







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PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200

ESTIMATE OF QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
L107.010.0008	8-FEET LIGHTED WINDCONE, IN PLACE, NEW FOUNDATION, SALVAGE EXISTING WINDCONE	EACH	1
L107.011.0008	8-FEET LIGHTED WINDCONE, SUPPLEMENTAL, IN PLACE, RE-USE FOUNDATION, SALVAGE EXISTING WINDCONE	EACH	1
P152.190.0020	BORROW, TYPE B	CUBIC YARD	4,608
P640.020.0000	SEGMENTED CIRCLE (PANEL-TYPE), BARROW	LUMP SUM	ALL REQUIRED

ESTIMATE OF LUMP SUM QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
P640.020.0000	SEGMENTED CIRCLE (PANEL-TYPE), BARROW	LUMP SUM	ALL REQUIRED
P640 ITEM	INCLUDES THE FOLLOWING SUBSIDIARY WORK ITEMS LISTED BELOW:		
G100.010.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
G115.010.0000	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
G135.010.0000	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	ALL REQUIRED
G210.010.0000	CONTRACTOR SAFETY PLAN COMPLIANCE DOCUMENT	LUMP SUM	ALL REQUIRED
L108.010.2008	UNDERGROUND CABLE #8 AWG, COPPER, 5KV FAA TYPE C, L-824	LINEAR FOOT	300
L108.030.0006	#6 BARE COPPER GROUND CONDUCTOR	LINEAR FEET	175
L108.045.0006	INSULATED CONDUCTOR, XLPE, #10 AWG COPPER, 600V, TYPE XHHW-2	LINEAR FEET	25
L110.030.1002	RIGID STEEL CONDUIT, 2-INCH	LINEAR FEET	16
L110.080.2002	HDPE CONDUIT, 2-INCH	LUMP SUM	ALL REQUIRED
L125.060.0000	PRIMARY HANDHOLE, L-868, SIZE B	EACH	1
P165.010.0000	REMOVAL OF STRUCTURES	LUMP SUM	ALL REQUIRED
P641.090.0000	POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
P660.030.0000	REFLECTIVE MARKER, TYPE II	EACH	2
P681.020.0000	GEOTEXTILE, STABILIZATION	SQUARE YARD	4,334
T901.020.0000	SEEDING	POUND	8
T908.010.0000	MULCHING	SQUARE YARD	821

GENERAL PROJECT NOTES:

- SUBMIT PROJECT WORK SCHEDULE AT THE PRE-CONSTRUCTION CONFERENCE INCLUDING ANTICIPATED TIME FRAMES OF CONSTRUCTION FIELD WORK.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE AIRPORT MANAGER AND ENGINEER. 72 HOURS NOTICE SHALL BE PROVIDED PRIOR TO REMOVAL OF THE EXISTING SEGMENTED CIRCLE AND WIND CONES IN ORDER THAT APPROPRIATE NOTAMS MAY BE ISSUED. IMMEDIATE NOTICE SHALL BE PROVIDED UPON COMPLETION OF EACH INDIVIDUAL ITEM. FOLLOW NOTIFICATION REQUIREMENTS OF CGP 80-04-d.
- REMOVE ALL COMPONENTS OF EXISTING BARREL-TYPE SEGMENTED CIRCLE AND DISPOSE OF IN ACCORDANCE WITH SECTION P-165 "REMOVAL OF STRUCTURES". DO NOT STOCKPILE ON SITE UNLESS APPROVED BY THE ENGINEER. REMOVAL AND DISPOSAL OF EXISTING SEGMENTED CIRCLE MATERIALS IS SUBSIDIARY TO THE P640.020.0000 PAY ITEM.
- AFTER REMOVING THE EXISTING CIRCLE, CONSTRUCT AN ELEVATED GRAVEL PAD AS SHOWN ON SHEET 3. PAD SHALL BE 90' BY BETWEEN 150' AND 205' AS SHOWN.
- NEW SEGMENTED CIRCLE AND PRIMARY WIND CONE SHALL BE APPROXIMATELY AT THE LOCATION OF THE EXISTING CIRCLE AND WIND CONE. LAY OUT LOCATIONS OF NEW SEGMENTED CIRCLE PANELS OFF NEW PRIMARY WIND CONE MAST LOCATION.
- INSTALL NEW CONDUIT AND POWER CABLE FROM TAXIWAY LIGHT BASE TO NEW PRIMARY WIND CONE FOUNDATION. ALL WORK AND MATERIALS NECESSARY FOR THIS ARE SUBSIDIARY.
- NEW SECONDARY WIND CONE SHALL BE INSTALLED IN PLACE OF THE EXISTING SECONDARY WIND CONE ON THE EXISTING FOUNDATION, AND CONNECTED TO EXISTING POWER CONDUIT AND CONDUCTORS. ALL WORK AND MATERIALS NECESSARY TO COMPLETE THE INSTALLATION ARE SUBSIDIARY TO PAY ITEM P640.020.0000.
- PANEL LAYOUT MAY BE SLIGHTLY ADJUSTED IN FIELD AT THE ENGINEER'S SOLE DISCRETION. CONFORMANCE TO FAA AC 150/5340-5C SHALL BE ENSURED AS VERIFIED BY THE ENGINEER.
- PRIOR TO COMMENCING ANY GROUND-DISTURBING ACTIVITIES, PERFORM UTILITY LOCATES. IF DAMAGE OCCURS DUE TO CONTRACTOR'S ACTIONS, REPAIRS SHALL BE PERFORMED AT NO COST TO THE DEPARTMENT. NOT ALL AS-BUILTS MAY SHOW CONDUIT ROUTE. IN CASE POSTS CANNOT BE INSTALLED PER PLAN DETAILS CONTACT THE ENGINEER PRIOR TO MAKING FIELD POST LAYOUT REVISIONS. SEE ALSO SHEET 5 SEGMENTED CIRCLE NOTE 3.
- RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITIONS OR BETTER, AS DETERMINED BY THE ENGINEER. RE-USE EXISTING EXCAVATED MATERIAL AND ANY UNCONTAMINATED MATERIAL LEFT OVER AFTER THE REMOVAL OF EXISTING SEGMENTED CIRCLE WOODEN-PANEL STRUCTURES.. THIS WORK IS SUBSIDIARY TO P640.020.0000 PAY ITEM.
- NEW SIGN PANEL SURFACES SHALL BE SUBSTANTIALLY FREE OF ANY SCRATCHES AND NICKS. AVOID BOLT OVER-TIGHTENING THAT MAY CAUSE RETRO-REFLECTIVE SHEETING TO WRINKLE AROUND BOLT LOCATIONS. PRIOR TO FINAL INSPECTION VERIFY THAT ALL PANEL ASSEMBLY BOLTS ARE COMPLETELY TIGHTENED AND PERFORM ANY NECESSARY ADJUSTMENTS.
- THIS PROJECT WAS DESIGNED BASED ON THE SURVEY CONTROL DRAWING DATED 8/10/2018. THE SURVEY WAS COMPLETED ON A LOCAL COORDINATE SYSTEM EXPRESSED IN USSURVEY FEET. THE BASIS OF COORDINATES IS THE NAD83(2011) POSITION OF PRIMARY AIRPORT CONTROL STATION (PACS) "BRW A", PER THE NGS DATASHEET. SEE THE SURVEY CONTROL DRAWING SHEETS AB1 & AB2 PROJECT NO. NFAPT00247 AIP NO. 03-02-0026-016-2018 WILEY POST-WILL ROGERS MEMORIAL AIRPORT UTQIAGVIK, ALASKA, BARROW IRPORT PAVEMENT OVERLAY, FOR TRANSLATION PARAMETERS.
- HORIZONTAL STATIONING IS BASED ON THE HORIZONTAL CONTROL DRAWING DATED 8/10/2018.

ELECTRICAL PLAN LEGEND	
<u>ELECTRICAL SYMBOLS AND LINETYPES</u>	
	EXISTING LIGHT TO REMAIN
	EXISTING LIGHT TO REMAIN
	GROUND ROD, 3/4"x10' TYPICAL
	EXISTING JUNCTION BOX TO REMAIN
	REFERENCE TO SHEET NOTE
	NEW HANDHOLE, L-867B
-----	EXISTING CONDUIT TO REMAIN
—————	HDPE CONDUIT WITH CONDUCTORS AS INDICATED
=====	CONCRETE ENCASED RIGID STEEL CONDUIT WITH CONDUCTORS AS INDICATED
-.-.-.-	TEMPORARY JUMPER OFR CIRCUIT, SURFACE LAID IN HDPE CONDUIT
--UGE--	HDPE CONDUIT WITH CONDUCTORS AS INDICATED
—W—	SERIES LIGHTING CIRCUIT, TICK MARKS INDICATE NUMBER OF 5KV SERIES CONDUCTORS IN CONDUIT (2 SHOWN), INCLUDE INSULATED GROUND CONDUCTOR (NOT SHOWN), TICK MARKS NOT SHOWN ON SHORT SEGMENTS OR IN CONGESTED AREAS FOR CLARITY
<u>ELECTRICAL ABBREVIATIONS</u>	
BC	BARE COPPER
C	PROJECT
DOT	DEPARTMENT OF TRANSPORTATION
EMT	ELECTRICAL METALLIC TUBING
EXST	EXISTING
FAA	FEDERAL AVIATION ADMINISTRATION
FSS	FLIGHT SERVICE STATION
GRD	GROUND
HDPE	HIGH DENSITY POLYETHYLENE
LFMC	LIQUID TIGHT FLEXIBLE METALLIC CONDUIT
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
PVC	POLYVINYL CHLORIDE
RMC	RIGID METALLIC CONDUIT (GALVANIZED STEEL)
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED

GENERAL ELECTRICAL NOTES:

- REMOVE ELECTRICAL COMPONENTS ASSOCIATED WITH THE PRIMARY WIND CONE. LIGHTS REMOVAL INCLUDES ALL ASSOCIATED CONDUIT, CONDUCTORS, TRANSFORMERS, DRAIN CONDUITS, FOUNDATIONS, AND CONCRETE, UNLESS OTHERWISE INDICATED. ALL REMOVED COMPONENTS SHALL BE OFFERED TO AIRPORT MAINTENANCE. DISPOSAL OF LIGHTING EQUIPMENT DEEMED NON-SALVAGEABLE BY AIRPORT MAINTENANCE AND REMOVED CONDUIT, CONDUCTORS, LIGHT BASES, CONCRETE, AND OTHER MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN APPROVED SITE OFF OF AIRPORT PROPERTY IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS. DISPOSAL COSTS SHALL BE SUBSIDIARY TO THE CONTRACT.
- COORDINATE ALL LIGHTING OUTAGES CAUSED BY DISCONNECTIONS, CIRCUIT CHANGES, OR OTHER WORK WITH THE PROJECT ENGINEER. SCHEDULE INSTALLATION OF CONDUCTORS AND OTHER EQUIPMENT TO MINIMIZE QUANTITY AND DURATION OF OUTAGES.
- COMPLETE ALL EXCAVATION AND TRENCHING PRIOR TO THE FINISH SURFACE ASPHALT BEING PLACED.
- ALL AIRFIELD LIGHTING CONDUCTORS SHALL BE #8, FAA TYPE C.
- INSTALL A BARE COPPER #6 GROUNDING CONDUCTOR WITH ALL LIGHTING CIRCUIT CONDUCTORS.
- ARRANGE THE WIND CONE LIGHTING CIRCUITS TO MAINTAIN THE CLOCKWISE FLOW AROUND THE RUNWAY AND TAXIWAY, WITH THE FEMALE CONNECTOR ON THE REGULATOR SIDE OF THE TRANSFORMER.
- ALL TRANSFORMER CONNECTIONS SHALL BE MADE ON THE FEED SIDE OF THE SERIES LOOP. RETURN AND LOOP CONDUCTORS SHALL BE CONTINUOUS AND UNSPLICED.
- HANDHOLE LOCATIONS MAY BE FIELD ADJUSTED AS APPROVED BY THE ENGINEER.

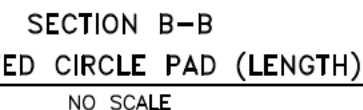
STATE OF ALASKA
Department of Transportation and Public Facilities
Maintenance & Operations
Northern Region

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DATE: JUL 2021

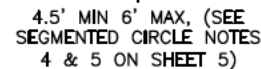
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NFAPT0383A

BARROW AIRPORT
VISUAL AID
REPLACEMENT
TABLES, NOTES, &
ELECTRICAL LEGEND



1. REMOVE CONDUCTORS TO EXISTING LIGHT TO REMAIN. DURING RECENT PROJECT, NEW CONDUIT WAS RUN FROM LIGHT CAN TO EXISTING WIND CONE WITH SOME EXTRA LENGTH. REMOVE CONDUIT AS REQUIRED FOR EXCAVATION OF CURRENT PROJECT. PLUG AND PROTECT EXISTING CONDUIT STUB OUT DURING EXCAVATION. SEE SHEET NOTE 2 FOR CONNECTION OF NEW WORK.
2. RECONNECT EXISTING CONDUIT TO PRESERVED STUB OUT. INSTALL NEW CONDUCTORS AND CONNECT TO EXISTING WIRING AND TRANSFORMER IN EXISTING LIGHT BASE. WIRING CONNECTION WORK IS SUBSIDIARY TO ITEM L-108d.
3. BEFORE PLACING GEOTEXTILE, STABILIZATION, FILL VOIDS ON SURFACE OF EXISTING GROUND WITH BORROW, TYPE A WHERE PAD IS TO BE CONSTRUCTED, TO ELIMINATE 'BRIDGING' OF THE GEOTEXTILE, STABILIZATION MATERIAL.
4. DETERMINE GRADE OF EXISTING GROUND AT PROPOSED LOCATION OF PAD BEFORE CONDUCTING ANY GROUND DISTURBING ACTIVITIES TO COMPLY WITH REQUIREMENTS OF TYPICAL SECTION B-B ABOVE.
5. TO DETERMINE DEPTH OF PAD FILL, BEGIN PAD AT ADJOINING SHOULDER HINGE POINT OF TAXIWAY 'A' SAFETY AREA. THE GRADE OF THE PAD WILL SLOPE AWAY FROM TAXIWAY 'A', AT A CONSISTENT GRADE TO MATCH (AS CLOSELY AS POSSIBLE) THE AVERAGE GRADE OF EXISTING GROUND UPON WHICH PAD IS BUILT WITHIN THE LIMITS OF 0.5% TO 1.5% GRADE. THIS WILL SERVE TO MAXIMIZE CONSISTENCY OF PAD DEPTH THROUGHOUT THE NEW PAD STRUCTURE.

<p align="center">STATE OF ALASKA <i>Department of Transportation and Public Facilities</i> <i>Maintenance & Operations</i> <i>Northern Region</i></p>	
<p>SHEET: 3 of 10</p>	<p align="center">BARROW AIRPORT VISUAL AID REPLACEMENT PAD LAYOUT PLAN & SECTIONS</p>
<p>DATE: JUL 2021</p>	
<p>AIP 3-02-0200-123-2019 NFAFPT0383A</p>	



4 BOLT MOUNTING PANEL TO
WHERE STRINGER & SUPPORT FRAME
INTERSECT, TYP. 12 EA PER PANEL
ASSY (6 EA PER EACH PANEL).

1. FOR ALL PANEL ATTACHMENT BOLTS, ADD NYLON WASHER ($\frac{3}{8}$ " ID x $<1"$ OD) BETWEEN PANEL FACE AND THE 1" METAL WASHER (UNDER BOLT HEAD) TO HELP PROTECT SHEETING DURING PANEL FASTENING.
2. BOLT HOLE PATTERNS ARE IDENTICAL FOR ALL PANELS.
3. PRIOR TO LEAVING SITE VERIFY THAT ALL PANEL ASSEMBLY BOLTS ARE COMPLETELY TIGHTENED.

— 4" BOLT AT BASE, 3 EA PER PANEL
ASSY. USE STANDARD (NON-LOCKING)
NUT FOR REMOVABILITY

— PANEL — 2' X 10' 0.125" SHEET ALUMINUM WITH
ORANGE REFLECTIVE SHEETING PER P-640
SPECIFICATION ON OUTSIDE, 2 EA PANELS PER
ASSY. PLACE 7/16" HOLES AT BOLT LOCATIONS —

PARTS LIST (3 EA PER PANEL ASSY)

- 2 EA TOP CHORD $1\frac{1}{2}" \times 21"$ PST
2 EA STRUT (BOTTOM) $1\frac{1}{2}" \times 13"$ PST
2 EA $6\frac{1}{2}"$ BOLTS FOR POST ATTACHMENT
2 EA $4"$ BOLTS JOINING CHORDS AND STRUTS

1. INCLUDE NUTS AND WASHERS WITH ALL BOLTS PER SEGMENTED CIRCLE NOTE 2 ON SHEET 5.
2. ALL PST ENDS EXTEND $\sim 1\frac{1}{2}$ " BEYOND BOLT LOCATIONS.
3. SEE PANEL SUPPORT FRAME ASSEMBLY 3D DETAIL FOR FURTHER VISUALIZATION.



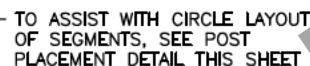
— STRINGER, 1-1/2" x 9'
7" (115") PST, 4 EA
PER PANEL ASSY

— PANEL POST 2-½" x VARIES
PST (SEE SEGMENTED CIRCLE
NOTES 4 & 5 ON SHEET 5)

— EMBEDMENT STUB POST 3"x3"x4.5'
GALV STEEL NON-PERFORATED
SQUARE TUBING, WITH 0.1875"
WALL THICKNESS.

SEGMENTED CIRCLE PANEL ASSEMBLY

SIDE VIEW - PANEL POST & SUPPORT FRAME
(3 EA PER PANEL ASSEMBLY)
NTS



CENTER CIRCLE
AROUND NEW
WIND CONE MAST

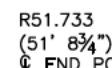
— MIDPOINT OF
INSIDE PANEL'S
LOWER EDGE. TYP

16 EA PANEL
ASSEMBLIES
EQUALLY SPACED
FORMING A CIRCLE

ALIGN TRAFFIC PATTERN
INDICATORS PERPENDICULAR
TO RWNY & ALIGNMENT ➤

ALIGN LANDING STRIP INDICATORS PARALLEL TO RWY \odot ALIGNMENT, & CENTERED ON CIRCLE

POST PLACEMENT DETAIL
NTS



R51.773
(51' 9 1/4")
CL END POST
(CLOSEST TO
PANEL END)

20.157' (~241.9") TO CORNERS OF EMBEDMENT STUB POSTS, TYP

— R50' AT INSIDE MIDPOINT
OF PANEL ASSEMBLY

NO.	DATE	REVISION

STATE OF ALASKA
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Northern Region

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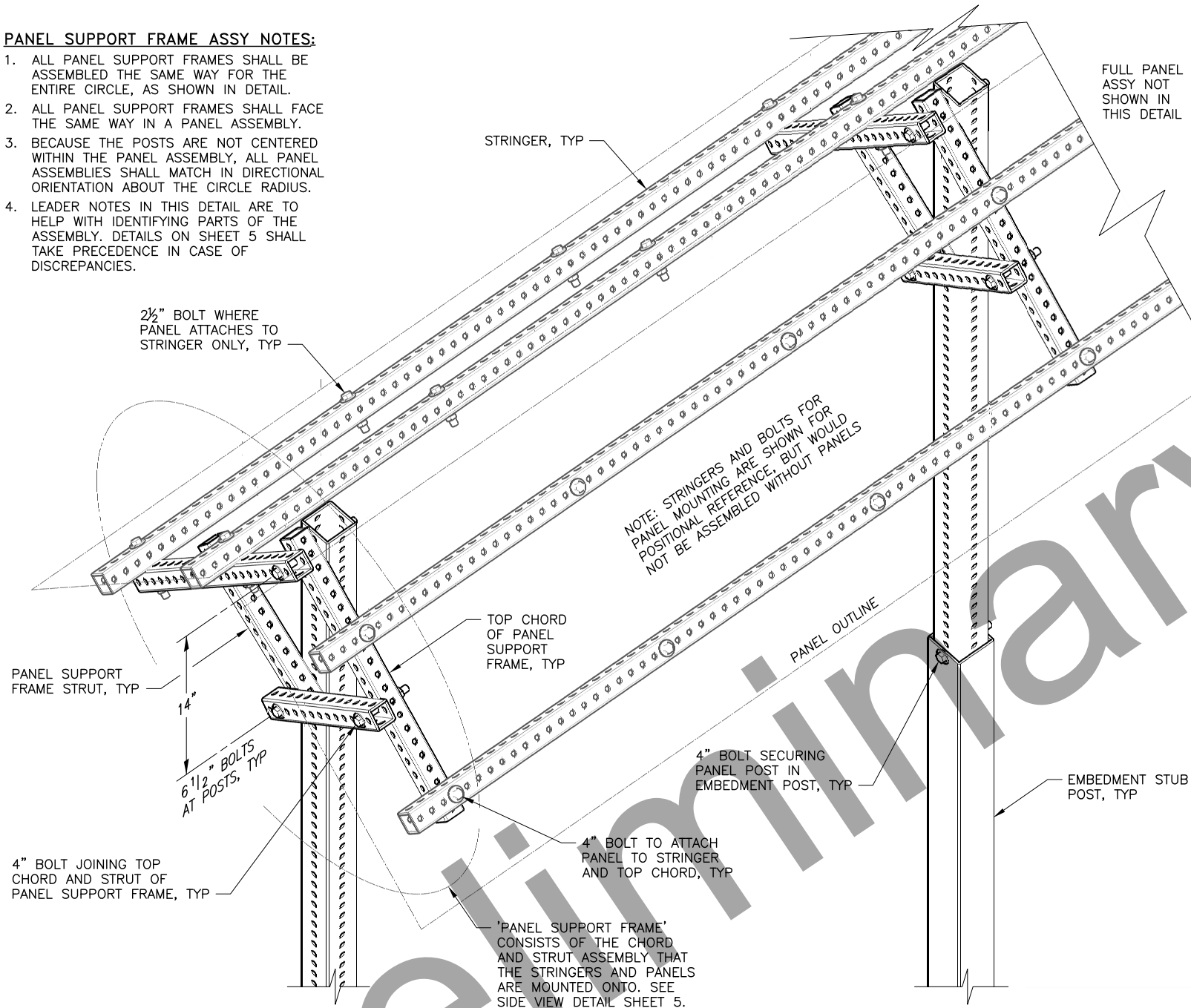
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NFAPT0383A

BARROW AIRPORT
VISUAL AID
REPLACEMENT
PANEL ASSEMBLY &
INSTALLATION PLANS

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PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200

PANEL SUPPORT FRAME ASSY NOTES:

1. ALL PANEL SUPPORT FRAMES SHALL BE ASSEMBLED THE SAME WAY FOR THE ENTIRE CIRCLE, AS SHOWN IN DETAIL.
2. ALL PANEL SUPPORT FRAMES SHALL FACE THE SAME WAY IN A PANEL ASSEMBLY.
3. BECAUSE THE POSTS ARE NOT CENTERED WITHIN THE PANEL ASSEMBLY, ALL PANEL ASSEMBLIES SHALL MATCH IN DIRECTIONAL ORIENTATION ABOUT THE CIRCLE RADIUS.
4. LEADER NOTES IN THIS DETAIL ARE TO HELP WITH IDENTIFYING PARTS OF THE ASSEMBLY. DETAILS ON SHEET 5 SHALL TAKE PRECEDENCE IN CASE OF DISCREPANCIES.



PANEL SUPPORT FRAME ASSY – 3D DETAIL
NTS

SEGMENTED CIRCLE GENERAL NOTES:

1. ALL ABOVE GROUND STRUCTURAL MEMBERS OF PANEL ASSEMBLY ARE PST (PERFORATED STEEL TUBING), SIZE AS INDICATED IN DRAWING, IN CONFORMANCE WITH SPECIFICATION P-640-2.2.b.
2. ALL BOLTS, NUTS, AND WASHERS SHALL CONFORM TO FASTENER SPECIFICATION TABLE INCLUDED IN THIS PLAN SET. ALL BOLTS USED IN PANEL ASSEMBLY SHALL BE $\frac{3}{8}$ " DIA. x LENGTH CALLED OUT IN PLANS, UNLESS OTHERWISE NOTED. FOR EACH BOLT INCLUDE 1 EA $\frac{3}{8}$ " ALL METAL LOCK NUT (EXCEPT AT POST BASES), AND 2 EA $\frac{3}{8}$ " WASHERS ($\frac{1}{16}$ ID x 1" OD) – ONE AT THE BOLT HEAD AND ONE AT THE NUT.
3. LOCATE UNDERGROUND UTILITIES TO AVOID DISTURBANCE PRIOR TO LAYOUT OF CIRCLE, AND CONSULT WITH THE ENGINEER OR LOCAL M&O REPRESENTATIVE ON A BEST WAY TO ALIGN PANEL ARRANGEMENT SUCH THAT ONE OF THE OPENINGS BETWEEN PANELS MATCHES BEST ROUTE FOR MAINTENANCE EQUIPMENT ACCESS.
4. FINISH HEIGHT OF ALL INSTALLED PANEL ASSEMBLIES COMPRISING A SINGLE SEGMENTED CIRCLE SHALL BE UNIFORM WITH A MAXIMUM VARIANCE OF 6" THROUGHOUT CIRCLE LAYOUT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE TERRAIN OF CIRCLE INSTALLATION AREA MAY NOT BE COMPLETELY LEVEL, THEREFORE INDIVIDUAL PANEL POST HEIGHTS MUST BE DETERMINED BY THE CONTRACTOR, AND CUT TO LENGTH IN THE FIELD, TO MEET REQUIREMENTS OF SEGMENTED CIRCLE NOTE 4.
6. TO FACILITATE THE EASE OF REMOVABILITY OF PANEL ASSEMBLY FROM EMBEDMENT STUB POSTS TO MEET ANY SITE MAINTENANCE NEEDS CONTRACTOR SHALL ENSURE THAT THE INSIDE OF ALL EMBEDMENT STUB POSTS IS CLEAR OF EARTH AND DEBRIS FOR A LENGTH OF AT LEAST 12" TO EXCEED THE LENGTH OF PANEL POST INSERTION.
7. INSTALLATION OF EMBEDMENT STUB POSTS MAY REQUIRE MINOR TRENCHING IF OCCASIONAL ROCK IS ENCOUNTERED. BACKFILL EXCAVATED MATERIAL AND RESTORE LEVEL SURFACE AS APPROVED BY THE ENGINEER. THIS WORK IS SUBSIDIARY TO THE RESPECTIVE P-640 PAY ITEM AT EACH SEGMENTED CIRCLE LOCATION (WHEN MULTIPLE SEGMENTED CIRCLES CONSTRUCTED AS PART OF ONE PROJECT).
8. EMBEDMENT STUB POST HEIGHT OF 2" ABOVE GROUND IS TO ACCOMMODATE HAVING MINIMAL CLEARANCE TO MANIPULATE THE BOLT ABOVE GROUND, WHILE ALSO BEING LOW ENOUGH TO BE DRIVEN OVER WITH RUBBER TIRES OF EQUIPMENT IF PANEL ASSEMBLY IS REMOVED.
9. DIMENSIONS LABELED "(REF)" ARE FOR INFORMATIONAL PURPOSES ONLY.

FASTENER SPECIFICATION TABLE

FASTENER TYPE	STEEL HOT DIPPED GALVANIZED	STAINLESS STEEL
BOLTS	ASTM A 307	ASTM F 593
NUTS & LOCK NUTS	ASTM A 563	ASTM F 594
WASHERS	ASTM F 844	ASTM A 480

OTHER PROJECT-SPECIFIC NOTES:

1. REMOVE ALL COMPONENTS OF EXISTING PANEL-TYPE SEGMENTED CIRCLE AND DISPOSE OF IN ACCORDANCE WITH SECTION P-165 "REMOVAL OF STRUCTURES". DO NOT STOCKPILE ON SITE UNLESS APPROVED BY THE ENGINEER. REMOVAL AND DISPOSAL OF EXISTING SEGMENTED CIRCLE MATERIALS IS SUBSIDIARY TO THE P165.020.0000 PAY ITEM. REFER TO 2007 AS-BUILTS PROJECT 65911 FOR DETAILS OF EXISTING STRUCTURE.
2. RESTORE ALL DISTURBED AREAS TO ORIGINAL CONDITIONS OR BETTER, AS DETERMINED BY THE ENGINEER. BACKFILL ANY DEPRESSIONS REMAINING FROM REMOVAL OF EXISTING SEGMENTED CIRCLE COMPONENTS (ABOVE-GROUND AND UNDERGROUND) TO MATCH ADJACENT EXISTING GROUND ELEVATION. RE-USE EXISTING EXCAVATED MATERIAL FOR THAT PURPOSE. THIS WORK IS SUBSIDIARY TO THE P640.020.0000 PAY ITEM.
3. NEW SEGMENTED CIRCLE SHALL BE CENTERED AROUND THE WIND CONE MAST AT THE LOCATION OF THE NEW GRAVEL PAD SEGMENTED CIRCLE. PROVIDE NEW WIND CONE MAST PER ITEM L107.010.0008. LAY OUT LOCATIONS OF NEW SEGMENTED CIRCLE PANELS BASED ON NEW WIND CONE MAST LOCATION.
4. PANEL LAYOUT MAY BE SLIGHTLY ADJUSTED IN FIELD BY THE ENGINEER BASED ON LOCAL GRAVEL PAD CONDITIONS. CONFORMANCE TO FAA AC 150/5340-5C SHALL BE ENSURED AS VERIFIED BY THE ENGINEER.
5. PRIOR TO PUNCHING NEW POST HOLES (OR DOING ANY OTHER EARTH-DISTURBING ACTIVITIES) PERFORM UTILITY LOCATES WHERE REQUIRED FOR NEW OR EXISTING CONSTRUCTION. AVOID DAMAGE TO THE NEW OR EXISTING BURIED CONDUIT THAT POWERS LIGHTING INSIDE MAST WIND CONE TOWER AT THE CENTER OF THE SEGMENTED CIRCLE. IF DAMAGE OCCURS DUE TO CONTRACTOR'S ACTIONS, PERFORM REPAIRS AT NO COST TO THE DEPARTMENT. IN CASE POSTS CANNOT BE INSTALLED PER PLAN DETAILS CONTACT THE ENGINEER PRIOR TO MAKING FIELD POST LAYOUT REVISIONS. SEE ALSO SHEET 6 SEGMENTED CIRCLE NOTE 3.
6. NEW SIGN PANEL SURFACES SHALL BE SUBSTANTIALLY FREE OF ANY SCRATCHES AND NICKS. AVOID BOLT OVER-TIGHTENING THAT MAY CAUSE RETRO-REFLECTIVE SHEETING TO WRINKLE AROUND BOLT LOCATIONS.
7. UPON COMPLETION OF WORK SUBMIT SEVERAL ELECTRONIC PICTURES TO THE ENGINEER. THESE SHALL INCLUDE BEFORE CONSTRUCTION AND AFTER CONSTRUCTION, GROUND-LEVEL AND AERIAL VIEWS. GROUND LEVEL PICTURES SHALL INCLUDE CLOSE-UPS OF PANEL SURFACES AND SHOTS OF ALL GROUND DIRECTLY UNDER THE NEW PANEL ASSEMBLIES.

NO.	DATE	REVISION

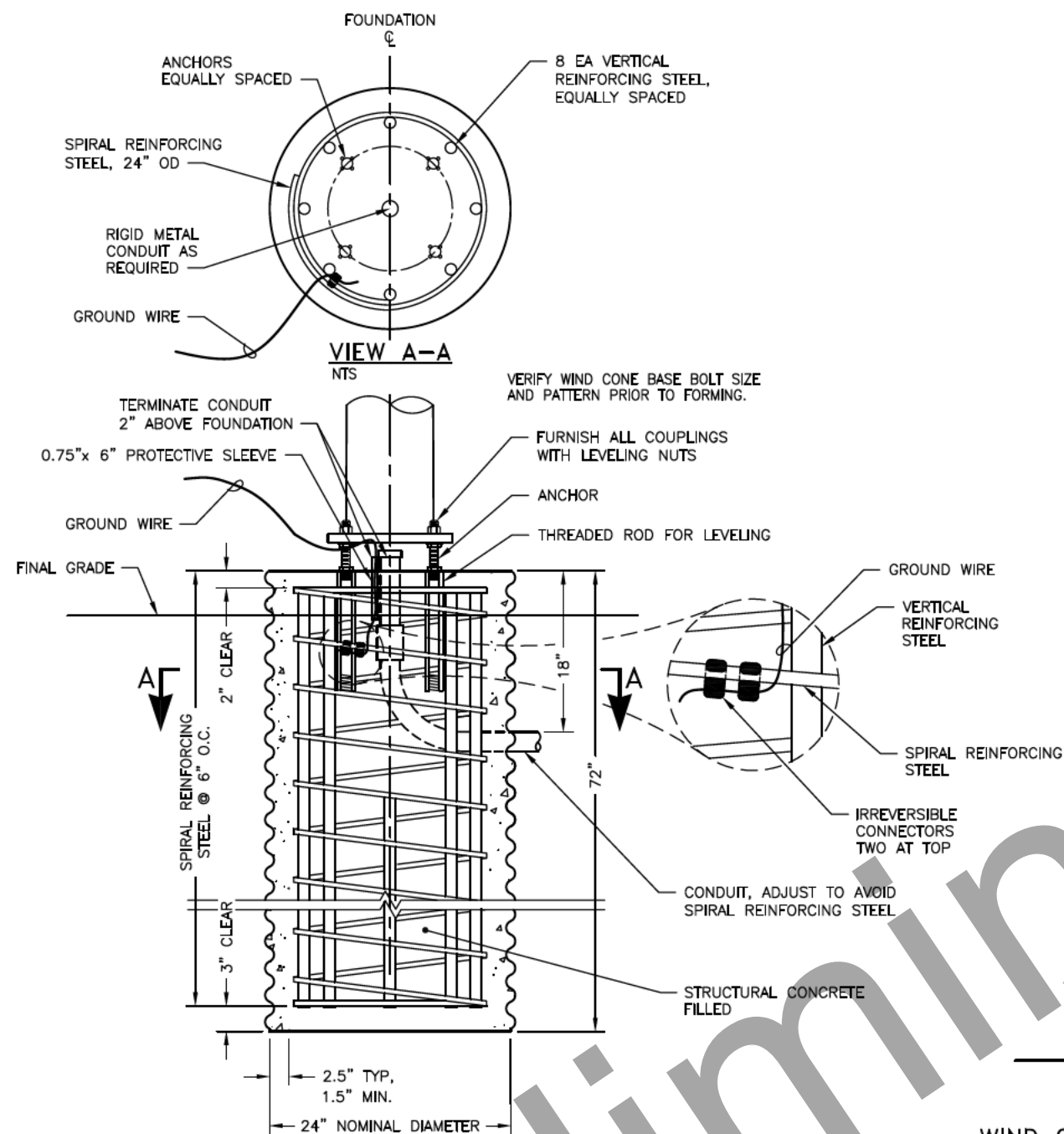
STATE OF ALASKA
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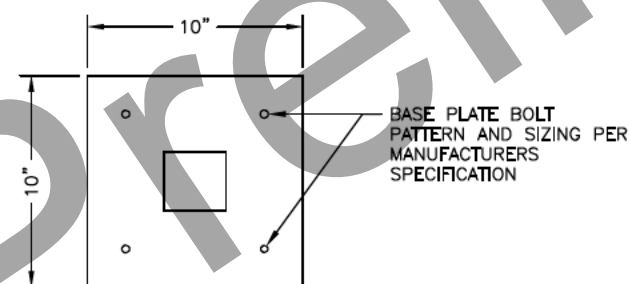
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BARROW AIRPORT
VISUAL AID
REPLACEMENT
PANEL DETAILS
& NOTES

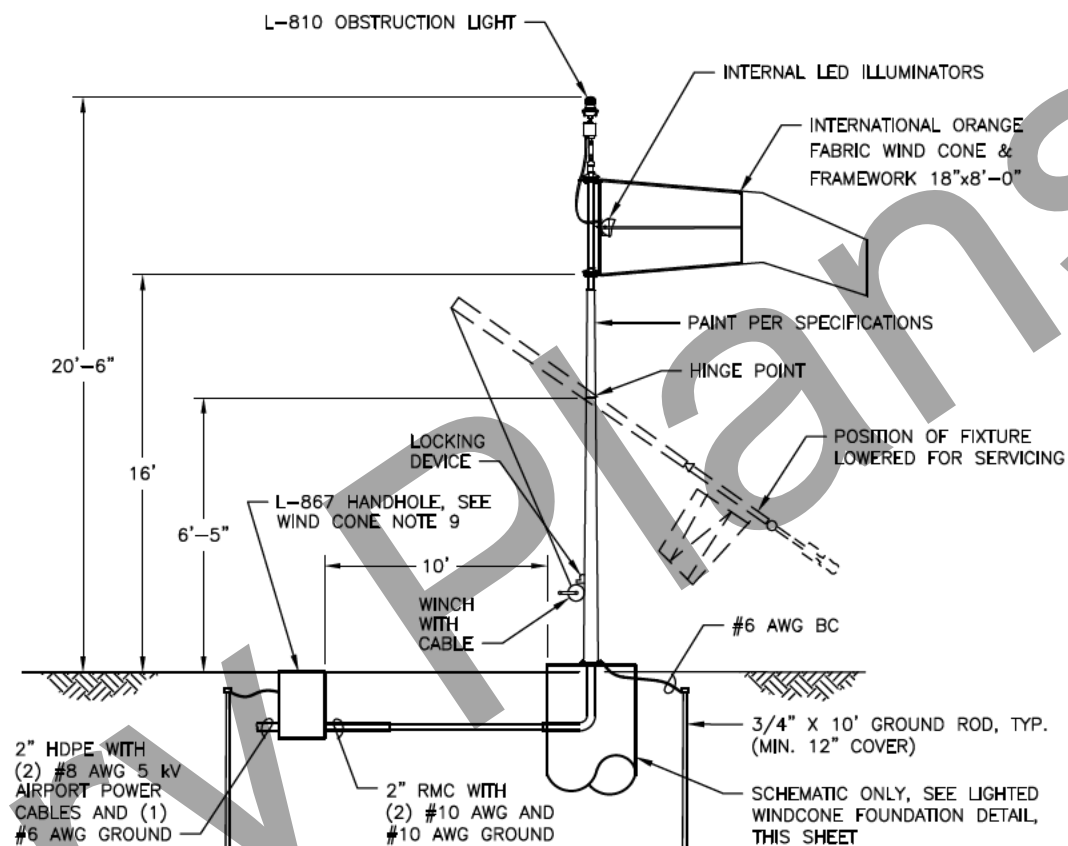


LIGHTED WINDCONE FOUNDATION DETAIL
NO SCALE

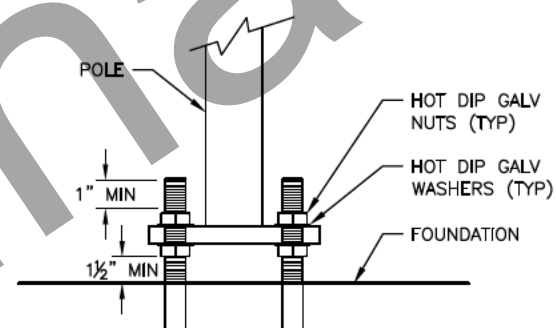


WIND CONE BASE PLATE DETAIL

NO SCALE



NEW WIND CONE ASSEMBLY
NO SCALE



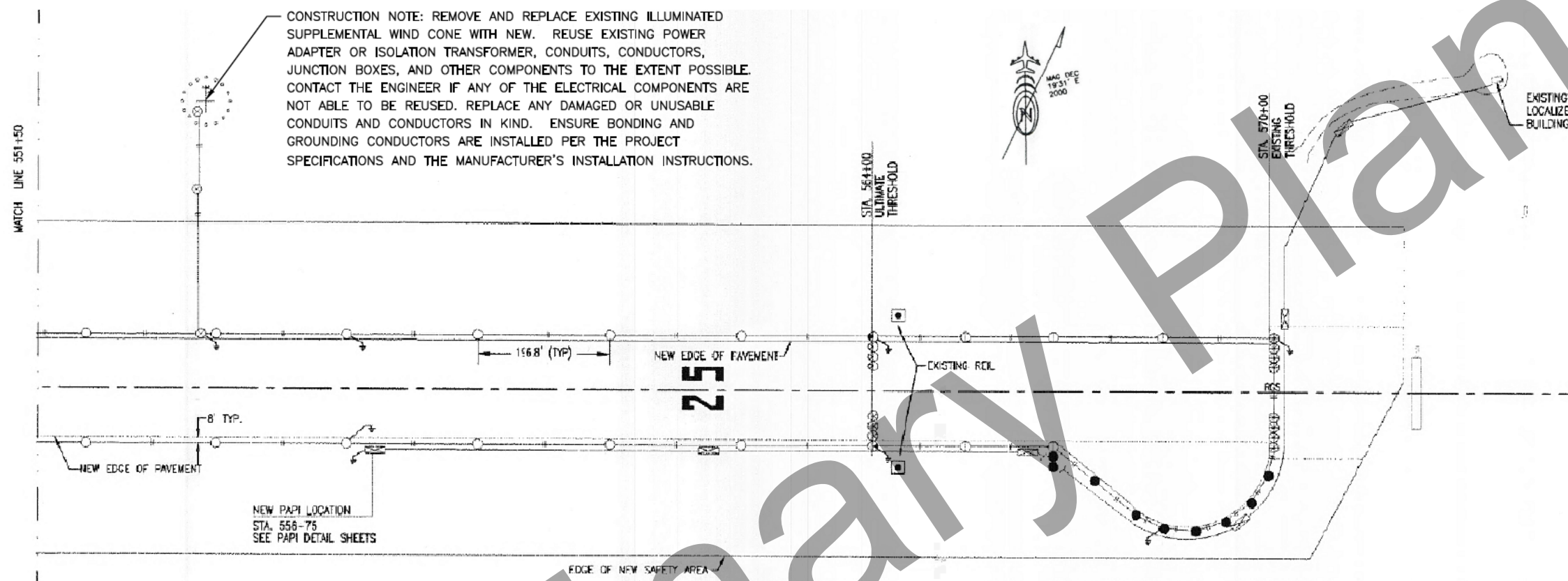
WIND CONE POLE MOUNTING ELEVATION
NO SCALE

WIND CONE NOTES:

1. REMOVE EXISTING PRIMARY AND SECONDARY WIND CONES FROM FOUNDATION AND SALVAGE. DELIVER TO BRW AIRPORT SREB BUILDING AND AS DIRECTED BY THE ENGINEER.
2. NEW PRIMARY AND SECONDARY WIND CONES SHALL BE FAA TYPE L-807 NON-FRANGIBLE TIP-DOWN STRUCTURE, STYLE I-B INTERNALLY LIGHTED WITH SOCK AND L-810 OBSTRUCTION LIGHT WITH LIGHT-EMITTING DIODE LIGHTS, WINDSOCK SIZE 1 (18" DIA X 8' LONG, BOTTOM OF WIND SOCK 16 FEET MINIMUM ABOVE GRADE, POWER SUPPLY 6.6 AMP 3-STEP 5Kv LIGHTING CIRCUIT).
3. PRIMARY WIND CONE TO BE INSTALLED ON NEW FOUNDATION OFFSET FROM EXISTING BY 5 FT OR AS DIRECTED BY THE ENGINEER. CUT EXISTING PILING-TYPE FOUNDATION FLUSH WITH THE GROUND AND ABANDON BURIED PIECE IN PLACE. SECONDARY WIND CONE SHALL RE-USE EXISTING "PILING"-TYPE FOUNDATION.
4. TYPE, SIZE AND POSITIONING OF ANCHOR BOLTS WITH ASSOCIATED HARDWARE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ANCHOR BOLTS SHALL BE THREADED FOR NUTS ABOVE AND BELOW WIND CONE BASE PLATE AS INDICATED. CONDUIT SIZE AND POSITION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. ACCESS TO SREB/EEEB TO TEMPORARILY DISCONNECT POWER DURING CONSTRUCTION.
6. MAKE ELECTRICAL CONNECTIONS AS REQUIRED BY THE WIND CONE MANUFACTURER TO PROVIDE POWER TO WIND CONE INTERNAL LIGHT AND OBSTRUCTION LIGHT.
7. TEST NEW INSTALLATION PER SPECIFICATION L107-3.9.
8. PROVIDE ONE (1) SPARE WIND CONE AND ONE (1) SPARE LED ILLUMINATOR OF EACH TYPE AND SIZE INSTALLED. DELIVER TO DOT UTQIAGVIK (BARROW) AIRPORT MANAGER (SEE CONTRACT APPENDICES FOR CONTACT INFO).
9. INSTALL 150W OR 200W L-830 TRANSFORMER ON PLATFORM IN THE L-867 HANDHOLE. SEE DETAIL (1) SHEET 9.

NO.	DATE	REVISION

	<p align="center">STATE OF ALASKA <i>Department of Transportation and Public Facilities</i> <i>Maintenance & Operations</i> <i>Northern Region</i></p>	
	<p>SHEET: 6 of 10</p>	<p align="center">BARROW AIRPORT VISUAL AID REPLACEMENT WIND CONE DETAILS</p>
	<p>DATE: JUL 2021</p>	
	<p>AIP 3-02-0200-123-2019 NFAPTO383A</p>	



DRAWING BACKGROUND FROM AS-BUILT AMENDMENT F C.O. 16
OF SHEET 65/86 AIP #3-02-0026-10/61002
NO SCALE

NO.	DATE	REVISION

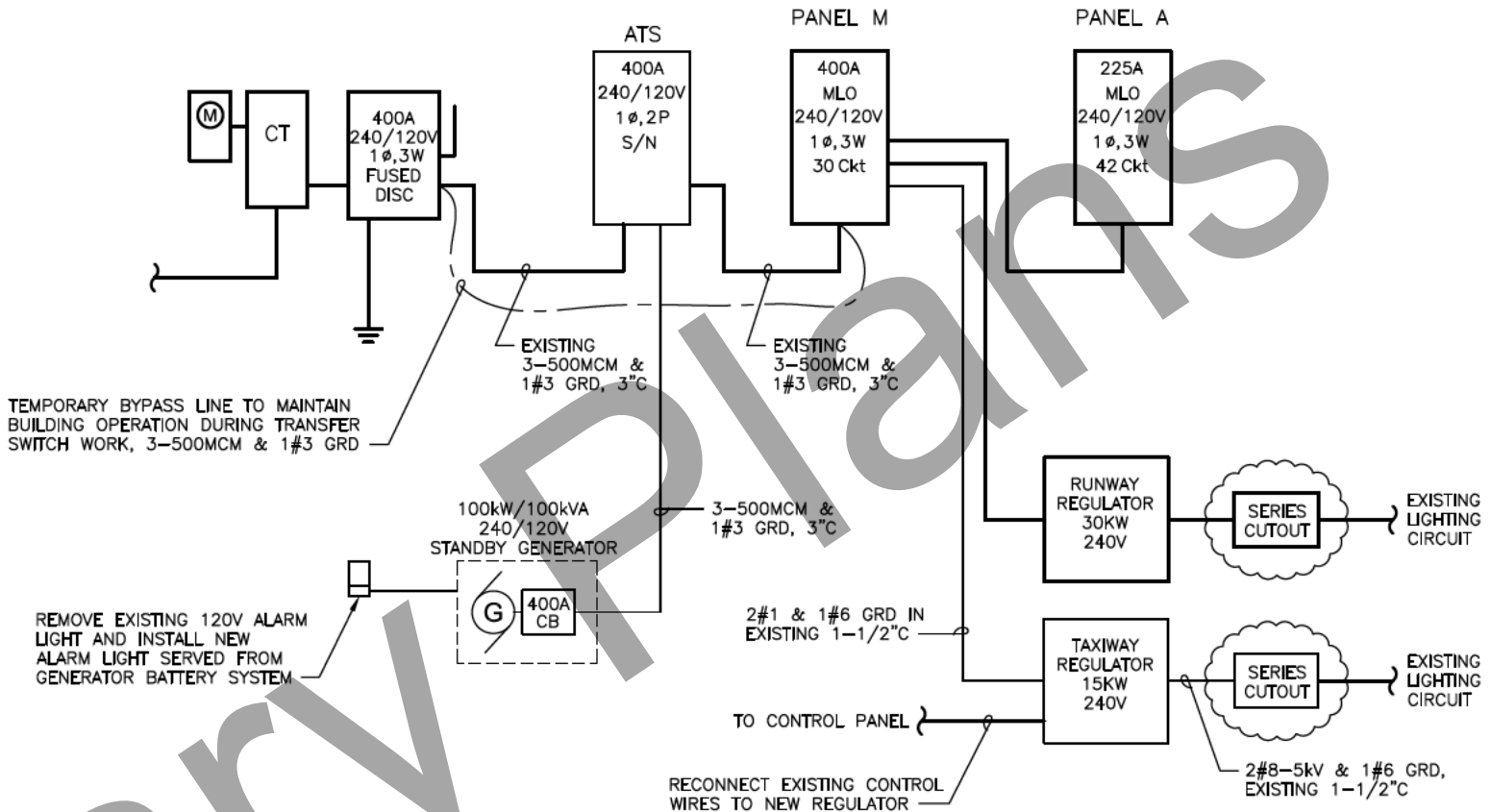
<p align="center">STATE OF ALASKA</p> <p align="center"><i>Department of Transportation and Public Facilities</i></p> <p align="center"><i>Maintenance & Operations</i></p> <p align="center"><i>Northern Region</i></p>	
<p>SHEET: 7 of 10</p> <hr/> <p>DATE: JAN 2021</p> <hr/> <p>AIP 3-02-0200-123-2019</p> <p align="center">NFAPTO383A</p>	<p align="center">BARROW AIRPORT</p> <p align="center">VISUAL AID</p> <p align="center">REPLACEMENT</p> <p align="center">SECONDARY WIND</p> <p align="center">CONE PLAN</p>



PANEL M										
CKT	LOAD	BRANCH		CONN KVA		BRANCH		LOAD	CKT	
		BKR	VA	A	B	VA	BKR			
1	PANEL A	100/2	9058	9.1			100/2	SPARE	2	
3			9726		9.7			(PREVIOUSLY SERVING TW REG)	4	
5				10.3		10320	125/2	TW REGULATOR	6	
7					10.3	10320		15 KW	8	
9				0.0					10	
11					0.0				12	
13				0.0					14	
15					0.0				16	
17				0.0					18	
19					0.0				20	
21				0.0					22	
23					0.0				24	
25				0.0					26	
27					0.0				28	
29				0.0					30	
	RW REGULATOR 30 KW	200/2	20280		20.3					
		SBFD	20280	20.3						
CONNECTED LOAD				80.0 KVA	39.7	40.3	PANEL SPECIFICATIONS MAINS RATING AMPS - 400 MAIN CIRCUIT BREAKER AMPERES - MLO CAPACITY ONE-POLE CIRCUITS - 30 SYSTEM VOLTAGE - 240/120 PHASE, NO. OF WIRES - 1 PH, 3 W AIC RATING - 10,000 MOUNTING - SURFACE			
				333 AMPS	330	336				
NEC DEMAND				96.0 KVA						
				400 AMPS						
PANEL NOTES 1. EXISTING PANEL IS SQUARE D, TYPE NQOD.										

PANEL A

CKT	LOAD	BRANCH		CONN KVA		BRANCH		LOAD	CKT
		BKR	VA	A	B	VA	BKR		
1	FLOODLIGHTS	20/1	625	1.1		488	20/1	LIGHTS	2
3	BEACON HEATER	30/1	400		1.1	720	20/1	RECEPTACLES	4
5	RVR RLIM SIE	20/1	100	0.8		720	20/1	RECEPTACLES	6
7	SPARE	20/1			1.5	1500	20/2	UNIT HEATER FUEL ROOM	8
9	SPARE	20/1		1.5		1500			10
11	SPARE	20/1			3.0	3000	40/2	UNIT HEATER GEN ROOM	12
13	BEACON	20/1	965	4.0		3000			14
15	JACKET HEATER	20/1	1500		2.0	500	15/1	DAMPER MOTORS	16
17	CONTROL PANEL	20/1	500	0.6		100	20/1	FUEL ROOM LIGHTS	18
19	EXHAUST FAN	20/1	696		0.9	200	20/1	OUTSIDE LIGHT	20
21	EMERG GEN STROBE	20/1	100	1.1		960	15/2	FUEL PUMP OUTSIDE	22
23	BATTERY CHARGER	20/1	250		1.2	960			24
25				0.0					26
27					0.0				28
29				0.0					30
31					0.0				32
33				0.0					34
35					0.0				36
37				0.0					38
39					0.0				40
41				0.0					42
CONNECTED LOAD		18.8 KVA		9.1	9.7	PANEL SPECIFICATIONS			
		78 AMPS		75	81	MAINS RATING AMPS - 225			
NEC DEMAND		19.5 KVA				MAIN CIRCUIT BREAKER AMPERES - MLO			
		81 AMPS				CAPACITY ONE-POLE CIRCUITS - 42			
PANEL NOTES						SYSTEM VOLTAGE - 240/120			
1. EXISTING PANEL IS SQUARE D, TYPE NQOD.						PHASE, NO. OF WIRES - 1 PH, 3 W			
						AIC RATING - 10,000			
						MOUNTING - SURFACE			



1 RISER DIAGRAM
10 SCALE: N.T.S.

NOTE: DETAILS ON THIS SHEET ARE FROM PLANSET AIP 3-02-0026-XXX-2018/NFAPT00247, SHEET E15 OF 53, AND ARE PLACED HERE FOR CONVENIENCE TO SHOW LOCATION OF POWER SOURCES. WHERE ANY CHANGES OR UPDATES TO THE REFERENCED INFORMATION OCCUR, THE AFORE LISTED PLAN SET WILL TAKE PRECEDENCE REGARDING THIS INFORMATION.

NO.	DATE	REVISION
STATE OF ALASKA Department of Transportation and Public Facilities Maintenance & Operations Northern Region		
SHEET:	10 of 10	BARROW AIRPORT VISUAL AID REPLACEMENT RISER DIAGRAM & PANEL SCHEDULES
DATE:	JUL 2021	
AIP 3-02-0200-123-2019 NFAPT0383A		