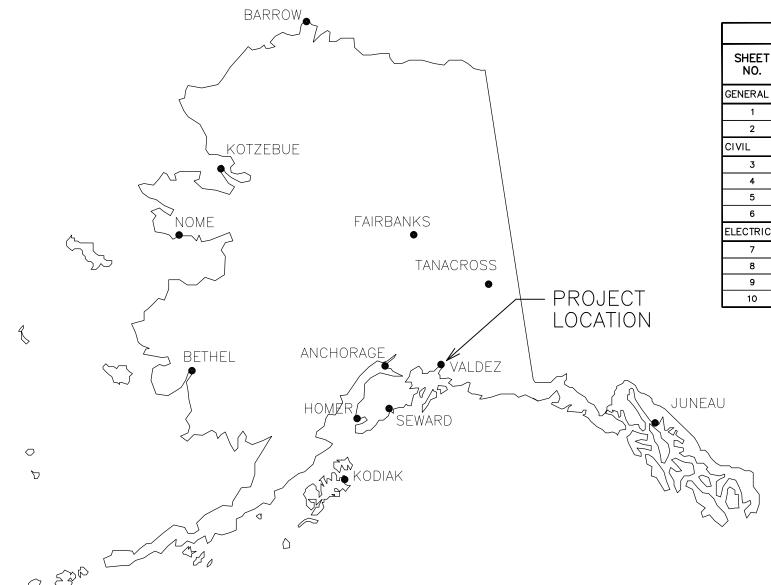
# CITY OF VALDEZ, ALASKA VCT GATE REPLACEMENT

SEPTEMBER 2017

PROJECT NO. 17-350-1708



SHEET INDEX				
SHEET NO.	DESCRIPTION WORK SCHEDU			
GENERAL				
1	COVER SHEET & SHEET INDEX	ALL		
2	GENERAL NOTES, LEGEND & ABBREVIATIONS	ALL		
CIVIL				
3	SITE PLAN	ALL		
4	GATE DETAILS	ALL		
5	FENCE DETAILS	ALL		
6	FOUNDATION DETAILS ALL			
ELECTRICAL	-			
7	ELECTRICAL LEGEND	ALL		
8	POWER ONE-LINE & PANEL SCHEDULE	ALL		
9	ELECTRICAL PLAN	ALL		
10	GATE OPERATOR WIRING DETAIL ALL			





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#### **GENERAL NOTES**

- CAUTION!! UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT AREA. NOT ALL UTILITIES ARE SHOWN ON THE PLAN. CONTRACTOR SHALL CALL FOR UTILITY LOCATES PRIOR TO BEGINNING CONSTRUCTION.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF VALDEZ STANDARD SPECIFICATIONS (CVSS) AND STANDARD DETAILS FOR STREETS, DRAINAGE, UTILITIES AND PARKS (APRIL 2003, AS AMENDED), AND THE SPECIAL PROVISIONS.
- PLEASE NOTE, NOT ALL UTILITIES ARE SHOWN ON THESE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING ABOVE GRADE AND BELOW GRADE UTILITIES AND PROTECT THEM DURING CONSTRUCTION. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THESE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES ENCOUNTERED AND RECORD THEIR LOCATION ON THE CONTRACT RECORD DRAWINGS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. CONTRACTOR SHALL ADJUST ALIGNMENT OF THE ENGINEER. OR GRADE OF PROPOSED PIPING AS NECESSARY TO AVOID CONFLICTS WITH EXISTING UTILITIES.
- 4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION. THE PERMITS SHALL BE MAINTAINED ON THE PROJECT SITE.
- WORK IN CLOSE PROXIMITY TO EXISTING OVERHEAD TELEPHONE AND ELECTRIC UTILITIES SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES AND GUIDELINES AND THE CLEARANCE REQUIREMENTS OF THE SERVING UTILITY.
- ALL WORK SHALL BE PERFORMED WITHIN PUBLIC RIGHT-OF-WAY, PUBLIC USE EASEMENT, SLOPE EASEMENT, DRAINAGE EASEMENT, OR TEMPORARY CONSTRUCTION PERMIT AREA. ALL DISTURBED PROPERTY BEYOND THE SLOPE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION, UNLESS OTHERWISE NOTED.
- 7. ALL WORK AND EQUIPMENT REQUIRED FOR REMOVING ANY LITTER OR DEBRIS WITHIN THE PROJECT LIMITS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE.
- 8. CONTRACTOR SHALL PROVIDE A RECORD DRAWING IN ACCORDANCE WITH THE REQUIREMENTS OF CVSS. THE CONTRACTOR SHALL SUBMIT RECORD SURVEY NOTES WITH THE RECORD DRAWINGS.
- CONTRACTOR SHALL RESTORE DISTURBED PROPERTY TO PRE—CONSTRUCTION CONDITIONS, UNLESS OTHERWISE DIRECTED BY ENGINEER. PAYMENT FOR RESTORING DISTURBED PROPERTY SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT SHALL BE MADE.
- 10. WATER RESULTING FROM THE CONTRACTOR'S DEWATERING EFFORT MAY NOT BE PUMPED OR OTHERWISE DIVERTED INTO EXISTING STORM DRAINS UNLESS REQUIRED PERMITS INCLUDING, BUT NOT LIMITED TO, THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION ARE OBTAINED BY THE CONTRACTOR UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED TO DIVERT WATER FROM EXCAVATION ONTO ROADWAYS. THE CONTRACTOR SHALL PROVIDE DISPOSAL SITE FOR EXCESS WATER AND SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL PROVIDE COPIES OF PERMITS AND APPROVALS TO THE ENGINEER PRIOR TO BEGINNING DEWATERING.
- 11. ANY EXISTING SURVEY MONUMENTATION DISTURBED BY CONTRACTOR OPERATIONS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE BY SURVEYOR LICENSED TO PRACTICE IN THE STATE OF ALASKA.
- 12. CONTRACTOR SHALL REPLACE ALL PAVEMENT DAMAGED BY CONTRACTOR'S OPERATIONS WITH A MINIMUM OF 2" ASPHALT.
- 13. CONTRACTOR SHALL APPLY TACK COAT TO THE SAW CUT ASPHALT FACE AND FACE CONCRETE PRIOR TO PAVING. TACK COAT SHALL BE INCIDENTAL TO THE PROJECT.
- 14. IMPROVEMENT LIMITS ARE APPROXIMATE AND MAY REQUIRE ADJUSTMENT IN THE FIELD DURING CONSTRUCTION, AT THE DISCRETION OF THE ENGINEER.

PROPOSED (P)	EXISTING (E)	DESCRIPTION				
		RIGHT OF WAY				
		PROPERTY LINE				
		EASEMENT LINE				
		ROADWAY CENTERLINE				
		EDGE OF PAVEMENT				
	$\bowtie$	WATER VALVE				
	M	WATER KEYBOX				
	Δ	FIRE HYDRANT				
	S	SANITARY SEWER MANHOLE				
	Oc.o.	SANITARY SEWER CLEANOUT				
	□U.E.	ELECTRIC VAULT				
	FO	FIBER OPTIC VAULT				
	□U.C.	UTILITY CABLE PEDESTAL				
	□U.T.	UTILITY TELEPHONE PEDESTAL				
	K T A   X     K L M	LOAD CENTER				
	0	UTILITY POLE				
	— x— x—	FENCE				
	$\leftarrow$	GUY ANCHOR				
	<b>\$</b>	LIGHT POLE				
	0	SIGN				
	uuu	TREE OR BRUSH LINE				
	——F0——	FIBER OPTICS LINE				
	——ОНЕ——	OVERHEAD ELECTRIC LINE				
	——Е——	UNDERGROUND ELECTRIC LINE				
	—т—	UNDERGROUND TELEPHONE LINE				
	——- G——	UNDERGROUND GAS LINE				
	—-с—	UNDERGROUND CABLE LINE				
	——s——	UNDERGROUND SANITARY SEWER LINE				
	w	UNDERGROUND WATER LINE				

LEOEND

#### **ABBREVIATIONS**

AC = ASPHALT CONCRETE ADOT&PF = ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES APX./APPROX = APPROXIMATEBM = BENCH MARK BOC = BACK OF CURB CL = CENTERLINE DIA = DIAMETER E = EASTELEC = ELECTRICAL ELEV. = ELEVATION EOG = EDGE OF GRAVEL EOP = EDGE OF PAVEMENT ESMT = EASEMENTFG = FINISHED GRADE (ELEV.) F&I = FURNISH & INSTALL GB = GRADE BREAK HWY = HIGHWAYI.A.W = IN ACCORDANCE WITH LF = LINEAR FEET MAX = MAXIMUMMFR = MANUFACTURER MIN = MINIMUMN = NORTHNO. = NUMBER N.T.S. = NOT TO SCALEN/A = NOT APPLICABLEOCEW - ON CENTER, EACH WAY OG = ORIGINAL GROUND (ELEV.)

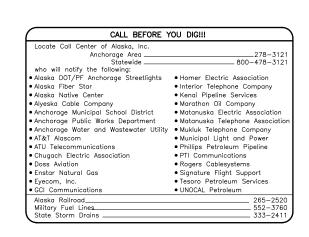
PC = POINT OF CURVATURE PCC = PORTLAND CEMENT CONCRETE

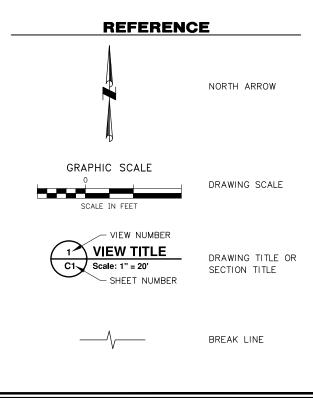
PL = PROPERTY LINE

PP = POWER POLE R = RADIUS (LENGTH)

R&R = REMOVE AND REPLACE RT = RIGHTR/W OR ROW = RIGHT-OF-WAY S = SOUTH SD = STORM DRAIN SF = SQUARE FEET STD = STANDARD T = TANGENT (LENGTH) TELE = TELEPHONE TV = TELEVISION TYP = TYPICAL U/G = UNDER GROUNDW' = WEST



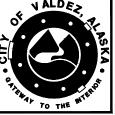






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CITY OF VALDEZ, ALASKA VCT GATE REPLACEMENT

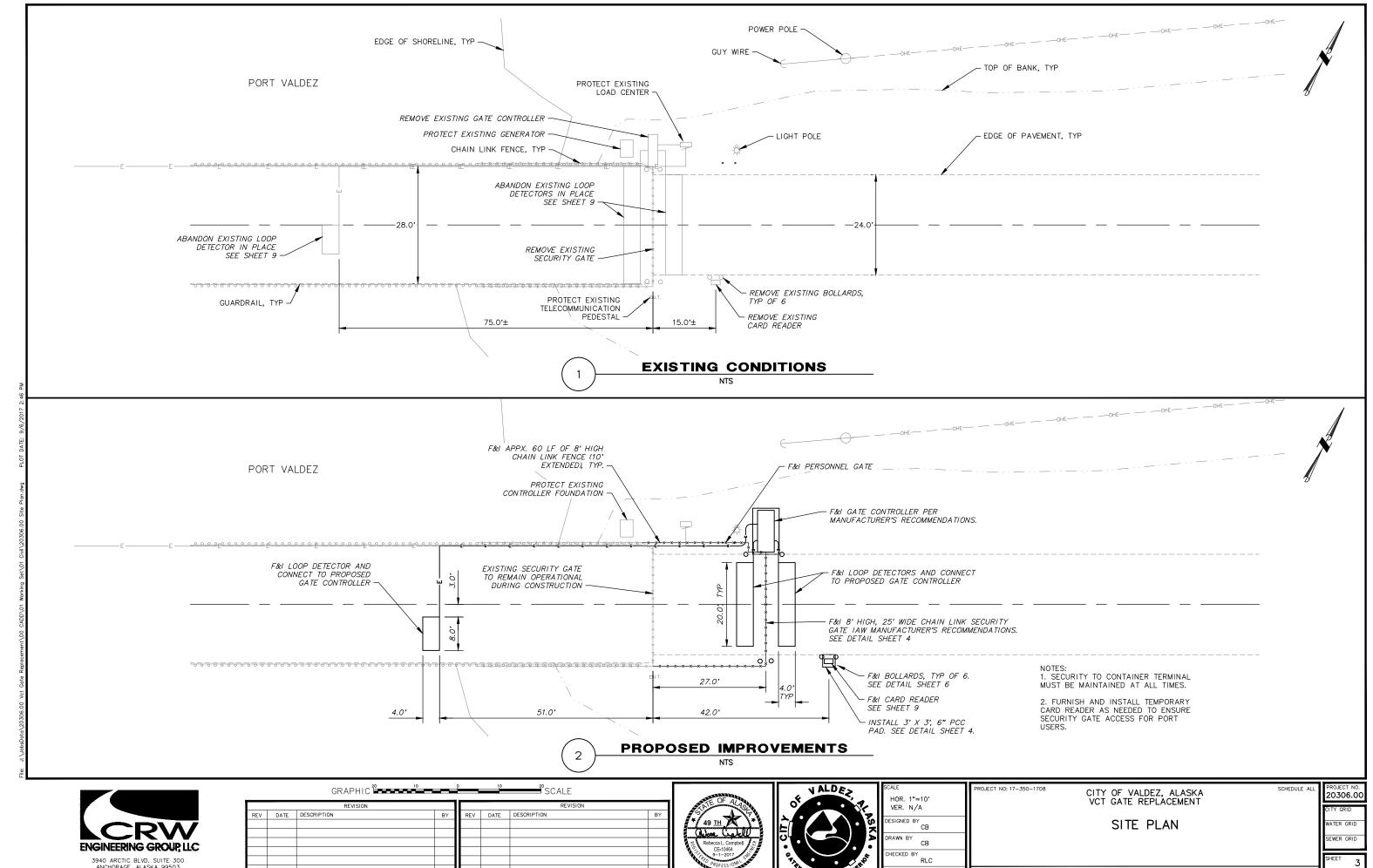
GENERAL NOTES, LEGEND & ABBREVIATIONS

VATER GRID EWER GRID

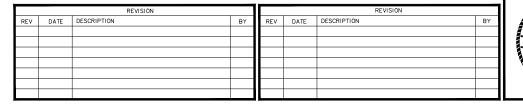
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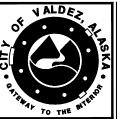
ANCHORAGE, ALASKA 99503 PHONE: (907) 562-3252 #AECL882-AK



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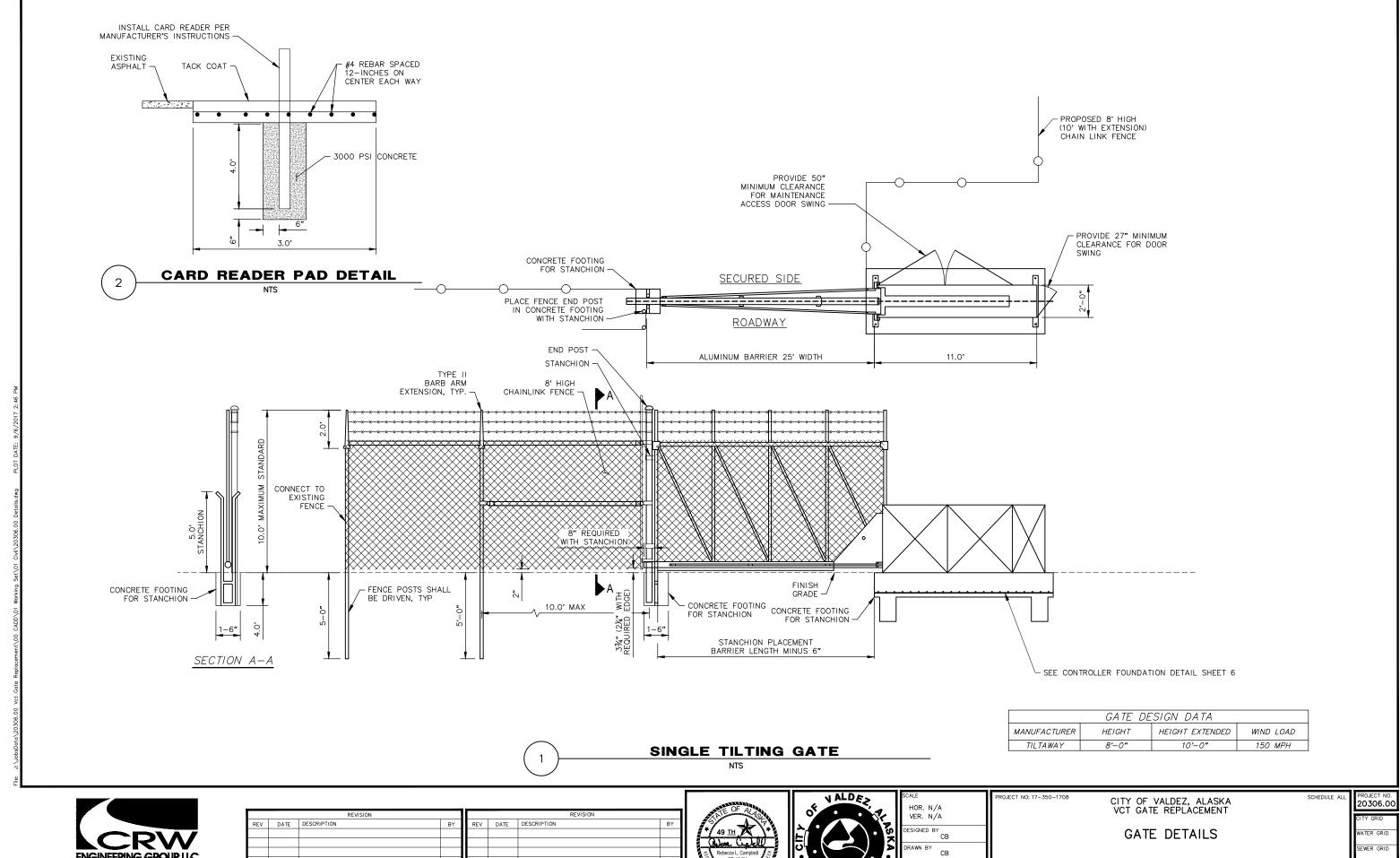




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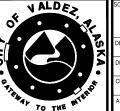
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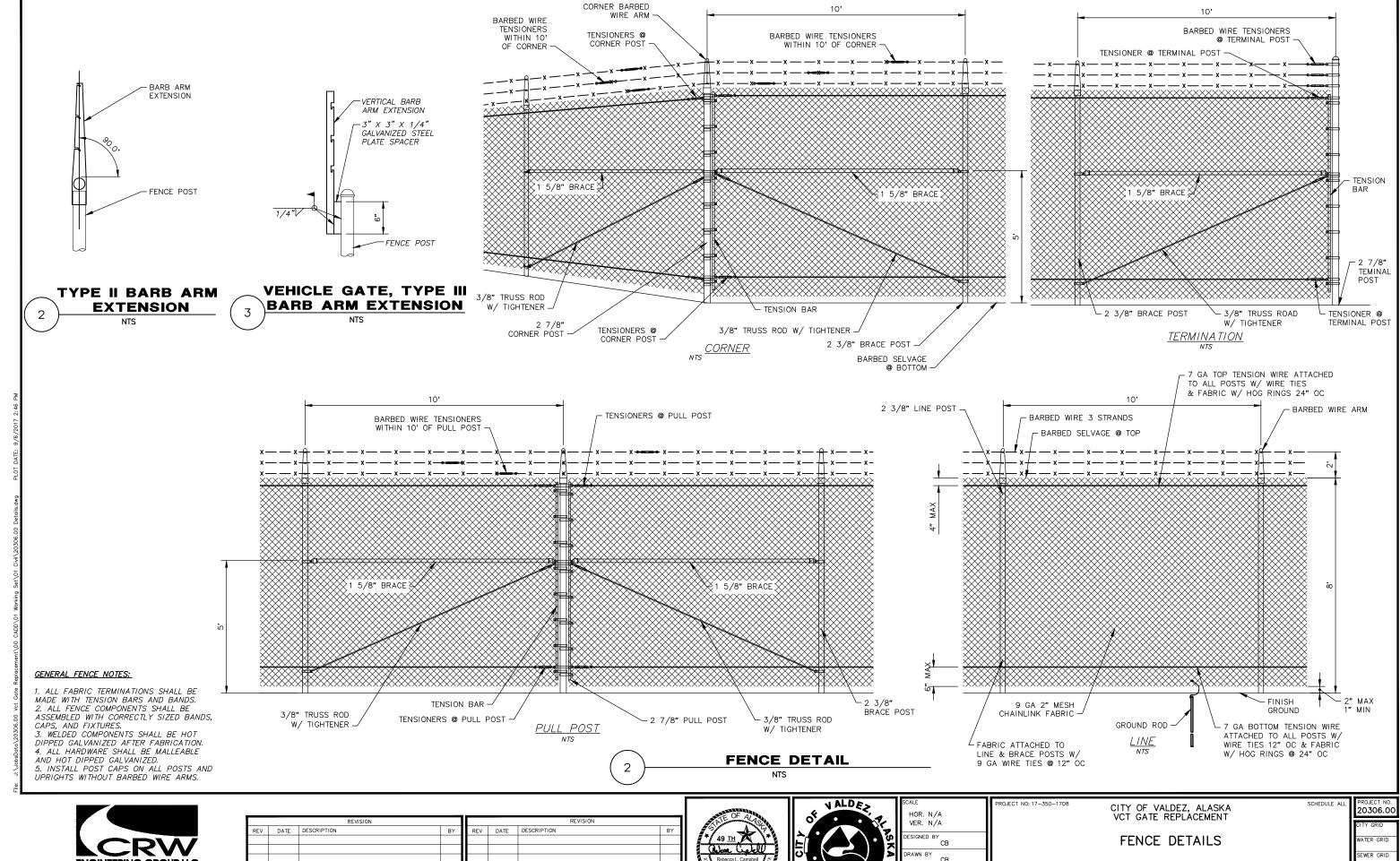




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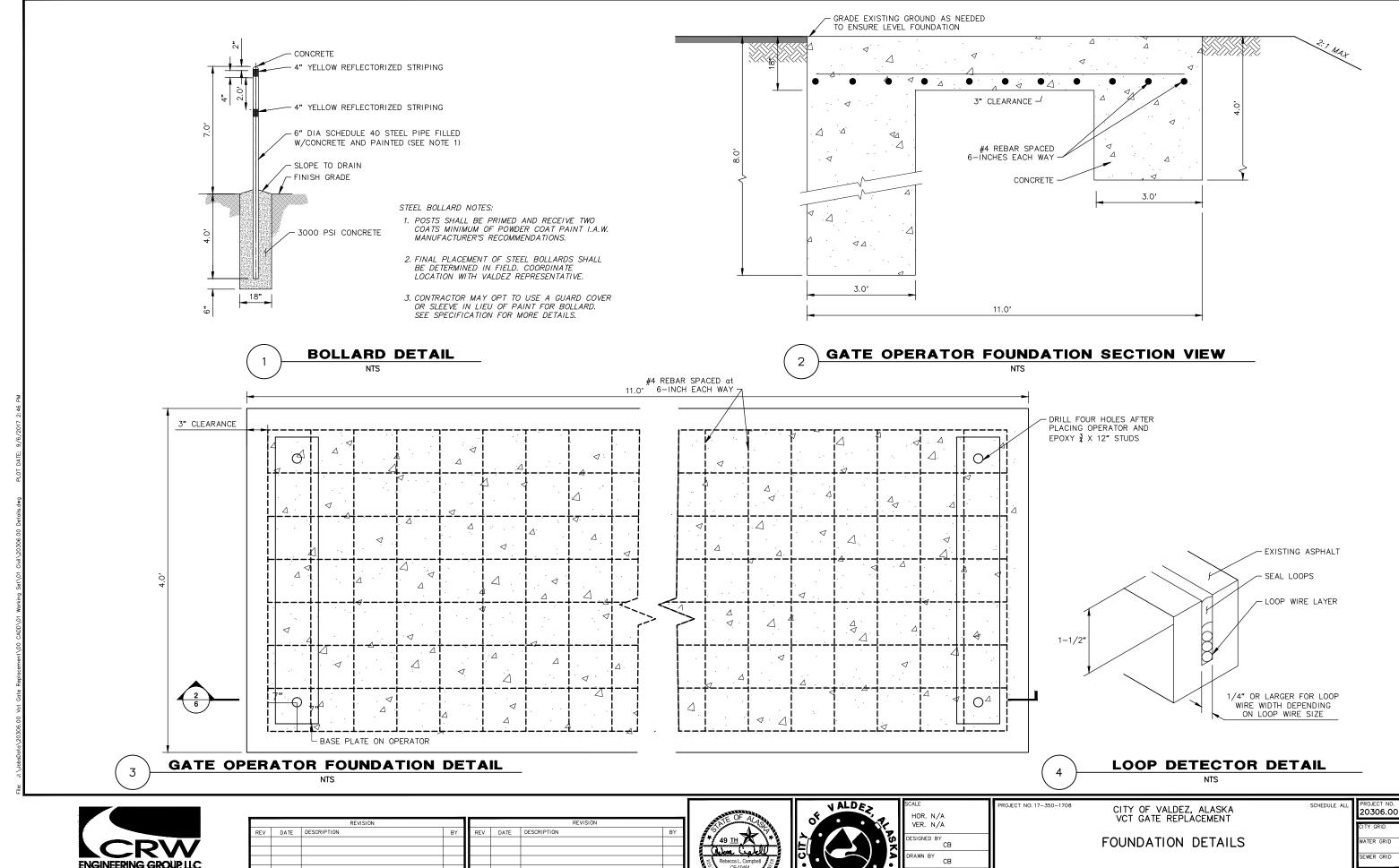




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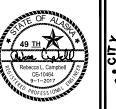
STATUS: FINAL DATE: SEPTEMBER 2017

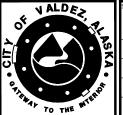
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ELECTRICAL CONDUIT (BELOW GRADE) CONDUIT - METALLIC UNLESS OTHERWISE NOTED, SIZE AS SHOWN/NOTED



HOMERUN TO PANEL "X", CIRCUITS NO. Y AND Z CONDUIT RUNS NOT DEFINED ARE 1/2" C with 3#12.



DISCONNECT SWITCH

GROUND



LIQUID-TIGHT FLEXIBLE METALLIC



SPECIAL OUTLET, TYPE AS SHOWN



JUNCTION BOX OR FITTING



HP RATED SWITCH, SPST, 20A, UNLESS OTHERWISE

GFI = Ground Fault Interrupting

MOTOR, HP AS NOTED, OR "F" (LESS THAN 1/2 hp)



PANELBOARD, LOAD CENTER, SUBSTATION SINGLE POLE SWITCH



THREE-WAY SWITCH



120V DUPLEX RECEPTACLE,





(XX YY)

MOLDED CASE CIRCUIT BREAKER, X = AMPERERATING. Y = NO. OF POLES



INSTRUMENT TAG / CALLOUT

#### **ABBREVIATIONS**

(E) AMPERE

ABOVE FINISH FLOOR ADJUSTABLE SPEED DRIVE BARE COPPER AFF ASD bcu, BCU

CONDUCTOR

CURRENT TRANSFORMER (UTILITY) DWG DRAWING ELECTRICAL MECHANICAL TUBING EMT EQ EQUIPMENT GROUND CONDUCTOR

GROUND FAULT INTERRUPTING GRC GALVANIZED RIGID (STEEL) CONDUIT HOT CONDUCTOR HOA HAND OFF AUTO

HP HORSEPOWER HIGH PRESSURE SODIUM INTERMEDIATE METAL CONDUIT KVA KILO-VOLT-AMPERES LC LCP LIGHTING CONTACTOR

LOCAL CONTROL PANEL LFMC LIQUID TIGHT FLEXIBLE CONDUIT (METALLIC) LTG

LIGHTING LOW VOLTAGE МСМ

THOUSAND CIRCULAR MILLS MDP MAIN DISTRIBUTION PANEL MECHANICAL MECH NEUTRAL CONDUCTOR

NEC NATIONAL ELECTRICAL CODE NFPA NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT

PHOTOCELL RECEPTACLE RCP RM ROOM

RIGID METAL CONDUIT / See also GRC REDUCED VOLTAGE SOLID STATE RMC RVSS

TM TIMER TWISTED/SHIELDED PAIR TWSH

TYP TYPICAL UON UNLESS OTHERWISE NOTED VOLTS

ŴΡ WTP WATER TREATMENT PLANT

XEMR TRANSFORMER

### PROJECT ELECTRICAL SCOPE

THIS PROJECT INCLUDES THE FOLLOWING MAJOR TASKS:

DEMOLITION:

DISCONNECT AND REMOVE EXISTING GATE OPERATOR.

DISCONNECT AND SALVAGE EXISTING KEYPADS, CARD READERS, AND ELECTRICAL GATE ACCESSORIES

DISCONNECT AND ABANDON-IN-PLACE EXISTING LOOP DETECTORS. CUT EACH LOOP A MINIMUM OF 2 TIMES, PERPENDICULAR TO LOOP TRAVEL DIRECTION BEFORE ABANDONING TO ENSURE LOSS OF FUNCTION.

PROPOSED:

PROVIDE NEW GATE OPERATOR.

PROVIDE NEW CARD READER AND ASSOCIATED POWER/DATA CIRCUITS.

PROVIDE THREE LOOP DETECTORS FOR NEW GATE SETUP: (2) INTERRUPT LOOPS AT THE GATE FOR VEHICLE-AVOIDANCE, (1) EXIT LOOP 75' PRIOR TO GATE (EXIT-SIDE).

GATE OPERATION, ACCESS, AND FUNCTIONALITY SHALL BE MAINTAINED AT ALL TIMES DURING THIS PROJECT.

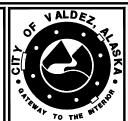
EXISTING UTILITIES, TELECOMMUNICATION DEVICES/PEDESTALS, AND GENERATOR EQUIPMENT TO BE PROTECTED IN PLACE.

ENGINEERING GROUP LLC 3940 ARCTIC BLVD. SUITE 300 ANCHORAGE, ALASKA 99503

PHONE: (907) 562-3252

GRAPHIC ----**■** SCALE DATE DESCRIPTION DATE DESCRIPTION





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ROJECT NO: 17-350-1708

CITY OF VALDEZ, ALASKA VCT GATE REPLACEMENT

ELECTRICAL LEGEND

WATER GRID EWER GRID

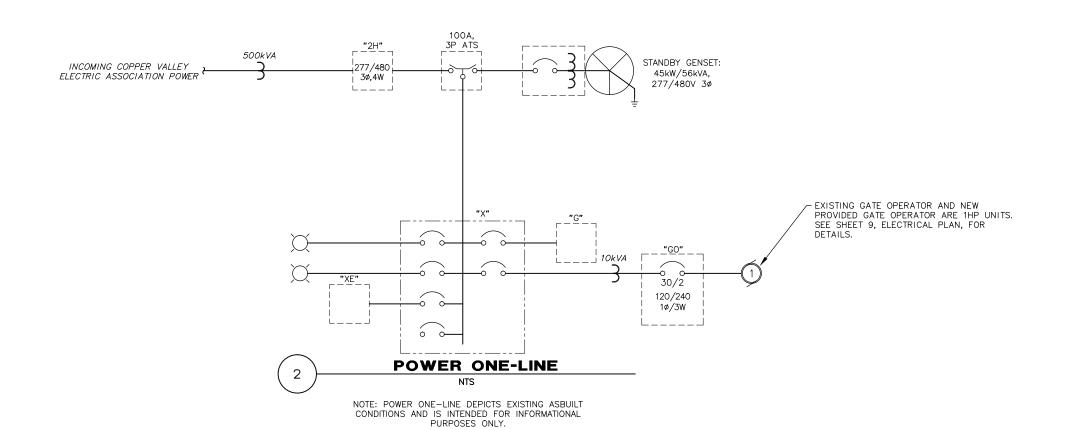
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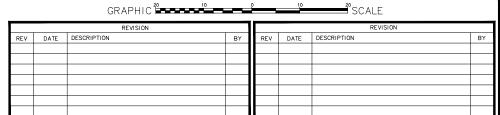
STATUS: FINAL DATE: SEPTEMBER 2017 NO ADDITIONAL LOAD WITH NEW PROVIDED 1HP, SINGLE-PHASE 220VAC, TILT-A-WAY HYJD-B GATE OPERATOR.

			PANE	L 'GO'	SCHE	DULE			
SQUARE	D #MPZ	B10S40FSS, POST-MOUNTED		120/	240V		1ф, 3 Wire	10,00	O AIC
Served F	From: P	ANEL 'X'		60A	MAIN			١	IEMA 3R
POLE	AMP	LOAD DESCRIPTION	kVA	L1	L2	kVA	LOAD DESCRIPTION	AMP	POLE
1	30/2	GATE OPERATOR	1.0	1.1		0.1	GATE OPERATOR LIGHT	20/1	2
3	30/2	GATE OPERATOR	1.0		1.0	0.0	SPARE	_	4
5	20/1	SPARE	0.0	0.0		0.0		_	6
7	_		0.0		0.0	0.0		_	8
9	_		0.0	0.0		0.0		-	10
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TOTAL AMPS @ 240V = 8.6									

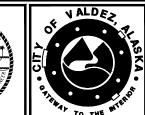
GATE PANEL 'GO' SCHEDULE NTS











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ROJECT NO: 17-350-1708 1"=10' N/A

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BY WMM

POWER ONE-LINE & PANEL SCHEDULE

CITY OF VALDEZ, ALASKA VCT GATE REPLACEMENT

SEWER GRID

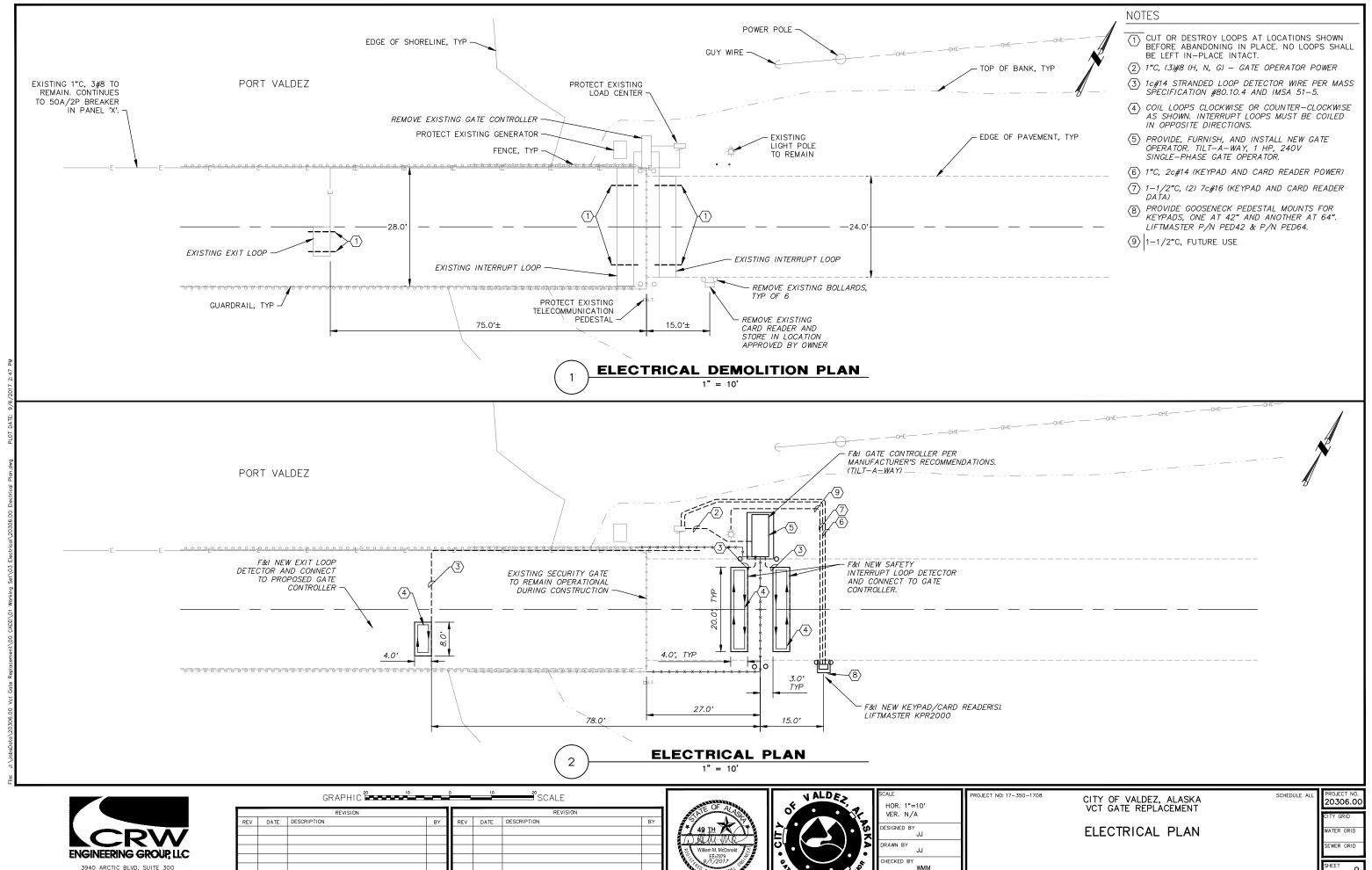
PROJECT NO. 20306.00

WATER GRID

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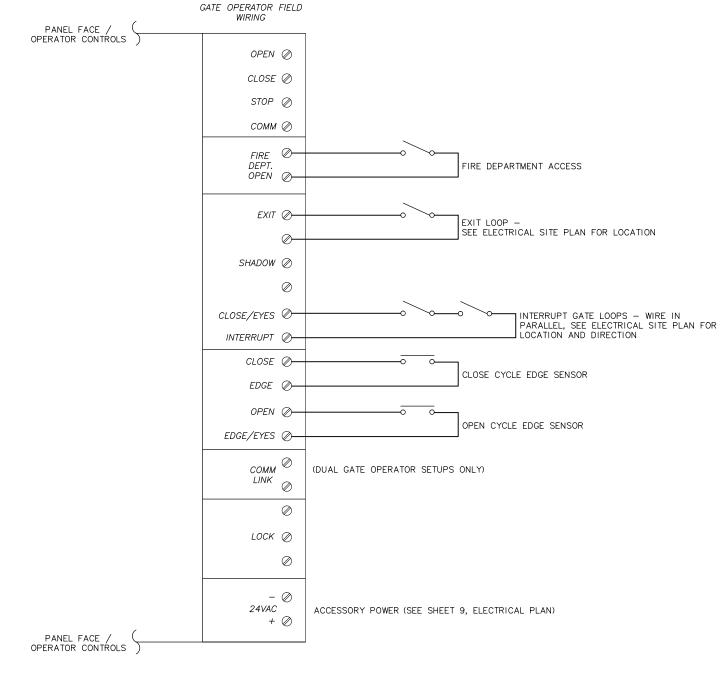
DATE: SEPTEMBER 2017



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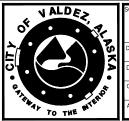


## **GATE OPERATOR WIRING**

NOTE: THIS WIRING DIAGRAM IS INTENDED ONLY AS A DIAGRAMMATIC REPRESENTATION OF THE PROPOSED DESIGN FIELD WIRING. REFER TO GATE OPERATOR MANUFACTURER'S SPECIFICATIONS FOR FINAL FIELD WIRING.

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ROJECT NO: 17-350-1708

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CITY OF VALDEZ, ALASKA VCT GATE REPLACEMENT

GATE OPERATOR WIRING DETAIL

DATE: SEPTEMBER 2017

10

PROJECT NO. 20306.00

WATER GRID EWER GRID

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