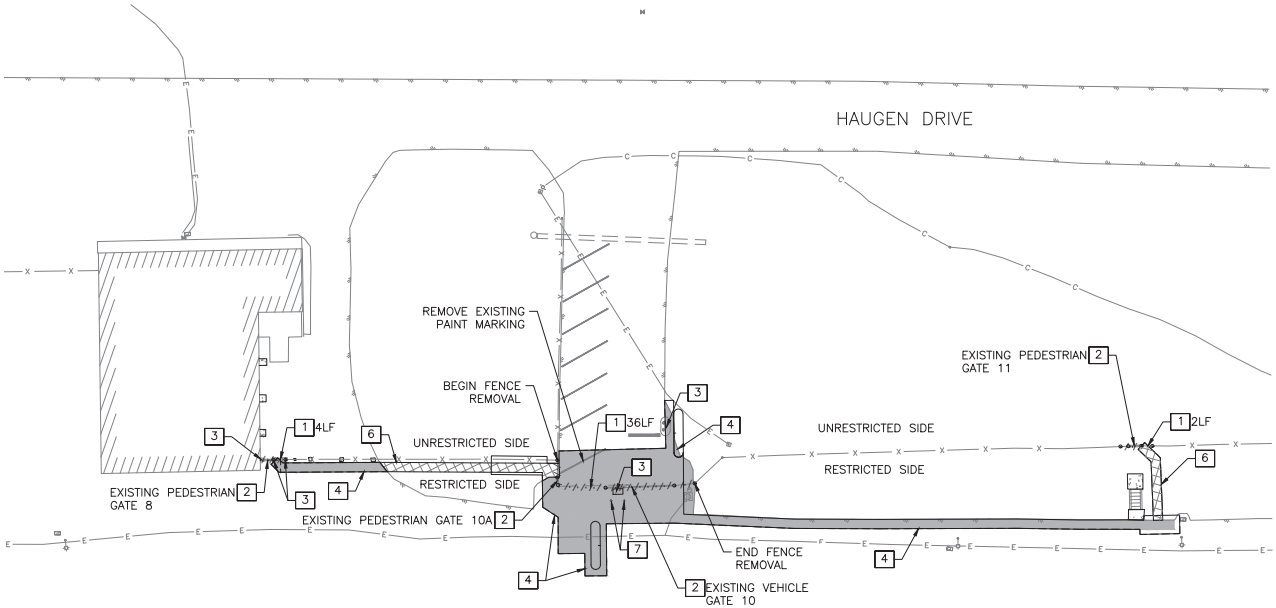

1 DEMOLITION PLAN EAST APRON AREA
1" = 40'

10' 20' 40'

DEMOLITION GENERAL NOTES:
1. WHERE EXISTING AUTOMATED GATES ARE TO BE REMOVED, REMOVAL SHALL INCLUDE DEMOLITION AND REMOVAL OF ALL ASSOCIATED EQUIPMENT, INCLUDING BUT NOT LIMITED TO: GATE, GATE FOUNDATION, GATE SUPPORTS, ALL CARD READERS, PEDESTALS, ACCESSORIES, GATE OPERATOR AND FOUNDATION, CABLES, CONDUIT, BOLLARDS, AND OTHER ITEMS.
2. FENCE REMOVAL LIMITS WILL BE TO THE NEAREST EXISTING POST, UNLESS OTHERWISE NOTED. CONFIRM FENCE REMOVAL LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
3. REMOVE ALL EXISTING SIGNAGE ON EXISTING GATES AND PRESERVE FOR REINSTALLATION.
4. CONFIRM ALL SAWCUT LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.
5. SEE GRADING PLAN, SHEETS PGR1–PGR4 FOR PAVEMENT REMOVAL LIMITS.

DEMOLITION KEY NOTES

1 REMOVE EXISTING FENCE

2 REMOVE EXISTING GATE

3 REMOVE EXISTING CARD READER, PEDESTAL, BOLLARDS. CABLE, CONDUITS, AND FOUNDATIONS

4 SAWCUT AND REMOVE EXISTING PAVEMENT AND BASE MATERIAL

6 REMOVE EXISTING AGGREGATE AND TURF AS NEEDED FOR NEW PAVEMENT SECTION

7 REMOVE EXISTING BOLLARD AND BASE

DEMOLITION LEGEND

REMOVE EXISTING ASPHALT PAVEMENT

REMOVE FENCE AND/OR GATE

SAWCUT EXISTING PAVEMENT FULL DEPTH

REMOVE EXISTING AGGREGATE/TURF

REMOVE EXISTING CONCRETE PAVEMENT

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
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Wesley A. Holden 07/30/2019 CE 120568 REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DEMOLITION PLAN
EAST APRON AREA

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			ALASKA	SFAPT00175	2019	PC1	58

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

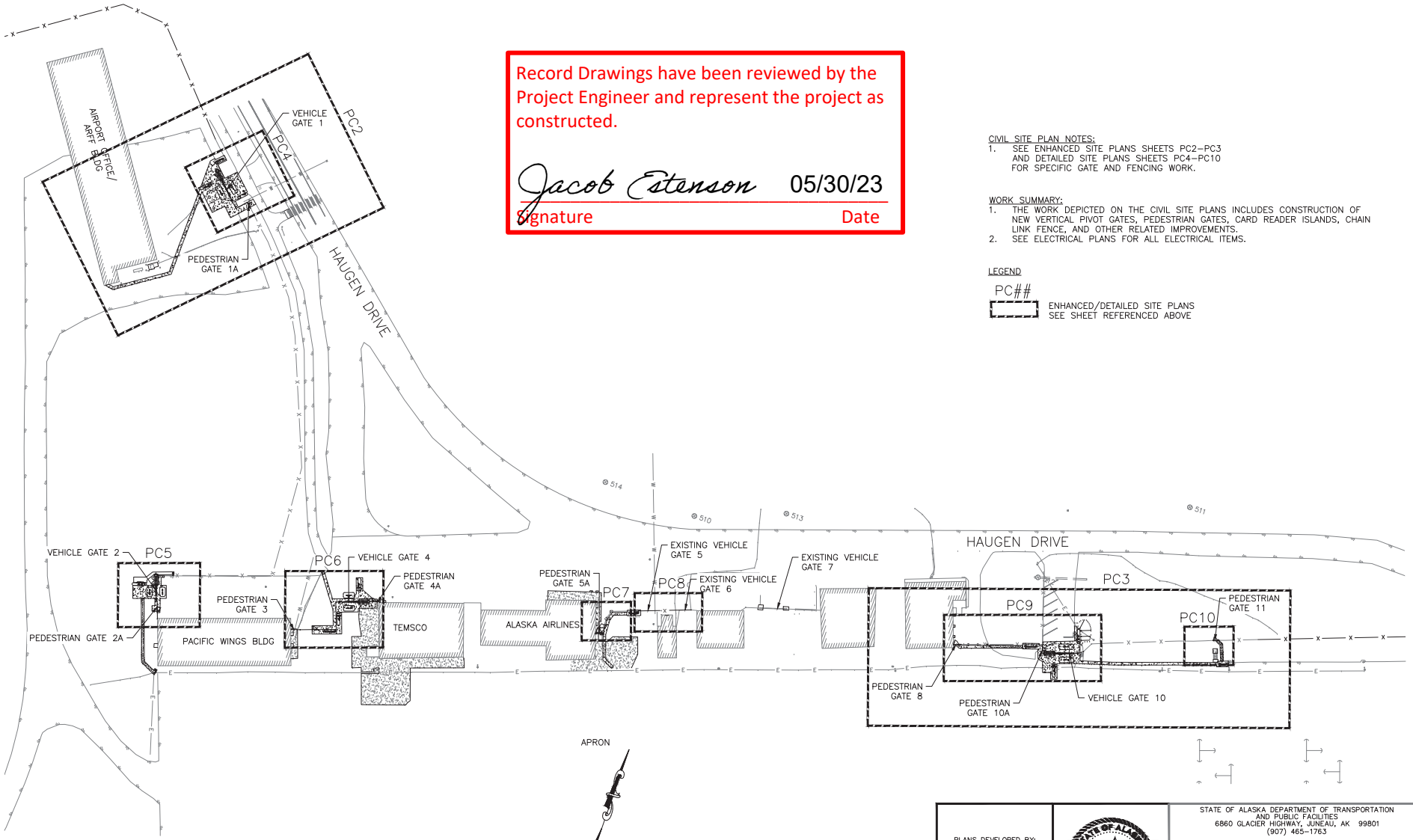
Signature Date

CIVIL SITE PLAN NOTES:
1. SEE ENHANCED SITE PLANS SHEETS PC2–PC3 AND DETAILED SITE PLANS SHEETS PC4–PC10 FOR SPECIFIC GATE AND FENCING WORK.

WORK SUMMARY:
1. THE WORK DEPICTED ON THE CIVIL SITE PLANS INCLUDES CONSTRUCTION OF NEW VERTICAL PIVOT GATES, PEDESTRIAN GATES, CARD READER ISLANDS, CHAIN LINK FENCE, AND OTHER RELATED IMPROVEMENTS.
2. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

LEGEND

PC## ENHANCED/DETAILED SITE PLANS SEE SHEET REFERENCED ABOVE



1 OVERALL CIVIL SITE PLAN
1" = 100'

PLANS DEVELOPED BY:
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OVERALL CIVIL SITE PLAN

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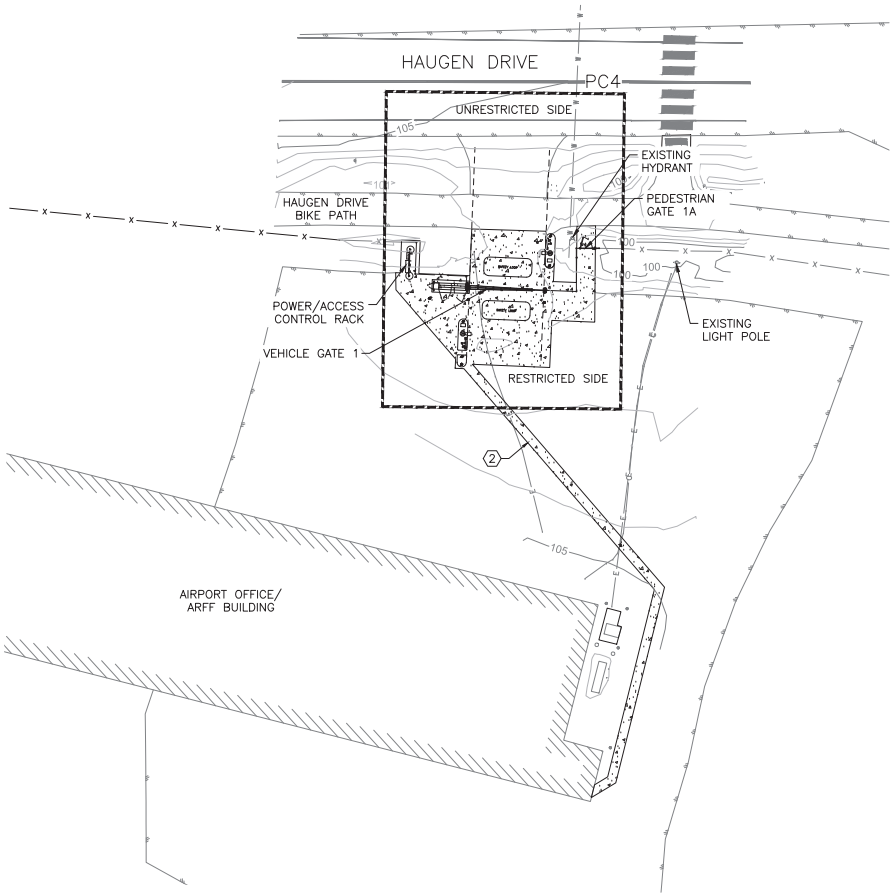
			ALASKA	SFAPT00175	2019	PC2	58



1 ENHANCED SITE PLAN - GATE 1 & 1A VICINITY
1" = 40'

10' 20' 40'

ENHANCED CIVIL SITE PLAN GENERAL NOTES:
1. SEE DETAILED SITE PLANS FOR SPECIFIC GATE AND FENCING CIVIL WORK AT EACH GATE LOCATION.
2. SEE ELECTRICAL SHEETS FOR CONDUIT ROUTING AND ALL ELECTRICAL ITEMS. CONTRACTOR SHALL VERIFY ALL CONDUIT ROUTED IN THE FIELD WITH THE ENGINEER PRIOR TO INSTALLATION.
3. SEE DETAILED SITE PLAN GATE 1 AND 1A, SHEET PC4 FOR ADDITIONAL CIVIL NOTES.

ENHANCED SITE PLAN KEY NOTES

(2) CONSTRUCT TRENCH REPAIR SECTION IN PAVED AREAS. SEE CIVIL STANDARD DRAWINGS, DETAIL 1, SHEET SC9.

LEGEND

NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

ENHANCED SITE PLAN GATES 1 AND 1A VICINITY

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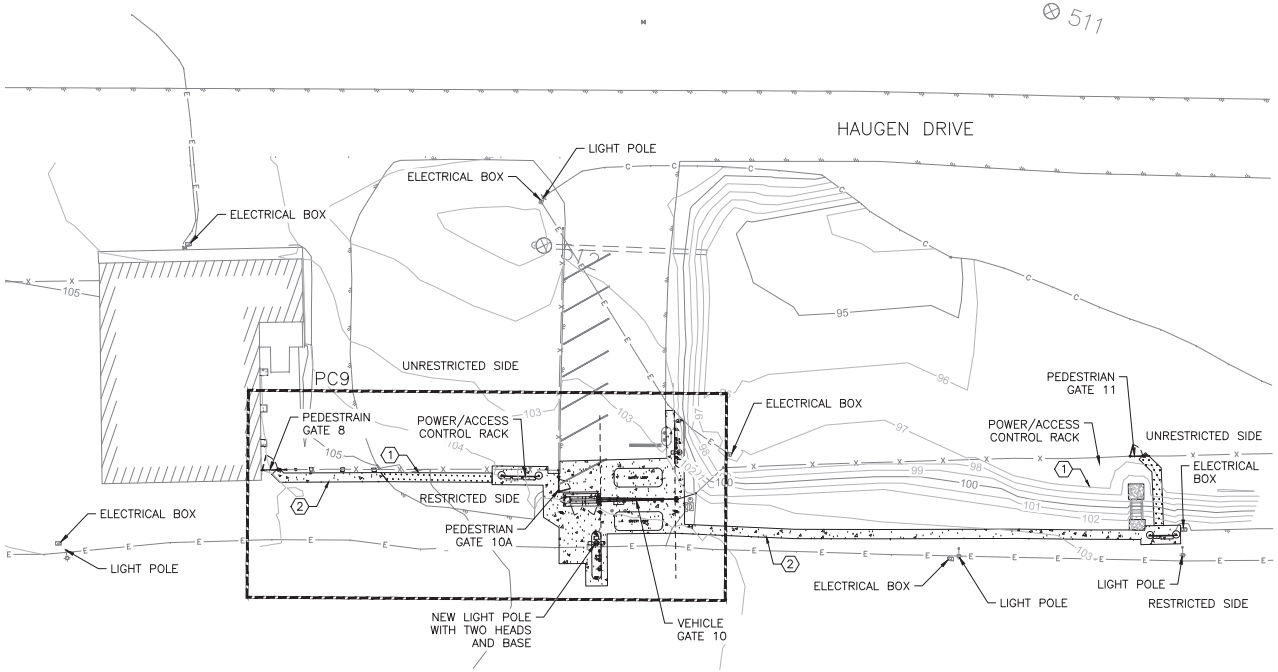

ENHANCED CIVIL SITE PLAN GENERAL NOTES:

1. SEE DETAILED SITE PLANS FOR SPECIFIC GATE AND FENCING CIVIL WORK AT EACH GATE LOCATION.
2. SEE ELECTRICAL SHEETS FOR CONDUIT ROUTING AND ALL ELECTRICAL ITEMS. CONTRACTOR SHALL VERIFY ALL CONDUIT ROUTED IN THE FIELD WITH THE ENGINEER PRIOR TO INSTALLATION.
3. SEE DETAILED SITE PLAN GATES 8, 10, AND 10A, SHEET PC9 FOR ADDITIONAL CIVIL NOTES.

ENHANCED SITE PLAN KEY NOTES

(1) CONSTRUCT TRENCH REPAIR SECTION IN UNPAVED AREAS. SEE CIVIL STANDARD DRAWINGS, DETAIL 2, SHEET SC9.

(2) CONSTRUCT TRENCH REPAIR SECTION IN PAVED AREAS. SEE CIVIL STANDARD DRAWINGS, DETAIL 1, SHEET SC9.

LEGEND

- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- UNPAVED TRENCH REPAIR
- FILL LINE
- NEW 8' CHAINLINK FENCE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

(1) ENHANCED SITE PLAN - EAST APRON AREA
1" = 40'

10' 20' 40'

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

ENHANCED SITE PLAN
EAST AREA

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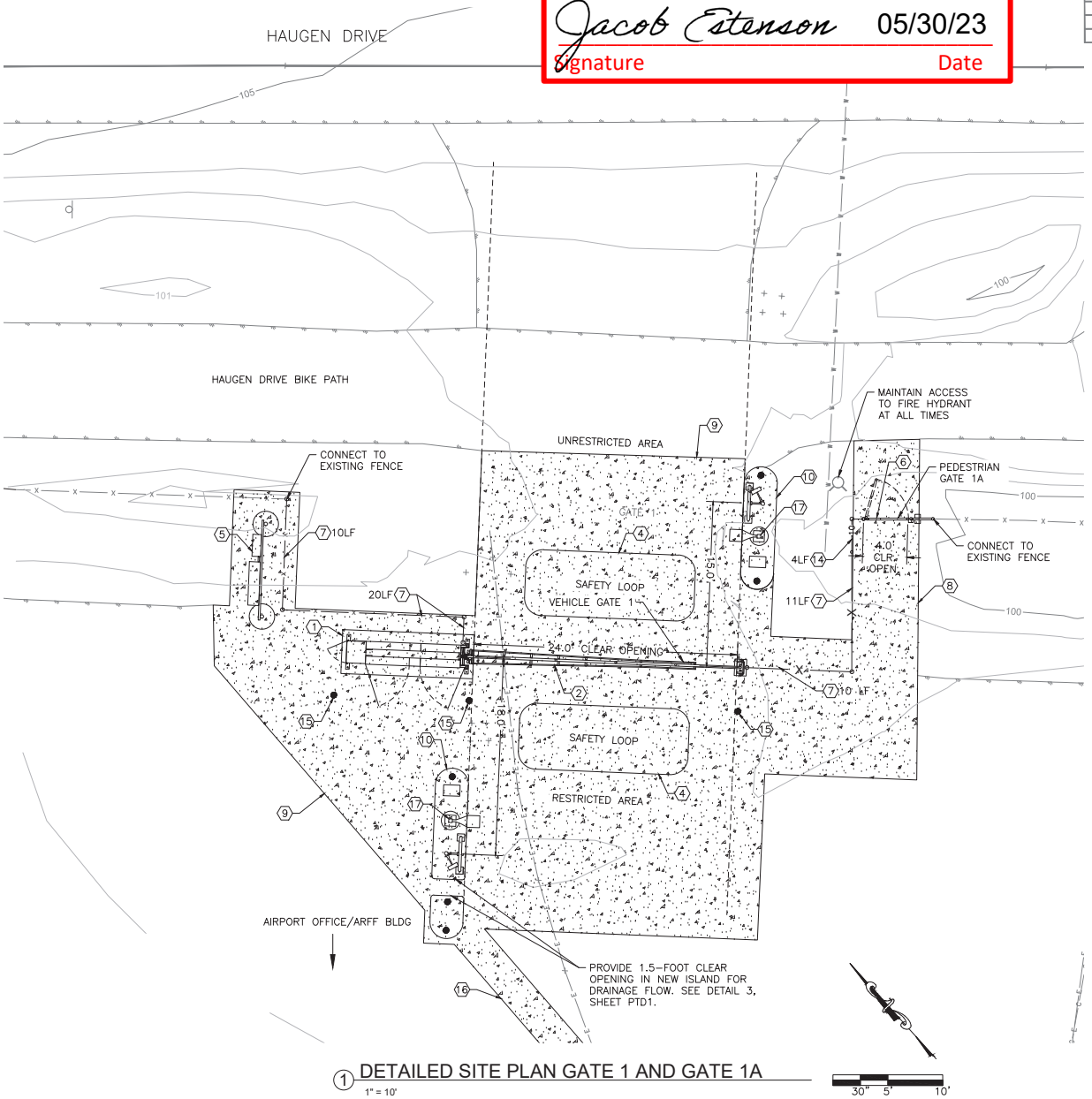

1 DETAILED SITE PLAN GATE 1 AND GATE 1A

1" = 10'

30" 5' 10'

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18–FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6–FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

1. INSTALL NEW GATE OPERATOR CONCRETE FOUNDATION. SEE CIVIL STANDARDS DETAIL 1 SHEET SC4.
2. INSTALL NEW VERTICAL PIVOT GATE WITH CLEAR OPENING WIDTH SHOWN ON PLAN. FOR GATE OPERATOR, STANCHION, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAIL 1 SHEET SC2 AND DETAIL 1 SHEET SC3.
4. INSTALL NEW SAFETY LOOPS PER ELECTRICAL PLANS.
5. INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.
6. INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE SHEET SC5.
7. INSTALL 8–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
8. CONSTRUCT NEW PCC SIDEWALK. SEE DETAIL 2, SHEET PTD1.
9. CONSTRUCT NEW CONCRETE PAVEMENT. SEE TYPICAL SECTION 1, SHEET PTD1.
10. INSTALL MODIFIED CARD READER ISLAND WITH BOLLARDS, MACHINE GUARD, CARD READER PEDESTAL, AREA LIGHT POLE, JUNCTION BOX, AND ASSOCIATED EQUIPMENT. SEE DETAILS 3 AND 4, SHEET PTD1.
14. INSTALL 10–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
15. INSTALL NEW BOLLARD. SEE CIVIL STANDARDS DETAIL 3, SHEET SC9.
16. CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.
17. INSTALL NEW TILT–DOWN LIGHT POLE. SEE DETAIL 1 SHEET PTD2.

LEGEND

- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- NEW 8' CHAINLINK FENCE
- NEW 10' CHAINLINK FENCE

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA 49TH Wesley A. Holden 05/30/2019 CE 120568 REGISTERED PROFESSIONAL ENGINEER

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(907) 465–1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATE 1 AND 1A

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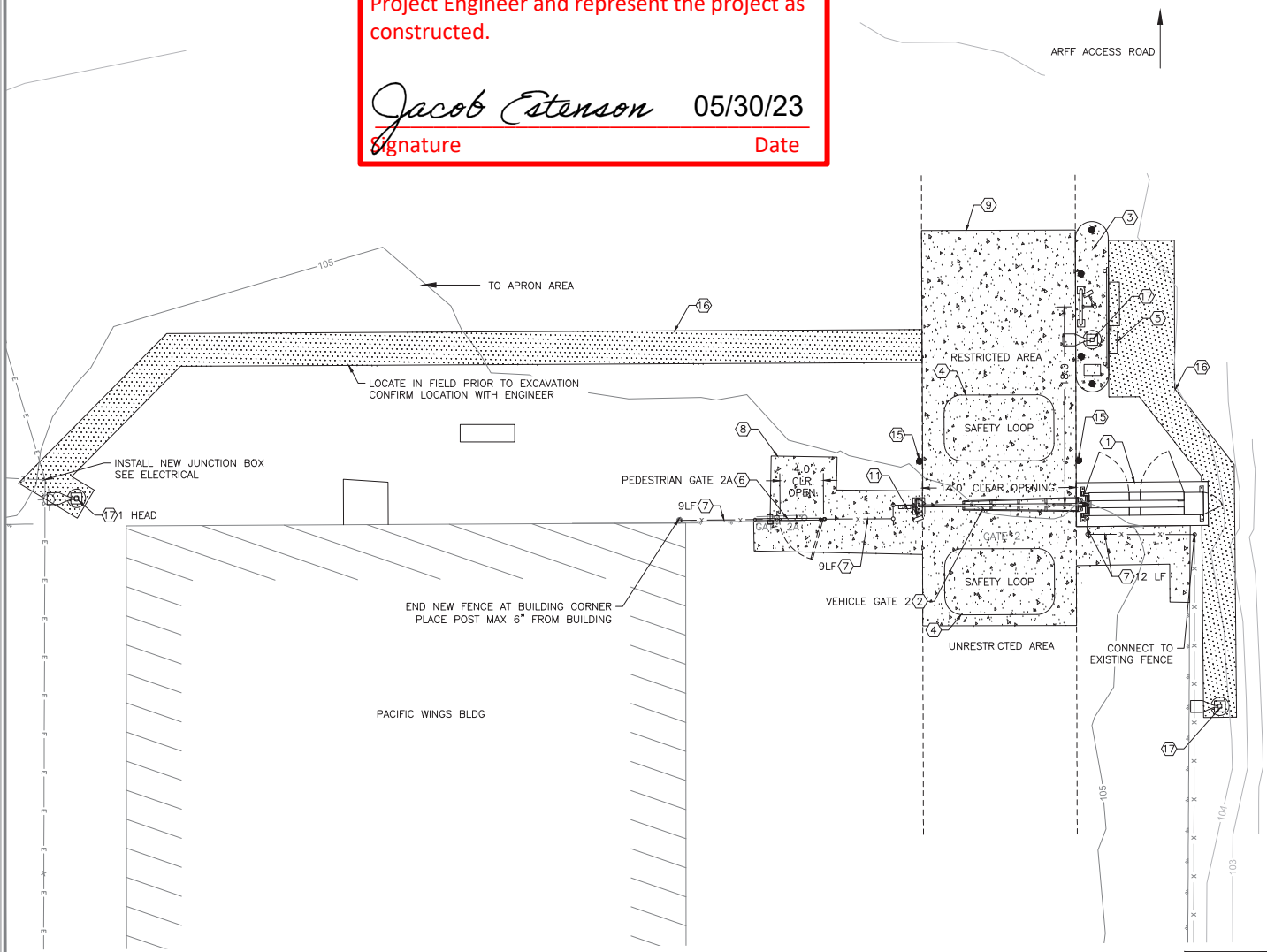
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PC5	58

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



1 DETAILED SITE PLAN GATE 2 AND 2A
1" = 10'

30" 5' 10'

LEGEND

- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- UNPAVED TRENCH REPAIR
- NEW 8-FOOT CHAINLINK FENCE

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18–FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6–FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

1. INSTALL NEW GATE OPERATOR CONCRETE FOUNDATION. SEE CIVIL STANDARDS DETAIL 1 SHEET SC4.
2. INSTALL NEW VERTICAL PIVOT GATE WITH CLEAR OPENING WIDTH SHOWN ON PLAN. FOR GATE OPERATOR, STANCHION, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAIL 1 SHEET SC2 AND DETAIL 1 SHEET SC3.
3. INSTALL VEHICLE GATE CARD READER ISLAND WITH BOLLARDS, MACHINE GUARD, CARD READER PEDESTAL, AREA LIGHT POLE, JUNCTION BOX, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAILS 1 AND 2 SHEET SC6.
4. INSTALL NEW SAFETY LOOPS PER ELECTRICAL PLANS.
5. INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.
6. INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.
7. INSTALL 8–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
8. CONSTRUCT NEW PCC SIDEWALK. SEE DETAIL 2, SHEET PTD1.
9. CONSTRUCT NEW CONCRETE PAVEMENT. SEE TYPICAL SECTION 1, SHEET PTD1.
11. INSTALL VEHICLE GATE CARD READER ON 10–FOOT POLE. SEE CIVIL STANDARDS DETAILS 1 & 2, SHEET SC6.
15. INSTALL NEW BOLLARD. SEE CIVIL STANDARDS DETAIL 3, SHEET SC9.
16. CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.
17. INSTALL NEW TILT DOWN LIGHT POLE. SEE DETAIL 1, SHEET PTD2.

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATE 2 AND 2A

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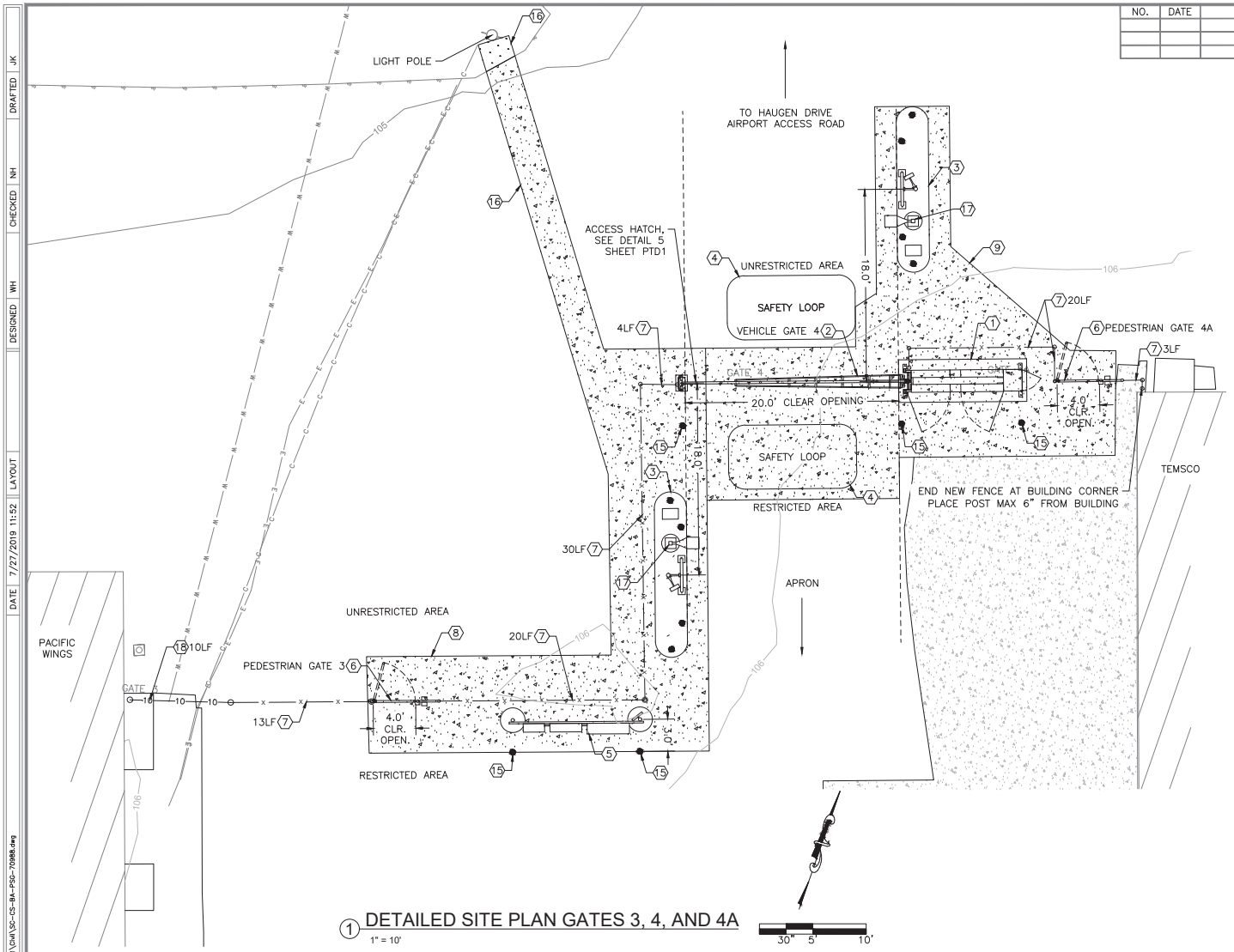
			ALASKA	SFAPT00175	2019	PC6	58



1 DETAILED SITE PLAN GATES 3, 4, AND 4A

1" = 10'

30" 5' 10'

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18–FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6–FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

(1) INSTALL NEW GATE OPERATOR CONCRETE FOUNDATION. SEE CIVIL STANDARDS DETAIL 1 SHEET SC4.

(2) INSTALL NEW VERTICAL PIVOT GATE WITH CLEAR OPENING WIDTH SHOWN ON PLAN. FOR GATE OPERATOR, STANCHION, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAIL 1 SHEET SC2 AND DETAIL 1 SHEET SC3.

(3) INSTALL VEHICLE GATE CARD READER ISLAND WITH BOLLARDS, MACHINE GUARD, CARD READER PEDESTAL, AREA LIGHT POLE, JUNCTION BOX, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAILS 1 AND 2 SHEET SC6.

(4) INSTALL NEW SAFETY LOOPS PER ELECTRICAL PLANS.

(5) INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.

(6) INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.

(7) INSTALL 8–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

(8) CONSTRUCT NEW PCC SIDEWALK. SEE DETAIL 2, SHEET PTD1.

(9) CONSTRUCT NEW CONCRETE PAVEMENT. SEE TYPICAL SECTION 1, SHEET PTD1.

(15) INSTALL NEW BOLLARD. SEE CIVIL STANDARDS DETAIL 3, SHEET SC9.

(16) CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.

(17) INSTALL NEW TILT–DOWN LIGHT POLE. SEE DETAIL 1 SHEET PTD2.

(18) CONSTRUCT NEW 10–FOOT CHAINLINK EXTENSION. SEE DETAIL 2 ON SHEET PTD2.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- —x— NEW 8' CHAINLINK FENCE
- —10— NEW 10' CHAINLINK FENCE

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
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06/30/2019
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATES 3, 4, AND 4A

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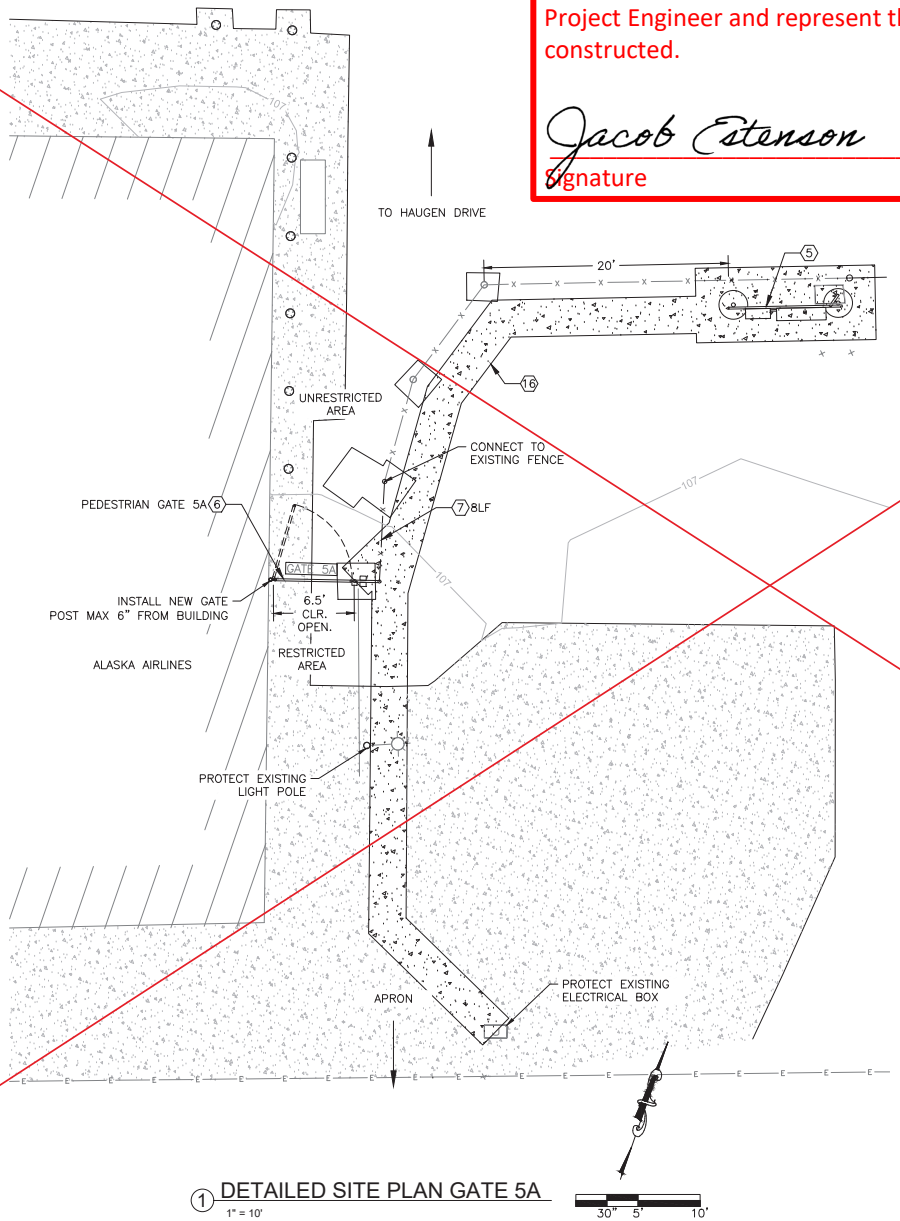
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PC7	58

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



1 DETAILED SITE PLAN GATE 5A
1" = 10'

30" 5' 10'

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18–FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6–FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

(5) INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.

(6) INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.

(7) INSTALL 8–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

(16) CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- —x— NEW 8' CHAINLINK FENCE

PLANS DEVELOPED BY:
DOWL
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JUNEAU, AK 99801
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STATE OF ALASKA
49TH
Wesley A. Holden
08/30/2019
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATE 5A

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			ALASKA	SFAPT00175	2019	PC7	58

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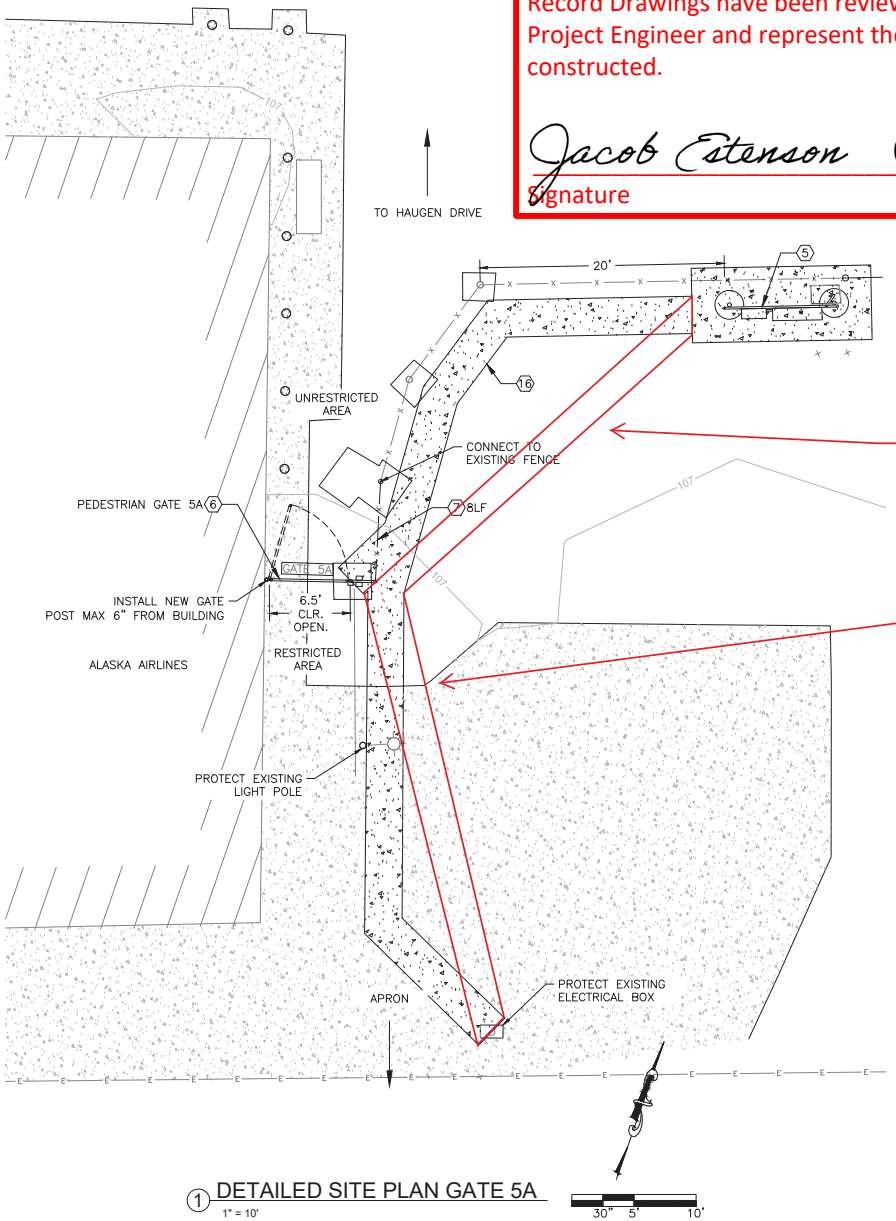
Jacob Estenson 05/30/23

Signature Date



1 DETAILED SITE PLAN GATE 5A
1" = 10'

30" 5' 10'

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
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3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
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6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

(5) INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.

(6) INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.

(7) INSTALL 8–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

(16) CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.

LEGEND

EXISTING CONCRETE TO REMAIN

NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT

NEW 8' CHAINLINK FENCE

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATE 5A

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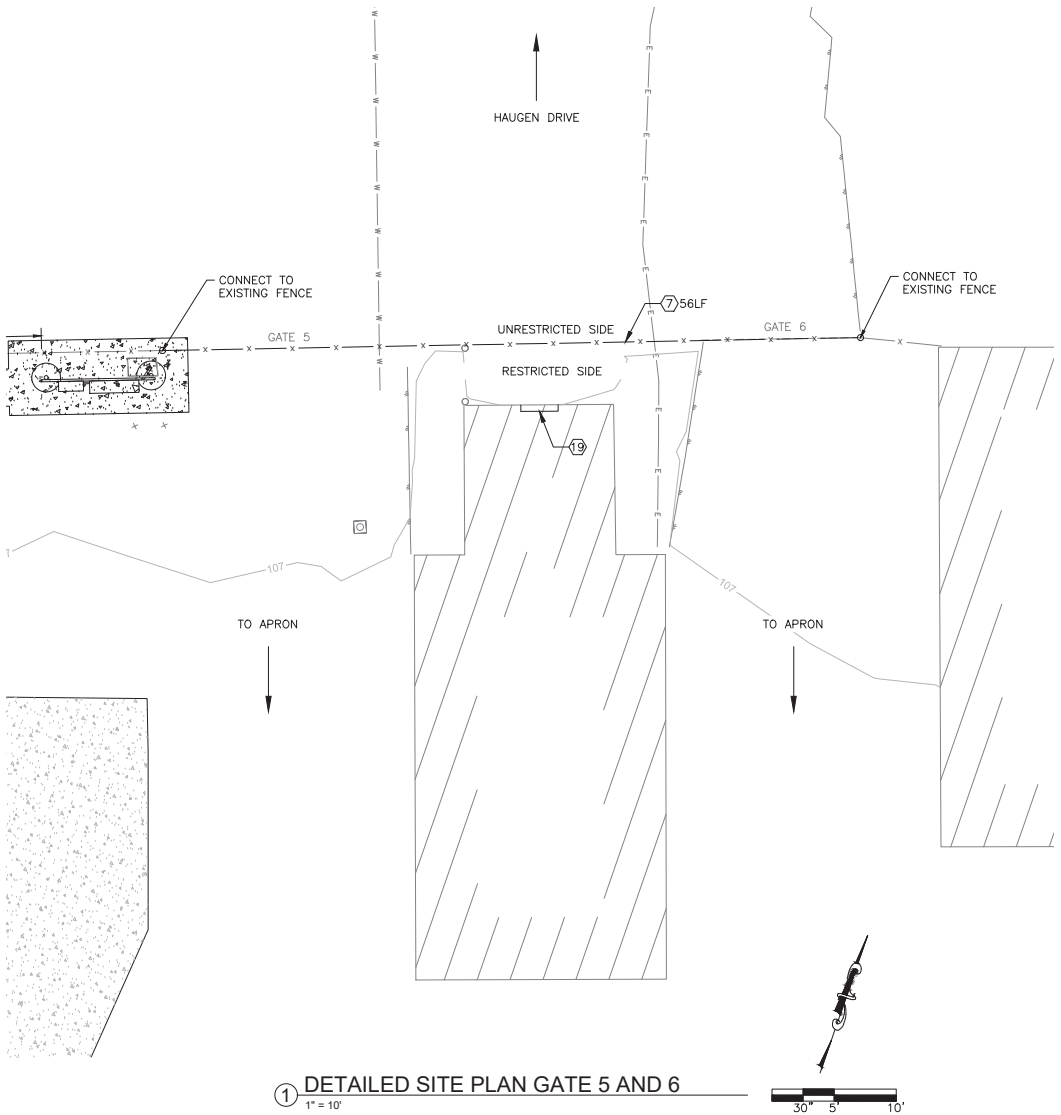

1 DETAILED SITE PLAN GATE 5 AND 6
1" = 10'

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18–FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6–FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

(7) INSTALL 8–FOOT CHAINLINK FENCE WITH 3–STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

(19) REMOVE EXISTING DOOR AND DOOR FRAME. REPLACE WITH WALL SECTION TO MATCH EXISTING ADJACENT WALL. SEE DETAIL 3 SHEET PTD2.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- NEW 8' CHAINLINK FENCE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA 49TH Wesley A. Holden 05/30/2019 CE 120568 REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATE 5 AND 6

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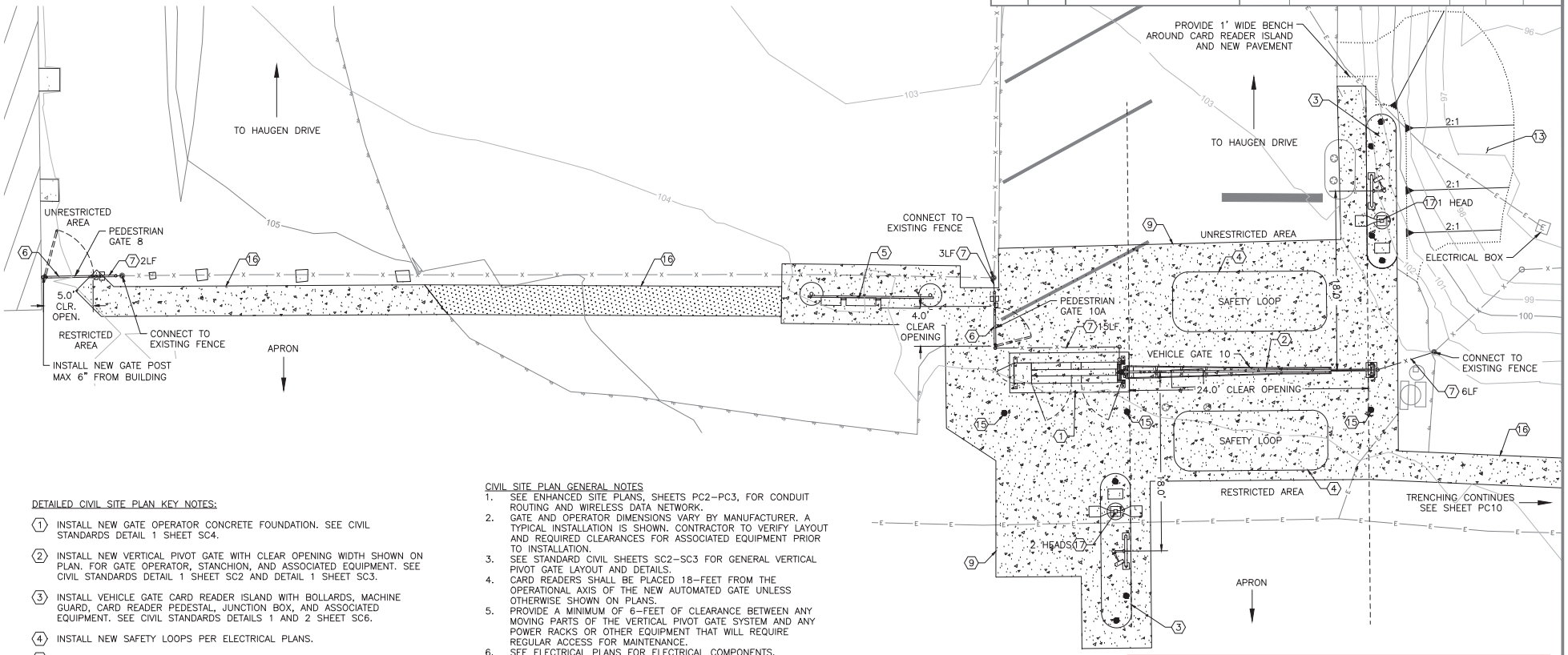

DETAILED CIVIL SITE PLAN KEY NOTES:

(1) INSTALL NEW GATE OPERATOR CONCRETE FOUNDATION. SEE CIVIL STANDARDS DETAIL 1 SHEET SC4.

(2) INSTALL NEW VERTICAL PIVOT GATE WITH CLEAR OPENING WIDTH SHOWN ON PLAN. FOR GATE OPERATOR, STANCHION, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAIL 1 SHEET SC2 AND DETAIL 1 SHEET SC3.

(3) INSTALL VEHICLE GATE CARD READER ISLAND WITH BOLLARDS, MACHINE GUARD, CARD READER PEDESTAL, JUNCTION BOX, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAILS 1 AND 2 SHEET SC6.

(4) INSTALL NEW SAFETY LOOPS PER ELECTRICAL PLANS.

(5) INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.

(6) INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.

(7) INSTALL 8-FOOT CHAINLINK FENCE WITH 3-STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.

(9) CONSTRUCT NEW CONCRETE PAVEMENT. SEE TYPICAL SECTION 1, SHEET PTD1.

(13) CONSTRUCT FILL EMBANKMENT AROUND NEW CARD READER ISLAND. SEE GRADING PLAN, SHEET PGR4.

(15) INSTALL NEW BOLLARD. SEE CIVIL STANDARDS DETAIL 3, SHEET SC9.

(16) CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.

(17) INSTALL NEW TILT-DOWN LIGHT POLE. SEE DETAIL 1 SHEET PTD2.

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2-PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2-SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18-FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6-FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT-DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

LEGEND

- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- UNPAVED TRENCH REPAIR
- FILL LINE
- NEW 8' CHAINLINK FENCE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

(1) DETAILED SITE PLAN GATES 8, 10, AND 10A
1" = 10'

30" 5' 10'

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49TH
Wesley A. Holden
08/30/2019
CE 120568
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATES 8, 10, AND 10A

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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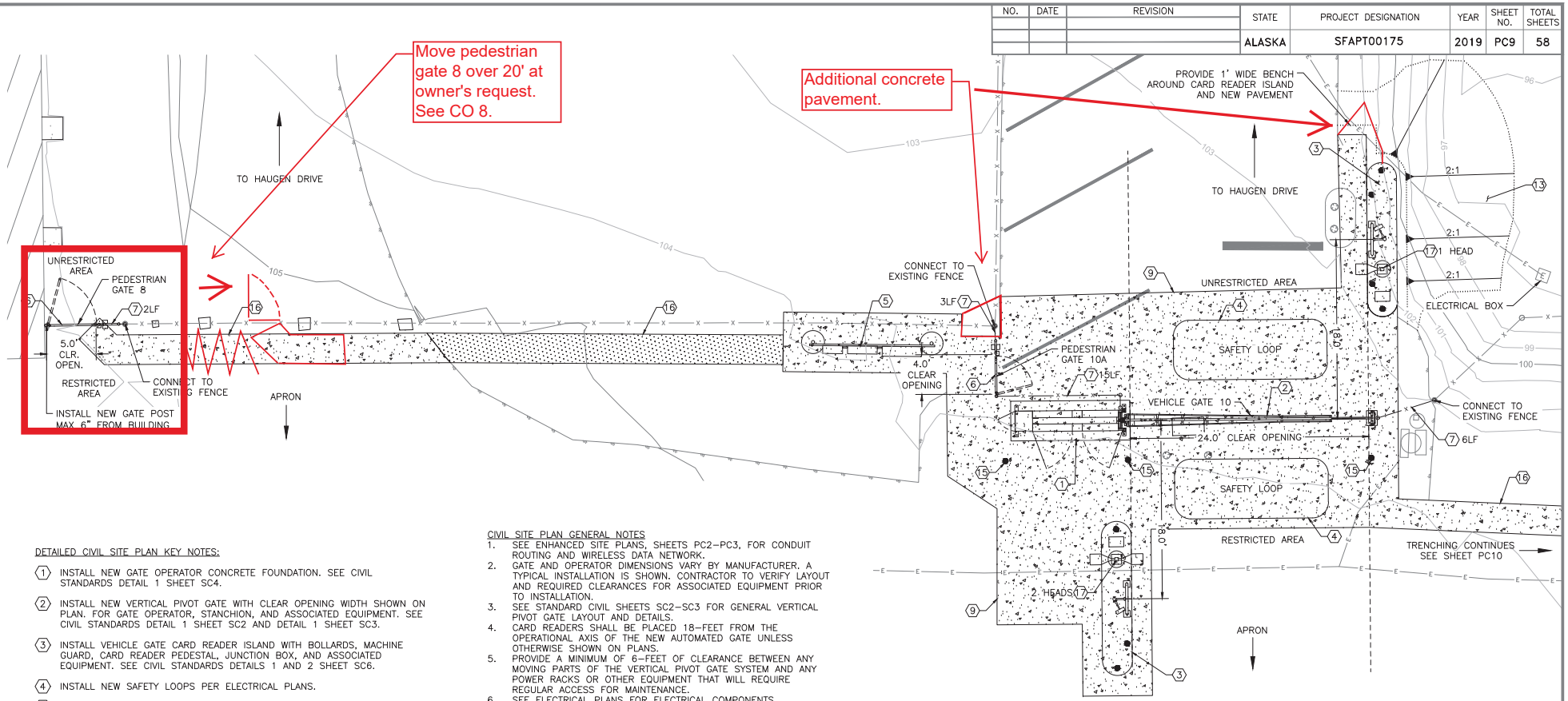

DETAILED CIVIL SITE PLAN KEY NOTES:

1. INSTALL NEW GATE OPERATOR CONCRETE FOUNDATION. SEE CIVIL STANDARDS DETAIL 1 SHEET SC4.
2. INSTALL NEW VERTICAL PIVOT GATE WITH CLEAR OPENING WIDTH SHOWN ON PLAN. FOR GATE OPERATOR, STANCHION, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAIL 1 SHEET SC2 AND DETAIL 1 SHEET SC3.
3. INSTALL VEHICLE GATE CARD READER ISLAND WITH BOLLARDS, MACHINE GUARD, CARD READER PEDESTAL, JUNCTION BOX, AND ASSOCIATED EQUIPMENT. SEE CIVIL STANDARDS DETAILS 1 AND 2 SHEET SC6.
4. INSTALL NEW SAFETY LOOPS PER ELECTRICAL PLANS.
5. INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.
6. INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.
7. INSTALL 8-FOOT CHAINLINK FENCE WITH 3-STRAND BARBED WIRE TO NEAREST EXISTING POST. SEE CIVIL STANDARDS DETAIL 1, SHEET SC8. CONFIRM LOCATION WITH ENGINEER PRIOR TO INSTALLATION.
9. CONSTRUCT NEW CONCRETE PAVEMENT. SEE TYPICAL SECTION 1, SHEET PTD1.
13. CONSTRUCT FILL EMBANKMENT AROUND NEW CARD READER ISLAND. SEE GRADING PLAN, SHEET PGR4.
15. INSTALL NEW BOLLARD. SEE CIVIL STANDARDS DETAIL 3, SHEET SC9.
16. CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.
17. INSTALL NEW TILT-DOWN LIGHT POLE. SEE DETAIL 1 SHEET PTD2.

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2-PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2-SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18-FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6-FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT-DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

LEGEND

- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- UNPAVED TRENCH REPAIR
- FILL LINE
- NEW 8' CHAINLINK FENCE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

① DETAILED SITE PLAN GATES 8, 10, AND 10A
1" = 10'

30" 5' 10'

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49TH
Wesley A. Holden
08/30/2019
CE 120568
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATES 8, 10, AND 10A

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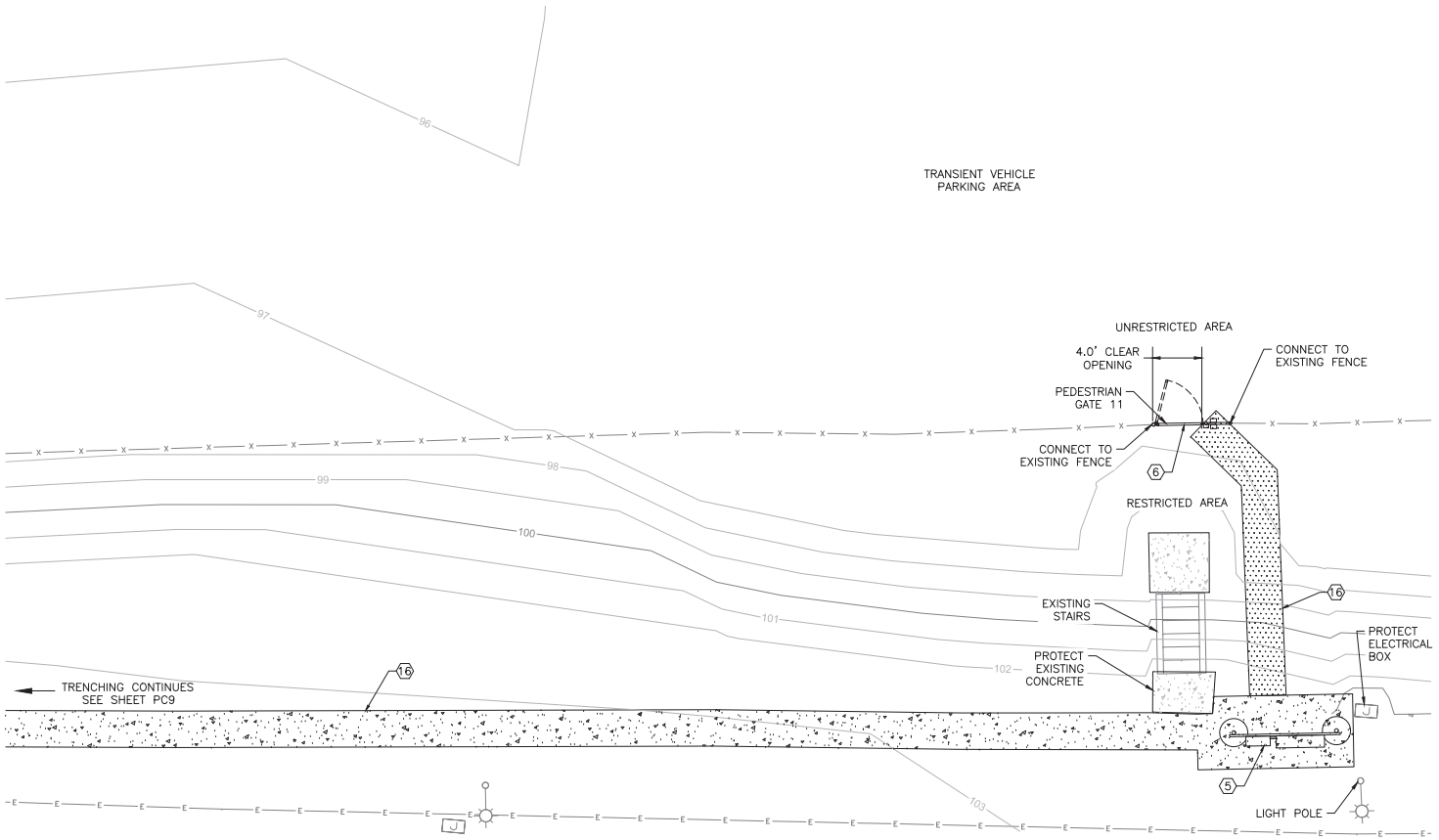

CIVIL SITE PLAN GENERAL NOTES

1. SEE ENHANCED SITE PLANS, SHEETS PC2–PC3, FOR CONDUIT ROUTING AND WIRELESS DATA NETWORK.
2. GATE AND OPERATOR DIMENSIONS VARY BY MANUFACTURER. A TYPICAL INSTALLATION IS SHOWN. CONTRACTOR TO VERIFY LAYOUT AND REQUIRED CLEARANCES FOR ASSOCIATED EQUIPMENT PRIOR TO INSTALLATION.
3. SEE STANDARD CIVIL SHEETS SC2–SC3 FOR GENERAL VERTICAL PIVOT GATE LAYOUT AND DETAILS.
4. CARD READERS SHALL BE PLACED 18–FEET FROM THE OPERATIONAL AXIS OF THE NEW AUTOMATED GATE UNLESS OTHERWISE SHOWN ON PLANS.
5. PROVIDE A MINIMUM OF 6–FEET OF CLEARANCE BETWEEN ANY MOVING PARTS OF THE VERTICAL PIVOT GATE SYSTEM AND ANY POWER RACKS OR OTHER EQUIPMENT THAT WILL REQUIRE REGULAR ACCESS FOR MAINTENANCE.
6. SEE ELECTRICAL PLANS FOR ELECTRICAL COMPONENTS.
7. CONFIRM ALL NEW FENCE LIMITS IN THE FIELD WITH THE ENGINEER PRIOR TO START OF CONSTRUCTION. LIMITS ARE APPROXIMATE.
8. ALL NEW LIGHT POLES AT PETERSBURG SHALL BE TILT–DOWN POLES. SEE DETAIL 1, SHEET PTD2. POLE HEIGHTS PER ELECTRICAL.
9. ELECTRICAL ITEMS SHOWN ON CIVIL PLANS ARE SCHEMATIC ONLY AND MAY NOT INCLUDE ALL ELECTRICAL COMPONENTS. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.

DETAILED CIVIL SITE PLAN KEY NOTES:

(5) INSTALL POWER AND ACCESS CONTROL ENCLOSURE RACK PER ELECTRICAL PLANS.

(6) INSTALL NEW PEDESTRIAN GATE WITH CLEAR WIDTH OPENING SHOWN IN PLAN. SEE CIVIL STANDARDS SHEET SC5.

(16) CONSTRUCT NEW PAVED OR UNPAVED TRENCH SECTION. SEE CIVIL STANDARDS DETAILS 1 AND 2, SHEET SC9.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- UNPAVED TRENCH REPAIR
- FILL LINE
- NEW 8' CHAINLINK FENCE
- NEW 10' CHAINLINK FENCE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

① DETAILED SITE PLAN GATE 11
1" = 10'

30" 5' 10'

PLANS DEVELOPED BY:
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STATE OF ALASKA
49TH
Wesley A. Holden
08/30/2019
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

DETAILED SITE PLAN GATE 11

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CHECKED NH
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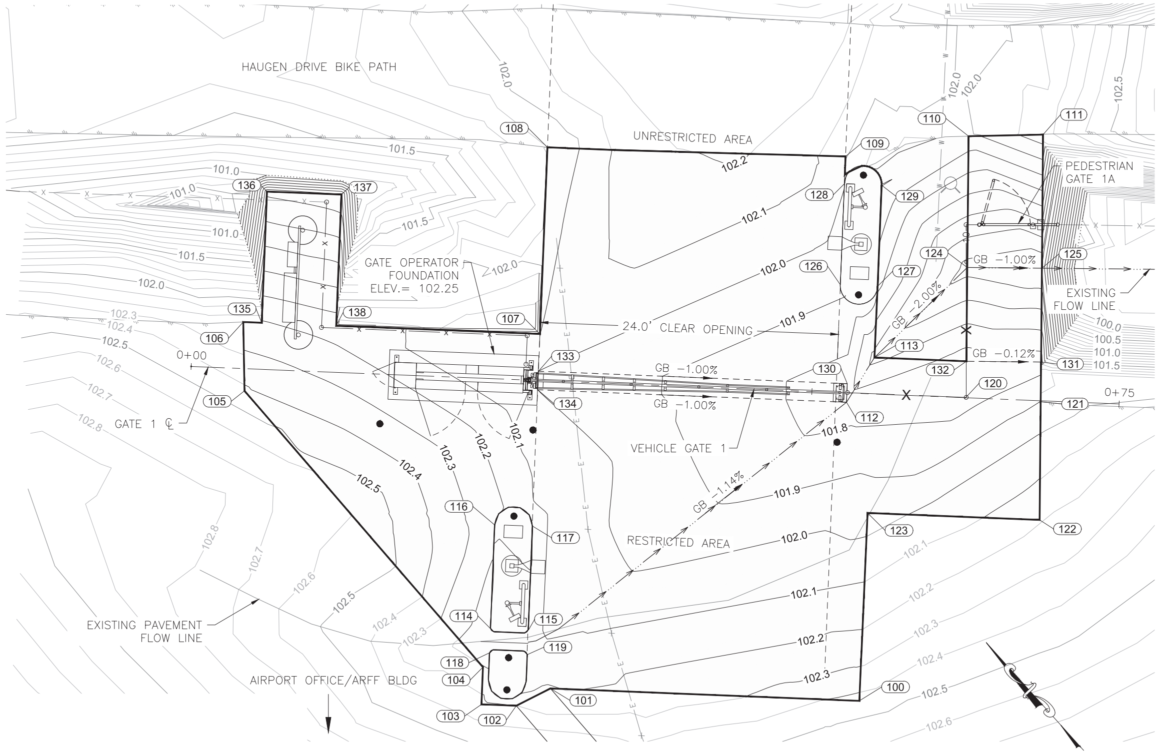
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFAPT00175	2019	PGR1	58



① GRADING PLAN GATE 1 AND GATE 1A

1" = 10'

GRADING POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	301217.55	199392.82	102.43' ±	MATCH EXIST.
101	301234.95	199375.05	102.21' ±	MATCH EXIST.
102	301235.77	199372.07	102.30' ±	MATCH EXIST.
103	301237.73	199370.07	102.34' ±	MATCH EXIST.
104	301239.87	199372.16	102.21' ±	MATCH EXIST.
105	301269.25	199372.84	102.42' ±	MATCH EXIST.
106	301273.43	199376.48	102.22' ±	MATCH EXIST.
107	301256.71	199393.56	102.00'	EP
108	301267.46	199404.08	101.90' ±	MATCH EXIST.
109	301250.83	199421.39	102.01' ±	MATCH EXIST.
110	301245.41	199429.84	101.97' ±	MATCH EXIST.
111	301241.48	199434.37	102.16' ±	MATCH EXIST.
112	301236.09	199408.18	101.75'	GB
113	301237.26	199412.27	101.57'	EP
114	301241.81	199374.70	102.14'	EP
115	301239.64	199376.91	102.12'	EP
116	301247.77	199380.53	102.23'	EP
117	301245.60	199382.75	102.12'	EP
118	301240.38	199373.30	102.14'	EP
119	301238.21	199375.51	102.12'	EP

GRADING POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
120	301229.93	199415.45	101.76'	EP
121	301225.65	199419.81	101.90' ±	MATCH EXIST.
122	301218.64	199413.36	102.19' ±	MATCH EXIST.
123	301228.34	199403.46	101.98' ±	MATCH EXIST.
124	301237.63	199422.67	101.36'	EP
125	301233.56	199427.09	101.30'	EP
126	301243.44	199414.15	101.92'	EP
127	301241.34	199416.30	101.82'	EP
128	301249.27	199419.86	102.00'	EP
129	301247.17	199422.00	102.00'	EP
130	301237.16	199409.23	101.75'	GB
131	301228.00	199421.97	101.75'	EP
132	301232.07	199417.55	101.76'	EP
133	301254.57	199391.46	102.00'	GB
134	301253.49	199390.41	102.00'	GB
135	301272.39	199377.54	102.21'	EP
136	301279.95	199384.94	101.68'	EP
137	301275.75	199389.23	101.62'	EP
138	301268.19	199381.83	102.15'	EP

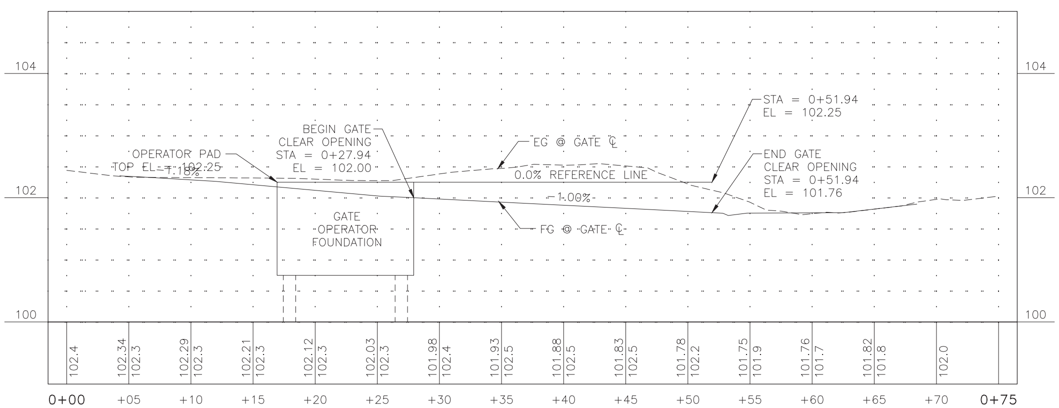
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23
Signature Date

GRADING PLAN GENERAL NOTES
1. ALL ELEVATIONS ARE AT FLOW LINE UNLESS OTHERWISE NOTED.
2. FLAT LINE ACROSS GATE OPENING FOR REFERENCE ONLY. PROVIDE WEDGE ON GATE BOTTOM TO MAINTAIN MAX. 3" GAP BETWEEN GATE BOTTOM AND NEW TOP OF PAVEMENT.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- NEW 8' CHAINLINK FENCE WITH 3-STRAND BARBED WIRE
- GRADE BREAK
- NEW 10' CHAINLINK FENCE
- FLOW LINE



GATE 1 CL PROFILE

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA 49TH Wesley A. Holden 07/30/2019 CE 120568 REGISTERED PROFESSIONAL ENGINEER

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6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GRADING PLAN – GATE 1 AND 1A

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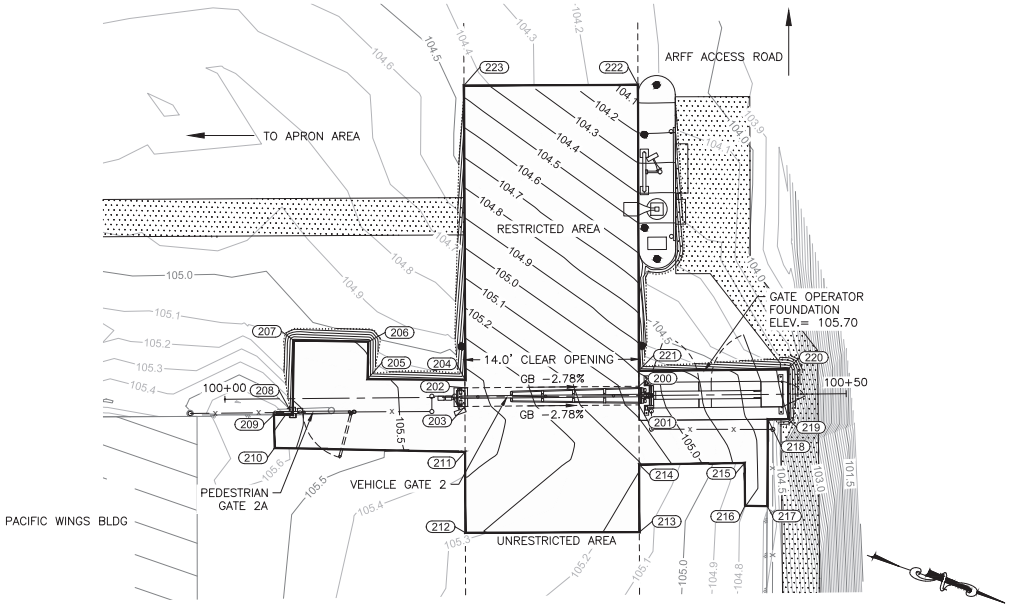
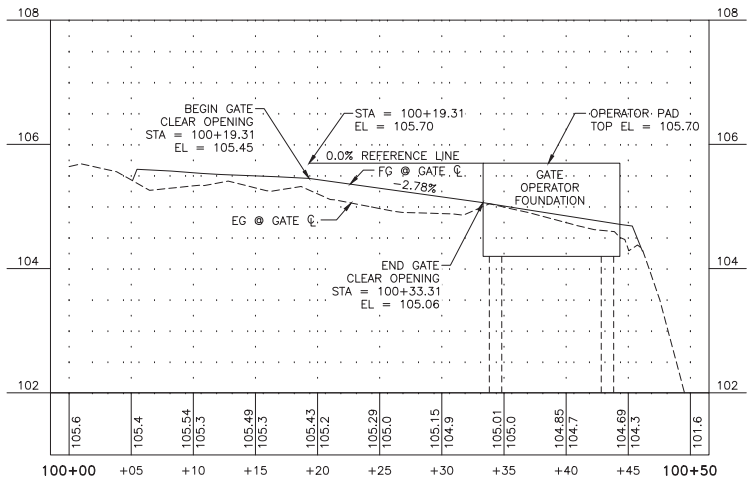


① GRADING PLAN GATE 2 AND 2A

1" = 10'

30" 5' 10'

GRADING POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
200	300818.30	199466.42	105.05'	GB
201	300818.80	199467.84	105.07'	GB
202	300805.12	199471.12	105.44'	GB
203	300805.61	199472.54	105.46'	GB
204	300804.95	199470.52	105.44'	EP
205	300797.48	199473.02	105.52'	EP
206	300796.56	199470.16	105.49'	EP
207	300790.86	199472.03	105.55'	EP
208	300792.73	199477.73	105.61' ±	MATCH EXIST.
209	300791.30	199478.20	105.58' ±	MATCH EXIST.
210	300792.23	199480.71	105.62' ±	MATCH EXIST.
211	300806.82	199475.99	105.44' ±	MATCH EXIST.
212	300808.97	199482.13	105.31' ±	MATCH EXIST.
213	300822.18	199477.51	105.14' ±	MATCH EXIST.
214	300820.38	199472.37	105.21' ±	MATCH EXIST.
215	300828.37	199469.47	104.86' ±	MATCH EXIST.
216	300829.52	199472.72	104.80' ±	MATCH EXIST.
217	300831.23	199472.16	104.76' ±	MATCH EXIST.
218	300828.99	199465.53	104.74'	EP
219	300830.54	199464.98	104.70'	EP
220	300829.20	199461.21	104.67'	EP
221	300817.89	199465.24	104.99'	EP
222	300810.29	199443.53	104.04'	EP
223	300797.08	199448.15	104.46'	EP



GATE 2 CL PROFILE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

GRADING PLAN GENERAL NOTES

1. ALL ELEVATIONS ARE AT FLOW LINE UNLESS OTHERWISE NOTED.
2. FLAT LINE ACROSS GATE OPENING FOR REFERENCE ONLY. PROVIDE WEDGE ON GATE BOTTOM TO MAINTAIN MAX. 3" GAP BETWEEN GATE BOTTOM AND NEW TOP OF PAVEMENT.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- TRENCH REPAIR IN UNPAVED AREAS
- FILL LINE
- NEW 8' CHAINLINK FENCE WITH 3-STRAND BARBED WIRE
- GRADE BREAK

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49TH
Wesley A. Holden
07/30/2019
CE 120568
REGISTERED PROFESSIONAL ENGINEER

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6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GRADING PLAN – GATE 2

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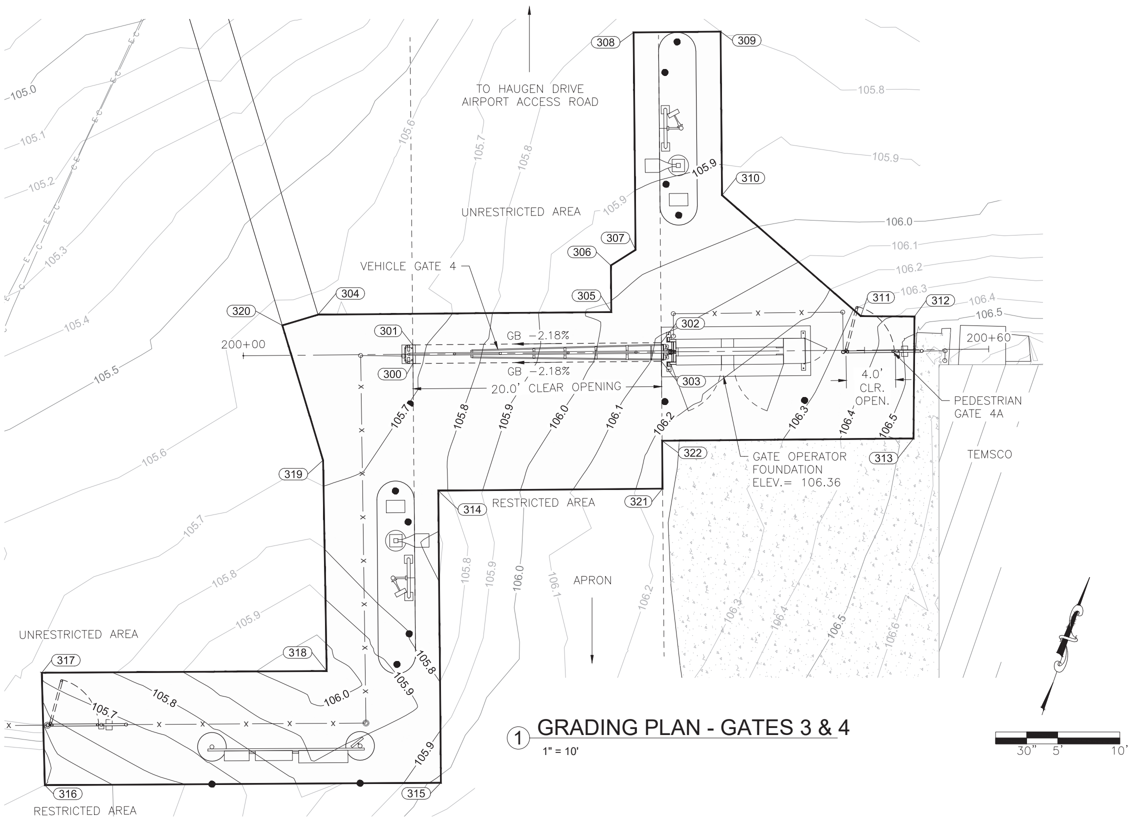


1 GRADING PLAN - GATES 3 & 4

1" = 10'

GRADING POINTS

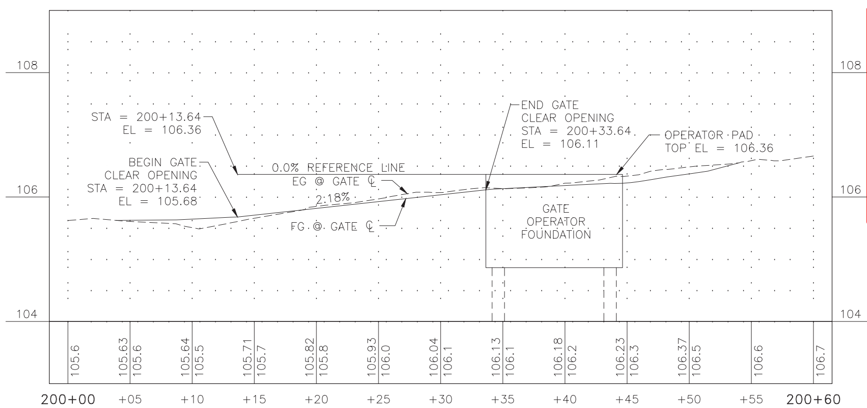
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
300	300865.80	199659.90	105.68'	GB
301	300867.22	199659.39	105.68'	GB
302	300873.93	199678.23	106.11'	GB
303	300872.52	199678.73	106.12'	GB
304	300867.02	199651.39	105.61' ±	MATCH EXIST.
305	300874.95	199673.62	106.02' ±	MATCH EXIST.
306	300878.48	199672.36	105.96' ±	MATCH EXIST.
307	300880.32	199673.83	105.96' ±	MATCH EXIST.
308	300896.81	199667.95	105.83' ±	MATCH EXIST.
309	300899.16	199674.54	105.80' ±	MATCH EXIST.
310	300886.75	199678.97	105.94' ±	MATCH EXIST.
311	300881.21	199692.71	106.33' ±	MATCH EXIST.
312	300882.59	199696.80	106.44' ±	MATCH EXIST.
313	300873.29	199699.94	106.54' ±	MATCH EXIST.
314	300856.80	199665.17	105.77' ±	MATCH EXIST.
315	300834.66	199673.07	106.02' ±	MATCH EXIST.
316	300824.03	199643.02	105.40' ±	MATCH EXIST.
317	300832.50	199639.82	105.72' ±	MATCH EXIST.
318	300840.14	199661.44	106.06' ±	MATCH EXIST.
319	300856.08	199655.61	105.66' ±	MATCH EXIST.
320	300865.26	199648.96	105.63' ±	MATCH EXIST.
321	300862.87	199682.18	106.24' ±	MATCH EXIST.
322	300866.50	199680.88	106.22' ±	MATCH EXIST.

GRADING PLAN GENERAL NOTES

1. ALL ELEVATIONS ARE AT FLOW LINE UNLESS OTHERWISE NOTED.
2. FLAT LINE ACROSS GATE OPENING FOR REFERENCE ONLY. PROVIDE WEDGE ON GATE BOTTOM TO MAINTAIN MAX. 3" GAP BETWEEN GATE BOTTOM AND NEW TOP OF PAVEMENT.

LEGEND

- EXISTING CONCRETE TO REMAIN
- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- NEW 8' CHAINLINK FENCE
- GRADE BREAK



GATE 4 CL PROFILE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA 49TH Wesley A. Holden 07/30/2019 CE 120568 REGISTERED PROFESSIONAL ENGINEER

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6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GRADING PLAN – GATES 3 & 4

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CHECKED NH
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Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

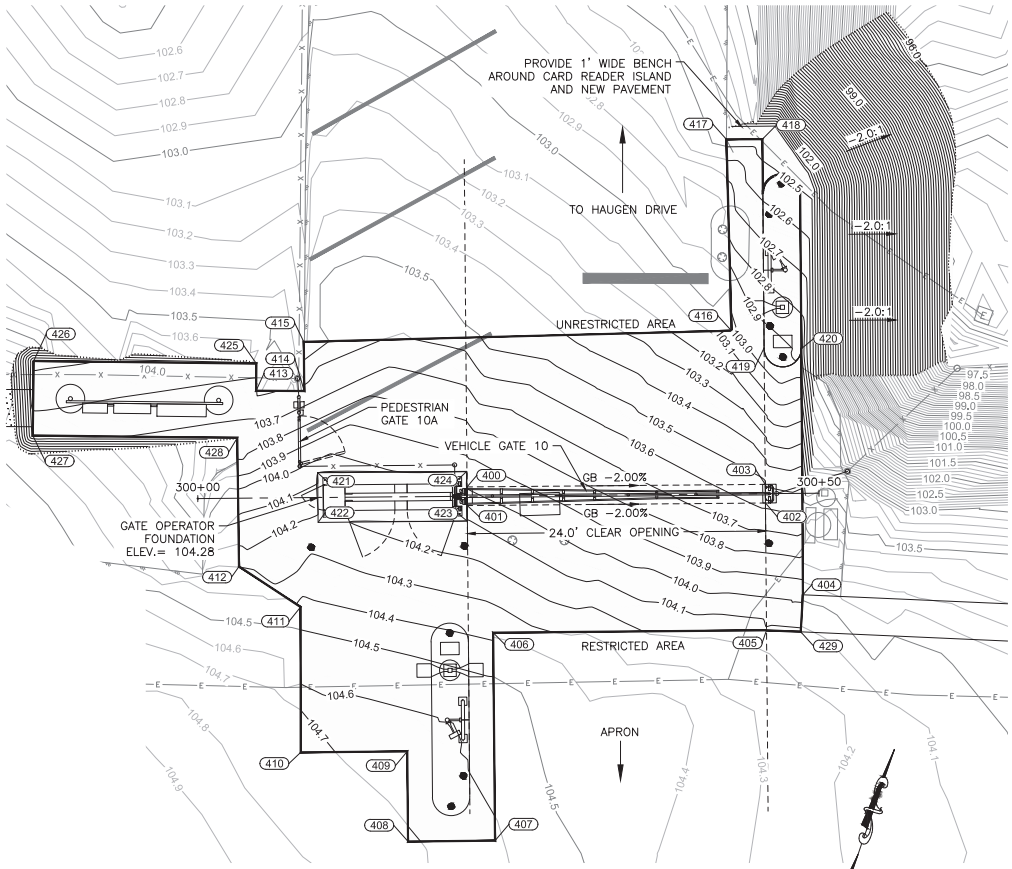
Jacob Estenson 05/30/23

Signature Date

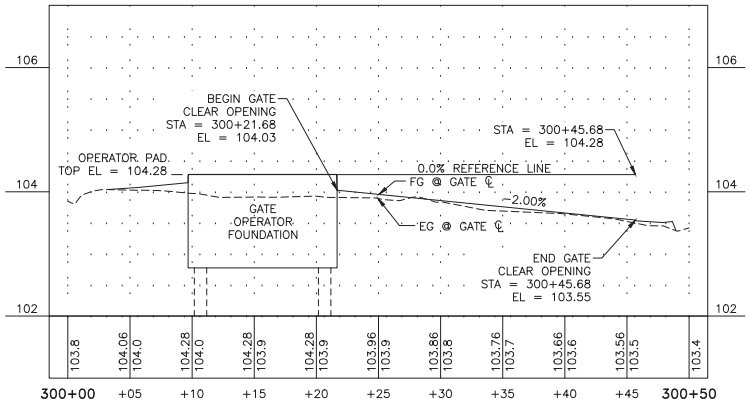
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PGR4	58

GRADING POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
400	301066.79	200404.89	104.00'	GB
401	301065.38	200405.40	104.06'	GB
402	301073.43	200428.01	103.58'	GB
403	301074.85	200427.50	103.52'	GB
404	301067.44	200433.27	103.97'	EP
405	301063.78	200431.45	104.12' ±	MATCH EXIST.
406	301056.40	200410.72	104.38' ±	MATCH EXIST.
407	301040.62	200416.34	104.61' ±	MATCH EXIST.
408	301038.27	200409.75	104.71' ±	MATCH EXIST.
409	301045.10	200407.31	104.67' ±	MATCH EXIST.
410	301042.22	200399.23	104.73' ±	MATCH EXIST.
411	301053.27	200395.40	104.43' ±	MATCH EXIST.
412	301054.73	200389.65	104.30' ±	MATCH EXIST.
413	301068.55	200386.31	103.63'	EP
414	301069.80	200389.98	103.62'	EP

GRADING POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
415	301073.53	200388.65	103.43'	EP
416	301085.64	200420.88	103.01' ±	MATCH EXIST.
417	301100.06	200415.46	102.45' ±	MATCH EXIST.
418	301101.03	200418.19	102.45'	EP
419	301085.20	200423.82	102.96'	EP
420	301086.11	200426.67	102.88'	EP
421	301063.94	200393.16	104.07'	GB
422	301060.17	200394.50	104.23'	GB
423	301064.20	200405.80	104.11'	GB
424	301067.97	200404.46	103.95'	GB
425	301070.62	200385.62	103.57'	EP
426	301064.95	200368.61	103.48'	EP
427	301059.26	200370.51	103.66'	EP
428	301064.47	200386.13	103.75'	EP
429	301064.56	200434.08	104.12' ±	MATCH EXIST.



1 GRADING PLAN GATES 8, 10, AND 10A
1" = 10'



GATE 10 CL PROFILE

GRADING PLAN GENERAL NOTES

1. ALL ELEVATIONS ARE AT FLOW LINE UNLESS OTHERWISE NOTED.
2. FLAT LINE ACROSS GATE OPENING FOR REFERENCE ONLY. PROVIDE WEDGE ON GATE BOTTOM TO MAINTAIN MAX. 3" GAP BETWEEN GATE BOTTOM AND NEW TOP OF PAVEMENT.

LEGEND

- NEW CONCRETE DRIVEWAY, WALKWAY, FOUNDATION, OR TRENCH REPAIR PAVEMENT
- UNPAVED TRENCH REPAIR
- FILL LINE
- NEW 8' CHAINLINK FENCE
- GRADE BREAK

PLANS DEVELOPED BY:
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5368 COMMERCIAL BLVD.
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GRADING PLAN – GATES 8 & 10

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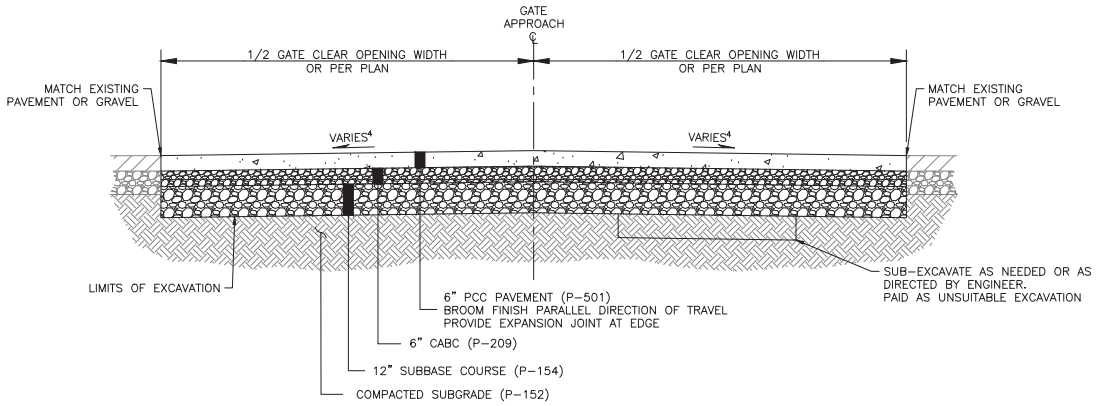
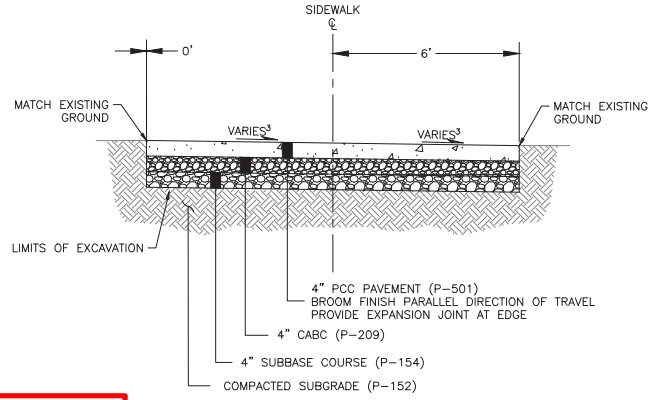
			ALASKA	SFAPT00175	2019	PTD1	58



GENERAL NOTES:
1. PROVIDE 1-INCH DEEP SCORED EXPANSION JOINT EVERY 5-FEET.
2. PROVIDE EXPANSION JOINT WITH PREMOLDED JOINT FILLER WHERE NEW CONCRETE ABUTS EXISTING ASPHALT OR CONCRETE.
3. PROVIDE 5-FOOT LONG, 6-INCH DOWNWARD VERTICAL TAPER IN CONCRETE SLAB ON END OPPOSITE NEW VEHICLE GATE TO REDUCE LIKELIHOOD OF SNOW PLOW DAMAGE.
4. SEE GRADING PLAN SHEETS PGR1-PGR4.

① GATE APRON TYPICAL SECTION
NOT TO SCALE



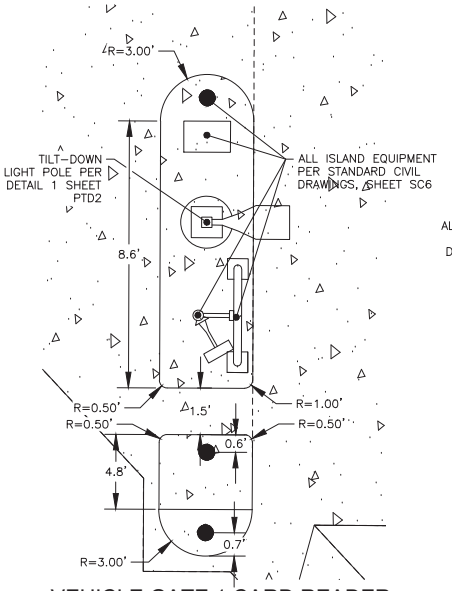
GENERAL SIDEWALK CONCRETE NOTES:
1. PROVIDE 1-INCH DEEP SCORED EXPANSION JOINT EVERY 5-FEET.
2. PROVIDE EXPANSION JOINT WITH PREMOLDED JOINT FILLER WHERE NEW CONCRETE ABUTS EXISTING ASPHALT OR CONCRETE.
3. SEE GRADING PLAN SHEETS PGR1-PGR4.

② SIDEWALK TYPICAL SECTION
NOT TO SCALE

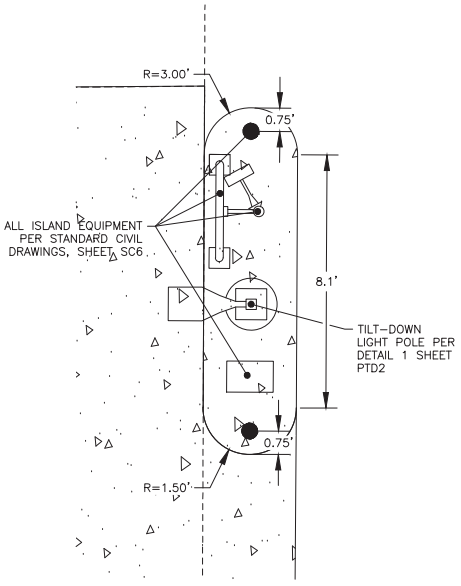
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

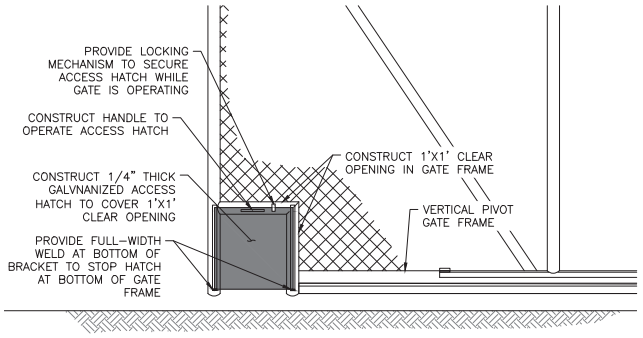
Signature Date



③ VEHICLE GATE 1 CARD READER ISLAND DETAIL-RESTRICTED SIDE
NOT TO SCALE



④ VEHICLE GATE 1 CARD READER ISLAND DETAIL-UNRESTRICTED SIDE
NOT TO SCALE



⑤ VEHICLE GATE 4 ACCESS HATCH DETAIL
NOT TO SCALE

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

TYPICAL SECTIONS AND CIVIL DETAILS

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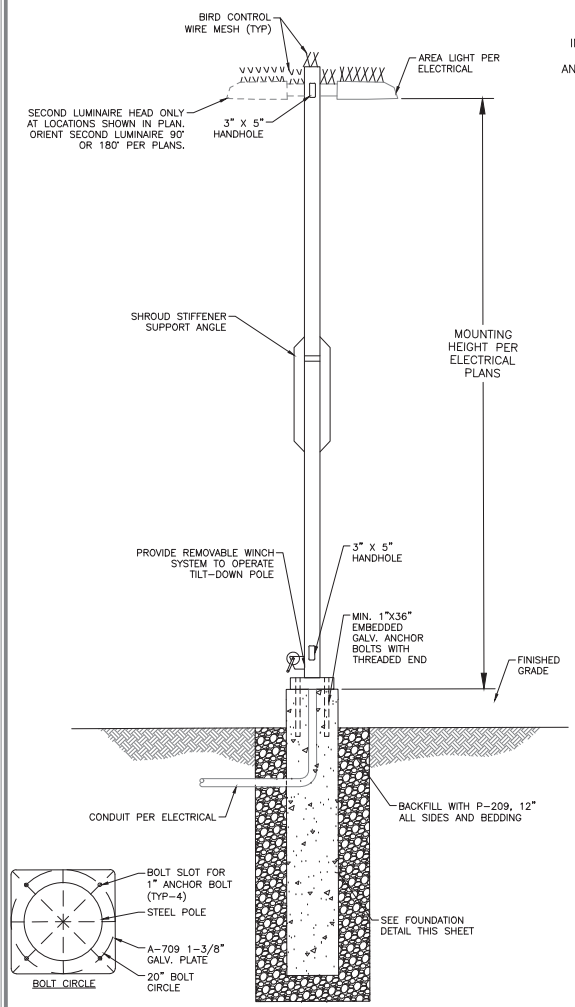
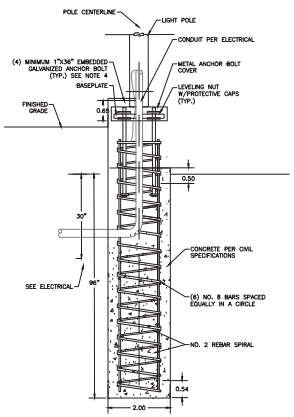


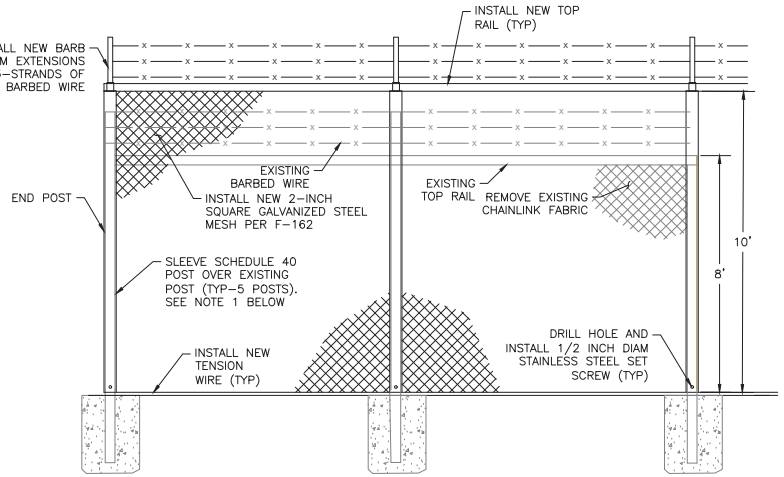
GENERAL LIGHT POLE NOTES:
1. TILT-DOWN LIGHT POLE DETAILS ARE GENERIC IN NATURE AND DO NOT INDICATE ACTUAL INSTALLATION. SEE ELECTRICAL DRAWINGS FOR ALL LIGHT POLE DETAILS AND DIMENSIONS.

POLE DETAIL
NOT TO SCALE



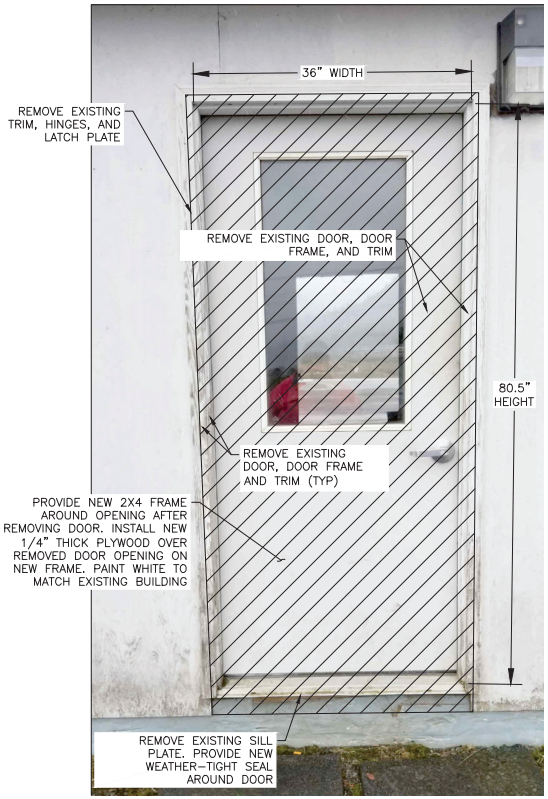
FOUNDATION DETAIL
NOT TO SCALE

① TILT-DOWN LIGHT POLE DETAIL
NOT TO SCALE



FENCE EXTENSION NOTES:
1. TOTAL OF FIVE EXISTING POSTS TO BE SLEEVED. EXISTING POST OUTSIDE DIAMETERS:
   A. 3 EA: 2.875" DIAMETER.
   B. 2 EA: 2.375" DIAMETER.
2. SEE DETAIL 1, SHEET SC8 FOR TYPICAL FENCE DETAILS.

② 10' FENCE EXTENSION DETAIL
NOT TO SCALE



③ BUILDING DOOR REMOVAL DETAIL
NOT TO SCALE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

CIVIL DETAILS

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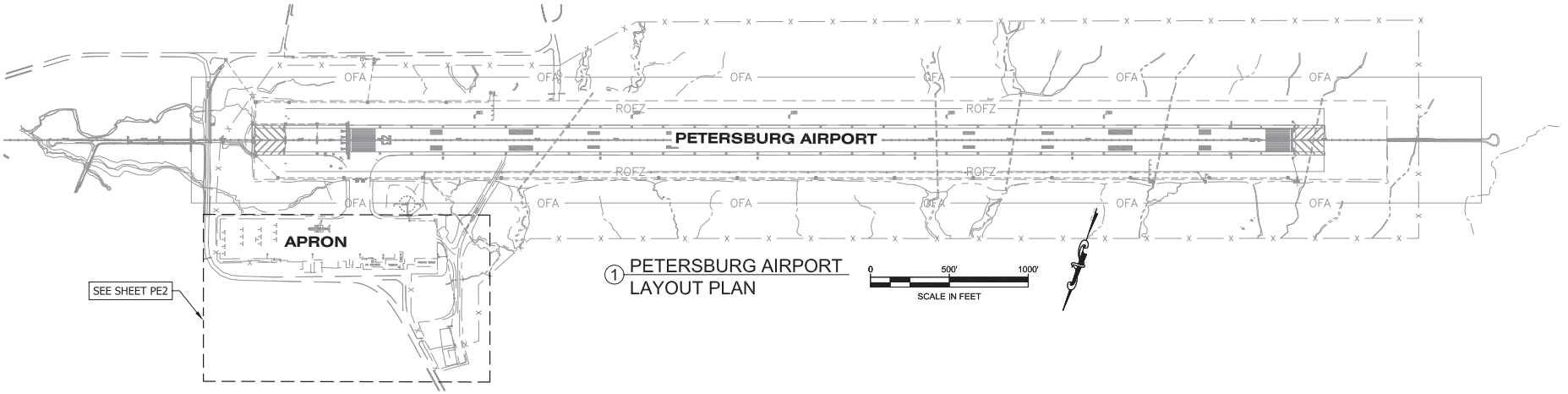

① PETERSBURG AIRPORT LAYOUT PLAN

ELECTRICAL LEGEND

ACL	ACCESS CONTROL	Ⓜ	METER/MAIN
ADJ.	ADJACENT	MIN	MINIMUM
AES	ADVANCED ENCRYPTION STANDARD	NEC	NATIONAL ELECTRICAL CODE
AFF	ABOVE FINISHED FLOOR	NO. 8	2 CONDUCTOR NUMBER 8 AWG
AFG	ABOVE FINISHED GRADE	NFS	NON-FROST SUSCEPTIBLE
AUX	AUXILIARY	N.C.	NORMALLY CLOSED
		N.O.	NORMALLY OPEN
AWG	AMERICAN WIRE GAUGE	NOM.	NOMINAL
BLDG	BUILDING	OSDP	OPEN SUPERVISED DEVICE PROTOCAL
C/B	CIRCUIT BREAKER	PED	PEDESTRIAN
20/3	CIRCUIT BREAKER (AMPS/POLES)	PTMP	POINT TO MULTI-POINT
CKT	CIRCUIT	PTP	POINT TO POINT
COAX	COAXIAL CABLE	PWR	POWER
C	CONDUIT	POE	POWER OVER ETHERNET
CTRL	CONTROL	PVC	RIGID POLYVINYL CHLORIDE CONDUIT
COND	CONDUCTOR	REC	RECEPTACLE
CU	COPPER	RM	READER MODULE
⊜	DOUBLE DUPLEX RECEPTACLE	STP	SHIELDED TWISTED PAIR
ENCL	ENCLOSURE	SAS	SITE APPLICATION SERVER
EXTG	EXISTING	STR	STRANDED
GFI	GROUND FAULT INTERRUPTER	SPD	SURGE PROTECTION DEVICE
GND	GROUND	SS	316 STAINLESS STEEL
GRS	GALVANIZED RIGID STEEL	TC	TINNED COPPER
GRC	GALVANIZED RIGID STEEL CONDUIT	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION DEVICE
HH	HANDHOLE	TYP-#	TYPICAL OF # (TYP-2) = TYPICAL OF 2
HTR	HEATER	TSP	TWISTED SHIELDED PAIR
ISP	INTERNET SERVICE PROVIDER	VAC	VOLTS AC
J-BOX	JUNCTION BOX	VDC	VOLTS DC
LTG	LIGHTING	WAN	WIDE AREA NETWORK
LOS	LINE OF SIGHT	WP	WEATHERPROOF
LR	LONG RANGE	W/	WITH
▬	MAIN LUG	XLPE	CROSS-LINKED POLYETHYLENE
MAX	MAXIMUM	1ϕ, 3W	1 PHASE, 3 WIRE
MAS	MASTER APPLICATION SERVER		

SHEET LIST TABLE

SHEET NO.	SHEET TITLE
PE1	GENERAL NOTES & LEGEND
PE2	OVERALL ELECTRICAL SITE PLAN
PE3	GATES 1, 1A, & ARFF SITE PLAN
PE4	GATES 2, 2A, 3, 4, & 4A SITE PLAN
PE5	GATES 8, 10, 10A, & 11 SITE PLAN
PE6	GATES 1 & 1A DETAILED SITE PLAN
PE7	GATES 1 & 1A SINGLE LINE DIAGRAM
PE8	GATE 1 & 1A POWER & NETWORK SCHEMATIC
PE9	ARFF FLOOR PLAN & ELEVATION
PE10	GATES 2 & 2A DETAILED SITE PLAN
PE11	GATES 2 & 2A SINGLE LINE DIAGRAM
PE12	GATES 2 & 2A POWER & NETWORK SCHEMATIC
PE13	GATES 3, 4, & 4A DETAILED SITE PLAN
PE14	GATES 3, 4, & 4A SINGLE LINE DIAGRAM
PE15	GATES 3, 4, & 4A POWER & NETWORK SCHEMATIC
PE16	GATE 5A DETAILED SITE PLAN
PE17	GATE 5A SINGLE LINE DIAGRAM
PE18	GATE 5A POWER & NETWORK SCHEMATIC
PE19	GATES 8, 10, & 10A DETAILED SITE PLAN
PE20	GATES 8, 10, & 10A SINGLE LINE DIAGRAM
PE21	GATES 8, 10, & 10A POWER & NETWORK SCHEMATIC
PE22	GATE 11 DETAILED SITE PLAN
PE23	GATE 11 SINGLE LINE DIAGRAM
PE24	GATE 11 POWER & NETWORK SCHEMATIC
PE25	WIRELESS NETWORK TOPOLOGY
PE26	TYPICAL LIGHT POLE DETAILS

SHEET NOTES:

1. PROVIDE ELECTRICAL FOR VEHICLE AND PEDESTRIAN GATES PER THE ATTACHED STANDARDS SE1-SE24. THE STANDARDS SHOW THE TYPICAL CONFIGURATION OF EQUIPMENT AND WIRING. SITE SPECIFIC INFORMATION IS SHOWN IN THIS PLAN SET PE1-PE26. DEVIATIONS OR CHANGES FROM THE STANDARD SITE PLANS (SE2-SE4) ARE SHOWN ON THE SITE PLANS FOR EACH GATE.
2. THE SINGLE LINE DIAGRAM FOR EACH GATE, THE POWER AND NETWORK SCHEMATIC FOR EACH GATE AND WIRELESS NETWORK TOPOLOGY FOR THE GATES ARE SHOWN IN THIS PLAN SET PE1-PE26. ALL OTHER REQUIRED WORK FOR EACH GATE IS SHOWN IN THE STANDARD DRAWINGS INCLUDING HOW EQUIPMENT IS TO BE MOUNTED, LAID OUT IN ENCLOSURES, DETAILS, ELEVATIONS, ETC.
3. SEE CIVIL DRAWINGS FOR ALL CIVIL WORK INCLUDING GATES, FENCING, GATE ISLANDS, BOLLARDS, FOUNDATIONS AND ALL OTHER CIVIL WORK.
4. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
5. ALL NEW LIGHT POLES AT THE PETERSBURG PROJECT SITE SHALL BE TILT-DOWN STYLE, NOT RIDGED. SEE SHEET PE26 FOR TYPICAL DETAILS.
6. ADJUST UNDERGROUND ROUTING TO COMPLY WITH NUMBER OF BENDS PER NEC. ADDITIONAL BENDS ARE SHOWN FOR CLARITY.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8611 REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

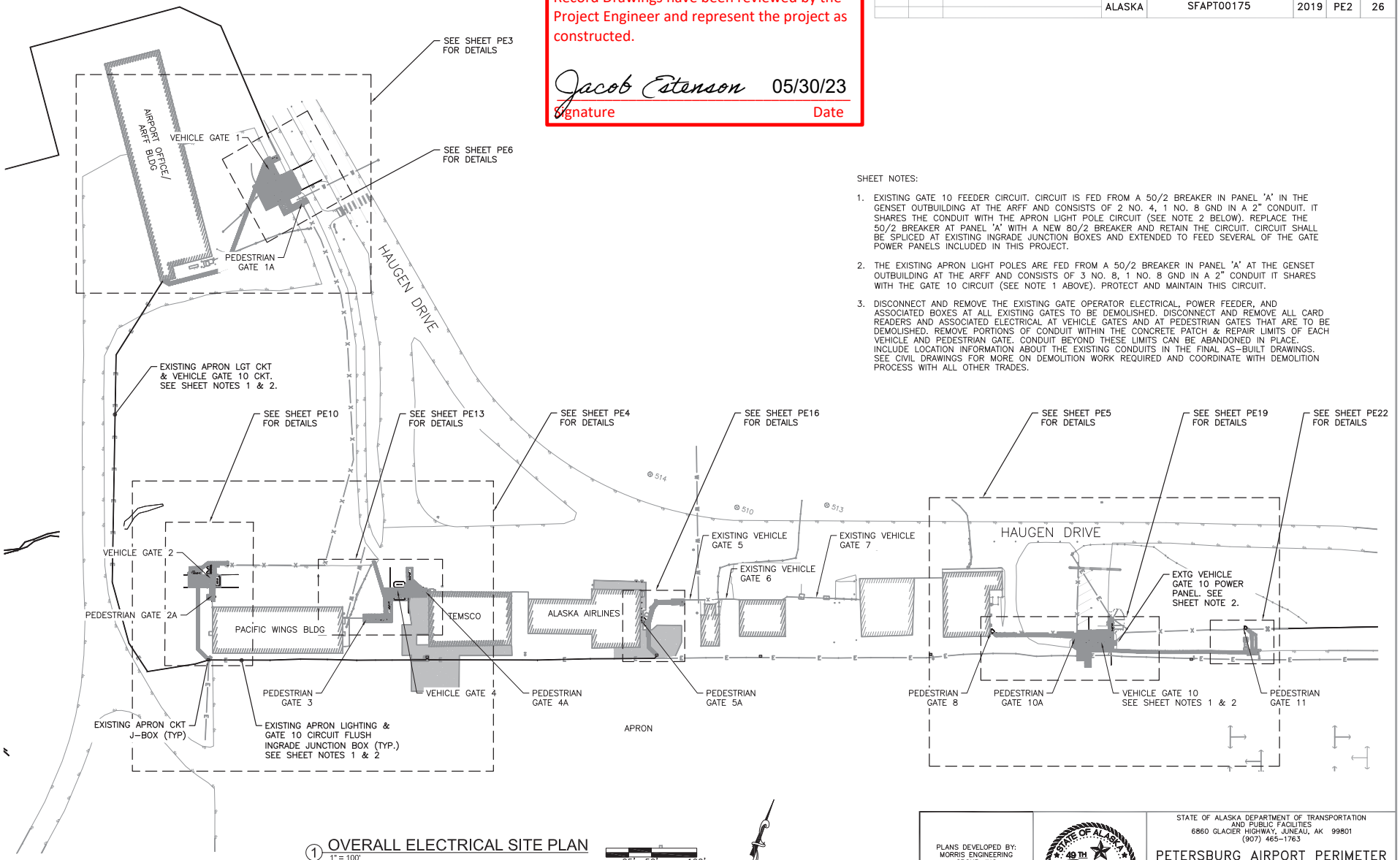
GENERAL NOTES & LEGEND

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE2	26

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



SHEET NOTES:

1. EXISTING GATE 10 FEEDER CIRCUIT. CIRCUIT IS FED FROM A 50/2 BREAKER IN PANEL 'A' IN THE GENSET OUTBUILDING AT THE ARFF AND CONSISTS OF 2 NO. 4, 1 NO. 8 GND IN A 2" CONDUIT. IT SHARES THE CONDUIT WITH THE APRON LIGHT POLE CIRCUIT (SEE NOTE 2 BELOW). REPLACE THE 50/2 BREAKER AT PANEL 'A' WITH A NEW 80/2 BREAKER AND RETAIN THE CIRCUIT. CIRCUIT SHALL BE SPLICED AT EXISTING INGRADE JUNCTION BOXES AND EXTENDED TO FEED SEVERAL OF THE GATE POWER PANELS INCLUDED IN THIS PROJECT.
2. THE EXISTING APRON LIGHT POLES ARE FED FROM A 50/2 BREAKER IN PANEL 'A' AT THE GENSET OUTBUILDING AT THE ARFF AND CONSISTS OF 3 NO. 8, 1 NO. 8 GND IN A 2" CONDUIT IT SHARES WITH THE GATE 10 CIRCUIT (SEE NOTE 1 ABOVE). PROTECT AND MAINTAIN THIS CIRCUIT.
3. DISCONNECT AND REMOVE THE EXISTING GATE OPERATOR ELECTRICAL, POWER FEEDER, AND ASSOCIATED BOXES AT ALL EXISTING GATES TO BE DEMOLISHED. DISCONNECT AND REMOVE ALL CARD READERS AND ASSOCIATED ELECTRICAL AT VEHICLE GATES AND AT PEDESTRIAN GATES THAT ARE TO BE DEMOLISHED. REMOVE PORTIONS OF CONDUIT WITHIN THE CONCRETE PATCH & REPAIR LIMITS OF EACH VEHICLE AND PEDESTRIAN GATE. CONDUIT BEYOND THESE LIMITS CAN BE ABANDONED IN PLACE. INCLUDE LOCATION INFORMATION ABOUT THE EXISTING CONDUITS IN THE FINAL AS-BUILT DRAWINGS. SEE CIVIL DRAWINGS FOR MORE ON DEMOLITION WORK REQUIRED AND COORDINATE WITH DEMOLITION PROCESS WITH ALL OTHER TRADES.

① OVERALL ELECTRICAL SITE PLAN
1" = 100'

25' 50' 100'

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

OVERALL ELECTRICAL SITE PLAN

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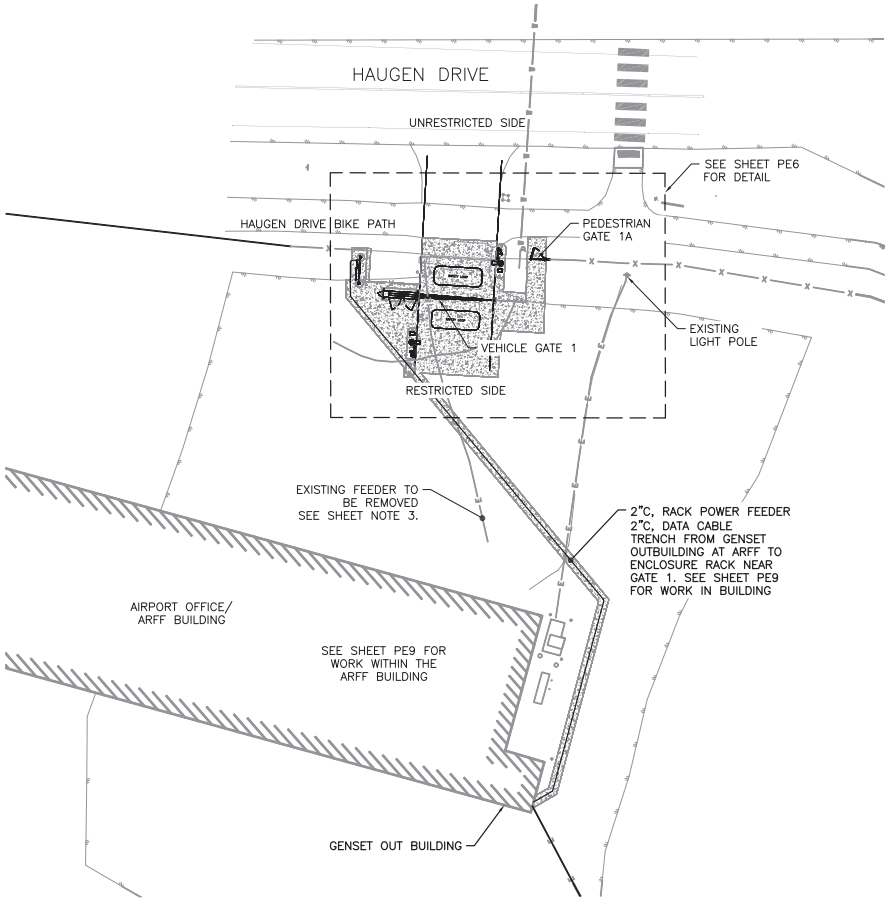

① GATES 1, 1A, & ARFF BUILDING SITE PLAN
1" = 40'

10' 20' 40'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

   a. VERTICAL PIVOT GATES: SE2, SE3, SE8–SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8–SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9–SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8–SE10 (AS APP'L), SE12–SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

5. SEE SHEET PE7 FOR POWER CIRCUIT INFO AND SHEET PE8 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATES 1 & 1A.

6. DISCONNECT AND REMOVE THE EXISTING GATE OPERATOR POWER FEEDER AND ASSOCIATED BOXES AT THE GATE. REMOVE FEEDER BACK TO SOURCE. REMOVE PORTIONS OF CONDUIT WITHIN THE CONCRETE PATCH & REPAIR LIMITS OF THE CIVIL WORK AT THE GATE. CONDUIT BEYOND THESE LIMITS CAN BE ABANDONED IN PLACE. INCLUDE LOCATION INFORMATION ABOUT THE EXISTING CONDUITS WITH THE FINAL AS–BUILT DRAWINGS.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8611 REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 1, 1A, & ARFF SITE PLAN

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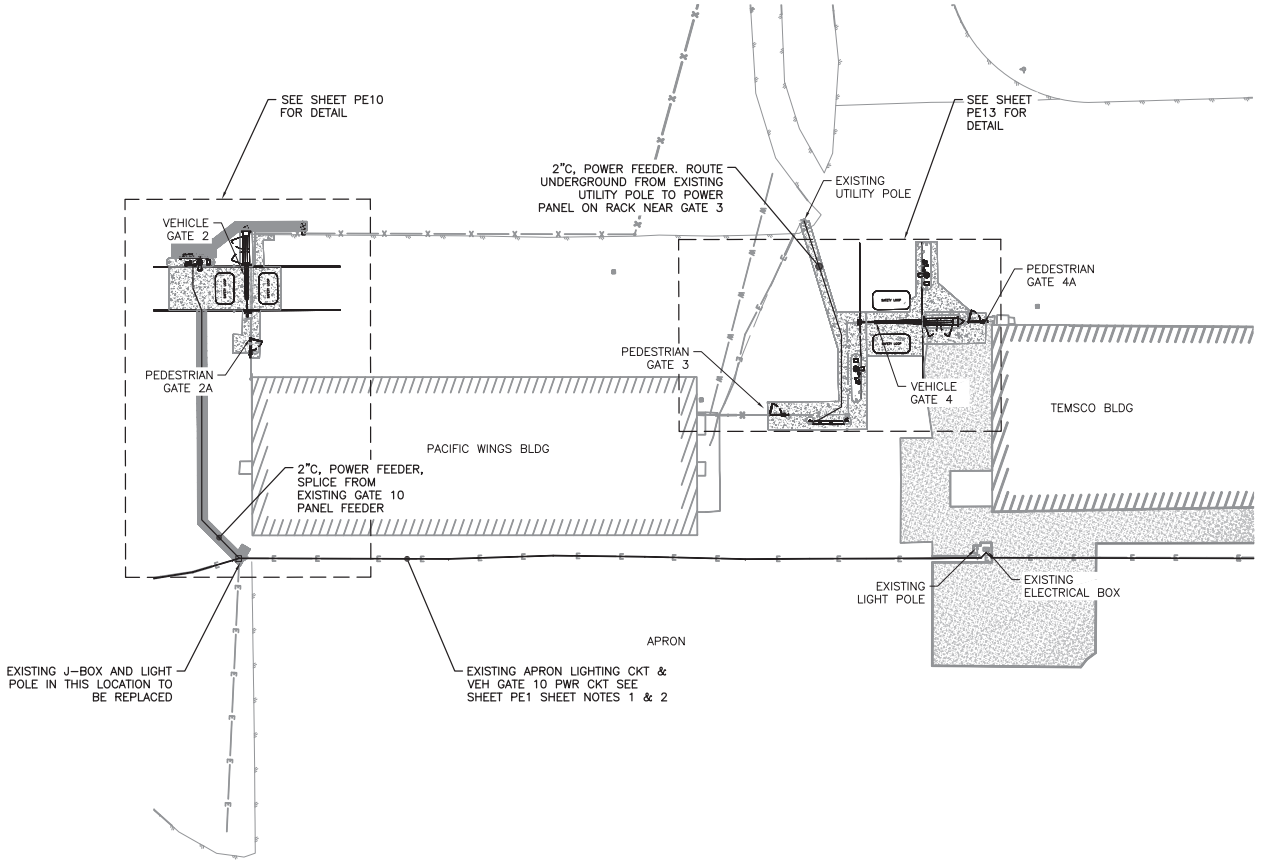

① GATES 2, 2A, 3, 4, & 4A SITE PLAN
1" = 40'

10' 20' 40'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

   a. VERTICAL PIVOT GATES: SE2, SE3, SE8-SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8-SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9-SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8-SE10 (AS APP'L), SE12-SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

5. SEE SHEET PE11 FOR POWER CIRCUIT INFO AND SHEET PE12 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATES 2 & 2A, AND SHEETS PE14 & PE15 FOR WORK AT GATES 3, 4 & 4A.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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STATE OF ALASKA
49TH
Mark G. Morris
July 30, 2019
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

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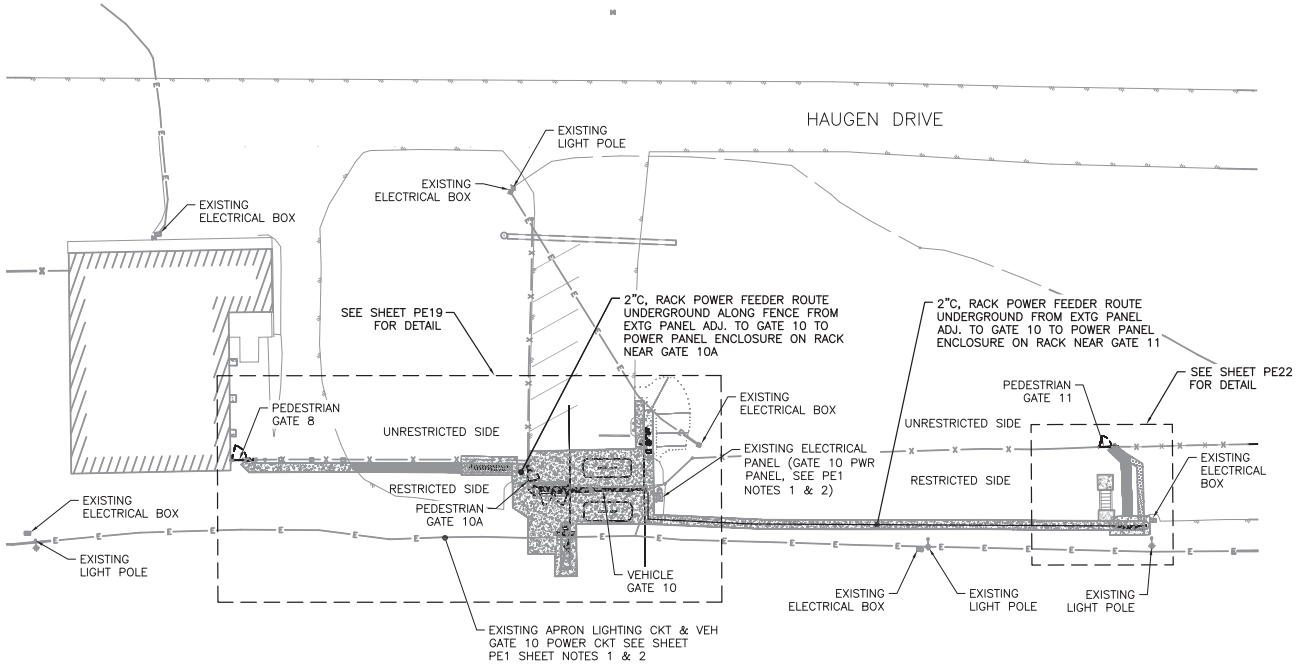
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 2, 2A, 3, 4, & 4A SITE PLAN

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\OVERALL ELECTRICAL SITE PLAN.dwg | DATE | 7/30/2019 10:05 | LAYOUT | PE4 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE5	26



1 GATES 8, 10, 10A, & 11 SITE PLAN
1" = 40'

10' 20' 40'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

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   b. CANTILEVER GATES: SE4, SE5, SE8–SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9–SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8–SE10 (AS APP'L), SE12–SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

5.. SEE SHEET PE20 FOR POWER CIRCUIT INFO AND SHEET PE21 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATE 8, 10, 10A AND SHEETS PE23 & PE24 FOR WORK AT GATE 11.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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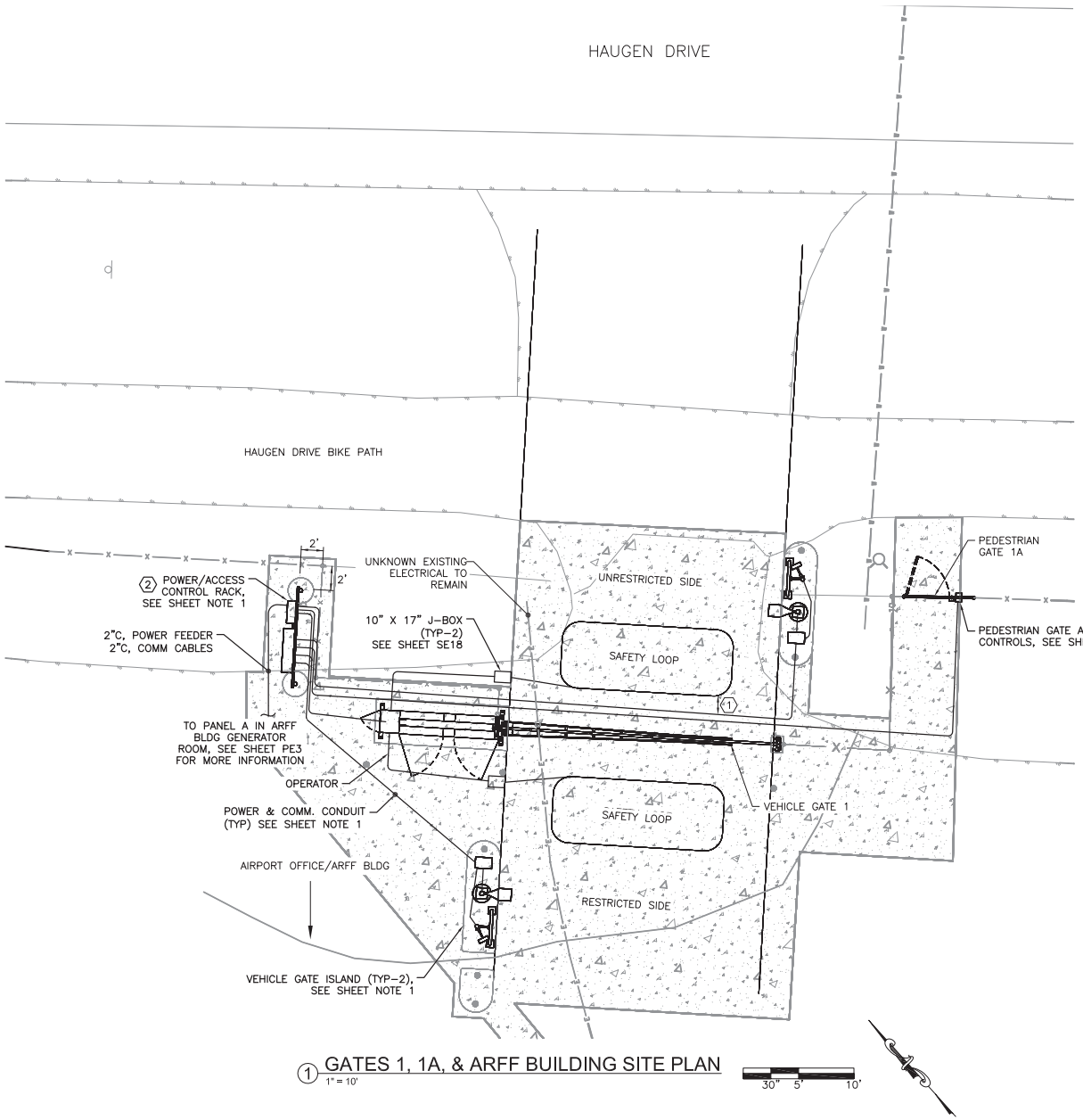
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 8, 10, 10A, & 11 SITE PLAN

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\OVERALL ELECTRICAL SITE PLAN.dwg | DATE | 7/30/2019 10:05 | LAYOUT | PE5 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE6	26



1 GATES 1, 1A, & ARFF BUILDING SITE PLAN
1" = 10'

30" 5' 10'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

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   b. CANTILEVER GATES: SE4, SE5, SE8-SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9-SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8-SE10 (AS APP'L), SE12-SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

   NOTE: AT PETERSBURG ALL AREA LIGHT POLES SHALL BE TILT-DOWN TYPE. SEE SHEET PE26 FOR TYPICAL DETAILS.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

5. SEE SHEET PE7 FOR POWER CIRCUIT INFO AND SHEET PE8 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATES.

6. REMOVE EXISTING POWER AND CONTROL FOR THE EXISTING VEHICLE GATE 1 TO BE REMOVED. SEE CIVIL DEMO PLANS.

KEY NOTES:

1 MAINTAIN A MINIMUM OF 12" SPACE BETWEEN EMBEDDED DETECTOR LOOPS AND ALL ADJACENT CONDUIT RUNS. DEPICTED SEPARATIONS SHOWN ARE NOT TO SCALE AND NOT ALL ADJACENT CONDUITS ARE NOTED. MAINTAIN SEPARATION IN ALL CASES.

2 PROVIDE A 20A, 120V TWIST LOCK RECEPTACLE ON POWER/ACCESS CONTROL RACK. PROVIDE A COVER THAT IS WEATHER PROOF WHEN A CORD IS PLUGGED IN. POWER RECEPTACLE FROM A 20A CIRCUIT BREAKER WITH 30mA GFI PROTECTION.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 1 & 1A DETAILED SITE PLAN

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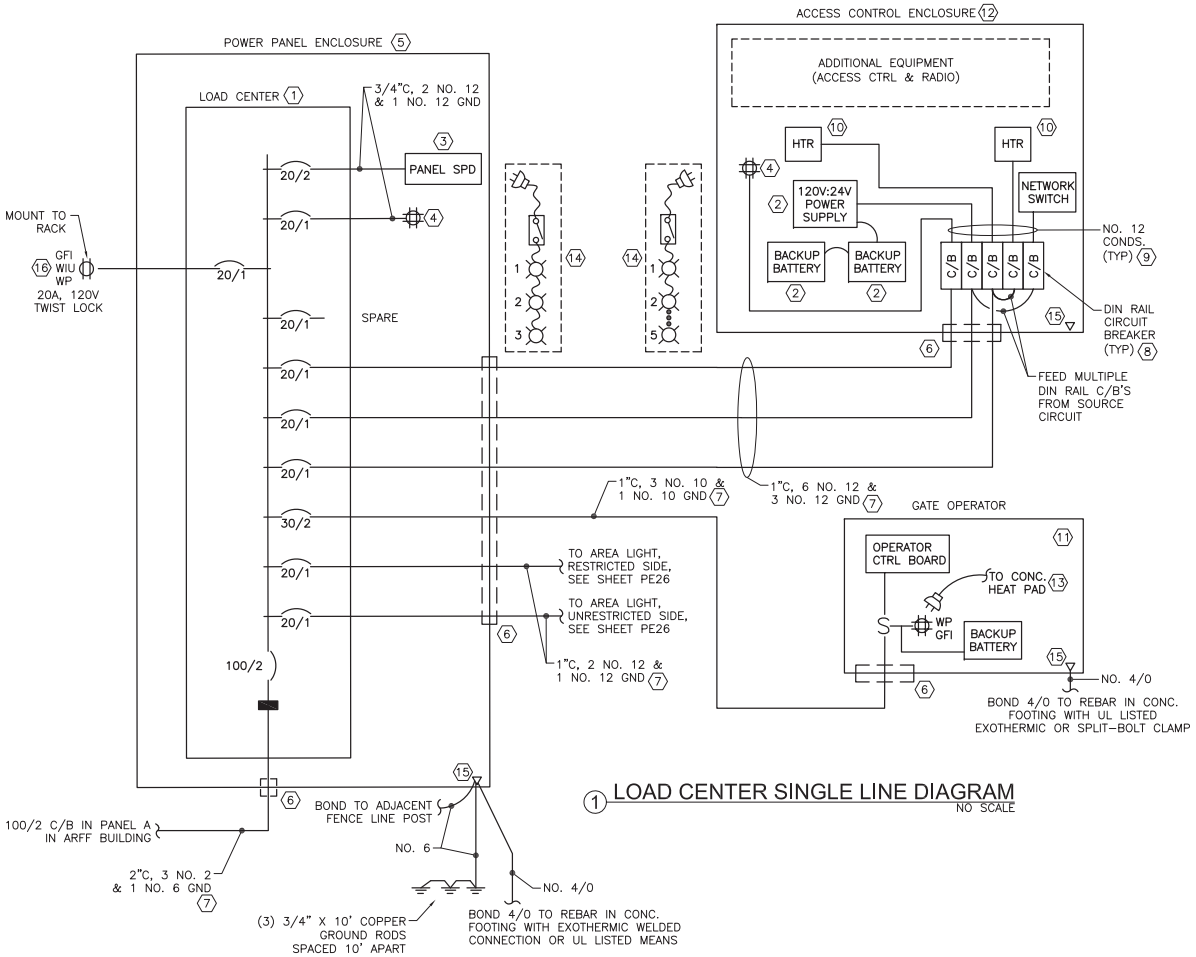
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE7	26



1 LOAD CENTER SINGLE LINE DIAGRAM
NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE POWER SYSTEM INFRASTRUCTURE REQUIRED TO CONNECT THE SYSTEM COMPONENTS AND LOCATIONS. THIS BLOCK DIAGRAM DOES NOT REPRESENT ALL CONDUITS AND CONDUCTORS REQUIRED FOR THE PROJECT. SEE SHEET PE8 FOR ACCESS CONTROL SCHEMATIC.
2. ALL JUNCTION BOXES, CABINETS, ENCLOSURE, ETC. THAT ARE ACCESSIBLE TO THE PUBLIC MUST HAVE TAMPERPROOF SCREWS OR BE KEY LOCKABLE.
3. ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND SPECIFICATIONS AND ALL SHALL BE INSTALLED PER THE NATIONAL ELECTRICAL CODE.
4. NOT ALL SYSTEM COMPONENTS ARE LOCATED AT EACH GATE LOCATION. SEE PLANS FOR EQUIPMENT INCLUDED AT EACH LOCATION.
5. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK PER NEC REQUIREMENTS AND TIED BACK TO THE GROUNDING ELECTRODE AS SHOWN ON THIS SHEET.

KEY NOTES:

(1) LOAD CENTER 120/240V, 1ϕ, 3W, 100A, 12 CKT. UNIT TO INCLUDE NEMA 3R CONSTRUCTION AND MAIN CIRCUIT BREAKER. PROVIDE WITH 10KAIC RATED BRANCH AND MAIN BREAKERS.

(2) LOW-VOLTAGE POWER DISTRIBUTION WITHIN ACCESS CONTROL ENCLOSURE. SEE SHEET PE8 FOR AC SCHEMATIC.

(3) SURGE PROTECTION DEVICE. SERVICE ENTRANCE RATED WITH INDIVIDUALLY FUSED MOV ELEMENTS, NEMA 4X RATED, UL LISTED 1449 DEVICE. MOUNT ON SIDE OF PANEL FED WITH STRAIGHT AND SHORT CONDUCTORS.

(4) SURFACE MOUNT SERVICE QUAD REC, 20A GFI, HD, COMMERCIAL GRADE. MOUNT INSIDE ENCLOSURES.

(5) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE POWER PANEL AND ACCESSORIES INDICATED. SEE SHEET SE14 FOR POWER PANEL ELEVATION & TYPICAL PANEL SCHEDULE.

(6) ALL CONDUIT ENCLOSURE CONNECTIONS SHALL CONSIST OF A ZINC DIE CAST, WATERTIGHT CONDUIT HUB WITH PROTECTIVE INSULATED THROAT, AND EMBEDDED O-RING. UNITS SHALL BE NEMA 4X AND RATED FOR WET OR DRY APPLICATIONS, PROVIDED IN GROUNDED STYLE WHERE REQUIRED. USED TO CONNECT RIGID METAL CONDUIT TO A THREADLESS OPENING IN THE ENCLOSURE.

(7) CO-LOCATE CONDUITS IN COMMON TRENCHES WHERE POSSIBLE. SEE SITE PLAN & SHEET SE18.

(8) THERMAL MAGNETIC, CIRCUIT BREAKER IN DIN RAIL MOUNT CONFIGURATION WITH 10KAIC RATING AND POSITIVE TRIP INDICATOR, UL LISTED FOR DIN RAIL MOUNTING.

(9) BREAKER SECONDARY CONDUCTORS IN ACCESS PANEL. QUANTITIES AND ROUTING AS REQUIRED. KEEP ALL CONDUCTORS AND CABLES NEATLY TRAINED, BUNDLED, AND LABELED WITHIN THE ENCLOSURE. THE NEUTRAL IS NOT SHOWN HERE BUT SHALL BE PROVIDED FOR EACH CIRCUIT.

(10) THERMOSTATICALLY CONTROLLED FAN POWERED HEATER WITH ADJUSTABLE SETTING BETWEEN 0-100 DEG F. 400 WATT UNITS MOUNTED TO BACK WALL OF ENCLOSURE. MODIFY SETTINGS TO MEET EQUIPMENT REQUIREMENTS.

(11) GATE OPERATOR WITH INTEGRAL CONTROL PANEL, SERVICE RECEPTACLE, DISCONNECT SWITCH, AND BACKUP BATTERY. SEE SHEET PE8 FOR AC SCHEMATIC.

(12) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE ACCESS CONTROL DEVICES AND ACCESSORIES INDICATED. SEE SHEET SE15 FOR TYPICAL AC ENCLOSURE ELEVATION.

(13) 120 WATT (1 AMPS @ 120V) HEAT MAT BELOW FOOTPRINT OF OPERATOR. THERMOSTATICALLY CONTROLLED MAT WITH 6 FOOT CORD & PLUG. SEE SHEET SE2 FOR STANDARD SITE PLAN.

(14) PROVIDE ENCLOSURE WITH CORD & PLUG BASED LED STRIP LIGHTS FOR INTERNAL ILLUMINATION. SEE SHEET SE14 FOR POWER PANEL ENCLOSURES ELEVATION & SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION. QUANTITY OF COMPONENTS AND CABLE LENGTHS AS REQUIRED PER EACH ENCLOSURE SIZE.

(15) PROVIDE SOLID GROUND CONNECTIONS FOR ALL ENCLOSURE CIRCUITS. BOND ENCLOSURE AND ENCLOSURE LOW RESISTANCE GROUND ESTABLISHED BACK TO THE GROUNDING ELECTRODE SYSTEM AT THE POWER PANEL.

(16) AT GATE 1 POWER RACK ONLY, PROVIDE A GFI, 20A, 120V, TWIST-LOCK STYLE SIMPLEX RECEPTACLE, NEMA L5-20R. PROVIDE IN NEMA 3R, EXTRA DUTY RATED, WEATHERPROOF OUTLET BOX WITH WHILE IN USE COVER. RECEPTACLE FOR DOT&PF WATER RESCUE TRAILER. MOUNT RECEPTACLE TIGHT TO BOTTOM OF OUTLET POWER PANEL EXPOSURE. CONTRACTOR SHALL REPLACE THE PLUG ON DOT&PF TRAILER CORD TO MATCH THE NEW TWIST-LOCK RECEPTACLE.

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8611 REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 1 & 1A SINGLE LINE DIAGRAM

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 1 & 1A - SINGLE LINE DIAGRAM.dwg | DATE | 7/29/2019 11:12 | LAYOUT | PE7 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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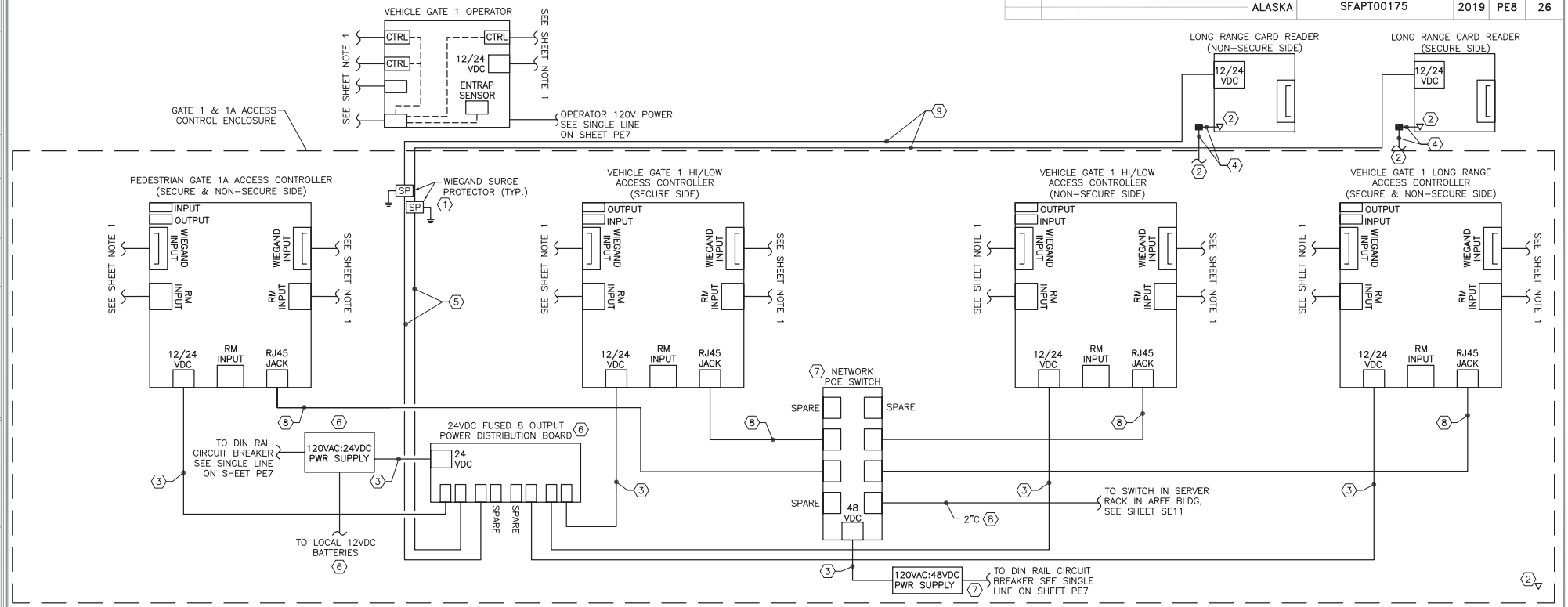

1 ACCESS CONTROL POWER & NETWORK SCHEMATIC

NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC REPRESENTS THE POWER, NETWORK CABLES, & CONNECTIONS WITHIN THE ACCESS CONTROL ENCLOSURE SPECIFIC TO GATES 1 & 1A. SEE SHEET SE9 FOR TYPICAL 4-CONTROLLER SCHEMATIC WITH ADDITIONAL CIRCUITS & CONNECTIONS REQUIRED.
2. PROVIDE FACTORY TERMINATED CAT 6 CABLING AND 1/2" OR 7/8" COAXIAL CABLING. 7/8" FOR LENGTHS >75 FT.
3. SEE SHEET SE15 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE.
4. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
6. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.

KEY NOTES:

(1) PROVIDE IN-LINE WIEGAND CABLE SURGE PROTECTION DEVICES FOR LONG RANGE READERS. 2K AMP PROTECTION PER PAIR, 12V/24V RATED DEVICES, WITH DIN RAIL MOUNTING KIT. MOUNT UNITS INSIDE OF ACCESS CONTROL ENCLOSURE AND SOLIDLY CONNECT TO ENCLOSURE GROUND PER THE NATIONAL ELECTRICAL CODE. TIE CABLE SHIELDING TO GROUND LUG ON DEVICE.

(2) ANTENNAS AND LONG RANGE READERS SHALL BE SOLIDLY GROUNDED TO THE COMMON EQUIPMENT GROUNDING CONDUCTOR WITHIN THE ACCESS CONTROL ENCLOSURE. BOND EQUIPMENT TO THE GROUNDING STRAP ADJACENT TO THE ANTENNAS & READERS AND CONNECT FROM GROUNDING STRAP TO THE ACCESS CONTROL ENCLOSURE GROUNDING POINT.

(3) (1) SHIELDED 18/2 MULTI-COND. CABLE (POWER CABLE).

(4) (1) 12 AWG SOLID CU COND., GREEN JKT (EQUIPMENT GROUNDING CONDUCTOR).

(5) (1) SHIELDED 16/2 MULTI-COND. CABLE (LONG RANGE READER POWER CABLE).

(6) 120VAC:24VDC, 250 WATT POWER SUPPLY WITH CONNECTIVITY FOR EXTERNAL BATTERY SOURCE FOR LOW VOLTAGE POWER SYSTEM BACKUP. SWITCH MODE DC POWER SUPPLY WITH FIELD SELECTABLE 12 OR 24VDC OUTPUT. MULTIPLE OUTPUTS FOR SYSTEM POWER, LOCK, AND FIRE ALARM DIRECT CONNECTIONS. TIE TO THE 8-OUTPUT DISTRIBUTION BOARD WITH INDIVIDUALLY FUSED OUTPUTS AND FIELD SELECTABLE 12 OR 24VDC VOLTAGES.

(7) HARDENED NETWORK SWITCH WITH MINIMUM (8) RJ45 OUTPUT PORTS. POWER FROM INDUSTRIAL GRADE, SWITCH MODE, LOW NOISE, 120VAC:48VDC 240 WATT POWER SUPPLY.

(8) (1) CAT 6 SHIELDED, OUTDOOR CABLE W/RJ45 JACKS ON BOTH ENDS.

(9) (1) SHIELDED 16/2 MULTI-CONDUIT CABLE (LONG RANGE READER POWER CABLE).

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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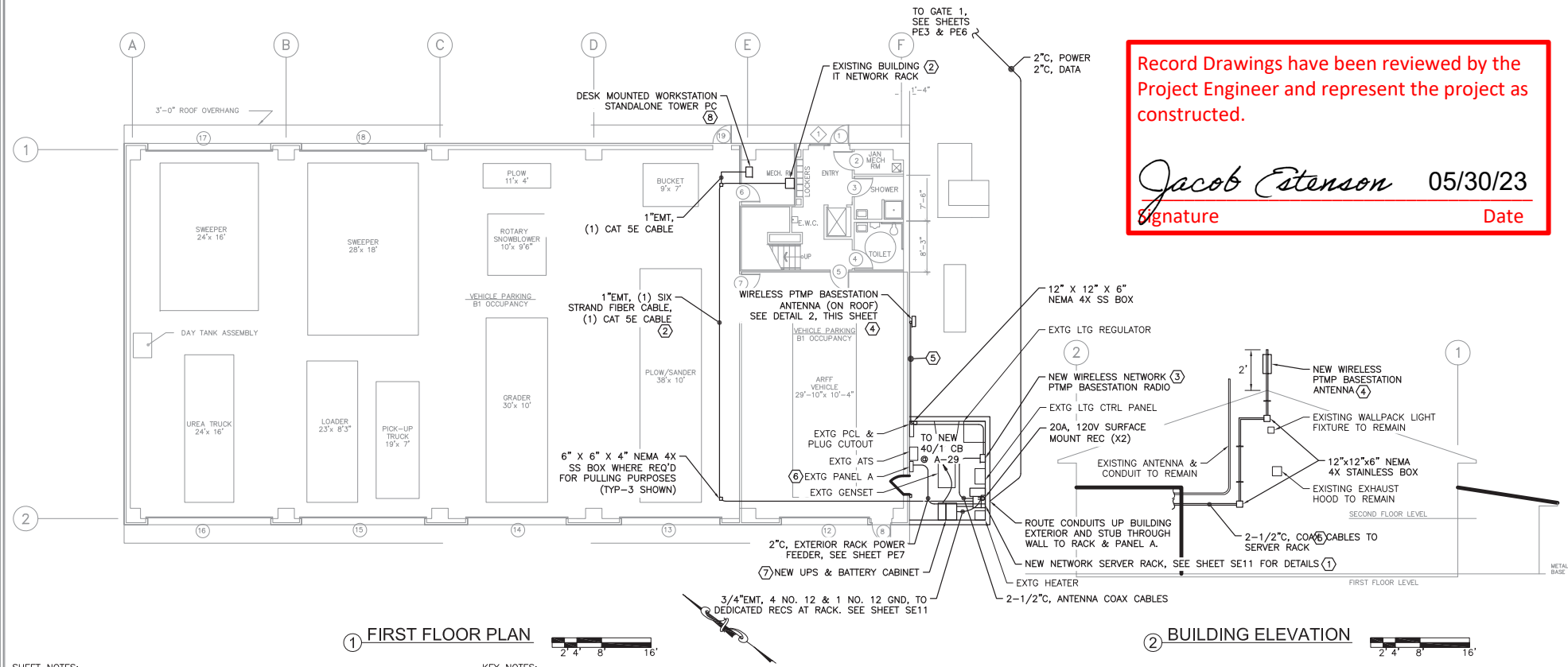
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 1 & 1A POWER & NETWORK SCHEMATIC

FILE | y:\02 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 1 & 1A ACCESS CONTROL POWER & NETWORK SCHEMATIC.dwg 5/30/2019 10:52 | LAYOUT | PE8 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE9	26



(1) FIRST FLOOR PLAN

2' 4' 8' 16'

(2) BUILDING ELEVATION

2' 4' 8' 16'

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

SHEET NOTES:

1. RUN ALL NEW CONDUITS AND CABLES IN AND ON THE ARFF BUILDING PARALLEL OR PERPENDICULAR TO EXISTING BUILDING LINES, OTHER CONDUITS, WALLS, ETC. PATCH ALL EXTERIOR WALL PENETRATIONS WITH WEATHERPROOFING COMPOUND. CUT, PATCH, AND PAINT ALL INTERIOR WALL SURFACES AS REQUIRED.
2. COORDINATE ALL WORK ON AND WITHIN THE ARFF BUILDING WITH USERS. BUILDING WILL REMAIN OCCUPIED DURING CONSTRUCTION AND CONTRACTOR WILL BE EXPECTED TO WORK AROUND USER DAILY ACTIVITES AND OTHER SCHEDULED WORK IN THE AREA.
3. NEW NETWORK RACK IN GENSET OUTBUILDING TO BE PROVIDED PER STANDARD DETAIL SHEET SE11
4. ALL CABLE AND CONDUCTORS WITHIN THE GENSET OUTBUILDING TO BE PROVIDED IN CONDUIT.

KEY NOTES:

(1) PROVIDE NETWORK RACK ON WALL. MOUNT TOP OF RACK AT 6'-0" AFF. POWER RACK FROM NEW TWO (2) DUPLEX SM RECEPTACLES POWERED FROM SEPARATE OUTPUT CIRCUITS OF THE NEW UPS. POSITION RACK ON WALL TO ALLOW SWING OPEN SPACE.

(2) EXISTING ARFF NETWORK RACK WITH INTERNET CONNECTION. PROVIDE A NEW FIBER DROP FROM EXISTING RACK TO NEW RACK. SURFACE MOUNT CONDUIT ON BUILDING.

(3) PROVIDE NEW WIRELESS RADIO IN 6" X 6" X 6" NEMA 4X, SS, ENCLOSURE ON GENSET INTERIOR WALL, ADJUST LOCATION AS REQUIRED TO AVOID OBSTACLES. MOUNT TOP AT 6' AFF. CONNECT TWO (2) COAX CABLES FROM THE EXTERIOR ANTENNA TO THE RADIO, AND CONNECT THE RADIO TO THE NEW RACK WITH ONE (1) CAT 6 CABLE.

(4) MOUNT NEW WIRELESS ANTENNA ON ROOF PEAK AT FAR END OF BUILDING AS INDICATED. MOUNT ANTENNA TO 2-1/2" GRS CONDUIT STRAPPED TO BUILDING EXTERIOR WALL. INCLUDE THREADED CAP ON TOP OF CONDUIT. POSITION CENTERED N/S AT FAR EAST EDGE OF ROOF.

(5) NEW ANTENNA GRS CONDUIT WITH TWO (2) COAX CABLES. SECURE TO BUILDING AS REQUIRED.

(6) REPLACE THE EXISTING 50/2 BREAKER THAT FEEDS THE NEW 80/2 CIRCUIT. APRON CIRCUIT WILL BE SPLICED TO SERVE POWER TO GATES 2 AND 5A. SEE SHEET NOTE 1 ON SHEET PE2 FOR MORE DETAILS.

(7) THERE IS LIMITED FLOOR SPACE IN GENERATOR OUTBUILDING. ELEVATE UPS AND BATTERY CABINET VIA CEILING HUNG UNISTRUT RACK TO SIT EQUIPMENT ON. COORDINATE WITH UPS MANUFACTURERS AS TO BEST WAY TO ACHIEVE PROPER MOUNTING. POWER FROM EXISTING PANEL 'A' WITH NEW 40/1 BREAKER AS INDICATED AND PROVIDE POWER TO THE RACK RECEPTACLES.

(8) NEW ACCESS CONTROL FRONT END PACKAGE INCLUDES DESKTOP PC, MONITOR, MOUSE, KEYBOARD, AS WELL AS CREDENTIAL BADGING STATION AND USB BADGING CAMERA. EXACT LOCATIONS OF THESE ITEMS TO BE COORDINATED WITH AIRPORT TERMINAL MANAGER.

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

ARFF FLOOR PLAN & ELEVATION

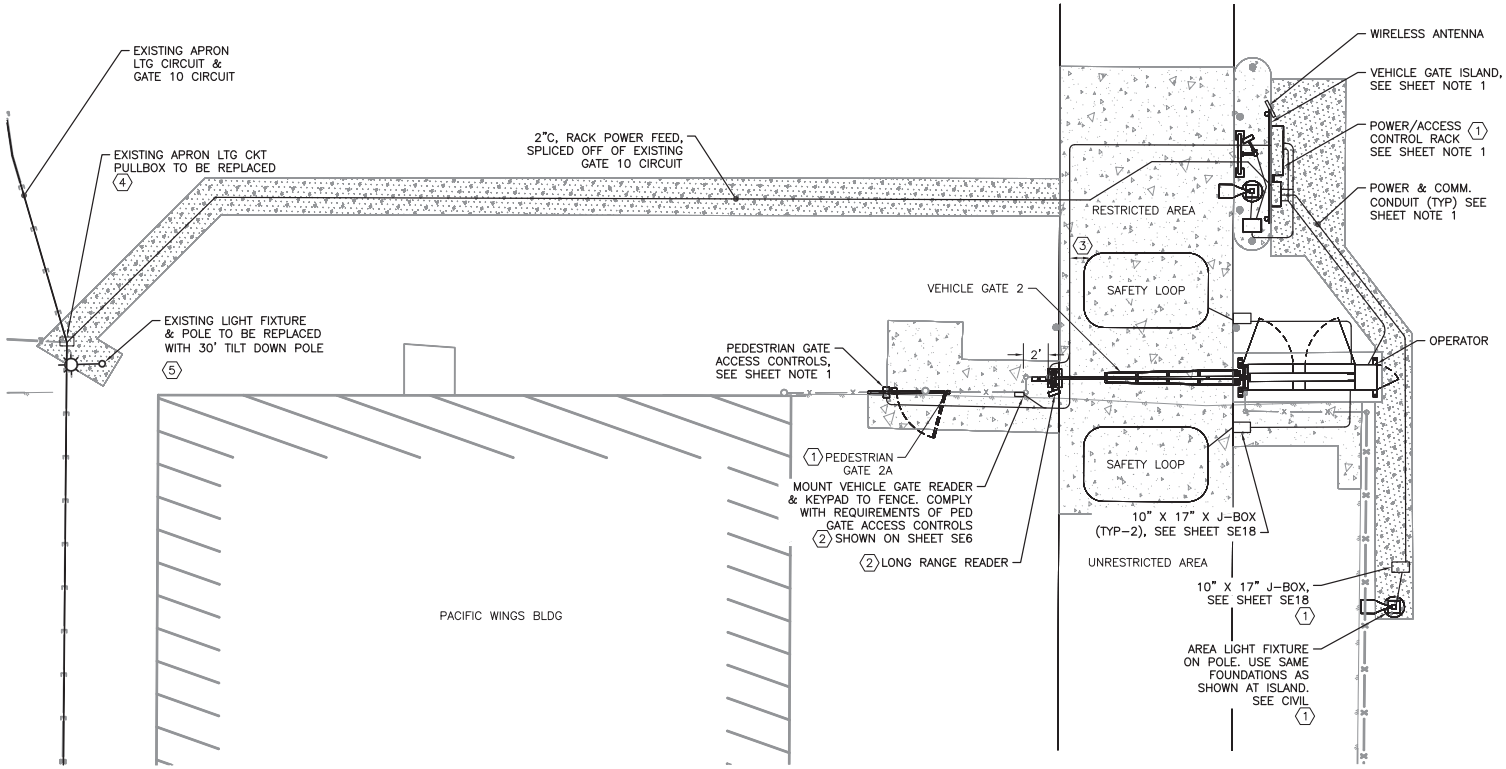
FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\ARFF FLOOR PLAN & ELEVATION.dwg | DATE | 7/29/2019 14:56 | LAYOUT | PE9 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE10	26

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



1 GATES 2 & 2A DETAILED SITE PLAN

1" = 10'

30" 5' 10'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

   a. VERTICAL PIVOT GATES: SE2, SE3, SE8-SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8-SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9-SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8-SE10 (AS APP'L), SE12-SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

NOTE: AT PETERSBURG ALL AREA LIGHT POLES SHALL BE TILT-DOWN TYPE. SEE SHEET PE26 FOR TYPICAL DETAILS.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

5. SEE SHEET PE10 FOR POWER CIRCUIT INFO AND SHEET PE11 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATES.

KEY NOTES:

1. LOCATION DIFFERS FROM STANDARD DRAWING SE2. ADJUST STANDARD CONDUIT ROUTING, MOUNTING ETC. AS REQUIRED.

2. THIS GATE DOESN'T HAVE A GATE ISLAND ON THE UNSECURED SIDE. MOUNT A KEYPAD AND READER INSTEAD ON THE FENCE AT 6' AFG ON UNSECURED SIDE. MOUNT LONG RANGE READER ON A FENCE POLE. COORDINATE WITH THE FENCE CONTRACTOR TO PROVIDE A 10' FENCE POLE TO MOUNT LONG RANGE READER. PROVIDE A 1" CONDUIT WITH WEATHER HEAD MOUNTED BELOW THE CARD READER TO SERVE IT ON THE EXTENDED FENCE POLE, SIMILAR TO THE DETAILS FOUND ON SHEET SE22.

3. MAINTAIN A MINIMUM OF 12" SPACE BETWEEN EMBEDDED DETECTOR LOOPS AND ALL ADJACENT CONDUIT RUNS. DEPICTED SEPARATIONS SHOWN ARE NOT TO SCALE AND NOT ALL ADJACENT CONDUITS ARE NOTED. MAINTAIN SEPARATION IN ALL CASES.

4. REPLACE EXISTING APRON CIRCUIT PULL BOX WITH NEW. PROVIDE THE STANDARD J-BOX SHOWN ON SHEET SE18, CALLED OUT ON SHEET SE24, AND DESCRIBED IN THE SPECIFICATIONS. THE EXISTING TWO CIRCUITS IN THE BOX WILL HAVE TO BE DISCONNECTED UP OR DOWNSTREAM AND PULLED BACK AND OUT SUFFICIENTLY TO ALLOW THE BOX TO BE DISCONNECTED FROM THE CONDUITS AND A NEW BOX INSTALLED. COORDINATE WORK WITH AIRPORT MANAGEMENT AS THE APRON LIGHTING CIRCUIT AND GATE 10 POWER CIRCUIT ARE IN CONTINUOUS USE. AS REQUIRED, PROVIDE TEMPORARY APRON LIGHTING OR A TEMPORARY CIRCUIT WORK AROUND.

5. REPLACE THE EXISTING APRON LIGHT POLE & POLE BASE WITH NEW. NEW TILT DOWN POLE SHALL BE 30' TALL PER DETAILS ON SHEET PE26. REUSE EXISTING POWER CONDUIT AND CIRCUIT FOR THE NEW POLE, PROVIDING NEW AS REQUIRED TO COMPLETE THE WORK. ORIENTATE THE AREA LIGHTS IN SAME DIRECTION AS THE EXISTING FIXTURES. PROVIDE (2) LUMINAIRES PER PE26 WITH TYPE IV DISTRIBUTION.

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Mark G. Morris
July 30, 2019
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 2 & 2A DETAILED SITE PLAN

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\OVERALL ELECTRICAL SITE PLAN.dwg | DATE | 7/30/2019 10:05 | LAYOUT | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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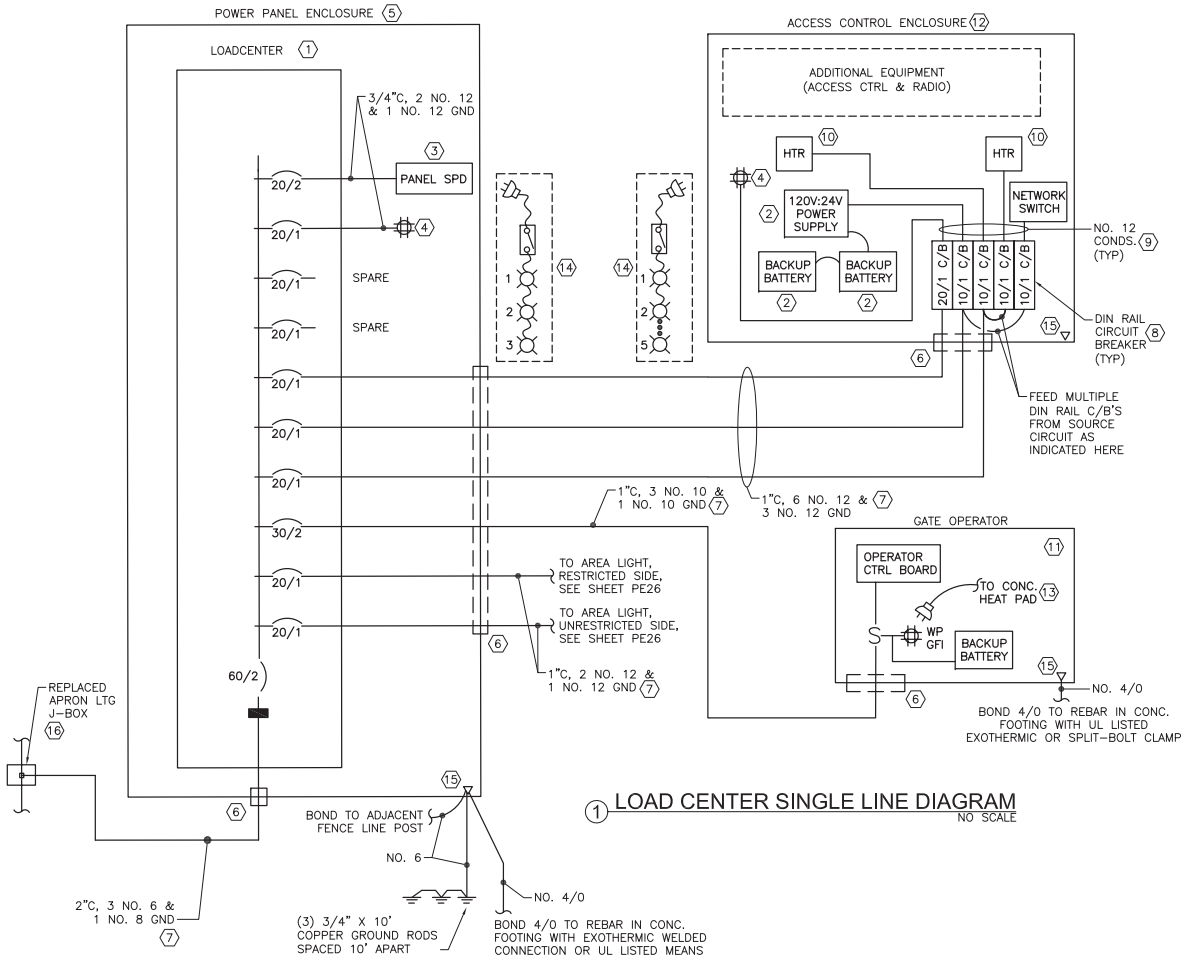
			ALASKA	SFAPT00175	2019	PE11	26



1 LOAD CENTER SINGLE LINE DIAGRAM
NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE POWER SYSTEM INFRASTRUCTURE REQUIRED TO CONNECT THE SYSTEM COMPONENTS AND LOCATIONS. THIS BLOCK DIAGRAM DOES NOT REPRESENT ALL CONDUITS AND CONDUCTORS REQUIRED FOR THE PROJECT. SEE SHEET PE12 FOR ACCESS CONTROL SCHEMATIC.
2. ALL JUNCTION BOXES, CABINETS, ENCLOSURE, ETC. THAT ARE ACCESSIBLE TO THE PUBLIC MUST HAVE TAMPERPROOF SCREWS OR BE KEY LOCKABLE.
3. ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND SPECIFICATIONS AND ALL SHALL BE INSTALLED PER THE NATIONAL ELECTRICAL CODE.
4. NOT ALL SYSTEM COMPONENTS ARE LOCATED AT EACH GATE LOCATION. SEE PLANS FOR EQUIPMENT INCLUDED AT EACH LOCATION.
5. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK PER NEC REQUIREMENTS AND TIED BACK TO THE GROUNDING ELECTRODE AS SHOWN ON THIS SHEET.

KEY NOTES:

(1) LOAD CENTER. 120/240V, 1ϕ, 3W, 100A, 12 CKT. UNIT TO INCLUDE NEMA 3R CONSTRUCTION AND MAIN CIRCUIT BREAKER. PROVIDE WITH 10KAIC RATED BRANCH AND MAIN BREAKERS.

(2) LOW-VOLTAGE POWER DISTRIBUTION WITHIN ACCESS CONTROL ENCLOSURE. SEE SHEET PE12 FOR AC SCHEMATIC.

(3) SURGE PROTECTION DEVICE. SERVICE ENTRANCE RATED WITH INDIVIDUALLY FUSED MOV ELEMENTS, NEMA 4X RATED, UL LISTED 1449 DEVICE. MOUNT ON SIDE OF PANEL FED WITH STRAIGHT AND SHORT CONDUCTORS.

(4) SURFACE MOUNT SERVICE QUAD REC, 20A GFI, HD, COMMERCIAL GRADE. MOUNT INSIDE ENCLOSURES.

(5) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE POWER PANEL AND ACCESSORIES INDICATED. SEE SHEET SE14 FOR POWER PANEL ELEVATION & TYPICAL PANEL SCHEDULE.

(6) ALL CONDUIT ENCLOSURE CONNECTIONS SHALL CONSIST OF A ZINC DIE CAST, WATERTIGHT CONDUIT HUB WITH PROTECTIVE INSULATED THROAT, AND EMBEDDED O-RING. UNITS SHALL BE NEMA 4X AND RATED FOR WET OR DRY APPLICATIONS, PROVIDED IN GROUNDED STYLE WHERE REQUIRED. USED TO CONNECT RIGID METAL CONDUIT TO A THREADLESS OPENING IN THE ENCLOSURE.

(7) CO-LOCATE CONDUITS IN COMMON TRENCHES WHERE POSSIBLE. SEE SHEET SITE PLAN & SHEET SE18.

(8) THERMAL MAGNETIC, CIRCUIT BREAKER IN DIN RAIL MOUNT CONFIGURATION WITH 10KAIC RATING AND POSITIVE TRIP INDICATOR, UL LISTED FOR DIN RAIL MOUNTING.

(9) BREAKER SECONDARY CONDUCTORS IN ACCESS PANEL. QUANTITIES AND ROUTING AS REQUIRED. KEEP ALL CONDUCTORS AND CABLES NEATLY TRAINED, BUNDLED, AND LABELED WITHIN THE ENCLOSURE. THE NEUTRAL IS NOT SHOWN HERE BUT SHALL BE PROVIDED FOR EACH CIRCUIT.

(10) THERMOSTATICALLY CONTROLLED FAN POWERED HEATER WITH ADJUSTABLE SETTING BETWEEN 0-100 DEG F. 400 WATT UNITS MOUNTED TO BACK WALL OF ENCLOSURE. MODIFY SETTINGS TO MEET EQUIPMENT REQUIREMENTS.

(11) GATE OPERATOR WITH INTEGRAL CONTROL PANEL, SERVICE RECEPTACLE, DISCONNECT SWITCH, AND BACKUP BATTERY. SEE SHEET PE12 FOR AC SCHEMATIC.

(12) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE ACCESS CONTROL DEVICES AND ACCESSORIES INDICATED. SEE SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION.

(13) 120 WATT (1 AMPS @ 120V) HEAT MAT BELOW FOOTPRINT OF OPERATOR. THERMOSTATICALLY CONTROLLED MAT WITH 6 FOOT CORD & PLUG.

(14) PROVIDE ENCLOSURE WITH CORD & PLUG BASED LED STRIP LIGHTS FOR INTERNAL ILLUMINATION. SEE SHEET SE14 FOR POWER PANEL ENCLOSURES ELEVATION & SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION. QUANTITY OF COMPONENTS AND CABLE LENGTHS AS REQUIRED PER EACH ENCLOSURE SIZE.

(15) PROVIDE SOLID GROUND CONNECTIONS FOR ALL ENCLOSURE CIRCUITS. BOND ENCLOSURE AND ENCLOSURE LOW RESISTANCE GROUND ESTABLISHED BACK TO THE GROUNDING ELECTRODE SYSTEM AT THE POWER PANEL.

(16) SPLICE NEW PANEL FEEDER FROM EXISTING GATE 10 CIRCUIT AT REPLACED JUNCTION BOX. PROVIDE WATERPROOF HEAT SHRINK SPLICE KIT FOR TERMINATIONS WITHIN THE IN GRADE BOX.

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 2 & 2A SINGLE LINE DIAGRAM

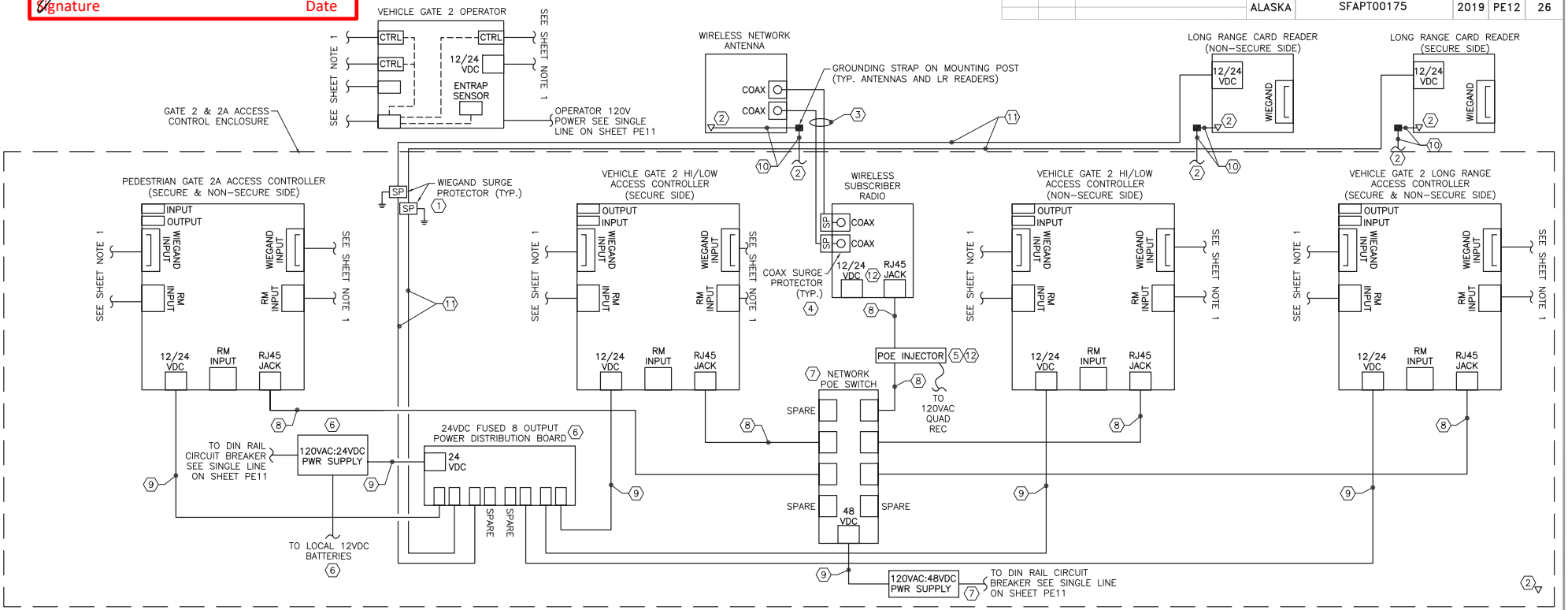
FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 2 & 2A SINGLE LINE DIAGRAM.dwg | DATE | 7/29/2019 11:09 | LAYOUT | PE11 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE12	26



1 ACCESS CONTROL POWER & NETWORK SCHEMATIC

NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC REPRESENTS THE POWER, NETWORK CABLES, & CONNECTIONS WITHIN THE ACCESS CONTROL ENCLOSURE SPECIFIC TO GATE 2 & 2A. SEE SHEET SE9 FOR TYPICAL 4-CONTROLLER SCHEMATIC WITH ADDITIONAL CIRCUITS & CONNECTIONS REQUIRED.
2. PROVIDE FACTORY TERMINATED CAT 6 CABLING AND 1/2" OR 7/8" COAXIAL CABLING. 7/8" FOR LENGTHS >75 FT.
3. SEE SHEET SE15 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE.
4. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
6. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.

KEY NOTES:

(1) PROVIDE IN-LINE WIEGAND CABLE SURGE PROTECTION DEVICES FOR LONG RANGE READERS. 2K AMP PROTECTION PER PAIR, 12V/24V RATED DEVICES, WITH DIN RAIL MOUNTING KIT. MOUNT UNITS INSIDE OF ACCESS CONTROL ENCLOSURE AND SOLIDLY CONNECT TO ENCLOSURE GROUND PER THE NATIONAL ELECTRICAL CODE. TIE CABLE SHIELDING TO GROUND LUG ON DEVICE.

(2) ANTENNAS AND LONG RANGE READERS SHALL BE SOLIDLY GROUNDED TO THE COMMON EQUIPMENT GROUNDING CONDUCTOR WITHIN THE ACCESS CONTROL ENCLOSURE. BOND EQUIPMENT TO THE GROUNDING STRAP ADJACENT TO THE ANTENNAS & READERS AND CONNECT FROM GROUNDING STRAP TO THE ACCESS CONTROL ENCLOSURE GROUNDING POINT.

(3) (2) PRE-TERMINATED 1/2" OR 7/8" LDF SHIELDED COAX CABLES TO ANTENNA FROM RADIO. COAX CABLES ARE NOT TO BE MADE IN THE FIELD BUT ORDERED AT EXACT LENGTHS REQUIRED. WHERE COAX THREADS ONTO THE ANTENNA CONNECTORS PROVIDE MULTIPLE LAYERS OF VINYL ELECTRIC TAPE, FOLLOWED BY BUTYL MASTIC TAPE, FOLLOWED AGAIN BY VINYL TAPE TO ENSURE A COMPLETELY SEALED CONNECTION. FOLLOW MANUFACTURER WRITTEN INSTRUCTIONS.

(4) IN-LINE COAXIAL LIGHTNING SURGE PROTECTOR FOR RADIO SIDE OF WIRELESS NETWORK LINK. CONNECT TO OUTPUT SIDE OF RADIO TO COAX FEEDING THE ANTENNA.

(5) WIRELESS ANTENNA POE INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT 5E/6 CABLE BETWEEN SWITCH AND RADIO, POWER FROM 120V SOURCE.

(6) 120VAC:24VDC, 250 WATT POWER SUPPLY WITH CONNECTIVITY FOR EXTERNAL BATTERY SOURCE FOR LOW VOLTAGE POWER SYSTEM BACKUP. SWITCH MODE DC POWER SUPPLY WITH FIELD SELECTABLE 12 OR 24VDC OUTPUT. MULTIPLE OUTPUTS FOR SYSTEM POWER, LOCK, AND FIRE ALARM DIRECT CONNECTIONS. TIE TO THE 8-OUTPUT DISTRIBUTION BOARD WITH INDIVIDUALLY FUSED OUTPUTS AND FIELD SELECTABLE 12 OR 24VDC VOLTAGES.

(7) HARDENED NETWORK SWITCH WITH MINIMUM (8) RJ45 OUTPUT PORTS. POWER FROM INDUSTRIAL GRADE, SWITCH MODE, LOW NOISE, 120VAC:48VDC 240 WATT POWER SUPPLY.

(8) (1) CAT 6 SHIELDED, OUTDOOR CABLE W/RJ45 JACKS ON BOTH ENDS.

(9) (1) SHIELDED 18/2 MULTI-COND. CABLE (POWER CABLE).

(10) (1) 12 AWG SOLID CU COND., GREEN JKT (EQUIPMENT GROUNDING CONDUCTOR).

(11) (1) SHIELDED 16/2 MULTI-COND. CABLE (LONG RANGE READER POWER CABLE).

(12) USE EITHER POE OR 12/24VDC POWER ON POE ENABLED DEVICES, NEVER BOTH. IF 12/24VDC SUPPLY IS USED THEN CONNECT RADIO TO SWITCH VIA CAT 5E/6 CABLE WITHOUT A POE INJECTOR. POWERING ANY DEVICE WITH POE AND A POWER SUPPLY CAN RESULT IN DAMAGE TO EQUIPMENT AND POSSIBLY TO PERSONNEL.

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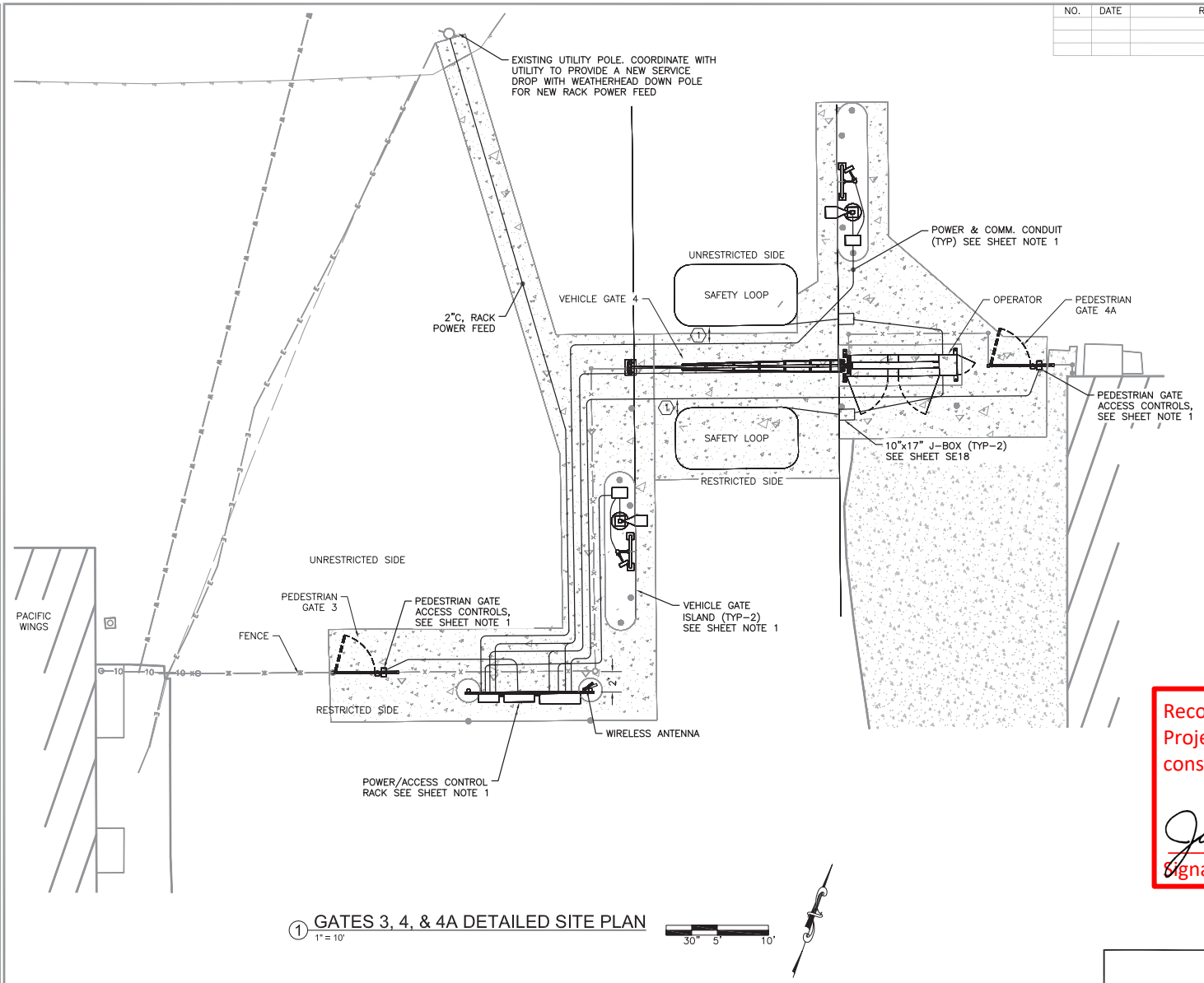
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 2 & 2A POWER & NETWORK SCHEMATIC

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 2 & 2A POWER & NETWORK SCHEMATIC.dwg | DATE | 6/4/2019 13:31 | LAYOUT | PE12 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE13	26



1 GATES 3, 4, & 4A DETAILED SITE PLAN

1" = 10'

30" 5' 10'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

   a. VERTICAL PIVOT GATES: SE2, SE3, SE8-SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8-SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9-SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8-SE10 (AS APP'L), SE12-SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

   NOTE: AT PETERSBURG ALL AREA LIGHT POLES SHALL BE TILT-DOWN TYPE. SEE SHEET PE26 FOR TYPICAL DETAILS.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

5. SEE SHEET PE14 FOR POWER CIRCUIT INFO AND SHEET PE15 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATES.

KEY NOTES:

(1) MAINTAIN A MINIMUM OF 12" SPACE BETWEEN EMBEDDED DETECTOR LOOPS AND ALL ADJACENT CONDUIT RUNS. DEPICTED SEPARATIONS SHOWN ARE NOT TO SCALE AND NOT ALL ADJACENT CONDUITS ARE NOTED. MAINTAIN SEPARATION IN ALL CASES.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 3, 4, & 4A DETAILED SITE PLAN

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\OVERALL ELECTRICAL SITE PLAN.dwg | DATE | 8/30/2019 8:48 | LAYOUT | PE13 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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			ALASKA	SFAPT00175	2019	PE14	26

SHEET NOTES:

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2. ALL JUNCTION BOXES, CABINETS, ENCLOSURE, ETC. THAT ARE ACCESSIBLE TO THE PUBLIC MUST HAVE TAMPERPROOF SCREWS OR BE KEY LOCKABLE.
3. ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND SPECIFICATIONS AND ALL SHALL BE INSTALLED PER THE NATIONAL ELECTRICAL CODE.
4. NOT ALL SYSTEM COMPONENTS ARE LOCATED AT EACH GATE LOCATION. SEE PLANS FOR EQUIPMENT INCLUDED AT EACH LOCATION.
5. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK PER NEC REQUIREMENTS AND TIED BACK TO THE GROUNDING ELECTRODE AS SHOWN ON THIS SHEET.

KEY NOTES:

(1) LOAD CENTER 120/240V, 1ϕ, 3W, 100A, 12 CKT. UNIT TO INCLUDE NEMA 3R CONSTRUCTION AND MAIN CIRCUIT BREAKER. PROVIDE WITH 10KAIC RATED BRANCH AND MAIN BREAKERS.

(2) WHERE POWER IS FED DIRECTLY FROM THE UTILITY, PROVIDE POWER DISTRIBUTION SYSTEM WITH A UTILITY METER SOCKET AHEAD OF THE PANEL. PROVIDE A 5-JAW, RINGLESS, METER SOCKET IN NEMA 3R ENCLOSURE. CIRCUIT THE METER AHEAD OF THE MAIN PANEL CIRCUIT BREAKER AND TIE ENCLOSURES TOGETHER WITH RIDIG CONDUIT & WIRE. SEE KEY NOTE 17, THIS SHEET.

(3) SURGE PROTECTION DEVICE. SERVICE ENTRANCE RATED WITH INDIVIDUALLY FUSED MOV ELEMENTS, NEMA 4X RATED, UL LISTED 1449 DEVICE. MOUNT ON SIDE OF PANEL FED WITH STRAIGHT AND SHORT CONDUCTORS.

(4) SURFACE MOUNT SERVICE QUAD REC, 20A GFI, HD, COMMERCIAL GRADE. MOUNT INSIDE ENCLOSURES.

(5) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE POWER PANEL AND ACCESSORIES INDICATED. SEE SHEET SE14 FOR POWER PANEL ELEVATION & TYPICAL PANEL SCHEDULE.

(6) ALL CONDUIT ENCLOSURE CONNECTIONS SHALL CONSIST OF A ZINC DIE CAST, WATERTIGHT CONDUIT HUB WITH PROTECTIVE INSULATED THROAT, AND EMBEDDED O-RING. UNITS SHALL BE NEMA 4X AND RATED FOR WET OR DRY APPLICATIONS, PROVIDED IN GROUNDED STYLE WHERE REQUIRED. USED TO CONNECT RIGID METAL CONDUIT TO A THREADLESS OPENING IN THE ENCLOSURE.

(7) CO-LOCATE CONDUITS IN COMMON TRENCHES WHERE POSSIBLE. SEE PLAN SHEET & SHEET SE18.

(8) THERMAL MAGNETIC, CIRCUIT BREAKER IN DIN RAIL MOUNT CONFIGURATION WITH 10KAIC RATING AND POSITIVE TRIP INDICATOR, UL LISTED FOR DIN RAIL MOUNTING.

(9) BREAKER SECONDARY CONDUCTORS IN ACCESS PANEL. QUANTITIES AND ROUTING AS REQUIRED. KEEP ALL CONDUCTORS AND CABLES NEATLY TRAINED, BUNDLED, AND LABELED WITHIN THE ENCLOSURE. THE NEUTRAL IS NOT SHOWN HERE BUT SHALL BE PROVIDED FOR EACH CIRCUIT.

(10) THERMOSTATICALLY CONTROLLED FAN POWERED HEATER WITH ADJUSTABLE SETTING BETWEEN 0-100 DEG F. 400 WATT UNITS MOUNTED TO BACK WALL OF ENCLOSURE. MODIFY SETTINGS TO MEET EQUIPMENT REQUIREMENTS.

(11) GATE OPERATOR WITH INTEGRAL CONTROL PANEL, SERVICE RECEPTACLE, DISCONNECT SWITCH, AND BACKUP BATTERY. SEE SHEET PE15 FOR AC SCHEMATIC.

(12) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE ACCESS CONTROL DEVICES AND ACCESSORIES INDICATED. SEE SHEET SE16 FOR ACCESS CONTROL ENCLOSURE ELEVATION.

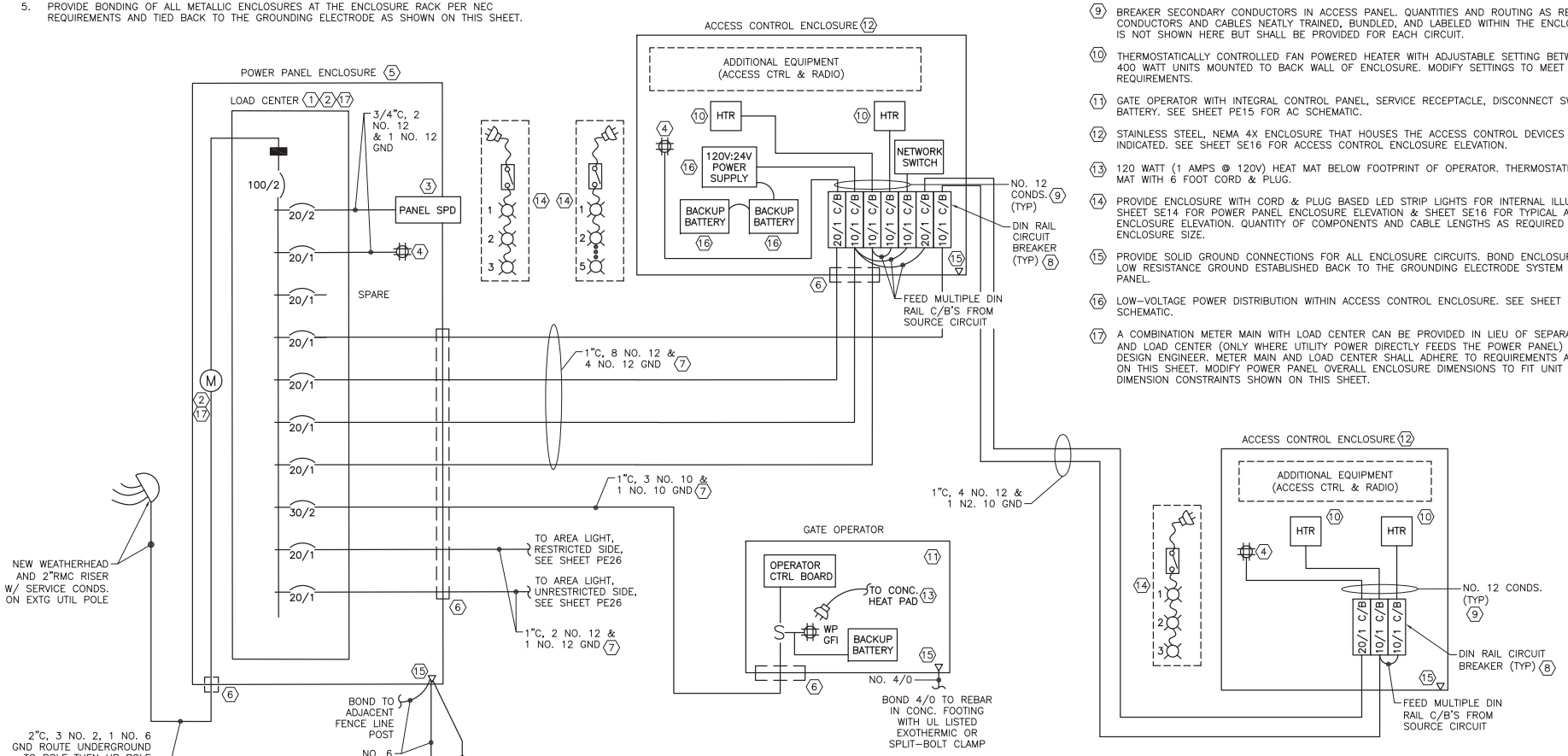
(13) 120 WATT (1 AMPS @ 120V) HEAT MAT BELOW FOOTPRINT OF OPERATOR. THERMOSTATICALLY CONTROLLED MAT WITH 6 FOOT CORD & PLUG.

(14) PROVIDE ENCLOSURE WITH CORD & PLUG BASED LED STRIP LIGHTS FOR INTERNAL ILLUMINATION. SEE SHEET SE14 FOR POWER PANEL ENCLOSURE ELEVATION & SHEET SE16 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION. QUANTITY OF COMPONENTS AND CABLE LENGTHS AS REQUIRED PER EACH ENCLOSURE SIZE.

(15) PROVIDE SOLID GROUND CONNECTIONS FOR ALL ENCLOSURE CIRCUITS. BOND ENCLOSURE AND ENCLOSURE LOW RESISTANCE GROUND ESTABLISHED BACK TO THE GROUNDING ELECTRODE SYSTEM AT THE POWER PANEL.

(16) LOW-VOLTAGE POWER DISTRIBUTION WITHIN ACCESS CONTROL ENCLOSURE. SEE SHEET PE15 FOR AC SCHEMATIC.

(17) A COMBINATION METER MAIN WITH LOAD CENTER CAN BE PROVIDED IN LIEU OF SEPARATE METER SOCKET AND LOAD CENTER (ONLY WHERE UTILITY POWER DIRECTLY FEEDS THE POWER PANEL) IF APPROVED BY DESIGN ENGINEER. METER MAIN AND LOAD CENTER SHALL ADHERE TO REQUIREMENTS AND SPECIFICATIONS ON THIS SHEET. MODIFY POWER PANEL OVERALL ENCLOSURE DIMENSIONS TO FIT UNIT AND ADHERE TO DIMENSION CONSTRAINTS SHOWN ON THIS SHEET.



(1) LOAD CENTER SINGLE LINE DIAGRAM
NO SCALE

PLANS DEVELOPED BY:
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July 30, 2019
No. EE-8613
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 3, 4, & 4A SINGLE LINE DIAGRAM

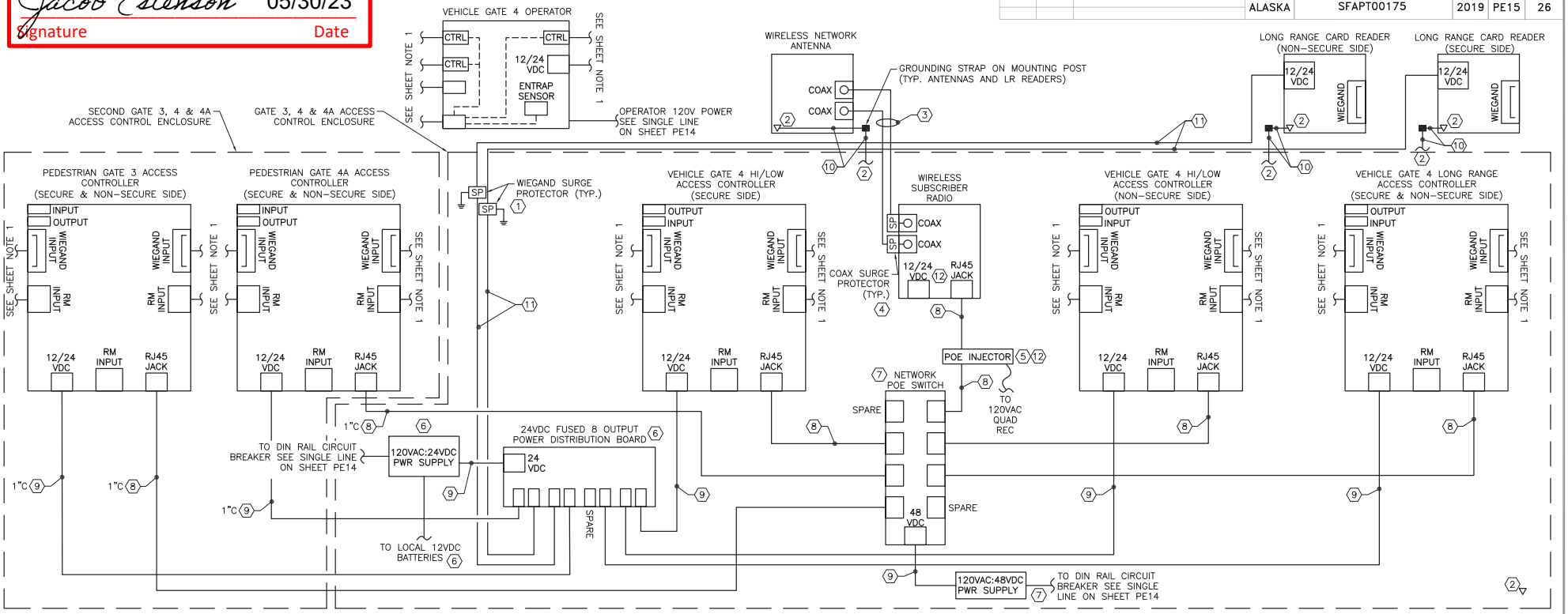
FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 3 & 4 & 4A SINGLE LINE DIAGRAM.dwg | DATE | 7/29/2019 11:28 | LAYOUT | PE14 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE15	26



1 ACCESS CONTROL POWER & NETWORK SCHEMATIC

NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC REPRESENTS THE POWER, NETWORK CABLES, & CONNECTIONS WITHIN THE ACCESS CONTROL ENCLOSURE SPECIFIC TO GATES 3, 4, & 4A. SEE SHEET SE10 FOR TYPICAL 5-CONTROLLER SCHEMATIC WITH ADDITIONAL CIRCUITS & CONNECTIONS REQUIRED.
2. PROVIDE FACTORY TERMINATED CAT 6 CABLING AND 1/2" OR 7/8" COAXIAL CABLING. 7/8" FOR LENGTHS > 75 FT.
3. SEE SHEET SE16 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE.
4. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
6. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.

KEY NOTES:

(1) PROVIDE IN-LINE WIEGAND CABLE SURGE PROTECTION DEVICES FOR LONG RANGE READERS. 2K AMP PROTECTION PER PAIR, 12V/24V RATED DEVICES, WITH DIN RAIL MOUNTING KIT. MOUNT UNITS INSIDE OF ACCESS CONTROL ENCLOSURE AND SOLIDLY CONNECT TO ENCLOSURE GROUND PER THE NATIONAL ELECTRICAL CODE. TIE CABLE SHIELDING TO GROUND LUG ON DEVICE.

(2) ANTENNAS AND LONG RANGE READERS SHALL BE SOLIDLY GROUNDED TO THE COMMON EQUIPMENT GROUNDING CONDUCTOR WITHIN THE ACCESS CONTROL ENCLOSURE. BOND EQUIPMENT TO THE GROUNDING STRAP ADJACENT TO THE ANTENNAS & READERS AND CONNECT FROM GROUNDING STRAP TO THE ACCESS CONTROL ENCLOSURE GROUNDING POINT.

(3) (2) PRE-TERMINATED 1/2" OR 7/8" LDF SHIELDED COAX CABLES TO ANTENNA FROM RADIO. COAX CABLES ARE NOT TO BE MADE IN THE FIELD BUT ORDERED AT EXACT LENGTHS REQUIRED. WHERE COAX THREADS ONTO THE ANTENNA CONNECTORS PROVIDE MULTIPLE LAYERS OF VINYL ELECTRIC TAPE, FOLLOWED BY BUTYL MASTIC TAPE, FOLLOWED AGAIN BY VINYL TAPE TO ENSURE A COMPLETELY SEALED CONNECTION. FOLLOW MANUFACTURER WRITTEN INSTRUCTIONS.

(4) IN-LINE COAXIAL LIGHTNING SURGE PROTECTOR FOR RADIO SIDE OF WIRELESS NETWORK LINK. CONNECT TO OUTPUT SIDE OF RADIO TO COAX FEEDING THE ANTENNA.

(5) WIRELESS ANTENNA POE INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT 5E/6 CABLE BETWEEN SWITCH AND RADIO, POWER FROM 120V SOURCE.

(6) 120VAC:24VDC, 250 WATT POWER SUPPLY WITH CONNECTIVITY FOR EXTERNAL BATTERY SOURCE FOR LOW VOLTAGE POWER SYSTEM BACKUP. SWITCH MODE DC POWER SUPPLY WITH FIELD SELECTABLE 12 OR 24VDC OUTPUT. MULTIPLE OUTPUTS FOR SYSTEM POWER, LOCK, AND FIRE ALARM DIRECT CONNECTIONS. TIE TO THE 8-OUTPUT DISTRIBUTION BOARD WITH INDIVIDUALLY FUSED OUTPUTS AND FIELD SELECTABLE 12 OR 24VDC VOLTAGES.

(7) HARDENED NETWORK SWITCH WITH MINIMUM (8) RJ45 OUTPUT PORTS. POWER FROM INDUSTRIAL GRADE, SWITCH MODE, LOW NOISE, 120VAC:48VDC 240 WATT POWER SUPPLY.

(8) (1) CAT 6 SHIELDED, OUTDOOR CABLE W/RJ45 JACKS ON BOTH ENDS.

(9) (1) SHIELDED 18/2 MULTI-COND. CABLE (POWER CABLE).

(10) (1) 12 AWG SOLID CU COND., GREEN JKT (EQUIPMENT GROUNDING CONDUCTOR).

(11) (1) SHIELDED 16/2 MULTI-COND. CABLE (LONG RANGE READER POWER CABLE).

(12) USE EITHER POE OR 12/24VDC POWER ON POE ENABLED DEVICES, NEVER BOTH. IF 12/24VDC SUPPLY IS USED THEN CONNECT RADIO TO SWITCH VIA CAT 5E/6 CABLE WITHOUT A POE INJECTOR. POWERING ANY DEVICE WITH POE AND A POWER SUPPLY CAN RESULT IN DAMAGE TO EQUIPMENT AND POSSIBLY TO PERSONNEL.

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8611 REGISTERED PROFESSIONAL ENGINEER

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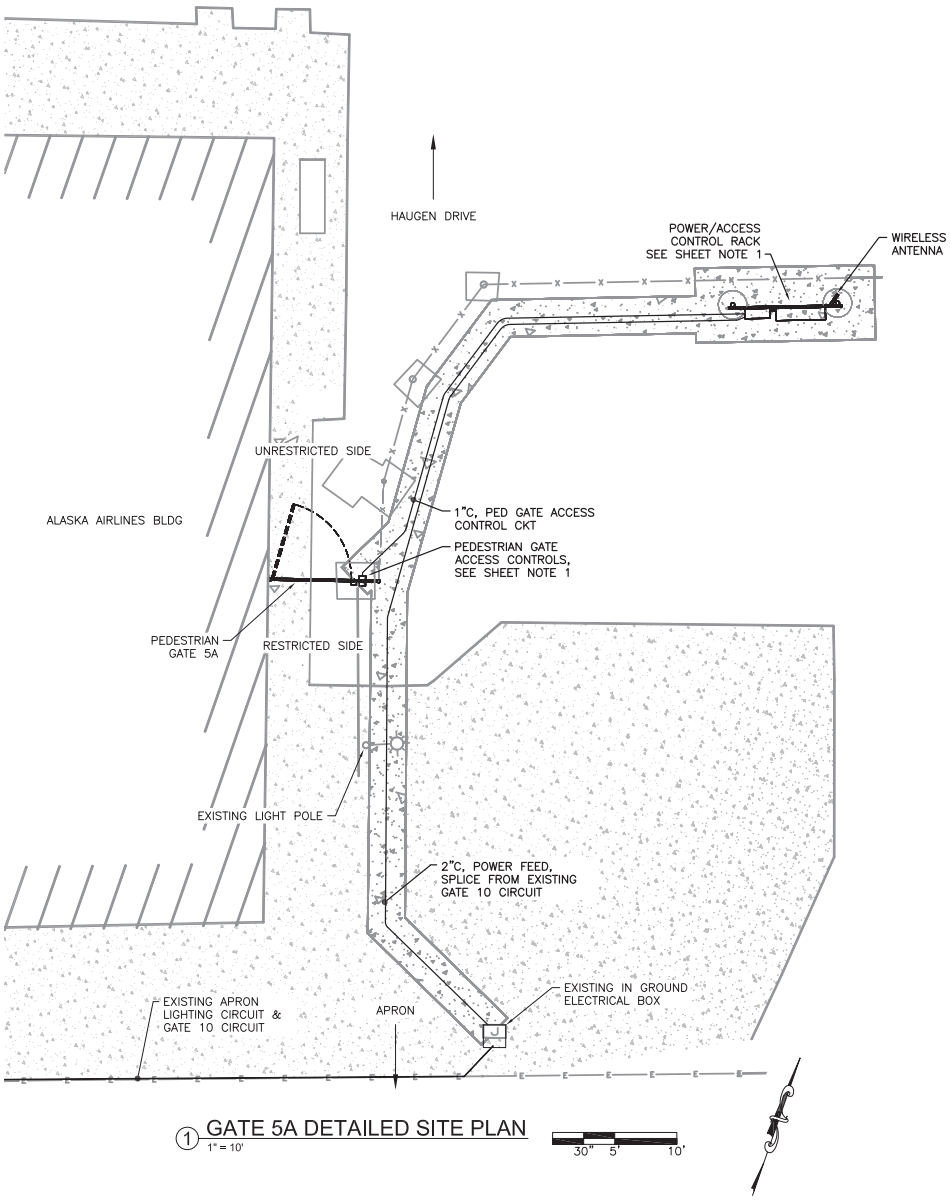
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 3, 4, & 4A POWER & NETWORK SCHEMATIC

DRAFTED JRW | DESIGNED MGM | CHECKED MGM | LAYOUT PE15 | DATE 6/4/2019 12:30 | FILE y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings psw\GATE 3 & 4 & 4A POWER & NETWORK SCHEMATIC.DWG

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE16	26



① GATE 5A DETAILED SITE PLAN
1" = 10'

30" 5' 10'

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

   a. VERTICAL PIVOT GATES: SE2, SE3, SE8–SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8–SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9–SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8–SE10 (AS APP'L), SE12–SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

4. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

1
5. SEE SHEET PE17FOR POWER CIRCUIT INFO AND SHEET PE18FOR AC & COMM CIRCUITS ASSOCIATED WITH GATE 5A.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 5A DETAILED SITE PLAN

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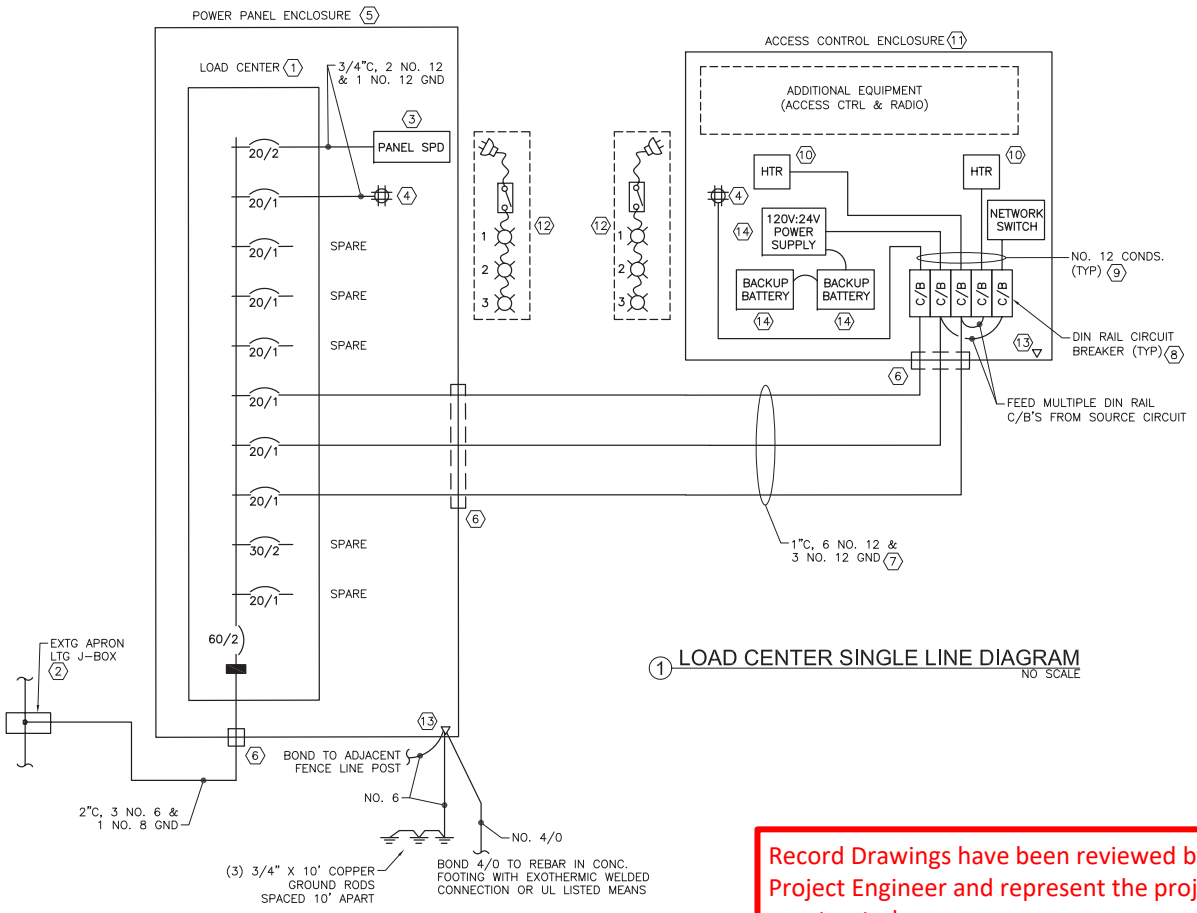
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE17	26



1 LOAD CENTER SINGLE LINE DIAGRAM
NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE POWER SYSTEM INFRASTRUCTURE REQUIRED TO CONNECT THE SYSTEM COMPONENTS AND LOCATIONS. THIS BLOCK DIAGRAM DOES NOT REPRESENT ALL CONDUITS AND CONDUCTORS REQUIRED FOR THE PROJECT. SEE SHEET PE18 FOR ACCESS CONTROL SCHEMATIC.
2. ALL JUNCTION BOXES, CABINETS, ENCLOSURE, ETC. THAT ARE ACCESSIBLE TO THE PUBLIC MUST HAVE TAMPERPROOF SCREWS OR BE KEY LOCKABLE.
3. ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND SPECIFICATIONS AND ALL SHALL BE INSTALLED PER THE NATIONAL ELECTRICAL CODE.
4. NOT ALL SYSTEM COMPONENTS ARE LOCATED AT EACH GATE LOCATION. SEE PLANS FOR EQUIPMENT INCLUDED AT EACH LOCATION.
5. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK PER NEC REQUIREMENTS AND TIED BACK TO THE GROUNDING ELECTRODE AS SHOWN ON THIS SHEET.

KEY NOTES:

(1) LOAD CENTER 120/240V, 1ϕ, 3W, 100A, 12 CKT. UNIT TO INCLUDE NEMA 3R CONSTRUCTION AND MAIN CIRCUIT BREAKER. PROVIDE WITH 10KAIC RATED BRANCH AND MAIN BREAKERS.

(2) SPLICE NEW PANEL FEEDER FROM EXISTING GATE 10 CIRCUIT AT EXISTING JUNCTION BOX. PROVIDE WATERPROOF HEAT SHRINK SPLICE KIT FOR TERMINATIONS WITHIN THE INGRADE BOX.

(3) SURGE PROTECTION DEVICE. SERVICE ENTRANCE RATED WITH INDIVIDUALLY FUSED MOV ELEMENTS, NEMA 4X RATED, UL LISTED 1449 DEVICE. MOUNT ON SIDE OF PANEL FED WITH STRAIGHT AND SHORT CONDUCTORS.

(4) SURFACE MOUNT SERVICE QUAD REC, 20A GFI, HD, COMMERCIAL GRADE. MOUNT INSIDE ENCLOSURES.

(5) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE POWER PANEL AND ACCESSORIES INDICATED. SEE SHEET SE14 FOR POWER PANEL ELEVATION & TYPICAL PANEL SCHEDULE.

(6) ALL CONDUIT ENCLOSURE CONNECTIONS SHALL CONSIST OF A ZINC DIE CAST, WATERTIGHT CONDUIT HUB WITH PROTECTIVE INSULATED THROAT, AND EMBEDDED O-RING. UNITS SHALL BE NEMA 4X AND RATED FOR WET OR DRY APPLICATIONS, PROVIDED IN GROUNDED STYLE WHERE REQUIRED. USED TO CONNECT RIGID METAL CONDUIT TO A THREADLESS OPENING IN THE ENCLOSURE.

(7) CO-LOCATE CONDUITS IN COMMON TRENCHES WHERE POSSIBLE. SEE SHEET SE18 AND SITE PLAN.

(8) THERMAL MAGNETIC, CIRCUIT BREAKER IN DIN RAIL MOUNT CONFIGURATION WITH 10KAIC RATING AND POSITIVE TRIP INDICATOR, UL LISTED FOR DIN RAIL MOUNTING.

(9) BREAKER SECONDARY CONDUCTORS IN ACCESS PANEL. QUANTITIES AND ROUTING AS REQUIRED. KEEP ALL CONDUCTORS AND CABLES NEATLY TRAINED, BUNDLED, AND LABELED WITHIN THE ENCLOSURE. THE NEUTRAL IS NOT SHOWN HERE BUT SHALL BE PROVIDED FOR EACH CIRCUIT.

(10) THERMOSTATICALLY CONTROLLED FAN POWERED HEATER WITH ADJUSTABLE SETTING BETWEEN 0-100 DEG F. 400 WATT UNITS MOUNTED TO BACK WALL OF ENCLOSURE. MODIFY SETTINGS TO MEET EQUIPMENT REQUIREMENTS.

(11) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE ACCESS CONTROL DEVICES AND ACCESSORIES INDICATED. SEE SHEET SE15 FOR ACCESS CONTROL ENCLOSURE ELEVATION.

(12) PROVIDE ENCLOSURE WITH CORD & PLUG BASED LED STRIP LIGHTS FOR INTERNAL ILLUMINATION. SEE SHEET SE14 FOR POWER PANEL ENCLOSURE ELEVATION & SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION. QUANTITY OF COMPONENTS AND CABLE LENGTHS AS REQUIRED PER EACH ENCLOSURE SIZE.

(13) PROVIDE SOLID GROUND CONNECTIONS FOR ALL ENCLOSURE CIRCUITS. BOND ENCLOSURE AND ENCLOSURE LOW RESISTANCE GROUND ESTABLISHED BACK TO THE GROUNDING ELECTRODE SYSTEM AT THE POWER PANEL.

(14) LOW-VOLTAGE POWER DISTRIBUTION WITHIN ACCESS CONTROL ENCLOSURE. SEE SHEET PE18 FOR AC SCHEMATIC.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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July 30, 2019
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 5A SINGLE LINE DIAGRAM

PE17 | FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 5A SINGLE LINE DIAGRAM.dwg | DATE | 7/29/2019 10:46 | LAYOUT | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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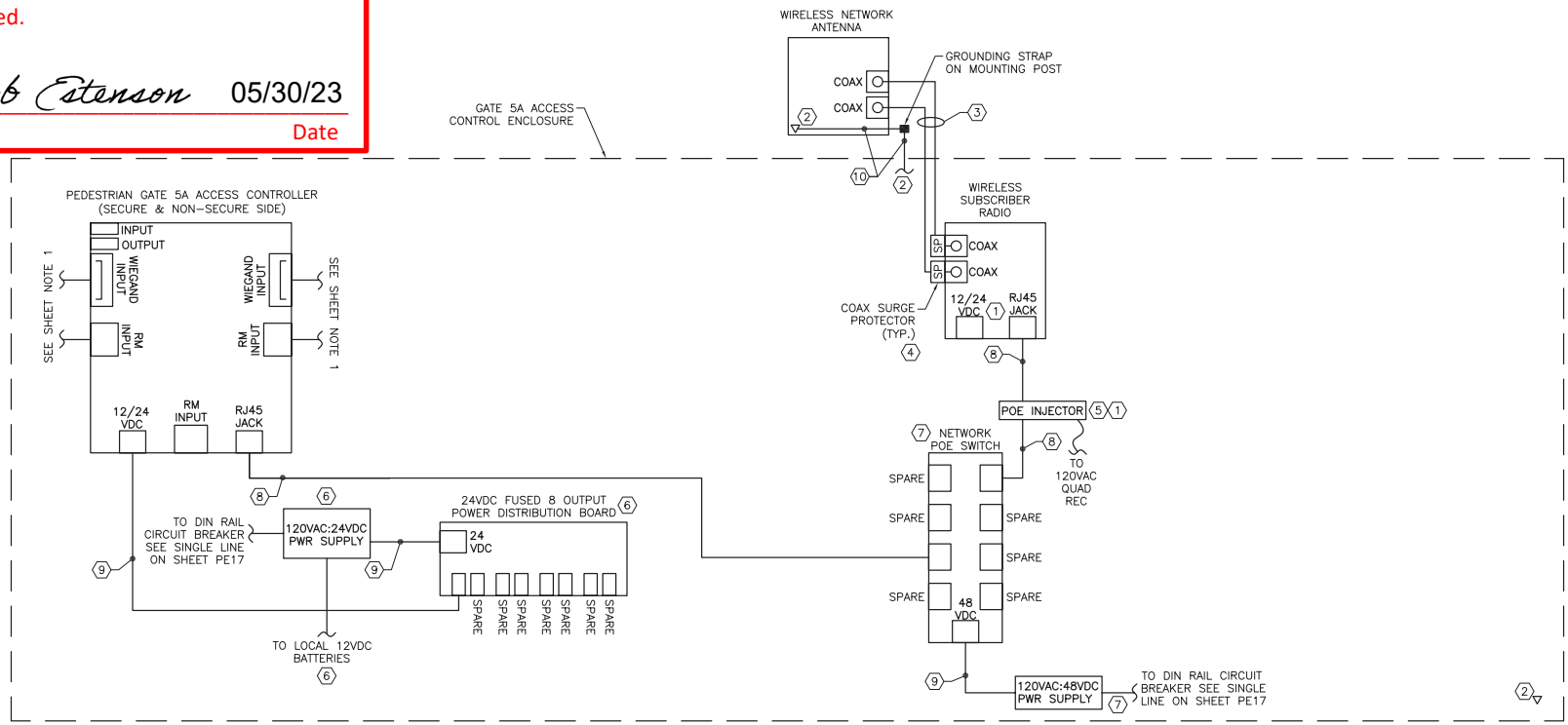
			ALASKA	SFAPT00175	2019	PE18	26



① ACCESS CONTROL POWER & NETWORK SCHEMATIC

NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC REPRESENTS THE POWER, NETWORK CABLES, & CONNECTIONS WITHIN THE ACCESS CONTROL ENCLOSURE SPECIFIC TO GATE 5A. SEE SHEET SE7 FOR TYPICAL 1-CONTROLLER SCHEMATIC WITH ADDITIONAL CIRCUITS & CONNECTIONS REQUIRED.
2. PROVIDE FACTORY TERMINATED CAT 6 CABLING AND 1/2" OR 7/8" COAXIAL CABLING. 7/8" FOR LENGTHS > 75 FT.
3. SEE SHEET SE16 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE (LEFT HAND ENCLOSURE, THE SMALLER OF THE TWO).
4. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
6. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.

KEY NOTES:

① USE EITHER POE OR 12/24VDC POWER ON POE ENABLED DEVICES, NEVER BOTH. IF 12/24VDC SUPPLY IS USED THEN CONNECT RADIO TO SWITCH VIA CAT 6 CABLE WITHOUT A POE INJECTOR. POWERING ANY DEVICE WITH POE AND A POWER SUPPLY CAN RESULT IN DAMAGE TO EQUIPMENT AND POSSIBLY TO PERSONNEL.

② ANTENNAS SHALL BE SOLIDLY GROUNDED TO THE COMMON EQUIPMENT GROUNDING CONDUCTOR WITHIN THE ACCESS CONTROL ENCLOSURE. BOND EQUIPMENT TO THE GROUNDING STRAP ADJACENT TO THE ANTENNAS & READERS AND CONNECT FROM GROUNDING STRAP TO THE ACCESS CONTROL ENCLOSURE GROUNDING POINT.

③ (2) PRE-TERMINATED 1/2" OR 7/8" LDF SHIELDED COAX CABLES TO ANTENNA FROM RADIO. COAX CABLES ARE NOT TO BE MADE IN THE FIELD BUT ORDERED AT EXACT LENGTHS REQUIRED. WHERE COAX THREADS ONTO THE ANTENNA CONNECTORS PROVIDE MULTIPLE LAYERS OF VINYL ELECTRIC TAPE, FOLLOWED BY BUTYL MASTIC TAPE, FOLLOWED AGAIN BY VINYL TAPE TO ENSURE A COMPLETELY SEALED CONNECTION. FOLLOW MANUFACTURER WRITTEN INSTRUCTIONS.

④ IN-LINE COAXIAL LIGHTNING SURGE PROTECTOR FOR RADIO SIDE OF WIRELESS NETWORK LINK. CONNECT TO OUTPUT SIDE OF RADIO TO COAX FEEDING THE ANTENNA.

⑤ WIRELESS ANTENNA POE INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT 5E/6 CABLE BETWEEN SWITCH AND RADIO, POWER FROM 120V SOURCE.

⑥ 120VAC:24VDC, 250 WATT POWER SUPPLY WITH CONNECTIVITY FOR EXTERNAL BATTERY SOURCE FOR LOW VOLTAGE POWER SYSTEM BACKUP. SWITCH MODE DC POWER SUPPLY WITH FIELD SELECTABLE 12 OR 24VDC OUTPUT. MULTIPLE OUTPUTS FOR SYSTEM POWER, LOCK, AND FIRE ALARM DIRECT CONNECTIONS. TIE TO THE 8-OUTPUT DISTRIBUTION BOARD WITH INDIVIDUALLY FUSED OUTPUTS AND FIELD SELECTABLE 12 OR 24VDC VOLTAGES.

⑦ HARDENED NETWORK SWITCH WITH MINIMUM (8) RJ45 OUTPUT PORTS. POWER FROM INDUSTRIAL GRADE, SWITCH MODE, LOW NOISE, 120VAC:48VDC 240 WATT POWER SUPPLY.

⑧ (1) CAT 6 SHIELDED, OUTDOOR CABLE W/RJ45 JACKS ON BOTH ENDS.

⑨ (1) SHIELDED 18/2 MULTI-COND. CABLE (POWER CABLE).

⑩ (1) 12 AWG SOLID CU COND., GREEN JKT (EQUIPMENT GROUNDING CONDUCTOR).

PLANS DEVELOPED BY:
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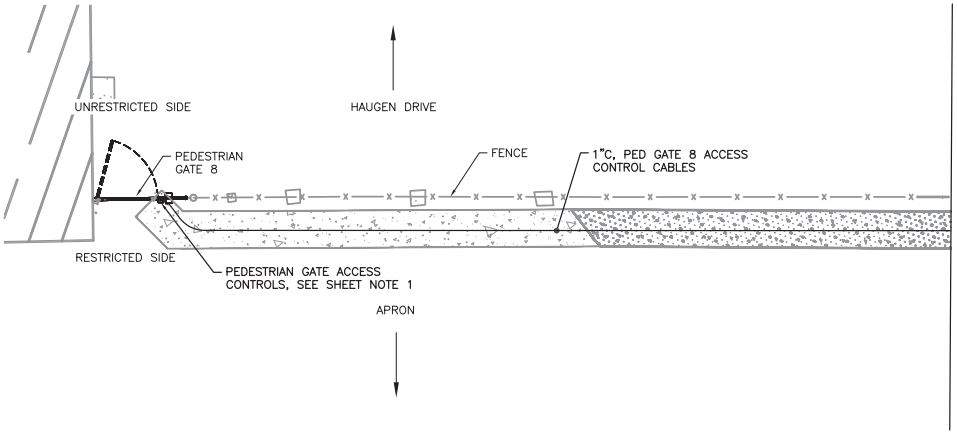
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 5A POWER & NETWORK SCHEMATIC

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings psw\GATE 5A POWER & NETWORK SCHEMATIC.dwg | DATE | 6/4/2019 11:11 | LAYOUT | PE18 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE19	26



MATCHLINE – SEE BELOW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:

   a. VERTICAL PIVOT GATES: SE2, SE3, SE8–SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8–SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9–SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8–SE10 (AS APP'L), SE12–SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.

NOTE: AT PETERSBURG ALL AREA LIGHT POLES SHALL BE TILT–DOWN TYPE. SEE SHEET PE26 FOR TYPICAL DETAILS.

2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)

3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.

5. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.

6. SEE SHEET PE20 FOR POWER CIRCUIT INFO AND SHEET PE21 FOR AC & COMM CIRCUITS ASSOCIATED WITH THE GATES.

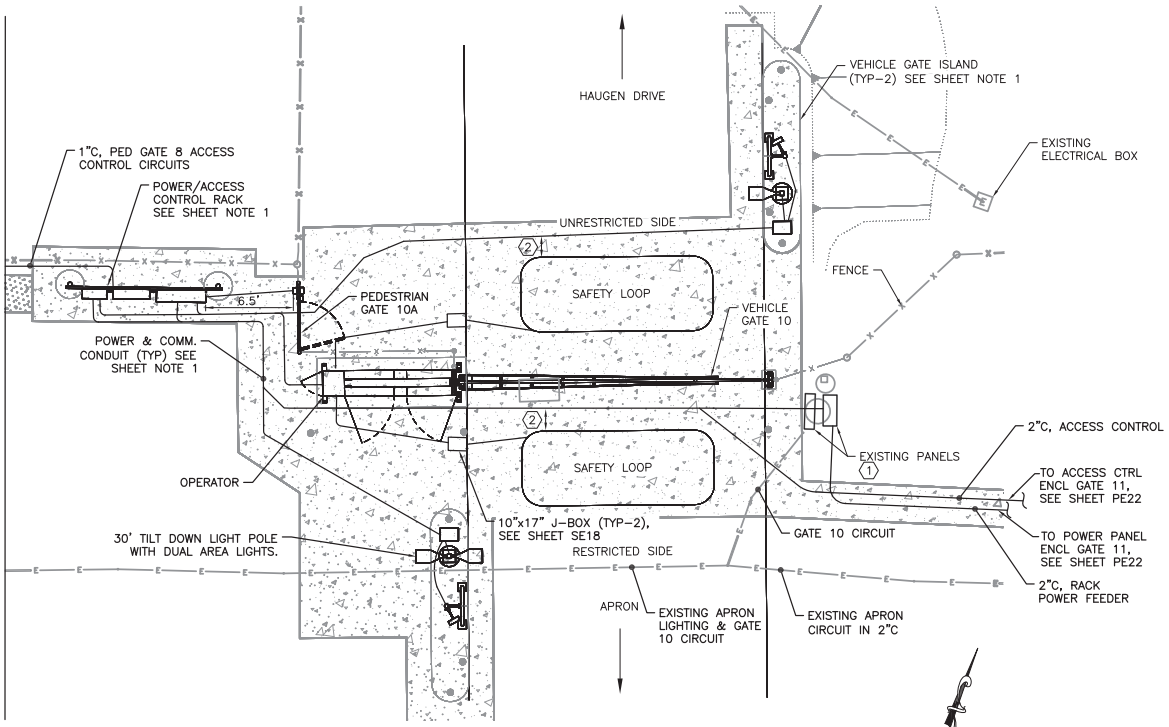
7. REMOVE EXISTING POWER AND CONTROLS FOR THE EXISTING GATE 10. SEE CIVIL DEMO PLANS.

KEY NOTES:

(1) EXISTING GATE POWER AND ACCESS CONTROL CABINETS TO REMAIN. GATE POWER PANEL SHALL FEED NEW POWER PANEL AT ACCESS CONTROL ADJACENT TO PED GATE 10A, AND POWER RACK ADJACENT TO PED GATE 11. DECOMMISSION AND REMOVE ALL PORTIONS OF THE EXISTING ACCESS CONTROL CABINET & SYSTEM NO LONGER NEEDED AS VEHICLE GATE IS BEING REPLACED. LEAVE POWER PANEL ENCLOSURE, HEATER, ETC. AS IS AND PROTECT AND MAINTAIN AS REQUIRED. NEW POWER CIRCUITS FOR GATE 10 AND PED GATE 11 SHALL BE SOURCED FROM THE EXISTING POWER PANEL.

(2) MAINTAIN A MINIMUM OF 12" SPACE BETWEEN EMBEDDED DETECTOR LOOPS AND ALL ADJACENT CONDUIT RUNS. DEPICTED SEPARATIONS SHOWN ARE NOT TO SCALE AND NOT ALL ADJACENT CONDUITS ARE NOTED. MAINTAIN SEPARATION IN ALL CASES.

MATCHLINE – SEE ABOVE



1 GATES 8, 10, & 10A DETAILED SITE PLAN
1" = 10'

30" 5' 10'

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE #7
JUNEAU, AK 99801
907–789–3350
AECL 1010

STATE OF ALASKA
49TH
Mark G. Morris
July 30, 2019
No. EE 8613
Professional Engineer

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465–1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 8, 10, & 10A DETAILED SITE PLAN

FILE | y:\102 state of ak\47 petersburg airport perimeter fencing upgrades\working drawings pse\OVERALL ELECTRICAL SITE PLAN.dwg | DATE | 7/30/2019 10:05 | LAYOUT | PE19 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE20	26

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE POWER SYSTEM INFRASTRUCTURE REQUIRED TO CONNECT THE SYSTEM COMPONENTS AND LOCATIONS. THIS BLOCK DIAGRAM DOES NOT REPRESENT ALL CONDUITS AND CONDUCTORS REQUIRED FOR THE PROJECT. SEE SHEET PE21 FOR ACCESS CONTROL SCHEMATIC.
2. ALL JUNCTION BOXES, CABINETS, ENCLOSURE, ETC. THAT ARE ACCESSIBLE TO THE PUBLIC MUST HAVE TAMPERPROOF SCREWS OR BE KEY LOCKABLE.
3. ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND SPECIFICATIONS AND ALL SHALL BE INSTALLED PER THE NATIONAL ELECTRICAL CODE.
4. NOT ALL SYSTEM COMPONENTS ARE LOCATED AT EACH GATE LOCATION. SEE PLANS FOR EQUIPMENT INCLUDED AT EACH LOCATION.
5. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK PER NEC REQUIREMENTS AND TIED BACK TO THE GROUNDING ELECTRODE AS SHOWN ON THIS SHEET.

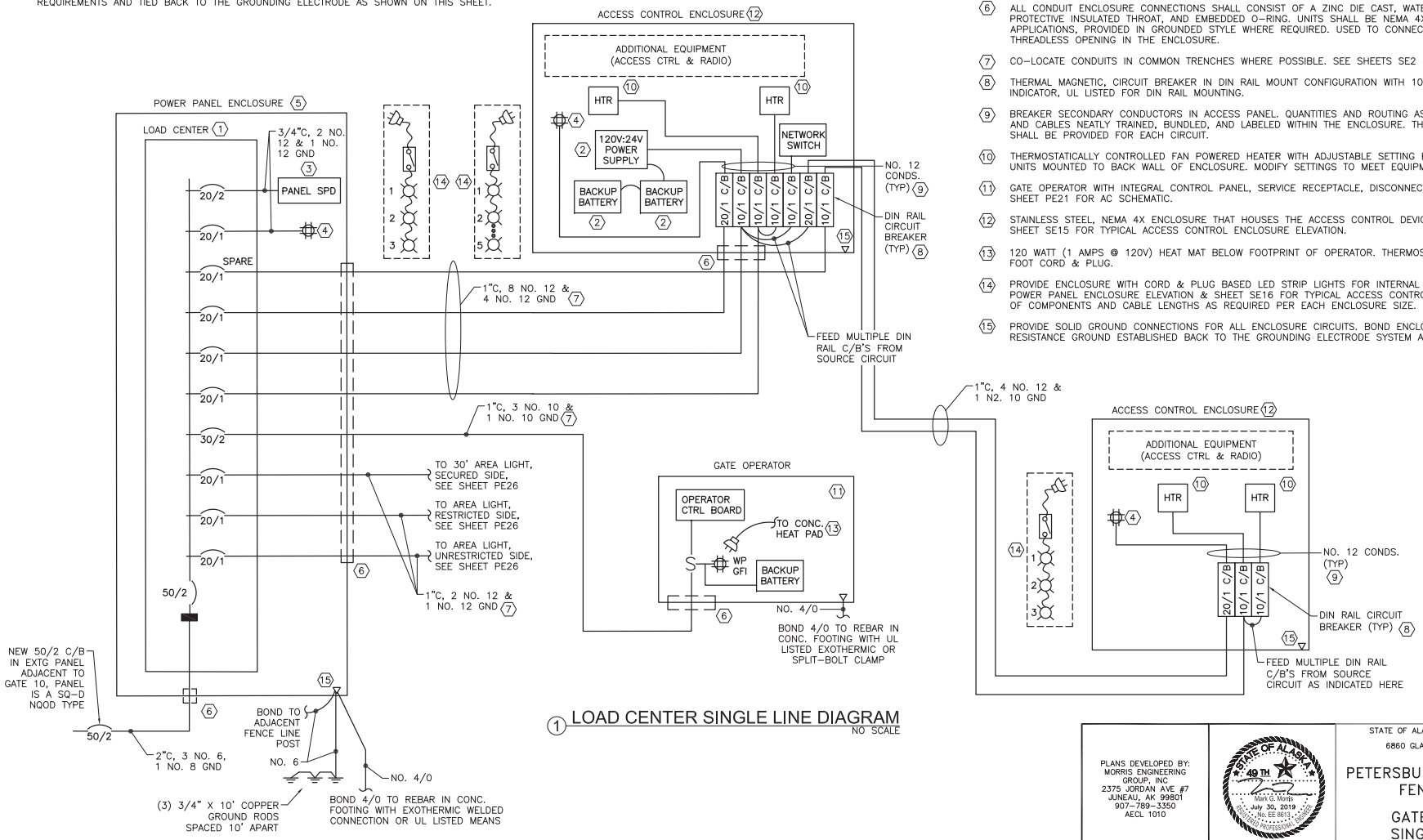
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

KEY NOTES:

1. LOAD CENTER 120/240V, 1ϕ, 3W, 50A, 12 CKT. UNIT TO INCLUDE NEMA 3R CONSTRUCTION AND MAIN CIRCUIT BREAKER. PROVIDE WITH 10KAIC RATED BRANCH AND MAIN BREAKERS.
2. LOW VOLTAGE POWER DISTRIBUTION WITHIN ACCESS CONTROL ENCLOSURE. SEE SHEET PE21 FOR AC SCHEMATIC.
3. SURGE PROTECTION DEVICE. SERVICE ENTRANCE RATED WITH INDIVIDUALLY FUSED MOV ELEMENTS, NEMA 4X RATED, UL LISTED 1449 DEVICE. MOUNT ON SIDE OF PANEL FED WITH STRAIGHT AND SHORT CONDUCTORS.
4. SURFACE MOUNT SERVICE QUAD REC, 20A GFI, HD, COMMERCIAL GRADE. MOUNT INSIDE ENCLOSURES.
5. STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE POWER PANEL AND ACCESSORIES INDICATED. SEE SHEET SE14 FOR POWER PANEL ELEVATION.
6. ALL CONDUIT ENCLOSURE CONNECTIONS SHALL CONSIST OF A ZINC DIE CAST, WATERTIGHT CONDUIT HUB WITH PROTECTIVE INSULATED THROAT, AND EMBEDDED O-RING. UNITS SHALL BE NEMA 4X AND RATED FOR WET OR DRY APPLICATIONS, PROVIDED IN GROUNDED STYLE WHERE REQUIRED. USED TO CONNECT RIGID METAL CONDUIT TO A THREADLESS OPENING IN THE ENCLOSURE.
7. CO-LOCATE CONDUITS IN COMMON TRENCHES WHERE POSSIBLE. SEE SHEETS SE2 & SE18 AND SITE PLANS.
8. THERMAL MAGNETIC, CIRCUIT BREAKER IN DIN RAIL MOUNT CONFIGURATION WITH 10KAIC RATING AND POSITIVE TRIP INDICATOR, UL LISTED FOR DIN RAIL MOUNTING.
9. BREAKER SECONDARY CONDUCTORS IN ACCESS PANEL. QUANTITIES AND ROUTING AS REQUIRED. KEEP ALL CONDUCTORS AND CABLES NEATLY TRAINED, BUNDLED, AND LABELED WITHIN THE ENCLOSURE. THE NEUTRAL IS NOT SHOWN HERE BUT SHALL BE PROVIDED FOR EACH CIRCUIT.
10. THERMOSTATICALLY CONTROLLED FAN POWERED HEATER WITH ADJUSTABLE SETTING BETWEEN 0-100 DEG F. 400 WATT UNITS MOUNTED TO BACK WALL OF ENCLOSURE. MODIFY SETTINGS TO MEET EQUIPMENT REQUIREMENTS.
11. GATE OPERATOR WITH INTEGRAL CONTROL PANEL, SERVICE RECEPTACLE, DISCONNECT SWITCH, AND BACKUP BATTERY. SEE SHEET PE21 FOR AC SCHEMATIC.
12. STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE ACCESS CONTROL DEVICES AND ACCESSORIES INDICATED. SEE SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION.
13. 120 WATT (1 AMPS @ 120V) HEAT MAT BELOW FOOTPRINT OF OPERATOR. THERMOSTATICALLY CONTROLLED MAT WITH 6 FOOT CORD & PLUG.
14. PROVIDE ENCLOSURE WITH CORD & PLUG BASED LED STRIP LIGHTS FOR INTERNAL ILLUMINATION. SEE SHEET SE14 FOR POWER PANEL ENCLOSURE ELEVATION & SHEET SE16 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION. QUANTITY OF COMPONENTS AND CABLE LENGTHS AS REQUIRED PER EACH ENCLOSURE SIZE.
15. PROVIDE SOLID GROUND CONNECTIONS FOR ALL ENCLOSURE CIRCUITS. BOND ENCLOSURE AND ENCLOSURE LOW RESISTANCE GROUND ESTABLISHED BACK TO THE GROUNDING ELECTRODE SYSTEM AT THE POWER PANEL.



1 LOAD CENTER SINGLE LINE DIAGRAM
NO SCALE

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE #7
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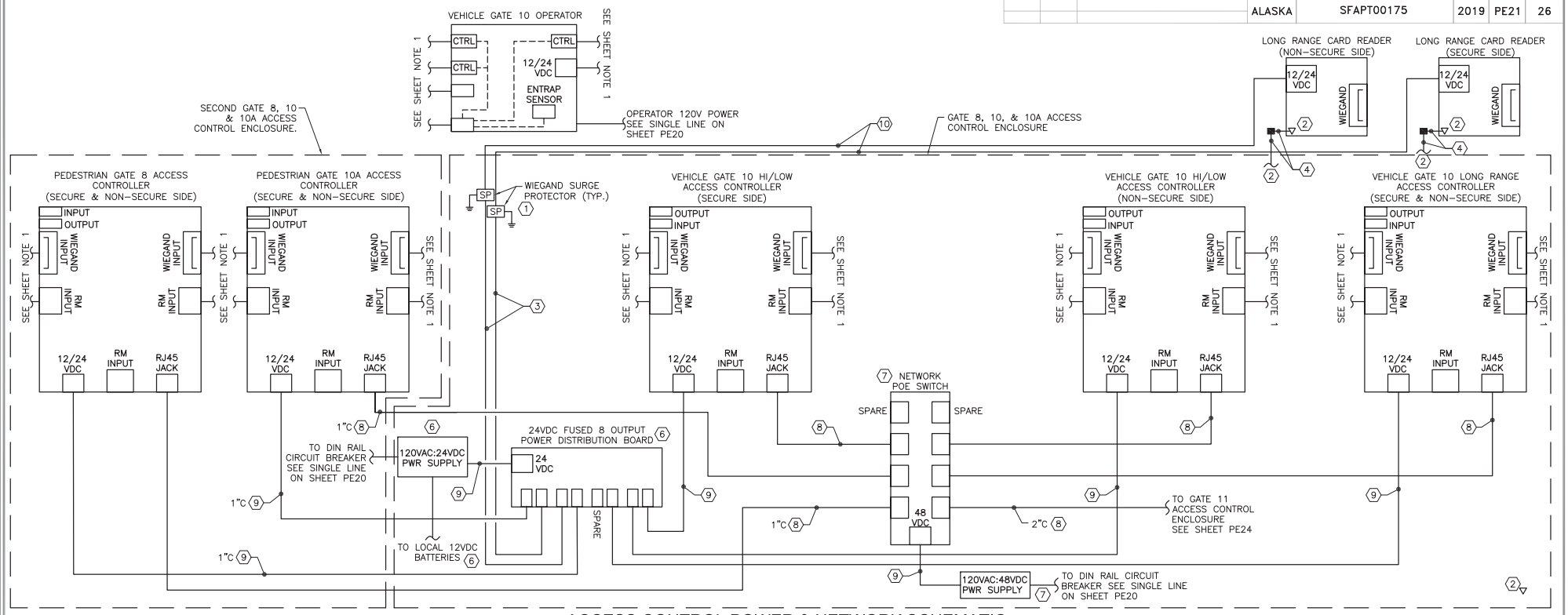
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATES 8, 10, & 10A SINGLE LINE DIAGRAM

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATES 8, 10, & 10A SINGLE LINE DIAGRAM.dwg | DATE | 7/30/2019 10:16 | LAYOUT | PE20 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE21	26



1 ACCESS CONTROL POWER & NETWORK SCHEMATIC

NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC REPRESENTS THE POWER, NETWORK CABLES, & CONNECTIONS WITHIN THE ACCESS CONTROL ENCLOSURE SPECIFIC TO GATES 8, 10, & 10A. SEE SHEET SE10 FOR TYPICAL 5-CONTROLLER SCHEMATIC WITH ADDITIONAL CIRCUITS & CONNECTIONS REQUIRED.
2. PROVIDE FACTORY TERMINATED CAT 6 CABLING AND 1/2" OR 7/8" COAXIAL CABLING. 7/8" FOR LENGTHS > 75 FT.
3. SEE SHEET SE16 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE.
4. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
6. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.

KEY NOTES:

(1) PROVIDE IN-LINE WIEGAND CABLE SURGE PROTECTION DEVICES FOR LONG RANGE READERS. 2K AMP PROTECTION PER PAIR, 12V/24V RATED DEVICES, WITH DIN RAIL MOUNTING KIT. MOUNT UNITS INSIDE OF ACCESS CONTROL ENCLOSURE AND SOLIDLY CONNECT TO ENCLOSURE GROUND PER THE NATIONAL ELECTRICAL CODE. TIE CABLE SHIELDING TO GROUND LUG ON DEVICE.

(2) ANTENNAS AND LONG RANGE READERS SHALL BE SOLIDLY GROUNDED TO THE COMMON EQUIPMENT GROUNDING CONDUCTOR WITHIN THE ACCESS CONTROL ENCLOSURE. BOND EQUIPMENT TO THE GROUNDING STRAP ADJACENT TO THE ANTENNAS & READERS AND CONNECT FROM GROUNDING STRAP TO THE ACCESS CONTROL ENCLOSURE GROUNDING POINT.

(3) (1) SHIELDED 16/2 MULTI-COND. CABLE (LONG RANGE READER POWER CABLE).

(4) (1) 12 AWG SOLID CU COND., GREEN JKT (EQUIPMENT GROUNDING CONDUCTOR).

(5) WIRELESS ANTENNA POE INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT CABLE BETWEEN SWITCH AND RADIO, POWER FROM 120V SOURCE.

(6) 120VAC:24VDC, 250 WATT POWER SUPPLY WITH CONNECTIVITY FOR EXTERNAL BATTERY SOURCE FOR LOW VOLTAGE POWER SYSTEM BACKUP. SWITCH MODE DC POWER SUPPLY WITH FIELD SELECTABLE 12 OR 24VDC OUTPUT. MULTIPLE OUTPUTS FOR SYSTEM POWER, LOCK, AND FIRE ALARM DIRECT CONNECTIONS. TIE TO THE 8-OUTPUT DISTRIBUTION BOARD WITH INDIVIDUALLY FUSED OUTPUTS AND FIELD SELECTABLE 12 OR 24VDC VOLTAGES.

(7) HARDENED NETWORK SWITCH WITH MINIMUM (8) RJ45 OUTPUT PORTS. POWER FROM INDUSTRIAL GRADE, SWITCH MODE, LOW NOISE, 120VAC:48VDC 240 WATT POWER SUPPLY.

(8) (1) CAT 6 SHIELDED, OUTDOOR CABLE W/RJ45 JACKS ON BOTH ENDS.

(9) (1) SHIELDED 18/2 MULTI-COND. CABLE (POWER CABLE).

(10) (1) SHIELDED 16/2 MULTI-COND. CABLE (LONG RANGE READER POWER CABLE).

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
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AECL 1010

STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8611 REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

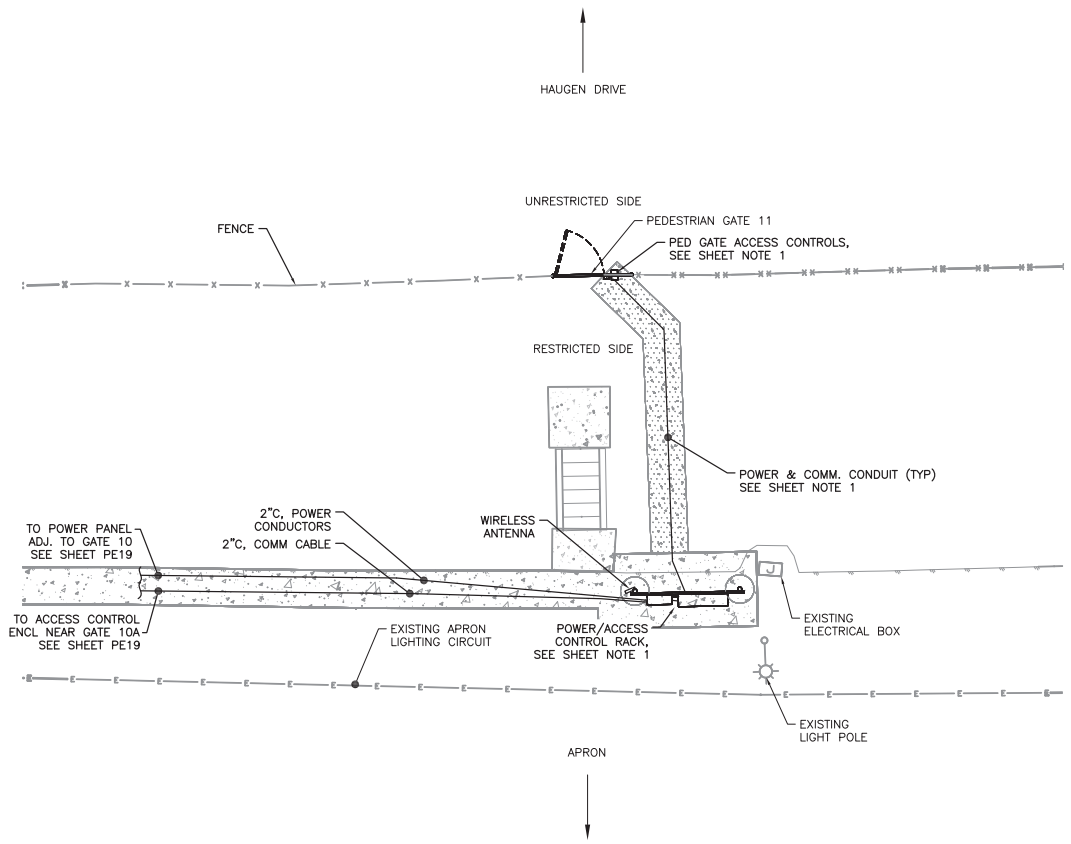
GATES 8, 10, & 10A POWER & NETWORK SCHEMATIC

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings psa\GATE 8, 10 & 10A POWER & NETWORK SCHEMATIC.DWG | LAYOUT | PE21 | 6/4/2019 11:13 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE22	26

SHEET NOTES:

1. SEE STANDARD DRAWINGS ASSOCIATED WITH THIS PROJECT FOR TYPICAL DETAILS, MORE COMPLETE DESCRIPTIONS, DIMENSIONS, ADDITIONAL WIRING INFORMATION, EQUIPMENT ELEVATIONS, ETC. NOT INCLUDED HERE. STANDARD DRAWINGS ARE TO BE UTILIZED IN CONJUNCTION WITH SITE SPECIFIC DRAWINGS TO FULLY SPECIFY THE PROJECT REQUIREMENTS. REFERENCES FROM STANDARD DRAWINGS INCLUDE:
   a. VERTICAL PIVOT GATES: SE2, SE3, SE8–SE10 (AS APP'L), SE21.
   b. CANTILEVER GATES: SE4, SE5, SE8–SE10 (AS APP'L), SE21.
   c. PEDESTRIAN GATES: SE6, SE7, SE9–SE10 (AS APP'L).
   d. POWER & AC ENCLOSURE RACKS: SE8–SE10 (AS APP'L), SE12–SE16 (AS APP'L), SE23.
   e. READER ISLAND: SE17, SE22 (AS APP'L).
   f. FRONT END & GEN ELEC: SE11, SE18, SE19, SE20.
2. SEE CIVIL PLANS FOR GATE, DRIVEWAY, OTHER CIVIL WORK. THIS INCLUDES DIMENSIONAL INFORMATION NOT SHOWN ON THIS SHEET (I.E. CONCRETE ISLAND POSITIONS, DRIVEWAY WIDTHS, ETC.)
3. THE PHYSICAL ARRANGEMENT OF EQUIPMENT AND ELECTRICAL ON THIS SHEET WILL COMPLY WITH SITE SPECIFIC INFORMATION AND REQUIREMENTS. UNLESS OTHERWISE NOTED ON THESE SHEETS, ALL ELECTRICAL WILL COMPLY WITH THE STANDARD ELECTRICAL SHEETS WITH FIELD MODIFICATIONS AS NECESSARY OR NOTED.
5. ALL DIMENSIONS SHOWN ON THIS PLAN ARE NOMINAL AND SHALL BE COORDINATED WITH FENCE INSTALLER AND CONCRETE CONTRACTOR. NOT ALL DIMENSIONS ARE SHOWN ON THIS SHEET. SEE CIVIL PLANS FOR MORE INFORMATION.
6. SEE SHEET PE23 FOR POWER CIRCUIT INFO AND SHEET PE24 FOR AC & COMM CIRCUITS ASSOCIATED WITH GATE 11.



① GATE 11 DETAILED SITE PLAN
1" = 10'

30" 5' 10'

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE. #7
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STATE OF ALASKA
49TH
Mark G. Morris
July 30, 2019
No. EE 8615
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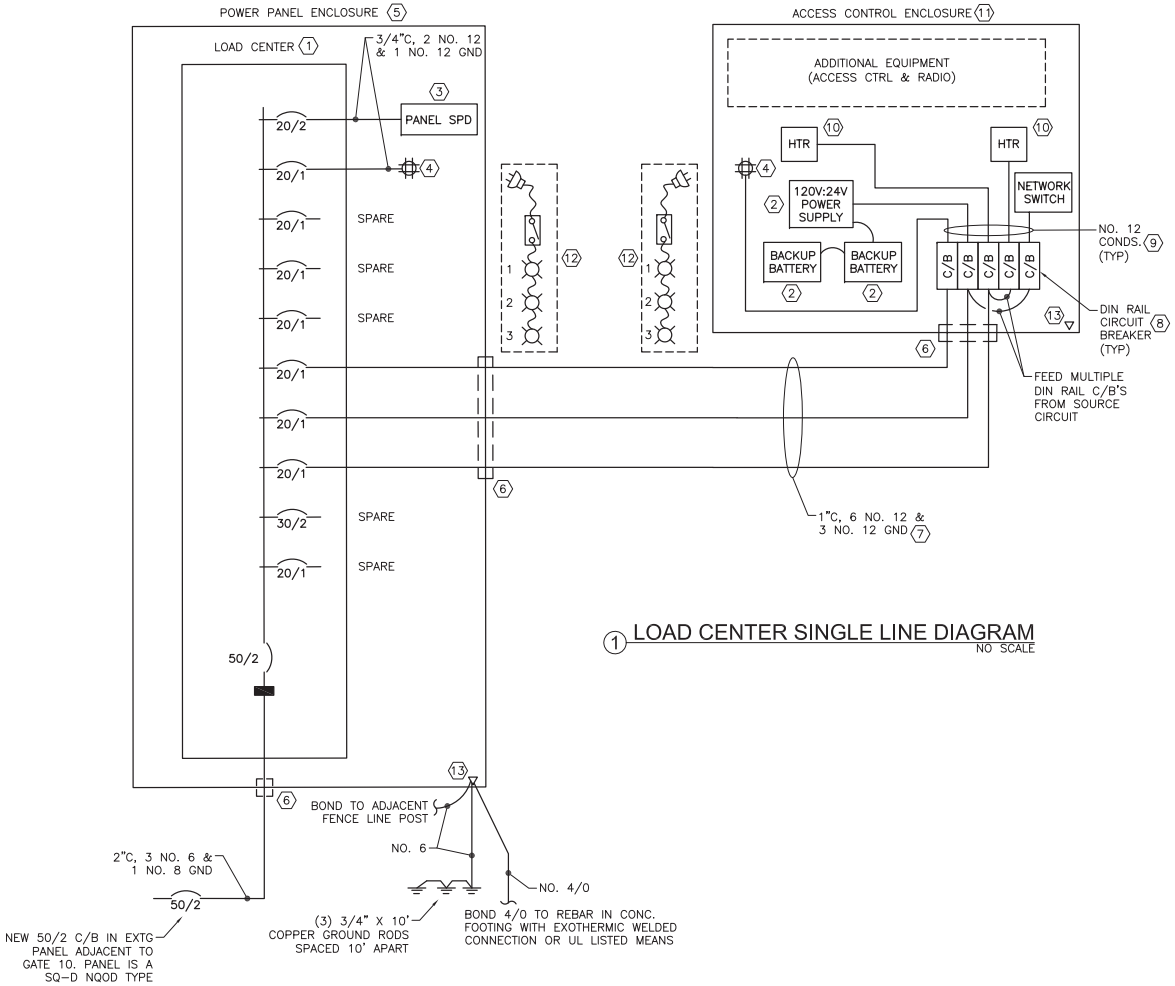
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 11 DETAILED SITE PLAN

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\OVERALL ELECTRICAL SITE PLAN.dwg | DATE | 7/30/2019 10:05 | LAYOUT | PE22 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE23	26



1 LOAD CENTER SINGLE LINE DIAGRAM
NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE POWER SYSTEM INFRASTRUCTURE REQUIRED TO CONNECT THE SYSTEM COMPONENTS AND LOCATIONS. THIS BLOCK DIAGRAM DOES NOT REPRESENT ALL CONDUITS AND CONDUCTORS REQUIRED FOR THE PROJECT. SEE SHEET PE24 FOR ACCESS CONTROL SCHEMATIC.
2. ALL JUNCTION BOXES, CABINETS, ENCLOSURE, ETC. THAT ARE ACCESSIBLE TO THE PUBLIC MUST HAVE TAMPERPROOF SCREWS OR BE KEY LOCKABLE.
3. ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND SPECIFICATIONS AND ALL SHALL BE INSTALLED PER THE NATIONAL ELECTRICAL CODE.
4. NOT ALL SYSTEM COMPONENTS ARE LOCATED AT EACH GATE LOCATION. SEE PLANS FOR EQUIPMENT INCLUDED AT EACH LOCATION.
5. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK PER NEC REQUIREMENTS AND TIED BACK TO THE GROUNDING ELECTRODE AS SHOWN ON THIS SHEET.

KEY NOTES:

(1) LOAD CENTER 120/240V, 1ϕ, 3W, 100A, 12 CKT. UNIT TO INCLUDE NEMA 3R CONSTRUCTION AND MAIN CIRCUIT BREAKER. PROVIDE WITH 10KAIC RATED BRANCH AND MAIN BREAKERS.

(2) LOW-VOLTAGE POWER DISTRIBUTION WITHIN ACCESS CONTROL ENCLOSURE. SEE SHEET PE24 FOR AC SCHEMATIC.

(3) SURGE PROTECTION DEVICE. SERVICE ENTRANCE RATED WITH INDIVIDUALLY FUSED MOV ELEMENTS, NEMA 4X RATED, UL LISTED 1449 DEVICE. MOUNT ON SIDE OF PANEL FED WITH STRAIGHT AND SHORT CONDUCTORS.

(4) SURFACE MOUNT SERVICE QUAD REC, 20A GFI, HD, COMMERCIAL GRADE. MOUNT INSIDE ENCLOSURES.

(5) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE POWER PANEL AND ACCESSORIES INDICATED. SEE SHEET SE14 FOR POWER PANEL ELEVATION & TYPICAL PANEL SCHEDULE.

(6) ALL CONDUIT ENCLOSURE CONNECTIONS SHALL CONSIST OF A ZINC DIE CAST, WATERTIGHT CONDUIT HUB WITH PROTECTIVE INSULATED THROAT, AND EMBEDDED O-RING. UNITS SHALL BE NEMA 4X AND RATED FOR WET OR DRY APPLICATIONS, PROVIDED IN GROUNDED STYLE WHERE REQUIRED. USED TO CONNECT RIGID METAL CONDUIT TO A THREADLESS OPENING IN THE ENCLOSURE.

(7) CO-LOCATE CONDUITS IN COMMON TRENCHES WHERE POSSIBLE. SEE SHEET SE18 AND SITE PLAN.

(8) THERMAL MAGNETIC, CIRCUIT BREAKER IN DIN RAIL MOUNT CONFIGURATION WITH 10KAIC RATING AND POSITIVE TRIP INDICATOR, UL LISTED FOR DIN RAIL MOUNTING.

(9) BREAKER SECONDARY CONDUCTORS IN ACCESS PANEL. QUANTITIES AND ROUTING AS REQUIRED. KEEP ALL CONDUCTORS AND CABLES NEATLY TRAINED, BUNDLED, AND LABELED WITHIN THE ENCLOSURE. THE NEUTRAL IS NOT SHOWN HERE BUT SHALL BE PROVIDED FOR EACH CIRCUIT.

(10) THERMOSTATICALLY CONTROLLED FAN POWERED HEATER WITH ADJUSTABLE SETTING BETWEEN 0-100 DEG F. 400 WATT UNITS MOUNTED TO BACK WALL OF ENCLOSURE. MODIFY SETTINGS TO MEET EQUIPMENT REQUIREMENTS.

(11) STAINLESS STEEL, NEMA 4X ENCLOSURE THAT HOUSES THE ACCESS CONTROL DEVICES AND ACCESSORIES INDICATED. SEE SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION.

(12) PROVIDE ENCLOSURE WITH CORD & PLUG BASED LED STRIP LIGHTS FOR INTERNAL ILLUMINATION. SEE SHEET SE14 FOR POWER PANEL ENCLOSURE ELEVATION & SHEET SE15 FOR TYPICAL ACCESS CONTROL ENCLOSURE ELEVATION. QUANTITY OF COMPONENTS AND CABLE LENGTHS AS REQUIRED PER EACH ENCLOSURE SIZE.

(13) PROVIDE SOLID GROUND CONNECTIONS FOR ALL ENCLOSURE CIRCUITS. BOND ENCLOSURE AND ENCLOSURE LOW RESISTANCE GROUND ESTABLISHED BACK TO THE GROUNDING ELECTRODE SYSTEM AT THE POWER PANEL.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE #7
JUNEAU, AK 99801
907-789-3350
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STATE OF ALASKA 49TH
Mark G. Morris
July 30, 2019
No. EE 8613
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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(907) 465-1763

PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 11 SINGLE LINE DIAGRAM

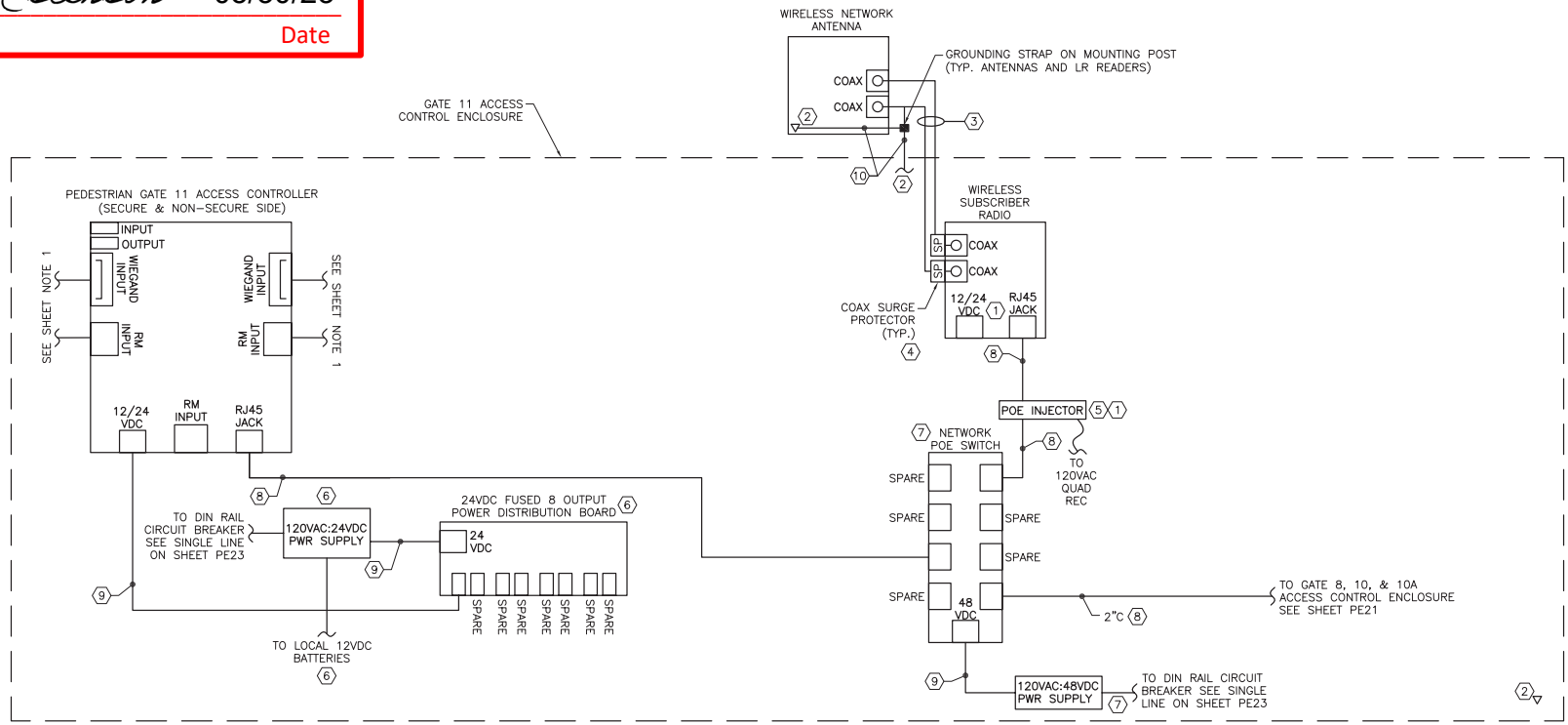
FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 11 SINGLE LINE DIAGRAM.dwg | DATE | 7/29/2019 10:46 | LAYOUT | PE23 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE24	26



1 ACCESS CONTROL POWER & NETWORK SCHEMATIC

NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC REPRESENTS THE POWER, NETWORK CABLES, & CONNECTIONS WITHIN THE ACCESS CONTROL ENCLOSURE SPECIFIC TO GATE 11. SEE SHEET SE7 FOR TYPICAL 1-CONTROLLER SCHEMATIC WITH ADDITIONAL CIRCUITING & CONNECTION REQUIREMENTS.
2. PROVIDE FACTORY TERMINATED CAT 5E/6 CABLING. 7/8" FOR LENGTHS >75 FT.
3. SEE SHEET SE16 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE (THE LEFT HAND SIDE ELEVATION, THE SMALLER ENCLOSURE).
4. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED PER MANUFACTURER RECOMMENDATIONS.
5. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.

KEY NOTES:

(1) USE EITHER POE OR 12/24VDC POWER ON POE ENABLED DEVICES, NEVER BOTH. IF 12/24VDC SUPPLY IS USED THEN CONNECT RADIO TO SWITCH VIA CAT 5E/6 CABLE WITHOUT A POE INJECTOR. POWERING ANY DEVICE WITH POE AND A POWER SUPPLY CAN RESULT IN DAMAGE TO EQUIPMENT AND POSSIBLY TO PERSONNEL.

(2) ANTENNAS AND LONG RANGE READERS SHALL BE SOLIDLY GROUNDED TO THE COMMON EQUIPMENT GROUNDING CONDUCTOR WITHIN THE ACCESS CONTROL ENCLOSURE. BOND EQUIPMENT TO THE GROUNDING STRAP ADJACENT TO THE ANTENNAS & READERS AND CONNECT FROM GROUNDING STRAP TO THE ACCESS CONTROL ENCLOSURE GROUNDING POINT.

(3) (2) PRE-TERMINATED 1/2" OR 7/8" LDF SHIELDED COAX CABLES TO ANTENNA FROM RADIO. COAX CABLES ARE NOT TO BE MADE IN THE FIELD BUT ORDERED AT EXACT LENGTHS REQUIRED. WHERE COAX THREADS ONTO THE ANTENNA CONNECTORS PROVIDE MULTIPLE LAYERS OF VINYL ELECTRIC TAPE, FOLLOWED BY BUTYL MASTIC TAPE, FOLLOWED AGAIN BY VINYL TAPE TO ENSURE A COMPLETELY SEALED CONNECTION. FOLLOW MANUFACTURER WRITTEN INSTRUCTIONS.

(4) IN-LINE COAXIAL LIGHTNING SURGE PROTECTOR FOR RADIO SIDE OF WIRELESS NETWORK LINK. CONNECT TO OUTPUT SIDE OF RADIO TO COAX FEEDING THE ANTENNA.

(5) WIRELESS ANTENNA POE INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT CABLE BETWEEN SWITCH AND RADIO, POWER FROM 120V SOURCE.

(6) 120VAC:24VDC, 250 WATT POWER SUPPLY WITH CONNECTIVITY FOR EXTERNAL BATTERY SOURCE FOR LOW KEY VOLTAGE POWER SYSTEM BACKUP. SWITCH MODE DC POWER SUPPLY WITH FIELD SELECTABLE 12 OR 24VDC OUTPUT. MULTIPLE OUTPUTS FOR SYSTEM POWER, LOCK, AND FIRE ALARM DIRECT CONNECTIONS. TIE TO THE 8-OUTPUT DISTRIBUTION BOARD WITH INDIVIDUALLY FUSED OUTPUTS AND FIELD SELECTABLE 12 OR 24VDC VOLTAGES.

(7) HARDENED NETWORK SWITCH WITH MINIMUM (8) RJ45 OUTPUT PORTS. POWER FROM INDUSTRIAL GRADE, SWITCH MODE, LOW NOISE, 120VAC:48VDC 240 WATT POWER SUPPLY.

(8) (1) CAT 6 SHIELDED, OUTDOOR CABLE W/RJ45 JACKS ON BOTH ENDS.

(9) (1) SHIELDED 18/2 MULTI-COND. CABLE (POWER CABLE).

(10) (1) 12 AWG SOLID CU COND., GREEN JKT (EQUIPMENT GROUNDING CONDUCTOR).

PLANS DEVELOPED BY:
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2375 JORDAN AVE #7
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STATE OF ALASKA
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Mark G. Morris
July 30, 2019
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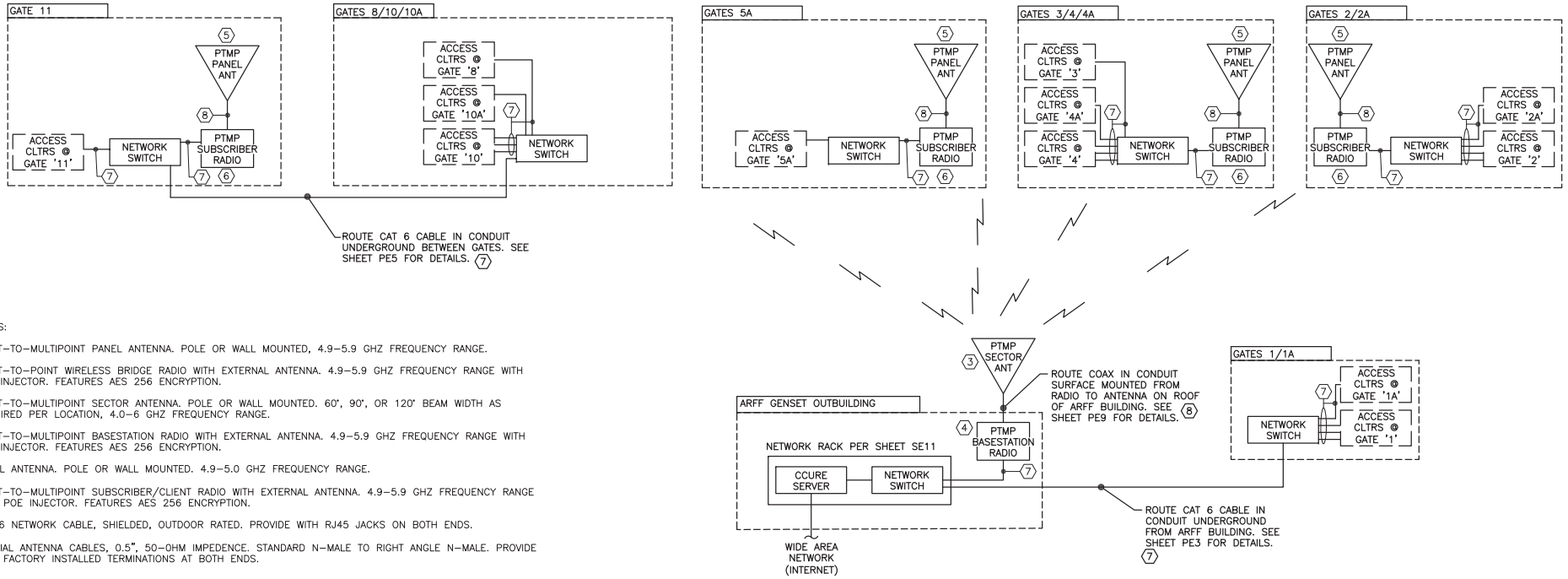
PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

GATE 11 POWER & NETWORK SCHEMATIC

FILE | y:\102 state of ak\47 petersburg airport perimter fencing upgrades\working drawings pse\GATE 11 POWER & NETWORK SCHEMATIC.dwg | DATE | 6/4/2019 11:14 | LAYOUT | PE24 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PE25	26



1 WIRELESS NETWORK TOPOLOGY
NO SCALE

KEY NOTES:

1. POINT–TO–MULTIPOINT PANEL ANTENNA. POLE OR WALL MOUNTED, 4.9–5.9 GHZ FREQUENCY RANGE.
2. POINT–TO–POINT WIRELESS BRIDGE RADIO WITH EXTERNAL ANTENNA. 4.9–5.9 GHZ FREQUENCY RANGE WITH POE INJECTOR. FEATURES AES 256 ENCRYPTION.
3. POINT–TO–MULTIPOINT SECTOR ANTENNA. POLE OR WALL MOUNTED. 60°, 90°, OR 120° BEAM WIDTH AS REQUIRED PER LOCATION, 4.0–6 GHZ FREQUENCY RANGE.
4. POINT–TO–MULTIPOINT BASESTATION RADIO WITH EXTERNAL ANTENNA. 4.9–5.9 GHZ FREQUENCY RANGE WITH POE INJECTOR. FEATURES AES 256 ENCRYPTION.
5. PANEL ANTENNA. POLE OR WALL MOUNTED. 4.9–5.0 GHZ FREQUENCY RANGE.
6. POINT–TO–MULTIPOINT SUBSCRIBER/CLIENT RADIO WITH EXTERNAL ANTENNA. 4.9–5.9 GHZ FREQUENCY RANGE WITH POE INJECTOR. FEATURES AES 256 ENCRYPTION.
7. CAT 6 NETWORK CABLE, SHIELDED, OUTDOOR RATED. PROVIDE WITH RJ45 JACKS ON BOTH ENDS.
8. COAXIAL ANTENNA CABLES, 0.5", 50–OHM IMPEDENCE. STANDARD N–MALE TO RIGHT ANGLE N–MALE. PROVIDE WITH FACTORY INSTALLED TERMINATIONS AT BOTH ENDS.

SHEET NOTES:

1. THIS TOPOLOGY CONSISTS OF PTP LINKS AND PTMP LINKS. A PTP LINK CONSISTS OF A SINGLE LINK BETWEEN TWO PTP RADIOS (WITH PANEL ANTENNAS) COMMONLY REFERRED TO AS A 'BRIDGE' AND IS USEFUL IN ESTABLISHING NETWORK CONNECTIVITY AT A SINGLE LOCATION WHEN NO ADDITIONAL CONNECTIVITY DEVICES OR EQUIPMENT ARE ADDED DOWNSTREAM. BRIDGES ARE ALSO USED TO OVERCOME LINE OF SIGHT (LOS) ISSUES WHEN TREATED AS REPEATERS TO ROUTE THE NETWORK SIGNAL AROUND LOS OBSTACLES.
2. PTMP LINKS CONSIST OF A BASESTATION RADIO WITH A SECTOR ANTENNA AS THE NETWORK DISTRIBUTION POINT AND MULTIPLE SUBSCRIBER RADIOS WITH PANEL ANTENNAS CONNECTING TO THE BASESTATION PTMP BASESTATION RADIOS TYPICALLY HAVE THE OPTION OF SECTOR ANTENNAS BETWEEN 60° AND 90° WHICH IS A MEASURE OF THE HORIZONTAL SECTOR OF SUBSCRIBER UNITS THAT THE BASESTATION CAN SERVE. SUBSCRIBER RADIOS COME WITH ANTENNAS CAPABLE OF COMMUNICATING BACK TO THE DISTRIBUTION POINT WITHOUT THE NEED FOR A WIDE SECTOR AS THEY ONLY LINK WITH THE BASESTATION. PTMP LINKS ARE USEFUL IN SERVING MANY SUBSCRIBER (OR CLIENT) LOCATIONS USING ONLY A SINGLE BASESTATION WITH SECTOR ANTENNA.
3. ALL EXTERIOR ANTENNAS AND RADIOS SHALL BE RATED FOR A MINIMUM 125 MPH CONTINUOUS WIND ENVIRONMENT, SHALL BE IP67 RATED, AND SHALL BE RATED FOR TEMPERATURES BETWEEN –40°F TO +150°F. ALL EXTERIOR ANTENNAS AND RADIOS TO BE PROVIDED WITH MOUNTING KITS SUITED FOR INSTALLATION LOCATION AND STAINLESS STEEL HARDWARE. ALL ANTENNAS AND RADIOS TO BE EQUIPPED WITH TWO (2) N–TYPE MALE CONNECTORS. NOT ALL REQUIRED COMPONENTS DEPICTED.
4. THIS IS A CONCEPTUAL DETAIL BASED ON COMMON WIRELESS RADIO NETWORK COMPONENTS. ADDITIONAL COMPONENTS OR DETAILS MAY BE REQUIRED DEPENDING ON SPECIFIC EQUIPMENT MANUFACTURER(S). ALL MANUFACTURER INSTRUCTIONS SHOULD BE FOLLOWED.
5. WIRELESS NETWORK CONNECTIONS SHOULD BE USED WHEN ETHERNET CABLE RUNS EXCEED 100 METERS.
6. WHERE COAXIAL CABLES EXCEED 75 FEET IN TOTAL LENGTH BETWEEN ANTENNA AND RADIO PROVIDE 7/8" DIAMETER CABLE. SEE F186 SPECIFICATION FOR MORE INFORMATION.
7. AIM ALL ANTENNAS FOR OPTIMUM SIGNAL STRENGTH.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

WIRELESS NETWORK TOPOLOGY

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Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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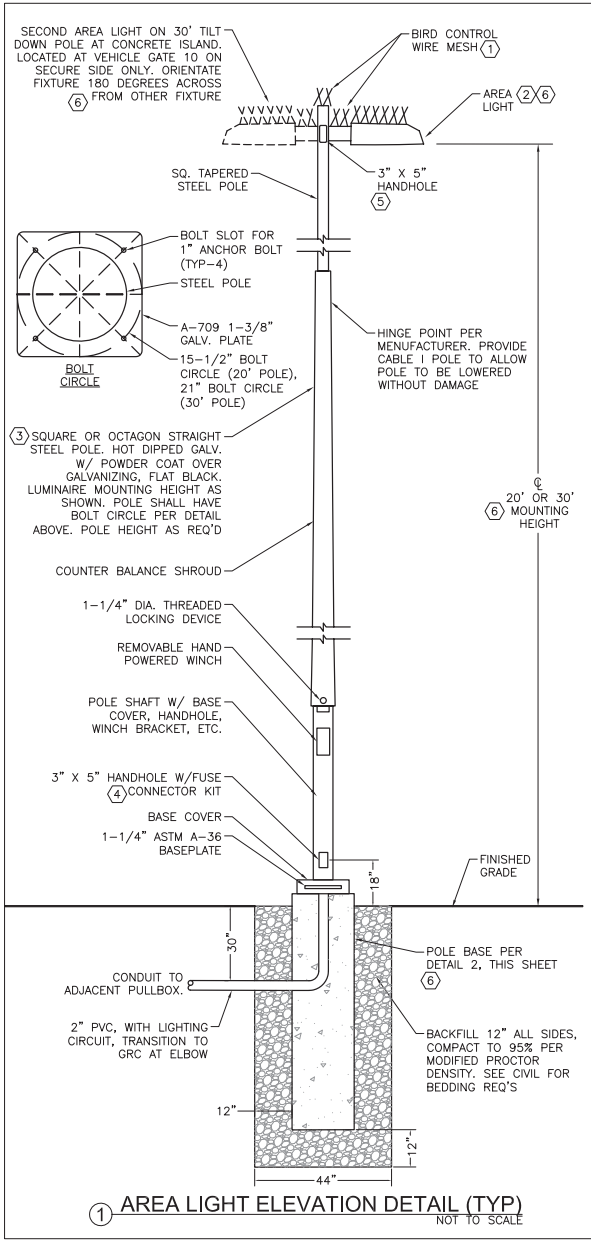
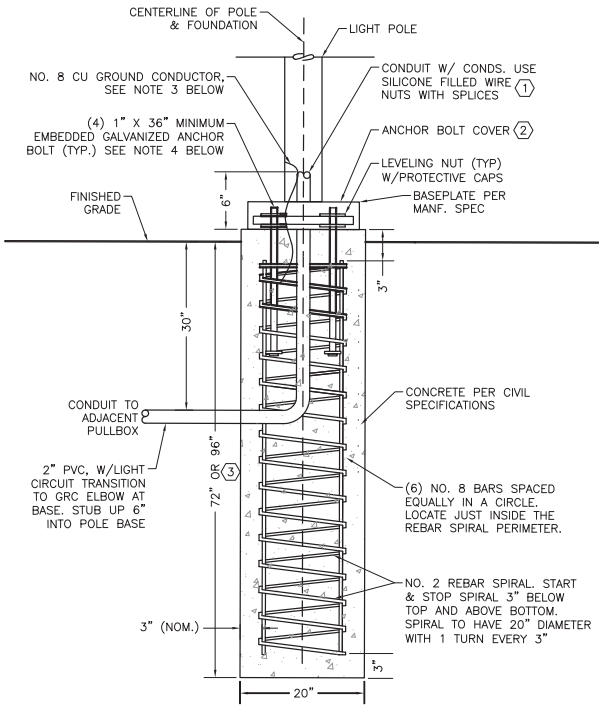


(1) AREA LIGHT ELEVATION DETAIL (TYP)

NOT TO SCALE



(2) AREA LIGHT POLE BASE DETAIL (TYP)

NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

1. COORDINATE FOUNDATION DIMENSIONS, BASEPLATE LOCATIONS, BASEPLATE ANCHOR POINTS, AND ANCHOR BOLT DETAILS WITH MANUFACTURER RECOMMENDATIONS. WHAT IS SHOWN HERE IS TYPICAL AND DIAGRAMMATIC ONLY.
2. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL ENGINEER.
3. SIZE POLE WITH LUMINAIRE FOR 120 MPH SUSTAINED WINDS WITH GUSTS UP TO 150 MPH. POLE DIMENSIONS INDICATED ARE A MINIMUM PROVIDE CALCULATIONS SHOWING COMPLIANCE SEALED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF ALASKA.

KEY NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

(1) BIRD SPIKES. SECURE TO FIXTURE MOUNTING ARM, FIXTURE, AND POLE TOP WITH MANUFACTURER RECOMMENDED ADHESIVE.

(2) LED AREA LIGHT, FULL CUTOFF LUMINAIRE. TYPE II SHORT DIST., 5K CCT, MVOLT DRIVER, 4.7K LUMENS (NOMINAL), 70 CRI (MIN.) WITH POLE MOUNTING ADAPTER, HOUSESIDE SHIELD, BIRD SPIKES, AND INTEGRAL PE CELL FOR CONTROL.

(3) LIGHT POLE. PROVIDE WITH HANDHOLES WHERE NOTED AND BOLT CIRCLE PER THIS DETAIL.

(4) PROVIDE FUSE CONNECTOR KIT IN EACH POLE BASE. WATERTIGHT RUBBER MOLDED FUSE HOLDER FILLED WITH SILCON. FUSE @ 4 AMPS. LOCATE TO BE ACCESSIBLE AT HANDHOLE AT BASE OF POLE. PROVIDE NO. 12 XHHW CONDS. IN POLE FOR FIXTURE CONNECTIONS.

(5) CABLES INSIDE POLE AT TOP OF POLE SHALL BE SUPPORTED WITH INTERIOR CABLE GRIP OR SIMILAR MECHANISM TO PREVENT CABLE DAMAGE DUE TO MECHANICAL STRESS.

(6) ALL BUT ONE OF THE AREA TILT DOWN LIGHT POLES ON THE PROJECT SHALL INCLUDE A SINGLE AREA LIGHT MOUNTED AT 20' OR 30' ABOVE GRADE. THE OTHER TILT DOWN POLE SHALL INCLUDE DUAL AREA LIGHTS MOUNTED AT 30' ABOVE GRADE. SPECIFICATIONS FOR THE TWO SETUPS ARE GENERALLY THE SAME AS NOTED HERE. BASE DETAILS ARE DIFFERENT AS NOTED ON DETAIL 2, THIS SHEET.

NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

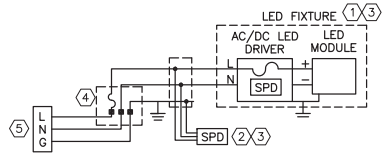
1. ALL SPLICES SHALL BE IN BASE OF POLE.
2. PROVIDE FUSE KITS IN EACH POLE BASE.
3. BOND THE GROUND CONDUCTOR TO FOUNDATION REBAR, ANCHOR BOLTS, LIGHT POLE, AND TO THE EQUIPMENT GROUNDING CONDUCTOR RAN WITH THE LIGHTING CIRCUIT.
4. PROVIDE ANCHOR BOLTS WITH 4" MINIMUM HOOK AND 6" OF THREAD ON BOTH ENDS. BOLTS SHALL MEET ASTM-A36 WITH MINIMUM YIELD STRESS OF 36.0 KSI.
5. SEE DETAIL 1, THIS SHEET FOR LIGHT POLE BASE BACKFILL REQUIREMENTS.

KEY NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

(1) USE SILICONE FILLED WIRE NUTS WITH SPLICES.

(2) SPLIT STYLE, STEEL, GALVANIZED BASE BOLT COVER. COLOR MATCH TO POLE.

(3) 20' AND 30' POLES HAVE SIMILAR BASE REQUIREMENTS. HOWEVER, 20' POLE BASE SHALL BE 72" DEEP, WHILE 30' POLE BASE SHALL BE 96" DEEP. DEPTHS NOTED ARE MINIMUM DEPTHS.



(3) SURGE PROTECTION DEVICE (SPD) WIRING DIAGRAM

NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

1. KEEP WIRES AS STRAIGHT AND SHORT AS POSSIBLE.
2. ROUND WIRES RATHER THEN BENDING AT A HARD 90 DEGREES ANGLE.
3. DO NOT CROSS OR OVERLAP PROTECTED WIRES (THOSE AFTER THE SPD, EITHER AC OR DC WIRES) WITH UNPROTECTED WIRES (THOSE BEFORE THE SPD, AC WIRES).
4. ONLY ONE EXTERNAL SPD REQUIRED PER POLE, REGARDLESS OF THE NUMBER OF FIXTURE HEADS ON THE POLE.

KEY NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

(1) OVERALL LED FIXTURE WITH FUSED DRIVER FURNISHED WITH INTEGRAL & INTERNAL SPD.

(2) EXTERNAL LED FIXTURE SPD CIRCUIT AS SHOWN. MAKE PARALLEL CONNECTION INTO CIRCUIT WITH AS SHORT AND STRAIGHT OF CONDUCTORS AS POSSIBLE, SIZE MATCHED TO CIRCUIT CONDUCTORS SIZES.

(3) CO-LOCATE EXTERNAL SPD WITHIN LIGHT FIXTURE HOUSING IF ACCEPTABLE TO FIXTURE MANUFACTURER. OTHERWISE INSTALL WITHIN POLE IMMEDIATELY ADJACENT TO FIXTURE MOUNTING LOCATION.

(4) FINGER SAFE FUSE HOLDER AST BASE OF LIGHT POLE ACCESSIBLE FROM BASE HANDHOLE.

(5) SOURCE PANEL PER PLANS.

SHEET NOTES:

1. UNLESS NOTED ELSEWHERE, ALL SPLICES SHALL BE IN BASE OF POLE.
2. PROVIDE GROUNDING BUSHINGS ON CONDUIT STUB UPS INTO POLE. BOND TO LIGHT POLE.
3. SIZE POLE WITH MAST ARM AND LUMINAIRE FOR 120 MPH SUSTAINED WINDS WITH GUSTS TO 150 MPH.
4. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING CONSTRUCTION.
5. ALL DIMENSIONS SHOWN ARE A MINIMUM.
6. SEE CIVIL DRAWINGS FOR MORE DETAILS AND INFORMATION REGARDING THE POLES AND RELATED CIVIL WORK.

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

TYPICAL LIGHT POLE DETAILS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PEC1	58

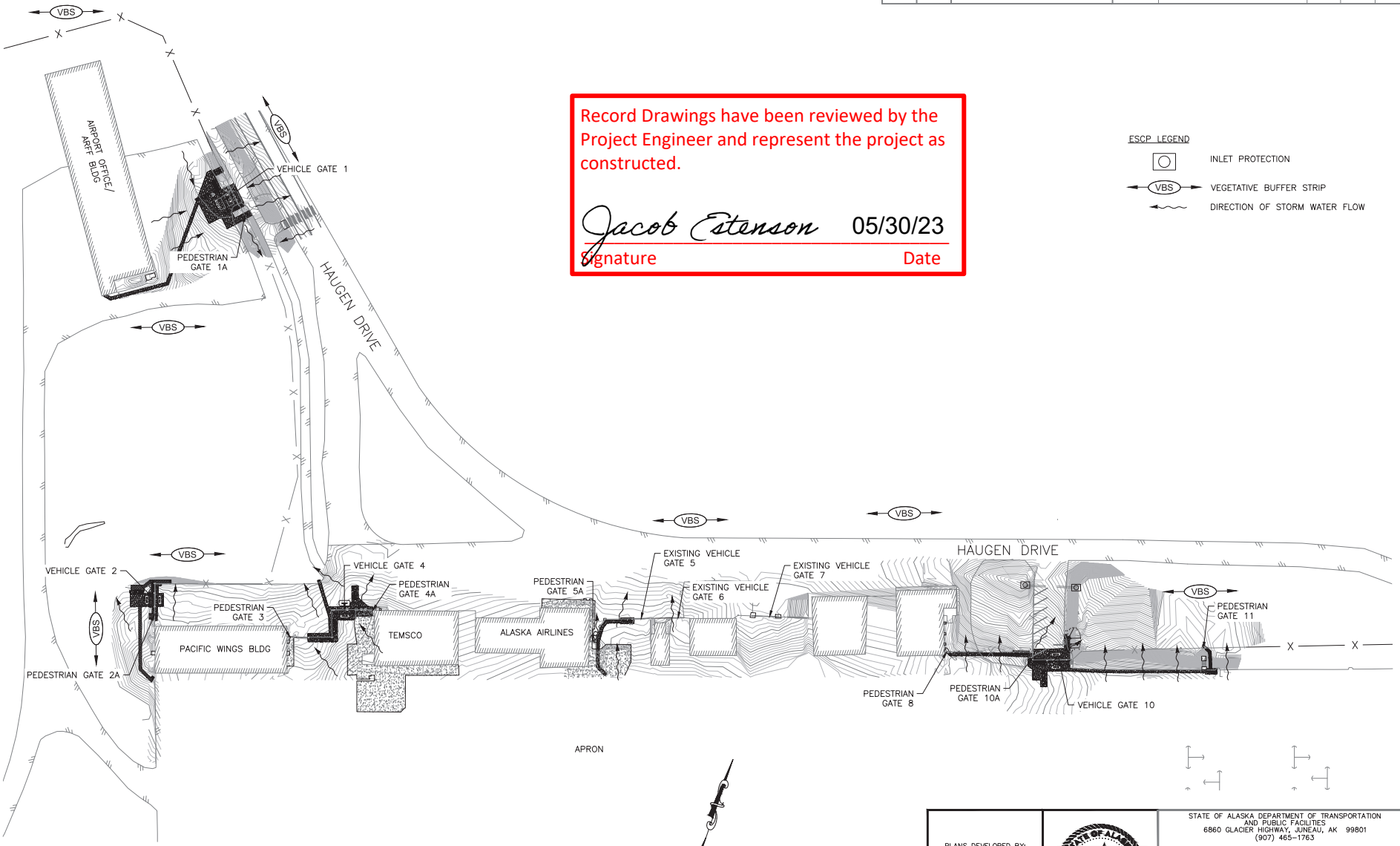
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

ESCP LEGEND

- INLET PROTECTION
- VBS — VEGETATIVE BUFFER STRIP
- DIRECTION OF STORM WATER FLOW



① OVERALL EROSION & SEDIMENT CONTROL PLAN

1" = 100'

25' 50' 100'

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

OVERALL EROSION & SEDIMENT CONTROL PLAN

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			ALASKA	SFAPT00175	2019	PEC2	58

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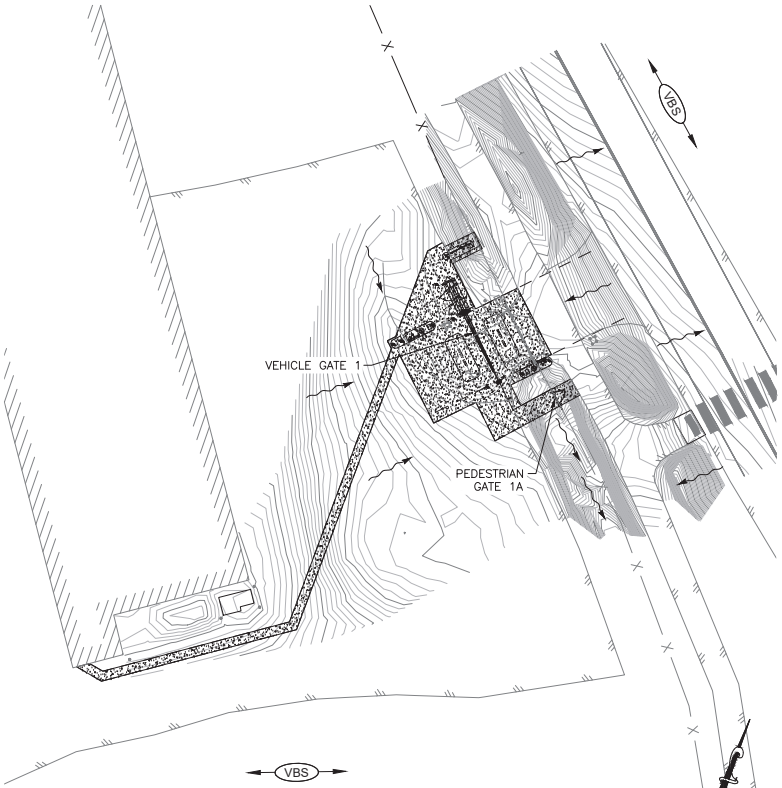
Jacob Estenson 05/30/23

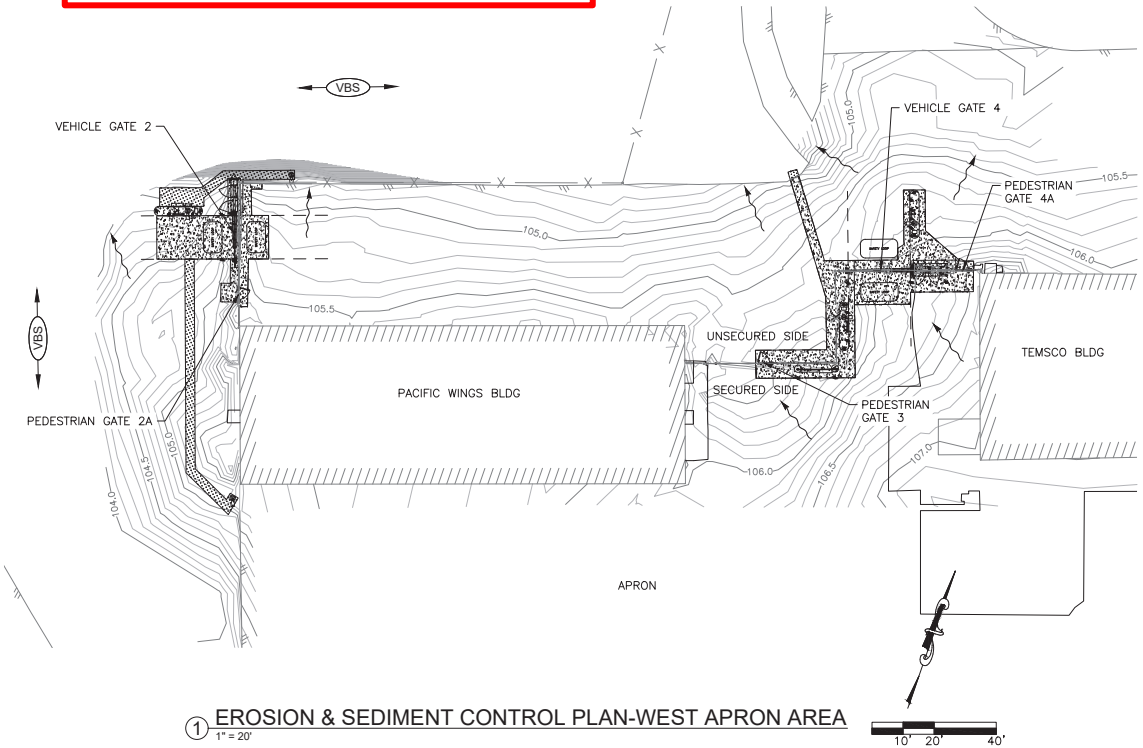
Signature Date

ESCP LEGEND

- INLET PROTECTION
- VBS — VEGETATIVE BUFFER STRIP
- DIRECTION OF STORM WATER FLOW



1 EROSION AND SEDIMENT CONTROL PLAN-GATE 1/1A AREA
1" = 20'



1 EROSION & SEDIMENT CONTROL PLAN-WEST APRON AREA
1" = 20'

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

EROSION & SEDIMENT CONTROL PLAN-WEST APRON AREA

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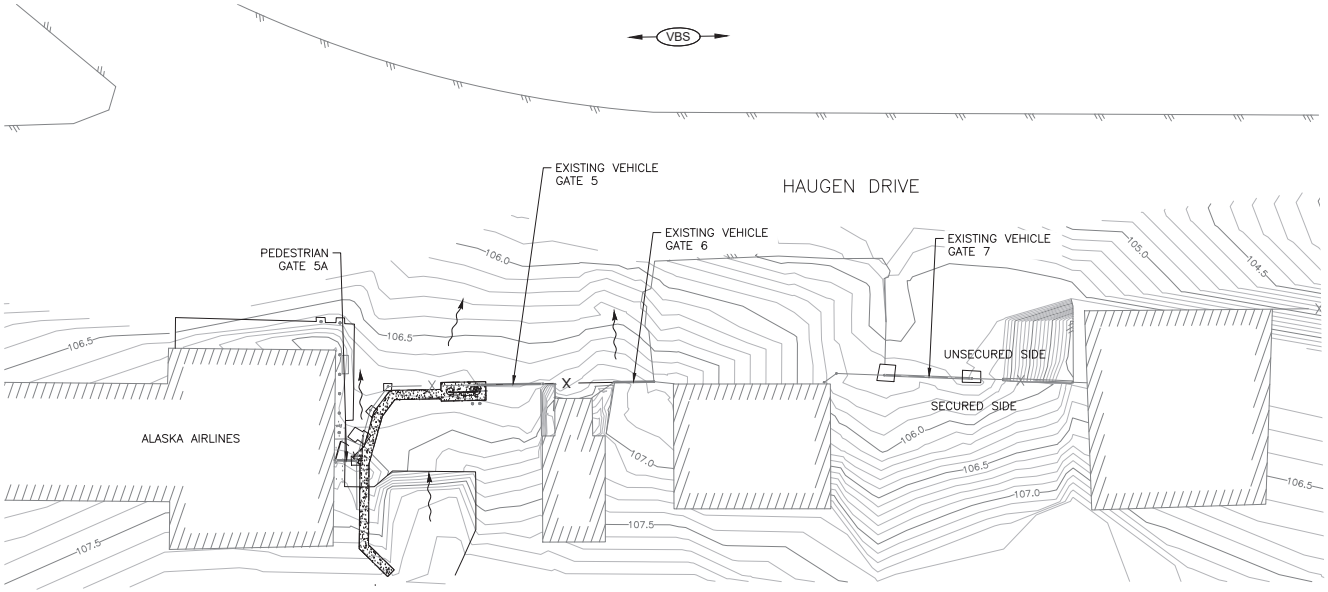

ESCP LEGEND

- INLET PROTECTION
- VBS — VEGETATIVE BUFFER STRIP
- DIRECTION OF STORM WATER FLOW

① EROSION & SEDIMENT CONTROL PLAN-CENTRAL APRON AREA
1" = 40'

10' 20' 40'

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

EROSION & SEDIMENT CONTROL PLAN-CENTRAL APRON AREA

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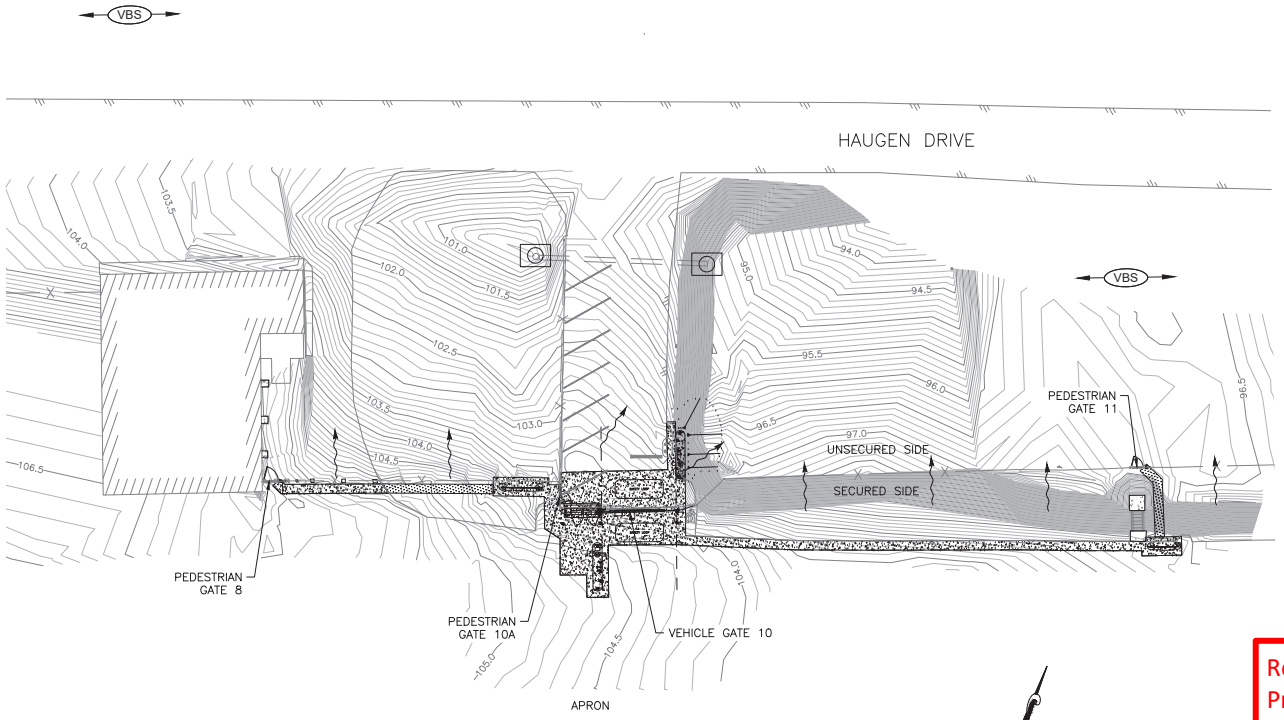

ESCP LEGEND

- INLET PROTECTION
- VBS — VEGETATIVE BUFFER STRIP
- DIRECTION OF STORM WATER FLOW

① EROSION & SEDIMENT CONTROL PLAN-EAST APRON AREA
1" = 40'

10' 20' 40'

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

EROSION & SEDIMENT CONTROL PLAN-EAST APRON AREA

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			ALASKA	SFAPT00175	2019	PAD1	58

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

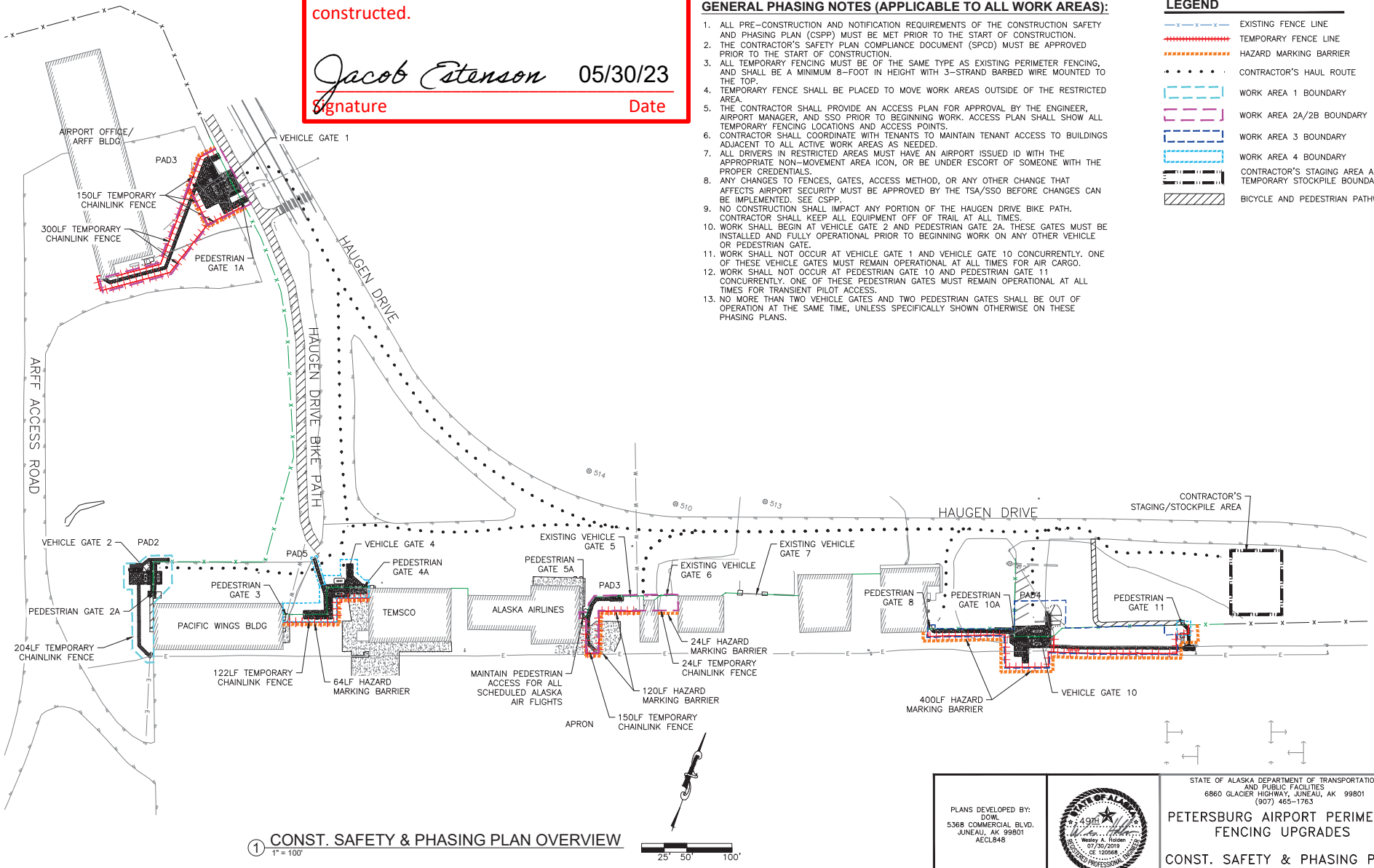
Signature Date

GENERAL PHASING NOTES (APPLICABLE TO ALL WORK AREAS):

1. ALL PRE-CONSTRUCTION AND NOTIFICATION REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) MUST BE MET PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) MUST BE APPROVED PRIOR TO THE START OF CONSTRUCTION.
3. ALL TEMPORARY FENCING MUST BE OF THE SAME TYPE AS EXISTING PERIMETER FENCING, AND SHALL BE A MINIMUM 8-FOOT IN HEIGHT WITH 3-STRAND BARBED WIRE MOUNTED TO THE TOP.
4. TEMPORARY FENCE SHALL BE PLACED TO MOVE WORK AREAS OUTSIDE OF THE RESTRICTED AREA.
5. THE CONTRACTOR SHALL PROVIDE AN ACCESS PLAN FOR APPROVAL BY THE ENGINEER, AIRPORT MANAGER, AND SSO PRIOR TO BEGINNING WORK. ACCESS PLAN SHALL SHOW ALL TEMPORARY FENCING LOCATIONS AND ACCESS POINTS.
6. CONTRACTOR SHALL COORDINATE WITH TENANTS TO MAINTAIN TENANT ACCESS TO BUILDINGS ADJACENT TO ALL ACTIVE WORK AREAS AS NEEDED.
7. ALL DRIVERS IN RESTRICTED AREAS MUST HAVE AN AIRPORT ISSUED ID WITH THE APPROPRIATE NON-MOVEMENT AREA ICON, OR BE UNDER ESCORT OF SOMEONE WITH THE PROPER CREDENTIALS.
8. ANY CHANGES TO FENCES, GATES, ACCESS METHOD, OR ANY OTHER CHANGE THAT AFFECTS AIRPORT SECURITY MUST BE APPROVED BY THE TSA/SSO BEFORE CHANGES CAN BE IMPLEMENTED. SEE CSPP.
9. NO CONSTRUCTION SHALL IMPACT ANY PORTION OF THE HAUGEN DRIVE BIKE PATH. CONTRACTOR SHALL KEEP ALL EQUIPMENT OFF OF TRAIL AT ALL TIMES.
10. WORK SHALL BEGIN AT VEHICLE GATE 2 AND PEDESTRIAN GATE 2A. THESE GATES MUST BE INSTALLED AND FULLY OPERATIONAL PRIOR TO BEGINNING WORK ON ANY OTHER VEHICLE OR PEDESTRIAN GATE.
11. WORK SHALL NOT OCCUR AT VEHICLE GATE 1 AND VEHICLE GATE 10 CONCURRENTLY. ONE OF THESE VEHICLE GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR AIR CARGO.
12. WORK SHALL NOT OCCUR AT PEDESTRIAN GATE 10 AND PEDESTRIAN GATE 11 CONCURRENTLY. ONE OF THESE PEDESTRIAN GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR TRANSIENT PILOT ACCESS.
13. NO MORE THAN TWO VEHICLE GATES AND TWO PEDESTRIAN GATES SHALL BE OUT OF OPERATION AT THE SAME TIME, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THESE PHASING PLANS.

LEGEND

- EXISTING FENCE LINE
- TEMPORARY FENCE LINE
- HAZARD MARKING BARRIER
- CONTRACTOR'S HAUL ROUTE
- WORK AREA 1 BOUNDARY
- WORK AREA 2A/2B BOUNDARY
- WORK AREA 3 BOUNDARY
- WORK AREA 4 BOUNDARY
- CONTRACTOR'S STAGING AREA AND TEMPORARY STOCKPILE BOUNDARY
- BICYCLE AND PEDESTRIAN PATHWAY



1 CONST. SAFETY & PHASING PLAN OVERVIEW
1" = 100'

25' 50' 100'

PLANS DEVELOPED BY:
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

CONST. SAFETY & PHASING PLAN OVERVIEW

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Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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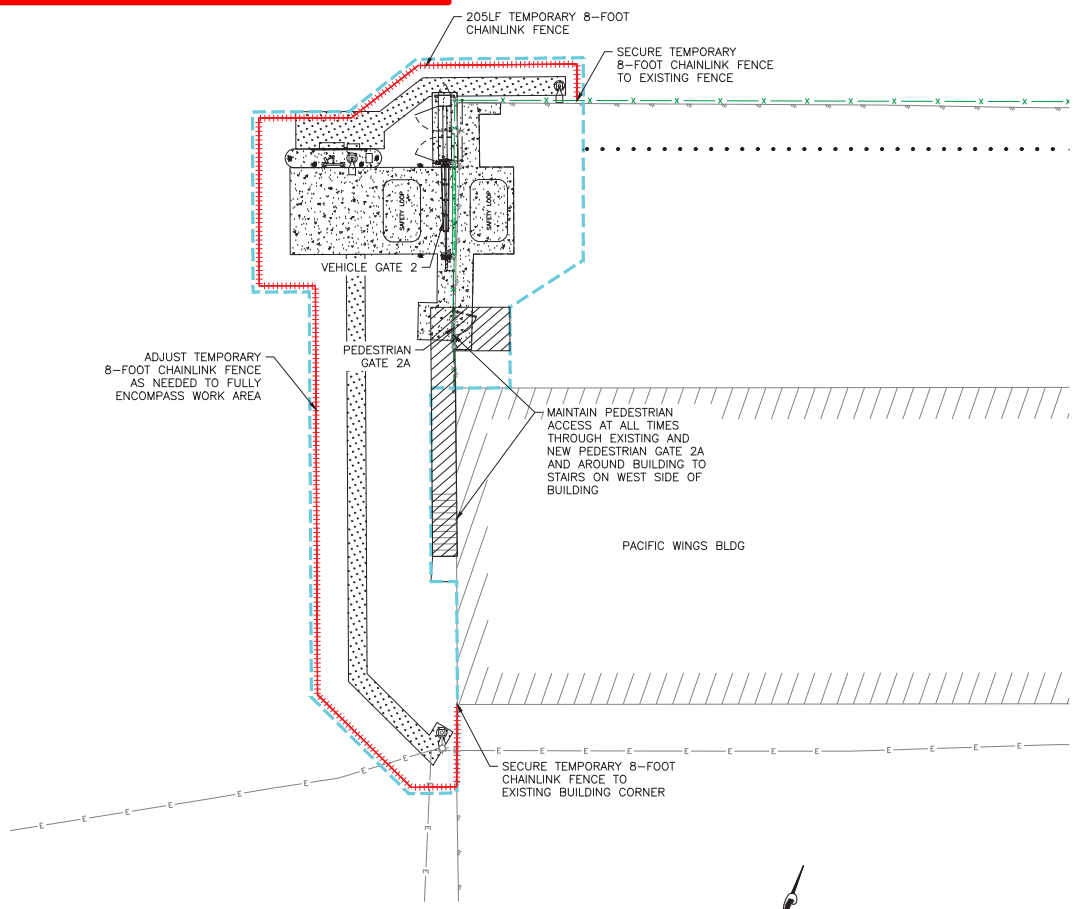
			ALASKA	SFAPT00175	2019	PAD2	58



1 CONST. SAFETY & PHASING PLAN - WORK AREA 1
1" = 10'

5' 10' 20'

LEGEND

- EXISTING FENCE LINE
- TEMPORARY FENCE LINE
- HAZARD MARKING BARRIER
- CONTRACTOR'S HAUL ROUTE
- WORK AREA 1 BOUNDARY
- CONTRACTOR'S STAGING AREA AND TEMPORARY STOCKPILE BOUNDARY
- BICYCLE AND PEDESTRIAN PATHWAY

GENERAL PHASING NOTES (APPLICABLE TO ALL WORK AREAS):

1. ALL PRE–CONSTRUCTION AND NOTIFICATION REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) MUST BE MET PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) MUST BE APPROVED PRIOR TO THE START OF CONSTRUCTION.
3. ALL TEMPORARY FENCING MUST BE OF THE SAME TYPE AS EXISTING PERIMETER FENCING, AND SHALL BE A MINIMUM 8–FOOT IN HEIGHT WITH 3–STRAND BARBED WIRE MOUNTED TO THE TOP.
4. TEMPORARY FENCE SHALL BE PLACED TO MOVE WORK AREAS OUTSIDE OF THE RESTRICTED AREA.
5. THE CONTRACTOR SHALL PROVIDE AN ACCESS PLAN FOR APPROVAL BY THE ENGINEER, AIRPORT MANAGER, AND SSO PRIOR TO BEGINNING WORK. ACCESS PLAN SHALL SHOW ALL TEMPORARY FENCING LOCATIONS AND ACCESS POINTS.
6. CONTRACTOR SHALL COORDINATE WITH TENANTS TO MAINTAIN TENANT ACCESS TO BUILDINGS ADJACENT TO ALL ACTIVE WORK AREAS AS NEEDED.
7. ALL DRIVERS IN RESTRICTED AREAS MUST HAVE AN AIRPORT ISSUED ID WITH THE APPROPRIATE NON–MOVEMENT AREA ICON, OR BE UNDER ESCORT OF SOMEONE WITH THE PROPER CREDENTIALS.
8. ANY CHANGES TO FENCES, GATES, ACCESS METHOD, OR ANY OTHER CHANGE THAT AFFECTS AIRPORT SECURITY MUST BE APPROVED BY THE TSA/SSO BEFORE CHANGES CAN BE IMPLEMENTED. SEE CSPP.
9. NO CONSTRUCTION SHALL IMPACT ANY PORTION OF THE HAUGEN DRIVE BIKE PATH. CONTRACTOR SHALL KEEP ALL EQUIPMENT OFF OF TRAIL AT ALL TIMES.
10. WORK SHALL BEGIN AT VEHICLE GATE 2 AND PEDESTRIAN GATE 2A. THESE GATES MUST BE INSTALLED AND FULLY OPERATIONAL PRIOR TO BEGINNING WORK ON ANY OTHER VEHICLE OR PEDESTRIAN GATE.
11. WORK SHALL NOT OCCUR AT VEHICLE GATE 1 AND VEHICLE GATE 10 CONCURRENTLY. ONE OF THESE VEHICLE GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR AIR CARGO.
12. WORK SHALL NOT OCCUR AT PEDESTRIAN GATE 10 AND PEDESTRIAN GATE 11 CONCURRENTLY. ONE OF THESE PEDESTRIAN GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR TRANSIENT PILOT ACCESS.
13. NO MORE THAN TWO VEHICLE GATES AND TWO PEDESTRIAN GATES SHALL BE OUT OF OPERATION AT THE SAME TIME, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THESE PHASING PLANS.

WORK AREA 1 NOTES:

1. THE AIR OPERATIONS AREA IS DEFINED BY THE EXISTING AND TEMPORARY FENCE LINE. ALL TEMPORARY FENCE SHALL BE SECURELY IN PLACE PRIOR TO REMOVING ANY EXISTING FENCE OR GATES. ALL WORK WILL BE OUTSIDE OF THE AIRCRAFT OPERATIONS AREA, AS DELINEATED BY TEMPORARY FENCE, EXISTING FENCE, AND EXISTING BUILDINGS.
2. ALL WORK IN WORK AREA 1 MUST BE COMPLETE, AND GATES 2 AND 2A MUST BE FULLY FUNCTIONAL BEFORE CONTRACTOR BEGINS WORK AT ANY OTHER GATE LOCATION.
3. PEDESTRIAN ACCESS MUST BE MAINTAINED AT PEDESTRIAN GATE 2A AT ALL TIMES.
4. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 1:
   A. INSTALL TEMPORARY FENCING TO FULLY ENCOMPASS WORK AREA.
   B. REMOVE PAVEMENT, BASE MATERIAL, EXISTING FENCING, VEHICLE GATE 2, PEDESTRIAN GATE 2A, AND OTHER DEMOLITION ITEMS.
   C. INSTALL NEW TRENCHING/CABLE/CONDUIT, NEW VEHICLE GATE 2, OPERATOR, AND FOUNDATION, NEW PEDESTRIAN GATE 2A, CURB ISLAND AND ASSOCIATED EQUIPMENT, LIGHT POLES, AND ALL NEW EQUIPMENT.
   D. CONSTRUCT NEW PAVEMENT SECTIONS.
   E. RESTORE DISTURBED AREAS.

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49TH
Wesley A. Holden
07/30/2019
OF 120568
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

CONST. SAFETY & PHASING PLAN – WORK AREA 1

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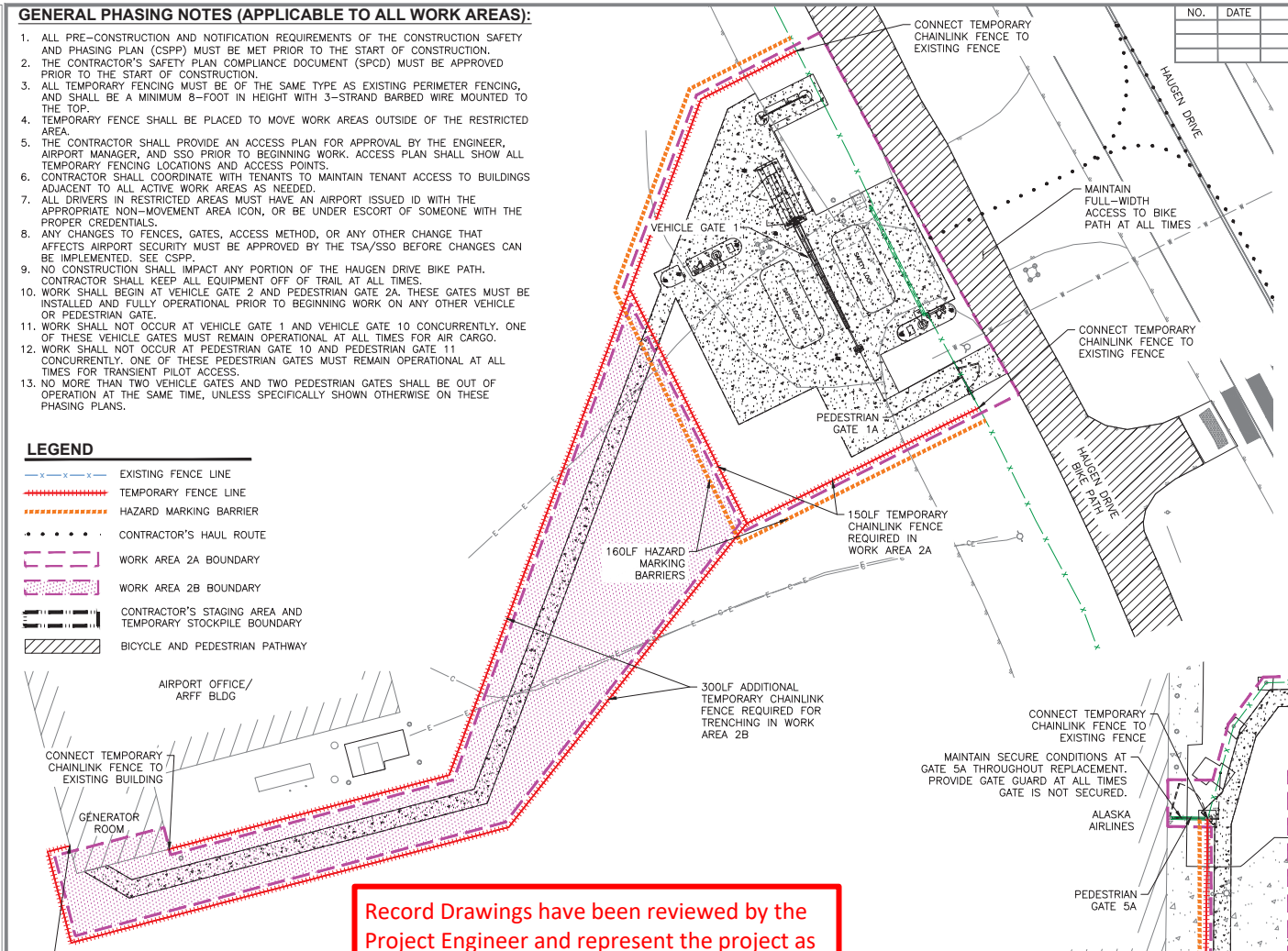
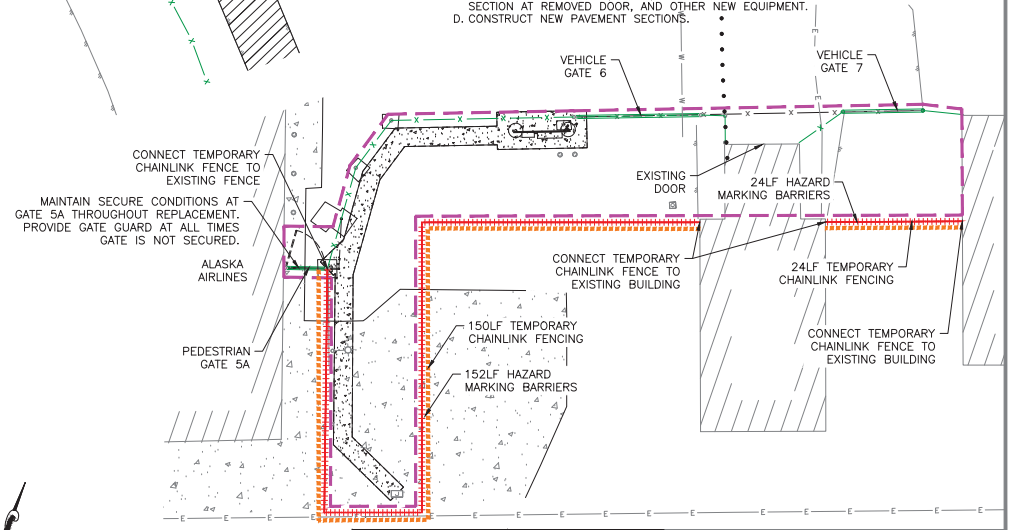
GENERAL PHASING NOTES (APPLICABLE TO ALL WORK AREAS):

1. ALL PRE-CONSTRUCTION AND NOTIFICATION REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) MUST BE MET PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) MUST BE APPROVED PRIOR TO THE START OF CONSTRUCTION.
3. ALL TEMPORARY FENCING MUST BE OF THE SAME TYPE AS EXISTING PERIMETER FENCING, AND SHALL BE A MINIMUM 8-FOOT IN HEIGHT WITH 3-STRAND BARBED WIRE MOUNTED TO THE TOP.
4. TEMPORARY FENCE SHALL BE PLACED TO MOVE WORK AREAS OUTSIDE OF THE RESTRICTED AREA.
5. THE CONTRACTOR SHALL PROVIDE AN ACCESS PLAN FOR APPROVAL BY THE ENGINEER, AIRPORT MANAGER, AND SSO PRIOR TO BEGINNING WORK. ACCESS PLAN SHALL SHOW ALL TEMPORARY FENCING LOCATIONS AND ACCESS POINTS.
6. CONTRACTOR SHALL COORDINATE WITH TENANTS TO MAINTAIN TENANT ACCESS TO BUILDINGS ADJACENT TO ALL ACTIVE WORK AREAS AS NEEDED.
7. ALL DRIVERS IN RESTRICTED AREAS MUST HAVE AN AIRPORT ISSUED ID WITH THE APPROPRIATE NON-MOVEMENT AREA ICON, OR BE UNDER ESCORT OF SOMEONE WITH THE PROPER CREDENTIALS.
8. ANY CHANGES TO FENCES, GATES, ACCESS METHOD, OR ANY OTHER CHANGE THAT AFFECTS AIRPORT SECURITY MUST BE APPROVED BY THE TSA/SSO BEFORE CHANGES CAN BE IMPLEMENTED. SEE CSPP.
9. NO CONSTRUCTION SHALL IMPACT ANY PORTION OF THE HAUGEN DRIVE BIKE PATH. CONTRACTOR SHALL KEEP ALL EQUIPMENT OFF OF TRAIL AT ALL TIMES.
10. WORK SHALL BEGIN AT VEHICLE GATE 2 AND PEDESTRIAN GATE 2A. THESE GATES MUST BE INSTALLED AND FULLY OPERATIONAL PRIOR TO BEGINNING WORK ON ANY OTHER VEHICLE OR PEDESTRIAN GATE.
11. WORK SHALL NOT OCCUR AT VEHICLE GATE 1 AND VEHICLE GATE 10 CONCURRENTLY. ONE OF THESE VEHICLE GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR AIR CARGO.
12. WORK SHALL NOT OCCUR AT PEDESTRIAN GATE 10 AND PEDESTRIAN GATE 11 CONCURRENTLY. ONE OF THESE PEDESTRIAN GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR TRANSIENT PILOT ACCESS.
13. NO MORE THAN TWO VEHICLE GATES AND TWO PEDESTRIAN GATES SHALL BE OUT OF OPERATION AT THE SAME TIME, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THESE PHASING PLANS.

LEGEND

- EXISTING FENCE LINE
- TEMPORARY FENCE LINE
- HAZARD MARKING BARRIER
- CONTRACTOR'S HAUL ROUTE
- WORK AREA 2A BOUNDARY
- WORK AREA 2B BOUNDARY
- CONTRACTOR'S STAGING AREA AND TEMPORARY STOCKPILE BOUNDARY
- BICYCLE AND PEDESTRIAN PATHWAY





NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PAD3	58

WORK AREA 2A/2B - VEHICLE GATE 1/PED GATE 1A NOTES:

1. THE AIR OPERATIONS AREA IS DEFINED BY THE EXISTING AND TEMPORARY FENCE LINE. ALL TEMPORARY FENCE SHALL BE SECURELY IN PLACE PRIOR TO REMOVING ANY EXISTING FENCE OR GATES. ALL WORK WILL BE OUTSIDE OF THE AIRCRAFT OPERATIONS AREA, AS DELINEATED BY TEMPORARY FENCE, EXISTING FENCE, AND EXISTING BUILDINGS.
2. VEHICLE GATE 1 MUST BE FULLY FUNCTIONAL BEFORE CONTRACTOR BEGINS WORK AT VEHICLE GATE 10. EITHER VEHICLE GATE 1 OR VEHICLE GATE 10 SHALL REMAIN OPERATIONAL AT ALL TIMES.
3. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 2A:

   A. INSTALL TEMPORARY CHAINLINK FENCE TO FULLY ENCLOSE WORK AREA 2A.
   B. REMOVE PAVEMENT, BASE MATERIAL, EXISTING FENCING, AND VEHICLE GATE 1.
   C. INSTALL NEW TRENCHING/CABLE/CONDUIT IN WORK AREA 2A TO EDGE OF WORK AREA 2B, INSTALL NEW VEHICLE GATE 1, NEW PEDESTRIAN GATE 1A, AND OTHER NEW EQUIPMENT.
   D. CONSTRUCT NEW PAVEMENT SECTIONS.

4. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 2B:

   A. INSTALL TEMPORARY FENCE AROUND WORK AREA 2B. CONNECT TO EXISTING TEMPORARY CHAINLINK FENCE TO FULLY ENCLOSE WORK AREA 2B.
   B. INSTALL NEW TRENCHING/CABLE/CONDUIT FROM EDGE OF WORK AREA 2A TO GENERATOR ROOM IN ARFF BUILDING.
   C. INSTALL ALL REQUIRED EQUIPMENT IN ARFF BUILDING.
   D. RESTORE ALL WORK AREAS.

WORK AREA 2 - PEDESTRIAN GATE 5A NOTES:

1. THE AIR OPERATIONS AREA IS DEFINED BY THE EXISTING AND TEMPORARY FENCE LINE. ALL TEMPORARY FENCE SHALL BE SECURELY IN PLACE PRIOR TO REMOVING ANY EXISTING FENCE OR GATES. ALL WORK WILL BE OUTSIDE OF THE AIRCRAFT OPERATIONS AREA, AS DELINEATED BY TEMPORARY FENCE, EXISTING FENCE, AND EXISTING BUILDINGS.
2. PEDESTRIAN ACCESS THROUGH PEDESTRIAN GATE 5A MUST BE MAINTAINED FOR ALL INCOMING ALASKA AIRLINE FLIGHTS.
3. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 2 AT PEDESTRIAN GATE 5A:

   A. INSTALL TEMPORARY CHAINLINK FENCE TO FULLY ENCLOSE WORK AREA.
   B. REMOVE PAVEMENT, BASE MATERIAL, EXISTING FENCING, PEDESTRIAN GATE 5A, VEHICLE GATE 6, VEHICLE GATE 7, AND REMOVE EXISTING DOOR IN BUILDING.
   C. INSTALL NEW TRENCHING/CABLE/CONDUIT, NEW PEDESTRIAN GATE 5A, NEW WALL SECTION AT REMOVED DOOR, AND OTHER NEW EQUIPMENT.
   D. CONSTRUCT NEW PAVEMENT SECTIONS.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

① CONST. SAFETY & PHASING PLAN-WORK AREA 2
1" = 10'

5' 10' 20'

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49TH
Wesley A. Holden
07/30/2019
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REGISTERED PROFESSIONAL ENGINEER

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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

CONST. SAFETY & PHASING PLAN-WORK AREA 2

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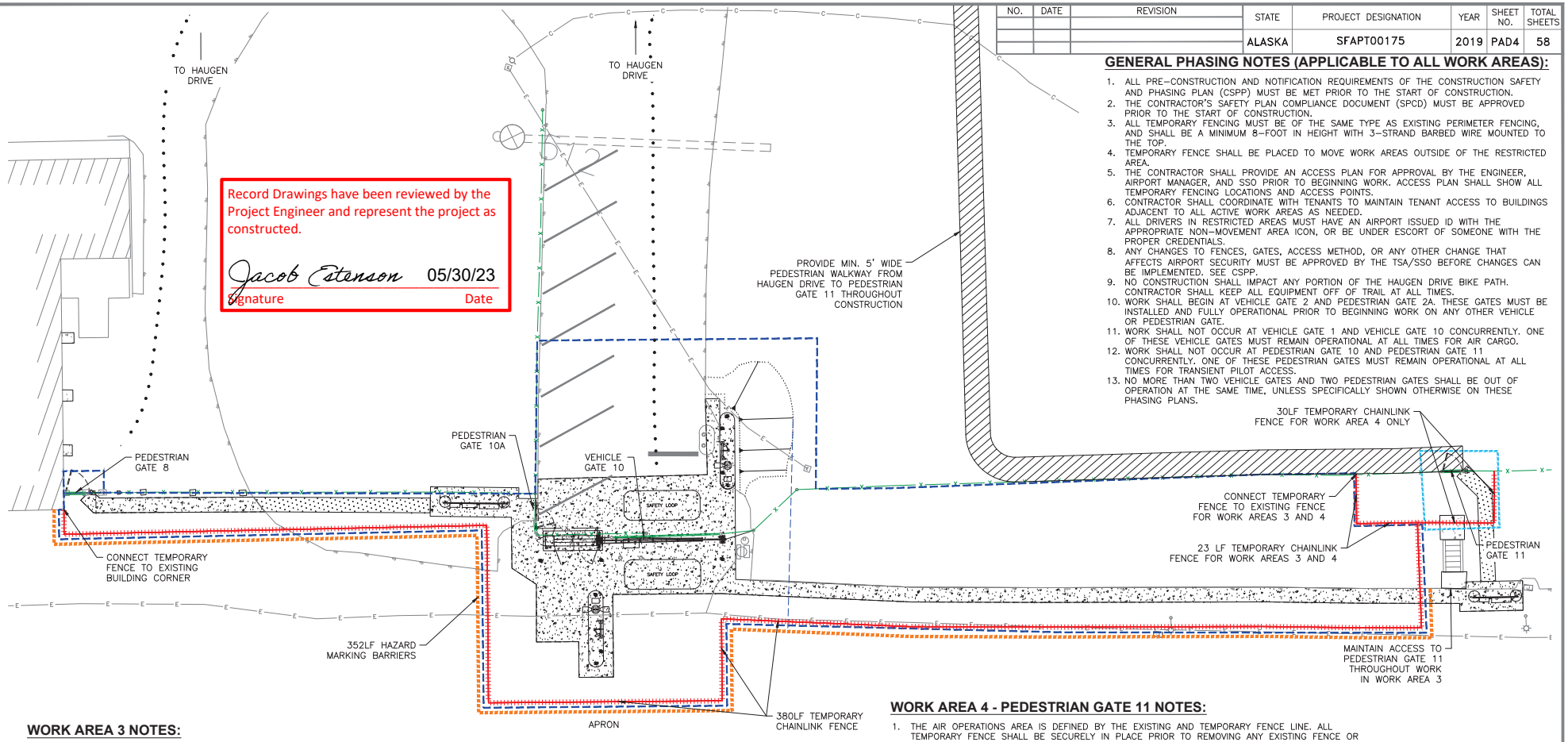
			ALASKA	SFAPT00175	2019	PAD4	58



Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

GENERAL PHASING NOTES (APPLICABLE TO ALL WORK AREAS):

1. ALL PRE-CONSTRUCTION AND NOTIFICATION REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) MUST BE MET PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) MUST BE APPROVED PRIOR TO THE START OF CONSTRUCTION.
3. ALL TEMPORARY FENCING MUST BE OF THE SAME TYPE AS EXISTING PERIMETER FENCING, AND SHALL BE A MINIMUM 8-FOOT IN HEIGHT WITH 3-STRAND BARBED WIRE MOUNTED TO THE TOP.
4. TEMPORARY FENCE SHALL BE PLACED TO MOVE WORK AREAS OUTSIDE OF THE RESTRICTED AREA.
5. THE CONTRACTOR SHALL PROVIDE AN ACCESS PLAN FOR APPROVAL BY THE ENGINEER, AIRPORT MANAGER, AND SSO PRIOR TO BEGINNING WORK. ACCESS PLAN SHALL SHOW ALL TEMPORARY FENCING LOCATIONS AND ACCESS POINTS.
6. CONTRACTOR SHALL COORDINATE WITH TENANTS TO MAINTAIN TENANT ACCESS TO BUILDINGS ADJACENT TO ALL ACTIVE WORK AREAS AS NEEDED.
7. ALL DRIVERS IN RESTRICTED AREAS MUST HAVE AN AIRPORT ISSUED ID WITH THE APPROPRIATE NON-MOVEMENT AREA ICON, OR BE UNDER ESCORT OF SOMEONE WITH THE PROPER CREDENTIALS.
8. ANY CHANGES TO FENCES, GATES, ACCESS METHOD, OR ANY OTHER CHANGE THAT AFFECTS AIRPORT SECURITY MUST BE APPROVED BY THE TSA/SSO BEFORE CHANGES CAN BE IMPLEMENTED. SEE CSPP.
9. NO CONSTRUCTION SHALL IMPACT ANY PORTION OF THE HAUGEN DRIVE BIKE PATH. CONTRACTOR SHALL KEEP ALL EQUIPMENT OFF OF TRAIL AT ALL TIMES.
10. WORK SHALL BEGIN AT VEHICLE GATE 2 AND PEDESTRIAN GATE 2A. THESE GATES MUST BE INSTALLED AND FULLY OPERATIONAL PRIOR TO BEGINNING WORK ON ANY OTHER VEHICLE OR PEDESTRIAN GATE.
11. WORK SHALL NOT OCCUR AT VEHICLE GATE 1 AND VEHICLE GATE 10 CONCURRENTLY. ONE OF THESE VEHICLE GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR AIR CARGO.
12. WORK SHALL NOT OCCUR AT PEDESTRIAN GATE 10 AND PEDESTRIAN GATE 11 CONCURRENTLY. ONE OF THESE PEDESTRIAN GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR TRANSIENT PILOT ACCESS.
13. NO MORE THAN TWO VEHICLE GATES AND TWO PEDESTRIAN GATES SHALL BE OUT OF OPERATION AT THE SAME TIME, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THESE PHASING PLANS.

WORK AREA 3 NOTES:

1. THE AIR OPERATIONS AREA IS DEFINED BY THE EXISTING AND TEMPORARY FENCE LINE. ALL TEMPORARY FENCE SHALL BE SECURELY IN PLACE PRIOR TO REMOVING ANY EXISTING FENCE OR GATES. ALL WORK WILL BE OUTSIDE OF THE AIRCRAFT OPERATIONS AREA, AS DELINEATED BY TEMPORARY FENCE, EXISTING FENCE, AND EXISTING BUILDINGS.
2. VEHICLE GATE 1 MUST BE FULLY FUNCTIONAL BEFORE CONTRACTOR BEGINS WORK AT VEHICLE GATE 10. EITHER VEHICLE GATE 1 OR VEHICLE GATE 10 SHALL REMAIN OPERATIONAL AT ALL TIMES.
2. PEDESTRIAN GATE 10A MUST BE FULLY FUNCTIONAL BEFORE CONTRACTOR BEGINS WORK AT PEDESTRIAN GATE 11. EITHER PEDESTRIAN GATE 10A OR PEDESTRIAN GATE 11 SHALL REMAIN OPERATIONAL AT ALL TIMES.
3. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 3:
   A. INSTALL ALL TEMPORARY FENCING TO FULLY ENCOMPASS WORK AREA AND PLACE WORK AREA OUTSIDE OF RESTRICTED AREAS.
   B. INSTALL LOW-PROFILE HAZARD MARKER BARRIERS AS SHOWN.
   C. REMOVE PAVEMENT, BASE MATERIAL, EXISTING FENCING, VEHICLE GATE 10, PEDESTRIAN GATES 8 AND 10A.
   D. INSTALL NEW TRENCHING/CABLE/CONDUIT IN WORK AREA 3 AND TO THE EDGE OF WORK AREA 4.
   E. INSTALL NEW VEHICLE GATE 10, NEW PEDESTRIAN GATES 8 AND 10, AND ASSOCIATED NEW EQUIPMENT.
   F. CONSTRUCT NEW PAVEMENT SECTIONS.

LEGEND

- EXISTING FENCE LINE
- TEMPORARY FENCE LINE
- HAZARD MARKING BARRIER
- CONTRACTOR'S HAUL ROUTE
- WORK AREA 3 BOUNDARY
- WORK AREA 4 BOUNDARY
- CONTRACTOR'S STAGING AREA AND TEMPORARY STOCKPILE BOUNDARY
- BICYCLE AND PEDESTRIAN PATHWAY

WORK AREA 4 - PEDESTRIAN GATE 11 NOTES:

1. THE AIR OPERATIONS AREA IS DEFINED BY THE EXISTING AND TEMPORARY FENCE LINE. ALL TEMPORARY FENCE SHALL BE SECURELY IN PLACE PRIOR TO REMOVING ANY EXISTING FENCE OR GATES. ALL WORK WILL BE OUTSIDE OF THE AIRCRAFT OPERATIONS AREA, AS DELINEATED BY TEMPORARY FENCE, EXISTING FENCE, AND EXISTING BUILDINGS.
2. PEDESTRIAN GATE 10A MUST BE FULLY FUNCTIONAL BEFORE CONTRACTOR BEGINS WORK AT PEDESTRIAN GATE 11. EITHER PEDESTRIAN GATE 10A OR PEDESTRIAN GATE 11 SHALL REMAIN OPERATIONAL AT ALL TIMES.
3. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 4:
   A. INSTALL ALL TEMPORARY FENCING TO FULLY ENCOMPASS WORK AREA 4 AND PLACE WORK AREA 4 OUTSIDE OF RESTRICTED AREAS.
   B. INSTALL LOW-PROFILE HAZARD MARKER BARRIERS AS SHOWN.
   C. EXISTING FENCING AND PEDESTRIAN GATE 11.
   D. INSTALL NEW TRENCHING/CABLE/CONDUIT IN WORK AREA 4, PEDESTRIAN GATE 11, AND ASSOCIATED NEW EQUIPMENT.
   E. RESTORE DISTURBED AREAS.

1 CONST. SAFETY & PHASING PLAN OVERVIEW

1" = 10'

5' 10' 20'

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
49th
Wesley A. Holden
07/30/2019
CE 120568
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

CONST. SAFETY & PHASING PLAN-WORK AREAS 3 & 4

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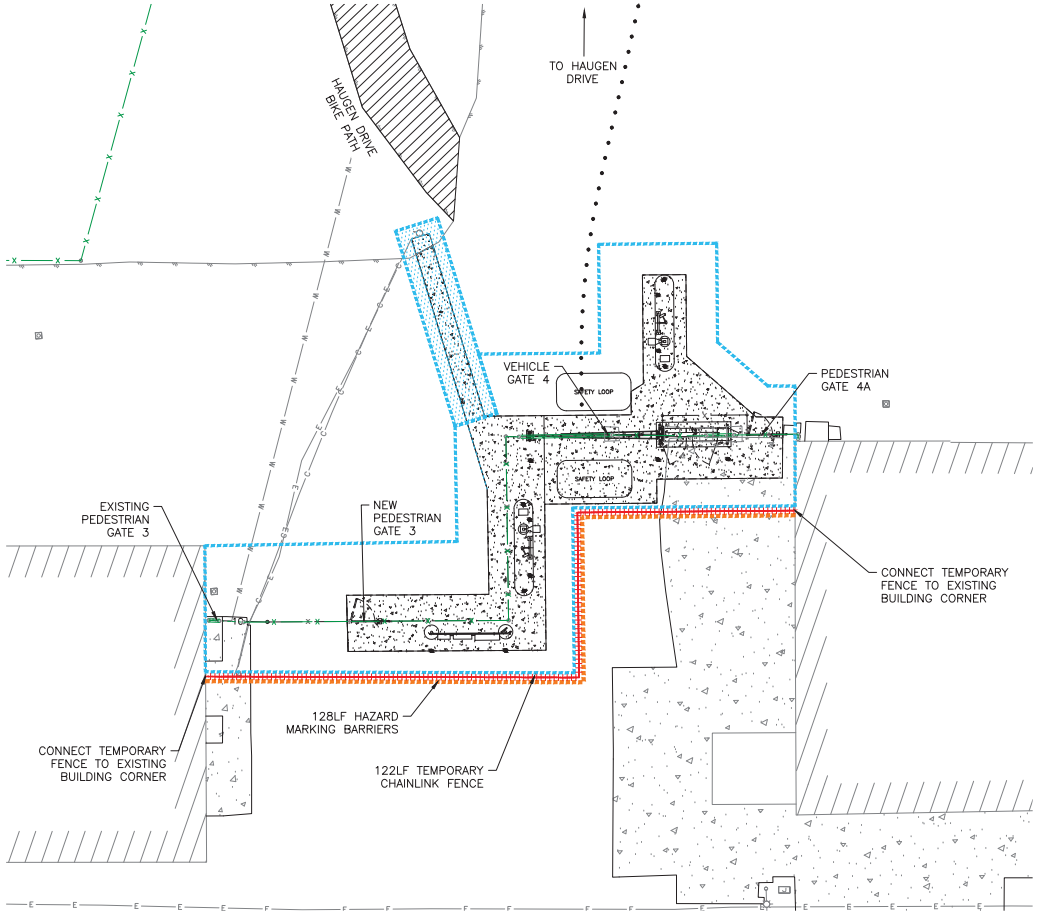
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175	2019	PAD5	58



LEGEND

- EXISTING FENCE LINE
- TEMPORARY FENCE LINE
- HAZARD MARKING BARRIER
- CONTRACTOR'S HAUL ROUTE
- WORK AREA 4A BOUNDARY
- WORK AREA 4B BOUNDARY
- CONTRACTOR'S STAGING AREA AND TEMPORARY STOCKPILE BOUNDARY
- BICYCLE AND PEDESTRIAN PATHWAY

GENERAL PHASING NOTES (APPLICABLE TO ALL WORK AREAS):

1. ALL PRE-CONSTRUCTION AND NOTIFICATION REQUIREMENTS OF THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) MUST BE MET PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR'S SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) MUST BE APPROVED PRIOR TO THE START OF CONSTRUCTION.
3. ALL TEMPORARY FENCING MUST BE OF THE SAME TYPE AS EXISTING PERIMETER FENCING, AND SHALL BE A MINIMUM 8-FOOT IN HEIGHT WITH 3-STRAND BARBED WIRE MOUNTED TO THE TOP.
4. TEMPORARY FENCE SHALL BE PLACED TO MOVE WORK AREAS OUTSIDE OF THE RESTRICTED AREA.
5. THE CONTRACTOR SHALL PROVIDE AN ACCESS PLAN FOR APPROVAL BY THE ENGINEER, AIRPORT MANAGER, AND SSO PRIOR TO BEGINNING WORK. ACCESS PLAN SHALL SHOW ALL TEMPORARY FENCING LOCATIONS AND ACCESS POINTS.
6. CONTRACTOR SHALL COORDINATE WITH TENANTS TO MAINTAIN TENANT ACCESS TO BUILDINGS ADJACENT TO ALL ACTIVE WORK AREAS AS NEEDED.
7. ALL DRIVERS IN RESTRICTED AREAS MUST HAVE AN AIRPORT ISSUED ID WITH THE APPROPRIATE NON-MOVEMENT AREA ICON, OR BE UNDER ESCORT OF SOMEONE WITH THE PROPER CREDENTIALS.
8. ANY CHANGES TO FENCES, GATES, ACCESS METHOD, OR ANY OTHER CHANGE THAT AFFECTS AIRPORT SECURITY MUST BE APPROVED BY THE TSA/SSO BEFORE CHANGES CAN BE IMPLEMENTED. SEE CSPP.
9. NO CONSTRUCTION SHALL IMPACT ANY PORTION OF THE HAUGEN DRIVE BIKE PATH. CONTRACTOR SHALL KEEP ALL EQUIPMENT OFF OF TRAIL AT ALL TIMES.
10. WORK SHALL BEGIN AT VEHICLE GATE 2 AND PEDESTRIAN GATE 2A. THESE GATES MUST BE INSTALLED AND FULLY OPERATIONAL PRIOR TO BEGINNING WORK ON ANY OTHER VEHICLE OR PEDESTRIAN GATE.
11. WORK SHALL NOT OCCUR AT VEHICLE GATE 1 AND VEHICLE GATE 10 CONCURRENTLY. ONE OF THESE VEHICLE GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR AIR CARGO.
12. WORK SHALL NOT OCCUR AT PEDESTRIAN GATE 10 AND PEDESTRIAN GATE 11 CONCURRENTLY. ONE OF THESE PEDESTRIAN GATES MUST REMAIN OPERATIONAL AT ALL TIMES FOR TRANSIENT PILOT ACCESS.
13. NO MORE THAN TWO VEHICLE GATES AND TWO PEDESTRIAN GATES SHALL BE OUT OF OPERATION AT THE SAME TIME, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THESE PHASING PLANS.

WORK AREA 4 - GATES 3, 4, AND 4A NOTES:

1. THE AIR OPERATIONS AREA IS DEFINED BY THE EXISTING AND TEMPORARY FENCE LINE. ALL TEMPORARY FENCE SHALL BE SECURELY IN PLACE PRIOR TO REMOVING ANY EXISTING FENCE OR GATES. ALL WORK WILL BE OUTSIDE OF THE AIRCRAFT OPERATIONS AREA, AS DELINEATED BY TEMPORARY FENCE, EXISTING FENCE, AND EXISTING BUILDINGS.
2. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 5:
   A. INSTALL ALL TEMPORARY FENCING TO FULLY ENCOMPASS WORK AREA AND PLACE WORK AREA OUTSIDE OF RESTRICTED AREAS.
   B. INSTALL LOW-PROFILE HAZARD MARKER BARRIERS AS SHOWN.
   C. REMOVE PAVEMENT, BASE MATERIAL, EXISTING FENCING, VEHICLE GATE 4, PEDESTRIAN GATES 3 AND 4A.
   D. INSTALL NEW TRENCHING/CABLE/CONDUIT
   E. INSTALL NEW VEHICLE GATE 4, NEW PEDESTRIAN GATES 3 AND 4a, AND ASSOCIATED NEW EQUIPMENT.
   F. CONSTRUCT NEW PAVEMENT SECTIONS.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

① CONST. SAFETY & PHASING PLAN-WORK AREA 4
1" = 10'

5' 10' 20'

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
AECL848

STATE OF ALASKA
Wesley A. Holden
07/30/2019
CE 120568
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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PETERSBURG AIRPORT PERIMETER FENCING UPGRADES

CONST. SAFETY & PHASING PLAN-WORK AREA 4

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175/00176	2019	SC1	9

STANDARD CIVIL DRAWINGS FOR

PETERSBURG AIRPORT (PSG) & KETCHIKAN AIRPORT (KTN)

AIRPORT PERIMETER FENCING UPGRADES
PROJECT NO. SFAPT00175/00176
A.I.P. No. 3-02-0144-XXX-2019

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

CIVIL LEGEND

PROPOSED	EXISTING	DESCRIPTION
		PROPERTY BOUNDARY
		EDGE OF GRAVEL
		EDGE OF ASPHALT PAVEMENT
		DITCH OR SWALE FLOWLINE
	W	WATER LINE
		FENCE
FISH		FISH EXCLUSION FENCE
	E	ABANDONED UNDERGROUND ELECTRIC
UGE	UGE	UNDERGROUND ELECTRICAL LINE
UGE/UGT		UNDERGROUND ELECTRICAL & TELEPHONE LINE
	OHE	OVERHEAD ELECTRICAL LINE
HT	HT	HEAT TRACE CABLING
T	T	UNDERGROUND TELEPHONE CABLE
S	S	SANITARY SEWER LINE
		CULVERT
		CUT LIMITS
		FILL LIMITS
		BREAKLINE
	RSA	RUNWAY SAFETY AREA
	OFA	OBJECT FREE AREA
	OFZ	OBSTACLE FREE ZONE

PROPOSED	EXISTING	DESCRIPTION
TOFA	TOFA	TAXIWAY/TAXILANE OBJECT FREE AREA
HPZ		HELIPORT PROTECTION ZONE
HSA		HELIPORT SAFETY AREA
FATO		FINAL APPROACH AND TAKEOFF AREA
TLOF		TOUCHDOWN AND LIFTOFF AREA
		STORM DRAIN CATCH BASIN
C.O.		SANITARY SEWER CLEANOUT
	E	SECONDARY POWER PEDESTAL
		ELECTRICAL JUNCTION BOX
		TELEPHONE PEDESTAL
		POWER TRANSFORMER
		BOLLARD/MISC POLE
		SIGN
		ASPHALT PAVEMENT
		PORTLAND CEMENT CONCRETE
		RAP SURFACE COURSE
		ROCK LINING/RIPRAP
		TOPSOIL, SEEDING & BFM
		FED. GOV'T SECTION CORNER
		PRIMARY MONUMENT
		SECONDARY MONUMENT
		CENTERLINE MONUMENT
		GEODETIC CONTROL STATION
		PRIMARY AIRPORT CONTROL STATION

SHEET INDEX	
SHEET #	SHEET TITLE
SC1	COVER SHEET, SHEET INDEX, & LEGEND
SC2	VERTICAL PIVOT GATE CIVIL SITE PLAN
SC3	VERTICAL PIVOT GATE ELEVATION
SC4	GATE OPERATOR FOUNDATION DETAILS
SC5	PEDESTRIAN GATE ELEVATIONS
SC6	VEHICLE GATE ISLAND ELEVATION
SC7	20FT AREA LIGHT POLE DETAILS
SC8	FENCE DETAILS
SC9	CIVIL DETAILS

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AIRPORT PERIMETER FENCING UPGRADES CIVIL STANDARDS

COVER SHEET, SHEET INDEX, & LEGEND

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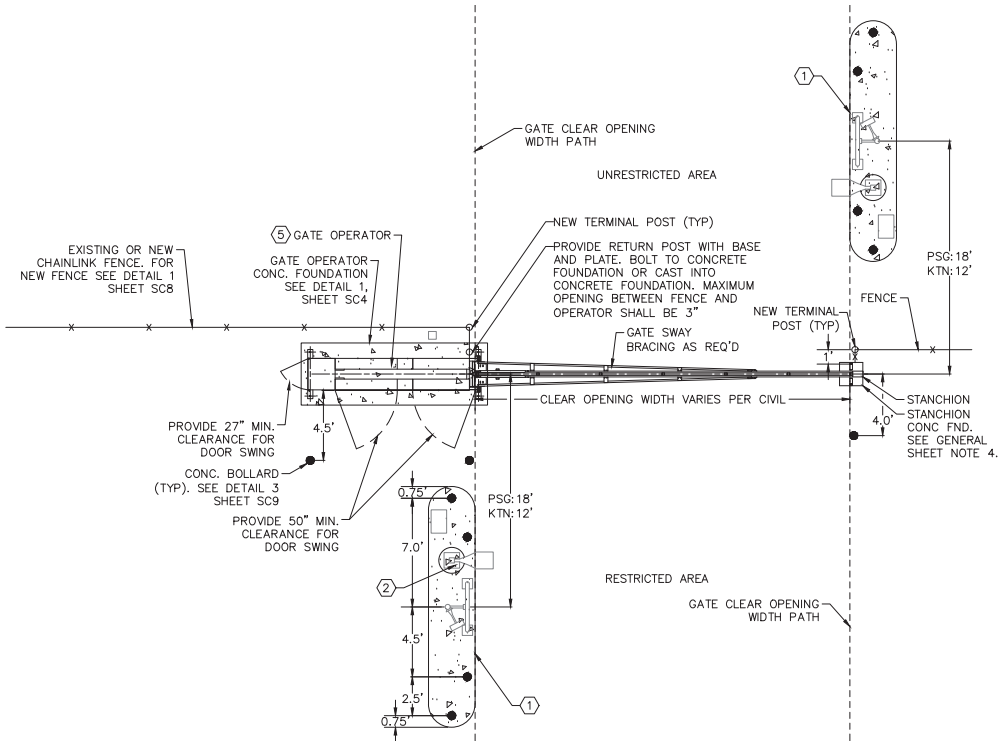

1 VERTICAL PIVOT GATE DIMENSIONS SITE PLAN (LEFT HAND)

NOT TO SCALE

KEY NOTES:

1. VEHICLE GATE CARD READER ISLAND, SEE DETAIL 1, SHEET SC6.
2. CARD READER ISLAND AREA LIGHT POLE WITH BASE. SEE READER ISLAND ELEVATION ON DETAIL 1, SHEET SC6.
3. CARD READER ISLAND JUNCTION BOX. SEE READER ISLAND ELEVATION ON DETAIL 1, SHEET SC6 AND DETAIL 2, SHEET ELECTRICAL FOR JUNCTION BOX.
4. WHERE GATE OPERATOR IS NOT SUFFICIENTLY LONG TO ENCAPSULATE THE FULL HEIGHT OF THE VERTICAL GATE WHEN PERPENDICULAR TO GRADE PROVIDE GATE GUARD AT BACK OF OPERATOR TO PREVENT GATE DAMAGE OR ENTRAPMENT HAZARDS. FOLLOW MANUFACTURER GUIDELINES FOR GUARD SPECIFICATIONS.
5. SEE SHEET SC3 FOR VERTICAL PIVOT GATE ELEVATION.
6. MOUNT GATE OPERATOR ONTO THE MANUFACTURER APPROVED CONCRETE PAD. SEE DETAIL 1, SHEET SC4. POSITION OPERATOR RELATIVE TO THE ADJACENT FENCE LINE AND DRIVEWAY AS SHOWN ON THIS DETAIL AND DETAILED SITE PLANS FOR EACH GATE.

GENERAL CIVIL STANDARDS NOTES:

1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL WORK. ALL ELECTRICAL ITEMS SHOWN ON THESE CIVIL STANDARDS PLANS ARE FOR REFERENCE ONLY.

GENERAL SHEET NOTES:

1. THIS SITE PLAN DEPICTS A TYPICAL LAYOUT OF EQUIPMENT AT A 24 FOOT WIDE DRIVEWAY WITH A VERTICAL PIVOT GATE SYSTEM. THIS PLAN INCLUDES GENERAL SIZING, SPACING, AND DIMENSIONAL RELATIONSHIPS BETWEEN ADJACENT ELEMENTS. SEE ELECTRICAL PLANS FOR WIRING PLAN.
2. CARD READER ISLANDS ON EITHER SIDE OF THE VEHICLE GATES ARE MIRROR IMAGES OF ONE ANOTHER WITH THE SAME EQUIPMENT IN THE SAME RELATIVE LOCATIONS. SEE SHEET SC6 FOR ISLAND ELEVATIONS.
3. ALL WORK SHALL ADHERE TO PROJECT-SPECIFIC CIVIL PLAN REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS REQUIRED OF THE PROJECT. PROVIDE SHOP DRAWINGS OF ALL ITEMS FOR REVIEW.
4. GATE STANCHION FOUNDATION PER GATE MANUFACTURER REQUIREMENTS AND NOTES. PROVIDE MAXIMUM 3" OPENING BETWEEN NEW GATE STANCHION AND NEW FENCE POST.
5. ON UNRESTRICTED SIDE OF FENCE OR GATE, DO NOT INSTALL ANY ABOVE-GROUND OBJECTS GREATER THAN 6" IN HEIGHT WITHIN 6-FEET OF FENCE OR GATE.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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AIRPORT PERIMETER FENCING UPGRADES CIVIL STANDARDS

VERTICAL PIVOT GATE CIVIL SITE PLAN

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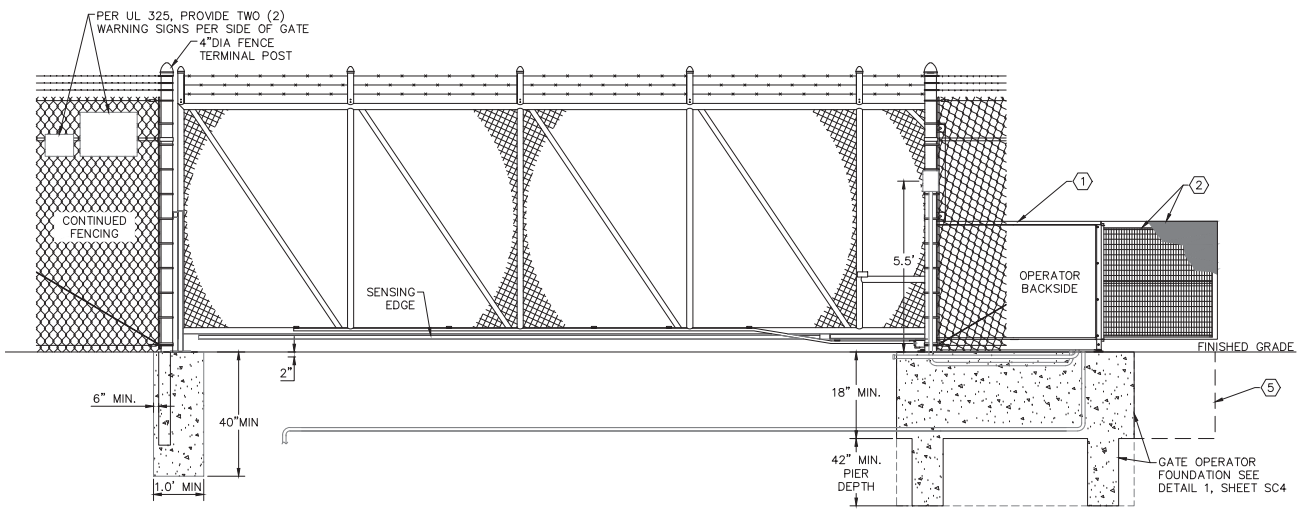
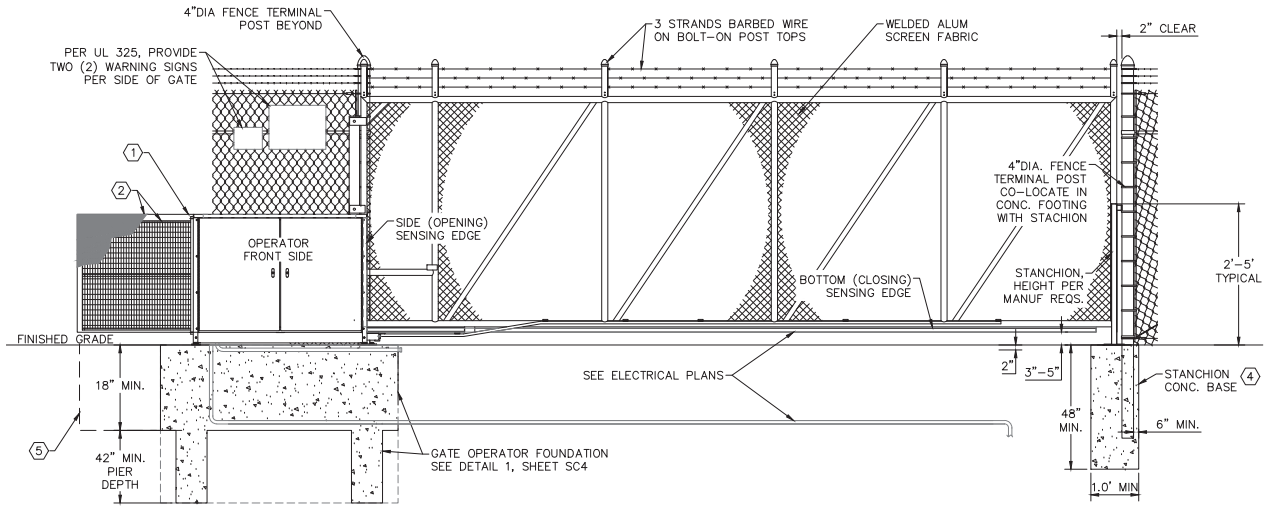


① VERTICAL PIVOT GATE ELEVATION NON-SECURE SIDE (RIGHT HAND)
NOT TO SCALE



② VERTICAL PIVOT GATE ELEVATION SECURE SIDE (RIGHT HAND)
NOT TO SCALE

GENERAL CIVIL STANDARDS NOTES:

1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL WORK. ALL ELECTRICAL ITEMS SHOWN ON THESE CIVIL STANDARDS PLANS ARE FOR REFERENCE ONLY.

SHEET NOTES:

1. THESE GATE ELEVATIONS DEPICT A GENERAL LAYOUT OF POWERED EQUIPMENT AT A 24 FOOT WIDE DRIVEWAY USING A VERTICAL PIVOT GATE SYSTEM. THESE DETAILS INCLUDE GENERAL SIZING, SPACING, AND DIMENSIONAL RELATIONSHIPS BETWEEN ADJACENT ELEMENTS. SEE SITE PLAN SHEET SC2 & GATE ELEVATION ON SHEET SC3 FOR MORE INFORMATION.
2. SEE ELECTRICAL PLANS FOR ONE-LINE, CONTROL SCHEMATIC DETAILS, AND POWER AND CONTROL CIRCUITING OF EQUIPMENT AT GATES.
3. BURY ALL CONDUIT PER ELECTRICAL, AND CONSTRUCT TRENCH REPAIR IN PAVED AND UNPAVED AREAS PER DETAILS ON SHEET SC9.
4. NOT ALL ELEMENTS WITHIN THIS DETAIL ARE NOTED. SEE ELECTRICAL DETAILS FOR A COMPLETE SET OF ELEMENT NOTES AND KEY NOTES.
5. ALL CIVIL REQUIREMENTS SHOWN ARE GRAPHIC AND GENERIC IN NATURE. PROJECT SHALL ADHERE TO AIRPORT SPECIFIC REQUIREMENTS WHICH OVERRIDE ANY INFORMATION PROVIDED IN THIS PLAN. CONSULT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN.
6. CONDUIT ROUTING SHOWN IN THIS DETAIL IS DIAGRAMMATIC ONLY. WHERE APPLICABLE AND PRACTICAL, ROUTE CONDUITS IN COMMON TRENCHES. FOLLOW TRENCHING AND CONDUIT PLACEMENT REQUIREMENTS ON ELECTRICAL PLANS.
7. GATE OPERATOR SHALL BE SOLIDLY GROUNDED TO THE OPERATOR FOUNDATION, AND BONDED TO THE ADJACENT FENCE LINE. PROVIDE FENCE LINE GROUND RODS, AND ROD CONNECTIONS BACK TO ELECTRICAL GROUNDING SYSTEM AS REQUIRED (NOT SHOWN HERE).
8. PROVIDE GATE WARNING SIGNS ON BOTH SIDES OF THE GATE PER UL 325 REQUIREMENTS. EXACT LOCATIONS, SIZES, AND TEXT & SYMBOLS ON THE SIGNS AS REQUIRED PER CODE.

KEY NOTES:

① PROVIDE HYDRAULIC VERTICAL PIVOT GATE AND OPERATOR.

② WHERE GATE OPERATOR IS NOT SUFFICIENTLY LONG TO ENCAPSULATE THE FULL HEIGHT OF THE VERTICAL GATE WHEN PERPENDICULAR TO GRADE, PROVIDE GATE GUARD AT BACK OF OPERATOR TO PREVENT GATE DAMAGE OR ENTRAPMENT HAZARDS. FOLLOW MANUFACTURER GUIDELINES FOR GUARD SPECIFICATIONS.

③ PROVIDE STANCHION POST AT END OF PIVOT GATE. MOUNT AND SUPPORT FROM CONCRETE BASE AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS. SET POST PLUMB WITH FINISHED GRADE AND COORDINATE CLEARANCE BETWEEN GATE AND FENCE TERMINAL POST WITH ENGINEER. PROVIDE A MAXIMUM 3" GAP BETWEEN FENCE TIE-IN AT STANCHION AND FULL 8-FOOT HEIGHT OF VERTICAL PIVOT GATE FENCING.

④ PROVIDE A MINIMUM 12" DIA. CONCRETE BASE FOR STANCHION. CO-LOCATE THE TERMINAL FENCE POST IN THE SAME CONCRETE BASE. WRAP FOUNDATION WITH THREE LAYERS OF 6MIL POLYEHYLENE SHEETING.

⑤ PROVIDE GATE OPERATOR FOUNDATION FOR FULL DIMENSIONS OF OPERATOR IF SPECIFIED BY CHOSEN GATE MANUFACTURER.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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AIRPORT PERIMETER FENCING UPGRADES CIVIL STANDARDS

VERTICAL PIVOT GATE ELEVATION

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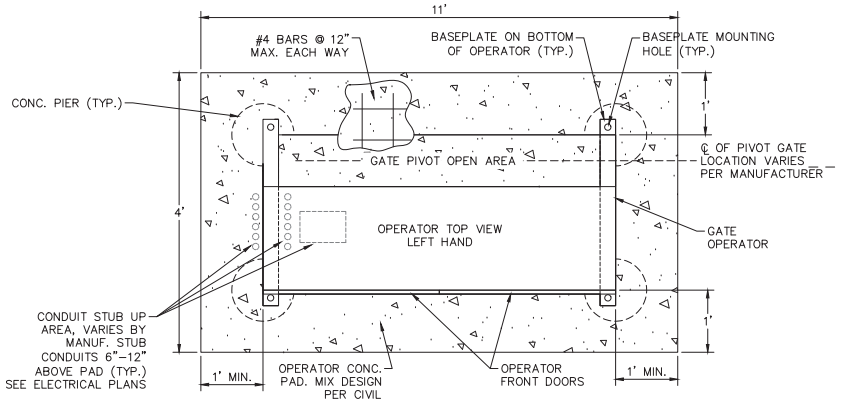
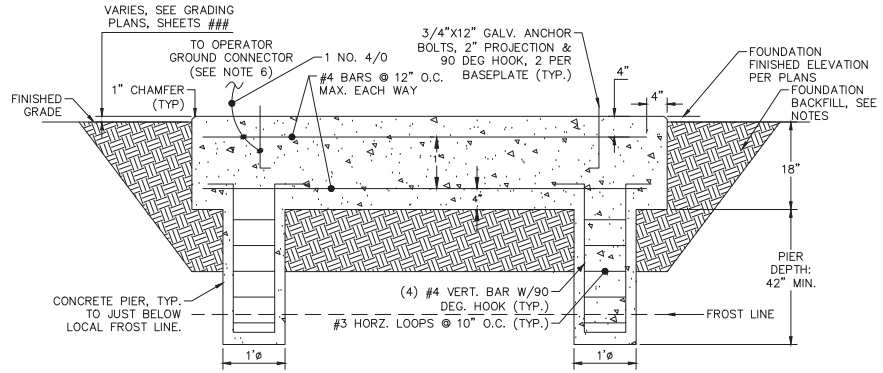


GATE OPERATOR
FOUNDATION SITE PLAN



GATE OPERATOR
FOUNDATION ELEVATION

① GATE OPERATOR FOUNDATION DETAIL

NOT TO SCALE

SHEET NOTES:
1. COORDINATE FOUNDATION DIMENSIONS, BASEPLATE LOCATIONS, ANCHOR POINTS, AND ANCHOR BOLT DETAILS WITH OPERATOR MANUFACTURER RECOMMENDATIONS.
2. MAINTAIN A MINIMUM OF 2" CONCRETE COVER OVER ALL EMBEDDED REINFORCEMENT BARS.
3. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL ENGINEER.
4. BACKFILL 12" ALL SIDES AND BOTTOM. COMPACT SUBBASE TO 95% PER MODIFIED PROCTOR DENSITY METHOD. WRAP SUBBASE WITH GEOTEXTILE ON ALL SIDES, TOP AND BOTTOM PRIOR TO CONCRETE PLACEMENT.
5. THIS DETAIL IS BASED ON A LEFT HAND GATE OPERATOR. DETAIL APPLIES BUT IN A MIRRORED FASHION FOR RIGHT HAND OPERATORS.
6. BOND 4/0 TO REBAR IN CONC. FOOTING WITH UL LISTED EXOTHERMIC OR SPLIT–BOLT CLAMP.
7. PROVIDE FULL FOUNDATION TO FULL DEPTH IN LIEU OF CONCRETE PIERS SHOWN.
8. FOLLOW SIMILAR DESIGN FOR CANTILEVER GATE OPERATOR. COORDINATE DIMENSIONS, BASEPLATE LOCATIONS, ANCHOR POINTS, AND ANCHOR BOLT DETAILS WITH OPERATOR MANUFACTURER RECOMMENDATIONS.

GENERAL CIVIL STANDARDS NOTES:
1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL WORK. ALL ELECTRICAL ITEMS SHOWN ON THESE CIVIL STANDARDS PLANS ARE FOR REFERENCE ONLY.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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GATE OPERATOR FOUNDATION DETAILS

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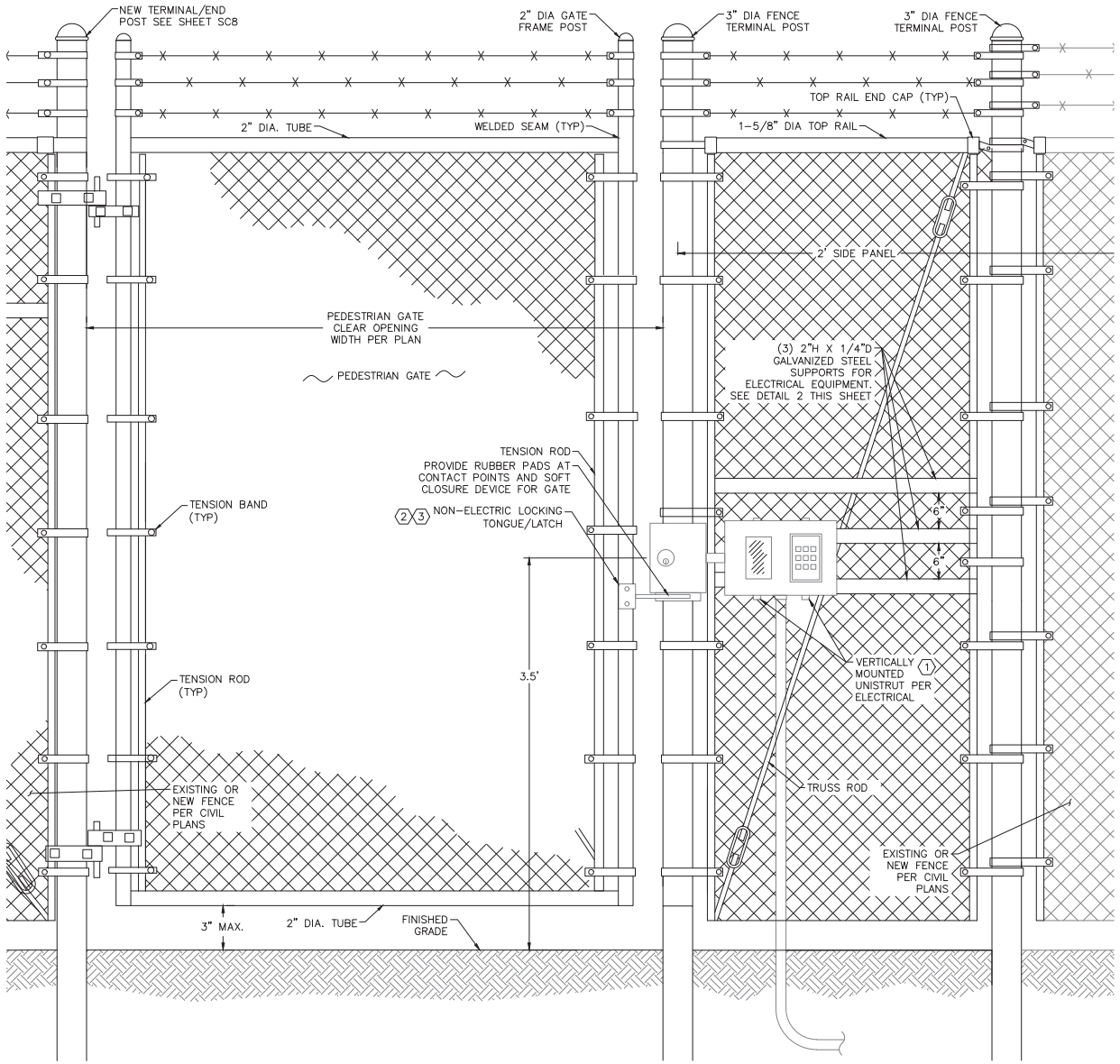
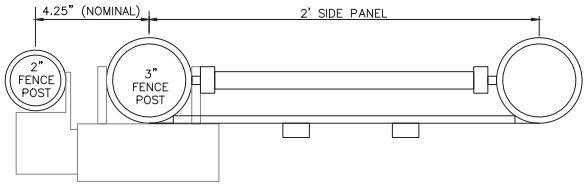


1 PEDESTRIAN GATE CARD READER & KEYPAD ELEVATION
NOT TO SCALE



2 PEDESTRIAN GATE LATCH & SIDE PANEL DETAIL
NO SCALE

GENERAL CIVIL STANDARDS NOTES:

1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL WORK. ALL ELECTRICAL ITEMS SHOWN ON THESE CIVIL STANDARDS PLANS ARE FOR REFERENCE ONLY.

SHEET NOTES:

1. SEE SHEET ELECTRICAL FOR POWER & NETWORK SCHEMATIC AND READER DEVICE SCHEMATIC.
2. COORDINATE THE FENCE TERMINAL POSTS AND GATE FRAME SIZES WITH ELECTRICAL TO ENSURE GATE LOCK WILL PROPERLY MOUNT PER MANUFACTURER REQUIREMENTS.
3. PEDESTRIAN GATES TO SWING OUT FROM THE SECURE SIDE OF THE FENCE INTO THE UNSECURED SIDE OF THE FENCE.
4. PROVIDE GROMMETS IN HOLES FOR CABLE PASS THROUGH IN ALL ENCLOSURES.
5. DOOR SHALL SWING INTO THE PUBLIC OR NON-SECURE SIDE OF THE FENCE LINE.
6. PROVIDE SPRING LOADED AUTOMATIC CLOSURE DEVICE AND PUSH & PULL PLATES FOR MANUAL DOOR OPENING (NOT SHOWN HERE).
7. PROVIDE RUBBER PAD ON LOCKING MECHANISM AND SOFT CLOSURE DEVICE ON EACH NEW PEDESTRIAN GATE TO PREVENT HARD STRIKE UPON GATE CLOSURE. SUBMIT PRODUCT INFORMATION TO ENGINEER FOR APPROVAL.

KEY NOTES:

1 PROVIDE UNISTRUT OR SIMILAR SUPPORT MEMBERS FOR ELECTRICAL EQUIPMENT. SEE ELECTRICAL.

2 MOUNT ELECTRIC GATE LATCH AND LOCK AT HEIGHT INDICATED, ALIGN AS REQUIRED FOR PROPER FIT BASED ON SPECIFIC GATE AND FENCE POST SIZES AND DISTANCES. SET PLUMB AND LEVEL TO FINISHED GRADE. PROPERLY ALIGN TONGUE WITH GATE LOCK SLOT IN ALL DIRECTIONS PRIOR TO DRILLING MOUNTING HOLES.

3 MOUNT LATCH AND LOCK TO FENCE AND GATE POST WITH THROUGH BOLTS. DRILL POSTS AS REQUIRED, APPLY SPRAY GALVANIZED PAINT TO ALL DRILLED PENETRATIONS.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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PEDESTRIAN GATE ELEVATIONS

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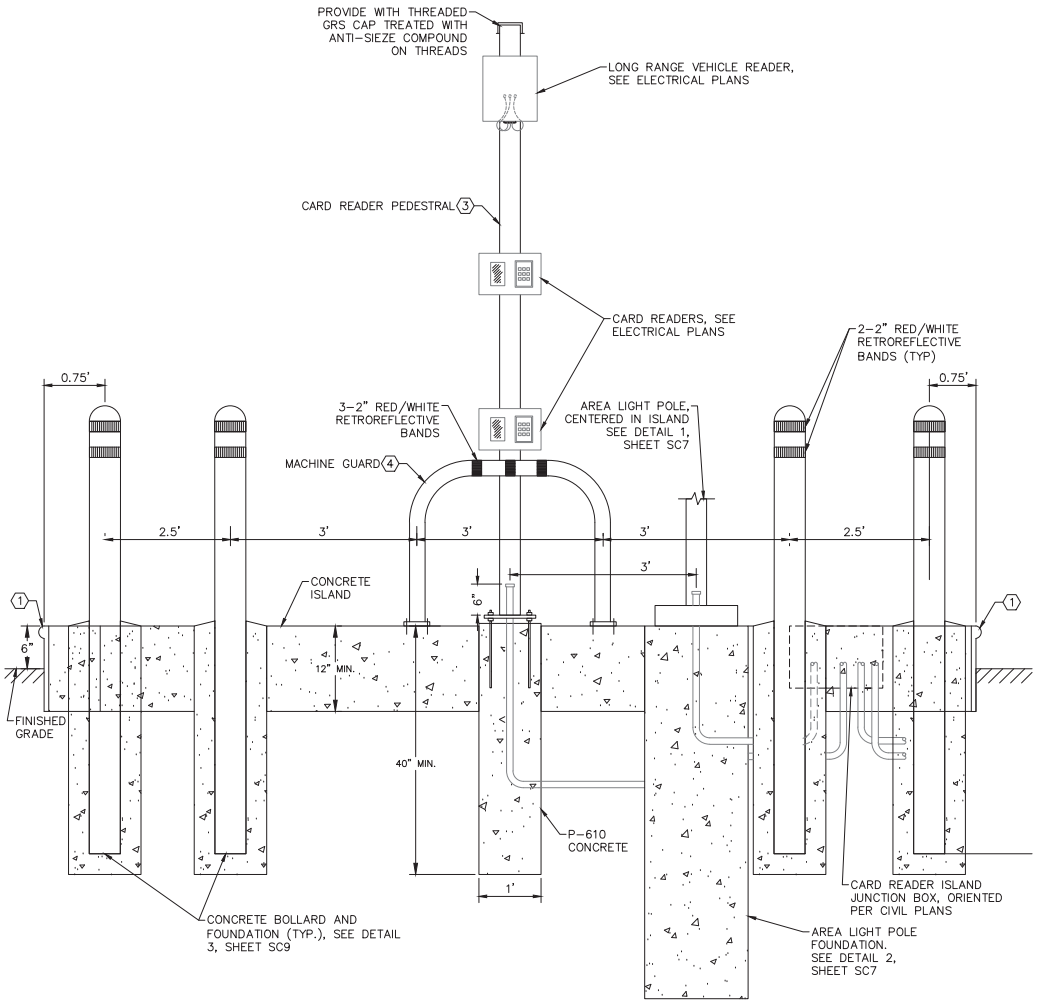
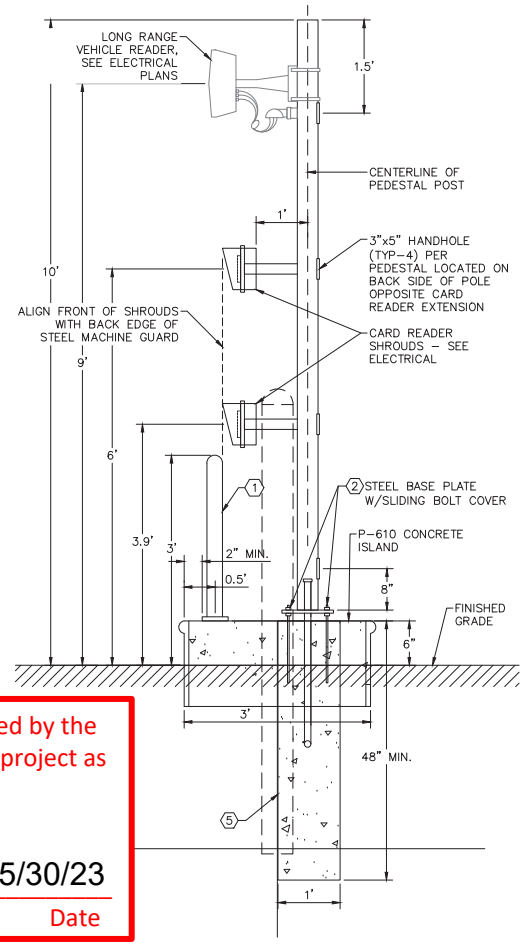


1 VEHICLE GATE ISLAND ELEVATION
NOT TO SCALE

KEY NOTES:

1. CARD READER ISLAND FORM SHALL BE 12 GAUGE STEEL WITH 1-1/4" TOP BEAD AND 1-1/4" BOTTOM FLANGE AROUND ENTIRE ISLAND. EMBEDDED DEPTH MIN. 6". APPLY SAFETY YELLOW EPOXY ENAMEL COATING TO ALL EXPOSED STEEL SURFACES
2. PEDESTAL HOT DIPPED GALVANIZED BASE PLATE WITH 10" DIA. BASE AND BOLT CIRCLE. PROVIDE GALVANIZED ANCHOR BOLTS SIZED PER PEDESTAL MANUFACTURER REQUIREMENTS. MINIMUM 1/2" DIA. X 8" EMBEDDED ANCHOR BOLTS (MINIMUM). PROVIDE BOLTS WITH GALVANIZED LEVELING NUTS AND LEAVE 1-1/2" SPACE ABOVE CONCRETE ISLAND FOR GROUT INFILL.
3. HOT DIPPED GALVANIZED MULTI-HEIGHT CARD READER PEDESTAL. CONSISTS OF 4" DIA. STANDARD PIPE WITH SINGLE GANG (3"X5") HANDHOLES BEHIND EACH READER MOUNT LOCATION, AND 1/2" X 10" DIA BASE PLATE. PROVIDE WITH 8" SQ. MOUNTING PLATE AT EACH OF THE VEHICLE READER POSITIONS ATTACHED TO PEDESTAL VIA 2" DIA. STANDARD PIPE. DRILL AND SMOOTH OPENINGS FOR ALL CABLES ROUTED WITHIN THE PEDESTAL. HANDHOLE COVERS SHALL BE WEATHERPROOF DIE CAST ALUMINUM. DIMENSIONS SHOWN ARE IN RELATION TO FINISHED GRADE (DRIVING SURFACE) AND NOT THE CONCRETE ISLAND. MODIFY DIMENSIONS OF PEDESTAL FOR SPECIFICS OF EACH PROJECT LOCATION TO ACHIEVE THE CARD READER MOUNTING HEIGHTS NOTES ON THIS SHEET.
4. 4" O.D. SCHEDULE 40 STEEL U-SHAPE MACHINE GUARD. PAINT SAFETY YELLOW WITH EPOXY ENAMEL COATING.
5. WRAP CONCRETE FOUNDATION WITH 3 LAYERS OF 6MIL POLYETHYLENE SHEETING



2 VEHICLE GATE CARD READER ISLAND ELEVATION
SIDE VIEW
NOT TO SCALE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

GENERAL CIVIL STANDARDS NOTES:

1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL WORK. ALL ELECTRICAL ITEMS SHOWN ON THESE CIVIL STANDARDS PLANS ARE FOR REFERENCE ONLY.

SHEET NOTES:

1. SEE ELECTRICAL PLANS FOR POWER AND CONTROL CIRCUITING INFORMATION FOR THE CARD READERS, AREA LIGHT FIXTURE, AND THE LONG RANGE READER.
2. SEE SHEET SC7 FOR LIGHT POLE DETAILS.
3. ALL CIVIL REQUIREMENTS SHOWN ARE TYPICAL AND GENERAL IN NATURE. PROJECT SHALL ADHERE TO SPECIFIC PROJECT CIVIL REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS REQUIRED OF THE PROJECT.
4. CONDUIT ROUTING SHOWN IN THIS DETAIL IS GRAPHIC IN NATURE. WHERE APPLICABLE AND PRACTICAL, ROUTE CONDUITS IN COMMON TRENCHES. FOLLOW TRENCHING AND CONDUIT PLACEMENT REQUIREMENTS IN ELECTRICAL PLANS.

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VEHICLE GATE ISLAND ELEVATION

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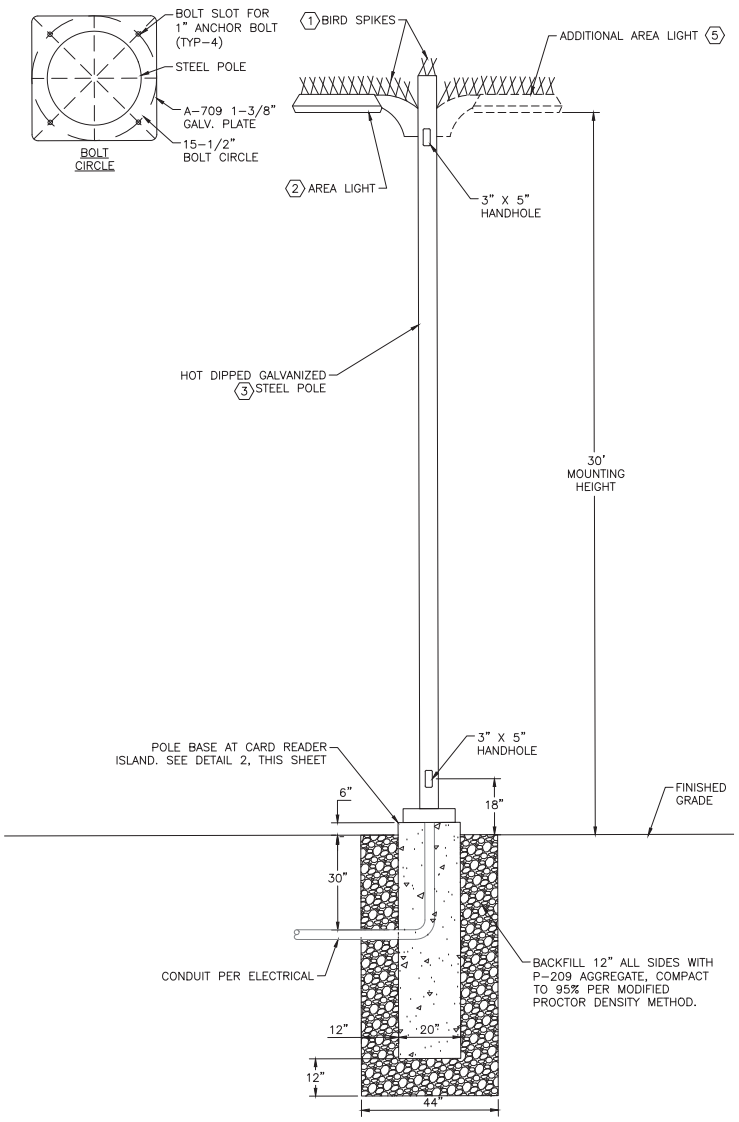


1 AREA LIGHT ELEVATION DETAIL
NOT TO SCALE

GENERAL CIVIL STANDARDS NOTES:

1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL WORK. ALL ELECTRICAL ITEMS SHOWN ON THESE CIVIL STANDARDS PLANS ARE FOR REFERENCE ONLY.

DETAIL 1 GENERAL NOTES:

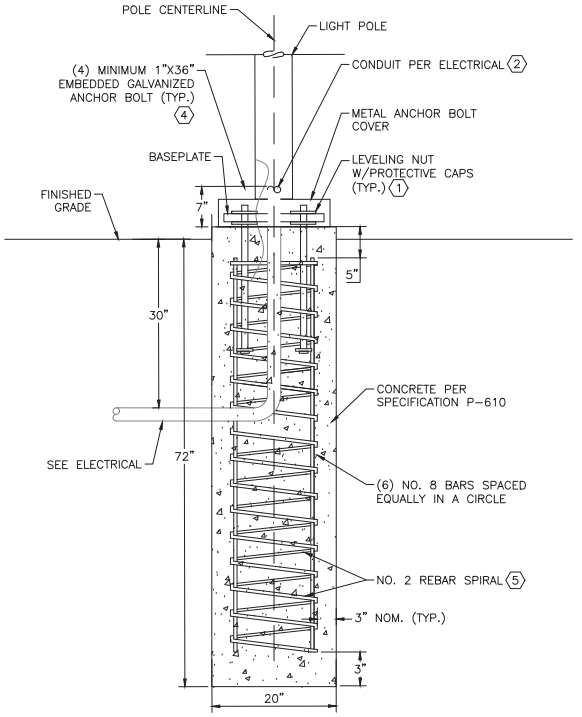
1. COORDINATE FOUNDATION DIMENSIONS, BASEPLATE LOCATIONS, BASEPLATE ANCHOR POINTS, AND ANCHOR BOLT DETAILS WITH MANUFACTURER RECOMMENDATIONS. DETAILS SHOWN ARE TYPICAL AND DIAGRAMMATIC ONLY.
2. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL PLANS.
3. SIZE POLE WITH LUMINAIRE FOR 120 MPH SUSTAINED WINDS WITH GUSTS UP TO 150 MPH. POLE DIMENSIONS INDICATED ARE A MINIMUM. PROVIDE CALCULATIONS SHOWING COMPLIANCE SEALED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF ALASKA.
4. PROVIDE GROUND BUSHINGS ON ALL CONDUIT STUB UPS INTO POLE.
5. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL REQUIREMENTS.

DETAIL 1 KEY NOTES:

1. BIRD SPIKES. SECURE TO FIXTURE MOUNTING ARM, FIXTURE, AND POLE TOP WITH MANUFACTURER RECOMMENDED ADHESIVE.
2. SEE ELECTRICAL FOR LUMINAIRES.
3. HOT DIPPED GALVANIZED LIGHT POLE. PROVIDE WITH HANDHOLES WHERE NOTED AND BOLT CIRCLE PER THIS DETAIL, OR PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE SHOP DRAWINGS FOR REVIEW.
4. PROVIDE CABLE SUPPORTS AND PROTECTION AS NECESSARY TO PREVENT CABLE DAMAGE DUE TO MECHANICAL STRESS.
5. WHERE ADDITIONAL AREA LIGHTS ARE REQUIRED PROVIDE POLE WITH MOUNT SUITABLE FOR THE ADDITIONAL LIGHT(S). ARRANGE LIGHTS 180 DEG APART, 90 DEG APART, ETC. AS SHOWN ON THE PLANS

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23
Signature Date



2 20' AREA LIGHT POLE BASE DETAIL
NOT TO SCALE

DETAIL 2 GENERAL NOTES:

1. ALL SPLICES SHALL BE IN BASE OF POLE. LOOP FIELD POWER CONDUCTORS IF REQUIRED PER SPECIFIC SITE REQUIREMENTS FOR EACH POLE.
2. PROVIDE FUSE KITS IN EACH POLE BASE.
3. BOND THE GROUND CONDUCTOR TO FOUNDATION REBAR, ANCHOR BOLTS, LIGHT POLE, AND TO THE EQUIPMENT GROUNDING CONDUCTOR RAN WITH THE LIGHTING CIRCUIT.
4. PROVIDE ANCHOR BOLTS WITH 4" MINIMUM HOOK AND 6" OF THREAD ON BOTH ENDS. BOLTS SHALL MEET ASTM-A36 WITH MINIMUM YIELD STRESS OF 36.0 KSI.
5. SEE DETAIL 1, THIS SHEET FOR LIGHT POLE BASE BACKFILL REQUIREMENTS.

DETAIL 2 KEY NOTES:

1. USE SILICONE FILLED WIRE NUTS WITH SPLICES.
2. SPLIT STYLE, COLOR MATCH TO POLE.
4. LOCATE JUST INSIDE THE REBAR SPIRAL PERIMETER.
5. START AND STOP SPIRAL 3" BELOW TOP AND ABOVE BOTTOM. SPIRAL TO HAVE 14" DIAMETER WITH 1 TURN EVERY 3".

PLANS DEVELOPED BY:
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5368 COMMERCIAL BLVD.
JUNEAU, AK 99801
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STATE OF ALASKA
49TH
Wesley A. Holden
07/30/2019
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AIRPORT PERIMETER FENCING UPGRADES CIVIL STANDARDS

20FT AREA LIGHT POLE DETAILS

FILE | \\JNU-FS\Jnu-projects\24\70985-01\ESCAD\CIVIL Standard Drawings\Civil Standards - SC 7-12-13.dwg | DATE 7/25/2019 15:35 | LAYOUT SC7 | DESIGNED WH | CHECKED NH | DRAFTED JK

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

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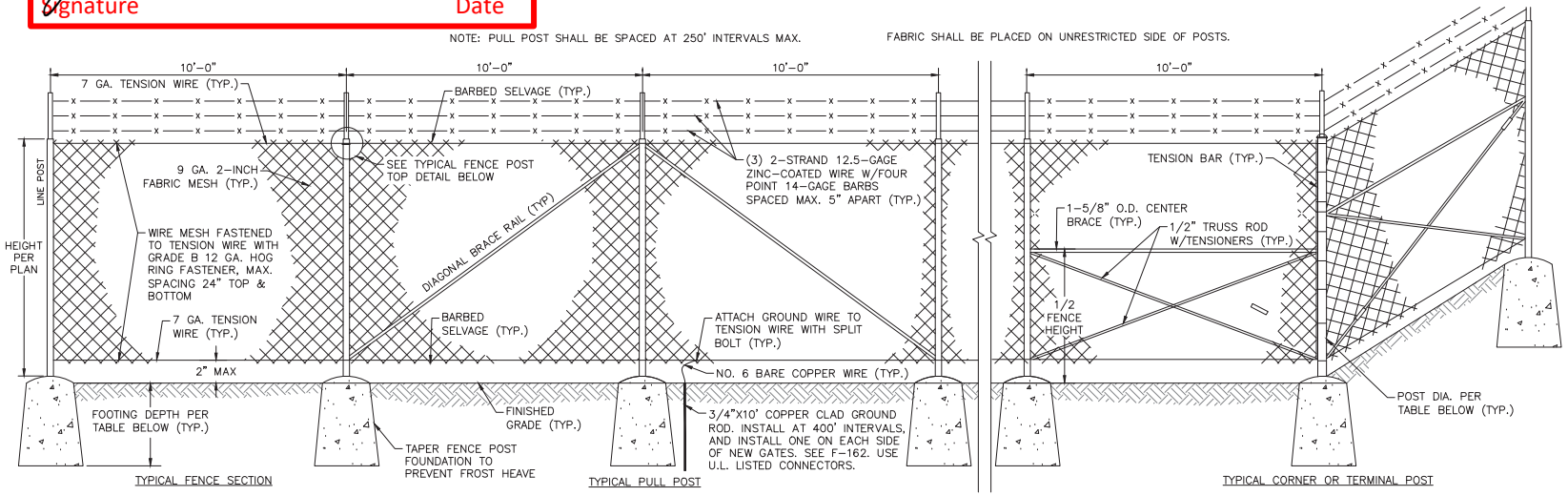
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175/00176	2019	SC8	9

NOTE: PULL POST SHALL BE SPACED AT 250' INTERVALS MAX.

FABRIC SHALL BE PLACED ON UNRESTRICTED SIDE OF POSTS.



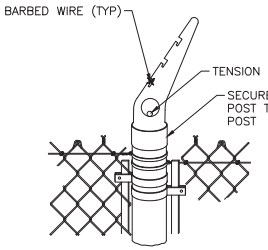
TYPICAL FENCE SECTION

TYPICAL PULL POST

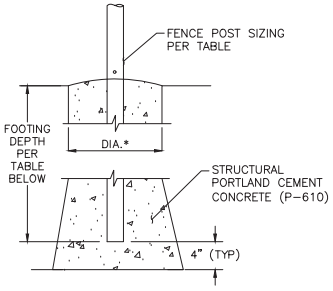
TYPICAL CORNER OR TERMINAL POST

CHAINLINK FENCE NOTES:

1. POSTS SHALL BE SPACED EQUAL DISTANCES APART. MAXIMUM SPACING SHALL BE 10 FEET UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
2. POST TOPS SHALL BE SECURELY FASTENED TO POST.
3. BRACE RAILS AND TRUSS RODS SHALL BE SECURELY FASTENED TO POST WITH BRACE BANDS WITH THREADED TAKE-UP ADAPTER FOR TRUSS RODS.
4. GROUND WIRE SHALL BE ATTACHED TO FENCE FABRIC BY MEANS OF A SPLIT BOLT.
5. FABRIC SHALL BE STRETCHED TO A SMOOTH UNIFORM APPEARANCE.
6. DETAILS SHOWN INDICATE GENERAL DESIGN AND DIMENSIONS MAY VARY AMONG MANUFACTURERS.
7. LINE POST SHALL BE SET IN CONCRETE UNLESS SHOWN OTHERWISE ON THE PLANS.
8. FABRIC SHALL BE PLACED ON UNRESTRICTED SIDE OF POSTS.

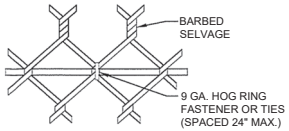


TYPICAL POST TOP

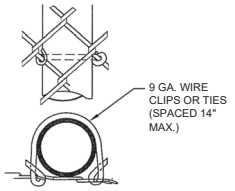


CONCRETE POST SETTING

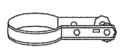
NOTE: SEE TABLE BELOW



TYPICAL METHOD OF TYING FABRIC TO TENSION WIRE

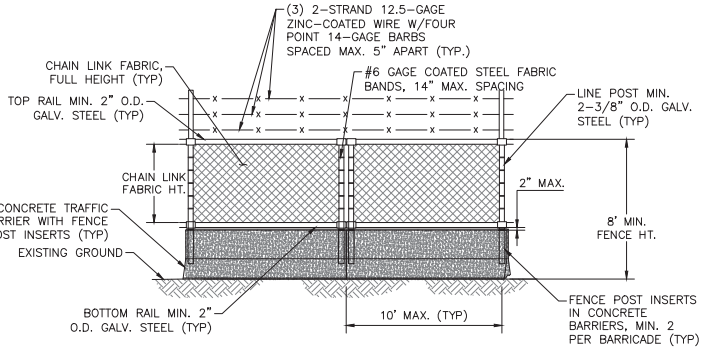


TYPICAL METHOD OF TYING FABRIC TO TUBULAR POSTS



TYPICAL METHOD OF TYING FABRIC TO TUBULAR POSTS

BACK STOP C-2



TEMPORARY CHAINLINK FENCE NOTES:

1. SEE PROJECT AIRPORT-SPECIFIC CONSTRUCTION SAFETY AND PHASING PLAN FOR TEMPORARY FENCE LOCATIONS.
2. DETAILS SHOWN INDICATE GENERAL DESIGN. SUPPLIED TEMPORARY FENCE SHALL MEET ALL TSA REQUIREMENTS.
3. POST TOPS SHALL BE SECURELY FASTENED TO POSTS.
4. FABRIC SHALL BE STRETCHED TO A SMOOTH UNIFORM APPEARANCE.
5. FABRIC SHALL BE PLACED ON UNRESTRICTED SIDE OF POSTS.

① TEMPORARY CHAIN LINK FENCE DETAIL

NOT TO SCALE

CHAINLINK FENCE DESIGN PARAMETERS

FENCE FABRIC HEIGHT	POST TYPE								TOP RAIL OR BRACE RAIL	
	END-CORNER-PULL				LINE-BRACE					
	PIPE		FOOTING		PIPE		FOOTING		PIPE	
	SIZE (IN.)	LB/FT	DEPTH (IN.)	DIA. (IN.)	SIZE (IN.)	LB/FT	DEPTH (IN.)	DIA. (IN.)	SIZE	LB/FT
8'	2 7/8	4.64	54	18	2 3/8	3.12	40	12	1 1/4	1.25
10'	3	4.64	60	18	2 7/8	4.64	40	12	1 1/4	1.25

① CHAIN LINK FENCE DETAILS

NOT TO SCALE

PLANS DEVELOPED BY:
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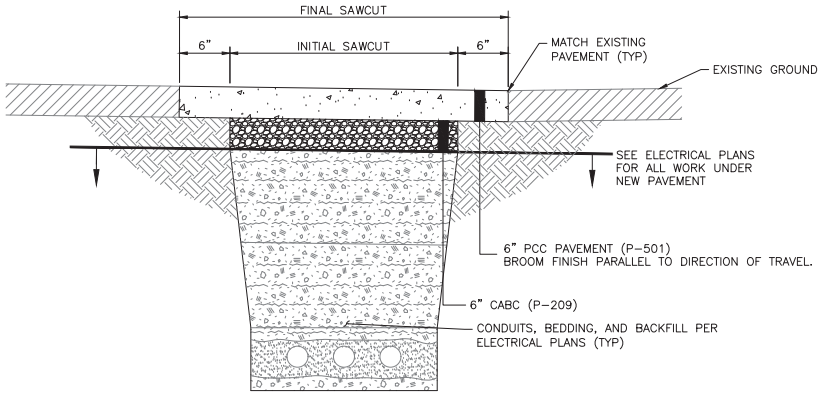
AIRPORT PERIMETER FENCING UPGRADES CIVIL STANDARDS

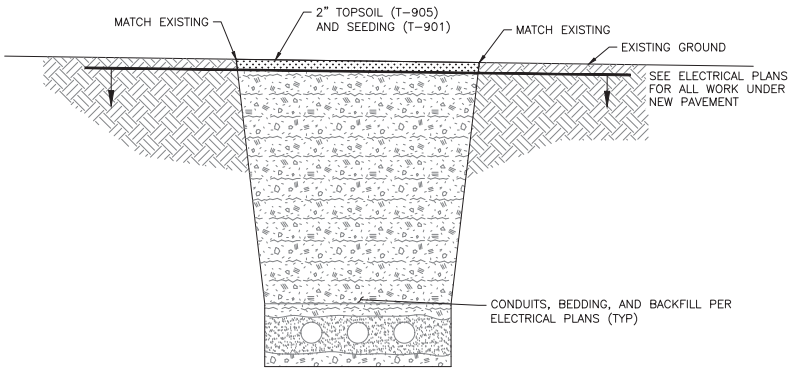
FENCE DETAILS

DRAFTED JK | CHECKED NH | DESIGNED WH | LAYOUT SC8 | DATE 8/26/2019 20:21 | FILE \\JNU-FS\hr-projects\24\70988-01\65CAD\CIVIL Standard Drawings\Civil Standards - SC 7-12-13.dwg

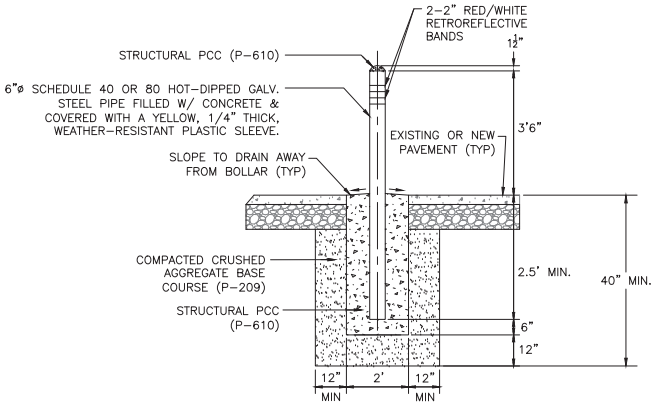
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00175/00176	2019	SC9	9



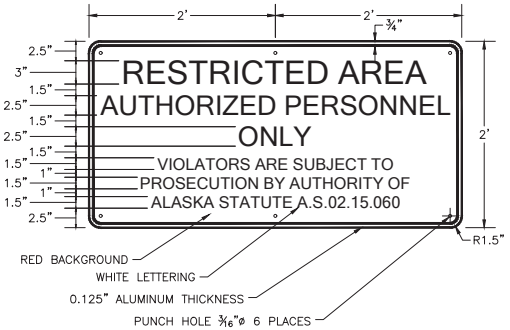
① TYPICAL TRENCH REPAIR SECTION - PAVED AREAS
NOT TO SCALE



② TYPICAL TRENCH REPAIR SECTION - UNPAVED AREAS
NOT TO SCALE

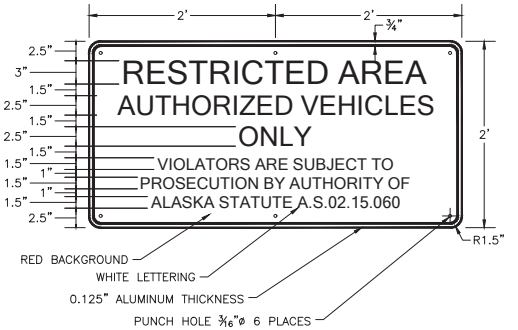


③ BOLLARD DETAIL
NOT TO SCALE



④ FENCE RESTRICTED AREA SIGN DETAIL
NOT TO SCALE

NOTES:
1. INSTALL NEW SIGNS AT MAXIMUM 200' INTERVALS ON ALL NEW FENCING. 200' INTERVALS TO BEGIN AT NEAREST EXISTING SIGN ON ADJACENT EXISTING FENCING, OR WHERE FENCE CONNECTS TO AN EXISTING BUILDING.
2. INSTALL ONE SIGN ON THE UNRESTRICTED SIDE OF ALL NEW PEDESTRIAN GATES.
3. INSTALL SIGNS AT 7' HEIGHT, AS MEASURED FROM GROUND TO TOP OF SIGN.
4. USE ALUMINUM WIRE TIES TO SECURE SIGN TO FENCE.



⑤ VEHICLE GATE RESTRICTED AREA SIGN DETAIL
NOT TO SCALE

NOTE:
1. INSTALL ONCE SIGN AT EACH NEW VEHICLE GATE, CENTERED ON THE CLEAR OPENING WIDTH.
2. POST SIGN AT 7' HEIGHT, AS MEASURED FROM GROUND TO TOP OF SIGN.
3. USE ALUMINUM WIRE TIES TO SECURE SIGN TO FENCE.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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AIRPORT PERIMETER FENCING UPGRADES CIVIL STANDARDS

CIVIL DETAILS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE1	24

AIRPORT PERIMETER FENCING UPGRADE STANDARD DRAWINGS FOR KETCHIKAN & PETERSBURG

PROJECT NO. SFAPT00176 & 00175

GENERAL NOTE:

1. IN REFERENCE TO STANDARD DRAWINGS SE1 THROUGH SE24, ALL ELECTRICAL IS SUBJUGATE TO PROJECT SPECIFIC DRAWINGS. THIS INCLUDES ALL ELECTRICAL DESCRIPTIONS, SPECIFICATIONS, DIMENSIONS, DETAILS, SIZES, LOCATIONS, CAPACITIES, ETC. WHERE PROJECT SPECIFIC DRAWING ELECTRICAL INFORMATION CONFLICTS WITH THE STANDARD DRAWINGS, ADHERE TO THE PROJECT SPECIFIC DRAWINGS. WHERE PROJECT SPECIFIC DRAWINGS DO NOT INCLUDE ELECTRICAL INFORMATION THAT IS INCLUDED IN THE STANDARD DRAWINGS, ADHERE TO THE PROJECT SPECIFIC DRAWINGS. NOTIFY THE ENGINEER OF ANY CONFLICTS ENCOUNTERED BETWEEN THE STANDARD DRAWINGS AND THE PROJECT SPECIFIC DRAWINGS.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

ELECTRICAL LEGEND

AES	ADVANCED ENCRYPTION STANDARD	(M)	METER/MAIN
ACL	ACCESS CONTROL	MIN	MINIMUM
ADJ.	ADJACENT	NEC	NATIONAL ELECTRICAL CODE
AFF	ABOVE FINISHED FLOOR	NO. 8	2 CONDUCTOR NUMBER 8 AWG
AFG	ABOVE FINISHED GRADE	NFS	NON-FROST SUSCEPTIBLE
AUX	AUXILIARY	N.C.	NORMALLY CLOSED
AWG	AMERICAN WIRE GAUGE	N.O.	NORMALLY OPEN
BLDG	BUILDING	NOM.	NOMINAL
C/B	CIRCUIT BREAKER	OSDP	OPEN SUPERVISED DEVICE PROTOCAL
20/3	CIRCUIT BREAKER (AMPS/POLES)	PED	PEDESTRIAN
CKT	CIRCUIT	PTMP	POINT TO MULTI-POINT
COAX	COAXIAL CABLE	PTP	POINT TO POINT
C	CONDUIT	PWR	POWER
COND	CONDUCTOR	POE	POWER OVER ETHERNET
CTRL	CONTROL	PVC	RIGID POLYVINYL CHLORIDE CONDUIT
CU	COPPER	REC	RECEPTACLE
⊕	DOUBLE DUPLEX (QUAD) RECEPT.	RM	READER MODULE
ENCL	ENCLOSURE	STP	SHIELDED TWISTED PAIR
EXTG	EXISTING	SAS	SITE APPLICATION SERVER
GFI	GROUND FAULT INTERRUPTER	STR	STRANDED
GND	GROUND	SPD	SURGE PROTECTION DEVICE
GRS	GALVANIZED RIGID STEEL	SS	316 STAINLESS STEEL
GRC	GALVANIZED RIGID STEEL CONDUIT	TC	TINNED COPPER
HH	HANDHOLE	TSP	TWISTED SHIELDED PAIR
HTR	HEATER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION DEVICE
ISP	INTERNET SERVICE PROVIDER	TYP-#	TYPICAL OF # (TYP-2) = TYPICAL OF 2
J-BOX	JUNCTION BOX	WAN	WIDE AREA NETWORK
LTG	LIGHTING	WP	WEATHERPROOF
LOS	LINE OF SIGHT	W/	WITH
LR	LONG RANGE	XLPE	CROSS-LINKED POLYETHYLENE
■	MAIN LUG	1ϕ, 3W	1 PHASE, 3 WIRE
MAX	MAXIMUM	VAC	VOLTS AC
MAS	MASTER APPLICATION SERVER	VDC	VOLTS DC

SHEET LIST TABLE

SHEET NO.	SHEET TITLE
SE1	GENERAL NOTES & LEGEND
SE2	VERTICAL PIVOT GATE ELECTRICAL SITE PLAN
SE3	VERTICAL PIVOT GATE ELEVATION
SE4	CANTILEVER GATE ELECTRICAL SITE PLAN
SE5	CANTILEVER GATE ELEVATIONS
SE6	PEDESTRIAN GATE ELEVATION
SE7	1-CONTROLLER READER & DEVICE SCHEMATIC
SE8	3-CONTROLLER READER & DEVICE SCHEMATIC
SE9	4-CONTROLLER READER & DEVICE SCHEMATIC
SE10	5-CONTROLLER READER & DEVICE SCHEMATIC
SE11	NETWORK RACK DETAILS
SE12	ENCLOSURE RACK ELEVATION
SE13	DUAL ENCLOSURE RACK ELEVATION
SE14	POWER PANEL DETAILS
SE15	ACCESS CONTROL ENCLOSURE DETAILS
SE16	DUAL ACCESS CONTROL ENCLOSURE DETAILS
SE17	VEHICLE GATE ISLAND ELEVATION
SE18	TRENCH & JUNCTION BOX DETAILS
SE19	20' LIGHT POLE DETAILS
SE20	30' LIGHT POLE DETAILS
SE21	GATE SAFETY DEVICE DETAILS
SE22	LONG RANGE READER DETAILS
SE23	WIRELESS NETWORK ANTENNA DETAILS
SE24	MANUFACTURER INFORMATION

PLANS DEVELOPED BY:
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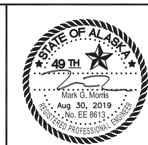

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

GENERAL NOTES & LEGEND

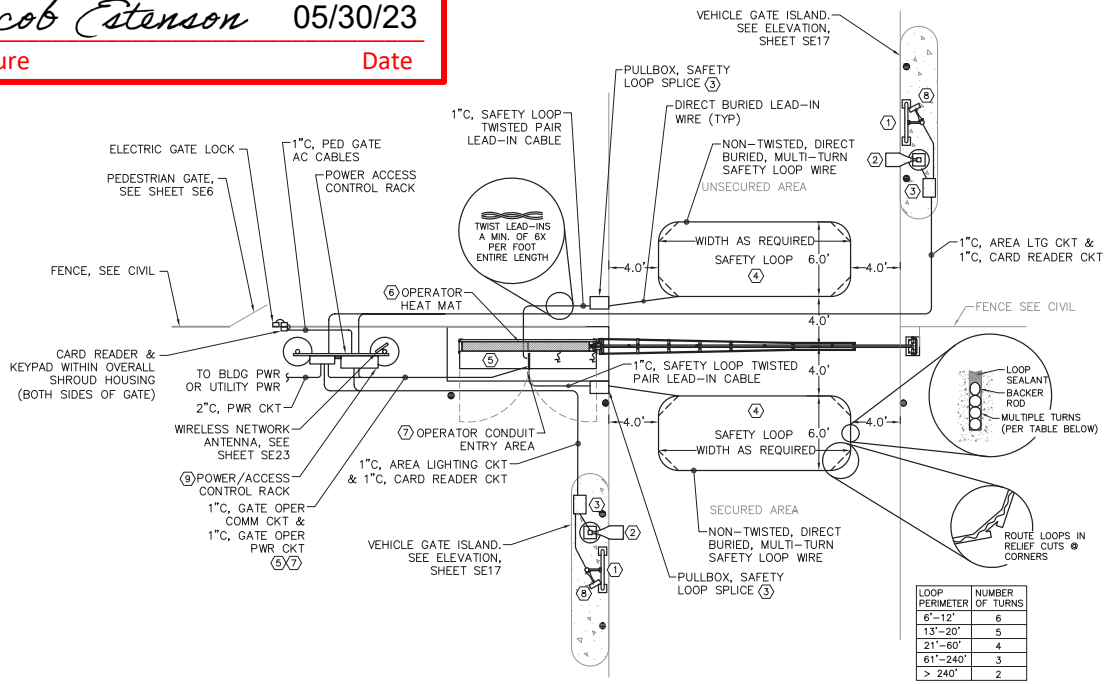
DRAFTED	JRW
CHECKED	MGM
DESIGNED	MGM
LAYOUT	SE1
DATE	8/30/2019 8:41
FILE	y:\102 state of ak\41 airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings pse\GENERAL NOTES & LEGEND.dwg

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE2	24



LOOP PERIMETER	NUMBER OF TURNS
6'–12'	6
13'–20'	5
21'–60'	4
61'–240'	3
> 240'	2

(1) VERTICAL PIVOT GATE ELECTRICAL SITE PLAN

NOT TO SCALE

SCALE IN FEET 0 5 10 FT.

KEY NOTES:

(1) DUAL ISLAND CARD READERS. SEE READER & DEVICE SCHEMATICS ON SHEETS SE7–SE10, THE ACCESS CONTROL POWER & NETWORK SCHEMATIC FOR THE SPECIFIC GATE, AND ISLAND ELEVATION DETAILS ON SHEET SE17.

(2) ISLAND AREA LIGHT FIXTURE ON 20' POLE, UNLESS OTHERWISE NOTED. SEE SHEET SE19 FOR DETAILS. SEE SINGLE LINE DIAGRAM FOR SPECIFIC GATE.

(3) TRAFFIC RATED IN-GRADE JUNCTION BOX. SEE READER ISLAND ELEVATION DETAIL 1, SHEET SE17 AND DETAIL 3, SHEET SE18 FOR JUNCTION BOX.

(4) VEHICLE SAFETY LOOPS. SEE READER & DEVICE SCHEMATICS ON SHEETS SE7–SE10 AND THE ACCESS CONTROL POWER & NETWORK SCHEMATIC FOR THE SPECIFIC GATE. BOTH SAFETY LOOPS ARE THE SAME SIZE AND IN SAME LOCATION RELATIVE TO GATE.

(5) VERTICAL PIVOT GATE OPERATOR. POWER PER SINGLE LINE DIAGRAM FOR SPECIFIC GATE, PROVIDE CONTROL AND COMMUNICATION CONNECTIONS AS SHOWN ON READER & DEVICE SCHEMATICS ON SHEETS SE7–SE10 AND THE ACCESS CONTROL POWER & NETWORK SCHEMATIC FOR THE SPECIFIC GATE.

(6) INSTALL THERMOSTATICALLY CONTROLLED HEAT MAT WITH CORD & PLUG BELOW THE OPERATOR THROAT AREA OF THE GATE OPERATOR. PLUG INTO THE SERVICE RECEPTACLE WITHIN THE GATE OPERATOR, SEE SINGLE LINE DIAGRAM FOR SPECIFIC GATE.

(7) ROUTE ALL GATE OPERATOR CONDUITS TO CONDUIT STUB-UP AREA, VERIFY THAT LOCATION WITH GATE INSTALLATION INSTRUCTIONS.

(8) LONG RANGE READER. SEE SHEET SE22 AND APPLICABLE SCHEMATICS. THE READER HAS AN 80° WIDE DETECTION AREA THAT EXTENDS 33 FEET FROM READER. POSITION READER SO THE VEHICLE APPROACH TO GATE IS IN CENTER OF DETECTION AREA.

(9) POWER/ACCESS CONTROL RACK. SEE SHEETS SE12 & SE13.

SHEET NOTES:

1. THIS SITE PLAN DEPICTS A TYPICAL LAYOUT OF EQUIPMENT AT A 24 FOOT WIDE DRIVEWAY WITH A VERTICAL PIVOT GATE SYSTEM. THIS PLAN INCLUDES GENERAL SIZING, SPACING, DIMENSIONAL RELATIONSHIPS BETWEEN ADJACENT ELEMENTS AND WIRING. PROVIDE ELECTRICAL FOR ALL VERTICAL PIVOT GATES PER THIS SHEET AND GATE ELEVATION SHEET SE3. THE SITE PLANS SHOWN FOR EACH VERTICAL PIVOT GATE AT EACH AIRPORT MAY HAVE EQUIPMENT IN DIFFERENT LOCATIONS. MAKE ADJUSTMENTS TO WHAT IS SHOWN ON THIS SHEET TO LOCATE EQUIPMENT AS SHOWN ON SITE PLANS FOR EACH GATE.
2. CARD READER ISLANDS ON EITHER SIDE OF THE VEHICLE GATES ARE MIRROR IMAGES OF ONE ANOTHER WITH THE SAME EQUIPMENT IN THE SAME RELATIVE LOCATIONS. SEE SHEET SE17 FOR ISLAND ELEVATIONS.
3. SEE SHEET SE4 FOR CANTILEVER GATE SITE PLAN.
4. SEE PROJECT CIVIL DRAWINGS FOR ALL NON-ELECTRICAL WORK (FENCING, DRIVEWAYS, STRUCTURAL CONCRETE). PROJECT SHALL ADHERE TO CIVIL ENGINEER REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS REQUIRED OF THE PROJECT.
5. GATE STANCHION FOUNDATION PER CIVIL.
6. CONDUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY. WHERE APPLICABLE AND PRACTICAL, ROUTE CONDUITS IN COMMON TRENCHES. SEE SHEET SE18 FOR TRENCH AND JUNCTION BOX DETAILS.
7. LOOP DETECTOR WIRE SHALL BE 14 GAUGE COPPER WIRE WITH XLPE INSULATION. WIRE SHALL BE STRANDED, TINNED, AND RATED FOR 600 VOLTS.
8. FOR PRE-POUR LOOPS, UTILIZE FIBERGLASS (NON-METALLIC) MESH TO SET AND MAINTAIN LOOPS AT DEFINITE DEPTH.
9. FOR PRE-POUR LOOPS, CONCRETE CUTS, BACKER ROD, AND LOOP SEALANT NOT REQUIRED. HOWEVER, ALL 90-DEGREE CORNERS MUST BE CHAMFERED AS MUCH AS POSSIBLE TO MINIMIZE SHARP WIRE TURNING ANGLES.
10. FOR CUT-IN LOOPS, SEALANT SHALL BE COMMERCIAL GRADE AND MADE SPECIFICALLY FOR TRAFFIC LOOP APPLICATIONS.
11. FOR CUT-IN LOOPS, USE A BACKER ROD TO ENSURE THAT LOOPS HOLD FIRM WITHIN THE SAW CUTS.
12. ENSURE ELECTRICAL NOISE NEAR THE LOOPS IS MINIMIZED.
13. RUN DETECTOR LOOPS CONTINUOUS FROM OPERATOR CONTROLLER THROUGH LEAD-IN CONDUIT OUT TO DIRECT BURIED LOOPS. WHERE SPLICED ARE NEEDED, SOLDER CONNECTIONS SHALL BE PROVIDED IN LIEU OF WIRE NUTS.
14. DO NOT LEAVE EXCESS LOOP WIRE COILED IN THE CONTROLLER IN THE OPERATOR AS THAT CAN GENERATE FALSE OPERATION.
15. PRIOR TO COVERING LOOPS OR PATCHING DRIVEWAY BACK WHERE LOOPS WERE CUT IN CONTRACTOR SHALL PERFORM A MEGGER TEST ON THE LOOPS TO DETERMINE LOOP RESISTANCE LEVEL. RESISTANCE LEVEL SHALL BE PROVIDED IN A WRITTEN REPORT AND CONFIRMED TO MEET OR EXCEED MANUFACTURER REQUIREMENTS PRIOR TO COVERING THE LOOP.
16. FOR ALL NEW DRIVEWAY INSTALLATIONS OR DRIVEWAY RESURFACING PROJECTS, IT IS ACCEPTABLE TO USE PRE-FORMED SAFETY LOOPS IN LIEU OF THE MULTI-WIRE SAFETY LOOPS DETAILED HERE. CONTINUE TO FOLLOW APPLICABLE ITEMS FOUND WITHIN THIS DETAIL WHEN INSTALLING PRE-FORMED LOOPS.
17. SEE CIVIL DRAWINGS FOR ALL CIVIL WORK INCLUDING GATE, GATE OPERATOR, FENCING, GATE ISLANDS, ALL FOUNDATIONS, PAVING, FILL, CONCRETE, BOLLARDS, ETC.
18. THIS DETAIL APPLIES EQUALLY TO A GATE CONFIGURED WITH THE OPERATOR ON THE OPPOSITE SIDE OF THE DRIVEWAY WITH ALL ELEMENTS SHOWN MIRRORED ACROSS THE DRIVEWAY.
19. NUMBER OF BOLLARDS AT GATE & GATE ISLANDS BY CIVIL AND WILL VARY LOCATION BY LOCATION. MODIFY ELECTRICAL ACCORDINGLY.

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Mark G. Morris
July 30, 2019
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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

VERTICAL PIVOT GATE ELECTRICAL SITE PLAN

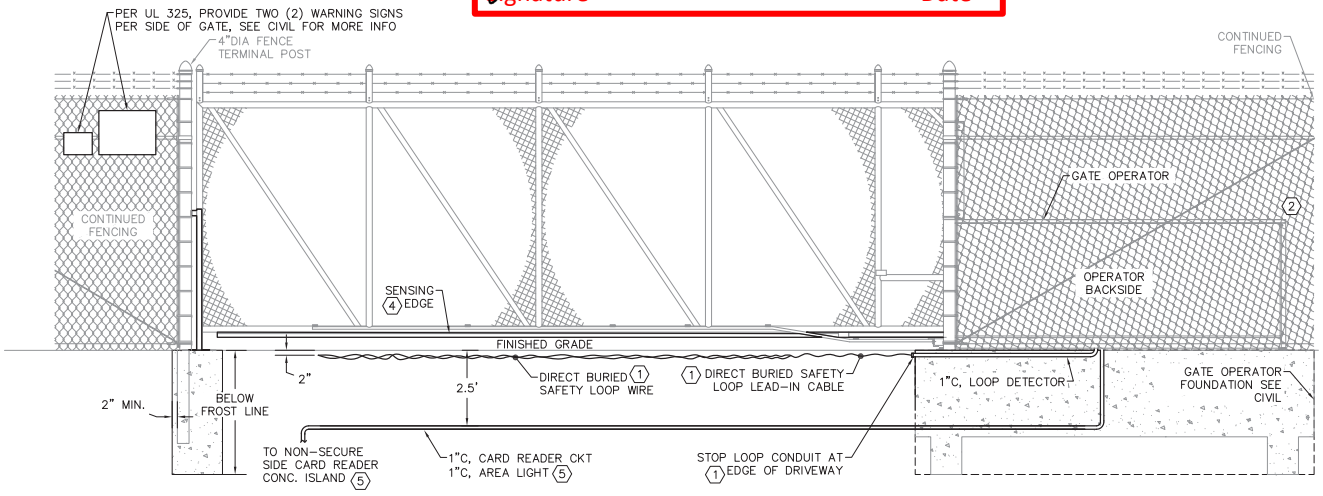
FILE | p:\102 state of ak\kt airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings sse\VERTICAL PIVOT GATE ELECTRICAL SITE PLAN.dwg | DATE | 7/26/2019 17:18 | LAYOUT | SE2 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

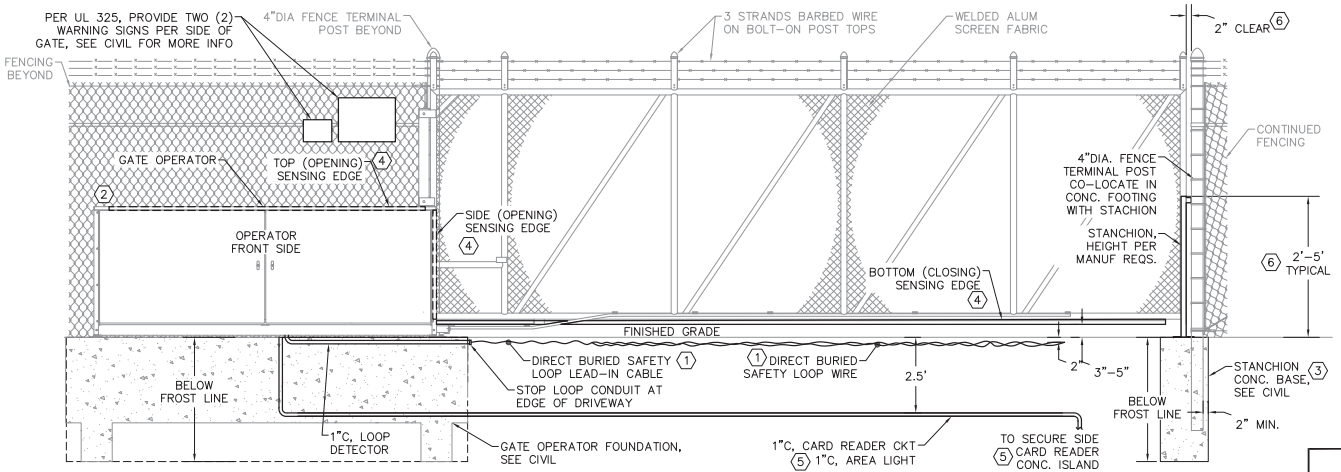
Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE3	24



1 VERTICAL PIVOT GATE NON-SECURE SIDE ELEVATION

NOT TO SCALE



2 VERTICAL PIVOT GATE SECURE SIDE ELEVATION

NOT TO SCALE

SHEET NOTES:

1. THESE GATE ELEVATIONS DEPICT A GENERAL LAYOUT OF POWERED EQUIPMENT AT A 24 FOOT WIDE DRIVEWAY USING A VERTICAL PIVOT GATE SYSTEM. THESE DETAILS INCLUDE GENERAL SIZING, SPACING, AND DIMENSIONAL RELATIONSHIPS BETWEEN ADJACENT ELEMENTS. SEE THE SITE PLAN ON SHEET SE2 AND CIVIL FOR MORE INFORMATION.
2. GATE SITE PLANS AND DETAILS FOR CANTILEVER GATES SEE SHEETS SE4 & SE5.
3. SEE SINGLE LINE DIAGRAM AND CONTROL SCHEMATIC DETAILS ON SHEETS SE7–SE10 AND GATE SPECIFIC POWER & NETWORK SCHEMATIC FOR POWER AND CONTROL CIRCUITING OF EQUIPMENT AT GATES.
4. BURY ALL CONDUIT PER TRENCH DETAILS 1 & 2, SHEET SE18. MAINTAIN 2" MINIMUM BURIAL DEPTH WHERE CONDUIT IS IN A CONCRETE SLAB.
5. NOT ALL ELEMENTS WITHIN ONE DETAIL ARE NOTED. REVIEW BOTH DETAILS FOR A COMPLETE SET OF ELEMENT NOTES AND KEY NOTES.
6. ALL CIVIL REQUIREMENTS SHOWN ARE GRAPHIC AND GENERIC IN NATURE. PROJECT SHALL ADHERE TO CIVIL ENGINEER REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS REQUIRED OF THE PROJECT.
7. CONDUIT ROUTING SHOWN IN THIS DETAIL IS DIAGRAMMATIC ONLY. WHERE APPLICABLE AND PRACTICAL, ROUTE CONDUITS IN COMMON TRENCHES. FOLLOW TRENCHING AND CONDUIT PLACEMENT REQUIREMENTS ON SHEET SE18.
8. GATE OPERATOR SHALL BE SOLIDLY GROUNDED TO THE OPERATOR FOUNDATION, AND BONDED TO THE ADJACENT FENCE LINE. PROVIDE FENCE LINE GROUND RODS, AND ROD CONNECTIONS BACK TO ELECTRICAL GROUNDING SYSTEM AS REQUIRED (NOT SHOWN HERE).
9. PROVIDE GATE WARNING SIGNS ON BOTH SIDES OF THE GATE PER UL 325 REQUIREMENTS. EXACT LOCATIONS, SIZES, AND TEXT & SYMBOLS ON THE SIGNS AS REQUIRED PER CODE.

KEY NOTES:

1. EMBEDDED VEHICLE SAFETY LOOPS ON BOTH SIDES OF THE GATE. SEE SHEET SE2 FOR SAFETY LOOP INSTALLATION DETAILS. LOCATE TWO INCHES BELOW FINISHED GRADE.
2. WHERE GATE OPERATOR IS NOT SUFFICIENTLY LONG TO ENCAPSULATE THE FULL HEIGHT OF THE VERTICAL GATE WHEN PERPENDICULAR TO GRADE PROVIDE GATE GUARD AT BACK OF OPERATOR TO PREVENT GATE DAMAGE OR ENTRAPMENT HAZARDS. FOLLOW MANUFACTURER GUIDELINES FOR GUARD SPECIFICATIONS.
3. PROVIDE A MINIMUM 12" DIA. CONCRETE BASE FOR STANCHION. CO–LOCATE THE TERMINAL FENCE POST IN THE SAME CONCRETE BASE. WRAP FOUNDATION WITH THREE LAYERS OF 6MIL POLY SHEETING.
4. GATE BOTTOM, TRAILING SIDE, AND OPERATOR TOP EDGE SENSING STRIPS AS REQUIRED PER UL 325. SEE DETAIL 1, SHEET SE21 FOR MOUNTING INFORMATION. CONNECT INTO THE OPERATOR CONTROL PANEL PER SHEETS SE7–SE10.
5. CONDUITS ARE ROUTED TO CONCRETE CARD READER ISLAND ALONG DRIVEWAY. SEE SITE PLANS ON SHEET SE2, SITE PLANS FOR GATES, AND DETAILS SHEET SE17 FOR ISLAND ELEVATION.
6. PROVIDE STANCHION POST AT END OF PIVOT GATE. MOUNT AND SUPPORT FROM CONCRETE BASE AS REQUIRED PER MANUFACTURER RECOMMENDATIONS. SET POST PLUMB WITH FINISHED GRADE AND COORDINATE CLEARANCE BETWEEN GATE AND FENCE TERMINAL POST WITH CIVIL ENGINEER.

PLANS DEVELOPED BY:
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July 30, 2019
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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

VERTICAL PIVOT GATE ELEVATION

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE4	24

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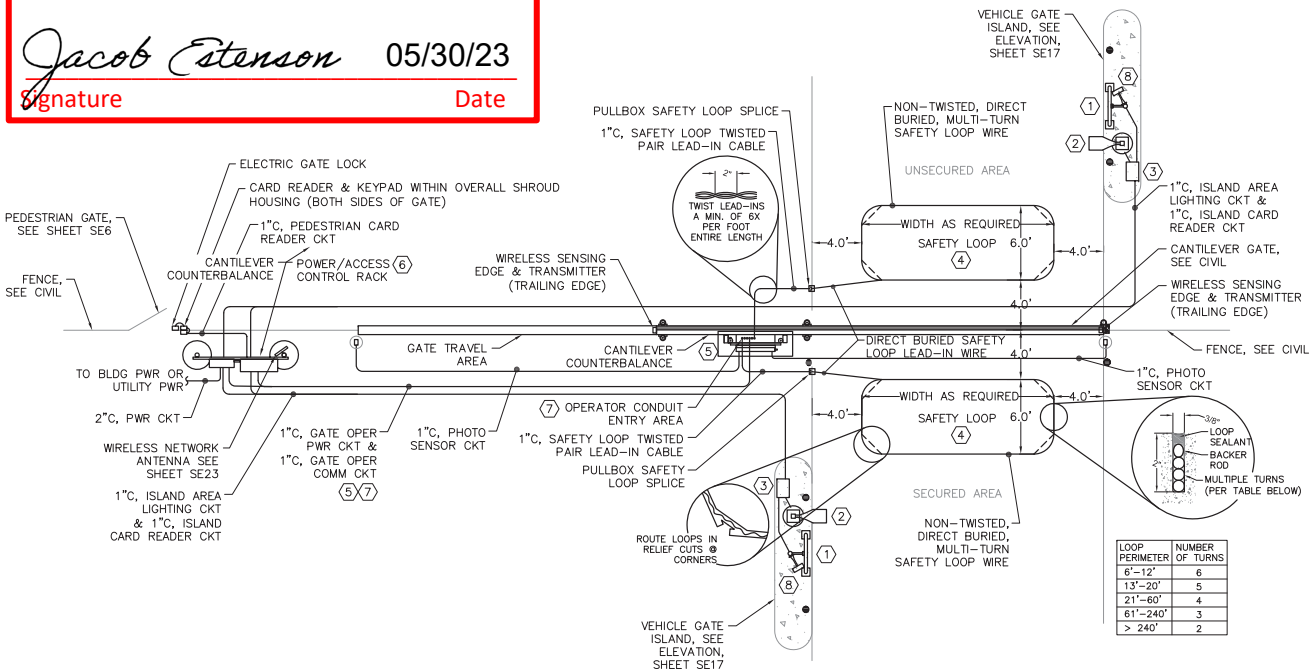
Jacob Estenson 05/30/23

Signature Date



LOOP PERIMETER	NUMBER OF TURNS
6'–12'	6
13'–20'	5
21'–60'	4
61'–240'	3
> 240'	2

1 CANTILEVER GATE ELECTRICAL SITE PLAN

NOT TO SCALE

KEY NOTES:

1. DUAL ISLAND CARD READERS. SEE READER WIRING DIAGRAMS ON SHEETS SE7–SE10, GATE SPECIFIC ACCESS CONTROL POWER & NETWORK SCHEMATICS, AND ISLAND ELEVATION DETAILS ON SHEET SE17.
2. ISLAND AREA LIGHT FIXTURE ON 20' POLE, UNLESS OTHERWISE NOTED. SEE SHEET SE19 FOR DETAILS. SEE GATE SPECIFIC SINGLE LINE DIAGRAM.
3. CARD READER ISLAND JUNCTION BOX. SEE READER ISLAND ELEVATION DETAIL 1, SHEET SE17 AND DETAIL 3, SHEET SE18 FOR JUNCTION BOX.
4. VEHICLE SAFETY LOOPS. SEE WIRING DIAGRAMS ON SHEETS SE7–SE10 AND GATE SPECIFIC ACCESS CONTROL POWER & NETWORK SCHEMATICS.
5. GATE OPERATOR. POWER PER GATE SPECIFIC SINGLE LINE DIAGRAMS. PROVIDE CONTROL AND COMMUNICATION CONNECTIONS AS SHOWN ON SHEET SE7–SE10 AND GATE SPECIFIC ACCESS CONTROL POWER & NETWORK SCHEMATICS.
6. POWER/ACCESS CONTROL RACK. SEE SHEETS SE12 & SE13.
7. ROUTE ALL GATE OPERATOR CONDUITS TO CONDUIT STUB-UP AREA, VERIFY THAT LOCATION WITH GATE INSTALLATION INSTRUCTIONS FOR SPECIFIC MODEL/MANUFACTURER.
8. LONG RANGE READER. SEE SHEET SE22 AND APPLICABLE SCHEMATICS. THE READER HAS AN 80° WIDE DETECTION AREA THAT EXTENDS 33 FEET FROM READER. POSITION READER SO THE VEHICLE APPROACH TO GATE IS IN CENTER OF DETECTION AREA.

SHEET NOTES:

1. THIS SITE PLAN DEPICTS A TYPICAL LAYOUT OF EQUIPMENT AT A 24 FOOT WIDE DRIVEWAY WITH A CANTILEVER GATE SYSTEM. THIS PLAN INCLUDES GENERAL SIZING, SPACING, AND DIMENSIONAL RELATIONSHIPS BETWEEN ADJACENT ELEMENTS, AND WIRING. PROVIDE ELECTRICAL FOR ALL CANTILEVER GATES PER THIS SHEET AND GATE ELEVATION SHEET SE5. THE SITE PLANS SHOWN FOR EACH CANTILEVER GATE AT EACH AIRPORT MAY HAVE EQUIPMENT IN DIFFERENT LOCATIONS. MAKE ADJUSTMENTS TO WHAT IS SHOWN ON THIS SHEET TO LOCATE EQUIPMENT AS SHOWN ON SITE PLANS FOR EACH GATE.
2. CARD READER ISLANDS ON EITHER SIDE OF THE VEHICLE GATES ARE MIRROR IMAGES OF ONE ANOTHER WITH THE SAME EQUIPMENT IN THE SAME RELATIVE LOCATIONS. SEE SHEET SE17 FOR ISLAND ELEVATIONS.
3. SEE SITE PLANS AND DETAILS FOR VERTICAL PIVOT GATES ON SHEETS SE2–SE3.
4. SEE PROJECT CIVIL DRAWINGS FOR ALL NON-ELECTRICAL WORK (FENCING, DRIVEWAYS, STRUCTURAL CONCRETE). PROJECT SHALL ADHERE TO CIVIL ENGINEER REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS.
5. SEE CIVIL FOR GATE AND GATE ISLAND DETAILS.
6. LOOP DETECTOR WIRE SHALL BE 14 GAUGE COPPER WIRE WITH XLPE INSULATION. WIRE SHALL BE STRANDED, TINNED, AND RATED FOR 600 VOLTS.
7. FOR PRE-POUR LOOPS, UTILIZE FIBERGLASS (NON-METALLIC) MESH TO SET AND MAINTAIN LOOPS AT DEFINITE DEPTH.
8. FOR PRE-POUR LOOPS, CONCRETE CUTS, BACKER ROD, AND LOOP SEALANT NOT REQUIRED. HOWEVER, ALL 90-DEGREE CORNERS MUST BE CHAMFERED AS MUCH AS POSSIBLE TO MINIMIZE SHARP WIRE TURNING ANGLES.
9. FOR CUT-IN LOOPS, SEALANT SHALL BE COMMERCIAL GRADE AND MADE SPECIFICALLY FOR TRAFFIC LOOP APPLICATIONS.
10. FOR CUT-IN LOOPS, USE A BACKER ROD TO ENSURE THAT LOOPS HOLD FIRM WITHIN THE SAW CUTS.
11. ENSURE ELECTRICAL NOISE NEAR THE LOOPS IS MINIMIZED.
12. RUN DETECTOR LOOPS CONTINUOUS FROM OPERATOR CONTROLLER THROUGH LEAD-IN CONDUIT OUT TO DIRECT BURIED LOOPS. WHERE SPLICED ARE NEEDED, SOLDER CONNECTIONS SHALL BE PROVIDED IN LIEU OF WIRE NUTS.
13. DO NOT LEAVE EXCESS LOOP WIRE COILED IN THE CONTROLLER IN THE OPERATOR AS THAT CAN GENERATE FALSE OPERATION.
14. PRIOR TO COVERING LOOPS OR PATCHING DRIVEWAY BACK WHERE LOOPS WERE CUT IN CONTRACTOR SHALL PERFORM A MEGGER TEST ON THE LOOPS TO DETERMINE LOOP RESISTANCE LEVEL. RESISTANCE LEVEL SHALL BE PROVIDED IN A WRITTEN REPORT AND CONFIRMED TO MEET OR EXCEED MANUFACTURER REQUIREMENTS PRIOR TO COVERING THE LOOP.
15. FOR ALL NEW DRIVEWAY INSTALLATIONS OR DRIVEWAY RESURFACING PROJECTS, IT IS ACCEPTABLE TO USE PRE-FORMED SAFETY LOOPS IN LIEU OF THE MULTI-WIRE SAFETY LOOPS DETAILED HERE. CONTINUE TO FOLLOW APPLICABLE ITEMS FOUND WITHIN THIS DETAIL WHEN INSTALLING PRE-FORMED LOOPS.
16. THIS DETAIL APPLIES EQUALLY TO A GATE CONFIGURED WITH THE OPERATOR ON THE OPPOSITE SIDE OF THE DRIVEWAY WITH ALL ELEMENTS SHOWN MIRRORED ACROSS THE DRIVEWAY.
17. SEE CIVIL DRAWINGS FOR ALL CIVIL WORK INCLUDING GATE, GATE OPERATOR, FENCING, GATE ISLANDS, ALL FOUNDATIONS, PAVING, FILL, CONCRETE, BOLLARDS, ETC.
18. NUMBER OF BOLLARDS AT GATE & GATE ISLANDS BY CIVIL AND WILL VARY LOCATION BY LOCATION. MODIFY ELECTRICAL ACCORDINGLY.

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

CANTILEVER GATE ELECTRICAL SITE PLAN

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE5	24

SHEET NOTES:

1. THESE GATE ELEVATIONS DEPICT A GENERAL LAYOUT OF POWERED EQUIPMENT AT A 24–FOOT–WIDE DRIVEWAY. THESE DETAILS INCLUDE GENERAL SIZING, SPACING, AND DIMENSIONAL RELATIONSHIPS BETWEEN ADJACENT ELEMENTS. SEE SHEET SE4 FOR CANTILEVER GATE SITE PLAN.
2. SEE SHEET SE2 FOR VERTICAL PIVOT GATE SITE PLANS.
3. SEE GATE SPECIFIC SINGLE LINE DIAGRAMS, AND POWER AND NETWORK SCHEMATICS, AND SHEETS SE7–SE10 FOR ACCESS CONTROL READER & DEVICE SCHEMATICS.
4. ALL HORIZONTALLY RUN CONDUITS SHALL BE A MINIMUM OF TWO INCHES BELOW TOP OF CONCRETE. ALL VERTICALLY RUN CONDUIT SHALL BE A MINIMUM OF TWO INCHES FROM SIDES OF CONCRETE.
5. NOT ALL ELEMENTS WITHIN ONE DETAIL ARE NOTED. REVIEW BOTH DETAILS AND ALL PERTINENT SHEETS FOR COMPLETE DETAILS.
6. ALL CIVIL REQUIREMENTS SHOWN ARE GRAPHIC AND GENERIC IN NATURE. PROJECT SHALL ADHERE TO CIVIL ENGINEER REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS.
7. CONDUIT ROUTING SHOWN IN THIS DETAIL IS DIAGRAMMATIC ONLY WHERE APPLICABLE AND PRACTICAL, ROUTE CONDUITS IN COMMON TRENCHES. SEE SHEET SE18 FOR TRENCH DETAIL.
8. GATE OPERATOR SHALL BE SOLIDLY GROUNDED TO THE OPERATOR FOUNDATION AND BONDED TO THE ADJACENT FENCE LINE.
9. PROVIDE GATE WARNING SIGNS ON BOTH SIDES OF THE GATE PER UL 325 REQUIREMENTS. EXACT LOCATIONS, SIZES, TEXT, AND SYMBOLS ON THE SIGNS AS REQUIRED PER CODE.

KEY NOTES:

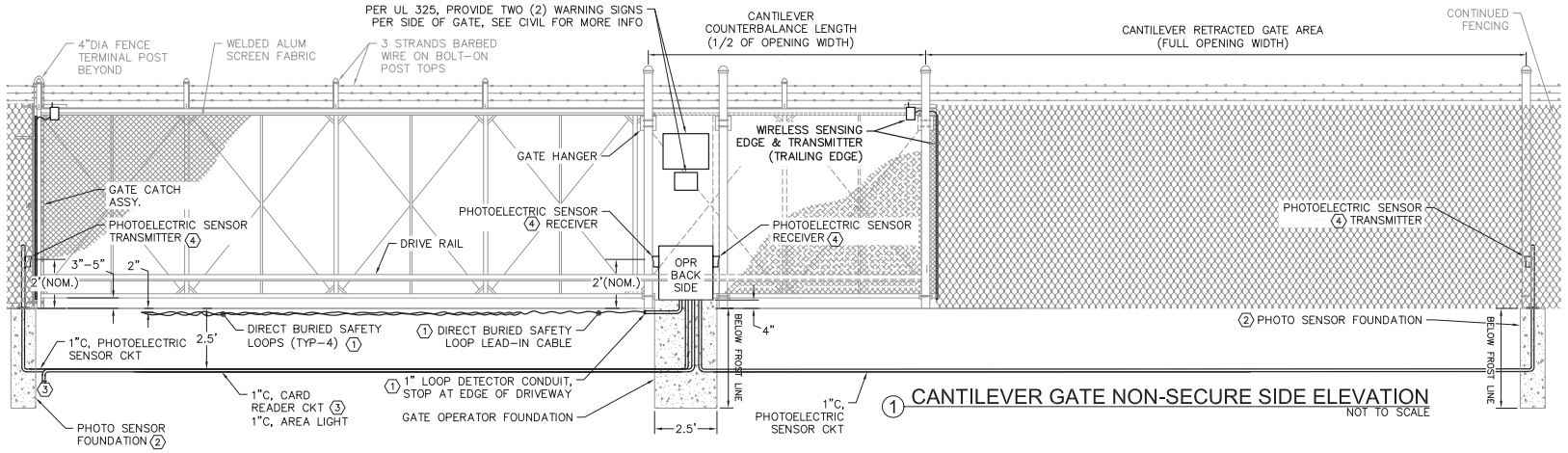
(1) EMBEDDED VEHICLE SAFETY LOOPS ON BOTH SIDES OF THE GATE. SEE SHEET SE4 FOR SAFETY LOOP DETECTOR INSTALLATION DETAILS. LOCATE BOTTOM OF LOOP TWO INCHES BELOW FINISHED GRADE.

(2) PROVIDE A MINIMUM 1' DIA. CONCRETE BASE FOR PHOTO SENSOR. CO–LOCATE THE TERMINAL FENCE POST IN THE SAME CONCRETE BASE. WRAP FOUNDATION WITH THREE LAYERS OF 6MIL POLY SHEETING.

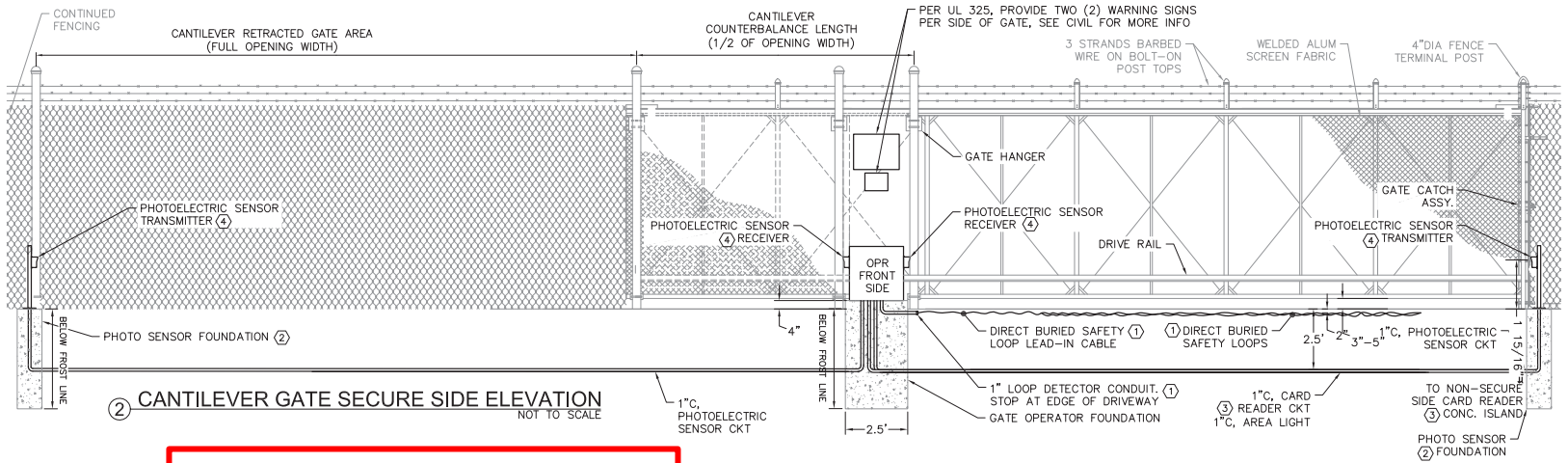
(3) CONDUITS ARE ROUTED TO CONCRETE CARD READER ISLAND ALONG DRIVEWAY. SEE SITE PLAN ON SHEET SE4 AND SHEET SE17 FOR ISLAND ELEVATION.

(4) MOUNT NO HIGHER THAN 27" OFF GROUND AND NO FURTHER THAN 6" AWAY FROM THE GATE MEMBER CENTERLINE. 24" MOUNTING HEIGHT SHOWN (TYP).

(5) MOUNT RECEIVER UNITS OF PHOTOELECTRIC SENSORS TO THE GATE OPERATOR SEE SHEET SE22 FOR SAFETY DEVICE DETAILS.



(1) CANTILEVER GATE NON-SECURE SIDE ELEVATION
NOT TO SCALE



(2) CANTILEVER GATE SECURE SIDE ELEVATION
NOT TO SCALE

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Jacob Estenson 05/30/23

Signature Date

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

CANTILEVER GATE ELEVATIONS

DRAFTED JRW | CHECKED MGM | DESIGNED MGM | LAYOUT SE5 | DATE 7/26/2019 17:18 | FILE y:\102 state of ak\kt airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings sse\VERTICAL PIVOT GATE ELECTRICAL SITE PLAN.dwg

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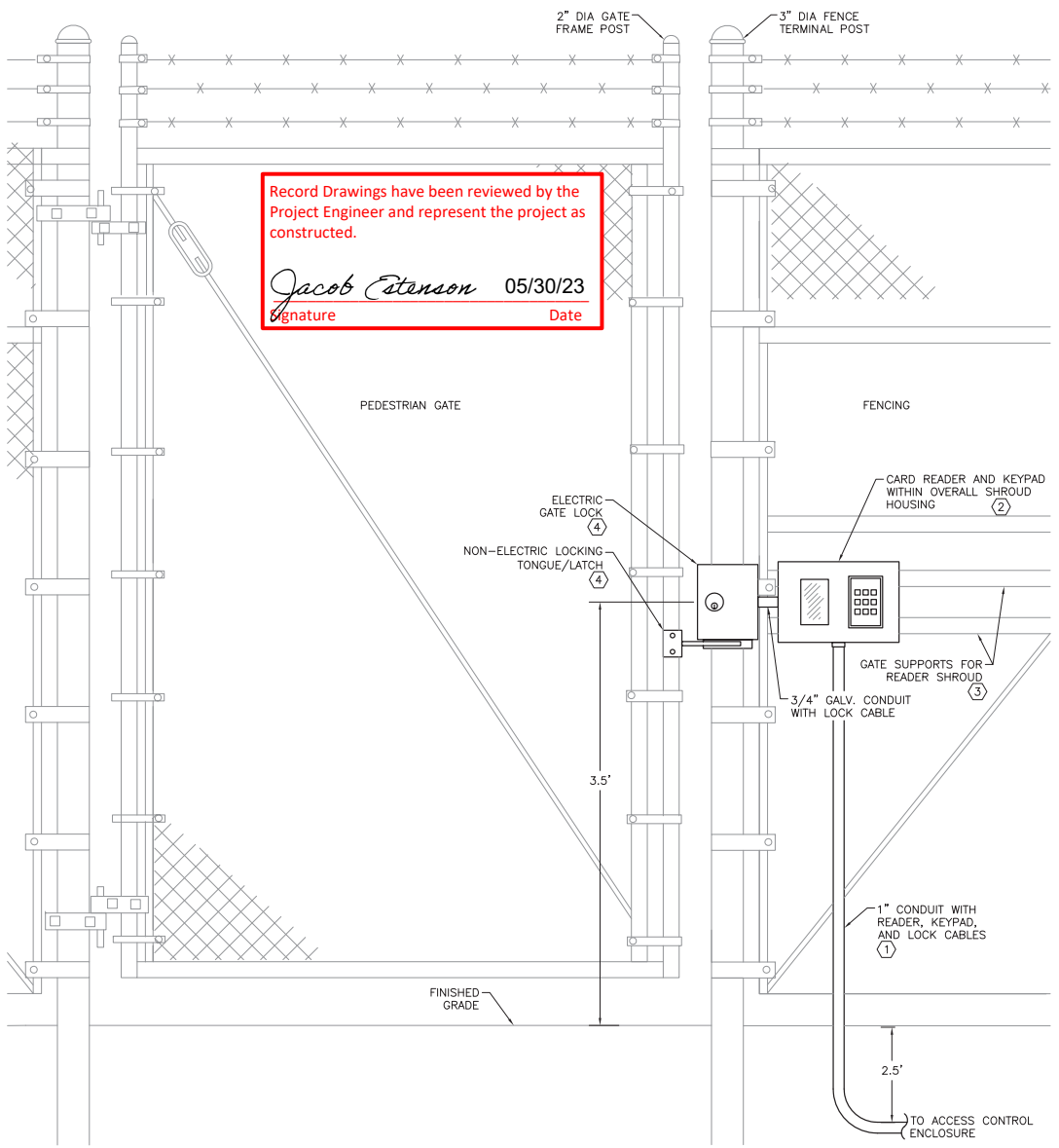

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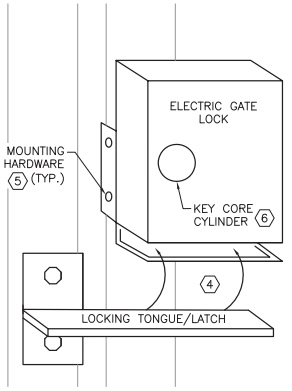
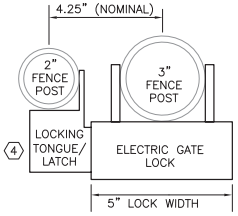
Signature Date

1 PEDESTRIAN GATE CARD READER & KEYPAD ELEVATION
NOT TO SCALE



2 PEDESTRIAN GATE LOCK ENLARGED DETAILS
NO SCALE



3 PEDESTRIAN GATE LOCK TOP DETAILS
NO SCALE

SHEET NOTES:

1. SEE GATE SPECIFIC FOR POWER & NETWORK SCHEMATICS AND SHEETS SE7–SE10 FOR APPLICABLE READER & DEVICE SCHEMATIC.
2. COORDINATE THE FENCE TERMINAL POSTS AND GATE FRAME SIZES WITH CIVIL ENGINEER TO ENSURE GATE LOCK WILL PROPERLY MOUNT PER MANUFACTURER REQUIREMENTS.
3. COORDINATE WITH CIVIL ENGINEER SO THAT GATES SWING OUT FROM THE SECURE SIDE OF THE FENCE INTO THE NON–SECURE SIDE OF THE FENCE.
4. PROVIDE GROMMETS IN HOLES FOR CABLE PASS THROUGH IN ALL ENCLOSURES.
5. DOOR SHALL SWING INTO THE PUBLIC OR NON–SECURE SIDE OF THE FENCE LINE.
6. COORDINATE WITH CIVIL ENGINEER TO PROVIDE SPRING LOADED AUTOMATIC CLOSURE DEVICE AND PUSH & PULL PLATES FOR MANUAL DOOR OPENING (NOT SHOWN HERE).

KEY NOTES:

1. ROUTE CONDUIT ON SECURE SIDE OF FENCE TO THE BACK–TO–BACK CARD READER HOUSINGS. SECURE CONDUIT FENCING AS REQUIRED.
2. CARD READER & KEYPAD SIDE BY SIDE IN SHROUD HOUSING. SHROUD AS SPECIFIED ON VEHICLE GATE ISLAND ELEVATION DETAIL 2, SHEET SE17. ONE HOUSING WITH CARD READER AND KEYPAD ON BOTH SIDES OF THE FENCE MOUNTED BACK TO BACK. NIPPLE BETWEEN THE TWO READERS THROUGH BACK OF HOUSINGS WITH CABLES. PROVIDE GROMMETS FOR ALL CABLE PASS THROUGH LOCATIONS AND SEAL ALL CONDUIT PENETRATIONS INTO SHROUD.
3. AS REQUIRED PER FENCE DESIGN OR CONDITIONS, PROVIDE ADDITIONAL SUPPORT CHANNEL OR FENCE STRUCTURAL SUPPORT MEMBERS AS BACKING FOR THE BACK–TO–BACK SHROUD HOUSINGS. MOUNT HOUSINGS WITH STAINLESS STEEL HARDWARE TO THE FENCE SYSTEM.
4. MOUNT ELECTRIC GATE LOCK AND NON–ELECTRIC LATCH AT HEIGHT INDICATED, ALIGN AS REQUIRED FOR PROPER FIT BASED ON SPECIFIC GATE AND FENCE POST SIZES AND DISTANCES. SET PLUMB AND LEVEL TO FINISHED GRADE. PROPERLY ALIGN TONGUE WITH GATE LOCK SLOT IN ALL DIRECTIONS PRIOR TO DRILLING MOUNTING HOLES.
5. MOUNT LATCH AND LOCK TO FENCE AND GATE POST WITH THROUGH BOLTS. DRILL POSTS AS REQUIRED, APPLY SPRAY GALVANIZED PAINT TO ALL DRILLED PENETRATIONS.
6. PROVIDE ANSI 1–1/8" INTERCHANGEABLE MORTISE KEY CYLINDER AS REQUIRED. KEY TO AKDOT&PF REQUIREMENTS.

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

PEDESTRIAN GATE ELEVATION

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE7	24

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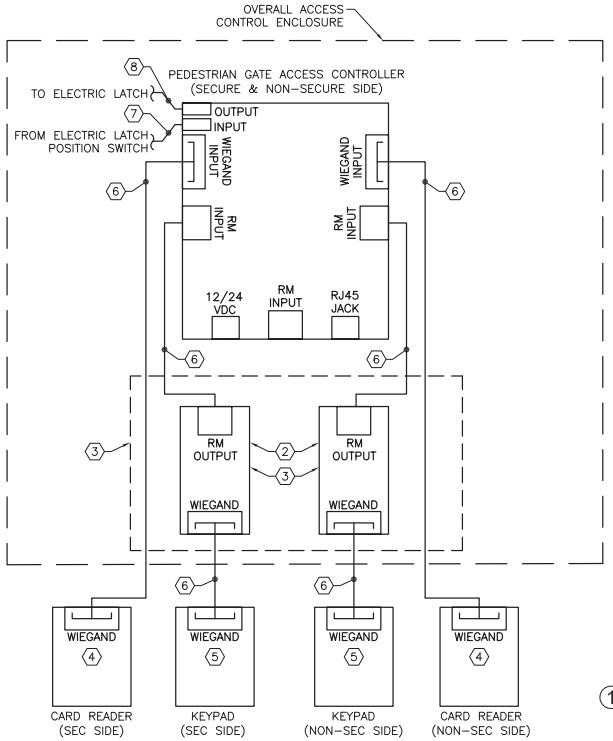

1 1-CONTROLLER READER & DEVICE SCHEMATIC NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE TYPICAL LOW VOLTAGE CONTROL AND CABLE CONNECTIONS WITHIN THE GATE ACCESS CONTROLLER. SEE GATE SPECIFIC POWER AND NETWORK SCHEMATIC.
2. SEE SHEET SE15 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE.
3. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS.
4. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
5. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.
6. WHERE DISTANCE BETWEEN PEDESTRIAN GATE AND ACCESS CONTROLLER EXCEEDS 150 FEET, PROVIDE INCREASED WIRE SIZE TO ACCOUNT FOR VOLTAGE DROP. CONSULT MANUFACTURER WIRING SIZING CHARTS AS REQ'D.

KEY NOTES:

(1) GATE OPERATOR SAFETY DEVICE INTERFACE. MOUNT WITHIN THE GATE OPERATOR. UNIT CONVERTS THE MONITORED (I.E. CURRENT DRAWING) EDGE SENSOR CIRCUITS TO NORMALLY CLOSED INPUTS REQUIRED BY THE GATE OPERATOR. PROVIDE MULTI-INPUT DEVICE POWERED FROM GATE OPERATOR INTERNAL 12/24VDC.

(2) SOFTWARE HOUSE RM-4 CONVERTER MODULE. REQUIRED FOR EACH WIEGAND (NON-OSDP) OUTPUT DEVICE CONNECTED TO AN ACCESS CONTROLLER AS EDGE CONTROLLERS ONLY HAVE TWO NATIVE WIEGAND INPUTS PER UNIT.

(3) WIEGAND CONVERTER DEVICES ONLY REQ'D WHERE WIEGAND OUTPUT DEVICES ARE USED (NO OSDP OUTPUT). IF OSDP OUTPUT IS AVAILABLE FROM DEVICE, CONVERTER CAN BE REMOVED. SEE SPECIFICATIONS FOR MORE DETAILS.

(4) MULTI-FORMAT (PROX AND iCLASS) TOUCHLESS CARD READER, HARDENED.

(5) PIEZOELECTRIC 3X4 KEYPAD, HARDENED. SINGLE GANG, WIEGAND FORMAT.

(6) (1) SHIELDED 22/6 TSP (3-PAIR) CABLE (WIEGAND READER OR RM MODULE CABLE). GENERALLY, TSP CABLE WILL ACCOMMODATE BOTH WIEGAND DEVICES AND DEVICES ACCOMMODATING OSDP OUTPUT PROTOCOL REQUIRING RS-485. WHERE LENGTHS ARE LONG(>200 FT., TYPICAL) A TSP CABLE WITH SEPARATE POWER AND CONTROL CONDUCTORS MAY BE REQUIRED TO DISTANT WIEGAND CONNECTED DEVICES. COORDINATE THE SPECIFICS WITH THE SYSTEM INTEGRATOR ON THE PROJECT ON A DEVICE BY DEVICE LOCATION AS REQUIRED.

(7) (1) SHIELDED 22/2 MULTI-COND. CABLE, (SUPERVISED INPUT OR RELAY CONTROL).

(8) (1) SHIELDED 18/3 MULTI-COND. CABLE, (PED GATE SWITCHED POWER). SEE SHEET NOTE 6.

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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8613 REGISTERED ELECTRICAL PROFESSIONAL

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

1-CONTROLLER READER & DEVICE SCHEMATIC

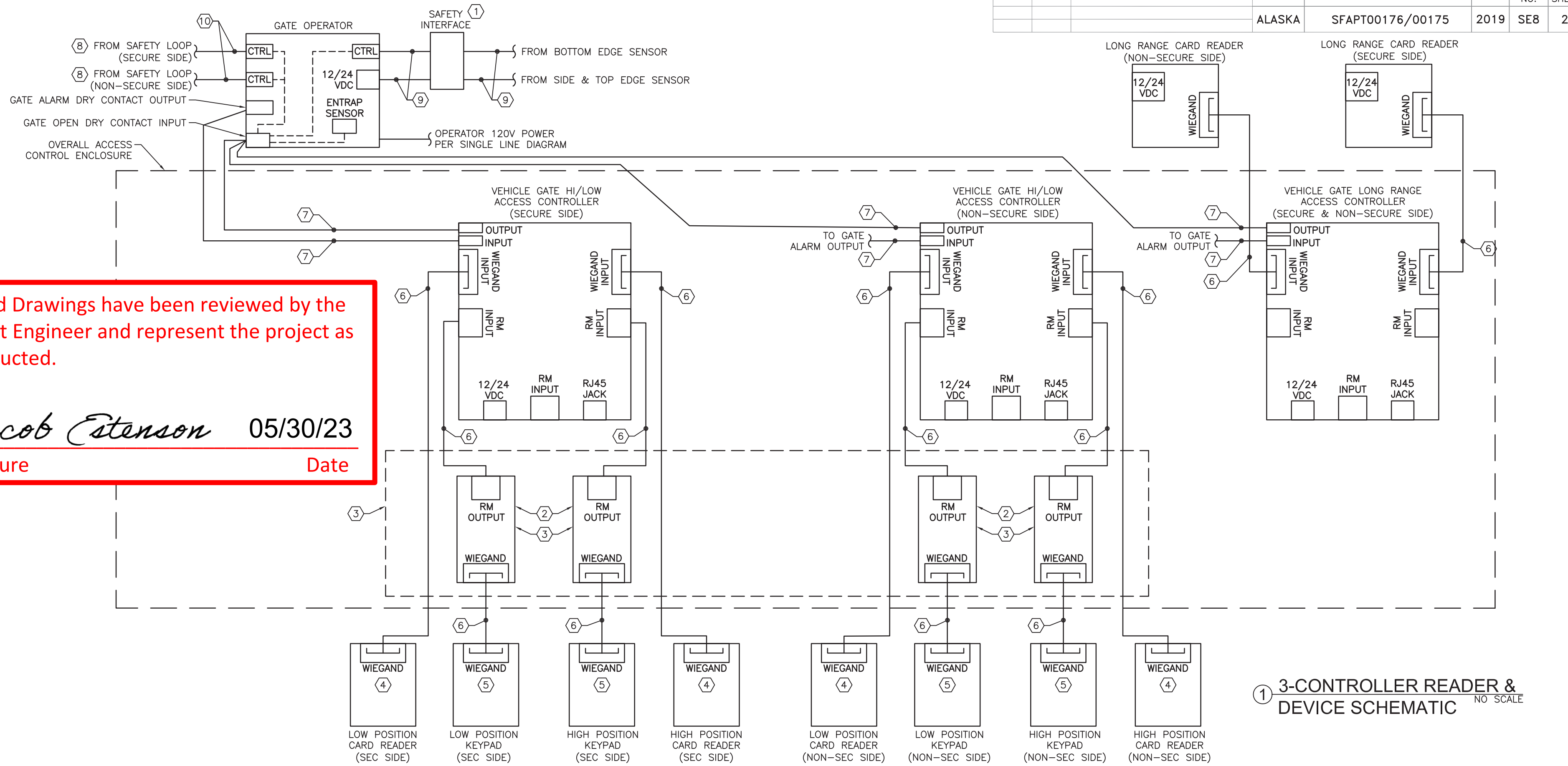
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFAPT00176/00175	2019	SE8	24

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



(1) 3-CONTROLLER READER & DEVICE SCHEMATIC
NO SCALE

SHEET NOTES:

1. THIS SCHEMATIC IS DIAGRAMMATIC ONLY AND REPRESENTS THE TYPICAL LOW VOLTAGE CONTROL AND CABLE CONNECTIONS WITHIN THE GATE ACCESS CONTROLLER. SEE GATE SPECIFIC POWER AND NETWORK SCHEMATIC.
2. SEE SHEET SE15 FOR ACCESS CONTROL ENCLOSURE ELEVATION AND GENERAL LAYOUT WITHIN THE ENCLOSURE.
3. NEATLY TRAIN, BUNDLE, AND LABEL ALL CABINET CABLES AND CONDUCTORS. UTILIZE THE WIRE MANAGEMENT TRACKS AS MUCH AS POSSIBLE (NOT SHOWN HERE). ALL POWER SUPPLIES, WIRING, CONDUIT, ETC. MUST BE SIZED ACCORDING TO THE NATIONAL ELECTRICAL CODE AND INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS.
4. ALL SHIELDED CABLES SHALL BE PROPERLY GROUNDED TO ONE COMMON GROUND AT THE ACCESS CONTROL CABINET. GROUNDING SINGLE POINTS TO MULTIPLE EARTH GROUND POINTS CREATES GROUND LOOPS AND SHOULD BE AVOIDED.
5. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED WIRELESS ANTENNA CONDUCTOR AND CABLE CONNECTIONS.
6. WHERE DISTANCE BETWEEN PEDESTRIAN GATE AND ACCESS CONTROLLER EXCEEDS 150 FEET, PROVIDE INCREASED WIRE SIZE TO ACCOUNT FOR VOLTAGE DROP. CONSULT MANUFACTURER WIRING SIZING CHARTS AS REQ'D.

KEY NOTES:

(1) GATE OPERATOR SAFETY DEVICE INTERFACE. MOUNT WITHIN THE GATE OPERATOR. UNIT CONVERTS THE MONITORED (I.E. CURRENT DRAWING) EDGE SENSOR CIRCUITS TO NORMALLY CLOSED INPUTS REQUIRED BY THE GATE OPERATOR. PROVIDE MULTI-INPUT DEVICE POWERED FROM GATE OPERATOR INTERNAL 12/24VDC.

(2) SOFTWARE HOUSE RM-4 CONVERTER MODULE. REQUIRED FOR EACH WIEGAND (NON-OSDP) OUTPUT DEVICE CONNECTED TO AN ACCESS CONTROLLER AS EDGE CONTROLLERS ONLY HAVE TWO NATIVE WIEGAND INPUTS PER UNIT.

(3) WIEGAND CONVERTER DEVICES ONLY REQUIRED WHERE WIEGAND OUTPUT DEVICES ARE USED (NO OSDP OUTPUT). IF OSDP OUTPUT IS AVAILABLE FROM DEVICE, CONVERTER CAN BE REMOVED FROM DESIGN. SEE SPECIFICATIONS FOR MORE DETAILS.

(4) MULTI-FORMAT (PROX AND iCLASS) TOUCHLESS CARD READER, HARDENED.

(5) PIEZOELECTRIC 3X4 KEYPAD, HARDENED. SINGLE GANG, WIEGAND FORMAT.

(6) (1) SHIELDED 22/6 TSP (3-PAIR) CABLE (WIEGAND READER OR RM MODULE CABLE). GENERALLY, TSP CABLE WILL ACCOMMODATE BOTH WIEGAND DEVICES AND DEVICES ACCOMMODATING OSDP OUTPUT PROTOCOL REQUIRING RS-485. WHERE LENGTHS ARE LONG(>200 FT., TYPICAL) A TSP CABLE WITH SEPARATE POWER AND CONTROL CONDUCTORS MAY BE REQUIRED TO DISTANT WIEGAND CONNECTED DEVICES. COORDINATE THE SPECIFICS WITH THE SYSTEM INTEGRATOR ON THE PROJECT ON A DEVICE BY DEVICE LOCATION AS REQUIRED.

(7) (1) SHIELDED 18/4 MULTI-COND. CABLE, (LOCK INPUT OR RELAY CONTROL).

(8) SOME GATE OPERATORS MAY REQUIRE A SEPARATE EXPANSION BOARD OR CONTROL MODULE TO BE CONNECTED TO THE OPERATOR IN FRONT OF THE SAFETY LOOP CABLE AND TO BE PLACED INSIDE OPERATOR HOUSING. CHECK MANUFACTURER DETAILS & INSTRUCTIONS.

(9) (1) SHIELDED 18/4 MULTI-COND. CABLE, (MONITORED SAFETY INTERFACE POWER CABLE).

(10) (1) 14 AWG, STRANDED, CU, XLPE, 600V COND. (DETECTOR LOOP CABLE).

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE #7
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STATE OF ALASKA 49TH — Mark G. Morris — July 30, 2019 — No. EE 8613 — REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
6860 GLACIER HIGHWAY, JUNEAU, AK 99801
(907) 465-1763

AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

3-CONTROLLER READER & DEVICE SCHEMATIC

DESIGNED MGM | CHECKED MGM | DRAFTED JRW | LAYOUT SE8 | DATE 6/3/2019 19:58

NO.	DATE	REVISION

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ALASKA	SFAPT00176/00175	2019	SE9	24

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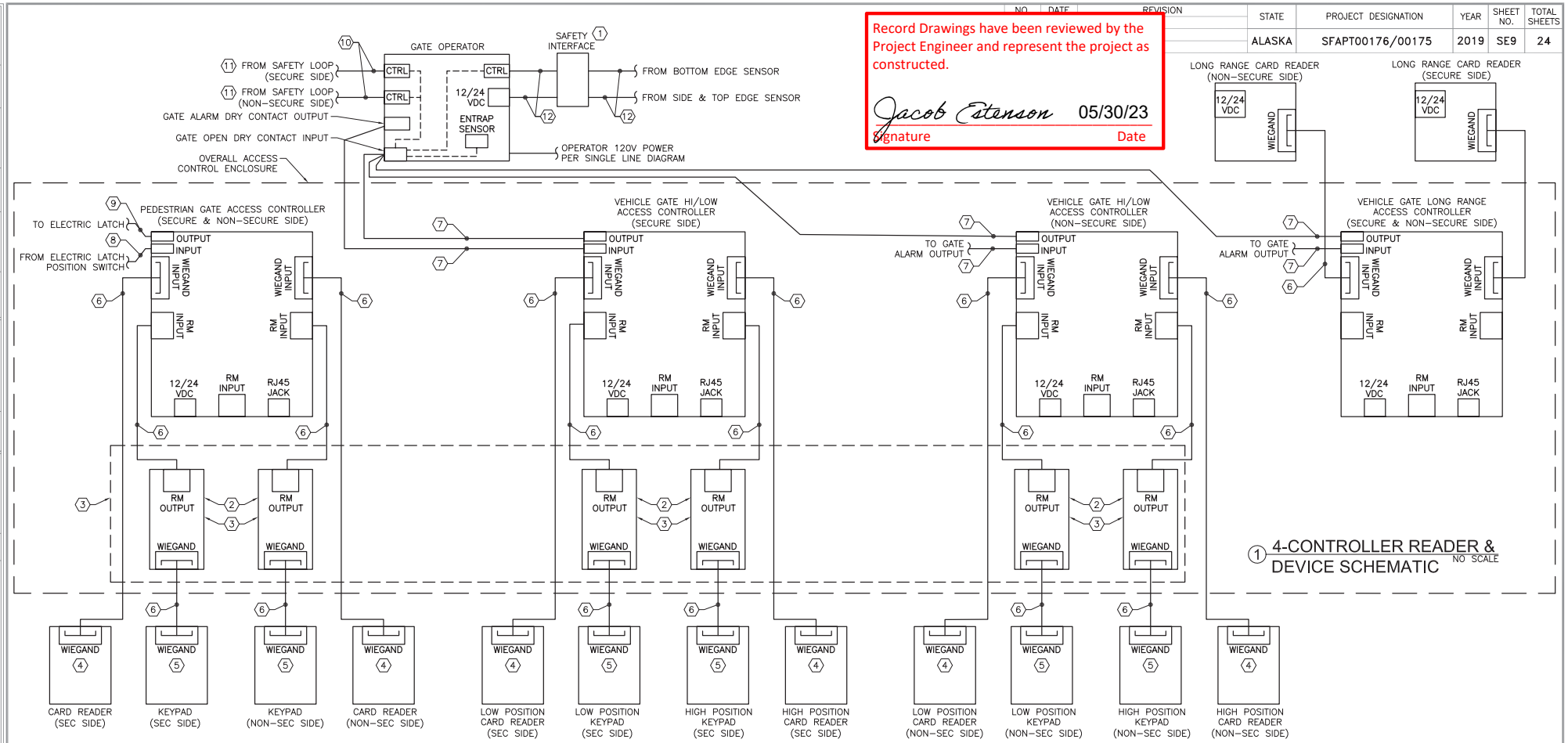
Jacob Estenson 05/30/23

Signature Date



(1) 4-CONTROLLER READER & DEVICE SCHEMATIC

NO SCALE

SHEET NOTES:

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KEY NOTES:

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(7) (1) SHIELDED 18/4 MULTI-COND. CABLE, (LOCK INPUT OR RELAY CONTROL).

(8) (1) SHIELDED 22/2 MULTI-COND. CABLE, (SUPERVISED INPUT OR RELAY CONTROL).

(9) (1) SHIELDED 18/3 MULTI-COND. CABLE, (PED GATE SWITCHED POWER). SEE SHEET NOTE 6.

(10) (1) 14 AWG, STRANDED, CU, XLPE, 600V COND. (DETECTOR LOOP CABLE).

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STATE OF ALASKA
49TH
Mark G. Morris
July 30, 2019
No. EE 8613
REGISTERED ELECTRICAL PROFESSIONAL ENGINEER

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

4-CONTROLLER READER & DEVICE SCHEMATIC

FILE | p:\102 state of ak\01 airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings psa\1-CONTROLLER READER & DEVICE SCHEMATIC.dwg | DATE | 6/3/2019 19:58 | LAYOUT | SE9 | DESIGNED | MGM | CHECKED | MGM | DRAFTED | JRW

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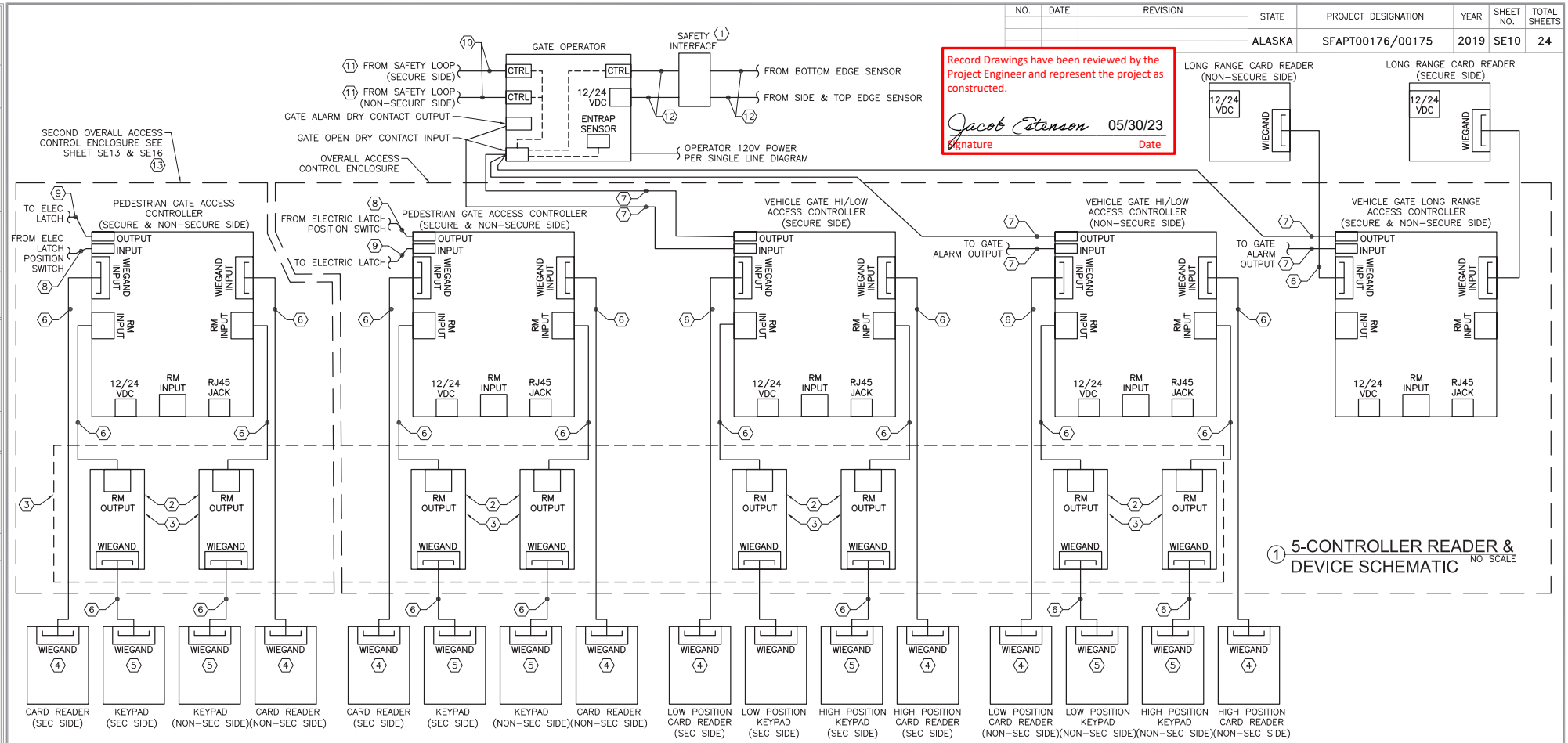
Jacob Estenson 05/30/23

Signature Date



1 5-CONTROLLER READER & DEVICE SCHEMATIC

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(13) WHERE FIVE OR MORE AC CONTROLLERS ARE NEEDED, A SECOND ENCLOSURE IS REQUIRED.

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8610 REGISTERED PROFESSIONAL ENGINEER

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

5-CONTROLLER READER & DEVICE SCHEMATIC

FILE | DATE 6/3/2019 19:58 | DESIGNED MGM | DRAFTED JRW | CHECKED MGM | LAYOUT SE10

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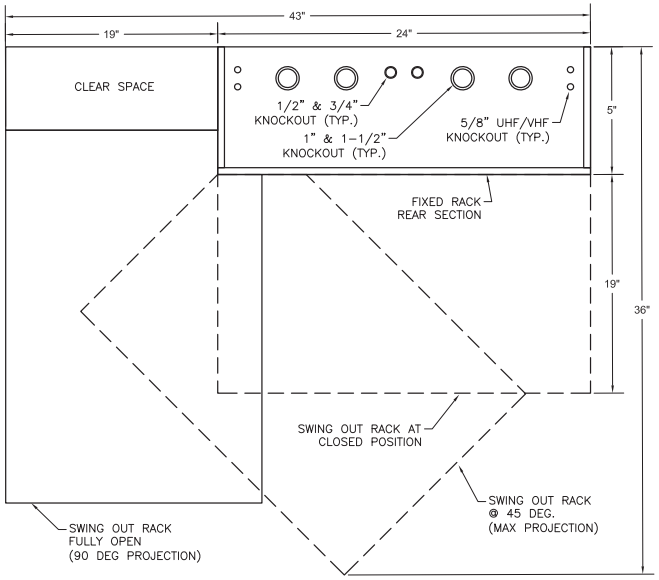
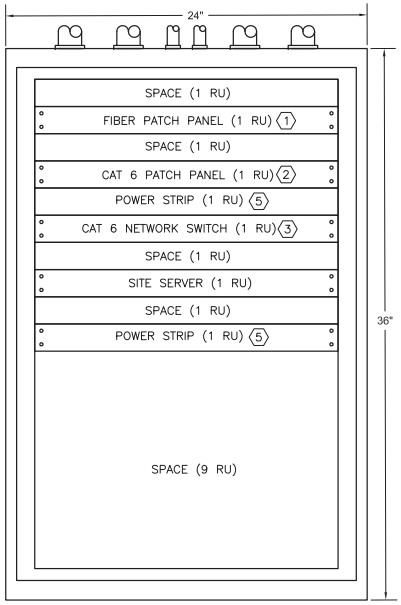


1 NETWORK RACK-PLAN DETAIL
NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

1. DIMENSIONS SHOWN ARE SPECIFIC TO THE EQUIPMENT RACK AS DESCRIBED IN THE PROJECT SPECIFICATIONS. SLIGHT ADJUSTMENTS MAY BE NECESSARY BASED ON THE LOCATION AND FINAL EQUIPMENT INSTALLED.
2. MOUNT WIRELESS RADIO NEXT TO NETWORK RACK. POWER RADIO FROM POWER STRIP IN RACK. RADIO NOT SHOWN ON THIS PLAN SHEET.
3. NOT ALL RACK CONDUIT KNOCKOUTS WILL BE USED. SEE POWER AND NETWORK SCHEMATICS FOR CIRCUIT AND CABLE DETAILS. ENSURE ALL UNUSED KNOCKOUTS ARE COVERED WITH BLANK INSERTS.



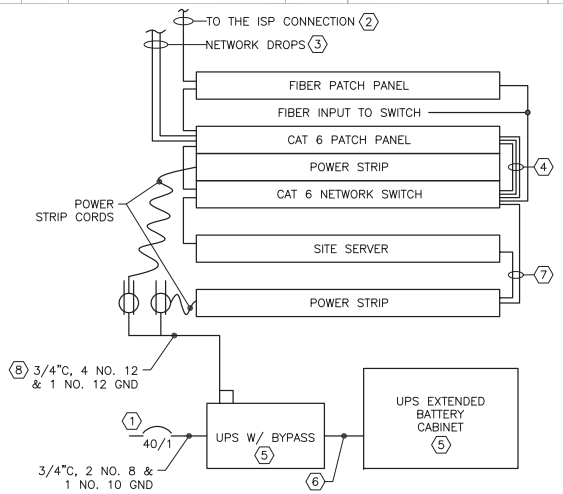
2 NETWORK RACK ELEVATION DETAIL
NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. ARRANGEMENT OF RACK EQUIPMENT IS GENERAL. ADJUSTMENTS MAY BE NECESSARY. PROVIDE BLANK FILLER SECTIONS IN ALL RACK SPACES.
2. SEE PROJECT SPECS FOR DETAILS AND REQUIREMENTS OF THE RACK MOUNTED EQUIPMENT.

KEY NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. FIBER CASSETTE PULL OUT HOUSING WITH (1) 12 STRAND FIBER CASSETTE FOR SINGLE-MODE FIBER CONNECTIVITY. TERMINATE INCOMING FIBER STRANDS ON CASSETTE AS REQ'D WITH LC CONNECTORS.
2. 24 PORT, CAT 6 PATCH PANEL WITH BACK FACE CROSS CONNECTS. LABEL ACCORDING TO DOT&PF NETWORK STANDARDS. LAND ALL CAT 6 CABLES & THE WIRELESS RADIO LINK ETHERNET CONNECTION.
3. MANAGED 24 PORT NETWORK SWITCH IN RACK WITH POWER-OVER-ETHERNET OUTPUT CAPABILITIES. INCLUDES DUAL (REDUNDANT) MODULAR POWER SUPPLIES. CONNECT CAT 6 JUMPERS FROM PATCH PANEL TO SWITCH. TIE ALL EXTERNALLY FED ETHERNET DEVICES TO SWITCH VIA A SURGE PROTECTION DEVICE. GROUNDED TO THE RACK EQUIPMENT GROUNDING CONDUCTOR.
4. SOFTWARE HOUSE SATELLITE APPLICATION SERVER (SAS).
5. 1800W POWER STRIP WITH REAR FACING OUTLETS, INTEGRAL CIRCUIT BREAKER AND SURGE PROTECTION AND SIX (6) 5-15R RECEPTACLES.



3 NETWORK RACK SCHEMATIC DIAGRAM
NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

1. NOT ALL RACK CABLES ARE SHOWN ON THIS DETAIL. NEATLY TRAIN ALL RACK CABLES TO ALLOW FOR FULL SERVICE AND REPLACEMENT OF EXISTING EQUIPMENT, INSTALLATION OF FUTURE EQUIPMENT, AND TO AVOID BLOCKING FAN AND AIR VENTS ON EQUIPMENT.
2. UTILIZE RACK LACING AND BUILT-IN WIRE MANAGEMENT AS MUCH AS POSSIBLE. PROVIDE ADDITIONAL RACK WIRE MANAGEMENT AS REQUIRED.
3. ALL CABLES IN RACK SHALL BE NEATLY TRAINED, BUNDLED, AND LABELLED AS REQ'D.

KEY NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

1. CONNECT UPS INPUT POWER TO A DEDICATED AND HARDWIRED NEW 40/1 BREAKER FROM EXISTING PANEL IN BUILDING. SEE BUILDING FLOOR PLANS FOR PANEL LOCATION.
2. FEED INTERNET CONNECTION TO RACK FROM EXISTING ISP DEMARCATION POINT. SEE BUILDING FLOOR PLANS FOR EXISTING ISP DEMARC LOCATION. CONNECT INPUT FIBER CABLE FROM SERVICE PROVIDER TO THE FIBER CASSETTE IN THE FIBER DRAWER AS REQUIRED. PROVIDE FIBER CABLE WITH APPROPRIATE TERMINATION CONNECTOR PER THE SPECIFICATIONS.
3. CAT 6 NETWORK DROPS FROM GATES, NEW CLIENT WORKSTATION, AND OTHER CLIENT DIRECTED LOCATIONS AS APPLICABLE. QUANTITY AS REQUIRED. PROVIDE ALL CAT 6 CABLES WITH RJ45 JACKS AND CONNECT TO BACK OF PANEL AT PORTS
4. PROVIDE MULTIPLE CAT 6 JUMPER CABLES BETWEEN THE PATCH PANEL AND THE NETWORK SWITCH. PROVIDE 24-INCH JUMPERS WITH FACTORY INSTALLED JACKS.
5. 4500VA (3200KW), DOUBLE CONVERSION (ONLINE) UPS WITH SIX (6) OUTPUT RECEPTACLES, LCD STATUS SCREEN, ALARMS FOR LOW BATTERY AND MAINTENANCE REQUIRED. FLOOR MOUNTED UNIT WITH ADJACENT EXTENDED BATTERY CABINET WITH INTERCONNECTS. SEE SPECIFICATIONS FOR FULL DETAILS AND REQUIREMENTS. INSTALL WHERE SHOWN ON THE PLAN SHEETS.
6. INSTALL INTERCONNECTING UPS SYSTEM CABLES FROM UPS HEAD TO BATTERY STRINGS AS REQUIRED PER MANUFACTURER.
7. CORD FROM RACK EQUIPMENT SHALL PLUG INTO POWER STRIP.
8. PROVIDE TWO (2) DEDICATED OUTPUT CIRCUITS, PROVIDED BY SEPARATE 20/1 OUTPUT BREAKERS FROM BACKUP UPS TO SERVE TO SEPARATE SURFACE MOUNT RECEPTACLES AT THE RACK AS INDICATED.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

PLANS DEVELOPED BY:
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NETWORK RACK DETAILS

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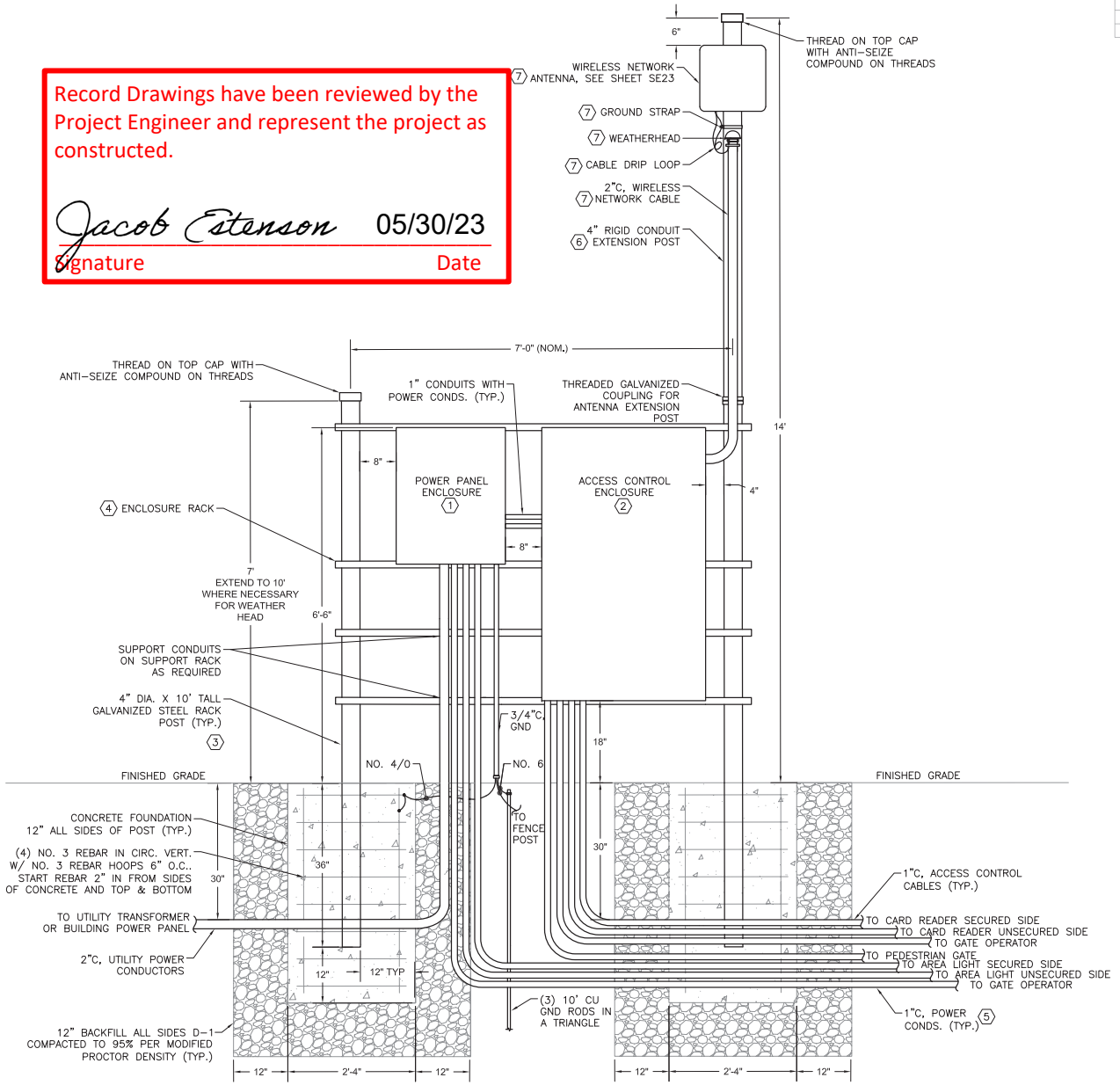

SHEET NOTES:

1. MAINTAIN A MINIMUM OF 2" CONCRETE COVER OVER ALL EMBEDDED REINFORCEMENT BARS.
2. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL ENGINEER.
3. BACKFILL 12" ALL SIDES AND BOTTOM. COMPACT SUBBASE TO 95% PER MODIFIED PROCTOR DENSITY METHOD. WRAP SUBBASE WITH GEOTEXTILE ON ALL SIDES, TOP AND BOTTOM PRIOR TO CONCRETE PLACEMENT.
4. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK AND TIED BACK TO THE GROUNDING ELECTRODE PER THE NATIONAL ELECTRIC CODE. SEE GATE SPECIFIC SINGLE LINE DIAGRAM. GROUNDING NOT SHOWN HERE.
5. PROVIDE SCHEDULE 80 PVC CONDUIT UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUIT ELBOWS UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUITS ELBOWS UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUIT ABOVE ELBOWS UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUIT ABOVE GROUND.
6. ESTABLISH GROUNDING ELECTRODE SYSTEM AT ENCLOSURE RACK. THIS INCLUDES GROUND CONNECTIONS TO REINFORCING BAR, TRIANGLE OF GROUND RODS IN THE SOIL, AND SOLID GROUND CONNECTIONS TO ALL EXPOSED STRUCTURAL COMPONENTS AND ANY LOCALLY MOUNTED ENCLOSURES OR EQUIPMENT.
7. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUIT WITH 120V OR GREATER CIRCUITS. PROVIDE A NO. 12, GREEN JACKET GROUND CONDUCTOR IN ALL LOW VOLTAGE CONDUIT.

KEY NOTES:

1. SEE SHEET SE14 FOR POWER PANEL ENCLOSURE ELEVATION.
2. SEE SHEET SE15 & SE16 FOR ACCESS CONTROL ENCLOSURE ELEVATIONS.
3. 10 FOOT TALL, 4" DIAMETER GALVANIZED STEEL POST. BURY 3 FEET INTO THE GROUND AS INDICATED. PROVIDE POST WITH SCREW-ON GALVANIZED CAP AS NOTED.
4. 1-1/2" GALVANIZED SUPPORT CHANNEL OR GALVANIZED STEEL ANGLE SEGMENTS MOUNT HORIZONTALLY TO POSTS. MOUNT ENCLOSURES AND OTHER EQUIPMENT TO HORIZONTAL MEMBERS. PROVIDE QUANTITY OF HORIZONTAL SUPPORT MEMBERS AS REQUIRED TO SUFFICIENTLY SUPPORT ENCLOSURES PER ENCLOSURE MANUFACTURER MOUNTING INSTRUCTIONS.
5. GROUP OF POWER CONDUITS IS SHOWN DEEPER THAN OTHERS FOR VISUAL CLARITY ONLY. ALL CONDUITS MUST BE AT MINIMUM DEPTHS INDICATED. CONDUITS, MAY BE CO-LOCATED IN COMMON TRENCHES AND ARRANGED BASED ON ROUTING REQUIREMENTS.
6. PROVIDE AN EXTENSION POST AT THE 10' RACK POST TO MOUNT THE NETWORK ANTENNA AT THE MOUNTING HEIGHT REQUIRED FOR LINE-OF-SIGHT (NOM. HEIGHT SHOWN). POST SPECIFICS PER KEY NOTE 3. THREAD POST SEGMENTS TOGETHER AS REQUIRED TO ACHIEVE APPROPRIATE MOUNTING HEIGHT.
7. FEED ANTENNA CABLES FROM WEATHERHEAD AT TOP OF WIRELESS NETWORK CABLE CONDUIT. SEE SHEET SE23 FOR WIRELESS ANTENNA DETAILS. LOCATE TOP EDGE OF ANTENNA A MINIMUM OF 6" BELOW TOP OF EXTENSION POST. REQUIRED MOUNTING HEIGHT OF ANTENNA TO BE CONFIRMED ON A LOCATION-BY-LOCATION BASIS BASED ON LINE OF SIGHT BETWEEN ADJACENT WIRELESS NETWORK DISTRIBUTION NODES.

1 POWER & ACCESS CONTROL ENCLOSURE ELEVATION

NOT TO SCALE

PLANS DEVELOPED BY:
MORRIS ENGINEERING GROUP, INC
2375 JORDAN AVE. #7
JUNEAU, AK 99801
907-789-3350
AECL 1010

STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8613 REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

ENCLOSURE RACK ELEVATION

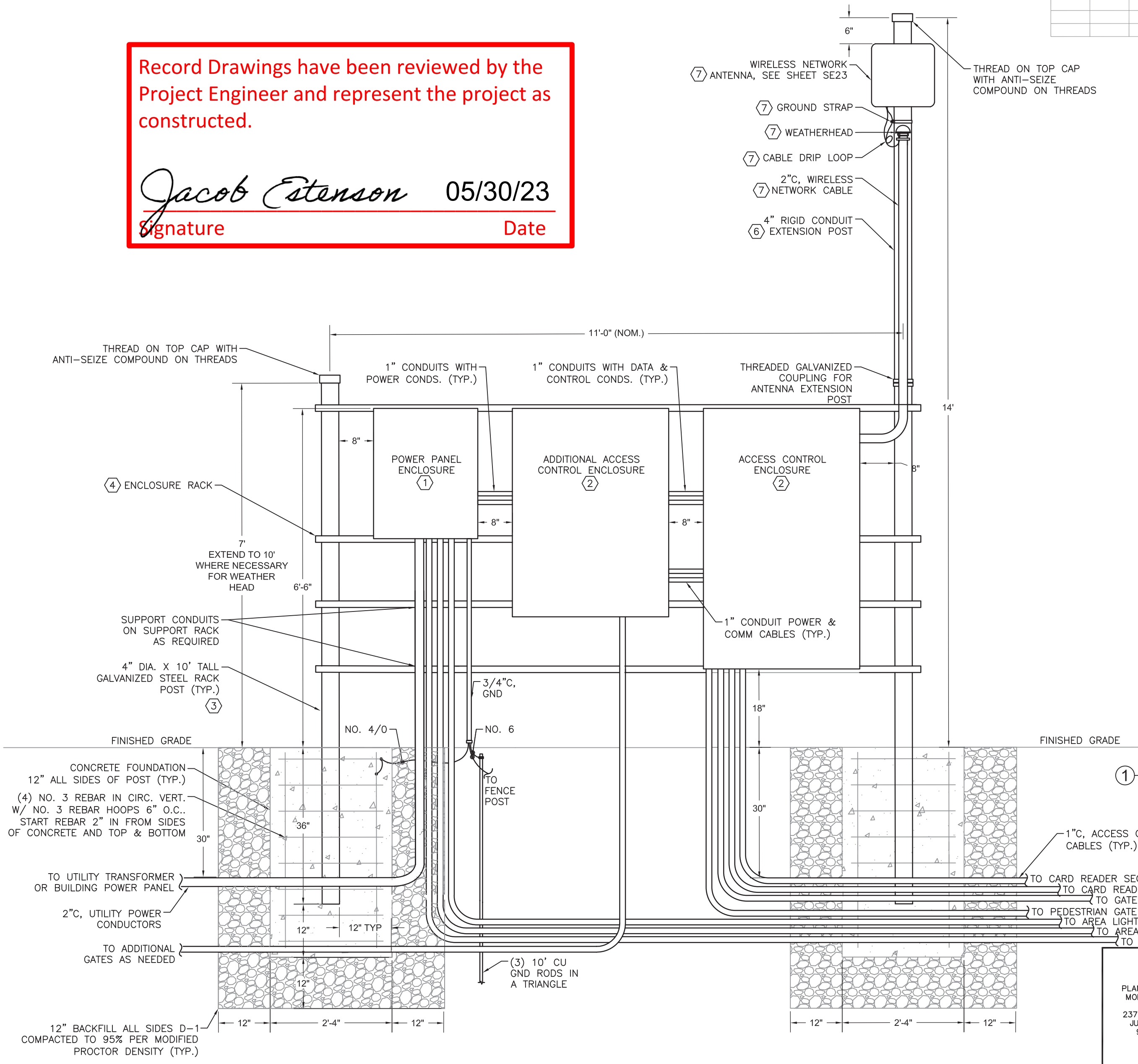
DRAFTED JRW | CHECKED MGM | DESIGNED MGM | LAYOUT SE12 | DATE 7/26/2019 17:36 | FILE y:\102 state of ak\ft airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings psa\ENCLOSURE RACK ELEVATION.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE13	24

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date



SHEET NOTES:

1. MAINTAIN A MINIMUM OF 2" CONCRETE COVER OVER ALL EMBEDDED REINFORCEMENT BARS.
2. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL ENGINEER.
3. BACKFILL 12" ALL SIDES AND BOTTOM. COMPACT SUBBASE TO 95% PER MODIFIED PROCTOR DENSITY METHOD. WRAP SUBBASE WITH GEOTEXTILE ON ALL SIDES, TOP AND BOTTOM PRIOR TO CONCRETE PLACEMENT.
4. PROVIDE BONDING OF ALL METALLIC ENCLOSURES AT THE ENCLOSURE RACK AND TIED BACK TO THE GROUNDING ELECTRODE PER THE NATIONAL ELECTRIC CODE. SEE GATE SPECIFIC SINGLE LINE DIAGRAM. GROUNDING NOT SHOWN HERE.
5. PROVIDE SCHEDULE 80 PVC CONDUIT UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUIT ELBOWS UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUITS ELBOWS UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUIT ABOVE ELBOWS UNDERGROUND. PROVIDE GALVANIZED RIGID STEEL CONDUIT ABOVE GROUND.
6. ESTABLISH GROUNDING ELECTRODE SYSTEM AT ENCLOSURE RACK. THIS INCLUDES GROUND CONNECTIONS TO REINFORCING BAR, TRIANGLE OF GROUND RODS IN THE SOIL, AND SOLID GROUND CONNECTIONS TO ALL EXPOSED STRUCTURAL COMPONENTS AND ANY LOCALLY MOUNTED ENCLOSURES OR EQUIPMENT.
7. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUIT WITH 120V OR GREATER CIRCUITS. PROVIDE A NO.14 GROUND CONDUCTOR IN ALL LOW VOLTAGE CONDUIT.

KEY NOTES:

(1) SEE SHEET SE14 FOR POWER PANEL ENCLOSURE ELEVATION.

(2) SEE SHEET SE15 FOR ACCESS CONTROL ENCLOSURE ELEVATION.

(3) 10 FOOT TALL, 4" DIAMETER GALVANIZED STEEL POST. BURY 3 FEET INTO THE GROUND AS INDICATED. PROVIDE POST WITH SCREW-ON GALVANIZED CAP AS NOTED.

(4) 1-1/2" GALVANIZED SUPPORT CHANNEL OR GALVANIZED STEEL ANGLE SEGMENTS MOUNT HORIZONTALLY TO POSTS. MOUNT ENCLOSURES AND OTHER EQUIPMENT TO HORIZONTAL MEMBERS. PROVIDE QUANTITY OF HORIZONTAL SUPPORT MEMBERS AS REQUIRED TO SUFFICIENTLY SUPPORT ENCLOSURES PER ENCLOSURE MANUFACTURER MOUNTING INSTRUCTIONS.

(5) GROUP OF POWER CONDUITS IS SHOWN DEEPER THAN OTHERS FOR VISUAL CLARITY ONLY. ALL CONDUITS MUST BE AT MINIMUM DEPTHS INDICATED. CONDUITS, MAY BE CO-LOCATED IN COMMON TRENCHES AND ARRANGED BASED ON ROUTING REQUIREMENTS.

(6) PROVIDE AN EXTENSION POST AT THE 10' RACK POST TO MOUNT THE NETWORK ANTENNA AT THE MOUNTING HEIGHT REQUIRED FOR LINE-OF-SIGHT (NOM. HEIGHT SHOWN). POST SPECIFICS PER KEY NOTE (3). THREAD POST SEGMENTS TOGETHER AS REQUIRED TO ACHIEVE APPROPRIATE MOUNTING HEIGHT.

(7) FEED ANTENNA CABLES FROM WEATHERHEAD AT TOP OF WIRELESS NETWORK CABLE CONDUIT. SEE SHEET SE23 FOR WIRELESS ANTENNA DETAILS. LOCATE TOP EDGE OF ANTENNA A MINIMUM OF 6" BELOW TOP OF EXTENSION POST. REQUIRED MOUNTING HEIGHT OF ANTENNA TO BE CONFIRMED ON A LOCATION-BY-LOCATION BASIS BASED ON LINE OF SIGHT BETWEEN ADJACENT WIRELESS NETWORK DISTRIBUTION NODES.

(1) POWER & ACCESS CONTROL ENCLOSURE ELEVATION

NOT TO SCALE

PLANS DEVELOPED BY:
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STATE OF ALASKA 49 TH Mark G. Morris July 30, 2019 No. EE 8613 REGISTERED PROFESSIONAL ENGINEER

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

DUAL ENCLOSURE RACK ELEVATION

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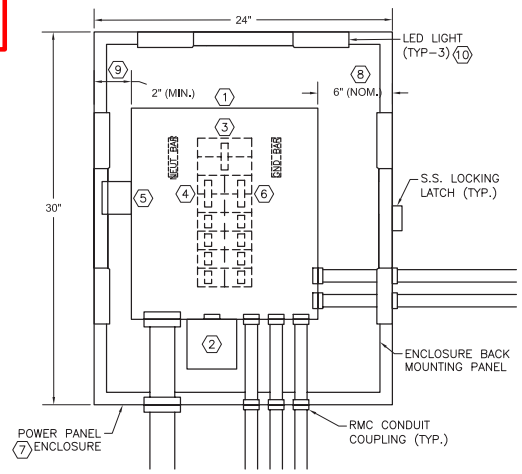
DATE 7/26/2019 17:36 | LAYOUT SE13 | DESIGNED MGM | CHECKED MGM | DRAFTED JRW

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE14	24



1 POWER PANEL ENCLOSURE DETAIL

NOT TO SCALE

SHEET NOTES:

1. SEE GATE SPECIFIC SINGLE LINE DIAGRAMS FOR CIRCUIT SIZES & QUANTITIES.
2. SEE SHEET SE12 FOR ACCESS CONTROL ENCLOSURE RACK DETAIL.
3. POWER ENCLOSURE CONDUCTORS AND INTERNAL CONDUITS ARE NOT SHOWN ON THIS DIAGRAM. ALL CONDUCTORS AND CONDUITS SHALL BE NEATLY TRAINED AND ROUTED WITHIN THE OVERALL ENCLOSURE AND POWER PANEL TO ALLOW FULL SERVICE AND REPLACEMENT OF DEVICES WITHOUT DISTURBING ADJACENT COMPONENTS.
4. GENERAL ARRANGEMENT OF COMPONENTS WITHIN THE POWER PANEL ENCLOSURE SHOWN IS BASED ON PAST SUCCESSFUL INSTALLATIONS WITH A SIMILAR PROJECT SCOPE. SPECIFIC PROJECT REQUIREMENT DIMENSIONS INCLUDED ARE EXPECTED TO BE MAINTAINED UNLESS THERE ARE ADEQUATE REASONS TO DEVIATE.
5. THE POWER PANEL ENCLOSURE IS EXPECTED TO BE PROVIDED AS SHOWN HERE AT ALL INSTANCES OF THE ENCLOSURE SHOWN ON THE PROJECT SITE PLANS, UNLESS PROJECT MANAGER AUTHORIZES A DEVIATION FROM THIS NORM.

KEY NOTES:

1. NEMA 3R LOAD CENTER WITH MAIN CIRCUIT BREAKER. MOUNT WITHIN OVERALL ENCLOSURE TO ENCLOSURE RACK. INTERNAL WIRING IS NOT SHOWN IN THIS DETAIL.
2. GFI, 20A, HD, QUAD RECEPTACLE IN GALV. 4" OUTLET BOX. MOUNT TIGHT TO BOTTOM OF POWER PANEL. POWER THE LED INTERIOR LIGHTS FROM ONE OF THE RECEPTACLES.
3. MAIN LOAD CENTER CIRCUIT BREAKER.
4. SURGE PROTECTION DEVICE TWO-POLE CIRCUIT BREAKER.
5. SURGE PROTECTION DEVICE (SPD). MOUNT TO SIDE OF PANEL AS REQUIRED. POSITION SO THAT CONDUCTORS ARE RAN AS STRAIGHT AND AS SHORT AS POSSIBLE TO MAXIMIZE SPD FUNCTIONAL PERFORMANCE.
6. GATE OPERATOR TWO-POLE CIRCUIT BREAKER.
7. NEMA 4X S.S. ENCLOSURE MOUNTED TO ENCLOSURE RACK. PROVIDE WITH LOCKABLE LATCH, LED LIGHTS, AND MOUNTING BACK PANEL.
8. PROVIDE SUFFICIENT SPACE ALONG AND BELOW POWER PANEL FOR BRANCH CIRCUIT CONDUIT INSTALLATION WITHIN THE OVERALL ENCLOSURE.
9. MAINTAIN MINIMUM TWO-INCH CLEARANCE ON ALL SIDES BETWEEN POWER PANEL AND OVERALL ENCLOSURE.
10. ADJUSTABLE AIM, SLIM FORMAT LED STRIP LIGHT. PROVIDE ONE FOR EACH SIDE AND TOP OF ENCLOSURE. CONTROL VIA DOOR SWITCH (NOT SHOWN) AND POWER FROM CIRCUIT SERVING THE SERVICE RECEPTACLE IN THE POWER ENCLOSURE. MOUNT TOWARDS FRONT OF ENCLOSURE PER DETAIL 2, SHEET SE15. CONNECT FIXTURES W/CORDS ROUTED TIGHT TO EDGES OF ENCLOSURE TO ALLOW CONDUIT PENETRATIONS WITHOUT CABLE DAMAGE.

GATE PANEL		SIZE	VOLTS, PHASE			MAIN	LOCATION	
		100A	120/240V, 1ϕ, 3W			100/2	NEW EXTERIOR FENCE LINE	
CKT NO.	DESCRIPTION	C/B SIZE	KVA CKT	KVA Aϕ	KVA Bϕ	KVA CKT	C/B SIZE	DESCRIPTION	CKT NO.
1	AREA LIGHT	20/1	0.5	1.0		0.5	20/1	ACCESS CTRL POWER SUPPLY	2
3	POWER PANEL GFI RECEPTACLE	20/1	0.2		0.4	0.2	20/1	ACCESS CTRL SERV. RECEPTACLE	4
5	GATE OPERATOR POWER SUPPLY	30/2	1.5	2.3		0.8	20/1	ACCESS CTRL HEATERS	6
7	–	–	1.5		1.5	0.0	20/1	SPARE	8
9	PEDESTRIAN ELECTRIC GATE LOCK	20/1	0.1	0.1		0.0	20/2	SURGE PROTECTION DEVICE	10
11	SPARE	20/1	0.0		0.0	0.0	–	–	12
TOTAL CONNECTED LOAD = 5.3 KVA / 22 AMPS				3.4	1.9				

2 POWER PANEL SCHEDULE

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8610 REGISTERED ELECTRICAL PROFESSIONAL

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

POWER PANEL DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE15	24

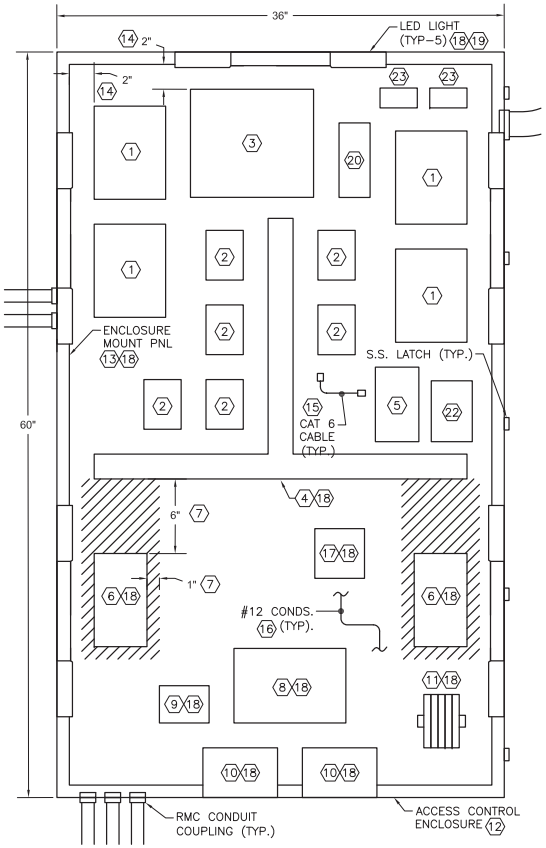
SHEET NOTES: (APPLIES TO SE15 & SE16)

1. THE DETAILS ON THIS SHEET DEPICT A GENERAL ARRANGEMENT OF DEVICES WITHIN THE ACCESS CONTROL ENCLOSURE FOR A TYPICAL GATE LOCATION. DEVICES AND THE ENCLOSURE ARE DRAWN TO SCALE BASED ON SPECIFIED PRODUCTS AND AN ATTEMPT TO ARRANGE THE DEVICES IN A REALISTIC PHYSICAL LAYOUT (BASED ON PREVIOUS PROJECTS). FINAL ARRANGEMENT ACCOMMODATING THE FINAL DEVICES FOR SIZES, CABLING REQUIREMENTS, AND NUMBER OF DEVICES AT EACH ENCLOSURE WILL BE DONE ON A PROJECT-BY-PROJECT & GATE-BY-GATE BASIS AND MAY DIFFER FROM WHAT IS SHOWN HERE.
2. SEE GATE SPECIFIC SINGLE LINE DIAGRAM, AND GATE SPECIFIC POWER NETWORK SCHEMATIC, AND SHEETS FOR READER AND DEVICE SCHEMATIC.
3. SEE SHEET SE12 FOR ENCLOSURE RACK ELEVATION.
4. ACCESS CONTROL ENCLOSURE POWER CONDUCTORS ENCLOSURE RACK ELEVATION, AND COMMUNICATION & CONTROL CABLES ARE NOT SHOWN ON THIS DIAGRAM. ALL CONDUCTORS AND CABLES SHALL BE NEATLY TRAINED IN THE CABINET TO ALLOW FULL SERVICE AND REPLACEMENT OF DEVICES WITHOUT DISTURBING ADJACENT COMPONENTS. UTILIZE WIRE MANAGEMENT DUCT SYSTEM AS MUCH AS POSSIBLE. SEE ENCLOSURE WIRING SCHEMATICS FOR MORE INFORMATION.
5. LABEL ALL POWER, COMMUNICATION, AND CONTROL CONDUCTORS AND CABLES AT BOTH ENDS WITH PRINTED LABEL.
6. THE GENERIC DEVICE LAYOUT PROVIDED IN THIS DETAIL ARE BASED ON SPECIFIC BASIS OF DESIGN PRODUCTS. SIZES WILL GENERALLY VARY SLIGHTLY AND COULD CHANGE IF ALTERNATE PRODUCTS ARE CHOSEN.
7. GENERIC LAYOUT SHOWN IS NOT INDICATIVE OF ALL ACCESS CONTROL CABINETS ON A PROJECT. SMALLER CABINETS WITH FEWER COMPONENTS THAN SHOWN MAY BE APPLICABLE BASED ON SPECIFIC LOCATION REQUIREMENTS. SOME COMPONENTS ARE EXPECTED WITHIN ALL ACCESS CONTROL ENCLOSURES AND ARE NOTED AS SUCH IN THIS DETAIL.
8. GENERAL ARRANGEMENT OF COMPONENTS WITHIN THE OVERALL ENCLOSURE SHOWN IS BASED ON PAST SUCCESSFUL INSTALLATIONS SIMILAR IN PROJECT SCOPE. ADJUSTMENTS ARE ALLOWED AS PRACTICAL AND NECESSARY FOR SPECIFIC PROJECT REQUIREMENTS. MINIMUM AND MAXIMUM DISTANCES AND DIMENSIONS NOTED MUST BE MAINTAINED AND SHALL COMPLY WITH WRITTEN MANUFACTURER INSTALLATION INSTRUCTIONS IN ALL CASES.
9. PROTECT ALL CABLE AND CONDUCTORS FROM CHAFFING THROUGH ENCLOSURE PENETRATIONS. PROVIDE GROMMETS OR OTHER SUITABLE PROTECTION MEANS AS REQUIRED.
10. PROVIDE DIN RAIL MOUNTABLE EQUIPMENT AND DEVICES WHERE POSSIBLE. DIN RAIL NOT SHOWN ON THIS SHEET.

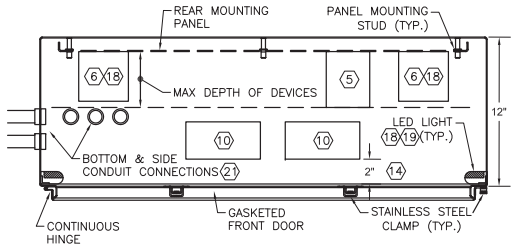
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Etenson 05/30/23

Signature Date



1 ACCESS CONTROL ENCLOSURE ELEVATION
NOT TO SCALE



2 ACCESS ENCLOSURE TOP DETAIL
NOT TO SCALE

KEY NOTES:

1. SOFTWARE HOUSE iSTAR ACCESS CONTROLLER. MAXIMUM OF (4) CONTROLLERS PER ACCESS CONTROL ENCLOSURE. POWER FROM 24V POWER DISTRIBUTION BOARD AND CONNECT TO NETWORK SWITCH.
2. SOFTWARE HOUSE RM-4 WIEGAND CONVERSION MODULE. CONNECT TO ACCESS CONTROLLER AND WIEGAND READER OR KEYPAD. WIEGAND CONVERTER DEVICES ONLY REQUIRED WHERE WIEGAND OUTPUT DEVICES ARE USED (NO OSDP OUTPUT AVAILABLE). IF OSDP OUTPUT IS AVAILABLE, CONVERTER DEVICE CAN BE REMOVED FROM DESIGN LAYOUT. REVIEW SYSTEM DESIGN AS REQUIRED.
3. WIRELESS NETWORK RADIO CONNECTED TO UPSTREAM EXTERNAL ANTENNA AND TO THE DOWNSTREAM POWER OVER ETHERNET INJECTOR (KEYNOTE 20).
4. ENCLOSURE WIRE MANAGEMENT DUCT SEGMENTS WITH WIDE SLOT/FINGERS, FIELD CUTTABLE PVC IN 2" X 2" CONFIGURATION. PROVIDE SEGMENTS AS REQUIRED TO ROUTE LOW VOLTAGE POWER, CONTROL, AND COMMUNICATION CONDUCTORS INSIDE ENCLOSURE. USE WIRE MANAGEMENT TO NEATLY TRAIN ALL CABLING.
5. HARDENED NETWORK SWITCH. CONNECT NETWORK BASED DEVICES VIA CAT 6 CABLE WITH RJ45 JACKS AND POWER FROM DIN RAIL CIRCUIT BREAKER.
6. FAN DRIVEN ENCLOSURE HEATER. TWO HEATERS PER ENCLOSURE. POWER FROM DIN RAIL CIRCUIT BREAKERS.
7. MAINTAIN UNIT HEATER CLEARANCES AS NOTED OR PER APPROVED HEATER INSTRUCTIONS.
8. 120VAC:12/24VDC 250W POWER SUPPLY FED FROM DIN RAIL CIRCUIT BREAKER. OUTPUT CONNECTED TO LOW VOLTAGE DISTRIBUTION BOARD. CONNECT 12VDC BACKUP BATTERIES BELOW POWER SUPPLY INTO EXTERNAL CONNECTION PORT ON POWER SUPPLY.
9. 12/24VDC, 8 INDIVIDUALLY FUSED OUTPUTS POWER DISTRIBUTION BOARD FED FROM 120:12/24VDC POWER SUPPLY. POWER ACCESS CONTROLLERS AND OTHER PERIPHERALS IN ENCLOSURE FROM FUSED OUTPUTS AS REQUIRED.
10. 12VDC LEAD ACID BATTERIES PLACED LOOSE INSIDE OF OVERALL ENCLOSURE. CONNECT (2) 12VDC BATTERIES IN SERIES FOR 24VDC OUTPUT TO POWER SUPPLY. NUMBER OF BATTERIES OR HIGH AMP-HOUR MODELS AS REQUIRED TO SUPPLY 24 HOURS OF BACKUP POWER TO DEVICES IN THE ACCESS CONTROLLER. SIT BATTERIES OFF FLOOR OF ENCLOSURE ON RUBBER BLOCKS TO AVOID STANDING WATER.
11. SET OF DIN RAIL MOUNTED CIRCUIT BREAKERS POWERED FROM ADJACENT POWER PANEL. MOUNTED TO SEGMENT OF DIN RAIL.
12. NEMA 4X STAINLESS STEEL ENCLOSURE MOUNTED TO ENCLOSURE RACK. PROVIDE WITH LOCKABLE LATCH, LED LIGHTS, AND MOUNTING BACK PANEL. SIZE SHOWN (60"H X 36W" X 12D") IS TYPICAL MAXIMUM SIZE.
13. MOUNTING BACK PANEL WITH OVERALL ENCLOSURE. MOUNT PANEL TO ENCLOSURE AND MOUNT ALL DEVICES TO BACK PANEL.
14. MAINTAIN A MINIMUM OF TWO INCH CLEARANCE ALL SIDES BETWEEN DEVICES MOUNTED TO BACK PANEL AND THE BACK PANEL EDGE. MAINTAIN A TWO INCH CLEARANCE BETWEEN DEVICE AND CONDUIT PENETRATIONS AND SIDES, TOP, AND BOTTOM OF THE ENCLOSURE.
15. ACCESS CONTROL COMMUNICATION AND CONTROL CABLES NOT SHOWN. ALL SHALL BE NEATLY TRAINED AND ROUTED WITHIN THE WIRE MANAGEMENT DUCT AS MUCH AS PRACTICAL. ALL CABLES AND CONTROL WIRING TO BE 600V RATED.
16. ACCESS CONTROL CABINET POWER CONDUCTORS NOT SHOWN. ALL SHALL BE 600V RATED, COPPER, STRANDED, AND SIZED AS REQUIRED PER CODE AND EQUIPMENT MANUFACTURER INSTALLATION REQUIREMENTS. MAINTAIN SEPARATION FROM LOW VOLTAGE CABLES.
17. PROVIDE A 20A, 120V, HD, QUAD RECEPTACLE IN 4" SQ. SURFACE MOUNT BOX. POWER ALL PLUG LOADS FROM RECEPTACLE.
18. DEVICE OR FEATURE NOTED IS A STANDARD REQUIREMENT OF ALL ACCESS CONTROL CABINETS REGARDLESS OF SIZE OR CONFIGURATION. NUMBER OF DEVICES OR THEIR POSITIONS AND SPECIFIC FEATURES NOTED MAY NEED ADJUSTMENT BASED ON EACH ENCLOSURE CHARACTERISTICS (I.E. NUMBER OF ACCESS CONTROLLERS AND PERIPHERAL DEVICES INSIDE).
19. ADJUSTABLE AIM, SLIM FORMAT LED STRIP LIGHT. PROVIDE TWO FOR EACH SIDE AND ONE AT TOP OF ENCLOSURE (5 TOTAL). CONTROL VIA DOOR SWITCH (NOT SHOWN) AND POWER FROM DIN RAIL CIRCUIT BREAKER SERVING NETWORK SWITCH. MOUNT TO FRONT FACE OF SIDES & CEILING OF ENCLOSURE PER DETAIL 2, THIS SHEET. INTERCONNECT FIXTURES WITH CORDS ROUTED TIGHT TO EDGES OF ENCLOSURE TO ALLOW CONDUIT PENETRATIONS WITHOUT CABLE DAMAGE.
20. WIRELESS ANTENNA POWER OVER ETHERNET INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT 5E/6 CABLE BETWEEN WIRELESS RADIO AND DOWNSTREAM EXTERIOR ANTENNA UNIT.
21. ARRANGE CONDUIT PENETRATIONS AND KNOCKOUTS INTO ENCLOSURE ON ALL SIDES, TOP AND BOTTOM, SO THAT THEY ARE BEYOND THE MAX DEPTH OF THE DEVICES IN THE ENCLOSURE AND AVOID DEVICES IN THE AREA.
22. INDUSTRIAL GRADE, LOW NOISE, SWITCH MODE POWER SUPPLY FOR NETWORK SWITCH. DIN RAIL MOUNTABLE, HARDENED UNIT WITH 48VDC REGULATED OUTPUT. FEED FROM DIN RAIL CIRCUIT BREAKER & CONNECT TO SWITCH INPUT.
23. LONG RANGE VEHICLE READER CABLE SURGE SUPRESSOR (ONE PER READER). SEE GATE SPECIFIC POWER NETWORK SCHEMATIC.

PLANS DEVELOPED BY:
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STATE OF ALASKA
49 TH
Mark G. Morris
July 30, 2019
No. EE 8610
REGISTERED PROFESSIONAL ENGINEER

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

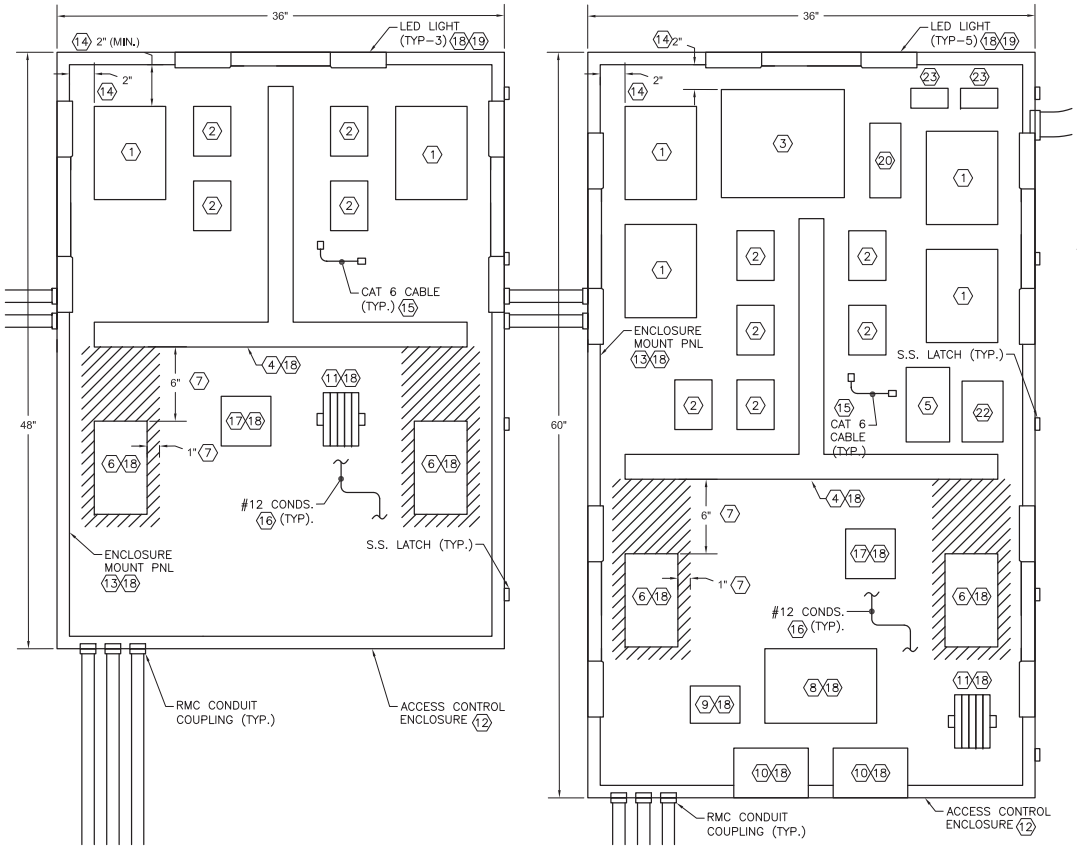
ACCESS CONTROL ENCLOSURE DETAILS

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE16	24



1 DUAL ACCESS CONTROL ENCLOSURE ELEVATION
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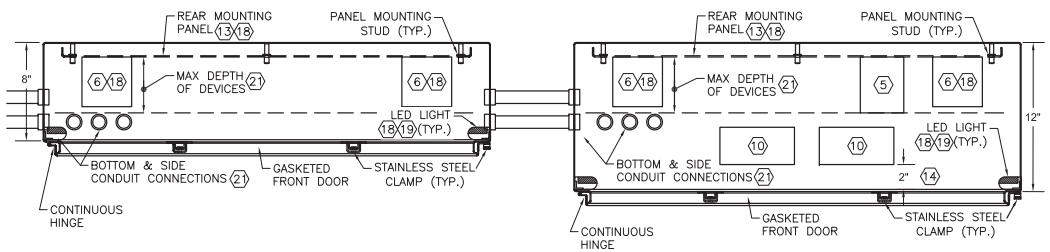

2 DUAL ACCESS CONTROL ENCLOSURE TOP DETAIL
NOT TO SCALE

SHEET NOTES:

1. SEE SHEET SE15 FOR SHEET NOTES APPLICABLE TO THIS SHEET.

KEY NOTES:

1. SOFTWARE HOUSE iSTAR ACCESS CONTROLLER. MAXIMUM OF (4) CONTROLLERS PER ACCESS CONTROL ENCLOSURE. POWER FROM 24V POWER DISTRIBUTION BOARD AND CONNECT TO NETWORK SWITCH.
2. SOFTWARE HOUSE RM-4 WIEGAND CONVERSION MODULE. CONNECT TO ACCESS CONTROLLER AND WIEGAND READER OR KEYPAD. WIEGAND CONVERTER DEVICES ONLY REQUIRED WHERE WIEGAND OUTPUT DEVICES ARE USED (NO OSDP OUTPUT AVAILABLE). IF OSDP OUTPUT IS AVAILABLE, CONVERTER DEVICE CAN BE REMOVED FROM DESIGN LAYOUT. REVIEW SYSTEM DESIGN AS REQUIRED.
3. WIRELESS NETWORK RADIO CONNECTED TO UPSTREAM EXTERNAL ANTENNA AND TO THE DOWNSTREAM POWER OVER ETHERNET INJECTOR (KEYNOTE 20).
4. ENCLOSURE WIRE MANAGEMENT DUCT SEGMENTS WITH WIDE SLOT/FINGERS, FIELD CUTTABLE PVC IN 2" X 2" CONFIGURATION. PROVIDE SEGMENTS AS REQUIRED TO ROUTE LOW VOLTAGE POWER, CONTROL, AND COMMUNICATION CONDUCTORS INSIDE ENCLOSURE. USE WIRE MANAGEMENT TO NEATLY TRAIN ALL CABLING.
5. HARDENED NETWORK SWITCH. CONNECT NETWORK BASED DEVICES VIA CAT 6 CABLE WITH RJ45 JACKS AND POWER FROM DIN RAIL CIRCUIT BREAKER.
6. FAN DRIVEN ENCLOSURE HEATER. TWO HEATERS PER ENCLOSURE. POWER FROM DIN RAIL CIRCUIT BREAKERS.
7. MAINTAIN UNIT HEATER CLEARANCES AS NOTED OR PER APPROVED HEATER INSTRUCTIONS.
8. 120VAC:12/24VDC 250W POWER SUPPLY FED FROM DIN RAIL CIRCUIT BREAKER. OUTPUT CONNECTED TO LOW VOLTAGE DISTRIBUTION BOARD. CONNECT 12VDC BACKUP BATTERIES BELOW POWER SUPPLY INTO EXTERNAL CONNECTION PORT ON POWER SUPPLY.
9. 12/24VDC, 8 INDIVIDUALLY FUSED OUTPUTS POWER DISTRIBUTION BOARD FED FROM 120:12/24VDC POWER SUPPLY. POWER ACCESS CONTROLLERS AND OTHER PERIPHERALS IN ENCLOSURE FROM FUSED OUTPUTS AS REQUIRED.
10. 12VDC LEAD ACID BATTERIES PLACED LOOSE INSIDE OF OVERALL ENCLOSURE. CONNECT (2) 12VDC BATTERIES IN SERIES FOR 24VDC OUTPUT TO POWER SUPPLY. NUMBER OF BATTERIES OR HIGH AMP-HOUR MODELS AS REQUIRED TO SUPPLY 24 HOURS OF BACKUP POWER TO DEVICES IN THE ACCESS CONTROLLER. SIT BATTERIES OFF FLOOR OF ENCLOSURE ON RUBBER BLOCKS TO AVOID STANDING WATER.
11. SET OF DIN RAIL MOUNTED CIRCUIT BREAKERS POWERED FROM ADJACENT POWER PANEL. MOUNTED TO SEGMENT OF DIN RAIL.
12. NEMA 4X STAINLESS STEEL ENCLOSURE MOUNTED TO ENCLOSURE RACK. PROVIDE WITH LOCKABLE LATCH, LED LIGHTS, AND MOUNTING BACK PANEL. SIZES SHOWN (60"H X 36W" X 12D" AND 48"H X 36"W X 8"D) ARE TYPICAL.
13. MOUNTING BACK PANEL WITH OVERALL ENCLOSURE. MOUNT PANEL TO ENCLOSURE AND MOUNT ALL DEVICES TO BACK PANEL.
14. MAINTAIN A MINIMUM OF TWO INCH CLEARANCE ALL SIDES BETWEEN DEVICES MOUNTED TO BACK PANEL AND THE BACK PANEL EDGE. MAINTAIN A TWO INCH CLEARANCE BETWEEN DEVICE AND CONDUIT PENETRATIONS AND SIDES, TOP, AND BOTTOM OF THE ENCLOSURE.
15. ACCESS CONTROL COMMUNICATION AND CONTROL CABLES NOT SHOWN. ALL SHALL BE NEATLY TRAINED AND ROUTED WITHIN THE WIRE MANAGEMENT DUCT AS MUCH AS PRACTICAL. ALL CABLES AND CONTROL WIRING TO BE 600V RATED.
16. ACCESS CONTROL CABINET POWER CONDUCTORS NOT SHOWN. ALL SHALL BE 600V RATED, COPPER, STRANDED, AND SIZED AS REQUIRED PER CODE AND EQUIPMENT MANUFACTURER INSTALLATION REQUIREMENTS. MAINTAIN SEPARATION FROM LOW VOLTAGE CABLES.
17. PROVIDE A 20A, 120V, HD, QUAD RECEPTACLE IN 4" SQ. SURFACE MOUNT BOX. POWER ALL PLUG LOADS FROM RECEPTACLE.
18. DEVICE OR FEATURE NOTED IS A STANDARD REQUIREMENT OF ALL ACCESS CONTROL CABINETS REGARDLESS OF SIZE OR CONFIGURATION. NUMBER OF DEVICES OR THEIR POSITIONS AND SPECIFIC FEATURES NOTED MAY NEED ADJUSTMENT BASED ON EACH ENCLOSURE CHARACTERISTICS (I.E. NUMBER OF ACCESS CONTROLLERS AND PERIPHERAL DEVICES INSIDE).
19. ADJUSTABLE AIM, SLIM FORMAT LED STRIP LIGHT. PROVIDE TWO FOR EACH SIDE AND ONE AT TOP OF ENCLOSURE (5 TOTAL). CONTROL VIA DOOR SWITCH (NOT SHOWN) AND POWER FROM DIN RAIL CIRCUIT BREAKER SERVING NETWORK SWITCH. MOUNT TO FRONT FACE OF SIDES & CEILING OF ENCLOSURE PER DETAIL 2, THIS SHEET. INTERCONNECT FIXTURES WITH CORDS ROUTED TIGHT TO EDGES OF ENCLOSURE TO ALLOW CONDUIT PENETRATIONS WITHOUT CABLE DAMAGE.
20. WIRELESS ANTENNA POWER OVER ETHERNET INJECTOR WITH INTEGRAL SURGE ARRESTOR. CONNECT WITH CAT 5E/6 CABLE BETWEEN WIRELESS RADIO AND DOWNSTREAM EXTERIOR ANTENNA UNIT.
21. ARRANGE CONDUIT PENETRATIONS AND KNOCKOUTS INTO ENCLOSURE ON ALL SIDES, TOP AND BOTTOM, SO THAT THEY ARE BEYOND THE MAX DEPTH OF THE DEVICES IN THE ENCLOSURE AND AVOID DEVICES IN THE AREA.
22. INDUSTRIAL GRADE, LOW NOISE, SWITCH MODE POWER SUPPLY FOR NETWORK SWITCH. DIN RAIL MOUNTABLE, HARDENED UNIT WITH 48VDC REGULATED OUTPUT. FEED FROM DIN RAIL CIRCUIT BREAKER & CONNECT TO SWITCH INPUT.
23. LONG RANGE VEHICLE READER CABLE SURGE SUPRESSOR (ONE PER READER). SEE GATE SPECIFIC POWER NETWORK SCHEMATIC.

PLANS DEVELOPED BY:
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STATE OF ALASKA
49TH
Mark G. Morris
July 30, 2019
No. EE 8613
REGISTERED ELECTRICAL PROFESSIONAL ENGINEER

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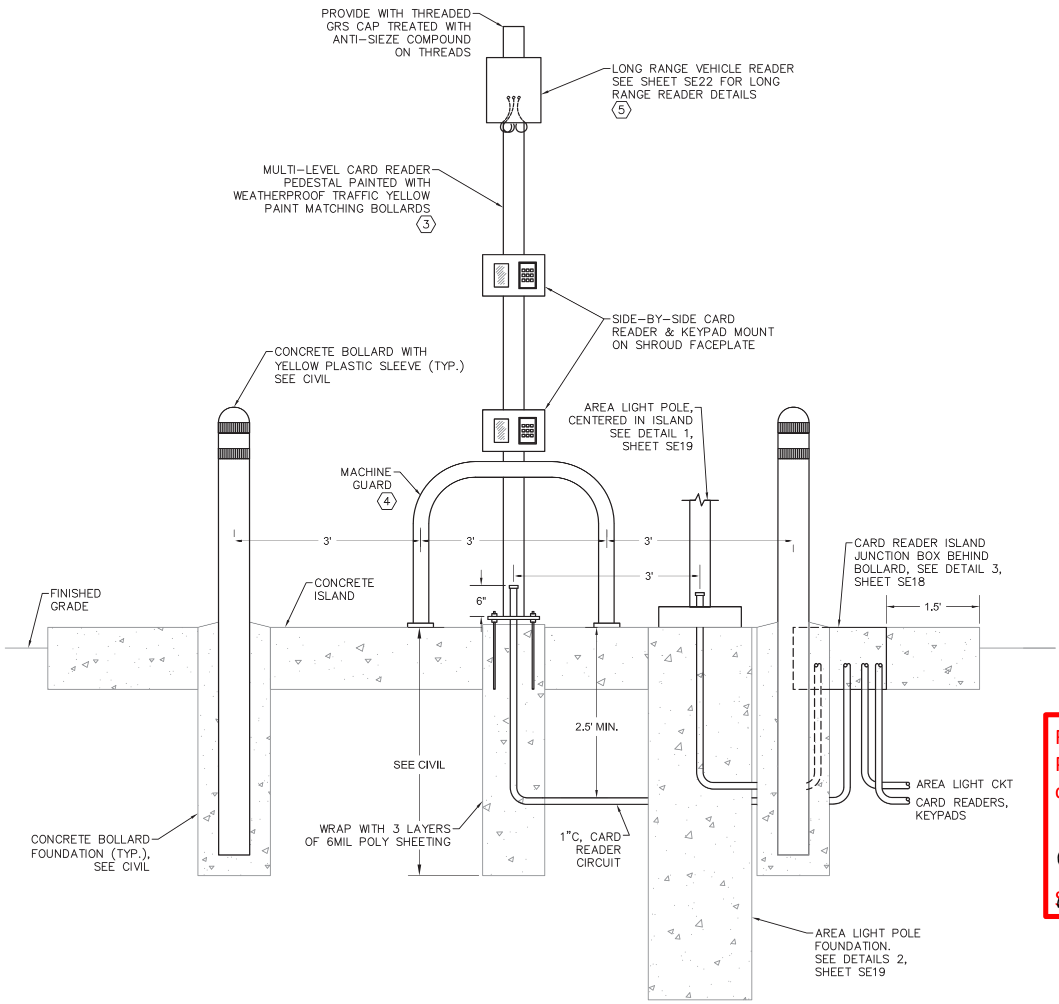
AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

DUAL ACCESS CONTROL ENCLOSURE DETAILS

DRAFTED JRW | CHECKED MGM | DESIGNED MGM | DATE 7/26/2019 16:41 | LAYOUT SE16 | FILE y:\102 state of ak\fl airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings psa\POWER PANEL DETAILS.dwg

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFAPT00176/00175	2019	SE17	24

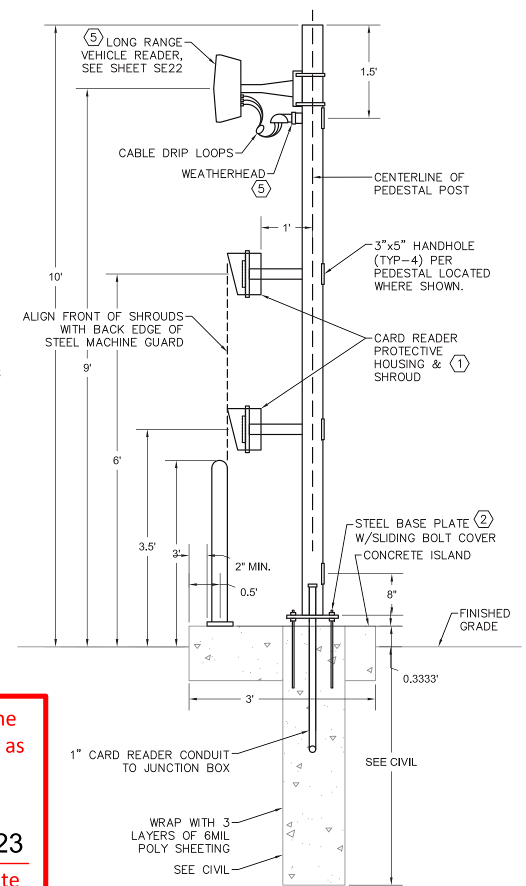


1 VEHICLE GATE ISLAND ELEVATION

NOT TO SCALE

KEY NOTES:

1. 8"W X 8"H X 3"D 14GA STEEL (YELLOW POLYESTER POWDER COATED) HOUSING SHROUD WITH HINGED DOOR, CAM LOCK & KEYS. MOUNT KEYPAD AND CARD READER CENTERED AND SPACED APART ON FRONT FACE OF SHROUD. SEAL ALL PENETRATIONS INTO SHROUD.
2. PEDESTAL HOT DIPPED GALVANIZED BASE PLATE WITH 10" DIA. BASE AND BOLT CIRCLE. PROVIDE GALVANIZED ANCHOR BOLTS SIZED PER PEDESTAL MANUFACTURER REQUIREMENTS. MINIMUM 1/2" DIA. X 8" EMBEDDED ANCHOR BOLTS (MINIMUM). PROVIDE BOLTS WITH GALVANIZED LEVELING NUTS AND LEAVE 1-1/2" SPACE ABOVE CONCRETE ISLAND FOR GROUT INFILL.
3. HOT DIPPED GALVANIZED MULTI-HEIGHT CARD READER PEDESTAL. CONSISTS OF 4" DIA. STANDARD PIPE WITH SINGLE GANG (3"X5") HANDHOLES BEHIND EACH READER MOUNT LOCATION, AND 1/2" X 10" DIA BASE PLATE. PROVIDE WITH 8" SQ. MOUNTING PLATE AT EACH OF THE VEHICLE READER POSITIONS ATTACHED TO PEDESTAL VIA 2" DIA. STANDARD PIPE. DRILL AND SMOOTH OPENINGS FOR ALL CABLES ROUTED WITHIN THE PEDESTAL. DIMENSIONS SHOWN ARE IN RELATION TO FINISHED GRADE (DRIVING SURFACE) AND NOT THE CONCRETE ISLAND. MODIFY DIMENSIONS OF PEDESTAL FOR SPECIFICS OF EACH PROJECT LOCATION TO ACHIEVE THE CARD READER MOUNTING HEIGHTS NOTES ON THIS SHEET.
4. 3'H X 3'W X 3"D SCHEDULE 40 STEEL MACHINE GUARD. PAINT WITH EXTERIOR TRAFFIC YELLOW PAINT SUITABLE FOR ENVIRONMENT. MOUNT TO CONCRETE ISLAND WITH EMBEDDED HARDWARE. PROVIDE PER CIVIL DESIGN REQUIREMENTS.
5. SECURE LONG RANGE READER TO PEDESTAL POST AT HEIGHT INDICATED. FEED CABLES TO READER FROM WEATHERHEAD MOUNTED TO A 2" CONDUIT STUB OUT OF PEDESTAL AT HEIGHT SHOWN. LOCATE HANDHOLE AT TOP OF POST DIRECTLY ACROSS FROM WEATHERHEAD CONDUIT NIPPLE.



Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

2 VEHICLE GATE CARD READER ISLAND ELEVATION

SIDE VIEW

NOT TO SCALE

SHEET NOTES:

1. SEE GATE SPECIFIC SINGLE LINE DIAGRAMS, POWER & CONTROL SCHEMATICS & SHEETS SE7-SE10 FOR POWER AND CONTROL CIRCUITING INFORMATION FOR THE CARD READERS, AREA LIGHT FIXTURE, AND THE LONG RANGE READER.
2. SEE SHEET SE22 FOR LONG RANGE READER DETAILS, AND SHEET SE19 FOR LIGHT POLE DETAILS.
3. ALL CIVIL REQUIREMENTS SHOWN ARE GENERIC IN NATURE. PROJECT SHALL ADHERE TO CIVIL ENGINEER REQUIREMENTS WHICH OVERRIDE ANY SPECIFICS PROVIDED IN THIS PLAN THAT ARE LESS STRINGENT. CONSULT PROJECT ENGINEER FOR ANY QUESTIONS OR CLARIFICATIONS PRIOR TO MODIFYING DESIGN FROM THE DIMENSIONS, RELATIONAL LOCATIONS, OR SPECIFICATIONS REQUIRED OF THE PROJECT.
4. CONDUIT ROUTING SHOWN IN THIS DETAIL IS GRAPHIC IN NATURE. WHERE APPLICABLE AND PRACTICAL, ROUTE CONDUITS IN COMMON TRENCHES. FOLLOW TRENCHING AND CONDUIT PLACEMENT REQUIREMENTS ON SHEET SE18
5. PROVIDE GROMMETS IN HOLES FOR CABLE PASS THROUGH IN ALL ENCLOSURES.

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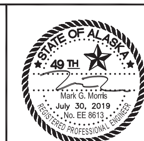

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

VEHICLE GATE ISLAND ELEVATION

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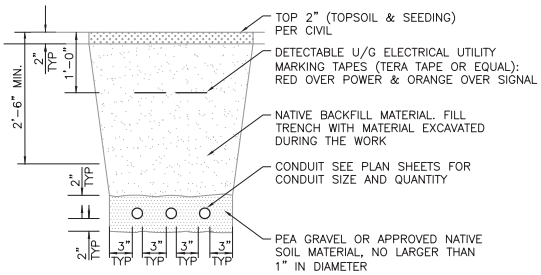
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

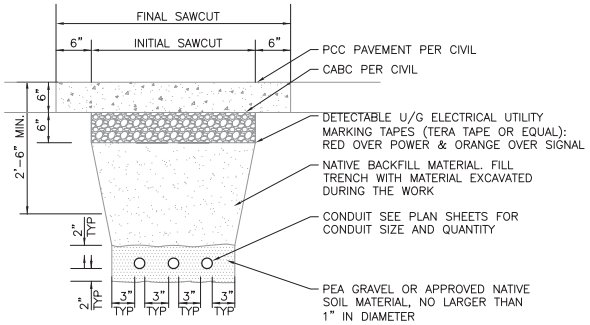
Jacob Estenson 05/30/23

Signature Date

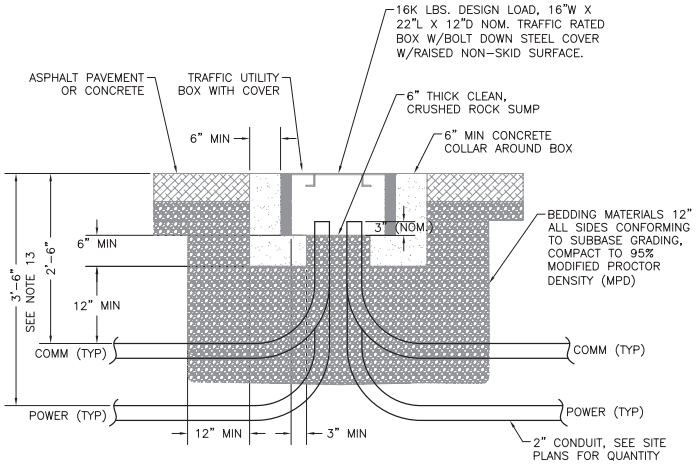
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE18	24



① TRENCH DETAIL - NON-PAVED AREAS
NOT TO SCALE



② TRENCH DETAIL - PAVED AREAS
NOT TO SCALE



③ PAVED JUNCTION BOX DETAIL
NOT TO SCALE

NOTES (APPLICABLE TO ALL DETAILS, THIS SHEET):

1. ALL DIMENSIONS ARE MINIMUM.
2. SEE CIVIL DRAWINGS FOR TYPICAL SECTIONS UNDER PAVED AREAS. PROVIDE BACKFILL (MATERIAL, COMPACTION, ETC.) PER CIVIL SPECS.
3. THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN UTILITY LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
4. MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, CONCRETE STRUCTURE, VAULTS, ETC.
5. CUT & REPLACE EXISTING ASPHALT, CONCRETE, CONCRETE CURB, GUTTER, SIDEWALK, ETC. AS NECESSARY. FOLLLOW THE CIVIL SPECS.
6. ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL & PROVIDE TOP LAYERS PER CIVIL.
7. POWER UTILITY CONDUIT SHALL BE BURIED AT A MINIMUM OF 3'-6". ALL NON-UTILITY CONDUITS AT DEPTH SHOWN IN THESE DETAILS, UNLESS NOTED OTHERWISE ON THE PLANS.
8. MODIFY CONDUIT BURIAL DEPTH WHERE SHOWN ON DRAWINGS.
9. MAINTAIN 36" MINIMUM LATERAL SEPARATION FROM WATER AND SEWER LINES. MAINTAIN 12" SEPARATION BETWEEN ELECTRICAL UTILITY CONDUITS.
10. THIS IS A TYPICAL TRENCH SECTION SHOWING MINIMUM DIMENSIONS AND REQUIRED MATERIALS. CONFIGURE ALL TRENCHES AS NECESSARY TO COMPLY WITH DIMENSIONS SHOWN. USE THIS DETAIL WHERE CONDUIT HAS TO BE PLACED BELOW EXISTING ASPHALT TO REMAIN.
11. SAWCUT EXISTING ASPHALT AS REQUIRED TO INSTALL CONDUIT AND OTHER ELECTRICAL ITEMS. SAWCUT ASPHALT BACK ON EACH SIDE OF EDGE OF TRENCH OR EXCAVATION AREA (ALL SIDES). SEE CIVIL SHEETS FOR SPECIFICATION ON SAW CUTTING LIMITS. COMPACT BACKFILL TO 95%. COMPACT D-1 TO 100% WHERE COVERED WITH PAVEMENT. RE-PAVE SAWCUT AREAS PER CIVIL SPECIFICATIONS.
12. RETURN PAVEMENT TO THE CONDITION IT WAS IN PRIOR TO MAKING THE SAW CUT.
13. POWER CONDUITS SHALL BE AT DEEPER DEPTH INDICATED HERE AS REQUIRED TO AVOID UNDERGROUND OBSTACLES IN THE AREA. OTHERWISE, THE MINIMUM 2'-6" BURIAL DEPTH IS GENERALLY ACCEPTABLE.

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH Mark G. Morris July 30, 2019 No. EE 8610 REGISTERED PROFESSIONAL ENGINEER

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

TRENCH & JUNCTION BOX DETAILS

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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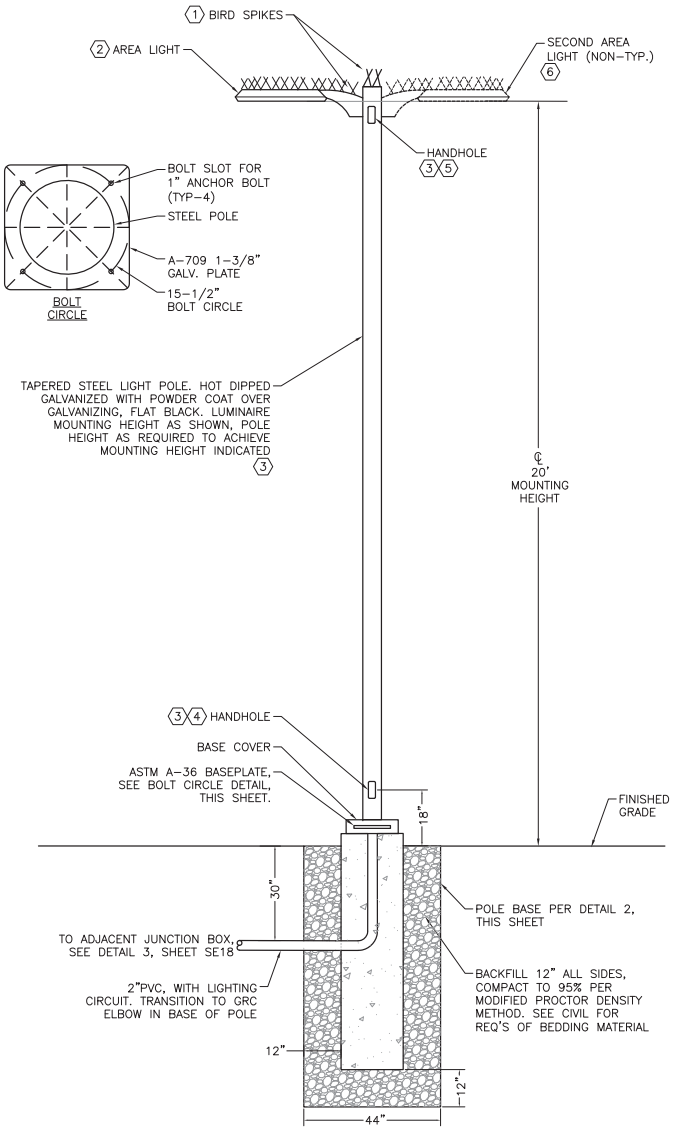
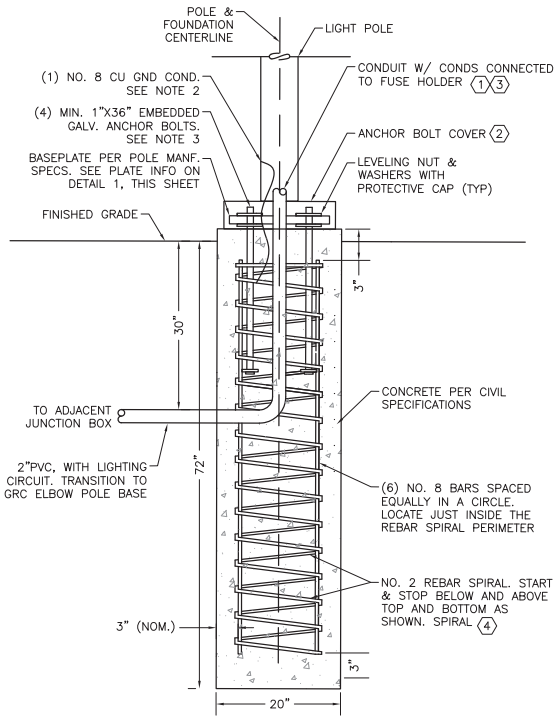
			ALASKA	SFAPT00176/00175	2019	SE19	24



1 20' AREA LIGHT ELEVATION DETAIL

NOT TO SCALE



2 20' AREA LIGHT POLE BASE DETAIL

NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

1. COORDINATE FOUNDATION DIMENSIONS, BASEPLATE LOCATIONS, BASEPLATE ANCHOR POINTS, AND ANCHOR BOLT DETAILS WITH MANUFACTURER RECOMMENDATIONS. WHAT IS SHOWN HERE IS TYPICAL AND DIAGRAMMATIC ONLY.
2. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL ENGINEER.

KEY NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

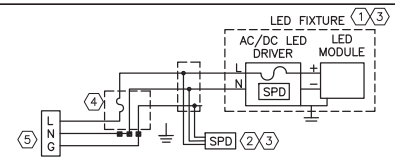
1. BIRD SPIKES. SECURE TO FIXTURE MOUNTING ARM, FIXTURE, AND POLE TOP WITH MANUFACTURER RECOMMENDED ADHESIVE.
2. LED AREA LIGHT, FULL CUTOFF LUMINAIRE. TYPE II SHORT DIST., 5K CCT, MVOLT DRIVER, 4.7K LUMENS (NOMINAL), 70 CRI (MIN.) WITH POLE MOUNTING ADAPTER, HOUSESIDE SHIELD, BIRD SPIKES, AND INTEGRAL PE CELL FOR CONTROL.
3. PROVIDE POLE WITH 3" X 5" HANDHOLES WHERE NOTED. HANDHOLES SHALL BE GASKETED.
4. PROVIDE DOUBLE FUSE CONNECTOR KIT IN EACH POLE BASE. WATERTIGHT RUBBER MOLDED FUSE HOLDER FILLED WITH SILICONE. FUSE @ 4 AMPS. LOCATE TO BE ACCESSIBLE FROM THE HANDHOLE AT BASE OF POLE. PROVIDE #12 XHHW CONDS. UP TO LIGHTS.
5. CABLES INSIDE POLE AT TOP OF POLE SHALL BE SUPPORTED WITH INTERIOR CABLE GRIP OR SIMILAR MECHANISM TO PREVENT CABLE DAMAGE DUE TO MECHANICAL STRESS.
6. TYPICALLY, ONLY ONE AREA LIGHT IS REQUIRED PER POLE. WHERE ADDITIONAL AREA LIGHTS ARE REQUIRED PROVIDE POLE WITH MOUNT SUITABLE FOR THE ADDITIONAL LIGHTS. ARRANGE LIGHTS 180 DEG APART, 90 DEG APART, ETC. AS SHOWN ON THE SITE PLANS.

NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. ALL SPLICES SHALL BE IN BASE OF POLE. LOOP FEED BETWEEN LIGHT POLES AS REQUIRED. PROVIDE FUSE KITS IN EACH POLE BASE PER DETAIL 1.
2. BOND THE GROUND CONDUCTOR TO FOUNDATION REBAR, ANCHOR BOLTS, LIGHT POLE, AND TO THE EQUIPMENT GROUNDING CONDUCTOR RAN WITH THE LIGHTING CIRCUIT.
3. PROVIDE ANCHOR BOLTS WITH 4" MINIMUM HOOK AND 6" OF THREAD ON BOTH ENDS. BOLTS SHALL MEET ASTM-A36 WITH MINIMUM YIELD STRESS OF 36.0 KSI.
4. SEE DETAIL 1, THIS SHEET FOR LIGHT POLE BASE BACKFILL REQUIREMENTS.

KEY NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. FOR SPLICES TO ADD'L POLES, USE SILICONE FILLED WIRE NUTS. SPLICES SHALL BE ACCESSIBLE FROM HANDHOLE
2. GALV. METALLIC, SPLIT STYLE, COLOR MATCH TO POLE.
3. STUB TO JUST BELOW HANDHOLE IN BASE OF POLE.
4. SPIRAL TO HAVE 20" DIAMETER WITH 1 TURN EVERY 3".



3 SURGE PROTECTION DEVICE (SPD) WIRING DIAGRAM

NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

1. KEEP WIRES AS STRAIGHT AND SHORT AS POSSIBLE.
2. ROUND WIRES RATHER THEN BENDING AT A HARD 90 DEGREES ANGLE.
3. DO NOT CROSS OR OVERLAP PROTECTED WIRES (THOSE AFTER THE SPD, EITHER AC OR DC WIRES) WITH UNPROTECTED WIRES (THOSE BEFORE THE SPD, AC WIRES).
4. ONLY ONE EXTERNAL SPD REQUIRED PER POLE, REGARDLESS OF THE NUMBER OF FIXTURE HEADS ON THE POLE.

KEY NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

1. OVERALL LED FIXTURE WITH FUSED DRIVER FURNISHED WITH INTEGRAL & INTERNAL SPD.
2. EXTERNAL LED FIXTURE SPD CIRCUIT AS SHOWN. MAKE PARALLEL CONNECTION INTO CIRCUIT WITH AS SHORT AND STRAIGHT OF CONDUCTORS AS POSSIBLE, SIZE MATCHED TO CIRCUIT CONDUCTORS SIZES.
3. CO-LOCATE EXTERNAL SPD WITHIN LIGHT FIXTURE HOUSING IF ACCEPTABLE TO FIXTURE MANUFACTURER. OTHERWISE INSTALL WITHIN POLE IMMEDIATELY ADJACENT TO FIXTURE MOUNTING LOCATION.
4. FINGER SAFE FUSE HOLDER AST BASE OF LIGHT POLE ACCESSIBLE FROM BASE HANDHOLE.
5. SOURCE PANEL PER PLANS.

SHEET NOTES:

1. UNLESS NOTED ELSEWHERE, ALL SPLICES SHALL BE IN BASE OF POLE.
2. PROVIDE GROUNDING BUSHINGS ON CONDUIT STUB UPS INTO POLE. BOND CONDUIT TO LIGHT POLE. ALSO BOND LIGHT POLE TO REBAR IN THE POLE FOUNDATION.
3. SIZE POLE WITH LUMINAIRE AND POLE BASE FOR 120 MPH SUSTAINED WINDS WITH GUSTS UP TO 150 MPH. POLE DIMENSIONS INDICATED ARE A MINIMUM PROVIDE CALCULATIONS SHOWING COMPLIANCE SEALED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF ALASKA.
4. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING PROJECT.
5. ALL DIMENSIONS SHOWN ARE A MINIMUM.
6. SEE CIVIL DRAWINGS FOR MORE DETAILS AND INFORMATION REGARDING THE POLES AND RELATED CIVIL WORK.

PLANS DEVELOPED BY:
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STATE OF ALASKA 49TH
Mark G. Morris
July 30, 2019
No. EE 8610
REGISTERED PROFESSIONAL ENGINEER

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

20' LIGHT POLE DETAILS

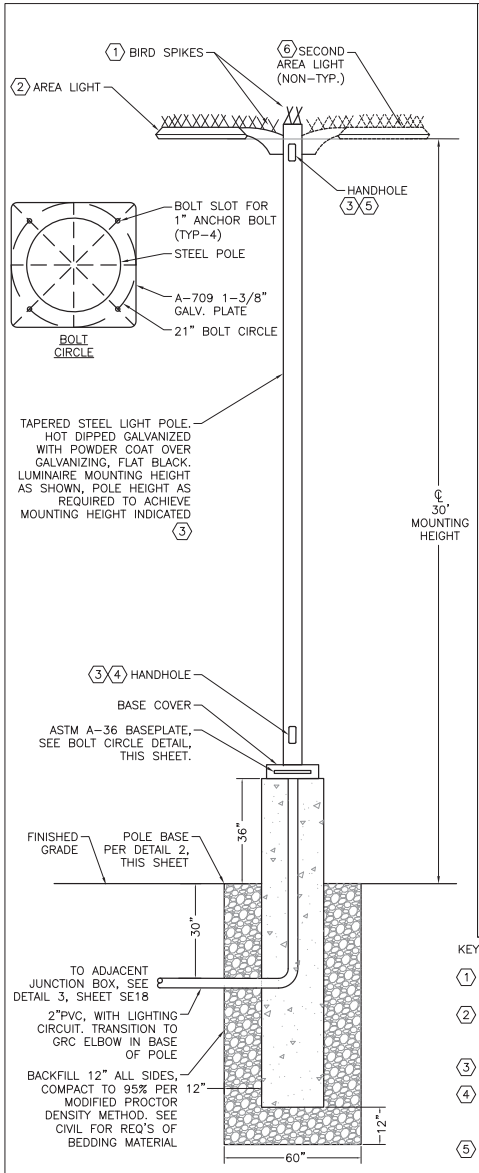
DRAFTED JRW | CHECKED MGM | DESIGNED MGM | LAYOUT SE19 | DATE 7/29/2019 11:17 | FILE y:\102 state of ak\fr airport perimeter fencing upgrades\working drawings\3 airport standards\working drawings sae\07 LIGHT POLE DETAILS.dwg

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

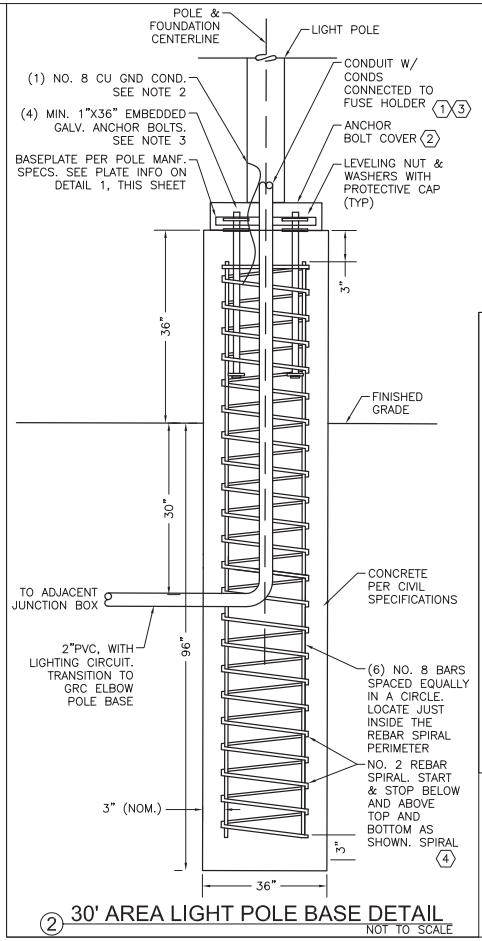
Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFAPT00176/00175	2019	SE20	24



1 30' AREA LIGHT ELEVATION DETAIL

NOT TO SCALE



2 30' AREA LIGHT POLE BASE DETAIL

NOT TO SCALE

KEY NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

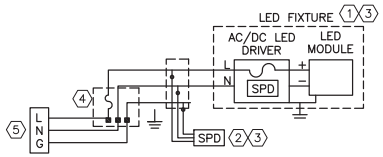
1. BIRD SPIKES. SECURE TO FIXTURE MOUNTING ARM, FIXTURE, AND POLE TOP WITH MANUFACTURER RECOMMENDED ADHESIVE.
2. LED AREA LIGHT, FULL CUTOFF LUMINAIRE. TYPE II SHORT DIST., 5K CCT, MVOLT DRIVER, 4.7K LUMENS (NOMINAL), 70 CRI (MIN.) WITH POLE MOUNTING ADAPTER, HOUSESIDE SHIELD, BIRD SPIKES, AND INTEGRAL PE CELL FOR CONTROL.
3. PROVIDE POLE WITH 3" X 5" HANDHOLES WHERE NOTED. HANDHOLES SHALL BE GASKETED.
4. PROVIDE DOUBLE FUSE CONNECTOR KIT IN EACH POLE BASE. WATERTIGHT RUBBER MOLDED FUSE HOLDER FILLED WITH SILICONE. FUSE @ 4 AMPS. LOCATE TO BE ACCESSIBLE FROM THE HANDHOLE AT BASE OF POLE. PROVIDE #12 XHHW CONDS. UP TO LIGHTS.
5. CABLES INSIDE POLE AT TOP OF POLE SHALL BE SUPPORTED WITH INTERIOR CABLE GRIP OR SIMILAR MECHANISM TO PREVENT CABLE DAMAGE DUE TO MECHANICAL STRESS.
6. TYPICALLY, ONLY ONE AREA LIGHT IS REQUIRED PER POLE. WHERE ADDITIONAL AREA LIGHTS ARE REQUIRED PROVIDE POLE WITH MOUNT SUITABLE FOR THE ADDITIONAL LIGHTS. ARRANGE LIGHTS 180 DEG APART, 90 DEG APART, ETC. AS SHOWN ON THE SITE PLANS.

NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. ALL SPLICES SHALL BE IN BASE OF POLE. LOOP FEED BETWEEN LIGHT POLES AS REQUIRED. PROVIDE FUSE KITS IN EACH POLE BASE PER DETAIL 1.
2. BOND THE GROUND CONDUCTOR TO FOUNDATION REBAR, ANCHOR BOLTS, LIGHT POLE, AND TO THE EQUIPMENT GROUNDING CONDUCTOR RAN WITH THE LIGHTING CIRCUIT.
3. PROVIDE ANCHOR BOLTS WITH 4" MINIMUM HOOK AND 6" OF THREAD ON BOTH ENDS. BOLTS SHALL MEET ASTM-A36 WITH MINIMUM YIELD STRESS OF 36.0 KSI.
4. SEE DETAIL 1, THIS SHEET FOR LIGHT POLE BASE BACKFILL REQUIREMENTS.

KEY NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. FOR SPLICES TO ADDITIONAL POLES, USE SILICONE FILLED WIRE NUTS. ALL SPLICES SHALL BE ACCESSIBLE FROM HANDHOLE
2. GALVANIZED METALLIC, SPLIT STYLE, COLOR MATCH TO POLE.
3. STUB TO JUST BELOW HANDHOLE IN BASE OF POLE.
4. SPIRAL TO HAVE 20" DIAMETER WITH 1 TURN EVERY 3".



3 SURGE PROTECTION DEVICE (SPD) WIRING DIAGRAM

NOT TO SCALE

NOTES (APPLICABLE TO DETAIL 3, THIS SHEET):

1. KEEP WIRES AS STRAIGHT AND SHORT AS POSSILE.
2. ROUND WIRES RATHER THEN BENDING AT A HARD 90 DEGREE ANGLE.
3. DO NOT CROSS OR OVERLAP PROTECTED WIRES (THOSE AFTER THE SPD, EITHER AC OR DC WIRES).
4. ONLY ONE EXTERNAL SPD REQUIRED PER POLE, REGARDLESS OF THE NUMBER OF FIXTURE HEADS ON THE POLE.

KEYNOTES (APPLICABLE TO DETAIL 3, THIS SHEET:

1. OVERALL LED FIXTURE WITH FUSED DRIVER FURNISHED WITH INTEGRAL AND INTERNAL SPD.
2. EXTERNAL LED FIXTURE SPD CIRCUIT AS SHOWN. MAKE PARALLEL CONNECTION INTO CIRCUIT WITH AS SHORT AND STRAIGHT OF CONDUCTORS AS POSSIBLE, SIZE MATCHED TO CIRCUIT CONDUCTORS SIZES.
3. CO-LOCATE EXTERNAL SPD WITHIN LIGHT FIXTURE HOUSING IF ACCEPTABLE TO FIXTURE MANUFACTURER. OTHERWISE INSTALL WITHIN POLE IMMEDIATELY ADJACENT TO FIXTURE MOUNTING LOCATION.
4. FINGER SAFE FUSE HOLDER AST BASE OF LIGHT POLE ACCESSIBLE FROM BASE HANDHOLE.
5. SOURCE PANEL PER PLANS.

SHEET NOTES:

1. COORDINATE FOUNDATION DIMENSIONS, BASEPLATE LOCATIONS, BASEPLATE ANCHOR POINTS, AND ANCHOR BOLT DETAILS WITH MANUFACTURER RECOMMENDATIONS. WHAT IS SHOWN HERE IS TYPICAL AND DIAGRAMMATIC ONLY.
2. SEE PROJECT SPECIFIC CIVIL DETAILS AND SPECIFICATIONS FOR CONCRETE MIX DESIGN REQUIREMENTS, SUBBASE MATERIAL AND COMPACTION REQUIREMENTS, GEOTEXTILE FILTER FABRIC SPECIFICS, ETC. ADJUST DETAILS AS REQUIRED TO MEET THE STANDARDS REQUIRED BY THE PROJECT CIVIL ENGINEER.
3. UNLESS NOTED ELSEWHERE, ALL SPLICES SHALL BE IN BASE OF POLE.
4. PROVIDE GROUNDING BUSHINGS ON CONDUIT STUB UPS INTO POLE. BOND CONDUIT TO LIGHT POLE. ALSO BOND LIGHT POLE TO REBAR IN THE POLE FOUNDATION.
5. SIZE POLE WITH LUMINAIRE AND POLE BASE FOR 120 MPH SUSTAINED WINDS WITH GUSTS UP TO 150 MPH. POLE DIMENSIONS INDICATED ARE A MINIMUM PROVIDE CALCULATIONS SHOWING COMPLIANCE SEALED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF ALASKA.
6. PROTECT ANCHOR BOLTS FROM PHYSICAL DAMAGE DURING PROJECT.
7. ALL DIMENSIONS SHOWN ARE MINIMUM.
8. SEE CIVIL DRAWINGS FOR MORE DETAILS AND INFORMATION REGARDING THE POLES AND RELATED CIVIL WORK.

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

30' LIGHT POLE DETAILS

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Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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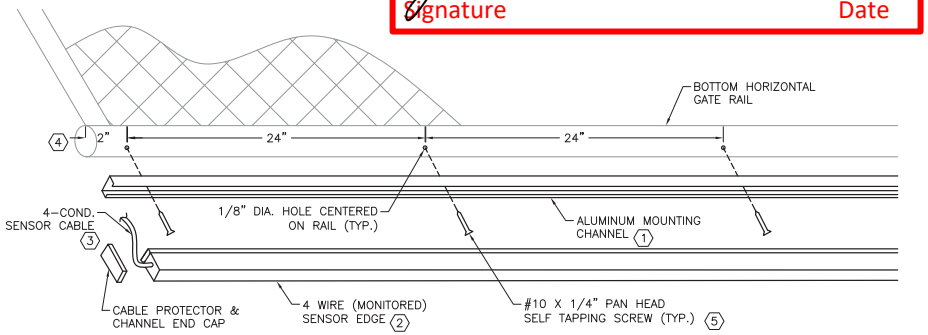
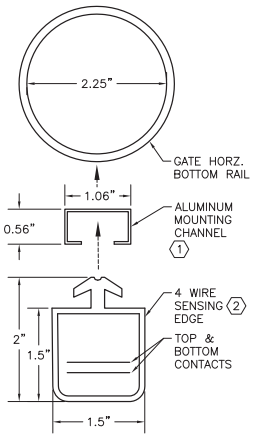
			ALASKA	SFAPT00176/00175	2019	SE21	24



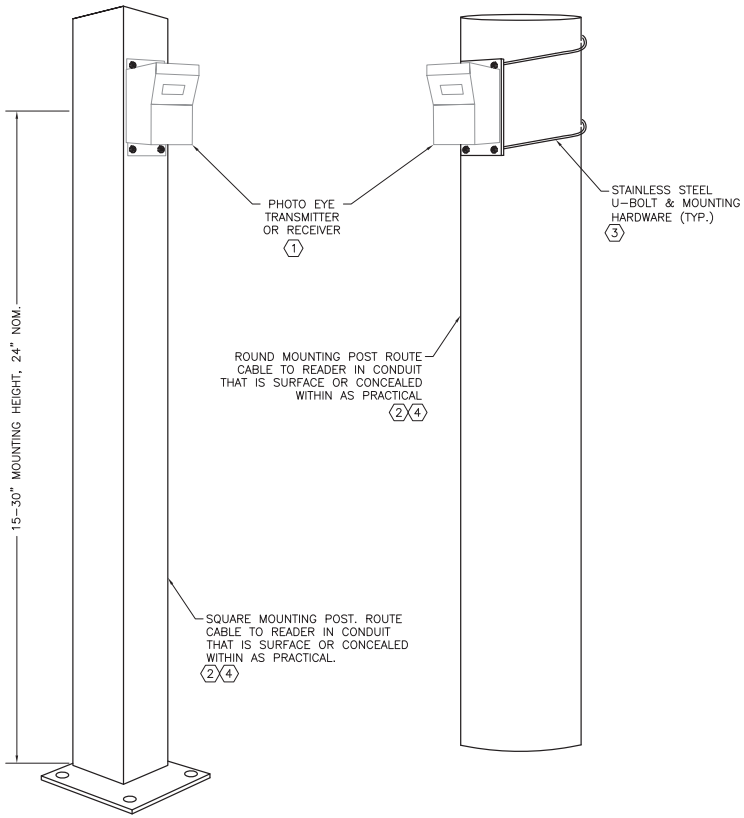


1 GATE EDGE SENSOR DETAIL

NOT TO SCALE

KEY NOTES (APPLICABLE TO DETAIL 1, THIS SHEET):

1. POSITION ALUMINUM MOUNTING CHANNEL ON UNDERSIDE OF BOTTOM RAIL ON VERTICAL PIVOT GATES AND ON LEADING AND TRAILING RAIL EDGES ON CANTILEVER GATES WHEN USED. CENTER THE CHANNEL ALONG THE RAIL. MOUNT TO RAIL WITH SCREWS SPACED 24 INCHES ON CENTER. USING FLAT-HEAD SCREWS TO PREVENT DAMAGE TO THE SENSING EDGE MOVEMENT.
2. ROUTE SENSING EDGE WITHIN MOUNTING CHANNEL AS REQUIRED. PIN THE EDGE WITHIN THE CHANNEL WITH A SELF TAPPING SCREW AT BOTH ENDS OF THE RUN OR PER MANUFACTURER REQUIREMENTS.
3. ROUTE THE SENSOR CABLE THROUGH CHANNEL THEN VERTICALLY ALONG GATE RAILS TO CONNECTION POINT AS REQUIRED. PROVIDE ROUNDED & SMOOTH PENETRATIONS FOR CABLE ROUTING TO PREVENT DAMAGE.
4. PROVIDE A STOP SCREW AT BOTH ENDS OF THE ALUMINUM MOUNTING CHANNEL 2" FROM BOTH ENDS TO PREVENT THE SENSING EDGE FROM SLIDING OUT OF THE TRACK. STOP SCREW NOT SHOWN HERE.
5. HOLES DRILLED THROUGH MOUNTING CHANNEL INTO BOTTOM RAIL OF GATE SHOULD BE 1" DEEP MINIMUM.



2 PHOTO SENSOR DETAIL

NOT TO SCALE

SHEET NOTES:

1. CODE REQUIRES SENSORS TO BE UL RECOGNIZED. SENSORS SHALL ALSO BE TESTED, APPROVED, AND LISTED AS COMPATIBLE WITH SPECIFIED GATE OPERATOR.
2. UL 325 REQUIRES MONITORING OF SENSORS. WHERE SPECIFIED, GATE OPERATOR REQUIRES A NORMALLY CLOSED CONTACT FOR EDGE MONITORING, PROVIDE INTERFACING DEVICE TO CONVERT RESISTOR OUTPUT INTO N.C. CONTACT.
3. ROUTE WIRING FROM SENSOR TO GATE OPERATOR SO AS TO PREVENT DAMAGE.
4. SENSING EDGE IS REQUIRED ALONG THE TOP AND SIDE OF THE OPERATOR WHERE THE VERTICAL GATE MOVES IN AND OUT. INSTALLATION AT THOSE LOCATIONS WILL DIFFER FROM WHAT IS SHOWN HERE AND WILL VARY BY MANUFACTURER. FOLLOW MANUFACTURER RECOMMENDATIONS AND SPECIFICATIONS.
5. SENSING EDGES REQUIRED ALONG THE LEADING AND TRAILING EDGES OF CANTILEVER GATES. CANTILEVER SENSING EDGES SHALL BE WIRELESS, NOT HARDWIRED.
6. CANTILEVER GATES REQUIRE AT LEAST ONE SENSOR FOR EACH DIRECTION OF TRAVEL PER UL325. SENSORS CAN BE EDGE SENSORS OR PHOTO EYE SENSORS.

KEY NOTES (APPLICABLE TO DETAIL 2, THIS SHEET):

1. PHOTO SENSOR TRANSMITTER AND RECEIVER MAY BE SURFACE OR FLUSH MOUNTED ONTO SQUARE OR ROUND POSTS AS REQUIRED. MOUNTING HEIGHTS TO BE ADJUSTED FOR BEST PERFORMANCE. MOUNT AT HEIGHT SHOWN UNLESS ADJUSTMENT REQUIRED PER SITE CONDITIONS, SITE GRADING, OR SENSOR MANUFACTURER INSTRUCTIONS.
2. POSITION POST NO FURTHER THAN 6" PERPENDICULAR FROM THE GATE CENTERLINE ON EACH SIDE OF THE GATE OPENING.
3. PHOTO SENSOR RECEIVERS SHOULD BE MOUNTED AT THE OPERATOR SIDE OF EACH PAIR OF SENSORS. RECEIVERS MAY BE MOUNTED TO THE GATE OPERATOR IF APPROVED BY THE GATE OPERATOR MANUFACTURER AND IN A LOCATION UNOBSTRUCTED THAT DOESN'T DAMAGE OPERATOR.
4. DO NOT MOUNT SENSORS TO FENCE POSTS DUE TO VIBRATION DURING GATE OPERATION.

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AIRPORT PERIMETER FENCING STANDARDS FOR PSG & KTN

GATE SAFETY DEVICE DETAILS

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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			ALASKA	SFAPT00176/00175	2019	SE22	24

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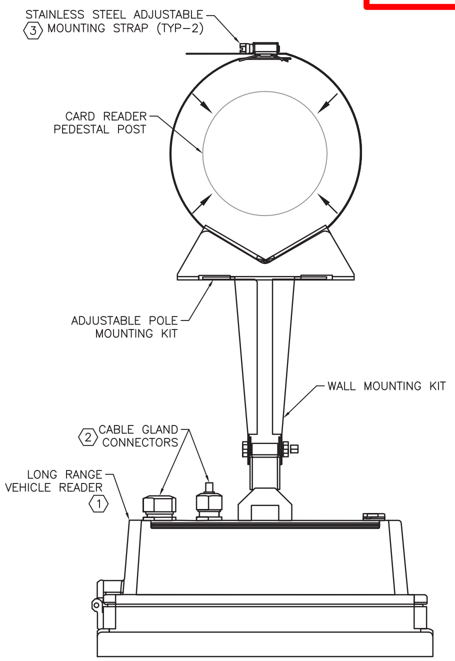
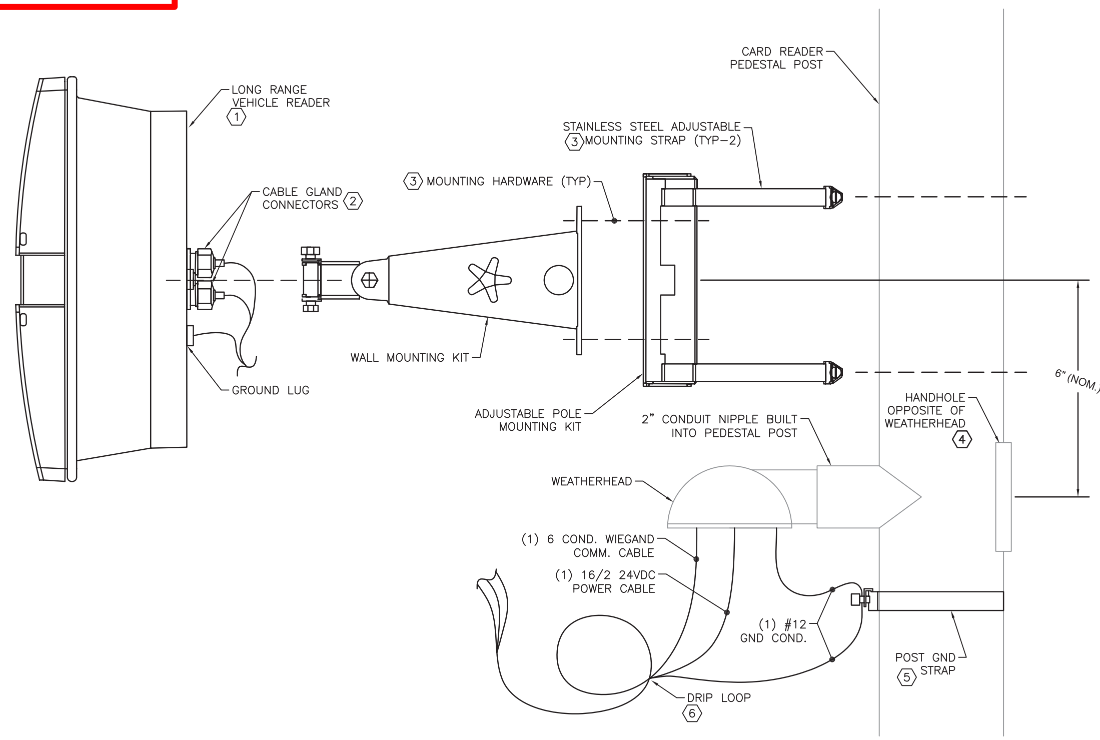


1 LONG RANGE READER - TOP VIEW
NOT TO SCALE



2 LONG RANGE READER - SIDE VIEW
NOT TO SCALE

SHEET NOTES:

1. THE DETAILS ON THIS SHEET ARE NOT SPECIFIC TO ALL MANUFACTURERS. FOLLOW ALL MANUFACTURER WRITTEN INSTALLATION INSTRUCTIONS AND REQUIREMENTS.
2. SEE SITE PLANS AND CARD READER ISLAND ELEVATION ON SHEET SE17 FOR MOUNTING HEIGHTS AND RELATIVE LOCATIONS OF COMPONENTS ON SITE.
3. LONG RANGE READER SHALL BE CAPABLE OF PROCESSING PROXIMITY CARDS (125 KHZ) AND iCLASS CARDS (13.56 MHZ).
4. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED LONG RANGE READER CONDUCTOR AND CABLE CONNECTIONS.
5. EACH LONG RANGE READER SHALL INCLUDE WEATHER HOOD AND UNIVERSAL MOUNTING ADAPTER. SEE SPECIFICATIONS FOR MORE INFORMATION. THEY ARE NOT COMPLETELY DETAILED ON THIS SHEET.
6. EACH AIRPORT SHALL RECEIVE SIX (6) VEHICLE BOOSTER DEVICES FOR COMMUNICATION WITH CREDENTIALS AND LONG RANGE READERS (NOT SHOWN ON THIS SHEET). BOOSTER KITS TO INCLUDE SINGLE AND DUAL ID PROX BOOSTERS AND SMARTCARD BOOSTERS. SEE SPECIFICATIONS FOR MORE INFORMATION.

KEY NOTES:

1. LONG RANGE READER. ADJUST INITIAL TILT AND ROTATION OF READER FOR BEST PERFORMANCE PER MANUFACTURER RECOMMENDATIONS.
2. CABLE GLANDS INTEGRAL TO BACK OF READER FOR POWER AND COMMUNICATION CABLE CONNECTIONS. PROPER ASSEMBLY MUST BE FOLLOWED FOR CORRECT READER OPERATION AND WATER INFILTRATION PROTECTION. CONNECTION STEPS INCLUDE CUTTING BACK CABLE OUTER SHEATH, PROPER TREATMENT OF THE SCREEN BRAIDING OVER GLAND SOCKET, AND CORRECT TIGHTENING TORQUE. FOLLOW SPECIFIC MANUFACTURER WRITTEN INSTALLATION INSTRUCTIONS.
3. ASSEMBLE READER MOUNT WITH SUPPLIED MOUNTING HARDWARE (INDICATED VIA DASHED LINES) AND MOUNT OVERALL ASSEMBLY TO POST WITH STAINLESS STEEL STRAPS. TORQUE REQUIREMENTS PER MANUFACTURER.
4. HANDHOLE INTEGRAL TO POST. PROVIDE STAINLESS STEEL STRAIN RELIEF WITHIN THE THE HANDHOLE AND ROUTE ALL CABLES THROUGH STRAIN RELIEF BEFORE PASSING THROUGH INTO WEATHERHEAD. STRAIN RELIEF NOT SHOWN HERE.
5. PROVIDE STAINLESS STEEL GROUNDING STRAP TO SOLIDLY GROUND THE READER TO THE POST. ENSURE DIRECT METAL TO METAL CONTACT WITH POST.
6. CREATE DELIBERATE DRIP LOOP OF ALL CABLES AND CONDUCTORS TO READER TO MINIMIZE WATER MIGRATION. MAINTAIN ALL CABLE BENDING RADIUS REQUIREMENTS.

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LONG RANGE READER DETAILS

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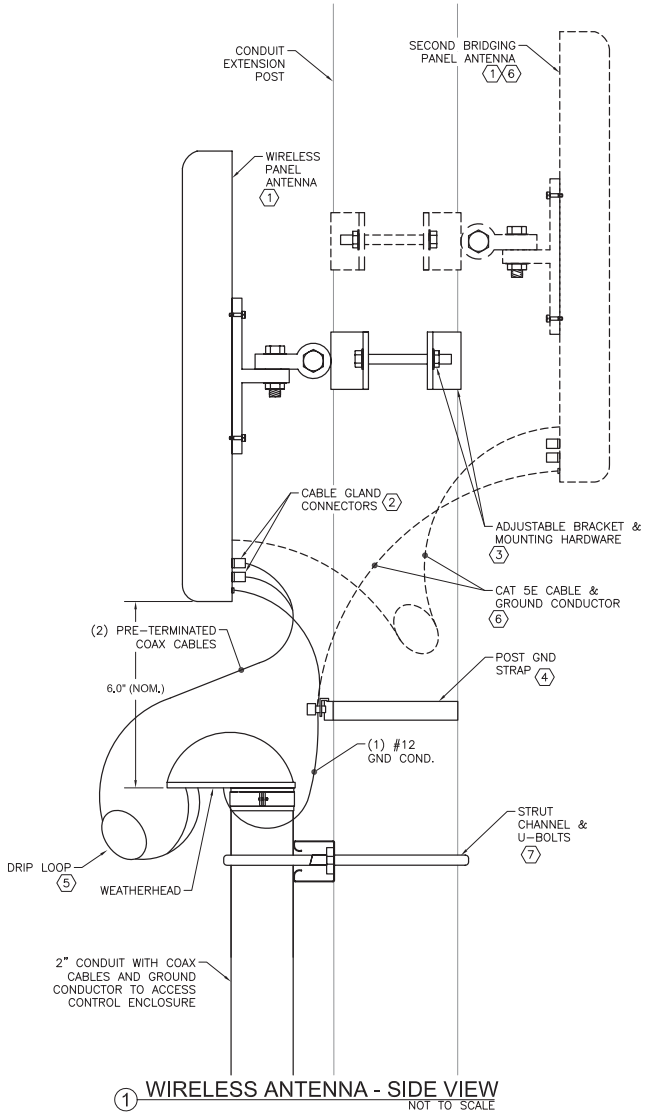
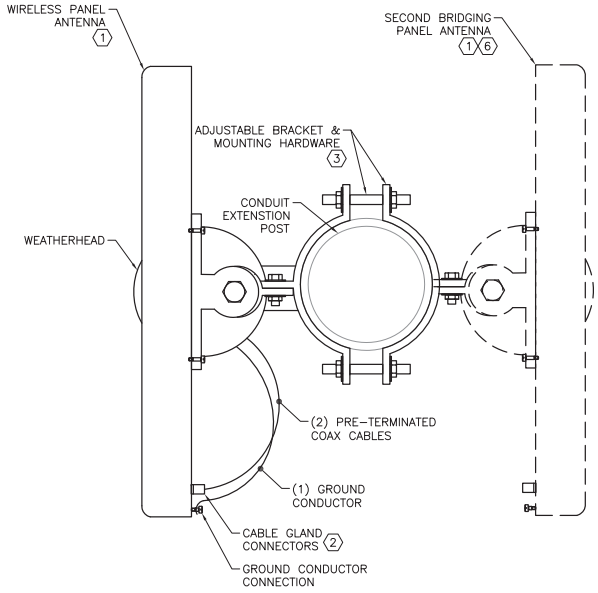
			ALASKA	SFAPT00176/00175	2019	SE23	24



1 WIRELESS ANTENNA - SIDE VIEW
NOT TO SCALE



2 WIRELESS ANTENNA - TOP VIEW
NOT TO SCALE

SHEET NOTES:

1. THE DETAILS ON THIS SHEET ARE NOT SPECIFIC TO ALL MANUFACTURERS AND REPRESENT COMMONLY FOUND COMPONENTS. FOLLOW ALL MANUFACTURER WRITTEN INSTALLATION INSTRUCTIONS AND REQUIREMENTS.
2. SEE SHEET SE12 FOR ENCLOSURE RACK ELEVATION.
3. ANTI-CORROSION LUBRICANT SHALL BE APPLIED TO ALL EXPOSED CONDUCTOR AND CABLE CONNECTIONS.

KEY NOTES:

1. WIRELESS NETWORK ANTENNA. ALIGN ANTENNA PER MANUFACTURER RECOMMENDATIONS FOR BEST PERFORMANCE.
2. CABLE GLAND CONNECTORS REQUIRE SPECIFIC TAPE WRAP AND REVERSE WRAPPING. FOLLOW WRITTEN MANUFACTURER INSTRUCTIONS FOR TERMINATING AND TREATING COAX CABLES TO MINIMIZE SIGNAL NOISE AND SIGNAL LOSS.
3. ASSEMBLE ANTENNA TO POST MOUNT BRACKET WITH SUPPLIED MOUNTING HARDWARE AND MOUNT OVERALL ASSEMBLY TO POST. TORQUE REQUIREMENTS PER MANUFACTURER.
4. PROVIDE STAINLESS STEEL GROUNDING STRAP TO SOLIDLY GROUND THE ANTENNA TO THE POST. ENSURE DIRECT METAL TO METAL CONTACT WITH POST.
5. CREATE DELIBERATE DRIP LOOP OF ALL CABLES AND CONDUCTORS TO ANTENNA TO MINIMIZE WATER MIGRATION. MAINTAIN ALL CABLE BENDING RADIUS REQUIREMENTS.
6. WHERE SPECIFIED ON THE SITE WIRELESS PLAN FOR NODE BRIDGING PROVIDE ANTENNAS MOUNTED BACK-TO-BACK ON COMMON POST. LINK ANTENNA COMMUNICATIONS VIA A WEATHERIZED CAT 5E CABLE AND PROVIDE COMMON GROUNDING CONNECTION AND DRIP LOOP AS INDICATED.
7. ALL U-BOLTS, MOUNTING HARDWARE, STRAPS, ETC., SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Jacob Estenson 05/30/23

Signature Date

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WIRELESS NETWORK ANTENNA DETAILS

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			ALASKA	SFAPT00176/00175	2019	SE24	24

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MANUFACTURER INFORMATION * (#)

EQUIPMENT	APPROVED MANUFACTURER #1	APPROVED MANUFACTURER #2
POWER ENCLOSURE	HOFFMAN: A60H3612SSLP3PTX W/A60P36SSG	B-LINE: 603612-4XSS63PT W/AW6036GP
POWER PANEL	SQUARE-D QO-1-12-M-100-R-B	EATON BRP-12-B-C-100-R-G
POWER PANEL SURGE PROTECTION DEVICE	EATON: SPC-050-240S-8-P	EATON: CHSPT2MAX
METER SOCKET	MILBANK: U7043-XL-TG	DURHAM: UT-4203B
ACCESS CONTROL ENCLOSURE (LARGE)	HOFFMAN: A60H3612SSLP3PT W/A60P36SSG	B-LINE: 603612-4XSS63PT W/AW6036GP
ACCESS CONTROL ENCLOSURE (SMALL)	HOFFMAN: A48H3612SSLP3PT W/A48P36SSG	B-LINE: 483612-4XSS63PT W/AW4836GP
ACCESS CONTROL ENCL LED LIGHTING**	HOFFMAN: LED24V15, LDSWITCH, LED24VCORD, LGCABLE	RITTAL: SZ SERIES LED LIGHTING SYSTEM
HARDENED NETWORK SWITCH & POWER SUPPLY	COMNET: CNGE11FX3TX8MSPOE W/PS-DRA240-48A	TRANSITION NETWORKS: SISPM1040384LRTC W/25104
POWER & AC ENCLOSURE HEATER	HOFFMAN: DAH4001B	RITTAL: 3105.420
DIN RAIL MINI CIRCUIT BREAKERS	SQUARE D: QOU115	EATON: FAZ-D15/1-DC
WIRELESS RADIO SYSTEM	PROXIM: TSUNAMI SERIES	CAMBIUM WIRELSS: 450 SERIES
TILT-DOWN AREA LIGHT POLE (20 FT)	VALMONT: DSF10 SERIES	LITHONIA: RTAH SERIES
TILT-DOWN AREA LIGHT POLE (30 FT)	VALMONT: DSF15 SERIES	MILLERBERND: AHT SERIES
STANDARD LIGHT POLE (20 FT)	VALMONT: DS210 SERIES	LITHONIA: RTS SERIES
STANDARD LIGHT POLE (30 FT)	VALMONT: DS210 SERIES	LITHONIA: RTS SERIES
AREA LIGHT FIXTURES	LITHONIA: DSX0-LED-P1-50K-T2S-MVLT-PER-HS-BS	HUBBELL: BEACON BRAND VIPER SMALL SERIES
AREA LIGHT FIXUTRE EXTERNAL SPD	LITTLEFUSE LSP10	HUBBELL FSP3 SERIES
INGRADE JUNCTION BOXES	OLDCASTLE: B1017 BOX W/B1017-51JH LID	BROOKS: 5-T PB SERIES BOX W/LID
LONG RANGE CARD READERS	NEDAP: TRANSIT ULTIMATE SERIES W/PROX-BOOSTER 2G	APPROVED EQUAL
STANDALONE USER CARD READERS	ESSEX ELECTRONICS: iROX PLUS	APPROVED EQUAL
DUAL HEAD GOOSENECK PEDESTAL & SHROUD	PEDESTAL PRO - 72-9C-D PED WITH CUSTOM MODS & MC CS 08 E SHROUD	THE HOUSING COMPANY - PD114 PED WITH CUSTOM MODS & PCH091 SHROUD
STANDALONE USER KEYPADS	ESSEX ELECTRONICS: KTP-10312-SN	APPROVED EQUAL
GATE ELECTRONIC LATCHES	SDC SECURITY: GL260MRAH W/DPS-GL	SECURITRON: GL1 W/FMK-SW
NETWORK UPS	CONTROLLED POWER COMPANY: MD7000 SERIES W/ MB2F120C EXTERNAL BATTERY SYSTEM	EATON: 9PX SERIES UPS WITH EMBs AS REQUIRED
INDOOR NETWORK SWITCH	COMNET: CNGE24FX12TX12MSPOE	CISCO: 3850 POE+ SERIES
WALL MOUNTED NETWORK RACK	MIDDLE ATLANTIC PRODUCTS: DWR SERIES WITH FAN & FILTER KIT	CHATSWORTH 11840 CUBE-IT SERIES WITH FAN & FILTER KIT

TABLE NOTES:

* THIS TABLE IS PROVIDED AS A REFERENCE FOR PRODUCT MANUFACTURER NAMES AND PART NUMBERS FOR EQUIPMENT FOUND IN THE DESIGN. NOT ALL EQUIPMENT AND DEVICES REQUIRED ARE REPRESENTED IN THIS TABLE, I.E. COMMODITY ELECTRICAL ITEMS ARE NOT INCLUDED HERE (CONDUIT, WIRE, BOXES, ETC.). SEE SPECIFICATIONS FOR COMPLETE REQUIREMENTS OF THE PROJECT, INCLUDING ADDITIONAL APPROVED MANUFACTURER INFORMATION.

** ENCLOSURE LIGHTING KITS INCLUDE AN ENSEMBLE OF FIXTURES, FIXTURE CORDS, DOOR SWITCHES, END CAPS, ETC. QUANTITY OF ENSEMBLED COMPONENTS VARIES BY ENCLOSURE SIZE.

(#) SEE SPECIFICATIONS AND SUPPORTING DOCUMENTATION INFORMATION ABOUT PRODUCT COMPLIANCE WITH BUY AMERICAN REQUIREMENTS AND ASSOCIATED WAIVER REQUIREMENTS THAT MAY APPLY.

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MANUFACTURER INFORMATION