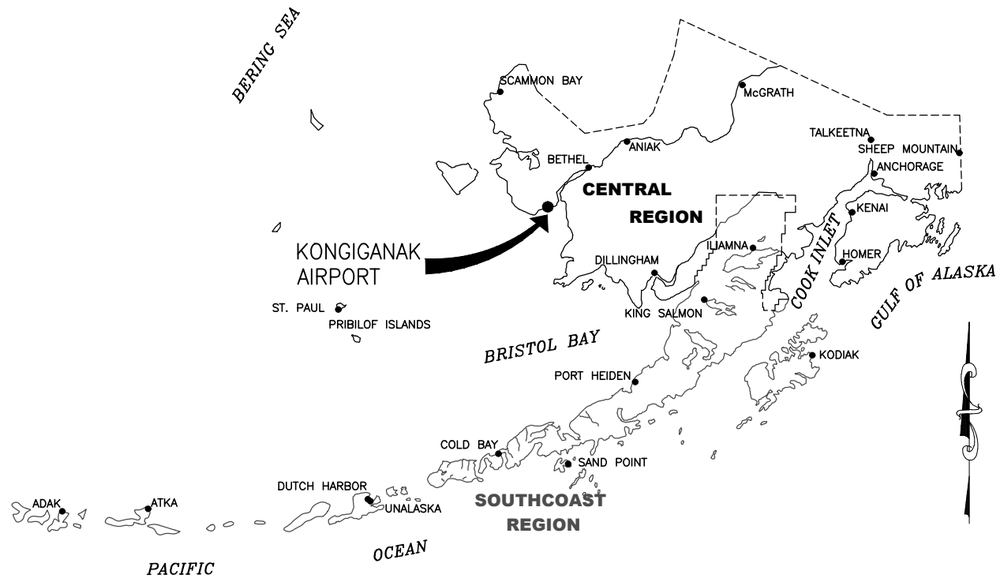
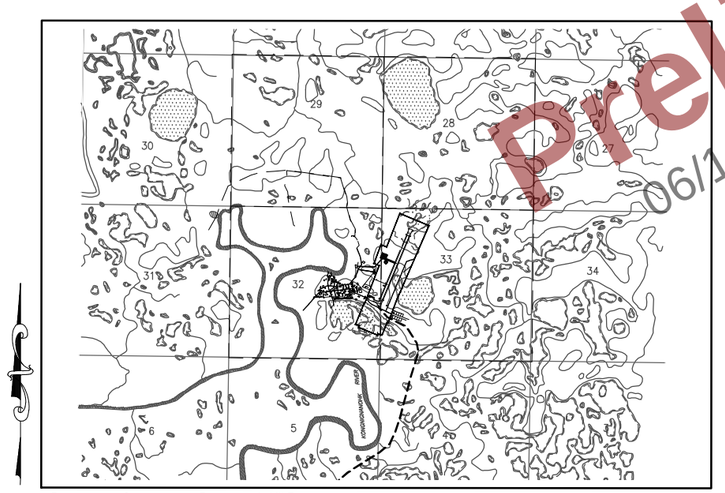


ALASKA CENTRAL REGION LOCATION MAP

NOT TO SCALE



VICINITY MAP

SCALE 1"= 1/2 MILE
T 2 S, R 79 W, SEC. 32 AND 33
SEWARD MERIDIAN
U.S.G.S. KUSKOKWIM BAY (D-3), ALASKA

CONSTRUCTION PLANS

KONGIGANAK AIRPORT

KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIRPORT IMPROVEMENT PROGRAM
No. 3-02-0380-004-2022

PRE PS&E

MAY 2021

CONCUR	**DATE**
JOEL G. ST. AUBIN, P.E.	**REGIONAL CONSTRUCTION ENGINEER**
APPROVED	**DATE**
LUKE BOWLAND, P.E.	**REGIONAL PRECONSTRUCTION ENGINEER**
APPROVED	**DATE**
JENELLE BRINKMAN, P.E.	**AVIATION DESIGN GROUP CHIEF**
APPROVED	**DATE**
PHILIP CHEASEBRO, P.E.	**PROJECT MANAGER**

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
COVER

DATE: 5/24/2021

SHEET: 1 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:47 PM
Layout Name: Cover
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-Cover-Index-Est Quantities.dwg

INDEX

Sheet Title	Sheet No.
COVER	1
INDEX	2
ESTIMATED QUANTITIES	3
PROJECT LAYOUT PLAN	4
DEMO PLAN	5
RW PLAN & PROFILE	6
RW PLAN & PROFILE	7
TW PLAN & PROFILE – SUPPLEMENTARY WIND CONE PLAN & PROFILE	8
SEGMENTED CIRCLE ACCESS PLAN AND PROFILE	9
MUCK EXCAVATION TYPICAL SECTIONS	10
MUCK EXCAVATION TYPICAL SECTIONS	11
TYPICAL SECTIONS	12
TYPICAL SECTIONS	13
TYPICAL SECTIONS	14
RW DRAINAGE TYPICAL SECTIONS	15
TW & APRON GRADING PLAN	16
SUPPLEMENTAL WIND CONE ACCESS & RW EDGE GRADING	17
RW EDGE GRADING	18
SEGMENTED CIRCLE AREA GRADING	19
RW EDGE GRADING	20
SIGN PLAN	21
SIGN PLAN DETAILS	22
APRON SITING PLAN	23
BOLLARD LAYOUT	24
CULVERT PROFILES, DETAILS, & SCHEDULE	25
DUST PALLIATIVE, EMBANKMENT, & DISPOSAL SURFACING PLAN	26
DUST PALLIATIVE, EMBANKMENT, & DISPOSAL SURFACING PLAN	27
FENCE DETAILS	28
ELECTRICAL PLANS & DETAILS	E01 – E16

APPENDIX DRAWINGS

SHEET TITLE	SHEET No.
APPENDIX A	
SURVEY CONTROL (NOT INCLUDED THIS REVIEW)	AA1
APPENDIX C	
CONSTRUCTION SAFETY AND PHASING PLAN	AC1 – AC9
APPENDIX K	
SREB PLANS AND DETAILS	
GENERAL	G1
ARCHITECTURAL	A1 – A5
STRUCTURAL	S1 – S5
MECHANICAL	M1 – M4
ELECTRICAL	E1 – E8

LEGEND

DESCRIPTION	EXISTING	PROPOSED
AIRPORT PROPERTY BOUNDARY		
AIRCRAFT TIE–DOWN		
BOLLARD		
BUILDINGS		
CONTOURS	100	100
CULVERT WITH AND WITHOUT END SECTIONS		
DETAIL CALLOUT	DETAIL NUMBER / SHEET LOCATION	
DITCH / SWALE		
EDGE OF GRAVEL		
ELECTRICAL LINE (ABOVE GROUND)	E	
ELECTRICAL LINE (OVERHEAD)	OE	OE
ELECTRICAL LINE (UNDERGROUND)	UE	UE
ELECTRICAL POLE		
FUEL LINE (ABOVE GROUND)	F	
GRADE BREAK	GB	GB
GEOTEXTILE STABILIZATION		
HAUL ROUTE (TWO WAY)		
RUNWAY MIRL / TAXIWAY MITL		
RUNWAY / TAXIWAY CENTERLINE		
ROTATING BEACON		
RUNWAY OBJECT FREE AREA		OFA
RUNWAY OBSTACLE FREE ZONE		OFZ
RUNWAY SAFETY AREA		RSA
SANITARY SEWER LINE (UNDERGROUND)	SS	
SEGMENTED CIRCLE & WIND CONE		
SHOULDER EDGE		
SIGN POST/MARKER		
TAXIWAY SAFETY AREA		TSA
TEMPORARY CONSTRUCTION EASEMENT		
TOE OF SLOPE		
CUT		
FILL		
TREELINE / VEGETATION		
WATER LINE (UNDERGROUND)	W	
WIND CONE		

ABBREVIATIONS

ADG	AIRCRAFT DESIGN GROUP	LT	LEFT
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM	MAINT	MAINTENANCE
BOP	BEGINNING OF PROJECT	ME	MATCH EXISTING
BVCS	BEGIN VERTICAL CURVE STATION	MIRL	MEDIUM INTENSITY RUNWAY LIGHTING
BVCE	BEGIN VERTICAL CURVE ELEVATION	MITL	MEDIUM INTENSITY TAXIWAY LIGHTING
CASC	CRUSHED AGGREGATE SURFACE COURSE	N	NORTHING, NORTH
℄	CENTERLINE	NTS	NOT TO SCALE
CS	CONTINGENT SUM	NIC	NOT IN CONTRACT
CY	CUBIC YARD	OFA	OBJECT FREE AREA
DIA	DIAMETER	OG	ORIGINAL GROUND
DOT&PF	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES	PT	POINT OF TANGENCY
		PVI	POINT OF VERTICAL INTERSECTION
EEB	ELECTRICAL EQUIPMENT BUILDING	RAP	RECYCLED ASPHALT PAVEMENT
ELEV	ELEVATION	RD	ROAD
EOP	END OF PROJECT	RSA	RUNWAY SAFETY AREA
ESCP	EROSION AND SEDIMENT CONTROL PLAN	RT	RIGHT
EVCS	END VERTICAL CURVE STATION	RW	RUNWAY
EVCE	END VERTICAL CURVE ELEVATION	SF	SQUARE FEET
FG	FINISH GRADE	SREB	SNOW REMOVAL EQUIPMENT BUILDING
GB	GRADE BREAK	STA	STATION
HMA	HOT MIX ASPHALT	TCE	TEMPORARY CONSTRUCTION EASEMENT
LF	LINEAR FOOT	TSA	TAXIWAY SAFETY AREA
LS	LUMP SUM	TW	TAXIWAY
		TYP	TYPICAL

STANDARD PLANS

SHEET TITLE	SHEET No.
SIGN FRAMING AND POST SPACING	S–0.12
BRACING FOR SIGNS MOUNTED ON SINGLE POST	S–1.02
POST MOUNTED SIGN OFFSET AND HEIGHT	S–5.02
LIGHT SIGN POST EMBEDMENT	S–30.05
SIGN POST BASE AND FOUNDATION	S–31.02
CULVERT PIPE AND ARCH INSTALLATION DETAILS	D–01.02
PIPE AND ARCH TABLES	D–04.22
CULVERT END SECTIONS	D–06.10

REFERENCE DRAWINGS

SHEET TITLE	SHEET No.

ANCILLARY DRAWINGS

SHEET TITLE	SHEET No.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
INDEX

DATE: 5/24/2021
SHEET: 2 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: Index
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-Cover-Index-Est Quantities.dwg
5/24/2021, 2:47 PM

ESTIMATED QUANTITIES

No.	ITEM	UNIT	QUANTITY
D701.010.0036	CS PIPE, 36–INCH	LF	96
F162.010.0008	8–FEET CHAIN–LINK FENCE	LF	103
F162.030.0004	SINGLE SWING GATE, 4–FEET WIDE	EA	2
F170.010.0000	STEEL BOLLARD	EA	43
G100.010.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
G115.010.0000	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQ'D
G130.010.0000	FIELD OFFICE	LS	ALL REQ'D
G130.020.0000	FIELD LABORATORY	LS	ALL REQ'D
G130.060.0000	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EA	1
G130.090.0000	ENGINEERING COMMUNICATIONS	CS	ALL REQ'D
G131.010.0000	ENGINEERING TRANSPORTATION (TRUCK)	EA	2
G131.025.0000	ENGINEERING TRANSPORTATION (UTV)	EA	2
G135.010.0000	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LS	ALL REQ'D
G135.020.0000	EXTRA THREE PERSON SURVEY PARTY	HOUR	50
G135.050.0000	CONTRACTOR FURNISHED ENGINEERING TOOLS	CS	ALL REQ'D
G135.060.0000	CONTRACTOR FURNISHED COMPUTATIONS	LS	ALL REQ'D
G150.010.0075	EQUIPMENT RENTAL, DOZER 75–HP MINIMUM	HOUR	50
G300.010.0000	CPM SCHEDULING	LS	ALL REQ'D
G700.010.0000	AIRPORT FLAGGER	CS	ALL REQ'D
G705.010.0000	WATERING FOR DUST CONTROL	MGAL	1100
L101.020.0000	ROTATING BEACON, MEDIUM INTENSITY, L–801A	EA	1
L103.010.0030	30–FEET HINGED POLE BEACON TOWER	EA	1
L108.010.2008	UNDERGROUND CABLE #8 AWG, COPPER, 5KV FAA TYPE C, L–824	LF	7085
L108.030.0006	#6 BARE COPPER GROUND CONDUCTOR	LF	13364
L108.070.0000	GROUND ROD	EA	21
L109.050.0000	INSTALLATION OF ELECTRICAL EQUIPMENT IN NEW OR EXISTING STRUCTURE	LS	ALL REQ'D
L109.060.0000	RELOCATION OF ELECTRICAL EQUIPMENT STRUCTURE	EA	1
L110.030.1002	RIGID STEEL CONDUIT, 2–INCH	LF	364
L110.080.1002	HDPE CONDUIT, 2–INCH	LF	6061

No.	ITEM	UNIT	QUANTITY
L125.020.0000	REGULATOR, L–828	EA	1
L125.030.0000	MEDIUM INTENSITY RUNWAY EDGE AND THRESHOLD LIGHT, L–861 AND L–861E	EA	50
L125.040.0000	TAXIWAY EDGE LIGHT, L–861T	EA	17
L125.070.0000	REMOVE RUNWAY AND TAXIWAY LIGHT	EA	78
L125.150.0000	HANDHOLE, L–867, SIZE B	EA	4
L125.170.0000	SPARE PARTS	CS	ALL REQ'D
L125.180.0000	TEMPORARY RUNWAY LIGHTING SYSTEM	LS	ALL REQ'D
P151.030.0000	CLEARING & GRUBBING	ACRE	10
P152.010.0000	UNCLASSIFIED EXCAVATION	CY	11300
P152.275.0000	POROUS BACKFILL	TON	3850
P152.390.0000	DITCH LINING	TON	21
P152.430.0000	DITCH LINEAR GRADING	LF	2450
P152.440.0000	AREA GRADING	SY	41900
P154.020.0000	SUBBASE COURSE	TON	123000
P165.060.0000	EQUIPMENT STORAGE BUILDING RELOCATION	LS	ALL REQ'D
P167.020.0000	DUST PALLIATIVE	LS	ALL REQ'D
P180.020.0000	RIPRAP, CLASS I	TON	347
P190.010.0000	INSULATION BOARD	SF	26600
P299.020.0000	CRUSHED AGGREGATE SURFACE COURSE	TON	30400
P620.075.0000	TEMPORARY RUNWAY & TAXIWAY PAINTING	SF	8500
P641.010.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
P641.020.0000	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	CS	ALL REQ'D
P641.060.0000	WITHHOLDING	CS	ALL REQ'D
P641.070.0000	SWPPP MANAGER	LS	ALL REQ'D
P660.030.0000	REFLECTIVE MARKER, TYPE II	EA	30
P660.070.0000	CONE, 18–INCH	EA	77

No.	ITEM	UNIT	QUANTITY
P661.010.0000	STANDARD SIGN	SF	42
P670.010.0000	HAZARD MARKER BARRIER, PLASTIC	EA	27
P671.010.0000	RUNWAY CLOSURE MARKER, VINYL MESH	EA	5
P681.010.0000	GEOTEXTILE, SEPARATION	SY	13000
P685.010.0000	GEOGRID	SY	20000
S142.040.0000	EQUIPMENT STORAGE BUILDING	LS	ALL REQ'D
S143.010.1000	HEATING FUEL TANK, 1,000 GAL	EA	1
S143.060.0000	SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN	LS	ALL REQ'D
T901.020.0000	SEEDING	LB	454
T901.030.0000	WATER FOR MAINTENANCE	MGAL	44
T905.010.0010	TOPSOILING, CLASS A	SY	22000
U500.020.0000	ELECTRICAL LINE EXTENSION	LS	ALL REQ'D

ESTIMATING FACTORS

No.	ITEM	FACTOR
P152.275.0000	POROUS BACKFILL	1.45 TON/CY
P152.390.0000	DITCH LINING	1.5 TON/CY
P154.020.0000	SUBBASE	2.0 TON/CY
P180.020.0000	RIPRAP, CLASS I	1.46 TON/CY
P299.020.0000	CRUSHED AGGREGATE SURFACE COURSE	2.0 TON/CY
T901.020.0000	SEEDING	100 LB/ACRE

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
ESTIMATED QUANTITIES

DATE: 5/24/2021

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:47 PM
Layout Name: Est Quantities
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-Cover-Index-Est Quantities.dwg

LAYOUT NOTES:

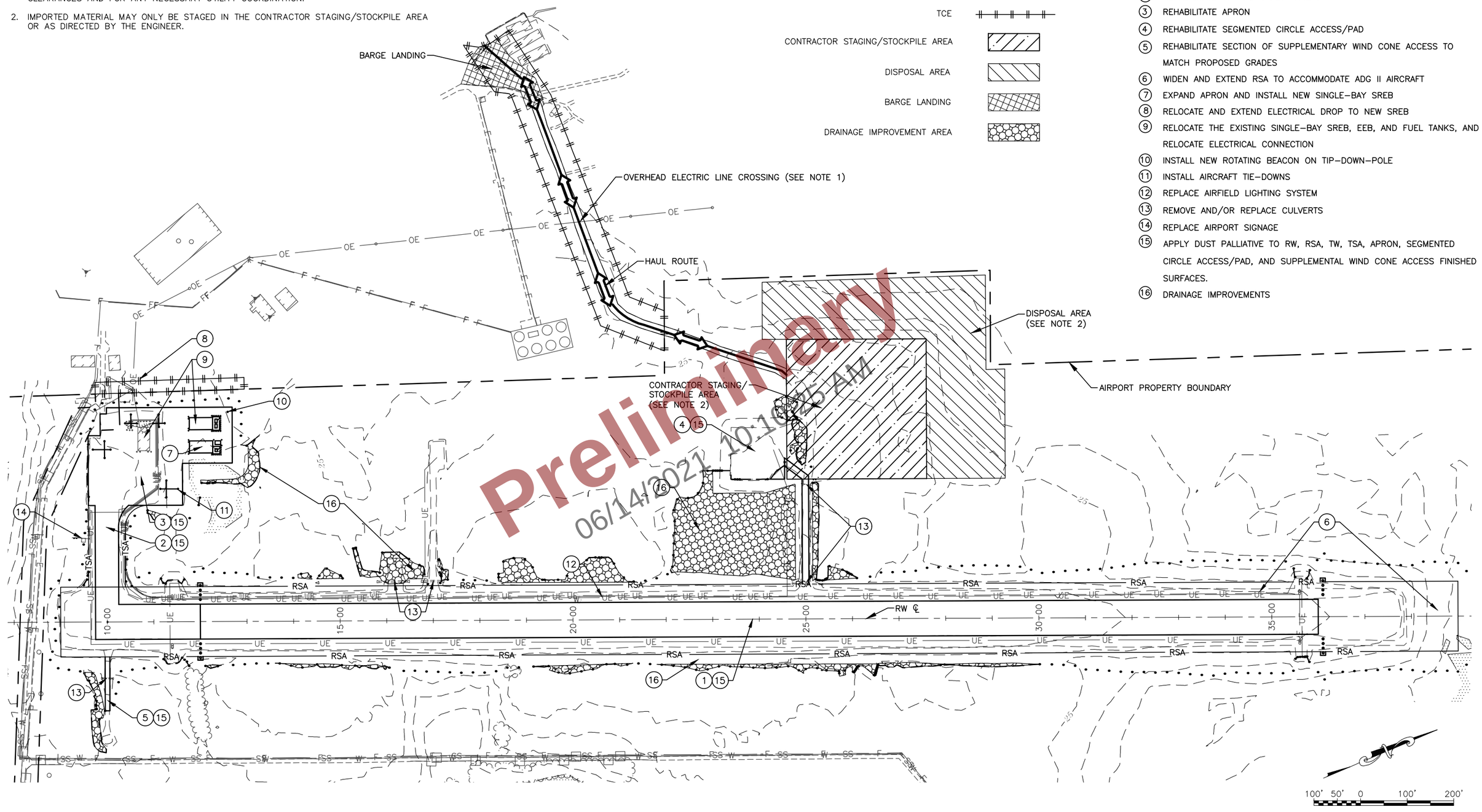
1. OHE CROSSING 15.5' CLEARANCE PER 2019 SURVEY. PROTECT IN PLACE AND MAINTAIN SERVICE AT ALL TIMES. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY CLEARANCES AND FOR ANY NECESSARY UTILITY COORDINATION.
2. IMPORTED MATERIAL MAY ONLY BE STAGED IN THE CONTRACTOR STAGING/STOCKPILE AREA OR AS DIRECTED BY THE ENGINEER.

LEGEND

- HAUL ROUTE
- TCE
- CONTRACTOR STAGING/STOCKPILE AREA
- DISPOSAL AREA
- BARGE LANDING
- DRAINAGE IMPROVEMENT AREA

SCOPE OF THE PROJECT INCLUDES, BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOLLOWING:

1. REHABILITATE RW 01/19
2. REHABILITATE TW AND SAFETY AREAS
3. REHABILITATE APRON
4. REHABILITATE SEGMENTED CIRCLE ACCESS/PAD
5. REHABILITATE SECTION OF SUPPLEMENTARY WIND CONE ACCESS TO MATCH PROPOSED GRADES
6. WIDEN AND EXTEND RSA TO ACCOMMODATE ADG II AIRCRAFT
7. EXPAND APRON AND INSTALL NEW SINGLE–BAY SREB
8. RELOCATE AND EXTEND ELECTRICAL DROP TO NEW SREB
9. RELOCATE THE EXISTING SINGLE–BAY SREB, EEB, AND FUEL TANKS, AND RELOCATE ELECTRICAL CONNECTION
10. INSTALL NEW ROTATING BEACON ON TIP–DOWN–POLE
11. INSTALL AIRCRAFT TIE–DOWNS
12. REPLACE AIRFIELD LIGHTING SYSTEM
13. REMOVE AND/OR REPLACE CULVERTS
14. REPLACE AIRPORT SIGNAGE
15. APPLY DUST PALLIATIVE TO RW, RSA, TW, TSA, APRON, SEGMENTED CIRCLE ACCESS/PAD, AND SUPPLEMENTAL WIND CONE ACCESS FINISHED SURFACES.
16. DRAINAGE IMPROVEMENTS



BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
PROJECT LAYOUT PLAN

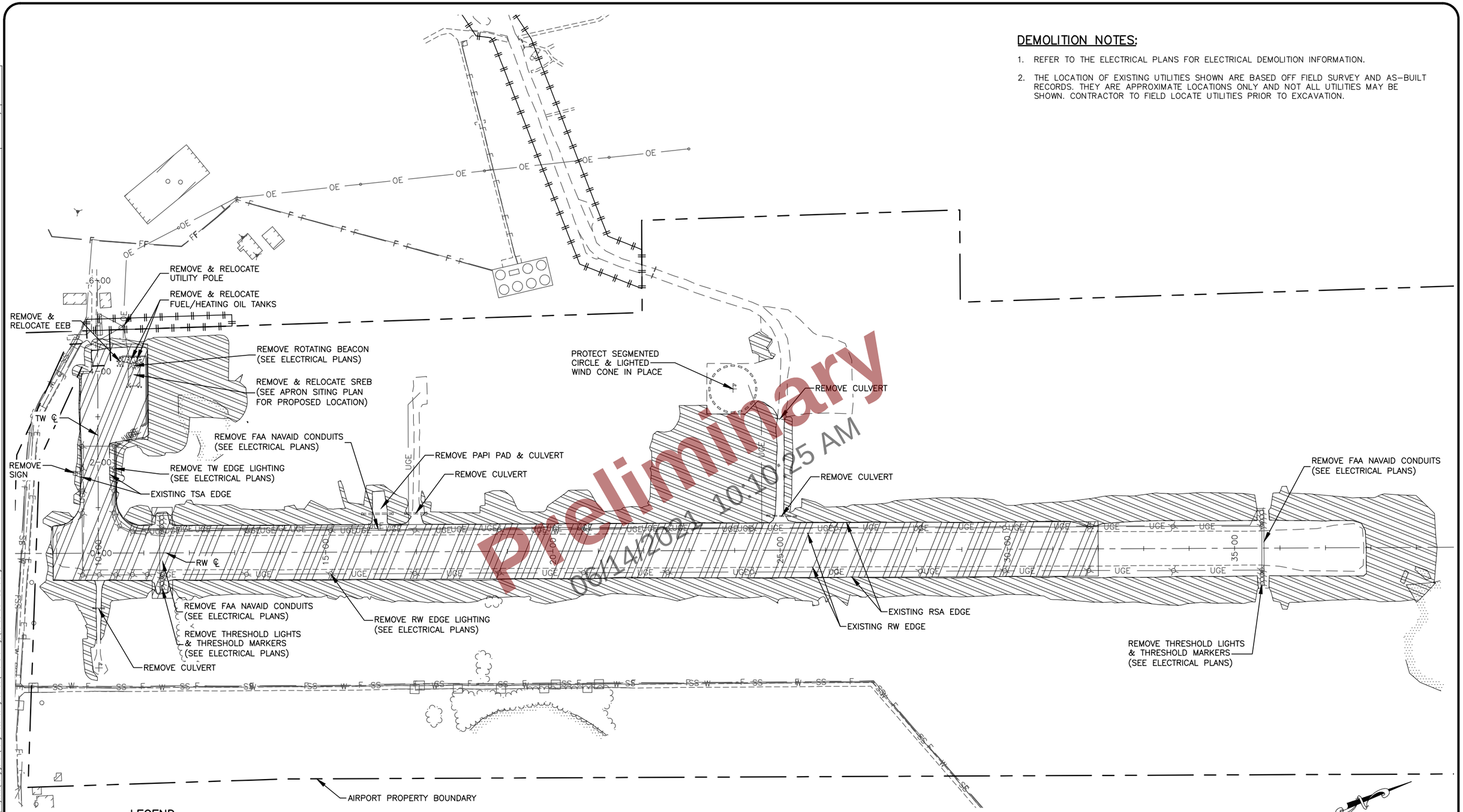
DATE: 5/24/2021

SHEET: 4 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 2:48 PM
Layout Name: PLP
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-PLP.dwg

DEMOLITION NOTES:

1. REFER TO THE ELECTRICAL PLANS FOR ELECTRICAL DEMOLITION INFORMATION.
2. THE LOCATION OF EXISTING UTILITIES SHOWN ARE BASED OFF FIELD SURVEY AND AS-BUILT RECORDS. THEY ARE APPROXIMATE LOCATIONS ONLY AND NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR TO FIELD LOCATE UTILITIES PRIOR TO EXCAVATION.



LEGEND

- CLEARING AND GRUBBING (P-151)
- CONTRACTOR STAGING/STOCKPILE AREA
- AREA GRADING (P-152)
- TCE

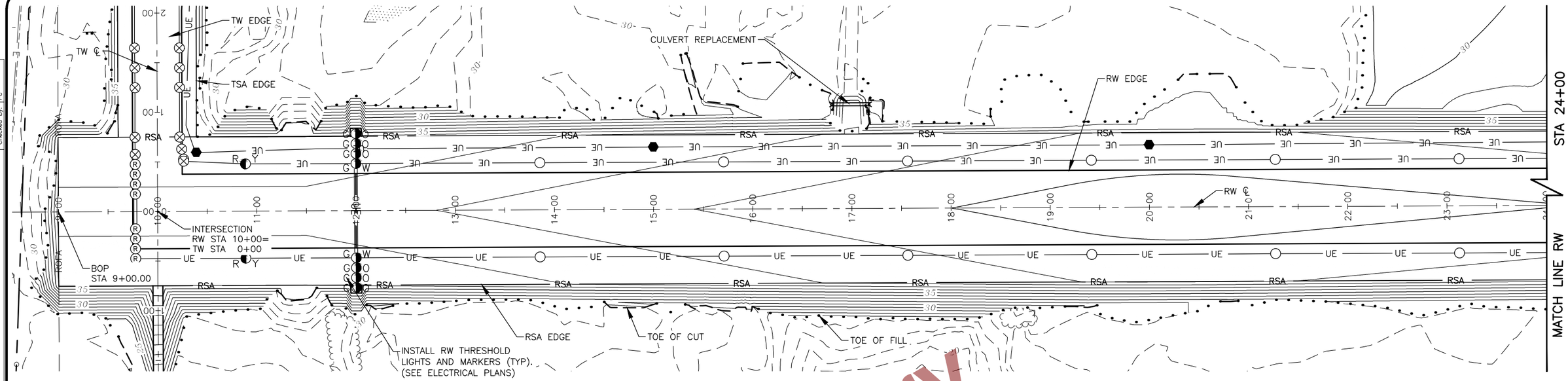
BY	DATE	REVISION

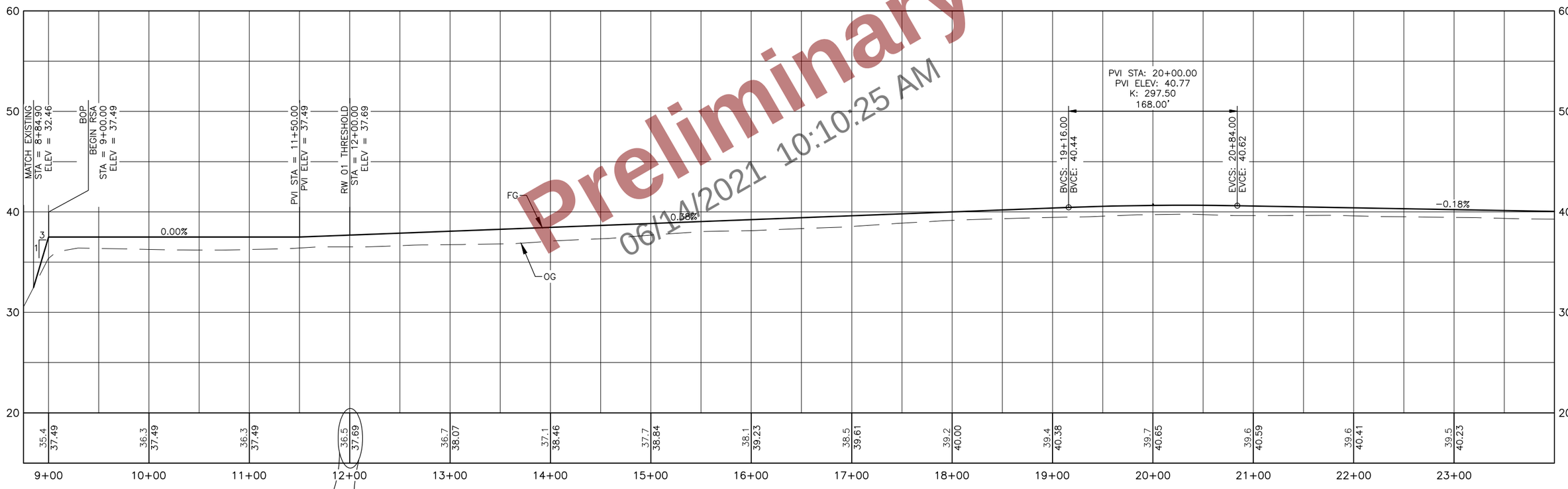
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

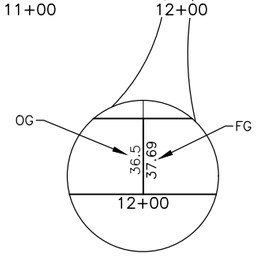
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
DEMO PLAN

DATE: 5/24/2021
SHEET: 5 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: DEMO
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-DEMO.dwg
5/24/2021, 2:48 PM







BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

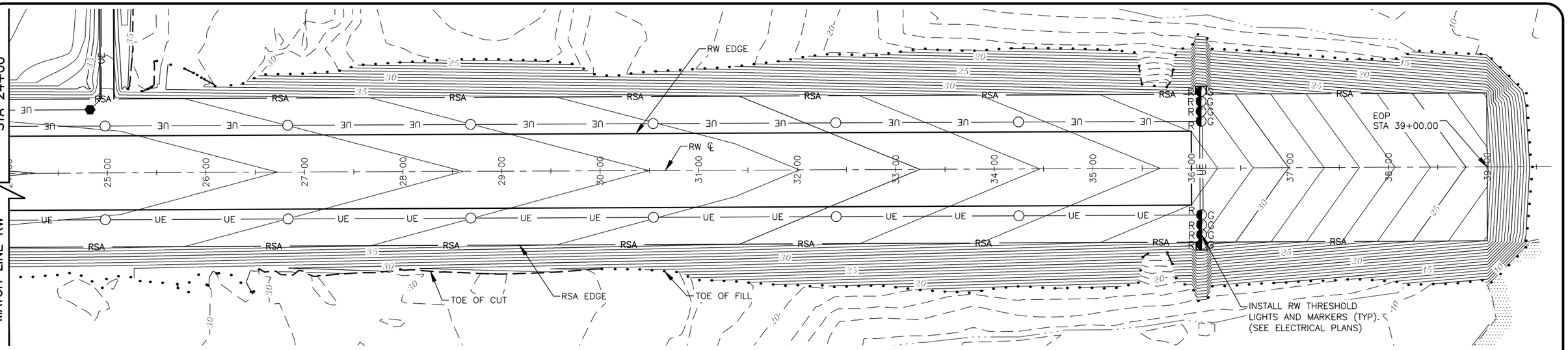
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
RW PLAN & PROFILE

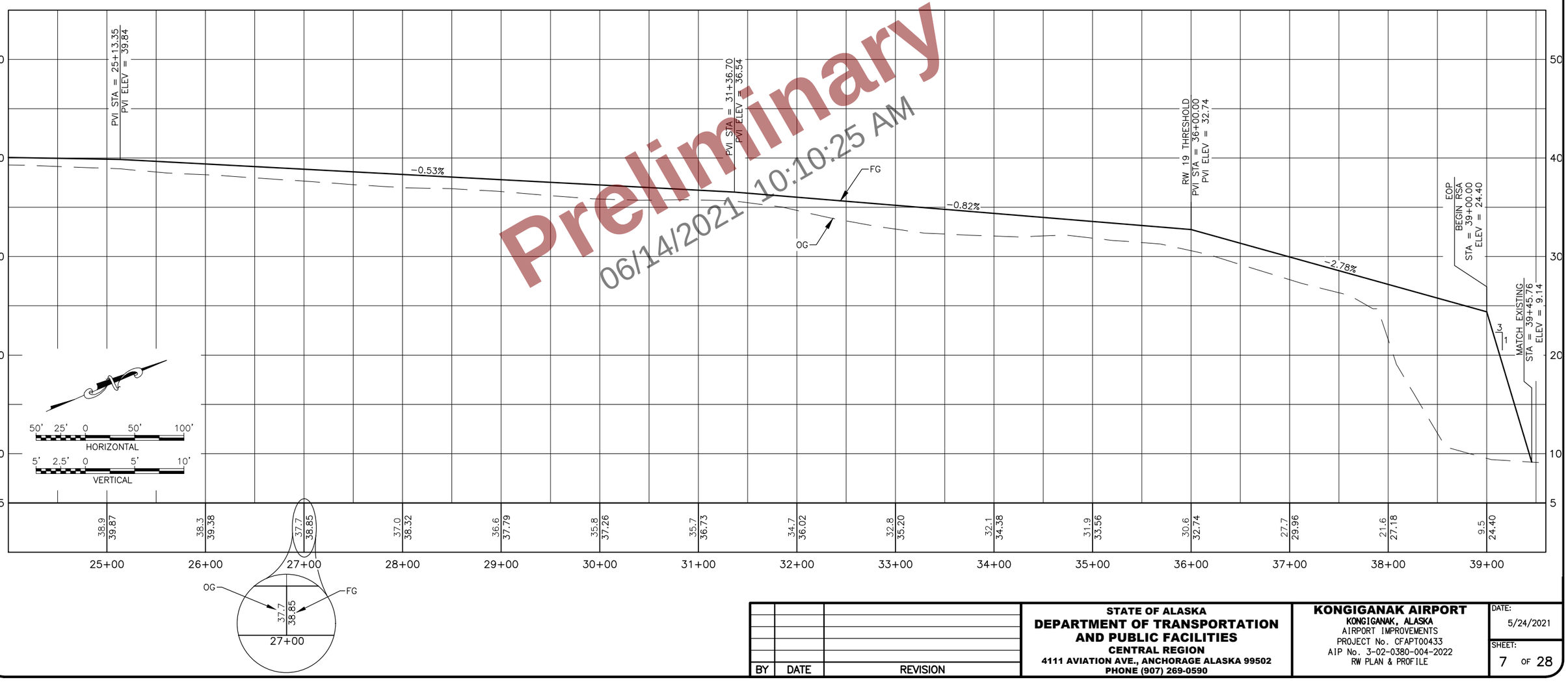
DATE: 5/24/2021

SHEET: 6 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:48 PM
Layout Name: RW Plan & Profile 1
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-PNP.dwg





Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

Date Revised:	5/24/2021, 2:48 PM
Layout Name:	RW Plan & Profile 2
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DU7-PNP.dwg

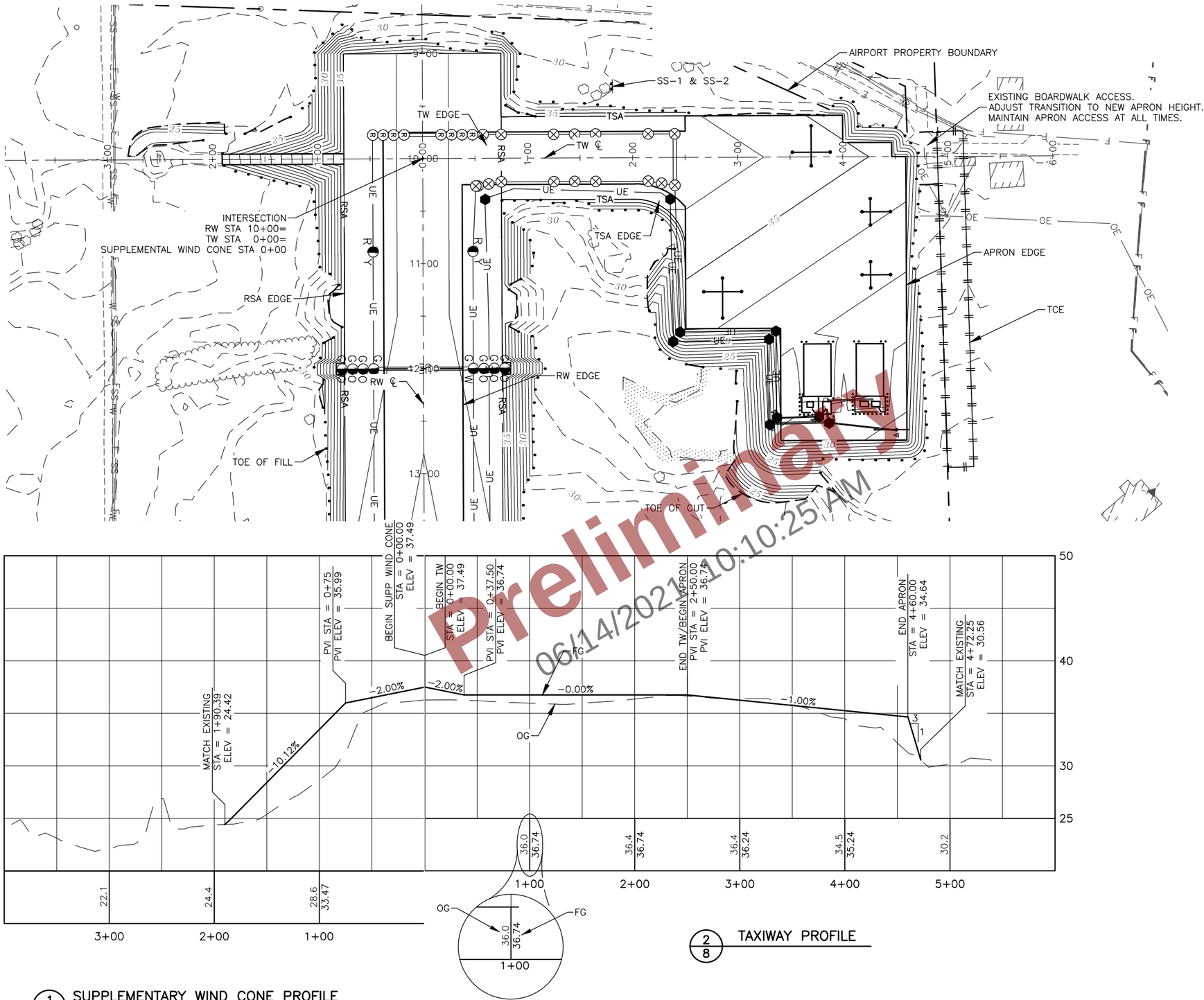
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
RW PLAN & PROFILE

DATE: 5/24/2021

SHEET: 7 OF 28



1/8 SUPPLEMENTARY WIND CONE PROFILE

2/8 TAXIWAY PROFILE

50' 25' 0 50' 100'
HORIZONTAL
5' 2.5' 0 5' 10'
VERTICAL

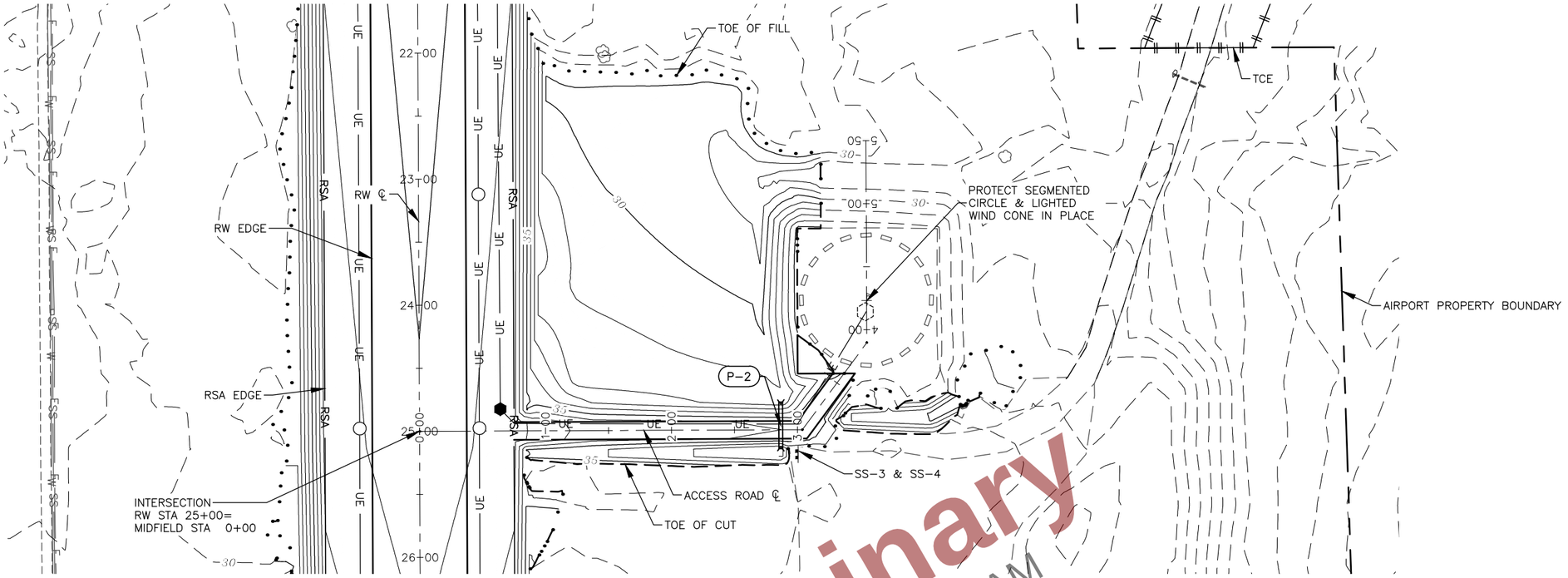
BY	DATE	REVISION

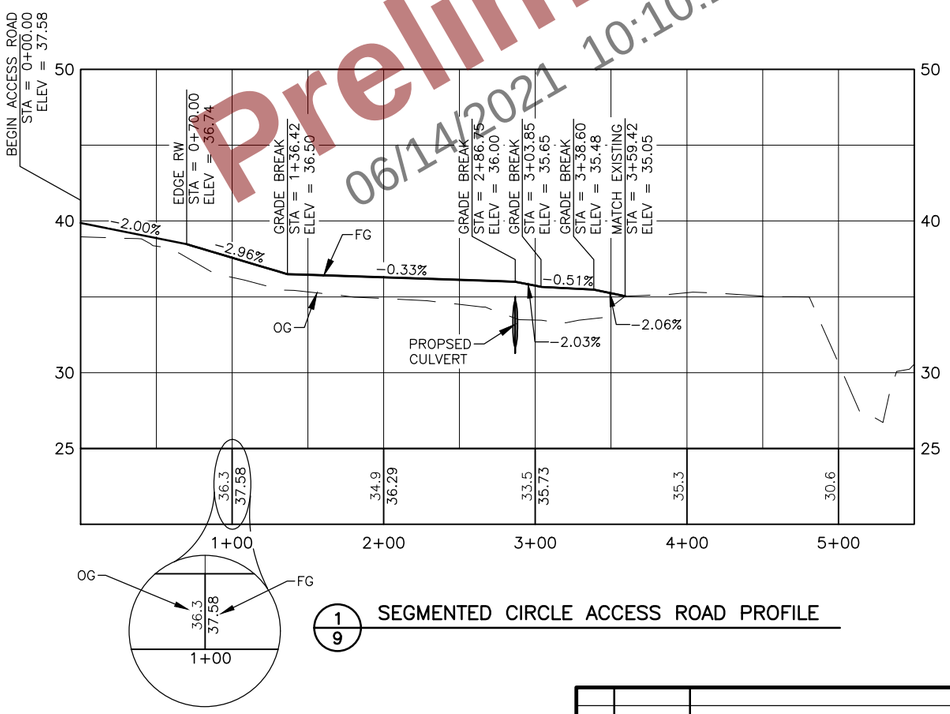
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
TW PLAN & PROFILE - SUPPLEMENTARY WIND CONE PLAN & PROFILE

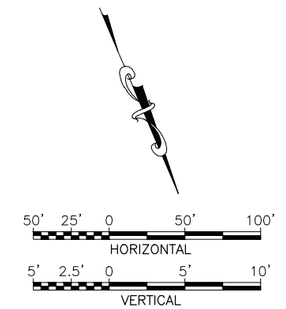
DATE: 5/24/2021
SHEET: 8 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: 5/24/2021, 2:48 PM
File Path and Name: TW Apron Plan & Profile
W:\Projects\Kongiganak\Kong_Resurfacing_00433\Final Drawings\00433-DUY-PNP.dwg





1/9 SEGMENTED CIRCLE ACCESS ROAD PROFILE



BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
SEGMENTED CIRCLE ACCESS
PLAN AND PROFILE

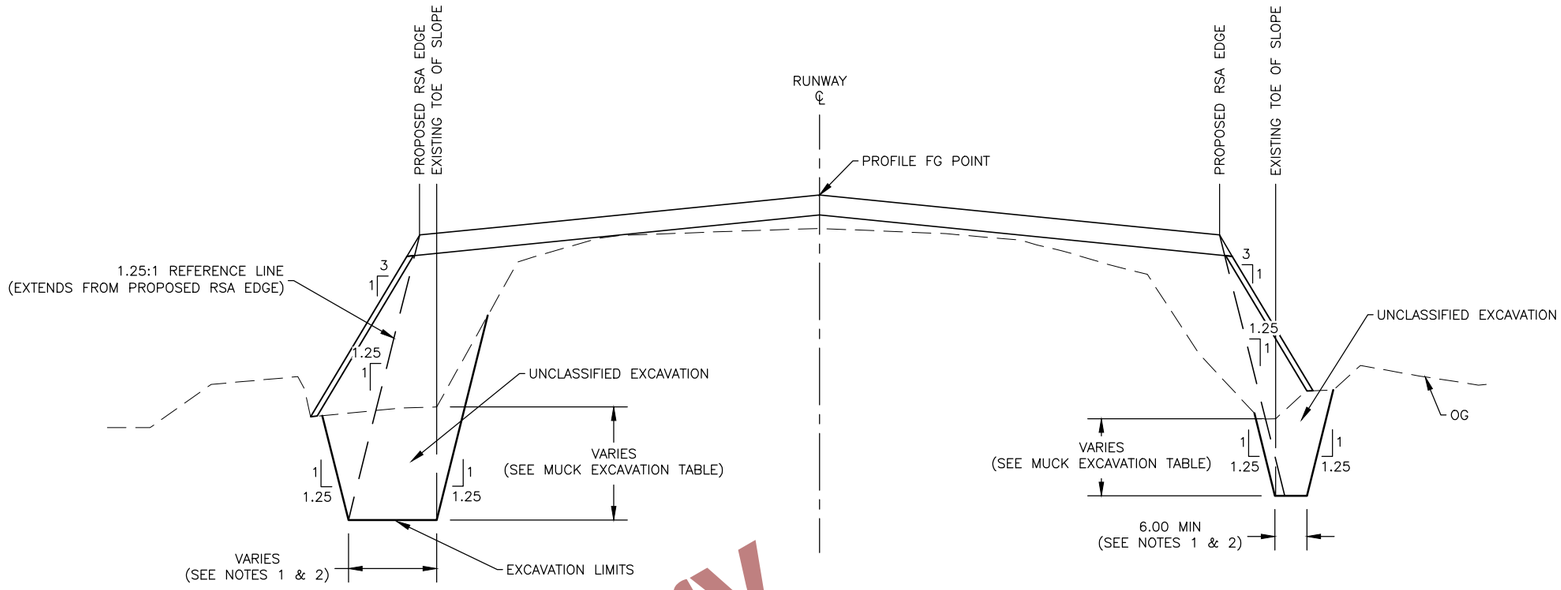
DATE: 5/24/2021
SHEET: 9 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

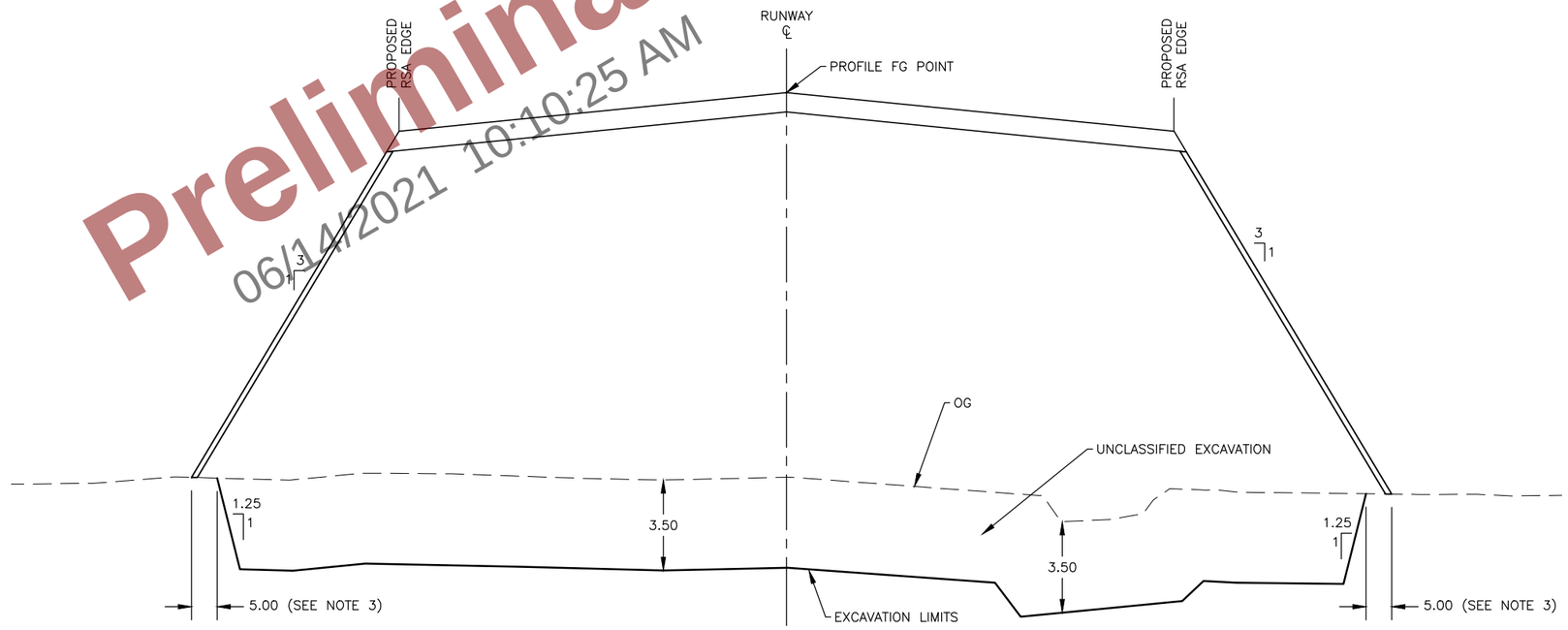
Date Revised: 5/24/2021, 2:48 PM
Layout Name: Seg Cir Access P&P
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-PNP.dwg

NOTES:

1. THE INSIDE CORNER OF THE BOTTOM OF THE RSA EXPANSION MUCK EXCAVATION WILL BE SET DIRECTLY BELOW THE EXISTING TOE OF SLOPE, AT THE PROPOSED MUCK EXCAVATION DEPTH.
2. THE OUTSIDE CORNER OF THE BOTTOM OF THE RSA EXPANSION MUCK EXCAVATION WILL BE SET AT THE INTERSECTION OF THE 1.25:1 REFERENCE LINE AND A POINT BELOW OG THAT IS AT THE SAME ELEVATION AS THE INSIDE CORNER. IF THAT INTERSECTION OCCURS AT AN OFFSET LESS THAN 6' FROM THE INSIDE CORNER, THEN CHOOSE THE OUTSIDE CORNER LOCATION SUCH THAT THE MUCK EXCAVATION BOTTOM WIDTH IS NO LESS THAN 6',
3. THE RSA EXTENSION MUCK EXCAVATION DAYLIGHT SHOULD BE LOCATED NO MORE THAN 5' INSIDE OF THE PROPOSED TOE OF THE RSA.



1/10 RSA EXPANSION MUCK EXCAVATION TYPICAL SECTION
(SEE RSA EXPANSION MUCK EXCAVATION TABLE FOR STA & DEPTHS)
NOT TO SCALE



2/10 RSA EXTENSION MUCK EXCAVATION TYPICAL SECTION
STA 38+50 TO 39+35
NOT TO SCALE

RW EXPANSION MUCK EXCAVATION TABLE			
PROJECT LT		PROJECT RT	
STATION	DEPTH (FT)	STATION	DEPTH (FT)
10+75 TO 11+10	2	9+00 TO 9+85	1.0
11+75 TO 13+00	2	10+10 TO 10+50	1.0
13+00 TO 16+00	4.5	11+90 TO 16+35	3.0
17+50 TO 21+50	3	18+89.50 TO 19+00	1.5
21+50 TO 24+00	4.5	19+00 TO 24+50	3.0
24+00 TO 24+90	2.5	24+50 TO 31+50	1.5
25+10 TO 25+25	2.5		
25+25 TO 27+50	3		
27+50 TO 27+75	1		
29+90 TO 30+00	1		
30+00 TO 32+05	2		

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

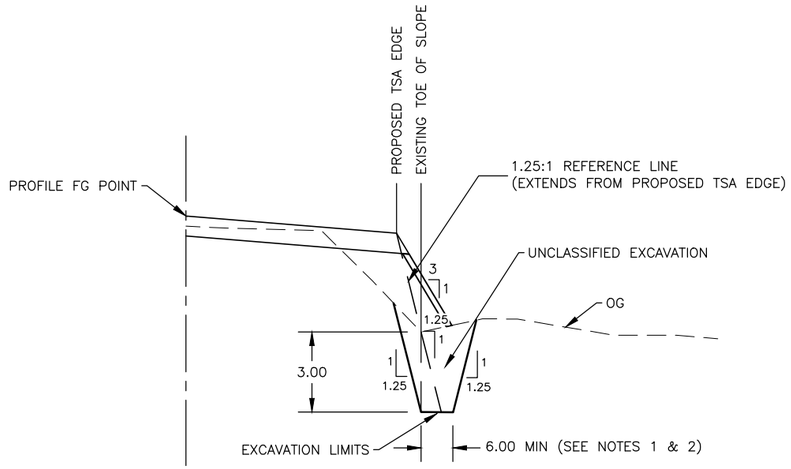
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
MUCK EXCAVATION TYPICAL SECTIONS

DATE: 5/24/2021
SHEET: 10 OF 28

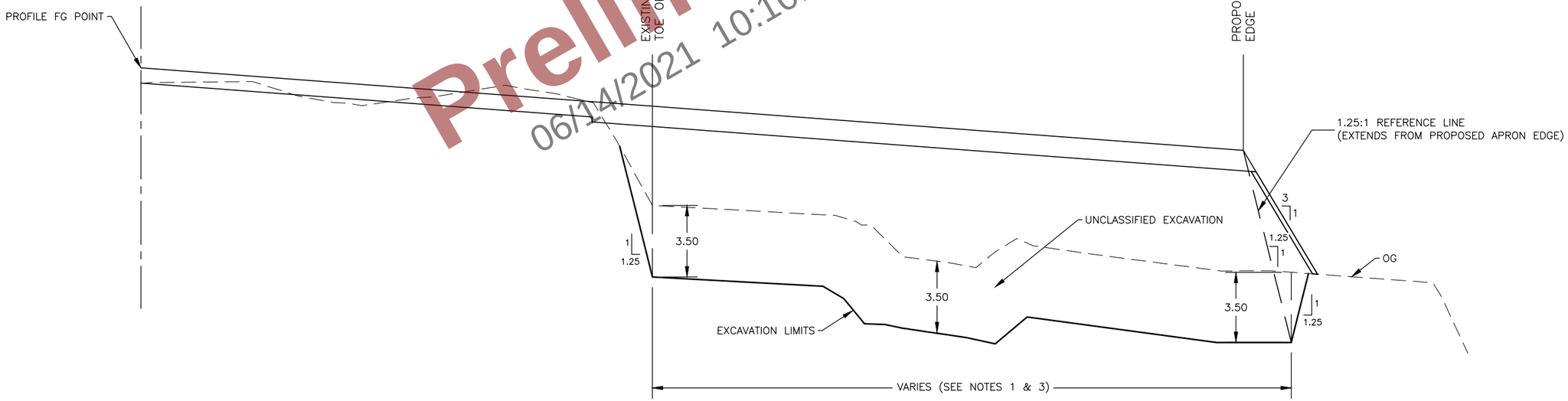
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: TYPICALS 1
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg
5/24/2021, 2:49 PM

NOTES:

1. THE INSIDE CORNER OF THE BOTTOM OF THE RSA EXPANSION MUCK EXCAVATION WILL BE SET DIRECTLY BELOW THE EXISTING TOE OF SLOPE, AT THE PROPOSED MUCK EXCAVATION DEPTH.
2. THE OUTSIDE CORNER OF THE BOTTOM OF THE RSA EXPANSION MUCK EXCAVATION WILL BE SET AT THE INTERSECTION OF THE 1.25:1 REFERENCE LINE AND A POINT BELOW OG THAT IS AT THE SAME ELEVATION AS THE INSIDE CORNER. IF THAT INTERSECTION OCCURS AT AN OFFSET LESS THAN 6' FROM THE INSIDE CORNER, THEN CHOOSE THE OUTSIDE CORNER LOCATION SUCH THAT THE MUCK EXCAVATION BOTTOM WIDTH IS NO LESS THAN 6',
3. THE RSA EXTENSION MUCK EXCAVATION DAYLIGHT SHOULD BE LOCATED NO MORE THAN 5' INSIDE OF THE PROPOSED TOE OF THE RSA.



1/11 TW MUCK EXCAVATION TYPICAL SECTION
STA 1+57 TO 2+50 LT
NOT TO SCALE



2/11 APRON MUCK EXCAVATION TYPICAL SECTION
STA 2+50 TO 4+60 RT
NOT TO SCALE

BY	DATE	REVISION

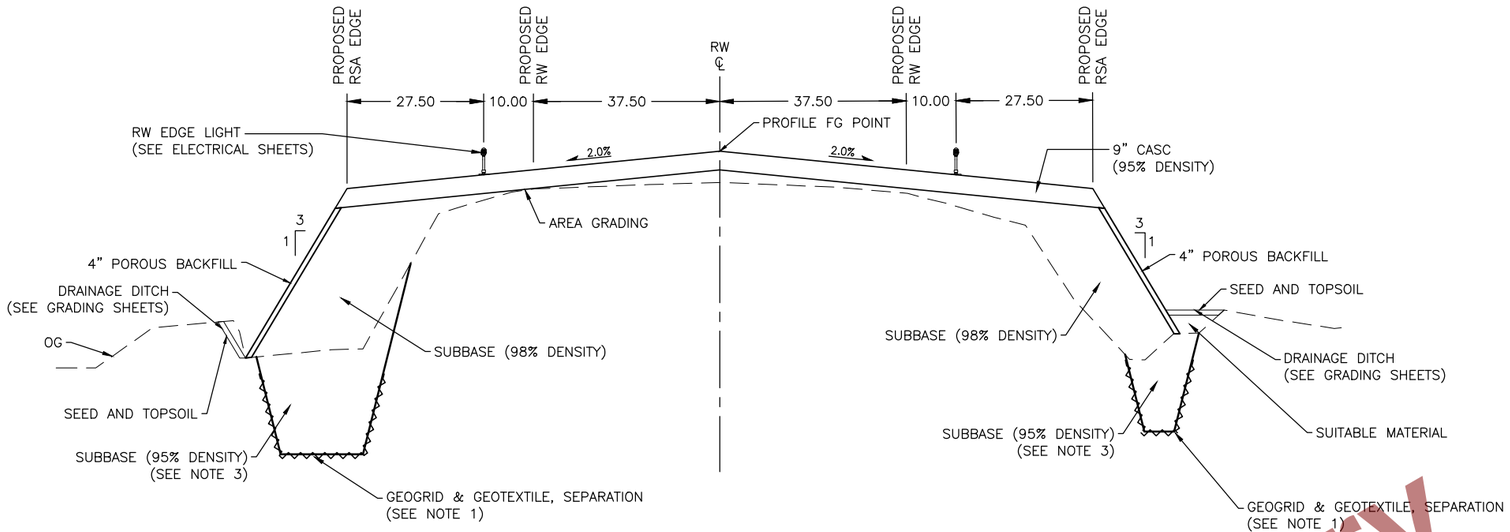
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
MUCK EXCAVATION TYPICAL SECTIONS

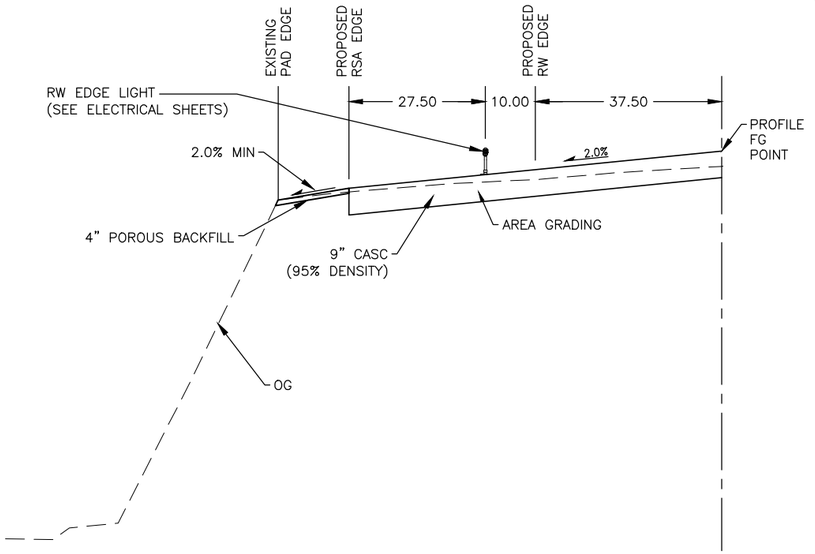
DATE: 5/24/2021
SHEET: 11 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

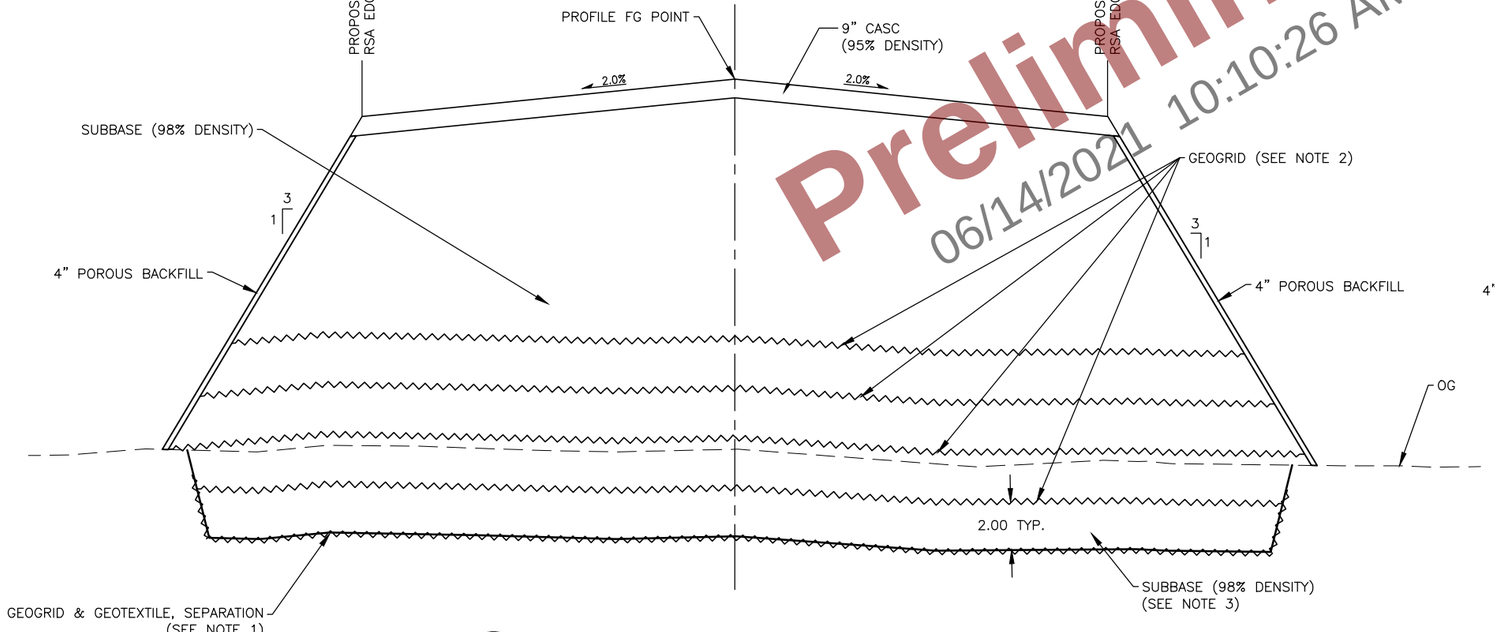
Date Revised: 5/24/2021, 2:49 PM
Layout Name: TYPICALS 2
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg



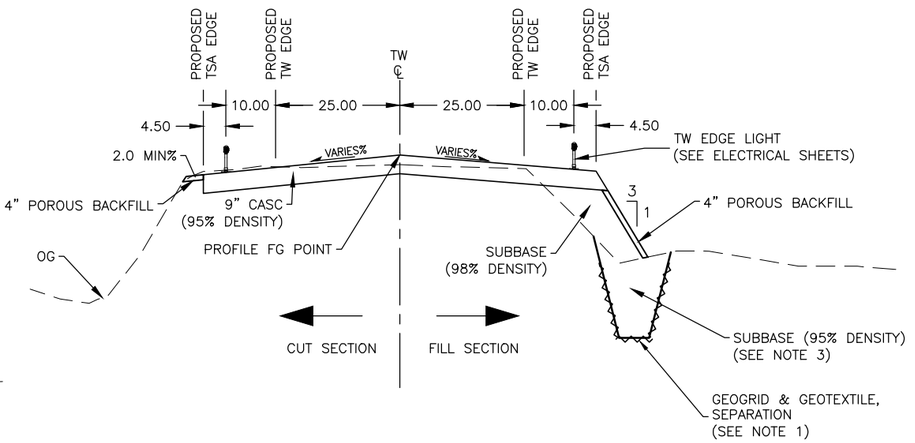
1/12 RW TYPICAL SECTION
STA 9+00 TO 11+25
STA 11+55 TO 37+90
NOT TO SCALE



2/12 RW TYPICAL SECTION (AT EXISTING REIL PADS)
STA 11+25 TO 11+55 LT & RT
NOT TO SCALE



3/12 RSA EXTENSION TYPICAL SECTION
STA 37+90 TO 39+00
NOT TO SCALE



4/12 TW TYPICAL SECTION
TW ℄ STA 0+75 TO 2+50
NOT TO SCALE

NOTES:

1. GEOGRID AND GEOTEXTILE ARE NOT TO BE INSTALLED IN AREAS NOT REQUIRING MUCK EXCAVATION. EXTEND GEOGRID AND GEOTEXTILE 3' UP FROM THE BOTTOM OF MUCK EXCAVATION AT EXCAVATION BACKSLOPES AND FORESLOPES. FOR MUCK EXCAVATION DEPTHS OF LESS THAN 3', EXTEND GEOGRID AND GEOTEXTILE TO THE TOP OF THE MUCK EXCAVATION.
2. THE RSA EXTENSION SHALL HAVE FOUR LAYERS OF GEOGRID PLACED EVERY 2' FROM THE BASE OF THE FILL SECTION. THE GEOGRID SHALL SPAN THE WIDTH OF THE EMBANKMENT.
3. THE FIRST 1 FOOT OF SUBBASE PLACED OVER GEOGRID FABRIC WILL NOT BE SUBJECT TO DENSITY REQUIREMENTS.

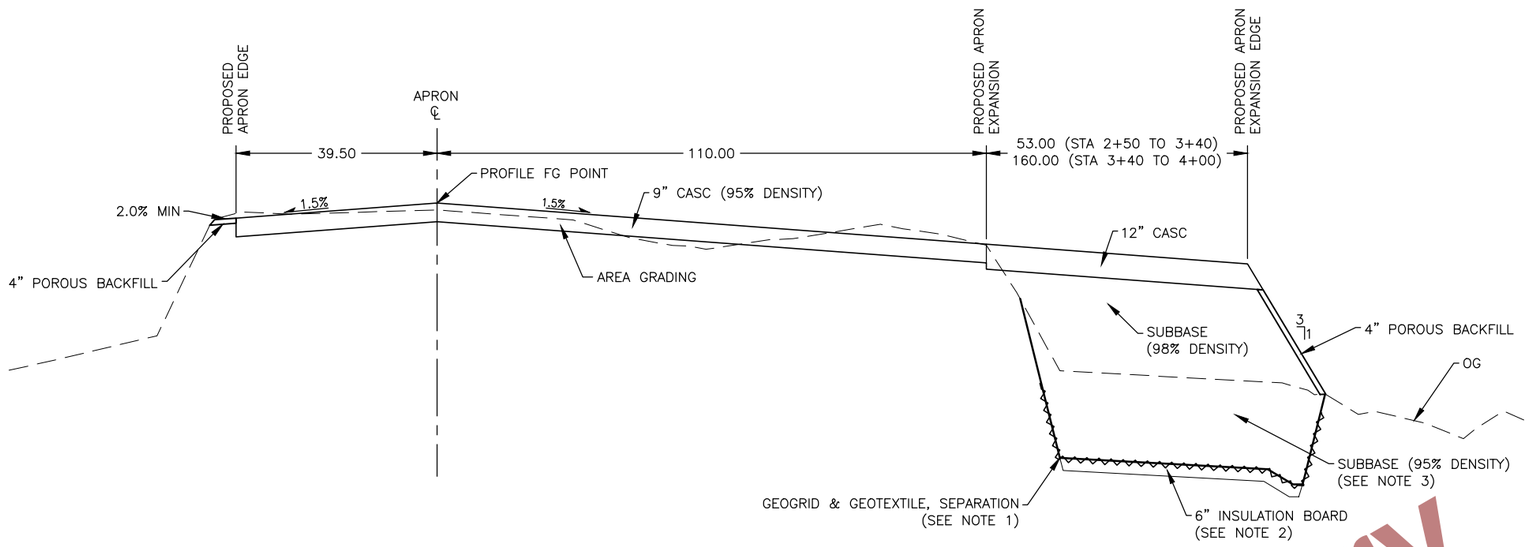
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

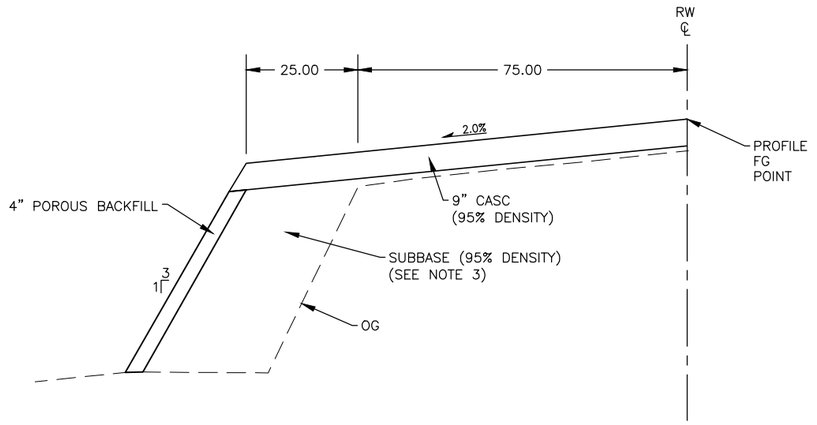
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
TYPICAL SECTIONS

DATE: 5/24/2021
SHEET: 12 OF 28

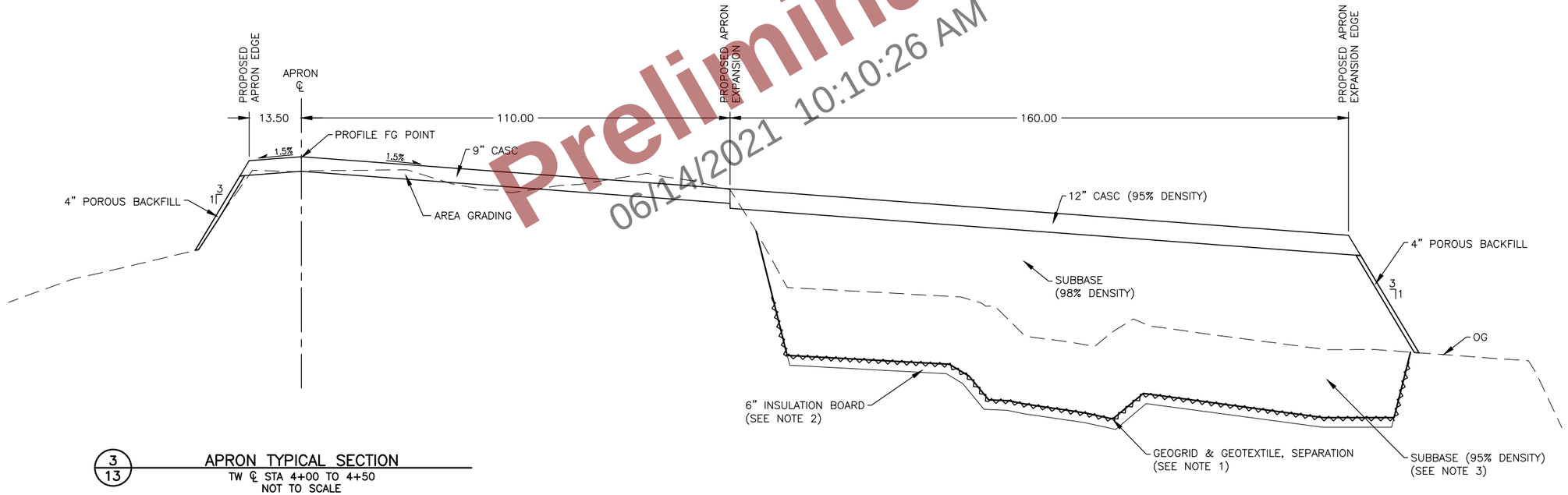
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 2:49 PM
Layout Name: TYPICALS_3
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg



1/13 APRON TYPICAL SECTION
TW ℄ STA 2+50 TO 4+00
NOT TO SCALE



2/13 THRESHOLD LIGHT PAD SECTION
RW STA 11+95 TO 12+05
RW STA 36+05 TO 36+15
NOT TO SCALE



3/13 APRON TYPICAL SECTION
TW ℄ STA 4+00 TO 4+50
NOT TO SCALE

NOTES:

1. EXTEND GEOGRID AND GEOTEXTILE 3' UP FROM THE BOTTOM OF MUCK EXCAVATION AT EXCAVATION BACKSLOPES AND FORESLOPES. FOR MUCK EXCAVATION DEPTHS OF LESS THAN 3', EXTEND GEOGRID AND GEOTEXTILE TO THE TOP OF THE MUCK EXCAVATION.
2. PLACE INSULATION BOARD AT THE BASE OF APRON MUCK EXCAVATIONS.
3. THE FIRST 1 FOOT OF SUBBASE PLACED OVER GEOGRID FABRIC WILL NOT BE SUBJECT TO DENSITY REQUIREMENTS.

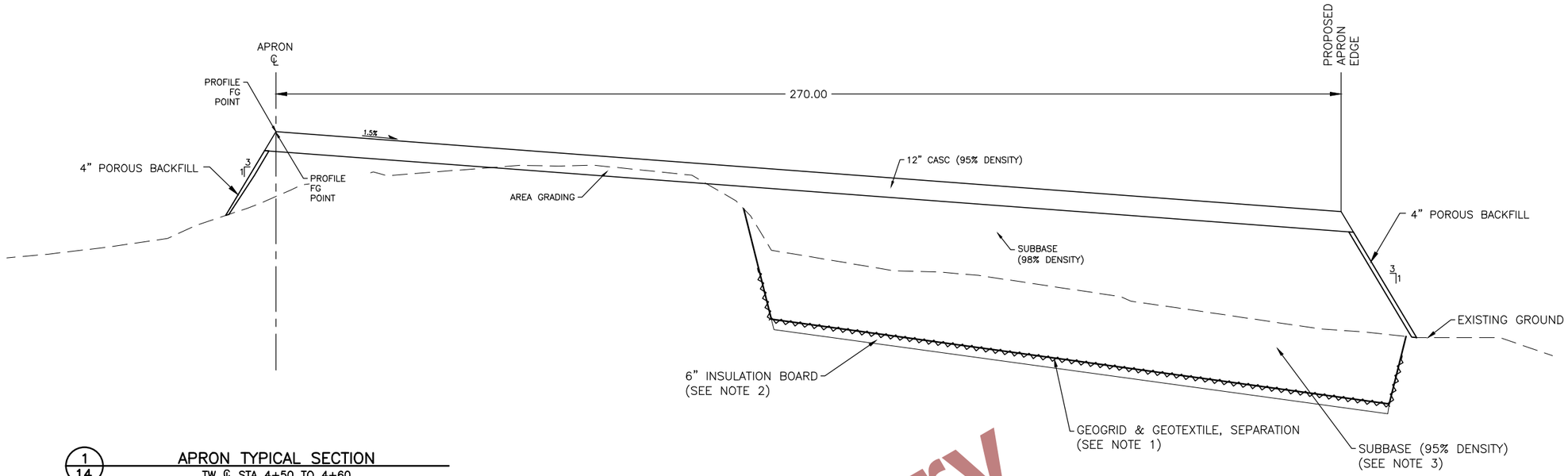
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

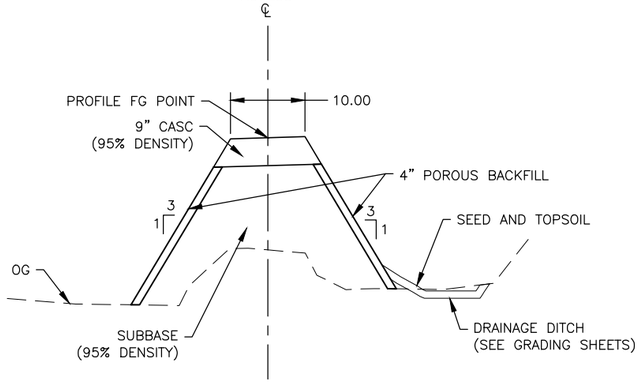
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
TYPICAL SECTIONS

DATE: 5/24/2021
SHEET: 13 OF 28

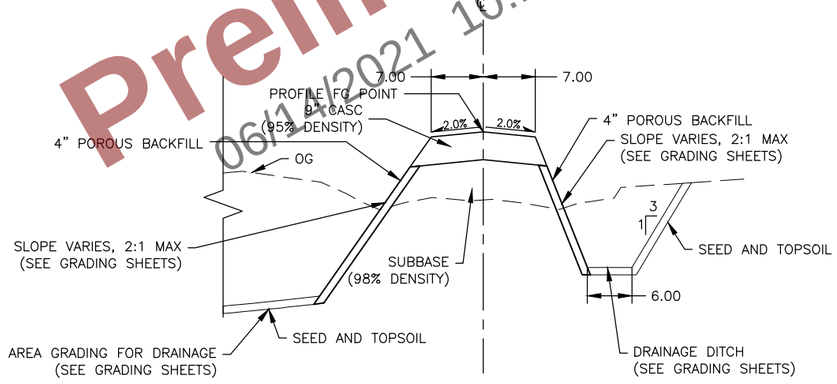
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: 5/24/2021, 2:49 PM TYPICALS 4
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg



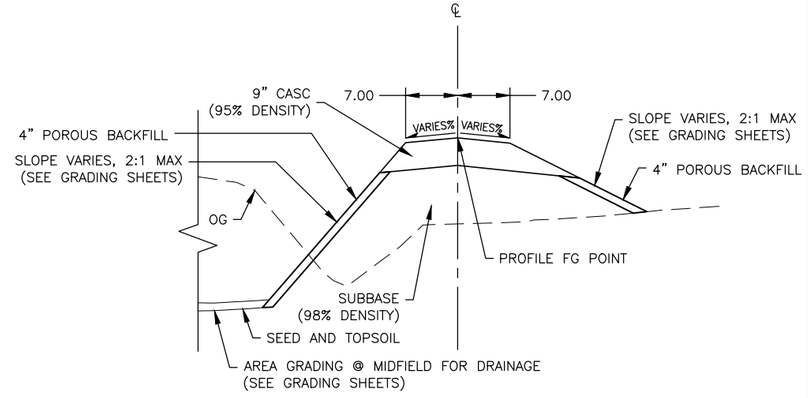
1/14 APRON TYPICAL SECTION
TW ℄ STA 4+50 TO 4+60
NOT TO SCALE



2/14 SUPP. WIND CONE ACCESS TYPICAL SECTION
STA 0+75.00 TO 1+90.74
NOT TO SCALE



3/14 SEG. CIRCLE ACCESS TYPICAL SECTION
STA 0+75.00 TO 2+88.25
NOT TO SCALE



4/14 SEG. CIRCLE ACCESS TYPICAL SECTION
STA 2+88.25 TO 3+59.42
NOT TO SCALE

NOTES:

1. EXTEND GEOGRID AND GEOTEXTILE 3' UP FROM THE BOTTOM OF MUCK EXCAVATION AT EXCAVATION BACKSLOPES AND FORESLOPES. FOR MUCK EXCAVATION DEPTHS OF LESS THAN 3', EXTEND GEOGRID AND GEOTEXTILE TO THE TOP OF THE MUCK EXCAVATION.
2. PLACE INSULATION BOARD AT THE BASE OF APRON MUCK EXCAVATIONS.
3. THE FIRST 1 FOOT OF SUBBASE PLACED OVER GEOGRID FABRIC WILL NOT BE SUBJECT TO DENSITY REQUIREMENTS.

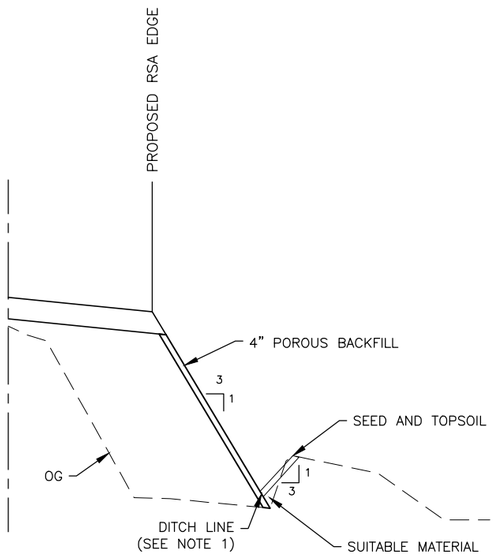
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

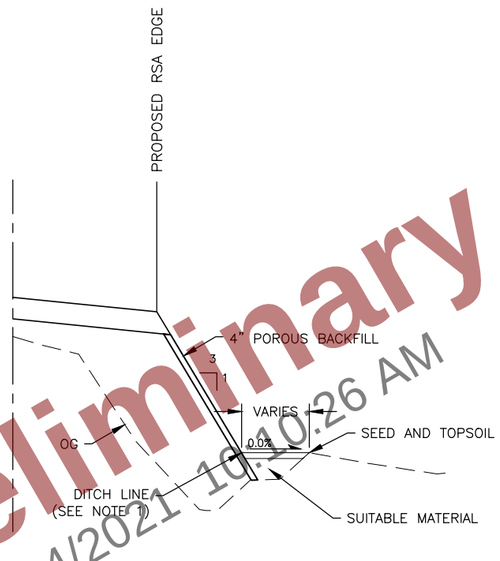
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
TYPICAL SECTIONS

DATE: 5/24/2021
SHEET: 14 OF 28

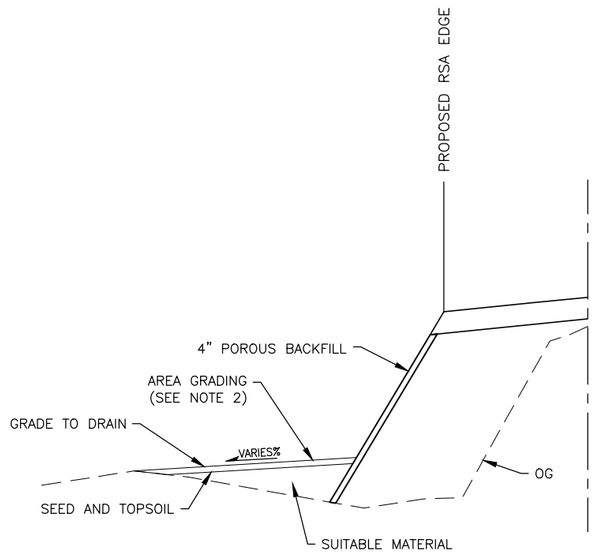
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: 5/24/2021, 2:49 PM TYPICALS 5
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg



1/15 RUNWAY DRAINAGE DITCH TYPICAL SECTION
NOT TO SCALE



2/15 RUNWAY DRAINAGE DITCH TYPICAL SECTION
NOT TO SCALE



3/15 RUNWAY DRAINAGE AREA GRADING TYPICAL SECTION
NOT TO SCALE

NOTES:

1. GRADE DITCH LINE TO DRAIN IN THE GENERAL FLOW DIRECTION SHOWN IN THE PLANS. THE CATCH POINT OF THE DITCH LINE ON THE PROPOSED RSA FORESLOPE WILL VARY.
2. GRADE AREA GRADING AREAS TO DRAIN IN THE GENERAL DIRECTION SHOWN IN THE PLANS. THE CATCH POINT OF THE GRADING AREA ON THE PROPOSED RSA FORESLOPE WILL VARY. AREA GRADING LIMITS TO BE DETERMINED BY THE ENGINEER.

BY	DATE	REVISION

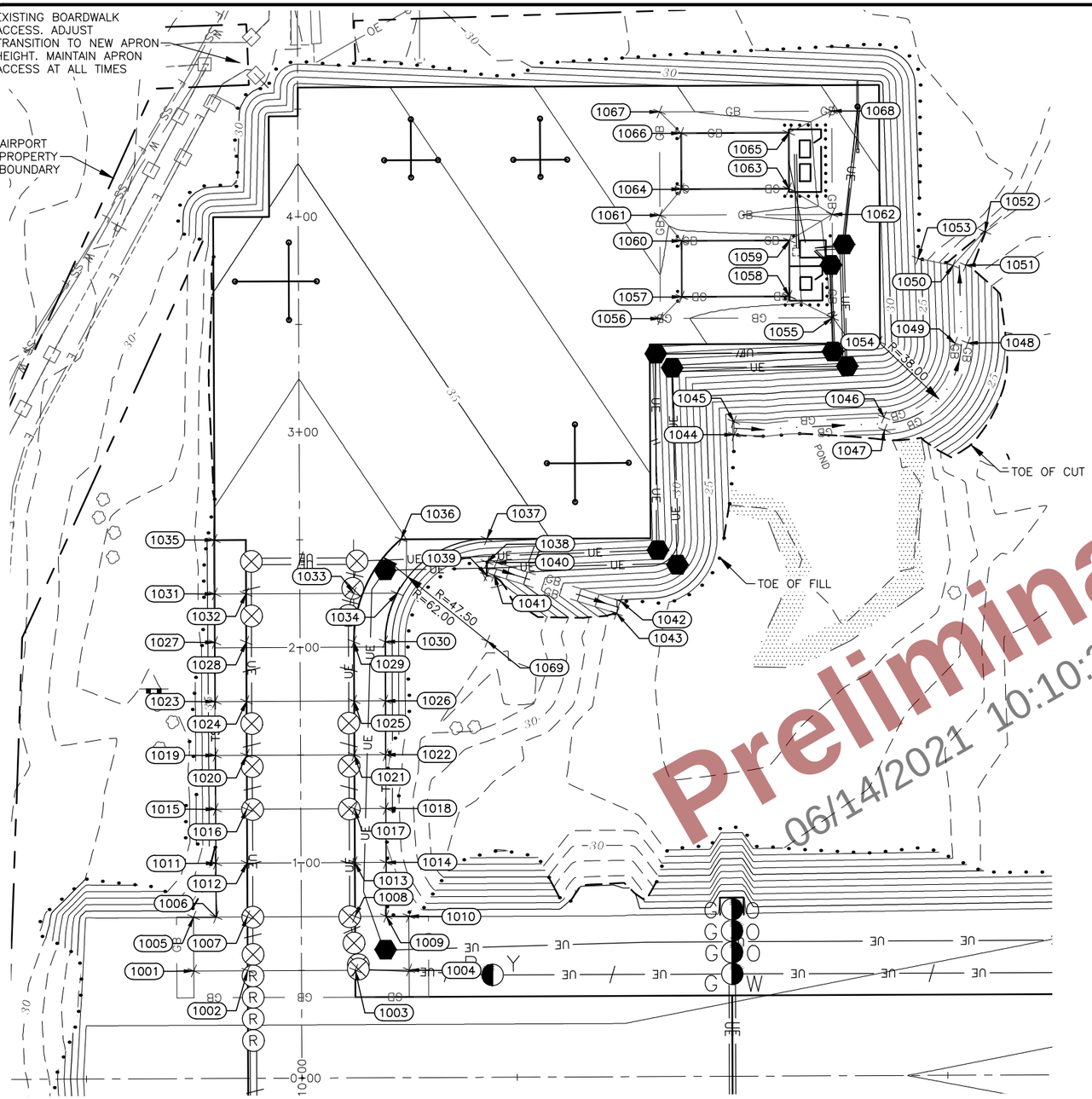
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
RW DRAINAGE TYPICAL SECTIONS

DATE: 5/24/2021

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:49 PM
Layout Name: TYPICALS 6
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg



GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1001	9+50.00	50.00LT	36.50
1002	9+75.00	50.00LT	36.54
1003	10+25.00	50.00LT	36.54
1004	10+50.00	50.00LT	36.50
1005	9+50.00	75.00LT	35.99
1006	9+60.50	75.00LT	35.99
1007	9+75.00	75.00LT	36.27
1008	10+25.00	75.00LT	36.27
1009	10+39.50	75.00LT	35.99
1010	10+50.00	75.00LT	35.99
1011	9+60.50	100.00LT	36.01
1012	9+75.00	100.00LT	36.28
1013	10+25.00	100.00LT	36.28
1014	10+39.50	100.00LT	36.01
1015	9+60.50	125.00LT	36.04
1016	9+75.00	125.00LT	36.30
1017	10+25.00	125.00LT	36.30
1018	10+39.50	125.00LT	36.04
1019	9+60.50	150.00LT	36.06
1020	9+75.00	150.00LT	36.31
1021	10+25.00	150.00LT	36.31
1022	10+39.50	150.00LT	36.06
1023	9+60.50	175.00LT	36.08
1024	9+75.00	175.00LT	36.33
1025	10+25.00	175.00LT	36.33
1026	10+39.50	175.00LT	36.08
1027	9+60.50	202.50LT	36.11
1028	9+75.00	202.50LT	36.34
1029	10+25.00	202.50LT	36.34
1030	10+39.50	202.50LT	36.10
1031	9+60.50	225.00LT	36.13
1032	9+75.00	225.00LT	36.35
1033	10+25.00	225.00LT	36.37
1034	10+45.17	225.00LT	36.06
1035	9+60.50	250.00LT	36.15

GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1036	10+47.15	250.00LT	36.04
1037	10+87.00	250.00LT	35.44
1038	10+87.00	239.24LT	31.85
1039	10+86.77	233.24LT	31.85
1040	10+91.34	239.07LT	31.73
1041	10+90.31	233.11LT	ME
1042	11+48.91	220.87LT	ME
1043	11+47.10	215.15LT	25.01
1044	12+02.14	297.95LT	20.77
1045	12+01.89	303.93LT	ME
1046	12+71.62	305.71LT	20.36
1047	12+71.86	299.72LT	20.36
1048	13+10.76	340.05LT	20.21
1049	13+04.76	340.00LT	20.21
1050	13+03.96	376.04LT	20.12
1051	13+09.96	376.18LT	20.12
1052	13+18.89	391.66LT	20.00
1053	12+87.79	379.32LT	ME
1054	12+69.77	340.66LT	ME
1055	12+48.00	352.00LT	32.00
1056	11+68.00	352.00LT	33.20
1057	11+78.00	362.00LT	33.40
1058	12+28.00	362.00LT	33.40
1059	12+28.00	388.00LT	33.40
1060	11+78.00	388.00LT	33.40
1061	11+68.00	400.00LT	32.72
1062	12+48.00	400.00LT	31.52
1063	12+28.00	412.00LT	33.00
1064	11+78.00	412.00LT	33.00
1065	12+28.00	438.00LT	33.00
1066	11+78.00	438.00LT	33.00
1067	11+68.00	448.00LT	32.24
1068	12+48.00	448.00LT	31.04
1069	10+87.00	202.50LT	32.50

ALL POINTS STATION AND OFFSETS ARE TO RUNWAY ℄

30' 15' 0 30' 60'

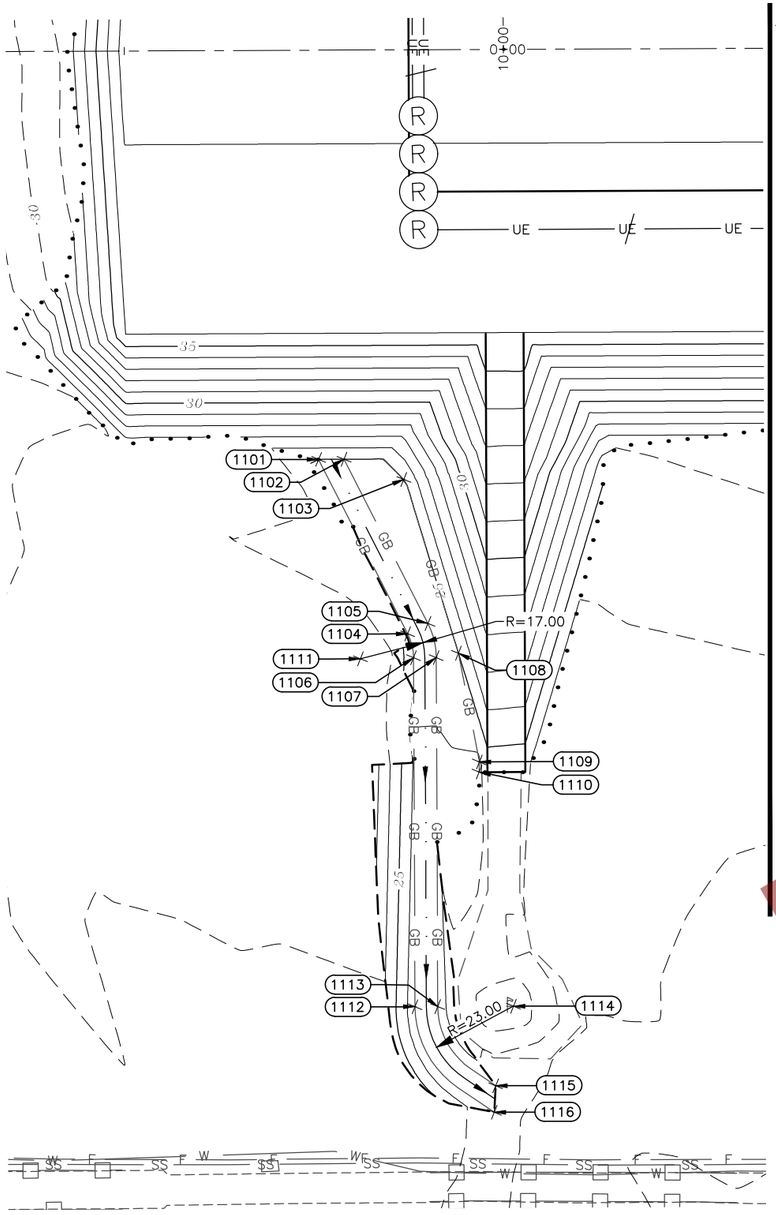
BY	DATE	REVISION

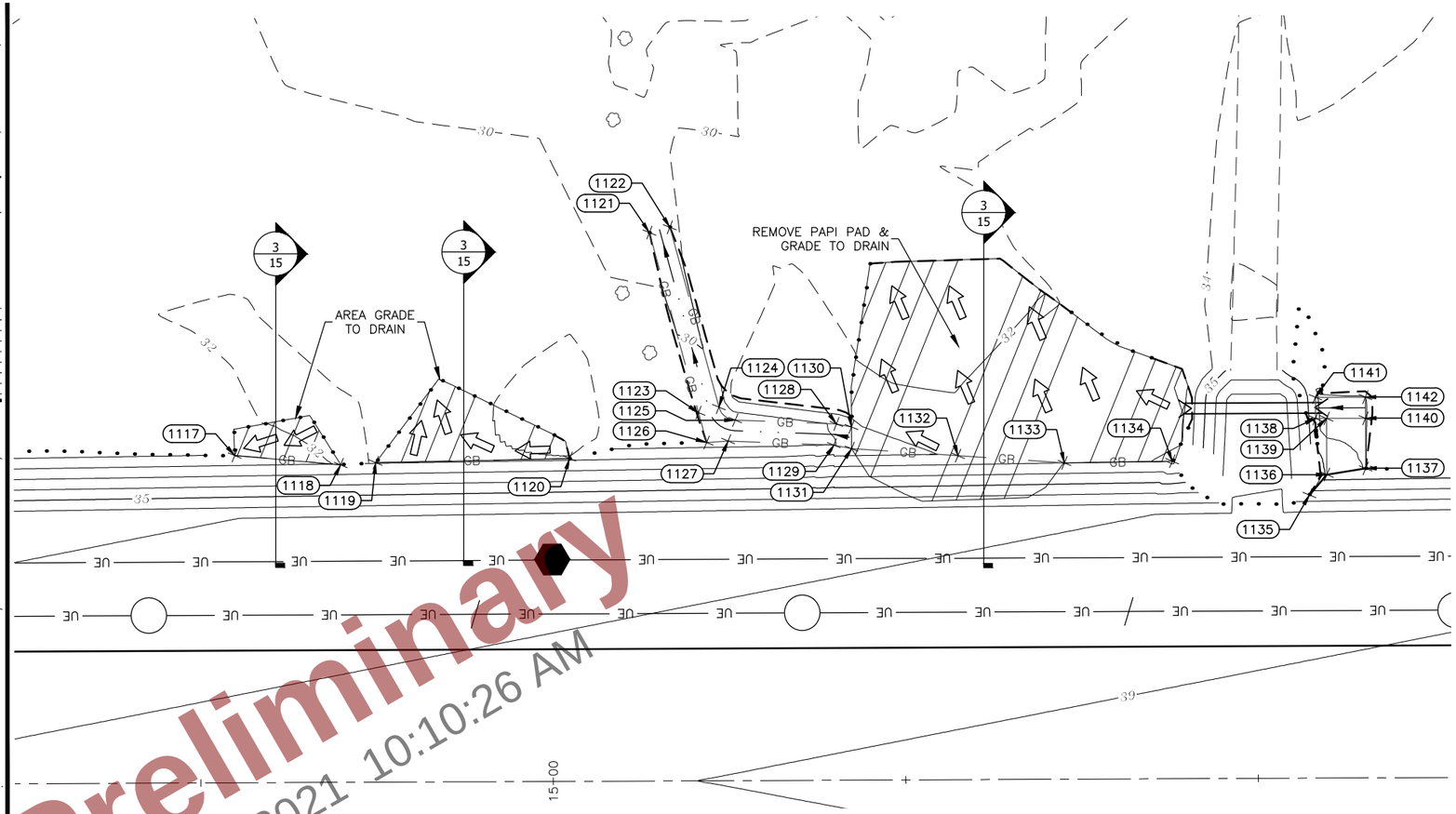
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
TW & APRON GRADING PLAN

DATE: 5/24/2021
SHEET: 16 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 2:49 PM
Layout Name: TW & APRON
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-GRADING.dwg





GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1101	9+50.79	107.99RT	ME
1102	9+57.51	107.99RT	25.00
1103	9+73.25	113.38RT	25.00
1104	9+74.10	154.12RT	24.22
1105	9+79.46	151.41RT	24.27
1106	9+75.61	160.43RT	24.17
1107	9+81.61	160.43RT	24.18
1108	9+87.48	159.29RT	25.00
1109	9+92.88	188.02RT	23.91
1110	9+92.81	190.68RT	ME
1111	9+61.61	160.65RT	27.49
1112	9+75.61	252.53RT	23.33
1113	9+81.61	252.53RT	23.27
1114	10+01.61	252.53RT	26.80
1115	9+96.81	273.48RT	ME
1116	9+96.41	280.48RT	ME

GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1117	14+10.00	92.82LT	ME
1118	14+40.05	90.04LT	ME
1119	14+50.00	90.64LT	ME
1120	15+05.00	91.56LT	ME
1121	15+27.93	155.54LT	ME
1122	15+33.74	157.03LT	ME
1123	15+41.63	104.41LT	30.38
1124	15+47.42	105.96LT	30.18
1125	15+52.04	102.26LT	30.25
1126	15+43.89	95.94LT	ME
1127	15+50.00	96.34LT	30.42
1128	15+80.73	101.03LT	31.08
1129	15+80.00	95.06LT	30.97
1130	15+85.00	100.16LT	31.20
1131	15+85.00	94.04LT	31.32
1132	16+15.19	91.87LT	32.16

GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1133	16+45.39	89.71LT	33.00
1134	16+75.97	90.06LT	ME
1135	17+14.84	80.31LT	ME
1136	17+19.82	86.07LT	34.50
1137	17+30.84	87.81LT	ME
1138	17+16.66	102.00LT	34.38
1139	17+19.82	102.00LT	33.73
1140	17+30.84	102.00LT	33.85
1141	17+16.66	108.00LT	34.25
1142	17+30.84	108.00LT	34.00

ALL POINTS STATION AND OFFSETS ARE TO RUNWAY ℄

20' 10' 0 20' 40'

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

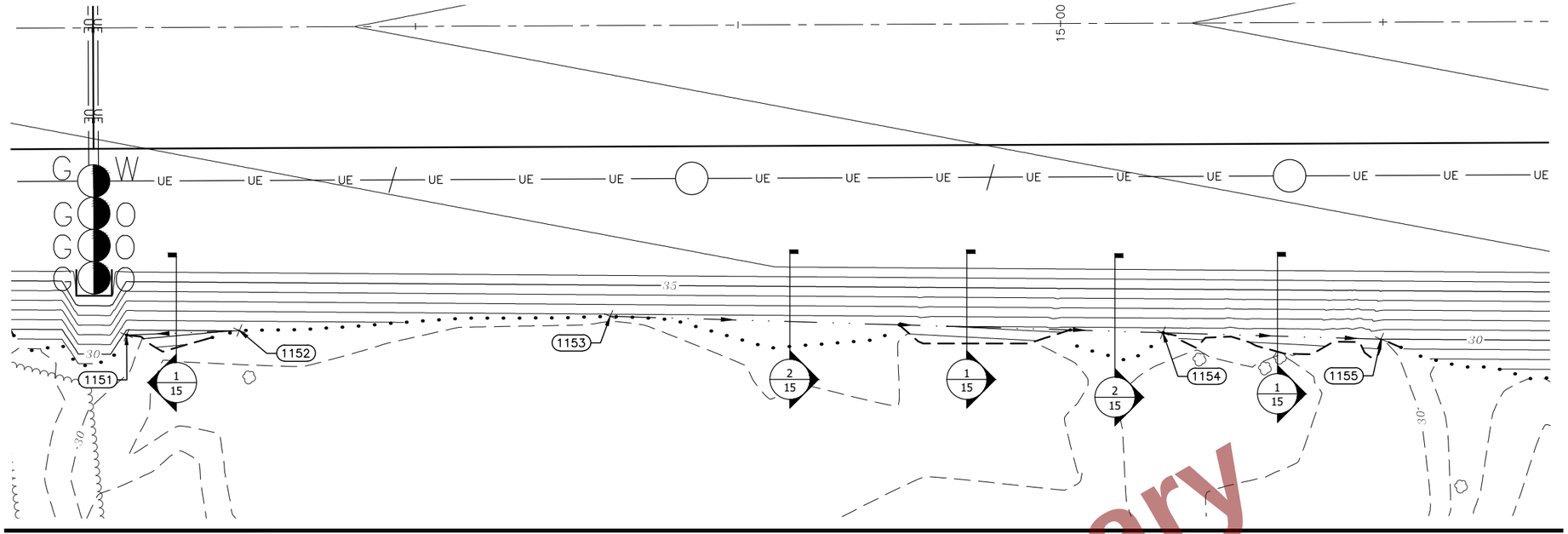
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
SUPPLEMENTAL WIND CONE ACCESS & RW EDGE GRADING

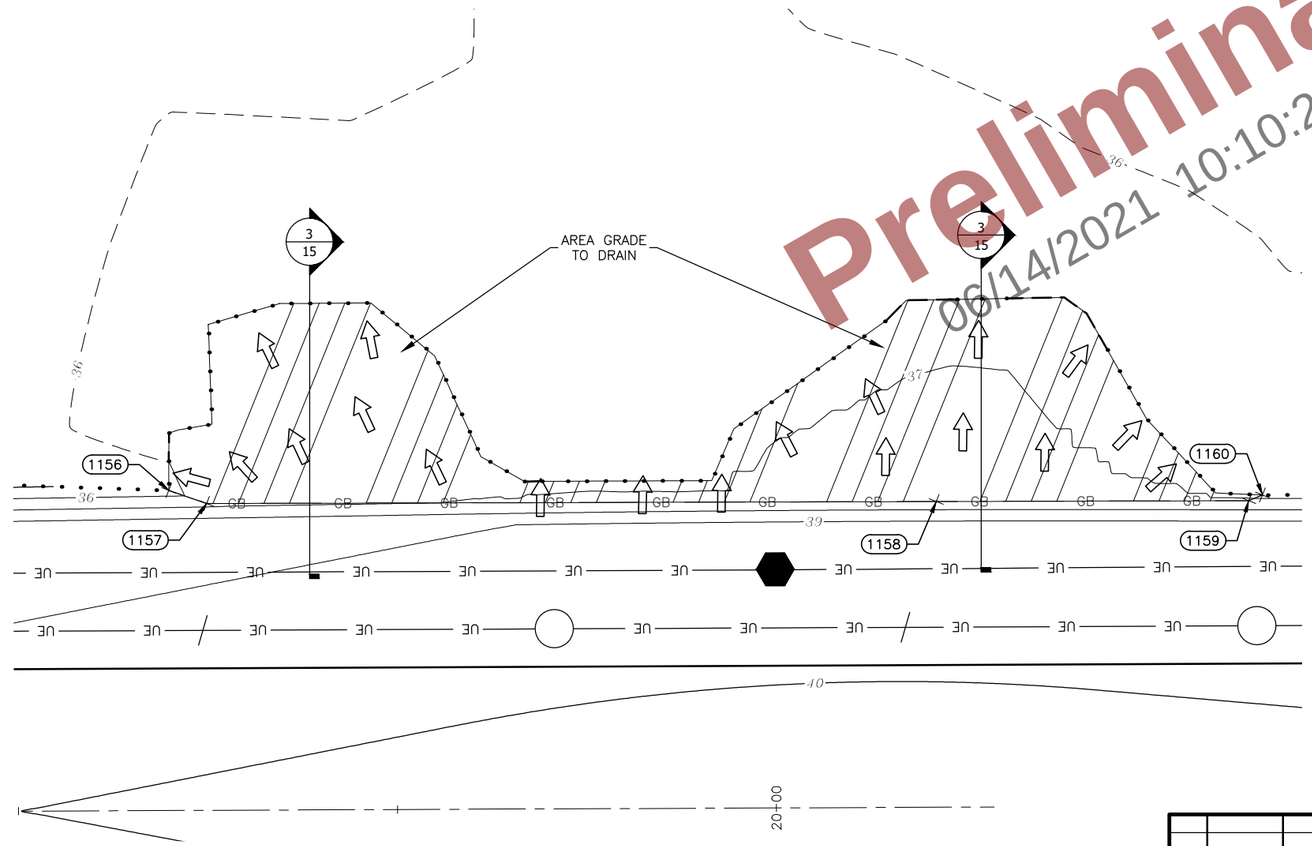
DATE: 5/24/2021

SHEET: 17 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

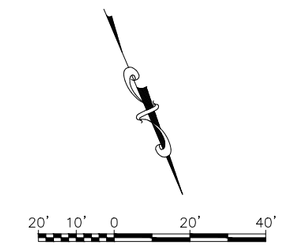
Date Revised: 5/24/2021, 2:49 PM
Layout Name: GRADING 2
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-GRADING.dwg





GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1151	12+10.00	95.25RT	ME
1152	12+45.00	93.97RT	ME
1153	13+60.00	90.06RT	ME
1154	15+31.32	95.91RT	ME
1155	15+98.95	98.22RT	ME
1156	18+40.00	84.48LT	ME
1157	18+50.00	80.97LT	36.70
1158	20+42.53	80.66LT	37.29
1159	21+25.00	80.53LT	37.20
1160	21+28.62	82.01LT	ME

ALL POINTS STATION AND OFFSETS ARE TO RUNWAY ℄



BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

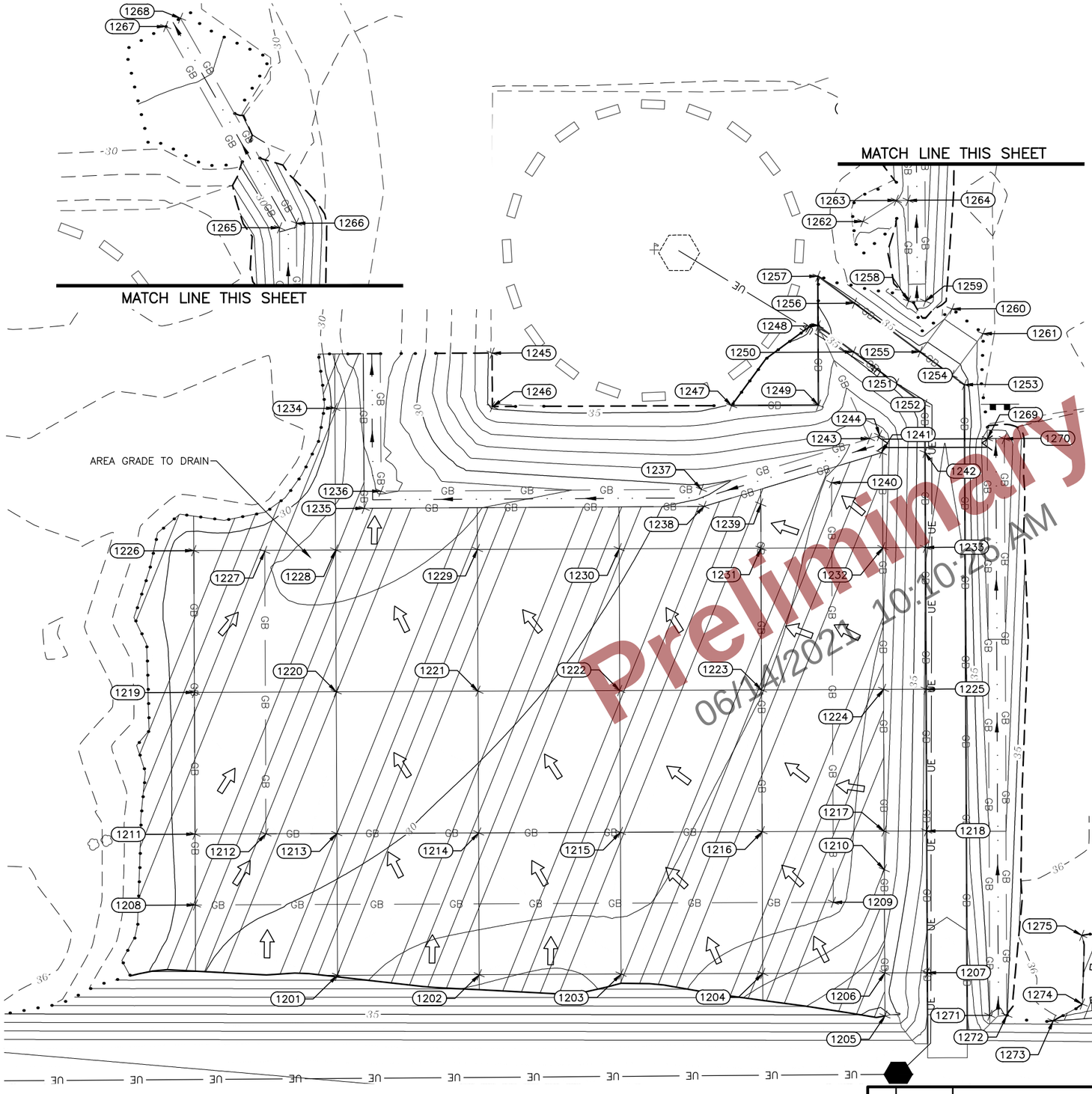
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
RW EDGE GRADING

DATE: 5/24/2021

SHEET: 18 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:49 PM
Layout Name: GRADING 3
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-GRADING.dwg



GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1201	22+85.00	100.00LT	30.58
1202	23+35.00	100.00LT	31.82
1203	23+85.00	100.00LT	31.34
1204	24+35.00	100.00LT	32.75
1205	24+78.00	84.85LT	35.12
1206	24+78.00	100.00LT	34.47
1207	24+93.00	100.00LT	37.44
1208	22+35.00	125.00LT	29.75
1209	24+60.00	125.00LT	31.50
1210	24+78.00	136.42LT	33.00
1211	22+35.00	150.00LT	29.65
1212	22+60.00	150.00LT	29.50
1213	22+85.00	150.00LT	29.75
1214	23+35.00	150.00LT	30.25
1215	23+85.00	150.00LT	30.75
1216	24+35.00	150.00LT	31.25
1217	24+78.00	150.00LT	32.84
1218	24+93.00	150.00LT	36.31
1219	22+35.00	200.00LT	29.45
1220	22+85.00	200.00LT	29.36
1221	23+35.00	200.00LT	29.74
1222	23+85.00	200.00LT	30.33
1223	24+35.00	200.00LT	30.99
1224	24+78.00	200.00LT	32.26
1225	24+93.00	200.00LT	36.15
1226	22+35.00	250.00LT	29.30
1227	22+60.00	249.60LT	29.00
1228	22+85.00	250.00LT	28.78
1229	23+35.00	250.00LT	29.16
1230	23+85.00	250.00LT	29.89
1231	24+35.00	250.00LT	30.73
1232	24+78.00	250.00LT	31.68
1233	24+93.00	250.00LT	35.98
1234	22+85.00	300.00LT	29.75
1235	22+95.15	264.65LT	28.35
1236	23+01.14	270.66LT	27.90
1237	24+14.09	270.83LT	29.75
1238	24+14.97	264.83LT	30.23
1239	24+35.00	265.57LT	30.65
1240	24+60.00	273.00LT	31.10

ALL POINTS STATION AND OFFSETS ARE TO RUNWAY ℄

GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1241	24+77.68	283.47LT	31.26
1242	24+93.00	283.47LT	35.87
1243	24+73.45	288.48LT	31.17
1244	24+77.00	289.53LT	31.25
1245	23+40.52	319.17LT	ME
1246	23+40.52	300.28LT	ME
1247	24+24.87	300.28LT	ME
1248	24+55.52	328.32LT	ME
1249	24+55.50	300.35LT	34.50
1250	24+67.98	319.06LT	35.34
1251	24+83.09	307.76LT	35.43
1252	24+93.00	300.35LT	35.51
1253	25+07.00	307.36LT	35.51
1254	25+02.67	310.60LT	35.49
1255	24+91.47	318.97LT	35.43
1256	24+68.35	336.26LT	35.29
1257	24+55.52	345.81LT	ME
1258	24+87.43	336.87LT	31.10
1259	24+93.43	336.83LT	31.10
1260	25+02.75	334.06LT	ME
1261	25+13.67	325.31LT	ME
1262	24+71.45	365.03LT	31.97
1263	24+83.26	372.44LT	31.02
1264	24+87.43	372.42LT	30.51
1265	24+87.43	404.67LT	29.98
1266	24+93.43	406.24LT	29.98
1267	24+47.60	475.78LT	ME
1268	24+52.84	478.71LT	ME
1269	25+15.00	288.25LT	32.00
1270	25+21.00	288.25LT	32.00
1271	25+15.00	84.90LT	34.96
1272	25+21.00	84.90LT	ME
1273	25+37.34	82.85LT	ME
1274	25+47.64	88.72LT	ME
1275	25+47.55	112.93LT	ME
1276	25+78.43	105.46LT	ME
1277	26+08.46	89.34LT	ME
1278	26+09.39	87.41LT	ME

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

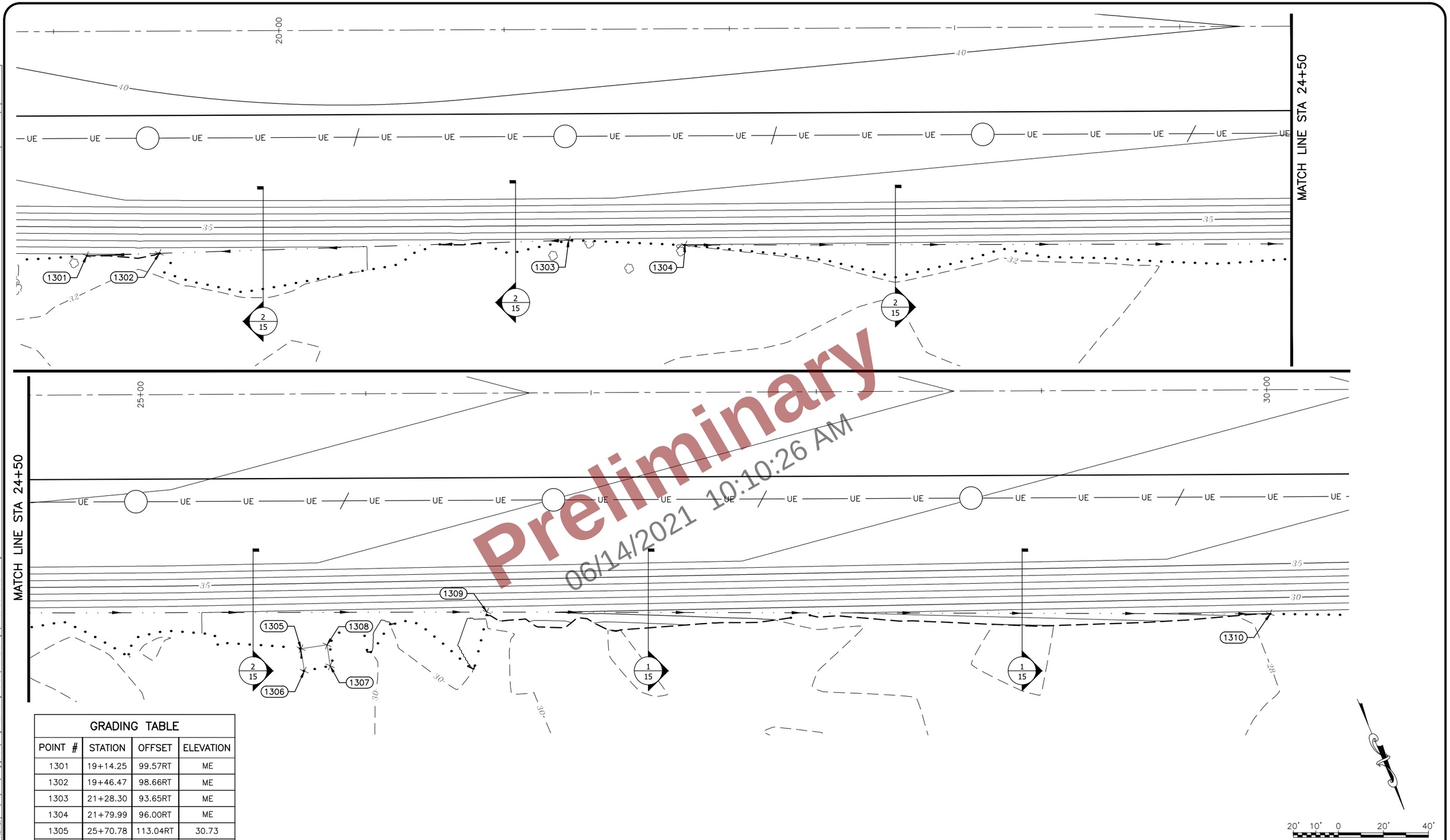
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
SEGMENTED CIRCLE AREA GRADING

DATE: 5/24/2021

SHEET: 19 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:49 PM
Layout Name: GRADING 4
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-GRADING.dwg



GRADING TABLE			
POINT #	STATION	OFFSET	ELEVATION
1301	19+14.25	99.57RT	ME
1302	19+46.47	98.66RT	ME
1303	21+28.30	93.65RT	ME
1304	21+79.99	96.00RT	ME
1305	25+70.78	113.04RT	30.73
1306	25+72.19	123.01RT	30.43
1307	25+83.67	120.69RT	30.38
1308	25+82.35	111.39RT	30.66
1309	26+53.37	97.12RT	30.23
1310	30+01.05	99.44RT	ME

ALL POINTS STATION AND OFFSETS ARE TO RUNWAY ℄

BY	DATE	REVISION

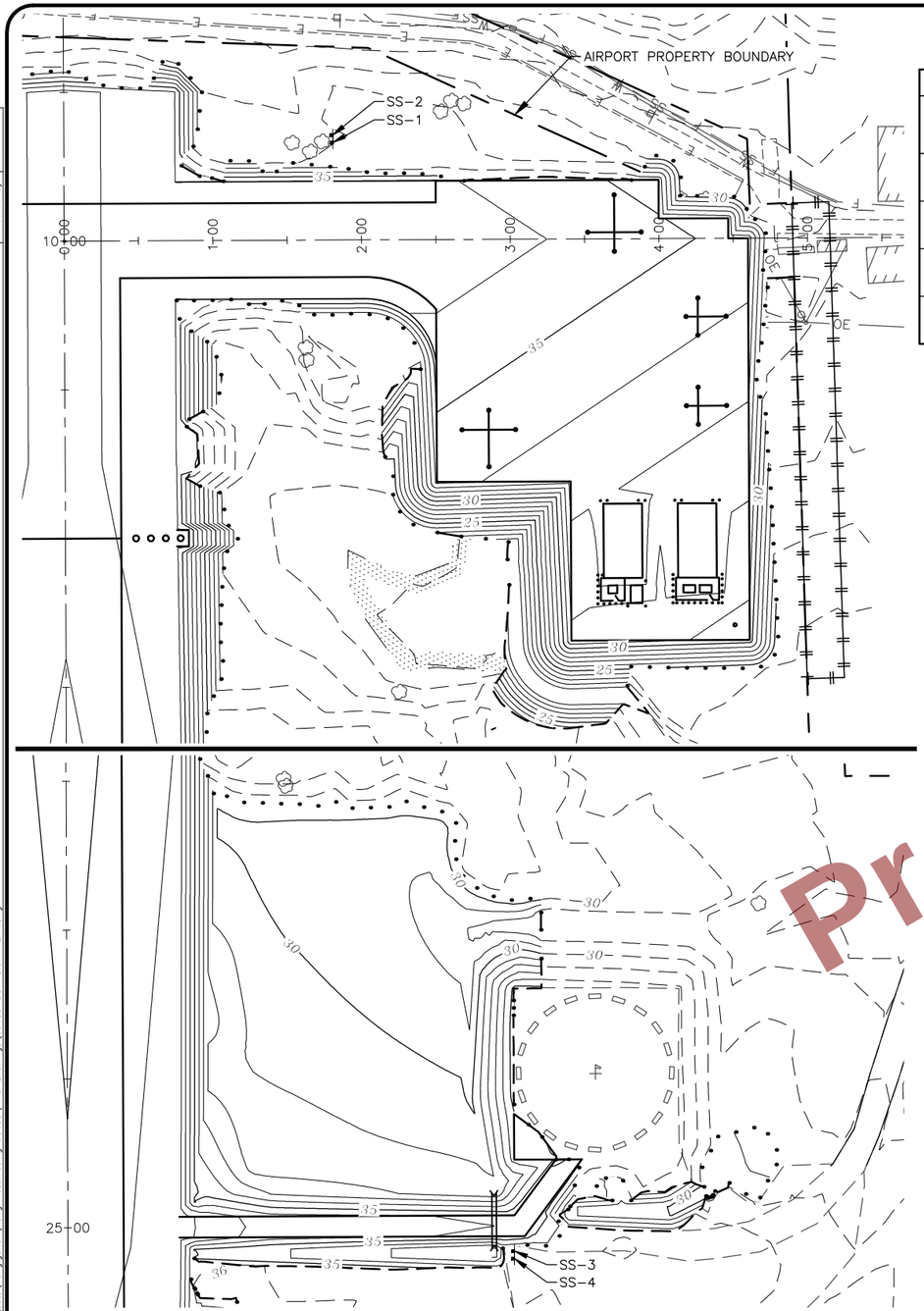
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
RW EDGE GRADING

DATE: 5/24/2021
SHEET: 20 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:49 PM
Layout Name: GRADING 5
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-GRADING.dwg



AIRPORT SIGN SUMMARY

POST NUMBER	STATION & OFFSET	TYPE	LEGEND	SIZE (IN)	COLOR		AREA (SF)	SIGN FACES	POSTS: NO. SIZE, TYPE	FRAMED		REMARKS
					LEGEND	BACKGROUND				YES	NO	
SS-1	TW ℄ STA 1+81.00 65.50LT	SPECIAL	SELECTIVE EXCLUSION	36X48	BLACK/RED	WHITE	12.00	W	1-3.5" STEEL SQUARE TUBE		X	INSTALL ON FRANGIABLE COUPLING SYSTEM WITH CONCRETE SIGN POST FOUNDATION SEE ALASKA STANDARD PLAN S-31.01
SS-2	TW ℄ STA 1+81.00 70.50LT	SPECIAL	AUTHORIZED PERSONNEL ONLY	42X30	WHITE	RED	8.75	W	1-3.5" STEEL SQUARE TUBE		X	INSTALL ON FRANGIABLE COUPLING SYSTEM WITH CONCRETE SIGN POST FOUNDATION SEE ALASKA STANDARD PLAN S-31.01
SS-3	MIDFIELD ℄ STA 3+00.35 17.00RT	SPECIAL	SELECTIVE EXCLUSION	36X48	BLACK/RED	WHITE	12.00	W	1-3.5" STEEL SQUARE TUBE		X	INSTALL ON FRANGIABLE COUPLING SYSTEM WITH CONCRETE SIGN POST FOUNDATION SEE ALASKA STANDARD PLAN S-31.01
SS-4	MIDFIELD ℄ STA 3+00.35 22.00RT	SPECIAL	AUTHORIZED PERSONNEL ONLY	42X30	WHITE	RED	8.75	W	1-3.5" STEEL SQUARE TUBE		X	INSTALL ON FRANGIABLE COUPLING SYSTEM WITH CONCRETE SIGN POST FOUNDATION SEE ALASKA STANDARD PLAN S-31.01

30' 15' 0 30' 60'

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 2:50 PM
Layout Name: Sign Plan
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-SIGN-PLAN.dwg

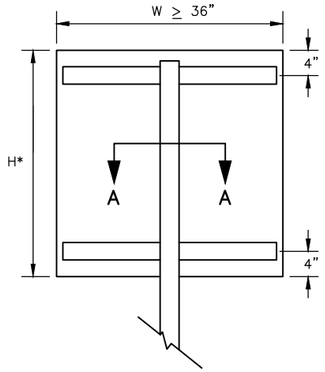
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
SIGN PLAN

DATE: 5/24/2021

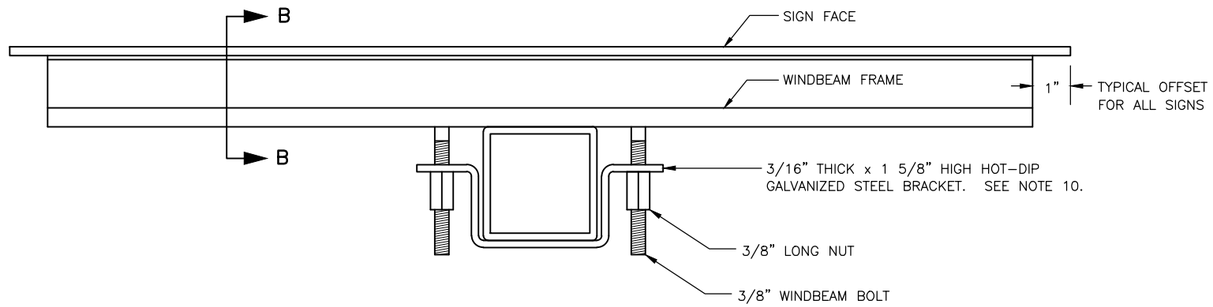
SHEET: 21 OF 28



RECTANGLES AND TRAPEZOIDS

* WHEN H > 42 INCHES, INSTALL A 3RD WINDBEAM CENTERED ON THE SIGN.

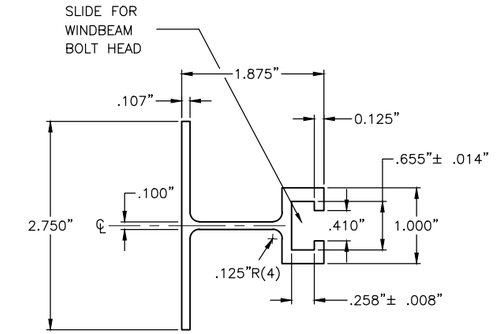
1/22 WINDBEAM LOCATIONS
ELEVATION VIEW



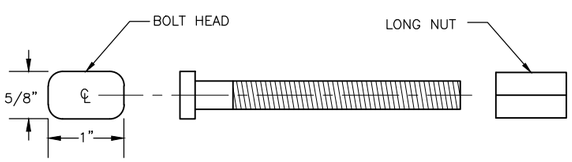
2/22 SECTION A – A TYPICAL SIGN ATTACHMENT DETAILS AT EACH WINDBEAM

NOTES:

1. ONLY USE SQUARE STEEL TUBES TO SUPPORT SIGNS MOUNTED ON SINGLE POSTS.
2. INSTALL WINDBEAM ON SIGNS 36 INCHES WIDE AND WIDER.
3. THE ENGINEER MAY APPROVE OTHER FRAMING MEMBERS. SUBMIT DOCUMENTS THAT DETAIL THE FRAME'S CROSS SECTION AND STRENGTH, AND METHOD OF ATTACHING THE FRAME TO A POST.
4. USE FRAMING MEMBERS MADE FROM ALUMINUM ALLOY 6061–T6.
5. EACH FRAMING MEMBER SHALL BE ONE CONTINUOUS PIECE.
6. ATTACH FRAMING MEMBERS TO THE SIGN PANELS WITH RIVETS OR AN ENGINEER APPROVED, DOUBLE SIDED, HIGH STRENGTH, ADHESIVE TAPE.
7. WITH THE ADHESIVE TAPE, INSTALL TWO RIVETS IN BOTH ENDS OF EACH FRAMING MEMBER, AND ATTACH THE FRAMING MEMBERS TO THE SIGN PANELS ACCORDING TO THE TAPE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING:
   A. THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
   B. THE APPLICATION OF THE ADHESIVE TAPE.
8. WHEN RIVETS ARE USED TO ATTACH FRAMING MEMBERS, INSTALL 2 RIVETS IN EACH END AND THE BALANCE ON 8" MAXIMUM CENTERS.
9. USE 3/16" DIAMETER RIVETS CONFORMING TO ALUMINUM ALLOY 6061–T6 FOR COLD DRIVEN RIVETS, OR ALUMINUM ALLOY 6061–T43 FOR HOT DRIVEN RIVETS.
10. THE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
11. POST LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR USING THE CRITERIA FOR RURAL ROADS, UNLESS DETERMINED OTHERWISE BY THE ENGINEER.

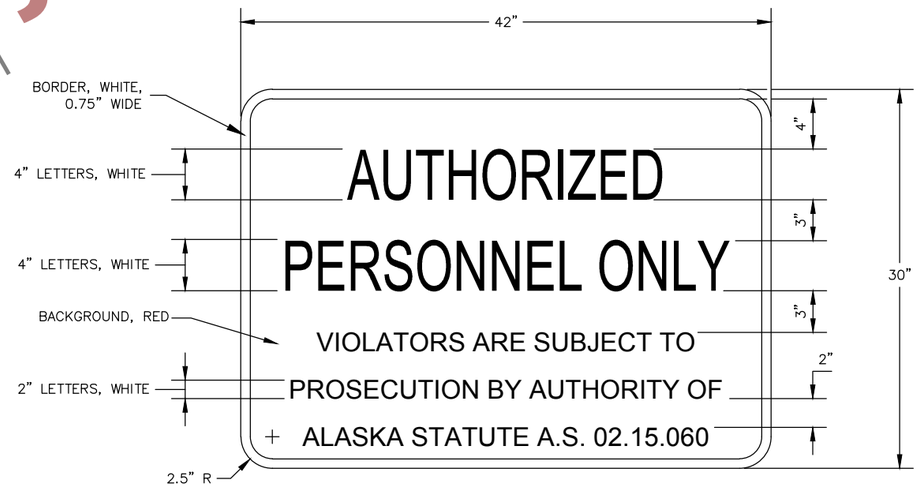


3/22 SECTION B – B WINDBEAM CROSS SECTION



6/22 3/8" WINDBEAM BOLT AND LONG NUT

4/22 SELECTIVE EXCLUSIONS
SS-1



5/22 AUTHORIZED PERSONNEL SIGN DETAILS
SS-2

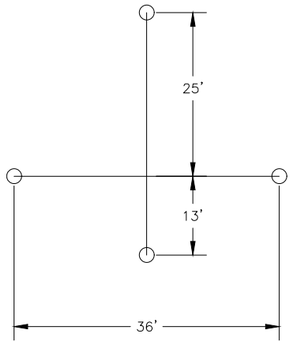
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

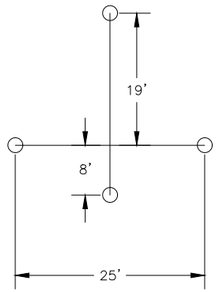
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
SIGN PLAN DETAILS

DATE: 5/24/2021
SHEET: 22 OF 28

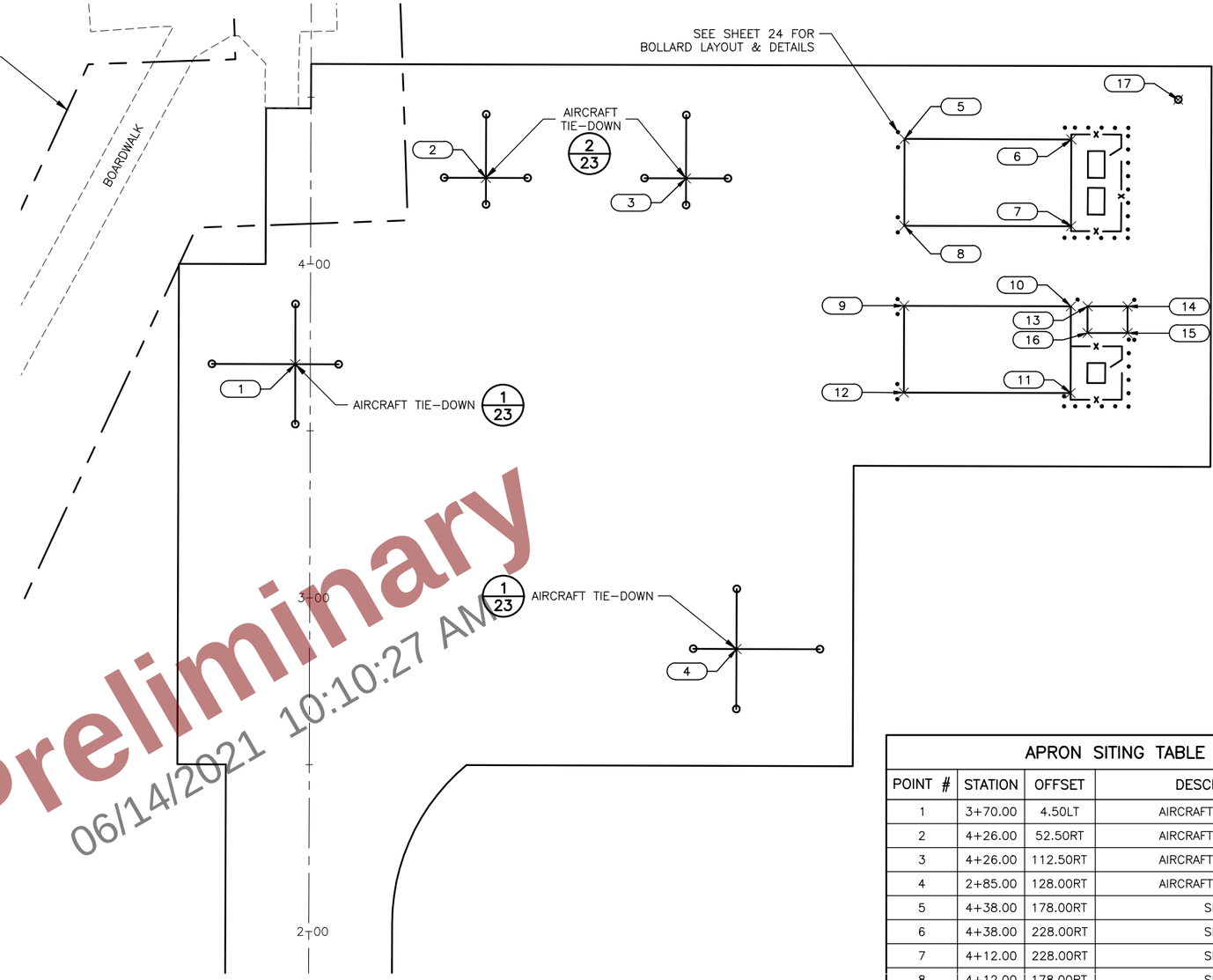
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 2:50 PM
Layout Name: DETAILS 2
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg

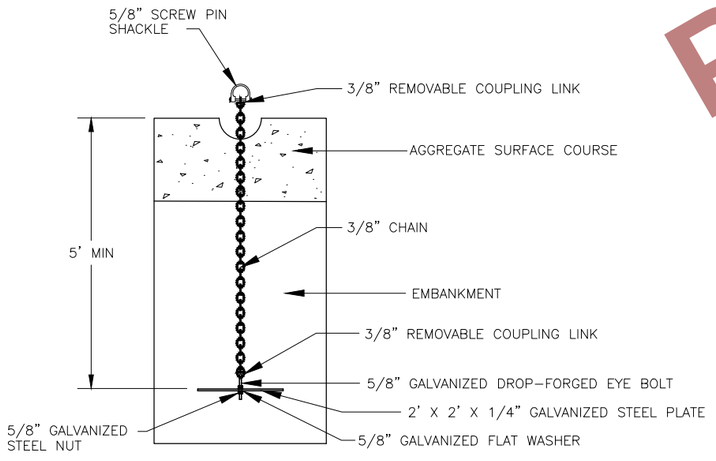


1/23 TIE-DOWN DETAILS
SCALE: NTS



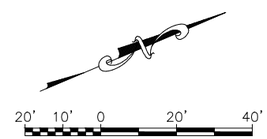
2/23 TIE-DOWN DETAILS
SCALE: NTS





3/23 TYPICAL TIE-DOWN ANCHOR DETAILS
SCALE: NTS

APRON SITING TABLE			
POINT #	STATION	OFFSET	DESCRIPTION
1	3+70.00	4.50LT	AIRCRAFT TIE-DOWN
2	4+26.00	52.50RT	AIRCRAFT TIE-DOWN
3	4+26.00	112.50RT	AIRCRAFT TIE-DOWN
4	2+85.00	128.00RT	AIRCRAFT TIE-DOWN
5	4+38.00	178.00RT	SREB
6	4+38.00	228.00RT	SREB
7	4+12.00	228.00RT	SREB
8	4+12.00	178.00RT	SREB
9	3+88.00	178.00RT	SREB
10	3+88.00	228.00RT	SREB
11	3+62.00	228.00RT	SREB
12	3+62.00	178.00RT	SREB
13	3+88.00	233.00RT	EEB
14	3+88.00	245.00RT	EEB
15	3+80.00	245.00RT	EEB
16	3+80.00	233.00RT	EEB
17	4+50.00	260.00RT	ROTATING BEACON & TIP-DOWN POLE



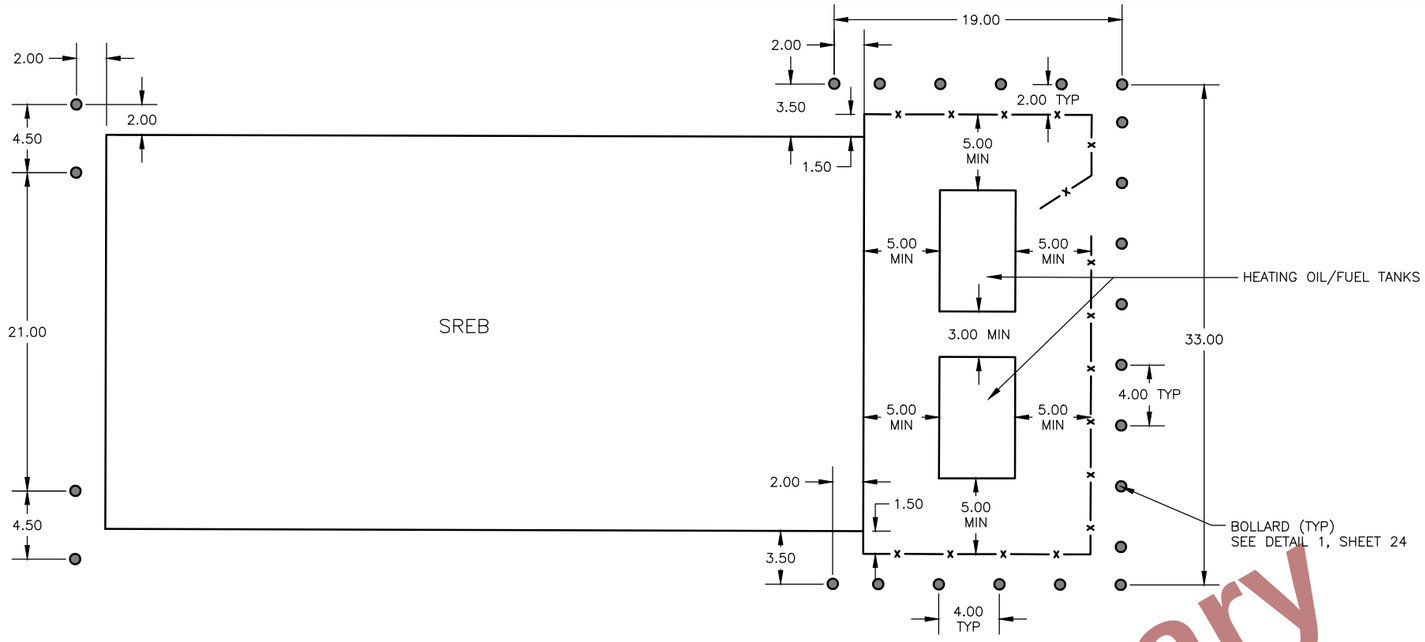
BY	DATE	REVISION

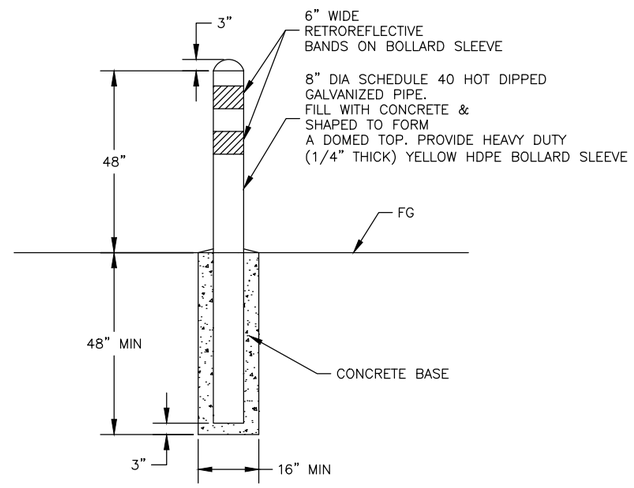
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
APRON SITING PLAN

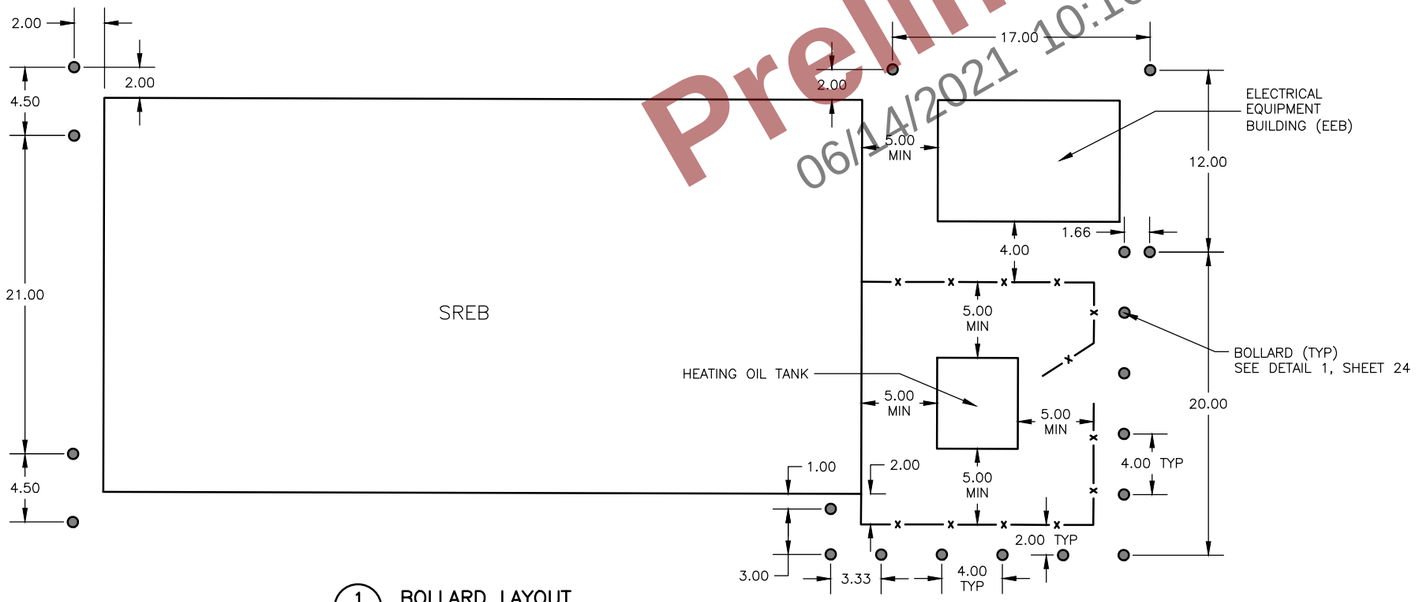
DATE: 5/24/2021
SHEET: 23 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: DETAILS 3
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg
5/24/2021, 2:50 PM

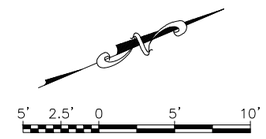




1/24 EXTERIOR BOLLARD DETAIL
NOT TO SCALE



1/24 BOLLARD LAYOUT
SCALE: 1" = 5'



BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

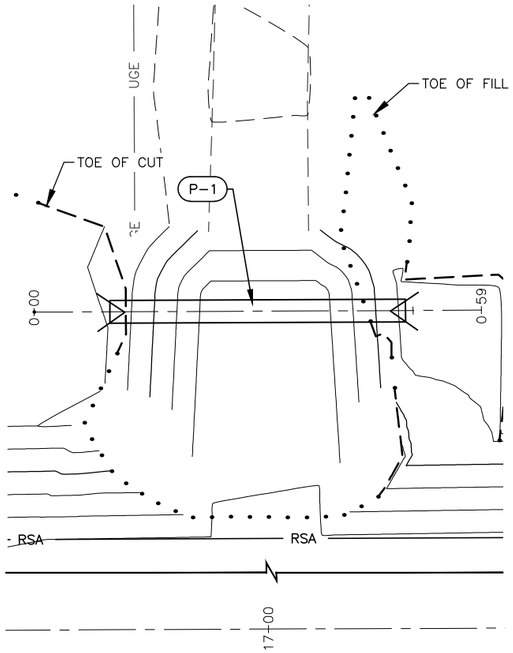
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
BOLLARD LAYOUT

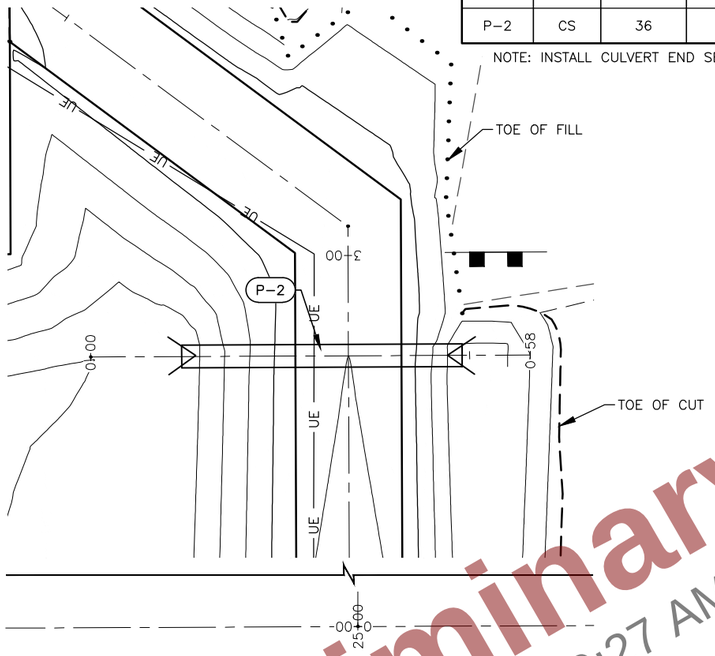
DATE: 5/24/2021
SHEET: 24 OF 28

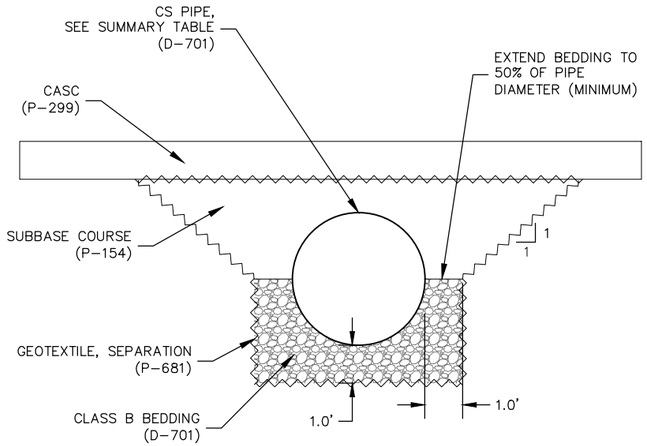
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: 5/24/2021, 2:50 PM
File Path and Name: DETAILS 4
W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg

CULVERT SUMMARY TABLE								
PIPE ID	TYPE	DIA (IN)	LENGTH (FT)	INLET INVERT LOCATION	INLET ELEVATION	OUTLET INVERT LOCATION	OUTLET ELEVATION	COMMENTS
P-1	CS	36	39	RW CL STA 17+18.54 105.00' LT	33.73'	RW CL STA 16+79.54 105.00' LT	33.08'	DETAIL 1/23 & 3/23
P-2	CS	36	37	RW CL STA 25+15.00 286.75' LT	32.00'	RW CL STA 24+78.00 286.75' LT	31.28'	DETAIL 2/23 & 3/23

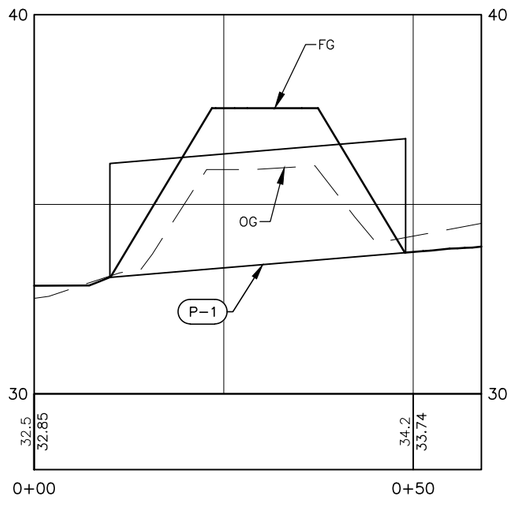
NOTE: INSTALL CULVERT END SECTIONS ON EACH END. CULVERT END SECTIONS ARE NOT INCLUDED IN PIPE LENGTHS SHOWN



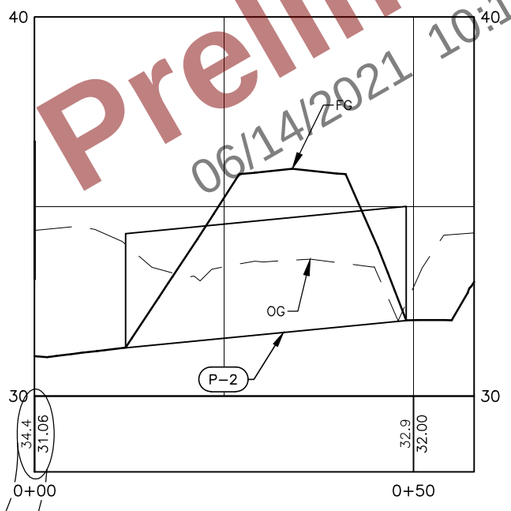




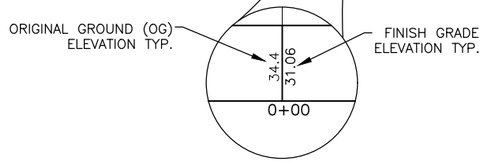
3/25 CULVERT SECTION DETAIL
NOT TO SCALE



1/25 AWOS ACCESS ROAD CULVERT PROFILE

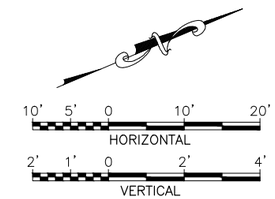


2/25 SEGMENTED CIRCLE ACCESS ROAD CULVERT PROFILE



NOTES:

1. INSTALL CULVERT MARKER POSTS PER SPECIFICATION D-701.



BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CULVERT PROFILES, DETAILS, & SCHEDULE

DATE: 5/24/2021
SHEET: 25 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: Culvert Plan & Profile
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-PNP.dwg
5/24/2021, 2:51 PM

AIRPORT PROPERTY BOUNDARY

TAXIWAY ℄

RUNWAY ℄

0+00

1+00

2+00

3+00

4+00

LEGEND

- DUST PALLIATIVE
- SEED & TOPSOIL
- POROUS BACKFILL
- RIPRAP, CLASS I
- DITCH LINING

50' 25' 0 50' 100'

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

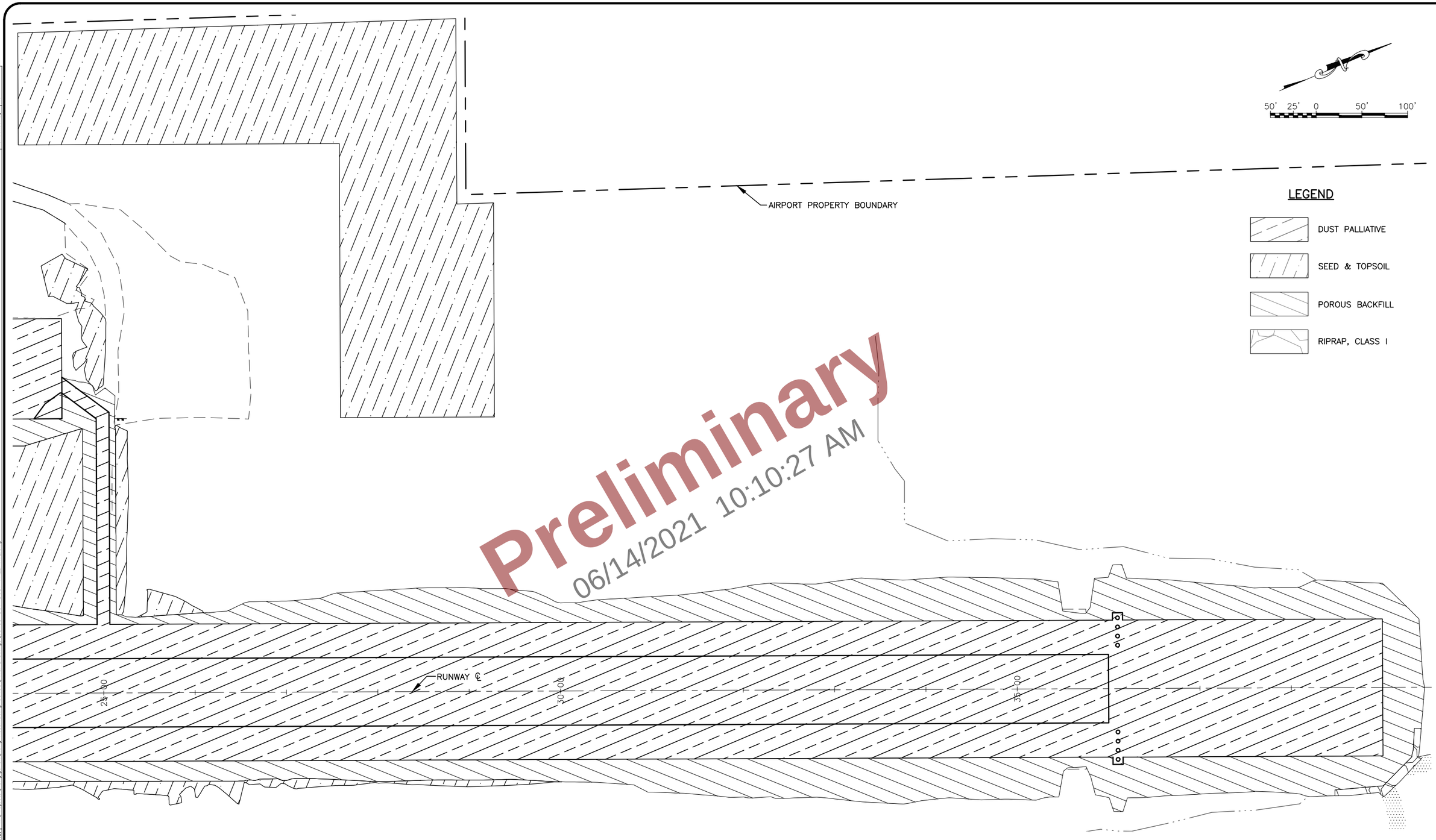
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
DUST PALLIATIVE, EMBANKMENT, & DISPOSAL SURFACING PLAN

DATE: 5/24/2021

SHEET: 26 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised:
Layout Name: 5/24/2021, 2:51 PM DUST PALLIATIVE
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-DUST-PALLIATIVE.dwg



Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised:
Layout Name: DUST PALLIATIVE_(2)
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-DUST-PALLIATIVE.dwg 5/24/2021, 2:51 PM

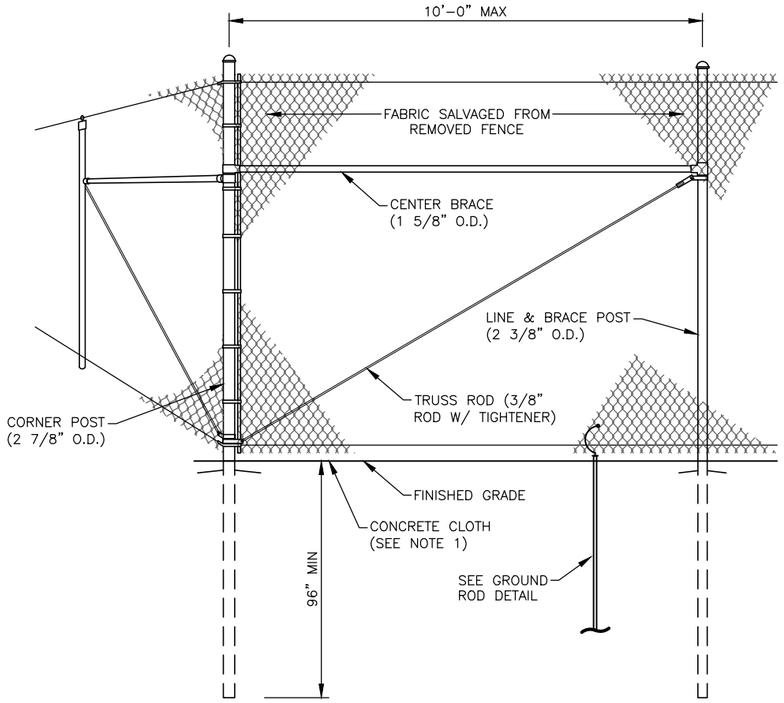
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

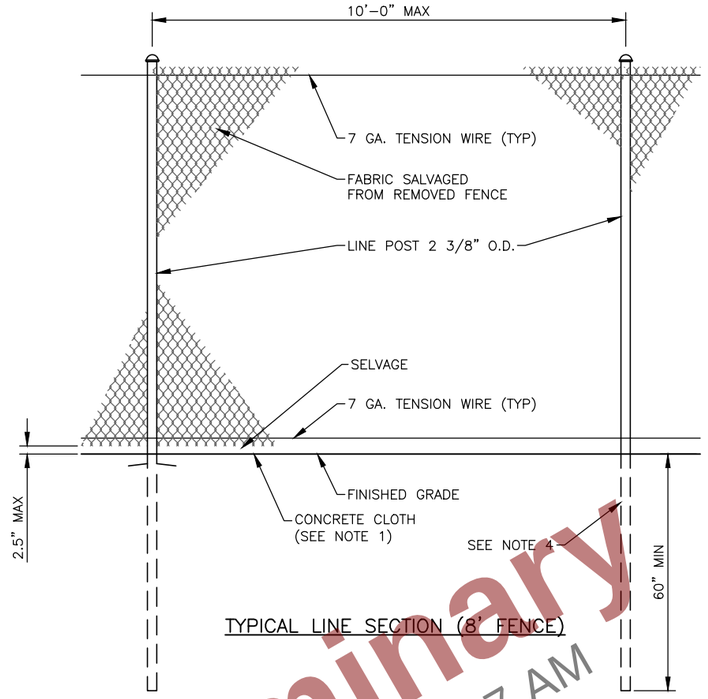
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
DUST PALLIATIVE, EMBANKMENT, & DISPOSAL SURFACING PLAN

DATE: 5/24/2021

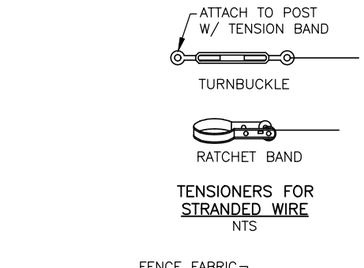
SHEET: 27 OF 28



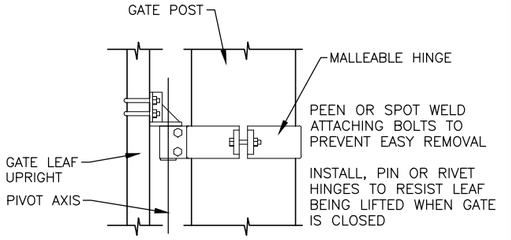
TYPICAL CORNER TERMINAL (8' FENCE)



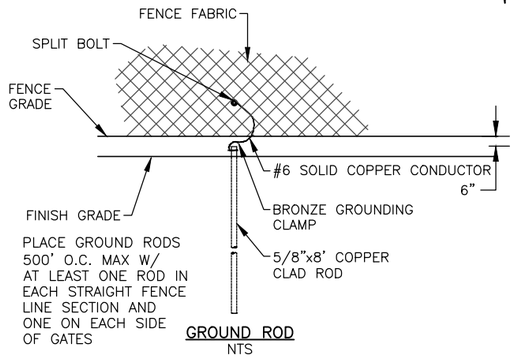
TYPICAL LINE SECTION (8' FENCE)



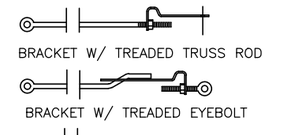
TENSIONERS FOR STRANDED WIRE
NTS



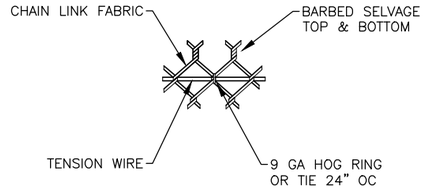
GATE HINGE
NTS



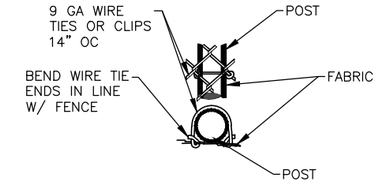
GROUND ROD
NTS



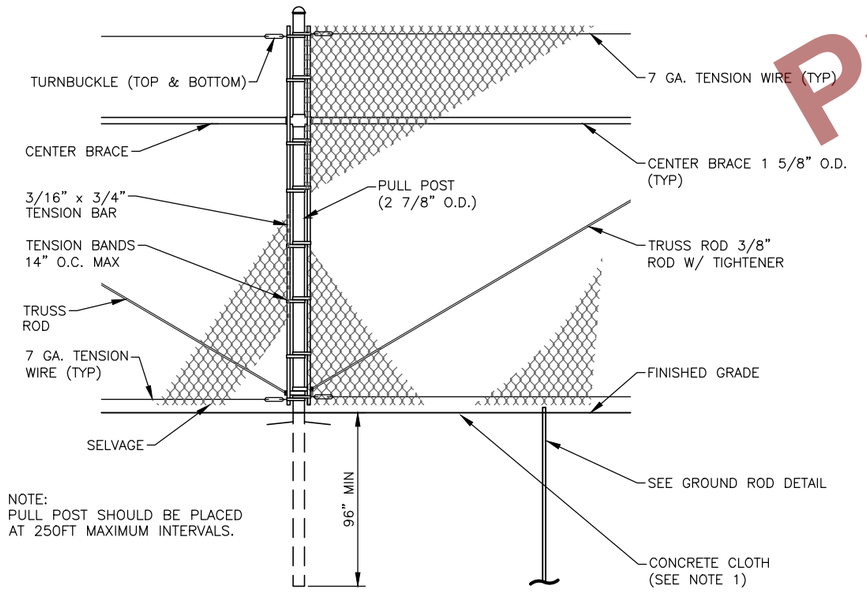
TRUSS ROD W/TIGHTENER
NTS

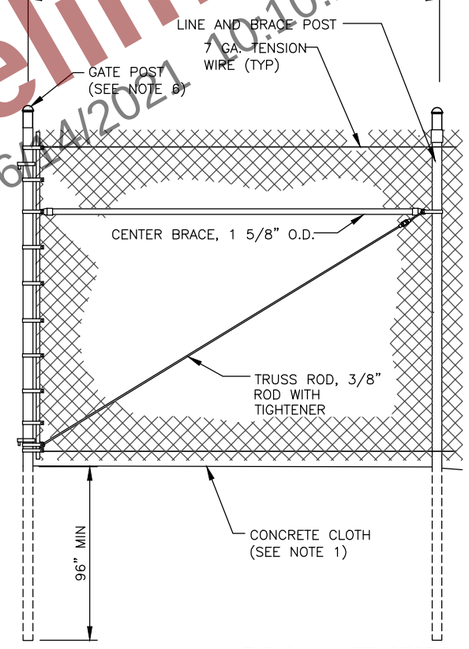


FABRIC TO TENSION WIRE FASTENERS
NTS



FABRIC TO TUBULAR POST FASTENERS
NTS





TYPICAL GATE SECTION (8' FENCE)

GENERAL FENCE NOTES

1. INSTALL 20–INCH WIDE CONCRETE CANVAS CC–7 CONCRETE IMPREGNATED FABRIC ON GROUND, CENTERED ON FENCE, PER MANUFACTURER'S RECOMMENDATIONS FOR FENCE LINE VEGETATION CONTROL. SUBSIDIARY TO F162.010.0008

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
FENCE DETAILS

DATE: 5/24/2021
SHEET: 28 OF 28

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised:
Layout Name: 5/24/2021, 2:51 PM
File Path and Name: FENCE DETAILS
W:\Projects\Kongiganak\Kong Resurfacing 00433\Final Drawings\00433-DUY-TYPICAL & DETAILS.dwg

Designed By: JBM
Drawn By: JBM,PDO
Checked By: EDC

Date Revised: 1/25/2021, 5:06 PM
Layout Name: E01 Schedules
File Path and Name: Z:\20021KAI - Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DEMO.dwg

DEMOLITION GENERAL NOTES:

1. DECOMMISSIONED CONDUCTORS AND GROUND WIRES IN RACEWAY SHALL BE REMOVED. DECOMMISSIONED CONDUIT SHALL BE REMOVED. ABANDONED WIRING AND CONDUIT RUNS EXPOSED DURING EXCAVATION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. DISPOSAL SHALL NOT TAKE PLACE IN KONGIGANAK. THIS WORK SHALL BE SUBSIDIARY TO EXCAVATION AND NO SEPARATE PAYMENT WILL BE MADE.
2. THE CONTRACTOR SHALL RESTORE GRADE AND FINISH SURFACES DISTURBED BY THE REMOVAL OF STRUCTURES. BACK FILL PER L-110-3.7 AND COMPACT PER ENGINEERS APPROVAL. THIS WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE.
3. DEMOLISHED FIXTURES, TRANSFORMERS, AND CCR SHALL BE SALVAGED AND OFFERED TO DOT MAINTENANCE. EQUIPMENT DEEMED OF NO SALVAGE VALUE BY DOT MAINTENANCE PERSONNEL, AND ALL OTHER EQUIPMENT AND MATERIALS NOT LISTED ABOVE, INCLUDING LIGHT BASES, HANDHOLES, WIRE, AND RACEWAYS, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL STATUTES. DISPOSAL SHALL NOT TAKE PLACE IN KONGIGANAK.
4. REMOVAL OF EXISTING CONDUCTORS AND GROUND WIRE SHALL BE SUBSIDIARY TO THE REMOVAL OF THE ASSOCIATED EQUIPMENT AND NO SEPARATE PAYMENT WILL BE MADE.
5. LOCATE EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK.

TEMPORARY LIGHTING NOTES:

1. TEMPORARY AIRFIELD LIGHTING AND JUMPERS TO BE PROVIDED AND MAINTAINED TO PROVIDE A FULLY OPERATIONAL SYSTEM TO THE SATISFACTION OF THE ENGINEER, REVISE AS NECESSARY TO COORDINATE WITH PROJECT PHASING. TEMPORARY LIGHTING SYSTEM SHALL MEET THE REQUIREMENTS OF A MEDIUM INTENSITY LIGHTING SYSTEM PER AC 150/5340-30J. PAID FOR UNDER L125.180.0000.
2. RESTORE AIRFIELD LIGHTING POWER AND CONTROL CIRCUITS ONE HOUR PRIOR TO ANY SCHEDULED FLIGHT, OR AS DIRECTED BY THE PROJECT ENGINEER.
3. WHEN TEMPORARY LIGHTING IS NO LONGER NEEDED, REMOVE UNUSED COMPONENTS, CONDUIT AND WIRING.
4. TEMPORARY JUMPERS SHALL BE #8 AWG, 5KV, TYPE 'C' AIRPORT CABLE. RUN JUMPERS IN HDPE CONDUIT, 1-1/4IN MINIMUM, AND SAND BAG EVERY 10 FT ON CENTER. ELECTRICAL CONNECTORS SHALL BE FIELD ATTACHED PLUG-IN SPLICES PER SECTION L-108. TEMPORARY JUMPERS SHALL BE SUBSIDIARY TO ITEM L125.180.0000 AND NO SEPARATE PAYMENT WILL BE MADE.
5. TEMPORARY LIGHT BASES SHALL BE CONSTRUCTED OF STEEL CHANNEL. BOLT THE FIXTURE BASE PLATE TO THE CHANNEL AND SECURE IN PLACE WITH SAND BAGS. AT THE CONTRACTOR'S OPTION, A SELF-CONTAINED TEMPORARY LIGHTING SYSTEM MAY BE PROVIDED. SECURE THE LIGHTS IN PLACE PER THE MANUFACTURER'S INSTRUCTIONS.
6. PROVIDE 1/2IN BLANK STEEL COVERS PER SAFETY PLAN OR AS DIRECTED BY THE ENGINEER AND SECURE TO LIGHT BASES.
7. TEMPORARY LIGHTING LAYOUT WILL BE SHOWN ON CSPP.
8. PROVIDE TEMPORARY POWER AS REQUIRED TO THE EEB AND MAINTAIN A WORKING AIRFIELD LIGHTING SYSTEM UNTIL INSTALLED IN NEW LOCATION WITH PERMANENT POWER. OBTAIN PERMISSION FROM THE ENGINEER AT LEAST 24 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. UNDER NO CONDITION SHALL AN OUTAGE EXCEED 8 HOURS. ALL OUTAGES TO THE SYSTEM SHALL BE COORDINATED WITH SCHEDULED FLIGHTS AND APPROVED BY THE ENGINEER.
9. TEMPORARY LIGHTING WILL REQUIRE THE USE OF AN 7.5kW REGULATOR.
10. PROVIDE CONNECTION BETWEEN RADIO CONTROLLER AND ANTENNA AS REQUIRED TO MAINTAIN A WORKING AIRFIELD LIGHTING SYSTEM.
11. ALL WORK TO DISCONNECT, MOVE, SECURE, AND RESTORE THE EEB TO FULL OPERATIONAL CONDITION, MAINTAINING TEMPORARY POWER AND CONNECTION TO THE ANTENNA, AND RESTORING POWER TO THE PRIMARY WINDCONE IS SUBSIDIARY TO L109.060.0000 AND NO FURTHER PAYMENT WILL BE MADE.

DEMOLITION SHEET NOTES:

1. REMOVE RUNWAY EDGE LIGHTS, THRESHOLD LIGHTS, TAXIWAY LIGHTS, TRANSFORMERS, UNUSED WIRING AND HANDHOLES. REMOVE FAA AND ASOS HANDHOLES. PAID UNDER L125.070.0000
2. DE-ENERGIZE POWER AND DISCONNECT FEED CONDUCTORS AT EEB AND METER BASE LOCATED ON SREB. REMOVE CONDUITS AND CONDUCTORS FROM FIELD. SUBSIDIARY TO L109.060.0000.
3. DISCONNECT SECONDARY CONDUCTORS FROM POLE MOUNTED TRANSFORMER AND METER BASE LOCATED ON SREB. REMOVE AIRPORT SECONDARY CONDUCTORS FROM POWER POLES. SUBSIDIARY TO U-500.020.0000.
4. DISCONNECT AIRFIELD CONDUCTORS AT SCO AND REMOVE CONDUCTORS FROM FIELD. SUBSIDIARY TO L108.010.2008
5. DISCONNECT WIND CONE CONDUCTORS AT CONTACTOR/RELAYS IN EEB AND REMOVE CONDUCTORS FROM FIELD. SUBSIDIARY TO L109.060.0000.
6. DISCONNECT BEACON CONDUCTORS AT EEB. REMOVE CONDUCTORS, CONDUITS, AND CONDUIT MOUNTING HARDWARE TO BEACON AND REMOVE BEACON FROM SREB ROOF. SEAL PENETRATIONS AFTER REMOVAL OF HARDWARE. SUBSIDIARY TO L101.020.0000
7. REMOVE PAPI, REIL, AND ASOS CONDUITS. RESTORE GRADE PER GENERAL NOTE 2. REMOVAL OF CONDUIT SUBSIDIARY TO ITEM L110.080.1002 AND NO FURTHER PAYMENT WILL BE MADE.
8. DISCONNECT AND REMOVE EXISTING CONSTANT CURRENT REGULATOR (CCR). OFFER TO DOT MAINTENANCE PER GENERAL NOTE 3.
9. DISCONNECT COAX CABLE FROM ANTENNA AND RADIO CONTROLLER LOCATED IN EEB. REMOVE COAX CABLE FROM CONDUIT. EXISTING COAX CABLE MAY BE USED FOR TEMPORARY OPERATION.
10. DISCONNECT POWER FROM AIRFIELD REGULATOR. REMOVE AIRFIELD REGULATOR, SCO, AND SCO CABINET. PAID UNDER L125.020.0000.
11. DISCONNECT ELECTRICAL EQUIPMENT AND REMOVE OR SECURE EQUIPMENT AND FIXTURES AS REQUIRED TO PREPARE THE SREB FOR RELOCATION. SUBSIDIARY TO P165.060.0000.

DEMOLITION LEGEND:

- RW AND TW CIRCUIT, UNUSED FAA AND ASOS, POWER FOR EEB, BEACON AND WIND CONE. EXISTING UNDERGROUND CONDUITS (TO BE REMOVED)
- EXISTING RUNWAY OR TAXIWAY LIGHT AND BASE (TO BE REMOVED) (1)
- EXISTING WIND CONE (TO BE REMOVED)
- EXISTING HANDHOLE OR J-BOX (TO BE REMOVED)
- TEMPORARY RUNWAY LIGHT
- TEMPORARY TAXIWAY EDGE LIGHT
- TEMPORARY RUNWAY THRESHOLD LIGHT
- EXISTING ROTATING BEACON (TO BE REMOVED)
- OHD — OVERHEAD CONDUCTOR (TO BE REMOVED)
- OVERHEAD CONDUCTOR (EXISTING TO REMAIN)
- UTILITY POWER POLE (EXISTING TO REMAIN)
- EXISTING WIND CONE (TO REMAIN)
- EXISTING HANDHOLE (TO REMAIN)

ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE
BCU	BARE COPPER GROUND
C	CONDUIT
CBA	CRUSHED BASE AGGREGATE
CCR	CONSTANT CURRENT REGULATOR
CSPP	CONSTRUCTION SAFETY AND PHASING PLAN
CU	COPPER
DEB	DIRECT EARTH BURY
DEG	DEGREES
EEB	ELECTRICAL EQUIPMENT BUILDING
ETR	EXISTING TO REMAIN
FAA	FEDERAL AVIATION ADMINISTRATION
FT	FOOT
HDPE	HIGH DENSITY POLYETHYLENE
HIRL	HIGH INTENSITY RUNWAY LIGHTING
IN	INCH
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
MAX	MAXIMUM
MIRL	MEDIUM INTENSITY RUNWAY LIGHTING
MIN	MINIMUM
MLO	MAIN LUG ONLY
NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY
OC	ON CENTER
UON	UNLESS OTHERWISE NOTED
PCT	PERCENT
PRI	PRIMARY
REIL	RUNWAY END IDENTIFIER LIGHT
RSC	RIGID STEEL CONDUIT
RW	RUNWAY
SCO	SERIES CUT OUT
STA	STATION
TH	THRESHOLD
TOC	TOP OF CONCRETE
T'STAT	THERMOSTAT
TW	TAXIWAY
TYP	TYPICAL
VASI	VISUAL APPROACH SLOPE INDICATOR
XFMR	TRANSFORMER

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

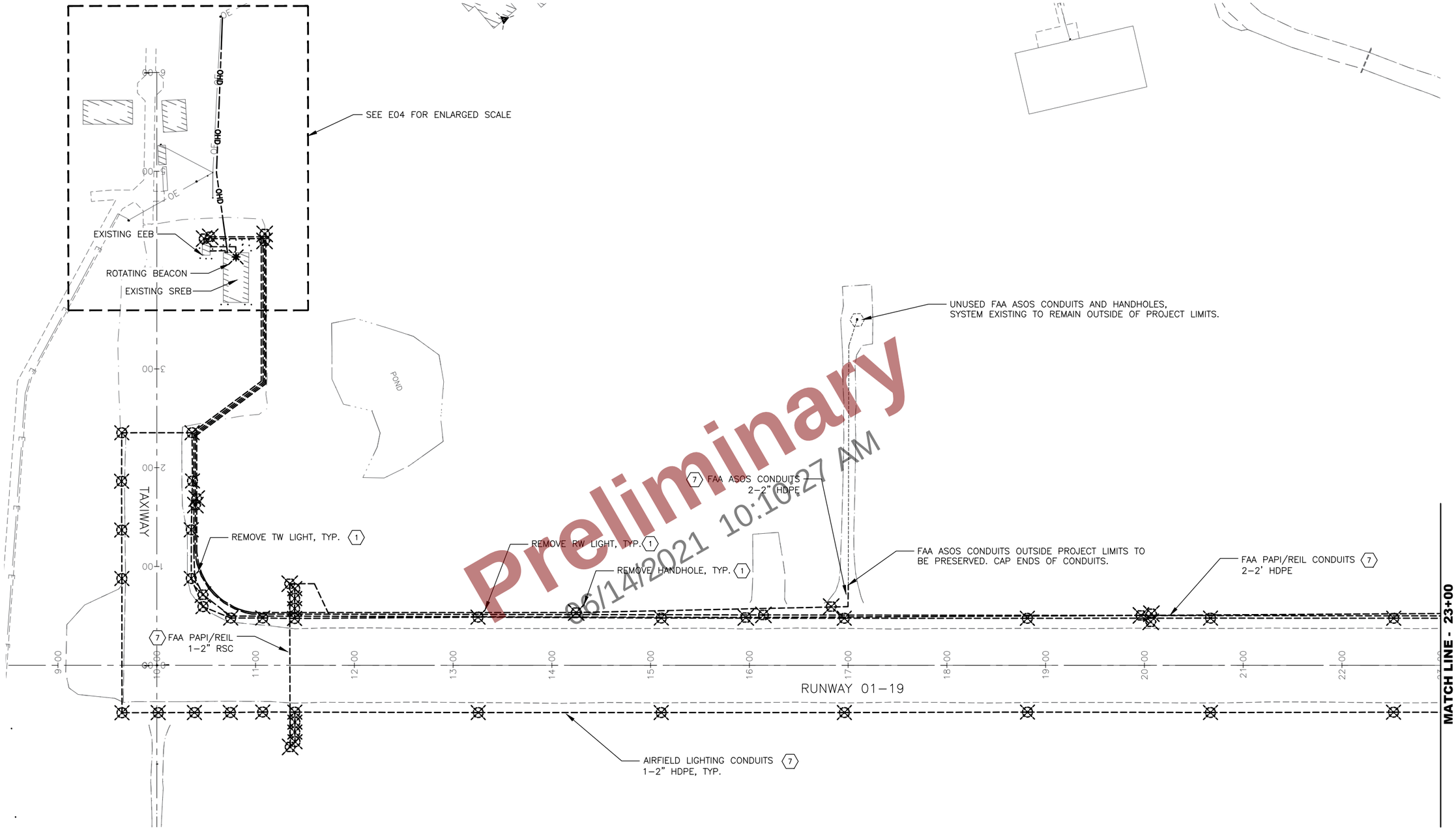
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
DEMOLITION LEGEND AND NOTES

DATE: 1/25/21

SHEET: E01 OF E16



50' 25' 0 50' 100'

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:06 PM
Layout Name:	E02 DEMO
File Path and Name:	Z:\20021KAI – Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DEMO.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

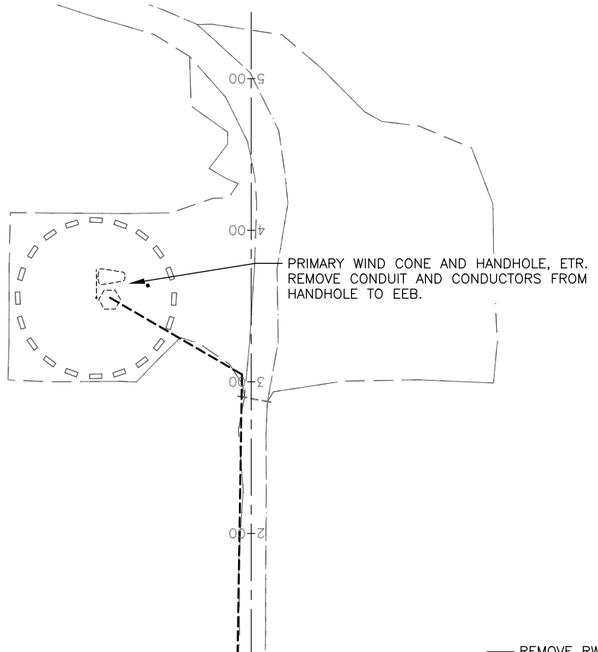
BY	DATE	REVISION

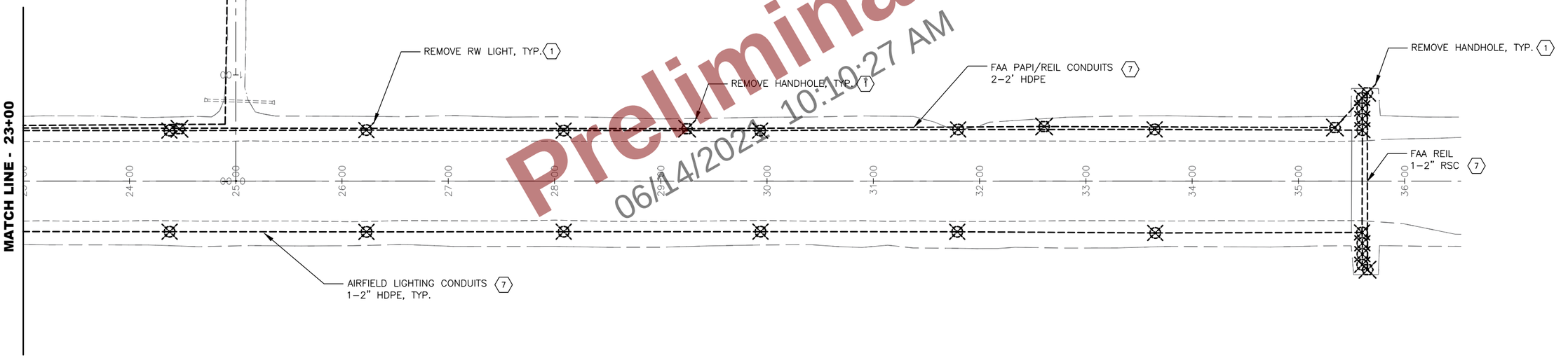
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
LIGHTING DEMOLITION PLAN
8+00 TO 23+00

DATE: 1/25/21

SHEET: E02 OF E16





50' 25' 0 50' 100'

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:06 PM
Layout Name:	E03 DEMO
File Path and Names:	Z:\2021KAI - Kongiganak Airport Improvements\E-Working\Drawings\2021-KAI-DEMO.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

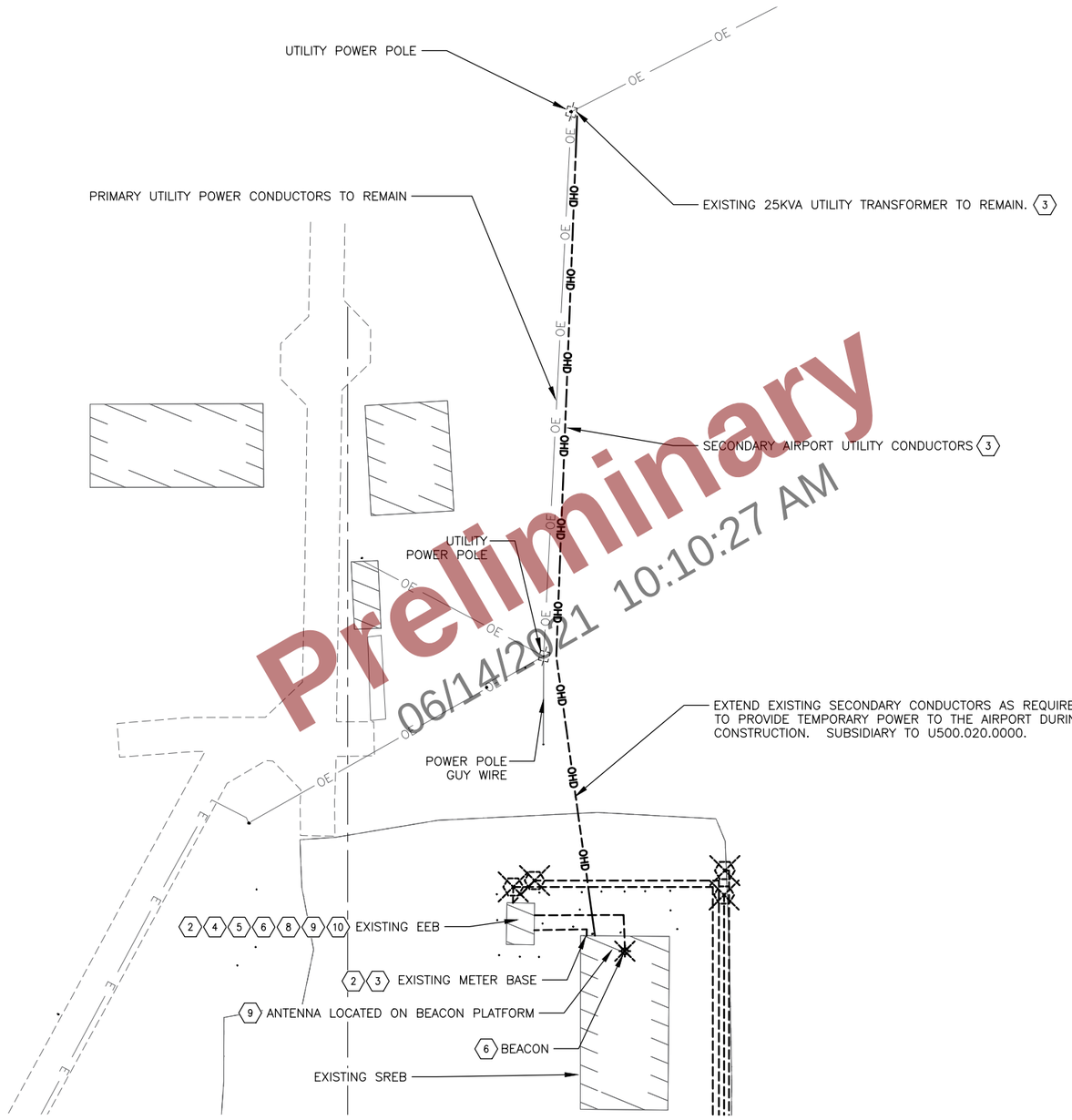
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
LIGHTING DEMOLITION PLAN
23+00 TO 36+00

DATE: 1/25/21

SHEET: E03 OF E16



20' 10' 0 20' 40'

Designed By: JBM
Drawn By: JBM,PDO
Checked By: EDC

Date Revised: 1/25/2021, 5:06 PM
Layout Name: E04 DEMO
File Path and Name: Z:\20021KAI - Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DEMO.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
APRON DEMOLITION PLAN

DATE: 1/25/21
SHEET: E04 OF E16

GENERAL NOTES

1. CONDUITS AND LIGHT BASES SHALL BE INSTALLED PRIOR TO PLACEMENT OF FINISH COURSE.
2. REMOVE POWER FROM EDGE LIGHTING CIRCUIT DURING ASSOCIATED WORK, RESTORE POWER WHEN WORK IS COMPLETE.
3. AIRFIELD LIGHTING CABLE SHALL BE #8 AWG, 5kV, FAA TYPE "C" AIRPORT CABLE.
4. CONNECT HDPE CONDUIT TO DISSIMILAR CONDUIT USING A LISTED TRANSITION FITTING.
5. PROVIDE LIGHT BASES WITH HUB CONFIGURATIONS TO ACCOMMODATE THE LAYOUT AS SHOWN IN THE PLANS. ROUTE CONDUIT FROM POINT TO POINT, IN A STRAIGHT LINE, EXCEPT AS REQUIRED TO AVOID AN OBSTRUCTION.
6. ALL BOLTS, NUTS, AND THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE LUBRICANT PER SPECIFICATIONS.
7. ARRANGE THE LIGHTING CIRCUIT TO FLOW CLOCKWISE AROUND THE RUNWAY AND TAXIWAY WITH THE FEMALE CONNECTOR ON THE REGULATOR SIDE OF THE TRANSFORMER. SEE SHEET E13.
8. ALL TRANSFORMER CONNECTIONS SHALL BE MADE ON THE FEED SIDE OF THE SERIES LOOP. RETURN AND LOOP CONDUCTORS SHALL BE CONTINUOUS AND UNSPLICED.
9. HANDHOLE LOCATIONS MAY BE FIELD ADJUSTED AS APPROVED BY THE ENGINEER.
10. CONDUIT ROUTING SHOWN FOR CLARITY. ROUTE CONDUITS ON SHOULDER. CONDUITS THAT RUN IN CLOSE PROXIMITY MAY BE INSTALLED IN SAME TRENCH.
11. CONTRACTOR SHALL PROVIDE A LIST OF PROPOSED SPARE PARTS AND THE COST FOR EACH CATEGORY TO THE ENGINEER FOR REVIEW PRIOR TO PLACING THE ORDER FOR THE PARTS. QUANTITIES SHALL BE REDUCED IF NECESSARY UNTIL THE COSTS ARE WITHIN THE LIMITS OF THE FAA REQUIREMENTS. SEE SECTION L-125 FOR ADDITIONAL INFORMATION.
12. EDGE LIGHTS TO REMAIN IN SERVICE OUTSIDE CONSTRUCTION LIMITS, SEE CONSTRUCTION SAFETY AND PHASING PLANS. PROVIDE AND MAINTAIN TEMPORARY JUMPERS AS REQUIRED: #8, 5KV AIRPORT CABLE IN HDPE CONDUIT. SAND BAG 10 FEET ON CENTER WITH 50 LB SAND BAGS.
13. SLOPE CONDUITS TO DRAIN TO LOW SPOT. INSTALL 2" CONDUIT DRAIN FROM LIGHT BASE OR HANDHOLE TO DESIGNATED DRAIN LOCATION, VERIFY LOCATION.

11. ALL WORK TO DISCONNECT, MOVE, SECURE, AND RESTORE THE EEB TO FULL OPERATIONAL CONDITION, MAINTAINING TEMPORARY POWER AND CONNECTION TO THE ANTENNA, AND RESTORING POWER TO THE PRIMARY WINDCONE IS SUBSIDIARY TO L109.060.0000 AND NO FURTHER PAYMENT WILL BE MADE.

LEGEND

- NEW 2" HDPE CONDUIT. HASH MARKS INDICATE NUMBER OF NEW #8 AWG. 5KV AIRPORT CABLES TYPE "C" PLUS ONE #6 BARE COPPER GROUND CONDUCTOR.
- NEW 2" RSC CONDUIT. HASH MARKS INDICATE NUMBER OF NEW #8 AWG. 5KV AIRPORT CABLES TYPE "C" PLUS ONE #6 BARE COPPER GROUND CONDUCTOR.
- G◑W G◑O G◑R — NEW RUNWAY THRESHOLD LIGHT – MEDIUM INTENSITY, GREEN/WHITE, GREEN/OBSCURED, GREEN/RED.
- ® — NEW RUNWAY END LIGHT – MEDIUM INTENSITY, RED
- ○ — NEW RUNWAY EDGE LIGHT – MEDIUM INTENSITY, WHITE
- ⊗ — NEW TAXIWAY EDGE LIGHT – MEDIUM INTENSITY
- ⬢ — NEW HANDHOLE, L-867B
- NEW GROUND REM
- TXX — LIGHT OR HANDHOLE NUMBER "X" – SEE SCHEDULE
- NEW POLE MOUNTED ROTATING BEACON
- NEW UTILITY POWER POLE
- —— OE —— NEW OVERHEAD CONDUCTOR
- —— OE —— OVERHEAD CONDUCTOR (EXISTING TO REMAIN)
- METER (EXISTING TO REMAIN)
- UTILITY POWER POLE (EXISTING TO REMAIN)
- DISCONNECT (EXISTING TO REMAIN)
- EXISTING WIND CONE (TO REMAIN)
- EXISTING HANDHOLE (TO REMAIN)
- DOWN GUY AND ANCHOR

ABBREVIATION

AWG	AMERICAN WIRE GAUGE
BCU	BARE COPPER GROUND
C	CONDUIT
CBA	CRUSHED BASE AGGREGATE
CCR	CONSTANT CURRENT REGULATOR
CSPP	CONSTRUCTION SAFETY AND PHASING PLAN
CU	COPPER
DEB	DIRECT EARTH BURY
DEG	DEGREES
DTH	DISPLACED THRESHOLD
ESREB	EXISTING SREB
ETR	EXISTING TO REMAIN
EEB	ELECTRICAL EQUIPMENT BUILDING
FAA	FEDERAL AVIATION ADMINISTRATION
FT	FOOT
GRN	GREEN
GND	GROUND
HDPE	HIGH DENSITY POLYETHYLENE
HIRL	HIGH INTENSITY RUNWAY LIGHTING
IN	INCH
KV	KILOVOLT
KVA	KILOVOLT-AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY
MAX	MAXIMUM
MIN	MINIMUM
MIRL	MEDIUM INTENSITY RUNWAY LIGHTING
NSREB	NEW SREB
OC	ON CENTER
UON	UNLESS OTHERWISE NOTED
PCT	PERCENT
PRI	PRIMARY
REIL	RUNWAY END IDENTIFIER LIGHT
RSC	RIGID STEEL CONDUIT
RW	RUNWAY
SCO	SERIES CUT OUT
SREB	SNOW REMOVAL EQUIPMENT BUILDING
STA	STATION
TH	THRESHOLD
TOC	TOP OF CONCRETE
TW	TAXIWAY
TYP	TYPICAL
VASI	VISUAL APPROACH SLOPE INDICATOR
WC	WIND CONE
XFMR	TRANSFORMER

LIGHTING PLAN SHEET NOTES

1. CONNECT NEW CONDUIT TO EXISTING JUNCTION BOX, LIGHT BASE, HANDHOLE OR CONDUIT USING LISTED DEVICES.
2. PROVIDE NEW 7.5 KW AIRFIELD REGULATOR AND SCO IN EEB. PROVIDE ALL NEW ELECTRICAL COMPONENTS TO INSTALL, POWER, AND CONTROL REGULATOR. REFER TO E15 FOR DETAILS.
3. RECONNECT EQUIPMENT THAT WAS DISCONNECTED DURING RELOCATION. REMOVE STRAPS, BRACES, ANCHORS, AND OTHER ITEMS USED TO SECURE EQUIPMENT AND FIXTURES DURING RELOCATION. REPAIR OR REPLACE ANY DAMAGED EQUIPMENT AND FIXTURES. TEST ALL SYSTEMS PER SECTION XXX. SUBSIDIARY TO P165.060.0000.

Designed By: JBM
Drawn By: JBM,PDO
Checked By: EDC

Date Revised: 1/25/2021, 5:06 PM
Layout Name: E05 Schedules
File Path and Names: Z:\2021KAI - Kongiganak Airport Improvements\E-Working\Drawings\2021-KAI-NEW.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
NEW LEGEND AND NOTES

DATE: 1/25/21
SHEET: E05 OF

SEE E08 FOR ENLARGED SCALE

OE — OE

POLE GUY WIRE

EXISTING METER BASE

RELOCATED SREB

RELOCATED EEB

NEW SREB TO BE INSTALLED BY OTHERS

PRIMARY WIND CONE POWER
NEW 2" HDPE
2 #8 XHHW-2
1 #8 XHHW-2 GRN GND

RUN WC CONDUIT IN SAME TRENCH AS RW EDGE LIGHTING CONDUITS.

SEE DETAIL 5 / E10

RUN WC CONDUIT IN SAME TRENCH AS RW EDGE LIGHTING CONDUITS.

185.38' TYP

SPARE 2" RSC

SEE DETAILS 3B / E10 and 4B / E10

111.25 — 111.25

SEE DETAILS 3 / E10 and 4 / E10

RW STA 09+77.50
INSTALL NEW RW END LIGHTS

RW STA 12+00
INSTALL NEW DISPLACED THRESHOLD LIGHTS

MATCH LINE - 23+00

50' 25' 0 50' 100'

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:06 PM
Layout Name:	E06 NEW
File Path and Names:	Z:\2002\KAI - Kongiganak Airport Improvements\E-Working\Drawings\2002I-KAI-NEW.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
NEW LIGHTING PLAN
8+00 TO 23+00

DATE: 1/25/21

SHEET: E06 OF E16

EXISTING WIND CONE AND HANDHOLE. CONNECT NEW 2" HDPE CONDUIT TO HANDHOLE. (1)

NEW 2" HDPE
2 #8 XHHW-2
1 #8 XHHW-2 GRN GND

RUN WC CONDUIT IN SAME TRENCH AS RW EDGE LIGHTING CONDUITS.

MATCH LINE - 23+00

RW STA 36+10.00
INSTALL NEW RW THRESHOLD LIGHTS

WC9

R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40

185.38 TYP.

SEE DETAILS 3B/E10 4A/E10

ROFA OFZ RSA

23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00

50' 25' 0 50' 100'

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:06 PM
Layout Name:	E07 NEW
File Path and Names:	Z:\2021KAI - Kongiganak Airport Improvements\E-Working\Drawings\2021-KAI-NEW.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
NEW LIGHTING PLAN
23+00 TO 37+50

DATE: 1/25/21

SHEET: E07 OF E16

EXISTING POWER POLE

NEW PRIMARY CONDUCTORS TIED INTO EXISTING UTILITY POWER

NEW POWER POLE WITH NEW 25 KVA 120/240 VOLT SINGLE PHASE TRANSFORMER

EXISTING POWER POLE GUY WIRE

NEW SECONDARY CONDUCTORS TO EXISTING METER BASE ON ESREB

EXISTING METER BASE ON RELOCATED SREB SEE 1/E14

NEW ROTATING BEACON

(3) RELOCATED SREB, (ESREB)

NEW TIP DOWN POLE FOR BEACON SEE DETAILS 1/E11 AND 2/E11

ANTENNA LOCATED ON PLATFORM. REINSTALL OR RESECURE AFTER ESREB RELOCATION.

BURIED BEACON POWER
NEW 2" RSC CONDUIT
3 #10 XHHW-2
1 #10 XHHW-2 GRN GND

BURIED ANTENNA COMM.
NEW 1" RSC CONDUIT
NEW COAX CABLE,
CONNECT TO EXISTING ANTENNA AND RADIO CONTROLER.

ORIENT EEB SO THAT DOOR IS HERE.

BURIED EEB POWER
NEW 2" RSC CONDUIT
3 #2 XHHW-2 CU
1 #6 BARE COPPER GND

HANDHOLE LOCATIONS SHOWN FOR CLARITY. LOCATE SIMILAR TO ORIGINAL LOCATIONS BEFORE RELOCATING EEB. RECORD STATION AND OFFSET IN HANDHOLE SCHEDULE.

RELOCATED EEB,
SEE SHEET E15 FOR DETAILS
EEB EXISTING DISCONNECT

(2) INSTALL NEW 7.5KW REGULATOR IN EEB, SEE SHEET E15 FOR DETAILS.

PRIMARY WIND CONE POWER
NEW 2" RSC CONDUIT IN TRAFFIC AREAS. OTHERWISE HDPE.
2 #8 XHHW-2
1 #8 XHHW-2 GRN GND

NEW SREB, (NSREB)
BY OTHERS

RUN WC CONDUIT IN SAME TRENCH AS RW EDGE LIGHTING CONDUITS.

HDPE CONDUIT

APRON

50' 25' 0 50' 100'

Designed By: JBM
Drawn By: JBM,PDO
Checked By: EDC

Date Revised: 1/25/2021, 5:07 PM
Layout Name: E08 NEW
File Path and Name: Z:\20021KAI - Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-NEW.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

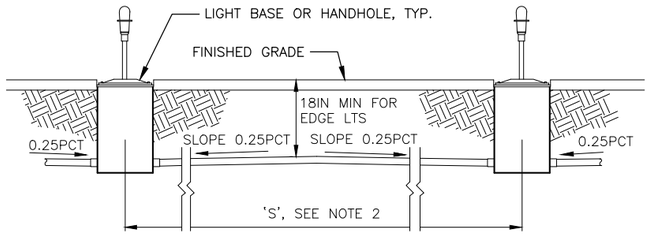
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
NEW APRON PLAN

DATE: 1/25/21

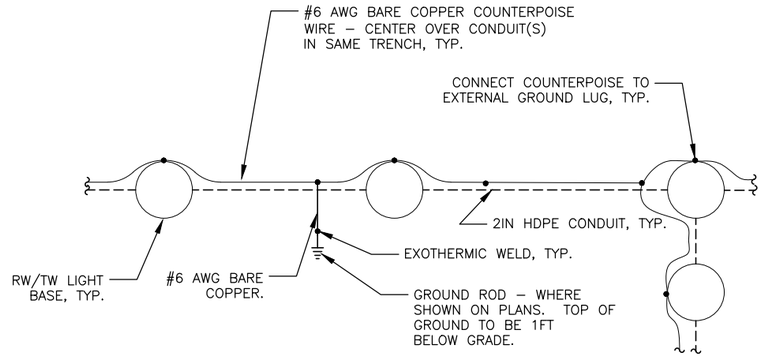
SHEET: E08 OF E16



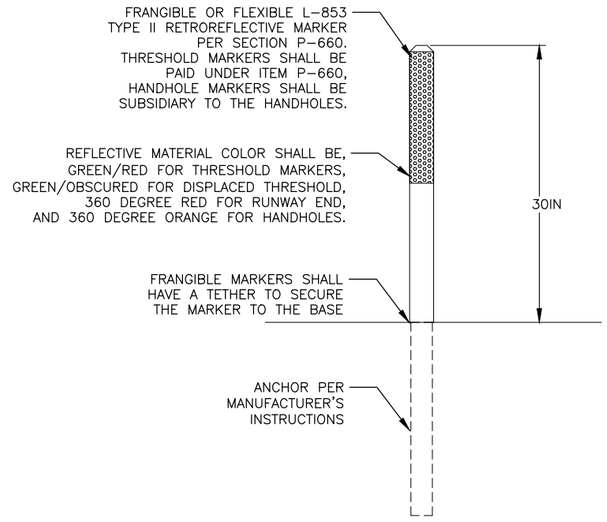
DETAIL NOTES:

1. CONDUIT SHALL BE INSTALLED WITH CROWN TO DRAIN TO LIGHT BASES AS SHOWN.
2. IF 'S' IS LESS THAN 20FT, OR IF 0.25PCT SLOPE CAN BE MAINTAINED IN ONE DIRECTION DUE TO SLOPE OF GRADE, LAY CONDUIT STRAIGHT WITHOUT CROWN BETWEEN BASES/HANDHOLES.

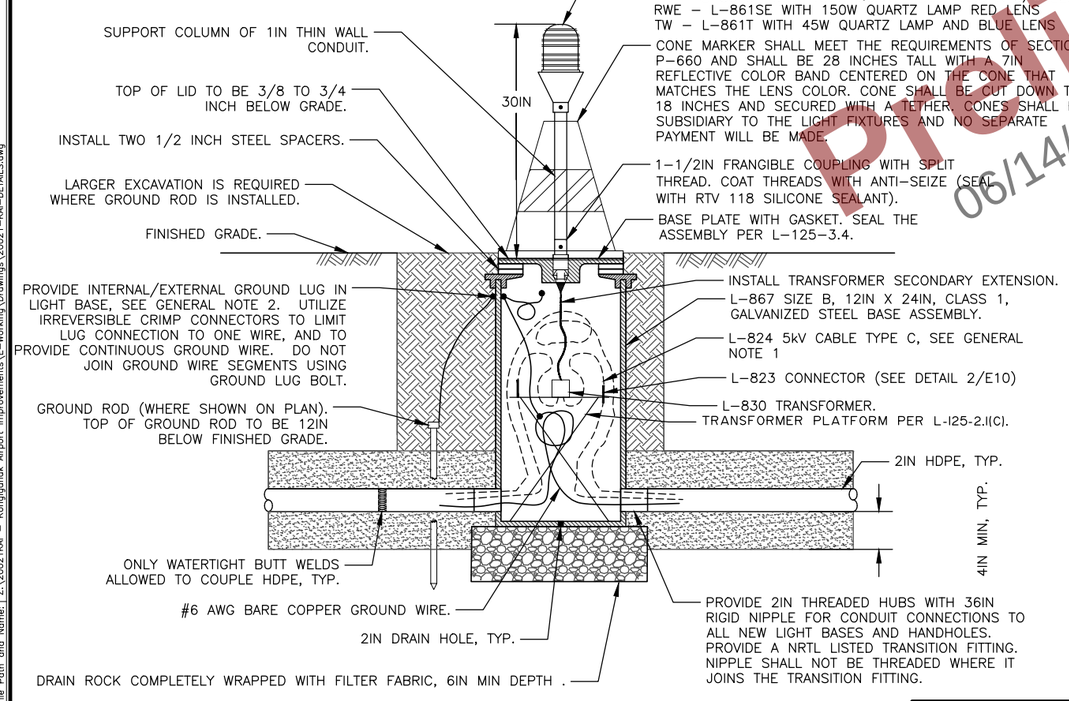
1 / E09 TYPICAL INTERCONNECTION DETAIL
NTS



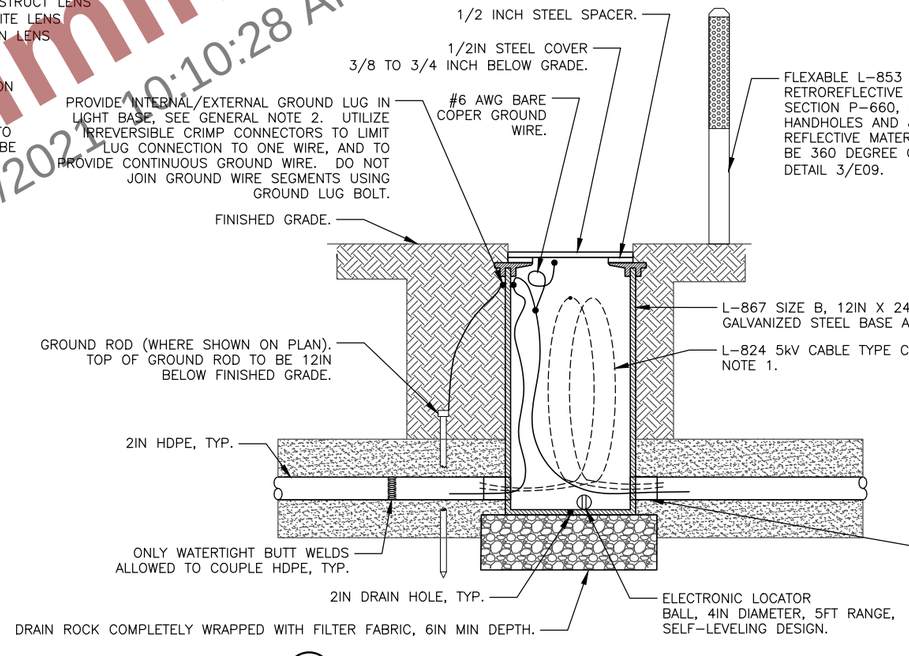
2 / E09 AIRFIELD LIGHTING COUNTERPOISE TYPICAL LAYOUT PLAN
NTS



3 / E09 RETROREFLECTIVE MARKER DETAIL
NTS



4 / E09 L–867 BASE MOUNTED LIGHT DETAIL
NTS



5 / E09 L–867 HANDHOLE DETAIL
NTS

GENERAL NOTES:

1. CABLES AND GROUND STRAPS SHALL HAVE SUFFICIENT SLACK TO ALLOW CONNECTORS TO BE DRAWN 36IN ABOVE FINISHED GRADE. ALL CABLES SHALL BE TAGGED WITH CIRCUIT NUMBER 6IN FROM CONNECTOR WITH FLAG STYLE MARKERS.
2. GROUND FIXTURES AND HANDHOLE COVERS WITH MINIMUM #6 AWG STRANDED COPPER, GREEN INSULATED CONDUCTOR OR WITH EQUIVALENT COPPER BRAIDED GROUND STRAP. BOND TO FIXTURE PER MANUFACTURER'S INSTRUCTIONS.
3. SEAL ALL CONDUIT ENTRIES EXCEPT DRAIN CONDUITS, WITH CONDUIT SEALANT, PER L125–2.1(B) CONDUIT AND CABLES TO BE CLEAN AND DRY PRIOR TO APPLICATION OF SEALANT.

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:07 PM
Layout Name:	E09
File Path and Name:	Z:\20021KAI – Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DETAILS.dwg

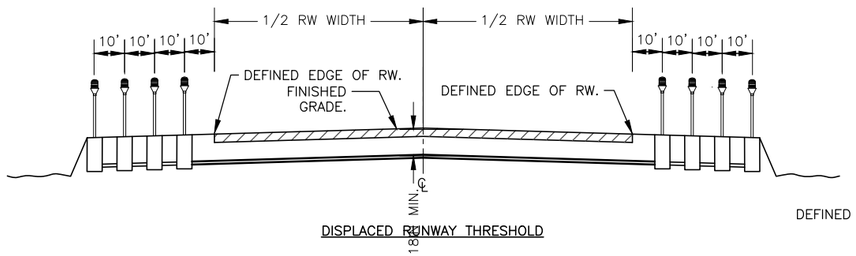
PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

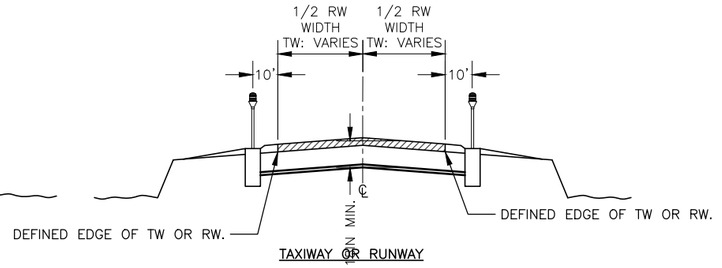
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
LIGHTING DETAILS #1

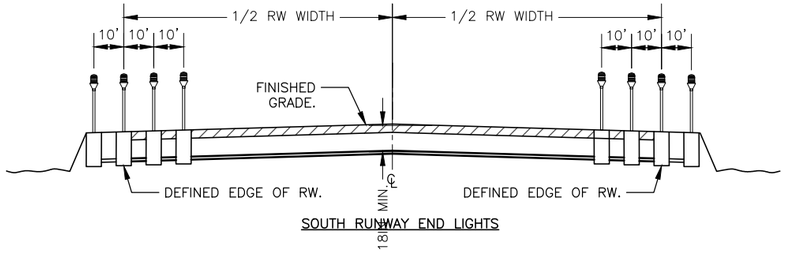
DATE: 1/25/21
SHEET: E09 OF E17



DISPLACED RUNWAY THRESHOLD



TAXIWAY OR RUNWAY

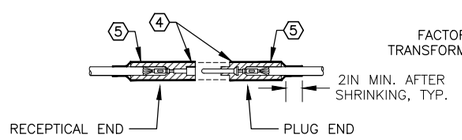


SOUTH RUNWAY END LIGHTS

1 E10 LIGHTING SECTIONS
NTS

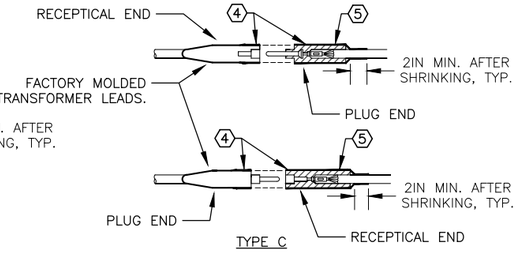
DETAIL NOTES:

1. CABLE SHALL MEET SPECIFICATION L-824. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE. CONNECTOR SHALL BE SUPPLIED TO MATCH CABLE PER MANUFACTURER'S INSTRUCTIONS.
2. 5 kV CONDUCTORS SHALL BE PENCILED USING A PENCILING TOOL MANUFACTURED FOR USE ON #8 AWG, 5 kV, TYPE C AIRPORT CABLE.
3. CONNECTORS SHALL BE CRIMPED USING A RATCHET TYPE CRIMPING TOOL PER MANUFACTURER'S RECOMMENDATION. EACH CRIMP SHALL BE MADE WITH TWO CRIMPS, ROTATED 90DEG.
4. WRAP WITH A MINIMUM OF ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1.5IN ON EACH SIDE OF JOINT. COVER WITH HEAT SHRINK, SEE NOTE 5.
5. HEAT SHRINKABLE TUBING SHALL BE 16IN LONG, HAVE INTERNAL ADHESIVE FULL LENGTH, AND APPLIED FULL LENGTH TO CONNECTORS & CABLE TO HAVE A COMPLETE SEAL.



TYPE B

FOR SPLICES FOR USE AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT



TYPE C

FOR SPLICES AT RUNWAY LIGHTS

2 E10 L-823 CONNECTOR DETAILS
NTS

3A E10 DISPLACED THRESHOLD LIGHT DETAIL
NTS

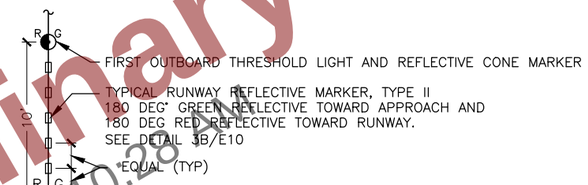
DETAIL NOTES:

1. INSTALL LIGHTS ON RW THRESHOLD IN AN OUTBOARD CONFIGURATION.

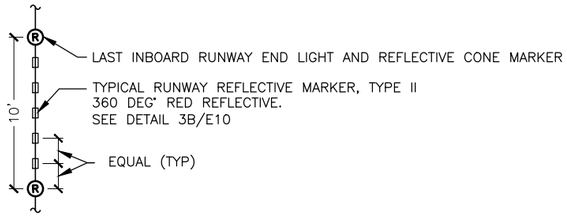
3B E10 THRESHOLD AND RW END LIGHT DETAIL
NTS

DETAIL NOTES:

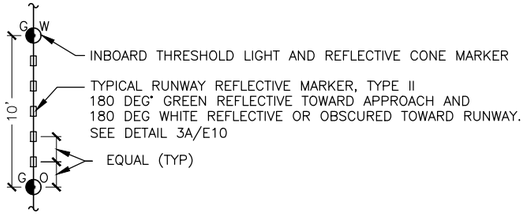
1. INSTALL THRESHOLD LIGHTS OFFSET 10' PAST RW THRESHOLD IN AN OUTBOARD CONFIGURATION. SEE DETAIL 4A/E10.
2. INSTALL RW END LIGHTS OFSET 10' PAST RW END IN AN INBOARD CONFIGURATION. SEE DETAIL 4B/E10.



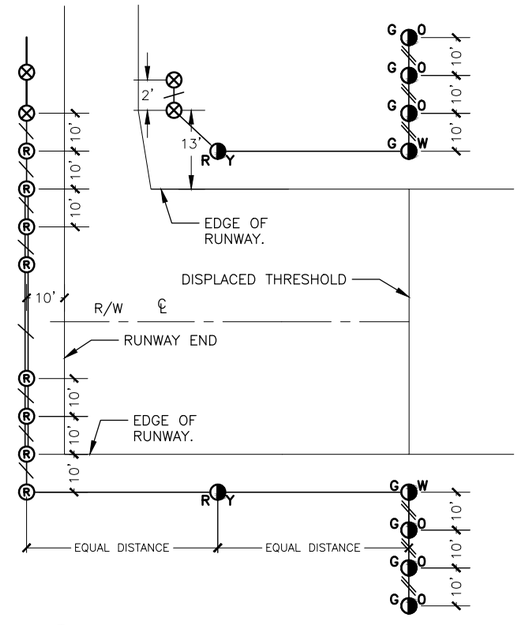
4A E10 THRESHOLD MARKER DETAIL
NTS



4B E10 RUNWAY END MARKER DETAIL
NTS



4C E10 DISPLACED THRESHOLD MARKER DETAIL
NTS



5 E10 TW ENTRANCE/EXIT LIGHT DETAIL
NTS

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:07 PM
Layout Name:	E10
File Path and Name:	Z:\20021KAI - Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DETAILS.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

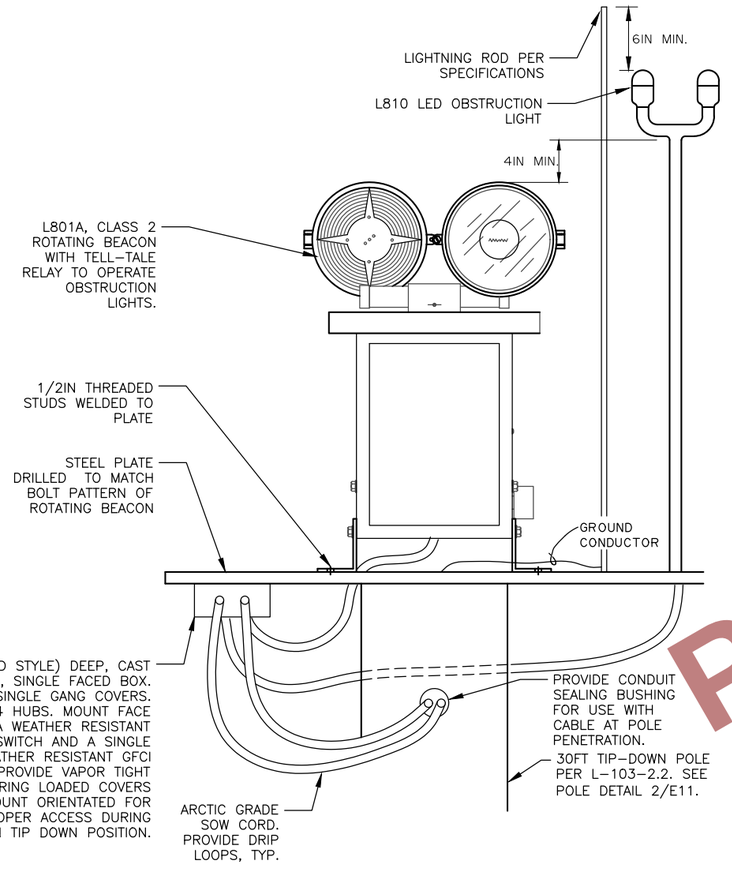
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

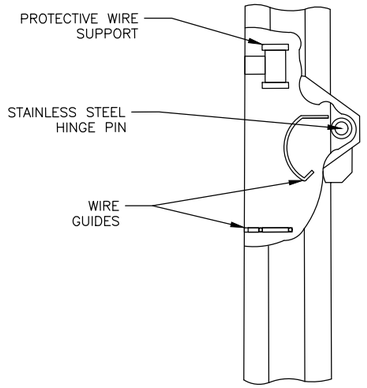
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
LIGHTING DETAILS #2

DATE: 1/25/21

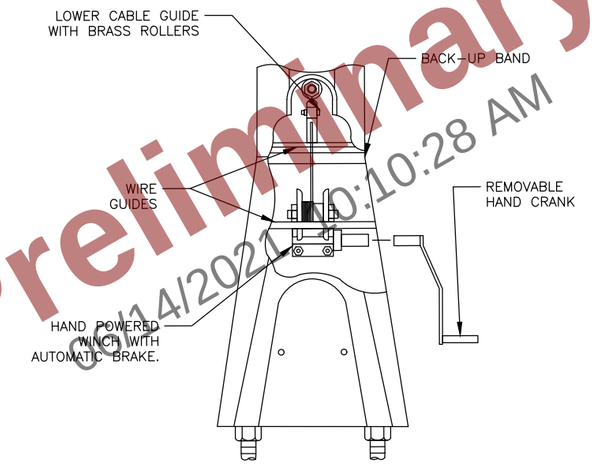
SHEET: E10 OF E17



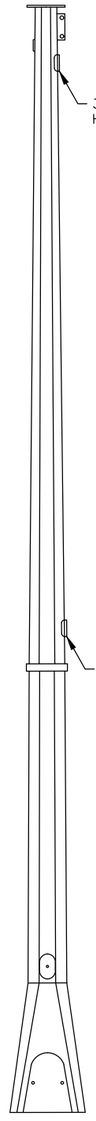
1 E11 ROTATING BEACON MOUNTING DETAIL
NTS



HINGE



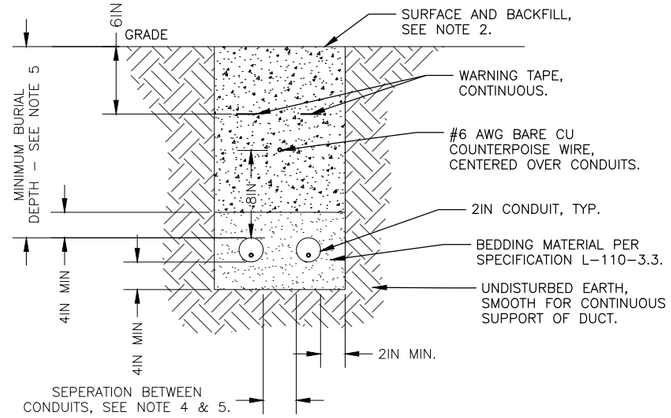
BASE



NOTES:

1. PROVIDE STRUCTURAL FOUNDATION PER SECTION L-103.
2. VERIFY ANCHOR BOLT SIZE, BOLT CIRCLE, AND FOUNDATION SIZE WITH MANUFACTURER'S SHOP DRAWINGS.
3. PROVIDE A 3/0 BARE COPPER GROUND RING, A MINIMUM OF 12" OUTSIDE THE STRUCTURAL BASE, MINIMUM 30" DEEP AND A MINIMUM LENGTH OF 20'. BOND GROUND RING TO GROUND ROD, BEACON GROUND CONDUCTOR TO GROUND RING, AND COUNTERPOISE TO GROUND RING WITH EXOTHERMIC WELDS.

2 E11 HINGED POLE BEACON TOWER DETAIL
NTS



DETAIL NOTES:

1. WIDTH OF TRENCH AND NUMBER OF CONDUITS PER TRENCH TO BE DETERMINED IN FIELD (2 SHOWN).
2. INSTALL NEW LIGHT BASES AND CONDUITS PRIOR TO PLACEMENT OF CTSBC.
3. IN AREAS OF NEW CONSTRUCTION, SEE CIVIL FOR SURFACING AND BACKFILL. IN EXISTING AREAS, MATCH EXISTING SURFACE AND BACKFILL.
4. SEPARATION BETWEEN CONDUITS SHALL BE 4IN MINIMUM FOR LIGHTING SYSTEMS.
5. 12IN MINIMUM SEPARATION BETWEEN LIGHTING AND FAA SYSTEMS.
6. MINIMUM BURIAL DEPTH SHALL BE AS FOLLOWS:
   A) AIRPORT LIGHTING CONDUITS: 18IN
   B) ALL OTHER CONDUITS: 30IN OR AS INDICATED

3 E11 TRENCH DETAIL, ALL
NTS

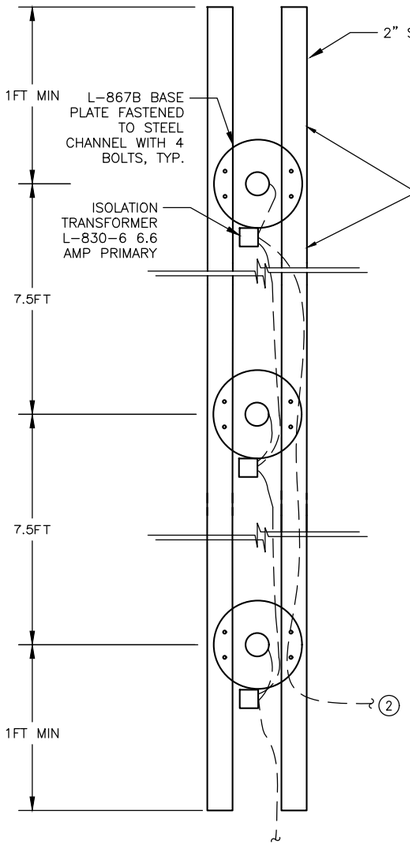
PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
BEACON DETAILS

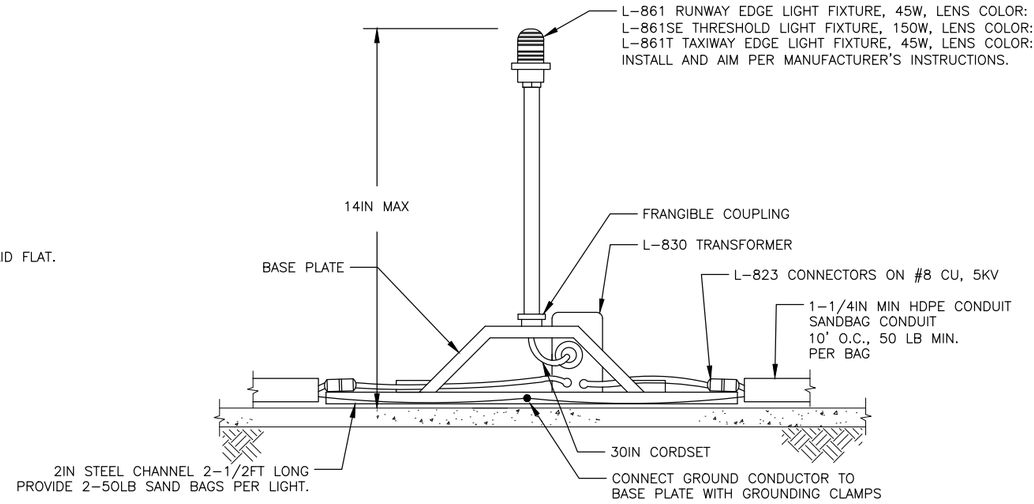
DATE: 1/25/21
SHEET: E11 OF E17



TEMPORARY THRESHOLD LIGHT BAR NOTES:

1. PROVIDE 4 TEMPORARY THRESHOLD LIGHT BARS IN ACCORDANCE WITH THE PROJECT SAFETY PLAN AND AS DIRECTED BY THE ENGINEER.
2. CONNECT TEMPORARY THRESHOLD LIGHT BARS TO TEMPORARY EDGE LIGHTS
3. THE TEMPORARY LIGHT FIXTURES SHALL HAVE CORD SETS OF SUFFICIENT LENGTH TO ALLOW CONNECTION TO TRANSFORMER SECONDARY REMOTE FROM THE AREA UNDERNEATH THE L-867B LID FOR THE TEMPORARY THRESHOLD.
4. TEMPORARY THRESHOLD LIGHT FIXTURES SHALL BE L-861SE (150W) AND SHALL BE THE SAME HEIGHT: 14IN. INSTALL AND AIM PER MANUFACTURER'S INSTRUCTIONS.
5. CONSTRUCTION, INSTALLATION, MAINTENANCE AND DEMOLITION OF THE TEMPORARY THRESHOLD LIGHT BARS AND JUMPERS IS SUBSIDIARY TO PAY ITEM L-125.180.0000.
6. TEMPORARY LIGHTING SYSTEM SHALL BE SALVAGED AND OFFERED TO DOT MAINTENANCE. EQUIPMENT DEEMED OF NO SALVAGE VALUE BY DOT MAINTENANCE PERSONNEL SHALL BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL STATUES. DISPOSAL SHALL NOT TAKE PLACE IN KONGIGANAK.
7. JUMPERS SHALL CONSIST OF #8 AWG, 5 KV AIRPORT CABLE, TYPE G, PLUS ONE #6 AWG BARE COPPER GROUND INSTALLED IN HDPE CONDUIT. NUMBER OF CONDUCTORS INDICATED BY HASH MARKS ON PLANS. SAND BAG CONDUIT 10FT OC, 50 LB MINIMUM PER SAND BAG. CONNECT 5 kV AIRPORT CABLE WITH FAA L-823 CONNECTORS AS SHOWN IN DETAIL 2/E10.
8. TEMPORARY JUMPERS SHALL BE SALVAGED OR DISPOSED OF AT THE DIRECTION OF THE ENGINEER.

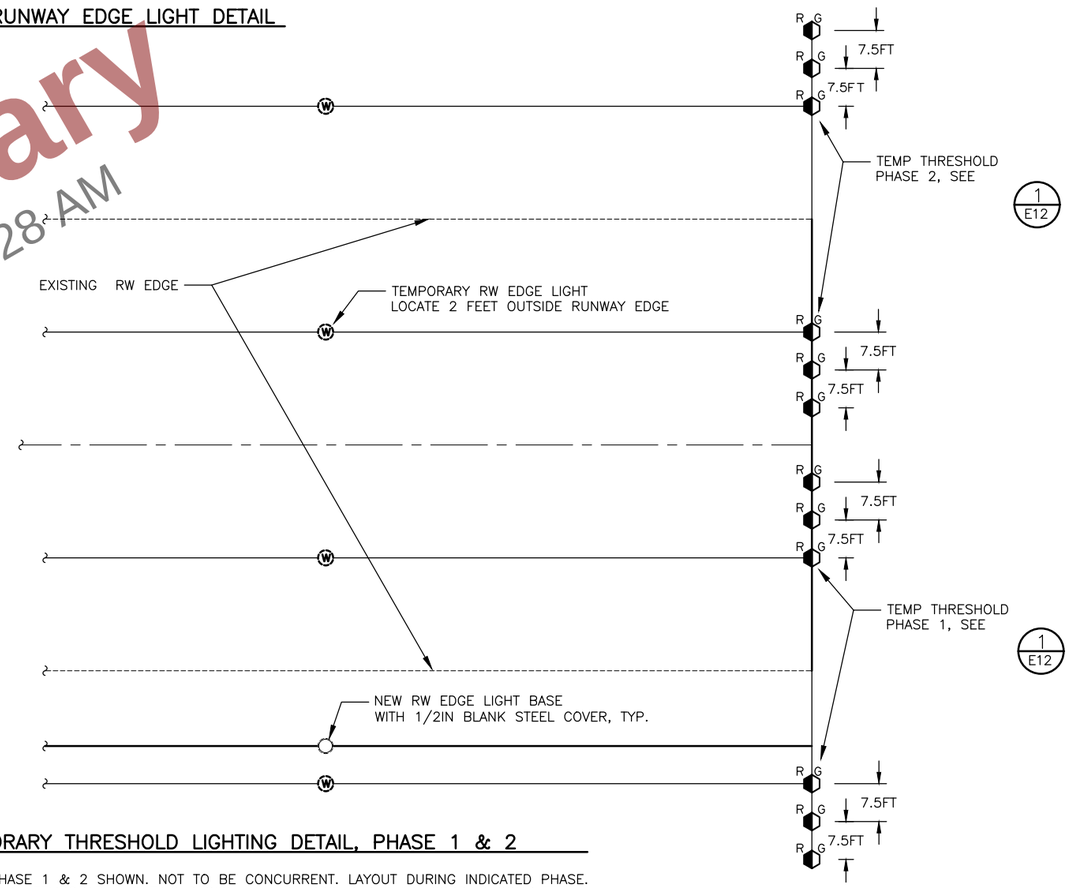
1 E12 TEMPORARY THRESHOLD LIGHT BAR
NTS



2 E12 TEMPORARY RUNWAY EDGE LIGHT DETAIL
NTS

* CONSTRUCTION, INSTALLATION, MAINTENANCE AND DEMOLITION OF TEMPORARY EDGE LIGHTS, THRESHOLD LIGHTS AND JUMPERS ARE SUBSIDIARY TO PAY ITEM L-125.180.0000

* TEMPORARY EDGE LIGHTS SHALL BE LAID OUT SYMMETRICAL TO EDGE LIGHTS ON OPPOSITE SIDE OF RUNWAY. MAINTAIN A STRAIGHT LINE. MATCH EXISTING LENS COLOR.



3 E12 TEMPORARY THRESHOLD LIGHTING DETAIL, PHASE 1 & 2
NTS
NOTE: PHASE 1 & 2 SHOWN, NOT TO BE CONCURRENT. LAYOUT DURING INDICATED PHASE. FINAL TEMPORARY LIGHTING DESIGN WILL BE PROVIDED WHEN CSPP IS COMPLETE.

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

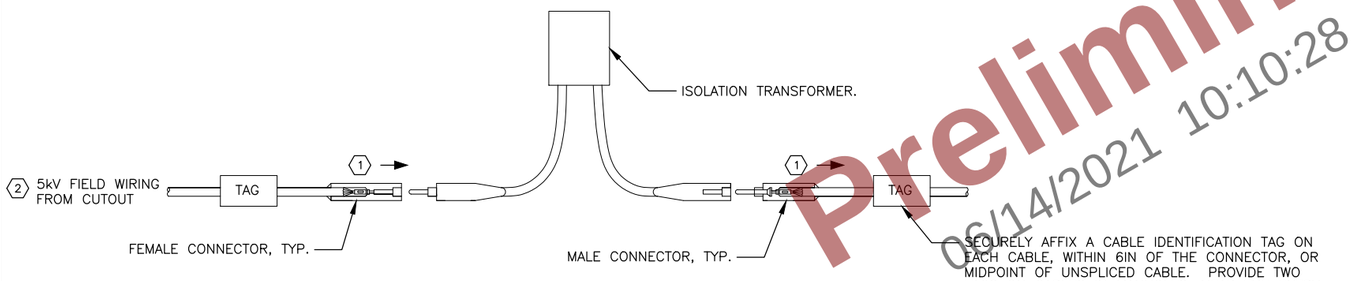
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
TEMPORARY LIGHTING DETAILS

DATE: 1/25/21
SHEET: E12 OF E17

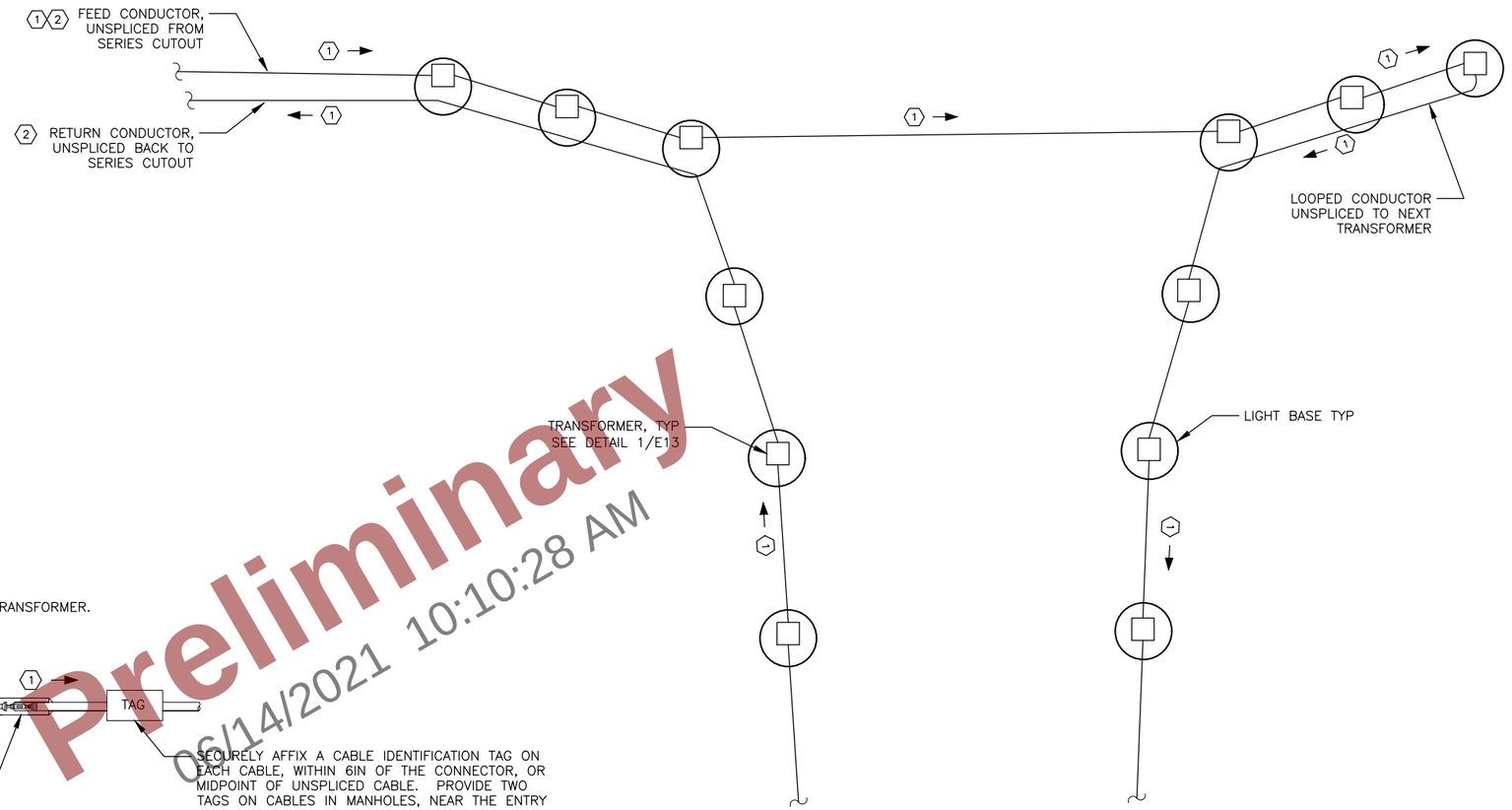
Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC

SHEET NOTES:

1. ARRANGE THE LIGHTING CIRCUIT TO FLOW CLOCKWISE AROUND THE RUNWAY AND TAXIWAY WITH THE FEMALE CONNECTOR ON THE REGULATOR SIDE OF THE TRANSFORMER.
2. ALL TRANSFORMER CONNECTIONS SHALL BE MADE ON THE FEED SIDE OF THE SERIES LOOP. RETURN AND LOOP CONDUCTORS SHALL BE CONTINUOUS AND UNSPLICED.



1 E13 CONNECTOR ORIENTATION DETAIL
NTS



2 E13 FIELD WIRING SCHEMATIC
NTS

Date Revised:	1/25/2021, 5:07 PM
Layout Name:	E13
File Path and Names:	Z:\20021KAI – Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DETAILS.dwg

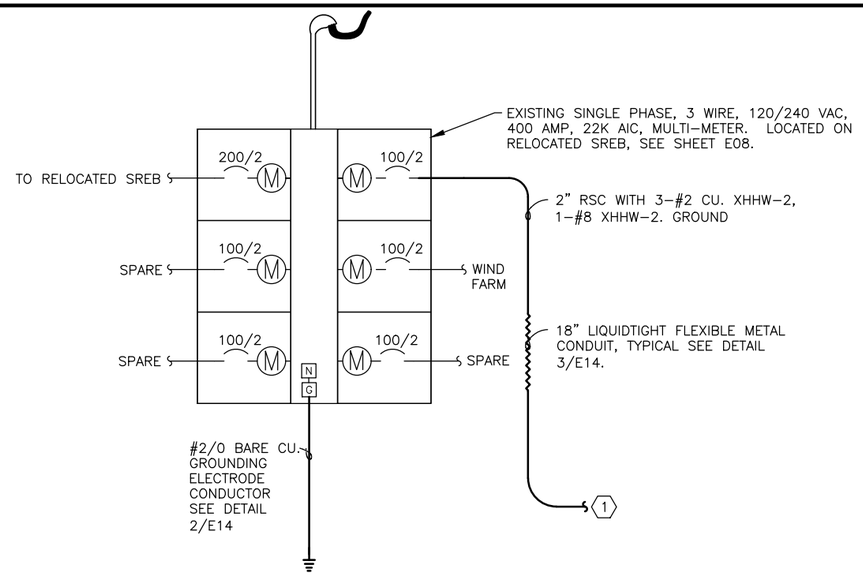
PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
FIELD WIRING DETAILS

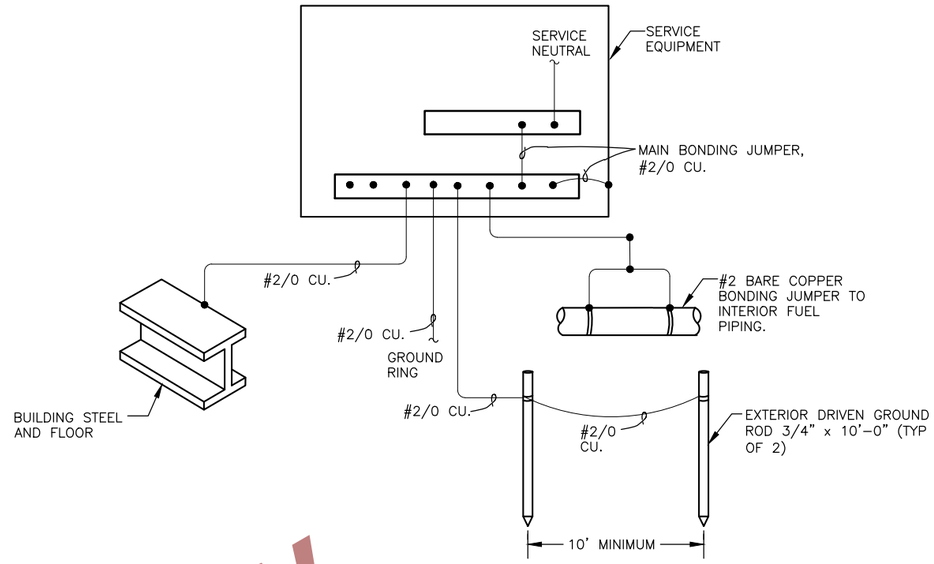
DATE: 1/25/21
SHEET: E13 OF E17



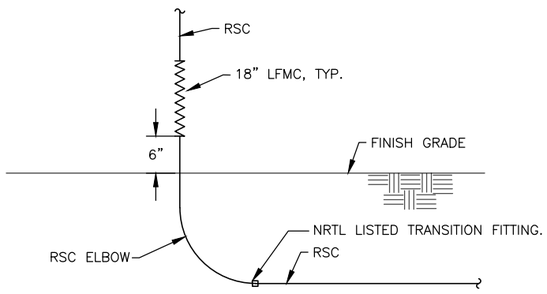
1 E14 EXISTING METER BASE ON RELOCATED SREB DETAIL
NTS

METER BASE DETAIL NOTES

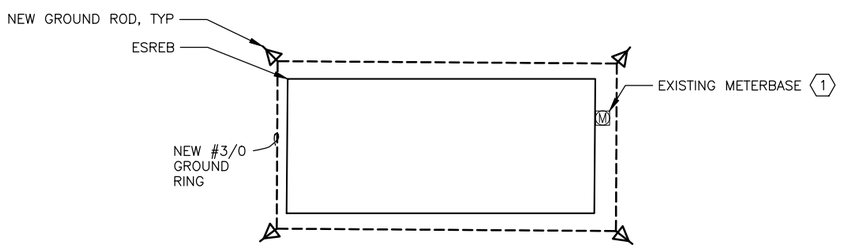
1 PROVIDE NEW UNDERGROUND CONDUIT AND CONDUCTOR TO RELOCATED EEB, CONNECT TO EXISTING EEB DISCONNECT



2 E14 RELOCATED SREB DISCONNECT GROUNDING DETAIL
NTS



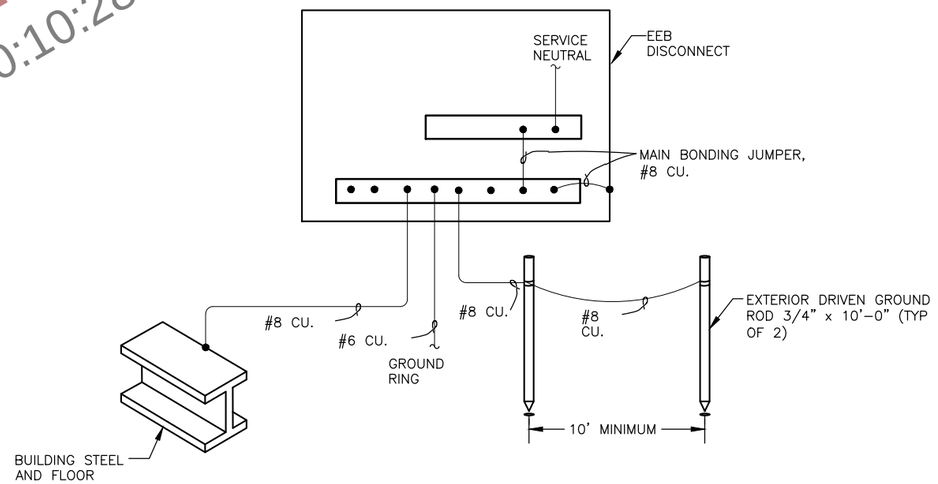
3 E14 CONDUIT ABOVE/BELOW GRADE TRANSITION DETAIL
NTS



4 E14 ESERB RING GROUNDING DETAIL
NTS

SREB GROUND RING DETAIL NOTES

1 INSTALL CONTINUOUS #3/0 AWG BCG GROUND RING, BURY DEPTH MINIMUM 30". GROUNDING ELECTRODE SYSTEM: BOND TOGETHER GROUND RODS, THE BUILDING STEEL FRAME AND THE GROUND RING WITH #2/0 AWG CONDUCTORS. AT THE SERVICE ENTRANCE, BOND #2/0 AWG CONDUCTOR TO GROUNDING ELECTRODE SYSTEM FOR CONNECTION TO SERVICE EQUIPMENT. SEE DETAIL 2/E14 FOR MORE INFORMATION.



5 E14 RELOCATED EEB DISCONNECT GROUNDING DETAIL
NTS

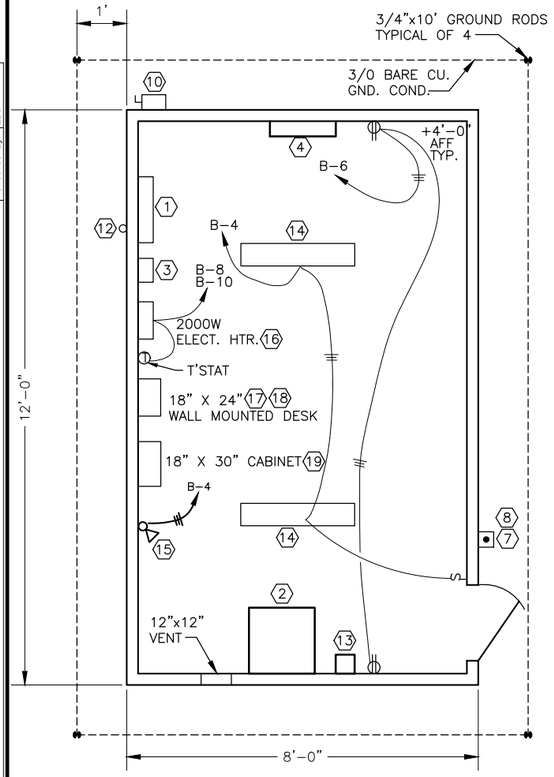
Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:07 PM
Layout Name:	E14
File Path and Names:	Z:\20021KAI - Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DETAILS.dwg

PLANS DEVELOPED BY:	BY	DATE	REVISION
MBA CONSULTING ENGINEERS, INC. 3812 SPENARD ROAD, SUITE 200 ANCHORAGE, AK 99517 (907) 274-2622 CERT. OF AUTH. NO.#AECC578			

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
SREB METER BASE AND GROUNDING DETAIL

DATE: 1/25/21
SHEET: E14 OF E17



1 EXISTING ELECTRICAL EQUIPMENT BUILDING (EEB) PLAN
E15 NTS – EXISTING SIMILAR

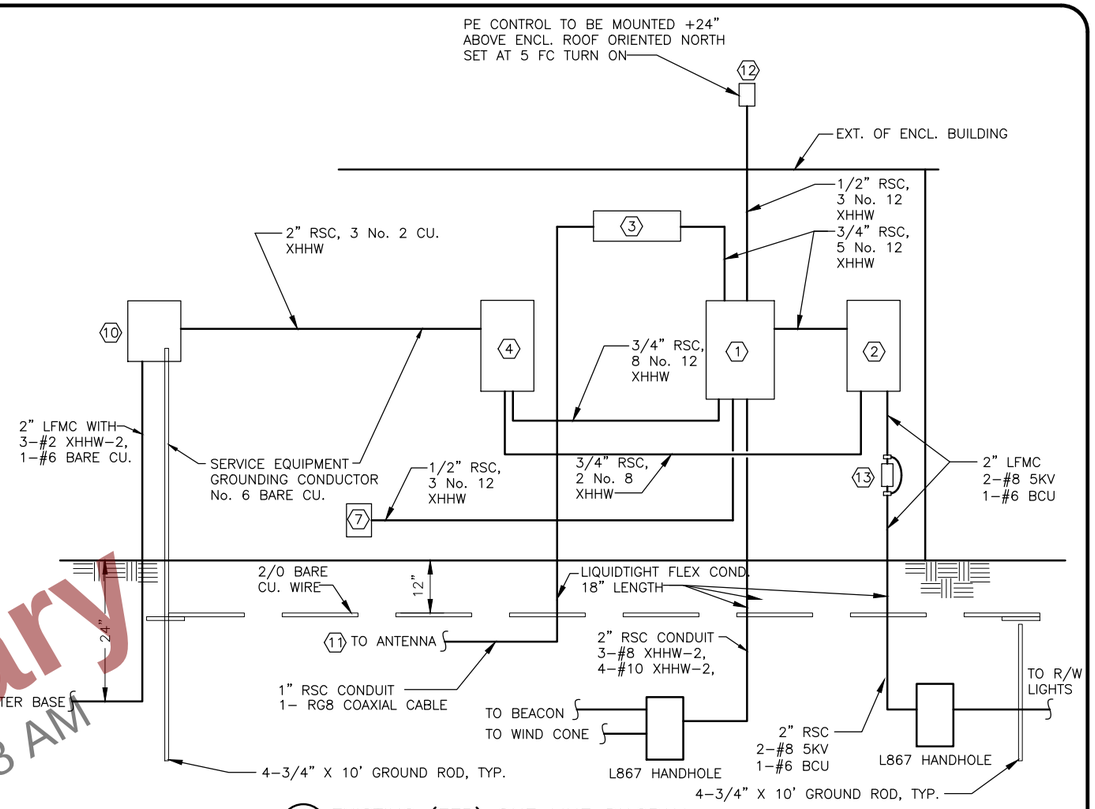
EQUIPMENT LIST

1. LIGHTING CONTROL PANEL, SEE SPECS.
2. CONSTANT CURRENT REGULATOR, 7.5 KW. (NEW)
3. RADIO CONTROLLER
4. CIRCUIT BREAKER PANELBOARD, PANEL B.
5. DUCK BILL ANCHORS AND CABLE FOR SECURING EEB. (NEW)
6. NOT USED.
7. PUSH BUTTON STATION.
8. SIGN TO READ: PUSH TO TURN RUNWAY LIGHTS ON. AUTO OFF IN 15 MINUTES.
9. NOT USED
10. HEAVY DUTY DISCONNECT SWITCH, 100A, NON-FUSED, 2 BLADE, IN NEMA 3R ENCLOSURE.
11. RADIO CONTROL ANTENNA.
12. PHOTOELECTRIC CONTROL
13. SERIES CUT OUT AND MOUNT IN A 14"x12"x8" NEMA 1 BOX WITH HINGED COVER. (NEW)
14. 4 FOOT, TWO TUBE, SURFACE MOUNT LED FIXTURE WITH WRAPAROUND LENS COVER. (NEW)
15. EMERGENCY LIGHT WITH NI-CAD BATTERIES, 90 MIN. RATING
16. 2000-WATT 240-VOLT WALL MOUNTED FAN-FORCED ELECTRIC HEATER.
17. METAL WALL DESK.
18. METAL CHAIR (ADJUSTABLE LEGS) WITH BACK SUPPORT FOR DESK.
19. METAL WALL CABINET.

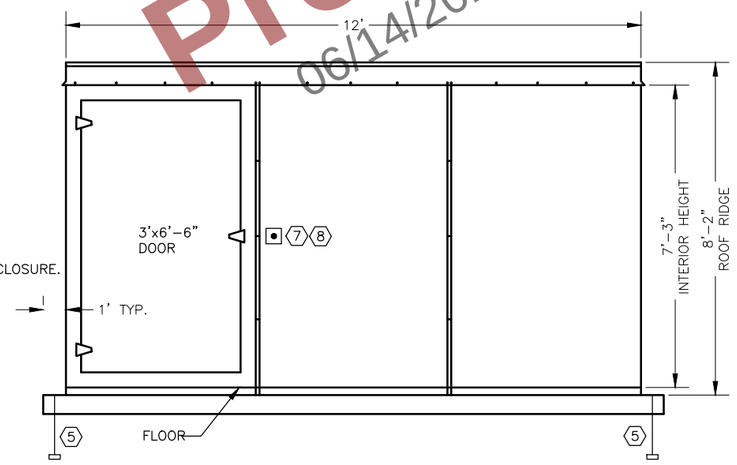
NOTES:
1. ALL WALL PENETRATIONS SHALL BE SEALED WITH SILICONE SEALANT.
2. EEB BUILDING AND EQUIPMENT ARE EXISTING UNLESS NOTED ON PLANS OR IN NEW NOTES ABOVE.

NEW NOTES:

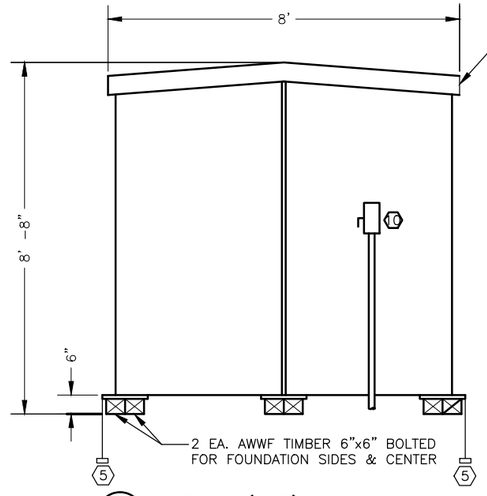
1. PROVIDE NEW CONSTANT CURRENT REGULATOR (CCR). RUNWAY AND TAXIWAY – TYPE L-828, CLASS 1, STYLE 1, 7.5 KW, 240V, 1 PHASE, 60 HZ.
2. PROVIDE NEW SERIES CUT OUT (SCO) AND NEW 14" X 12" X 8" NEMA 1 BOX WITH HINGED DOOR.
3. PROVIDE NEW 1 PHASE, DOUBLE POLE 45 AMP BREAKER IN PANEL B FOR NEW REGULATOR.
4. PROVIDE NEW #8 CONDUCTORS FROM PANEL B TO REGULATOR.
5. PROVIDE NEW #3/0 AND #6 BARE COPPER GROUND WIRE, GROUND RODS, AND EXOTHERMIC WELDS TO REPLACE GROUND RING AT EEB'S NEW LOCATION. GROUND RING BURIAL DEPTH 30" MINIMUM.
6. PROVIDE NEW CONDUIT AND CONDUCTORS TO PRIMARY WINDCONE AND TERMINATE TO ORIGINAL TERMINATION POINTS IN EEB.
7. PROVIDE NEW CONDUIT AND CONDUCTORS FROM EEB DISCONNECT TO SERVICE EQUIPMENT AT SREB.
8. PROVIDE NEW CONDUIT AND A CONTINUOUS LENGTH COAX CABLE FROM THE RADIO CONTROLLER TO ANTENNA MOUNTED ON THE SREB.
9. ALL ELECTRICAL METHODS, TECHNIQUES, AND MATERIAL SHALL CONFORM TO THE CURRENT EDITION OF THE NEC.
10. TAKE NOTE THAT THE BEACON POWER IS SUPPLIED BY A DOUBLE POLE BREAKER.
11. PROVIDE NEW DUCK BILL ANCHORS AND CABLE TO SECURE EEB.
12. SEE PANEL SCHEDULE ON E16.



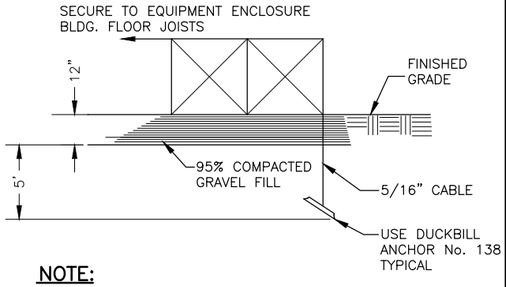
2 EXISTING (EEB) ONE LINE DIAGRAM
E15 NTS – EXISTING SIMILAR



3 EXISTING (EEB) SIDE ELEVATION
E15 NTS – EXISTING SIMILAR



4 EXISTING (EEB) SECTION
E15 NTS – EXISTING SIMILAR



NOTE:
INSTALL A TOTAL OF FOUR ANCHORS, ONE AT EACH CORNER

5 EXISTING (EEB) TIE DOWN DETAIL
E15 NTS – EXISTING SIMILAR

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC
Date Revised:	1/25/2021, 5:07 PM
Layout Name:	E15
File Path and Names:	Z:\20021KAI – Kongiganak Airport Improvements\E-Working\Drawings\20021-KAI-DETAILS.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
EEB DETAIL

DATE: 1/25/21
SHEET: E15 OF E17

KONGIGANAK AIRPORT RUNWAY 01-19 EDGE LIGHT SCHEDULE										
UNIT #	COLOR	TYPE	USED	WATTS	XFMR	RW/TW NAME	ALIGNMENT	STATION	OFFSET	NOTES
R01	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	47.50' R	
R02	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	37.50' R	
R03	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	27.50' R	
R04	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	17.50' R	
R05	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	17.50' L	
R06	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	27.50' L	
R07	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	37.50' L	
R08	R/R	L-861SE	RWEND	150	150	RW 01-19	RW	9+77.50	47.50' L	
R09	R/Y	L-861	DPTH	45	45	RW 01-19	RW	10+88.75	47.50' L	
R10	G/W	L-861	DPTH	150	150	RW 01-19	RW	12+00	47.50' L	
R11	G/O	L-861E	DPTH	150	150	RW 01-19	RW	12+00	57.50' L	
R12	G/O	L-861E	DPTH	150	150	RW 01-19	RW	12+00	67.50' L	
R13	G/O	L-861E	DPTH	150	150	RW 01-19	RW	12+00	77.50' L	
R14	W	L-861	RW	45	45	RW 01-19	RW	13+85.38	47.50' L	
R15	W	L-861	RW	45	45	RW 01-19	RW	15+70.77	47.50' L	
R16	W	L-861	RW	45	45	RW 01-19	RW	17+56.15	47.50' L	
R17	W	L-861	RW	45	45	RW 01-19	RW	19+41.54	47.50' L	
R18	W	L-861	RW	45	45	RW 01-19	RW	21+26.92	47.50' L	
R19	W	L-861	RW	45	45	RW 01-19	RW	23+12.31	47.50' L	
R20	W	L-861	RW	45	45	RW 01-19	RW	24+97.69	47.50' L	
R21	W	L-861	RW	45	45	RW 01-19	RW	26+83.08	47.50' L	
R22	W	L-861	RW	45	45	RW 01-19	RW	28+68.46	47.50' L	
R23	W	L-861	RW	45	45	RW 01-19	RW	30+53.85	47.50' L	
R24	W	L-861	RW	45	45	RW 01-19	RW	32+39.23	47.50' L	
R25	W	L-861	RW	45	45	RW 01-19	RW	34+24.62	47.50' L	
R26	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	77.50' L	
R27	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	67.50' L	
R28	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	57.50' L	
R29	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	47.50' L	
R30	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	47.50' R	
R31	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	57.50' R	
R32	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	67.50' R	
R33	R/G	L-861SE	RW	150	150	RW 01-19	RW	0.000000	77.50' R	
R34	W	L-861	RW	45	45	RW 01-19	RW	34+24.62	47.50' R	
R35	W	L-861	RW	45	45	RW 01-19	RW	32+39.23	47.50' R	
R36	W	L-861	RW	45	45	RW 01-19	RW	30+53.85	47.50' R	
R37	W	L-861	RW	45	45	RW 01-19	RW	28+68.46	47.50' R	
R38	W	L-861	RW	45	45	RW 01-19	RW	26+83.08	47.50' R	
R39	W	L-861	RW	45	45	RW 01-19	RW	24+97.69	47.50' R	
R40	W	L-861	RW	45	45	RW 01-19	RW	23+12.31	47.50' R	
R41	W	L-861	RW	45	45	RW 01-19	RW	21+26.92	47.50' R	
R42	W	L-861	RW	45	45	RW 01-19	RW	19+41.54	47.50' R	
R43	W	L-861	RW	45	45	RW 01-19	RW	17+56.15	47.50' R	
R44	W	L-861	RW	45	45	RW 01-19	RW	15+70.77	47.50' R	
R45	W	L-861	RW	45	45	RW 01-19	RW	13+85.38	47.50' R	
R46	G/W	L-861	DPTH	150	150	RW 01-19	RW	12+00	47.50' R	
R47	G/O	L-861E	DPTH	150	150	RW 01-19	RW	12+00	57.50' R	
R48	G/O	L-861E	DPTH	150	150	RW 01-19	RW	12+00	67.50' R	
R49	G/O	L-861E	DPTH	150	150	RW 01-19	RW	12+00	77.50' R	
R50	R/Y	L-861	DPTH	45	45	RW 01-19	RW	10+88.75	10' R	

KONGIGANAK AIRPORT TAXIWAY EDGE LIGHT SCHEDULE										
LIGHT #	COLOR	TYPE	LAMP	XFMR	TAXIWAY NAME	ALIGNMENT	STATION	OFFSET	CONE COLOR	NOTES
T01	BLUE	L861T	45	30/45	TAXIWAY	TW	2+40.00	26.56' R	BLUE	NEW
T02	BLUE	L861T	45	30/45	TAXIWAY	TW	2+27.35	24.53' R	BLUE	NEW
T03	BLUE	L861T	45	30/45	TAXIWAY	TW	2+14.70	22.50' R	BLUE	NEW
T04	BLUE	L861T	45	30/45	TAXIWAY	TW	1+64.70	22.50' R	BLUE	NEW
T05	BLUE	L861T	45	30/45	TAXIWAY	TW	1+44.75	22.50' R	BLUE	NEW
T06	BLUE	L861T	45	30/45	TAXIWAY	TW	1+24.80	22.50' R	BLUE	NEW
T07	BLUE	L861T	45	30/45	TAXIWAY	TW	0+74.80	22.50' R	BLUE	NEW
T08	BLUE	L861T	45	30/45	TAXIWAY	TW	0+62.65	24.45' R	BLUE	NEW
T09	BLUE	L861T	45	30/45	TAXIWAY	TW	0+52.50	26.40' R	BLUE	NEW
T10	BLUE	L861T	45	30/45	TAXIWAY	TW	0+50.50	26.40' R	BLUE	NEW
T11	BLUE	L861T	45	30/45	TAXIWAY	TW	0+57.50	22.50' L	BLUE	NEW
T12	BLUE	L861T	45	30/45	TAXIWAY	TW	0+74.80	22.50'L	BLUE	NEW
T13	BLUE	L861T	45	30/45	TAXIWAY	TW	1+24.80	22.50' L	BLUE	NEW
T14	BLUE	L861T	45	30/45	TAXIWAY	TW	1+44.75	22.50' L	BLUE	NEW
T15	BLUE	L861T	45	30/45	TAXIWAY	TW	1+64.70	22.50' L	BLUE	NEW
T16	BLUE	L861T	45	30/45	TAXIWAY	TW	2+14.70	22.50' L	BLUE	NEW
T17	BLUE	L861T	45	30/45	TAXIWAY	TW	2+40.00	22.50' L	BLUE	NEW

KONGIGANAK HANDHOLE SCHEDULE			
UNIT #	SYSTEM	PAY ITEM	REMARKS
HH1	RW/TW LGT	L125.150.0000	PER EACH
HH2	RW/TW LGT	L125.150.0000	PER EACH
HH3	RW/TW LGT	L125.150.0000	PER EACH
HH4	WINDCONE	L125.150.0000	SUBSIDIARY TO PAY ITEM
WC1	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC2	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC3	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC4	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC5	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC6	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC7	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC8	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM
WC9	WINDCONE	L109.060.0000	SUBSIDIARY TO PAY ITEM

PANEL: B	MOUNTING	MAINS	OPTIONS
PROJECT: KONGIGANAK AIRPORT	SURFACE	LUGS	SOLID NEUTRAL
LOCATION: EEB			

VOLTAGE: 240/120 VOLT	1 PHASE	3 WIRE	100 A	MLO	10k AIC

CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION
LIGHTING CONTROL PANEL	0.6	20	1	1	2	20	1	0.0	SPARE
ROTATING BEACON & MOTOR	0.4	20	2	3	4	20	1	0.2	ENCLOSURE LIGHTS
BEACON STRIP HEATER AND RECEPTACLE	0.4	20		5	6	20	2	0.4	CONV. RECEPTS
WIND CONE (PRIMARY)	0.6	20	1	7	8	20	2	2	ELECTRIC HEAT
7.5 kW REGULATOR (RW AND TW) (1)	8	45	2	9	10				
				11	12	20	1	0.1	CONTROL PANEL STRIP HEATER
SPACE				13	14				SPACE
SPACE				15	16				SPACE
SPACE				17	18				SPACE
SPACE				19	20				SPACE
SPACE				21	22				SPACE
SPACE				23	24				SPACE
SPACE				25	26				SPACE
SPACE				27	28				SPACE
SPACE				29	30				SPACE

CONNECTED LOAD:		13.0	KVA	54.3	A	REMARKS:
DEMAND LOAD:		15.4	KVA	64.3	A	
DATE:						
REV:						

(1) PROVIDE NEW CIRCUIT BREAKER.

Designed By: JBM
Drawn By: JBM,PDO
Checked By: EDC

Date Revised: 1/25/2021, 5:07 PM
Layout Name: E16
File Path and Name: Z:\2021KAI - Kongiganak Airport Improvements\E-Working\Drawings\2021-KAI-DETAILS.dwg

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
LIGHTING SCHEDULE

DATE: 1/25/21

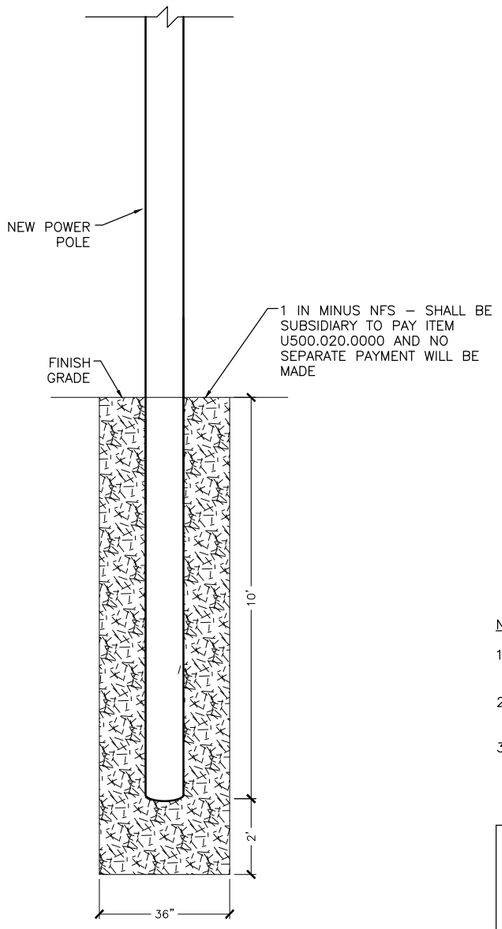
SHEET: E16 OF E17

Designed By:	JBM
Drawn By:	JBM,PDO
Checked By:	EDC

Date Revised:	1/25/2021, 5:07 PM
Layout Name:	E17
File Path and Names:	Z:\2021KAI - Kongiganak Airport Improvements\E-Working\Drawings\2021-KAI-DETAILS.dwg

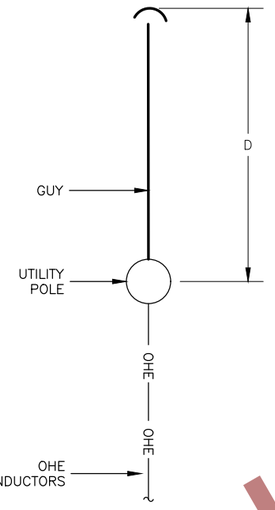
STAKING SHEET

EXIST NEW		CONDUCTOR SERVICE NO.	SZ.	TYPE	BACK SPAN	SECONDARY NO.	SZ.	TYPE	BACK SPAN	PRIMARY NO.	SZ.	TYPE	BACK SPAN	LOCATION	HEIGHT & CLASS	PRIMARY ASSEMBLY NO.	UNITS	GUYS (E) NO.	UNITS	ANCHORS (F) NO.	UNITS	XFORMERS (G) NO.	UNITS	SECONDARY (J) NO.	UNITS	SERVICE (K) NO.	UNITS	MISC (M) NO.	UNITS	REMARKS
NEW		1	#4/0	TRIPLEX	75					2	#2	ACSR	180	New Pole	40–4	1	A5.1	1	E1.1	1	F3.12	1	G1.6					1	H1.1	50 KVA XFMR (NOTE 8), FUSED CUTOUT W/40A FUSE (NOTE 6), SURGE ARRESTOR (NOTE 7). SERVICE CONDUCTOR TO BE 90C XHHW–2 TRIPLEX CONDUCTOR. (NOTE 10)



1 E17 POWER POLE EMBEDMENT DETAIL
NTS

NOTE:
EMBEDMENT FOR 40 FOOT POLE SHOWN.



2 E17 GUY/ANCHOR PLAN
NTS

NOTES:

1. USE DOUBLE PLATE TYPE ANCHORS WHERE REQUIRED AFTER 50% DERATING FOR CLASS 7 SOIL.
2. DIMENSION "D": EQUAL TO OR GREATER THAN GUY ATTACHMENT HEIGHT AT DEADEND POLE.
3. ROVIDE RUS F6.10 SWAMP ANCHORS IN CLASS 8 SOIL.

POLE EMBEDMENT SCHEDULE

POLE LENGTH (FT)	40
DEPTH OF BURY (FT)	10
DEPTH OF EXCAVATION (FT)	12

STAKING SHEET NOTES

1) #2 ACSR SHALL BE CODE WORD SPARATE, 7/1 AL/STL STR.
2) GROUND WIRES AT POLES SHALL BE #4 BARE CU.
3) INSTALL NEUTRAL ON LOAD SIDE.
4) JUMPER WITH #2 ACSR AND COMPRESSION CONNECTOR.
5) UNIT DESIGNATION ON STAKING SHEETS REFER TO RUS BULLETIN 1728F–804 DRAWING NUMBERS. REFERENCED DRAWINGS ARE IN PROJECT SPECIFICATIONS APPENDIX N.
6) FUSED CUTOUT: 15KV, 95KV BIL, 200A, 10KA, TYP T FUSE.
7) SURGE ARRESTER.: DISTRIBUTION CLASS, 9KV.
8) TRANSFORMER: 50KVA, SINGLE PHASE, 7200V PRIMARY, 120/240V 3–WIRE SECONDARY, 95KV BIL. PROVIDE PRIMARY FUSES PER NEC AND MANUFACTURER'S RECOMMENDATIONS, PROVIDE 400A 2P SECONDARY CB.
9) LINE INSULATORS: 95KV BIL MINIMUM.
10) PROVIDE NUMBER OF GUY AND ANCHOR UNITS AS NEEDED FOR REQUIRED HOLDING POWER IN SOIL ENCOUNTERED AT POLE LOCATION.

GENERAL NOTES

1. PROVIDE A COMPLETE, OPERATIONAL 7160V SINGLE PHASE EFFECTIVELY GROUNDED OVERHEAD POLE LINE FROM THE EXISTING POWERLINE TO A NEW POLE AT THE AIRPORT, INCLUDING CONNECTIONS TO AN EXISTING DISTRIBUTION SYSTEM AND A 120/240 SECONDARY SERVICE AT THE AIRPORT.
2. COORDINATE WITH THE LOCAL UTILITY COMPANY FOR CONNECTIONS TO THE EXISTING TOWN ELECTRICAL DISTRIBUTION SYSTEM AND TO AIRFIELD SERVICE EQUIPMENT.
3. ALL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF ANSI C2–NESC, NFPA 70–NEC, RUS BULLETIN 1728F–804 SPECIFICATIONS AND DRAWINGS FOR 12.47/7.2 kV OVERHEAD DISTRIBUTION SYSTEMS, INCLUDING ANY STATE OF ALASKA AMENDMENTS, AND LOCAL UTILITY REQUIREMENTS.
4. SOIL CONDITIONS AT POLE AND GUY ANCHOR LOCATIONS HAVE NOT BEEN VERIFIED. PRELIMINARY INFORMATION INDICATES THAT CLASS 7 OR CLASS 8 SOILS (RUS BULLETIN 1728F–804, SECTION F) ARE LIKELY TO BE ENCOUNTERED. VERIFY SOIL HOLDING POWER AT EACH POLE AND ANCHOR LOCATION PRIOR TO START OF WORK. PROVIDE POLE EMBEDMENT AND GUY ANCHORING AS REQUIRED FOR SOIL TYPES.
5. LOCATE UNDERGROUND UTILITIES AT ALL POLE AND ANCHOR LOCATIONS PRIOR TO EXCAVATION.
6. SEE DETAIL 1/E14 FOR SECONDARY SERVICE DETAILS.
7. THE ENTIRE AIRPORT POWER LINE SHALL BE LOCATED INSIDE PUBLIC OR AIRPORT RIGHT OF WAYS. ENCROACHMENT OF POWER LINE EQUIPMENT OR CONDUCTOR OVERHANG OF PRIVATE PROPERTY IS NOT ALLOWED.

ABBREVIATIONS

ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
OHE	OVERHEAD ELECTRIC
UGE	UNDERGROUND ELECTRIC
XFMR	TRANSFORMER
RUS	RURAL UTILITIES SERVICE
NFS	NON–FROST SUSCEPTIBLE SOIL
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BS	BACK SPAN
NO	NUMBER
RUS	RURAL UTILITIES SERVICE
SREB	SNOW REMOVAL EQUIPMENT BUILDING
SZ	SIZE
EEB	ELECTRICAL EQUIPMENT BUILDING
EX	EXISTING
FT	FEET
MISC	MISC
TYP	TYPICAL
CB	CIRCUIT BREAKER
BIL	BASIC IMPULSE LEVEL
SREB	SNOW REMOVAL EQUIPMENT BUILDING.

PLANS DEVELOPED BY:
MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERT. OF AUTH. NO.#AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT RESURFACING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
POWERLINE DETAILS

DATE: 1/25/21
SHEET: E17 OF E17

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

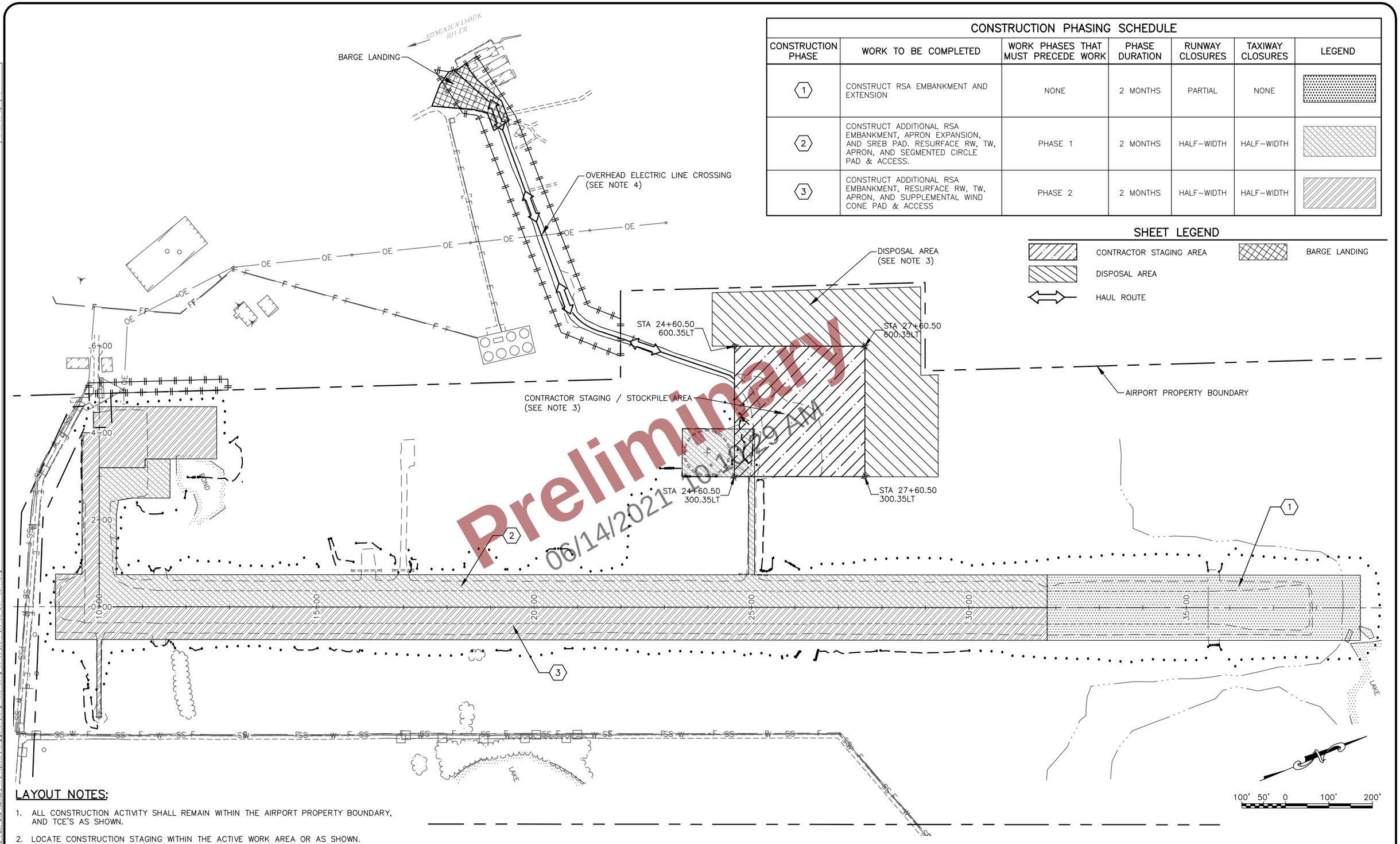
Date Revised:	5/24/2021, 1:44 PM
Layout Name:	CSPP Overview
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DOT-CSPP.dwg

CONSTRUCTION PHASING SCHEDULE

CONSTRUCTION PHASE	WORK TO BE COMPLETED	WORK PHASES THAT MUST PRECEDE WORK	PHASE DURATION	RUNWAY CLOSURES	TAXIWAY CLOSURES	LEGEND
1	CONSTRUCT RSA EMBANKMENT AND EXTENSION	NONE	2 MONTHS	PARTIAL	NONE	
2	CONSTRUCT ADDITIONAL RSA EMBANKMENT, APRON EXPANSION, AND SREB PAD. RESURFACE RW, TW, APRON, AND SEGMENTED CIRCLE PAD & ACCESS.	PHASE 1	2 MONTHS	HALF-WIDTH	HALF-WIDTH	
3	CONSTRUCT ADDITIONAL RSA EMBANKMENT, RESURFACE RW, TW, APRON, AND SUPPLEMENTAL WIND CONE PAD & ACCESS	PHASE 2	2 MONTHS	HALF-WIDTH	HALF-WIDTH	

SHEET LEGEND

- CONTRACTOR STAGING AREA
- BARGE LANDING
- DISPOSAL AREA
- HAUL ROUTE



LAYOUT NOTES:

1. ALL CONSTRUCTION ACTIVITY SHALL REMAIN WITHIN THE AIRPORT PROPERTY BOUNDARY, AND TCE'S AS SHOWN.
2. LOCATE CONSTRUCTION STAGING WITHIN THE ACTIVE WORK AREA OR AS SHOWN.
3. IMPORTED MATERIAL MAY ONLY BE STAGED IN THE CONTRACTOR STAGING/STOCKPILE AREA OR AS DIRECTED BY THE ENGINEER.
4. OHE CROSSING 15.5' CLEARANCE PER 2019 SURVEY. PROTECT IN PLACE AND MAINTAIN SERVICE AT ALL TIMES. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY CLEARANCES AND FOR ANY NECESSARY UTILITY COORDINATION.

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP OVERVIEW

DATE: 5/24/2021

SHEET: AC1 OF AC12

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

GENERAL SAFETY REQUIREMENTS

1. SEE APPENDIX C OF THE SPECIFICATIONS FOR THE CONSTRUCTION SAFETY AND PHASING PLAN(CSPP) REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH THE SAFETY REQUIREMENTS AS REQUIRED IN THE CSPP. ALL SAFETY RELATED WORK SHALL BE SUBSIDIARY TO THE CONTRACT AND NO ADDITIONAL PAYMENT WILL BE MADE.

2. THE CONTRACTOR SHALL SUBMIT A SAFETY PLAN COMPLIANCE DOCUMENT, PER FAA AC 150/5370-2, TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF A NOTICE TO PROCEED. IF THE CONSTRUCTION PHASING PLAN DIFFERS FROM WHAT IS SHOWN OR IF SUBSEQUENT CHANGES ARE MADE, SUBMIT A REVISION TO THE ENGINEER FOR REVIEW AND APPROVAL

3. DURING PHASES 1, 2, AND 3, THE CLOSED PORTIONS OF THE RUNWAY AND TAXIWAY MAY BE USED AS A HAUL ROUTE.

4. WHEN WORKING NEAR THE OPEN RUNWAY, EVACUATE ALL PERSONNEL AND EQUIPMENT TO THE SAFE ZONES DESCRIBED IN DETAILS 1 AND 2 ON SHEET AC11, 5 MINUTES PRIOR TO AND 5 MINUTES AFTER ALL ARRIVALS AND DEPARTURES. WHEN PERSONNEL AND EQUIPMENT CANNOT BE EVACUATED TO THE SAFE ZONES, THEY MUST EVACUATE THE RUNWAY SAFETY AREA (RSA) AND/OR TAXIWAY SAFETY AREA (TSA) AND MOVE AS FAR AWAY FROM THE RUNWAY CENTERLINE AS PRACTICAL DURING AIRCRAFT OPERATIONS. **IN NO CASE CAN PERSONNEL OR EQUIPMENT BE INSIDE THE RSA OR TSA DURING AIRCRAFT OPERATIONS.**

5. DETERMINE THE TIMES OF SCHEDULED FLIGHTS INTO DUY AND ALLOW AIRCRAFT TO USE THE RUNWAY DURING THE SCHEDULED TIMES. THE CONTRACTOR SHALL MONITOR THE COMMON TRAFFIC ADVISORY FREQUENCY (CTAF) AND PERFORM VISUAL MONITORING FOR UNSCHEDULED FLIGHTS. THE CONTRACTOR SHALL CLEAR THE RUNWAY ACCORDING TO NOTE 4 FOR ALL ARRIVALS AND DEPARTURES.

6. ALL CONSTRUCTION VEHICLES AND EQUIPMENT SHALL OPERATE A FLASHING YELLOW BEACON AND 3' X 3' CHECKERED FLAG WITH 1' X 1' ORANGE AND WHITE CHECKS WHEN WORKING ON THE AIRPORT. THE CONTRACTOR'S SAFETY OFFICER VEHICLE SHALL HAVE BOTH A YELLOW FLASHING BEACON AND A SEPARATE VISUAL AND/OR AUDIBLE SIGNAL (E.G., COLORED FLASHING BEACON OTHER THAN YELLOW, MEGAPHONE, AIR HORN, 2-WAY RADIO CONTACT, ETC) USED TO SIGNAL WORKERS TO CLEAR THE AREAS DESCRIBED IN NOTE 4 DURING AIRCRAFT TAKEOFFS AND LANDINGS.

7. KEEP AREAS WITHIN THE RUNWAY OBJECT FREE AREA (ROFA) AND ACTIVE TAXIWAY SAFETY AREA (TSA) LIMITS CLEAR OF CONSTRUCTION MATERIALS. REMOVE ANY DEBRIS FROM THESE AREAS WITHIN 15 MINUTES OF VERBAL NOTICE FROM THE ENGINEER OR ENGINEER'S REPRESENTATIVE.

8. CLEAR SAFETY AREAS AND OBJECT FREE AREAS AT ANYTIME DIRECTED BY THE ENGINEER.

9. DAMAGE TO FAA FACILITIES INCLUDING POWER DISRUPTION SHALL BE IMMEDIATELY REPAIRED IN A MANNER ACCEPTABLE TO THE FAA AT THE CONTRACTOR'S EXPENSE.

10. REMOVE MATERIAL STOCKPILES AND EQUIPMENT FROM OBJECT FREE AREAS DURING NON-WORK HOURS.

11. PROVIDE AIRPORT FLAGGERS WHERE CONSTRUCTION ACTIVITY IS CONDUCTED IN CLOSE PROXIMITY TO OPERATING AIRCRAFT AND WHERE THE ENGINEER DETERMINES A FLAGGER IS NECESSARY.

12. CONTRACTOR HAULING OPERATIONS ARE LIMITED TO THE HAUL ROUTES SHOWN ON THE PLANS. FOLLOWING CONSTRUCTION COMPLETION, THE CONTRACTOR IS REQUIRED TO RESTORE THE HAUL ROUTE TO ITS ORIGINAL CONDITION. TEMPORARY ACCESS ROUTES MUST BE REMOVED, AND THE GROUND RESTORED TO ITS ORIGINAL CONDITION.

13. THE CONTRACTOR MUST REPORT ANY SAFETY ISSUES TO THE ENGINEER UPON DISCOVERY. THE CONTRACTOR MUST TAKE IMMEDIATE ACTION TO RESOLVE SAFETY ISSUES AS DIRECTED.

14. IMMEDIATELY REMOVE ALL FOREIGN OBJECT DEBRIS (FOD) FROM ACTIVE SURFACES UPON DISCOVERY OR NOTIFICATION. FAILURE TO REMOVE FOD MAY BE CONSIDERED A SAFETY VIOLATION AS DETERMINED BY THE ENGINEER. STATION ADEQUATE CLEANING EQUIPMENT AT THE JOB SITE FOR IMMEDIATE CLEANUP OF ANY MATERIAL SPILLS ON ALL ACTIVE RUNWAY, TAXIWAY, AND APRON SURFACES.

RUNWAY STATUS CHANGE PROCEDURES

THE CONTRACTOR SHALL NOTIFY FAA (THROUGH THE ENGINEER) AT LEAST 45 DAYS PRIOR TO RUNWAY CLOSURES (PARTIAL OR FULL), RE-OPENING A CLOSED RUNWAY, INTERRUPTING SERVICE OR REMOVING AND DISPLACING A RUNWAY THRESHOLD BY EMAILING AN "AIRPORT SPONSOR STRATEGIC EVENT SUBMISSION FORM", FAA FORM 6000-26 TO 9-AJV-SEC-WSA@FAA.GOV.

FOLLOW THESE PROCEDURES ANY TIME THE STATUS OF THE RUNWAY OR TAXIWAY IS TO BE ALTERED.

1. CONTRACTOR NOTIFIES ENGINEER OF UPCOMING CHANGE IN AIRPORT STATUS. PROVIDE 72 HOURS ADVANCE NOTICE.
2. AIRPORT MANAGER FILES NOTAM WITH FAA.
3. CONTRACTOR RECEIVES TENTATIVE APPROVAL TO CHANGE RUNWAY STATUS AT A SPECIFIC TIME AND DATE.
4. ON THE DAY OF THE CHANGE IN STATUS, A MEETING IS CONDUCTED WITH ENGINEER TO REVIEW SCHEDULE AND SAFETY PROCEDURES.
5. ENGINEER CLOSES RUNWAY/TAXIWAY TEMPORARILY FOR REQUIRED GRADING AND/OR NEW TEMPORARY MARKINGS.
6. CONTRACTOR INSTALLS APPROVED TEMPORARY MARKINGS.
7. ENGINEER INSPECTS AND APPROVES MARKINGS.
8. CONTRACTOR IS PROVIDED NOTICE TO PROCEED WITH THE WORK.
9. CONTRACTOR CHANGES RUNWAY STATUS TO A NEW CONFIGURATION, OR CHANGES TO PERMANENT STATUS.
10. AIRPORT MANAGER SHALL CANCEL OR REVISE NOTAM WITH FAA WHEN WORK IS COMPLETE.

Date Revised:	5/24/2021, 1:44 PM
Layout Name:	CSPP Notes
File Path and Names:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP NOTES

DATE: 5/24/2021

SHEET: AC2 OF AC12

NOTES:

1. PERMANENT LIGHT CANS TO BE INSTALLED WITH THE DESIGNATED PHASE 1 WORK AREA MUST BE INSTALLED BLOW FINISH GRADE TO ACCOMMODATE AIRCRAFT TRAFFIC DURING PHASE 2 AND PHASE 3. SEE DETAILS 1–2, SHEET AC9 AND THE ELECTRICAL PLANS FOR DETAILS.
2. INSTALL LIGHTING CONDUIT AND LIGHT BASES WITH BLIND FLANGES IN PHASE 1 WORK AREA PRIOR TO MOVING TO PHASE 2.
3. HAZARD MARKER BARRIERS SHOWN AT APPROXIMATE LOCATIONS. ADDITIONAL LOCATIONS, OR ADJUSTMENTS MAY BE REQUIRED. RELOCATE BARRIERS AS DIRECTED BY THE ENGINEER.
4. EVACUATE PERSONNEL AND EQUIPMENT FROM AREAS DESCRIBED IN NOTE 4 ON SHEET AC2 DURING AIRCRAFT OPERATIONS.
5. COORDINATE AND MAINTAIN ACCESS TO THE ACTIVE APRON DURING CONSTRUCTION.

COMPLETE THE FOLLOWING PRIOR TO PHASE 1 CONSTRUCTION:

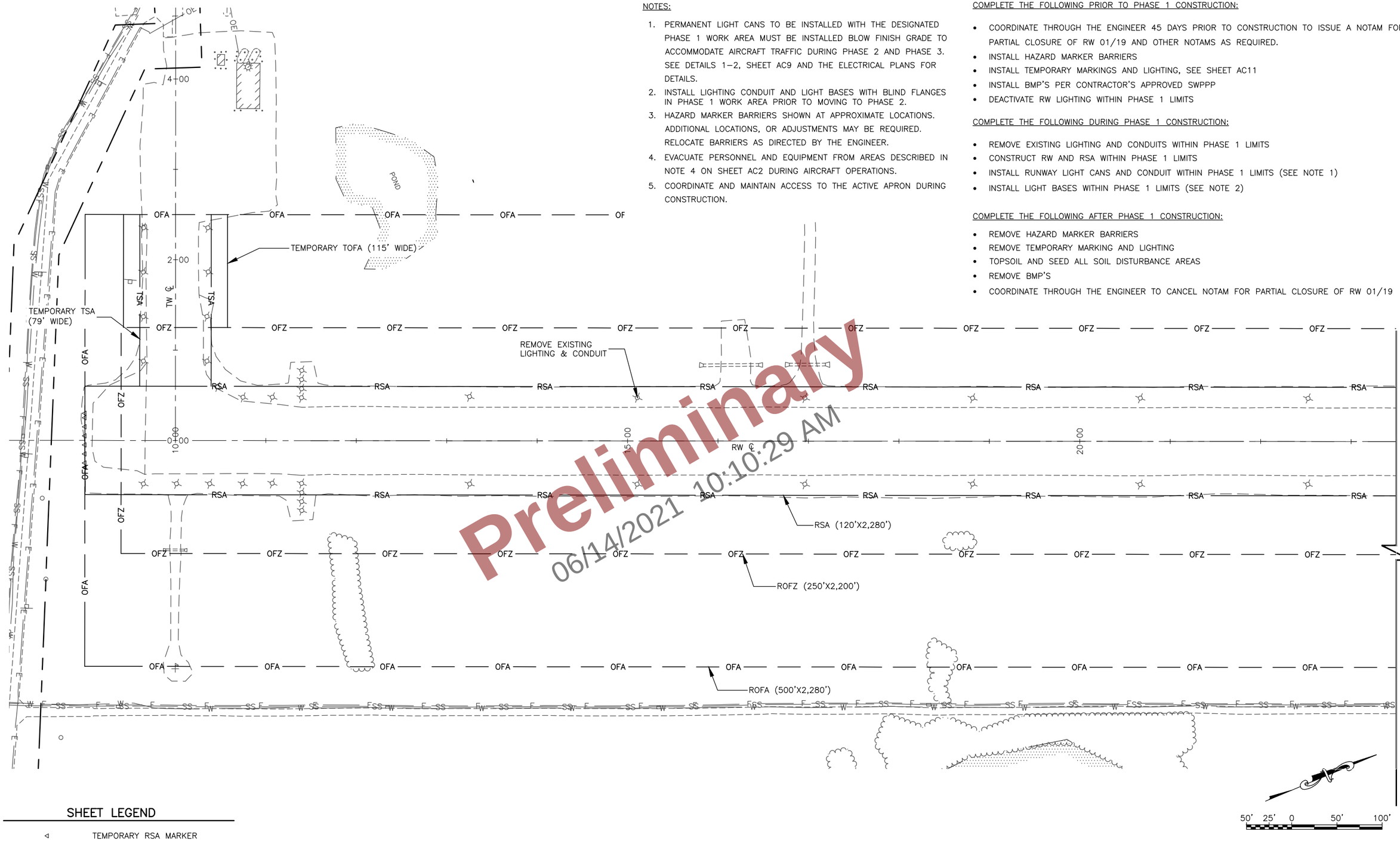
- COORDINATE THROUGH THE ENGINEER 45 DAYS PRIOR TO CONSTRUCTION TO ISSUE A NOTAM FOR PARTIAL CLOSURE OF RW 01/19 AND OTHER NOTAMS AS REQUIRED.
- INSTALL HAZARD MARKER BARRIERS
- INSTALL TEMPORARY MARKINGS AND LIGHTING, SEE SHEET AC11
- INSTALL BMP'S PER CONTRACTOR'S APPROVED SWPPP
- DEACTIVATE RW LIGHTING WITHIN PHASE 1 LIMITS

COMPLETE THE FOLLOWING DURING PHASE 1 CONSTRUCTION:

- REMOVE EXISTING LIGHTING AND CONDUITS WITHIN PHASE 1 LIMITS
- CONSTRUCT RW AND RSA WITHIN PHASE 1 LIMITS
- INSTALL RUNWAY LIGHT CANS AND CONDUIT WITHIN PHASE 1 LIMITS (SEE NOTE 1)
- INSTALL LIGHT BASES WITHIN PHASE 1 LIMITS (SEE NOTE 2)

COMPLETE THE FOLLOWING AFTER PHASE 1 CONSTRUCTION:

- REMOVE HAZARD MARKER BARRIERS
- REMOVE TEMPORARY MARKING AND LIGHTING
- TOPSOIL AND SEED ALL SOIL DISTURBANCE AREAS
- REMOVE BMP'S
- COORDINATE THROUGH THE ENGINEER TO CANCEL NOTAM FOR PARTIAL CLOSURE OF RW 01/19



SHEET LEGEND

- TEMPORARY RSA MARKER
- TEMPORARY RW EDGE LIGHT, END LIGHT OR THRESHOLD LIGHT

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC
Date Revised:	5/24/2021, 1:44 PM
Layout Name:	CSPP PHASE 1
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP PHASE 1

DATE: 5/24/2021
SHEET: AC3 OF AC12

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

Date Revised:	
Layout Name:	5/24/2021, 1:44 PM CSPP PHASE 1 Sheet 2
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

SHEET LEGEND

- PHASE 1
- DISPOSAL AREA
- CONTRACTOR STAGING AREA
- TEMPORARY RW EDGE LIGHT, END LIGHT OR THRESHOLD LIGHT
- HAUL ROUTE
- HAZARD MARKER BARRIER
- RUNWAY CLOSURE MARKER

AIRPORT PROPERTY BOUNDARY

DISPOSAL AREA

CONTRACTOR STAGING/STOCKPILE AREA

50' 25' 0 50' 100'

OFA OFA OFA OFA OFA OFA

OFZ OFZ OFZ OFZ OFZ OFZ

RPZ RPZ RPZ RPZ RPZ RPZ RPZ

RSA RSA RSA RSA

STA 23+50

25-00

RW ℄

30-00

35-00

REMOVE EXISTING LIGHTING & CONDUIT

1

PLACE RW CLOSURE MARKERS EVERY 500'

RSA (120'X2,280')

TEMPORARY RW MARKINGS

HAZARD MARKER BARRIERS STA 31+80.00

TEMPORARY THRESHOLD LIGHTS & MARKERS STA 29+40.00

REMOVE THRESHOLD MARKERS, LIGHTING, & CONDUIT (BOTH SIDES)

ROFZ (250'X2,200')

MATCH LINE RW

ROFA (500'X2,280')

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP PHASE 1

DATE: 5/24/2021

SHEET: AC4 OF AC12

NOTES:

1. PERMANENT LIGHT CANS TO BE INSTALLED WITH THE DESIGNATED PHASE 2 WORK AREA MUST BE INSTALLED BLOW FINISH GRADE TO ACCOMMODATE AIRCRAFT TRAFFIC DURING PHASE 3. SEE DETAILS 1–2, SHEET AC9 AND THE ELECTRICAL PLANS FOR DETAILS.
2. INSTALL LIGHTING CONDUIT AND LIGHT BASES WITH BLIND FLANGES IN PHASE 2 WORK AREA PRIOR TO MOVING TO PHASE 3.
3. HAZARD MARKER BARRIERS SHOWN AT APPROXIMATE LOCATIONS. ADDITIONAL LOCATIONS, OR ADJUSTMENTS MAY BE REQUIRED. RELOCATE BARRIERS AS DIRECTED BY THE ENGINEER.
4. EVACUATE PERSONNEL AND EQUIPMENT FROM AREAS DESCRIBED IN NOTE 4 ON SHEET AC2 DURING AIRCRAFT OPERATIONS.
5. COORDINATE AND MAINTAIN ACCESS TO THE ACTIVE APRON DURING CONSTRUCTION.

COMPLETE THE FOLLOWING PRIOR TO PHASE 2 CONSTRUCTION:

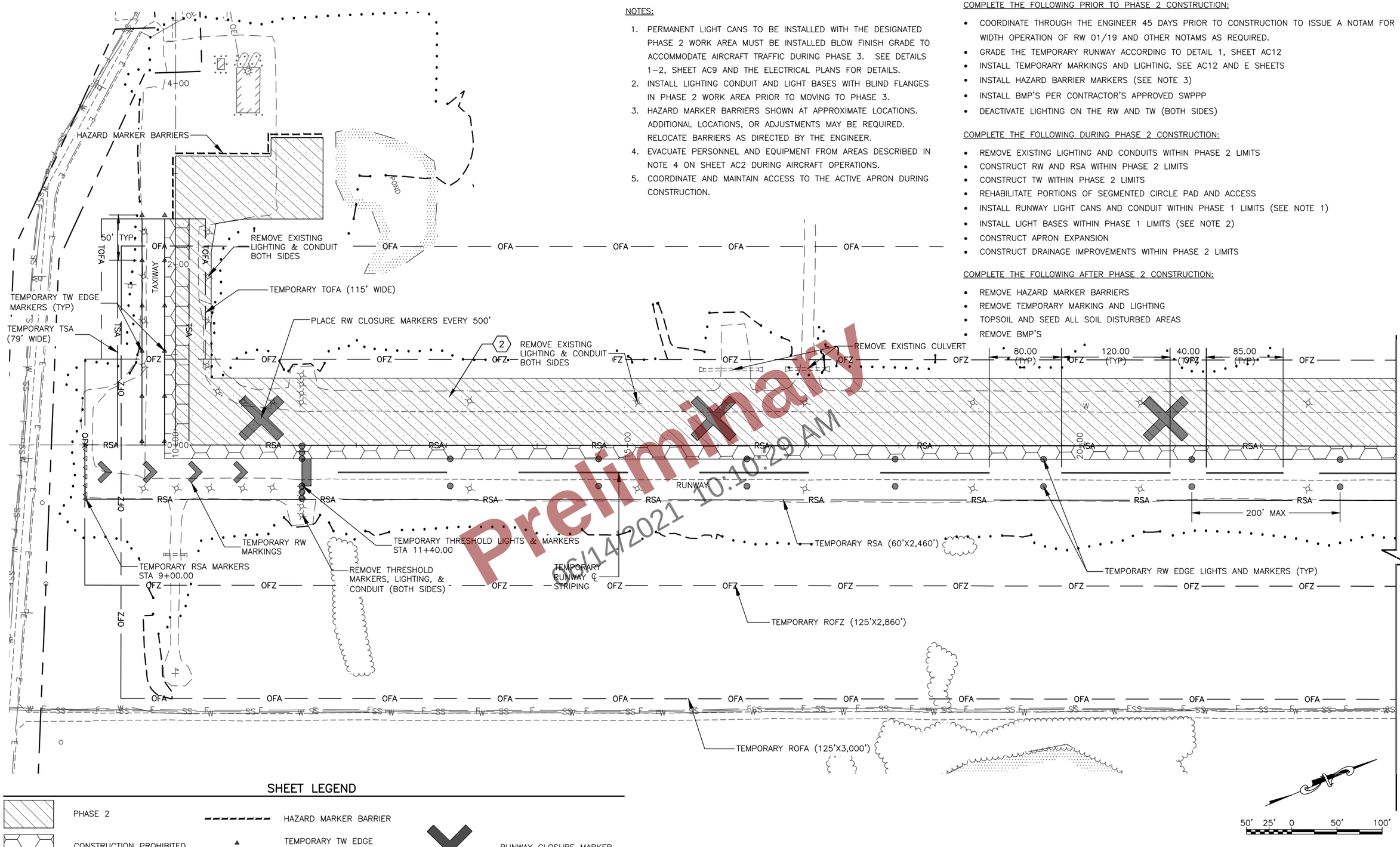
- COORDINATE THROUGH THE ENGINEER 45 DAYS PRIOR TO CONSTRUCTION TO ISSUE A NOTAM FOR HALF WIDTH OPERATION OF RW 01/19 AND OTHER NOTAMS AS REQUIRED.
- GRADE THE TEMPORARY RUNWAY ACCORDING TO DETAIL 1, SHEET AC12
- INSTALL TEMPORARY MARKINGS AND LIGHTING, SEE AC12 AND E SHEETS
- INSTALL HAZARD BARRIER MARKERS (SEE NOTE 3)
- INSTALL BMP'S PER CONTRACTOR'S APPROVED SWPPP
- DEACTIVATE LIGHTING ON THE RW AND TW (BOTH SIDES)

COMPLETE THE FOLLOWING DURING PHASE 2 CONSTRUCTION:

- REMOVE EXISTING LIGHTING AND CONDUITS WITHIN PHASE 2 LIMITS
- CONSTRUCT RW AND RSA WITHIN PHASE 2 LIMITS
- CONSTRUCT TW WITHIN PHASE 2 LIMITS
- REHABILITATE PORTIONS OF SEGMENTED CIRCLE PAD AND ACCESS
- INSTALL RUNWAY LIGHT CANS AND CONDUIT WITHIN PHASE 1 LIMITS (SEE NOTE 1)
- INSTALL LIGHT BASES WITHIN PHASE 1 LIMITS (SEE NOTE 2)
- CONSTRUCT APRON EXPANSION
- CONSTRUCT DRAINAGE IMPROVEMENTS WITHIN PHASE 2 LIMITS

COMPLETE THE FOLLOWING AFTER PHASE 2 CONSTRUCTION:

- REMOVE HAZARD MARKER BARRIERS
- REMOVE TEMPORARY MARKING AND LIGHTING
- TOPSOIL AND SEED ALL SOIL DISTURBED AREAS
- REMOVE BMP'S



SHEET LEGEND

- PHASE 2
- CONSTRUCTION PROHIBITED DURING AIRCRAFT OPERATIONS
- PROPOSED TOE OF CUT
- PROPOSED TOE OF FILL
- HAZARD MARKER BARRIER
- TEMPORARY TW EDGE MARKER
- TEMPORARY RSA MARKER
- TEMPORARY RW EDGE LIGHT, END LIGHT OR THRESHOLD LIGHT
- RUNWAY CLOSURE MARKER

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP PHASE 2

DATE: 5/24/2021

SHEET: AC5 OF AC12

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

Date Revised: 5/24/2021, 1:44 PM
Layout Name: CSPP PHASE 2
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

Date Revised:	5/24/2021, 1:44 PM
Layout Name:	CSPP PHASE 2 Sheet 2
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

SHEET LEGEND

- PHASE 2
- CONSTRUCTION PROHIBITED DURING AIRCRAFT OPERATIONS
- PROPOSED TOE OF CUT
- PROPOSED TOE OF FILL
- HAUL ROUTE
- HAZARD MARKER BARRIER
- TEMPORARY TW EDGE MARKER
- TEMPORARY RSA MARKER
- TEMPORARY RW EDGE LIGHT, END LIGHT OR THRESHOLD LIGHT
- RUNWAY CLOSURE MARKER

50' 25' 0 50' 100'

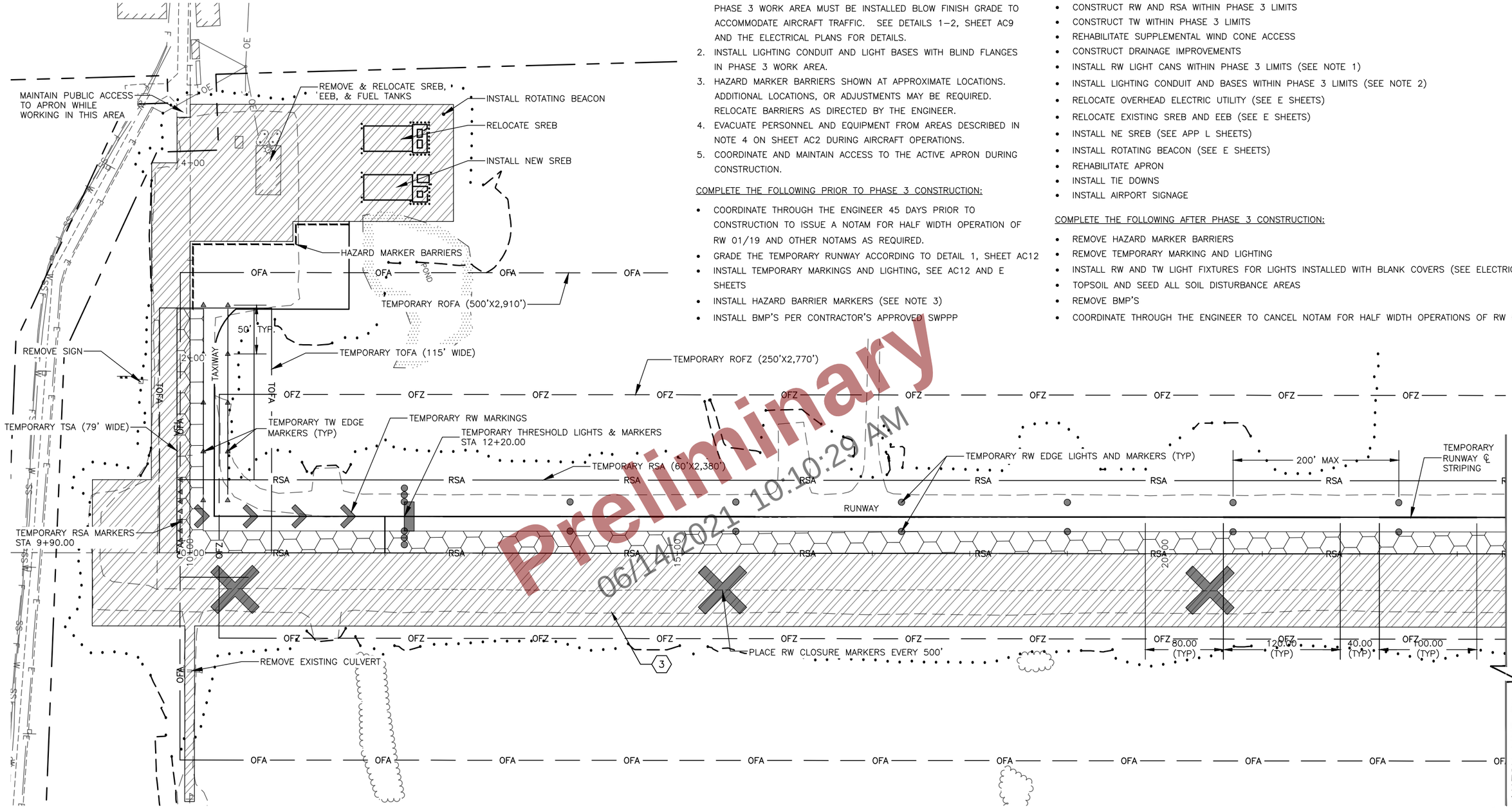
AIRPORT PROPERTY BOUNDARY
DISPOSAL AREA
CONTRACTOR STAGING/STOCKPILE AREA
REMOVE EXISTING CULVERT
REMOVE EXISTING LIGHTING & CONDUIT BOTH SIDES
TEMPORARY ROFA (125'X3,000')
PLACE RW CLOSURE MARKERS EVERY 500'
END TEMPORARY TURN AROUND STA 38+00.00
BEGIN TEMPORARY TURN AROUND STA 36+40.00
TEMPORARY RSA MARKERS STA 39+00.00
TEMPORARY RW MARKINGS
TEMPORARY THRESHOLD LIGHTS & MARKERS STA 36+00.00
REMOVE THRESHOLD MARKERS, LIGHTING, & CONDUIT (BOTH SIDES)
TEMPORARY RSA (60'X2,460')
TEMPORARY ROFZ (125'X2,860')
TEMPORARY RW EDGE LIGHTS AND MARKERS (TYP)
TEMPORARY RUNWAY ℄ STRIPING
RUNWAY
MATCH LINE RW
STA 23+50
85.00 (TYP)
40.00 (TYP)
120.00 (TYP)
80.00 (TYP)
25-00
30-00
35-00
70.00
200' MAX
OF 2
OFA
OFZ
RSA

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP PHASE 2

DATE: 5/24/2021
SHEET: AC6 OF AC12



NOTES:

1. PERMANENT LIGHT CANS TO BE INSTALLED WITH THE DESIGNATED PHASE 3 WORK AREA MUST BE INSTALLED BLOW FINISH GRADE TO ACCOMMODATE AIRCRAFT TRAFFIC. SEE DETAILS 1–2, SHEET AC9 AND THE ELECTRICAL PLANS FOR DETAILS.
2. INSTALL LIGHTING CONDUIT AND LIGHT BASES WITH BLIND FLANGES IN PHASE 3 WORK AREA.
3. HAZARD MARKER BARRIERS SHOWN AT APPROXIMATE LOCATIONS. ADDITIONAL LOCATIONS, OR ADJUSTMENTS MAY BE REQUIRED. RELOCATE BARRIERS AS DIRECTED BY THE ENGINEER.
4. EVACUATE PERSONNEL AND EQUIPMENT FROM AREAS DESCRIBED IN NOTE 4 ON SHEET AC2 DURING AIRCRAFT OPERATIONS.
5. COORDINATE AND MAINTAIN ACCESS TO THE ACTIVE APRON DURING CONSTRUCTION.

COMPLETE THE FOLLOWING PRIOR TO PHASE 3 CONSTRUCTION:

- COORDINATE THROUGH THE ENGINEER 45 DAYS PRIOR TO CONSTRUCTION TO ISSUE A NOTAM FOR HALF WIDTH OPERATION OF RW 01/19 AND OTHER NOTAMS AS REQUIRED.
- GRADE THE TEMPORARY RUNWAY ACCORDING TO DETAIL 1, SHEET AC12
- INSTALL TEMPORARY MARKINGS AND LIGHTING, SEE AC12 AND E SHEETS
- INSTALL HAZARD BARRIER MARKERS (SEE NOTE 3)
- INSTALL BMP'S PER CONTRACTOR'S APPROVED SWPPP

COMPLETE THE FOLLOWING DURING PHASE 3 CONSTRUCTION:

- REMOVE EXISTING LIGHTING WITHIN PHASE 3 LIMITS
- CONSTRUCT RW AND RSA WITHIN PHASE 3 LIMITS
- CONSTRUCT TW WITHIN PHASE 3 LIMITS
- REHABILITATE SUPPLEMENTAL WIND CONE ACCESS
- CONSTRUCT DRAINAGE IMPROVEMENTS
- INSTALL RW LIGHT CANS WITHIN PHASE 3 LIMITS (SEE NOTE 1)
- INSTALL LIGHTING CONDUIT AND BASES WITHIN PHASE 3 LIMITS (SEE NOTE 2)
- RELOCATE OVERHEAD ELECTRIC UTILITY (SEE E SHEETS)
- RELOCATE EXISTING SREB AND EEB (SEE E SHEETS)
- INSTALL NE SREB (SEE APP L SHEETS)
- INSTALL ROTATING BEACON (SEE E SHEETS)
- REHABILITATE APRON
- INSTALL TIE DOWNS
- INSTALL AIRPORT SIGNAGE

COMPLETE THE FOLLOWING AFTER PHASE 3 CONSTRUCTION:

- REMOVE HAZARD MARKER BARRIERS
- REMOVE TEMPORARY MARKING AND LIGHTING
- INSTALL RW AND TW LIGHT FIXTURES FOR LIGHTS INSTALLED WITH BLANK COVERS (SEE ELECTRICAL)
- TOPSOIL AND SEED ALL SOIL DISTURBANCE AREAS
- REMOVE BMP'S
- COORDINATE THROUGH THE ENGINEER TO CANCEL NOTAM FOR HALF WIDTH OPERATIONS OF RW 01/19

SHEET LEGEND

- PHASE 3
- CONSTRUCTION PROHIBITED DURING AIRCRAFT OPERATIONS
- HAUL ROUTE
- PROPOSED TOE OF CUT
- PROPOSED TOE OF FILL
- HAZARD MARKER BARRIER
- TEMPORARY TW EDGE MARKER
- TEMPORARY RSA MARKER
- TEMPORARY RW EDGE LIGHT, END LIGHT OR THRESHOLD LIGHT
- RUNWAY CLOSURE MARKER

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP PHASE 3

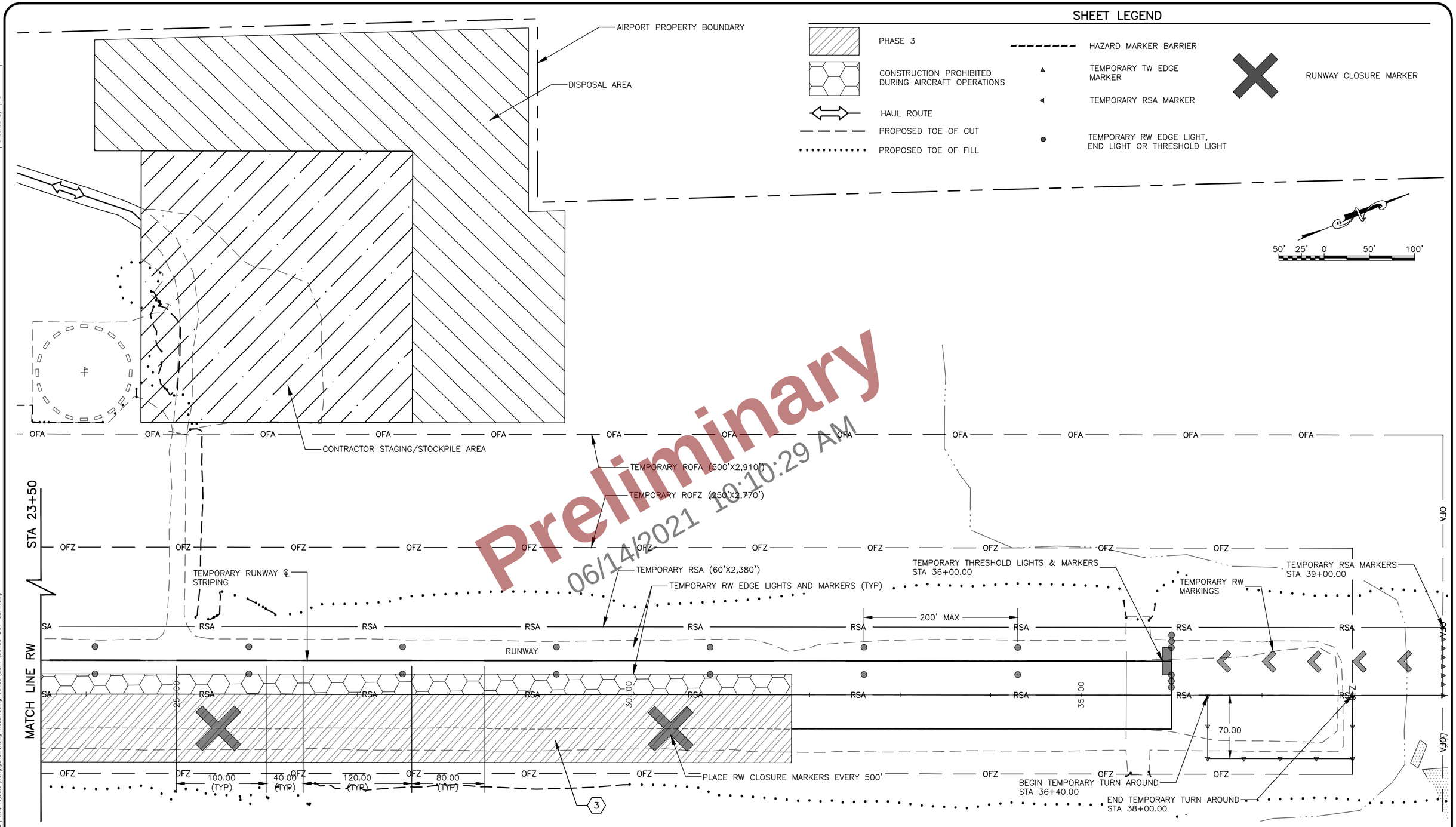
DATE: 5/24/2021
SHEET: AC7 OF AC12

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 1:44 PM
Layout Name: CSPP PHASE 3
File Path and Names: W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

SHEET LEGEND

- PHASE 3
- CONSTRUCTION PROHIBITED DURING AIRCRAFT OPERATIONS
- HAUL ROUTE
- PROPOSED TOE OF CUT
- PROPOSED TOE OF FILL
- HAZARD MARKER BARRIER
- TEMPORARY TW EDGE MARKER
- TEMPORARY RSA MARKER
- TEMPORARY RW EDGE LIGHT, END LIGHT OR THRESHOLD LIGHT
- RUNWAY CLOSURE MARKER



Date Revised:	
Layout Name:	5/24/2021, 1:44 PM CSPP PHASE 3 Sheet 2
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

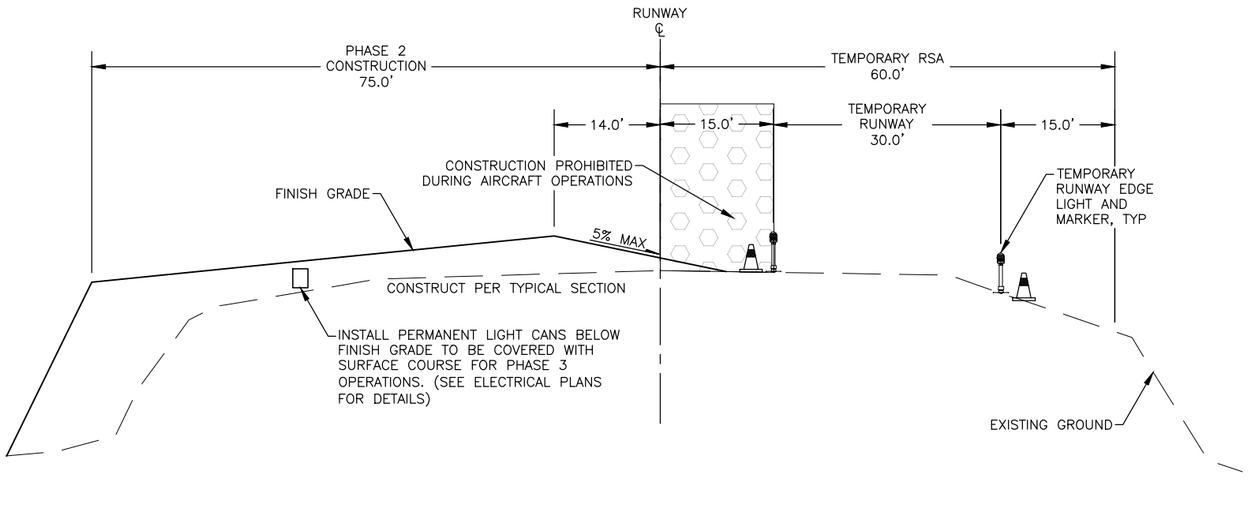
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

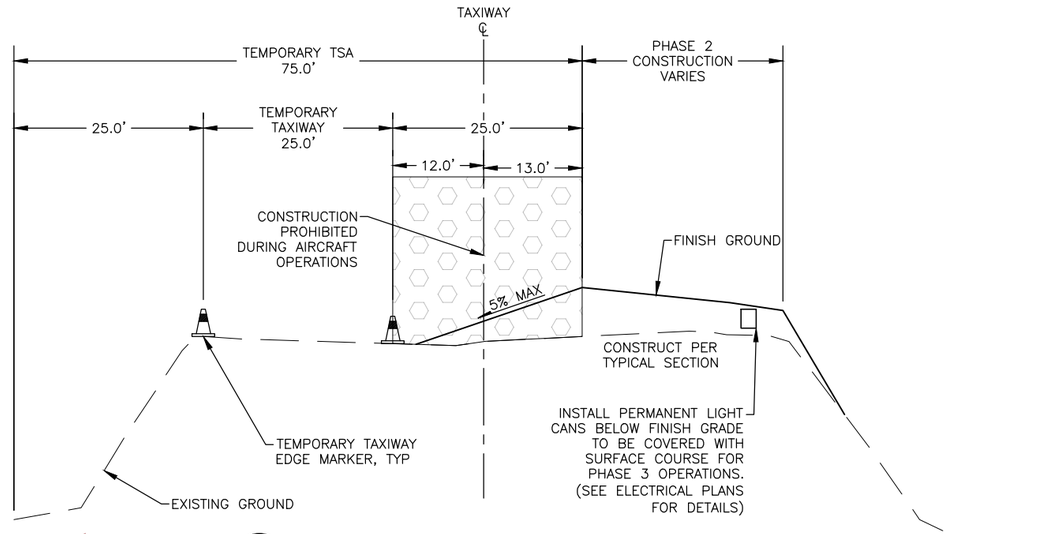
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP PHASE 3

DATE: 5/24/2021

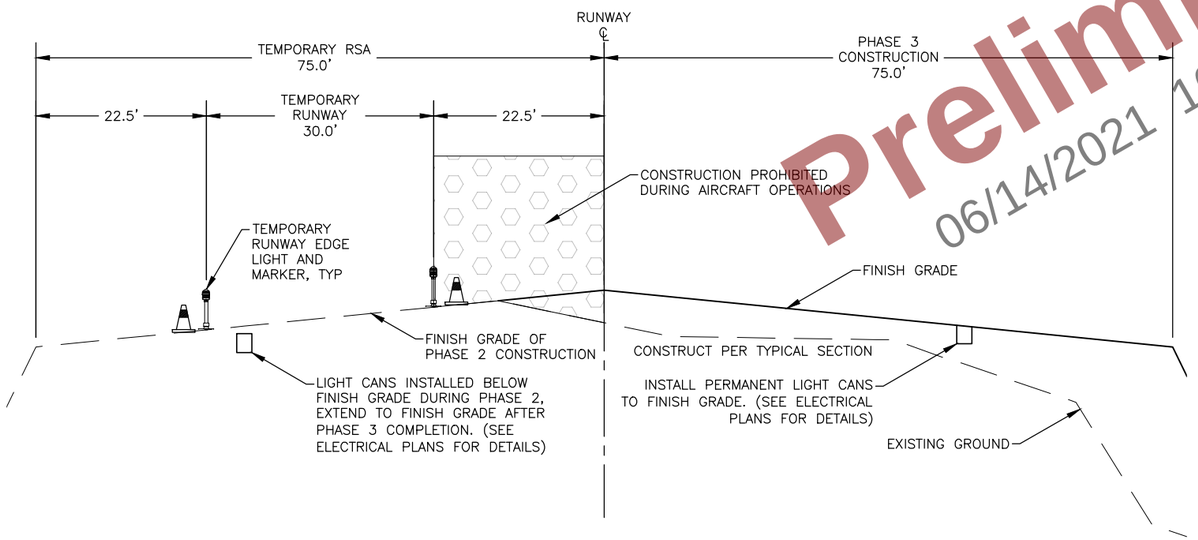
SHEET: AC8 OF AC12



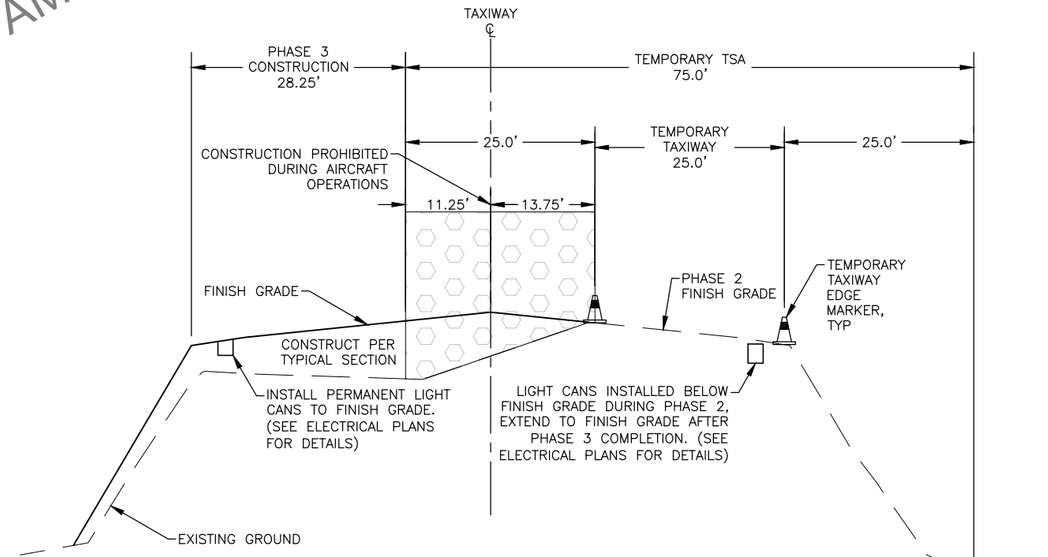
1 AC9 PHASE 2 RUNWAY CONSTRUCTION
NTS



2 AC9 PHASE 2 TAXIWAY CONSTRUCTION
NTS



3 AC9 PHASE 3 RUNWAY CONSTRUCTION
NTS



4 AC9 PHASE 3 TAXIWAY CONSTRUCTION
NTS

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC

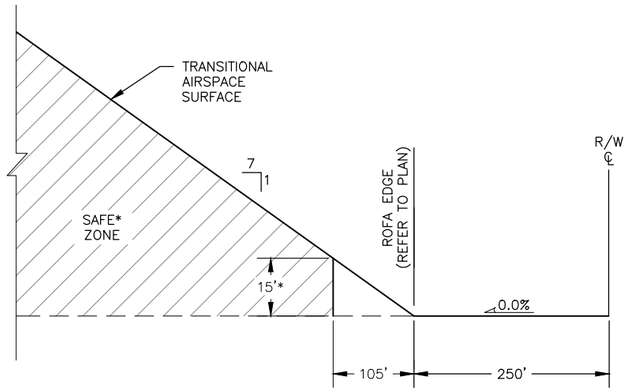
Date Revised: 5/24/2021, 1:44 PM
Layout Name: CSPP DETAILS
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

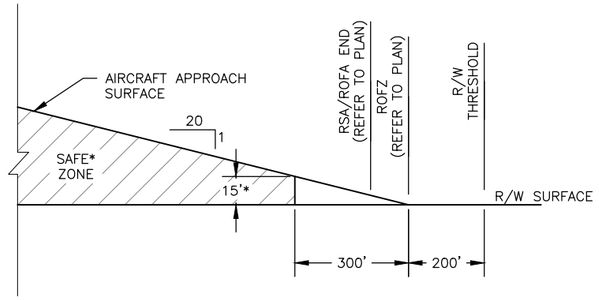
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP DETAILS

DATE: 5/24/2021
SHEET: AC9 OF AC12



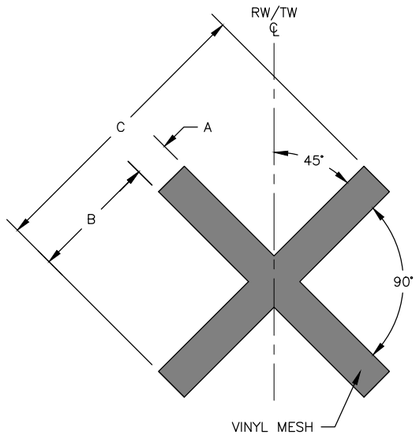
*VEHICLES TALLER THAN 15 FEET (INCLUDING ALL PARTS OF THE EQUIPMENT, E.G. AN EXCAVATOR) MUST REMAIN FARTHER AWAY FROM THE RUNWAY CENTERLINE. WHEN THIS IS THE CASE, NOTIFY AND COORDINATE SAFE ZONE LIMITS WITH THE ENGINEER.

1 AC10 SAFE ZONES ADJACENT TO ACTIVE RUNWAY
NTS



*VEHICLES TALLER THAN 15 FEET (INCLUDING ALL PARTS OF THE EQUIPMENT, E.G. AN EXCAVATOR) MUST REMAIN FARTHER AWAY FROM THE RUNWAY THRESHOLD. WHEN THIS IS THE CASE, NOTIFY AND COORDINATE SAFE ZONE LIMITS WITH THE ENGINEER.
THE 20:1 APPROACH SURFACE IS BASED ON THE THRESHOLD ELEVATION, THE ALLOWABLE VEHICLE HEIGHT MAY NEED TO BE REDUCED IF THE GROUND ELEVATION RISES BEYOND THE THRESHOLD.

2 AC10 SAFE ZONES ALONG ACTIVE RUNWAY
NTS

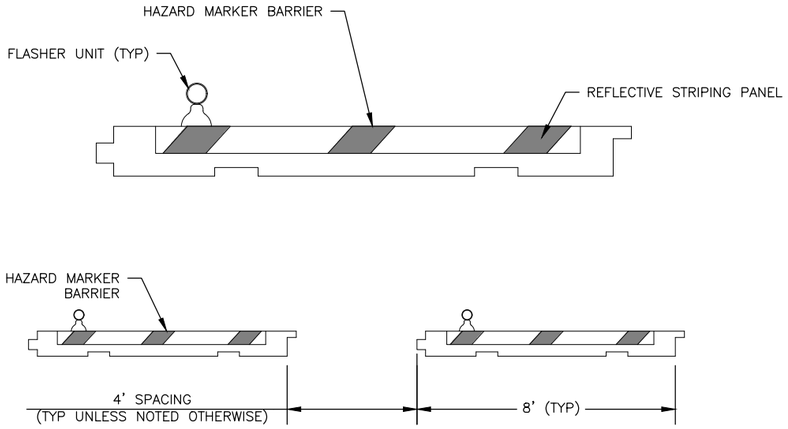


DIMENSION	A	B	C
RUNWAY CLOSURE MARKER	10'	25'	60'

CLOSURE MARKER NOTES:

1. MAINTAIN RUNWAY AND TAXIWAY CLOSURE MARKERS AS CONSTRUCTION ALLOWS.
2. CLOSURE MARKER IS YELLOW VINYL.
3. RUNWAY CLOSURE MARKERS ARE TO BE PLACED AT EACH RUNWAY AND AND AT 500 FOOT INTERVALS.

3 AC10 RUNWAY CLOSURE MARKER DETAIL
NTS



NOTES:

1. HAZARD MARKER BARRIERS ARE NOT TO BE PLACED WITHIN 125 FEET OF AN ACTIVE RW CENTERLINE.
2. PLACE BARRIERS TO SEPARATE CONSTRUCTION AREAS FROM OPEN PORTIONS OF THE AIRPORT.
3. DISTANCE BETWEEN BARRIERS CAN BE ADJUSTED FOR CONSTRUCTION TRAFFIC.
4. BARRIERS MUST BE LOCATED OUTSIDE THE SAFETY AREA OF ACTIVE TAXIWAYS.

4 AC10 CONSTRUCTION CLOSURE HAZARD MARKER BARRIER DETAIL
NTS

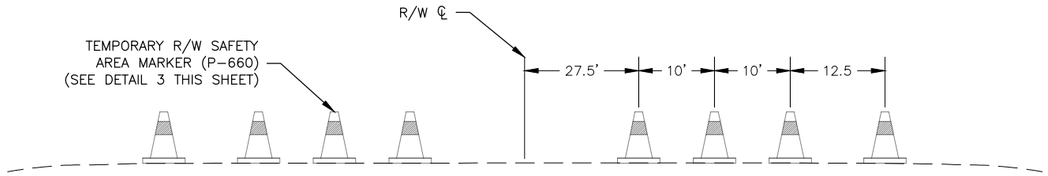
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

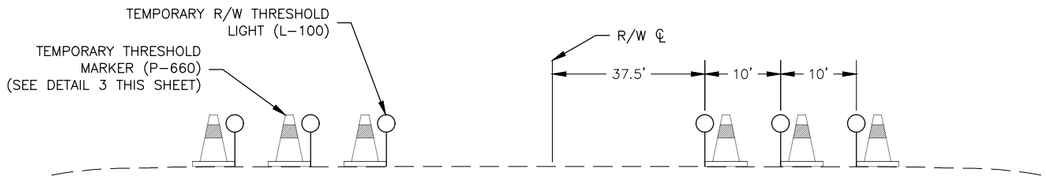
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
CSPP DETAILS

DATE: 5/24/2021
SHEET: AC10 OF AC12

Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 1:44 PM
Layout Name: CSPP_DETAILS_(2)
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg



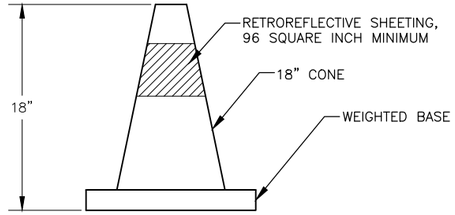
1 AC11 TEMPORARY RUNWAY SAFETY AREA MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W THRESHOLD LIGHTS SHALL EMIT GREEN LIGHT OUTWARD FROM THE RUNWAY AND RED LIGHT TOWARD THE RUNWAY.
2. TEMPORARY R/W THRESHOLD AND EDGE LIGHTS PAID UNDER ITEM L-100.

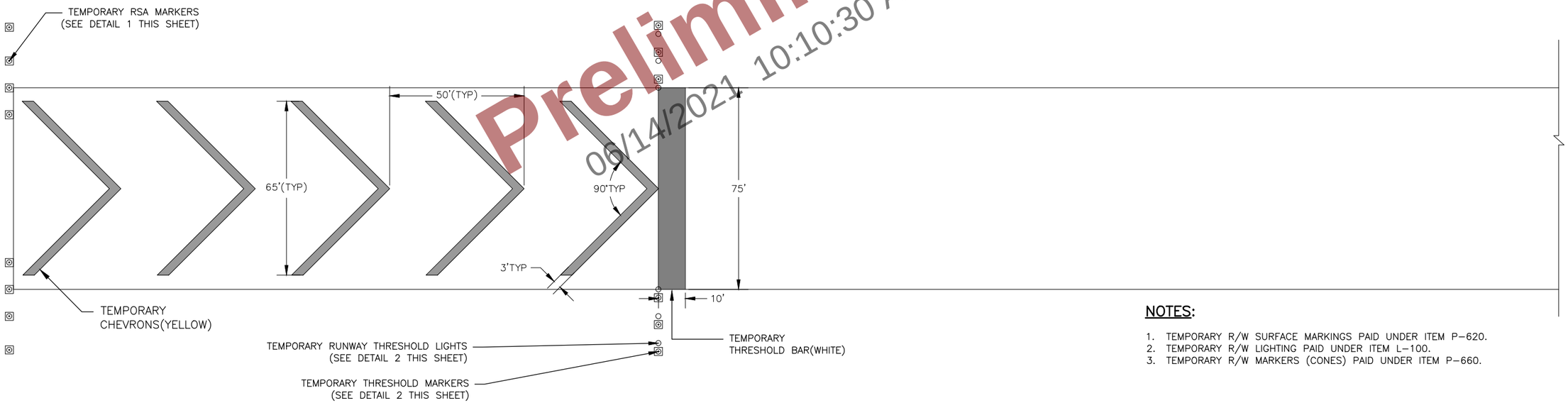
2 AC11 TEMPORARY RUNWAY THRESHOLD MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W EDGE MARKERS SHALL HAVE A WHITE RETRO REFLECTIVE SHEETING.
2. TEMPORARY SAFETY AREA MARKERS SHALL HAVE AN ORANGE RETRO REFLECTIVE SHEETING.
3. TEMPORARY THRESHOLD MARKERS SHALL HAVE A RED AND GREEN RETRO REFLECTIVE SHEETING. THE GREEN SIDE OF THE SHEETING SHALL FACE THE APPROACH OF THE RUNWAY, AND THE RED SIDE OF THE SHEETING SHALL FACE THE RUNWAY.
4. TEMPORARY TAXIWAY EDGE MARKERS SHALL HAVE A BLUE RETRO REFLECTIVE SHEETING.
5. TEMPORARY MARKERS PAID UNDER ITEM P-660.

3 AC11 TEMPORARY RUNWAY EDGE, TAXIWAY EDGE, AND RSA MARKERS
NOT TO SCALE



NOTES:

1. TEMPORARY R/W SURFACE MARKINGS PAID UNDER ITEM P-620.
2. TEMPORARY R/W LIGHTING PAID UNDER ITEM L-100.
3. TEMPORARY R/W MARKERS (CONES) PAID UNDER ITEM P-660.

4 AC11 FULL WIDTH RUNWAY MARKING DETAIL
NOT TO SCALE

Designed By:	GB, RB, JM
Drawn By:	RJB
Checked By:	PC

Date Revised:	5/24/2021, 1:44 PM
Layout Name:	CSPP DETAILS (3)
File Path and Name:	W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg

BY	DATE	REVISION

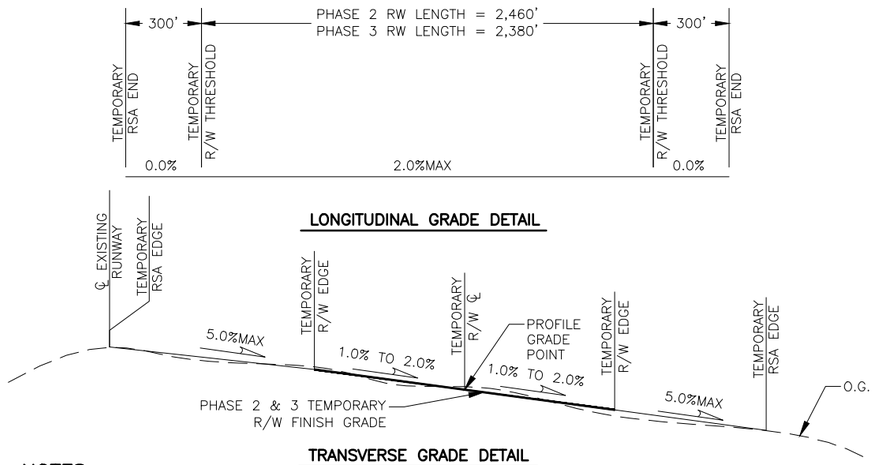
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
PHASING PLAN DETAILS
PHASE 1

DATE: 5/24/2021

SHEET: AC11 OF AC12

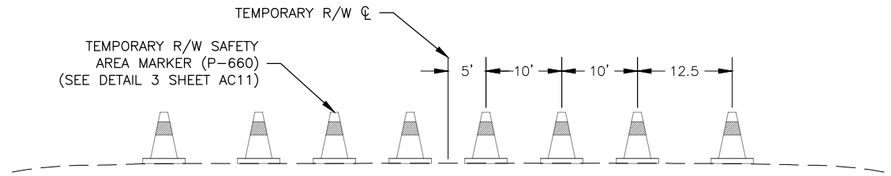
Designed By: GB, RB, JM
Drawn By: RJB
Checked By: PC
Date Revised: 5/24/2021, 1:44 PM
Layout Name: CSPP_DETAILS (4)
File Path and Name: W:\Projects\Kongiganak\Kong Resurfacing 00433\CSPP\00433-DUY-CSPP.dwg



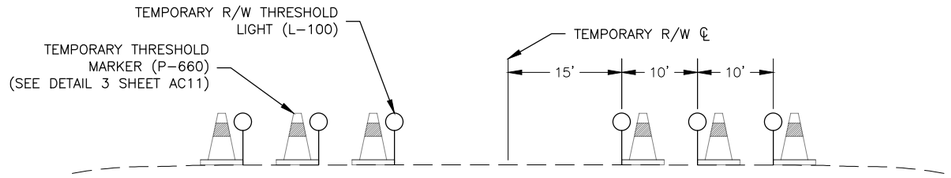
NOTES:

1. LONGITUDINAL GRADE BREAKS NO CLOSER THAN 250FT APART.
2. MAXIMUM GRADE CHANGE AT LONGITUDINAL GRADE BREAKS IS 0.40%.
3. NO LONGITUDINAL GRADE BREAKS MAY OCCUR WITHIN THE TEMPORARY RSA BEYOND THE TEMPORARY THRESHOLD.
4. AREA GRADING TO OCCUR PRIOR TO PHASE 2 & 3. GRADE SMOOTH WITHIN TEMPORARY RUNWAY AND TAXIWAY SAFETY AREAS TO ALLOW FOR AIRCRAFT OPERATIONS.

1 / AC12 PHASE 2 & 3 RUNWAY AREA GRADING
NOT TO SCALE



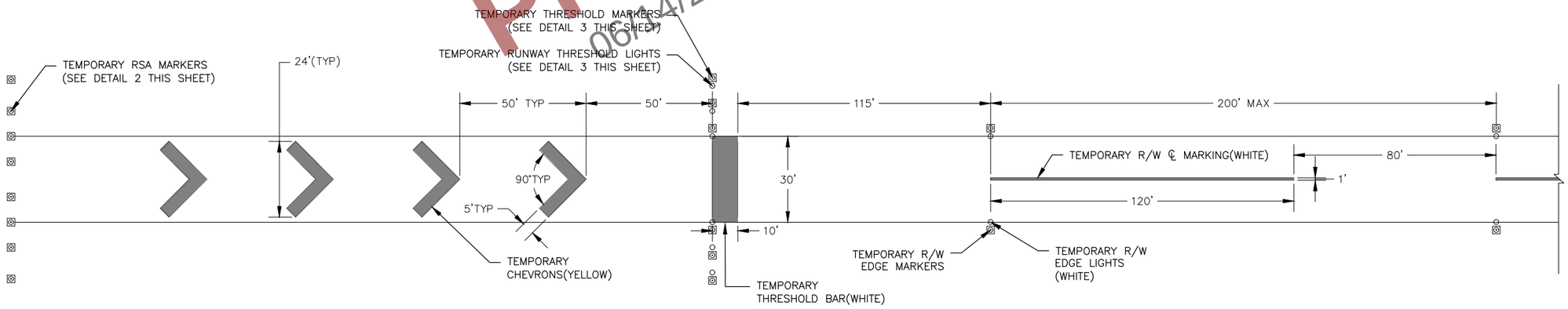
2 / AC12 TEMPORARY RUNWAY SAFETY AREA MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W THRESHOLD LIGHTS SHALL EMIT GREEN LIGHT OUTWARD FROM THE RUNWAY AND RED LIGHT TOWARD THE RUNWAY.
2. TEMPORARY R/W THRESHOLD AND EDGE LIGHTS PAID UNDER ITEM L-100.

3 / AC12 TEMPORARY RUNWAY THRESHOLD MARKER DETAIL
NOT TO SCALE



NOTES:

1. TEMPORARY R/W SURFACE MARKINGS PAID UNDER ITEM P-620.
2. TEMPORARY R/W LIGHTING PAID UNDER ITEM L-100.
3. TEMPORARY R/W MARKERS (CONES) PAID UNDER ITEM P-660.

4 / AC12 TEMPORARY RUNWAY MARKING DETAIL
NOT TO SCALE

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION
4111 AVIATION AVE., ANCHORAGE ALASKA 99502
PHONE (907) 269-0590

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
AIRPORT IMPROVEMENTS
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2022
PHASING PLAN DETAILS
PHASE 2 & 3

DATE: 5/24/2021
SHEET: AC12 OF AC12

CONSTRUCTION PLANS FOR

KONGIGANAK AIRPORT

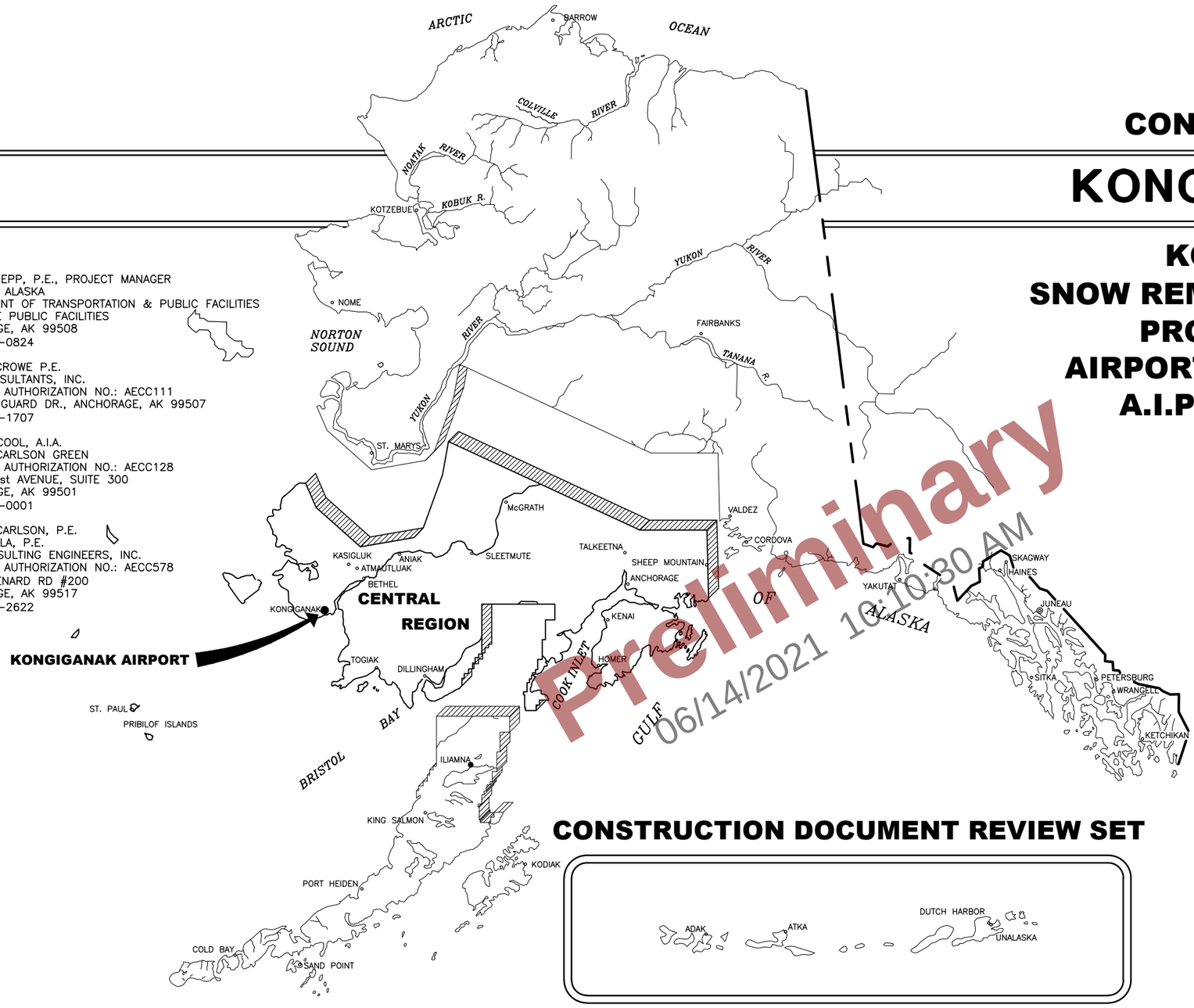
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIRPORT IMPROVEMENT PROGRAM
A.I.P. No. 3-02-0380-004-2021

MATTHEW EPP, P.E., PROJECT MANAGER
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
STATEWIDE PUBLIC FACILITIES
ANCHORAGE, AK 99508
(907)269-0824

JOSHUA CROWE P.E.
R&M CONSULTANTS, INC.
CERT. OF AUTHORIZATION NO.: AECC111
9101 VANGUARD DR., ANCHORAGE, AK 99507
(907)522-1707

JOHN McCOOL, A.I.A.
McCOOL CARLSON GREEN
CERT. OF AUTHORIZATION NO.: AECC128
421 W. 1st AVENUE, SUITE 300
ANCHORAGE, AK 99501
(907)590-0001

EDWARD CARLSON, P.E.
SCOTT HALA, P.E.
MBA CONSULTING ENGINEERS, INC.
CERT. OF AUTHORIZATION NO.: AECC578
3812 SPENARD RD #200
ANCHORAGE, AK 99517
(907)274-2622



CONSTRUCTION DOCUMENT REVIEW SET

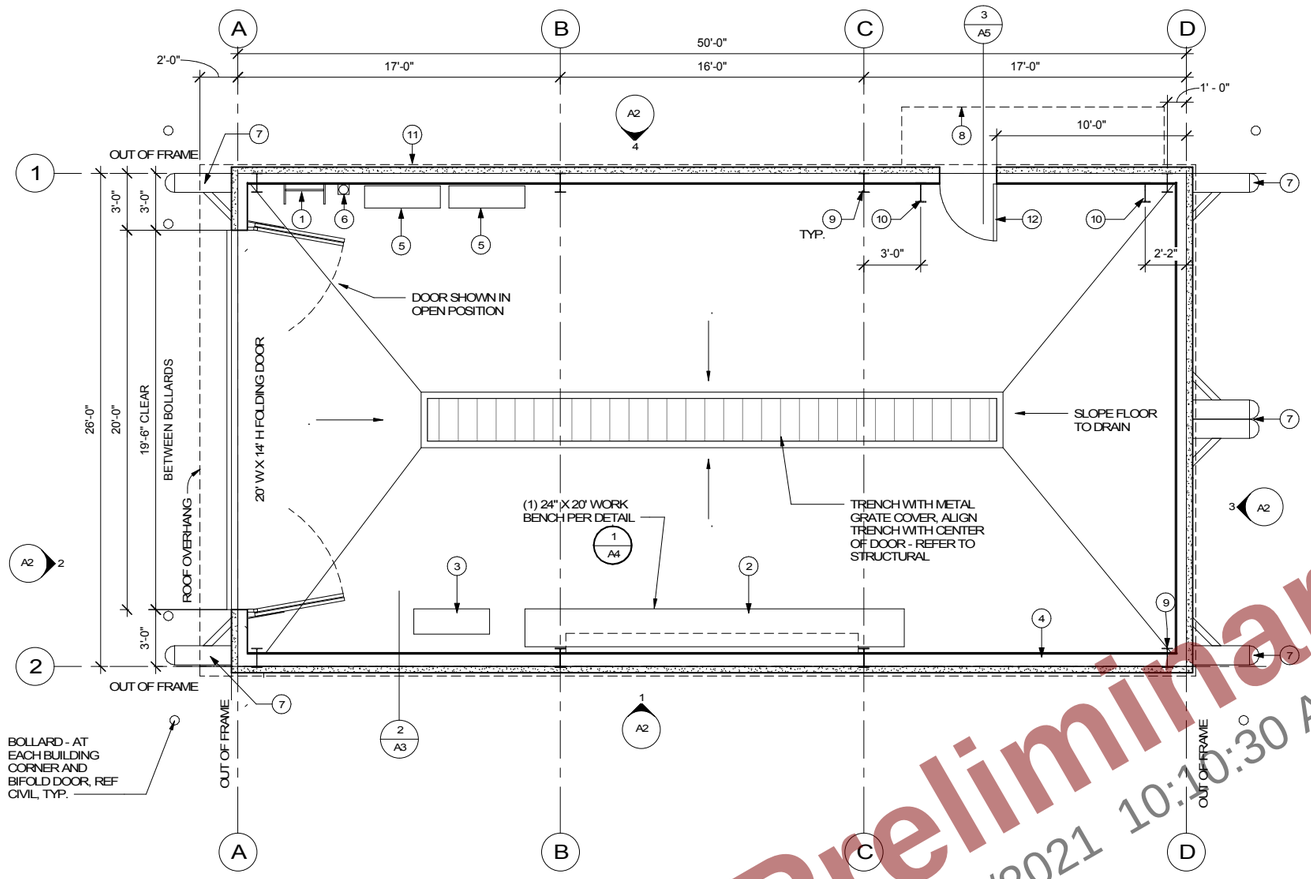
SHEET TITLE	SHEET No.
GENERAL	
TITLE SHEET	G1
ARCHITECTURAL	
ARCHITECTURAL FLOOR PLAN	A1 OF A5
ARCHITECTURAL EXTERIOR ELEVATIONS	A2 OF A5
ARCHITECTURAL BUILDING SECTIONS	A3 OF A5
ARCHITECTURAL DETAILS	A4 OF A5
ARCHITECTURAL DETAILS	A5 OF A5
STRUCTURAL	
STRUCTURAL NOTES, DETAIL & CRANE PLAN	S1 OF S5
STRUCTURAL FRAMING AND DECK PLANS & SECTION	S2 OF S5
STRUCTURAL DETAILS	S3 OF S5
STRUCTURAL DETAILS	S4 OF S5
STRUCTURAL DETAILS	S5 OF S5
MECHANICAL	
LEGEND, SCHEDULES, AD DETAILS	M1 OF M4
MECHANICAL FLOOR PLAN	M2 OF M4
MECHANICAL DETAILS	M3 OF M4
COMPRESSOR AIR SCHEMATIC AND DETAILS	M4 OF M4
ELECTRICAL	
ELECTRICAL LEGEND	E1 OF E8
ELECTRICAL SITE PLAN	E2 OF E8
HEATED SREB LIGHTING PLAN	E3 OF E8
HEATED SREB POWER PLAN	E4 OF E8
CONTROL DETAILS	E5 OF E8
POWER DETAILS	E6 OF E8
SCHEDULES	E7 OF E8
METER BASE DETAILS	E8 OF E8

SPONSORED BY
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433

SHEET G1

Plotted 10/1/2020 1:54 PM by Felipe Ruiz IN ACAD 2016
Z:\project\2720.06 DOT_SMPF CR SREBs Kongiganak\Civil\ACAD\2720.06-G1 Title Sheet.dwg



1 FLOOR PLAN - HEATED SREB

A1 — 1/4" = 1'-0"

0' 2' 4' 8'

22X34 SHEET 1/4" = 1'-0"

11X17 SHEET 1/8" = 1'-0"

CODE SYNOPSIS

2012 IBC AS AMENDED BY ALASKA DEPT. OF PUBLIC SAFETY

OCCUPANCY S-1 MOTOR VEHICLE GARAGE (IBC 311.2)

CONSTRUCTION TYPE V-11 NONCOMBUSTIBLE WITH NO FIRE RESISTANCE
MINIMUM FIRE SEPARATION = 10' CLEAR OR GREATER (IBC TABLE 602)

FIRE SEPARATION DISTANCE (702); 10'
BUILDING FACE TO
1) CLOSEST INTERIOR LOT LINE
2) CENTER OF PUBLIC WAY
3) IMAGINARY LINE BETWEEN 2 BUILDINGS = 20'

ACTUAL AREA: 52' x 50' = 2,600 S.F.

S-1 OF V-11 ALLOWABLE AREA = 26,000SF (IBC 503) = OK

FIRE SEPARATION NOT REQUIRED FOR FUEL - HEATING EQUIPMENT UNDER 400,000 BTU INPUT (IBC 509)

OCCUPANT EXIT LOAD (IBC 1004.1): 2,600SF/200 = 13 = SINGLE 36" HINGED EXIT DOOR ok (1015)

FOAM PLASTIC INSULATED WALL & ROOF PANELS SHALL COMPLY WITH IBC 2603 FOR NON-SPRINKLERED BUILDINGS

SHEET NOTES

PROVIDE EQUIPMENT UNPACKED, ASSEMBLED AND READY TO USE; LOCATE WHERE DIRECTED BY OWNER

1. PORTABLE LADDER: FURNISH ONE PORTABLE ALUMINUM ADJUSTABLE FREE STANDING A-FRAME LADDER 6 TO 11 FOOT A-FRAME HEIGHT RECOMMENDED BY MANUFACTURER FOR INDUSTRIAL HEAVY DUTY 300 POUND RATING. CERTIFIED ANSI A14 COMPLIANCE. little giant.com - MODEL 26 OR EQUAL
   INSTALL WITH STORAGE 1/8" X 3/4" GALVANIZED CHAIN AGAINST ON INSIDE WALL OF BUILDING WHERE DIRECTED BY OWNER.
2. TWO 16" WIDE X 3/4" PLYWOOD SHELVES - BETWEEN FRAMING - 12" X 12" STEEL SHELF BRACKETS EVENLY SPACED AT 24" O.C. - 55" AND 68" FROM TOP TO FLOOR - PAINT SAME AS PLYWOOD WAINSCOT
3. SPILL CONTAINMENT CABINET
   14 GAGE STEEL 48" WIDE X 24" DEEP X 78" HIGH WITH 2 PAD LOCKABLE DOORS.
   CENTER PARTITION, COAT ROD, FIXED TOP SHELF, 4 ADJUSTABLE SHELVES.
   YELLOW ENAMEL PAINT FINISH WITH "SPILL CONTAINMENT CABINET" IN 2' HIGH LETTERS.
   WWW.LKGOODWIN.COM/ MODEL ML248 OR EQUAL
   INSTALL WHERE DIRECTED
4. 5000 LB CAPACITY FLOOR MOUNT SINGLE SIDE CANTILEVER RACK:
   (2) 8' HIGH UPRIGHTS
   (1) BRACE SET BETWEEN UPRIGHTS; 6'
   (10) 24" STRAIGHT ARMS WITH LIPS
   ENAMEL PAINT FINISH
   WWW.LKGOODWIN.COM/ SERIES 1000 OR EQUAL
   INSTALL WHERE DIRECTED
5. (2 EACH) CLOSED SHELF UNITS: 18 GAGE STEEL 48" WIDE X 24" DEEP 89" HIGH WITH CLOSED SIDES & BACK.
   (3) INTERMEDIATE ADJUSTABLE SHELVES
   GRAY ENAMEL PAINT FINISH
   WWW.LKGOODWIN.COM/ IRONMAN OR EQUAL
   INSTALL WHERE DIRECTED
6. PROVIDE ONE FIRE EXTINGUISHERS IN WALL MOUNTED CABINETS:DRY CHEMICAL 2-A : 10-B,C MINIMUM WITH ALASKA FIRE MARSHALL - APPROVED SIGNS
7. STEEL SKIDS, REF STRUCTURAL
8. DOOR CANOPY, ABOVE
9. PRE ENGINEERED METAL BUILDING COLUMNS
10. STEEL POSTS FOR CANOPY SUPPORT FRAMING
11. ICE DEFLECTOR OVER FUEL PIPING, REF MECHANICAL FOR PIPING LOCATION
12. DOOR STOP SET AT 90 DEGREES

BORDER OUTLINE MEASURES
32x21 - SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

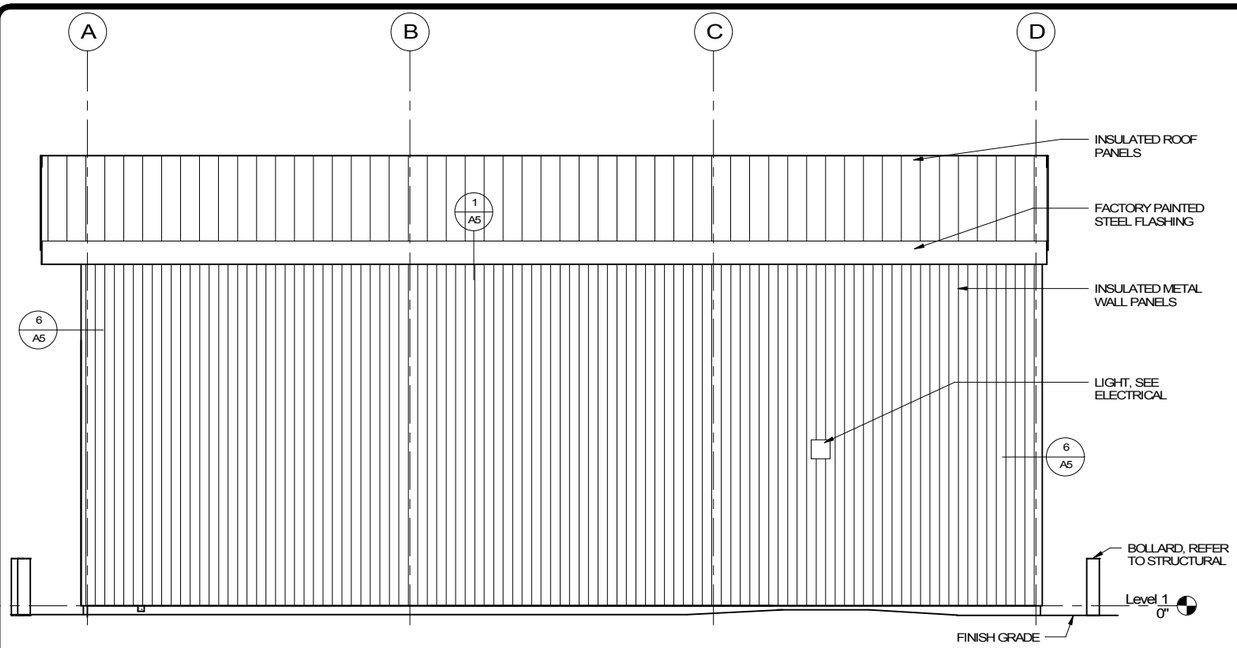
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP 3-02-0380-0XX-20XX
ARCHITECTURAL
FLOOR PLAN

DATE: 1-31-2020
SHEET: A1 OF A5
AS-BUILT SHEET;

MCG ARCHITECTS
PROJ. NO.2018039.02

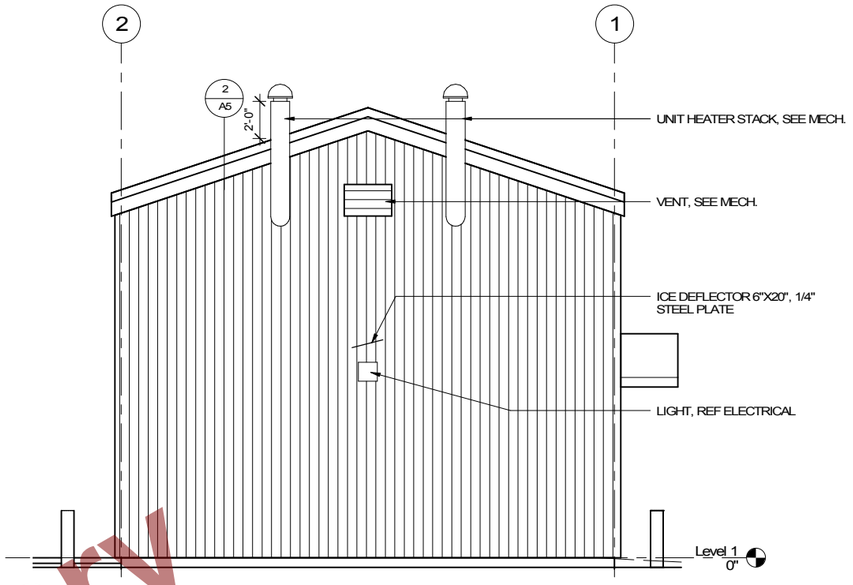
Designed By: JEM
Drawn By: WIZ
Checked By: DDG

Date Revised: 9/30/2020 4:44:13 PM
Layout Name: A1 FLOOR PLAN
File Path and Name: J:\MCG\Projects\2018\2018039 - R&M Central Region SREB Projects\2018039.06 Kongiganak\BIM\2018039.06



1 A2 BUILDING SIDE ELEVATION - SIDE

1/4" = 1'-0"

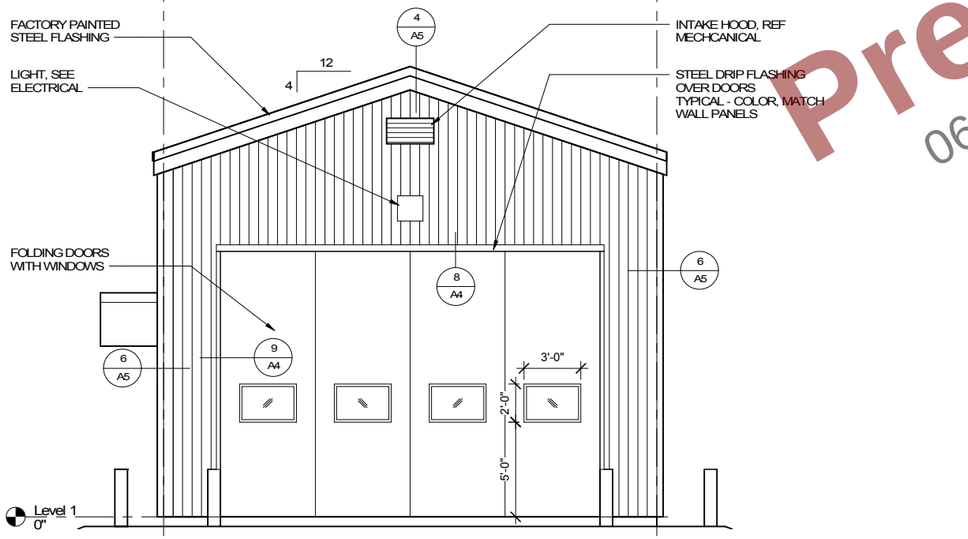


3 A2 BUILDING REAR ELEVATION - REAR

1/4" = 1'-0"

REFER TO 1/A2 FOR NOTES

0' 2' 4' 8'
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"

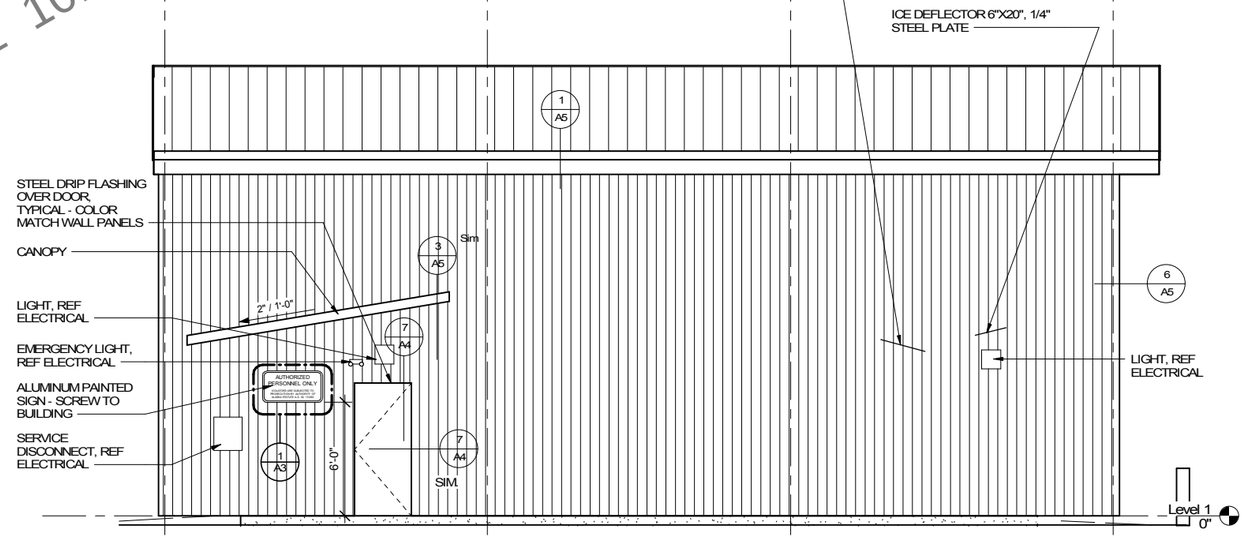


2 A2 BUILDING FRONT ELEVATION - FRONT

1/4" = 1'-0"

REFER TO 1/A2 FOR NOTES

0' 2' 4' 8'
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"



4 A2 BUILDING SIDE-ELEVATION - SIDE

1/4" = 1'-0"

REFER TO 1/A2 FOR NOTES

0' 2' 4' 8'
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"

BORDER OUTLINE MEASURES 32x21 - SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

Designed By: JEM
Drawn By: WVZ
Checked By: DDG

Date Revised:
Layout Name: A2 EXTERIOR ELEVATIONS
File Path and Name: \\MCG\Projects\2018\2018039 - R&M Central Region SREB Projects\2018039.06 Kongiganak\BIM\2018039.06

9/30/2020 4:44:13 PM

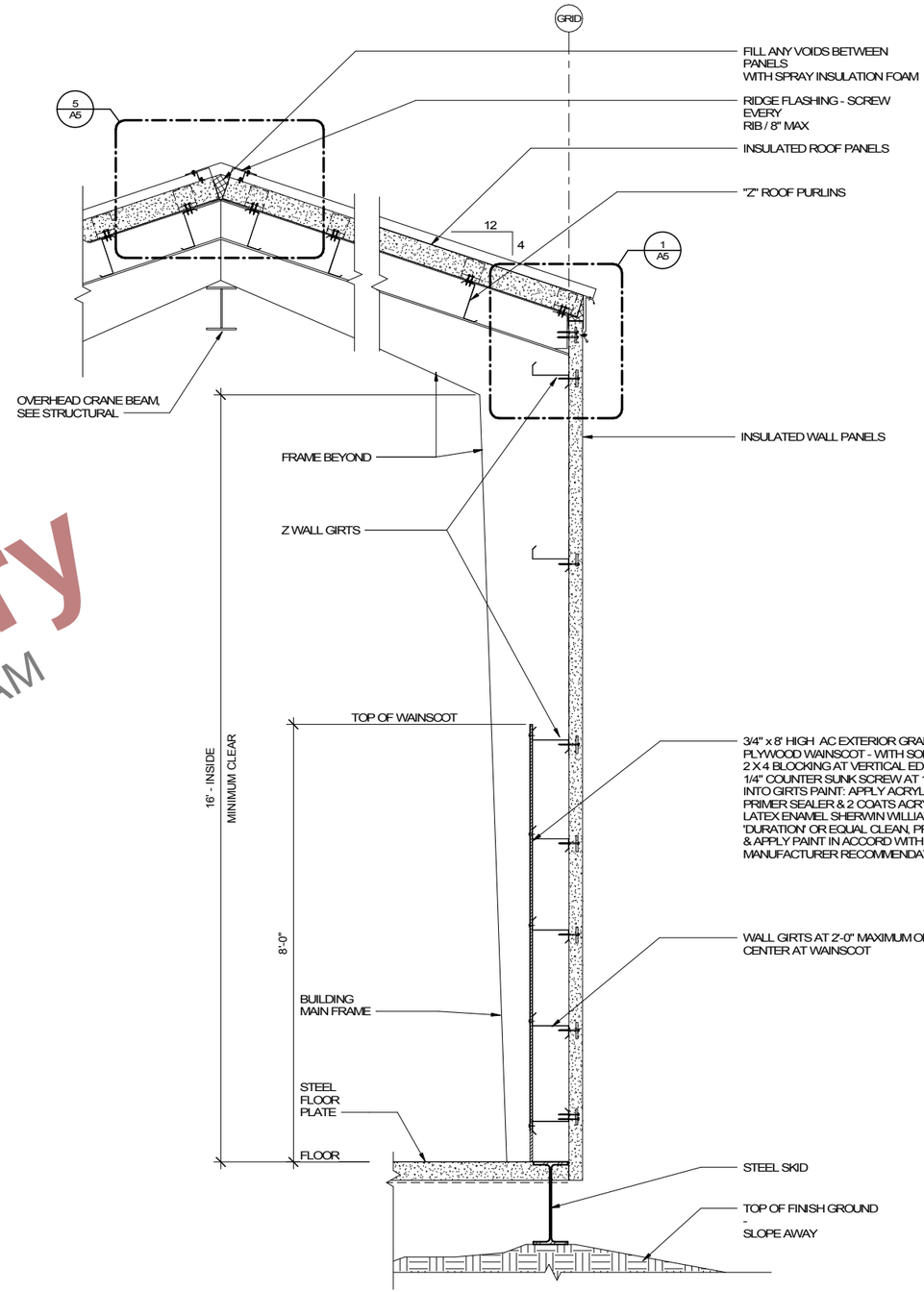
MCG ARCHITECTS
PROJ. NO.2018039.02

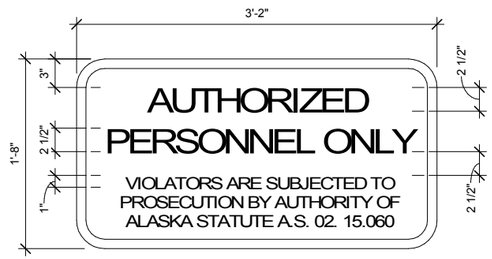
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK , ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP 3-02-0380-0XX-20XX
ARCHITECTURAL
EXTERIOR ELEVATIONS

DATE: 1-31-2020
SHEET: A2 OF A5
AS–BUILT SHEET;





1 / A3 SIGN MESSAGE
1 1/2" = 1'-0"

2 / A3 TYPICAL WALL SECTION
3/4" = 1'-0"

0' 1' 2' 4'
22X34 SHEET 3/4" = 1'-0"
11X17 SHEET 3/8" = 1'-0"

BORDER OUTLINE MEASURES 32x21 - SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

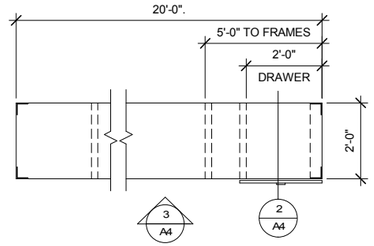
MCG ARCHITECTS
PROJ. NO.2018039.02

BY	DATE	REVISION

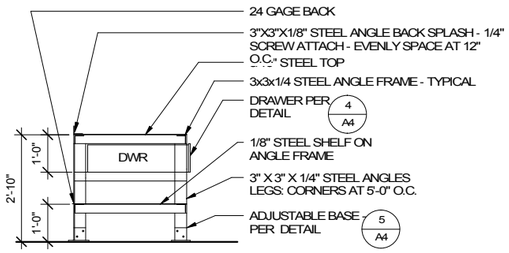
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK , ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP 3-02-0380-0XX-20XX
ARCHITECTURAL
BUILDING SECTIONS

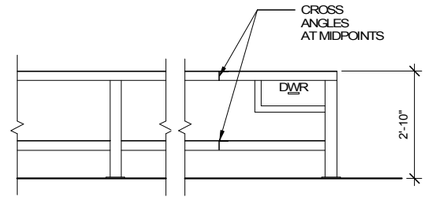
DATE: 1-31-2020
SHEET: A3 OF A5
AS-BUILT SHEET;



1 WORK BENCH PLAN
A4 — 1/2" = 1'-0"



2 WORK BENCH SECTION
A4 — 1/2" = 1'-0"



3 WORK BENCH FRONT
A4 — 1/2" = 1'-0"

WORK BENCH SPECIFICATIONS

INSTALL WHERE INDICATED ON FLOOR PLAN

FRAME: 3 x 3 x1/4" STEEL ANGLES - WELD 3/16" FILLET AT CONNECTIONS

TOP: 3/16" STEEL PLATE

SHELF: 1/8" STEEL PLATE

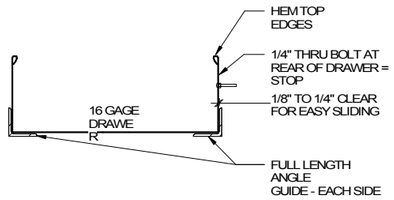
BACK: 24 GAGE STEEL SHEET

1/4" ROUND HEAD THRU BOLT ATTACH - EVENLY SPACE AT 12" MAXIMUM

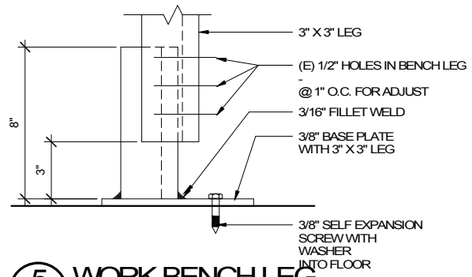
DRAWER: BOTTOM AND SIDES: 16 GAGE GALVANIZE SHEET STEEL BEND OR WELDED - HEM TOP EDGES
PULL: 6x5/16" WIRE: STANLEY 4486 OR EQUAL

EDGES: SMOOTH EDGES BY GRINDING - FREE FROM SHARP SURFACES

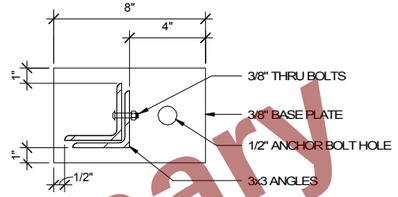
FINISH: SHOP APPLY: SOLVENT CLEAN POWER GRIND OR GRIT BLAST CLEAN, PRIME AND EPOXY ENAMEL PAINT



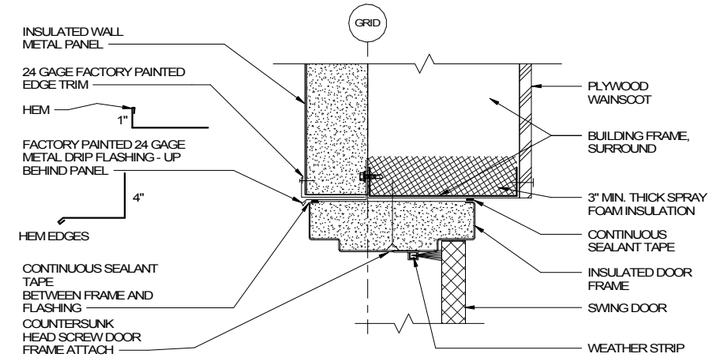
4 WORK BENCH DRAWER
A4 — 1 1/2" = 1'-0"



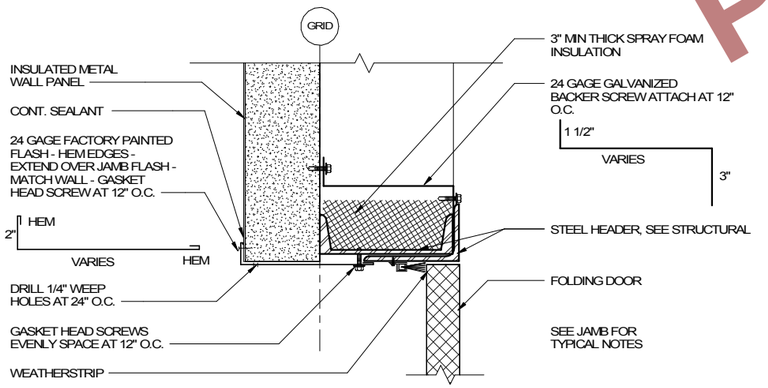
5 WORK BENCH LEG
A4 — 3" = 1'-0"



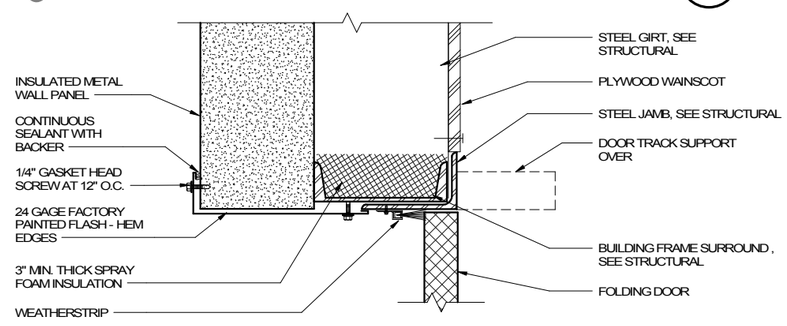
6 WORK BENCH LEGS BASE PLATE
A4 — 3" = 1'-0"



7 HINGED DOOR HEAD - JAMB SIMILAR
A4 — 3" = 1'-0"



8 FOLDING DOOR HEAD
A4 — 3" = 1'-0"



9 FOLDING DOOR JAMB
A4 — 3" = 1'-0"

BORDER OUTLINE MEASURES
32x21 - SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

BY	DATE	REVISION

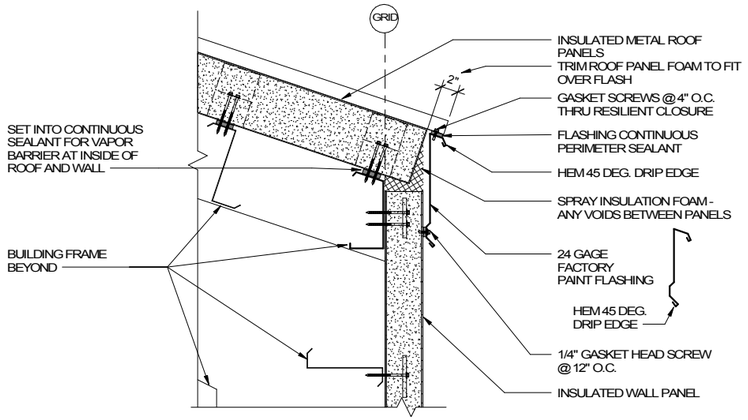
MCG ARCHITECTS
PROJ. NO.2018039.02

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

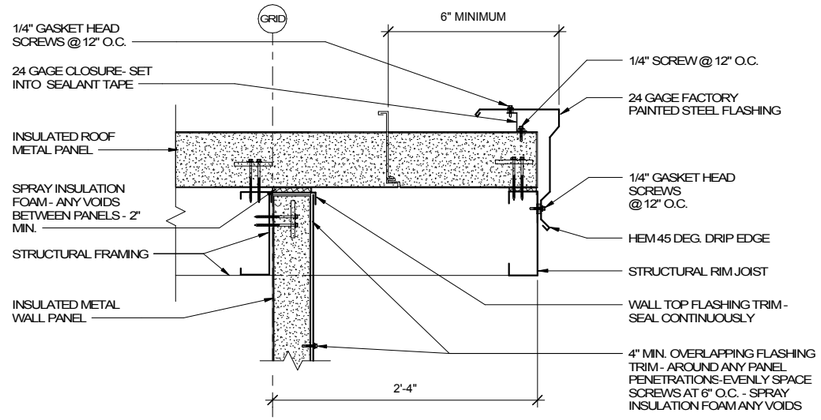
KONGIGANAK AIRPORT
KONGIGANAK , ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP 3-02-0380-0XX-20XX
ARCHITECTURAL DETAILS

DATE: 1-31-2020
SHEET: A4 OF A5
AS–BUILT SHEET:

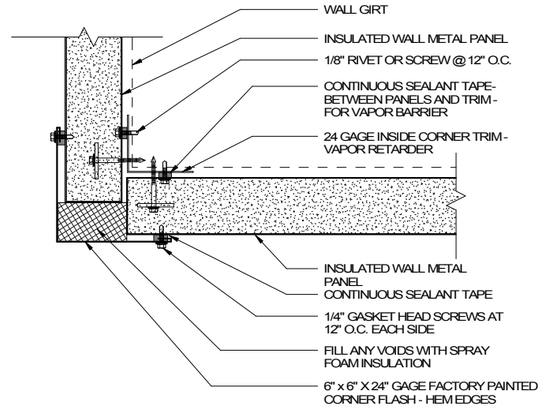
Date Revised: 9/30/2020 4:44:14 PM
Layout Name: A4 DETAILS
File Path and Name: \\MCGEX\Projects\2018\2018039 – R&M Central Region SREB Projects\2018039.06 Kongiganak\BIM\2018039.06
Designed By: Designer
Drawn By: WIZ
Checked By: DDG



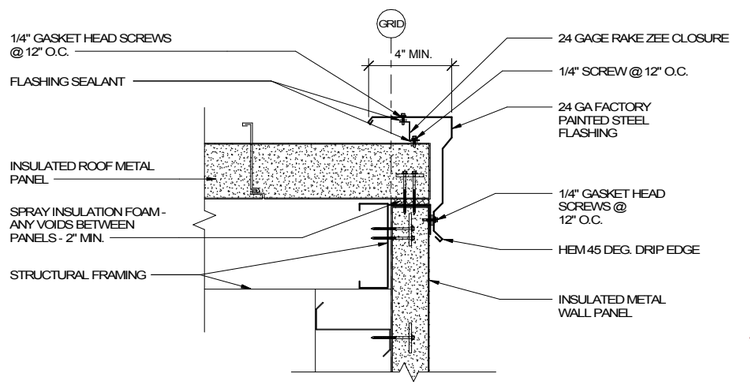
1 A5 ROOF EAVES
1 1/2" = 1'-0"



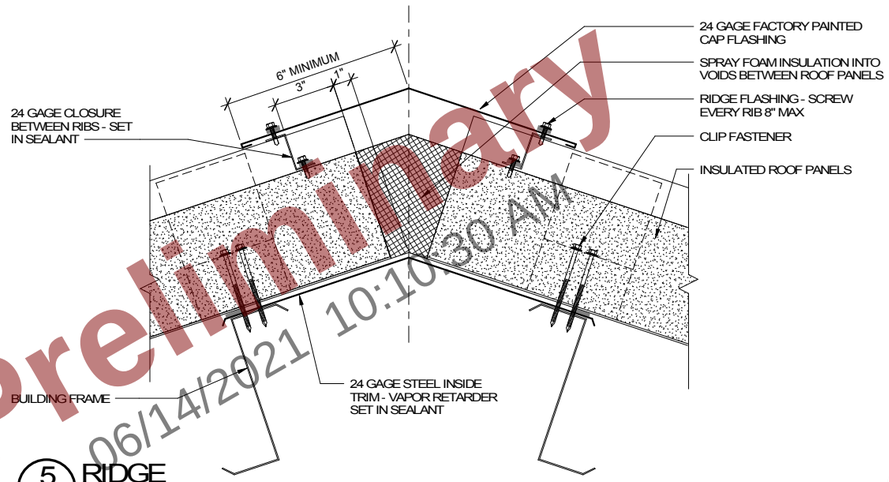
4 A5 ROOF OVER AT OVERHEAD DOOR
1 1/2" = 1'-0"



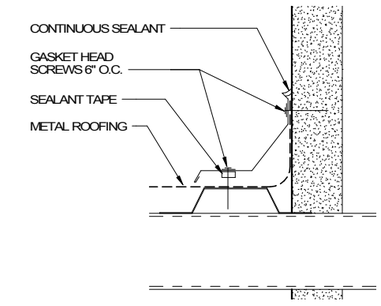
6 A5 CORNER AT WALL PANEL
3" = 1'-0"



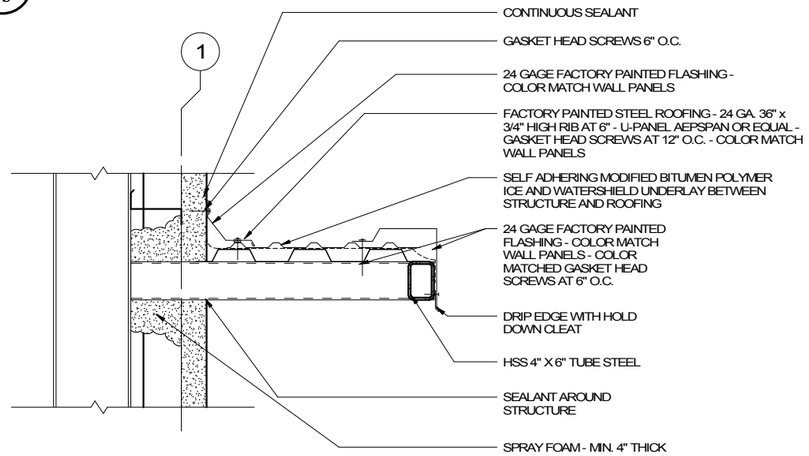
2 A5 ROOF RAKE
1 1/2" = 1'-0"



5 A5 RIDGE
3" = 1'-0"



7 A5 CANOPY FLASHING DETAIL
1 : 6



3 A5 CANOPY DETAIL
1" = 1'-0"

Designed By: JEM
Drawn By: WZ
Checked By: DDG

Date Revised: 9/30/2020 4:44:15 PM
Layout Name: A5 DETAILS
File Path and Name: L:\MOG\Projects\2018\2018039 - R&M Central Region SREB Projects\2018039.06 Kongiganak\BIM\2018039.06

MOG ARCHITECTS
PROJ. NO.2018039.02

BORDER OUTLINE MEASURES
32x21 - SCALE ACCORDINGLY
CONSTRUCTION DOCUMENT REVIEW SET

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK , ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP 3-02-0380-0XX-20XX
ARCHITECTURAL DETAILS

DATE: 1-31-2020
SHEET: A5 OF A5
AS–BUILT SHEET;

CODE:

2012 INTERNATIONAL BUILDING CODE (IBC)

DESIGN LOADS:

RISK CATEGORY		II
LIVE LOAD	FLOOR	200 PSF
	ROOF	20 PSF
SNOW LOAD	GROUND SNOW LOAD, P_g	50 PSF
	FLAT ROOF SNOW LOAD, P_f	30 PSF (MIN)
	IMPORTANCE FACTOR, I_s	1.00
	EXPOSURE FACTOR, C_e	0.8
	THERMAL FACTOR, C_t	1.0
	SNOW DRIFT	PER ASCE 7-10
WIND LOAD	WIND SPEED (3-SECOND GUST)	165 MPH
	ENCLOSURE CLASSIFICATION	ENCLOSED
	EXPOSURE CATEGORY	D
	IMPORTANCE FACTOR, I_w	1.00
	TOPOGRAPHIC FACTOR, K_{ZT}	1.00
	DIRECTION FACTOR, K_d	0.85
	GUST FACTOR, G	0.85
	INTERNAL PRESSURE COEF, GC_{pi}	+/- 0.18

C&C: ZONE PER IBC (WIND PRESSURE IN PSF BASED ON 10 SF AREA, STRENGTH DESIGN)

ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5
-70/44	-120/44	-178/44	-82/76	-101/76

SEISMIC	SS=0.135g S1=0.087g SDS=0.144g	SD1=0.139g
	SEISMIC DESIGN CATEGORY	C
	SITE CLASS	D
	IMPORTANCE FACTOR, I_E	1.00
	SEISMIC RESPONSE COEF, C_S	
	MOMENT FRAME	0.041
	BRACED FRAME	0.044
	RESPONSE MOD FACTOR, R	
	MOMENT FRAME	3.5
	BRACED FRAME	3.25
	OVERSTRENGTH, OMEGA	
	MOMENT FRAME	3.0
	BRACED FRAME	2.0
SPECIAL LOADS:	MINIMUM COLLATERAL LOAD	5 PSF
	MONORAIL HOIST CAPACITY	4,000 LBS

MATERIALS

COMPLY WITH BUY AMERICAN PREFERENCE REQMTS OF FAA FUNDED PROJECT.

STRUCTURAL STEEL AND CONNECTORS:

STRUCTURAL STEEL SHALL CONFORM TO IBC CHAPTER 22, FOR ASTM SPECIFICATION A-36, Fy = 36 ksi EXCEPT WHERE NOTED OTHERWISE. ROLLED SHAPES SHALL BE ASTM A992, 50 ksi YIELD.

1. STEEL TUBING (TS) SHALL CONFORM TO ASTM A500, GRADE B, Fy = 46 ksi.
2. DESIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE IBC CHAPTER 22, DIVISION IX, ALLOWABLE STRESS DESIGN.
3. ALL BOLTS (UON) SHALL BE A325 HIGH STRENGTH BOLTS IN CONFORMANCE WITH AISC STANDARD "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
4. MACHINE BOLTS SHALL CONFORM TO ASTM 307, UNLESS NOTED OTHERWISE AND SHALL BE PROVIDED STANDARD HEX HEAD NUTS CONFORMING TO ASTM A563, GRADE A AND CIRCULAR STEEL WASHERS CONFORMING TO ASTM F436.
5. WELDING PER AWS 1.1 WITH E70 ELECTRODES.
6. METAL GRATE: 2"x5/16" BRG BARS @ 1 3/8" C/C, w/ WELDED CROSS BARS 3/4"x3/16" @ 4" C/C, ENDS BANDED w/ 1/8" FLAT BAR, HOT DIP GALVANIZED, FABRICATE IN 2' MAX LENGTHS.
7. PROVIDE ADEQUATE LATERAL BRACING FOR STRUCTURE DURING FABRICATION. PLAN WELDING SEQUENCE TO ELIMINATE WARPAGE OF SKID.

CONCRETE:

1. 3,000 PSI MINIMUM SACK CRETE OR BETTER.

INSULATION:

1. AT UNDERSIDE OF FLOOR PLATE & ON JOIST FRAMING: SPRAY APPLY "URETHANE" FOAM INSULATION TO "R-14" CAPACITY AFTER FABRICATION PER SPEC 07201.

PAINTING:

PAINT ALL COMPONENTS PER SPEC SECTION 05121. FLOOR COLOR SHALL BE GRAY.

SKID ACCEPTANCE:

1. PRIOR TO ACCEPTANCE OF THE SREB SKIDS FOR SHIPPING FROM THE POINT OF FABRICATION, THE PERIMETER MEMBERS OF THE SKID FRAMEWORK FOR STRAIGHTNESS. WARPAGE OF THE SKID FRAME EXCEEDING 1/2" (ASSUMING THE BASE LINE IS A STRAIGHT LINE BETWEEN THE ENDS OF THE SKID DECK) SHALL BE CAUSE FOR REJECTION OR SHALL REQUIRE REPAIRS BY THE FABRICATOR TO MEET SUCH TOLERANCE. PROVIDE COPY OF MEASUREMENTS WITH CERTIFICATION LETTER BY QC MANAGER.
2. PRIOR TO ACCEPTANCE OF THE SREB SKIDS FOR ASSEMBLY OF THE BUILDING STRUCTURAL FRAMEWORK, THE PERIMETER MEMBERS OF THE SKID FRAMEWORK SHALL BE CHECKED FOR STRAIGHTNESS BY THE ENGINEER. WARPAGE OF THE SKID FRAME EXCEEDING 1/2" (ASSUMING THE BASE LINE IS A STRAIGHT LINE BETWEEN THE ENDS OF THE SKID DECK) SHALL BE CAUSE FOR REJECTION OR SHALL REQUIRE REPAIRS BY THE FABRICATOR TO MEET SUCH TOLERANCE.

SPECIAL INSPECTION

1. THE FOLLOWING SPECIAL INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL EMPLOYED BY THE STATE OR ITS AGENT. THE CONTRACTOR SHALL COORDINATE WORK WITH THE SPECIAL INSPECTORS.
2. SPECIAL INSPECTORS SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER AND THE ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND TO THE ATTENTION OF THE ENGINEER OF RECORD.
3. THE SPECIAL INSPECTORS SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISION OF THE APPLICABLE CODES.
4. PROVIDE THE FOLLOWING SPECIAL INSPECTIONS PER SECTION 1704 OF THE INTERNATIONAL BUILDING CODE. ITEMS MARKED BY AN ASTERIC (*) MAY BE INSPECTED BY THE RESIDENT PROJECT ENGINEER IF SPECIAL INSPECTOR IS NOT AVAILABLE.

BUILDING FRAME:

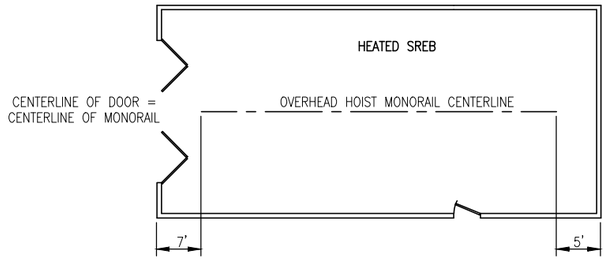
1. ANCHOR BOLTS: VERIFY SNUG TIGHT OR AS OTHERWISE SPECIFIED BY THE BUILDING DESIGNER (PERIODIC)*.
2. HIGH STRENGTH BOLTS: VERIFY MARKINGS INDICATING TYPE OF BOLT MEETS THOSE REQUIRED BY CONSTRUCTION DOCUMENTS. FOR BOLTS TIGHTENED BY TURN-OF-THE-NUT METHOD, VERIFY CONNECTION PLYS HAVE BEEN DRAWN TOGETHER AND PROPERLY SNUGGED AND MONITOR INSTALLATION OF BOLTS TO VERIFY PROPER PROCEDURES (CONTINUOUS). FOR LOAD INDICATING WASHERS OR TWIST-OFF BOLTS, VERIFY UPON COMPLETION (PERIODIC).
3. INSPECT STEEL FRAME JOINT DETAILS INCLUDING MOMENT FRAME CONNS, FRAME BRACING AND FLANGE BRACING OF PRIMARY BUILDING FRAMES (PERIODIC)*.
4. BUILDING IS PRE-ENGINEERED METAL BUILDING, PROVIDE ANY SPECIAL INSPECTIONS REQUIRED BY THE BUILDING DESIGNER.

SKID:

1. VISUAL INSPECTION OF WELDS
2. VERIFY WELDER QUALIFICATIONS
3. REVIEW WELDING PROCEDURES
4. VERIFY MATERIALS CERTIFICATIONS

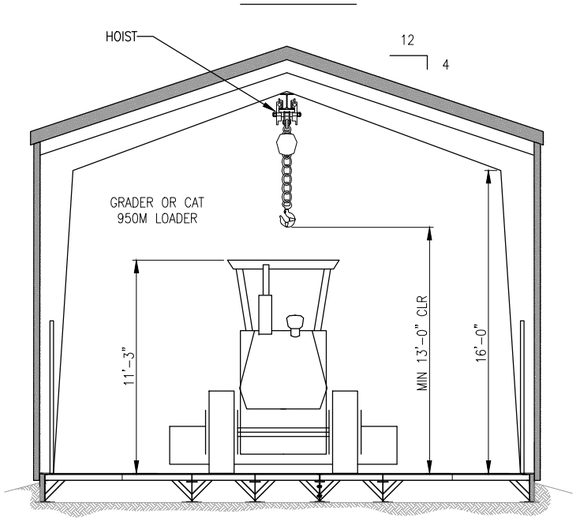
STRUCTURAL ABBREVIATIONS:

AISC	AMERICAN INSTITUTE OF STEEL CONSTR.
ALT	ALTERNATIVE
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BTWN	BETWEEN
BOT	BOTTOM
BRG	BEARING
C/C	CENTER TO CENTER
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONFIG	CONFIGURATION
CONN	CONNECTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CONSTR	CONSTRUCTION
DBL	DOUBLE
DEFL	DEFLECTION, DEFLECTOR
DIA, Ø	DIAMETER
EA	EACH
EE	EACH END
EG	FOR EXAMPLE
EW	EACH WAY
ECON	ECONOMY
ELEV, EL	ELEVATION
EQ	EQUAL
ES	EACH SIDE
EX, EXC	EXCEPT
EXP	EXPANSION
FAA	FEDERAL AVIATION ADMINISTRATION
FB	FLAT BAR
FLG	FLANGE
FLR	FLOOR
FS	FAR SIDE, FULL SIZE
G	GRAM
GA	GAGE
GALV	GALVANIZED
HD	HEAVY DUTY
HDG	HOT DIP GALVANIZE
HDR	HEADER
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
IE	THAT IS, IN OTHER WORDS
JT	JOINT
ksi	KILOPOUND PER SQUARE INCH
L	ANGLE
LBS	POUNDS
LG	LONG
LONG	LONGITUDINAL
MI	MALEABLE IRON
MAX	MAXIMUM
MID	MIDDLE
MIN	MINIMUM
OC	ON CENTER
OPG	OPENING
OD	OUTSIDE DIAMETER
PED	PEDESTRIAN
PEN	PENETRATION
PL	PLATE
PLWD	PLYWOOD
PR	PAIR
PSF	POUNDS PER SQUARE FOOT
PVC	POLYVINYL CHLORIDE
QTR	QUARTER
R	RADIUS
RAIL	RAILING
SHT	SHEET
SQ	SQUARE
SREB	SNOW REMOVAL EQUIPMENT BLDG
STL	STEEL
STIFF	STIFFENER
SUPT	SUPPORT
SWL	SEA WATER LEVEL
SYM	SYMMETRICAL
T&B	TOP & BOTTOM
THK	THICK
TRANS	TRANSITION
TS	TUBE STEEL
TYP	TYPICAL
UNC	UNIFIED COARSE THREAD
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W/	WITH
W	"W" STYLE BEAM
WF	WIDE FLANGE BEAM
WT	"WT" STYLE BEAM



NOTE:
1. CONTRACTOR SHALL COORDINATE AND VERIFY THE HOOK CLEARANCE WITH DOT&PF EQUIPMENT. BOTTOM OF HOOK HEIGHT SHALL BE A MINIMUM OF 13' ABOVE FINISH FLOOR, BUT MUST BE VERIFIED AND COORDINATED BY CONTRACTOR BEFORE PROCUREMENT.
2. CONTRACTOR SHALL INSTALL MONORAIL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. TROLLEY AND CHAIN HOST IS NOT TO BE INSTALLED, BUT SHALL BE DELIVERED TO THE DOT&PF EQUIPMENT FORMAN IN BETHEL, AK:
   DANNY SMITH
   BETHEL DOT EQUIPMENT FORMAN
   3500 STATE HWY
   BETHEL, AK. 99559
   (907) 543-3760

A OVERHEAD CRANE (MONORAIL)
NOT TO SCALE



B HEATED SREB SECTION (MONORAIL)
NOT TO SCALE

NOTE: OWNER EQUIPMENT SHOWN FOR REFERENCE PURPOSES

DRAWINGS PREPARED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1701
CERT. OF AUTH. AECC111

STATE OF ALASKA 49TH
Joshua Crowe
No. CE 13332
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISION

BORDER OUTLINE MEASURES 32x21-SCALE ACCORDINGLY

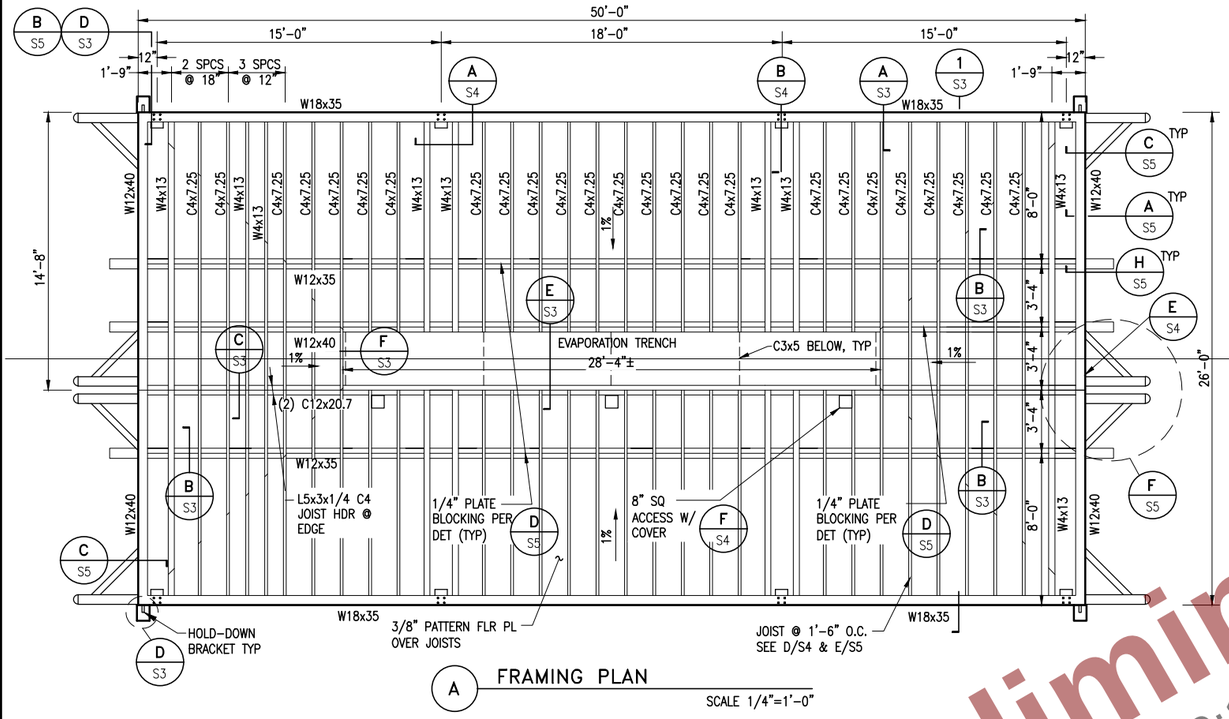
CONSTRUCTION DOCUMENT REVIEW SET

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
STRUCTURAL
NOTES, DETAIL & CRANE PLAN

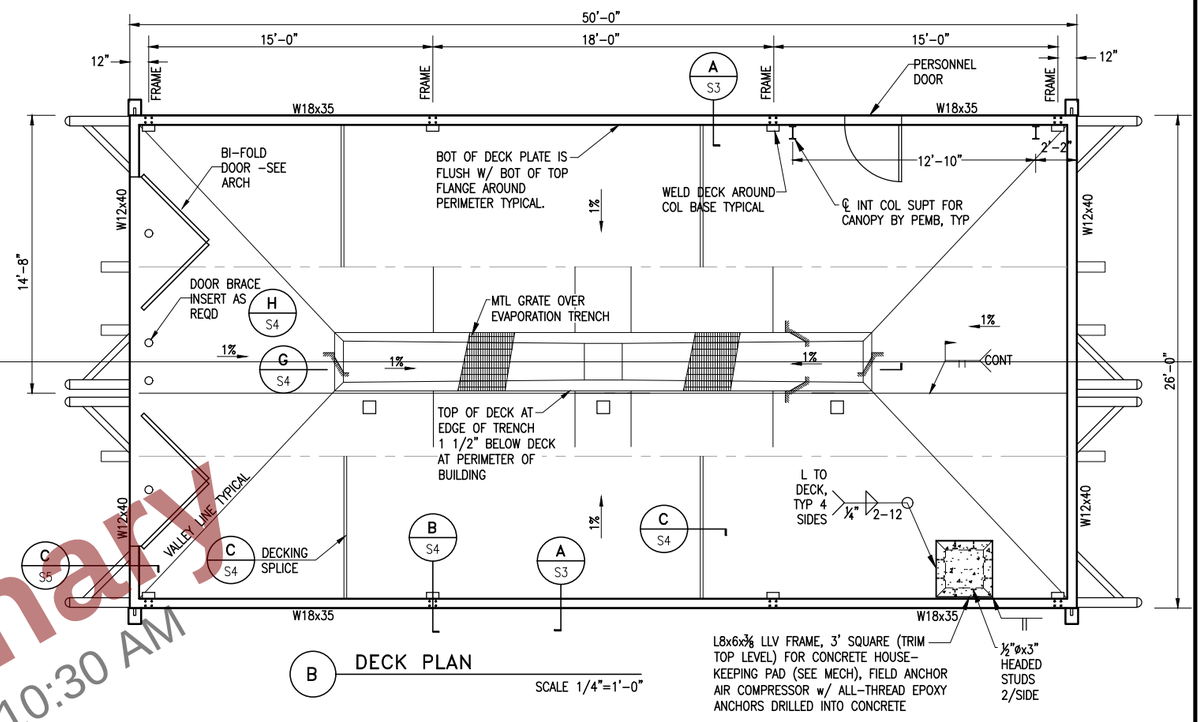
DATE: 10/07/2020
SHEET: S1 OF S5
AS-BUILT SHEET:

Designed By: JAZ
Drawn By: MKA
Checked By: JAC
Date Revised:
Layout Name: S-1
9/27/2020, 4:19 PM
File Path and Name: Z:\project\2720.06 DOT_SWPF CR SREBs Kongiganak\Civil\XCAD\2720.06-SB-SKID-S1.dwg



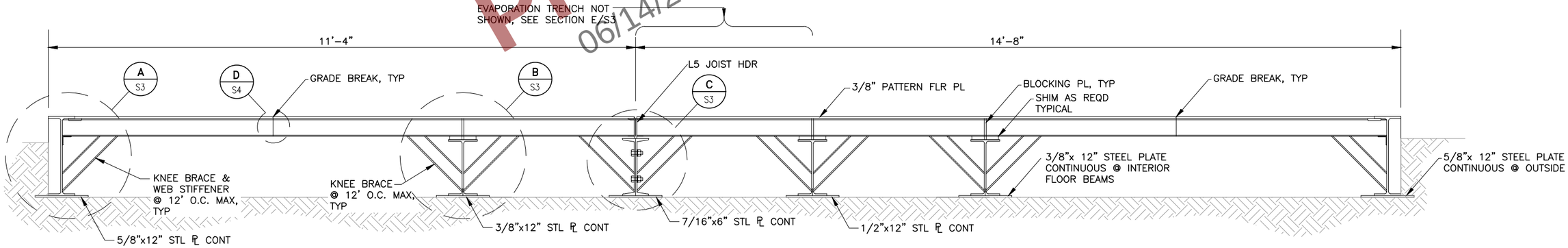
A FRAMING PLAN

SCALE 1/4"=1'-0"



B DECK PLAN

SCALE 1/4"=1'-0"



1 TYPICAL SKID SECTION

SCALE 1"=1'-0"

NOTE: BOTTOM OF FLOOR BEAMS AT SAME ELEVATION.

Designed By: JAZ
Drawn By: MKA
Checked By: JAC

Date Revised: 10/01/2020, 4:24 PM
Layout Name: S-2
File Path and Name: Z:\project\2720.06 DOT_SWPF CR SREBs Kongiganak\Civil\ACAD\2720.06-SB-SKID-S2.dwg

DRAWINGS PREPARED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1701
CERT. OF AUTH. AECC111

STATE OF ALASKA 49TH — Joshua Crowe No. CE 13332 — REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISION

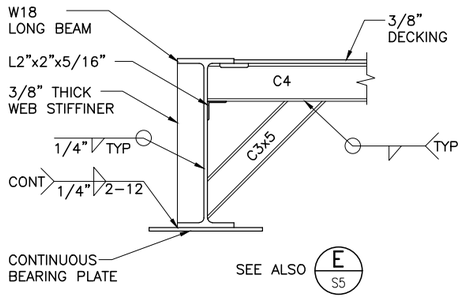
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
STRUCTURAL
FRAMING AND DECK PLANS & SECTION

DATE: 10/07/2020
SHEET: S2 OF S5
AS-BUILT SHEET:

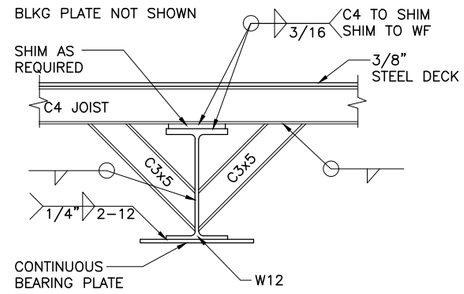
BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET



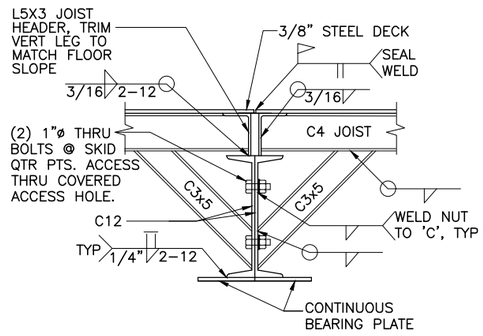
A TYP BRACING DET @ EXTERIOR

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



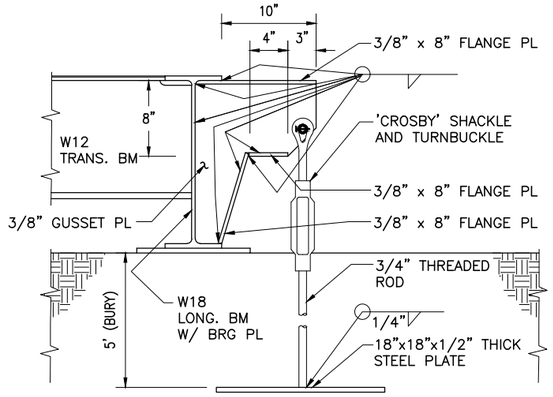
B TYP BRACING DET @ INTERIOR

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



C TYP SKID SPLICE DETAIL

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

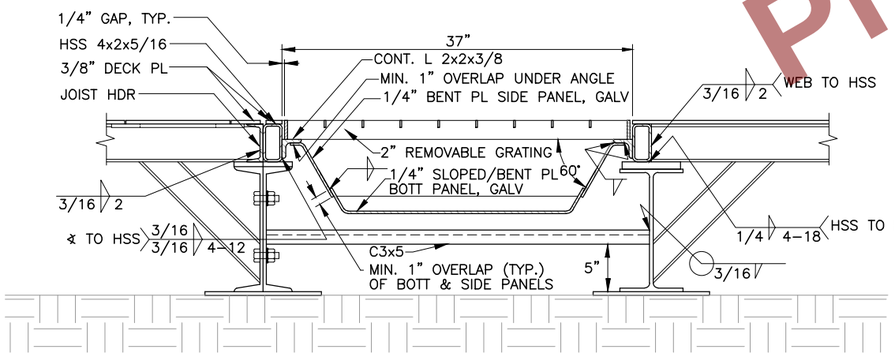


UNOTES:

1. CHANCE HELICAL WITH 2 7/8"ø SHAFT, 10" HELIX WITH 8' BURY MAY MAY BE USED IN LIEU OF TURNBUCKLE/ SHACKLE DETAIL
2. BELOW GRADE STEEL SHALL BE HOT DIP GALV AFTER FABRICATION

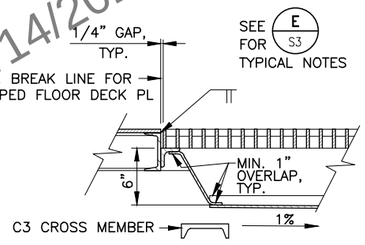
D TYP JACKING POINT & HOLD-DOWN DET

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



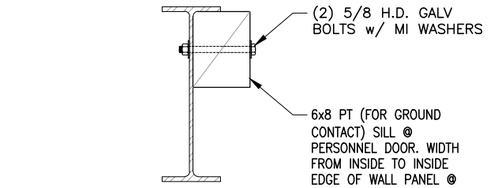
E EVAP. TRENCH CROSS-SECTION

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



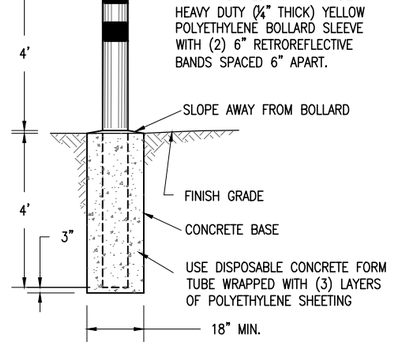
F EVAP. TRENCH SECTION

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



G SKID SECTION @ PERSONNEL DOOR

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



H EXTERIOR BOLLARD

SCALE 1/2" = 1'-0"

DRAWINGS PREPARED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1701
CERT. OF AUTH. AECC111

STATE OF ALASKA 49TH
Joshua Crowe
No. CE 13332
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

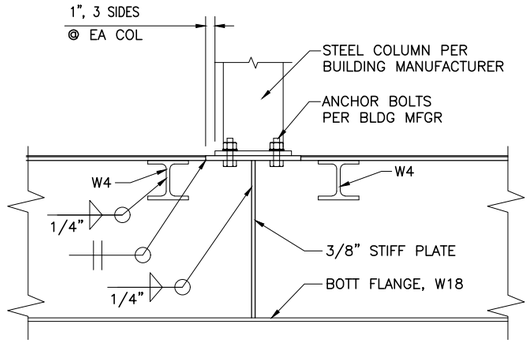
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
STRUCTURAL
DETAILS

DATE: 10/07/2020
SHEET: S3 OF S5
AS-BUILT SHEET:

BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY

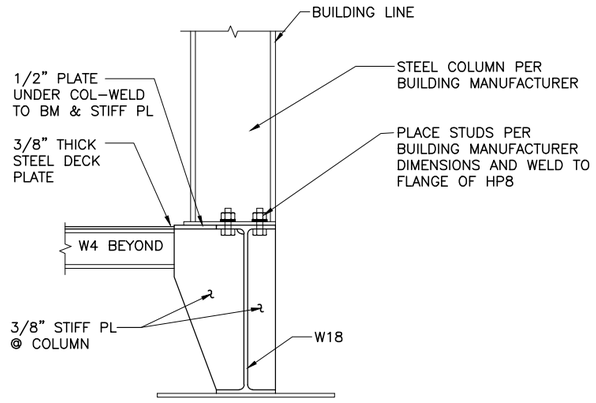
CONSTRUCTION DOCUMENT REVIEW SET

Designed By: JAZ
Drawn By: MKA
Checked By: JAC
Date Revised:
Layout Name: DETAIL S-3
9/27/2020, 4:22 PM
File Path and Name: Z:\project\2720.06 DOT_SWPF CR SREBs Kongiganak\Civil\ACAD\2720.06-SB-SKID-S3.dwg



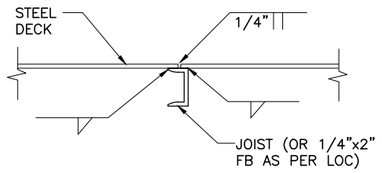
A COLUMN BEARING DETAIL

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



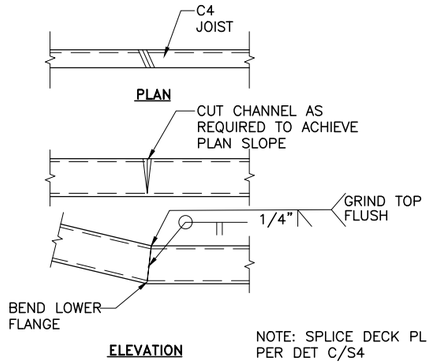
B COLUMN BEARING DETAIL

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



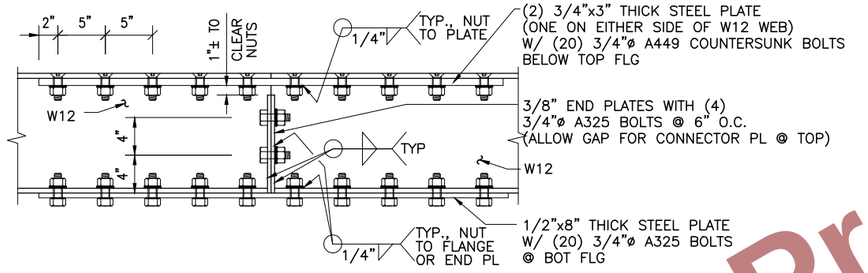
C SECTION @ DECK PLATE JOIINT

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



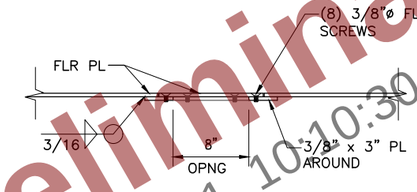
D JOIST CUT & WELD @ SLOPE CHANGES DET

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



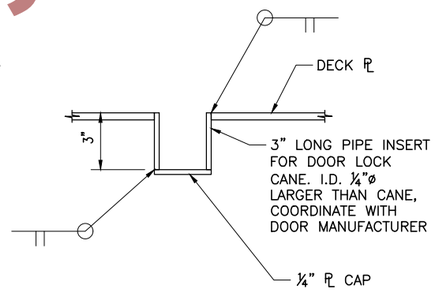
E TYPICAL SPLICE DETAIL

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



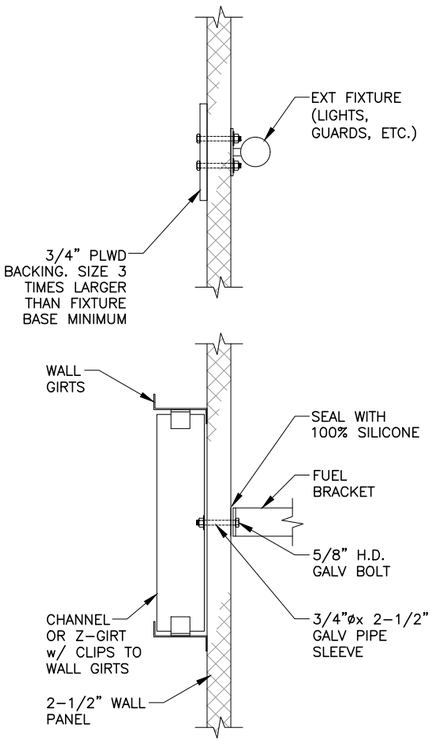
F FLOOR ACCESS HOLE DETAIL

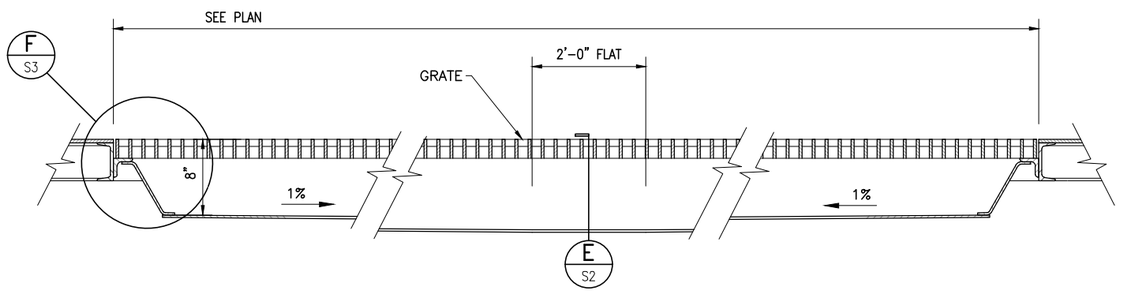
SCALE 1-1/2"=1'-0"



H BIFOLD DOOR BRACE

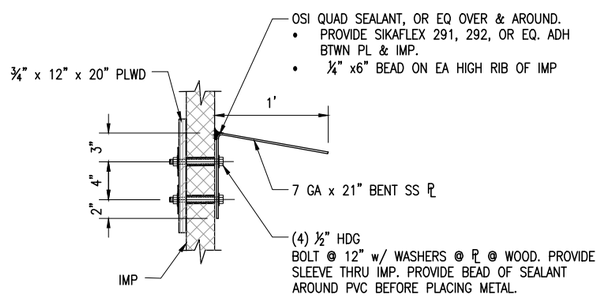
SCALE 3"=1'-0"





G LONGITUDINAL SECTION @ EVAPORATION TRENCH

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



I ICE DEFLECTOR @ EXT LIGHTS

PLACE GUARD 2' TO 4' ABOVE LIGHT. SCALE 1-1/2"=1'-0"

J TYP WALL MOUNT DETAILS

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

BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

DRAWINGS PREPARED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1701
CERT. OF AUTH. AECC111

STATE OF ALASKA 49TH
Joshua Crowe
No. CE 13332
REGISTERED PROFESSIONAL ENGINEER

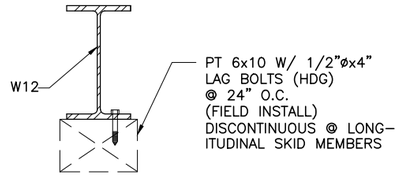
BY	DATE	REVISION

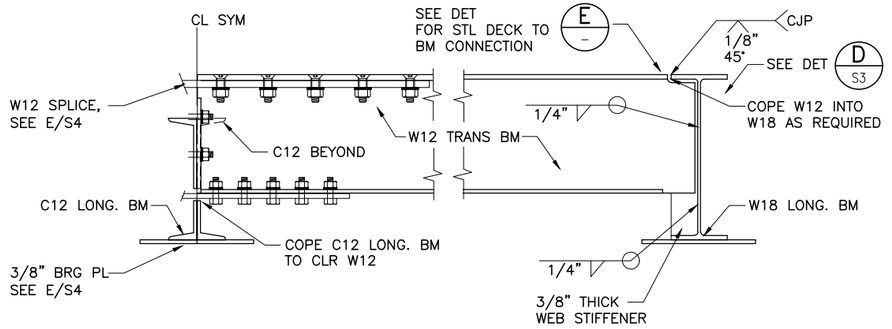
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
STRUCTURAL
DETAILS

DATE: 10/07/2020
SHEET: S4 OF S5
AS-BUILT SHEET:

Designed By: JAZ
Drawn By: MKA
Checked By: JAC
Date Revised:
Layout Name: 9/27/2020, 4:23 PM
File Path and Name: DETAIL S-4
Z:\project\2720.06 DOT_SWPF CR SREBs Kongiganak\Civil\ACAD\2720.06-SB-SKID-S4.dwg





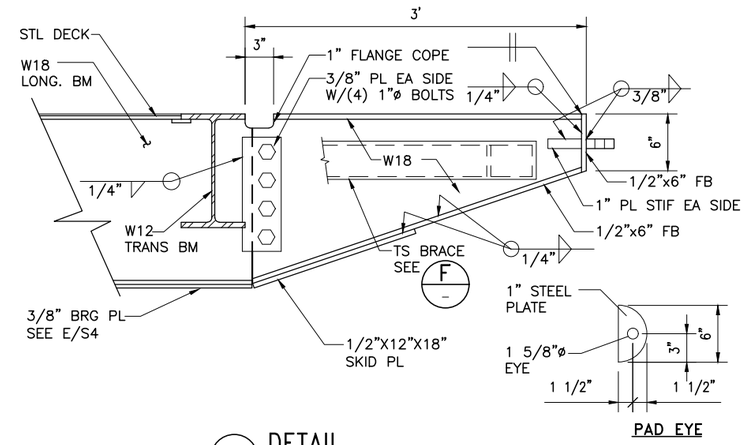
@ INT EDGE @ EXT EDGE

A TRANS BEAM DETAIL

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

B LONGITUDINAL/TRANS BEAM CONN.

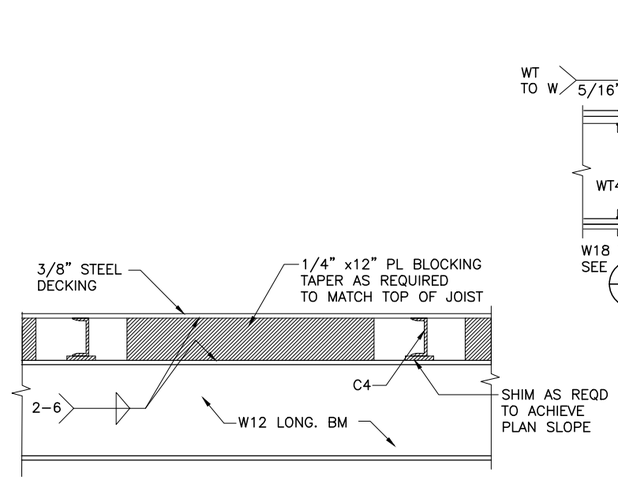
SCALE 1-1/2"=1'-0"



PAD EYE

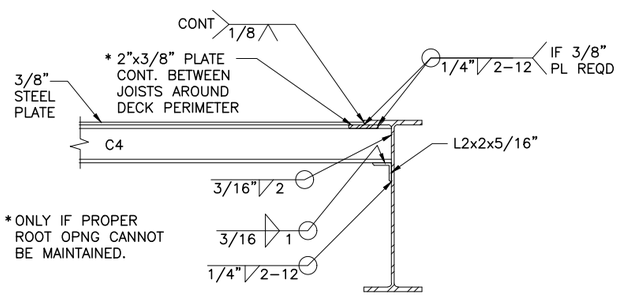
C DETAIL

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



D TYPICAL BLOCKING DETAIL

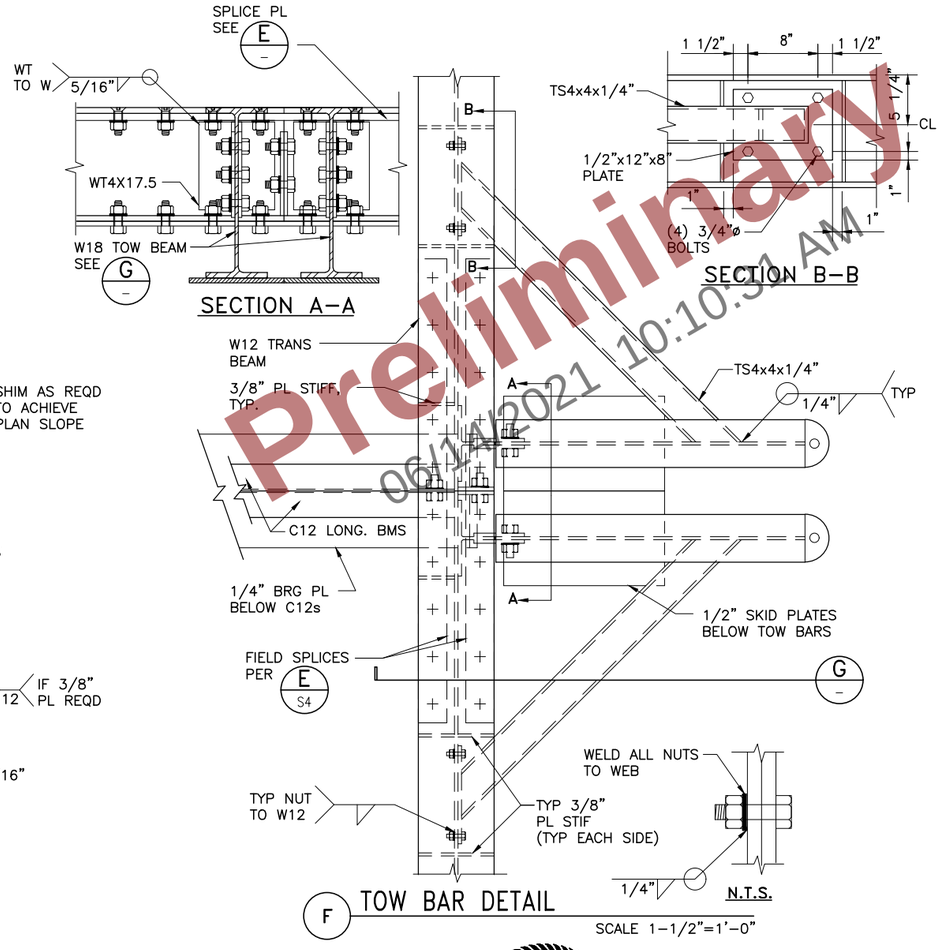
SCALE 1-1/2"=1'-0"



C3 BRACE NOT SHOWN FOR CLARITY

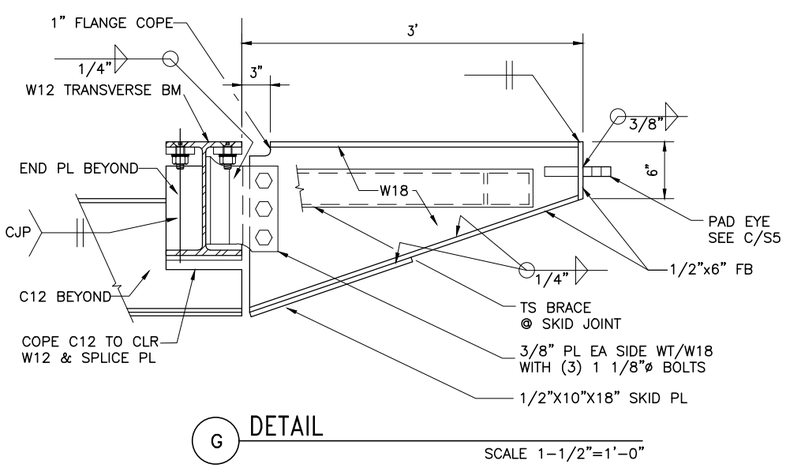
E TYPICAL JOIST CONNECTION

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



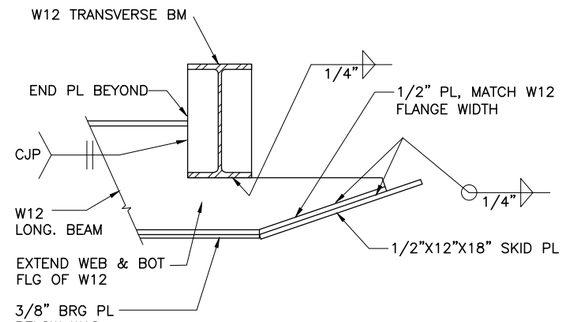
F TOW BAR DETAIL

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



G DETAIL

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



H DETAIL

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

BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

DRAWINGS PREPARED BY:
R&M CONSULTANTS, INC.
9101 VANGUARD DRIVE
ANCHORAGE, AK 99507
(907) 522-1701
CERT. OF AUTH. AECC111

STATE OF ALASKA 49TH
Joshua Crowe
No. CE 13332
REGISTERED PROFESSIONAL ENGINEER

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
STRUCTURAL
DETAILS

DATE: 10/07/2020
SHEET: S5 OF S5
AS-BUILT SHEET:

Designed By: JAZ
Drawn By: MKA
Checked By: JAC
Date Revised:
Layout Name: DETAIL S-5
File Path and Name: Z:\project\2720.06 DOT_SWPF CR SREBs Kongiganak\Civil\

LEGEND & ABBREVIATIONS

ABBR.	EXPLANATION	SYMBOL
A	AIR – COMPRESSED	A
	AIR FOIL TURNING VANES	
AAV	AUTOMATIC AIR VENT	
AFF	ABOVE FINISHED FLOOR	
BDD	BACKDRAFT DAMPER	
BD	BALANCING DAMPER	
	BALANCING/ISOLATION VALVE	
	BALL VALVE	
CFM	CUBIC FEET/MINUTE	
CO	CLEANOUT	
CV	CHECK VALVE	
DN	DOWN	
(E)	EXISTING	
E/A	EXHAUST AIR	
	EXPANSION COMPENSATOR	
FCO	FLOOR CLEANOUT	
FD	FLOOR DRAIN	
	FLEXIBLE CONNECTION	
	FLEXIBLE DUCT	
	FLOW CONTROL VALVE	
FOS	FUEL OIL SUPPLY	FOS
FOR	FUEL OIL RETURN	FOR
	GLOBE VALVE	
GPM	GALLONS PER MINUTE	
ID	INSIDE DIAMETER	
MOD	MOTOR OPERATED DAMPER	
MOV	2–WAY MOTOR OPERATED VALVE	
MOV	3–WAY MOTOR OPERATED VALVE	
N. GAS	NATURAL GAS	G
N.C.	NORMALLY CLOSED	
O/A	OUTSIDE AIR	
OD	OUTSIDE DIAMETER	
	PIPE ANCHOR	
	PIPE GUIDE	
POC/POD	POINT OF CONNECTION/DISCONNECT	
	PRESSURE GAGE	
PRV	PRESSURE RELIEF VALVE	
R/A	RETURN AIR	
RV	RELIEF VALVE	
	RETURN AIR SLOT	
	RETURN/EXHAUST AIR REG. OR GRILLE	
S	SANITARY SOIL	
S/A	SUPPLY AIR	
	SQUARE HEAD COCK	
	STRAINER WITH DRAIN VALVE	
SD	STORM DRAIN	SD
SL	ACOUSTICALLY LINED DUCT	
SS	STAINLESS STEEL	SS
	STATIC PRESSURE SENSOR	SP
	THERMALLY INSULATED DUCT OR PIPE	
	THERMOMETER	
T'STAT	THERMOSTAT	T
	UNION	
VNR	VENT THRU ROOF	
WCO	WALL CLEANOUT	
W	WASTE	
	CARBON MONOXIDE SENSOR	CO
	NITROGEN DIOXIDE SENSOR	NO2

THIS IS A STANDARD LEGEND, SOME SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY ON THE DRAWING.

FAN SCHEDULE

SYMBOL	LOCATION	CFM	S.P. TOT	S.P. EXT	RPM	O.V. FPM	TYPE FAN	TYPE WHL	USE	MOTOR HP/VOLTS/PH	DESIGN BASIS PRODUCT
EF–1	STORAGE 101	975	–	0.4	1345	–	PROP	14	E/A	1/2 /115/1	GREENHECK MODEL SE1–14–440–VG, EC MOTOR, DIAL ON MOTOR FOR BALANCING, OSHA GUARD. TIMER: INTERMATIC FF30MC.
F–1	STORAGE 101	12,500	–	–	400	–	PADL	36	DE–STRAT	0.35A/120/1	VES ENVIRONMENTAL MODEL IND–A364–L WITH ICFC2.5 SPEED CONTROL. TIMER: INTERMATIC FF312H

HEATING UNIT SCHEDULE

SYMBOL	TYPE	HYDRONIC FLUID	HYDRONIC EGT	HYDRONIC LGT	HYDRONIC MBH	HYDRONIC GPM	ELEC. KW	OIL MBH IN	OIL MBH OUT	CFM	RPM	MOTOR HP/VOLTS/PH	DESIGN BASIS PRODUCT
UH–1, 2	UNIT HEATER	––	––	––	––	––	––	231	185	––	––	1/3/115/1	MODINE POR185, #1 DIESEL/FUEL OIL, 1.65 GPH. TIMER: INTERMATIC FF312H, THERMOSTAT: HONEYWELL T631C1012

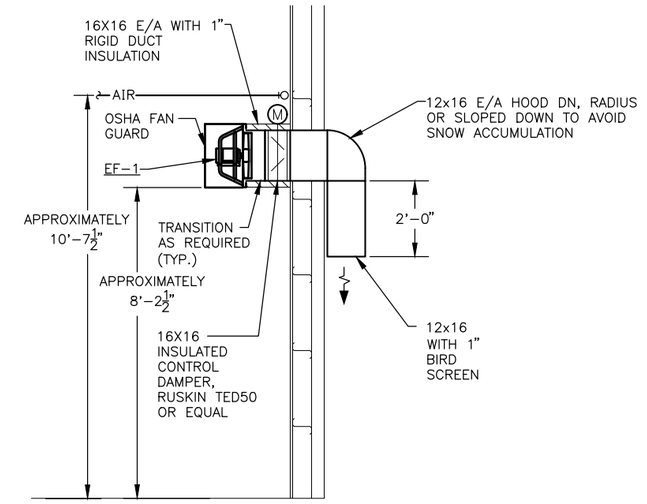
TANK SCHEDULE

SYMBOL	FUNCTION	MEDIUM	TOTAL VOLUME GALLONS	MATERIALS	LABEL	DESIGN BASIS PRODUCT
DT–1	DAY TANK	FUEL OIL	10	STEEL	----	SIMPLEX SST SERIES W/ PCB 1 CONTROLS, WALL MOUNT, GRAVITY FEED TO UNIT HEATERS, 063 VENT CAP. DUPLEX REMOTE FUEL PUMPS: 1/3 HP MOTOR, 115V/60HZ/1PH.

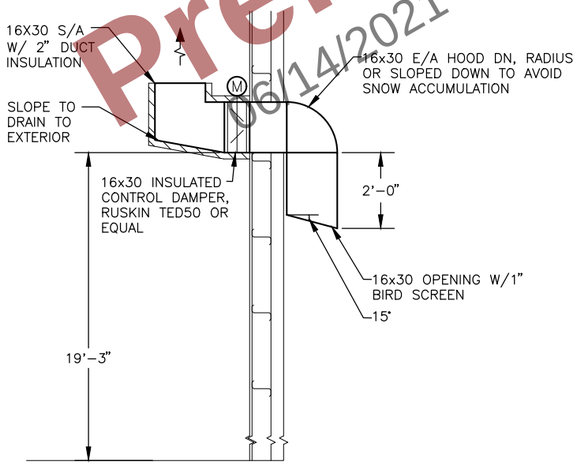
MECHANICAL EQUIPMENT LIST

TAG	DESIGN BASIS PRODUCT
AC–1	AIR COMPRESSOR: INGERSOLL RAND 2475N5P, 80 GALLON MINIMUM, 16.8 ACFM @ 175 PSI, 5 HP, 1.15 SF, 230V/1PH/60 HZ, CRANKCASE HEATER (115V, 3–PRONG CORD), LOW OIL LEVEL CUTOUT, AIR FILTER AND PRESSURE REGULATOR, AUTOMATIC CONDENSATE DRAIN W/ HIGH MOUNT ELECTRIC CONDENSATE DRAIN EDV–2000 (115V, 3–PRONG CORD). HOSE REEL WHERE SHOWN: AUTO RETRACTABLE SPEEDAIRE MODEL NO. 2CUA7 LOW PRESSURE, 50 FOOT, 3/8"

NOTE: FURNISH AND INSTALL MAKES AND MODELS CITED HERE OR IN THE SPECIFICATIONS OR APPROVED EQUALS

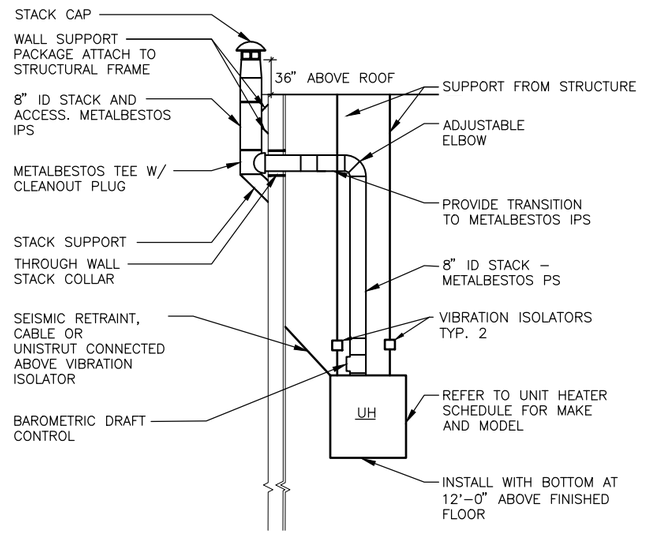


2 / M1 EF–1 SECTION
1/2" = 1'–0"



1 / M1 INTAKE HOOD SECTION
1/2" = 1'–0"

2 1 0 2 4
22X34 SHEET 1/2" = 1'-0"
11X17 SHEET 1/4" = 1'-0"



3 / M1 UNIT HEATER STACK INSTALLATION
NO SCALE

CODE SUMMARY

VENTILATION PROVIDED IN ACCORDANCE WITH IMC 402, NATURAL VENTILATION. BUILDING AREA, 1300 SF REQUIRED OPENING AREA (4% PER IMC 402.2), 52 SF ACTUAL OPENING AREA, 280 SF (FOLDING DOOR)
MOTOR VEHICLE OPERATION PER IMC 502.14: MOTOR VEHICLES ARE ASSUMED TO OPERATE INSIDE ONLY FOR THE DURATION NECESSARY TO MOVE THE MOTOR VEHICLE IN AND OUT OF THE BUILDING. PER EXCEPTION 3, THIS SECTION DOES NOT APPLY.
MECHANICAL VENTILATION WITH CO2/NOX DETECTION IS PROVIDED BY OWNER REQUEST.

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274–2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

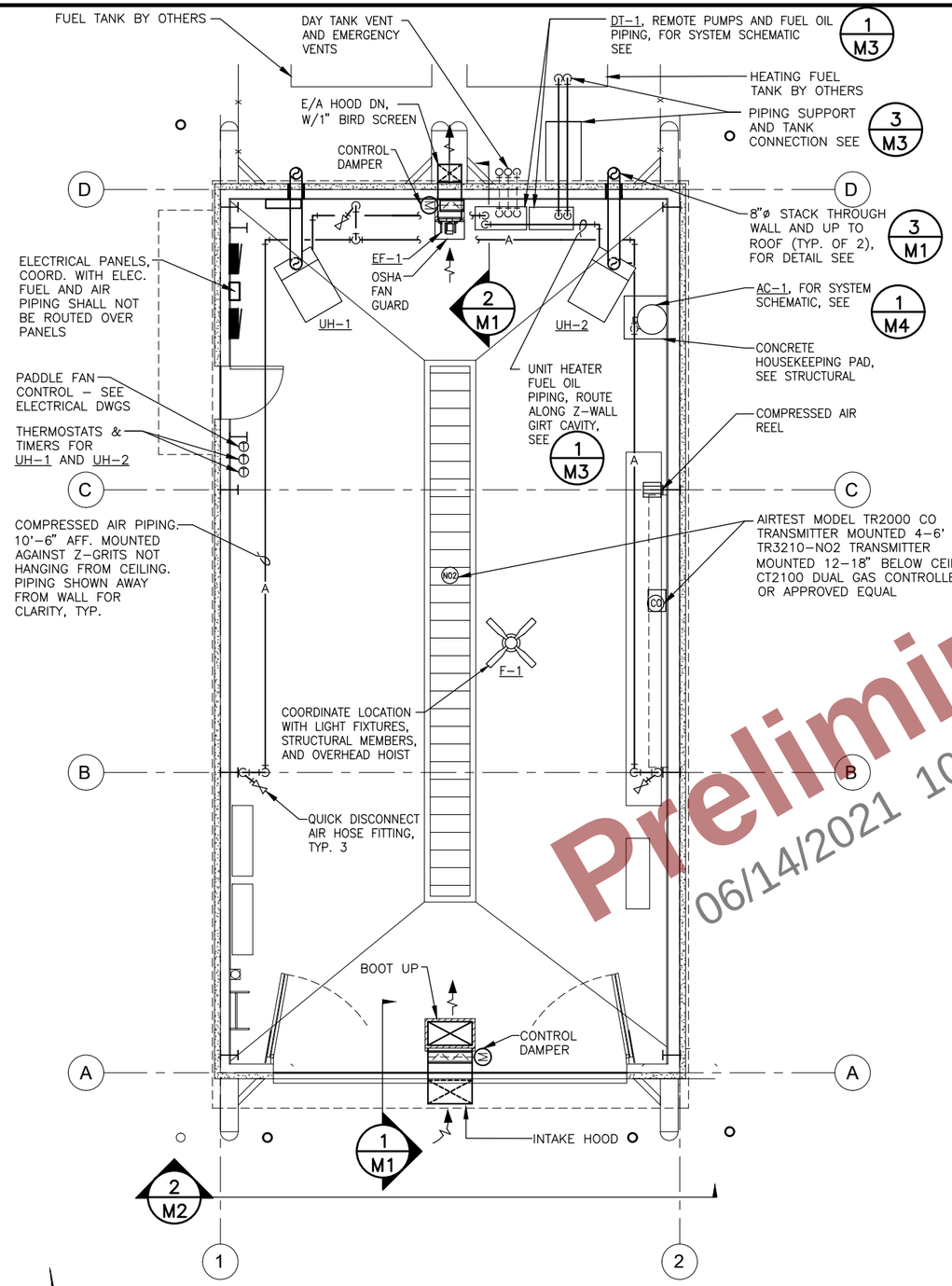
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3–02–0380–004–2021
LEGEND, SCHEDULES, AND DETAILS

DATE: 10/7/2020
SHEET: M1 OF M4
AS–BUILT SHEET:

BORDER OUTLINE MEASURES 32x21–SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/30/2020, 10:56 AM
Layout Name: M1
File Path and Name: Z:\19011KON – Kongiganak– DOT Central Reg SREB's\M–Working\Drawings\19011_M1– LEGEND AND SCHEDULES.dwg

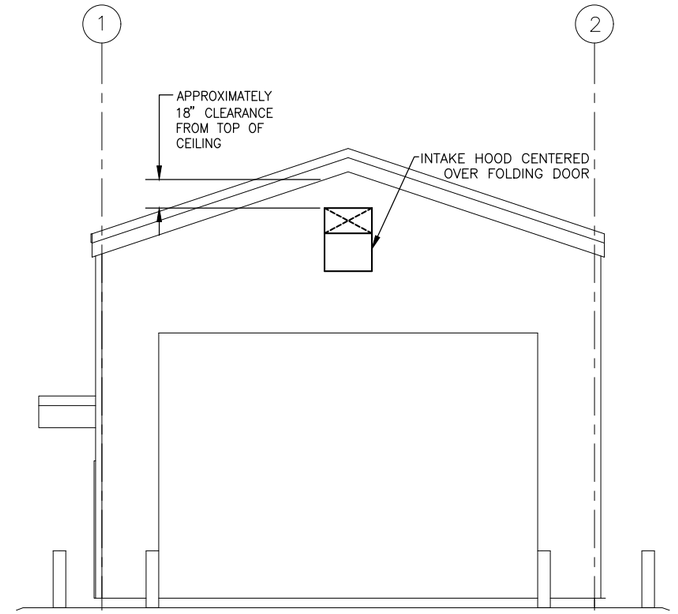


1/M2 MECHANICAL FLOOR PLAN (HEATED)
1/4" = 1'-0"

4 2 0 4 8
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"

SEQUENCE OF OPERATIONS

1. EXHAUST FAN
   - A. AUTO CONTROL: FAN SHALL CYCLE ON UPON DETECTION OF 1 PPM OF NO2 OR 20 PPM OF CO.
   - B. MANUAL OVERRIDE CONTROL: FAN SHALL CYCLE ON WITH MANUAL TIMER, 30 MINUTES MAX
   - C. EXHAUST AND INTAKE DAMPERS: OPEN WHEN FAN IS ON, CLOSED WHEN FAN IS OFF. DAMPERS SHALL FAIL CLOSED.



2/M2 ELEVATION
1/4" = 1'-0"

4 2 0 4 8
22X34 SHEET 1/4" = 1'-0"
11X17 SHEET 1/8" = 1'-0"

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

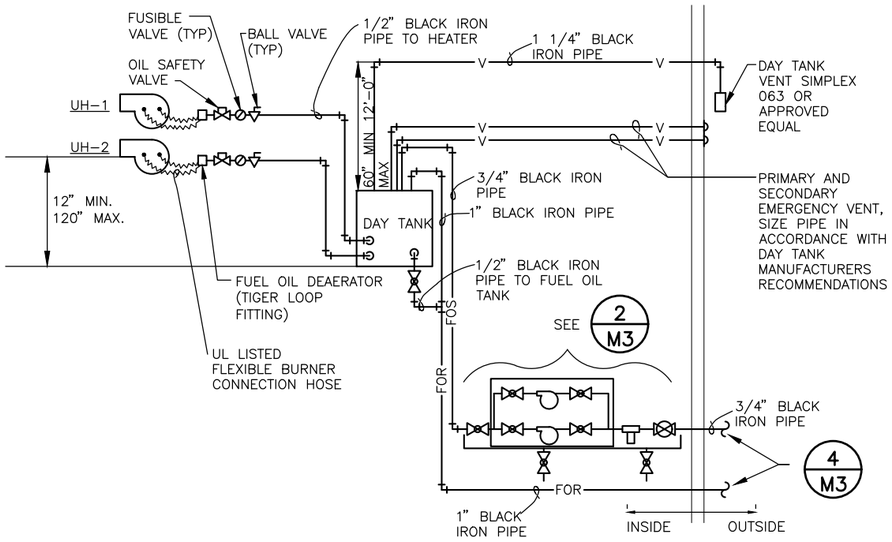
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
MECHANICAL FLOOR PLAN (HEATED)

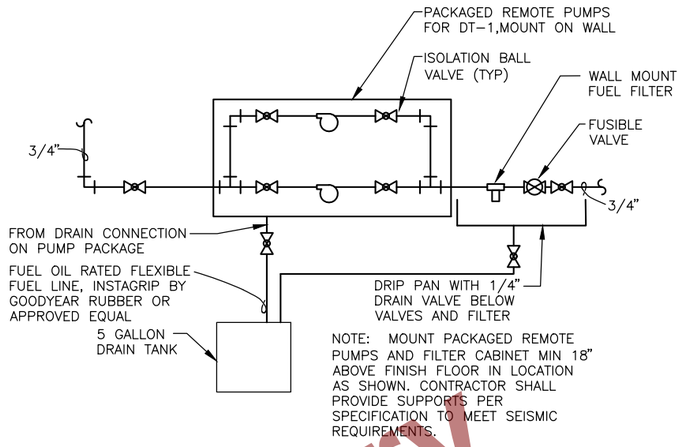
DATE: 10/7/2020
SHEET: M2 OF M4
AS-BUILT SHEET:

BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY
CONSTRUCTION DOCUMENT REVIEW SET

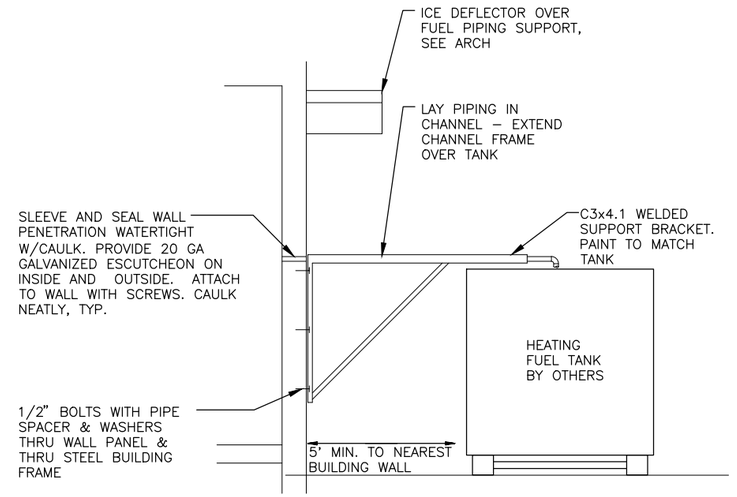
Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/30/2020, 10:56 AM
Layout Name: M2
File Path and Name: Z:\19011KON - Kongiganak- DOT Central Reg SREB's\M-Working\Drawings\19011_M2- HEATED MECH FLOOR PLAN.dwg



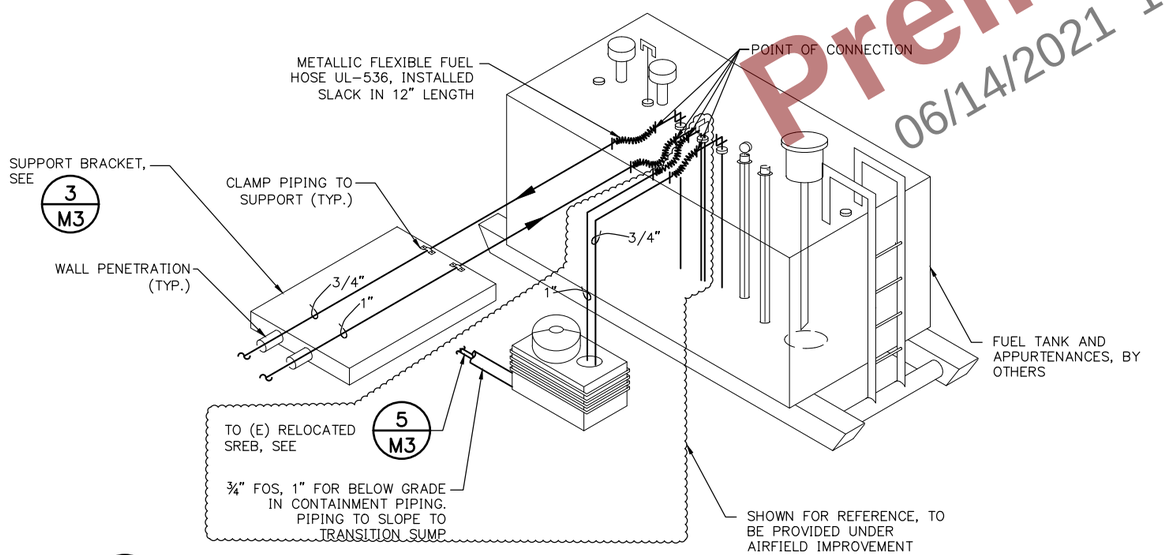
1 M3 UNIT HEATER FUEL OIL PIPE ONE-LINE
NOT TO SCALE



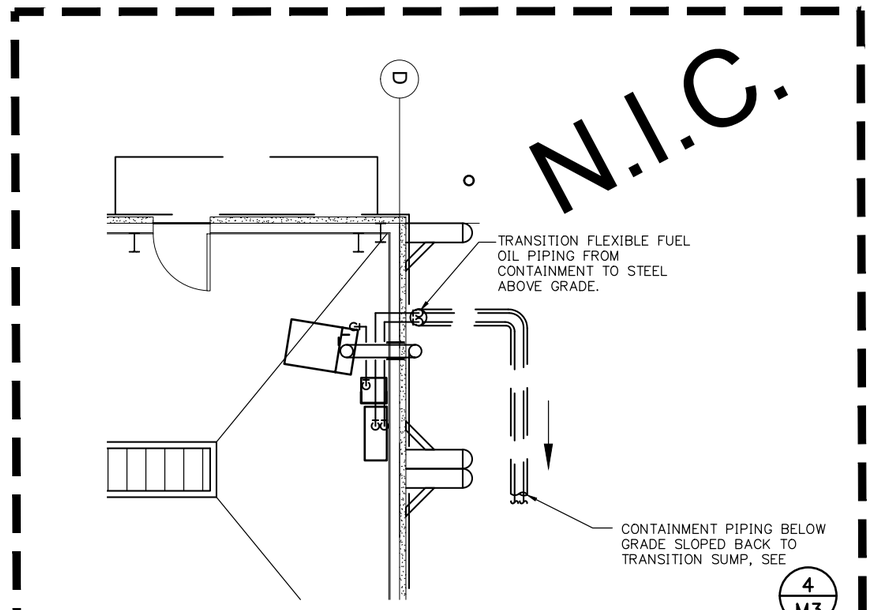
2 M3 FUEL PUMP PIPING DETAIL
NOT TO SCALE



3 M3 FUEL PIPING SUPPORT BRACKET
NOT TO SCALE



4 M3 FUEL OIL TANK CONNECTION
NOT TO SCALE



5 M3 (E) RELOCATED SREB PARTIAL PLAN (AIP PROJECT)
1/4" = 1'-0"

BORDER OUTLINE MEASURES 32x21-SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

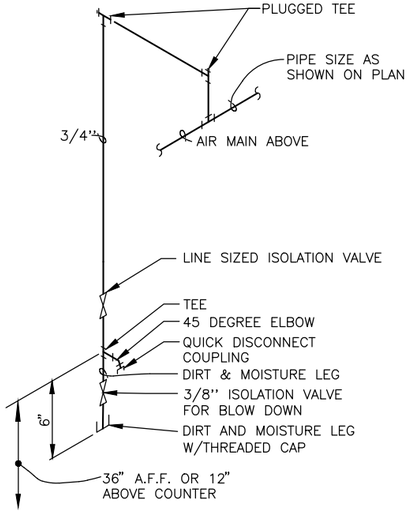
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

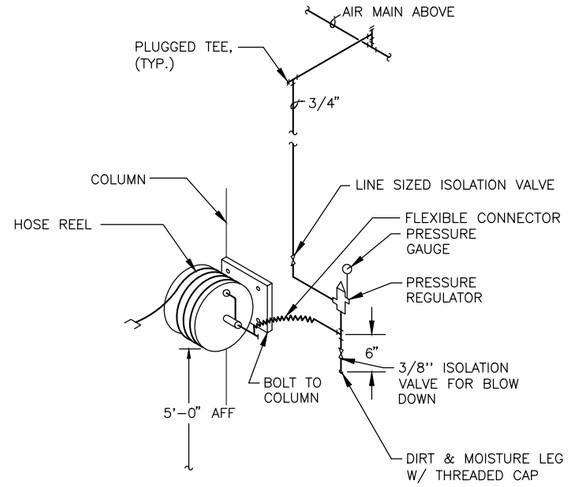
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
MECHANICAL DETAILS

DATE: 10/7/2020
SHEET: M3 OF M4
AS-BUILT SHEET:

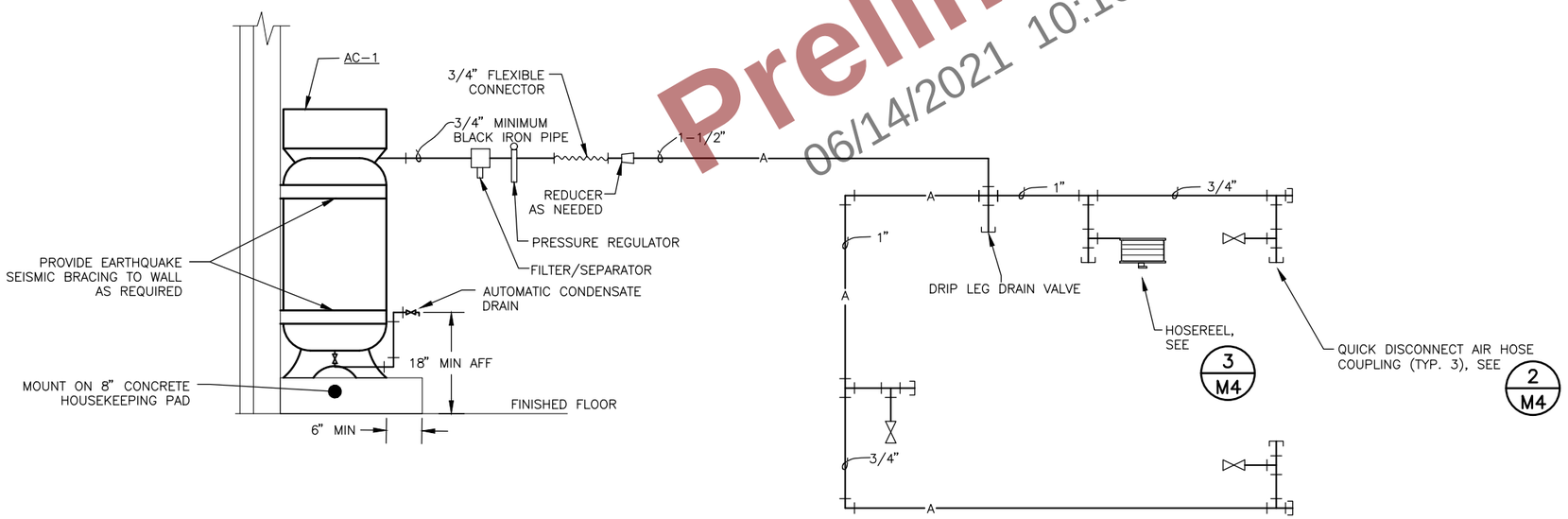
Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/30/2020, 10:56 AM
Layout Name: M3
File Path and Name: Z:\19011KON - Kongiganak- DOT Central Reg SREB's\M-Working\Drawings\19011_M3- HEATEDMECH DETAIL.dwg



2 / M4 COMPRESSED AIR OUTLET DETAIL
NOT TO SCALE



3 / M4 HOSE REEL DETAIL
NOT TO SCALE



1 / M4 COMPRESSED AIR SCHEMATIC
NOT TO SCALE

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/30/2020, 18:56 AM
Layout Name: M4
File Path and Name: Z:\19011KGN - Kongiganak- DOT Central Reg SREB's\M-Working\Drawings\19011_M4- HEATED MECH DETAIL.dwg

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
COMPRESSED AIR SCHEMATIC AND DETAILS

DATE: 10/7/2020
SHEET: M4 OF M4
AS-BUILT SHEET:

BORDER OUTLINE MEASURES 32x21-SCALE ACCORDINGLY
CONSTRUCTION DOCUMENT REVIEW SET

LIGHTING LEGEND

- WALL MOUNT
- SURFACE MOUNT
- RECESSED
- 2X2 LIGHTING FIXTURE RECESSED
- 2X4 LIGHTING FIXTURE RECESSED
- 2X2 SURFACE MOUNT
- 2X4 SURFACE MOUNT
- WALL MOUNT
- EXTERIOR LIGHT SINGLE WITH POLE MOUNT
- PHOTOCELL
- OCCUPANCY SENSOR CEILING MOUNT
- $K KEY OPERATED SWITCH
- $LM SWITCH, LOW VOLTAGE MASTER
- $P SWITCH WITH PILOT LIGHT
- $O OCCUPANCY SENSOR SWITCH
- $ SWITCH, SINGLE POLE
- $2 SWITCH, DOUBLE POLE
- $3 SWITCH, THREE–WAY
- $4 SWITCH, FOUR–WAY
- MD MOTION DETECTOR
- EMERGENCY LIGHT BATTERY POWERED
- EMERGENCY LIGHT REMOTE HEAD
- EXIT SIGN WALL MOUNTED SHADOWING INDICATES FACE
- EXIT SIGN CEILING MOUNTED SHADOWING INDICATES FACE
- EXIT SIGN DOUBLE FACE ARROWS INDICATE CHEVRONS
- EMERGENCY LIGHTS
- INVERTER

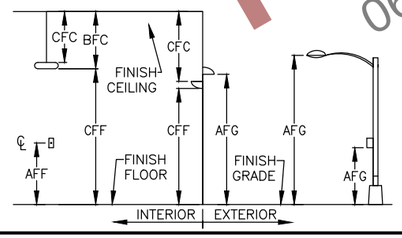
GROUNDING LEGEND

- TEE CONNECTION
- CROSS CONNECTION
- GROUND ROD
- GROUND ROD CONNECTION–2
- GROUND ROD CONNECTION–1
- BURIED CABLE
- BONDING POINT
- EARTH GROUND
- GROUND ROD
- LIGHTNING ARRESTOR

ABBREVIATIONS LEGEND

ABBR.	EXPLANATION
AB	ABOVE BASEBOARD
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFCI	ARC FAULT CIRCUIT INTERRUPTER
ATS	AUTOMATIC TRANSFER SWITCH
BCG	BARE COPPER GROUND
BFC	BELOW FINISHED CEILING
CFC	CLEARANCE FROM CEILING
CFF	CLEARANCE FROM FLOOR
CT	CURRENT TRANSFORMER
DDC	DIRECT DIGITAL CONTROL
E	EMERGENCY LIGHT, CIRCUIT, PANEL
ETR	EXISTING TO REMAIN
GDP	GENERATOR DISTRIBUTION PANEL
GFCI	GROUND FAULT CURRENT INTERRUPTER
HACR	HEATING AIR–CONDITIONING REFRIGERATION
HBH	HEAD BOLT HEATER
HDPE	HIGH DENSITY POLYETHYLENE
HOA	HANDS OFF AUTO
HSREB	HEATED SREB
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
MCC	MOTOR CONTROL CENTER
MC	METAL CLAD CABLE
MDP	MAIN DISTRIBUTION PANEL
NIC	NOT IN CONTRACT
PA	PUBLIC ADDRESS
PVC	POLYVINYL CHLORIDE
RSC	RIGID STEEL CONDUIT
SPD	SURGE PROTECTION DEVICE
SREB	SNOW REMOVAL EQUIPMENT BUILDING
ST	SHUNT TRIP CIRCUIT BREAKER
STBY	STANDBY CIRCUIT
TC	TIMECLOCK
TMCB	THERMAL MAGNETIC CIRCUIT BREAKER
TP	TAMPER RESISTANT
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
UON	UNLESS OTHERWISE NOTED
USREB	UNHEATED SREB
VFD	VARIABLE FREQUENCY DRIVE
W	WALL MOUNT +60" AFF
WP	WEATHERPROOF
XFMR	TRANSFORMER

MOUNTING LEGEND



POWER LEGEND

- ELECTRICAL POWER PANEL
- ELECTRICAL DISTRIBUTION PANEL
- ELECTRICAL LIGHTING PANEL
- PANELBOARD CABINET FLUSH MOUNT
- PANELBOARD CABINET SURFACE MOUNT
- X WIDE / X DEEP SWITCHBOARD NEW
- X WIDE / X DEEP SWITCHBOARD EXISTING
- (M) METER
- CONTROLLER/DISCONNECT
- UNFUSED DISCONNECT
- FUSED DISCONNECT
- VARIABLE FREQUENCY DRIVE
- CONTROLLER
- CONTACTOR
- MOTOR SINGLE PHASE
- (X) MOTOR SINGLE PHASE : X = HORSE POWER
- MOTOR 3PH
- (X) MOTOR 3PH : X = HORSE POWER
- (G) GENERATOR POWER
- (T) TRANSFORMER
- $T THERMAL SWITCH

SITE LEGEND

- OHE OHE OVERHEAD ELECTRICAL
- UGE UGE UNDERGROUND ELECTRICAL
- X X X FENCE
- UTILITY POLE
- HAND HOLE

WIRING DEVICES LEGEND

- PUSH BUTTON
- J JUNCTION BOX
- RECEPTACLE – GFCI
- RECEPTACLE – DUPLEX CEILING MOUNT
- RECEPTACLE – SPLIT WIRE
- RECEPTACLE – DUPLEX
- RECEPTACLE – DUPLEX FLOOR MOUNT
- RECEPTACLE – DUPLEX ON EMERGENCY POWER
- RECEPTACLE – DUPLEX ISOLATION GROUND
- RECEPTACLE – QUAD
- RECEPTACLE – SINGLE
- X RECEPTACLE – X–NEMA CALLOUT
- OR EQUIPMENT CONNECTION
- G RECEPTACLE – GENERATOR PLUG IN

LINE TYPE LEGEND

- EXISTING
- NEW
- DEMOLITION

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274–2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

BORDER OUTLINE MEASURES
32x21–SCALE ACCORDINGLY

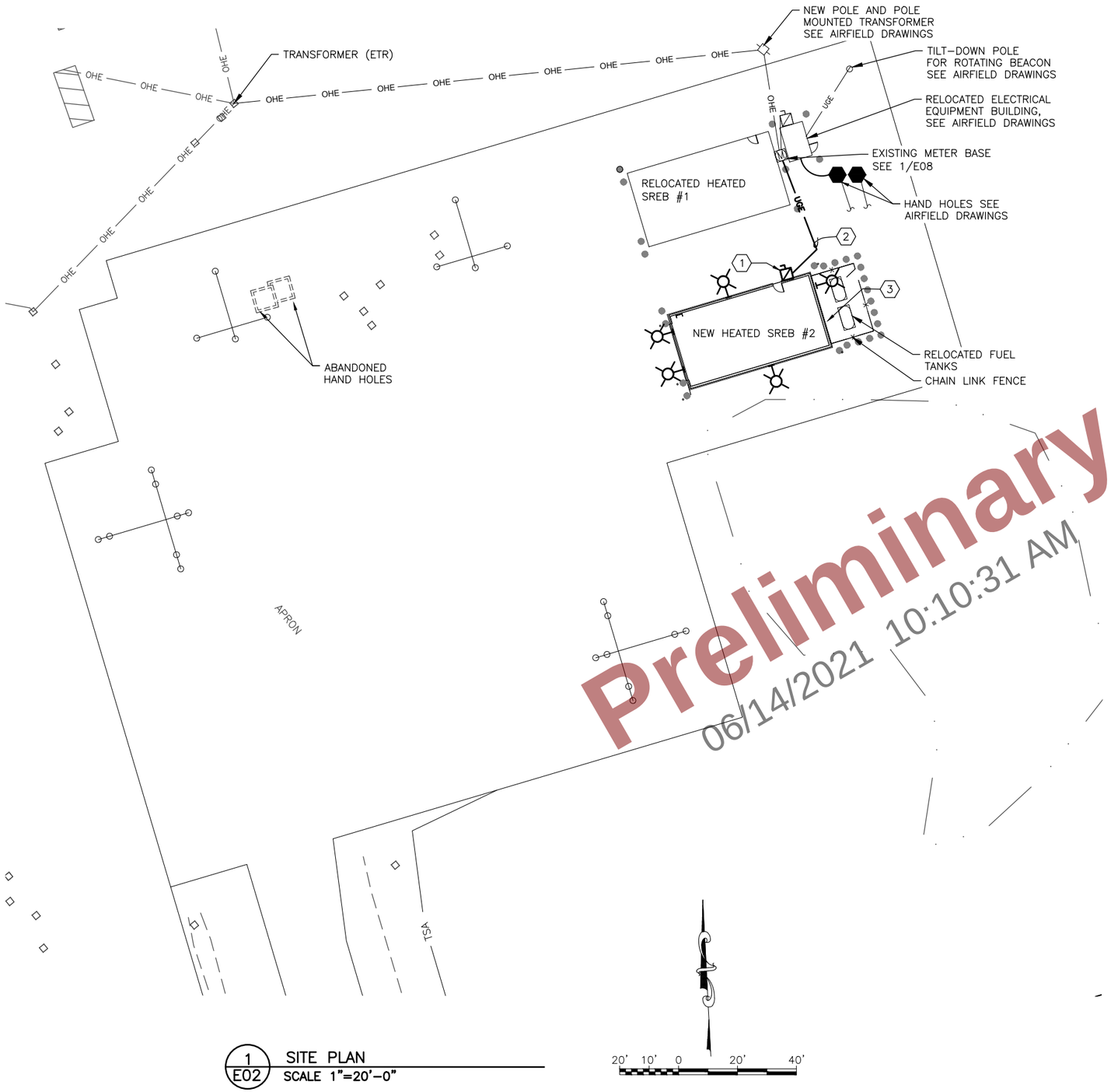
CONSTRUCTION DOCUMENT REVIEW SET

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3–02–0380–004–2021
ELECTRICAL LEGEND

DATE: 10/7/2020
SHEET: E01 OF E08
AS–BUILT SHEET:

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised:
Layout Name: E1
File Path and Name: Z:\19011KON – Kongiganak– DOT Central Reg SREB's\E–Working\Drawings\19011_E1_LEGENDS AND SCHEDULES.dwg
9/29/2020, 2:54 PM



1 E02 SITE PLAN
SCALE 1"=20'-0"

NEW SITE NOTES

1. PROVIDE NEMA 3R FUSED DISCONNECT. SEE ONE-LINE DIAGRAM ON 5/E06. SEE GROUNDING DIAGRAM 2/E08.
2. PROVIDE NEW UNDERGROUND CONDUIT AND CONDUCTOR FROM EXISTING METER BASE TO SREB #2. SEE 1/E08 FOR DETAILS.
3. PROVIDE OBSTRUCTION LIGHT AT THE PEAK OF SREB #2. CONNECT TO CIRCUIT G-4 VIA PHOTOCELL CONTROL.
4. ANY EQUIPMENT DAMAGED IS TO BE REPORTED TO PROJECT ENGINEER. DAMAGE TO FACILITIES SHALL BE REPAIRED IN A MANNER ACCEPTABLE TO THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

Designed By:	MBA
Drawn By:	MBA
Checked By:	SCH / EWC
Date Revised:	9/29/2020, 2:54 PM
Layout Name:	E2
File Path and Name:	Z:\19011KON - Kongiganak- DOT Central Reg SREB's\E-Working\Drawings\19011_E2_NEW SITE PLAN.dwg

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

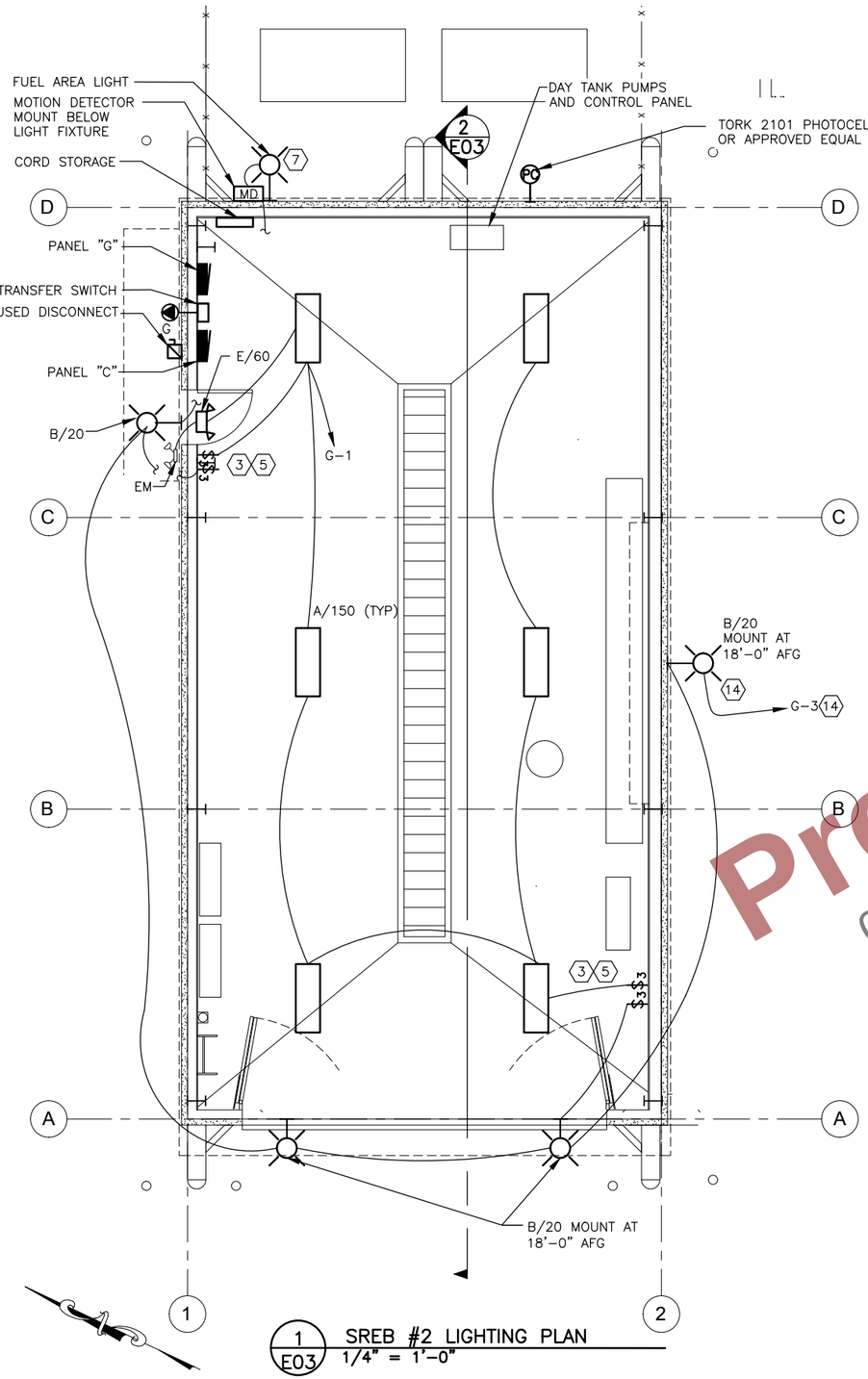
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
ELECTRICAL SITE PLAN

DATE: 10/7/2020
SHEET: E02 OF E08
AS-BUILT SHEET:

BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

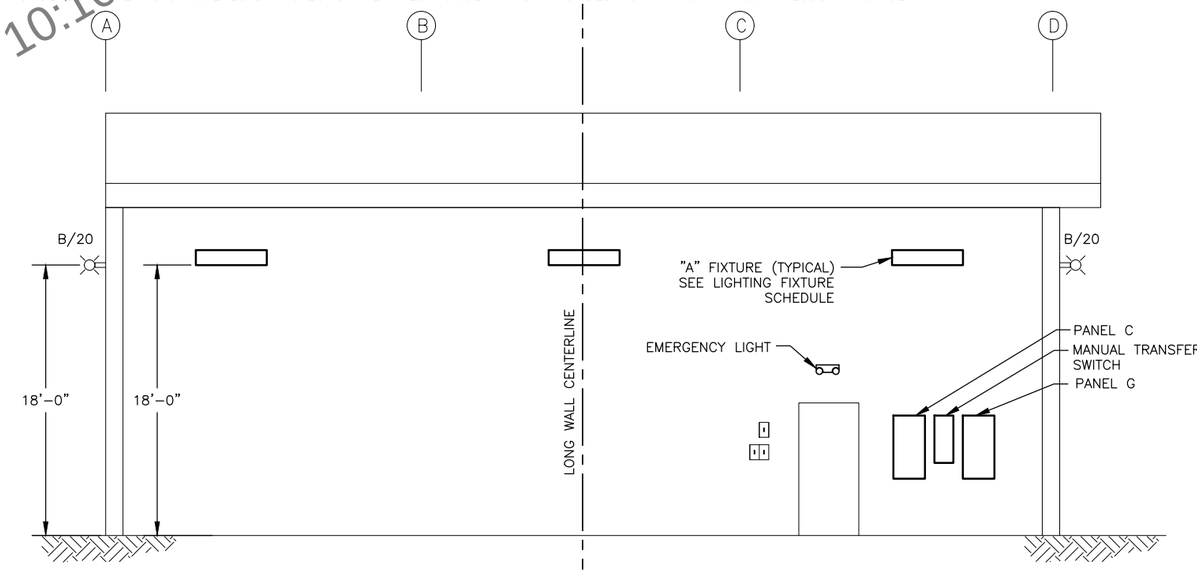


1 E03 SREB #2 LIGHTING PLAN
1/4" = 1'-0"

4 2 0 4 8
GRAPHIC SCALE: 1/4" = 1'-0"

SHEET NOTES – SHEETS E3 & E4

1. 120–VOLT POWER FOR COMPRESSOR CRANKCASE HEATER AND AUTOMATIC CONDENSATE DRAIN CONTROL TO BE CONNECTED TO NEMA–5–20 DUPLEX RECEPTACLE NEXT TO COMPRESSOR.
2. ALL CONDUITS IN THE BUILDING, PASSING THROUGH THE ZONE FROM THE FLOOR TO 1.5' ABOVE THE FLOOR, SHALL BE RSC AND SHALL HAVE A SEAL FITTING LOCATED 18" MINIMUM ABOVE THE FLOOR. THE BUILDING ELECTRICAL INSTALLATION SHALL COMPLY WITH NEC ARTICLE 511 "COMMERCIAL GARAGES, REPAIR AND STORAGE, MINOR REPAIR GARAGE".
3. MOUNT SWITCHES AND RECEPTACLES +48" AFF.
4. INSTALL CONTINUOUS #3/0 AWG BCG GROUND RING, BURY DEPTH MINIMUM 30". GROUNDING ELECTRODE SYSTEM: BOND TOGETHER GROUND RODS, THE BUILDING STEEL FRAME AND THE GROUND RING WITH #2/0 AWG CONDUCTORS. AT THE SERVICE ENTRANCE, BOND #1/0 AWG CONDUCTOR TO GROUNDING ELECTRODE SYSTEM FOR CONNECTION TO SERVICE EQUIPMENT. SEE DETAIL 2/E08 FOR MORE INFORMATION.
5. SWITCHES FOR LIGHT FIXTURES SHALL HAVE ILLUMINATED TOGGLES IN THE OFF POSITION.
6. ALL EXTERIOR WIRING, AND INTERIOR WIRING BELOW 10 FT AFF, SHALL USE RSC. IMC AND EMT CONDUIT MAY BE USED ABOVE 10 FT AFF WITHIN THE BUILDING ENVELOPE.
7. MOUNT 2 FEET BELOW ROOF STRUCTURE. LOCATE FIXTURE TO ILLUMINATE THE FUEL DISPENSING AREA. LOCATE TO AVOID CONFLICT WITH UNIT HEATER EXHAUST, ANTENNA CABLE AND OTHER ITEMS. PROVIDE WITH MOTION SENSOR (WATTSTOPPER EW–200–120–G OR APPROVED EQUAL). SEE DETAIL 3/E05 FOR CONTROL DIAGRAM.
8. PROVIDE MINIMUM 18 INCH LIQUIDTIGHT FLEXIBLE METAL CONDUIT SLACK LOOP AT ALL CONDUIT TRANSITIONS FROM UNDERGROUND TO ABOVE GROUND TO ACCOMMODATE 6" OF DIFFERENTIAL MOVEMENT.
9. PENETRATIONS THROUGH EXTERIOR WALL SHALL BE THE BELOW EQUIPMENT BEING SERVED AND SHALL BE SEALED TO PREVENT MOISTURE AND AIR INFILTRATION FROM ENTERING THE BUILDING.
10. RACEWAYS SHALL BE CONCEALED BEHIND WAINSCOT EXCEPT AT PANELS AND ELECTRIC CONNECTIONS TO MECHANICAL EQUIPMENT.
11. SIGN: COLORS – WHITE 3/4" LETTERS ON RED BACKGROUND. TEXT – "FUEL PUMP EMERGENCY SHUT OFF". MOUNT SIGN 6" ABOVE FUEL PUMP SHUT OFF SWITCH.
12. FUEL PUMP EMERGENCY SHUT OFF SWITCH. 30–AMP 2–POLE 250–VOLT SWITCH, CAPABLE OF BEING LOCKED IN THE OPEN POSITION, IN A WET LOCATION BOX WITH A RAIN TIGHT ACTUATOR. LABEL SWITCH POSITIONS (UP = ON. DOWN = OFF). MOUNT DISCONNECT ON THE EXTERIOR OF THE BUILDING, WITHIN SIGHT OF PUMP, MINIMUM 20 FEET FROM FUEL DISPENSER. SEE 1/E02 FOR LOCATION OF TANK. SEE 1/E06 FOR WIRING DIAGRAM.
13. POWER FOR THE PUMP, FROM A SWITCH–RATED 15–AMP 1–POLE 120–VOLT CIRCUIT BREAKER IN PANEL G. RUN CIRCUIT UNDERGROUND TO FUEL DISPENSER PUMP MOUNTED ON FUEL DISPENSING TANK. SEE 1/E02 FOR LOCATION OF FUEL TANK. PROVIDE SEALING FITTING 18" ABOVE GRADE AT EACH END OF UNDERGROUND CONDUIT RUN.
14. MOUNT UNDER CANOPY.
15. BOND TO DIESEL FUEL TANK.
16. DISCONNECT INCLUDED IN PUMP PACKAGE.
17. BOND TO HEATING OIL TANK.
18. PROVIDE SEPARATE MOTOR OVERLOAD PROTECTION PER NEC 430.32 IF NOT PROVIDED AS PART OF AIR COMPRESSOR PACKAGE.



2 E03 INTERIOR ELEVATION
1/4" = 1'-0"

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/29/2020, 2:54 PM
Layout Name: E3
File Path and Name: Z:\19011KON – Kongiganak– DOT Central Reg SREB's\E–Working\Drawings\19011_E3_HSREB LIGHTING PLAN.dwg

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274–2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

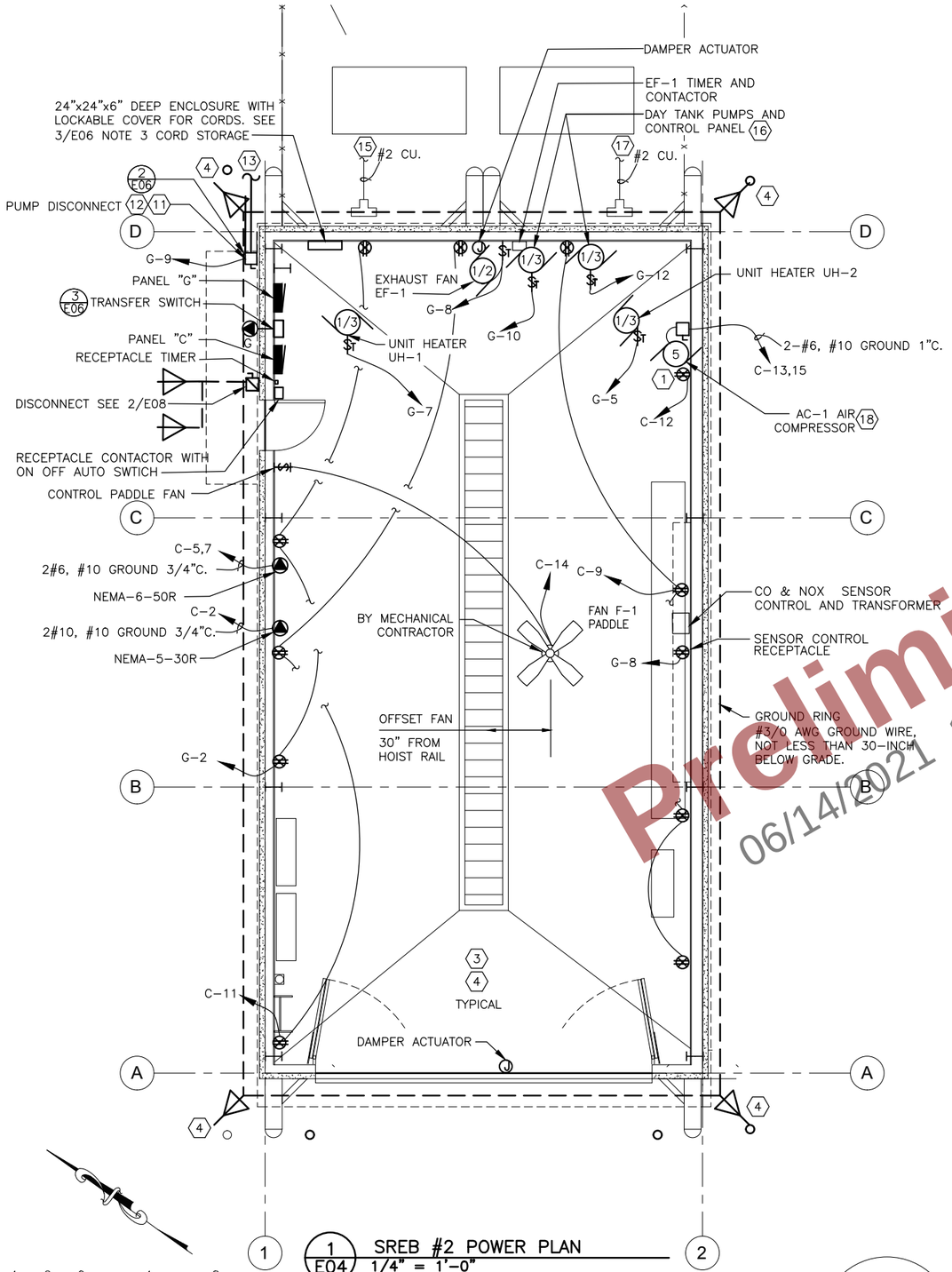
BORDER OUTLINE MEASURES 32x21–SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

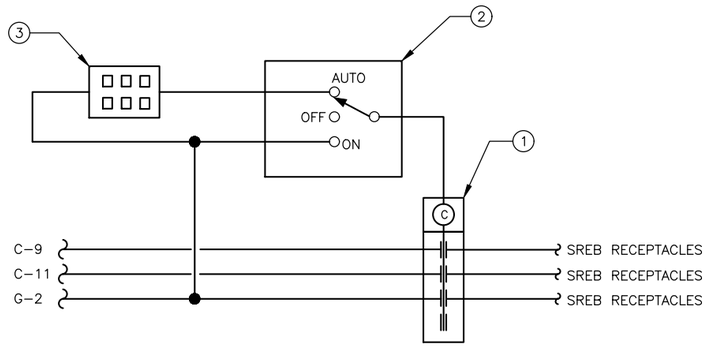
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3–02–0380–004–2021
HEATED SREB LIGHTING PLAN

DATE: 10/7/2020
SHEET: E03 OF E08
AS–BUILT SHEET:



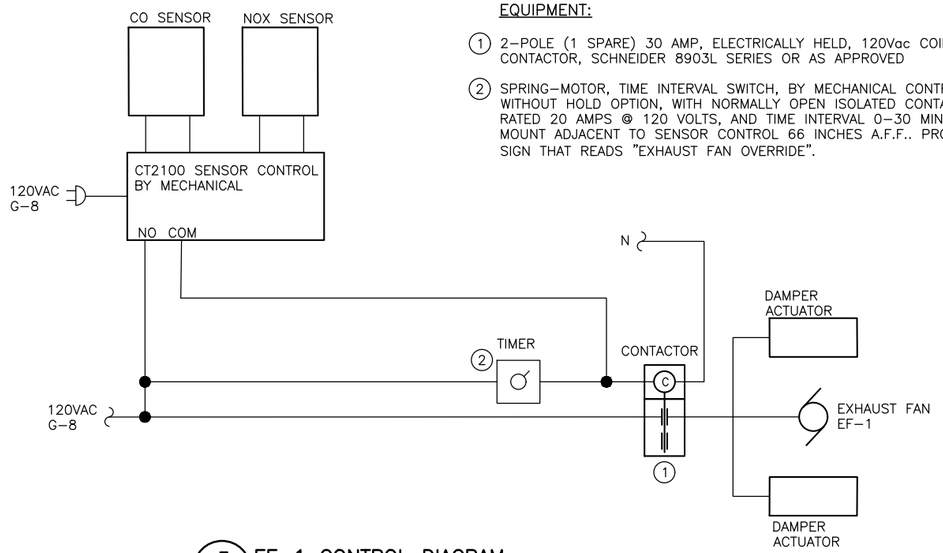
1 E04 SREB #2 POWER PLAN
1/4" = 1'-0"



2 E04 RECEPTACLE CONTROL DIAGRAM
NTS

EQUIPMENT:

1. 4-POLE (1 SPARE) 30 AMP, ELECTRICALLY HELD, 120Vac COIL, CONTACTOR, SCHNEIDER 8903L SERIES OR AS APPROVED
2. HOA KEYED SWITCH (SHOWN IN THE AUTO POSITION). LOCATED IN CONTACTOR.
3. 24 HOUR PROGRAMMABLE TIMER, LOCKABLE, BATTERY BACKUP, INTERMATIC GMXQT-I-120 OR AS APPROVED.



3 E04 EF-1 CONTROL DIAGRAM
NTS

EQUIPMENT:

1. 2-POLE (1 SPARE) 30 AMP, ELECTRICALLY HELD, 120Vac COIL CONTACTOR, SCHNEIDER 8903L SERIES OR AS APPROVED
2. SPRING-MOTOR, TIME INTERVAL SWITCH, BY MECHANICAL CONTRACTOR, WITHOUT HOLD OPTION, WITH NORMALLY OPEN ISOLATED CONTACT RATED 20 AMPS @ 120 VOLTS, AND TIME INTERVAL 0-30 MINUETS. MOUNT ADJACENT TO SENSOR CONTROL 66 INCHES A.F.F.. PROVIDE SIGN THAT READS "EXHAUST FAN OVERRIDE".

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

BORDER OUTLINE MEASURES 32x21-SCALE ACCORDINGLY

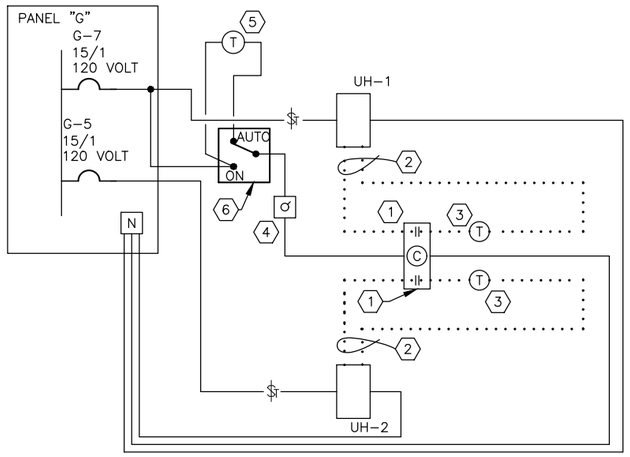
CONSTRUCTION DOCUMENT REVIEW SET

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
HEATED SREB POWER PLAN

DATE: 10/7/2020
SHEET: E04 OF E08
AS-BUILT SHEET:

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised:
Layout Name: E4
File Path and Name: Z:\19011KON - Kongiganak- DOT Central Reg SREB's\E-Working\Drawings\19011_E4_HSREB POWER PLAN.dwg
9/29/2020, 2:54 PM



1 E05 HEATING CONTROL WIRING DIAGRAM
NTS

NOTES – DETAIL 1

1. PLUG-IN RELAY WITH 120V COIL, DPDT CONTACTS, SCREW TERMINAL BASE. SQUARE D CLASS 8501 KUR12V20 RELAY, 8501NR28B BASE, 8501NH82 HOLD DOWN CLIP. WALL MOUNT IN WEATHERPROOF ENCLOSURE.
2. THERMOSTAT WIRE – CAN RUN EXPOSED BUT MUST BE STAPLED TO WAINSCOT 24 INCHES O.C.
3. THERMOSTAT FOR HEATER – NON MERCURY TYPE. HIGH TEMPERATURE SET AT 65° F.
4. SPRING-MOTOR, TIME INTERVAL SWITCH, BY MECHANICAL CONTRACTOR, WITHOUT HOLD OPTION, WITH NORMALLY OPEN ISOLATED CONTACT RATED 15 AMPS @ 120 VOLTS, AND TIME INTERVAL 0-12 HOURS. MOUNT NEXT TO LATCH SIDE OF MAN DOOR 66 INCHES A.F.F., SEE NOTE 5 BELOW. PROVIDE SIGN THAT READS "HEAT CONTROL TIMER – HEATERS WILL RUN WHEN TIME REMAINING IS GREATER THAN ZERO".
5. EXTERIOR THERMOSTAT SET TO CLOSE CONTACTS WHEN EXTERIOR TEMPERATURE IS BELOW 50°F. HONEYWELL T675A1136 CONTROLLER TEMPERATURE SENSOR OR AS APPROVED.
6. KEYED (AUTO-ON) SWITCH (SHOWN IN AUTO POSITION). KEY THE SAME AS THE RECEPTACLE HOA SWITCH.
7. SEQUENCE OF OPERATION:

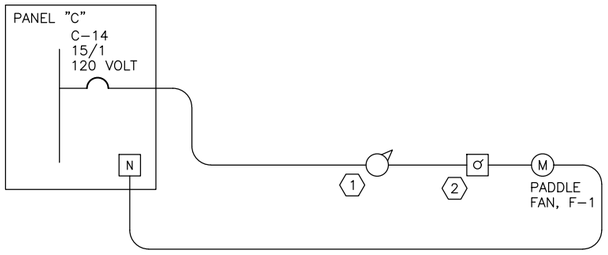
   CONTACTS IN (4) ARE ENERGIZED WHEN OUTSIDE TEMPERATURE IS BELOW 50°F.

   THE CONTACTS IN THE TIME SWITCH (4) CLOSE WHEN THE SWITCH IS SET TO ANY TIME GREATER THAN ZERO.

   RELAY CONTACTS CLOSE WHEN TIME SWITCH CONTACTS (1) CLOSE.

   CONNECT RELAY CONTACTS IN SERIES WITH THERMOSTAT.

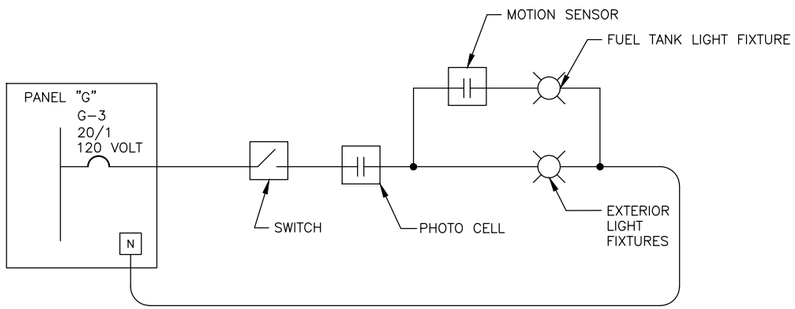
   WHEN THE TIMER SWITCH (4) TIMES OUT, ITS INTERNAL CONTACT OPENS AND BURNER CEASES OPERATION.



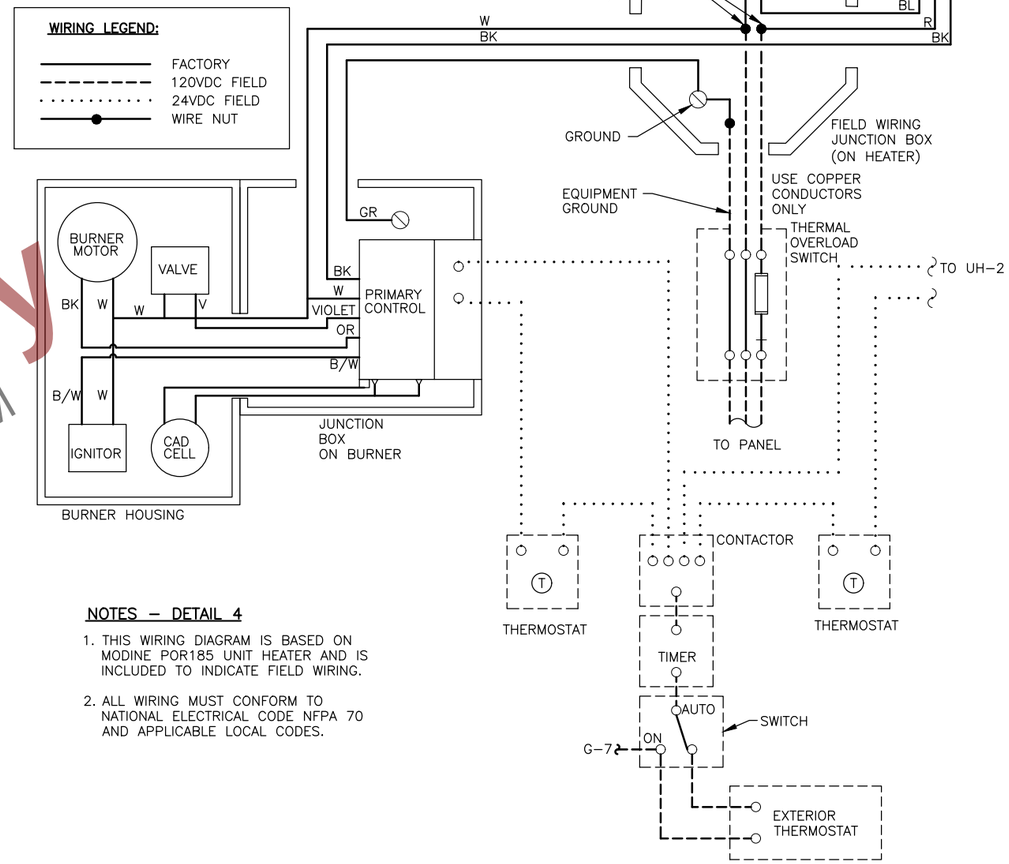
2 E05 PADDLE FAN CONTROL DIAGRAM
NTS

NOTES – DETAIL 2

1. ELECTRONIC SPEED CONTROL – SUPPLIED OR RECOMMENDED BY THE PADDLE FAN MANUFACTURER.
2. SPRING-MOTOR, TIME INTERVAL SWITCH, BY MECHANICAL CONTRACTOR, WITHOUT HOLD OPTION, WITH NORMALLY OPEN ISOLATED CONTACT RATED 15 AMPS @ 120 VOLTS, AND TIME INTERVAL 0-12 HOURS. MOUNT 66 INCHES A.F.F. PROVIDE SIGN THAT READS "FAN TIMER"



3 E05 EXTERIOR FUELING AREA LIGHTING CONTROL DIAGRAM
NTS



NOTES – DETAIL 4

1. THIS WIRING DIAGRAM IS BASED ON MODINE POR185 UNIT HEATER AND IS INCLUDED TO INDICATE FIELD WIRING.
2. ALL WIRING MUST CONFORM TO NATIONAL ELECTRICAL CODE NFPA 70 AND APPLICABLE LOCAL CODES.

4 E05 UNIT HEATER WIRING DIAGRAM
NTS

Date Revised: 9/29/2020, 2:54 PM
Layout Name: E5
File Path and Name: Z:\19011KON - Kongiganak~ DOT Central Reg SREB's\E-Working\Drawings\19011_E5 HSREB CONTROL DETAILS.dwg
Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

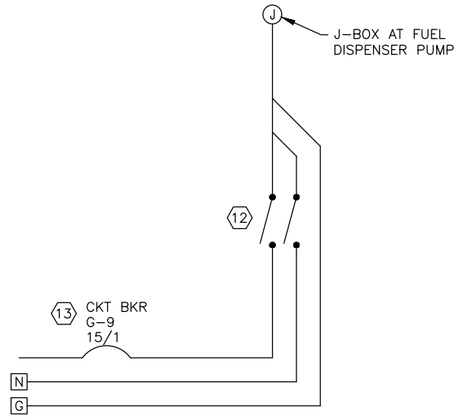
BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

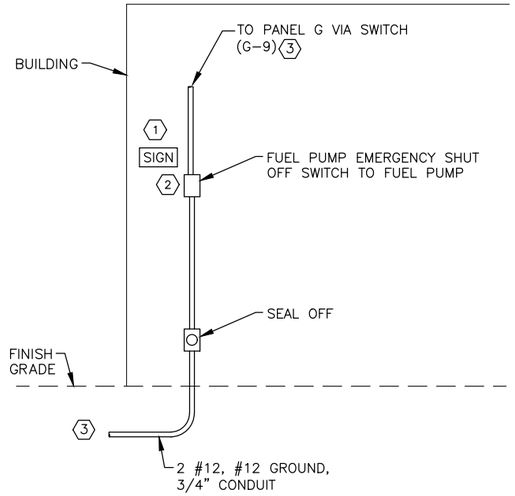
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
HEATED SREB CONTROL DETAILS

DATE: 10/7/2020
SHEET: E05 OF E08
AS-BUILT SHEET:

BORDER OUTLINE MEASURES 32x21-SCALE ACCORDINGLY
CONSTRUCTION DOCUMENT REVIEW SET



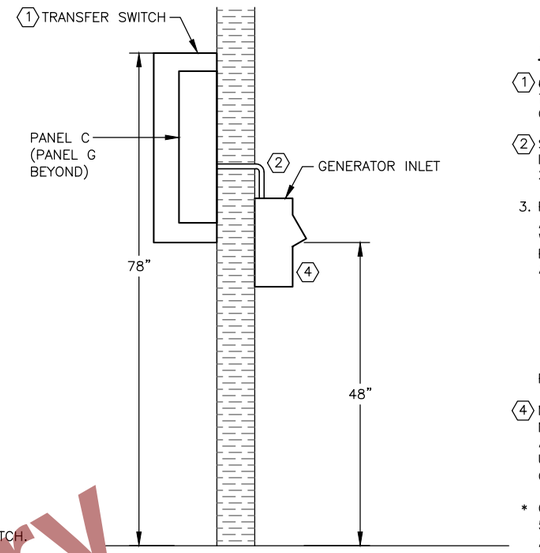
1 E06 FUEL DISPENSER DIAGRAM
NTS



DETAIL 2 NOTES:

1. SIGN: COLORS – WHITE 3/4" LETTERS ON RED BACKGROUND. TEXT – "FUEL PUMP EMERGENCY SHUT OFF SWITCH". MOUNT SIGN 6" ABOVE EMERGENCY FUEL TANK PUMP SHUT DOWN SWITCH.
2. FUEL PUMP EMERGENCY SHUT OFF DISCONNECT SWITCH, 30–AMP 2–POLE 250–VOLT SWITCH, CAPABLE OF BEING LOCKED IN THE OPEN POSITION IN A WET LOCATION BOX WITH A RAIN TIGHT ACTUATOR. LABEL SWITCH POSITIONS (UP = ON, DOWN = OFF). MOUNT DISCONNECT ON THE EXTERIOR OF THE BUILDING, MINIMUM 20 FEET FROM FUEL DISPENSER.
3. POWER FOR THE PUMP, FROM A SWITCH–RATED 15–AMP 1–POLE 120–VOLT CIRCUIT BREAKER IN PANEL G. SEAL CONDUIT THROUGH WALL TO PREVENT MOISTURE FROM ENTERING BUILDING. RUN CIRCUIT UNDERGROUND TO FUEL DISPENSER PUMP MOUNTED ON FUEL DISPENSING TANK. SEE 1/E02 FOR LOCATION OF FUEL TANK. PROVIDE SEALING FITTING 18" ABOVE GRADE AT EACH END OF UNDERGROUND CONDUIT RUN.
4. MOUNT ALL ITEMS ON THE BUILDING.

2 E06 MOTOR VEHICLE FUEL PUMP ELECTRICAL DETAIL
NTS



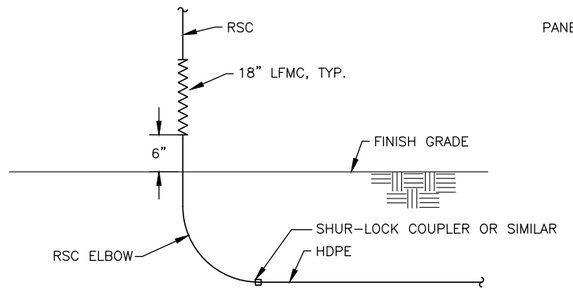
DETAIL 3 & 5 NOTES:

1. 60–AMP, 240–VOLT, NON–FUSED, TWO–POLE, DOUBLE–THROW, TRANSFER SWITCH, SOLID NEUTRAL, SQUARE–D CATALOG NO. DTU222 OR APPROVED EQUAL.
2. SEAL CONDUIT PENETRATION ON INSIDE AND OUTSIDE BETWEEN THE INTERIOR AND EXTERIOR OF THE BUILDING IN ACCORDANCE WITH NEC 225.27.
3. PROVIDE TWO 20–FOOT "ARCTIC" POWER CORDS CONTAINING THREE #8 AWG POWER CONDUCTORS AND ONE #10 AWG GROUND CONDUCTOR WITH A CS63–64C* CONNECTOR ON ONE END AND A CS63–65C* PLUG ON THE OTHER. PROVIDE THE FOLLOWING 36–INCH LONG ADAPTER CORDS.
   - (A) 1–4C #10 POWER CORD WITH A CS63–64C* CONNECTOR ON ONE END AND A NEMA–L14–30 PLUG ON THE OTHER.
   - (B) 1–4C #12 POWER CORD WITH A CS63–64C* CONNECTOR ON ONE END AND A NEMA–L14–20 PLUG ON THE OTHER.

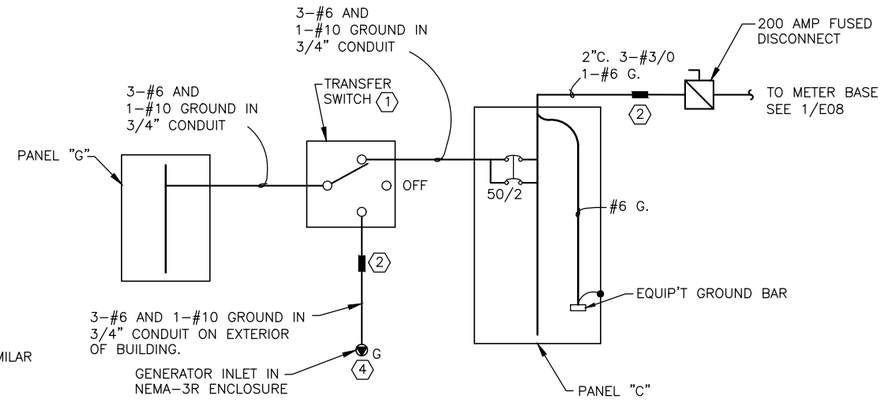
   PROVIDE WALL CABINET NEXT TO PANEL–C TO STORE THE CORDS.
4. MOUNT A CS63–75C* (MALE) GENERATOR FLANGED INLET IN A NEMA–3R GALVANIZED/PAINTED ENCLOSURE WITH THE INLET 48 INCHES ABOVE THE FLOOR LEVEL – MIDWEST ELECTRIC PRODUCTS CAT. NO. U050N OR APPROVED EQUAL. (OTHER ACCEPTED MANUFACTURERS – GE, CROUSE–HINDS).

* CALIFORNIA STANDARD 125/250–VOLT, 3–POLE, 4–WIRE, NON–NEMA, 50–AMP WIRING DEVICE, LEVITON CATALOG # AS SHOWN, OR APPROVED EQUAL. (OTHER ACCEPTED MANUFACTURERS – CROUSE–HINDS, APPLETON).

3 E06 PANEL "G" – GENERATOR INLET ELEVATION
NTS



4 E06 CONDUIT ABOVE/BELOW GRADE TRANSITION DETAIL
NTS



5 E06 SREB #2 ONE–LINE DIAGRAM
NTS

BORDER OUTLINE MEASURES 32x21–SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274–2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3–02–0380–004–2021
HEATED SREB POWER DETAILS

DATE: 10/7/2020
SHEET: E06 OF E08
AS–BUILT SHEET:

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/29/2020, 2:54 PM
Layout Name: E6
File Path and Name: Z:\19011KON – Kongiganak– DOT Central Reg SREB's\E–Working\Drawings\19011_E6_HSREB_POWER DETAILS.dwg

PANEL: C	MOUNTING		MAINS			OPTIONS			
PROJECT: KONGIGANAK	SURFACE		LUGS			SOLID NEUTRAL GROUND BUS BAR			
LOCATION: HSREB									
VOLTAGE: 240/120 VOLT	1 PHASE		3 WIRE		200 A	MLO		24K AIC	
CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION
PANEL G	6.7	50	2	1	2	30	1	2.9	NEMA 5-30 RECEPTACLE
				3	4	30	2		SPARE
50 AMP 240 VOLT RECEPTACLE NEMA 6-50	9.6	50	2	5	6				
				7	8	30	2		SPARE
NEMA 5-20 RECEPTACLES	0.7	20	1	9	10				
NEMA 5-20 RECEPTACLES	0.5	20	1	11	12	20	1	0.2	NEMA 5-20 - COMPRESSOR
AIR COMPRESSOR 5 HP	6.4	60	2	13	14	15	1	0.1	PADDLE FAN
				15	16	20	1		SPARE
SPARE		20	1	17	18	20	1		SPARE
SPARE		20	1	19	20	20	1		SPARE
SPARE		20	1	21	22	20	1		SPARE
SPARE		20	1	23	24	20	1		SPARE
SPARE		20	1	25	26	20	1		SPARE
SPACE				27	28				SPACE
SPACE				29	30				SPACE
CONNECTED LOAD:		27.1	KVA	113.0	A	REMARKS: (1) PROVIDE SEPARATE NEUTRAL AND EQUIPMENT GROUND BARS. (2) PROVIDE MULTIPOLE CIRCUIT BREAKERS OR CIRCUIT BREAKERS WITH HANDLE TIES, AS REQUIRED FOR COMPLIANCE WITH NEC 210.4(B), WHEREVER FIELD WIRING RESULTS IN MULITWIRE BRANCH CIRCUITS. (3) DEMAND LOAD IS BASED ON NEC ARTICLE 220.			
DEMAND LOAD:		29.0	KVA	120.7	A				
DATE:									
REV:									

PANEL: G	MOUNTING		MAINS			OPTIONS			
PROJECT: KONGIGANAK	SURFACE		LUGS			SOLID NEUTRAL GROUND BUS BAR			
LOCATION: HSREB									
VOLTAGE: 240/120 VOLT	1 PHASE		3 WIRE		100 A	MLO		22K AIC	
CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION
INTERIOR LIGHTING	0.9	20	1	1	2	20	1	0.5	BENCH RECEPTACLES
EXTERIOR LIGHTING	0.1	20	1	3	4	20	1		SPARE
UH-2 UNIT HEATER (1/3HP)	0.8	15	1	5	6	20	1		SPARE
UH-1 UNIT HEATER (1/3HP)	0.8	15	1	7	8	20	1	1.2	EXHAUST FAN EF-1 (1/2HP)
PMP-1 (1/3HP) FUEL PUMP AND DISPENSER	0.8	15	1	9	10	15	1	0.8	DAY TANK PUMP (1/3HP)
SPARE		20	1	11	12	15	1	0.8	DAY TANK PUMP (1/3HP)
SPARE		20	1	13	14	20	1		SPARE
SPARE		20	1	15	16	20	1		SPARE
CONNECTED LOAD:		6.7	KVA	28.1	A	REMARKS: (1) PROVIDE SEPARATE NEUTRAL AND EQUIPMENT GROUND BARS. (2) VERIFY CIRCUIT BREAKERS REQUIREMENTS FOR FUEL DISPENSER. (3) PROVIDE MULTIPOLE CIRCUIT BREAKERS OR CIRCUIT BREAKERS WITH HANDLE TIES, AS REQUIRED FOR COMPLIANCE WITH NEC 210.4(B), WHEREVER FIELD WIRING RESULTS IN MULITWIRE BRANCH CIRCUITS. (4) DEMAND LOAD IS BASED ON NEC ARTICAL 220.			
DEMAND LOAD:		7.3	KVA	30.4	A				
DATE:									
REV:									

A.I.R. REQUIREMENTS

SHORT CIRCUIT AND SERVICE NOTES:

BASED ON THE FOLLOWING:

UTILITY	=	GENERIC	
TRANSFORMER SIZE	=	25	KVA
TRANSFORMER IMPEDANCE	=	1.08	% Z
LENGTH OF SERVICE CONDUCTORS	=	70	FEET
SERVICE CONDUCTOR SIZE	=	#3/0 AWG	
NUMBER OF PARALLEL RUNS	=	1	
CONDUIT TYPE	=	Copper in Non-Metallic*	
MOTOR CONTRIBUTION	=	10	HP

AVAILABLE SHORT CIRCUIT AMPS SUMMARY

LOCATION	METERBASE	SREB #1 DISCONNECT	SREB #1 PANEL C	SREB #1 MTS	SREB #1 PANEL G
SCA RMS	8,736	8,511	8,397	7,554	6,827
@ X/R	1.15	1.13	1.11	0.93	0.81

LOCATION	SREB #2 DISCONNECT	SREB #2 PANEL C	SREB #2 MTS	SREB #2 PANEL G
SCA RMS	7,512	7,439	6,756	6,161
@ X/R	1.05	1.03	0.89	0.79

LOCATION	EEB DISCONNECT	EEB PANEL A
SCA RMS	7,915	7,550
@ X/R	1.01	0.96

THE ABOVE DATA (OTHER THAN MOTOR LOAD) SHALL BE CONFIRMED WITH THE SERVING UTILITY BEFORE EQUIPMENT IS ORDERED. ANY VARIATIONS THAT MIGHT INCREASE AVAILABLE SHORT-CIRCUIT CURRENT SHALL BE REPORTED TO THE CONTRACTING AGENCY.

SERVICE EQUIPMENT SHALL HAVE AN INTEGRATED SHORT CIRCUIT RATING SUITABLE FOR THE AVAILABLE SCA. DOWNSTREAM EQUIPMENT AND CIRCUIT BREAKER AIC RATINGS MAY BE SATISFIED BY

1. EQUIPMENT RATED FOR THE AVAILABLE SCA AT EACH POINT IN THE SYSTEM.

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	TOTAL LUMEN	LUMEN/WATT	MOUNTING	DESCRIPTION	MODEL
A/150		15,000	120	AS SHOWN	CEILING PENDANT MOUNT LED WITH POWER HOOK AND SAFETY CHAIN, WIDE DISTRIBUTION, NO SHIELDING, 120 VOLT, 80 CRI, 4000K CCT. FIXTURE STANDARD FINISH TO MATCH BUILDING FINISH AS CLOSELY AS POSSIBLE. SUITABLE FOR -40F, DAMP LOCATION LISTED.	LITHONIA IBL-15L-WD-SD125-LP840-USPOM
B/20		2660	111	AS SHOWN	WALL MOUNT FULL CUTOFF LED. RATED FOR -40 DEGREES F.	DECO LIGHTING: D464-L-24-40-U-Z
E/60				9'-0"	EMERGENCY EGRESS LED LIGHT, Ni-MH BATTERY. 120V, -40°F RATING. AUTOTEST,	BEGHELLI USA LIGHTING: BOL-WP-12V27W 2 MR16LED
EM				8'-0"	SURFACE MOUNT REMOTE EMERGENCY LIGHT REMOTE HEAD. PROVIDE MR16LED LAMP, AND WIRE GUARD.	BEGHELLI USA LIGHTING: BOL-WP-R 2 MR16LED BPG9

VERIFY CATALOG NUMBER WITH FIXTURE DESCRIPTION FOR ADDITIONAL REQUIREMENT.
MANUFACTURER NUMBER IS BASIS OF DESIGN SUBMIT SUBSTITUTIONS IN ACCORDANCE WITH DIVISION 01. FOR APPROVAL.

Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC
Date Revised: 9/29/2020, 2:54 PM
Layout Name: E7
File Path and Name: Z:\19011KON - Kongiganak- DOT Central Reg SREB's\E-Working\Drawings\19011_E7_SCHEDULES.dwg

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274-2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

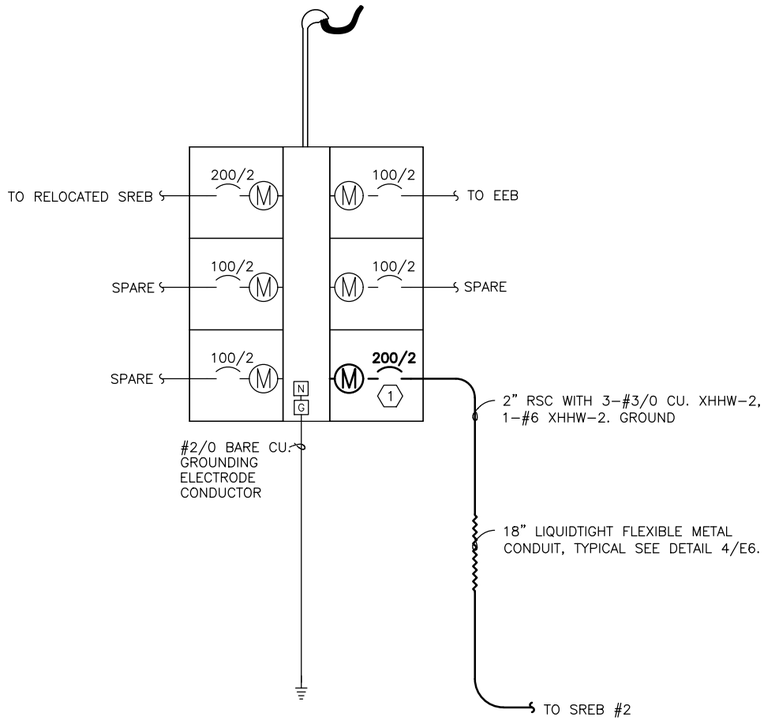
BORDER OUTLINE MEASURES
32x21-SCALE ACCORDINGLY

CONSTRUCTION DOCUMENT REVIEW SET

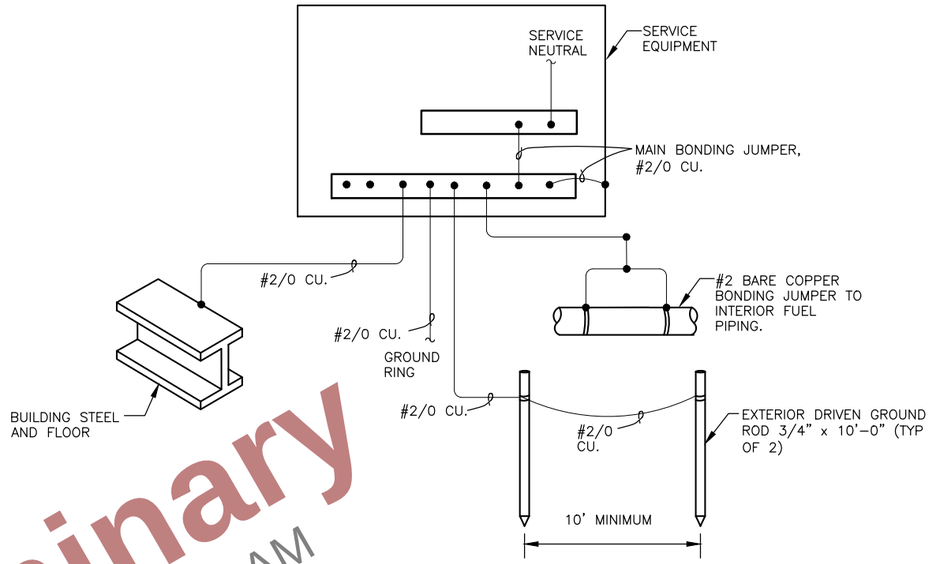
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
HEATED SREB SCHEDULES

DATE: 10/7/2020
SHEET: E07 OF E08
AS-BUILT SHEET:



1 E08 EXISTING METER BASE DETAIL
NTS



2 E08 SREB #2 DISCONNECT GROUNDING DETAIL
NTS

1 REMOVE EXISTING 100 METER SOCK AND 100 AMP BREAKER AND REPLACE WITH NEW 200 AMP METER SOCKET AND 200 AMP BREAKER.

ARC FLASH CALCULATIONS

	METERBASE	PANEL C	HSREB TRANSFER SWITCH	PANEL G
ARC FLASH BOUNDARY	XX'-X"	XX'-X"	XX'-X"	XX'-X"
INCIDENT ENERGY	XX.XX CAL/CM^2	XX.XX CAL/CM^2	XX.XX CAL/CM^2	XX.XX CAL/CM^2
WORKING DISTANCE	18 INCHES	18 INCHES	18 INCHES	18 INCHES
SHOCK HAZARD EXPOSURE	240 VAC	240 VAC	240 VAC	240 VAC
INSULATING GLOVES CLASS	00 BEIGE	00 BEIGE	00 BEIGE	00 BEIGE
LIMITED APPROACH BOUNDRY	3'-6"	3'-6"	3'-6"	3'-6"
RESTRICTED APPROACH BOUNDRY	AVOID CONTACT	AVOID CONTACT	AVOID CONTACT	AVOID CONTACT
PPE LEVEL	X	X	X	4
CALCULATION DATE	X/X/2020			

NOTES:
ARC FLASH CALCULATIONS ARE BASED ON A 2 SECOND ARCHING TIME FOR UPSTREAM OVER CURRENT PROTECTION DEVICE.
ARC FLASH CALCULATIONS BASED ON DESIGN ASSUMPTIONS AS INDICATED IN THE AIR CALCULATIONS.
CONTRACTOR TO VERIFY.

MBA CONSULTING ENGINEERS, INC.
3812 SPENARD ROAD, SUITE 200
ANCHORAGE, AK 99517
(907) 274–2622
CERTIFICATE OF AUTHORIZATION
NO. AECC578

BY	DATE	REVISION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

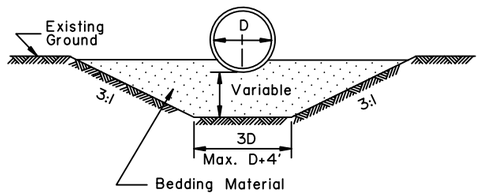
KONGIGANAK AIRPORT
KONGIGANAK, ALASKA
SNOW REMOVAL EQUIPMENT BUILDING
PROJECT No. CFAPT00433
AIP No. 3-02-0380-004-2021
METER BASE DETAILS

DATE: 10/7/2020
SHEET: E08 OF E08
AS-BUILT SHEET:

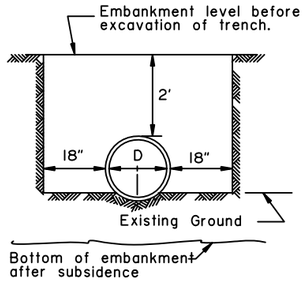
BORDER OUTLINE MEASURES
32x21–SCALE ACCORDINGLY
CONSTRUCTION DOCUMENT REVIEW SET

Date Revised: 9/29/2020, 2:55 PM
Layout Name: E8
File Path and Name: Z:\19011KON – Kongiganak– DOT Central Reg SREB's\E–Working\Drawings\19011_E8_METER_BASE.dwg
Designed By: MBA
Drawn By: MBA
Checked By: SCH / EWC

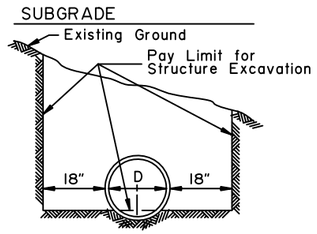
CULVERT PIPE



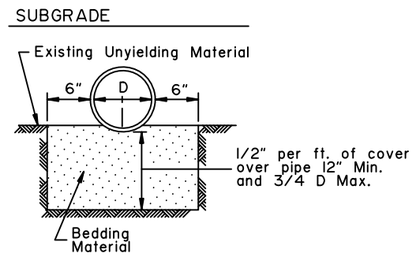
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



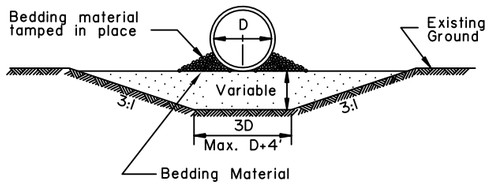
TYPE "B"



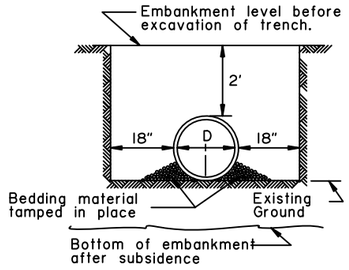
TYPE "C"



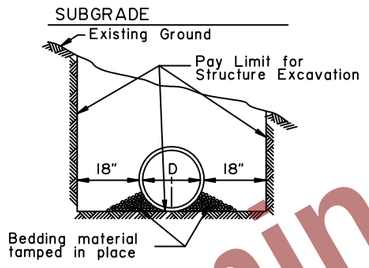
TYPE "D"
ROCK OR UNYIELDING MATERIAL



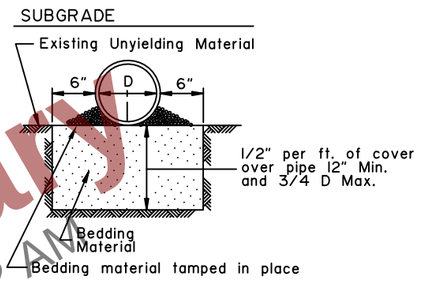
'ALTERNATE'
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



'ALTERNATE'
TYPE "B"



'ALTERNATE'
TYPE "C"

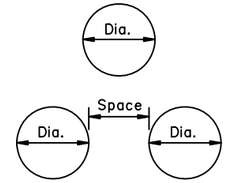


'ALTERNATE' TYPE "D"
ROCK OR UNYIELDING MATERIAL

GENERAL NOTES:

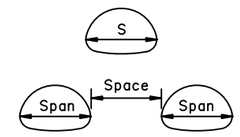
1. Sidefill shall be placed and compacted with care under haunches of pipe and shall be brought up evenly and simultaneously on both sides of pipe to 1 foot above the top of the full length of the pipe.
2. Alternate installation methods may only be used when specified or approved by the Engineer.

D = Nominal Pipe Diameter



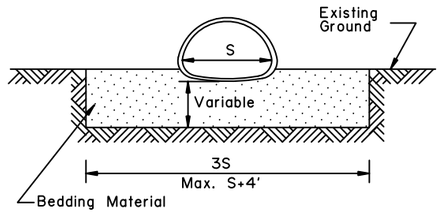
MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Dia. of pipe or 3', whichever is less.

S = Nominal Pipe Arch Span

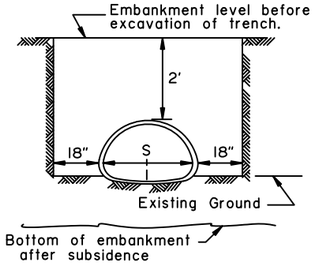


MULTIPLE INSTALLATIONS	
Dia.	Minimum Space Between Pipes
0" - 42"	24"
48" & Over	1/2 Span of pipe arch or 3', whichever is less.

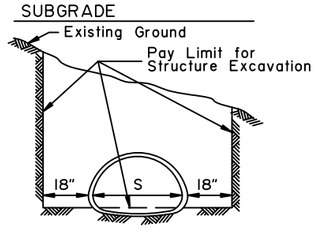
ARCH



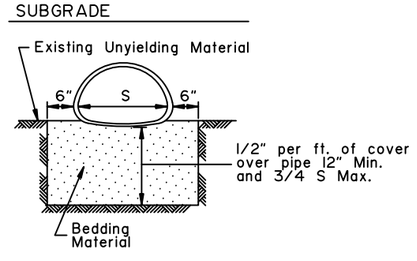
TYPE "A"
FOUNDATION STABILIZATION
To be used in unstable areas as directed by the Engineer.



TYPE "B"



TYPE "C"



TYPE "D"
ROCK OR UNYIELDING MATERIAL

State of Alaska DOT&PF
ALASKA STANDARD PLAN

CULVERT PIPE & ARCH INSTALLATION DETAILS

Adopted as an Alaska Standard Plan by:
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

Next Code and Standards Review date: 02/08/2029

D-01.02

Minimum & Maximum Cover for 2 2/3"X 1/2" Aluminum Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
12	12	100+	100+	100+	100+	100+
15	12	100	100+	100+	100+	100+
18	12	83	100+	100+	100+	100+
21	12	71	89	100+	100+	100+
24	12	62	78	100+	100+	100+
27	12		69	97	100+	100+
30	12		62	87	100+	100+
36	12		51	73	94	100+
42	12			62	80	100+
48	12			54	70	85
54	15			48	62	76
60	15				52	64
66	18					52
72	18					43

Minimum & Maximum Cover for 3" x 1" Aluminum Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
30	12	57	72	100+	100+	100+
36	12	47	60	84	100+	100+
42	12	40	51	72	96	100+
48	12	35	44	62	84	99
54	15	31	39	55	74	88
60	15	28	35	50	67	79
66	18	25	32	45	61	72
72	18	23	29	41	56	66
78	21		27	38	51	61
84	21			35	48	56
90	24			33	44	52
96	24			31	41	49
102	24				39	46
108	24				37	43
114	24					39
120	24					36

Minimum & Maximum Cover for 9" X 2 1/2" Aluminum Structural Plate Pipe*			
Thickness		0.125	0.150
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)
84	18	31	
90	18	27	
96	18	27	
102	18	24	
108	18	24	
114	18	21	
120	24	21	
126	24	19	
132	30	19	
138	30	18	
144	30	18	
150	30		22
156	30		22
162	36		20
168	36		20

*5.33 - 3/4" dia. steel bolts per foot.

CORRUGATED CIRCULAR ALUMINUM PIPE
CORRUGATED ALUMINUM PIPE-ARCH

Minimum & Maximum Cover for 2 2/3"X 1/2" Aluminum Pipe-Arch					
				2 Tons/Sf Corner Bearing Pressure	
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
17	13	3 4/8	16 (0.060)	12	13
21	15	4 1/8	16 (0.060)	12	12
24	18	4 7/8	16 (0.060)	12	12
28	20	5 4/8	14 (0.075)	12	12
35	24	6 7/8	14 (0.075)	12	12
42	29	8 2/8	12 (0.105)	12	12
49	33	9 5/8	12 (0.105)	15	12
57	38	11	10 (0.135)	15	12
64	43	12 3/8	10 (0.135)	18	12
71	47	13 6/8	8 (0.164)	18	12

Minimum & Maximum Cover for 3" x 1" Aluminum Pipe-Arch					
				2 Tons/Sf Corner Bearing Pressure	
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
60	46	18 6/8	14 (0.075)	15	20
66	51	20 6/8	14 (0.075)	18	20
73	55	22 7/8	14 (0.075)	21	20
81	59	20 7/8	12 (0.105)	21	16
87	63	22 7/8	12 (0.105)	24	16
95	67	24 3/8	12 (0.105)	24	16
103	71	26 1/8	10 (0.135)	24	16
112	75	27 6/8	8 (0.164)	24	16

Minimum & Maximum Cover for 9" x 2 1/2" Aluminum Multiplate Pipe-Arch*					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	2 Tons/Sf Corner Bearing Pressure Max. Cover (Ft)
6-7	5-8	31.75	0.125	24	24
6-11	5-9	31.75	0.125	24	24
7-3	5-11	31.75	0.125	24	18
7-9	6-0	31.75	0.125	24	18
8-5	6-3	31.75	0.125	24	16
9-3	6-5	31.75	0.125	24	15
10-3	6-9	31.75	0.125	30	13
10-9	6-10	31.75	0.125	30	13
11-5	7-1	31.75	0.125	30	13
12-7	7-5	31.75	0.125	30	11
12-11	7-6	31.75	0.125	30	11
13-1	8-2	31.75	0.125	30	11
13-11	8-5	31.75	0.125	36	10
14-8	9-8	31.75	0.125	36	9
15-4	10-0	31.75	0.150	36	8
16-1	10-4	31.75	0.150	36	8
16-9	10-8	31.75	0.150	42	7
17-3	11-0	31.75	0.150	42	7
18-0	11-4	31.75	0.175	42	7
18-8	11-8	31.75	0.175	42	7

*5.33 - 3/4" dia. steel bolts per foot.

GENERAL NOTES:

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflection.
7. These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

Minimum & Maximum Cover for 2 2/3" x 1/2" Steel Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
12	12	100+	100+	100+	100+	100+
15	12	100+	100+	100+	100+	100+
18	12	100+	100+	100+	100+	100+
21	12	100+	100+	100+	100+	100+
24	12	100+	100+	100+	100+	100+
30	12	83	100+	100+	100+	100+
36	12	69	86	100+	100+	100+
42	12	59	74	100+	100+	100+
48	12	51	64	91	100+	100+
54	12		57	80	100+	100+
60	12			72	93	100+
66	12			66	85	100+
72	12				78	95
78	12					84
84	12					73

Minimum & Maximum Cover fo 3" x 1" Steel Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
36	12			100+	100+	100+
42	12			100+	100+	100+
48	12		74	100+	100+	100+
54	12	53	66	93	100+	100+
60	12	47	59	83	100+	100+
66	12	43	54	76	98	100+
72	12	39	49	69	89	100+
78	12	36	45	64	82	100+
84	12	33	42	59	77	94
90	12	31	39	55	71	87
96	12	29	37	52	67	82
102	18	27	34	49	63	77
108	18		32	46	59	73
114	18		31	43	56	69
120	18		29	41	53	65
126	18			39	51	62
132	18			37	48	59
138	18			36	46	57
144	18				44	54

Minimum & Maximum Cover for 5" x 1" Steel Pipe						
Gage		16	14	12	10	8
Thickness		0.060	0.075	0.105	0.135	0.164
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
36	12	71	88	100+	100+	100+
42	12	60	76	100+	100+	100+
48	12	53	66	93	100+	100+
54	12	47	59	82	100+	100+
60	12	42	53	74	96	100+
66	12	38	48	67	87	100+
72	12	35	44	62	79	97
78	12	32	40	57	73	90
84	12	30	37	53	68	83
90	12	28	35	49	63	78
96	12	26	33	46	59	73
102	18	24	31	43	56	69
108	18		29	41	53	65
114	18		27	39	50	61
120	18		26	37	47	58
126	18			35	45	55
132	18			33	43	53
138	18			32	41	50
144	18				39	48

Minimum & Maximum Cover for 6" x 2" Steel Multiplate Pipe*								
Gage		12	10	8	7	5	3	1
Thickness		0.111	0.140	0.170	0.188	0.218	0.249	0.280
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
60	12	46	67	87	100	100+	100+	100+
66	12	42	60	79	91	100+	100+	100+
72	12	38	55	73	83	100+	100+	100+
78	12	35	51	67	77	93	100+	100+
84	12	32	47	62	71	86	100+	100+
90	12	30	44	58	67	80	95	100+
96	12	28	41	54	62	75	89	97
102	18	27	39	51	59	71	84	91
108	18	25	37	48	55	67	79	86
114	18	24	35	45	52	63	75	82
120	18	22	33	43	50	60	71	77
126	18	21	31	41	47	57	68	74
132	18	20	30	39	45	54	64	70
138	18	19	28	37	43	52	62	67
144	18	18	27	36	41	50	59	64

*4 - 3/4" dia. steel bolts per foot.

GENERAL NOTES

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

CORRUGATED CIRCULAR STEEL PIPE

CORRUGATED STEEL PIPE-ARCH

Minimum & Maximum Cover for 2 2/3"X 1/2"Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
17	13	3 4/8	16 (0.060)	12	11
21	15	4 1/8	16 (0.060)	12	11
24	18	4 7/8	16 (0.060)	12	11
28	20	5 4/8	16 (0.060)	12	11
35	24	6 7/8	16 (0.060)	12	11
42	29	8 2/8	16 (0.060)	12	11
49	33	9 5/8	14 (0.075)	12	11
57	38	11	12 (0.109)	12	11
64	43	12 3/8	12 (0.109)	12	11
71	47	13 6/8	10 (0.138)	12	11
77	52	15 1/8	10 (0.138)	12	11
83	57	16 4/8	8 (0.168)	12	11

Minimum & Maximum Cover for 3"X 1"Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
53	41	10 2/8	14 (0.079)	12	10
60	46	18 6/8	14 (0.079)	15	29
66	51	20 6/8	14 (0.079)	15	29
73	55	22 7/8	14 (0.079)	18	18
81	59	20 7/8	14 (0.079)	18	15
87	63	22 7/8	14 (0.079)	18	15
95	67	24 3/8	14 (0.079)	18	15
103	71	26 1/8	14 (0.079)	18	14
112	75	27 6/8	14 (0.079)	21	14
117	79	29 4/8	12 (0.109)	21	14
128	83	31 2/8	10 (0.138)	24	14
137	87	33	10 (0.138)	24	14
142	91	34 6/8	10 (0.138)	24	13
150	96	36	10 (0.138)	30	13
157	96	38	10 (0.138)	30	13
164	105	40	10 (0.138)	30	14
171	110	41	10 (0.138)	30	13

Minimum & Maximum Cover for 5"X 1"Steel Pipe-Arch					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Thickness (In)	Min. Cover (In)	Max. Cover (Ft)
53	41	10 2/8	14 (0.079)	12	10
60	46	18 6/8	14 (0.079)	15	29
66	51	20 6/8	14 (0.079)	15	29
73	55	22 7/8	14 (0.079)	18	18
81	59	20 7/8	14 (0.079)	18	15
87	63	22 7/8	14 (0.079)	18	15
95	67	24 3/8	14 (0.079)	18	15
103	71	26 1/8	14 (0.079)	18	14
112	75	27 6/8	14 (0.079)	21	14
117	79	29 4/8	12 (0.109)	21	14
128	83	31 2/8	10 (0.138)	24	14
137	87	33	10 (0.138)	24	14
142	91	34 6/8	10 (0.138)	24	13
150	96	36	10 (0.138)	30	13
157	96	38	10 (0.138)	30	13
164	105	40	10 (0.138)	30	14
171	110	41	10 (0.138)	30	13

Minimum & Maximum Cover for Steel Multiplate Pipe-Arch 6" x 2" *					
2 Tons/Sf Corner Bearing Pressure					
Span (Ft.-In.)	Rise (Ft.-In.)	Corner Radius (In)	Min. Gage (In)	Min. Cover (In)	Max. Cover (Ft)
6-1	4-7	18	12 (0.111)	12	14
7-0	5-1	18	12 (0.111)	12	12
7-11	5-7	18	12 (0.111)	12	10
8-10	6-1	18	12 (0.111)	18	9
9-9	6-7	18	12 (0.111)	18	8
10-11	7-1	18	12 (0.111)	18	6
11-10	7-7	18	12 (0.111)	18	5
12-10	8-4	18	12 (0.111)	24	5
13-3	9-4	31	10 (0.140)	24	11
14-2	9-10	31	10 (0.140)	24	10
15-4	10-4	31	10 (0.140)	24	9
16-3	10-10	31	10 (0.140)	30	8
17-2	11-4	31	10 (0.140)	30	8
18-1	11-10	31	10 (0.140)	30	7
19-3	12-4	31	10 (0.140)	30	7
19-11	12-10	31	10 (0.140)	30	6
20-7	13-2	31	10 (0.140)	36	6

*4 - 3/4" dia. steel bolts per foot.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

Maximum Cover for Type S Corrugated Polyethelene Pipe	
Size (in)	Max. Cover (ft)
12	24
15	25
18	24
24	20
30	20
36	18
42	16
48	17

GENERAL NOTES

1. All materials and workmanship shall be in accordance with the State of Alaska Standard Specifications for Highway Construction.

2. For foundation and structural backfill details see Standard Plan D-01 "Culvert Pipe & Arch Installation Details".

3. Pipe cover height is measured from top of the pipe to top of rigid pavement, or to the bottom of subgrade for flexible pavement. In all cases the minimum cover shall be no less than 2 ft. Where loads traverse the culvert during construction minimum cover shall be no less than 4 ft.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: Carolyn Morehouse

Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

Next Code and Standards Review date: 7/8/2030

D-04.22

Minimum & Maximum Cover for Aluminum Spiral Rib Circular Pipe*					
Gage		16	14	12	10
Thickness		0.064	0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	43	61		
21	12	38	52	84	
24	12	33	45	73	
30	15	26	36	58	
36	18	21	30	49	69
42	21		25	41	59
48	24			36	51
54	24			32	46
60	24			29	41
66	24				37
72	30				34

*¾ x ¾ x 7½ in. Corrugations

Minimum & Maximum Cover for Aluminum Spiral Rib Pipe-Arch*						
Gage			16	14	12	10
Thickness			0.060	0.075	0.105	0.135
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)			
20	16	12	16			
23	19	12	15			
27	21	15	13	13		
33	26	18	13	13	13	
40	31	21		13	13	
46	36	24			13	13
53	41	24			13	13
60	46	24			13	13
66	51	24				13

*¾ x ¾ x 7½ in. Corrugations

ALUMINUM SPIRAL RIB PIPE

STEEL SPIRAL RIB PIPE

Minimum & Maximum Cover for Steel and Aluminized Steel Spiral Rib Circular Pipe*					
Gage		16	14	12	10
Thickness		0.064	0.079	0.109	0.138
Dia. (In)	Min. (In)	Max. (Ft)	Max. (Ft)	Max. (Ft)	Max. (Ft)
18	12	91			
24	12	68	95	100+	
30	12	54	76	100+	
36	12	45	63	100+	
42	12	38	54	90	
48	12	33	47	79	
54	18	30	42	70	
60	18	27	38	63	92
66	18	24	34	57	83
72	18		31	52	76
78	24		29	48	70
84	24		27	45	65
90	24			42	61
96	24			39	56
102	30			36	50
108	30			32	45

*¾ x ¾ x 7½ in. Corrugations.

Minimum & Maximum Cover for Steel Spiral Rib Pipe-Arch*					
			2 Tons/Sf Corner Bearing Pressure		
Thickness			0.064	0.079	0.109
Span (Ft.-In.)	Rise (Ft.-In.)	Min. Cover (In)	Max. Cover (Ft)		
20	16	12	13		
23	19	12	13		
27	21	12	11		
33	26	12	11		
40	31	12	11		
46	36	12	11		
53	41	18		11	
60	46	18		19	
66	51	18		19	
73	55	18			18
81	59	18			15
87	63	18			15
95	67	18			15

*¾ x ¾ x 7½ in. Corrugations

GENERAL NOTES

1. All material and workmanship shall be in accordance with the State of Alaska, Standard Specifications for Highway Construction.
2. The contractor shall select only pipes that meet specific height of cover criteria shown on the plans or in the special provisions.
3. No more than one type of pipe may be used on any single installation or installation grouping.
4. All structural plate pipes shall be placed on a pre-shaped foundation conforming to the depth of the bottom plates with clearance for assembling to the adjacent plates allowed.
5. See Standard Plan D-01 "Culvert Pipe & Arch Installation Details" for foundation and structural backfill details.
6. Minimum cover shall be measured from the top of pipe to the top of rigid pavement or to the bottom of flexible pavement subgrade. In all cases, the minimum cover shall not be less than 12". Minimum cover during construction shall be that required to protect the pipe from damage or deflecton.
7. These tables have been developed for an HL-93 live load and for compacted soil weighing 120 lbs. per cubic foot or less. If compacted soil cover exceeds 120 lbs. per cubic foot, the contractor shall use the depth of cover shown in the plans for the specific pipe. Where compacted soil cover exceeds 120 lbs. per cubic foot and no specific cover requirements are provided in the plans, the contractor shall determine the required minimum pipe cover in accordance with Section 12 of the 2017 AASHTO "LRFD Bridge Design Specifications".

State of Alaska DOT&PF
ALASKA STANDARD PLAN

PIPE AND ARCH TABLES

Adopted as an Alaska Standard Plan by: Carolyn Morehouse

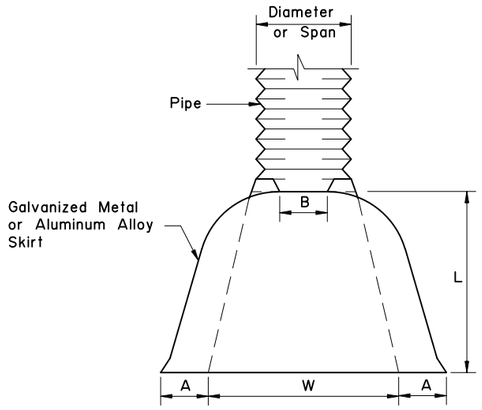
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLH Date: 7/8/2020

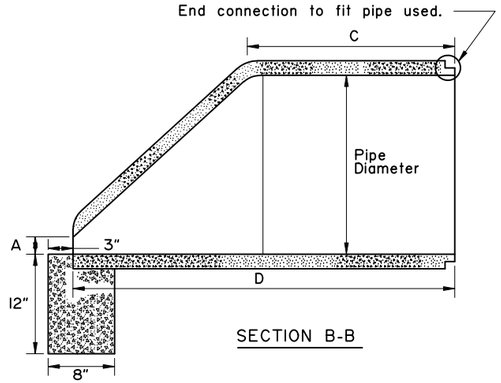
Next Code and Standards Review date: 7/8/2030

D-04.22



PLAN

ROUND AND PIPE ARCH

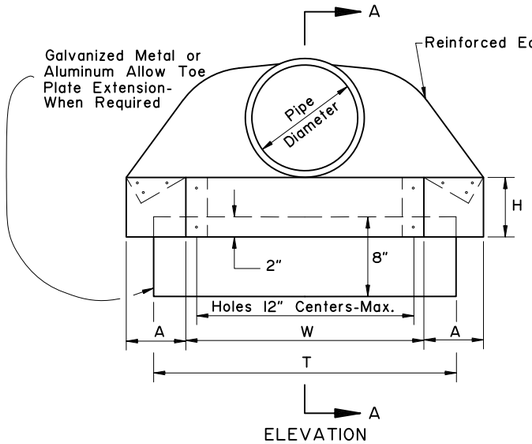


SECTION B-B

MINIMUM DIMENSIONS					
Pipe Diameter	A	B	C	D	E
12"	4"	1 3/4"	24"	46"	24"
18"	9"	2"	25"	50"	36"
24"	9 1/2"	2 1/2"	30"	72"	48"
30"	12"	3"	20"	73"	60"
36"	15"	3 3/8"	35"	97"	72"
42"	21"	3 3/4"	35"	98"	78"
48"	24"	4 1/4"	26"	98"	84"
54"	27"	4 5/8"	33"	99"	82"

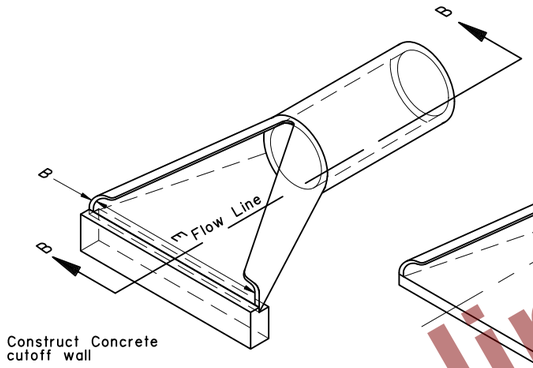
ROUND PIPE									
Pipe Diam. Inches	Thickness For Aluminum	Thk. for Galv. Metal	Dimension Inches A 1" Tol.	B Max.	H 1" Tol.	L 1 1/2" Tol.	W 2" Tol.	T 2" Tol.	Skirt	Approx. Slope
12"	0.060	0.064	6"	6"	6"	21"	24"	34"	1 Pc.	2 1/2
15"	0.060	0.064	7"	8"	6"	26"	30"	40"	1 Pc.	2 1/2
18"	0.060	0.064	8"	10"	6"	31"	36"	46"	1 Pc.	2 1/2
21"	0.060	0.064	9"	12"	6"	36"	42"	52"	1 Pc.	2 1/2
24"	0.075	0.064	10"	13"	6"	41"	48"	58"	1 Pc.	2 1/2
30"	0.075	0.079	12"	16"	8"	51"	60"	70"	1 Pc.	2 1/2
36"	0.105	0.079	14"	19"	9"	60"	72"	94"	2 Pc.	2 1/2
42"	0.105	0.109	16"	22"	11"	69"	84"	106"	2 Pc.	2 1/2
48"	0.105	0.109	18"	27"	12"	78"	90"	112"	2 Pc.	2 1/4
54"	0.105	0.109	18"	30"	12"	84"	102"	122"	2 Pc.	2 1/4
60"	0.135	0.109	18"	33"	12"	87"	114"	134"	3 Pc.	2 1/4
66"	0.135	0.109	18"	36"	12"	87"	120"	142"	3 Pc.	2 1/4
72"	0.135	0.109	18"	39"	12"	87"	126"	146"	3 Pc.	2 1/4
78"	— —	0.109	18"	42"	12"	87"	132"	152"	3 Pc.	1 1/4
84"	— —	0.109	18"	45"	12"	87"	138"	158"	3 Pc.	1 1/6

PIPE-ARCH										
Pipe-Arch Dimension Inches Span	Rise	Thickness for Aluminum	Thk. for Galv. Metal	Dimension Inches A 1" Tol.	B Max.	H 1" Tol.	L 1 1/2" Tol.	W 2" Tol.	T 2" Tol.	Skirt	Approx. Slope
17"	13"	0.060	0.064	7"	9"	6"	19"	30"	40"	1 Pc.	2 1/2
21"	15"	0.060	0.064	7"	10"	6"	23"	36"	46"	1 Pc.	2 1/2
24"	18"	0.060	0.064	8"	12"	6"	28"	42"	52"	1 Pc.	2 1/2
28"	20"	0.075	0.064	9"	14"	6"	32"	48"	58"	1 Pc.	2 1/2
35"	24"	0.075	0.079	10"	16"	6"	39"	60"	70"	1 Pc.	2 1/2
42"	29"	0.105	0.079	12"	18"	8"	46"	75"	85"	1 Pc.	2 1/2
49"	33"	0.105	0.109	13"	21"	9"	53"	85"	103"	2 Pc.	2 1/2
57"	38"	0.105	0.109	18"	26"	12"	63"	90"	114"	2 Pc.	2 1/2
64"	43"	0.105	0.109	18"	30"	12"	70"	102"	130"	2 Pc.	2 1/4
71"	47"	0.135	0.109	18"	33"	12"	77"	114"	144"	3 Pc.	2 1/4
77"	52"	0.135	0.109	18"	36"	12"	84"	120"	158"	3 Pc.	2 1/4
83"	57"	0.135	0.109	18"	39"	12"	90"	126"	170"	3 Pc.	2 1/4

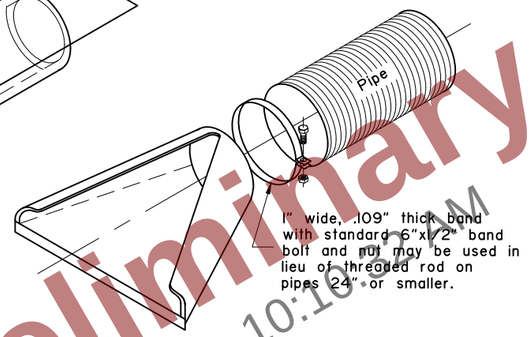


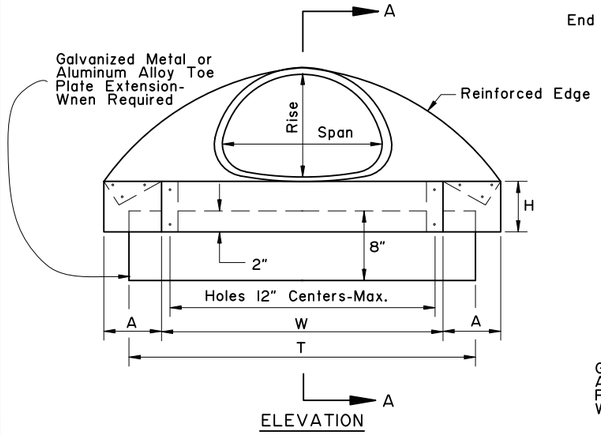
ELEVATION

ROUND PIPE



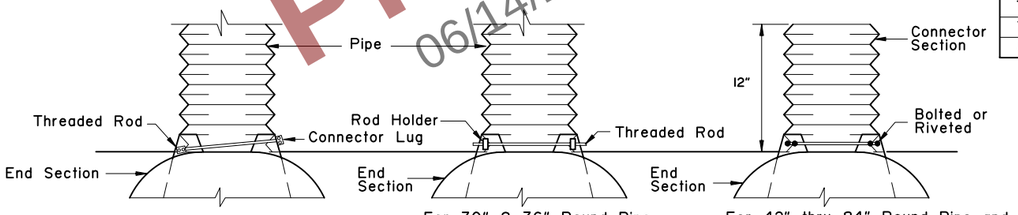
PRECAST CONCRETE END SECTION





ELEVATION

PIPE ARCH

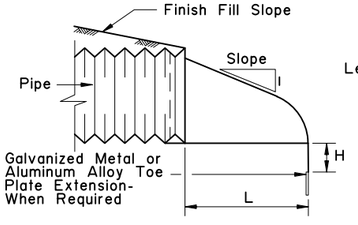


For 12" thru 24" Round Pipe with Annular Corrugations

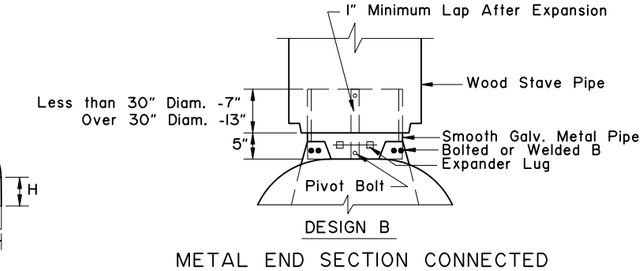
For 30" & 36" Round Pipe and 18"x11" thru 58"x36" Pipe Arch with Annular Corrugations.

For 42" thru 84" Round Pipe and 65"x40" thru 85"x54" Pipe Arch with Annular Corrugations and All Helically Corrugated Pipe and Pipe Arch.

DESIGN A



SECTION A-A



DESIGN B

METAL END SECTION CONNECTED TO WOOD STAVE PIPE

GENERAL NOTES:

1. Toe plate extensions will be required only when provided for on the plans. When required, the toe plate extensions shall be punched with holes to match those in lip of skirt and fastened with 3/8 inch or larger galvanized nuts and bolts and shall be the same gage as the end section.
2. Galvanized Metal or Aluminum Alloy End Sections may be used on Wood Stave and Plastic Pipe.
3. All 3 piece bodies shall have 12 gage sides and 10 gage center panels. Multiple panel bodies shall have lap seams which are to be tightly joined by 3/8" galvanized rivets or bolts.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

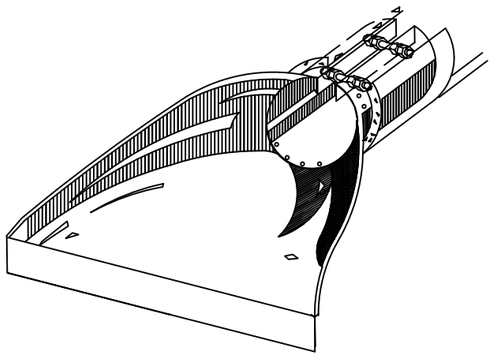
CULVERT END SECTIONS

Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E. Chief Engineer

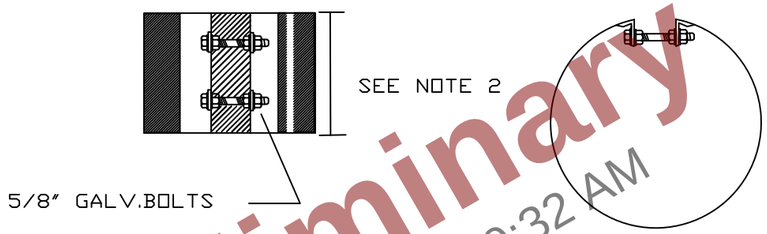
Adoption Date: 02/08/2019

Last Code and Stds. Review By: Date:

Next Code and Standards Review date: 02/08/2029



FOR CONNECTING CONCRETE PIPE OR CORRUGATED POLYETHYLENE PIPE TO METAL END SECTION.



METAL INSERTS FOR USE WITH CORRUGATED PLASTIC PIPE AND METAL END SECTIONS

GENERAL NOTES

1. See general notes on sheet 1 of 3.
2. See sheet 1 of 3 for metal end section dimensions.
3. Insert bolts, washers and rivets shall be galvanized. Insert thickness is the same as the end section.
4. Use culvert inserts only at inlet.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

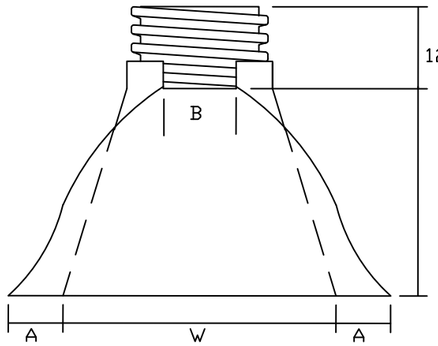
CULVERT END SECTIONS

Adopted as an Alaska Standard Plan by:
Kenneth J. Fisher, P.E.
Chief Engineer

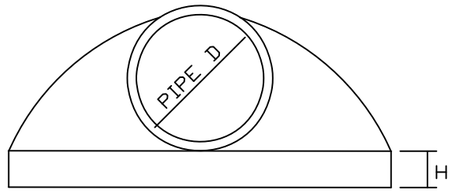
Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

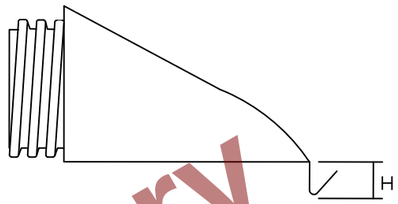
Next Code and Standards Review date: 02/08/2029



TOP VIEW



END VIEW



SIDE VIEW

PIPE DIAMETER	DIMENSIONS IN MILLIMETERS				
	A(1"±)	B MAX	H(1"±)	L(1 1/2"±)	W(2"±)
12" and 15"	6 1/2"	10"	6 1/2"	25"	29"
18"	7 1/2"	15"	6 1/2"	32"	35"
24"	7 1/2"	18"	6 1/2"	36"	45"
30"	10 1/2"	N/A	7"	53"	68"
36"	10 1/2"	N/A	7"	53"	68"

PLASTIC END SECTION FOR CORRUGATED PLASTIC PIPE

GENERAL NOTES

1. Plastic flared end sections may be used with HDPE corrugated culvert pipes where noted in project plans or approved by project engineer.
2. Consult manufacturer's recommendations for proper sizing and coupling devices. Recommended fasteners may include connecting bands or cinch ties. Fittings across dimension B may include threaded rods with wing nuts or bolts and washers. plastic welds may be recommended.
3. Align coupling to accomodate pipe corrugations.
4. Metal components e.g. bolts or washers must be galvanized.
5. Attachment of end section should preserve culvert alignment and not impair pipe function. Use end sections only on culvert inlet.
6. Toe plate extensions will be required only when designated on the plans.
7. End sections will not be used on HDPE culvert pipes larger than 36" unless indicated by project plans or approved by the Engineer.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

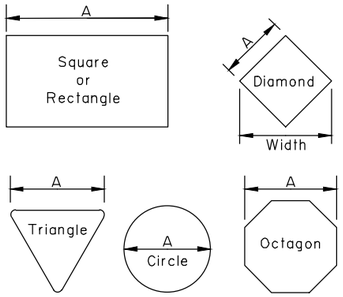
CULVERT END SECTIONS

Adopted as an Alaska Standard Plan by: Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review
By: Date:

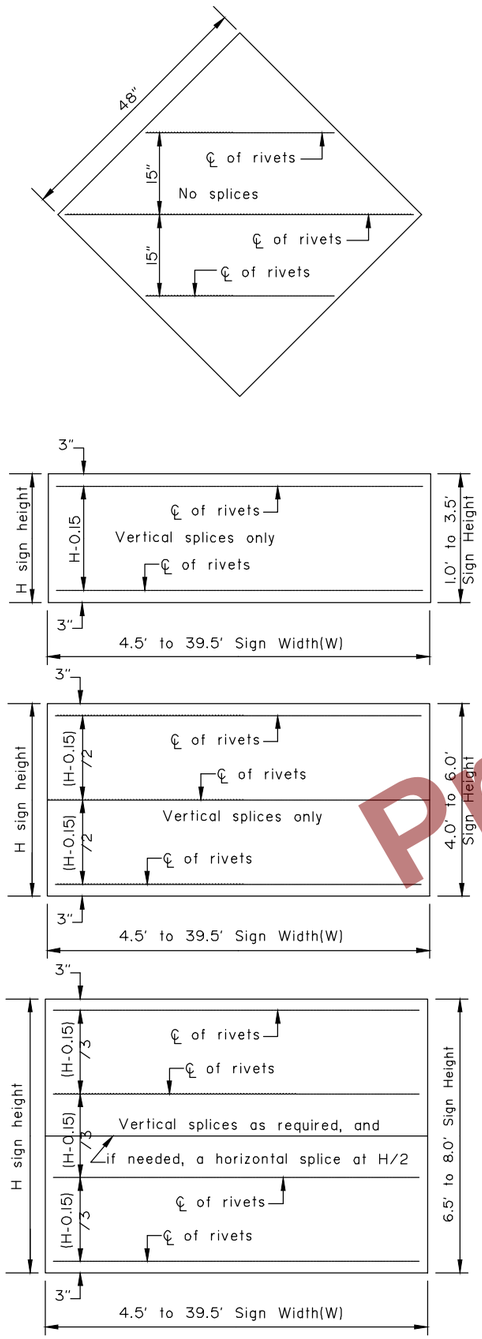
Next Code and Standards Review date: 02/08/2029



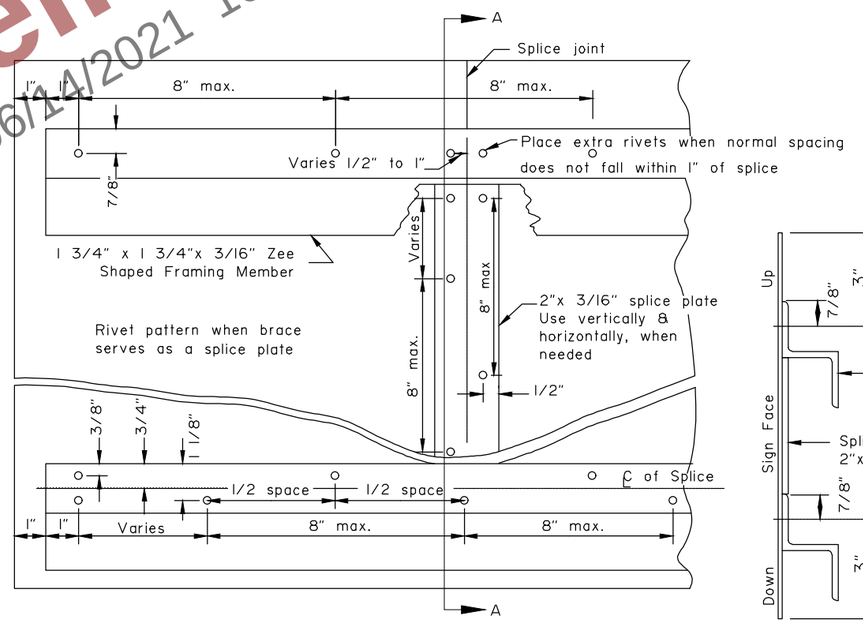
Maximum size unframed signs using 0.125" thick aluminum sheeting.	
Sign Shape	A
Squares, Shields, and Route Markers	48"
Rectangles	48"
Diamonds	48"
Triangles	48"
Rounds and Octagons	48"

Install wind framing on all signs that exceed the dimensions listed.

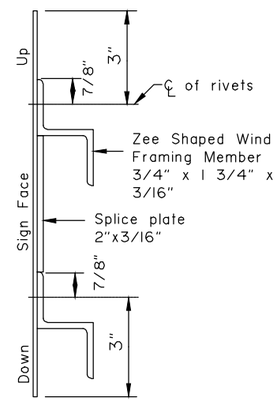
LIGHT SIGNS



WIND FRAMING LOCATIONS



RIVET DETAIL FOR ZEE SHAPED WIND FRAMING & SPLICE PLATE



SECTION A-A

Note: Drawing not to scale

GENERAL NOTES

1. See the standard specifications for the aluminum alloys that you may use for sign sheeting and wind framing members.
2. Fabricate all signs from 0.125" thick aluminum sheeting.
3. Sign fabricators may use alternates to the zee shaped framing member with approval of the engineer, if the frame manufacturer certifies their design equals or exceeds the strength of the zee shaped design.
4. Install one piece wind framing members on all signs up to 23.5' wide. Use one splice in each wind frame on all signs wider than 23.5'. Locate splices at least 18" from all posts and panel edges. Stagger splices in adjacent framing members at least 8.0' apart.
5. Attach wind framing members with rivets or with an engineer approved, double sided, high strength, adhesive tape. Clean and handle sheeting and framing members and apply tape in accordance with the tape manufacturer's written instructions. Install two rivets in both ends of each framing member.
6. Use 3/16" diameter rivets conforming to aluminum alloy 6061-T6 for cold driven rivets, or aluminum alloy 6061-T43 for hot driven rivets.
7. Sign fabricators may use sign panels extruded with integral framing with approval of the engineer, if the manufacturer certifies their design equals or exceeds the strength of the 0.125" thick panel with framing attached to it.
8. Frame all signs taller than 8.0' with five wind framing members located (H-0.15)/4 spaces. If needed, make a horizontal splice at the middle wind frame.
9. Do not use round pipes for sign supports.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

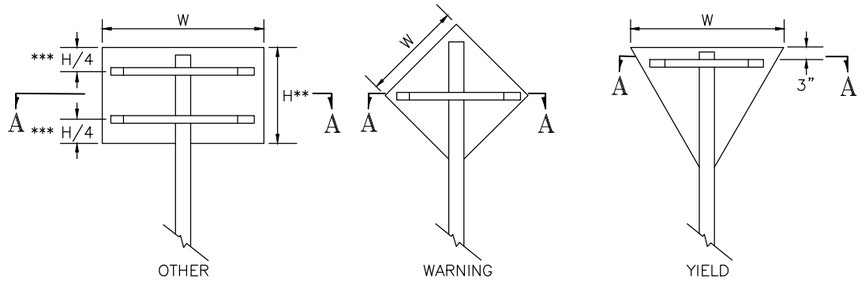
SIGN FRAMING

Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

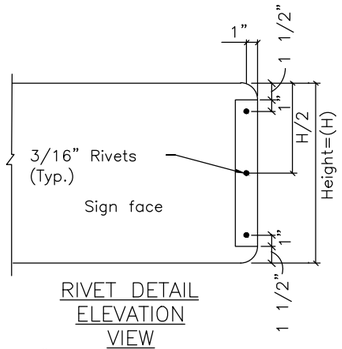
Next Code and Standards Review date: 7/8/2030



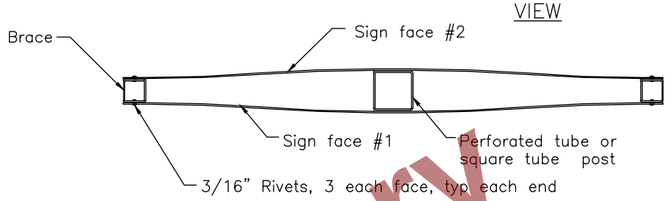
*** Use one brace when H ≤ 18"
Use two braces when 18"< H < 48"
Use three braces when H ≥ 48"

** Position of brace may be varied to match Predrilled mounting holes in panel

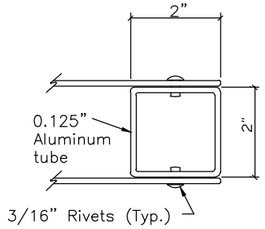
SIGN BRACING PLACEMENT



RIVET DETAIL
ELEVATION
VIEW

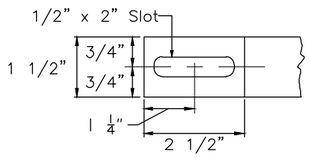


PLAN VIEW

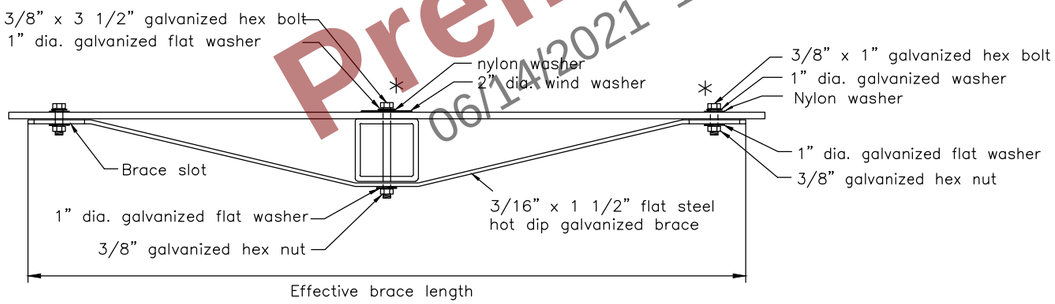


END BRACE DETAIL

SMALL STREET NAME SIGN (D3-1, D3-1A, D3-1D) BRACING DETAILS



DETAIL OF BRACE SLOT
Elevation view



TUBE POST SIGN BRACING SECTION A-A
Plan view

* Adjust location of bracing so that bolts and washers will miss the sign legend

Sign Width(W)	Effective Brace Length		
	Warning	Yield	Other
30"	36"	24"	24"
36"	42"	30"	30"
42"	48"	–	36"
48"	Two posts	36"	42"

< 30" No bracing required and use square tube

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

BRACING FOR SIGNS
MOUNTED ON SINGLE POST

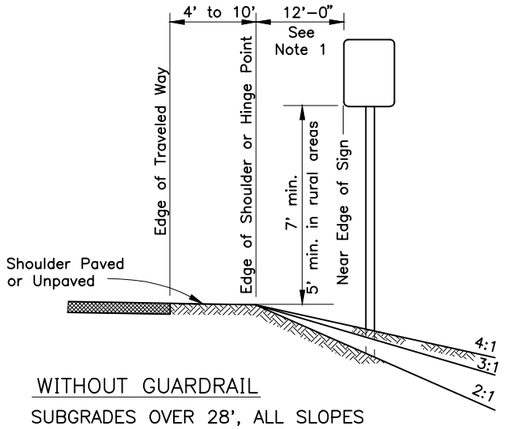
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

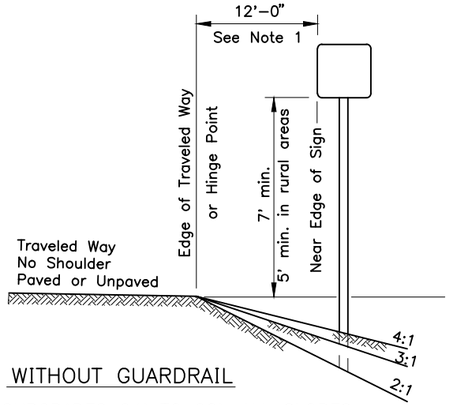
Next Code and Standards Review date: 7/8/2030

S-01.02



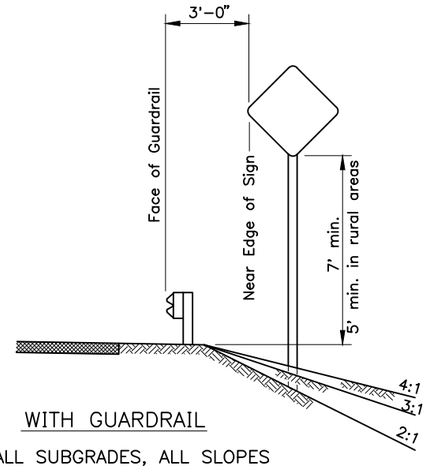
WITHOUT GUARDRAIL

SUBGRADES OVER 28', ALL SLOPES



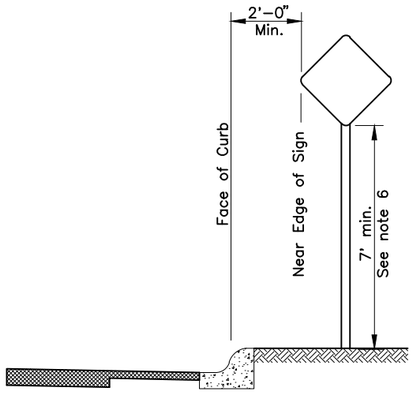
WITHOUT GUARDRAIL

SUBGRADES 24' TO 28', ALL SLOPES

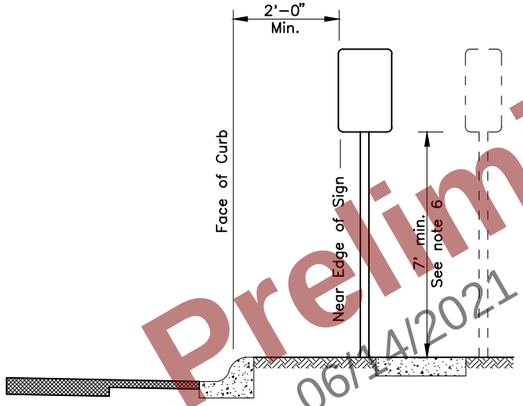


WITH GUARDRAIL

ALL SUBGRADES, ALL SLOPES

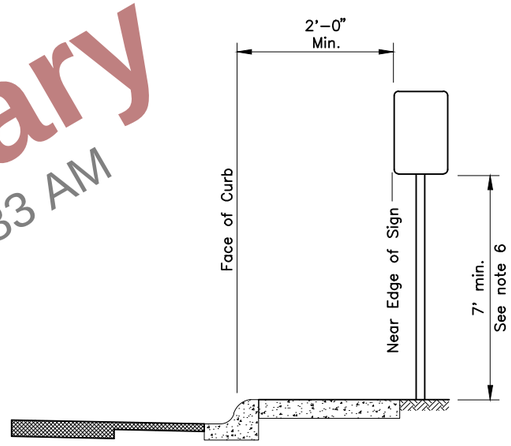


CURB WITHOUT SIDEWALK

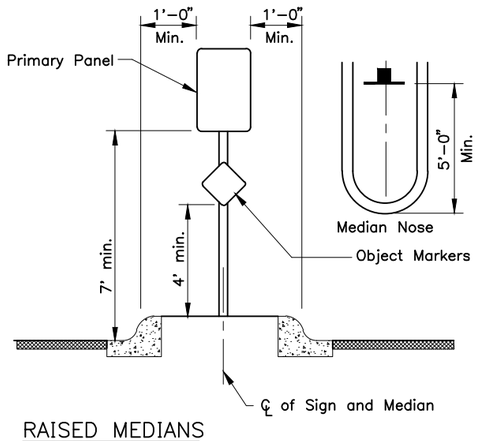


CURB WITH PARKWAY AND SIDEWALK

(If R/W width permits, signs should be placed behind sidewalk.)

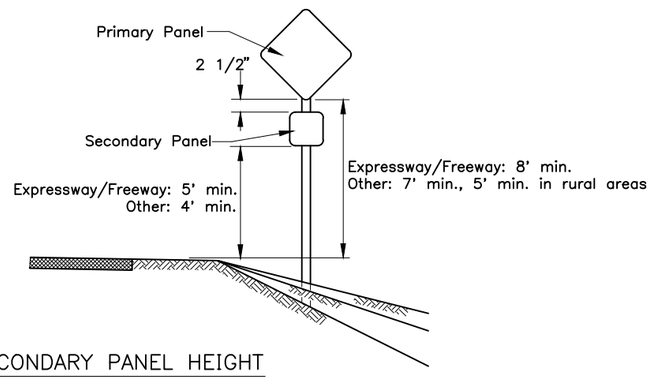


CURB WITH SIDEWALK WITHOUT PARKWAY



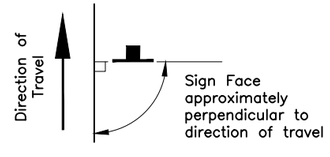
RAISED MEDIANS

Minimum 4' Width for Signing



SECONDARY PANEL HEIGHT

ALL TWO PANEL MOUNTING



SIGN POSITIONING

GENERAL NOTES

1. Unless shown otherwise on the plans, the standard sign offset is 12'. The minimum is 6' where shoulder width is 6' or greater.
2. Add 6" to mounting height on unpaved roads.
3. If signs extend over bike paths, the minimum vertical clearance is 8' 0".
4. When signs are placed 30' or more from the edge of traveled way, mount them with the bottom of the sign at least 5' above the road surface at the near edge of the road.
5. When multiple hinged sign supports are used, mount hinges at least 7' above the ground.
6. Minimum mounting height is 7'-0" where parking or pedestrian movements are likely to occur, or where sings extend over sidewalks.
7. For construction signs in rural areas, mounting height shall be 7' minimum.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

POST MOUNTED SIGN
OFFSET AND HEIGHT

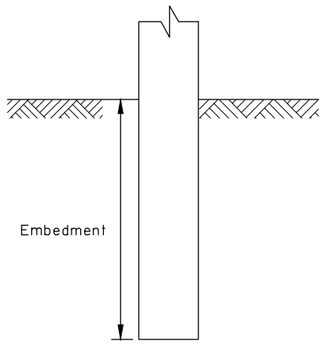
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

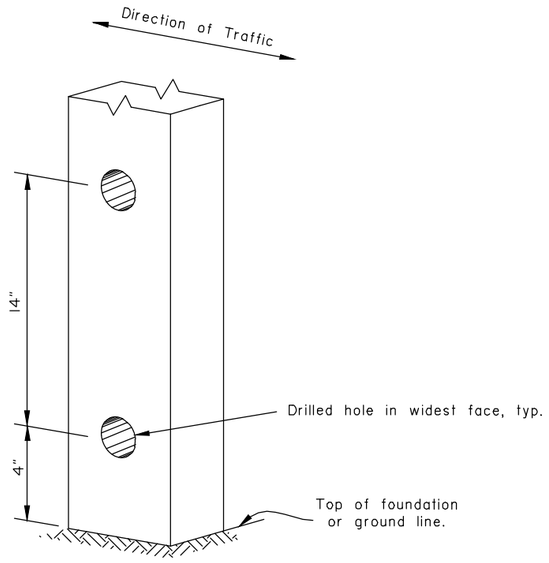
Adoption Date: 7/17/2020

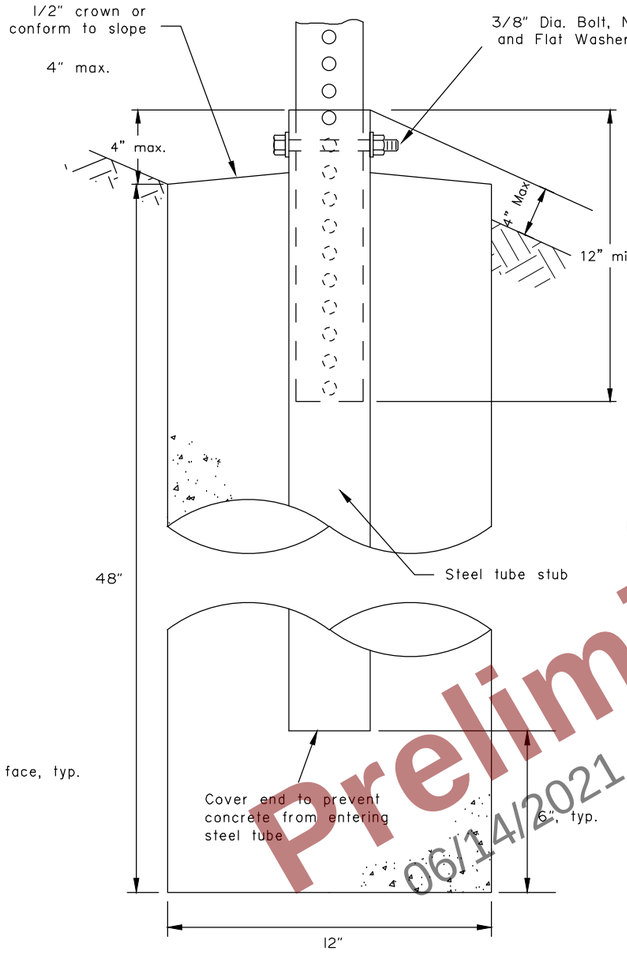
Last Code and Stds. Review
By: KLK Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

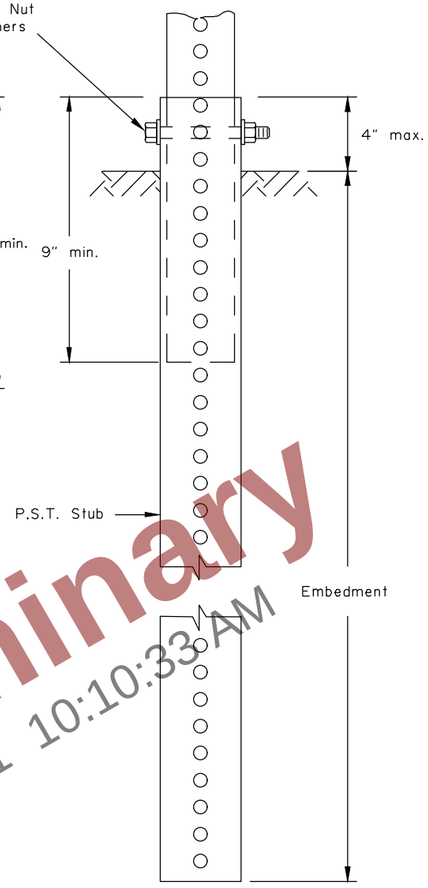
S-05.02







SLEEVE TYPE
CONCRETE FOUNDATION



SLEEVE TYPE*
SOIL EMBEDMENT

GENERAL NOTES:

1. Sign shall be placed symmetrically around posts and refer to Standard Plan S-00 for sign framing details.
2. See plans for type of post, size and embedment type.
3. To maintain crashworthiness, install no more than the number of P.S.T.s or wood posts specified in the tables within 7' of each other.
4. Concrete shall be class B.
5. Do not use the supports on this drawing for multiple support signs if supports are separated by more than 7 feet.
6. Treat all field cuts and field drilled holes in wood posts in accordance with Section 730-2.04 of the Standard Specifications.

SIGN POST SPACING NOTES:

1. Install sign support in accordance with the table below, unless otherwise required by plans or specifications.
2. Exceptions:
   a. Use one post for all E5-1 gore signs, regardless of width.
   b. Use one 2.5" P.S.T. for all STOP signs, with or without street name signs.
3. Supports placed within 7' of each other must be acceptable for that use. See tables below for the sizes of wood posts and P.S.T.s that may be used within 7'. See Manufacturer's documentation for breakaway couplings and tubes that may be used within 7'.
4. See Standard Plan S-31 for frangible couplings, hinges, and foundations for tube and W-shape sign supports.

WOOD SIGN POSTS			
SIZE	HOLE DIA.	EMBEDMENT*	NO. OF POSTS WITHIN 7 Ft. PATH
4"x4"	NONE	4'-1"	2
4"x6"	1 1/2"	5'-3"	2
6"x6"	1 1/2"	4'-9"	1
6"x8"	3"	4'-9"	1

* Embedment depth applies in both strong and weak soil.

WOOD POSTS

PERFORATED STEEL TUBES (P.S.T.)		
POST SIZE	Embedment Depth	No. of P.S.T.s permitted within 7 ft path
1 1/2" x 1 1/2"	4'-8"	2
1 3/4" x 1 3/4"	4'-6"	2
2" x 2"	4'-3"	2
2 1/4" x 2 1/4"	5'-0"	1
2 1/2" x 2 1/2"	4'-6"	1

* Use 3"x3"x3/16" Stub for 2 1/2"x2 1/2" PST Applications.

PERFORATED STEEL TUBE (PST) POSTS

TUBE SIGN POST SPACING								
Sign Width (feet)	No. of Posts	Distance Between Posts	Sign Overhang	Post Type				Notes
				P.S.T.	Wood	Steel Tube	W-Shape	
0.5 to 4.0	1	-	0.5W	X	X	X		See Note 2.
4.5 to 10.0	2	0.6W	0.2W	X	X	X		See Note 3.
10.5 to 11.0	2	6	Varies	X	X	X		See Note 3.
11.5 to 13.0	2	8	Varies				X	
13.5 to 20.0	2	0.6W	0.2W				X	
20.5 to 22.5	3	8	Varies				X	
23.0 to 29.5	3	0.35W	0.15W				X	
30.0 to 31.5	4	8	Varies				X	
32.0 to 40.0	4	0.25W	0.125W				X	

TUBE SIGN POST SPACING

Note: Drawing not to scale

State of Alaska DOT&PF
ALASKA STANDARD PLAN

LIGHT SIGN STRUCTURE
POST EMBEDMENT

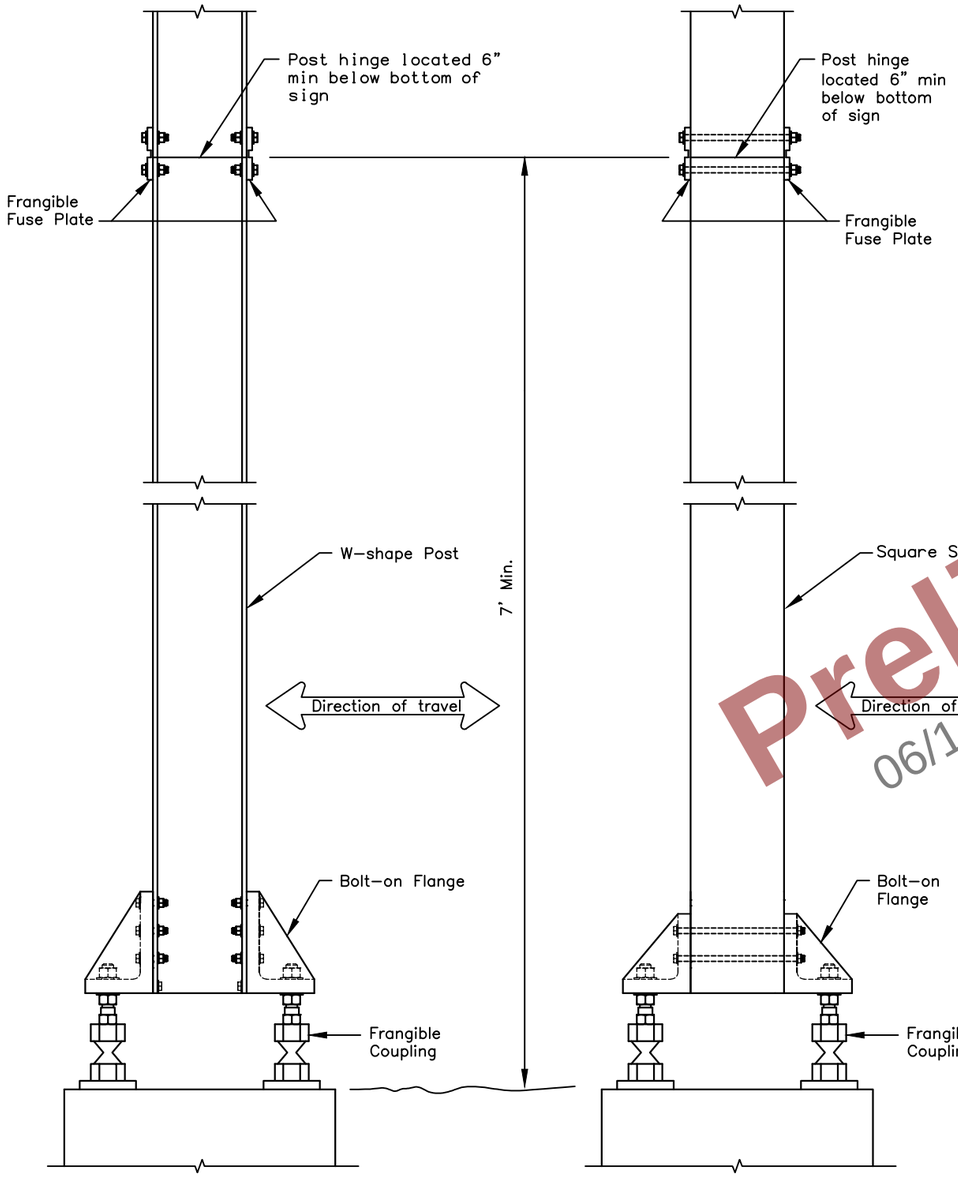
Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: WTH Date: 7/8/2020

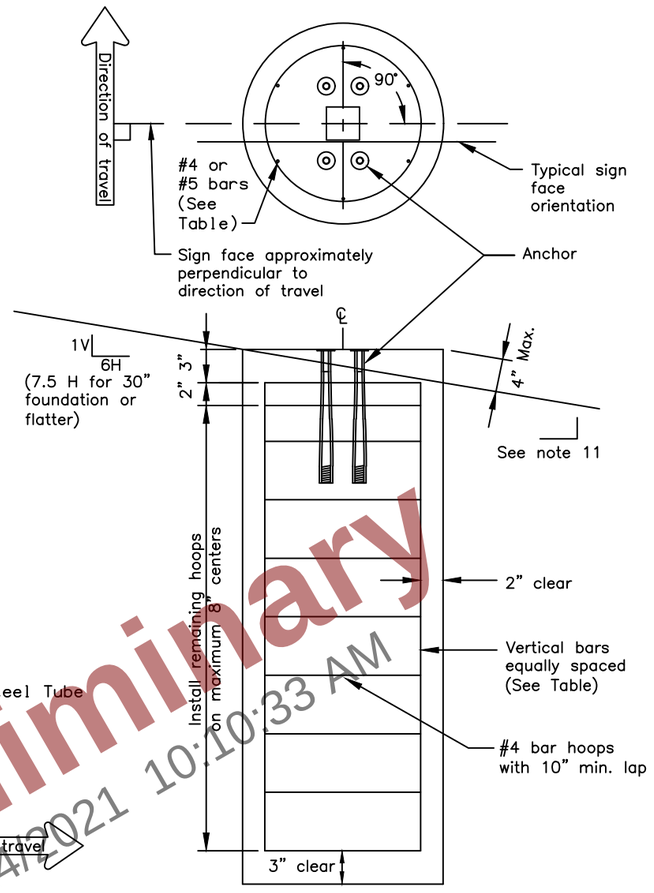
Next Code and Standards Review date: 7/8/2030

NOTE:
Install hinges when more than one post is used to support a sign. Do not install hinges on single post installations.



FRANGIBLE COUPLING SYSTEM FOR W–SHAPE POST

FRANGIBLE COUPLING SYSTEM FOR SQUARE STEEL TUBES



SIGN POST FOUNDATION
See Table for depth and diameter

POST SIZE & TYPE	FOUNDATION *			REINFORCEMENT					
	DIA.	MIN. DEPTH	CY³ CONC.	VERTICAL BARS			HOOPS		
				QTY.	SIZE	LGTH.	QTY.	SIZE	DIA.
2 1/2" TUBE	1'–6"	6'–0"	0.39	7	#5	5'–6"	10	#4	1'–2"
3" TUBE	1'–6"	6'–0"	0.39	7	#5	5'–6"	10	#4	1'–2"
3 1/2" TUBE	1'–6"	6'–0"	0.39	7	#5	5'–6"	10	#4	1'–2"
4" TUBE	2'–6"	6'–0"	1.09	8	#8	5'–6"	10	#4	2'–2"
4 1/2" TUBE	2'–6"	6'–0"	1.09	8	#8	5'–6"	10	#4	2'–2"
5" TUBE	2'–6"	6'–0"	1.09	8	#8	5'–6"	10	#4	2'–2"
W6 x 9	2'–6"	6'–0"	1.09	8	#8	5'–6"	10	#4	2'–2"
W6 x 12	2'–6"	6'–0"	1.09	8	#8	5'–6"	10	#4	2'–2"
W6 x 15	3'–0"	6'–6"	1.70	8	#11	6'–0"	12	#4	2'–8"
W6 x 30	3'–0"	7'–6"	1.96	8	#11	7'–0"	13	#4	2'–8"

FOUNDATION TABLE

* Foundations sized for use where there are no loose, high moisture, or fine grained soils.

GENERAL NOTES

1. Furnish sign posts with NCHRP 350 compliant frangible couplings designed to break away safely when struck from any direction. There is no MASH compliant device at this time. See SPDR report for more info.
2. Furnish frangible coupling systems with bolt–on flanges.
3. Details on this sheet illustrate only the general components of a frangible coupling system, and are not intended to specify a particular product.
4. Install frangible fuse plates as specified by the manufacturer and hinged joints when multiple posts are used to support a sign. Do not use round pipes.
5. Install the components of the breakaway system, including hinges, in accordance with the written instructions of the system manufacturer.
6. Use Class A, B or W concrete conforming to Sections 501 or 550 of the Standard Specifications. Furnish ASTM A615 grade 60 steel bars for concrete reinforcement conforming to AASHTO M31.
7. Spiral reinforcing steel may be substituted for hoops in concrete foundation. Spiral option shall consist of #3 plain spiral with 6" pitch with three flat turns at the top and one flat turn at the bottom.
8. Install the concrete anchors using a rigid template. Locate the anchors on centers and within tolerances specified by the manufacturer.
9. Install the anchors in fresh concrete as recommended by the manufacturer. Adjust the template's final position until it is level. Remove and replace all foundations that need more than 2 shims under any 1 coupling or more than a total of 3 shims under any pair of couplings to plumb the post.
10. Drill the holes for attaching brackets before the sign posts are hot dip galvanized. Test fit templates in the holes to ensure the brackets can be installed square to the posts.
11. Special grading detail and/or shielding may be required to maintain 4" maximum clear distance.

State of Alaska DOT&PF
ALASKA STANDARD PLAN

SIGN POST BASE AND FOUNDATION

Adopted as an Alaska Standard Plan by: Carolyn Morehouse
Carolyn Morehouse, P.E.
Chief Engineer

Adoption Date: 7/17/2020

Last Code and Stds. Review
By: KLK, MJM Date: 7/8/2020

Next Code and Standards Review Date: 7/8/2030

S-31.02